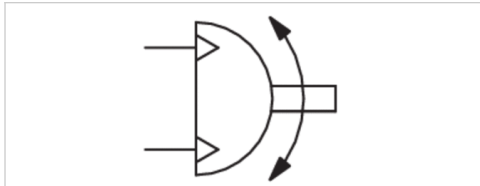


Rotary Compact Module, Series RCM-SH

- angle of rotation max. 90 180 °
- Ø 12-25 mm
- with magnetic piston
- double piston with rack
- Easy2Combine capable
- Cushioning hydraulic non-adjustable
- with air duct



Working pressure min./max.	See table below
Ambient temperature min./max.	5 ... 60 °C
Medium temperature min./max.	5 ... 60 °C
Medium	Compressed air
Max. particle size	5 µm
Oil content of compressed air	0 ... 1 mg/m ³
air duct	with air duct
Cushioning	hydraulic non-adjustable
Theoretical torque at	6 bar
Weight	See table below



Technical data

Part No.	Frame size	Compressed air connection	angle of rotation	Min. swivel times
		G		
R412000387	RCM-12	M5	0-90 °	0,3 s
R412000388	RCM-12	M5	0-180 °	0,3 s
R412000389	RCM-16	M5	0-90 °	0,32 s
R412000390	RCM-16	M5	0-180 °	0,32 s
R412000391	RCM-20	M5	0-90 °	0,48 s
R412000392	RCM-20	M5	0-180 °	0,48 s
R412000393	RCM-25	M5	0-90 °	0,6 s
R412000394	RCM-25	M5	0-180 °	0,6 s

Part No.	Working pressure min./max.	Air consumption per rotation	Weight
R412000387	2,5 ... 8 bar	5,86 cm ³	0,5 kg
R412000388	2,5 ... 8 bar	11,72 cm ³	0,5 kg
R412000389	2 ... 8 bar	10,36 cm ³	0,84 kg
R412000390	2 ... 8 bar	20,71 cm ³	0,84 kg
R412000391	2 ... 8 bar	17,92 cm ³	1,04 kg
R412000392	2 ... 8 bar	35,84 cm ³	1,04 kg

Part No.	Working pressure min./max.	Air consumption per rotation	Weight
R412000393	2 ... 8 bar	38,75 cm ³	1,95 kg
R412000394	2 ... 8 bar	77,5 cm ³	1,95 kg

Technical data

Frame size	RCM-12	RCM-16	RCM-20	RCM-25
Number of air ducts	2	4	4	4
Max. permissible axial bearing load	330 N	490 N	620 N	1160 N
Max. permissible radial bearing load	290 N	400 N	560 N	700 N
Max. permissible mass moment of inertia	10	80	180	450
Repetitive precision	0,05 °	0,05 °	0,05 °	0,05 °
Theoretical torque	0,95 Nm	1,7 Nm	3 Nm	6,5 Nm

Technical information

The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .

The oil content of compressed air must remain constant during the life cycle.

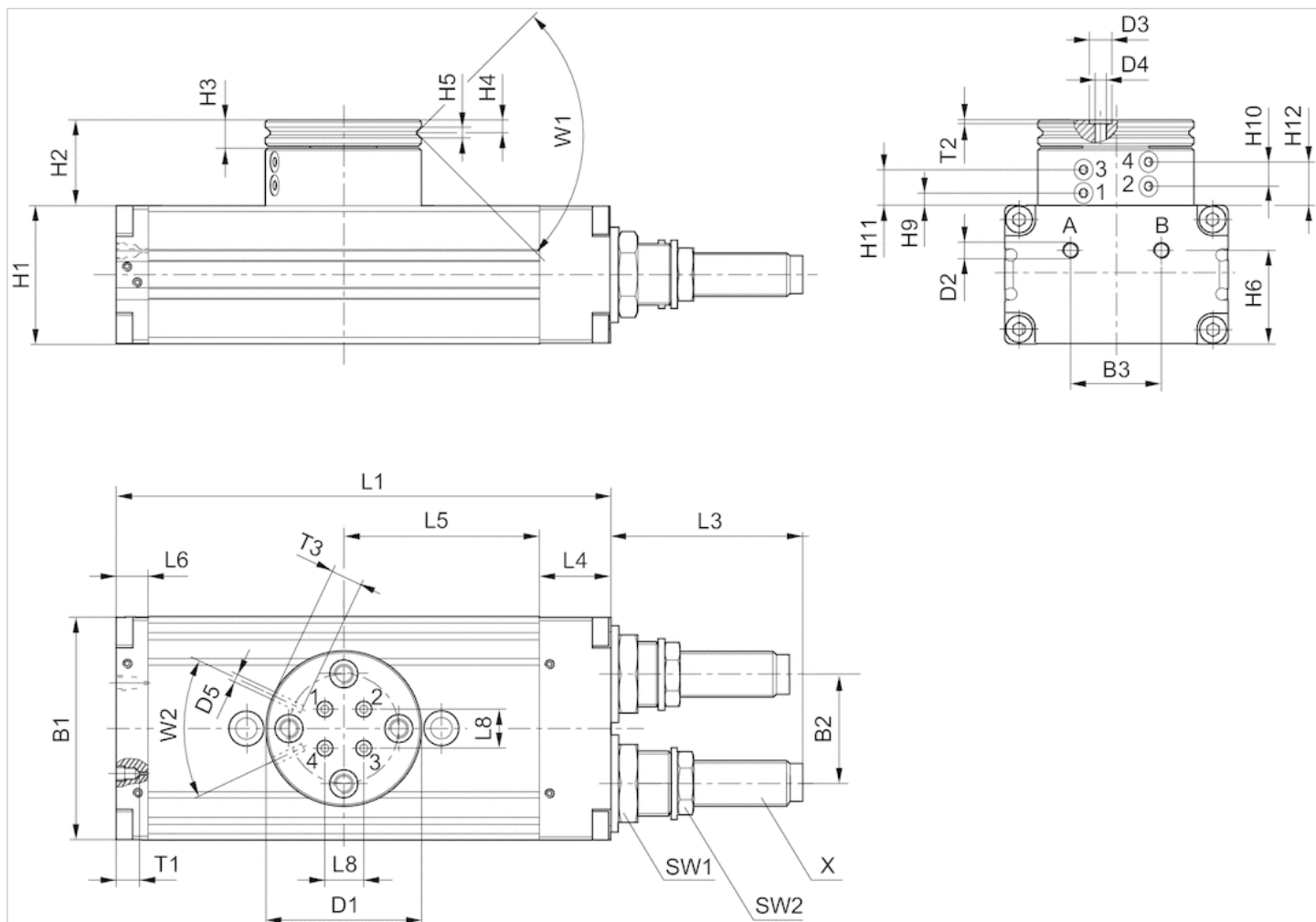
Use only the approved oils from AVENTICS. Further information can be found in the "Technical information" document (available in the MediaCentre).

