

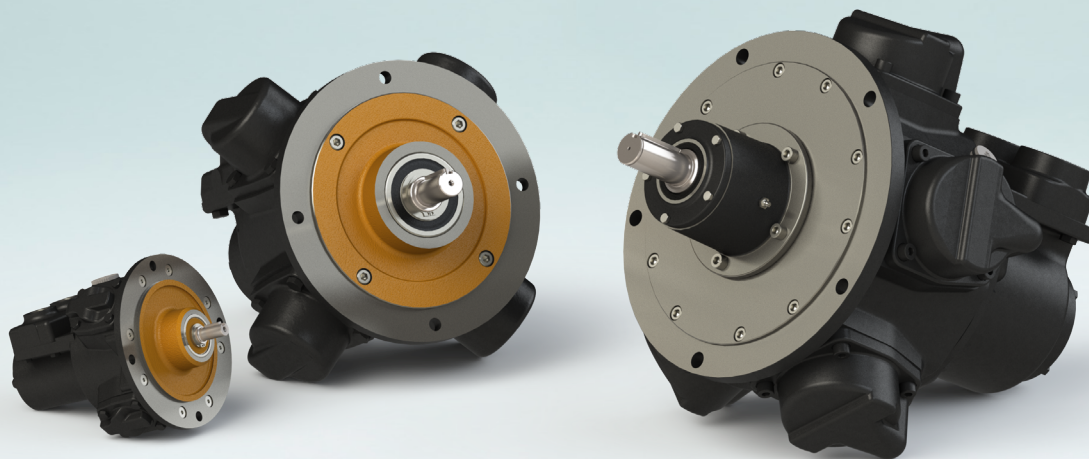


GLOBE[®] AIRMOTORS B.V.

GLOBE Airmotors | Boerhaaveweg 9-11 | NL - 2408 AD Alphen a/d Rijn | Tel +31 172 426 608 | info@globe-benelux.nl

Specifications: RM510

Piston Air Motor



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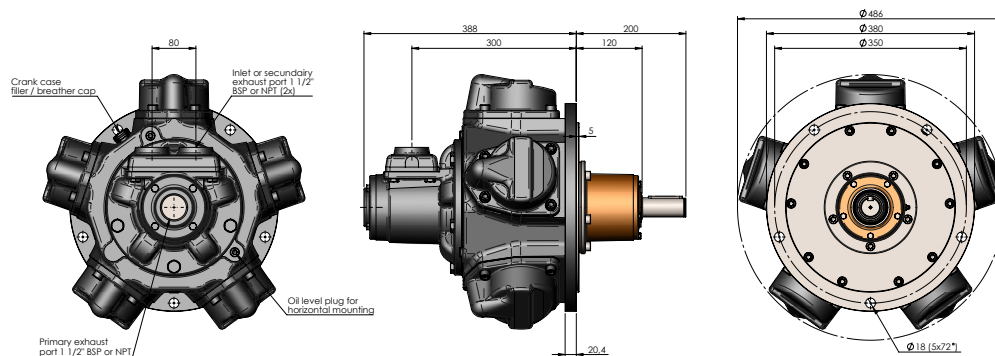
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LRQA
CERTIFIED
ISO 9001

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Spare Parts List RM510



Max Overhung Force:

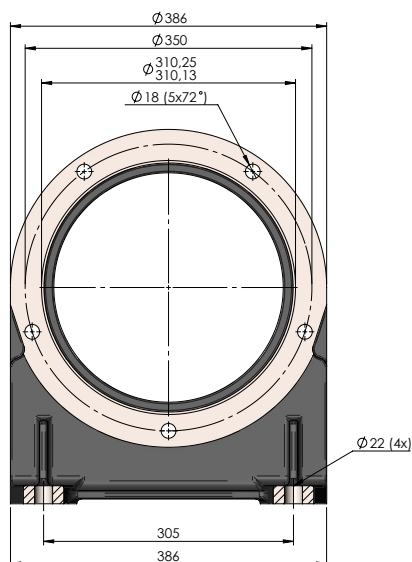
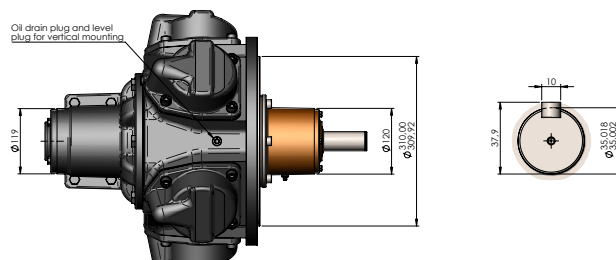
on motor shaft:

6500 N (1400 lbf)

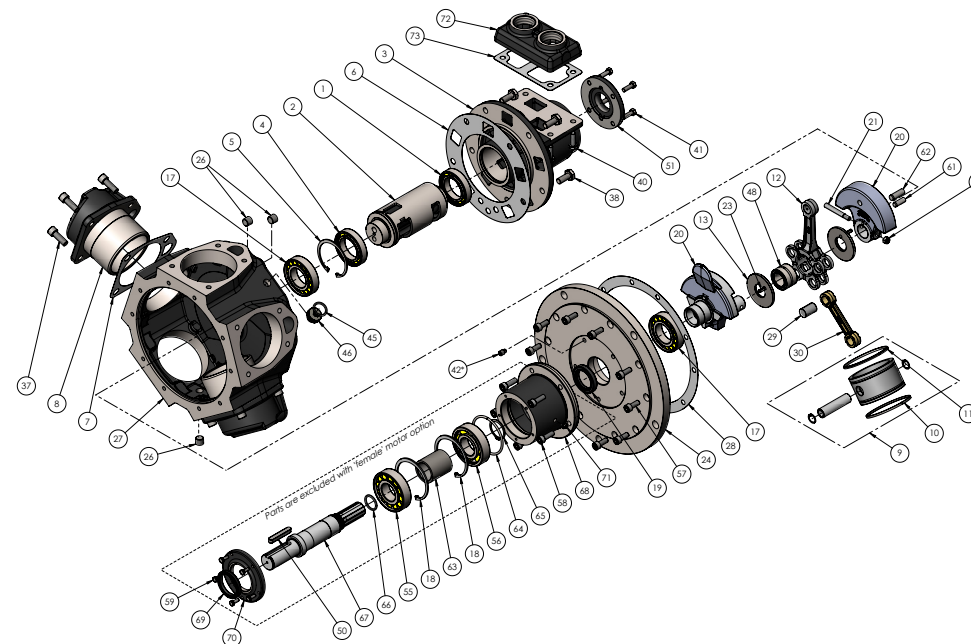
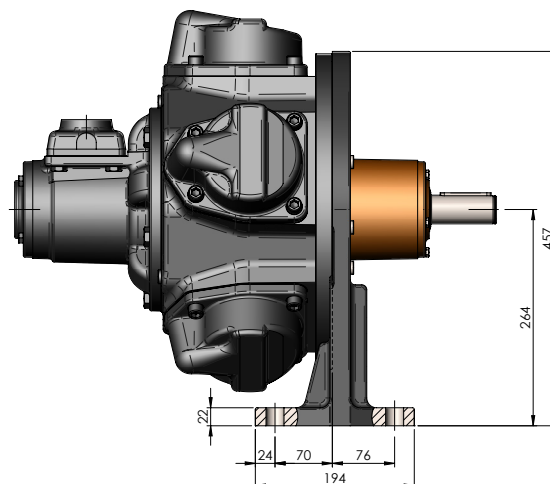
Mass:

Motor only

115 kg (254 lbs)



