



GLOBE AIRMOTORS B.V.



YOUR GLOBAL FORCE IN AIR POWER
WWW.GLOBE-BENELUX.NL





THE GLOBE AIMOTORS COMPANY

GLOBE Airmotors finds its origin in 1986 and designs, produces, sells and revises air motors in any kind.

GLOBE Airmotors has an enthusiastic team, with a lot of experience, ready at your disposal. Service and short delivery times are very important according to GLOBE Airmotors. Short delivery times can only be maintained when there is a stock that is sufficient to fulfil the need for quick air motor demands. As a result of this, standard products can be delivered from stock at all times.

GLOBE Airmotors keeps the production within its own organization, making it possible for customers to come up with unique specifications. New products are being designed and tested at the workshop before they reach each customer. Part of GLOBE' service are fast answers to questions asked by customers or potential customers.



ISO CERTIFICATION

Except service and short delivery times, GLOBE Airmotors finds overall quality very important. We are ISO 9001 certified to maintain our quality at it's best.

ATEX

Air motors and other pneumatic drives are often used in explosion risk environments such as mines. To ensure that GLOBE products are allowed to be used at these hazardous environments, GLOBE obtained ATEX certificates for all their air motors and gearboxes. Delivery is possible with ATEX II cat. 2 G&D T5 and ATEX I M2 (Mining).

For more information you can also go to our website:

www.GLOBE-benelux.nl

Drawings and performances are also available on our website.

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INTRODUCTION AIR MOTORS

GLOBE Airmotors sells, produces and revises a large variety of air motors and gearboxes suitable for all your needs.

Air motors offer a unique drive and incorporate advantages not found in other prime movers. Air motors are impossible to ignore for any engineer, because of the strong and reliable power they produce. And because of the wide range of products that GLOBE Airmotors has, applicable for lots of different purposes.

GLOBE Airmotors has a lot of different air motors each with its own advantages, such as the [GLOBE Piston Air Motors](#), [GLOBE Vane Air Motors](#), [GLOBE-Archimedes Compact Vane Air motors](#), the [GLOBE Compact Piston Airmotors](#) and all options needed for Air motors.



AIR MOTOR SELECTION GUIDE

VANE AIR MOTORS

The vane air motors are the most widely used design of air motors. They are available in a broad range of power and can operate in any position. The vane air motors prove themselves to be much lighter and more compact compared to piston air motors of similar power. A combination of a GLOBE vane air motor with a large variety of gearboxes is possible when lower speed and/or higher torque is demanded for the application.

The most typical vane air motor applications are:

- Mixing equipment
- Ventilators
- Hoists
- Winches
- Pump drives
- Conveyor belts
- Turntables
- Packing machines
- After coolers

COMPACT VANE AIR MOTORS

The compact vane air motors are motors with incorporated reduction units. Due to the wide range of gear ratios the compact vane air motors are suitable in many different applications. The compact vane air motors are known for delivering very high speed and very high torque compared to the compact build of the motor.

Compact vane air motors prove themselves in handheld applications, pipe cleaners and lots of other different industries which require compact build and strong reliable motors.

COMPACT PISTON AIR MOTOR

The GLOBE compact piston air motors are used in numerous of applications. Due to its unique design the compact piston air motor are most suitable for light and medium duties at low speed operations. A combination of a GLOBE compact piston air motor with a large variety of gearboxes is possible when even lower speed and/or higher torque is demanded for the application.

The most typical compact piston air motor applications are:

- Mixing equipment
- Winding equipment
- Conveyor belts
- Hose reels
- Turntables
- Packing machines
- Cap screwing machines

PISTON AIR MOTOR

The GLOBE piston air motor are heavy duty air motors. This radial piston air motor combines a large variable speed with high power and torque. The motors have either four or five pistons with oil bath lubrication and their design allows them to deliver the highest power in air motors. A combination of a GLOBE piston air motor with a large variety of gearboxes is possible when lower speed and/or higher torque is demanded for the application.

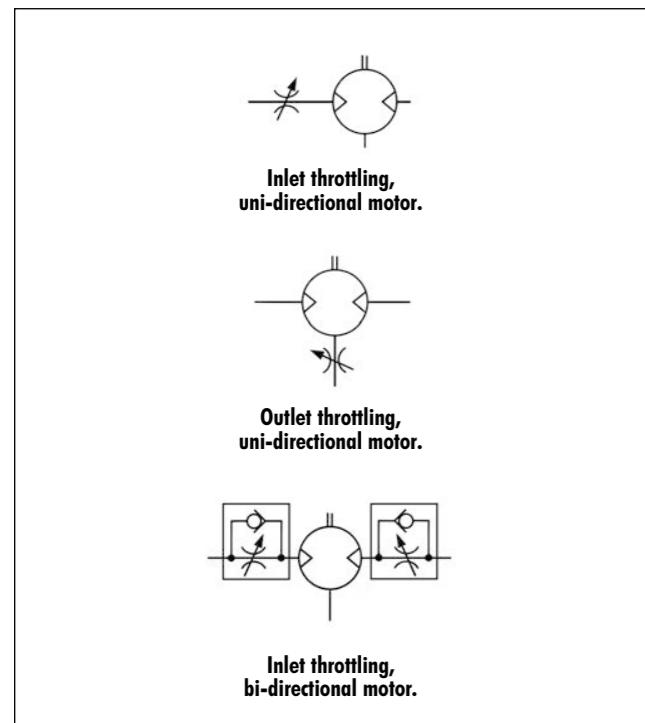
The piston air motor is applicable in many situations and is commonly used in winches, offshore and other heavy duty applications.

HOW TO CONTROL AND USE AN AIR MOTOR?

SPEED REGULATION

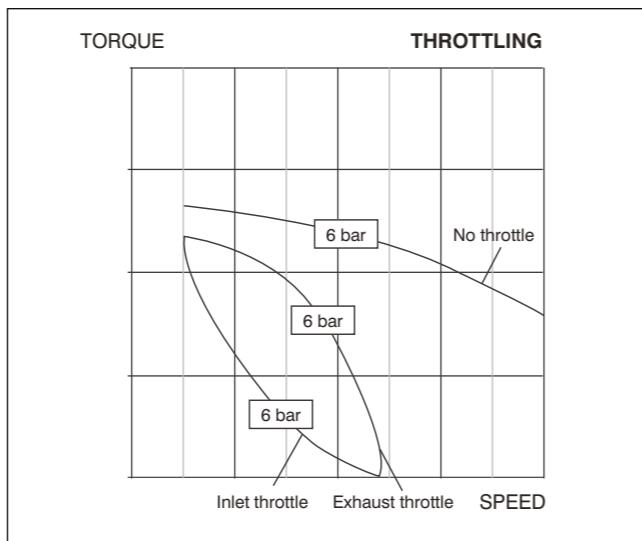
Controlling the performance of an air motor is done by regulating the air supply. This is relatively cheap and simple. The methods to regulate the air supply are throttling and pressure regulation.

TROTTLING METHODS



THROTTLING

The air flow is controlled by placing a flow control valve at the inlet port or the outlet port of the air motor. Throttling will reduce the maximum speed of the motor but will not affect the starting performance; the air pressure is unaffected at low flow conditions i.e. starting. Please consult the chapters of the different air motors for the correct throttling graphs and methods¹.

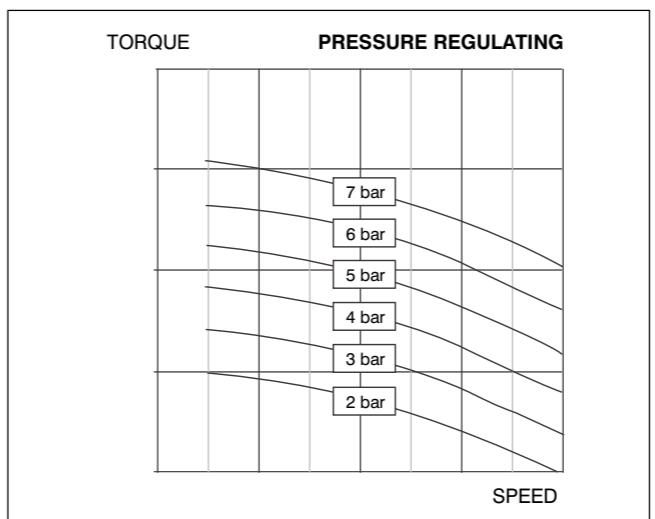
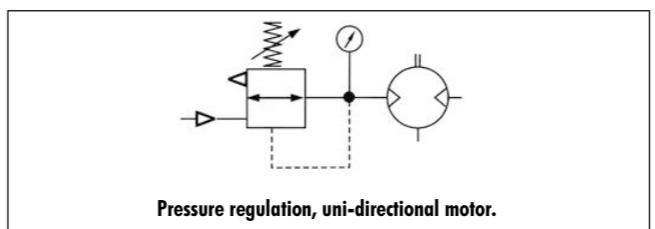


PRESSURE REGULATOR

The speed and power can also be reduced by installing a pressure regulator on the incoming air supply. The pressure regulator reduces the air pressure to the motor. A pressure regulator is always fitted on the inlet port. By using a pressure regulator the torque on the output shaft will be affected, starting torque is best controlled with this method.

PRESSURE REGULATING METHOD

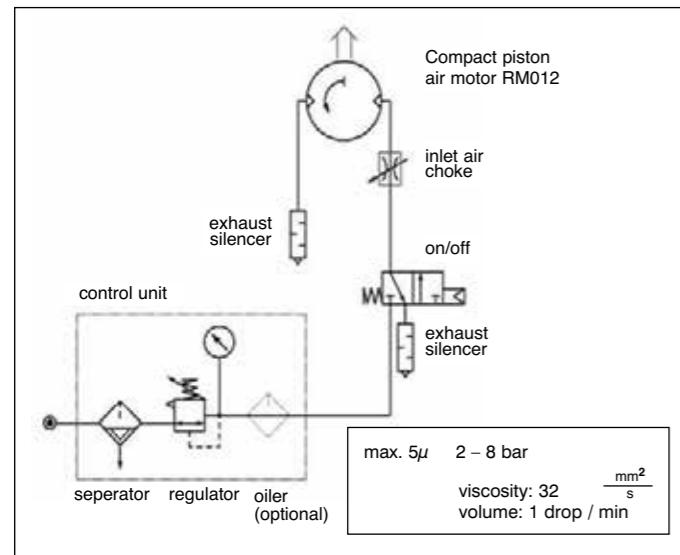
When both the speed and the torque are to be controlled the best configuration is to use a pressure regulator in the air line to the motor and a flow control valve on the outlet port. This way every point in the torque-speed graph can be set accurately.



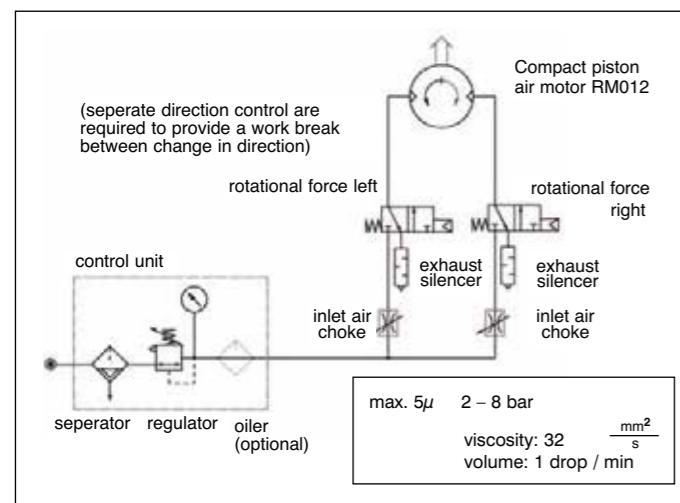
DIRECTIONS OF ROTATION

The GLOBE air motor can be used both as a uni-directional and as a bi-directional air motor. When the air motor is used in a non-reversible application, it is sufficient to use a 2/2 or a 3/2 valve. For the reversible motor you can use either a 5/3 or two 3/2 valve to gain directional control.

UNI - DIRECTIONAL



BI - DIRECTIONAL



AIR SUPPLY

AIR QUALITY

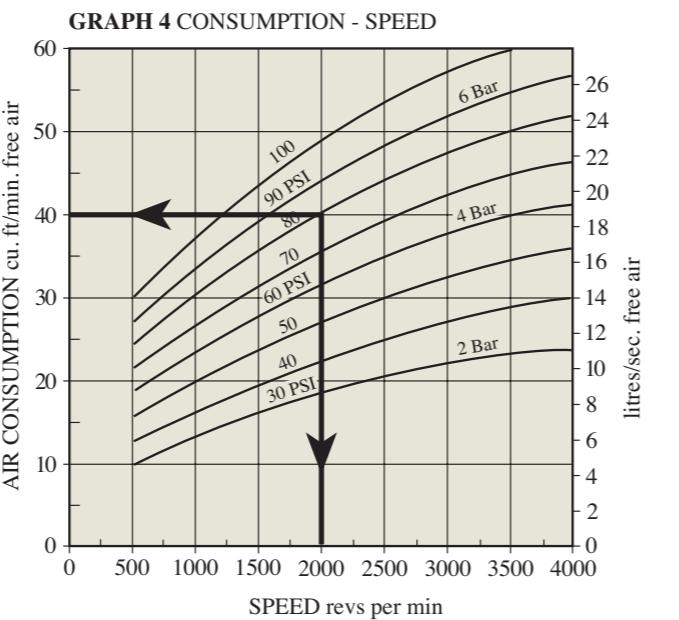
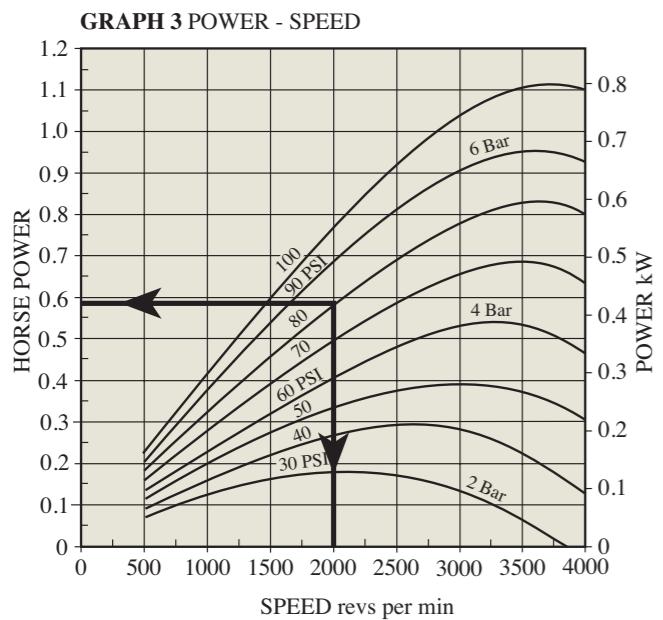
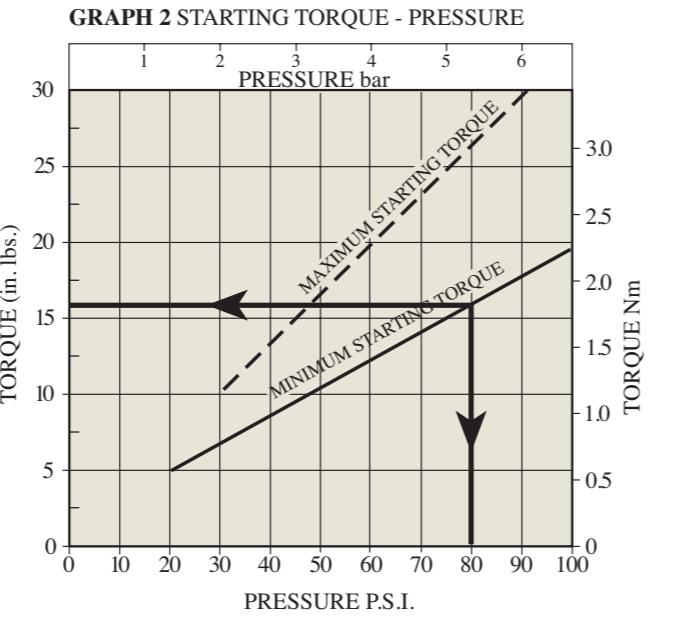
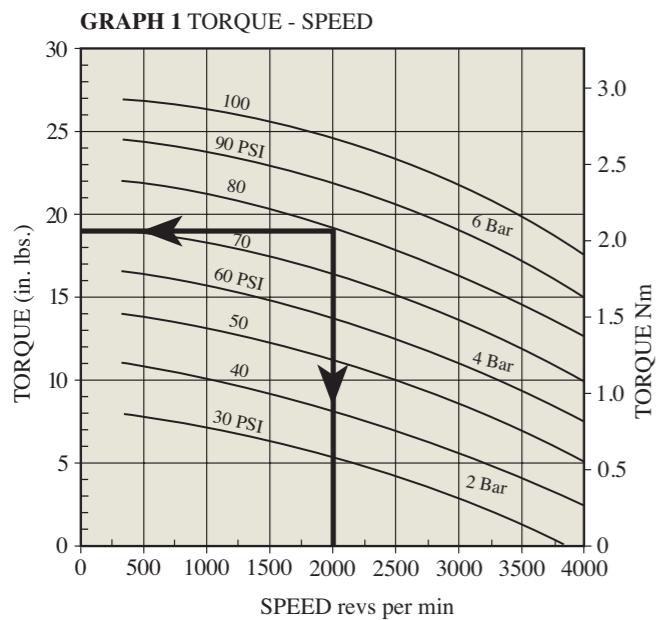
To ensure optimal working conditions for the GLOBE air motor, the air supply must be dry, filtered and lubricated. A 5 micron filter or better is recommended for the piston air motors and the compact vane air motors, a 64 microns filter or better is recommended for the vane air motors. The GLOBE air motor should be lubricated sufficiently. Oilless operations are possible in certain applications.

AIR LINE RESTRICTIONS

Air line restrictions on the inlet side of the motor will result in performance loss. Therefore it is important to make sure that the desired air pressure is available at the motor during operation. The pressure reading at the compressor or pressure regulator may be different than the pressure available at the motor. Performance loss can also occur by an exhaust restriction generating back pressure on the outlet side of the motor. An insufficiently sized silencer, valve or coupling is usually the cause.



MOTOR SELECTION (EXAMPLE BASED ON V2)

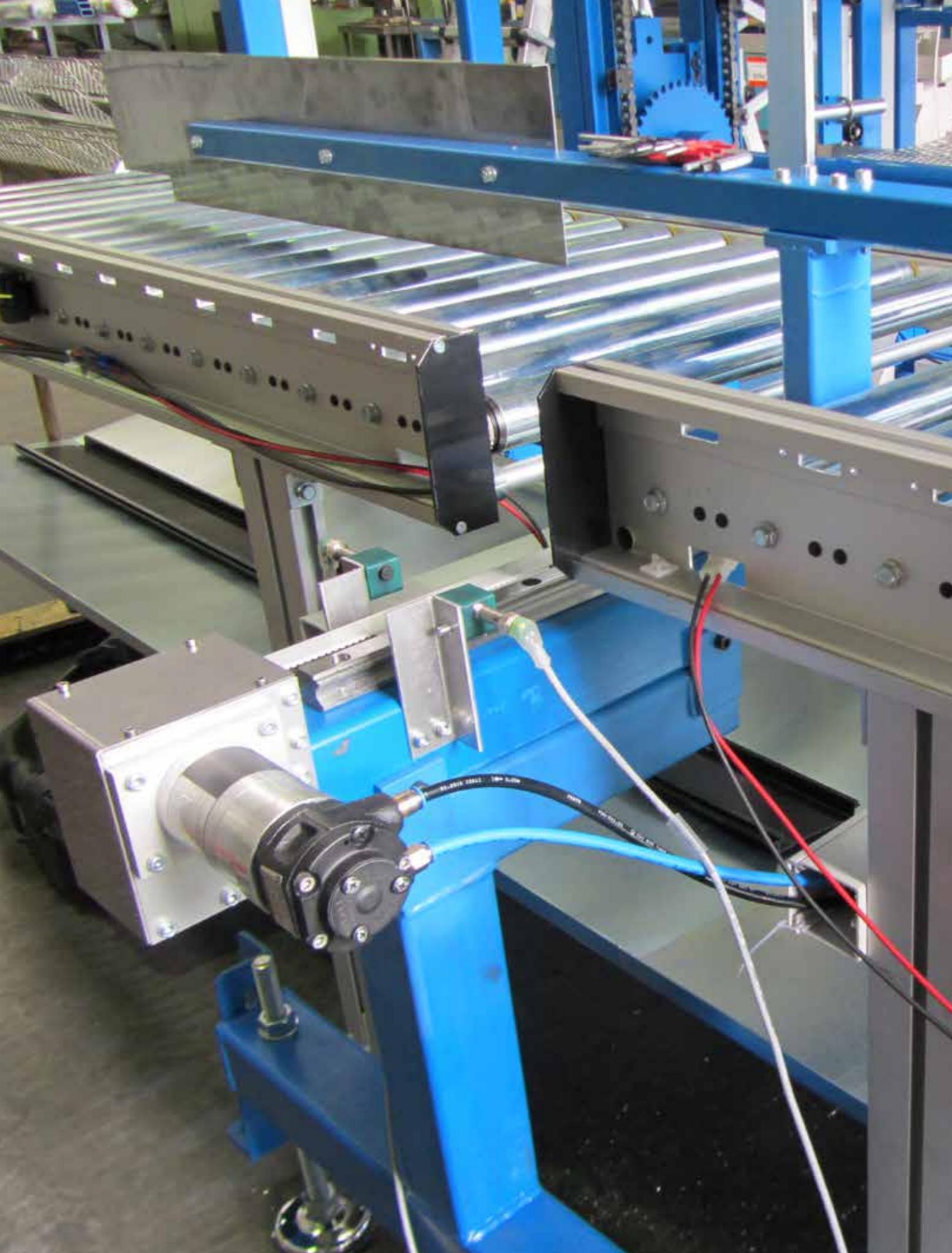


MOTOR SELECTION

Motor performance can be derived from the above graphs as in the examples shown. Where motors are not required to start under load, such as fan drives, selection may be made using either Graph 1 or Graph 3 using the required running torque or power only. For applications where the motor starts under load, such as hoists, winches or track drives, the starting torque in Graph 2 must also be considered.

1. Running torque example: V2 at 80 psi gives 19 lbf.ins. torque at 2000 rpm.
2. Starting torque example: V2 at 80 psi gives 16 lbf.ins.
3. Output power example: V2 at 80 psi gives 0.6 hp at 2000 rpm.
4. Air consumption example: V2 at 80 psi and 2000 rpm requires 40 u.ft./min. free air.





APPLICATIONS OF AIR MOTORS

All of the GLOBE air motors are being used in a large variety of applications. Here you will find some examples of the most common applications in which our air motors are being used.

WINCHES

GLOBE air motors are commonly used in winching applications. Due to our broad range of gearboxes, brakes and control valve possibilities our air motors are used on many different winches. Please contact us for the possibilities or more information.

AFTER COOLERS

The GLOBE air motors are also used in after coolers. Because our air motors can run in many different speeds they prove themselves to be a perfect match with for after coolers.

CONVEYOR BELTS

Many companies use our air motors for the drive of their conveyor belts. In combination with a gearbox, brake or control valve the options legion.

MIXING APPLICATIONS

We find our air motors being used in many different mixing applications. That is one of the reasons we have stainless steel air motors or/and motors which can run without lubrication.

PUMP DRIVES

Pumps are also often being driven by our air motors. Our large scope of available power, torque and IEC or NEMA flanges makes our air motors user-friendly in many different situations.



VANE AIR MOTORS

ADVANTAGES

Vane air motors offer a unique form of drive and incorporate advantages not found in other prime movers.

These advantages include:

- Simple and inexpensive variable speed and torque control with a flow control valve and/or pressure regulator.
- Intrinsically safe for explosion proof environments. All GLOBE vane air motors are certified according to the European Explosion Directive ATEX II cat. 2 G&D T5 and ATEX I M2.
- Air motors can be stalled indefinitely under load. They will not over heat or burn out.
- Instantly reversible, operated with a simple control valve.
- Controllable over a wide speed range.
- Resistant to warm, dirty and damp conditions.
- Cool running caused by the expanding air. GLOBE vane air motors can be used in ambient temperatures up to 80 °C.
- Minimal maintenance because of simple design which results in less downtime.
- Air motors are compact and light weight compared to equivalent electric motors.
- High reliability and little wear thanks to the low number of moving parts.
- No shock start up which improves the life span of your equipment.
- Variety of mountings which include foot, face, NEMA flanges and IEC flanges.

WHY CHOOSE A GLOBE VANE AIR MOTOR?

NO PINS OR SPRINGS.

The GLOBE blade ejection system consists of an ejection ring which maintains a constant positive blade contact with the motor body. This guarantees the blade position on start up, preventing free air flow from port to port and ensuring the motor produces its rated starting torque. The ejection ring design removes the requirement for pins or springs, the result is low vane wear and a high motor reliability.

The GLOBE vane air motors can be supplied directly coupled to a wide range of gearboxes such as planetary, helical, bevel helical and worm gears.

Suitable for running on natural sweet gas and other gasses.

Oil-less function possible under certain operating conditions.

Robust design for operation in harsh environments. Available in a variety of motor interfaces including foot, face, NEMA and IEC flanges. Special adaptations are available on request, consult GLOBE Airmotors BV or your local distributor for more information.



ORDERING CODES

Mounting position

A	Foot, Face or NEMA Flange
S	Metric Flange

Mounting type

J&X	Foot, face mounting
C	Flange mounting (metric , NEMA)

V - A 2 J&X

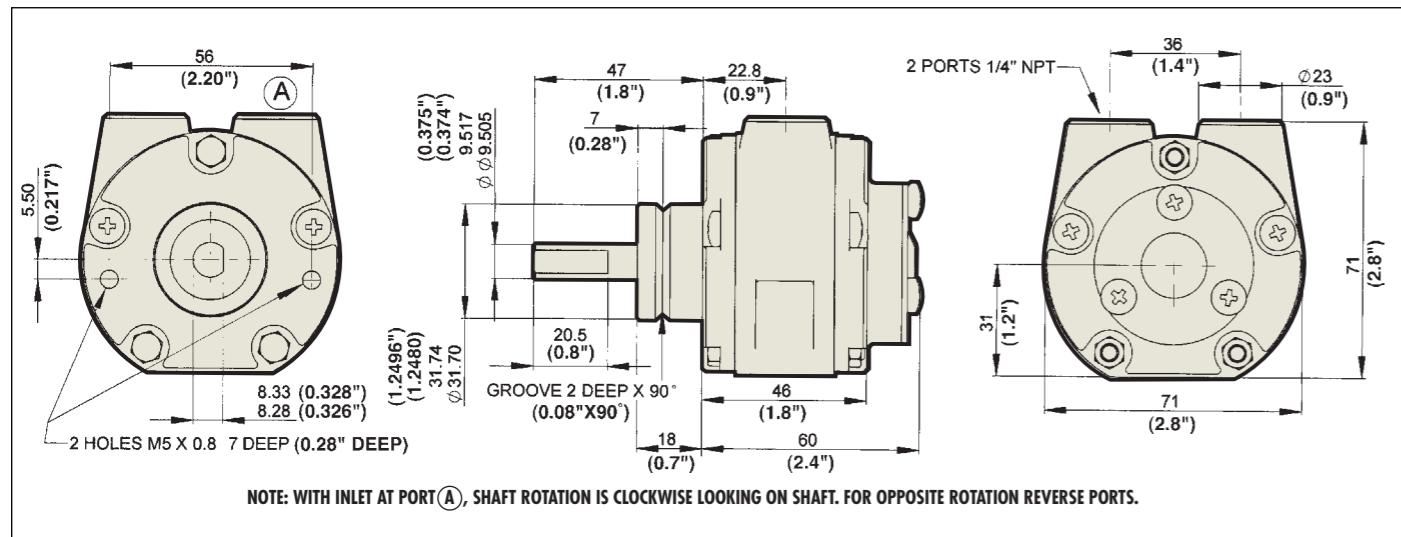
Type motor

1	0,44 kW / 0,6 hp (only VA1J&X available)
2	0,82 kW / 1,1 hp
4	2,1 kW / 2,8 hp
6	3,4 kW / 4,6 hp
8	5,4 kW / 7,2 hp
10	9,5 kW / 12,8 hp
12	14 kW / 19,1 hp (only available in flange models)

Use the ordering codes to create the GLOBE Vane Air Motor you want.

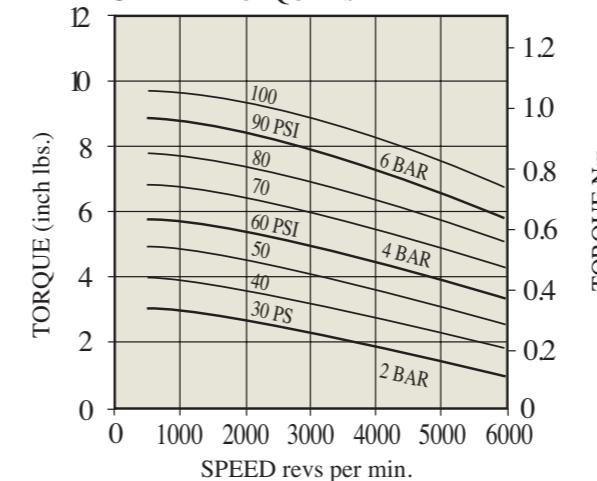
For example: VA4J&X or VS8C (the VS types are only suitable with a C at the end of the code)

DIMENSIONS V1

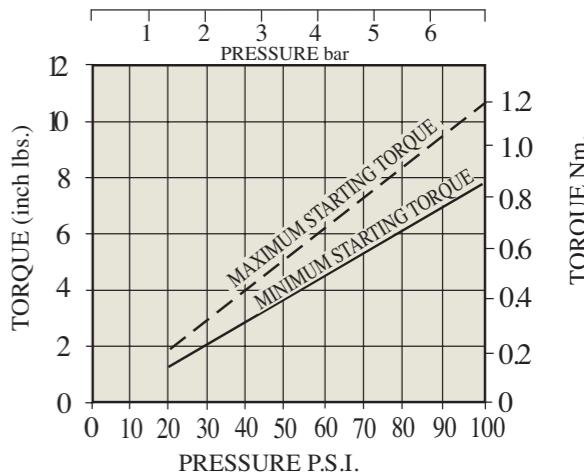


PERFORMANCE V1 | 0 - 0.6 HP/0.44 KW REVERSIBLE

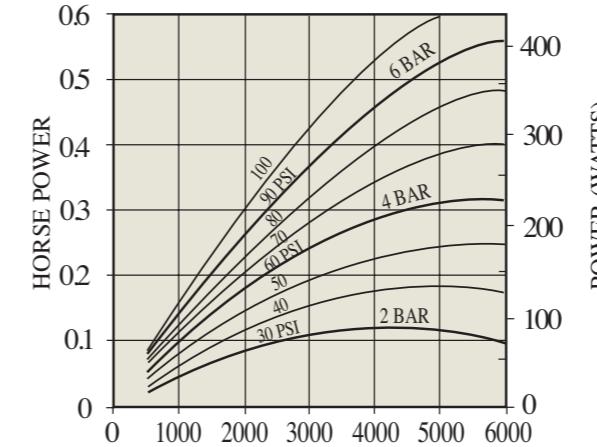
GRAPH 1 TORQUE - SPEED



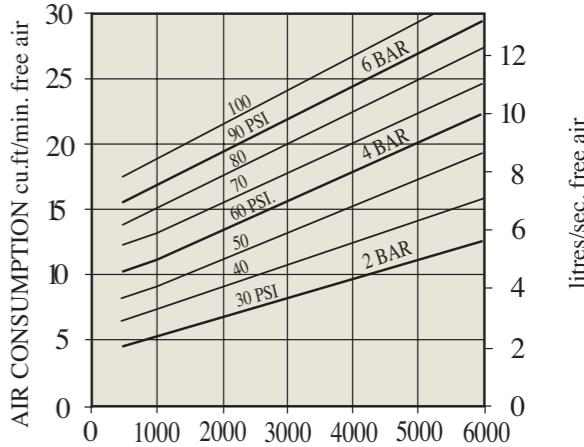
GRAPH 2 STARTING TORQUE - PRESSURE



GRAPH 3 POWER - SPEED



GRAPH 4 CONSUMPTION - SPEED



ATTITUDE:

The motor can be operated in all positions.

AIRLINE FILTRATION AND LUBRICATION:

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

LUBRICATOR DROP RATE:

4-5 drops per minute continuous operation.
9-12 drops per minute intermittent operation.

POLAR MOMENT OF INERTIA:

0.16 lb.in.s² (460 g.cm²).

MAXIMUM OVERHUNG FORCE ON SHAFT:

4 lbf (18N) Axial loads should be kept to a minimum.

Consult your GLOBE Distributor.

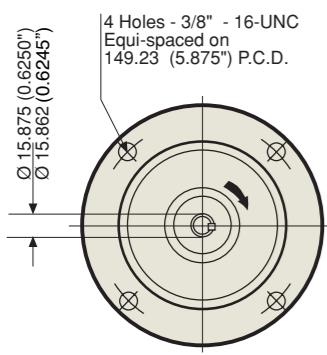
MAXIMUM TEMPERATURES:

-4° to +176° Farenheit. (-20° to +80°C)

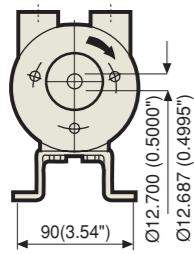
Muffler supplied with motor.

DIMENSIONS V2

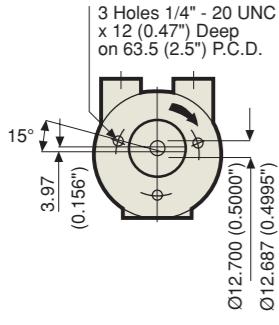
MODEL VA2C Nema 56C configuration



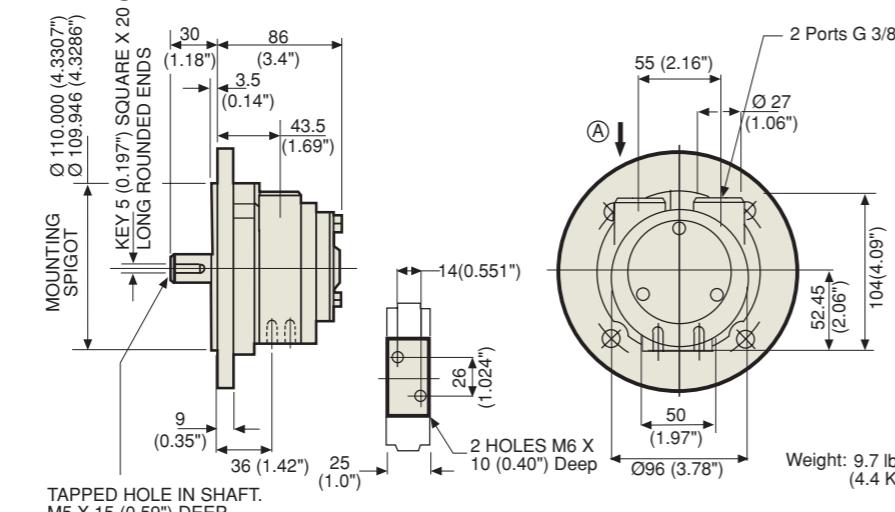
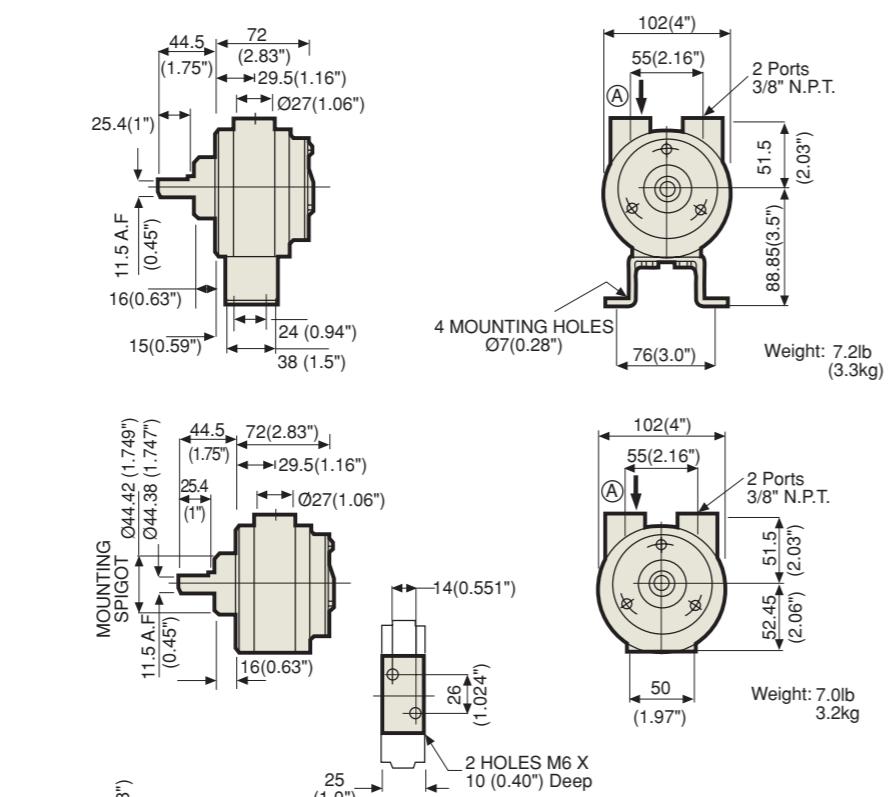
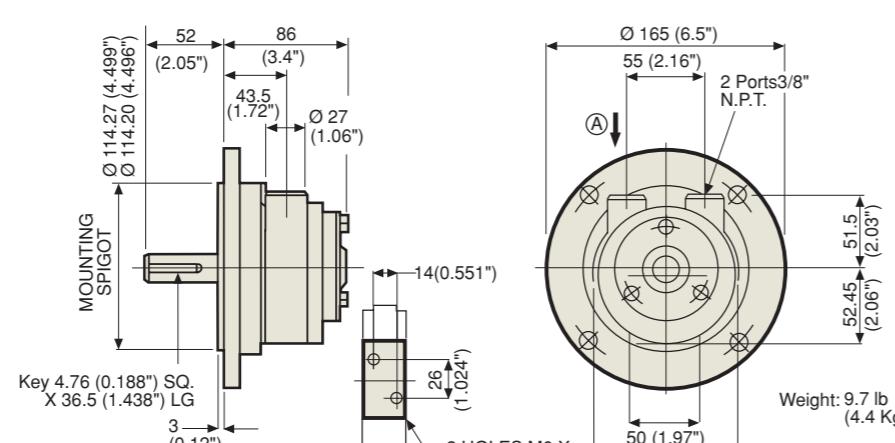
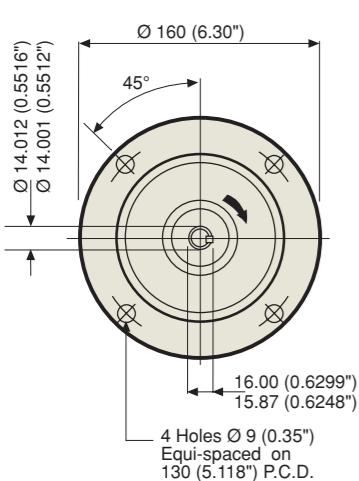
MODEL VA2J Foot Mounting configuration



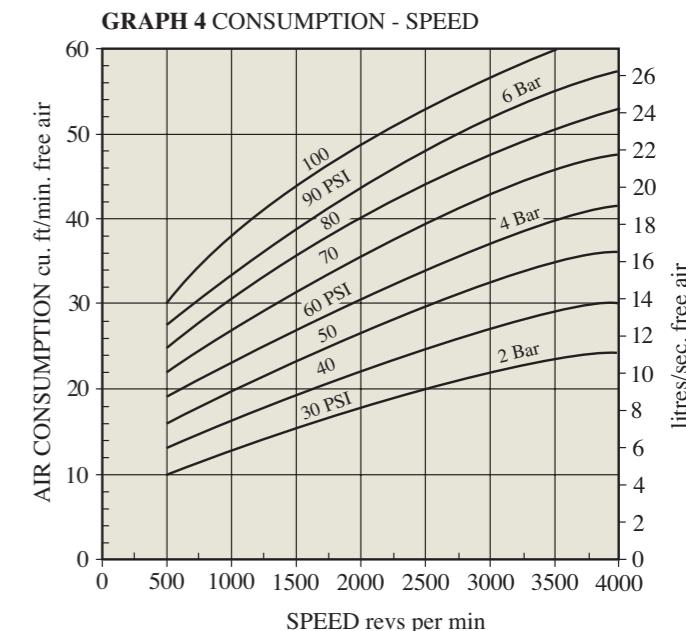
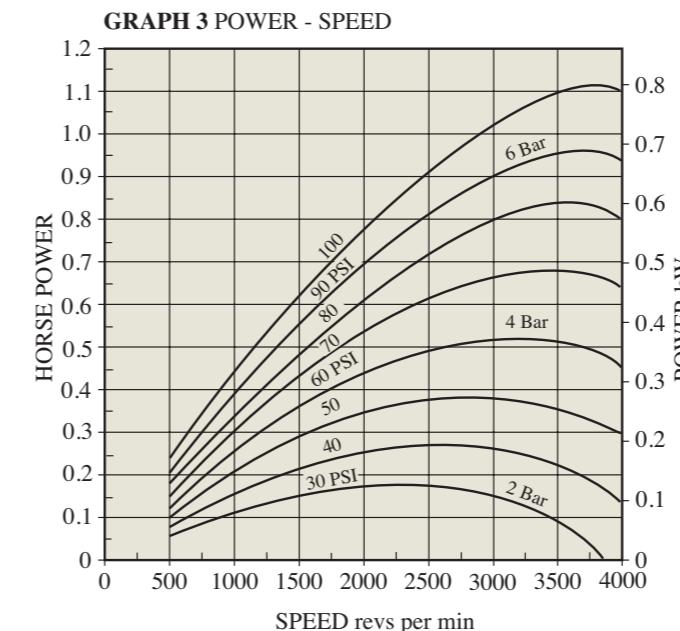
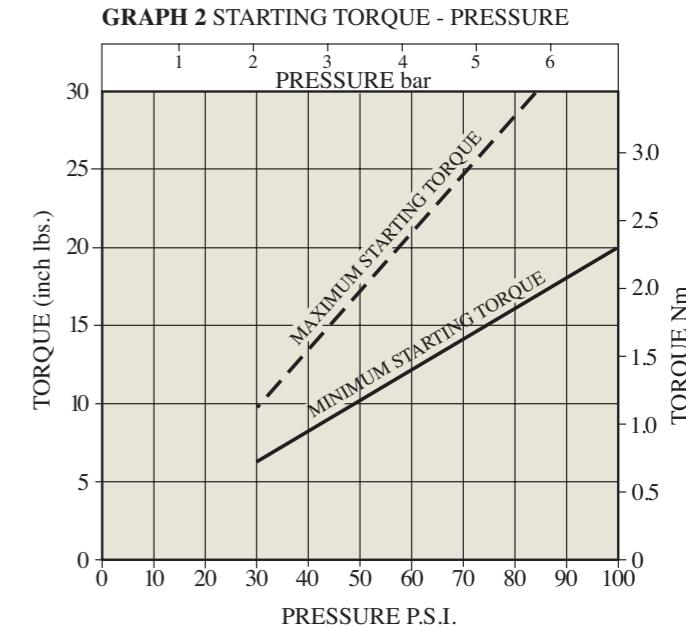
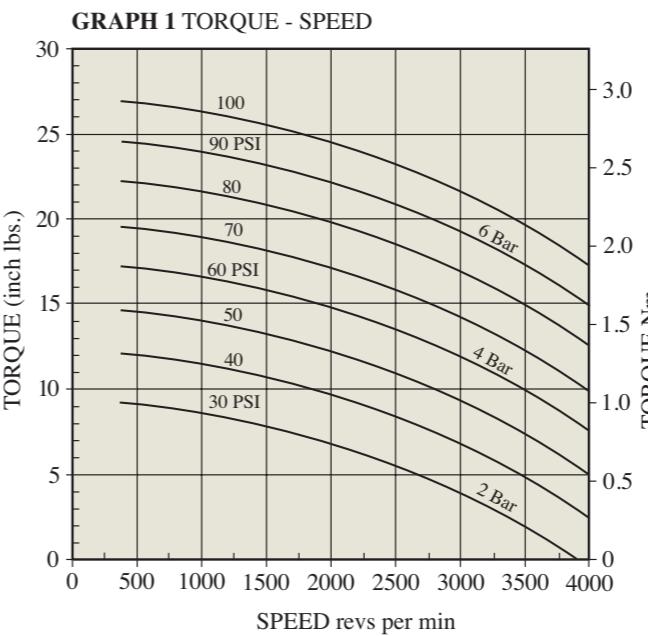
MODEL VA2X Face Mounting configuration



MODEL VS2C D71 configuration



PERFORMANCE V2 | 1.1 HP/0.82KW REVERSIBLE



ATTITUDE:

The motor can be operated in all positions.

AIRLINE FILTRATION AND LUBRICATION:

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

LUBRICATOR DROP RATE:

4-5 drops per minute continuous operation.

9-12 drops per minute intermittent operation.

POLAR MOMENT OF INERTIA:

0.47 lb.in² (0.139 g.m²).

MAXIMUM OVERHUNG FORCE ON SHAFT:

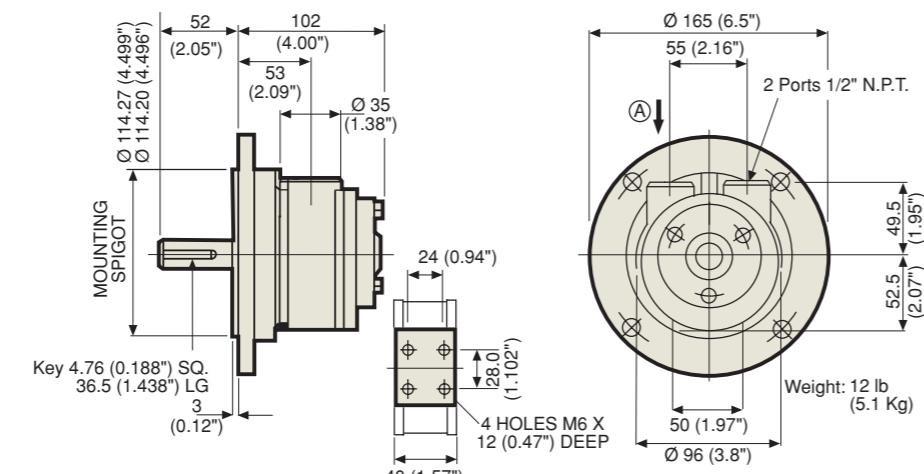
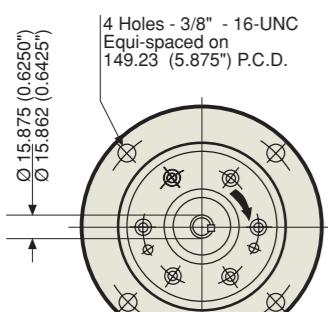
90 lbf (400N) In certain circumstances this may be extended. Consult your GLOBE Distributor. Axial loads should be kept to a minimum.

MAXIMUM TEMPERATURES:

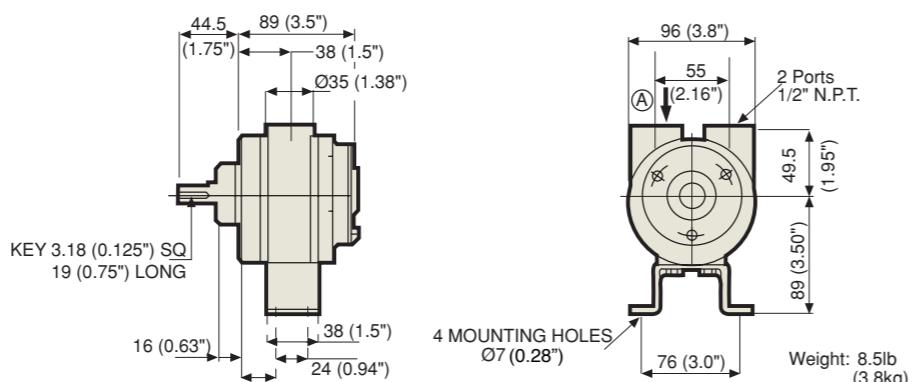
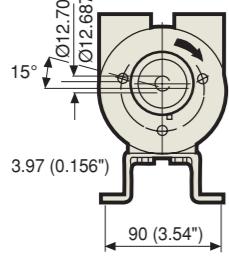
-40° to +176° Farenheit. (-20° to +80°C)

DIMENSIONS V4

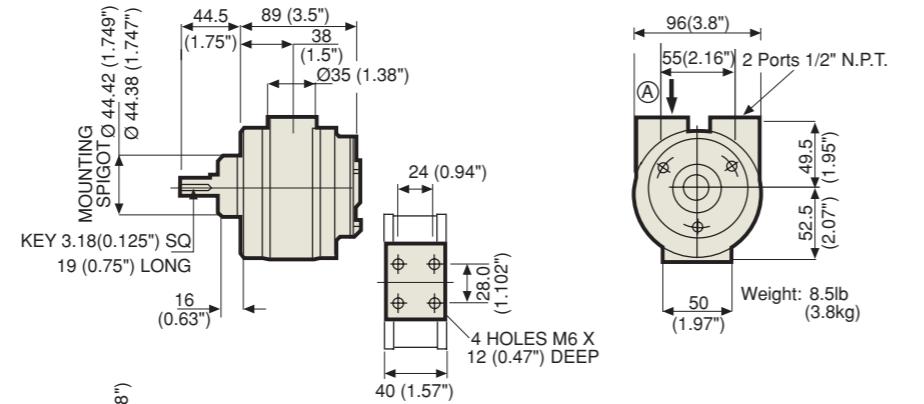
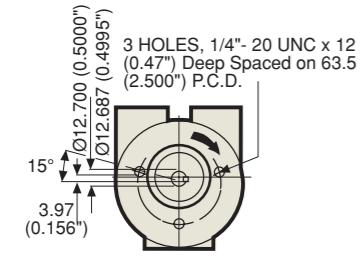
MODEL VA4C Nema 56C configuration



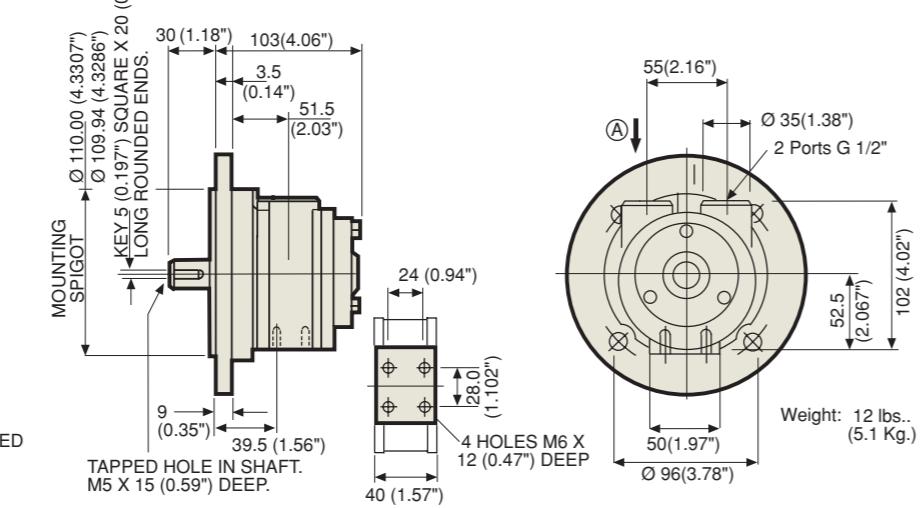
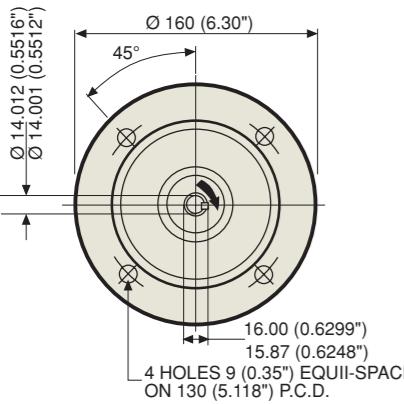
MODEL VA4J Foot Mounting configuration



MODEL VA4X Face Mounting configuration

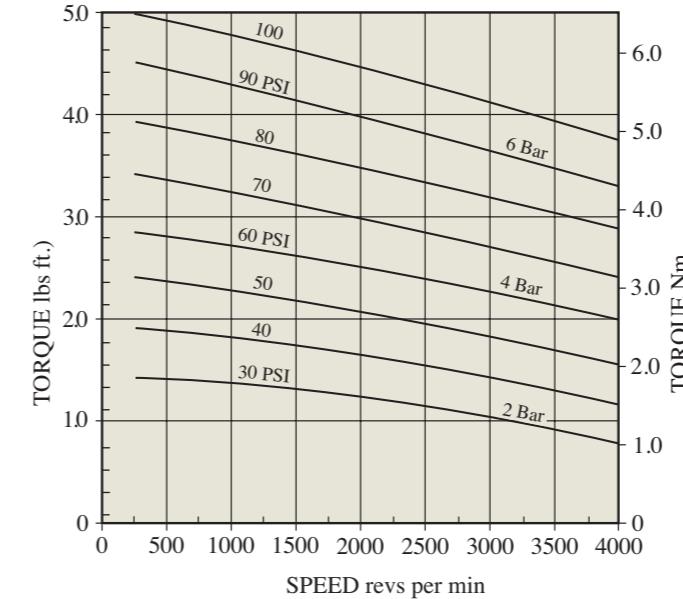


MODEL VS4C D71 configuration

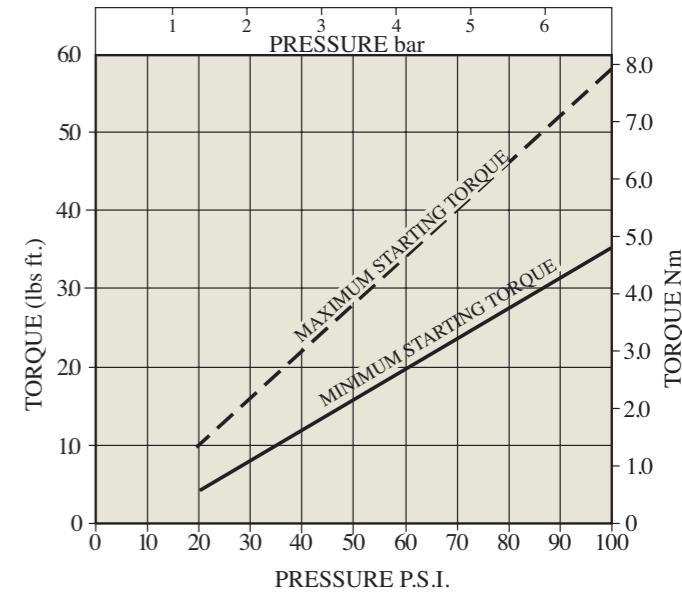


PERFORMANCE V4 | 2.8 HP/2.1 KW REVERSIBLE

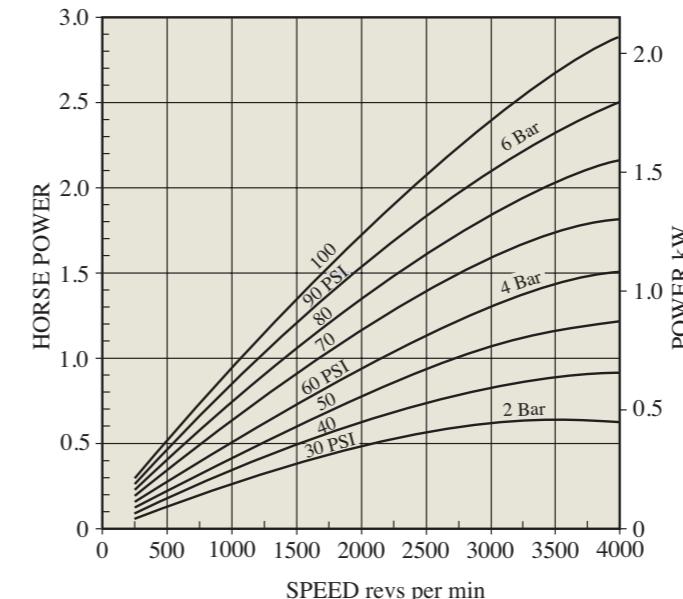
GRAPH 1 TORQUE - SPEED



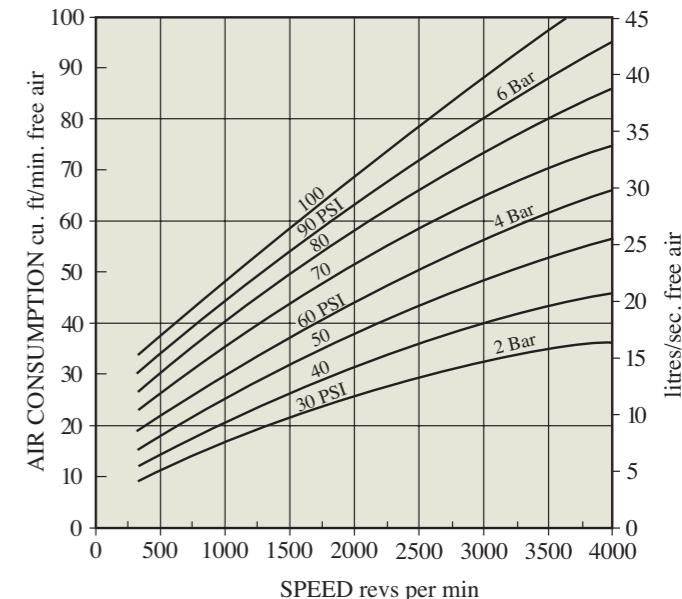
GRAPH 2 STARTING TORQUE - PRESSURE



GRAPH 3 POWER - SPEED



GRAPH 4 CONSUMPTION - SPEED



ATTITUDE:

The motor can be operated in all positions.

