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Timing-Belt Reverse Unit 8 80 R50 II with bore D34
Notes on Use and Installation

item

Content

General safety information

The data and the information contained in the Notes on Use and Installation are intended exclusively for product description and assembly. The information does not release the user from conducting their own assessments and checks. It should be noted that our products are subject to natural wear and tear as well as an aging process.

These Notes on Installation and Useinclude important information for the safe and appropriate use of the product. In the case of a sale, rent or other transmission of the product, the latter must be accompanied by the Notes on Use and Installation.

During the assembly, operation and maintenance of the driven linear unit, it must be ensured that all moving parts are secured against accidental switch-on or moving. Rotating and moving parts can lead to serious injury! Please make sure to read and observe the following safety precautions.

- Any work with or close to the driven linear unit must be performed under the motto “safety first”.
- Switch the drive unit off before you begin a task close to the driven linear unit.
- Secure the drive unit against accidental switch-on, e.g. by installing signs near the switch or remove the fuse from the power supply.
- Do not reach into the working area of the moving parts of the driven linear unit while it is operating.
- Secure the moving parts of the driven linear unit against accidental contact by installing protective devices and enclosures.
- Please take note of the applicable regulations for accident prevention and environmental protection in the country of use and the workplace.
- Use item products only in technically perfect condition.
- Non-use of original spare parts leads to the expiry of the warranty!
- Check if the product has obvious defects.
- Use the product exclusively within the range of performance described in the technical data.
- Make sure all the safety devices belonging to the product are available, suitably installed and fully functional.
- You are not allowed to change the position of, avoid or disable safety devices.

The driven linear unit described here corresponds to the state-of-the-art and respects the general principles of safety at the date of printing of the present Notes on Use and Installation. Nonetheless, the hazard for personal injury and damage to property remains when the fundamental safety instructions and warning notices mentioned in the present Notes on Use and Installation are not observed.We accept no liability for any damage that may arise from them. In the interest of further development, we reserve ourselves the right to technical changes. Keep the present Notes on Use and Installation readily accessible to all users. Please take notice of the superordinate instructions for use of the complete machinery or equipment.The general hazard warning refers to the whole life cycle of the partly completed machinery.

1. Transport Please note the transport instructions on the packaging. Make sure to leave the product in the original packaging and protect it from humidity and damage until assembly. Please note that moving parts are fixed and can cause no damage during transport.

2. Assembly Always switch the relevant system component off-circuit before you assemble the product or plug/unplug it. Secure the system against restarting. Lay the cables and conducts so that they cannot be damaged and nobody can trip over them. Avoid places with risk of slipping, tripping or falling.

3.Putting into service Let the product acclimatise for some hours before putting it into service.Make sure the partly completed machinery is tightly and safely integrated to the complete machinery. Only put fully installed products into service.

4. During operation Allow the access to the direct operational area of the system only to people authorised by the operator. This also applies for downtimes of the system. Moving parts must not be accidentally actuated. In case of emergency, error or other irregularities, switch off the system and secure it against restarting. Make sure people cannot be shut in the system’s danger zone.

5. Cleaning Close all openings with appropriate protective devices so that no detergent can enter the system. Use no aggressive detergents. Do not use a high-pressure cleaner for the cleaning.

6. Putting into service and maintenance Perform the required maintenance work in the time intervals described in the operating instructions. Make sure no connection line, connection or component is released until the system is under pressure and tension. Secure the system against restarting.

7. Disposal Dispose of the product according to the national and international provisions of your country.

Correct use

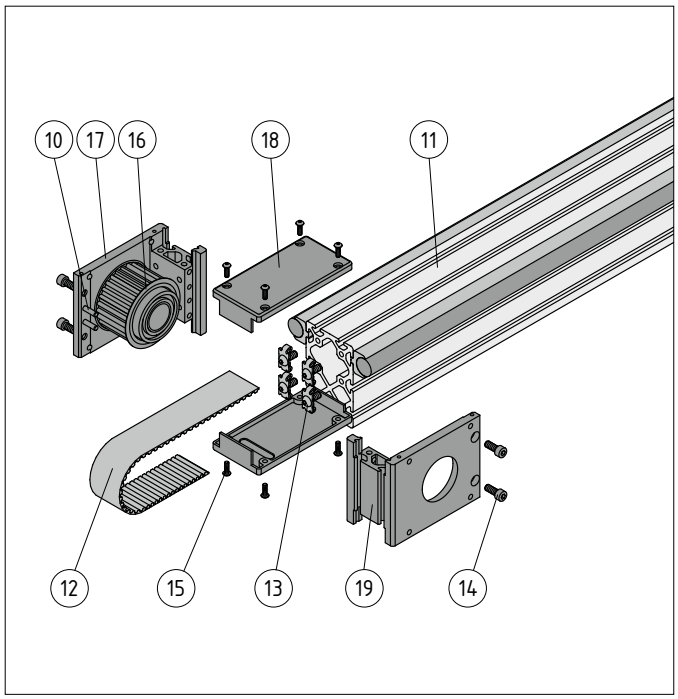
The Timing-Belt Reverse Unit 8 80 R50 II with bore D34 is a mechanical component to built a linear driven unit. The driven linear unit is a product in accordance with the Machinery Directive 2006/42/EC (partly completed machinery). The driven linear unit can only be used in accordance with the technical data and safety regulations of the present documentation. The internal rules and guidelines of the country of use must be respected. Unauthorised structural changes to the driven linear unit are not permitted. We accept no liability for any damage that may arise from them.

