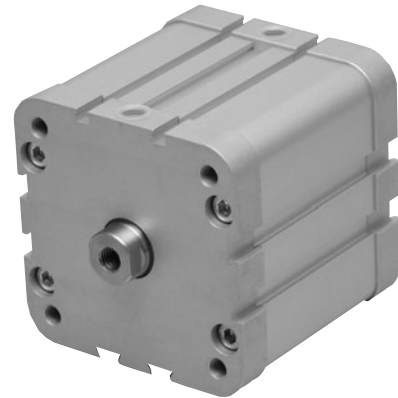


- Fixing dimensions are compliant to norm ISO 6431 or UNITOP
- Suitable for standard fixing elements
- High reliability and long lifetime
- Standard magnetic version
- Special strokes on request



## Materials

Barrel: aluminium

Piston-rod: C45 (chromium plated) or stainless steel

End-cups: aluminium

Piston: technopolymer (standard) or aluminium (on request). Technopolymer piston is not suitable for ATEX.

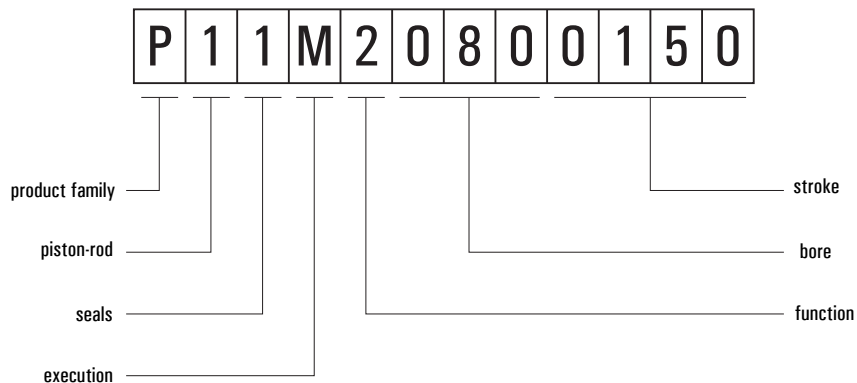
Seals: polyurethane or VITON

Piston-rod seal: polyurethane 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	standard (polyurethane/NBR): -15+60°C (5-140° F) VITON: max +110°C (230° F)
Bores	32; 40; 50; 63; 80; 100 mm
Construction type	Square aluminium profile
Strokes	5 ... 200 mm
Fluid	50µ filtered, lubricated or non lubricated air

## coding example



### Product family

- P** compact cylinders with fixing distances ISO 6431
- R** compact cylinders with fixing distances UNITOP

### Piston-rod

- 1** C45 chromium plated - female rod thread
- 2** stainless steel - female rod thread
- 3** C45 chromium plated - male rod thread
- 4** stainless steel - male rod thread

### Seals

- 1** polyurethane
- 2** all seals in VITON
- 3** rod seals in VITON

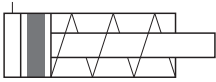
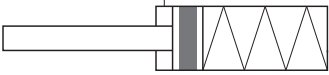
### Execution

- M** magnetic

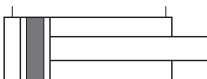
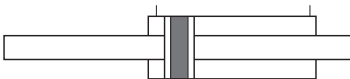
### Function

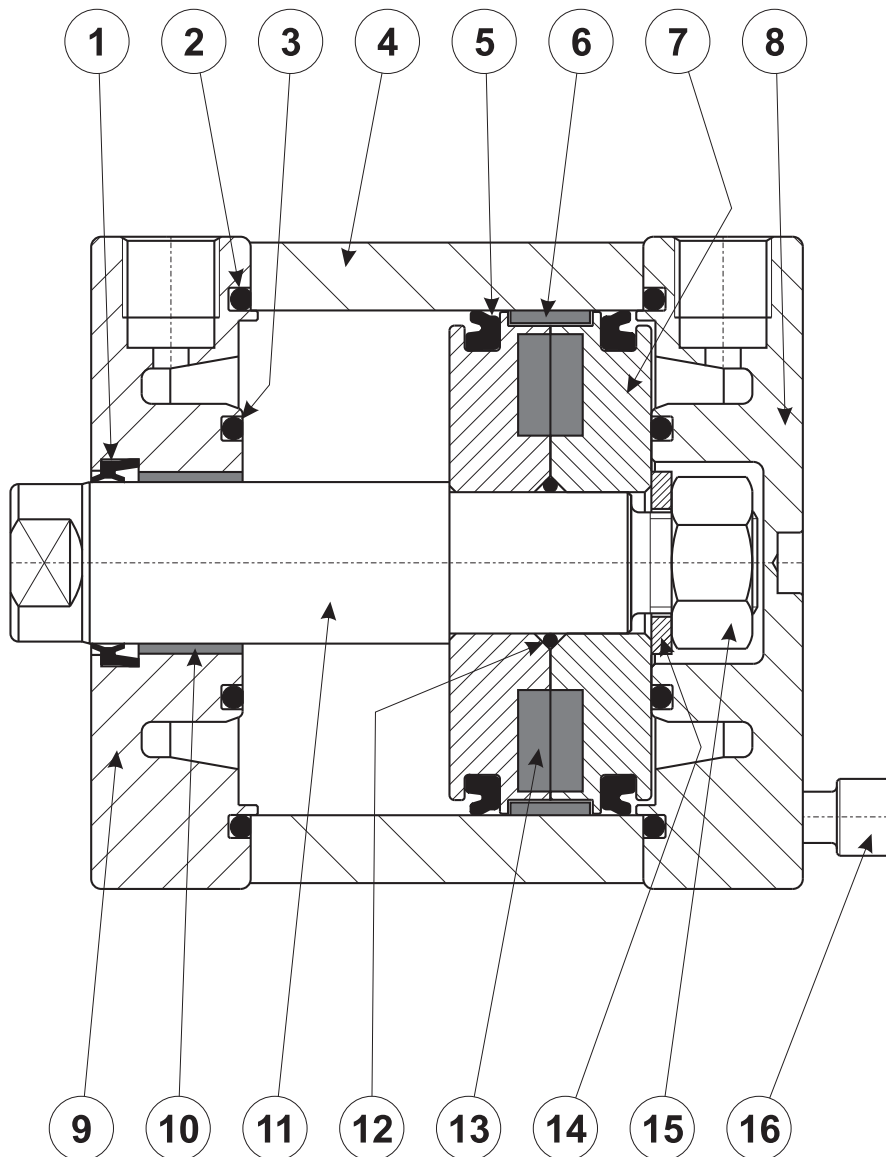
- 1** single acting front spring without pneumatic cushioning
- 2** double acting without pneumatic cushioning
- 3** single acting back spring without pneumatic cushioning
- 4** double acting without pneumatic cushioning, with through-rod

## available versions

<b>single acting front spring</b>  <b>magnetic</b>  <b>without pneumatic cushioning</b>  	bore \ stroke stroke	bore						<b>OPTIONS</b>  The standard is marked with grey background												
		32	40	50	63	80	100													
	5	X	X	X	X	X	X	<table border="1"> <tr> <th colspan="2">piston-rod material</th> </tr> <tr> <td>C45 chromium plated</td> <td>stainless steel</td> </tr> <tr> <th colspan="2">seals material</th> </tr> <tr> <td>polyuret.</td> <td>all seals in VITON rod seals in VITON</td> </tr> <tr> <th colspan="2">rod thread</th> </tr> <tr> <td>female rod thread</td> <td>male rod thread</td> </tr> </table>	piston-rod material		C45 chromium plated	stainless steel	seals material		polyuret.	all seals in VITON rod seals in VITON	rod thread		female rod thread	male rod thread
piston-rod material																				
C45 chromium plated	stainless steel																			
seals material																				
polyuret.	all seals in VITON rod seals in VITON																			
rod thread																				
female rod thread	male rod thread																			
	10	X	X	X	X	X	X													
	25	X	X	X	X	X	X													
	30			X	X	X	X													
	40																			
	50																			
	75																			
	80																			
	100																			
	125																			
	150																			
	160																			
	200																			
<b>single acting back spring</b>  <b>magnetic</b>  <b>without pneumatic cushioning</b>  	bore \ stroke stroke	bore						<b>OPTIONS</b>  The standard is marked with grey background												
		32	40	50	63	80	100													
	5	X	X	X	X	X	X	<table border="1"> <tr> <th colspan="2">piston-rod material</th> </tr> <tr> <td>C45 chromium plated</td> <td>stainless steel</td> </tr> <tr> <th colspan="2">seals material</th> </tr> <tr> <td>polyuret.</td> <td>all seals in VITON rod seals in VITON</td> </tr> <tr> <th colspan="2">rod thread</th> </tr> <tr> <td>female rod thread</td> <td>male rod thread</td> </tr> </table>	piston-rod material		C45 chromium plated	stainless steel	seals material		polyuret.	all seals in VITON rod seals in VITON	rod thread		female rod thread	male rod thread
piston-rod material																				
C45 chromium plated	stainless steel																			
seals material																				
polyuret.	all seals in VITON rod seals in VITON																			
rod thread																				
female rod thread	male rod thread																			
	10	X	X	X	X	X	X													
	25	X	X	X	X	X	X													
	30			X	X	X	X													
	40																			
	50																			
	75																			
	80																			
	100																			
	125																			
	150																			
	160																			
	200																			

