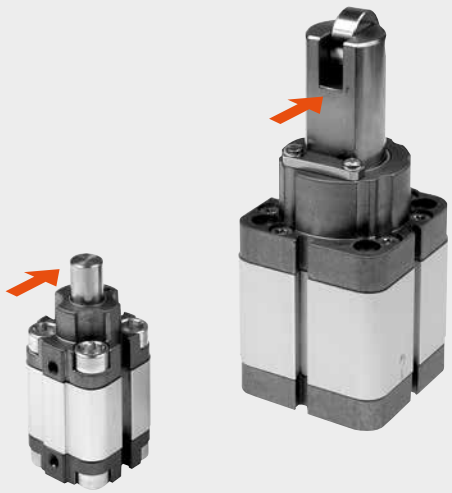
COMPACT STOPPER CYLINDER

Compact stopper cylinders designed for stopping moving parts or chucks.

- With or without magnet execution
- Single-acting, oversize extended piston rod
- Can be also used as double-acting whith spring return
- Fixing centre distances to ISO 15552 for Ø 32, Ø 50, Ø 80 and French standard NFE 49-004-1 and 2 (UNITOP).

In the relevant cylinder slots, it is possible to mount retracting magnetic sensor.

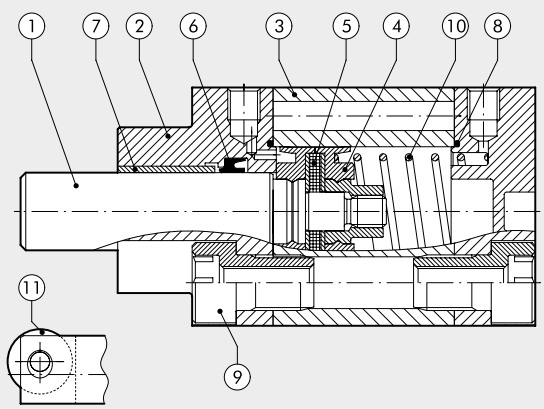


Chuck impact direction

TECHNICAL DATA		Ø20 Stroke 15	Ø32 Stroke 20	Ø50 Stroke 30	Ø80 Stroke 30	Ø80 Stroke 40
Max operating pressure	bar	10				
	MPa	1				
	psi	145				
Temperature range	°C	–10 to +80				
Design		With profile, heads with screws				
Fixing centre distances	ISO 15552	-	x	x	x	x
	NFE 49-004-1 e 2 (UNITOP)	x	x	x	x	x
Fluid		Unlubricated air. Lubrication, if used, must be continuous				
Versions		Single-acting extended rod, Can be also used as double-acting whith spring return				
Sensor magnet		Available magnetic and non-magnetic versions.				
Inrush pressure	bar	1.2	1		0.5	
Weights		See cylinder "**General technical data**" at the beginning of the chapter				
Notes		For correct operation, it is advisable to use 50 µm filtered air				

COMPONENTS Ø 20

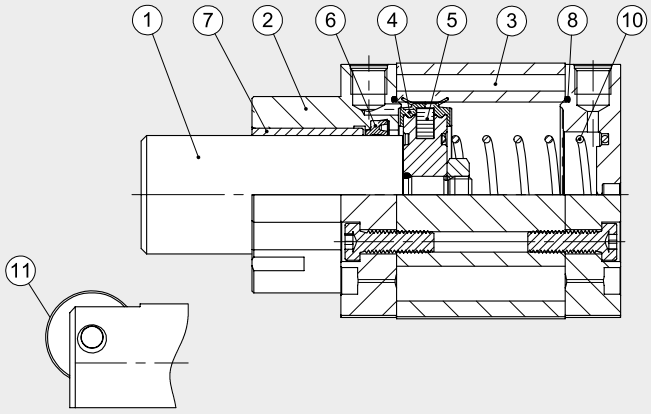
① PISTON ROD: Stainless steel, thick chromed
② HEAD: extruded anodized aluminium alloy
③ BARREL: drawn anodized and calibrated aluminium alloy
④ PISTON GASKET: polyurethane
⑤ MAGNET: neodymium-plastic
⑥ PISTON ROD GASKET: polyurethane
⑦ GUIDE BUSHING: steel strip with bronze and PTFE insert
⑧ STATIC O-RINGS: NBR
⑨ SECURING SCREWS: zinc-plated steel
⑩ RETURN SPRING: spring stainless steel
⑪ WHEEL: zinc-plated steel



