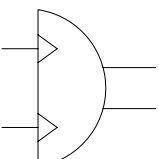


Standard executions

Version	Symbol	Type
Male pivot gear		CRTH
Double male pivot gear		CRTHD
Female pivot gear		CRTF



Rotary cylinders with rack / pinion, magnetic as standard.
The standard cylinders are provided with adjustable cushionings at both ends. One or more magnetic reed switches can be applied.

For the magnetic reed switches type ASV see from page 1.110.1.

How to order: 63 / 90° CRTH

Options	Suffix
Special versions on request	/ S

63	/	90°	CRTH	
Bores	/	Angles of rotation	Type	Option

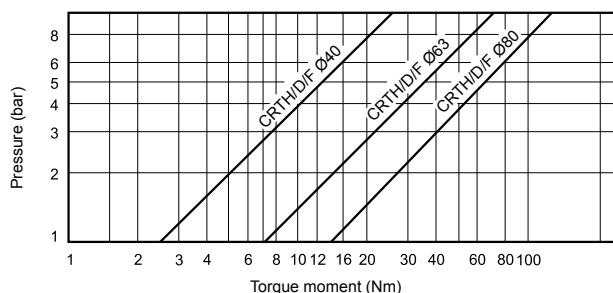
Technical data

Bores (mm)			40	63	80
Fluid			Compressed filtered air with or without lubrication. Lubrication, if be used, must be continous		
Angle of rotation			90° - 180°		
Adjustable angle			± 5°		
Rotaring shaft diameter			16	24	28
Pressure range			1.3 ÷ 7 bar		
Max allowable axial trust (max)			10	12	20
Cushion angle			74°	75°	80°
Temperature range			-10 °C ÷ + 60°C		
Weight (g)	CRTH	90°	3000	5400	9750
		180°	3100	5800	10300
	CRTHD	90°	3050	5550	9990
		180°	3150	5950	10540
	CRTF	90°	2840	5070	9990
		180°	2940	5470	9740

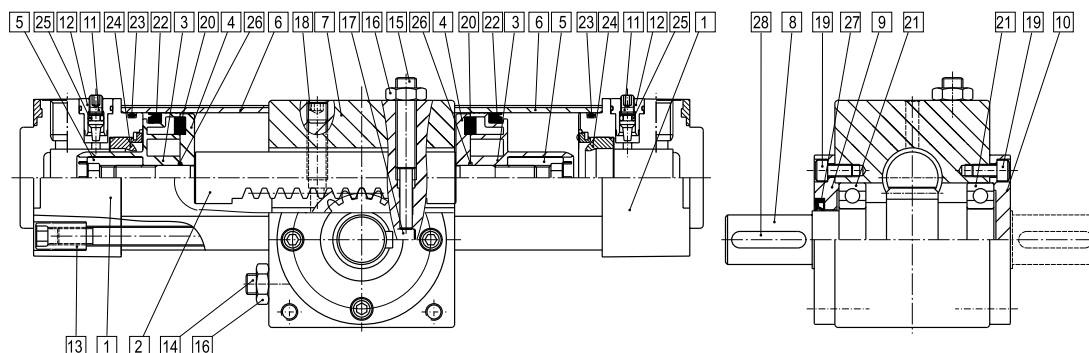
Air consumption for a complete cycle (litres/cycle)

Size	Rotation	Operating pressure (bar)									
		1	2	3	4	5	6	7	8	9	10
40	90°	0,1571	0,2352	0,3133	0,3915	0,4696	0,5477	0,6259	0,7040	0,7821	0,8603
	180°	0,3141	0,4704	0,6267	0,7829	0,9392	1,0955	1,2517	1,4080	1,5643	1,7205
63	90°	0,4383	0,6564	0,8744	1,0925	1,3105	1,5286	1,7466	1,9647	2,1828	2,4008
	180°	0,8766	1,3127	1,7488	2,1850	2,6211	3,0572	3,4933	3,9294	4,3655	4,8016
80	90°	0,8480	1,2698	1,6917	2,1135	2,5354	2,9572	3,3791	3,8009	4,2228	4,6447
	180°	1,6959	2,5396	3,3834	4,2271	5,0708	5,9145	6,7582	7,6019	8,4456	9,2893

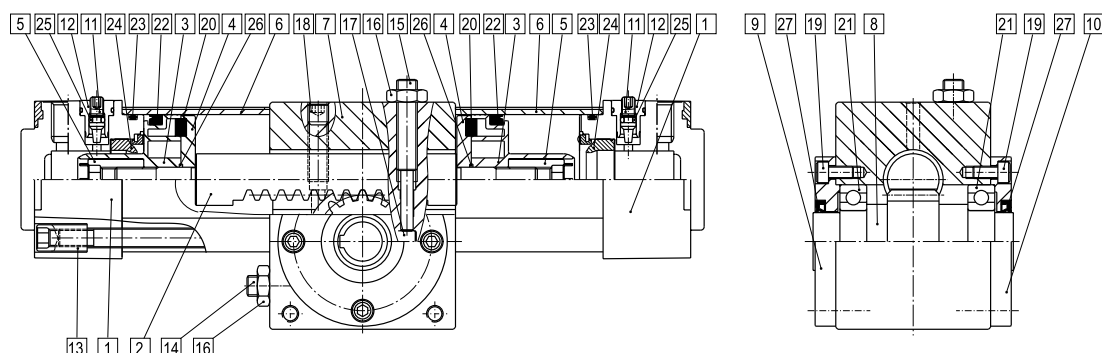
Output torque table



Type: **CRTH - CRTHD**

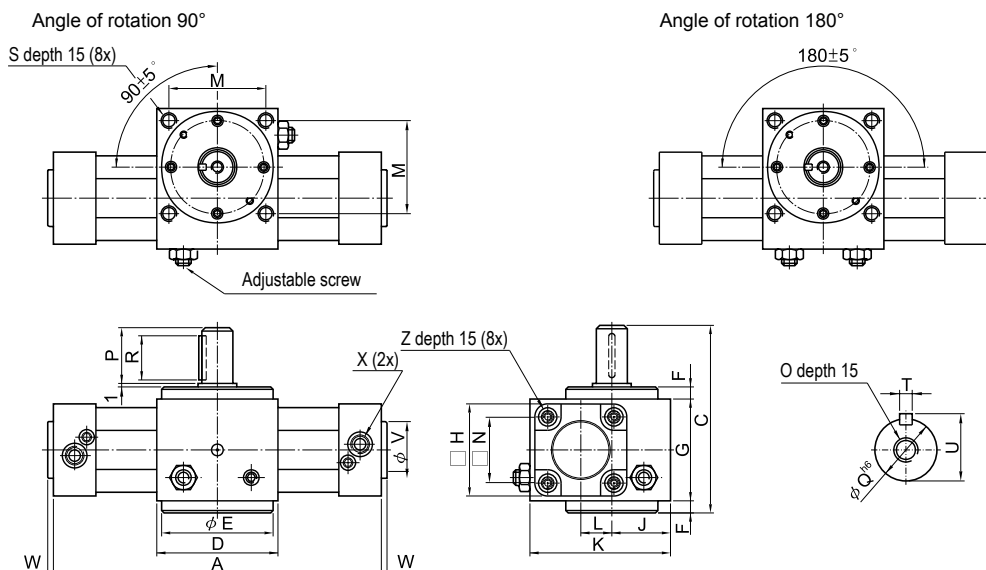


Type: **CRTF**

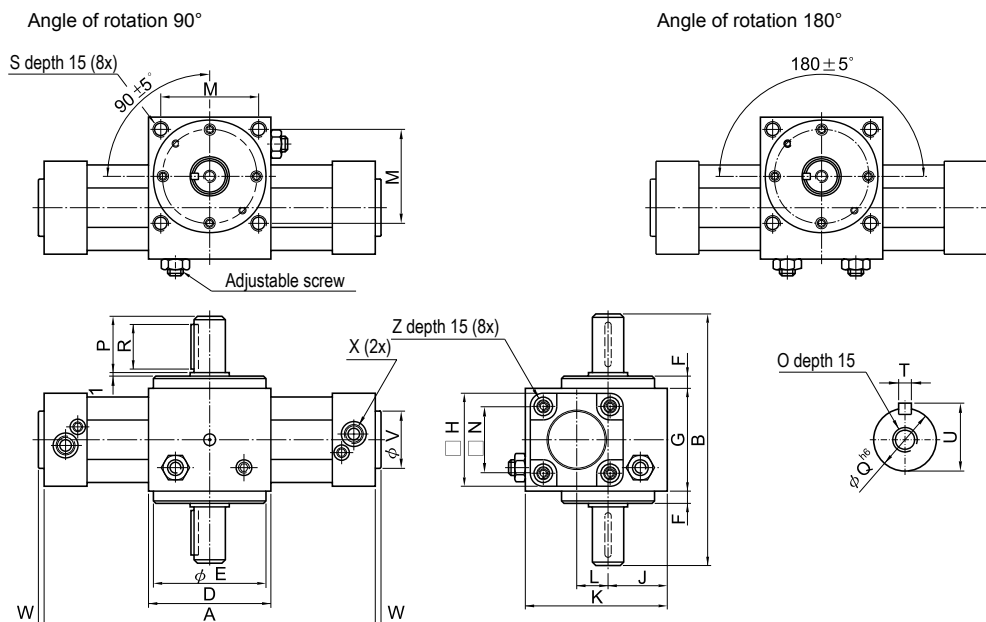


Materials (standard types)

1	End cap	Hard anodised aluminium alloy	15	Adjusting screw	Carbon steel blackening
2	Rack	Carbon steel	16	Lock nut	Carbon steel
3	Piston	POM	17	Stopper pin	Carbon steel
4	Magnet holder	Hard anodised aluminium alloy	18	Set screw	Carbon steel blackening
5	Piston nut	Carbon steel	19	Screw	Carbon steel nickel plated
6	Cylinder tube	Hard anodised aluminium alloy	20	Magnet	Magnetic material
7	Housing	Hard anodised aluminium alloy	21	Ball bearing	Carbon steel
8	Pinion shaft	Carbon steel	22	Piston packing	NBR
9	End cover	Hard anodised aluminium alloy	23	Cylinder gasket	NBR
10	End cover	Hard anodised aluminium alloy	24	Cushion packing	NBR
11	Cushion needle	Stainless steel	25	O-ring	NBR
12	Cushion plug	Brass nickel plated	26	Piston gasket	NBR
13	Tie bolt	Carbon steel galvanized	27	Rod packing	NBR
14	Adjusting screw	Carbon steel blackening	28	Key	Carbon steel

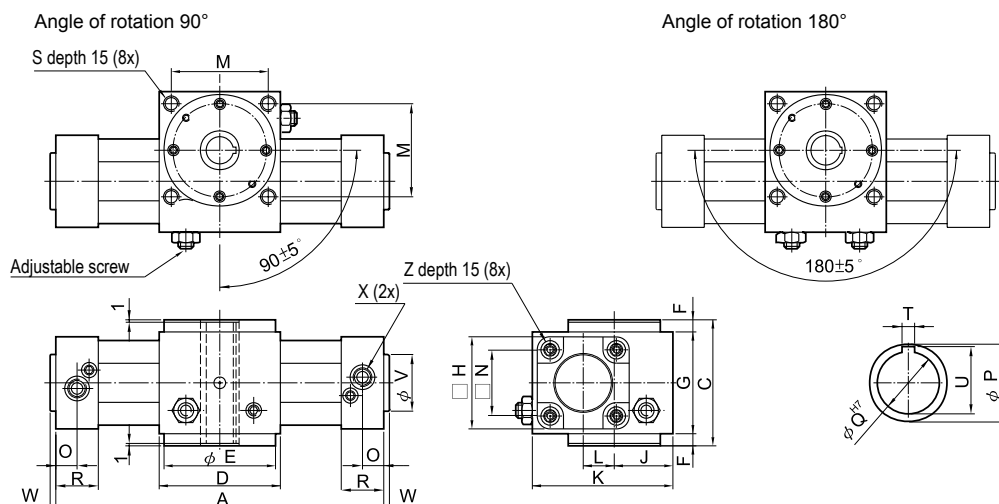
Type: **CRTH**


Size	A		C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Z
	90°	180°																						
40	263	326	112	75	72	8	65	53	37,5	93	27,5	60	38	M5	30	16	25	M6	5	18	35	4	1/4"	M6
63	306	377	138	90	82	10	75	75	42,5	110	30	70	56,5	M8	42	24	36	M8	8	27	45	5	3/8"	M8
80	343	428	170	105	96	12	95	95	51,5	135	36	82	72	M8	50	28	45	M10	8	31	45	6	3/8"	M10

Type: **CRTHD**


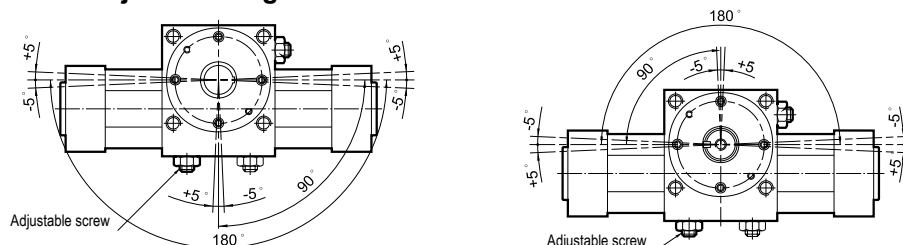
Size	A		B	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Z
	90°	180°																						
40	263	326	143	75	72	8	65	53	37,5	93	27,5	60	38	M5	30	16	25	M6	5	18	35	4	1/4"	M6
63	306	377	181	90	82	10	75	75	42,5	110	30	70	56,5	M8	42	24	36	M8	8	27	45	5	3/8"	M8
80	343	428	221	105	96	12	95	95	51,5	135	36	82	72	M8	50	28	45	M10	8	31	45	6	3/8"	M10

Type: **CRTF**



Size	A		C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Z
	90°	180°																						
40	263	326	81	75	72	8	65	53	37,5	93	27,5	60	38	15	25	14	30	M6	5	16,5	35	4	1/4"	M6
63	306	377	95	90	82	10	75	75	42,5	110	30	70	56,5	16	30	19	32	M8	6	22	45	5	3/8"	M8
80	343	428	119	105	96	12	95	95	51,5	135	36	82	72	19	35	24	38	M10	6	27,5	45	6	3/8"	M10

Rotating direction and adjustable angle



Standard executions

Version	Symbol	Type
Standard		ARTM
Flanged		ARTMF
Magnetic		ARTMC
Flanged magnetic		ARTMFC
Standard with adjustable angle		ARTML
Flanged with adjustable angle		ARTMFL
Magnetic with adjustable angle		ARTMLC
Flanged magnetic with adjustable angle		ARTMFLC



Series of Hi-rotor cylinders with fixed and adjustable rotation angles and reduced overall dimensions.