## available versions

<b>double acting</b>  <b>magnetic</b>  <b>without pneumatic cushioning</b>  	bore		32	40	50	63	80	100	<b>OPTIONS</b>  The standard is marked with grey background		
	stroke										
	5		X	X	X	X	X	X			
	10		X	X	X	X	X	X			
	25		X	X	X	X	X	X		<b>piston-rod material</b>	
	30		X	X	X	X	X	X		C45 chromium plated	stainless steel
	40		X	X	X	X	X	X		<b>seals material</b>	
	50		X	X	X	X	X	X		polyuret.	all seals in VITON rod seals in VITON
	75		X	X	X	X	X	X		<b>rod thread</b>	
	80		X	X	X	X	X	X		female rod thread	male rod thread
	100		X	X	X	X	X	X			
	125		X	X	X	X	X	X			
	150		X	X	X	X	X	X			
	160		X	X	X	X	X	X			
	200		X	X	X	X	X	X			
<b>double acting</b>  <b>magnetic</b>  <b>without pneumatic cushioning</b>  <b>through-rod</b>  	bore		32	40	50	63	80	100	<b>OPTIONS</b>  The standard is marked with grey background		
	stroke										
	5		X	X	X	X	X	X			
	10		X	X	X	X	X	X			
	25		X	X	X	X	X	X		<b>piston-rod material</b>	
	30		X	X	X	X	X	X		C45 chromium plated	stainless steel
	40		X	X	X	X	X	X		<b>seals material</b>	
	50		X	X	X	X	X	X		polyuret.	all seals in VITON rod seals in VITON
	75		X	X	X	X	X	X		<b>rod thread</b>	
	80		X	X	X	X	X	X		female rod thread	male rod thread
	100		X	X	X	X	X	X			
	125		X	X	X	X	X	X			
	150		X	X	X	X	X	X			
	160		X	X	X	X	X	X			
	200		X	X	X	X	X	X			



1. Piston-rod seal: polyurethane or VITON
2. O-Ring head seal: NBR or VITON
3. O-Ring bumper: NBR or VITON
4. Barrel: profiled, calibrated, anodized aluminium
5. Piston lip seal: polyurethane or VITON
6. Piston guide ring: bronze PTFE (only for aluminium piston)
7. Piston: technopolymer or aluminium
8. Rear head: aluminium
9. Front head: aluminium
10. Guide bushing: self-lubricating material
11. Rod: C45 chromium plated steel or stainless steel AISI 304
12. O-Ring piston seal: NBR or VITON
13. Magnet: magnetic iron compound
14. Flat washer
15. Rod locking nut
16. Head fixing screw

## seals kit

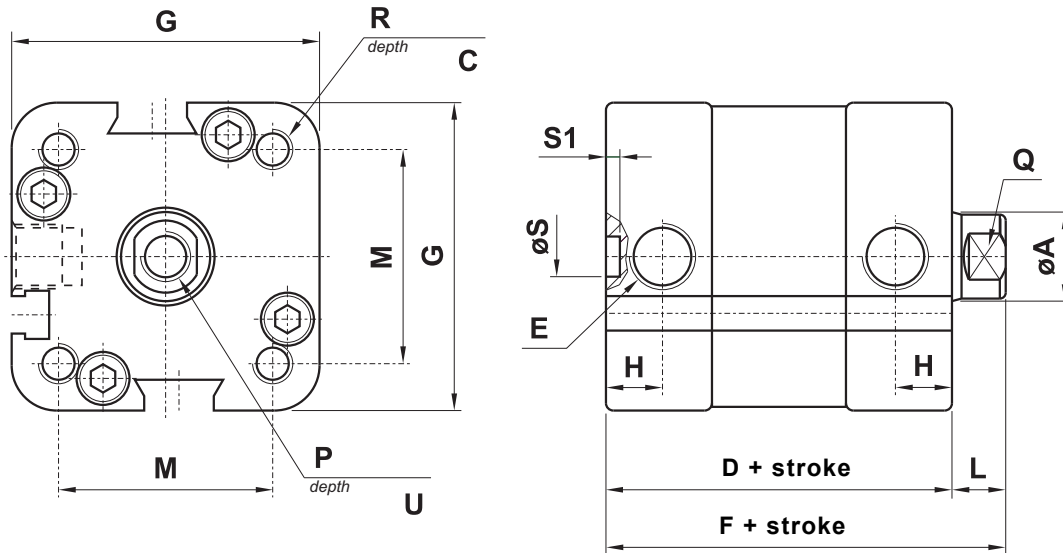
<b>MAGNETIC, standard seals</b>					
<b>normal</b>			<b>through-rod</b>		
for bore	part number	code	for bore	part number	code
32	<b>GP032</b>	25.103.2	32	<b>GP032P</b>	25.113.2
40	<b>GP040</b>	25.104.2	40	<b>GP040P</b>	25.114.2
50	<b>GP050</b>	25.105.2	50	<b>GP050P</b>	25.115.2
63	<b>GP063</b>	25.106.2	63	<b>GP063P</b>	25.116.2
80	<b>GP080</b>	25.107.2	80	<b>GP080P</b>	25.117.2
100	<b>GP100</b>	25.108.2	100	<b>GP100P</b>	25.118.2

<b>MAGNETIC, VITON seals</b>					
<b>normal</b>			<b>through-rod</b>		
for bore	part number	code	for bore	part number	code
32	<b>GP032V</b>	25.123.2	32	<b>GP032PV</b>	25.133.2
40	<b>GP040V</b>	25.124.2	40	<b>GP040PV</b>	25.134.2
50	<b>GP050V</b>	25.125.2	50	<b>GP050PV</b>	25.135.2
63	<b>GP063V</b>	25.126.2	63	<b>GP063PV</b>	25.136.2
80	<b>GP080V</b>	25.127.2	80	<b>GP080PV</b>	25.137.2
100	<b>GP100V</b>	25.128.2	100	<b>GP100PV</b>	25.138.2

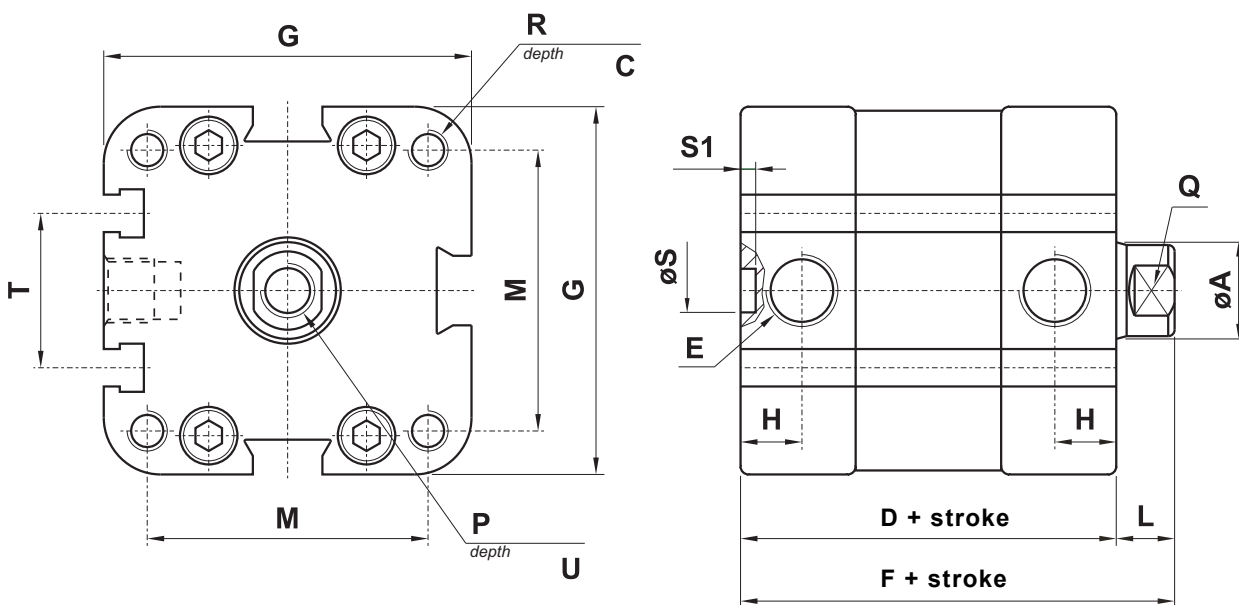
## MAGNETIC VERSION, FEMALE ROD THREAD

bore 32



$\phi$	A	C	D	E	F*	G		H	L*	M		P	Q	R		S	S1	U
						ISO	UNITOP			ISO	UNITOP			ISO	UNITOP			
32	12	14	46	G1/8"	53	46	46	7	7	32.3	32.3	M8	ch 10	M6	M6	6	2.5	13.5

bore 40 - 50 - 63

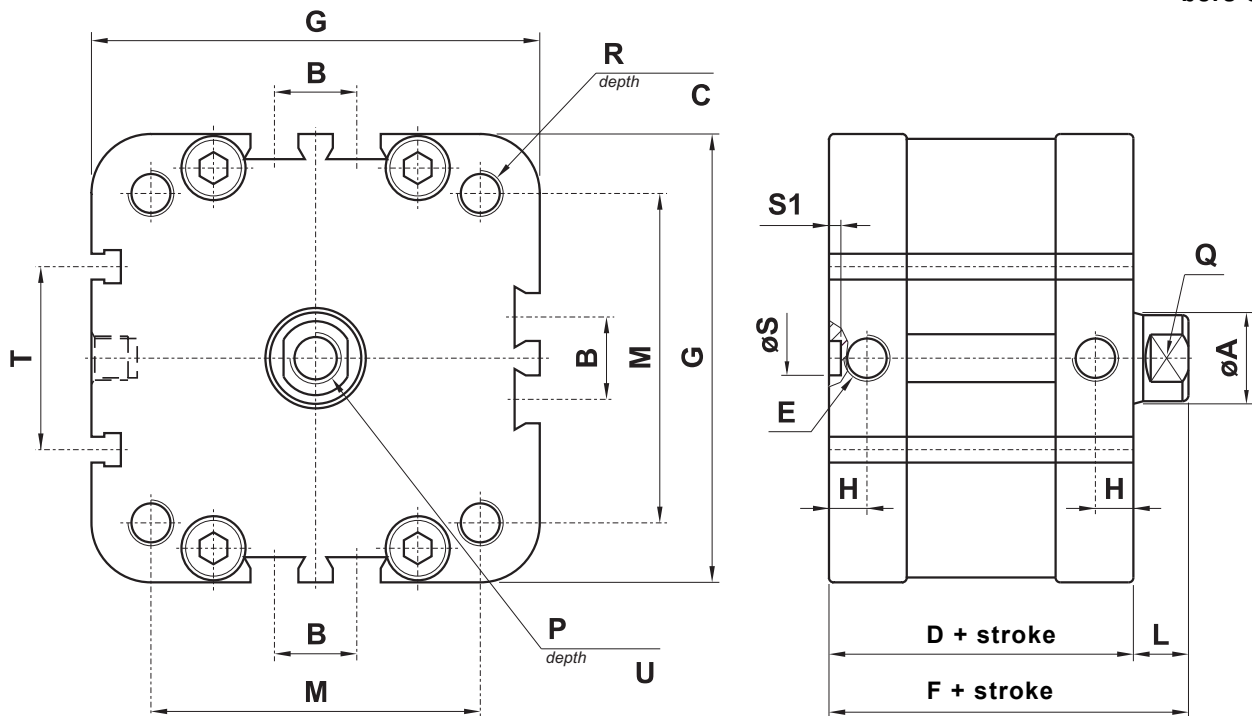


$\phi$	A	C	D	E	F*	G		H	L*	M		P	Q	R		S	S1	T	U
						ISO	UNITOP			ISO	UNITOP			ISO	UNITOP				
40	12	14	46	G1/8"	53	55	55	6.5	7	38	42	M8	ch 10	M6	M6	6	2.5	22	13.5
50	16	16	50	G1/8"	58	64.5	64.5	8	8	46.5	50	M10	ch 13	M8	M8	6	2.5	24	16
63	16	16	53	G1/8"	61	78	78	8	8	56.5	62	M10	ch 13	M8	M10	6	2.5	29	16

