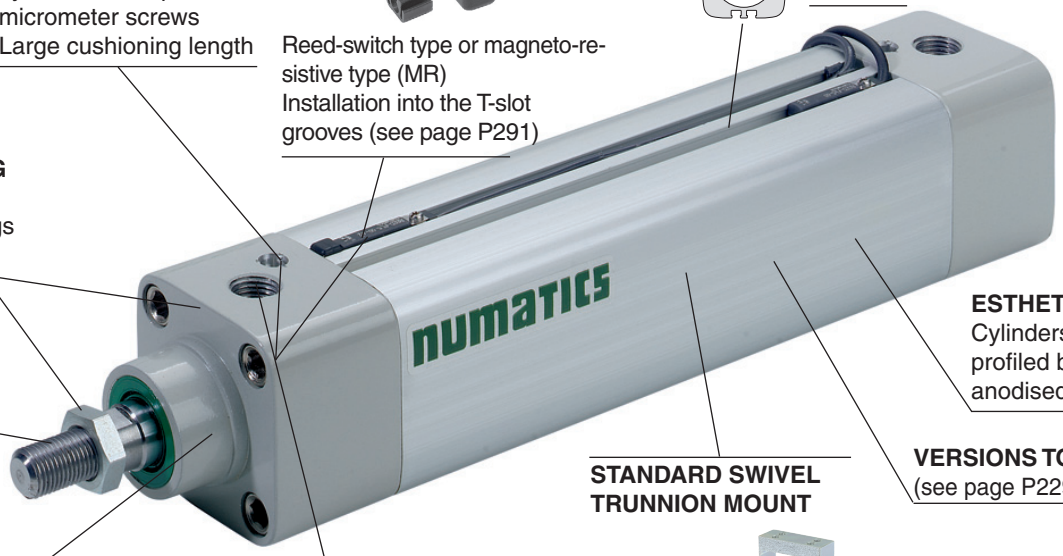
PRECISE & STURDY CUSHIONING
. Precise cushioning by means of captive micrometer screws
. Large cushioning length

MAGNETIC POSITION DETECTOR

Reed-switch type or magneto-resistive type (MR)
Installation into the T-slot grooves (see page P291)

T-SLOT GROOVES

Grooves in 3 sides



EASY MOUNTING
Wide choice of standard mountings and rod ends

STURDY DESIGN
Rod in hard chrome steel

ESTHETIC DESIGN
Cylinders with profiled barrel in hard anodised aluminium

VERSIONS TO ATEX (see page P229-3)

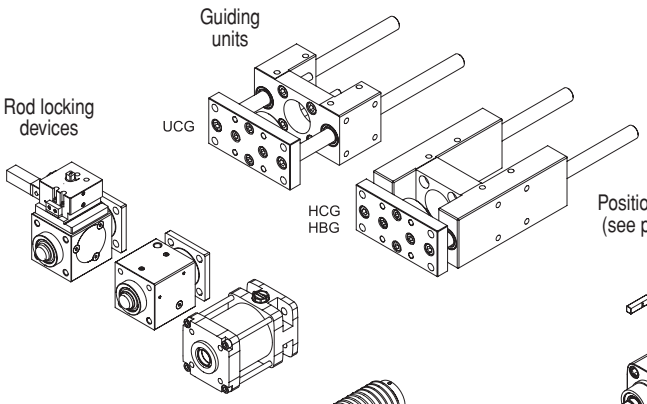
STANDARD SWIVEL TRUNNION MOUNT

As a fastening option, this trunnion slides on the barrel for on-site positioning.

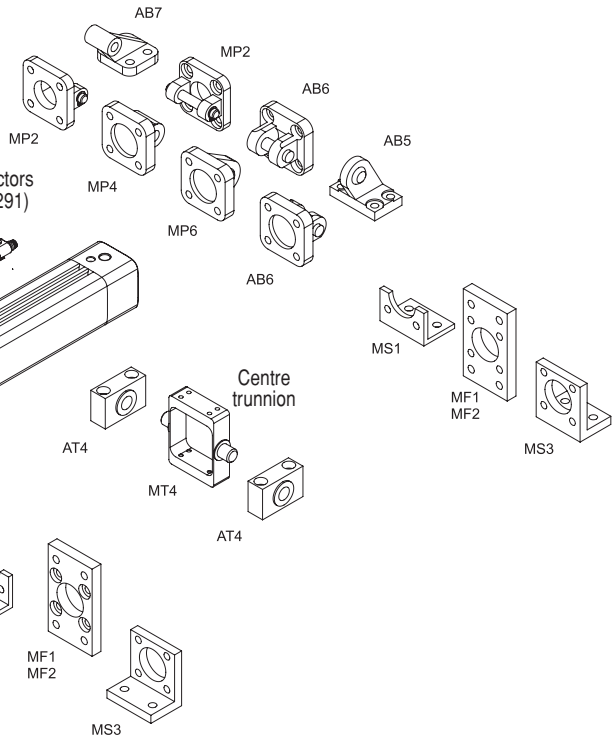
PRECISE ROD GUIDANCE
With high-performance self-lubricating bearing and non-abrasive scraper seal