Motor or brake interference

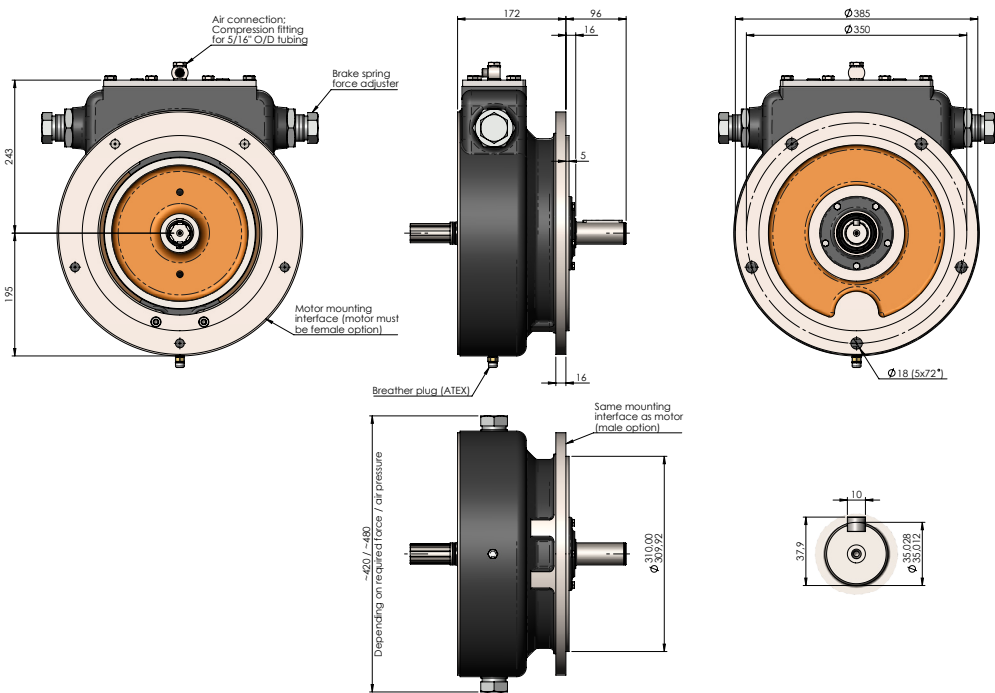


Item	Part No.	Description	Qty	Kit No.	Item	Part No.	Description	Qty	Kit No.
01	807-056	Rotary Valve Bearing (Outer)	1		45	808-004	Seal (transit only)	1	
02	620-006	Rotary Valve	1		46	130-066	Breather Plug	1	
03	620-011	Rotary Valve Housing	1		48	807-047	Needle Bearing	1	
04	807-055	Rotary Valve Bearing (Inner)	1		50	811-030	Key	1	
05	804-070	Rotary Valve Bearing Circlip	1		51A	620-042	Rotary Valve Exhaust Cover BSP	1	
06	620-001	Rotary Valve Housing Gasket	1*	629-912	51B	620-042N	Rotary Valve Exhaust Cover NPT	1	
07	510-030	Cylinder Gasket	5*	629-912	55	807-063	Output Shaft Brg. (Outer)	1	
08	510-082	Cylinder	5		56	807-012	Output Shaft Brg. (Inner)	1	
09	520-902A	Piston Assembly	5		57	809-001	Flange Place Cap Screws	10	
10	520-024	Compression Ring	5*	629-912	58	809-002	Output Housing Bolts	5	
11	520-022	Oil Control Ring	5*	629-912	59	802-016	Output Housing Cover Bolts	5	
12	520-077	King Rod	1		61	806-001	Drive Pin (dia. 10mm)	1	
13	520-052	Crank Pin Spacer	2		62	806-002	Drive Pin (dia. 12mm)	1	
17	807-062	Crankshaft Bearing	2		63	518-001	Output Shaft Bearing Spacer	1	
18	804-068	Crankshaft Bearing Circlip	2		64	518-004	Output Shaft Spring Ring	1	
19	808-047	Crankshaft Oilseal	1*	629-912	65	804-017	Output Shaft Circlip	1	
20A	520-901	Std. Crankshaft Assembly	1		66	808-002	Output Shaft Seal	1*	629-912
20B	520-904	SAE Crankshaft Assembly	1		67	518-003	Output Shaft	1	
21	510-088	Crank Bolt	1		68	518-005	Output Shaft Housing	1	
22	801-009	Crank Nut	1		69	808-042	Output Shaft Oil Seal	1*	629-912
23	806-013	Spring Dowel	1		70	518-002	Output Shaft Housing Cover	1	
24A	520-076	Std. Flange Plate	1		71	816-015	Output Shaft Grease Nipple	1	
24B	520-113	SAE Flange Plate	1		72A	620-046	Inlet Adaptor Plate BSP	1	
26	816-071	Plug	1		72B	620-046N	Inlet Adaptor Plate NPT	1	
27	620-012	Engine Case	1		73	620-047	Inlet Adaptor Plate Gasket	1*	629-912
28	510-090	Engine Case Gasket (520)	1*	629-912	78	620-045	Bearing Cap	1	
29	520-081	Queen Rod Pivot	5		79	810-016	Bearing Cap C'sk Screw	4	
30	520-078	Queen Rod	5						
37	809-035	Cylinder Bolts	20						
39	802-054	Valve Housing Bolts	4			149-920	Conversion Kit		
40	802-054	Adaptor Plate Bolt	4			629-912	RM610 Seal Kit	1	
41	802-033	Exhaust Cover Bolts	2						
42	815-008	Flange Plug Plugs	5*						

