

## AIR MOTOR UNIT FOR WINCHES

### APPLICATION

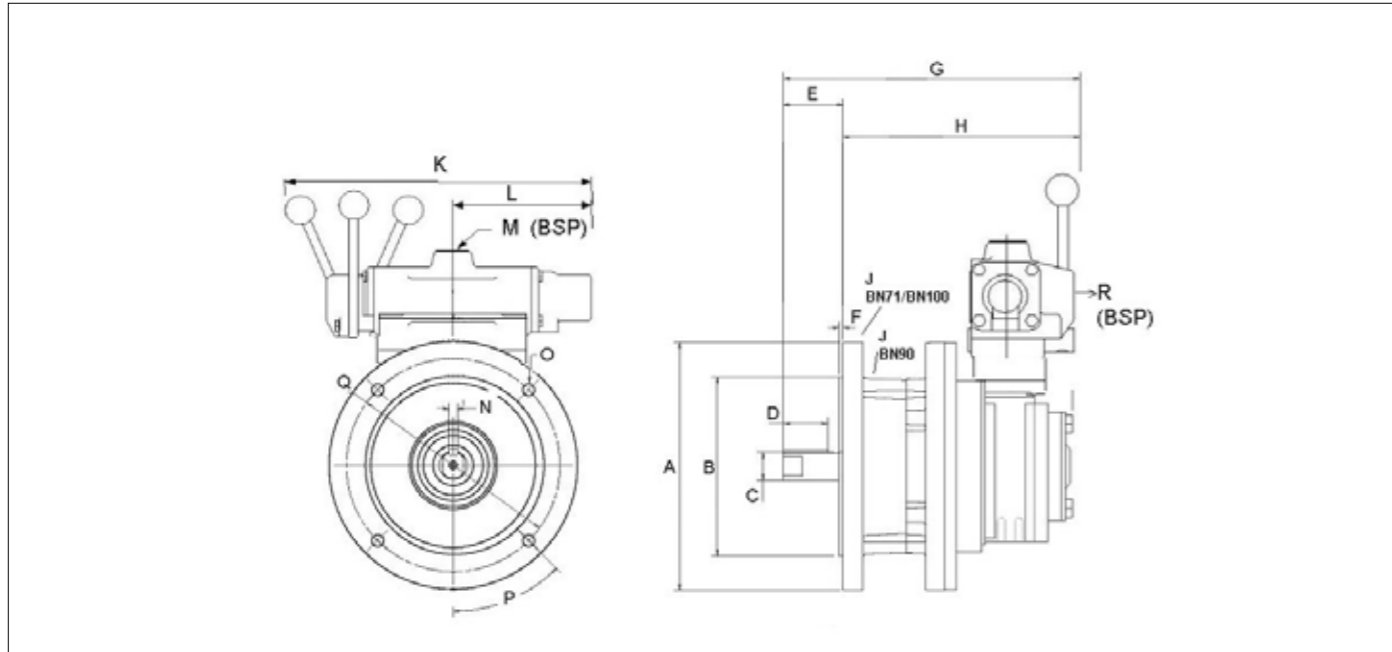
GLOBE has developed specially for winch and hoist applications a braked air motor set. The unit has a robust GLOBE vane motor with an fail safe BN brake and a proportional directional control valve.

The vane motor is of robust design and very good for harsh conditions. The BN brake is a spring loaded, air release failsafe brake. The holding torque is 1,5 to 2 times the maximum torque of the motor.

