## ISO 15552 CYLINDER

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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.



			<b>6</b> .00	~ 10	~ ~ ~	~	<b>6</b> .00	<b>6</b> 100	~ ~ ~		
IECHNICAL DAIA			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 +15	0 (non-magneti	c cylinders)				
	Low Temperature	°C				-40 to +80					
	Other piston rod gasket	°C				See next page					
Design			Heads with Tap Tite screws								
Fluid				Unlu	pricated air. Lub	rication, if used	, must be conti	nuous			
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-ad	cting cushioned,	, Double-acting	cushioned with	spring, extende	ed or retracted	piston rod,		
			Single-c	acting extended	or retracted roc	cushioned, Thi	rough-rod cushi	ioned, Long cus	hioning,		
			High-temper	ature, Protective	bellows, Rod lo	ck, Oil seal, Thr	ough-rod oil se	al, Low friction,	No stick-slip.		
Sensor magnet				All versions con	ne complete with	n magnet. Supp	lied without ma	gnet on reques	t.		
Inrush pressure		bar	0.4	0.4	strokes < 15	00 mm: 0.3	strok	es < 1500 mm	: 0.2		
		bar			strokes > 15	00 mm: 0.4	strok	es > 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/retr	action			See cylinde	r " <b>General tech</b>	nical data" at t	ne beginning of	the chapter			
Weights				See cylinde	r " <b>General tech</b>	n <b>ical data</b> ″ at th	ne beginning of	the chapter			
Notes			Fo	or speeds lower	r than 0.2 m/s t	o prevent surgi	ing, use the ver	sion No stick-s	lip		
					and	non-lubricated	air.				
			+	Maximum reco	ommended stroke	es. Higher value	es can create op	perating proble	ms		

#### **COMPONENTS**

- ① PISTON ROD: C45 steel or stainless steel, thick chromed
- ② HEAD: die cast aluminium
- ③ PISTON ROD GASKET: polyurethane, NBR, FKM/FPM, FKM/FPM with metal scraper
- ④ GUIDE BUSHING: steel strip with bronze and PTFE insert
- (5) BARREL: drawn anodized calibrated aluminium
- 6 HALF-PISTON: self-lubricating technopolymer with built-in cushioning olives
- (aluminium with PTFE pad for diameters 80-100-125) ⑦ PISTON GASKET: polyurethane, NBR or FKM/FPM
- ⑧ MAGNET: plastoferrite
- BUFFER + Static O-rings: NBR or FKM/FPM
- 10 CUSHIONING GASKET: polyurethane, NBR or FKM/FPM
- 1) CUSHIONING NEEDLE: OT 58 with needle out movement safety system even when fully open
- 12 SCREWS: Tap Tite for assembly





#### **OVERVIEW OF SEALS AND SCRAPERS**

	Code identifier	Key feature	Applications	Gasket material	Temperature range	Notes
	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)	
	В	Low temperatures.	Applications in presence of low temperature such as in cold environments.	NBR	-40 to +80 °C	
	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 agricolture 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.
®	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 OT	THER FAMILIES C	OF ISO 15552 CYLINDERS				
	<b>123</b> only for series 3	Ultra low friction.	Textile industry, dandy devices, pneumatic springs.	NBR	-10 to +80 °C	
	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	
	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	

#### 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.



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# ISO 15552 CYLINDER SERIES STD

ISO 15552 cylinders, featuring a smooth barrel with no longitudinal slots. This means it is easier to clean the cylinder and there are fewer points

where dirt can collect. Specific brackets are required for mounting magnetic sensors.

