

Rodless cylinders → Bellow actuator




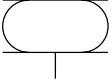


Bellow actuator with mounting ring, series BCR

Brochure



Rodless cylinders → Bellow actuator

Bellow actuator with mounting ring, series BCR

		Bellow actuator, BCR ▶ single ▶ Stroke: 94 - 135 mm	3
		Bellow actuator, Series BCR ▶ double ▶ Stroke: 185 - 233 mm	7
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Rodless cylinders → Bellow actuator

Bellow actuator, BCR

► single ► Stroke: 94 - 135 mm



Version	Bellow actuator with mounting ring
Functional principle	Single-acting, retracted without pressure
Working pressure min./max.	0 bar / 8 bar
Ambient temperature min./max.	-40°C / +70°C
Medium temperature	-40°C / +70°C
Medium	Compressed air
Pressure for determining forces	6 bar

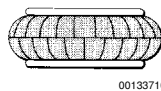
Materials:	
Bellow	caoutchouc/butadiene caoutchouc
Clamping ring	Aluminum
Mounting ring	Aluminum

Technical Remarks

- Compliance with the min. height Hmin. (B) and max. stroke (A) must be ensured with end stops.
- Use at operating height ≥ Hmax: only permitted upon approval by Bosch Rexroth
- For information on vibration insulators, see "Technical Information"
- reduced service life at a temperature greater than: 50 °C

	Stroke	Cover diameter	Min. installation space	Weight	Force min./max.	Part No.
	[mm]	[mm]	[mm]	[kg]	[kN]	
	107	384	480	5	41 - 78	2999697410
	94	451	570	7.3	67 - 107	2999696600
	102	517	620	8.7	90 - 137	2999697310
	135	638	760	11.1	131 - 229	1971132000
	122	890	1000	22	265 - 390	2999699610

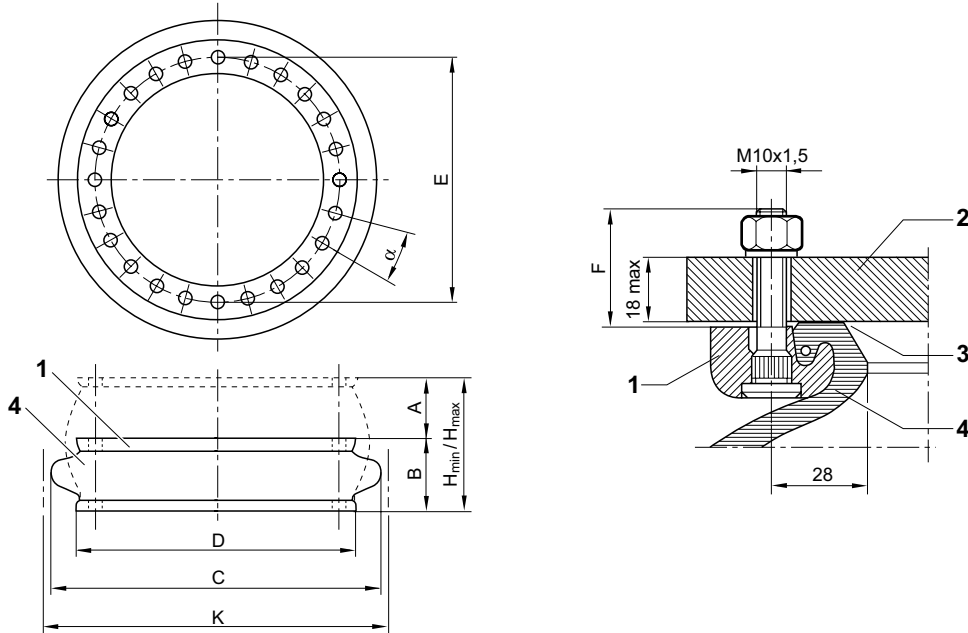
bellow type



Rodless cylinders → Bellow actuator

Bellow actuator, BCR

▶ single ▶ Stroke: 94 - 135 mm

Dimensions

section of mounted bead ring with staybolt

1. mounting ring
2. machine part
3. sealing surface *)
4. bellow

* recommendation for surface finish:

if the surface is turned or cylindrically ground: Ra 6

if the surface is milled or surface ground: Ra 0,8

suitable tightening torque M8: 25 Nm; M10: 40 Nm; M16: 70 Nm

air connection in the mounting part

00127811

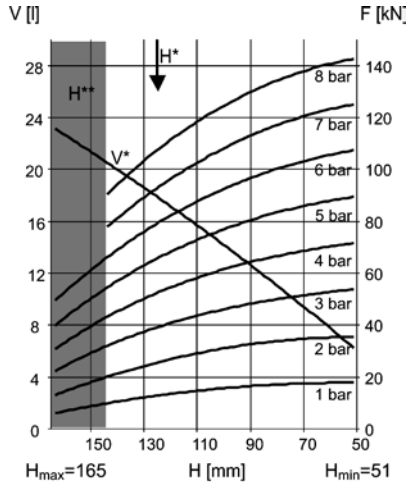
Part No.	A [mm]	B [mm]	C [mm]	D [mm]	E ±2 [mm]	α°	K [mm]	Return force, min. [N]				
2999697410	107	51	442	384	350	20	480	100				
2999696600	94	51	530	451	419	15	570	89				
2999697310	102	51	580	517	482	15	620	120				
1971132000	135	51	715	638	596	11.25	760	670				
2999699610	122	64	950	890	830	9	1000	1378				

Rodless cylinders → Bellow actuator

Bellow actuator, BCR

► single ► Stroke: 94 - 135 mm

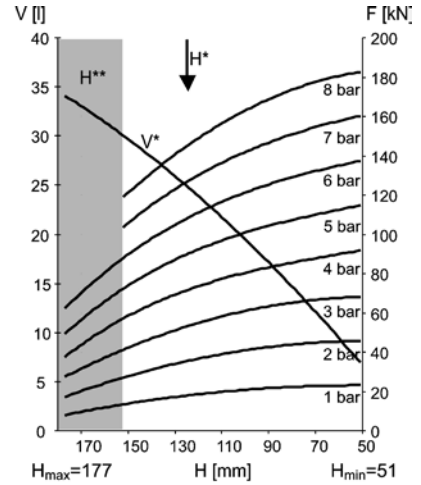
force-displacement diagram, 2999696600



00112421

V* = volume
 H* = recommended operating height for vibration insulators
 H** = use permitted only upon approval by Bosch Rexroth

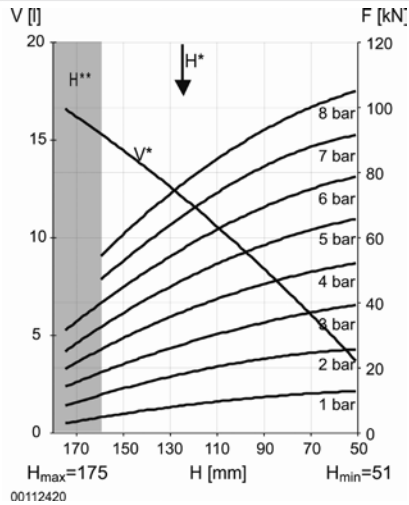
force-displacement diagram, 2999697310



00112422

V* = volume
 H* = recommended operating height for vibration insulators
 H** = use permitted only upon approval by Bosch Rexroth

force-displacement diagram, 2999697410

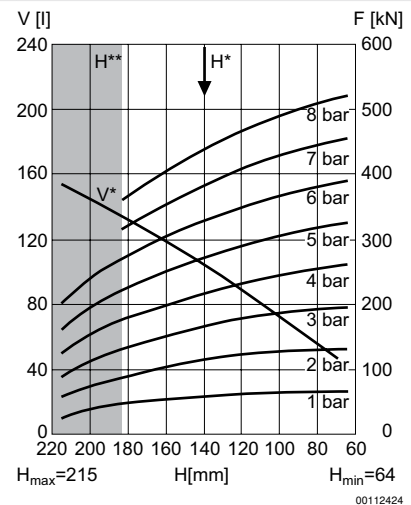


00112420

00112420

V* = volume
 H* = recommended operating height for vibration insulators
 H** = use permitted only upon approval by Bosch Rexroth

