

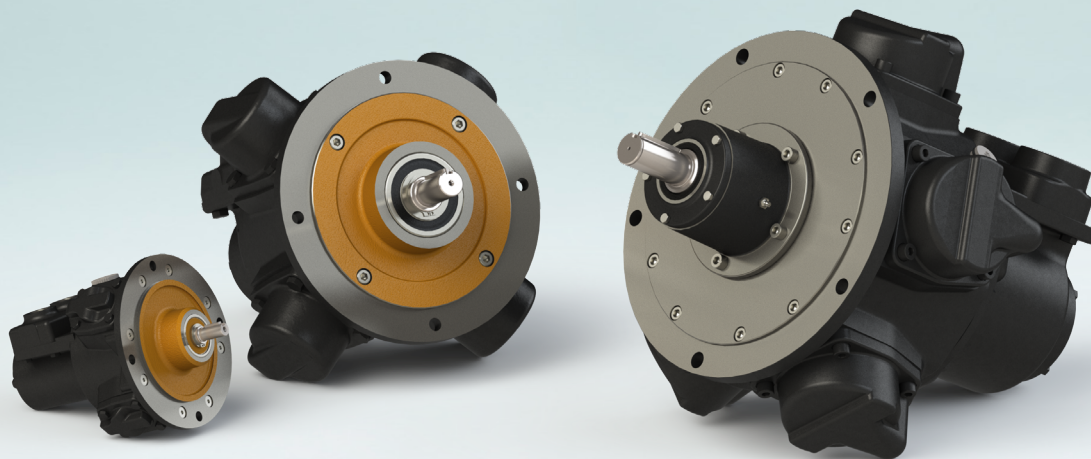


GLOBE[®] AIRMOTORS B.V.

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Specifications: RM310

Piston Air Motor



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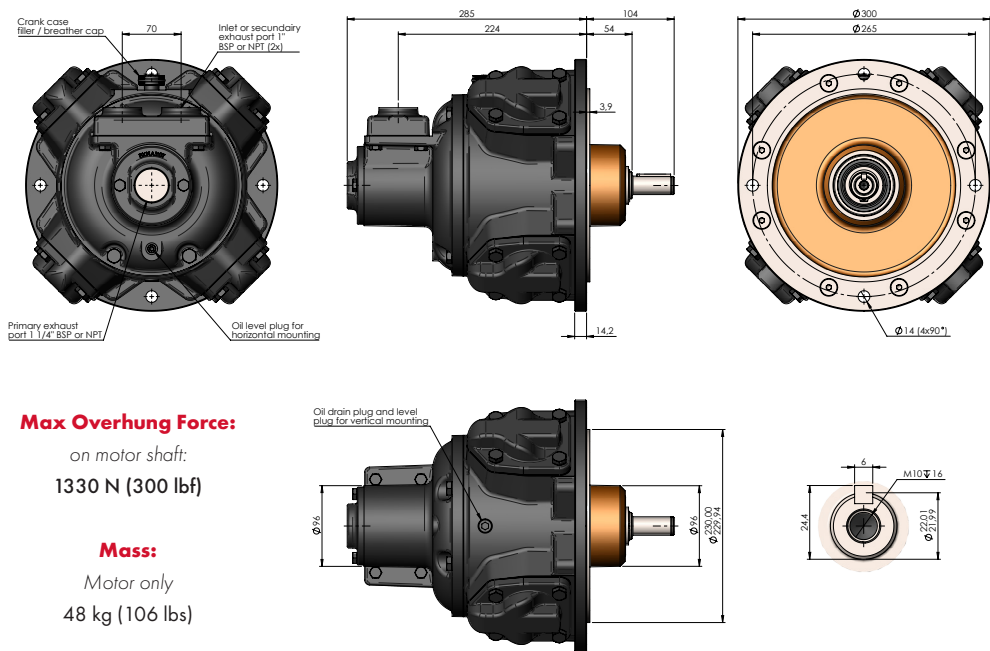
Contents

