

- Compliant to norm ISO 6432
- High reliability and long lifetime
- Magnetic or non-magnetic double acting version
- Non-magnetic single acting version
- Special versions on request



Return spring forces for single acting cylinders

bore	return spring force			spring status
	stroke 10	stroke 25	stroke 50	
10	4.1 N	3.5 N	2.6 N	at rest
	4.5 N	4.5 N	4.5 N	compressed
12	5.5 N	4.8 N	3.5 N	at rest
	6 N	6 N	6 N	compressed
16	16.5 N	13.7 N	9 N	at rest
	18.3 N	18.3 N	18.3 N	compressed
20	19 N	15.5 N	9.5 N	at rest
	21.5 N	21.5 N	21.5 N	compressed
25	27 N	24 N	13.5 N	at rest
	29 N	29 N	29 N	compressed

Materials

Barrel: stainless steel

Piston-rod: stainless steel

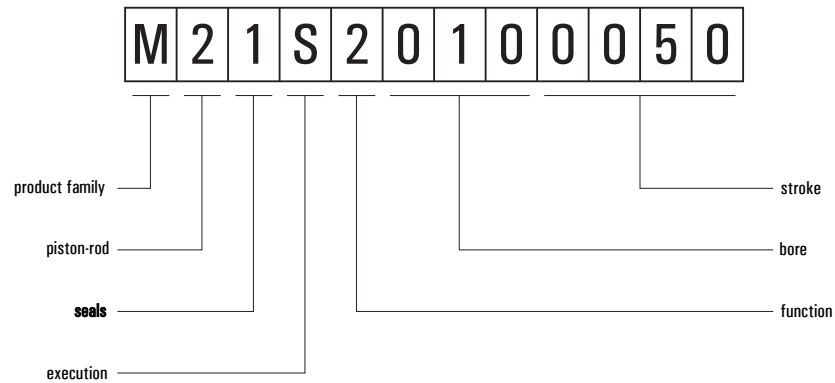
End-cups: aluminium (anodize treatment)

Seals: NBR or VITON

Magnet: magnetic iron compound (not suitable for temperatures over +60°C)

Operating pressure	max 10 bar (145 PSI) max 1 MPa
Temperature range	-15+60°C (5-140° F)
Bores	10; 12; 16; 20; 25 mm
Strokes	10 ... 320 mm
Mechanical cushioning	Standard on the whole range
Pneumatic cushioning	Available for bore 20 and 25
Fluid	50µ filtered, lubricated or non lubricated air

coding example



Product family

M minicylinders ISO 6432

Piston-rod

2 stainless steel

Seals

1 NBR

2 VITON

Execution

S non-magnetic

M magnetic

A non-magnetic with rod lock adaptor

B magnetic with rod lock adaptor

Function

1 single acting front spring without pneumatic cushioning

2 double acting without pneumatic cushioning

3 double acting with pneumatic cushioning

4 double acting without pneumatic cushioning, with through-rod

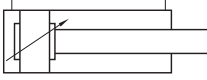
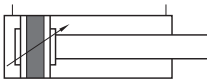
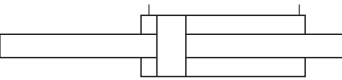
5 double acting with pneumatic cushioning and through-rod

6 single acting back spring without pneumatic cushioning

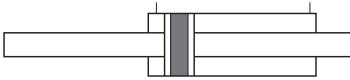
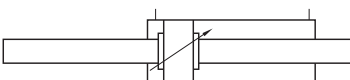
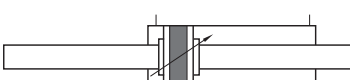
available versions

single acting front spring non-magnetic without pneumatic cushioning	bore \ stroke 10	X	X	X	X	X	OPTIONS The standard is marked with grey background
	25	X	X	X	X	X	
	50	X	X	X	X	X	
single acting back spring non-magnetic without pneumatic cushioning	10			X	X	X	OPTIONS The standard is marked with grey background
	25			X	X	X	
	50			X	X	X	
double acting non-magnetic without pneumatic cushioning	bore \ stroke 10	X	X	X	X	X	OPTIONS The standard is marked with grey background
	25	X	X	X	X	X	
	50	X	X	X	X	X	
	80	X	X	X	X	X	
	100	X	X	X	X	X	
	125	X	X	X	X	X	
	160	X	X	X	X	X	
	200	X	X	X	X	X	
	250			X	X	X	
	320			X	X	X	
double acting magnetic without pneumatic cushioning	bore \ stroke 10	X	X	X	X	X	OPTIONS The standard is marked with grey background
	25	X	X	X	X	X	
	50	X	X	X	X	X	
	80	X	X	X	X	X	
	100	X	X	X	X	X	
	125	X	X	X	X	X	
	160	X	X	X	X	X	
	200	X	X	X	X	X	
	250			X	X	X	
	320			X	X	X	