They are provided with elastic dampers to relieve the impacts of the vanes.

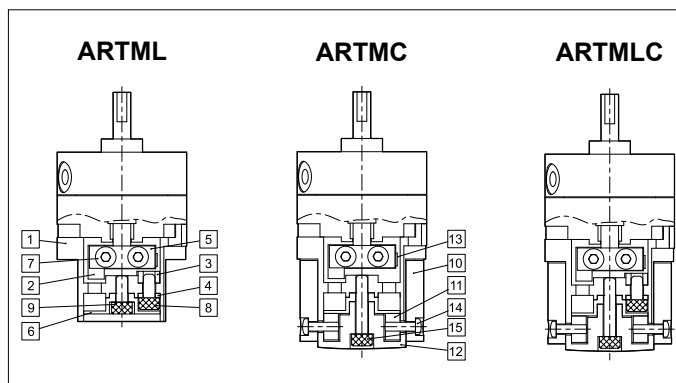
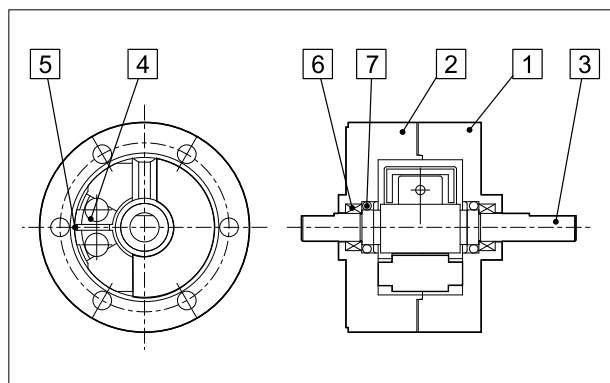
How to order: 20 / 90° ARTML

Options	Suffix
Special versions on request	/ S

15	/	90°	ARTML
Size	/	Rotation	Type

Technical data

Size		10	15	20	30	40
Bores		Ø 4	Ø 5	Ø 6	Ø 8	Ø 10
Fluid		Compressed filtered air with or without lubrication. Lubrication, if be used, must be continous				
Pressure range		1,5 ÷ 7 bar				
Temperature range		0° C ÷ + 50° C				
Rotation angle		90° - 180° - 270°				
Torque moment (Nm)		0,14	0,38	0,78	1,8	3,8
Ports		M5				
Weight (g)	ARTM	28	48	112	200	342
	ARTMF	41	70	138	268	438
	ARTMFC	78	116	240	390	604
	ARTMFLC	91	138	266	468	700



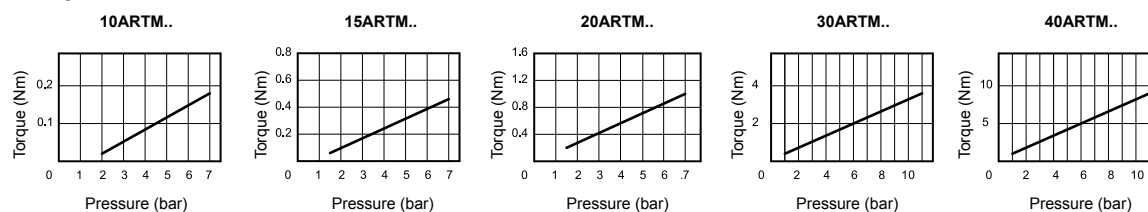
Materials (standard types)

1	Front cover	Aluminium alloy
2	End cover	Aluminium alloy
3	Rod	Steel alloy
4	Stopper	Plastic - Steel
5	O-ring	Nitrilic rubber NBR
6	Bearing	Steel
7	O-ring	Nitrilic rubber NBR

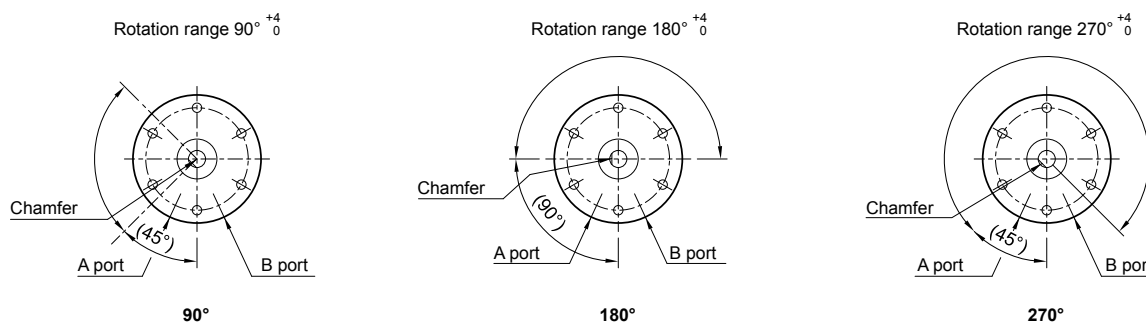
Materials (standard types)

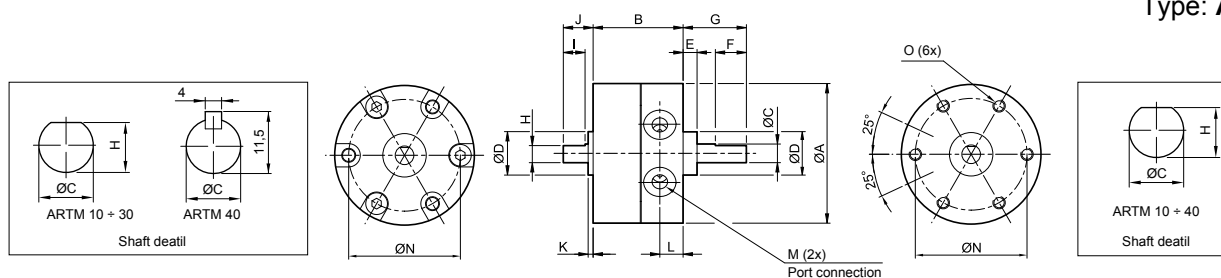
1	Position base	Zinc alloy
2	Position lump	Stainless steel
3	Angle location lump	Steel
4	Angle location slice	Steel
5	Lump	Stainless steel
6	End cover	Aluminium
7	Screw	Steel alloy
8	Screw	Steel alloy
9	Screw	Steel alloy
10	Mounting base	Aluminium alloy
11	Base and lump	Aluminium alloy
12	End cover	Aluminium alloy
13	Magnet	TME
14	Screw	Lega di acciaio
15	Screw	Lega di acciaio

Output torque table

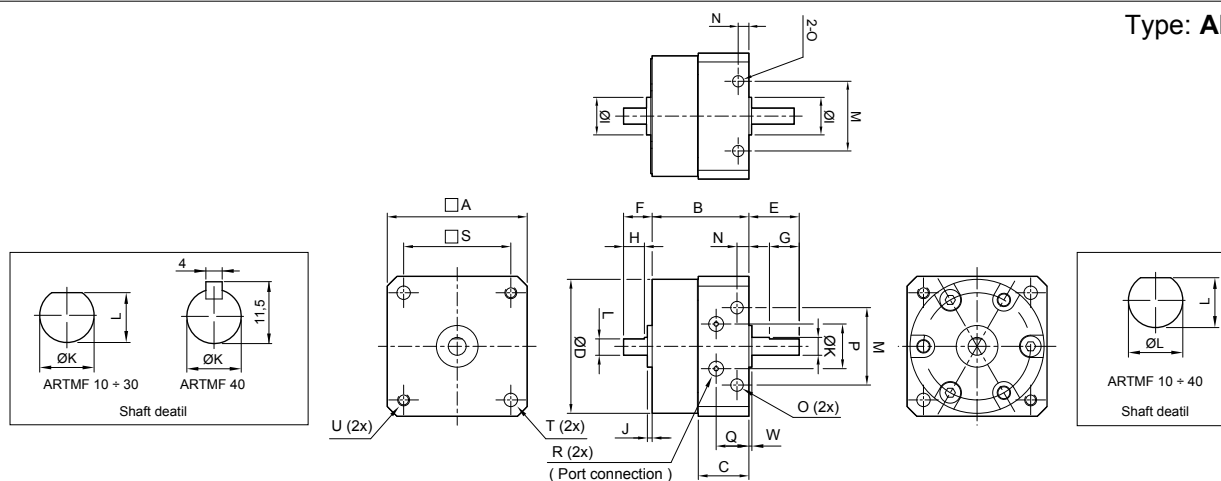


Rotation angle

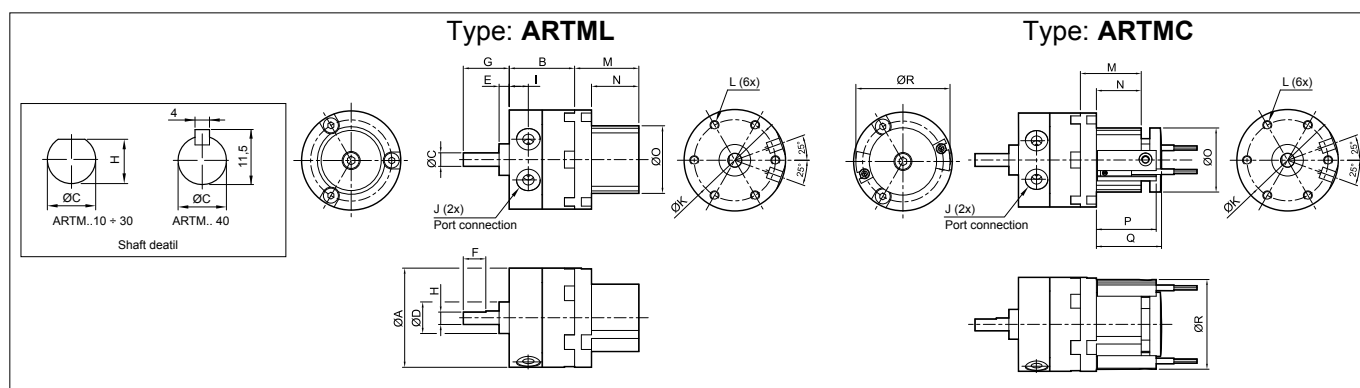




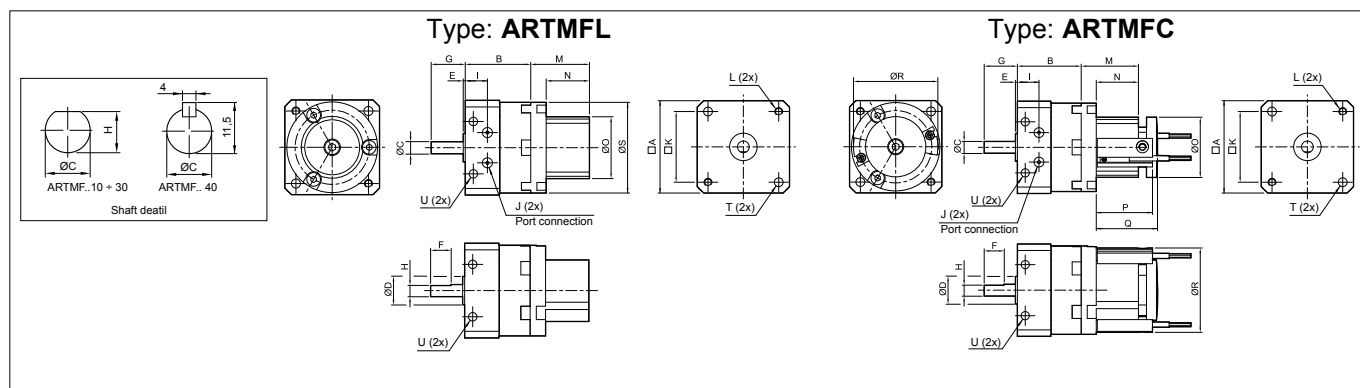
Item	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
10/90ARTM	30	17	4	9	3	9	14	3,5	5	8	1	4,2	M5x0,8p	24	M3x0,5p
10/180ARTM															
10/270ARTM															
15/90ARTM	35	20,1	5	12	4	10	18	4,5	6	9	1,5	5	M5x0,8p	29	M3x0,5p
15/180ARTM															
15/270ARTM															
20/90ARTM	44	29,1	6	14	4,5	10	20,3	5,5	7	9,6	1,6	8,5	M5x0,8p	36	M3x0,5p
20/180ARTM															
20/270ARTM															
30/90ARTM	51	40	8	16	5	12	22	7,5	8	13	2	11	M5x0,8p	43	M3x0,5p
30/180ARTM															
30/270ARTM															
40/90ARTM	64	45	10	25	6,5	22	30	9	9	15	4,5	9,5	M5x0,8p	56	M3x0,5p
40/180ARTM															
40/270ARTM															



