

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 piston rod lock.

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

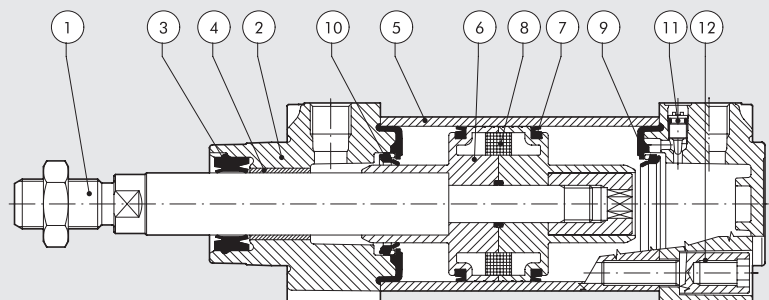
These cylinders are called series STD, type A, series 3.



TECHNICAL DATA		Polyurethane	NBR	FKM/FPM	Low Temperature	Other piston rod gasket
Max operating pressure	bar			10		
	MPa			1		
	psi			145		
Temperature range	°C	-25 to +80	-10 to +80	-10 to +150 (non-magnetic cyl.)	-35 to +80	See next page
Fluid		Unlubricated air. Lubrication, if used, must be continuous				
Bore	mm	32; 40; 50; 63; 80; 100; 125				
Design		Heads with Tap Tite screws				
Standard stroke †	mm	Single-acting: for bores 32 to 63 strokes from 1 to 250 Double-acting: for bores 32 to 80 strokes from 1 to 2800 for bores 100 to 125 strokes from 1 to 2600				
Versions		Double-acting cushioned, Single-acting extended or retracted rod cushioned, Through-rod cushioned, Long cushioning, High-temperature, Piston rod lock, Oil seal, Through-rod oil seal, Low friction, No stick-slip.				
Sensor magnet		All versions come complete with magnet. Supplied without magnet on request.				
Inrush pressure		Ø 32; 40: 0.4 bar Ø 50; 63 strokes < 1500 mm: 0.3 bar; strokes > 1500 mm: 0.4 bar Ø 80; 100; 125 strokes < 1500 mm: 0.2 bar; strokes > 1500 mm: 0.4 bar				
Notes		For speeds lower than 0.2 m/s to prevent surging, use the version No stick-slip and non-lubricated air. † Maximum recommended strokes. Higher values can create operating problems See cylinder "General technical data" at the beginning of the chapter See cylinder "General technical data" at the beginning of the chapter				
Forces generated at 6 bar thrust/retraction						
Weights						

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
- ⑨ BUFFER + Static O-rings: NBR or FKM/FPM
- ⑩ CUSHIONING GASKET: polyurethane, NBR or FKM/FPM
- ⑪ 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
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	-35 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

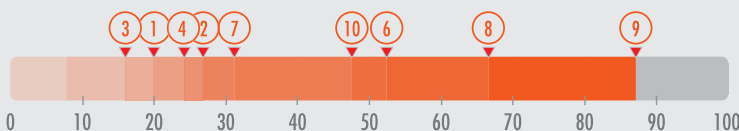
①	123.... only for series 3	Ultra low friction.	Textile industry, dandy devices, pneumatic springs.	NBR	-10 to + 80 °C	
⑩	....BL and....WL	HCR (High Corrosion Resistance)	Food and Beverage sector, such as dairy industry.	Anti-stagnation scraper made of special polyurethane, the other seals are made of NBR.	-10 to + 60 °C	
②	W184... W185...	INOX	Industrial applications with aggressive chemical agents.	Polyurethane	-10 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.	-35 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.

