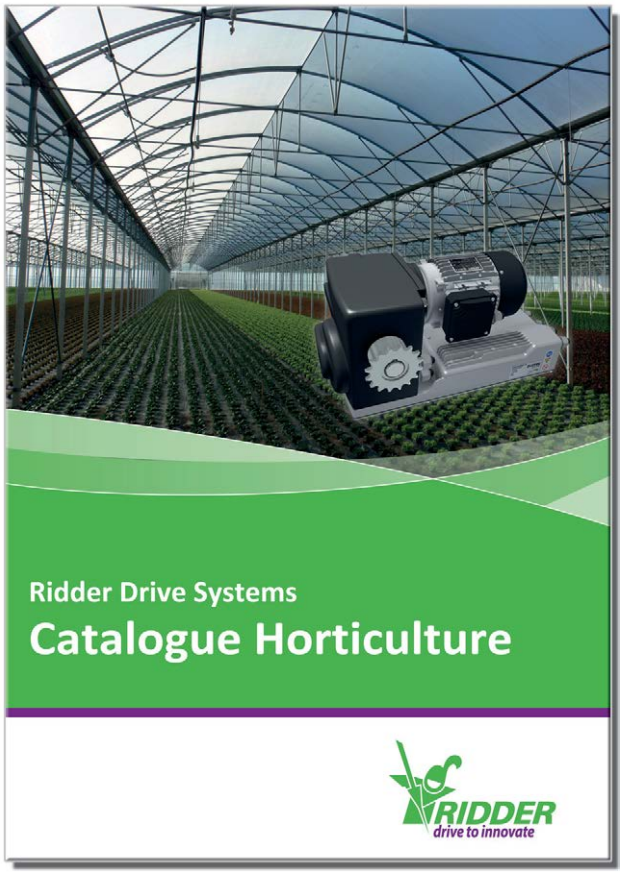


Ridder Drive Systems

Catalogue Horticulture

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drive to innovate



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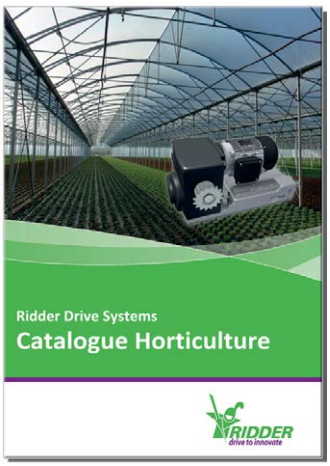
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Catalogues

With the publication of this catalogue, Ridder has taken a new approach to ensuring our customers are provided with more accessible and extensive information on our range of products and services. When it comes to information on our products and how to use them, we have attempted to give a clear picture in this catalogue of the many applications and possibilities offered by our products.

We have chosen to arrange the contents of the catalogue in a way that meets the needs of our customers, when they are looking for information on possible uses of, and the latest vital information about the products. The first chapters give an overview of the potential applications. The system diagrams and system tables can then be used to determine which components are required for any particular situation.

The products themselves are also divided into categories. For each group of products, an illustration is given in each chapter of the base products (such as motor gearboxes and rack drives), and companion products and accessories. By using the cross-references given with the base products, the companion products can be quickly located in the catalogue.

The table below gives an overview of the catalogues that are available either now, or in the near future.

Art. no.	Description	Language	Version (year.month)
101510DE	**Catalogue Horticulture**	German	2012.10
101510EN	**Catalogue Horticulture**	English	2012.10
101510ES	**Catalogue Horticulture**	Spanish	2012.10
101510FR	**Catalogue Horticulture**	French	2012.10
101510NL	**Catalogue Horticulture**	Dutch	2012.10
101510RU	**Catalogue Horticulture**	Russian	2012.10



Internet

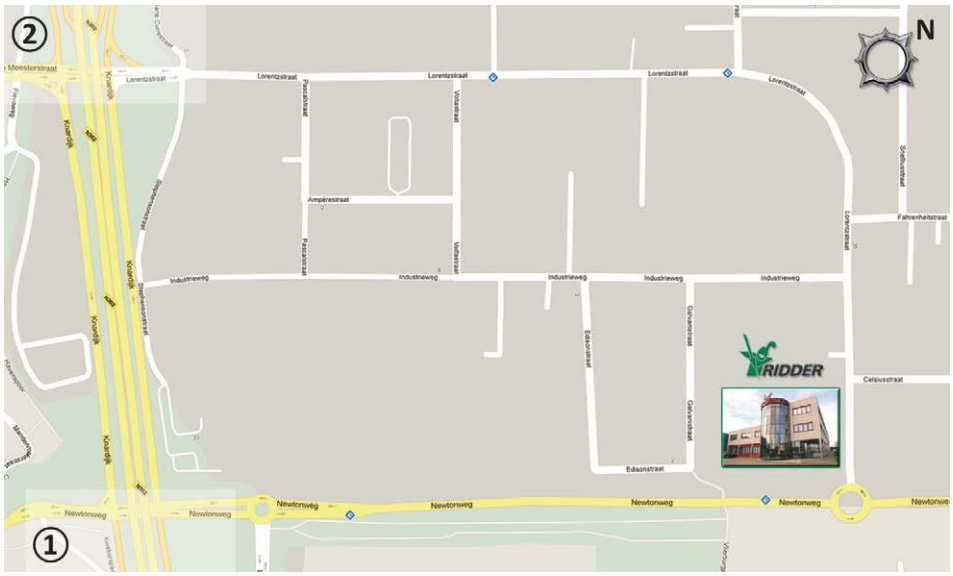
In addition to the printed information, we want to keep our customers as well informed as possible through our website. This website can be found at www.ridder.com.

By taking advantage of the flexibility offered by the Internet, we can give you the most comprehensive overview of our current range of products and services. In this way we enable you to keep your Ridder documentation right up-to-date, by publishing all amendments and updates online.





Directions to Ridder Drive Systems



Driving directions to Ridder Drive Systems.

① From A28 (Zwolle - Amersfoort):

- Leave the A28 at junction 13 for the N302 (Harderwijk - Lelystad)
- Follow the N302 approx. 1.7 km towards Harderwijk - Lelystad
- Take the first exit to Harderwijk towards the Newtonweg
- At the end of the exit road, turn right onto the Newtonweg
- Proceed straight on at the first roundabout
- At the second roundabout, take the 2nd exit left to the Lorentzstraat
- Take the first road left: Parking spaces at Ridder Drive Systems

② From N302 (Flevoland, Knardijk):

- Follow the N302 towards Harderwijk
- After the aqueduct, take the first road to Harderwijk towards Burgemeester de Meesterstraat
- Proceed straight on at the first crossroads
- At the second crossroads, turn left onto the Burgemeester de Meesterstraat
- Proceed under the viaduct towards Lorentzstraat
- Follow the Lorentzstraat for approx. 1.2 km
- Take the first road on the right (before the roundabout): Parking spaces at Ridder Drive Systems

Visitor addresses:

- Lorentzstraat 38: Visitors (reception)
- Lorentzstraat 38: Goods
- Lorentzstraat 36: Office of Ridder Drive Systems
- Lorentzstraat 34: Materials

Address information:

Ridder Drive Systems
Lorentzstraat 36
3846 AX HARDERWIJK
Tel. +31 (0)341 41 68 54
Fax. +31 (0)341 41 66 11

2





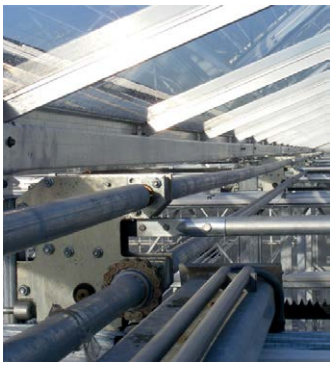
Truss-rail system in Venlo greenhouse





In the Netherlands and worldwide, the Venlo Greenhouse is one of the most popular houses with a glass roof, mainly used for growing vegetables and cut flowers. The essential functions of the (Venlo) greenhouse are the creation of an ideal indoor growing climate, and the protection of the crop from undesirable external factors, such as unfavorable weather (low temperatures, precipitation and wind), disease and pests.

The Venlo comprises a steel substructure (posts and trusses) with a self-supporting aluminium glazing system (roof, sidewalls and endwalls). The greenhouse has been engineered to be as energy-efficient as possible, with minimal presence of shadow-casting construction elements, and the use of a glass roof construction with a high light transmission factor, such that the natural light input is maximized. The substructure of a Venlo greenhouse is constructed of posts, horizontally-placed trusses (lattice beams) and steel or aluminium gutters, all of which support the house roof.



The ventilation of a Venlo greenhouse is achieved through the controlled opening and closing of vents in the roof. This enables the heat, moisture and CO2 flow in the greenhouse to be managed. To maintain these factors at the ideal level, the exact control and positioning of the vents is of critical importance, given the substantial demands that are placed on the climate control in a modern greenhouse. Most Venlo houses are equipped with two-sided ventilation, each side having its own independent drive system. The drive system for both the windward and leeward side is controlled by a climate computer.

One drive system that fulfils the stringent requirements of today's Venlo greenhouse, is the truss-rail system. This system makes use of a moving push/pull tube, linked to the vents via actuators. The push/pull tube is positioned above the truss, so that the shadow cast by the push/pull tube is minimized (shadow of truss and push/pull tube coincide).

Ridder's product line-up for the truss-rail system includes a wide range of dependable rack drives and motor gearboxes. These drive components enable vents to be precisely positioned, both in small and large greenhouse bays. And the system can react rapidly to unfavorable weather conditions such as rain: Using the frequency controlled motor gearboxes, the vents can be closed within just minutes.

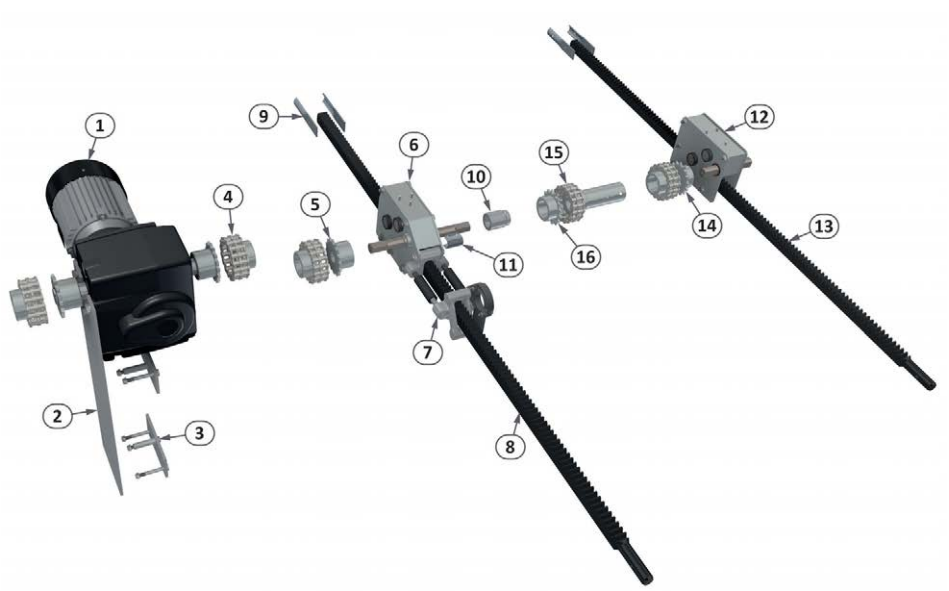
To help you select exactly the right combination of motor gearboxes, rack drives and accessories, this chapter includes a series of illustrations and cross-references. The various illustrations show which mounting components are required when, for example, incorporating a motor gearbox and a rack drive in your greenhouse.





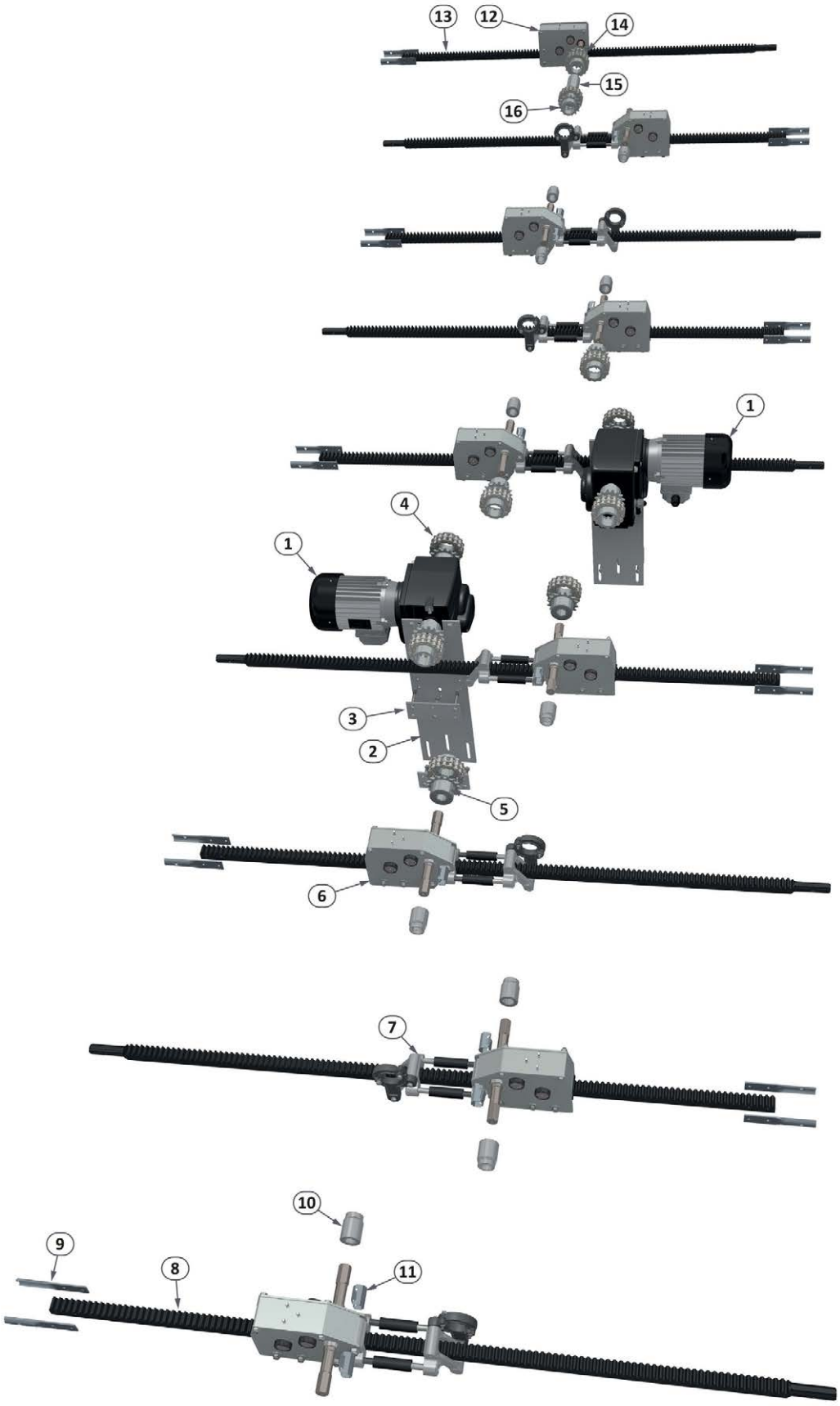


RackDrive710/720: System overview



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RackDrive710/720: System drawing

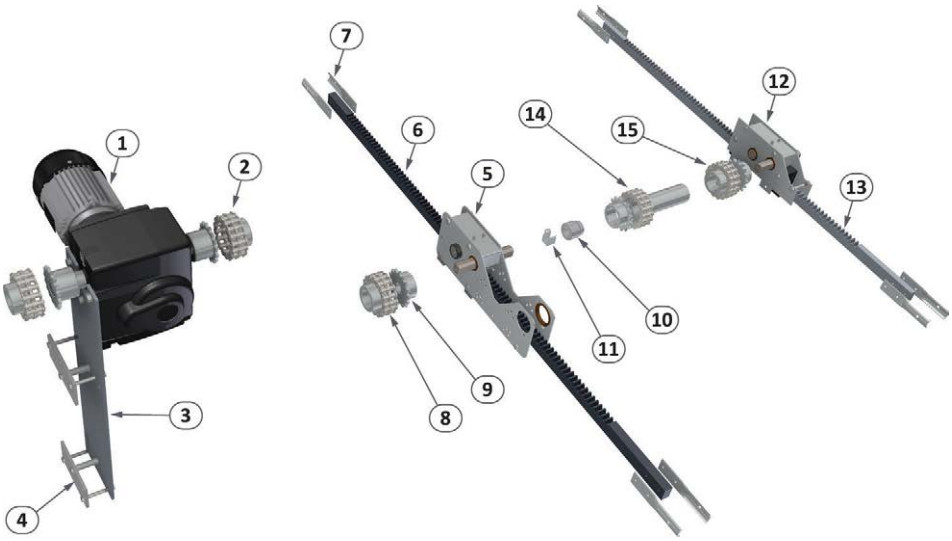






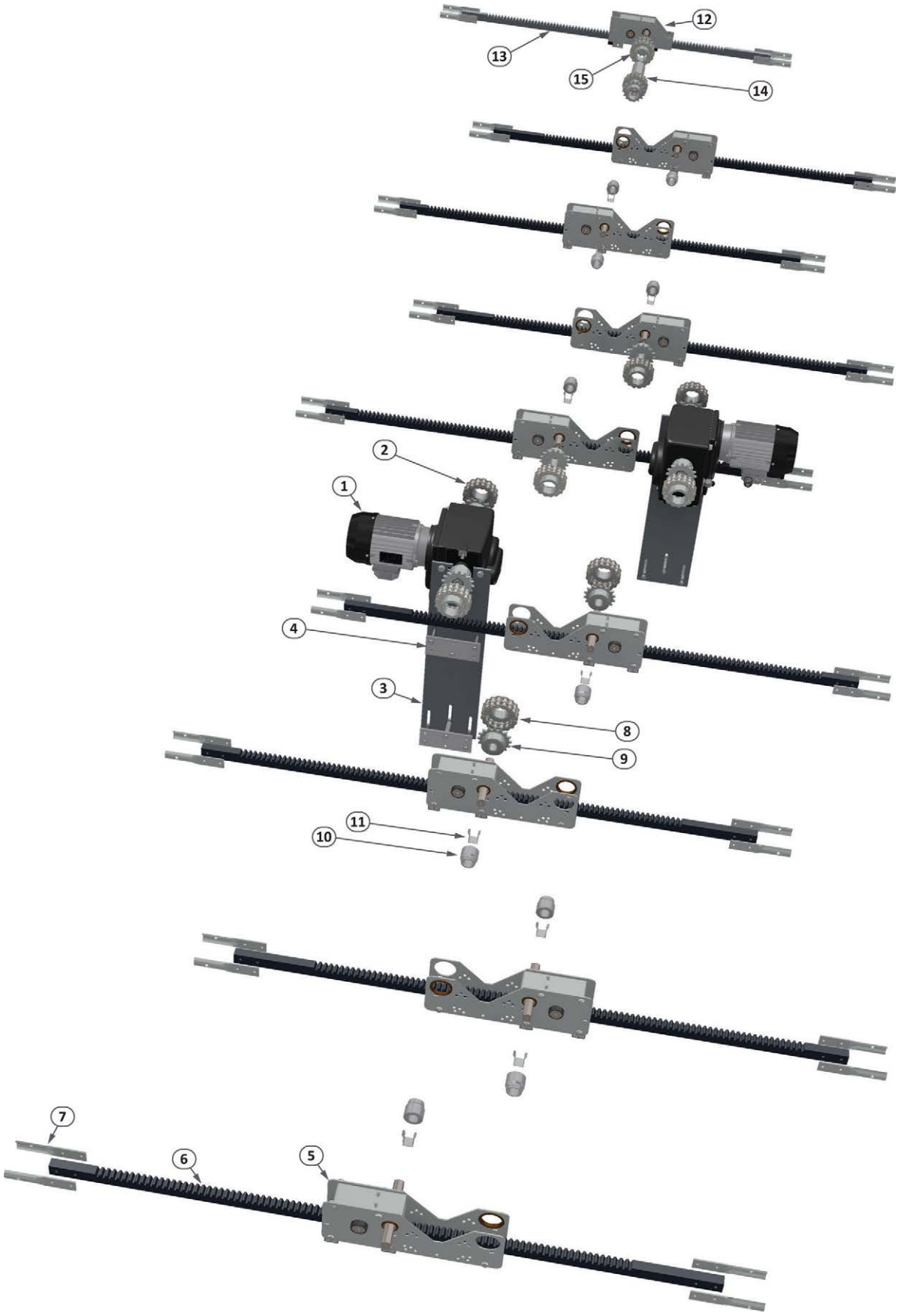


TRN-K Gear rack drive: System overview



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3	Clamp-mounting plates S/K RW45/240/400/600 motor gearboxes	195
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5	TRN520-3/1000-3/1000-5K rack drives	146
6	Racks for TRN520-3/1000-3/1000-5K/S rack drives	153
7	Link plates for TRN520-3/1000-3/1000-5K/S rack drives	210
8	Chain couplings 5/8"x3/8" (16-tooth)	204
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12	TRN520-3CK rack drive	149
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TRN-K Gear rack drive: System drawing

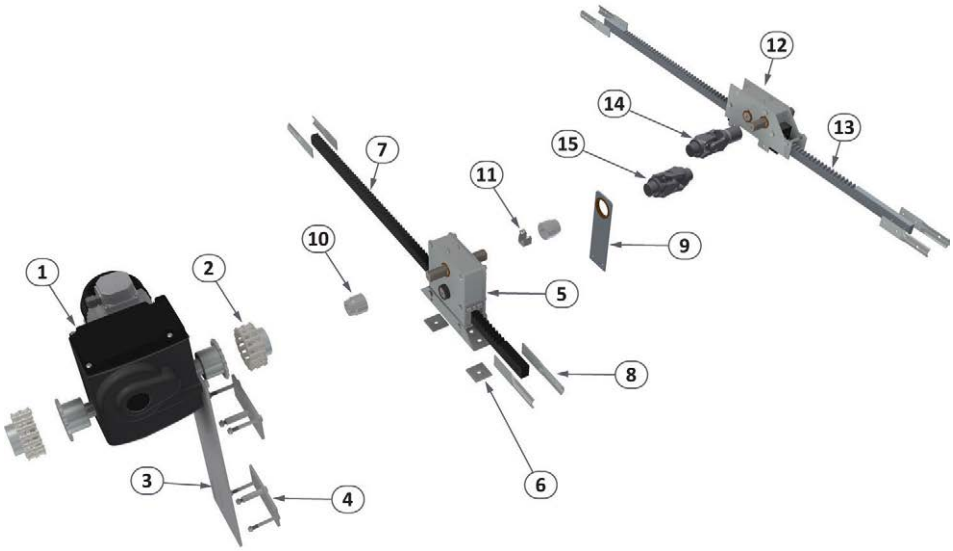






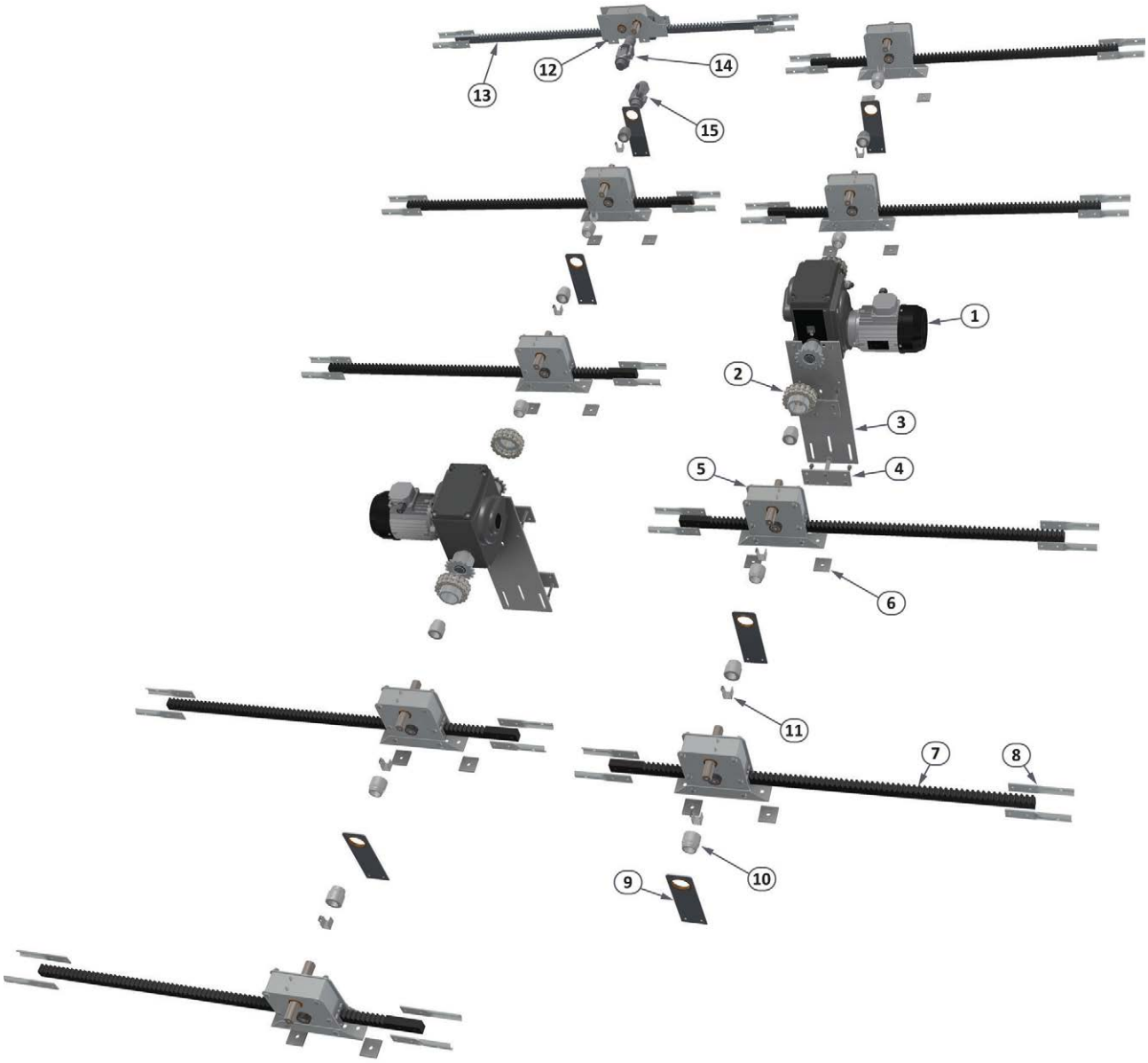


TRN-S Gear rack drive: System overview



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1	RW45/240/400/600 motor gearboxes	68
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3	Clamp-mounting plates S/K RW45/240/400/600 motor gearboxes	195
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14	Universal joints for drives	209
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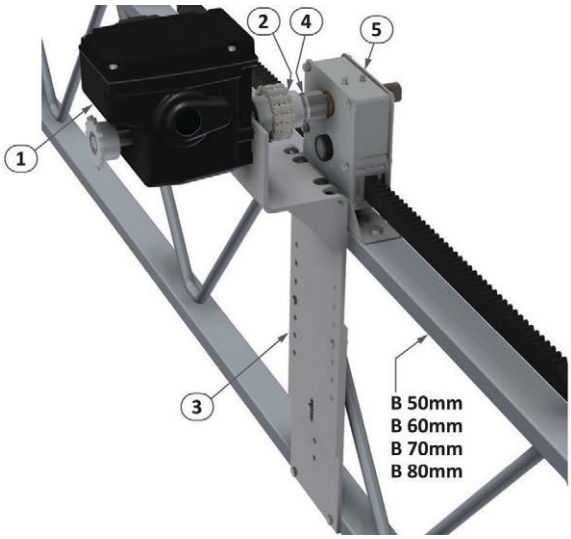
TRN-S Gear rack drive: System drawing







TRN-S Gear rack drive: RW45 next to TRN-S

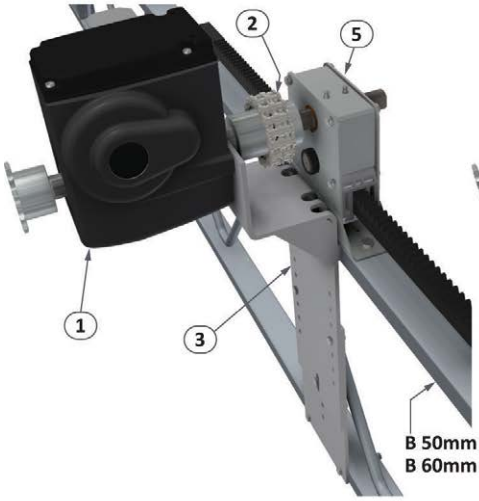


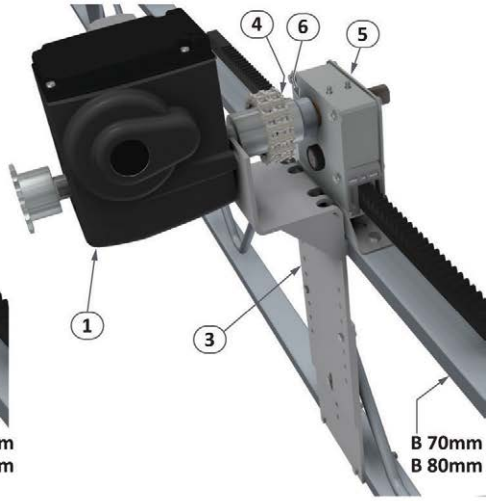
Position	Description	Page
1	RW45 motor gearboxes	68
2	Chain couplings RW45 motor gearboxes	202
3	Mounting plate TRN520-3/1000-3/5S and RW45	198
4	Weld/sleeve couplings	206
5	TRN520-3/1000-3/1000-5S rack drives	144





TRN-S Gear rack drive: RW240/400/600 next to TRN-S





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1	RW240/400/600 motor gearboxes	71
2	Chain couplings RW240/400/600 motor gearboxes	204
3	Mounting plate TRN520-3/1000-3/5S and RW240/400/600	198
4	Chain and connecting link	204
5	TRN520-3/1000-3/1000-5S rack drives	144
6	Sprocket P26.5	206

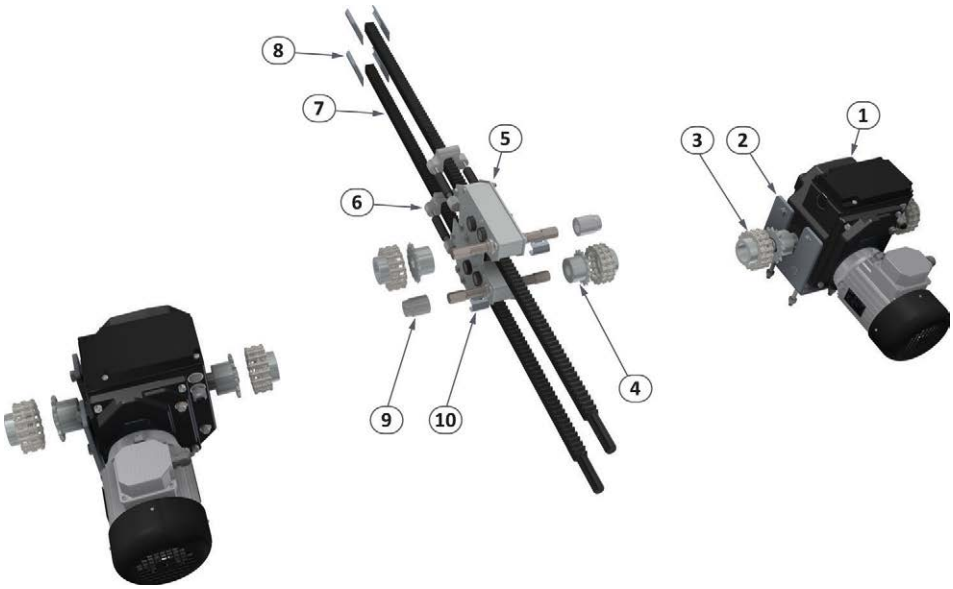
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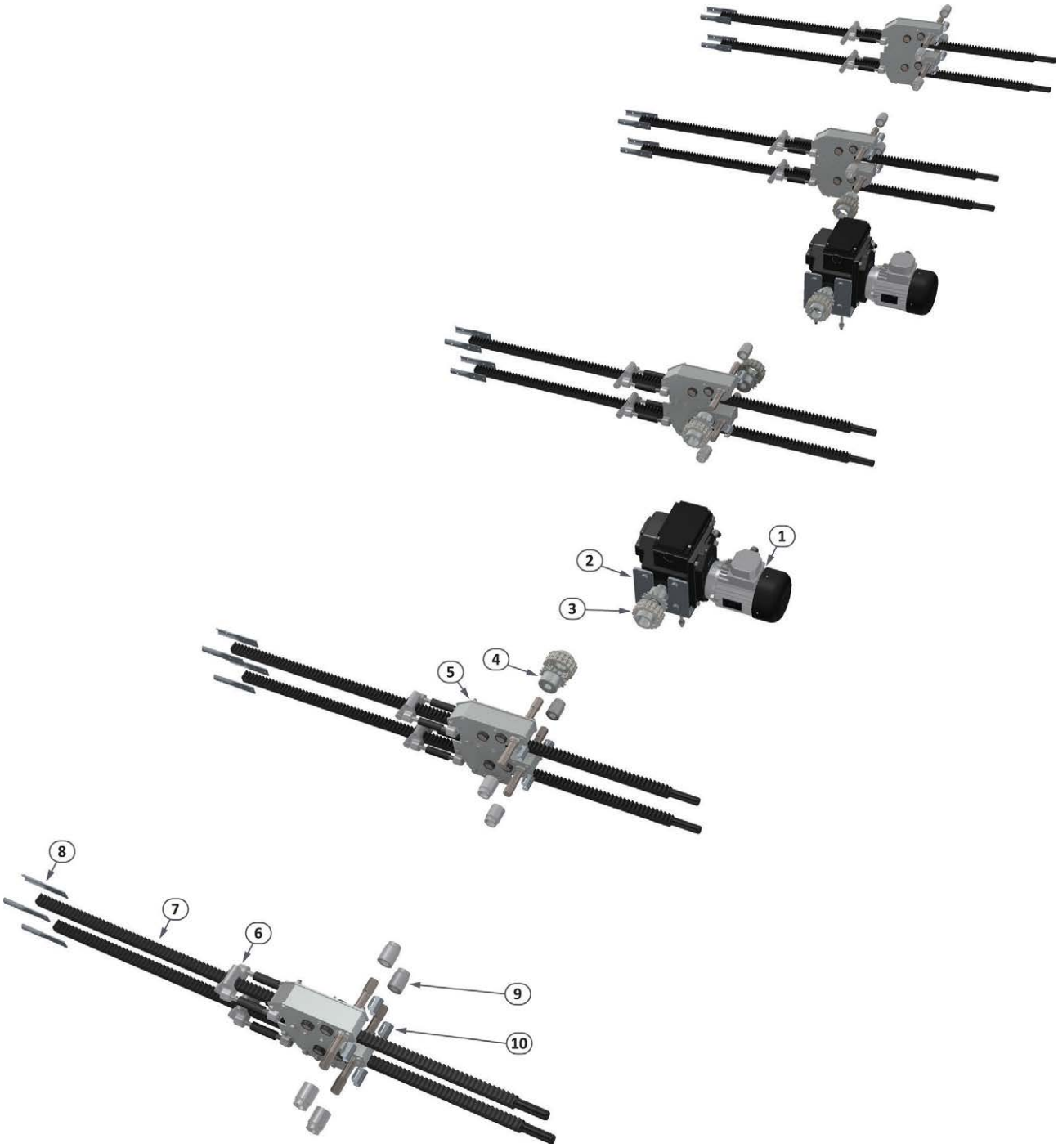


RackDrive810/820: System overview

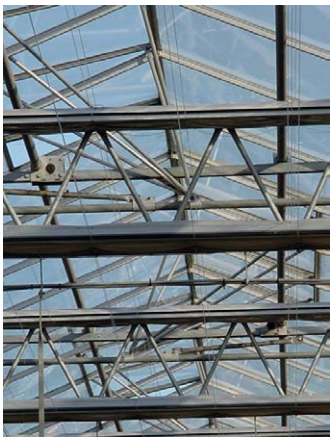


Position	Description	Page
1	RW240/400/600/800 motor gearboxes	71
2	Mounting plate RW motor gearbox	193
3	Chain couplings RW motor gearboxes	204
4	Sprocket for chain coupling for RackDrive810/820 rack drive	205
5	RackDrive810/820 rack drive unit	141
6	Clamping set for RackDrive810/820 rack drive	143
7	Racks for RackDrive810/820 rack drives	153
8	Tube-rack coupling plates	210
9	Weld/sleeve couplings	206
10	Shaft retaining clip for RackDrive810/820 rack drive	207

RackDrive810/820: System drawing



2



Swinging-ventilation system in Venlo greenhouse



Venlo-type greenhouses are one of the most popular glass roofed greenhouses in the Netherlands and worldwide, and are mainly used for growing vegetables and cut flowers. The main functions of the Venlo-type greenhouse are to create an optimum internal growing climate and protect the crop from undesirable external influences (such as, adverse weather conditions (cold, rainfall and wind), diseases and pests).

The Venlo-type greenhouse has a steel substructure (the columns and beams) with a self-supporting glazing bar system (the roof and walls). The greenhouse has been designed to maximize energy savings and the amount of natural light reaching the plants, using a minimum number of construction components (which can cause shadows) and a glass roof for optimum light transmission. The substructure of a Venlo-type greenhouse consists of columns, horizontal beams (trellis girders) and steel or aluminium gutters, which together support the greenhouse roof.

A Venlo-type greenhouse is ventilated by means of the controlled opening of ventilation windows (or air vents) in the greenhouse roof. This affects the temperature, humidity and CO2 flow in a greenhouse. Precision control and positioning of the air vents is essential in order to keep these values optimum and meet the stringent conditions required for climate control in modern-day greenhouses. Most Venlo-type greenhouses are fitted with two-sided ventilation, each side being operated by its own drive system. The drive system for both the windward side and leeward side is controlled by a climate computer.

In the first Venlo-type greenhouses, the air vents were operated using a swinging-ventilation system. In such a system, the air vents were connected to a ‘swinging’ push/pull bar by means of push rods. The push/pull bar was positioned in the centre of a greenhouse section, just like the air vents.

The Ridder product range offers various types of rack drives and motor gearboxes for the swinging-ventilation system. These drive components allow air vents to be accurately positioned, in both small and large greenhouse blocks or compartments. They also allow a fast response to undesirable weather conditions, such as rain, in which case the frequency-controlled motor gearboxes can close the vents within a few minutes.

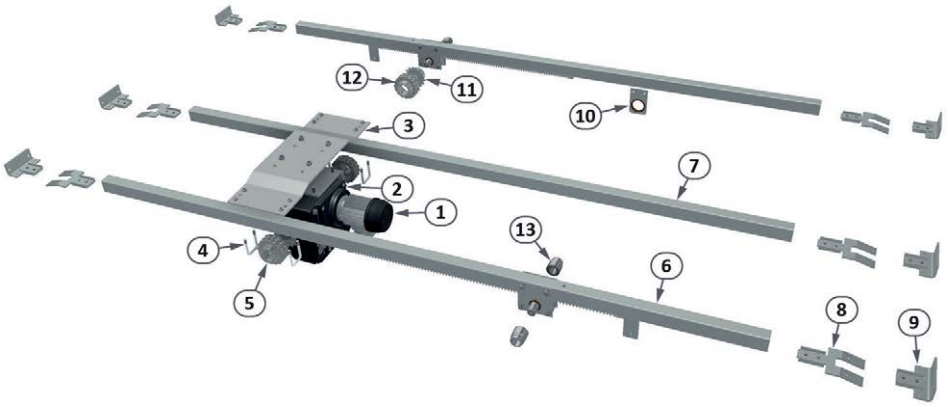
This section includes drawings with references in order to determine the right combination of motor gearboxes, rack drives and accessory components. The various drawings show which components are required for installation of a motor gearbox and installation of a rack drive, for example.





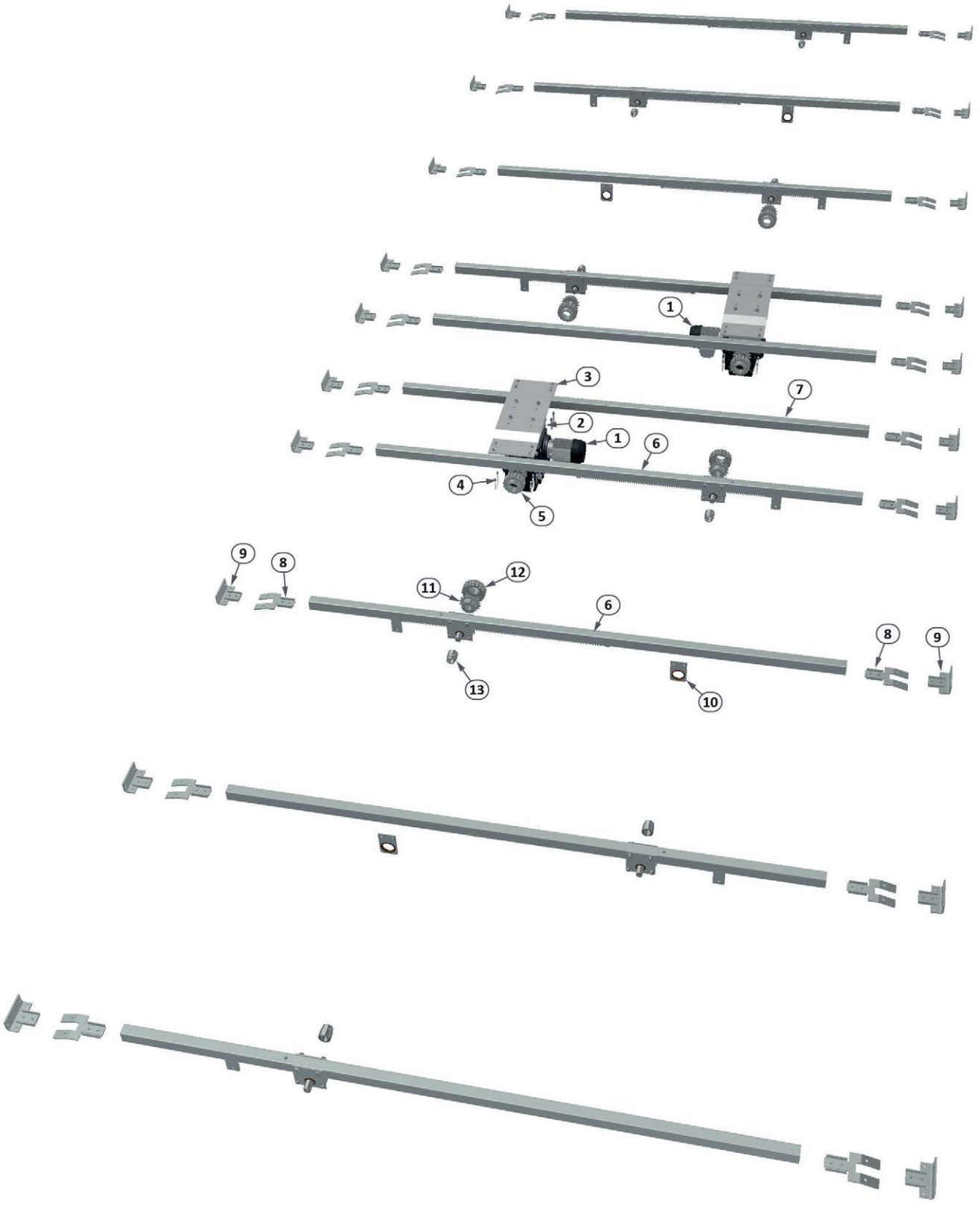


TR10I/24: System overview



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1	RW45 motor gearbox	68
1	RW240/400/600 motor gearbox	71
2	Square mounting plate for RW motor gearbox	201
3	Base plate for TRI motor bracket	201
4	Mounting plate for TRI motor bracket	201
5	Chain couplings for RW45 motor gearbox	202
5	Chain couplings for RW240/400/600 motor gearbox	204
6	TR10I/24 rack drive	158
7	Universal C-profile	212
8	Mounting fork set TRI	211
9	Mounting bow set TRI	211
10	Slide bearing plate	215
11	Sprocket (P26.5) for TRI rack drive	206
12	Chain coupling for TRI rack drive	204
13	Weld/sleeve coupling	206

TR10I/24: System drawing



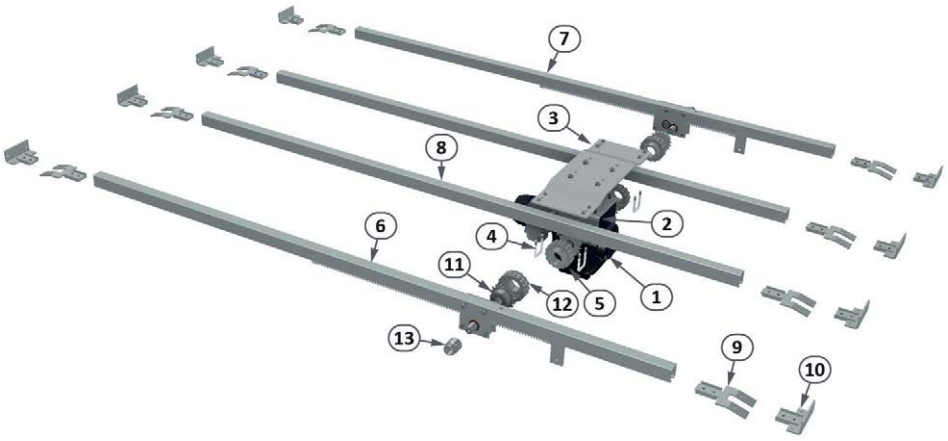
System drawings





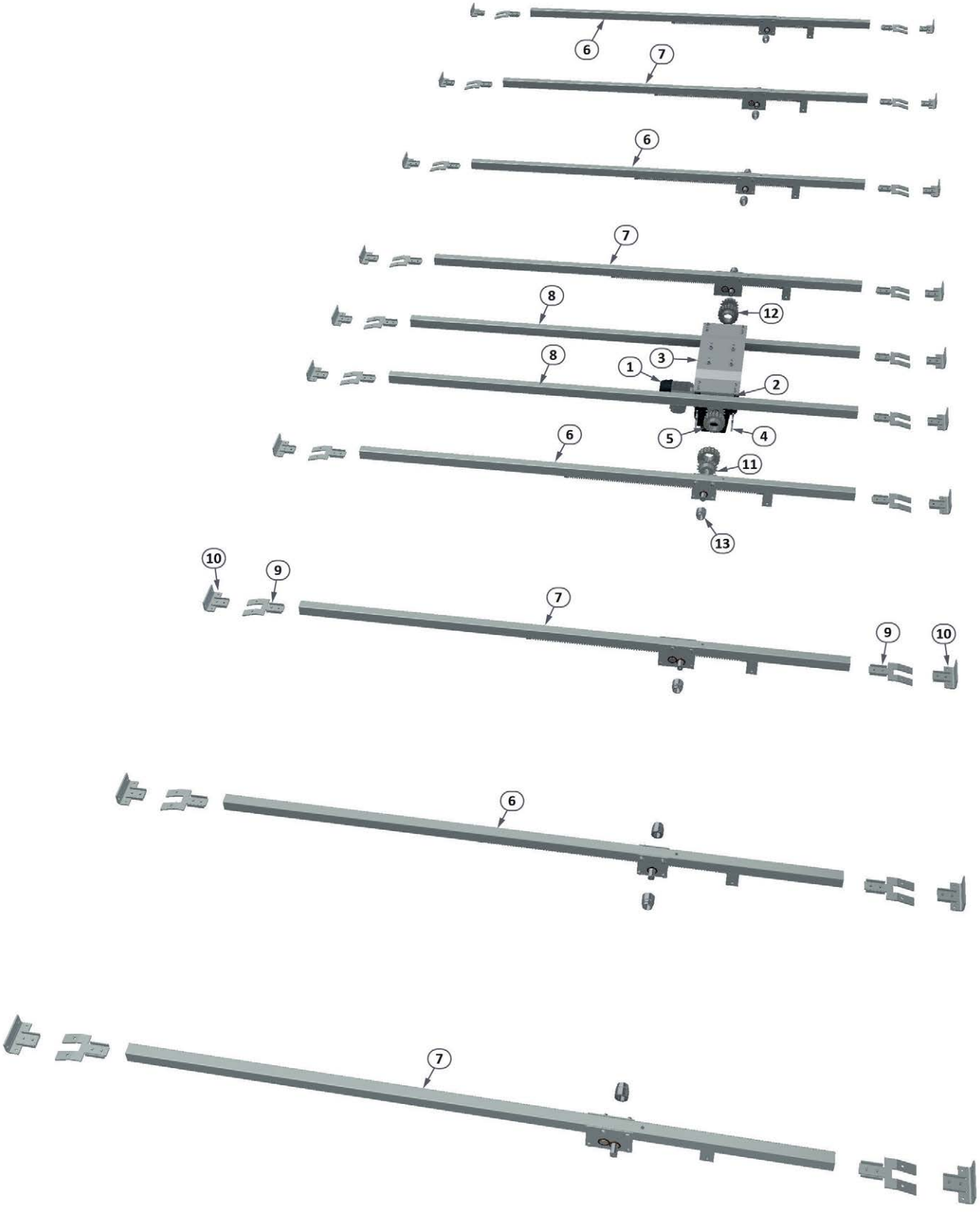


TR10I/24 Reversible: System overview



Position	Description	Page
1	RW45 motor gearbox	68
1	RW240/400/600 motor gearbox	71
2	Square mounting plate for RW motor gearbox	201
3	Base plate for TRI motor bracket	201
4	Mounting plate for TRI motor bracket	201
5	Chain couplings for RW45 motor gearbox	202
5	Chain couplings for RW240/400/600 motor gearbox	204
6	TR10I/24 rack drive	158
7	TR10I/24 reversible rack drive	159
8	Universal C-profile	212
9	Mounting fork set TRI	211
10	Mounting bow set TRI	211
11	Sprocket (P26.5) for TRI rack drive	206
12	Chain coupling for TRI rack drive	204
13	Weld/sleeve coupling	206

TR10I/24 Reversible: System drawing

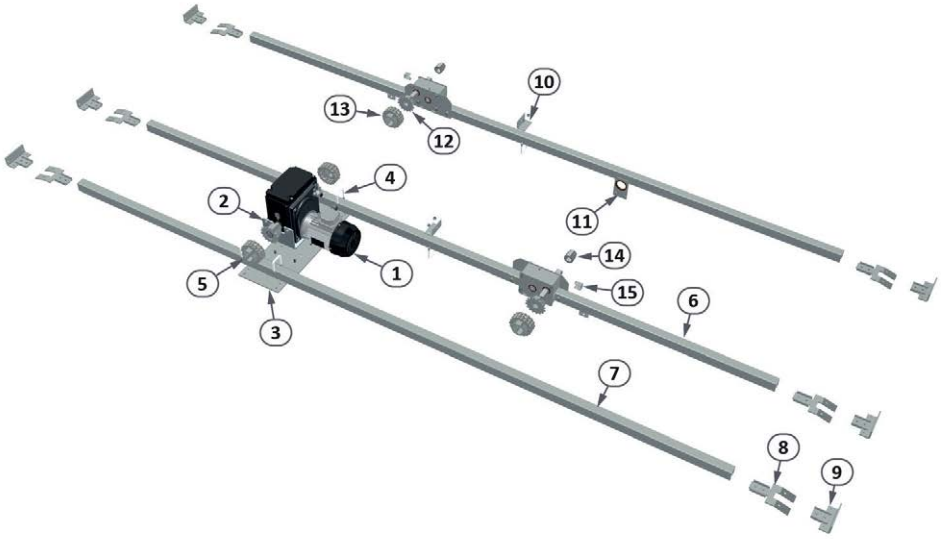






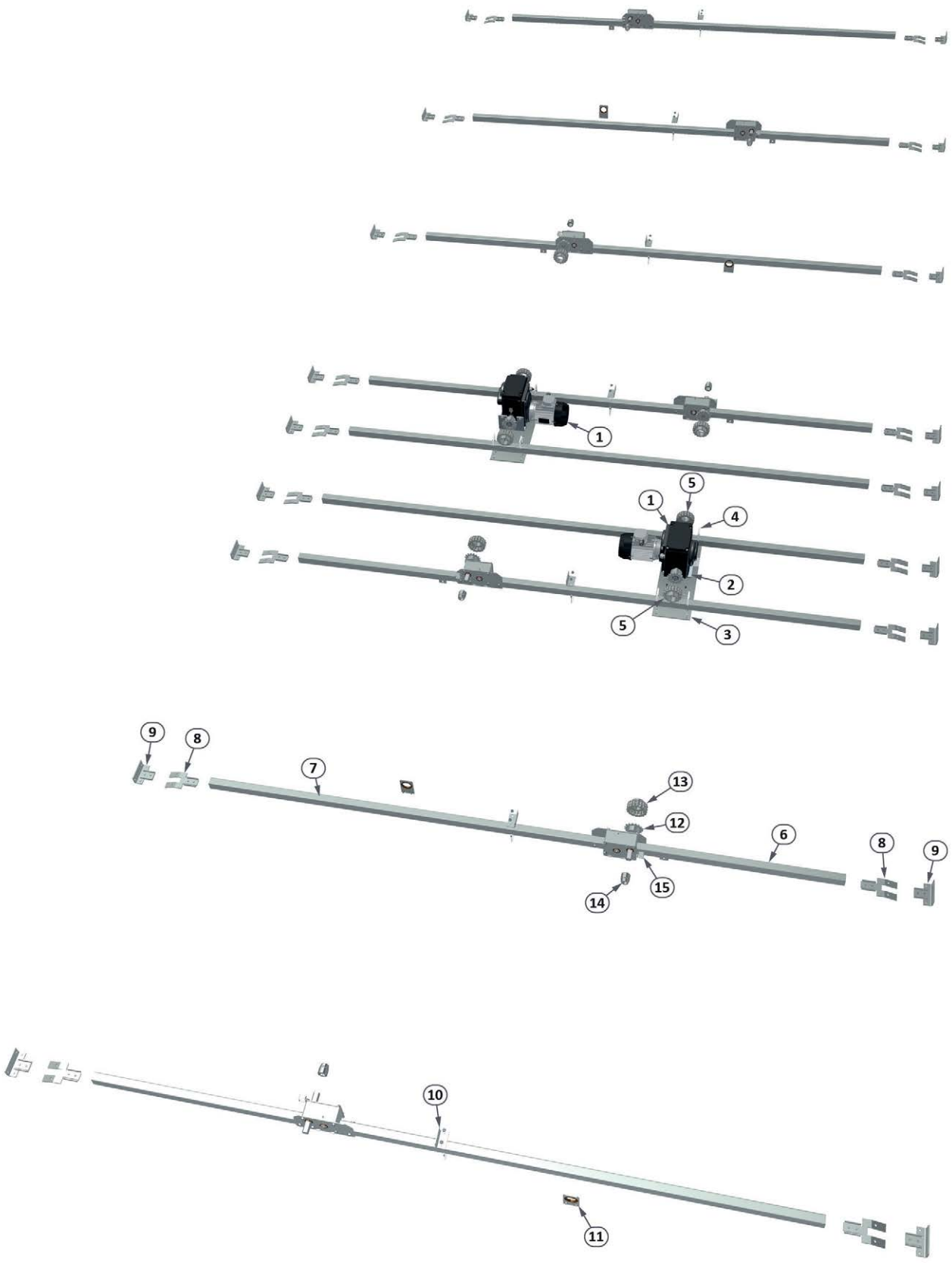


TR25I/TR520I: System overview



Position	Description	Page
1	RW45 motor gearbox	68
1	RW240/400/600 motor gearbox	71
2	Square mounting plate for RW motor gearbox	201
3	Base plate for TRI motor bracket	201
4	Mounting plate for TRI motor bracket	201
5	Chain couplings for RW45 motor gearbox	202
5	Chain couplings for RW240/400/600 motor gearbox	204
6	TR25I/24 rack drive	160
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7	Universal C-profile	212
8	Mounting fork set TRI	211
9	Mounting bow set TRI	211
10	Stabilisation clamp set	211
11	Slide bearing plate	215
12	Sprocket (P26.5) for TRI rack drive	206
13	Chain coupling for TRI rack drive	204
14	Weld/sleeve coupling	206
15	Shaft retaining clip	207

TR25I/TR520I: System drawing





Continuous ventilation systems

In this catalogue the drive systems and drive components of Ridder Drive Systems, which are applicable in continuous ventilation systems that are directly driven by Ridder products, are entered. In case of ventilation systems with vents, the vents are opened and closed by rack drives which are directly mounted to the vents. In case of ventilation rollup systems, the rollup systems are directly operated by cardan shafts or RW motor gearboxes.

For these systems, Ridder Drive Systems has standard and special or customized drive components and systems available. The drive components and systems entered in this catalog are part of the standard delivery program of Ridder Drive Systems.



Continuous ventilation systems Wide Span greenhouses

Wide span greenhouses are greenhouses with a saddle roof constructed with a steel substructure on which an aluminum (glazing bar) system is mounted. In a wide span greenhouse, the roof and wall constructions are supported by the steel substructure; the trusses of the greenhouse follow the roof angle. Wide span greenhouses are provided with continuous vents on both sides of the ridge of the greenhouse. The material used for covering the greenhouse is mostly glass or polycarbonate (Stechdoppel, SDP).

For opening and closing the vents in these greenhouses, Ridder Drive Systems has a wide range of rack drives and racks in the delivery program. The rack drives can be driven directly, one motor gearbox per vent, or indirectly, more vents operated by one motor gearbox.
Besides the opening and closing the vents in the ridge of the greenhouse, the mentioned rack drives also can be applied for opening and closing vents placed in the greenhouse walls.



Continuous ventilation systems poly houses

Poly houses with continuous vents come in different shapes, as well with a saddle roof construction as with a curved roof. The substructure of these greenhouses is built from steel profiles. In practice, a lot of different designs of the substructures appear. The covering material of a poly house is plastic foil, as well single layered as double layered (inflatable).

Also for opening and closing the vents in a poly house, Ridder Drive Systems has a geared assortment of rack drives and racks in her delivery program. The rack drives can be driven directly, one motor gearbox per vent, or indirectly, more vents operated by one motor gearbox.



Continuous ventilation systems open roof convertible greenhouses

Open roof convertible greenhouses are greenhouses with a saddle roof form. Both roof sides of these greenhouses are mounted hinged to the substructure (gutter). The construction of this substructure is mostly comparable with a substructure of a Venlo type greenhouse, steel trusses supported by steel posts. The open roof convertible greenhouses are covered with as well glass, polycarbonate or plastic foil.

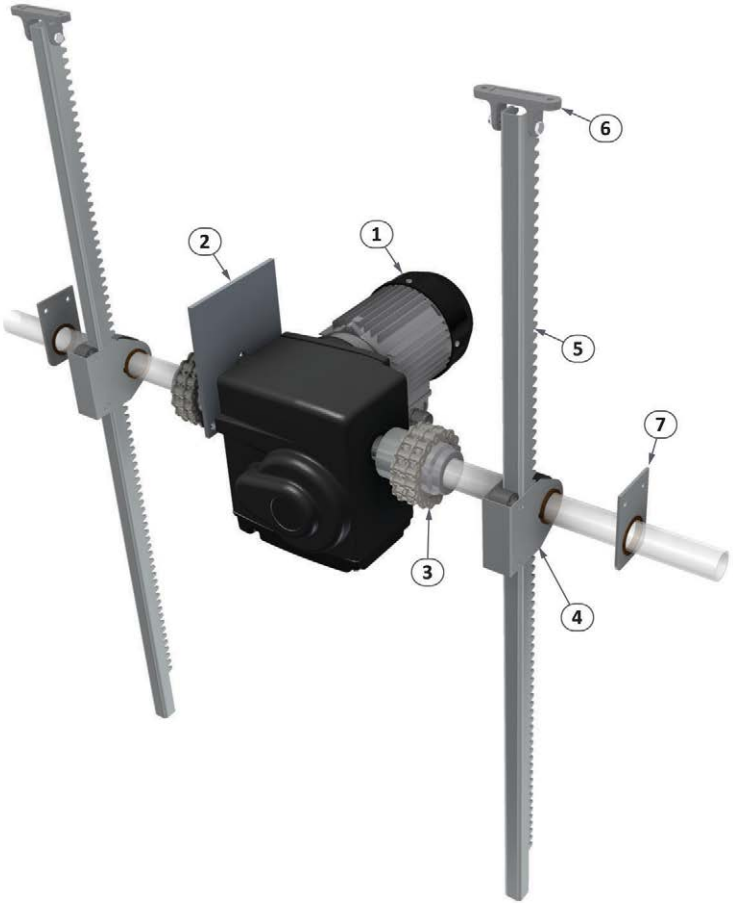
For opening and closing the both roof sides, Ridder Drive Systems has several drive systems available. Opening and closing is possible with a truss-rail system or with rack drives that are mounted directly to the roof. The rack drives that are mounted directly to the roof are included in this catalog. Also in an open roof convertible greenhouse is possible to drive one roof (both sides at the same time) directly of more roofs indirectly with one motor gearbox. The racks that are being applied in this type of greenhouse are mostly adjusted to the greenhouse dimensions. This becomes apparent in the length and bow radius of the racks. This means that these racks are delivered often as special parts, therefore these special racks are available in these catalog; these racks are on demand. In these cases Ridder Drive Systems can give you the correct recommendation on the racks to apply.







Components: Direct driven system



Position	Description	Page
1	RW45/240/400/600/800 motor gearboxes	68
2	Mounting plate RW motor gearbox	193
3	Chain couplings RW motor gearboxes	202
4	TU5/TU11/TU45 rack drives	166
5	Sheet steel racks TU5/TU11/TU45 rack drives	168
6	Window bracket set	212
7	Slide bearing plate	215

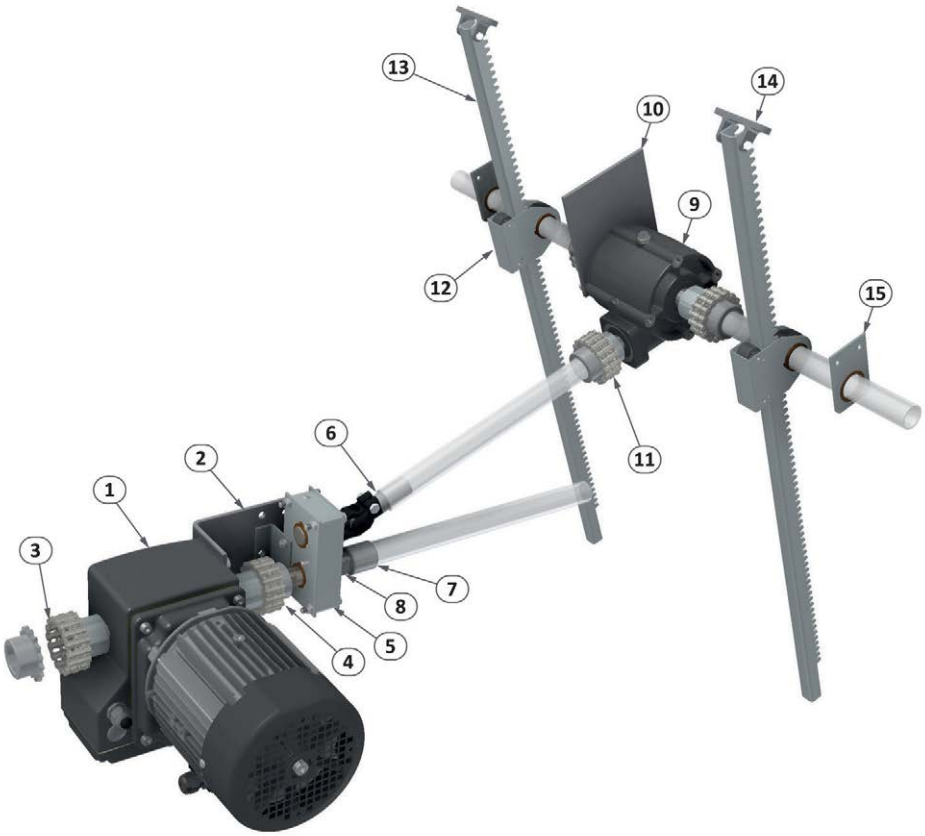
System drawings





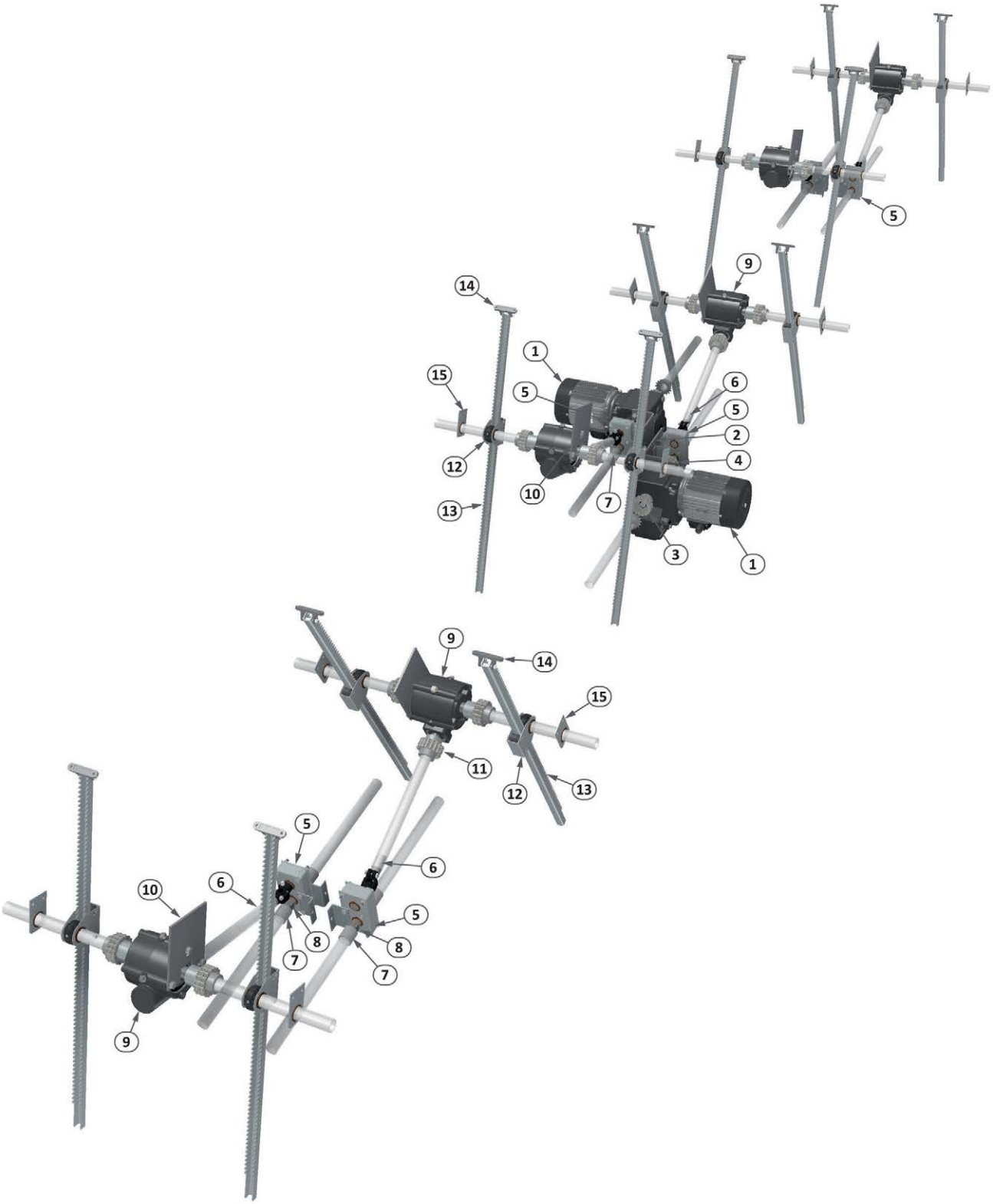


Indirect system: System overview



Position	Description	Page
1	RW70/100/140/200-34 motor gearboxes	85
2	Mounting plate RW motor gearbox	201
3	Chain coupling drive tube/RW motor gearbox	203
4	Chain coupling T11/RW motor gearbox	204
5	T11-50 gearbox	125
6	Welded coupling shaft	209
7	Weld/sleeve coupling	206
8	Shaft retaining clip	207
9	W240/400/600 worm wheel gearbox	123
10	Mounting plate W240/400/600	193
11	Chain coupling W240/400/600	203
12	TU5/TU11/TU45 rack drives	166
13	Racks for TU5/TU11/TU45 rack drives	168
14	Window bracket set	212
15	Slide bearing plate	215

Indirect system: System drawing



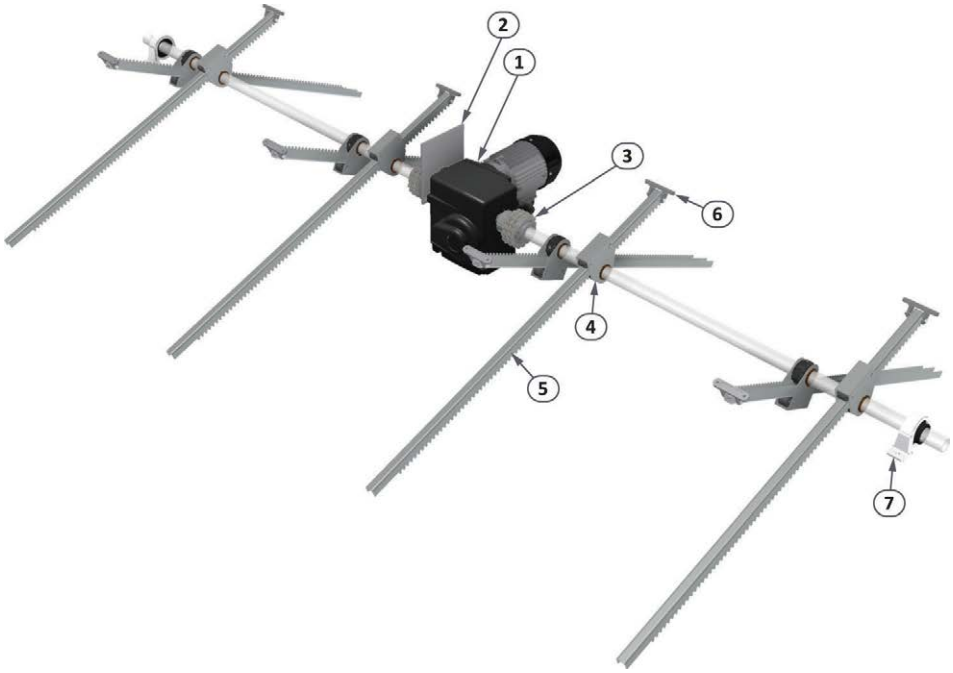
System drawings







Components: Direct system open roof convertible greenhouse



Position	Description	Page
1	RW240/400/600/800 motor gearboxes	71
2	Mounting plate RW motor gearbox	193
3	Chain couplings RW motor gearbox	204
4	TU5/TU11/TU45 rack drives	166
5	Racks for TU5/TU11/TU45 rack drives	168
6	Window bracket set	212
7	Ball bearing block	216



Rollup ridge ventilation system poly house

Besides poly houses with vents, also there are poly houses with a vertical ventilation opening equipped with a roll up system for opening and closing the ventilation opening in top of the greenhouse. For the opening and closing by means of rolling up, Ridder Drive Systems has cardan shafts available that are being connected to a drive system.

For operating these rollup ventilation systems, Ridder Drive Systems distinguishes a direct and an indirect driven system. A directly driven system is where the cardanshafts are mounted directly to a RW45 motor gearbox. With an indirectly driven system the cardan shafts are mounted to RH40 square headed gearboxes. Several of these RH40 gearboxes are driven by one motor gearbox in this case.



Rollup side wall ventilation system poly house

In poly houses it can be the case that the end walls of the greenhouse can be opened and closed to achieve more ventilation in the greenhouse. For this mostly rollup systems are being used at which plastic foil is being rolled up on a (winding) tube.

For driving these (winding) tubes for instance cardan shafts are being used in combination with a fixed mounted motor gearbox. In such a system, the motor gearbox with one cardan shaft can be mounted at the end of a rollup system. Also it is possible to mount the motor gearbox in the middle of the rollup system. In this case on both sides of the motor gearbox a cardan shaft is mounted.

Another manner for operating rollup ventilation walls is by means of connecting a motor gearbox directly to the (winding) tube. In this case the motor gearbox has to be connected to a guiding system for making it possible that the motor gearbox moves with the (winding) tube during the rollup. For a good functioning of the rollup system a weight compensation of the motor gearbox is necessary. Motor gearboxes of Ridder Drive Systems are being used for this kind of systems. The guiding units and weight compensation must be provided by the greenhouse builder or installer.





Components: RW45 - SC40 sliding cardan shafts



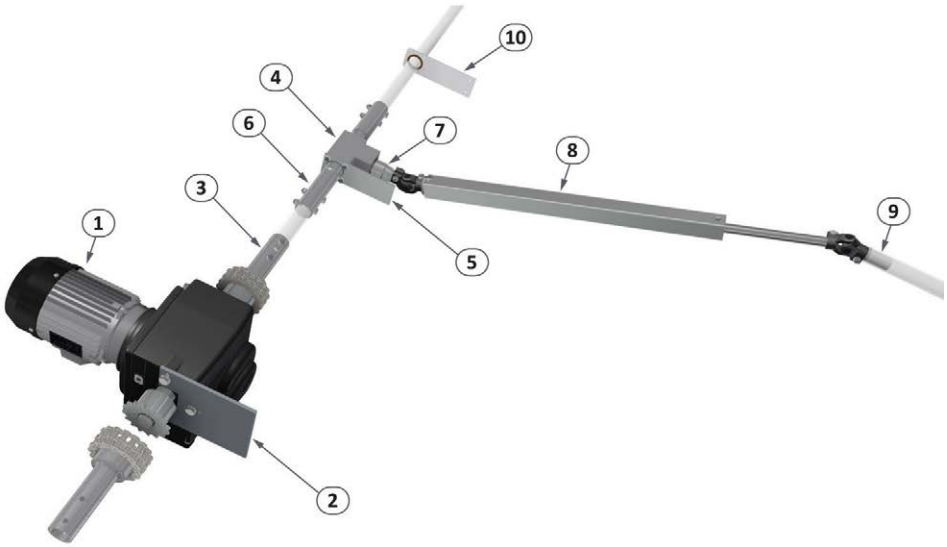
Position	Description	Page
1	RW45 motor gearboxes	68
2	Mounting plate RW motor gearbox	193
3	Adapter coupling joint RW45 - SC40 sliding cardan shafts	208
4	SC40 sliding cardan shafts	127
5	Welded coupling shaft SC40 sliding cardan shaft	209
6	Roll tube coupling SC40 sliding cardan shaft	225







Indirect rollup system: System overview

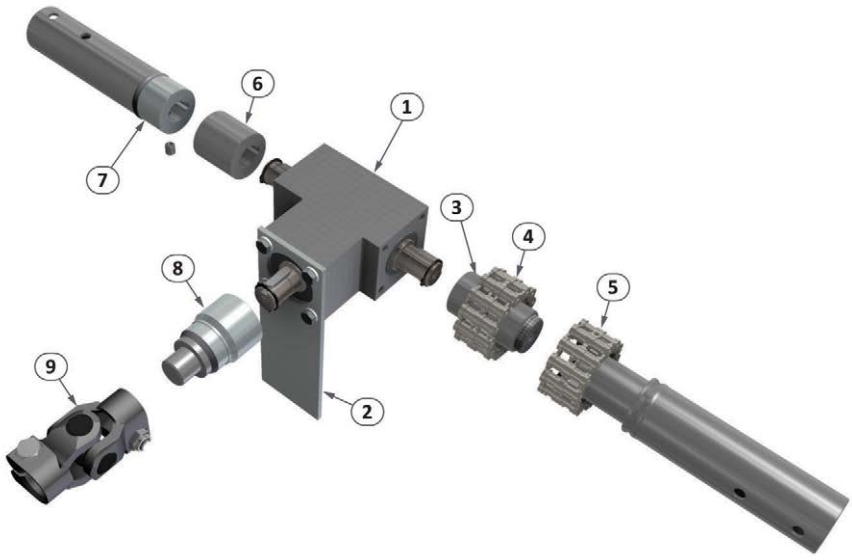


Position	Description	Page
1	RW45/240/400 motor gearboxes	68
2	Mounting plate RW motor gearbox	193
3	(Bolted) chain coupling RW motor gearbox	202
4	RH40D gearbox	125
5	Mounting plate RH40D gearbox	194
6	Sleeve/bolt coupling / Weld/sleeve coupling	207
7	Adapter coupling joint RH40 - SC40 sliding cardan shafts	208
8	SC40 sliding cardan shafts	127
9	Welded coupling shaft SC40 sliding cardan shafts	209
10	Slide bearing plates	215





Components: RH40 gearbox



Position	Description	Page
1	RH40E/RH40D gearbox	125
2	Mounting plate RH40 gearbox	194
3	Sprocket RH40 gearbox	202
4	Chain couplings RH40 gearboxes	202
5	Bolted chain couplings RH40 gearboxes	202
6	Slide welding joint RH40 gearboxes	207
7	Bolt coupling joint RH40 gearboxes	208
8	Adapter coupling joint RH40 gearboxes	208
9	Universal joint RH40 gearbox	210





Components: HW60 manual drive



Position	Description	Page
1	HW60 manual drive	126
2	Hand crank HW60 manual drive	217
3	SC40 sliding cardan shafts	127
4	Welding joint drive tube	209



Screening systems in greenhouses

The installation of screens in glass and polythene structures is increasingly regarded as a standard cultivation measure. Screens are used for a multitude of purposes: energy saving, protection against the effects of the sun, shade and for protection against light emissions.

The installation of energy screens limits the amount of heat loss from the greenhouse. The screens reduce the heat transmission via ventilation as well as the heat transmission via heat radiation and convection.

The primary function of the shade screens is to lower the level of radiation from the sun. The screens both absorb and reflect the sunlight. Blackout screens are installed in order to manipulate the length of the 'days', which means that short-day plants can be cultivated in both summer and winter.

The installation of screens which limit light emission has more of a 'social' function. These screens let out little or no light and avoid any disturbance of the natural balance in the greenhouse environment.

Screen systems are installed in various locations in the greenhouse and can move in different directions. Thus, screens can be fitted against the greenhouse roof, between trusses, gutters and beams and against the side walls, which means that the screens can be fitted both vertically and horizontally. Ridder Drive Systems has developed screen drives that can be adapted to all these different situations.



Push-pull screening system

The push-pull screen system can be fitted into almost every type of greenhouse. The characteristic Ridder products for this horizontal screen system are the RSD250pinion housing unit, the sheet steel rack and the RW motor gearbox. The RSD250 pinion housing unit is driven by the motor gearbox.

The screen fabric is pushed and pulled between the lattice girders by means of the sheet steel rack or the push-pull tube (fitted to the rack plate).This means that the type of motor gearbox used will depend on the total area of the screen fabric and the weight of the screen.

The push-pull system can, in certain circumstances be used with side screens, when for example, the screen fabric hangs vertically down the greenhouse walls The RSD250 pinion housing unit will then be fitted at an angle of 90 degrees and will also have an extra sleeve block which will hold the sheet steel rack firmly in place.

Push-pull screen system

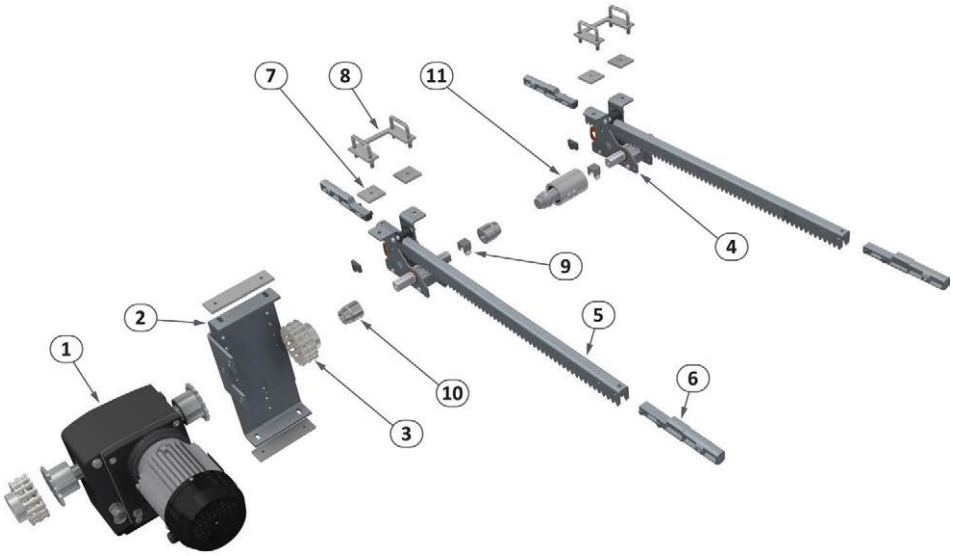
System drawings





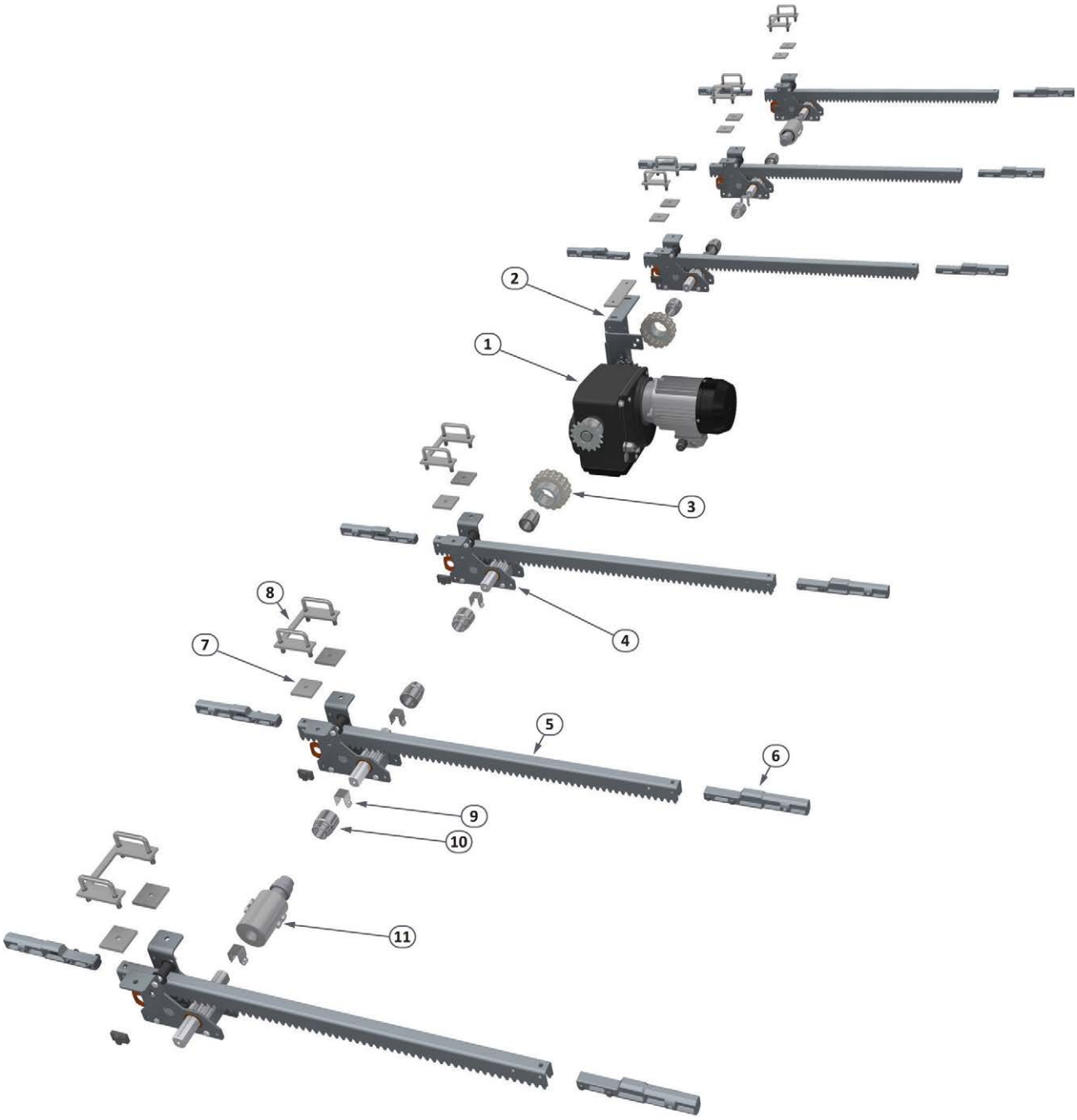


RSD250: System overview



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1	RW45/240/400/600 motor gearboxes	68
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3	Chain couplings RW motor gearboxes	202
4	RSD250 rack drives	174
5	Sheet steel racks RSD250 rack drives	175
6	Couplings sheet steel racks RSD250 rack drives	213
7	Counter-plates RSD250 rack drives	213
8	Clamp mounting set RSD250 rack drives	213
9	Shaft retaining clip	207
10	Weld/sleeve coupling	206
11	Weld /free wheeling coupling	208

RSD250: System drawing





Screening systems in greenhouses

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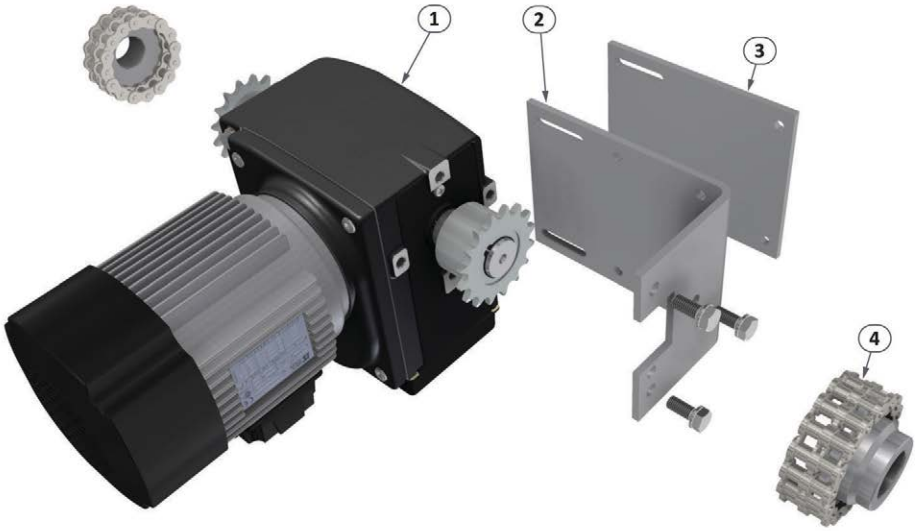
Cable driven screening systems

The cable driven screening system can be installed in the Venlo-greenhouse as well as in the wide-span greenhouse. Ridder has developed a range of powerful motor gearboxes with torques ranging from 600 Nm to 1600 Nm to operate these kinds of horizontal screens. The choice of motor gearbox is totally dependant on the surface area that is to be screened.

The motor gearbox turns a torque tube, onto which steel cables are wound. As the tube turns, the wires move backward and forwards which control the screen movement. These cables can be fixed directly to the screen's leading edge by means of a block or with a slip system.



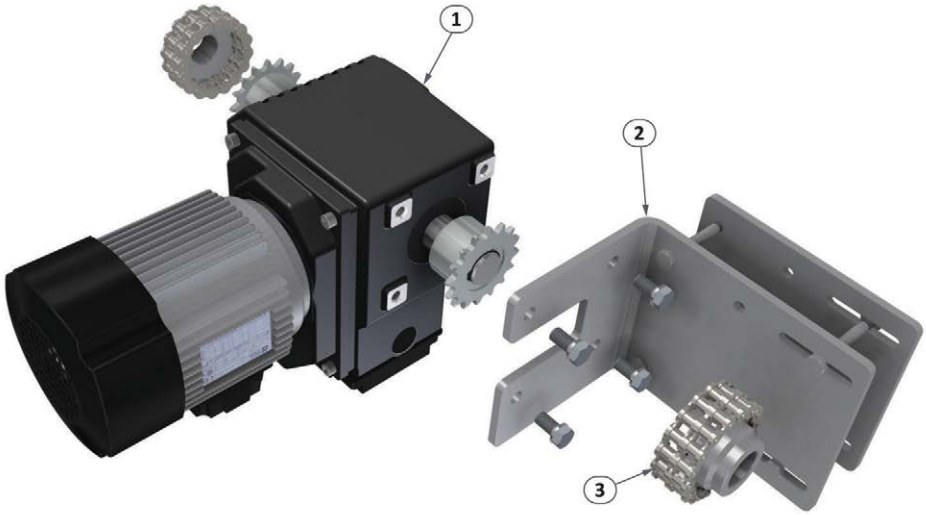
RW240/400/600 Motor gearboxes



Position	Description	Page
1	RW240/400/600 motor gearboxes	71
2	Mounting plate RW240/400/600 motor gearboxes	199
3	Counter-plate mounting plate RW240/400/600 motor gearboxes	199
4	Chain couplings RW240/400/600 motor gearboxes	204



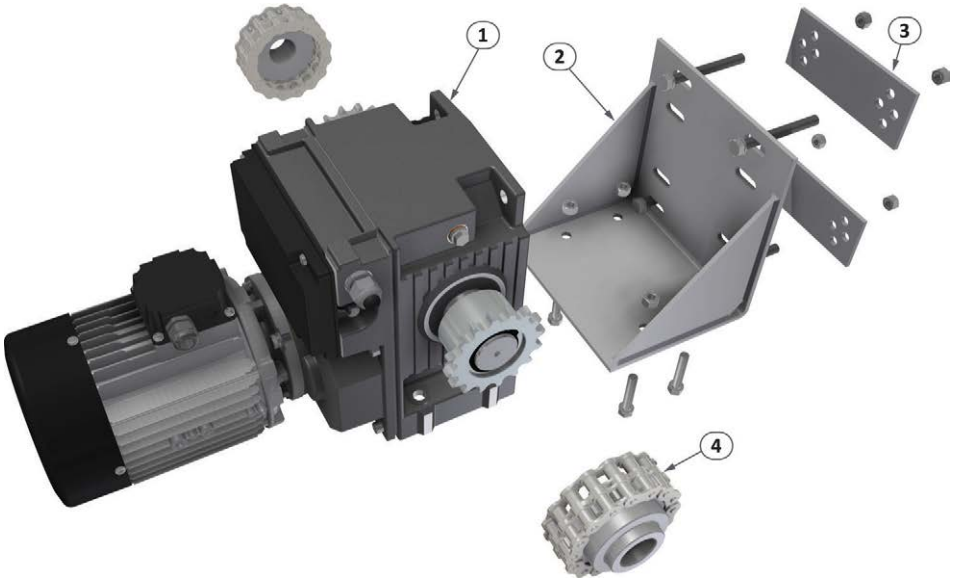
RW800 Motor gearboxes



Position	Description	Page
1	RW800 motor gearboxes	80
2	Mounting plate RW800 motor gearboxes	200
3	Chain couplings RW800 motor gearboxes	204



RW1200/RW1600S Motor gearboxes



Position	Description	Page
1	RW1200-3S/RW1600-3S motor gearboxes	84
2	Mounting seat RW1200/RW1600S motor gearboxes	200
3	Mounting set mounting seat RW1200/1600S motor gearboxes	200
4	Chain couplings RW1200/1600S motor gearboxes	205



Roller screen system

The roller screen system can be fitted to both the roof and sides of the greenhouse walls. The drive system can then be fitted directly against the wall or the roof. Roof roller screening is primarily used in wide-span greenhouses where the truss runs parallel to the roof so that the drive can be fitted directly onto the beams.

The roller screens utilise a tubular motor to turn a roll tube which rolls up the screen. The standard roll tubes have a diameter of 35, 50 and 63 mm. Ridder has developed two types of drive for rolling up the screens; the Ridder tube motor and the Ridder PowerRoller®.

The tube motor has for many years been regarded as the standard drive for roller screen systems in greenhouses. The motor's compact interior dimensions mean that it is eminently suitable for integration into a roll tube thus limiting the space it takes up in the greenhouse. The type of motor that will be the most suitable will depend on the length and roll-up height of the screen. Ridder offers three types of tube motors with drive torques of 40, 50 and 120 Nm.

Over the years, the increase in size of the greenhouse surface areas has meant that the sizes of the roller screens have also increased. Ridder has developed the PowerRoller for these larger roller screens.

2



Components: RB50E^{plus} Tube motor



Position	Description	Page
1	RB50-3.5E^{plus} tube motor	181
2	Guiding unit tube motor RB50-3.5E^{plus}	218
3	Guide rail tube motor	219
4	Mounting bracket guide rail	219
5	Cable carrier mounting set for RB50-3.5E^{plus} tube motor	223
6	Cable carrier	224
7	Mounting bracket cable carrier	224
8	Mounting bracket cable carrier RB50-3.5E^{plus} tube motor	223
9	Adjusting switch RB50-3.5E^{plus} tube motor	189
10	RMC50 tube motor control unit	189



Components: RB120E^{plus} Tube motor



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1	RB120-11E^{plus} tube motor	182
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3	Guide rail tube motor	219
4	Mounting bracket guide rail	219
5	Mounting set cable carrier RB120-11E^{plus}	223
6	Cable carrier	224
7	Mounting bracket cable carrier	224
8	Mounting bracket cable carrier RB120-11E^{plus} tube motor	223
9	Adjusting switch RB120-11E^{plus} tube motor	189
10	RMC50 tube motor control unit	189



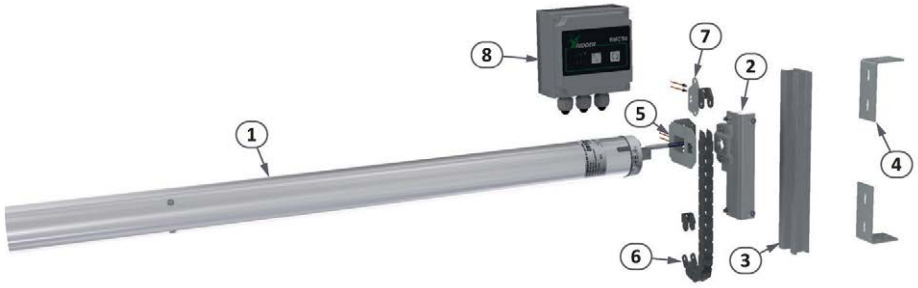
Components: RB40/50 Tube motors



Position	Description	Page
1	RB40-11/RB50-3.5 tube motor	183
2	Guiding unit tube motor RB40-11/RB50-3.5	218
3	Guide rail tube motor	219
4	Mounting bracket guide rail	219
5	Mounting set cable carrier	223
6	Cable carrier	224
7	RMC50 tube motor control unit	189



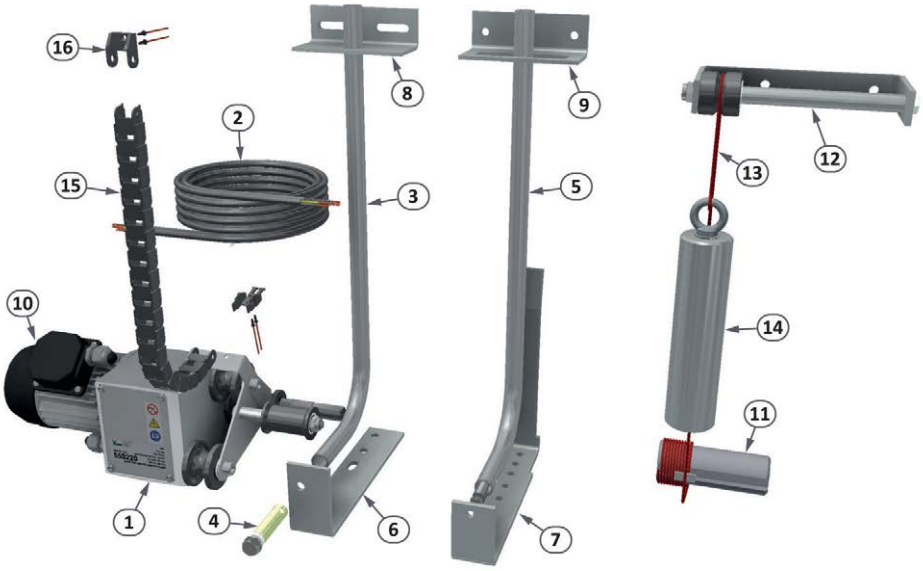
Components: RB120 Tube motors



Position	Description	Page
1	RB120-11 tube motor	185
2	Guiding unit tube motor RB120-11	218
3	Guide rail tube motor	219
4	Mounting bracket guide rail	219
5	Mounting set cable carrier	223
6	Cable carrier	224
7	Mounting bracket cable carrier	224
8	RMC50 tube motor control unit	189



Components: RPR100-4 PowerRoller (weight compensation)



Position	Description	Page
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6	Mounting bracket guide tube bottom (fixed)	220
7	Mounting bracket guide tube bottom (movable)	220
8	Mounting bracket guide tube top (fixed)	221
9	Mounting bracket guide tube top (movable)	221
10	Winding tube coupling	226
11	Winding tube coupling weight compensation	225
12	Guiding roll unit weight compensation	222
13	Cord set weight compensatation	222
14	Counter weight for weight compensation	222
15	Cable carrier	224
16	Mounting set cable carrier	224

3

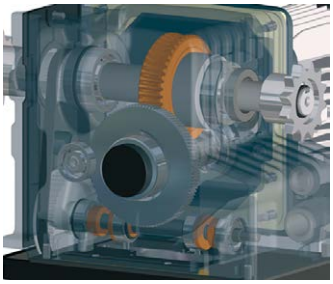




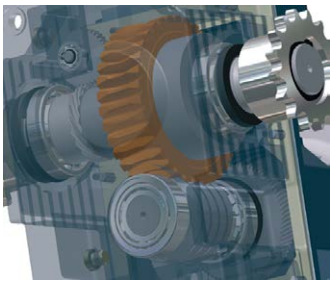
RW Motor gearboxes

The Ridder RW motor gearboxes are maintenance-free, compact power sources for driving ventilation, screening and lifting systems in greenhouses and livestock sheds. The key features of these drives are a self-braking worm gear transmission, and a built-in linear limit switch system.

The gearbox of a RW motor gearbox consists of a combination of pinions and worm gear transmissions that have been matched for low-noise mechanical power transmission.
The RW motor gearbox's self-braking worm gear transmission ensures that the output shaft is braked when the drive unit is stopped. Because Ridder has opted for the most compact possible design for the RW motor gearboxes, with a relatively high output drive moment, the RW motor gearboxes are only suitable for intermittent running (duty cycle s3, running time 30%).



For mounting the RW motor gearboxes, Ridder can supply a wide range of mounting plates, each of which is designed to match the specific type of system to be driven. A sprocket is supplied as standard on every RW motor gearbox. The RW motor gearboxes are coupled to the drive shafts of the system to be driven,with the aid of chain coupling sets, . The use of chain couplings avoids undesirable effects, such as minor off-centering and misalignments. This is beneficial for the drive system.



