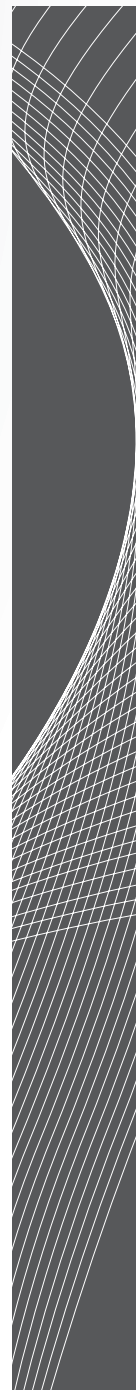


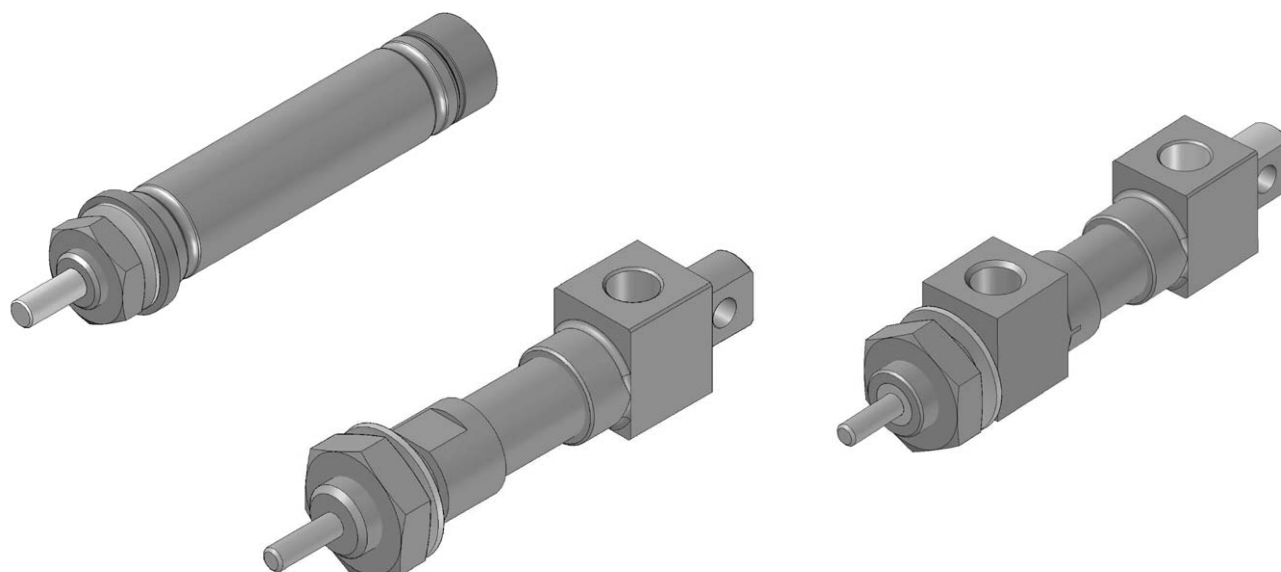
SERIES B  
BRASS CYLINDERS





# BRASS CYLINDERS

## General Information



## Technical Data

Piston diameters:	Ø 3, 5, 8, 12, 16, 20, 25 (mm)														
Connection thread:	M5, G1/8														
Piston rod:	CrNi-steel, corrosion resistant														
Cylinder tube:	Brass														
Cushioning:	Plastic, impact resistant														
Seals:	NBR														
Operating medium:	Compressed air, prepared														
Lubricant:	Shell Tellus Oil C10 or equivalent														
Type:	Non magnetic														
Operating temperature:	-10 °C to +70 °C														
Assembling design:	Ø 8 chamfered Ø 3, 5, 12, 16, 20, 25 screwed														
Stroke tolerance:	Max. stroke +1.5 mm														
Stroke limitation:	The use of external stroke limiters are recommended for optimum life														
Spring force:	Designed for return of piston, not for any coupled mass Area ratio of piston with double acting cylinders (due to reduction of piston rod sections) Ø 5    6:5            Ø 12    6:5            Ø 20    7:6 Ø 8    5:4            Ø 16    7:6            Ø 25    7:6														
Pressure range:	Ø [mm]	3		5		8		12		16		20		25	
