

ISO 15552 CYLINDER WITH END-OF-STROKE STOP



The cylinders in this series are designed with a unit that mechanically locks the piston rod at the end of stroke. When extended, the piston rod can be locked at the front head; when retracted, it is locked either at the rear head or in both positions. With the cylinder pneumatically powered, the locking unit releases automatically, so no additional piloting is required. The locking unit can be released manually by inserting a screw into a thread. This cylinder complies with ISO 15552, except for the length, which is greater than the standard.



TECHNICAL DATA		Ø32	Ø40	Ø50	Ø63	Ø80	Ø100		
Max operating pressure	bar						10		
	MPa						1		
	psi						145		
Temperature range	POLYURETHANE	°C						-25 to +80	
		°C						-10 to +80	
	FKM/FPM	°C						-10 to +150	
		°C						-40 to +80	
Design		Heads with Tap Tite screws							
Fluid		Unlubricated air. Lubrication, if used, must be continuous							
Standard stroke +	mm	30 to 2800			35 to 2600				
Versions		Double-acting cushioned, Through-rod cushioned, No stick-slip.							
Sensor magnet		YES							
Static retention force	N	500	500	2000	2000	5000	5000		
Maximum axial clearance in the lock position	mm	1.5	1.5	1.5	1.5	1.5	1.5		
Minimum release pressure	bar	≥ 2.5	≥ 2.5	≥ 2.5	≥ 2.5	≥ 2	≥ 2		
Maximum locking pressure	bar	≤ 0.5							
Forces generated at 6 bar thrust/retraction		See cylinder "General technical data" at the beginning of the chapter							
Weights									
Only one stop, with piston rod extended or retracted, stroke = 0	g	573	860	1367	1793	3515	5197		
Stops either with piston rod extended or retracted, stroke = 0	g	713	1060	1647	2143	4215	6497		
Every mm of stroke, cylinder with piston rod cylinder	g	2.20	2.15	4.57	5.03	7.49	8.79		
Every mm of stroke, through-rod cylinder	g	3.09	4.73	7.04	7.44	10.16	12.33		
Notes		For speeds lower than 0.2 m/s to prevent surging, use the version No stick-slip and non-lubricated air.							
		+ Maximum recommended strokes. Higher values can create operating problems							

FUNCTIONING DIAGRAM

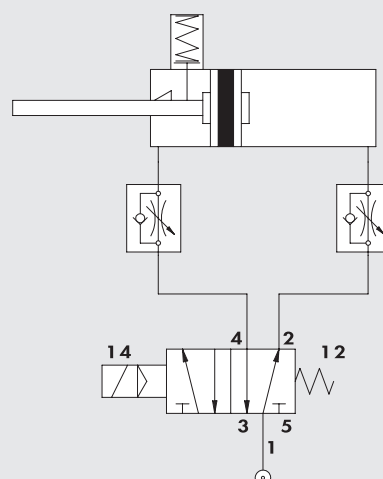
LOCKED VERSION WITH EXTENDED PISTON ROD

When the piston rod extends at the end of stroke, the spring-actuated locking piston enters the slot of the coupling bushing. When the piston rod retracts, the pressure inside the front chamber overcomes the force of the spring and causes the locking piston to move away; the piston rod can now move freely and retracts.

N.B.: The rear chamber must be pressurized before activating piston rod retraction, otherwise the locking unit will not be disengaged. When the control valve is switched over, by the time the rear chamber relieves, sufficient pressure is created in the front chamber to release the locking unit before the piston rod starts retracting.

The version with locking with piston rod retracted works in the same way.

Precautions: Do not use 3-position solenoid valves. Use MRF flow regulators that choke the output (type C). Do not use with multiple cylinders moving in a synchronized sequence. Pneumatic cushioning must be adjusted properly; it must not be closed, neither fully nor partially.

