



RTC Series Rodless Cylinders. High-Power Oval Drive

AVENTICS™ RTC Series Rodless Cylinders

With different key strengths, they cover a large range of movements and positions in many applications.





Ideally suited for specific individual tasks or as a solid base for handling applications

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

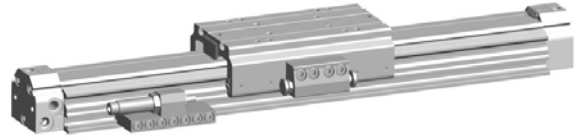
Oval drive with extra power, compactness, precision, and speed

RTC – Basic Version



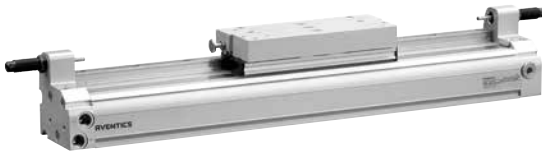
RTC-BV – Basic Version internal guide with a unique oval piston design. Typical application areas include: material flow, door openers, cutting and drive processes.

RTC – Slide Bearing



RTC-SB – Integrated adjustable slide bearing guide. Typical applications: material handling, stop gates, and pushers.

RTC – Compact Guide



RTC-CG – Compact precision guiding. Typical application areas: medium loads in settings with limited space.

RTC – Heavy Duty



RTC-HD – High-precision guide for heavy loads. Typical application areas: as a base axle for handling applications, very high load capacity.

CKP – Connection Kit Position



CKP – is particularly suitable for applications requiring the movement of heavy loads. It provides sturdy, ultra-precise guiding with excellent repeatability.

GSU – Guided Slide Unit



GSU – With its flat design, this high-performance guided slide unit is the ideal basis for many handling systems.



For further information on these or any other AVENTICS product, visit [Emerson.com](https://www.emerson.com)



