

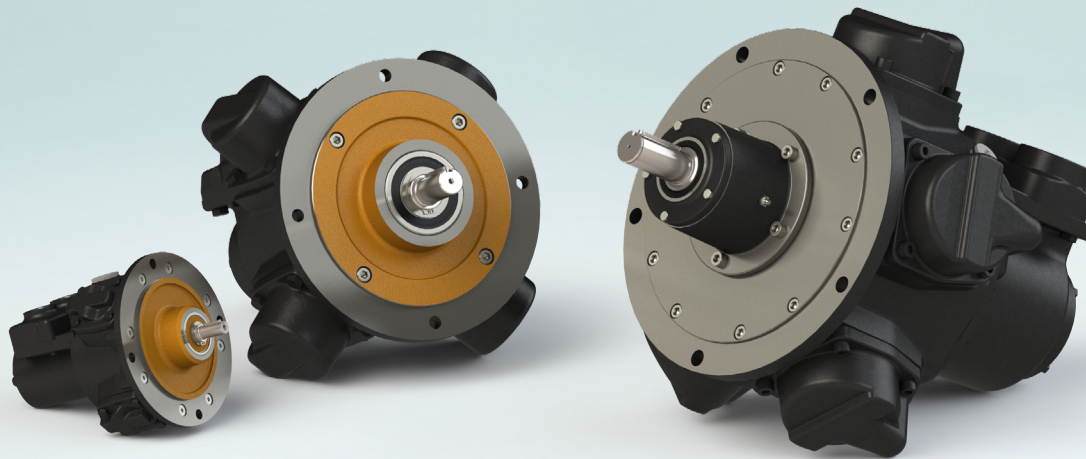


GLOBE AIRMOTORS B.V.