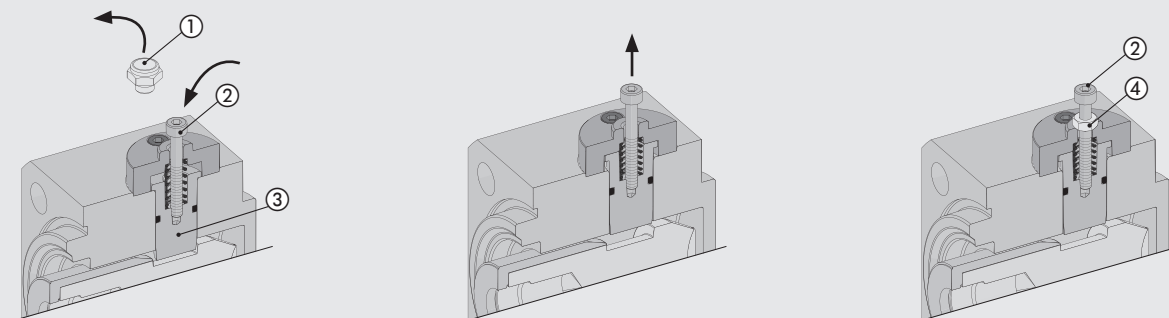
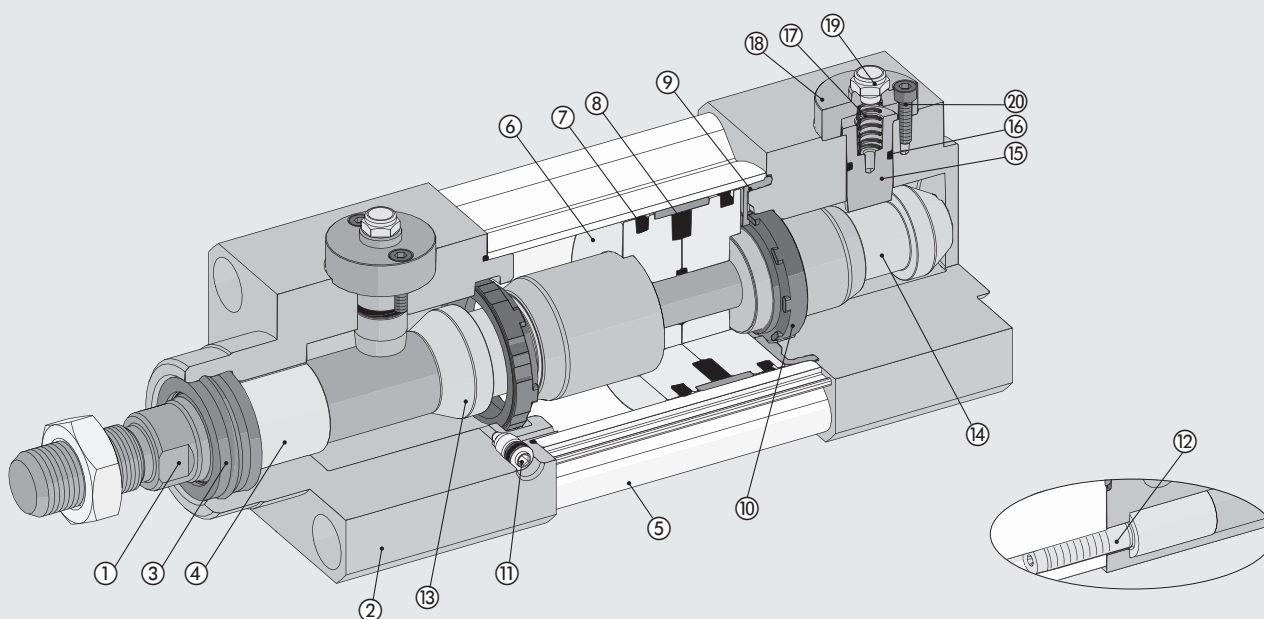


MANUAL RELEASE (WITH NO PRESSURE)

Remove the silencer ①. Tighten one of the screws ② into the locking piston ③.

Pull it upwards to release the locking piston.

You can disengage the locking unit permanently by fitting a nut ④ to the screw ② and tightening it until the piston is disengaged.

**COMPONENTS**

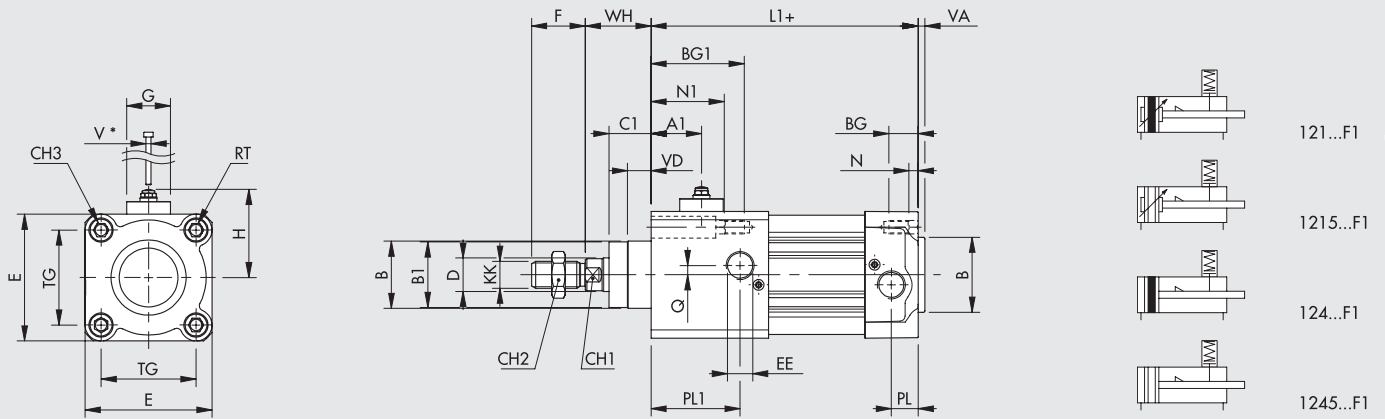
- ① PISTON ROD: C45 steel or stainless steel, thick chromed
- ② HEAD: aluminium
- ③ PISTON ROD GASKET: polyurethane, NBR or FKM/FPM
- ④ GUIDE BUSHING: steel strip with bronze and PTFE insert
- ⑤ BARREL: drawn anodized calibrated aluminium
- ⑥ SEMI-PISTON: made of self-lubricating technopolymer with built-in cushioning olives or in aluminium
- ⑦ PISTON GASKET: polyurethane, NBR or FKM/FPM
- ⑧ MAGNET: plastoferrite
- ⑨ BUFFER + Static O-rings: NBR or FKM/FPM
- ⑩ CUSHIONING GASKET: polyurethane, NBR or FKM/FPM

