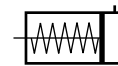


SHORT STROKE CYLINDERS

Ø 8 to 100 mm - single acting
with rod returned at rest

JOUCOMATIC



Series
441
Type
K

GENERAL

Detection

Equipped for magnetic position detectors

Fluid

Air or neutral gas, filtered, lubricated or not

Operating pressure

2 to 10 bar

Ambient temperature

-10°C to +70°C

CONSTRUCTION

Body

Light alloy

Piston rod

Stainless steel (Ø8, 10, 12 and 20 mm)

Hard chrome steel (Ø 16, 25 and 32 to 100 mm)

Rod end

Tapped

Internal parts

POM (polyacetal) or light alloy

Piston seals

PUR (polyurethane) and NBR (nitrile)

Bearing

Self lubricating

Front, rear or side mounting

With screws (not supplied)
or flange (see mounting section)



B

SPECIFICATIONS

Ø (mm)	extend force at 6 bar (daN)	retract force (daN)	stroke (mm)	cylinder equipped for detectors		detectors type to be used		weight (kg)	connection Ø
				catalogue number	reference	ILS reed switch type	magnetoresistant electronic type		
8	2,5	0,3	4	44100001	K8S4-M	-	•	0,025	M 5
			10	44100154	K8S10-M	•	•	0,030	
10	3,9	0,5	4	44100002	K10S4-M	-	•	0,030	M 5
			10	44100155	K10S10-M	•	•	0,035	
12	5,6	0,7	4	44100003	K12S4-M	-	•	0,035	M 5
			10	44100004	K12S10-M	•	•	0,045	
16	10	1,2	4	44100005	K16S4-M	-	•	0,080	M 5
			10	44100006	K16S10-M	•	•	0,090	
			25	44100156	K16S25-M	•	•	0,120	
20	16	1,4	4	44100007	K20S4-M	-	•	0,105	G 1/8
			10	44100008	K20S10-M	•	•	0,120	
			25	44100157	K20S25-M	•	•	0,165	
25	26,4	3	5	44100009	K25S5-M	-	•	0,160	G 1/8
			10	44100010	K25S10-M	•	•	0,175	
			25	44100158	K25S25-M	•	•	0,225	
32	42,5	5,7	5	44100011	K32S5-M	-	•	0,235	G 1/8
			10	44100012	K32S10-M	•	•	0,255	
			25	44100013	K32S25-M	•	•	0,320	
40	66	9,4	10	44100014	K40S10-M	•	•	0,345	G 1/8
			25	44100015	K40S25-M	•	•	0,425	
50	106,4	11,4	10	44100016	K50S10-M	•	•	0,500	G 1/8
			25	44100017	K50S25-M	•	•	0,610	
63	173,1	13,9	10	44100018	K63S10-M	•	•	0,730	G 1/8
			25	44100019	K63S25-M	•	•	0,875	
80	283,1	18,4	25	44100020	K80S25-M	•	•	1,515	G 1/8
100	456,4	14,8	25	44100243	K100S25-M	•	•	2,765	G 1/4

Magnetic detectors should be ordered separately :

"T" model (see page P291), Reed switch or magneto-resistive type

• Detectors to be used

In order to prolong the product's service life, it is recommended to use external stoppers.

Tolerance on stroke length ± 2 mm

OPTIONS

- Other strokes on request
- Version non equipped for use with detectors (consult us)

For installations using short stroke **32 to 100 mm** bore, it is recommended to select the **PEC** type models conforming with ISO 21287 standards (see page P226).



GENERAL

Detection

Fluid

Operating pressure

Ambient temperature

Equipped for magnetic position detectors

Air or neutral gas, filtered, lubricated or not

10 bar max.