Ridder RW motor gearboxes are available in various sizes and models:

- The RW45 motor gearboxes for driving ventilation, screen and lifting systems;
- The RW240/400/600 motor gearboxes for driving ventilation, screen and lifting systems;
- The RW800 motor gearboxes for driving ventilation, screen and lifting systems;
- The RW1000/1400 motor gearboxes for driving ventilation, screen and lifting systems;
- The RW1200S/1600S motor gearboxes for driving screen systems;
- The RW200-34 motor gearboxes for driving indirect systems.

For applications worldwide, Ridder has a wide selection of electric motors for RW motor gearboxes. These electric motors differ from one another in the number of phases, supply voltages, mains frequencies and/or approvals that may be necessary for application of the RW motor gearboxes. RW motor gearboxes can be fitted with the following electric motors:

- 3-Phase eurovoltage, for use on mains voltages of 400 V at 50 Hz and 480 V at 60 Hz;
- 3-phase wide voltage with CSA and/or UL approval, for use at mains voltages of 208-415V at 50Hz and 60Hz and at mains voltages of 415-480V at 60Hz;
- 3-phase with CSA approval, for use on mains voltage of 600V at 60 Hz (on request);
- 1-phase with CSA and/or UL approval, for use at mains voltage of 230V at 50Hz and 60Hz;
- 1-phase with CSA approval, for use on mains voltages of 115 V at 60 Hz;
- Direct current, for use on mains voltage of 24 V DC (on request).

In addition to the electric motors listed above, it is also possible to drive the RW motor gearboxes using frequency controlled electric motors. These motor gearboxes enable a system to be driven at two different speeds. In this case, the low speed is the same as the nominal speed of the standard version of the RW motor gearbox; and the high speed is as much as three times the nominal speed. Applications for these motor gearboxes include faster closure of air vents, or faster opening and closure of screen systems.

All RW motor gearboxes include the capability of being manually driven by means of a hexagon socket in the electric motor shaft. This enables the system to be manually driven e.g. during installation, or in the event of power failure. Ridder RW motor gearboxes are finished in graphite-grey powder coating, and are supplied including fixing bolts and spring washers.





Ridder LogicLink controls



The Ridder RW motor gearboxes shown in this catalog can be supplied with integrated control units, the Ridder LogicLink controls. This creates complete drives where the mechanical and control components optimally coordinate. Also, the combinations of motor gearboxess with LogicLink control units gives new opportunities that are difficult to achieve with conventional, not integrated, control systems.

For the Ridder RW series motor gearboxes are two integrable control units available, the LogicLink300 and LogicLink600. From the LogicLink Control units the LogicLink300 controls are equipped with intelligent basic functionality for controlling and securing RW motor gearboxes. The LogicLink600 control has also these functionality but are build more advanced. Therefore the LogicLink600 controls offer more opportunities by applying encoder technology and fieldbus communication. Precise motor gearbox control, follow run and synchronized run of motor gearboxes are possible options with the LogicLink600 controllers.

LogicLink300

The LogicLink300 is available in 1 basic model: The ‘Stand-Alone’ model of the LogicLink320:

- LogicLink320: The Stand-Alone model of the LogicLink300 control units is used with RW motor gearboxes for individual control of ventilation and screen systems, for example. The LogicLink320 unit is either automatically controlled with a 24 V AC/DC signal from a climate computer, or manually controlled with a manual control unit.

LogicLink600 Controls

The LogicLink600 control units are available in 2 basic versions: "Basic" and "Full Option". Depending on the type motor gearbox that is being integrated with the LogicLink600 control and the fieldbus protocol that is being applied, the following LogicLink600 control units are available:

- LogicLink610: "Basic" version with CANopen fieldbus control for 3-phase RW motor gearboxes;
- LogicLink611: "Basic" version with BACnet fieldbus control for 3-phase RW motor gearboxes;
- LogicLink620: "Full Option" version with CANopen fieldbus control for 3-phase RW motor gearboxes;
- LogicLink621: "Full Option" version with BACnet fieldbus control for 3-phase RW motor gearboxes;
- LogicLink660: "Basic" version with CANopen fieldbus control for 3-phase RW-F frequency controlled motor gearboxes;
- LogicLink661: "Basic" version with BACnet fieldbus control for 3-phase RW-F frequency controlled motor gearboxes;
- LogicLink670: "Full Option" version with CANopen fieldbus control for 3-phase RW-F frequency controlled motor gearboxes;
- LogicLink671: "Full Option" version with BACnet fieldbus control for 3-phase RW-F frequency controlled motor gearboxes.



Motor gearboxes for LogicLink control units

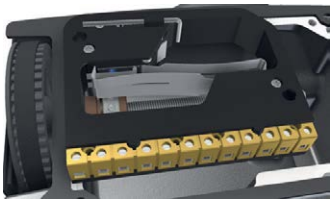
The standard or custom models of Ridder RW Motor gearboxes are suitable for use with LogicLink300 and/or LogicLink600 control units. This catalogue includes the most commonly-used models of these RW motor gearboxes, suitable for the LogicLink units. These RW motor gearboxes are prepared for use with a LogicLink control unit. For example, the electric motor is pre-installed in the correct position in the motor gearbox and/or the motor is fitted with a PTC resistor. This resistor serves as a thermal safeguard for the drive unit, in combination with a LogicLink300 control unit.

Custom models are available for the RW45, RW240/400/600 and RW800 motor gearboxes, which can be combined with the LogicLink300 or 600 control units. The electric motors of these drive units are correctly positioned and have a PTC resistor. The item numbers of these motor gearboxes are indicated by the letter P, added to the 6-figure item number of the 'standard' model (e.g. 502000P).

The RW1000/1400 and RW1200S/15600S motor gearboxes (up to 3-phase 480V) in this catalogue are suitable for standard use with the LogicLink600 control units. Custom models of these motor gearboxes are available on request for use with the LogicLink300 control units.

RW-F motor gearboxes fitted with frequency-controlled electric motors are suitable for standard use with the LogicLink600 control units. The LogicLink300 control units cannot be used in combination with RW-F frequency-controlled-motor gearboxes.

Other Ridder RW motor gearboxes not mentioned here are generally suitable (or can be modified) for use with the LogicLink300 or 600 control units. Please contact our Sales Department for information or requests concerning these motor gearboxes.



RSU Limit switch systems

The Ridder RSU limit switch system is tried and tested limit switch system, and is used in all Ridder RW motor gearboxes. This linear switch system, tuned to match the drives, is characterized by precision, reliability and safety. The RSU limit switch system is made up of a combination of duty and safety switches. With the RSU limit switch system, the start and end positions of the driven system can be precisely set. The switches used are selected for compatibility with the latest control technology. They are suitable for use with both lower (45 mA) and higher switching currents (up to 1 A), as well as different voltages.

Moreover, the RSU limit switch system contains the unique, Ridder-designed switch spring construction. This switch spring construction makes it possible to apply exactly the right RSU limit switch system with every type of Ridder RW motor gearbox. The switching distance between a duty and a safety switch for each type of RW motor gearbox has been carefully selected so that precision, reliability and safety are guaranteed.

The design of the switch spring construction in the RSU limit switch system is protected by a pending international patent (patent number PCT/NL01/00485). This was necessary because the RSU limit switch system is one of the innovative components that differentiates the Ridder RW motor gearboxes from competitive products.





RW-F Motor Gearboxes with frequency controlled electric motors

With the RW-F motor gearboxes, featuring a frequency controlled electric motor, Ridder is able to offer motor gearboxes that excel in even the most demanding ventilation and screen systems. When there is a need for a rapid reaction to changing external factors, such as by closure of vents against rain or wind (to protect the crop) or fast opening and closure of screens (to save energy), the Ridder RW-F motor gearboxes form an indispensable link in the drive system.

The frequency controller, used on the RW-F motor gearboxes, has proven in use to be extremely reliable. Because the electronic components or the frequency controller are sealed in a housing with a high level of protection (IP65), the frequency controller is highly shielded from moisture and vibration. This is an absolute requirement for the use of these motor gearboxes in ventilation or screen systems in greenhouses.

Technically, connection of the RW-F motor gearboxes is simple and economical. Because the frequency controller is mounted directly on the electric motor, there is no (costly) shielded cabling required for the connections. The RW-F motor gearboxes are controlled (rotation direction and speed) through the switching of digital inputs. The frequency controller itself is powered by a mains voltage of 400-480 V (3-phase), 50 or 60 Hz. The frequency controllers comply with the EMC directive (Class A) and carry a C-UL approval mark.

As with the standard RW motor gearboxes, the RW-F motor gearboxes feature the RSU limit switch system. This limit switch system is equipped with duty and safety switches for both directions of rotation. Because the RW-F motor gearboxes are capable of running at two speeds in either direction, external switches must be placed in the system for switching speed from high to low, or low to high. For use in screen systems, Ridder has a special control set in the product range. For ventilation systems, however, an electrical installer is needed to add the required components into the circuitry.

The RW-F motor gearboxes are supplied pre-programmed, i.e. all critical parameters of the frequency controller are preset to standard values. Using the optional manual console, these parameters can quickly and easily be modified. This enables, for example, the "low" and the "high" speeds for a system to be set to optimal values.

As previously stated, the RW-F motor gearboxes make it possible to drive a system at both a "low" and a "high" speed. Based on normal practice, the "low" speed is the same as the usual speed at which any system is driven. In this case, the full drive torque of the RW-F motor gearbox is supplied, and precise control of the driven system is assured.
The "low" speed of an RW-F motor gearbox is fixed by setting the appropriate frequency parameter value in the controller. For the "low" speed, the value may be set to between 20 and 87 Hz. In relation to a standard mains voltage, this parameter is mostly set to 50 Hz. If a lower value is programmed, then it is possible for example to set an RW405F motor gearbox (5 rpm at 50 Hz) to run at a "low" speed of 3 rpm.

The "high" speed is also programmed by setting a frequency parameter value. For the "high" speed, this can setting can range up to a maximum of 150 Hz. In practice, the rotational speed supplied by the drive is increased by a factor of 3 compared to the "standard" rotational speed on a mains frequency of 50 Hz. For an RW405F motor gearbox (5 rpm at 50 Hz) this means that this drive can deliver a maximum rotational speed of 15 rpm. At this "high" speed, the drive torque of the motor gearbox is reduced. It is therefore not possible to drive a system at "high" speed (between 87 Hz and 200 Hz) with the maximum drive torque of the RW-F motor gearbox (although it is possible at the "low" speed).

With the use of an RW-F motor gearbox in a system to be driven, the following is possible:
- In a ventilation system it is possible to open and close the vents at "low" speed. The "high" speed in a ventilation system may only be used when closing the vents. Immediately before the vent reaches full closure, it must switch back to "low" speed;
- In a screen system, it is possible to fully open and close the screen at "low" speed. Opening and closing the screen at "high" speed is also possible in the intermediate phase, i.e.: except during the closure and folding of the screen system. At closure and folding, it must switch back to "low" speed.



RW-TRA Motor gearboxes

The RW45TRA and RW240TRA motor gearboxes with TR520A rack drive are maintenance-free, compact power units for driving ventilation and lifting systems in greenhouses and livestock sheds. The RW45TRA and RW240TRA motor gearboxes are variants based on the standard RW45 and RW240 motor gearboxes. The motor gearboxes differ from the standard models in that they are equipped with a special bearing-mounted drive shaft, that drives the TR520A rack drive by means of a pinion.

The RW45TRA and RW240TRA motor gearboxes can be mounted in various ways:

- Mounting using standard mounting plates (mounting plate fitted between motor gearbox and TRA drive unit);
- Foot mounting (integrated into TRA drive unit);
- Wall mounting using the special wall mounting plate for the TRA rack drive.

The TR520A rack drives are available with zinc-plated racks in a variety of lengths. These racks may be connected to push/pull tubes or steel cables, for example.







RW45 Motor gearboxes

The RW45 motor gearboxes are maintenance-free, compact drive units for operating ventilation, screen and flap ventilation systems in greenhouses and barns.

All RW45 motor gearboxes feature a self-braking worm gear transmission. This transmission ensures that the output shaft is braked when the drive unit is stopped. The combination of carefully matched pinion and worm reductions results in a very quiet mechanical transmission.

The RW45 motor gearboxes feature a patented integrated linear limit switch system with duty and safety switches having excellent switching precision. The maximum switching range of the limit switch system equates to 97 revolutions of the drive shaft. The optional RPU PositioningUnit accurately monitors the current position of a drive system and transmits this data back to your climate computer or controller. This position feedback can also be achieved using an installation set with a potentiometer.

The RW45 motor gearboxes are finished with a graphite grey powder coating and are supplied including fixing bolts and spring washers.

RW45 Motor gearboxes:

- Drive torques up to 120 Nm at 50 Hz and 60 Hz mains frequencies;
- Rotation speeds from 1 to 5 rpm at 50 Hz, 1.2 to 6 rpm at 60 Hz mains frequency;
- Suitable for intermittent use, duty class s3-30%, duty cycle maximum 25 minutes;
- Fitted with 12-tooth 1/2"x5/16" zinc-plated sprocket for chain couplings;
- Option for 16-tooth 1/2'x5/16' sprockets to compensate for larger angle differences (up to 6°);
- Manual drive enabled by means of a hexagon socket in electric motor shaft;
- Electric motors are standard tropic-proof and conform to protection class IP55;
- Available with 3-phase electric motors, 400V at 50Hz (eurovoltage, EM type A);
- Or with 3-phase electric motors with CSA and UL approval, 208-415V at 50/60Hz and 415-480V at 60Hz (wide voltage, EM type B);
- Or with 1-phase electric motors, 230V at 50/60Hz (EM type D);
- Or with 1-phase electric motors with CSA and UL approval, 115 V at 60Hz (EM type F);
- Other specifications and colours available on request.

Art. no.	Description	m	M 50Hz	n 50Hz	M 60Hz	n 60Hz	EM	F ~	PTC	CSA UL	EM nr
		kg	Nm	/min	Nm	/min					
502000	RW45-1-09\400\3\97	15,5	120	1,0			A	3			763010
531094	RW45-2-09\400\3\97	15,5	120	2,0			A	3			763010
502010	RW45-3-09\400\3\97	15,5	90	3,0			A	3			763010
502020	RW45-5-09\400\3\97	15,5	54	5,0			A	3			763010
535206	RW45-1-09\208-480\3\P\CU\97	16,5	120	1,0	120	1,2	B	3	●	CU	764002
535236	RW45-2-09\208-480\3\P\CU\97	16,5	120	2,0	120	2,4	B	3	●	CU	764002
535266	RW45-3-09\208-480\3\P\CU\97	16,5	90	3,0	90	3,6	B	3	●	CU	764002
535296	RW45-5-09\208-480\3\P\CU\97	16,5	54	5,0	54	6,0	B	3	●	CU	764002
502030	RW45-1-09\230\1\97	16,5	120	1,0	120	1,2	D	1			761001
531092	RW45-2-09\230\1\97	16,5	120	2,0	100	2,4	D	1			761001
502040	RW45-3-09\230\1\97	16,5	90	3,0	80	3,6	D	1			761001
502050	RW45-5-09\230\1\97	16,5	54	5,0	50	6,0	D	1			761001
535360	RW45-1-09\115\1\60\P\CU\97	16,5	-	-	120	1,2	F	1	●	CU	761202
535365	RW45-2-09\115\1\60\P\CU\97	16,5	-	-	100	2,4	F	1	●	CU	761202
535370	RW45-3-09\115\1\60\P\CU\97	16,5	-	-	70	3,6	F	1	●	CU	761202
535375	RW45-5-09\115\1\60\P\CU\97	16,5	-	-	45	6,0	F	1	●	CU	761202

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RW45 Motor gearboxes (LogicLink version)

The RW45 motor gearboxes, suitable for LogicLink300 or LogicLink600 control units, are maintenance-free, compact drive units for operating ventilation or screen systems in greenhouses and barns. The motor gearboxes are equipped with PTC a resistor in the electric motor, which serves as a thermal safeguard for the drive unit used with a LogicLink control unit.

All RW45 motor gearboxes feature a self-braking worm gear transmission. This transmission ensures that the output shaft is braked when the drive unit is stopped. The combination of carefully matched pinion and worm reductions results in a very quiet mechanical transmission.



The RW45 motor gearboxes feature a patented integrated linear limit switch system with duty and safety switches having excellent switching precision. The maximum switching range of the limit switch system equates to 97 revolutions of the drive shaft. The optional RPU PositioningUnit accurately monitors the current position of a drive system and transmits this data back to your climate computer or controller. This position feedback can also be achieved using an installation set with a potentiometer.



The RW45 motor gearboxes are finished with a graphite grey powder coating and are supplied including fixing bolts and spring washers.

RW45 Motor gearboxes:

- Drive torques up to 120 Nm at 50 Hz and 60 Hz mains frequencies;
- Rotation speeds from 1 to 5 rpm at 50 Hz, 1.2 to 6 rpm at 60 Hz mains frequency;
- Suitable for intermittent use, duty class s3-30%, duty cycle maximum 25 minutes;
- Fitted with 12-tooth 1/2"x5/16" zinc-plated sprocket for chain couplings;
- Option for 16-tooth 1/2'x5/16' sprockets to compensate for larger angle differences (up to 6°);
- Manual drive enabled by means of a hexagon socket in electric motor shaft;
- Electric motors are standard tropic-proof and conform to protection class IP55;
- Available with 3-phase electric motors, 400V at 50Hz (eurovoltage, EM type A);
- Or with 3-phase electric motors with CSA and UL approval, 208-415V at 50/60Hz and 415-480V at 60Hz (wide voltage, EM type B);
- Or with 1-phase electric motors, 230V at 50/60Hz (EM type D);
- Or with 1-phase electric motors with CSA and UL approval, 115 V at 60Hz (EM type F);
- Other specifications and colours available on request.

Art. no.	Description	m	M 50Hz	n 50Hz	M 60Hz	n 60Hz	EM	F ~	PTC	CSA UL	EM nr
		kg	Nm	/min	Nm	/min					
502000P	RW45-1-09\400\3\P\97	15,5	120	1,0			A	3	●		763310
531094P	RW45-2-09\400\3\P\97	15,5	120	2,0			A	3	●		763310
502010P	RW45-3-09\400\3\P\97	15,5	90	3,0			A	3	●		763310
502020P	RW45-5-09\400\3\P\97	15,5	54	5,0			A	3	●		763310
502030P	RW45-1-09\230\1\P\97	16,5	120	1,0	120	1,2	D	1	●		761001P
531092P	RW45-2-09\230\1\P\97	16,5	120	2,0	100	2,4	D	1	●		761001P
502040P	RW45-3-09\230\1\97\P	16,5	90	3,0	80	3,6	D	1	●		761001P
502050P	RW45-5-09\230\1\97\P	16,5	54	5,0	50	6,0	D	1	●		761001P
535360P	RW45-1-09\115\1\60\P\CU\97	16,5	-	-	120	1,2	F	1	●	CU	761202
535365P	RW45-2-09\115\1\60\P\CU\97	16,5	-	-	100	2,4	F	1	●	CU	761202
535370P	RW45-3-09\115\1\60\P\CU\97	16,5	-	-	70	3,6	F	1	●	CU	761202
535375P	RW45-5-09\115\1\60\P\CU\97	16,5	-	-	45	6,0	F	1	●	CU	761202


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RW45TRA Motor gearboxes

The RW45TRA motor gearboxes with a TRN520A rack drive are maintenance-free, compact drive units for operating ventilation or screen systems in greenhouses and barns. The RW45TRA motor gearboxes have a single output shaft on one side, for mounting a TR520A rack drive unit.

All RW45TRA motor gearboxes feature a self-braking worm gear transmission. This transmission ensures that the output shaft is braked when the drive unit is stopped. The combination of carefully matched pinion and worm reductions results in a very quiet mechanical transmission.

The RW45TRA motor gearboxes feature a patented integrated linear limit switch system with duty and safety switches having excellent switching precision. The maximum switching range of the limit switch system equates to 55 revolutions of the drive shaft. The optional RPU PositioningUnit accurately monitors the current position of a drive system and transmits this data back to your climate computer or controller. This position feedback can also be achieved using an installation set with a potentiometer.

The RW45TRA motor gearboxes are finished with a graphite grey powder coating and are supplied including fixing bolts and spring washers.

RW45TRA Motor gearboxes:

- Drive torques up to 120Nm at 50 Hz and 60 Hz mains frequencies;
- Rotation speeds from 1 to 5 rpm at 50 Hz, 1.2 to 6 rpm at 60 Hz mains frequency;
- Suitable for intermittent use, duty class s3-30%, duty cycle maximum 25 minutes;
- Manual drive enabled by means of a hexagon socket in the electric motor shaft;
- Electric motors are standard tropic-proof and conform to protection class IP55;
- Available with 3-phase electric motors, 400V at 50Hz (eurovoltage, EM type A);
- Or with 3-phase electric motors with CSA and UL approval, 208-415V at 50/60Hz and 415-480V at 60Hz (wide voltage, EM type B);
- Or with 1-phase electric motors, 230V at 50/60Hz (EM type D);
- Or with 1-phase electric motors with CSA and UL approval, 115 V at 60Hz (EM type F);
- Other specifications and colours available on request.

Art. no.	Description	m	M 50Hz	n 50Hz	M 60Hz	n 60Hz	EM	F ~	PTC	CSA UL	EM nr
		kg	Nm	/min	Nm	/min					
502055	RW45-1TRA-09\400\3\55\IP55	16,7	120	1,0			A	3			763010
502056	RW45-3TRA-09\400\3\55\IP55	16,7	90	3,0			A	3			763010
502057	RW45-5TRA-09\400\3\55\IP55	16,7	54	5,0			A	3			763010
535280	RW45-3TRA-09\208-480\C\55\IP55	16,7	90	3,0	90	3,6	B	3		C	764002
535310	RW45-5TRA-09\208-480\C\55\IP55	16,7	54	5,0	54	6,0	B	3		C	764002
502075	RW45-1TRA-09\230\1\55\IP55	16,0	120	1,0	120	1,2	D	1			761001
502076	RW45-3TRA-09\230\1\55\IP55	16,0	90	3,0	80	3,6	D	1			761001
502077	RW45-5TRA-09\230\1\55\IP55	16,0	54	5,0	50	6,0	D	1			761001

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RW240 Motor gearboxes

The RW240 motor gearboxes are maintenance-free, compact drive units for operating ventilation, screen and lifting systems in greenhouses and barns.

All RW240 motor gearboxes feature a self-braking worm gear transmission. This transmission ensures that the output shaft is braked when the drive unit is stopped. The combination of carefully matched pinion and worm reductions results in a very quiet mechanical transmission.

The RW240 motor gearboxes feature a patented integrated linear limit switch system with duty and safety switches having excellent switching precision. The maximum switching range of the limit switch system equates to 86 revolutions of the drive shaft. The optional RPU PositioningUnit accurately monitors the current position of a drive system and transmits this data back to your climate computer or controller. This position feedback can also be achieved using an installation set with a potentiometer.

The RW240 motor gearboxes are finished with a graphite grey powder coating and are supplied including fixing bolts and spring washers.

RW240 Motor gearboxes:

- Drive torque of 240Nm at 50 Hz and 60 Hz mains frequencies;
- Rotation speeds of 1 to 5 rpm at 50 HZ, 1.2 to 6 rpm at 60 HZ mains frequency;
- Suitable for intermittent duty, duty class s3-30%, duty cycle maximum 25 minutes;
- Fitted with 16-tooth 5/8"x3/8" zinc-plated sprocket for chain couplings;
- Manual drive enabled by means of a hexagon socket in the electric motor shaft;
- Electric motors are standard tropic-proof and conform to protection class IP55;
- Available with 3-phase electric motors, 400V at 50Hz (eurovoltage, EM type A);
- Or with 3-phase electric motors with CSA and/or UL approval, 208-415V at 50/60Hz and 415-480V at 60Hz (wide voltage, EM type B);
- Or with 3-phase electric motors with CSA approval, 600V at 60Hz (EM type C);
- Or with 1-phase electric motors, 230V at 50/60Hz (EM type D, E);
- Or with 1-phase electric motors with CSA and/or UL approval, 115 V at 60Hz (EM type F, G);
- Other specifications and colours available on request.

Art. no.	Description	m	M 50Hz	n 50Hz	M 60Hz	n 60Hz	EM	F ~	PTC	CSA UL	EM nr
		kg	Nm	/min	Nm	/min					
502300	RW241-09\400\3\86	28,0	240	1,0			A	3			763010
532410	RW242-25\400\3\86	30,0	240	2,0			A	3			763030
502310	RW243-25\400\3\86	30,0	240	3,0			A	3			763030
502320	RW245-37\400\3\86	30,5	240	5,0			A	3			763040
535400	RW241-09\208-480\3\P\CU\86	30,0	240	1,0	240	1,2	B	3	●	CU	764002
535430	RW242-25\208-480\3\P\CU\86	32,0	240	2,0	240	2,4	B	3	●	CU	764022
535460	RW243-25\208-480\3\P\CU\86	32,0	240	3,0	240	3,6	B	3	●	CU	764022
535490	RW245-37\208-480\3\P\C\86	32,0	240	5,0	240	6,0	B	3	●	C	704032P
536490	RW245-37\600\3\60\C\86	32,0			240	6,0	C	3		C	703632
502330	RW241-09\230\1\86	28,5	240	1,0	240	1,2	D	1			761001
532406	RW242-18\230\1\86	31,0	240	2,0	240	2,4	D	1			761016
502340	RW243-25\230\1\OC\P\C\86	32,0	240	3,0	240	3,6	E	1	●	C	701021P
502350	RW245-37\230\1\OC\C\86	32,5	240	5,0	240	6,0	E	1		C	701031
502334	RW241-09\115\1\60\P\C\86	29,0			200	1,2	F	1	●	C	701202P
502351	RW245-37\115\1\60\OC\P\C\86	33,0			200	6,0	G	1	●	C	701232P

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RW240 Motor gearboxes (LogicLink version)

The RW240 motor gearboxes, suitable for LogicLink300 or LogicLink600 control units, are maintenance-free, compact drive units for operating ventilation, screen and lifting systems in greenhouses and barns. The motor gearboxes are equipped with PTC a resistor in the electric motor, which serves as a thermal safeguard for the drive unit used with a LogicLink control unit.

All RW240 motor gearboxes feature a self-braking worm gear transmission. This transmission ensures that the output shaft is braked when the drive unit is stopped. The combination of carefully matched pinion and worm reductions results in a very quiet mechanical transmission.

The RW240 motor gearboxes feature a patented integrated linear limit switch system with duty and safety switches having excellent switching precision. The maximum switching range of the limit switch system equates to 86 revolutions of the drive shaft. The optional RPU PositioningUnit accurately monitors the current position of a drive system and transmits this data back to your climate computer or controller. This position feedback can also be achieved using an installation set with a potentiometer.

The RW240 motor gearboxes are finished with a graphite grey powder coating and are supplied including fixing bolts and spring washers.

RW240 Motor gearboxes:

- Drive torque of 240Nm at 50 Hz and 60 Hz mains frequencies;
- Rotation speeds of 1 to 5 rpm at 50 HZ, 1.2 to 6 rpm at 60 HZ mains frequency;
- Suitable for intermittent duty, duty class s3-30%, duty cycle maximum 25 minutes;
- Fitted with 16-tooth 5/8"x3/8" zinc-plated sprocket for chain couplings;
- Manual drive enabled by means of a hexagon socket in the electric motor shaft;
- Electric motors are standard tropic-proof and conform to protection class IP55;
- Available with 3-phase electric motors, 400V at 50Hz (eurovoltage, EM type A);
- Or with 3-phase electric motors with CSA and/or UL approval, 208-415V at 50/60Hz and 415-480V at 60Hz (wide voltage, EM type B);
- Or with 1-phase electric motors, 230V at 50/60Hz (EM type D);
- Or with 1-phase electric motors with CSA and/or UL approval, 115 V at 60Hz (EM type F, G);
- Other specifications and colours available on request.

Art. no.	Description	m	M 50Hz	n 50Hz	M 60Hz	n 60Hz	EM	F ~	PTC	CSA UL	EM nr
		kg	Nm	/min	Nm	/min					
502300P	RW241-09\400\3\P\86	28,0	240	1,0			A	3	●		763310
532410P	RW242-25\400\3\P\86	30,0	240	2,0			A	3	●		763330
502310P	RW243-25\400\3\P\86	30,0	240	3,0			A	3	●		763330
502320P	RW245-37\400\3\P\86	30,5	240	5,0			A	3	●		763340
535430P	RW242-25\208-480\3\P\CU\86	32,0	240	2,0	240	2,4	B	3	●	CU	764022
535460P	RW243-25\208-480\3\P\CU\86	32,0	240	3,0	240	3,6	B	3	●	CU	764022
535490P	RW245-37\208-480\3\P\C\86	32,0	240	5,0	240	6,0	B	3	●	C	704032P
502330P	RW241-09\230\1\P\86	28,5	240	1,0	240	1,2	D	1	●		761001P
532406P	RW242-18\230\1\P\86	31,0	240	2,0	240	2,4	D	1	●		701016P
502340P	RW243-25\230\1\OC\P\C\86	32,0	240	3,0	240	3,6	E	1	●	C	701021P
502350P	RW245-37\230\1\OC\P\C\86	32,5	240	5,0	240	6,0	E	1	●	C	761032
502334P	RW241-09\115\1\60\P\C\86	29,0			200	1,2	F	1	●	C	701202P
502351P	RW245-37\115\1\60\OC\P\C\86	33,0			200	6,0	G	1	●	C	701232P

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RW240TRA Motor gearboxes

The RW240TRA motor gearboxes with a TRN520A rack drive are maintenance-free, compact drive units for operating ventilation and lifting systems in greenhouses and barns. The RW240TRA motor gearboxes have a single output shaft on one side, for mounting a TRN520A rack drive unit.

All RW240TRA motor gearboxes feature a self-braking worm gear transmission. This transmission ensures that the output shaft is braked when the drive unit is stopped. The combination of carefully matched pinion and worm reductions results in a very quiet mechanical transmission.

The RW240TRA motor gearboxes feature a patented integrated linear limit switch system with duty and safety switches having excellent switching precision. The maximum switching range of the limit switch system equates to 86 revolutions of the drive shaft. The optional RPU PositioningUnit accurately monitors the current position of a drive system and transmits this data back to your climate computer or controller. This position feedback can also be achieved using an installation set with a potentiometer.

The RW240TRA motor gearboxes are finished with a graphite grey powder coating and are supplied including fixing bolts and spring washers.

RW240TRA Motor gearboxes:

- Drive torque of 240Nm at 50 Hz and 60 Hz mains frequencies;
- Rotation speeds of 1 to 5 rpm at 50 Hz, 1.2 to 6 rpm at 60 Hz mains frequency;
- Suitable for intermittent duty, duty class s3-30%, duty cycle maximum 25 minutes;
- Manual drive enabled by means of a hexagon socket in the electric motor shaft;
- Electric motors are standard tropic-proof and conform to protection class IP55;
- Available with 3-phase electric motors, 400V at 50Hz (eurovoltage, EM type A);
- Or with 3-phase electric motors with CSA and/or UL approval, 208-415V at 50/60Hz and 415-480V at 60Hz (wide voltage, EM type B);
- Or with 3-phase electric motors with CSA approval, 600V at 60Hz (EM type C);
- Or with 1-phase electric motors, 230V at 50/60Hz (EM type D, E);
- Or with 1-phase electric motors with CSA and/or UL approval, 115 V at 60Hz (EM type F);
- Other specifications and colours available on request.

Art. no.	Description	m	M 50Hz	n 50Hz	M 60Hz	n 60Hz	EM	F ~	PTC	CSA UL	EM nr
		kg	Nm	/min	Nm	/min					
502355	RW241TRA-09\400\3\86\IP55	27,5	240	1,0			A	3			763010
502356	RW243TRA-25\400\3\86\IP55	29,5	240	3,0			A	3			763030
502357	RW245TRA-37\400\3\86\IP55	30,0	240	5,0			A	3			763040
535480	RW243TRA-25\208-480\C\86\IP55	29,5	240	3,0	240	3,6	B	3	●	CU	764022
502391	RW241TRA-09\230\1\86\IP55	30,0	240	1,0	240	1,2	D	1			761001
502392	RW243TRA-25\230\1\OC\C\86\IP55	31,5	240	3,0	240	3,6	E	1	●	C	701021P
502393	RW245TRA-37\230\1\OC\C\86\IP55	32,0	240	5,0	240	6,0	E	1		C	761032

152 193 117 113 315 231







RW400 Motor gearboxes

The RW400 motor gearboxes are maintenance-free, compact drive units for operating ventilation, screen and lifting systems in greenhouses and barns.

All RW400 motor gearboxes feature a self-braking worm gear transmission. This transmission ensures that the output shaft is braked when the drive unit is stopped. The combination of carefully matched pinion and worm reductions results in a very quiet mechanical transmission.

The RW400 motor gearboxes feature a patented integrated linear limit switch system with duty and safety switches having excellent switching precision. The maximum switching range of the limit switch system equates to 86 revolutions of the drive shaft. The optional RPU PositioningUnit accurately monitors the current position of a drive system and transmits this data back to your climate computer or controller. This position feedback can also be achieved using an installation set with a potentiometer.

The RW400 motor gearboxes are finished with a graphite grey powder coating and are supplied including fixing bolts and spring washers.

RW400 Motor gearboxes:

- Drive torque up to 400Nm at 50 Hz and 60 Hz mains frequencies;
- Rotation speeds of 1 to 5 rpm at 50 Hz, 1.2 to 6 rpm at 60 Hz mains frequency;
- Suitable for intermittent duty, duty class s3-30%, duty cycle maximum 25 minutes;
- Fitted with 16-tooth 5/8"x3/8" zinc-plated sprocket for chain couplings;
- Manual drive enabled by means of a hexagon socket in the electric motor shaft;
- Electric motors are standard tropic-proof and conform to protection class IP55;
- Available with 3-phase electric motors, 400V at 50Hz (eurovoltage, EM type A);
- Or with 3-phase electric motors with CSA and/or UL approval, 208-415V at 50/60Hz and 415-480V at 60Hz (wide voltage, EM type B);
- Or with 3-phase electric motors with CSA approval, 600V at 60Hz (EM type C);
- Or with 1-phase electric motors, 230V at 50/60Hz (EM type D, E);
- Or with 1-phase electric motors with CSA and/or UL approval, 115 V at 60Hz (EM type F, G);
- Other specifications and colours available on request.

Art. no.	Description	m	M 50Hz	n 50Hz	M 60Hz	n 60Hz	EM	F ~	PTC	CSA UL	EM nr
		kg	Nm	/min	Nm	/min					
502200	RW401-12\400\3\86	31,5	400	1,0			A	3			763020
533400	RW402-25\400\3\86	31,0	400	2,0			A	3			763030
502210	RW403-37\400\3\86	31,0	400	3,0			A	3			763040
502220	RW405-55\400\3\86	33,5	400	5,0			A	3			763060
535600	RW401-12\208-480\3\CU\86	30,0	400	1,0	400	1,2	B	3	●	CU	764012
535630	RW402-25\208-480\3\CU\86	31,0	400	2,0	400	2,4	B	3	●	CU	764022
535660	RW403-37\208-480\3\P\C\86	32,0	400	3,0	400	3,06	B	3	●	C	704032P
535690	RW405-55\208-480\3\P\C\86	34,5	400	5,0	400	6,0	B	3	●	C	704042P
502219	RW403-44\600\3\60\C\86	32,0			400	3,1	C	3		C	703632
536690	RW405-66\600\3\60\C\86	34,5			400	6,0	C	3		C	703642
502230	RW401-18\230\1\86	31,5	400	1,0	400	1,2	D	1			761016
533411	RW402-25\230\1\OC\P\C\86	31,5	400	2,0	400	2,4	E	1	●	C	701021P
502240	RW403-37\230\1\OC\C\86	33,0	400	3,0	400	3,6	E	1		C	761032
502250	RW405-55\230\1\OC\C\86	36,0	400	5,0	400	6,0	E	1		C	761042
502206	RW401-18\115\1\60\86\C	31,0			400	1,2	F	1	●	C	701217
502239	RW403-37\115\1\60\OC\C\86	33,0			360	3,6	G	1	●	C	701232P

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RW400 Motor gearboxes (LogicLink version)

The RW400 motor gearboxes, suitable for LogicLink300 or LogicLink600 control units, are maintenance-free, compact drive units for operating ventilation, screen and lifting systems in greenhouses and barns. The motor gearboxes are equipped with PTC a resistor in the electric motor, which serves as a thermal safeguard for the drive unit used with a LogicLink control unit.

All RW400 motor gearboxes feature a self-braking worm gear transmission. This transmission ensures that the output shaft is braked when the drive unit is stopped. The combination of carefully matched pinion and worm reductions results in a very quiet mechanical transmission.

The RW400 motor gearboxes feature a patented integrated linear limit switch system with duty and safety switches having excellent switching precision. The maximum switching range of the limit switch system equates to 86 revolutions of the drive shaft. The optional RPU PositioningUnit accurately monitors the current position of a drive system and transmits this data back to your climate computer or controller. This position feedback can also be achieved using an installation set with a potentiometer.

The RW400 motor gearboxes are finished with a graphite grey powder coating and are supplied including fixing bolts and spring washers.

RW400 Motor gearboxes:

- Drive torque up to 400Nm at 50 Hz and 60 Hz mains frequencies;
- Rotation speeds of 1 to 5 rpm at 50 Hz, 1.2 to 6 rpm at 60 Hz mains frequency;
- Suitable for intermittent duty, duty class s3-30%, duty cycle maximum 25 minutes;
- Fitted with 16-tooth 5/8"x3/8" zinc-plated sprocket for chain couplings;
- Manual drive enabled by means of a hexagon socket in the electric motor shaft;
- Electric motors are standard tropic-proof and conform to protection class IP55;
- Available with 3-phase electric motors, 400V at 50Hz (eurovoltage, EM type A);
- Or with 3-phase electric motors with CSA and/or UL approval, 208-415V at 50/60Hz and 415-480V at 60Hz (wide voltage, EM type B);
- Or with 1-phase electric motors, 230V at 50/60Hz (EM type D, E);
- Or with 1-phase electric motors with CSA and/or UL approval, 115 V at 60Hz (EM type F, G);
- Other specifications and colours available on request.

Art. no.	Description	m	M 50Hz	n 50Hz	M 60Hz	n 60Hz	EM	F ~	PTC	CSA UL	EM nr
		kg	Nm	/min	Nm	/min					
502200P	RW401-12\400\3\P\86	31,5	400	1,0			A	3	●		763220
533400P	RW402-25\400\3\P\86	31,0	400	2,0			A	3	●		763330
502210P	RW403-37\400\3\P\86	31,0	400	3,0			A	3	●		763340
502220P	RW405-55\400\3\P\86	33,5	400	5,0			A	3	●		763360
535600P	RW401-12\208-480\3\P\CU\86	30,0	400	1,0	400	1,2	B	3	●	CU	764012
535630P	RW402-25\208-480\3\P\CU\86	31,0	400	2,0	400	2,4	B	3	●	CU	764022
535660P	RW403-37\208-480\3\P\C\86	32,0	400	3,0	400	3,06	B	3	●	C	704032P
535690P	RW405-55\208-480\3\P\C\86	34,5	400	5,0	400	6,0	B	3	●	C	704042P



















RW240/400-2.4/3.4 Motor Gearboxes (replacements for RW50/63)

The RW240/400-2.4/3.4 motor gearboxes are maintenance-free, compact drive units for operating ventilation systems in greenhouses. These drives are intended as replacements for the RW50S (2.4 rpm, RW240-2.4), RW50TR25 (3.4 rpm, RW240-3.4), RW63S (2.4 rpm, RW400-2.4) or the RW63TR25 (3.4 rpm, RW400-3.4) motor gearboxes.

All RW240/400-2.4/3.4 motor gearboxes feature a self-braking worm gear transmission. This transmission ensures that the output shaft is braked when the drive unit is stopped. The combination of carefully matched pinion and worm reductions results in a very quiet mechanical transmission.

The RW240/400-2.4/3.4 motor gearboxes feature a patented integrated linear limit switch system with duty and safety switches having excellent switching precision. The maximum switching range of the limit switch system equates to 86 revolutions of the drive shaft. The optional RPU PositioningUnit accurately monitors the current position of a drive system and transmits this data back to your climate computer or controller. This position feedback can also be achieved using an installation set with a potentiometer.

The RW240/400-2.4/3.4 motor gearboxes are finished with a graphite grey powder coating and are supplied including fixing bolts and spring washers.

RW240/400-2.4/3.4 Motor Gearboxes:

- Drive torques up to 240Nm or 400 Nm at 50 Hz and 60 Hz mains frequencies;
- Rotation speeds of 2.4 or 3.4 rpm at 50 Hz, 2.9 or 4.1 rpm at 60 Hz mains frequency;
- Suitable for intermittent duty, duty class s3-30%, duty cycle maximum 25 minutes;
- Fitted with 16-tooth 5/8"x3/8" zinc-plated sprocket for chain couplings;
- Manual drive enabled by means of a hexagon socket in the electric motor shaft;
- Electric motors are standard tropic-proof and conform to protection class IP55;
- Available with 3-phase electric motors, 400V at 50Hz (eurovoltage, EM type A);
- Or with 3-phase electric motors with CSA and/or UL approval, 208-415V at 50/60Hz and 415-480V at 60Hz (wide voltage, EM type B);
- Other specifications and colours available on request.

Art. no.	Description	m	M 50Hz	n 50Hz	M 60Hz	n 60Hz	EM	F ~	PTC	CSA UL	EM nr
		kg	Nm	/min	Nm	/min					
532800	RW240-2.4-25\400\3\86	30,0	240	2,4	240	2,9	A	3			763030
532850	RW240-3.4-25\400\3\86	30,0	240	3,4	240	4,1	A	3			763030
533800	RW400-2.4-37\400\3\86	31,0	400	2,4	400	2,9	A	3			763040
533850	RW400-3.4-37\400\3\86	31,0	400	3,4	380	4,1	A	3			763040

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RW600 Motor gearboxes

The RW600 motor gearboxes are maintenance-free, compact drive units for operating ventilation, screen and lifting systems in greenhouses and barns.

All RW600 motor gearboxes feature a self-braking worm gear transmission. This transmission ensures that the output shaft is braked when the drive unit is stopped. The combination of carefully matched pinion and worm reductions results in a very quiet mechanical transmission.

The RW600 motor gearboxes feature a patented integrated linear limit switch system with duty and safety switches having excellent switching precision. The maximum switching range of the limit switch system equates to 86 revolutions of the drive shaft. The optional RPU PositioningUnit accurately monitors the current position of a drive system and transmits this data back to your climate computer or controller. This position feedback can also be achieved using an installation set with a potentiometer.

The RW600 motor gearboxes are finished with a graphite grey powder coating and are supplied including fixing bolts and spring washers.

RW600 Motor gearboxes:

- Drive torque up to 600Nm at 50 Hz and 60 Hz mains frequencies;
- Rotation speeds of 3 to 5 rpm at 50 Hz, 3.6 to 6 rpm at 60 Hz mains frequency;
- Suitable for intermittent duty, duty class s3-30%, duty cycle maximum 25 minutes;
- Fitted with 16-tooth 5/8"x3/8" zinc-plated sprocket for chain couplings;
- Manual drive enabled by means of a hexagon socket in the electric motor shaft;
- Electric motors are standard tropic-proof and conform to protection class IP55;
- Available with 3-phase electric motors, 400V at 50Hz (eurovoltage, EM type A);
- Or with 3-phase electric motors with CSA and/or UL approval, 208-415V at 50/60Hz and 415-480V at 60Hz (wide voltage, EM type B);
- Or with 3-phase electric motors with CSA approval, 600V at 60Hz (EM type C);
- Or with 1-phase electric motors, 230V at 50/60Hz (EM type E);
- Other specifications and colours available on request.

Art. no.	Description	m	M 50Hz	n 50Hz	M 60Hz	n 60Hz	EM	F ~	PTC	CSA UL	EM nr
		kg	Nm	/min	Nm	/min					
502410	RW603-55\400\3\86	35,5	600	3,0			A	3			763060
502420	RW605-110\400\3\86	36,5	600	5,0			A	3			763080
535750	RW603-55\208-480\3\P\C\86	36,5	600	3,0	600	3,6	B	3	●	C	704042P
535780	RW605-110\208-480\3\P\C\86	42,0	600	5,0	600	6,0	B	3	●	C	704072P
535760	RW603-66\600\3\60\C\86	36,5			600	3,6	C	3		C	703642
536890	RW605-110\600\3\60\C\86	42,0			600	5,0	C	3		C	703662
502440	RW603-55\230\1\OC\C\86	40,0	600	3,0	600	3,6	E	1		C	761042
502450	RW605-110\230\1\OC\P\C\86	42,8	600	5,0	600	6,0	E	1		C	701062

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RW600 Motor gearboxes (LogicLink version)

The RW600 motor gearboxes, suitable for LogicLink300 or LogicLink600 control units, are maintenance-free, compact drive units for operating ventilation, screen and lifting systems in greenhouses and barns. The motor gearboxes are equipped with PTC a resistor in the electric motor, which serves as a thermal safeguard for the drive unit used with a LogicLink control unit.

All RW600 motor gearboxes feature a self-braking worm gear transmission. This transmission ensures that the output shaft is braked when the drive unit is stopped. The combination of carefully matched pinion and worm reductions results in a very quiet mechanical transmission.

The RW600 motor gearboxes feature a patented integrated linear limit switch system with duty and safety switches having excellent switching precision. The maximum switching range of the limit switch system equates to 86 revolutions of the drive shaft. The optional RPU PositioningUnit accurately monitors the current position of a drive system and transmits this data back to your climate computer or controller. This position feedback can also be achieved using an installation set with a potentiometer.

The RW600 motor gearboxes are finished with a graphite grey powder coating and are supplied including fixing bolts and spring washers.

RW600 Motor gearboxes:

- Drive torque up to 600Nm at 50 Hz and 60 Hz mains frequencies;
- Rotation speeds of 3 to 5 rpm at 50 Hz, 3.6 to 6 rpm at 60 Hz mains frequency;
- Suitable for intermittent duty, duty class s3-30%, duty cycle maximum 25 minutes;
- Fitted with 16-tooth 5/8"x3/8" zinc-plated sprocket for chain couplings;
- Manual drive enabled by means of a hexagon socket in the electric motor shaft;
- Electric motors are standard tropic-proof and conform to protection class IP55;
- Available with 3-phase electric motors, 400V at 50Hz (eurovoltage, EM type A);
- Or with 3-phase electric motors with CSA and/or UL approval, 208-415V at 50/60Hz and 415-480V at 60Hz (wide voltage, EM type B);
- Or with 3-phase electric motors with CSA approval, 600V at 60Hz (EM type C);
- Or with 1-phase electric motors, 230V at 50/60Hz (EM type E);
- Other specifications and colours available on request.

Art. no.	Description	m	M 50Hz	n 50Hz	M 60Hz	n 60Hz	EM	F ~	PTC	CSA UL	EM nr
		kg	Nm	/min	Nm	/min					
502410P	RW603-55\400\3\P\86	35,5	600	3,0			A	3	●		763360
502420P	RW605-110\400\3\P\86	36,5	600	5,0			A	3	●		763380
535750P	RW603-55\208-480\3\P\C\86	36,5	600	3,0	600	3,6	B	3	●	C	704042P
535780P	RW605-110\208-480\3\P\C\86	42,0	600	5,0	600	5,0	B	3	●	C	704072P









RW240/400/600F Motor gearboxes (frequency controlled)

The RW240/400/600F motor gearboxes with mounted frequency controllers are maintenance-free, compact drive units for operating ventilation and screen systems in greenhouses and barns. These motor gearboxes enable a system to be driven at both "low" (normal) and "high" speed. These speeds are defined using programmable parameter settings in the frequency controller. The RW240/400/600F motor gearboxes are supplied pre-programmed; all parameters of the frequency controller are preset to standard values. Using the optional manual console, these parameters can quickly and easily be adjusted to match operational needs.

The easily-installed RW240/400/600F motor gearboxes are controlled (rotational direction and speed) by switching of the digital inputs. This enables the two speeds ("low" and "high") to be controlled in both directions. Because the electronic components of the frequency controller are sealed in a housing with a high level of protection (IP65), the frequency controller is highly shielded from moisture and vibration. The frequency controllers comply with the EMC directive (class A). The electric motors used as standard tropic-proof and conform to protection class IP55.

The self-braking worm gear reduction of the RW240/400/600F motor gearboxes ensures that the drive shaft is braked when the drive is stopped. The combination of carefully matched pinion and worm reductions results in a very quiet mechanical transmission.

The RW240/400/600F motor gearboxes feature a patented integrated linear limit switch system with duty and safety switches having excellent switching precision. The maximum switching range of the limit switch system equates to 86 revolutions of the drive shaft. The optional RPU PositioningUnit accurately monitors the current position of a drive system and transmits this data back to your climate computer or controller. This position feedback can also be achieved using an installation set with a potentiometer. For switching from the "high" to the "low" (normal) speed, an external switching signal is required.

The RW240/400/600F motor gearboxes are finished in graphite-grey powder coating, and are supplied including fixing bolts and spring washers.

RW240/400/600F Motor gearboxes:

- For use with a 3-phase mains voltage from 400 V to 480 V at 50 Hz and 60 Hz;
- Suitable for application with LogicLink600 controls;
- Equipped with relais print for galvanic seperation of control signals (not applicable with LogicLink600);
- Frequency controller and electric motor carry a C-UL approval mark;
- Suitable for intermittent use under full load, duty class s3-30%, duty cycle maximum 25 minutes;
- Fitted with 16-tooth 5/8"x3/8" zinc-plated sprocket for chain couplings;
- Manual drive enabled by means of a hexagon socket in the electric motor shaft;
- Other specifications and colours available on request.

Art. no.	Description	m	M <87Hz	n 50Hz	M 150Hz	n 150Hz	Pfc	F ~	CSA UL	EM nr
		kg	Nm	/min	Nm	/min	kW			
537491	RW245F-V30\37\400\3\CU\86	35,5	240	5	~95	20	0,75	3	C	**707033**
537661	RW403F-V30\37\400\3\CU\86	35,5	400	3	~160	12	0,75	3	C	**707033**
537691	RW405F-V30\55\400\3\CU\86	38,0	400	5	~160	20	1,10	3	C	**707043**
537751	RW603F-V30\55\400\CU\86	40,0	600	3	~240	12	1,10	3	C	**707043**
537781	RW605F-V30\110\400\CU\86	43,0	600	5	~285	20	2,20	3	C	**707073**

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RW800 Motor gearboxes

The RW800 motor gearboxes are maintenance-free, compact drive units for operating ventilation, screen and lifting systems in greenhouses and barns.

All RW800 motor gearboxes feature a self-braking worm gear transmission. This transmission ensures that the output shaft is blocked when the drive unit is halted. The combination of carefully matched pinion and worm reductions results in a very silent mechanical transmission.

RW800 motor gearboxes feature a patented integrated linear limit switch system with duty and safety switches, giving excellent switching precision. The maximum switching range of the limit switch system equates to 120 revolutions of the drive shaft. The optional RPU PositioningUnit accurately monitors the current position of a drive system and transmits this data back to your climate computer or controller. This position feedback can also be achieved using an installation set with a potentiometer.

RW800 motor gearboxes are finished in graphite-grey powder coating, and are supplied complete with fixing bolts and spring washers.

RW800 Motor gearboxes:

- Drive torque of 800 Nm at 50 Hz or 60 Hz mains frequencies;
- Revolutions of 3 to 5 rpm at 50 Hz, 3.6 to 6 rpm at 60 Hz mains frequency;
- Suitable for intermittent operation, operating class s3-30%, duty cycle maximum 25 minutes;
- Fitted with 16-tooth zinc-plated sprocket wheels 5/8"x3/8" for chain couplings;
- Manual drive enabled by means of a hexagon socket in the electric motor shaft;
- Electric motors are tropic-resistant as standard, and conform to protection class IP55;
- Available with 3-phase electric motors, 400V at 50Hz (eurovoltage, EM type A);
- Or with 3-phase electric motors with CSA and/or UL approval, 208-415V at 50/60Hz and 415-480V at 60Hz (wide voltage, EM type B);
- Or with 1-phase electric motors, 230V at 50/60Hz (EM type E);
- Other specifications and colours available on request.

Art. no.	Description	m	M 50Hz	n 50Hz	M 60Hz	n 60Hz	EM	F ~	PTC	CSA UL	EM nr
		kg	Nm	/min	Nm	/min					
502510	RW803-75\400\3\120	40,5	800	3,0			A	3			763070
502520	RW805-110\400\3\120	43,0	800	5,0			A	3			763080
535790	RW803-75\208-480\3\P\C\120	41,5	800	3,0	800	3,6	B	3	●	C	704052P
535795	RW805-110\208-480\3\P\C\120	44,0	800	5,0	800	5,0	B	3	●	C	704072P
536860	RW803-110\600\3\60\C\120	44,0			800	3,6	C	3		C	703662

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RW800 Motor gearboxes (LogicLink version)

The RW800 motor gearboxes, suitable for LogicLink300 or LogicLink600 control units, are maintenance-free, compact drive units for operating ventilation, screen and lifting systems in greenhouses and barns. The motor gearboxes are equipped with PTC a resistor in the electric motor, which serves as a thermal safeguard for the drive unit used with a LogicLink control unit.

All RW800 motor gearboxes feature a self-braking worm gear transmission. This transmission ensures that the output shaft is blocked when the drive unit is halted. The combination of carefully matched pinion and worm reductions results in a very silent mechanical transmission.

RW800 motor gearboxes feature a patented integrated linear limit switch system with duty and safety switches, giving excellent switching precision. The maximum switching range of the limit switch system equates to 120 revolutions of the drive shaft. The optional RPU PositioningUnit accurately monitors the current position of a drive system and transmits this data back to your climate computer or controller. This position feedback can also be achieved using an installation set with a potentiometer.

RW800 motor gearboxes are finished in graphite-grey powder coating, and are supplied complete with fixing bolts and spring washers.

RW800 Motor gearboxes:

- Drive torque of 800 Nm at 50 Hz or 60 Hz mains frequencies;
- Revolutions of 3 to 5 rpm at 50 Hz, 3.6 to 6 rpm at 60 Hz mains frequency;
- Suitable for intermittent operation, operating class s3-30%, duty cycle maximum 25 minutes;
- Fitted with 16-tooth zinc-plated sprocket wheels 5/8"x3/8" for chain couplings;
- Manual drive enabled by means of a hexagon socket in the electric motor shaft;
- Electric motors are tropic-resistant as standard, and conform to protection class IP55;
- Available with 3-phase electric motors, 400V at 50Hz (eurovoltage, EM type A);
- Or with 3-phase electric motors with CSA and/or UL approval, 208-415V at 50/60Hz and 415-480V at 60Hz (wide voltage, EM type B);
- Or with 1-phase electric motors, 230V at 50/60Hz (EM type E);
- Other specifications and colours available on request.

Art. no.	Description	m	M 50Hz	n 50Hz	M 60Hz	n 60Hz	EM	F ~	PTC	CSA UL	EM nr
		kg	Nm	/min	Nm	/min					
502510P	RW803-75\400\3\P\120	40,5	800	3,0			A	3	●		763370
502520P	RW805-110\400\3\P\120	43,0	800	5,0			A	3	●		763380
535790P	RW803-75\208-480\3\P\C\120	41,5	800	3,0	800	3,6	B	3	●	C	704052P
535795P	RW805-110\208-480\3\P\C\120	44,0	800	5,0	800	5,0	B	3	●	C	704072P

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RW800F Motor gearboxes (frequency controlled)

The RW800F motor gearboxes with mounted frequency controllers are maintenance-free, compact drive units for operating ventilation and screen systems in greenhouses and barns. These motor gearboxes enable a system to be driven at both "low" (normal) and "high" speed. These speeds are defined using programmable parameter settings in the frequency controller. The RW800F motor gearboxes are supplied pre-programmed; all parameters of the frequency controller are preset to standard values. Using the optional manual console, these parameters can quickly and easily be adjusted to match operational needs.

The easily-installed RW800F motor gearboxes are controlled (rotational direction and speed) by switching of the digital inputs. This enables the two speeds ("low" and "high") to be controlled in both directions. Because the electronic components of the frequency controller are sealed in a housing with a high level of protection (IP65), the frequency controller is highly shielded from moisture and vibration. The frequency controllers comply with the EMC directive (class A). The electric motors used as standard tropic-proof and conform to protection class IP55.

The self-braking worm gear reduction of the RW800F motor gearboxes ensures that the drive shaft is braked when the drive is stopped. The combination of carefully matched pinion and worm reductions results in a very quiet mechanical transmission.

The RW800F motor gearboxes feature a patented integrated linear limit switch system with duty and safety switches having excellent switching precision. The maximum switching range of the limit switch system equates to 120 revolutions of the drive shaft. The optional RPU PositioningUnit accurately monitors the current position of a drive system and transmits this data back to your climate computer or controller. This position feedback can also be achieved using an installation set with a potentiometer.
For switching from the "high" to the "low" (normal) speed, an external switching signal is required.

The RW800F motor gearboxes are finished in graphite-grey powder coating, and are supplied including fixing bolts and spring washers.

RW800F Motor gearboxes:

- For use with a 3-phase mains voltage from 400 V to 480 V at 50 Hz and 60 Hz;
- Suitable for application with LogicLink600 controls;
- Equipped with relais print for galvanic seperation of control signals (not applicable with LogicLink600);
- Frequency controller and electric motor carry a C-UL approval mark. ;
- Suitable for intermittent use under full load, duty class s3-30%, duty cycle maximum 25 minutes;
- Fitted with 16-tooth 5/8"x3/8" zinc-plated sprocket for chain couplings;
- Manual drive enabled by means of a hexagon socket in the electric motor shaft;
- Other specifications and colours available on request.

Art. no.	Description	m	M <87Hz	n 50Hz	M 150Hz	n 150Hz	Pfc	F ~	CSA UL	EM nr
		kg	Nm	/min	Nm	/min	kW			
537791	RW803F-V30\75\400\CU\120	31,0	800	3	~325	12	1,50	3	C	**707053**
537796	RW805F-V30\110\400\CU\120	43,0	800	5	~285	20	2,20	3	C	**707073**

204 194 117 116 319 236







RW1000/1400 Motor gearboxes

The RW1000/1400 motor gearboxes are maintenance-free drive units for operating ventilation, screen and lifting systems in greenhouses and barns.

All RW1000/1400 motor gearboxes are fitted with a self-braking wheel transmission . This transmission guarantees that the drive shaft is locked when the drive is not operating. The combination of the carefully mutually-tuned gear and wheel transmissions means that the drive runs almost silently.

The RW1000/1400 motor gearboxes are equipped with a patented inbuilt linear limiting switch system with control and safety switches with a high degree of switch precision. The maximum switching range for the limiting switch system amounts to 86 revolutions of the drive shaft. The optional RPU PositioningUnit accurately monitors the current position of a drive system and transmits this data back to your climate computer or controller. This position feedback can also be achieved using an installation set with a potentiometer.

The RW1000/1400 motor gearboxes are finished with a graphite-grey powder coating and are supplied with locking bolts and washers.

RW1000/1400 Motor gearboxes:

- Suitable for application with LogicLink600 controls;
- Drive torque 1000Nm or 1400Nm at 50Hz and 60Hz mains frequencies;
- Revolutions of 3 or 5 rpm at 50Hz, 3.6 or 6 rpm at 60Hz mains voltage;
- Suitable for intermittant operations, operating class s3-30%, duty cycle maximum 25 minutes;
- Fitted with 16 tooth zinc-plated sprocket chain wheels 3/4"x7/16" for the chain couplings;
- Option for 12-tooth 1’x 1’ sprockets to compensate for larger angle differences (up to 8°);
- Manual drive enabled by means of a hexagon socket in the electric motor shaft;
- Electric motors are tropic-proof as standard, and conform to protection class IP55;
- Available with 3-phase electric motors, 400V at 50Hz (eurovoltage, EM type A);
- Or with 3-phase electric motors with CSA and/or UL approval, 208-415V at 50/60Hz and 415-480V at 60Hz (wide voltage, EM type B);
- Or with 3-phase electric motors with CSA approval, 600V at 60Hz (EM type C);
- Or with 1-phase electric motors, 230V at 50/60Hz (EM type E);
- Other specifications and colours available on request.

Art. no.	Description	m	M 50Hz	n 50Hz	M 60Hz	n 60Hz	EM	F ~	PTC	CSA UL	EM nr
		kg	Nm	/min	Nm	/min					
520101	RW1000-3-110\400\3\86	54,5	1000	3,0			A	3			763085
520151	RW1000-5-150\400\3\86	56,0	1000	5,0			A	3			763095
520201	RW1400-3-150\400\3\86	56,0	1400	3,0			A	3			763095
535800	RW1000-3-110\208-480\3\P\C\86	60,0	1000	3,0	1000	3,6	B	3	●	C	704272P
535810	RW1000-5-150\208-480\3\P\C\86	63,0	1000	5,0	1000	6,0	B	3	●	C	704292P
535820	RW1400-3-150\208-480\3\P\C\86	63,0	1400	3,0	1400	3,6	B	3	●	C	704292P

205 200 117 113 315 237







RW1200/1600S Motor gearboxes

The RW1200/1600S motor gearboxes are maintenance-free drives for wire screen systems in greenhouses.

All RW1200S/1600S motor gearboxes are fitted with a self-braking wheel transmission . This transmission guarantees that the drive shaft is locked when the drive is not operating. The combination of the carefully mutually-tuned gear and wheel transmissions means that the drive runs almost silently.

The RW1200/1600S motor gearboxes are equipped with a patented inbuilt linear limiting switch system with control and safety switches with a high degree of switch precision. The maximum switching range for the limiting switch system amounts to 86 revolutions of the drive shaft. The optional RPU PositioningUnit accurately monitors the current position of a drive system and transmits this data back to your climate computer or controller. This position feedback can also be achieved using an installation set with a potentiometer.

The RW1200/1600S motor gearboxes are finished with a graphite-grey powder coating and are supplied with locking bolts and washers.

RW1200/1600S Motor gearboxes:

- Suitable for application with LogicLink600 controls;
- Drive torque 1200Nm or 1600Nm at 50Hz and 60Hz mains frequencies;
- Revolutions of 3 or 5 rpm at 50Hz, 3.6 or 6 rpm at 60Hz mains voltage;
- Suitable for intermittant operations, operating class s3-30%, duty cycle maximum 25 minutes;
- Fitted with 16 tooth zinc-plated sprocket chain wheels 3/4"x7/16" for the chain couplings;
- Manual drive enabled by means of a hexagon socket in the electric motor shaft;
- Electric motors are tropic-proof as standard, and conform to protection class IP55;
- Available with 3-phase electric motors, 400V at 50Hz (eurovoltage, EM type A);
- Or with 3-phase electric motors with CSA and/or UL approval, 208-415V at 50/60Hz and 415-480V at 60Hz (wide voltage, EM type B);
- Or with 3-phase electric motors with CSA approval, 600V at 60Hz (EM type C);
- Other specifications and colours available on request.

Art. no.	Description	m	M 50Hz	n 50Hz	M 60Hz	n 60Hz	EM	F ~	PTC	CSA UL	EM nr
		kg	Nm	/min	Nm	/min					
520175	RW1200-3S-110\400\3\86	54,5	1200	3,0			A	3			763085
520225	RW1600-3S-150\400\3\86	56	1600	3,0			A	3			763095
535830	RW1200-3S-110\208-480\3\P\C\86	60	1200	3,0	1200	3,6	B	3	●	C	704272P
535850	RW1600-3S-150\208-480\3\P\C\86	63	1600	3,0	1600	3,6	B	3	●	C	704292P









RW70/100/140/200-34/68 Motor gearboxes

The RW70/100/140/200-34/68 motor gearboxes are maintenance-free, compact drive units for operating indirect ventilation systems in greenhouses.

All RW70/100/140/200-34/68 motor gearboxes feature a self-braking worm gear transmission. This transmission ensures that the output shaft is braked when the drive unit is stopped. The combination of carefully matched pinion and worm reductions results in a very quiet mechanical transmission.

The RW70/100/140/200-34/68 motor gearboxes feature a patented integrated linear limit switch system with duty and safety switches having excellent switching precision. The maximum switching range of the limit switch system equates to 860 revolutions of the drive shaft. The optional RPU PositioningUnit accurately monitors the current position of a drive system and transmits this data back to your climate computer or controller. This position feedback can also be achieved using an installation set with a potentiometer.

The RW70/100/140/200-34/68 motor gearboxes are finished with a graphite grey powder coating and are supplied including fixing bolts and spring washers.

RW70/100/140/200-34/68 Motor gearboxes:

- Drive torque from 70 up to 200Nm at 50 Hz and 60 Hz mains frequencies;
- Rotation speeds of 34 or 68 rpm at 50 Hz, 41 or 82 rpm at 60 Hz mains frequency;
- Suitable for intermittent duty, duty class s3-30%, duty cycle maximum 25 minutes;
- Fitted with 16-tooth 1/2"x5/16" zinc-plated sprocket for chain couplings;
- Manual drive enabled by means of a hexagon socket in the electric motor shaft;
- Electric motors are standard tropic-proof and conform to protection class IP55;
- Available with 3-phase electric motors, 400V at 50Hz (eurovoltage, EM type A);
- Or with 3-phase electric motors with CSA and/or UL approval, 208-415V at 50/60Hz and 415-480V at 60Hz (wide voltage, EM type B);
- Or with 3-phase electric motors with CSA approval, 600V at 60Hz (EM type C);
- Or with 1-phase electric motors, 230V at 50/60Hz (EM type E);
- Other specifications and colours available on request.

Art. no.	Description	m	M 50Hz	n 50Hz	M 60Hz	n 60Hz	EM	F ~	PTC	CSA UL	EM nr
		kg	Nm	/min	Nm	/min					
538021	RW70-34-55\400\3\860	30	70	34			A	3			763060
538031	RW100-34-75\400\3\860	31,5	100	34			A	3			763070
538041	RW140-34-110\400\3\860	32,5	140	34			A	3			763080
538051	RW200-34-150\400\3\860	33,5	200	34			A	3			763090
535900	RW70-34-55\208-480\3\C\860	30	70	34	70	41	B	3	●	C	704042P
535910	RW100-34-75\208-480\3\C\860	31,5	100	34	140	41	B	3	●	C	704052P
535930	RW140-34-110\208-480\3\C\860	34,5	140	34	140	41	B	3	●	C	704072P
535950	RW200-34-150\208-480\3\C\860	38	200	34	200	41	B	3		C	704092
535955	RW200-68-300\208-480\3\C\860	40	200	68	200	82	B	3		C	704124
538055	RW200-41-180\600\3\60\C\860	38			200	41	C	3		C	703692
538056	RW200-82-360\600\3\60\C\860	40			200	82	C	3		C	703724
538121	RW70-34-55\230\1\OC\C\860	31	70	34	70	41	E	1	●	C	761042
538141	RW140-34-110\230\1\C\860	37	140	34	140	41	E	1		C	701062

203 201 117 113 315 238







RW200-34F Frequency controlled motor gearboxes

The RW200-34F motor gearboxes with mounted frequency controllers are maintenance-free, compact drive units for operating indirect ventilation systems in greenhouses. These motor gearboxes enable a system to be driven at both "low" (normal) and "high" speed. These speeds are defined using programmable parameter settings in the frequency controller. The RW200-34F motor gearboxes are supplied pre-programmed; all parameters of the frequency controller are preset to standard values. Using the optional manual console, these parameters can quickly and easily be adjusted to match operational needs.

The easily-installed RW200-34F motor gearboxes are controlled (rotational direction and speed) by switching of the digital inputs. This enables the two speeds ("low" and "high") to be controlled in both directions. Because the electronic components of the frequency controller are sealed in a housing with a high level of protection (IP65), the frequency controller is highly shielded from moisture and vibration. The frequency controllers comply with the EMC directive (class A). The electric motors used as standard tropic-proof and conform to protection class IP55.

The self-braking worm gear reduction of the RW200-34F motor gearboxes ensures that the drive shaft is braked when the drive is stopped. The combination of carefully matched pinion and worm reductions results in a very quiet mechanical transmission.

The RW200-34F motor gearboxes feature a patented integrated linear limit switch system with duty and safety switches having excellent switching precision. The maximum switching range of the limit switch system equates to 860 revolutions of the drive shaft. The optional RPU PositioningUnit accurately monitors the current position of a drive system and transmits this data back to your climate computer or controller. This position feedback can also be achieved using an installation set with a potentiometer. For switching from the "high" to the "low" (normal) speed, an external switching signal is required.

The RW200-34F motor gearboxes are finished in graphite-grey powder coating, and are supplied including fixing bolts and spring washers.

RW200-34F Motor gearboxes:

- For use with a 3-phase mains voltage from 400 V to 480 V at 50 Hz and 60 Hz;
- Frequency controller and electric motor carry a C-UL approval mark;
- Suitable for intermittent use under full load, duty class s3-30%, duty cycle maximum 25 minutes;
- Fitted with 16-tooth 1/2"x5/16" zinc-plated sprocket for chain couplings;
- Manual drive enabled by means of a hexagon socket in the electric motor shaft;
- Other specifications and colours available on request.

Art. no.	Description	m	M <87Hz	n 50Hz	M 150Hz	n 150Hz	Pfc	F ~	CSA UL	EM nr
		kg	Nm	/min	Nm	/min	kW			
537951	RW200-34F-V30\150\400\CU\860	42	200	34	~80	136	3,0	3	C	**707093**

 203  201  117  116  319  238

4







Ridder LogicLink control units



The Ridder RW motor gearboxes shown in this catalog can be supplied with integrated control units, the Ridder LogicLink controls. this creates complete drives where the mechanical and control components optimally coordinate. Also, the combinations of motor gearboxes with LogicLink control units gives new opportunities that are difficult to achieve wih conventional, not integrated, control systems.

For the Ridder RW series motor gearboxes are two integrable control units available, the LogicLink300 and LogicLink600. From the LogicLink Control units the LogicLink300 controls are equipped with intelligent basic functionality for controlling and securing RW motor gearboxes. The LogicLink600 control has also these functionality but are build more advanced. Therefore the LogicLink600 controls offer more opportunities by applying encoder technology and fieldbus communication. Precise motor gearbox control, follow run and synchronized run of motor gearboxes are possible options with the LogicLink600 controllers.



Ridder LogicLink300 control units

The Ridder LogicLink300 control unit is a 'ready-made' and easy-to-use solution for installing and controlling the Ridder RW motor gearboxes. The Ridder LogicLink300 is a control unit mounted on a Ridder motor gearbox, resulting in an integrated drive and control unit.

The Ridder LogicLink300 is available as a Stand-Alone control unit, the LogicLink320. This model allows you to close or open air vents and screens individually, for example, using a manual control unit or a climate computer with a 24V AC/DC signal. The stand-alone LogicLink300 unit is connected to a power supply cable (1 or 3 phase) and operated via a control signal from a manual control unit or climate computer.



The LogicLink300 control units offer many benefits. They are simple to use and simple to install. Mounting a control unit on the drive unit reduces the number of cables and control components required. The LogicLink300 control unit provides optimum functional control and protection of the drive unit. The unit is capable of transmitting an error signal should a failure occur. LogicLink300 control units are also optimally geared to the environment in which they are used, since the units are fully enclosed in a protective housing and, therefore, extremely resistant to moisture, dirt and vibration.



LogicLink300 functions

The Ridder LogicLink300 motor control units are suitable for accurately driving RW motor gearboxes in both rotational directions. The LogicLink300 control unit does so using an embedded control board with solid state relay.
In addition to driving the electric motor, the LogicLink300 is connected to the duty and safety switches of the Ridder RSU limit switch system. The LogicLink300 control unit works by deactivating the motor gearbox once the switch system reaches a pre-set end position. The LogicLink300 can be controlled using a control input designed for a 24V AS/DC signal from a climate computer. An external manual control unit with LED Indicators can also be connected to the LogicLink300. The LogicLink300 is suitable for various supply voltages and mains frequencies, and for both 3-phase and 1-phase currents.



LogicLink300 safety

Alongside the functions for controlling and monitoring a RW motor gearbox under normal operating conditions, the LogicLink300 includes options that ensure optimum protection of the drive system and drive unit in case of calamities. The LogicLink300 features rotational field detection of the supply voltage for 3-phase currents. This allows the LogicLink to detect a change in phase and make the necessary control adjustments. As a result, the RW motor gearbox will be driven in the correct rotational direction. Phase detection ensures that failure of a supply voltage phase will not result in undesirable behaviour. Should such a failure occur, the LogicLink300 will stop operating the motor gearbox.

The 24V AC/DC control input of the LogicLink300 also features protective functions. If the LogicLink300 is simultaneously driven in two rotational directions, the motor gearbox will not be operated. If the rotational direction needs to be quickly reversed, the LogicLink300 will delay this switch slightly in order to avoid the electric motor running in the same rotational direction.

The LogicLink300 also protects the electric motor of the RW motor gearbox from overloading. For this purpose, the electric motor must be fitted with a PTC (a thermistor whose Ohm resistance increases as the temperature rises). This PTC is connected to the LogicLink300, which continuously monitors the resistance of the PTC during operation. If the pre-set resistance value and subsequent temperature are exceeded, the LogicLink300 will switch off the electric motor. Should this situation occur, the LogicLink300 will wait for the electric motor to cool down, continuously monitoring the resistance value of the PTC at 2-minute intervals. Once the resistance value has dropped below a pre-set limit value, the LogicLink300 will attempt to restart the motor gearbox in order to carry out the control command. If the overload is repeated, the LogicLink will once again switch off the electric motor.

The LogicLink300 control unit will also trip a safety switch, if fitted, in an attempt to correct the fault situation. Under the right conditions, this safety switch position will allow the rotational direction to be reversed, either automatically or manually.

If a calamity is detected by the LogicLink300 control unit, this will be indicated on the unit or communicated to the computer. Both the control unit itself and the manual control unit are equipped with LED indicators which illuminate in a sequence relating to a particular failure, even after it has been resolved. In the latter case, the fault can be reset using the manual controls. In addition to indicating the fault status, the LogicLink300 will trigger a fault contact. If this fault contact (NC) is connected, fault situations can be communicated over a larger distance.



Ridder LogicLink600 control units

The intelligent Ridder LogicLink600 control unit was designed to be integrated or combined with Ridder drive units. The LogicLink600 forms the link between external control and the drive unit. The LogicLink600 converts an external control signal into a control command for the drive unit. In doing so, the LogicLink600 ensures that the drive unit moves the driven system to the defined position.



The intelligence of the LogicLink600 is provided by a microprocessor on the control circuit board. This processor translates an external control signal, using an encoder signal, into the corresponding control command for the drive unit. The external control signal may come from the manual controls or a climate computer. The external control signal from the climate computer may be a CANopen or a BACnet control command, or a 24V or 0-10V control signal. The encoder is an essential component of the LogicLink600 control units, and enables a drive unit fitted with a LogicLink control unit to accurately locate and communicate its position independently.

There are 8 basic models of LogicLink600 control units (600 is the serial number):

- LogicLink610: 'basic' version with CANopen controls for 3-phase RW motor gearboxes;
- LogicLink611: 'basic' version with BACnet controls for 3-phase RW motor gearboxes;
- LogicLink620: 'full option' version with CANopen controls for 3-phase RW motor gearboxes;
- LogicLink621: 'full option' version with BACnet controls for 3-phase RW motor gearboxes;
- LogicLink660: 'basic' version with CANopen controls for 3-phase RW-F frequency-controlled motor gearboxes;
- LogicLink661: 'basic' version with BACnet controls for 3-phase RW-F frequency-controlled motor gearboxes;
- LogicLink670: 'full option' version with CANopen controls for 3-phase RW-F frequency-controlled motor gearboxes;
- LogicLink671: 'full option' version with BACnet controls for 3-phase RW-F frequency-controlled motor gearboxes.



Ridder LogicLink600 control unit models

Basic and full option

The LogicLink600 control units are available with two types of control circuit board: 'basic' and 'full option'. The 'basic' model can be used as an independently-operating control unit with 24V, CANopen or BACnet controls. The 'basic' model with CANopen controls (LogicLink610 and 660) can also be used as a slave unit for synchronized-running or pursuit functions. The 'basic' models are the LogicLink610, 611, 660 and 661.



The 'full option' models of the LogicLink include the same standard functions as the 'basic' models. Additionally, the 'full option' models feature the ability to emulate a potentiometerr signal (feedback) and can be utilized as master controls for synchronized-running or pursuit functions. They are equipped with an internal field bus connection for that purpose. The 'full option' models are the LogicLink620, 621, 670 and 671.

3-phase and frequency-controlled

The Ridder LogicLink600 control units are available for 3-phase and frequency-controlled drive units. The LogicLink610, 611, 620 and 621 control units are used for 3-phase RW Motor gearboxes and RPR PowerRollers. The LogicLink660, 661, 670 and 671 control units are suitable for RW motor gearboxes fitted with frequency-controlled electric motors.

Integrated

The standard LogicLink600 control units are supplied as integrated models. The integrated models are available for the RW45, RW240/400/600, RW800, RW1000/1400, RW1200/1600S and RW200 motor gearboxes. An external model is available on request for the RPR100-4 PowerRoller.



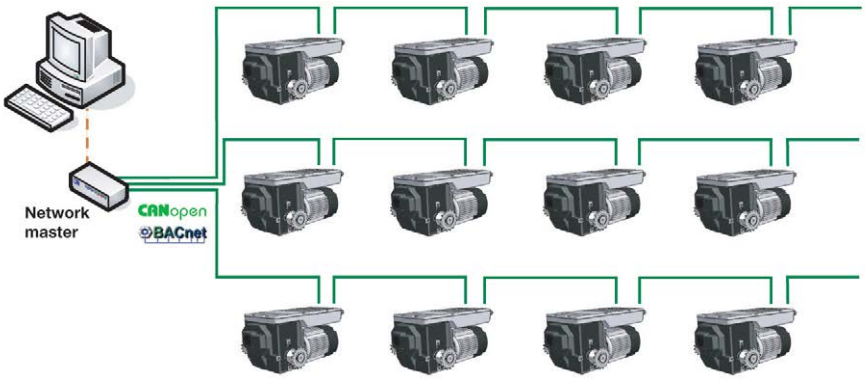
Ridder LogicLink600 and field bus systems

The Ridder LogicLink control units can be connected to CANopen or BACnet field bus systems, which allow you to make the best possible use of the LogicLink600's functions.

In a field bus system, a number of components are attached to the same data cable. A field bus protocol is used to communicate with these components via the data cable. Each component involved (e.g. control units, pumps or measuring devices) has a unique address, so the control unit is able to communicate with it. Commands sent through a field bus allow the control unit to operate drive units or request status data, for instance. The use of a field bus system offers various benefits. A benefit frequently mentioned is the reduction in cabling required, but a field bus has other advantages too:

- The digital technology enables systems to be more accurately controlled
- Simple construction
- A field bus allows more intelligent use of equipment
- Easy to expand without much extra cabling
- Maintenance and diagnostics can be performed via a network

The application of a field bus system with Ridder LogicLink600 control units in a greenhouse environment looks as follows diagramatically. In such a system, a climate computer communicates via an Ethernet connection and a 'network master' with a CANopen or BACnet field bus network. The field bus network can consist of various segments with LogicLink600 control units. Each LogicLink600 control unit has a unique address for every network segment, which is used by the climate computer to send commands to this LogicLink600 or to request status data.



Ridder LogicLink600 and CANopen

The CANopen field bus is one of the protocols suitable for use in greenhouse horticulture. This is the conclusion of research done by a number of suppliers in this market segment. The CANopen protocol also offers the required control and communication capabilities with the Ridder LogicLink600 control units, enabling them to optimally function and communicate with other components in a CANopen field bus network (Ridder LogicLink610, 620, 660 and 670 models).

Benefits of the standardised European CANopen field bus system (EN 50325-4) are:
- CANopen protocol is reliable;
- Efficient use of network bandwidth;
- Real-time communication possible;
- Protocol is flexible;
- Components in the field bus network can also communicate independently;
- Good price/performance ratio.

More information on CANopen can be found online at http://www.can-cia.org.

Ridder LogicLink600 and BACnet

The BACnet field bus is another protocol suitable for use in greenhouse horticulture. The BACnet protocol was specifically developed for automation, steering and control of systems and installations in buildings. The BACnet field bus theoretically allows control of all electrical components in a greenhouse. Ridder also supplies LogicLink600 control units which can communicate with the BACnet protocol (LogicLink611, 621, 661 and 671). The LogicLink600 control units with BACnet offer the same functionality as the LogicLink600 models for the CANopen protocol in terms of the direct connection (as slaves) to the BACnet field bus network.

Benefits of the standardised European BACnet field bus system (ISO 16484-5) are:
- Developed for building automation and, hence, also suitable for greenhouses;
- Protocol is free to use - new applications can be developed without extra costs;
- Suitable for use with all equipment;
- Not restricted to current technologies.

More information on BACnet can be found online at http://www.bacnet.org.



Master/slave controls in field bus system

In a field bus system with Ridder LogicLink600 control units, these control units use a master/slave control model. In a field bus network, the master/slave model stands for a communication protocol in which a component (the master) controls and monitors a number of other components (the slaves).

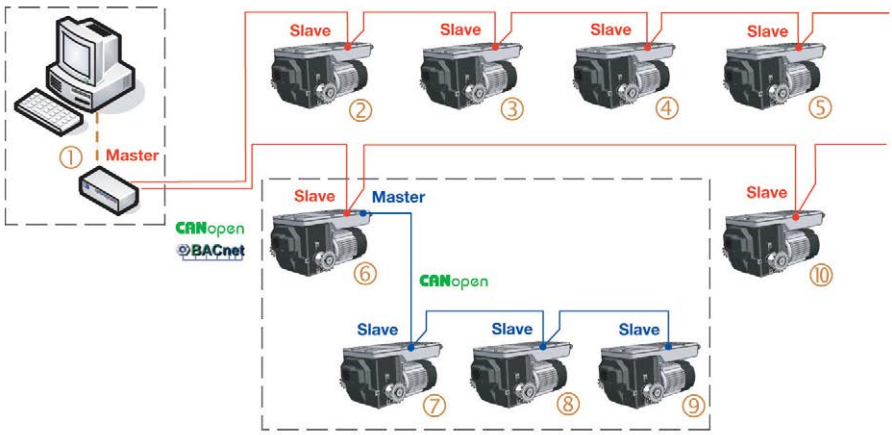
The master/slave model of control and monitoring can be used at a number of levels in a field bus network, using the Ridder LogicLink600 control units. The first level is the control and monitoring of the LogicLink600 control units by the climate computer. At this level, the climate computer is the master and the LogicLink600 control units are the slaves. The second level is the control of Ridder LogicLink600 control units by a LogicLink600 control unit in a synchronized-running or pursuit function. At this level, the LogicLink600 control unit controlling the synchronized-running or pursuit function is the master of the other LogicLink600 control units (the slaves). This LogicLink600 control unit is also a slave to the climate computer (first level).

If Ridder LogicLink600 control units are used in a field bus network, a distinction can be made between two types of LogicLink600 control units for the master/slave model.

- LogicLink600 control units which function only as slave control units. These LogicLink600 control units are equipped with the 'basic' control circuit boards;
- LogicLink600 control units which function as both slave and master control units. These LogicLink600 control units are equipped with the 'full option' control circuit boards;

The illustration below shows a diagram of the master/slave model in a field bus model. The red lines indicate the field bus network of the first level. The blue lines indicate the field bus of the second level (Ridder master/slave system: synchronized-running or pursuit function). The following also applies to the illustration:

- The field bus network is controlled by the climate computer (1);
- The LogicLink600 control units 2, 3, 4, 5, 6 and 10 function as slaves to the climate computer (master, 1);
- The LogicLink600 control unit 6 is the master in the Ridder master/slave system. The LogicLink600 control units 7, 8 and 9 are slaves here;
- The field bus protocol that can be applied from the climate computer (1) to slaves 2, 3 ,4, 5, 6 and 10 can be CANopen or BACnet;
- The field bus protocol that can be applied from the LogicLink600 control unit (6) to slaves 7, 8 and 9 (level 2) can only be CANopen. The internal field bus protocol ('Ridder bus') applied in the control of a synchronized-running or pursuit function is always CANopen.





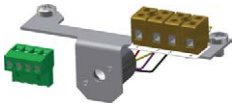
Control of the LogicLink600

CANopen or BACnet positional control
If the LogicLink600 control units are used in an automated system controlled by a CANopen or BACnet field bus, the functionality and intelligence of the LogicLink600 control unit comes into its own. When a LogicLink receives a CANopen or BACnet control command, it ensures that the driven system moves to the position instructed. If this position cannot be reached or there is some other failure, the LogicLink600 control unit will provide feedback on this. Besides handling control commands, the CANopen or BACnet field bus can also be used to communicate status information that is requested (e.g. current position, run time, failure alarms). The drive system must be equipped with an encoder if the LogicLink600 is controlled by CANopen or BACnet.

24V control of rotational direction
All LogicLink600 control units can be controlled in a conventional manner by means of a 24V input signal (AC/DC). Using this method, the climate computer determines how long a 24V signal is to be sent to a LogicLink in order to move the system to a certain position. Afterwards, the 'Full Option' model of a LogicLink control unit (LogicLink620, 621, 670 or 671) can generate an emulated potentiometer signal as feedback to the climate computer. An encoder is essential for this purpose.

0-10V positional control
The LogicLink600 control units are equipped with a 0-10V control input. This allows the LogicLink600 control unit to control the position of a driven system from start to end position, using a 0-10V signal. The drive system must be fitted with an encoder for this purpose.

Manual controls
The LogicLink600 control unit can be operated by hand using the manual controls of the control unit. The manual controls have priority over any of the other control methods described above. The manual controls can also be used to restore the LogicLink600 control unit to a normal operating state following a malfunction or error situation.



Feedback from the LogicLink600

CANopen and BACnet
If a LogicLink600 control unit is a component in a CANopen or BACnet field bus system, status information on the drive system (e.g. position, operating time) can be requested via the field bus.

4-20mA analogue signal output and potentiometer emulation
A 4-20mA signal can be read out using the LogicLink620, 621, 670 and 671 fitted with an encoder. Using the encoder, the LogicLink determines what the value of the signal to be transmitted should be at any time. The value of this signal indicates the position of the driven system and can be used to monitor whether the correct positions have been reached. A potentiometer signal can be emulated, if an Ohm resistor is used in combination with the 4-20mA signal output.

Manual controls
The manual controls of the LogicLink600 also allow certain information on the LogicLink (i.e. malfunction indications and operating time) to be displayed. This information can be read out using the flashing codes of the manual controls.



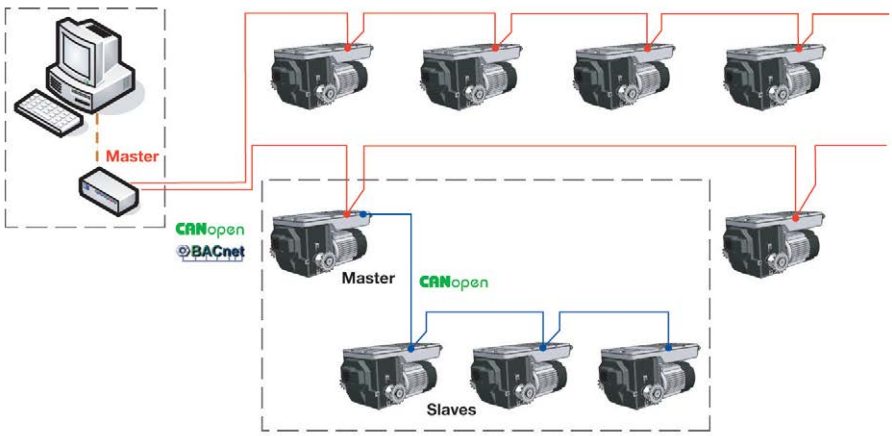
Synchronized-running function of the LogicLink600

A unique feature of the LogicLink600 is the ability to have a number of equal systems run synchronously, while the synchronization of the drives in the systems is monitored. The synchronized-running function is used in coupled screen systems, for example, which are driven using a number of drive systems with LogicLink600 control units.

A synchronized-running system with LogicLink600 control units can feature up to 6 drive units. One control unit will be designated the master control unit while the others (up to 5) will be slaves. During control of the system, the master control unit communicates continuously with the slave units and the synchronization of the systems is monitored by the measured rotations of the drive shafts of the drive units. If the pre-set maximum deviation is exceeded, the master control unit will make a correction in order to synchronize the positions of the drive shafts of the drive units, and thereby achieve synchronous positions of the systems.

In a synchronized-running system, a LogicLink620 or LogicLink621 control unit must be used as a master control unit ('full option'). These control units have an internal field bus (CANopen) for connecting the slave control units. The master control unit is controlled by a climate computer with CANopen (LogicLink620), BACnet (LogicLink621), 24V, 0-10V, or using the manual controls.

Since they are controlled by a master control unit with the CANopen protocol, the slave control units in a synchronized-running function must either be LogicLink610 or LogicLink620 control units. This also applies to synchronized-running functions controlled by a climate computer using a BACnet field bus. A slave control unit cannot be operated manually in a synchronized-running function.





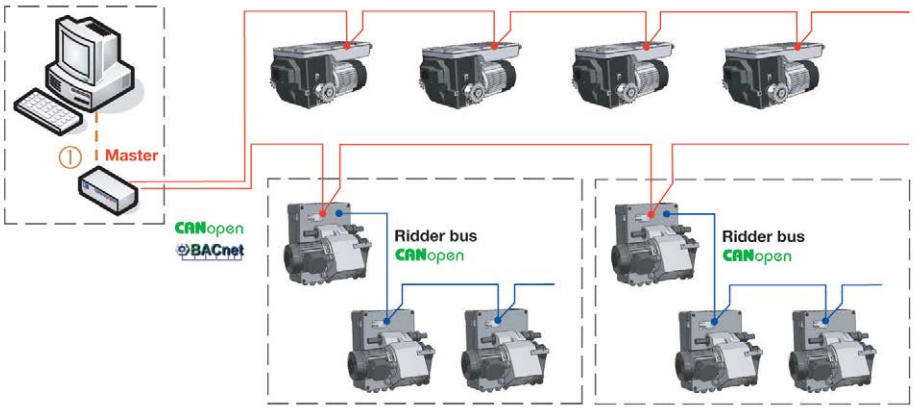
Pursuit function of the LogicLink600

The pursuit function with LogicLink600 control units is comparable to the synchronized-running function. In a pursuit function, a LogicLink600 master control unit is controlled by the climate computer. This master control unit communicates this command directly to the LogicLink600 slave control units. On receiving such a command, both the master and slave control units will steer the relevant system to the position instructed. The synchronized-running of the controlled systems will not be monitored. The relevant LogicLink600 slave control unit will only warn the master control unit if the slave control unit fails to steer the system to the required position, due to a malfunction for example. The master control unit will then communicate this error to the climate computer. If a malfunction occurs in the master control unit, this does not automatically result in a malfunction of the entire system (although this does depend on the nature of the malfunction).

A pursuit function can be used in independent, equally functioning systems. Using one output of the climate computer connected to the LogicLink600 master control unit, the pursuit function allows control of up to 25 LogicLink slave control units. An example of the use of a pursuit function is a roof roll-up screen system with a number of Ridder RPR100-4 PowerRollers with LogicLink600 control units.

In a synchronized-running system, a LogicLink620 or LogicLink621 control unit must be used as a master control unit (‘full option’). These control units have an internal field bus (CANopen) for connecting the slave control units. In a pursuit function, the master control unit is controlled by a climate computer with CANopen (LogicLink620, 670), BACnet (LogicLink621, 671), 24V, 0-10V, or using the manual controls.

Since they are controlled by the master control unit with the CANopen protocol, slave control units in a pursuit function must be LogicLink610, 620, 660 or 670 control units. This also applies to pursuit functions controlled by a climate computer using a BACnet field bus. A slave control unit can be operated manually in a pursuit function.





GAP Control and LogicLink600

Changes in the greenhouse climate or ambient temperature make the greenhouse structure shrink or expand, causing gaps to emerge between the screen profile and greenhouse posts. If this shrinkage or expansion occurs after the screen motors have reached their end positions, the climate computer may falsely indicate that the screen is fully closed. If this is the case, the gaps in the screen will result in energy wastage and the unnecessary loss of heat and CO2.

Ridder has solved this problem by developing the Ridder GapControl, a software option for the LogicLink600 control units. The Ridder GapControl automatically corrects gaps, without intervention from the climate computer. The Ridder GapControl can only be used if the screen system is equipped with slip elements.

The GapControl system keeps a screen closed by means of 'after-pulses'. The screen is closed further according to the input number of after-pulse steps and time setting, in order to close any gaps between the screen profile and the trellis. If a screen is left open due to greenhouse shrinkage or expansion, the screen pack may become larger, which reduces the light transmission. Once again, the screen is closed further according to the input number of after-pulse steps and time setting, in order to keep the screen pack as small as possible.

GapControl can also be used to improve the accuracy of existing screen systems. If a climate control unit steers the screen from an open position to a small gap, the Ridder GapControl will first close the screen and will make use of the slip in the system to ensure that the screen is closed over the entire length. From this new position, the Ridder GapControl will then steer the screen to the position instructed. This repositioning will ensure more accurate screen opening and, therefore, better climate control.



DSC and LogicLink600

A trend in greenhouse horticulture is to have more than one screen on a single wire bed. This offers benefits in terms of installation and energy usage. However, the screens on the wire bed must not pass each other, and the current conventional control units do not offer effective solutions for this issue.

The most recent feature developed for the Ridder LogicLink600 control units has made it possible to reliably control two screens on one wire bed. This feature is the DSC option. DSC stands for Double Screen Control. Using this new option, the Ridder LogicLink600 can reliably operate two screens in short succession, which minimizes the gap when switching screens. The screens cannot pass each other thanks to optimum safety devices in the system, keeping energy loss to a minimum. An added advantage is that no modification of the climate computer is needed.

In practice, the LogicLink600 has proven to be an excellent energy-saving instrument. The ability to further increase these energy savings has been made possible with the arrival of this recently developed DSC option.



Frequency-controlled RW motor gearbox and LogicLink600

The LogicLink600 control units have also been prepared for use with Ridder RW-F motor gearboxes with mounted frequency controller. These motor gearboxes are able to control a system at normal speed or high speed, in two rotational directions. If the RW-F motor gearboxes are combined with the LogicLink600 control units, the following is possible alongside the basic LogicLink600 features:

- Control of the high and low speeds via CANopen or BACnet commands or a 24V control signal;
- Programming of up to 2 positions as interim positions at which the frequency controller must switch back to the normal speed.

The LogicLink control units suitable for use in combination with the RW-F motor gearboxes are the LogicLink660, 661, 670 and 671 control units fitted with an encoder. Using the LogicLink660 and 661 control units, the RW-F motor gearboxes can be controlled by CANopen (LogicLink660), BACnet (LogicLink661), 24V and 0-10V. When analogue feedback is required, 4-20mA or potentiometer emulation, the LogicLink670 or 671 control unit must be used. A LogicLink670 or 671 control unit must also be used as a master control unit if a pursuit function is needed using RW-F motor gearboxes. A *synchronized-running function* with RW-F motor gearboxes and LogicLink660, 661, 670 and 671 control units is *not* possible.



Protection devices in the LogicLink600

Running speed protection
The intelligence in the LogicLink600 control unit can also be used to protect the drive systems against overloading. To do so, the LogicLink measures the running speed by counting the pulses of the encoder. When the LogicLink receives fewer pulses per time unit than expected, the LogicLink will stop the drive system and generate a malfunction alarm. The allowed deviation in the number of pulses received can be adjusted.

Thermal protection
LogicLink600 control units are also fitted with a thermal cut-out device, which switches off the drive system if the pre-set current value is exceeded. This thermal cut-out device is designed to switch itself back on following a cut-out intervention. The control circuit board of the LogicLink600 will, however, remain in malfunction mode and will send a malfunction alarm to the manual controls (flashing code). A malfunction alarm will also be sent via the CANopen or BACnet field bus, if present. The malfunction mode of the control circuit board can be reset using the manual controls.



Installation of the LogicLink600

Installation of a LogicLink600 control unit consists of a number of steps. In addition to connecting the cabling, the control circuit board needs to be programmed. This programming means that the parameters in the LogicLink600 must be assigned the correct values. When a LogicLink600 control unit is supplied, every effort is made to provide it with the correct parameters in order to keep programming to a minimum during the installation process.

Following connection and possible programming, a LogicLink600 control unit must be 'trained'. In other words, the LogicLink will run through the entire process through which a system moves (open - closed, limited by limit switches).

A training unit is required in order to program and calibrate a LogicLink control unit. The training unit must be connected to a PC during the training process. The parameters of the LogicLink can then be altered via a 'Hyper Terminal' session.

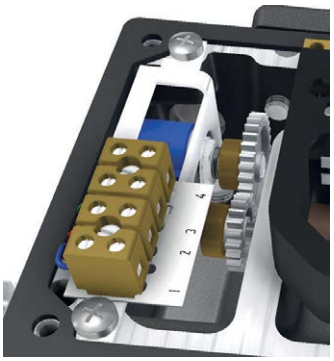
The training unit is all that is required for training the LogicLink600 control unit. A number of these training units may be required, depending on the LogicLink control units to be taught. One training unit is sufficient for each independently-functioning LogicLink. When installing a synchronized-running system however, a training unit is required for each of the components in the system. This is because the training process must be implemented simultaneously.



RPU PositioningUnit

The Ridder RPU PositioningUnit is an accurate digital positioning meter for use in Ridder RW motor gearboxes fitted with a Ridder RSU limit switch system. The RPU PositioningUnit gives precise feedback of the positions of a driven ventilation, screen or lifting system, by sending a 4-20mA signal to a climate computer.

The RPU PositioningUnit is suitable for use with new and existing Ridder RW motor gearboxes. The RPU PositioningUnit can be mounted directly next to the RSU limit switch system in these drive systems. The 4-20mA feedback signal of the RPU PositioningUnit can be optimally set by defining the measuring range. The feedback value will always be constant, thanks to the RPU's use of contact-free measuring technology.



Potentiometer installation sets

The optional potentiometer and potentiometer built-in set for the RW motor gearboxes, works in combination with the RSU limit switch system. The built-in set with potentiometer makes it possible to signal with precision to a (climate) computer, not just the start and end positions of the RSU limit switch system, but also all the intermediate positions of driven systems.

To make optimum use of the range of a potentiometer (90% of the maximum number of revolutions of the potentiometer), gear sets (exchangable gears) are supplied as part of the various potentiometer built-in sets. Depending on the application and the related number of revolutions, this enables the optimum number of revolutions of a potentiometer to be achieved for maximum precision while preserving adequate reserve rotations in the potentiometer.

Ridder's range includes potentiometers for many different applications, with various revolution ranges and resistance values.







Ridder LogicLink320

The Ridder LogicLink320 control unit is an intelligent control unit for controlling a Ridder RW motor gearbox. The LogicLink320 control unit is integrated with a RW45, RW240/400/600, RW800, RW1000/1400, RW1200/1600S or RW200 motor gearbox. The LogicLink320 is suitable for various supply voltages and mains frequencies, and for both 3-phase and 1-phase currents.

The LogicLink320 control unit has a 'solid state' control circuit board with a microprocessor. This control circuit board has a connector for the supply voltage, a connector for an external control signal (24V AC/DC), a connector for the manual controls and an NC fault contact connector. The power supply for the electric motor, the PTC thermistor in the electric motor and the RSU limit switch system are also connected to the control circuit board of the LogicLink320.

In combination with a Ridder RW motor gearbox, the LogicLink320 control unit relays control commands from the climate computer or manual controls and monitors whether these are implemented without malfunctions. The LogicLink320 also protects the RW motor gearbox against overloading through constant measurement of the PTC thermistor. The LogicLink320 includes rotational field detection and phase detection of the supply voltage. The 24V AC/DC controls input is protected against control in two directions and quick changes of direction. The LogicLink320 control unit has an NC fault contact and alarm LEDs for feedback of fault situations.