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Specifications: RM610

Piston Air Motor



Order your
PISTON MOTOR:
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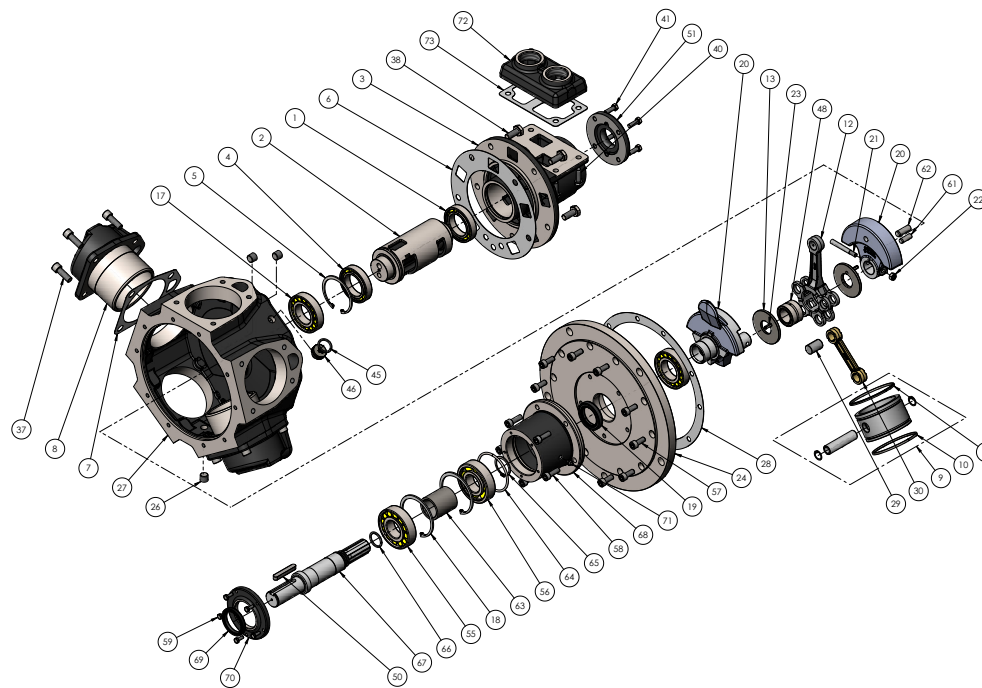
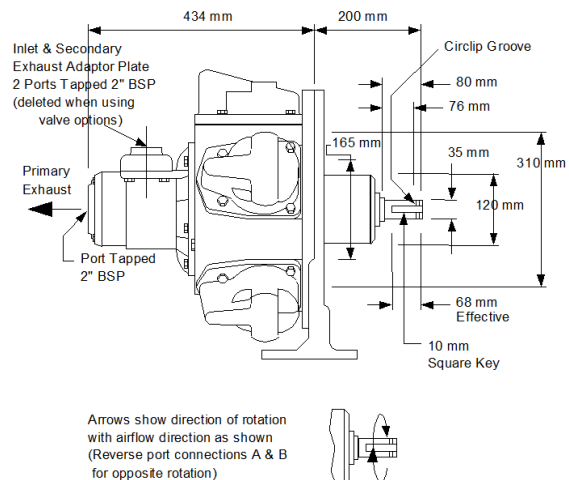
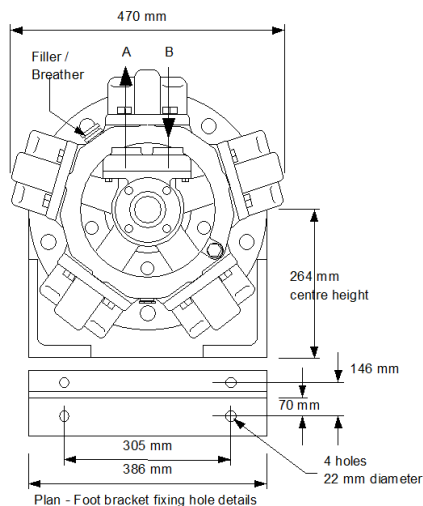
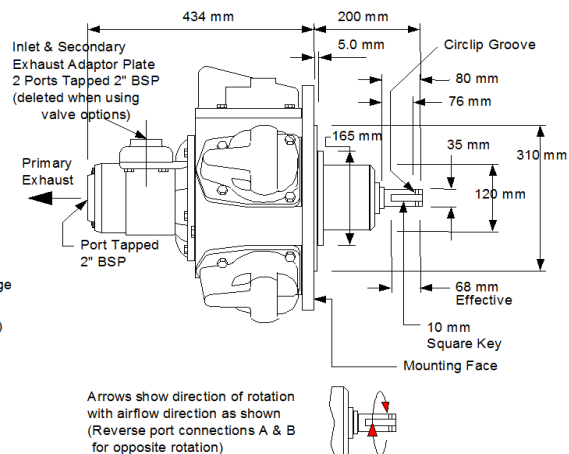
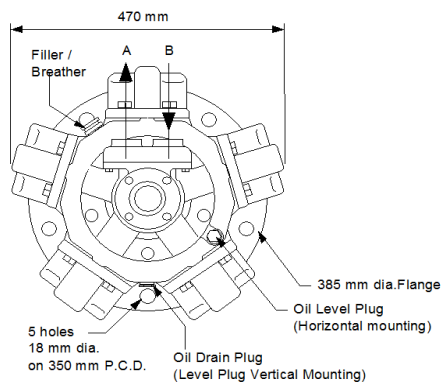
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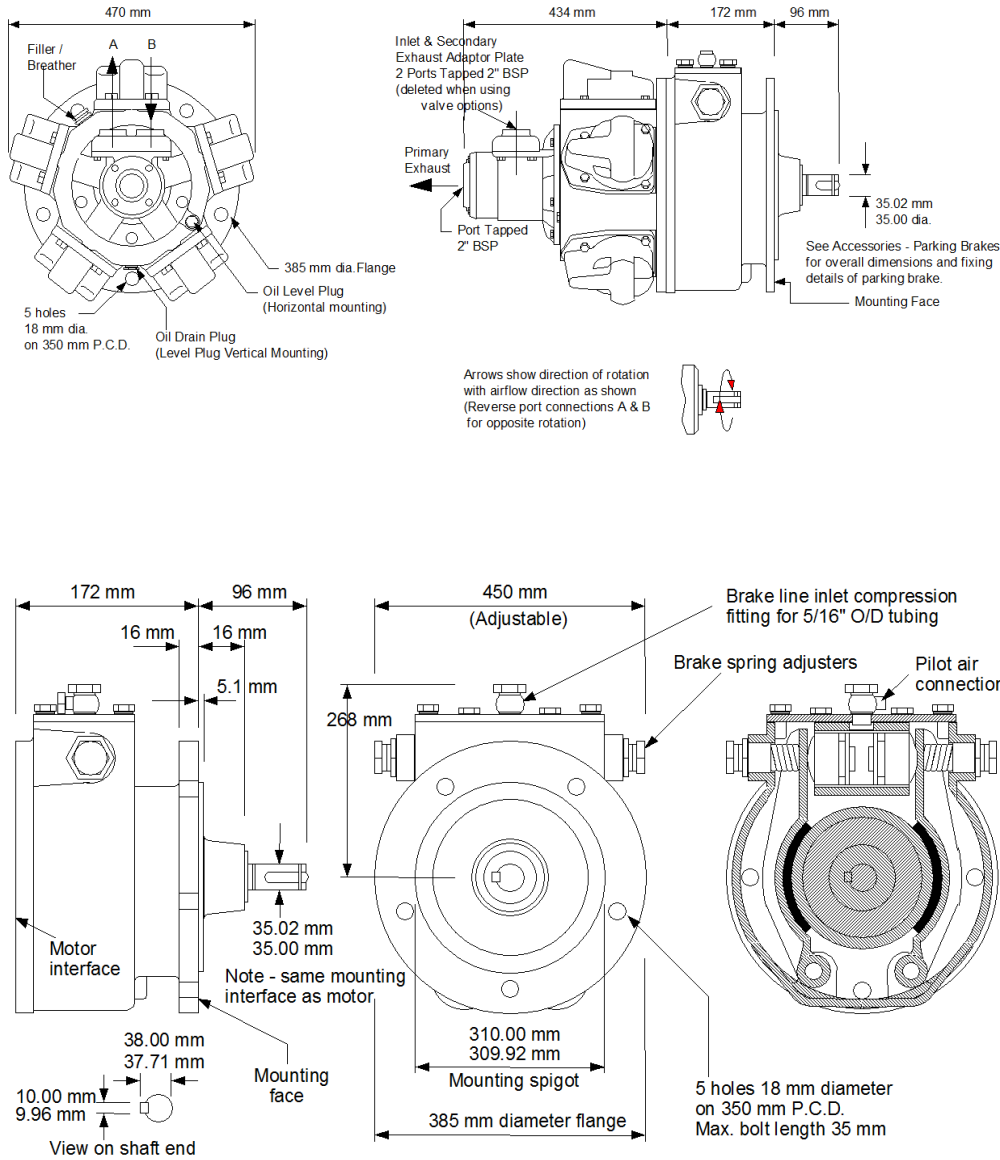
Dimensions RM610 & RM610 + Foot Bracket

