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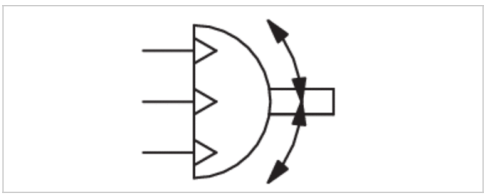
Rotary Compact Module, Series RCM-SE

- angle of rotation max. 180 °
- Ø 12-25 mm
- with magnetic piston
- double piston with rack
- Easy2Combine capable
- Cushioning elastic
- with integrated intermediate position



Working pressure min./max.	4 ... 8 bar
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/m³
Cushioning	elastic
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		
R412000395	RCM-12	M5	0-180 °	0,28 s
R412000396	RCM-16	M5	0-180 °	0,25 s
R412000397	RCM-20	M5	0-180 °	0,3 s
R412000398	RCM-25	M5	0-180 °	0,3 s

Part No.	Air consumption per rotation	Weight
R412000395	13,29 cm³	0,48 kg
R412000396	22,14 cm³	0,79 kg
R412000397	37,83 cm³	1,12 kg
R412000398	80,72 cm³	2,1 kg

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Technical data

Frame size	RCM-12	RCM-16	RCM-20
Max. permissible axial bearing load	330 N	490 N	620 N
Max. permissible radial bearing load	360 N	580 N	780 N
Max. permissible mass moment of inertia	0,7 kg cm²	1,6 kg cm²	3,2 kg cm²
Repetitive precision	0,2 °	0,2 °	0,2 °
Theoretical torque	0,95 Nm	1,7 Nm	3 Nm

Frame size	RCM-25
Max. permissible axial bearing load	1160 N
Max. permissible radial bearing load	1480 N
Max. permissible mass moment of inertia	6,3 kg cm²
Repetitive precision	0,2 °
Theoretical torque	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).

NOTICE:For positioning without overswing in the intermediate position, it is recommended to limit the mass moment of inertia to 40% of the maximum permissible value!

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

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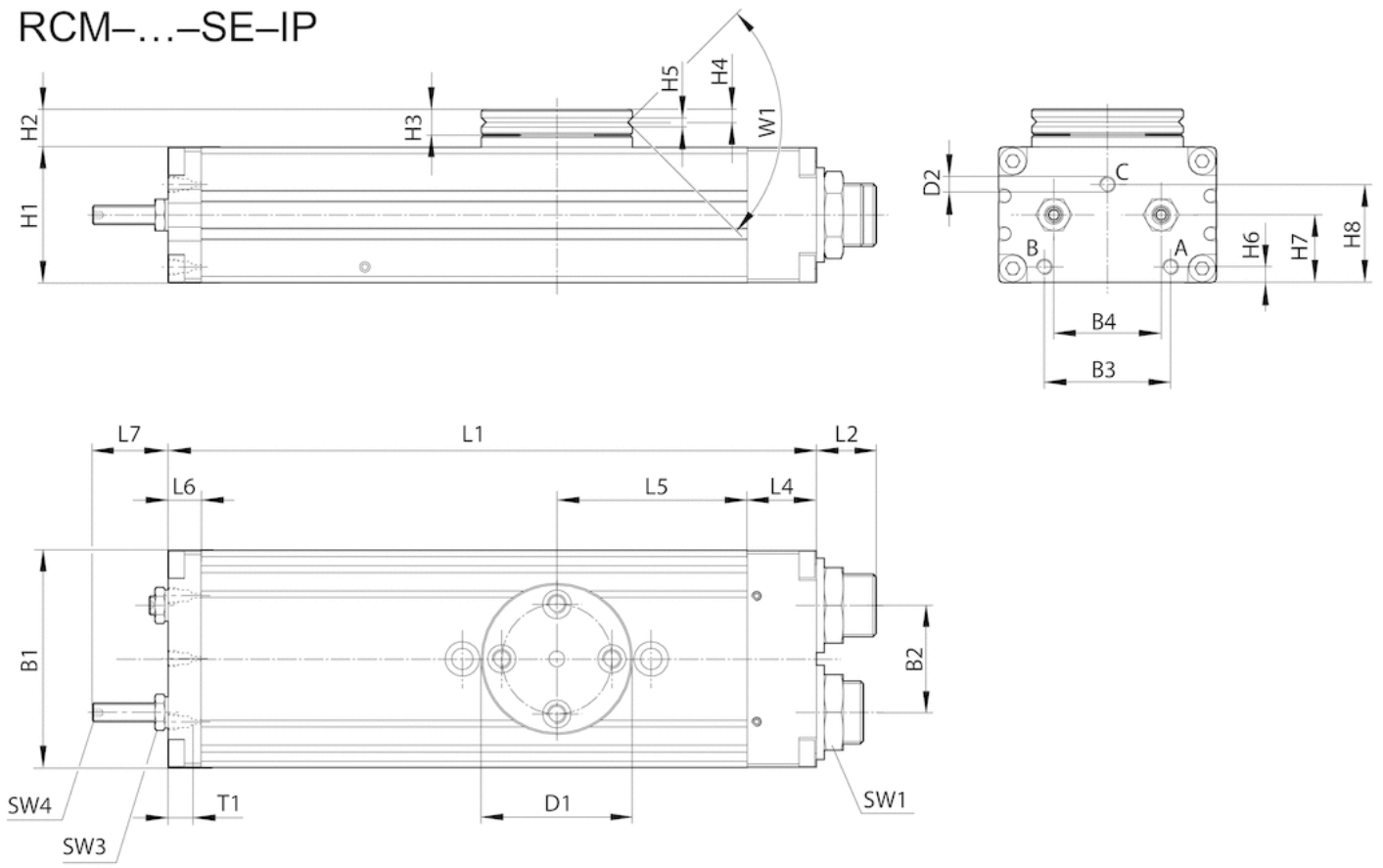
Dimensions