ACTUATORS

**A1** 

## **BARREL CROSS SECTION**







Ø100

60

Ø125











Stainless steel piston rod and nut aluminium piston Stainless steel piston rod and nut technopolymer piston

#### **KEY TO CODES**

CYL		121	0	3 2	0050	С	Р	E
		TYPE	VERISION	BORE	STROKE	MATERIAL	GASKETS	
	12 12 12 12 12 12 12 12 12 12	<ol> <li>Double-acting, cushioned, non-magnetic</li> <li>Double-acting, cushioned</li> <li>Through-rod</li> <li>Double-acting, non-cushioned</li> <li>Opposed</li> <li>Single-acting</li> <li>Tandem</li> <li>Version suitable for rod lock</li> <li>Version suitable for rod lock + guide unit</li> <li>Version suitable for bellow</li> <li>Version with mounted bellow</li> </ol>	0 Diameter S Non- magnetic ▲ G No stick-slip	32 4 40 5 50 5 80 1 100 4 125 6	For the maximum suppliable strokes, look at the technical data	<ul> <li>A C45 chromed piston rod, aluminium piston: standard for all cylinders with ≥ 1000 mm-stroke cylinders and for cylinder with Ø 80 mm and over</li> <li>C C45 chromed piston rod, technopolymer piston: standard for cylinders of Ø 32 to 63 mm with &lt;1000 mm strokes</li> <li>Z Stainless steel piston rod and nut aluminium piston</li> <li>X Stainless steel piston rod and nut technopolymer piston</li> </ul>	<ul> <li>N NBR gaskets</li> <li>Polyurethane gaskets</li> <li>FKM/FPM gaskets</li> <li>B Low temperature</li> <li>C "Combi" piston rod gasket</li> <li>R "Hard PU" piston rod gasket</li> <li>I M "Metal" piston rod gasket</li> </ul>	<ul> <li>★ ▼ E Single-acting extended rod or double-acting with spring, extended</li> <li>★ Pouble-acting with spring, retracted</li> <li>★ Double-acting with spring, retracted</li> <li>★ Secure Lock with manual control</li> <li>2 + Secure Lock without manual control</li> </ul>
<ul> <li>In the code of cylinder with letter in fourth position Ø 100 becomes A1; Ø 125 becomes A2</li> <li>Only available for versions with aluminium piston (A or Z)</li> <li>Available until Ø 63 and only the versions with piston in aluminum (A or Z). The versions without the final "E" are to be considered with retracted piston rod</li> <li>Not available in Ø 32</li> <li>For speeds lower than 0.2 m/s, to prevent surging. Use no-lubricated air only.</li> <li>Available up to Ø 100</li> <li>Not available for gaskets V or B</li> <li>Not available for gaskets V or B</li> </ul>							g versions rod version or ring, retracted piston Lock" device G are not available	
KE I	IO CODE		/11					
CYI	123	٨	3.2	0.05.0		C		D
CIL	123	ТҮРЕ	BORE	STROKE		MATERI	AL	GASKETS
		<ul> <li>A Low friction, type A</li> <li>B Low friction, type B</li> <li>C Low friction, type C</li> <li>D Low friction, type D</li> <li>E Low friction, type F</li> <li>F Low friction, type F</li> </ul>	32 40 50 63 80 A1 = Ø 100	Ø 32 to 80 stroke 1 to 2800 Ø 100 to 125 stroke 1 to 2600	D mm C	<ul> <li>C45 chromed piston rod, alur standard for all cylinders with cylinders and for cylinder with C45 chromed piston rod, tech standard for cylinders of Ø 3:</li> <li>C1000 mm strokes</li> </ul>	ninium piston: ≥ 1000 mm-stroke nØ 80 mm and over nopolymer piston: 2 to 63 mm with	<ul> <li>NBR gaskets</li> <li>Polyurethane gaskets</li> <li>FKM/FPM gaskets</li> </ul>

	TYPE	BORE	STROKE	
Α	Low friction, type A	32	Ø 32 to 80	Α
В	Low friction, type B	40	stroke 1 to 2800 mm	
С	Low friction, type C	50	Ø 100 to 125	
D	Low friction, type D	63	stroke 1 to 2600 mm	С
E	Low friction, type E	80		
F	Low friction, type F	A1 = Ø 100		
		A2 = Ø 125		Z
				Х

