

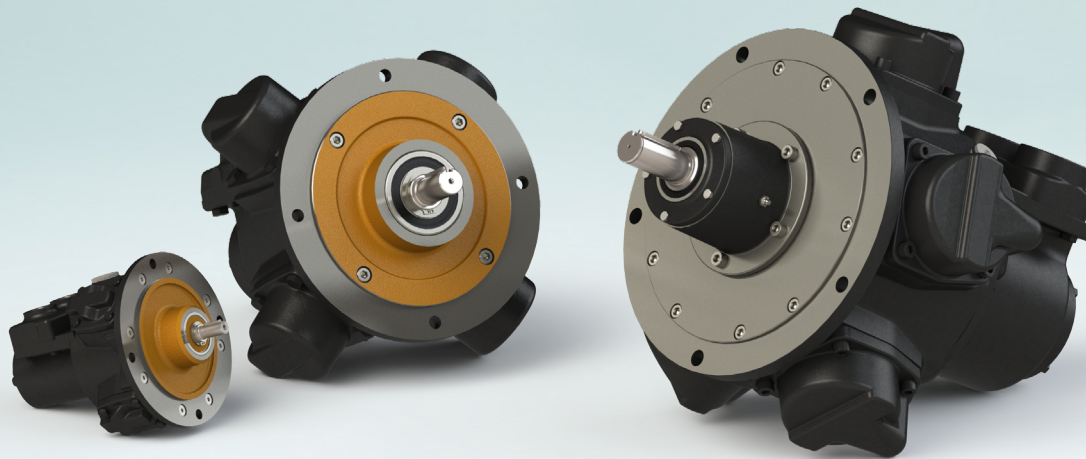


GLOBE AIRMOTORS B.V.

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Specifications: RM410

Piston Air Motor



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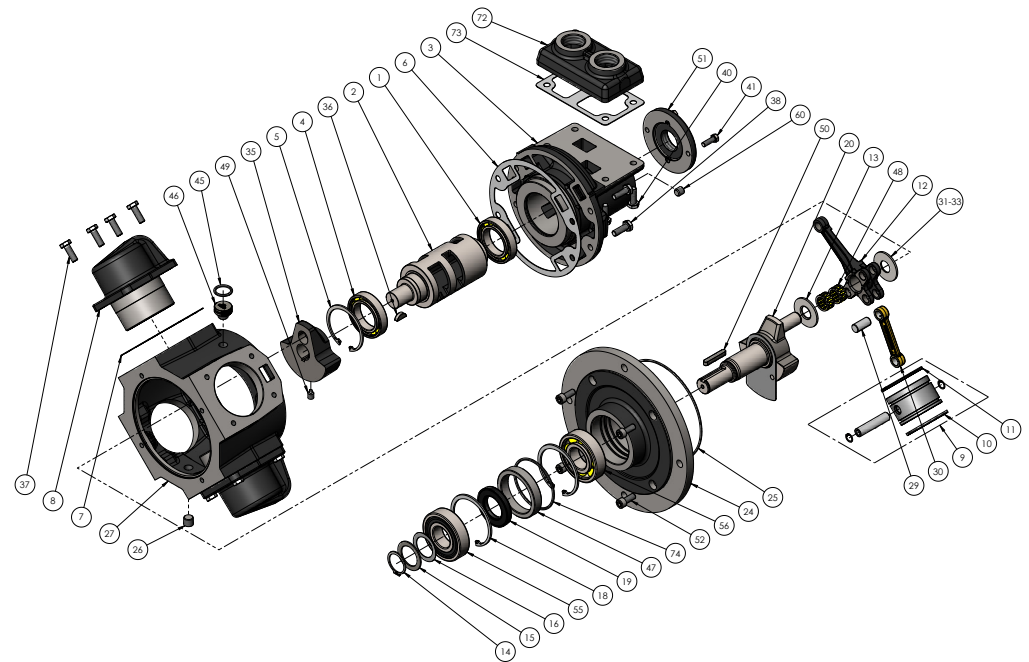
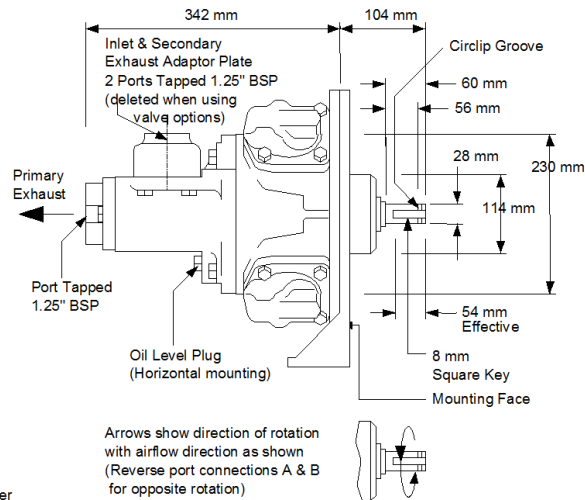
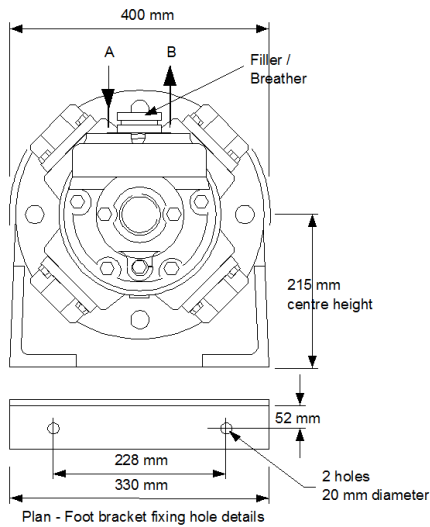
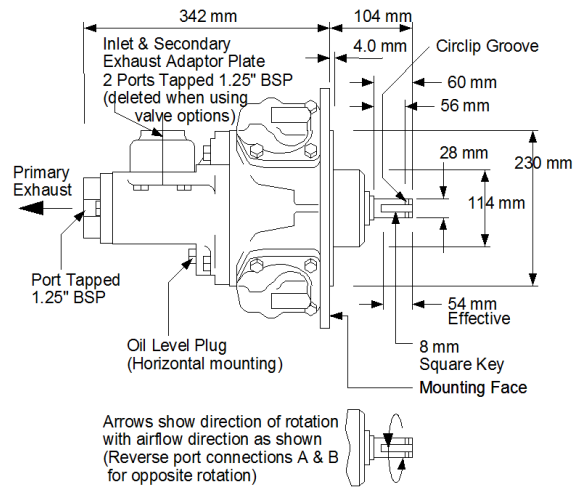
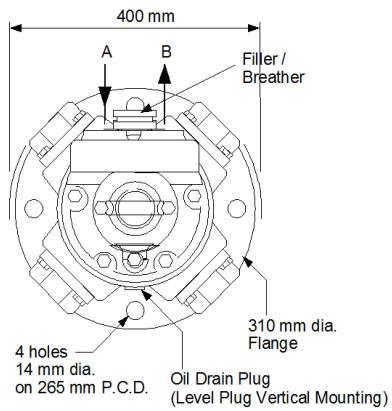
LRQA
CERTIFIED