AIRLINE FILTRATION AND LUBRICATION:

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

LUBRICATOR DROP RATE:

4-5 drops per minute continuous operation.

9-12 drops per minute intermittent operation.

POLAR MOMENT OF INERTIA:

0.77 lb.in² (0.226 g.m²).

MAXIMUM OVERHUNG FORCE ON SHAFT:

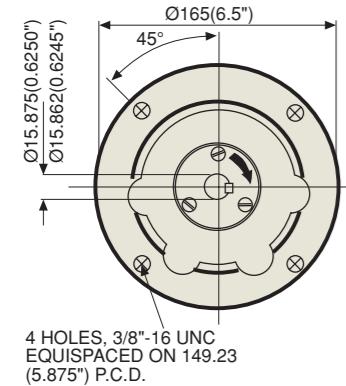
40 lbf (170N) In certain circumstances this may be extended. Consult your GLOBE Distributor. Axial loads should be kept down to a minimum.

MAXIMUM TEMPERATURES:

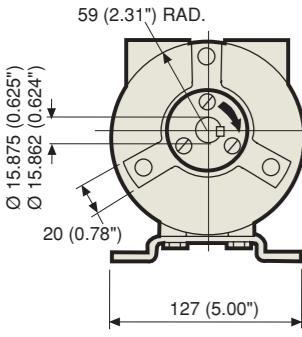
-40° to +176° Farenheit. (-20° to +80°C)

DIMENSIONS V6

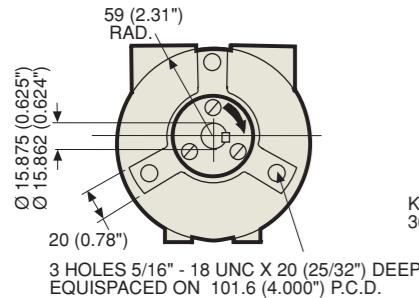
MODEL VA6C Nema 56C Configuration



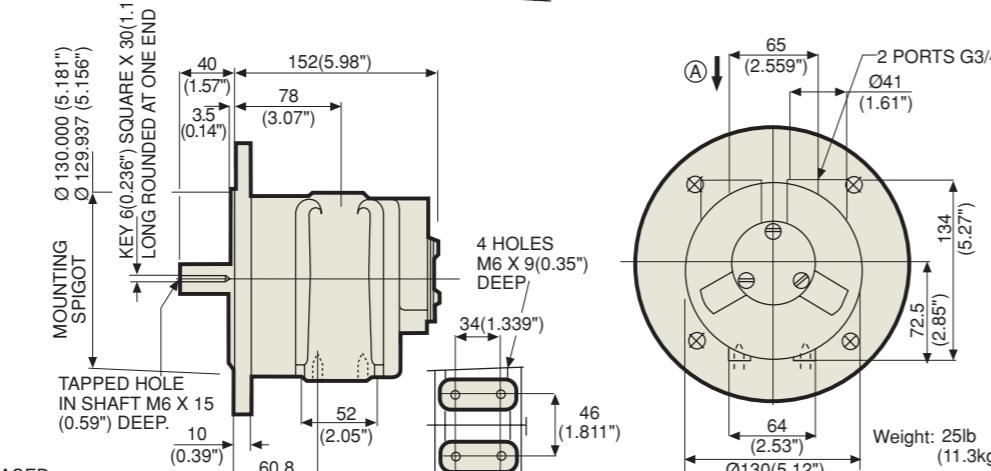
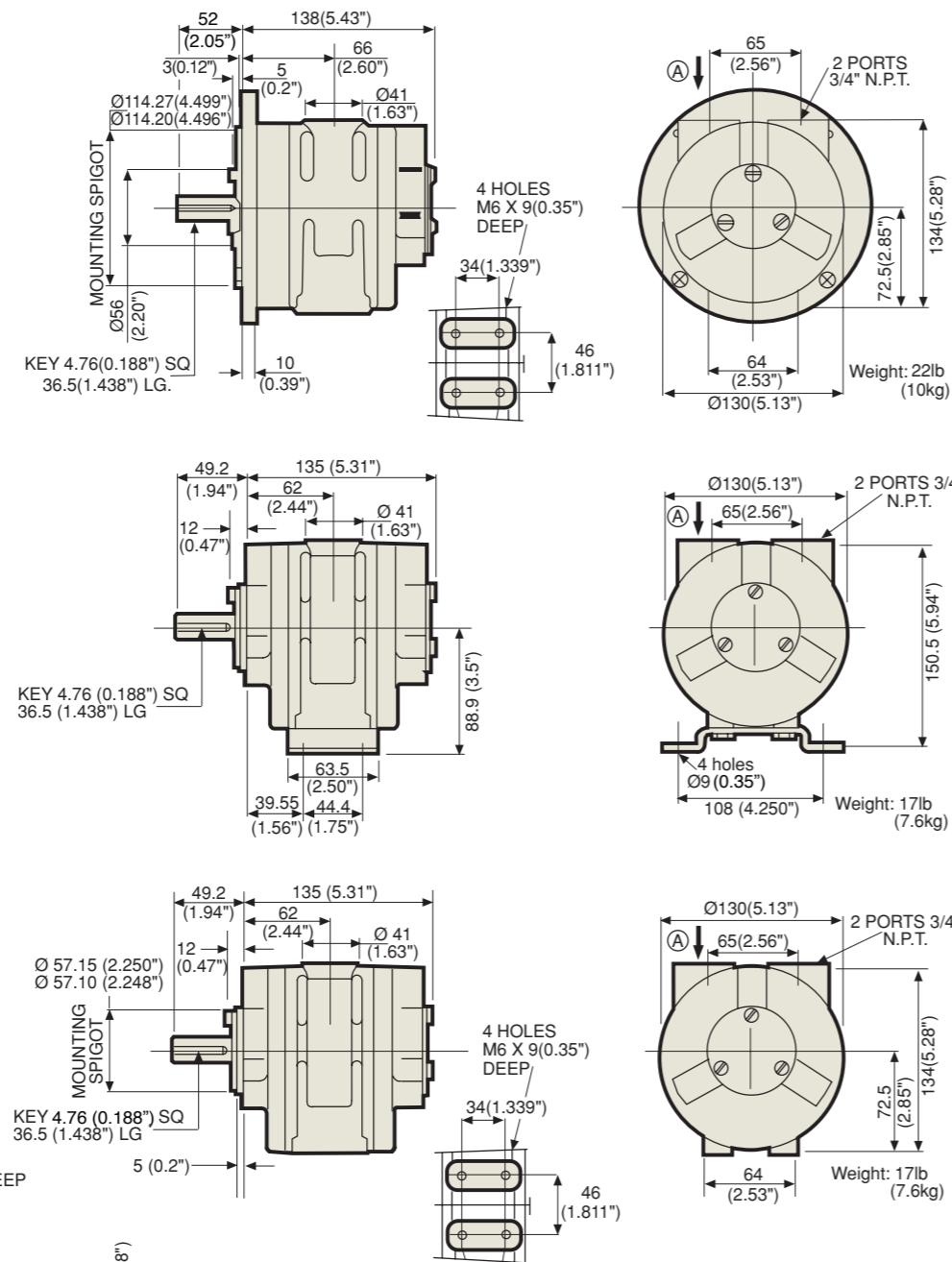
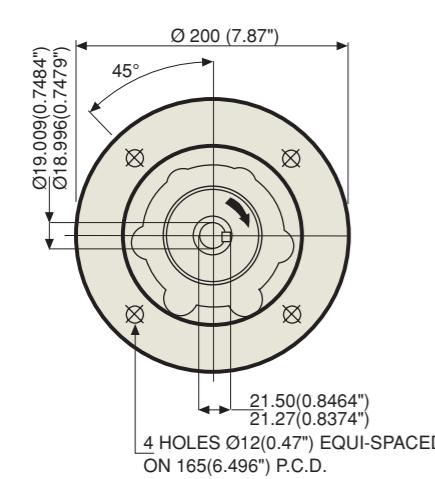
MODEL VA6J Foot Mounting Configuration



MODEL VA6X Face Mounting Configuration

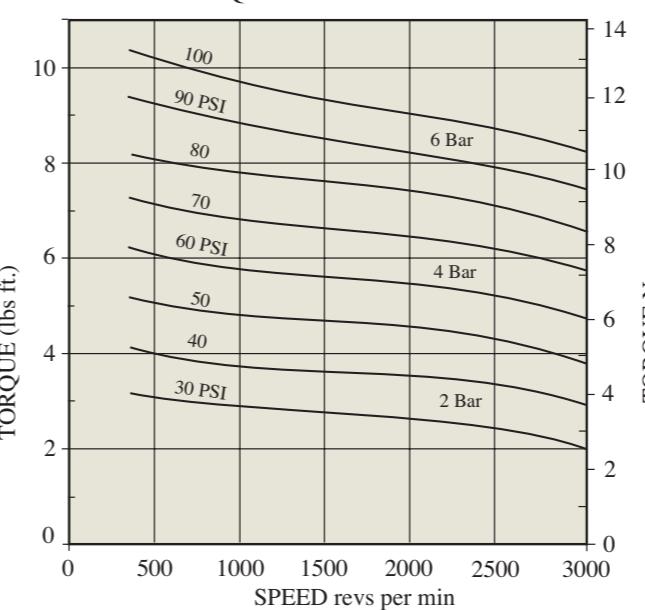


MODEL VS6C D80 Configuration

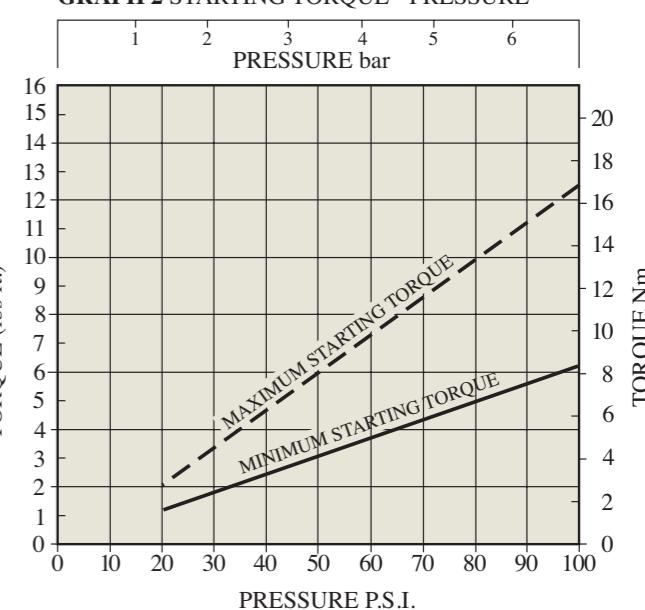


PERFORMANCE V6 | 4.6 / 3.4 KW REVERSIBLE

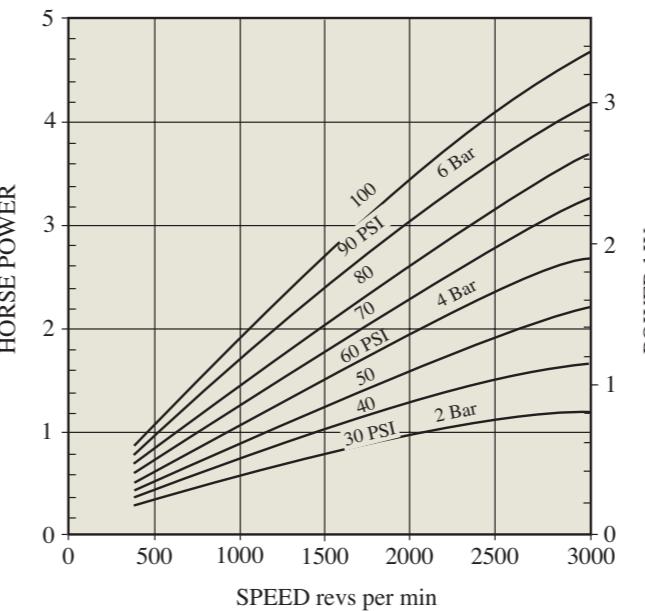
GRAPH 1 TORQUE - SPEED



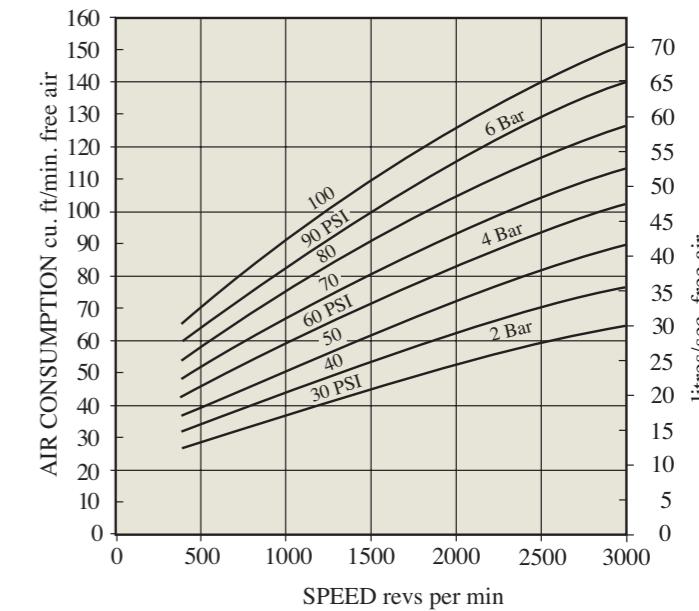
GRAPH 2 STARTING TORQUE - PRESSURE



GRAPH 3 POWER - SPEED



GRAPH 4 CONSUMPTION - SPEED



ATTITUDE:

The motor can be operated in all positions.

AIRLINE FILTRATION AND LUBRICATION:

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

LUBRICATOR DROP RATE:

5-6 drops per minute continuous operation.

10-12 drops per minute intermittent operation.

POLAR MOMENT OF INERTIA:

1.56 lb.in² (0.45 g.m²).

MAXIMUM OVERHUNG FORCE ON SHAFT:

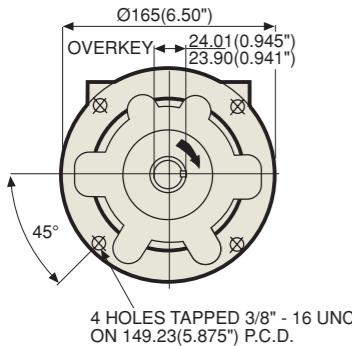
70 lbf (300N) In certain circumstances this may be extended. Consult your GLOBE Distributor. Axial loads should be kept down to a minimum.

MAXIMUM TEMPERATURES:

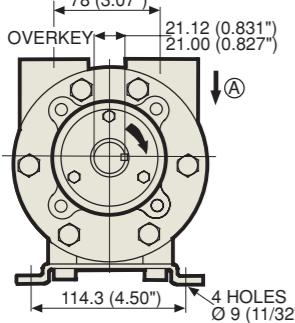
-40° to +176° Farenheit. (-20° to +80°C)

DIMENSIONS V8

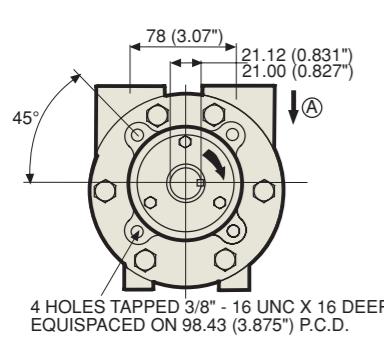
MODEL VA8C I45 TC Configuration



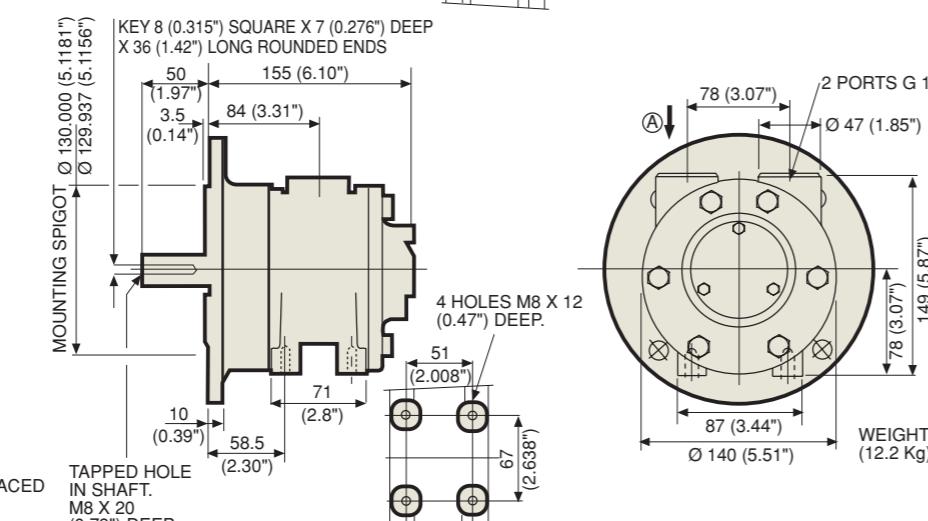
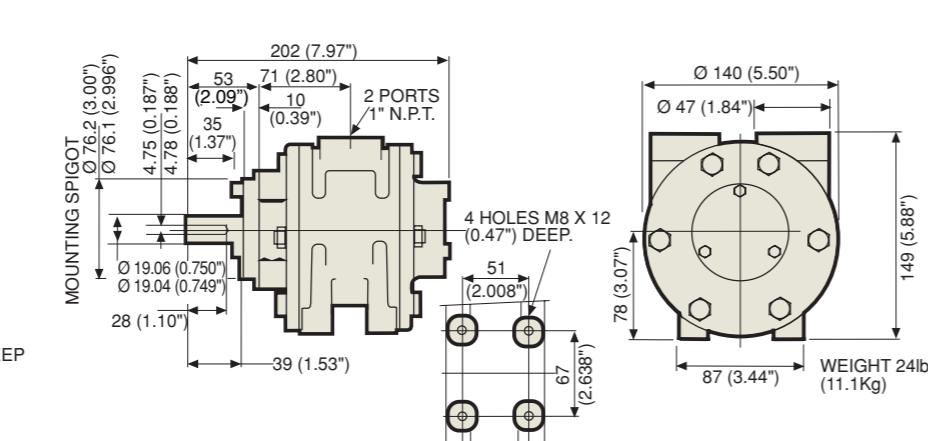
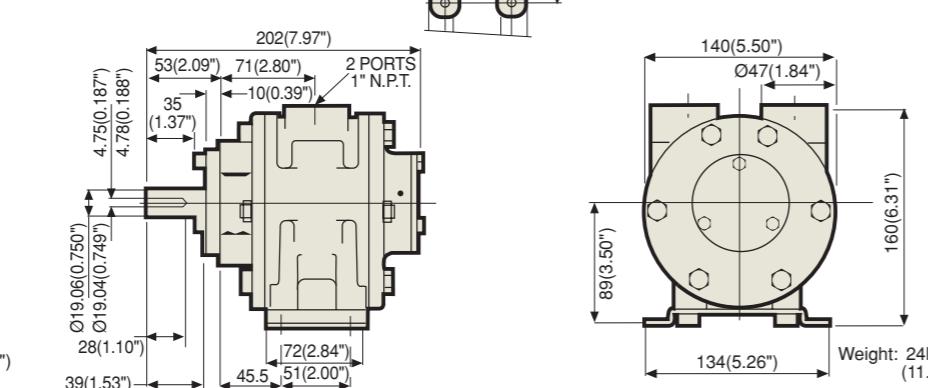
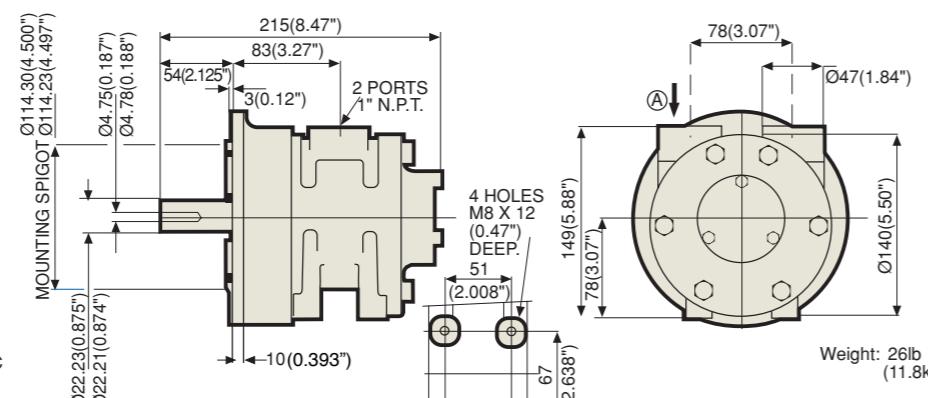
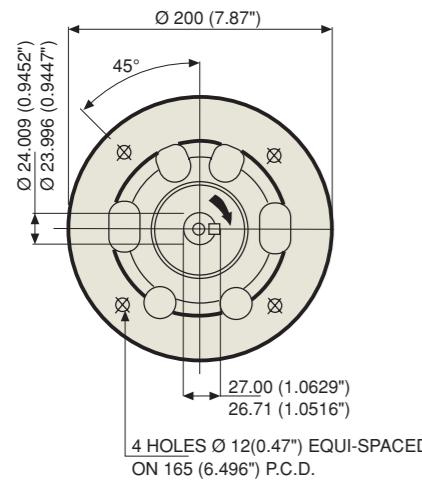
MODEL VA8J Foot Mounting Configuration



MODEL VA8X Face Mounting Configuration

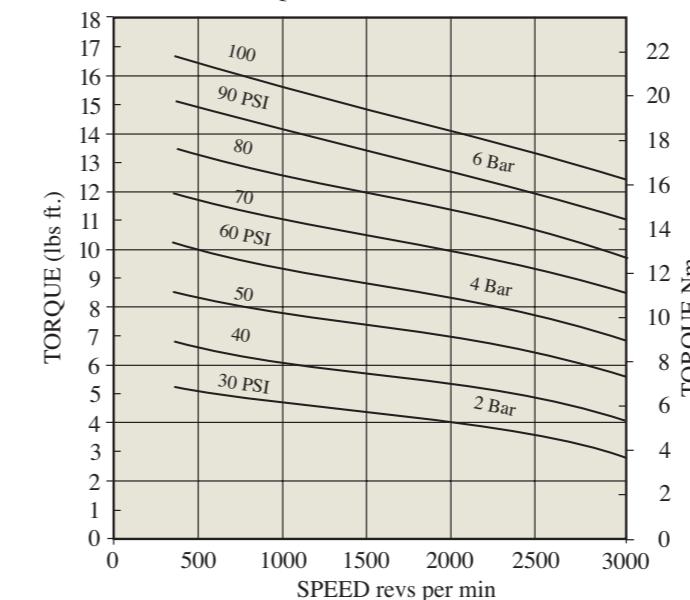


MODEL VS8C D90 Flange Configuration

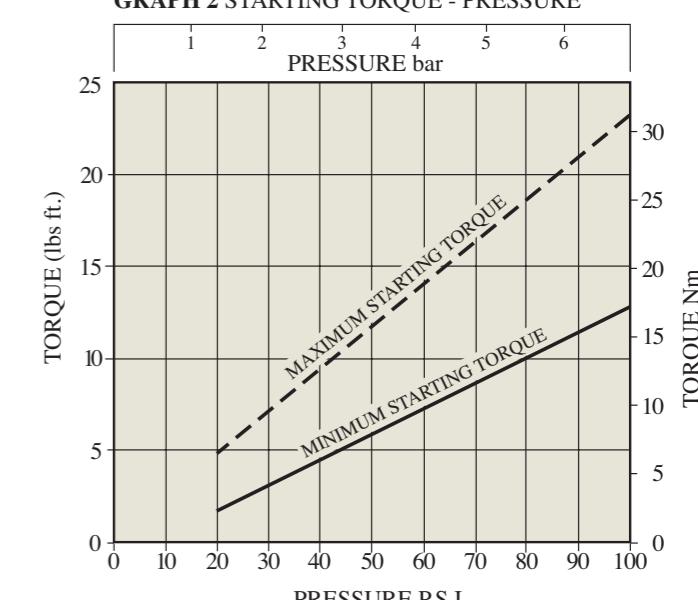


PERFORMANCE V8 | 7.2 HP/5.4 KW REVERSIBLE

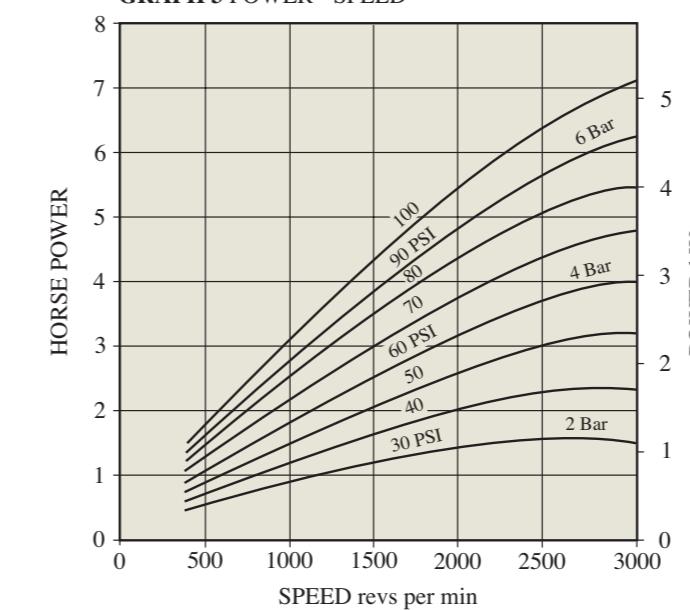
GRAPH 1 TORQUE - SPEED



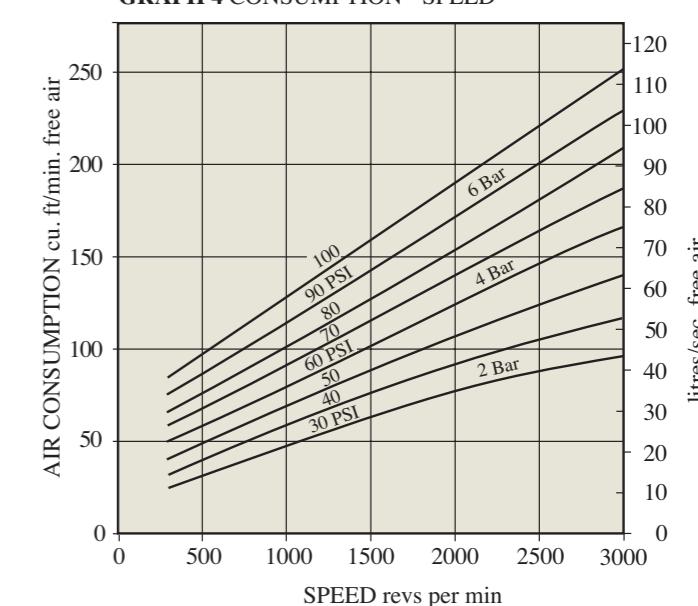
GRAPH 2 STARTING TORQUE - PRESSURE



GRAPH 3 POWER - SPEED



GRAPH 4 CONSUMPTION - SPEED



ATTITUDE:

The motor can be operated in all positions.

AIRLINE FILTRATION AND LUBRICATION:

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

LUBRICATOR DROP RATE:

6-7 drops per minute continuous operation.

12-15 drops per minute intermittent operation.

POLAR MOMENT OF INERTIA:

3.5 lb.in² (1.02 g.m²).

MAXIMUM OVERHUNG FORCE ON SHAFT:

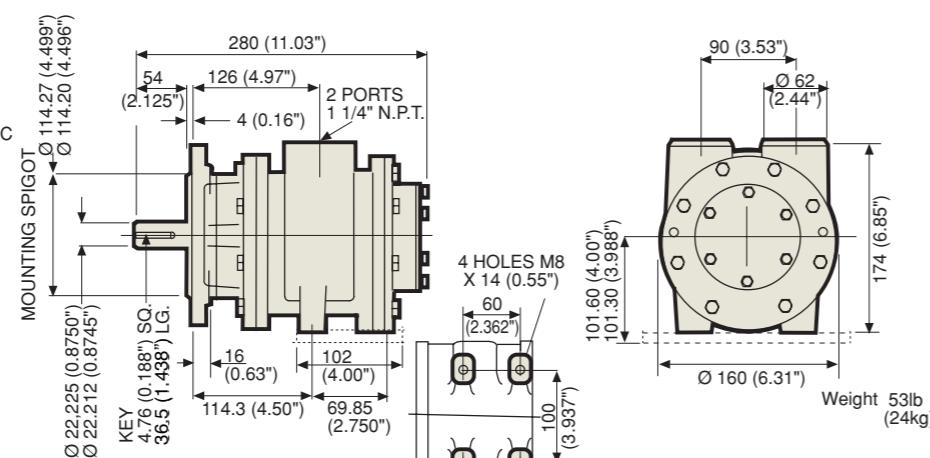
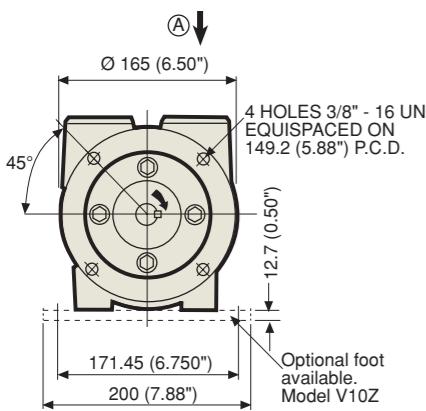
140 lbf (620N) In certain circumstances this may be extended. Consult your GLOBE Distributor. Axial loads should be kept down to a minimum.

MAXIMUM TEMPERATURES:

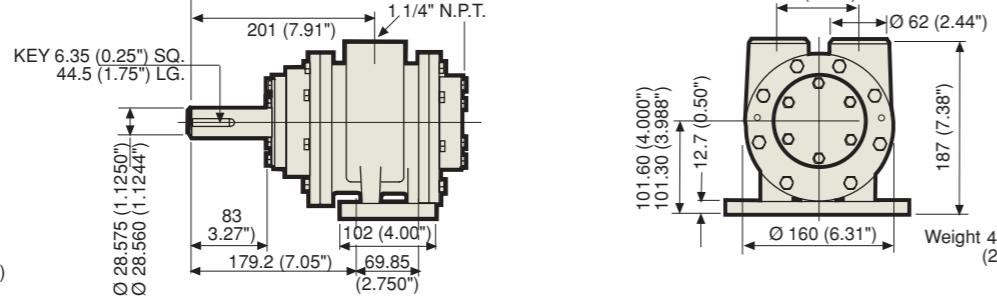
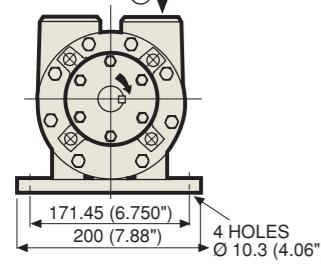
-40° to +176° Farenheit. (-20° to +80°C)

DIMENSIONS V10

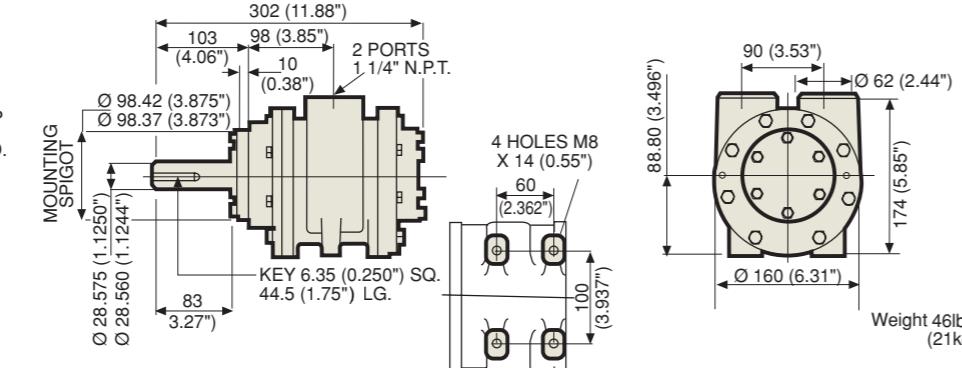
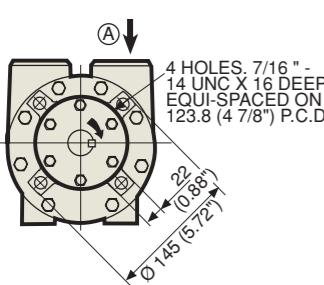
MODEL VA10C 145 TC Configuration



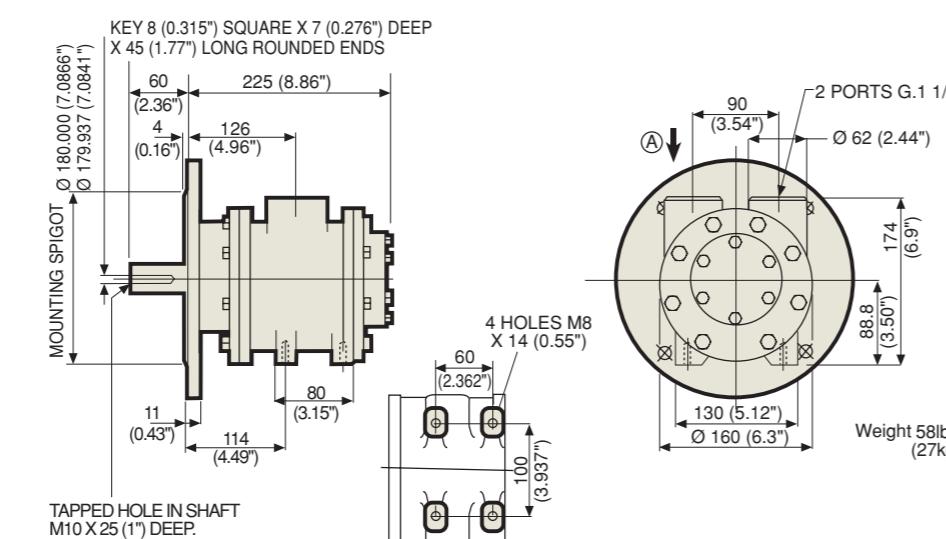
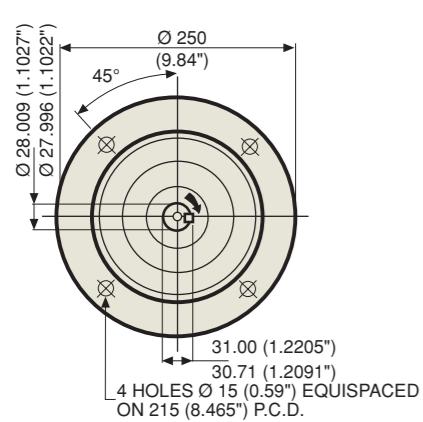
MODEL VA10J Foot Mounting Configuration



MODEL VA10X Face Mounting Configuration

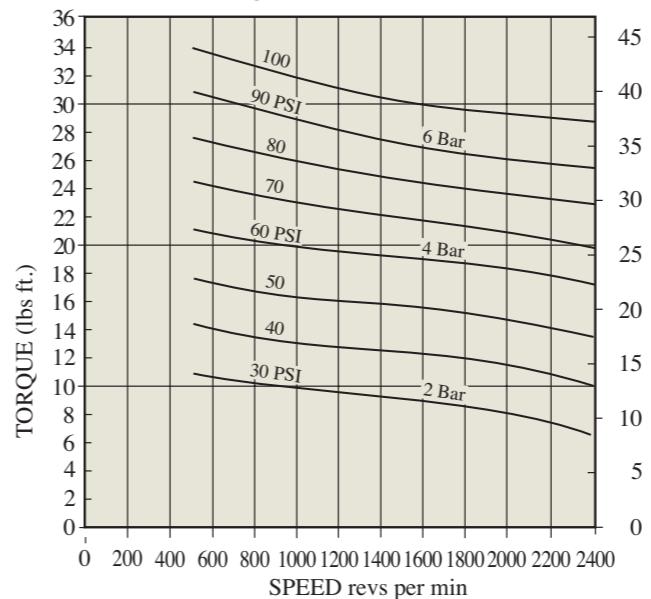


MODEL VS10C D100 Flange Configuration

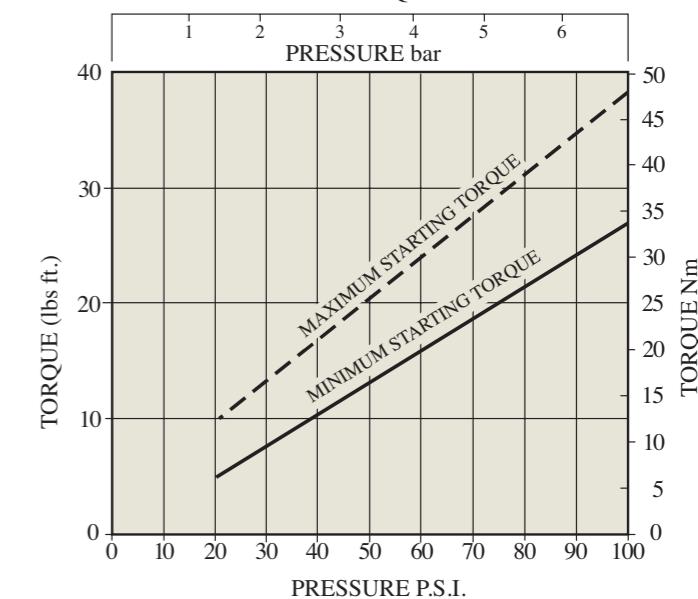


PERFORMANCE V10 | 12.8 HP/9.5 KW REVERSIBLE

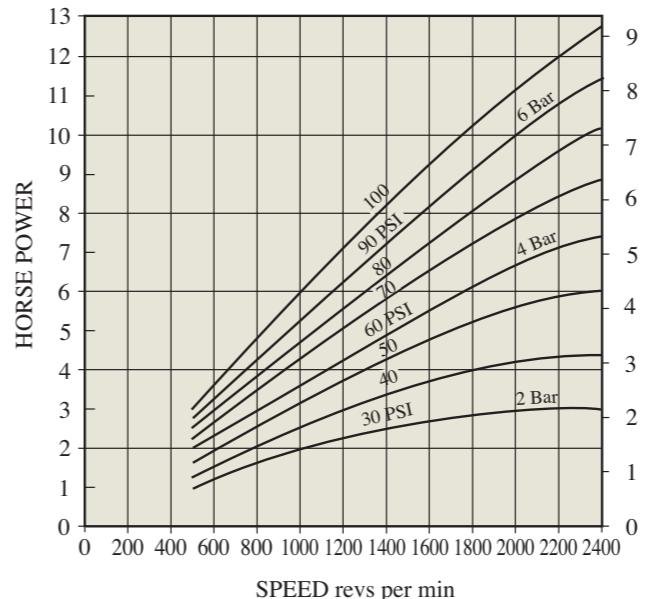
GRAPH 1 TORQUE - SPEED



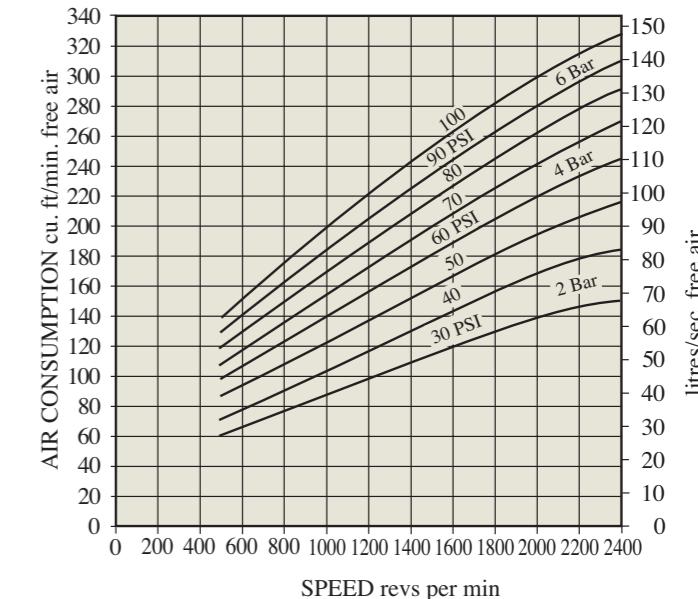
GRAPH 2 STARTING TORQUE - PRESSURE



GRAPH 3 POWER - SPEED



GRAPH 4 CONSUMPTION - SPEED



ATTITUDE:

The motor can be operated in all positions.

AIRLINE FILTRATION AND LUBRICATION:

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

LUBRICATOR DROP RATE:

8-10 drops per minute continuous operation.

14-16 drops per minute intermittent operation.

POLAR MOMENT OF INERTIA:

30 lb.in² (8.8 g.m²).

MAXIMUM OVERHUNG FORCE ON SHAFT:

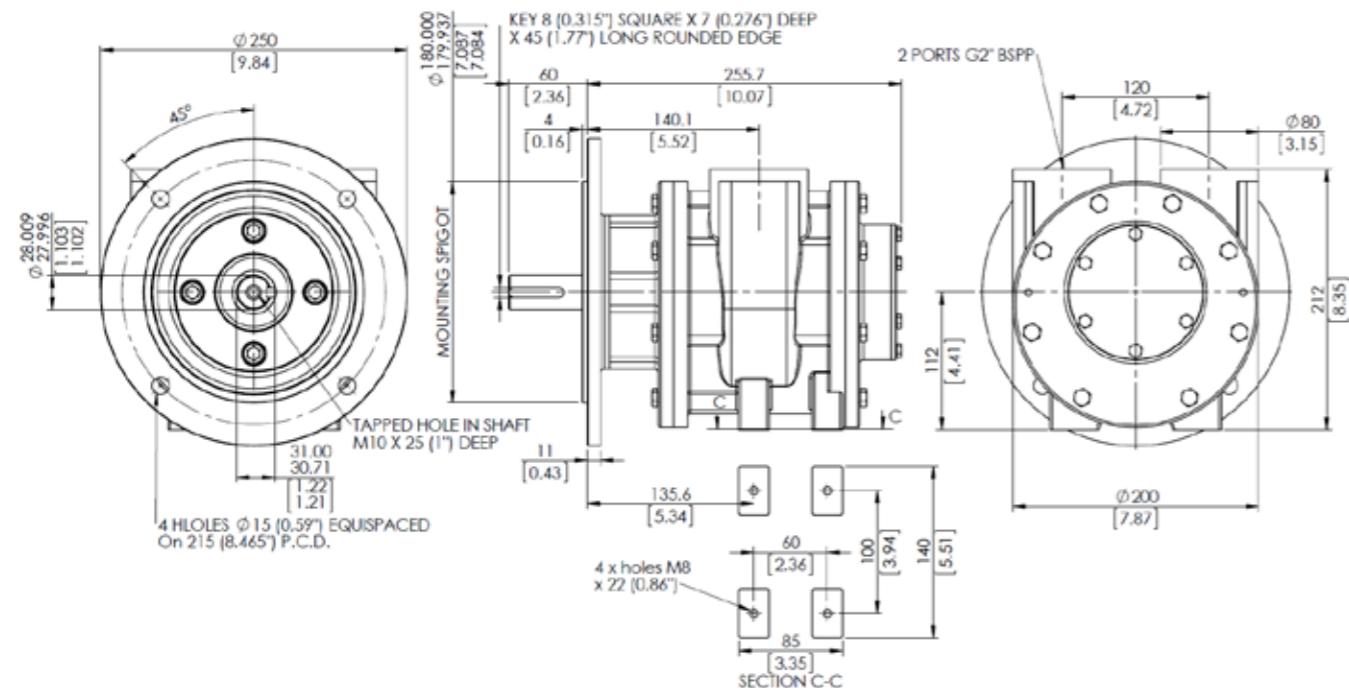
400 lbf (1750N) In certain circumstances this may be extended. Consult your GLOBE Distributor. Axial loads should be kept down to a minimum.

MAXIMUM TEMPERATURES:

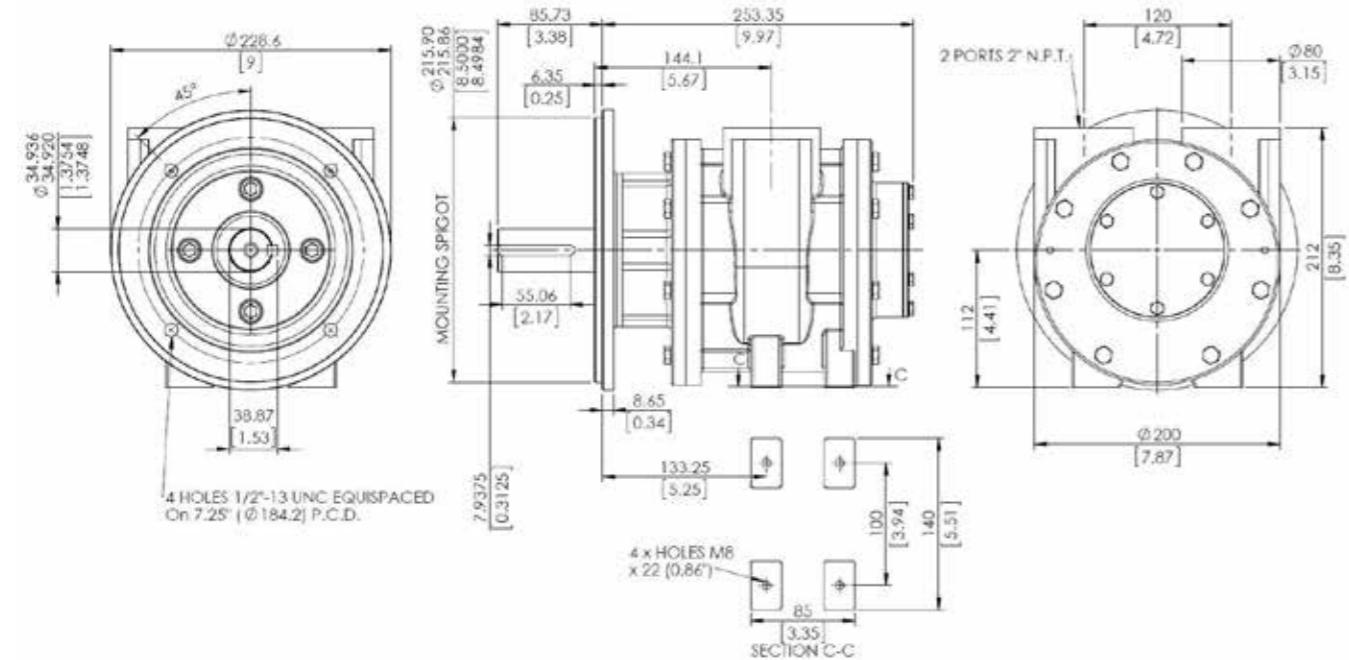
-40° to +176° Farenheit. (-20° to +80°C)

DIMENSIONS V12

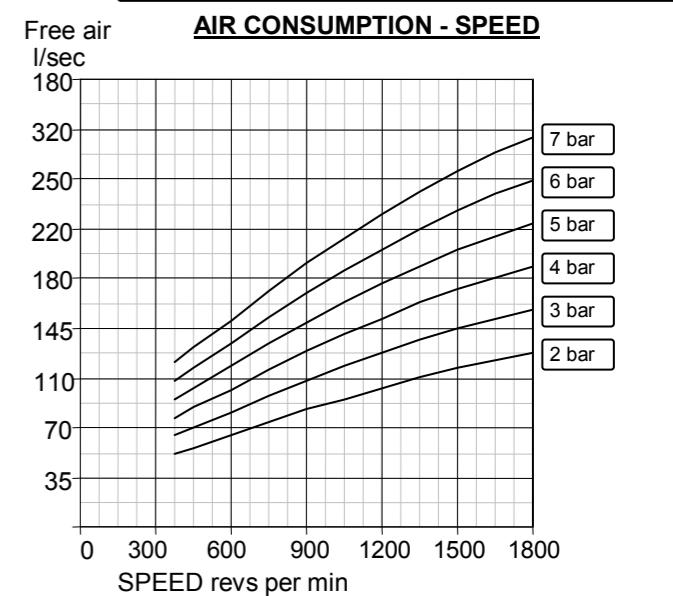
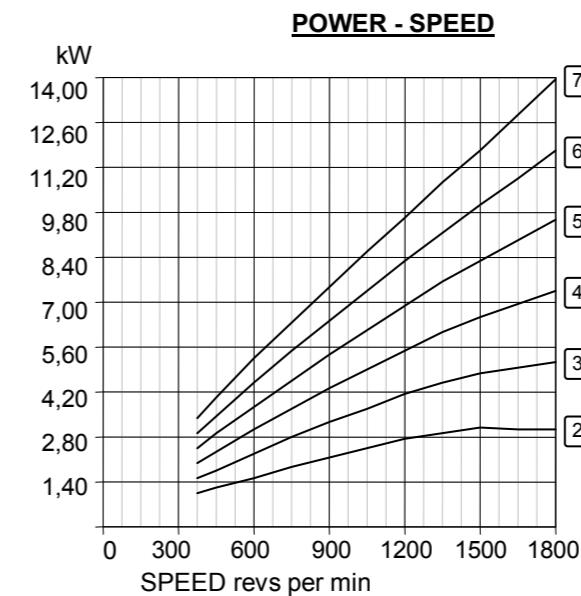
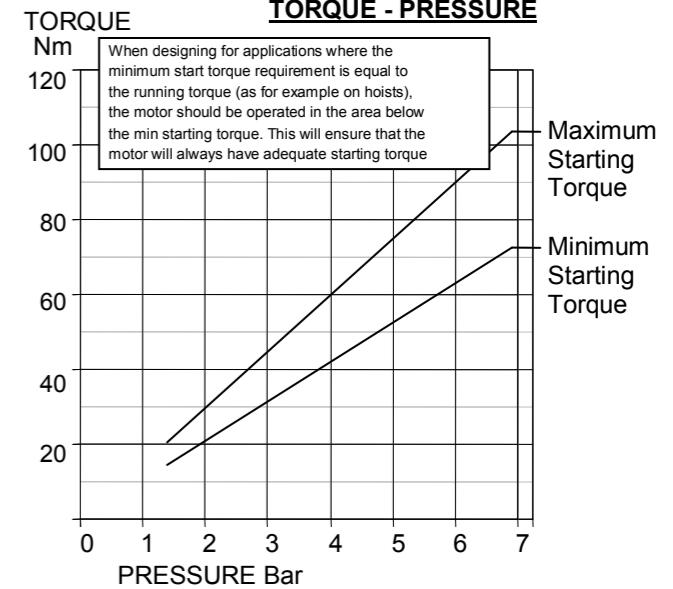
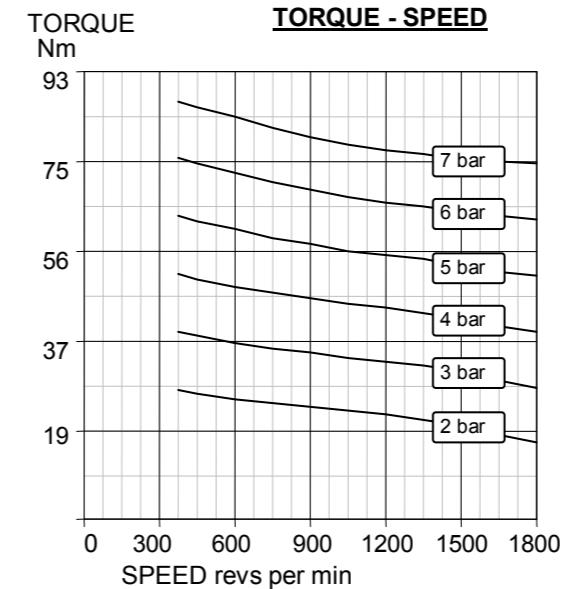
VS12C



VA12C



PERFORMANCE V12 | 19.1 HP/14 KW REVERSIBLE



ATTITUDE:

The motor can be operated in all positions.