Technical information

Material	
Housing	Aluminum, anodized
Cap	Aluminum, black anodized
Base	Aluminum, black anodized
Seal	Acrylonitrile butadiene rubber
Axis	Steel, hardened
Rotary flange	Steel, hardened

Dimensions

RCM-16/.../-25



T1 = depth of thread

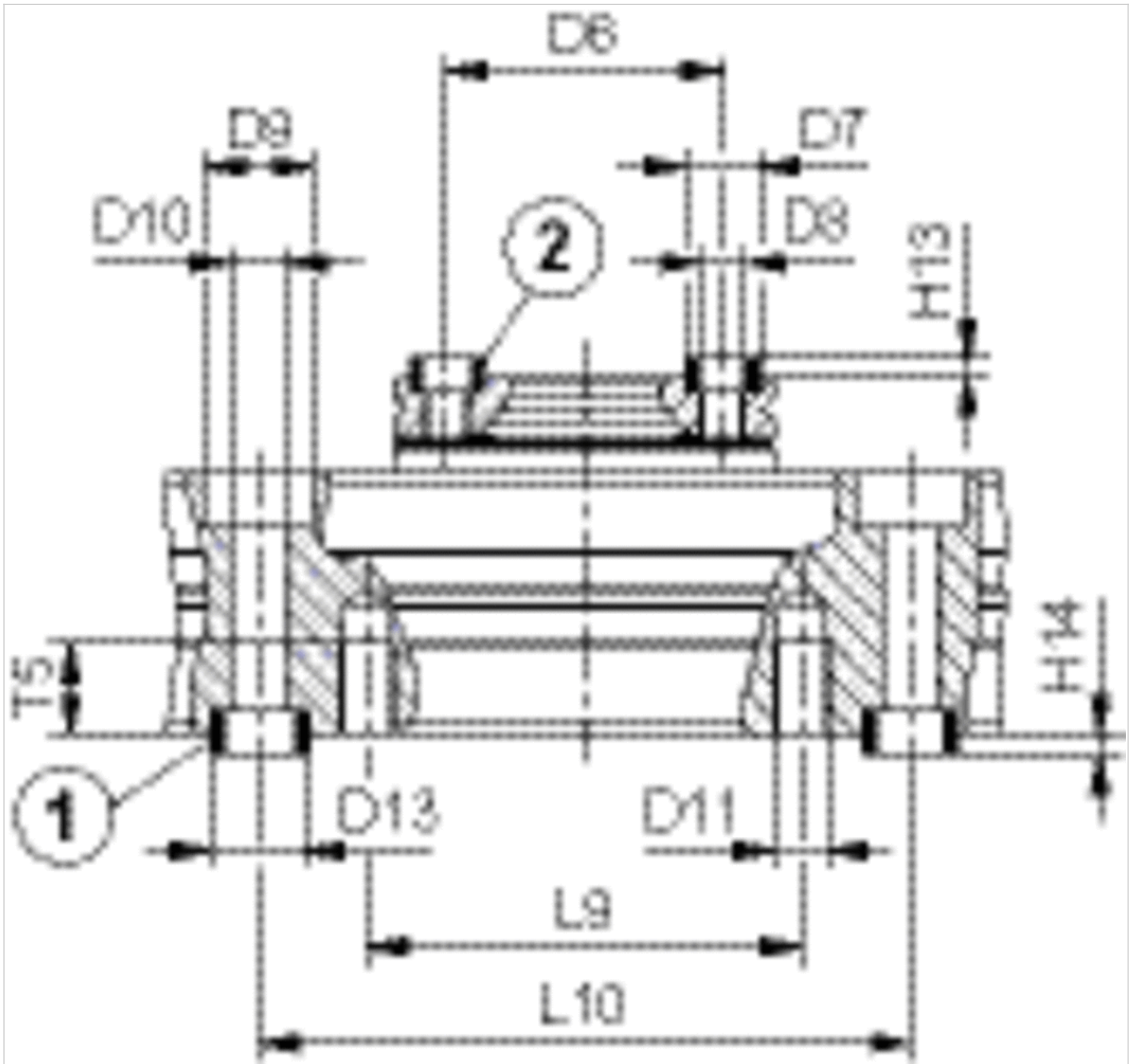
Dimensions

Frame size	B1	B2	B3	Ø D1	Ø D2	Ø D3	Ø D4	Ø D5	H1	H2	H3	H4	H5	H6	H9±0,2	H10±0,2
RCM-16	52	24	20	40	M5	5	2.5	M3	32	25.5	7	3.3	2.5	21	3.9	6.5
RCM-20	58	30	20	42	M5	5	2.5	M3	37	26	7	3.3	3	26	4.4	7
RCM-25	69	34	28	48	M5	5	2.5	M3	43	26.5	8	4	3	29	3.9	6.5