- ⑪ CUSHIONING NEEDLE: OT 58 with needle out movement safety system even when fully open
- ⑫ SCREWS: Tap Tite for assembly
- ⑬ FRONT COUPLING BUSHING: hardened alloy steel
- ⑭ REAR COUPLING BUSHING: hardened alloy steel
- ⑮ LOCKING PISTON: tempered and chromed alloy steel
- ⑯ GASKET: NBR or FKM/FPM
- ⑰ SPRING: stainless steel
- ⑱ COVER: anodized aluminium
- ⑲ SILENCER: nickel-plated brass with stainless steel wire
- ⑳ SCREWS: zinc-plated steel

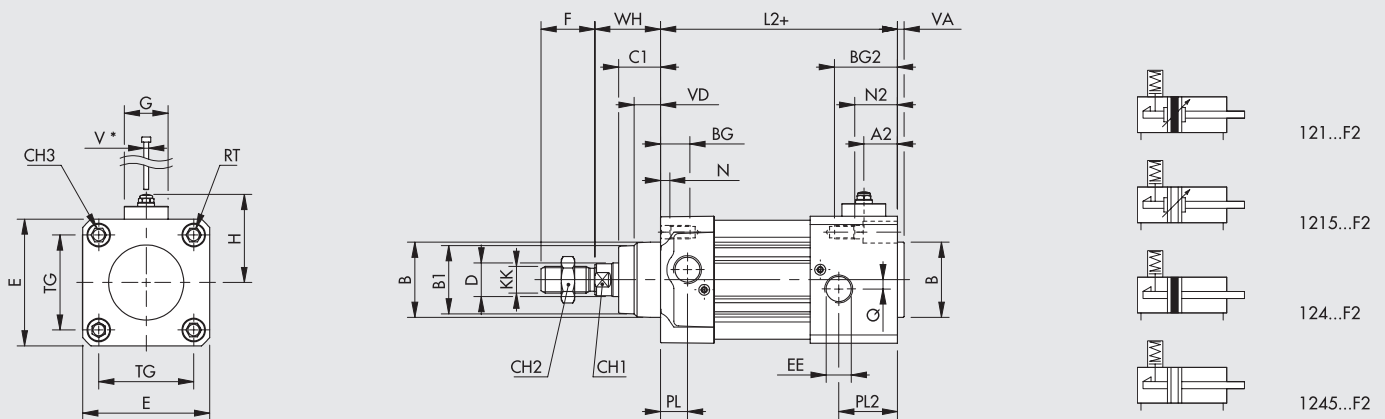
DIMENSIONS OF SINGLE PISTON ROD VERSIONS

LOCKING WITH EXTENDED PISTON ROD

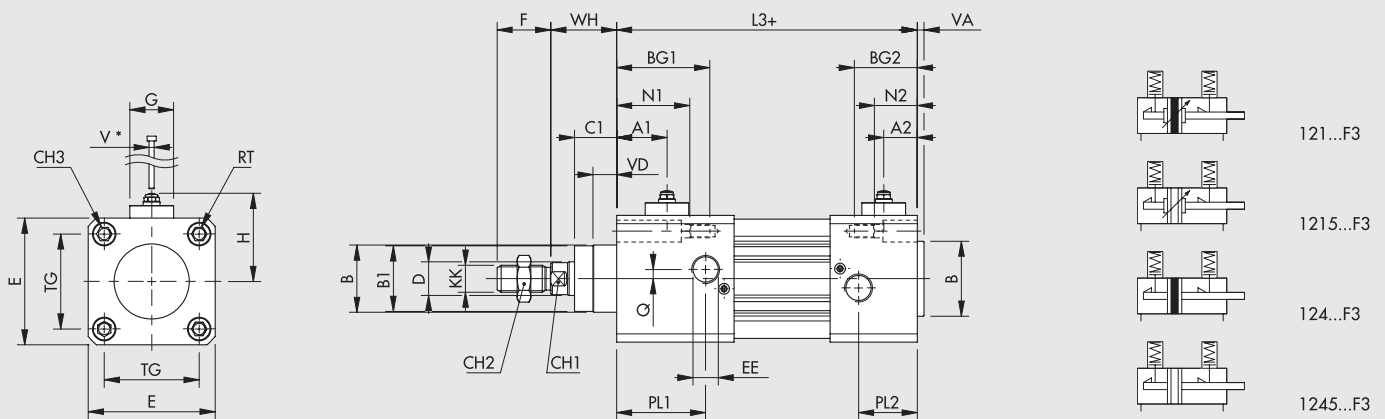
* = THREADING FOR MANUAL RELEASE SCREW
+ = ADD STROKE



