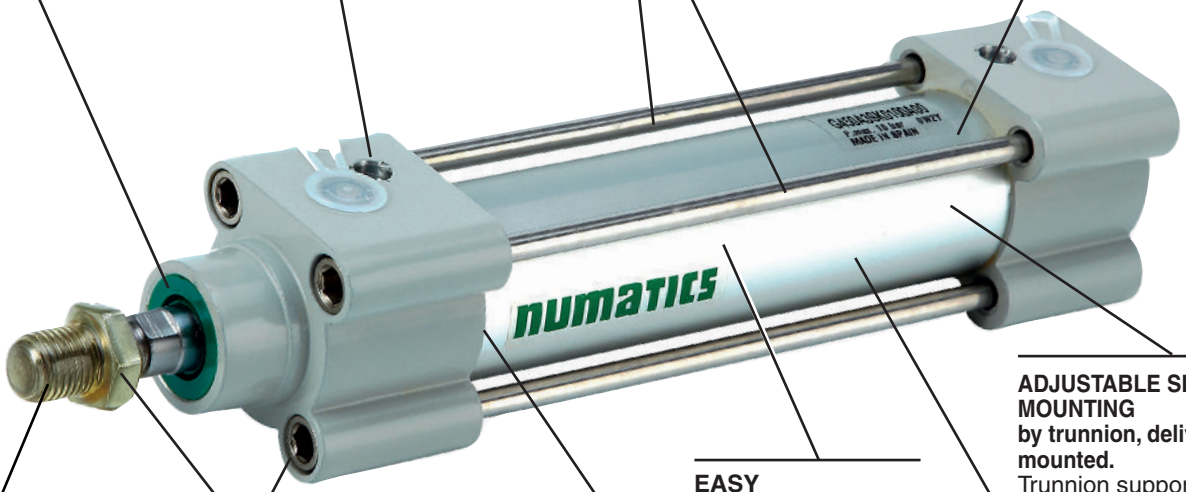
ACCURATE ROD GUIDING
High-performance self lubricating bearing and non-abrasive scraper seal.

ACCURATE CUSHIONING LENGTH
by means of micrometer screws (captive screws).

LIGHT AND ESTHETIC DESIGN
Tie-rod construction with hard anodized aluminium tube.

POSITION DETECTOR
Cylinder equipped with a piston with a permanent magnet, for position sensors, type:
- REED switch
- magneto resistive (MR)
- inductive (epoxy barrel)



ADJUSTABLE SLIDING MOUNTING
by trunnion, delivered mounted.
Trunnion supports upon request.

EASY MAINTENANCE
These cylinders do not require any lubrication.

PNEUMATIC CUSHIONING
with large cushioning length.

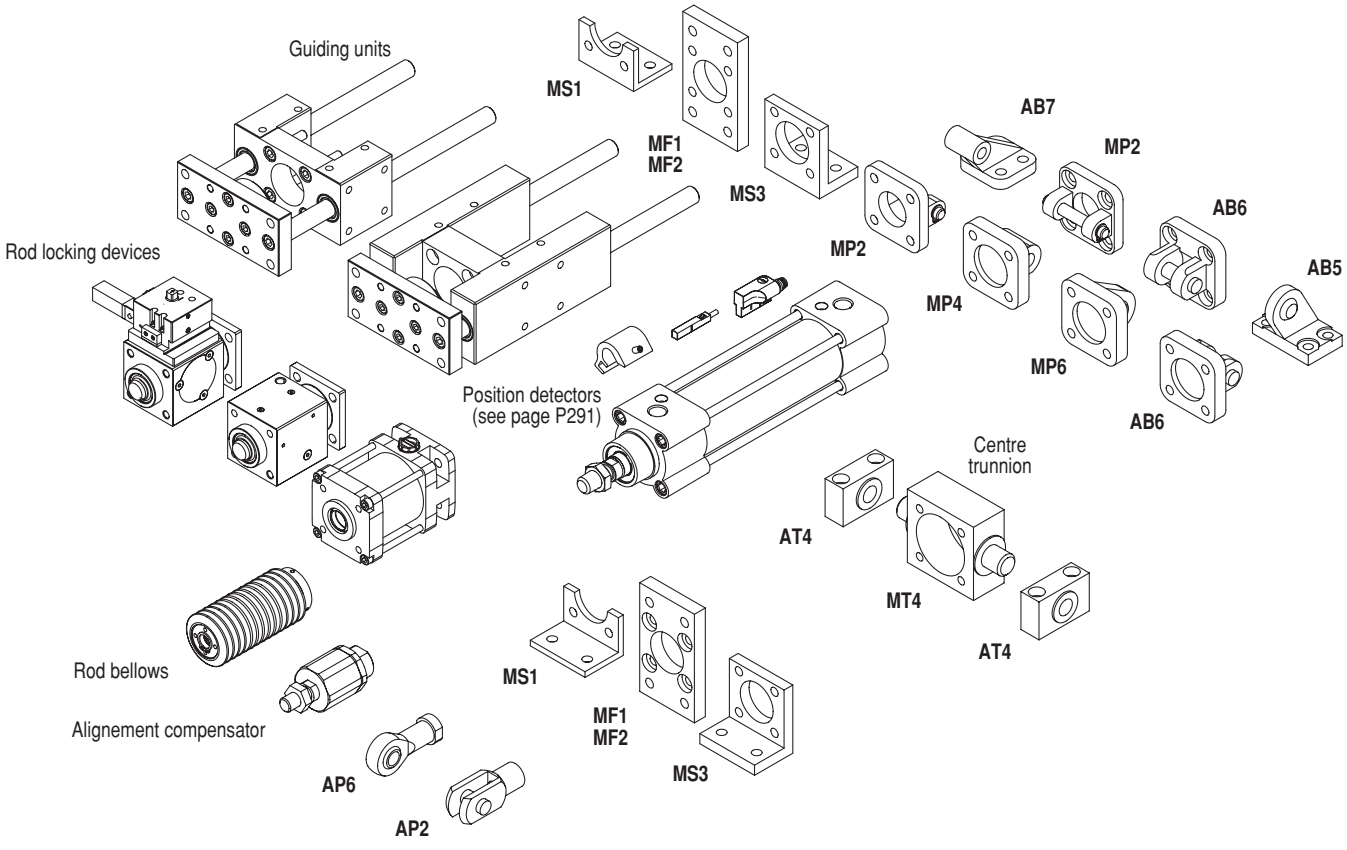
VERSIONS TO ATEX (Ex)
(see page P229-3)