#### **KEY TO CODES VERSION LONG-CUSHIONING**

CYL	131	Α	3 2	0050	Α	Р
		ТҮРЕ	BORE	STROKE	MATERIAL	GASKETS
		<ul> <li>A 200 mm front/rear cushioning cone - 200 mm ext.</li> <li>B 150 mm front/rear cushioning cone - 150 mm ext.</li> <li>C 100 mm front/rear cushioning cone - 100 mm ext.</li> <li>D 150 mm front/rear cushioning cone - 200 mm ext.</li> <li>E 100 mm front/rear cushioning cone - 100 mm ext.</li> <li>F 50 mm front/rear cushioning cone - 100 mm ext.</li> <li>G 100 mm front/rear cushioning cone - 150 mm ext.</li> </ul>	32 40 50 63	1 to 2600 mm	<ul> <li>A C45 chromed rod, aluminium piston rod for all sizes</li> <li>Z Stainless steel piston rod and nut aluminium piston</li> </ul>	<ul> <li>N NBR gaskets</li> <li>Polyurethane gaskets</li> <li>V FKM/FPM gaskets</li> </ul>
		<ul> <li>H 200 mm front cushioning cone - 200 mm ext.</li> <li>I 50 mm front cushioning cone - 150 mm ext.</li> <li>I 00 mm front cushioning cone - 100 mm ext.</li> <li>M 150 mm front cushioning cone - 200 mm ext.</li> <li>N 100 mm front cushioning cone - 150 mm ext.</li> <li>O 50 mm front cushioning cone - 100 mm ext.</li> </ul>				
		<ul> <li>Q 200 mm rear cushioning cone - 200 mm ext.</li> <li>R 150 mm rear cushioning cone - 150 mm ext.</li> <li>S 100 mm rear cushioning cone - 100 mm ext.</li> <li>T 150 mm rear cushioning cone - 200 mm ext.</li> <li>U 100 mm rear cushioning cone - 200 mm ext.</li> <li>V 50 mm rear cushioning cone - 100 mm ext.</li> </ul>				
* Vers	ion valid c	only for types: Q, R, S, T, U and V.				

**A1** 

## ISO 15552 CYLINDER TYPE A

ISO 15552 cylinders, featuring a barrel with longitudinal slots on three sides for inserting and securing retractable sensors. The same slots can also be used for valves and other mechanical parts.



#### **BARREL CROSS SECTION**

1  $\phantom{-}$  SLOTS FOR RETRACTABLE SENSOR





#### **KEY TO CODES**

CYL	121	A	32	0050	С	Р	E
	TYPE         121       Double-acting, cushioned         122       Through-rod         124       Double-acting, non-cushioned         125       Opposed         *       126         Single-acting       127         Tandem       134         ▷       134         Version suitable for rod lock         *       ▷         136       Version suitable for rod lock + guide unit         *       ▷         *       ▷         *       ▷         137       Version suitable for rod lock + guide unit         *       ▷         *       ▷         *       ▷         ▷       154         Version suitable for bellow         *       ▷         *       ▷         >       ▷         156       Version with mounted bellow	A Standard A No stick-slip C Non-magnetic	32 40 50 63 80 A1 = Ø 100 A2 = Ø 125	For the maximum suppliable strokes, look at the technical data	<ul> <li>MATERIAL</li> <li>A C45 chromed piston rod, aluminium piston: standard for all cylinders with ≥ 1000 mm-stroke cylinders and for cylinder with Ø 80 mm and over</li> <li>C C45 chromed piston rod, technopolymer piston: standard for cylinders of Ø 32 to 63 mm with &lt;1000 mm strokes</li> <li>Z Stainless steel piston rod and nut aluminium piston</li> <li>X Stainless steel piston rod and nut technopolymer piston</li> </ul>	<ul> <li>GASKEIS</li> <li>N NBR gaskets</li> <li>P Polyurethane gaskets</li> <li>V FKM/FPM gaskets</li> <li>B Low temperature</li> <li>C "Combi" piston rod gasket</li> <li>R "Hard PU" piston rod gasket</li> <li>■ M "Metal" piston rod gasket</li> </ul>	<ul> <li>★ E Single-acting extended rod or double-acting with spring, extended</li> <li>★ Double-acting with spring, retracted</li> <li>★ Double-acting with spring, retracted</li> <li>★ Secure Lock with manual control</li> <li>2 + Secure Lock without manual control</li> </ul>

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♦ Maximum suppliable strokes: Ø 32 to 63: from 1 to 720 mm;

▲ For speeds lower than 0.2 m/s, to prevent surging. Use no-lubricated air only.