	Single Acting [bar]	3 - 10		2.5 - 10		2 - 10		1.5 - 10		1.5 - 10		1.5 - 10		1.5 - 10	
	Double Acting [bar]	-		2 - 10		1.5 - 10		1 - 10		1 - 10		0.5 - 10		0.5 - 10	
Mounting position:	Version "S" Mounting thread on cylinder nose only. Version "U" Mounting thread on both ends including rear trunnion.														

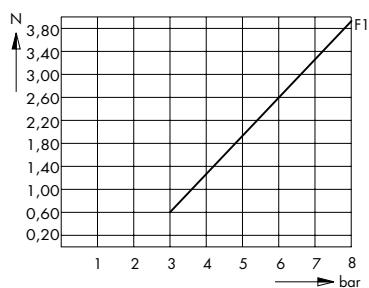
For special versions including through-rod, intermediate and extra-long stroke dimensions please contact our sales department.

## Static Cylinder Characteristics

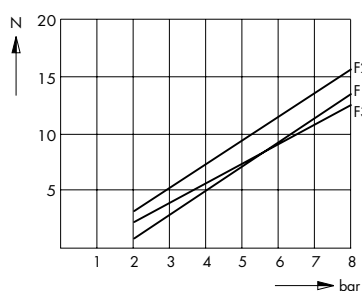
The cylinder characteristics should be multiplied by a factor of 0.5 - 0.7 for the dynamic behaviour.

SERIES B  
BRASS CYLINDERS

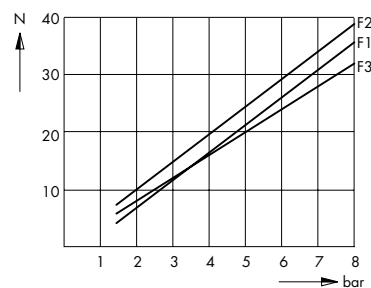
Ø 3 mm



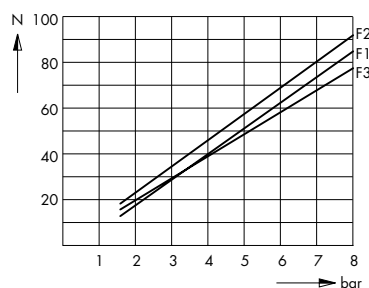
Ø 5 mm



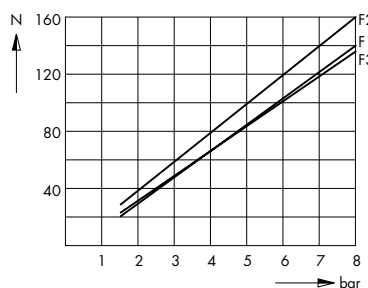
Ø 8 mm



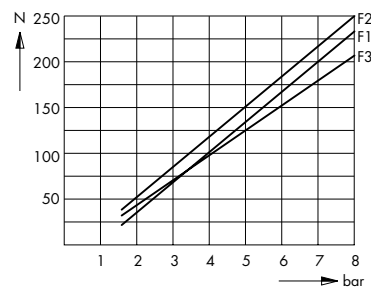
Ø 12 mm



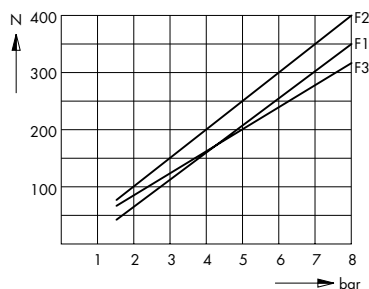
Ø 16 mm



Ø 20 mm



Ø 25 mm



*F1 = single acting cylinders*

*F2 = double acting cylinders in forward stroke*

*F3 = double acting cylinders in return stroke*

## Order Code

Special Miniature Cylinder	Code
Special cylinder, piston diameter 3 mm, stroke 6 mm, single acting	40.100