Frame size	H11±0,2	H12±0,2	L1	L3	L4	L5	L6	L8	SW1	SW2	T1	T2	T3	W1	W2	X
RCM-16	11.1	13.7	108	34	18	40	10	6	19	13	4	0.7	4	90°	50°	M10x1
RCM-20	11.6	14.2	114	48.5	19	43	9	10	19	15	4	0.7	4	90°	50°	M12x1
RCM-25	11.1	13.7	153	60	22	60.5	10	12	23	17	4	0.7	4	90°	50°	M14x1,5

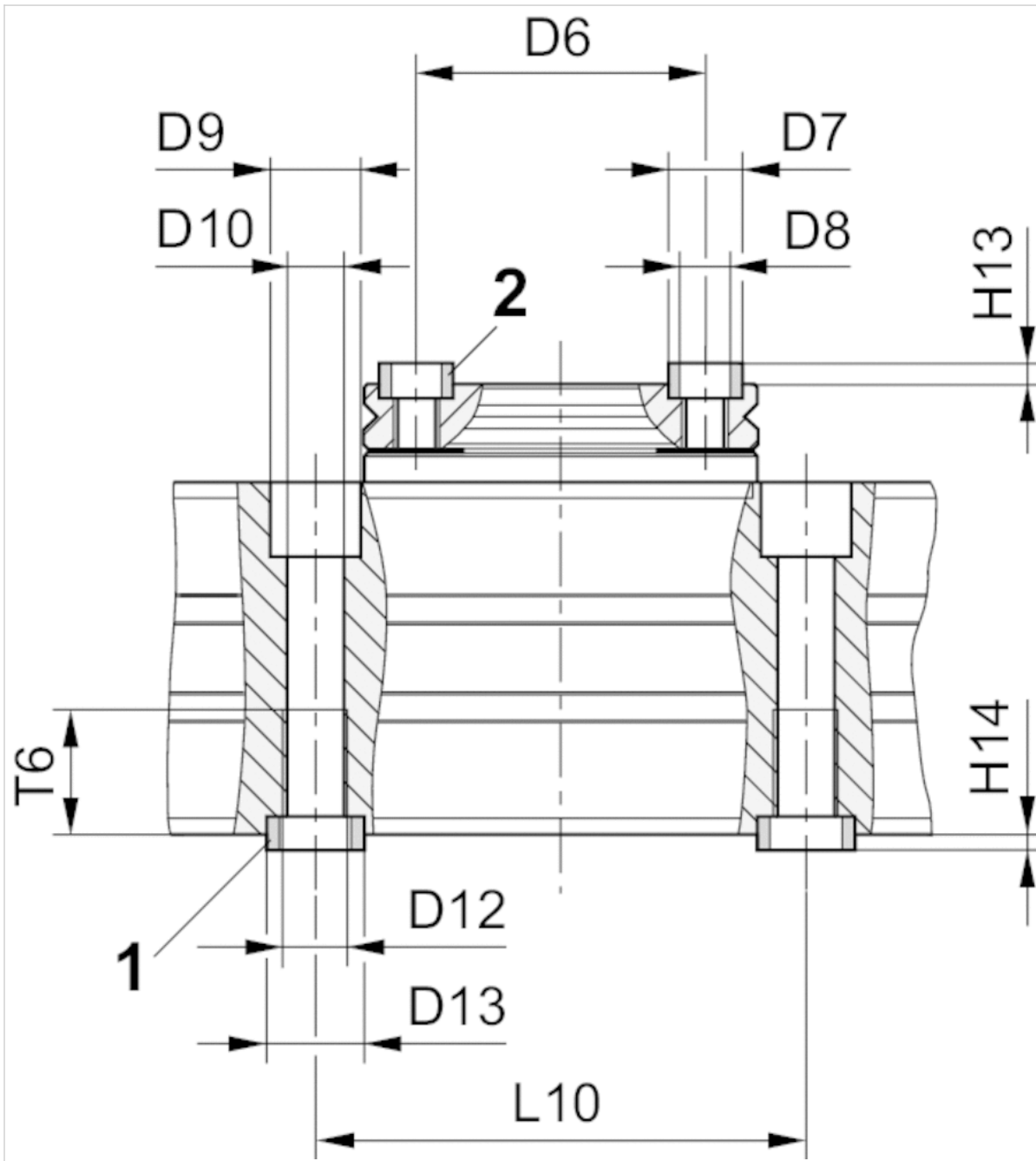
Dimensions

Mounting and assembly RCM-12



1) centering sleeve, included in the scope of delivery 2) centering sleeve

Mounting and assembly RCM-16/.../-25