The LogicLink320 control unit is fitted with extensive and easily accessible plug connections and clamping strips. The LogicLink320 comes standard with cable glands for feeding out cabling. The protective classification of the LogicLink320 casing is IP54.

LogicLink320

- 24V AC/DC controls;
- 3-phase and 1-phase models available;
- Models up to 480V.

Art. no.	Description	m	Type	U	F ~	I	p	IP
		kg		V		A	Hz	
584310	RLL320-IN\400\3	3,1	IN	400	3	0,3-16	50/60	54
584311	RLL320-IN\208\3	3,1	IN	208	3	0,3-16	50/60	54
584312	RLL320-IN\440-480\3	3,1	IN	440-480	3	0,3-16	60	54
584315	RLL320-IN\230\1\3W	3,1	IN	230	1	0,3-16	50/60	54
584316	RLL320-IN\230\1\5W	3,1	IN	230	1	0,3-16	50/60	54
584317	RLL320-IN\115\1\3W	3,1	IN	115	1	0,3-16	60	54
584318	RLL320-IN\115\1\5W	3,1	IN	115	1	0,3-16	60	54
584340	RLL320-IN\400\3\RW1400	5,4	IN	400	3	0,3-16	50/60	54







Ridder LogicLink610

The Ridder LogicLink610 control unit is an intelligent control unit for control a 3-phase Ridder RW motor gearbox. The LogicLink610 control unit is integrated with a RW45, RW240/400/600, RW800, RW1000/1400, RW1200/1600S or RW200 motor gearbox. The integrated model is built into a cast aluminium casing.
The LogicLink610 control unit is equipped with a 'basic' control circuit board with a microprocessor. This control circuit board has connectors for external control signals (CANopen, 24V, 0-10V), connectors for the encoder and limit switch system, connectors for controlling the reversing switch and connectors for the manual controls and training units. The LogicLink610 is equipped with a thermal protection device with automatic recovery function.

In combination with a Ridder drive unit, the control circuit board relays control commands to the drive unit, monitors whether commands have been successfully executed and provides protection against overloading (including thermal overloading). In the event of an overload, the control circuit board will enter malfunction mode and will generate a malfunction alarm. The control circuit board can be reset remotely using the manual controls.

The LogicLink610 can be used as an independently-operating control unit and as a slave control unit in a synchronized-running or pursuit function. A LogicLink610 control unit requires an encoder.

For safe operation, the LogicLink610 control unit is fitted with a transformer which converts the mains voltage into a 24V-AC voltage. This voltage is used to operate the control circuit board and power the limit switch circuit (duty and safety switches). The LogicLink610 is suitable for 208V (50/60Hz), 400V (50/60Hz) and 480V (60Hz).

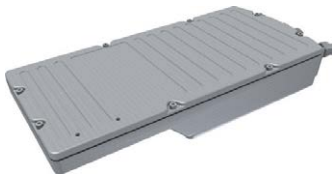
The LogicLink610 control unit is fitted with extensive and easily accessible plug connections and clamping strips. The LogicLink610 comes standard with cable glands for feeding out cabling. The protective classification of all LogicLink610 casings is IP54.

LogicLink610

- CANopen control;
- 24V control;
- 0-10V control;
- Slave control in synchronized-running or pursuit function;
- Running speed protection.

Art. no.	Description	m	Type	U	F ~	I	p	IP
		kg		V		A	Hz	
585600	RLL610-IN\208-480\3\0.35-0.5B	3,9	IN	208/400/480	3	0,35-0,5	50/60	54
585603	RLL610-IN\208-480\3\0.55-0.8B	3,9	IN	208/400/480	3	0,55-0,8	50/60	54
585606	RLL610-IN\208-480\3\0.9-1.3B	3,9	IN	208/400/480	3	0,9-1,3	50/60	54
585609	RLL610-IN\208-480\3\1.1-1.6B	3,9	IN	208/400/480	3	1,1-1,6	50/60	54
585612	RLL610-IN\208-480\3\1.8-2.5B	3,9	IN	208/400/480	3	1,8-2,5	50/60	54
585615	RLL610-IN\208-480\3\2.3-3.2B	3,9	IN	208/400/480	3	2,3-3,2	50/60	54
585618	RLL610-IN\208-480\3\3.5-4.8B	3,9	IN	208/400/480	3	3,5-4,8	50/60	54
585680	RLL610-IN\208-480\3\3.2\RW1400	5,4	IN	208/400/480	3	2,3-3,2	50/60	54
585681	RLL610-IN\208-480\3\7.5\RW1400	5,4	IN	208/400/480	3	5,5-7,5	50/60	54
585682	RLL610-IN\208-480\3\4.8\RW1400	5,4	IN	208/400/480	3	3,5-4,8	50/60	54
585683	RLL610-IN\208-480\3\10\RW1400	5,4	IN	208/400/480	3	7,2-10	50/60	54







Ridder LogicLink611

The Ridder LogicLink611 control unit is an intelligent control unit for control a 3-phase Ridder RW motor gearbox. The LogicLink611 is integrated with a RW45, RW240/400/600, RW800, RW1000/1400, RW1200/1600S or RW200 motor gearbox. The integrated model is built into a cast aluminium casing.

The LogicLink611 control unit is equipped with a 'basic' control circuit board with a microprocessor. This control circuit board has connectors for external control signals (BACnet, 24V, 0-10V), connectors for the encoder and limit switch system, connectors for controlling the reversing switch and connectors for the manual controls and training units. The LogicLink611 is equipped with a thermal protection device with automatic recovery function.

In combination with a Ridder drive unit, the control circuit board relays control commands to the drive unit, monitors whether commands have been successfully executed and provides protection against overloading (including thermal overloading). In the event of an overload, the control circuit board will enter malfunction mode and will generate a malfunction alarm. The control circuit board can be reset remotely using the manual controls.

The LogicLink611can be used as an independently-functioning control unit in a BACnet field bus network. For this purpose, the LogicLink611 is equipped with a BACnet interface, fitted to the connector for the training unit. A LogicLink611 control unit requires an encoder.

For safe operation, the LogicLink611 control unit is fitted with a transformer which converts the mains voltage into a 24V-AC voltage. This voltage is used to operate the control circuit board and to power the limit switch circuit (duty and safety switches). The LogicLink611 is suitable for 208V (50/60Hz), 400V (50/60Hz) and 480V (60Hz).

The LogicLink611 control unit is fitted with extensive and easily accessible plug connections and clamping strips. The LogicLink611 comes standard with cable glands for feeding out cabling. The protective classification of all LogicLink611 casings is IP54.

LogicLink611

- BACnet control;
- 24V control;
- 0-10V control;
- Running speed protection.

Art. no.	Description	m	Type	U	F ~	I	p	IP
		kg		V		A	Hz	
585640	RLL611-IN\208-480\3\0.35-0.5B	3,9	IN	208/400/480	3	0,35-0,5	50/60	54
585643	RLL611-IN\208-480\3\0.55-0.8B	3,9	IN	208/400/480	3	0,55-0,8	50/60	54
585646	RLL611-IN\208-480\3\0.9-1.3B	3,9	IN	208/400/480	3	0,9-1,3	50/60	54
585649	RLL611-IN\208-480\3\1.1-1.6B	3,9	IN	208/400/480	3	1,1-1,6	50/60	54
585652	RLL611-IN\208-480\3\1.8-2.5B	3,9	IN	208/400/480	3	1,8-2,5	50/60	54
585655	RLL611-IN\208-480\3\2.3-3.2B	3,9	IN	208/400/480	3	2,3-3,2	50/60	54
585658	RLL611-IN\208-480\3\3.5-4.8B	3,9	IN	208/400/480	3	3,5-4,8	50/60	54
585690	RLL611-IN\208-480\3\3.2\RW1400	5,4	IN	208/400/480	3	2,3-3,2	50/60	54
585691	RLL611-IN\208-480\3\7.5\RW1400	5,4	IN	208/400/480	3	5,5-7,5	50/60	54
585692	RLL611-IN\208-480\3\4.8\RW1400	5,4	IN	208/400/480	3	3,5-4,8	50/60	54
585693	RLL611-IN\208-480\3\10\RW1400	5,4	IN	208/400/480	3	7,2-10	50/60	54







Ridder LogicLink620

The Ridder LogicLink620 control unit is an intelligent control unit for control a 3-phase Ridder RW motor gearbox. The LogicLink620 control unit is integrated with a RW45, RW240/400/600, RW800, RW1000/1400, RW1200/1600S or RW200 motor gearbox. The integrated model is built into a cast aluminium casing.

The LogicLink620 control unit is equipped with a 'full option' control circuit board with a microprocessor. This control circuit board has connectors for external control signals (CANopen, 24V, 0-10V), connectors for an internal field bus, connector for analogue feedback, connectors for the encoder and limit switch system, connectors for controlling the reversing switch and connectors for the manual controls and training units. The LogicLink620 is fitted with a thermal protection device with automatic recovery function.

In combination with a Ridder drive unit, the control circuit board relays control commands to the drive unit, monitors whether commands have been successfully executed and provides protection against overloading (including thermal overloading). In the event of an overload, the control circuit board will enter malfunction mode and will generate a malfunction alarm. The control circuit board can be reset remotely using the manual controls.

The LogicLink620 can be used as an independently-operating control unit and as a master control unit in a synchronized-running or pursuit function. A potentiometer signal can be emulated using the LogicLink620 with encoder and optional resistor. A LogicLink620 control unit required an encoder.

For safe operation, the LogicLink620 control unit is fitted with a transformer which converts the mains voltage into a 24V-AC voltage. This voltage is used to operate the control circuit board and to power the limit switch circuit (duty and safety switches). The LogicLink620 is suitable for 208V (50/60Hz), 400V (50/60Hz) and 480V (60Hz).

The LogicLink620 control unit is fitted with extensive and easily accessible plug connections and clamping strips. The LogicLink620 comes standard with cable glands for feeding out cabling. The protective classification of all LogicLink620 casings is IP54.

LogicLink620

- CANopen control;
- 24V control;
- 0-10V control;
- Master control in synchronized-running or pursuit function;
- Slave control in synchronized-running or pursuit function;
- Running speed protection;
- Analogue signal output 4-20mA.

Art. no.	Description	m	Type	U	F ~	I	p	IP
		kg		V		A	Hz	
585620	RLL620-IN\208-480\3\0.35-0.5B	3,9	IN	208/400/480	3	0,35-0,5	50/60	54
585623	RLL620-IN\208-480\3\0.55-0.8B	3,9	IN	208/400/480	3	0,55-0,8	50/60	54
585626	RLL620-IN\208-480\3\0.9-1.3B	3,9	IN	208/400/480	3	0,9-1,3	50/60	54
585629	RLL620-IN\208-480\3\1.1-1.6B	3,9	IN	208/400/480	3	1,1-1,6	50/60	54
585632	RLL620-IN\208-480\3\1.8-2.5B	3,9	IN	208/400/480	3	1,8-2,5	50/60	54
585635	RLL620-IN\208-480\3\2.3-3.2B	3,9	IN	208/400/480	3	2,3-3,2	50/60	54
585638	RLL620-IN\208-480\3\3.5-4.8B	3,9	IN	208/400/480	3	3,5-4,8	50/60	54
585684	RLL620-IN\208-480\3\3.2\RW1400	5,4	IN	208/400/480	3	2,3-3,2	50/60	54
585685	RLL620-IN\208-480\3\7.5\RW1400	3,9	IN	208/400/480	3	5,5-7,5	50/60	54
585686	RLL620-IN\208-480\3\4.8\RW1400	5,4	IN	208/400/480	3	3,5-4,8	50/60	54
585687	RLL620-IN\208-480\3\10\RW1400	5,4	IN	208/400/480	3	7,2-10	50/60	54


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Ridder LogicLink 621

The Ridder LogicLink621 control unit is an intelligent control unit for control a 3-phase Ridder RW motor gearbox. The LogicLink621 is integrated with a RW45, RW240/400/600, RW800, RW1000/1400, RW1200/1600S or RW200 motor gearbox. The integrated model is built into a cast aluminium casing.

The LogicLink621 control unit is equipped with a 'full option' control circuit board with a microprocessor. This control circuit board has connectors for external control signals (BACnet, 24V, 0-10V), connectors for an internal field bus, connector for analogue feedback, connectors for the encoder and limit switch system, connectors for controlling the reversing switch and connectors for the manual controls and training units. The LogicLink621 is fitted with a thermal protection device with automatic recovery function.

In combination with a Ridder drive unit, the control circuit board relays control commands to the drive unit, monitors whether commands have been successfully executed and provides protection against overloading (including thermal overloading). In the event of an overload, the control circuit board will enter malfunction mode and will generate a malfunction alarm. The control circuit board can be reset remotely using the manual controls.

The LogicLink621 can be used as an independently-operating control unit and as a master control unit in a synchronized-running or pursuit function in a BACnet field bus network. For this purpose, the LogicLink621 is equipped with a BACnet interface, fitted to the connector for the training unit. A potentiometer signal can be emulated using the LogicLink621 with encoder and optional resistor. An encoder must be used with a LogicLink621 control unit.

For safe operation, the LogicLink621 control unit is fitted with a transformer which converts the mains voltage into a 24V-AC voltage. This voltage is used to operate the control circuit board and to power the limit switch circuit (duty and safety switches). The LogicLink621 is suitable for 208V (50/60Hz), 400V (50/60Hz) and 480V (60Hz).

The LogicLink621 control unit is fitted with extensive and easily accessible plug connections and clamping strips. The LogicLink621 comes standard with cable glands for feeding out cabling. The protective classification of all LogicLink621 casings is IP54.

LogicLink621

- BACnet control;
- 24V control;
- 0-10V control;
- Master control in synchronized-running or pursuit function;
- Running speed protection;
- Analogue signal output 4-20mA.

Art. no.	Description	m	Type	U	F ~	I	p	IP
		kg		V		A	Hz	
585660	RLL621-IN\208-480\3\0.35-0.5B	3,9	IN	208/400/480	3	0,35-0,5	50/60	54
585663	RLL621-IN\208-480\3\0.55-0.8B	3,9	IN	208/400/480	3	0,55-0,8	50/60	54
585666	RLL621-IN\208-480\3\0.9-1.3B	3,9	IN	208/400/480	3	0,9-1,3	50/60	54
585669	RLL621-IN\208-480\3\1.1-1.6B	3,9	IN	208/400/480	3	1,1-1,6	50/60	54
585672	RLL621-IN\208-480\3\1.8-2.5B	3,9	IN	208/400/480	3	1,8-2,5	50/60	54
585675	RLL621-IN\208-480\3\2.3-3.2B	3,9	IN	208/400/480	3	2,3-3,2	50/60	54
585678	RLL621-IN\208-480\3\3.5-4.8B	3,9	IN	208/400/480	3	3,5-4,8	50/60	54
585694	RLL621-IN\208-480\3\3.2\RW1400	5,4	IN	208/400/480	3	2,3-3,2	50/60	54
585695	RLL621-IN\208-480\3\7.5\RW1400	5,4	IN	208/400/480	3	5,5-7,5	50/60	54
585696	RLL621-IN\208-480\3\4.8\RW1400	5,4	IN	208/400/480	3	3,5-4,8	50/60	54
585697	RLL621-IN\208-480\3\10\RW1400	5,4	IN	208/400/480	3	7,2-10	50/60	54

111 110 111 112 304





Ridder LogicLink 660

The Ridder LogicLink660 control unit is an intelligent control unit for control a 3-phase frequency-controlled Ridder RW motor gearbox. The LogicLink660 control unit is integrated with a RW240/400/600F, RW800F, RW1400F or RW200F motor gearbox. The integrated model is built into a cast aluminium casing.

The LogicLink660 control unit is equipped with a 'basic' control circuit board with a microprocessor. This control circuit board has connectors for external control signals (CANopen, 24V, 0-10V), connectors for the encoder and limit switch system, connectors for controlling the reversing switch and connectors for the manual controls and training units. The LogicLink660 is fitted with a thermal protection device with automatic recovery function.

In combination with a Ridder motor gearbox, the control circuit board relays control commands to the drive unit, monitors whether commands have been successfully executed and provides protection against overloading (including thermal overloading). In the event of an overload, the control circuit board will enter malfunction mode and will generate a malfunction alarm. The control circuit board can be reset remotely using the manual controls.

The LogicLink660 can be used as an independently-operating control unit and as a slave control unit in a pursuit function. A LogicLink661 control unit requires an encoder.

For safe operation, the LogicLink621 control unit is fitted with a transformer which converts the mains voltage into a 24V-AC voltage. This voltage is used to operate the control circuit board and to power the limit switch circuit (duty and safety switches). The LogicLink660 is suitable for 400V (50/60Hz).

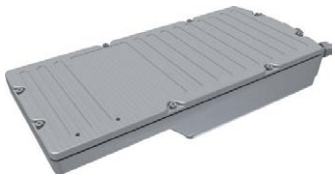
The LogicLink660 control unit is fitted with extensive and easily accessible plug connections and clamping strips. The LogicLink660 comes standard with cable glands for feeding out cabling. The protective classification of all LogicLink660 casings is IP54.

LogicLink660

- CANopen control;
- 24V control;
- 0-10V control;
- Slave control in pursuit function;
- Running speed protection;
- 24V speed switching control;
- Speed switching of position programming.

Art. no.	Description	m	Type	U	F ~	I	p	IP
		kg		V		A	Hz	
585200	RLL660-IN\400\3\0-9	3,5	IN	400	3	3.7-9	50/60	54
585170	RLL660-IN\400\3\0-9\RW1400	5,0	IN	400	3	3.7-9	50/60	54







Ridder LogicLink 661

The Ridder LogicLink661 control unit is an intelligent control unit for control a 3-phase frequency-controlled Ridder RW motor gearbox. The LogicLink661 control unit is integrated with a RW240/400/600F, RW800F, RW1400F or RW200F motor gearbox. The integrated model is built into a cast aluminium casing.

The LogicLink661 control unit is equipped with a 'basic' control circuit board with a microprocessor. This control circuit board has connectors for external control signals (BACnet, 24V, 0-10V), connectors for the encoder and limit switch system, connectors for controlling the reversing switch and connectors for the manual controls and training units. The LogicLink661 is fitted with a thermal protection device with automatic recovery function.

In combination with a Ridder motor gearbox, the control circuit board relays control commands to the drive unit, monitors whether commands have been successfully executed and provides protection against overloading (including thermal overloading). In the event of an overload, the control circuit board will enter malfunction mode and will generate a malfunction alarm. The control circuit board can be reset remotely using the manual controls.

The LogicLink661 can be used as an independently-functioning control unit in a BACnet field bus network. For this purpose, the LogicLink661 is equipped with a BACnet interface, fitted to the connector for the training unit. A LogicLink661 control unit requires an encoder.

For safe operation, the LogicLink661 control unit is fitted with a transformer which converts the mains voltage into a 24V-AC voltage. This voltage is used to operate the control circuit board and to power the limit switch circuit (duty and safety switches). The LogicLink661 is suitable for 400V (50/60Hz).

The LogicLink661 control unit is fitted with extensive and easily accessible plug connections and clamping strips. The LogicLink661 comes standard with cable glands for feeding out cabling. The protective classification of all LogicLink661 casings is IP54.

LogicLink661

- BACnet control;
- 24V control;
- 0-10V control;
- Running speed protection;
- 24V speed switching control;
- Speed switching of position programming.

Art. no.	Description	m	Type	U	F ~	I	p	IP
		kg		V		A	Hz	
585201	RLL661-IN\400\3\0-9	3,5	IN	400	3	3.7-9	50/60	54
585171	RLL661-IN\400\3\0-9\RW1400	5,0	IN	400	3	3.7-9	50/60	54







Ridder LogicLink 670

The Ridder LogicLink670 control unit is an intelligent control unit for control a 3-phase frequency-controlled Ridder RW motor gearbox. The LogicLink670 control unit is integrated with a RW240/400/600F, RW800F, RW1400F or RW200F motor gearbox. The integrated model is built into a cast aluminium casing.

The LogicLink670 control unit is equipped with a 'full option' control circuit board with a microprocessor. This control circuit board has connectors for external control signals (CANopen, 24V, 0-10V), connectors for an internal field bus, connector for analogue feedback, connectors for the encoder and limit switch system, connectors for controlling the reversing switch and connectors for the manual controls and training units. The LogicLink670 is fitted with a thermal protection device with automatic recovery function.

In combination with a Ridder motor gearbox, the control circuit board relays control commands to the drive unit, monitors whether commands have been successfully executed and provides protection against overloading (including thermal overloading). In the event of an overload, the control circuit board will enter malfunction mode and will generate a malfunction alarm. The control circuit board can be reset remotely using the manual controls.

The LogicLink670 can be used as an independently-operating control unit and as a slave control unit in a pursuit function. A potentiometer signal can be emulated using the LogicLink670 with encoder and optional resistor. A LogicLink670 control unit requires an encoder.

For safe operation, the LogicLink670 control unit is fitted with a transformer which converts the mains voltage into a 24V-AC voltage. This voltage is used to operate the control circuit board and to power the limit switch circuit (duty and safety switches). The LogicLink670 is suitable for 400V (50/60Hz).

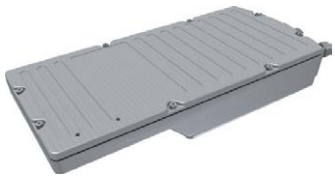
The LogicLink670 control unit is fitted with extensive and easily accessible plug connections and clamping strips. The LogicLink670 comes standard with cable glands for feeding out cabling. The protective classification of all LogicLink670 casings is IP54.

LogicLink 670

- CANopen control;
- 24V control;
- 0-10V control;
- Master control in pursuit function;
- Slave control in pursuit function;
- Running speed protection;
- 24V speed switching control;
- Speed switching of position programming;
- Analogue signal output 4-20mA.

Art. no.	Description	m	Type	U	F ~	I	p	IP
		kg		V		A	Hz	
585250	RLL670-IN\400\3\0-9	3,5	IN	400	3	3.7-9	50/60	54
585180	RLL670-IN\400\3\0-9\RW1400	5,0	IN	400	3	3.7-9	50/60	54







Ridder LogicLink 671

The Ridder LogicLink671 control unit is an intelligent control unit for control a 3-phase frequency-controlled Ridder RW motor gearbox. The LogicLink671 control unit is integrated with a RW240/400/600F, RW800F, RW1400F or RW200F motor gearbox. The integrated model is built into a cast aluminium casing.

The LogicLink671 control unit is equipped with a 'full option' control circuit board with a microprocessor. This control circuit board has connectors for external control signals (BACnet, 24V, 0-10V), connectors for an internal field bus, connector for analogue feedback, connectors for the encoder and limit switch system, connectors for controlling the reversing switch and connectors for the manual controls and training units. The LogicLink671 is fitted with a thermal protection device with automatic recovery function.

In combination with a Ridder motor gearbox, the control circuit board relays control commands to the drive unit, monitors whether commands have been successfully executed and provides protection against overloading (including thermal overloading). In the event of an overload, the control circuit board will enter malfunction mode and will generate a malfunction alarm. The control circuit board can be reset remotely using the manual controls.

The LogicLink671 can be used as an independently-operating control unit and as a master control unit in a pursuit function in a BACnet field bus network. For this purpose, the LogicLink671 is equipped with a BACnet interface, fitted to the connector for the training unit. A potentiometer signal can be emulated using the LogicLink671 with encoder and optional resistor.

For safe operation, the LogicLink671 control unit is fitted with a transformer which converts the mains voltage into a 24V-AC voltage. This voltage is used to operate the control circuit board and to power the limit switch circuit (duty and safety switches). The LogicLink671 is suitable for 400V (50/60Hz). A LogicLink671 control unit requires an encoder.

The LogicLink671 control unit is fitted with extensive and easily accessible plug connections and clamping strips. The LogicLink671 comes standard with cable glands for feeding out cabling. The protective classification of all LogicLink671 casings is IP54.

LogicLink671

- BACnet control;
- 24V control;
- 0-10V control;
- Master control in pursuit function;
- Running speed protection;
- 24V speed switching control;
- Speed switching of position programming;
- Analogue signal output 4-20mA.

Art. no.	Description	m	Type	U	F ~	I	p	IP
		kg		V		A	Hz	
585251	RLL671-IN\400\3\0-9	3,5	IN	400	3	3.7-9	50/60	54
585181	RLL671-IN\400\3\0-9\RW1400	5,0	IN	400	3	3.7-9	50/60	54





LogicLink600 GapControl

The Ridder GapControl is a control option for the Ridder LogicLink600 control units which uses after-pulses to correct any unfavourable effects of greenhouse shrinkage and expansion on the screens. The Ridder GapControl automatically corrects gaps and screen packs, without intervention from a climate computer. The Ridder GapControl can only be used if the screen system is equipped with slip elements.

Art. no.	Description
585830	OPTION RLL600\GAPCONTROL



LogicLink600 DualScreenControl (DSC)

The Ridder DualScreenControl is a control option for the Ridder LogicLink600 control units, which allows reliable control of two screens on a single wire bed. Using the DSC option, the Ridder LogicLink600 can reliably operate two screens in short succession, which minimizes the gap when switching screens. The screens cannot pass each other thanks to optimum safety devices in the system. As a result, no modification of the climate computer is needed.

Art. no.	Description
585860	OPTION RLL610\DSC
585870	OPTION RLL620\DSC



LogicLink 600 voltage options

The voltage option for a LogicLink600 control unit is an item number for mains voltage to be given upon ordering, in order to connect the LogicLink600 correctly. The LogicLink600 is suitable for 400V-50/60Hz (400V option), 208V-50/60Hz (208V option) and 480V-60Hz (480V option).

Art. no.	Description
585710	OPTION RLL600\400V
585711	OPTION RLL600\208V
585712	OPTION RLL600\480V



LogicLink300/600 manual controls

The manual controls for the LogicLink300/600 control units allow you to manually operate the control unit. The manual controls have priority over other methods of controlling or operating the LogicLink300/600 control unit. An exception is the control of a LogicLink600 slave unit in a synchronized-running function, in which case the LogicLink600 control unit *cannot* be operated manually.

The manual controls are fitted with two LED indicators that can display status information on a LogicLink300/600 control unit. The operating hours and malfunction warnings are shown by means of flashing codes. The manual controls can also be used to reset a LogicLink300/600 control unit when in malfunction mode.

Art. no.	Description	m
		kg
585810	RLL MC-MODULE	0,25



LogicLink300/600 manual controls – Printed circuit board (PCB)

The manual controls PCB for the LogicLink300/600 control units enables manual control of the control unit. The manual controls have priority over other possible methods of operating the LogicLink300/600 control unit. An exception is the operation of a LogicLink600 slave unit in a synchronized-running function, for which manual operation of a LogicLink600 control unit is *not* possible.

The manual controls PCB can give status information on a LogicLink300/600 control unit via two built-in LED indicators. The operating hours and malfunction warnings are shown by means of flashing codes. The manual controls PCB can also be used for resetting a LogicLink300/600 control unit when in malfunction mode. The manual controls PCB can be built into a control box.

Art. no.	Description	m
		kg
277900	PRINT MC\RLL600	0,05

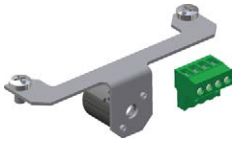


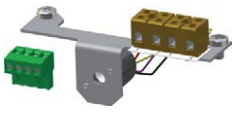


LogicLink 600 training unit

A training unit is available for programming and 'training' a LogicLink600 control unit. The training unit must be connected to a PC during the training process. The parameters of the LogicLink can then be altered in a 'Hyper Terminal' session via a serial connection. The training unit has an RS232 serial port in order to make a serial connection.
The training unit is all that is required for training the LogicLink600 control unit. A number of these training units may be required, depending on the LogicLink control units to be taught. One training unit is sufficient for each independently functioning LogicLink. When installing a synchronized-running system however, a training unit is required for each of the components in the system. This is because the training process must be implemented simultaneously.

Art. no.	Description	m
		kg
585820	RLL600 SI-MODULE	0,65





LogicLink600 encoder set

Built-in encoder sets for Ridder RW motor gearboxes fitted with LogicLink600 control units. The encoder is essential when using a LogicLink600 control unit for position determination, analogue feedback and running speed monitoring.

Built-in encoders sets are available for:

- **RLL600 Encoder set RW45/IN:** RW45 motor gearboxes;
- **RLL600 Encoder set RW400/IN:** RW240/400/600 motor gearboxes;
- **RLL600 Encoder set RW800/IN:** RW800 motor gearboxes;
- **RLL600 Encoder set RW1400/EX:** RW1000/1400 and RW1200/1600S motor gearboxes;
- **RLL600 Encoder set RW200/IN:** RW200 motor gearboxes.

Art. no.	Description
585910	ENCODER SET RLL600\RW45
585920	ENCODER SET RLL600\RW400
585930	ENCODER SET RLL600\RW800
585940	ENCODER SET RLL600\RW1400
585950	ENCODER SET RLL600\RW200



LogicLink600 connectors

Connectors for wiring connection of the LogicLink600 control unit. Available in various versions. The following connectors are used for the LogicLink600 control units:

- 2-pole connector for analogue feedback or potentiometer emulation;
- 4-pole connector for speed switching of RW-F frequency-controlled motor gearbox;
- 5-pole connector for CANopen field bus connection (internal and external field bus);
- 10-pole connector for connecting the climate computer signal (24V-AC/DC and 0-10V).

Art. no.	Description
279500	PLUG 2-POLE\STRAIGHT
279510	PLUG 4-POLE\STRAIGHT
279520	PLUG 5-POLE\STRAIGHT
279530	PLUG 6-POLE\STRAIGHT
279560	PLUG 10-POLE\STRAIGHT



RMC100 Motor Control Units (3-phase)

The RMC100 motor control units (3-phase version) are complete control cabinets for connecting 3-phase RW motor gearboxes. All the electrical components required for dependable and safe connection and control of an RW motor gearbox are integrated in the RMC100 motor control unit.

Built into a plastic casing, the RMC100 motor control unit features a motor protection switch, that safeguards the system against electrical overload and short circuiting. A mechanically and electrically interlocked inverter is present, for reversing the direction of rotation. The RMC100 motor control unit can be operated manually as well as remotely, to control the running of a Ridder RW motor gearbox. Manually, by operating the multiposition rotary switch; remotely, by means of a 24 V input signal (AC or DC).

The RMC100 motor control unit is ideal when used in combination with a Ridder RW motor gearbox with RSU limit switch system. Should any switch in the limit switch system reach an end position, then the RMC100 motor control unit will halt. In an emergency, if any of the safety switches is tripped, then the RMC100 motor control unit is switched to electrically dead (motor protection switch is switched off).

To ensure a safe working environment, the RMC100 motor control unit is equipped with a transformer that converts the supplied mains voltage (3-phase 208 V, 400 V or 480 V) down to a 24 V voltage. This power is used to control the inverter and to feed the limit switch circuits (duty and protection switches of the Ridder RW motor gearbox limit switch system).

For making the wiring connections, the RMC100 motor control unit is fitted with an extensive and conveniently accessible connector strip. The electric motor, limit switch system and a 24 V control signal for external control are connected to this connector strip. The RMC100 motor control unit features 5 cable glands to feed wiring and leads through to the outside of the cabinet.

RMC100 motor control units:

- For use on 3-phase mains voltages of 208 V (3 x 110 V), 400 V (3 x 230 V) and 480 V (3 x 277V);
- Standard models conform to protection class IP54.

Art. no.	Description	m	Type	U	F ~	I	p	IP
		kg		V		A	Hz	
582110	RMC100-208/400/480\3\0.6	3,4	-	208/400/480	3	0,4-0,6	50/60	54
582115	RMC100-208/400/480\3\1.0	3,4	-	208/400/480	3	0,6-1,0	50/60	54
582120	RMC100-208/400/480\3\1.6	3,4	-	208/400/480	3	1,0-1,6	50/60	54
582125	RMC100-208/400/480\3\2.5	3,4	-	208/400/480	3	1,6-2,5	50/60	54
582130	RMC100-208/400/480\3\4.0	3,4	-	208/400/480	3	2,5-4,0	50/60	54
582135	RMC100-208/400/480\3\6.3	3,4	-	208/400/480	3	4,0-6,3	50/60	54
582140	RMC100-208/400/480\3\10	3,4	-	208/400/480	3	6,3-10,0	50/60	54





RMC100 Motor Control Units (1-phase, 3-wire)

The RMC100 motor control units (1-phase version, 3-wire connection, type 3D) are complete control cabinets for connecting 1-phase RW motor gearboxes. All the electrical components required for dependable and safe connection and control of an RW motor gearbox are integrated in the RMC100 motor control unit.

Built into a plastic casing, the RMC100 motor control unit features a motor protection switch, that safeguards the system against electrical overload and short circuiting. A mechanically and electrically interlocked inverter is present for reversing the direction of rotation. The RMC100 motor control unit can be operated manually as well as remotely, to control the running of a Ridder RW motor gearbox. Manually, by operating the multiposition rotary switch; remotely, by means of a 24 V input signal (AC or DC).

The RMC100 motor control unit is ideal when used in combination with a Ridder RW motor gearbox with RSU limit switch system. Should any switch in the limit switch system reach an end position, then the RMC100 motor control unit will halt. In an emergency, if any of the safety switches is tripped, then the RMC100 motor control unit is switched to electrically dead (motor protection switch is switched off).

To ensure a safe working environment, the RMC100 motor control unit is equipped with a transformer that converts the supplied mains voltage (1-phase 115 V, or 230 V) down to a 24 V voltage. This power is used to control the inverter and to feed the limit switch circuits (duty and protection switches of the Ridder RW motor gearbox limit switch system).

For making the wiring connections, the RMC100 motor control unit is fitted with an extensive and conveniently accessible connector strip. The electric motor, limit switch system and a 24 V control signal for external control are connected to this connector strip. The RMC100 motor control unit features 5 cable glands to feed wiring and leads through to the outside of the cabinet.

RMC100 motor control units:

- For use on 1-phase mains voltages of 115 V or 230 V;
- Standard models conform to protection class IP54.

Art. no.	Description	m	Type	U	F ~	I	p	IP
		kg		V		A	Hz	
582145	RMC100-115/230\1\3D\1.0	3,4	3D	115/230	1	0,6-1,0	50/60	54
582150	RMC100-115/230\1\3D\1.6	3,4	3D	115/230	1	1,0-1,6	50/60	54
582155	RMC100-115/230\1\3D\2.5	3,4	3D	115/230	1	1,6-2,4	50/60	54





RMC100 Motor Control Units (1-phase, 5-wire)

The RMC100 motor control units (1-phase uitvoering, 5-wire connection, type 5D) are complete control cabinets for connecting 1-phase RW motor gearboxes. All the electrical components required for dependable and safe connection and control of an RW motor gearbox are integrated in the RMC100 motor control unit.

Built into a plastic casing, the RMC100 motor control unit features a motor protection switch, that safeguards the system against electrical overload and short circuiting. A mechanically and electrically interlocked inverter is present for reversing the direction of rotation. The RMC100 motor control unit can be operated manually as well as remotely, to control the running of a Ridder RW motor gearbox. Manually, by operating the multiposition rotary switch; remotely, by means of a 24 V input signal (AC or DC).

The RMC100 motor control unit is ideal when used in combination with a Ridder RW motor gearbox with RSU limit switch system. Should any switch in the limit switch system reach an end position, then the RMC100 motor control unit will halt. In an emergency, if any of the safety switches is tripped, then the RMC100 motor control unit is switched to electrically dead (motor protection switch is switched off).

To ensure a safe working environment, the RMC100 motor control unit is equipped with a transformer that converts the supplied mains voltage (1-phase 115 V or 230 V) down to a 24 V voltage. This power is used to control the inverter and to feed the limit switch circuits (duty and protection switches of the Ridder RW motor gearbox limit switch system).

For making the wiring connections, the RMC100 motor control unit is fitted with an extensive and conveniently accessible connector strip. The electric motor, limit switch system and a 24 V control signal for external control are connected to this connector strip. The RMC100 motor control unit features 5 cable glands to feed wiring and leads through to the outside of the cabinet.

RMC100 motor control units:

- For use on 1-phase mains voltages of 115 V or 230 V;
- Standard models conform to protection class IP54.

Art. no.	Description	m	Type	U	F ~	I	p	IP
		kg		V		A	Hz	
582160	RMC100-115/220\1\5D\2.5	3,4	5D	115/230	1	1,6-2,5	50/60	54
582165	RMC100-115/230\1\5D\4.0	3,4	5D	115/230	1	2,4-4,0	50/60	54
582170	RMC100-115/230\1\5D\6.3	3,4	5D	115/230	1	4,0-6,3	50/60	54
582175	RMC100-115/230\1\5D\10	3,4	5D	115/230	1	6,3-10,0	50/60	54



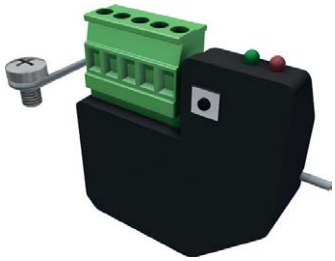


CDC-VMA30 Console

Parameter setting and display console for RW-F frequency controlled motor gearboxes equipped with Varmeca 30 frequency controllers. Using the console, the parameters can be adjusted and/or read out in the frequency regulator.
The console is only used during installation and servicing. A single console can be used with multiple frequency controlled motor gearboxes. The console is supplied including combined power/data cable for direct connection to the frequency controller.

Art. no.	Description	m
		kg
700410	CONSOLE PX-LCD\VMA30\PD	-







RPU PositioningUnit

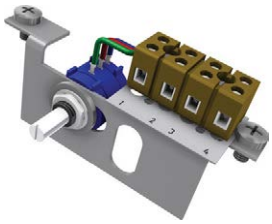
The Ridder RPU PositioningUnit is a precision, digital position-measuring device used in Ridder RW motor gearboxes. The RPU is easy to install and calibrate when commissioning systems. When in use, the RPU reads a measured position as a 4-20 or 20-4 mA signal (reversible). A fault is indicated by a zero mA signal. The RPU is compatible with all types of Ridder RW motor gearbox fitted with a Ridder RSU limit switch mechanism.

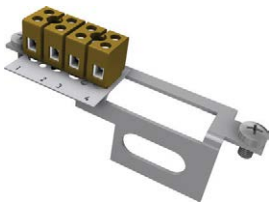
The RPU PositioningUnit's 4-20 mA signal is generated by a built-in Hall sensor. A contactless magnet axis rotates above this sensor that is connected to the switch spindle of the Ridder RW motor gearbox's RSU limit switch mechanism. When in use, the RPU constantly measures its position and outputs a corresponding signal between 4 and 20 mA. The RPU has an operating button for calibration purposes and LEDs indicating its status.

When in use, the readout's accuracy is verified by the RPU PositioningUnit by means of a constant reference monitoring system. The RPU PositioningUnit generates a fault code if a reading deviates significantly from the expected reading by emitting a zero mA signal and displaying a pre-defined flashing LED code. If the RPU is connected to one of the RSU limit switch mechanism's operating switches while being calibrated, then any reference discrepancy and its corresponding fault code will be reset once the operating switch is activated.

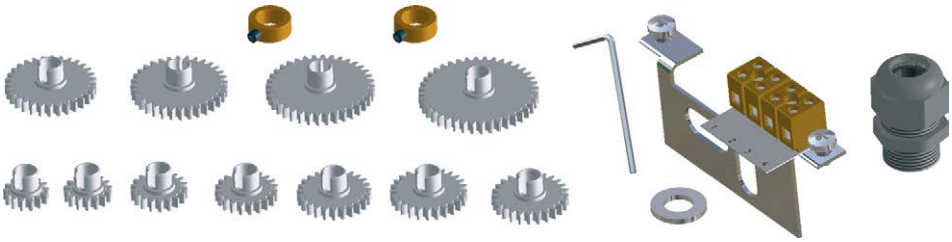
The RPU PositioningUnit's calibrated measurement range will generally correspond to the RSU limit switch mechanism's configured switching range. The RPU's calibrated configuration positions then correspond to the limit switch mechanism's end positions, i.e. switching range is equal to measurement range. It is also possible to set one of the RPU configuration positions being calibrated before the limit switch's end position has been reached, i.e. measurement range is less than limit switch range.

Art. no.	Description	m
		kg
502670	RPU 24V\4-20mA\SET	0,1
502671	RPU 24V\4-20mA\BI	0,1





Potentiometer installation sets



Potentiometer installation set for position signalling, for RW45, RW240/400/600/800, RW200 and RW1000/1400 motor gearboxes. The installation set comprises a base plate, connector block and locking ring. The gearwheel set can be set for various ranges (number of revolutions) of the output shaft of the motor gearbox. The gearwheel set consists of syntheic gearwheels z=14, z=15, z=18, z=20, z=24, z=25 (2x), z=30, z=32, z=36 and z=40.

The potentiometer installation sets are available in two versions:
- Type A, for RW45 motor gearboxes;
- Type B, for RW240/400/600/800, RW1000/1400, RW200 motor gearboxes.

Optionally, the potentiometer installation sets can also be pre-installed in an RW motor gearbox before delivery. In this case it is necessary to specify the potentiometer to be used and the potentiometer range, as well as the applicable potentiometer gear wheels. The potentiometer gear wheels are then assembled without locking (running freely). When the RSU limit switch system is adjusted during installation, they must be locked in the correct positions. The unused potentiometer gearwheels are included separately in the delivery.
If the potentiometer installation set is ordered with only the required potentiometer specified, and not the applicable potentiometer gearwheels, then all the potentiometer gearwheels will be supplied separately with the set. The correct gearwheels must then be assembled during installation and adjustment.

Art. no.	Description	m	Type
		kg	
502610	POTMETER SET RW45	0,15	A
581120	POTMETER SET RW45\MOUNTING		A
502611	POTMETER SET RW400	0,15	B
581110	POTMETER SET RW400\MOUNTING		B





Potentiometers

Multicycle potentiometer for RW motor gearboxes. The potentiometer is available in various ranges and resistance values. The choice of potentiometer depends on the required number of revolutions and type of control.

Art. no.	Description	m	R	n
		kg	Ω	
271003	POTENTIOMETER R200\S10	0,02	200	10
271050	POTENTIOMETER R500\S10	0,02	500	10
271051	POTENTIOMETER R500\S5	0,02	500	5
271101	POTENTIOMETER R1K\S10	0,02	1000	10
271103	POTENTIOMETER R1K\S5	0,02	1000	5
271151	POTENTIOMETER R5K\S5	0,02	5000	5
271152	POTENTIOMETER R5K\S10	0,02	5000	10
271201	POTENTIOMETER R10K\S5	0,02	10000	5
271202	POTENTIOMETER R10K\S10	0,02	10000	10
271250	POTENTIOMETER R20K\S10	0,02	20000	10



Pinion for potentiometer

Brass pinion (z8) for RW motor gearbox potentiometer installation set. This pinion should be used when there is a large number of revolutions of the output shaft of the motor gearbox.

Art. no.	Description	m	z
		kg	
502614	PINION POT-METER\Z8	0,02	8

5







W240 Worm wheel gearboxes

W240 worm wheel gearboxes are maintenance-free, compact power units for driving ventilation, screen and flap ventilation systems in greenhouses and livestock sheds. W240 worm wheel gearboxes are mainly used in indirectly-driven systems, where several W240 worm wheel gearboxes are driven by one motor gearbox. A mobile drive can also be supplied.

W240 worm wheel gearboxes feature a self-braking worm gear transmission (i=35). This low-noise transmission ensures that the output shaft is blocked when the drive unit is halted. W240 worm wheel gearboxes are available in a standard version and in a version with continuous worm shaft (W240D). W240 worm wheel gearboxes feature 16-tooth sprocket wheels (1/2"x5/16") on the input and output shafts and can be fitted on mounting plates on both sides of the worm wheel gearbox.

W240 worm wheel gearboxes are finished in graphite-grey powder coating, and are supplied complete with fixing bolts and spring washers.

W240 Worm wheel gearboxes:

- Drive torque up to 240 Nm;
- Suitable for intermittent operation, operating class s3-30%, duty cycle maximum 25 minutes;
- Other specifications and colours available on request.

Art. no.	Description	m	M2	M1	i
		kg	Nm	Nm	
504000	W240-240\35\A28	13,5	240	19,6	35
504010	W240D-240\35\A28	14,5	240	19,6	35

203 193 241





W400 Worm wheel gearboxes

W400 worm wheel gearboxes are maintenance-free, compact power units for driving ventilation, screen and flap ventilation systems in greenhouses and livestock sheds. W400 worm wheel gearboxes are mainly used in indirectly-driven systems, where several W400 worm wheel gearboxes are driven by one motor gearbox. A mobile drive can also be supplied.

W400 worm wheel gearboxes feature a self-braking worm gear transmission (i=35). This low-noise transmission ensures that the output shaft is blocked when the drive unit is halted. W400 worm wheel gearboxes are available in a standard version and in a version with continuous worm shaft (W400D). W400 worm wheel gearboxes feature 16-tooth sprocket wheels (1/2"x5/16") on the input and output shafts and can be fitted on mounting plates on both sides of the worm wheel gearbox.

W400 worm wheel gearboxes are finished in graphite-grey powder coating, and are supplied complete with fixing bolts and spring washers.

W400 Worm wheel gearboxes:

- Drive torque up to 400 Nm;
- Suitable for intermittent operation, operating class s3-30%, duty cycle maximum 25 minutes;
- Other specifications and colours available on request.

Art. no.	Description	m	M2	M1	i
		kg	Nm	Nm	
504100	W400-400\35\A28	13,5	400	32,7	35
504110	W400D-400\35\A28	14,5	400	32,7	35

203 193 241





W600 Worm wheel gearboxes

W600 worm wheel gearboxes are maintenance-free, compact power units for driving ventilation, screen and flap ventilation systems in greenhouses and livestock sheds. W600 worm wheel gearboxes are mainly used in indirectly-driven systems, where several W600 worm wheel gearboxes are driven by one motor gearbox. A mobile drive can also be supplied.

W600 worm wheel gearboxes feature a self-braking worm gear transmission (i=35). This low-noise transmission ensures that the output shaft is blocked when the drive unit is halted. W600 worm wheel gearboxes are available in a standard version and in a version with continuous worm shaft (W600D). W600 worm wheel gearboxes feature 16-tooth sprocket wheels (1/2"x5/16") on the input (and/or continuous) shaft and 16-tooth sprocket wheels (5/8"x3/8") on the output shaft. W600 worm wheel gearboxes can be fitted on mounting plates on both sides of the worm wheel gearbox.

W600 worm wheel gearboxes are finished in graphite-grey powder coating, and are supplied complete with fixing bolts and spring washers.

W600 Worm wheel gearboxes:

- Drive torque up to 600 Nm;
- Suitable for intermittent operation, operating class s3-30%, duty cycle maximum 25 minutes;
- Other specifications and colours available on request.

Art. no.	Description	m	M2	M1	i
		kg	Nm	Nm	
504200	W600-600\35\A34	13,5	600	49	35
504210	W600D-600\35\A34	14,5	600	49	35


203 193 241



W120 Worm wheel gearboxes

W120 worm wheel gearboxes are maintenance-free, compact power units for manually-driven (crank or drilling machine) roller screen systems. The W120 worm wheel gearbox with aluminium housing has a low weight.

W120 worm wheel gearboxes feature a self-braking worm gear transmission (i=44). This low-noise transmission ensures that the output shaft is blocked when the drive unit is halted. W120 worm wheel gearboxes feature a one-sided output drive shaft and are available in a right-handed (\R) and left-handed version (\L).

W120 Worm wheel gearboxes:

- Drive torque up to 120 Nm;
- Suitable for intermittent operation, operating class s3-30%, duty cycle maximum 25 minutes;
- Other specifications and colours available on request.

Art. no.	Description	m	M2	M1	i
		kg	Nm	Nm	
504500	W120-120\44\A19\R	2,8	120	7,8	44
504501	W120-120\44\A19\L	2,8	120	7,8	44


225 217 242





T11-50 Gearboxes

The T11-50 gearboxes are maintenance free, compact gearboxes with parralel input and output shaft for use in indirect driven ventilation systems.

The T11-50 gearboxes feature a gearwheel transmission (i=1) and are available with a single side output shaft with universal joint of double sided output shaft with one or two universal joints. The T11-50 gearbox is available with vertical and horizontal shaft positions (shaft positions regarding to the mounting surface of the gearbox). The T11-50 gearbox is being delivered in a zinc plated steel housing and is being equipped with mounting supports for mounting to the greenhouse post. Connecting of the T11-50 gearbox to a motor gearbox or drive shafts is possible with slide welding joints or chain couplings.

T11-50 Gearboxes:

- Drive torques up to 50Nm;
- Rotational speed up to 140 rpm;
- Universal joints 45° (45G);
- Versions with single side outgoing drive shaft (E) in left (L) and right (R) with one universal joint;
- Versions with double sided outgoing drive shaft (D) with one (R) or two (RL) universal joints;
- Versions with vertical drive shaft (V) and horizontal drive shaft (H) positions;
- Other specifications available on request.

Art. no.	Description	m	M	i
		kg	Nm	
500990	T11-50\1\B75\P26.5\V\1KR	3,0	50	1
500991	T11-50\1\B75\P26.5\V\1KL	3,0	50	1
500992	T11-50\1\B75\P26.5\V\2KLR	3,4	50	1
500993	T11-50\1\B75\P26.5\H\1KL/R	3,0	50	1
500994	T11-50\1\B75\P26.5\H\2KLR	3,4	50	1







RH40 Right-angled gearboxes

RH40E and RH40D gearboxes are maintenance-free, compact power units for systems where a right-angled transmission must be used.

RH40E and RH40D gearboxes feature a right-angled gearwheel transmission (i=1) and are available in a right-angled version (RH40E) and in a T-version with continuous drive shaft (RH40D). RH40 right-angled gearwheel transmissions are housed in an aluminium housing. Welded sleeve couplings and chain couplings can be used to couple to the tubular drive shafts.

RH40 Gearboxes:

- Drive torque up to 40 Nm;
- Rotational speed up to 40 rpm;
- Suitable for intermittent operation, operating class s3-30%, duty cycle maximum 25 minutes;
- Other specifications and colours available on request.

Art.no.	Description	m	M	i
		kg	Nm	
510941	RH40E-40\1\D19\KWV	1,76	40	1
510940	RH40D-40\1\D19\KWV	1,86	40	1



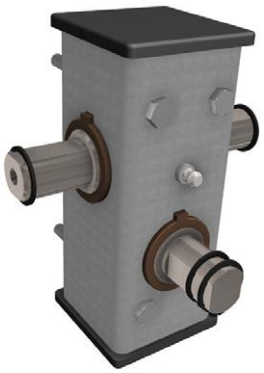


SH40 Square gearboxes

Square aluminium gearbox with steel gear ratio (i=1). The compact construction results in a minimum installation size and a low weight. Specifically developed for use with side wall roller screens. The gearbox can be fitted directly into roll tubes with a diameter of 50mm.

Art. no.	Description	m	M	i
		kg	Nm	
513000	SH40-40\1\WB50	1,1	40	1





HW60 Manual drive

HW60 and HW60D manual drives are compact drives for the manual drive of roller screen systems (directly or with cardan shaft) and flaps (with rack drives), for example.

HW60 and HW60D manual drives feature a self-braking transmission (i=15), built into a stainless steel sheet steel housing. HW60 and HW60D manual drives are driven by a hand crank. The HW60D features a continuous drive shaft for driving a following HW60 manual drive. Welded sleeve couplings or roll tube couplings can be used to couple to the tubular drive shafts or roll tubes. With the guiding unit for the HW60, it is possible to mount on a guide rail.

HW60 Manual drives:

- Drive torque up to 60 Nm.

Art. no.	Description	m	M2	M1	i
		kg	Nm	Nm	
591410	HW60-60\15\P20	1,9	60	15	15
591415	HW60D-60\15\P20	2,0	60	15	15



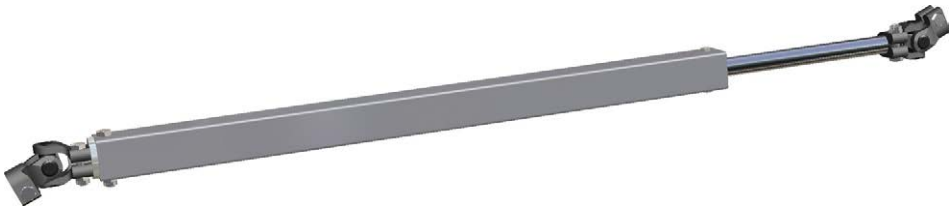








SC40 Slide cardan shafts



Stainless steel slide cardan shafts for driving roller screen systems, etc. Fitted standard with universal joints for mounting on 20 mm diameter shaft. With a reducing coupling, the slide cardan shafts can also be mounted on an RW45 motor gearbox or RH40 gearboxes. Connection to (winding) tubes by welded couplings or roll tube couplings.

Art. no.	Description	m	M	Shaft
		kg	Nm	mm
505036	SC40-KR20\L0751-1050\H1050	4,3	40	20
505033	SC40-KR20\L1084-1780\H1780	8,0	40	20
505031	SC40-KR20\L1581-2280\H2280	7,0	40	20
505034	SC40-KR20\L2081-2780\H2780	9,0	40	20
505032	SC40-KR20\L2581-3280\H3280	10,3	40	20
505035	SC40-KR20\L3081-3780\H3780	13,5	40	20

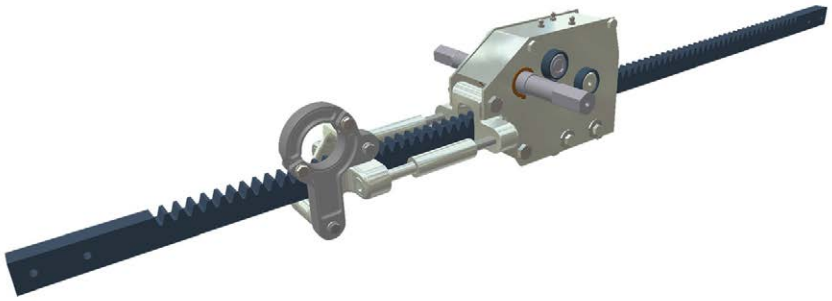


6





RackDrive700 rack drives for truss-rail systems





Ridder RackDrive700 (RRD700) rack drives are low-maintenance drives for driving truss-rail systems in Venlo greenhouses. RackDrive700 rack drives are the result of further development of the current generation of Ridder TRN-K rack drives. Just as the TRN-K rack drives, the RackDrive700 rack drives are mounted around the greenhouse post.

RackDrive700 rack drives comprise different models, which can be optimally used in the different situations that occur in practice. Ridder has RackDrive700 rack drives available for small to very large greenhouse bays and for wide-open ventilation systems:

- RackDrive710 rack drives for RW motor gearboxes up to 800 Nm;
- RackDrive720 rack drives for RW motor gearboxes up to 800 Nm;
- RackDrive760 rack drives for RW motor gearboxes up to 1400 Nm;
- RackDrive770 rack drives for RW motor gearboxes up to 1400 Nm;

Depending on the type, the models of these Ridder rack drives mentioned can be supplied with racks that deliver forces of 5200 N, 10000 N or 13000 N. With the 10000 N and 13000 N models, there is also the choice of a single (RackDrive710 and RackDrive760) and double transmission reduction (RackDrive720 and RackDrive770).



RackDrive700 and TRN-K rack drives

Ridder has been supplying TRN-K rack drives for years for driving truss-rail systems in Venlo greenhouses. A great deal of experience has been gained with these rack drives, which has been used in the development of the new RackDrive700 rack drives. Ridder TRN-K and RackDrive700 rack drives therefore have similarities with, but also differences to, the technical details. Functionally speaking, the TRN-K and RackDrive700 drives are identical; the differences and improvements can mainly be seen in the technical implementation of the different parts of these rack drives.



Construction of RackDrive700 rack drives

The Ridder RackDrive700 rack drive comprises 2 basic parts: a rack drive unit and an appropriate clamping set with drive shaft bearing. With the TRN-K rack drives, these parts are integrated in one housing. Just as with TRN-K rack drives, RackDrive700 racks can be supplied in different lengths and models.



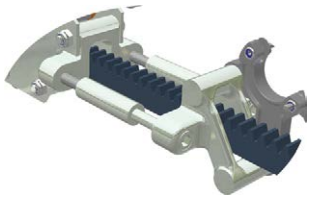
Solid transfer of forces

With RackDrive700 and RackDrive800 rack drives, a drive torque is efficiently converted to a rack force. For this purpose, RackDrive700/800 rack drives feature a single or dual stage gear reduction. RackDrive700/800 rack drives, that have a single stage gear reduction, are the RackDrive710/810 and RackDrive760/860. With these rack drives, the rack travel is 36,4 mm per revolution of the drive shaft.

RackDrive700 rack drives, that have a dual stage gear reduction, are the RackDrive720/820 and RackDrive770/870. In these rack drives, the incoming drive torque is transformed into a strongly reduced rack force. Consequently, less drive torque needs to be delivered to achieve a certain rack force. With these rack drives, the rack travel is 21,8 mm per revolution of the drive shaft. The following benefits can be gained with these rack drives:

- Large ventilation bays can be driven with a single motor gearbox per ventilation side with precise system operation (small vent gap differences within the ventilation bay);
- If a rack drive with a dual motor gearbox is used in a situation where a rack drive with a single stage gear reduction would normally be sufficient, then a very precisely operating ventilation system (minimum vent gap differences within the ventilation bay) can be created with these rack drives.

All RackDrive700 and RackDrive800 rack drives are supplied with an enclosing guiding block for a stable rack guiding.

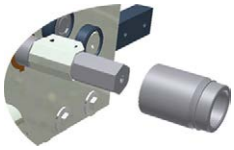


Universal clamping construction

RackDrive700 and RackDrive800 rack drives feature clamping blocks with bolts that are clamped around a greenhouse post. These clamping blocks are so strongly made that the rack drive unit can be loaded in both tension and compression. The dimensions of the clamping blocks have been chosen such that there is sufficient space to use continuous end plates of lattice beams.

RackDrive700/800 rack drives are available with clamping blocks for post widths of 50/60 mm and 70/80 mm. The clamping sets are available with different lengths of fixing bolts (100 to 160 mm) for use with the different post widths.

The clamping direction of the RackDrive700 rack drives is different to that of the TRN-K rack drive. With the TRN-K, the housing units are clamped around the post with bolts in the side plates of the housing unit. Here, the TRN-K rack drive must be matched to the post dimensions. The clamping sets of the RackDrive700 rack drive are made more universal and can therefore be used with several post dimensions.



Robust drive shaft coupling

RackDrive700 and RackDrive800 rack drives feature long drive shafts with long hexagonal journals as standard. By using long drive shafts, the feed length of the couplings on the drive shaft journals has increased. This is important with large bay dimensions, where the drive shafts expand or contract relatively more as a result of temperature differences. The long journals guarantee a good coupling between drive shaft and rack drive. By using hexagonal journals, a higher drive torque can be transferred with the RackDrive700/800 rack drives.

With the RackDrive700/800, there are two dimensions of hexagonal journals. RRD710/720/810/820 rack drives feature a hexagonal 23 mm journal that can be loaded up to 400Nm (RW240 to RW800 motor gearboxes). RRD760/770/860/870 rack drives feature a hexagonal 30 mm journal that can be loaded up to 700Nm (RW1000 to RW1400 motor gearboxes).

TRN-K rack drives feature drive shafts with flat-sided journals. These drive shafts are not as long as those of the RackDrive700. The maximum load of these journals is 300Nm (RW240 to RW600 motor gearboxes).



(Dis)mountable drive shaft bearing

RackDrive700 rack drives feature a bearing that can be opened and (dis)mounted for the support and guidance of drive shafts of the outflow ventilation drive system. Because the bearings can be opened, the drive shafts can be mounted without first having to be slid through the bearing.

The bearings are available for both 5/4" and 2" drive shafts (galvanized tubular shaft). The 5/4" bearings are used with the RRD710/720 models; the 2" bearings are used with the RRD760/770 models as standard. The 2" bearings can also be used with the RRD710/720 when you want to allow a minimum torsion of the drive shafts. This results in a minimum vent gap difference.

With TRN-K rack drives, the 5/4" bearings are integrated in the side plate of the rack drive. These bearings cannot be dismounted or opened.



RackDrive800 rack drives (double truss-rail system)

Besides the RackDrive700 gear rack drives for the conventional truss-rail system, the Ridder product assortment also includes gear rack drives that are suitable for application in a double truss-rail system. These systems are characterized by two independently-driven horizontal push-pull tubes, lying one above the other. This system is used in Venlo greenhouses fitted with full-length ridge vents.

Ridder can supply the following RackDrive800 gear rack drives for this system:

- RackDrive810 gear rack drives for RW motor gearboxes up to 800 Nm;
- RackDrive820 gear rack drives for RW motor gearboxes up to 800 Nm;
- RackDrive860 gear rack drives for RW motor gearboxes up to 1400 Nm;
- RackDrive870 gear rack drives for RW motor gearboxes up to 1400 Nm.

Depending on the type, the models of these Ridder rack drives mentioned can be supplied with racks that deliver forces of 5200 N, 10000 N or 13000 N. With the 10000 N and 13000 N models, there is also the choice of a single (RackDrive810 and RackDrive860) and double transmission reduction (RackDrive820 and RackDrive870).



End wall section ventilation and RackDrive700 rack drives

Ridder has different rack drives in its product range for driving the vents in the end wall bay of a greenhouse:

- TRN520-3CK rack drives;
- TRN1000-3UK and TRN1000-5UK rack drives;

These rack drives can be used in combination with RackDrive700 rack drives.

The following aspects should be considered when choosing the type rack drive for the operation of end wall section vents:

- Choice of the construction options for the end wall ventilation. Depending on the type of rack drive selected, there must also be a structure built into the greenhouse to support the push/pull tube. Here, a 50x25x7,5 C-profile beam is assumed with the TR520-3CK; with the TR1000-3/5UK rack drives, a 60x40x3 U profile beam is assumed.
- Correct choice of the rack force and transmission ratio of the rack drive. The rack drive for the end wall ventilation must have the same transmission ratio as the rack drives as applied in the middle sections.



TRN gear rack drives for truss-rail systems



The Ridder TRN gear rack drives are low-maintenance, purpose-designed drives for driving truss-rail systems in greenhouses. The Ridder product assortment contains a wide range of different types, ideal for use in the many and various situations encountered in practise. For small to very large greenhouse bays, for wide-open ventilation systems and for ventilation systems with full-length vents based on a twin truss-rail system, Ridder has rack drives available to suit. The following types of rack drive are available:

- TRN520/1000S gear rack drives for truss mounting (lattice beam);
- TRN520/1000K gear rack drives for clamp-mounting on the post;
- TRN520KC gear rack drives for clamp-mounting on the post with C-profile in the lattice beam;
- TRN520CK, TRN520GK and TRN1000UK gear rack drives for endwall bay ventilation.

The abovementioned versions of these Ridder gear rack drives are, depending on the type, available with racks capable of providing a force of 5200N (TRN520) or 10000N (TR..1000). Besides the difference in rack forces, a number of versions offer the option of either a single or dual stage gear reduction.

The applicable specifications for each of the various rack types are further explained in the pages that follow. These will go more deeply into the various versions and options of the Ridder TRN rack drives, with frequent reference to the designations of the TRN rack drives.



Mounting positions of TRN gear rack drives

The Ridder TRN gear rack drives for the truss-rail system all have the same function, the conversion of drive torque into a linear rack force, in order to open and close air vents. The rack force generated by these drives must be absorbed by the greenhouse structure (post and/or truss). It is important that the rack house unit has a stable attachment to the greenhouse structure. Ridder has two options for this: attachment to the truss, or attachment to the post.

The gear rack drives for truss attachment are the TRN520-3S, TRN1000-3S and TRN1000-5S. These rack drives feature foot mounting with mounting holes, and are mounted on the top beam of the truss by means of bolts with locknuts. These rack drives as supplied are capable of a maximum rack force of 10000 N, to ensure a good force transfer to the greenhouse structure. It is therefore vital that the truss is sufficiently strong to be able to properly absorb the forces.

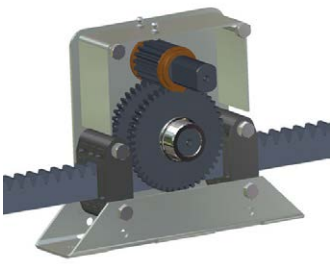


The gear rack drives for post mounting are the TRN520-3K, TRN1000-3K and TRN1000-5K. The house units of these gear rack drives are designed to be clamped around the post and secured with a bolt/ locknut fastening. This ensures a perfect transfer of forces from the rackdrive to the greenhouse structure. These gear rack drives as supplied are capable of a maximum rack force of 10000 N.

Benefits of the post mounted rack drives when compared to the truss mounted gear rack drives are:

- Direct mounting on the post, without the need to bore any holes;
- More available light through reduced shadow effect from drive shafts, which are placed beside the gutter;
- Integrated bearing for outflow ventilation.

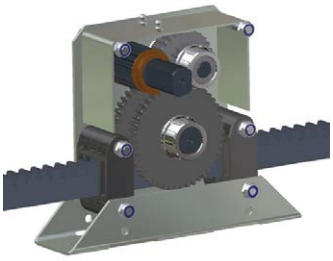
The TRN520-3KC gear rack drive is a special rack drive model for post mounting. These gear rack drives can be used when the upper member of the lattice is a 50x25 C-profile. In this situation, the rack drive is clamped around the post, with the guide blocks of the rack drive placed inside the C-profile. Because of the restricted dimensions, the maximum rack force of this drive is 5200 N.



Transmission ratios of TRN gear rack drives

The Ridder TR gear rack drives for the truss-rail system are available in two versions, based on the transmission ratio from drive torque to rack force. The first version has a single stage gear reduction, the second has a dual stage gear reduction.

The gear rack drives with a single stage gear reduction are identified by the figure 3 in the rack drive description, e.g. TRN520-3S (rack drive for truss mounting). In these rack drives, the incoming drive torque is effectively transformed into a rack force. The rack travel of these rack drives amounts to 36.4 mm per revolution of the drive shaft.



The gear rack drives with a dual stage gear reduction are identified by the figure 5 in the rack drive description, e.g. TRN1000-5K (rack drive for post mounting). In these rack drives, the incoming drive torque is transformed into a strongly reduced rack force. The great benefit of these drives is that less drive torque has to be provided to achieve a certain rack force. The rack travel of these rack drives amounts to 21.8 mm per revolution of the drive shaft.

The benefits yielded by the use of these gear rack drives are the following:

- Large ventilation bays can be driven with a single motor gearbox per ventilation side, with a precise system operation (small vent gap differences within the ventilation bay);
- When a rack drive with a dual stage gear reduction is used, in a situation where a rack drive with single stage gear reduction would normally be adequate, then a very precisely-working ventilation system can be created with these rack drives (minimum vent gap differences within the ventilation bay).





Gear rack drives end zone ventilation

Ridder has specialized gear rack drives in the product range for driving vents in the endwall bay of a greenhouse:

- TRN520-3CK gear rack drives;
- TRN1000-3UK and TRN1000-5UK gear rack drives;
- TRN520-3GK gear rack drives.

When selecting the type of gear rack drive to operate endwall bay vents, the following aspects should be considered:

- The construction options for the endwall bay ventilation. Depending on the type of gear rack drive selected, there must also be a structure built into the greenhouse to support the push/pull tube. With the TR520-3CK, a 50x25x7.5 C-profile beam is assumed; with the TR1000-3/5UK gear rack drives, a 60x40x3 U-profile beam is assumed;
- Correct choice of rack force and the transmission ratio of the rack drive. The gear rack drive for the end wall ventilation must have the same transmission ratio as the gear rack drives as applied in the middle bays.





RackDrive710 rack drive unit

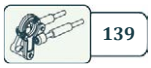
The RackDrive710 rack drive units with companion clamping sets and racks are low-maintenance power sources for driving truss-rail systems in greenhouses. RackDrive710 rack drives, in combination with Ridder RW motor gearboxes (3 rpm), contribute to an ideal climate in a greenhouse, thanks to the precise positioning of air vents.

A clamping set is used to mount the galvanized RackDrive710 rack drive unit around the greenhouse post below the gutter, with the guide block resting on the truss (lattice beam). This ensures an optimised transfer of forces to the greenhouse structure. The RackDrive710 is available with clamping blocks for posts of 50-60 mm width or clamping blocks for posts of 70-80 mm width. The rack drive unit has a rack height of 60 mm (centre of rack to top of truss).

The RackDrive710 features a single stage gear reduction (i = 2,76) and a hardened drive pinion for the rack. The drive torque is effectively converted to an outgoing rack force of maximum 5200 N (RRD710-523), 10000 N (RRD710-1003) or 13000 N (RRD710-1303). The guide block ensures stable extension and retraction of the rack. The RackDrive710 drive units are convenient to maintain, thanks to well-positioned grease nipples.

The long drive shafts of the RackDrive710 feature 23 mm hexagonal journals suited for a maximum drive torque of 400 Nm (RW240 to RW800 motor gearbox). This makes it possible to fit drive shafts (prefab) fitted with welded/sleeve couplings or chain couplings, once the rack drives have been mounted in the greenhouse. The drive shafts are locked in the couplings by the accompanying shaft retaining clips.

Art. no.	Description	m	F	M	i	s'	h	Post
		kg	N	Nm		mm	mm	mm
543110	RRD710-523-K50/60 UNIT	5,30	5200	37,7	2,76	36,4	60	50/60
543210	RRD710-1003-K50/60 UNIT	5,75	10000	72,5	2,76	36,4	60	50/60
543310	RRD710-1303-K50/60 UNIT	5,75	13000	94,5	2,76	36,4	60	50/60
543111	RRD710-523-K70/80 UNIT	5,45	5200	37,7	2,76	36,4	60	70/80
543211	RRD710-1003-K70/80 UNIT	5,90	10000	72,5	2,76	36,4	60	70/80
543311	RRD710-1303-K70/80 UNIT	5,90	13000	94,5	2,76	36,4	60	70/80

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RackDrive720 rack drive unit

The RackDrive720 rack drive units with companion clamping sets and racks are low-maintenance power sources for driving truss-rail systems in greenhouses. RackDrive720 rack drives, in combination with Ridder RW motor gearboxes (5 rpm), contribute to an ideal climate in a greenhouse, thanks to the precise positioning of air vents.

A clamping set is used to mount the galvanized RackDrive720 rack drive unit around the greenhouse post below the gutter, with the guide block resting on the truss (lattice beam). This ensures an optimised transfer of forces to the greenhouse structure. The RackDrive720 is available with clamping blocks for posts of 50-60 mm width or clamping blocks for posts of 70-80 mm width. The rack drive unit has a rack height of 60 mm (centre of rack to top of truss).

The RackDrive720 features a dual stage gear reduction (i = 4,60) and a hardened drive pinion for the rack. The drive torque is effectively converted to an outgoing rack force of maximum 10000 N (RRD720-1005), or 13000 N (RRD720-1305). The guide block ensures stable extension and retraction of the rack. The RackDrive720 drive units are convenient to maintain, thanks to well-positioned grease nipples.

The long drive shafts of the RackDrive720 feature 23 mm hexagonal journals suited for a maximum drive torque of 400 Nm (RW240 to RW800 motor gearbox). This makes it possible to fit drive shafts (prefab) fitted with welded/sleeve couplings or chain couplings, once the rack drives have been mounted in the greenhouse. The drive shafts are locked in the couplings by the accompanying shaft retaining clips.

Art. no.	Description	m	F	M	i	s'	h	Post
		kg	N	Nm		mm	mm	mm
543230	RRD720-1005-K50/60 UNIT	7,1	10000	49,5	4,60	21,8	60	50/60
543330	RRD720-1305-K50/60 UNIT	7,1	13000	64,5	4,60	21,8	60	50/60
543231	RRD720-1005-K70/80 UNIT	7,25	10000	49,5	4,60	21,8	60	70/80
543331	RRD720-1305-K70/80 UNIT	7,25	13000	64,5	4,60	21,8	60	70/80

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Clamping sets for RackDrive700 rack drives

Galvanized clamping sets for the RackDrive700 rack drive units. The clamping sets are used to mount the RackDrive700 rack drive units around the greenhouse post for an optimised transfer of forces to the greenhouse structure.

The clamping sets of the RackDrive700 rack drive units may be loaded in both tension and compression, so that extra rack stroke length is available in certain situations. For clamping, the clamping sets feature 2 socket-head bolts, whose length is matched to the post dimension.

The clamping sets feature a plastic bearing for the drive shaft of the outflow ventilation rack drives. Clamping sets are available for 5/4" and 2" drive shafts. The bearing can be opened, so that a drive shaft can be easily mounted.

Art. no.	Description	m	Bearing	B Post	L Post
		kg	in/(mm)	mm	mm
543900	RRD700 SET K50/60x80-B5/4	1,65	5/4" (42,4)	50/60	80
543910	RRD700 SET K50/60x100-B5/4	1,70	5/4" (42,4)	50/60	100
543940	RRD700 SET K50/60x120-B5/4	1,75	5/4" (42,4)	50/60	120
543970	RRD700 SET K50/60x140-B5/4	1,80	5/4" (42,4)	50/60	140
544000	RRD700 SET K50/60x160-B5/4	1,85	5/4" (42,4)	50/60	160
543920	RRD700 SET K50/60x100-B2	1,70	2" (60,3)	50/60	100
543950	RRD700 SET K50/60x120-B2	1,75	2" (60,3)	50/60	120
543980	RRD700 SET K50/60x140-B2	1,80	2" (60,3)	50/60	140
544010	RRD700 SET K50/60x160-B2	1,85	2" (60,3)	50/60	160
543901	RRD700 SET K70/80x80-B5/4	1,80	5/4" (42,4)	70/80	80
543911	RRD700 SET K70/80x100-B5/4	1,85	5/4" (42,4)	70/80	100
543941	RRD700 SET K70/80x120-B5/4	1,90	5/4" (42,4)	70/80	120
543971	RRD700 SET K70/80x140-B5/4	1,95	5/4" (42,4)	70/80	140
544001	RRD700 SET K70/80x160-B5/4	2,00	5/4" (42,4)	70/80	160
543921	RRD700 SET K70/80x100-B2	1,85	2" (60,3)	70/80	100
543951	RRD700 SET K70/80x120-B2	1,90	2" (60,3)	70/80	120
543981	RRD700 SET K70/80x140-B2	1,95	2" (60,3)	70/80	140
544011	RRD700 SET K70/80x160-B2	2,00	2" (60,3)	70/80	160

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Clamping sets for RackDrive700 rack drives (without bearing)

Galvanized clamping sets for the RackDrive700 rack drive units. The clamping sets are used to mount the RackDrive700 rack drive units around the greenhouse post for an optimised transfer of forces to the greenhouse structure.

The clamping sets of the RackDrive700 rack drive units may be loaded in both tension and compression, so that extra rack stroke length is available in certain situations. For clamping, the clamping sets feature 2 socket-head bolts, whose length is matched to the post dimension.

Art. no.	Description	m	B Post	L Post
		kg	mm	mm
543915	RRD700 SET K50/60x100	1,30	50/60	100
543945	RRD700 SET K50/60x120	1,35	50/60	120
543975	RRD700 SET K50/60x140	1,40	50/60	140
544005	RRD700 SET K50/60x160	1,45	50/60	160
543916	RRD700 SET K70/80x100	1,45	70/80	100
543946	RRD700 SET K70/80x120	1,50	70/80	120
543976	RRD700 SET K70/80x140	1,55	70/80	140
544006	RRD700 SET K70/80x160	1,60	70/80	160

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RackDrive810 rack drive unit

The RackDrive810 rack drive units with companion clamping sets and racks are low-maintenance power sources for driving double fitted truss-rail systems in greenhouses. RackDrive780 rack drives, in combination with Ridder RW motor gearboxes (3 rpm), contribute to an ideal climate in a greenhouse, thanks to the precise positioning of air vents.

A clamping set is used to mount the galvanized RackDrive810 rack drive unit around the greenhouse post below the gutter, with the guide block resting on the truss (lattice beam). This ensures an optimized transfer of forces to the greenhouse structure. The RackDrive810 is available with clamping blocks for posts of 50-60 mm width or clamping blocks for posts of 70-80 mm width. The rack drive unit has rack heights of 60 mm and 200 mm (centre of racks to top of truss).

The RackDrive810 features single stage gear reductions (i = 2,76) and hardened drive pinions for the racks. The drive torque is effectively converted to outgoing rack forces of maximum 5200 N (RRD810-523), 10000 N (RRD810-1003) or 13000 N (RRD810-1303). The guide blocks ensure stable extension and retraction of the racks. The RackDrive810 drive units are convenient to maintain, thanks to well-positioned grease nipples.

The long drive shafts of the RackDrive810 feature 23 mm hexagonal journals suited for a maximum drive torque of 400 Nm (RW240 to RW800 motor gearbox). This makes it possible to fit drive shafts (prefab) fitted with welded/sleeve couplings or chain couplings, once the rack drives have been mounted in the greenhouse. The drive shafts are locked in the couplings by the accompanying shaft retaining clips.

Art. no.	Description	m	F	M	i	s'	h	Post
		kg	N	Nm		mm	mm	mm
546110	RRD810-523-K50/60 UNIT	10,9	5200	37,7	2,76	36,4	60	50/60
546210	RRD810-1003-K50/60 UNIT	11,7	10000	72,5	2,76	36,4	60	50/60
546310	RRD810-1303-K50/60 UNIT	11,7	13000	94,5	2,76	36,4	60	50/60
546111	RRD810-523-K70/80 UNIT	11,1	5200	37,7	2,76	36,4	60	70/80
546211	RRD810-1003-K70/80 UNIT	12,0	10000	72,5	2,76	36,4	60	70/80
546311	RRD810-1303-K70/80 UNIT	12,0	13000	94,5	2,76	36,4	60	70/80

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RackDrive820 rack drive unit

The RackDrive820 rack drive units with companion clamping sets and racks are low-maintenance power sources for driving double fitted truss-rail systems in greenhouses. RackDrive820 rack drives, in combination with Ridder RW motor gearboxes (5 rpm), contribute to an ideal climate in a greenhouse, thanks to the precise positioning of air vents.

A clamping set is used to mount the galvanized RackDrive820 rack drive unit around the greenhouse post below the gutter, with the guide block resting on the truss (lattice beam). This ensures an optimized transfer of forces to the greenhouse structure. The RackDrive820 is available with clamping blocks for posts of 50-60 mm width or clamping blocks for posts of 70-80 mm width. The rack drive unit has rack heights of 60 mm and 200 mm (centre of racks to top of truss).

The RackDrive820 features dual stage gear reductions (i = 4,60) and hardened drive pinions for the racks. The drive torque is effectively converted to outgoing rack forces of maximum 10000 N (RRD820-1005), or 13000 N (RRD820-1305). The guide blocks ensure stable extension and retraction of the racks. The RackDrive820 drive units are convenient to maintain, thanks to well-positioned grease nipples.

The long drive shafts of the RackDrive820 feature 23 mm hexagonal journals suited for a maximum drive torque of 400 Nm (RW240 to RW800 motor gearbox). This makes it possible to fit drive shafts (prefab) fitted with welded/sleeve couplings or chain couplings, once the rack drives have been mounted in the greenhouse. The drive shafts are locked in the couplings by the accompanying shaft retaining clips.

Art. no.	Description	m	F	M	i	s'	h	Post
		kg	N	Nm		mm	mm	mm
546230	RRD820-1005-K50/60 UNIT	14,1	10000	49,5	4,60	21,8	60	50/60
546330	RRD820-1305-K50/60 UNIT	14,1	13000	64,5	4,60	21,8	60	50/60
546231	RRD820-1005-K70/80 UNIT	14,3	10000	49,5	4,60	21,8	60	70/80
546331	RRD820-1305-K70/80 UNIT	14,3	13000	64,5	4,60	21,8	60	70/80

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Clamping sets for RackDrive800 rack drives

Galvanized clamping sets for the RackDrive800 rack drive units. The clamping sets are used to mount the RackDrive800 rack drive units around the greenhouse post for an optimised transfer of forces to the greenhouse structure.

The clamping sets of the RackDrive800 rack drive units may be loaded in both tension and compression, so that extra rack stroke length is available in certain situations. For clamping, the clamping sets feature socket-head bolts, whose length is matched to the post dimension.

Art. no.	Description	m	B Post	L Post
		kg	mm	mm
546910	RRD800 SET K50/60x100	2,58	50/60	100
546920	RRD800 SET K50/60x120	2,65	50/60	100
546930	RRD800 SET K50/60x140	2,71	50/60	120
546911	RRD800 SET K70/80x100	2,84	70/80	100
546921	RRD800 SET K70/80x120	2,90	70/80	100
546931	RRD800 SET K70/80x140	2,96	70/80	120







TRN520-3S Gear rack drives

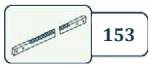
The TRN520-3S gear rack drives with companion racks are low-maintenance power sources for driving truss-rail systems in greenhouses. The TRN520-3S gear rack drives, in combination with the Ridder RW motor gearboxes, contribute to an ideal climate in the greenhouse, thanks to the precise positioning of air vents.

The zinc-plated TRN520-3S gear rack drives with foot mounting, can be attached with ease to the truss (lattice beam) using bolt/locknut (M10) fastening. The companion counterplates ensure that the rack drive is firmly attached to the truss. The gear rack drives are available in heights of 60 mm and 40 mm (rack heart to top of truss).

Through the use of a gear reduction stage (i=2.76) with hardened pinion, the drive torque is effectively converted into a maximum output rack force of 5200 N. The guide blocks ensure stable extension and retraction of the rack. The TRN520-3S rack drives are convenient to maintain, thanks to well-positioned grease nipples.

The drive shafts feature long, flat-sided journals. This makes it possible to assemble drive shafts (prefab) fitted with weld/sleeve couplings or chain couplings onto the TRN520-3S gear rack drives, once they have been mounted in the greenhouse. The drive shafts are locked in the couplings by the accompanying shaft retaining clips.

Art. no.	Description	m	F	M	i	s'	h
		kg	N	Nm		mm	mm
540000	TRN520-3S-H60 UNIT	4,2	5200	37,7	2,76	36,4	60
540100	TRN520-3S-H40 UNIT	4,2	5200	37,7	2,76	36,4	40


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TRN1000-3S/TRN1000-5S Gear rack drives

The TRN1000-3S and TRN1000-5S gear rack drives with companion racks are powerful, low-maintenance power sources for driving truss-rail systems in greenhouses. The TRN1000-3S and TRN1000-5S gear rack drives, in combination with the Ridder RW motor gearboxes, contribute to an ideal climate in the greenhouse, thanks to the precise positioning of air vents.

The zinc-plated TRN1000-3S and TRN1000-5S gear rack drives with foot mounting, can be attached with ease to the truss (lattice beam) using bolt/locknut (M10) fastening. The companion counterplates ensure that the rack drive is firmly attached to the truss. The gear rack drives are available in heights of 60 mm and 40 mm (rack heart to top of truss).



Through the use of a hardened gear reduction stage (i=2.76) with hardened pinion in the TRN1000-3S, the drive torque is effectively converted into a large maximum output rack force of 10000 N. The TRN1000-5S gear rack drives feature an extra gear reduction stage (i=4.60). This combination generates a lower drive torque, with at the same time a maximum rack force of 10000 N. The guide blocks ensure stable extension and retraction of the rack. The TRN1000-3S and TRN1000-5S gear rack drives are convenient to maintain, thanks to well-positioned grease nipples.

The drive shafts feature long, flat-sided journals. This makes it possible to fit drive shafts (prefab) fitted with weld/sleeve couplings or chain couplings, once the rack drive has been mounted in the greenhouse. The drive shafts are locked in the couplings by the accompanying shaft retaining clips.



Art. no.	Description	m	F	M	i	s'	h
		kg	N	Nm		mm	mm
540050	TRN1000-3S-H60 UNIT	4,8	10000	72,5	2,76	36,4	60
540150	TRN1000-3S-H40 UNIT	4,8	10000	72,5	2,76	36,4	40
540070	TRN1000-5S-H60 UNIT	6,0	10000	49,5	4,60	21,8	60
540170	TRN1000-5S-H40 UNIT	6,0	10000	49,5	4,60	21,8	40

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TRN520-3K Gear Rack drives

The TRN520-3K gear rack drives with companion racks are purpose-designed, low-maintenance power sources for driving truss-rail systems in greenhouses. The TRN520-3K gear rack drives, in combination with the Ridder RW motor gearboxes, contribute to an ideal climate in the greenhouse, thanks to the precise positioning of air vents.

The zinc-plated TRN520-3K gear rack drives are clamped with bolt/locknut fastenings around the greenhouse post below the gutter, with the guide blocks resting on the truss (lattice beams). This ensures an optimized transfer of forces to the greenhouse structure. There are TRN520-3K gear rack drives for clamp mounting on posts of 80x50, 100x50, 120x50, 90x60, 100x60 and 120x60 (mm x mm). The gear rack drives are available with a height of 60 mm (rack heart to top of truss).

Through the use of a gear reduction stage (i=2.76) with hardened pinion in the zinc-plated TRN520-3K gear rack drives, the drive torque is effectively converted into a maximum output rack force of 5200 N. The guide blocks ensure stable extension and retraction of the rack. The TRN520-3K gear rack drives are convenient to maintain, thanks to well-positioned grease nipples.

The drive shafts feature long, flat-sided journals. This makes it possible to fit drive shafts (prefab) fitted with weld/sleeve couplings or chain couplings, once the rack drive has been mounted in the greenhouse. The drive shafts are locked in the couplings by the accompanying shaft retaining clips. The gear rack drives feature an integrated bearing for the drive shafts of the outflow ventilation system (for 5/4" drive shafts or link shafts 1").

Art. no.	Description	m	F	M	i	s'	h	Tube/ Bearing	Post
		kg	N	Nm		mm	mm	in	mm
541000	TRN520-3K-5/4-K50 UNIT	4,4	5200	37,7	2,76	36,4	60	5/4"	80/100/120 x 50
541010	TRN520-3K-1-K50 UNIT	4,4	5200	37,7	2,76	36,4	60	1"	80/100/120 x 50
541100	TRN520-3K-5/4-K60 UNIT	5,2	5200	37,7	2,76	36,4	60	5/4"	90/100/120 x 60









TRN1000-3K/TRN1000-5K Gear rack drives

The TRN1000-3K and TRN1000-5K gear rack drives with companion racks are powerful, low-maintenance power sources for driving truss-rail systems in greenhouses. The TRN1000-3K and TRN1000-5K gear rack drives, in combination with the Ridder RW motor gearboxes, contribute to an ideal climate in the greenhouse, thanks to the precise positioning of large numbers of air vents.

The zinc-plated TRN1000-3K and TRN1000-5K gear rack drives are clamped with bolt/locknut fastenings around the greenhouse post below the gutter, with the guide blocks resting on the truss (lattice beam). This ensures an optimized transfer of forces to the greenhouse structure. There are TRN1000-3K and TRN1000-5K rack drives for clamp mounting on posts of 80x50, 100x50, 120x50, 90x60, 100x60 and 120x60 (mm x mm). The rack drives are available with a height of 60 mm (rack heart to top of truss).

Through the use of a hardened gear reduction stage (i=2.76) with hardened pinion in the zinc-plated TRN1000-3K rack drive, the drive torque is effectively converted into a large maximum output rack force of 10000 N. The TRN1000-5K rack drives feature an extra gear reduction stage (i=4.60). This enables a maximum rack force of 10000 N to be achieved with a lower drive torque. The guide blocks ensure stable extension and retraction of the rack. The TRN1000-3K and TRN1000-5K rack drives are convenient to maintain, thanks to well-positioned grease nipples.

The drive shafts feature long, flat-sided journals. This makes it possible to fit drive shafts (prefab) fitted with weld/sleeve couplings or chain couplings, once the rack drive has been mounted in the greenhouse. The drive shafts are locked in the couplings by the accompanying shaft retaining clips. The TRN1000-3K and TRN1000-5K gear rack drives feature an integrated bearing for the drive shafts of the outflow ventilation system (for 5/4" drive shafts or link shafts 1").

Art. no.	Description	m	F	M	i	s'	h	Tube/ Bearing	Post
		kg	N	Nm		mm	mm	in	mm
541050	TRN1000-3K-5/4-K50 UNIT	4,9	10000	72,5	2,76	36,4	60	5/4"	80/100/120 x 50
541060	TRN1000-3K-1-K50 UNIT	4,8	10000	72,5	2,76	36,4	60	1"	80/100/120 x 50
541150	TRN1000-3K-5/4-K60 UNIT	5,2	10000	72,5	2,76	36,4	60	5/4"	90/100/120 x 60
541070	TRN1000-5K-5/4-K50 UNIT	5,2	10000	49,5	4,60	21,8	60	5/4"	80/100/120 x 50
541431	TRN1000-5K-5/4-K126-DK UNIT	7,1	10000	49,5	4,60	21,8	60	5/4"	90/100/120 x 60















TRN520-3KC Gear rack drives

The TRN520-3KC gear rack drives with companion racks are low-maintenance power sources for driving truss-rail systems in greenhouses. The TRN520-3KC gear rack drives, in combination with the Ridder RW motor gearboxes, contribute to an ideal climate in the greenhouse, thanks to the precise positioning of air vents.

The zinc-plated TRN520-3KC gear rack drives are clamped with bolt/locknut fastenings around the greenhouse post below the gutter, with the guide blocks resting in the truss (lattice beam made of 50x25x7.5 C-profile). This ensures an optimized transfer of forces to the greenhouse structure. There are TRN520-3KC gear rack drive versions for posts of 80x50, 100x50 and 120x50 (mm x mm). The rack drives are available in rack height of 11.5 mm (rack heart to top of truss).

Through the use of a gear reduction stage (i=2.76) with hardened pinion in the zinc-plated TRN520-3KC gear rack drive, the drive torque is effectively converted into a maximum output rack force of 5200 N. The guide blocks ensure stable extension and retraction of the rack. The gear rack drives are convenient to maintain, thanks to well-positioned grease nipples.

The drive shafts feature long, flat-sided journals. This makes it possible to fit drive shafts (prefab) fitted with weld/sleeve couplings or chain couplings, once the house units have been mounted. The drive shafts are locked in the couplings by the accompanying shaft retaining clips. The TRN520-3KC gear rack drives feature an integrated bearing for the drive shafts of the outflow ventilation system (for 5/4" drive shafts or link shafts 1").

Art. no.	Description	m	F	M	i	s'	h	Tube/ Bearing	Post
		kg	N	Nm		mm	mm	in	mm
541200	TRN520-3KC-5/4-K50 UNIT	4,5	5200	37,7	2,76	36,4	35	5/4"	80/100/120 x 50
541210	TRN520-3KC-1-K50 UNIT	4,4	5200	37,7	2,76	36,4	35	1"	80/100/120 x 50


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TRN520-3CK Gear rack drive

The TRN520-3CK gear rack drives with companion racks are purpose-designed, low-maintenance power sources for driving endwall bay truss-rail systems in greenhouses. The TRN520-3CK gear rack drives, in combination with the Ridder TRN520-3S/TRx1000-3S, TRN520-3KD/TRx1000-3KD and TRN520-3KC gear rack drives and RW motor gearboxes, contribute to an ideal climate in the greenhouse, thanks to the precise positioning of air vents.

The zinc-plated TRN520-3CK gear rack drives are mounted below the gutter with bolt/locknut fastenings to a gutter bracket (80x50, 100x 50) in a C-profile (50x25x7.5) attached to the post support. The C-profiles must be braced from the ridge beam of the greenhouse. This ensures an optimized transfer of forces to the greenhouse structure. The rack drives are available in rack height of 11.5 mm (rack centre to top of truss).

Through the use of a gear reduction stage (i=2.76) with hardened pinion in the zinc-plated TRN520-3CK gear rack drive, the drive torque is effectively converted into a maximum output rack force of 5200 N. The guide blocks ensure stable extension and retraction of the rack. The gear rack drives are convenient to maintain, thanks to well-positioned grease nipples.

The drive shafts feature long, flat-sided journals. This makes it possible to fit drive shafts (prefab) fitted with weld/sleeve couplings or chain couplings, once the rack drive has been mounted in the greenhouse. The drive shafts are locked in the couplings by the accompanying shaft retaining clips.

Art. no.	Description	m	F	M	i	s'	h
		kg	N	Nm		mm	mm
541350	TRN520-3CK UNIT	3,8	5200	37,7	2,76	36,4	35


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TRN1000-3UK/TRN1000-5UK Gear rack drives

The TRN1000-3UK/TRN1000-5UK rack drives with companion racks are purpose-designed, low-maintenance power sources for driving endwall bay truss-rail systems in greenhouses. The TRN1000-3UK/TRN1000-5UK rack drives, in combination with the Ridder TRx1000-3K and TRx1000-5K/TRx1300-5K rack drives and RW motor gearboxes, contribute to an ideal climate in the greenhouse, thanks to the precise positioning of air vents.

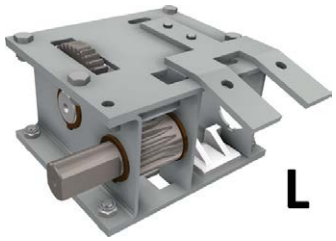
The zinc-plated TRN1000-3UK/TRN1000-5UK rack drives are attached to a U-profile (60x40x3) with bolt/locknut fastenings. This U-profile is hung between gutter brackets, and must be braced from the greenhouse ridge beam. This ensures an optimized transfer of forces to the greenhouse structure. The rack house units are available with a rack height of 40 mm (from underside of U-profile to rack centre).

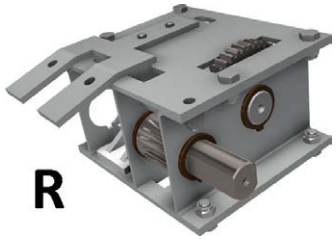
Through the use of a hardened gear reduction stage (i=2.76) and a hardened pinion in the TRN1000-3UK rack drives, the drive torque is effectively converted into a large maximum output rack force of 10000 N. The TRN1000-5UK rack drives feature an extra gear reduction stage (i=4.60). This combination generates a lower drive torque, with at the same time a maximum rack force of 10000 N. The guide blocks in the house units ensure stable extension and retraction of the rack. The TRN1000-3UK and TRN1000-5UK rack drives are convenient to maintain, thanks to well-positioned grease nipples.

The drive shafts feature long, flat-sided journals. This makes it possible to fit drive shafts (prefab) fitted with weld/sleeve couplings or chain couplings, once the house units have been mounted. The drive shafts are locked in the couplings by the accompanying shaft retaining clips.

Art. no.	Description	m	F	M	i	s'
		kg	N	Nm		mm
541362	TRN1000-3UK UNIT	4,7	10000	72,5	2,76	36,4
541361	TRN1000-5UK UNIT	5,7	10000	49,5	4,60	21,8

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TRN520-3GK Gear rack drives

The TRN520-3GK gear rack drives with companion racks are purpose-designed, low-maintenance power sources for driving endwall bay truss-rail systems in greenhouses. The TRN520-3GK gear rack drives, in combination with the Ridder TRN520-3S/TRx1000-3S gear rack drives and RW motor gearboxes, contribute to an ideal climate in the greenhouse, thanks to the precise positioning of air vents.

The zinc-plated TRN520-3GK gear rack drives are mounted to the greenhouse gutter using C-profiles with attachment forks, and fastened using bolts and locknuts. This ensures an optimized transfer of forces to the greenhouse structure. The TRN520-3GK gear rack drives are available in a right-handed (R) and left-handed version (L).

Through the use of a gear reduction stage (i=2.76) with hardened pinion in the zinc-plated TRN520-3GK gear rack drive, the drive torque is effectively converted into a maximum output rack force of 5200 N. The guide blocks ensure stable extension and retraction of the rack.

The drive shaft of the TRN520-3GK gear rack drive features long, flat-sided journals. This makes it possible after mounting to fit drive shafts fitted with weld/sleeve couplings or chain couplings. The drive shafts are locked in the couplings by the accompanying shaft retaining clips.

Art. no.	Description	m	F	M	i	s'
		kg	N	Nm		mm
541300	TRN520-3GK-L UNIT	5,3	5200	37,7	2,76	36,4
541310	TRN520-3GK-R UNIT	5,3	5200	37,7	2,76	36,4

153 203 207 212 253

TRN520A rack drive

Rack drives truss-rail system





TRN520A Rack drive



The TRN520A rack drive, mounted on the RW45TRA or RW240TRA motor gearboxes, is a low-maintenance power source for driving ventilation and lifting systems in greenhouses and livestock houses. The TRN520A rack drive, attached to a Ridder RW motor gearbox, enables the driven system to be positioned with great precision. The guide blocks in the TRN520A rack drive ensure stable extension and retraction of the rack.

The zinc-plated TRN520A rack drive with foot and side mounting, can easily be mounted on an RW45TRA or RW240TRA motor gearbox, using the accompanying mounting set. The rack drives are supplied with a rack height of 60 mm (rack heart to underside of TRN520A rack drive unit).

Art. no.	Description	m	F	M	i	s'	h
		kg	N	Nm		mm	mm
549500	TRN520A UNIT	3,1	5200	156	1	150,8	60
599015	MOUN-SET TRN520A\RW45	0,5					
599016	MOUN-SET TRN520A\RW400	0,7					







Racks for RackDrive and TRN rack drives



Solid racks with single side continuous toothing for RackDrive700, RackDrive800 and TRN520/1000-3/5 rack drives. The racks are available in different widths matching the different types of rack drives.

- Width 16 mm (5200 N) for RRD710-523, RRD810-523 and TRN520-3 rack drive units;
- Width 20 mm (10000 N) for RRD710/720/760/770-1003/1005, RRD810/820/860/870-1003/1005 and TRN1000-3/5 rack drive units;
- Width 25 mm (13000 N) for RRD710/720/760/770-1303/1305 and RRD810/820/860/870-1303/1305 rack drive units.

The racks are available in different standard lengths, other versions are available on request. The racks are connected to push-pull tubes ø27 mm or ø32 mm with tube-rack connecting plates.

Art. no.	Description	m	F	B	L
		kg	N	mm	mm
406244	RACK B16\M4\L1050U	3,4	5200	16	1050
416549	RACK B16\M4\L1250U	4,1	5200	16	1250
416745	RACK B16\M4\L1400U	4,6	5200	16	1400
416748	RACK B16\M4\L1550U	5,1	5200	16	1550
418931	RACK b16\m4\L1700U	5,5	5200	16	1700
416921	RACK B20\M4\L1050U	4,3	10000	20	1050
416919	RACK B20\M4\L1250U	5,0	10000	20	1250
416922	RACK B20\M4\L1400U	5,7	10000	20	1400
416920	RACK B20\M4\L1550U	6,3	10000	20	1550
416924	RACK B20\M4\L1700U	6,9	10000	20	1700
422481	RACK b25\m4\L1250U	6,4	13000	25	1400
422482	RACK B25\M4\L1400U	7,2	13000	25	1400
422483	RACK B25\M4\L1550U	8,0	13000	25	1550
424285	RACK B25\M4\L1700U	9,1	13000	25	1700


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Racks with axle stub for RackDrive and TRN rack drives



Solid racks with 23.5 mm diameter axle stub and single side continuous toothing for RackDrive700, RackDrive800 and TRN520/1000-3/5 rack drives. The racks are available in different widths matching the different types of rack drives.

- Width 16 mm (5200 N) for RRD710-523, RRD810-523 and TRN520-3 rack drive units;
- Width 20 mm (10000 N) for RRD710/720/760/770-1003/1005, RRD810/820/860/870-1003/1005 and TRN1000-3/5 rack drive units;
- Width 25 mm (13000 N) for RRD710/720/760/770-1303/1305 and RRD810/820/860/870-1303/1305 rack drive units.