Order Code	36.	25.	050
Piston diameter			
Ø 5	40		
Ø 8	38		
Ø 12	37		
Ø 16	36		
Ø 20	35		
Ø 25	34		
Design			
Type S - Single acting		15	
Type S - Double acting		25	
Type U - Single acting		19	
Type U - Double acting		29	
Through Rod (double acting)		60	
Stroke			
mm			xxx

Special versions	SP.7	dd.	zzzz
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zzzz = project number (assigned by factory)

## Brass Cylinder - 40.100

The miniature cylinder with a piston diameter of 3 mm is for general purpose use in testing and other applications with limited space.

**Acting:** single acting

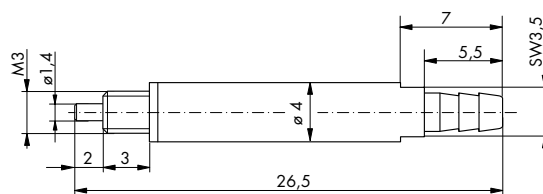
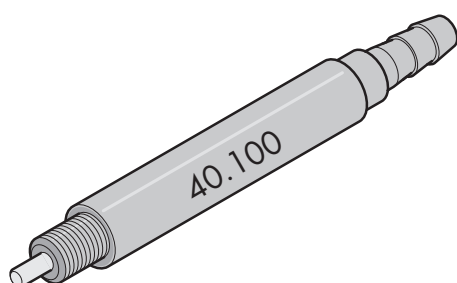
**Stroke:** 6 mm

**Diameter:** 3 mm

**Cushioning:** no

**Mounting:** M3 threaded mounting at piston rod end

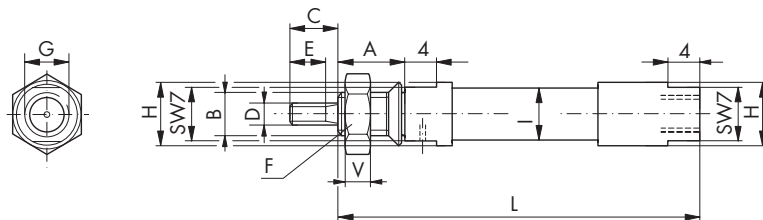
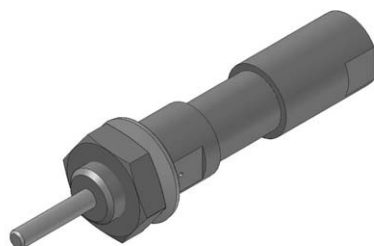
**Pneumatic connection:** male fitting for 4 x 1 tubing