Not available for single-acting and double-acting with spring versions
 The 126 (single-action) type and the (No-stick-slip) version B are not available

Ø 80 to 125: from 1 to 840 mm

Available up to Ø 100 Not available for gaskets V or B

Only available for versions with aluminium piston (A or Z) .

Available until  $\emptyset$  63 and only the versions with piston (A or Z). The versions without the final "E" are to be considered with retracted piston rod. Not available in  $\emptyset$  32 ÷

Letter to be added only to the single acting extended piston rod version or double-acting with spring, extended piston rod Letter to be added only for the double-acting version with spring, retracted piston rod Extra digit to be added only for types 136 with the "Secure Lock" device ▼

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- \*

#### **KEY TO CODES VERSION LOW-FRICTION**

CYL	123	Α	3 2	0050	С	Р
		TYPE	BORE	STROKE	MATERIAL	GASKETS
		<ul> <li>A Low friction, type A</li> <li>B Low friction, type B</li> <li>C Low friction, type C</li> <li>D Low friction, type D</li> <li>E Low friction, type E</li> <li>F Low friction, type F</li> </ul>	32 40 50 63 80 A1 = Ø 100 A2 = Ø 125	Ø 32 to 80 stroke 1 to 2800 mm Ø 100 to 125 stroke 1 to 2600 mm	<ul> <li>A C45 chromed piston rod, aluminium piston: standard for all cylinders with ≥ 1000 mm-stroke cylinders and for cylinder with Ø 80 mm and over</li> <li>C C45 chromed piston rod, technopolymer piston: standard for cylinders of Ø 32 to 63 mm with &lt;1000 mm strokes</li> <li>Z Stainless steel piston rod and nut aluminium piston</li> <li>X Stainless steel piston rod and nut technopolymer piston</li> </ul>	<ul> <li>N NBR gaskets</li> <li>Polyurethane gaskets</li> <li>V FKM/FPM gaskets</li> </ul>

#### **KEY TO CODES VERSION LONG-CUSHIONING**

CVI	120	4	2.0	0050		D
CYL	130	A	32	0050	A	P
		TYPE	BORE	STROKE	MATERIAL	GASKETS
		<ul> <li>A 200 mm front/rear cushioning cone - 200 mm ext.</li> <li>B 150 mm front/rear cushioning cone - 150 mm ext.</li> <li>C 100 mm front/rear cushioning cone - 100 mm ext.</li> <li>D 150 mm front/rear cushioning cone - 200 mm ext.</li> <li>E 100 mm front/rear cushioning cone - 100 mm ext.</li> <li>F 50 mm front/rear cushioning cone - 100 mm ext.</li> <li>G 100 mm front/rear cushioning cone - 150 mm ext.</li> </ul>	32 40 50 63	1 to 2600 mm	<ul> <li>A C45 chromed piston rod, aluminium piston for all sizes</li> <li>Z Stainless steel piston rod and nut aluminium piston</li> </ul>	<ul> <li>N NBR gaskets</li> <li>P Polyurethane gaskets</li> <li>V FKM/FPM gaskets</li> </ul>
		<ul> <li>H 200 mm front cushioning cone - 200 mm ext.</li> <li>I 150 mm front cushioning cone - 150 mm ext.</li> <li>I 00 mm front cushioning cone - 100 mm ext.</li> <li>M 150 mm front cushioning cone - 200 mm ext.</li> <li>N 100 mm front cushioning cone - 150 mm ext.</li> <li>O 50 mm front cushioning cone - 100 mm ext.</li> </ul>				
		<ul> <li>Q 200 mm rear cushioning cone - 200 mm ext.</li> <li>R 150 mm rear cushioning cone - 150 mm ext.</li> <li>100 mm rear cushioning cone - 100 mm ext.</li> <li>T 150 mm rear cushioning cone - 200 mm ext.</li> <li>U 100 mm rear cushioning cone - 200 mm ext.</li> <li>V 50 mm rear cushioning cone - 100 mm ext.</li> </ul>				
* Vei	rsion valid o	nly for types: Q, R, S, T, U and V.				