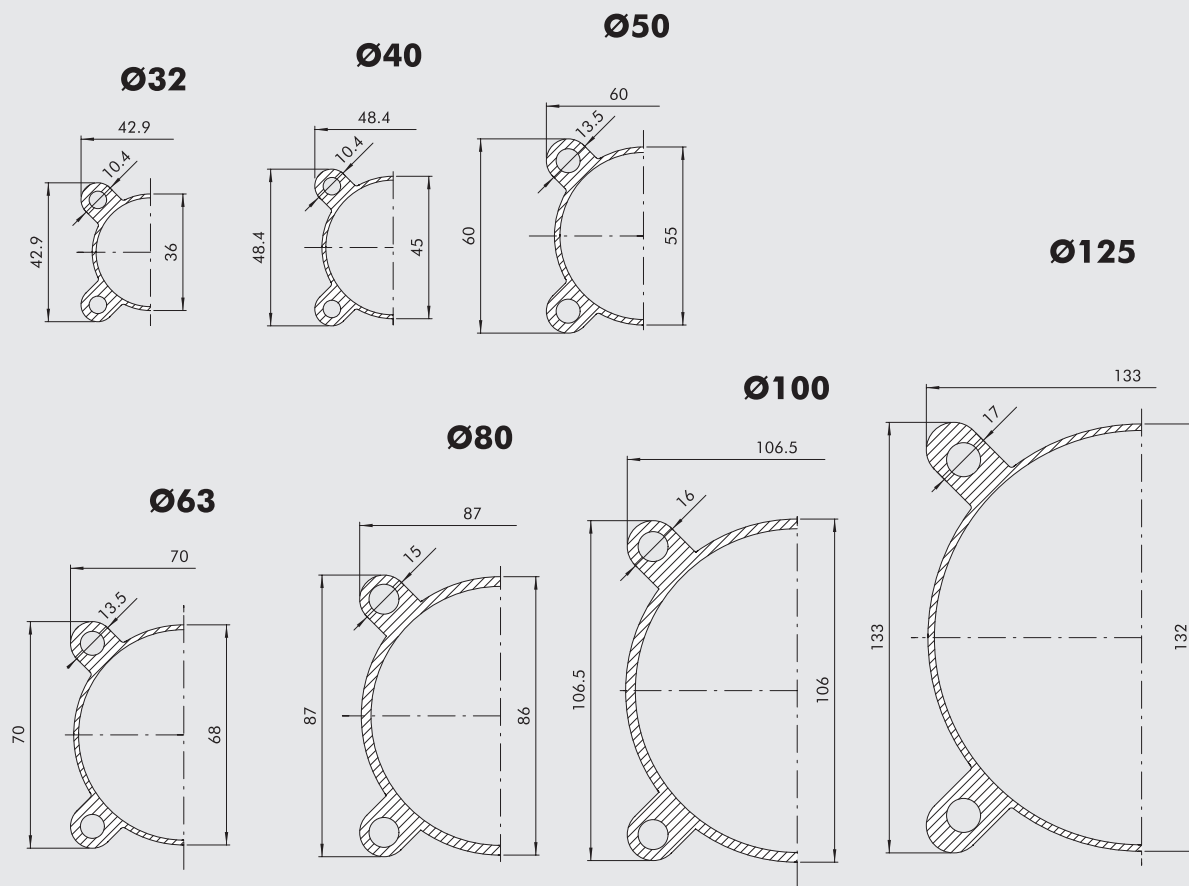


ISO 15552 CYLINDER SERIES STD

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.



BARREL CROSS SECTION



KEY TO CODES CYLINDER ISO 15552 STD

CYL	1 2 1 TYPE	0 Diameter	3 2 BORE	0 0 5 0 STROKE	C MATERIAL	P GASKETS	▼ E
	120 Double-acting, cushioned, non-magnetic	0 Diameter	32	For the maximum suppliable strokes, look at the technical data	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	N NBR gaskets P Polyurethane gaskets V FKM/FPM gaskets	E Single-acting extended rod
	121 Double-acting, cushioned	S Non-magnetic	40				
	122 Through-rod	▲ G No stick-slip	63		C C45 chromed piston rod, technopolymer piston: standard for cylinders of Ø 32 to 63 mm with <1000 mm strokes	● B Low temperature "Combi" piston rod gasket ▶ R "Hard PU" piston rod gasket ● ◻ M "Metal" piston rod gasket	
●	124 Double-acting, non-cushioned		80	■ 100			
	125 Opposed		125	■ 125	Z Stainless steel piston rod and nut aluminium piston		
+	126 Single-acting Tandem				X Stainless steel piston rod and nut technopolymer piston		
*	134 Rod lock version						
*	136 Version with piston rod lock						
* ♦	137 Piston rod lock + guide unit						

- In the code of cylinder with letter in fourth position Ø 100 becomes A1; Ø 125 becomes A2
- Only available for versions with aluminium piston (A or Z)
- + Available until Ø 63 and only the versions with piston in aluminum (A or Z)
126... Single-acting retracted rod
126...E Single-acting extended rod
- Not available in Ø 32

- ▲ For speeds lower than 0.2 m/s, to prevent surging. Use no-lubricated air only
- ♦ Available up to Ø 100
- * Not available for gaskets V or B
- ▼ Letter to be added only to the single acting extended rod version
- ▶ The 126 (single-action) type and the (No-stick-slip) version G are not available

KEY TO CODES CYLINDER ISO 15552 STD LOW-FRICTION

CYL	1 2 3 TYPE	3 2 BORE	0 0 5 0 STROKE	C MATERIAL	P GASKETS
	A Low friction, type A	32	Ø 32 to 80	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	N NBR gaskets P Polyurethane gaskets V FKM/FPM gaskets
	B Low friction, type B	40	stroke 1 to 2800 mm		
	C Low friction, type C	50	Ø 100 to 125	C C45 chromed piston rod, technopolymer piston: standard for cylinders of Ø 32 to 63 mm with <1000 mm strokes	
	D Low friction, type D	63	stroke 1 to 2600 mm		
	E Low friction, type E	80		Z Stainless steel piston rod and nut aluminium piston	
	F Low friction, type F	A1 = Ø 100 A2 = Ø 125		X Stainless steel piston rod and nut technopolymer piston	