# Compact cylinders



bore 80 - 100



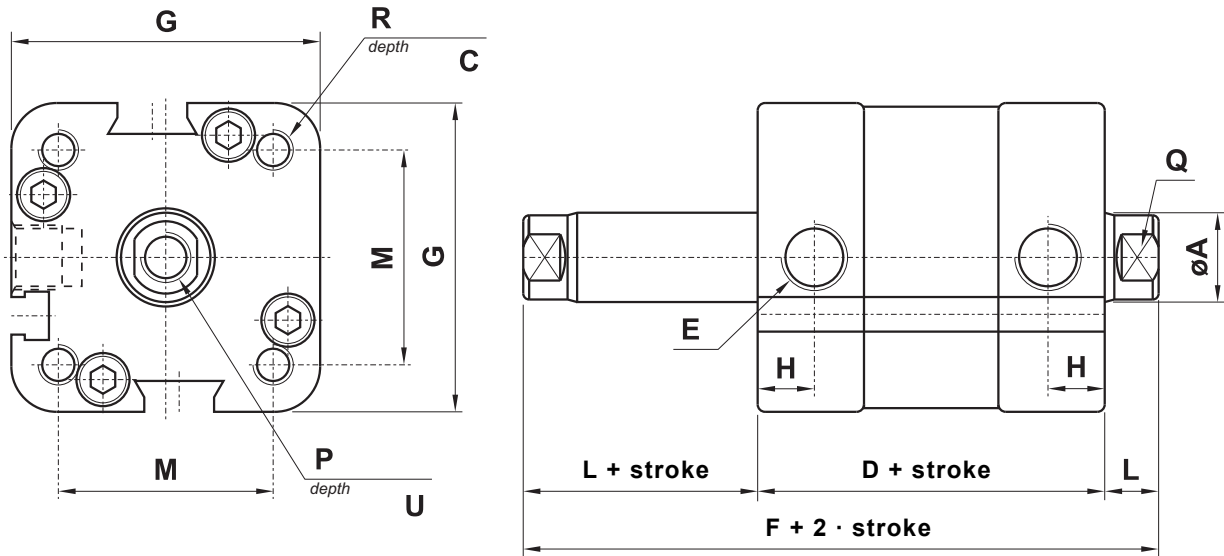
ø	A	B	C	D	E	F*	G		H	L*	M		P	Q	R		S	S1	T	U
							ISO	UNITOP			ISO	UNITOP			ISO	UNITOP				
80	20	18	17	56	G1/8"	66	99	99	8	10	72	82	M10	ch 17	M10	M10	8	4	40	20
100	25	28	17.5	67	G1/4"	77	119	119	9	10	89	103	M12	ch 22	M10	M10	8	4	40	24

F\*; L\*: In case of single acting cylinder with back spring add stroke length



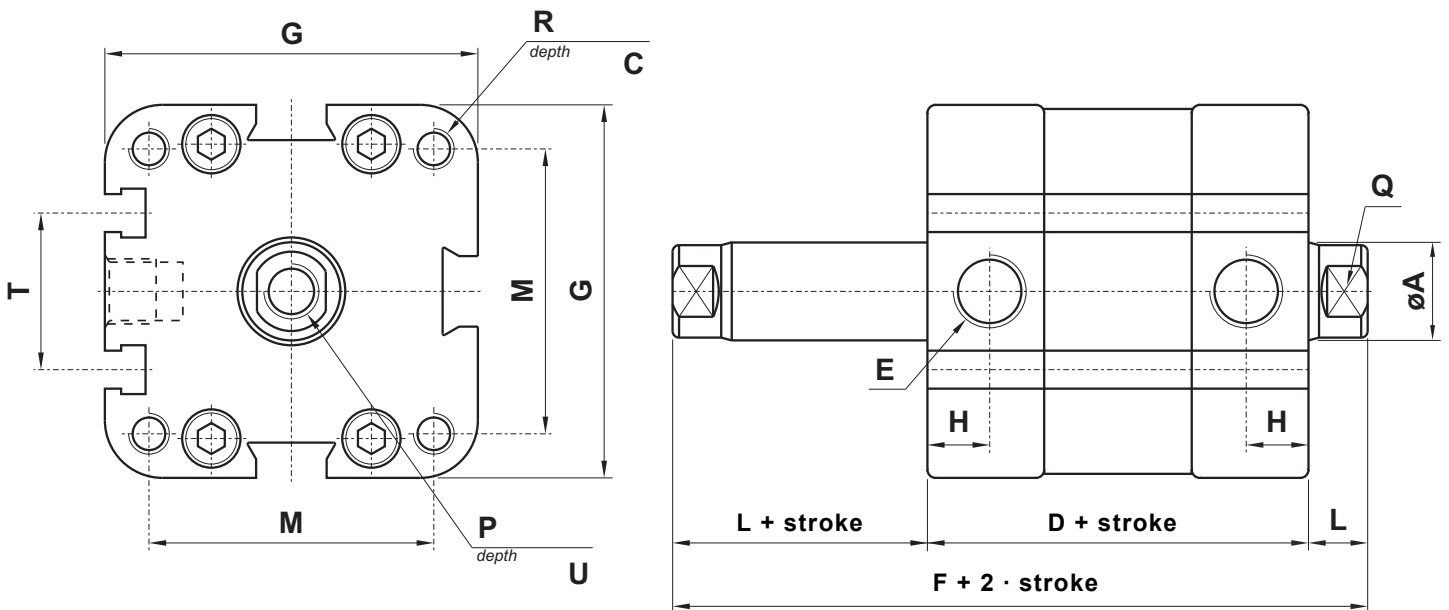
## MAGNETIC VERSION, FEMALE ROD THREAD, THROUGH-ROD

bore 32



ø	A	C	D	E	F	G		H	L	M		P	Q	R		U
						ISO	UNITOP			ISO	UNITOP			ISO	UNITOP	
32	12	14	46	G1/8"	60	46	46	7	7	32.3	32.3	M8	ch 10	M6	M6	13.5

bore 40 - 50 - 63

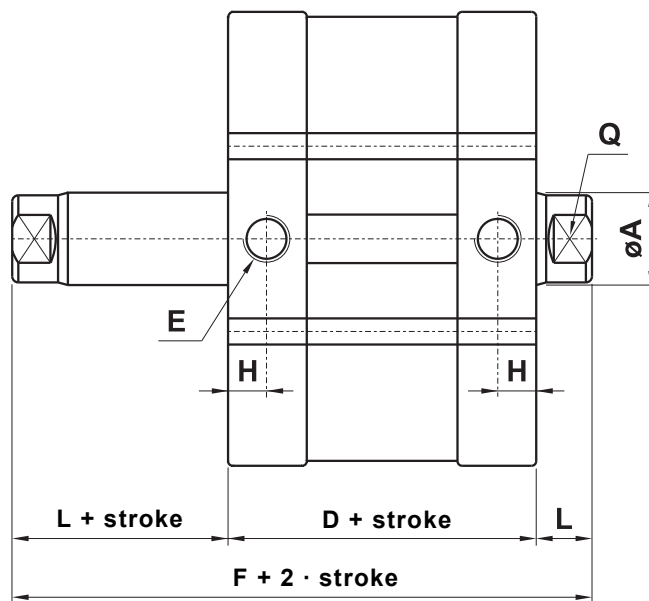
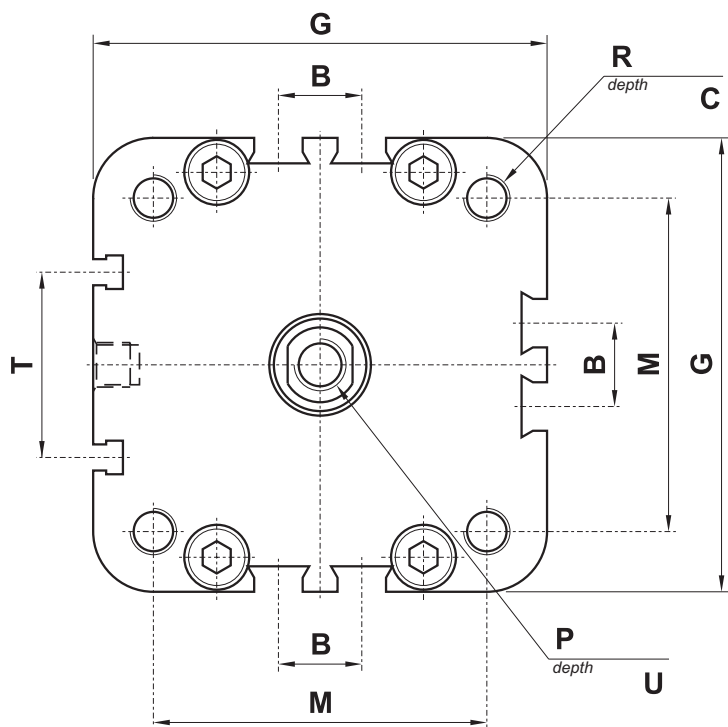