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## **ISO 15552 CYLINDER SERIES 3**

ISO 15552 CYLINDER – SERIES 3

ISO 15552 cylinders, featuring specially-shaped barrels designed to reduce weight to a minimum.

Two T-slots on the same side as the threaded fittings can take retractable sensors.

The other three sides of the barrel are smooth, with no slots, and hence easy to clean.

#### **BARREL CROSS SECTION**

① SLOTS FOR RETRACTABLE SENSOR



#### **KEY TO CODES**

CYL	121	3	32	0050	C	Р	E
	TYPE	VERSION	BORE	STROKE	MATERIAL	GASKETS	
	<ul> <li>121 Double-acting, cushioned</li> <li>122 Through-rod</li> <li>124 Double-acting, non-cushioned</li> <li>125 Opposed</li> <li>126 Single-acting</li> <li>127 Tandem</li> <li>134 Version suitable for rod lock</li> <li>▷ 136 Version with rod lock</li> <li>I &gt; 137 Version suitable for rod lock + guide unit</li> <li>▷ \$154 Version suitable for bellow</li> <li>▷ \$156 Version with mounted bellow</li> </ul>	<ul> <li>3 Series 3</li> <li>4 Series 3 No stick slip</li> <li>5 Series 3 Non- magnetic</li> </ul>	32 40 50 63 80 A1 = Ø 100 A2 = Ø 125	For the maximum suppliable strokes, look at the technical data	<ul> <li>A C45 chromed piston rod, aluminium piston: standard for all cylinders with ≥ 1000 mm-stroke cylinders and for cylinder with Ø 80 mm and over</li> <li>C C45 chromed piston rod, technopolymer piston: standard for cylinders of Ø 32 to 63 mm with &lt;1000 mm strokes</li> <li>Z Stainless steel piston rod and nut aluminium piston</li> <li>X Stainless steel piston rod and nut technopolymer piston</li> </ul>	<ul> <li>N NBR gaskets</li> <li>P Polyurethane gaskets</li> <li>V FKM/FPM gaskets</li> <li>B Low temperature</li> <li>C "Combi" piston rod gasket</li> <li>R "Hard PU" piston rod gasket</li> <li>I M "Metal" piston rod gasket</li> </ul>	<ul> <li>★ E Single-acting extended rod or double-acting with spring, extended piston rod</li> <li>★ R Double-acting with spring, retracted piston rod</li> <li>★ 1 + Secure Lock with manual control</li> <li>★ 2 + Secure Lock without manual control</li> </ul>

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- Only available for versions with aluminium piston (A or Z) •
- Available until  $\emptyset$  63 and only the versions with distinuity pistor (v or 2). The versions without the final "E" are to be considered with retracted piston rod. Letter to be added only to the single acting extended piston rod version or ÷

▼ double-acting with spring, extended piston rod

- × Letter to be added only for the double-acting version with spring, retracted piston rod
- \* Extra digit to be added only for types 136 with the "Secure Lock" device
- Not available in Ø 32 ► The 126 (single-action) type and the (No-stick-slip) version 4 are not available

Not available for single-acting and double-acting with spring versions

For speeds lower than 0.2 m/s, to prevent surging. Use no-lubricated air only.

♦ Maximum suppliable strokes: Ø 32 to 63: from 1 to 720 mm;

Ø 80 to 125: from 1 to 840 mm

Not available for gasket V or B

Available until Ø 100



### ACCESSORIES FOR ISO 15552 CYLINDERS: PROTECTIVE BELLOWS

The protective bellows is designed to prevent the piston rod and gasket from coming into contact with external agents in applications characterised by the presence of pollutants such as dust, oils or other contaminants. The design and material chosen (NBR) ensure a long service life of the bellows, compatibly with the operating conditions.