The racks are available in different standard lengths, other rack lengths are available on request. The axle stub of the rack is suited for the direct fixing of a ø27 mm push-pull tube. The other rack end is connected to a push-pull tubes ø27 mm or ø32 mm with tube-rack connecting plates.

Art. no.	Description	m	F	B	L
		kg	N	mm	mm
424200	RACK b16\m4\L1250U\1A23\D8H	4,0	5200	16	1250
424199	RACK b16\m4\L1400U\1A23\D8H	4,5	5200	16	1400
423880	RACK b16\m4\L1550U\1A23\D8H	5,0	5200	16	1550
424947	RACK b16\m4\L1700U\1A23\D8H	5,5	5200	16	1700
421821	RACK b20\m4\L1250U\1A23\D8H	4,9	10000	20	1250
424198	RACK b20\m4\L1400U\1A23\D8H	5,6	10000	20	1400
423913	RACK b20\m4\L1550U\1A23\D8H	6,2	10000	20	1550
424729	RACK b20\m4\L1700U\1A23\D8H	6,8	10000	20	1700
423942	RACK b25\m4\L1250U\1A23\D8H	6,3	13000	25	1250
424702	RACK b25\m4\L1400U\1A23\D8H	7,1	13000	25	1400
424019	RACK b25\m4\L1550U\1A23\D8H	7,9	13000	25	1550
424205	RACK b25\m4\L1700U\1A23\D8H	8,5	13000	25	1700



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TRI Gear Rack Drives for swinging-ventilation systems



The Ridder TRI gear rack drives are low-maintenance, purpose-designed drives for opening and closing swinging-air vents in Venlo-type greenhouses. The Ridder product assortment contains a wide range of different types of TRI gear rack drives, ideal for use in various sizes of greenhouse situations. The following types of TRI gear rack drives are available:

- TR10I/24 gear rack drives without gear reduction stage and 2200 N rack force;
- TR25I/24 gear rack drives with gear reduction stage and 2200 N rack force;
- TR25I/46 gear rack drives with gear reduction stage and 4200 N rack force;
- TR520I gear rack drives with gear reduction stage and 5200 N rack force.

The TRI gear rack drives are mounted under the roof between the steel or aluminium gutters of a Venlo-type greenhouse. The Ridder product assortment includes mounting forks and bows for securing these gear rack drives. The mounting forks and bows are not included as a standard component of the TRI gear rack drives and must therefore be ordered separately.

The TR10I/24 gear rack drive is the model used in smaller greenhouse situations. There is also a ‘reversible’ version of the TR10I/24 available. In this type of drive, the gear rack moves in the opposite direction. The TR10I/24 ‘reversible’ is used with TR10I/24 gear rack drive in small systems where the inflow and outflow air vents have to be driven simultaneously by a single geared motor.

TR10I Gear Rack Drives

Rack drives swinging-ventilation system





TR10I/24 Gear Rack Drives



The TR10I/24 gear rack drive is a low-maintenance, purpose-designed drive for opening and closing swinging-air vents in Venlo-type greenhouses. The combination of TR10I/24 gear rack drive and a Ridder RW motor gearbox contributes to an optimum greenhouse climate thanks to accurate positioning of the air vents.

The self-supporting TR10I/24 gear rack drive comprises a zinc-plated C-profile with a built-in compact gear rack drive unit. The TR10I/24 gear rack drive is mounted to a greenhouse gutter using the accessory clamp-mounting forks or bows.

Thanks to the pinion of the TR10I/24 gear rack drive, the drive torque is effectively converted into a maximum rack force of 2200 N. Track rollers in the C-profile and guide blocks ensure stable extension and retraction of the rack. The drive shafts of the TR10I/24 gear rack drive have long, flat-sided journals to allow fitting of weld/sleeve couplings or chain couplings. The TR10I/24 gear rack drive is easy to maintain.

A TR10I/24 gear rack drive with other C-profile lengths and rack lengths is available on request.

Art. no.	Description	m	F	M	i	s'	S	L	Lk
		kg	N	Nm		mm	mm	mm	mm
500380	TR10I/24-S750\L3000	10,4	2200	42,1	1	94	750	3000	3200
500384	TR10I/24-S750\L3800	12,1	2200	42,1	1	94	750	3800	4000
500385	TR10I/24-S900\L3800	12,5	2200	42,1	1	94	900	3800	4000

211 211 206 206 215 255





TR10I/24 Reversible Gear Rack Drives



The TR10I/24 reversible gear rack drive is a low-maintenance, purpose-designed drive for opening and closing swinging-air vents in Venlo-type greenhouses. The TR10I/24 reversible gear rack drive is used in combination with the TR10I/24 gear rack drive. When used with a Ridder RW motor gearbox, inflow and outflow air vents can be simultaneously accurately positioned.

The self-supporting TR10I/24 reversible gear rack drive comprises a zinc-plated C-profile with a built-in compact gear rack drive unit. The TR10I/24 reversible gear rack drive is mounted to a greenhouse gutter using the accessory clamp-mounting forks or bows.

Thanks to the pinion of the TR10I/24 reversible gear rack drive, the drive torque is effectively converted into a maximum rack force of 2200 N. Provided with extra gearwheel unit with fixed gear ratio to reverse rotational direction. Track rollers in the C-profile and guide blocks ensure stable extension and retraction of the rack. The drive shafts of the TR10I/24 reversible gear rack drive have long, flat-sided journals to allow fitting of weld/sleeve couplings or chain couplings. The TR10I/24 reversible gear rack drive is easy to maintain.

A TR10I/24 reversible gear rack drive with other C-profile lengths and rack lengths is available on request.

Art. no.	Description	m	F	M	i	s'	S	L	Lk
		kg	N	Nm		mm	mm	mm	mm
500390	TR10I/24-REV\S750\L3000	10,9	2200	42,1	1	94	750	3000	3200
500394	TR10I/24-REV\S750\L3800	12,6	2200	42,1	1	94	750	3800	4000
500395	TR10I/24-REV\S900\L3800	13,0	2200	42,1	1	94	900	3800	4000







TR25I/24 Gear Rack Drives



The TR251/24 gear rack drive is a low-maintenance, purpose-designed drive for opening and closing swinging-air vents in Venlo-type greenhouses. The combination of TR251/24 gear rack drive and a Ridder RW motor gearbox contributes to an optimum greenhouse climate thanks to accurate positioning of the air vents.

The self-supporting TR251/24 gear rack drive comprises a zinc-plated C-profile with a built-in compact gear rack drive unit. The TR251/24 gear rack drive is mounted to a greenhouse gutter using the accessory clamp-mounting forks or bows.

Thanks to the gear reduction stage (i-2.76) and the pinion of the TR251/24 gear rack drive, the drive torque is effectively converted into a maximum rack force of 2200 N. Track rollers in the C-profile and guide blocks ensure stable extension and retraction of the rack. The drive shafts of the TR251/24 gear rack drive have long, flat-sided journals. This makes it possible to fit drive shafts (prefab) fitted with weld/sleeve couplings or chain couplings, once the house units have been mounted. The drive shafts are locked in the couplings by the accompanying shaft retaining clips. The TR251/24 gear rack drive is easy to maintain.

A TR251/24 gear rack drive with other C-profile lengths and rack lengths is available on request.

Art. no.	Description	m	F	M	i	s'	S	L	Lk
		kg	N	Nm		mm	mm	mm	mm
500410	TR25I/24-S750\L3000	13,9	2200	18,3	2,76	41	750	3000	3200
500414	TR25I/24-S750\L3800	20,4	2200	18,3	2,76	41	750	3800	4000
500415	TR25I/24-S900\L3800	20,8	2200	18,3	2,76	41	900	3800	4000







TR25I/46 Gear Rack Drives



The TR251/46 gear rack drive is a low-maintenance, purpose-designed drive for opening and closing swinging-air vents in Venlo-type greenhouses. The combination of TR251/46 gear rack drive and a Ridder RW motor gearbox contributes to an optimum greenhouse climate thanks to accurate positioning of the air vents.

The self-supporting TR251/46 gear rack drive comprises a zinc-plated C-profile with a built-in compact gear rack drive unit. The TR251/46 gear rack drive is mounted to a greenhouse gutter using the accessory clamp-mounting forks or bows.

Thanks to the gear reduction stage (i-2.76) and the pinion of the TR251/46 gear rack drive, the drive torque is effectively converted into a maximum rack force of 4200 N. Track rollers in the C-profile and guide blocks ensure stable extension and retraction of the rack. The drive shafts of the TR251/46 gear rack drive have long, flat-sided journals. This makes it possible to fit drive shafts (prefab) fitted with weld/sleeve couplings or chain couplings, once the house units have been mounted. The drive shafts are locked in the couplings by the accompanying shaft retaining clips. The TR251/46 gear rack drive is easy to maintain.

A TR251/46 gear rack drive with other C-profile lengths and rack lengths is available on request.

Art. no.	Description	m	F	M	i	s'	S	L	Lk
		kg	N	Nm		mm	mm	mm	mm
500430	TR25I/46-S750\L3000	14,7	4200	29,1	2,76	34	750	3000	3200
500434	TR25I/46-S750\L3800	21,3	4200	29,1	2,76	34	750	3800	4000
500435	TR25I/46-S900\L3800	21,7	4200	29,1	2,76	34	900	3800	4000



TR520I Gear Rack Drives

Rack drives swinging-ventilation system





TR520I Gear Rack Drives



The TR520I gear rack drive is a low-maintenance, purpose-designed drive for opening and closing swinging-air vents in Venlo-type greenhouses. The combination of TR520I gear rack drive and a Ridder RW motor gearbox contributes to an optimum greenhouse climate thanks to accurate positioning of the air vents.

The self-supporting TR520I gear rack drive comprises a zinc-plated C-profile with a built-in compact gear rack drive unit. The TR520I gear rack drive is mounted to a greenhouse gutter using the accessory clamp-mounting forks or bows.

Thanks to the gear reduction stage (i-2.76) and the pinion of the TR520I gear rack drive, the drive torque is effectively converted into a maximum rack force of 5200 N. Track rollers in the C-profile and guide blocks ensure stable extension and retraction of the rack. The drive shafts of the TR520I gear rack drive have long, flat-sided journals. This makes it possible to fit drive shafts (prefab) fitted with weld/sleeve couplings or chain couplings, once the house units have been mounted. The drive shafts are locked in the couplings by the accompanying shaft retaining clips. The TR520I gear rack drive is easy to maintain.

A TR520I gear rack drive with other C-profile lengths and rack lengths is available on request.

Art. no.	Description	m	F	M	i	s'	S	L	Lk
		kg	N	Nm		mm	mm	mm	mm
500450	TR520I-S750\L3000	14,8	5200	38,5	2,76	36	750	3000	3200
500454	TR520I-S750\L3800	21,4	5200	38,5	2,76	36	750	3800	4000
500455	TR520I-S900\L3800	21,9	5200	38,5	2,76	36	900	3800	4000



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Rack drives for (in)direct systems

Ridder TU5, TU11 and TU45 rack drives are low-maintenance drives that can be used to drive continuous vents in greenhouses and flap systems in livestock sheds and stores, etc. Ridder supplies various models that are suitable for different practical situations.
Ridder has rack drives available for 1" or 5/4" tubular drive shafts, straight or curved racks in various lengths and for various rack forces. The following types of rack drives are available:



- TU5-22 for use with 1" tube and rack plate 22 mm high, rack force of 350 N;
- TU5-30 for use with 1" tube and rack plate 30 mm high, rack force of 350 N;
- TU11-22 for use with 1" tube and rack plate 22 mm high, rack force of 450 N;
- TU11-30 for use with 1" tube and rack plate 30 mm high, rack force of 450 N;
- TU45-22 for use with 5/4" tube and rack plate 22 mm high, rack force of 450 N;
- TU45-30 for use with 5/4" tube and rack plate 30 mm high, rack force of 450 N.



The TU5, TU11 and TU45 rack drives feature hardened pinions, slide bearings and plastic guide rollers. The pinions of the rack drives are fastened on the tubular drive shaft with two set screws (tightening moment 8 Nm).

TU5/11/45 Rack drives

Sheet steel rack drives



TU11-22/30 Rack drives

The TU11-22/30 rack drives with appropriate rack plate are low-maintenance drives for the operation of vents and ventilation flaps, etc. These rack drives are contained in a zinc-plated sheet steel housing and feature a hardened pinion, self-lubricating sintered tube bearings and plastic guide rollers on stainless steel pins.

TU11-22/30 rack drives can be mounted on 1" tubular shafts (33.7 mm dia., minimum wall thickness 2.5 mm). Here, the pinion is fastened on the tubular drive shaft with two set screws (tightening moment 8 Nm)

The TU11-22/30 rack drive can be used with the Ridder sheet steel racks 22 mm high (TU11-22) and 30 mm high (TU11-30). Both straight and curved sheet steel racks can be used with these rack drives.



Art. no.	Description	m	F	M	i	s'	PH	Tube/ Bearing
		kg	N	Nm		mm	mm	in
500010	TU11-22 PINION HOUSE UNIT	0,54	450	±12	1	138,2	22	1"
500030	TU11-30 PINION HOUSE UNIT	0,54	450	±12	1	138,2	30	1"





TU5-22/30 Rack drives

The TU5-22/30 rack drives with appropriate rack plate are low-maintenance drives for the operation of vents and ventilation flaps, etc. These rack drives are contained in a zinc-plated sheet steel housing and feature a hardened pinion, plastic tube bearings and plastic guide rollers on stainless steel pins.

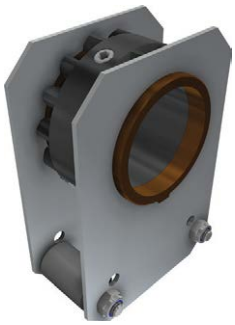
TU5-22/30 rack drives can be mounted on 1" tubular shafts (33.7 mm dia., minimum wall thickness 2.5 mm). Here, the pinion is fastened on the tubular drive shaft with two set screws (tightening moment 8 Nm)

The TU5-22/30 rack drive can be used with the Ridder sheet steel racks 22 mm high (TU5-22) and 30 mm high (TU5-30). Both straight and curved sheet steel racks can be used with these rack drives.



Art. no.	Description	m	F	M	i	s'	PH	Tube/ Bearing
		kg	N	Nm		mm	mm	in
500019	TU5-22 PINION HOUSE UNIT\D61	0,5	350	±9	1	138,2	22	1"
500018	TU5-30 PINION HOUSE UNIT\D61	0,5	350	±9	1	138,2	30	1"







TU45-22/30 Rack drives

The TU45-22/30 rack drives with appropriate rack plate are low-maintenance drives for the operation of vents and ventilation flaps, etc. These rack drives are contained in a zinc-plated sheet steel housing and feature a hardened pinion, self-lubricating sintered tube bearings and plastic guide rollers.

TU45-22/30 rack drives can be mounted on 5/4" tubular shafts (42.4 mm dia., minimum wall thickness 2.5 mm). Here, the pinion is fastened on the tubular drive shaft with two set screws (tightening moment 8 Nm)

The TU45-22/30 rack drive can be used with the Ridder sheet steel racks 22 mm high (TU5-22) and 30 mm high (TU5-30). Both straight and curved sheet steel racks can be used with these rack drives.

Art. no.	Description	m	F	M	i	s'	PH	Tube/ Bearing
		kg	N	Nm		mm	mm	in
500045	TU45-5/4-22 PINION HOUSE UNIT	0,65	450	±15	1	175,8	22	5/4"
500046	TU45-5/4-30 PINION HOUSE UNIT	0,65	450	±15	1	175,8	30	5/4"



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Racks TU5/11/45 gear rack drives

Sheet steel rack drives





Sheet steel racks PH22-3 / Straight

Straight, zinc-plated sheet steel rack for pinion housing units TU5-22, TU7-22, TU11-22 and TU45-22. Sheet steel racks are supplied as standard with run-out protection (UV=77). Sheet steel racks are also available without run-out protection (UV=0). The rack plate has a square hole in its back at the end, for mounting a coach bolt for extra run-out protection (to be used with versions with UV=77). The rack plate can be attached to an air vent or ventilation flap with a window bracket set. Other lengths and specifications on request.

Art. no.	Description	m	L	UV
		kg	mm	mm
417567	RACK 22-3\L390\D6\U77	0,44	390	77
417569	RACK 22-3\L490\D6\U77	0,55	490	77
417571	RACK 22-3\L591\D6\U77	0,66	591	77
417573	RACK 22-3\L691\D6\U77	0,78	691	77
418080	RACK 22-3\L792\D6\U77	0,89	792	77
418082	RACK 22-3\L892\D6\U77	1,01	892	77
418085	RACK 22-3\L1043\D6\U77	1,18	1043	77
418089	RACK 22-3\L1244\D6\U77	1,41	1244	77
418093	RACK 22-3\L1445\D6\U77	1,64	1445	77
418164	RACK 22-3\L390\D6\U0	0,45	390	0
418170	RACK 22-3\L691\D6\U0	0,79	691	0
418174	RACK 22-3\L892\D6\U0	1,02	892	0







Sheet steel racks PH22-3 / Curved / Inside toothing

Zinc-plated, curved, inside-toothed sheet steel rack for TU5-22, TU7-22, TU11-22 and TU45-22 rack drives. Sheet steel racks are supplied as standard with run-out protection (UV=77). Sheet steel racks are also available without run-out protection (UV=0). The rack plate has a square hole in its back at the end, for mounting a coach bolt for extra run-out protection (to be used with versions with UV=77). The rack plate can be attached to an air vent or ventilation flap with a window bracket set. Other lengths, radii and specifications on request.

Art. no.	Description	m	L	UV	R
		kg	mm	mm	mm
418202	RACK 22-3\L390\D6\U77\1000I	0,43	390	77	1000
418204	RACK 22-3\L490\D6\U77\1000I	0,55	490	77	1000
418206	RACK 22-3\L591\D6\U77\1000I	0,66	591	77	1000
418208	RACK 22-3\L691\D6\U77\1000I	0,78	691	77	1000
418100	RACK 22-3\L792\D6\U77\1000I	0,89	792	77	1000
418102	RACK 22-3\L892\D6\U77\1000I	1,01	892	77	1000
418105	RACK 22-3\L1043\D6\U77\1000I	1,18	1043	77	1000
418109	RACK 22-3\L1244\D6\U77\1000I	1,41	1244	77	1000
418113	RACK 22-3\L1445\D6\U77\1000I	1,64	1445	77	1000
418224	RACK 22-3\L691\D6\U0\1000I	0,79	691	0	1000





Sheet steel racks PH22-3 / Curved / Outside toothing

Zinc-plated, curved, outside-toothed sheet steel rack for TU5-22, TU7-22, TU11-22 and TU45-22 rack drives. Sheet steel racks are supplied as standard with run-out protection (UV=77). Sheet steel racks are also available without run-out protection (UV=0). The rack plate has a square hole in its back at the end, for mounting a coach bolt for extra run-out protection (to be used with versions with UV=77). The rack plate can be attached to an air vent or ventilation flap with a window bracket set. Other lengths, radii and specifications on request.

Art. no.	Description	m	L	UV	R
		kg	mm	mm	mm
418210	RACK 22-3\L390\D6\U77\1000U	0,43	390	77	1000
418212	RACK 22-3\L490\D6\U77\1000U	0,55	490	77	1000
418214	RACK 22-3\L591\D6\U77\1000U	0,66	591	77	1000
418216	RACK 22-3\L691\D6\U77\1000U	0,78	691	77	1000
418120	RACK 22-3\L792\D6\U77\1000U	0,89	792	77	1000
418122	RACK 22-3\L892\D6\U77\1000U	1,01	892	77	1000
418125	RACK 22-3\L1043\D6\U77\1000U	1,18	1043	77	1000
418129	RACK 22-3\L1244\D6\U77\1000U	1,41	1244	77	1000
418133	RACK 22-3\L1445\D6\U77\1000U	1,64	1445	77	1000
418238	RACK 22-3\L691\D6\U0\1000U	0,79	691	0	1000
418240	RACK 22-3\L792\D6\U0\1000U	0,90	792	0	1000
418245	RACK 22-3\L1043\D6\U0\1000U	1,19	1043	0	1000







Sheet steel racks PH30-3 / Straight

Straight zinc-plated sheet steel rack for TU5-30, TU7-30, TU11-30 and TU45-30 rack drives. Sheet steel racks are supplied as standard with run-out protection (UV=77). Sheet steel racks are also available without run-out protection (UV=0). The rack plate has a square hole in its back at the end, for mounting a coach bolt for extra run-out protection (to be used with versions with UV=77). The rack plate can be attached to an air vent or ventilation flap with a window bracket set. Other lengths and specifications on request.

Art. no.	Description	m	L	UV
		kg	mm	mm
413970	RACK 30-3\L1043\D6\U77	1,56	1043	77
413971	RACK 30-3\L1244\D6\U77	1,86	1244	77
418555	RACK 30-3\L1345\D6\U77	2,01	1345	77
413972	RACK 30-3\L1445\D6\U77	2,17	1445	77
418558	RACK 30-3\L1546\D6\U77	2,32	1546	77
413973	RACK 30-3\L1646\D6\U77	2,47	1646	77
413979	RACK 30-3\L1747\D6\U77	2,62	1747	77
413978	RACK 30-3\L1847\D6\U77	2,77	1847	77
413976	RACK 30-3\L1948\D6\U77	2,92	1948	77



Racks TU5/11/45 gear rack drives

Sheet steel rack drives





Sheet steel racks PH30-3 / Curved / Inside toothing

Zinc-plated, curved, inside-toothed sheet steel rack for TU5-30, TU7-30, TU11-30 and TU45-30 rack drives. Sheet steel racks are supplied as standard with run-out protection (UV=77). Sheet steel racks are also available without run-out protection (UV=0). The rack plate has a square hole in its back at the end, for mounting a coach bolt for extra run-out protection (to be used with versions with UV=77). The rack plate can be attached to an air vent or ventilation flap with a window bracket set. Other lengths and specifications on request.

Art. no.	Description	m	L	UV	R
		kg	mm	mm	mm
416514	RACK 30-3\L1043\D6\U77\1000Im	1,56	1043	77	1000
416515	RACK 30-3\L1244\D6\U77\1000Im	1,86	1244	77	1000
418576	RACK 30-3\L1345\D6\U77\1000I	2,01	1345	77	1000
416516	RACK 30-3\L1445\D6\U77\1000Im	2,17	1445	77	1000
418579	RACK 30-3\L1546\D6\U77\1000I	2,32	1546	77	1000
418582	RACK 30-3\L1847\D6\U77\1000I	2,77	1847	77	1000
416518	RACK 30-3\L1948\D6\U77\1000Im	2,92	1948	77	1000







Sheet steel racks PH30-3 / Curved / Outside toothing

Zinc-plated, curved, outside-toothed sheet steel rack for TU5-30, TU7-30, TU11-30 and TU45-30 rack drives. Sheet steel racks are supplied as standard with run-out protection (UV=77). Sheet steel racks are also available without run-out protection (UV=0). The rack plate has a square hole in its back at the end, for mounting a coach bolt for extra run-out protection (to be used with versions with UV=77). The rack plate can be attached to an air vent or ventilation flap with a window bracket set. Other lengths, radii and specifications on request.

Art. no.	Description	m	L	UV	R
		kg	mm	mm	mm
418508	RACK 30-3\L1043\D6\U77\1000U	1,56	1043	77	1000
418505	RACK 30-3\L1244\D6\U77\1000U	1,86	1244	77	1000
418509	RACK 30-3\L1345\D6\U77\1000U	2,01	1345	77	1000
419141	RACK 30-3\L1445\D6\U77\1000U	2,17	1445	77	1000
418506	RACK 30-3\L1546\D6\U77\1000U	2,32	1546	77	1000
418507	RACK 30-3\L1646\D6\U77\1000U	2,47	1646	77	1000
418510	RACK 30-3\L1747\D6\U77\1000U	2,62	1747	77	1000
418511	RACK 30-3\L1847\D6\U77\1000U	2,77	1847	77	1000
418512	RACK 30-3\L1948\D6\U77\1000U	2,92	1948	77	1000



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Rack drives for push-pull screen systems

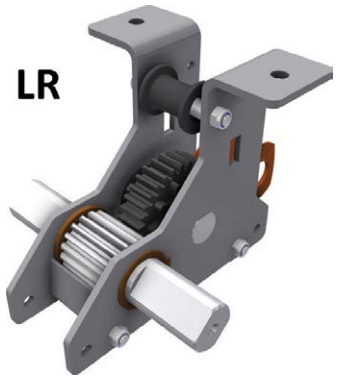


The Ridder RSD250 and TU21 Rack drives are low-maintenance drives which are suitable for driving the push-pull screen systems in greenhouses. Ridder supplies various models which are suitable for different practical situations. Ridder can supply drives for large and small screen areas, and for inside and outside screens. The following types of rack drives are available:



- RSD250 rack drives;
- TU21 rack drives.

The above mentioned Ridder rack drive models have drives which supply forces of 450N for opening and closing, and 1850N for folding and closing the screen system. The RSD250 rack drive is fitted with a reduction stage, which supplies these forces if the drive torque is smaller. In situations where the RSD250 rack drive is fitted vertically or under a corner (standard is horizontal), an extra guiding block can be fitted into the housing unit, which will take up the weight of the rack.







RackDrive250 Rack drives

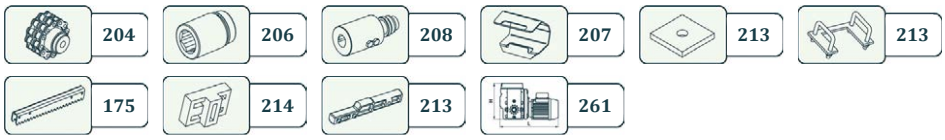
The RackDrive250 rack drives fitted with a rack plate is a low-maintenance drive for the push-pull screen systems in greenhouses. This rack drive together with the Ridder RW moto gearbox (5 rpm), forms an efficient combination which offers energy-, sun protection- and total shade screen systems . Its compact dimensions mean that the RackDrive250 rack drive is suitable for a large variety of screen systems. By fitting the optional sliding block the rack drive can also be used in non-horizontal screen systems.

The zinc-plated RackDrive250 rack drives are supplied with two mounting lips (lugs). Together with the counter-plates and bolt- lock-nuts connections (M8) or with a clamp mounting set, these are easily mounted onto greenhouse truss (lattice beam). The rack drives have fixing holes for wire stretchers which allow a stable connection to the greenhouse structure. The RackDrive250 rack drive is supplied with the mounting lips (lugs) facing in one direction (right) or with the mounting lips (lugs) facing outwards (left-right). The latter version is suitable for use with the clamp mounting set.

By fitting a gear reduction stage (i=1,8) and a hardened pinion, the torque in the RackDrive250 rack drive is effectively converted into a maximum outgoing drive forceof 1850 N (in folding). The rack drive is aligned to the push-pull tubes (27 or 32mm) using connecting units. The rack drive has an axial clearance from the drive pinion in order to take up the expansion variations between the lattice beam and the screen section. Plastic securing clips must be removed when the fitting is complete.

The drive shafts are fitted with long axle journals with flat sides. This makes it possible to fit prefabricated drive shafts fitted with weld/sleeve couplings or chain couplings after mounting the RackDrive250 drive shaft. The drive shafts are locked in the couplings by the accompanying shaft retaining clips. For the rack drives for the screen suspension, couplings with limited free-wheeling are available which will limit the force onto the folding drive shaft.

Art. no.	Description	m	F Dyn	F Stat	M Dyn	M Stat	i	s'
		kg	N	N	Nm	Nm		mm
500290	RSD250-40\LR UNIT	2,1	450	1850	7,0	27,5	1,8	79,2
500285	RSD250-40\LL UNIT	2,1	450	1850	7,0	27,5	1,8	79,2
500280	RSD250-40\RR UNIT	2,1	450	1850	7,0	27,5	1,8	79,2





TU21-40 Rack drives

Rack drive for driving (external) screen systems. The pinion housing unit can be mounted on a 1" shaft tube (Ø33.7 mm). The rack plate (H30-3 / H40-3) is secured underneath the push-pull tube and fixed by a coupling plate and a square bracket. The drive torque for the adjusting screw is 8 Nm.

Art. no.	Description	m
		kg
500040	TU21-40 PINION HOUSE UNIT	0,62





Sheet steel racks RSD250/TU21-40 Rack drives



Zinc-plated rack plate for pinion housing units RSD250 and TU21-40 suitable for the push-pull screen systems. The rack plate can be secured to the push-pull tube with the connecting set. Other lengths on request.

Art. no.	Description	m	Sec.	L
		kg	m	mm
413949	RACK 40-3\L2941	5,8	3,0	2941
413953	RACK 40-3\L3142	6,2	3,2	3142
413956	RACK 40-3\L3594	7,1	3,66	3594
413950	RACK 40-3\L3946	7,8	4,0	3946
413951	RACK 40-3\L4448	8,6	4,5	4448
413954	RACK 40-3\L4939	9,8	5,0	4939



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Ridder Tube motors

In 1996, Ridder introduced its RB tube motors for roller screen systems in agricultural structures. These are used on a large scale for roller screens in agricultural greenhouses because of their specially designed tube motors. The compact dimensions of the tube motor make them eminently suitable for integration into the roll tube, which limits the amount of space they take up in the greenhouse. The type of tube motor that will be most suitable depends on the length and roll-up height of the screen and the type of screen fabric. Ridder has tube motors with drive torques of 40, 50 and 120 Nm. The tube motor can be fitted to a side wall screen, a twin roller screen or a roof screen.

The new Ridder RB tube motors are available in the following models:

- RB50E^{plus} (50 Nm - 3.5 rpm);
- RB50-3.5 (50 Nm- 3.5 rpm);
- RB40-11 (40 Nm - 11 rpm);
- RB120E^{plus} (120 Nm - 11 rpm);
- RB120-11 (120 Nm - 11 rpm).

The RB50Eplus and the RB120E^{plus} are the latest tube motors developed by Ridder, with improvements to all essential features. Higher resistance to water means that the operation of the tube motor will not be affected by a humid environment. The RB50Eplus and RB120E^{plus} have as standard an intelligent electronic limit switch system, which counts approx. 25,000 pulses per minute. The pulse counter is used to switch off the tube motor when it reaches its end position and also switches it off for safety reasons in the case of an overload. The switch components in the new electronic limit switch system allow several tube motors to be connected in parallel without using an isolating relay.

The RB50-3.5, RB40-11 and RB120-11 tube motors are fitted with a mechanical limit switch system and seals, which prevent any damp infiltrating the tube motor.



Ridder PowerRoller®

The Ridder PowerRoller drive is a maintenance-free, compact drive for roller screens and roofs in greenhouses and livestock sheds. The key features of this drive are the self-braking worm wheel transmission and a built-in linear limit switch system.

The gearbox for the RPR100 combines a mutually tuned gear wheel and worm wheel transmission, so that the drive runs almost silently. The self-braking worm wheel transmission for the RPR100 ensures that the two-sided output drive shafts are locked when the drive is not running. The PowerRoller has an output torque of 100 Nm. Because Ridder chose such a compact integrated design for the RPR100 roller screen drive, with a proportionately high output drive torque, the RPR100 can be used in intermittent operations (operating class s2, duty cycle 20%).

The RPR100 roller screen drive can be combined with the warming ducts in the side of greenhouses because of its compact integrated design and tilting movement. The curvature of the accompanying guiding unit allows the drive to make a tilting movement, which results in the roller screen opening and closing fully. The accompanying couplings ensure a seamless connection on the various different types of roller tubes with diameters of 35 mm, 50 mm and 63 mm. The RPR100 takes up very little space.

Fitting the RPR100 in the centre of the roller screen lowers the torsion of the roller tube and distributes the weight of the PowerRoller, all of which increases the lifespan of the roll-up and screen fabric. Applying the PowerRoller with weight compensation (GS version), even a better roll up is realized. With the application of the weight compensation the weight of the PowerRoller is being compensated.
The maximum roll-up height is approx. 5 metres with 43 revolutions.

There are various possible combinations of the guide system for the PowerRoller. Both the bottom and top of the guiding system can be supplied in a fixed or a movable version. The bottom movable version is suitable for girder widths of 80 mm, to allow the unhindered tilting movement of the PowerRoller. For girder widths exceeding 100 mm, a fixed version can be used at the bottom.
The movable guiding are usually fitted at the top of the guiding system. This enables some sideways movement of the guiding system when the screen is being rolled up. A slight movement caused by a skewed installation is thus taken-up without forces being applied to the guiding unit. With a fixed installation above, the forces are applied through the guiding unit to the screen system during rolling up.

The PowerRoller can also be used for roller screens in Venlo greenhouse outer walls, broad roof structures and for rolling up screens in arched shaped greenhouses.

The RPR100 roller screen drive can be operated manually by using a hexagon socket in the electric motor shaft. This means that the system can be operated manually during installation or during a power failure.



RB50-3.5E^{plus} Tube motor



The Ridder RB50E^{plus} tube motor is a maintenance-free drive suitable for side wall, roof and twin roller screen systems in greenhouses and roller screen systems in livestock sheds. The tube motor is integrated as standard into a 50 mm aluminium tube (wall thickness 1.5 mm) and can be used with 50 mm roll tubes. Because it is integrated, the tube motor can be wound up completely.

The almost-silent RB50E^{plus} tube motor is fitted with a 1-phase 2-core asynchronous electric motor, an integrated brake and permanently lubricated planetary gear unit. The tube motor has a self-repairing thermal protection system, which prevents the burn-out of the drive if the electric motor should overheat.

The RB50E^{plus} tube motor is almost entirely water resistant. The high protection class, IP55, means that the function of the tube motor will not be affected by a damp atmosphere .

The RB50E^{plus} tube motor has as standard an intelligent and precision pulse-counting electronic limit switch system with a range of 38 revolutions. This pulse-counter switches off the tube motor when it reaches its end position and also switches it off for safety reasons in the case of an overload. The switch components in the new electronic limit switch system allow several tube motors to be connected in parallel without using an isolating relay.

Installing the RB50E^{plus} tube motor is quite simple. In combination with the Ridder guiding unit and guide rail, the tube motor can be fitted in a roller screen system, both right and left.

RB50E^{plus} Tube motor:

- Drive torque of 50 Nm at 50 Hz;
- Revolutions of 3.5 rpm at 50 Hz;
- Suitable for intermittent use, operating class s3-6%, duty cycle (kb) 10 minutes;
- Supplied in accordance with protection class IP55;
- Reliable motor brake behaviour, also when operating with undervoltage;
- Supplied with a 1-phase electric motor suitable for mains voltage of 230V at 50Hz.

Art. no.	Description	m	M 50Hz	n 50Hz	U	I	kb	Tube
		kg	Nm	/min	V	A	min	mm
550031	RB50E+3.5-16\230\1\50\38\07	4,2	50	3,5	230	0,65	10	50x1,5

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RB120-11E^{plus} Tube motor



The Ridder RB120E^{plus} tube motor is a maintenance-free drive suitable for side wall, roof and twin roller screen systems in greenhouses and roller screen systems in livestock sheds. The tube motor is integrated as standard into a 63 mm aluminium tube (wall thickness 1.5 mm) and can be used with 63 mm roll tubes. Because it is integrated, the tube motor can be wound up completely.

The almost-silent RB120E^{plus} tube motor is fitted with a 1-phase 2-core asynchronous electric motor, an integrated brake and permanently lubricated planetary gear unit. The tube motor has a self-repairing thermal protection system, which prevents the burn-out of the drive if the electric motor should overheat.

The RB120E^{plus} tube motor is almost entirely water resistant. The high protection class, IP55, means that the function of the tube motor will not be affected by a damp atmosphere .

The RB120E^{plus} tube motor has as standard an intelligent and precision pulse-counting electronic limit switch system with a range of 44 revolutions. This pulse-counter switches off the tube motor when it reaches its end position and also switches it off for safety reasons in the case of an overload. The switch components in the new electronic limit switch system allow several tube motors to be connected in parallel without using an isolating relay.

Installing the RB120E^{plus} tube motor is quite simple. In combination with the Ridder guiding unit and guide rail, the tube motor can be fitted in a roller screen system, both right and left.

RB120E^{plus} Tube motor:

- Drive torque of 120 Nm at 50 Hz;
- Revolutions of 11 rpm at 50 Hz;
- Suitable for intermittent use, operating class s3-6%, duty cycle (kb) 4 minutes;
- Supplied in accordance with protection class IP55;
- Reliable motor brake behaviour, also when operating with undervoltage;
- Supplied with a 1-phase electric motor suitable for mains voltage of 230V at 50Hz.

Art. no.	Description	m	M 50Hz	n 50Hz	U	I	kb	Tube
		kg	Nm	/min	V	A	min	mm
550131	RB120E+11-44\230\1\50\44\07	6,9	120	11	230	1,8	4	63x1,5

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RB40-11 Tube motors



RB40-11 tube motors are maintenance-free drives suitable for side wall, roof and twin roller screen systems in greenhouses. The tube motor is integrated as standard into a 50 mm aluminium tube and can be used with 50 mm roll tubes. The RB40-11 tube motor with a 63 mm aluminium tube is optional, and can be used with 63 mm roll tubes. Because the tube motor is integrated, it can be wound up completely. RB40-11 tube motors are sealed to prevent water from the roll tube infiltrating the drive unit.



The almost-silent RB40-11 tube motors are fitted with a 1-phase 2-core asynchronous electric motor, an integrated brake and permanently lubricated planetary gear unit. The tube motor has a self-repairing thermal protection system, which prevents the burn-out of the drive if the electric motor should overheat.

RB40-11 tube motors have a very precise limit switch system with a range of 38 revolutions, which can be set up easily and quickly. When set up, the limit switch system turns indefinitely, which prevents any defects due to faulty installation.

The installation of the RB40-11 tube motor is quite simple. In combination with the Ridder guiding unit and guide rail, the tube motor can be fitted in a roller screen system, both right and left.

RB40-11 Tube motors:

- Drive torques of 40 Nm at 50 Hz mains frequency;
- Revolutions of 11 rpm at 50 Hz mains frequency;
- Suitable for intermittent operation, operating class s3-6%, duty cycle 4 minutes;
- Fitted with a square shaft pin for connection to the guiding unit;
- Supplied in accordance with protection class IP44;
- Reliable motor brake behaviour, also when operating with undervoltage;
- Standard supplied with 1-phase electric motors, suitable for mains voltages of 230V at 50Hz.

Art. no.	Description	m	M 50Hz	n 50Hz	U	I	kb	Tube
		kg	Nm	/min	V	A	min	mm
550016	RB40-11-26\230\1\50\38\03	3,6	40	11	230	1,1	4	50
550165	RB40-11-26\230\1\50\38\B63	4,1	40	11	230	1,1	4	63

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RB50-3.5 Tube motors



RB50-3.5 tube motors are maintenance-free drives suitable for side wall, roof and twin roller screen systems in greenhouses The tube motor is integrated as standard into a 50 mm aluminium tube and can be used with 50 mm roll tubes. The RB50-3.5 tube motor with a 63 mm aluminium tube is optional, and can be used with 63 mm roll tubes. Because the tube motor is integrated, it can be wound up completely. The RB50-3.5 tube motors are sealed to prevent water from the roll tube infiltrating the drive unit.

The almost-silent RB50-3.5 tube motors are fitted with a 1-phase 2-core asynchronous electric motor, an integrated brake and permanently lubricated planetary gear unit. The tube motor has a self-repairing thermal protection system, which prevents the burn-out of the drive if the electric motor should overheat.

RB50-3.5 tube motors have a fast and simple adjustable precision limit switch system with a range of 38 revolutions. When set up, the limit switch system turns indefinitely, which prevents any defects due to faulty installation.

The installation of the RB50-3.5 tube motors is simple. In combination with the Ridder guiding unit and guide rail, the RB120-11 tube motor can be fitted to both the left and right of a screen roller system.

RB50-3.5 Tube motors:

- Drive torques of 50 Nm at 50 Hz and/or 60 Hz mains frequency;
- Revolutions of 3.5 rpm at 50 Hz, 4.2 rpm at 60 Hz mains frequency;
- Suitable for intermittent operation, operating class s3-6%, duty cycle 10 or 6 minutes;
- Fitted with a square shaft pin for connection to the guiding unit;
- Supplied in accordance with protection class IP44;
- Reliable motor brake behaviour, also when operating with undervoltage;
- Standard supplied met 1-phase electric motors, suitable for mains voltages of 230V at 50Hz and 60Hz;
- Supplied with 1-phase electric motors, suitable for mains voltages of 115 V at 60 Hz.

Art. no.	Description	m	M 50Hz	n 50Hz	M 60Hz	n 60Hz	U	I	kb	Tube
		kg	Nm	/min	Nm	/min	V	A	min	mm
550024	RB50-3.5-16\230\1\50/60\38\03	4,0	50	3,5	50	4,2	230	0,65	10	50
550122	RB50-4.2-14\115\1\60\38\03	4,5			50	4,2	115	1,4	6	50
550162	RB50-3.5-16\230\1\50/60\38B63	4,1	50	3,5	50	4,2	230	0,65	10	63

 218  219  219  223  224  189  239



RB120-11 Tube motors



RB120-11 tube motors are maintenance-free drives suitable for side wall, roof and twin roller screen systems in greenhouses. RB120-11 tube motors are integrated as standard into a 63 mm aluminium tube and can be used with 63 mm roll tubes. Because the tube motor is integrated, it can be wound up completely. The RB120-11 tube motors are sealed to prevent water from the roll tube infiltrating the drive unit.



The almost-silent RB120-11 tube motors are fitted with a 1-phase 2-core asynchronous electric motor, an integrated brake and permanently lubricated planetary gear unit. The RB120-11 tube motor has a self-repairing thermal protection system, which prevents the burn-out of the drive if the electric motor should overheat.

RB120-11 tube motors have a fast and simple adjustable precision limit switch system with a range of 38 revolutions. When set up, the limit switch system turns indefinitely, which prevents any defects due to faulty installation.

The installation of the RB120-11 tube motors is simple. In combination with the Ridder guiding unit and guide rail, the RB120-11 tube motor can be fitted to both the left and right of a screen roller system.

RB120-11 Tube motors:

- Drive torques of 120 Nm at 50 Hz or 60 Hz mains frequencies;
- Revolutions of 11 rpm at 50 Hz, 13 rpm at 60 Hz mains frequency;
- Suitable for intermittent operation, operating class s3-6%, duty cycle 4 minutes;
- Supplied with a square shaft pin for connection to the guiding unit;
- Supplied in accordance with protection class IP44;
- Reliable motor brake behaviour, also when operating with undervoltage;
- Standard supplied with 1-phase electric motors, suitable for mains voltages of 230 V at 50 Hz;
- Also available with 1-phase electric motors, suitable for mains voltages of 115 V at 60 Hz.

Art. no.	Description	m	M 50Hz	n 50Hz	M 60Hz	n 60Hz	U	I	kb	Tube
		kg	Nm	/min	Nm	/min	V	A	min	mm
550180	RB120-11-44\230\1\50\36	6,2	120	11			230	1,9	4	63
550140	RB120-13-48\115\1\60\36	6,2			120	13	115	4,0	4	63

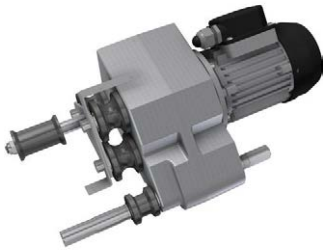
218 219 219 223 224 189 240



Ridder PowerRoller®

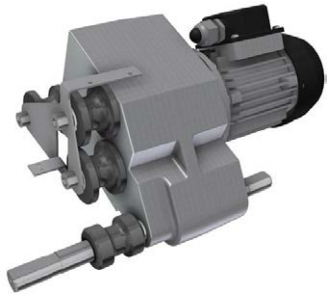
The Ridder RPR100-4 PowerRoller is a maintenance-free drive suitable for side wall, roof and twin roller screen systems in greenhouses and roller screen systems in livestock sheds.

Because of its compact design and patented tilting movement, the RPR100-4 PowerRoller can be fitted with the heating ducts in the side walls of a greenhouse. With the conductor that is specifically designed for the PowerRoller and the tilting movement of the drive, a roller screen can be fully opened and closed. The RPR100-4 PowerRoller couplings ensure a seamless connection to the many suitable types of roller tubes with diameters of 35 mm, 50 mm and 63 mm.



The RPR100-4 PowerRoller has a combination of mutually tuned gearwheel and worm wheel transmissions, which results in an almost silent drive. The self-braking worm wheel transmission for the RPR100-4 ensures that the two-sided output drive shaft is locked when the drive is not running. The PowerRoller can be fitted in the centre of a roller screen system, which significantly lowers the torsion in the roller tube with larger rollup screens.

The Ridder RPR100-4 PowerRoller has an integrated linear limit switch system with control and safety switches that have high switching precision. The maximum switch range for the limit switch system reaches 43 drive shaft revolutions. The PowerRoller comes supplied with a cable tree (harness) set connected to an electric motor and a limit switch system. These should be ordered separately according to the required length.



RPR100-4D PowerRoller:

- Drive torque of 100 Nm at 50 Hz mains frequency;
- Revolutions of 4 rpm at 50 Hz mains frequency;
- Suitable for intermittent use, operating class S2-20%, duty cycle maximum 25 min;
- Manual drive possible though a hexagon socket in the electric motor shaft;
- Electric motors are supplied as standard in accordance with protection class IP55.
- Standard suplied with a 3-phase euro-voltage motor, suitable for mains voltages of 400V at 50Hz (type A).

Art. no.	Description	m	M 50Hz	n 50Hz	M 60Hz	n 60Hz	EM	F ~	PTC	CSA UL	EM no
		kg	Nm	/min	Nm	/min					
550220	RPR100-4-30\400\3\43\GC	11,0	100	3.9			A	3			763035





Cable harness sets RPR100-4 PowerRoller

Cable tree (harness) set with voltage and control current cable for the RPR100-4 PowerRoller. Cable tree (harness) set is,as standard, connected to the RPR100-4 PowerRoller and consists of a 4-core supply cable and a 7-core control current cable. Available in various lengths.

Art. no.	Description	m	L
		kg	mm
550545	CAB-TREE-SET RPR\3F+ES\L4000	0,8	4000
550546	CAB-TREE-SET RPR\3F+ES\L6000	1,2	6000

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RB50/120E^{plus} Adjusting switch

Adjusting switch for the RB50E^{plus} and RB120E^{plus} tube motors for 1-phase, 230V/50Hz. This switch should be used when setting up the RB50/120E^{plus} tube motor. The end position of the tube motor can be set up, changed or re-set using the adjusting switch. The adjusting switch has a plastic connector with pressure clamps (for connecting the RB50/120E^{plus} tube motor), a switch unit with push buttons and a rim-earth plug.

Art. no.	Description	m
		kg
772001	ADJUSTING SET RB50/120E+	0,5



RMC50 Tube motor control unit

The RMC50 motor control units are control boxes used to connect the 1-phase RB tube motors. In the RMC50 motor contol unit, all the electric components needed to ensure the safe operation and the safe connection and drive for a RB tube motor. The RMC50 motor control unit can be used in combination with the RB40-11, RB50-3.5/4.2 and RB120-11 tube motors.

The RMC50 motor control unit which is built into a plastic housing unit has a glass fuse (4A) which prevents any electrical overload. The RMC50 motor control unit also has an adjustable time delay safety function (1 to 10 min). This has two functions, to prevent the failure of a tube motor that is not electrically connected at its end position) and to give an error signal when the pre-set running time has been exceeded. If the electricity supply does not disconnect when the pre-set runnng time has been reached, the motor current will be interrupted by the RMC50's motor control unit. The error signal consists of a visible signal (flashing signal) and an integrated LED.

The RMC50 motor control unit can be operated both manually and by remote control. The RMC50 has two impulse push buttons, one for manual control (on - stop - down - stop) and one for automatic selection (remote) or manual control. The RMC50 can be operated externally using a 24V input signal (AC or DC).

The RMC50 motor control unit has easily accessible clamping strips for connecting the cables. The 1-phase power voltage, the RB tube motor and a 24V transmission signal for external control are connected to the clamping strips. The RMC50 motor control unit features 2 cable glands to feed wiring and leads to the outside of the cabinet.

RMC50 motor control units:

- 1-phase mains voltage 230V (50/60Hz) version;
- Built into a plastic housing (protection classification IP55).

Art. no.	Description	m	U	F ~	I-out 220V	p	I-in 24V-AC\DC	IP
		kg	V		A	Hz	mA	
275510	RMC50-230\1\3D\3.0	0,45	230	1	3	50	6	55
275810	RMC50-115\1\3D\3.0	0,45	115	1	3	60	6	55

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RMC100 Motor control units (3-phase)

The RMC100 motor control units (3-phase version) are complete control boxes designed for the safe operation and safe connection of the 3-phase RPR PowerRoller. All the electric components in the RMC100 motor control unit are contained in a plastic housing.

The RMC100 motor control unit has a motor safety switch, which protects the system from electrical overload and short circuiting. There is a mechanically and electrically locked reverse switch which is used to reverse the rotational direction. To drive the RPR PowerRoller, the RMC100 motor control unit can be operated both manually and by an external transmission signal (24V AC/DC). It is operated manually by using the multi-position selection switch, and by remote control through a 24V control signal (AC or DC).

The RMC100 motor control unit functions best in combination with an RPR PowerRoller with a limiting switch system. When the RSU switch reaches an end position, the RMC100 motor control unit will stop the drive. Should there be any emergency, the safety switch for the RSU will operate, and the RMC100 motor control unit will be rendered voltage -free (the motor safety switch will disconnect).

To ensure a safe working environment, the RMC100 motor control unit is fitted with a transformer which converts the mains voltage supply (3-phase 208V, 400V or 480V) to a 24V-AC voltage. This voltage is used to control the reverse switching and to supply the limiting switch circuits (operating and safety switches for the RSU).

For making the wiring connections, the RMC100 motor control unit is fitted with an extensive and conveniently accessible connector strip. The electric motor, limit switch system and a 24 V control signal for external control are connected to this connector strip. The RMC100 motor control unit features 5 cable glands to feed wiring and leads through to the outside of the cabinet.

RMC100 motor control units:

- Suitable for a 3-phase mains voltage of 208V (3 x 110V), 400V (3 x 230V) and 480V (3 x 277V);
- Supplied as standard in accordance with protection classification IP54.

Art. no.	Description	m	Type	U	F ~	I	p	IP
		kg		V		A	Hz	
582120	RMC100-208/400/480\3\1.6	3,4	-	208/400/480	3	1,0-1,6	50/60	54



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Straight mounting plates for RW45

Straight mounting plate for the RW45 motor gearbox. Available in various lengths, as zinc-plated or bright metal. For bolted or welded attachment. Other lengths or specifications on request.

Art. no.	Description	m	B1	VZ
		kg	mm	
414969	MOUN-PL 85\B195\BL	1,7	195	
414970	MOUN-PL 85\B195	1,7	195	●
414971	MOUN-PL 85\B483.5	3,8	483.5	●
414972	MOUN-PL 85\B503.5	3,9	503.5	●

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Square mounting plates RW45

Square mounting plate for the RW45 motor gearbox. Available in various lengths, as zinc-plated metal. For bolted attachment. Other lengths or specifications on request.

Art. no.	Description	m	H1	VZ
		kg	mm	
417645	MOUN-PL 85\H75	1,80	75	●
417646	MOUN-PL 85\H90	1,95	90	●

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Straight mounting plate for (R)W240/400/600/200

Straight mounting plate for the RW240/400/600/200 motor gearbox. Available in various lengths, as zinc-plated or bright metal. For bolted or welded attachment. Other lengths or specifications on request.

Art. no.	Description	m	B1	VZ
		kg	mm	
413921	MOUN-PL 105-130\B163\BL	1,1	163	
413922	MOUN-PL 105-130\B163	1,15	163	●
413923	MOUN-PL 105-130\B483	3,5	483,5	●
413924	MOUN-PL 105-130\B503	3,6	503,5	●
413931	MOUN-PL 105-130\B553	4,1	553,5	●
413932	MOUN-PL 105-130\B195\BL	1,15	195	
413933	MOUN-PL 105-130\B503\BL	3,5	503,5	
413934	MOUN-PL 105-130\B483\BL	3,4	483,5	
413935	MOUN-PL 105-130\B527	3,7	527,5	●

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Square mounting plates RW45/240/400/600/200

Square mounting plate for the RW45/240/400/600/200 motor gearboxes. Available in various lengths, as zinc-plated metal. For bolted attachment. Other lengths or specifications on request.

Art. no.	Description	m	H1	VZ
		kg	mm	
417636	MOUN-PL 85-105\H90	1,60	90	●
417637	MOUN-PL 85-105\H100	1,65	100	●
417643	MOUN-PL 85-105\H120	1,80	120	●

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Straight mounting plates for RW800

Straight mounting plate for the RW800 motor gearbox. Available in various lengths, as zinc-plated or bright metal. For bolted or welded attachment. Other lengths or specifications on request.

Art. no.	Description	m	B1	VZ
		kg	mm	
424075	MOUN-PL 100VK\B150\L220	2,2	150	●

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Square mounting plates RW800

Square mounting plate for the RW800 motor gearbox. Available in various lengths, as zinc-plated metal. For bolted attachment. Other lengths or specifications on request.

Art. no.	Description	m	H1	VZ
		kg	mm	
424341	MOUN-PL 100VK\H100	3,4	100	●

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Straight mounting plates for RH40

Straight mounting plate for the RH40E and RH40D gearboxes. For bolted or welded attachment. Other lengths or specifications on request.

Art. no.	Description	m	B	VZ
		kg	mm	
417471	MOUN-PL 60\B142	0,35	142	●

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Clamp-mounting plates S/K for RW45/240/400/600

Zinc-plated clamp-mounting plate for mounting the RW45/240/400/600 motor gearboxes in truss-rail ventilation systems with TRN520S and TRN1000S rack drives. Attachment by bolt/locknut clamp-fastening to the lattice beam (lattice height T). Use chain couplings and/or weld/sleeve couplings for both ends of the tubular drive shafts between the RW motor gearbox and TR rack drive.

Art. no.	Description	m	T (S)	VZ	T (K)
		kg	mm		mm
425618	MOUN-PL 85-105\K300\S350\150	4,76	340-555	●	265-485
425619	MOUN-PL 85-105\K450\S500\150	5,88	490-705	●	415-635
425620	MOUN-PL 85-105\K600\S650\150	7,01	640-855	●	565-785
425621	MOUN-PL 85-105\K750\S800\150	8,14	790-1005	●	715-935
425622	MOUN-PL 85-105\K900\S950\150	9,27	940-1155	●	865-1085

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Clamp-mounting plates S (B153.5) for RW45/240/400/600

Zinc-plated clamp-mounting plate for mounting the RW45/240/400/600 motor gearboxes in truss-rail ventilation systems with TRN520S and TRN1000S rack drives. Attachment by bolt/locknut clamp-fastening to the lattice beam (lattice height T). Use chain couplings and/or weld/sleeve couplings for both ends of the tubular drive shafts between the RW motor gearbox and TR rack drive.

Art. no.	Description	m	T	VZ
		kg	mm	
419783	MOUN-PL 85-105\B153\T300-350	3,7	300-350	●
419784	MOUN-PL 85-105\B153\T350-400	4,2	350-400	●
419785	MOUN-PL 85-105\B153\T400-450	4,5	400-450	●
419786	MOUN-PL 85-105\B153\T450-500	4,8	450-500	●
419787	MOUN-PL 85-105\B153\T500-550	5,2	500-550	●
419788	MOUN-PL 85-105\B153\T550-600	5,5	550-600	●

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Clamp-mounting plates K (B225) for RW45/240/400/600

Zinc-plated clamp-mounting plate for mounting the RW45/240/400/600 motor gearboxes in truss-rail ventilation systems with TRN520K, TRN1000K or TRN520KC rack drives. Attachment by bolt/locknut clamp-fastening to the lattice beam (lattice height T). Use chain couplings for both ends of the tubular drive shafts between the RW motor gearbox and TR rack drive.

Art. no.	Description	m	T	VZ
		kg	mm	
419773	MOUN-PL 85-105\B225\T300-350	4,3	300-350	●
419774	MOUN-PL 85-105\B225\T350-400	4,6	350-400	●
419775	MOUN-PL 85-105\B225\T400-450	5,1	400-450	●
419776	MOUN-PL 85-105\B225\T450-500	5,4	450-500	●
419777	MOUN-PL 85-105\B225\T500-550	5,8	500-550	●
419778	MOUN-PL 85-105\B225\T550-600	6,1	550-600	●
419779	MOUN-PL 85-105\B225\T600-650	6,6	600-650	●
419780	MOUN-PL 85-105\B225\T650-700	6,8	650-700	●


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Clamp plate set for clamp-mounting plates

Zinc-plated clamping plate set, for clamp-mounting plate for motor gearboxes RW45/240/400/600. Clamping plate set available for various lattice widths (B). Supplied including fastenings.

Art. no.	Description	m	B	VZ
		kg	mm	
503490	MOUN-SET MOUN-PL\B50	1,2	50	●
503491	MOUN-SET MOUN-PL\B60	1,2	60	●
503499	MOUN-SET MOUN-PL\B70	1,25	70	●
503493	MOUN-SET MOUN-PL\B75	1,25	75	●
503492	MOUN-SET MOUN-PL\B80	1,3	80	●


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Clamp-mounting plates S/K for RW800

Zinc-plated clamp-mounting plate for mounting the RW45/240/400/600 motor gearboxes in truss-rail ventilation systems with TRN520S and TRN1000S rack drives. Attachment by bolt/locknut clamp-fastening to the lattice beam (lattice height T). Use chain couplings and/or weld/sleeve couplings for both ends of the tubular drive shafts between the RW motor gearbox and TR rack drive.

Art. no.	Description	m	T (S)	VZ	T (K)
		kg	mm		mm
425628	MOUN-PL 100VK\K300\S350\150	7,85	345-580	●	250-485
425629	MOUN-PL 100VK\K450\S500\150	9,55	495-730	●	400-635
425630	MOUN-PL 100VK\K600\S650\150	11,24	645-880	●	550-785


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Clamp-mounting plates S (B153.5) for RW800

Zinc-plated clamp-mounting plate for mounting the RW800 motor gearboxes in truss-rail ventilation systems with TRN520S and TRN1000S rack drives. Attachment by bolt/locknut clamp-fastening to the lattice beam (lattice height T). Use chain couplings and/or weld/sleeve couplings for both ends of the tubular drive shafts between the RW motor gearbox and TRN rack drive.

Art. no.	Description	m	T	VZ
		kg	mm	
424080	MOUN-PL 100VK\B153\T300-350	6,0	300-350	●
424081	MOUN-PL 100VK\B153\T350-400	6,5	350-400	●
424082	MOUN-PL 100VK\B153\T400-450	7,1	400-450	●
424083	MOUN-PL 100VK\B153\T450-500	7,6	450-500	●
424084	MOUN-PL 100VK\B153\T500-550	8,2	500-550	●
424085	MOUN-PL 100VK\B153\T550-600	8,7	550-600	●
424086	MOUN-PL 100VK\B153\T600-650	9,3	600-650	●
424087	MOUN-PL 100VK\B153\T650-700	9,9	650-700	●
424088	MOUN-PL 100VK\B153\T700-750	10,5	700-750	●
424089	MOUN-PL 100VK\B153\T750-800	11,0	750-800	●

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Clamp-mounting plates K (B250) for RW800

Zinc-plated clamp-mounting plate for mounting the RW800 motor gearboxes in truss-rail ventilation systems with RackDrive700 rack drives. Attachment by bolt/locknut clamp-fastening to the lattice beam (lattice height T). Use chain couplings for both ends of the tubular drive shafts between the RW motor gearbox and RackDrive700 rack drive.

Art. no.	Description	m	T	VZ
		kg	mm	
424090	MOUN-PL 100VK\B250\T300-350	7,0	300-350	●
424091	MOUN-PL 100VK\B250\T350-400	7,6	350-400	●
424092	MOUN-PL 100VK\B250\T400-450	8,2	400-450	●
424093	MOUN-PL 100VK\B250\T450-500	8,7	450-500	●
424094	MOUN-PL 100VK\B250\T500-550	9,3	500-550	●
424095	MOUN-PL 100VK\B250\T550-600	9,9	550-600	●
424096	MOUN-PL 100VK\B250\T600-650	10,5	600-650	●
424097	MOUN-PL 100VK\B250\T650-700	11,0	650-700	●
424098	MOUN-PL 100VK\B250\T700-750	11,5	700-750	●
424099	MOUN-PL 100VK\B250\T750-800	12,1	750-800	●

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Clamp plate set for clamp-mounting plates RW800

Zinc-plated clamping plate set, for clamp-mounting plate for motor gearboxes RW800. Clamping plate set available for various lattice widths (B). Supplied including fastenings.

Art. no.	Description	m	B	VZ
		kg	mm	
503530	MOUN-SET MOUN-PL\RW800\B50	1,50	50	●
503535	MOUN-SET MOUN-PL\RW800\B60	1,55	60	●

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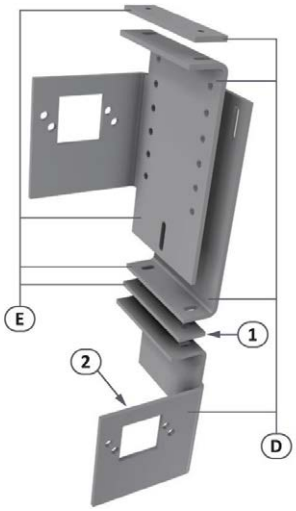


Mounting plates for TRN520-3/1000-3/5S RW45/240/400/600

Zinc-plated mounting plate for mounting of RW45/240/400/600 motor gearboxes in truss-rail ventilation systems with TRN520-3S and TRN1000-3/5S rack drives. Mounting plate attached to lattice exactly adjacent to TRN520-3S or TRN1000-3/5S rack drive. Attachment (with filler plates) to lattice beam by bolt/locknut fastening (lattice height T). Use chain couplings between the adjacently mounted RW motor gearbox and TRN rack drive, and between the RW motor gearbox and the TRN rack drive on the next lattice beam.

Art. no.	Description	m	T	VZ
		kg	mm	
503810	MOUN-PL 85-105\S\400-600\50-60	8,3	400-600	●
503811	MOUN-PL 85-105\S\600-800\50-60	9,9	600-800	●
503812	MOUN-PL 85-105\S\800-1000\5-6	11,5	800-1000	●
503813	MOUN-PL 85-105\S\1000-1200\5-6	13,1	1000-1200	●



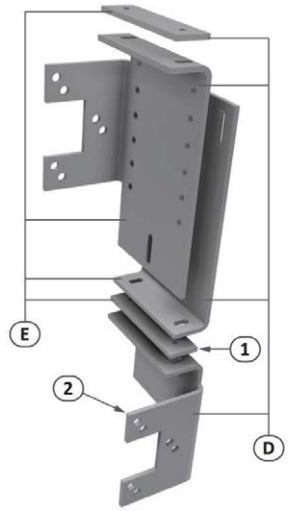


Screen mounting plate RW45 - RSD250

Zinc-plated mounting plate for the Ridder RW45 motor gearboxes in a single or double screen installation with RSD250 rack drives. The mounting plate for the top screen is height-adjustable for lattice heights of 350 to 500 mm and 500 to 650 mm. The mounting plate for the bottom screen is fitted with holes for fitting a strut. Fitting a strut in and/or under the lattice ensures that there are no light or air gaps when the screen is closed. The mounting plate for the top screen is supplied with washer plates.

Art. no.	Description	m	Position
		kg	
503502	MOUN-PL RSD\85\E\H340-495	5,6	E
503507	MOUN-PL RSD\85\E\H490-645	6,70	E
503503	MOUN-PL RSD\85\D\H340-495	8,0	D
503508	MOUN-PL RSD\85\D\H490-645	9,1	D
417693	NUT PLATE 2M8-110\150x40x6\VZ	0,25	1
418270	MOUN-PL 85\TUS\UNDER	2,0	2

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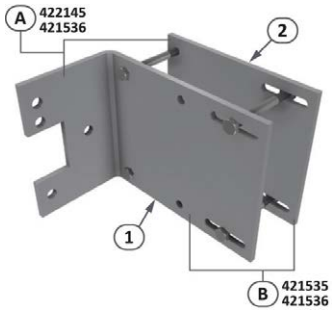


Screen mounting plate RW240/400/600 - RSD250

Zinc-plated mounting plate for the Ridder RW240/400/600 motor gearboxes in a single or double screen installation with RSD250 rack drives. The mounting plate for the top screen is height-adjustable for lattice heights of 350 to 500 mm and 500 to 650 mm. The mounting plate for the bottom screen is fitted with holes for fitting a strut. Fitting a strut in and/or under the lattice ensures that there are no light or air gaps when the screen is closed. The mounting plate for the top screen is supplied with washer plates.

Art. no.	Description	m	Position
		kg	
503500	MOUN-PL RSD\105\E\H340-495	5,5	E
503505	MOUN-PL RSD\85\D\H490-645	6,6	E
503501	MOUN-PL RSD\105\D\H340-495	8,0	D
503506	MOUN-PL RSD 105\D\H490-645	9,1	D
417693	NUT PLATE 2M8-110\150x40x6\VZ	0,25	1
417691	MOUN-PL 105\TUS\UNDER	1,85	2

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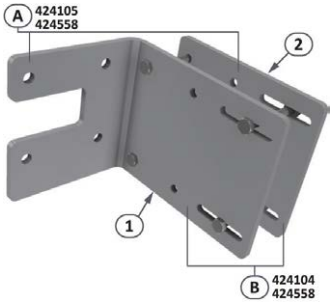


Screen mounting plate RW240/400/600 – Wire screen

Zinc-plated mounting plate for fitting the Ridder RW240/400/600 motor gearboxes into a wire screen system. The mounting plate (1) is fitted to the post with a clamp-plate (2). The clamp-plate is available in two versions, one for the heart roll tube at 92.5 mm from the post and one for the heart roll tube at 100 mm from the post. Other versions available on request.

Art. no.	Description	m	Position
		kg	
503720	MOUN-PL 105\H100\K105-146\DS	6,6	A
503730	MOUN-PL 105\H92\K105-146\DS	6,5	B
422145	MOUN-PL 105\H100\DS	2,0	1
421535	MOUN-PL 105\H92\DS	1,95	1
421536	COUNT-PLATE MOUN-PL\DS	1,25	2

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Screen mounting plate RW800 – Wire screen

Zinc-plated mounting plate set for fitting the Ridder RW800 motor gearboxes into a wire screen system. The mounting plate is fitted to the post with a clamp-plate. The mounting plate set is available in two versions, one for the heart roll tube at 92.5 mm from the post and one for the heart roll tube at 100 mm from the post. Other versions available on request.

Art. no.	Description	m	Position
		kg	
503700	MOUN-PL 100VK\H100\K105-146\DS	6,6	A
503710	MOUN-PL 100V\H92\K105-146\DS	6,5	B
424105	MOUN-PL 100VK\H100\K100-140\DS	3,95	1
424104	MOUN-PL 100VK\H92\K100-140\DS	3,85	1
424558	COUNT-PLATE 100VK\K100-140\DS	2,3	2







Mounting brackets RW1000/1400/1200S/1600S

Zinc-plated mounting bracket for fitting the RW1000/1400/1200S/1600S motor gearboxes into a wire screen system. Available in various sizes (heart drive shaft to post (B) and post widths (K)). Fit to the post using a mounting set. This set includes locking bolts.

Art. no.	Description	m	B	VZ	K
		kg	mm		mm
421351	MOUN-PL RWS\B088\K100-120\VM	6,3	88	●	100-120
421695	MOUN-PL RWS\B100\K100-120\VM	6,5	100	●	100-120
423372	MOUN-PL RWS\B100\K140-160\VM	7,1	100	●	140-160
424731	MOUN-PL RWS\88-100\K100-160\VM	11,4	88	●	100-160





Mounting sets mounting bracket RW1000/1400/1200S/1600S

Mounting sets for mounting bracket RW1000/1400/1200S/1600S motor gearboxes for clamping onto greenhouse posts (width K).

Art. no.	Description	m	K
		kg	mm
503498	MOUN-SET RWS\FOOT-M\K100-120	0,8	100-120
503511	MOUN-SET RWS\FOOT-M\K140-160	1,0	140-160



Base plate for motor bracket TRI-RW45/240/400/600

Zinc-plated base plate for mounting the RW45/240/400/600 motor gearboxes in swinging-ventilation systems with TR10I , TR25I or TR520I gear rack drives. The base plate is mounted to a C-profile of the gear rack drive and/or universal C-profiles, using the accessory mounting set.

Art.nr.	Omschrijving	m
		kg
421152	MOUN-PL MOT-SUPPORT\TRI	5,20





Mounting set for motor bracket TRI-RW45/240/400/600

Mounting set with zinc-plated components for motor bracket, for mounting the RW45/240/400/600 motor gearboxes in swinging-ventilation systems with TR10I , TR25I or TR520I gear rack drives. The mounting set consists of 4 U-brackets, 4 tap bolts M10 x 25, 4 self-locking M10 nuts and 8 self-locking M8 nuts.

Art.nr.	Omschrijving	m
		kg
503497	MOUN-SET MOT-SUPPORT\TRI	0,60





Mounting plate for motor bracket TRI-RW45/240/400/600

Zinc-plated square mounting plate for motor bracket, mounting the RW45/240/400/600 motor gearboxes in swinging-ventilation systems with TR10I , TR25I or TR520I gear rack drives. The mounting plate is fitted to the base plate of the motor bracket using the M10 bolts and nuts from the accessory mounting set.

Art.nr.	Omschrijving	m
		kg
417637	MOUN-PL 85-105\H100	1,65





Mounting plate RW200-T11

Square mounting plate for mounting RW200-34 motor gearboxes with T11 gearbox to greenhouse post.

Art. no.	Description	m	VZ
		kg	
419458	MOUN-PL 105\H81\T11	1,60	•





Chain couplings 1/2"x5/16", 12-tooth (RW45)

Flexible zinc-plated coupling for connecting RW45 motor gearboxes to tubular shafts. The chain coupling is suitable for absorbing small centering and alignment errors. The chain coupling set consists of a 12-tooth 1/2"x5/16" sprocket for the tubular shaft, a duplex chain and a master link. The tubular shaft sprocket must be fixed to the tubular shaft by welding. The RW45 motor gearboxes are fitted standard with 12-tooth 1/2"x5/16" sprockets.

Art. no.	Description	m	Chain	z	M	Angle	Tube
		kg	in		Nm	°	in
590000	CH-COUP 1/2\z12\B1	0,41	1/2"x5/16"	12	120	1°	1"
590003	CH-COUP 1/2\z12\B5/4	0,55	1/2"x5/16"	12	120	1°	5/4"
590099	CH-COUP 1/2\z12\B2	0,55	1/2"x5/16"	12	120	1°	2"
416256	SPROCKET 1/2\z12\B1	0,20	1/2"x5/16"	12	120	0,5°	1"
418062	SPROCKET 1/2\z12\B5/4	0,35	1/2"x5/16"	12	120	0,5°	5/4"
419751	SPROCKET 1/2\z12\B2\VZ	0,32	1/2"x5/16"	12	120	0,5°	2"
414246	CHAIN 1/2x5/16\DU\p11	0,20	1/2"x5/16"				
281010	CHAIN CONNECTOR 1/2x5/16\DU	0,02	1/2"x5/16"				

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Bolted chain couplings 1/2"x5/16", 12-tooth (RW45)

Flexible zinc-plated coupling for connecting RW45 motor gearboxes with tubular shafts. The bolted chain coupling is suitable for absorbing small centering and alignment errors. The bolted chain coupling set consists of a 12-tooth 1/2"x5/16" bolted sprocket for the tubular shaft, a duplex chain and a master link. The bolted sprocket for tubular shafts is mounted on the tubular shaft by a bolt & nut. The RW45 motor gearboxes are fitted standard with 12-tooth 1/2"x5/16" sprockets.

Art. no.	Description	m	Chain	z	M	Angle	Tube
		kg	in		Nm	°	in
590001	CH-COUP 1/2\z12\B1\BOLT	0,85	1/2"x5/16"	12	120	1°	1"
590002	CH-COUP 1/2\z12\B5/4\BOLT	0,89	1/2"x5/16"	12	120	1°	5/4"
417410	SPROCKET 1/2\z12\B1\BOLT	0,45	1/2"x5/16"	12	120	0,5°	1"
417461	SPROCKET 1/2\z12\B5/4\BOLT	0,50	1/2"x5/16"	12	120	0,5°	5/4"
414246	CHAIN 1/2x5/16\DU\p11	0,20	1/2"x5/16"				
281010	CHAIN CONNECTOR 1/2x5/16\DU	0,02	1/2"x5/16"				

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Sprocket wheel 1/2"x5/16", 12-tooth (RH40)

Zinc-plated sprocket wheel for mounting on the RH40 gearbox, for using chain couplings.

Art. no.	Description	m	Chain	z	M	Angle	Shaft
		kg	in		Nm	°	mm
413494	SPROCKET 1/2\z12\A19	0,20	1/2"x5/16"	12	120	0,5°	19



Sprocket set 1/2"x5/16", 16-tooth (RW45)

Set of zinc-plated sockets for mounting on the RW45 motor gearbox. Standard 12-tooth 1/2"x5/16" sprockets are replaced by this set of 16-tooth 1/2"x5/16" sprockets. The sprocket set is used to compensate for large angle differences (up to 6°) in the drive shaft. The set is only available in combination with the RW45 motor gearbox.

Art. no.	Description	m	Chain	z	M	Angle	Shaft
		kg	in		Nm	°	mm
590221	SPROCKET SET RW45\z12>z16	0,78	1/2"x5/16"	16	240	3°	19
418735	SPROCKET 1/2\z16\S\A19	0,65	1/2"x5/16"	16	240	3°	1"



Chain couplings 1/2"x5/16", 16-tooth (RW45/RW200)

Flexible zinc-plated coupling for connecting RW200 or RW45 motor gearboxes to tubular shafts. The chain coupling is suitable for absorbing small centering and alignment errors. The chain coupling set consists of a 16-tooth 1/2"x5/16" sprocket for the tubular shaft, a duplex chain and a master link. The tubular shaft sprocket must be fixed to the tubular shaft by welding. The RW200 motor gearboxes are fitted standard with 16-tooth 1/2"x5/16" sprockets; when using these chain couplings with the RW45 motor gearboxes, a special type must be ordered.

Art. no.	Description	m	Chain	z	M	Angle	Tube
		kg	in		Nm	°	in
590023	CH-COUP 1/2\z16\S\B1	0,55	1/2"x5/16"	16	240	6°	1"
590024	CH-COUP 1/2\z16\S\B5/4	0,43	1/2"x5/16"	16	240	6°	5/4"
416953	SPROCKET 1/2\z16\B1	0,25	1/2"x5/16"	16	240	3°	1"
416954	SPROCKET 1/2\z16\B5/4	0,15	1/2"x5/16"	16	240	3°	5/4"
414245	CHAIN 1/2x5/16\DU\p15	0,30	1/2"x5/16"				
281010	CHAIN CONNECTOR 1/2x5/16\DU	0,02	1/2"x5/16"				

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Bolted chain couplings 1/2"x5/16", 16-tooth (RW45/RW200)

Flexible zinc-plated coupling for connecting RW200 or RW45 motor gearboxes to tubular shafts. The bolted chain coupling is suitable for absorbing small centering and alignment errors. The bolted chain coupling set consists of a 16-tooth 1/2"x5/16" bolted sprocket for the tubular shaft, a duplex chain and a master link. The bolted sprocket for tubular shafts is mounted on the tubular shaft by a bolt & nut. The RW200 motor gearboxes are fitted standard with 16-tooth 1/2"x5/16" sprockets; when using these chain couplings with the RW45 motor gearboxes, a special type must be ordered.

Art. no.	Description	m	Chain	z	M	Angle	Tube
		kg	in		Nm	°	in
590008	CH-COUP 1/2\z16\S\B1\BOLT	0,80	1/2"x5/16"	16	240	6°	1"
418926	SPROCKET 1/2\z16\S\B1\BOLT	0,65	1/2"x5/16"	16	240	3°	1"
414245	CHAIN 1/2x5/16\DU\p15	0,30	1/2"x5/16"				
281010	CHAIN CONNECTOR 1/2x5/16\DU	0,02	1/2"x5/16"				

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Chain couplings 1/2"x5/16", 16-tooth (P26.5)

Flexible zinc-plated coupling for connecting RW200 gearboxes to T11 gear boxes. The chain coupling is suitable for absorbing small centering and alignment errors. The chain coupling set consists of a 16-tooth 1/2"x5/16" sprocket for the tubular shaft, a duplex chain and a master link. The tubular shaft sprocket must be fixed to a tubular shaft with P26.5 shaft end. The RW200 motor gearboxes are fitted standard with 16-tooth 1/2"x5/16" sprockets.

Art. no.	Description	m	Chain	z	M	Angle	Shaft
		kg	in		Nm	°	mm
590006	CH-COUP 1/2\z16\S\P26.5	0,65	1/2"x5/16"	16	240	6°	P26,5
417118	SPROCKET 1/2\z16\S\P26.5	0,35	1/2"x5/16"	16	240	3°	P26,5
414245	CHAIN 1/2x5/16\DU\p15	0,30	1/2"x5/16"				
281010	CHAIN CONNECTOR 1/2x5/16\DU	0,02	1/2"x5/16"				

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Chain couplings 5/8"x3/8", 16-tooth (RW240/400/600/800)

Flexible zinc-plated coupling for connecting RW240/400/600/800 motor gearboxes to tubular shafts. The chain coupling is suitable for absorbing small centering and alignment errors. The chain coupling set consists of a 16-tooth 5/8"x3/8" sprocket for the tubular shaft, a duplex chain and a master link. The tubular shaft sprocket must be fixed to the tubular shaft by welding. The RW240/400/600/800 motor gearboxes are fitted standard with 16-tooth 5/8"x3/8" sprockets.

Art. no.	Description	m	Chain	z	M	Angle	Tube
		kg	in		Nm	°	in
590011	CH-COUP 5/8\z16\S\B1-B2	0,96	5/8"x3/8"	16	400	6°	1"-2"
590012	CH-COUP 5/8\z16\S\B5/4	0,89	5/8"x3/8"	16	400	6°	5/4"
417263	SPROCKET 5/8\z16\S\B1	0,45	5/8"x3/8"	16	400	3°	1"-2"
416880	SPROCKET 5/8\z16\S\B5/4	0,40	5/8"x3/8"	16	400	3°	5/4"
414243	CHAIN 5/8x3/8\DU\p15	0,50	5/8"x3/8"				
281030	CHAIN CONNECTOR 5/8x3/8\DU	0,03	5/8"x3/8"				

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Bolted chain couplings 5/8"x3/8", 16-tooth (RW240/400/600/800)

Flexible zinc-plated coupling for connecting RW240/400/600/800 motor gearboxes to tubular shafts. The bolted chain coupling is suitable for absorbing small centering and alignment errors. The bolted chain coupling set consists of a 16-tooth 5/8"x3/8" bolted sprocket for the tubular shaft, a duplex chain and a master link. The bolted sprocket for tubular shafts is mounted on the tubular shaft by a bolt & nut. The RW240/400/600/800 motor gearboxes are fitted standard with 16-tooth 5/8"x3/8" sprockets.

Art. no.	Description	m	Chain	z	M	Angle	Tube
		kg	in		Nm	°	in
590016	CH-COUP 5/8\z16\S\B1\BOLT	1,3	5/8"x3/8"	16	400	6°	1"
590014	CH-COUP 5/8\z16\S\B5/4\BOLT	1,18	5/8"x3/8"	16	400	6°	5/4"
417490	SPROCKET 5/8\z16\S\B1\BOLT	0,82	5/8"x3/8"	16	400	3°	1"
417462	SPROCKET 5/8\z16\S\B5/4\BOLT	0,76	5/8"x3/8"	16	400	3°	5/4"
414243	CHAIN 5/8x3/8\DU\p15	0,50	5/8"x3/8"				
281030	CHAIN CONNECTOR 5/8x3/8\DU	0,03	5/8"x3/8"				

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Chain couplings 5/8"x3/8", 16-tooth (tube-tube)

Flexible zinc-plated coupling for extending tubular drive shafts. The chain coupling is suitable for absorbing small centering and alignment errors. The chain coupling set consists of two zinc-plated sprockets for the tubular shaft, a zinc-plated duplex chain and a zinc-plated master link. The sprockets for the tubular shafts are fixed to the tubular shaft by means of welding.

Art. no.	Description	m	Chain	z	M	Angle	Tube
		kg	in		Nm	°	in
590026	CH-COUP 5/8\z16\S\B5/4\B5/4	1,30	5/8"x3/8"	16	400	6°	5/4"
416880	SPROCKET 5/8\z16\S\B5/4	0,40	5/8"x3/8"	16	400	3°	5/4"
414243	CHAIN 5/8x3/8\DU\p15	0,50	5/8"x3/8"				
281030	CHAIN CONNECTOR 5/8x3/8\DU	0,03	5/8"x3/8"				

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Chain couplings 3/4"x7/16", 16-tooth (RW1000/1400/1200S/1600S)

Flexible zinc-plated coupling for connecting the RW1000/1400 and RW1200/1600S motor gearboxes to the tube shafts. The chain coupling is suitable for absorbing small centering and alignment errors. The chain coupling set consists of a 16-tooth 3/4"x7/16" sprocket for the tube shaft, a duplex chain and a master link. The tubular shaft sprocket must be fixed to the tubular shaft by welding. The RW1000/1400 and RW1200/1600S motor gearboxes are fitted as standard with 16-tooth 3/4"x7/16 chain wheel sprockets.

Art. no.	Description	m	Chain	z	M	Angle	Tube
		kg	in		Nm	°	in
590051	CH-COUP 3/4\z16\B1-B2	1,70	3/4"x7/16"	16	700	1°	1"-2"
590052	CH-COUP 3/4\z16\B5/4	1,70	3/4"x7/16"	16	700	1°	5/4"
410312	SPROCKET 3/4\z16\B1	1,20	3/4"x7/16"	16	700	0,5°	1"-2"
414013	SPROCKET 3/4\z16\B5/4	1,20	3/4"x7/16"	16	700	0,5°	5/4"
414244	CHAIN 3/4x7/16\DU\p15	0,50	3/4"x7/16"				
281020	CHAIN CONNECTOR 3/4x7/16\DU	0,04	3/4"x7/16"				

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Sprockets for RackDrive700 rack drive

Galvanized sprockets for RackDrive700 rack drives for flexible chain coupling, for connecting drives to tubular shafts. Sprockets are available in different versions.

- ZK23 version for RackDrive710/720 rack drive units;
- ZK30 version for RackDrive760/770 rack drive units.

Art. no.	Description	m	Chain	z	M	Angle	Shaft
		kg	in		Nm	°	mm
423970	SPROCKET 1/2\z16\S\ZK23	0,52	1/2"x5/16"	16	240	3°	ZK23
423971	SPROCKET 5/8\z16\S\ZK23	0,82	5/8"x3/8"	16	400	3°	ZK23

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Sprocket TRN/TRI rack drives (P26.5)

Zinc-plated sprocket for flexible chain coupling, for connecting drives to tubular shafts. Sprocket for mounting on 26.5x20 mm shaft with flat sides.

Art. no.	Description	m	Chain	z	M	Angle	Shaft
		kg	in		Nm	°	mm
417118	SPROCKET 1/2\z16\S\P26.5	0,35	1/2"x5/16"	16	240	3°	P26,5
416881	SPROCKET 5/8\z16\S\P26.5	0,40	5/8"x3/8"	16	400	3°	P26,5
421513	SPROCKET 5/8\z16\S\P26.5\L52	0,73	5/8"x3/8"	16	400	3°	P26,5

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Slide welding joints for RackDrive700 rack drives

Galvanized slide welding joint for mounting on drive shafts of RackDrive700 rack drives. The slide welding joints must be welded to 5/4" or 2" tubular shafts.

- ZK23 version for RackDrive710/720 rack drive units;
- ZK30 version for RackDrive760/770 rack drive units.

Art. no.	Description	m	M	Shaft	D Tube	t Tube
		kg	Nm	mm	in	mm
424227	COUP-AD ZK23\5/4x2.5\42\WELD	0,31	400	ZK23	5/4"	2.5
424228	COUP-AD ZK23\5/4x4.0\WELD	0,30	400	ZK23	5/4"	4,05

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Weld/sleeve couplings for 1" tubular shafts

Zinc-plated weld/sleeve coupling for fitting drives with a drive shaft P26,5 (=Ø26.5mm having flat sides 20mm).Fixed to 1" tubular shaft by welding.

Art. no.	Description	m	M	Shaft	Tube
		kg	Nm	mm	in
401635	COUP-AD P26.5\B1\L40\WELD	0,20	300	P26,5	1"

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Weld/sleeve couplings for 5/4" tubular shafts

Zinc-plated weld/sleeve coupling for fitting drives with a drive shaft P26,5 (=Ø26.5mm having flat sides 20mm).Fixed to 5/4" tubular shaft by welding.

Art. no.	Description	m	M	Shaft	Tube
		kg	Nm	mm	in
421978	COUP-AD P26.5\B5/4\ST\L44\WELD	0,20	300	P26,5	5/4"

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Shaft retaining clips for RackDrive rack drives

Stainless steel shaft retaining clip for use on drive shafts of RackDrive700/800 rack drives to lock prefab tubular drive shafts in couplings. These clips are available in two versions:

- ZK23 version for RackDrive710/720/810/820 rack drive units;
- ZK30 version for RackDrive760/770/760/870 rack drive units.

Art. no.	Description	m	Shaft
		kg	mm
423983	SHAFT GUARD CLIP RVS\ZK23\L40	0,02	ZK23

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Shaft retaining clips TRN/TRI/RSD rack drives

Stainless steel shaft retaining clip for use on journals (26.5 mm) with flat sides (20 mm), to lock prefab tubular drive shafts into couplings.

Art. no.	Description	m	Shaft
		kg	mm
418694	SHAFT GUARD CLIP RVS\P26.5	0,11	P26,5

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Sleeve/bolt coupling

Zinc-plated sleeve/bolt coupling for connecting drives to tubular shafts. Fixed to tubular shaft with 2 hexagonal bolts (M8) and self-locking nuts.

Art. no.	Description	m	M	Shaft	Tube
		kg	Nm	mm	in
419404	COUP-AD P26.5\B1\BOLT	0,55	300	P26,5	1"
419550	COUP-AD P26.5\B5/4\L152\BOLT	0,60	300	P26,5	5/4"

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Welded sleeve coupling RH40, 1"

Zinc-plated welded sleeve coupling for fitting to the RH40 gearbox. The welded sleeve coupling is connected to the 1" tubular shaft by welding.

Art. no.	Description	m	M	Shaft	Tube
		kg	Nm	mm	in
418824	COUP-AD A19\B1\L40\M8\WELD	0,27	120	19	1"

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Sleeve/bolt coupling RH40, 1"

Zinc-plated sleeve/bolt coupling for fitting to the RH40 gearbox. Fixed to tubular shaft with 2 hexagonal bolts (M8) and self-locking nuts.

Art. no.	Description	m	M	Shaft	Tube
		kg	Nm	mm	in
423040	COUP-AD A19\B1\BOLT	0,55	120	19	1"

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Welded sleeve coupling HW60, 1"

Zinc-plated welded sleeve coupling for fitting to the HW60 manual drive. The welded sleeve coupling is connected to the 1" tubular shaft by welding.

Art. no.	Description	m	M	Shaft	Tube
		kg	Nm	mm	in
417261	COUP-AD P20\B1\L30\M8\WELD	0,11	60	P20	1"

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Weld /free wheeling coupling RSD250 (P26.5)

The weld /free wheeling coupling connects the 5/4" and 1"-drive shaft tubes to the RSD250 rack drive for the screen suspension.The coupling can be adjusted by means of a lock bolt for 310 or 130 degrees free-wheeling. The coupling can be fixed to a drive shaft tube by (prefab-)welding.

Art. no.	Description	m	M	Shaft	Tube
		kg	Nm	mm	in
591203	COUP-AD P26.5\B1\B5/4\CL\WELD	0,95	110	P26,5	1 - 5/4

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Reducing coupling box for SC40 cardan shaft

Zinc-plated reducing coupling box for fitting to the RW45 motor gearbox or RH40 gearbox. By using the reducing coupling box, an SC40 cardan shaft can be fixed to the RW45 motor gearbox or RH40 gearbox.

Art. no.	Description	m	M	Shaft (SC40)	Shaft RW-H
		kg	Nm	mm	mm
418631	COUPL A19\KR20\L68\M8\VZ	0,37	120	20	19

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Welded coupling shaft

Welded coupling shaft for coupling the universal joint to the tubular shaft. Suitable for 1" or 3/4" tube. To be fastened to the tubular shaft by welding.

Art. no.	Description	m	M	Shaft	Tube	VZ
		kg	Nm	mm	in	
413702	COUP-SH KR20\B3/4\L68\WELD	0,20	120	20	3/4"	
418744	COUP-SH B1\KR20\WELD	0,30	120	20	1"	
422672	COUP-SH B1\KR20\VZ\WELD	0,30	120	20	1"	•

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Coupling shaft

Zinc plated coupling shaft for coupling the universal joint to the tubular shaft. Suitable for 1" or 3/4" tube. To be fastened to the tubular shaft by a M8 bold connection.

Art. no.	Description	m	M	Shaft	Tube
		kg	Nm	mm	in
423143	COUP-SH B3/4\KR20\2D8.5L68\VZ	0,20	120	20	3/4"
422951	COUP-SH B1\KR20\D8.5\L68\VZ	0,30	120	20	1"

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Universal joints for RW240/400/600

Universal joints for connecting RW240/400/600 motor gearboxes to tubular shafts. The universal joint can be used to absorb angular misalignments of up to 30°. The universal joint is fixed to the tubular shaft by welding.

Art. no.	Description	m	M	Angle	Shaft	Tube
		kg	Nm	°	mm	in
419104	UNIV-JOINT 250\30\A28\B1	1,14	250	30°	28	1"
416728	UNIV-JOINT 250\30\A28\B5/4	1,15	250	30°	28	5/4"
419096	UNIV-JOINT 250\30\A34\B1	1,25	250	30°	34	1"
416726	UNIV-JOINT 250\30\A34\B5/4	1,72	250	30°	34	5/4"

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Universal joints P26.5 for drives

Universal joints for attaching 5/4" tubular drive shafts to rack drives. Universal joint can be fitted to journals P26,5 (=Ø 26.5mm with flat sides 20 mm). Attach coupling to 5/4" tubular drive shaft by welding.

Art. no.	Description	m	M	Angle	Shaft	Tube
		kg	Nm	°	mm	in
416727	UNIV-JOINT 250\30\P26.5\B5/4	1,0	250	30°	P26,5	5/4"

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Universal joint tubular drive shafts

Universal joint for attaching 5/4" tubular drive shafts to each other. Attach coupling to 5/4" tubular drive shafts by welding.

Art. no.	Description	m	M	Angle	Tube
		kg	Nm	°	in
416725	UNIV-JOINT 250\30\B5/4	0,78	250	30°	5/4"

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Universal joint RH40/HW60

Universal joint for mounting on zinc-plated coupling box, for mounting on the RH40 gearbox and for mounting on the HW60 manual drive.

Art. no.	Description	m	M	Angle	Shaft
		kg	Nm	°	mm
282015	UNIV-JOINT 120\50\2A20	0,32	120	30°	20

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Counterplates for TRN520S and TRN1000S rack drives

Zinc-plated counterplate for mounting TRN520-3S, TRN1000-3S and TRN1000-5S rack drives. The counterplate is fitted below the truss, to prevent deformation of the truss. Use 2 counterplates per rack drive.

Art. no.	Description	m
		kg
412815	COUNT-PLATE 45x45x5\D11\VZ	0,08

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Tube-rack coupling plates for RackDrive700 and TRN rack drives

Galvanized tube-rack coupling plates for connecting the racks of the Ridder RackDrive700 and TRN rack drives to ø27 mm or ø32 mm diameter tube, using bolt/nut fastening. The rack heart is aligned with the tube centre line.

Art. no.	Description	m	Rack	Tube
		kg	mm	mm
416489	COUP-PL H30x16\B27-H30x20\B32	0,1	30x16 / 30x20	27 / 32
416490	COUP-PL H30x16\B32	0,1	30x16	32
418736	COUP-PL H30x20\B27-H30x25\B32	0,1	30x20 / 30x25	27 / 32

287



Tube-rack adapter for RackDrive and TRN rack drives

Galvanized tube-rack adapter plates for connecting the racks of the Ridder RackDrive and TRN rack drives with 23.5mm axle stub to ø32 mm diameter tube, using bolt/nut fastening. The rack heart is aligned with the tube centre line.

Art. no.	Description	m	Rack Ø	Tube
		kg	mm	mm
423914	ADAPTER 28x2.5\L70\2D10\SL	0,11	23,5	32

287



Mounting fork set C-profile

Zinc-plated mounting fork set for mounting TRI rack drives and universal C-profiles to steel greenhouse gutters (AP, APD). Mounting forks are clamped in the C-profile.

Art. no.	Description	m
		kg
500305	MOUN-SET TRI\FORK\G15\VZ	0,86
500306	MOUN-SET TRI\FORK\G0\VZ	0,86

289



Mounting bow set for C-profile

Zinc-plated mounting bow set for mounting TRI rack drives and universal C-profiles to greenhouse gutters. Mounting bows are clamped in the C-profile.

Art. no.	Description	m
		kg
500308	MOUN-SET TRI\BRA\L80-125\VZ	1,05

290



Stabilising clamp set TRI

Zinc-plated stabilising clamp set for TR10I, TR25I and TR520I rack drives. The stabilisation clamp set is suitable for use with TRI rack drives longer than 4.0 m. The clamp set is mounted in the centre of the drive unit to enable strutting to the greenhouse ridge using tensioning rods.

Art. no.	Description	m
		kg
500309	MOUN-SET TRI\STABILISATION	0,2 kg



C-profiles



Zinc-plated universal C-profile for use with TRI rack drives (mounting to motor bracket RW motor gearbox). The C-profile can be mounted to the greenhouse gutter using mounting forks or bows.

Art. nr.	Omschrijving	m	L	Lk
		kg	mm	mm
421020	C-PROFILE 45x38x2\L3000\Gr	6,2	3000	3200
421021	C-PROFILE 45x38x2\L3800\Gr	7,6	3800	4000





C-profiles - Single



Zinc-plated universal C-profile with a mounting fork for mounting to the TRN520-2GK rack drive. Mounted to steel gutter (AP, APD) with bolt-locking nut connection.

Art. no.	Description	m	TR	Lk
		kg		mm
503320	C-PROFILE L3000\1FORK15	6,5	TR523KG	3200
503321	C-PROFILE L3800\1FORK15	8	TR523KG	4000





Window bracket set

Aluminium window bracket set for fixing sheet steel racks H22-3 or H30-3 to air vent or ventilation flap. Supplied with stainless steel bolt and self-locking nut.

Art. no.	Description	m
		kg
500021	WINDOW BRACKET L20\D6\RVS\S68	0,05





Coupling set RSD250 rack drives

Zinc-plated steel coupling unit used to connect the rack plate (PH40-3) for the RSD250 rack drive with push-pull tube Ø27 mm or Ø32 mm. Couplings are fixed to the rack plate and push-pull tube with bolts.

Art. no.	Description	m	Rack	Tube
		kg		mm
500208	CONNECTOR SET 40-3\B27	0,41	PH40	27
500209	CONNECTOR SET 40-3\B32	0,46	PH40	32
591500	CONNECTOR SET 40\B32x1.9\ST	0,45	PH40	32

288



Screen bracket set TU\PH30/40-3

Zinc-plated steel screen bracket set used to secure the sheet steel racks PH30-3/PH40-3 to the push-pull tube in screen systems. The screen bracket set consists of coupling plates and assembly components for fitting onto sheet steel racks. The rack plate is fitted underneath the push-pull tube. The screen bracket set should be used in combination with the TU11-30 (sheet steel racks PH30-3) or TU21-40 (sheet steel racks PH40-3) pinion housing units.

Art. no.	Description	m
		kg
500041	SCREEN BRACKET SET TU-H30/40-3	0,72

289



Clamp mounting set RSD250-40LR rack drive

Zinc-plated clamp mounting set for the RSD250-40LR rack drive (500290) for fitting the housing unit to the lattice using clamps. The clamp mounting set consists of a clamping plate, U-bolts and self-locking nut and is available for lattice widths (B) of 50mm and 60mm.

Art. no.	Description	m	B
		kg	mm
599061	MOUN-SET RSD250\K50\CLAMP	0,34	50
599064	MOUN-SET RSD250\K60\CLAMP	0,41	60

287



Counter-plate RSD250 rack drive

Zinc-plated counter-plate for fixing the RSD250 tooth-racked drives. The counter-plate should be mounted on the truss (duct section) to prevent any affect on the duct.

Art. no.	Description	m
		kg
412814	COUNT-PLATE 45x45x5\D09\VZ	0,08

288



Nut plate RSD250-40 rack drive

Zinc-plated nut plate for fixing the RSD250-40 rack drives (500280) to the duct- or C-sections. The nut plate should be above the truss (duct section) or mounted in the C-section.

Art. no.	Description	m
		kg
417191	NUT PLATE 2M8-49\75x40x5\VZ	0,12

288



Sliding block RSD250 rack drive

Synthetic sliding block for use in the RSD250 rack drive when the rack drive has to be mounted non-horizontally. The sliding block can be mounted in the slotted holes in the side plate of the RSD250 rack drive to take up the weight of the rack plate.

Art. no.	Description	m
		kg
401088	GUID-BLOCK TR25\RSD250	0,01

288



Ball bearing plates B1" - Right angled

Zinc-plated right angled ball bearing plate with 4 roller bearings for 1" tubular shaft. Other sizes available on request.

Art. no.	Description	m	F	H	Tube
		kg	N	mm	in
503030	BEAR-PL BB\B1\H90	0,55	1000	90	1"
503034	BEAR-PL BB\B1\H100	0,6	1000	100	1"
503029	BEAR-PL BB\B1\H120	0,65	1000	120	1"
503031	BEAR-PL BB\B1\H163	0,8	1000	163	1"
503032	BEAR-PL BB\B1\H195	0,85	1000	195	1"
503033	BEAR-PL BB\B1\H225	0,95	1000	225	1"

293



Ball bearing plates B5/4" - Right angled

Zinc-plated right-angled ball bearing plate with 4 roller bearings for 5/4" tubular shaft. Other sizes available on request.

Art. no.	Description	m	F	H	Tube
		kg	N	mm	in
503035	BEAR-PL BB\B5/4\H90	0,55	1000	90	5/4"
503039	BEAR-PL BB\B5/4\H100	0,6	1000	100	5/4"
503028	BEAR-PL BB\B5/4\H120	0,65	1000	120	5/4"
503036	BEAR-PL BB\B5/4\H163	0,8	1000	163	5/4"
503037	BEAR-PL BB\B5/4\H195	0,85	1000	195	5/4"
503038	BEAR-PL BB\B5/4\H225	0,95	1000	225	5/4"

293



Slide bearing plates B1" - Straight

Zinc-plated straight slide bearing plate with self-lubricating sintered bronze ring bearing for 1" tubular shaft. Other lengths on request.