LOCKING WITH RETRACTED PISTON ROD



LOCKING WITH EXTENDED AND RETRACTED PISTON ROD

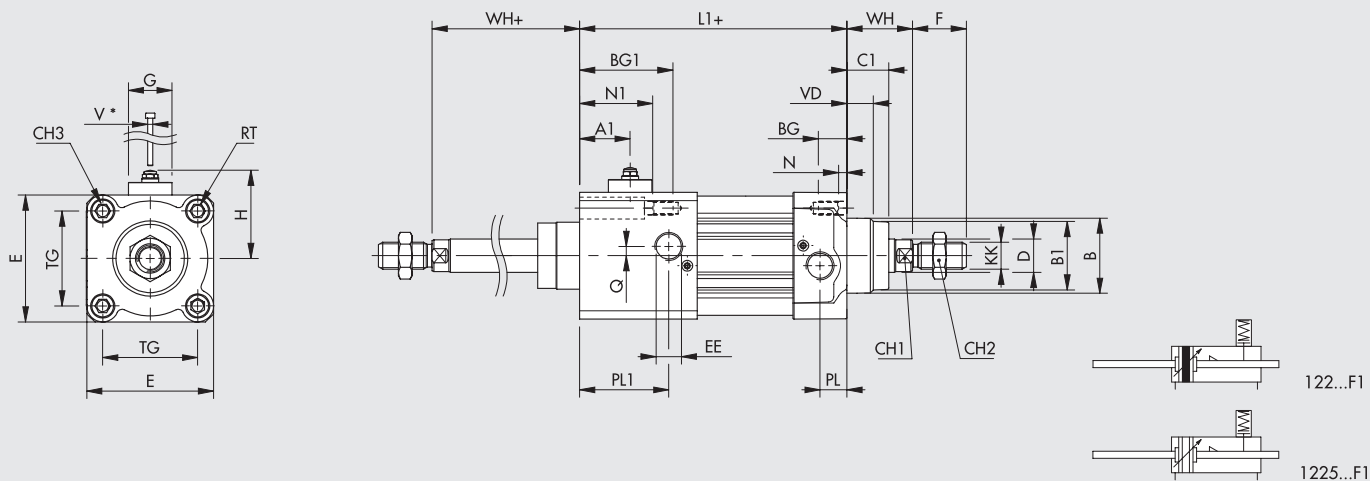


Ø	A1	A2	B	B1	BG	BG1	BG2	C1	CH1	CH2	CH3	D	E	EE	F	G	H	KK	L1	L2	L3	N	N1	N2	PL	PL1	PL2	Q	RT	TG	V*	VA	VD	WH
32	24	15	30	28	14.5	25.5	25.5	16	10	17	6	12	46	1/8	22	24	40	M10x1.25	105	105	116	4.5	15.5	15.5	10	21	21	4	M6	32.5	M3	4	6.5	26
40	26	17	35	33	14.5	39.5	28.5	20	13	19	6	16	54	1/4	24	24	45	M12x1.25	129	119	143	4.5	29.5	18.5	12	35	26	4	M6	38	M3	4	8	30
50	28	20	40	38	17.5	44.5	35.5	25	17	24	8	20	64.5	1/4	32	26	48	M16x1.5	133	124	151	5.5	32.5	23.5	14	41	32	6	M8	46.5	M3	4	13	37
63	28	21	45	40	17.5	43.5	36.5	25	17	24	8	20	75.5	3/8	32	26	55	M16x1.5	147	140	166	5.5	31.5	24.5	16	42	35	6	M8	56.5	M3	4	14	37
80	31.5	24.5	45	43	21.5	50.5	45.5	33	22	30	10	25	94	3/8	40	29	63	M20x1.5	157	152	181	5.5	34.5	29.5	18	47	42	7	M10	72	M3	4	12	46
100	25.5	24.5	55	49	21.5	58.5	46.5	38	22	30	10	25	111	1/2	40	29	72	M20x1.5	161	162	185	5.5	42.5	30.5	20	43	44	7	M10	89	M3	4	14	51

