

Series HE

Mini cylinders ISO 6432, single acting

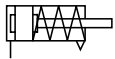
Technical details

Operating pressure	1 ... 10 bar								
Temperature range	-30°C ... +80°C								
Medium	Filtered, oil-free and dried compressed air according to ISO 8573-1:2010, Class 7:2:4, instrument air, free of aggressive additives. Alternatively the pressure dew point must be at least 10°C below lowest occurring ambient temperature.								
Materials	<table border="0"> <tr> <td>Cylinder tube:</td> <td>stainless steel</td> </tr> <tr> <td>End caps:</td> <td>Al (anodized)</td> </tr> <tr> <td>Piston rod:</td> <td>stainless steel</td> </tr> <tr> <td>Seals:</td> <td>PU, NBR</td> </tr> </table>	Cylinder tube:	stainless steel	End caps:	Al (anodized)	Piston rod:	stainless steel	Seals:	PU, NBR
Cylinder tube:	stainless steel								
End caps:	Al (anodized)								
Piston rod:	stainless steel								
Seals:	PU, NBR								

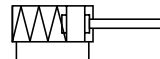


Single acting pneumatic cylinder with built-in cushioning rings.

Versions



HE, HES, HEZ
single acting, normally retracted



HE, HEH, HES, HEZ ... -300
single acting, normally extended

Order code

Series		Options	
HE	standard	without	standard version, normally retracted
HEM	high temperature version	300	standard version, normally extended
HES*	lateral air connection, rear		
HEZ*	central air connection, rear		
		Stroke (mm)	
		xxx	10, 25, 50
		Piston Ø	
		08	8 mm
		10	10 mm
		12	12 mm
		16	16 mm
		20	20 mm
		25	25 mm

* only for Ø 16, 20 and 25 mm

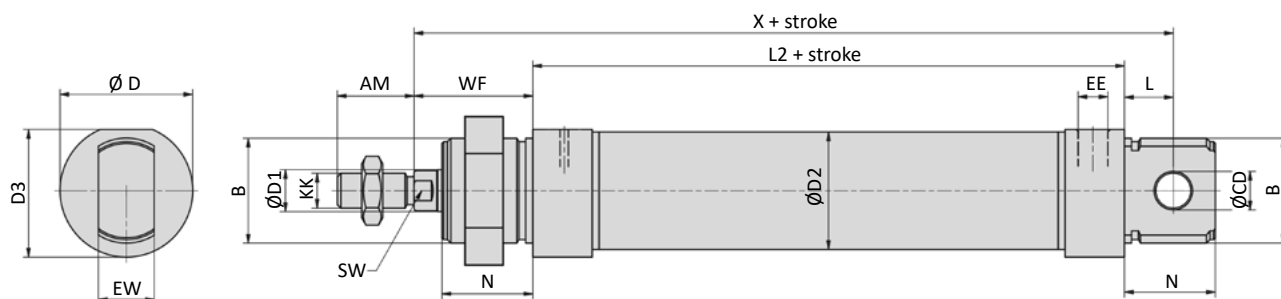
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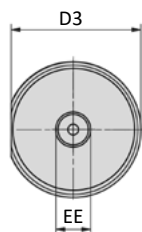
Technical data

Model-no.:		HE-08-...	HE-10-...	HE-12-...	HEx-16-...	HEx-20-...	HEx-25-...
Piston Ø (mm)		8	10	12	16	20	25
Force at 6 bar and 10 mm stroke (N)	Extension	19.0 ... 19.7	36.0 ... 36.7	51.7 ... 52.0	87.5 ... 90.0	142.8 ... 145.0	243.7 ... 245.0
	Retraction	4.5 ... 5.2	4.5 ... 5.2	5.7 ... 6.0	15.0 ... 17.5	21.3 ... 23.5	18.2 ... 19.5
Force at 6 bar and 25 mm stroke (N)	Extension	19.0 ... 20.3	36.0 ... 37.3	51.7 ... 52.6	87.5 ... 93.5	142.8 ... 148.3	243.7 ... 247.0
	Retraction	3.9 ... 5.2	3.9 ... 5.2	5.1 ... 6.0	11.5 ... 17.5	18.0 ... 23.5	16.2 ... 19.5
Force at 6 bar and 50 mm stroke (N)	Extension	19.0 ... 21.7	36.0 ... 38.7	51.7 ... 53.6	87.5 ... 99.7	142.8 ... 153.8	243.7 ... 250.3
	Retraction	2.5 ... 5.2	2.5 ... 5.2	4.1 ... 6.0	5.3 ... 17.5	12.5 ... 23.5	12.9 ... 19.5
Connection		M5	M5	M5	M5	G1/8	G1/8
Piston rod thread		M4	M4	M6	M6	M8	M10 x 1.25