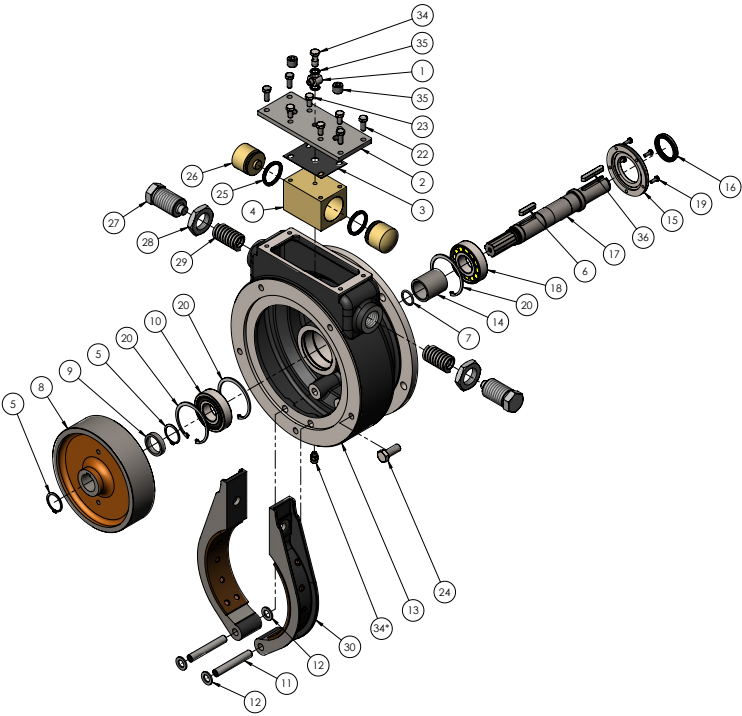
If unit is pre 1990 supplied, consult manufacturer to confirm design.

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Dimensions & Performance RM510 + Brake