KEY TO CODES CYLINDER ISO 15552 STD LONG-CUSHIONING

CYL	1 3 1 TYPE	3 2 BORE	0 0 5 0 STROKE	A MATERIAL	P GASKETS
	A 200 mm front/rear cushioning cone – 200 mm ext.	32	1 to 2600 mm	A C45 chromed rod, aluminium piston rod for all sizes	N NBR gaskets P Polyurethane gaskets
	B 150 mm front/rear cushioning cone – 150 mm ext.	40			
	C 100 mm front/rear cushioning cone – 100 mm ext.	50		Z Stainless steel piston rod and nut aluminium piston	* V FKM/FPM gaskets
	D 150 mm front/rear cushioning cone – 200 mm ext.	63			
	E 100 mm front/rear cushioning cone – 200 mm ext.				
	F 50 mm front/rear cushioning cone – 100 mm ext.				
	G 100 mm front/rear cushioning cone – 150 mm ext.				
	H 200 mm front cushioning cone – 200 mm ext.				
	I 150 mm front cushioning cone – 150 mm ext.				
	L 100 mm front cushioning cone – 100 mm ext.				
	M 150 mm front cushioning cone – 200 mm ext.				
	N 100 mm front cushioning cone – 150 mm ext.				
	O 50 mm front cushioning cone – 100 mm ext.				
	Q 200 mm rear cushioning cone – 200 mm ext.				
	R 150 mm rear cushioning cone – 150 mm ext.				
	S 100 mm rear cushioning cone – 100 mm ext.				
	T 150 mm rear cushioning cone – 200 mm ext.				
	U 100 mm rear cushioning cone – 200 mm ext.				
	V 50 mm rear cushioning cone – 100 mm ext.				

* Version valid only for types: Q, R, S, T, U and V.

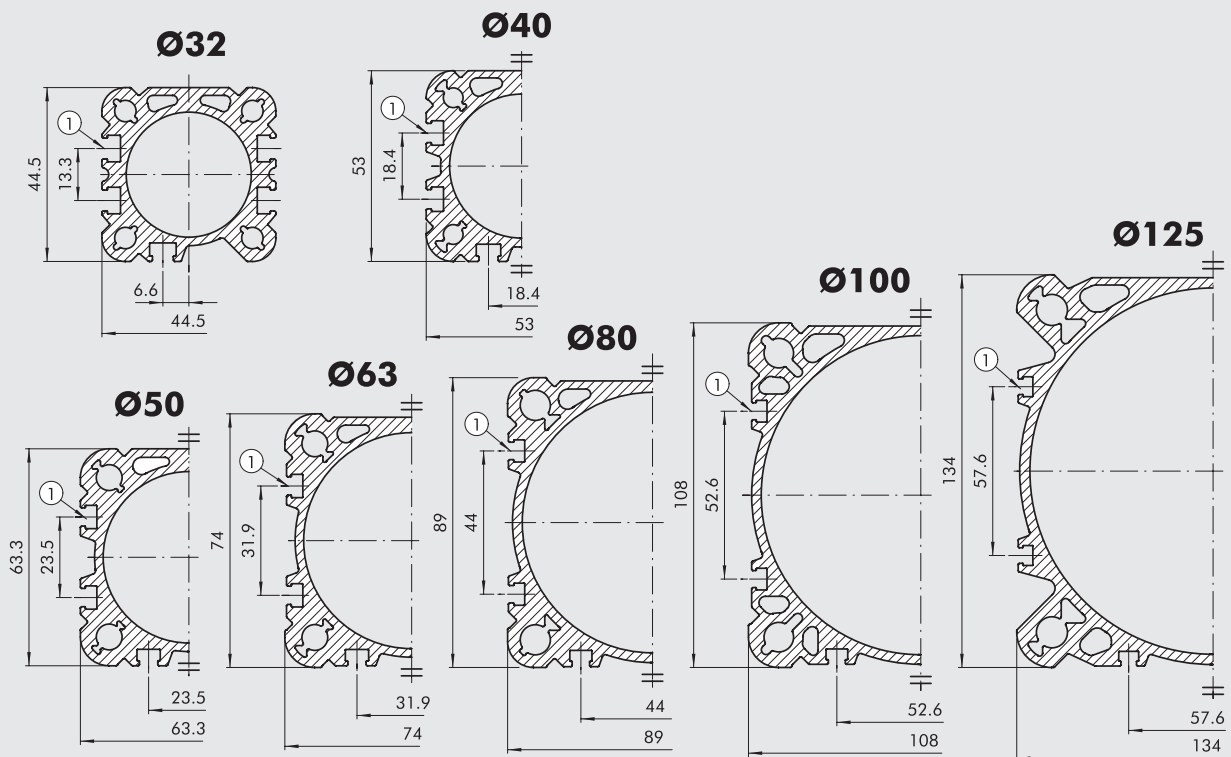
ISO 15552 CYLINDER TYPE A

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 SLOTS FOR RETRACTABLE SENSOR



