The specific properties of the individual cylinder variants open up a whole range of practical applications

### RTC – OvalDrive with extra power, compactness, precision, and speed for long strokes

The unique oval piston shape and one-piece slide/piston unit are just two characteristic features of RTC series rodless cylinders besides their many common equipment options. They are available in four variants: as a Basic Version, Slide Bearing, Compact Guide, and Heavy Duty versions for large loads. With different key strengths, they cover a large range of movements and positions. The rodless cylinders offer optimized stroke lengths in a compact size. This saves space and facilitates machine design. The range of applications extends from piston diameters of 16 mm up to 80 mm and stroke lengths up to 9,900 mm. The cylinders feature extreme repeatability and cover a large speed range from 0.01 m/s to >20 m/s.

- The oval piston enables higher loads and torques, and highly compact designs
- One-piece slide and piston increase stability
- Minimal leakage and a wide range of speeds thanks to a special internal sealing strip and grease

### The comprehensive range with many variants and options enables configurations that are individually tailored to the application

<table>
<thead>
<tr>
<th>Rodless cylinder product range</th>
<th>Ø mm</th>
<th>16</th>
<th>25</th>
<th>32</th>
<th>40</th>
<th>50</th>
<th>63</th>
<th>80</th>
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<tbody>
<tr>
<td>Series</td>
<td>Max. stroke in mm</td>
<td></td>
<td></td>
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<tr>
<td>RTC-BV</td>
<td>6600</td>
<td>7000</td>
<td>9900</td>
<td>9900</td>
<td>9900</td>
<td>5600</td>
<td>4800</td>
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<tr>
<td>RTC-SB</td>
<td>6900</td>
<td>6900</td>
<td>6900</td>
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<tr>
<td>RTC-CG</td>
<td>1800</td>
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<td>1800</td>
<td>2000</td>
<td></td>
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<tr>
<td>RTC-HD</td>
<td>2000</td>
<td>4300</td>
<td>4300</td>
<td>4300</td>
<td>4300</td>
<td>3700</td>
<td></td>
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<td>CKP</td>
<td>1800</td>
<td>1800</td>
<td>3700</td>
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<tr>
<td>GSU</td>
<td>1000</td>
<td>1000</td>
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</tbody>
</table>
Ideally suited for specific individual tasks or as a solid base for handling applications

RTC application areas
- Lifting/lowering, moving/guiding, pick&place
- Sorting, filling, painting
- Cutting

RTC industry sectors
- Automotive industry, handling technology
- Machine construction, food industry
- Print and paper industry, wood processing industry
- Textile industry, railway industry

RTC-TD for safe and efficient TrainDoor applications
With the RTC-TD, a cylinder that was specifically developed for TrainDoor applications, AVENTICS is introducing an innovative all-round solution that offers clear advantages over electro-mechanical and pneumatic systems: a more compact design at a lower cost, combined with a longer service life. Thanks to the integrated valve technology, including extended pneumatic cushioning and emergency ventilation, the RTC-TD is not only particularly lean and light, but also easy to install. The speed and cushioning are preset, but can be adjusted to the individual requirements at any time.

- Elegant on the outside – and the inside is even more impressive with an oval piston, one-piece slide and piston unit, and a special interior sealing strip. All this is perfectly rounded off by practical configuration details. RTC.

- Compact and light: all-in-one solution with comprehensive function integration
- Cost effective: simple, sturdy, and durable technology, quick to install and practically maintenance-free
- Comfortable and secure: smooth moving manual emergency opening across the entire door width

The RTC-BV is ideal for long horizontal stroke movements for conveying or cutting, whether as a high-speed cutting knife or for slow, smooth transporting.

Freely configurable for vertical lifting and lowering of all types of containers and loads.

Variable speeds and loads for diverse application areas.
The RTC cylinders offer compelling advantages at all levels

**Advantages at a glance**

- **Cylinder protection**
  Wear-free magnetically attached exterior strip, scraper, and sealing strips protect the cylinder from exterior effects, make it dust and dirt resistant, and increase its service life.

- **Pneumatic cushioning**
  Adjustable pneumatic cushioning for precise and gentle operation.

- **Compressed air connection indicators**
  Compressed air connection indicators in the end covers indicate the direction of movement.

- **Easy-2-Combine interface**
  Standardized mounting interfaces for direct connection of AVENTICS components. Less moving mass as no transition plates are required. Simplified machine design and reduced mounting effort.

- **Oval piston**
  An oval piston design permits unusually high load and torque absorption, as well as ultra-compact machine designs.

- **Universal mountings**
  The same mountings can be used for all variants. Cover mountings for the end covers. Foot mountings fitted in the side slots stabilize the profile for longer strokes.

- **Compensating coupling**

- **Interim stop**
  The multi-position solution enables more than one interim stop. In addition, travel can continue in the same direction following an interim stop.
The RTC cylinders offer compelling advantages at all levels.

### Features

**RTC series rodless cylinders**

- **Sensor slots on both sides**
  - Sensors are visible and mountable from the top and the side.
  - The special design allows mounting of two sensors in each slot, including an indentation for cables.

- **Air connections on both sides**
  - Flexible mounting options thanks to free choice of air connections on both sides.

- **Integrated mounting slots**
  - Strong slots on both sides provide additional mounting options across the entire length.

- **Sensor slots on both sides**
  - Air connections on both sides

#### Advantage: oval piston
- High load capacity and rigidity
- The wide slot offers optimized belt return and smoother running
- Lateral torques are absorbed by the piston
- For compact machine designs

#### Advantage: performance
- High-tech grease and specific sealing material for smoother running and extended service life, coupled with decreased wear
- Compatible with a large speed range from 0.01 m/s up to >20 m/s
- Can be used in a wide temperature range
- Minimum leakage and high energy efficiency
- Cushioning pins on the pistons and enlarged air ducts in the profile covers enable high speeds and ideal pneumatic cushioning

#### Advantage: reliability and long service life
- Scrapers and stainless steel cover strip provide optimal dust protection
- Pistons and slides in a single unit increase the rigidity and decrease machine downtimes
- Special sealing strip (steel wire reinforced polyurethane): extremely stable material prevents expansions that would interfere with the function

### Cushioning

As standard, the cylinder is equipped with adjustable pneumatic cushioning that optimally absorbs the mass to be moved in relation to the process speed. Shock absorber add-on kits are available for extreme applications.

### Sensors ST4 and SM6-AL

All of our series ST4 sensors can be used for the 4 mm slot. They can be quickly and flexibly integrated into the special sensor slots. The RTS can also be combined with sensors from the SM6-AL series to enable analog distance measurement.