AIRLINE FILTRATION AND LUBRICATION:

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

LUBRICATOR DROP RATE:

12-14 drops per minute continuous operation.

18-20 drops per minute intermittent operation.

POLAR MOMENT OF INERTIA:

30 lb.in² (8.8 g.m²).

MAXIMUM OVERHUNG FORCE ON SHAFT:

400 lbf (1750N) In certain circumstances this may be extended. Consult your GLOBE Distributor. Axial loads should be kept down to a minimum.

MAXIMUM TEMPERATURES:

-40° to +176° Farenheit. (-20° to +80°C)



NON LUBRICATED VANE AIR MOTORS

ADVANTAGES

GLOBE Airmotors BV has a special range of non lubricated motors. The advantages of these motors are:

- No lubricator necessary - save on installation costs
- No oil and inspection of the lubricator oil level is necessary - save on annual running costs
- No oil-contaminated air from the exhaust - protects products and workforce
- Same standard interfaces as the regular GLOBE vane air motors.

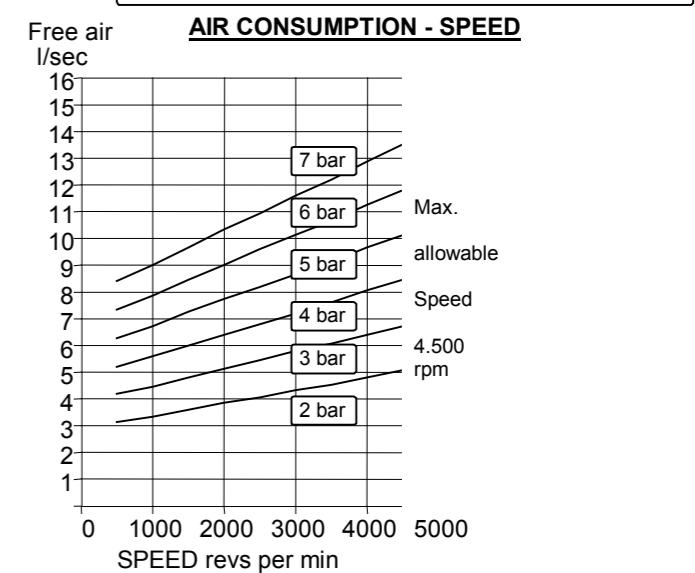
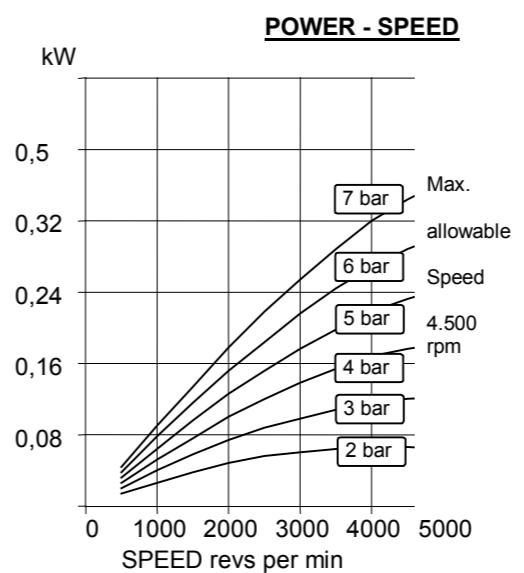
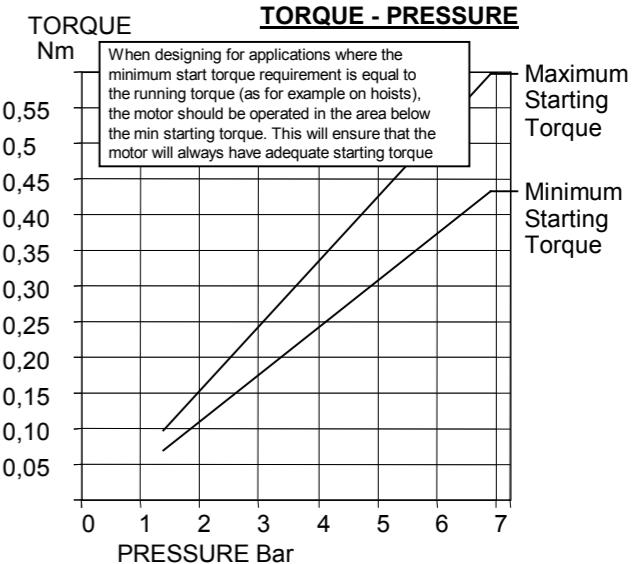
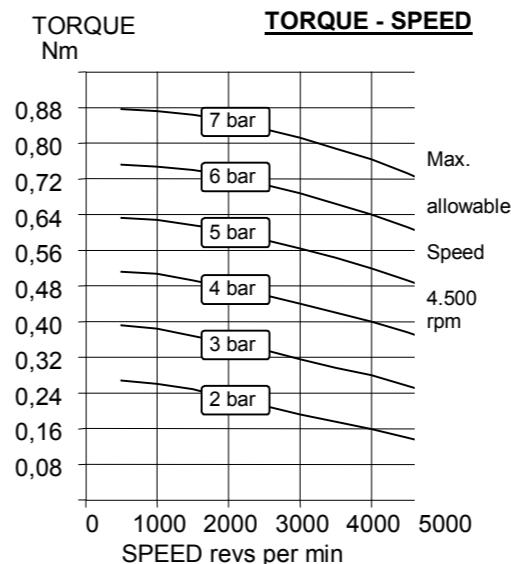
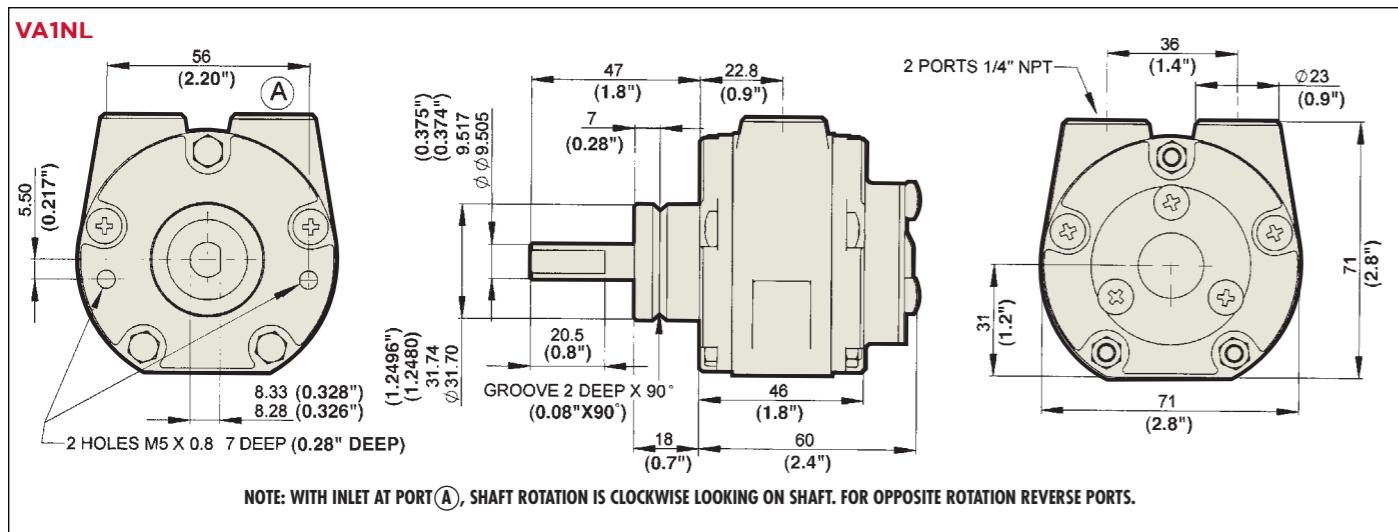
All the GLOBE vane air motors can run without lubrication under certain operation conditions. For dry running blades, a filtration to a minimum of 25 microns is recommended.

The maximum air pressure must not exceed 4 bar and the motor speed must not exceed the figures stated in the graphs belonging to the non lubricated motors. The maximum motor speed must never be exceeded when the motor is running off load. As prevention a flow restriction should be fitted on the outlet when the load can vary greatly.

The vanes in non lubricated vane air motors have a shorter life expectancy compared to the standard versions. Maximum continuous speed is 50% less compared to the standard versions. Please consult GLOBE when using a non lubricated vane air motor.

DIMENSIONS V1-NL

VA1NL



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).

AIRLINE FILTRATION

Use 64 micron filtration or better.

MAX. OVERHUNG FORCE ON MOTOR SHAFT

18 N (4.0 lbf.).

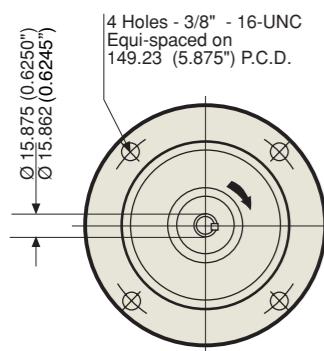
Axial loads should be kept to a minimum.

MAXIMUM SPEED 4500 RPM

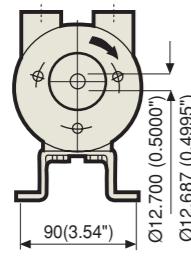
When operating above 50% of the maximum speed please consult your supplier.

DIMENSIONS V2-NL

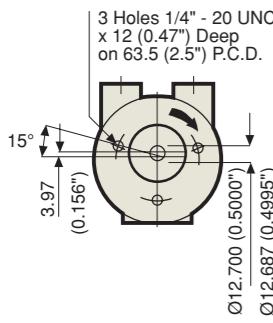
MODEL VA2C Nema 56C configuration



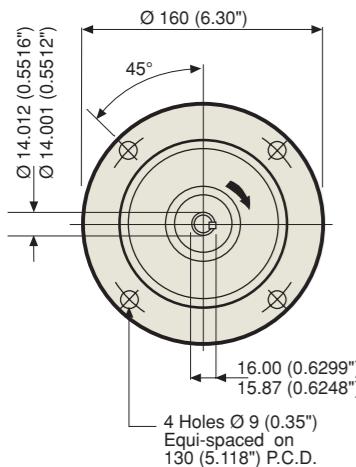
MODEL VA2J Foot Mounting configuration



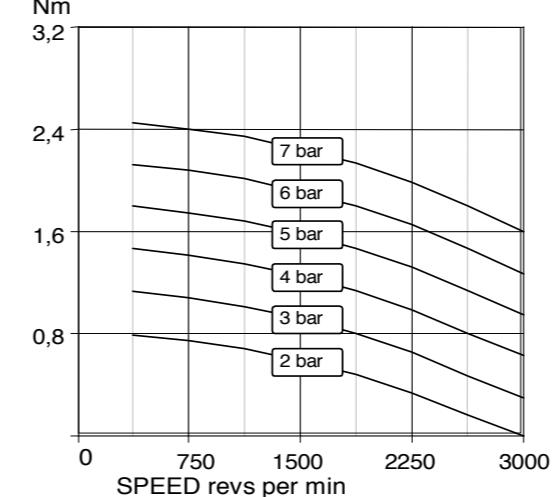
MODEL VA2X Face Mounting configuration



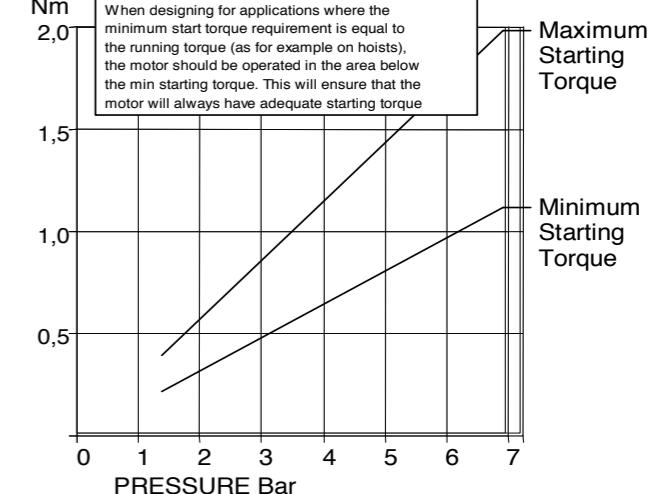
MODEL VS2C D71 configuration



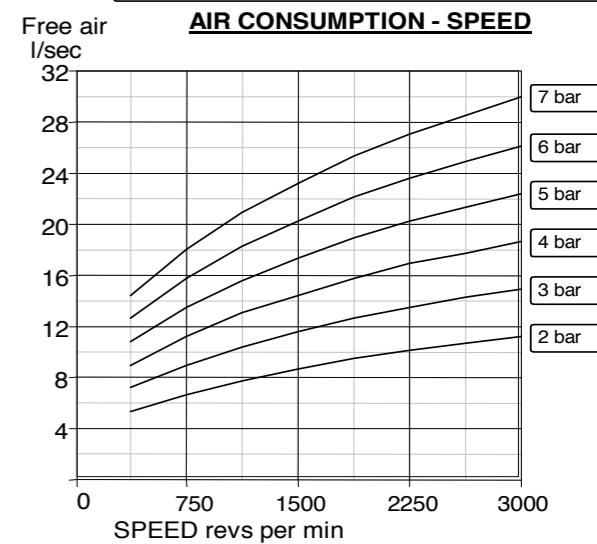
TORQUE - SPEED



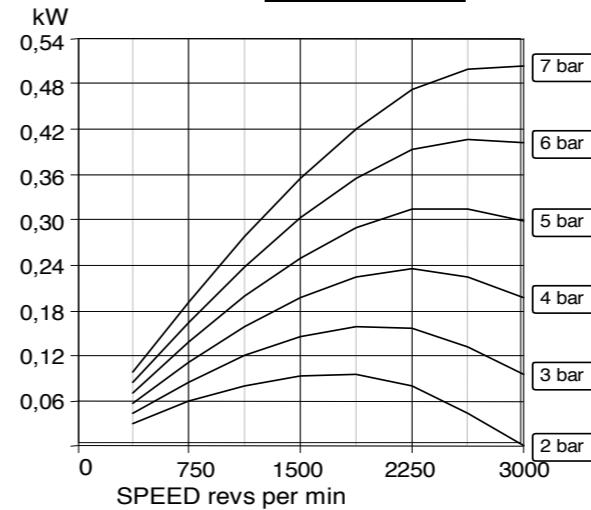
TORQUE - PRESSURE



AIR CONSUMPTION - SPEED



POWER - SPEED



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).

AIRLINE FILTRATION

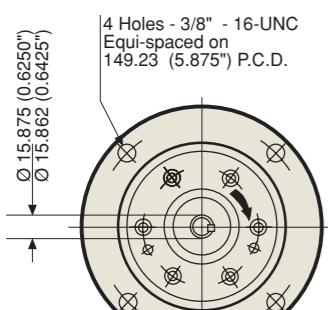
Use 64 micron filtration or better.

MAXIMUM SPEED 3000 RPM

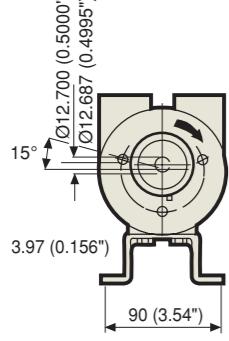
When operating above 50% of the maximum speed please consult your supplier.

DIMENSIONS V4-NL

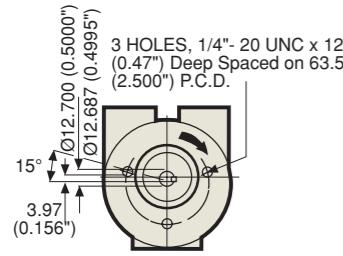
MODEL VA4C Nema 56C configuration



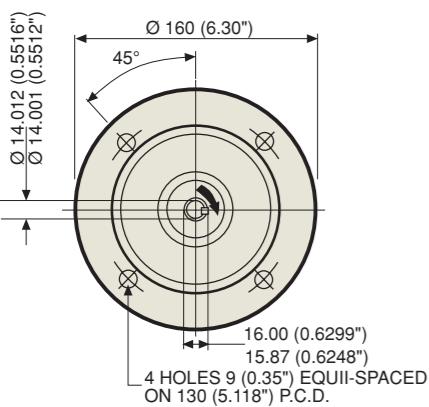
MODEL VA4J Foot Mounting configuration



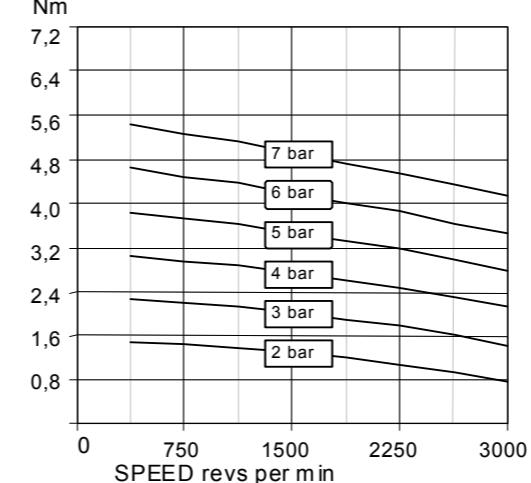
MODEL VA4X Face Mounting configuration



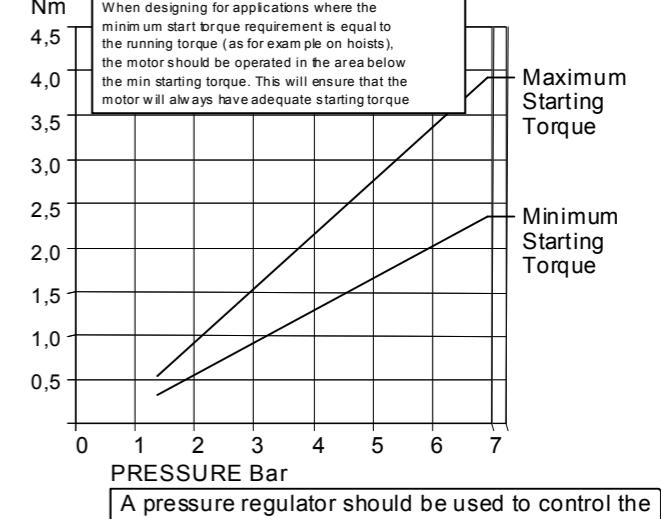
MODEL VS4C D71 configuration



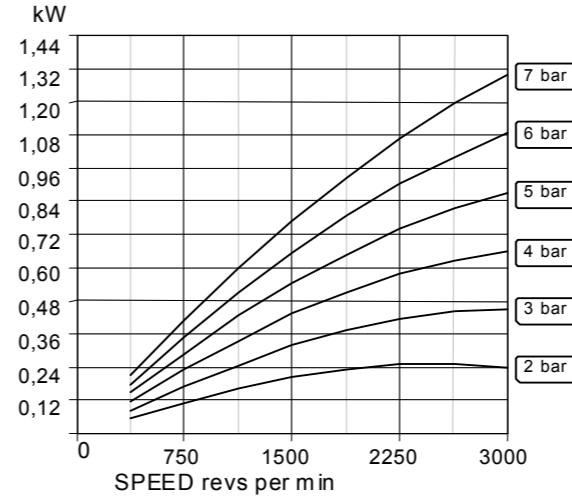
TORQUE - SPEED



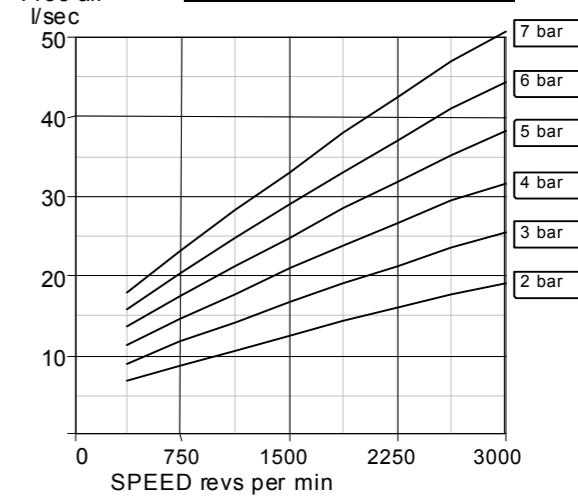
TORQUE - PRESSURE



POWER - SPEED



AIR CONSUMPTION - SPEED



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).

MAXIMUM SPEED 3000 RPM

Life time depends highly on operational speed and air pressure. When operating at 6 bar and running at 3000 rpm life time of the blades is about 1000 running hours. When operating above 50% of the maximum speed please consult your supplier.

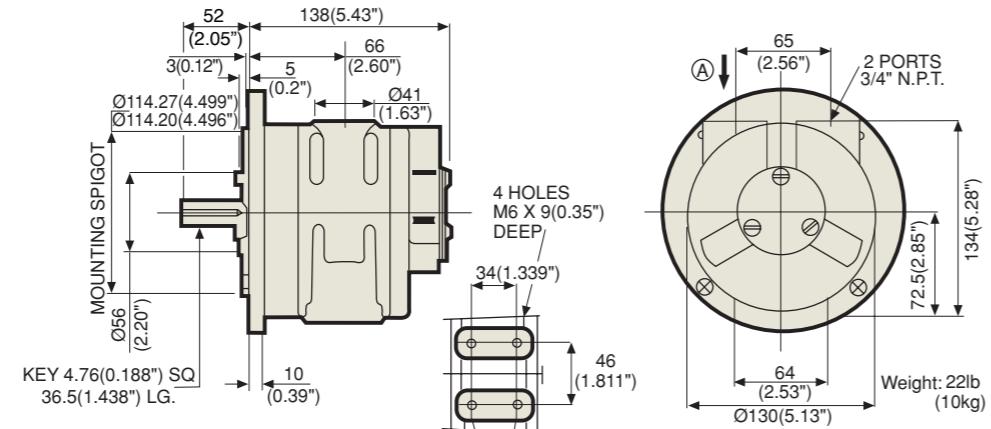
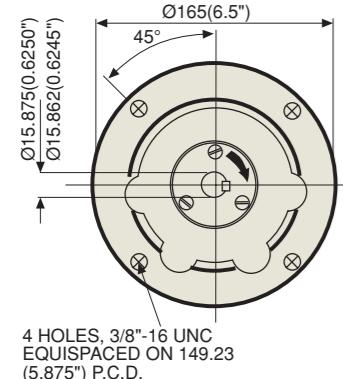
AIRLINE FILTRATION

Use 5 micron filtration. The air has to be dry to prevent corrosion inside the motor when it is not in use.

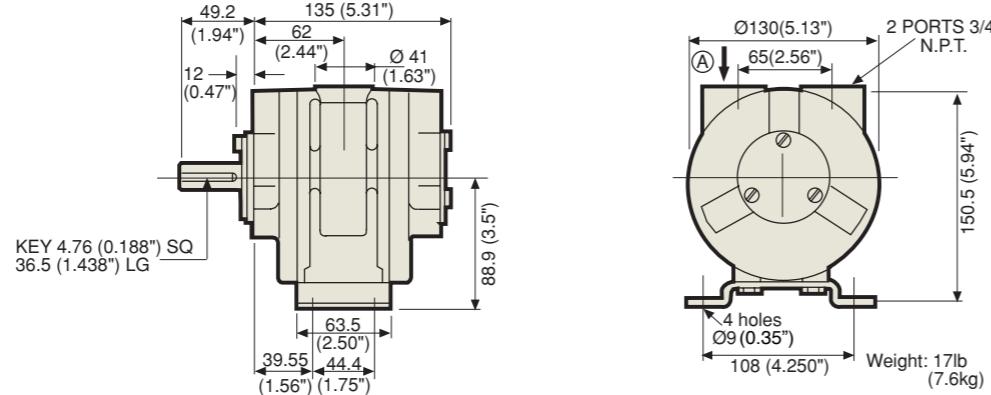
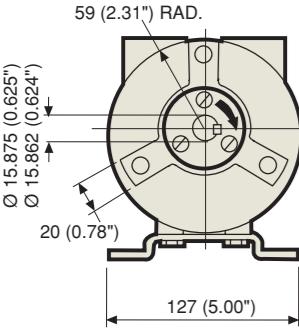
Advisable is to use an air dryer with set point of 20 degrees Celsius below lowest ambient temperature.

DIMENSIONS V6-NL

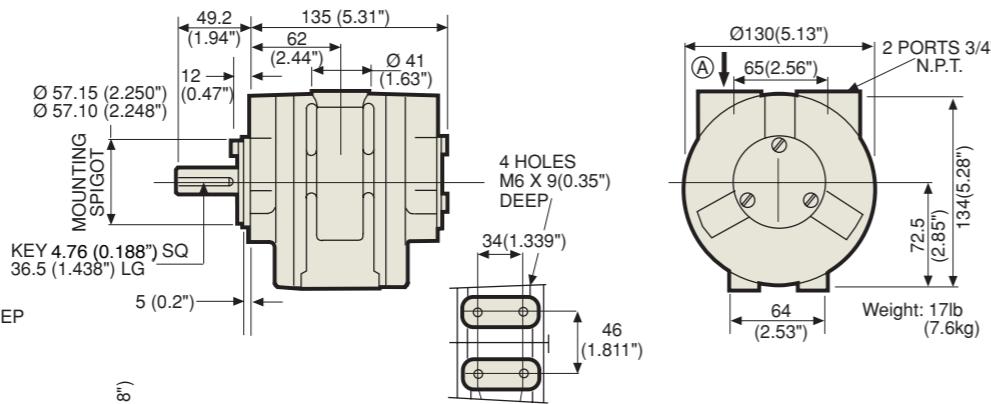
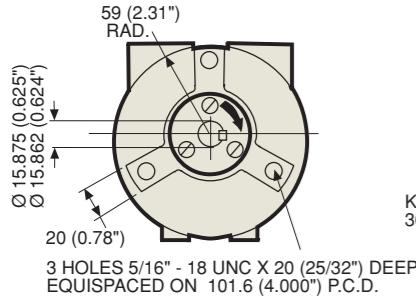
MODEL VA6C Nema 56C Configuration



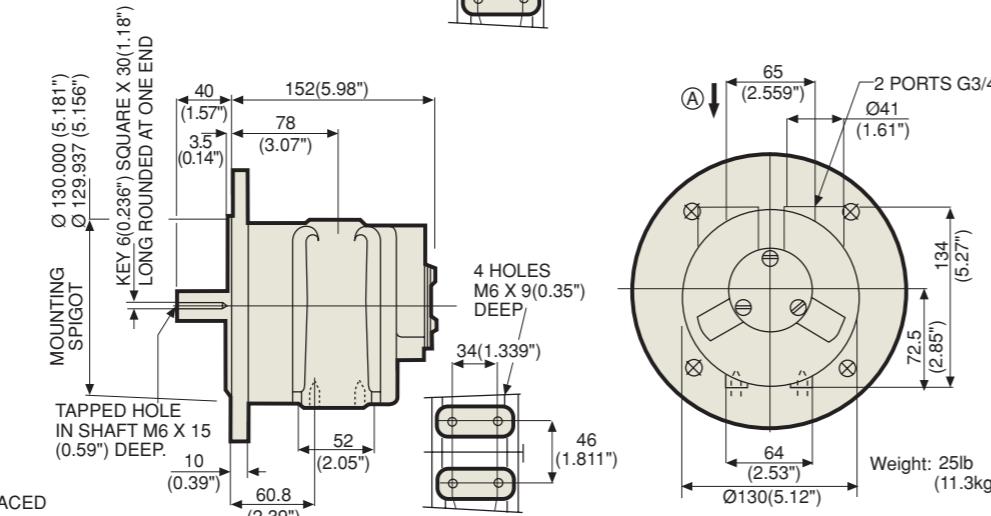
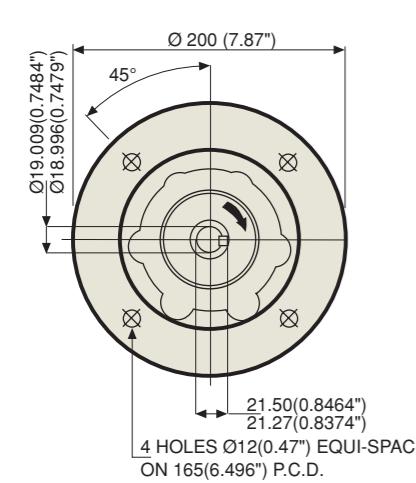
MODEL VA6J Foot Mounting Configuration



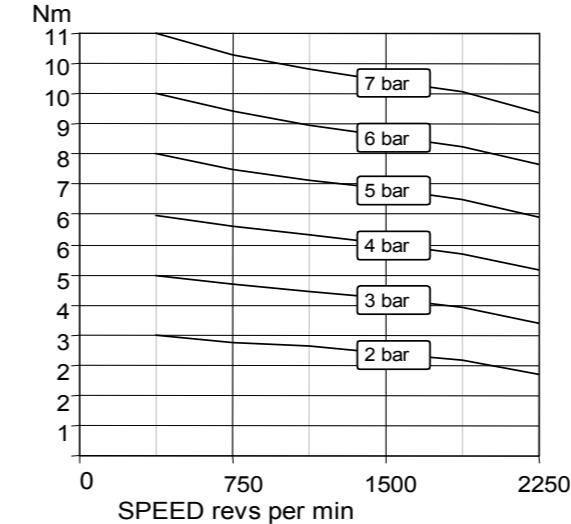
MODEL VA6X Face Mounting Configuration



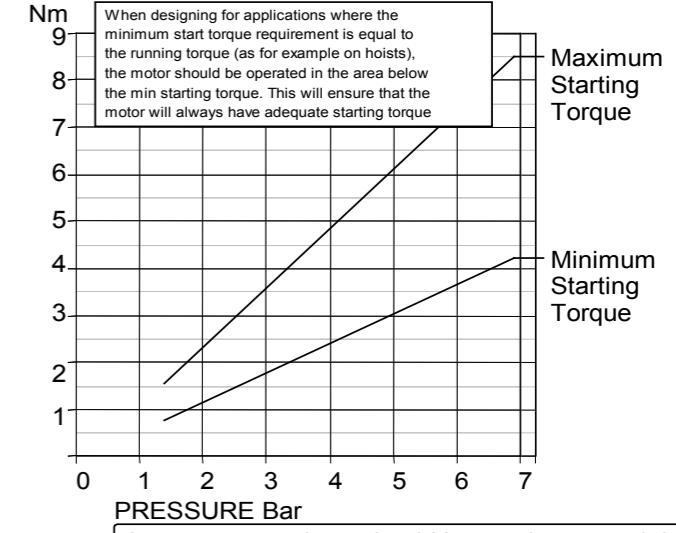
MODEL VS6C D80 Configuration



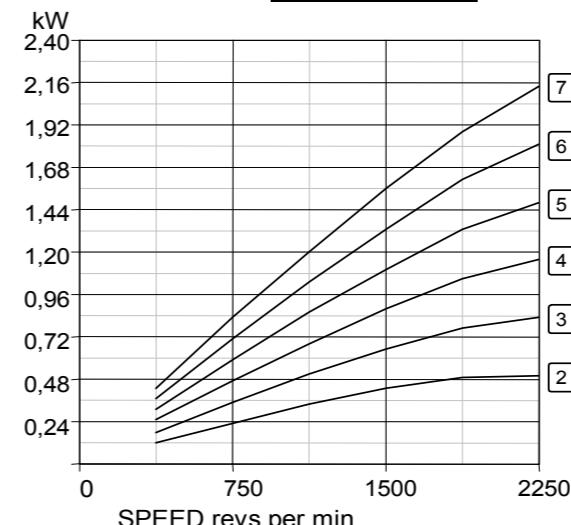
TORQUE - SPEED



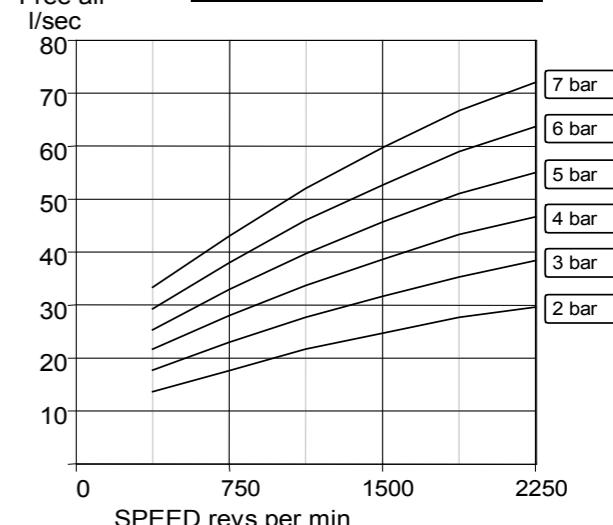
TORQUE - PRESSURE



POWER - SPEED



AIR CONSUMPTION - SPEED



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).

AIRLINE FILTRATION

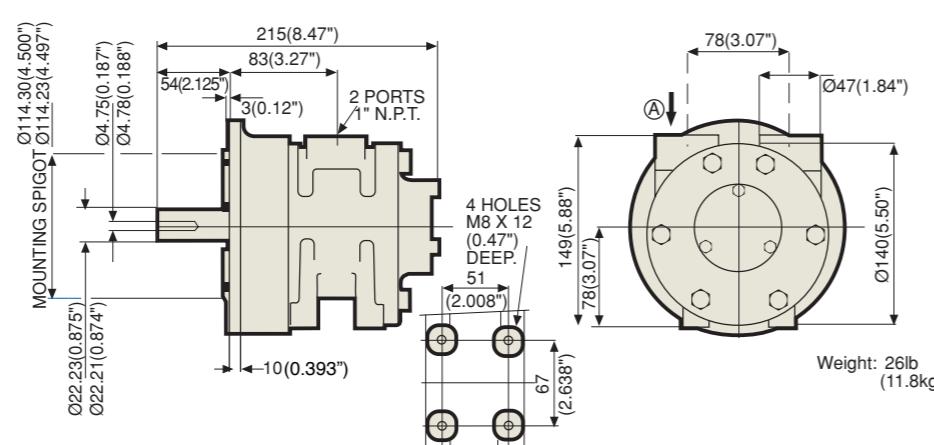
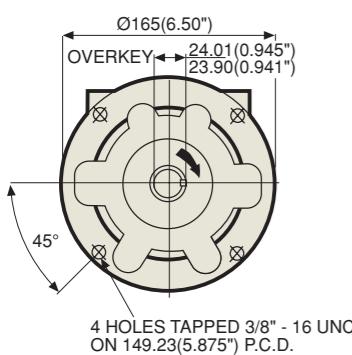
Use 64 micron filtration or better.

MAXIMUM SPEED 2000 RPM

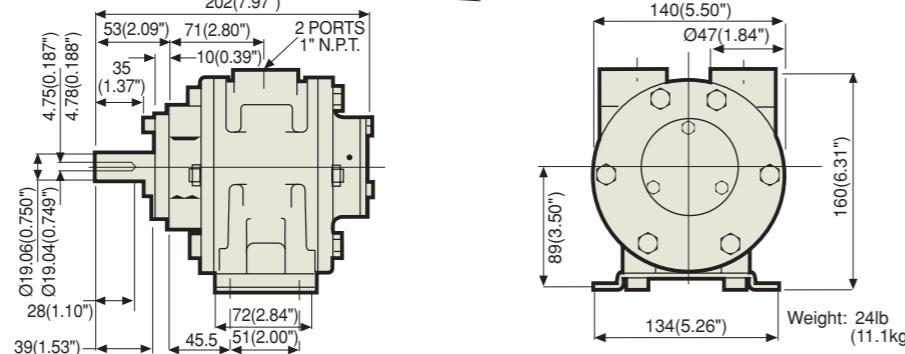
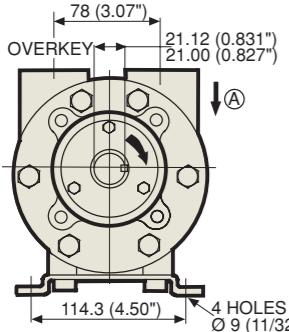
When operating above 50% of the maximum speed please consult your supplier.

DIMENSIONS V8-NL

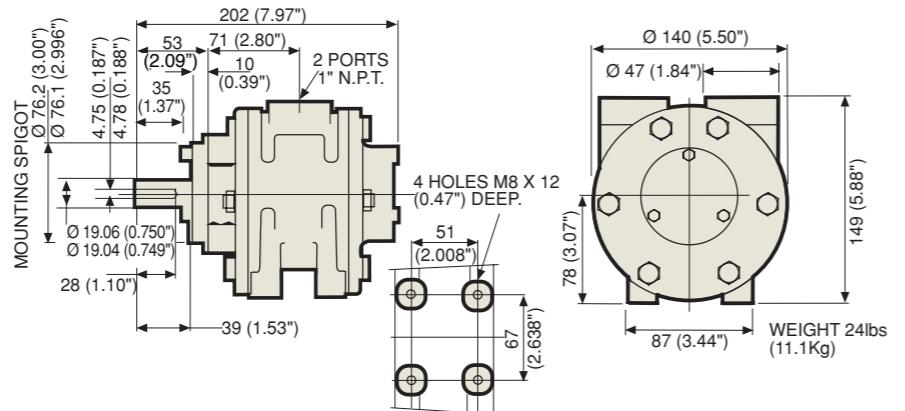
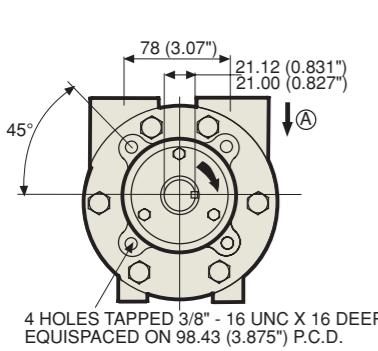
MODEL VA8C I45 TC Configuration



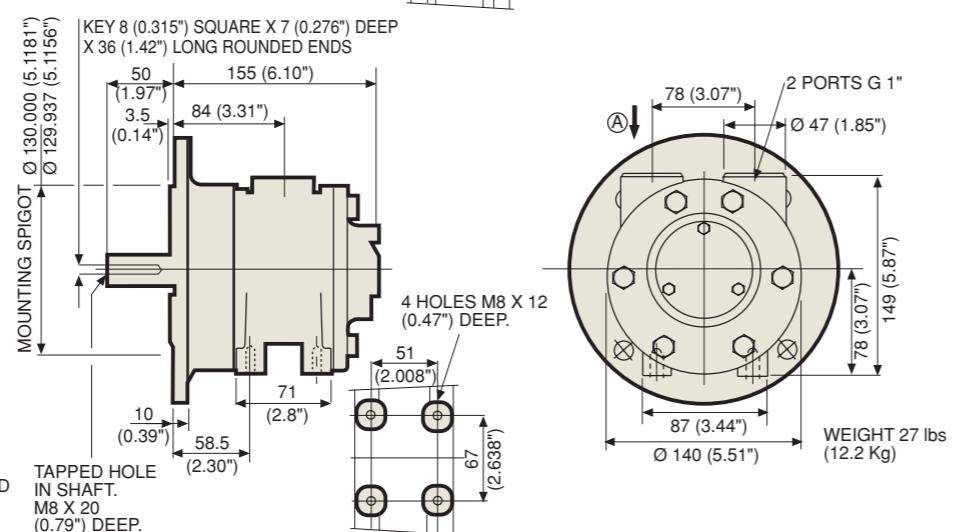
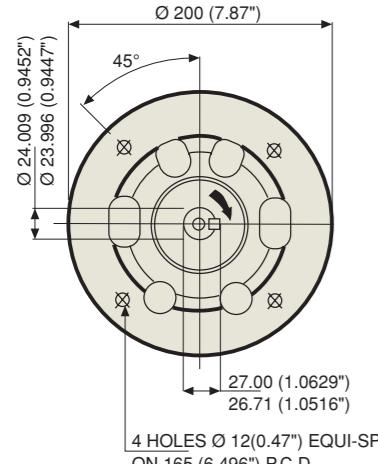
MODEL VA8J Foot Mounting Configuration



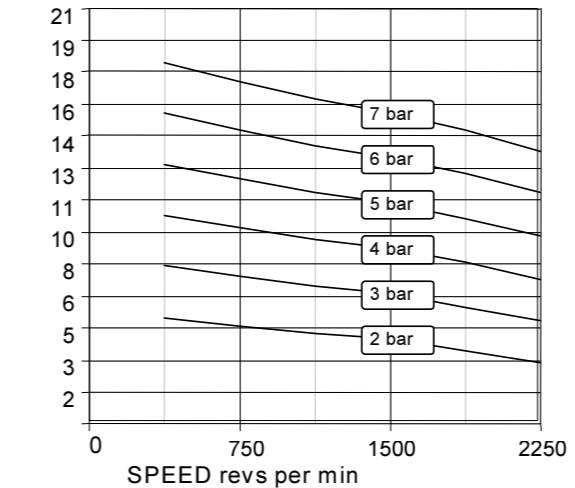
MODEL VA8X Face Mounting Configuration



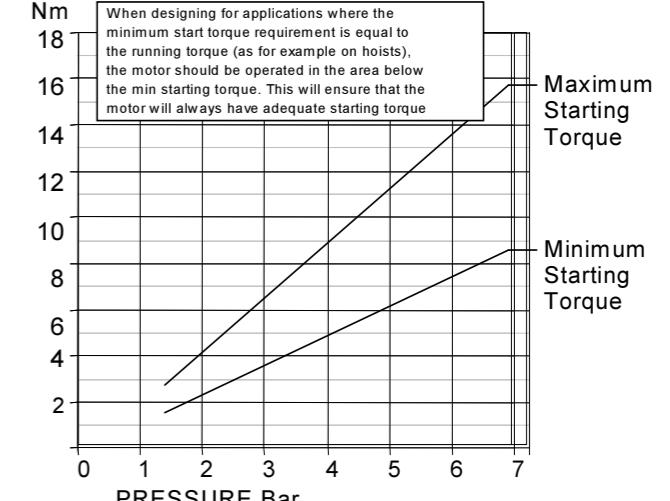
MODEL VS8C D90 Flange Configuration



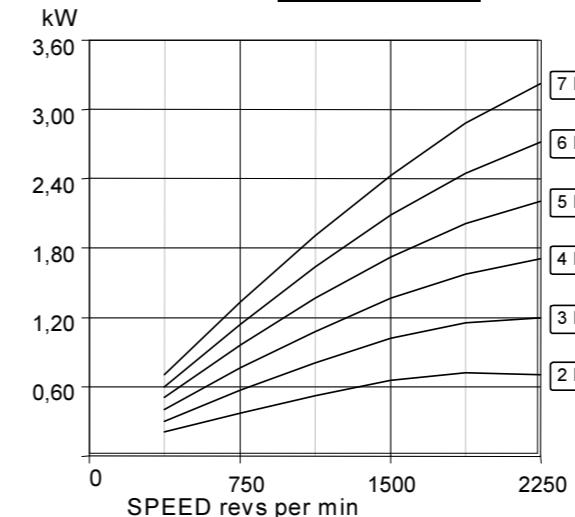
TORQUE - SPEED



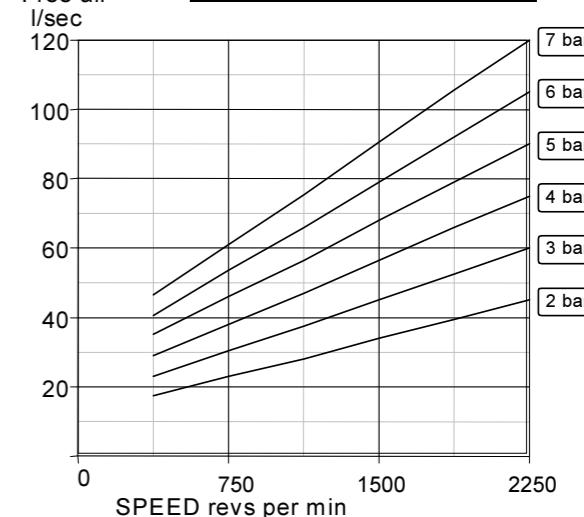
TORQUE - PRESSURE



POWER - SPEED



AIR CONSUMPTION - SPEED



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).

AIRLINE FILTRATION

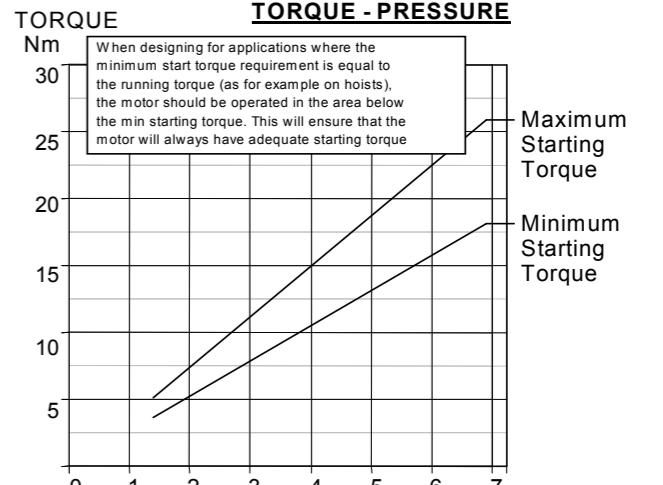
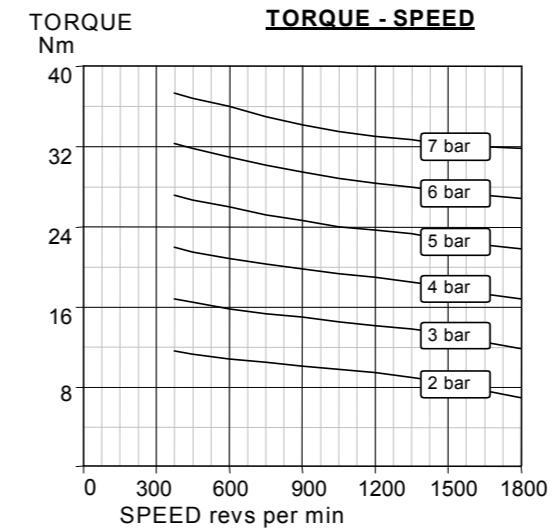
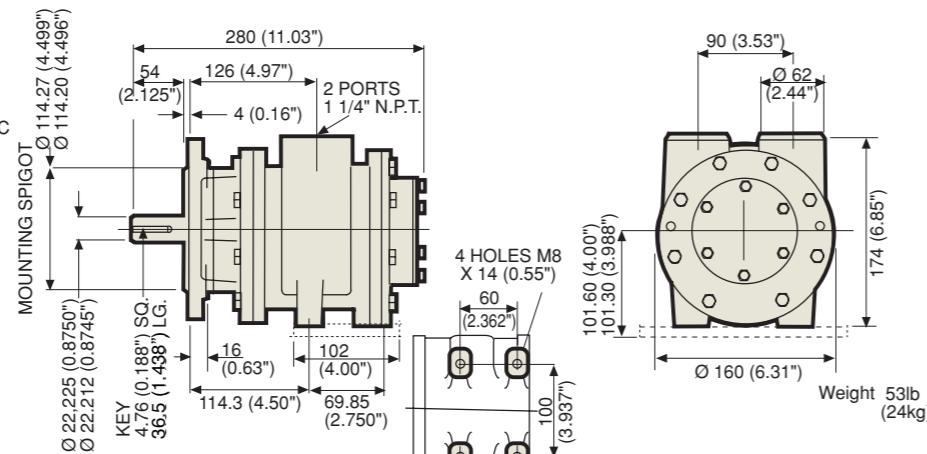
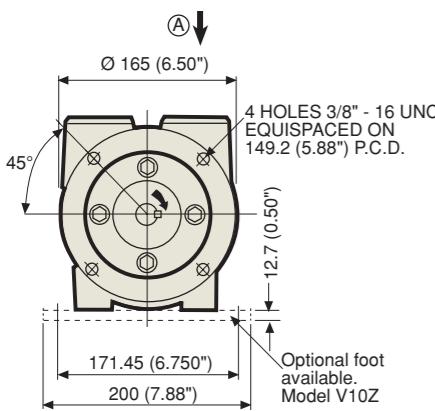
Use 64 micron filtration or better.

MAXIMUM SPEED 2000 RPM

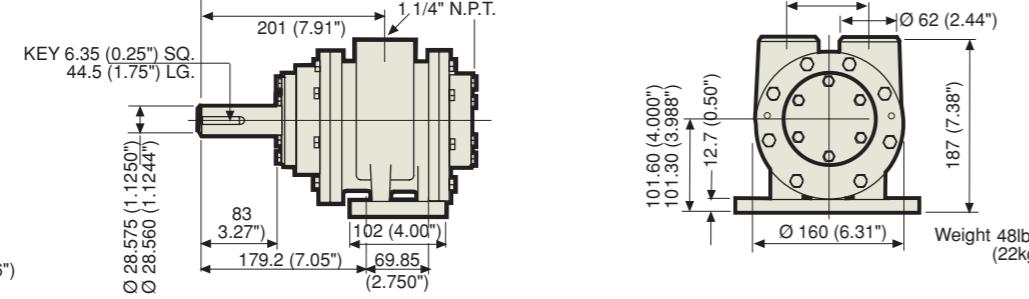
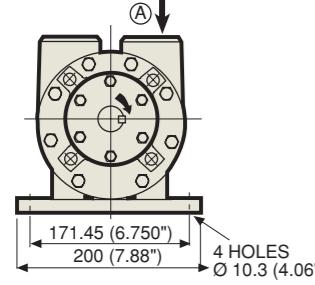
When operating above 50% of the maximum speed please consult your supplier.