Spare Parts List RM610



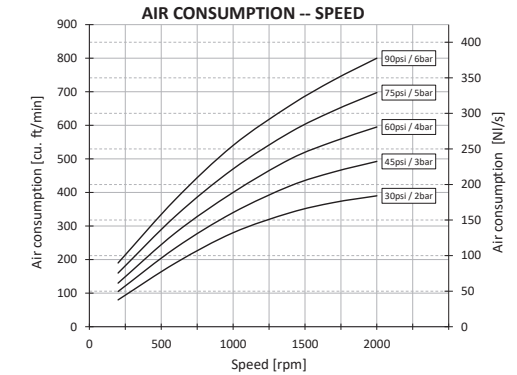
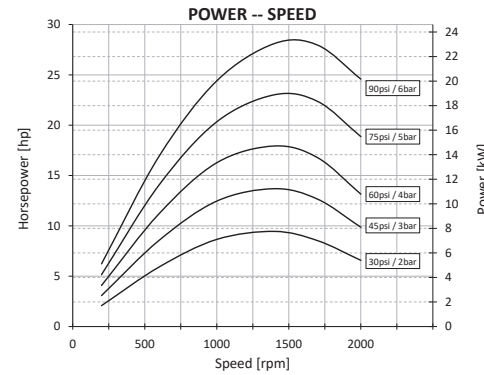
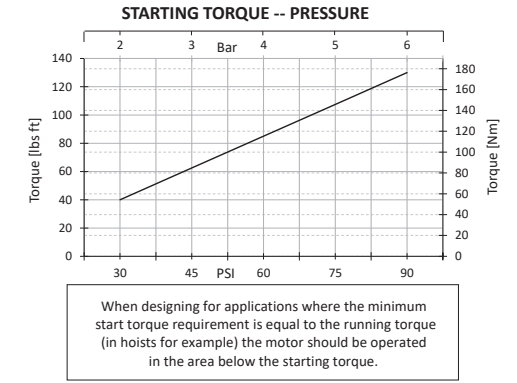
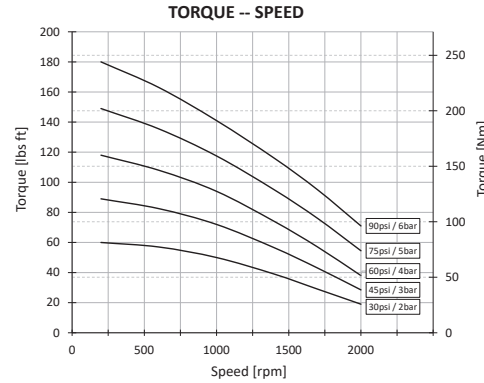
Item	Part No.	Description	Qty	Kit No.	Item	Part No.	Description	Qty	Kit No.
01	807-056	Rotary Valve Bearing (Outer)	1		45	808-004	Seal (transit only)	1	
02	620-006	Rotary Valve	1		46	130-066	Breather Plug	1	
03	620-011	Rotary Valve Housing	1		48	807-047	Needle Bearing	1	
04	807-055	Rotary Valve Bearing (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*	629-912	57	809-001	Flange Plage 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 Oilseal	2		64	518-004	Output Shaft Spring Ring	1	
19	808-047	Crankshaft Bearing Circlip	1*	629-912	65	804-017	Output Shaft Circlip	1	
20A	520-901	Slid. 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*	629-912
22	801-009	Crank Nut	1		69	808-042	Output Shaft Oil Seal	1	
23	806-013	Spring Dowel	1		70	518-002	Output Shaft Housing Cover	1	
24A	520-076	Slid. 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			149-920	Conversion Kit	1	
37	802-074	Cylinder Bolts	20			629-912	RM610 Seal Kit	1	
39	802-054	Valve Housing Bolts	4						
40	802-054	Adaptor Plate Bolt	4						
41	802-033	Exhaust Cover Bolts	2						
42	815-008	Flange Plage Plugs	5*						

