

GENERAL

Detection
Fluid
Operating pressure
Ambient temperature

Equipped for magnetic position detectors
Air or neutral gas, filtered, lubricated or not
10 bar max.
-25°C to +80°C (without position detectors)
(for higher temperatures, consult us)
-20°C to +70°C (with position detectors)
≤ 1 m/s (for optimal service life)
3 m/s (at 20°C)
ISO 15552-AFNOR NF ISO 15552-DIN ISO 15552
(replace ISO 6431-AFNOR NFE 49003-VDMA 24562)

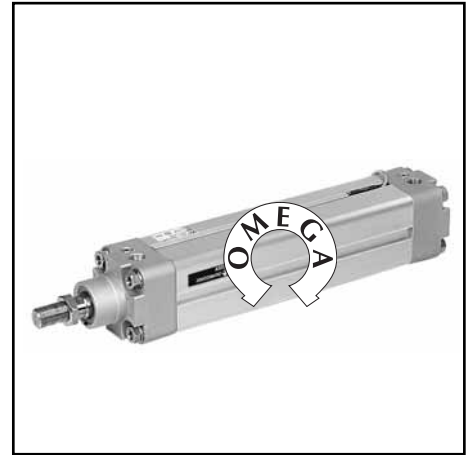
Optimal max. speed
Max. speed rate
Standards

CONSTRUCTION

Barrel
Front and rear ends
Barrel/end connection
Bearing
Cushioning seals
Cushioning

Non-magnetic, hard anodized aluminium alloy
Aluminium alloy
With stainless steel tie-rods
Self-lubricating metal
PUR (polyurethane)
Pneumatic, adjustable from both sides
with captive screws
Hard chrome plated steel
Galvanized steel
Light alloy fitted with an annular permanent magnet
PUR (polyurethane)

Rod
Rod nut
Piston
Piston seals



SPECIFICATIONS

DEFINING THE CYLINDER CATALOGUE NUMBER

Standard version: profiled barrel with adjustable pneumatic cushioning, equipped for magnetic position detectors (T-slot grooves in 12 o'clock position).

When ordering, please specify:

- **AIR CYLINDER**
 - The air cylinder type (profiled, with cushioning, equipped for magnetic position detection).
 - The position of the T-slot groove or dovetail groove on the cylinder.
 - The cylinder diameter and its stroke.
- **DETECTORS:** The magnetic position detectors must be ordered separately:
 - "T" model (see page P291), "COMPACT" model (see page P293), reed switch or magneto-resistive type

453 5

barrel	cylinder type		type
	cushioning	position detection	
profiled barrel	cushioned	equipped	0L

Ø (mm)	standard strokes (mm) (1) (recommended standard strokes)										max. stroke (mm)		
	25	50	80	100	125	160	200	250	320	400		500	630
32	•	•	•	•	•	•	•	•	•	•	•	•	1000
40	•	•	•	•	•	•	•	•	•	•	•	•	1500
50-63	•	•	•	•	•	•	•	•	•	•	•	•	1800
80	•	•	•	•	•	•	•	•	•	•	•	•	2000

(1) Other strokes on request.

groove position		type
position of the T-slot grooves on the profiled PES cylinder	12 o'clock	0
	3 o'clock	3
	6 o'clock	6
	9 o'clock	9
position of the dovetail grooves on the profiled PES cylinder	12 o'clock	9
	3 o'clock	0
	6 o'clock	3
	9 o'clock	6

Ø cylinder	
type	Ø (mm)
3	32
4	40
5	50
6	63
8	80

Ordering example:

- profiled cylinder with pneumatic cushioning equipped for detectors = **0L**
- T-slot grooves at 3 o'clock position = **3**
- Cylinder Ø 80 mm = **8**
- Stroke 100 mm = **0100**

Ordering code: **453 5 0L 3 8 0100**

OPTIONS

- Other strokes on request
- Piston rod in 316L stainless steel, catalogue number: **995002** - in 303 stainless steel, catalogue number: **995202**
- Overlength piston rod in hard chrome steel, cat. n°: **995003** - in 316L stainless steel, cat. n°: **995004** - in 303 stainless steel, cat. n°: **995204**

ACCESSORIES: Protective groove cover and detector cable holder - see page P291

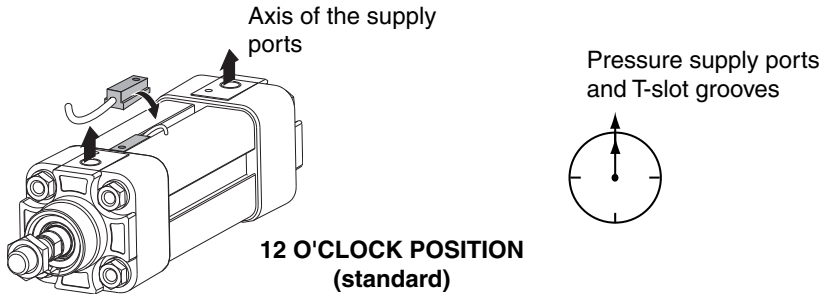
MOUNTINGS: see page P242

DIMENSIONS: see page P229-6

POSITION OF THE T-SLOT AND THE DOVETAIL GROOVES

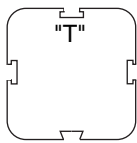
Series 453 PES cylinders offer the advantage of being able to position the T-slot grooves on the cylinder in 4 different positions with reference to the axes of the pressure supply ports. The position must be specified when defining the cylinder code.

STANDARD POSITION OF THE T-SLOT GROOVES

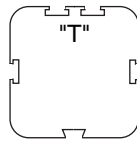


12 O'CLOCK POSITION (standard)

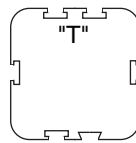
Ø 32 mm
3 T-slot grooves
1 dovetail groove



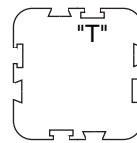
Ø 40 mm
4 T-slot grooves
1 dovetail groove



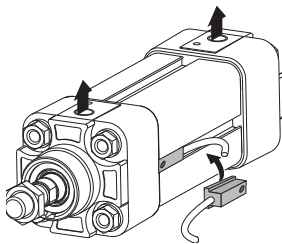
Ø 50 mm
5 T-slot grooves
1 dovetail groove



Ø 63 -80 mm
4 T-slot grooves
4 dovetail grooves

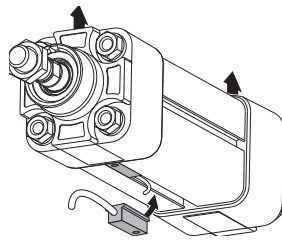
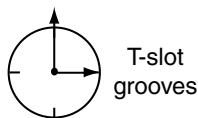


OTHER POSSIBLE POSITIONS (consult us)



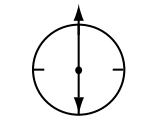
3 O'CLOCK POSITION

Pressure supply ports

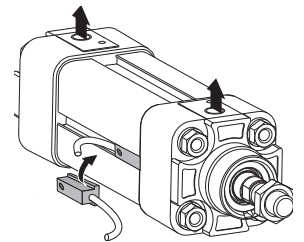


6 O'CLOCK POSITION

Pressure supply ports

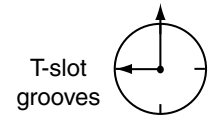


T-slot grooves



9 O'CLOCK POSITION

Pressure supply ports



T-slot grooves