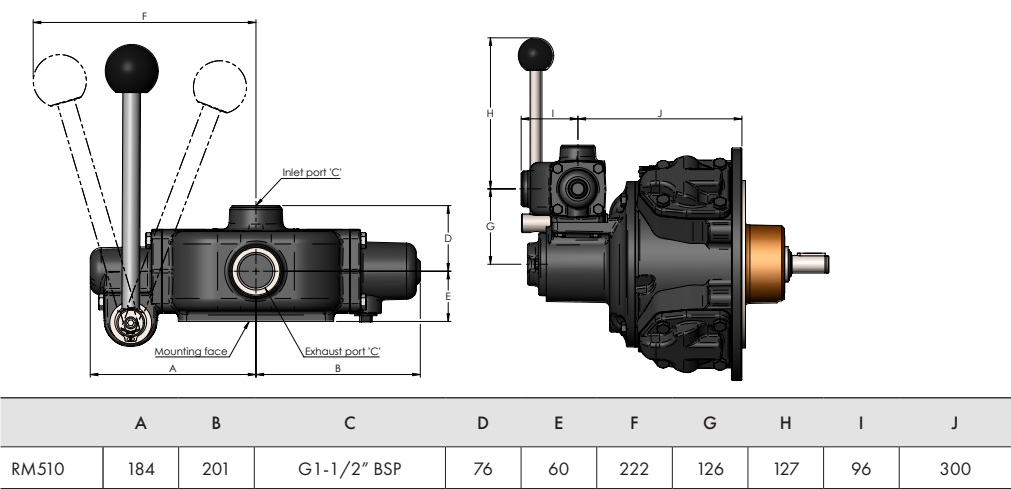


Spare Parts List Parking Brake

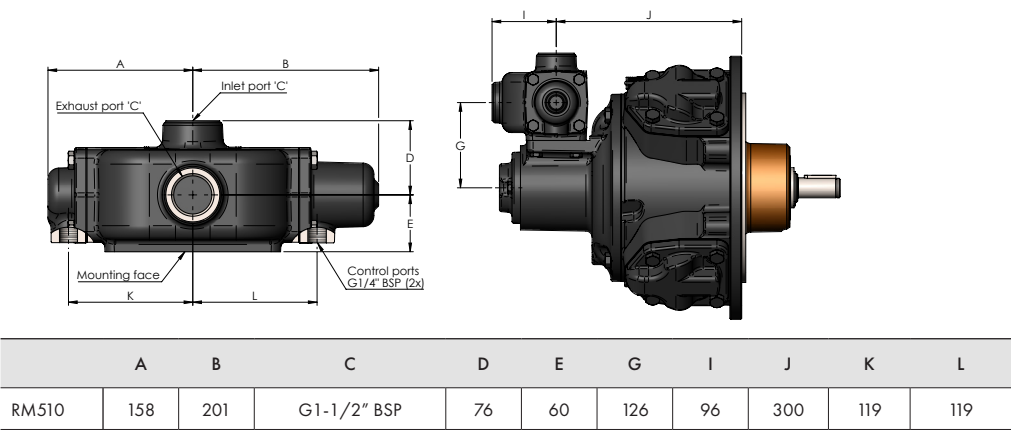


Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
01	816-005	Banjo Bolt C/W/ Nut&Rin 5/16	1	21	816-265	Screw Plugs (Bluegray)	2
02	512-013	Plunger Plate	1	22	802-053	Set Screw M10 x 25	4
03	512-030	Gasket Plunger Block	1	23	802-052	Set Screw M10 x 20	4
04	512-021	Plunger Block	1	24	802-094	Bolt M16 x 40 Hex Head	5
05	804-017	Circlip 40mm External	2	25	808-071	U Packing U132	2
06	811-006	Key K130	1	26	512-011	Plunger	2
07	808-002	O Ring-1/8"x1-3/8"	1	27	512-009	Adjuster Screw	2
08	512-001	Brake Wheel	1	28	512-024	Locknut	2
09	512-036	Wheel Spacer	1	29	814-011	Spring MSD15	2
10	807-013	Bearing 6308 2RS	1	30	512-901	Brake Shoe Assy	2
11	412-003	Pin	2	34	816-006	Banjo Bolt 1/4" BSP	1
12	803-003	Washer M 16	6	35	808-090	Bonded Seal 1/4"BSP Dowty	2
13	512-008	Brake Housing	1	36	811-030	Key 10 x 8 x 63	1
14	518-001	Output Brg Spacer	1	37	7008G18	Breather plug 1/8 BSPP (ATEX only)	1
15	518-002	Output Bearing Housing Cap	1				
16	808-042	Oilseal 48x62x8/R4	1				
17	512-005	Brake Shaft	1				
18	807-063	Roller Bearing	1				
19	802-016	Hex Head Screw M6 x 16	5				
20	804-068	Circlip 90mm External	3				

Dimensions & Performance RM510 + HCV



Dimensions & Performance RM510 + RCV



Operational principle RM510 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.