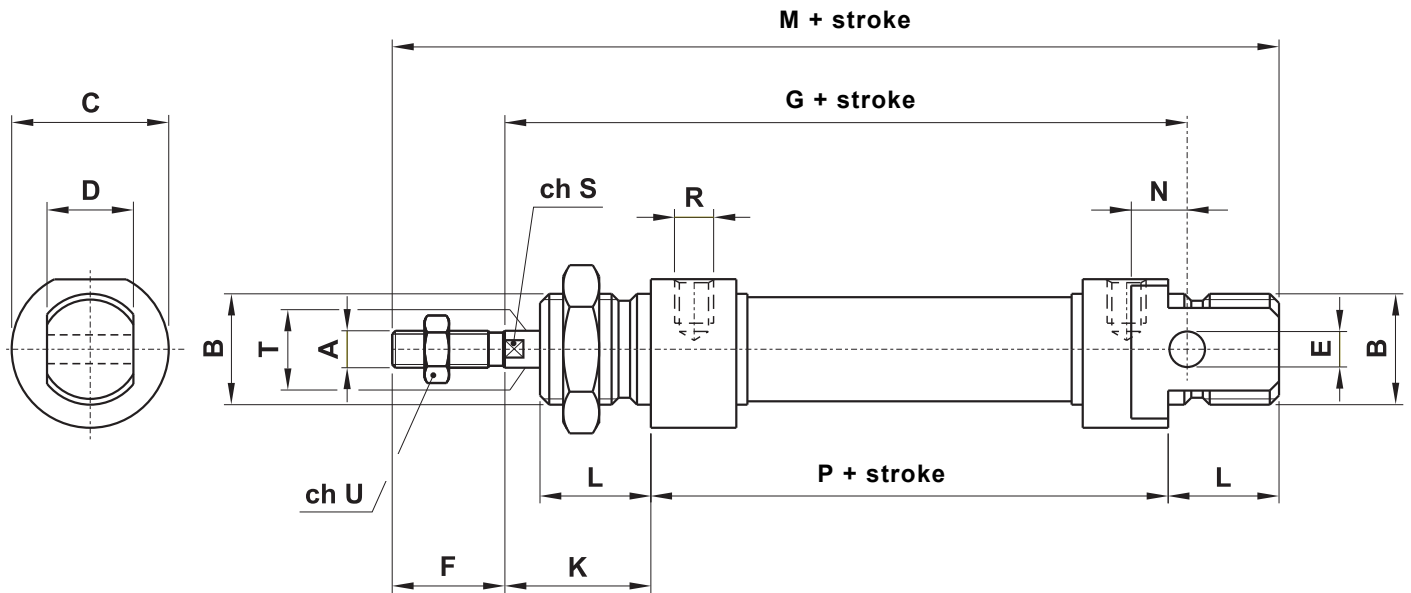
available versions

double acting non-magnetic with pneumatic cushioning 	bore stroke	10	12	16	20	25	OPTIONS The standard is marked with grey background <table border="1"> <tr> <th colspan="2">piston-rod material</th> </tr> <tr> <td colspan="2">stainless steel</td> </tr> <tr> <th colspan="2">seals material</th> </tr> <tr> <td>NBR</td> <td>VITON</td> </tr> <tr> <td colspan="2">rod lock adaptor</td> </tr> </table>	piston-rod material		stainless steel		seals material		NBR	VITON	rod lock adaptor	
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10																	
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50					X	X											
80					X	X											
100					X	X											
125					X	X											
160					X	X											
200					X	X											
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320					X	X											
double acting non-magnetic without pneumatic cushioning through-rod 	bore stroke	10	12	16	20	25	OPTIONS The standard is marked with grey background <table border="1"> <tr> <th colspan="2">piston-rod material</th> </tr> <tr> <td colspan="2">stainless steel</td> </tr> <tr> <th colspan="2">seals material</th> </tr> <tr> <td>NBR</td> <td>VITON</td> </tr> <tr> <td colspan="2">rod lock adaptor</td> </tr> </table>	piston-rod material		stainless steel		seals material		NBR	VITON	rod lock adaptor	
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10				X	X	X											
25				X	X	X											
50				X	X	X											
80				X	X	X											
100				X	X	X											
125				X	X	X											
160				X	X	X											
200				X	X	X											
250				X	X	X											
320				X	X	X											