ISO 9001

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Dimensions RM410 & RM410 + Foot Bracket

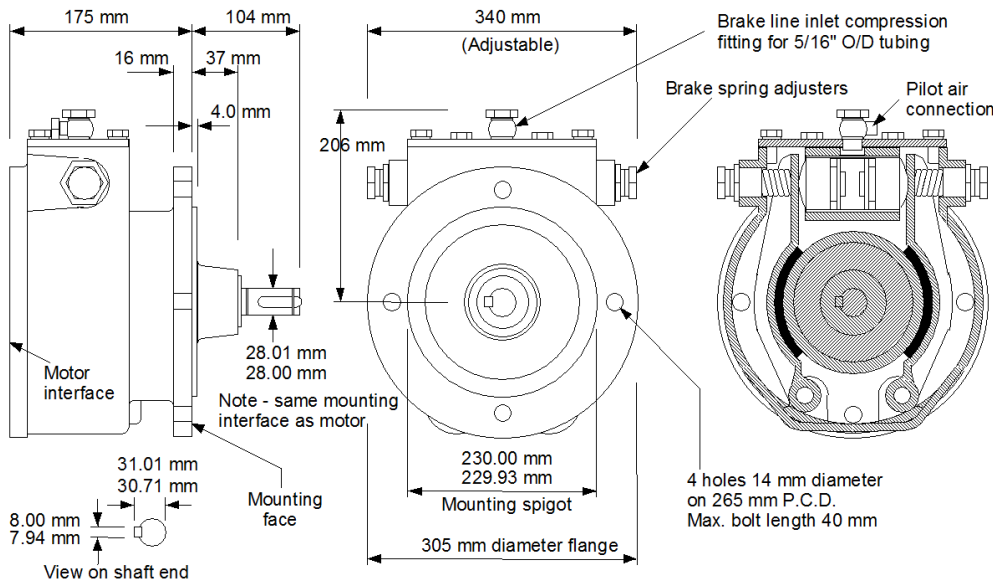
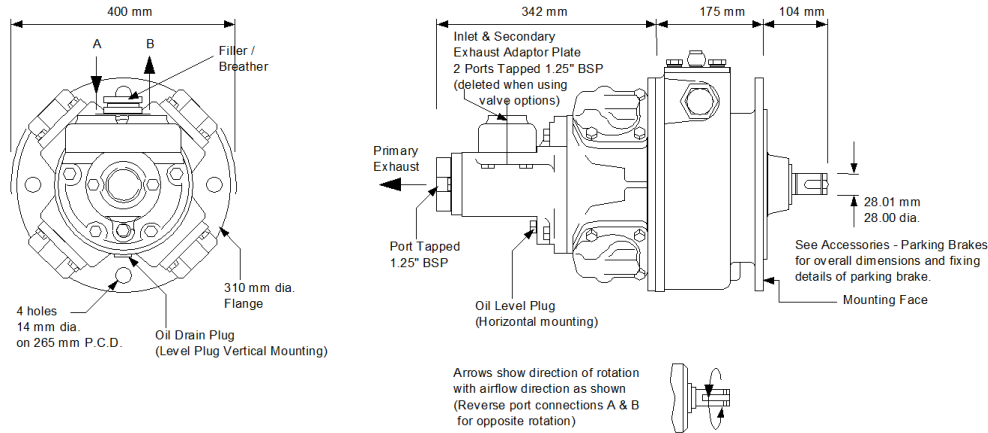
Spare Parts List RM410