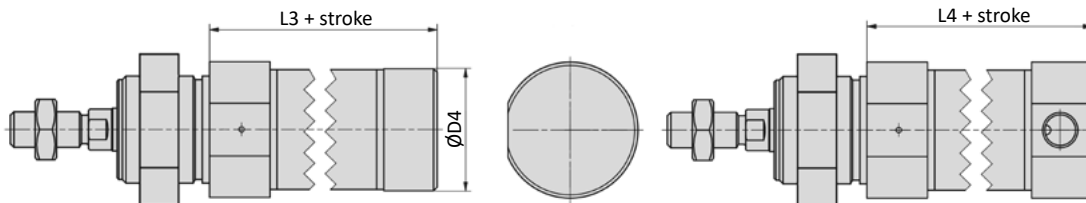
Dimensions series HE



Series HEZ



Series HES



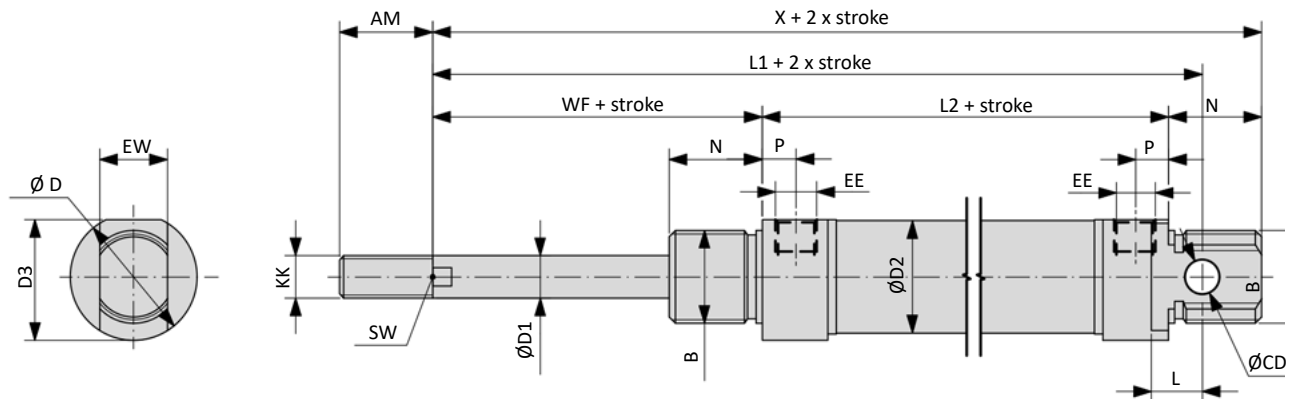
Piston Ø	AM	B	Ø CD	Ø D	Ø D1	Ø D2	D3	Ø D4	EE
8	12	M12 x 1.25	4	16	4	9.27	15	-	M5
10	12	M12 x 1.25	4	16	4	11.27	15	-	M5
12	16	M16 x 1.5	6	19	6	13.27	18	-	M5
16	16	M16 x 1.5	6	19	6	17.27	18	17.2	M5
20	20	M22 x 1.5	8	27	8	21.27	25.5	22.2	G1/8
25	22	M22 x 1.5	8	30	10	26.5	28.5	27	G1/8

Piston Ø	EW	KK	L	L2	L3	L4	N	SW	WF	X
8	8	M4	6	46	-	-	12	-	16	64
10	8	M4	6	46	-	-	12	-	16	64
12	12	M6	9	48	-	-	18	5	22	75
16	12	M6	9	53	52	52.5	18	5	22	82
20	16	M8	12	67	65	67	20	7	24	95
25	16	M10 x 1.25	12	68	66	68	22	9	28	104