force-displacement diagram, 2999699610



H_max=215

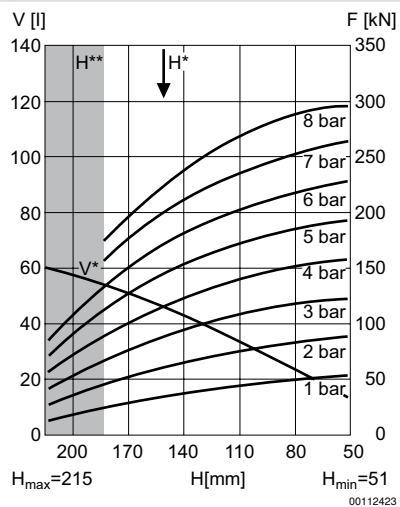
00112424

V* = volume
 H* = recommended operating height for vibration insulators
 H** = use permitted only upon approval by Bosch Rexroth

Rodless cylinders → Bellow actuator

Bellow actuator, BCR

▶ single ▶ Stroke: 94 - 135 mm

force-displacement diagram, 1971132000

V* = volume

H* = recommended operating height for vibration insulators

H** = use permitted only upon approval by Bosch Rexroth

Rodless cylinders → Bellow actuator

Bellow actuator, Series BCR

► double ► Stroke: 185 - 233 mm



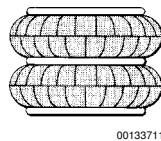
Version	Bellow actuator with mounting ring
Functional principle	Single-acting, retracted without pressure
Working pressure min./max.	0 bar / 8 bar
Ambient temperature min./max.	-40 °C / +70 °C
Medium temperature	-40 °C / +70 °C
Medium	Compressed air
Pressure for determining forces	6 bar
Materials:	
Bellow	caoutchouc/butadiene caoutchouc
Clamping ring	Aluminum
Mounting ring	Aluminum

Technical Remarks

- Compliance with the min. height Hmin. (B) and max. stroke (A) must be ensured with end stops.
- Use at operating height ≥ Hmax: only permitted upon approval by Bosch Rexroth
- For information on vibration insulators, see "Technical Information"
- reduced service life at a temperature greater than: 50 °C

	Stroke	Cover diameter	Min. installation space	Weight	Force min./max.	Part No.
	[mm]	[mm]	[mm]	[kg]	[kN]	
	185	384	490	8.6	44 - 80	1944182000
	200	451	570	10.2	64 - 108	1951182000
	200	517	620	12	84 - 141	1957192000
	226	638	760	15.4	136 - 207	1971232000
	233	890	1000	32.9	257 - 390	2999697010