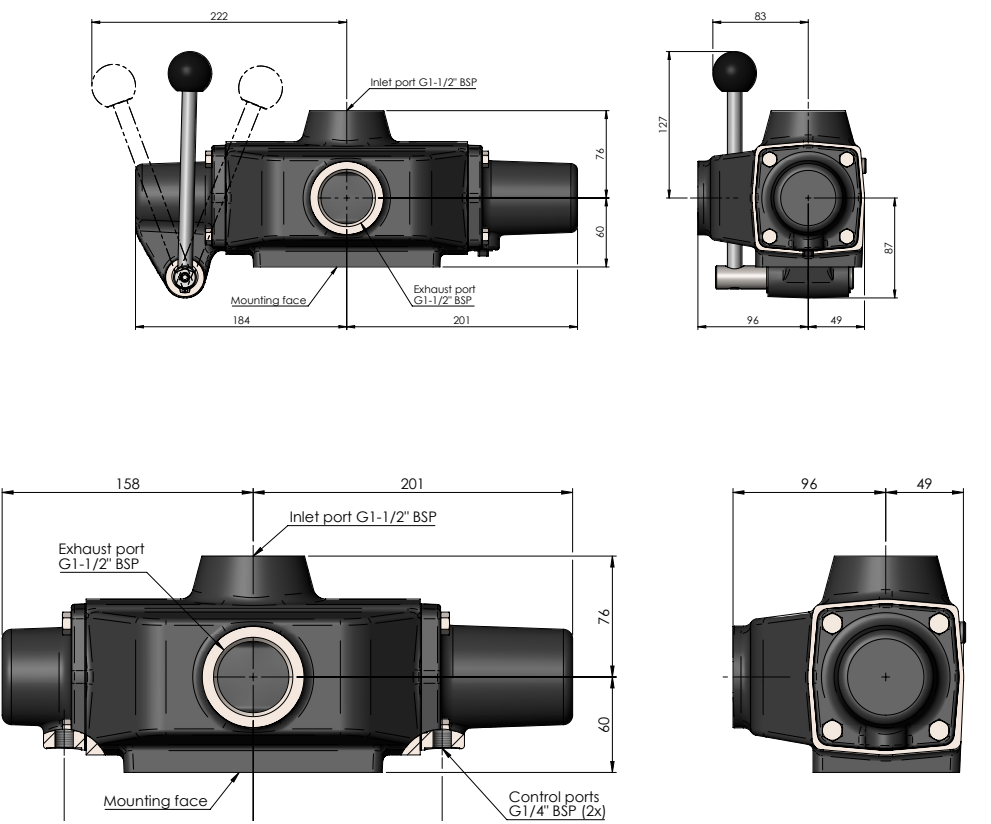
Configuration

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.