Art. no.	Description	m	F max	B	Tube
		kg	N	mm	in
503086	BEAR-PL SL\B1\B062\L092	0,11	500	62	1"
503089	BEAR-PL SL\B1\B067\L097	0,11	500	67	1"
503090	BEAR-PL SL\B1\B072\L102	0,12	500	72	1"
503095	BEAR-PL SL\B1\B077\L107	0,12	500	77	1"
503100	BEAR-PL SL\B1\B087\L117	0,13	500	87	1"
503102	BEAR-PL SL\B1\B097\L127	0,14	500	97	1"
503101	BEAR-PL SL\B1\B107\L137	0,15	500	107	1"
503106	BEAR-PL SL\B1\B117\L147	0,17	500	117	1"
503105	BEAR-PL SL\B1\B167\L197	0,22	500	167	1"
503110	BEAR-PL SL\B1\B187\L217	0,25	500	187	1"
503138	BEAR-PL SL\B1\B158\L188	0,21	500	158,5	1"
503139	BEAR-PL SL\B1\B178\L208	0,24	500	178,5	1"

291



Slide bearing plates B1" - Right angled

Zinc-plated right-angled slide bearing plate with self-lubricating sintered bronze ring bearing for 1" tubular shaft. Other lengths on request.

Art. no.	Description	m	F max	H	Tube
		kg	N	mm	in
503115	BEAR-PL SL\B1\H070\L100	0,15	500	70	1"
503119	BEAR-PL SL\B1\H075\L105	0,16	500	75	1"
503116	BEAR-PL SL\B1\H080\L110	0,17	500	80	1"
503117	BEAR-PL SL\B1\H090\L120	0,18	500	90	1"
503135	BEAR-PL SL\B1\H095\L125	0,18	500	95	1"
503118	BEAR-PL SL\B1\H100\L130	0,19	500	100	1"
503148	BEAR-PL SL\B1\H120\L150	0,20	500	120	1"
503226	BEAR-PL SL\B1\H077\L107	0,16	500	77,5	1"
503134	BEAR-PL SL\B1\H133\L163	0,29	500	133,5	1"
503137	BEAR-PL SL\B1\H153\L183	0,34	500	153,5	1"

291



Slide bearing plates B5/4" -Straight

Zinc-plated straight slide bearing plate with self-lubricating sintered bronze ring bearing for 5/4" tubular shaft. Other lengths on request.

Art. no.	Description	m	F max	B	Tube
		kg	N	mm	in
503200	BEAR-PL SL\B5/4\B055\L090	0,16	500	55	5/4"
503221	BEAR-PL SL\B5/4\B158\L193	0,35	500	158,5	5/4"
503222	BEAR-PL SL\B5/4\B178\L213	0,38	500	178,5	5/4"
503236	BEAR-PL SL\B5/4\B067\L102	0,14	500	67	5/4"

292



Slide bearing plates B5/4" - Right angled

Zinc-plated right-angled slide bearing plate with self-lubricating sintered bronze ring bearing for 5/4" tubular shaft. Other lengths on request.

Art. no.	Description	m	F max	H	Tube
		kg	N	mm	in
503214	BEAR-PL SL\B5/4\H070\L105	0,25	500	70	5/4"
503217	BEAR-PL SL\B5/4\H090\L125	0,30	500	90	5/4"
503201	BEAR-PL SL\B5/4\H100\L135	0,33	500	100	5/4"
503202	BEAR-PL SL\B5/4\H120\L155	0,38	500	120	5/4"
503225	BEAR-PL SL\B5/4\H077\L112	0,26	500	77,5	5/4"
503218	BEAR-PL SL\B5/4\H133\L168	0,47	500	133,5	5/4"
503219	BEAR-PL SL\B5/4\H153\L188	0,55	500	153,5	5/4"

292



Universal slide bearing plate B1"\5/4"

Zinc-plated straight slide bearing plate with self-lubricating sintered bronze ring bearing for 1" or 5/4" tubular shaft. Can be used as straight or right-angles mounting plate. Fastening materials not supplied. Other versions available on request

Art. no.	Description	m	F max	Tube
		kg	N	in
503070	BEAR-PL SL\B1\B92-217\L250\MH	0,35	500	1"
503255	BEAR-PL B5/4\B92-217L250\MH	0,4	500	5/4"

293



Ball bearing block B1"

Zinc plated ball bearing block for 1" drive tubes. Ball bearing is equipped with set screws for locking the drive tube.

Art. no.	Description	m	F max	Tube
		kg	N	in
U303010	BEARING BLOCK B1\207	0,5	1500	1"

294



Protective cover for the RW45 motor gearbox

Plastic protective cover for RW45 motor gearboxes, fitted with chain couplings. The protective cover can be used both inside and outside. With the protective cover, the RW45 motor gearbox is protected against direct rain and dust ingression. The protective cover consists of a plastic sump, zinc-plated armor plate and easily (dis)assembled plastic cover.

Art. no.	Description	m
		kg
580050	PROTECTION COVER RW45\2010	1,2

286



Hand crank W120

Hand crank to be used in combination with the W120 worm wheel gearboxes. Supplied in various lengths.

Art. no.	Description	m
		kg
HA4444020	HAND CRANK VK10\L2250	2,7



Hand crank HW60

Hand crank to be used in combination with the HW60 manual drive.

Art. no.	Description	m
		kg
591411	HAND CRANK HW60\P20\H200	0,43



Guiding unit RB50E^{plus} tube motor

Zinc-plated guiding unit used to conduct the RB50E^{plus} tube motors in the guide rail. Capable of absorbing the torque and axial forces of the. The RB50E^{plus} tube motor is fitted into the guiding unit using the shaft pin with the flat sides and sealed with the collar supplied with the tube motor. The guiding unit is available in left-and right-handed versions and includes a mounting bracket and a cable carrier.

Art.no.	Description	m
		kg
550502	GUID-UNIT RB50E+\L	0,35
550503	GUID-UNIT RB50E+\R	0,35

294



Guiding unit RB40/50 tube motor

Zinc-plated guiding unit used to conduct the RB40-11 and RB50-3.5/4.2 tube motors in the guide rail. Capable of absorbing the torque and axial forces of the tube motor. The tube motor is fitted to the guiding unit with a square shaft pin (10x10 mm) and secured with a split pin.

Art.no.	Description	m
		kg
550500	GUID-UNIT VK10\L67	0,35

295



Guiding unit RB120E^{plus} tube motor

Zinc-plated guiding unit used to conduct the RB120E^{plus} tube motors in the guide rail. Capable of absorbing the torque and axial forces of the. The RB120E^{plus} tube motor is fitted into the guiding unit using the shaft pin with the flat sides and sealed with the collar supplied with the tube motor. The guiding unit is available in left-and right-handed versions.

Art.no.	Description	m
		kg
550508	GUID-UNIT RB120E+\L	0,8
550509	GUID-UNIT RB120E+\R	0,8

295



Guiding unit for RB120 tube motor

Zinc-plated guiding unit used to conduct the RB120-11/13 tube motors in the guide rail. Capable of absorbing the torque and axial forces of the. The tube motor is fitted to the guiding unit with a square shaft pin (16x16 mm) and secured with a split pin.

Art.no.	Description	m
		kg
550505	GUID-UNIT VK16\L170	0,60

296



Guide unit for the HW60 manual drive

Zinc-plated guiding unit for guiding the HW60 manual drive in the guide rail. Capable of absorbing the torque and axial system forces. The guiding unit is fixed to the HW60 manual drive with a bolt.`

Art.no.	Description	m
		kg
550550	GUID-UNIT HW60\L67.5	0,35

303



Guide rails

Aluminium guide rail for use with guiding units for the RB50/120E^{plus}, RB40/50 and RB120 tube motors. Guide rails can be supplied with a zinc-plated mounting bracket. Non-standard lengths of the guide rails can be supplied on request.

Art.no.	Description	m	L
		kg	mm
419355	GUID-RAIL L1000	1,12	1000
419360	GUID-RAIL L2000	2,25	2000
419370	GUID-RAIL L3000	3,34	3000
419380	GUID-RAIL L4000	4,50	4000
419390	GUID-RAIL L5000	5,60	5000
419399	GUID-RAIL L6000	6,50	6000

219 296



Mounting brackets guide rail

Zinc-plated mounting bracket used to fix the guide rail to greenhouse structure, for example. A hexagonal M6x16 bolt (not supplied) should be used to fix the guide rail to the mounting bracket. Mounting brackets can be fitted to both the top and underside of the guide rail.

Art.no.	Description	m
		kg
419443	MOUN-BRA GUID-PROF	0,13

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Fixing bracket RB40/50

Zinc-plated fixing bracket for mounting the RB40-11 or the RB50-3.5/4.2 tube motor to the guiding unit.

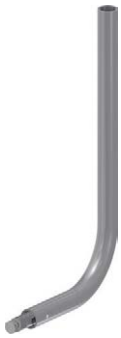
Art.no.	Description	m
		kg
288110	MOUN-BRA JOURNAL\VK10	0,06



Fixing bracket RB120

Zinc-plated fixing bracket used to fix the RB120-11/13 tube motor to the guiding unit.

Art.no.	Description	m
		kg
774010	MOUN-BRA JOURNAL\VK16	0,08



Guide tube for RPR bottom movable

Zinc-plated curved guide tube (21.3 dia. x 2) for movable assembly (bottom) to the mounting bracket for the RPR100-4D PowerRoller conductor. The guide tube for movable assembly has a sliding mechanism at the bottom and can be used with girders wider than 70 mm. The curvature in the tube allows the patented tilting movement of the RPR100-4D PowerRoller. The bottom of the tube must be fixed to the "movable" mounting bracket, and the top must be fixed to the "fixed" or "movable" mounting bracket. The tube is supplied with a zinc-plated M8x12 fixing bolt. The guide tube is available in various lengths.

Art.no.	Description	m	H
		kg	mm
550600	GUID-TUBE RPR\H1900\X150\OB	2,0	1900
550601	GUID-TUBE RPR\H2900\X150\OB	3,0	2900



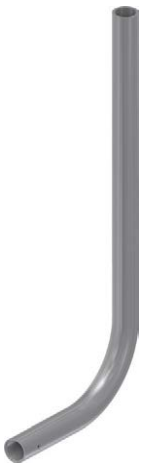


Mounting bracket for RPR bottom movable

Zinc-plated mounting bracket that can be fixed to the movable guide tube for the RPR100-4D PowerRoller. A mounting bracket with a fixed or movable guide tube can be used with girders wider than 80 mm.

Art.no.	Description	m
		kg
423806	MOUN-BRA RPR\OB\GC	1,1





Guide tube for RPR bottom fixed

Zinc-plated curved guide tube (21.3 dia. x 2) for fixed assembly (bottom) to the mounting bracket for the RPR100-4D PowerRoller conductor. The guide tube for the fixed assembly can be used with girders wider than 100 mm. The curvature in the tube allows the patented tilting movement of the RPR100-4D PowerRoller. The bottom of the tube must be fixed to the "fixed" mounting bracket, and the top must be fixed to the "fixed" or "movable" mounting bracket. The guide tube is available in various lengths.

Art.no.	Description	m	H
		kg	mm
422900	GUID-TUBE RPR\H1900\X150\2D4	1,9	1900
422901	GUID-TUBE RPR\H2900\X150\2D4	2,9	2900





Mounting bracket for RPR bottom fixed

Zinc-plated mounting bracket for the fixed assembly to the guide tube for the RPR100-4D PowerRoller. The mounting bracket with a fixed assembly guide tube can be used with girders wider than 100 mm.

Art.no.	Description	m
		kg
422910	MOUN-BRA RPR\OV	0,64







Mounting bracket for RPR top movable

Zinc-plated angled mounting bracket for movable connection to the top of guide tube "fixed" or "movable" for the RPR100-4D PowerRoller conductor. Using this mounting bracket allows the top of the guide tube limited movement backwards and forwards, parallel to the roller screen. This means that the conductor follows the axial roller movement, which limits the pulling force of the conductor. The mounting bracket can be fixed to girders.

Art.no.	Description	m
		kg
423027	MOUN-BRA RPR\BB	0,32





Mounting bracket for RPR top fixed

Zinc-plated angled mounting bracket for fixed connection to the top of guide tube "fixed" or "movable" of the RPR100-4D PowerRoller conductor. Using this mounting bracket prevents the guide tube from moving back and forth in the screen direction. This means that the axial force in respect of the winding is absorbed by the conductor and the roller movement is forced to move in one direction. The mounting bracket can be fixed to girders.

Art.no.	Description	m
		kg
423065	MOUN-BRA RPR\BV	0,37





Guide tube RPR right

Zinc-plated right guide tube (ø21,3x2) for guide the RPR100-4D PowerRoller. The right-hand guide tube is used in roller screen systems where the tilting of the RPR100-4D PowerRoller is not required (e.g. with twin-roller screen system).

Art.no.	Description	m
		kg
423076	GUID-TUBE RPR\L6000	5,8



Mounting bolt for conductor RPR

The mounting set is used to mount the fixed guide tubes to brackets for guide the RPR100-4D PowerRoller. This is used with the fixed guide tube that is curved underneath and at both ends of the right-hand guide tube. The mounting set consists of a zinc-plated hexagonal M10x65 bolt, washer and wedge sleeve M10.

Art.no.	Description	m
		kg
599017	MOUN-SET GUIDING\RPR\VS	0,11

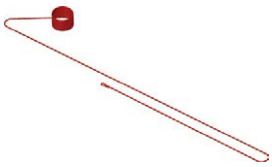


Guiding roll unit weight compensation PowerRoller

Guiding roll unit for guiding the winding cord of the weight compensation of the RPR100-4 PowerRoller roller screen drive. The guiding roll unit is mounted on top of the guiding unit. The guiding roll unit contains a galvanized mounting bow, a shaft and a guiding roll.

Art.no.	Description	m
		kg
550650	RETURN PULLEY UNIT RPR-GC	0,7





Cord weight compensation PowerRoller

Cord for weight compensation RPR100-4 PowerRoller roller screen drive. Cord connects PowerRoller with counter weight and runs over the guiding roll unit. Cord length is 4 m.

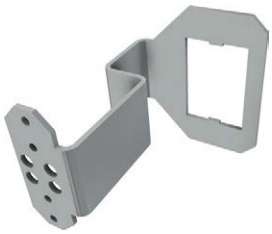
Art.no.	Description	m
		kg
550651	CORD SET RPR-GC\4m	0,1



Counter weight for weight compensation PowerRoller

Counter weight for weight compensation PowerRoller roller screen drive. Counter weight weighs 10.5 kg.

Art.no.	Description	m
		kg
550660	COUNTER WEIGHT RPR-GC\10.5kg	10,5



Mounting bracket cable carrier RB50/120E^{plus} tube motor

Zinc-plated bracket for mounting the cable carrier to the RB50E^{plus} or RB120E^{plus} tube motor. This bracket should be used when the cable carrier is fitted parallel to the roller screen. The dimensions of the cable carrier bracket have been selected so that that it can run along the girders with the tube motor. Thus they are mounted on the tube motor head between the adjusting ring and the guiding unit.

Art.no.	Description	m
		kg
423549	MOUN-BRA CAB-CAR\RB50E+\PAR	0,04

297



Mounting bracket cable carrier RB120E^{plus} tube motor

Zinc-plated bracket for mounting the cable carrier to the RB120E^{plus} tube motor. This bracket should be used when the cable carrier is fitted square to the roller screen. The bracked should be mounted on the tube motor head between the adjusting ring and the guiding unit.

Art.no.	Description	m
		kg
424338	MOUN-BRA CAB-CAR\RB120E+	0,08

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Cable carrier mounting set for RB50/120E^{plus} tube motor

Mounting kit for attaching the cable carrier to the guiding unit or the cable carrier bracket for the RB50E^{plus} and RB120E^{plus} tube motors for use in greenhouse structures. Mounting kit consists of two end clips for the cable carrier, 4 pop-rivets and 3 cable ties.

Art.no.	Description	m
		kg
550511	MOUN-SET CAB-CAR\RB-E+	0,1



Cable carrier mounting set for RB40/50 tube motor

The cable carrier mounting set is used to connect the cable carrier to the guiding unit of the RB40-11 or RB50-3.5/4.2 tube motor and the greenhouse. The mounting set consists of a connection plate (VK10), two end clips for the cable carrier, 4 pop-rivets and 3 cable ties.

Art.no.	Description	m
		kg
550510	MOUN-SET CAB-CAR\VK10\RB	0,1



Cable carrier mounting set for RB120 tube motor

The cable carrier mounting set is used to connect the cable carrier to the guiding unit of the RB120-11 tube motor and the greenhouse. The mounting set consists of a connection plate (VK16), two end clips for the cable carrier, 4 pop-rivets and 3 cable ties.

Art.no.	Description	m
		kg
550515	MOUN-SET CAB-CAR\VK16\RB	0,1



Cable carrier RB tube motor

The cable carrier guides and protects the power cable of the tube motor. The cable carrier is hinged in one direction and rigid in other directions . The power cable can be fed in easily. Attach the cable carrierr to the tube motor using the mounting kit.

Art.no.	Description	m
		kg
278110	CAB-CAR H10.5\B10\R18\L1000\ZW	0,14



Cable protector mounting bracket

Zinc-plated mounting bracket used to fit the limit switch cable carrier on to greenhouses, for example. This bracket can also be used with the cable carrier for the RB40/50/120 and RB50Eplus tube motors.

Art.no.	Description	m
		kg
423123	MOUN-BRA CAB-CAR\RB50E+	0,13



Cable conductor RPR PowerRoller

Cable carrier mounting set for fixing the cable carrier to the RPR100-4D PowerRoller and greenhouses. The mounting set consists of two limit switches for the cable carrier, 4 blind rivets and 3 TyRaps.

Art.no.	Description	m
		kg
550516	MOUN-SET CAB-CAR\RPR\6x16	0,03



Cable carrier RPR PowerRoller

Cable carrier for guide and protecting the RPR100-4D PowerRoller's motor cable and control cable. The cable carrier is hinged in one direction and rigid in other directions. The cables are easy to install. The mounting set is used to fit the cable carrier to the PowerRoller and also, for example, to greenhouses.

Art.no.	Description	m
		kg
278112	CAB-CAR H10.5\B16\R18\L1000\ZW	0,15



Winding tube coupling HW60

Aluminium roll tube couplings for the HW60 manual drive. The roll tube coupling is secured to the HW60 drive shaft with an adjustable screw. Other versions available on request.

Art.no.	Description	m	Shaft
		kg	mm
421713	COUPL WB50\P20\L40\ALU	0,13	P20





Winding tube coupling W120

Aluminium roll tube coupling for the W120 worm wheel gearboxes. The roll tube coupling is fitted to the W120 gearbox drive shaft with an adjustable screw. The roll tube coupling is supplied for various sizes of roll tubes. Other sizes available on request.

Art.no.	Description	m	Shaft
		kg	mm
422160	COUPL WB35\A19\L80\M8\AL	0,08	19





Winding tube coupling SC40

Aluminium roll tube coupling for 50 mm single-groove aluminium roll tubes. Suitable for mounting on cardan shaft SC40.

Art. no.	Description	m	Shaft
		kg	mm
417941	COUPL WB50\KR20	0,35	20





Winding tube coupling RPR100-4 GC

Aluminium roll tube couplings for the RPR100-4D PowerRoller with weight compensation. The coupling is needed for mounting the lifting cord of the weight compensation and is mounted on one side of the PowerRoller. On the other side of the PowerRoller a standard roll tube coupling can be applicated. The roll tube coupling is secured to the PowerRoller drive shaft with an adjustable screw. The roll tube coupling is supplied for various sizes of roll tubes. Other versions available on request.

Art. no.	Description	m	Shaft
		kg	mm
424030	COUPL WB35\P20\L102\M8\A\GC	0,48	P20
423990	COUPL WB\P20\L130\M8\AL\WC	0,46	P20





Winding tube coupling RPR100-4

Aluminium roll tube couplings for the RPR100-4D PowerRoller. The roll tube coupling is secured to the PowerRoller drive shaft with an adjustable screw. The roll tube coupling is supplied for various sizes of roll tubes. Other versions available on request.

Art. no.	Description	m	Shaft
		kg	mm
422921	COUPL WB35\P20\L102\M8\AL	0,2	P20
422538	COUPL WB\P20\L130\M8\AL	0,45	P20
423067	COUPL WB50\P20\L130\M8\AL\3G	0,4	P20





Ridder LMX grease

High-quality ivory-colored grease for perfect lubrication of RackDrive700, RackDrive800 and TRN rack drives. Suitable for high temperatures (up to 175°) and high pressures. Water-soluble grease. Available in 1 kg tin and 400 gram grease cartridges.

Art. no.	Description	m
		kg
565010	GREASE RIDDER-LMX\TIN\1KG	1,04
565026	GREASE RIDDER-LMX\CART\400G	0,4



Ridder AXT grease

High-quality ivory-colored grease for perfect lubrication of slide bearings and TU rack drives. Suitable for high temperatures (up to 175°) and high pressures. Water-soluble grease. Available in 5 kg tin, 1 kg tin and 400 gram grease cartridges.

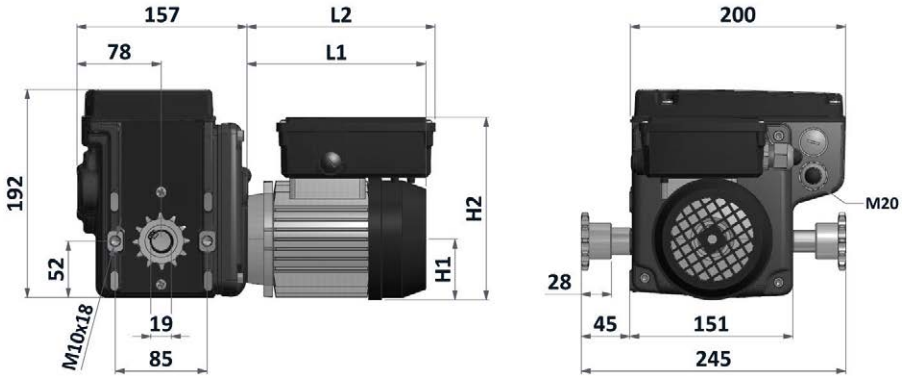
Art. no.	Description	m
		kg
565001	GREASE RIDDER-AXT\TIN\5KG	5
565020	GREASE RIDDER-AXT\TIN\1KG	1
565025	GREASE RIDDER-AXT\CART\400G	0,4

13





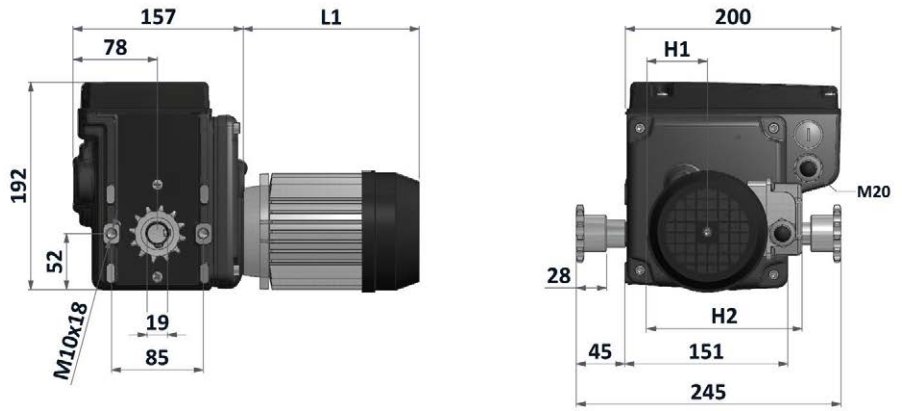
RW45 Motor gearboxes



Art. no.	Description	m	L1	L2	H1	H2
		kg	mm	mm	mm	mm
502000	RW45-1-09\400\3\97	15,5	170		54	144
531094	RW45-2-09\400\3\97	15,5	170		54	144
502010	RW45-3-09\400\3\97	15,5	170		54	144
502020	RW45-5-09\400\3\97	15,5	170		54	144
535206	RW45-1-09\208-480\3\P\CU\97	16,5	168	108	55	158
535236	RW45-2-09\208-480\3\P\CU\97	16,5	168	108	55	158
535266	RW45-3-09\208-480\3\P\CU\97	16,5	168	108	55	158
535296	RW45-5-09\208-480\3\P\CU\97	16,5	168	108	55	158
502030	RW45-1-09\230\1\97	16,5	156	148	55	167
531092	RW45-2-09\230\1\97	16,5	156	148	55	167
502040	RW45-3-09\230\1\97	16,5	156	148	55	167
502050	RW45-5-09\230\1\97	16,5	156	148	55	167
502035	RW45-1-09\115\1\60\C\97	16,5	157	204	53	175
531090	RW45-2-09\115\1\60\C\97	16,5	157	204	53	175
502036	RW45-3-09\115\1\60\C\97	16,5	157	204	53	175
502037	RW45-5-09\115\1\60\C\97	16,5	157	204	53	175



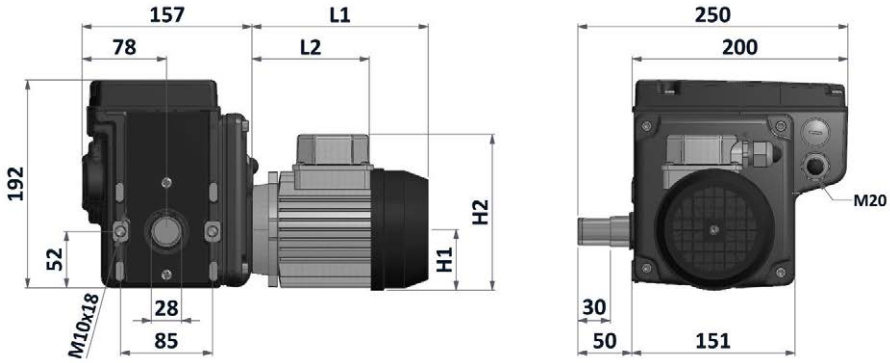
RW45 Motor gearboxes (LogicLink version)



Art. no.	Description	m	L1	L2	H1	H2
		kg	mm	mm	mm	mm
502000P	RW45-1-09\400\3\P\97	15,5	170		54	144
531094P	RW45-2-09\400\3\P\97	15,5	170		54	144
502010P	RW45-3-09\400\3\P\97	15,5	170		54	144
502020P	RW45-5-09\400\3\P\97	15,5	170		54	144
502030P	RW45-1-09\230\1\P\97	16,5	156	148	55	167
531092P	RW45-2-09\230\1\P\97	16,5	156	148	55	167
502040P	RW45-3-09\230\1\97\P	16,5	156	148	55	167
502050P	RW45-5-09\230\1\97\P	16,5	156	148	55	167



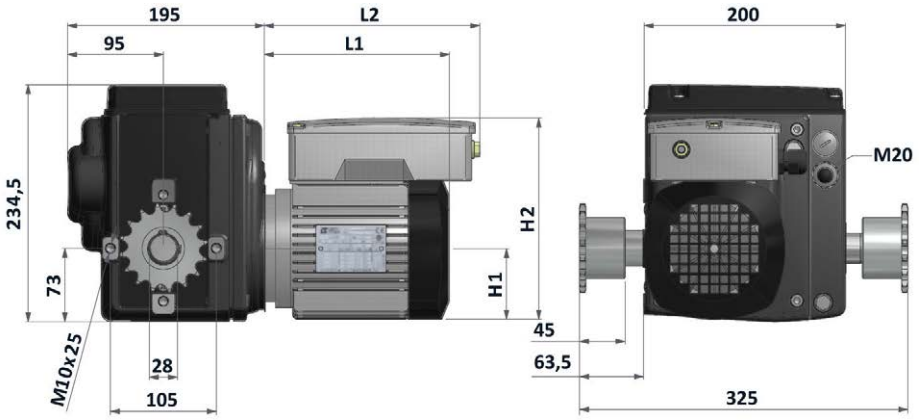
RW45TRA Motor gearboxes



Art. no.	Description	m	L1	L2	H1	H2
		kg	mm	mm	mm	mm
502055	RW45-1TRA-09\400\3\55\IP55	16,7	170		54	144
502056	RW45-3TRA-09\400\3\55\IP55	16,7	170		54	144
502057	RW45-5TRA-09\400\3\55\IP55	16,7	170		54	144
535280	RW45-3TRA-09\208-480\C\55\IP55	16,7	156		55	141
535310	RW45-5TRA-09\208-480\C\55\IP55	16,7	156		55	141
502075	RW45-1TRA-09\230\1\55\IP55	16,0	156	148	55	167
502076	RW45-3TRA-09\230\1\55\IP55	16,0	156	148	55	167
502077	RW45-5TRA-09\230\1\55\IP55	16,0	156	148	55	167



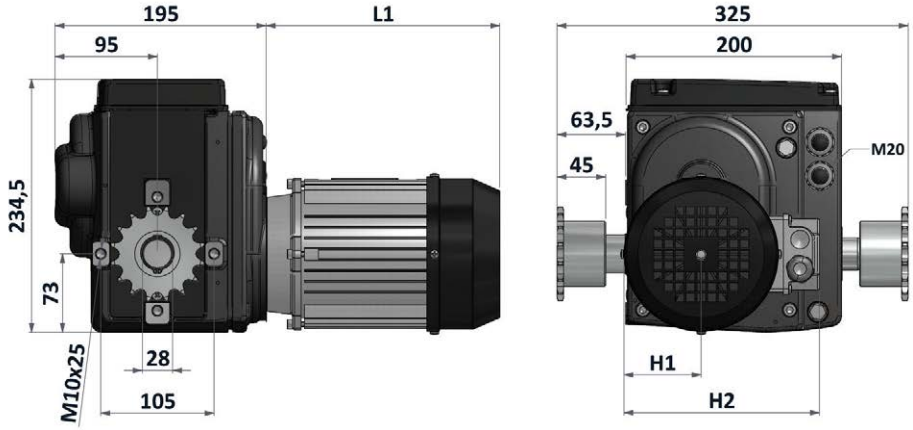
RW240 Motor gearboxes



Art. no.	Description	m	L1	L2	H1	H2
		kg	mm	mm	mm	mm
502300	RW241-09\400\3\86	28,0	170		54	144
532410	RW242-25\400\3\86	30,0	221		67,5	172
502310	RW243-25\400\3\86	30,0	221		67,5	172
502320	RW245-37\400\3\86	30,5	221		67,5	172
535400	RW241-09\208-480\3\P\CU\86	30,0	156		55	141
535430	RW242-25\208-480\3\P\CU\86	32,0	185		70	169
535460	RW243-25\208-480\3\P\CU\86	32,0	185		70	169
535490	RW245-37\208-480\3\P\C\86	32,0	185		70	169
536490	RW245-37\600\3\60\C\86	32,0	185		70	169
502330	RW241-09\230\1\86	28,5	156	148	55	167
532406	RW242-18\230\1\86	31,0	193	160	70	200
502340	RW243-25\230\1\OC\P\C\86	32,0	185	212	70	200
502350	RW245-37\230\1\OC\C\86	32,5	196	212	70	200
502334	RW241-09\115\1\60\P\C\86	29,0	157	204	55	175
502351	RW245-37\115\1\60\OC\P\C\86	33,0	193	207	70	210



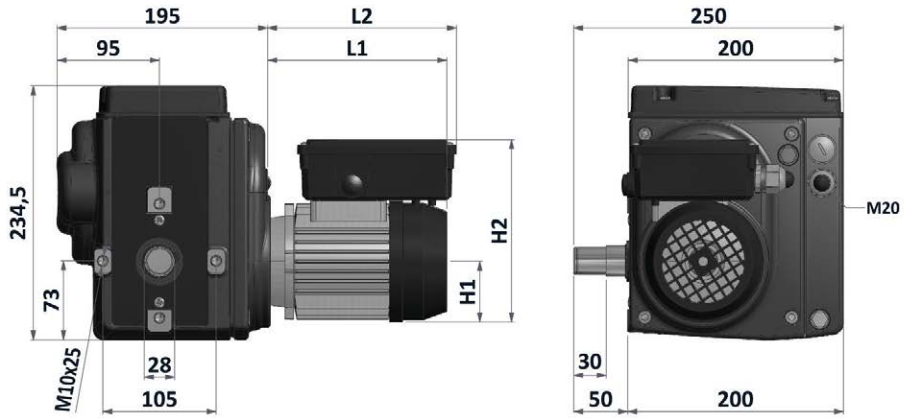
RW240 Motor gearboxes (LogicLink version)



Art. no.	Description	m	L1	L2	H1	H2
		kg	mm	mm	mm	mm
502300P	RW241-09\400\3\P\86	28,0	170		54	144
532410P	RW242-25\400\3\P\86	30,0	221		67,5	172
502310P	RW243-25\400\3\P\86	30,0	221		67,5	172
502320P	RW245-37\400\3\P\86	30,5	221		67,5	172
535430P	RW242-25\208-480\3\P\CU\86	32,0	185		70	169
535460P	RW243-25\208-480\3\P\CU\86	32,0	185		70	169
535490P	RW245-37\208-480\3\P\C\86	32,0	185		70	169
502330P	RW241-09\230\1\P\86	28,5	156	148	55	167
532406P	RW242-18\230\1\P\86	31,0	193	160	70	200
502340P	RW243-25\230\1\OC\P\C\86	32,0	185	212	70	200
502350P	RW245-37\230\1\OC\P\C\86	32,5	196	212	70	200
502334P	RW241-09\115\1\60\P\C\86	29,0	157	204	55	175
502351P	RW245-37\115\1\60\OC\P\C\86	33,0	193	207	70	210



RW240TRA Motor gearboxes



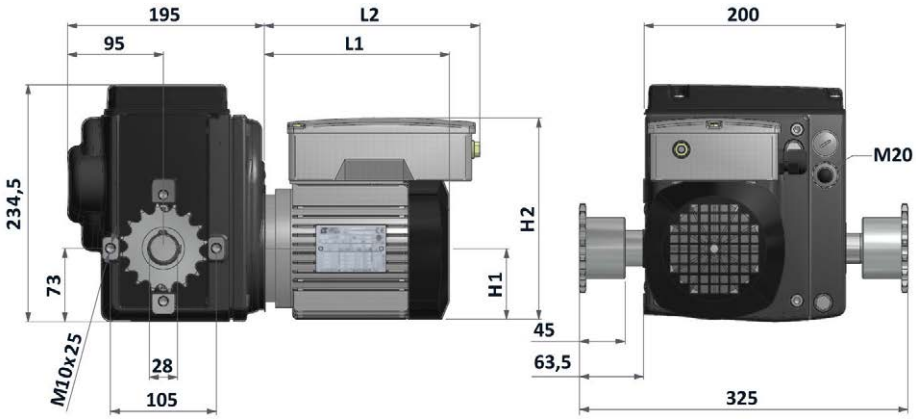
Art. no.	Description	m	L1	L2	H1	H2
		kg	mm	mm	mm	mm
502355	RW241TRA-09\400\3\86\IP55	27,5	221		67,5	172
502356	RW243TRA-25\400\3\86\IP55	29,5	221		67,5	172
502357	RW245TRA-37\400\3\86\IP55	30,0	221		68,5	170
535480	RW243TRA-25\208-480\C\86\IP55	29,5	185		70	169
536465	RW243TRA-44\600\3\60\C\86\IP55	29,5	185		70	169
502391	RW241TRA-09\230\1\86\IP55	30,0	185	212	70	200
502392	RW243TRA-25\230\1\OC\C\86\IP55	31,5	185	212	70	200
502393	RW245TRA-37\230\1\OC\C\86\IP55	32,0	196	212	70	200

Motor gearboxes

Dimensioned drawings



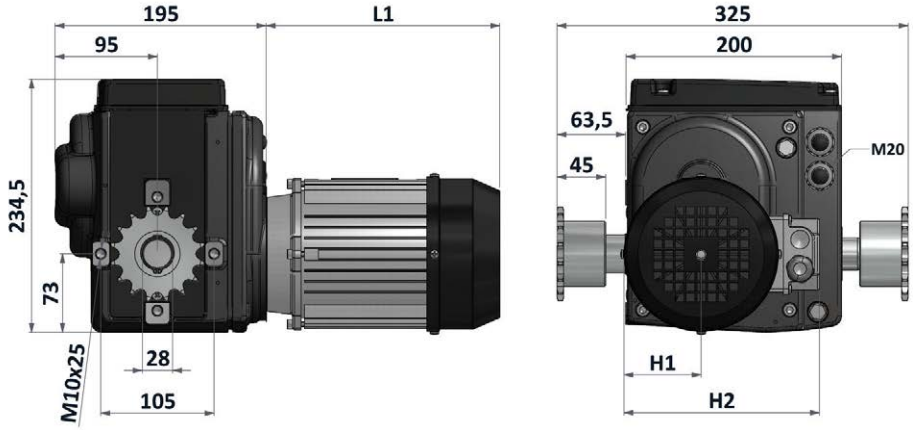
RW400 Motor gearboxes



Art. no.	Description	m	L1	L2	H1	H2
		kg	mm	mm	mm	mm
502200	RW401-12\400\3\86	31,5	188		63	157
533400	RW402-25\400\3\86	31,0	221		67,5	172
502210	RW403-37\400\3\86	31,0	221		68,5	170
502220	RW405-55\400\3\86	33,5	237		77,5	190
535600	RW401-12\208-480\3\CU\86	30,0	172		62	153
535630	RW402-25\208-480\3\CU\86	31,0	185		70	169
535660	RW403-37\208-480\3\P\C\86	32,0	185		70	169
535690	RW405-55\208-480\3\P\C\86	34,5	215		79	193
502219	RW403-44\600\3\60\C\86	32,0	185		70	169
536690	RW405-66\600\3\60\C\86	34,5	215		79	193
502230	RW401-18\230\1\86	31,5	193	160	70	200
533411	RW402-25\230\1\OC\P\C\86	31,5	185	212	70	200
502240	RW403-37\230\1\OC\C\86	33,0	196	212	70	200
502250	RW405-55\230\1\OC\C\86	36,0	215	215	79	225
502206	RW401-18\115\1\60\86\C	31,0	193	210	70	200
502239	RW403-37\115\1\60\OC\C\86	33,0	193	207	70	210



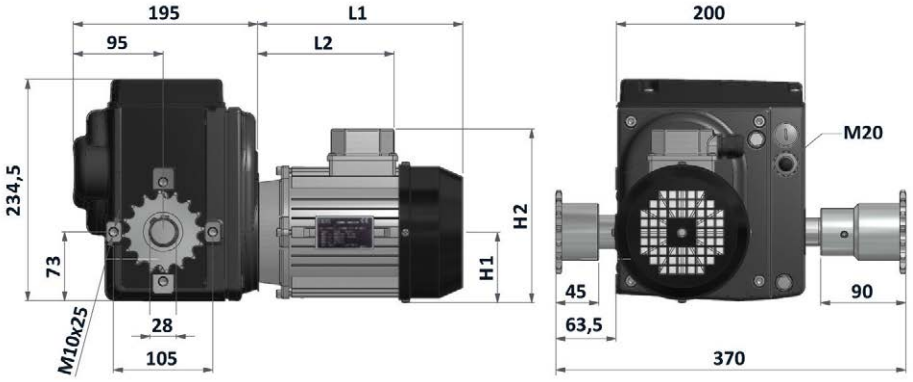
RW400 Motor gearboxes (LogicLink version)



Art. no.	Description	m	L1	L2	H1	H2
		kg	mm	mm	mm	mm
502200P	RW401-12\400\3\P\86	31,5	188		63	157
533400P	RW402-25\400\3\P\86	31,0	221		67,5	172
502210P	RW403-37\400\3\P\86	31,0	221		68,5	170
502220P	RW405-55\400\3\P\86	33,5	237		77,5	190
535600P	RW401-12\208-480\3\P\CU\86	30,0	172		62	153
535630P	RW402-25\208-480\3\P\CU\86	31,0	185		70	169
535660P	RW403-37\208-480\3\P\C\86	32,0	185		70	169
535690P	RW405-55\208-480\3\P\C\86	34,5	215		79	193
502206P	RW401-18\115\1\60\P\86\C	31,0	193	210	70	200
502239P	RW403-37\115\1\60\P\OC\C\86	33,0	193	207	70	210



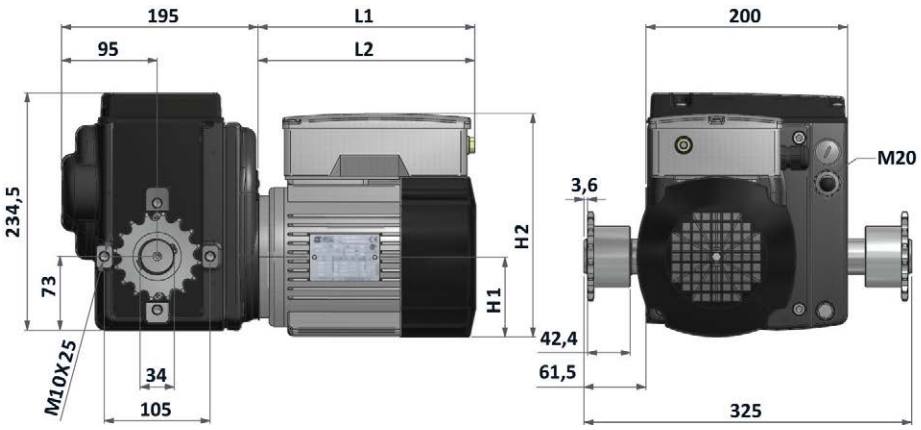
RW240/400-2.4/3.4 Motor gearboxes



Art. no.	Description	m	L1	L2	H1	H2
		kg	mm	mm	mm	mm
532800	RW240-2.4-25\400\3\86	30,0	221		67,5	172
532850	RW240-3.4-25\400\3\86	30,0	221		67,5	172
533800	RW400-2.4-37\400\3\86	31,0	221		68,5	170
533850	RW400-3.4-37\400\3\86	31,0	221		68,5	170



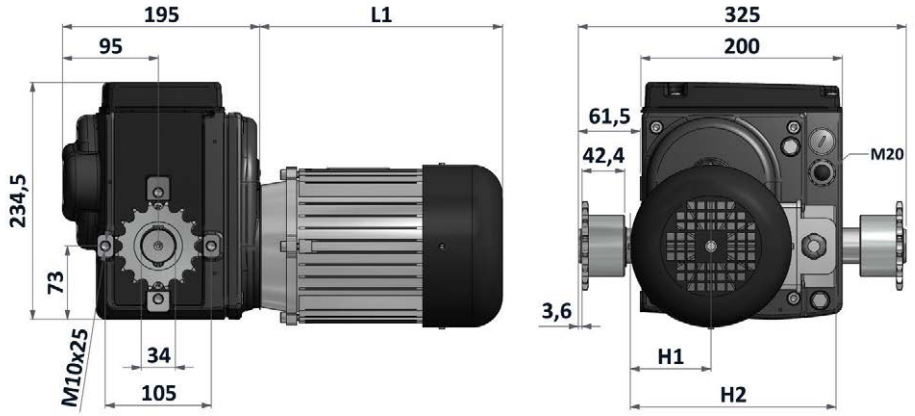
RW600 Motor gearboxes



Art. no.	Description	m	L1	L2	H1	H2
		kg	mm	mm	mm	mm
502410	RW603-55\400\3\86	35,5	237		77,5	190
502420	RW605-110\400\3\86	36,5	236		77,5	190
535750	RW603-55\208-480\3\P\C\86	36,5	215		79	193
535780	RW605-110\208-480\3\P\C\86	42,0	246		89	213
535760	RW603-66\600\3\60\C\86	36,5	215		79	193
536890	RW605-110\600\3\60\C\86	42,0	246		89	213
502440	RW603-55\230\1\OC\C\86	40,0	215	215	79	225
502450	RW605-110\230\1\OC\P\C\86	42,8	245	217	88	243



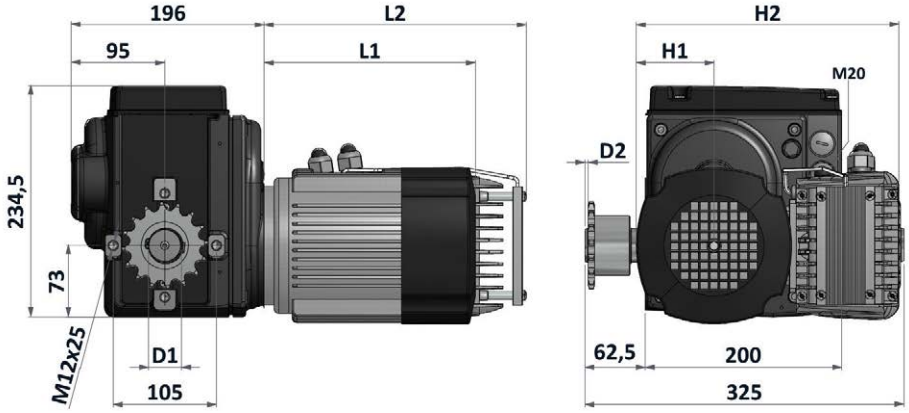
RW600 Motor gearboxes (LogicLink version)



Art. no.	Description	m	L1	L2	H1	H2
		kg	mm	mm	mm	mm
502410P	RW603-55\400\3\P\86	35,5	237		77,5	190
502420P	RW605-110\400\3\P\86	36,5	236		77,5	190
535750P	RW603-55\208-480\3\P\C\86	36,5	215		79	193
535780P	RW605-110\208-480\3\P\C\86	42,0	246		89	213



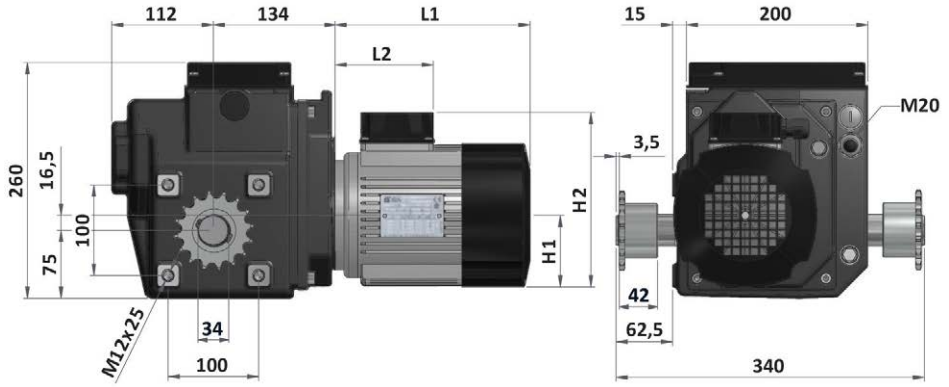
RW240/400/600F Motor gearboxes (frequency controlled)



Art. no.	Description	m	L1	L2	H1	H2	D1	D2
		kg	mm	mm	mm	mm	mm	mm
537661	RW403F-V30\37\400\3\CU\86	35,5	181	228	70	250	28	0
537691	RW405F-V30\55\400\3\CU\86	38,0	215	225	79	268	28	0
537751	RW603F-V30\55\400\CU\86	40,0	215	225	79	268	34	3,5
537781	RW605F-V30\110\400\CU\86	43,0	246	245	89	288	34	3,5



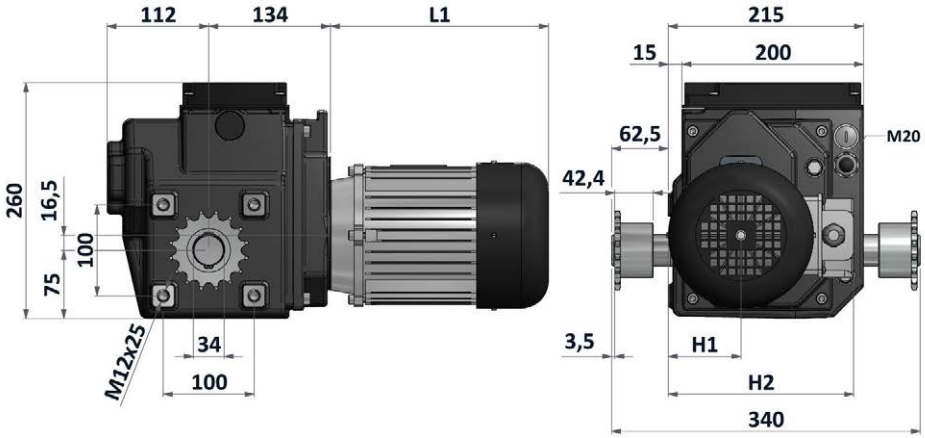
RW800 Motor gearboxes



Art. no.	Description	m	L1	L2	H1	H2
		kg	mm	mm	mm	mm
502510	RW803-75\400\3\120	40,5	235		75	197
502520	RW805-110\400\3\120	43,0	236		72,5	190
535790	RW803-75\208-480\3\P\C\120	41,5	217		80	196
535795	RW805-110\208-480\3\P\C\120	44,0	246		89	213
536860	RW803-110\600\3\60\C\120	44,0	246		89	213



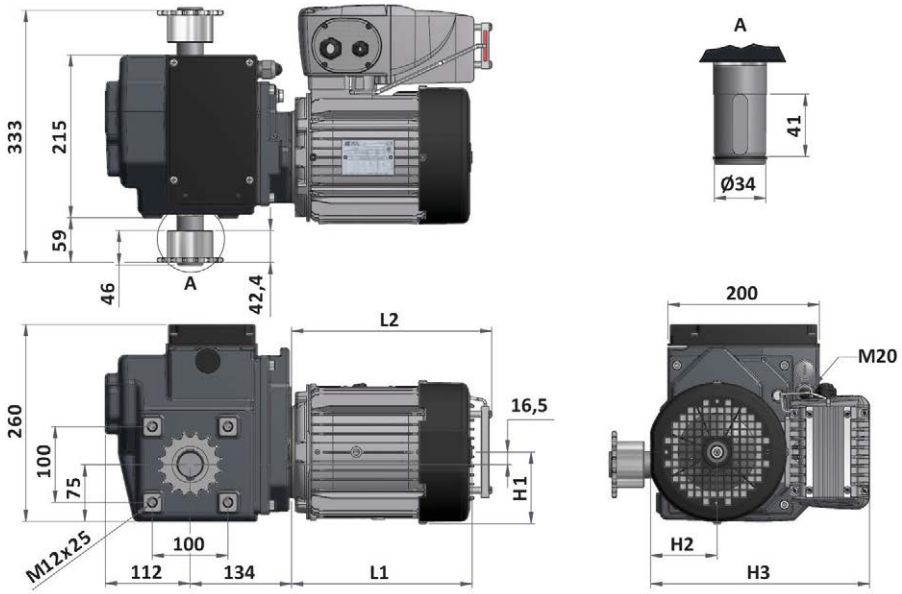
RW800 Motor gearboxes (LogicLink version)



Art. no.	Description	m	L1	L2	H1	H2
		kg	mm	mm	mm	mm
502510P	RW803-75\400\3\P\120	40,5	235		75	197
502520P	RW805-110\400\3\P\120	43,0	236		72,5	190
535790P	RW803-75\208-480\3\P\C\120	41,5	217		80	196
535795P	RW805-110\208-480\3\P\C\120	44,0	246		89	213



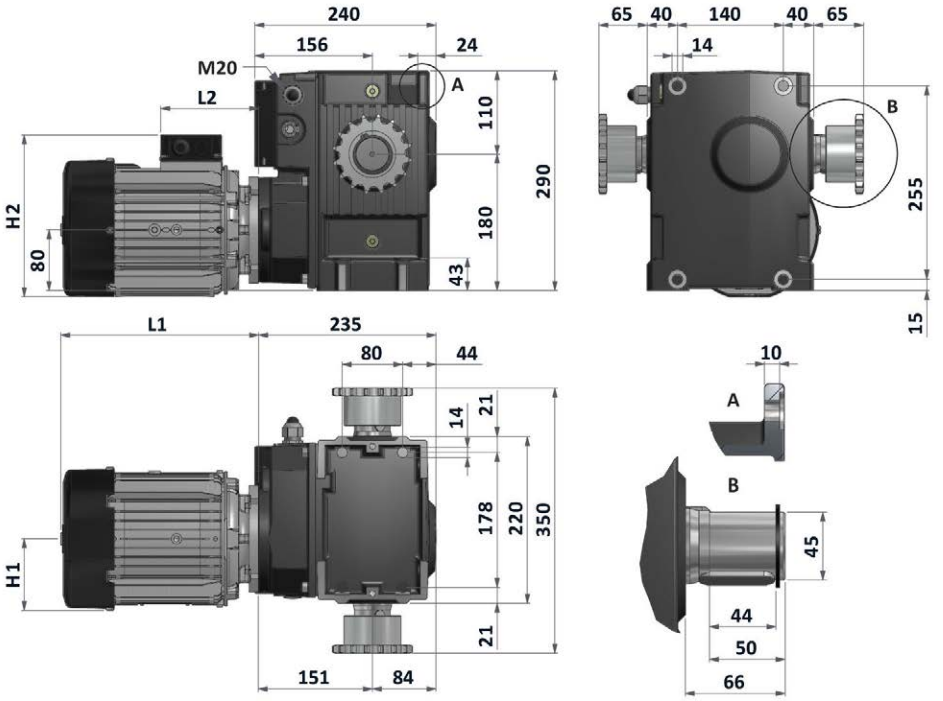
RW800F Motor gearboxes (frequency controlled)



Art. no.	Description	m	L1	L2	H1	H2	H3	
		kg	mm	mm	mm	mm	mm	
537791	RW803F-V30\75\400\CU\120	31,0	217	244	80	270	34	3,5
537796	RW805F-V30\110\400\CU\120	43,0	246	245	89	288		



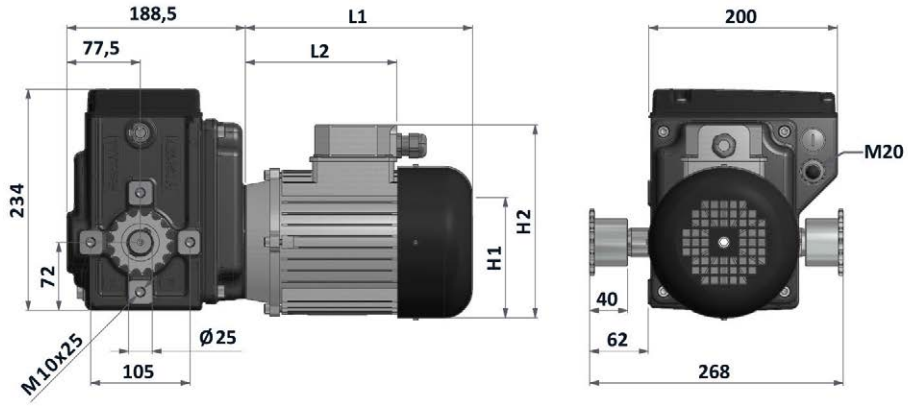
RW1000/1400/1200S/1600S Motor gearboxes



Art. no.	Description	m	L1	L2	H1	H2
		kg	mm	mm	mm	mm
520101	RW1000-3-110\400\3\86	54,5	247	-	77,5	200
520151	RW1000-5-150\400\3\86	56,0	247	-	77,5	200
520201	RW1400-3-150\400\3\86	56,0	247	-	77,5	200
520175	RW1200-3S-110\400\3\86	54,5	247	-	77,5	200
520225	RW1600-3S-150\400\3\86	56	247	-	77,5	200
535800	RW1000-3-110\208-480\3\P\C\86	60,0	266	-	89	213
535810	RW1000-5-150\208-480\3\P\C\86	63,0	266	-	89	213
535820	RW1400-3-150\208-480\3\P\C\86	63,0	266	-	89	213
535830	RW1200-3S-110\208-480\3\P\C\86	60	266	-	89	213
535850	RW1600-3S-150\208-480\3\P\C\86	63	266	-	89	213



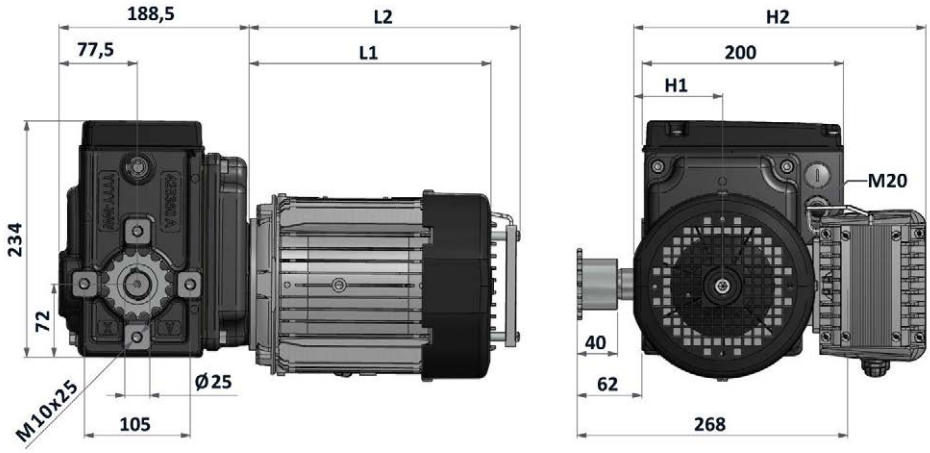
RW70/100/140/200-34/68 Motor gearboxes



Art. no.	Description	m	L1	L2	H1	H2
		kg	mm	mm	mm	mm
538021	RW70-34-55\400\3\860	30	237		77,5	190
538031	RW100-34-75\400\3\860	31,5	237		75	179
538041	RW140-34-110\400\3\860	32,5	236		79	190
538051	RW200-34-150\400\3\860	33,5	236		79	197
535900	RW70-34-55\208-480\3\C\860	30	215		79	193
535910	RW100-34-75\208-480\3\C\860	31,5	217		80	196
535930	RW140-34-110\208-480\3\C\860	34,5	246		80	213
535950	RW200-34-150\208-480\3\C\860	38	246		80	213
535955	RW200-68-300\208-480\3\C\860	40	246	112	88	230
538045	RW140-41-110\600\3\60\C\860	34,5	246		80	213
538055	RW200-41-180\600\3\60\C\860	38	246		80	213
538056	RW200-82-360\600\3\60\C\860	40	246	112	88	230
538121	RW70-34-55\230\1\OC\C\860	31	215	215	79	225
538141	RW140-34-110\230\1\C\860	37	245	217	80	243



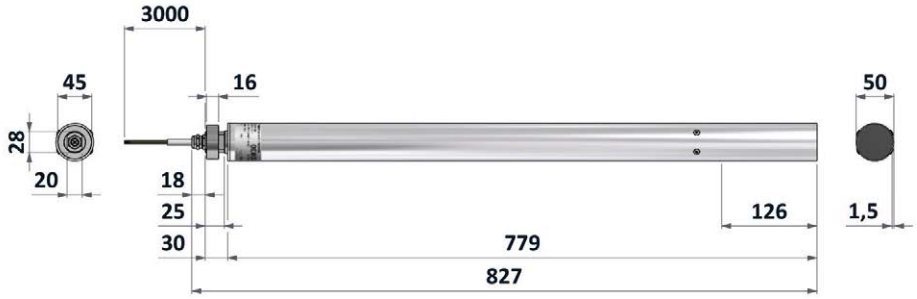
RW200-34F Motor gearboxes (frequency controlled)



Art. no.	Description	m	L1	L2	H1	H2
		kg	mm	mm	mm	mm
537951	RW200-34F-V30\150\400\CU\860	42	266	310	80	285



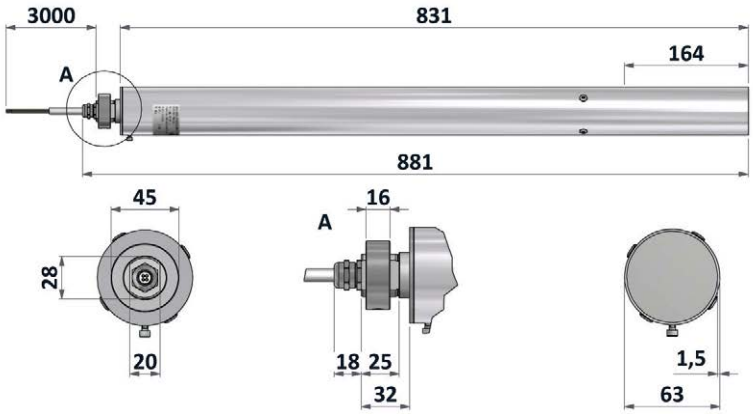
RB50E^{plus} tube motor



Art. no.	Description	m
		kg
550031	RB50E+3.5-16\230\1\50\38\07	4,2



RB120E^{plus} tube motor



Art. no.	Description	m
		kg
550131	RB120E+11-44\230\1\50\44\07	6,9



RB40-11/RB50-3.5 tube motor



Art. no.	Description	m	D1	L1
		kg		
550016	RB40-11-26\230\1\50\38\03	3,6	50	155
550165	RB40-11-26\230\1\50\38\B63	4,1	63	148
550024	RB50-3.5-16\230\1\50/60\38\03	4,0	50	150
550122	RB50-4.2-14\115\1\60\38\03	4,5	50	155
550162	RB50-3.5-16\230\1\50/60\38B63	4,1	63	143



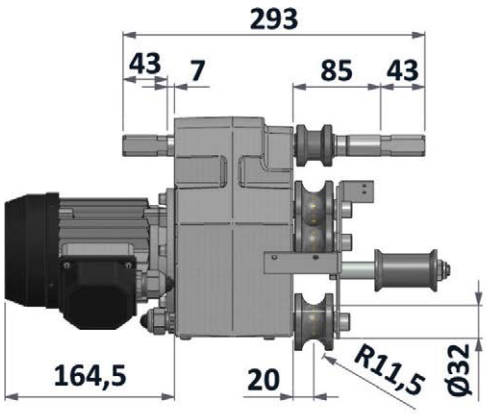
RB120-11 tube motors

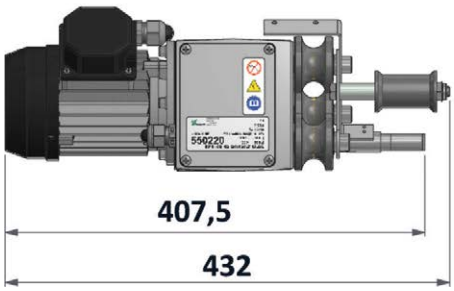


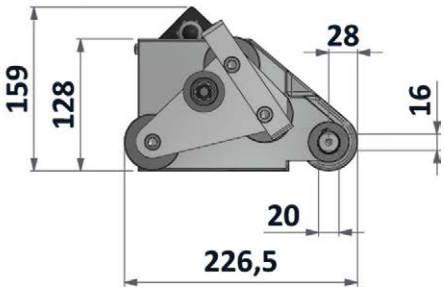
Art. no.	Description	m
		kg
550180	RB120-11-44\230\1\50\36	6,2
550140	RB120-13-48\115\1\60\36	6,2



RPR100-4 PowerRoller



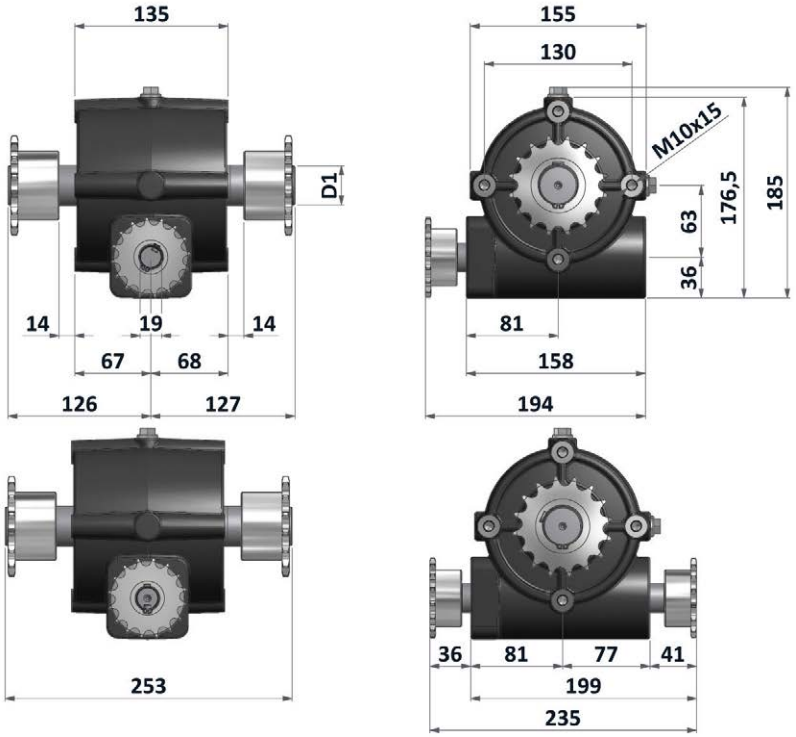




Art. no.	Description	m
		kg
550220	RPR100-4-30\400\3\43\GC	11,0



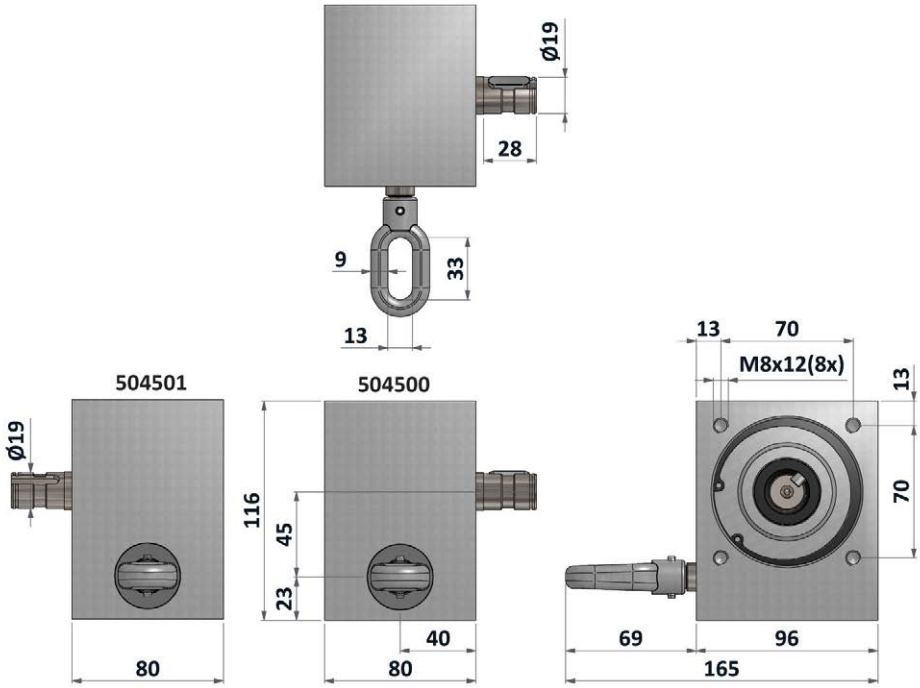
W240/400/600 worm wheel gearboxes



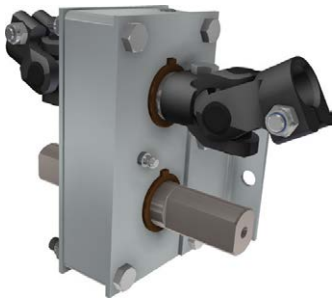
Art. no.	Description	m	D1
		kg	mm
504000	W240-240\35\A28	13,5	28
504010	W240D-240\35\A28	14,5	28
504100	W400-400\35\A28	13,5	28
504110	W400D-400\35\A28	14,5	28
504200	W600-600\35\A34	13,5	34
504210	W600D-600\35\A34	14,5	34



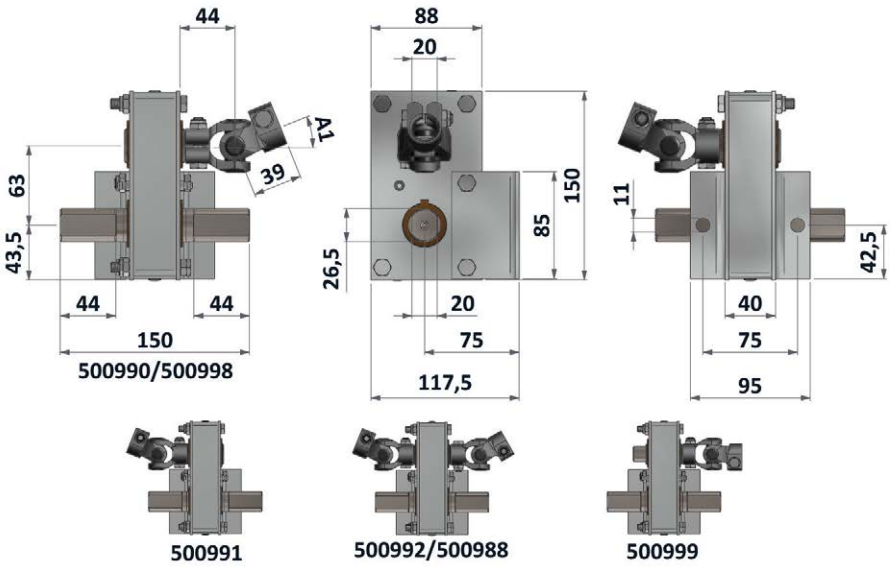
W120 worm wheel gearboxes



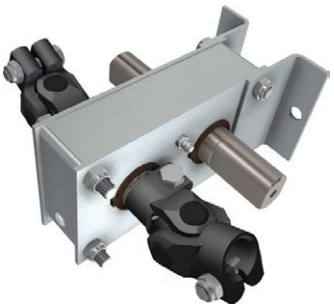
Art. no.	Description	m
		kg
504500	W120-120\44\A19\R	2,8
504501	W120-120\44\A19\L	2,8



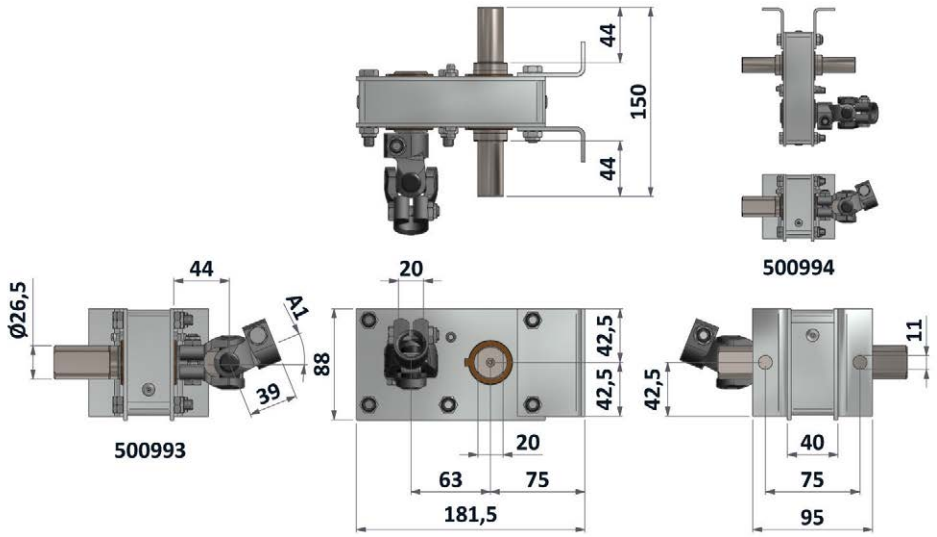
T11-50 Gearboxes - vertical



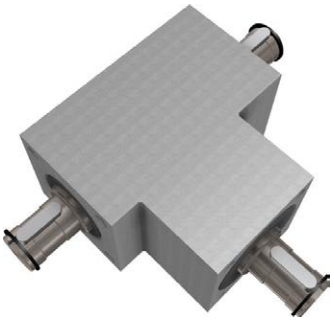
Art. no.	Description	m	A1
		kg	°
500990	T11-50\1\B75\P26.5\V\1KR	3,0	30°
500991	T11-50\1\B75\P26.5\V\1KL	3,0	30°
500992	T11-50\1\B75\P26.5\V\2KLR	3,4	30°



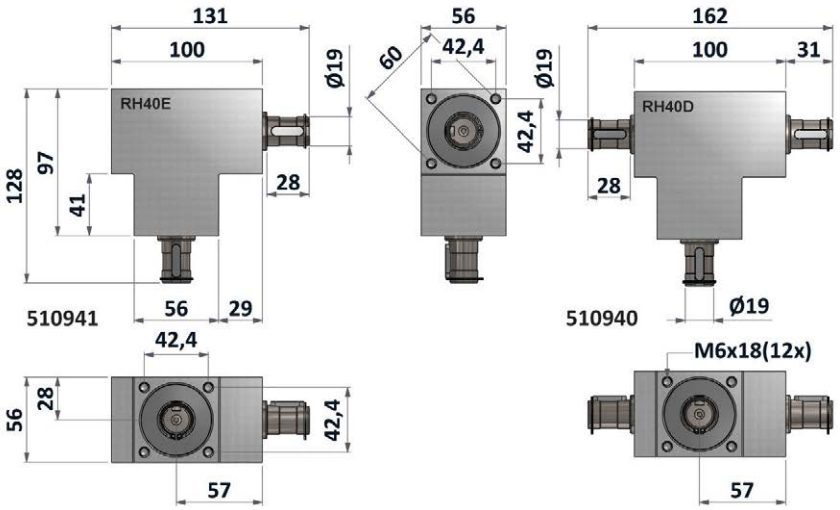
T11-50 Gearboxes - horizontal



Art. no.	Description	m	A1
		kg	°
500993	T11-50\1\B75\P26.5\H\1KL/R	3,0	30°
500994	T11-50\1\B75\P26.5\H\2KLR	3,4	30°



RH40 Gearboxes

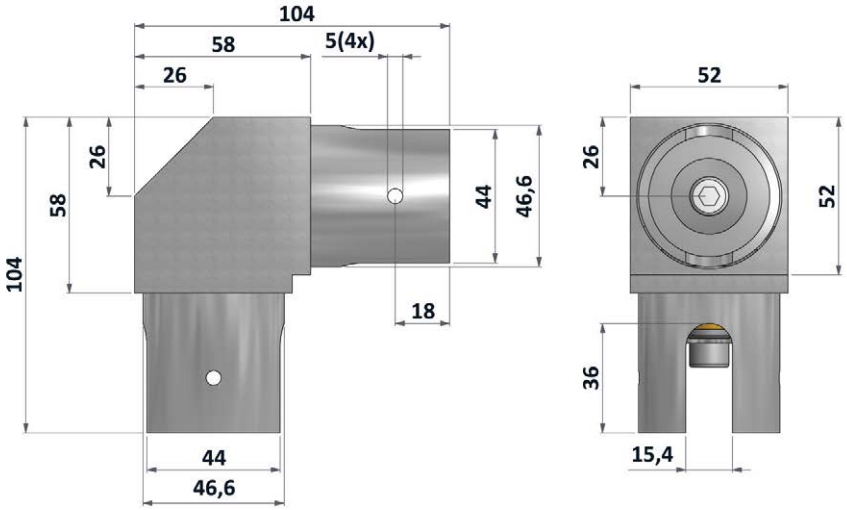


Art. no.	Description	m
		kg
510940	RH40D-40\1\D19\KWV	1,86
510941	RH40E-40\1\D19\KWV	1,76

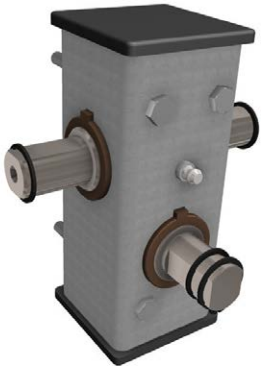
13



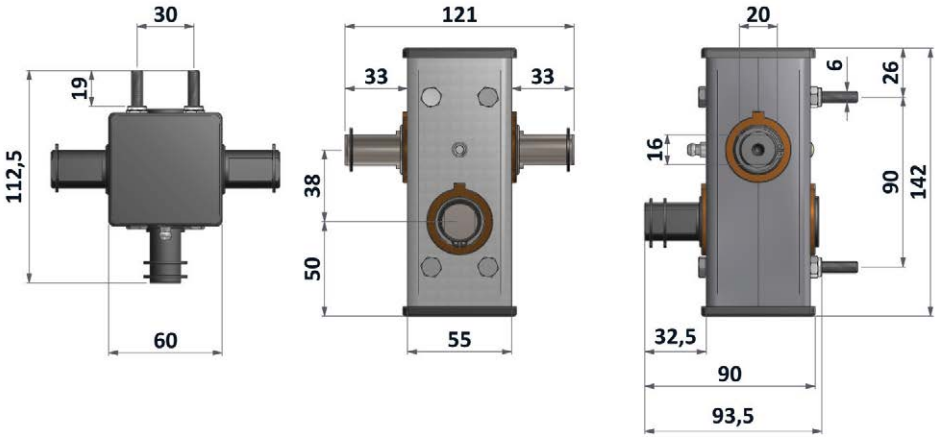
SH40 Gearbox



Art. no.	Description	m
		kg
513000	SH40-40\1\WB50	1,1



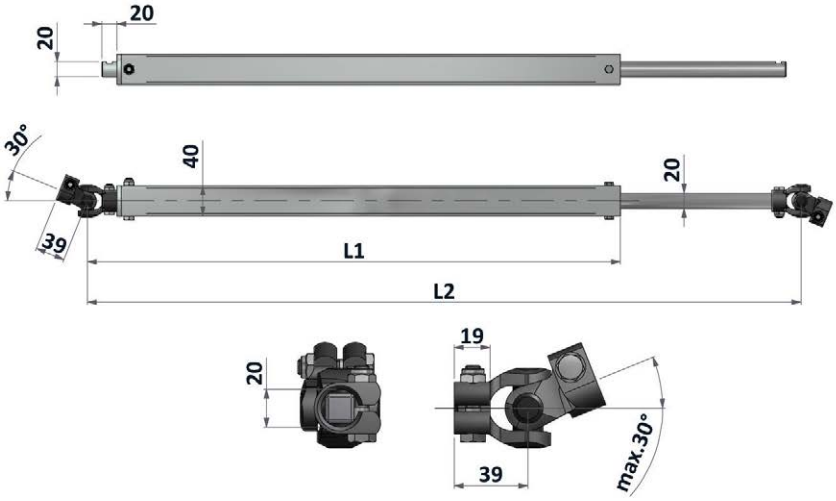
HW60 Manual drive



Art. no.	Description	m
		kg
591410	HW60-60\15\P20	1,9



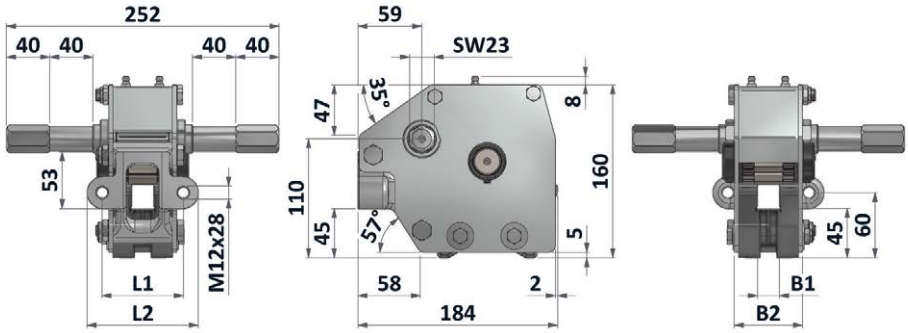
SC40 Slide cardan shafts



Art. no.	Description	m	L1	L2 min.	L2 max.
		kg	mm	mm	mm
505036	SC40-KR20\L0751-1050\H1050	4,3	695	751	1050
505033	SC40-KR20\L1084-1780\H1780	8,0	1035	1081	1530
505031	SC40-KR20\L1581-2280\H2280	7,0	1535	1581	2030
505034	SC40-KR20\L2081-2780\H2780	9,0	2035	2081	2780
505032	SC40-KR20\L2581-3280\H3280	10,3	2535	2581	3280
505035	SC40-KR20\L3081-3780\H3780	13,5	3035	3081	3780



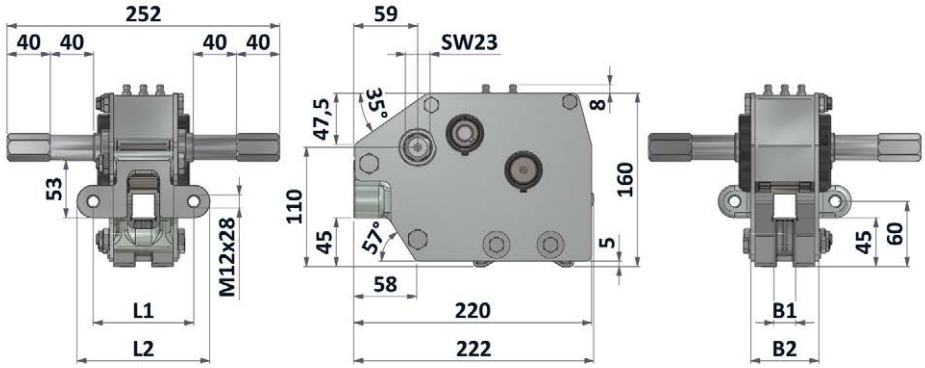
RackDrive710 rack drive unit



Art. no.	Description	m	B1	B2	L1	L2
		kg	mm	mm	mm	mm
543110	RRD710-523-K50/60 UNIT	5,30	16	61	75	103
543210	RRD710-1003-K50/60 UNIT	5,75	20	63	75	103
543310	RRD710-1303-K50/60 UNIT	5,75	25	63	75	103
543111	RRD710-523-K70/80 UNIT	5,45	16	61	93	123
543211	RRD710-1003-K70/80 UNIT	5,90	20	63	93	123
543311	RRD710-1303-K70/80 UNIT	5,90	25	63	93	123



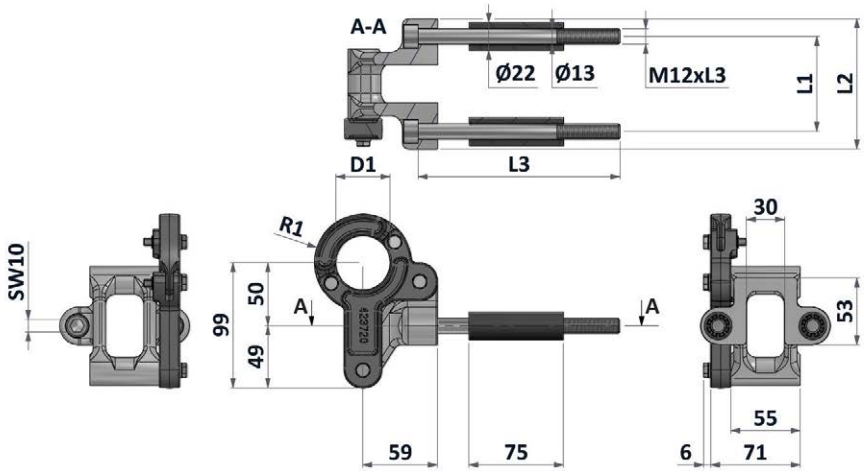
RackDrive720 rack drive unit



Art. no.	Description	m	B1	B2	L1	L2
		kg	mm	mm	mm	mm
543230	RRD720-1005-K50/60 UNIT	7,1	20	63	75	103
543330	RRD720-1305-K50/60 UNIT	7,1	25	63	75	103
543231	RRD720-1005-K70/80 UNIT	7,25	20	63	93	123
543331	RRD720-1305-K70/80 UNIT	7,25	25	63	93	123



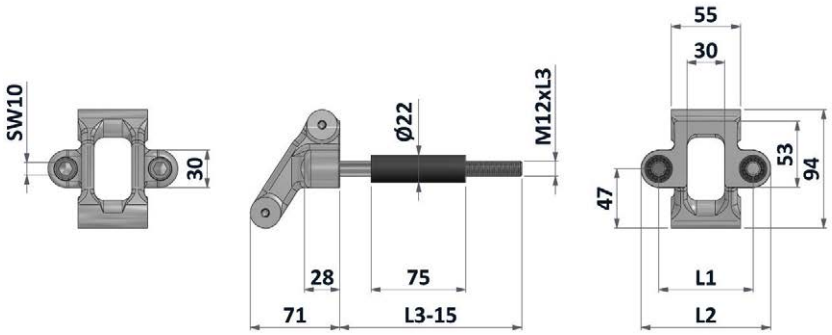
Clamping sets RackDrive700 rack drive



Art. no.	Description	m	D1	R1	L1	L2	L3
		kg	mm	mm	mm	mm	mm
543900	RRD700 SET K50/60x80-B5/4	1,65	43	38,5	75	103	120
543910	RRD700 SET K50/60x100-B5/4	1,70	43	38,5	75	103	140
543940	RRD700 SET K50/60x120-B5/4	1,75	43	38,5	75	103	160
543970	RRD700 SET K50/60x140-B5/4	1,80	43	38,5	75	103	180
544000	RRD700 SET K50/60x160-B5/4	1,85	43	38,5	75	103	200
543920	RRD700 SET K50/60x100-B2	1,70	61	47,5	75	103	140
543950	RRD700 SET K50/60x120-B2	1,75	61	47,5	75	103	160
543980	RRD700 SET K50/60x140-B2	1,80	61	47,5	75	103	180
544010	RRD700 SET K50/60x160-B2	1,85	61	47,5	75	103	200
543901	RRD700 SET K70/80x80-B5/4	1,80	43	38,5	93	123	120
543911	RRD700 SET K70/80x100-B5/4	1,85	43	38,5	93	123	140
543941	RRD700 SET K70/80x120-B5/4	1,90	43	38,5	93	123	160
543971	RRD700 SET K70/80x140-B5/4	1,95	43	38,5	93	123	180
544001	RRD700 SET K70/80x160-B5/4	2,00	43	38,5	93	123	200
543921	RRD700 SET K70/80x100-B2	1,85	61	47,5	93	123	140
543951	RRD700 SET K70/80x120-B2	1,90	61	47,5	93	123	160
543981	RRD700 SET K70/80x140-B2	1,95	61	47,5	93	123	180
544011	RRD700 SET K70/80x160-B2	2,00	61	47,5	93	123	200



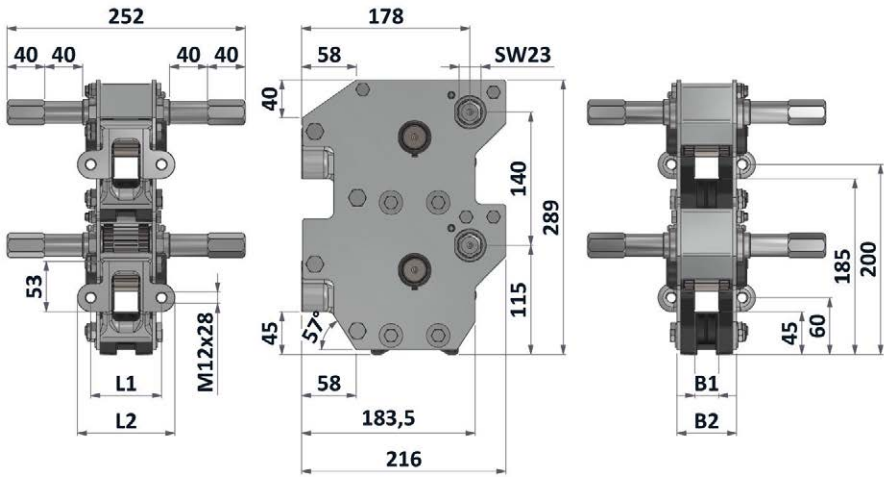
Clamping sets RackDrive700 rack drive (without bearing)



Art. no.	Description	m	L1	L2	L3
		kg	mm	mm	mm
543915	RRD700 SET K50/60x100	1,30	75	103	140
543945	RRD700 SET K50/60x120	1,35	75	103	160
543975	RRD700 SET K50/60x140	1,40	75	103	180
544005	RRD700 SET K50/60x160	1,45	75	103	200
543916	RRD700 SET K70/80x100	1,45	93	123	140
543946	RRD700 SET K70/80x120	1,50	93	123	160
543976	RRD700 SET K70/80x140	1,55	93	123	180
544006	RRD700 SET K70/80x160	1,60	93	123	200



RackDrive810 rack drive unit

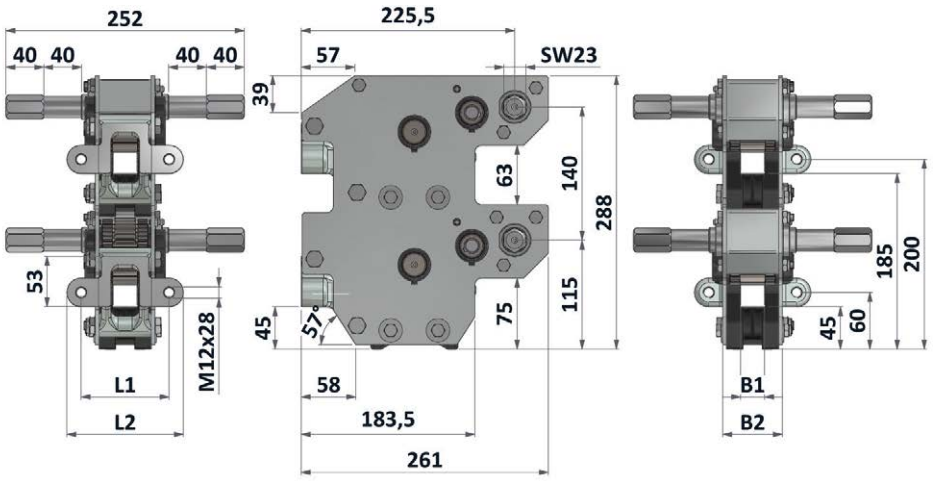


Art. no.	Description	m	B1	B2	L1	L2
		kg	mm	mm	mm	mm
546110	RRD810-523-K50/60 UNIT	10,9	16	61	75	103
546210	RRD810-1003-K50/60 UNIT	11,7	20	63	75	103
546310	RRD810-1303-K50/60 UNIT	11,7	25	63	75	103
546111	RRD810-523-K70/80 UNIT	11,1	16	61	93	123
546211	RRD810-1003-K70/80 UNIT	12,0	20	63	93	123
546311	RRD810-1303-K70/80 UNIT	12,0	25	63	93	123

Dimensioned drawings



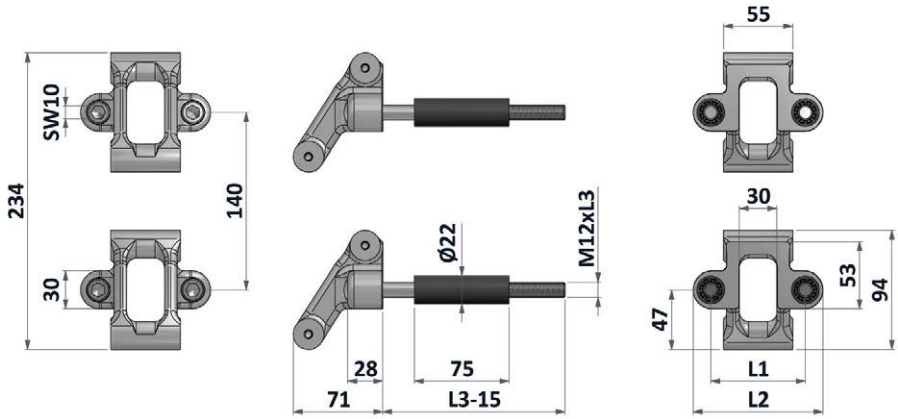
RackDrive820 rack drive unit



Art. no.	Description	m	B1	B2	L1	L2
		kg	mm	mm	mm	mm
546230	RRD820-1005-K50/60 UNIT	14,1	20	63	75	103
546330	RRD820-1305-K50/60 UNIT	14,1	25	63	75	103
546231	RRD820-1005-K70/80 UNIT	14,3	20	63	93	123
546331	RRD820-1305-K70/80 UNIT	14,3	25	63	93	123



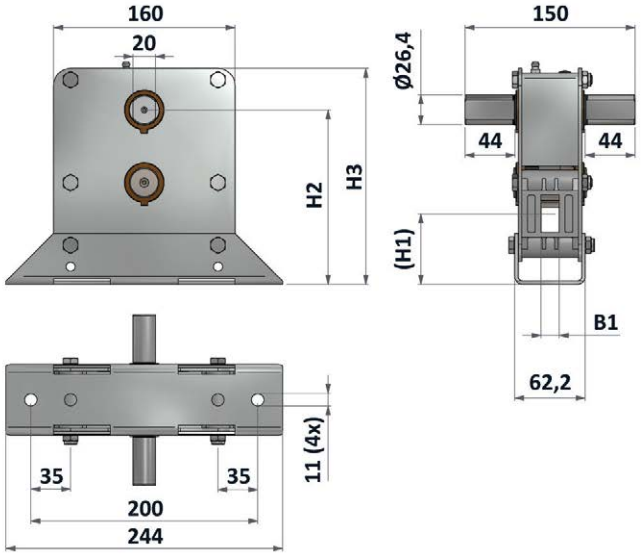
Clamping sets RackDrive800 rack drive



Art. no.	Description	m	L1	L2	L3
		kg	mm	mm	mm
546910	RRD800 SET K50/60x100	2,58	75	103	140
546920	RRD800 SET K50/60x120	2,65	75	103	160
546930	RRD800 SET K50/60x140	2,71	75	103	180
546911	RRD800 SET K70/80x100	2,84	93	123	140
546921	RRD800 SET K70/80x120	2,90	93	123	160
546931	RRD800 SET K70/80x140	2,96	93	123	180



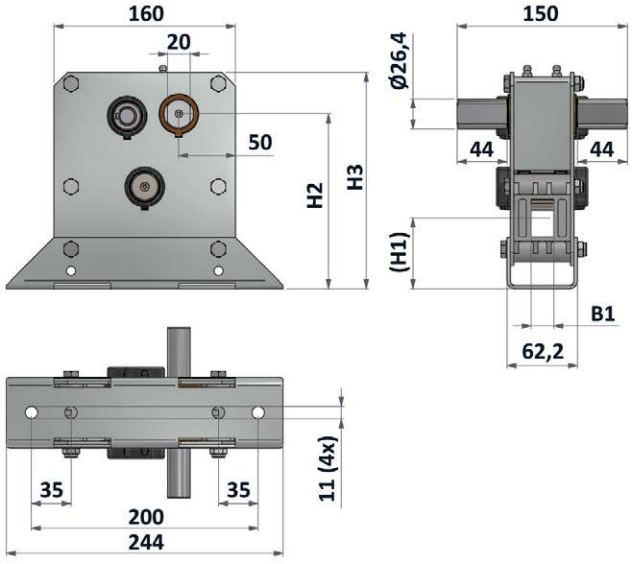
TRN520-3S/TRN1000-3S Rack drives



Art. no.	Description	m	B1	H1	H2	H3
		kg	mm	mm	mm	mm
540000	TRN520-3S-H60 UNIT	4,2	16	60	153,5	190
540100	TRN520-3S-H40 UNIT	4,2	16	40	133,5	170
540050	TRN1000-3S-H60 UNIT	4,8	20	60	153,5	190
540150	TRN1000-3S-H40 UNIT	4,8	20	40	133,5	170



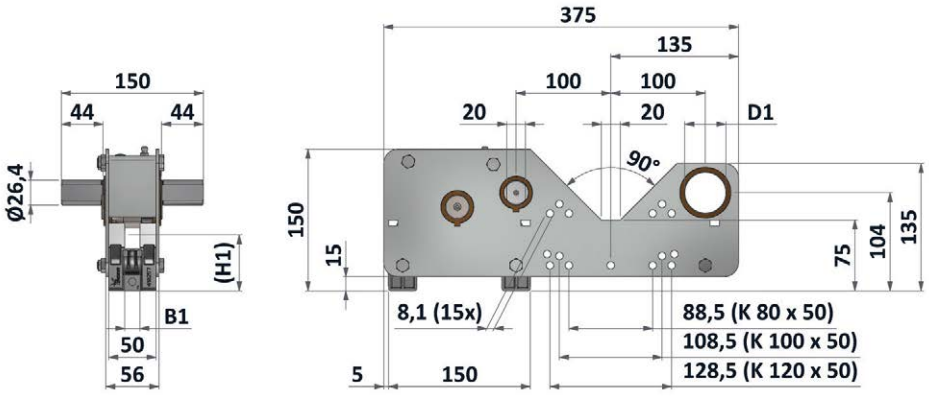
TRN1000-5S Rack drives



Art. no.	Description	m	B1	H1	H2	H3
		kg	mm	mm	mm	mm
540070	TRN1000-5S-H60 UNIT	6,0	20	60	153,5	190
540170	TRN1000-5S-H40 UNIT	6,0	20	40	133,5	170



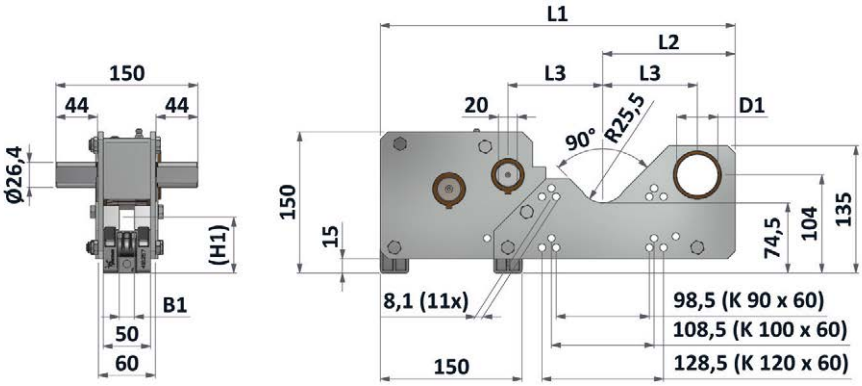
TRN520-3K/TRN1000-3K Rack drives (50mm post)



Art. no.	Description	m	B1	D1
		kg	mm	mm
541000	TRN520-3K-5/4-K50 UNIT	4,4	16	43
541010	TRN520-3K-1-K50 UNIT	4,4	16	34,5
541050	TRN1000-3K-5/4-K50 UNIT	4,9	20	43
541060	TRN1000-3K-1-K50 UNIT	4,8	20	34,5



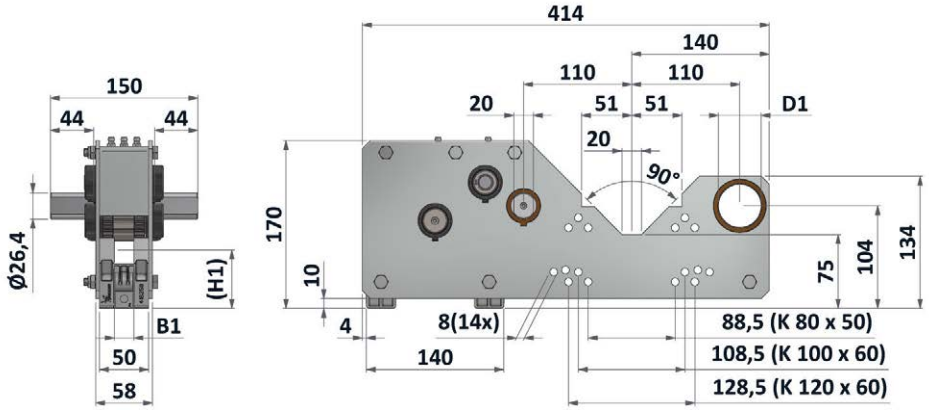
TRN520-3K/TRN1000-3K Rack drives (60mm post)



Art. no.	Description	m	B1	D1	L1	L2	L3
		kg	mm	mm	mm	mm	mm
541100	TRN520-3K-5/4-K60 UNIT	5,2	16	43	375	140	100
541150	TRN1000-3K-5/4-K60 UNIT	5,2	20	43	375	140	100