KEY TO CODES CYLINDER ISO 15552 TYPE "A"

CYL	1 2 1 TYPE	A	3 2 BORE	0 0 5 0 STROKE	C MATERIAL	P GASKETS	▼ E
	121 Double-acting, cushioned	A Standard	32	For the maximum supplyable strokes, look at the technical data	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 C C45 chromed piston rod, technopolymer piston: standard for cylinders of Ø 32 to 63 mm with <1000 mm strokes Z Stainless steel piston rod and nut aluminium piston X Stainless steel piston rod and nut technopolymer piston	N NBR gaskets P Polyurethane gaskets V FKM/FPM gaskets ● B Low temperature "Combi" piston rod gasket ► R "Hard PU" piston rod gasket ● ◻ M "Metal" piston rod gasket	E Single-acting extended rod
●	122 Through-rod	▲ B No stick-slip	40				
	124 Double-acting, non-cushioned	C Non-magnetic	50				
	125 Opposed		63				
+	126 Single-acting		80				
	127 Tandem		A1 = Ø 100				
	134 Rod lock version		A2 = Ø 125				
*	136 Version with piston rod lock						
* ♦	137 Piston rod lock + guide unit						

- Only available for versions with aluminium piston (A or Z)
- ▲ For speeds lower than 0.2 m/s, to prevent surging. Use no-lubricated air only
- + Available until Ø 63 and only the versions with piston in aluminum (A or Z)
- ♦ Available up to Ø 100
- 126... Single-acting retracted rod
- 126...E Single-acting extended rod
- * Not available for gaskets V or B
- The 126 (single-action) type and the (No-stick-slip) version B are not available
- ◻ Not available in Ø 32
- ▼ Letter to be added only to the single acting extended rod version

KEY TO CODES CYLINDER ISO 15552 LOW-FRICTION TYPE "A"

CYL	1 2 9	A TYPE	3 2 BORE	0 0 5 0 STROKE	C MATERIAL	P GASKETS
		A Low friction, type A	32	Ø 32 to 80	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 C C45 chromed piston rod, technopolymer piston: standard for cylinders of Ø 32 to 63 mm with <1000 mm strokes Z Stainless steel piston rod and nut aluminium piston X Stainless steel piston rod and nut technopolymer piston	N NBR gaskets P Polyurethane gaskets V FKM/FPM gaskets
		B Low friction, type B	40	stroke 1 to 2800 mm		
		C Low friction, type C	50	Ø 100 to 125		
		D Low friction, type D	63	stroke 1 to 2600 mm		
		E Low friction, type E	80			
		F Low friction, type F	A1 = Ø 100 A2 = Ø 125			

KEY TO CODES CYLINDER ISO 15552 LONG-CUSHIONING TYPE "A"

CYL	1 3 0	A TYPE	3 2 BORE	0 0 5 0 STROKE	A MATERIAL	P GASKETS
		A 200 mm front/rear cushioning cone – 200 mm ext.	32	1 to 2600 mm	A C45 chromed piston rod, aluminium piston for all sizes Z Stainless steel piston rod and nut aluminium piston	N NBR gaskets P Polyurethane gaskets * V FKM/FPM gaskets
		B 150 mm front/rear cushioning cone – 150 mm ext.	40			
		C 100 mm front/rear cushioning cone – 100 mm ext.	50			
		D 150 mm front/rear cushioning cone – 200 mm ext.	63			
		E 100 mm front/rear cushioning cone – 200 mm ext.				
		F 50 mm front/rear cushioning cone – 100 mm ext.				
		G 100 mm front/rear cushioning cone – 150 mm ext.				
		H 200 mm front cushioning cone – 200 mm ext.				
		I 150 mm front cushioning cone – 150 mm ext.				
		L 100 mm front cushioning cone – 100 mm ext.				
		M 150 mm front cushioning cone – 200 mm ext.				
		N 100 mm front cushioning cone – 150 mm ext.				
		O 50 mm front cushioning cone – 100 mm ext.				
		Q 200 mm rear cushioning cone – 200 mm ext.				
		R 150 mm rear cushioning cone – 150 mm ext.				
		S 100 mm rear cushioning cone – 100 mm ext.				
		T 150 mm rear cushioning cone – 200 mm ext.				
		U 100 mm rear cushioning cone – 200 mm ext.				
		V 50 mm rear cushioning cone – 100 mm ext.				

* Version valid only for types: Q, R, S, T, U and V.