EASY MAINTENANCE
. Series 453 cylinders do not require lubrication
. All the functions in the same side:
- air ports
- cushioning adjustment
- detection

OPTIONS (see page P229-3)



STANDARD MOUNTINGS (see page P235)

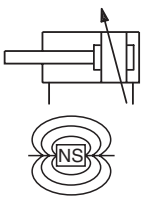


SPECIAL ASSEMBLIES (see page P229-13)

CONFIGURABLE INTO PLUG & PLAY 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

CYLINDERS WITH PROFILED BARREL

Ø 32 to 100 mm - double acting
ISO 15552
with pneumatic cushioning



GENERAL

Detection	**Equipped for magnetic position detectors**
Fluid	Air or inert gas, filtered, lubricated or not
Operating pressure	10 bar, max. [1 bar =100 kPa]
Ambient temperature	–20°C to +70°C (for higher temperature, see HTP option)
Optimal max. speed	≤ 1 m/s (for optimal service life)
Max. speed rate	2 m/s (for higher and lower speed rate, see LFS option)
Standards	ISO 15552

2D/3D CAD models - *In 3D*

CONSTRUCTION

Barrel	Hard anodized aluminium alloy	
Front and rear ends	Aluminium alloy	
Bearing	Self-lubricating metal	
Cushioning seals	PUR (polyurethane)	
Cushioning	Pneumatic, adjustable from both sides with captive screw	
Rod	Hard chrome plated steel	
Rod nut	Galvanised steel	
Piston	Ø 32 to 80 mm	POM (polyacetal)
	Ø 100 mm	light alloy
	fitted with an annular permanent magnet	
Piston seals	PUR (polyurethane)	

HOW TO ORDER

15-DIGIT PRODUCT CODE

G 453 A - S K - - - - A00

Thread connection
G = ISO 16030

Product series
453

Revision letter
A = Initial release

Diameter (mm)
3 = 32
4 = 40
5 = 50
6 = 63
8 = 80
1 = 100

Rod options 1
S = Chromed single rod
2 = Through rod
3 = AISI 303 stainless steel rod
4 = AISI 303 stainless steel through rod
6 = AISI 316 stainless steel rod
7 = AISI 316 stainless steel through rod
All cylinders delivered with rod nut, in stainless steel for options 3, 4, 6 and 7.

Rod options 2
K = No option
3 = Static rod-locking device (see P229-24)
4 = Static rod-locking device and manual operator (see P229-24)
5 = Dynamic rod-locking device - Ø 40 to 100 mm (see P229-29)
6 = Oversized piston rod - Ø 63 to 100 mm (see P229-33)
8 = Rod bellow (see P229-35)
T = Eye rod end
Extended piston rod, consult us

Options
A00 = Without
MT4 = Non fixed centre trunnion (MT4 axis perpendicular to the ports)(1)
MS4 = Non fixed centre trunnion (MT4 axis parallel to the ports)(1)
UCG = Plain bearing "U" guiding unit (see P229-20)
HCG = Plain bearing "H" guiding unit (see P229-20)
HBG = Ball bearing "H" guiding unit (see P229-20)
AT1 = ATEX zones 1/21
AT2 = ATEX zones 2/22
HTP = High temperature (up to 120°C)(2)
FPM = FPM seals
FFP = FPM front end seals
NPC = Anticorrosion treatment on covers & high-quality rod seals
SCN = Stainless steel cover nuts
LFS = Low friction piston seals - Ø 32 to 80 mm(3)(see P229-15)
NCS = Without pneumatic cushioning

(1) For fixed supplied centre trunnion, consult our Dynamic Product Modeling Tool on www.asconumatics.eu and indicate XV dimension.
(2) Magnetic detectors cannot be fitted to this version.
(3) Special characteristics for this option:
. piston material: light alloy
. max. speed rate: 3 m/s

Recommended standard strokes (mm) (5)

Ø mm	connect. Ø (G)	25	50	80	100	125	160	200	250	320	400	500	630	700	800	900	1000	1500	max. stroke
32	G1/8	●	●	●	●	●	●	●	●	●	●								2000
40	G1/4	●	●	●	●	●	●	●	●	●	●	●	●						2000
50	G1/4	●	●	●	●	●	●	●	●	●	●	●	●	●					2000
63	G3/8	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●			2000
80	G3/8	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●		2000
100	G1/2	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	2000

Strokes range available up to "max. stroke" column on the right.
Please note strokes marked in grey exceed the maximum recommended.