ø	A	C	D	E	F	G		H	L	M		P	Q	R		T	U
						ISO	UNITOP			ISO	UNITOP			ISO	UNITOP		
40	12	14	46	G1/8"	60	55	55	6.5	7	38	42	M8	ch 10	M6	M6	22	13.5
50	16	16	50	G1/8"	66	64.5	64.5	8	8	46.5	50	M10	ch 13	M8	M8	24	16
63	16	16	53	G1/8"	69	78	78	8	8	56.5	62	M10	ch 13	M8	M10	29	16

# Compact cylinders



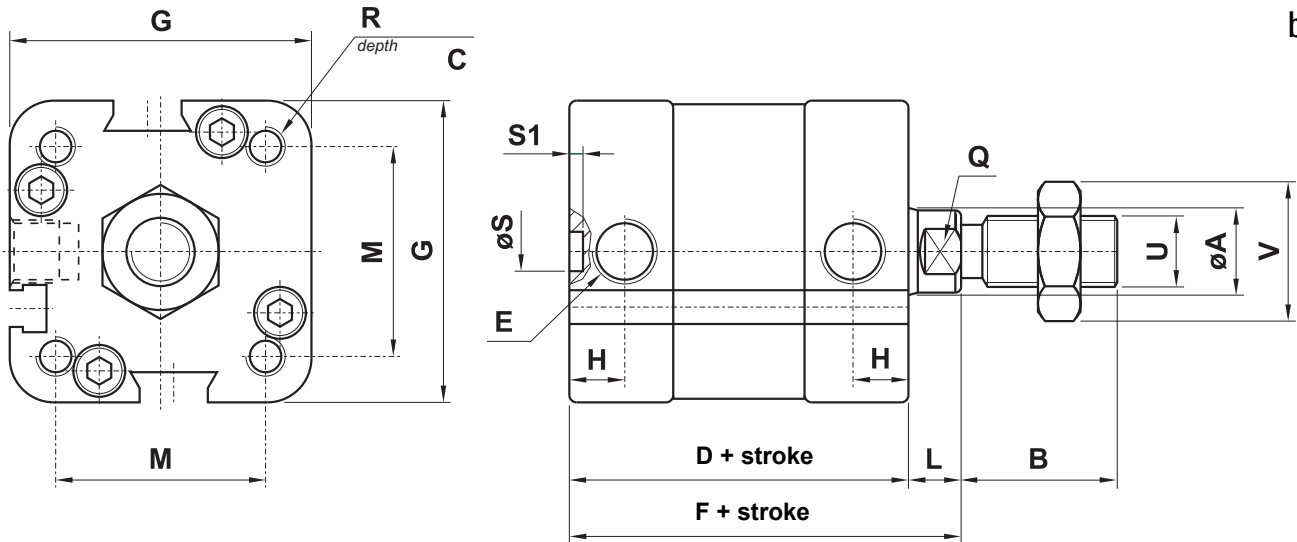
bore 80 - 100



ø	A	B	C	D	E	F	G		H	L	M		P	Q	R		T	U
							ISO	UNITOP			ISO	UNITOP			ISO	UNITOP		
80	20	18	17	56	G1/8"	76	99	99	8	10	72	82	M10	ch 17	M10	M10	40	20
100	25	28	17.5	67	G1/4"	87	119	119	9	10	89	103	M12	ch 22	M10	M10	40	24

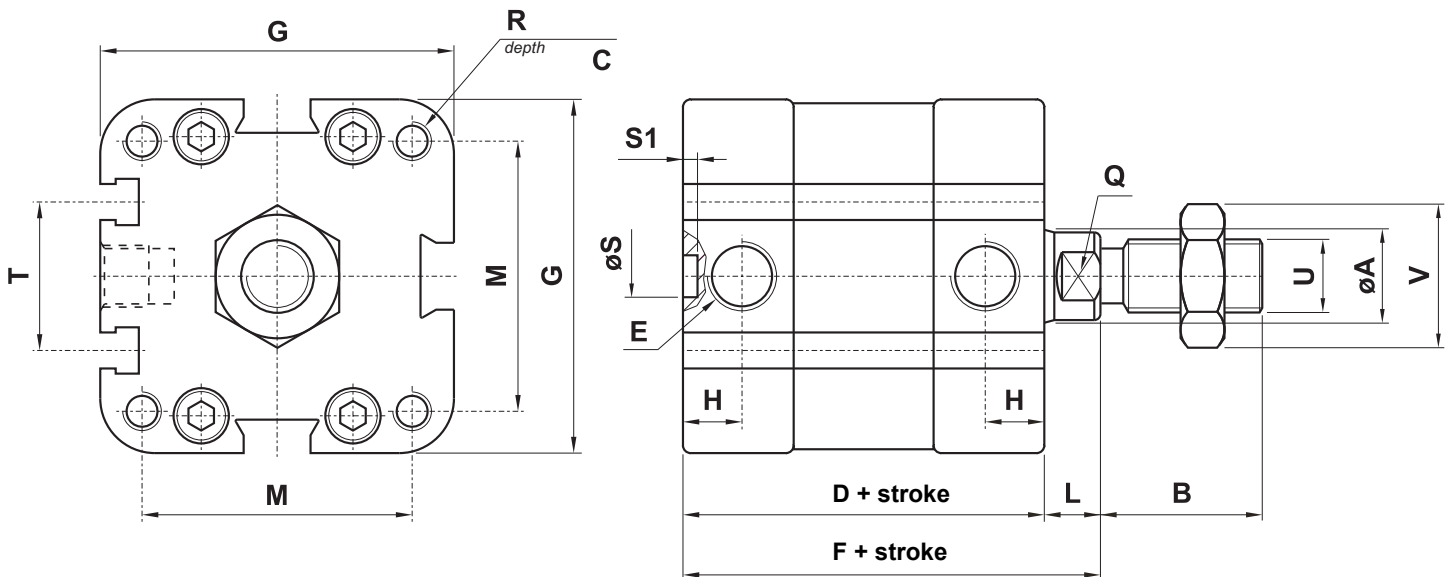
## MAGNETIC VERSION, MALE ROD THREAD

bore 32



ø	A	B	C	D	E	F*	G		H	L*	M		Q	R		S	S1	U	V
							ISO	UNITOP			ISO	UNITOP		ISO	UNITOP				
32	12	22	14	46	G1/8"	53	46	46	7	7	32.3	32.3	ch 10	M6	M6	6	2.5	M10x1.25	ch 17

bore 40 - 50 - 63

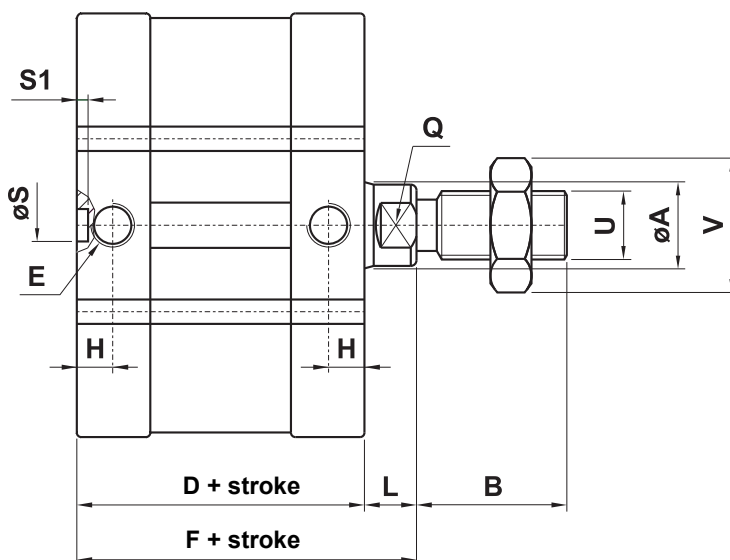
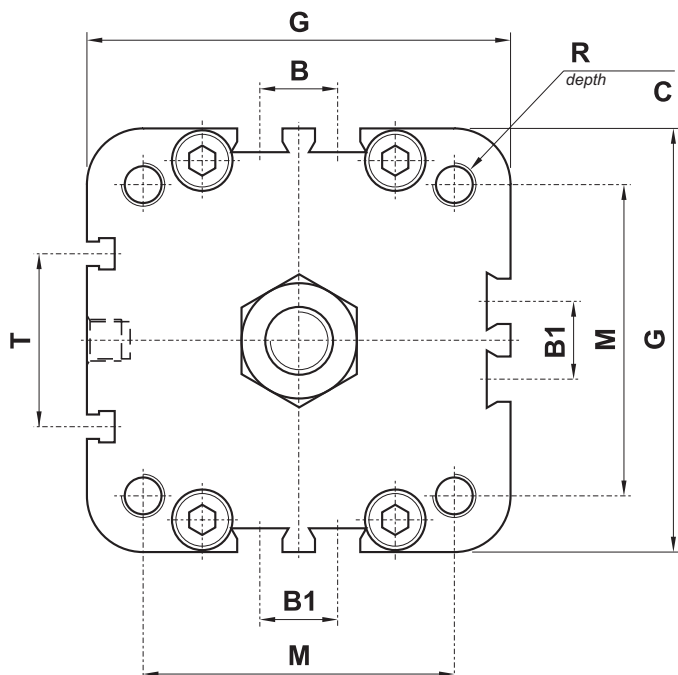


ø	A	B	C	D	E	F*	G		H	L*	M		Q	R		S	S1	T	U	V
							ISO	UNITOP			ISO	UNITOP		ISO	UNITOP					
40	12	22	14	46	G1/8"	53	55	55	6.5	7	38	42	ch 10	M6	M6	6	2.5	22	M10x1.25	ch 17
50	16	24	16	50	G1/8"	58	64.5	64.5	8	8	46.5	50	ch 13	M8	M8	6	2.5	24	M12x1.25	ch 19
63	16	24	16	53	G1/8"	61	78	78	8	8	56.5	62	ch 13	M8	M10	6	2.5	29	M12x1.25	ch 19