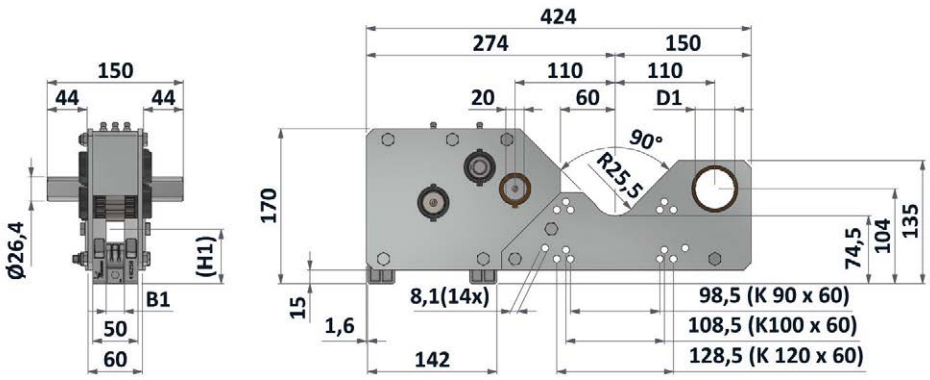
TRN1000-5K Rack drives (50mm post)



Art. no.	Description	m	B1	D1
		kg	mm	mm
541070	TRN1000-5K-5/4-K50 UNIT	5,2	20	43



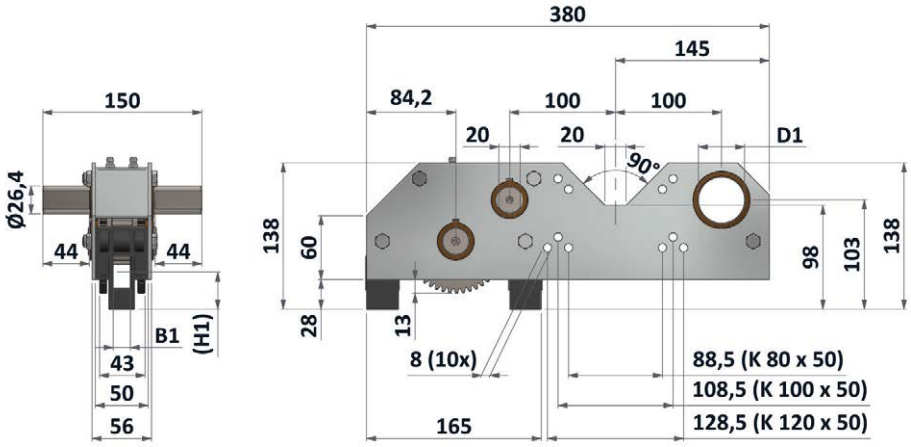
TRN1000-5K Rack drives (60mm post)



Art. no.	Description	m	B1	D1
		kg	mm	mm
541431	TRN1000-5K-5/4-K126-DK UNIT	7,1	20	43



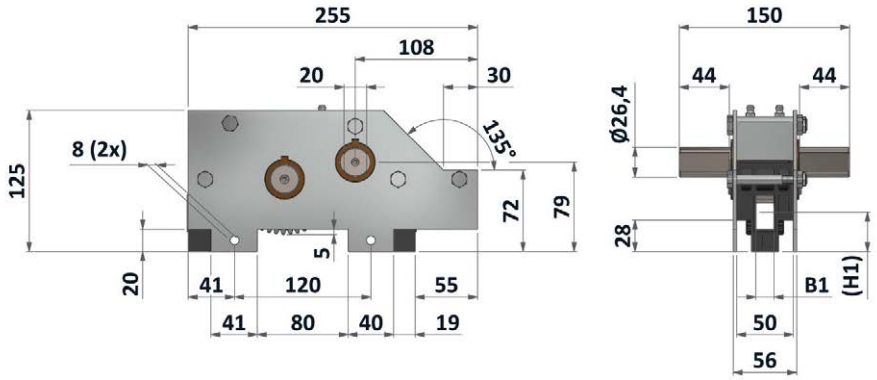
TRN520-3KC Rack drives (50mm post)



Art. no.	Description	m	B1	D1
		kg	mm	mm
541200	TRN520-3KC-5/4-K50 UNIT	4,5	16	43
541210	TRN520-3KC-1-K50 UNIT	4,4	16	34,5



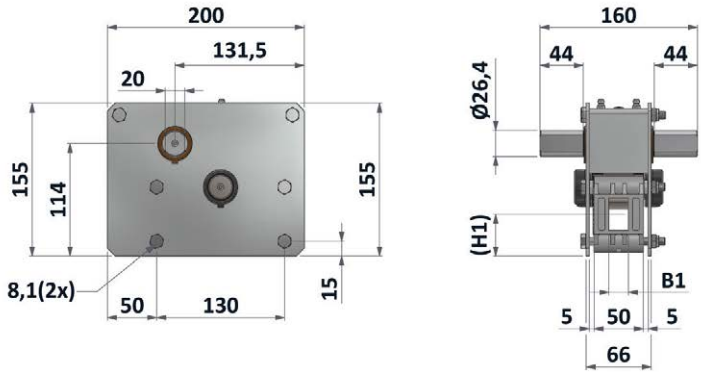
TRN520-3CK Rack drives



Art. no.	Description	m	B1
		kg	mm
541350	TRN520-3CK UNIT	3,8	16



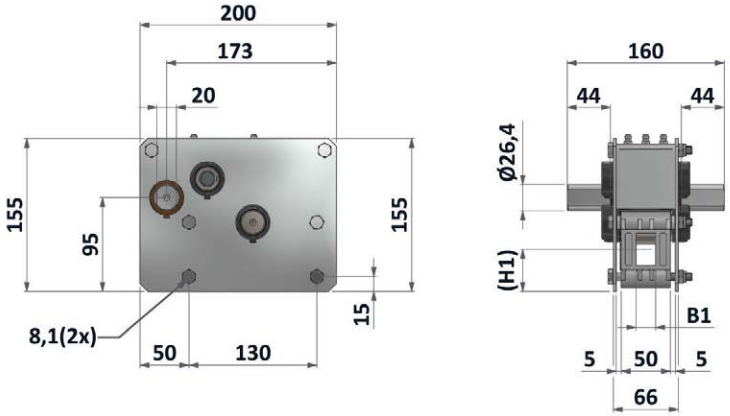
TRN1000-3UK Rack drives



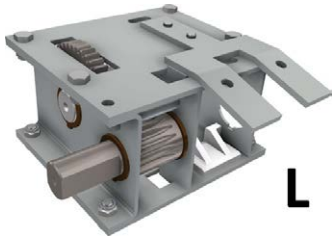
Art. no.	Description	m	B1
		kg	mm
541362	TRN1000-3UK UNIT	4,7	20



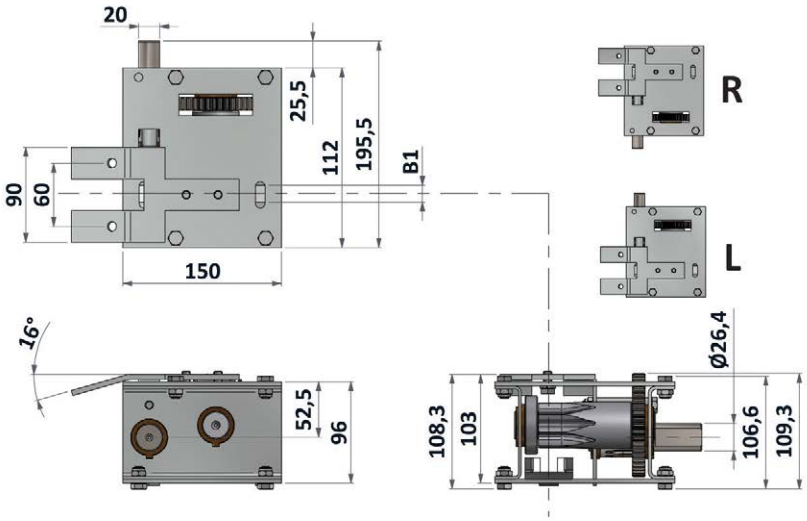
TRN1000-5UK Rack drives



Art. no.	Description	m	B1
		kg	mm
541361	TRN1000-5UK UNIT	5,7	20



TRN520-3GK Rack drives

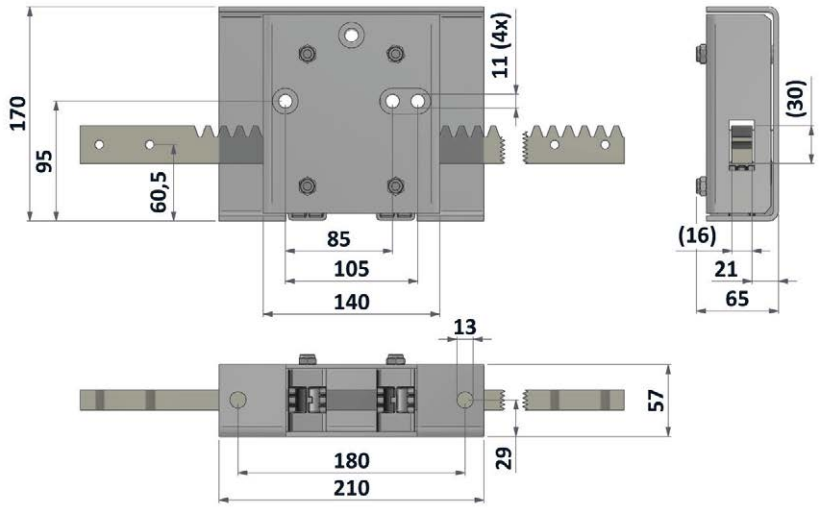


Art. no.	Description	m	B1
		kg	mm
541300	TRN520-3GK-L UNIT	5,3	16
541310	TRN520-3GK-R UNIT	5,3	16

Dimensioned drawings



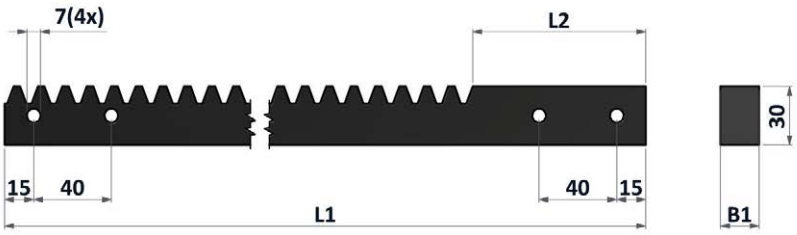
TRN520A Rack drives



Art. no.	Description	m
		kg
549500	TRN520A UNIT	3,1



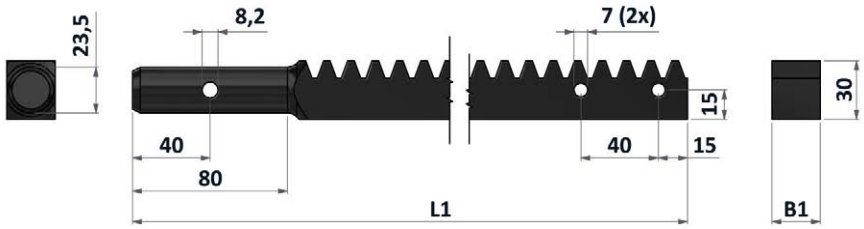
Racks for RackDrive700/800-TRN rack drives



Art. no.	Description	m	B1	L1	L2
		kg	mm	mm	mm
406244	RACK B16\M4\L1050U	3,4	16	1050	103
416549	RACK B16\M4\L1250U	4,1	16	1250	102
416745	RACK B16\M4\L1400U	4,6	16	1400	101
416748	RACK B16\M4\L1550U	5,1	16	1550	100
418931	RACK b16\m4\L1700U	5,5	16	1700	100
416921	RACK B20\M4\L1050U	4,3	20	1050	103
416919	RACK B20\M4\L1250U	5,0	20	1250	102
416922	RACK B20\M4\L1400U	5,7	20	1400	101
416920	RACK B20\M4\L1550U	6,3	20	1550	100
416924	RACK B20\M4\L1700U	6,9	20	1700	100
422481	RACK b25\m4\L1250U	6,4	25	1250	101
422482	RACK B25\M4\L1400U	7,2	25	1400	101
422483	RACK B25\M4\L1550U	8,0	25	1550	100
424285	RACK B25\M4\L1700U	9,1	25	1700	100



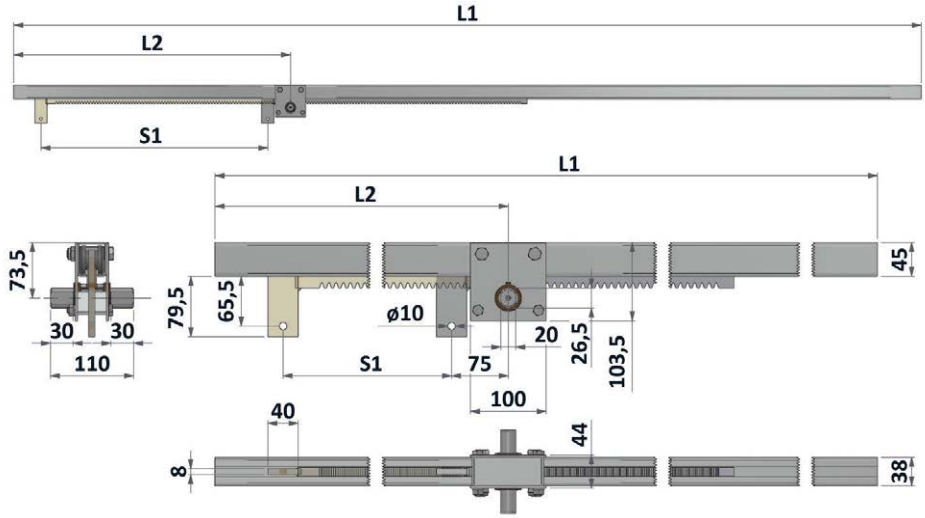
Racks with axle stub for RackDrive700/800-TRN rack drives



Art. no.	Description	m	B1	L1
		kg	mm	mm
424200	RACK b16\m4\L1250U\1A23\D8H	4,0	16	1250
424199	RACK b16\m4\L1400U\1A23\D8H	4,5	16	1400
423880	RACK b16\m4\L1550U\1A23\D8H	5,0	16	1550
424947	RACK b16\m4\L1700U\1A23\D8H	5,5	16	1700
421821	RACK b20\m4\L1250U\1A23\D8H	4,9	20	1250
424198	RACK b20\m4\L1400U\1A23\D8H	5,6	20	1400
423913	RACK b20\m4\L1550U\1A23\D8H	6,2	20	1550
424729	RACK b20\m4\L1700U\1A23\D8H	6,8	20	1700
423942	RACK b25\m4\L1250U\1A23\D8H	6,3	25	1250
424702	RACK b25\m4\L1400U\1A23\D8H	7,1	25	1400
424019	RACK b25\m4\L1550U\1A23\D8H	7,9	25	1550
424205	RACK b25\m4\L1700U\1A23\D8H	8,5	25	1700



TR10I/24 Gear Rack Drives



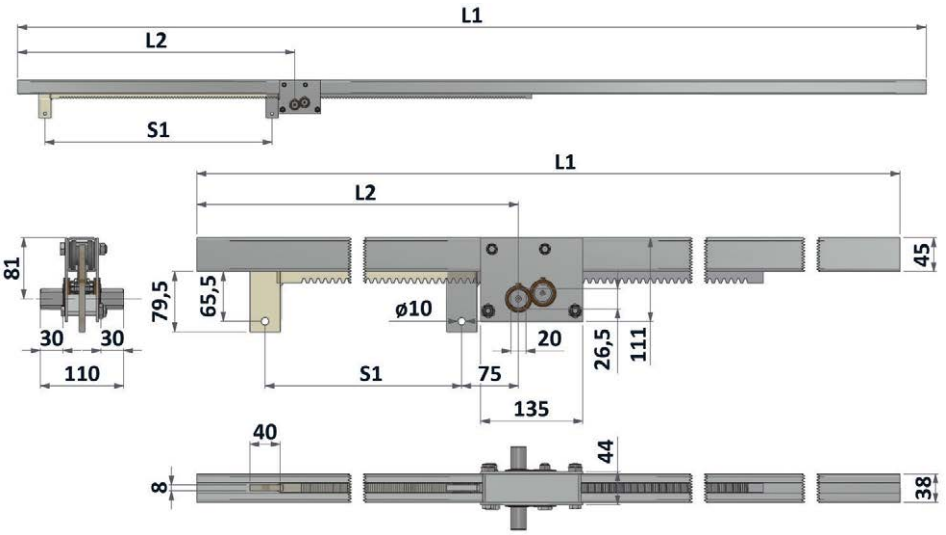
Art. no.	Description	m	L1	L2	S1
		kg	mm	mm	mm
500380	TR10I/24-S750\L3000	10,4	3000	915	750
500384	TR10I/24-S750\L3800	12,1	3800	915	750
500385	TR10I/24-S900\L3800	12,5	3800	1065	900

Rack drives swinging-ventilation system

Dimensioned drawings



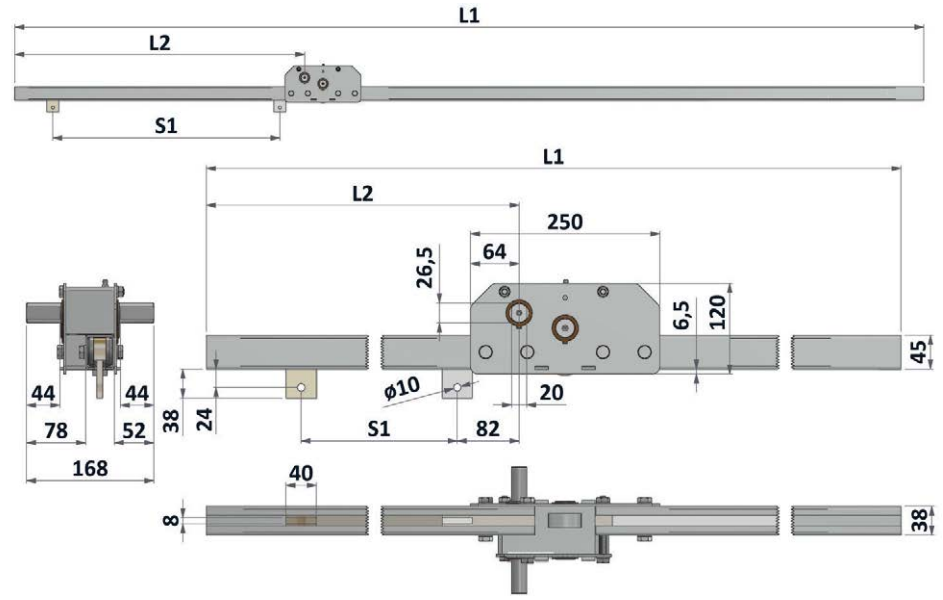
TR10I/24 Reversible Gear Rack Drives



Art. no.	Description	m	L1	L2	S1
		kg	mm	mm	mm
500390	TR10I/24-REV\S750\L3000	10,9	3000	915	750
500394	TR10I/24-REV\S750\L3800	12,6	3800	915	750
500395	TR10I/24-REV\S900\L3800	13,0	3800	1065	900



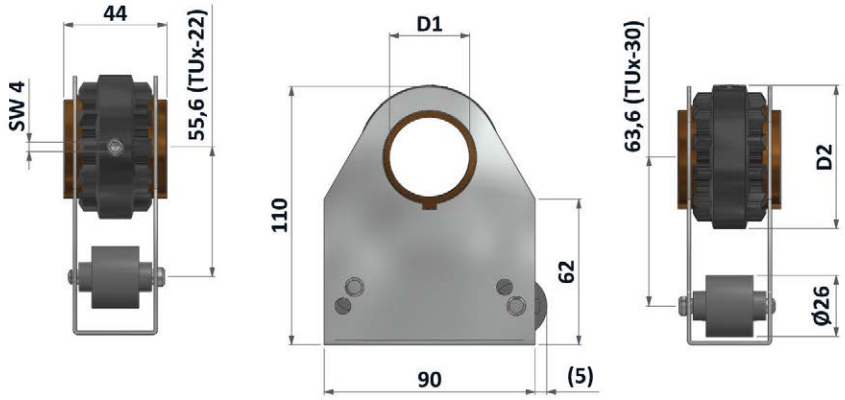
TR25I/TR520I Gear Rack Drives



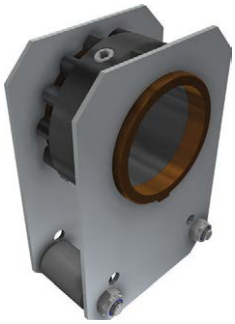
Art. no.	Description	m	L1	L2	S1
		kg	mm	mm	mm
500410	TR25I/24-S750\L3000	13,9	3000	957	750
500414	TR25I/24-S750\L3800	20,4	3800	957	750
500415	TR25I/24-S900\L3800	20,8	3800	1107	900
500430	TR25I/46-S750\L3000	14,7	3000	957	750
500434	TR25I/46-S750\L3800	21,3	3800	957	750
500435	TR25I/46-S900\L3800	21,7	3800	1107	900
500450	TR520I-S750\L3000	14,8	3000	957	750
500454	TR520I-S750\L3800	21,4	3800	957	750
500455	TR520I-S900\L3800	21,9	3800	1107	900



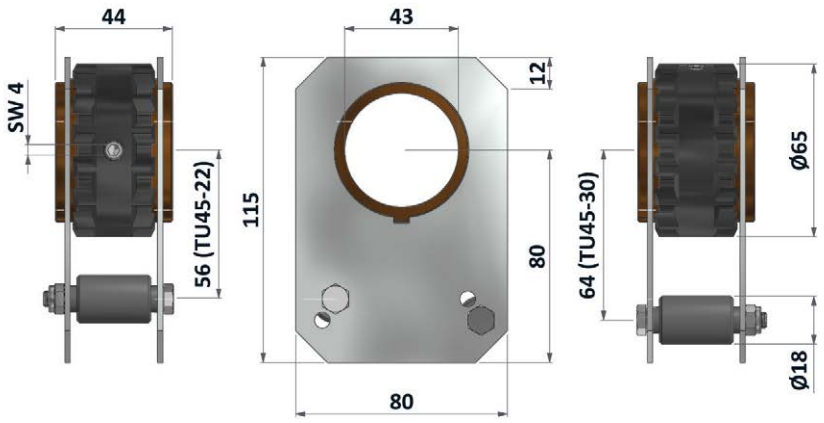
TU5-22/30 / TU11-22/30 Rack drive



Art. no.	Description	m	D1	D2
		kg	mm	mm
500019	TU5-22 PINION HOUSE UNIT\D61	0,5	34,3	61
500018	TU5-30 PINION HOUSE UNIT\D61	0,5	34,3	61
500010	TU11-22 PINION HOUSE UNIT	0,54	34,3	61
500030	TU11-30 PINION HOUSE UNIT	0,54	34,3	61



TU45-22/30 Rack drive



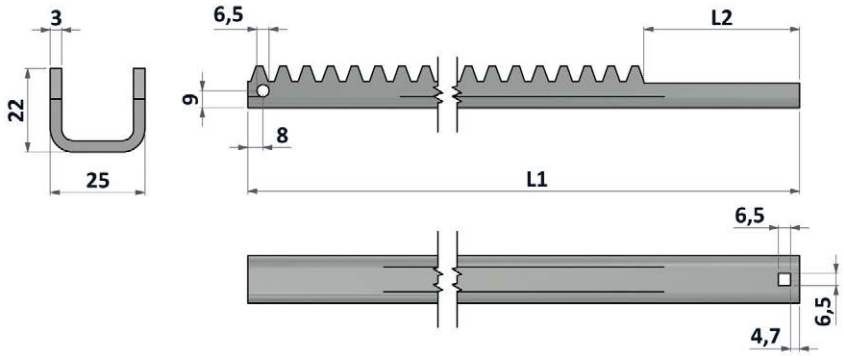
Art. no.	Description	m
		kg
500045	TU45-5/4-22 PINION HOUSE UNIT	0,65
500046	TU45-5/4-30 PINION HOUSE UNIT	0,65

Sheet steel rack drives

Dimensioned drawings



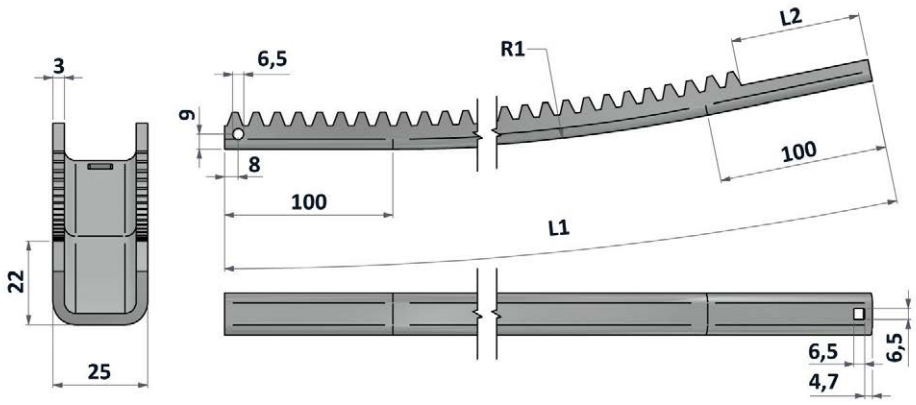
Sheet steel racks H22-3 / Straight



Art. no.	Description	m	L1	L2
		kg	mm	mm
417567	RACK 22-3\L390\D6\U77	0,44	390	77
417569	RACK 22-3\L490\D6\U77	0,55	490	77
417571	RACK 22-3\L591\D6\U77	0,66	591	77
417573	RACK 22-3\L691\D6\U77	0,78	691	77
418080	RACK 22-3\L792\D6\U77	0,89	792	77
418082	RACK 22-3\L892\D6\U77	1,01	892	77
418085	RACK 22-3\L1043\D6\U77	1,18	1043	77
418089	RACK 22-3\L1244\D6\U77	1,41	1244	77
418093	RACK 22-3\L1445\D6\U77	1,64	1445	77
418164	RACK 22-3\L390\D6\U0	0,45	390	0
418170	RACK 22-3\L691\D6\U0	0,79	691	0
418174	RACK 22-3\L892\D6\U0	1,02	892	0



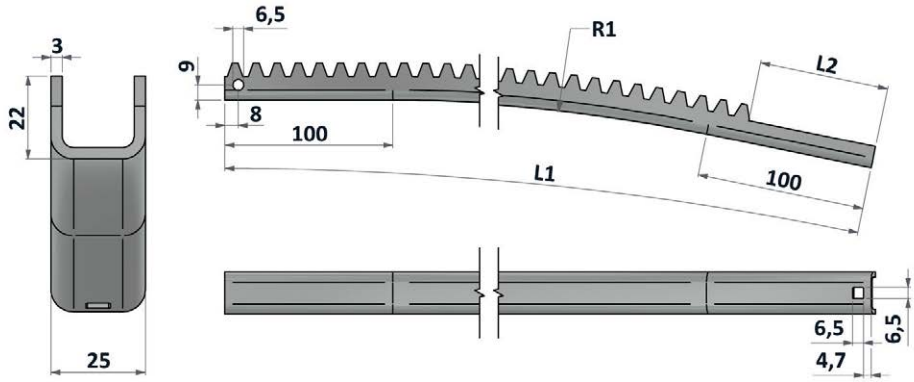
Sheet steel racks H22-3 / Curved / Inside toothing



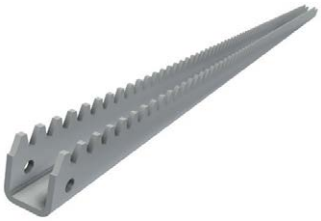
Art. no.	Description	m	L1	L2	R1
		kg	mm	mm	mm
418202	RACK 22-3\L390\D6\U77\1000I	0,43	390	77	1000
418204	RACK 22-3\L490\D6\U77\1000I	0,55	490	77	1000
418206	RACK 22-3\L591\D6\U77\1000I	0,66	591	77	1000
418208	RACK 22-3\L691\D6\U77\1000I	0,78	691	77	1000
418100	RACK 22-3\L792\D6\U77\1000I	0,89	792	77	1000
418102	RACK 22-3\L892\D6\U77\1000I	1,01	892	77	1000
418105	RACK 22-3\L1043\D6\U77\1000I	1,18	1043	77	1000
418109	RACK 22-3\L1244\D6\U77\1000I	1,41	1244	77	1000
418113	RACK 22-3\L1445\D6\U77\1000I	1,64	1445	77	1000
418224	RACK 22-3\L691\D6\U0\1000I	0,79	691	0	1000



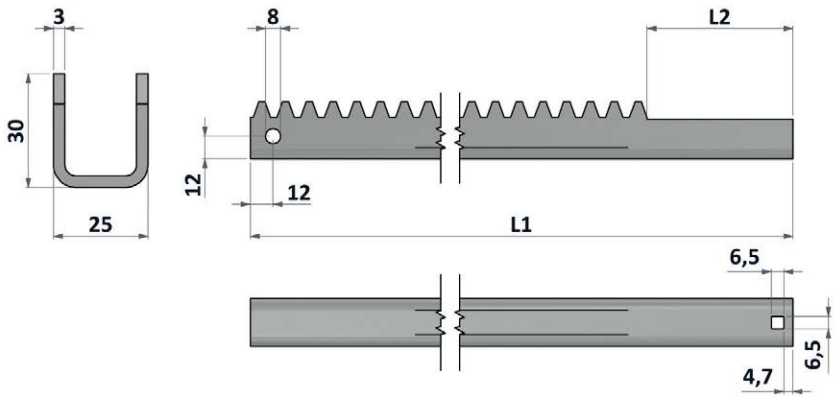
Sheet steel racks H22-3 / Curved / Outside toothing



Art. no.	Description	m	L1	L2	R1
		kg	mm	mm	mm
418210	RACK 22-3\L390\D6\U77\1000U	0,43	390	77	1000
418212	RACK 22-3\L490\D6\U77\1000U	0,55	490	77	1000
418214	RACK 22-3\L591\D6\U77\1000U	0,66	591	77	1000
418216	RACK 22-3\L691\D6\U77\1000U	0,78	691	77	1000
418120	RACK 22-3\L792\D6\U77\1000U	0,89	792	77	1000
418122	RACK 22-3\L892\D6\U77\1000U	1,01	892	77	1000
418125	RACK 22-3\L1043\D6\U77\1000U	1,18	1043	77	1000
418129	RACK 22-3\L1244\D6\U77\1000U	1,41	1244	77	1000
418133	RACK 22-3\L1445\D6\U77\1000U	1,64	1445	77	1000
418238	RACK 22-3\L691\D6\U0\1000U	0,79	691	0	1000
418240	RACK 22-3\L792\D6\U0\1000U	0,90	792	0	1000
418245	RACK 22-3\L1043\D6\U0\1000U	1,19	1043	0	1000



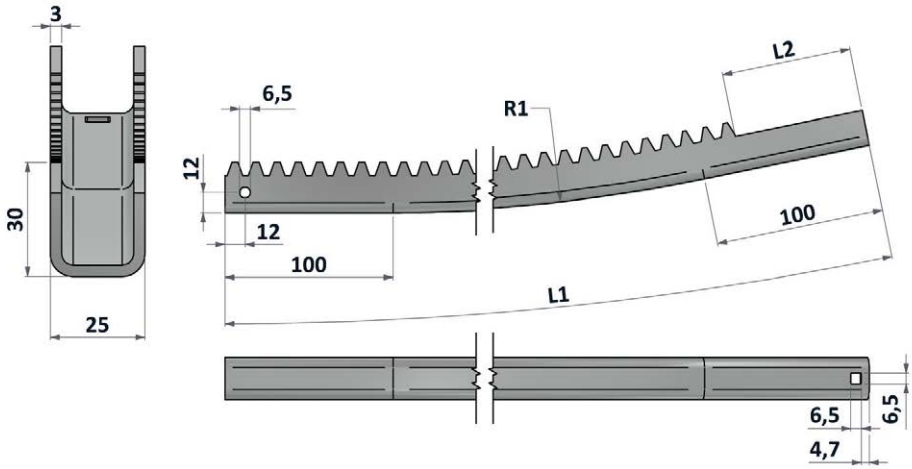
Sheet steel racks H30-3 / Straight



Art. no.	Description	m	L1	L2
		kg	mm	mm
413970	RACK 30-3\L1043\D6\U77	1,56	1043	77
413971	RACK 30-3\L1244\D6\U77	1,86	1244	77
418555	RACK 30-3\L1345\D6\U77	2,01	1345	77
413972	RACK 30-3\L1445\D6\U77	2,17	1445	77
418558	RACK 30-3\L1546\D6\U77	2,32	1546	77
413973	RACK 30-3\L1646\D6\U77	2,47	1646	77
413979	RACK 30-3\L1747\D6\U77	2,62	1747	77
413978	RACK 30-3\L1847\D6\U77	2,77	1847	77
413976	RACK 30-3\L1948\D6\U77	2,92	1948	77



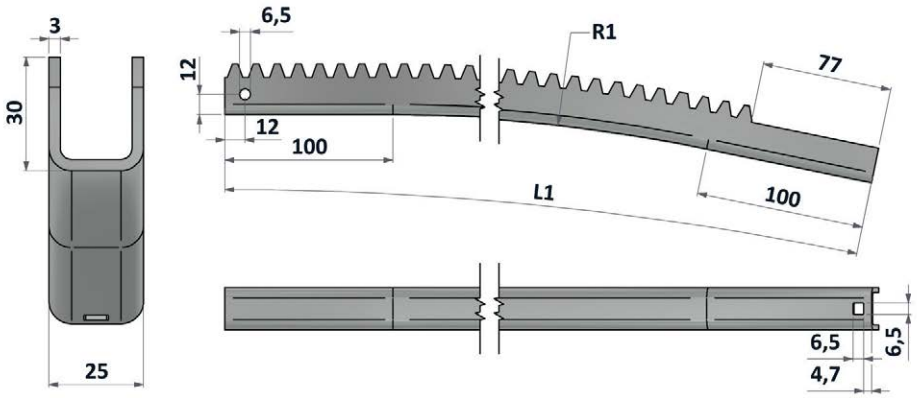
Sheet steel racks H30-3 / Curved / Inside toothing



Art. no.	Description	m	L1	L2	R1
		kg	mm	mm	mm
416514	RACK 30-3\L1043\D6\U77\1000Im	1,56	1043	77	1000
416515	RACK 30-3\L1244\D6\U77\1000Im	1,86	1244	77	1000
418576	RACK 30-3\L1345\D6\U77\1000I	2,01	1345	77	1000
416516	RACK 30-3\L1445\D6\U77\1000Im	2,17	1445	77	1000
418579	RACK 30-3\L1546\D6\U77\1000I	2,32	1546	77	1000
418582	RACK 30-3\L1847\D6\U77\1000I	2,77	1847	77	1000
416518	RACK 30-3\L1948\D6\U77\1000Im	2,92	1948	77	1000



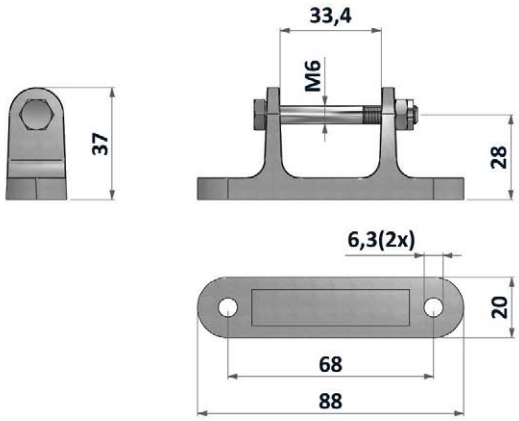
Sheet steel racks H30-3 / Curved / Outside toothing



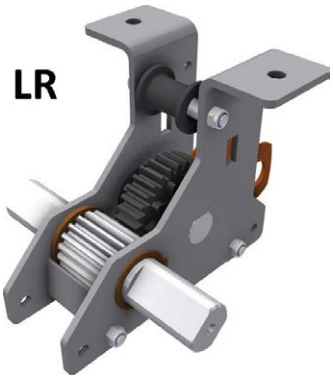
Art. no.	Description	m	L1	L2	R1
		kg	mm	mm	mm
418508	RACK 30-3\L1043\D6\U77\1000U	1,56	1043	77	1000
418505	RACK 30-3\L1244\D6\U77\1000U	1,86	1244	77	1000
418509	RACK 30-3\L1345\D6\U77\1000U	2,01	1345	77	1000
419141	RACK 30-3\L1445\D6\U77\1000U	2,17	1445	77	1000
418506	RACK 30-3\L1546\D6\U77\1000U	2,32	1546	77	1000
418507	RACK 30-3\L1646\D6\U77\1000U	2,47	1646	77	1000
418510	RACK 30-3\L1747\D6\U77\1000U	2,62	1747	77	1000
418511	RACK 30-3\L1847\D6\U77\1000U	2,77	1847	77	1000
418512	RACK 30-3\L1948\D6\U77\1000U	2,92	1948	77	1000



Window bracket set

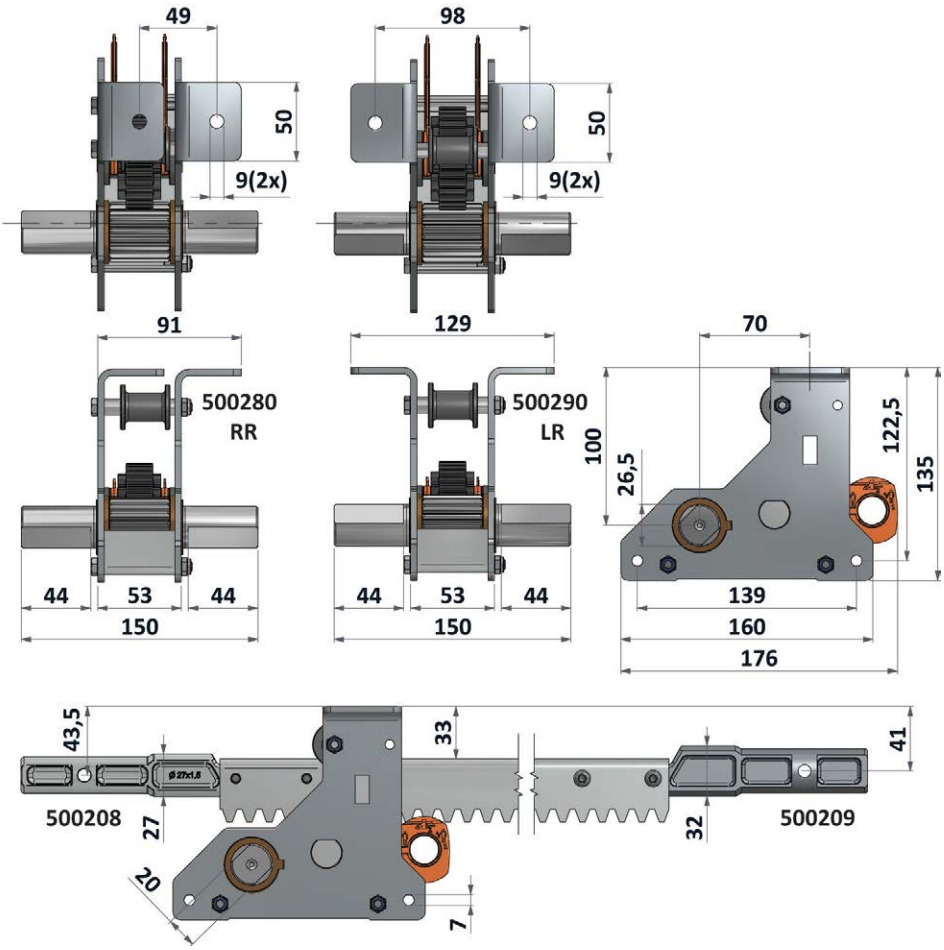


Art. no.	Description	m
		kg
500021	WINDOW BRACKET L20\D6\RVS\S68	0,05





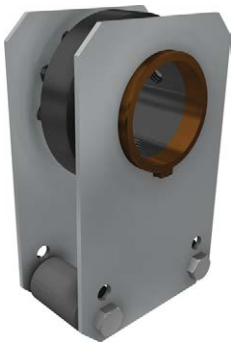
RSD250 Rack drive



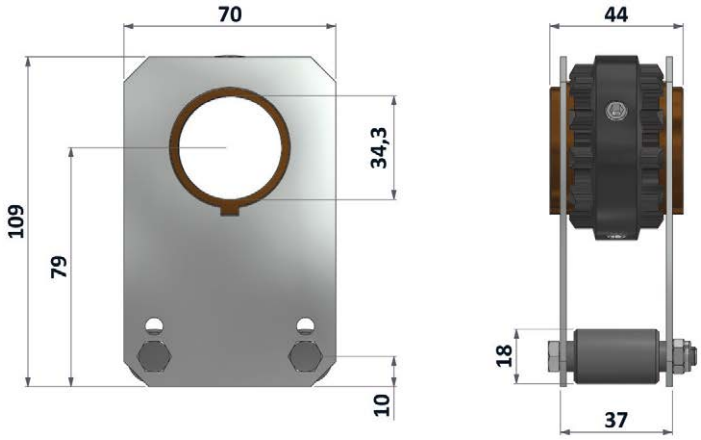
Art. no.	Description	m
		kg
500290	RSD250-40\LR UNIT	2,1
500285	RSD250-40\LL UNIT	2,1
500280	RSD250-40\RR UNIT	2,1

Rack drives screen system

Dimensioned drawings



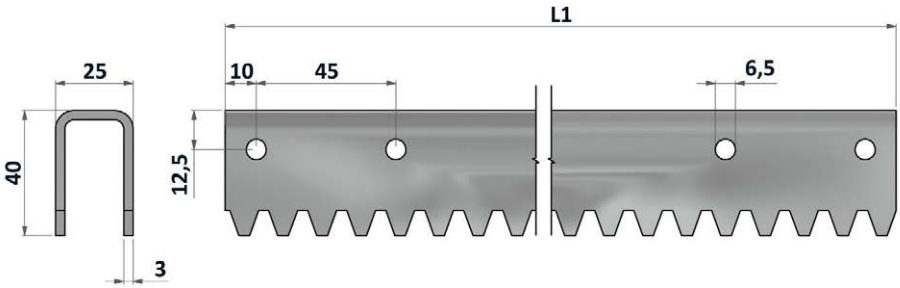
TU21-40 Rack drive



Art. no.	Description	m
		kg
500040	TU21-40 PINION HOUSE UNIT	0,62



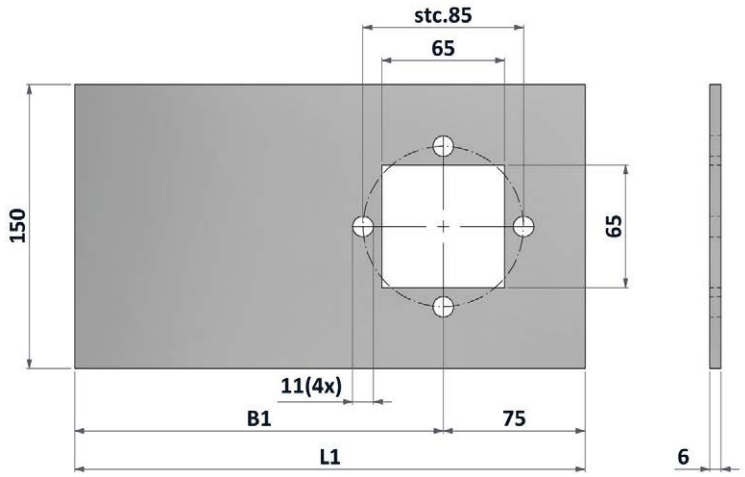
Racks RSD250/TU21-40 rack drives



Art. no.	Description	m	L1
		kg	mm
413949	RACK 40-3\L2941	5,8	2941
413953	RACK 40-3\L3142	6,2	3142
413956	RACK 40-3\L3594	7,1	3594
413950	RACK 40-3\L3946	7,8	3946
413951	RACK 40-3\L4448	8,6	4448
413954	RACK 40-3\L4939	9,8	4939



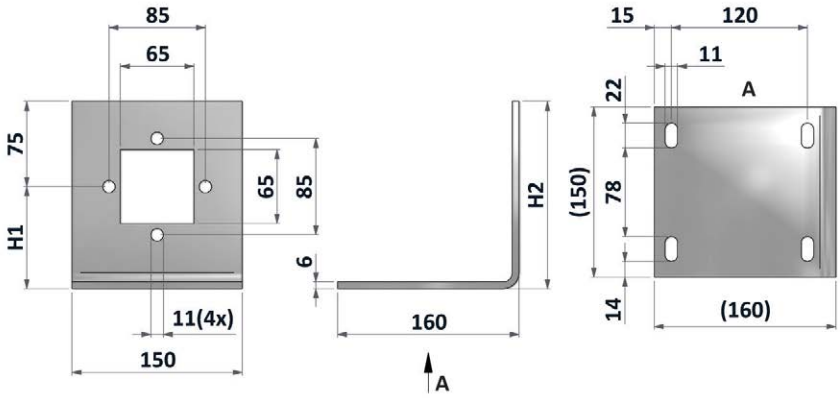
Straight mounting plates for RW45



Art. no.	Description	m	B1	L1
		kg	mm	mm
414969	MOUN-PL 85\B195\BL	1,7	195	270
414970	MOUN-PL 85\B195	1,7	195	270
414971	MOUN-PL 85\B483.5	3,8	483,5	558,5
414972	MOUN-PL 85\B503.5	3,9	503,5	578,5



Right-angled mounting plates RW45



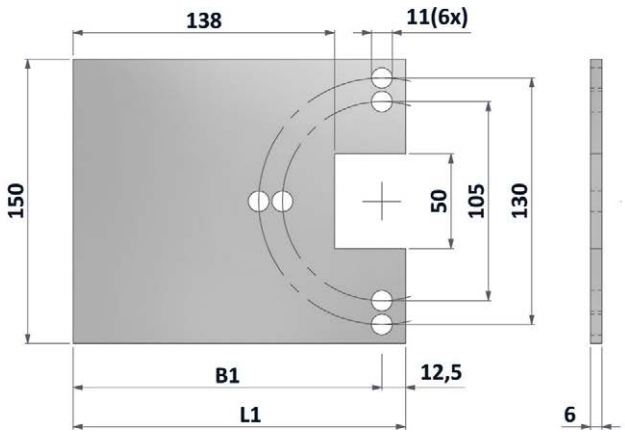
Art. no.	Description	m	H1	H2
		kg	mm	mm
417645	MOUN-PL 85\H75	1,80	75	150
417646	MOUN-PL 85\H90	1,95	90	160

Mounting plates

Dimensioned drawings

Straight mounting plates for (R)W240/400/600/200

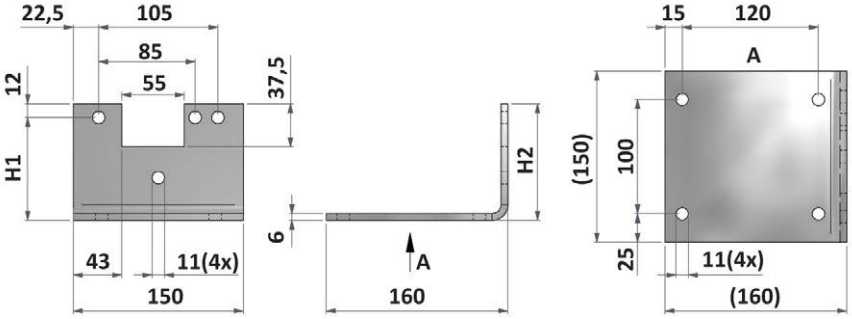




Art. no.	Description	m	B1	L1
		kg	mm	mm
413921	MOUN-PL 105-130\B163\BL	1,1	163	175,5
413922	MOUN-PL 105-130\B163	1,15	163	175,5
413923	MOUN-PL 105-130\B483	3,5	483,5	496
413924	MOUN-PL 105-130\B503	3,6	503,5	516
413931	MOUN-PL 105-130\B553	4,1	553,5	566
413932	MOUN-PL 105-130\B195\BL	1,15	195	207,5
413933	MOUN-PL 105-130\B503\BL	3,5	503,5	516
413934	MOUN-PL 105-130\B483\BL	3,4	483,5	496
413935	MOUN-PL 105-130\B527	3,7	527,5	540

Square mounting plates RW45/240/400/600/200

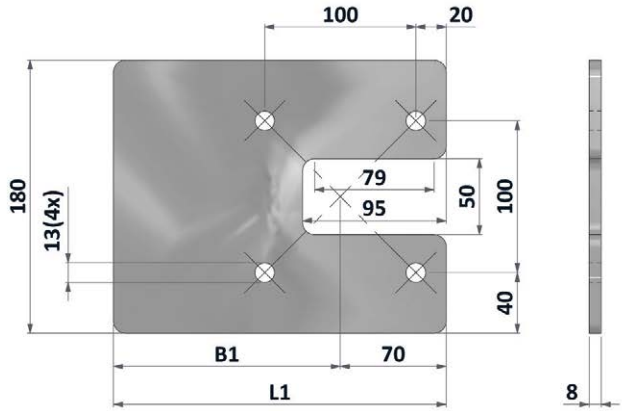




Art. no.	Description	m	H1	H2
		kg	mm	mm
417636	MOUN-PL 85-105\H90	1,60	90	102,5
417637	MOUN-PL 85-105\H100	1,65	100	112,5
417643	MOUN-PL 85-105\H120	1,80	120	132,5



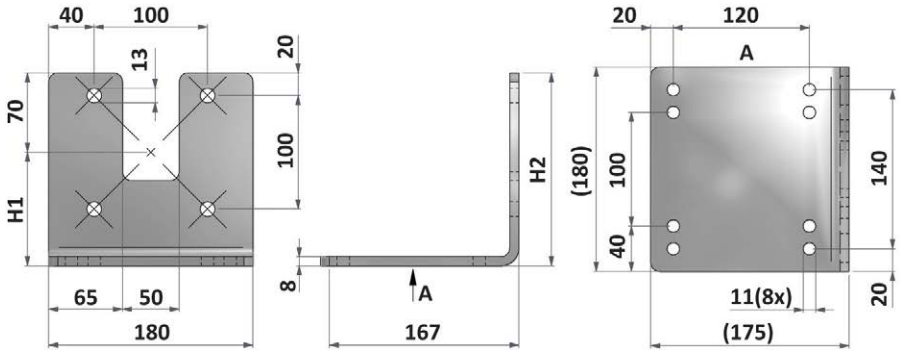
Straight mounting plates for RW800



Art. no.	Description	m	B1	L1
		kg	mm	mm
424075	MOUN-PL 100VK\B150\L220	2,2	150	220



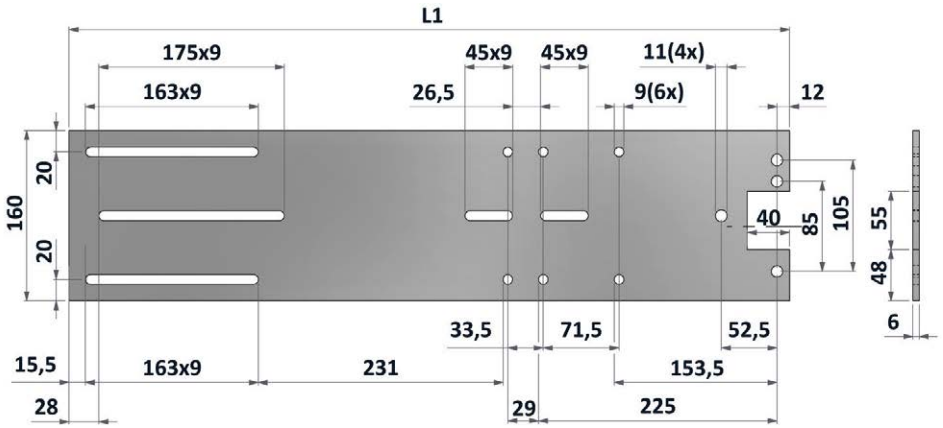
Right-angled mounting plates RW800



Art. no.	Description	m	H1	H2
		kg	mm	mm
424341	MOUN-PL 100VK\H100	3,4	100	170



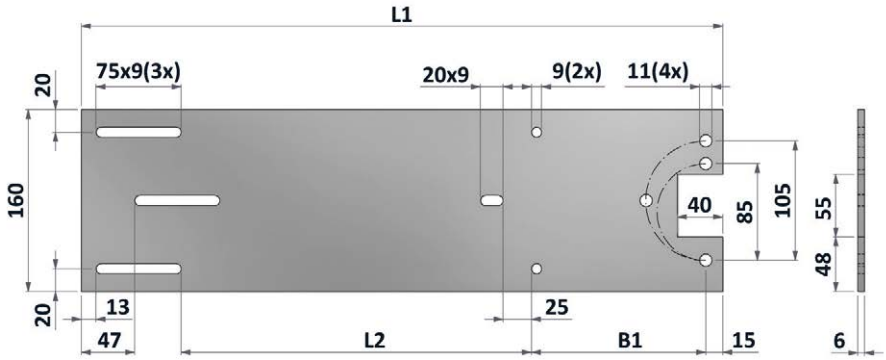
Clamp-mounting plates S/K for RW45/240/400/600



Art. no.	Description	m	L1
		kg	mm
425618	MOUN-PL 85-105\K300\S350\150	4,76	680
425619	MOUN-PL 85-105\K450\S500\150	5,88	830
425620	MOUN-PL 85-105\K600\S650\150	7,01	980
425621	MOUN-PL 85-105\K750\S800\150	8,14	1130
425622	MOUN-PL 85-105\K900\S950\150	9,27	1280



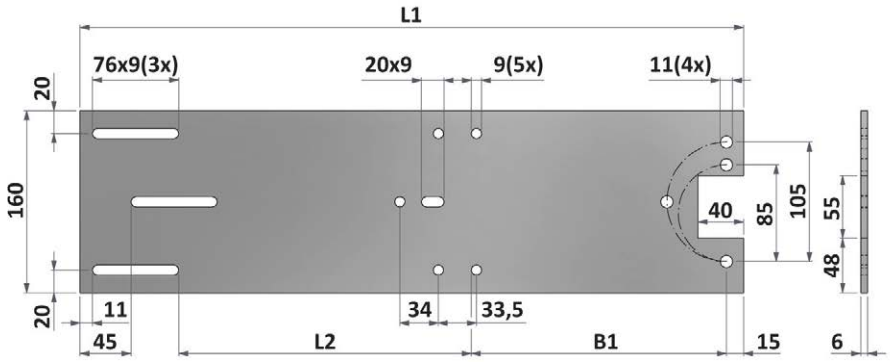
Clamp-mounting plates S (B153.5) for RW45/240/400/600



Art. no.	Description	m	B1	L1	L2
		kg	mm	mm	mm
419783	MOUN-PL 85-105\B153\T300-350	3,7	153,5	515	258
419784	MOUN-PL 85-105\B153\T350-400	4,2	153,5	565	308
419785	MOUN-PL 85-105\B153\T400-450	4,5	153,5	615	358
419786	MOUN-PL 85-105\B153\T450-500	4,8	153,5	665	408
419787	MOUN-PL 85-105\B153\T500-550	5,2	153,5	715	458
419788	MOUN-PL 85-105\B153\T550-600	5,5	153,5	765	508



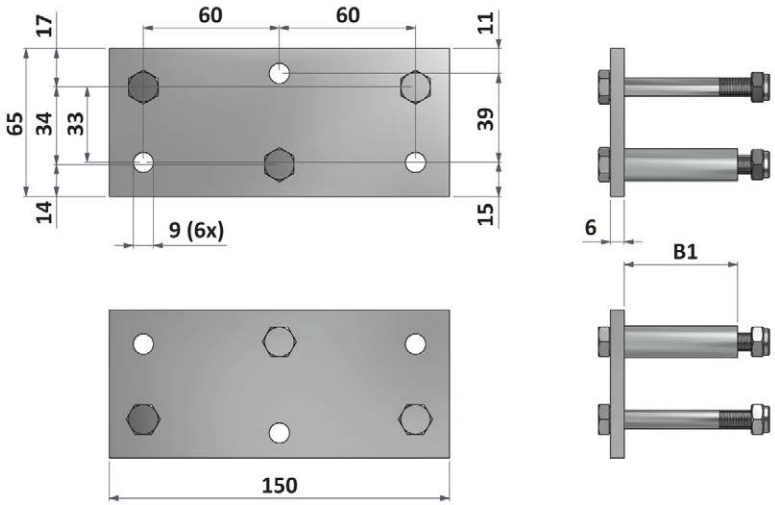
Clamp-mounting plates K (B225) for RW45/240/400/600



Art. no.	Description	m	B1	L1	L2
		kg	mm	mm	mm
419773	MOUN-PL 85-105\B225\T300-350	4,3	225	585	258
419774	MOUN-PL 85-105\B225\T350-400	4,6	225	635	308
419775	MOUN-PL 85-105\B225\T400-450	5,1	225	685	358
419776	MOUN-PL 85-105\B225\T450-500	5,4	225	735	408
419777	MOUN-PL 85-105\B225\T500-550	5,8	225	785	458
419778	MOUN-PL 85-105\B225\T550-600	6,1	225	835	508
419779	MOUN-PL 85-105\B225\T600-650	6,6	225	885	558
419780	MOUN-PL 85-105\B225\T650-700	6,8	225	935	608



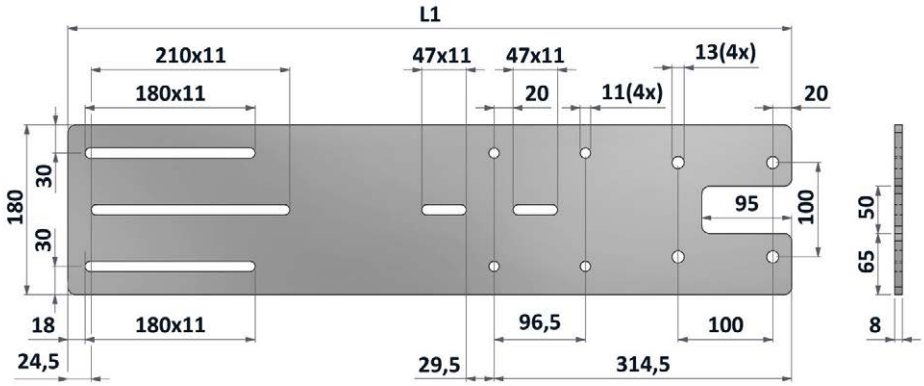
Clamping plate set for clamp-mounting plates



Art. no.	Description	m	B1
		kg	mm
503490	MOUN-SET MOUN-PL\B50	1,2	50
503491	MOUN-SET MOUN-PL\B60	1,2	60
503499	MOUN-SET MOUN-PL\B70	1,25	70
503493	MOUN-SET MOUN-PL\B75	1,25	75
503492	MOUN-SET MOUN-PL\B80	1,3	80



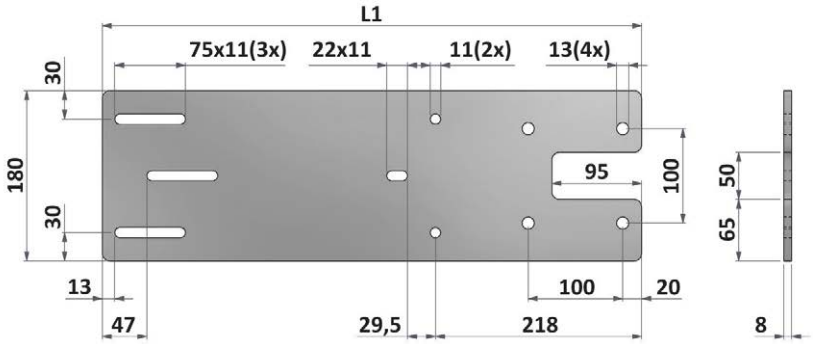
Clamp-mounting plates S/K for RW800



Art. no.	Description	m	L1
		kg	mm
425628	MOUN-PL 100VK\K300\S350\150	7,85	765
425629	MOUN-PL 100VK\K450\S500\150	9,55	915
425630	MOUN-PL 100VK\K600\S650\150	11,24	1065



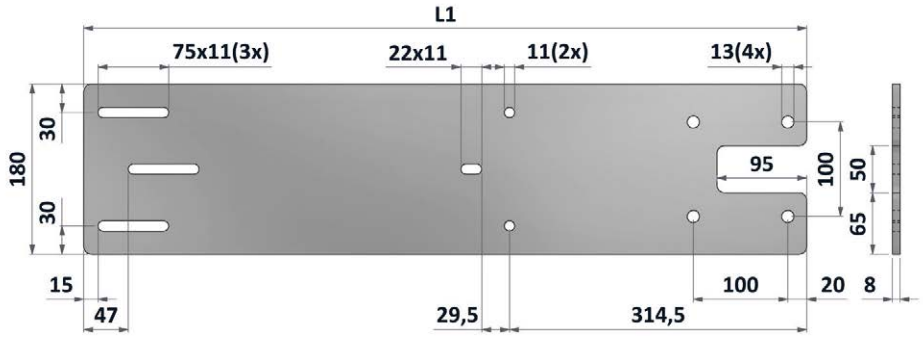
Clamp-mounting plates S (B153.5) for RW800



Art. no.	Description	m	L1
		kg	mm
424080	MOUN-PL 100VK\B153\T300-350	6,0	570
424081	MOUN-PL 100VK\B153\T350-400	6,5	620
424082	MOUN-PL 100VK\B153\T400-450	7,1	670
424083	MOUN-PL 100VK\B153\T450-500	7,6	720
424084	MOUN-PL 100VK\B153\T500-550	8,2	770
424085	MOUN-PL 100VK\B153\T550-600	8,7	820
424086	MOUN-PL 100VK\B153\T600-650	9,3	870
424087	MOUN-PL 100VK\B153\T650-700	9,9	920
424088	MOUN-PL 100VK\B153\T700-750	10,5	970
424089	MOUN-PL 100VK\B153\T750-800	11,0	1020



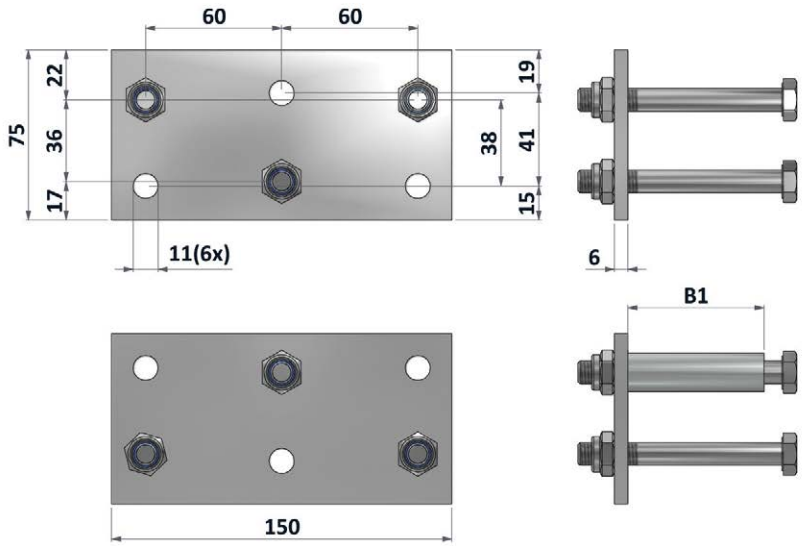
Clamp-mounting plates K (B250) for RW800



Art. no.	Description	m	L1
		kg	mm
424090	MOUN-PL 100VK\B250\T300-350	7,0	665
424091	MOUN-PL 100VK\B250\T350-400	7,6	715
424092	MOUN-PL 100VK\B250\T400-450	8,2	765
424093	MOUN-PL 100VK\B250\T450-500	8,7	815
424094	MOUN-PL 100VK\B250\T500-550	9,3	865
424095	MOUN-PL 100VK\B250\T550-600	9,9	915
424096	MOUN-PL 100VK\B250\T600-650	10,5	965
424097	MOUN-PL 100VK\B250\T650-700	11,0	1015
424098	MOUN-PL 100VK\B250\T700-750	11,5	1065
424099	MOUN-PL 100VK\B250\T750-800	12,1	1115



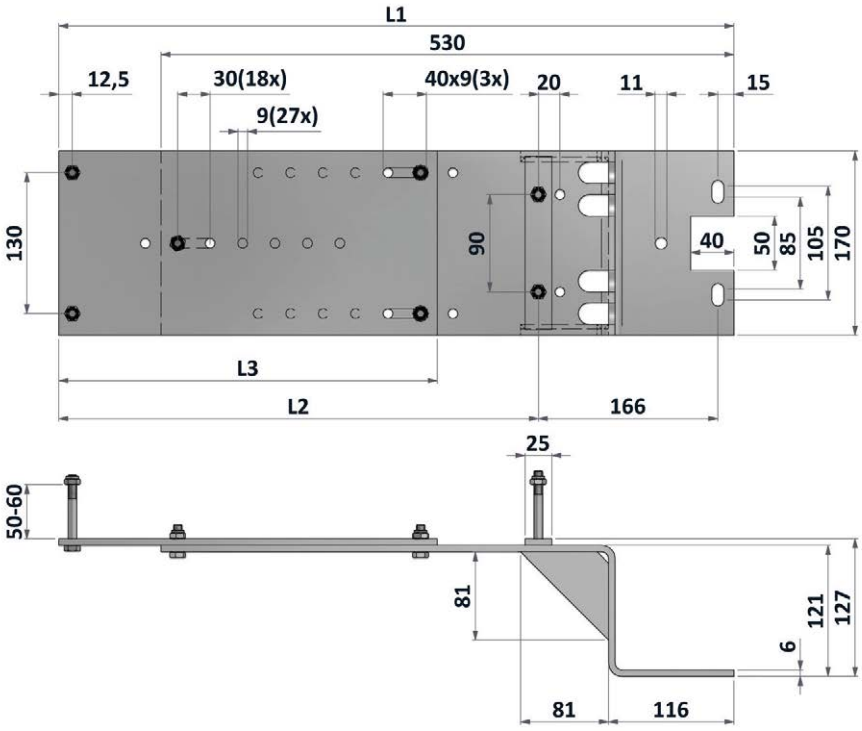
Clamping plate set for clamp-mounting plates RW800



Art. no.	Description	m	B1
		kg	mm
503530	MOUN-SET MOUN-PL\RW800\B50	1,50	50
503535	MOUN-SET MOUN-PL\RW800\B60	1,55	60



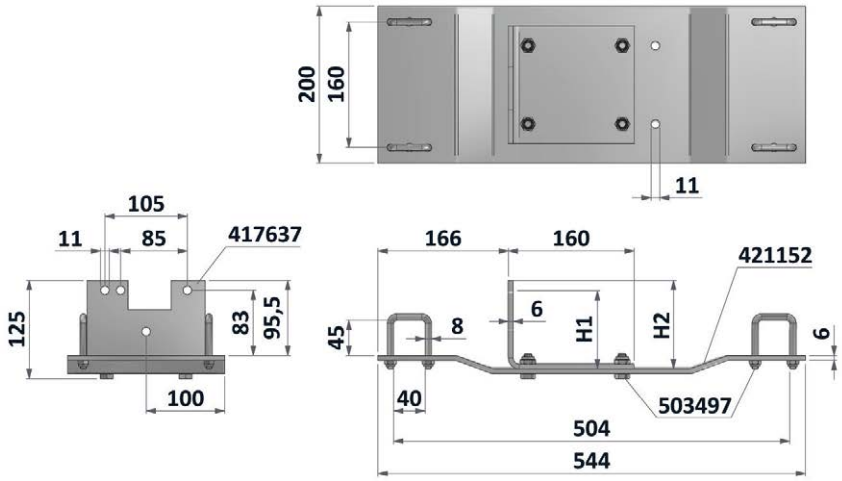
Mounting plates for TRN520/1000S RW45/240/400/600



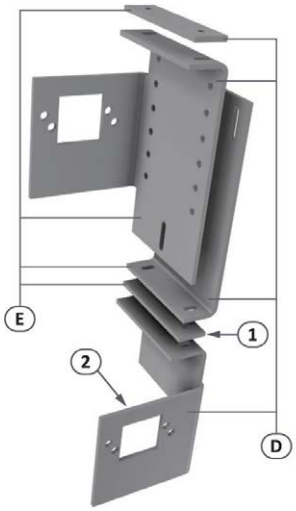
Art. no.	Description	m	L1 min.	L1 max.	L2 min.	L2 max.	L3
		kg	mm	mm	mm	mm	mm
503810	MOUN-PL 85-105\S\400-600\50-60	8,3	565	775	384	593	350
503811	MOUN-PL 85-105\S\600-800\50-60	9,9	765	975	584	794	550
503812	MOUN-PL 85-105\S\800-1000\5-6	11,5	965	1175	784	994	750
503813	MOUN-PL 85-105\S\1000-1200\5-6	13,1	1165	1375	984	1194	950



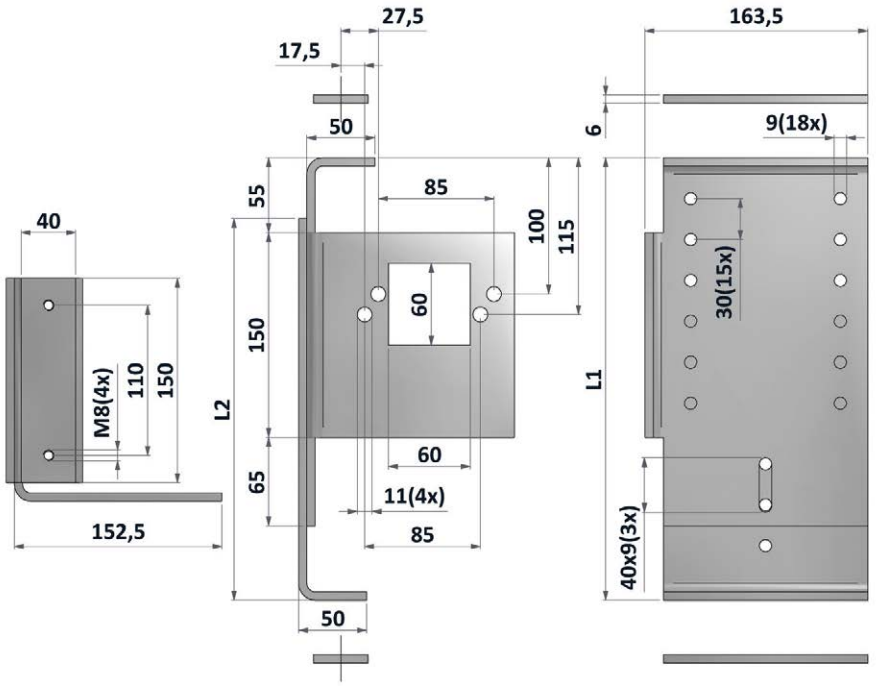
Motor bracket TRI-RW45/240/400/600



Art. no.	Description	m	H1	H2
		kg	mm	mm
417637	MOUN-PL 85-105\H100	1,65	100	112,5
421152	MOUN-PL MOT-SUPPORT\TRI	5,20		
503497	MOUN-SET MOT-SUPPORT\TRI	0,60		



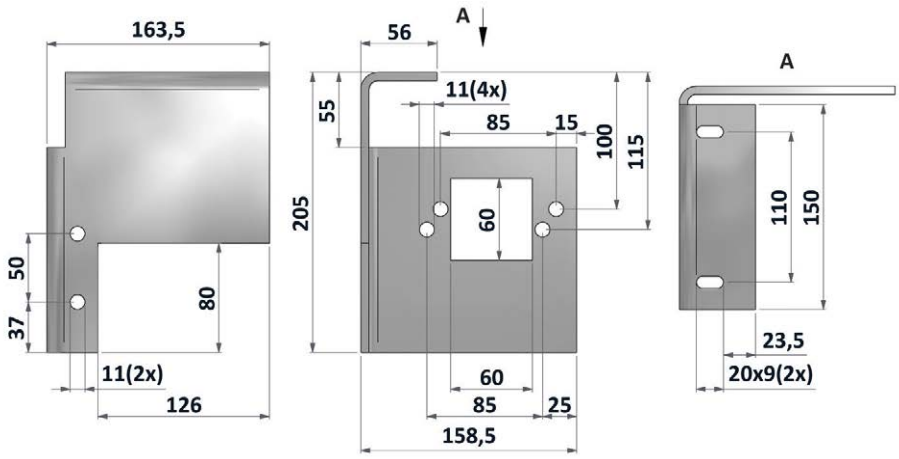
Mounting plates RW45 - RSD250



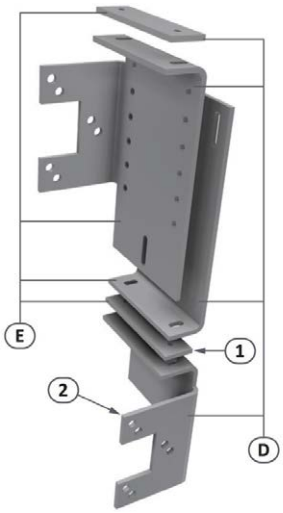
Art. no.	Description	m	L1 min.	L1 max.	L2
		kg	mm	mm	mm
503502	MOUN-PL RSD\85\E\H340-495	5,6	285	445	280
503507	MOUN-PL RSD\85\E\H490-645	6,70	435	595	430
503503	MOUN-PL RSD\85\D\H340-495	8,0	285	445	280
503508	MOUN-PL RSD\85\D\H490-645	9,1	435	595	430
417693	NUT PLATE 2M8-110\150x40x6\VZ	0,25			



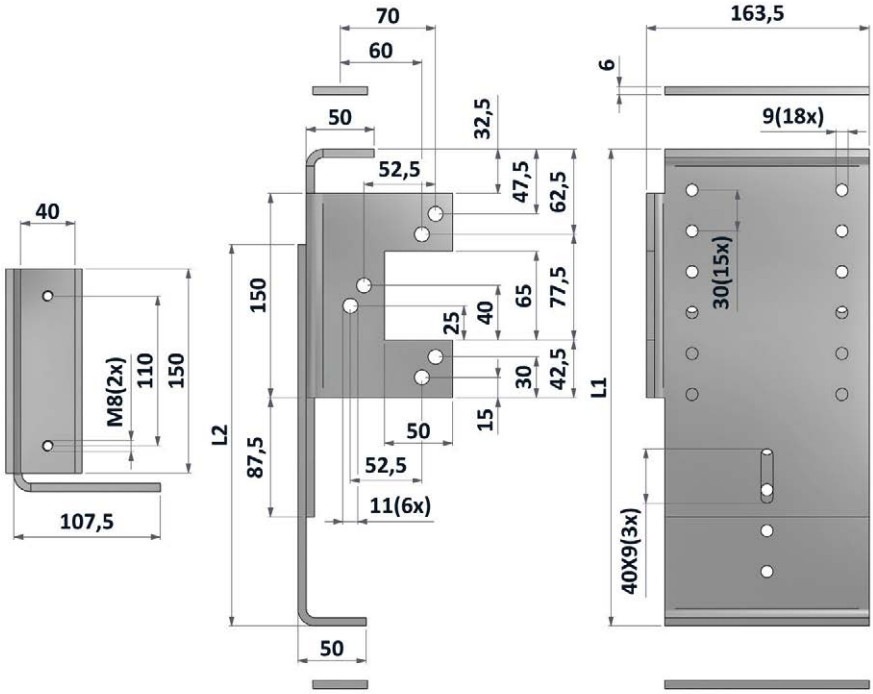
Mounting plates RW45 - RSD250 - Under



Art. no.	Description	m
		kg
418270	MOUN-PL 85\TUS\UNDER	2,0



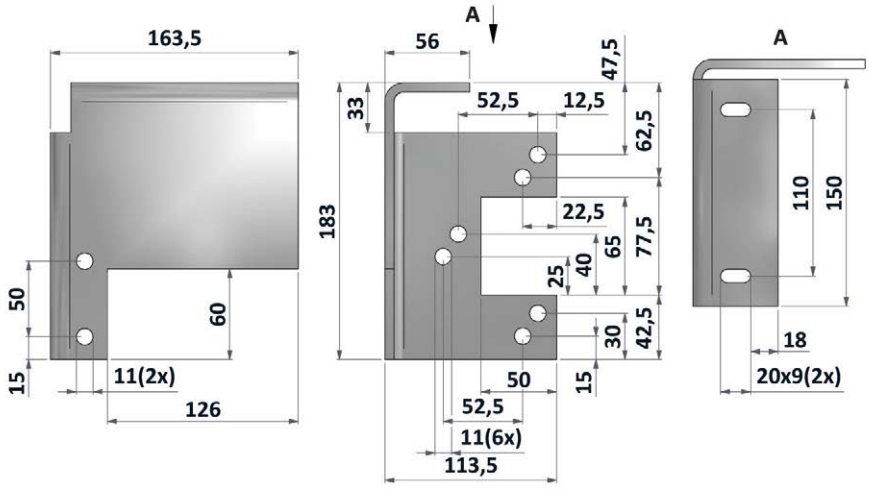
Mounting plates RW240/400/600 - RSD250



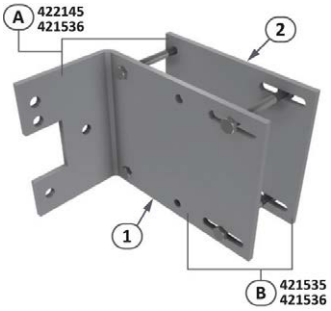
Art. no.	Description	m	L1 min.	L1 max.	L2
		kg	mm	mm	mm
503500	MOUN-PL RSD\105\E\H340-495	5,5	285	445	280
503505	MOUN-PL RSD\85\D\H490-645	6,6	435	595	430
503501	MOUN-PL RSD\105\D\H340-495	8,0	285	445	280
503506	MOUN-PL RSD 105\D\H490-645	9,1	435	595	430
417693	NUT PLATE 2M8-110\150x40x6\VZ	0,25			



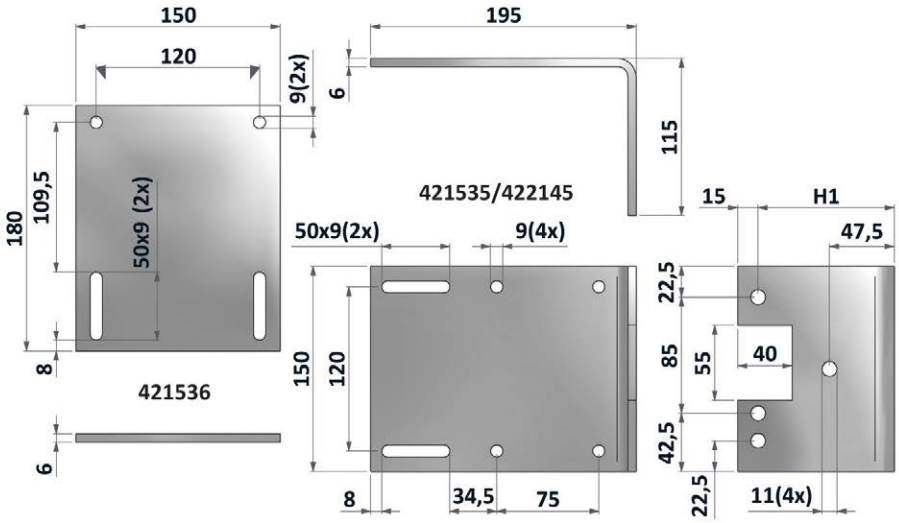
Mounting plates RW240/400/600 - RSD250 - Under



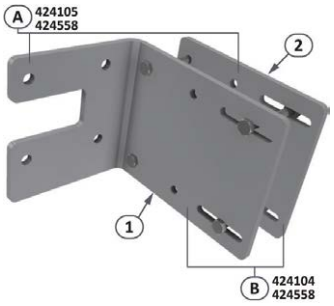
Art. no.	Description	m
		kg
417691	MOUN-PL 105\TUS\UNDER	1,85



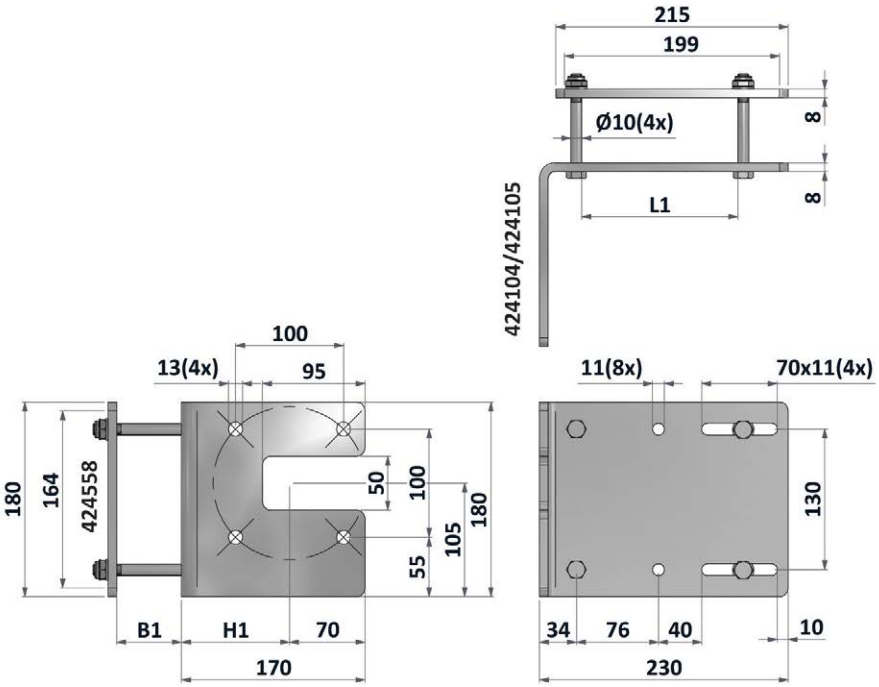
Mounting plates RW240/400/600 - Wire screen



Art. no.	Description	m	H1
		kg	mm
503720	MOUN-PL 105\H100\K105-146\DS	6,6	100
503730	MOUN-PL 105\H92\K105-146\DS	6,5	92,5
422145	MOUN-PL 105\H100\DS	2,0	100
421535	MOUN-PL 105\H92\DS	1,95	92,5
421536	COUNT-PLATE MOUN-PL\DS	1,25	



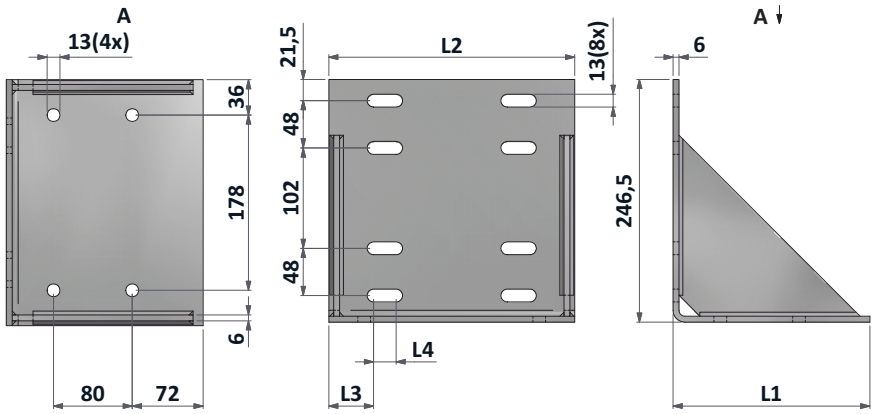
Mounting plate sets RW800 - Wire screen



Art. no.	Description	m	B1	H1	L1
		kg	mm	mm	mm
503700	MOUN-PL 100VK\H100\K105-146\DS	6,6	50-60	100	100-140
503710	MOUN-PL 100V\H92\K105-146\DS	6,5	50-60	92,5	100-140
424105	MOUN-PL 100VK\H100\K100-140\DS	3,95	50-60	100	100-140
424104	MOUN-PL 100VK\H92\K100-140\DS	3,85	50-60	92,5	100-140
424558	COUNT-PLATE 100VK\K100-140\DS	2,3			



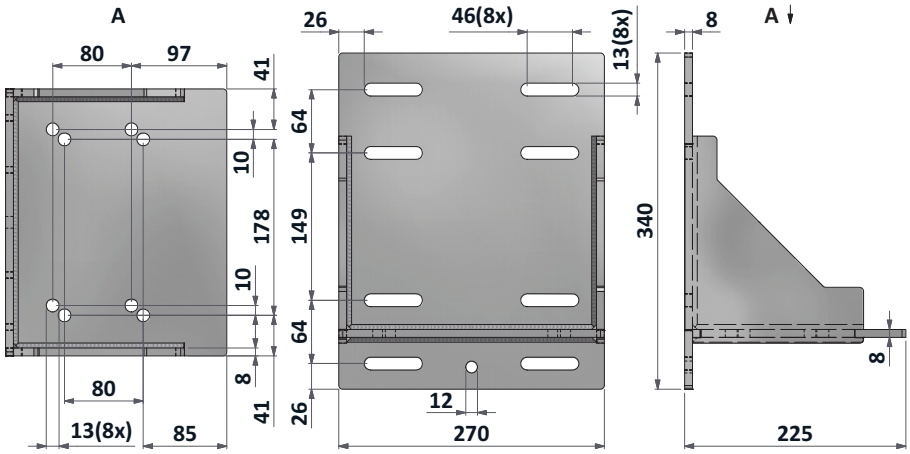
Mounting brackets RW1000/1400/1200S/1600S



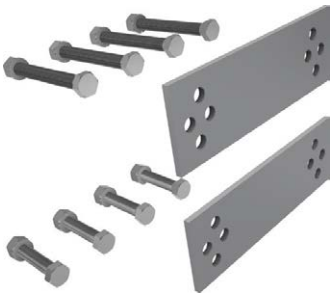
Art. no.	Description	m	L1	L2	L3	L4
		kg	mm	mm	mm	mm
421351	MOUN-PL RWS\B088\K100-120\VM	6,3	200	240	40,5	23
421695	MOUN-PL RWS\B100\K100-120\VM	6,5	212	240	40,5	23
423372	MOUN-PL RWS\B100\K140-160\VM	7,1	212	280	29,5	29



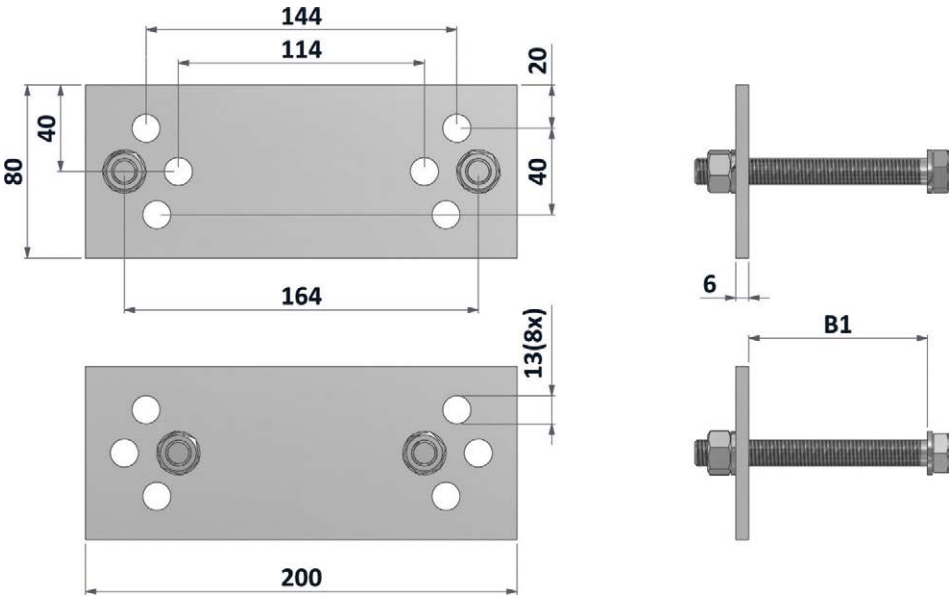
Mounting brackets RW1000/1400/1200S/1600S



Art. no.	Description	m
		kg
424731	MOUN-PL RWS\88-100\K100-160\VM	11,4



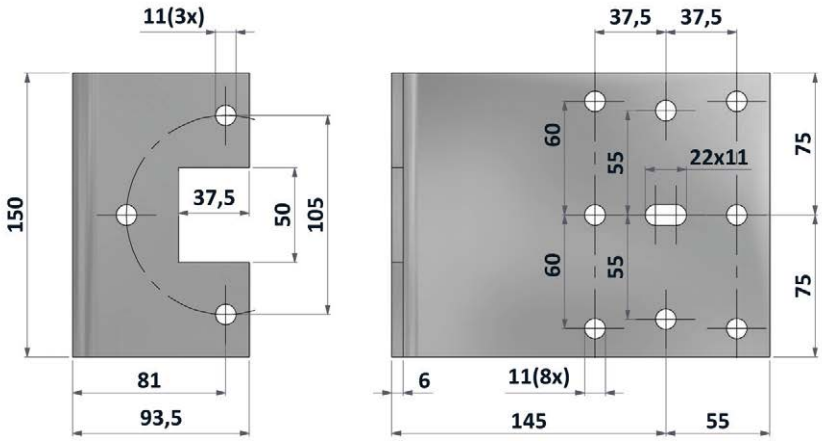
Mounting sets mounting bracket RW1000/1400/1200S/1600S



Art. no.	Description	m	B1	K
		kg	mm	mm
503498	MOUN-SET RWS\FOOT-M\K100-120	0,8	50-80	100-120
503511	MOUN-SET RWS\FOOT-M\K140-160	1,0	50-80	140-160



Mounting plate RW200-T11

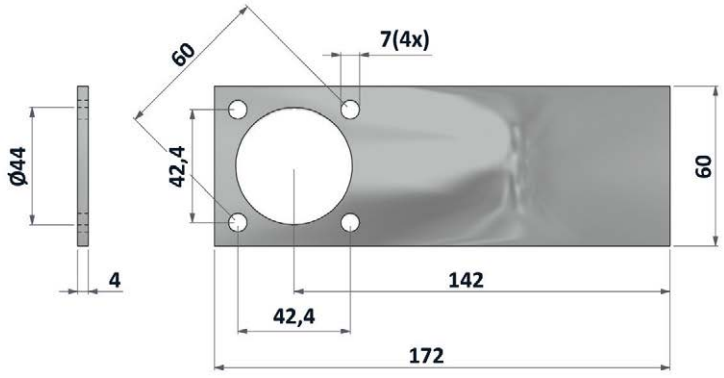


Art. no.	Description	m
		kg
419458	MOUN-PL 105\H81\T11	1,60

13



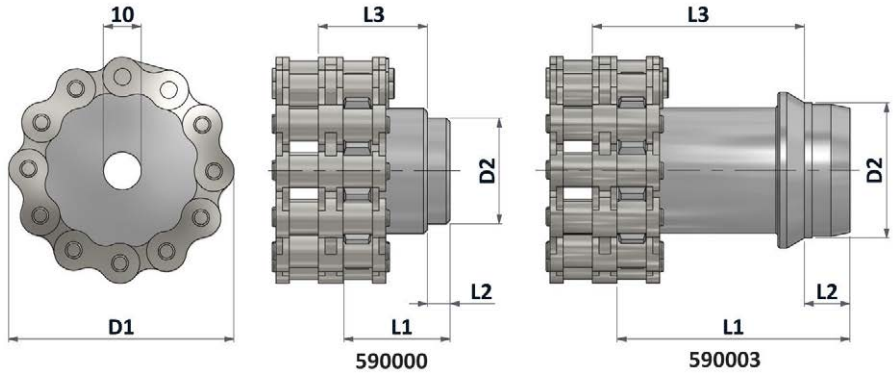
Mounting plate for RH40 gearbox



Art. no.	Description	m
		kg
417471	MOUN-PL 60\B142	0,35



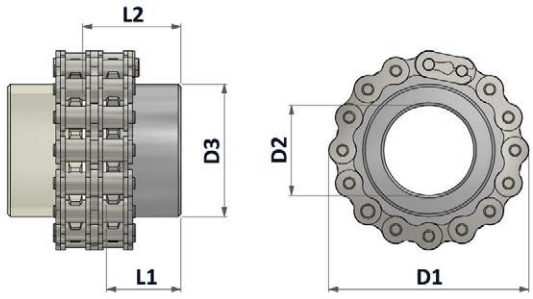
Chain couplings 1/2"x5/16", 12-tooth (RW45)



Art. no.	Description	m	D1	D2	L1	L2	L3
		kg	mm	mm	mm	mm	mm
590000	CH-COUP 1/2\z12\B1	0,41	60	27,9	28	6	30
590003	CH-COUP 1/2\z12\B5/4	0,55	60	35,6	61	12	56,3



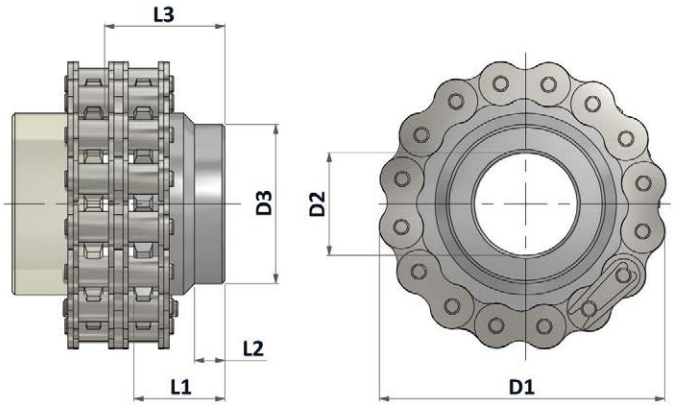
Chain couplings 1/2"x5/16", 16-tooth (RW45/RW200)



Art. no.	Description	m	D1	D2	D3	L1	L2
		kg	mm	mm	mm	mm	mm
590023	CH-COUP 1/2\z16\S\B1	0,55	75,6	34	50	28	37,3
590024	CH-COUP 1/2\z16\S\B5/4	0,43	75,6	43	50	28	37,3



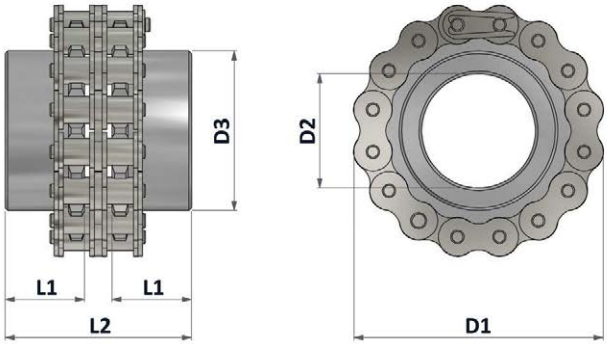
Chain couplings 5/8"x3/8", 16-tooth (RW240/400/600/800)



Art. no.	Description	m	D1	D2	D3	L1	L2	L3
		kg	mm	mm	mm	mm	mm	mm
590011	CH-COUP 5/8\z16\S\B1-B2	0,96	96	34	52,6	30	10	40,9
590012	CH-COUP 5/8\z16\S\B5/4	0,89	96	43	60	30	-	40,9



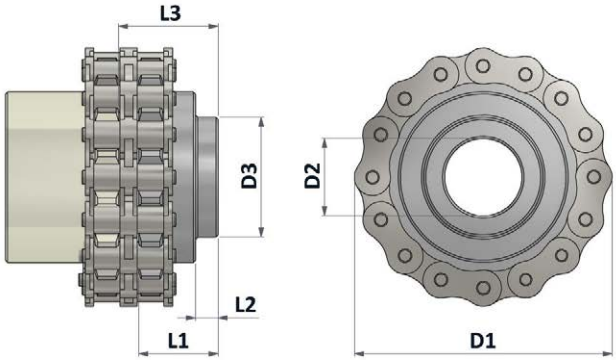
Chain couplings 5/8"x3/8", 16-tooth (tube-tube)



Art. no.	Description	m	D1	D2	D3	L1	L2
		kg	mm	mm	mm	mm	mm
590026	CH-COUP 5/8\z16\S\B5/4\B5/4	1,30	96	43	60	30	71



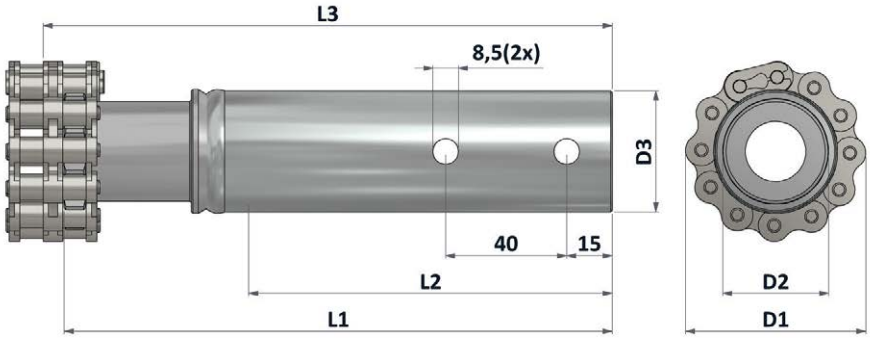
Chain couplings 3/4"x7/16", 16-tooth (RW1000/1400/1200S/1600S)



Art. no.	Description	m	D1	D2	D3	L1	L2	L3
		kg	mm	mm	mm	mm	mm	mm
590051	CH-COUP 3/4\z16\B1-B2	1,70	113,5	34	52,6	35	10	43,8
590052	CH-COUP 3/4\z16\B5/4	1,70	113,6	43	75	35	-	43,8



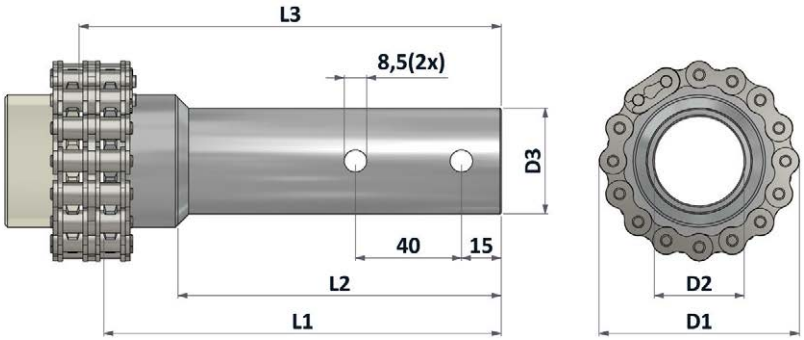
Bolted chain couplings 1/2"x5/16", 12-tooth (RW45)



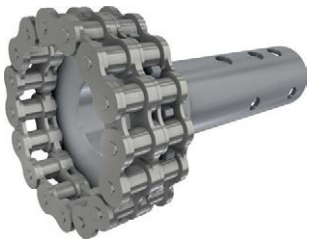
Art. no.	Description	m	D1	D2	D3	L1	L2	L3
		kg	mm	mm	mm	mm	mm	mm
590001	CH-COUP 1/2\z12\B1\BOLT	0,85	60	35	40	165	120	172
590002	CH-COUP 1/2\z12\B5/4\BOLT	0,89	60	43	48	150	105	157



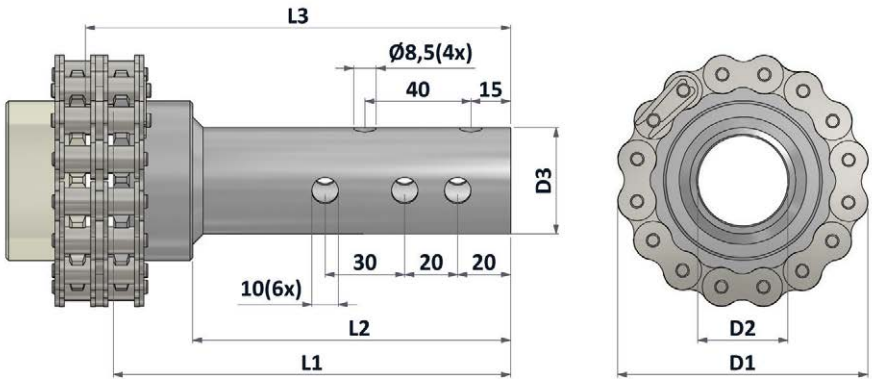
Bolted chain couplings 1/2"x5/16", 16-tooth (RW45/RW200)