Dimensions & Performance RM610 + Brake



Gearbox ratio: None

Maximum speed: 2000 RPM
No Control Valve fitted



LUBRICATING OIL CAPACITIES

Horizontal 1,1 litres Vertical 2,1 litres
Use a good quality hydraulic oil with a viscosity of around 100cSt (460SSU) at 40°C (104°F)

AIRLINE FILTRATION AND LUBRICATION

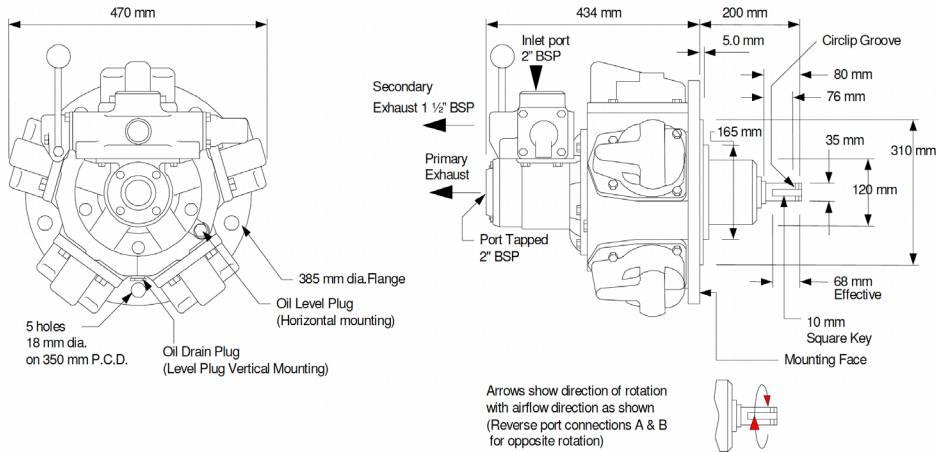
Use 64 micron filtration or better. Choose a lubricator suitable for the flow required. Prior to initial start-up, inject oil into the inlet port.

GENERAL DATA

MASS (motor only) 125 kgs (276 lbs)
MOMENT OF INERTIA of rotating parts 14 gm² (motor only)
MAX OVERHUNG FORCE on motor shaft 6500 N (1460 lbf)
TEMPERATURE RANGE -20°C to +60°C (-4°F to +140°F) / -10°C to +60°C (-14°F to +140°F) with brake

Lubricator drop rate 8-10 drops/minute continuous operation
Lubricator drop rate 16-20 drops/minute intermittent operation

Dimensions & Performance RM610 + HCV



Operational principle RM610 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