- You are authorised to assemble, operate and maintain the drive linear unit only if:
- The driven linear unit has been integrated to the complete machinery according to the intended applications and safety requirements.
- You have read the Notes on Use and Installation carefully and understood them.
- You are qualified.
- You have the authorisation of your company.
- You exclusively use the original accessories of the manufacturer.

In case of unsafe and inappropriate operation of the driven linear unit, there is a danger of serious injury from crush and shear points.

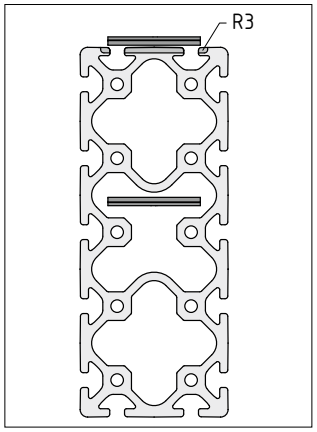
Inappropriate use
The inappropriate use refers to applications differing from the use authorised by the Notes on Use and Installation and the appropriate use. We accept no liability for any damage that may arise.

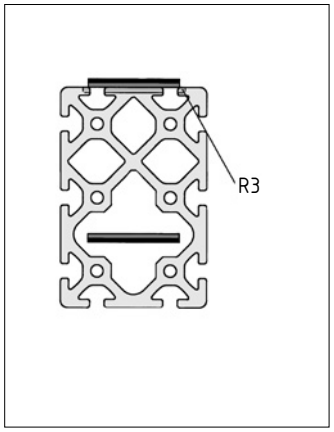
Installing the Timing Belt



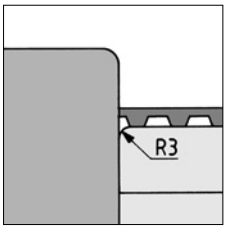
To insert the Timing Belt (Art. No. 0.0.426.03) in the Timing-Belt Reverse Unit 8 80 R50 II VK32 ⑳, the Unit has to be opened. To do so, unscrew and remove all the screws in the Timing-Belt Reverse Unit 8 80 R50 II VK32 ⑳. The two halves of the Timing-Belt Reverse Unit 8 80 R50 II VK32 ⑰ ⑲ housing are separated by gently tapping the hub of the Pulley Wheel (use plastic rods). Under no circumstances must the two halves of the housing be separated by inserting a hard object such as a screwdriver or similar tool between the two halves. The floating bearing end of the Timing-Belt Reverse Units 8 80 R50 II VK32 ⑲ is screwed in place in the core holes of the Support Profiles.
Place the Timing Belt around the Pulley Wheels in the required direction.
The two halves of the housing of the Timing-Belt Reverse Unit 8 80 R50 II VK32 ⑰ ⑱ are then screwed together again. The end of the Timing Belt now has to be cut to the exact length and the end placed in the loose half of the Timing Belt Tensioning Set 8 R50.