Art. no.	Description	m	D1	D2	D3	L1	L2	L3
		kg	mm	mm	mm	mm	mm	mm
590008	CH-COUP 1/2\z16\S\B1\BOLT	0,80	75,6	34	40	150	122	159,3



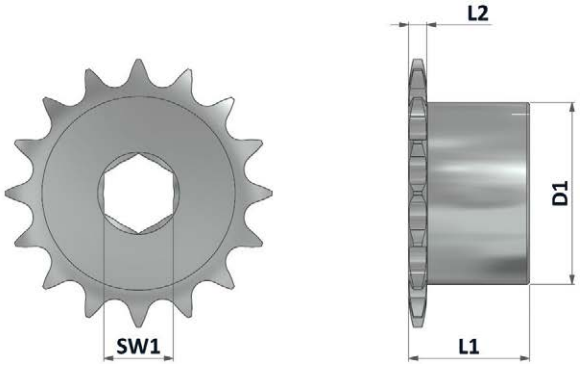
Bolted chain couplings 5/8"x3/8", 16-tooth (RW240/400/600/800)



Art. no.	Description	m	D1	D2	D3	L1	L2	L3
		kg	mm	mm	mm	mm	mm	mm
590016	CH-COUP 5/8\z16\S\B1\BOLT	1,3	96	34	40	150	120	161
590014	CH-COUP 5/8\z16\S\B5/4\BOLT	1,18	96	43	48	150	120	161

Sprockets for RackDrive700/800 rack drive (ZK23/ZK30)

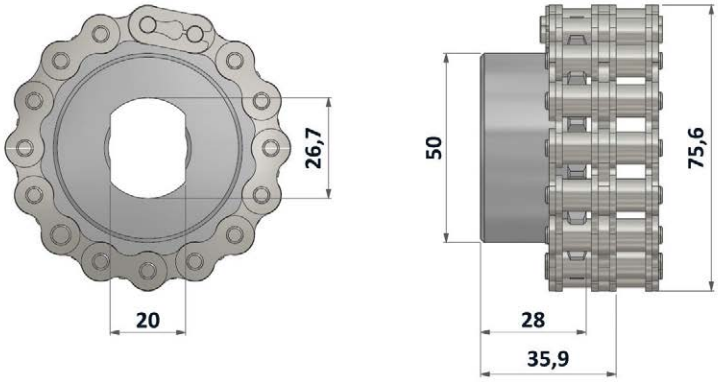




Art. no.	Description	m	SW1	D1	L1	L2
		kg	mm	mm	mm	mm
423970	SPROCKET 1/2\z16\S\ZK23	0,52	23	50	40	4,9
423971	SPROCKET 5/8\z16\S\ZK23	0,82	23	60	40	6,1

Chain coupling 1/2"x5/16", 16-tooth (P26.5)

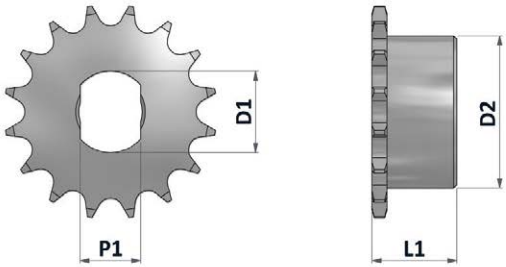




Art. no.	Description	m
		kg
590006	CH-COUP 1/2\z16\S\P26.5	0,65

Sprocket TRN/TRI rack drive (P26.5)

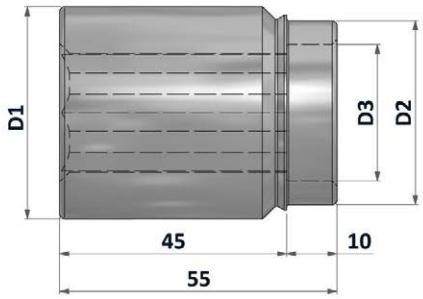




Art. no.	Description	m	D1	D2	L1	P1
		kg	mm	mm	mm	mm
417118	SPROCKET 1/2\z16\S\P26.5	0,35	26,5	50	28	20
416881	SPROCKET 5/8\z16\S\P26.5	0,40	26,5	60	30	20
421513	SPROCKET 5/8\z16\S\P26.5\L52	0,73	26,5	60	52	20



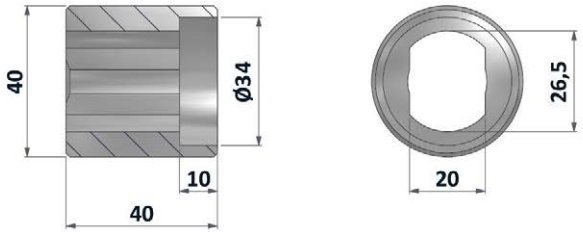
Slide welding joints for RackDrive700/800 rack drive



Art. no.	Description	m	SW1	D1	D2	D3
		kg	mm	mm	mm	mm
424227	COUP-AD ZK23\5/4x2.5\42\WELD	0,31	23	42	36,4	27
424228	COUP-AD ZK23\5/4x4.0\WELD	0,30	23	42	33	27



Weld/sleeve coupling P26.5\B1



Art. no.	Description	m
		kg
401635	COUP-AD P26.5\B1\L40\WELD	0,20



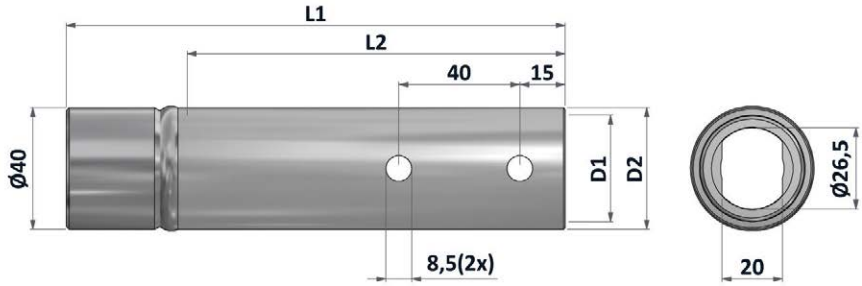
Weld/sleeve couplings P26.5\B5/4



Art. no.	Description	m
		kg
421978	COUP-AD P26.5\B5/4\ST\L44\WELD	0,20

Sleeve/bolt couplings P26.5

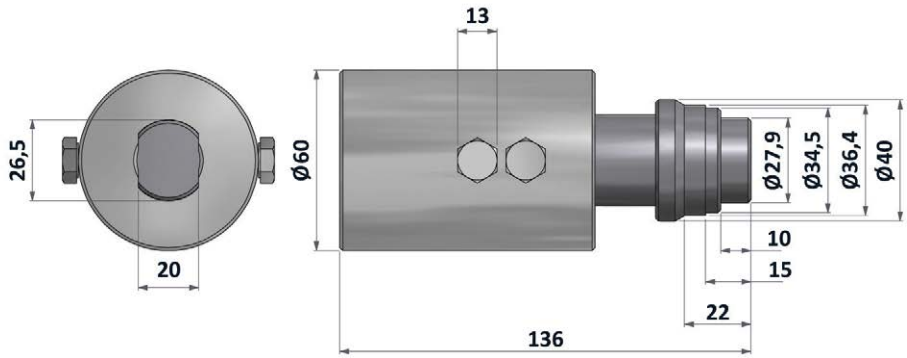




Art. no.	Description	m	D1	D2	L1	L2
		kg	mm	mm	mm	mm
419404	COUP-AD P26.5\B1\BOLT	0,55	35	40	165	120
419550	COUP-AD P26.5\B5/4\L152\BOLT	0,60	43	48	152	122

Weld-/free-wheeling coupling P26,5

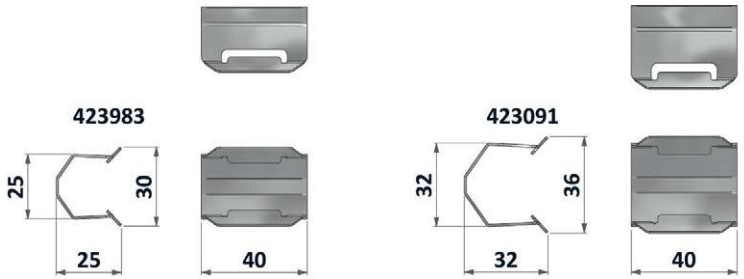




Art. no.	Description	m
		kg
591203	COUP-AD P26.5\B1\B5/4\CL\WELD	0,95

Shaft retaining clips RackDrive700/800 rack drives



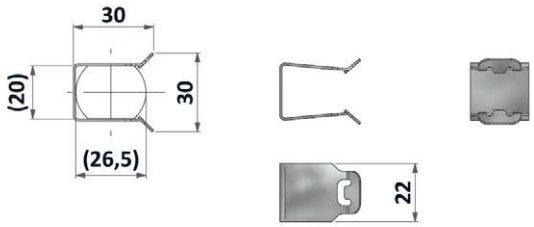


Art. no.	Description	m
		kg
423983	SHAFT GUARD CLIP RVS\ZK23\L40	0,02
423091	SHAFT GUARD CLIP RVS\ZK30\L40	0,02

13



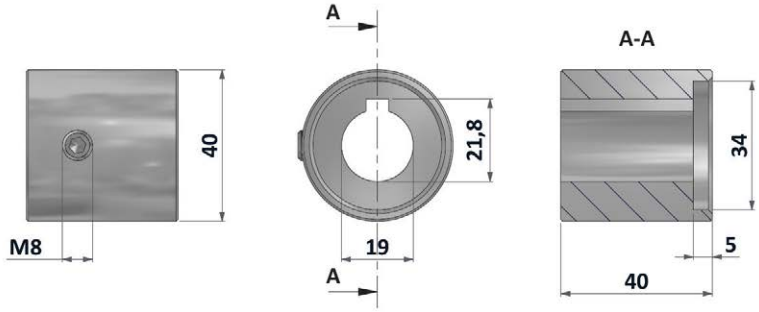
Shaft retaining clips TRN/TUS rack drive



Art. no.	Description	m
		kg
418694	SHAFT GUARD CLIP RVS\P26.5	0,11



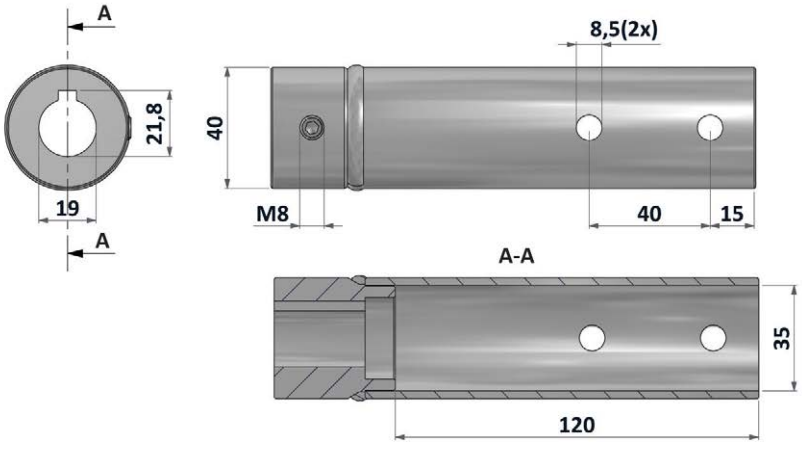
Welded sleeve coupling RH40, 1"



Art. no.	Description	m
		kg
418824	COUP-AD A19\B1\L40\M8\WELD	0,27



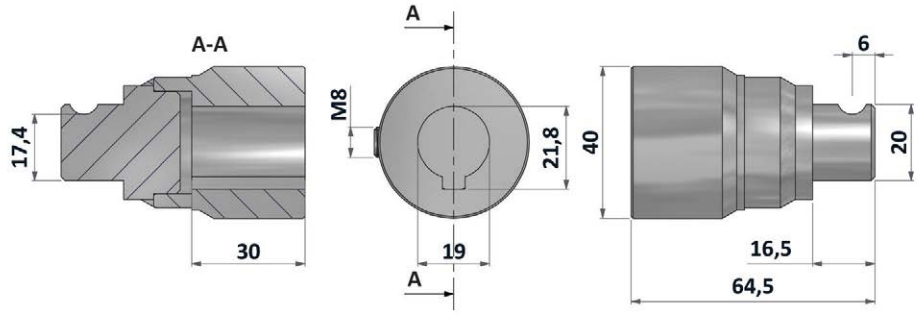
Sleeve/bolt coupling RH40, 1"



Art. no.	Description	m
		kg
423040	COUP-AD A19\B1\BOLT	0,55



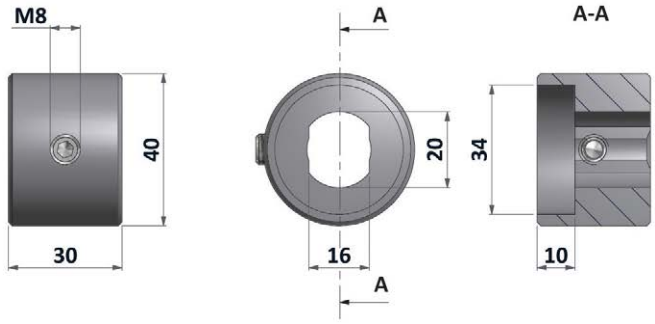
Reducing coupling box for SC40 cardan shaft



Art. no.	Description	m
		kg
418631	COUPL A19\KR20\L68\M8\VZ	0,37



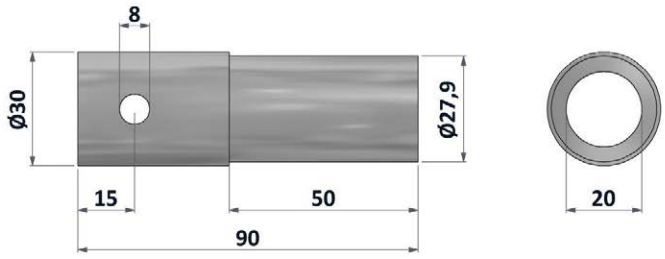
Welded sleeve coupling HW60, 1"



Art. no.	Description	m
		kg
417261	COUP-AD P20\B1\L30\M8\WELD	0,11



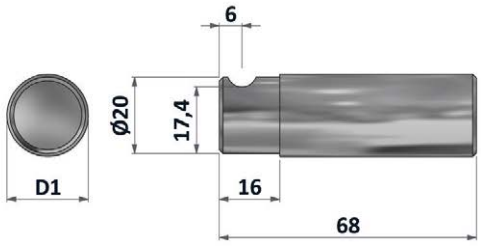
Welded coupling box for hand crank mechanism 1"



Art. no.	Description	m
		kg
417204	COUP-AD HSW\B1\WELD	0,10

Welded coupling shaft

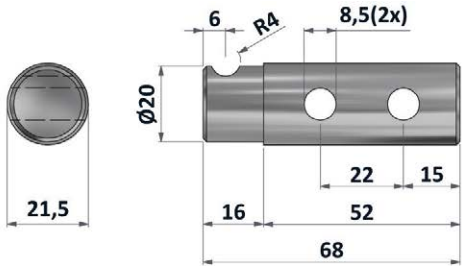




Art. no.	Description	m	D1
		kg	mm
413702	COUP-SH KR20\B3/4\L68\WELD	0,20	21,5
418744	COUP-SH B1\KR20\WELD	0,30	27,9
422672	COUP-SH B1\KR20\VZ\WELD	0,30	27,9

Coupling shaft 3/4"

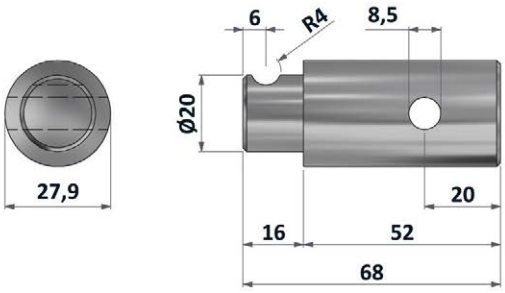




Art. no.	Description	m
		kg
423143	COUP-SH B3/4\KR20\2D8.5L68\VZ	0,20

Coupling shaft 1"

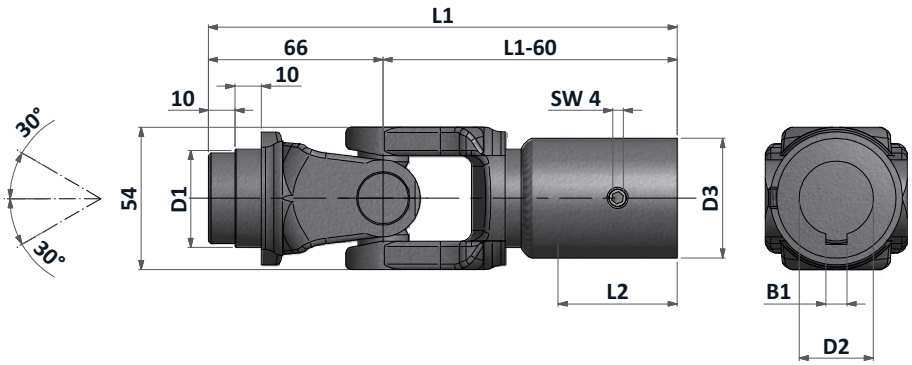




Art. no.	Description	m	D1
		kg	mm
422951	COUP-SH B1\KR20\D8.5\L68\VZ	0,30	



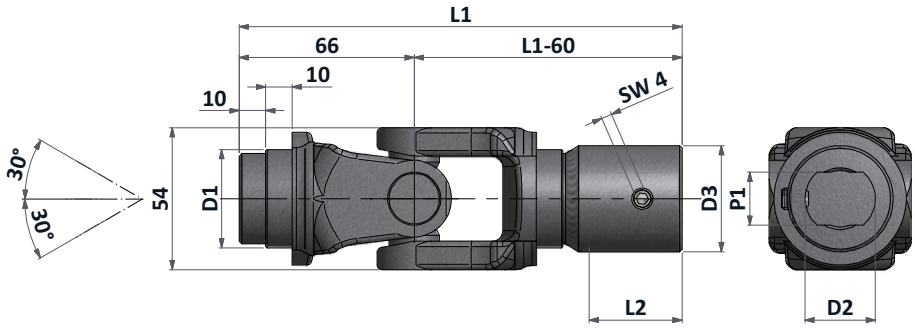
Universal joints for RW240/400/600



Art. no.	Description	m	D1	D2	D3	B1	L1	L2
		kg	mm	mm	mm	mm	mm	mm
419104	UNIV-JOINT 250\30\A28\B1	1,14	27,9	28	45	8	165	45
416728	UNIV-JOINT 250\30\A28\B5/4	1,15	34	28	45	8	165	45
419096	UNIV-JOINT 250\30\A34\B1	1,25	27,9	34	50	10	180	60
416726	UNIV-JOINT 250\30\A34\B5/4	1,72	34	34	50	10	180	60



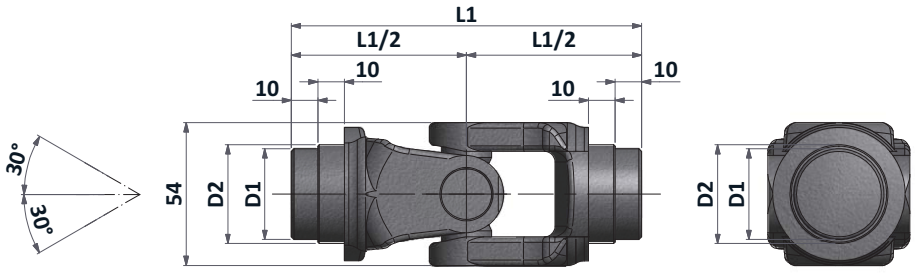
Universal joints for TRN/RSD rack drives



Art. no.	Description	m	D1	D2	D3	L1	L2	L3
		kg	mm	mm	mm	mm	mm	mm
416727	UNIV-JOINT 250\30\P26.5\B5/4	1,0	34	26,5	37,1	150	30	20



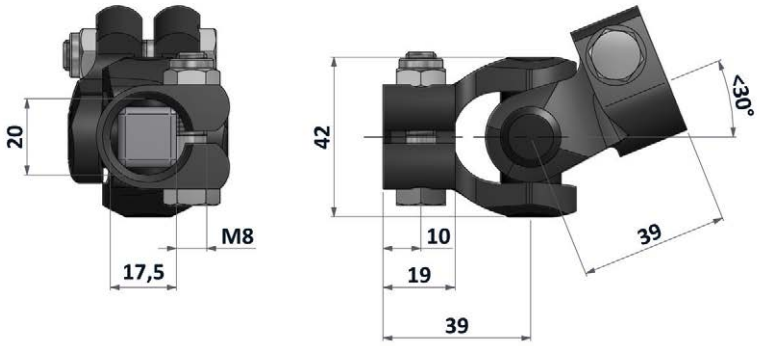
Universal joints for tubular shafts



Art. no.	Description	m	D1	D2	L1
		kg	mm	mm	mm
416725	UNIV-JOINT 250\30\B5/4	0,78	34	37,1	120

Universal joint RH40/HW60

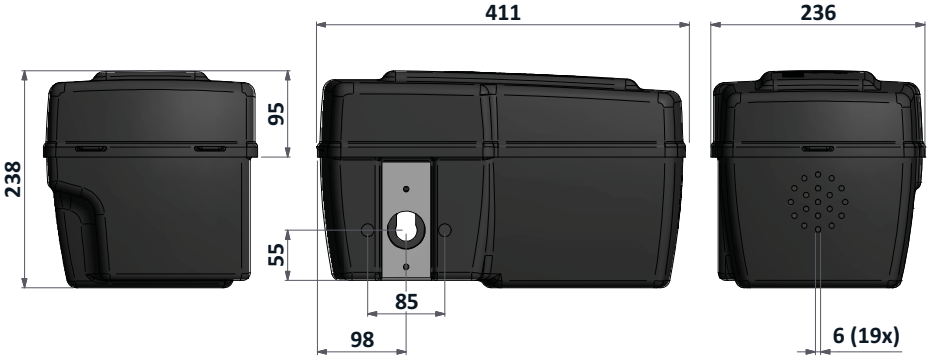




Art. no.	Description	m
		kg
282015	UNIV-JOINT 120\50\2A20	0,32

Protective cover for the RW45 motor gearbox

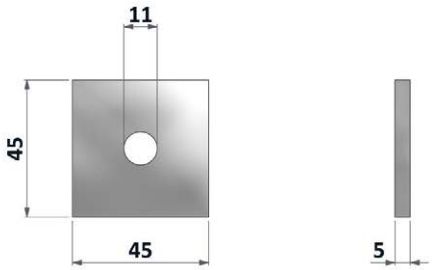




Art. no.	Description	m
		kg
580050	PROTECTION COVER RW45\2010	1,2

Counterplates for TRN520-3/1000-3/1000-5S rack drives

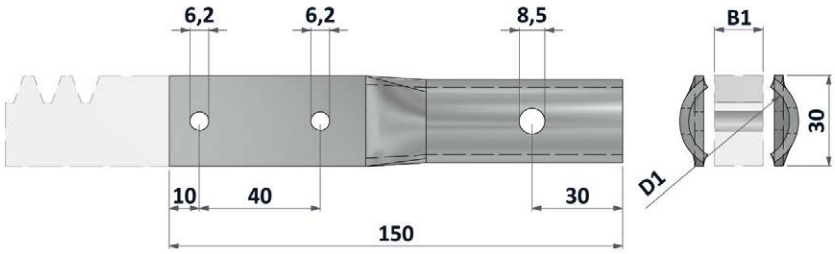




Art. no.	Description	m
		kg
412815	COUNT-PLATE 45x45x5\D11\VZ	0,08



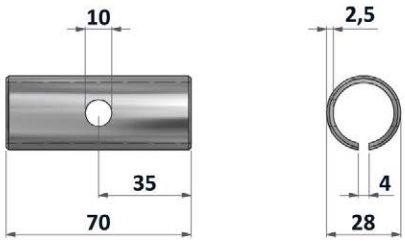
Tube-rack coupling plates for RackDrive700 rack drive



Art. no.	Description	m	B1	D1
		kg	mm	mm
416489	COUP-PL H30x16\B27-H30x20\B32	0,1	16/20	27/32
416490	COUP-PL H30x16\B32	0,1	16	32
418736	COUP-PL H30x20\B27-H30x25\B32	0,1	20/25	27/32



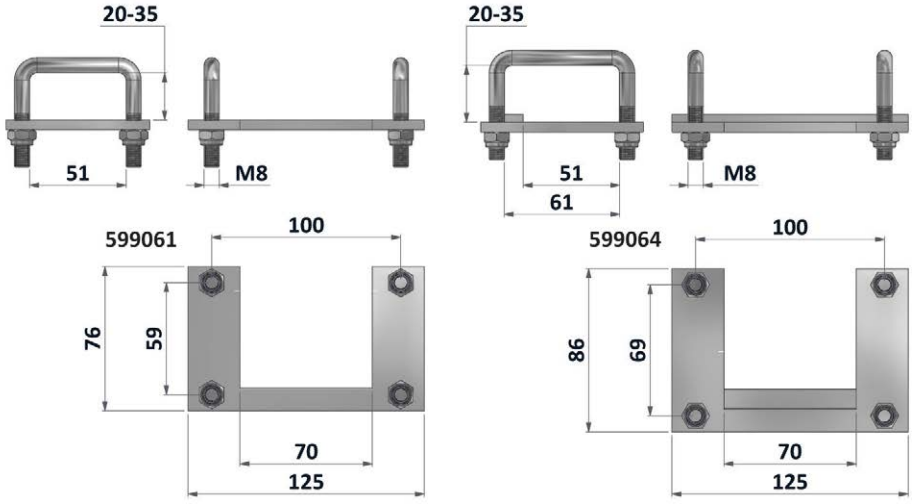
Tube-rack adapter for RackDrive and TRN rack drive



Art. no.	Description	m
		kg
423914	ADAPTER 28x2.5\L70\2D10\SL	0,11



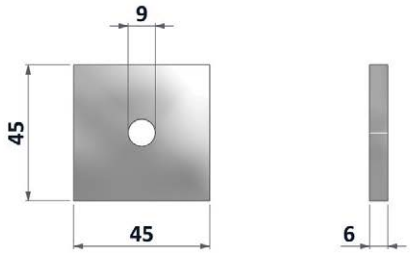
Clamp mounting set RSD250 rack drive



Art. no.	Description	m
		kg
599061	MOUN-SET RSD250\K50\CLAMP	0,34
599064	MOUN-SET RSD250\K60\CLAMP	0,41



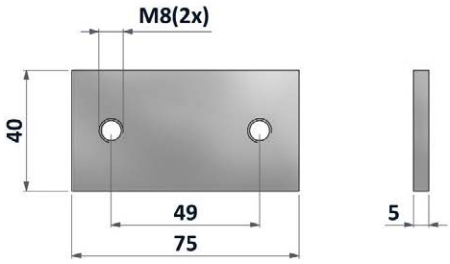
Counter plate RSD250 rack drive



Art. no.	Description	m
		kg
412814	COUNT-PLATE 45x45x5\D09\VZ	0,08



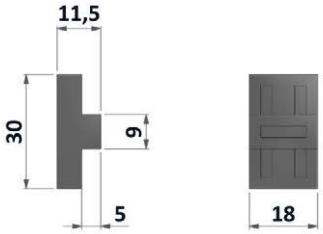
Nut plate RSD250 rack drive



Art. no.	Description	m
		kg
417191	NUT PLATE 2M8-49\75x40x5\VZ	0,12



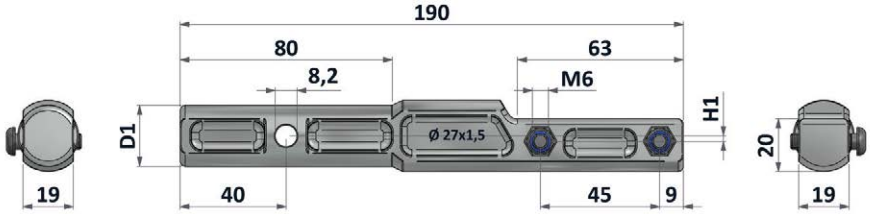
Sliding block RSD250 rack drive



Art. no.	Description	m
		kg
401088	GUID-BLOCK TR25\RSD250	0,01



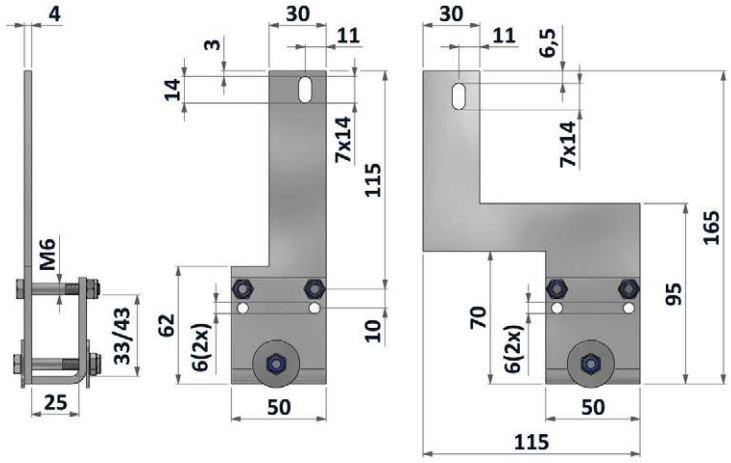
Coupling set RSD250 rack drive



Art. no.	Description	m	D1	H1
		kg	mm	mm
500208	CONNECTOR SET 40-3\B27	0,41	23	2,1
500209	CONNECTOR SET 40-3\B32	0,46	28	4,8
591500	CONNECTOR SET 40\B32x1.9\ST	0,45	27,5	4,8



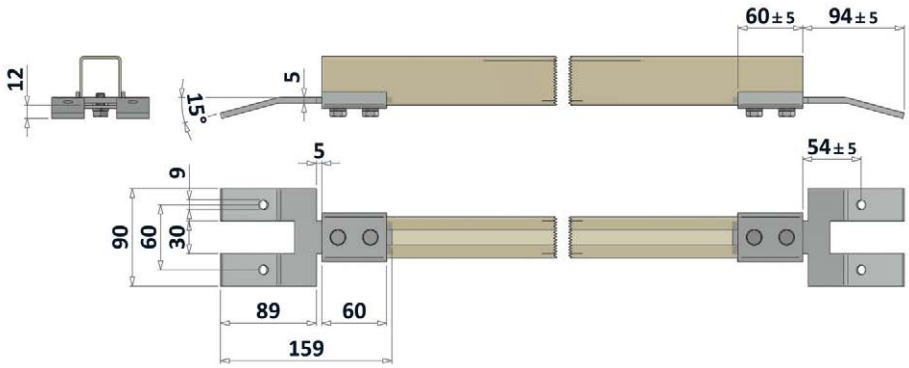
Screen bracket set TU\PH30/40-3



Art. no.	Description	m
		kg
500041	SCREEN BRACKET SET TU-H30/40-3	0,72



Mounting fork set C-profile



Art. no.	Description	m
		kg
500305	MOUN-SET TRI\FORK\G15\VZ	0,86
500306	MOUN-SET TRI\FORK\G0\VZ	0,86

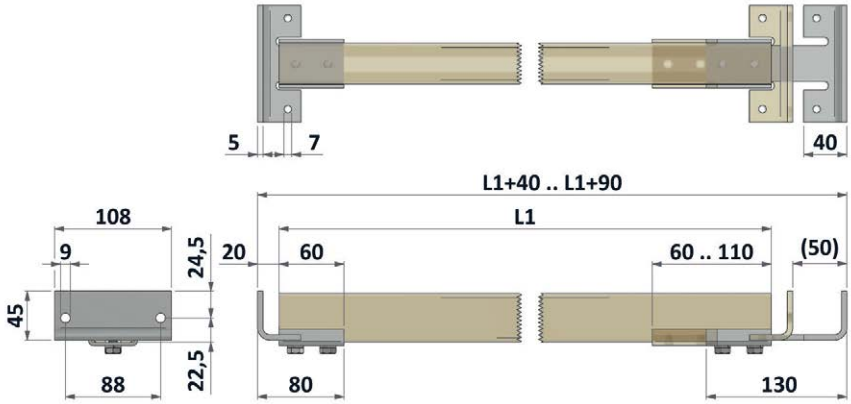
13

Mounting forks, bows and C-profiles

Dimensioned drawings



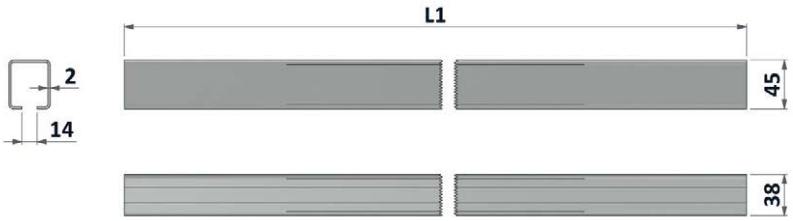
Mounting bow set for C-profile



Art. no.	Description	m
		kg
500308	MOUN-SET TRI\BRA\L80-125\VZ	1,05



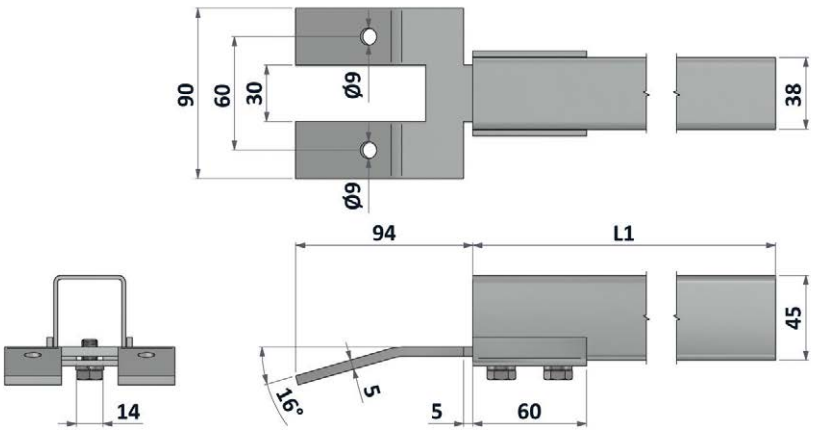
C-profiles



Art. no.	Description	m	L1
		kg	mm
421020	C-PROFILE 45x38x2\L3000\Gr	6,2	3000
421021	C-PROFILE 45x38x2\L3800\Gr	7,6	3800



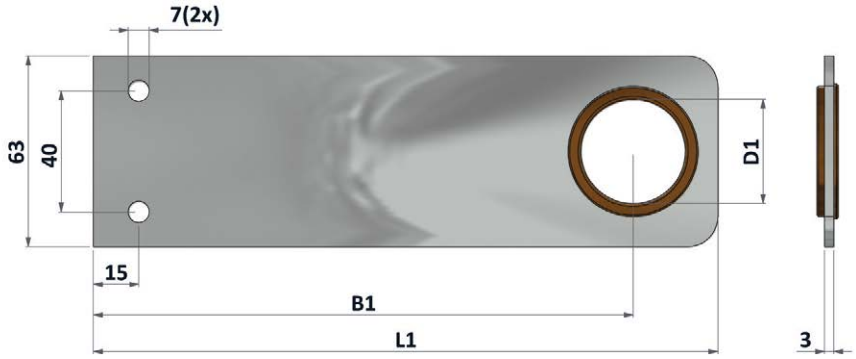
C-profiles for TRN520-3GK rack drives



Art. no.	Description	m	L1
		kg	mm
503320	C-PROFILE L3000\1FORK15	6,5	3000
503321	C-PROFILE L3800\1FORK15	8	3800



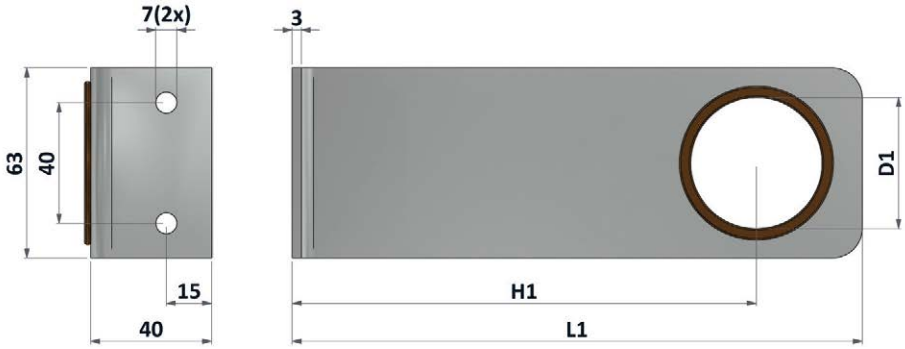
Slide bearing plates B1" - Straight



Art. no.	Description	m	D1	B1	L1
		kg	mm	mm	mm
503086	BEAR-PL SL\B1\B062\L092	0,11	34,5	62	92
503089	BEAR-PL SL\B1\B067\L097	0,11	34,5	67	97
503090	BEAR-PL SL\B1\B072\L102	0,12	34,5	72	102
503095	BEAR-PL SL\B1\B077\L107	0,12	34,5	77	107
503100	BEAR-PL SL\B1\B087\L117	0,13	34,5	87	117
503102	BEAR-PL SL\B1\B097\L127	0,14	34,5	97	127
503101	BEAR-PL SL\B1\B107\L137	0,15	34,5	107	137
503106	BEAR-PL SL\B1\B117\L147	0,17	34,5	117	147
503105	BEAR-PL SL\B1\B167\L197	0,22	34,5	167	197
503110	BEAR-PL SL\B1\B187\L217	0,25	34,5	187	217
503138	BEAR-PL SL\B1\B158\L188	0,21	34,5	158,5	188,5
503139	BEAR-PL SL\B1\B178\L208	0,24	34,5	178,5	208,5



Slide bearing plates B1" - Right angled



Art. no.	Description	m	D1	H1	L1
		kg	mm	mm	mm
503115	BEAR-PL SL\B1\H070\L100	0,15	34,5	70	100
503119	BEAR-PL SL\B1\H075\L105	0,16	34,5	75	105
503116	BEAR-PL SL\B1\H080\L110	0,17	34,5	80	110
503117	BEAR-PL SL\B1\H090\L120	0,18	34,5	90	120
503135	BEAR-PL SL\B1\H095\L125	0,18	34,5	95	125
503118	BEAR-PL SL\B1\H100\L130	0,19	34,5	100	130
503148	BEAR-PL SL\B1\H120\L150	0,20	34,5	120	150
503226	BEAR-PL SL\B1\H077\L107	0,16	34,5	72,5	102,5
503134	BEAR-PL SL\B1\H133\L163	0,29	34,5	133,5	163,5
503137	BEAR-PL SL\B1\H153\L183	0,34	34,5	153,5	183,5



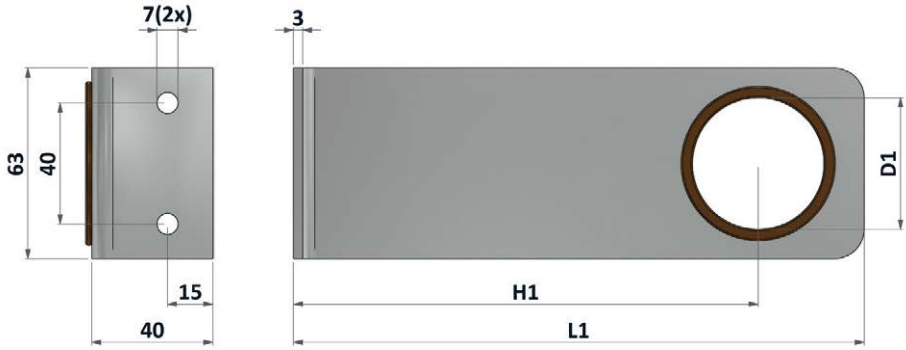
Slide bearing plates B5/4" -Straight



Art. no.	Description	m	D1	B1	L1
		kg	mm	mm	mm
503200	BEAR-PL SL\B5/4\B055\L090	0,16	43	55	90
503221	BEAR-PL SL\B5/4\B158\L193	0,35	43	158,5	193,5
503222	BEAR-PL SL\B5/4\B178\L213	0,38	43	178,5	213,5
503236	BEAR-PL SL\B5/4\B067\L102	0,14	43	67	102



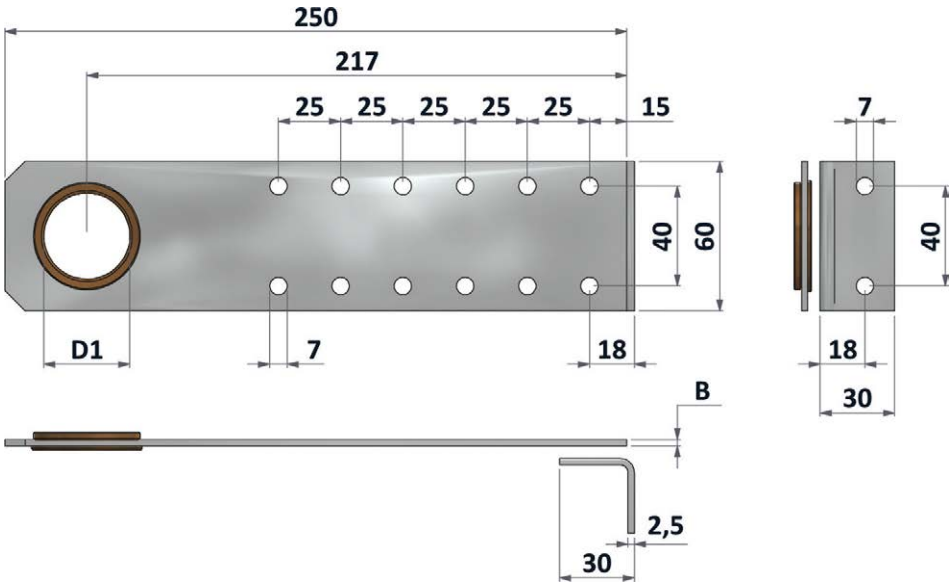
Slide bearing plates B5/4" - Right angled



Art. no.	Description	m	D1	H1	L1
		kg	mm	mm	mm
503214	BEAR-PL SL\B5/4\H070\L105	0,25	43	70	105
503217	BEAR-PL SL\B5/4\H090\L125	0,30	43	90	125
503201	BEAR-PL SL\B5/4\H100\L135	0,33	43	100	135
503202	BEAR-PL SL\B5/4\H120\L155	0,38	43	120	155
503225	BEAR-PL SL\B5/4\H077\L112	0,26	43	72,5	107,5
503218	BEAR-PL SL\B5/4\H133\L168	0,47	43	133,5	168,5
503219	BEAR-PL SL\B5/4\H153\L188	0,55	43	153,5	188,5



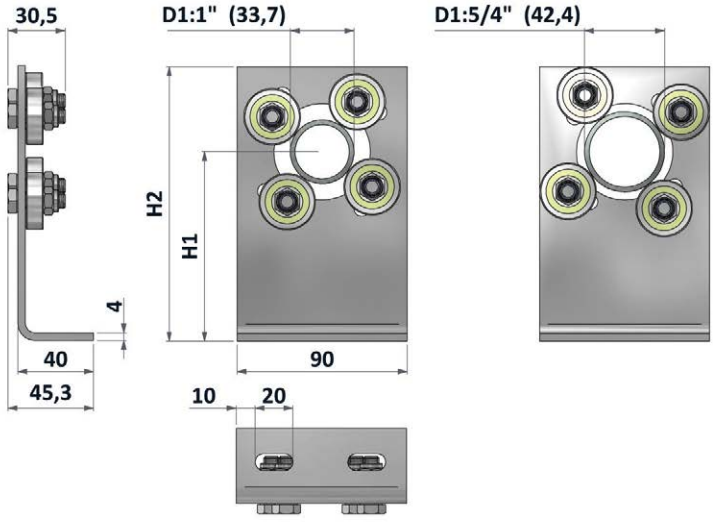
Universal slide bearing plate 1"\5/4"



Art. no.	Description	m	D1	B
		kg	mm	mm
503070	BEAR-PL SL\B1\B92-217\L250\MH	0,35	34,5	2,5
503255	BEAR-PL B5/4\B92-217L250\MH	0,4	43	3



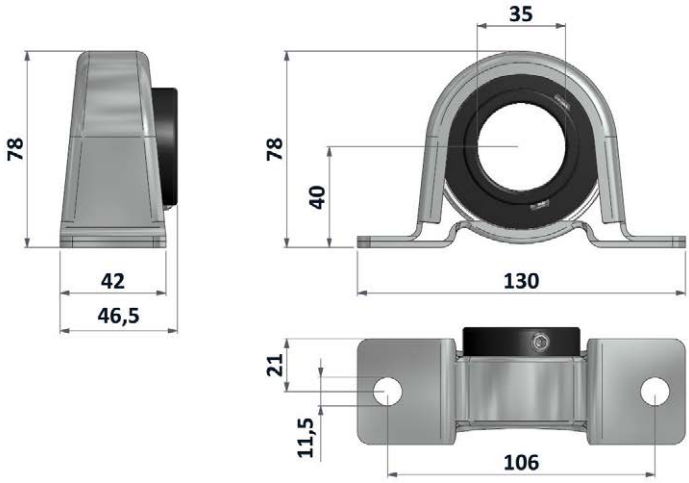
Ball bearing plate 1"\5/4" - Right angled



Art. no.	Description	m	D1	H1	L1
		kg	mm	mm	mm
503030	BEAR-PL BB\B1\H90	0,55	1"	90	135
503034	BEAR-PL BB\B1\H100	0,6	1"	100	145
503029	BEAR-PL BB\B1\H120	0,65	1"	120	165
503031	BEAR-PL BB\B1\H163	0,8	1"	163	208
503032	BEAR-PL BB\B1\H195	0,85	1"	195	240
503033	BEAR-PL BB\B1\H225	0,95	1"	225	270
503035	BEAR-PL BB\B5/4\H90	0,55	5/4"	90	135
503039	BEAR-PL BB\B5/4\H100	0,6	5/4"	100	145
503028	BEAR-PL BB\B5/4\H120	0,65	5/4"	120	165
503036	BEAR-PL BB\B5/4\H163	0,8	5/4"	163	208
503037	BEAR-PL BB\B5/4\H195	0,85	5/4"	195	240
503038	BEAR-PL BB\B5/4\H225	0,95	5/4"	225	270



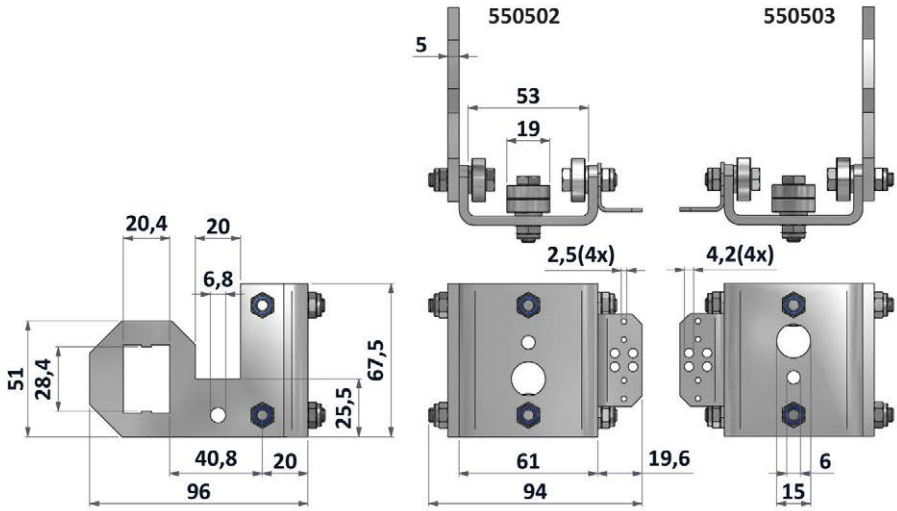
Ball bearing blocks



Art. no.	Description	m
		kg
U303010	BEARING BLOCK B1\207	0,5



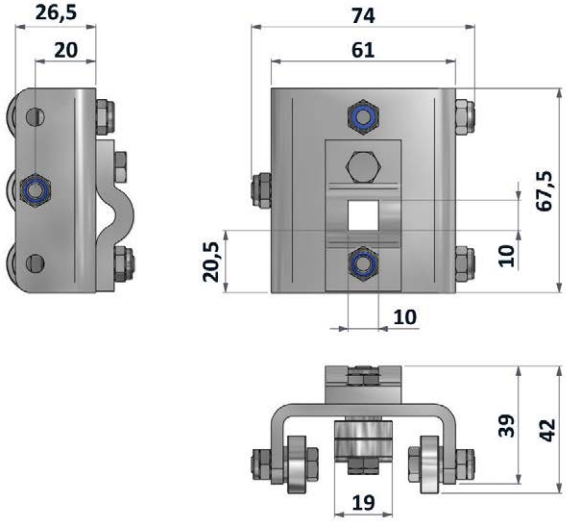
Guiding Unit RB50E^{plus} tube motor



Art. no.	Description	m
		kg
550502	GUID-UNIT RB50E+\L	0,35
550503	GUID-UNIT RB50E+\R	0,35



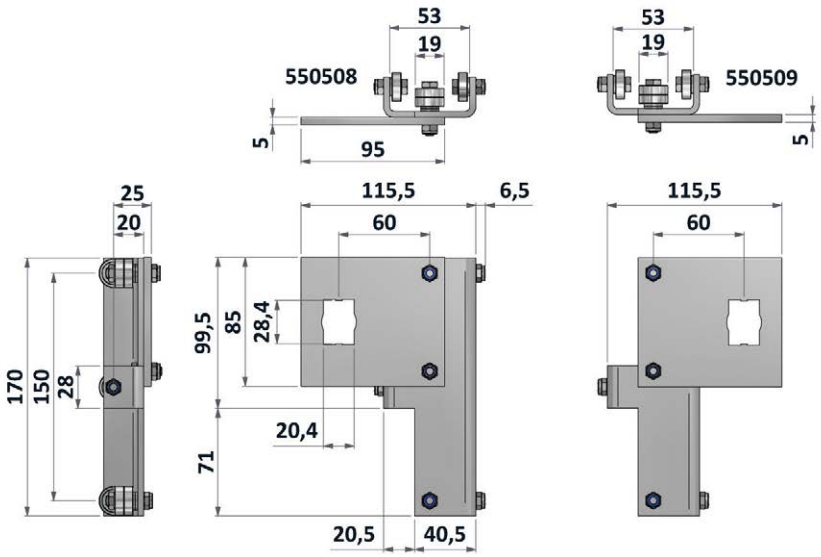
Guide carriage RB40/50 tube motor



Art. no.	Description	m
		kg
550500	GUID-UNIT VK10\L67	0,35



Guiding Unit RB120E^{plus} tube motor

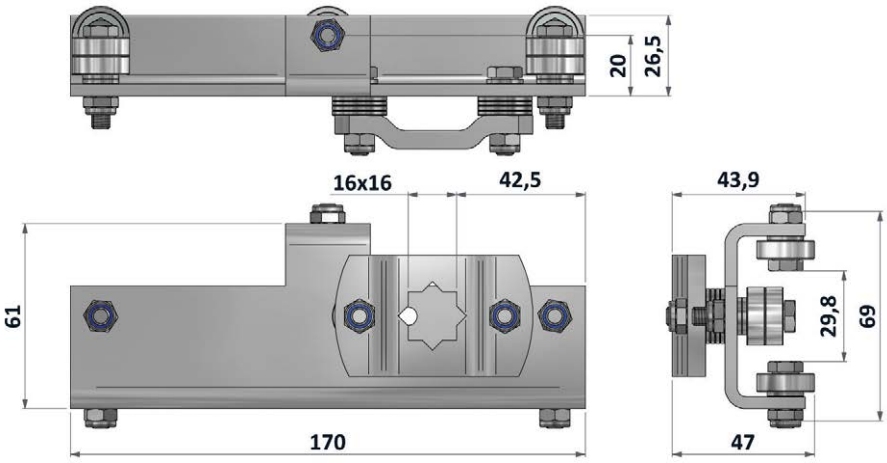


Art. no.	Description	m
		kg
550508	GUID-UNIT RB120E+\L	0,8
550509	GUID-UNIT RB120E+\R	0,8

Dimensioned drawings



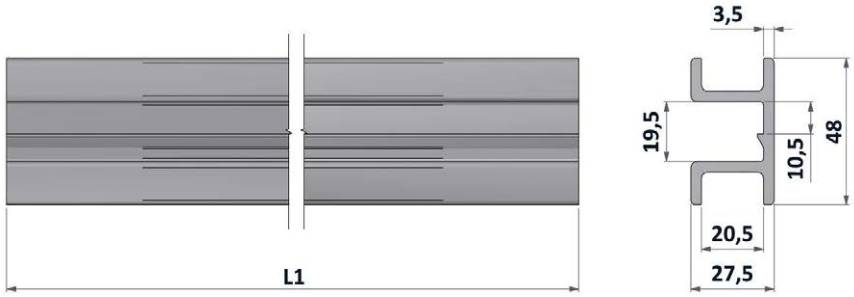
Guide carriage RB120 tube motor



Art. no.	Description	m
		kg
550505	GUID-UNIT VK16\L170	0,60



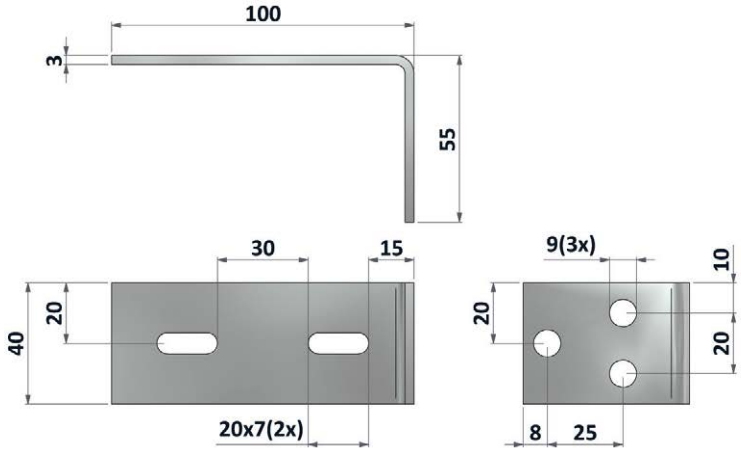
Guide rail



Art. no.	Description	m	L1
		kg	mm
419355	GUID-RAIL L1000	1,12	1000
419360	GUID-RAIL L2000	2,25	2000
419370	GUID-RAIL L3000	3,34	3000
419380	GUID-RAIL L4000	4,50	4000
419390	GUID-RAIL L5000	5,60	5000
419399	GUID-RAIL L6000	6,50	6000

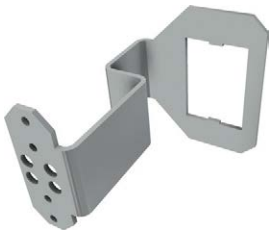
Mounting brackets for guide rail

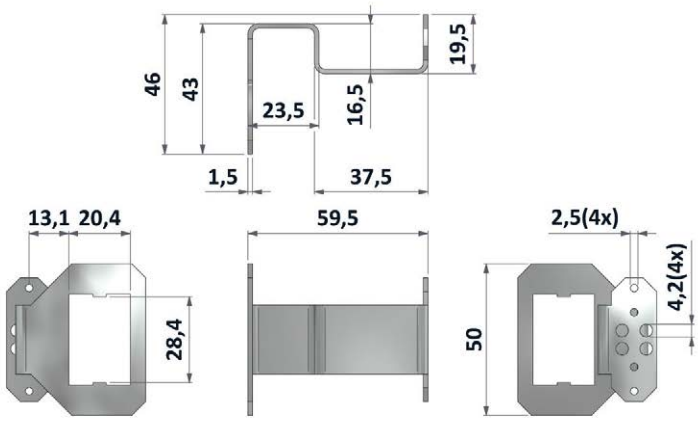




Art. no.	Description	m
		kg
419443	MOUN-BRA GUID-PROF	0,13

Cable carrier bracket for RB50/120E^{plus} tube motor

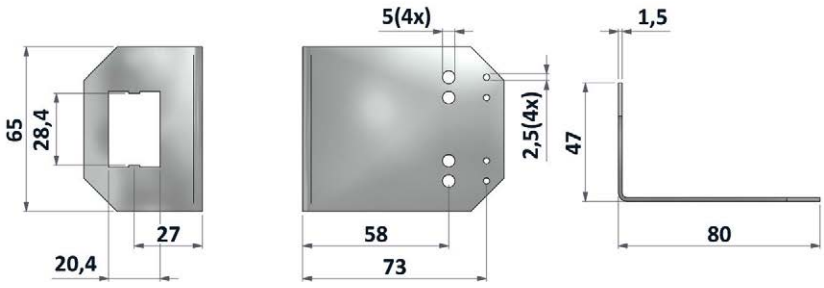




Art. no.	Description	m
		kg
423549	MOUN-BRA CAB-CAR\RB50E+\PAR	0,04

Cable carrier bracket for RB120E^{plus} tube motor

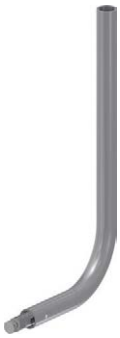




Art. no.	Description	m
		kg
424338	MOUN-BRA CAB-CAR\RB120E+	0,08

13

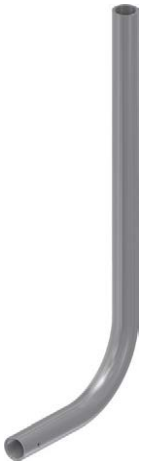
Dimensioned drawings



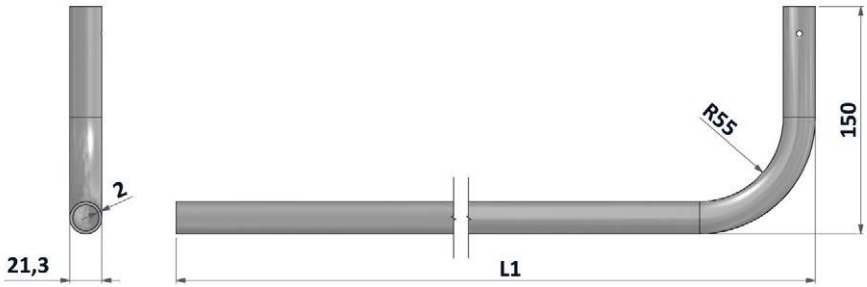
Guide tube RPR bottom movable



Art. no.	Description	m	L1
		kg	mm
550600	GUID-TUBE RPR\H1900\X150\OB	2,0	1900
550601	GUID-TUBE RPR\H2900\X150\OB	3,0	2900



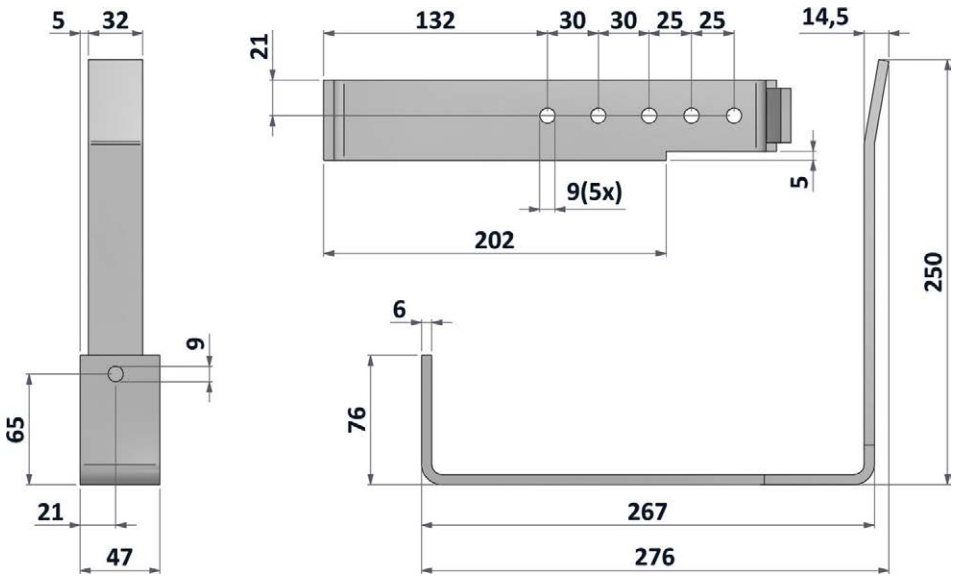
Guide tube RPR bottom fixed



Art. no.	Description	m	L1
		kg	mm
422900	GUID-TUBE RPR\H1900\X150\2D4	1,9	1900
422901	GUID-TUBE RPR\H2900\X150\2D4	2,9	2900

Mounting bracket RPR bottom movable

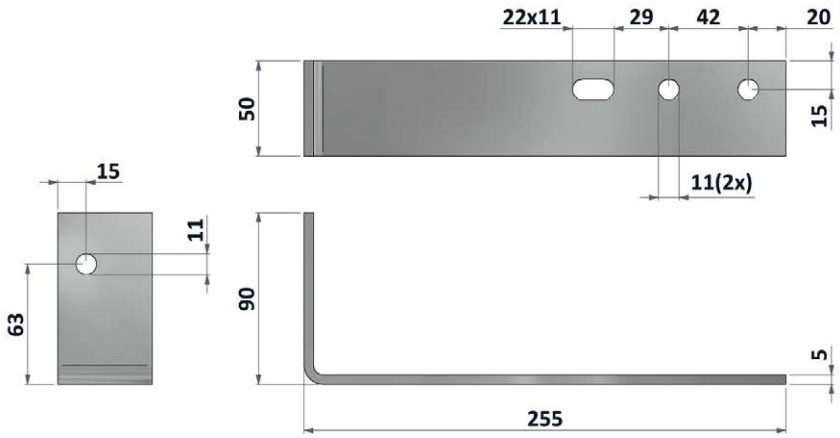




Art. no.	Description	m
		kg
423806	MOUN-BRA RPR\OB\GC	1,1

Mounting bracket RPR bottom fixed





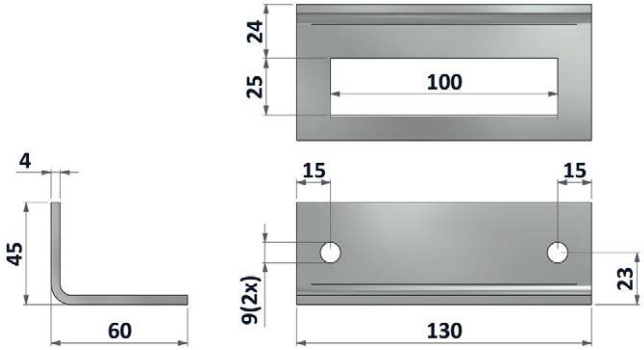
Art. no.	Description	m
		kg
422910	MOUN-BRA RPR\OV	0,64

13

Dimensioned drawings



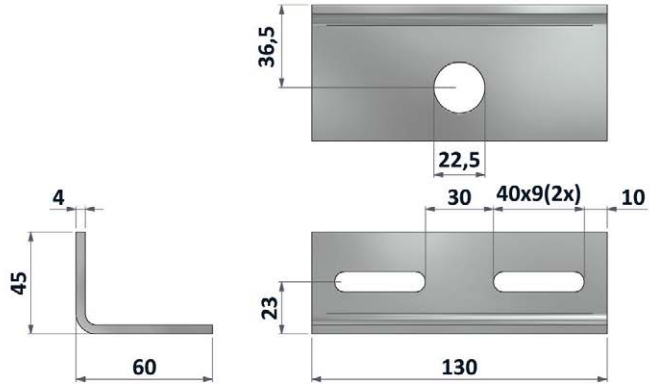
Mounting bracket RPR top movable



Art. no.	Description	m
		kg
423027	MOUN-BRA RPR\BB	0,32



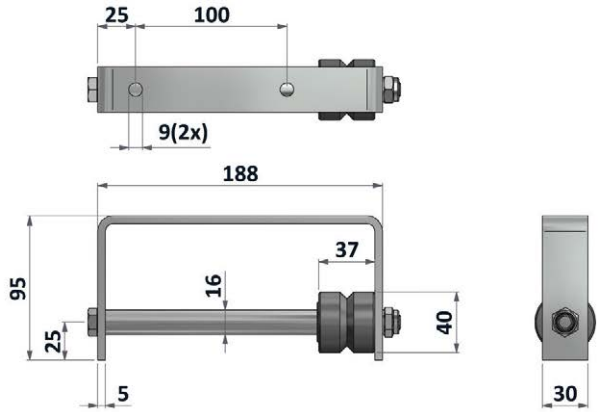
Mounting bracket RPR top fixed



Art. no.	Description	m
		kg
423065	MOUN-BRA RPR\BV	0,37



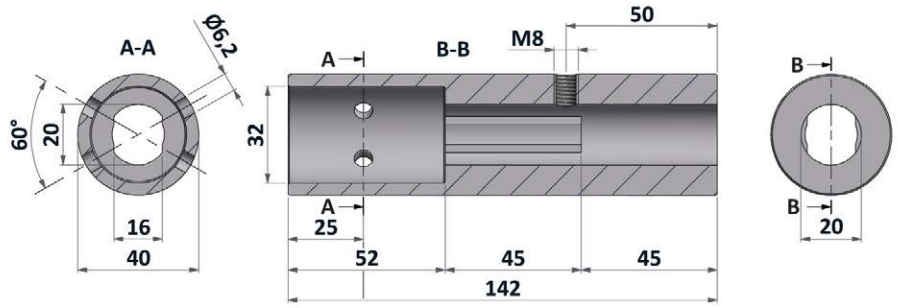
Guiding roll unit weight compensation



Art. no.	Description	m
		kg
550650	RETURN PULLEY UNIT RPR-GC	0,7



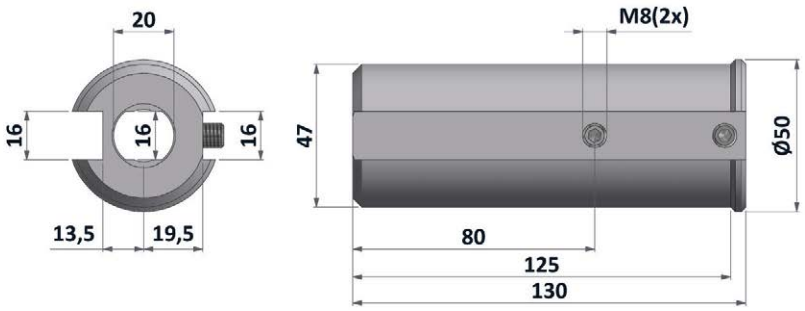
Winding tube coupling RPR-GC (winding tube 35)



Art. no.	Description	m
		kg
424030	COUPL WB35\P20\L102\M8\A\GC	0,48



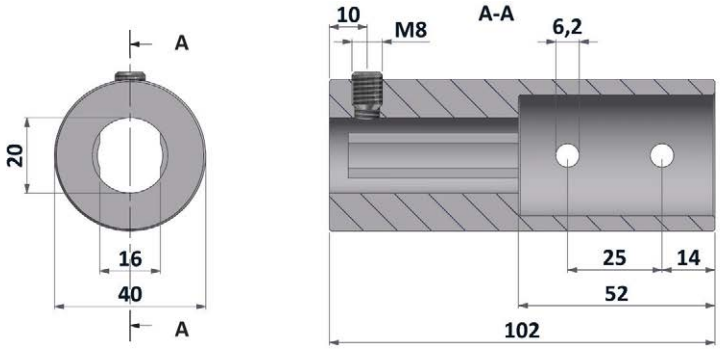
Winding tube coupling RPR-GC (winding tube 50 single groove)



Art. no.	Description	m
		kg
423990	COUPL WB\P20\L130\M8\AL\WC	0,46



Winding tube coupling RPR (winding tube 35)



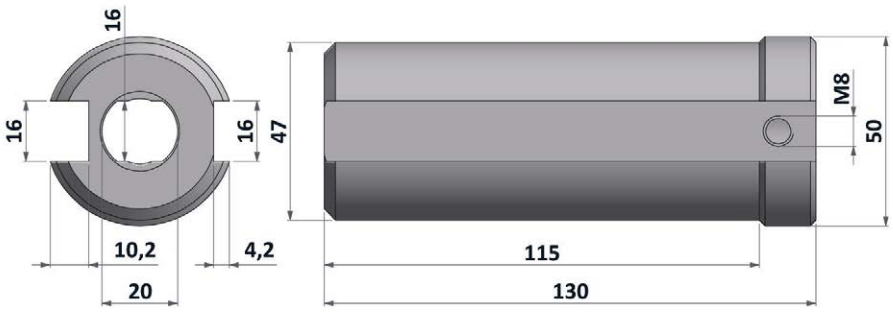
Art. no.	Description	m
		kg
422921	COUPL WB35\P20\L102\M8\AL	0,2

13

Dimensioned drawings



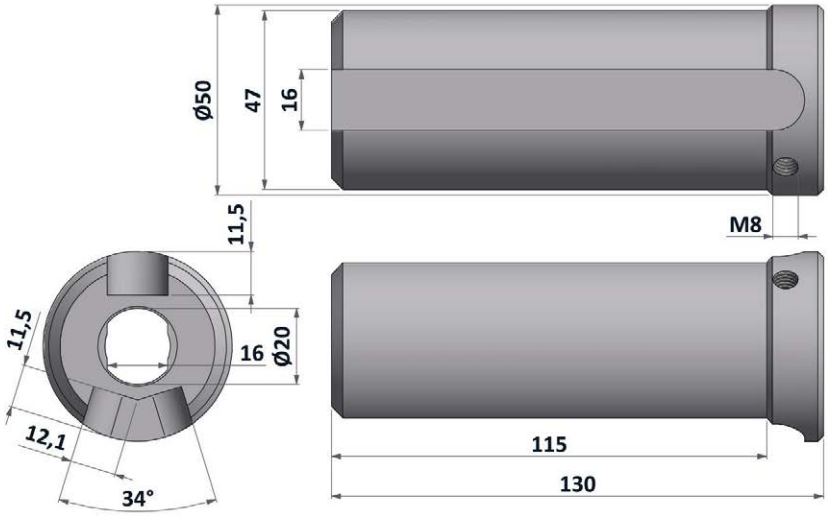
Winding tube coupling RPR (winding tube 50 single groove)



Art. no.	Description	m
		kg
422538	COUPL WB\P20\L130\M8\AL	0,45



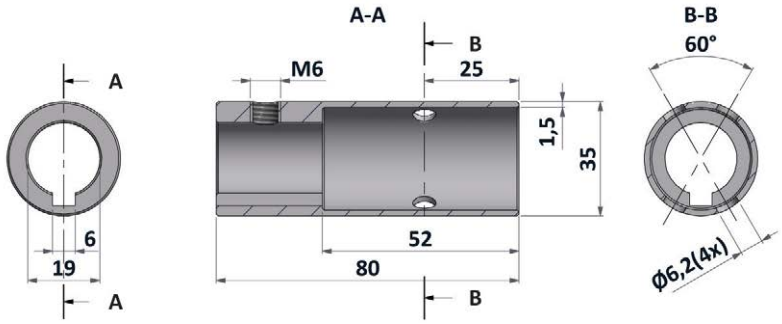
Winding tube coupling RPR (winding tube 50 double groove)



Art. no.	Description	m
		kg
423067	COUPL WB50\P20\L130\M8\AL\3G	0,4



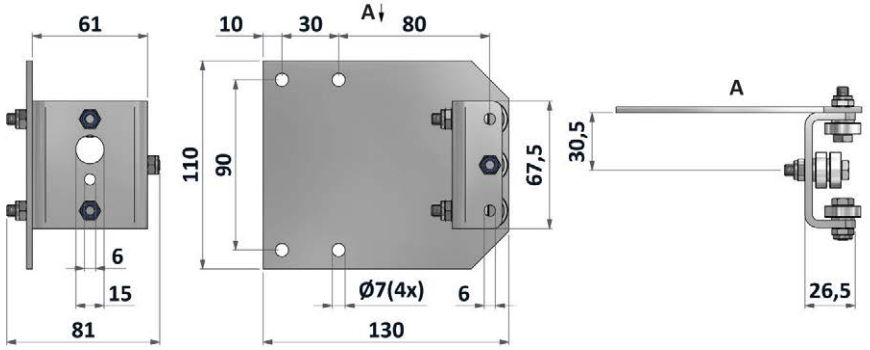
Winding tube coupling W120



Art. no.	Description	m
		kg
422160	COUPL WB35\A19\L80\M8\AL	0,08

Guide carriage for HW60 manual drive

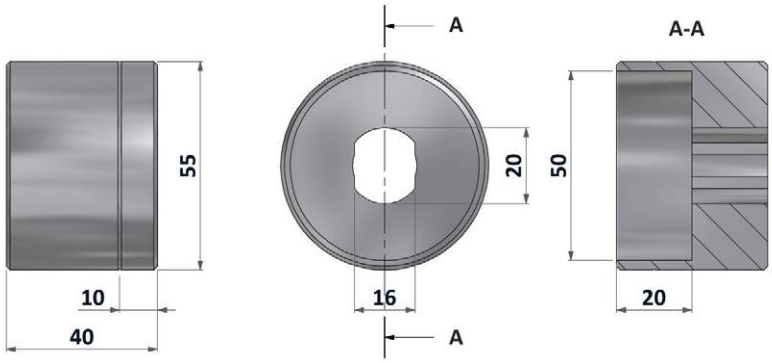




Art. no.	Description	m
		kg
550550	GUID-UNIT HW60\L67.5	0,35

Winding tube coupling HW60

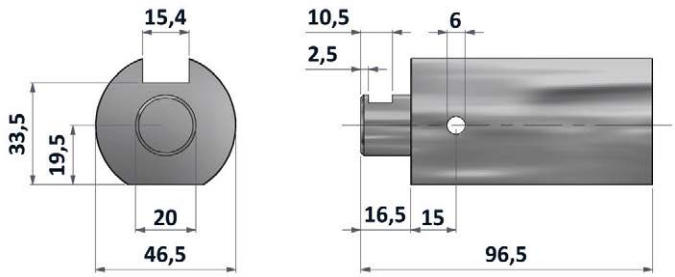




Art. no.	Description	m
		kg
421713	COUPL WB50\P20\L40\ALU	0,13

Winding tube coupling SC40





Art. no.	Description	m
		kg
417941	COUPL WB50\KR20	0,35

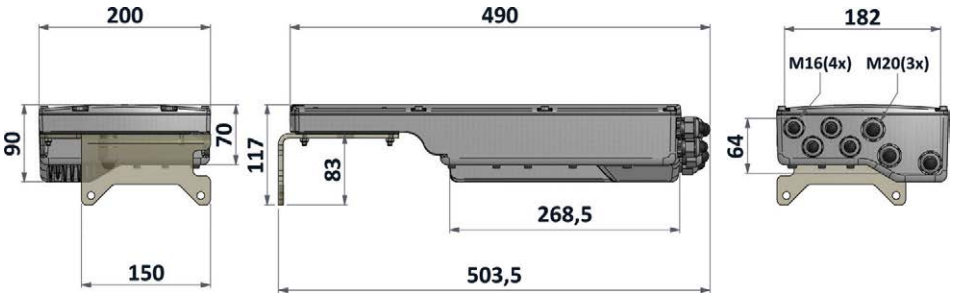
13

Dimensioned drawings





LogicLink320 controls

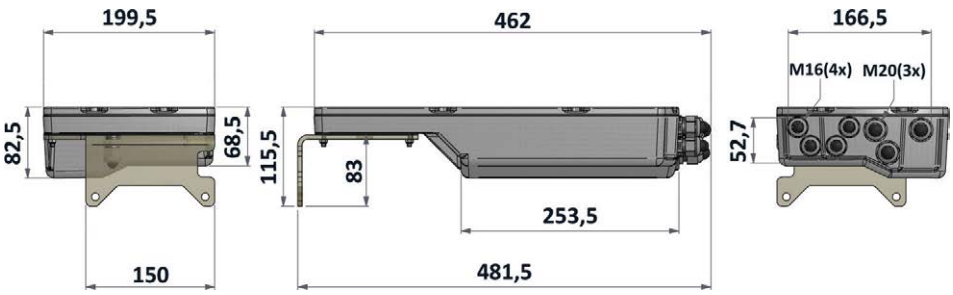


Art. no.	Description	m
		kg
584310	RLL320-IN\400\3	3,1
584311	RLL320-IN\208\3	3,1
584312	RLL320-IN\440-480\3	3,1
584315	RLL320-IN\230\1\3W	3,1
584316	RLL320-IN\230\1\5W	3,1
584317	RLL320-IN\115\1\3W	3,1
584318	RLL320-IN\115\1\5W	3,1
584340	RLL320-IN\400\3\RW1400	5,4
584311	RLL320-IN\208\3	3,1
584312	RLL320-IN\440-480\3	3,1
584315	RLL320-IN\230\1\3W	3,1
584316	RLL320-IN\230\1\5W	3,1
584317	RLL320-IN\115\1\3W	3,1
584318	RLL320-IN\115\1\5W	3,1
584340	RLL320-IN\400\3\RW1400	5,4





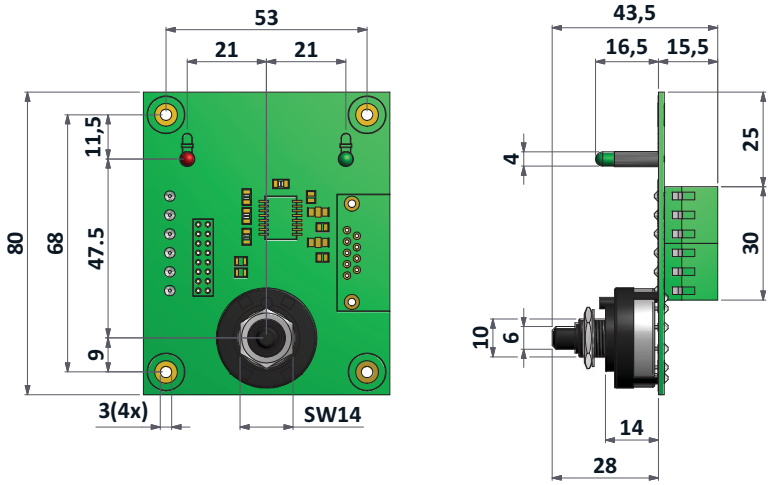
LogicLink600 controls



Art. no.	Description	m
		kg
585600	RLL610-IN\208-480\3\0.35-0.5B	3,9
585640	RLL611-IN\208-480\3\0.35-0.5B	3,9
585620	RLL620-IN\208-480\3\0.35-0.5B	3,9
585660	RLL621-IN\208-480\3\0.35-0.5B	3,9
585200	RLL660-IN\400\3\0-9	3,5
585201	RLL661-IN\400\3\0-9	3,5
585250	RLL670-IN\400\3\0-9	3,5
585251	RLL671-IN\400\3\0-9	3,5



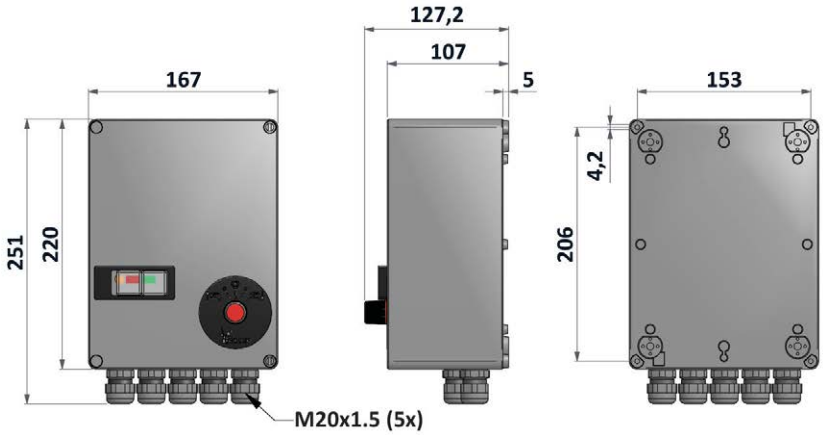
LogicLink300/600 manual controls – Printed circuit board (PCB)



Art. no.	Description	m
		kg
277900	PRINT MC\RLL600	0,05



RMC100 Motor control units

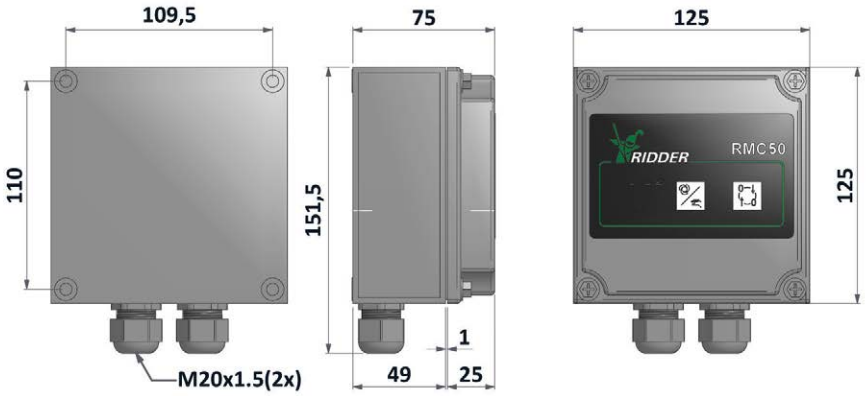


Art. no.	Description	m
		kg
582110	RMC100-208/400/480\3\0.6	3,4
582115	RMC100-208/400/480\3\1.0	3,4
582120	RMC100-208/400/480\3\1.6	3,4
582125	RMC100-208/400/480\3\2.5	3,4
582130	RMC100-208/400/480\3\4.0	3,4
582135	RMC100-208/400/480\3\6.3	3,4
582140	RMC100-208/400/480\3\10	3,4
582145	RMC100-115/230\1\3D\1.0	3,4
582150	RMC100-115/230\1\3D\1.6	3,4
582155	RMC100-115/230\1\3D\2.5	3,4
582160	RMC100-115/220\1\5D\2.5	3,4
582165	RMC100-115/230\1\5D\4.0	3,4
582170	RMC100-115/230\1\5D\6.3	3,4
582175	RMC100-115/230\1\5D\10	3,4

Dimensioned drawings



RMC50 Motor control units



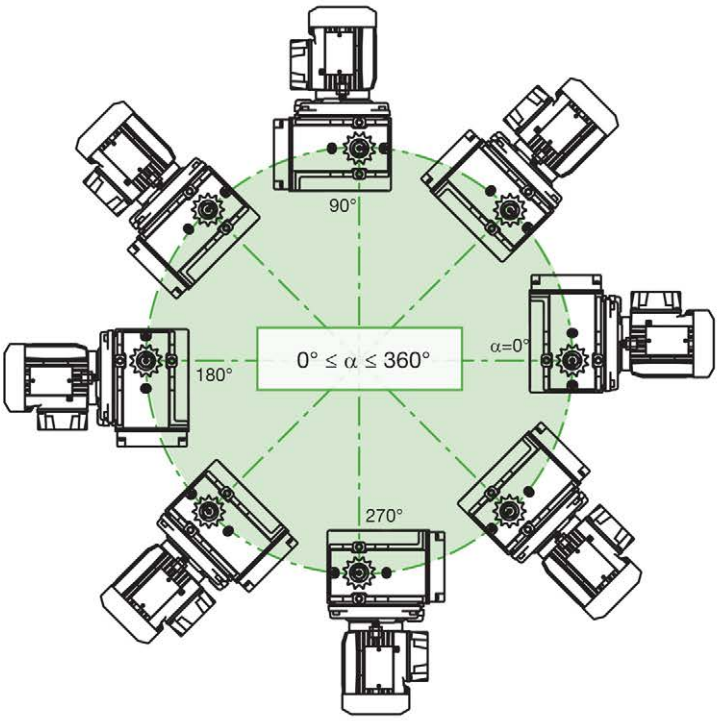
Art. no.	Description	m
		kg
275510	RMC50-230\1\3D\3.0	0,45
275810	RMC50-115\1\3D\3.0	0,45

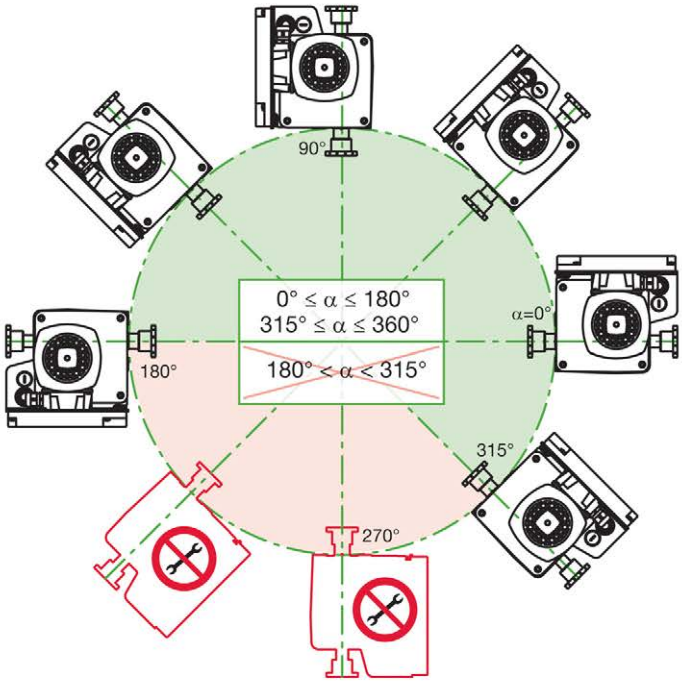
14





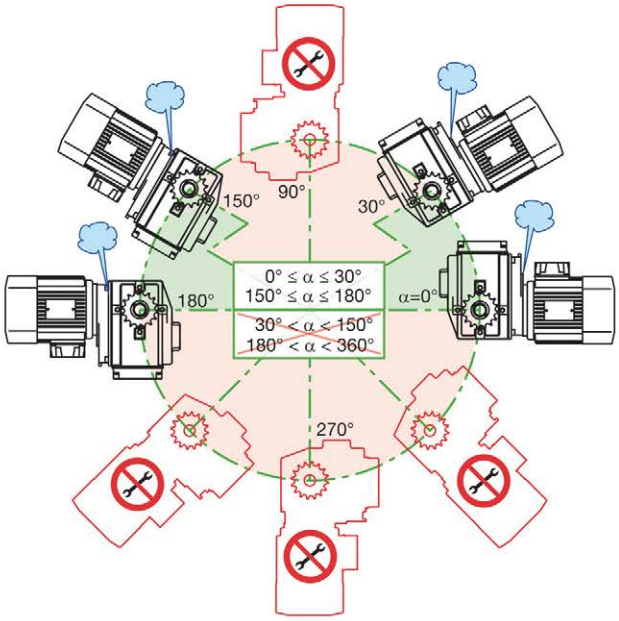
Mounting positions for RW45 motor gearboxes

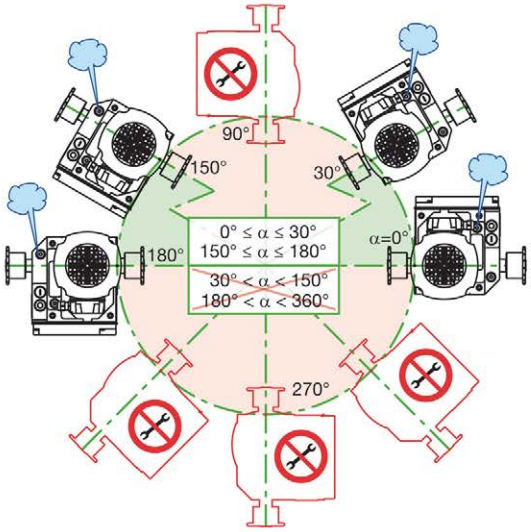


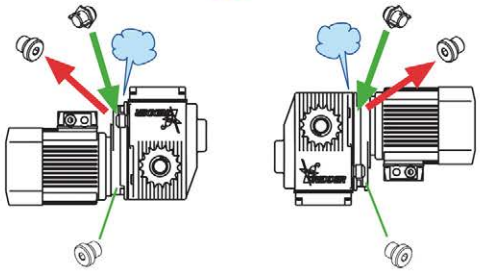




Mounting positions for RW240/400/600 motor gearboxes

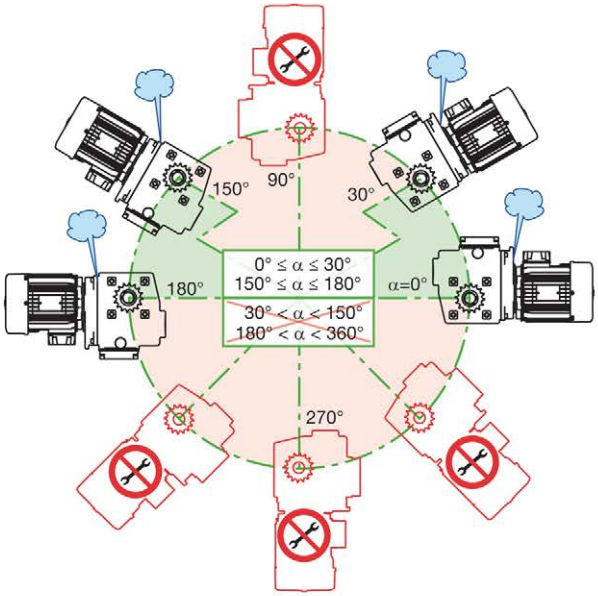


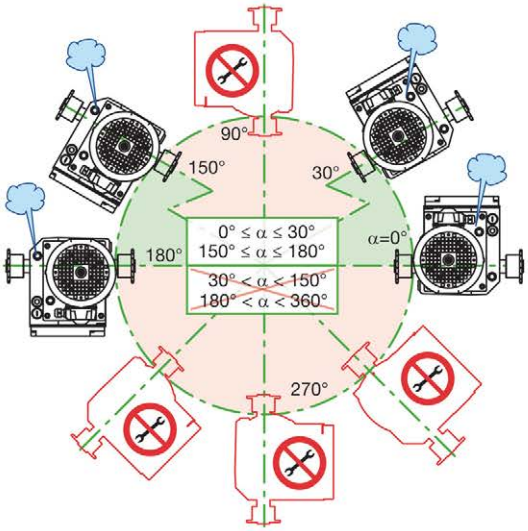


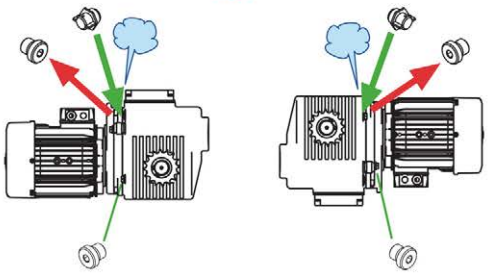




Mounting positions for RW800 motor gearboxes

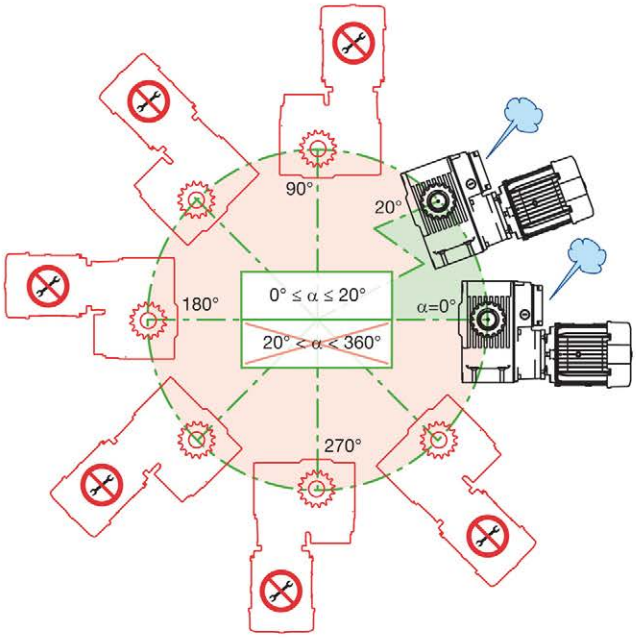


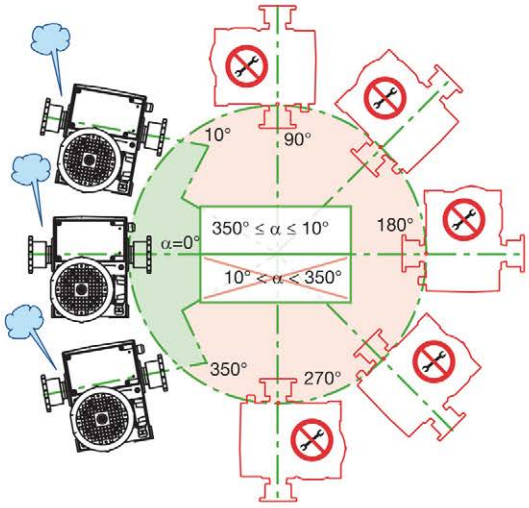


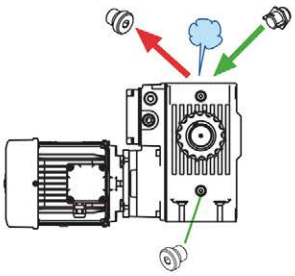




Mounting positions for RW1000/1400 motor gearboxes

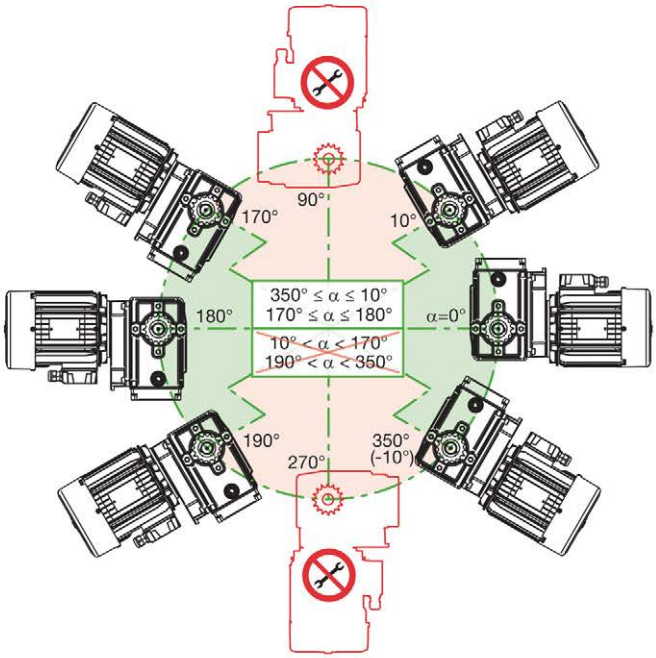


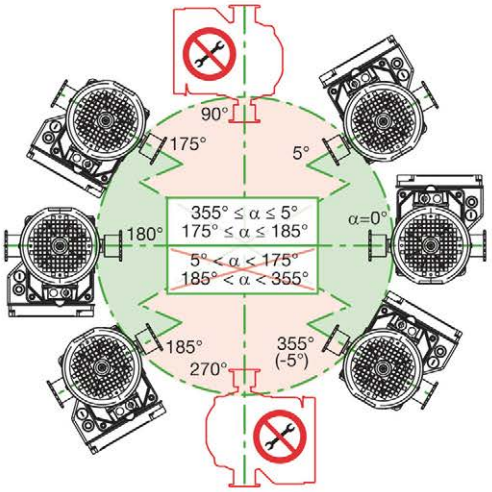


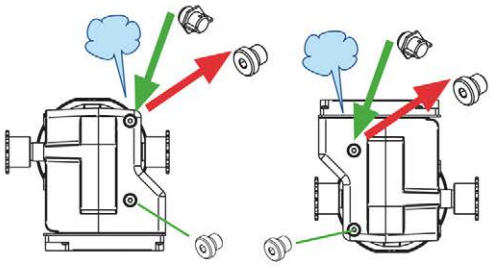




Mounting positions for RW70/100/140/200-34/68 motor gearboxes

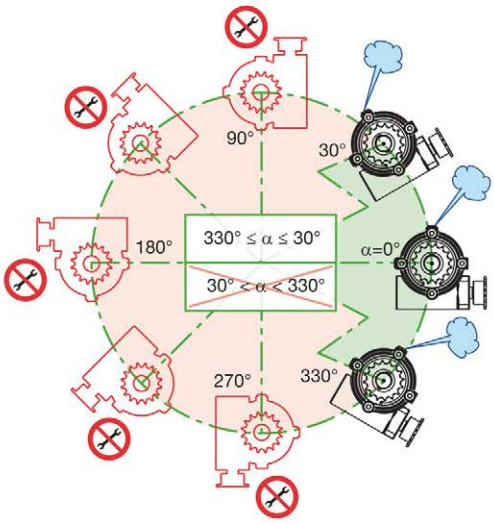


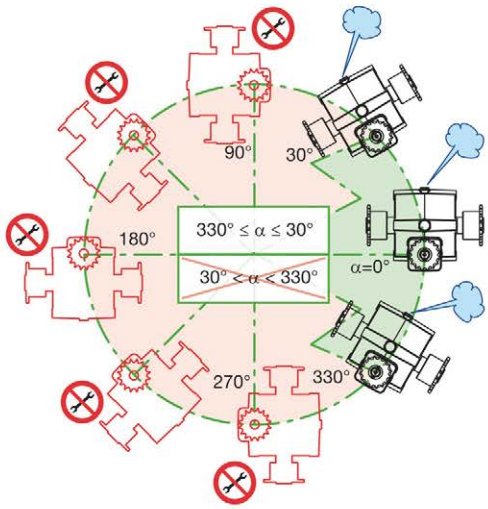


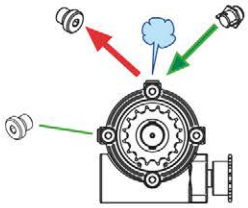




Mounting positions for W240/400/600 wormgearboxes









Electric motors, 3-phase Euro voltage (type A)

Electric motors for RW motor gearboxes, 3-phase eurovoltage version.

- Suitable for use on 400 V and 50 Hz in star circuit;
- Suitable for use on 230 V and 50 Hz in delta circuit;
- Electric motors are standard tropic-proof and conform to protection class IP55;
- Electric motors are insulation class F (40ºC);
- Suitable for intermittent use, duty class s3-30%, duty cycle maximum 25 minutes;
- Manual drive enabled by means of a hexagon socket in the electric motor shaft.

Art. no.	CSA/UL (C/U)	m (kg)	Hexagon (mm)	Cable gland	P (kW) - 50Hz	I (A) - 400V\50Hz	I (A) - 230V\50Hz	cos ϕ - 50Hz	PTC Thermistor 150ºC
763010		3,0	6	M20	0,09	0,41	0,71	0,60	
763020		3,5	6	M20	0,12	0,46	0,80	0,60	
763030		5,2	6	M20	0,25	0,70	1,21	0,77	
763035		3,7	6	M20	0,30	1,08	1,86	0,73	
763040		5,2	6	M20	0,37	1,1	1,9	0,75	
763060		8,0	8	M20	0,55	1,4	2,4	0,77	
763070		8,1	8	M20	0,75	2,0	4,8	0,80	
763080		9,6	8	M20	1,10	2,8	4,8	0,83	
763085		9,9	8	M20	1,10	2,8	4,8	0,83	
763090		11,0	8	M20	1,50	4,5	7,8	0,75	
763095		11,3	8	M20	1,50	4,5	7,8	0,75	
763310		3,0	6	M20	0,09	0,41	0,71	0,60	●
763320		3,5	6	M20	0,12	0,46	0,80	0,60	●
763330		5,2	6	M20	0,25	0,70	1,21	0,77	●
763335		3,7	6	M20	0,30	1,08	1,86	0,73	●
763340		5,2	6	M20	0,37	1,1	1,9	0,75	●
763360		8,0	8	M20	0,55	1,4	2,4	0,77	●
763370		8,1	8	M20	0,75	2,0	4,8	0,80	●
763380		9,6	8	M20	1,10	2,8	4,8	0,83	●
763385		9,9	8	M20	1,10	2,8	4,8	0,83	●
763390		11,0	8	M20	1,50	4,5	7,8	0,75	●
763395		11,3	8	M20	1,50	4,5	7,8	0,75	●





Electric motors, 3-phase wide voltage CSA (type B)

Electric motors for RW motor gearboxes, 3-phase wide voltage version.