STURDY DESIGN
Rod in hard chrome steel

EASY FITTING
Large choice of standard fittings and rod ends (see below).

OPTIONS (see page P229-7)

STANDARD MOUNTINGS (see page P235)

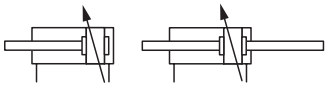


SPECIAL ASSEMBLIES (see page P239-13)

CYLINDERS WITH TIE RODS

Ø 32 to 200 mm - double acting
ISO 15552

Series **450**



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	
Tie rods	Stainless steel (Ø32-100), steel (Ø 125-200)	
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 chromed steel	
Rod nut	Galvanised steel	
Piston	Ø 32 to 80 mm	POM (polyacetal)
	Ø 100 to 200 mm	light alloy
	fitted with an annular permanent magnet	
Piston seals	PUR (polyurethane)	

HOW TO ORDER

15-DIGIT PRODUCT CODE

G 450 A - S K - - - - A00

Thread connection
G = ISO 16030

Product series
450

Revision letter
A = Initial release

Diameter (mm) (1)

3 = 32	**1** = 100
4 = 40	**P** = 125
5 = 50	**Q** = 160
6 = 63	**R** = 200
8 = 80	

(1) 250 mm/ 320 mm, contact us

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)

Options
A00 = Without
FMT = Fixed centre trunnion (axis perpendicular to the ports)(2)
FST = Fixed centre trunnion (axis parallel to the ports)(2)
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)(3)
FPM = FPM seals
FFP = FPM front end seals
NPC = Anticorrosion treatment on covers & high-quality rod seals
MMT = Ø125 mm, with non groved profiled tube
MM4 = Ø125 mm, with non groved profiled tube and non fixed MT4, axis perpendicular to the port
MM5 = Ø125 mm, with non groved profiled tube and non fixed MT4, axis parallel to the port
STN = Stainless steel cover nuts + tie rods
LFS = Low friction piston seals - Ø 32 to 80 mm(4)(see P229-15)
NCS = Without pneumatic cushioning
TAN = Tandem, double force, linked rods (see P229-16)
NDT = Epoxy tube (prepared for inductive detector)

(2) For fixed supplied centre trunnion, consult our Dynamic Product Modeling Tool on www.asconumatics.eu and indicate XV dimension.
(3) Magnetic detectors cannot be fitted to this version.
(4) 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
125	G1/2	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	2000
160	G3/4	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	2000
200	G3/4	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	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