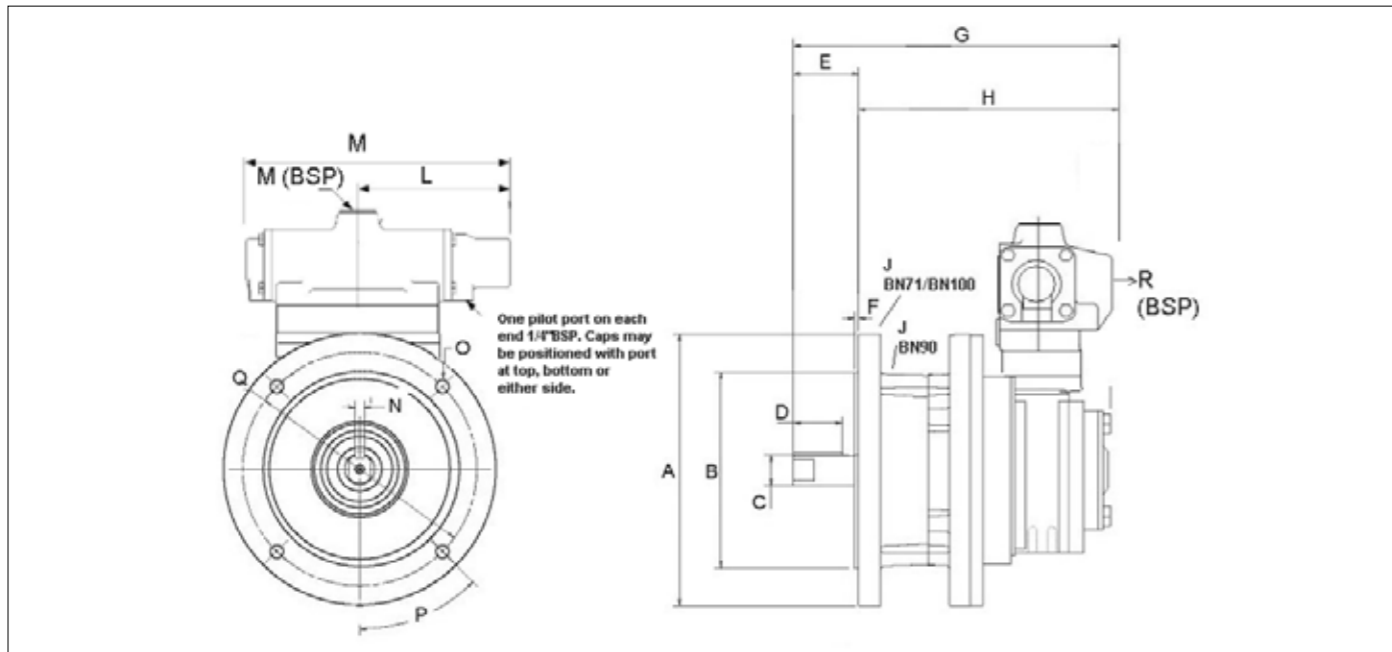
On top of the motor a proportional control valve is mounted. It can be a proportional remote control valve or a proportional hand control valve. The proportional valve controls the direction and speed of the motor. The brake is released with pipelines from the proportional control valve. The unit is designed that the motor is under pressure before the brake is released.

As standard the proportional valves can be supplied with either Equal Power or Biased Power spools, the latter is suitable for hoisting applications. The motor will have maximum power in lifting and reduced power in lowering. Because of the biased valve the load will not pull the motor in over speed in lowering direction.

The air motor unit confirms to European Standard NEN-EN 13463-1 for non-electrical equipment for explosive atmospheres ATEX GROUP II cat 2 GDc T3.