1) centering sleeve, included in the scope of delivery 2) centering sleeve

Dimensions

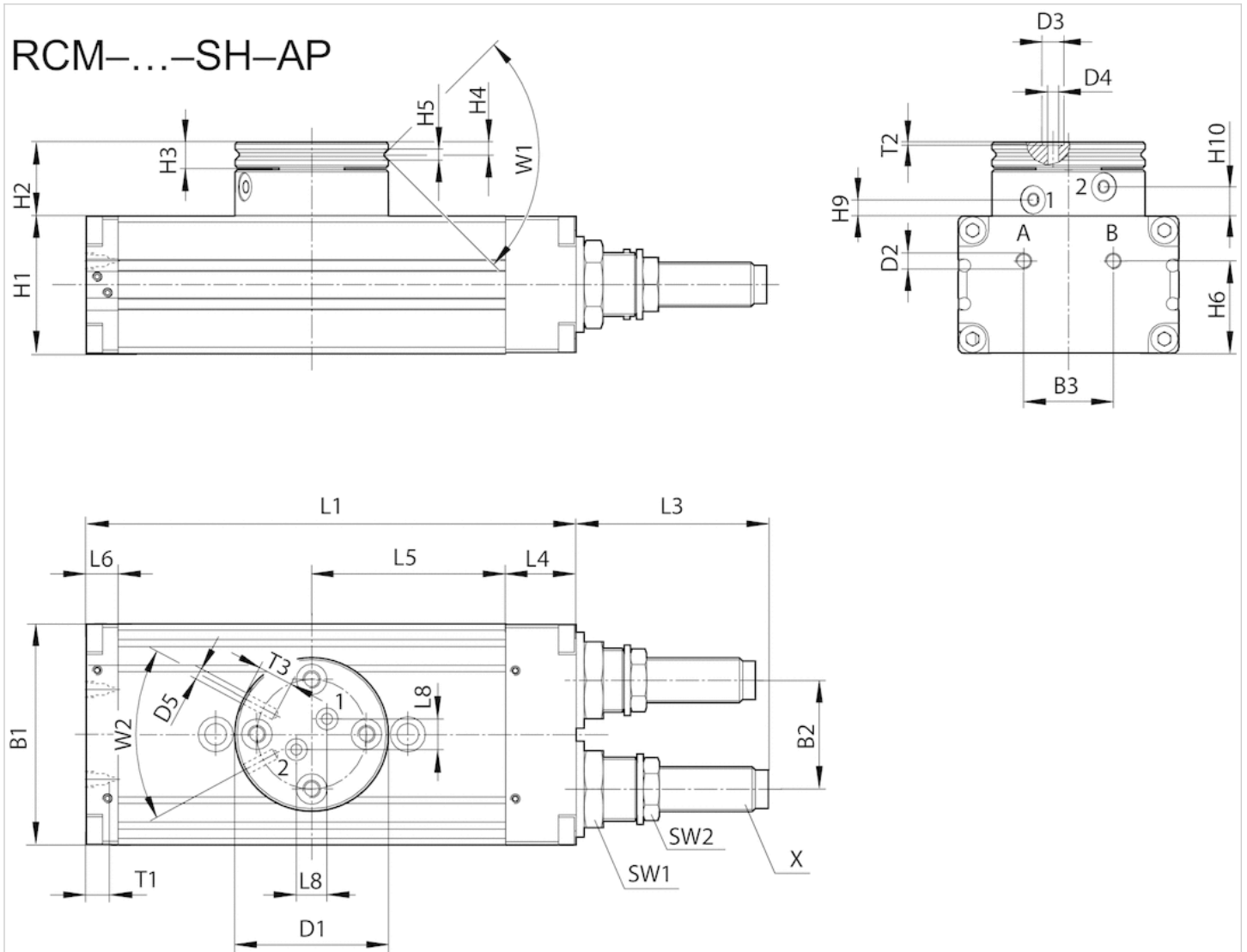
Frame size	Ø D6 ±0,02	Ø D7 k6	Ø D8	Ø D9	Ø D10	Ø D11	Ø D12	Ø D13 k6	H13 +0,2
RCM-12	25	7	M4	10	5.1	M5	-	9	1.6
RCM-16	30	7	M5	10	5	-	M6	9	1.6
RCM-20	30	7	M5	11	6.8	-	M8	12	1.6
RCM-25	35	9	M6	11	6.8	-	M8	12	2.1

Frame size	H14 +0,2	L9	L10 ±0,02	T5	T6
RCM-12	2.1	40	60	8.5	-
RCM-16	2.1	-	60	-	11.1

Frame size	H14 +0,2	L9	L10 ±0,02	T5	T6
RCM-20	2.1	-	60	-	15.1
RCM-25	2.1	-	60	-	15.1