Item	Part No.	Description	Qty	Kit No.	Item	Part No.	Description	Qty	Kit No.
01	807-006	Rotary Valve Bearing (Outer)	1		37	802-054	Cylinder Bolts	16	
02	430-006	Rotary Valve	1		38	802-054	Valve Housing Bolts	4	
03	430-011	Rotary Valve Housing	1		40	802-054	Adaptor Plate Bolt	4	
04	807-005	Rotary Valve Bearing (Inner)	1		41	802-033	Exhaust Cover Bolts	2	
05	804-066	Rotary Valve Bearing Circlip	1		45	808-004	Seal (transit only)	1	
06	430-001	Rotary Valve Housing Gasket	1*	439-910	46	130-066	Breather Plug	1	
07	430-030	Cylinder Gasket	4*	439-910	47	430-083	Oil Seal Carrier	1	
08	430-082	Cylinder	4		48	807-045	Needle Bearing	2	
09	430-902A	Piston Assembly	4		49	815-003	Grub Screw	1	
10	430-024	Compression Ring	4*	439-910	50	811-005	Key	1	
11	430-022	Oil Control Ring	4*	439-910	51A	430-005	Rotary Valve Exhaust Cover BSP	1	
12	430-077	King Rod	1		51B	430-105	Rotary Valve Exhaust Cover NPT	1	
13	430-053	Crankshaft Spacer	2		52	809-001	Flange Bolts	4	
14	804-016	Crankshaft Circlip	1		55	807-013	Output Shaft Brg. (Outer)	1	
15	430-035	Crankshaft Spacer	1		56	807-012	Output Shaft Brg. (Inner)	1	
16	430-049	Crankshaft Spacer Shim	5		60	816-074	Oil Level Plug	1	
18	804-068	Crankshaft Bearing Circlip	2		72A	430-003	Inlet Adaptor Plate BSP	1	
19	808-048	Crankshaft Oilseal	1*	439-910	72B	430-103	Inlet Adaptor Plate NPT	1	
20	430-901	Std. Crankshaft Assembly	1		73	430-004	Inlet Adaptor Plate Gasket	1*	439-910
24A	430-076	Std. Flange Plate	1			439-910	RM410 Seal Kit	1	
24B	430-097	SAE Flange Plate	1						
25	808-018	Flange Plate Seal	1*	439-910					
26	816-071	Plug	1						
27	430-012	Engine Case	1						
29	430-081	Queen Rod Pivot	3						
30	430-078	Queen Rod	3						
31	430-052	Crank Spacer SELECT	1						
32	430-053	Crank Spacer ON	1						
33	430-054	Crank Spacer ASSEMBLY	1						
35	430-010	Balance Weight	1						
36	811-009	Woodruff Key	1						