# Compact cylinders



bore 80 - 100

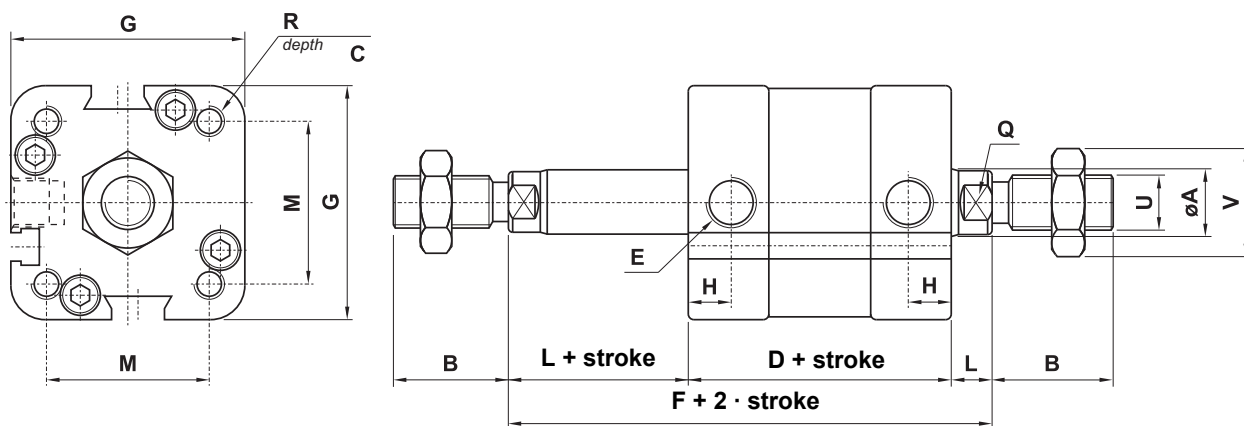


ø	A	B	B1	C	D	E	F*	G		H	L*	M		Q	R		S	S1	T	U	V
								ISO	UNITOP			ISO	UNITOP		ISO	UNITOP					
80	20	32	18	17	56	G1/8"	66	99	99	8	10	72	82	ch 17	M10	M10	8	4	40	M16x1.5	ch 24
100	25	40	28	17.5	67	G1/4"	77	119	119	9	10	89	103	ch 22	M10	M10	8	4	40	M20x1.5	ch 30

F\*; L\*: In case of single acting cylinder with back spring add stroke length

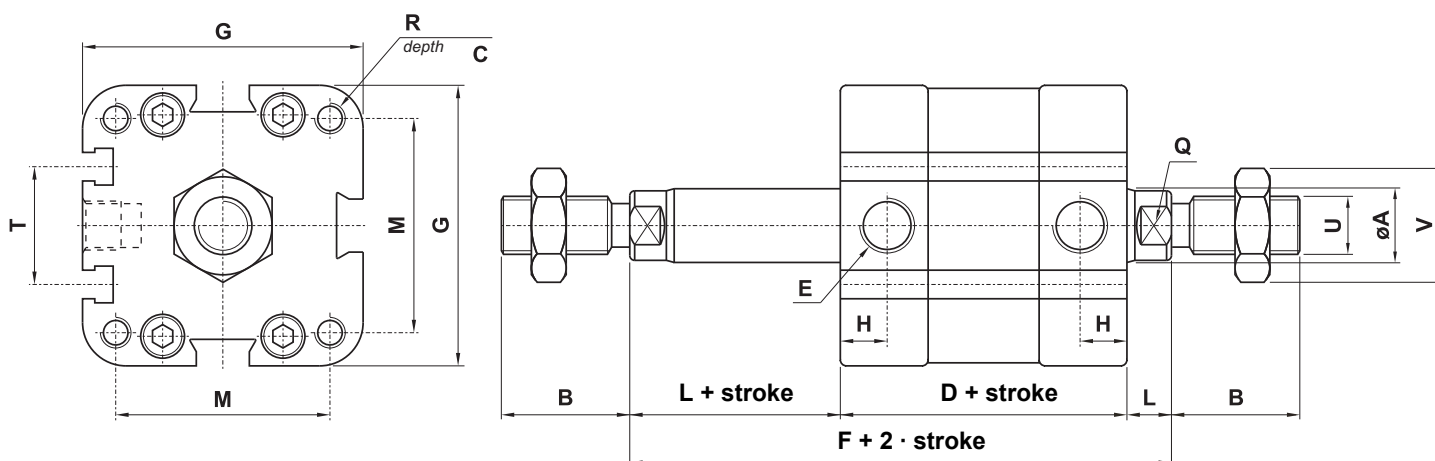
## MAGNETIC VERSION, MALE ROD THREAD, THROUGH-ROD

bore 32



ø	A	B	C	D	E	F	G		H	L	M		Q	R		U	V
							ISO	UNITOP			ISO	UNITOP		ISO	UNITOP		
32	12	22	14	46	G1/8"	60	46	46	7	7	32.3	32.3	ch 10	M6	M6	M10x1.25	ch 17

bore 40 - 50 - 63

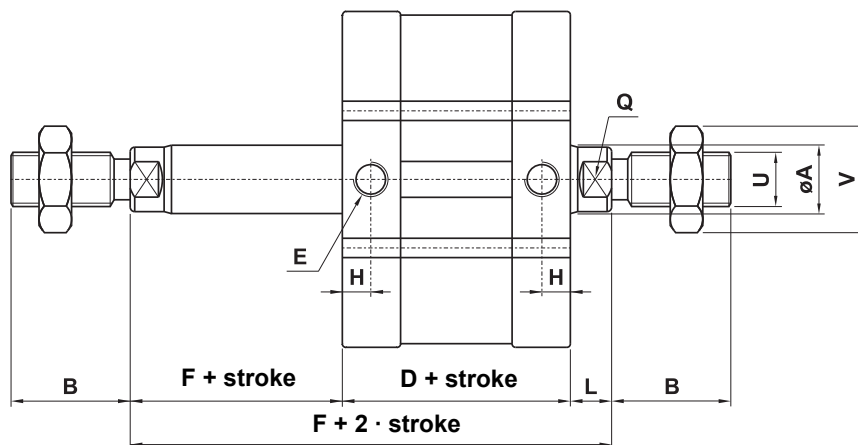
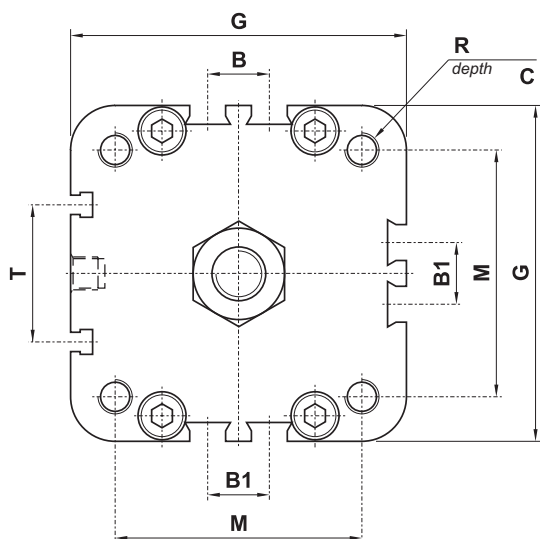


ø	A	B	C	D	E	F	G		H	L	M		Q	R		T	U	V
							ISO	UNITOP			ISO	UNITOP		ISO	UNITOP			
40	12	22	14	46	G1/8"	60	55	55	6.5	7	38	42	ch 10	M6	M6	22	M10x1.25	ch 17
50	16	24	16	50	G1/8"	66	64.5	64.5	8	8	46.5	50	ch 13	M8	M8	24	M12x1.25	ch 19
63	16	24	16	53	G1/8"	69	78	78	8	8	56.5	62	ch 13	M8	M10	29	M12x1.25	ch 19