-10°C to +70°C

CONSTRUCTION

Body

Piston rod

Light alloy

Stainless steel (Ø8, 10, 12 and 20 mm)

Hard chrome steel (Ø 16, 25 and 32 to 100 mm)

Tapped

Piston rod

Internal parts

Piston seals

Bearing

Front, rear or side mounting

POM (polyacetal) or light alloy

PUR (polyurethane) and NBR (nitrile)

Self lubricating

With screws (not supplied)

or flange (see mounting section)



SPECIFICATIONS

Ø (mm)	extend force at 6 bar (daN)	retract force (daN)	stroke (mm)	cylinder equipped for detector		detectors type to be used		weight (kg)	connection Ø
				catalogue number	reference	ILS reed switch type	magneto-resistant electronic type		
8	2,7	2	5	44100159	K8D5-M	-	•	0,025	M 5
			10	44100021	K8D10-M	•	•	0,030	
			15	44100160	K8D15-M	•	•	0,035	
			20	44100161	K8D20-M	•	•	0,040	
			25	44100162	K8D25-M	•	•	0,045	
10	4,2	3,4	5	44100163	K10D5-M	-	•	0,030	M 5
			10	44100022	K10D10-M	•	•	0,035	
			15	44100164	K10D15-M	•	•	0,040	
			20	44100165	K10D20-M	•	•	0,045	
			25	44100166	K10D25-M	•	•	0,050	
12	6	5,4	5	44100167	K12D5-M	-	•	0,035	M 5
			10	44100023	K12D10-M	•	•	0,045	
			15	44100168	K12D15-M	•	•	0,055	
			20	44100169	K12D20-M	•	•	0,065	
			25	44100170	K12D25-M	•	•	0,075	
			30	44100171	K12D30-M	•	•	0,085	
			40	44100172	K12D40-M	•	•	0,150	
16	10	8,1	5	44100172	K16D5-M	-	•	0,080	M 5
			10	44100024	K16D10-M	•	•	0,090	
			15	44100173	K16D15-M	•	•	0,100	
			20	44100174	K16D20-M	•	•	0,110	
			25	44100175	K16D25-M	•	•	0,120	
			30	44100176	K16D30-M	•	•	0,130	
			40	44100177	K16D40-M	•	•	0,150	
20	16	13,5	5	44100178	K20D5-M	-	•	0,105	G 1/8
			10	44100025	K20D10-M	•	•	0,120	
			15	44100179	K20D15-M	•	•	0,135	
			20	44100180	K20D20-M	•	•	0,150	
			25	44100026	K20D25-M	•	•	0,165	
			30	44100181	K20D30-M	•	•	0,180	
			40	44100182	K20D40-M	•	•	0,210	
25	29,4	24,7	5	44100183	K20D50-M	•	•	0,240	G 1/8
			5	44100184	K25D5-M	-	•	0,155	
			10	44100027	K25D10-M	•	•	0,170	
			15	44100185	K25D15-M	•	•	0,190	
			20	44100186	K25D20-M	•	•	0,205	
			25	44100028	K25D25-M	•	•	0,220	
			30	44100187	K25D30-M	•	•	0,240	
25	29,4	24,7	40	44100188	K25D40-M	•	•	0,270	G 1/8
			50	44100189	K25D50-M	•	•	0,305	

Magnetic detectors should be ordered separately :

"T" model (see page P291), Reed switch or magneto-resistive type

• Detectors to be used

In order to prolong the product's service life, it is recommended to use external stoppers

Tolerance on stroke length ± 2 mm

OPTIONS : • Other strokes on request

• Version non equipped for use with detectors (consult us)