Dimensions & Spare Parts RM310	2
Dimensions & Spare Parts RM310 + Brake	3
Dimensions RM310 + HCV/RCV	4
Spare Parts RM310 + HCV/RCV	5
Performance & Ordering Code RM310	6

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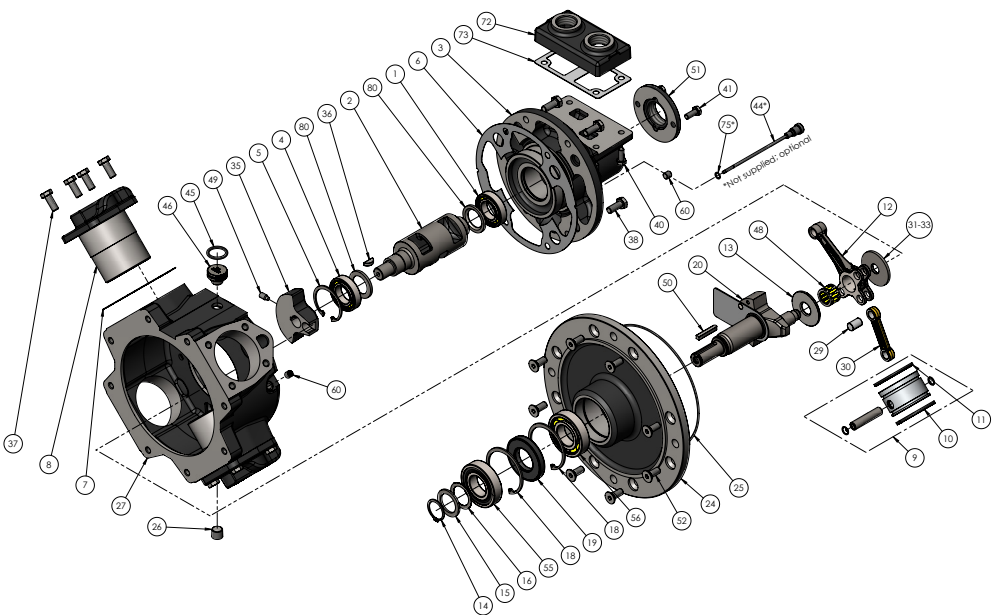
Dimensions RM310 & RM310 + Foot Bracket



Max Overhung Force:
on motor shaft:
1330 N (300 lbf)

Mass:
Motor only
48 kg (106 lbs)