METAL WORK PNEUMATIC

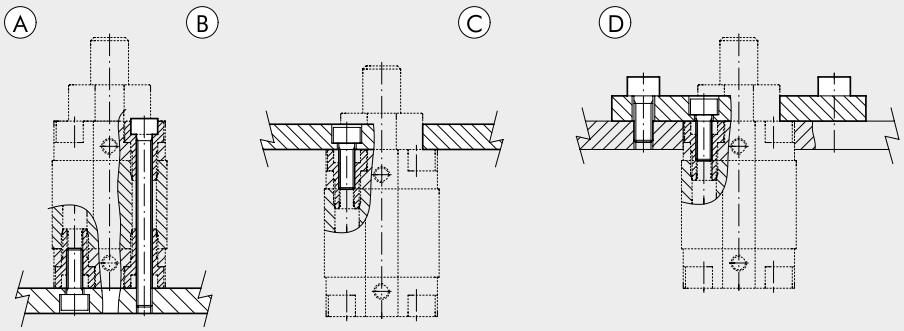
COMPONENTS Ø 32, Ø 50, Ø 80

① PISTON ROD: Stainless steel, thick chromed
② HEAD: extruded anodized aluminium alloy
③ BARREL: drawn anodized and calibrated aluminium alloy
④ PISTON GASKET: polyurethane
⑤ MAGNET: Ø 32 neodymium-plastic - Ø 50 to 80 plastoferrite
⑥ PISTON ROD GASKET: polyurethane
⑦ GUIDE BUSHING: steel strip with bronze and PTFE insert.
⑧ STATIC O-rings: NBR
⑨ SECURING SCREWS: zinc-plated steel
⑩ RETURN SPRING: spring stainless steel
⑪ WHEEL: zinc-plated steel



COMPACT STOPPER CYLINDER FIXING OPTIONS

Ⓐ Fixing with screws, using the thread in the rear heads
Ⓑ Direct fixing from above using long through screws or tie rods. Non-magnetic stainless steel must be used (e.g. AISI 304)
Ⓒ Fixing with screws, using the thread in the front heads.
Ⓓ Fixing using flange fixed onto the cylinder.

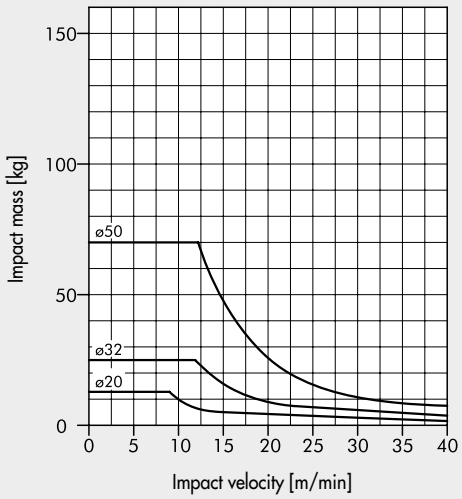


FORCE OF SPRINGS IN COMPACT STOPPER CYLINDERS (THEORETICAL)

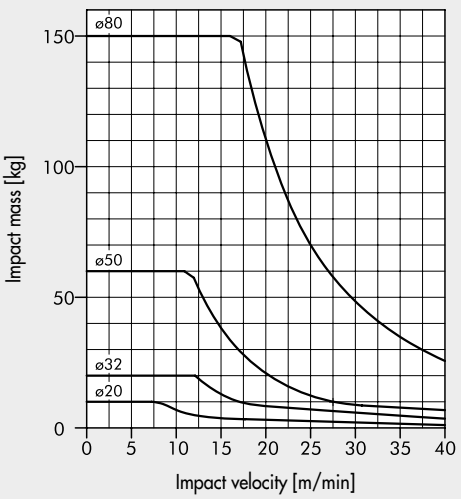
Stroke bore	Ø 20 x 15	Ø 32 x 20	Ø 50 x 30	Ø 80 x 30	Ø 80 x 40
Min. load (N)	13.7	22.4	50.2	97.9	71.0
Max. load (N)	21.2	36.0	115.9	178.5	178.5