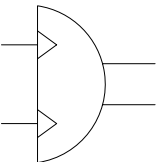
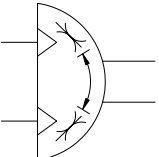
Item	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W
10/90ARTMF	31	22	13,3	30	14	8	9	5	9	1	4	3,5	17	3	3,5	10,5	9,2	M5x0,8p	25	3,5	M3x0,5p	24	1
10/180ARTMF																							
10/270ARTMF																							
15/90ARTMF	36	25,7	15,5	35	18	9	10	6	12	1,5	5	4,5	21	3	3,5	10,5	10,5	M5x0,8p	29	3,5	M3x0,5p	29	1,5
15/180ARTMF																							
15/270ARTMF																							
20/90ARTMF	44	33,6	19	44	20	10	10	7	14	1,6	6	5,5	26	4	4,2	15	13	M5x0,8p	36	4,5	M3x0,5p	36	1
20/180ARTMF																							
20/270ARTMF																							
30/90ARTMF	52	47,5	27,2	51	22	13	12	8	16	2	8	7,5	29	4,5	5,5	13,5	18,5	M5x0,8p	42	5,5	M3x0,5p	43	2
30/180ARTMF																							
30/270ARTMF																							
40/90ARTMF	64	53	30,4	64	30	15	22	9	25	4,5	10	9	38	5	5,5	19	14	M5x0,8p	52	5,5	M3x0,5p	56	3
40/180ARTMF																							
40/270ARTMF																							



Item		A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
10/90ARTML	10/90ARTMC	30	17	4	9	3	9	14	3,5	4,2	M5x0,8p	24	M3x0,5p	24	18	18	23,3	24	29
10/180ARTML	10/180ARTMC																		
10/270ARTML	10/270ARTMC																		
15/90ARTML	15/90ARTMC	35	20,1	5	12	4	10	18	4,5	5	M5x0,8p	29	M3x0,5p	28	22	24	27,3	29,5	34
15/180ARTML	15/180ARTMC																		
15/270ARTML	15/270ARTMC																		
20/90ARTML	20/90ARTMC	44	29,1	6	14	4,5	10	20,3	5,5	8,5	M5x0,8p	36	M3x0,5p	28,5	21	30	28	30,5	42
20/180ARTML	20/180ARTMC																		
20/270ARTML	20/270ARTMC																		
30/90ARTML	30/90ARTMC	51	40	8	16	5	12	22	7,5	11	M5x0,8p	43	M3x0,5p	32,5	24	34	30,8	34	47
30/180ARTML	30/180ARTMC																		
30/270ARTML	30/270ARTMC																		
40/90ARTML	40/90ARTMC	64	45	10	25	6,5	22	30	-	9,5	M5x0,8p	56	M3x0,5p	34,5	26	34	33	36	47
40/180ARTML	40/180ARTMC																		
40/270ARTML	40/270ARTMC																		



Item		A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
10/90ARTMFL	10/90ARTMFC	31	22	4	9	1	9	14	3,5	9,2	M5x0,8p	25	M3x0,5p	24	18	18	23,3	24	29	30	3,5	3,5
10/180ARTMFL	10/180ARTMFC																					
10/270ARTMFL	10/270ARTMFC																					
15/90ARTMFL	15/90ARTMFC	36	25,7	5	12	1,5	10	18	4,5	10,5	M5x0,8p	29	M3x0,5p	28	22	24	27,3	29,5	34	35	3,5	3,5
15/180ARTMFL	15/180ARTMFC																					
15/270ARTMFL	15/270ARTMFC																					
20/90ARTMFL	20/90ARTMFC	44	33,6	6	14	1	10	20	5,5	13	M5x0,8p	36	M3x0,5p	28,5	21	30	28	30,5	42	44	4,5	4,2
20/180ARTMFL	20/180ARTMFC																					
20/270ARTMFL	20/270ARTMFC																					
30/90ARTMFL	30/90ARTMFC	52	47,5	8	16	2	12	22	7,5	18,5	M5x0,8p	42	M3x0,5p	32,5	24	34	30,8	34	47	51	5,5	5,5
30/180ARTMFL	30/180ARTMFC																					
30/270ARTMFL	30/270ARTMFC																					
40/90ARTMFL	40/90ARTMFC	64	53	10	25	3	22	30	-	14	M5x0,8p	52	M3x0,5p	34,5	26	34	33	36	47	64	5,5	5,5
40/180ARTMFL	40/180ARTMFC																					
40/270ARTMFL	40/270ARTMFC																					

Esecuzioni standard		
Version	Symbol	Type
Standard		ARTM
Magnetic		ARTMC
Standard adjustable angle		ARTML
Magnetic adjustable angle		ARTMLC

New



Series of Hi-rotor cylinders with fixed and adjustable rotation angles and reduced overall dimensions.

They are provided with elastic dampers to relieve the impacts of the vanes.

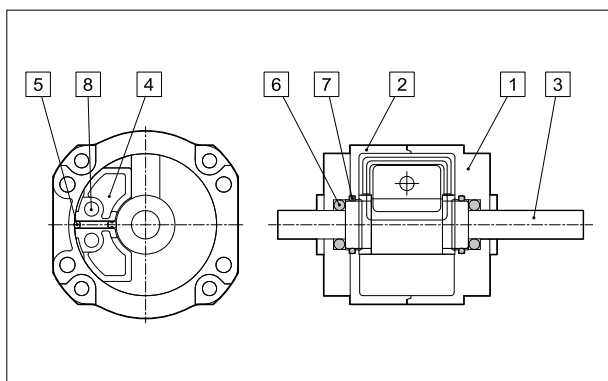
For mounting accessories see from page 1.50.10.

How to order: 15 / 90° ARTML

Options	Suffix
With shock absorber	D
Special versions on request	/ S

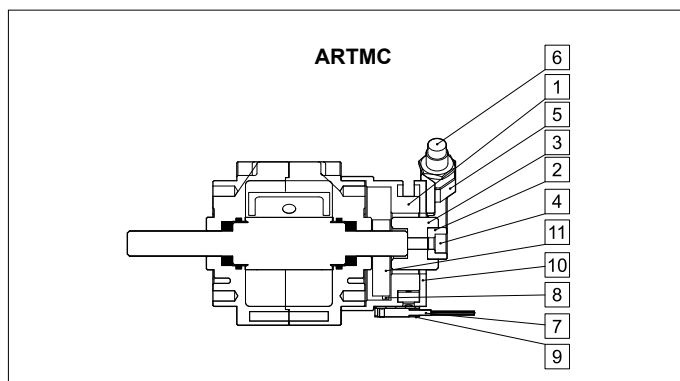
15	/	90°	ARTML
Size	/	Rotation	Type

Technical data				
Size	50	63	80	100
Bores	Ø 12	Ø 15	Ø 17	Ø 25
Fluid	Compressed filtered air with or without lubrication. Lubrication, if started, must be continued.			
Pressure range	1,5 ÷ 7 bar			
Temperature range	0° C ÷ + 50° C			
Rotation angle	90° - 180° - 270°			
Torque moment (Nm)	5	10	18	35
Ports	1/8"		1/4"	
Weight (g)	ARTM	760	1290	1920
	ARTMC	1100	1150	2300



Materials (standard types)

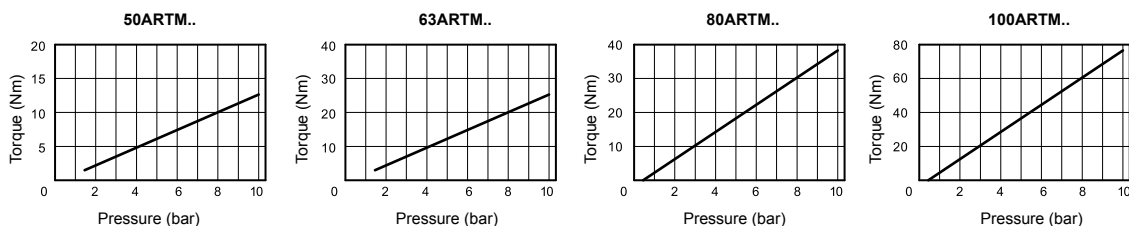
1	Front body	Aluminium alloy
2	End body	Aluminium alloy
3	Rod	Steel alloy
4	Position block	Aluminium alloy
5	O-ring	Nitrilic rubber NBR
6	Bearing	Steel
7	O-ring	Nitrilic rubber NBR
8	Position pin	Steel



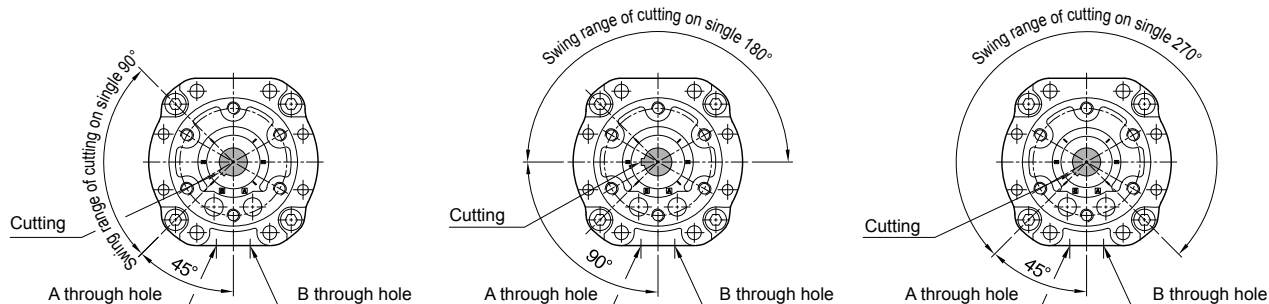
Materials (standard types)

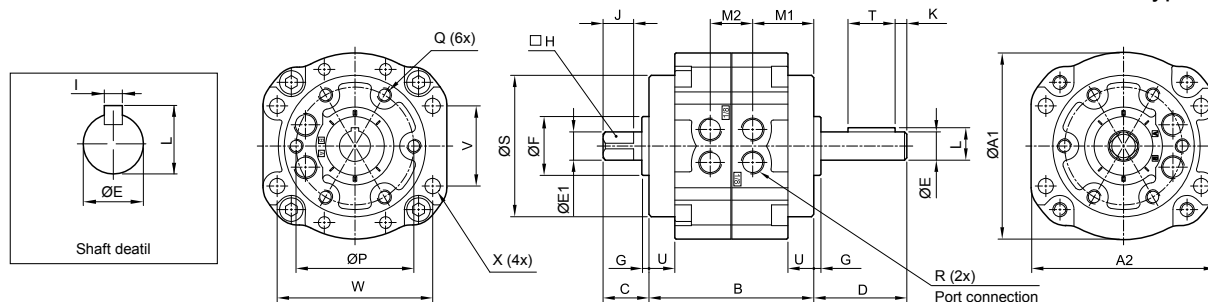
1	Position base	Aluminium alloy
2	Rocker arm	Stainless steel
3	Rocker arm seat	Stainless steel
4	Screw	Steel alloy
5	Angle adjustment	Aluminium alloy
6	Shock absorber	-
7	Sensor switch	-
8	Magnet	Rare earth materials
9	Mounting base	Aluminium alloy
10	End cover	Aluminium alloy
11	Magnet seat	Aluminium alloy

Output torque table

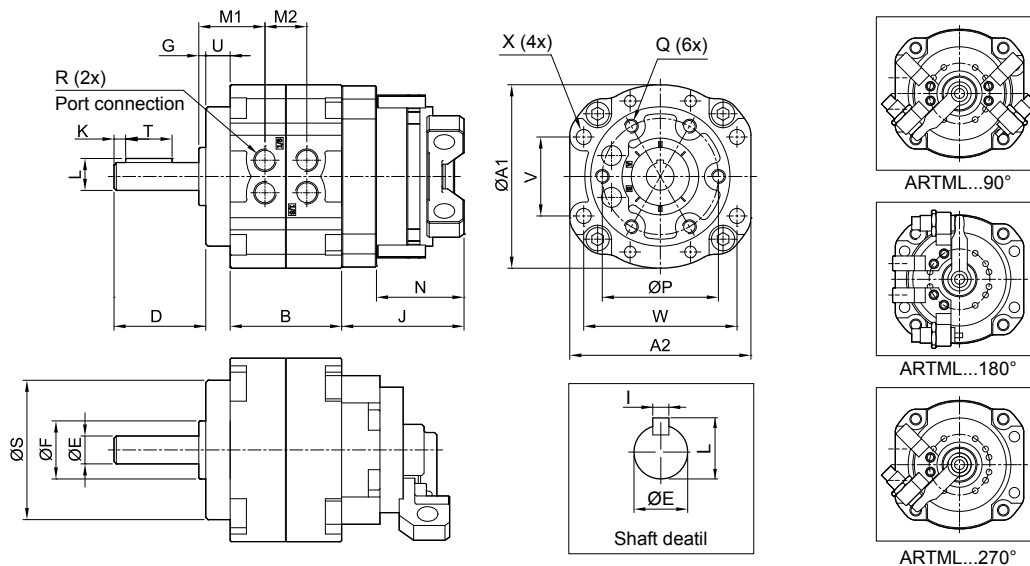


Rotation angle



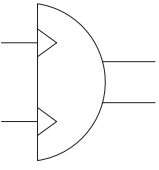
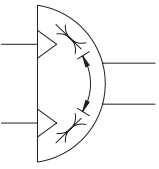
Type: ARTM