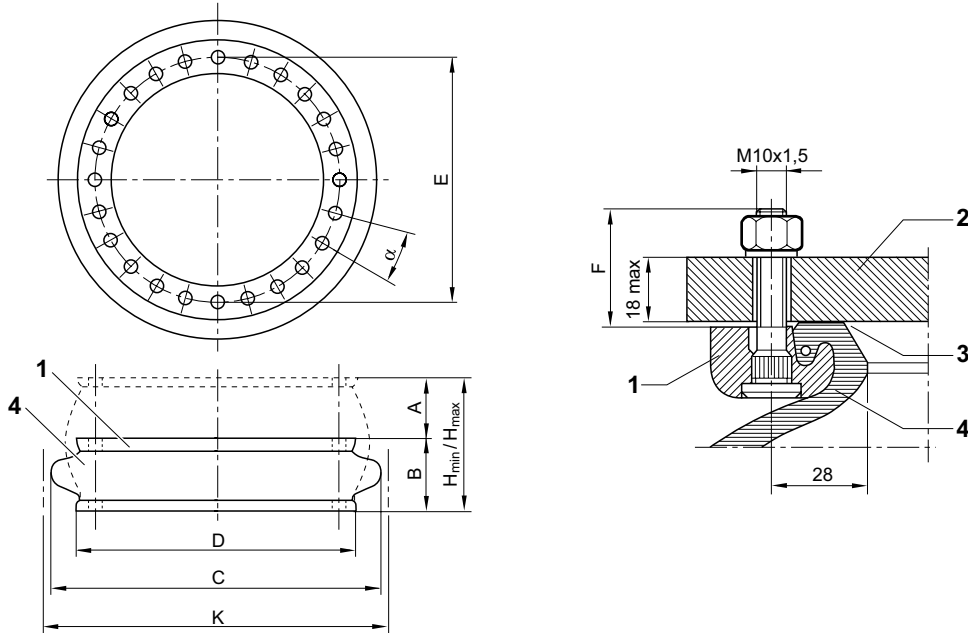
bellow type



Rodless cylinders → Bellow actuator

Bellow actuator, Series BCR

▶ double ▶ Stroke: 185 - 233 mm

Dimensions

section of mounted bead ring with staybolt

1. mounting ring
2. machine part
3. sealing surface *)
4. bellow

* recommendation for surface finish:

if the surface is turned or cylindrically ground: Ra 6

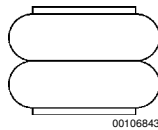
if the surface is milled or surface ground: Ra 0,8

suitable tightening torque M8: 25 Nm; M10: 40 Nm; M16: 70 Nm

air connection in the mounting part

00127811

Part No.	A [mm]	B [mm]	C [mm]	D [mm]	E ±2 [mm]	α°	K [mm]	Return force, min. [N]				
1944182000	185	84	444	384	350	20	490	200				
1951182000	200	84	518	451	419	15	570	178				
1957192000	200	84	577	517	482	15	620	311				
1971232000	226	84	709	638	596	11.25	760	700				
2999697010	233	107	950	890	830	9	1000	1556				

force-displacement diagram for double bellow actuators

00106843

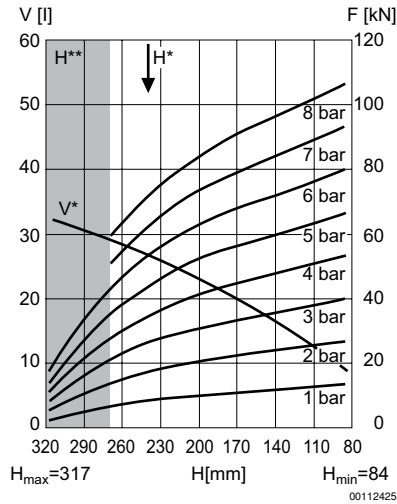
max. permitted parallel displacement between the center points of the rings: max. 20 mm

Rodless cylinders → Bellow actuator

Bellow actuator, Series BCR

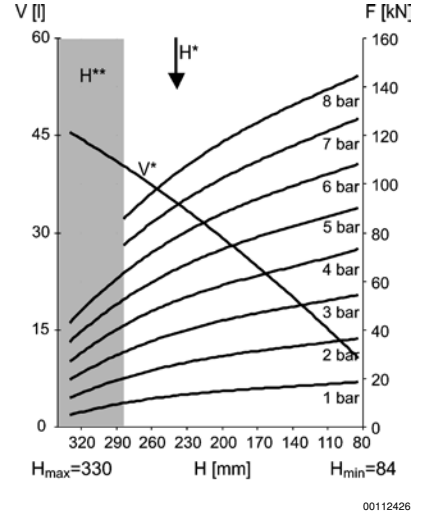
► double ► Stroke: 185 - 233 mm

force-displacement diagram, 1944182000



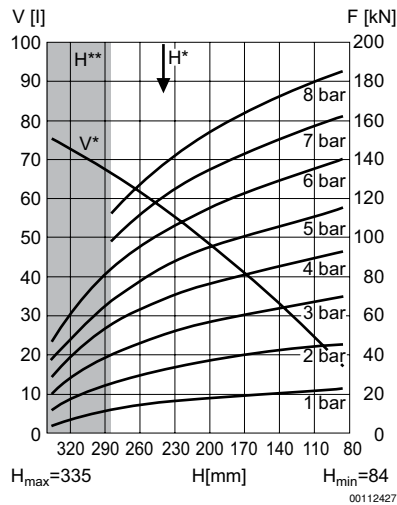
V* = volume
 H* = recommended operating height for vibration insulators
 H** = use permitted only upon approval by Bosch Rexroth