DIMENSIONS V10-NL

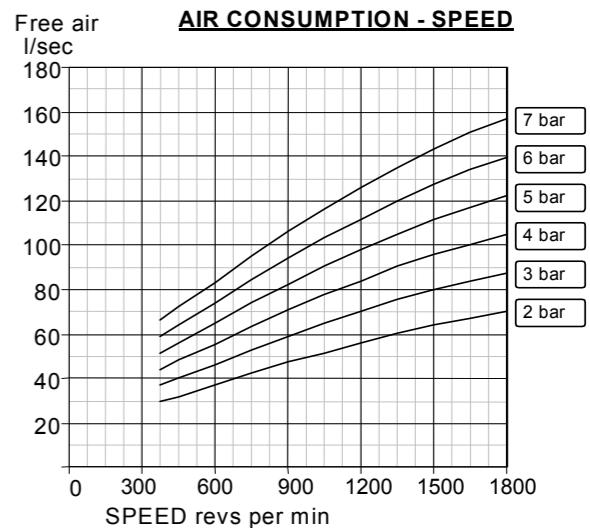
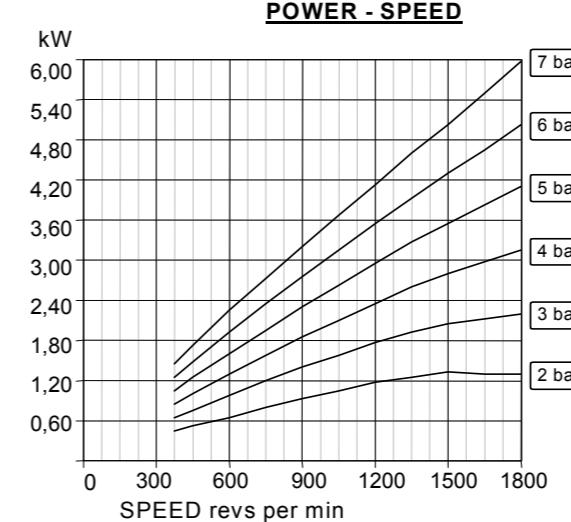
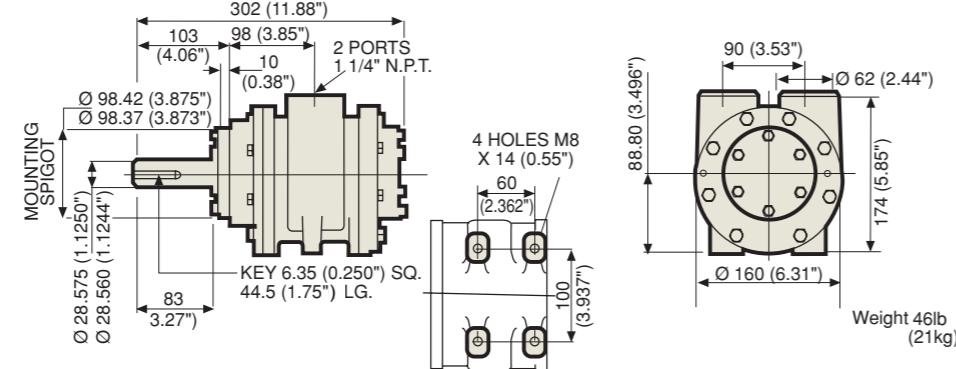
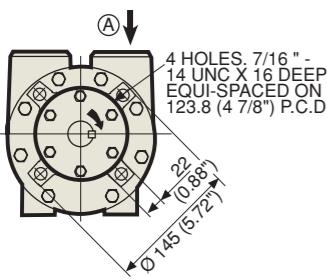
MODEL VA10C 145 TC Configuration



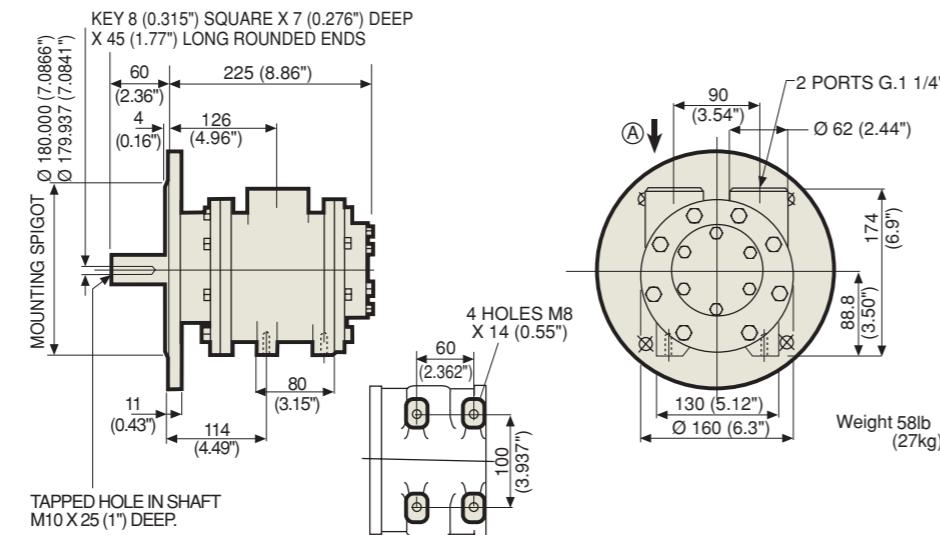
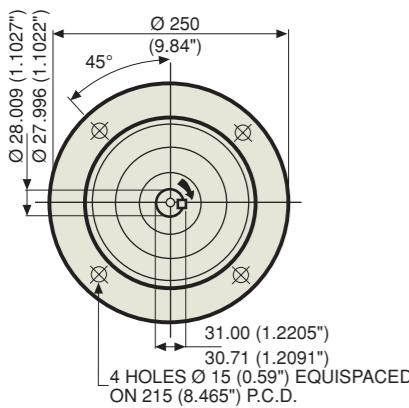
MODEL VA10J Foot Mounting Configuration



MODEL VA10X Face Mounting Configuration



MODEL VS10C D100 Flange Configuration



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).

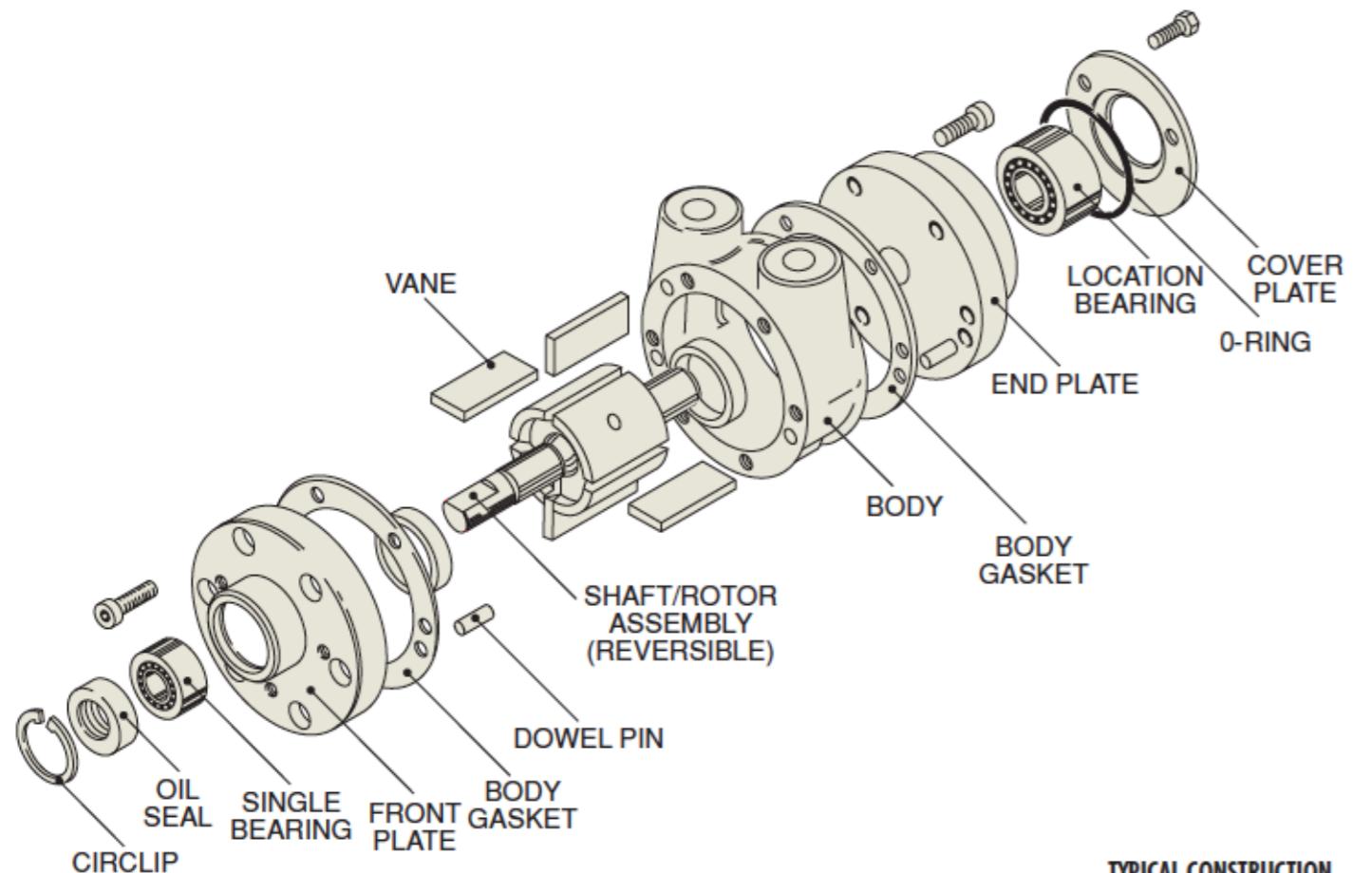
AIRLINE FILTRATION

Use 64 micron filtration or better.

MAXIMUM SPEED 1800 RPM

When operating above 50% of the maximum speed please consult your supplier.

KITS AND SPARE PARTS



Revision kits and spare parts are available on request.



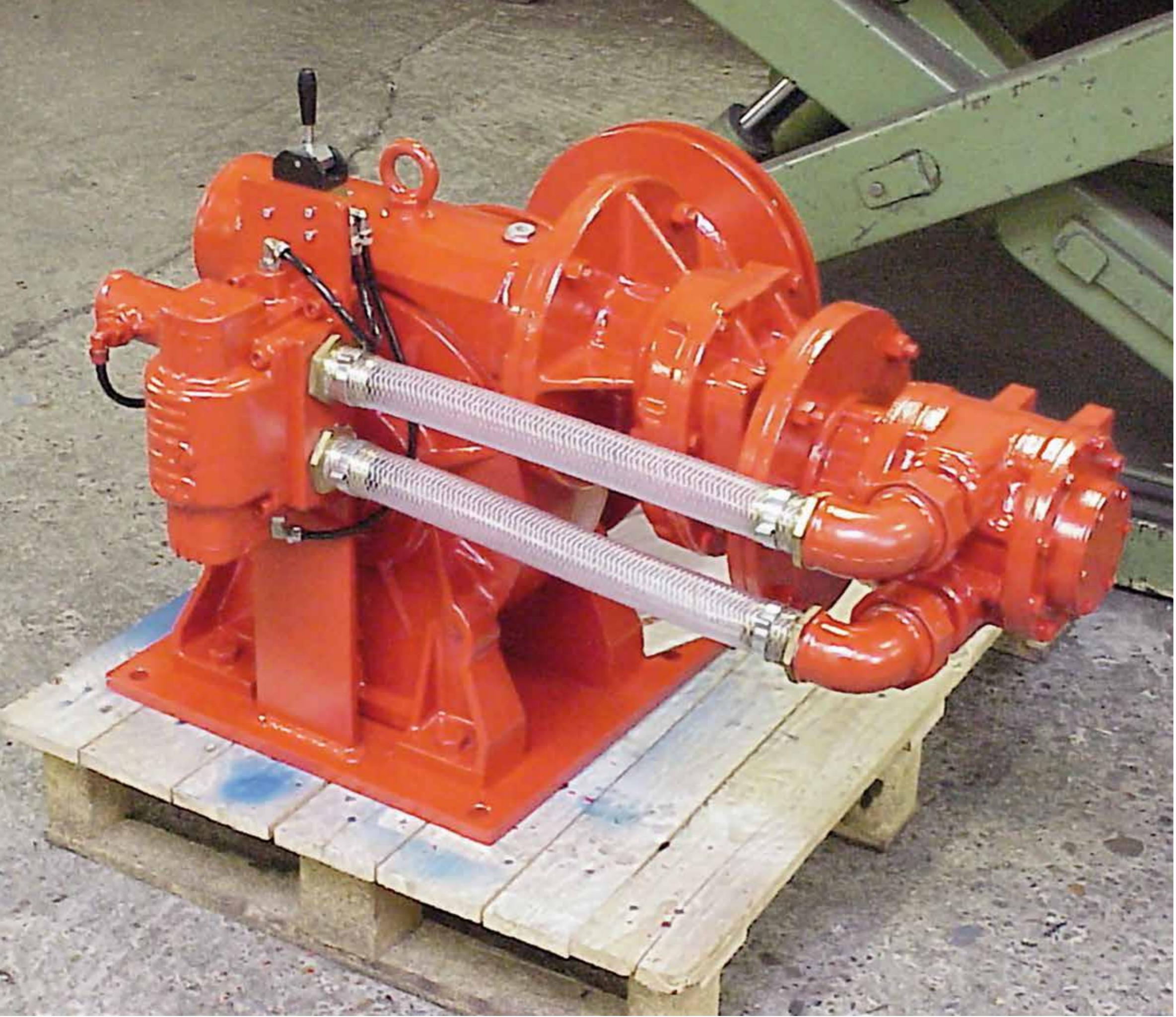
STAINLESS STEEL VANE AIR MOTORS

GLOBE Airmotors has developed a stainless steel addition to the standard and non lubricated vane air motors. These stainless steel vane air motors have the same dimensions and performances as the standard edition.

These stainless steel vane air motors are perfect for use in aggressive environments and food processing industry.

Please consult GLOBE Airmotors BV about the possibilities regarding the stainless steel vane air motors.





GLOBE GEARED VANE AIR MOTORS

The GLOBE geared vane air motors are available with a standard range of worm and coaxial gearboxes. They generate high torques and low speeds of rotation required in many applications. Power ranges up to 8,3 kW at 6 bar air pressure.

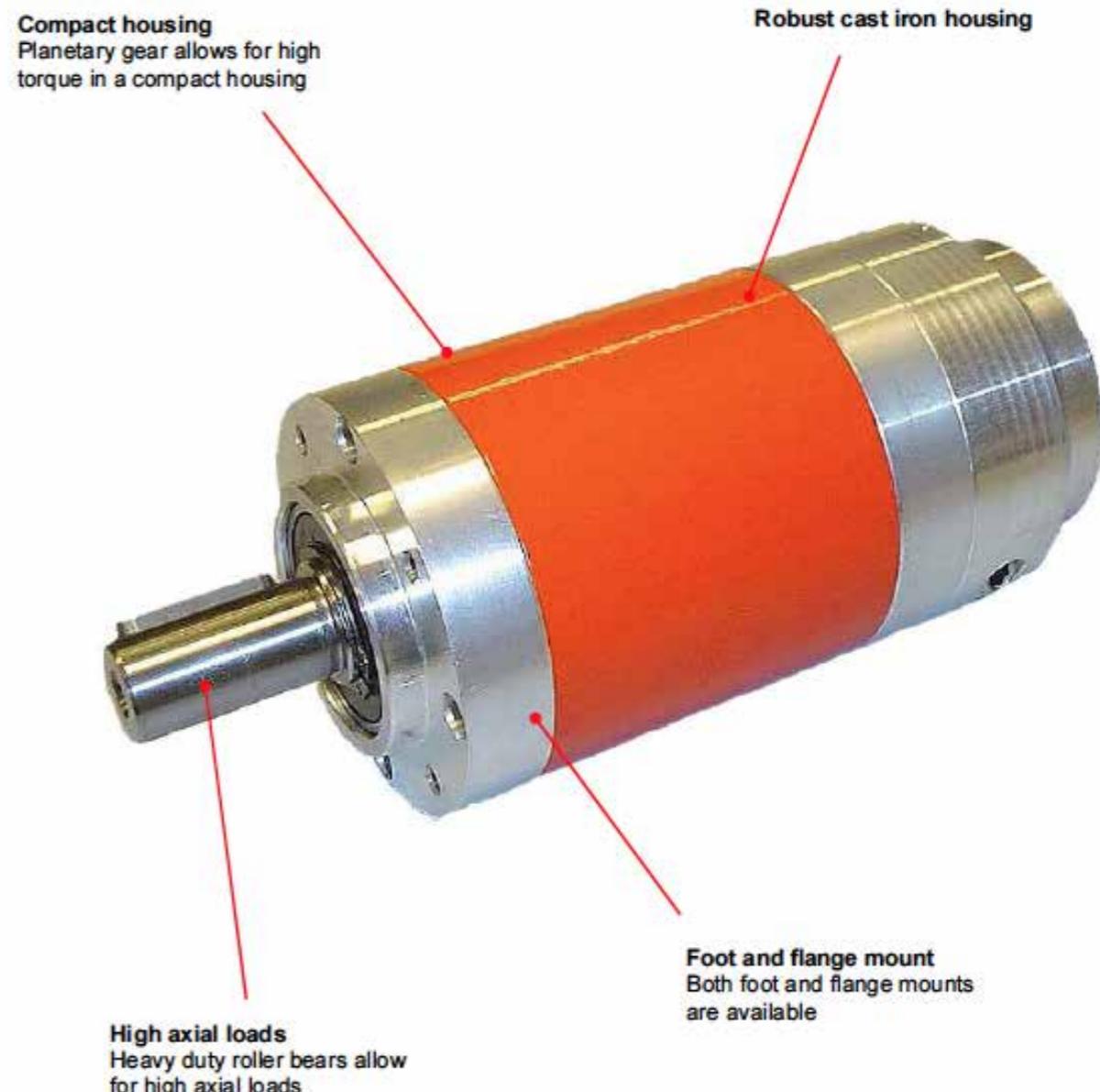
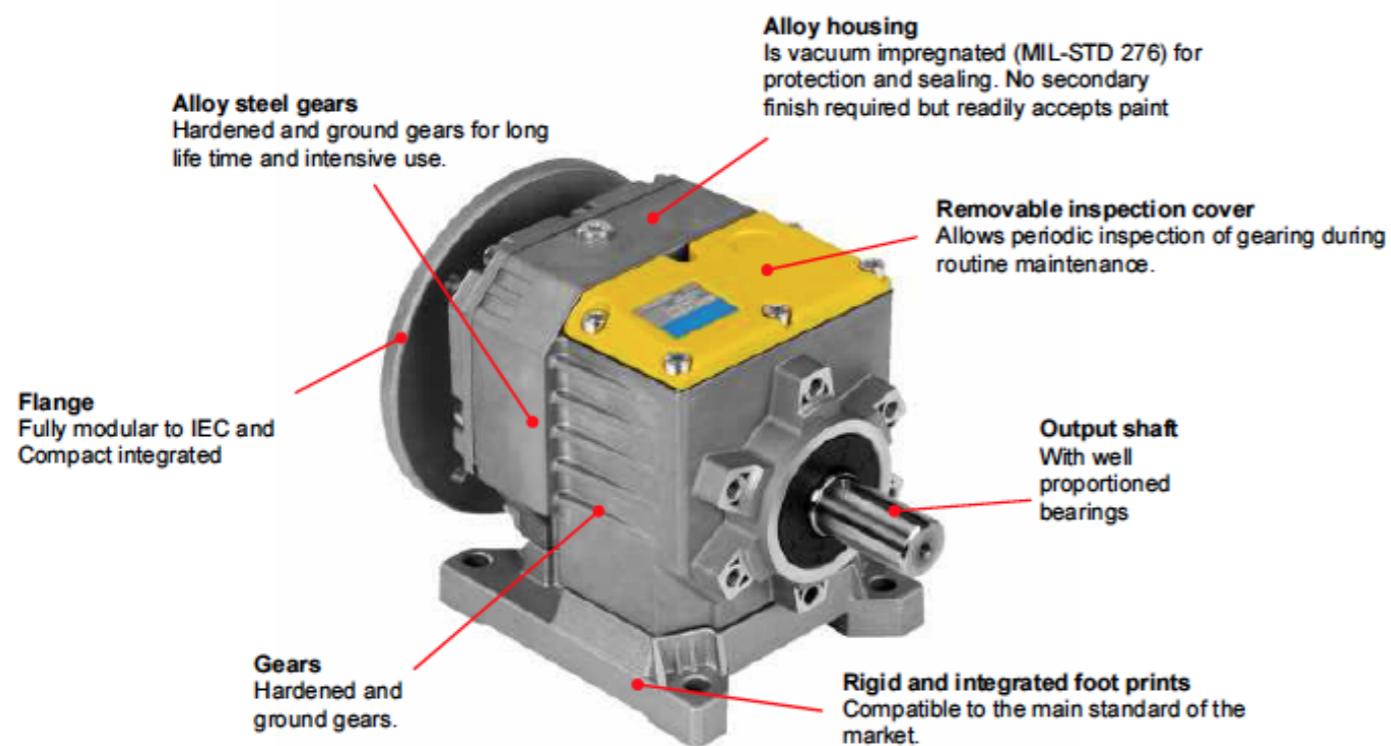
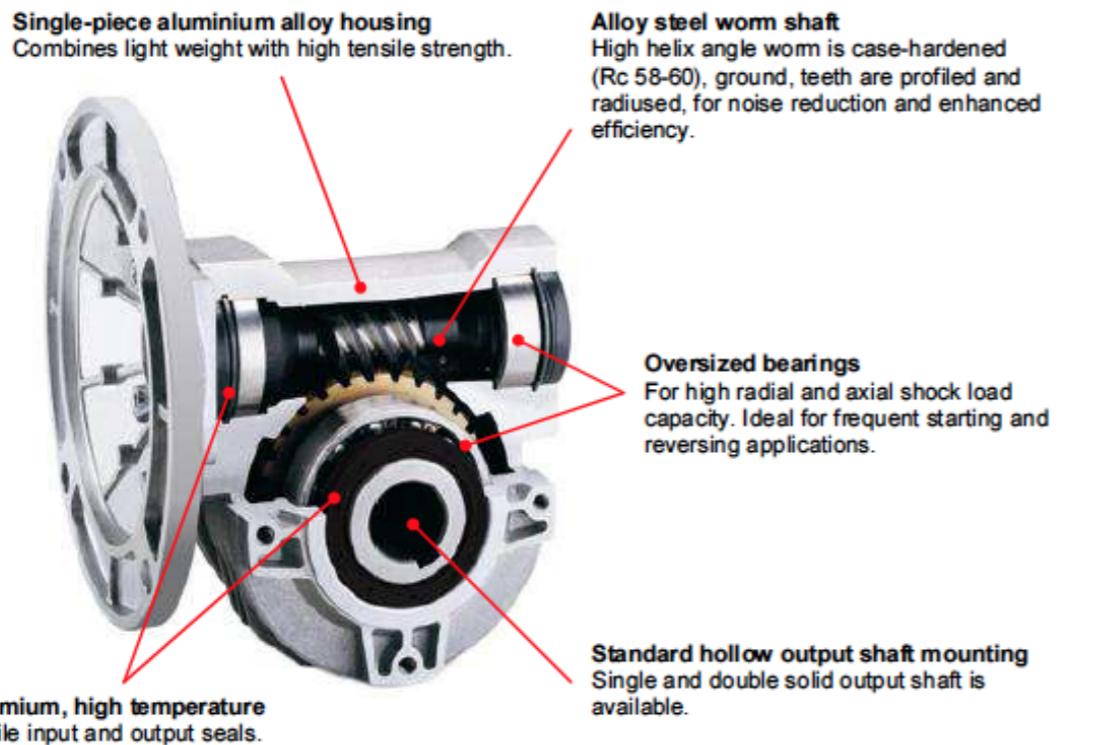
The motor and gearbox are directly mounted onto each other, making them compact and excellent resistible against outside influences. GLOBE geared vane air motors are designed for smooth operation and are commonly used in mixing equipment, conveyor belts, hoists and winches, hose reels and turntables.

GLOBE geared vane air motors have many advantages including:

- Power up to 8,3 kW at 6 bar air pressure
- High nominal torques up to 1650 Nm
- Speed of rotation as low as 7 rpm
- Easily variable and controllable speed and torque
- Perfect for applications in hazardous and aggressive environments
- ATEX certification ATEX II cat. 2 G&D T5 on request
- No damage by overload or repeated starting
- Can be used in stall conditions
- Superior power to weight ratio
- Instantly reversible
- Minimum maintenance
- High radial and axial loads permitted

Please contact GLOBE for special requests. We are known for our custom solutions.

FEATURES OF THE WORM, COAXIAL AND PLANETARY GEARBOXES



PERFORMANCES GLOBE VANE AIR MOTORS WITH WORM GEARS

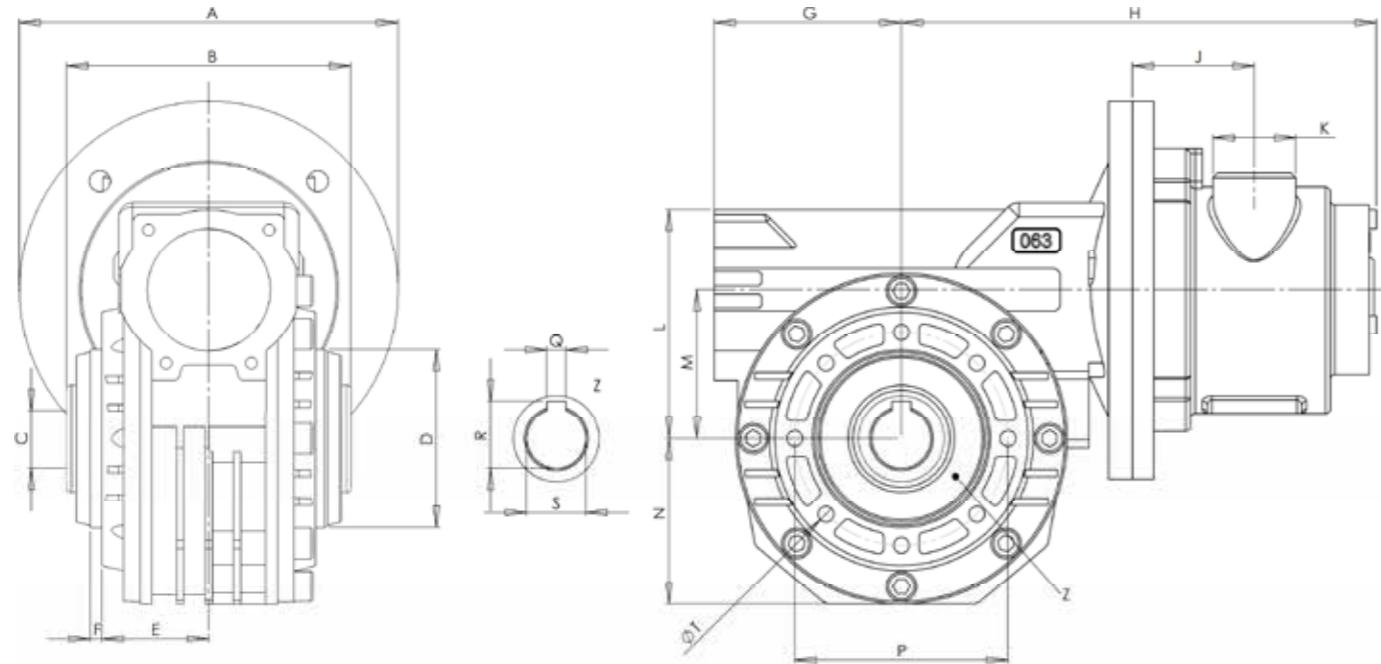
Ordering code flange model	Ordering code foot model	i	Power* (kW)	Max. rpm**	Nominal torque* (Nm)	Min. starting torque (Nm)	Weight flange model (Kg)	Weight foot model (Kg)
GLOBE V4 + worm gear								
VS4DW63FG7	VS4DW63BG7	7	1,3	430	30	20	11	12
VS4DW63FG15	VS4DW63BG15	15	1,3	200	61	35	11	12
VS4DW63FG30	VS4DW63BG30	30	1,2	100	110	53	11	12
VS4DW63FG45	VS4DW63BG45	45	1,1	65	155	67	11	12
VS4DW85FG67	VS4DW85BG67	67	1	45	210	80	17	19
VS4DW85FG74	VS4DW85BG74	74	0,9	40	220	83	17	19
GLOBE V6 + worm gear								
VS6DW63FG7	VS6DW63BG7	7	2,7	430	60	40	17	18
VS6DW63FG15	VS6DW63BG15	15	2,6	200	120	70	17	18
VS6DW85FG28	VS6DW85BG28	28	2,5	105	220	110	23	25
VS6DW85FG46	VS6DW85BG46	46	2,3	65	330	160	23	25
VS6DW110FG64	VS6DW110BG64	64	2,3	47	460	195	39	44
VS6DW110FG84	VS6DW110BG84	84	2,2	35	575	220	39	44
GLOBE V8 + worm gear								
VS8DW85FG7	VS8DW85BG7	7	4	430	90	75	24	26
VS8DW85FG14	VS8DW85BG14	14	3,9	215	175	125	24	26
VS8DW110FG30	VS8DW110BG30	30	3,7	100	350	200	40	45
VS8DW110FG45	VS8DW110BG45	45	3,6	65	515	295	40	45
VS8DW110FG64	VS8DW110BG64	64	3,3	47	690	365	40	45
GLOBE V10 + worm gear								
VS10DW85FG7	VS10DW85BG7	7	7,2	340	210	150	39	41
VS10DW110FG16	VS10DW110BG16	16	7	150	460	290	55	60
VS10DW110FG23	VS10DW110BG23	23	6,9	105	650	405	55	60

* Power and nominal torque at 6 bar and motor input speed of 3000 rpm (V4, V6, V8) and 2400 rpm (V10).

** In applications where the motor input speed exceeds 2200 rpm, only intermittent use is tolerated.



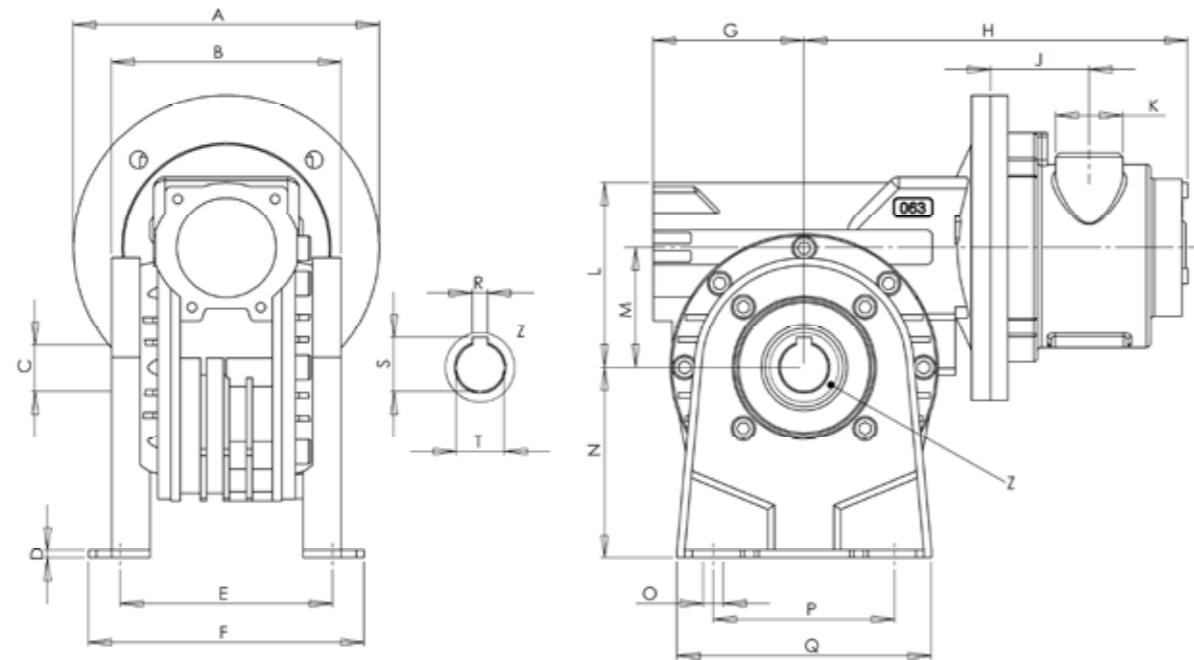
DIMENSIONS GLOBE VANE AIR MOTORS WITH WORM GEARS - FLANGE MODEL



Ordering code	A	B	C	D	E	F	G	H	J
VS4DW63FG7	160	120	25H8	75h8	45	5	79	203	55
VS4DW63FG15	160	120	25H8	75h8	45	5	79	203	55
VS4DW63FG30	160	120	25H8	75h8	45	5	79	203	55
VS4DW63FG45	160	120	25H8	75h8	45	5	79	203	55
VS4DW85FG67	160	135	35H8	110h8	64	3,5	98	227	55
VS4DW85FG74	160	135	35H8	110h8	64	3,5	98	227	55
VS6DW63FG7	200	120	25H8	75h8	45	5	79	252	78
VS6DW63FG15	200	120	25H8	75h8	45	5	79	252	78
VS6DW85FG28	200	135	35H8	110h8	64	3,5	98	276	78
VS6DW85FG46	200	135	35H8	110h8	64	3,5	98	276	78
VS6DW110FG64	200	155	42H8	130h8	74	3,5	118	296	78
VS6DW110FG84	200	155	42H8	130h8	74	3,5	118	296	78
VS8DW85FG7	200	135	35H8	110h8	64	3,5	98	279	84
VS8DW85FG14	200	135	35H8	110h8	64	3,5	98	279	84
VS8DW110FG30	200	155	42H8	130h8	74	3,5	118	299	84
VS8DW110FG45	200	155	42H8	130h8	74	3,5	118	299	84
VS8DW110FG64	200	155	42H8	130h8	74	3,5	118	299	84
VS10DW85FG7	250	135	35H8	110h8	64	3,5	98	349	126
VS10DW110FG16	250	155	42H8	130h8	74	3,5	118	369	126
VS10DW110FG23	250	155	42H8	130h8	74	3,5	118	369	126

Ordering code	K	L	M	N	P	Q	R	S	T
VS4DW63FG7	G1/2"	100	63	70	90	8	28,3	25H8	8 x M8x17
VS4DW63FG15	G1/2"	100	63	70	90	8	28,3	25H8	8 x M8x17
VS4DW63FG30	G1/2"	100	63	70	90	8	28,3	25H8	8 x M8x17
VS4DW63FG45	G1/2"	100	63	70	90	8	28,3	25H8	8 x M8x17
VS4DW85FG67	G1/2"	138	85	94,5	130	10	38,3	35H8	4 x M10x18
VS4DW85FG74	G1/2"	138	85	94,5	130	10	38,3	35H8	4 x M10x18
VS6DW63FG7	G3/4"	100	63	70	90	8	28,3	25H8	8 x M8x17
VS6DW63FG15	G3/4"	100	63	70	90	8	28,3	25H8	8 x M8x17
VS6DW85FG28	G3/4"	138	85	94,5	130	10	38,3	35H8	4 x M10x18
VS6DW85FG46	G3/4"	138	85	94,5	130	10	38,3	35H8	4 x M10x18
VS6DW110FG64	G3/4"	163	110	116	165	12	45,3	42H8	8 x M12x30
VS6DW110FG84	G3/4"	163	110	116	165	12	45,3	42H8	8 x M12x30
VS8DW85FG7	G1"	138	85	94,5	130	10	38,3	35H8	4 x M10x18
VS8DW85FG14	G1"	138	85	94,5	130	10	38,3	35H8	4 x M10x18
VS8DW110FG30	G1"	163	110	116	165	12	45,3	42H8	8 x M12x30
VS8DW110FG45	G1"	163	110	116	165	12	45,3	42H8	8 x M12x30
VS8DW110FG64	G1"	163	110	116	165	12	45,3	42H8	8 x M12x30
VS10DW85FG7	G1¼"	138	85	94,5	130	10	38,3	35H8	4 x M10x18
VS10DW110FG16	G1¼"	163	110	116	165	12	45,3	42H8	8 x M12x30
VS10DW110FG23	G1¼"	163	110	116	165	12	45,3	42H8	8 x M12x30

DIMENSIONS GLOBE VANE AIR MOTORS WITH WORM GEARS - FOOT MODEL

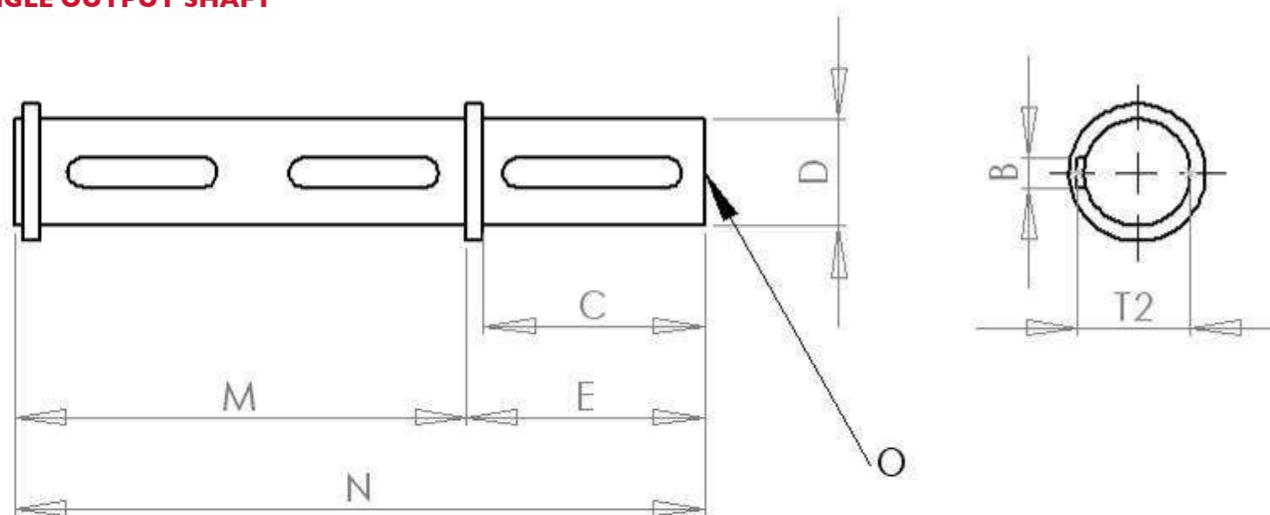


Ordering Code	A	B	C	D	E	F	G	H	J
VS4DW63BG7	160	120	25H8	4	110	144	79	203	55
VS4DW63BG15	160	120	25H8	4	110	144	79	203	55
VS4DW63BG30	160	120	25H8	4	110	144	79	203	55
VS4DW63BG45	160	120	25H8	4	110	144	79	203	55
VS4DW85BG67	160	135	35H8	5	145	182	98	227	55
VS4DW85BG74	160	135	35H8	5	145	182	98	227	55
VS6DW63BG7	200	120	25H8	4	110	144	79	252	78
VS6DW63BG15	200	120	25H8	4	110	144	79	252	78
VS6DW85BG28	200	135	35H8	5	145	182	98	276	78
VS6DW85BG46	200	135	35H8	5	145	182	98	276	78
VS6DW110BG64	200	155	42H8	22	180	224	118	296	78
VS6DW110BG84	200	155	42H8	22	180	224	118	296	78
VS8DW85BG7	200	135	35H8	5	145	182	98	279	84
VS8DW85BG14	200	135	35H8	5	145	182	98	279	84
VS8DW110BG30	200	155	42H8	22	180	224	118	299	84
VS8DW110BG45	200	155	42H8	22	180	224	118	299	84
VS8DW110BG64	200	155	42H8	22	180	224	118	299	84
VS10DW85BG7	250	135	35H8	5	145	182	98	349	126
VS10DW110BG16	250	155	42H8	22	180	224	118	369	126
VS10DW110BG23	250	155	42H8	22	180	224	118	369	126

Ordering Code	K	L	M	N	O	P	Q	R	S	T
VS4DW63BG7	G1/2"	100	63	100	10,5	95	133	8	28,3	25H8
VS4DW63BG15	G1/2"	100	63	100	10,5	95	133	8	28,3	25H8
VS4DW63BG30	G1/2"	100	63	100	10,5	95	133	8	28,3	25H8
VS4DW63BG45	G1/2"	100	63	100	10,5	95	133	8	28,3	25H8
VS4DW85BG67	G1/2"	138	85	142	10,5	140	180	10	38,3	35H8
VS4DW85BG74	G1/2"	138	85	142	10,5	140	180	10	38,3	35H8
VS6DW63BG7	G3/4"	100	63	100	10,5	95	133	8	28,3	25H8
VS6DW63BG15	G3/4"	100	63	100	10,5	95	133	8	28,3	25H8
VS6DW85BG28	G3/4"	138	85	142	10,5	140	180	10	38,3	35H8
VS6DW85BG46	G3/4"	138	85	142	10,5	140	180	10	38,3	35H8
VS6DW110BG64	G3/4"	163	110	170	13	200	240	12	45,3	42H8
VS6DW110BG84	G3/4"	163	110	170	13	200	240	12	45,3	42H8
VS8DW85BG7	G1"	138	85	142	10,5	140	180	10	38,3	35H8
VS8DW85BG14	G1"	138	85	142	10,5	140	180	10	38,3	35H8
VS8DW110BG30	G1"	163	110	170	13	200	240	12	45,3	42H8
VS8DW110BG45	G1"	163	110	170	13	200	240	12	45,3	42H8
VS8DW110BG64	G1"	163	110	170	13	200	240	12	45,3	42H8
VS10DW85BG7	G1¼"	138	85	142	10,5	140	180	10	38,3	35H8
VS10DW110BG16	G1¼"	163	110	170	13	200	240	12	45,3	42H8
VS10DW110BG23	G1¼"	163	110	170	13	200	240	12	45,3	42H8

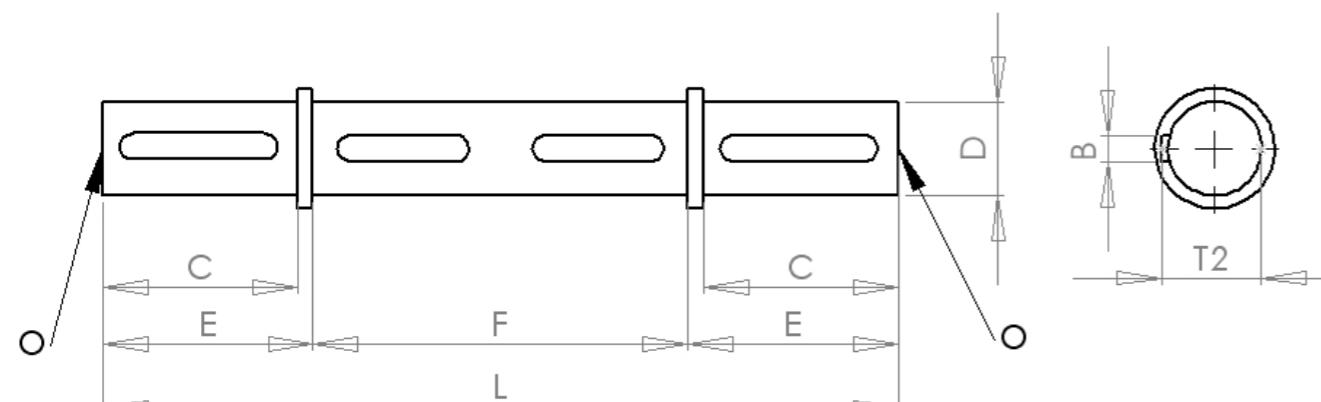
DIMENSIONS OUTPUT SHAFT FOR WORM GEARS (OPTIONAL)

SINGLE OUTPUT SHAFT



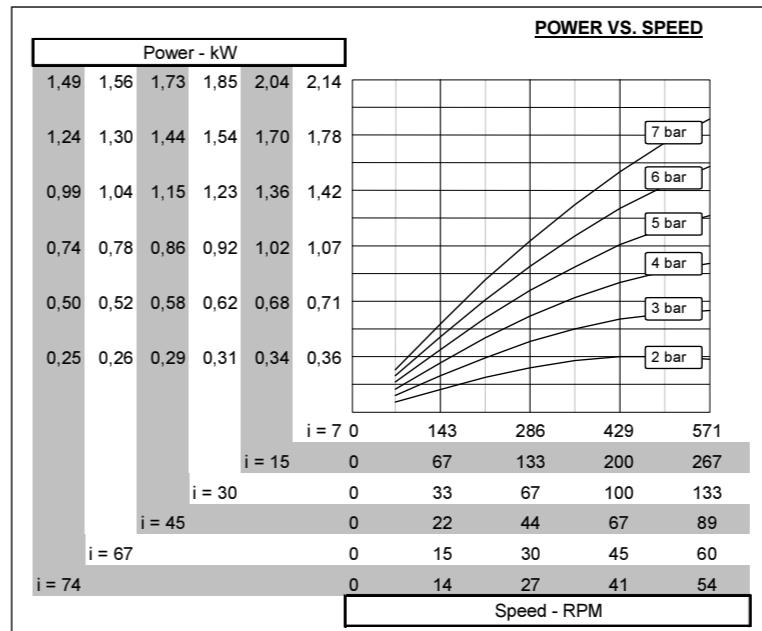
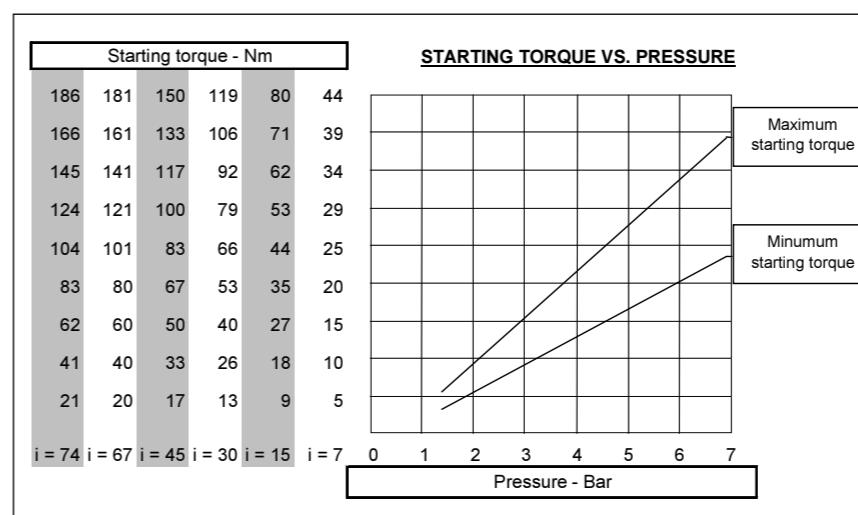
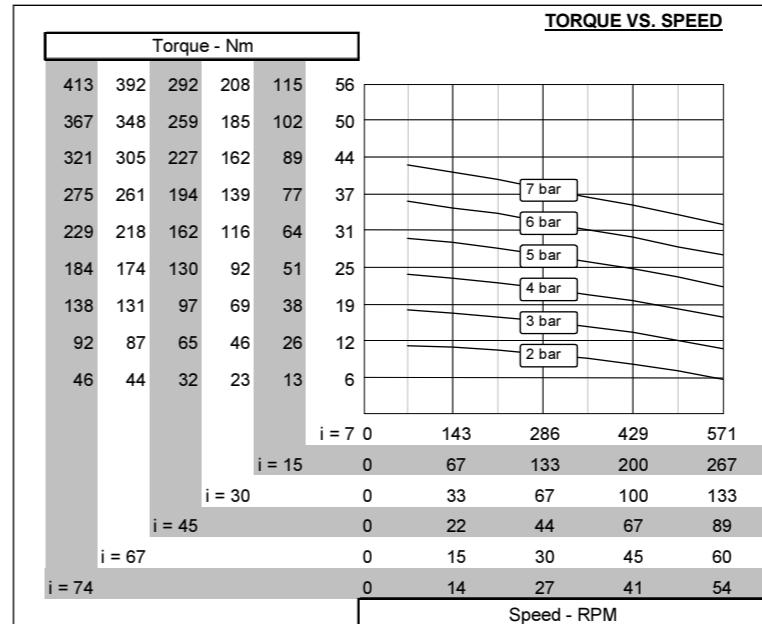
Size gearbox	B	C	D	E	M	N	O	T2
063	8	60	25	63	127	190	M8x20	28,3
085	10	60	35	73,5	140	214	M10x23	38,3
110	12	75	42	96,5	163,5	260	M12x32	45,3

DOUBLE OUTPUT SHAFT

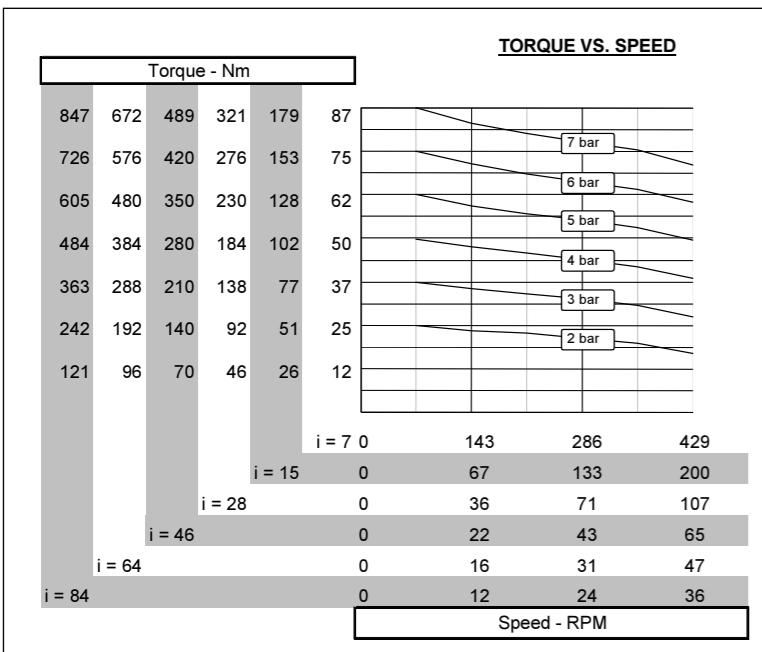


Size gearbox	B	C	D	E	F	L	O	T2
063	8	60	25	63	120	246,4	M8x20	28,3
085	10	60	35	73,5	135	282	M10x23	38,3
110	12	75	42	96,5	155	348	M12x32	45,3