Item	A1	A2	B	C	D	E	F	G	H	I	J	K	L	M1	M2	P	Q	R	S	T	U	V	W	$\varnothing X$
50/90ARTM	79	78	70	19,5	39,5	12	25	3	10	4	13	5	13,5	26	18,2	50	M6x1,0p	RC1/8"	60	20	11	34	66	6,5
50/180ARTM																								
50/270ARTM																								
63/90ARTM	98	98	80	21	45	15	28	3	12	5	14	5	17	28,9	22,2	60	M8x1,25p	RC1/8"	75	25	14	39	83	9
63/180ARTM																								
63/270ARTM																								
80/90ARTM	110	110	90	23,5	53,5	17	30	3	13	5	16	5	19	30	30,2	70	M8x1,25p	RC1/4"	88	41	15	48	94	9
80/180ARTM																								
80/270ARTM																								
100/90ARTM	140	140	103	30	65	25	45	4	19	7	22	5	28	35,4	32,2	80	M10x1,5p	RC1/4"	108	40	11,5	60	120	11
100/180ARTM																								
100/270ARTM																								

Type: ARTMC


Item	A1	A2	B	D	E	F	G	I	J	K	L	M1	M2	N	P	Q	R	S	T	U	V	W	$\varnothing X$
50/90ARTMC	79	78	48	50,5	12	25	3	4	52,7	5	13,5	29	18	37,7	50	M6x1,0p	RC1/8"	60	20	11	34	66	6,5
50/180ARTMC																							
50/270ARTMC																							
63/90ARTMC	98	98	52	59	15	28	3	5	56,4	5	17	31,9	22,2	37,7	60	M8x1,25p	RC1/8"	75	25	14	39	83	9
63/180ARTMC																							
63/270ARTMC																							
80/90ARTMC	110	110	60	68,5	17	30	3	5	58,9	5	19	33	30	39,2	70	M8x1,25p	RC1/4"	88	36	15	48	94	9
80/180ARTMC																							
80/270ARTMC																							
100/90ARTMC	140	140	80	76,5	25	45	4	7	62,9	5	28	39,4	32,2	39,2	90	M10x1,5p	RC1/4"	108	40	11,5	60	120	11
100/180ARTMC																							
100/270ARTMC																							

Esecuzioni standard

Version	Symbol	Type
Standard		ARTM
Magnetic		ARTMC
Standard adjustable angle		ARTML
Magnetic adjustable angle		ARTMLC



1

Series of Hi-rotor cylinders with fixed and adjustable rotation angles and reduced overall dimensions. They are provided with elastic dampers to relieve the impacts of the vanes.

For mounting accessories see from page 1.50.10.

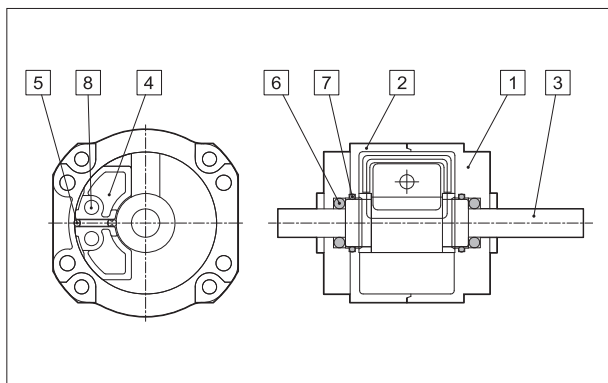
For the magnetic reed switches type ASC see from page 1.110.2.

How to order: 50 / 90° ARTML

Options	Suffix
With shock absorber	D
Special versions on request	/ S

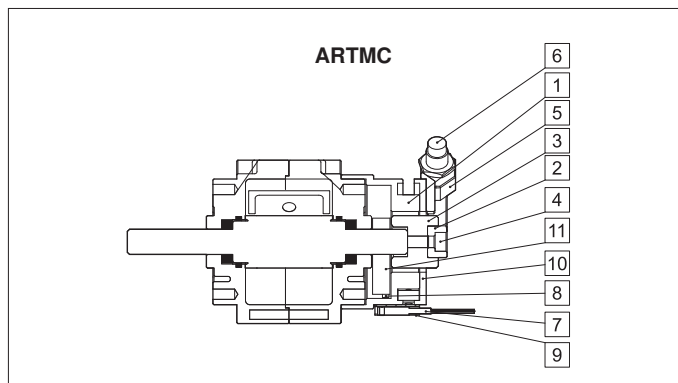
50	/	90°	ARTML
Size	/	Rotation	Type

Technical data				
Size	50	63	80	100
Bores	Ø 12	Ø 15	Ø 17	Ø 25
Fluid	Compressed filtered air with or without lubrication. Lubrication, if started, must be continued.			
Pressure range	1,5 ÷ 7 bar			
Temperature range	0° C ÷ + 50° C			
Rotation angle	90° - 180° - 270°			
Torque moment (Nm) at 6 bar	5	10	18	35
Ports	1/8"		1/4"	
Weight (g)	ARTM	760	1290	1920
	ARTMC	1100	1150	2300



Materials (standard types)

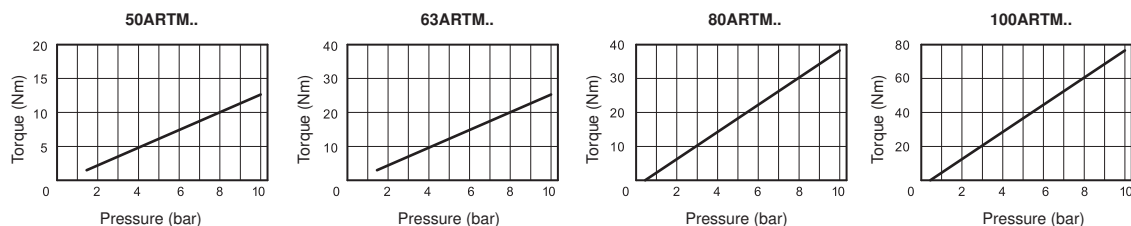
1	Front body	Aluminium alloy
2	End body	Aluminium alloy
3	Rod	Steel alloy
4	Position block	Aluminium alloy
5	O-ring	Nitrilic rubber NBR
6	Bearing	Steel
7	O-ring	Nitrilic rubber NBR
8	Position pin	Steel



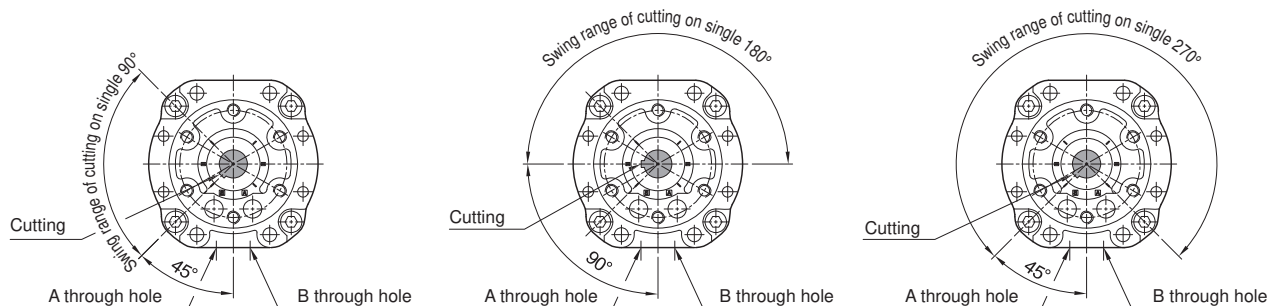
Materials (standard types)

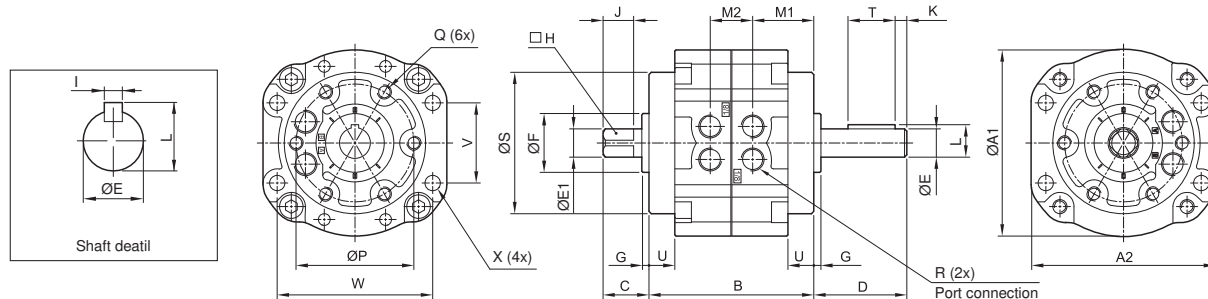
1	Position base	Aluminium alloy
2	Rocker arm	Stainless steel
3	Rocker arm seat	Stainless steel
4	Screw	Steel alloy
5	Angle adjustment	Aluminium alloy
6	Shock absorber	-
7	Sensor switch	-
8	Magnet	Rare earth materials
9	Mounting base	Aluminium alloy
10	End cover	Aluminium alloy
11	Magnet seat	Aluminium alloy

Output torque table

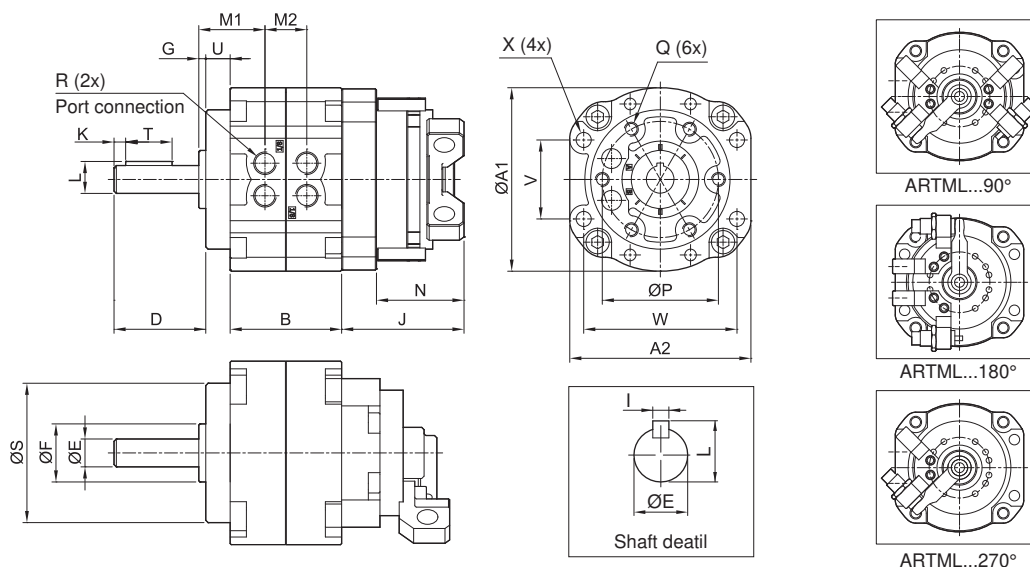


Rotation angle



Type: **ARTM**


Item	A1	A2	B	C	D	E	F	G	H	I	J	K	L	M1	M2	P	Q	R	S	T	U	V	W	ØX
50/90ARTM	79	78	70	19,5	39,5	12	25	3	10	4	13	5	13,5	26	18,2	50	M6x1,0p	RC1/8"	60	20	11	34	66	6,5
50/180ARTM																								
50/270ARTM																								
63/90ARTM	98	98	80	21	45	15	28	3	12	5	14	5	17	28,9	22,2	60	M8x1,25p	RC1/8"	75	25	14	39	83	9
63/180ARTM																								
63/270ARTM																								
80/90ARTM	110	110	90	23,5	53,5	17	30	3	13	5	16	5	19	30	30,2	70	M8x1,25p	RC1/4"	88	41	15	48	94	9
80/180ARTM																								
80/270ARTM																								
100/90ARTM	140	140	103	30	65	25	45	4	19	7	22	5	28	35,4	32,2	80	M10x1,5p	RC1/4"	108	40	11,5	60	120	11
100/180ARTM																								
100/270ARTM																								

Type: **ARTMC**


Item	A1	A2	B	D	E	F	G	I	J	K	L	M1	M2	N	P	Q	R	S	T	U	V	W	ØX
50/90ARTMC	79	78	48	50,5	12	25	3	4	52,7	5	13,5	29	18	37,7	50	M6x1,0p	RC1/8"	60	20	11	34	66	6,5
50/180ARTMC																							
50/270ARTMC																							
63/90ARTMC	98	98	52	59	15	28	3	5	56,4	5	17	31,9	22,2	37,7	60	M8x1,25p	RC1/8"	75	25	14	39	83	9
63/180ARTMC																							
63/270ARTMC																							
80/90ARTMC	110	110	60	68,5	17	30	3	5	58,9	5	19	33	30	39,2	70	M8x1,25p	RC1/4"	88	36	15	48	94	9
80/180ARTMC																							
80/270ARTMC																							
100/90ARTMC	140	140	80	76,5	25	45	4	7	62,9	5	28	39,4	32,2	39,2	90	M10x1,5p	RC1/4"	108	40	11,5	60	120	11
100/180ARTMC																							
100/270ARTMC																							

Standard executions

Version	Code	Item
Bore 10 mm (x2)	075581	10ARC
Bore 12 mm (x2)	075582	12ARC
Bore 15 mm (x2)	073063	15ARC
Bore 18 mm (x2)	073064	18ARC
Bore 20 mm (x2)	073065	20ARC
Bore 25 mm (x2)	073066	25ARC
Bore 28 mm (x2)	075583	28ARC
Bore 32 mm (x2)	075584 <i>New</i>	32ARC
Bore 40 mm (x2)	075585 <i>New</i>	40ARC
Bore 50 mm (x2)	075586 <i>New</i>	50ARC
Bore 63 mm (x2)	075587 <i>New</i>	63ARC



Options

Options	Suffix
With hydraulic shock absorbers	D

How to choose the shock absorber

Rotary actuator	Cushioning capability max (kgf.m)
15ARC	3
18ARC	6
20ARC	6
25ARC	20
28ARC	59
32ARC	59
40ARC	147
50ARC	147
63ARC	147

Series of rotary actuators with double rack with rotation angles 90°-180° and adjustment angle from 0°+90°.