force-displacement diagram, 1951182000



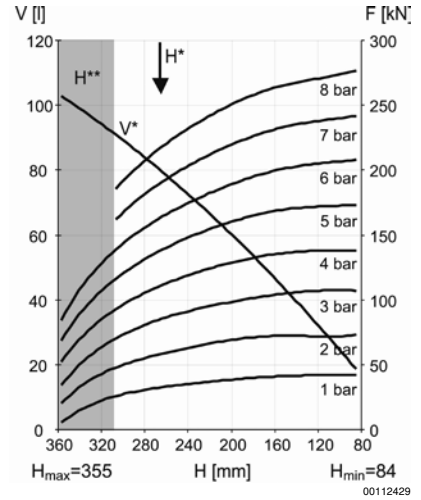
V* = volume
 H* = recommended operating height for vibration insulators
 H** = use permitted only upon approval by Bosch Rexroth

force-displacement diagram, 1957192000



V* = volume
 H* = recommended operating height for vibration insulators
 H** = use permitted only upon approval by Bosch Rexroth

force-displacement diagram, 1971232000

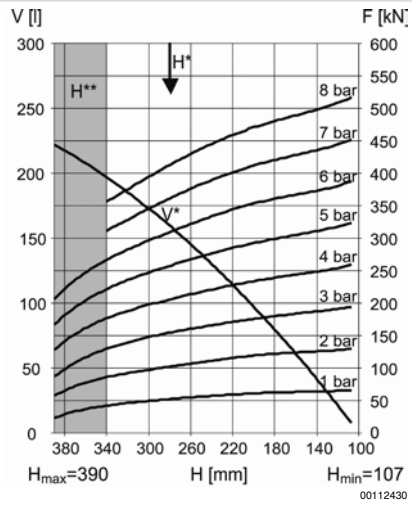


V* = volume
 H* = recommended operating height for vibration insulators
 H** = use permitted only upon approval by Bosch Rexroth

Rodless cylinders → Bellow actuator

Bellow actuator, Series BCR

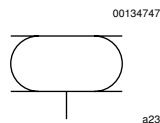
▶ double ▶ Stroke: 185 - 233 mm

force-displacement diagram, 2999697010 V^* = volume H^* = recommended operating height for vibration insulators H^{**} = use permitted only upon approval by Bosch Rexroth

Rodless cylinders → Bellow actuator

Bellow actuator, Series BCR

► triple ► Stroke: 286 - 350 mm



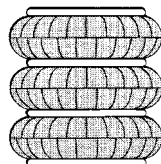
Version	Bellow actuator with mounting ring
Functional principle	Single-acting, retracted without pressure
Working pressure min./max.	0 bar / 8 bar
Ambient temperature min./max.	-40 °C / +70 °C
Medium temperature	-40 °C / +70 °C
Medium	Compressed air
Pressure for determining forces	6 bar

Materials:	
Bellow	caoutchouc/butadiene caoutchouc
Clamping ring	Aluminum
Mounting ring	Aluminum

Technical Remarks

- Compliance with the min. height Hmin. (B) and max. stroke (A) must be ensured with end stops.
- Use at operating height \geq Hmax: only permitted upon approval by Bosch Rexroth
- For information on vibration insulators, see "Technical Information"
- reduced service life at a temperature greater than: 50 °C