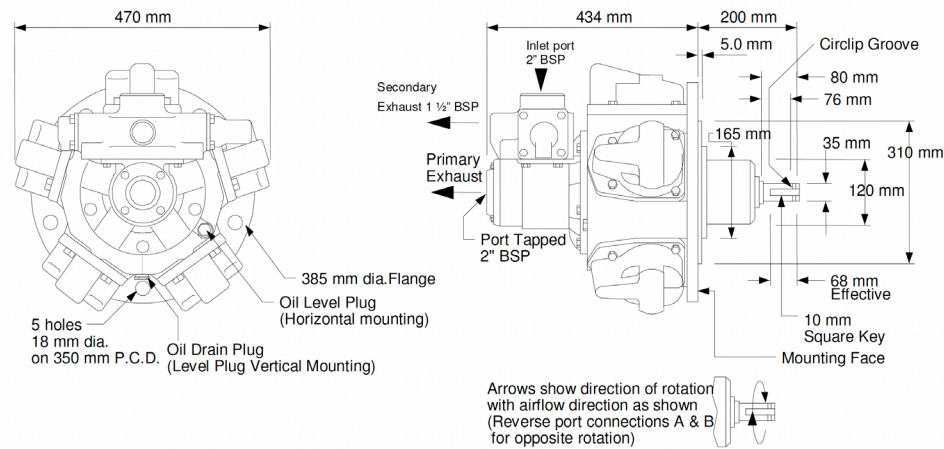
As standard these valves can be supplied with either **EQUAL POWER OR BIASED POWER** spools, the latter is suitable for hoisting applications (normal power for lifting - reduced power for lowering). The direction of reduced power must be stated when ordering **CW** or **CCW**, when viewed on the output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

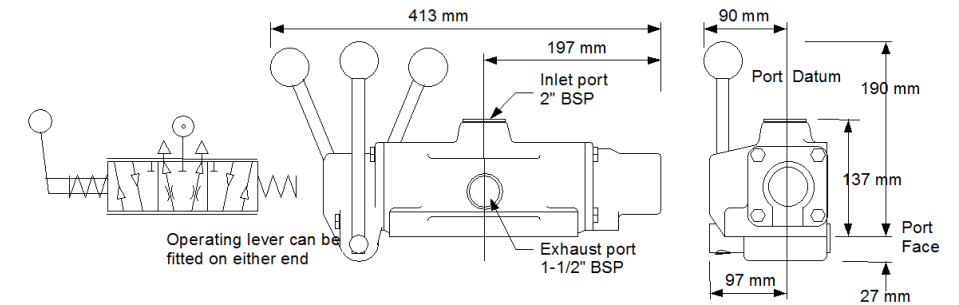
Remotely Controlled (RCV) - This option is usually controlled from a remote position by one of the PC series or LC2 remote controllers. A variable air pilot signal is applied to either end of the valve spool, depending on the required direction of motor rotation. The pilot pressure range is between 1.4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