(5) Other strokes on request. / Min. stroke: 5 mm

POSITION DETECTORS

Magnetic position detectors must be ordered separately: "T" model (see page P291), reed switch or magneto-resistive type

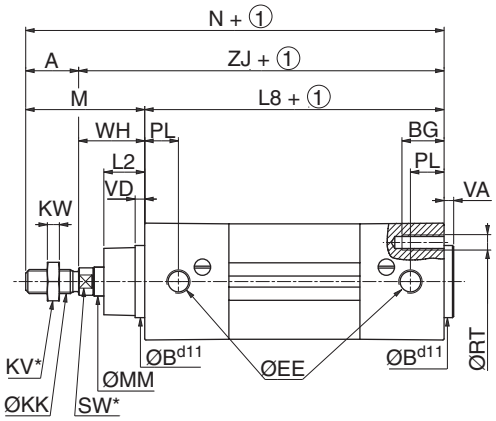
MOUNTINGS

Mountings must be ordered separately: see page P235

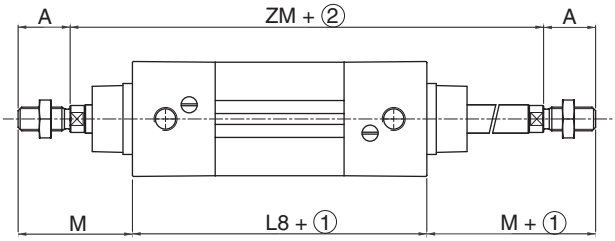
DIMENSIONS (mm), WEIGHT (kg)

SINGLE-ROD TYPE CYLINDER
Bare cylinder
ISO 15552

THROUGH-ROD TYPE CYCLINDER
Bare cylinder
ISO 15552



① Stroke
② Stroke x 2
✻ Width across flats



Ø (mm)	A	ØBd11	BG	E	ØEE (3)	ØKK	KV	KW	L2	L8	M	ØMM	N	PL	ØRT	SW	TG	VA	VD min.	WH	ZJ	ZM	weight (4)	weight (5)
32	22	30	16	48	G1/8	M10x1,25	16	5	17	94	48	12	142	14	M6	10	32,5 ±0,5	4	4	26	120	146	0,49	0,0029
40	24	35	16	54	G1/4	M12x1,25	18	6	19	105	54	16	159	16	M6	13	38 ±0,5	4	4	30	135	165	0,78	0,0037
50	32	40	16	66	G14	M16x1,5	24	8	24	106	69	20	175	18,5	M8	17	46,5 ±0,5	4	4	37	143	180	1,00	0,0053
63	32	45	16	78	G3/8	M16x1,5	24	8	24	121	69	20	190	19	M8	17	56,5 ±0,5	4	4	37	158	195	1,35	0,0057
80	40	45	17	96	G3/8	M20x1,5	30	10	33	128	86	25	214	16,5	M10	22	72 ±0,5	4	4	46	174	220	2,36	0,0086
100	40	55	17	115	G1/2	M20x1,5	30	10	35,5	138	91	25	229	19,5	M10	22	89 ±0,5	4	4	51	189	240	3,46	0,0099

(3) Thread connections G have standard thread according to ISO 16030.
(4) Cylinder weight at 0 mm stroke.
(5) Weight to be added per additional mm length.

Ø (mm)	SPARE PARTS KITS CODE 1 + 2 + 3 + 4 (1)	SPARE PARTS KITS CODE rod + piston unit
32	97802343	97802736 .... (2)
40	97802344	97802737 .... (2)
50	97802345	97802738 .... (2)
63	97802346	97802739 .... (2)
80	97802347	97802740 .... (2)
100	97802259	97802741 .... (2)

(1) For best results, use grease supplied in each kit. Supplementary tube (11 cm³) available on request, catalogue number: **97802100**
(2) Specify stroke length (in mm).