Dimensions

RCM-12



T1 = depth of thread

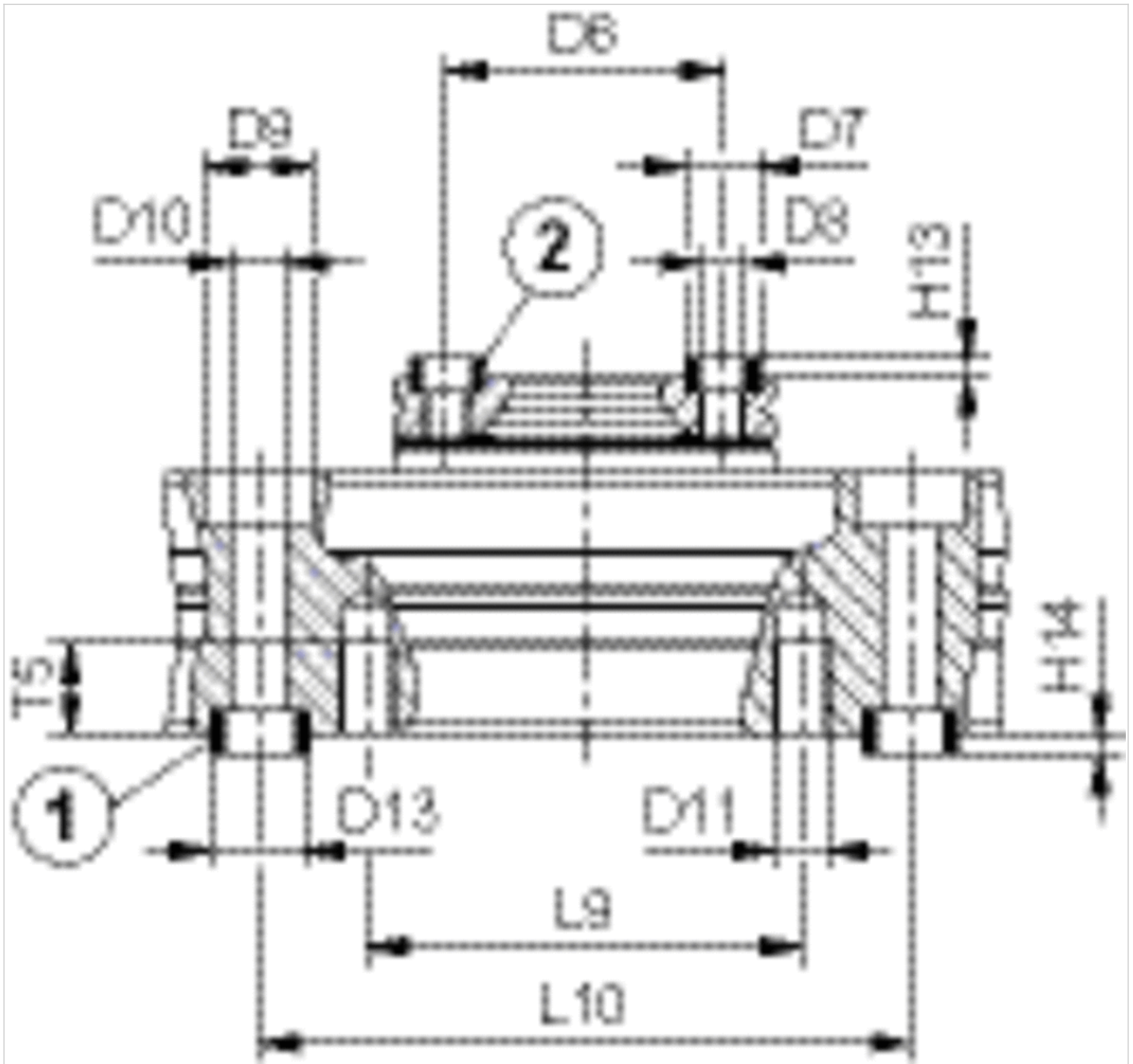
Dimensions

Frame size	B1	B2	B3	Ø D1	Ø D2	Ø D3	Ø D4	Ø D5	H1	H2	H3	H4	H5	H6	H9±0,2	H10±0,2	L1
RCM-12	43	18	18	35	M5	5	2.5	M3	24	17	6	2.9	2.5	18	3.8	6.7	103

Frame size	L3	L4	L5	L6	L8	SW1	SW2	T1	T2	T3	W1	W2	X
RCM-12	33.5	14	40	9	7	15	11	4	0.7	4	90°	56°	M8x1