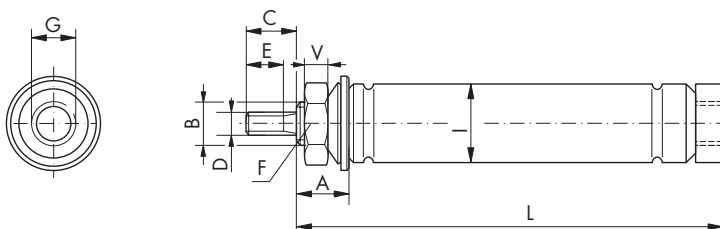
Code
40.100

## Brass Cylinder - Type S Single Acting

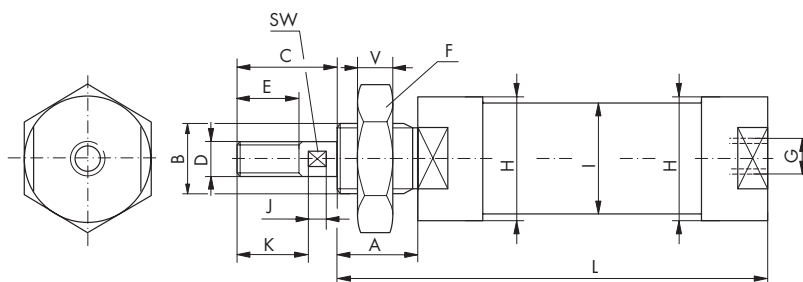
Piston Ø 5 mm



Piston Ø 8 mm



Piston Ø 12, 16, 20, 25 mm

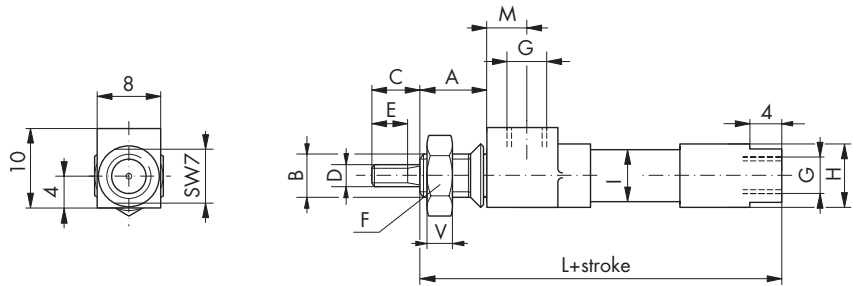
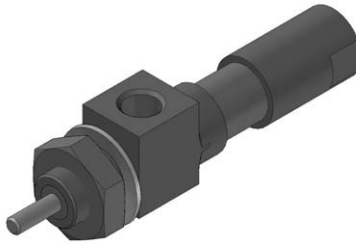


Ø	A	B	C	D	E	F	G	Ø H	Ø I	J	K	SW	V	Max stroke available
5	8	M6x0.5	6	M2	4.5	10	M5	8	6.5	-	-	-	3	25 mm
8	8	M6x0.5	7.5	M3	6	10	M5	-	10	-	-	-	3	50 mm
12	11	M10	14.5	M5	12	17	M5	18	16	-	-	-	5	62.5 mm
16	11	M18x1.5	15	M6	12	24	M5	22	20	-	-	-	6	80 mm
20	15	M22x1.5	19	M8	12	30	G1/8	27	24	4	12.5	7	6	80 mm
25	15	M24x1.5	22.5	M10	15	32	G1/8	32	29	4	16	7	6	80 mm

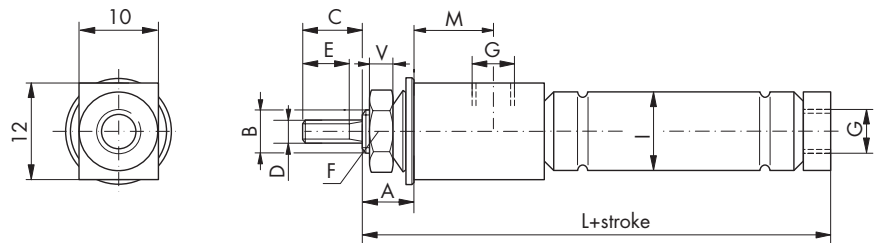
Ø	5	5	8	8	8	8	12	12	12	12	12	16	16	16	16	20	20	20	20	25	25	25	25
Stroke (mm)	10	25	12.5	25	37.5	50	12.5	25	37.5	50	62.5	20	40	60	80	20	40	60	80	20	40	60	80
L	45.5	60.5	52.5	73	94	114.5	62.5	86	109.5	133	156.5	74.5	111.5	148.5	185.5	79	116.5	154	191.5	79	116.5	154	191.5