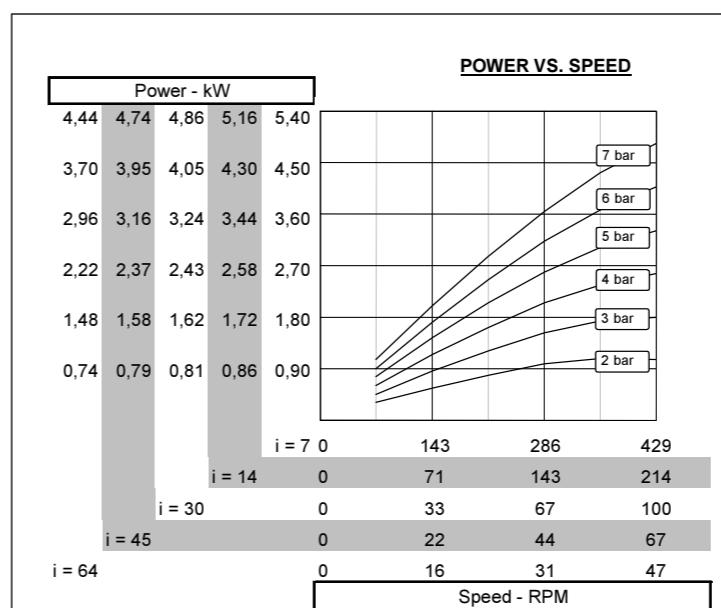
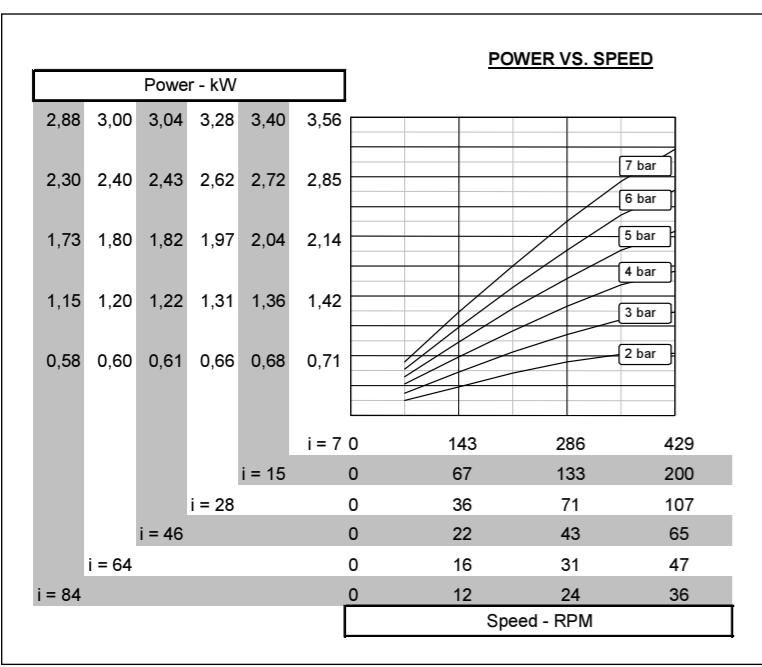
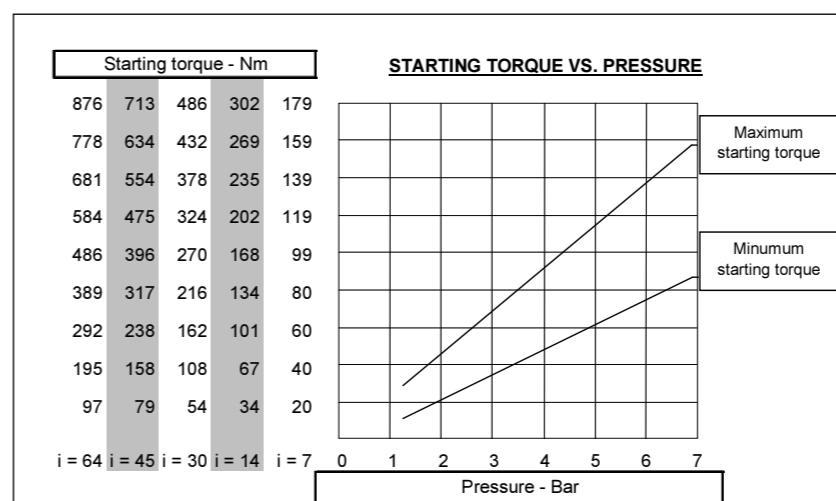
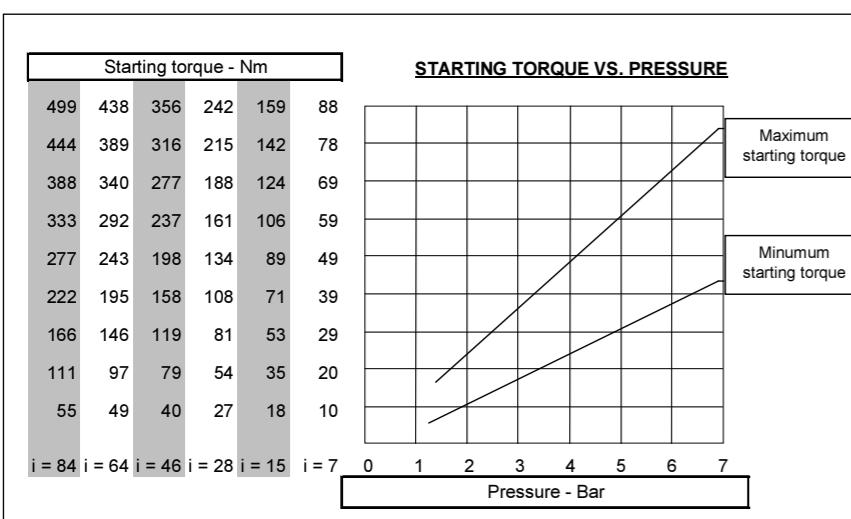
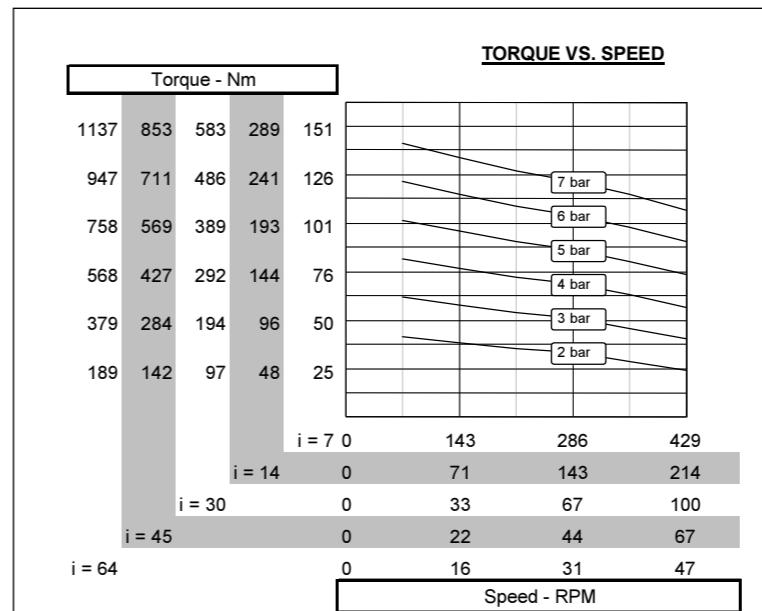
PERFORMANCES GLOBE VS4C AIR MOTOR WITH WORM GEAR



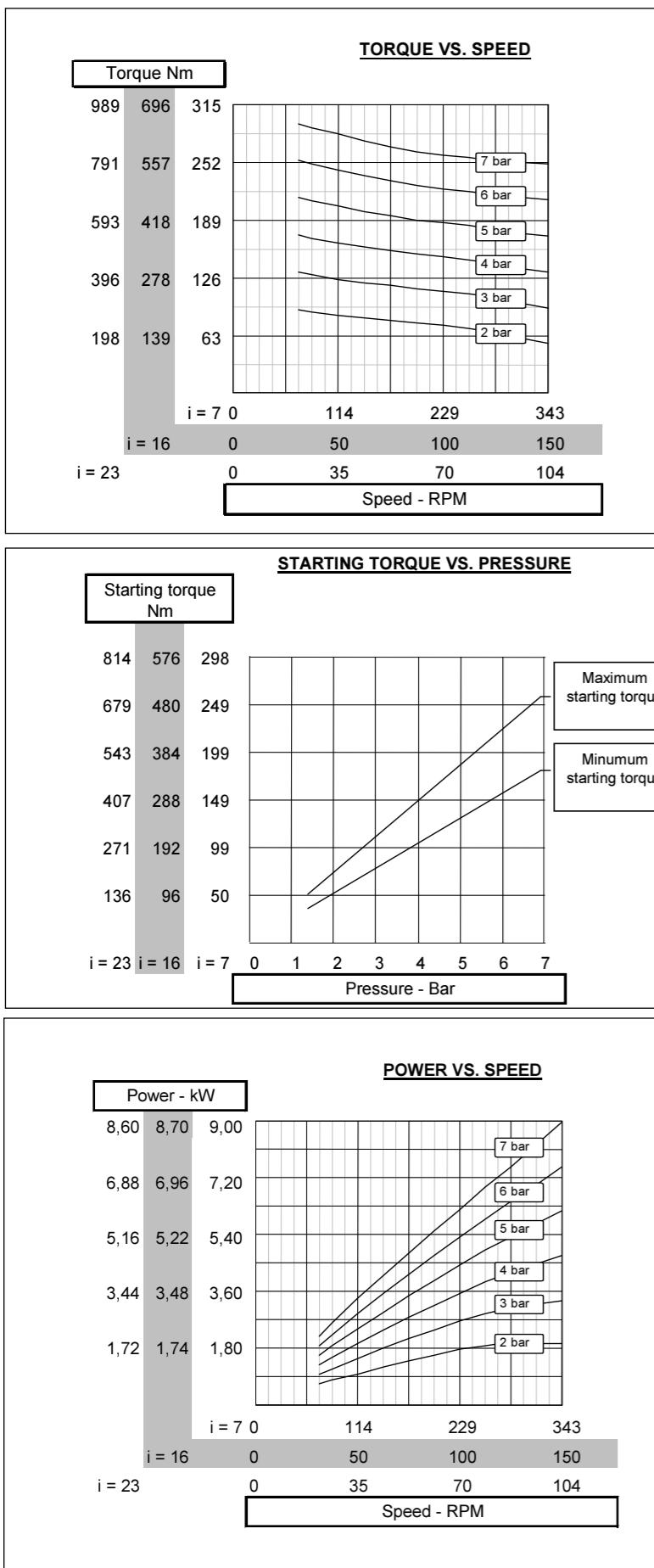
PERFORMANCES GLOBE VS6C AIR MOTOR WITH WORM GEAR



PERFORMANCES GLOBE VS8C AIR MOTOR WITH WORM GEAR



PERFORMANCES GLOBE VS10C AIR MOTOR WITH WORM GEAR



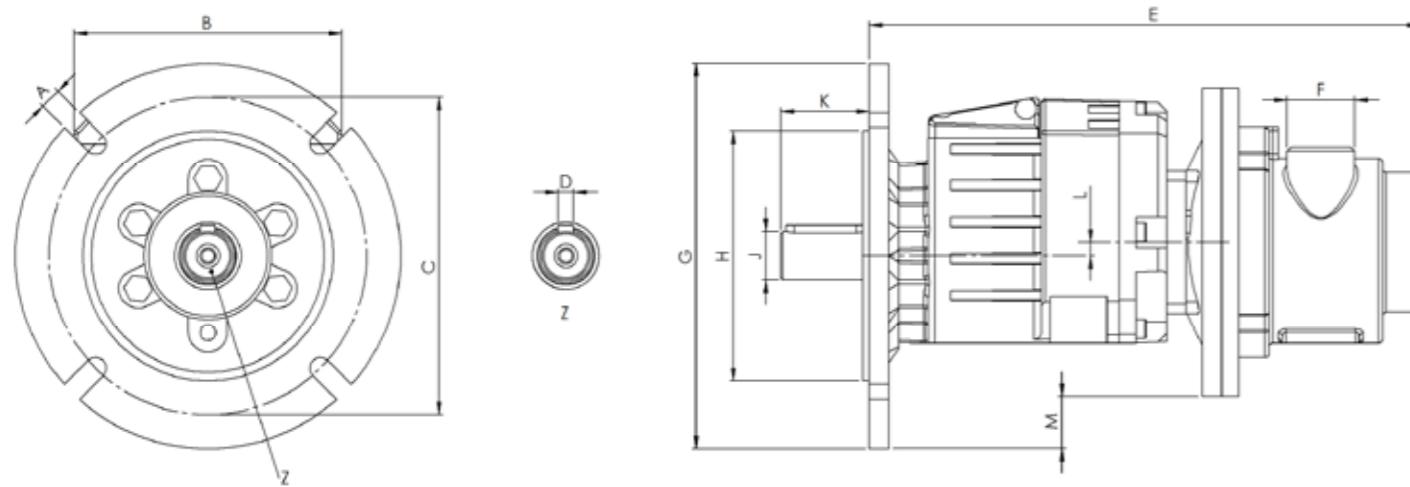
PERFORMANCE GLOBE VANE AIR MOTORS WITH COAXIAL GEARS

Ordering code flange model	Ordering code foot model	i	Power* (kW)	Max. rpm**	Nominal torque* (Nm)	Min. starting torque (Nm)	Weight flange model (Kg)	Weight foot model (Kg)
GLOBE V4 + coaxial gear								
VS4DA402FG10	VS4DA402BG10	10	1,5	300	48	42	15	15
VS4DA402FG22	VS4DA402BG22	22	1,5	136	106	92	15	15
VS4DC402FG29	VS4DA402BG29	29	1,5	103	139	122	15	15
VS4DC402FG38	VS4DA402BG38	38	1,5	79	182	160	15	15
VS4DC403FG51	VS4DA403BG51	51	1,5	59	245	214	15	15
GLOBE V6 + coaxial gear								
VS6DA402FG10	VS6DA402BG10	10	2,9	300	92	75	21	21
VS6DA402FG22	VS6DA402BG22	22	2,9	136	202	165	21	21
VS6DA602FG29	VS6DA602BG29	29	2,9	103	267	218	34	33
VS6DA602FG40	VS6DA602BG40	40	2,9	75	368	300	34	33
VS6DA603FG55	VS6DA603BG55	50	2,9	60	460	375	50	48
GLOBE V8 + coaxial gear								
VS8DA602FG10	VS8DA602BG10	10	4,5	300	145	150	23	22
VS8DA602FG20	VS8DA602BG20	20	4,5	150	290	300	36	34
VS8DA602FG30	VS8DA602BG30	30	4,5	100	435	450	50	48
GLOBE V8 + planetary gear								
VS8EPFG300FG42	VS8EPFG300BG42	42	4,5	71	609	630	39	44
VS8EPFG300FG52	VS8EPFG300BG52	52	4,5	55	754	720	39	44
GLOBE V10 + planetary gear								
VS10EPFG301FG20	VS10EPFG301BG20	20	8,3	120	660	600	52	57
VS10EPFG301FG31	VS10EPFG301BG31	31	8,3	77	1023	930	52	57
VS10EPFG301FG42	VS10EPFG301BG42	42	8,3	57	1386	1260	52	57
VS10EPFG301FG52	VS10EPFG301BG52	52	8,3	46	1716	1560	52	57

* Power and nominal torque at 6 bar and motor input speed of 3000 rpm (V4, V6, V8) and 2400 rpm (V10).

** In applications where the motor input speed exceeds 2200 rpm, only intermittent use is tolerated.

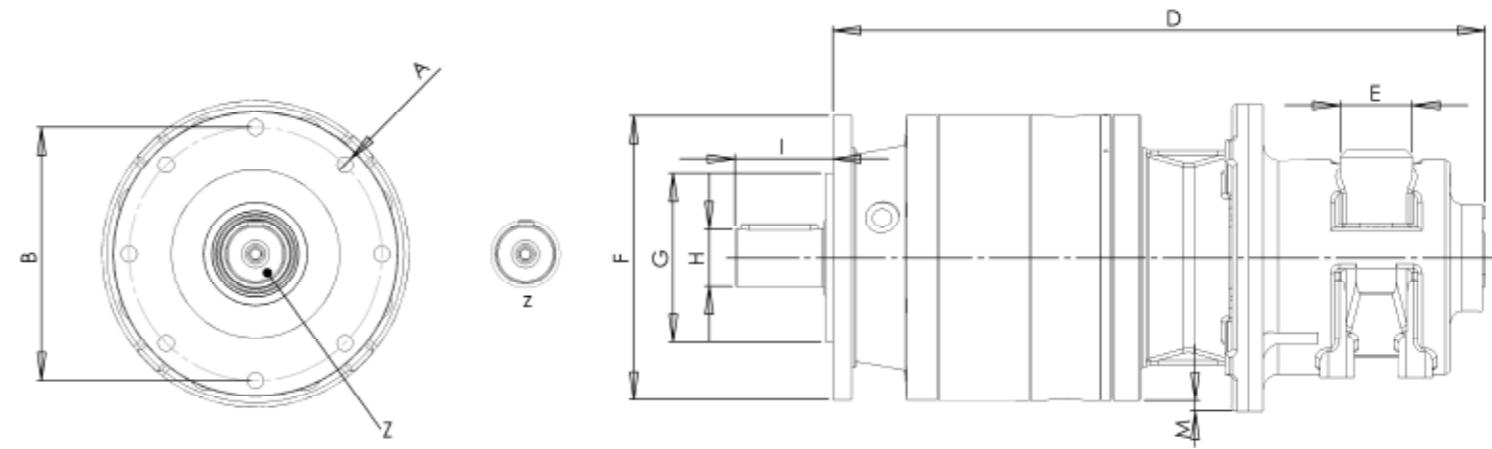
DIMENSIONS GLOBE VANE AIR MOTORS WITH COAXIAL GEARS - FLANGE MODEL



Ordering code	A	B	C	D	E	F
VS4DA402FG10	11	139	Ø165	8	283	G1/2"
VS4DA402FG22	11	139	Ø165	8	283	G1/2"
VS4DA402FG29	11	139	Ø165	8	283	G1/2"
VS4DA402FG38	11	139	Ø165	8	283	G1/2"
VS4DA403FG51	11	139	Ø165	8	288	G1/2"
VS6DA402FG10	Ø14	139	Ø215	8	337	G3/4"
VS6DA402FG22	Ø14	139	Ø215	8	337	G3/4"
VS6DA602FG29	Ø14	202	Ø215	8	401	G3/4"
VS6DA602FG40	Ø14	202	Ø215	8	401	G3/4"
VS6DA603FG55	Ø14	202	Ø215	8	408	G3/4"
VS8DA602FG10	Ø14	202	Ø164	8	404	G1"
VS8DA602FG20	Ø14	202	Ø164	8	404	G1"
VS8DA602FG30	Ø14	202	Ø164	8	404	G1"

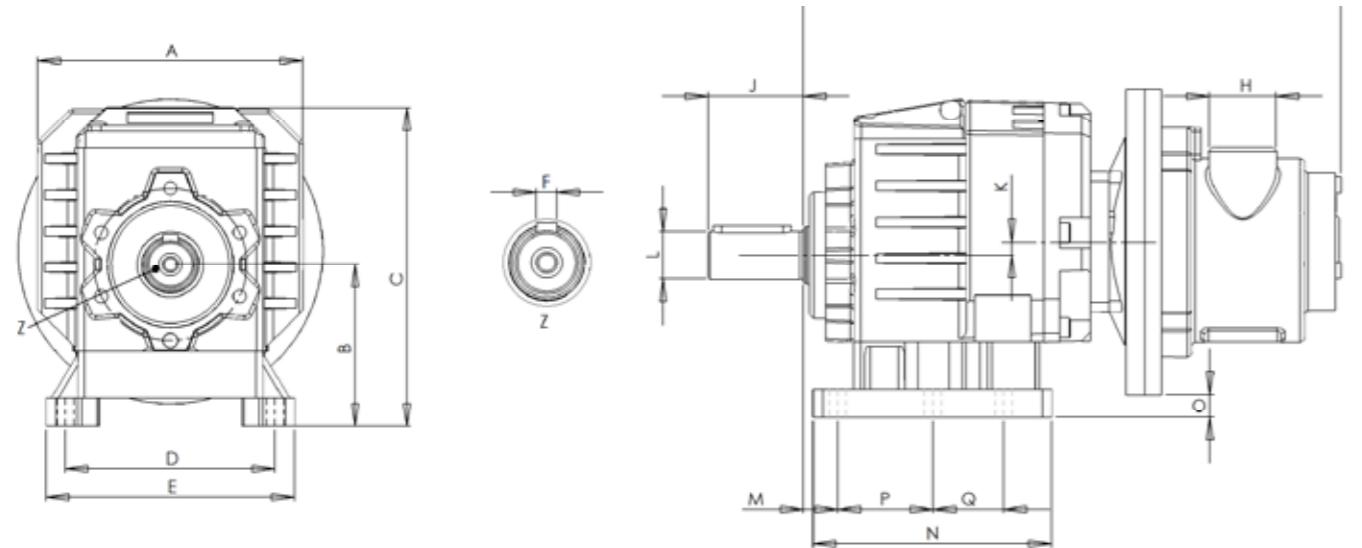
Ordering code	G	H	J	K	L	M
VS4DA402FG10	Ø200	Ø130	Ø25h6	46	7	27
VS4DA402FG22	Ø200	Ø130	Ø25h6	46	7	27
VS4DA402FG29	Ø200	Ø130	Ø25h6	46	7	27
VS4DA402FG38	Ø200	Ø130	Ø25h6	46	7	27
VS4DA403FG51	Ø200	Ø130	Ø25h6	46	3	23
VS6DA402FG10	Ø250	Ø180	Ø25h6	46	7	32
VS6DA402FG22	Ø250	Ø180	Ø25h6	46	7	32
VS6DA602FG29	Ø250	Ø180	Ø30h6	58	22	47
VS6DA602FG40	Ø250	Ø180	Ø30h6	58	22	47
VS6DA603FG55	Ø250	Ø180	Ø30h6	58	16	41
VS8DA602FG10	Ø200	Ø128	Ø30h6	54	22	22
VS8DA602FG20	Ø200	Ø128	Ø30h6	54	22	22
VS8DA602FG30	Ø200	Ø128	Ø30h6	54	22	22

DIMENSIONS GLOBE VANE AIR MOTORS WITH PLANETARY GEARS - FLANGE MODEL



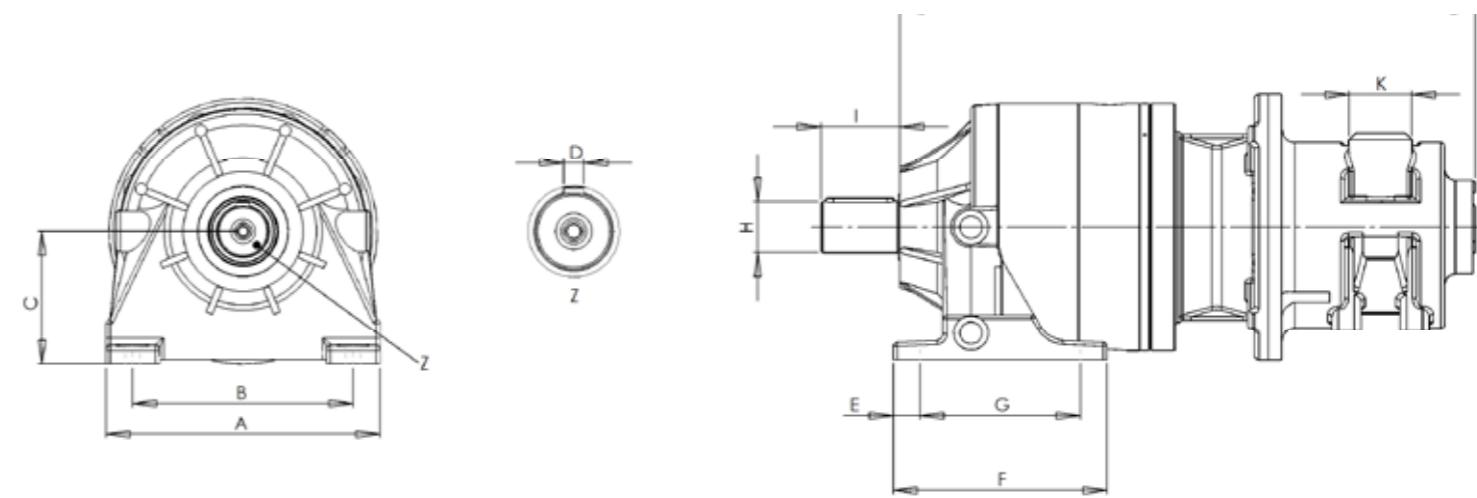
Motor + gear size	A	B	C	D	E	F	G	H	I	J	K
VS8EPFG300BG42	205	165	100	10	20	160	120	Ø38h6	60	429	G1"
VS8EPFG300BG52	205	165	100	10	20	160	120	Ø38h6	60	429	G1"
VS10EPFG301BG20	260	216	132	14	21	180	138	Ø50h6	82	501	G1¼"
VS10EPFG301BG31	260	216	132	14	21	180	138	Ø50h6	82	501	G1¼"
VS10EPFG301BG42	260	216	132	14	21	180	138	Ø50h6	82	501	G1¼"
VS10EPFG301BG52	260	216	132	14	21	180	138	Ø50h6	82	501	G1¼"

DIMENSIONS GLOBE VANE AIR MOTORS WITH COAXIAL GEARS - FOOT MODEL



Motor + gear size	A	B	C	D	E	F	G	H
VS4DA402BG10	139	85	167	110	130	8	282	G1/2"
VS4DA402BG22	139	85	167	110	130	8	282	G1/2"
VS4DA402BG29	139	85	167	110	130	8	282	G1/2"
VS4DA402BG38	139	85	167	110	130	8	282	G1/2"
VS4DA403BG51	139	85	167	110	130	8	281	G1/2"
VS6DA402BG10	139	85	167	110	130	8	333	G3/4"
VS6DA402BG22	139	85	167	110	130	8	333	G3/4"
VS6DA602BG29	202	130	234	180	216	8	399	G3/4"
VS6DA602BG40	202	130	234	180	216	8	399	G3/4"
VS6DA603BG55	202	130	234	180	216	8	408	G3/4"
VS8DA602BG10	202	130	234	180	216	8	402	G1"
VS8DA602BG20	202	130	234	180	216	8	402	G1"
VS8DA602BG30	202	130	234	180	216	8	402	G1"

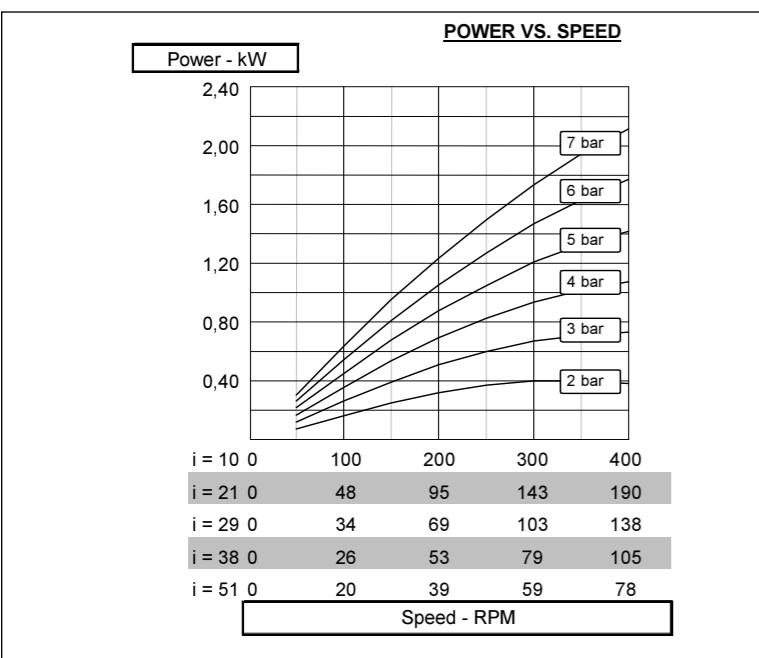
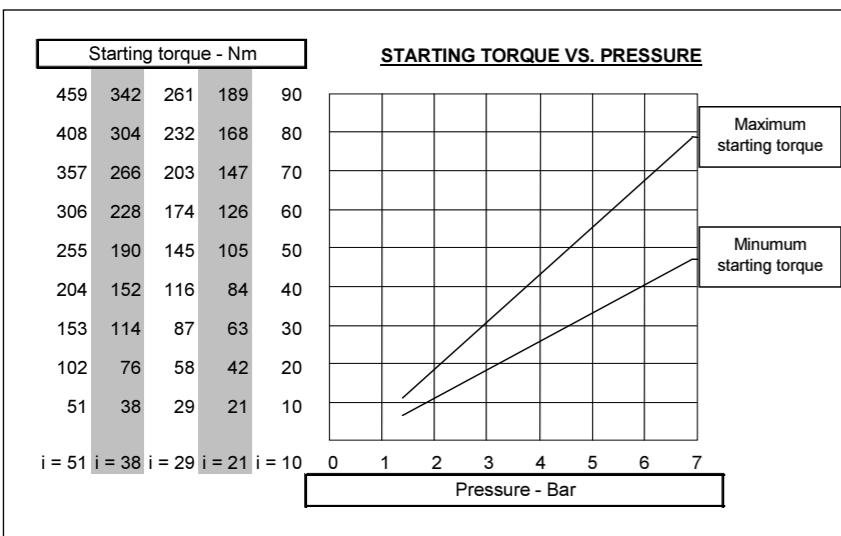
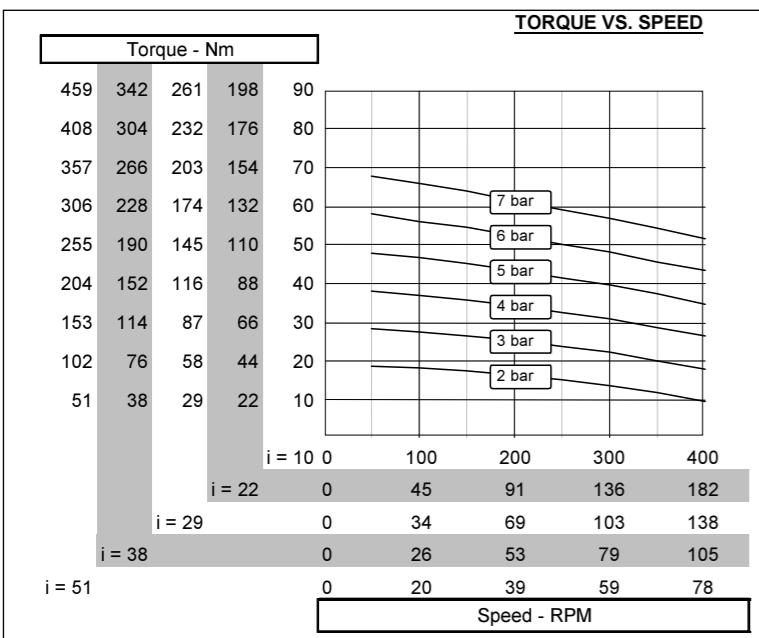
DIMENSIONS GLOBE VANE AIR MOTORS WITH PLANETARY GEARS - FOOT MODEL



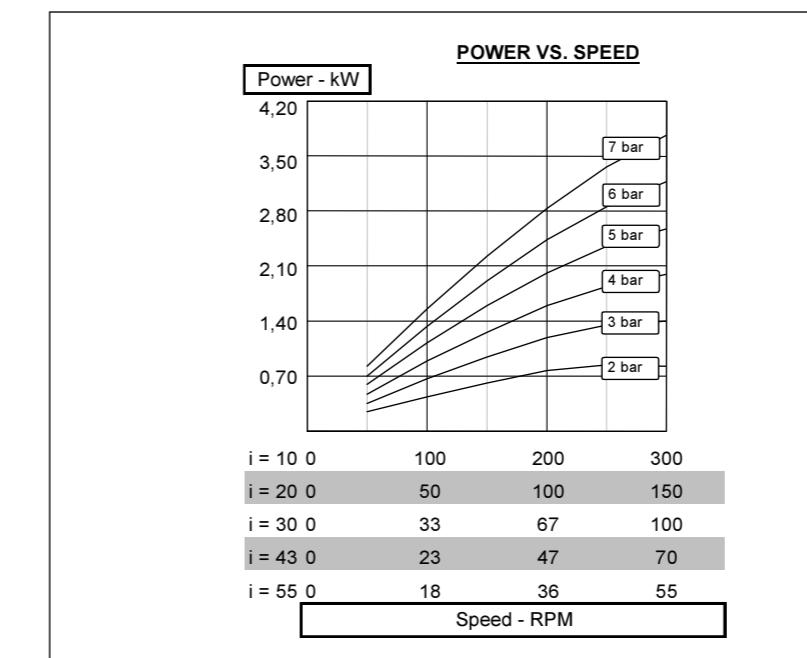
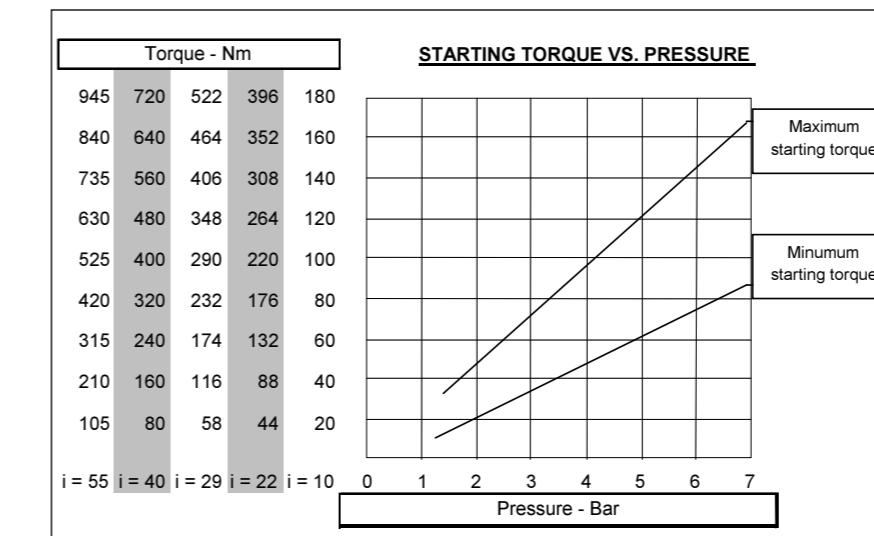
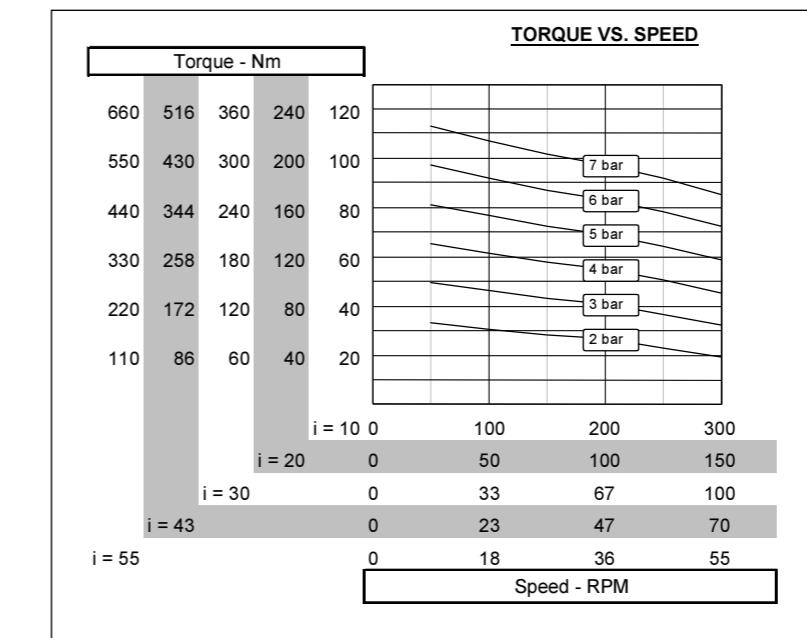
Motor + gear size	A	B	C	D	E	F	G	H	I	J	K
VS8EPFG300BG42	205	165	100	10	20	160	120	Ø38h6	60	429	G1"
VS8EPFG300BG52	205	165	100	10	20	160	120	Ø38h6	60	429	G1"
VS10EPFG301BG20	260	216	132	14	21	180	138	Ø50h6	82	501	G1¼"
VS10EPFG301BG31	260	216	132	14	21	180	138	Ø50h6	82	501	G1¼"
VS10EPFG301BG42	260	216	132	14	21	180	138	Ø50h6	82	501	G1¼"
VS10EPFG301BG52	260	216	132	14	21	180	138	Ø50h6	82	501	G1¼"

Motor + gear size	J	K	L	M	N	O	P	Q
VS4DA402BG10	53	7	Ø25h6	18	125	12	50	37
VS4DA402BG22	53	7	Ø25h6	18	125	12	50	37
VS4DA402BG29	53	7	Ø25h6	18	125	12	50	37
VS4DA402BG38	53	7	Ø25h6	18	125	12	50	37
VS4DA403BG51	50	3	Ø25h6	18	125	15	50	50
VS6DA402BG10	50	7	Ø25h6	18	125	8	50	37
VS6DA402BG22	50	7	Ø25h6	18	125	8	50	37
VS6DA602BG29	60	22	Ø30h6	20	186	52	150	...
VS6DA602BG40	60	22	Ø30h6	20	186	52	150	...
VS6DA603BG55	60	16	Ø30h6	20	186	46	150	...
VS8DA602BG10	60	22	Ø30h6	20	186	52	150	...
VS8DA602BG20	60	22	Ø30h6	20	186	52	150	...
VS8DA602BG30	60	22	Ø30h6	20	186	52	150	...

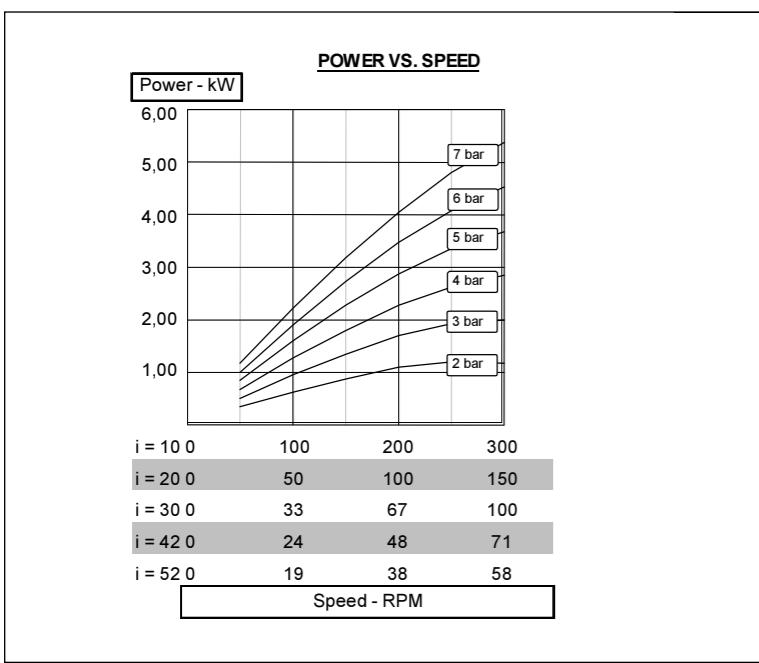
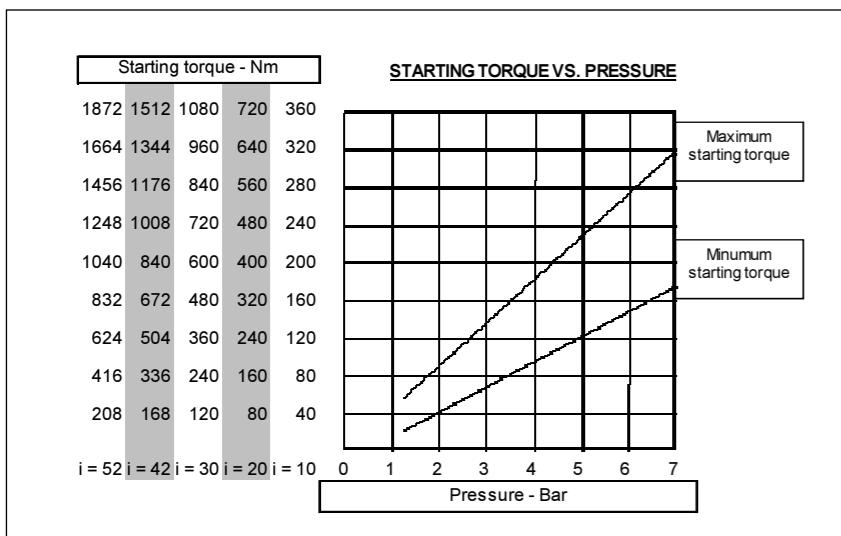
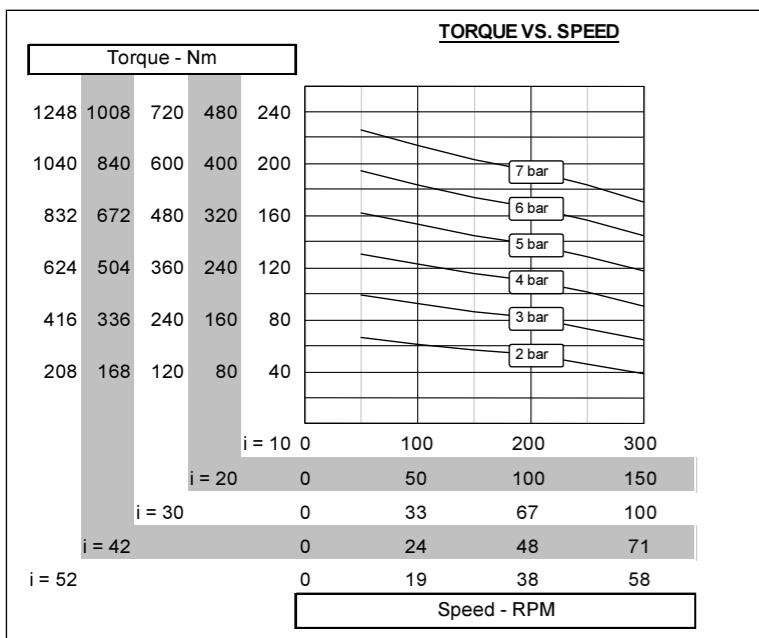
PERFORMANCES GLOBE VS4C AIR MOTOR WITH COAXIAL GEAR



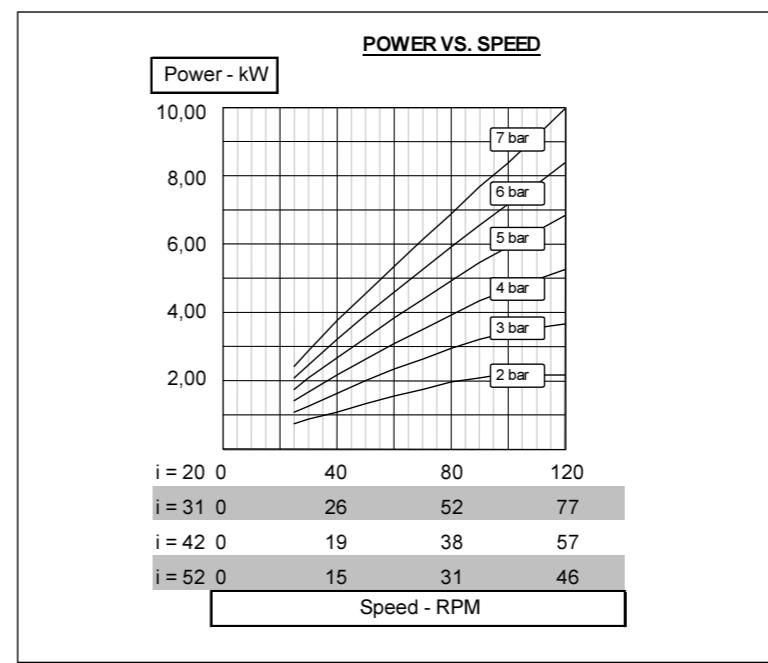
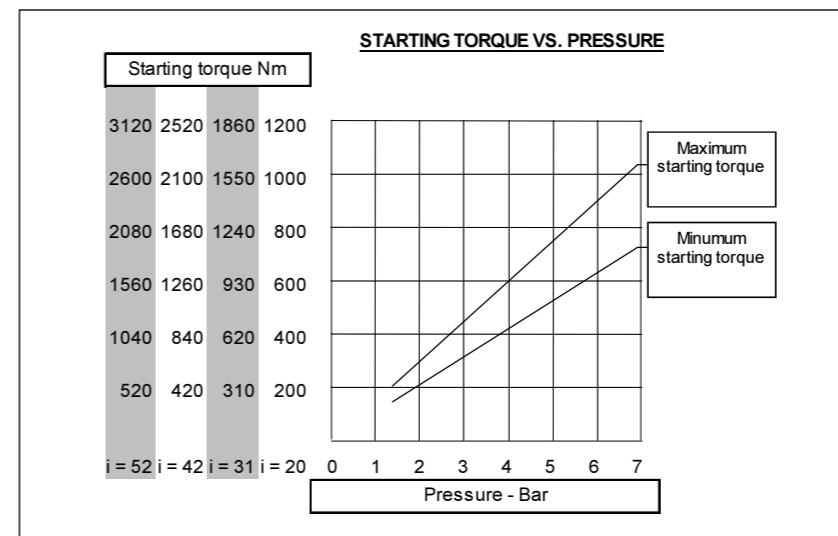
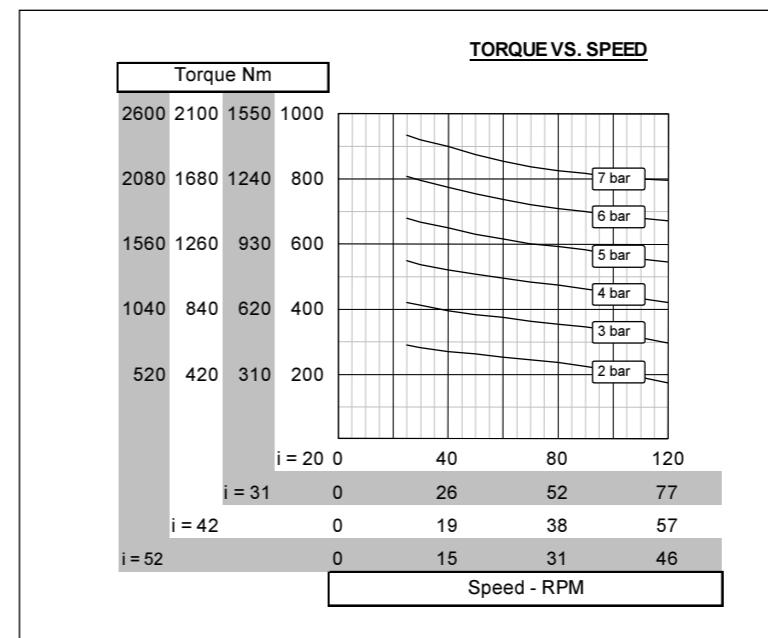
PERFORMANCES GLOBE VS6C AIR MOTOR WITH COAXIAL GEAR



PERFORMANCES GLOBE VS8C AIR MOTOR WITH COAXIAL AND PLANETARY GEAR



PERFORMANCES GLOBE VS10C AIR MOTOR WITH COAXIAL AND PLANETARY GEAR



RECOMMENDED GEARBOX LUBRICANTS

ISO VG		Synthetic oil			Mineral oil			
		460	220 320	150	680	460	320	220
Ambient temperature (°C)	- 15° to 100°	- 25° to 80°	- 30° to 70°	5° to 50°	5° to 45°	0° to 40°	0° to 35°	
Manufacturer	AGIP	-	Telium VSF 320	Telium VSF 150	Blasia 680	Blasia 460	Blasia 320	Blasia 220
	BP	Energol SGXP 460	Energol SGXP 220	Energol SGXP 150	Energol GRXP 680	Energol GRXP 460	Energol GRXP 320	Energol GRXP 220
	ESSO	-	-	-	Spartan EP 680	Spartan EP 460	Spartan EP 320	Spartan EP 220
	SHELL	Tivela Oil SD	Tivela Oil WB	-	Omala Oil 680	Omala Oil 460	Omala Oil 320	Omala Oil 220
	KLÜBER	Syntheso D460 EP	Syntheso D220 EP	Syntheso D150 EP	Lamora 680	Lamora 460	Lamora 320	Lamora 220
	MOBIL	Glygoyle HE 460	Glygoyle 30	Glygoyle 22	Mobilgear 636	Mobilgear 636	Mobilgear 632	Mobilgear 630

GLOBE PFG-RED PLANETARY GEARED VANE MOTORS

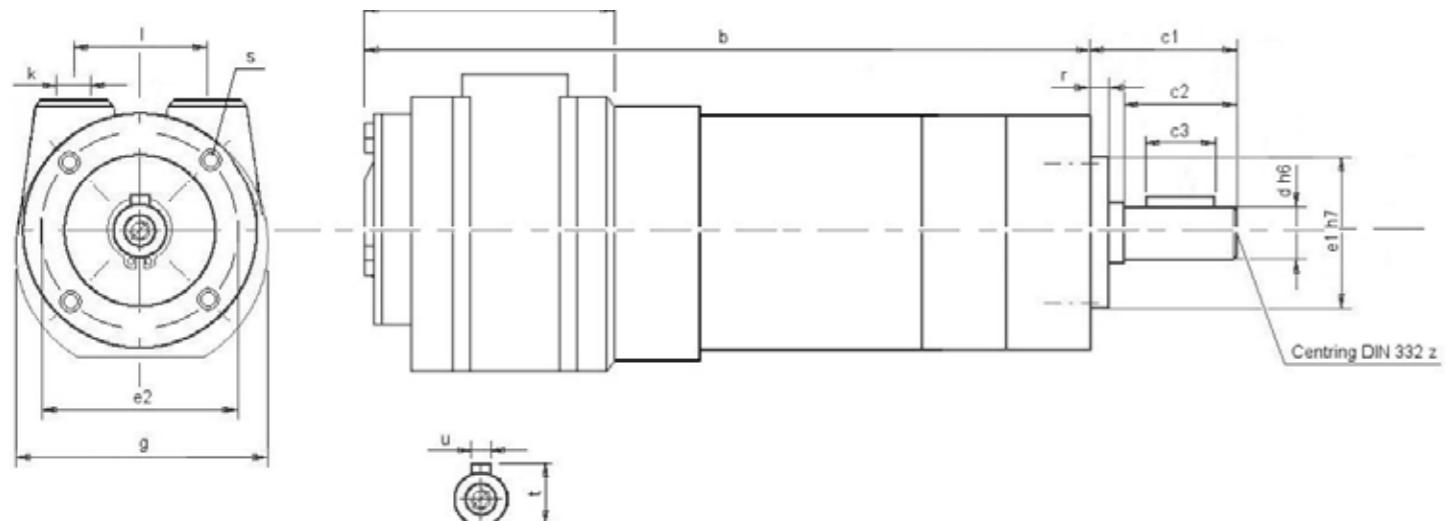
The GLOBE PFG-red motors are of the vane type and are available with a wide range of planetary reducers ranging from $i = 3:1$ to $i = 1000:1$ (reductions above $i = 100:1$ on request)

GLOBE PFG-red motors are designed for light and medium industrial applications and are used in all kinds of driving, mixing and transporting applications.

- Available from 0,44 kW to 2,1 kW. Higher powers available on request.
- Easily variable speed control
- Variable torque control
- Perfect in many applications in hazardous environments
- Explosion proof according ATEX directive EU 94/9/EC (ATEX II cat. 2 G&D T5)
- No damage by overload or repeated starting
- Cool running
- Can be used in stall conditions
- Superior power to weight ratio
- Instantly reversible
- No shock start-up
- Maintenance-free
- Standard mounting type is IEC flange or face. Other mounting types are also available.
- Suitable for oil-free operation
- Radial and axial loads permitted



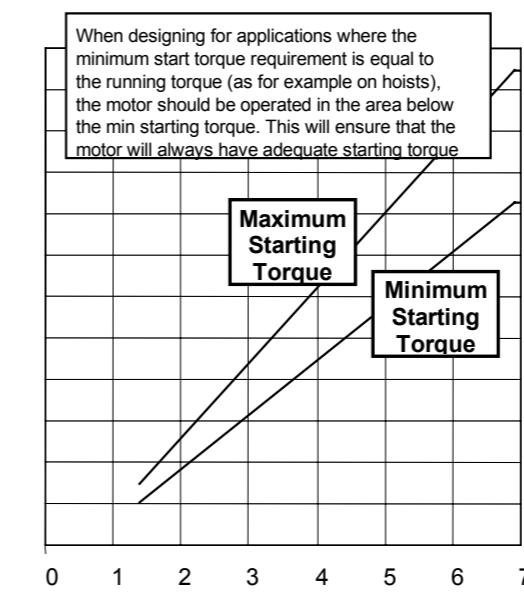
GLOBE VANE VA1 AIR MOTORS WITH PLANETARY GEARBOX



Motor	i	a	b	c1	c2	c3	d	e1	e2	f	g	k	l	r	s	t	u	v	w	z
VA1PFG01	3 5 7 10	69	175	39	30	25	14k6	40h7	52	65	71	1/4"NPT	36	8	M5x10	16	5	4,2	4	DM5
VA1PFG02	16 20 28 40	69	198	39	30	25	14k6	40h7	52	65	71	1/4"NPT	36	8	M5x10	16	5	4,2	4	DM5
VA1PFG04	40 50 70 100	69	226	49	40	32	20k6	55h7	70	85	71	1/4"NPT	36	8	M6x12	22,5	6	8,3	6	DM6

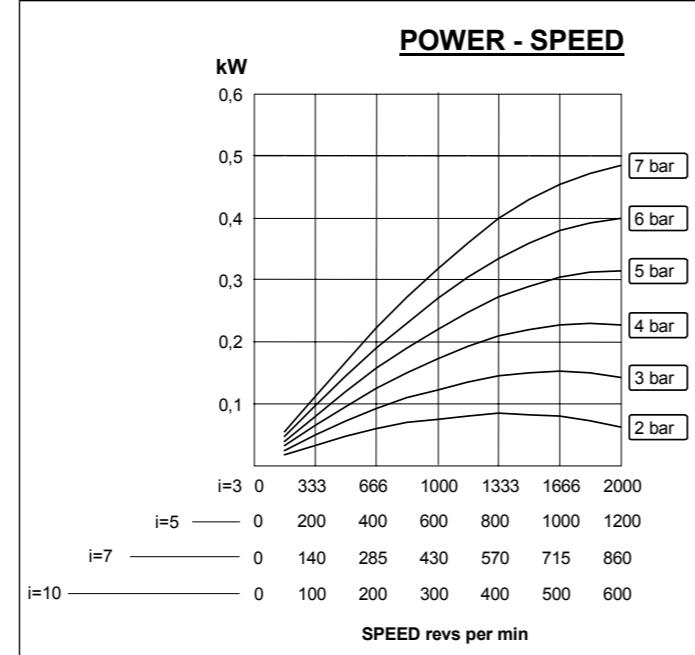
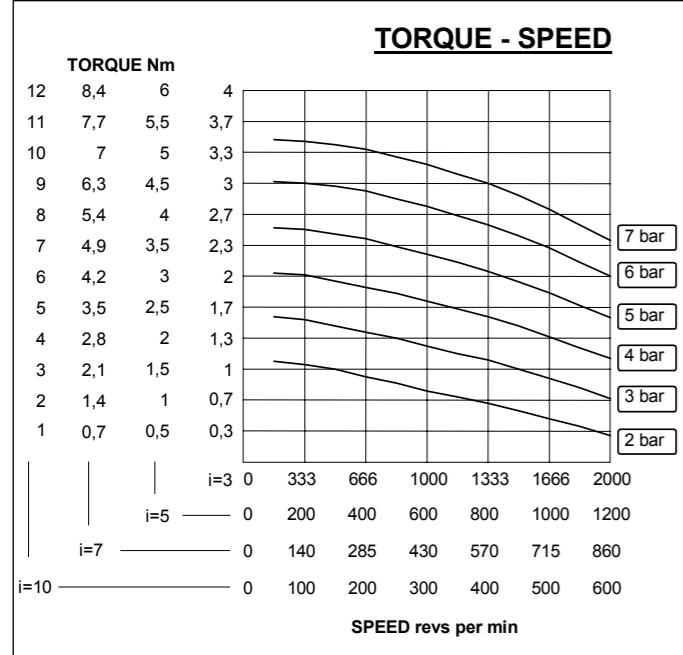
VA1PFG01 VANE AIR MOTOR

TORQUE - PRESSURE



i=10 i=7 i=5 i=3

STARTING TORQUE will vary between the minimum and maximum levels shown. The actual starting torque will depend on the air inlet pressure and the motor crank position.