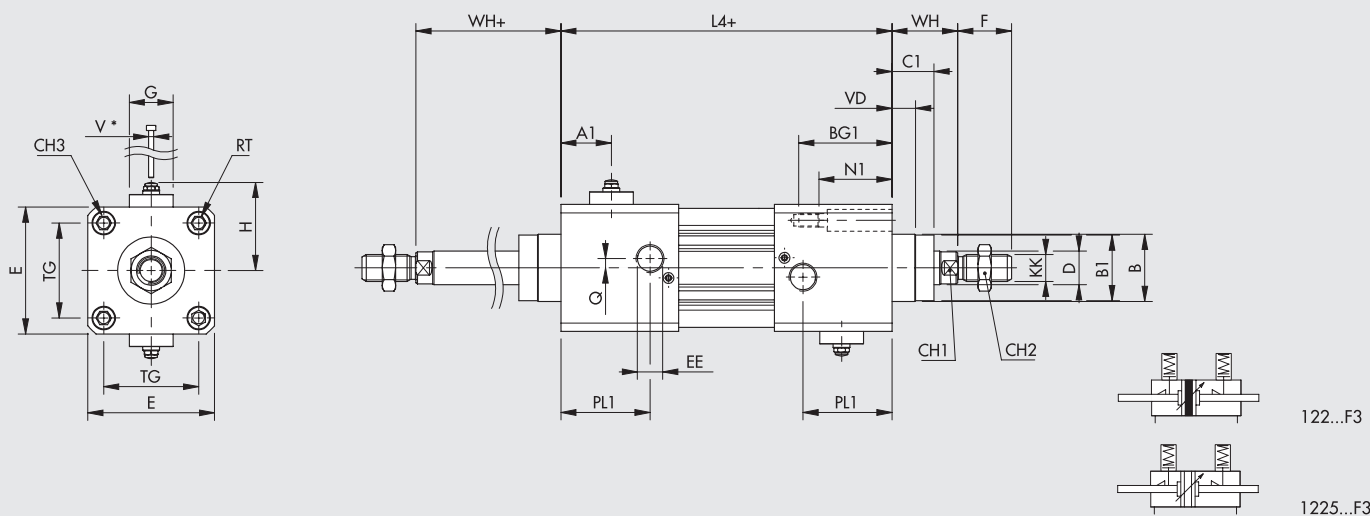
DIMENSIONS OF THROUGH-ROD VERSIONS

LOCKING ON ONE SIDE ONLY

* = THREADING FOR MANUAL RELEASE SCREW
+ = ADD STROKE



LOCKING WITH EXTENDED AND RETRACTED PISTON ROD



Ø	A1	B	B1	BG	BG1	C1	CH1	CH2	CH3	D	E	EE	F	G	H	KK	L1	L4	N	N1	PL	PL1	Q	RT	TG	V*	VD	WH
32	24	30	28	14.5	25.5	16	10	17	6	12	46	1/8	22	24	40	M10x1.25	105	116	4.5	15.5	10	21	4	M6	32.5	M3	6.5	26
40	26	35	33	14.5	39.5	20	13	19	6	16	54	1/4	24	24	45	M12x1.25	129	153	4.5	29.5	12	35	4	M6	38	M3	8	30
50	28	40	38	17.5	44.5	25	17	24	8	20	64.5	1/4	32	26	48	M16x1.5	133	160	5.5	32.5	14	41	6	M8	46.5	M3	13	37
63	28	45	40	17.5	43.5	25	17	24	8	20	75.5	3/8	32	26	55	M16x1.5	147	173	5.5	31.5	16	42	6	M8	56.5	M3	14	37
80	31.5	45	43	21.5	50.5	33	22	30	10	25	94	3/8	40	29	63	M20x1.5	157	186	5.5	34.5	18	47	7	M10	72	M3	12	46
100	25.5	55	49	21.5	58.5	38	22	30	10	25	111	1/2	40	29	72	M20x1.5	161	184	5.5	42.5	20	43	7	M10	89	M3	14	51

KEY TO CODES

CYL	1 2 1	3	3 2	0 0 5 0	C	P	F1
	TYPE		BORE	STROKE	MATERIAL	GASKETS	END-OF-STROKE STOP
	121 Double-acting cushioned ● 122 Through-rod 124 Double-acting, non-cushioned	3 Series 3 ◆ 4 Series 3 No stick-slip 5 Series 3 Non-magnetic	▲ 32 = Ø 32 40 = Ø 40 50 = Ø 50 63 = Ø 63 80 = Ø 80 A1 = Ø 100	For the maximum suppliable strokes, look at the technical data	A C45 chromed piston rod, aluminium piston: standard for all cylinders with ≥ 1000 mm-stroke cylinders and for cylinder with ≥ 80 mm and over C C45 chromed piston rod, technopolymer piston: standard for cylinders of ≥ 32 to 63 mm with < 1000 mm strokes Z Stainless steel piston rod and nut aluminium piston X Stainless steel piston rod and nut technopolymer piston	N NBR gaskets P Polyurethane gaskets V FKM/FPM gaskets ● B Low temperature	● F1 Extended piston rod F2 Retracting piston rod ● F3 Retracting piston rod and extended piston rod

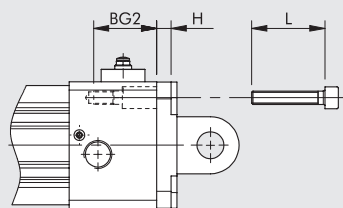
- Only available for versions with aluminium piston (A or Z)
- ◆ For speeds lower than 0.2 m/s, to prevent surging. Use no-lubricated air only

- ▲ Regarding the ≥ 32 cylinders, the heads with end-of-stroke stop hasn't the pneumatic cushioning

ACCESSORIES

All the accessories of ISO 15552 cylinders (page A1.46) can be used, **except for the guide units (GDS, GDH, GDM)** since the protrusion of the locking piston interferes with the guide unit.