The RTC cylinders offer compelling advantages at all levels



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



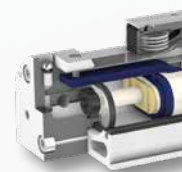
Advantage: performance

- 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

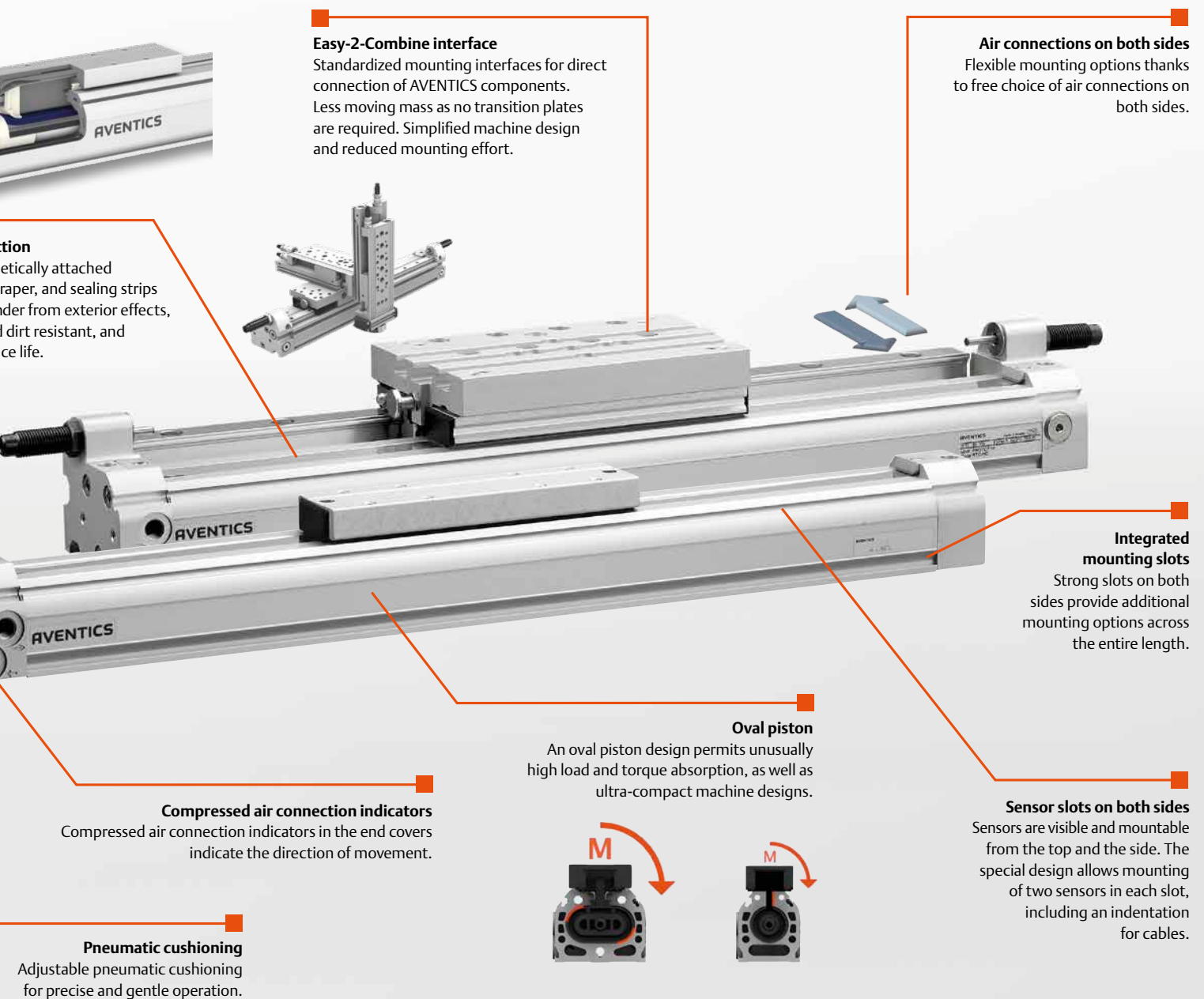
- Scrapers and stainless steel cover strip provide optimal dust protection
- Pistons and slides in a single unit increase the rigidity and decrease machine downtimes
- Special sealing strip (steel wire reinforced polyurethane): extremely stable material prevents expansions that would interfere with the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



Cylinder protection

Wear-free magnetic exterior strip, scrapers protect the cylinder, make it dust and dirt resistant, increase its service life





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.

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.

Oval piston

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

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.

Compressed air connection indicators

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

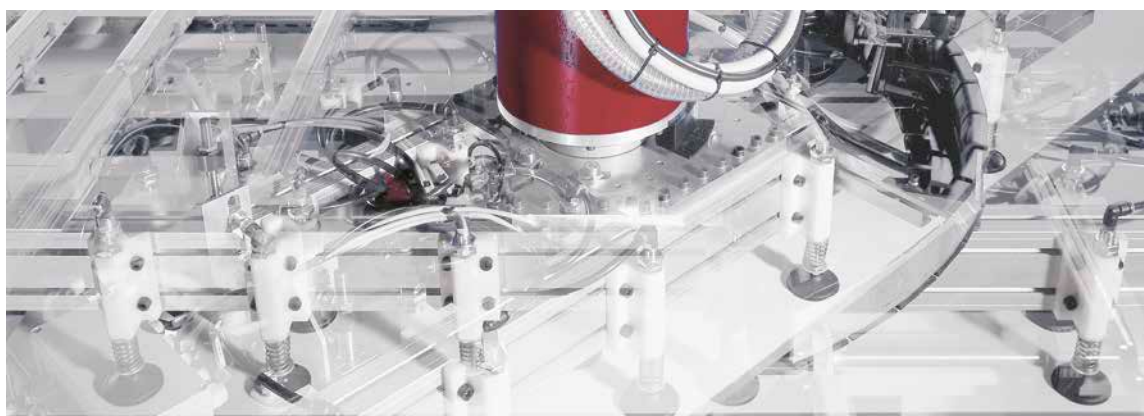
Pneumatic cushioning

Adjustable pneumatic cushioning for precise and gentle operation.