Motor is reversible.

ATTITUDE

The motor can be operated in all positions.

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

Maximum radial load: 930 N

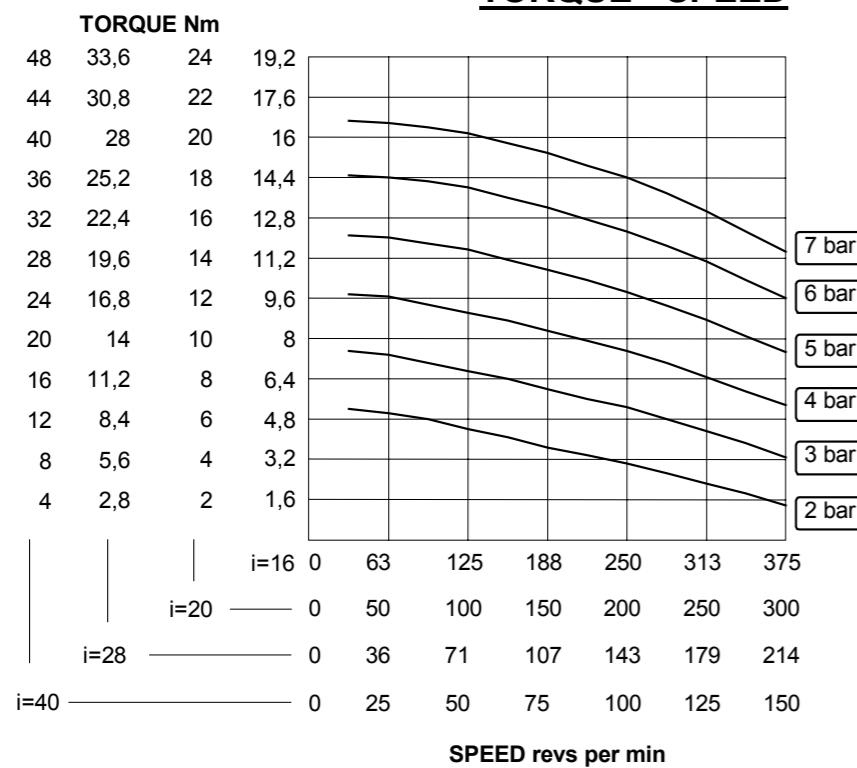
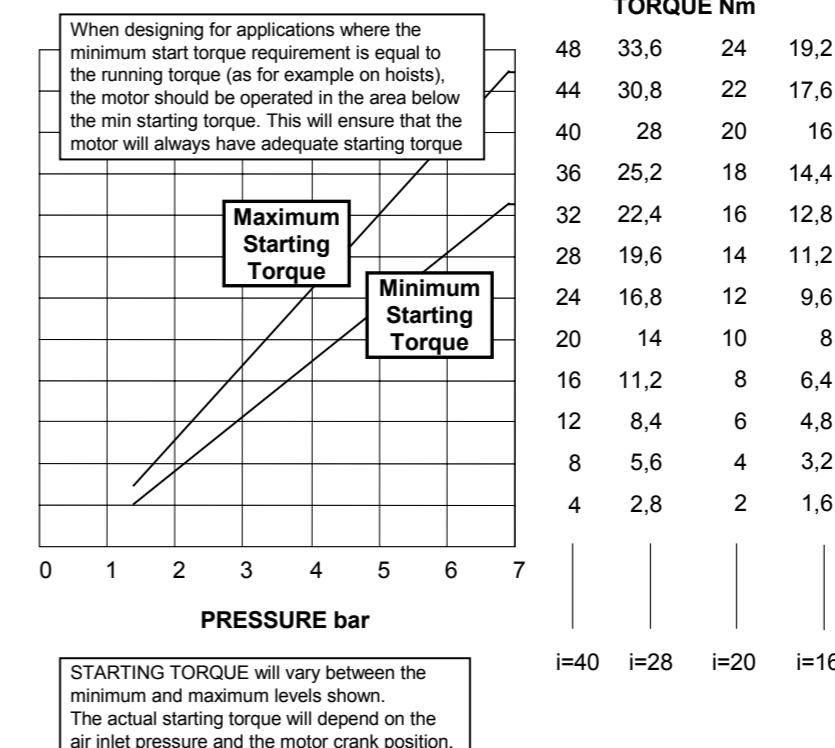
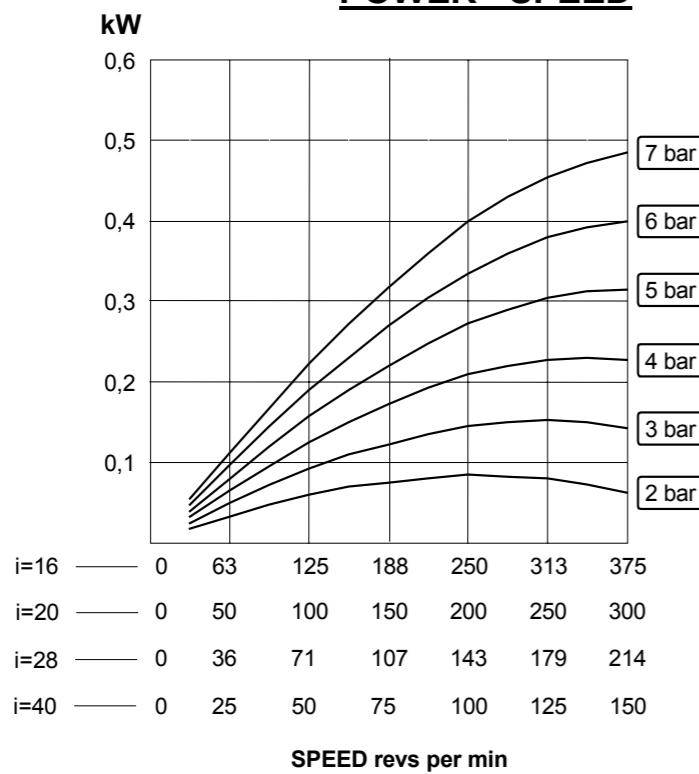
Maximum axial load: 1080 N

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

TORQUE - SPEED**TORQUE - PRESSURE****POWER - SPEED**

Motor is reversible.

ATTITUDE

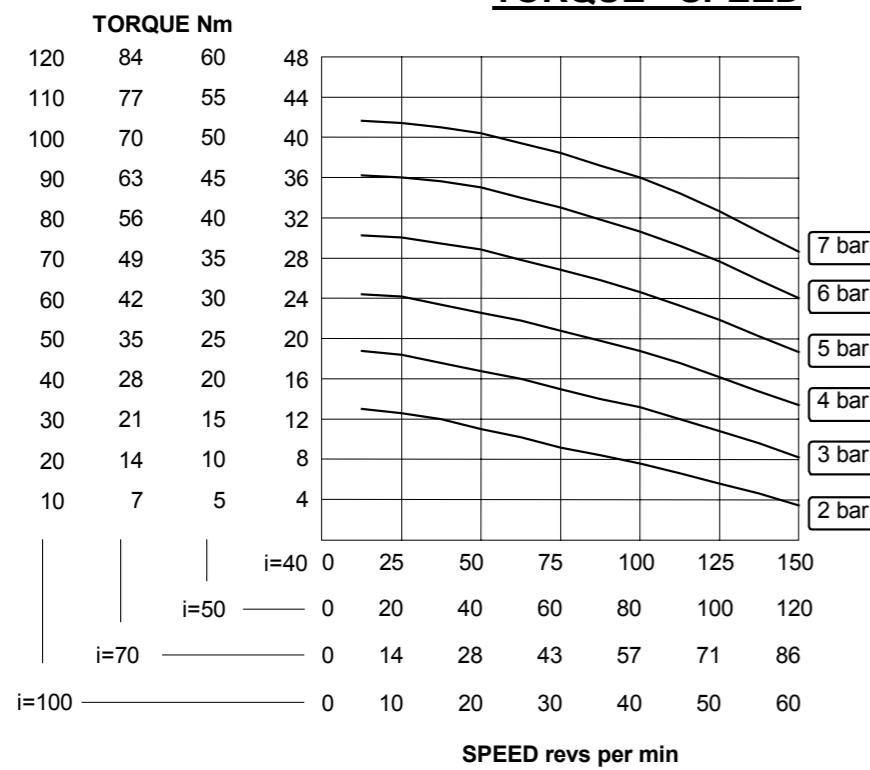
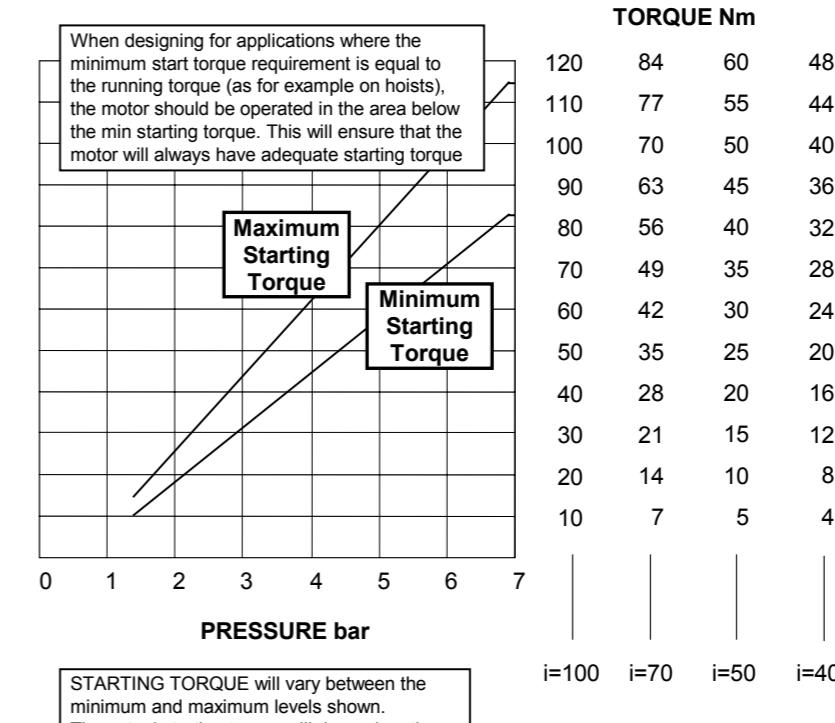
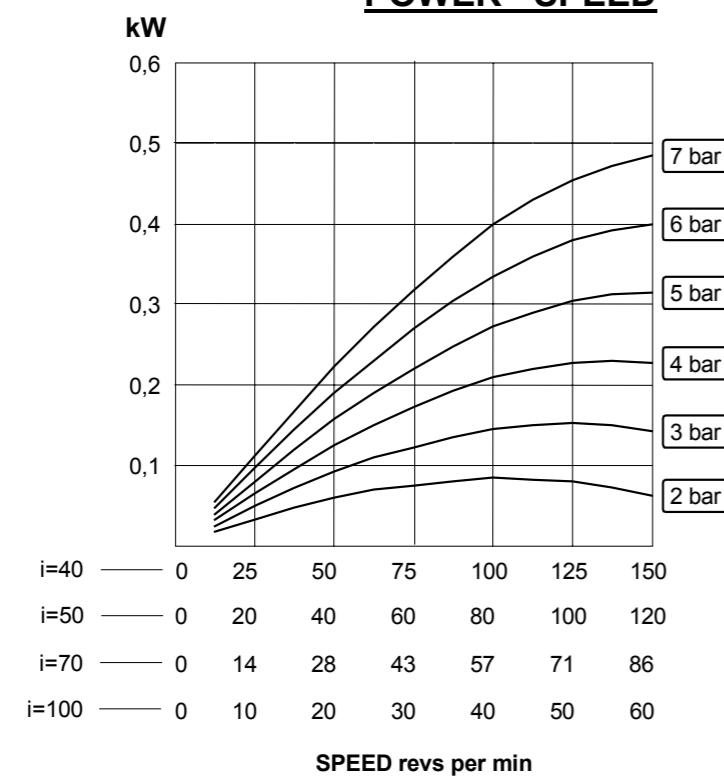
The motor can be operated in all positions.

Maximum temperature +20°C to +80°C
(-4°F to -176°F).Maximum radial load: 930 N
Maximum axial load: 1080 N**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

TORQUE - SPEEDTORQUE - PRESSUREPOWER - SPEED

Motor is reversible.

ATTITUDE

The motor can be operated in all positions.

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

Maximum radial load: 1770 N
Maximum axial load: 2180 N

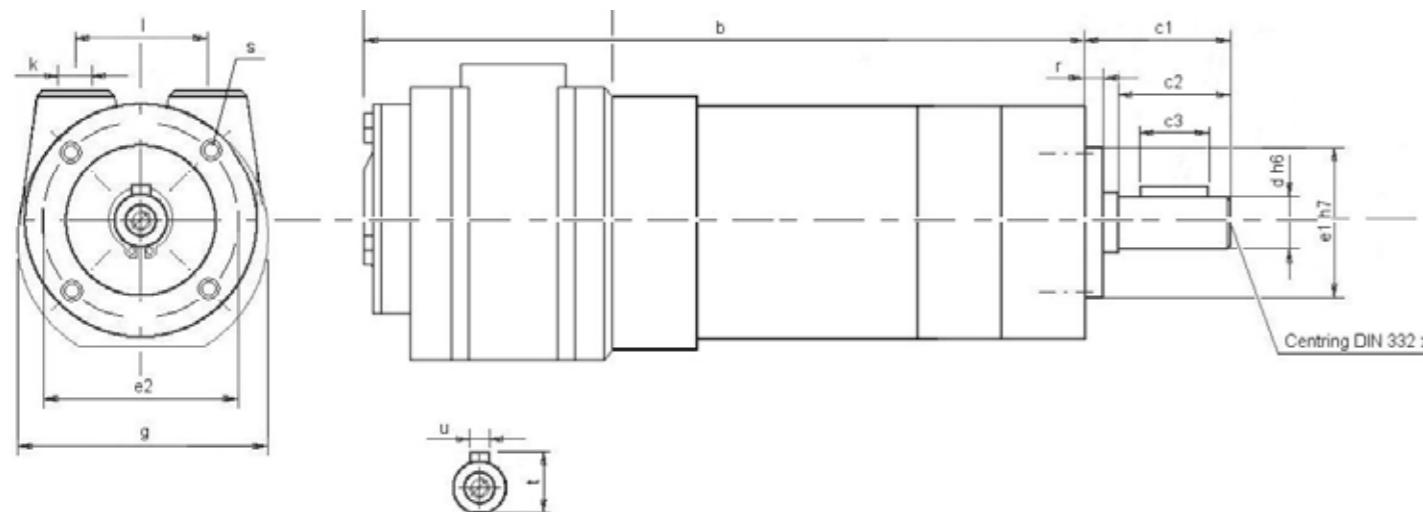
AIRLINE FILTRATION AND LUBRICATION

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

GLOBE VANE VA2 AIR MOTORS WITH PLANETARY GEARBOX

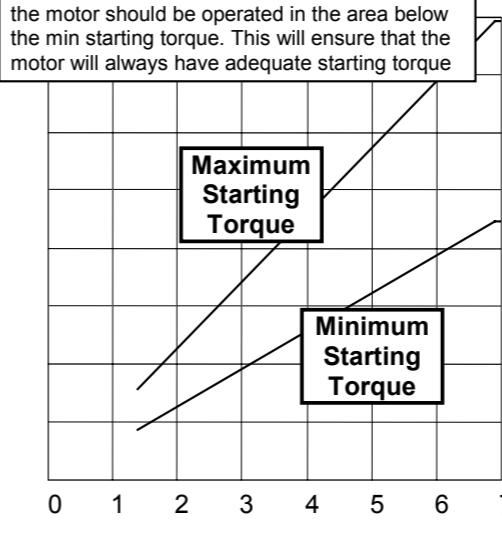


Motor	i	a	b	c1	c2	c3	d	e1	e2	f	g	k	i	r	s	t	u	v	w	z	
VA2PFG01	3 5 7 10	72	174	39	30	25	14	k6	40 h7	52	65	102	3/8"NPT	55	8	M5x10	16	5	4,2	4	DM5
VA2PFG04	16 20 28 40 50	72	227	49	40	32	20	k6	55h7	70	85	102	3/8"NPT	55	8	M6x12	22,5	6	8,3	6	DM6
VA2PFG06	70 100	72	254	61	50	40	25	k6	80 h7	100	120	102	3/8"NPT	55	10	M10x20	28,0	8	43	6	DM10
VA2PFG08 On request	120 160 200	72	308	95	80	70	40	k6	110 h7	130	155	102	3/8"NPT	55	14	M10x20	43,0	12	43	6	DM16

VA2PFG01 VANE AIR MOTOR

TORQUE - PRESSURE

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

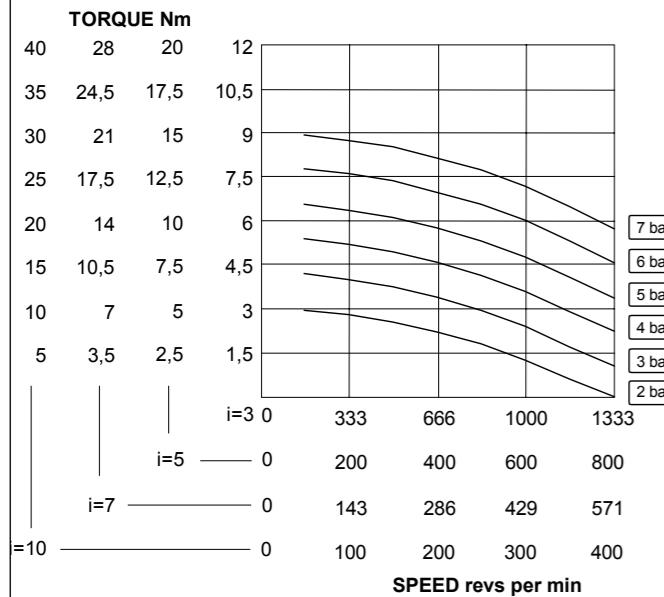


TORQUE Nm

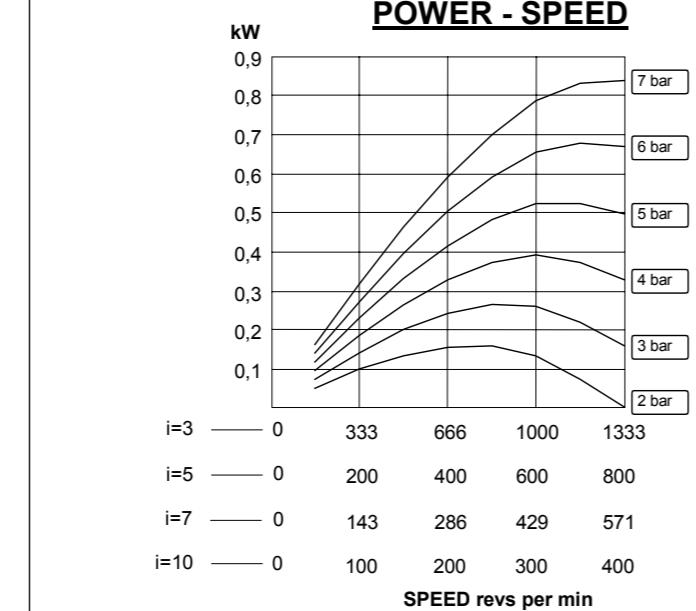
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35	24,5	17,5	10,5
30	21	15	9
25	17,5	12,5	7,5
20	14	10	6
15	10,5	7,5	4,5
10	7	5	3
5	3,5	2,5	1,5
=10			
i=10			
i=7			
i=5			
i=3			

STARTING TORQUE will vary between the minimum and maximum levels shown.
The actual starting torque will depend on the air inlet pressure and the motor crank position.

TORQUE - SPEED



POWER - SPEED



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).

Maximum radial load: 930 N

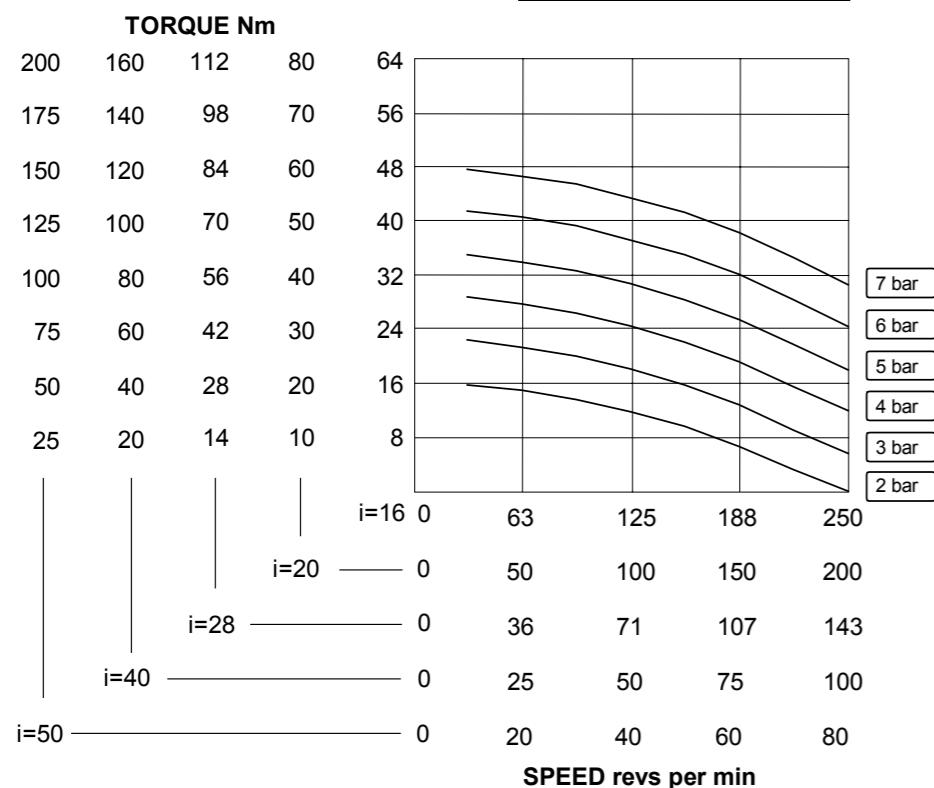
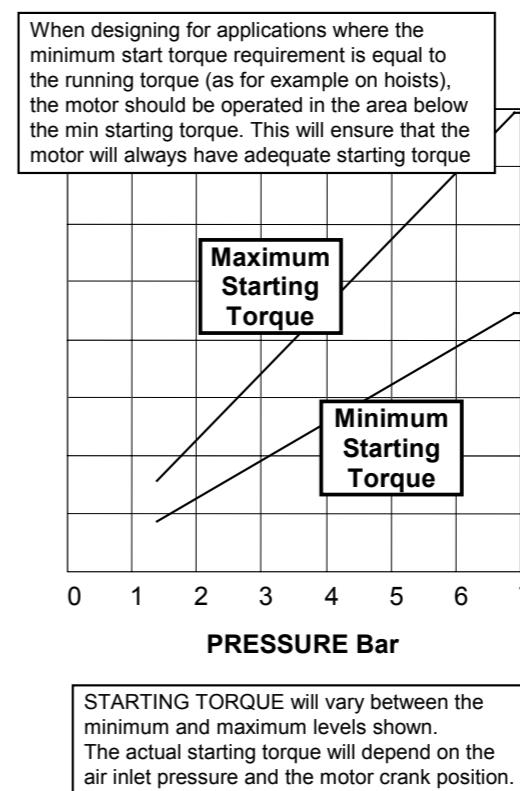
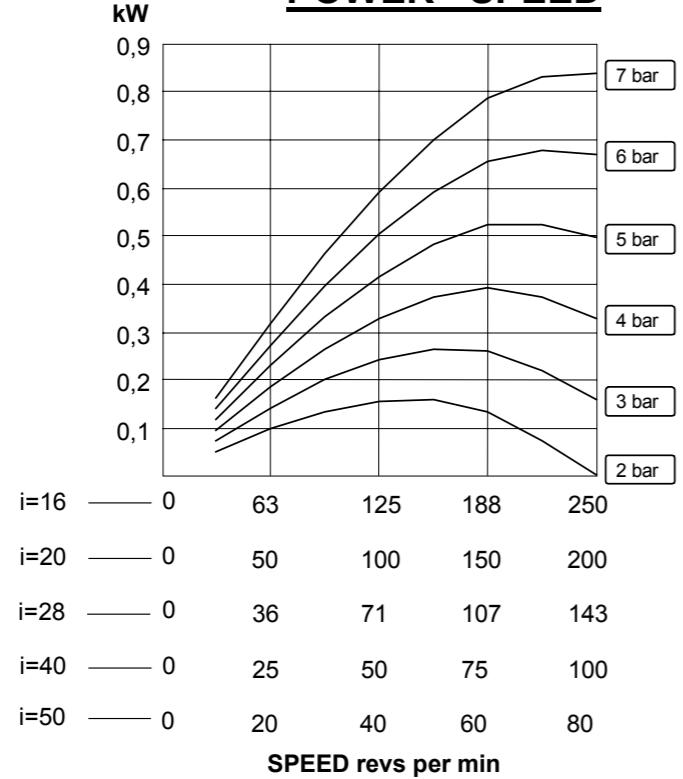
Maximum axial load: 1080 N

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

TORQUE - SPEED**TORQUE - PRESSURE****POWER - SPEED**

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).

Maximum radial load: 1770 N

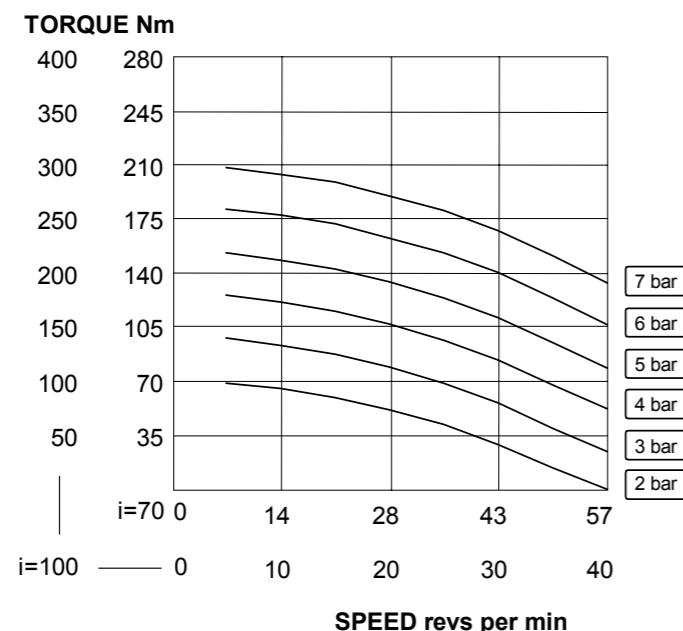
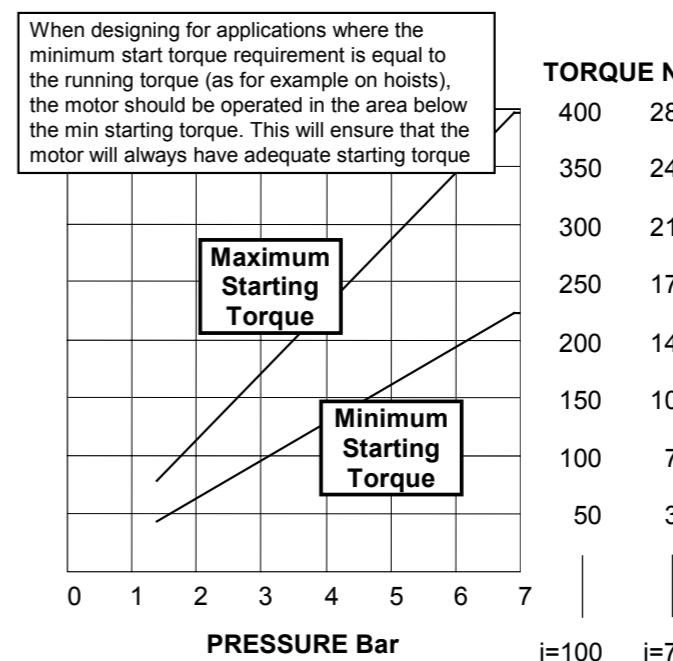
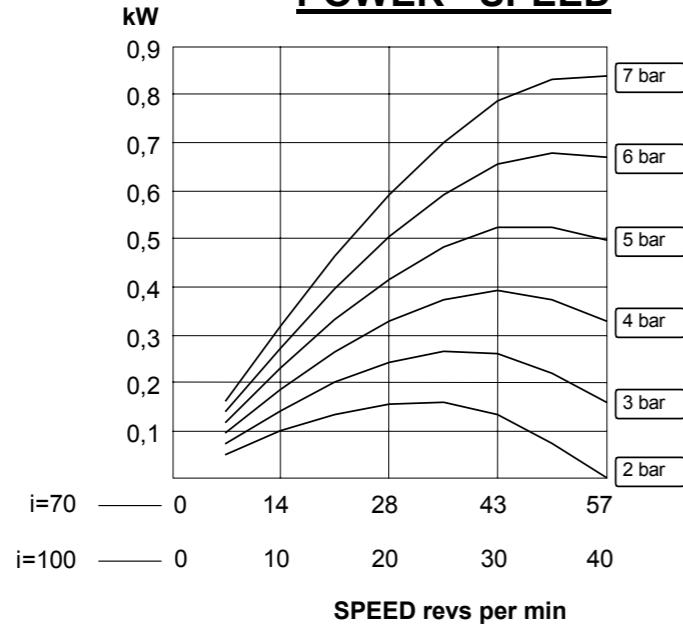
Maximum axial load: 2180 N

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

TORQUE - SPEED**TORQUE - PRESSURE****POWER - SPEED**

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).

Maximum radial load: 3000 N

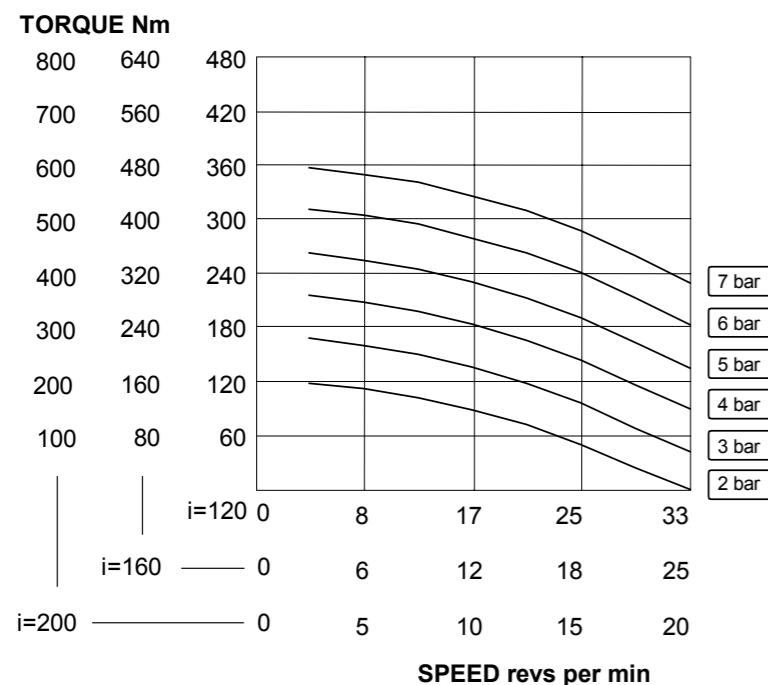
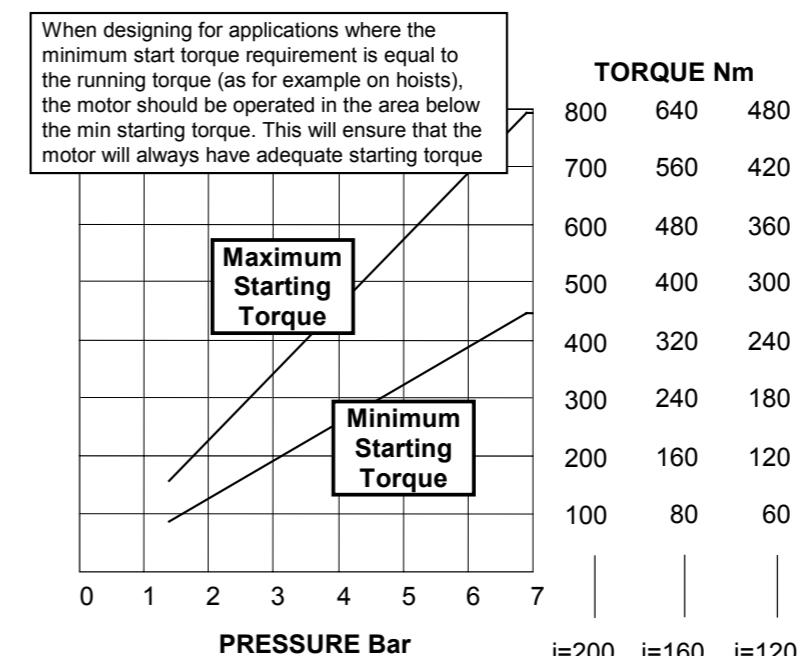
Maximum axial load: 3730 N

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.

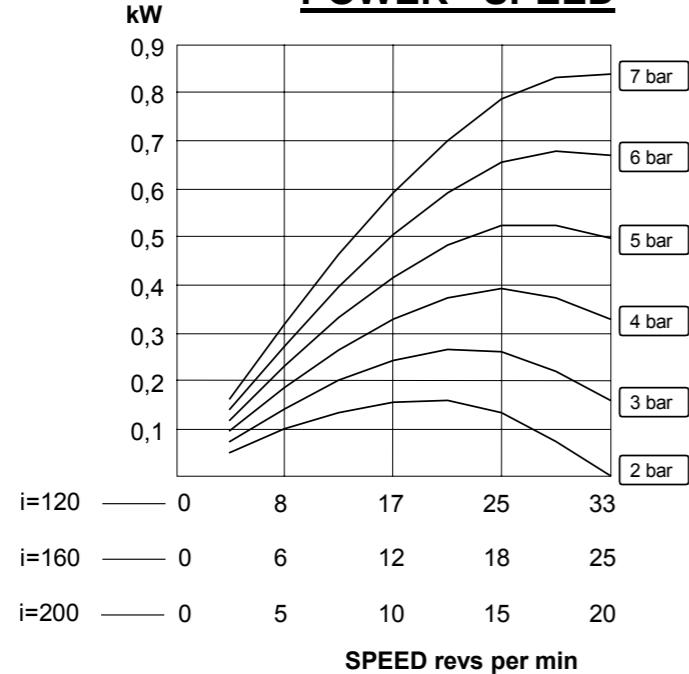
Lubricator drop rate 4-5 drops/minute continuous operation

Lubricator drop rate 9-12 drops/minute intermittent operation

TORQUE - SPEED**TORQUE - PRESSURE**

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

STARTING TORQUE will vary between the minimum and maximum levels shown. The actual starting torque will depend on the air inlet pressure and the motor crank position.

POWER - SPEED

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).

Maximum radial load: 8770 N

Maximum axial load: 7730 N

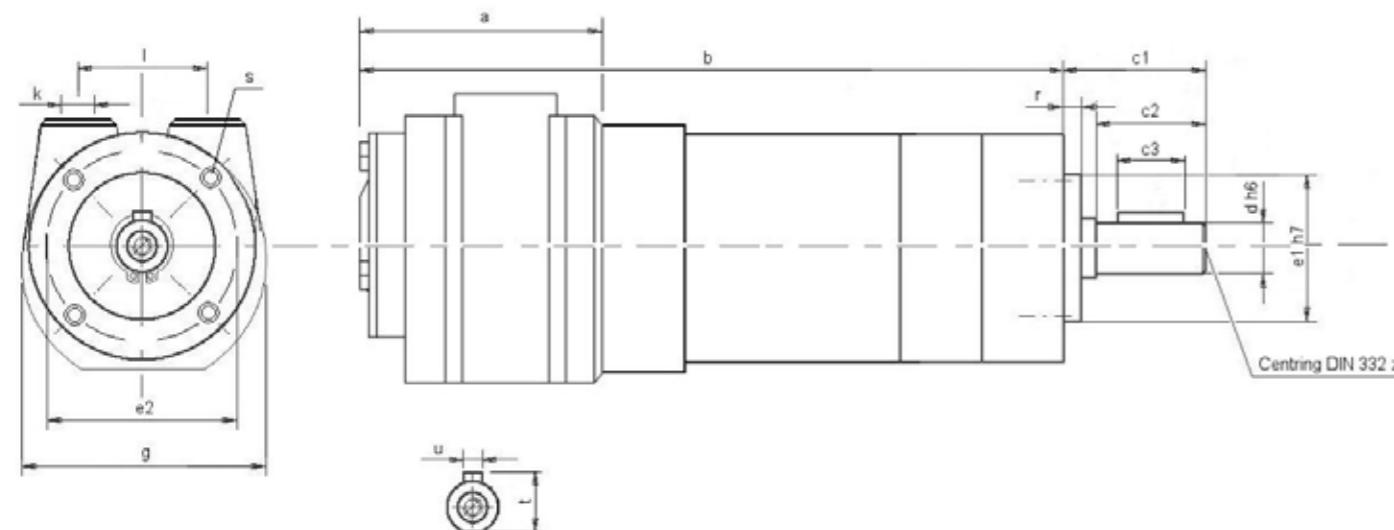
AIRLINE FILTRATION AND LUBRICATION

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

GLOBE VANE VA4 AIMOTORS WITH PLANETARY GEARBOX

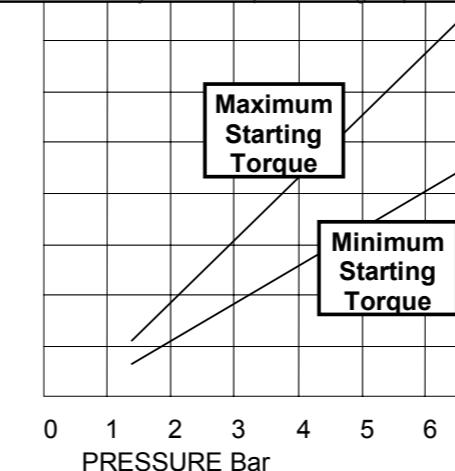


Motor	i	a	b	c1	c2	c3	d	e1	e2	f	g	k	l	r	s	t	u	v	w	z
VA4PFG03	3 5 7 10	89	213	49	40	32	20h6	55h7	70	85	102	½"NPT	55	8	M6x12	22,5	6	8,3	6	DM6
VA4PFG04	16 20	89	244	49	40	32	20h6	55h7	70	85	102	½"NPT	55	8	M6x12	22,5	6	8,3	6	DM6
VA4PFG06	20 28 40	89	271	61	50	40	25h6	80h7	100	120	102	½"NPT	55	10	M8x16	28,0	8	43	6	DM10
VA4PFG07	50 70	89	309	95	80	70	40h6	110h7	130	150	102	½"NPT	55	14	M10x20	43,0	12	43	6	DM16
On request																				

VA4PFG03 VANE AIR MOTOR

TORQUE - PRESSURE

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



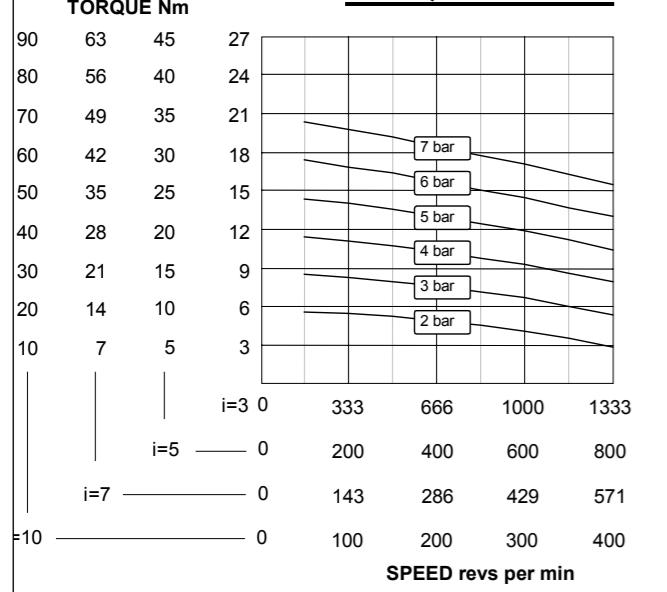
STARTING TORQUE will vary between the minimum and maximum levels shown. The actual starting torque will depend on the air inlet pressure and the motor crank position.

TORQUE Nm

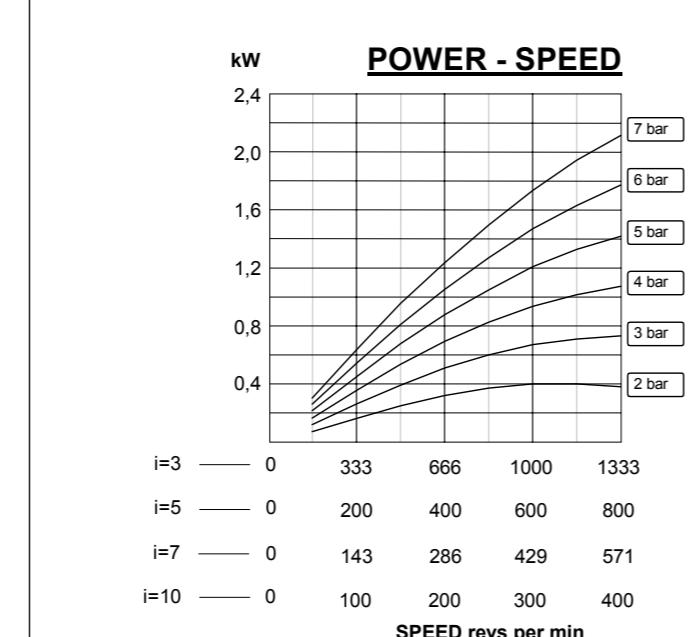
90	63	45	27
80	56	40	24
70	49	35	21
60	42	30	18
50	35	25	15
40	28	20	12
30	21	15	9
20	14	10	6
10	7	5	3

i=10 i=7 i=5 i=3

TORQUE - SPEED



POWER - SPEED



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).

Maximum radial load: 1770 N

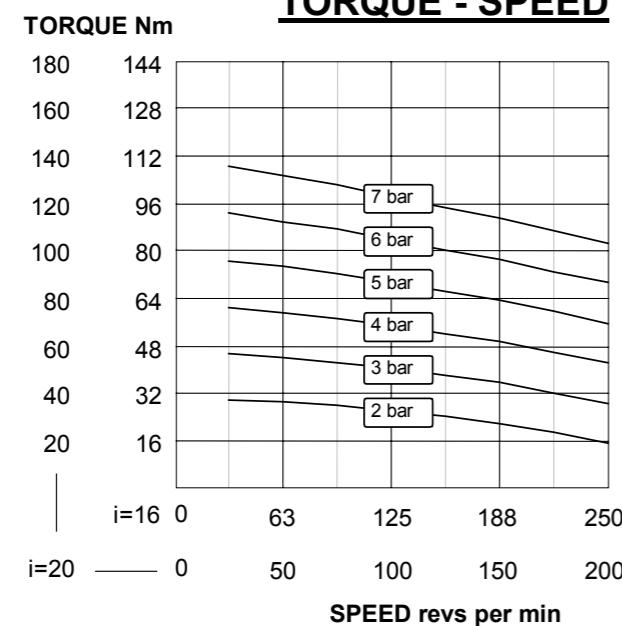
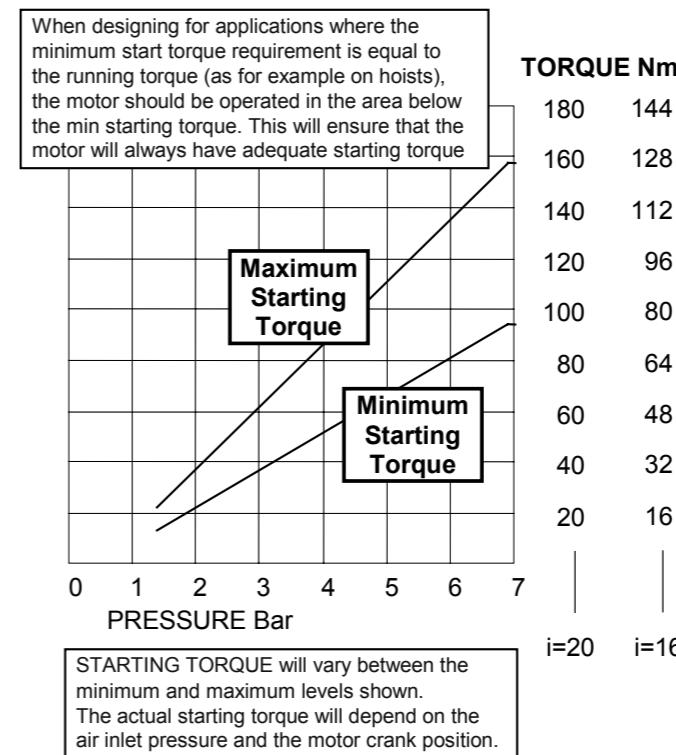
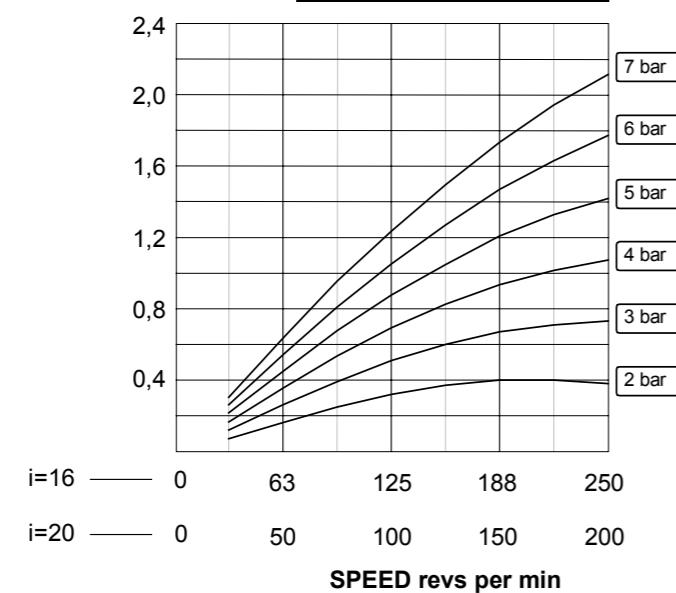
Maximum axial load: 2180 N

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

TORQUE - SPEED**TORQUE - PRESSURE****POWER - SPEED**

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).

Maximum radial load: 1770 N

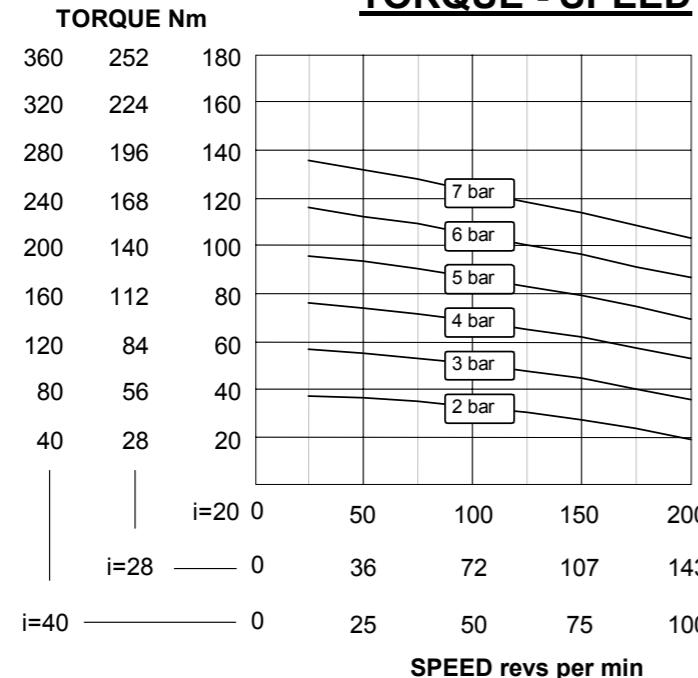
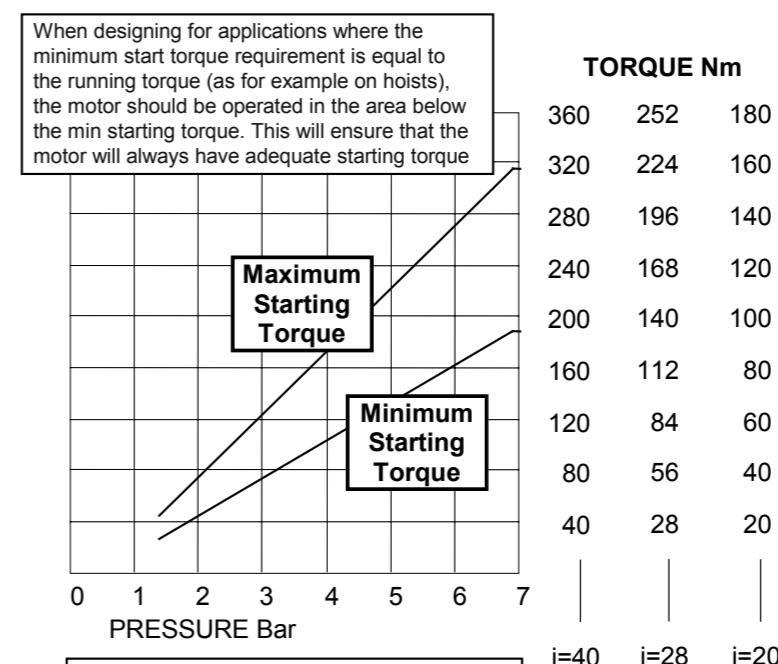
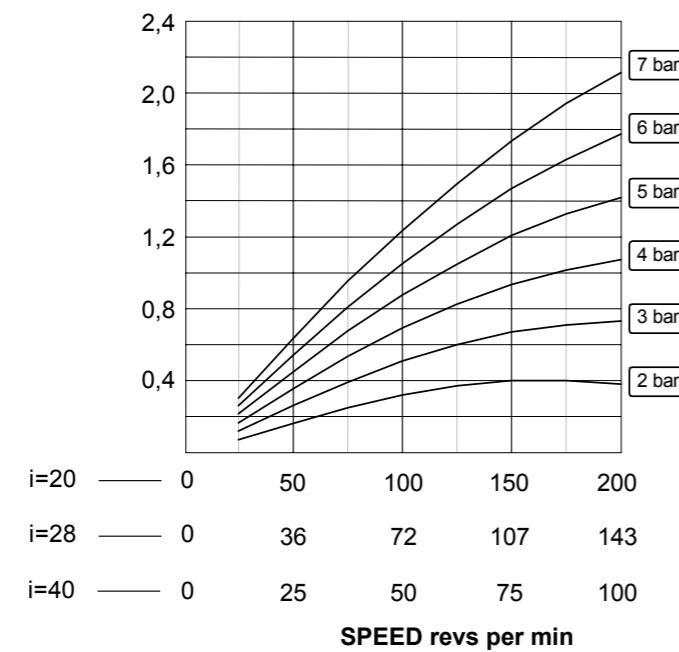
Maximum axial load: 2180 N

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

TORQUE - SPEED**TORQUE - PRESSURE****POWER - SPEED**

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).