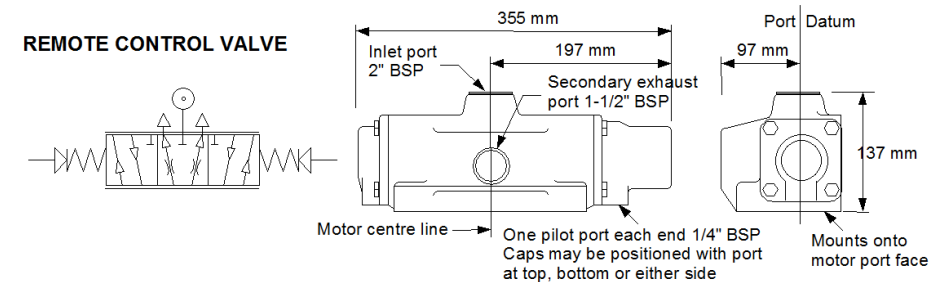
Dimensions & Performance RM610 + RCV



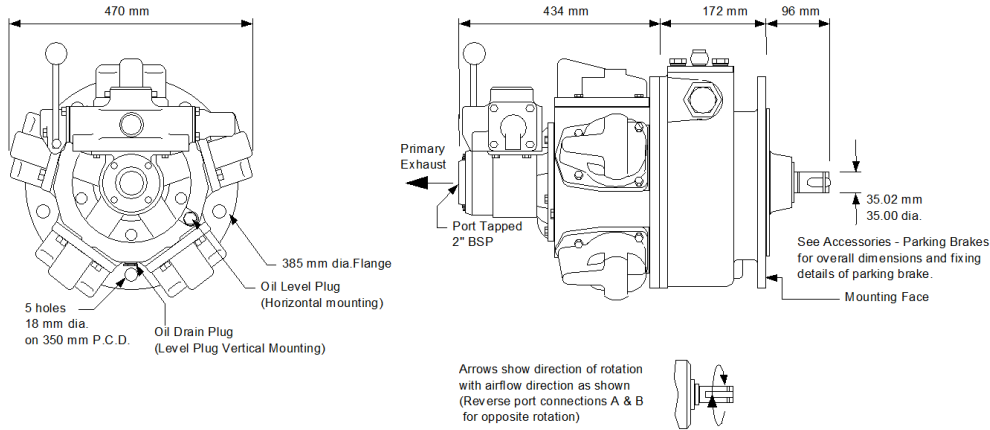
HAND CONTROL VALVE



REMOTE CONTROL VALVE

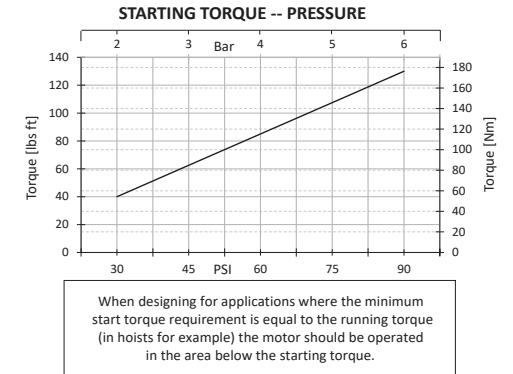
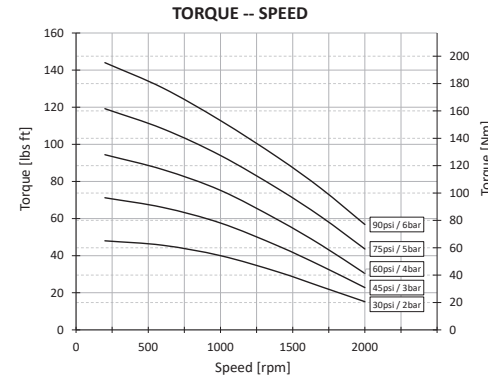


Dimensions & Performance RM610 + Brake + HCV

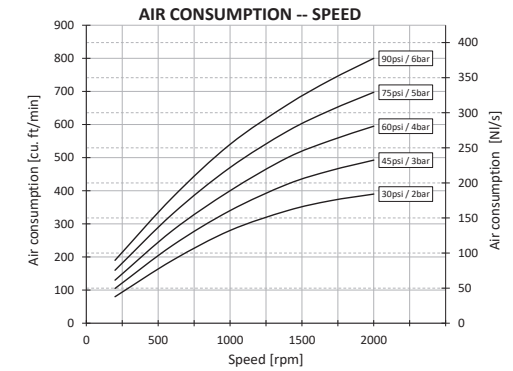
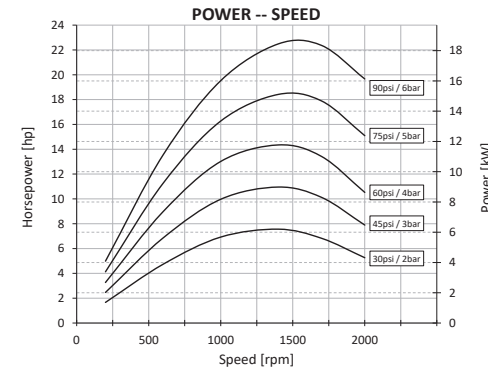
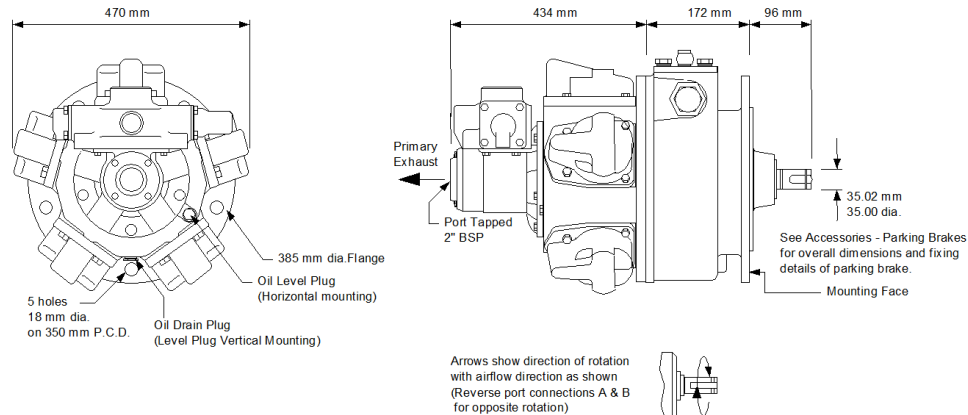