LOAD GRAPH

TRUNNION VERSION



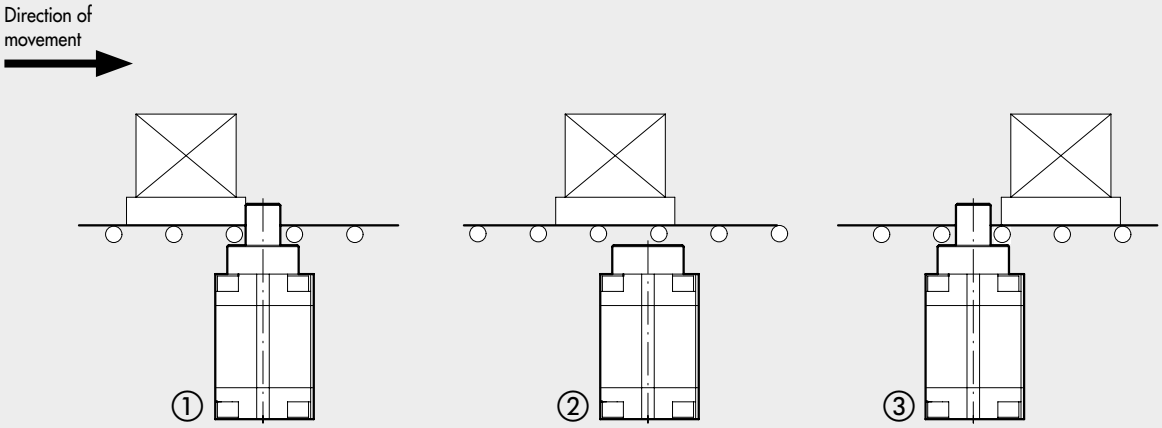
ROLLER VERSION



With stopper cylinders it is important to keep to the values shown in the graph to prevent early breakage of the mechanical parts.
The values shown are only valid with about 1 mm plastic deformation (stopper on chuck).

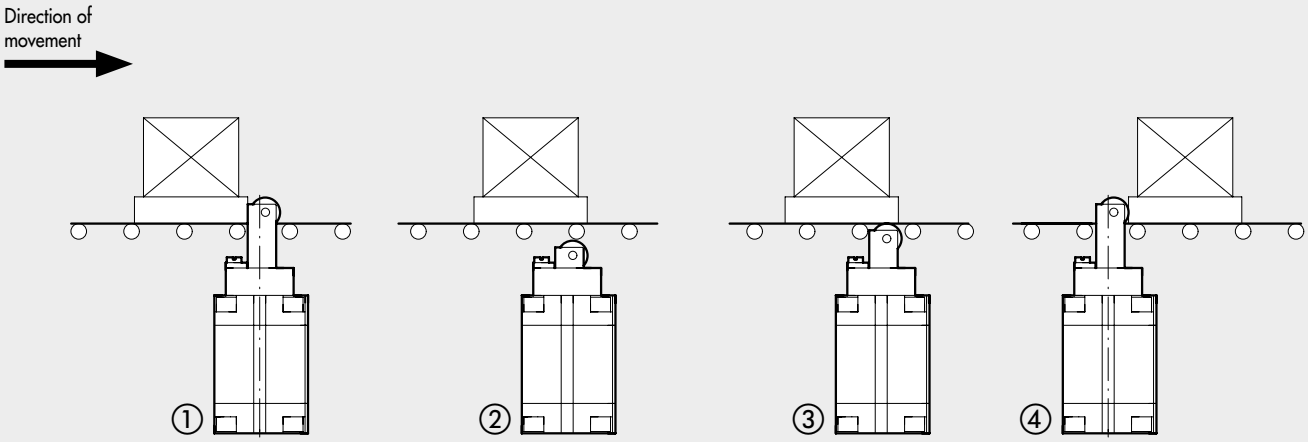
OPERATING DIAGRAMS

TRUNNION VERSION



① Deceleration of the chuck as it comes into contact with the piston rod, with elastic deformation of about 1 mm.
② The cylinder is pressurized to release the chuck.
③ The pressure in the front chamber is maintained until the chuck has passed the stopper cylinder.
The piston rod extends due to the effect of the spring and any pressure in the opposite chamber.
The system is now ready to stop the next chuck.