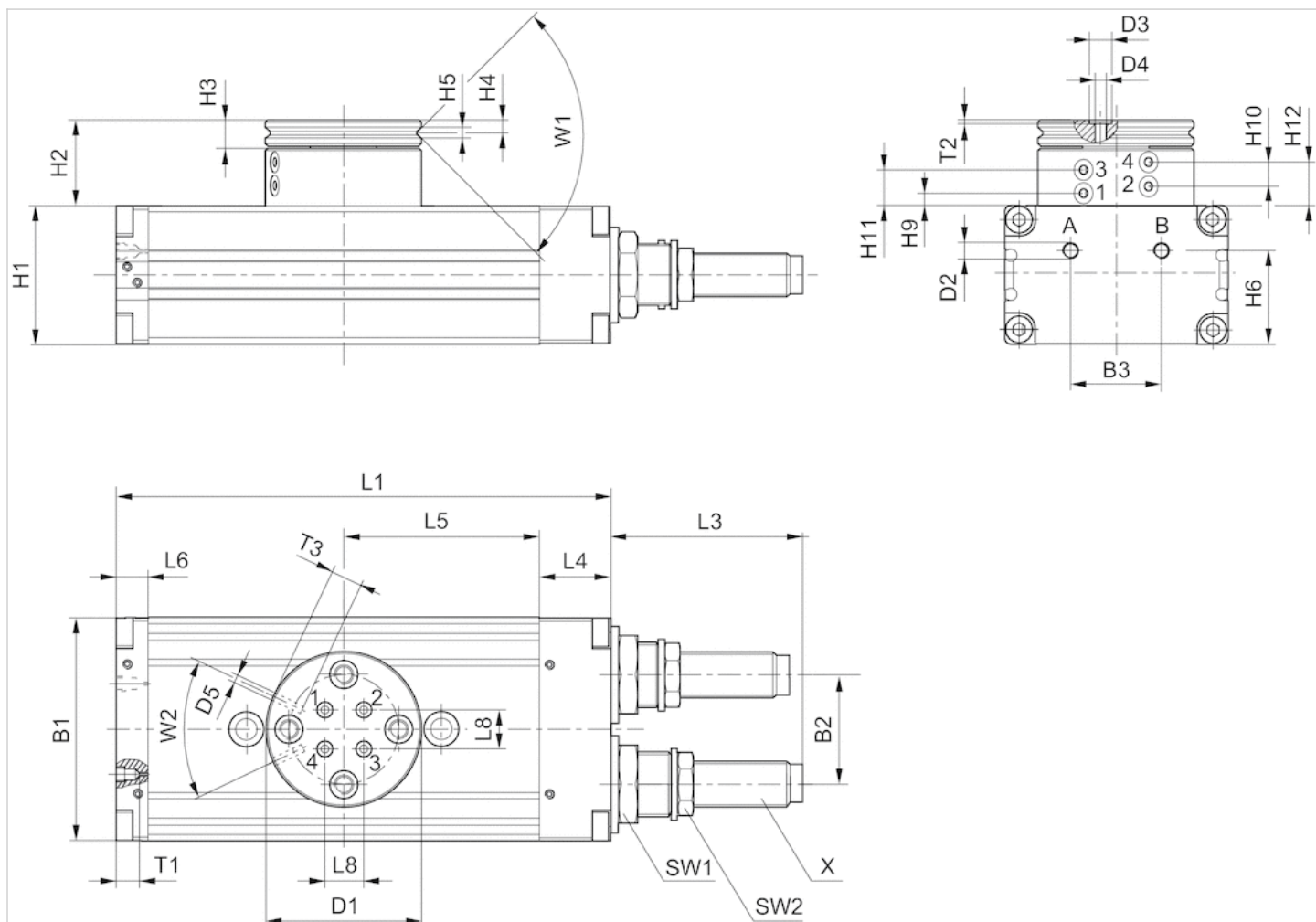
Dimensions

Mounting and assembly RCM-12



1) centering sleeve, included in the scope of delivery 2) centering sleeve

RCM-16/.../-25



T1 = depth of thread

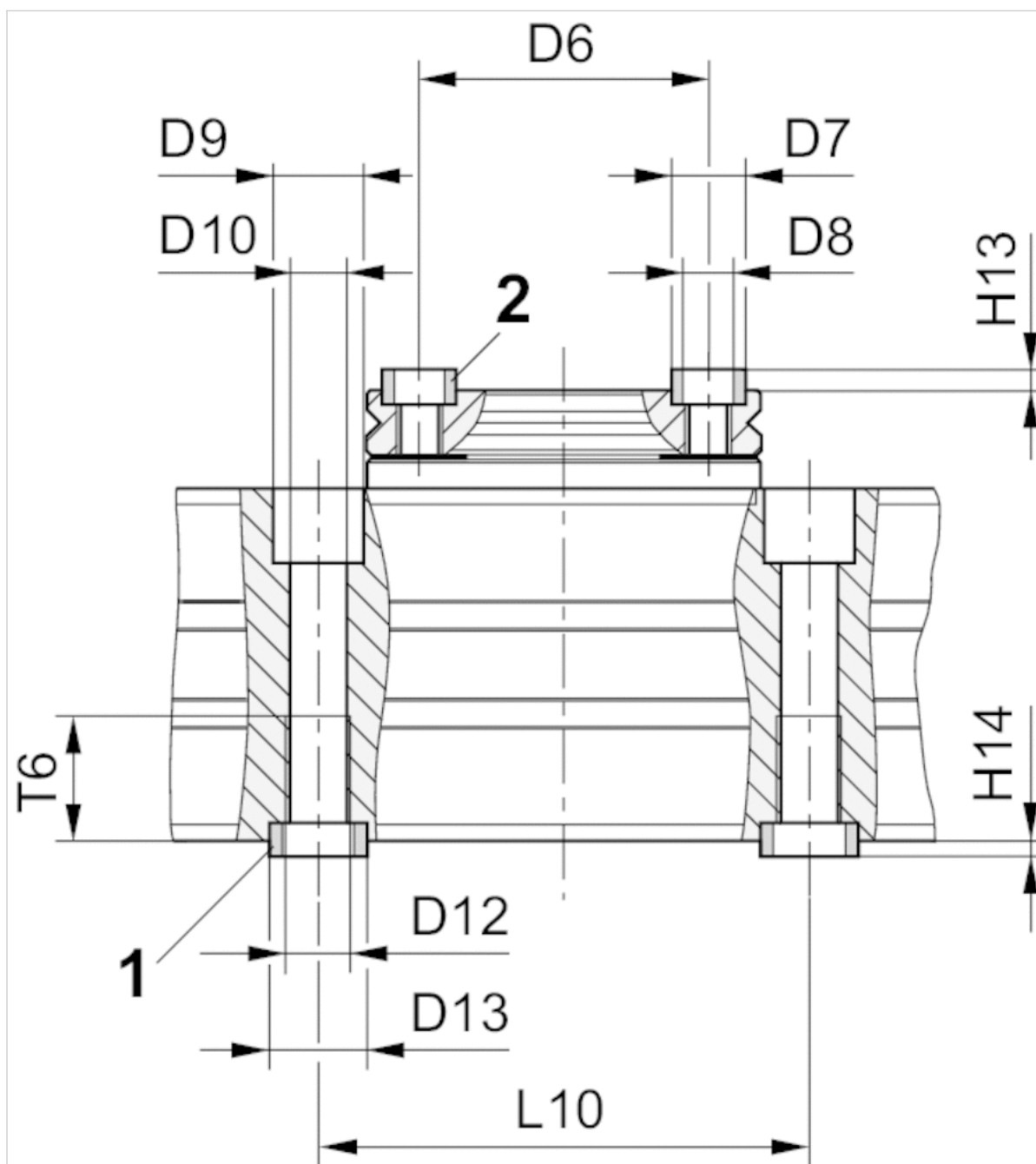
Dimensions

Frame size	B1	B2	B3	Ø D1	Ø D2	Ø D3	Ø D4	Ø D5	H1	H2	H3	H4	H5	H6	H9±0,2	H10±0,2
RCM-16	52	24	20	40	M5	5	2.5	M3	32	25.5	7	3.3	2.5	21	3.9	6.5
RCM-20	58	30	20	42	M5	5	2.5	M3	37	26	7	3.3	3	26	4.4	7
RCM-25	69	34	28	48	M5	5	2.5	M3	43	26.5	8	4	3	29	3.9	6.5

Frame size	H11±0,2	H12±0,2	L1	L3	L4	L5	L6	L8	SW1	SW2	T1	T2	T3	W1	W2	X
RCM-16	11.1	13.7	108	34	18	40	10	6	19	13	4	0.7	4	90°	50°	M10x1
RCM-20	11.6	14.2	114	48.5	19	43	9	10	19	15	4	0.7	4	90°	50°	M12x1