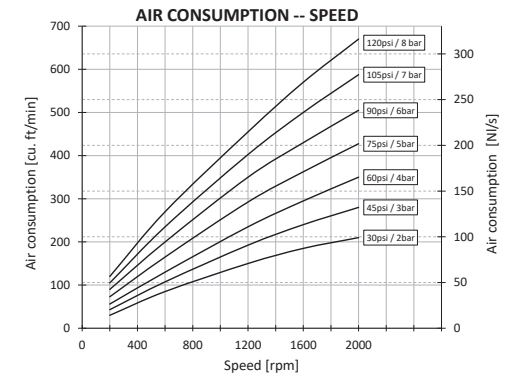
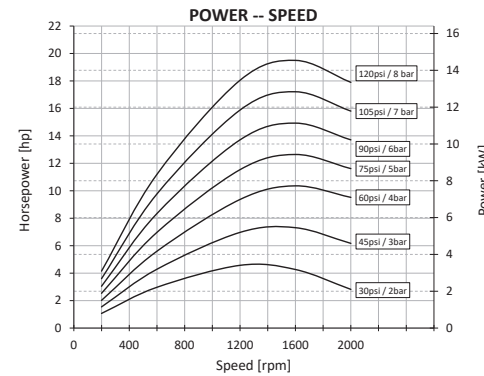
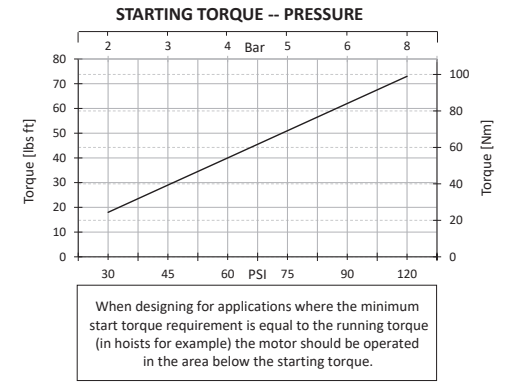
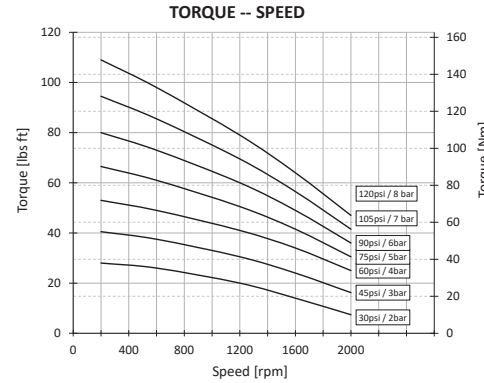
If unit is pre 1990 supplied, consult manufacturer to confirm design.

Dimensions & Performance RM410 + Brake



Gearbox ratio: None

Maximum speed: 2000 RPM
No Control Valve fitted



LUBRICATING OIL CAPACITIES

Horizontal 500ml Vertical 940ml
 Use a good quality hydraulic oil with a viscosity of around 100cSt (460SSU) at 40°C (104°F)

AIRLINE FILTRATION AND LUBRICATION

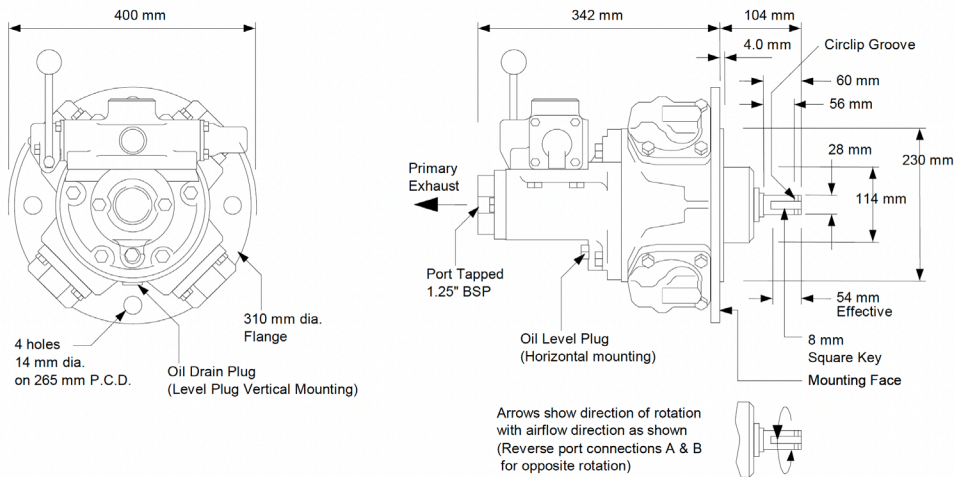
Use 64 micron filtration or better. Choose a lubricator suitable for the flow required. Prior to initial start-up, inject oil into the inlet port.

GENERAL DATA

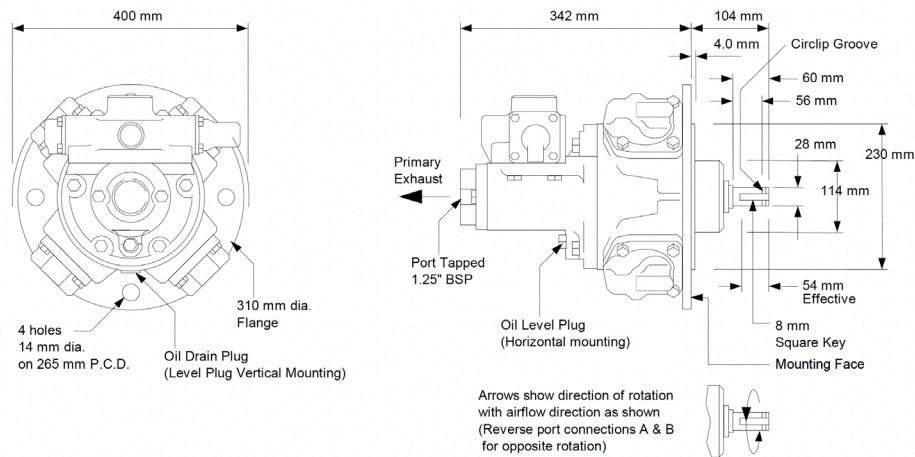
MASS (motor only) 62 kgs (137 lbs)
 MOMENT OF INERTIA of rotating parts 4.1 gm² (motor only)
 MAX OVERHUNG FORCE on motor shaft 1330 N (300 lbf)
 TEMPERATURE RANGE -20°C to +60°C (-4°F to +140°F) / -10°C to +60°C (-14°F to +140°F) with brake