They are standard magnetic provided with grooves on the body allowing the direct mounting of the magnetic reed switches. The mechanical stoppers are standard; the hydraulic shock absorbers can be supplied on request.

For the magnetic reed switches type ASC see from page 1.110.1

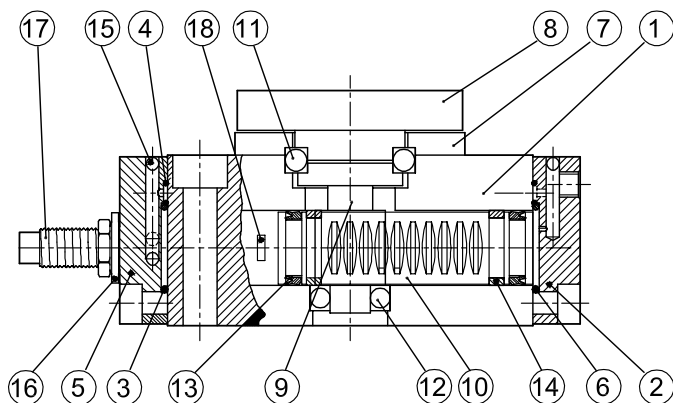
How to order: 20ARCD

20	ARC	D
Bore	Item	Option

Technical data

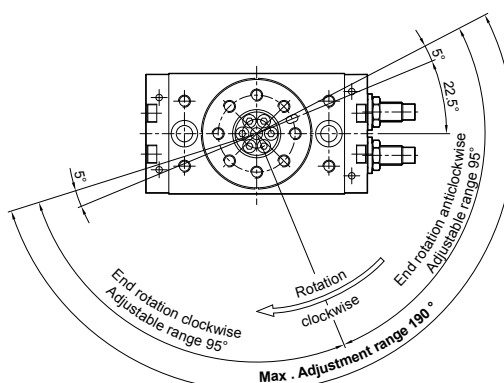
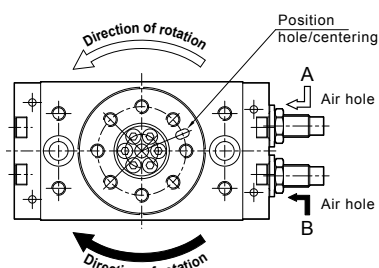
Type	10	12	15	18	20	25	28	32	40	50	63
Bore	Ø 10	Ø 12	Ø 15	Ø 18	Ø 20	Ø 25	Ø 28	Ø 32	Ø 40	Ø 50	Ø 63
Fluid	Compressed filtered air with or without lubrication. Lubrication, if started, must be continued.										
Pressure range	1,5 ÷ 7 bar										
Temperature range	0° C ÷ + 50° C										
Rotation angle	180°										
Adjustment angle	0° ÷ 190°										
Rotation moments (Nm)	0,3	0,6	1,5	2,2	3,2	5,5	7,5	9,8	19	31	45
Ports	M3		M5		1/8"						
Weight (g)	150	250	530	990	1290	2100	2890	4100	7650	8960	11170

Materials

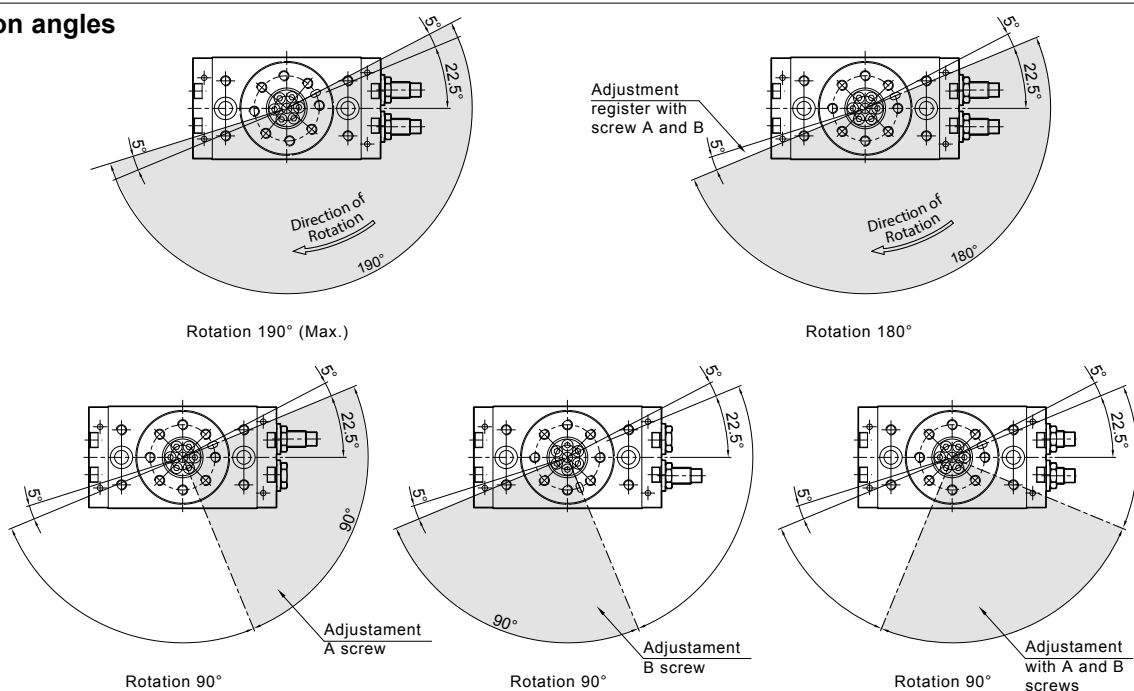


N.	Component	Material
1	Body	Anodised aluminium
2	Front head	Anodised aluminium
3	O-Ring	NBR
4	O-Ring	NBR
5	Rear head	Anodised aluminium
6	O-Ring	NBR
7	Bearings cover	Anodised aluminium
8	Rotating plate	Anodised aluminium
9	Piston rod	Hardened steel
10	Rack	Stainless steel
11	Spherical bearing	Steel
12	Spherical bearing	Steel
13	Piston seal	NBR
14	Washer	Plastic material
15	Ball	Steel alloy
16	Limit switch seal	NBR
17	Mechanical stopper	Steel alloy
18	Magnet	Metal

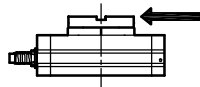
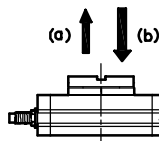
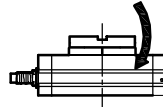
Direction and rotation angle