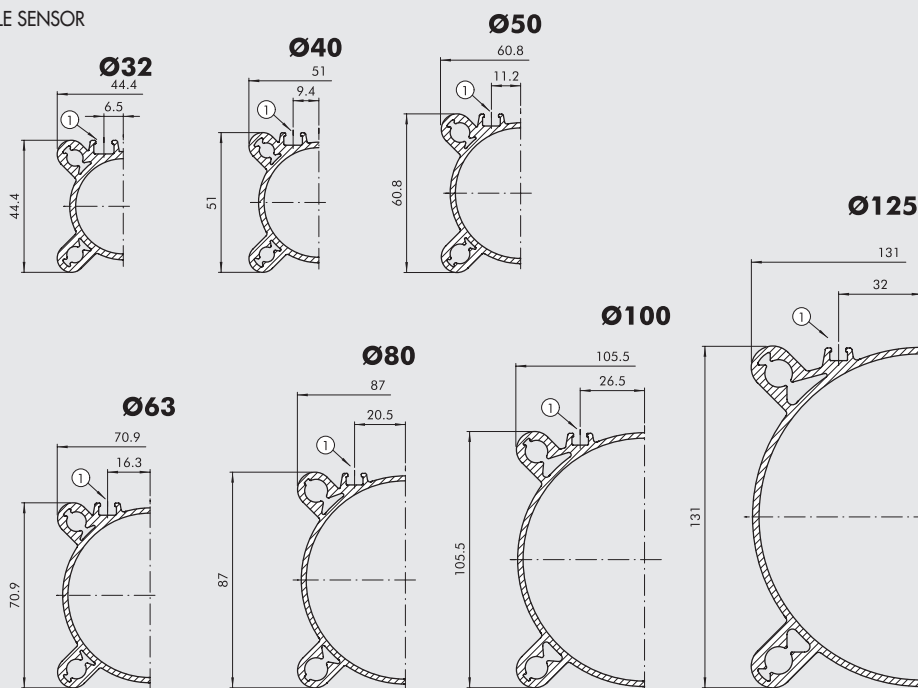
ISO 15552 CYLINDER SERIES 3

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	1 2 1	3	3 2	0 0 5 0	C	P	▼ E
	TYPE		BORE	STROKE	MATERIAL	GASKETS	
	121 Double-acting, cushioned	3 Series 3	32	For the maximum applicable strokes, look at the technical data	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 C C45 chromed piston rod, technopolymer piston: standard for cylinders of Ø 32 to 63 mm with <1000 mm strokes Z Stainless steel piston rod and nut aluminium piston X Stainless steel piston rod and nut technopolymer piston	N NBR gaskets	E Single-acting extended rod
●	122 Through-rod	◆ 4 Series 3	40			P Polyurethane gaskets	
	124 Double-acting, non-cushioned		50			V FKM/FPM gaskets	
	125 Opposed	5 Series 3	63			● B Low temperature	
+	126 Single-acting		80			C "Combi" piston rod gasket	
	127 Tandem		A1 = Ø 100			▶ R "Hard PU" piston rod gasket	
	134 Rod lock version		A2 = Ø 125			● ◻ M "Metal" piston rod gasket	
■	136 Version with piston rod lock						
■ *	137 Piston rod lock + guide unit						

- Only available for versions with aluminium piston (A or Z)
- + Available until Ø 63 and only the versions with piston in aluminium (A or Z)
- 126... Single-acting retracted rod
- 126...E Single-acting extended rod
- ▼ Letter to be added only to the single acting extended rod version
- ◆ For speeds lower than 0.2 m/s, to prevent surging. Use no-lubricated air only

- * Available until Ø 100
- Not available for gasket V or B
- ◻ Not available in Ø 32
- ▶ The 126 (single-action) type and the (No-stick-slip) version 4 are not available

ISO 15552 ULTRA-LOW FRICTIONS CYLINDER

A typical ultra-low friction cylinder is generally used as an oscillating or tensioning cylinder. It is single acting, in the sense that compressed air is normally fed into one of the two chambers only. An external force acts on the other side. Metal Work's ultra-low friction cylinder is designed as a double-acting one, which means the compressed air can be fed into the rear or either the front chamber. They are built to comply with ISO 15552 and are available with or without a magnet.

Supplied with a series 3 barrel.

A through-rod version is not available.

These cylinders are always non-cushioned.

The gaskets are made of NBR.

A full range of accessories is available.