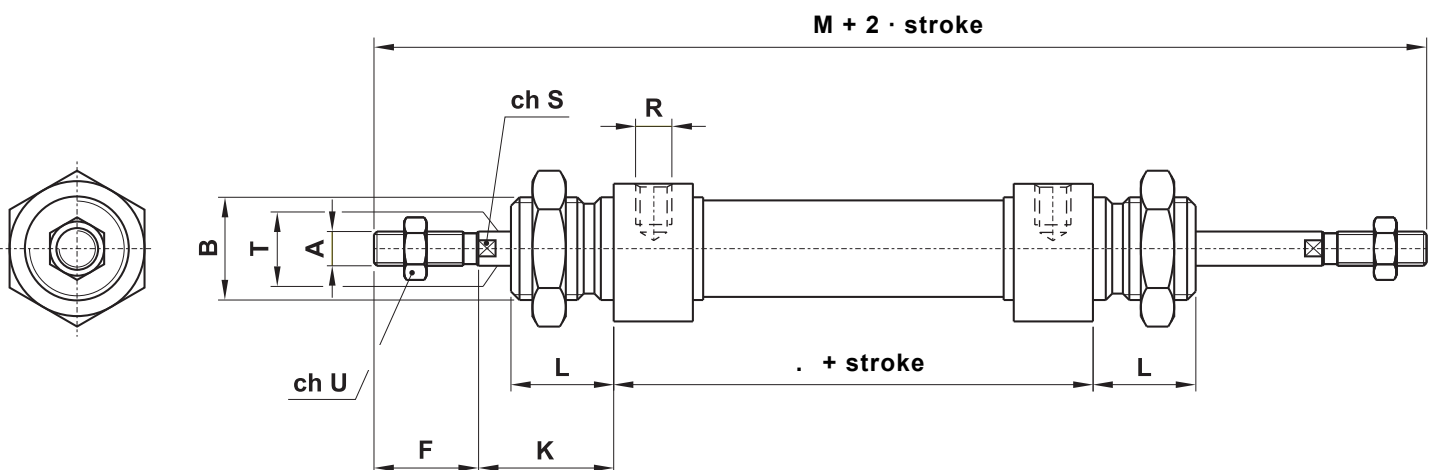
available versions

double acting magnetic without pneumatic cushioning through-rod 	bore stroke	10	12	16	20	25	OPTIONS The standard is marked with grey background piston-rod material stainless steel seals material NBR VITON rod lock adaptor
	10				X	X	
25				X	X	X	
50				X	X	X	
80				X	X	X	
100				X	X	X	
125				X	X	X	
160				X	X	X	
200				X	X	X	
250				X	X	X	
320				X	X	X	
double acting non-magnetic with pneumatic cushioning through-rod 	bore stroke	10	12	16	20	25	OPTIONS The standard is marked with grey background piston-rod material stainless steel seals material NBR VITON rod lock adaptor
10							
25					X	X	
50					X	X	
80					X	X	
100					X	X	
125					X	X	
160					X	X	
200					X	X	
250					X	X	
320					X	X	
double acting magnetic with pneumatic cushioning through-rod 	bore stroke	10	12	16	20	25	OPTIONS The standard is marked with grey background piston-rod material stainless steel seals material NBR VITON rod lock adaptor
10							
25					X	X	
50					X	X	
80					X	X	
100					X	X	
125					X	X	
160					X	X	
200					X	X	
250					X	X	
320					X	X	