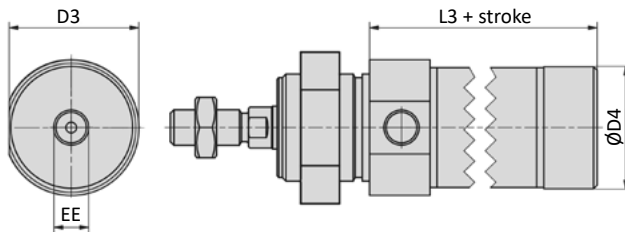
Series HE

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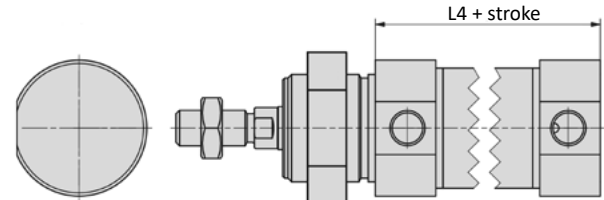
Dimensions series HE, option 300 (normally extended)



Series HEZ



Series HES



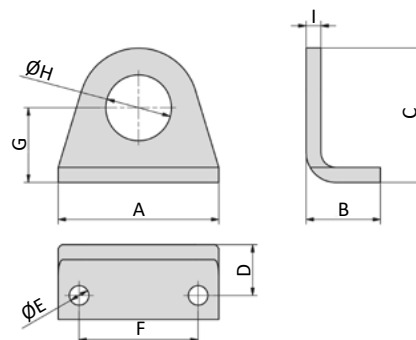
Piston-Ø	AM	B	Ø CD	Ø D	Ø D1	Ø D2	D3	Ø D4	EE	EW	KK
8	12	M12 x 1,25	4	16	4	9,27	15	-	M5	8	M4
10	12	M12 x 1,25	4	16	4	11,27	15	-	M5	8	M4
12	16	M16 x 1,5	6	19	6	13,27	18	-	M5	12	M6
16	16	M16 x 1,5	6	19*	6	17,27	18	17,2	M5	12	M6
20	20	M22 x 1,5	8	27	8	21,27	25,5	22,2	G1/8	16	M8
25	22	M22 x 1,5	8	30	10	26,5	28,5	27	G1/8	16	M10 x 1,25

Piston-Ø	L	L1	L2	L3	L4	N	P	SW	WF	X
8	6	82	64	-	-	12	5	-	16	92
10	6	89,5	71,5	-	-	12	5	-	16	99,5
12	9	97,5	70,5	-	-	18	5	5	22	110,5
16	9	111	82	81	81,5	18*	4,5	5	22	122
20	12	126,5	98,5	96,5	98,5	20	8	7	24	142,5
25	12	135,5	99,5	97,5	99,5	22	8	9	28	149,5

Series HM

Mounting accessories

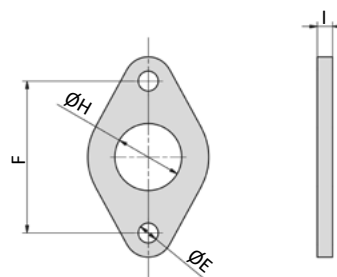
RA-xx Foot mount



Model-no.:	for cylinder \varnothing	A	B	C	D	$\varnothing E$	F	G	$\varnothing H$	I
RA-10	8, 10	35	16	26	11	4.5	25	16	12	3
RA-16	12, 16	42	20	32.5	14	5.5	32	20	16	4
RA-25	20, 25	54	25	45	17	6.6	40	25	22	5

material: steel, zinc plated

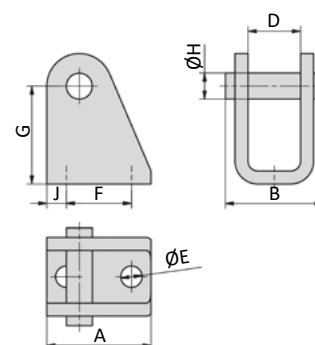
RB-xx Flange mount



Model-no.:	for cylinder \varnothing	$\varnothing E$	F	$\varnothing H$	I
RB-10	8, 10	4.5	30	12	3
RB-16	12, 16	5.5	40	16	4
RB-25	20, 25	6.6	50	22	5