Lubricator drop rate 6-8 drops/minute continuous operation
 Lubricator drop rate 12-16 drops/minute intermittent operation

Dimensions & Performance RM410 + HCV



Dimensions & Performance RM410 + RCV



Operational principle RM410 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

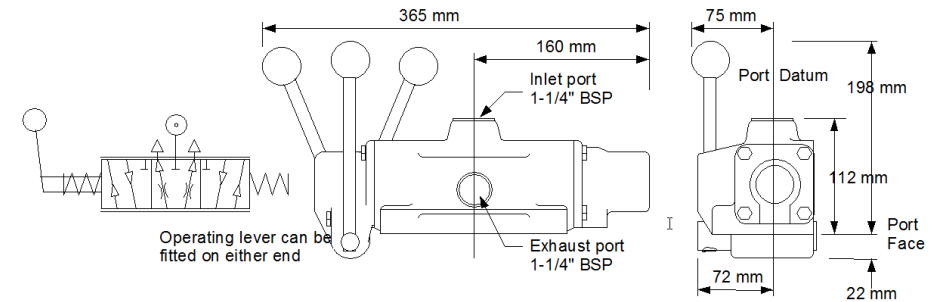
As standard these valves can be supplied with either **EQUAL POWER OR BIASED POWER** spools, the latter is suitable for hoisting applications (normal power for lifting - reduced power for lowering). The direction of reduced power must be stated when ordering **CW** or **CCW**, when viewed on the output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

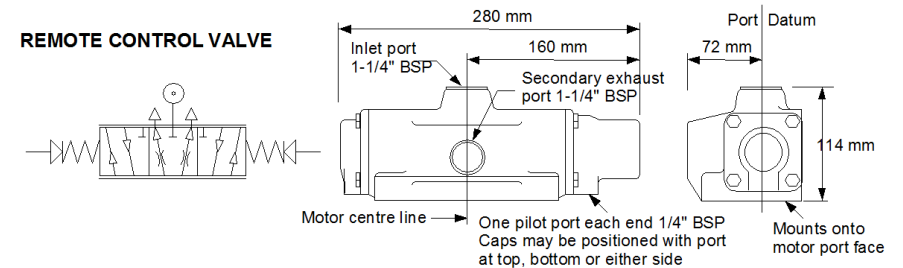
Remotely Controlled (RCV) - This option is usually controlled from a remote position by one of the PC series or LC2 remote controllers. A variable air pilot signal is applied to either end of the valve spool, depending on the required direction of motor rotation. The pilot pressure range is between 1.4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