Maximum radial load: 3000 N

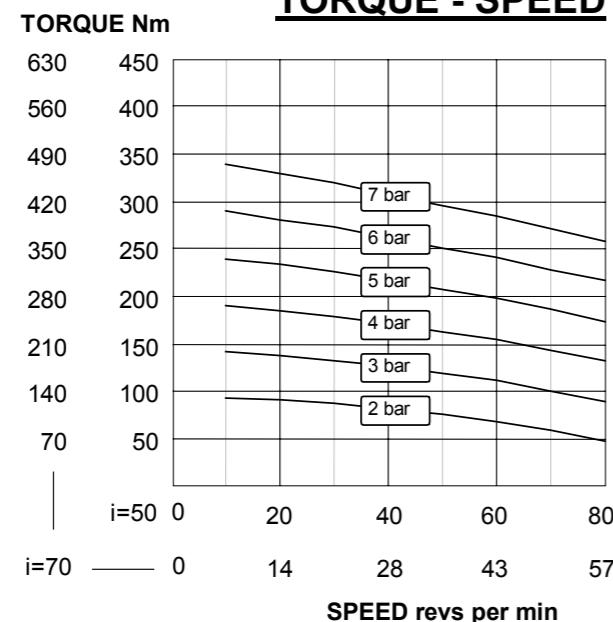
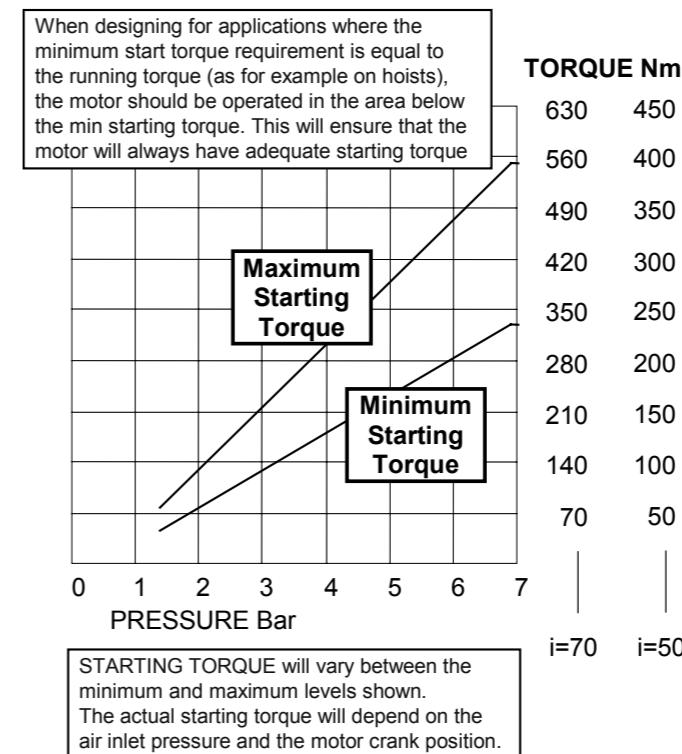
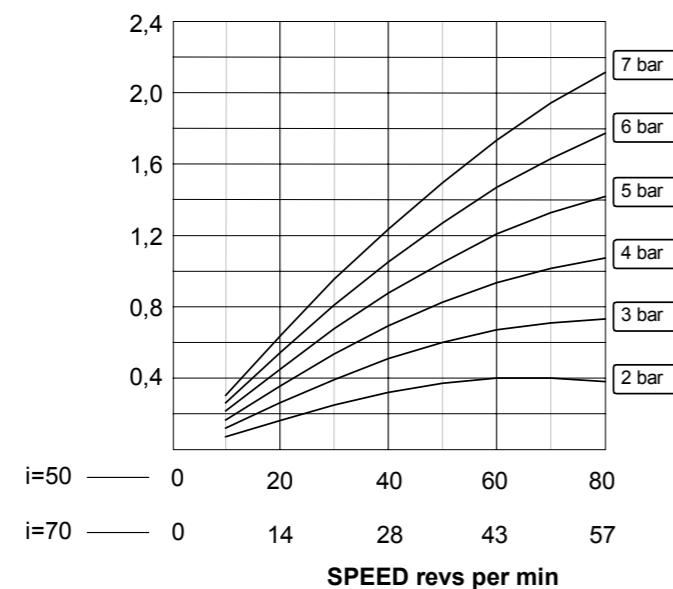
Maximum axial load: 3730 N

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

TORQUE - SPEED**TORQUE - PRESSURE****POWER - SPEED**

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).

Maximum radial load: 6770 N

Maximum axial load: 7730 N

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



BRAKED VANE AIR MOTORS

The GLOBE vane air motors are also available in combination with a pneumatic brake.

The GLOBE BN brakes are fail-safe brakes (spring engaged, air released). They can be used as a static brake and under certain conditions in dynamic applications.

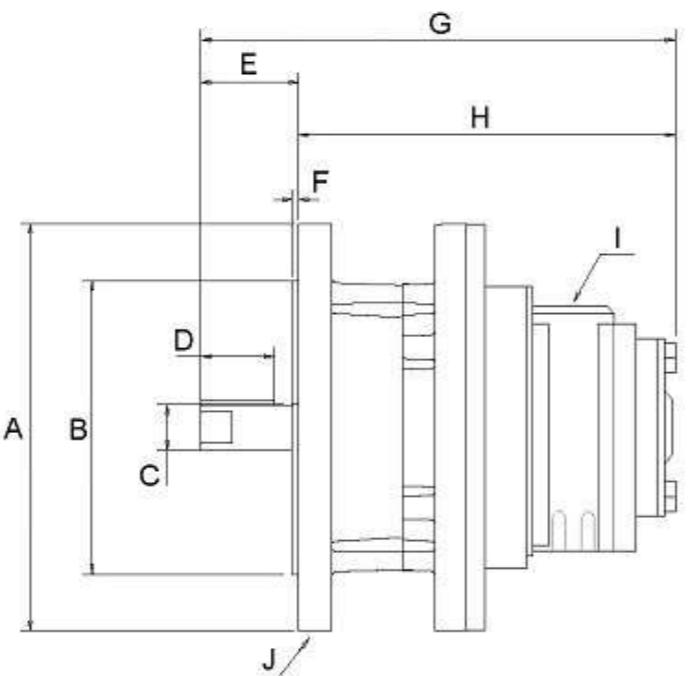
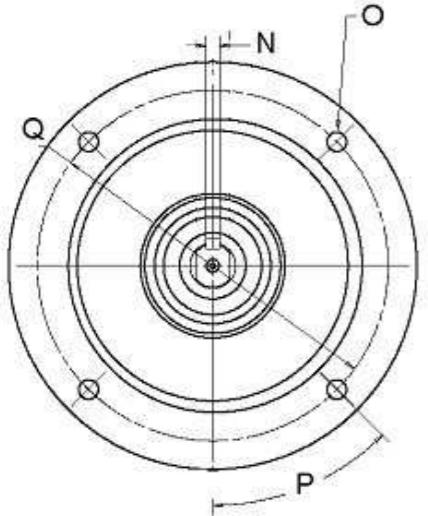
The pneumatic brake is mounted directly onto the vane air motor.

The braked vane air motors are certified according to the European Explosive Directive ATEX II cat. 2 G&D T3 (in static applications only).

THE ADVANTAGES OF THE BRAKED VANE AIR MOTORS INCLUDE:

- Braked vane air motors can be used in dynamic applications;
- Field serviceable;
- Easy flange connection according to IEC and NEMA standards;
- Low maintenance because very few parts are exposed to wear;
- Compact design;
- Easy interchangeable because of independent brake module;
- Cast-iron housing and excellent thermal capacity for use in harsh environments;
- Long life-time;
- Certified according to the European Explosive Directive ATEX II cat. 2 G&D T3.

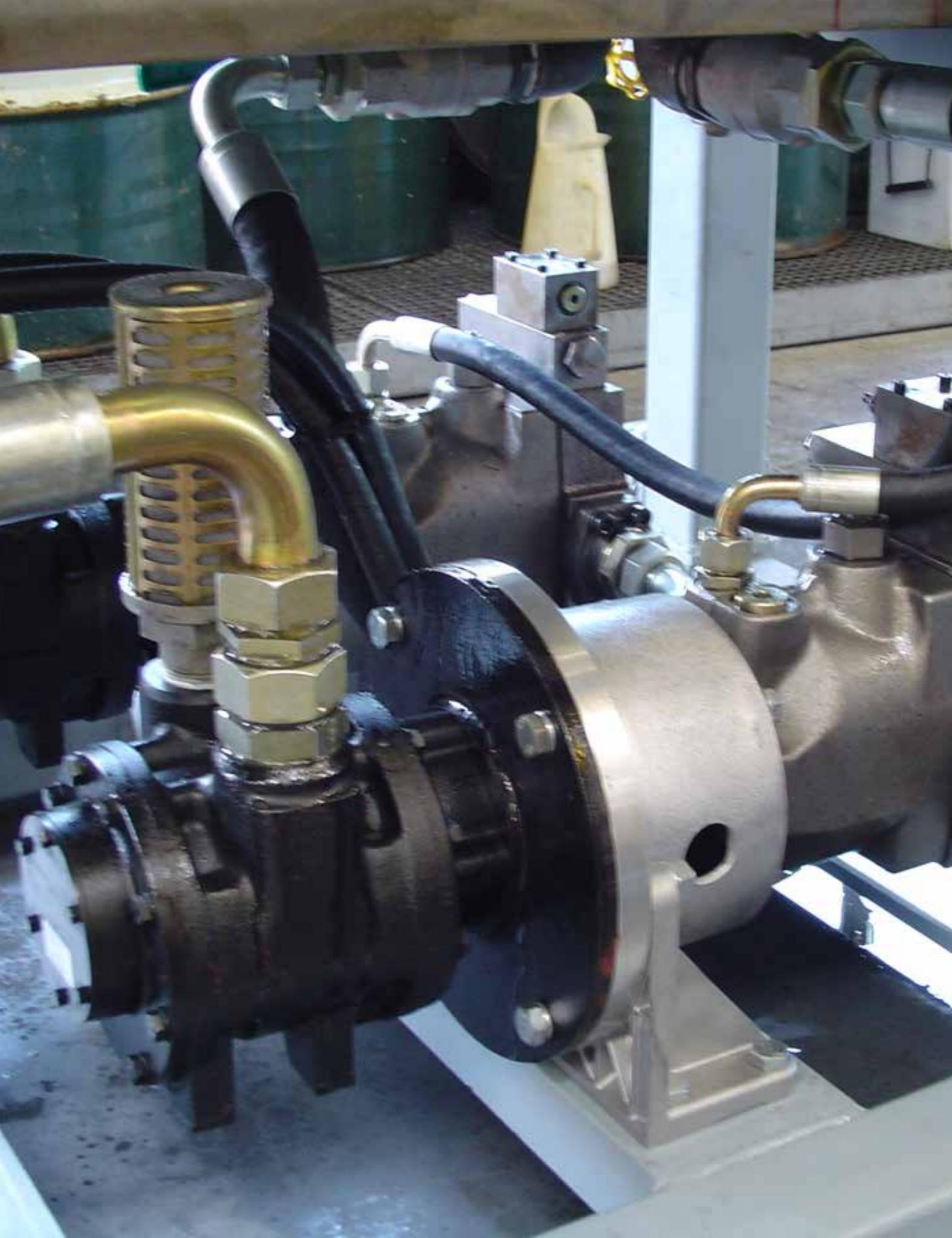
GLOBE VANE MOTOR BN BRAKE



Braked air motor type	A Ø	B Ø	C Ø	D	E	F	G	H	I	J	N	O Ø	P	Q Ø
VS4BN71	160	110H7	14H7	25	30	3,5	240	210	½ BSP	1/8BSP	5	10	45	130
VS6BN90	200	130H7	24H7	35	50	5	347	297	¾ BSP	1/8BSP	8	10	45	165
VS8BN90	200	130H7	24H7	35	50	5	350	300	1 BSP	1/8BSP	8	10	45	165
VS10BN100	250	180H7	28H7	55	60	5	388	328	1 ¼ BSP	1/4BSP	8	12	45	215

		Holding Torque	Release pressure
VS4BN71	IEC 71 (B5)	14 Nm	3,4 bar
VS6BN90/VS8BN90	IEC 90 (B5)	29 Nm	3,4 bar
VS10BN100	IEC 100 (B5)	50 Nm	3,4 bar





DIRECT CONTROLLED VANE AIR MOTORS

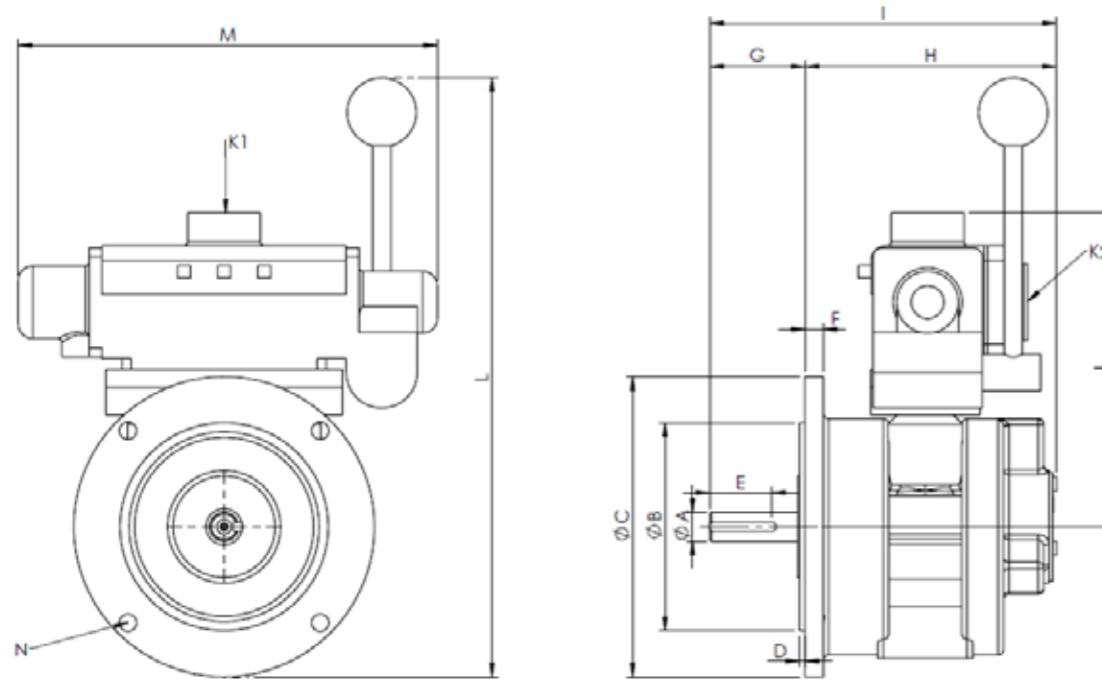
The GLOBE vane air motors can also be used in combination with a control valve which is directly mounted on top of the motor.

The control valves are available in two different types, the remote controlled and hand controlled valves. The control valves are proportional and allow the user to control the speed and direction of the air motor.

ADVANTAGES OF THE DIRECT CONTROLLED VANE AIR MOTORS ARE:

- Compact build because the control valve is mounted directly on the motor.
- Both remote and hand control possible.
- Proportional valves, allowing the user to have better control over the speed.
- The control valves are also certified according to the European Explosive Directive ATEX II cat. 2 G&D T3.

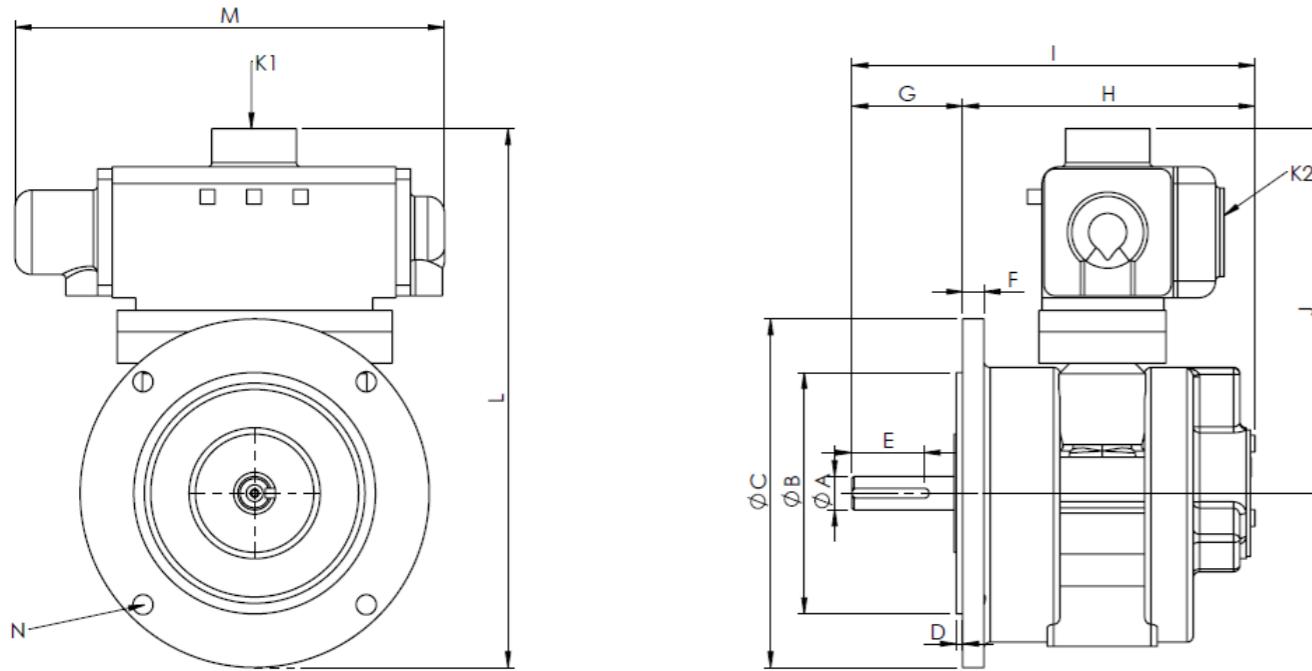
VAC NEMA WITH HCV AIR MOTOR UNIT



Motor with Hand controlled valve	A Ø	B Ø	C Ø	D	E	F	G	H
VA2C NEMA+ HCV10	15.875 <u>(0.6250")</u>	114.27 <u>(4.499")</u>	165 (6.5")	3 (0.12")	No key	10 (0.393")	52 (2.05")	117.25 (4.61")
	15.862 (0.6245")	114.20 (4.496")						
VA4C NEMA+ HCV210	15.875 <u>(0.6250")</u>	114.27 <u>(4.499")</u>	165 (6.5")	3 (0.12")	Key 3.18 (0.125") SQ 19 (0.75") Long	10 (0.393")	52 (2.05")	115 (4.53")
	15.862 (0.6245")	114.20 (4.496")						
VA6C NEMA+ HCV210	15.875 <u>(0.6250")</u>	114.27 <u>(4.499")</u>	165 (6.5")	3 (0.12")	Key 4.76 (0.188") SQ 36.5 (1.438") Long	10 (0.393")	52 (2.05")	138 (5.43")
	15.862 (0.6245")	114.20 (4.496")						
VA8C NEMA+ HCV310	22.23 <u>(0.875")</u>	114.30 <u>(4.500")</u>	165 (6.5")	3 (0.12")	Key 4.76 (0.188") SQ 36.5 (1.438") Long	10 (0.393")	54 (2.215")	161 (6.33")
	22.21 (0.874")	114.23 (4.498")						
VA10C NEMA+ HCV410	22.225 <u>(0.875")</u>	114.27 <u>(4.499")</u>	165 (6.5")	4 (0.16")	Key 4.76 (0.188") SQ 36.5 (1.438") Long	16 (0.63")	54 (2.215")	226 (8.89")
	22.212 (0.8745")	114.20 (4.496")						

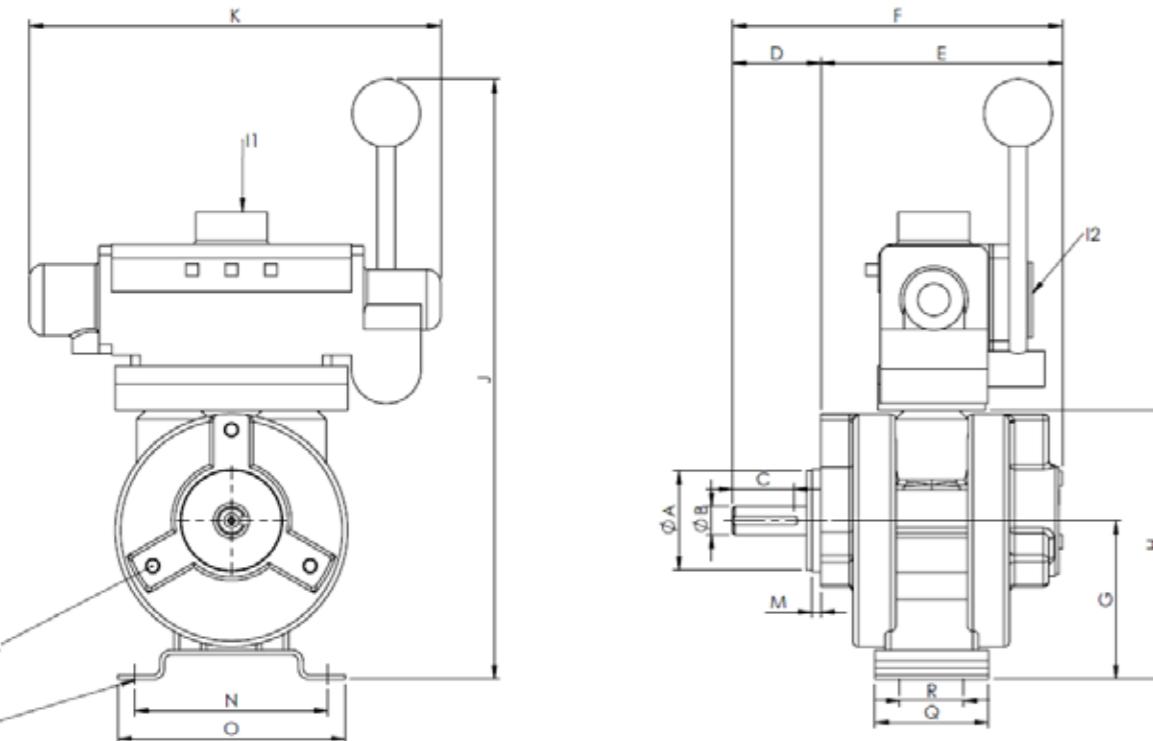
Motor with Hand controlled valve	I	J	K1	K2	L	M	N
VA2C NEMA+ HCV10	169.25 (6.62")	152.5 (6.00")	Inlet ½"BSP	Outlet ½" BSP	356 (14.01")	231 (9.09")	4 holes – 3.8"-16-UNC equispaced on 149.23 (5.875") P.C.D.
VA4C NEMA+ HCV210	167 (6.57")	150.5 (5.92")	Inlet ¾"BSP	Outlet ¾"BSP	307.3 (12.10")	230 (9.05")	4 holes – 3.8"-16-UNC equispaced on 149.23 (5.875") P.C.D.
VA6C NEMA+ HCV210	190 (7.48")	172.5 (6.79")	Inlet ¾"BSP	Outlet ¾"BSP	329.3 (12.96")	230 (9.05")	4 holes – 3.8"-16-UNC equispaced on 149.23 (5.875") P.C.D.
VA8C NEMA+ HCV310	215 (8.47")	192 (7.56")	Inlet 1"BSP	Outlet 1"BSP	353.84 (13.93")	311 (12.24")	4 holes – 3.8"-16-UNC equispaced on 149.23 (5.875") P.C.D.
VA10C NEMA+ HCV410	280 (11.03")	218.7 (8.61")	Inlet 1 ¼" BSP	Outlet 1 ¼" BSP	379.93 (14.96")	313 (12.32")	4 holes – 3.8"-16-UNC equispaced on 149.23 (5.875") P.C.D.

VAC NEMA WITH RCV AIR MOTOR UNIT



Motor with Remote controlled valve	A	B	C	D	E	F	G	H
VA2C NEMA+RCV110	15.875 <u>(0.6250")</u>	114.27 <u>(4.499")</u>	165	3	No key	10 (0.393")	52 (2.05")	109.25 (4.30")
	15.862 (0.6245")	114.20 (4.496")	(6.5")	(0.12")				
VA4C NEMA+RCV210	15.875 <u>(0.6250")</u>	114.27 <u>(4.499")</u>	165	3 (0.12")	Key 3.18 (0.125") SQ 19 (0.75") Long	10 (0.393")	52 (2.05")	109.25 (4.30")
	15.862 (0.6245")	114.20 (4.496")	(6.5")					
VA6C NEMA+RCV210	15.875 <u>(0.6250")</u>	114.27 <u>(4.499")</u>	165	3 (0.12")	Key 4.76 (0.188") SQ 36.5 (1.438") Long	10 (0.393")	52 (2.05")	138 (5.43")
	15.862 (0.6245")	114.20 (4.496")	(6.5")					
VA8C NEMA+RCV310	22.23 <u>(0.875")</u>	114.30 <u>(4.500")</u>	165	3 (0.12")	Key 4.76 (0.188") SQ 36.5 (1.438") Long	10 (0.393")	54 (2.215")	161 (6.33")
	22.21 (0.874")	114.23 (4.498")	(6.5")					
VA10C NEMA+RCV410	22.225 <u>(0.875")</u>	114.27 <u>(4.499")</u>	165	4 (0.16")	Key 4.76 (0.188") SQ 36.5 (1.438") Long	16 (0.63")	54 (2.215")	226 (8.89")
	22.212 (0.8745")	114.20 (4.496")	(6.5")					

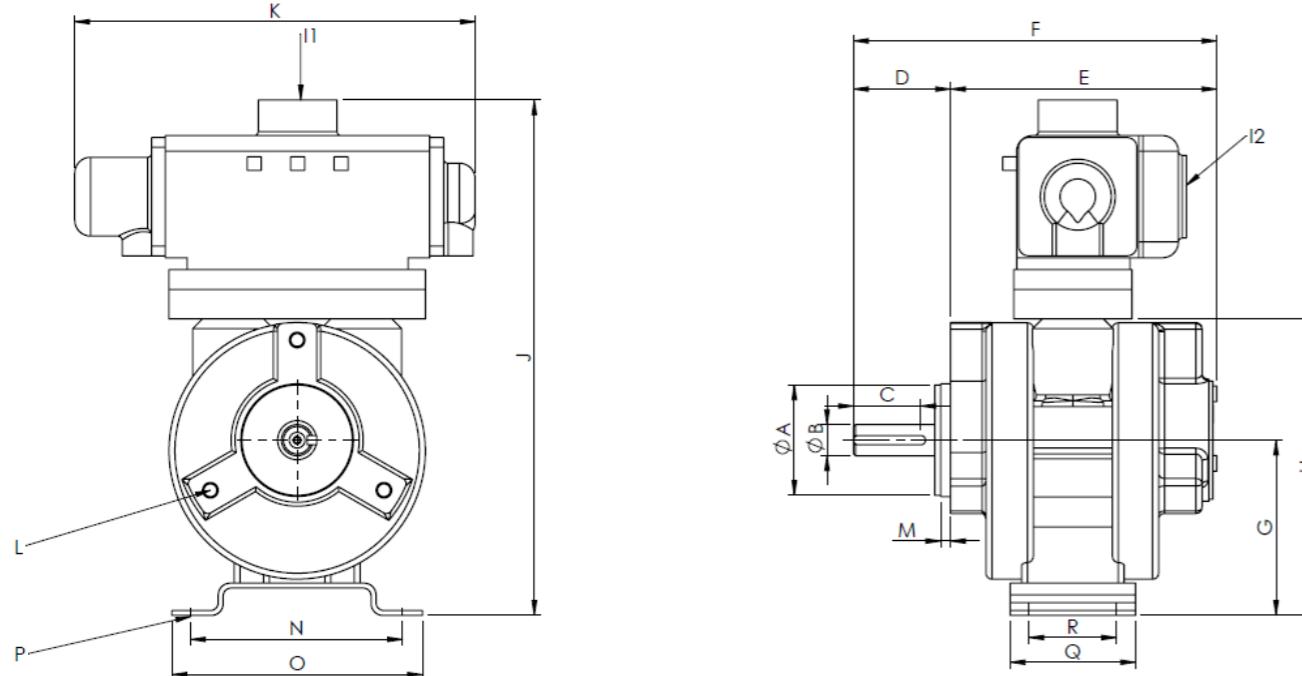
Motor with Remote controlled valve	I	J	K1	K2	L	M	N
VA2C NEMA+RCV110	161.25 (6.35")	152.5 (6.00")	Inlet ½" BSP	Outlet ½" BSP	235 (9.25")	203 (7.99")	4 holes - 3.8"-16-UNC equispaced on 149.23 (5.875") P.C.D.
VA4C NEMA+RCV210	161.25 (6.35")	150.5 (5.92")	Inlet ¾" BSP	Outlet ¾" BSP	233 (9.17")	203 (7.99")	4 holes - 3.8"-16-UNC equispaced on 149.23 (5.875") P.C.D.
VA6C NEMA+RCV210	190 (7.48")	172.5 (6.79")	Inlet ¾" BSP	Outlet ¾" BSP	255 (10.04")	203 (7.99")	4 holes - 3.8"-16-UNC equispaced on 149.23 (5.875") P.C.D.
VA8C NEMA+RCV310	215 (8.47")	193 (7.60")	Inlet 1" BSP	Outlet 1" BSP	275.5 (10.84")	275 (10.83")	4 holes - 3.8"-16-UNC equispaced on 149.23 (5.875") P.C.D.
VA10C NEMA+RCV410	280 (11.03")	218.7 (8.61")	Inlet 1 ¼" BSP	Outlet 1 ¼" BSP	307.5 (12.10")	278 (10.94")	4 holes - 3.8"-16-UNC equispaced on 149.23 (5.875") P.C.D.



Motor with Hand controlled valve	A Ø	B Ø	C	D	E	F	G
VA2J&X+HCV110	44.42 <u>(1.749")</u>	12.7 <u>(0.5000")</u>	No key	44.5 (1.75")	117,75 (4.635")	148,25 (5.836")	88,85 (3.5")
	44.38 (1.747")	12.687 (0.4995")					
VA4J&X+HCV210	44.42 <u>(1.749")</u>	12.7 <u>(0.5000")</u>	Key 3.18 (0.125") SQ 19 (0.75") Long	44.5 (1.75")	101 (3.976")	145,5 (5.728")	89 (3.504")
	44.38 (1.747")	12.687 (0.4995")					
VA6J&X+HCV210	57.15 <u>(2.250")</u>	15.875 <u>(0.625")</u>	Key 4.76 (0.188") SQ 36.5 (1.438") Long	49.2 (1.94")	135 (5.31")	184,2 (7.252")	88,9 (3.5")
	57.10 (2.248")	15.862 (0.624")					
VA8J&X+HCV310	76.2 <u>(3.00")</u>	19.06 <u>(0.750")</u>	Key 28 (1.10")	53 (2.09")	149 (5.866")	202 (7.97")	89 (3.504")
	76.1 (2.996")	19.04 (0.749")					
VA10J&X+HCV410	98.42 <u>(3.875")</u>	28.575 <u>(1.1250")</u>	Key 6.35 (0.250") SQ 44.5 (1.75") Long	103 (4.06")	199 (7.834")	302 (11.88")	101.6 <u>(4.000")</u>
	98.37 (3.873")	28.560 (1.1244")					101.3 (3.988")

Motor with Hand controlled valve	H	I1	I2	J	K	L
VA2J&X+HCV110	140,35 (5.53")	Inlet ½"BSP	Outlet ½"BSP	362,35 (14.265")	231 (9.09")	3 holes ¼"-20 UNC x 12 (0.47") Deep spaced on 63.5 (2.5") P.C.D.
VA4J&X+HCV210	138,5 (5.452")	Inlet ¾"BSP	Outlet ¾"BSP	314 (12.362")	230 (9.05")	3 holes ¼"-20 UNC x 12 (0.47") Deep spaced on 63.5 (2.5") P.C.D.
VA6J&X+HCV210	150,5 (5.94")	Inlet ¾"BSP	Outlet ¾"BSP	335 (13.188")	230 (9.05")	3 holes 5/16"-18 UNC X 20 (25/32") deep equispaced on 101.6 (4.000") P.C.D.
VA8J&X+HCV310	160 (6.31")	Inlet 1" BSP	Outlet 1"BSP	360 (14.173")	311 (12.24")	4 holes tapped 3/8"-16 UNC x 16 (0.63") deep equispaced on 98.43 (3.875") P.C.D.
VA10J&X+HCV410	187 (7.38")	Inlet 1 ¼" BSP	Outlet 1 ¼"BSP	393 (15.472")	313 (12.32")	4 holes 7/16"-14 UNC x 16 (0.63") deep equispaced on 123.8 (4.874") P.C.D.

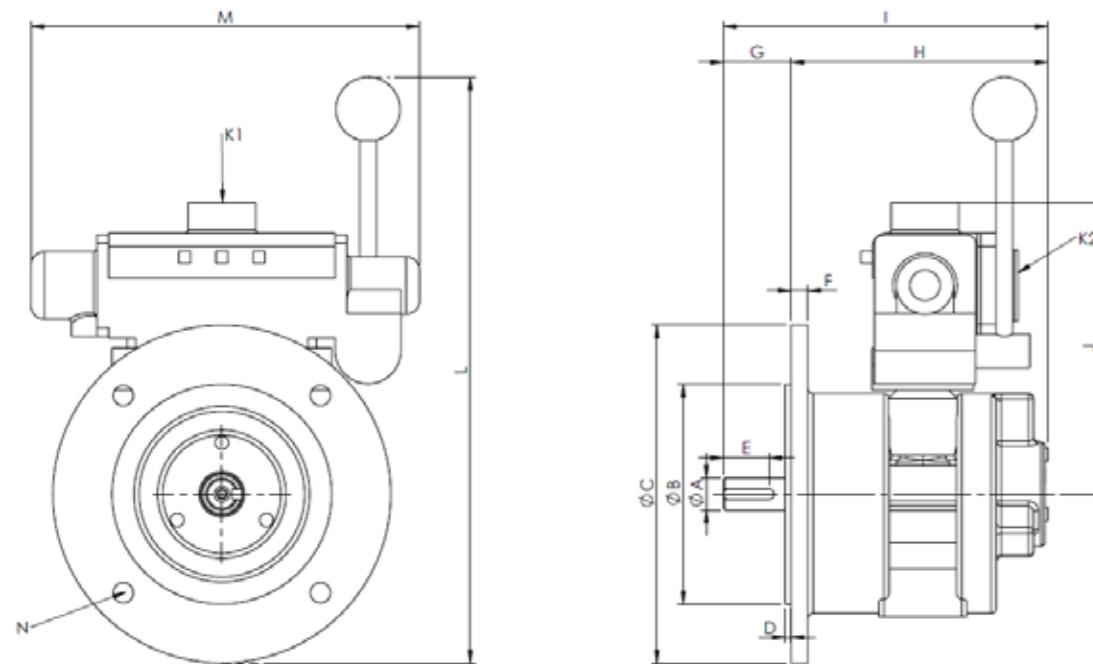
Motor with Hand controlled valve	M	N	O	P	Q	R
VA2J&X+HCV110	16 (0.63")	76 (3.0")	90 (3.54")	4 mounting holes Ø7 (0.28")	38 (1.5")	24 (0.94")
VA4J&X+HCV210	16 (0.63")	76 (3.0")	90 (3.54")	4 mounting holes Ø7 (0.28")	38 (1.5")	24 (0.94")
VA6J&X+HCV210	5 (0.2")	108 (4.250")	127 (5.00")	4 mounting holes Ø9 (11/32")	63.5 (2.50")	44.4 (1.75")
VA8J&X+HCV310	x	114.3 (4.50")	134 (5.26")	4 mounting holes Ø9 (11/32")	72 (2.84")	51 (2.00")
VA10J&X+HCV410	x	171.45 (6.750")	200 (7.88")	4 mounting holes Ø10.3 (4.06")	102 (4.00")	69.85 (2.750")



Motor with Remote controlled valve	A Ø	B Ø	C	D	E	F	G
VA2J&X+RCV110	44.42 (1.749")	12.7 (0.5000")	No key	44.5 (1.75")	95.75 (3.769")	140.25 (5.521")	88.85 (3.5")
	44.38 (1.747")	12.687 (0.4995")					
VA4J&X+RCV210	44.42 (1.749")	12.7 (0.5000")	Key 3.18 (0.125") SQ 19 (0.75") Long	44.5 (1.75")	95.25 (3.75")	139.75 (5.502")	89 (3.504")
	44.38 (1.747")	12.687 (0.4995")					
VA6J&X+RCV210	57.15 (2.250")	15.875 (0.625")	Key 4.76 (0.188") SQ 36.5 (1.438") Long	49.2 (1.94")	135 (5.31")	184.2 (7.251")	88.9 (3.5")
	57.10 (2.248")	15.862 (0.624")					
VA8J&X+RCV310	76.2 (3.00")	19.06 (0.750")	Key 28 (1.10")	53 (20.9")	149 (5.866")	202 (7.952")	89 (3.504")
	76.1 (2.996")	19.04 (0.749")					
VA10J&X+RCV410	98.42 (3.875")	28.575 (1.125")	Key 6.35 (0.250") SQ 44.5 (1.75") Long	103 (4.06")	199 (7.834")	302 (11.89")	101.6 (4.000")
	98.37 (3.873")	28.560 (1.124")					101.3 (3.988")

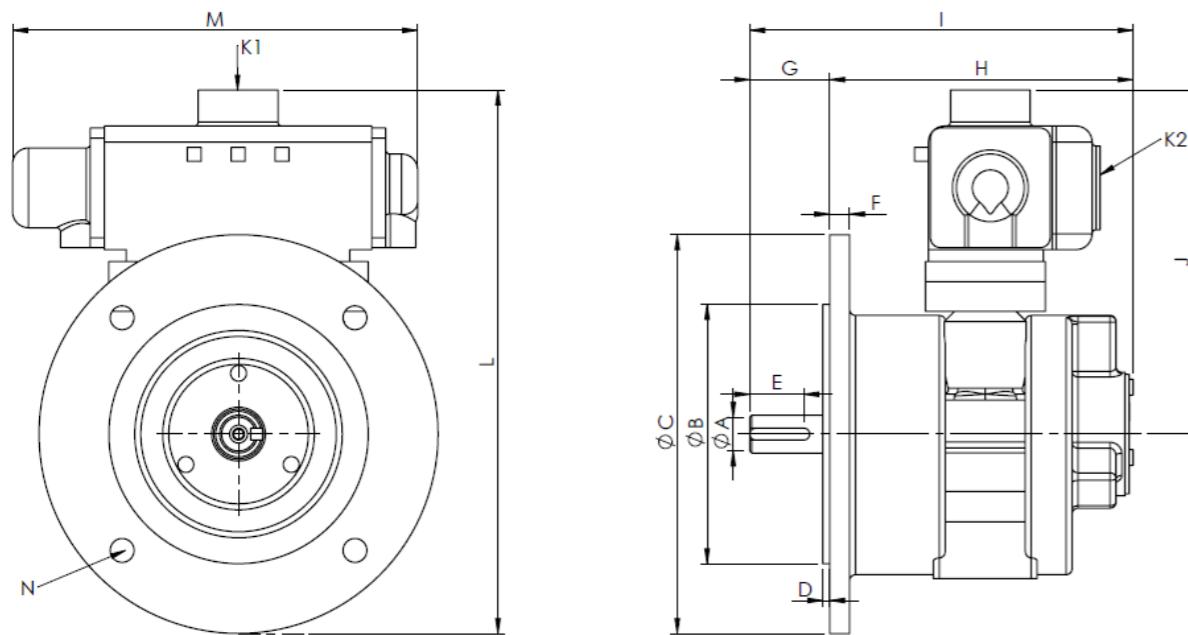
Motor with Remote controlled valve	H	I1	I2	J	K	L
VA2J&X+RCV110	140.35 (5.525")	Inlet ½"BSP	Outlet ½"BSP	241.35 (9.502")	203 (7.992")	3 holes ¼"-20 UNC x 12 (0.47") Deep spaced on 63.5 (2.5") P.C.D.
VA4J&X+RCV210	138.5 (5.452")	Inlet ¾"BSP	Outlet ¾"BSP	239.4 (9.425")	203 (7.992")	3 holes ¼"-20 UNC x 12 (0.47") Deep spaced on 63.5 (2.5") P.C.D.
VA6J&X+RCV210	150.5 (5.94")	Inlet ¾"BSP	Outlet ¾"BSP	261.4 (10.291")	203 (7.992")	3 holes 5/16"-18 UNC X 20 (25/32") deep equispaced on 101.6 (4.000") P.C.D.
VA8J&X+RCV310	160 (6.31")	Inlet 1" BSP	Outlet 1" BSP	282 (11.102")	275 (10.826")	4 holes tapped 3/8"-16 UNC x 16 (0.63") deep equispaced on 98.43 (3.875") P.C.D.
VA10J&X+RCV410	187 (7.38")	Inlet 1 ¼" BSP	Outlet 1 ¼" BSP	320.3 (12.610")	278 (10.944")	4 holes 7/16"-14 UNC x 16 (0.63") deep equispaced on 123.8 (4.874") P.C.D.

Motor with Remote controlled valve	M	N	O	P	Q	R
VA2J&X+RCV110	16 (0.63")	76 (3.0")	90 (3.54")	4 mounting holes Ø7 (0.28")	38 (1.5")	24 (0.94")
VA4J&X+RCV210	16 (0.63")	76 (3.0")	90 (3.54")	4 mounting holes Ø7 (0.28")	38 (1.5")	24 (0.94")
VA6J&X+RCV210	5 (0.2")	108 (4.250")	127 (5.000")	4 mounting holes Ø9 (11/23")	63.5 (2.50")	44.4 (1.75")
VA8J&X+RCV310	x	114.3 (4.50")	134 (5.26")	4 mounting holes Ø9 (11/23")	72 (2.84")	51 (2.00")
VA10J&X+RCV410	x	171.45 (6.750")	200 (7.88")	4 mounting holes Ø10.3 (4.06")	102 (4.00")	69.85 (2.750")



Motor with Hand controlled valve	A Ø	B Ø	C Ø	D	E	F
VS2C+HCV110	14.012 <u>(0.5516")</u>	110.000 <u>(4.3307")</u>	160 (6.30")	3.5 (0.14")	Key 5 (0.197") Square X 20 (0.78") Long rounded ends Tapped hole in shaft. M5X15 (0.59") Deep.	9 (0.35")
	14.001 <u>(0.5512")</u>	109.946 <u>(4.3286")</u>				
VS4C+HCV210	14.012 <u>(0.5516")</u>	110.000 <u>(4.3307")</u>	160 (6.30")	3.5 (0.14")	Key 5 (0.197") Square X 20 (0.78") Long rounded ends Tapped hole in shaft. M5X15 (0.59") Deep.	9 (0.35")
	14.001 <u>(0.5512")</u>	109.946 <u>(4.3286")</u>				
VS6C+HCV210	19.009 <u>(0.7484")</u>	130.000 <u>(5.1181")</u>	200 (7.87")	3.5 (0.14")	Key 6 (0.236") Square X 30 (1.18") Long rounded at one end. Tapped hole in shaft M6X15 (0.59") Deep.	10 (0.39")
	18.996 <u>(0.7479")</u>	129.937 <u>(5.1156")</u>				
VS8C+HCV310	24.009 <u>(0.9452")</u>	130.000 <u>(5.1181")</u>	200 (7.87")	3.5 (0.14")	Key 8 (0.315") Square X 7 (0.276") Deep X 36 (1.42") Long rounded ends. Tapped hole in shaft M8X20 (0.79") Deep.	10 (0.39")
	23.996 <u>(0.9447")</u>	129.937 <u>(5.1156")</u>				
VS10C+HCV410	28.009 <u>(1.1027")</u>	180.000 <u>(7.0866")</u>	250 (9.84")	4 (0.16")	Key 8 (0.315") Square X 7 (0.276") Deep X 45 (1.77") Long rounded ends. Tapped hole in shaft M10X25 (1") Deep.	11 (0.43")
	27.996 <u>(1.1022")</u>	179.937 <u>(7.0841")</u>				

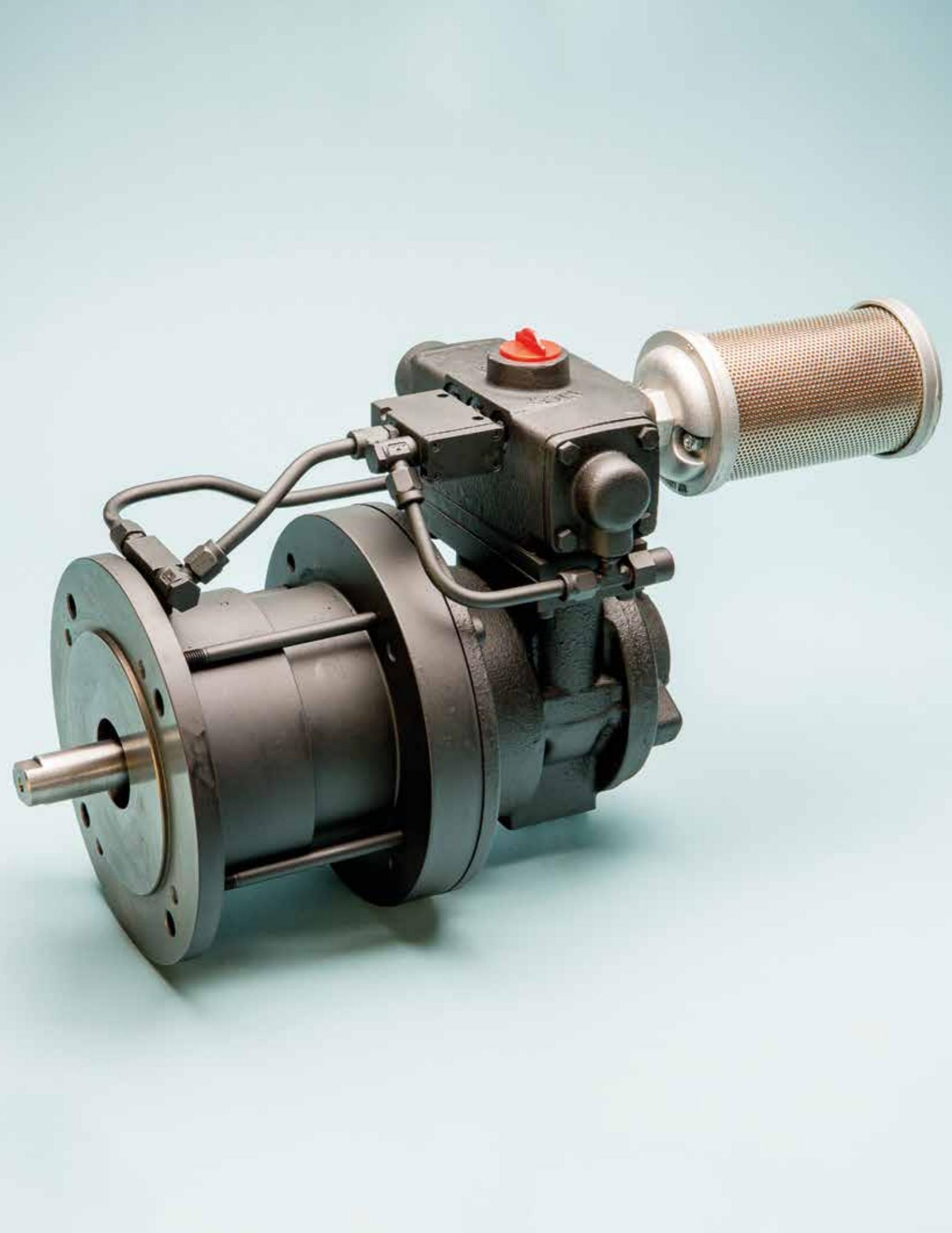
Motor with Hand controlled valve	G	H	I	J	K1	K2	L	M	N
VS2C+HCV110	30 (1.18")	117.25 (4.61")	147.25 (5.80")	152.5 (6.00")	Inlet ½"BSP	Outlet ½"BSP	353.5 (13.92")	231 (9.09")	4 holes Ø9 (0.35") equispaced on 130 (5.118") P.C.D.
VS4C+HCV210	30 (1.18")	114.5 (4.51")	144.5 (5.69")	150.5 (5.92")	Inlet ¾"BSP	Outlet ¾"BSP	304.8 (12.00")	230 (9.05")	4 holes Ø9 (0.35") equispaced on 130 (5.118") P.C.D.
VS6C+HCV210	40 (1.57")	152 (5.98")	192 (7.56")	172.5 (6.79")	Inlet ¾"BSP	Outlet ¾"BSP	346.8 (13.65")	230 (9.05")	4 holes Ø12 (0.47") Equi-spaced on 165 (6.496") P.C.D.
VS8C+HCV310	50 (1.97")	155 (6.10")	205 (8.07")	192 (7.56")	Inlet 1"BSP	Outlet 1"BSP	371.3 (14.62")	311 (12.24")	4 holes Ø12 (0.47") Equi-spaced on 165 (6.496") P.C.D.
VS10C+HCV410	60 (2.36")	225 (8.86")	305 (12.01")	218.7 (8.61")	Inlet 1 ¼"BSP	Outlet 1 ¼"BSP	416.1 (16.38")	313 (12.32")	4 holes Ø15 (0.59") Equi-spaced on 215 (8.465") P.C.D



Motor with Remote controlled valve	A \varnothing	B \varnothing	C \varnothing	D	E	F	G	H
VS2C+RCV110	14.012 (0.5516")	110.000 (4.3307")	160 (6.30")	3.5 (0.14")	Key 5 (0.197") Square X 20 (0.78") Long rounded ends Tapped hole in shaft. M5X15 (0.59") Deep.	9 (0.35")	30 (1.18")	109.25 (4.30")
	14.001 (0.5512")	109.946 (4.3286")						
VS4C+RCV210	14.012 (0.5516")	110.000 (4.3307")	160 (6.30")	3.5 (0.14")	Key 5 (0.197") Square X 20 (0.78") Long rounded ends Tapped hole in shaft. M5X15 (0.59") Deep.	9 (0.35")	30 (1.18")	108.75 (4.28")
	14.001 (0.5512")	109.946 (4.3286")						
VS6C+RCV210	19.009 (0.7484")	130.000 (5.1181")	200 (7.87")	3.5 (0.14")	Key 6 (0.236") Square X 30 (1.18") Long rounded at one end. Tapped hole in shaft M6X15 (0.59") Deep.	10 (0.39")	40 (1.57")	152 (5.98")
	18.996 (0.7479")	129.937 (5.1156")						
VS8C+RCV310	24.009 (0.9452")	130.000 (5.1181")	200 (7.87")	3.5 (0.14")	Key 8 (0.315") Square X 7 (0.276") Deep X 36 (1.42") Long rounded ends. Tapped hole in shaft M8X20 (0.79") Deep.	10 (0.39")	50 (1.97")	155 (6.10")
VS10C+RCV410	28.009 (1.1027")	180.000 (7.0866")	250 (9.84")	4 (0.16")	Key 8 (0.315") Square X 7 (0.276") Deep X 45 (1.77") Long rounded ends. Tapped hole in shaft M10X25 (1") Deep.	11 (0.43")	60 (2.36")	225 (8.86")
	27.996 (1.1022")	179.937 (7.0841")						

Motor with Remote controlled valve	I	J	K1	K2	L	M	N
VS2C+RCV110	139.25 (5.48")	152.5 (6.00")	Inlet ½"BSP	Outlet ½"BSP	232.5 (9.15")	203 (7.99")	4 holes Ø9 (0.35") equispaced on 130 (5.118") P.C.D.
VS4C+RCV210	138.75 (5.46")	150.5 (5.92")	Inlet ¾"BSP	Outlet ¾"BSP	230.5 (9.07")	203 (7.99")	4 holes Ø9 (0.35") equispaced on 130 (5.118") P.C.D.
VS6C+RCV210	192 (7.56")	172.5 (6.79")	Inlet ¾"BSP	Outlet ¾"BSP	275.5 (10.84")	203 (7.99")	4 holes Ø12 (0.47") Equispaced on 165 (6.496") P.C.D.
VS8C+RCV310	205 (8.07")	193 (7.59")	Inlet 1"BSP	Outlet 1"BSP	293 (11.53")	275 (10.82")	4 holes Ø12 (0.47") Equispaced on 165 (6.496") P.C.D.
VS10C+RCV410	305 (12.01")	218.7 (8.61")	Inlet 1 ¼"BSP	Outlet 1 ¼"BSP	343.7 (13.53")	278 (10.95")	4 holes Ø15 (0.59") Equispaced on 215 (8.465") P.C.D

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.

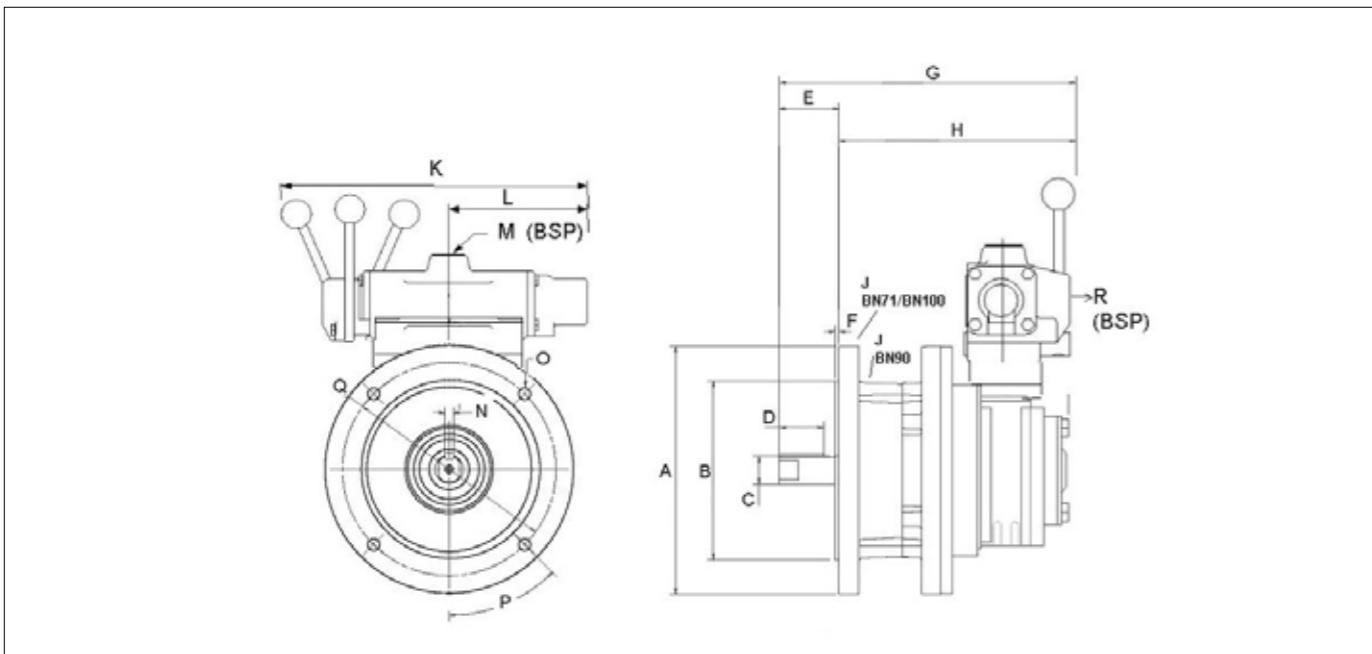
The vane motor is of robust design and very good for harsh conditions. The BN brake is a spring loaded, air release failsafe brake. The holding torque is 1,5 to 2 times the maximum torque of the motor.