NB: The screws used to secure the accessory to the heads fitted with a stop must be longer than those supplied together with the accessories. The screw length is calculated by summing up the catalogue-specified thickness of the accessory flange and the BG1 dimension, rounding down to -3 mm.



$$L = BG2 + H - (0 - 3) \text{ mm}$$

NOTES

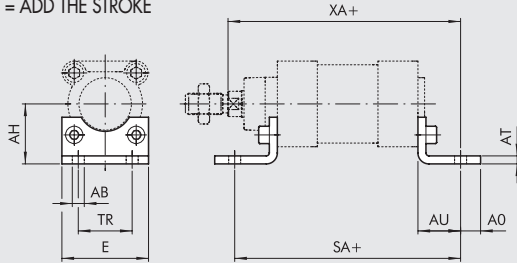
ACCESSORIES FOR ISO 15552 STD, TYPE A, SERIES 3, TWO-FLAT:



FIXINGS

FOOT - MODEL A

+ = ADD THE STROKE

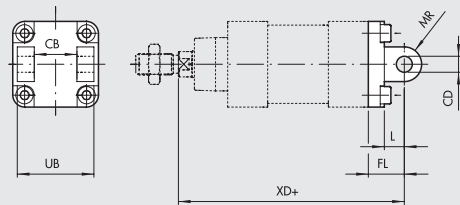


Code	Ø	Ø AB	AH	AO	AT	AU	TR	E	XA	SA	Weight [g]
W0950322001	32	7	32	11	4	24	32	45	144	142	76
W0950402001	40	9	36	15	4	28	36	52	163	161	100
W0950502001	50	9	45	15	5	32	45	65	175	170	162
W0950632001	63	9	50	15	5	32	50	75	190	185	266
W0950802001	80	12	63	20	6	41	63	95	215	210	456
W0951002001	100	14	71	25	6	41	75	115	230	220	572
W0951252001	125	16	90	15	8	45	90	140	270	250	1130

Note: Individually packed with 2 screws

FEMALE HINGE - MODEL B

+ = ADD THE STROKE

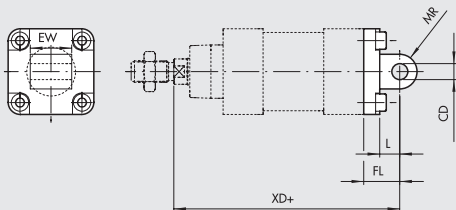


Code	Ø	UB	CB ^{H14}	FL	CD ^{H9}	XD	MR	L	Weight [g]
W0950322003	32	45	26	22	10	142	10	12	116
W0950402003	40	52	28	25	12	160	12	15	160
W0950502003	50	60	32	27	12	170	12	15	252
W0950632003	63	70	40	32	16	190	16	20	394
W0950802003	80	90	50	36	16	210	16	20	670
W0951002003	100	110	60	41	20	230	20	25	1085
W0951252003	125	130	70	50	25	275	25	30	2000

Note: Supplied with 4 screws, 4 washers, 2 snap-rings, 1 pin

MALE HINGE - MODEL BA

+ = ADD THE STROKE

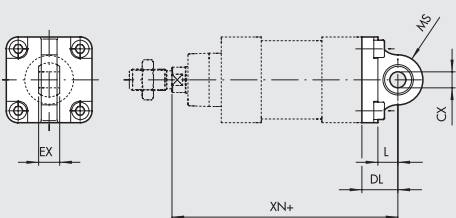


Code	Ø	EW	FL	MR	CD ^{H9}	L	XD	Weight [g]
W0950322004	32	26	22	10	10	13	142	94
W0950402004	40	28	25	12	12	16	160	124
W0950502004	50	32	27	12	12	16	170	220
W0950632004	63	40	32	16	16	22	190	316
W0950802004	80	50	36	16	16	22	210	578
W0951002004	100	60	41	20	20	27	230	850
W0951252004	125	70	50	25	25	30	275	1590