## Brass Cylinder - Type S Double Acting

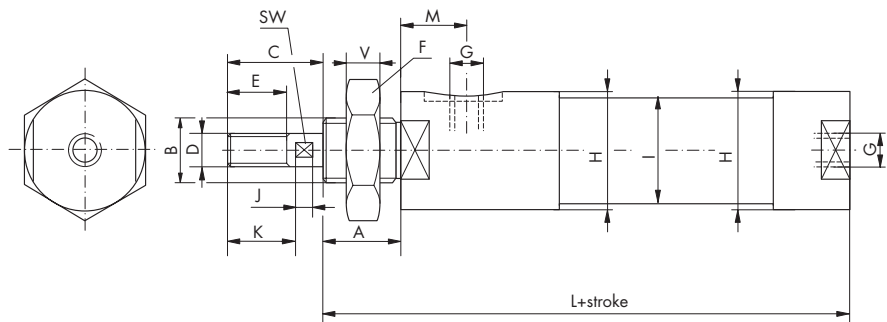
Piston Ø 5 mm



Piston Ø 8 mm

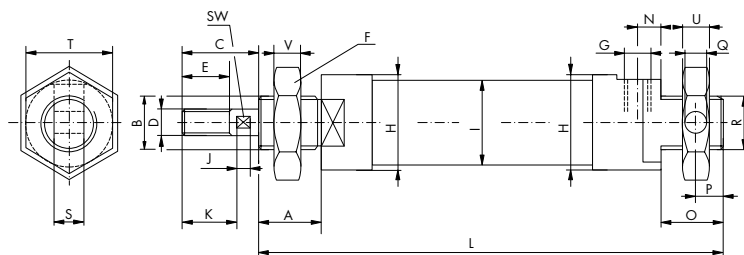
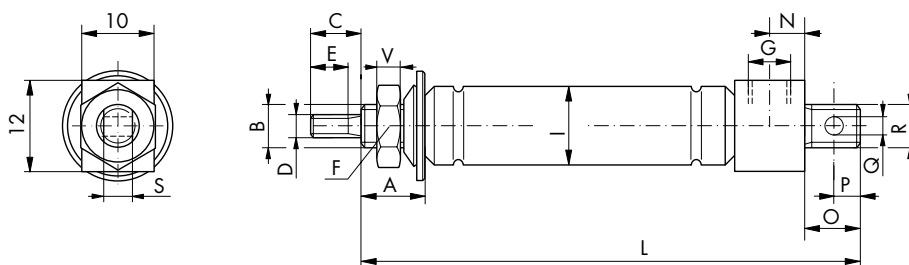
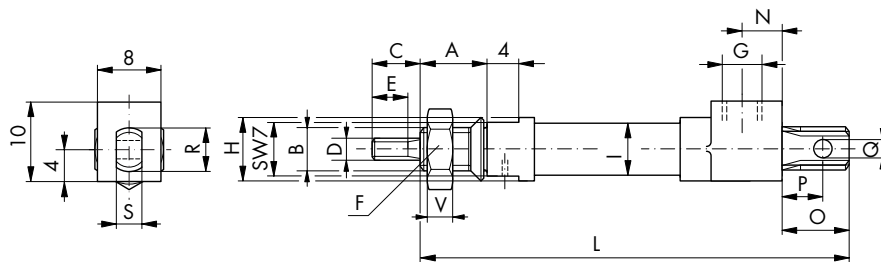


Piston Ø 12, 16, 20, 25 mm



Ø	A	B	C	D	E	F	G	Ø H	Ø I	J	K	L	M	SW	V	Max stroke available
5	8	M6x0.5	6	M2	4.5	10	M5	8	6.5	-	-	29.5	4.3	-	3	50 mm
8	6.5	M6x0.5	7.5	M3	6	10	M5	-	10	-	-	46.5	7.3	-	3	150 mm
12	11	M10	14.5	M5	12	17	M5	18	16	-	-	54.5	10	-	5	300 mm
16	11	M18x1.5	15	M6	12	24	M5	22	20	-	-	54	6	-	6	350 mm
20	15	M22x1.5	21.5	M8	12	30	G1/8	27	24	4	12.5	68.5	9	7	6	500 mm
25	15	M24x1.5	25	M10	15	32	G1/8	32	29	4	16	68.5	9	9	6	500 mm