Minicylinders ISO 6432



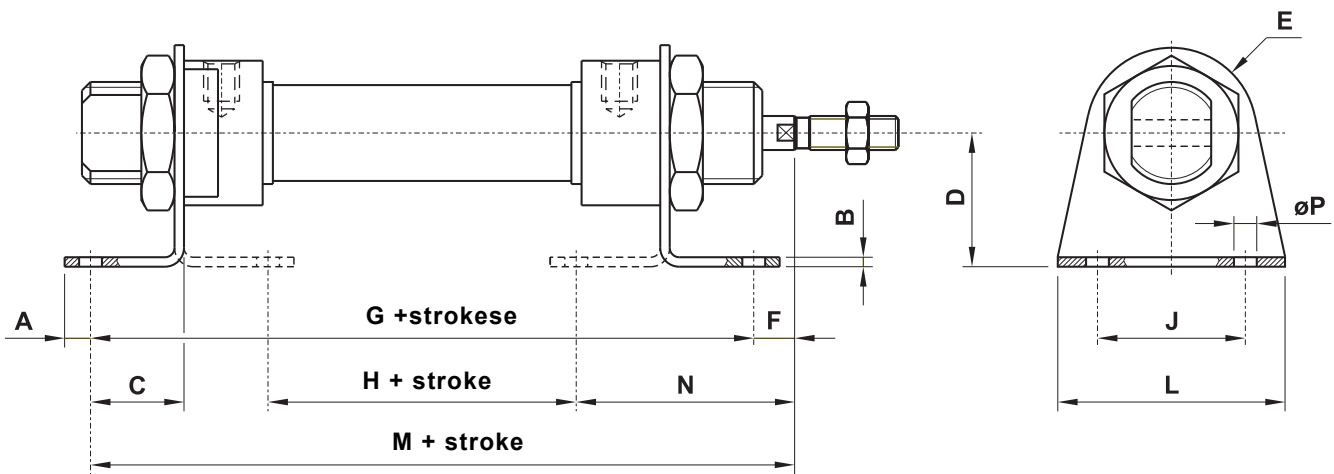
∅	A	B	C	D	E	F	G	K	L	M	N	P	R	S	T	U
10	M4	M12x1.25	∅16	8	∅4	12	64	16	12	86	6	46	M5	-	∅4	7
12	M6	M16x1.5	∅19	12	∅6	16	75	22	18	104	9	48	M5	5	∅6	10
16	M6	M16x1.5	∅19	12	∅6	16	82	22	18	109	9	53	M5	5	∅6	10
20	M8	M22x1.5	∅27	16	∅8	20	95	24	20	131	12	67	G1/8"	7	∅8	13
25	M10x1.25	M22x1.5	∅30	16	∅8	22	104	28	22	140	12	68	G1/8"	9	∅10	17



∅	A	B	F	K	L	M	P	R	S	T	U
16	M6	M16x1.5	16	22	18	129	53	M5	5	∅6	10
20	M8	M22x1.5	20	24	20	155	67	G1/8"	7	∅8	13
25	M10x1.25	M22x1.5	22	28	22	168	68	G1/8"	9	∅10	17