- Suitable for use on 400-415 V and 50 Hz in star circuit;
- Suitable for use on 400-480 V and 60 Hz in star circuit;
- Suitable for use on 208 V and 50/60 Hz in delta circuit;
- Electric motors have CSA approval mark standard;
- Electric motors are standard tropic-proof and conform to protection class IP55;
- Electric motors are insulation class F (40ºC);
- Suitable for intermittent use, duty class s3-30%, duty cycle maximum 25 minutes;
- Manual drive enabled by means of a hexagon socket in the electric motor shaft.

Art. no.	CSA/UL (C/U)	m (kg)	Hexagon (mm)	Cable gland	P (kW) - 50Hz	P (kW) - 60Hz	I (A) - 200-208V\50Hz	I (A) - 380-415V\50Hz	I (A) - 200-277V\60Hz	I (A) - 380-480V\60Hz	cos ϕ - 200-208V/50Hz	cos ϕ - 380-415V/50Hz	cos ϕ - 200-277V/60Hz	cos ϕ - 380-480V/60Hz	PTC Thermistor 150ºC
764002	CU	2,9	6	M20	0,09	0,11	0,75	0,45	0,85	0,50	0,75	0,45	0,85	0,50	●
764012	CU	2,9	6	M20	0,09	0,11	0,75	0,45	0,85	0,50	0,75	0,45	0,85	0,50	●
764022	CU	5,0	6	M20	0,25	0,30	1,90	1,40	1,90	1,30	0,60	0,50	0,60	0,50	●
704032P	C	6,5	6	M20	0,37	0,44	2,20	1,45	2,4	1,4	0,65	0,55	0,55	0,55	●
704042P	C	8,7	8	M20	0,55	0,66	3,2	2,0	3,6	1,9	0,70	0,55	0,60	0,60	●
704052P	C	10,2	8	M20	0,75	0,90	4,6	3,0	5,0	2,8	0,70	0,55	0,70	0,55	●
704072P	C	14,5	8	M20	1,10	1,32	5,5	3,6	6,5	3,6	0,75	0,55	0,60	0,60	●
704092	C	17,1	8	M20	1,50	1,80	7,0	4,6	8,0	4,4	0,75	0,60	0,65	0,65	
704272P	C	15,3	8	M20	1,10	1,32	5,5	3,6	6,5	3,6	0,75	0,55	0,60	0,60	●
704292P	C	18,1	8	M20	1,50	1,80	7,0	4,6	8,0	4,4	0,75	0,60	0,65	0,65	●





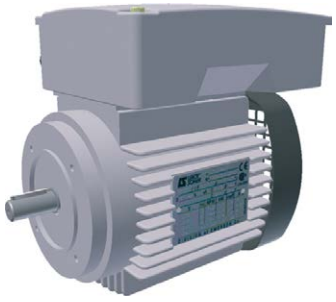
Electric motors, 3-phase 600V\60Hz (type C)

Electric motors for RW motor gearboxes, 3-phase 600V version.

- Suitable for use on 600V and 60 Hz in star circuit;
- Suitable for use on 346V and 60 Hz in delta circuit;
- Electric motors have CSA approval mark standard;
- Electric motors are standard tropic-proof and conform to protection class IP55;
- Electric motors are insulation class F (40ºC);
- Suitable for intermittent use, duty class s3-30%, duty cycle maximum 25 minutes;
- Manual drive enabled by means of a hexagon socket in the electric motor shaft.

Art. no.	CSA/UL (C/U)	m (kg)	Jaw opening (mm)	Cable gland	P (kW) - 60Hz	I (A) - 346V\60Hz	I (A) - 600V\60Hz	cos ϕ - 346V/60Hz	cos ϕ - 600V/60Hz
703632	C	6,5	6	M20	0,44	1,50	0,86	0,70	0,70
703642	C	8,8	8	M20	0,66	2,70	1,55	0,60	0,60
703662	C	9,8	8	M20	1,10	3,60	2,10	0,70	0,70
703692	C	17,4	8	M20	1,80	5,8	3,4	0,65	0,65
703792	C	18,2	8	M20	1,80	5,8	3,4	0,65	0,65





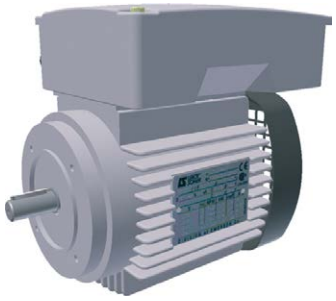
Electric motors, 1-phase 230 V (3-wire, type D)

Electric motors for RW motor gearboxes. 1-phase 230 V version.

- Suitable for use on 230 V and 50/60 Hz circuit;
- Electric motors up to 0.18 kW with 3-wire connection (duty capacitor);
- Electric motors from 0.25 kW have CSA approval mark standard;
- Electric motors are standard tropic-proof and conform to protection class IP55;
- Electric motors are insulation class F (40ºC);
- Suitable for intermittent use, duty class s3-30%, duty cycle maximum 25 minutes;
- Manual drive enabled by means of a hexagon socket in the electric motor shaft.

Art. no.	CSA/UL (C/U)	m (kg)	Hexagon (mm)	Cable gland	P (kW) - 50Hz	P (kW) - 60Hz	I (A) - 220V\50Hz	I (A) - 240V\50Hz	I (A) - 220V\60Hz	I (A) - 240V\60Hz	cos ϕ - 220V/50Hz	cos ϕ - 240V/50Hz	cos ϕ - 220V/60Hz	cos ϕ - 240V/60Hz	PTC Thermistor 150ºC
761001		3,5	6	M20	0,09	0,11	0,9	1,0	1,1	1,1	0,99	0,99	0,96	0,96	
761016		7,3	6	M20	0,18	0,22	1,83	2,00	2,24	2,25	0,84	0,84	0,96	0,96	
761001P		3,5	6	M20	0,09	0,11	0,9	1,0	1,1	1,1	0,99	0,99	0,96	0,96	●
761016P		7,3	6	M20	0,18	0,22	1,83	2,00	2,24	2,25	0,84	0,84	0,96	0,96	●





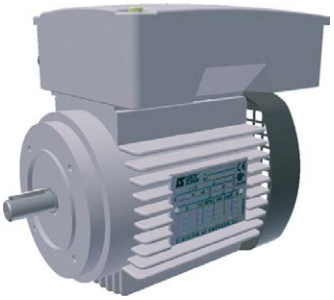
Electric motors, 1-phase 230 V (5-wire, type E)

Electric motors for RW motor gearboxes. 1-phase 230 V version.

- Suitable for use on 230 V and 50/60 Hz circuit;
- Electric motors from 0.25 kW with 5-wire connection (duty and start capacitor);
- Electric motors from 0.25 kW have CSA approval mark standard;
- Electric motors are standard tropic-proof and conform to protection class IP55;
- Electric motors are insulation class F (40ºC);
- Suitable for intermittent use, duty class s3-30%, duty cycle maximum 25 minutes;
- Manual drive enabled by means of a hexagon socket in the electric motor shaft.

Art. no.	CSA/UL (C/U)	m (kg)	Hexagon (mm)	Cable gland	P (kW) - 50Hz	P (kW) - 60Hz	I (A) - 220V\50Hz	I (A) - 240V\50Hz	I (A) - 220V\60Hz	I (A) - 240V\60Hz	cos ϕ - 220V/50Hz	cos ϕ - 240V/50Hz	cos ϕ - 220V/60Hz	cos ϕ - 240V/60Hz	PTC Thermistor 150ºC
701021P	C	7,2	6	M20	0,25	0,30	2,1	2,35	2,0	2,0	0,80	0,72	0,90	0,90	●
761032	C	9,4	6	M20	0,37	0,44	2,9	2,9	2,7	2,7	0,87	0,87	0,98	0,98	●
761042	C	11,8	6	M20	0,55	0,66	4,5	4,5	4,5	4,5	0,85	0,85	0,90	0,90	●
701062	C	14,9	6	M20	1,10	1,30	7,0	6,5	8,0	7,0	0,95	0,90	0,98	0,98	
701067	C	(-)	6	M20	1,10	1,30	7,0	6,5	8,0	7,0	0,95	0,90	0,98	0,98	
701077	C	18,8	6	M20	1,50	1,80	9,0	8,5	11,0	10,0	0,98	0,98	0,98	0,98	





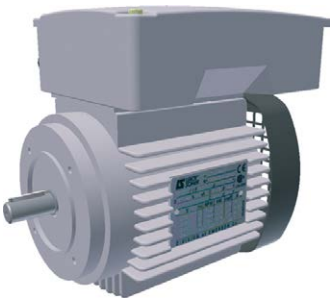
Electric motors, 1-phase 115 V\60 Hz (3-wire, type F)

Electric motors for RW motor gearboxes. 1-phase 115 V\60 Hz version.

- Suitable for use on 115 V and 60 Hz circuit;
- Up to 0.18 kW with 3-wire connection (duty capacitor);
- Electric motors have CSA approval mark standard;
- Electric motors are standard tropic-proof and conform to protection class IP55;
- Electric motors are insulation class F (40ºC);
- Suitable for intermittent use, duty class s3-30%, duty cycle maximum 25 minutes;
- Manual drive enabled by means of a hexagon socket in the electric motor shaft.

Art. no.	CSA/UL (C/U)	m (kg)	Hexagon (mm)	Cable gland	P (kW) - 60Hz	I (A) - 110V\60Hz	I (A) - 115V\60Hz	cos ϕ - 110V\60Hz	cos ϕ - 115V\60Hz	PTC Thermistor 150ºC
761202	CU	3,5	6	M20	0,09	2,5	2,5	0,95	0,95	●
701217	C	6,2	6	M20	0,18	3,6	4,0	0,90	0,85	

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Electric motors, 1-phase 115 V\60 Hz (5-wire, type G)

Electric motors for RW motor gearboxes. 1-phase 115 V\60 Hz version.

- Suitable for use on 115 V and 60 Hz circuit;
- Electric motors from 0.25 kW with 5-wire connection (duty and start capacitor);
- Electric motors have CSA approval mark standard;
- Electric motors are standard tropic-proof and conform to protection class IP55;
- Electric motors are insulation class F (40ºC);
- Suitable for intermittent use, duty class s3-30%, duty cycle maximum 25 minutes;
- Manual drive enabled by means of a hexagon socket in the electric motor shaft.

Art. no.	CSA/UL (C/U)	m (kg)	Hexagon (mm)	Cable gland	P (kW) - 60Hz	I (A) - 110V\60Hz	I (A) - 115V\60Hz	cos ϕ - 110V\60Hz	cos ϕ - 115V\60Hz	PTC Thermistor 150ºC
701232P	C	8,1	8	M20	0,37	5,5	6,0	0,85	0,8	●

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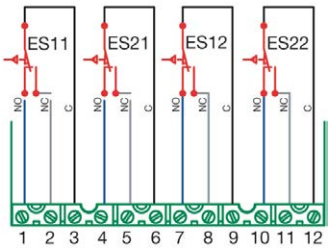
Frequency controlled electric motors (type I)

Frequency controlled electric motors voor RW motor gearboxes, 3-phase eurovoltage version.

- Suitable for use on 400 V to 480 V at 50 Hz and 60 Hz;
- Frequency controllers compliant with EMC guideline class A;
- Frequency controller in housing with protection class IP65;
- Electric motors are standard tropic-proof and conform to protection class IP55;
- Electric motors are insulation class F (40ºC);
- Suitable for intermittent use, duty class s3-30%, duty cycle maximum 25 minutes;
- Manual drive enabled by means of a hexagon socket in the electric motor shaft.

Art. no.	CSA/UL (C/U)	m (kg)	Hexagon (mm)	Cable gland	Pfc (kW)	Pm (kW)	I (A) - 400V\50/60Hz	I (A) - 480V\50/60Hz	Phases	I (A) - Fuse 400V\50Hz	Cable - mm²
707033	CU	9,6	8	M20	0,75	0,37	1,6	1,2	3~	**6**	1,5
707043	CU	12,0	8	M20	1,10	0,55	2,6	1,6	3~	**10**	1,5
707053	CU	13,0	8	M20	1,50	0,75	3,1	2,5	3~	**10**	1,5
707073	CU	15,3	8	M20	2,20	1,10	5,5	4,5	3~	**10**	2,5
707093	CU	17,8	8	M20	3,00	1,50	6,5	5,2	3~	**16**	2,5
707293	CU	34,5	8	M20	3,00	1,50	7,0	6,0	3~	**16**	2,5

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Wiring diagrams RW motor gearboxes - RPR PowerRoller - RB Tube motors

The following pages show a number of different wiring diagrams for the various types of RW motor gearboxes, RPR PowerRoller and RB Tube motors. Certain codes are given beside the symbols used in the diagrams. A more complete description of these codes is given in the table below.

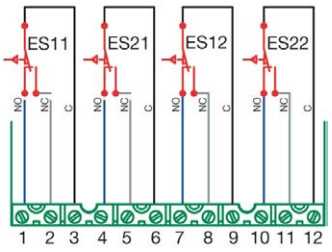
Symbol	Description
BN52 (PNP)	Approximation (PNP)
CB	Control box with switch components
EM	Electric motor
ES11, ES12	RSU limit switch duty switches
ES21, ES22	RSU limit switch system safety switches
F1, F11	Fuse
H1	Signal (light, sound)
FEM	Frequency controlled electric motor (frequency controller attached)
K11	Auxiliary relay for mains power cut-out (safety switches)
K11/1, K11/2	Auxiliary contact K11
K21, K22	Reversing relay for rotation direction (3-phase)
K31, K32	Relay for regulating high speed (Dahlander, closed and open)
K31/1, K31/2	Auxiliary contacts K31 (electrical interlock)
K31/3	Auxiliary contact K31 for controlling electric motor
K32/1	Auxiliary contacts K32 (electrische interlock)
K32/3	Auxiliary contact K32for controlling electric motor
K41	Relay for regulating high speed (Dahlander)
K41/1-K41/4	Auxiliary contacts K41 (electrical safeguard)
K51	Error relay coil for external error signalling, for frequency controller
K51/1	Auxiliary contact K51 for controlling H1
K53	Relay for regulating high speed
K53/1	Auxiliary contact K53
K81	Auxiliary relay for reverse switching of 1-phase 5-wire electric motor
L1, L2, L3	Power source
N	Neutral conductor
P11, P12	Contacts automatic control (open - close)
P21/1, P22/1	Auxiliary contacts for K21 and K22, electrical safeguard for reverse switching
P221/1, P222/1	Contacts for automatic control (open - dicht)
P231/1	Contact for automatic control high speed
P71, P72	Contacts for automatic control (open or closed)
PE	Earth contact
Q41	Motor protection switch (with Dahlander for low speed)
Q41/1	Auxiliary contact Q41
Q42	Motor protection switch (with Dahlander for high speed).
Q42/1	Auxiliary contact Q42
S11	Manual switch (bypasses protection circuit)
S21	System switch for switching off tube motor for, e.g., maintenance work
S71, S72	Rocker switches for controlling high and/or low speed
S111	Manual switch Stop - Open - Close - automatic
S121	Manual switch to select speed (low - high -automatic)
SS	System switch (positioned with the tube motor)
U1	Safety transformer (compliant with EN 61558)



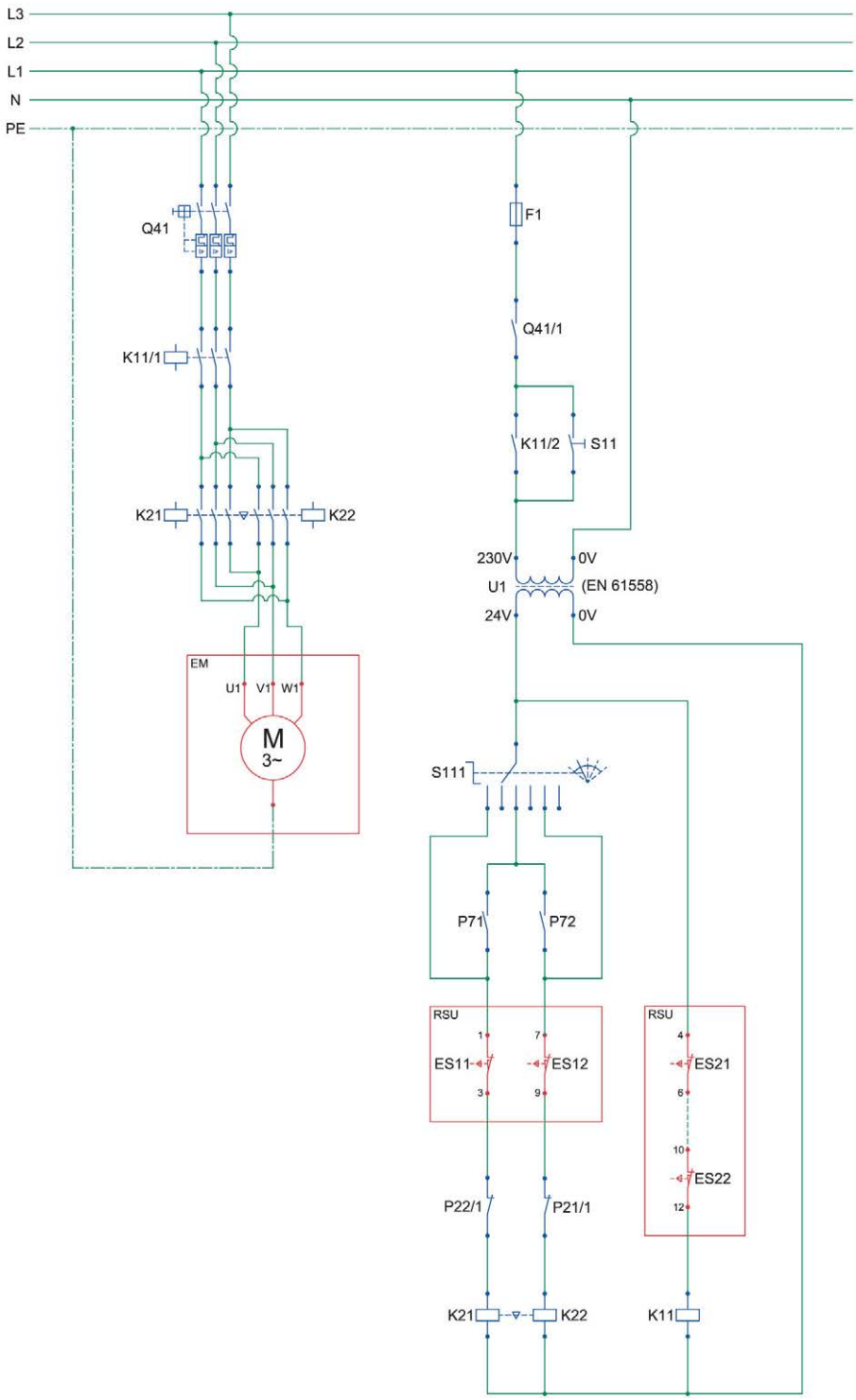
Conditions for connecting RW motor gearboxes

With the connection and control of Ridder RW motor gearboxes, the following conditions must be met:

- RW motor gearboxes with 1-phase electric motors may not be connected in parallel;
- When reversing the direction of rotation, a waiting time of approximately 2 seconds must be observed.



RW motor gearboxes, 3-phase



Wiring diagram for RW motor gearboxes with a 3-phase electric motor (type A, B, C).

To reverse direction of rotation of RW motor gearbox:

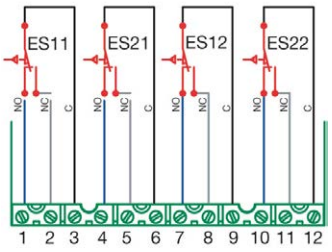
- Swap two phases on electric motor connection strip.

To reverse switching sense of RSU limit switch system:

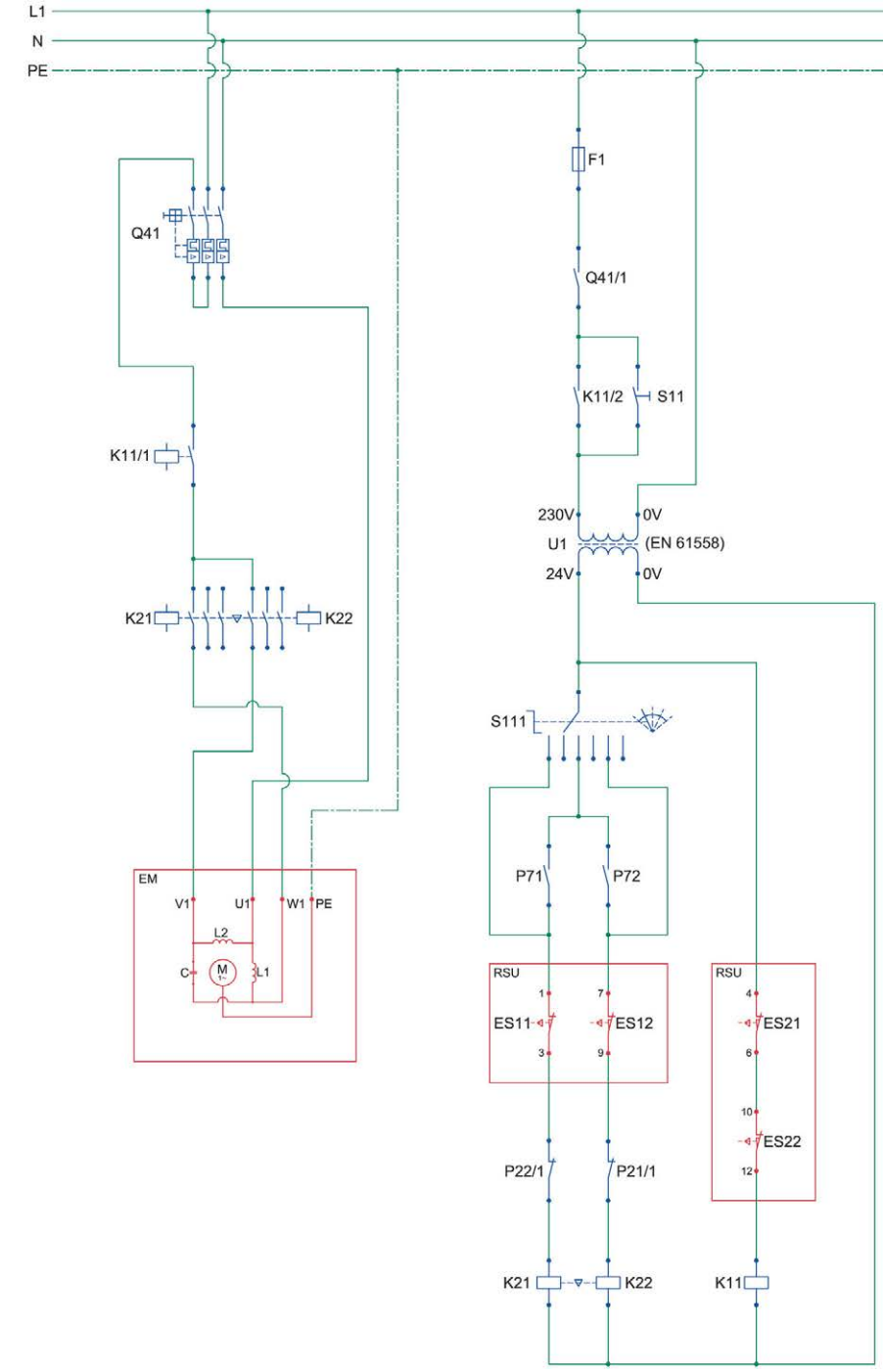
- Swap connections 1 and 7 in connector block of RSU limit switch.

Current (I) in the switching circuit:

- This must have a value between 45mA and 130mA (24 V-AC).



RW motor gearboxes, 1-phase (3-wire)



Wiring diagram for RW motor gearboxes with a 1-phase electric motor (3-wire, type D, F).

To reverse direction of rotation of RW motor gearbox:

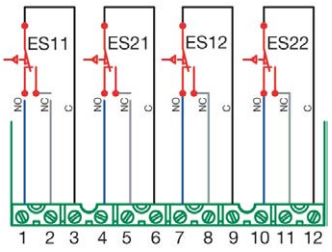
- Swap connections V1 and W1 on electric motor connection strip.

To reverse switching sense of RSU limit switch system:

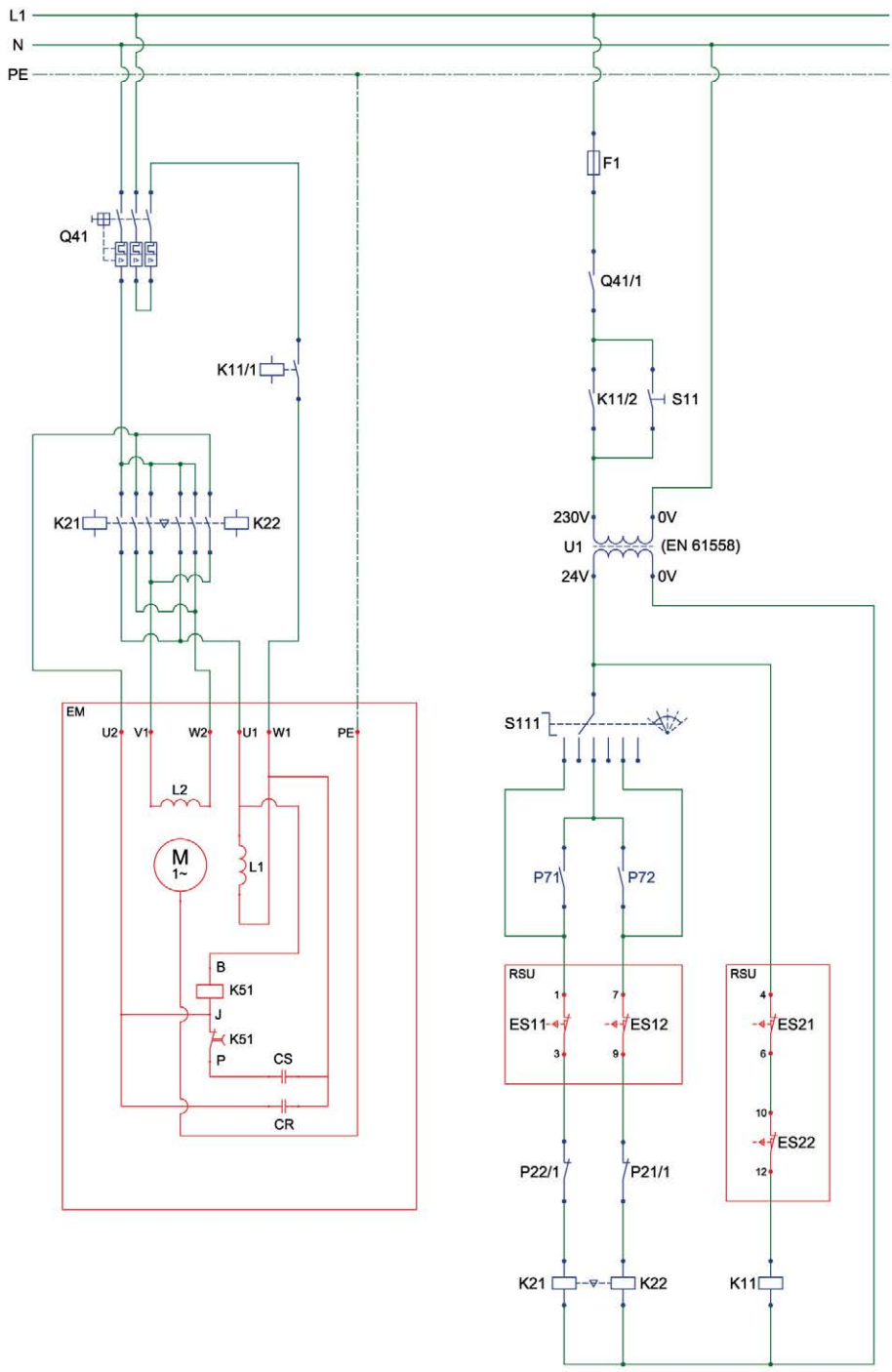
- Swap connections 1 and 7 in connector block of RSU limit switch.

Current (I) in the switching circuit:

- This must have a value between 45mA and 130mA (24 V-AC).



RW motor gearboxes, 1-phase (5-wire)



Wiring diagram for RW motor gearboxes with a 1-phase electric motor (5-wire, type E, G).

To reverse direction of rotation of RW motor gearbox:

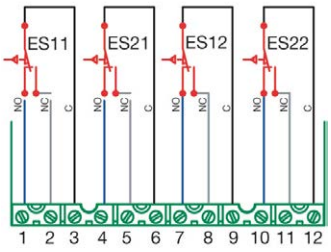
- Swap connections V1 and W2 on electric motor connection strip.

To reverse switching sense of RSU limit switch system:

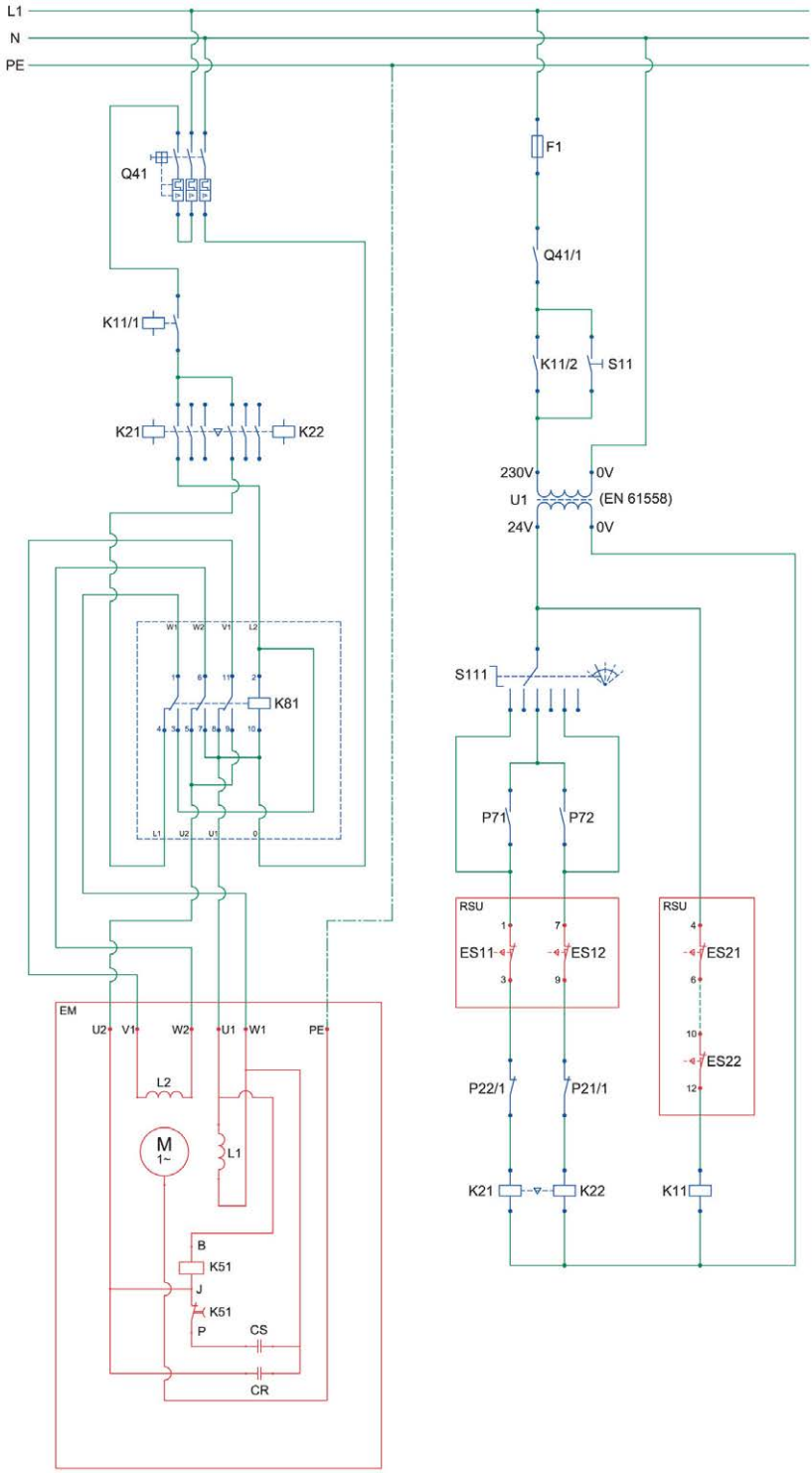
- Swap connections 1 and 7 in connector block of RSU limit switch.

Current (I) in the switching circuit:

- This must have a value between 45mA and 130mA (24 V-AC).



RW motor gearboxes, 1-phase (5-wire, alternative)



Wiring diagram for RW motor gearboxes with a 1-phase electric motor (5-wire, type E, G).

To reverse direction of rotation of RW motor gearbox:

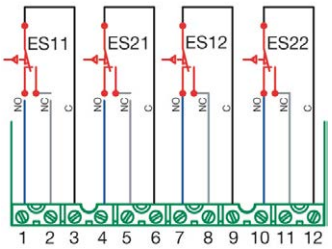
- Swap connections V1 and W2 on electric motor connection strip.

To reverse switching sense of RSU limit switch system:

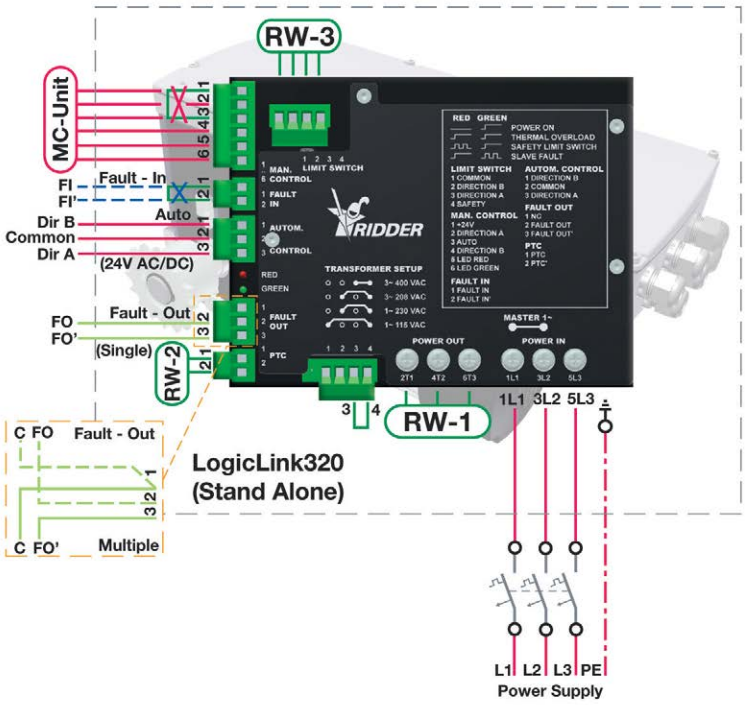
- Swap connections 1 and 7 in connector block of RSU limit switch.

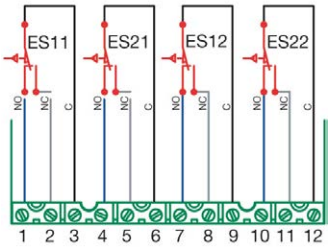
Current (I) in the switching circuit:

- This must have a value between 45mA and 130mA (24 V-AC).

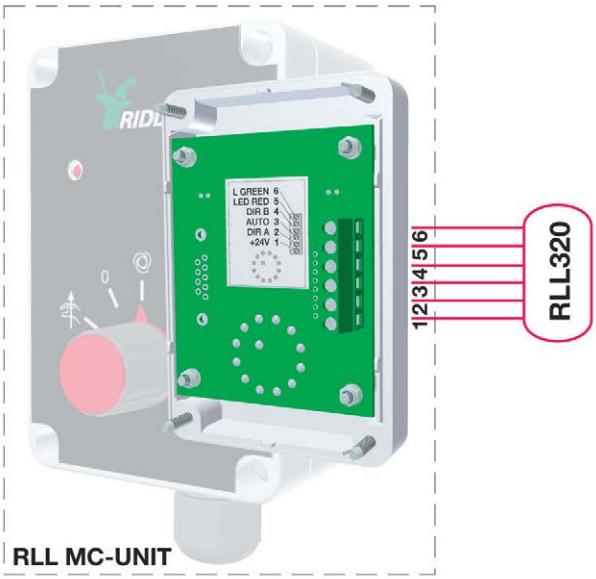


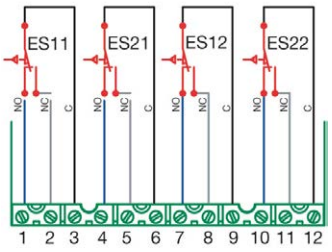
RW motor gearbox 3 phase - LogicLink320 - Stand Alone



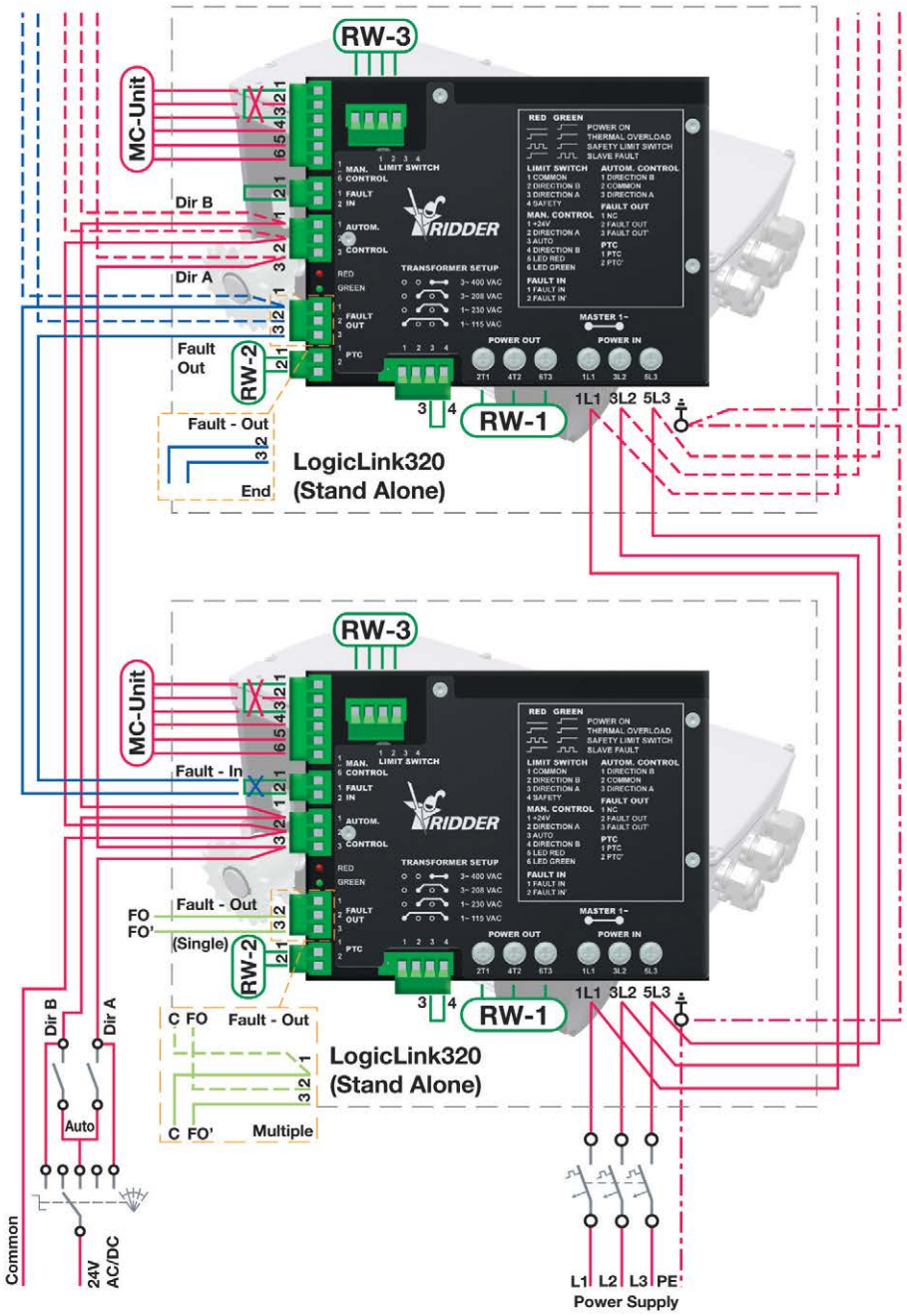


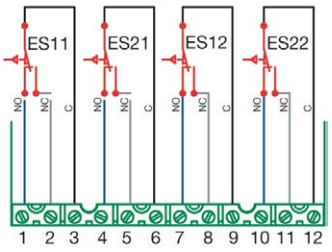
RW motor gearbox - LogicLink320 - MC Unit



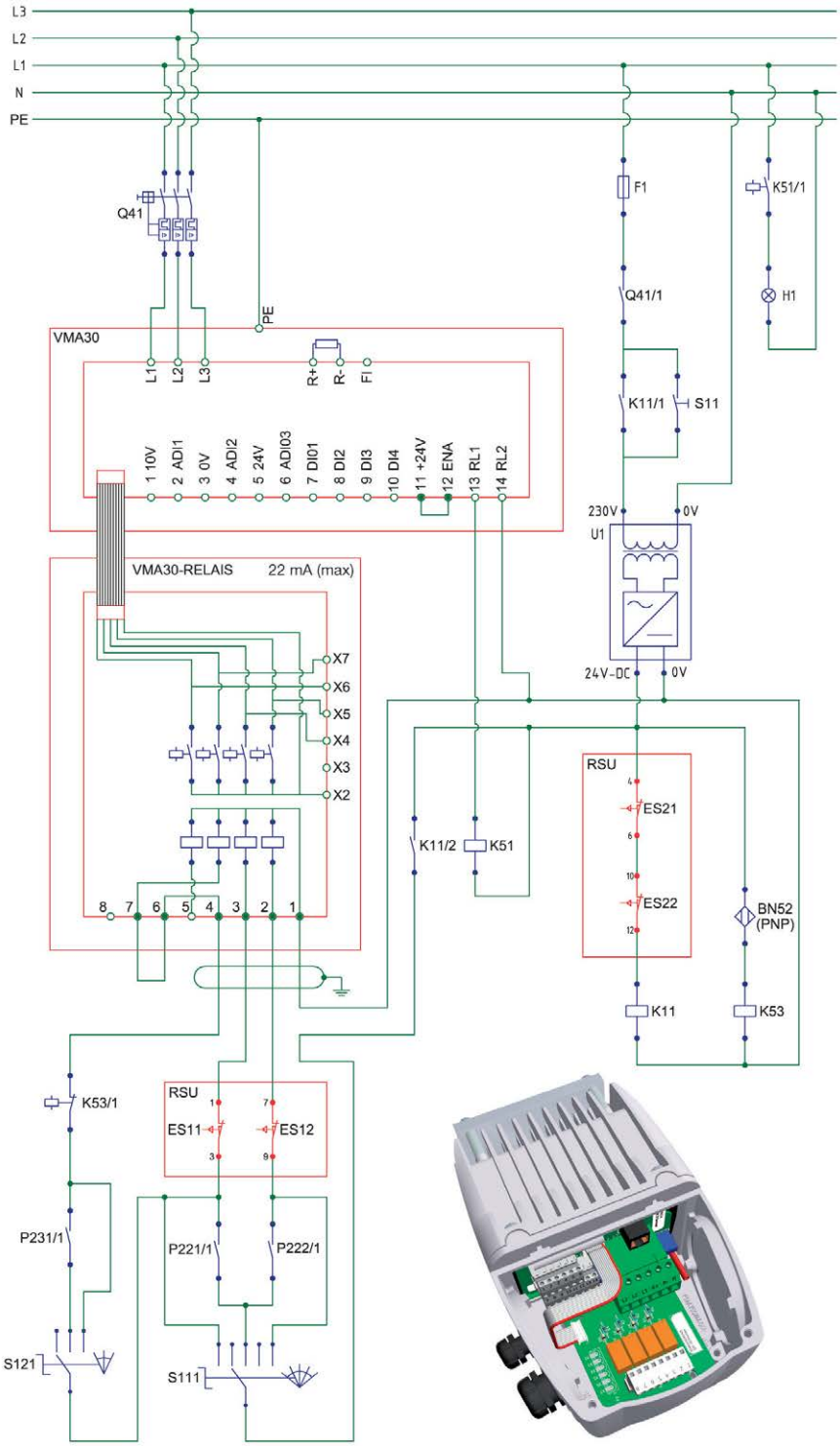


RW motor gearbox 3 phase - LogicLink320 - Common Control





RW-F motor gearboxes 3-phase (frequency controlled, ventilation)



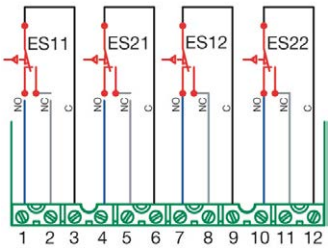
Wiring diagram for RW motor gearboxes with a 3-phase electric motor (frequency controlled, type I).

To reverse direction of rotation of RW motor gearbox:

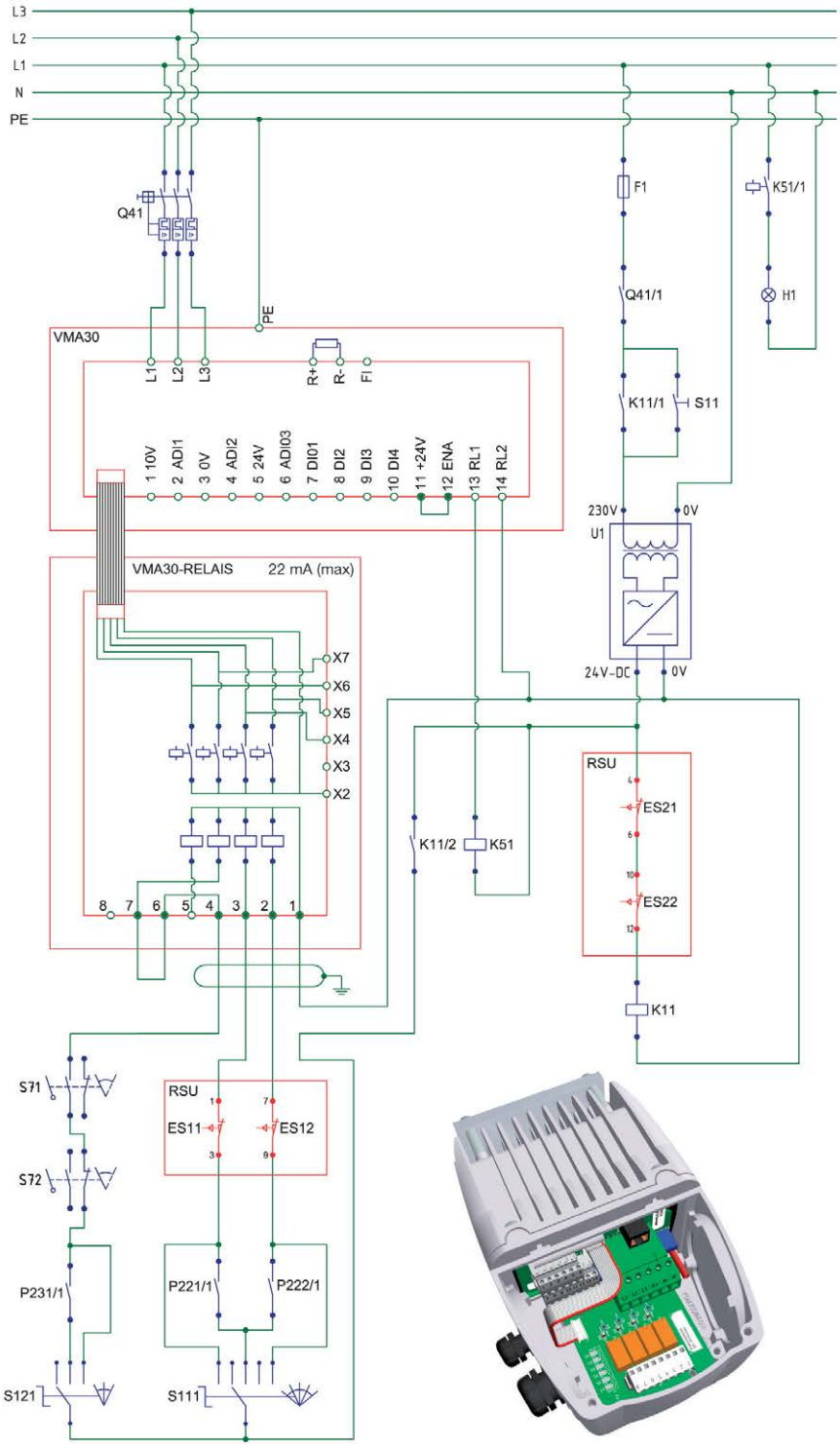
- Swap connections 2 and 3 in connector relais print.

To reverse switching sense of RSU limit switch system:

- Swap connections 1 and 7 in connector block of RSU limit switch.



RW-F motor gearboxes 3-phase (frequency controlled, screening)



Wiring diagram for the RW motor gearboxes with a 3-phase electric motor (frequency controlled, screening, type I).

Reverse rotational direction RW motor gearbox:

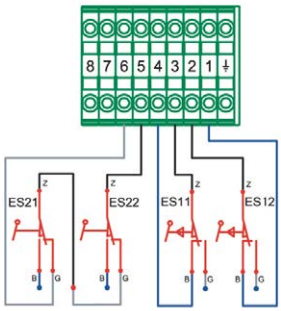
- Exchange connections 7 and 8 on clamping strip frequency regulator.

Reverse switch direction RSU limiting switch system:

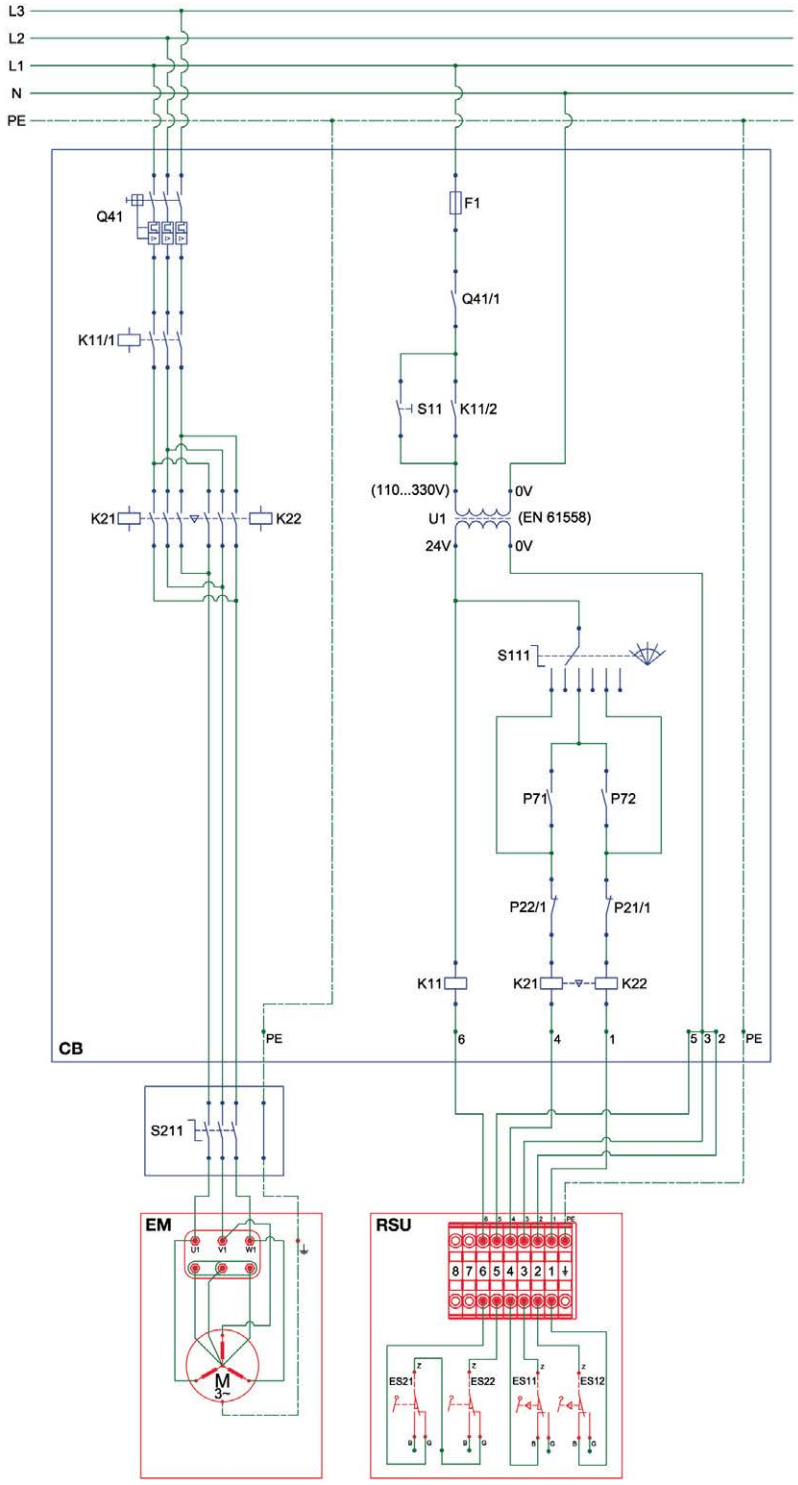
- Exchange connections 1 and 7 in connector block RSU end switch.

Current (I) in the switch circuit:

- These should show a value between 45mA and 130mA (24V-AC).



RPR PowerRoller 3-phase



Wiring diagram for RPR PowerRoller with a 3-phase electric motor (type A).

Reversing rotational direction RPR PowerRoller:

- Exchanging the two phases on the electric motor connection strip.

Reversing direction of limit switch system:

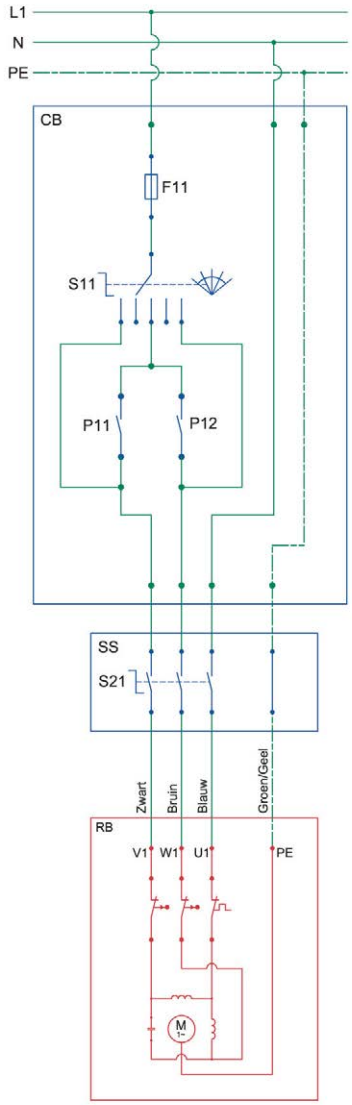
- Exchanging the connectors 1 and 7 in connector block for the RSU end switch.

Current strength (I) in the switch circuit:

- This should have a value between 45mA and 130mA (24V-AC).



RB50/120E^{plus} wiring diagram: Single

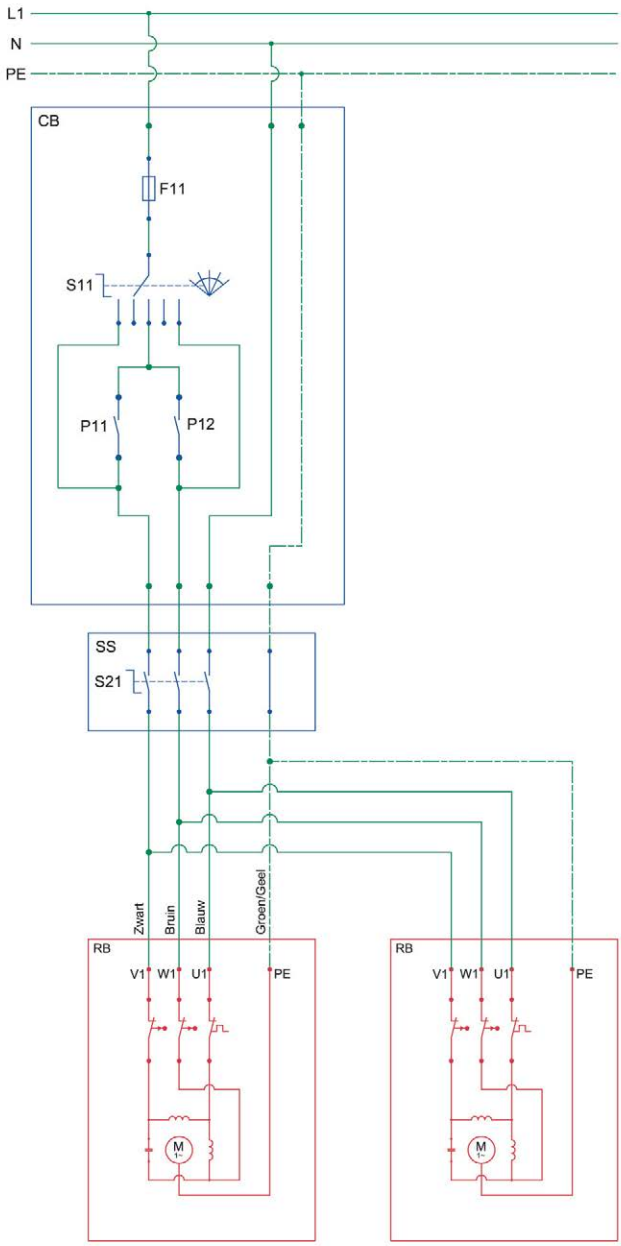


Wiring diagram for RB50/120E^{plus} tube motor (single).
The above schematics show how the wiring diagram for driving the RB50/120E^{plus} tube motor should be installed. The maximum switch contact load for the switch installations (relay controls, switches etc.) must be taken into account.

Reversing the direction of revolutions RB50/120E^{plus} tube motor:
- Exchange the two phase wires (black and brown).



RB50/120E^{plus} wiring diagram: Parallel

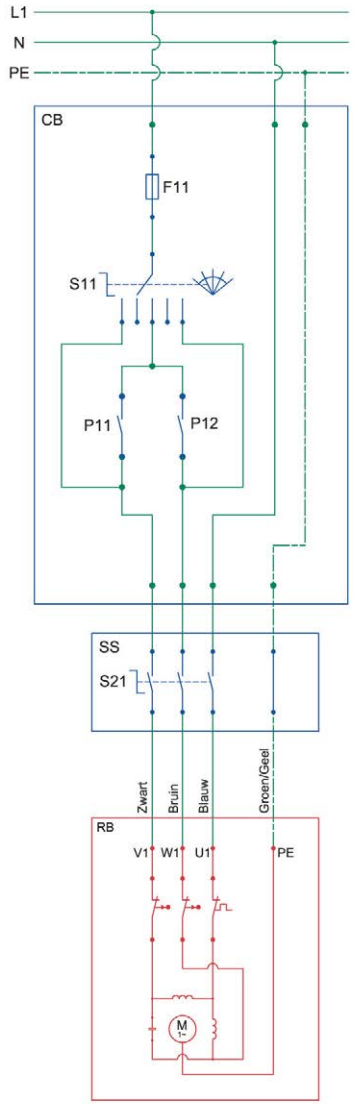


Wiring diagram for RB50/120E^{plus} tube motor (single).
The above schematics show how the wiring diagram for driving several, parallel- connected RB50/120E^{plus} tube motors should be installed. The maximum switch contact load of the switch installations (relay controls, switches etc.) must be taken into account.

Reversing the revolution direction of the RB50/120E^{plus} tube motor:
- Exchange the two phase wires (black and brown).



RB40/50/120 Tube motors: wiring diagram

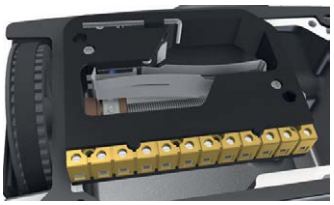


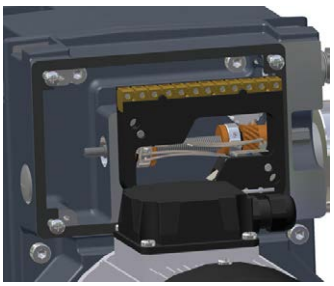
Wiring diagram RB40/50/120 tube motors.
The above diagrams show how the wiring diagram for driving the RB40/50/120 tube motor should be installed. The maximum switch contact load of the switch installations (relay controls, switches etc.) should be taken into account.

Reversing the direction of revolutions of the RB40/50/120 tube motor

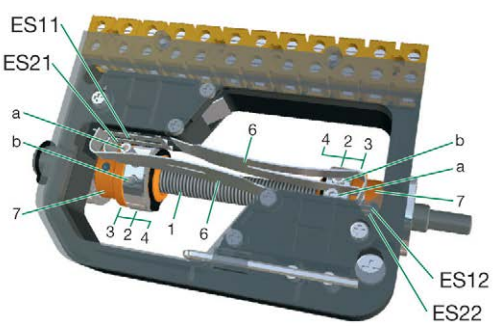
- Exchanging the two phase wires (black and brown).

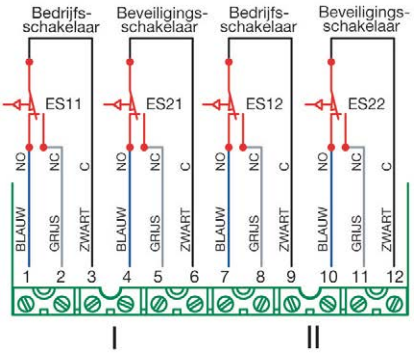
RB40/50/120 tube motors should not be connected in parallel





RSU Limit switch system: Settings





RSU limit switch system installation
The steps required in order to correctly set the RSU limit switch system of an RW motor gearbox, are described below.

Current and voltage range
The contacts in the switches of the Ridder RSU limit switch system, are capable of switching the following currents:

- 24 V-AC, currents from 45 mA to 130 mA;
- 230 V, currents up to 1 A.

Ridder RSU limit switch system
The Ridder RSU limit switch system is a linear switch system, specifically designed for use in the RW motor gearboxes. The limit switch system is driven by the output shaft of the motor gearbox, via a secondary transmission. Depending on the type of motor gearbox, a number of revolutions of the output shaft can be set, between a starting and ending position. Depending on the type of motor gearbox, this will be 55, 86, 97 or 860 revolutions of the output shaft.

Delivery
A Ridder motor gearbox with RSU limit switch system is delivered with switch followers (4) whose adjustment rings (3) still have to be fastened. This means that the drive can turn freely in both directions. This also avoids the possibility of causing damage to the limit switch system (when it has not yet been connected), should any (preset) limiting positions be exceeded during electrical or manual operation of the motor.

How it works
This transmission drives the threaded shaft (1) of the Ridder RSU limit switch system, either with a toothed belt, or with a worm and gear combination. When running, the threaded switch followers (4) will move along the threaded shaft as it rotates. One setscrew (a) rests against the switch spring (6). When an end position is reached, the switch follower will strike the stop (7) and will then rotate with the threaded shaft. This deflects the switch spring, and a duty switch (S11 or S12) will be tripped. This causes a signal that activates the relay, stopping the motor gearbox. Should a relay or duty switch fail, then a safety switch (ES21 or ES22) will also be tripped by the switch spring. This causes a signal that activates a safety relay, stopping the controller and also thereby the motor gearbox. This prevents consequential damage to the driven system.

Connection
When connecting the Ridder RSU limit switch system, please refer to the wiring diagrams provided for this purpose.

Setting

The "start position" and "end position" are set as follows:

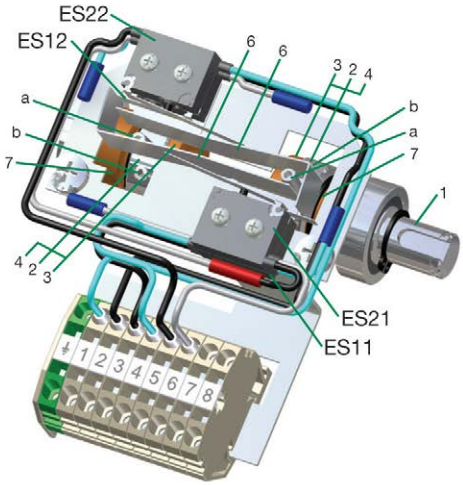
- By rotating the output shaft (manually or under power), bring the system to the "start position" or "end position" and determine which duty switch (ES11 or ES12) should be tripped. The switching sense of the RSU limit switch system can be reversed by swapping connections 1 and 7 in the connection block.
- Turn the milled bush (2) on the appropriate side, "hand tight" up to the stop (7). The milled bush can easily be screwed by hand along the threaded shaft (1). The switch follower (4) also moves along the threaded shaft.
- Now rotate the adjustment ring (3) over the milled nut just far enough to trip the duty switch.
- Then fasten the adjustment ring with setscrews (a and b) firmly on the milled nut. The adjustment ring can no longer be rotated over the milled nut.
- Repeat previous items to adjust the limit switch system for the opposite rotation direction.

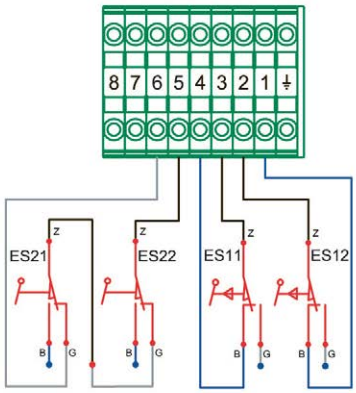
Caution

Take care: Once an RSU limit switch system has been set and the motor gearbox is operated manually, always make certain that the limiting positions set by the limit switch are never exceeded. This can seriously damage the limit switch system, such that the limit switch system no longer functions correctly!



Limit switch system RPR PowerRoller: Adjustment





Installation RPR PowerRoller limit switch system

How to adjust the limit switch system for a RPR PowerRoller is described in the steps shown below.

Current and voltage range

The contacts in the switches for the RPR PowerRoller limit switch system can be connected to the following currents:

- 24V-AC, currents 45 mA to 130 mA;
- 230V, currents to 1 A.

Limit switch system for RPR PowerRoller

The Ridder limit switch system for the RPR PowerRoller is a linear switch system. The limit switch system is driven by the output shaft of the RPR PowerRoller by means of a transmission. The number of revolutions of the output shaft can be adjusted between a 'start' and an 'end' position. The limit switch range of the RPR PowerRoller is maximum 43 revolutions per output shaft.

Delivery

The RPR PowerRoller limit switch system will not have been adjusted on delivery. The adjusting rings (3) can be moved freely round the milled nuts (2). This means that the range of the drive in both rotational directions is not limited and also prevents a switch system failure due to outside operation.

Operation

The main shaft for the RPR PowerRoller drives the threaded shaft/wire shaft (1) for the limit switch system via a gear system. When the threaded shaft/wire shaft is rotating, coupling nuts (4) move linearly along the threaded shaft/wire shaft. The friction between the threaded shaft/wire shaft and the coupling nut pushes the adjusting screw (a) lightly against one of the two coupling springs (which one it will be depends on th direction of rotation). When the coupling nut reaches the end of the threaded shaft/wire shaft, the linear movement of the coupling nut changes to a rotational movement (in the same direction as the threaded shaft/wire shaft). The adjusting screw (a) then pushes against the coupling ring so that it is displaced and thus operates a control switch (ES11 or ES12). The signal that is received operates a relay, and the PowerRoller stops. If the operating switch or the relay fail to work and the gearbox continues to run, the coupling ring will operate a safety switch (ES21 or ES22). The signal thus received controls a safety relay that disconnects the control and the PowerRoller itself. This prevents any damage to the system.

Connecting

It is recommended that the appropriate available electrical circuit is used to connect the limit switch system.

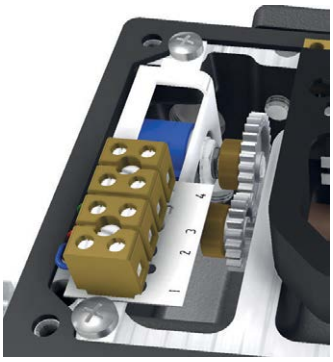
Adjusting

The end position is adjusted as follows:

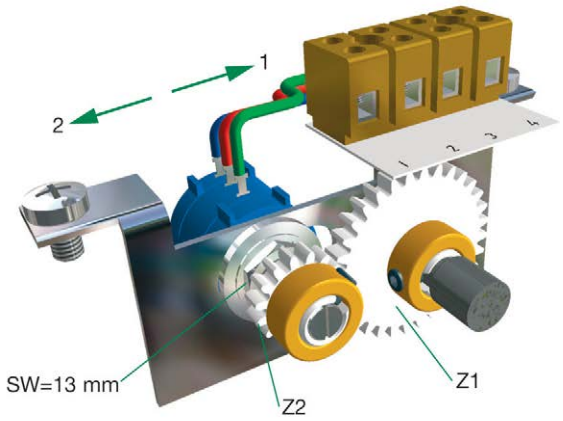
- Run the system to its end position (completely open or closed) by allowing the RPR PowerRoller to run and determine which control switch (ES11 or ES12) corresponds to the end position.
- The milled nut (2) is easy to rotate on the wire shaft (1). The coupling nut (4) then moves horizontally along the wire shaft. Turn the milled nut hand -tight on the corresponding side against the stop (7).
- Now rotate the adjusting ring (3) over the milled nut until the control switch just connects.
- Lock the adjusting ring in this position on the milled nut using adjusting screws (a) and (b). The adjusting ring can no longer be turned in relation to the milled nut.
- Repeat the above steps to adjust the opposite end position.

Warning

Ensure that the adjusted end positions are not exceeded by external operation. Exceeding the end positions that have already been set up will damage the limit switch system, which will then be unable to function properly.



Potentiometer installation set: Installation



Installation of potentiometer
The steps to be taken before and during the installation of a potentiometer in a Ridder RW motor gearbox are described below.

Connecting the potentiometer
For transfer of the potentiometer signal, a (shielded) signal cable must be connected in the connection strip of the potentiometer installation set. Make certain that the signal cable is connected at one end only (either at the connection to the control computer, or at the RW motor gearbox).

Before installing the potentiometer installation set
- Determine the number of revolutions of the output shaft of the RW motor gearbox, between open and closed.
- Find a value in the table for the number of revolutions, that is equal to or greater than the number of revolutions counted. Using this information, determine which gearwheel should be used on the threaded shaft (z1) and the potentiometer shaft (z2). For best possible functioning of the potentiometer, the tables have been compiled such that 90% of the total rotation range of the potentiometer is used.

Fitting and adjusting potentiometer installation set
- Send the driven system to the start or end position, using the RW motor gearbox controls. Note the direction of rotation of the threaded shaft of the RSU limit switch system.
- Switch off the power.
- Remove the limit switch cover from the RW motor gearbox.
- Mount the potentiometer loosely in the potentiometer bracket and attach the leads to the connector strip.
- Assemble both gearwheels in the potentiometer, with the setscrew in the keyway of the gearwheel, on the journal of the threaded shaft, and on the potentiometer shaft.
- Turn the potentiometer shaft in the opposite direction (to the direction of rotation of the threaded shaft) up to its stop. Now rotate the potentiometer a quarter to a half turn away from the stop.
- Mount the bracket in the RW motor gearbox, using the acompanying scews, making the gearwheels mesh together by shifting the potentiometer as necessary. When tightening the screws slide the bracket in the direction of arrow 1.
- Press the potentiometer gearwheels together and tighten the locknut (SW13) of the potentiometer. The potentiometer must not be allowed to rotate at this point.
- Loosen the fastening screws of the bracket a little, then slide the bracket in the direction shown by arrow 2. This will create the necessary play in the teeth between the gearwheels: these may not be too tightly intermeshed, as this will cause early failure of the potentiometer.
- Replace the limit switch cover on the RW motor gearbox.

The installation and adjustment of the potentiometer is nw complete.



Potentiometer table: RW45 motor gearboxes (i=1.8)

The table below can be used to select potentiometer gearwheels for use when fitting a potentiometer installation set in a RW45 motor gearbox. The table shows the maximum number of revolutions of the drive shaft of the RW motor gearbox.
A range of 9 revolutions of the potentiometer has been chosen for maximum precision and sufficient reserve rotations when using a potentiometer.
If the desired number of revolutions falls below the minimum value given, a 5-turn potentiometer may be used. In that case, the values in the table that give the maximum number of revolutions of the drive, should be divided by 2.

RW - i=1,8 PM - 10		Z2									
		14	15	18	20	24	25	30	32	36	40
Z1	8						50,6	60,8	64,8	72,9	81
	14				23,1	27,8	28,9	34,7	37,1	41,7	46,3
	15			19,4	21,6	25,9	27	32,4	34,6	38,9	43,2
	18		13,5		18	21,6	22,5	27	28,8	32,4	
	20	11,3	12,1	14,6		19,4	20,3	24,3	25,9		
	24	9,5	10,1	12,2	13,5		16,9	20,3			
	25	9,1	9,7	11,7	13	15,6	16,2	19,4			
	30	7,6	8,1	9,7	10,8	13	13,5				
	32	7,1	7,6	9,1	10,1						
	36	6,3	6,8	8,1							
	40	5,7	6,1								



Potentiometer table: RW240/400/600 motor gearboxes (i=1.6)

The table below can be used to select potentiometer gearwheels for use when fitting a potentiometer installation set in a RW240(F/L/TRA), RW400(F/L) or RW600(F) motor gearbox. The table shows the maximum number of revolutions of the drive shaft of the RW motor gearbox.
A range of 9 revolutions of the potentiometer has been chosen for maximum precision and sufficient reserve rotations when using a potentiometer.
If the desired number of revolutions falls below the minimum value given, a 5-turn potentiometer may be used. In that case, the values in the table that give the maximum number of revolutions of the drive, should be divided by 2.

RW - i=1,6 PM - 10		Z2									
		14	15	18	20	24	25	30	32	36	40
Z1	8						45	54	57,6	64,8	72
	14				20,5	24,6	25,7	30,8	32,9	37	41,1
	15			17,3	19,2	23	24	28,8	30,7	34,5	38,4
	18		12		16	19,2	20	24	25,6	28,8	
	20	10,1	10,8	13		17,3	18	21,6	23		
	24	8,4	9	10,8	12		15	18			
	25	8,1	8,6	10,4	11,5	13,8	14,4	17,3			
	30	6,7	7,2	8,6	9,6	11,5	12				
	32	6,3	6,8	8,1	9						
	36	5,6	6	7,2							
	40	5	5,4								



Potentiometer table: RW800 motor gearboxes (i=2.81)

Use the following table to select the required number of potentiometer gearwheels when using a potentiometer installation set in an RW800(F) motor gearbox. The table shows the maximum number of revolutions of the drive shaft of the RW motor gearbox.
A range of 9 revolutions of the potentiometer has been chosen for maximum precision and sufficient reserve rotations.
A 5-turn potentiometer can be used if the required number of revolutions falls below the minimum specified value. In that case, the values in the table that give the maximum number of revolutions of the drive should be divided by 2.

RW - i=2,81 PM - 10		Z2									
		14	15	18	20	24	25	30	32	36	40
Z1	8						79	94,8	101,2	113,8	
	14				36,1	43,4	45,2	54,2	57,8	65	72,3
	15			30,3	33,7	40,5	42,2	50,6	54	60,7	67,4
	18		21,1		28,1	33,7	35,1	42,2	45	50,6	
	20	17,7	19	22,8		30,3	31,6	37,9	40,5		
	24	14,8	15,8	19	21,1		26,3	31,6			
	25	14,2	15,2	18,2	20,2	24,3	25,3	30,3			
	30	11,8	12,6	15,2	16,9	20,2	21,1				
	32	11,1	11,9	14,2	15,8						
	36	9,8	10,5	12,6							
	40	8,9	9,5								



Potentiometer table: RW1000/1400 motor gearboxes (i=2)

The following table can be used to select the correct potentiometer gear wheel, by using the potentiometer installation set in a RW1000 or RW1400(F) motor gearbox. The table shows the maximum number of drive shaft revolutions of the RW motor gearbox.
A potentiometer range of 9omw has been selected for maximum precision and for sufficient rotation reserves when using the potentiometer.
A 5-stroke potentiometer can be used if the required number of revolutions falls below the minimum specified value. In this case, the table values showing the maximum number of revolutions of the drive shaft should be divided by 2.

RW - i=2 PM - 10		Z2									
		14	15	18	20	24	25	30	32	36	40
Z1	8						56,3	67,5	72	81	
	14				25,7	30,9	32,1	38,6	41,1	46,3	51,4
	15			21,6	24	28,8	30	36	38,4	43,2	48
	18		15		20	24	25	30	32	36	
	20	12,6	13,5	16,2		21,6	22,5	27	28,8		
	24	10,5	11,3	13,5	15		18,8	22,5			
	25	10,1	10,8	13	14,4	17,3	18	21,6			
	30	8,4	9	10,8	12	14,4	15				
	32	7,9	8,4	10,1	11,3						
	36	7	7,5	9							
	40	6,3	6,8								



Potentiometer table: RW200-34 motor gearboxes (i=860)

The table below can be used to select potentiometer gearwheels for use when fitting a potentiometer installation set in a RW70/100/140/200-34/68 motor gearbox (i=860). The table shows the maximum number of revolutions of the drive shaft of the RW motor gearbox.
A range of 9 revolutions of the potentiometer has been chosen for maximum precision and sufficient reserve rotations when using a potentiometer.
If the desired number of revolutions falls below the minimum value given, a 5-turn potentiometer may be used. In that case, the values in the table that give the maximum number of revolutions of the drive, should be divided by 2.

RW - i=860 PM - 10()		Z2									
		14	15	18	20	24	25	30	32	36	40
Z1	8						563	675	720	810	
	14				257	309	321	386	411	463	514
	15			216	240	288	300	360	384	432	480
	18		150		200	240	250	300	320	360	
	20	126	135	162		216	225	270	288		
	24	105	113	135	150		188	225			
	25	101	108	130	144	173	180	216			
	30	84	90	108	120	144	150				
	32	79	84	101	113						
	36	70	75	90							
	40	63	68								



Maintenance of RW motor gearboxes

Maintenance RW45
Regularly check your motor gearbox for operation performance and possible grease leakage. Inform your installer in case of grease leakage.

Maintenance RW240/400/600 – RW800 – RW1000/1200/1400/1600 – RW70/100/140/200
Regularly check your motor gearbox for operation performance and possible oil leakage. Inform your installer in case of oil leakage.
Beware: When mounting place the vent plug in the highest position possible!

Lubricant RW
- RW45 – Ridder SPH grease – 0,9 kg
- RW240/400/600 – Ridder EPX oil – 1,15 liter
- RW800 – Ridder EPX oil – 2,0 liter
- RW1000/1400 – Ridder EPX oil – 1,5 liter
- RW1200/1600S – Ridder EPX oil – 1,5 liter
- RW70/100/140/200 – Ridder EPX oil – 1,1 liter



Maintenance of W240/400/600 worm gearboxes

Maintenance W240/400/600
Regularly check your worm gear box for operation performance and possible oil leakage. Inform your installer in case of oil leakage.
Beware: When mounting place the vent plug in the highest position possible!

Lubricant W240/400/600
- W240/400/600 – Ridder EPX oil – 0,3 liter



Maintenance of TRN rack drives







Maintenance TRN
Check for functioning every 6 months; lubricate if necessary.

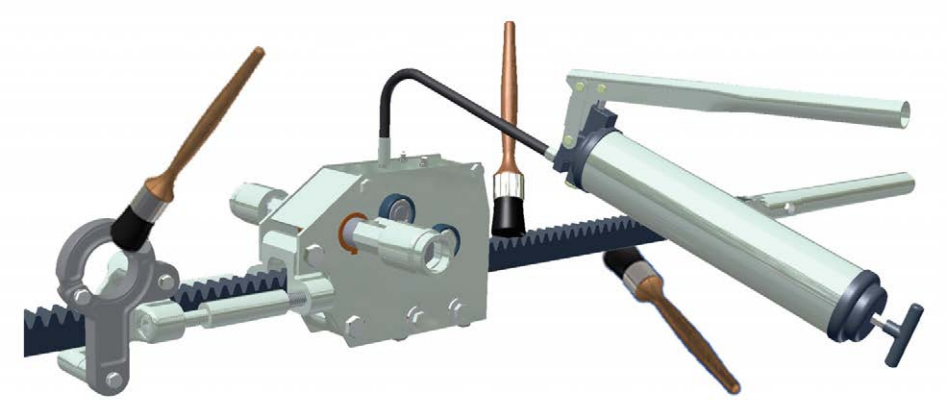
Lubricate
- Lubricate house unit with grease pump (ca. 5 strokes).
- Lubricate rack with brush (teeth, sides, back).

Installation TRN
Lubricate (bearing and) rack (teeth, sides, back) during installation!

Lubricant TRN
Ridder LMX Grease



Maintenance RackDrive700 rack drives



Maintenance RackDrive700
Every 6 months inspection of system and rack drives on technical state and proper functioning. With this the RackDrive700 and rack have to be greased (teeth, both sides, back, bearing).

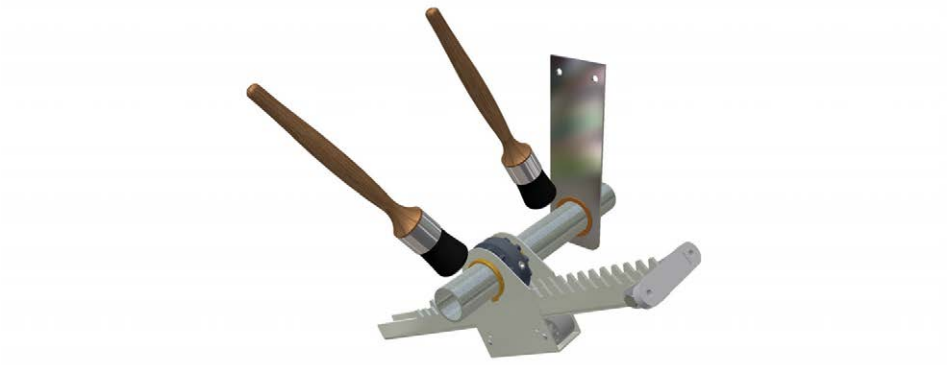
Method
- Grease rack drive unit with grease gun (about 5 strokes per grease nipple).
- Grease rack all around with brush (teeth, both sides, back!).
- Grease bearing drive shaft opposite drive system.

Installation RackDrive700
After mounting the RackDrive700 rack drive unit and rack (teeth, sides, back) and bearing must be greased!

Lubricant RackDrive700
Ridder LMX Grease



Maintenance of TU rack drives



Maintenance TU5/11/45
Check for functioning every 6 months; lubricate if necessary.

Lubricate TU5/11/45
- Lubricate TU5/11/45 house unit and bearing plates with grease (brush / spray).
- Lubrication of sheet steel racks is **not** necessary.

Installation TU5/11/45
- At mounting lubricate bearings of house unit and bearing plates with grease (brush / spray).
- Lubrication of sheet steel racks is **not** necessary.

Lubricant TU5/11/45 and bearing plates
Ridder AXT Grease

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General Terms and Conditions of sale and delivery

Ridder Drive Systems
Lorentzstraat 36-38
3846 AX Harderwijk

Article 1: Applicability

1.1 All offers, agreements and subsequent deliveries by Ridder Drive Systems (hereinafter "Ridder") are subject to these terms and conditions.

1.2 Any other terms and conditions including any terms and conditions used by the client shall not apply.

1.3 Deviations from these conditions are only binding if and insofar as expressly agreed in writing. The client cannot derive any rights from any agreed deviations for future transactions.

1.4 In the event of contradictions between the contents of the agreement between the client and Ridder and these general terms and conditions, the terms of the agreement shall apply.

1.5 'Written' in these conditions means: by letter, fax or electronically.

1.6 To the extent these conditions are also available in a language other than Dutch, the Dutch text shall always prevail.

Article 2: Offers and formation of an agreement

2.1 All offers are without obligation, even if the offer includes a deadline for acceptance.

2.2 If the client provides Ridder with data, drawings, etc., then Ridder may assume these are accurate and shall base its offer thereupon.

2.3 If the offer is not accepted, Ridder has the right to charge the client for all costs incurred in making the offer.

2.4 An agreement is only binding for Ridder after it has been confirmed in writing by Ridder. This also applies in respect to the orders already accepted by representatives or agents on behalf of Ridder and in respect to verbal promises made by representatives or agents on behalf of Ridder.

2.5 If payment by letter of credit is agreed upon, the agreement will only be established after written acceptance of the irrevocable (confirmed) letter of credit by Ridder.

Article 3: Prices

3.1 The prices named in the offer are in euros and are based on 'Free Carrier, Harderwijk, Netherlands' (FCA, Incoterms 2010). Prices are exclusive packaging, VAT, import duties and other taxes, duties or dues. For selected clients within the Benelux, prices are based on 'Delivered at Place, agreed destination (DAP, Incoterms 2010).

3.2 Each price specified by Ridder is based on cost factors such as the current monetary conditions, labour, raw materials and material prices, duties, taxes and other levies, subsidies and such that are applicable at the time the agreement was concluded. If one or more of these cost factors increase after the agreement has been concluded, but before the goods in question are delivered, Ridder has the right to charge any reasonable price increase to the client.

3.3 The client is required to pay the price increase as provided in paragraph 2, simultaneously with the payment of the principal or when the next instalment is paid.

Article 4: Intellectual property

4.1 Unless otherwise agreed in writing, Ridder retains the copyright and all intellectual property rights for its offers, all designs, illustrations, drawings, models or test models, software etc..

4.2 The rights applicable to the information referred to in paragraph 1 shall remain the property of Ridder whether or not the client has been charged for their production costs. Without prior written consent by Ridder, this information may not be copied, used or shown to third parties. In the event of an infringement of this condition, the client shall pay Ridder a fine of € 25,000 per occurrence. This penalty can be demanded in addition to compensation under the law.

4.3 The client must return all data referred to in paragraph 1 at the first request within the period prescribed by Ridder. In the event of an infringement of this condition, the client shall pay Ridder a fine of € 1,000 per day. This penalty can be demanded in addition to compensation under the law.

4.4 Ridder retains all intellectual property rights with respect to the goods supplied by Ridder. The client is not permitted to change or put another brand name on the delivered order or part thereof, to use the respective brand in a different manner or to register it in their own name.

Article 5: Advice, designs and materials

5.1 The client cannot derive any rights from advice and information he receives from Ridder if they are not directly related to the order.

5.2 The client is responsible for drawings, calculations and designs made by him or on behalf of him for the functional suitability of the materials prescribed by him or on behalf of him and for the technical information provided by him or on behalf of him.

5.3 The client shall indemnify Ridder of any claim by third parties relating to the use of drawings, calculations, designs, materials, samples, models, etc. made by or on behalf of client.

Article 6: Delivery

6.1 The delivery date is approximated by Ridder and should never be considered a deadline. Ridder is not in default in respect to the delivery date until it has been given a notice of default by the client in writing, the client has given Ridder the opportunity to yet make the delivery within a reasonable time and Ridder has failed to do this.

6.2 When determining the delivery date, Ridder assumes that it can execute the order under the circumstances that are known at that time.

6.3 The delivery period shall start only from the time the applicable agreement has been reached in accordance with Article 2 and when all commercial and technical details, all necessary data, final approved drawings etc. are in possession of Ridder, the agreed payment or instalment has been received and the necessary conditions for the execution of the order are met.

6.4 a. If there are other circumstances than those that were known to Ridder when determining the delivery date, Ridder may extend the delivery date by the time required to carry out the order under these circumstances. If the work does not fit into the schedule of Ridder, it shall be carried out as soon as Ridder's schedule permits.

b. If there is a suspension of obligations by Ridder, the delivery date shall be extended by the duration of the suspension. If continuation of the work does not fit into the schedule of Ridder, the work shall be carried out when the schedule permits.

6.5 Only in the event of excessive overrun (more than 6 weeks) of the agreed delivery time does the client have the right to terminate the agreement, unless the delay is caused by force majeure. The client, however, is never entitled to any fines or damages.

6.6 Ridder reserves the right to deliver goods in installments, in which case the (payment) conditions as described below also apply to any partial delivery.

6.7 No payment or the untimely fulfilment of any payment by the client shall suspend the delivery obligation of Ridder.

6.8 Unless otherwise agreed in writing, deliveries shall take place based on 'Free Carrier', Harderwijk, The Netherlands (FCA, Incoterms 2010). Deliveries to selected clients in the Benelux countries shall take place based on 'Delivered at Place, agreed destination (DAP, Incoterms 2010).

Article 7: Force Majeure

7.1 Ridder has the right to suspend the fulfilment of its obligations under an agreement if it is hindered to fulfil these due to force majeure.

7.2 Force majeure for the purposes of this article means conditions that reasonable, impede delivery and/ or timely delivery by Ridder, for example including but not limited to suppliers and/or subcontractors of Ridder failing to meet their obligations or not meeting them in time, the weather, machine failure, earthquakes, fire, loss or theft of tools, loss of materials to be processed, road blocks, strikes or work stoppages and import or trade restrictions.

7.3 If Ridder has already partially fulfilled its obligations or can only partially meet its obligations at the time of the force majeure, it is entitled to invoice the already delivered or the deliverable part separately, and the client is required to pay this invoice as if it were a separate agreement. Ridder also has the right to change the content of the agreement in such a way that its implementation seems possible.

7.4 If the force majeure has lasted longer than six months, both Ridder and the client have the right to terminate the contract (and only for that portion of the obligations that have not yet been met) by rescinding it. In that case, the client is not entitled to any compensation.

Article 8: Liability

8.1 Unless there is intent or gross negligence by Ridder, and subject to the legal liability under mandatory provisions, Ridder is never liable for any damages suffered by the client. Liability for indirect, consequential, punitive, or consequential loss is expressly excluded.

8.2 Despite the above-mentioned, if and insofar Ridder is liable, on any grounds whatsoever, this liability is limited to the amount equal to the net invoice value of the respective goods. A series of related damage events shall for the purposes of this article be considered as one event/incident.

8.3 The client shall indemnify Ridder in respect of all damages suffered by Ridder as a result of any damage claims from third parties as a result of breach by Ridder of patents and/or other intellectual property rights arising from use of data, drawings, instructions related to the methods to be used, etc. provided by the client.

8.4 The client shall indemnify Ridder against all third party claims due to product liability as a result of a defect in a product delivered by the client to a third party and that consisted or partly consisted of goods and/or materials delivered by Ridder.

Article 9: Warranty

9.1 Ridder is responsible for material and construction defects for a period of twelve months after the invoice date.

9.2 If a complaint is filed in a timely manner and is acknowledged by Ridder, then Ridder, at its discretion, shall only be required to provide the missing product or repair it, or replace the product or take the product back, and crediting the client for the respective invoice amount, whereby transportation costs for the return are borne by Ridder. In no event is Ridder required to pay other costs and/or damages. If the complaint is not acknowledged by Ridder, the shipping costs for the return of the products are borne by the client.

9.3 After repair or replacement, the original warranty period shall continue; No new warranty period will commence, unless otherwise agreed in writing.
The standard warranty conditions and period shall apply to the repair itself and the replaced parts. Every part that becomes available as a result of replacement will remain/become the property of Ridder.

9.4 The client must in all cases provide Ridder with the opportunity to repair the defect.

9.5 Return of purchased goods is only permitted after prior written consent by Ridder. Each return must include a return packing slip.

9.6 The client may only invoke a warranty after he has met all obligations in respect of Ridder.

9.7 a. No warranty is given if defects are the result of:
- Normal wear and tear;- Improper use;
- Lack or incorrect maintenance;
- Use that is not in accordance with the instructions and user manual;
- Installation, assembly, modification or repair by client or by third parties.

b. No warranty is given for delivered products that were not new at the time of delivery or products that are prescribed by the client or that are supplied by him or on his behalf;

c. No warranty is given on inspections and/or repair of products by the client.

Article 10: Complaints

10.1 If the goods supplied by Ridder visibly do not meet the terms of the agreement, the client must notify Ridder of this in writing within 10 working days after receipt of the goods. In the event of invisible defects, the client must notify Ridder of this in writing within 10 days after discovery or after discovery could reasonably have taken place.

10.2 The client must allow Ridder to have the products inspected by an employee of Ridder or a third party engaged by Ridder. In the event of confirmation of the claim, the cost of this inspection (including travel and lodging expenses) shall be borne by Ridder. In the event of dismissal, these costs shall be borne by the client.

10.3 Complaints about invoices must also be submitted in writing, within 8 days after the invoice date.

10.4 By submitting a complaint, the payment obligation of the client shall not be suspended, unless Ridder expressly agrees to such suspension.

Article 11: Uncollected goods

11.1 If after the expiry of the delivery date, the goods have not been collected, they shall remain available to the client. Uncollected goods shall be stored at the expense and risk of the client. In that case, the client shall owe all additional costs, including in each case the storage costs. Ridder also has the right to terminate the agreement without notice and without judicial intervention without prejudice to its right to claim full reimbursement of costs incurred and/or damages (including any capital loss).

11.2 Ridder may always use the authority under Article 6:90 BW.

Article 12: Payment

12.1 Ridder is at all times authorised to negotiate full or partial payment with the client. Regarding all other sales, payment of the invoice without deduction, suspension, payment reduction or setoff shall explicitly be made no later than on the due date mentioned on the invoice at the office of Ridder or by deposit or bank transfer to the bank account designated on the invoice.

12.2 Notwithstanding the agreed payment terms, the client is obligated, at the request of Ridder, at or after the conclusion of the contract and before delivery, to provide sufficient security for payment. If the client fails to meet this obligation within time specified, he shall be in default. In that case, Ridder has the right to suspend the contract and ultimately to terminate it without notice or judicial intervention and charge the client for its damages.

12.3 The right of the client to settle his claims against Ridder is excluded.

12.4 The full claim for payment is due immediately if:
a. a payment term has been exceeded;
b. client is bankrupt or applies for a moratorium;
c. property or assets of the client are seized;
d. client (company) is dissolved or liquidated;
e. client (natural person) makes a request to be admitted to judicial debt, is placed under guardianship or dies.

12.5 If payment has not been made within the agreed payment terms, the client is deemed to be in default without notice or judicial intervention and the client shall immediately owe interest to Ridder. The interest rate is 12% per year, but is equal to the statutory rate if higher. In calculating the interest, a partial month is considered a full month.

12.6 If payment has not been made within the agreed payment terms, the client shall owe Ridder all extrajudicial costs of a minimum of € 75, =.

The costs are calculated based on the following table:
15 % over the first € 3,000
10 % over the excess of € 6,000
8 % over the excess of € 15,000
5 % over the excess up to € 60,000
3 % over the excess of € 60,000

If the actual extrajudicial costs exceed those in the table above, the actual costs will be owed.

12.7 If court proceedings are in favour of Ridder, all costs incurred in connection with those proceedings shall be borne by the client.

Article 13: Ownership and Pledge

13.1 After delivery, Ridder shall remain owner of delivered goods as long as the client:
a. fails or shall fail to meet its (payment) obligations under this agreement or other similar agreements;
b. does not pay or shall not pay for work performed or to be performed under such agreements;
c. has not fulfilled claims arising from the breach of those agreements, such as damage, penalties, interest and costs.

13.2 As long as there is a retention of ownership on the delivered goods, the client has no right to transfer the ownership to third parties, or offer the goods as collateral, to encumber them, to grant limited rights or to pledge or make them available to a third party in any other manner. Nevertheless, the client shall be entitled to sell these goods in the ordinary course of business.

13.3 After Ridder has invoked retention of ownership, it may take delivered goods back. The client shall allow Ridder to enter the place where the goods are located.

13.4 On the first request of Ridder, the client shall pledge to Ridder all claims of the client with respect to goods provided by Ridder that fall under the ownership retention and have been sold to customers of the client.

13.5 If Ridder cannot invoke its retention or ownership because the delivered goods have been mingled, distorted or verified, the client is required to pledge the newly formed goods to Ridder.

Article 14: Cancellation

14.1 Cancellation of an order by the client is in principle not possible. If a client nevertheless does cancel all or part of an order, due to whatever reason, he is required to compensate Ridder for all reasonably incurred costs in view of the execution of the contract (including costs of preparation, storage, etc.), notwithstanding the right of Ridder for compensation of lost profits and other damages. Furthermore, the client shall be obligated to compensate for the costs arising from the cancellation and any currency differences if Ridder, in connection with the contract, has concluded a currency agreement with a bank or another third party.

14.2 In the event of cancellation, the client shall also owe a cancellation fee. This is 25% of the principal sum with a minimum of € 25, - plus VAT.

14.3 Ridder has the right to cancel an order if, at the time of delivery, the client had not timely fulfilled its earlier payment obligations with respect to Ridder or with respect to other creditors. The Client cannot derive any rights from such cancellations and Ridder shall never be held liable by him.

Article 15: Suspension and termination

15.1 If the client fails to meet the obligations under the agreement concluded or does not these obligations in a timely manner, if there are reasons to fear that the client will fail to meet his obligations or not do so in a timely manner or if the client has applied for a moratorium, applied for bankruptcy or dissolves his company, Ridder has the right to suspend the agreement or to terminate it without the necessity of a default or judicial intervention, and Ridder has no obligation to pay any form of compensation.

15.2 Any claim of Ridder regarding a part of the contract already performed or damage sustained as a result of suspension or termination, loss of profit which is deemed to be included, shall be due effective immediately.

Article 16: Applicable law and competent court

16.1 These terms and conditions and all agreements concluded by Ridder are subject to Dutch law.

16.2 The Vienna Sales Convention (CISG) shall not apply; neither shall any other international regulation of which exclusion is permitted.

16.3 Only the Dutch civil court who has jurisdiction in the location of Ridder shall take cognizance of disputes, such without prejudice to the competence of Ridder to bring the dispute before another jurisdiction. This does not affect Ridder's rights to obtain a ruling through arbitration by the International Chamber of Commerce in accordance with the Arbitration Rules of the International Chamber of Commerce by one arbitrator. The place of arbitration is Amsterdam, Netherlands. The arbitration proceedings shall be conducted in the Dutch or English language.

These terms and conditions of Ridder Drive Systems BV are registered at the Chamber of Commerce.

16



Abbreviations

Abbreviation	Description
F ~	Number of phases of electric motor
A	Current in Amperes
AC	Alternating current
CSA	CSA approval mark for electric motor
C-UL	CSA UL-listed
DC	Rectified voltage
F	Force in Newtons
h	Height dimension in mm
Hz	Frequency in Hertz
I	Motor current in Ampères
in	Inch
IP	Protection class
kb	Duty cycle in percent (running time in min)
kg	Kilograms
kW	Kilowatt
l	Length dimension in mm
m	Weight in kg
M	Drive torque in Nm
p	Mains frequency in Hertz
Pfc	Power rating of frequency controller
Pm	Power rating of electric motor
RW	Ridder RW Motor Gearbox
s	Stroke length
s'	Stroke length per drive shaft revolution
SW	Hexagonal key width
U	Motor voltage in Volts
V	Voltage in Volts

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