Ø (mm)	extend force at 6 bar (daN)	retract force (daN)	stroke (mm)	cylinder equipped for detector		detectors type to be used		weight (kg)	connection Ø
				catalogue number	reference	ILS reed switch type	magnetoresistant electronic type		
32	48,2	41,4	5	44100190	K32D5-M	—	•	0,240	G 1/8
			10	44100029	K32D10-M	•	•	0,260	
			15	44100191	K32D15-M	•	•	0,280	
			20	44100192	K32D20-M	•	•	0,300	
			25	44100030	K32D25-M	•	•	0,320	
			30	44100193	K32D30-M	•	•	0,340	
			40	44100194	K32D40-M	•	•	0,380	
			50	44100195	K32D50-M	•	•	0,425	
			60	44100196	K32D60-M	•	•	0,470	
			80	44100197	K32D80-M	•	•	0,550	
40	75,4	68,6	5	44100198	K40D5-M	—	•	0,320	G 1/8
			10	44100031	K40D10-M	•	•	0,350	
			15	44100199	K40D15-M	•	•	0,375	
			20	44100200	K40D20-M	•	•	0,405	
			25	44100032	K40D25-M	•	•	0,430	
			30	44100201	K40D30-M	•	•	0,460	
			40	44100202	K40D40-M	•	•	0,510	
			50	44100203	K40D50-M	•	•	0,570	
			60	44100204	K40D60-M	•	•	0,620	
			80	44100205	K40D80-M	•	•	0,725	
			100	44100259	K40D100-M	•	•	0,840	
50	117,8	105,7	10	44100033	K50D5-M	—	•	0,505	G 1/8
			15	44100206	K50D15-M	•	•	0,540	
			20	44100207	K50D20-M	•	•	0,580	
			25	44100034	K50D25-M	•	•	0,615	
			30	44100208	K50D30-M	•	•	0,650	
			40	44100209	K50D40-M	•	•	0,725	
			50	44100210	K50D50-M	•	•	0,800	
			60	44100211	K50D60-M	•	•	0,870	
			80	44100212	K50D80-M	•	•	1,010	
			100	44100260	K50D100-M	•	•	1,150	
63	187	174,9	10	44100035	K63D10- M	•	•	0,740	G 1/8
			15	44100213	K63D15- M	•	•	0,785	
			20	44100214	K63D20- M	•	•	0,830	
			25	44100036	K63D25- M	•	•	0,880	
			30	44100215	K63D30- M	•	•	0,930	
			40	44100216	K63D40- M	•	•	1,025	
			50	44100217	K63D50- M	•	•	1,120	
			60	44100218	K63D60- M	•	•	1,215	
			80	44100219	K63D80- M	•	•	1,405	
			100	44100261	K63D100- M	•	•	1,600	
80	301,5	282,7	10	44100220	K80D10-M	•	•	1,260	G 1/4
			15	44100221	K80D15-M	•	•	1,335	
			20	44100222	K80D20-M	•	•	1,410	
			25	44100037	K80D25-M	•	•	1,485	
			30	44100223	K80D30-M	•	•	1,560	
			40	44100224	K80D40-M	•	•	1,715	
			50	44100225	K80D50-M	•	•	1,865	
			60	44100226	K80D60- M	•	•	2,020	
			80	44100227	K80D80-M	•	•	2,320	
			100	44100262	K80D100-M	•	•	2,625	
100	471,2	441,7	10	44100244	K100D10-M	•	•	2,400	G 1/4
			15	44100245	K100D15-M	•	•	2,520	
			20	44100246	K100D20-M	•	•	2,635	
			25	44100247	K100D25-M	•	•	2,750	
			30	44100248	K100D30-M	•	•	2,860	
			40	44100249	K100D40-M	•	•	3,100	
			50	44100250	K100D50-M	•	•	3,335	
			60	44100251	K100D60-M	•	•	3,565	
			80	44100252	K100D80-M	•	•	4,035	
			100	44100253	K100D100-M	•	•	4,500	

Magnetic detectors should be ordered separately :

"T" model (see page P291), Reed switch or magneto-resistive type

In order to prolong the product's service life, it is recommended to use external stoppers

Tolerance on stroke length $^{+2}_{0}$ mm

OPTION : • Other strokes on request

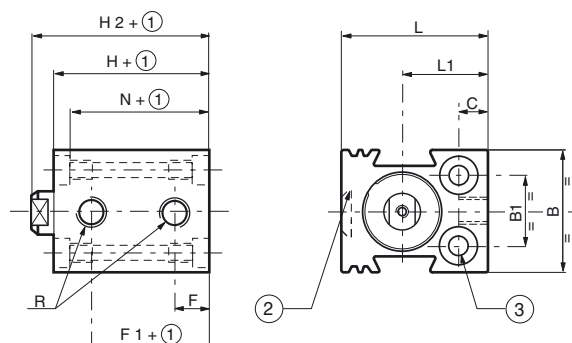
• Version non equipped for use with detectors (consult us)

• Detectors to be used

For installations using short stroke **32 to 100 mm** bore, it is recommended to select the **PEC** type models conforming with ISO 21287 standards (see page P226)