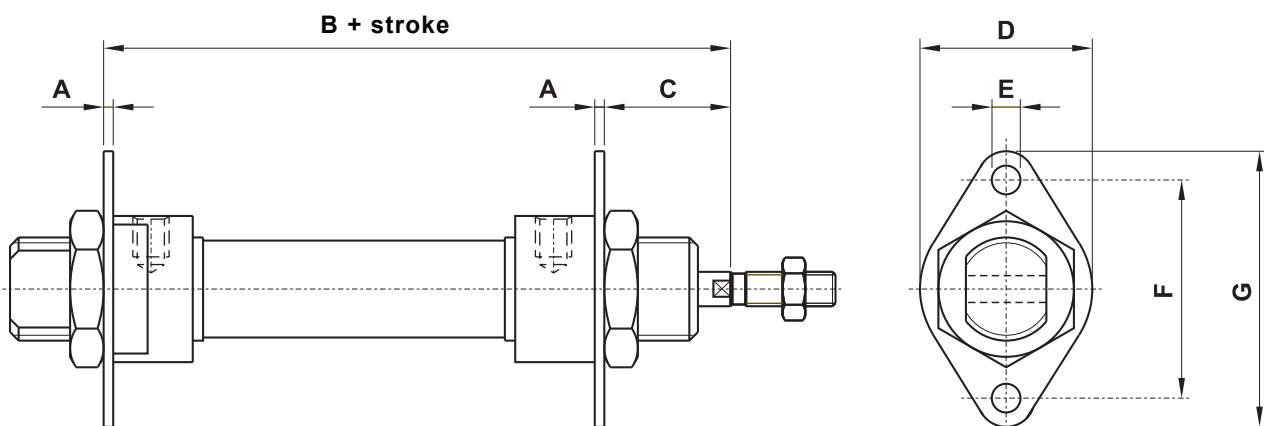


FOOT MOUNTING



∅	A	B	C	D	E	F	G	H	J	L	M	N	P
10	5	3	11	16	10	5	68	30	25	32	73	24	4.5
12	6	4	14	20	12.5	8	76	28	32	42	84	32	5.5
16	6	4	14	20	12.5	8	81	33	32	42	89	32	5.5
20	8	5	17	25	20	7	101	43	40	54	108	36	6.6
25	8	5	17	25	20	11	102	44	40	54	113	40	6.6

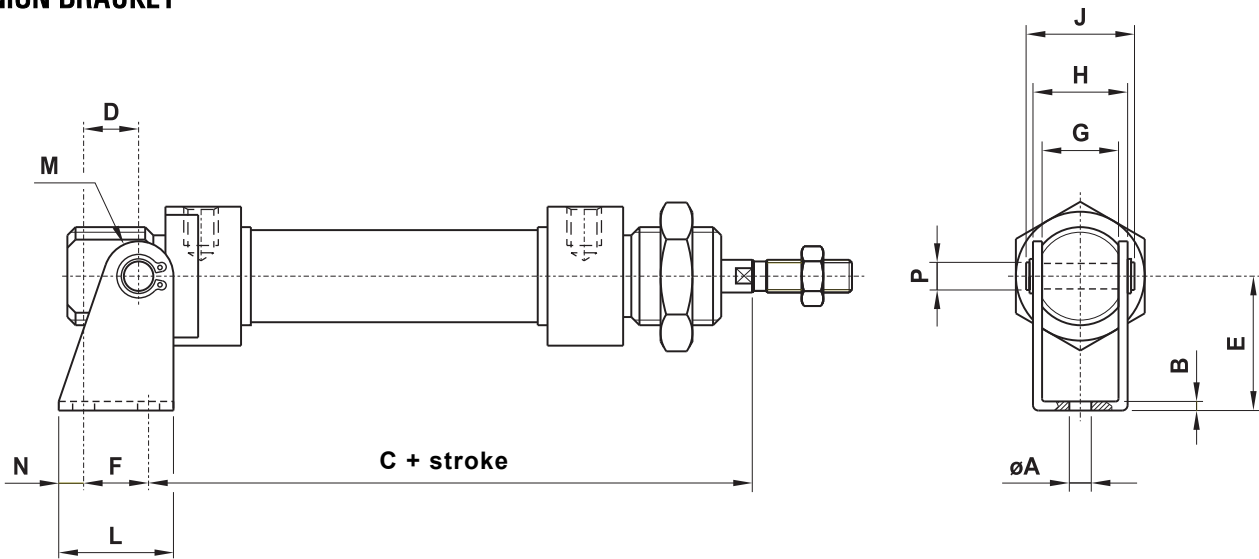
FLANGE



∅	A	B	C	D	E	F	G
10	3	65	13	22	∅4.5	30	40
12	4	74	18	30	∅5.5	40	52
16	4	79	18	30	∅5.5	40	52
20	5	96	19	40	∅6.6	50	66
25	5	101	23	40	∅6.6	50	66

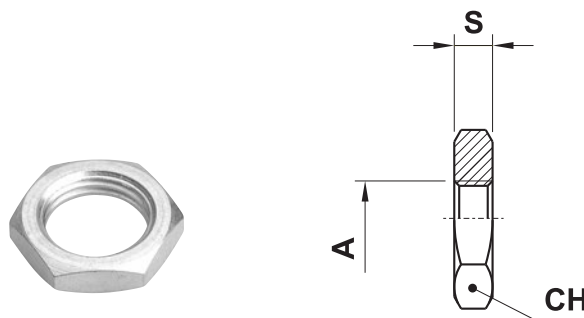


TRUNNION BRACKET



ø	A	B	C	D	E	F	G	H	J	L	M	N	P
10	4.5	2.5	62.5	12.25	24	12.5	8.1	13	17	20	5	4.75	ø4
12	5.5	3	73	13	27	15	12.1	18	23	25	7	5	ø6
16	5.5	3	80	13	27	15	12.1	18	23	25	7	5	ø6
20	6.6	4	91	16	30	20	16.1	24	29.5	32	10	6	ø8
25	6.6	4	100	16	30	20	16.1	24	29.5	32	10	6	ø8