	Stroke	Cover diameter	Min. installation space	Weight	Force min./max.	Part No.
	[mm]	[mm]	[mm]	[kg]	[kN]	
	290	384	510	9.3	43 - 81	1946272000
	286	451	570	12.5	65 - 114	1951282000
	305	517	630	14.5	84 - 140	2999698310
	350	890	1000	44	277 - 390	2999697110

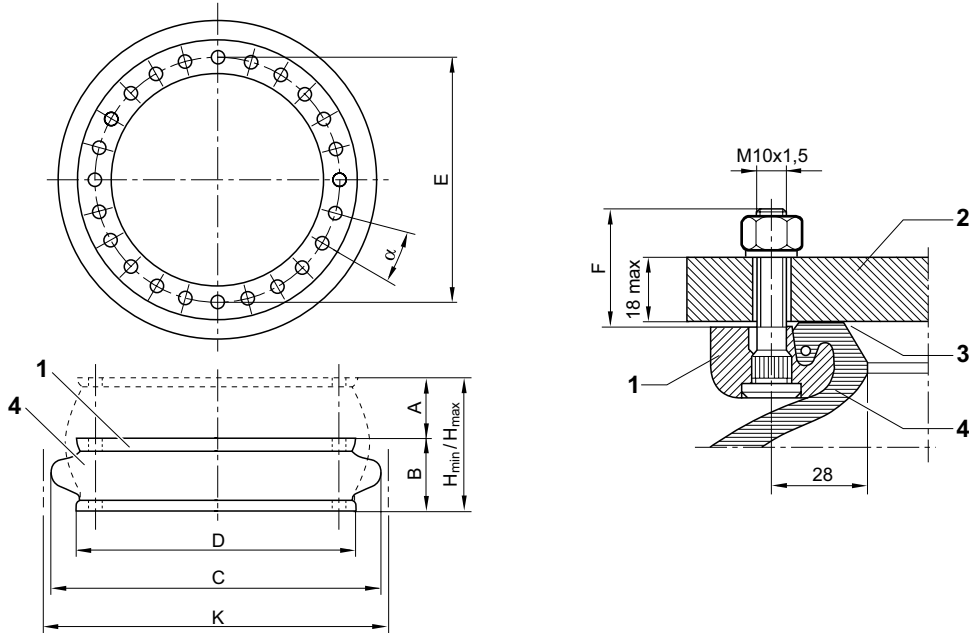
bellow type

00133712

Rodless cylinders → Bellow actuator

Bellow actuator, Series BCR

▶ triple ▶ Stroke: 286 - 350 mm

Dimensions

00127811

section of mounted bead ring with staybolt

1. mounting ring
2. machine part
3. sealing surface *)
4. bellow

* recommendation for surface finish:

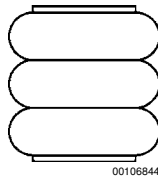
if the surface is turned or cylindrically ground: Ra 6

if the surface is milled or surface ground: Ra 0,8

suitable tightening torque M8: 25 Nm; M10: 40 Nm; M16: 70 Nm

air connection in the mounting part

Part No.	A [mm]	B [mm]	C [mm]	D [mm]	E ±2 [mm]	α°	K [mm]	Return force, min. [N]				
1946272000	290	114	462	384	350	20	510	600				
1951282000	286	114	521	451	419	15	570	311				
2999698310	305	114	580	517	482	15	630	400				
2999697110	350	140	950	890	830	9	1000	1690				

force-displacement diagrams for triple bellow actuators

00106844

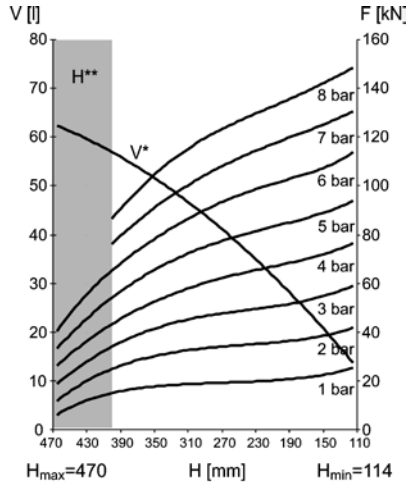
max. permitted parallel displacement between the center points of the rings: max. 30 mm