Spare Parts List RM310

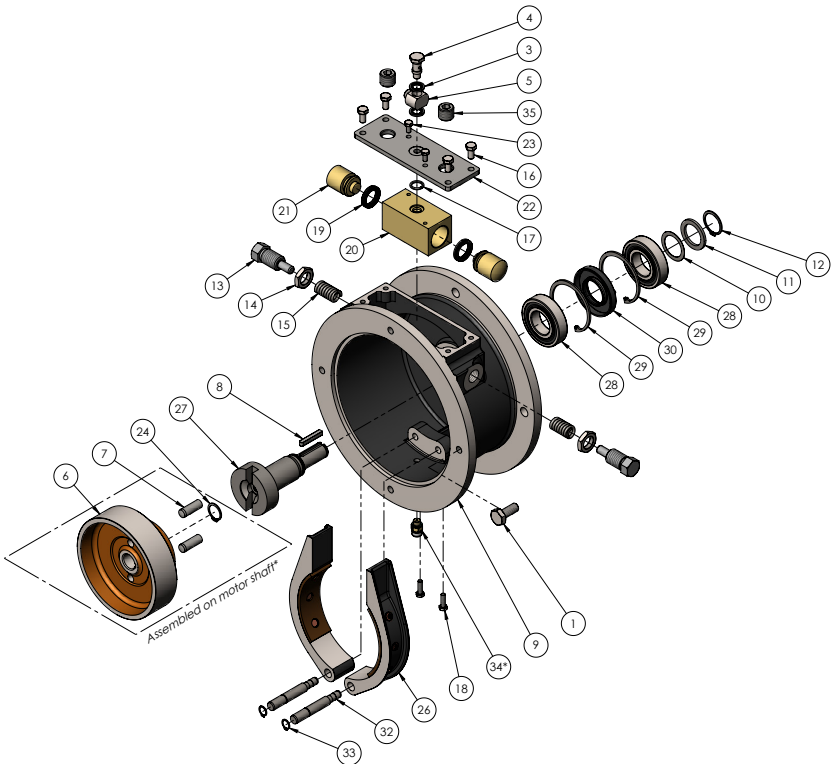
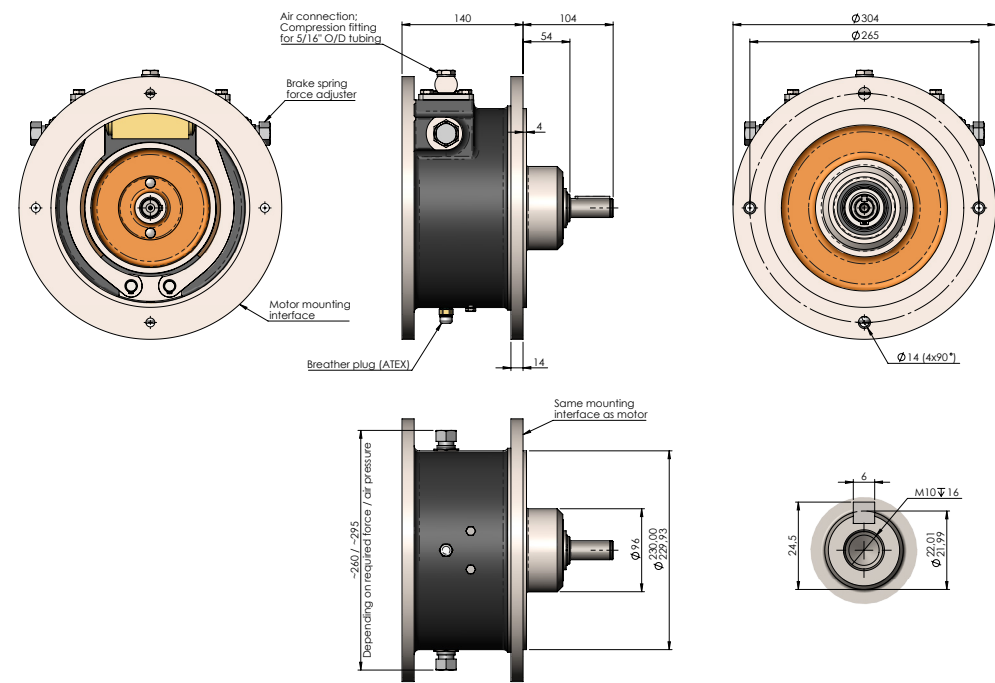


Item	Part No.	Description	Qty	Kit No.	Item	Part No.	Description	Qty	Kit No.
01	807-002	Rotary Valve Bearing (Outer)	1		38	802-053	Valve Housing Bolts	4	
02	330-059	Rotary Valve	1		40	802-032	Adaptor Plate Bolt	4	
03	330-011	Rotary Valve Housing	1		41	802-032	Exhaust Cover Bolts	2	
04	807-001	Rotary Valve Bearing (Inner)	1		44	300-040	Dipstick (vertical mounting)	1	
05	804-054	Rotary Valve Bearing Circlip	1		45	808-004	Seal (transit only)	1	
06	300-001	Rotary Valve Housing Gasket	1*	339-911	46	130-066	Breather Plug	1	
07	310-030	Cylinder Gasket	4*	339-911	48	807-065	Needle Bearing	1	
08	310-082	Cylinder	4		49	815-002	Grub Screw	1	
09	330-902A	Piston Assembly	4		50	811-003	Key	1	
10	300-024	Compression Ring	4*	339-911	51A	330-005	Rotary Valve Exhaust Cover BSP	1	
11	300-022	Oil Control Ring	4*	339-911	51B	330-105	Rotary Valve Exhaust Cover NPT	1	
12	330-077	King Rod	1		52	810-002	Flange Bolt	8	