RCM-12/.../-25



T1 = depth of thread

Dimensions

Frame size	B1	B2	B3	B4	Ø D1	Ø D2	H1	H2	H3	H4	H5	H6	H7	H8	L1	L2	L4	L5	L6	L7
RCM-12	43	18	24	18	35	M5	24	10.5	6	2.9	2.5	3.7	12.5	18.1	136	12.5	14	40	8.5	17
RCM-16	52	24	29	24	40	M5	32	10	7	3.3	2.5	5	16	21.1	140	15.5	18	40	8.5	17
RCM-20	58	30	30	30	42	M5	37	11	7	3.3	3	5.5	19	27.1	156	15	19	43	8.5	22
RCM-25	69	34	40	34	48	M5	43	12	8	4	3	5	21.5	31.1	206	19	22	60.5	10.5	24

SW1	SW3	SW4	T1	W1
15	7	2	4	90°
19	7	2	4	90°
19	8	2.5	4	90°
23	10	3	4	90°

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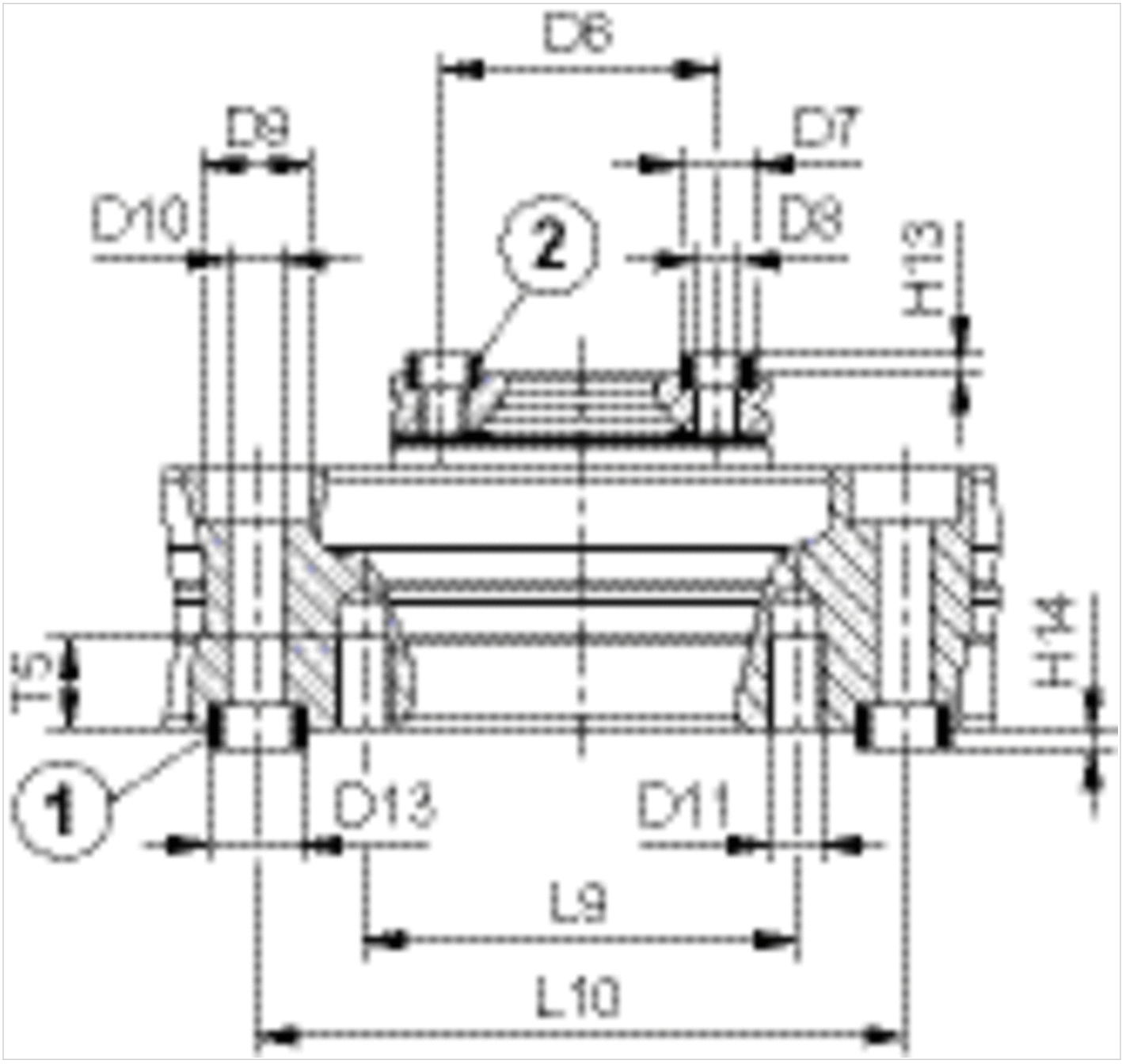
Dimensions