Note: Supplied with 4 screws

ARTICULATED MALE HINGE - MODEL BAS

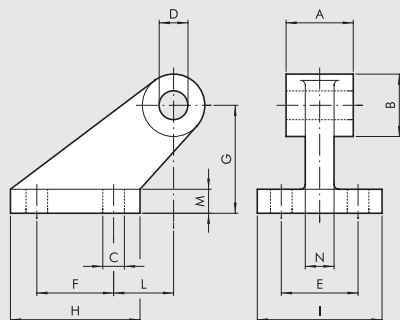
+ = ADD THE STROKE



Code	Ø	DL	MS	L	XN	CX ^{H9}	EX	Weight [g]
W0950322006	32	22	16	12	142	10	14	106
W0950402006	40	25	18	15	160	12	16	142
W0950502006	50	27	21	15	170	12	16	236
W0950632006	63	32	23	20	190	16	21	336
W0950802006	80	36	28	20	210	16	21	572
W0951002006	100	41	30	25	230	20	25	840
W0951252006	125	50	40	30	275	25	31	1520

Note: Supplied with 4 screws

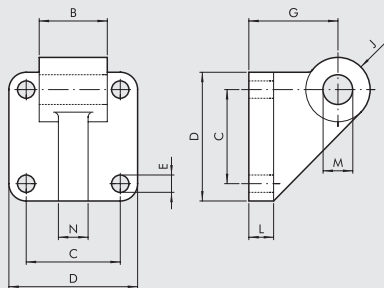
CETOP HINGE FOR MODEL B - MODEL GL



Code	Ø	A	B	C	D	E	F	G	H	I	L	M	N	Weight [g]
W0950322008	32	26	19	7	10	25	20	32	37	41	18	8	10	96
W0950402008	40	28	26	9	12	32	32	45	54	52	25	10	12	216
W0950502008	50	32	26	9	12	32	32	45	54	52	25	10	12	212
W0950632008	63	40	33	11	16	40	50	63	75	63	32	12	15	440
W0950802008	80	50	33	11	16	40	50	63	75	63	32	12	15	464
W0951002008	100	60	44	14	20	50	70	90	103	80	40	16	22	985
W0951252008	125	70	44	14	25	50	70	90	103	80	40	16	22	1000

Note: Supplied with 4 screws, 4 washers

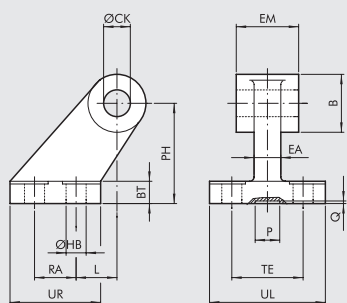
COUNTER-HINGE FOR MODEL B - MODEL GS



Code	Ø	B	C	D	E	G	J	L	M	N	Weight [g]
W0950322108	32	26	32.5	45	7	32	11	10	10	10	106
W0950402108	40	28	38	52	7	36	13	10	12	12	138
W0950502108	50	32	46.5	65	9	45	13	12	12	12	252
W0950632108	63	40	56.5	75	9	50	17	12	16	15	350
W0950802108	80	50	72	95	11	63	17	16	16	15	655
W0951002108	100	60	89	115	11	73	21	16	20	22	980

Note: Supplied with 4 screws, 4 washers

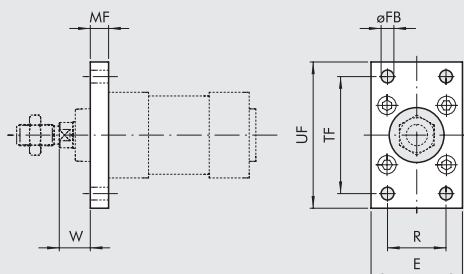
ISO 15552 COUNTER-HINGE FOR MODEL B - MODEL AB7



Code	Ø	EM	B	ØHB	ØCK	TE	RA	PH	UR	UL	L	BT	EA	P	Q	Weight [g]
W0950322017	32	26	20	6.6	10	38	18	32	31	51	3	8	10	21	3	60
W0950402017	40	28	22	6.6	12	41	22	36	35	54	2	10	15*	21	3	85
W0950502017	50	32	26	9	12	50	30	45	45	65	3	12	16	21	3	162
W0950632017	63	40	30	9	16	52	35	50	50	67	2	14*	16	21	3	191
W0950802017	80	50	30	11	16	66	40	63	60	86	7	14	20	21	3	332
W0951002017	100	60	38	11	20	76	50	71	70	96	5	17*	20	11	3	522
W0951252017	125	70	45	14	25	94	60	90	90	124	10	20	30	21	3	960

* Dimensions not to ISO 15552

FRONT FLANGE - MODEL C

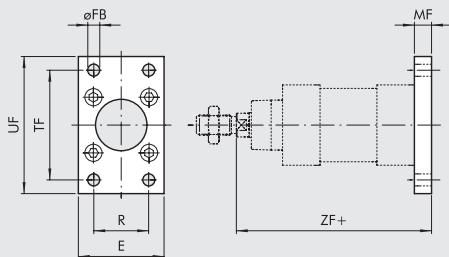


Code	Ø	TF	UF	E	MF	R	øFB	W	Weight [g]
W0950322002	32	64	80	50	10	32	7	16	246
W0950402002	40	72	90	55	10	36	9	20	290
W0950502002	50	90	110	65	12	45	9	25	522
W0950632002	63	100	120	75	12	50	9	25	670
W0950802002	80	126	150	95	15	63	12	30	1420
W0951002002	100	150	178	115	15	75	14	35	2040
W0951252002	125	180	220	140	20	90	16	45	4300