Rodless cylinders → Bellow actuator

Bellow actuator, Series BCR

► triple ► Stroke: 286 - 350 mm

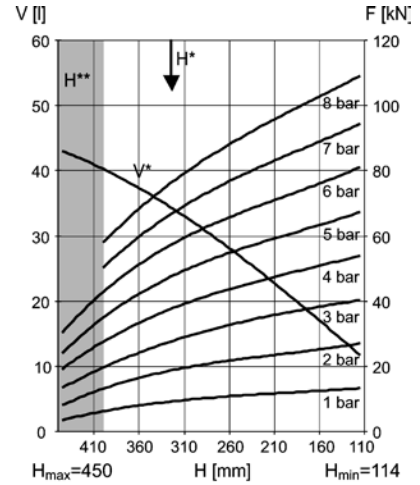
force-displacement diagram, 1951282000



00112432

V* = volume
 H* = recommended operating height for vibration insulators
 H** = use permitted only upon approval by Bosch Rexroth

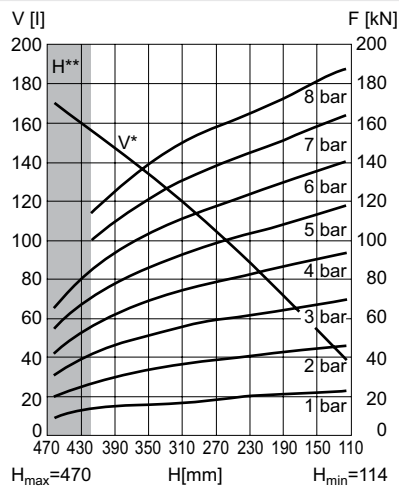
force-displacement diagram, 1946272000



00112431

V* = volume
 H* = recommended operating height for vibration insulators
 H** = use permitted only upon approval by Bosch Rexroth

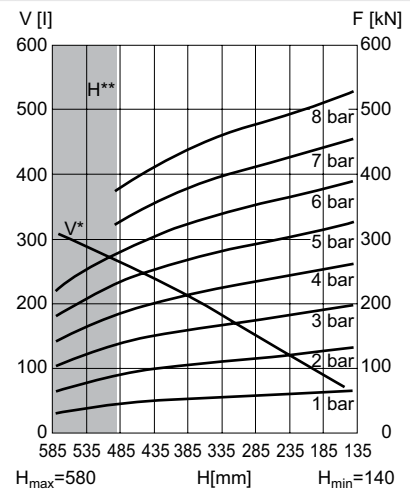
force-displacement diagram, 2999698310



00112433

V* = volume
 H* = recommended operating height for vibration insulators
 H** = use permitted only upon approval by Bosch Rexroth

force-displacement diagram, 2999697110



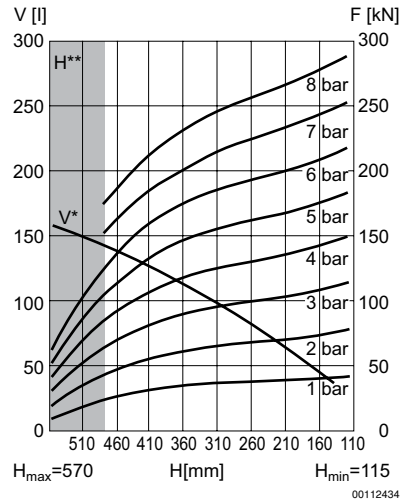
00112435

V* = volume
 H* = recommended operating height for vibration insulators
 H** = use permitted only upon approval by Bosch Rexroth

Rodless cylinders → Bellow actuator

Bellow actuator, Series BCR

▶ triple ▶ Stroke: 286 - 350 mm

force-displacement diagram, 1971372000

V* = volume

H* = recommended operating height for vibration insulators

H** = use permitted only upon approval by Bosch Rexroth

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