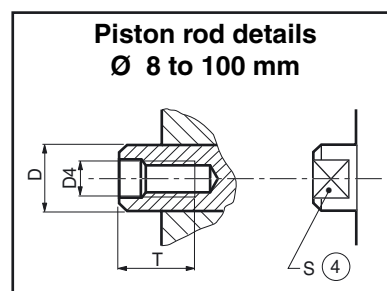
DIMENSIONS (mm)

Ø 8 to 25 mm - single and double acting

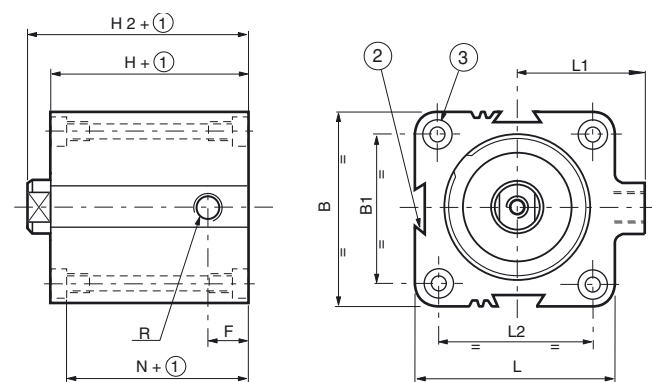


- ① Stroke
For non-standard strokes, add the value of the immediately higher standard stroke.
- ② 3rd track on Ø16 to 100
- ③ Mounting holes and counterbores (see detailed view below and following pages)
- ④ Dimensions across flats

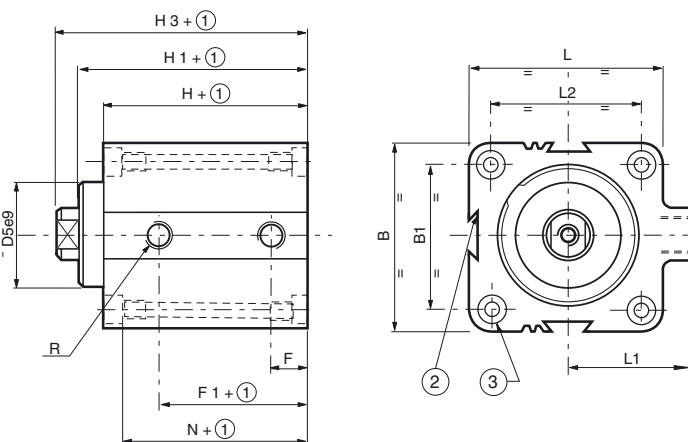
NOTE : In the single-acting version, the connection takes place on the port located in F.