⑩ Dowel ISO 8734-6m 6x28
⑪ Profile 8 120x80
⑫ Timing belt R50 T 10
⑬ Standard-Fastening 8
⑭ Hex. Socket Head Cap Screw DIN 912-M8x20
⑮ Button-Head Screw M5x16
⑯ Timing pulley with bore ∅34 H7
⑰ Fixed Bearing
⑱ Timing-Belt Reverse Unit 8 80 R50 II VK32 Cap
⑲ Floating Bearing

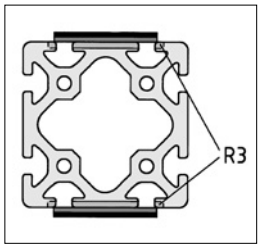




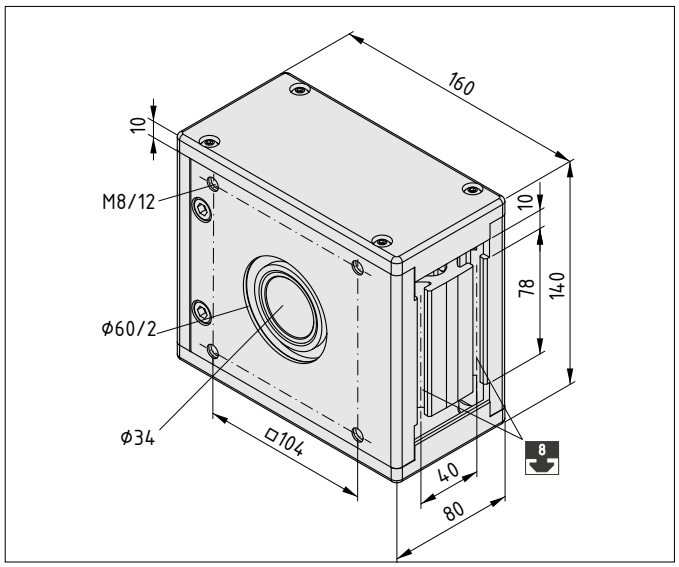
All the cut edges of the profile that face the Timing Belt must be chamfered to prevent irregular running caused by the belt getting snagged or damaged.



When feeding the Timing Belt back through the inside of profiles, ensure that the profile edges facing the back of the belt have been rounded.



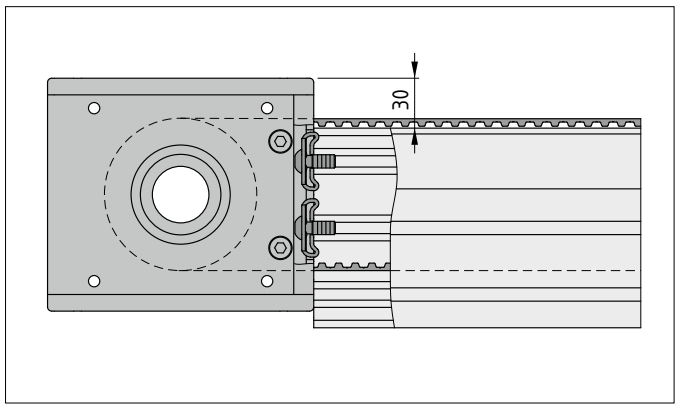
Technical Data/Scope of Supply



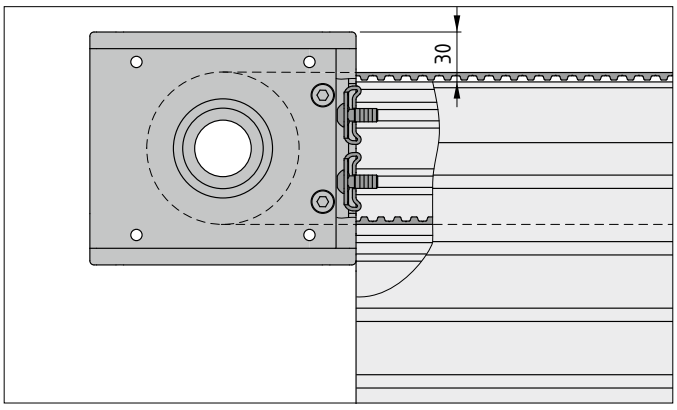
Timing-Belt Reverse Unit 8 80 R50, GD-Zn, black
Ball-bearing timing pulley with bore ∅34 H7
hub length 75 mm
One revolution corresponds to 280 mm
effective radius: 44.6 mm
Friction moment with 1‰ pre-tensioning of the Timing Belt:
M_R = 1.05 Nm
Max. load: M_D = 92 Nm
Timing Belt length in the Timing-Belt Reverse Unit for
90° reversal: 220 mm
180° reversal: 300 mm
Pitch p = 10 mm Number of teeth z = 28
m = 3.7 kg

Attachment options

Next, fasten the Timing-Belt Reverse Units to the support profile and align the Timing Belt with the profile.