In addition to the bellows as such, other elements are also included in the supply to ensure correct assembly on the cylinder and a tight fit. Depending on the cylinder size and stroke, three versions are available: - single, consisting of one collar for the standard cylinder head, one collar

- single, consisting of one collar for the standard cylinder head, one colla for the piston rod (which must be special) and bellows;
- double, which in addition to the collars, includes two bellows and one gasket;
- triple made up of three bellows and two gaskets.

The range offered includes two sizes that cover all ISO 15552 Metal Work cylinders, with Ø32 to Ø125 bores, in versions with a suitably designed piston rod.



				SIZE 60		SIZE 83			
			SINGLE	DOUBLE	TRIPLE	SINGLE	DOUBLE	TRIPLE	
Continuous duty temperature		°C			-10 to	o +50			
Cylinder strokes +	Ø32 to 63	mm	1 to 230	231 to 475	476 to 720	-	-	-	
	Ø80 to 125	mm	-	-	-	1 to 270	271 to 555	556 to 840	
Maximum recommended speed		m/s			1				
Weights		g	120	210	300	850	1020	1190	
Notes			Can on	y be fitted to pre	disposed cylinder	s, code 154 to	be purchased sep	parately	
			lt'	s possible to orde	er cylinder code 1	56 with alread	mounted bellow	/5.	
				+ For higher s	troke values, plea	se contact our sal	es department.		

#### COMPONENTS

- ① ROD COLLAR: NBR with stainless steel filter
- ② BELLOWS: NBR
- ③ JUNCTION: NBR with a POM core (only for double or triple kit)
- ④ HEAD COLLAR: NBR
- (5) ISO 15552 CYLINDER DESIGNED FOR BELLOWS





Refer to standard cylinders for other values.

#### ASSEMBLY ONTO CYLINDERS Ø32 - Ø40 - Ø50

For fixing the cylinder through the front head, in case of bores 32, 40 and 50 the bellows can be mounted **only after having fixed the cylinder**. For versions **156...** with mounted bellows:



Cylinder supplied with already mounted bellows.



Remove the bellows from the front head, acting on the head collar.



Fix the cylinder to the machine (for example with foot model A).



Reinsert the bellows on the front head, by pressing the head collar on the conical surface of the front cylinder head until it reaches the shoulder.

N.B.: Also order the cylinder designed for protective bellows (code 154 ... )



#### FOOT MODEL A



Code	Ø	Ø AB	AH	AO	AT	AU	TR	E	Weight [g]
W0950322507 *	32	7	32	11	4	24	32	45	76
W0950402507 *	40	9	36	15	4	28	36	52	100
W0950502001	50	9	45	15	5	32	45	65	162
W0950632001	63	9	50	15	5	32	50	75	266
W0950802001	80	12	63	20	6	41	63	95	456
W0951002001	100	14	71	25	6	41	75	115	572
W0951252001	125	16	90	15	8	45	90	140	1130

\* Version with button head screws to be used in place of standard feet codes W0950322001 and W0950402001. They can be mounted only inwards.

Note: Individually packed with 2 screws



In the case of the Ø32 bore, the foot must be raised to avoid rubbing the bellows on the support surface.

#### FRONT FLANGE - MODEL C



Ø40



Code Ø TF UF Е MF R øFB Weight [g] W0950502002 9 522 90 12 50 110 65 45 W0950632002 63 100 120 75 12 50 9 670 W0950802002 63 12 1420 80 126 150 95 15 W0951002002 100 150 178 115 15 75 14 2040 W0951252002 125 180 220 90 16 4300 140 20

Note: Supplied with 4 screws

For bores Ø32 and Ø40 it's not possible to use the front flanges codes W0950322002 and W0950402002 because they prevent effective assembly of the collar on the cylinder head.

#### NOTES

Refer to ISO 15552 cylinders for other accessories.

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