13	330-013	Crankshaft Spacer	1		55	807-009	Output Shaft Brg. (Outer)	1	
14	804-012	Crankshaft Circlip	1		56	807-009	Output Shaft Brg. (Inner)	1	
15	310-036	Crankshaft Spacer	1		60	816-063	Oil Level Plug	1	
16	310-049	Crankshaft Spacer Shim	5		72A	330-003	Inlet Adaptor Plate BSP	1	
18	804-062	Crankshaft Bearing Circlip	2		72B	230-103	Inlet Adaptor Plate NPT	1	
19	808-045	Crankshaft Oilseal	1*	339-911	73	330-004	Inlet Adaptor Plate Gasket	1*	339-911
20	330-911	Std. Crankshaft Assembly	1		75	808-008	Dipstick Seal	1*	339-911
24	330-076	Std. Flange Plate	1		80	330-060	Rotary Valve Spacer	2	
25	808-026	Flange Plate Seal	1*	339-911		339-911	RM310 Seal Kit	1	
26	816-071	Plug	1						
27	330-012	Engine Case	1						
29	320-081	Queen Rod Pivot	3						
30	330-078	Queen Rod	3						
31	320-052	Crank Spacer SELECT	1						
32	320-053	Crank Spacer ON	1						
33	320-054	Crank Spacer ASSEMBLY	1						
35	330-010	Balance Weight	1						
36	811-010	Woodruff Key	1						
37	802-053	Cylinder Bolts	16						