Mounting and assembly RCM-12



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

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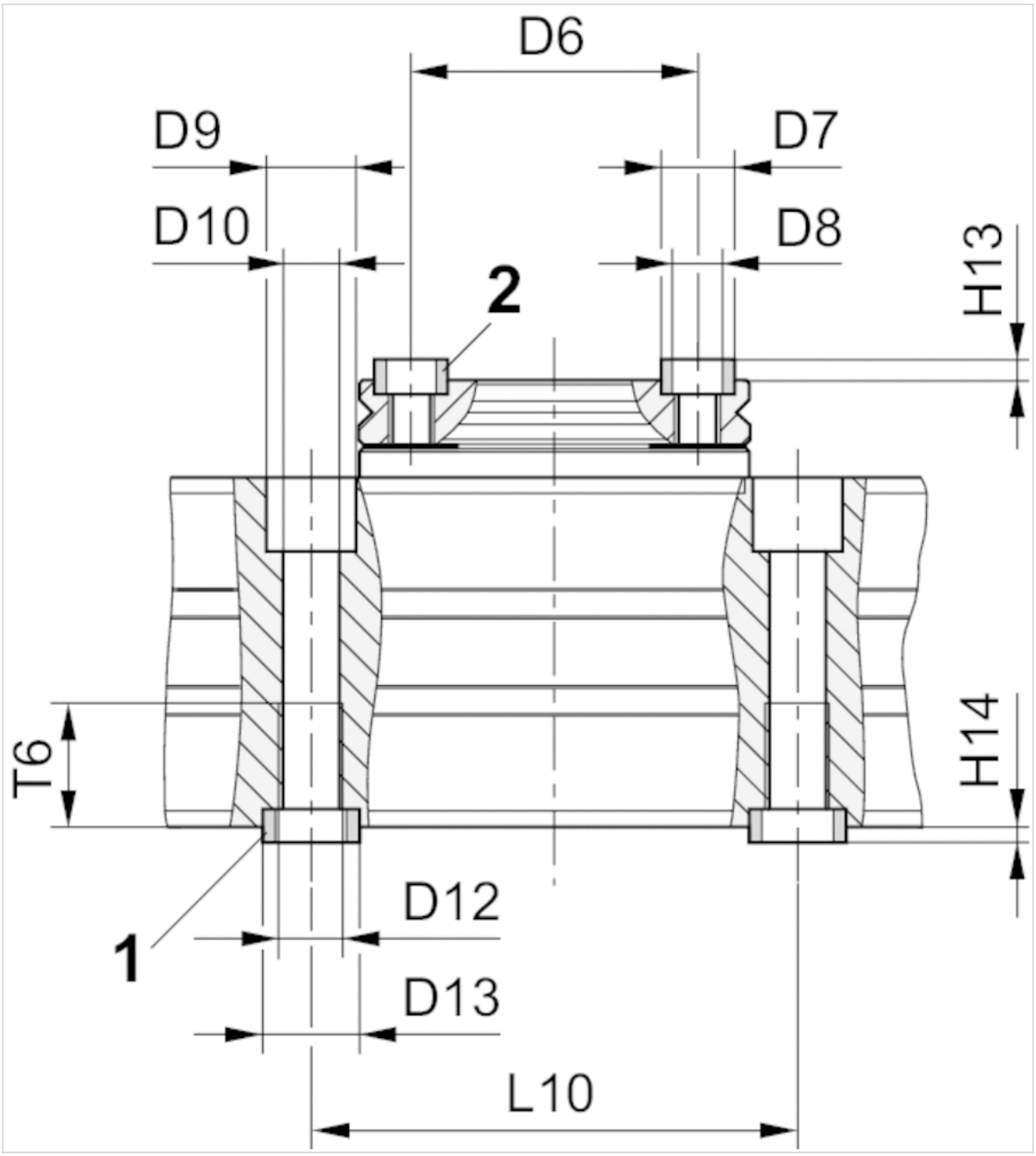
Mounting and assembly RCM-16/.../-25



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

Dimensions

Frame size	Ø D6±0,02	Ø D7k6	Ø D8	Ø D9	Ø D10	Ø D11	Ø D12	Ø D13k6	H13+0,2	H14+0,2
RCM-12	25	7	M4	10	5.1	M5	–	9	1.6	2.1
RCM-16	30	7	M5	10	5	–	M6	9	1.6	2.1