# Compact cylinders



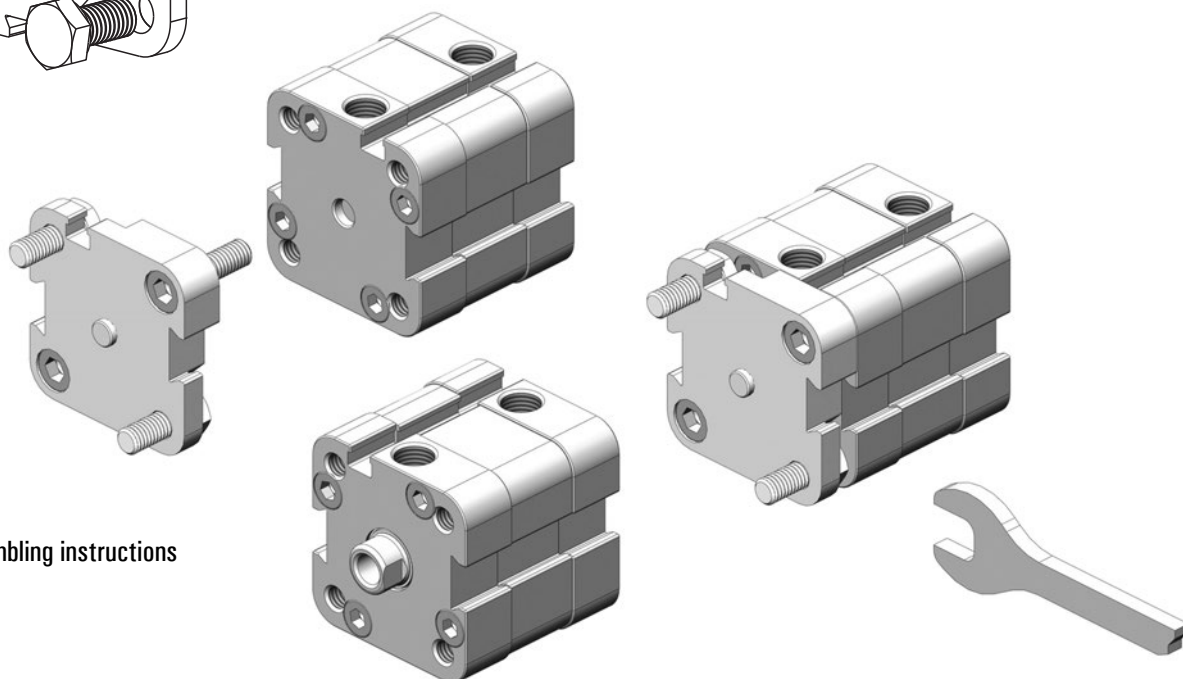
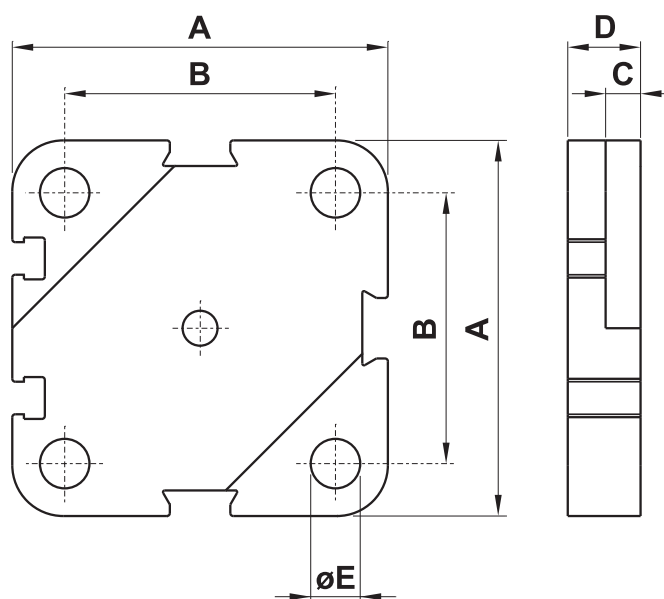
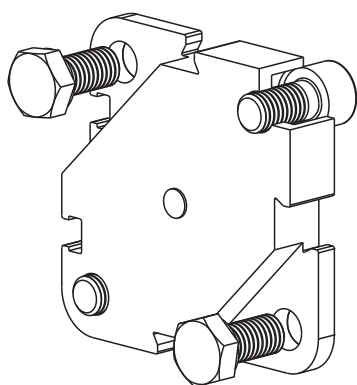
bore 80 - 100



ø	A	B	B1	C	D	E	F	G		H	L	M		Q	R		T	U	V
								ISO	UNITOP			ISO	UNITOP		ISO	UNITOP			
80	20	32	18	17	56	G1/8"	76	99	99	8	10	72	82	ch 17	M10	M10	40	M16x1.5	ch 24
100	25	40	28	17.5	67	G1/4"	87	119	119	9	10	89	103	ch 22	M10	M10	40	M20x1.5	ch 30

## intermediate flange for opposite compact cylinders

This intermediate flange has to be inserted between two compact cylinders to form an opposite cylinder. It is sold in kit with all necessary pieces for installation.



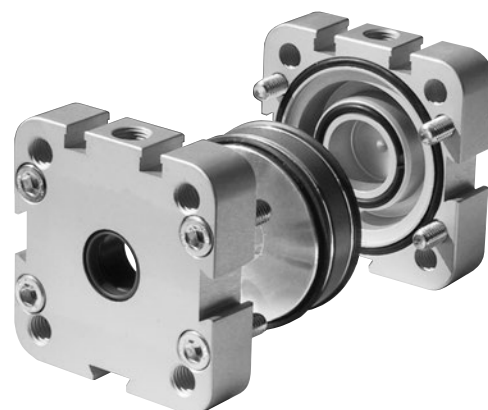
Assembling instructions

code		for bore	A	B		C	D	E
ISO	UNITOP			ISO	UNITOP			
25.082.2	25.082.2	32	46	32.3	32.3	5	10.5	6.5
25.083.2	25.088.2	40	55	38	42	6	12.5	6.5
25.084.2	25.089.2	50	64.5	46.5	50	6	12.5	8.5
25.085.2	25.090.2	63	78	56.5	62	7	13.5	8.5
25.086.2	25.091.2	80	98	72	82	7	15	10.5
25.087.2	25.092.2	100	119	89	103	7	15	10.5

## compact cylinder kit

### Kit includes:

- pre-mounted heads
- piston with magnet, seals and guide ring (for aluminium piston)
- screws
- all necessary seals



MAGNETIC, standard seals									
normal					passing-through rod				
for bore	ISO		UNITOP		for bore	ISO		UNITOP	
	part number	code	part number	code		part number	code	part number	code
32	<b>KP032</b>	25.004.3	<b>KR032</b>	25.104.3	32	<b>KP032P</b>	25.014.3	<b>KR032P</b>	25.114.3
40	<b>KP040</b>	25.005.3	<b>KR040</b>	25.105.3	40	<b>KP040P</b>	25.015.3	<b>KR040P</b>	25.115.3
50	<b>KP050</b>	25.006.3	<b>KR050</b>	25.106.3	50	<b>KP050P</b>	25.016.3	<b>KR050P</b>	25.116.3
63	<b>KP063</b>	25.007.3	<b>KR063</b>	25.107.3	63	<b>KP063P</b>	25.017.3	<b>KR063P</b>	25.117.3
80	<b>KP080</b>	25.008.3	<b>KR080</b>	25.108.3	80	<b>KP080P</b>	25.018.3	<b>KR080P</b>	25.118.3
100	<b>KP100</b>	25.009.3	<b>KR100</b>	25.109.3	100	<b>KP100P</b>	25.019.3	<b>KR100P</b>	25.119.3
MAGNETIC, VITON seals									
normal					passing-through rod				
for bore	ISO		UNITOP		for bore	ISO		UNITOP	
	part number	code	part number	code		part number	code	part number	code
32	<b>KP032V</b>	25.024.3	<b>KR032V</b>	25.124.3	32	<b>KP032PV</b>	25.034.3	<b>KR032PV</b>	25.134.3
40	<b>KP040V</b>	25.025.3	<b>KR040V</b>	25.125.3	40	<b>KP040PV</b>	25.035.3	<b>KR040PV</b>	25.135.3
50	<b>KP050V</b>	25.026.3	<b>KR050V</b>	25.126.3	50	<b>KP050PV</b>	25.036.3	<b>KR050PV</b>	25.136.3
63	<b>KP063V</b>	25.027.3	<b>KR063V</b>	25.127.3	63	<b>KP063PV</b>	25.037.3	<b>KR063PV</b>	25.137.3
80	<b>KP080V</b>	25.028.3	<b>KR080V</b>	25.128.3	80	<b>KP080PV</b>	25.038.3	<b>KR080PV</b>	25.138.3
100	<b>KP100V</b>	25.029.3	<b>KR100V</b>	25.129.3	100	<b>KP100PV</b>	25.039.3	<b>KR100PV</b>	25.139.3



# Barrel for compact cylinders



	order code	dimensions [mm]					weight [kg/m]
		A	B	C	D	E	
	<b>000.523.7</b>	$\varnothing 32^{+0.16}$	32.5	45	14.5	20.5	2.368
	<b>000.524.7</b>	$\varnothing 40^{+0.16}$	38	53	22	-	2.984
	<b>000.525.7</b>	$\varnothing 50^{+0.19}$	46.5	63	24	-	3.823
	<b>000.526.7</b>	$\varnothing 63^{+0.19}$	56.5	76.5	29	-	5.686
	<b>000.527.7</b>	$\varnothing 80^{+0.22}$	72	95	40	18	7.544
	<b>000.528.7</b>	$\varnothing 100^{+0.45}$	89	115	40	28	10.919

chemical composition	Cu	Fe	Mn	Mg	Si	Zn	Cr	Ti	Al
	≤ 0.10	0.10 ÷ 0.30	≤ 0.10	0.35 ÷ 0.60	0.30 ÷ 0.60	≤ 0.15	≤ 0.05	≤ 0.10	rest

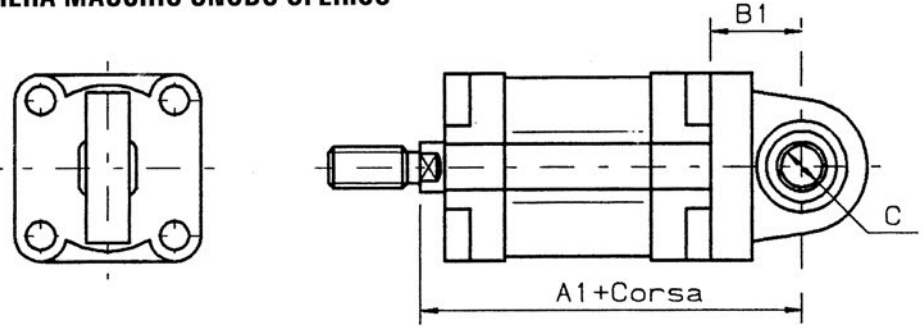
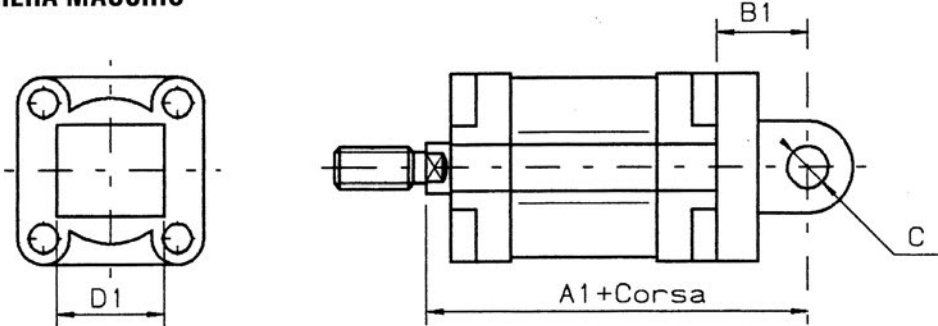
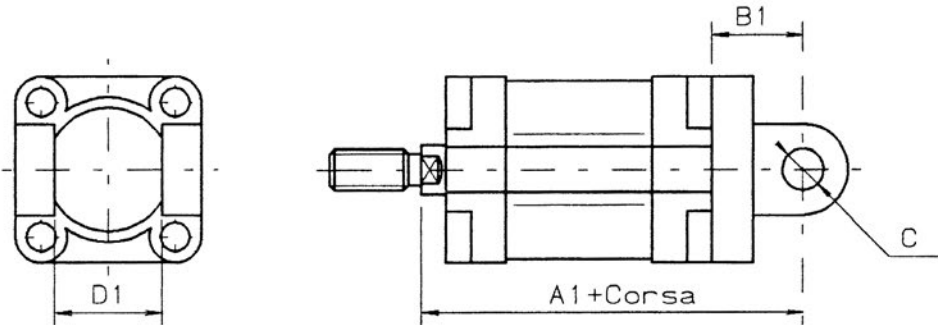
## Fixing holes

from  $\varnothing 32$  to  $\varnothing 100$  : prepared for metric thread through rolling