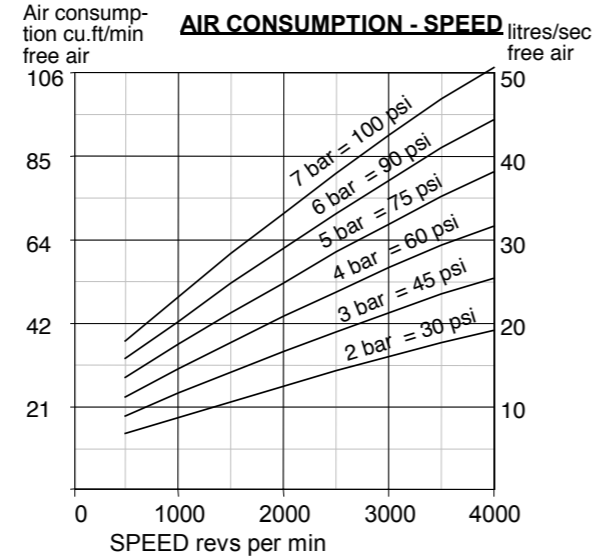
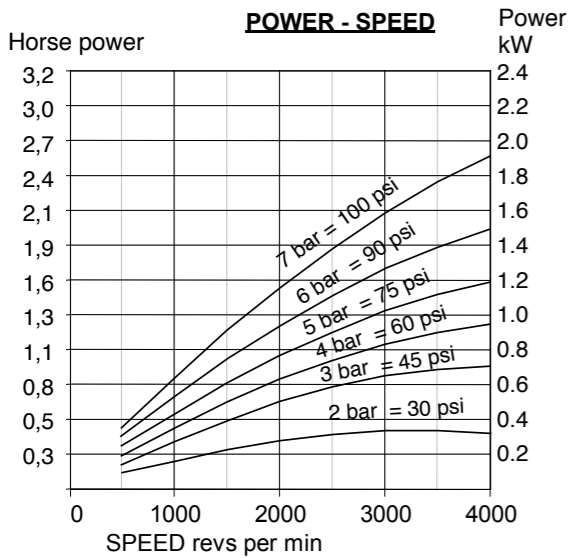
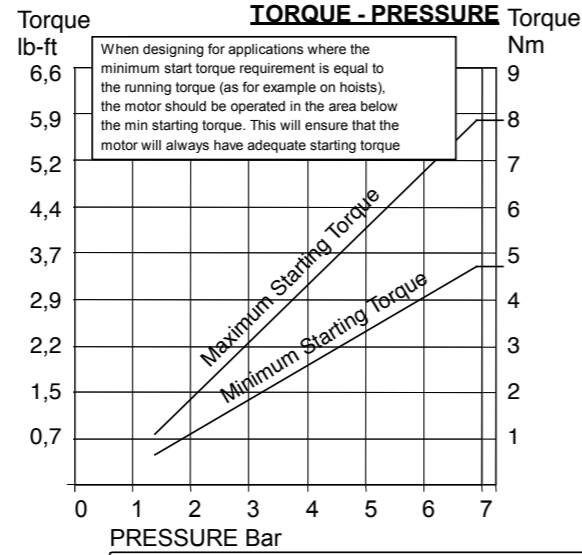
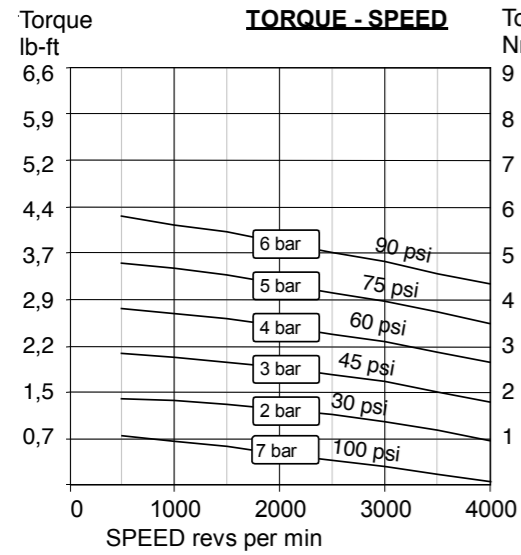
Motor with Brake with Hand Control, including valve and piping to control brake (not displayed).



Motor with Brake with Remote Control, including valve and piping to control brake (not displayed).

	A	B	C	D	E	F	G	H	J	K
<b>VS4BN71H2</b>	160	110	14	20	30 (1.18")	3.5	240	210	1/8	270
<b>VS4BN71R2</b>	(6.29")	(4.33")	(0.55")	(0.78")		(0.13")	(9.45")	(8.26")		(10.62")
<b>VS6BN90H2</b>	200	130	24	30 (1.18")	50	3.5	347	297	1/8	270
<b>VS6BN90R2</b>	(7.87")	(5.12")	(0.94")		(1.96")	(0.13")	(13.66")	(11.69")		(10.62")
<b>VS8BN90H3</b>	200	130	24	30 (1.18")	50	3.5	350	300	1/8	365
<b>VS8BN90R3</b>	(7.87")	(5.12")	(0.94")		(1.96")	(0.13")	(13.78")	(11.81")		(14.37")
<b>VS10BN100H4</b>	250	180	28 (1.10")	50	60	4 (0.16")	459	399	1/8	365
<b>VS10BN100R4</b>	(7.87")	(7.08")		(1.96")	(2.36")		(18.07")	(15.71")		(14.37")