If unit is pre 1990 supplied, consult manufacturer to confirm design.

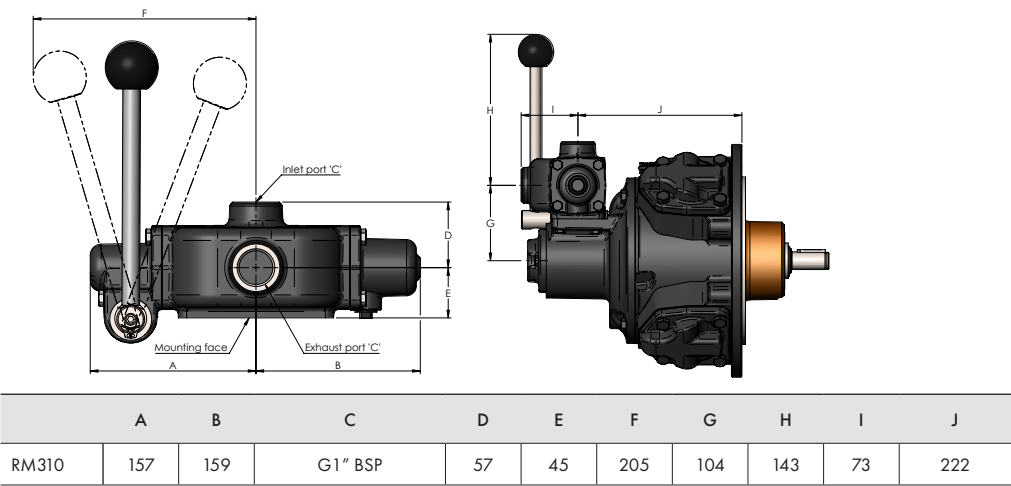
Dimensions & Performance RM310 + Brake

Spare Parts List Parking Brake

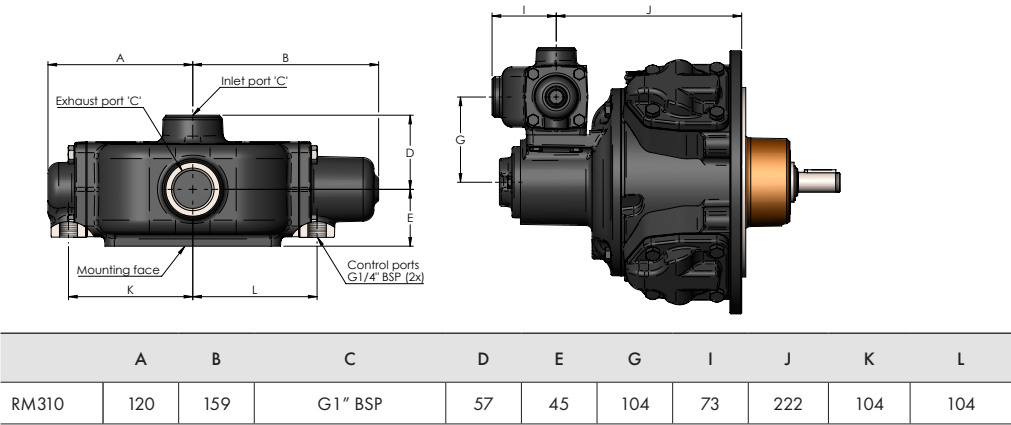


Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
01	802-073	Set Screw M12 x 30	4	21	302-011	Brake Piston	2
03	808-090	Bonded Seal 1/4" BSP Dowty	2	22	312-013	Block Support Plate	1
04	816-004	Banjo Bolt Only 1/8 BSP	1	23	802-012	Hex Head Screw M6 x 12	2
05	816-005	Banjo Bolt C/W/ Nut&Rin 5/16	1	24	804-007	Circlip 22mm External	1
06	312-001	Brake Wheel	1	26	312-901	Brake Shoe Assembly	2
07	806-002	Dowel Dia 12 x 35 Lg	2	27	312-005	Output Shaft	1
08	811-003	Key 6 Sq.x40mm(K126)	1	28	807-009	Ball Bearing	2
09	312-008	Brake Housing	1	29	804-062	Circlip 72mm Internal	2
10	310-049	Shim - Output	5	30	808-045	Oilseal 35x72x10/R4	1
11	310-036	Output Shaft Spacer 3.55	1	32	312-003	Brake Shoe Pivot	2
11	310-037	Output Shaft Spacer 3.80	1	33	804-122	Circlip 1/2" External Ander	2
11	310-038	Output Shaft Spacer 4.05	1	34	7008G18	Breather plug 1/8 BSPP (ATEX only)	1
12	804-012	Circlip 32mm External	1				
13	102-009	Brake Spring Adjuster	2				
14	102-024	1/2" BSP Hex Nut	2				
15	814-008	Spring 243914	2				
16	802-031	Hex Head Screw M8 x 16	4				
17	808-039	O Ring 9/16" x 3/4"	1				
18	802-020	Hex Head Screw M6 x 20	2				
19	808-073	U Packing	2				
20	312-014	Piston Block	1				

Dimensions & Performance RM310 + HCV



Dimensions & Performance RM310 + RCV



Operational principle RM310 Control Valve Options

This range of bolt on valves offers very sensitive speed and directional control. One frictional matched spool and sleeve assembly is offered with two alternative means of actuation.