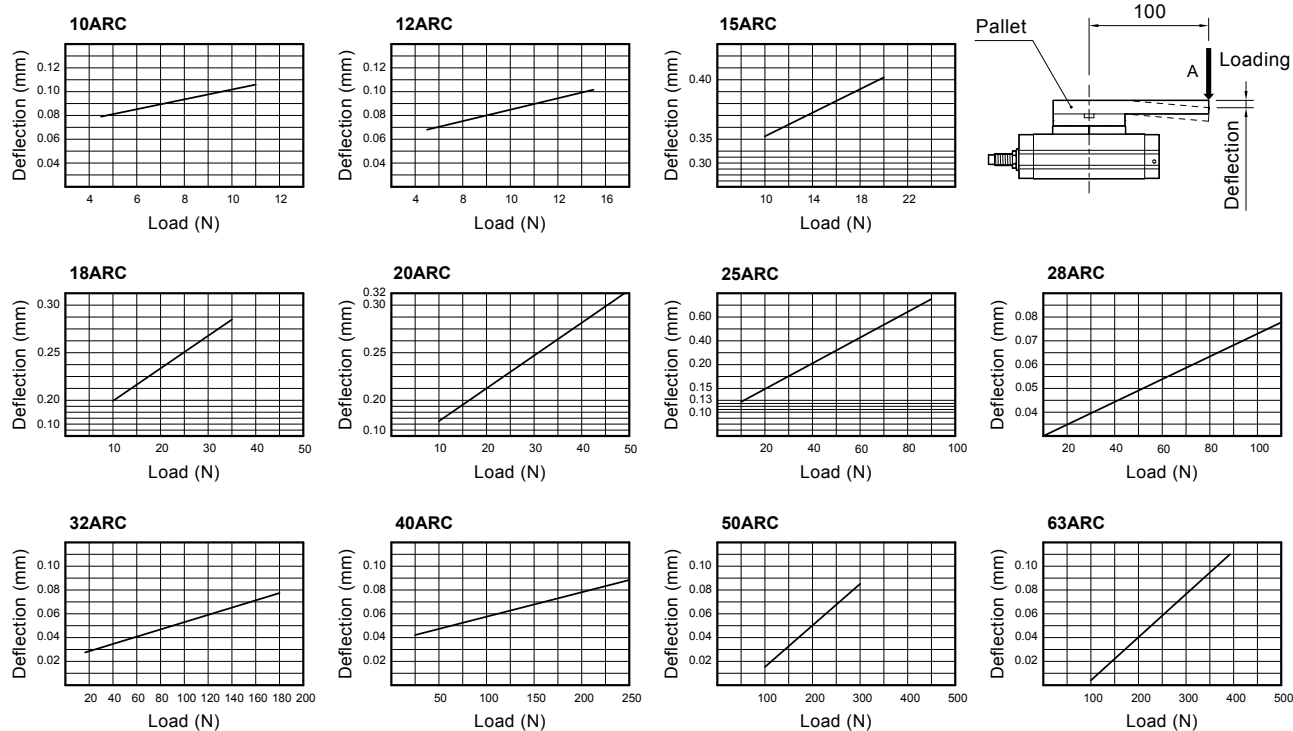
Rotation angles

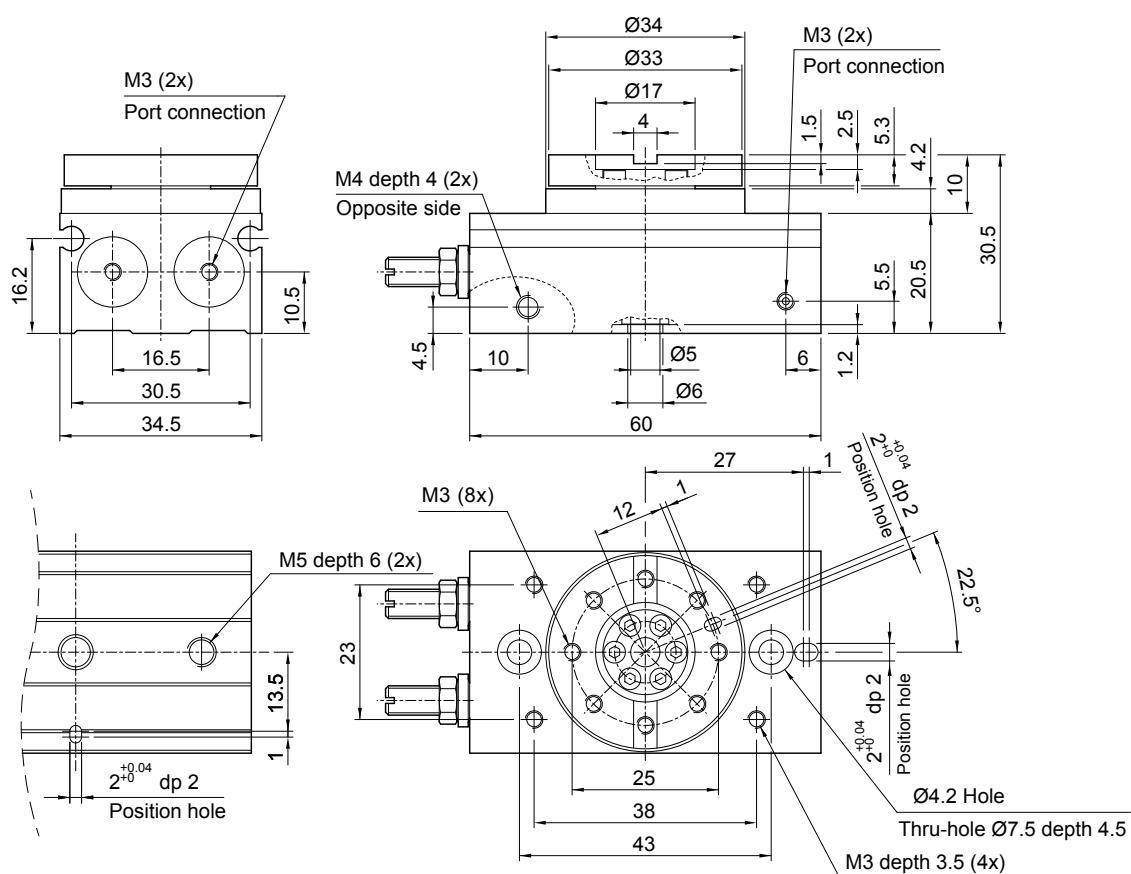


Possible loads

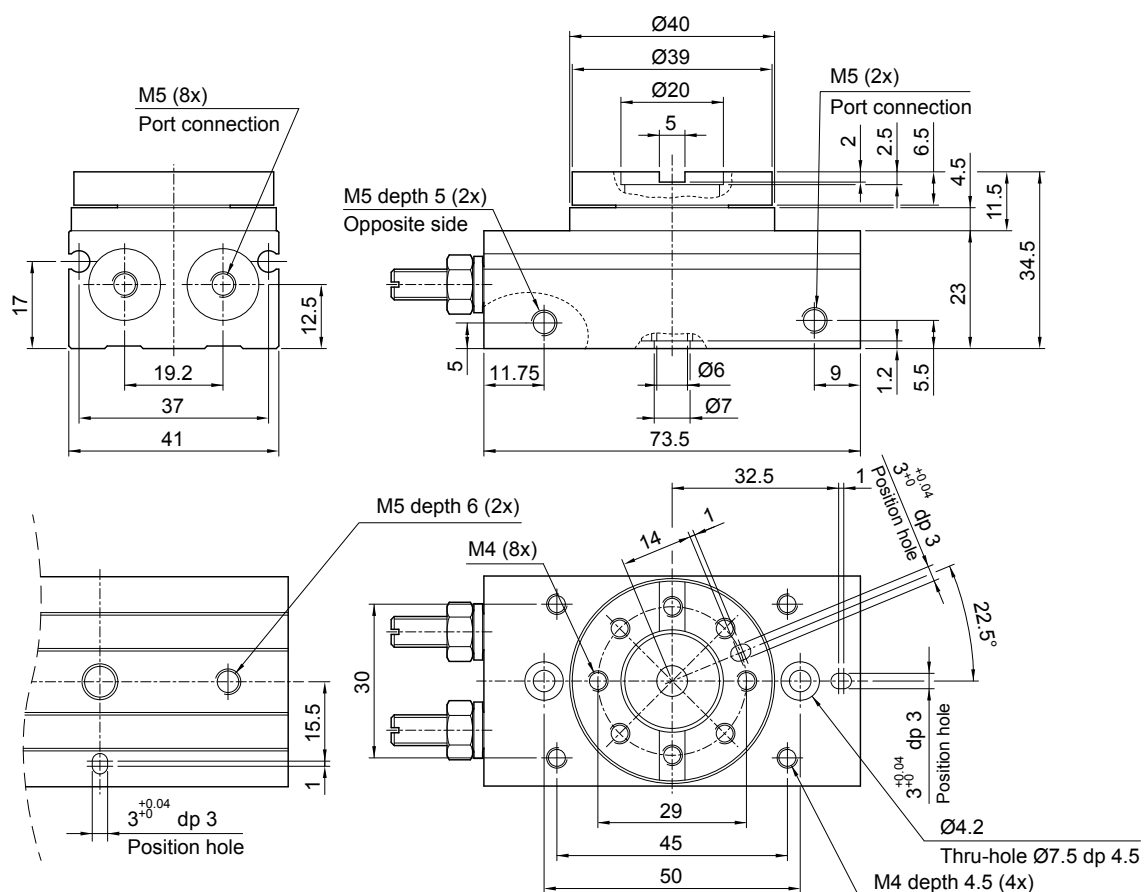
Type	Kind of loads					
			Top (N)			Torque moment (N)
			(a)	(b)		
Load	Side (N)					
10ARC	33	48	48	1,1		
12ARC	54	71	71	1,5		
15ARC	70	78	74	2		
18ARC	140	130	130	3,5		
20ARC	185	188	358	4,8		
25ARC	300	285	442	9		
28ARC	333	296	476	12		
32ARC	390	493	706	18		
40ARC	543	740	1009	25		
50ARC	850	950	1500	30		
63ARC	1200	1400	2100	38		

Transverse load and Deflection

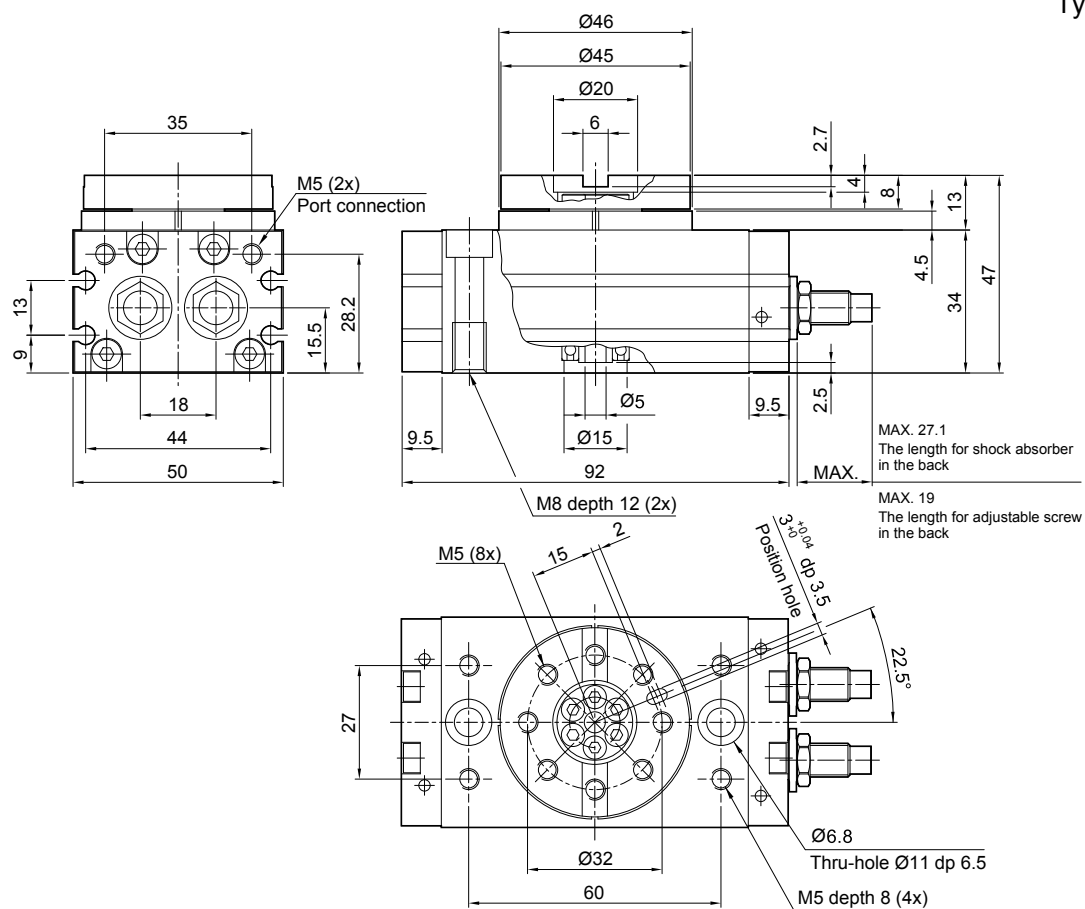
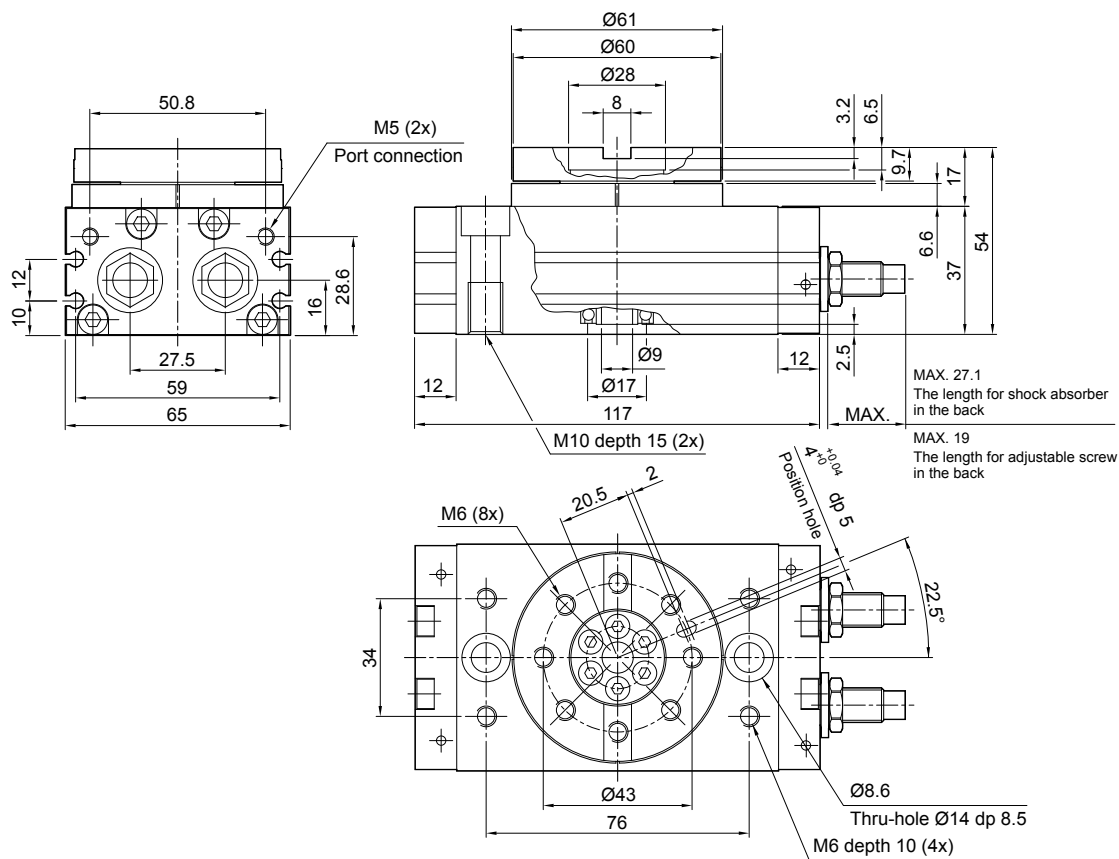


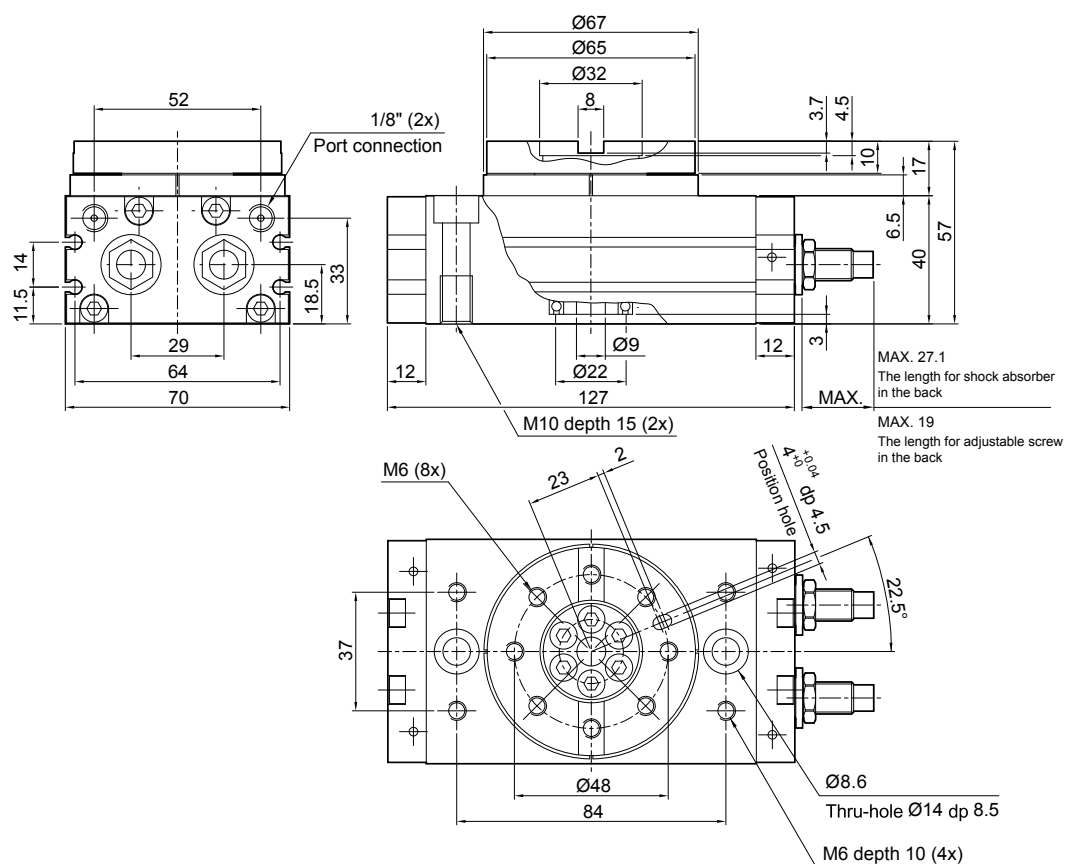
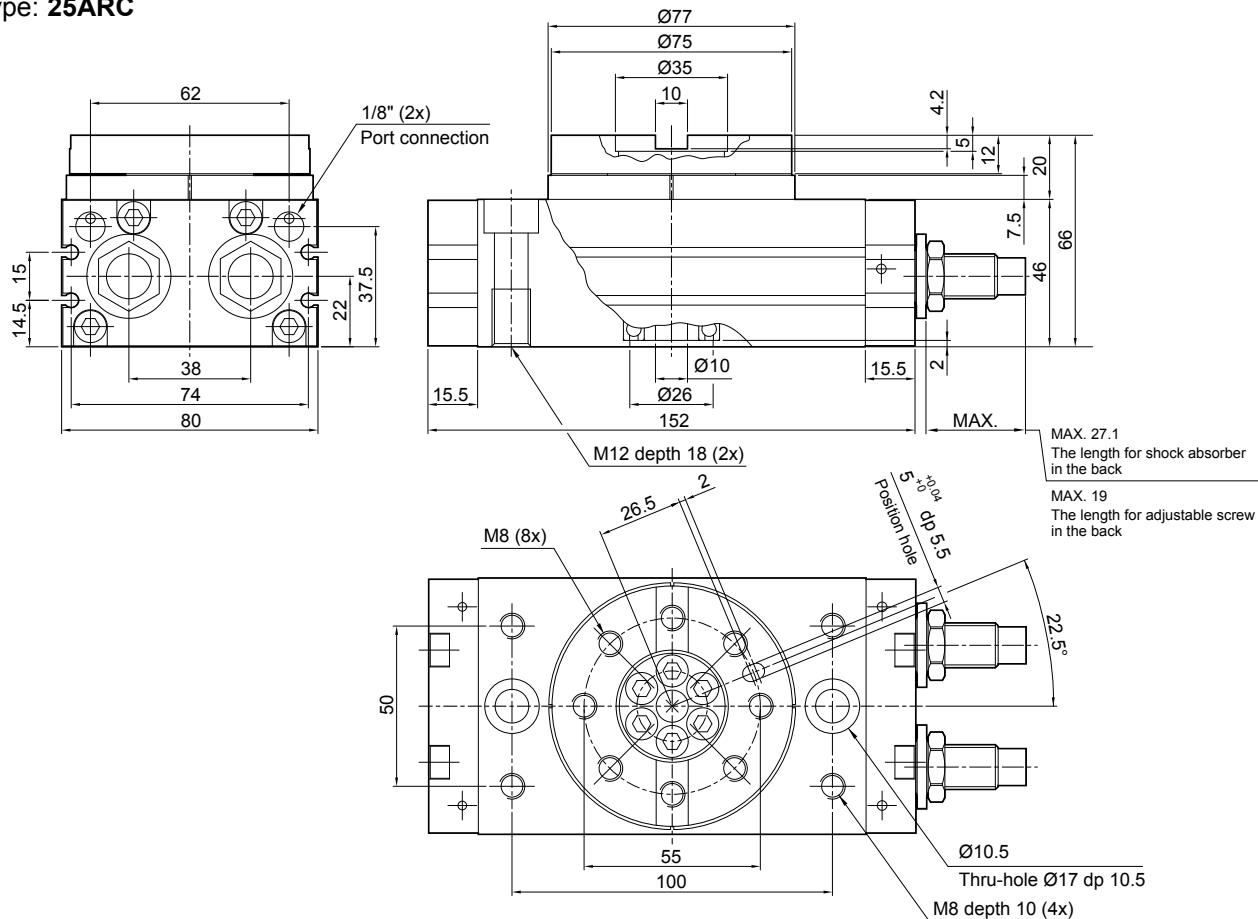
Type: **10ARC**