# Fixing elements for ISO compact cylinders



(fixing elements for cylinders ISO 6431 VDMA)

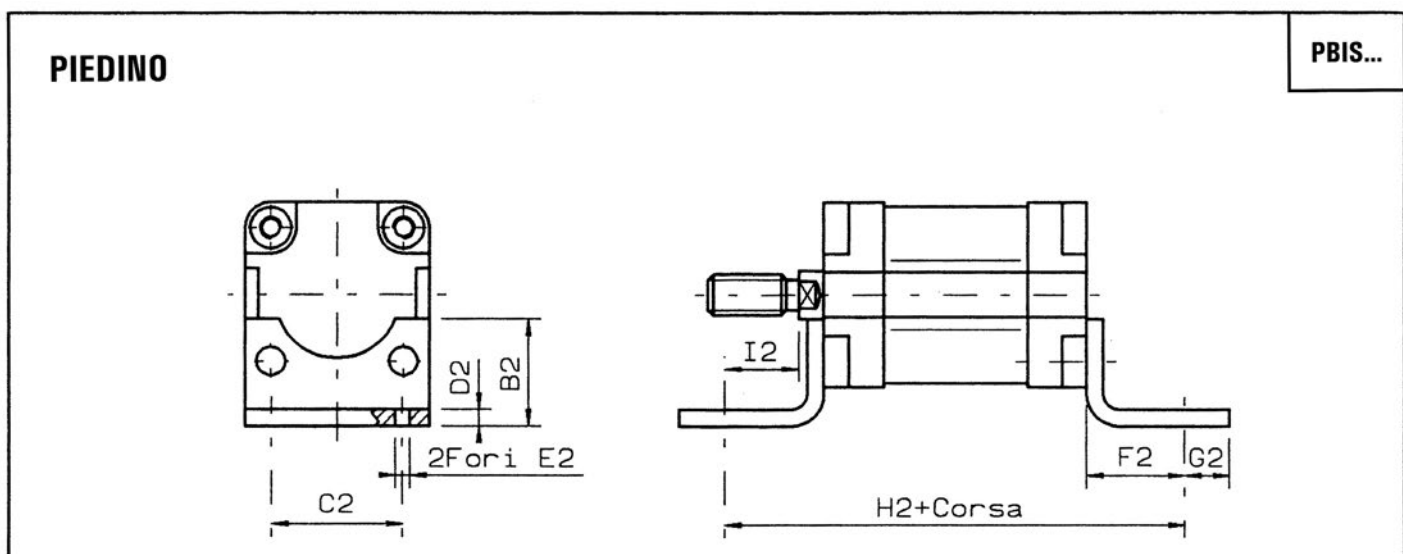
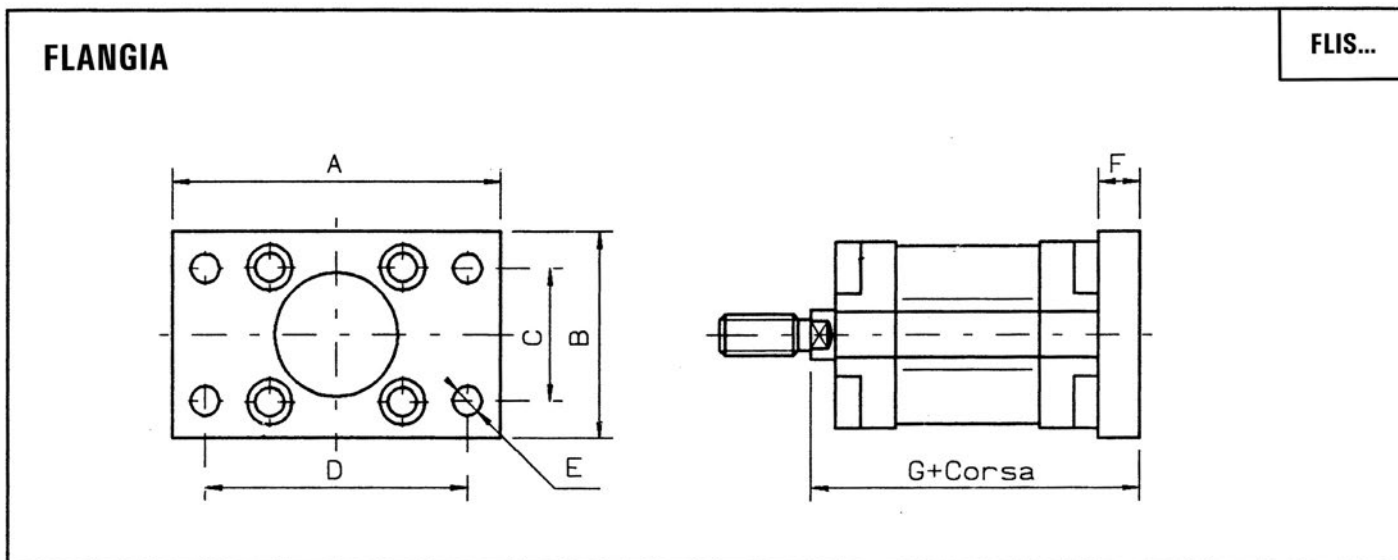
<p><b>CERNIERA MASCHIO SNODO SFERICO</b></p> 	<p><b>CMSS...</b></p>
<p><b>CERNIERA MASCHIO</b></p> 	<p><b>CMIS...</b></p> <p><b>CMKS...</b></p>
<p><b>CERNIERA FEMMINA CON PERNO</b></p> 	<p><b>CFIS...</b></p> <p><b>CFKS...</b></p>

$\varnothing$	A1	B1	C	D1
32	75	22	10	26
40	78	25	12	28
50	85	27	12	32
63	93	32	16	40
80	102	36	16	50
100	118	41	20	60

# Fixing elements for ISO compact cylinders

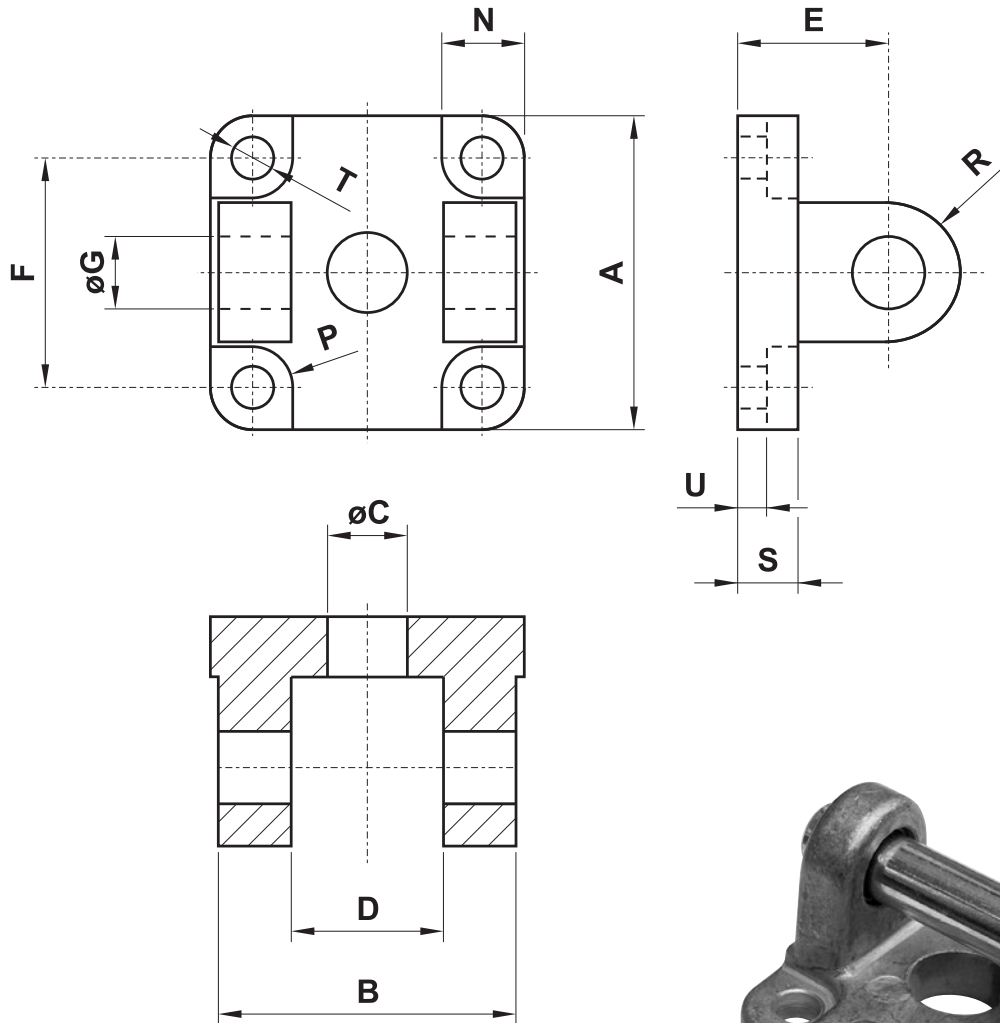


(fixing elements for cylinders ISO 6431 VDMA)