Ø 32 to 100 mm - single acting

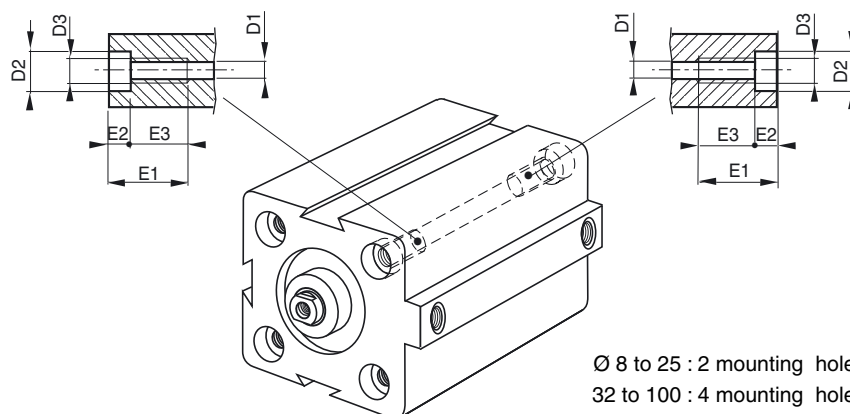


Ø 32 to 100 mm - double acting



Ø	B	B ₁	C	Ø D	Ø D ₁	Ø D ₂	Ø D ₃	Ø D ₄	Ø D ₅	E ₁	E ₂	E ₃	F	F ₁	H	H ₁	H ₂	H ₃	L	L ₁	L ₂	N	Ø R	S	T
8	20	11	4,5	4	3,4	6	M4	M2,5	-	12	3,4	8,6	5	14	23	-	24	-	24	15	-	19,6	M5	-	3,5
10	21	12	6	4	3,4	6	M4	M2,5	-	12	3,4	8,6	5	15	24	-	25	-	25,5	16,5	-	20,6	M5	-	3,5
12	23	13	6,5	4	3,4	6	M4	M2,5	-	12	3,4	8,6	5	16	24	-	25	-	27,5	18,5	-	20,6	M5	-	3,5
16	28	18	8	7,8	4,5	8	M5	M4	-	15	4,6	10,4	6	18	32	-	36,5	-	34	20	-	27,4	M5	6	8
20	32	20	9	9,8	5,5	10	M6	M5	-	18	5,7	12,3	8	20	32	-	36,5	-	40	24	-	26,3	G1/8	8	11
25	38	26	9	9,8	5,5	10	M6	M5	-	18	5,7	12,3	9,5	24,5	38,5	-	44	-	44	25	-	33,8	G1/8	8	11
32	45	32	-	11,8	5,5	10	M6	M6	26	18	5,7	12,3	9,5	22	39,5	44,5	45	50,5	48	32	36	33,8	G1/8	10	13
40	55	42	-	11,8	5,5	10	M6	M6	28	18	5,7	12,3	11	25,5	39,5	45,5	46	52	55	37,5	42	33,8	G1/8	10	13
50	65	50	-	15,8	6,6	11	M8	M8	34	20	6,8	13,2	11	25,5	39,5	45,5	47	53	65	42,5	50	32,7	G1/8	13	12
63	80	62	-	15,8	9	15	M10	M8	38,5	25	9	16	11	27,3	42	50	48,5	57,5	80	47,5	62	33	G1/8	13	14
80	100	82	-	19,8	9	15	M10	M10	44	25	9	16	12,5	29,3	46	56	54	64	100	60	82	37	G1/4	17	16
100	124	103	-	24,6	11	18	M12	M12	56	30	11	19	12,5	36	56	66,5	66	76,5	124	72	103	45	G1/4	22	20

Mounting holes



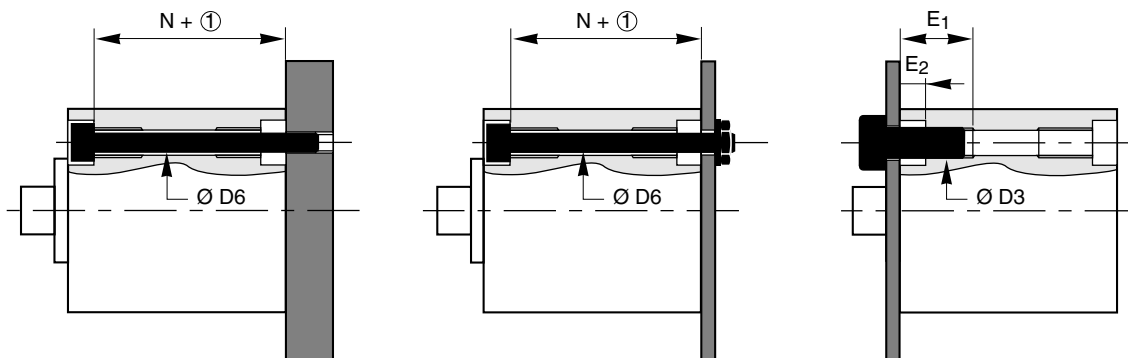
Ø 8 to 25 : 2 mounting holes
32 to 100 : 4 mounting holes

DIMENSIONS (mm)