TECHNICAL DATA		NBR
Max operating pressure	bar	10
	MPa	1
	psi	145
Temperature range	°C	-10 to +80
Fluid		Unlubricated air
Bore	mm	32; 40; 50; 63; 80; 100; 125
Standard stroke	mm	1 to 1200
Design		Heads with Tap Tite screws
Versions		Double-acting magnetic, Double-acting non-magnetic (always "No stick-slip" cylinder)
Sensor magnet		All the versions with or without magnet
Inrush pressure	bar	$\varnothing 32 = 0.08$ $\varnothing 40 = 0.06$ $\varnothing 50 = 0.05$ $\varnothing 63 = 0.04$ $\varnothing 80 = 0.03$ $\varnothing 100 = 0.03$ $\varnothing 125 = 0.03$
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		There may be leakage between the two chambers in the presence of low pressures (up to 1 bar)

COMPONENTS

- ① PISTON ROD: C45 steel or stainless steel, thick chromed
- ② HEAD: die cast aluminium
- ③ PISTON ROD GASKET: NBR
- ④ GUIDE BUSHING: steel strip with bronze insert
- ⑤ BARREL: drawn anodized calibrated aluminium
- ⑥ PISTON GASKET: NBR
- ⑦ HALF-PISTON: aluminium alloy
- ⑧ MAGNET: plastoferrite
- ⑨ GUIDE RING: special technopolymer
- ⑩ BUFFER + Static O-rings: NBR
- ⑪ CUSHIONING NEEDLE: OT 58 with needle out movement safety system even when fully open
- ⑫ SCREWS: Tap Tite for assembly

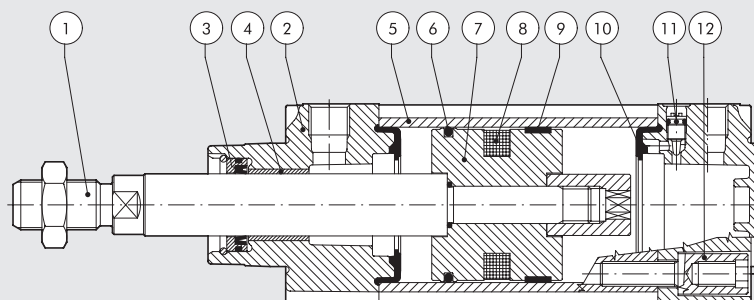
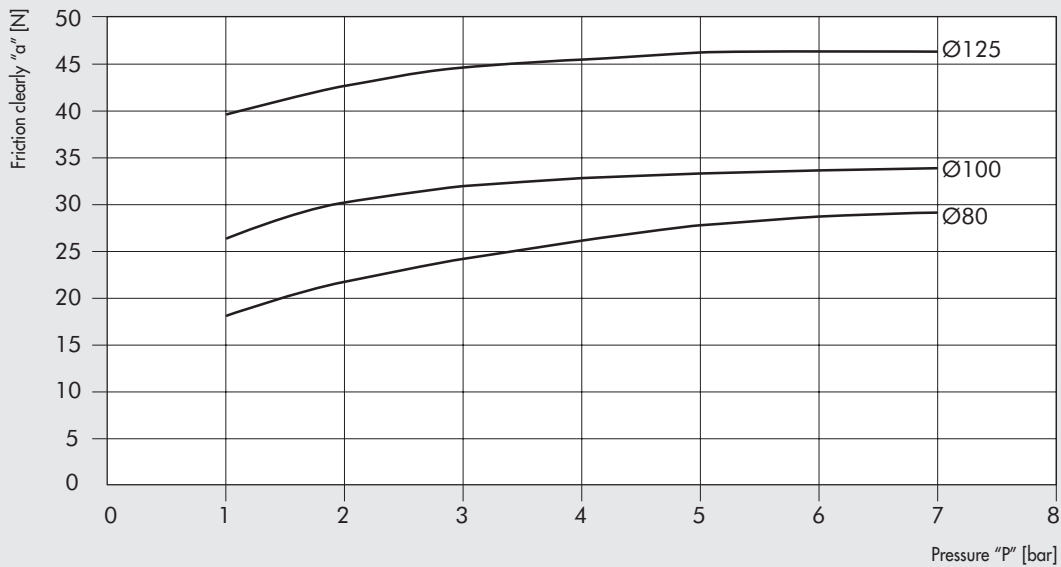
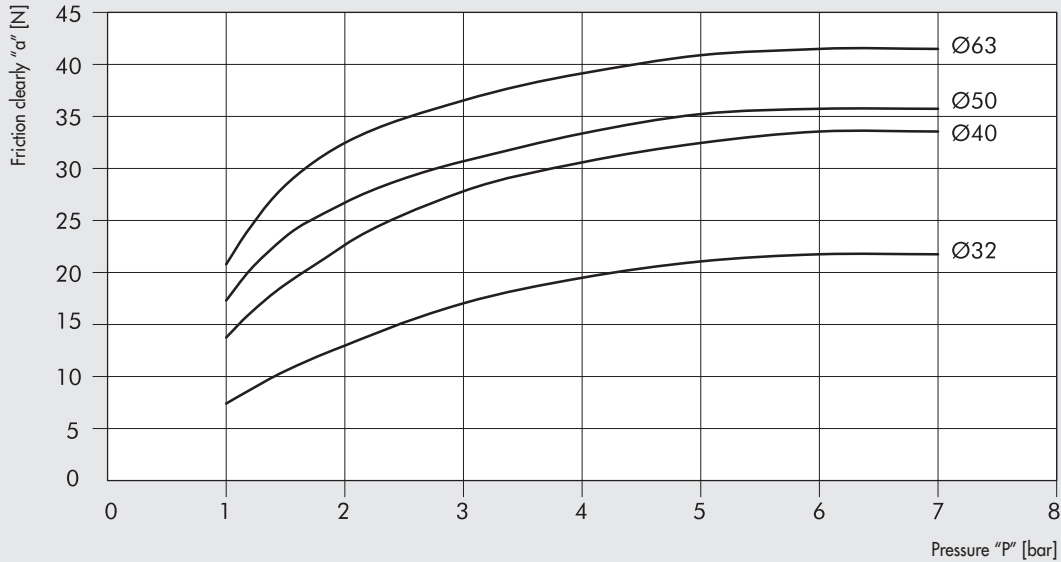