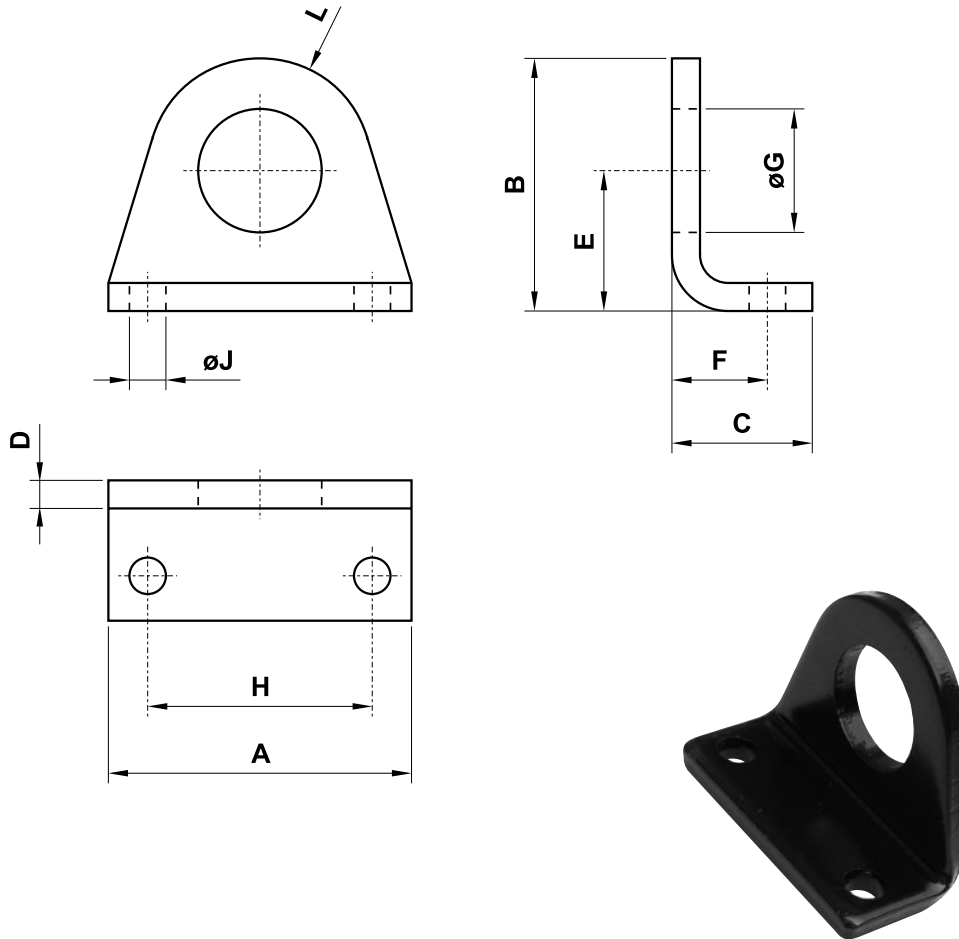
NUT FOR CYLINDER HEAD



part number	for bore	A	CH	S
GPM010	10	M12x1.25	19	7
GPM12-16	12-16	M16x1.5	22	6
GPM20-25	20-25	M22x1.5	27	8