SERIES B  
BRASS CYLINDERS



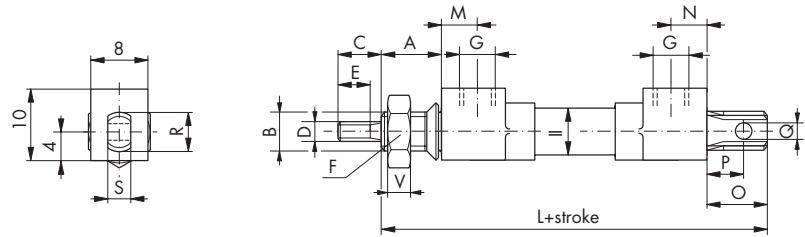
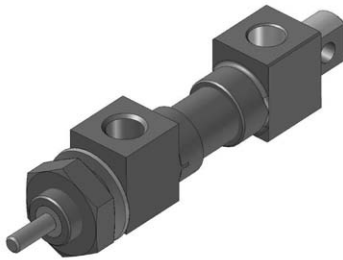
Ø	A	B	C	D	E	F	G	Ø H	Ø I	J	K	N	O	P	Q	R	S	SW	T	U	V	Max stroke available
5	8	M6x0.5	6	M2	4.5	10	M5	8	6.5	-	-	4.3	6.5	3.5	2.5	M6x0.5	3.6	-	-	-	3	25 mm
8	8	M6x0.5	7.5	M3	6	10	M5		10	-	-	4.3	6.5	3	2.5	M6x0.5	3.6	-	-	-	3	50 mm
12	11	M10	14.5	M5	12	17	M5	18	16	-	-	4.5	11	5	5	M10x0.75	6	-	17	5	5	62.5 mm
16	11	M18x1.5	15	M6	12	24	M5	22	20	-	-	4.5	13	7	6	M14x1.5	8.8	-	22	8	6	80 mm
20	15	M22x1.5	19	M8	12	30	G1/8	27	24	4	12.5	8.5	16	8	8	M22x1.5	13.8	7	-	-	6	80 mm
25	15	M24x1.5	22.5	M10	15	32	G1/8	32	29	4	16	8.5	16	8	8	M24x1.5	13.8	7	-	-	6	80 mm

Ø	5	5	8	8	8	8	12	12	12	12	12	16	16	16	16	20	20	20	20	25	25	25	25
Stroke (mm)	10	25	12.5	25	37.5	50	12.5	25	37.5	50	62.5	20	40	60	80	20	40	60	80	20	40	60	80
L	52	67	63	83.5	104	125	76	99.5	123	146.5	170	90	127	164	201	102	139.5	177	214.5	102	139.5	177	214.5