RCM-20	30	7	M5	11	6.8	–	M8	12	1.6	2.1
RCM-25	35	9	M6	11	6.8	–	M8	12	2.1	2.1

Frame size	L9	L10± 0,02	T5	T6
RCM-12	40	60	8.5	–
RCM-16	–	60	–	11.1

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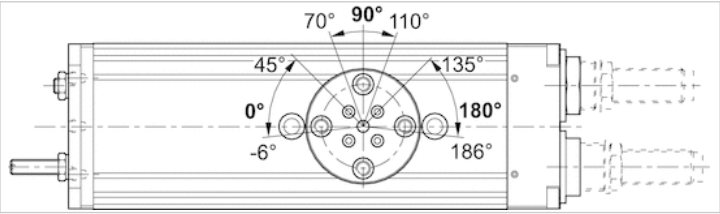
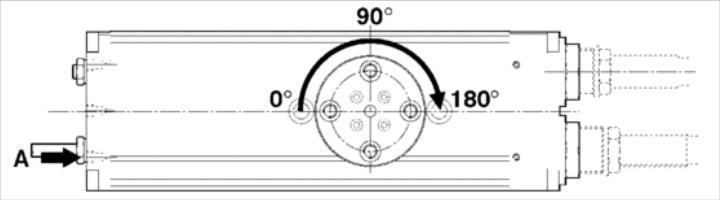
Frame size	L9	L10± 0,02	T5	T6
RCM-20	–	60	–	15.1
RCM-25	–	60	–	15.1

Diagrams

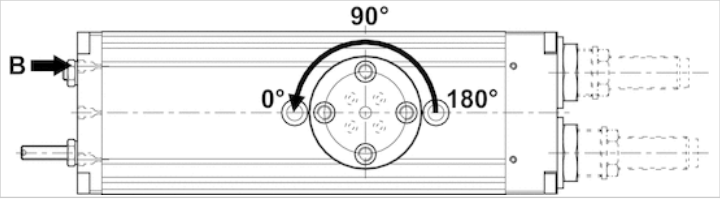
Setting range for end positions 0°/180° and intermediate position 90°