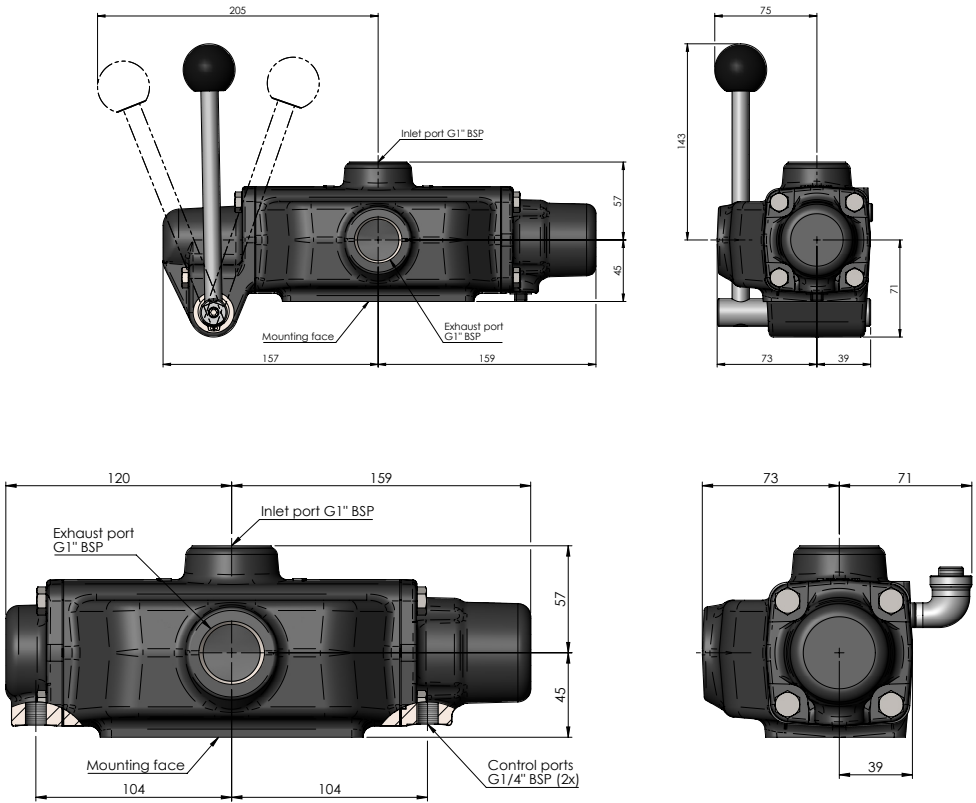
Configuration

As standard these valves can be supplied with either **EQUAL POWER OR BIASED POWER** spools, the latter is suitable for hoisting applications (normal power for lifting - reduced power for lowering). The direction of reduced power must be stated when ordering CW or CCW, when viewed on the output shaft of the motor.

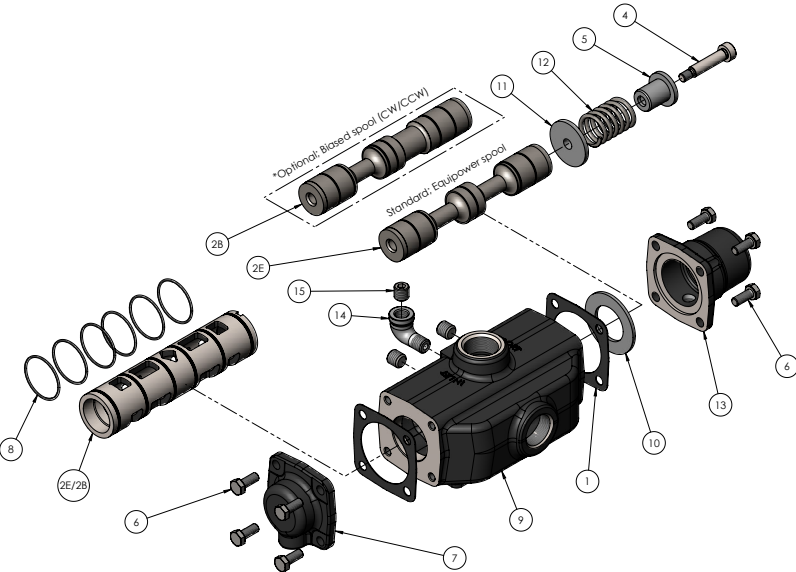
Hand Controlled (HCV) - The control valve spool is operated directly by a lever mechanism. Speed increase is obtained as the lever is moved in either direction from the centre (neutral) position.

Remotely Controlled (RCV) - This option is usually controlled from a remote position by one of the PC series or LC2 remote controllers. A variable air pilot signal is applied to either end of the valve spool, depending on the required direction of motor rotation. The pilot pressure range is between 1.4 bar (20 psi) and 4.8 bar (70 psi), increased pilot pressure gives increased speed. The valve is spring centred to neutral.

Pressure Drop - Minimal pressure drop will be experienced through the valves, having the effect of maintaining the output torque whilst reducing the motor output speed by approximately 10-15% at 6 bar (90 psi) at maximum power. The starting torque remains unaffected.