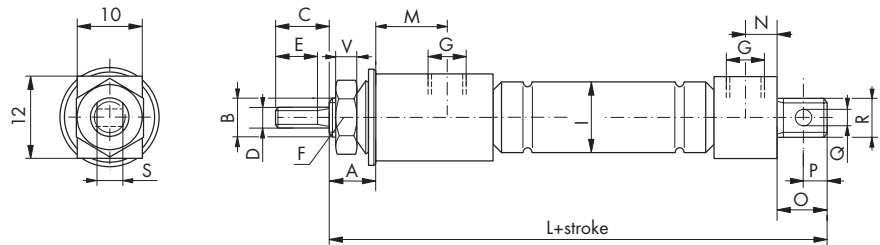


## Brass Cylinder - Type U Double Acting

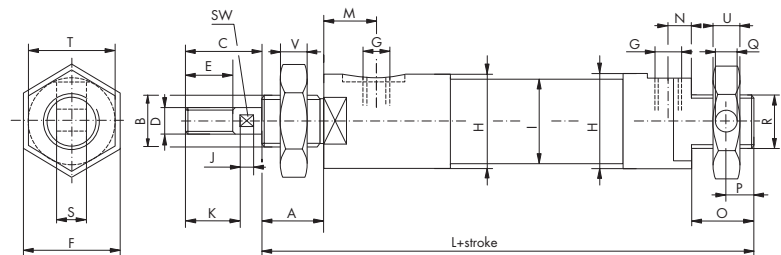
Piston Ø 5 mm



Piston Ø 8 mm



Piston Ø 12, 16, 20, 25 mm

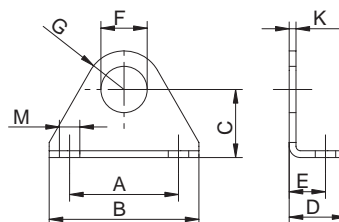


Ø	A	B	C	D	E	F	G	Ø H	Ø I	J	K	L	M	N	O	P	Q	R	S	SW	T	U	V	Max stroke available
5	8	M6x0.5	6	M2	4.5	10	M5	-	6.5	-	-	36	4.3	4.3	6.5	3.5	2.5	M6x0.5	3.6	-	-	-	3	50 mm
8	6.5	M6x0.5	7.5	M3	6	10	M5	-	10	-	-	57	7.3	4.3	6.5	3	2.5	M6x0.5	3.6	-	-	-	3	150 mm
12	11	M10	14.5	M5	12	17	M5	18	16	-	-	68	10	4.5	11	5	5	M10x0.75	6	-	17	5	5	300 mm
16	11	M18x1.5	15	M6	12	24	M5	22	20	-	-	69.5	6	4.5	13	7	6	M14x1.5	8.8	-	22	8	6	350 mm
20	15	M22x1.5	21.5	M8	12	30	G1/8	27	24	4	12.5	91.5	9	8.5	16	8	8	M22x1.5	13.8	7	-	-	6	500 mm
25	15	M24x1.5	25	M10	15	32	G1/8	32	29	4	16	91.5	9	8.5	16	8	8	M24x1.5	13.8	9	-	-	6	500 mm

## Mounting Bracket

**Materials:** Steel, galvanised

SERIES B  
BRASS CYLINDERS



Code	Ø	A	B	C	D	E	F	G	H	K
38.302	5, 8	18	25	10	9.5	6	6.1	6	3.5	1.5
37.302	12	24	33	15	12.5	8	10.1	8.5	4.5	2
36.302	16 *	32	45	22	18	11.5	14.1	13.5	6.6	3
36.312	16	32	45	22	18	11.5	18.1	13.5	6.6	3
35.302	20	40	53	30	25	17	22.1	17	6.6	4.5
34.302	25	40	53	30	25	17	24.1	17	6.6	4.5

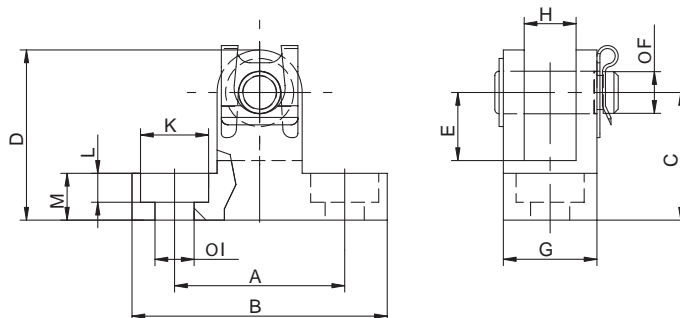
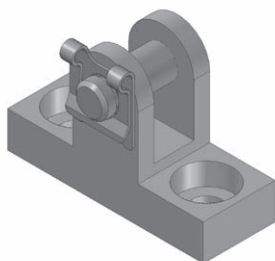
\* Swivel-bearing side.