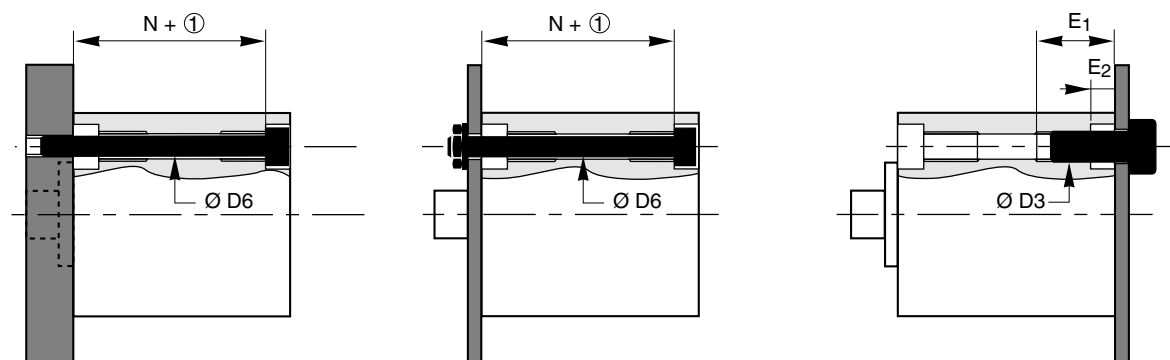


The tapped and sunten mounting holes provide great flexibility for mounting. The tappings simplify securing the cylinders, particularly when the stroke is long

• Front mounting



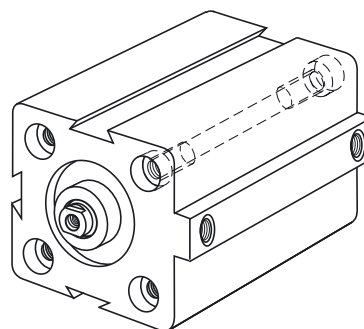
• Rear mounting



① Stroke

For non-standard strokes, add the next higher standard one.

Ø	Ø D3	Ø D6	E ₁	E ₂	N
8	M4	M3	12	3,4	19,6
10	M4	M3	12	3,4	20,6
12	M4	M3	12	3,4	20,6
16	M5	M4	15	4,6	27,4
20	M6	M5	18	5,7	26,3
25	M6	M5	18	5,7	32,8
32	M6	M5	18	5,7	33,8
40	M6	M5	18	5,7	33,8
50	M8	M6	20	6,8	32,7
63	M10	M8	25	9	33
80	M10	M8	25	9	37
100	M12	M10	30	11	45

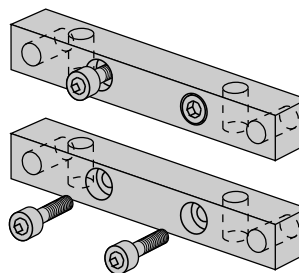


Ø 8 to 25 : 2 mounting holes per face
Ø 32 to 100 : 4 mounting holes per face

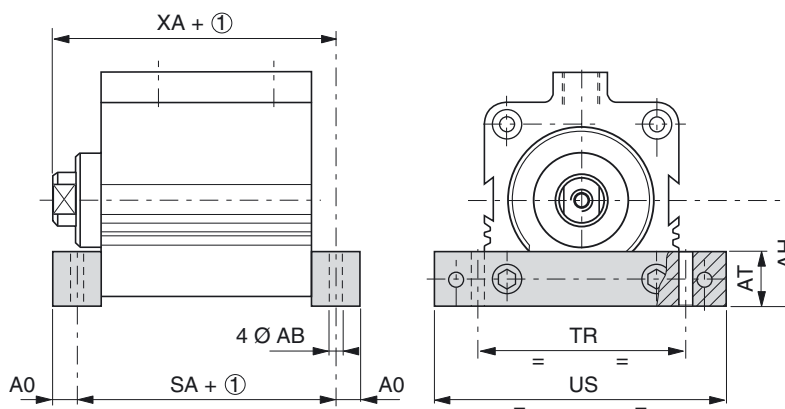
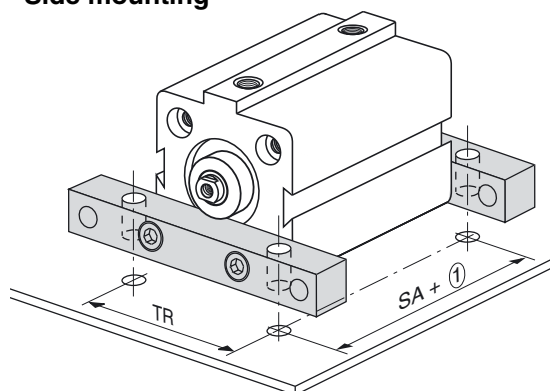
DIMENSIONS (mm), WEIGHT (kg)

A set of two flanges enables front, rear or side mounting of cylinders with bores of 32 to 100mm, for single-acting, or double-acting, single rod or double crossbar type. (The set comprises two flanges and four screws for securing them to the cylinder).