Gearbox ratio: None

Maximum speed: 1800 RPM
Control Valve Fitted



Dimensions & Performance RM610 + Brake + RCV



LUBRICATING OIL CAPACITIES

Horizontal 1,1 litres Vertical 2,1 litres

Use a good quality hydraulic oil with a viscosity of around 100cSt (460SSU) at 40°C (104°F)

AIRLINE FILTRATION AND LUBRICATION

Use 64 micron filtration or better. Choose a lubricator suitable for the flow required. Prior to initial start-up, inject oil into the inlet port.

GENERAL DATA

MASS (motor only) 125 kgs (276 lbs)

MOMENT OF INERTIA of rotating parts 14 gm² (motor only)

MAX OVERHUNG FORCE on motor shaft 6500 N (1460 lbf)

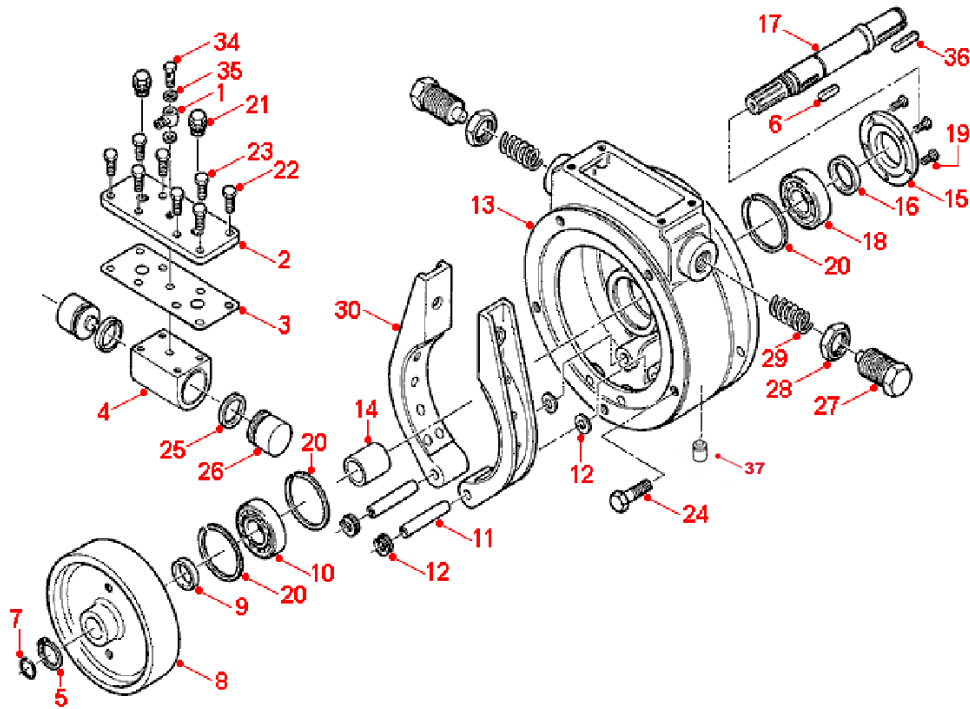
TEMPERATURE RANGE -20°C to +60°C (-4°F to +140°F)