	L	M	N	O Ø	P	Q	R
<b>VS4BN71H2</b>	118	¾	5 (0.19")	10	45°	110h7	¾
<b>VS4BN71R2</b>	(4.64")			(0.39")		(4.33")	
<b>VS6BN90H2</b>	118	¾	8 (0.31")	12	45°	130h7	¾
<b>VS6BN90R2</b>	(4.64")			(0.47")		(5.12")	
<b>VS8BN90H3</b>	160	1	8 (0.31")	12	45°	130h7	1
<b>VS8BN90R3</b>	(6.29")			(0.47")		(5.12")	
<b>VS10BN100H4</b>	160	1¼	10	14	45°	180h7	1¼
<b>VS10BN100R4</b>	(6.29")		(0.39")	(0.55")		(7.08")	



A pressure regulator should be used to control the air pressure to the motor, to limit the maximum output torque applied to the driven assembly.

Muffler supplied with motor.

Motor is reversible.

**ATTITUDE**

The motor can be operated in all positions.

Maximum temperature -20°C to +80°C (-4°F to +176°F).

Max. Overhung Force on motor shaft 170n (40 lbf.)

Axial loads should be kept to a minimum.

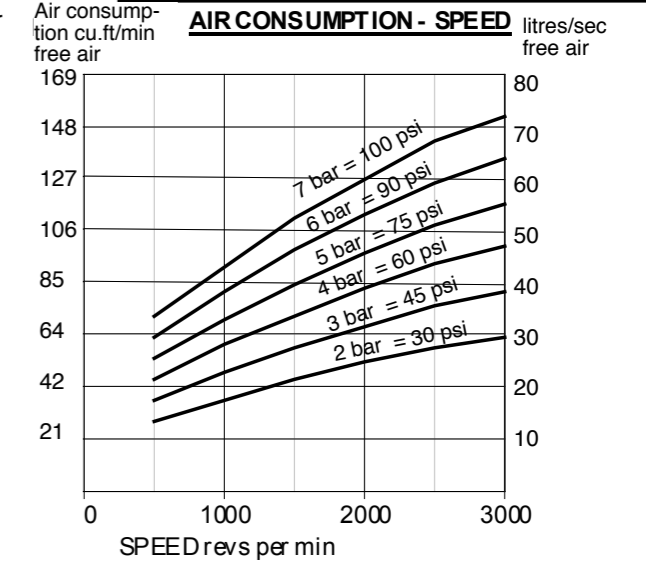
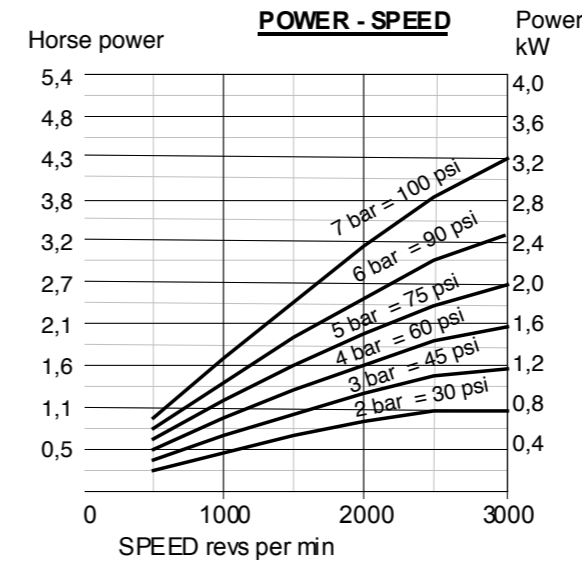
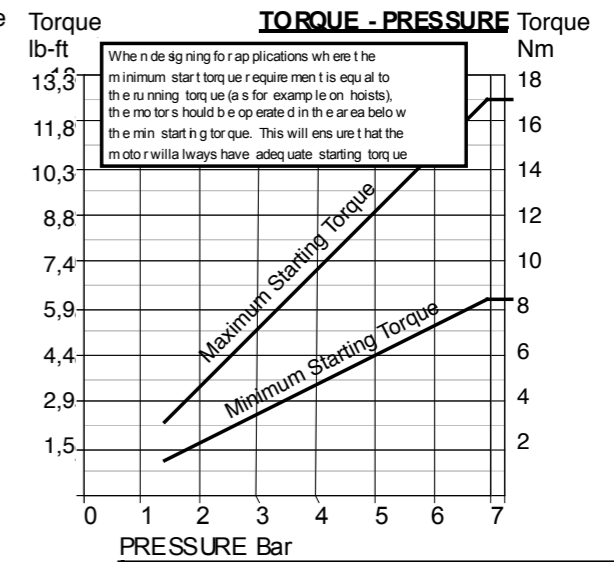
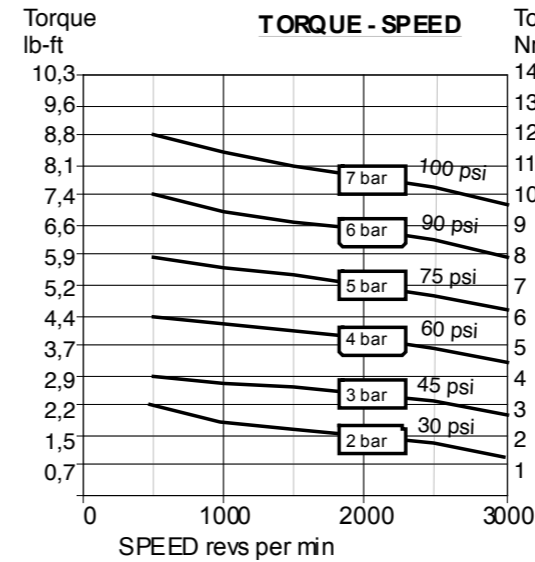
**AIRLINE FILTRATION AND LUBRICATION**