Note: Supplied with 4 screws

REAR FLANGE - MODEL C

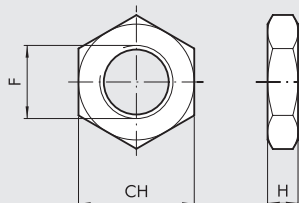
+ = ADD THE STROKE



Code	Ø	TF	UF	E	MF	R	øFB	ZF	Weight [g]
W0950322002	32	64	80	50	10	32	7	130	246
W0950402002	40	72	90	55	10	36	9	145	290
W0950502002	50	90	110	65	12	45	9	155	522
W0950632002	63	100	120	75	12	50	9	170	670
W0950802002	80	126	150	95	15	63	12	190	1420
W0951002002	100	150	178	115	15	75	14	205	2040
W0951252002	125	180	220	140	20	90	16	245	4300

Note: Supplied with 4 screws.

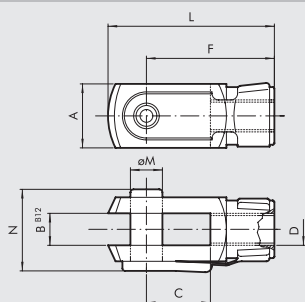
ROD NUT - MODEL S



Code	Ø	F	H	CH	Weight [g]
0950322010	32	M10x1.25	6	17	6
0950402010	40	M12x1.25	7	19	12
0950502010	50/63	M16x1.5	8	24	20
0950802010	80/100	M20x1.5	9	30	32
0951252010	125	M27x2	12	41	74

Note: Individually packed

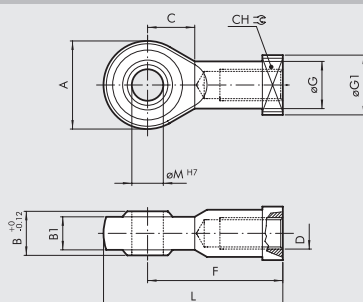
FORK MODEL GK-M



Code	∅	øM	C	B	A	L	F	D	N	Weight [g]
W0950322020	32	10	20	10	20	52	40	M10x1.25	26	92
W0950402020	40	12	24	12	24	62	48	M12x1.25	32	148
W0950502020	50	16	32	16	32	83	64	M16x1.5	40	340
W0950502020	63	16	32	16	32	83	64	M16x1.5	40	340
W0950802020	80	20	40	20	40	105	80	M20x1.5	48	690
W0950802020	100	20	40	20	40	105	80	M20x1.5	48	690
W0951252020	125	30	54	30	55	148	110	M27x2	65	1835

Note: ∅32÷100 Supplied complete with 1 pin and 1 clip; ∅125 Supplied complete with 1 pin and 2 seeger

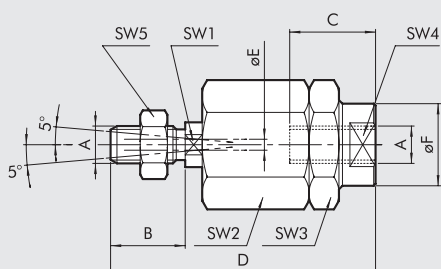
ROD EYE - MODEL GA-M



Code	∅	øM	C	B1	B	A	L	F	D	øG	CH	øG1	Weight [g]
W0950322025	32	10	15	10.5	14	28	57	43	M10x1.25	15	17	19	78
W0950402025	40	12	17	12	16	32	66	50	M12x1.25	17.5	19	19	116
W0950502025	50	16	22	15	21	42	85	64	M16x1.5	22	22	22	226
W0950502025	63	16	22	15	21	42	85	64	M16x1.5	22	22	22	226
W0950802025	80	20	26	18	25	50	102	77	M20x1.5	27.5	30	27	404
W0950802025	100	20	26	18	25	50	102	77	M20x1.5	27.5	30	27	404
W0951252025	125	30	36	25	37	70	145	110	M27x2	40	41	50	1190

Note: Individually packed

SELF ALIGNING ROD COUPLER - MODEL GA-K



Code	∅	A	B	C	D	øF	øE	SW ₁	SW ₂	SW ₃	SW ₄	SW ₅	Weight [g]
W0950322030	32	M10x1.25	20	20	71	22	4	12	30	30	19	17	216
W0950402030	40	M12x1.25	24	20	75	22	4	12	30	30	19	19	220
W0950502030	50	M16x1.5	32	32	103	32	4	20	41	41	30	24	620
W0950502030	63	M16x1.5	32	32	103	32	4	20	41	41	30	24	620
W0950802030	80	M20x1.5	40	40	119	32	4	20	41	41	30	30	680
W0950802030	100	M20x1.5	40	40	119	32	4	20	41	41	30	30	680

Note: Individually packed

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