DIAGRAM OF THE CLEAN FRICTIONS



The clean friction values "α" in N have been obtained by inserting in the back chamber the pressure "P" in bars, and simultaneously by detecting the necessary force "F" in N to make the rod re-enter, applying the following formula:

$$\alpha = F - [(P \times S) \times 9.81]$$

where "S" is the thrust section in cm²

KEY TO CODES

CYL	1 2 3 TYPE	3	3 2 BORE	0 1 0 0 STROKE	A MATERIAL	N GASKETS
	123 Ultra-low friction	3 Double-acting magnetic 5 Double-acting not magnetic	32 40 50 63 80 A1 = 100 A2 = 125	From 1 to 1200 mm	A C45 chromed piston rod, aluminium piston rod Z Stainless steel piston rod and nut aluminium piston	N NBR gaskets

ALL the cylinders are No stick-slip.
ALL the cylinders are non-cushioned.
Ultra-low friction cylinders are not available in the through-rod version.

ISO 15552 CYLINDER Ø 160-200 WITH ROUND BARREL

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

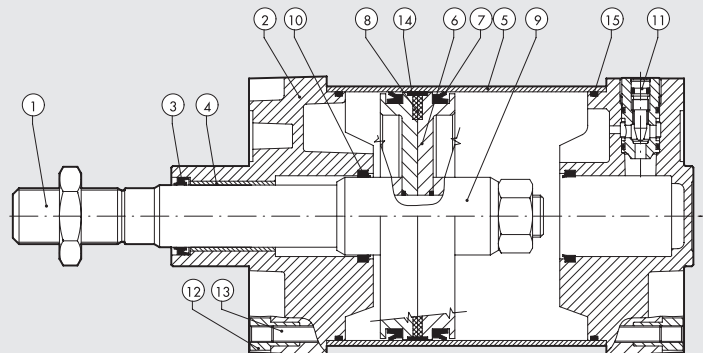
- configuration with or without magnet
- double-acting – single- or through-rod
- wide choice of NBR and FKM/FPM (for high temperature)
- available with mounted intermediate hinge
- special configurations on request






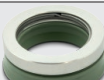
TECHNICAL DATA		NBR	FKM/FPM	Other piston rod gasket
Max operating pressure	bar		10	
	MPa		1	
Temperature range	°C	-20 to +80	-10 to +150	See next page
Design		Round barrel with tie rods		
Standard strokes	mm	25-50-75-80-100-125-150-200-250-300-350-400-500-600-700-800-900-1000		
Forces generated at 6 bar (tensile stress)		See cylinder "General technical data" at the beginning of the chapter		
Weight		See cylinder "General technical data" at the beginning of the chapter		

COMPONENTS

- PISTON ROD: C45 steel or stainless steel, thick chromed
- HEAD: die cast aluminium
- PISTON ROD GASKET: NBR, FKM/FPM, FKM/FPM with metal scraper
- GUIDE BUSHING: sintered bronze
- BARREL: drawn anodized aluminium alloy
- PISTON: aluminium
- PISTON GASKET: NBR or FKM/FPM
- MAGNET: plastoferrite
- CUSHIONING CAP: aluminium
- CUSHIONING GASKET: polyurethane or FKM/FPM
- CUSHIONING NEEDLE: OT 58 with needle out movement safety system even when fully open
- SCREWS: galvanised steel
- TIE RODS: stainless steel
- GUIDE BELT: technopolimer
- STATIC O-RINGS: NBR or FKM/FPM