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.

Lubricator drop rate 4-5 drops/minute continuous operation

Lubricator drop rate 9-12 drops/minute intermittent operation

**MAXIMUM CONTINUOUS SPEED 4000 RPM**



A pressure regulator should be used to control the air pressure to the motor, to limit the maximum output torque applied to the driven assembly.

Muffler supplied with motor.

Motor is reversible.

**ATTITUDE**

The motor can be operated in all positions.

Maximum temperature -20°C to +80°C (-4°F to +176°F).

Max. Overhung Force on motor shaft 300n (70 lbf.)

Axial loads should be kept to a minimum.

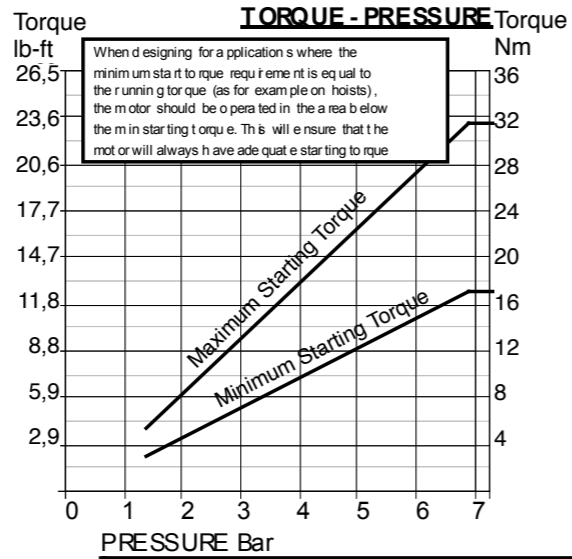
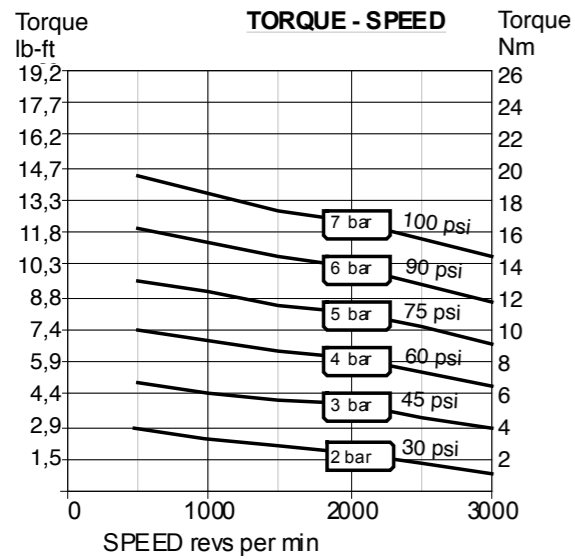
**AIRLINE FILTRATION AND LUBRICATION**

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.