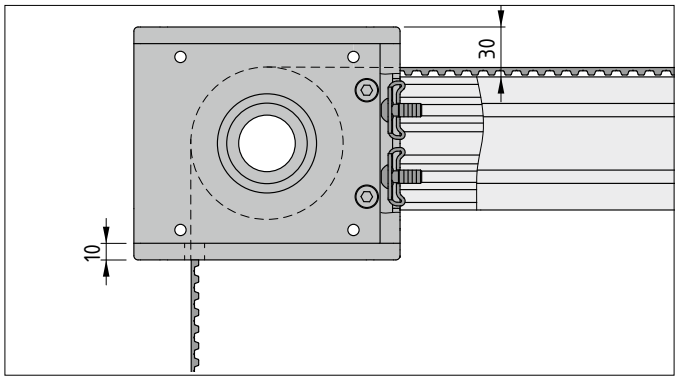


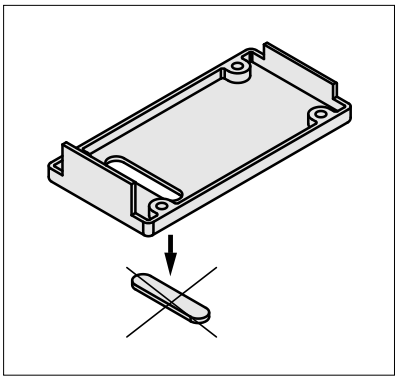
Fastening arrangement of Timing Belt Reverse Unit 8 80 R50 on different profiles depending on the position of the Timing Belt when fed back through.



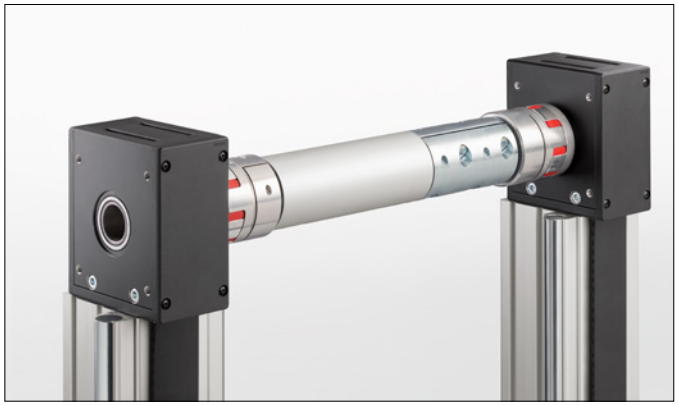
90° reversal of Timing Belt R50 T10.

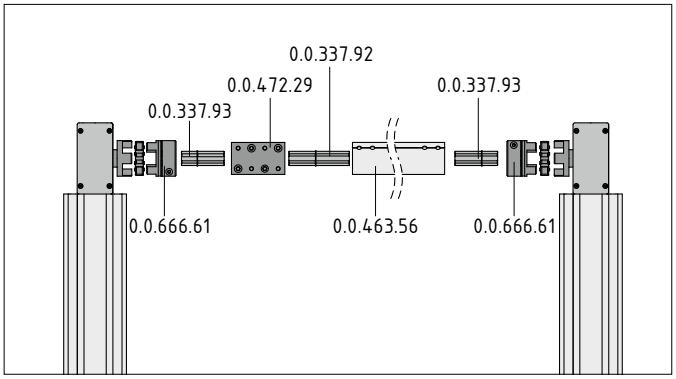
The opening for the Timing Belt is marked out on the inside and must be removed from the cap.
If for design reasons the Timing-Belt Reverse Unit is fitted without a cap, the length of the Timing Belt in the Reverse Unit reduces by 10 mm.





Synchronisation





When Synchroniser Shafts are used to transfer torque, it can be necessary to adjust the attached drives during assembly. The Synchroniser Shaft Equaliser Coupling enables the Synchroniser Shaft to be separated, and then creates a powerful friction-based connection between the shafts.

Snap Rings W should be used to secure the Synchroniser Shaft axially between the drive elements.

Maintenance

Suitable for use in dry conditions and over the temperature range -20°C to +70°C.

If operating conditions are unusual - e.g. special type of installation, dust, short stroke, influence of solvents etc. the lubrication intervals must be adapted accordingly.

This information does not discharge the user from the obligation to carry out his own assessments and checks.

It is important to bear in mind that our products are subject to a natural process of wear and ageing.

The Timing Belt is a maintenance-free drive element.

Check the tension on the Timing Belt after a running-in phase.

We recommend regular checks for damage and wear. These checks should be carried out weekly at first and then adjusted to account for environmental and operational conditions.

The Timing Belt may need to be replaced.

Ideal operating conditions:
Ambient temperature: 10°C ... 40°C
Load: < 5%

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The latest version of these Notes on Use and Installation is available online, in the download section for this product.

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