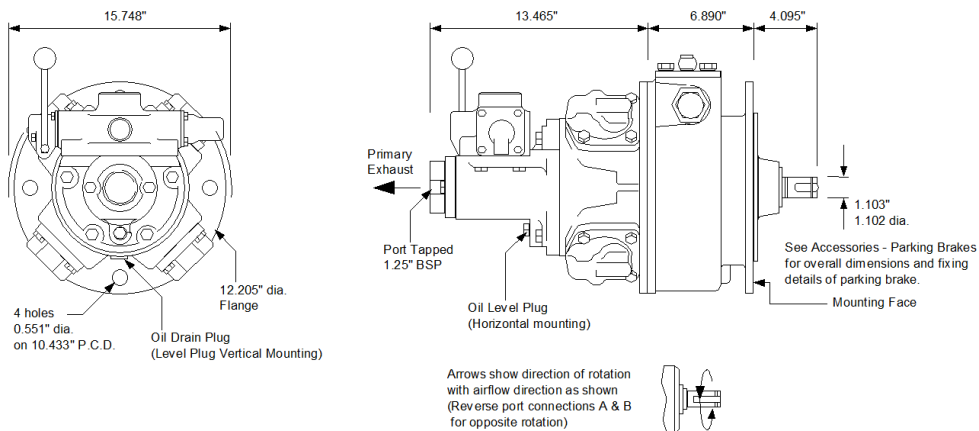
HAND CONTROL VALVE



REMOTE CONTROL VALVE

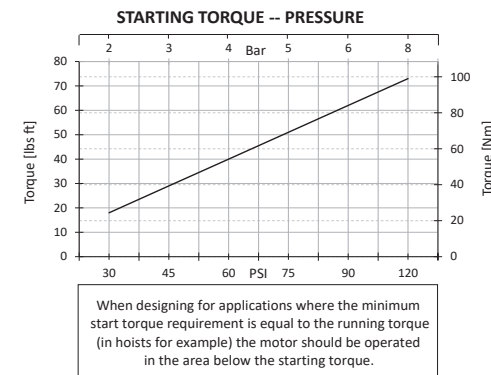
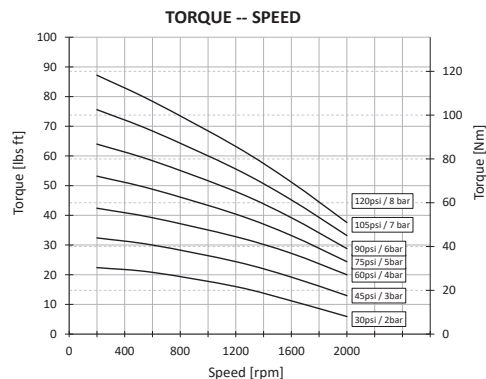


Dimensions & Performance RM410 + Brake + HCV

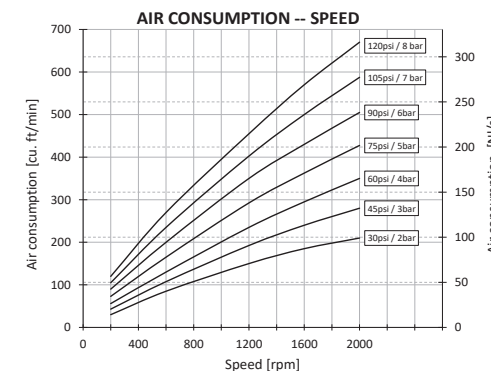
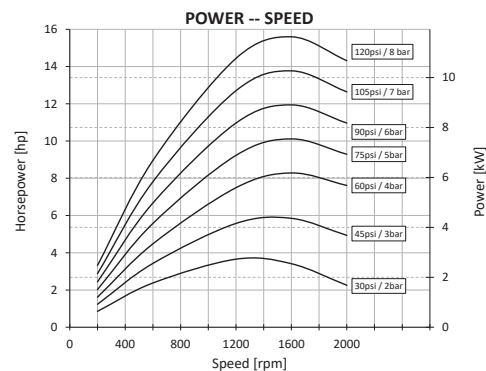
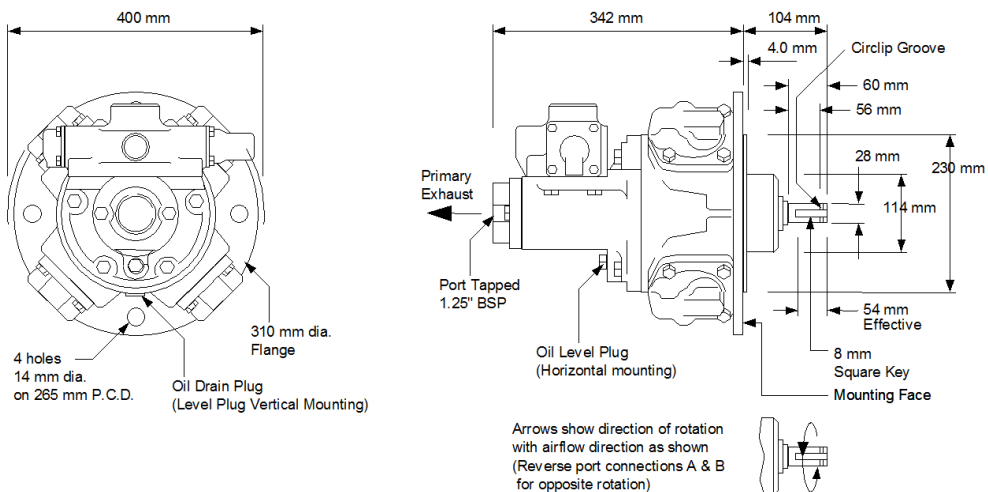


Gearbox ratio: None

Maximum speed: 1800 RPM
Control Valve Fitted



Dimensions & Performance RM410 + Brake + RCV



LUBRICATING OIL CAPACITIES

Horizontal 500ml Vertical 940ml

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) 62 kgs (137 lbs)