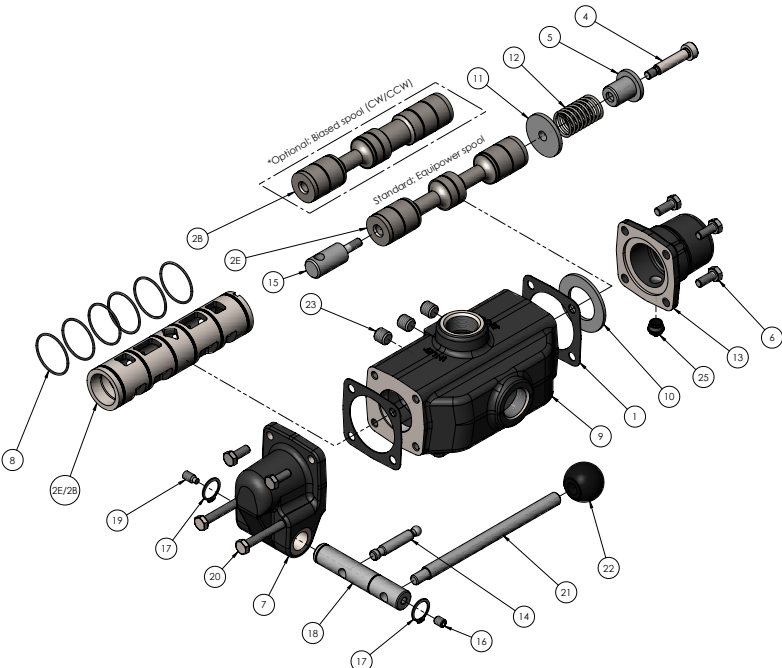


Spare Parts List Remote Control Valve



Item	Part No.	Description	Qty
1	311-066	End Cap Gasket	2
2E	321-913	Matched Spool and Sleeve	1 (Equipower)
2B	321-914	Matched Spool and Sleeve	1 (Biased)
4	817-002	Shoulder Screw 10mm	1
5	311-071	Centering Shaft Guide	1
6	802-032	Set Screw M8 x 20	8
7	311-065	End Cap - Plain End	1
8	808-010	O-Ring 1-9/16" x 1-11/16"	6
9	321-060	Valve Body	1
10	311-068	Valve Sleeve Spacer	1
11	311-072	Washer, Spring Centering	1
12	311-073	Spring, Control Spool	1
13	311-064	End Cap - Spring End	1
14	816-048	Elbow M/F 1/4" BSPT	1
15	816-061	Plug 1/4" BSPT	3

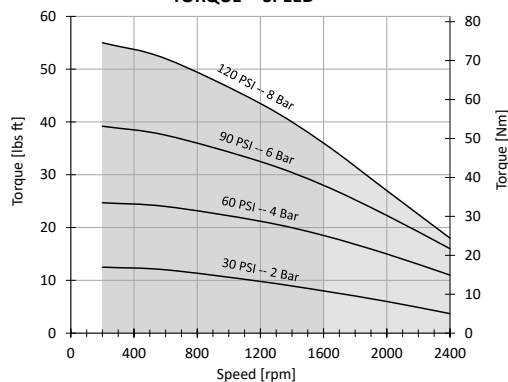
Spare Parts List Hand Control Valve



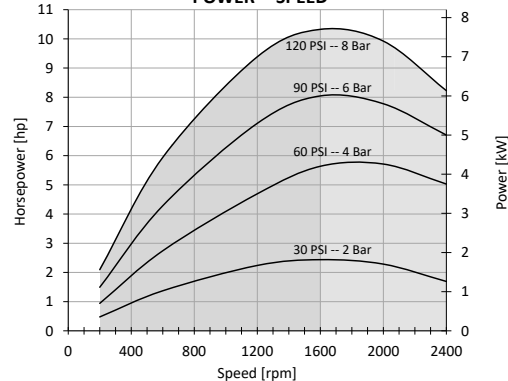
Item	Part No.	Description	Qty
01	311-066	End Cap Gasket	2
02E	321-913	Matched Spool and Sleeve	1 (Equipower)
02B	321-914	Matched Spool and Sleeve	1 (Biased)
4	817-002	Shoulder Screw 10 mm	1
5	311-071	Centering Shaft Guide	1
6	802-032	Hex Head Screw M8 x 20	6
7	313-041	Hand Lever Cap	1
8	808-010	O Ring 1-9/16"x 1-11/16"	6
9	321-060	Valve Body	1
10	311-068	Valve Sleeve Spacer	1
11	311-072	Washer, Spring Centering	1
12	814-015	Spring 343720	1
13	311-064	End Cap - Spring End	1
14	313-026	Toggle Pin	1
15	313-024	Toggle Shaft	1
16	815-010	Grub Screw M8 x 10	1
17	804-013	Circlip 20mm External	2
18	313-008	Hand Lever Pivot	1
19	815-002	Grub Screw M8 x 16	1
20	802-045	Hex Bolt M8 x 60	2
21	313-002	Hand Lever	1
22	818-002	Black Plastic Knob 1-1/2"	1
23	816-061	Plug 1/4" BSPT Sq. Head	3
25	113-050	Vent Plug	1