ROLLER VERSION

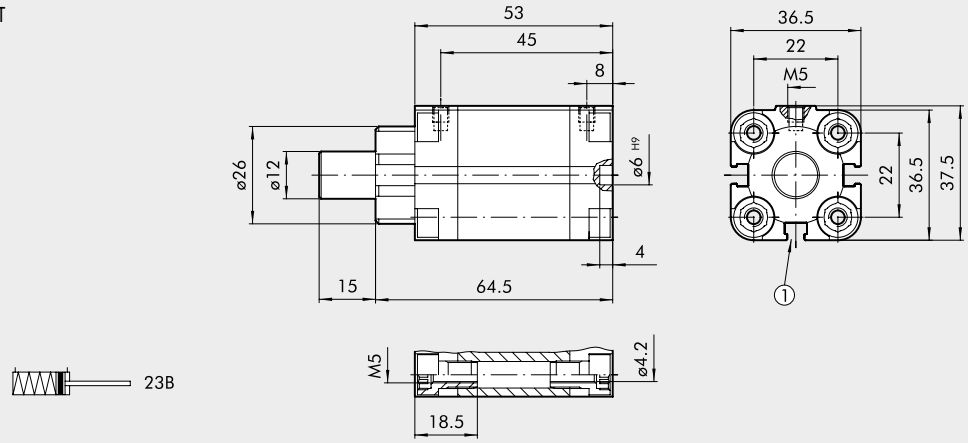


① Deceleration of the chuck as it comes into contact with the piston rod, with elastic deformation of about 1 mm.
② The cylinder is pressurized to release the chuck.
③ When the pressure in the front chamber drops, the piston rod extends due to the effect of the spring or any pressure until the wheel reaches the chuck and moves it on.
④ After the chuck has passed, the cylinder extends the piston rod fully. The system is now ready to stop the next chuck.

METAL WORK PNEUMATIC

Ø 20 STROKE 15 mm TRUNNION VERSION

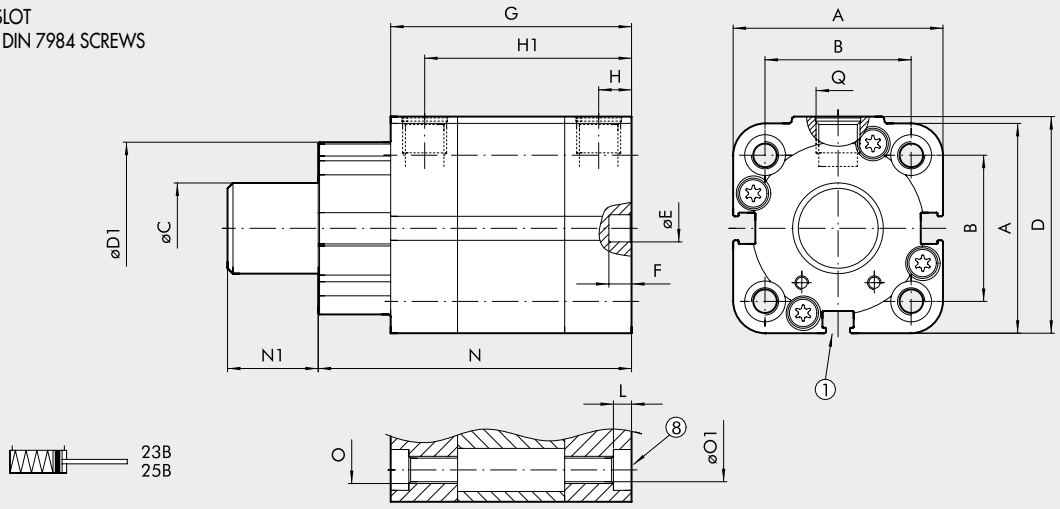
1 = SENSOR SLOT



Code	Description
23B0200015XP	Compact stopper cylinder, trunnion Ø 20, stroke 15
23BS200015XP	Compact stopper cylinder, trunnion Ø 20, stroke 15 (non-magnetic version)