RCM-25	11.1	13.7	153	60	22	60.5	10	12	23	17	4	0.7	4	90°	50°	M14x1,5

Dimensions

Mounting and assembly RCM-16/.../-25



1) centering sleeve, included in the scope of delivery 2) centering sleeve

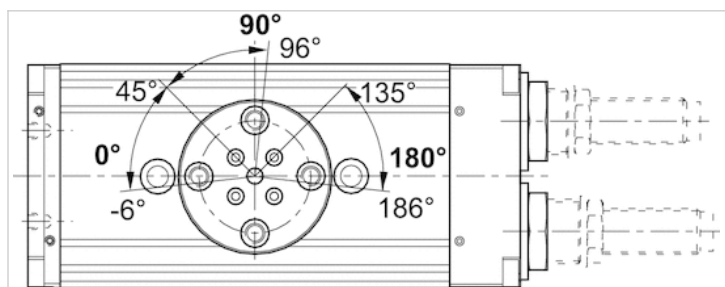
Dimensions

Frame size	Ø D6 ±0,02	Ø D7 k6	Ø D8	Ø D9	Ø D10	Ø D11	Ø D12	Ø D13 k6	H13 +0,2
RCM-12	25	7	M4	10	5.1	M5	-	9	1.6
RCM-16	30	7	M5	10	5	-	M6	9	1.6
RCM-20	30	7	M5	11	6.8	-	M8	12	1.6
RCM-25	35	9	M6	11	6.8	-	M8	12	2.1

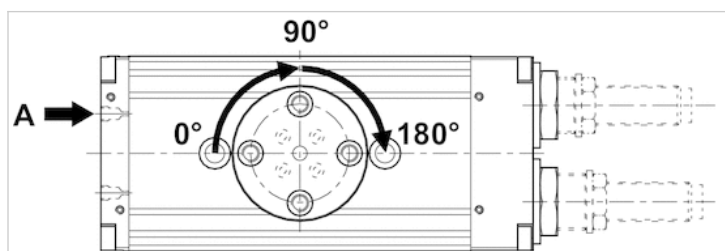
Frame size	H14 +0,2	L9	L10 ±0,02	T5	T6
RCM-12	2.1	40	60	8.5	–
RCM-16	2.1	–	60	–	11.1
RCM-20	2.1	–	60	–	15.1
RCM-25	2.1	–	60	–	15.1

Diagrams

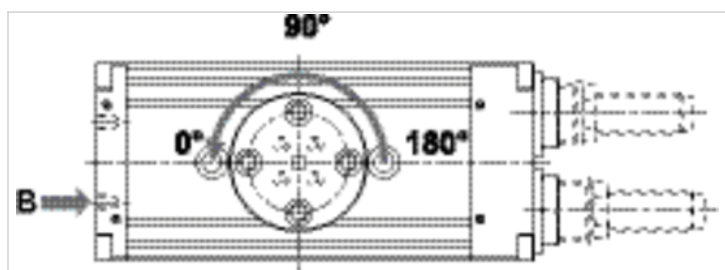
Setting range for end positions 0° / 90° / 180°