material: steel, zinc plated

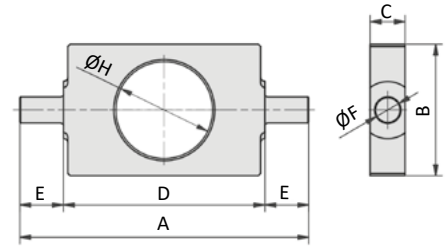
RC-xx Clevis mount



Model-no.:	for cylinder \varnothing	A	B	D	$\varnothing E$	F	G	$\varnothing H$	J
RC-10	8, 10	20	17	8.1	4.5	12.5	24	4	5
RC-16	12, 16	25	23	12.1	5.5	15	27	6	5
RC-30	20, 25	32	30	16.1	6.6	20	30	8	6

material: steel, zinc plated, 2 snap rings are included

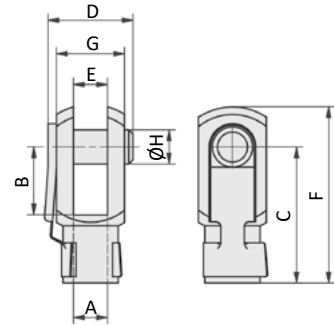
RH-xx Trunnion mount



Model-no.:	for cylinder Ø	A	B	C	D	E	Ø F	Ø H
RH-10	8, 10	38	20	6	26	6	4	12
RH-16	12, 16	58	25	8	38	10	6	16
RH-25	20, 25	66	30	8	46	10	6	22

material: steel, zinc plated

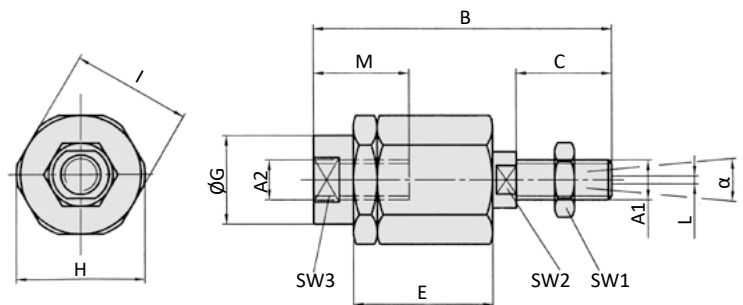
RD-xx Rod clevis



Model-no.:	for cylinder Ø	A	B	C	D	E	F	G	Ø H
RD-10	8, 10	M4	8	16	11.5	4	21	8	4
RD-16	12, 16	M6	12	24	16	6	31	12	6
RD-20	20	M8	16	32	22	8	42	16	8
RD-25	25	M10 x 1.25	20	40	26	10	52	20	10

material: steel, zinc plated

FK-xx Flexible coupling



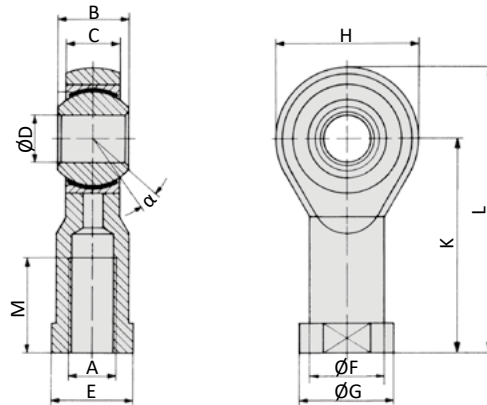
Model-no.:	for cylinder Ø	A1, A2	B	C	D	E	Ø G	H	I	L	M	SW1	SW2	SW3	α
FK-16	12, 16	M6	35	11	2.5	17.5	8.5	14.5	13	1	12.5	10	5	7	6°
FK-20	20	M8	57	21	5	26	12.5	19	17	2	16	13	7	11	8°
FK-32	25	M10 x 1.25	71.5	20	7.5	35	22	32	30	2	22	17	12	19	8°

material: steel, zinc plated

Series HM

Mounting accessories

RO-xx Rod eye



Model-no.:	for cylinder \varnothing	A	B	C	$\varnothing D$	E	$\varnothing F$	$\varnothing G$	H	K	L	M	α
RO-16	12, 16	M6	9	6.75	6	11	10	13	20	30	40	12	13°
RO-20	20	M8	12	9	8	14	12.5	16	24	36	48	16	14°
RO-25	25	M10 x 1.25	14	10.5	10	17	15	19	28	43	57	20	13°

materials: steel, zinc plated, bearing steel, bronze bushing