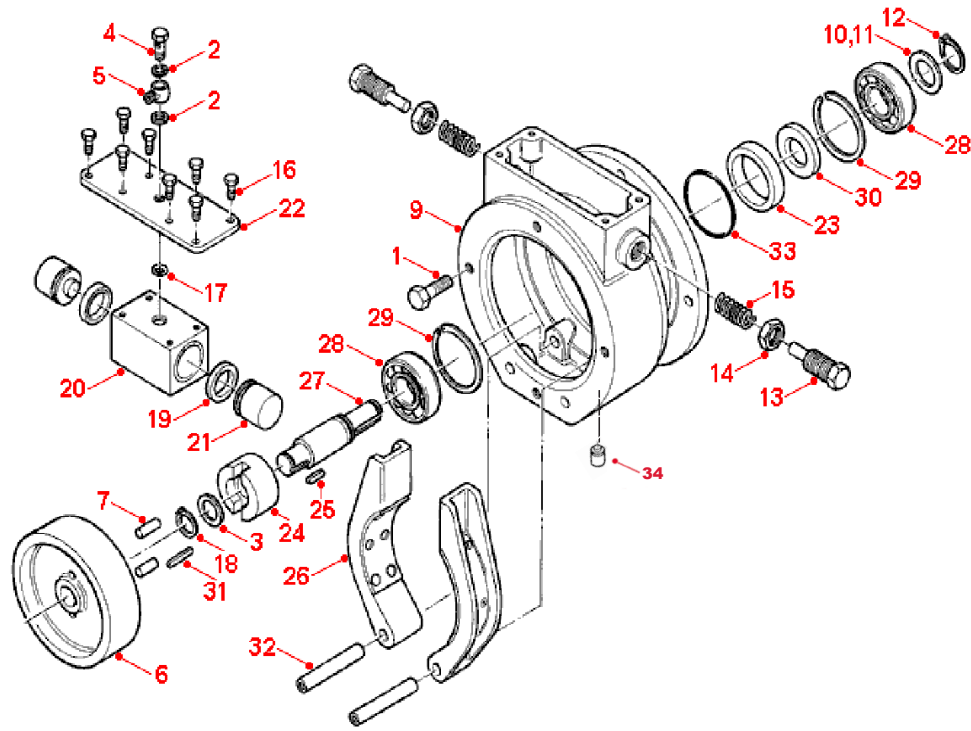
MOMENT OF INERTIA of rotating parts 4.1 gm² (motor only)

MAX OVERHUNG FORCE on motor shaft 1330 N (300 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

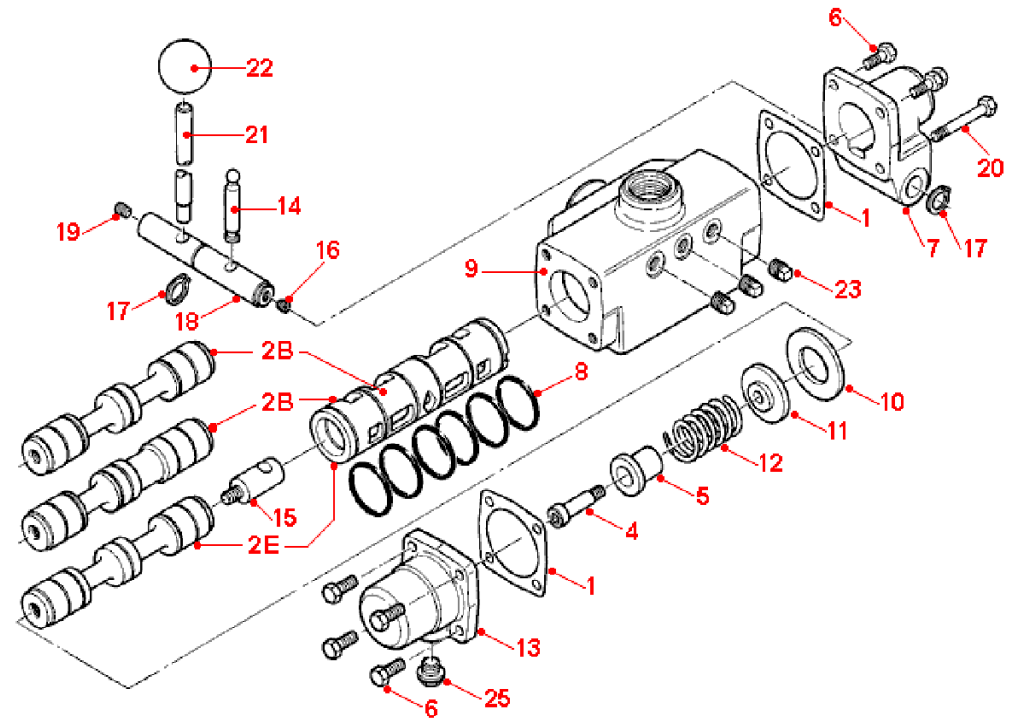
Lubricator drop rate 6-8 drops/minute continuous operation
Lubricator drop rate 12-16 drops/minute intermittent operation