Lubricator drop rate 5-6 drops/minute continuous operation

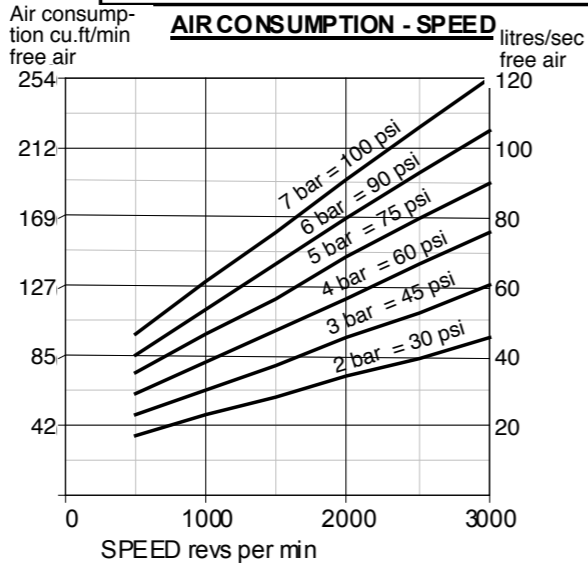
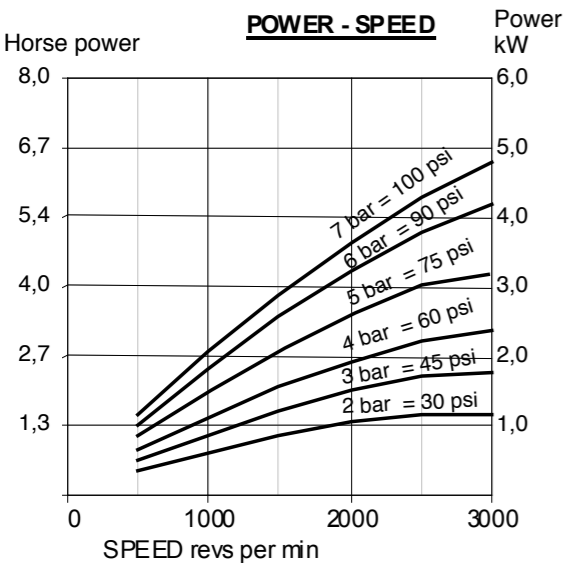
Lubricator drop rate 10-12 drops/minute intermittent operation

**MAXIMUM CONTINUOUS SPEED 3000 RPM**



When designing for applications where the minimum starting torque requirement is equal to the running torque (as for example on hoists), the motor should be operated in the area below the minimum starting torque. This will ensure that the motor will always have adequate starting torque.

A pressure regulator should be used to control the air pressure to the motor, to limit the maximum output torque applied to the driven assembly.



Muffler supplied with motor.

Motor is reversible.

**ATTITUDE**

The motor can be operated in all positions.

Maximum temperature -20°C to +80°C (-4°F to +176°F).

Max. Overhung Force on motor shaft 620N (140 lbf.)

Axial loads should be kept to a minimum.

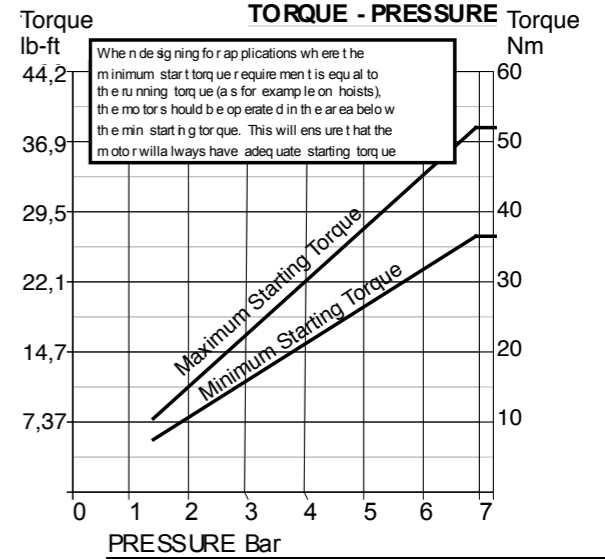
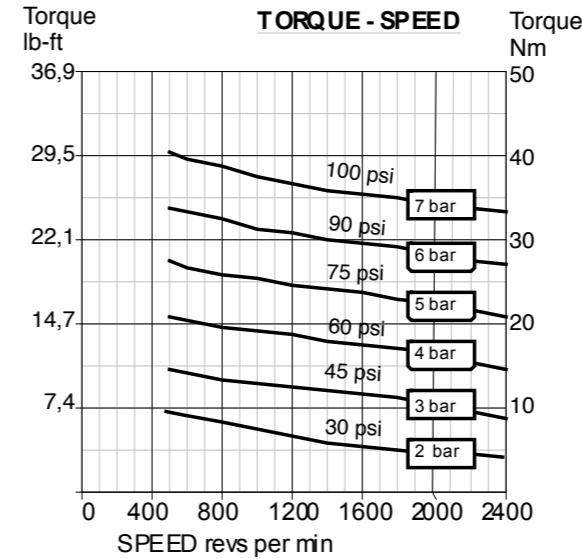
**AIRLINE FILTRATION AND LUBRICATION**