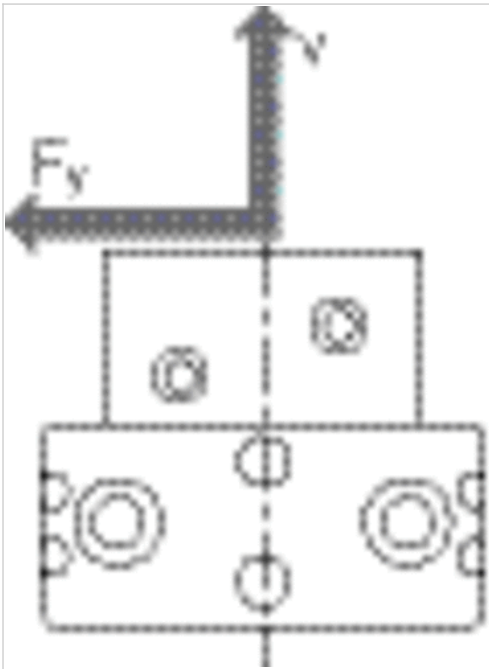
Movement into end position 90°/180°



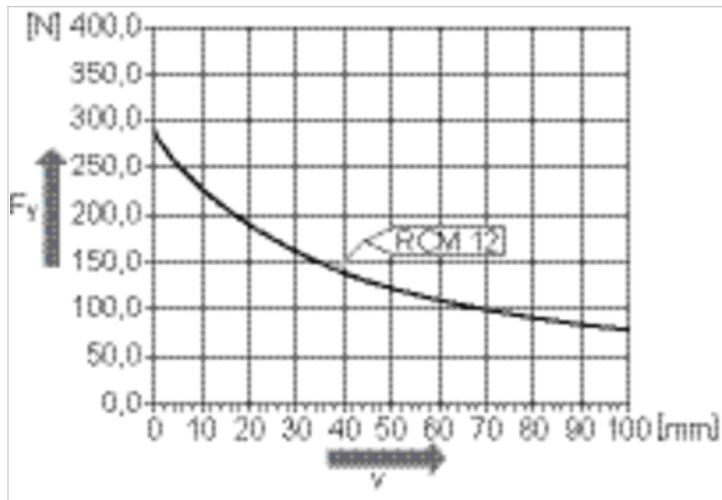
Movement into end position 0°



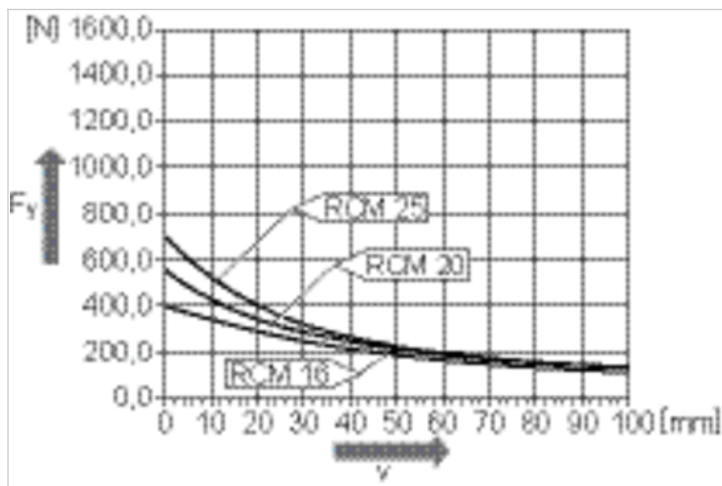
Maximum permissible radial force F_y [N] as a function of v [mm]



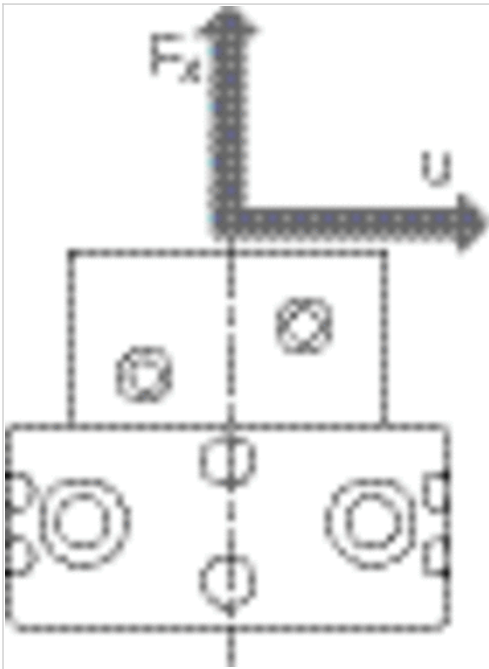
Maximum permissible radial force F_y [N] as a function of v [mm] RCM-12



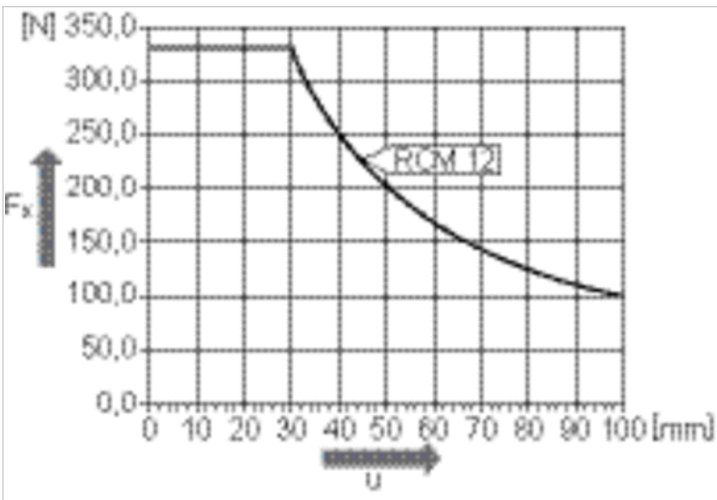
Maximum permissible radial force F_y [N] as a function of v [mm] RCM 16 - 25



Maximum permissible axial force F_x [N] as a function of u [mm]



Maximum permissible axial force F_x [N] as a function of u [mm] RCM 12



Maximum permissible axial force F_x [N] as a function of u [mm] RCM 16 - 25