G	F	E	D	C	B	A	∅	B2	C2	D2	E2	F2	G2	H2	I2
63	10	7	64	32	45	80	32	30	32.5	4	7	24	11	94	17
63	10	9	72	36	52	90	40	30	38	4	9	28	8	102	21
70	12	9	90	45	65	110	50	36	46.5	5	9	32	15	114	24
73	12	9	100	50	75	120	63	35	56.5	5	9	32	13	117	24
82	16	12	126	63	95	150	80	47	72	6	12	41	14	138	31
93	16	14	150	75	115	170	100	53	89	6	14	41	16	149	31

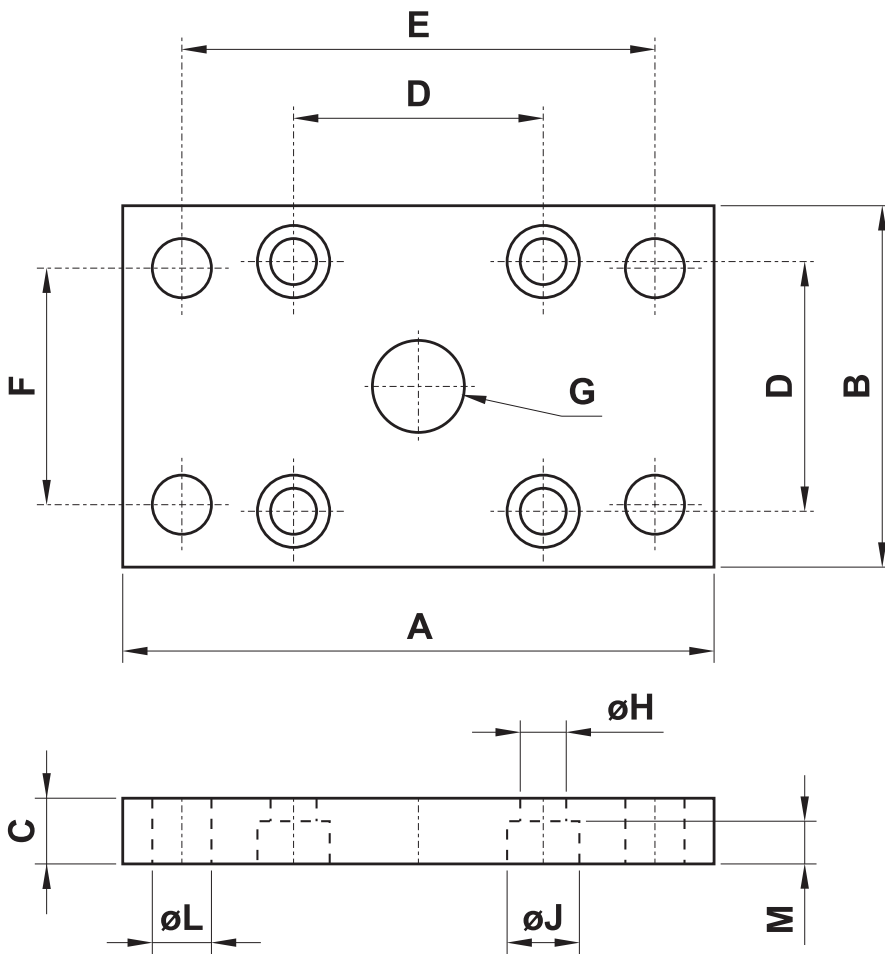
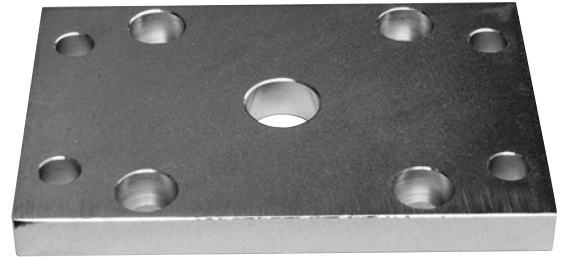
## FEMALE TRUNNION WITH PIN



part number	part number	for bore	A	B	C	D	E	F	G	N	P	R	S	T	U
standard	with bronze bushing														
<b>CFUN032</b>	<b>CFKN032</b>	32	48	45	14	26	22	32	10	13.5	5.5	10	9	6.6	5.5
<b>CFUN040</b>	<b>CFKN040</b>	40	58	52	14	28	25	42	12	13.5	5.5	12.5	9	6.6	5.5
<b>CFUN050</b>	<b>CFKN050</b>	50	66	60	18	32	27	50	12	15.5	7.5	12.5	11	9	6.5
<b>CFUN063</b>	<b>CFKN063</b>	63	83	70	18	40	32	62	16	18	7.5	15	11	11	6.5
<b>CFUN080</b>	<b>CFKN080</b>	80	102	90	23	50	36	82	16	19	9	15	13	11	10
<b>CFUN100</b>	<b>CFKN100</b>	100	123	110	28	60	41	103	20	19	9	20	15	11	10

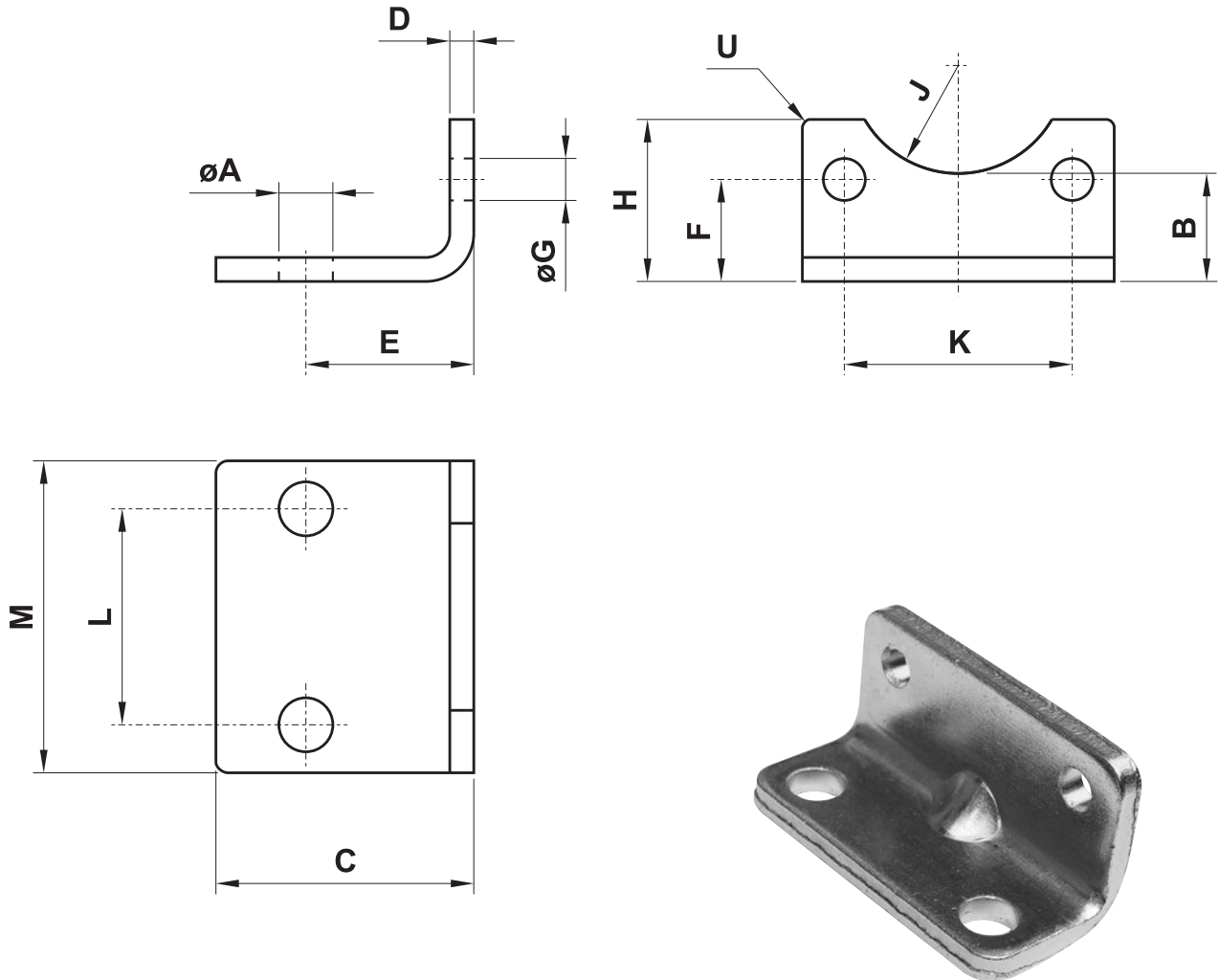


## FLANGE



part number	for bore	A	B	C	D	E	F	G	H	J	L	M
<b>FLUN032</b>	32	80	50	10	32	65	32	$\phi 14$	6.6	11	7	6.4
<b>FLUN040</b>	40	102	60	10	42	82	36	$\phi 14$	6.6	11	9	6.4
<b>FLUN050</b>	50	110	68	12	50	90	45	$\phi 18$	9	15	9	8.6
<b>FLUN063</b>	63	130	87	15	62	110	50	$\phi 18$	11	15	9	8.6
<b>FLUN080</b>	80	160	107	15	82	135	63	$\phi 23$	11	18	12	10.6
<b>FLUN100</b>	100	190	128	15	103	163	75	$\phi 28$	11	18	14	10.6

## FOOT MOUNTING



part number*	for bore	A	B	C	D	E	F	G	H	J	K	L	M	U
<b>PBUN032</b>	32	6.6	20	26	5	18	16	6.6	24	12	32	32	50	2
<b>PBUN040</b>	40	9	-	28	5	20	21.5	6.6	29.5	-	42	42	60	5
<b>PBUN050</b>	50	9	-	32	6	24	22	9	30	-	50	50	68	5
<b>PBUN063</b>	63	11	-	39	6	27	28.5	11	39	-	62	62	84	5
<b>PBUN080</b>	80	11	-	42	8	30	24.5	11	36.5	-	82	82	102	5
<b>PBUN100</b>	100	13.5	-	45	8	33	26.5	11	38.5	-	103	103	123	5

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