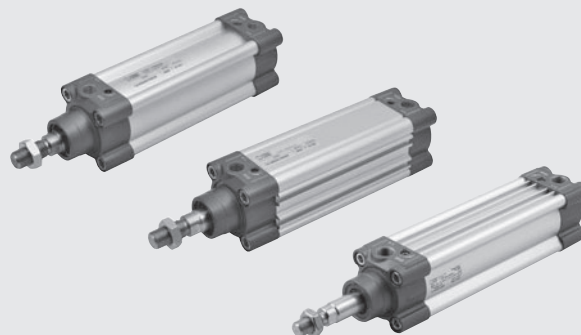


# ISO 15552 CYLINDER

Cylinders made to ISO 15552 available in various versions and with a wide range of accessories:

- Configuration with or without magnet
- Single-or double acting – single-or through-rod
- Wide choice of NBR, POLYURETHANE and FKM/FPM gaskets (for high temperatures), for LOW TEMPERATURE
- Piston rod scrapers for use in hostile environments available
- Special versions on request
- Fixing accessories, guide units and mechanical rod lock.

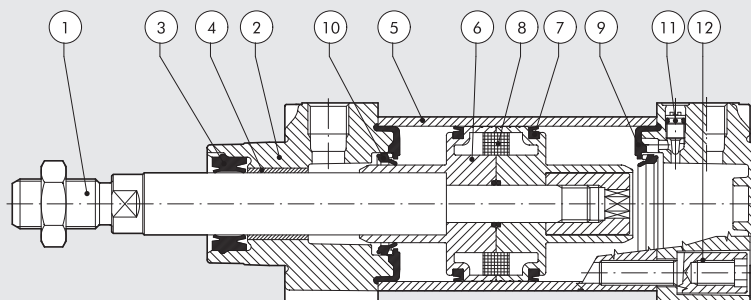
They are available in three versions, series STD, type A, series 3 which differ according to the shape of the barrel and, consequently, the type of sensors and accessories that can be mounted.



TECHNICAL DATA		Ø32	Ø40	Ø50	Ø63	Ø80	Ø100	Ø125
Max operating pressure	bar					10		
	MPa					1		
	psi					145		
Temperature range	POLYURETHANE °C					-25 to +80		
	NBR °C					-10 to +80		
	FKM/FPM °C					-10 to +150 (non-magnetic cylinders)		
	Low Temperature °C					-40 to +80		
	Other piston rod gasket °C					See next page		
Design		Heads with Tap Tite screws						
Fluid		Unlubricated air. Lubrication, if used, must be continuous						
Standard stroke †	single-acting mm	1 to 250	1 to 250	1 to 250	1 to 250	-	-	-
	double-acting with spring mm	1 to 250	1 to 250	1 to 250	1 to 250	-	-	-
	double-acting mm	1 to 2800	1 to 2800	1 to 2800	1 to 2800	1 to 2800	1 to 2600	1 to 2600
Versions		Double-acting cushioned, Double-acting cushioned with spring, extended or retracted piston rod, Single-acting extended or retracted rod cushioned, Through-rod cushioned, Long cushioning, High-temperature, Rod lock, Oil seal, Through-rod oil seal, Low friction, No stick-slip. All versions come complete with magnet. Supplied without magnet on request.						
Sensor magnet								
Inrush pressure	bar	0.4	0.4	strokes < 1500 mm: 0.3		strokes < 1500 mm: 0.2		
	bar			strokes > 1500 mm: 0.4		strokes > 1500 mm: 0.4		
	for type-R gasket bar	1.5	1	1	0.8	0.5	0.5	0.5
Forces generated at 6 bar thrust/retraction		See cylinder "General technical data" at the beginning of the chapter						
Weights		See cylinder "General technical data" at the beginning of the chapter						
Notes		<b>For speeds lower than 0.2 m/s to prevent surging, use the version No stick-slip and non-lubricated air.</b>						
		† Maximum recommended strokes. Higher values can create operating problems						

## COMPONENTS

- PISTON ROD: C45 steel or stainless steel, thick chromed
- HEAD: die cast aluminium
- PISTON ROD GASKET: polyurethane, NBR, FKM/FPM, FKM/FPM with metal scraper
- GUIDE BUSHING: steel strip with bronze and PTFE insert
- BARREL: drawn anodized calibrated aluminium
- HALF-PISTON: self-lubricating technopolymer with built-in cushioning olives (aluminium with PTFE pad for diameters 80-100-125)
- PISTON GASKET: polyurethane, NBR or FKM/FPM
- MAGNET: plastoferrite
- BUFFER + Static O-rings: NBR or FKM/FPM
- CUSHIONING GASKET: polyurethane, NBR or FKM/FPM
- CUSHIONING NEEDLE: OT 58 with needle out movement safety system even when fully open
- SCREWS: Tap Tite for assembly



## OVERVIEW OF SEALS AND SCRAPERS

	Code identifier	Key feature	Applications	Gasket material	Temperature range	Notes
①	....N	General use.	Standard applications, also with humidity.	NBR	-10 to +80 °C	
②	....P	Long life.	Applications with long strokes or high number of cycles.	Polyurethane	-25 ÷ +80 °C	
③	....V	High temperatures - chemicals.	Industrial applications with chemical agents and/or at high temperatures.	FPM/FKM	-10 to +150 °C (non magnetic cylinders)	
④	....B	Low temperatures.	Applications in presence of low temperature such as in cold environments.	NBR	-40 to +80 °C	
⑦	....C	Dirt and dust. Reference name: COMBI	Applications in dirty and dusty environments.	Scraper made of technopolymer, the other seals are made of NBR.	-10 to +80 °C	Maximum recommended speed: 1 m/s
⑧	....R	Dirt and low temperatures. Reference name: HARD PU	Medium-Heavy duty applications, with presence of dirt and low temperatures, such as in agriculture or in transport sector.	Piston rod seal made of hard polyurethane, the other seals are made of polyurethane.	-25 to +80 °C	Low temperature versions for a minimum temperature of -35°C are available on request.
⑨	....M	Dirt and high temperature. Reference name: METAL	Heavy duty applications, in presence of hard dirt and high temperatures, like in cement plants, foundries or in transport sector.	Metal scraper, the other seals are made of FKM/FPM.	-10 to +150 °C	Not available in Ø 32. The scraper is housed in a special head.

## SEALS USED IN OTHER FAMILIES OF ISO 15552 CYLINDERS

①	123... only for series 3	Ultra low friction.	Textile industry, dandy devices, pneumatic springs.	NBR	-10 to +80 °C	
⑩	....BL and ....WL	HCR (High Corrosion Resistance)	Food and Beverage sector, such as dairy industry.	Anti-stagnation scraper made of special polyurethane, the other seals are made of NBR.	-10 to +60 °C	
②	W184... W185...	INOX	Industrial applications with aggressive chemical agents.	Polyurethane	-20 to +80 °C	
③	W184V... W185V...	Stainless steel high temperature.	Industrial applications, in presence of chemicals and high temperatures requested, such as in chemical plants.	FKM/FPM	-10 to +150 °C	

## SEALS AVAILABLE ON REQUEST

⑥	Only on request	Self lubricated.	Applications where the lubricants in the cylinder could be removed, such as in car washing plants.	Self lubricated tecnopolymer.	-30 to +80 °C	
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## Anti-contamination Effect Indicators

An index of protection against the dirt that settles and adheres to the piston rod is provided for each version, on a 1 to 100 scale.

