

**B**

model				Ø (mm)		standard stroke		detection	type	illustration	series	page	
standards	Adjust. pneumatic cushioning	Tie rods	Profiled barrel	Through-rod	min.	max.	min.	max.					Equipped for position detection (1)
<b>Cylinders according to ISO 15552 standard</b>													
	●	●								PES	ISO 15552 standard PES range	450 453	P200-7
<b>Tie rods</b>													
	●				32	250	25	1000	●	PES		450	P229-5
	●				32	200	25	600	●	PES		450	P239-3
	●				32	250			●	PES	spare parts	450	P229-7
<b>Profiled barrel</b>													
	●				32	100	25	1000	●	PES		453	P229-15
	●				32	100			●	PES	spare parts	453	P229-17
<b>Specialised version</b>													
Options and special versions	●	●			32	200	25	2000	●	PES		450 453	P239-1
Guiding units for cylinders	●	●			32	100	50	500		U		010	P239-4
										H		881	P239-7
Rod lock for cylinders	●	●			32	100	50	600		static		463	P239-11
					40	100	50	600		dynamic		450 453	P239-17
Cylinders with omega formed piston seal	●				32	80	25	630	●	PES Ω		450	P239-22
	●				32	80			●	PES Ω	according with slow and quick speed	453	P239-23
	●	●				32	80			●	PES Ω	spare parts	450-453
<b>Fixations</b>													
Standardised mountings ISO 15552	●	●			20	200						434	P229-18
<b>Position detectors</b>													
Reed switch - 2 wires										ILS		REED PNP - NPN	P291
Magneto-inductive - 3 wires										MR			

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**CYLINDER WITH TIE RODS - SERIES 450** (see page 4)

**STURDY DESIGN**

Cylinder with non-extended tie-rods  
 Rod in hard chrome steel  
 Round barrel in anodised aluminium

**BASIC CYLINDER**

Diameters from 32 to 250 mm  
 Adjustable pneumatic cushioning  
 Magnetic position detection  
 Options and special versions



**HIGH PERFORMANCE**

Accurate rod guidance  
 High-performance self-lubricating bearing  
 Wear-resistant rod and piston seals  
 Non-lubricated operation

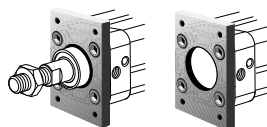
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**DETECTORS** (see page P291)

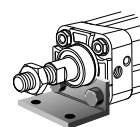


T-slot detector

**RANGE OF STANDARD MOUNTINGS** (see page P229-18 or page X019-312 ATEX)



Front or rear flange



Feet



Cap, detachable clevis  
 or with spherical eye

# CYLINDER WITH SQUARE PROFILED BARREL - SERIES 453

(see page 12)

**HIGH RESISTANCE - RELIABILITY**

- Barrel/end connection with tie-rods
- Profiled tube with high torsional resistance
- High pneumatic cushioning capacity
- Low-noise operation - long service life

**MODERN DESIGN**

- Square profiled barrel in anodised aluminium
- Grooves on 4 sides of the barrel
- Streamlined design



**NUMEROUS OPTIONS**

- With or without pneumatic cushioning
- With or without magnetic position detection
- T-slot or dovetail type grooves
- Standard swivel trunnion mount



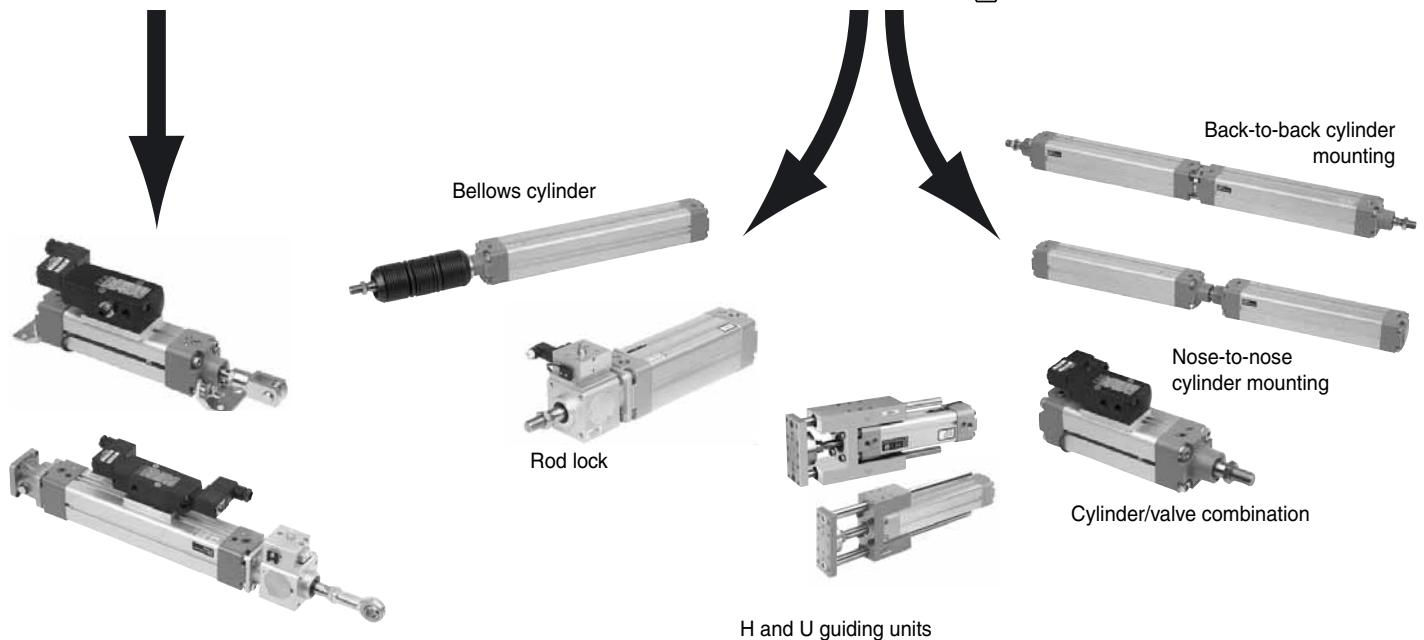
**CONFIGURABLE INTO PLUG & PLAY GUIDE UNITS**

- 5/2 and 5/3 valves with mounting pad to ISO or Namur
- Mountings, detectors, pneumatic function fittings
- Custom solutions assembled and tested on delivery

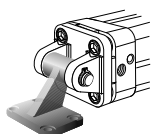
**SUITABLE FOR A WIDE RANGE OF APPLICATIONS**

- Static or dynamic rod locking device
- Special versions and options
- Valves flanged on cylinder
- Versions to ATEX

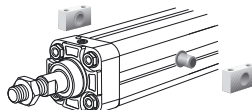
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Cap, detachable eye, or with spherical eye



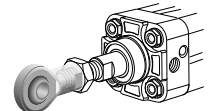
Angular clevis bracket or with spherical eye



Centre trunnion



Female rod clevis



Spherical bearing