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.

Lubricator drop rate 6-7 drops/minute continuous operation

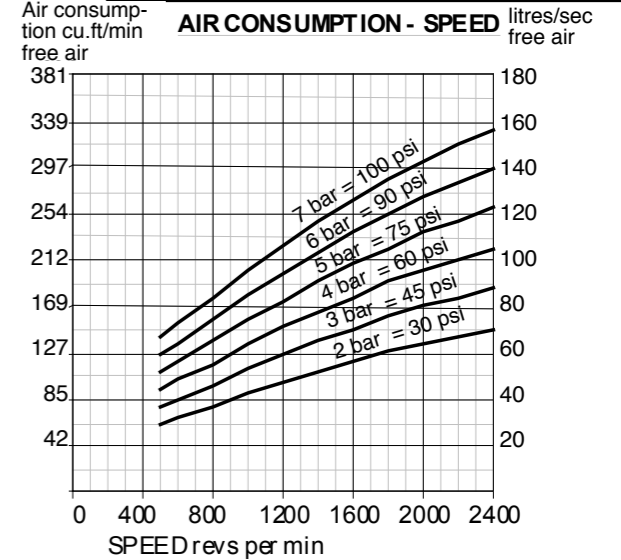
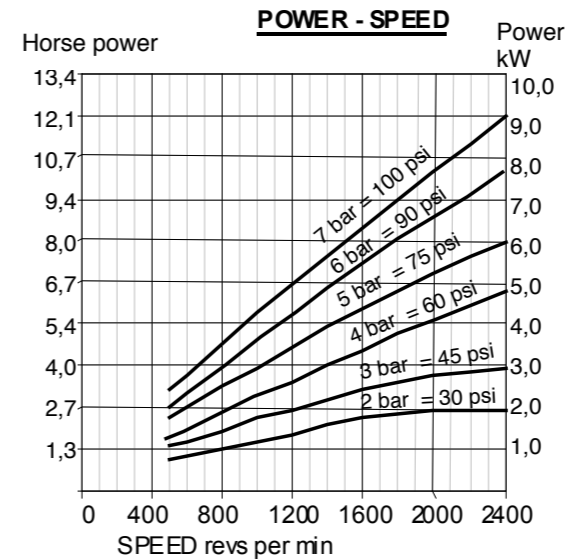
Lubricator drop rate 12-15 drops/minute intermittent operation

**MAXIMUM CONTINUOUS SPEED 3000 RPM**



When designing for applications where the minimum starting torque requirement is equal to the running torque (as for example on hoists), the motor should be operated in the area below the minimum starting torque. This will ensure that the motor will always have adequate starting torque.

A pressure regulator should be used to control the air pressure to the motor, to limit the maximum output torque applied to the driven assembly.



Muffler supplied with motor.

Motor is reversible.

**ATTITUDE**

The motor can be operated in all positions.

Maximum temperature -20°C to +80°C (-4°F to +176°F).

Max. Overhung Force on motor shaft 1750N (400 lbf.)

Axial loads should be kept to a minimum.

**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.

Lubricator drop rate 8-10 drops/minute continuous operation

Lubricator drop rate 14-16 drops/minute intermittent operation

**MAXIMUM CONTINUOUS SPEED 2400 RPM**