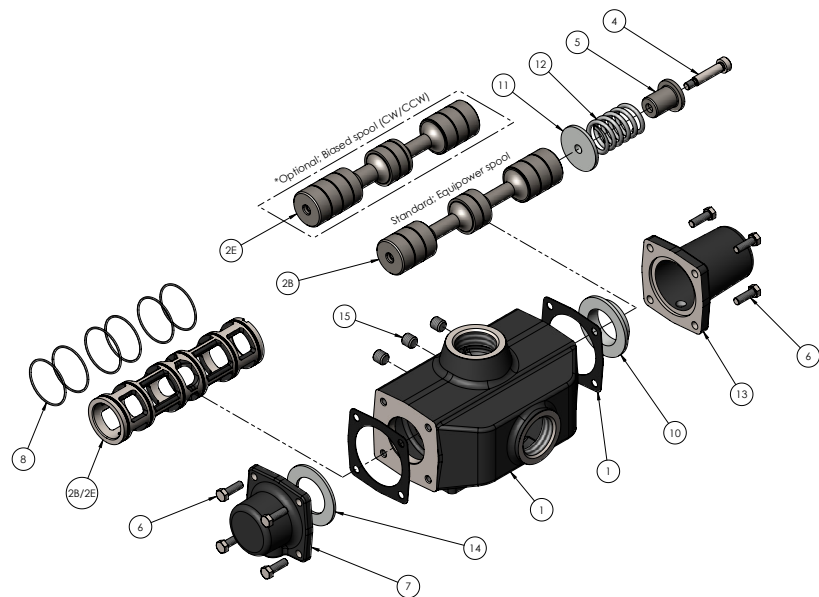
Hand Controlled (HCV) - The control valve spool is operated directly by a lever mechanism. Speed increase is obtained as the lever is moved in either direction from the centre (neutral) position.

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.

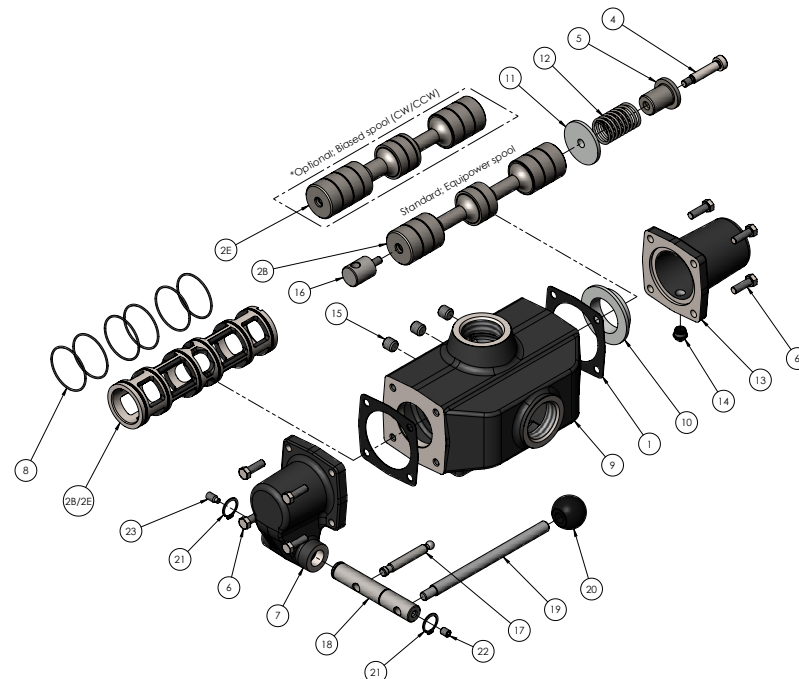


Spare Parts List Remote Control Valve



Item	Part No.	Description	Qty
01	521-066	End Cap Gasket	2
02E	521-913	Matched Spool and Sleeve	1 (Equipower)
02B	521-914	Matched Spool and Sleeve	1 (Biased)
4	817-002	Shoulder Screw 10 mm	1
5	521-071	Centering Shaft Guide	1
6	802-033	Hex Head Screw M8 x 25	8
7	521-065	End Cap - Plain End	1
8	808-013	O Ring 2"x2-1/8"	6
9	521-060	Valve Body	1
10	521-068	Valve Sleeve Spacer	1
11	521-072	Washer, Spring Centering	1
12	814-019	Sprin, Control Spool	1
13	521-064	End Cap - Spring End	1
14	521-033	End Cap Washer	1
15	816-074	Plug 1/8" BSPT Sq. Head	3