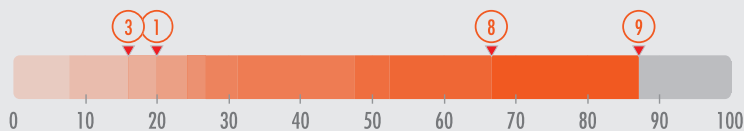


OVERVIEW OF SEALS AND SCRAPERS

	Code identifier	Key feature	Applications	Gasket material	Temperature range
①	....	General use.	Standard applications, also with humidity.	NBR	-20 to + 80 °C
③	....V	High temperatures - chemicals.	Industrial applications with chemical agents and/or at high temperatures.	FPM/FKM	-10 to + 150 °C
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 NBR.	-10 to + 80 °C
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

Anti-contamination Effect Indicators

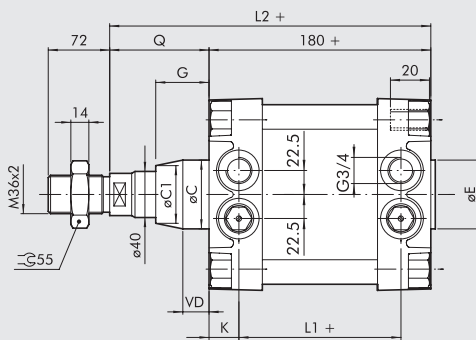
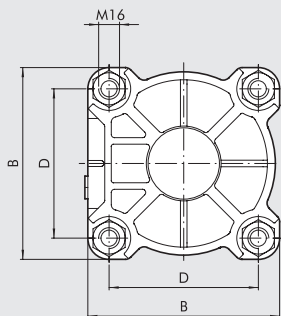
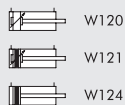
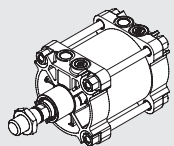
An index of protection against the dirt that settles and adheres to the piston rod is provided for each version, on a 1 to 100 scale.



NOTES

DIMENSIONS OF STANDARD VERSION

+ = ADD THE STROKE

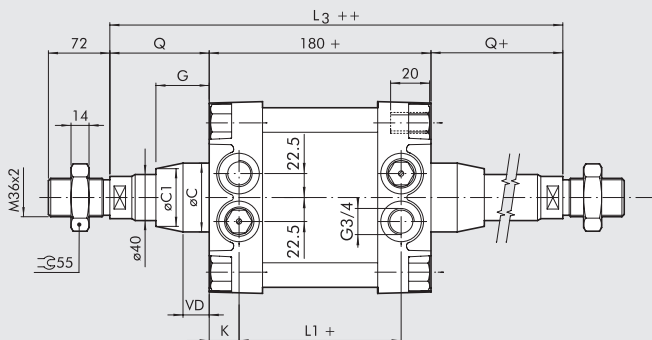
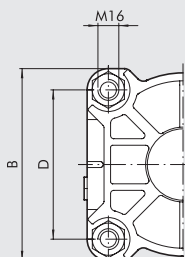
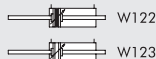
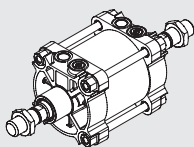


Ø	B	øC	øC1	øE	D	G	L ₁	L ₂	Q	VD	K
160	180	65	-	65	140	50	124	260	80	-	28
200	220	75	~ 65	75	175	60	122	275	95	~ 15	29

DIMENSIONS OF THROUGH-ROD VERSION

+ = ADD THE STROKE

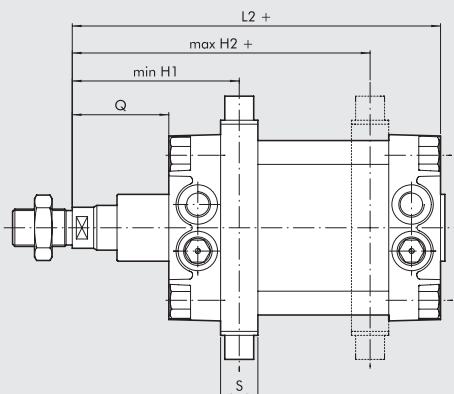
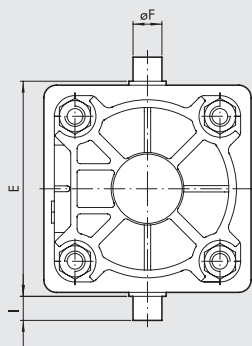
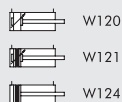
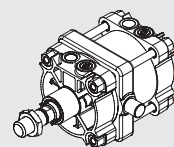
++ = ADD TWICE THE STROKE



Ø	B	øC	øC1	D	G	L ₁	L ₃	Q	VD	K
160	180	65	-	140	50	124	340	80	-	28
200	220	75	~ 65	175	60	122	370	95	~ 15	29

DIMENSIONS OF VERSION WITH INTERMEDIATE HINGE

+ = ADD THE STROKE



Ø	E	øF	H1	H2	I	L2	Q	S
160	200	32	150	190	32	260	80	40
200	250	32	165	205	32	275	95	40

For the missing values, refer to standard cylinders. In your order, please specify the desired value for H1