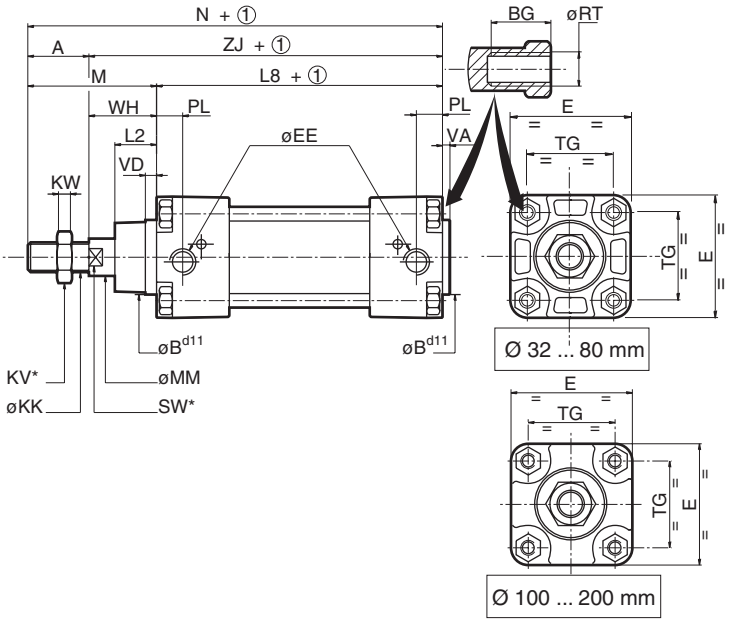
MOUNTINGS

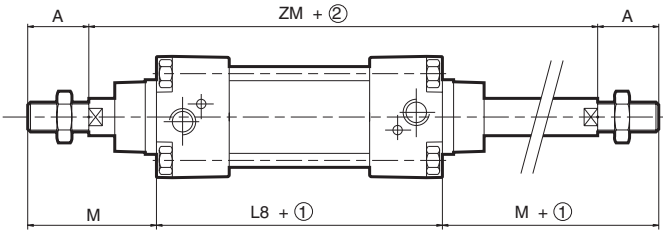
Mountings must be ordered separately: see page P235

DIMENSIONS (mm), WEIGHT (kg)

SINGLE-ROD TYPE CYLINDER
Tie-rod cylinder
ISO 15552

THROUGH-ROD TYPE CYCLINDER
Tie-rod cylinder
ISO 15552

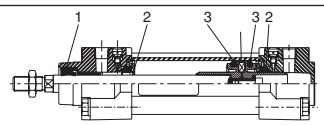




① Stroke
② Stroke x 2

Ø (mm)	A	ØB d11	BG	E	ØEE	ØKK	KV	KW	L2	L8	M	ØMM	N	PL	ØRT	SW (5)	TG	VA	VD min.	WH	ZJ	ZM	weight (3)	weight (4)
32	22	30	16	50	G1/8	M10x1,25	16	5	17	94	48	12	142	14	M6	10	32,5 ± 0,5	4	4	26	120	146	0,590	0,235
40	24	35	16	57,5	G1/4	M12x1,25	18	6	19	105	54	16	159	16	M6	13	38 ± 0,5	4	4	30	135	165	0,840	0,335
50	32	40	16	65	G14	M16x1,5	24	8	24	106	69	20	175	18,5	M8	17	46,5 ± 0,6	4	4	37	143	180	1,200	0,510
63	32	45	16	79	G3/8	M16x1,5	24	8	24	121	69	20	190	17	M8	17	56,5 ± 0,7	4	4	37	158	195	1,500	0,540
80	40	45	17	92	G3/8	M20x1,5	30	10	33	128	86	25	214	16,5	M10	22	72 ± 0,7	4	4	46	174	220	2,860	0,840
100	40	55	17	120	G1/2	M20x1,5	30	10	35,5	138	91	25	229	21	M10	22	89 ± 0,7	4	4	51	189	240	3,675	1,185
125	54	60	24	145	G1/2	M27x2	41	13,5	40	160	119	32	279	32	M12	27	110 ± 1,1	6	6	65	225	290	6,955	1,360
160	72	65	29,5	180	G3/4	M36x2	55	18	58	180	152	40	332	35,5	M16	36	140 ± 1,1	6	6	80	260	340	12,835	2,100
200	72	75	29,5	220	G3/4	M36x2	55	18	58	180	167	40	347	35	M16	36	175 ± 1,1	6	6	95	275	370	17,575	2,500

(3) Cylinder weight at 0 mm stroke.
(4) Weight to be added per additional 100 mm length.

	SPARE PARTS KITS CODE	
Ø (mm)	1 + 2 + 3 (1) 	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)
125	**97802260**	**97802742 ....** (2)
160	**97802261**	**97802743 ....** (2)
200	**97802262**	**97802744 ....** (2)
250	**contact us**	**contact us**

(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).