Type: 12ARC

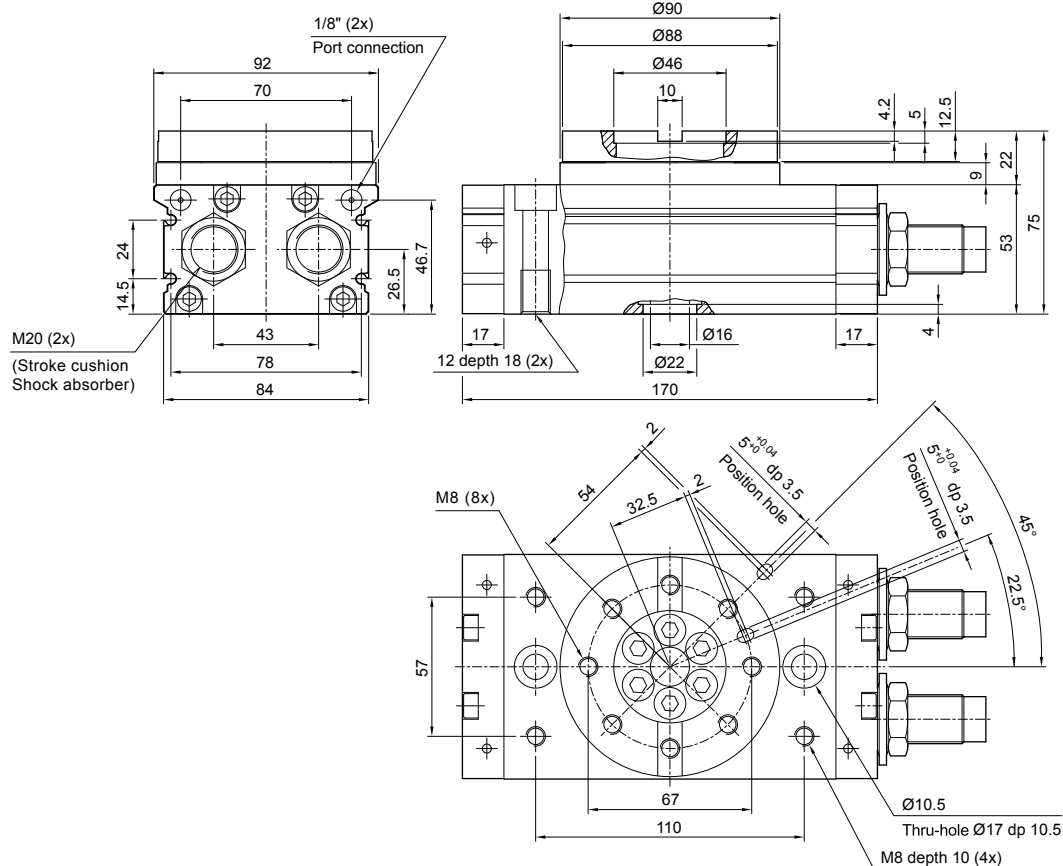


Type: 15ARC

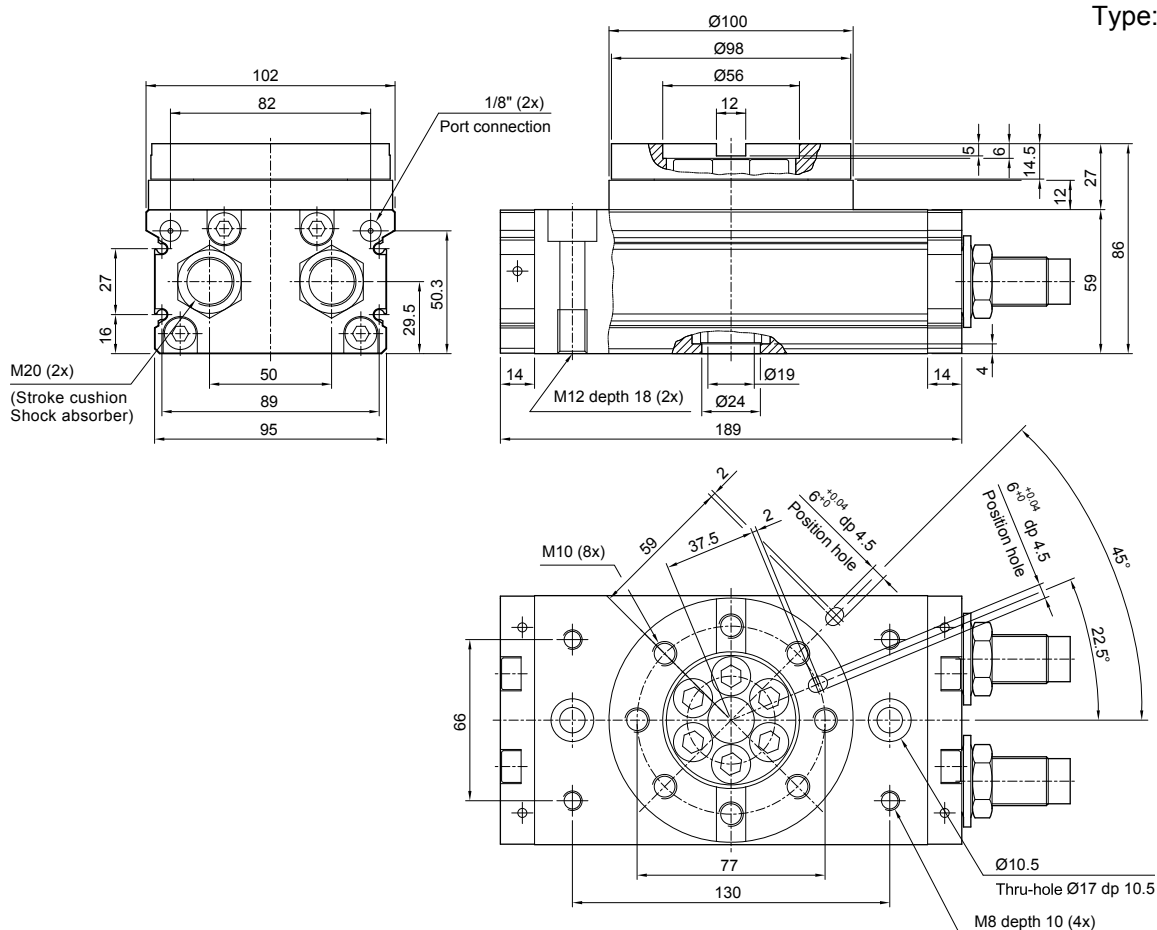
Type: **18ARC**

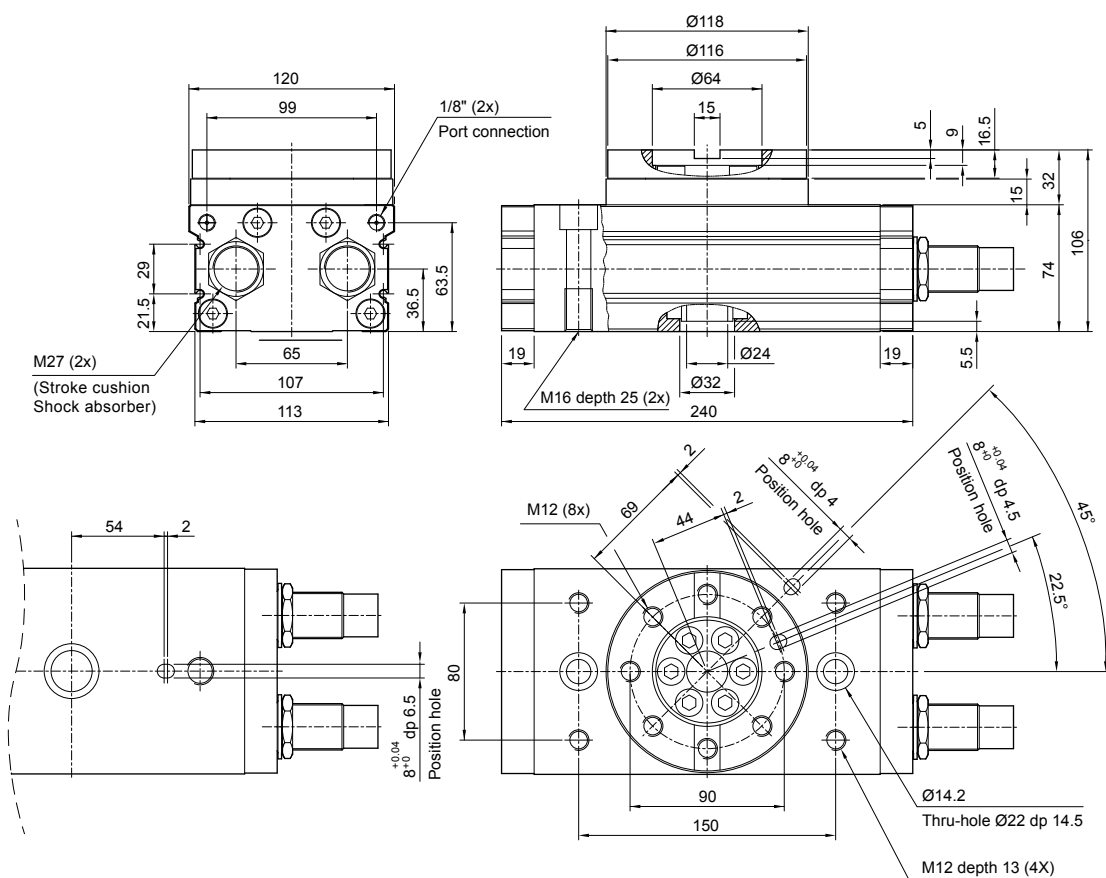
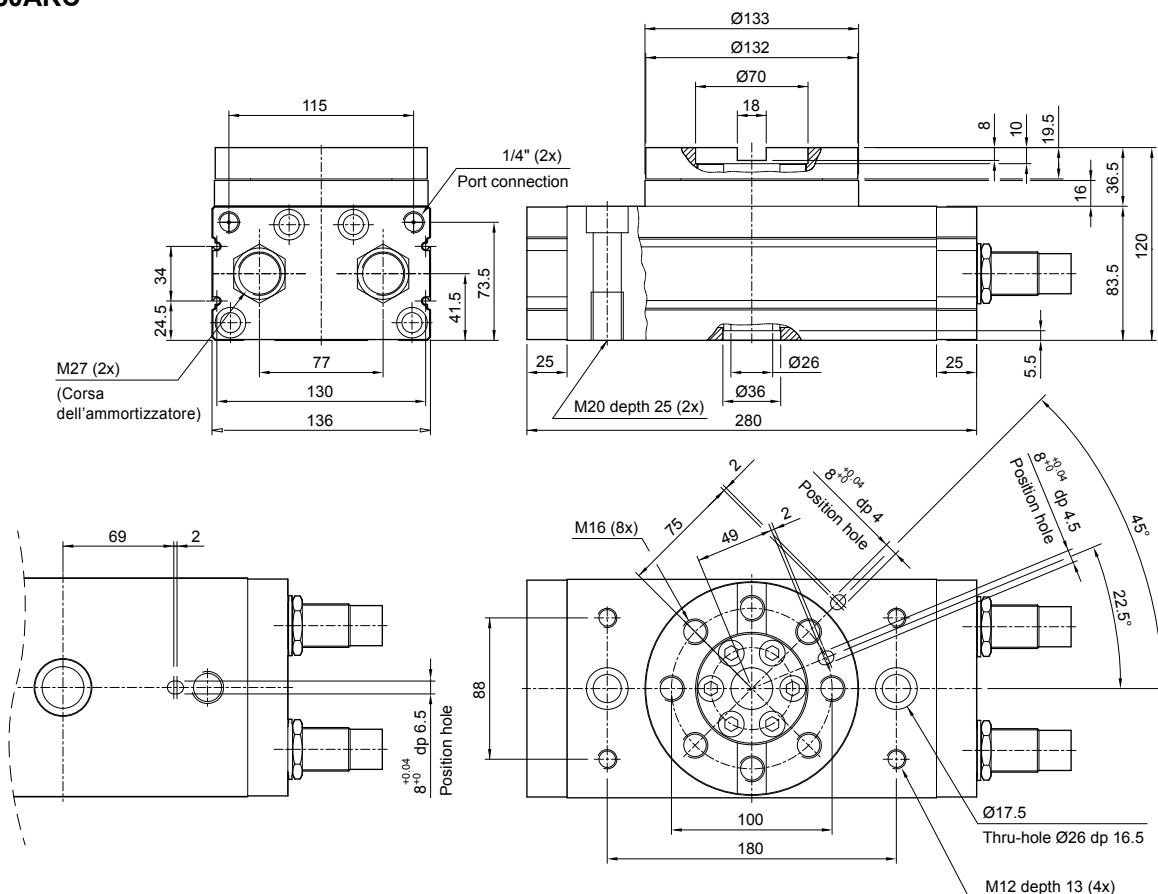
Type: **20ARC**Type: **25ARC**