RTC ports and strokes are also available in metric and inch.

Advantages at a glance – Elegant on the outside and the inside is even more impressive. All this is perfectly rounded off by practical configuration details. RTC.

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



Rodless cylinder product range							
Ø mm	16	25	32	40	50	63	80
Series	Max. stroke in mm						
RTC-BV	6,600	7,000	9,900	9,900	9,900	5,600	4,800
RTC-SB		6,600	6,600	6,600	6,600		
RTC-CG	1,800	1,800	1,800	2,000			
RTC-HD	2,000	4,300	4,300	4,300	4,300	3,700	
CKP	1,800	1,800	3,700				
GSU	1,000	1,000					

RTC application areas

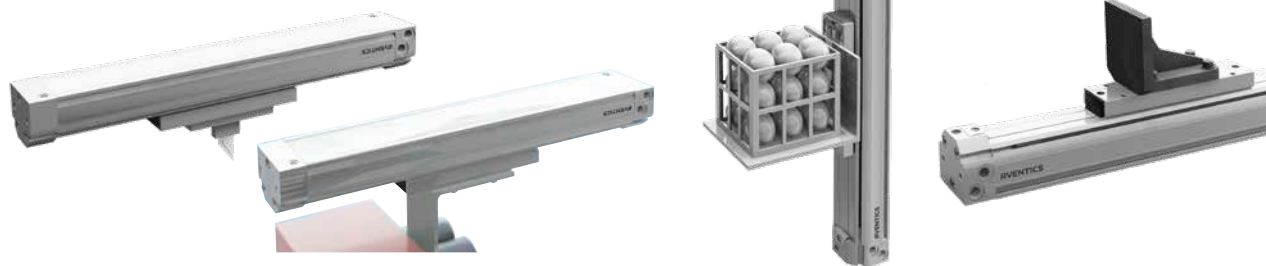
- Lifting/lowering, moving/guiding, pick&place
- Sorting, filling, painting
- Cutting

RTC industry sectors

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

Ideally suited for different handling applications

RTC – Basic Version



RTC-BV – 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.

Practical configuration details

Universal mountings



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



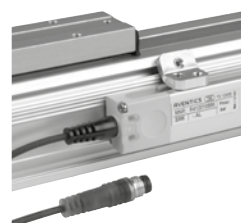
Interim stop – The multi-position solution enables more than one interim stop. In addition, travel can continue in the same direction following an interim stop.

Cushioning



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



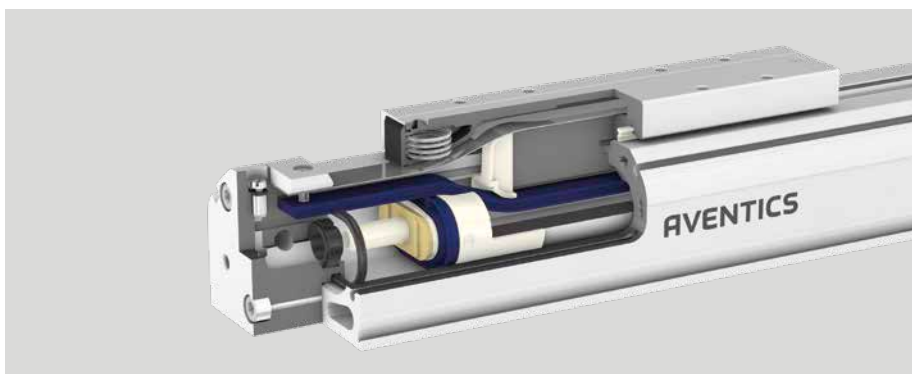
Sensors ST4 and SM6-AL – All of our series ST4 sensors can be used for the 4 mm slot. They can be quickly and flexibly integrated into the special sensor slots. The RTC can also be combined with sensors from the SM6-AL series to enable analog distance measurement.



For further information on these or any other AVENTICS product, visit [Emerson.com](https://www.emerson.com)



RTC – oval piston, one-piece slide and piston unit, and a special interior sealing strip



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