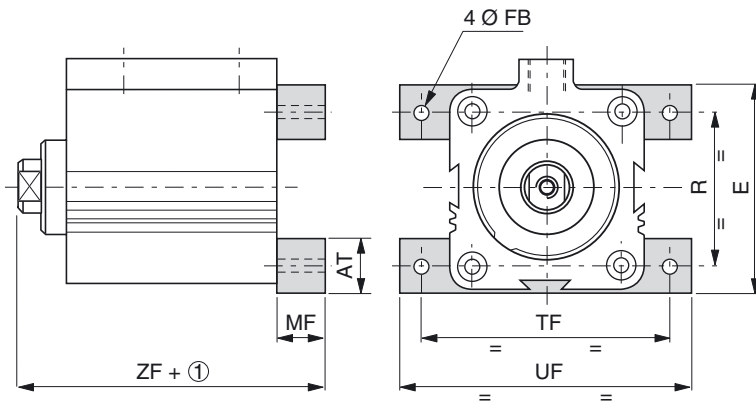
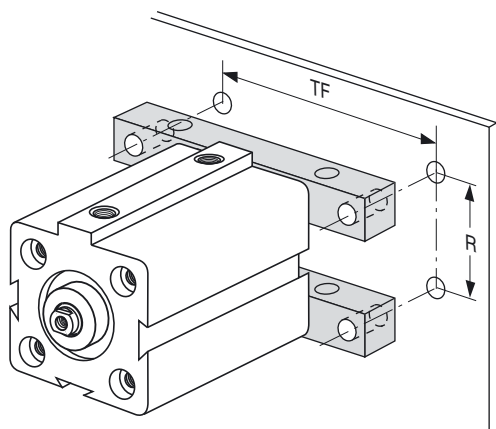
Ø	catalogue number set of two flanges
32	43900268
40	43900269
50	43900270
63	43900271
80	43900272
100	43900273



• Side mounting



• Front or rear mounting



① Stroke

For non-standard strokes, add the next higher standard one.

Ø	Ø AB	ΔH	AO	AT	E	Ø FB	MF	R	TF	TR	UF US	SA (2) (3)	XA (2) (3)	ZF (2) (3)	flanges weight
32	5,5	25	5	14	50	5,5	10	36	63	50,5	72,5	49,5	57,5	55,5	0,065
40	5,5	28	5	14	56	5,5	10	42	73	60,5	82,5	49,5	56	57	0,080
50	6,6	33	6	16	66	6,6	12	50	88	72,5	99	51,5	58,5	59	0,135
63	9	41	7,5	20	82	9	15	62	111	91	125	57	63	65	0,250
80	9	51	7,5	20	102	9	15	82	116	53	131	61	66	71,5	0,260
100	10,5	62,5	8,5	22	125	10,5	17	103	142,5	64,5	160	73	81	85	0,400

(2) Dimensions for single rod cylinder

(3) Dimensions for double crossbar cylinder

• Dimensions of bare cylinder, see specific overall dimensions pages.

• 32 mm bore cylinders are installed with the supply ports on top face.

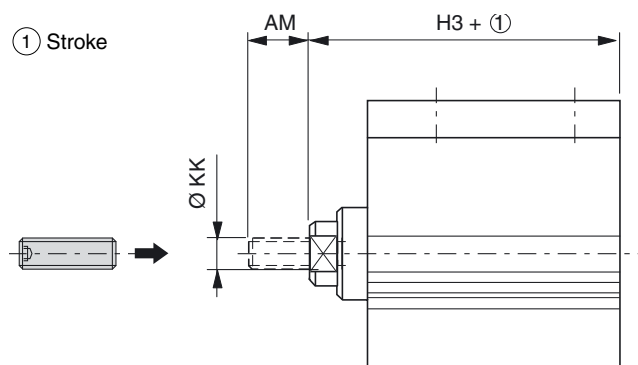
The bodies of 40 to 100mm bore cylinders can be rotated by 90° increments.

• For side-mounted 80 and 100mm bore cylinders, distance between TR centres is **less** than the distance between the centres of the mounting holes.

DIMENSIONS (mm), WEIGHT (kg)

Threaded end piece

Threaded rod endfitting for the tapped rod end of standard 16 to 100 mm bore cylinders.