Spare Parts List Parking Brake



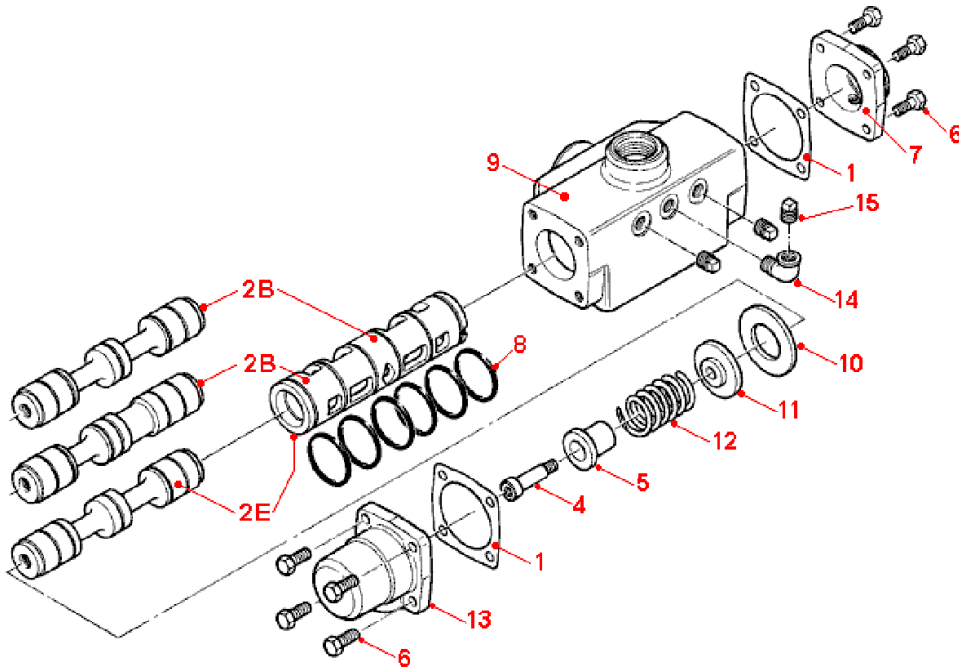
Item	Part No.	Description	Qty
01	802-073	Set Screw M12 x 30	4
02	808-090	Bonded Seal 1/4" BSP Dowty	2
03	412-034	Spacer-Output Shaft	1
04	816-004	Banjo Bolt Only 1/8 BSP	1
05	816-005	Banjo Bolt C/W/ Nut&Rin 5/16	1
06	412-001	Brake Wheel	1
07	806-002	Dowel Dia 12 x 35 lg	2
09	412-010	Brake Housing	1
10	430-049	Shim - Output	5
11	430-035	Output Shaft Spacer	1
12	804-016	Circlip 38mm External	1
13	412-009	Brake Spring Adjuster	2
14	412-024	Locknut	2
15	814-010	Spring 304114	2
16	802-031	Hex Head Screw M8 x 16	4
17	808-112	O Ring 1 1/16" x 7/8"	1
18	804-010	Circlip 28mm External	2
19	808-076	U Packing 210-319-4490	2
20	412-902A	Piston Block Assy	1
21	412-011	Brake Piston	2
22	412-013	Block, Support Plate	1
23	430-083	Oil Seal Sleeve	1
24	812-131	Brake Shaft Driver	1
25	811-004	Key K121	1
26	412-901	Brake Shoe Assembly	2
27	412-133	Brake Shaft	1
28	807-013	Bearing 6308 2 RS	2
29	804-068	Circlip 90mm Internal	2
30	808-048	Oilseal 40x72x10/R21	1
31	811-005	Key K128	1
32	412-003	Brake Shoe Pivot	2
33	808-133	O Ring 3-1/2" ID x .139	1
34	7008G18	Breather plug 1/8 BSPP (ATEX only)	1

Spare Parts List Hand Control Valve



Item	Part No.	Description	Qty
01	311-066	End Cap Gasket	2
02E	431-913	Matched Spool and Sleeve	1
02B	431-914	Matched Spool and Sleeve	1
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	431-060	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

Spare Parts List Remote Control Valve



Item	Part No.	Description	Qty
1	311-066	End Cap Gasket	2
2E	431-913	Matched Spool and Sleeve	1 (Equipower)
2B	431-914	Matched Spool and Sleeve	1 (Biased)
4	817-002	Shoulder Screw 10mm	1
5	311-071	Centering Shaft Guide	1
6	802-032	Hex Head 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	431-060	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	816-074	Plug 1/4" BSPT	3

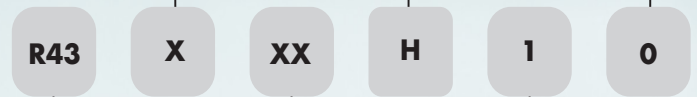
Ordering code

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



DESIGN CODE

- RM 110 (1.7 KW / 2.4 HP) = R14
- RM 210 (4 KW / 5.5 HP) = R23
- RM 310 (7.5 KW / 10 HP) = R33
- RM 410 (14 KW / 19 HP) = R43
- RM 510 (14 KW / 31 HP) = R52
- RM 610 (14 KW / 32 HP) = R62

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)