Ø 32 STROKE 20 mm; Ø 50 STROKE 30 mm TRUNNION VERSION

1 = SENSOR SLOT
8 = SEAT FOR DIN 7984 SCREWS

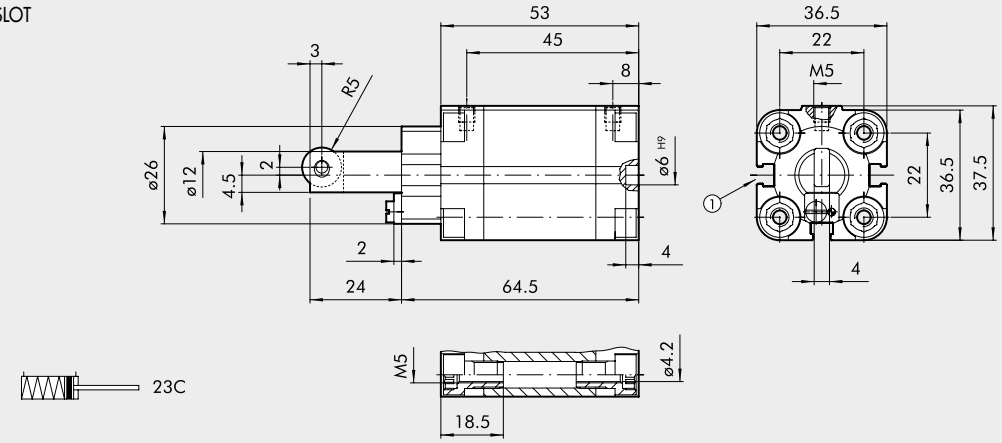


		B													O		ØO1		
Ø	**A**	**ISO**	**UNITOP**	**ØC**	**D**	**D1**	**ØE H9**	**F**	**G**	**H**	**H1**	**L**	**N**	**N1**	**ISO**	**UNITOP**	**ISO**	**UNITOP**	**Q**
32x20	47	32.5 $^{+0.1}_{-0.4}$	32 $^{+0.4}_{-0.1}$	20	48.5	38	6	4	64.5	7.5	57	4	80.5	20	M6	M6	5.2	5.2	G1/8
50x30	67	46.5	50	32	69	53	6	4	75.5	7.5	68	4.5	99.5	30	M8	M8	6.2	6.2	G1/8

Code	Description
23B0320020XP	Compact stopper cylinder, trunnion Ø 32, stroke 20 UNITOP
25B0320020XP	Compact stopper cylinder, trunnion Ø 32, stroke 20 ISO 15552
23BS320020XP	Compact stopper cylinder, trunnion Ø 32, stroke 20 UNITOP (non-magnetic version)
25BS320020XP	Compact stopper cylinder, trunnion Ø 32, stroke 20 ISO 15552 (non-magnetic version)
23B0500030XP	Compact stopper cylinder, trunnion Ø 50, stroke 30 UNITOP
25B0500030XP	Compact stopper cylinder, trunnion Ø 50, stroke 30 ISO 15552
23BS500030XP	Compact stopper cylinder, trunnion Ø 50, stroke 30 UNITOP (non-magnetic version)
25BS500030XP	Compact stopper cylinder, trunnion Ø 50, stroke 30 ISO 15552 (non-magnetic version)

Ø 20 STROKE 15 mm ROLLER VERSION

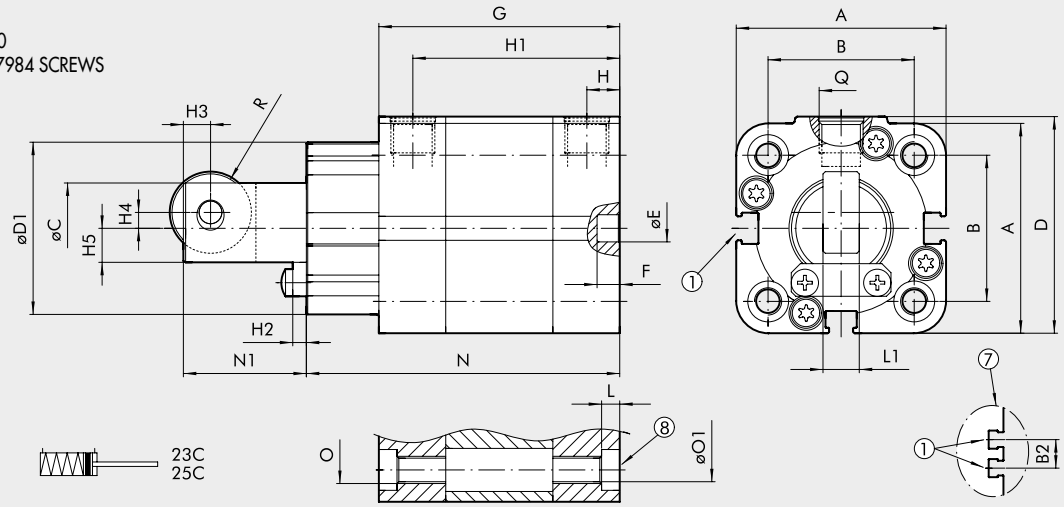
1 = SENSOR SLOT



Code	Description
23C0200015XP	Compact stopper cylinder, roller Ø 20, stroke 15
23CS200015XP	Compact stopper cylinder, roller Ø 20, stroke 15 (non-magnetic version)