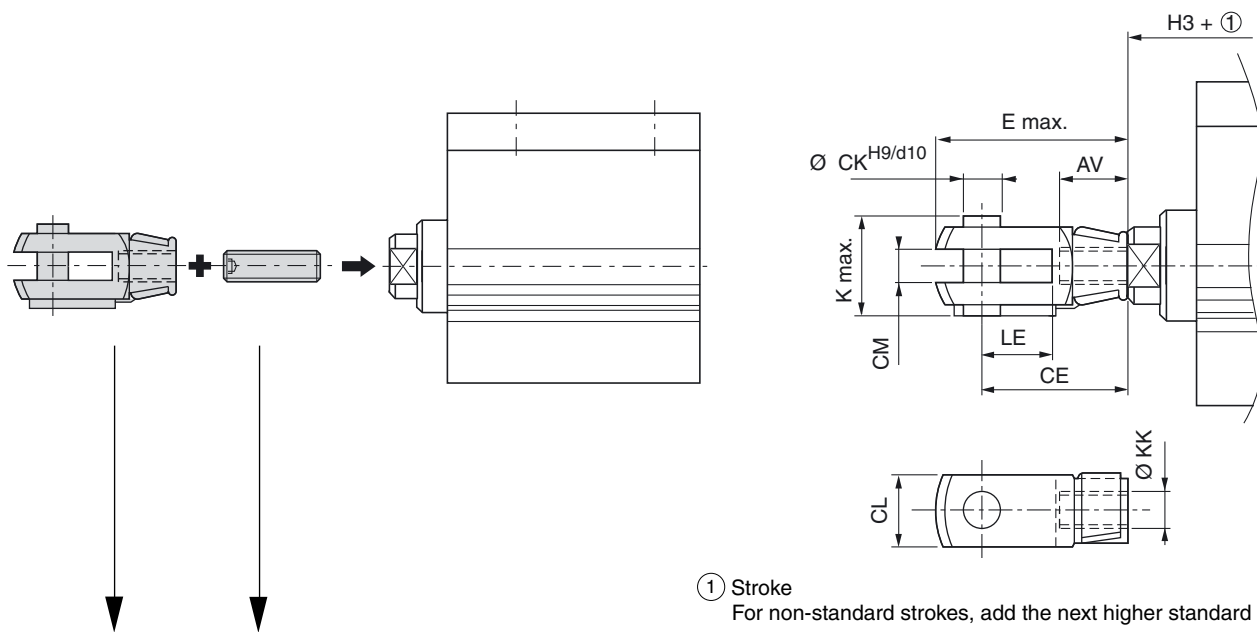


Monobloc threaded rod: consult us

	catalogue number threaded end piece	AM	H3 +	Ø KK
16	43900259	8	36,5	M4
20	43900260	12	36,5	M6
25		12	44	M6
32	43900262	12	50,5	M6
40		12	52	M6
50	43900264	15	53	M8
63		15	57,5	M8
80	43900266	19	64	M10
100	43900267	20	76,5	M12

In your order, indicate the code of the end piece, which is supplied separately.

Femelle rod clevis



① Stroke
For non-standard strokes, add the next higher standard one.

Ø	catalogue number female end piece	catalogue number threaded end piece	AV	CE	Ø CK	CL	CM	E	K	Ø KK	LE	H3	clevis weight
15	43900193	43900259	8	16	4	8	4 ^{+0,4} _{+0,1}	22,5	11	M4	8	36,5	0,010
20	43900159	43900260	12	24	6	12	6 ^{+0,4} _{+0,1}	33,5	16,5	M6	12	36,5	0,020
25		43900262										44	
32												50,5	
40	43900161	43900264	16	32	8	16	6 ^{+0,5} _{+0,15}	45	22	M8	16	53	0,050
50												57,5	
63	43900163	43900266	20	40	10	20	10 ^{+0,5} _{+0,15}	56	26	M10	20	64	0,100
80	43900164	43900267	22	48	12	24	10 ^{+0,5} _{+0,15}	67	32	M12	24	76,5	0,150

Please indicate the threaded and clevis end piece code in your order. These two items are supplied installed on the cylinder.