/ -10°C to +60°C (-14°F to +140°F) with brake

Lubricator drop rate 8-10 drops/minute continuous operation

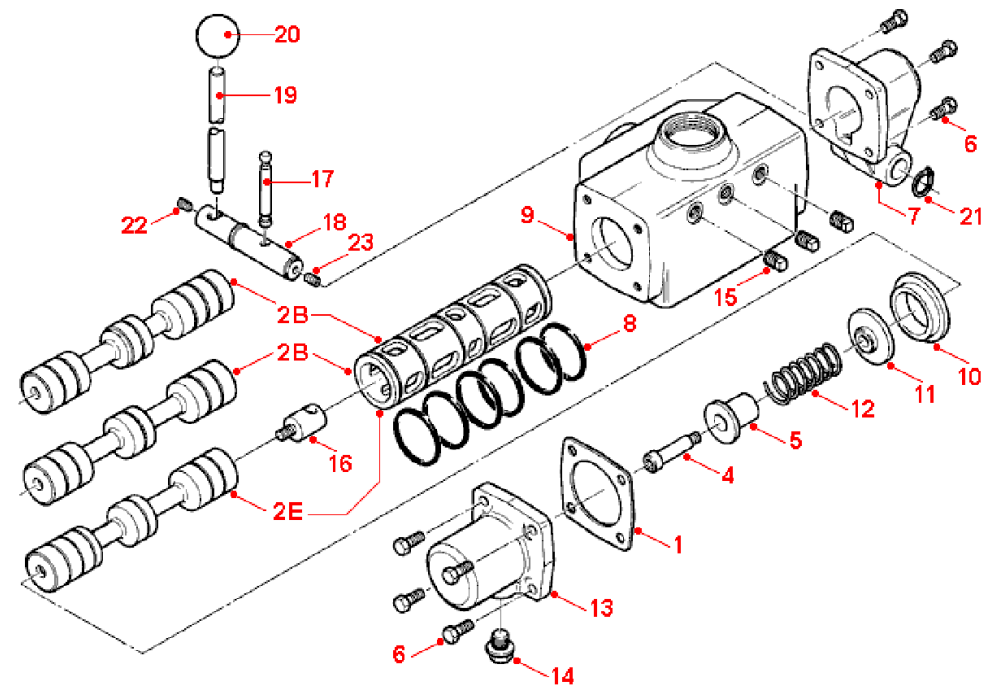
Lubricator drop rate 16-20 drops/minute intermittent operation

Spare Parts List Parking Brake



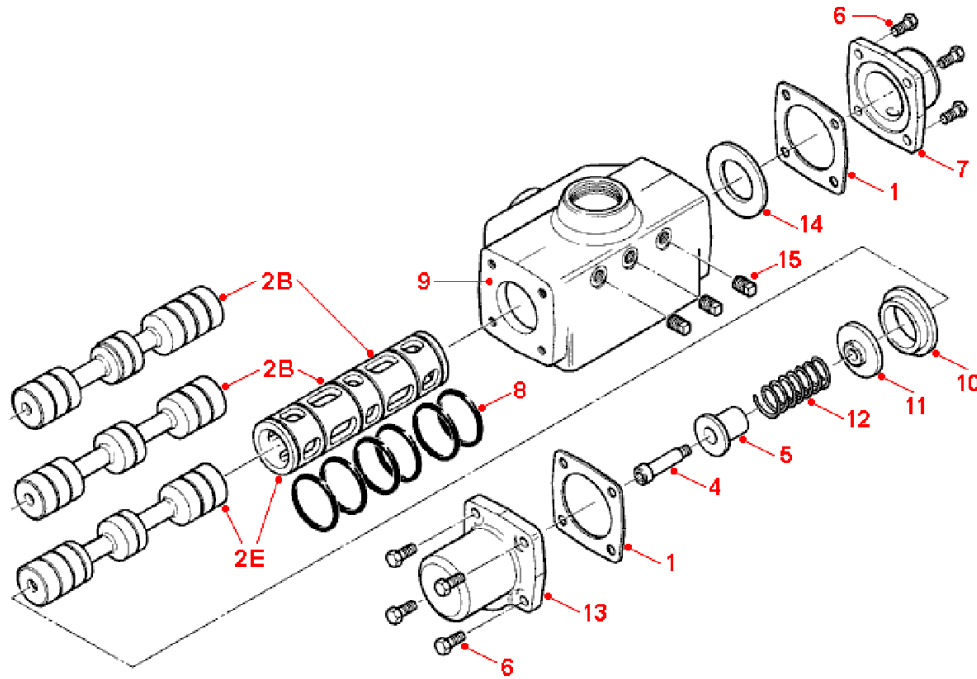
Item	Part No.	Description	Qty
01	816-005	Banjo Bolt C/W/ Nut&Rin 5/16	1
02	512-013	Plunger Plate	1
03	512-030	Gasket Plunger Block	1
04	512-021	Plunger Block	1
05	804-017	Circlip 40mm External	2
06	811-006	Key K130	1
07	808-002	O Ring-1/8"x1-3/8"	1
08	512-001	Brake Wheel	1
09	512-036	Wheel Spacer	1
10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

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

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
02B	521-914	Matched Spool and Sleeve	1
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" x 2-1/8"	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

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

R43

X

XX

H

1

0

VALVE OPTIONS

0 = Standard Motor & Ancillaries, for Standard Mounting

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