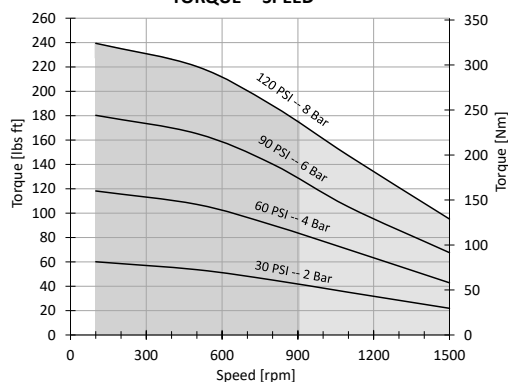
Spare Parts List Hand Control Valve



Item	Part No.	Description	Qty
01	521-066	End Cap Gasket	2
02E	521-913	Matched Spool and Sleeve	1 (Equipower)
02B	521-914	Matched Spool and Sleeve	1 (Biased)
4	817-002	Shoulder Screw 10 mm	1
5	521-071	Centering Shaft Guide	1
6	802-033	Set Screw M8 x 25	8
7	523-041	Lever Cap	1
8	808-013	O Ring 2" x 1/8"	6
9	521-060	Valve Body	1
10	521-068	Valve Sleeve Spacer	1
11	521-072	Washer, Spring Centering	1
12	814-020	Spring Flexo 403824	1
13	521-064	End Cap - Spring End	1
14	113-050	Vent Plug	1
15	816-061	Plug 1/4" BSPT Sq. Head	3
16	523-024	Toggle Shaft	1
17	523-026	Toggle Pin	1
18	523-008	Hand Lever Pivot	1
19	313-002	Hand Lever	1
20	818-002	Black Plastic Knob 1-1/2"	1
21	804-013	Circlip 20mm External	2
22	815-010	Grub Screw M8 x 10	1
23	815-002	Grub Screw M8 x 16	1

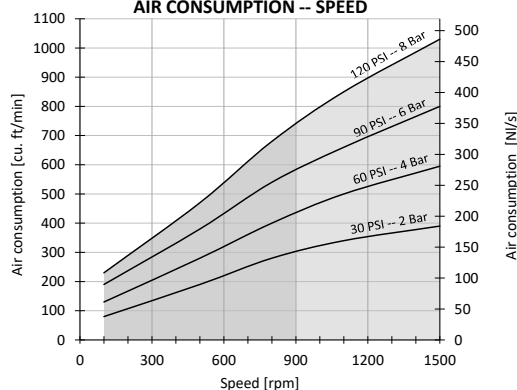
Gearbox ratio: None

TORQUE -- SPEED

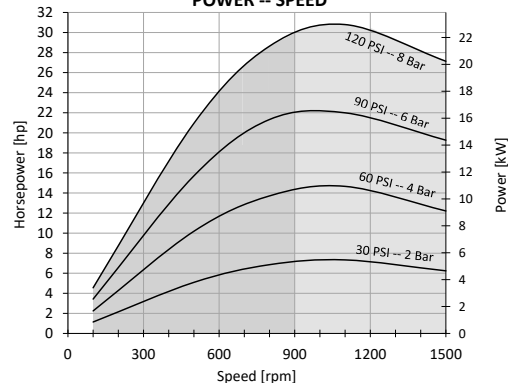


No Control Valve fitted

AIR CONSUMPTION -- SPEED



POWER -- SPEED



Pressure	Starting torque	Max. Power	Speed*	AIR*
	lbs ft	HP	RPM	cu. ft / min
30 PSI	40	7,3	1100	340
60 PSI	83	14,7	1050	480
90 PSI	127	22,0	900	590
120 PSI	170	30,8	1050	825
	Nm	kW	RPM	l / sec
2 bar	54	5,5	1100	160
4 bar	113	10,9	1050	227
6 bar	172	16,4	900	278
8 bar	231	23,0	1050	389

* at max power

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: 6-8 drop / minute.

Intermittent operation: 12-16 drop / minute.

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.

Maximum Speed: 1500 rpm

Life time depends highly on operational speed and air pressure.

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