Gearbox ratio: None

TORQUE -- SPEED



POWER -- SPEED



Temperature Range:

Without brake: -20°C to +60°C (-4°F to +140°F).

With brake: -10°C to +60°C (-14°F to +140°F).

Airsupply Lubrication Drop Rate:

Continuous operation: 5-6 drop / minute.

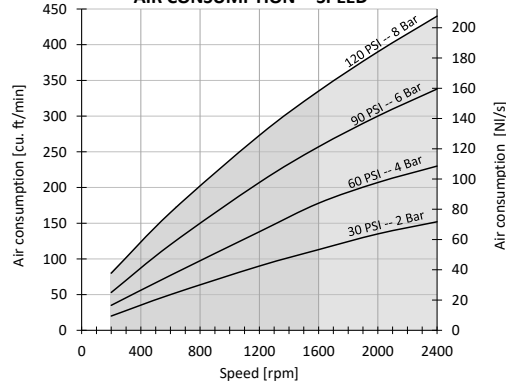
Intermittent operation: 10-12 drop / minute.

Maximum Speed: 2000 rpm

Life time depends highly on operational speed and air pressure.

No Control Valve fitted

AIR CONSUMPTION -- SPEED



Pressure	Starting torque	Max. Power	Speed*	AIR*
	lbs ft	HP	RPM	cu. ft / min
30 PSI	8	2,4	1600	113
60 PSI	17	5,7	1800	207
90 PSI	26	8,0	1800	300
120 PSI	34	10,3	1600	390
	Nm	kW	RPM	l / sec
2 bar	10	1,8	1600	53
4 bar	22	4,2	1800	98
6 bar	34	6,0	1800	142
8 bar	47	7,7	1600	184

* at max power

Pressure Drop Valves:

Minimal pressure drop will be experienced when a valve is fitted, having the effect of maintaining the output torque while reducing the motor output speed by approximately 10-15% at 6 bar / 90 psi at maximum power. The starting torque remains unaffected.

Ordering code

Select easily with the ordering code your version and order it at our sales team. Do you have special wishes? For example ATEX Certified, different mountings, brakes etc. You name it and we make it possible. Contact us for your wishes and we will be happy to engineer a proposal to suit your requirements.

X = Motor Only Maleshaft
D = Motor + Brake
M = Motor Only Female Shaft
N = SAE 'C' Hydraulic Pump Output
V = Grease Lubricated for Shaft Upwards Operation

A = Motor with Inlet Plate
H = Hand Lever Control Valve
R = Remote Controlled Valve
X = No Valving or Adaptor Plate

OUTPUT OPTIONS

VALVE OPTIONS

0 = Standard Motor & Ancillaries, for Standard Mounting

R43

X

XX

H

1

0

NOMINAL GEARBOX RATIO

XX = No Gearbox

VALVE

0 = BSP
1 = NPT
2 = Biased: CW Lowering (BSP)
3 = Biased: CCW Lowering (BSP)
4 = Biased: CW Lowering (NPT)
5 = Biased: CCW Lowering (NPT)

DESIGN CODE

RM110 (1.7 KW / 2.4 HP) = R14
RM210 (4 KW / 5.5 HP) = R23
RM310 (7.5 KW / 10 HP) = R33
RM410 (14 KW / 19 HP) = R43
RM510 (14 KW / 31 HP) = R52
RM610 (14 KW / 32 HP) = R62