Ø 32 STROKE 20 mm; Ø 50 STROKE 30 mm; Ø 80 STROKE 30 AND 40 mm ROLLER VERSION

1 = SENSOR SLOT
7 = ONLY FOR Ø 80
8 = SEAT FOR DIN 7984 SCREWS



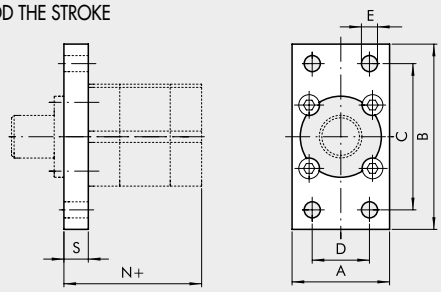
Ø	A	B ISO	B UNITOP	B2	ØC	D	D1	ØE H9	G	F	H	H1	H2	H3	H4	H5	O ISO	O UNITOP	ØO1 ISO	ØO1 UNITOP	L	L1	N	N1	Q	R
32x20	47	32.5 +0.1 -0.4	32 +0.4 -0.1	-	20	48.5	38	6	64.5	4	7.5	57	3	6	3.5	7.5	M6	M6	5.2	5.2	4	8	80.5	38	G1/8	9
50x30	67	46.5	50	-	32	69	53	6	75.5	4	7.5	68	4	6	7	12	M8	M8	6.2	6.2	4.5	10	99.5	50.5	G1/8	12.5
80x30	102	72	82	17	50	105	76	8	126	4	8.5	117.5	8	10	11	18	M10	M10	8.5	8.5	5.5	18	141	63	G1/8	18
80x40	102	72	82	17	50	105	76	8	136	4	8.5	127.5	8	10	11	18	M10	M10	8.5	8.5	5.5	18	151	73	G1/8	18

Code	Description
23C0320020XP	Compact stopper cylinder, roller Ø 32, stroke 20 UNITOP
25C0320020XP	Compact stopper cylinder, roller Ø 32, stroke 20 ISO 15552
23CS320020XP	Compact stopper cylinder, roller Ø 32, stroke 20 UNITOP (non-magnetic version)
25CS320020XP	Compact stopper cylinder, roller Ø 32, stroke 20 ISO 15552 (non-magnetic version)
23C0500030XP	Compact stopper cylinder, roller Ø 50, stroke 30 UNITOP
25C0500030XP	Compact stopper cylinder, roller Ø 50, stroke 30 ISO 15552
23CS500030XP	Compact stopper cylinder, roller Ø 50, stroke 30 UNITOP (non-magnetic version)
25CS500030XP	Compact stopper cylinder, roller Ø 50, stroke 30 ISO 15552 (non-magnetic version)
23C0800030XP	Compact stopper cylinder, roller Ø 80, stroke 30 UNITOP
25C0800030XP	Compact stopper cylinder, roller Ø 80, stroke 30 ISO 15552
23CS800030XP	Compact stopper cylinder, roller Ø 80, stroke 30 UNITOP (non-magnetic version)
25CS800030XP	Compact stopper cylinder, roller Ø 80, stroke 30 ISO 15552 (non-magnetic version)
23C0800040XP	Compact stopper cylinder, roller Ø 80, stroke 40 UNITOP
25C0800040XP	Compact stopper cylinder, roller Ø 80, stroke 40 ISO 15552
23CS800040XP	Compact stopper cylinder, roller Ø 80, stroke 40 UNITOP (non-magnetic version)
25CS800040XP	Compact stopper cylinder, roller Ø 80, stroke 40 ISO 15552 (non-magnetic version)

ACCESSORIES FOR STOPPER CYLINDER

FLANGE Ø 32, Ø 50, Ø 80

+ = ADD THE STROKE



UNITOP

Code	Ø	A	B	C	D	E	N	S	Weight [g]
W0950326302	32	50	80	64	32	7	54.5	10	210
W0950506302	50	68	110	90	45	9	57.5	12	502
W0950806302	80	107	160	135	63	12	111	15	1575

ISO

Code	Ø	A	B	C	D	E	N	S	Weight [g]
W0950326302	32	50	80	64	32	7	54.5	10	210
W0950506312	50	65	110	90	45	9	57.5	12	447
W0950806312	80	95	153	126	63	12	112	16	1190

Note: Supplied with 4 screws.

NOTES