Type: **28ARC**

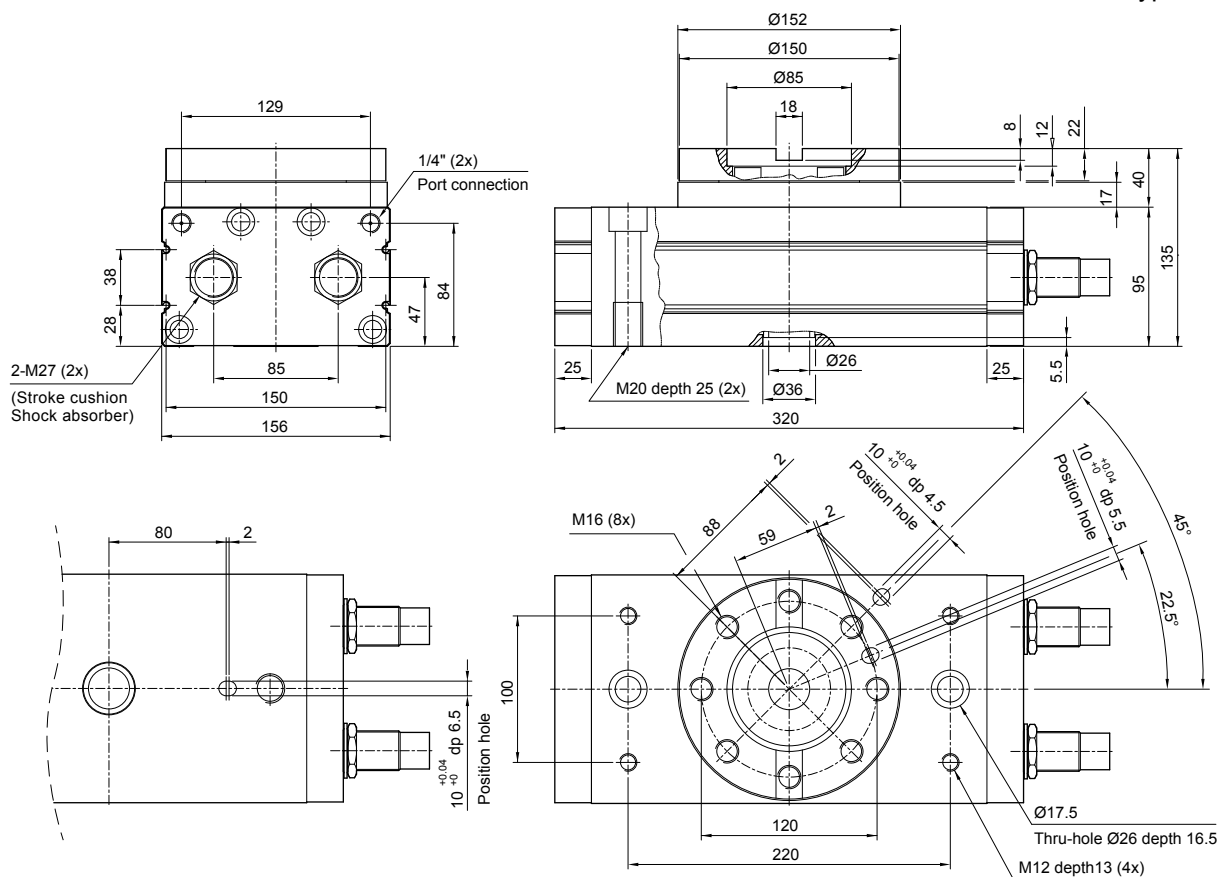


Type: **32ARC**



Type: **40ARC**Type: **50ARC**

Type: **63ARC**



Esecuzioni standard

Version	Code	Item
Bore 15 mm (x2), 90°	073071	15/90ARP
Bore 18 mm (x2), 90°	073072	18/90ARP
Bore 20 mm (x2), 90°	073073	20/90ARP
Bore 25 mm (x2), 90°	073074	25/90ARP
Bore 28 mm (x2), 90°	075588 <i>New</i>	28/90ARP
Bore 32 mm (x2), 90°	075589 <i>New</i>	32/90ARP
Bore 15 mm (x2), 180°	073079	15/180ARP
Bore 18 mm (x2), 180°	073080	18/180ARP
Bore 20 mm (x2), 180°	073081	20/180ARP
Bore 25 mm (x2), 180°	073082	25/180ARP
Bore 28 mm (x2), 180°	075590 <i>New</i>	28/180ARP
Bore 32 mm (x2), 180°	075591 <i>New</i>	32/180ARP



Options	Suffix
With hydraulic shock absorbers	D

How to choose the shock absorber

Rotary actuator	Cushioning capability max (kgf.m)
15ARP	3
18ARP	6
20ARP	6
25ARP	20
28ARP	59
32ARP	59

Series of rotary actuators with piston and external mechanical stoppers.

Rotation angles 90°-180°.

They are standard magnetic provided with grooves on the body allowing the direct mounting of the magnetic reed switches.

The mechanical stoppers are standard; the hydraulic shock absorbers can be supplied on request.

For the magnetic reed switches type ASC see from page 1.110.1

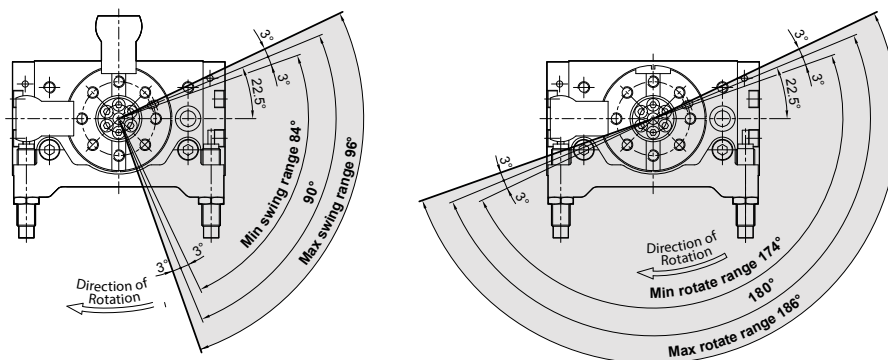
How to order: 20ARCD

20	/	90	ARP	D
Bore	/	Rotation	Item	Option

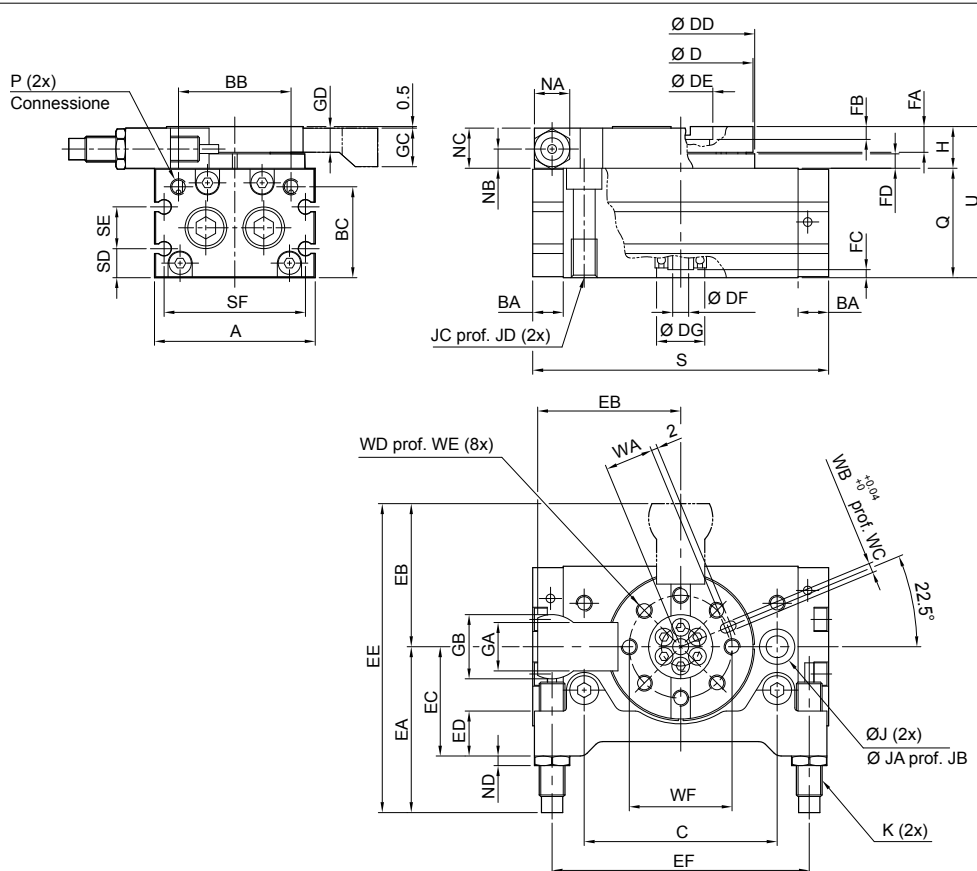
Technical data

Type	15	18	20	25	28	32
Bore	Ø 15	Ø 18	Ø 20	Ø 25	Ø 28	Ø 32
Fluid	Compressed filtered air with or without lubrication. Lubrication, if started, must be continued.					
Pressure range	1,5 ÷ 7 bar					
Temperature range	0° C ÷ + 50° C					
Rotation angle	90° - 180°					
Adjustment angle	10°					
Rotation moments (Nm)	1,5	2,2	3,2	5,5	7,5	9,8
Ports	M5			1/8"		
Weight (g)	90°	630	1200	1520	2480	3390
	180°	600	1140	1450	2370	3210

Rotation angles



Dimensions



Type	A	BA	BB	BC	C	D	DD	DE	DF	DG	EA	EB	EC	ED	EE	EF	FA	FB	FC	FD	GA	GB	GC	GD	H
15ARP	50	9,5	35	28,2	60	45	46	20	5	15	51,6	44,5	34	14	96,1	80	8	4	2,5	4,5	15	20	12	7,5	13
18ARP	65	12	50,8	28,6	76	60	61	28	9	17	56	57	43	18	113	101	9,7	6,5	2,5	6,6	19	25	9	9,2	17
20ARP	70	12	52	33	84	65	67	32	9	22	59	62	46	18	121	110	10	4,5	3	6,5	20	28	16	9,5	17
25ARP	80	15,5	62	37,5	100	75	77	35	10	26	85	73	55	20	158	131	12	5	2	7,5	25	35	18	11,5	20
28ARP	92	17	70	46,7	110	88	90	46	16	22	86	81	55,5	35	167	141	12,5	5	4	9	28	38	19,5	11,5	22
32ARP	102	14	82	50,3	130	98	100	56	19	24	94	92,5	60	35	186,5	163	14,5	6	4	12	33	42	24,5	13,5	27

Type	J	JA	JB	JC	JD	K	NA	NB	NC	ND	P	Q	S	SD	SE	SF	U	WA	WB	WC	WD	WE	WF
15ARP	6,8	11	6,5	M8x1,25	12	M8x1	11	6	12,5	3	M5x0,8	34	92	9	13	44	47	15	3	3,5	M5x0,8	8	32
18ARP	8,6	14	8,5	M10x1,5	15	M10x1	12,7	7,5	16,5	3	M5x0,8	37	117	10	12	59	54	20,5	4	5	M6x1	10	43
20ARP	8,6	14	8,5	M10x1,5	15	M10x1	12,7	8,5	16,5	3	RC 1/8	40	127	11,5	14	64	57	23	4	4,5	M6x1	10	48
25ARP	10,5	17	10,5	M12x1,75	18	M14x1,5	19	8,5	19,5	5	RC 1/8	46	152	14,5	15	74	66	26,5	5	5,5	M8x1,25	10	55
28ARP	10,5	17	10,5	M12x1,75	18	M14x1,5	19	10	21,5	5	RC 1/8	53	170	14,5	24	78	75	32,5	5	5,5	M8x1,25	12,5	67
32ARP	10,5	17	10,5	M12x1,75	18	M20x1,5	26	11,5	26	7	RC 1/8	59	189	16	27	89	86	37,5	6	6,5	M10x1,5	14,5	77