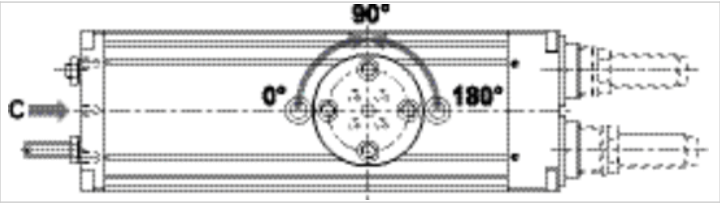
Movement into end position 180°



Movement into end position 0°



Movement into intermediate position 90°



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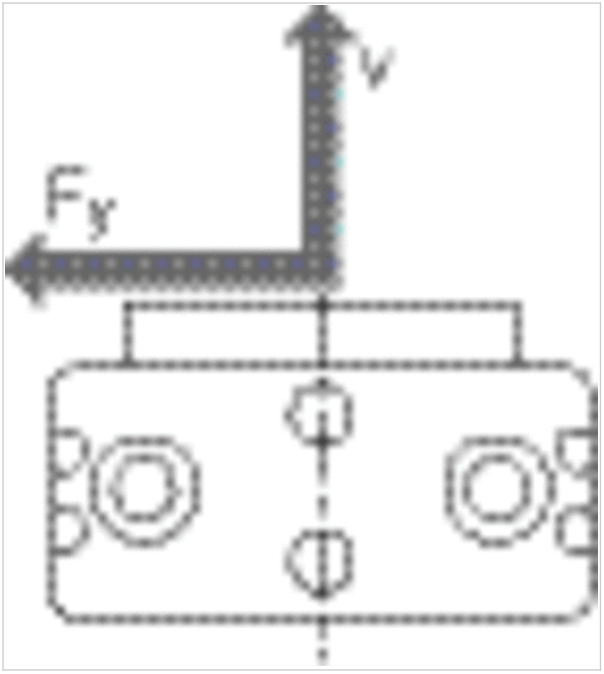
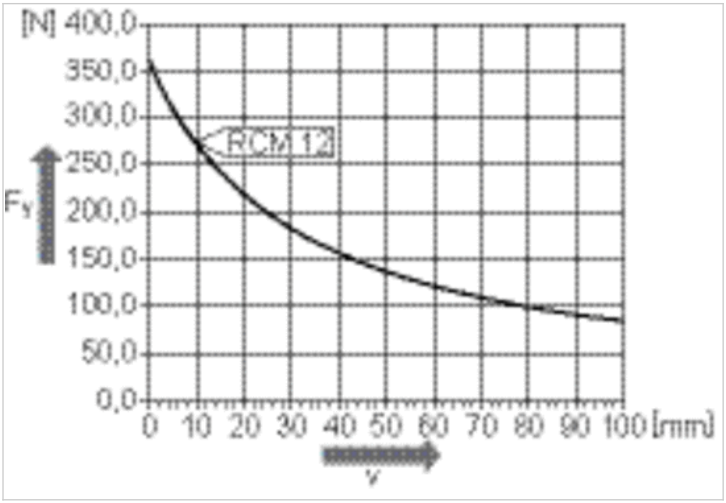
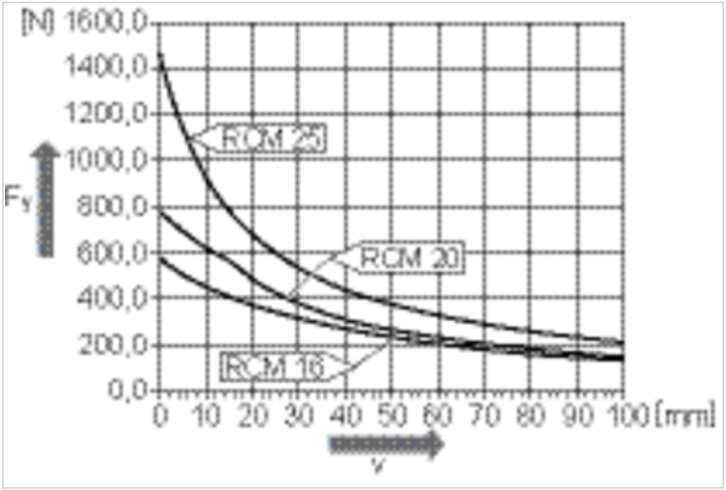
Maximum permissible radial force Fy [N] as a function of v [mm]