## Trunnion

**Trunnion material:** Steel, galvanised

**Bolt material:** Steel, phosphorised

**Retianing clip:** Spring steel, phosphorised

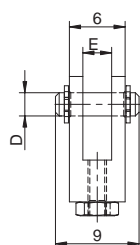
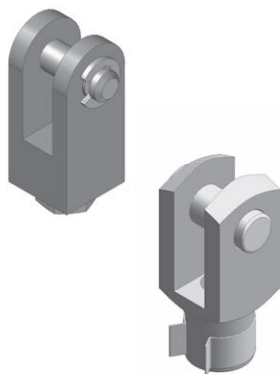


Code	Ø	A	B	C	D	E	F	G	H	I	K	L	M
38.303	5, 8	13	20	10	13	5	2.5	8	3.7	3.2	5.9	2	3.5
37.303	12	20	30	15	20	8	5	11	6.1	4.5	8	3.4	5.5
36.303	16	27	45	22	29	11	6	16	9	7	11	5	9
34.303	20, 25	27	45	30	40	17	8	28	14	7	11	4.8	12

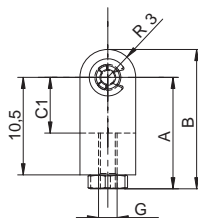
## Clevis

**Clevis materials:** Steel, galvanised

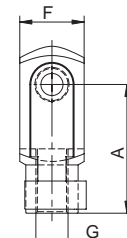
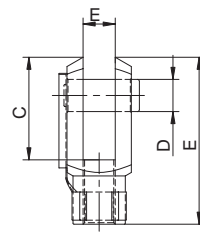
**Bolt materials:** Steel, phosphorised



TYPE I  
(Supplied with nut)



TYPE II  
(Supplied with clip)

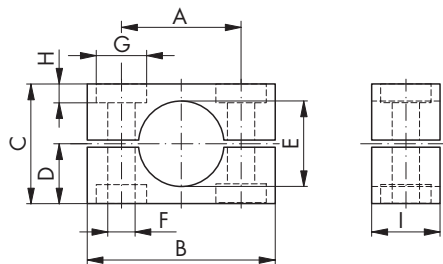
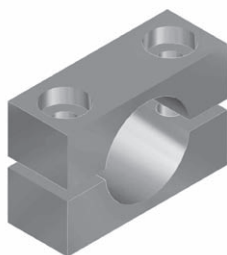


SERIES B  
BRASS CYLINDERS

Code	Type	Ø	A	B	C	D	E	F	G	C1
40.304	I	5	12	15	6	2.5	3	6	M2	6
38.304	I	8	12	15	6	2.5	3	6	M3	6
37.304	II	12	20	26	16	5	5	10	M5	-
19.008.07	II	16	24	31	19	6	6	12	M6	-
19.008.08	II	20	32	42	26	8	8	16	M8	-
34.304	II	25	40	52	32	10	10	20	M10	-

## Clamp

**Materials:** Steel, galvanised



Code	Ø	A	B	C	D	E	Ø F	Ø G	H	I
38.300	8	14	22	14	7	10	3.2	6	2.2	8
37.310	12	22	32	21	11	16	4.3	8	3	10
36.300	16	26	40	25	13	20	5.3	10	3.7	15
35.300	20	32	45	33	17	24	6.4	11	6.5	16
34.300	25	37	50	41	21	29	6.4	11	6.5	20

## Brass Cylinder Sealing Sets

Code	Piston dia.
34.400.01	Ø 25
35.400.01	Ø 20
36.400.01	Ø 16
37.400.02	Ø 12



**BSG Kuhnke Solutions S.r.l.**

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[www.bsgkuhnkesolutions.com](http://www.bsgkuhnkesolutions.com)