FOOT MOUNTING

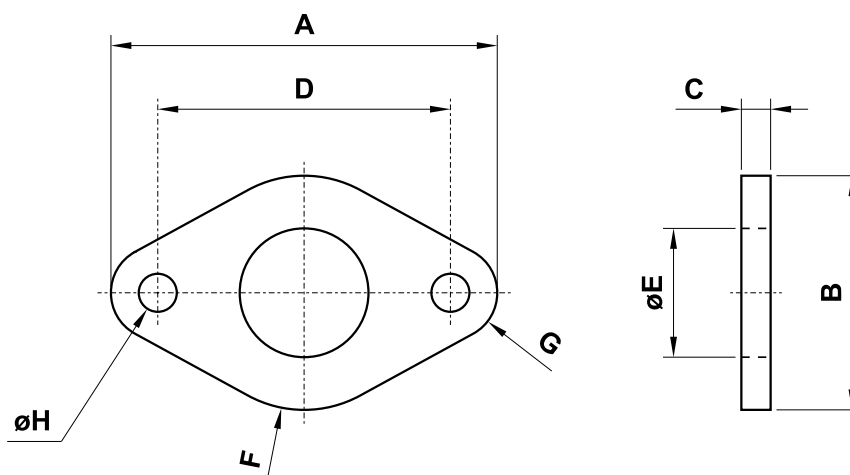


part number*	for bore	A	B	C	D	E	F	G	H	J	L
PDMC08-10	8-10	35	26	16	3	16	11	12	25	4.5	10
PDMC12-16	12-16	42	32.5	20	4	20	14	16	32	5.5	12.5
PDMC20-25	20-25	54	45	25	5	25	17	22	40	6.6	20

* Part number refers to a single element, not to the couple



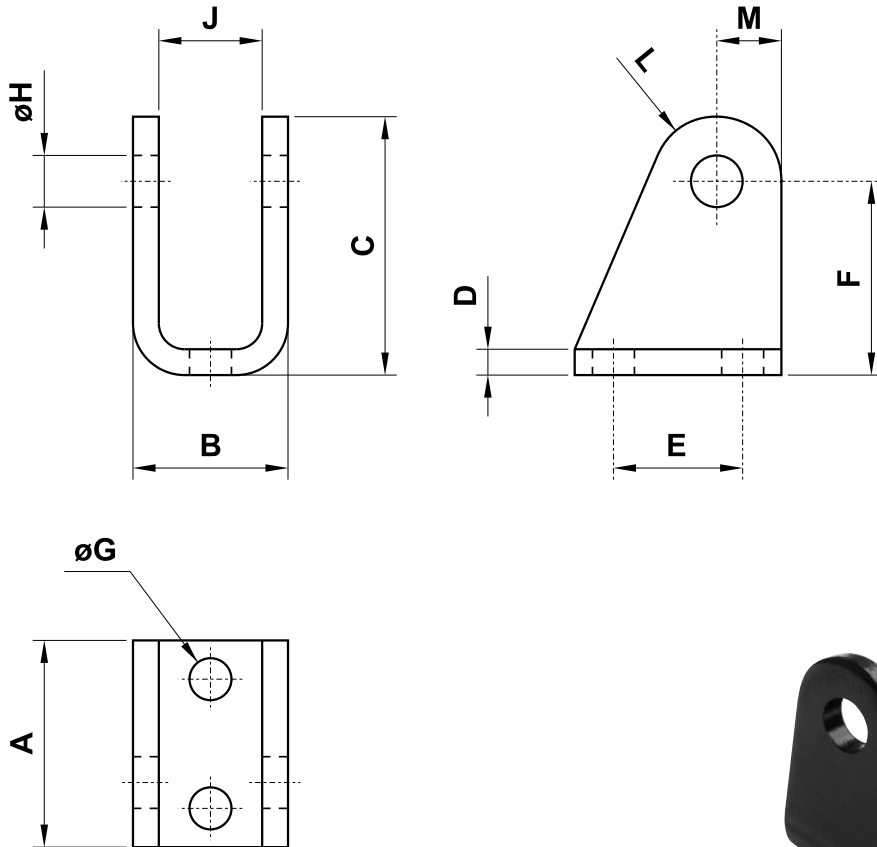
FLANGE



part number	for bore	A	B	C	D	E	F	G	H
FLMC08-10	8-10	40	22	3	30	12	11	5	4.5
FLMC12-16	12-16	52	30	4	40	16	15	6	5.5
FLMC20-25	20-25	66	40	5	50	22	20	8	6.6



TRUNNION BRACKET



part number	for bore	A	B	C	D	E	F	G	H	J	L	M
CCMC08-10	8-10	20	13	29	2.5	12.5	24	4.5	4	8.1	5	5
CCMC12-16	12-16	25	18	34	3	15	27	5.5	6	12.1	7	7
CCMC20-25	20-25	32	24	40	4	20	30	6.6	8	16.1	10	10