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



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



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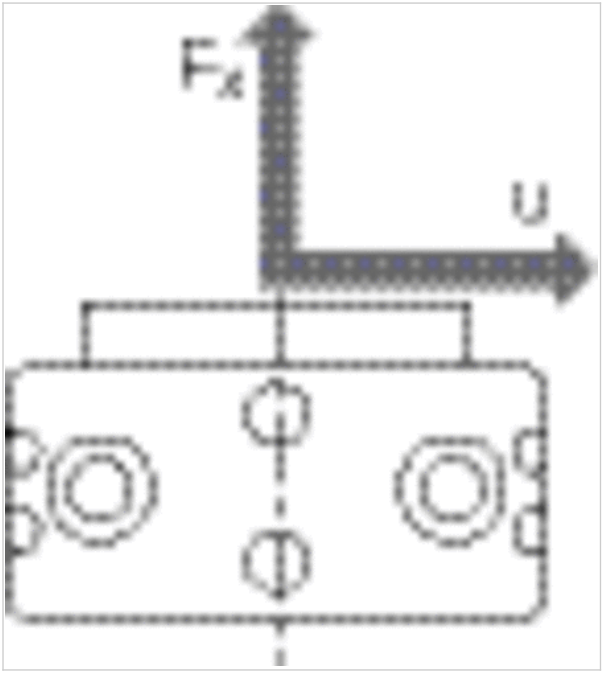
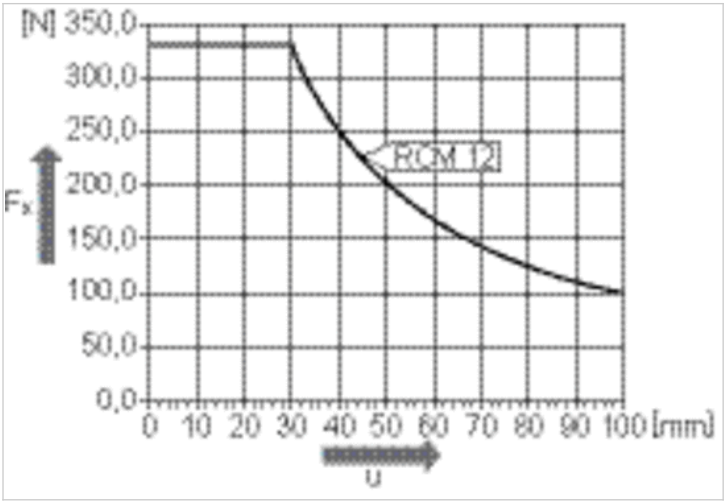
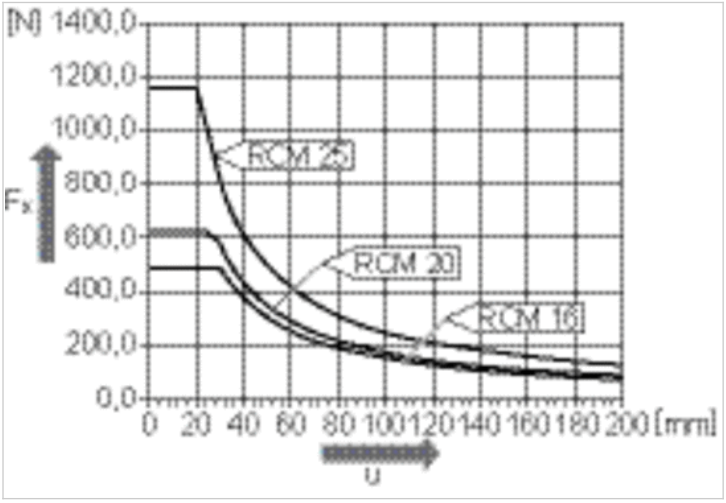
Maximum permissible radial force Fy [N] as a function of v [mm]



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



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