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.

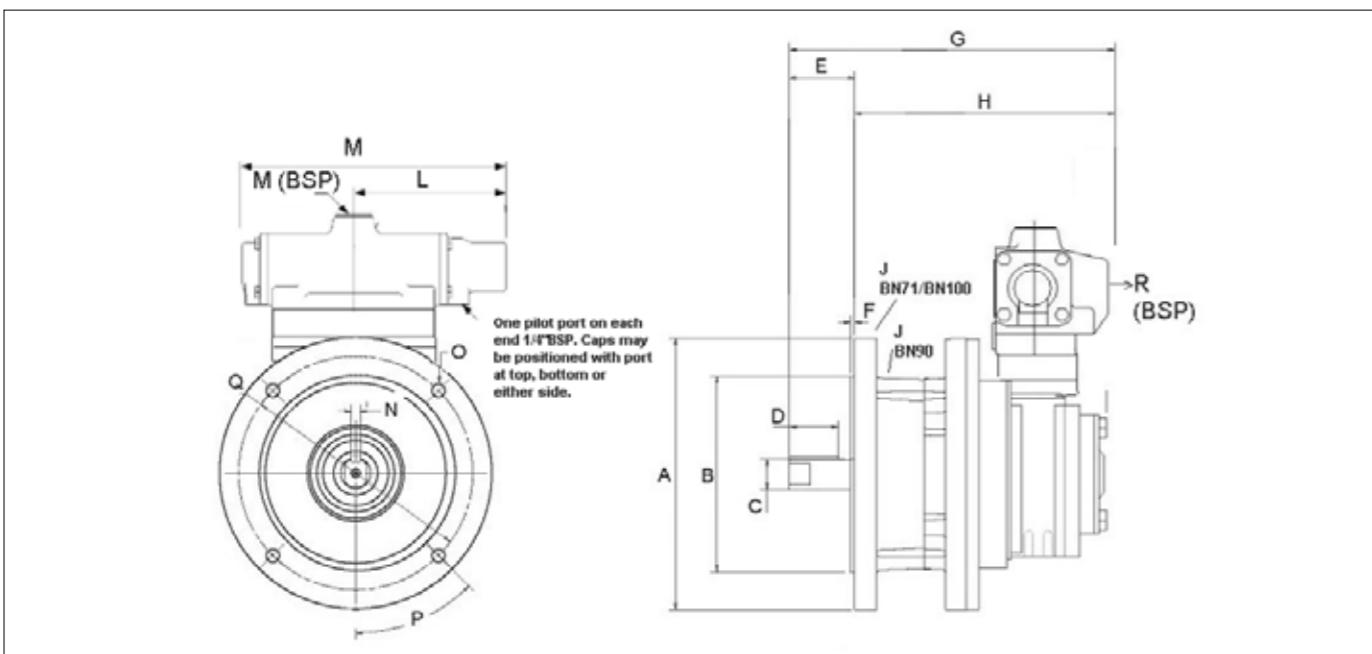
As standard the proportional valves can be supplied with either Equal Power or Biased Power spools, the latter is suitable for hoisting applications. The motor will have maximum power in lifting and reduced power in lowering. Because of the biased valve the load will not pull the motor in over speed 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 T4.

The specifications of the three main components, vane motor, brake, proportional valve, are:



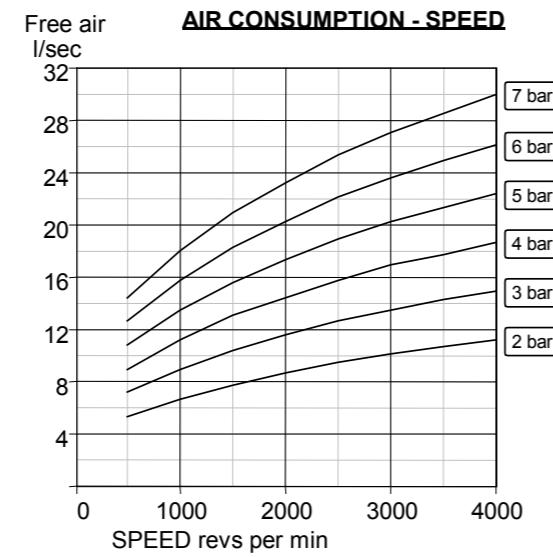
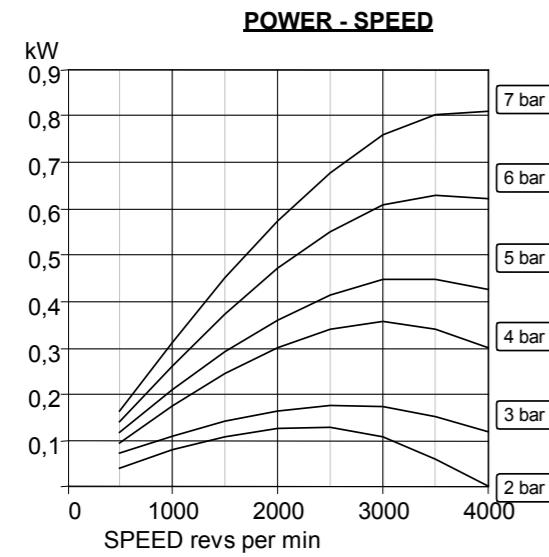
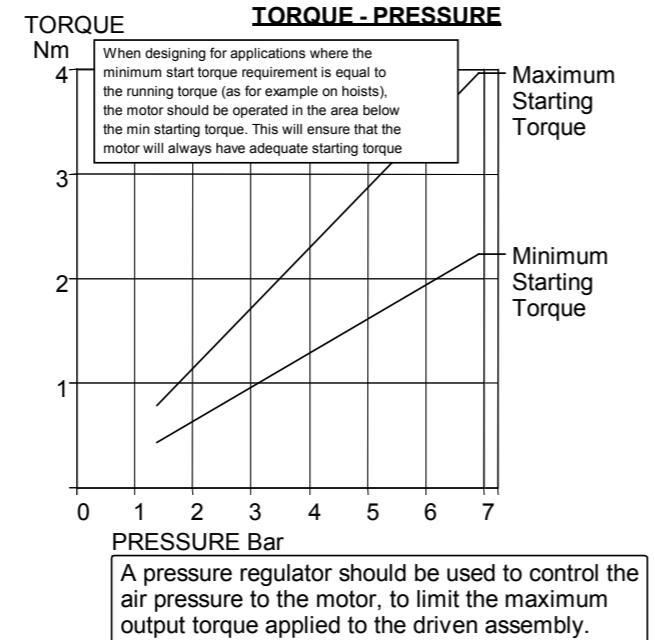
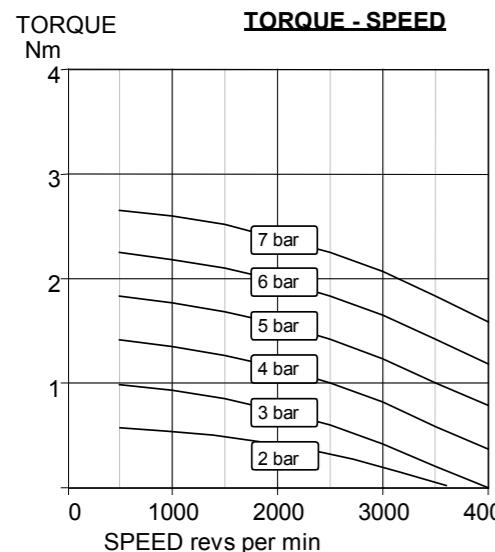
Motor with Brake with Hand Control, including valve and piping to control brake (not displayed).



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	L	M	N	O	P	Q	R
VS4BN71H2	160	110	14	20	30	3.5	240	210	1/8	270	118	3/4	5	10	45°	110h7	3/4
VS4BN71R2																	
VS6BN90H2	200	130	24	30	50	3.5	347	297	1/8	270	118	3/4	8	12	45°	130h7	3/4
VS6BN90R2																	
VS8BN90H3	200	130	24	30	50	3.5	350	300	1/8	365	160	1	8	12	45°	130h7	1
VS8BN90R3																	
VS10BN100H4	250	180	28	50	60	4	459	399	1/8	365	160	1 1/4	10	14	45°	180h7	1 1/4
VS10BN100R4																	





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 400N (90 lbf.)

Axial loads should be kept to a minimum.

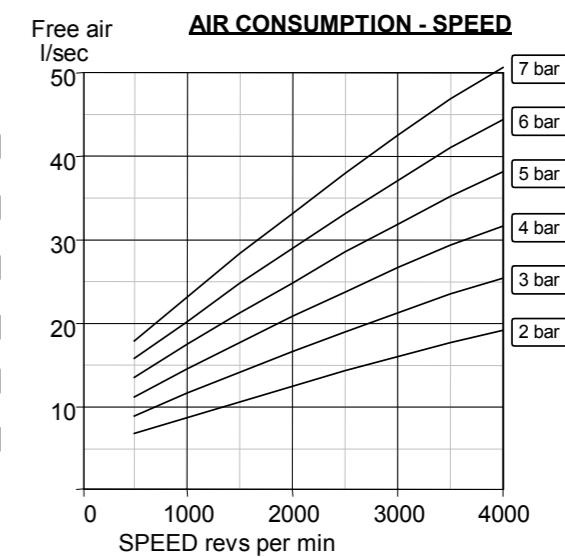
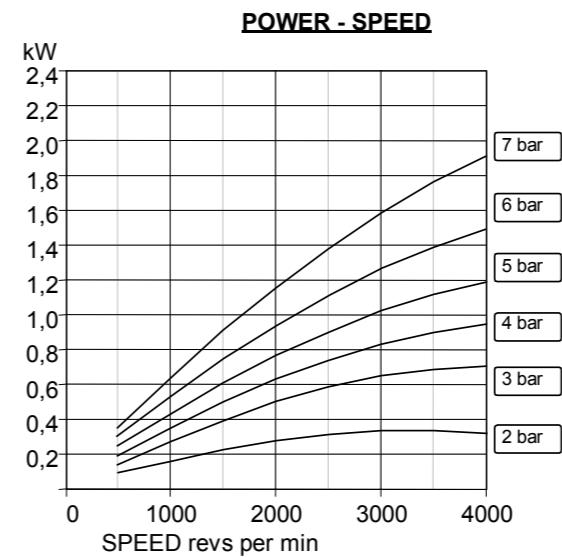
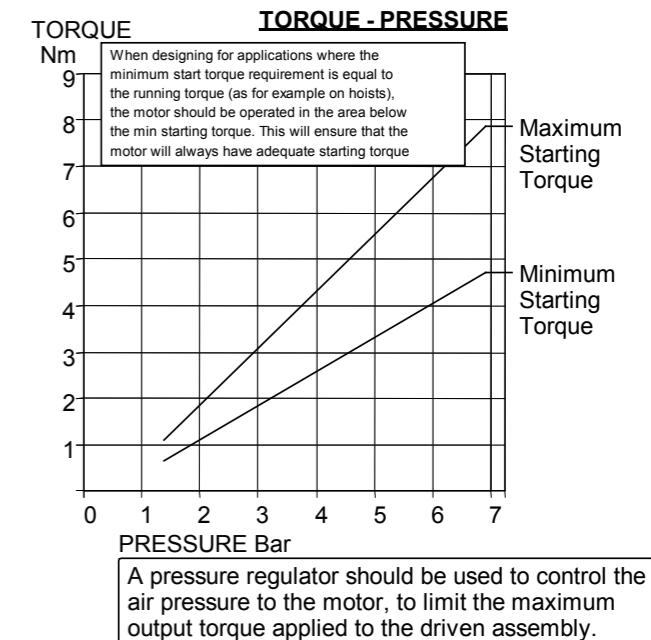
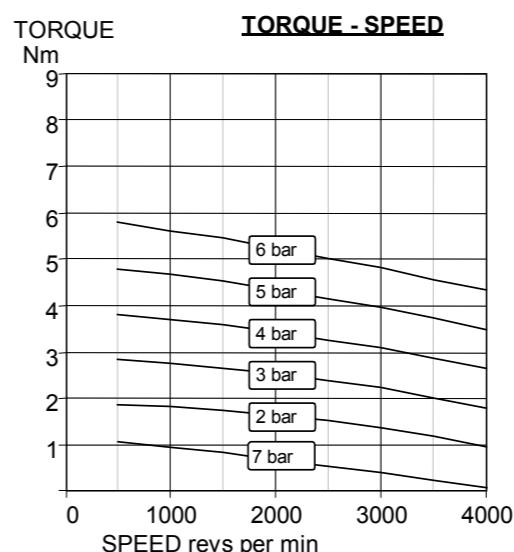
AIRLINE FILTRATION AND LUBRICATION

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



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.

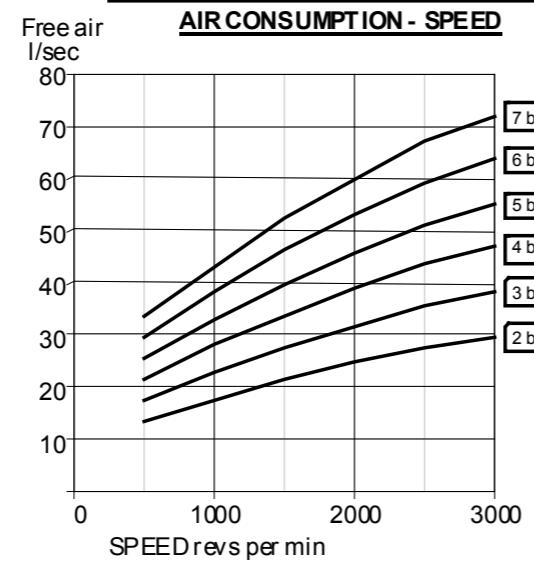
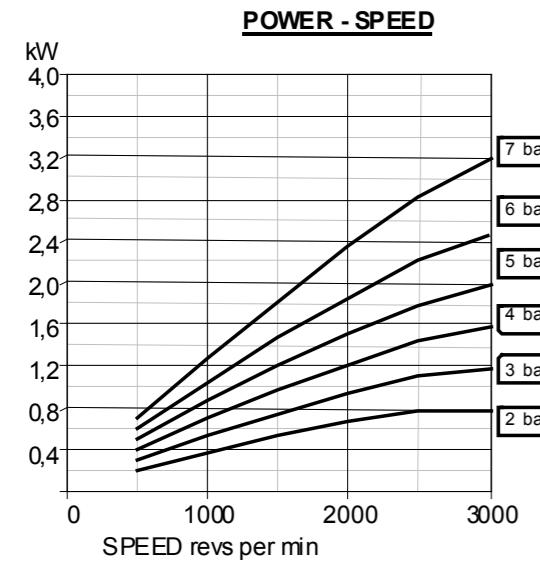
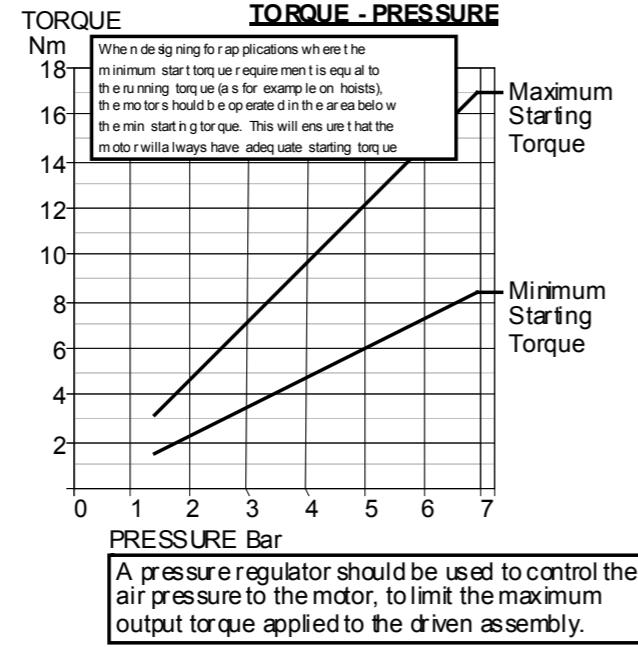
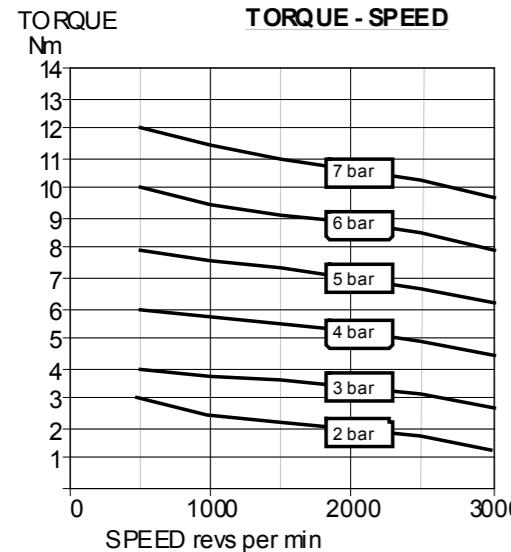
AIRLINE FILTRATION AND LUBRICATION

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



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.

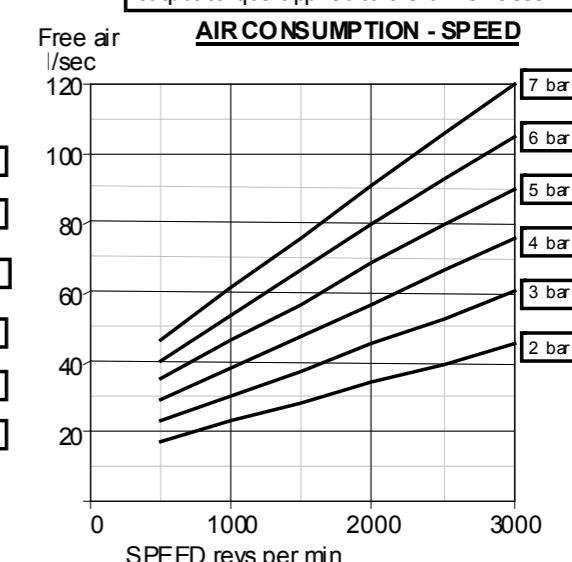
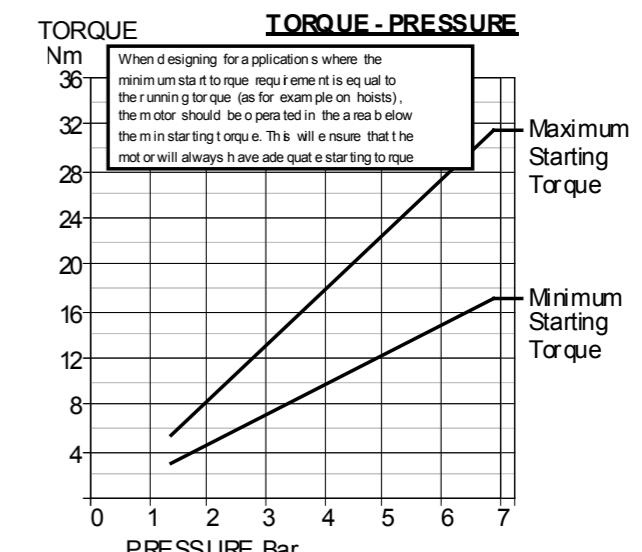
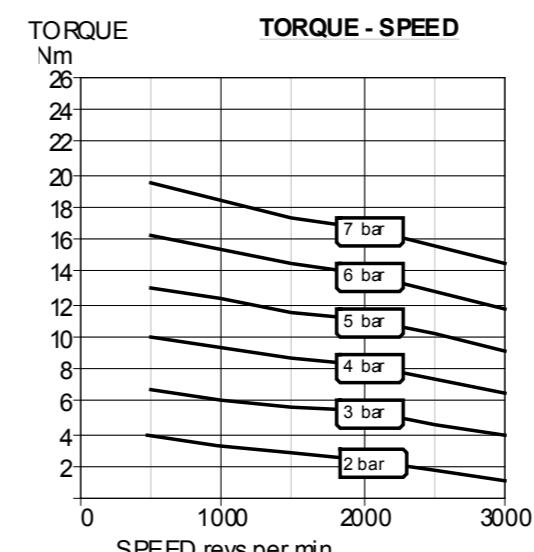
AIRLINE FILTRATION AND LUBRICATION

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



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.

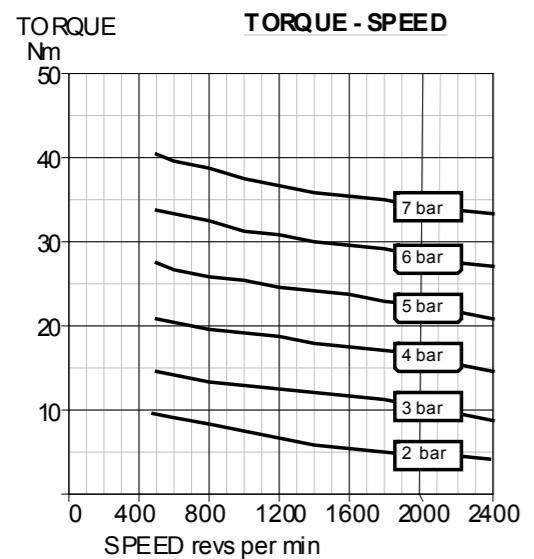
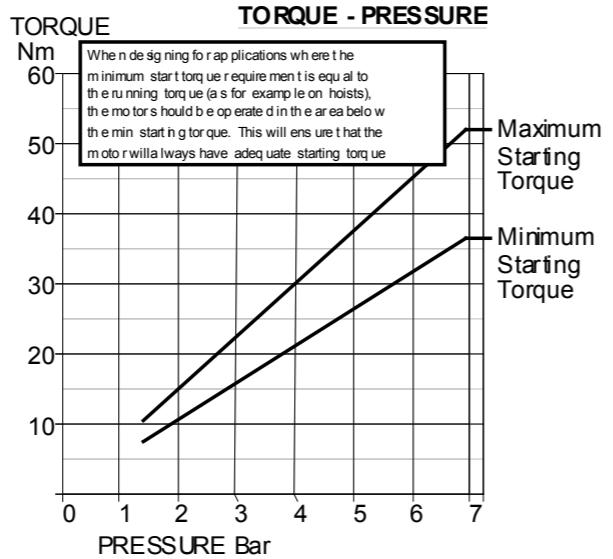
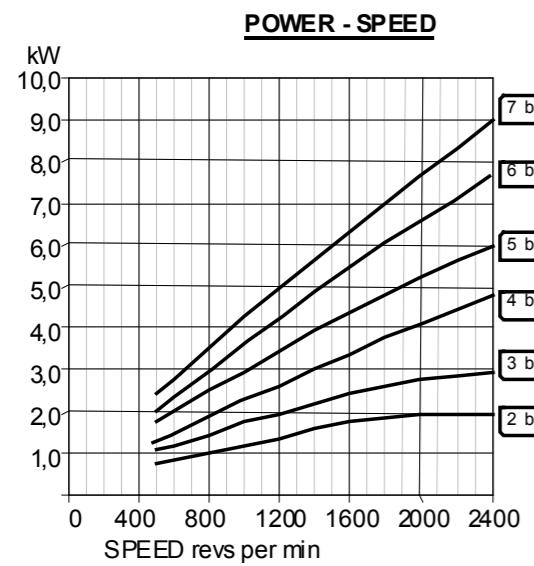
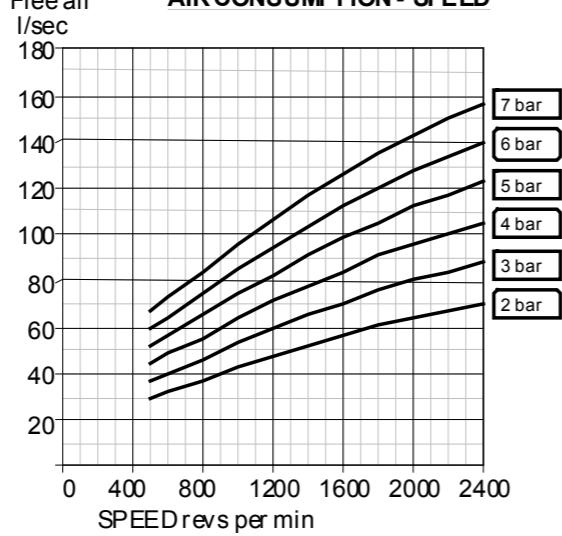
AIRLINE FILTRATION AND LUBRICATION

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

**TORQUE - SPEED****TORQUE - PRESSURE****AIRCONSUMPTION - SPEED**

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

COMPACT VANE AIR MOTORS



ADVANTAGES

GLOBE-ARCHIMEDES compact vane air motors are motors with incorporated reduction units. They offer a unique form of drive with advantages including:

- Simple and inexpensive variable speed and torque control with a flow control valve and/or pressure regulator.
- Intrinsically safe for explosion proof environments. All GLOBE-ARCHIMEDES compact vane air motors are certified according to the European Explosion Directive ATEX II cat. 2 G&D T5.
- Indefinite stalling under load. Air motors will not overheat or burn out.
- Instantly reversible, operated with a simple control valve.
- Controllable over a wide speed range.
- Resistant to warm, dirty and damp conditions.
- Cool running caused by the expanding air.
- High reliability thanks to the low number of moving parts.
- Compact and light weight compared to equivalent electric motors.
- No shock start up which improves the life span of your equipment.

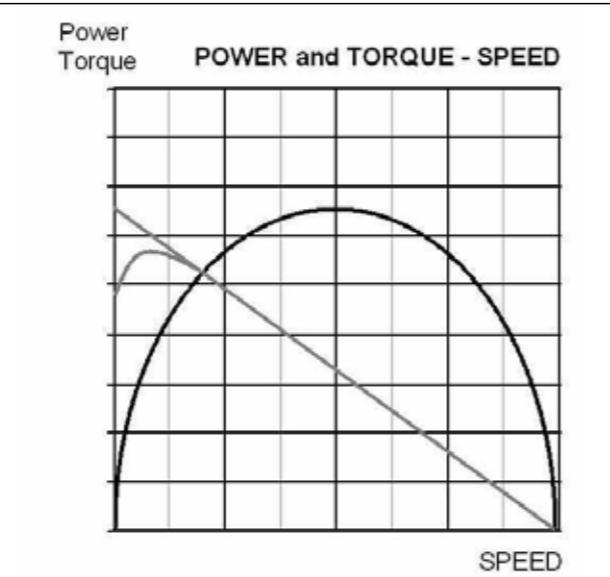
WHY CHOOSE A GLOBE-ARCHIMEDES COMPACT

VANE AIR MOTOR

- Stainless steel models available for use in aggressive environments and foodstuffs industry.
- Mounting on the flange, the thread cut in the motors housing or on the motor housing itself.
- High torques and low speeds of rotation possible in application with limited mounting space.
- Small sized for hand held machinery.
- Motors can be supplied directly coupled to a wide range of gearboxes for higher torques.

CHARACTERISTICS OF VANE AIR MOTORS

The output power of a vane motor varies as a function of speed and torque. The relationship when the air supply is not externally regulated is shown in the graphs below.



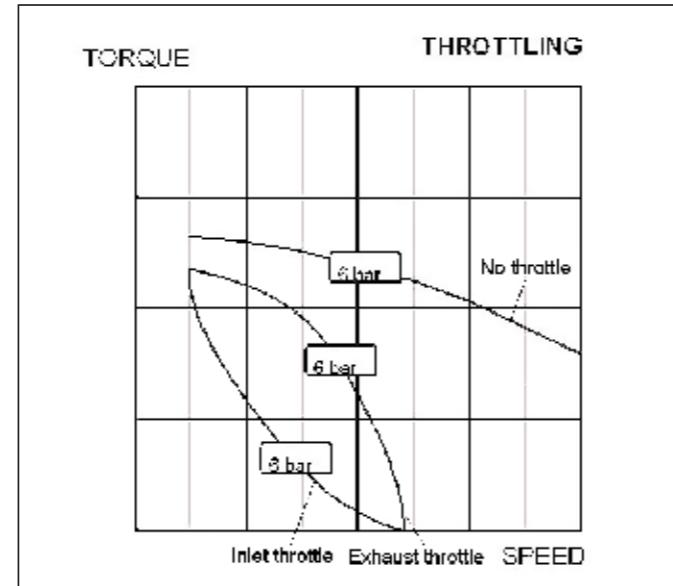
CONTROLLING AIR MOTORS

SPEED REGULATION

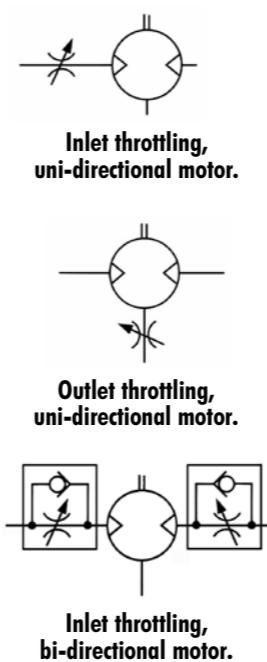
Controlling the speed and torque of an air motor is achieved by regulating the air supply; a relatively cheap and simple operation. Two methods are available, throttling and pressure regulation.

THROTTLING

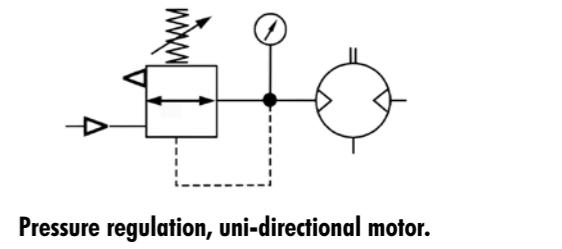
The air flow is controlled by placing a flow control valve at the inlet port or the outlet port of the air motor. Throttling will reduce the maximum speed of the motor but will not affect the starting performance; the air pressure is unaffected at low flow conditions i.e. starting. Note the difference in the graph between throttling on the inlet port and outlet port.



THROTTLING METHODS



PRESSURE REGULATING METHOD



When both the speed and the torque are to be controlled the best configuration is to use a pressure regulator in the line to the motor and a flow control valve on the outlet port. This way every point in the torque-speed graph can be set accurately.

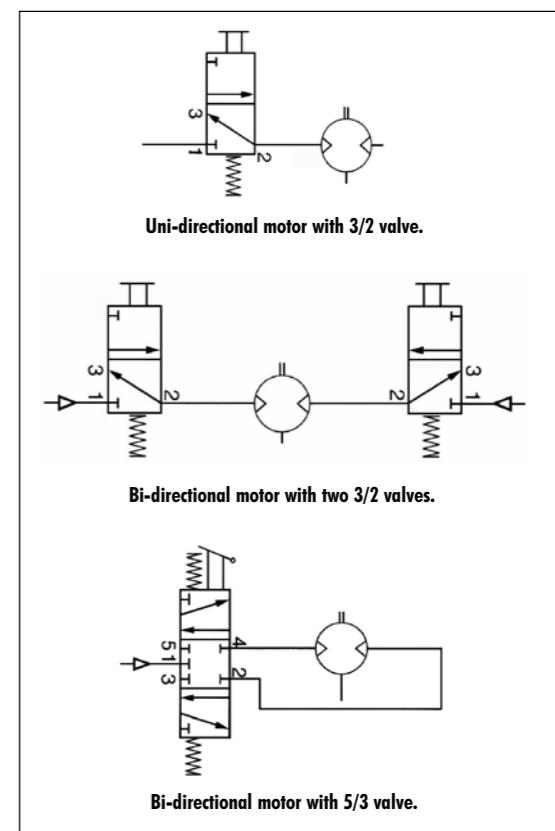
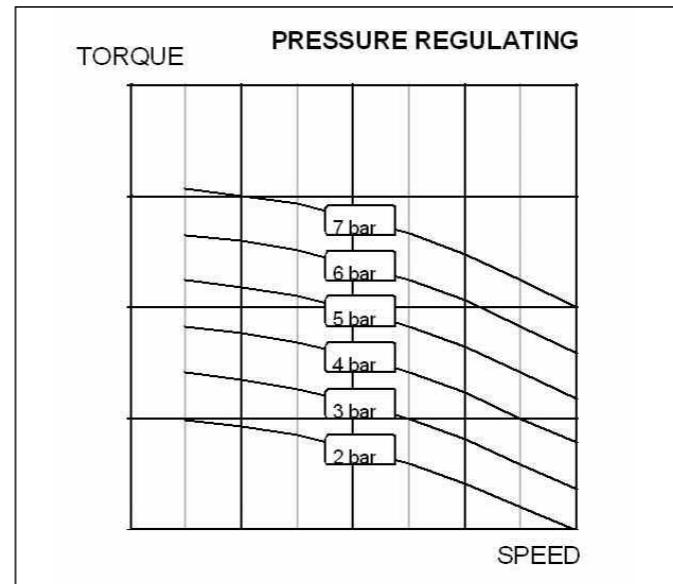
DIRECTIONS OF ROTATION

The GLOBE-ARCHIMEDES compact vane air motors are available in uni-directional and in bi-directional models.

When the uni-directional air motor is used, it is sufficient to use a 2/2 or a 3/2 valve. For the reversible motor you can use either a 5/3 or two 3/2 valve to gain directional control.

PRESSURE REGULATOR

The speed and power can also be reduced by installing a pressure regulator on the incoming air supply. The pressure regulator reduces the air pressure to the motor. A pressure regulator is always fitted on the inlet port. By using a pressure regulator the torque on the output shaft will be affected, starting torque is best controlled with this method.



AIR SUPPLY

AIR QUALITY

To insure optimal working conditions for the GLOBE ARCHIMEDES compact vane air motors, the air supply must be dry, filtered and lubricated. A 5 micron filter is recommended. The air motors should be lubricated sufficiently.

AIR LINE RESTRICTIONS

Air line restrictions on the inlet side of the motor will result in performance loss. Therefore it is important to make sure that the desired air pressure is available at the motor during operation. The pressure reading at the compressor or pressure regulator may be different than the pressure available at the motor.

Performance loss can also occur by an exhaust restriction generating back pressure on the outlet side of the motor. An insufficiently sized silencer, valve or coupling is usually the cause.



ORDERING CODES

Motor type Starting Torque

01	0,27 kW / 0,36 hp	0,4 NM
02	0,27 kW / 0,36 hp	2 NM
12	0,27 kW / 0,36 hp	12 NM
02R	0,24 kW / 0,32 hp	2 NM
05R	0,24 kW / 0,32 hp	5 NM
10R	0,24 kW / 0,32 hp	10 NM

* R = Reversible

Motor type Starting Torque

01	0,67 kW / 0,90 hp	1,5 NM
43	0,67 kW / 0,90 hp	43 NM
05R	0,61 kW / 0,82 hp	5 NM
34R	0,61 kW / 0,82 hp	34 NM

* R = Reversible

2M - 02

5M - 01

9M - 70R

Motor type
Stainless steel

Motor type Starting Torque

70R	1,0 kW / 1,34 hp	70 NM
-----	------------------	-------

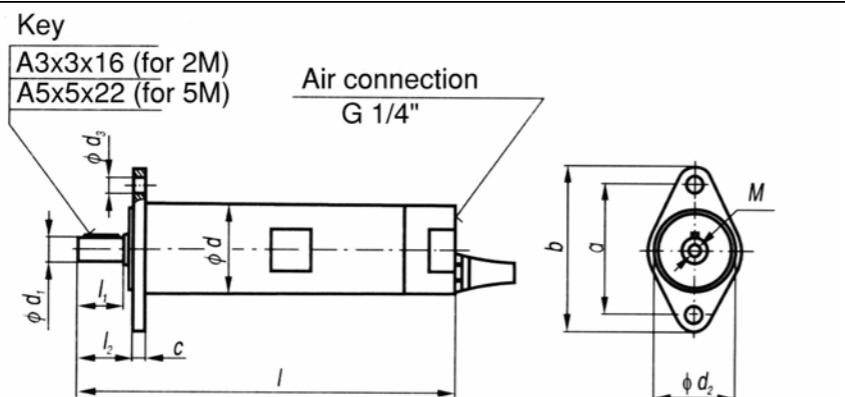
* R = Reversible

Use the ordering codes to create the GLOBE Archimedes Vane Air motor you want.

For example: 5M43 or 2M05RS.

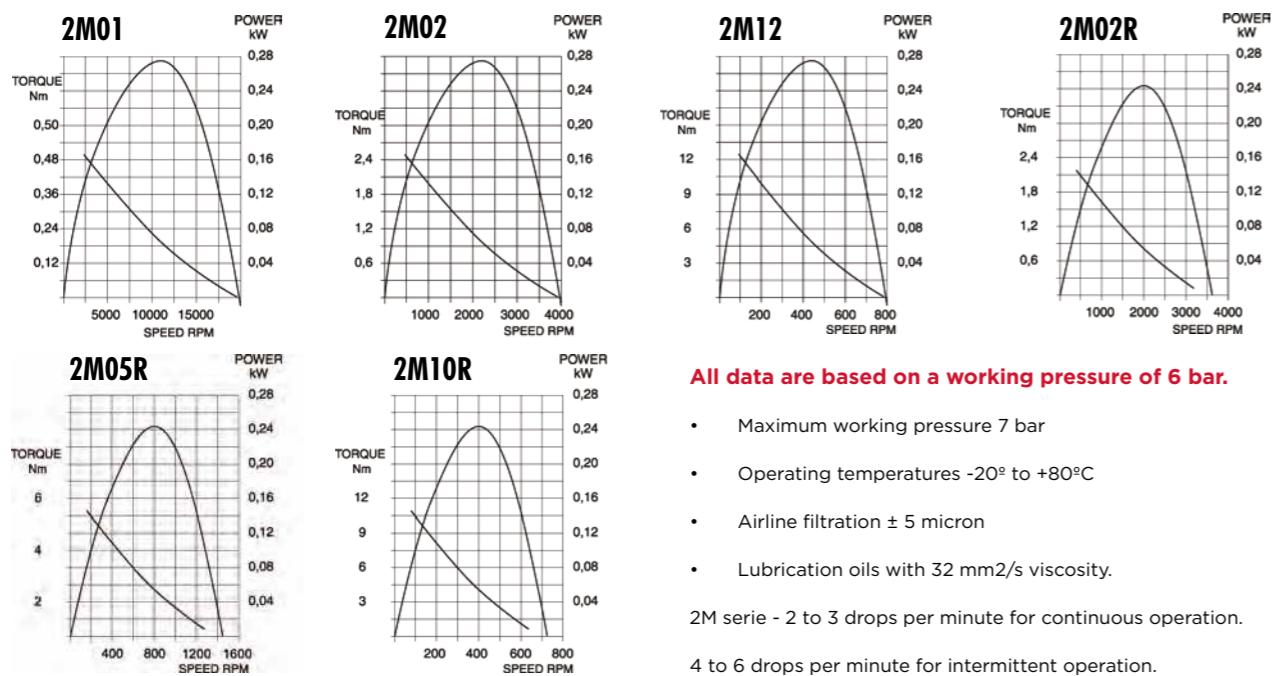
DIMENSIONS 2M

Type	a	b	c	I	I1	I2	M	d	d1	d2	d3
2M01	52	64	5	160	20	25	M4	40h9	10h6	36h9	6,5
2M02				160							
2M12				190							
2M02R				160							
2M05R				190							
2M10R				190							



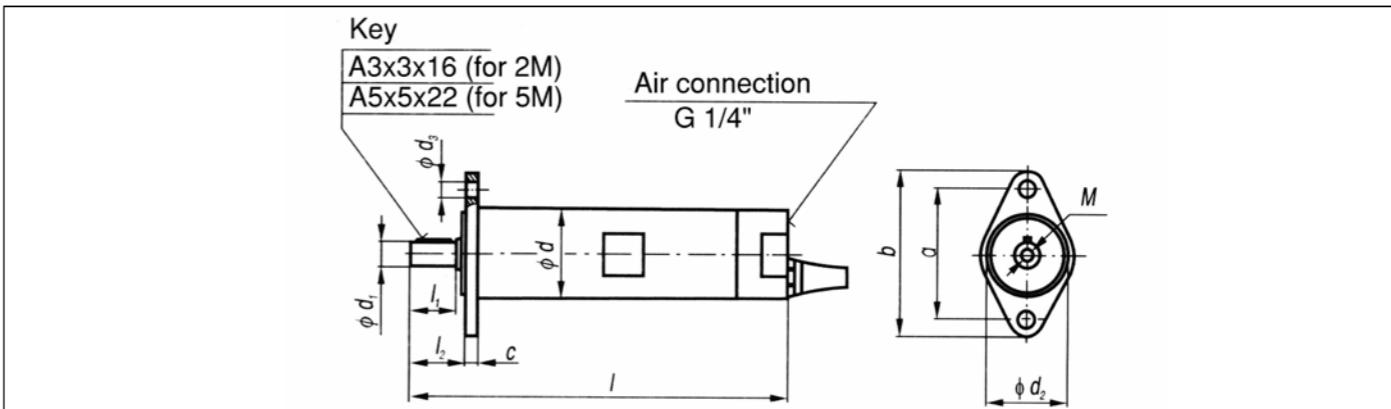
PERFORMANCES 2M

TYPE	POWER (kW)	MAX RPM	MIN STARTING TORQUE (Nm)	ROTATION	AIR CONSUMPTION (M3/min)	GEAR RATIO	WEIGHT (Kg)
2M01	0,27	19.000	0,4	Counter Clockwise	0,5	1	0,9
2M02		3700	2			5	0,9
2M12		710	12			25	1,1
2M02R	0,24	3100	2	Reversible	0,6	5	0,9
2M05R		1600	5			12	1,1
2M10R		600	10			25	1,1



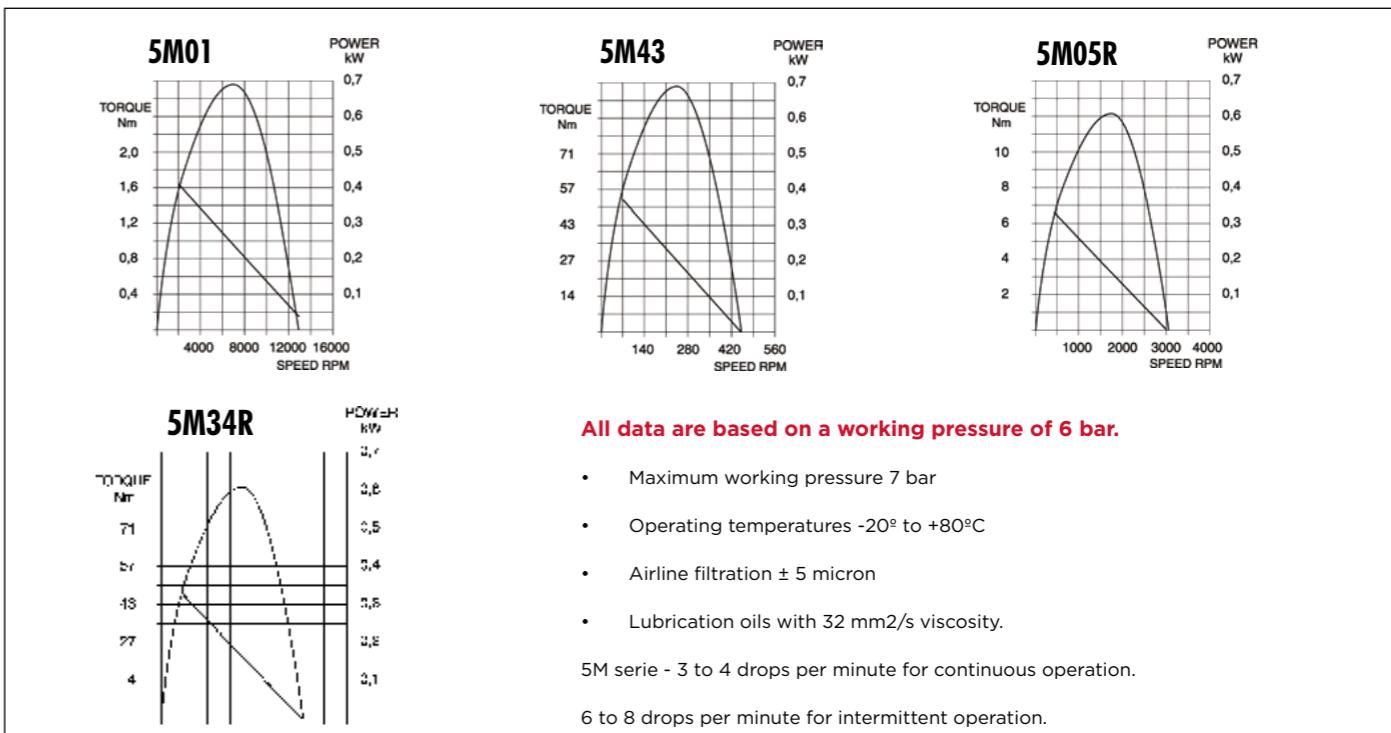
DIMENSIONS 5M

Type	a	b	c	I	I1	I2	M	d	d1	d2	d3
5M01	75	95	6	185	30	35	M6	55h9	14h6	52h9	11
5M43				230							
5M05R				185							
5M34R				230							



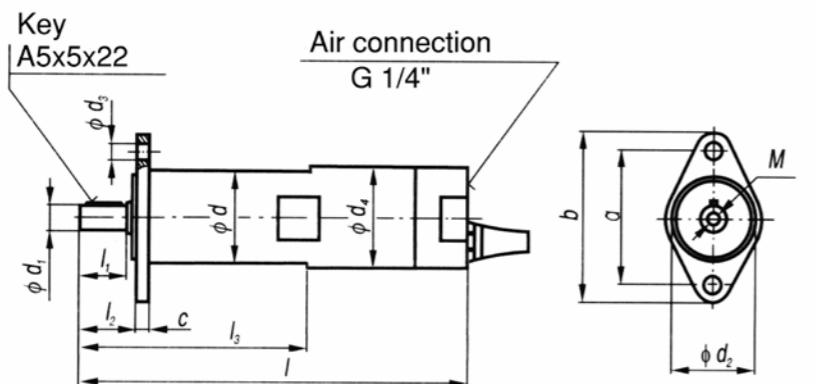
PERFORMANCES 5M

TYPE	POWER (kW)	MAX RPM	MIN STARTING TORQUE (Nm)	ROTATION	AIR CONSUMPTION (M3/min)	GEAR RATIO	WEIGHT (Kg)
5M01	0,67	14.000	1,5	Counter Clockwise	0,8	1	2,0
5M43		450	43			36	2,4
5M05R	0,61	3000	5	Reversible	0,83	5	2,0
5M34R		420	34			36	2,4



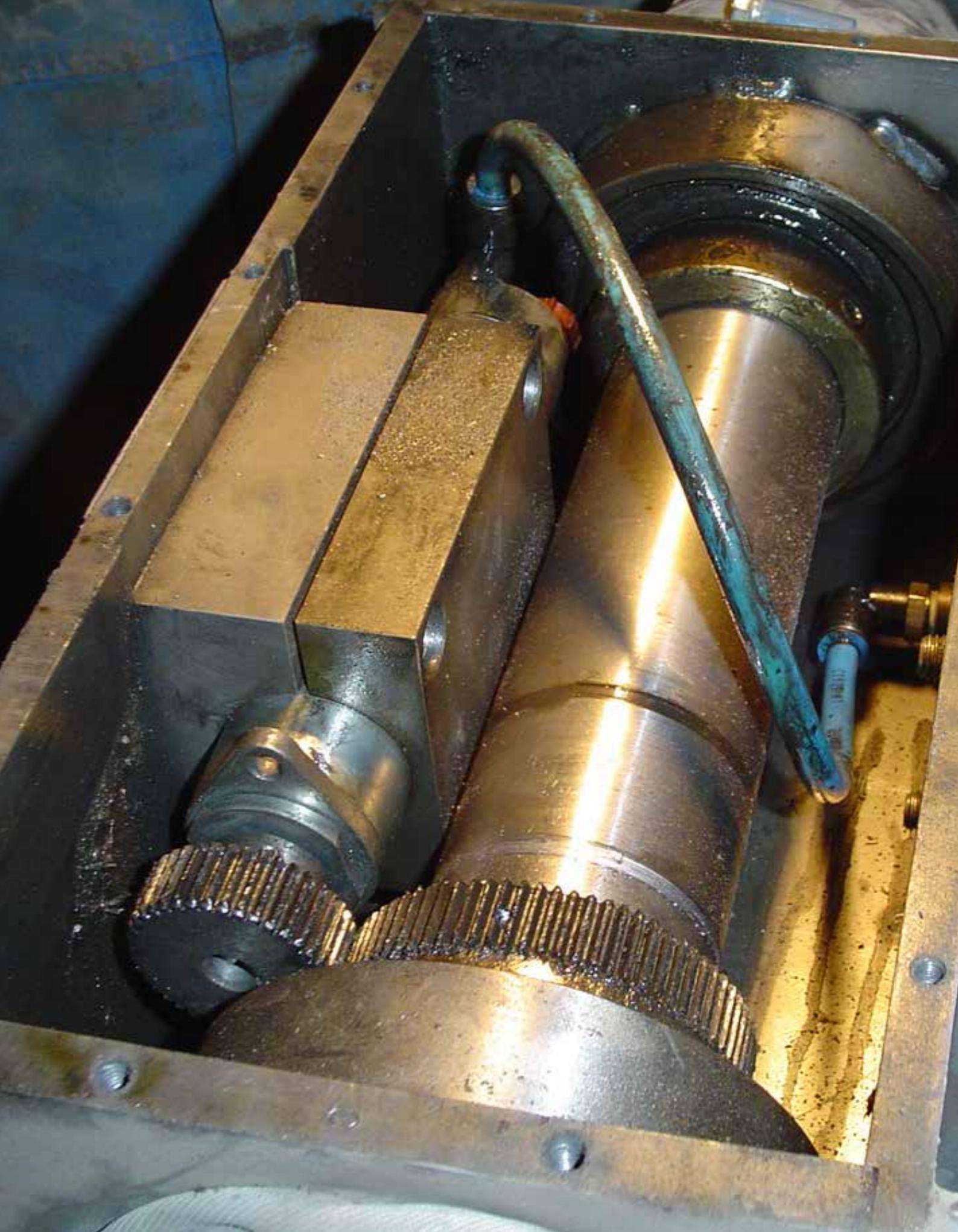
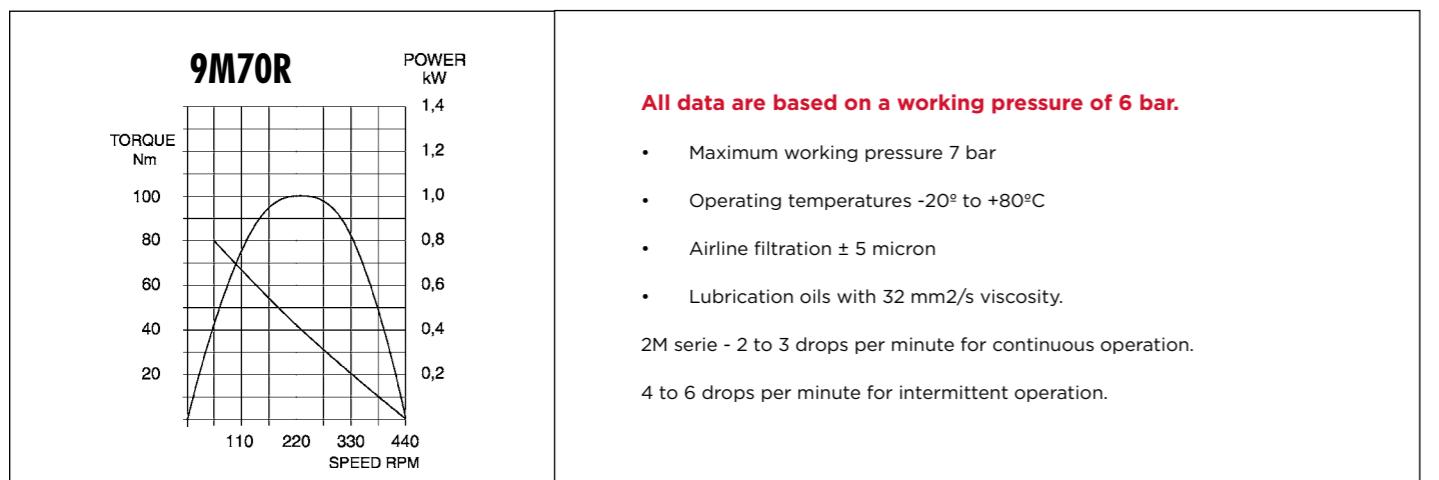
DIMENSIONS 9M

Type	a	b	c	I	I1	I2	I3	M	d	d1	d2	d3	d4
9M70R	75	95	6	270	30	35	110	M4	55h9	16h9	52h9	11	62

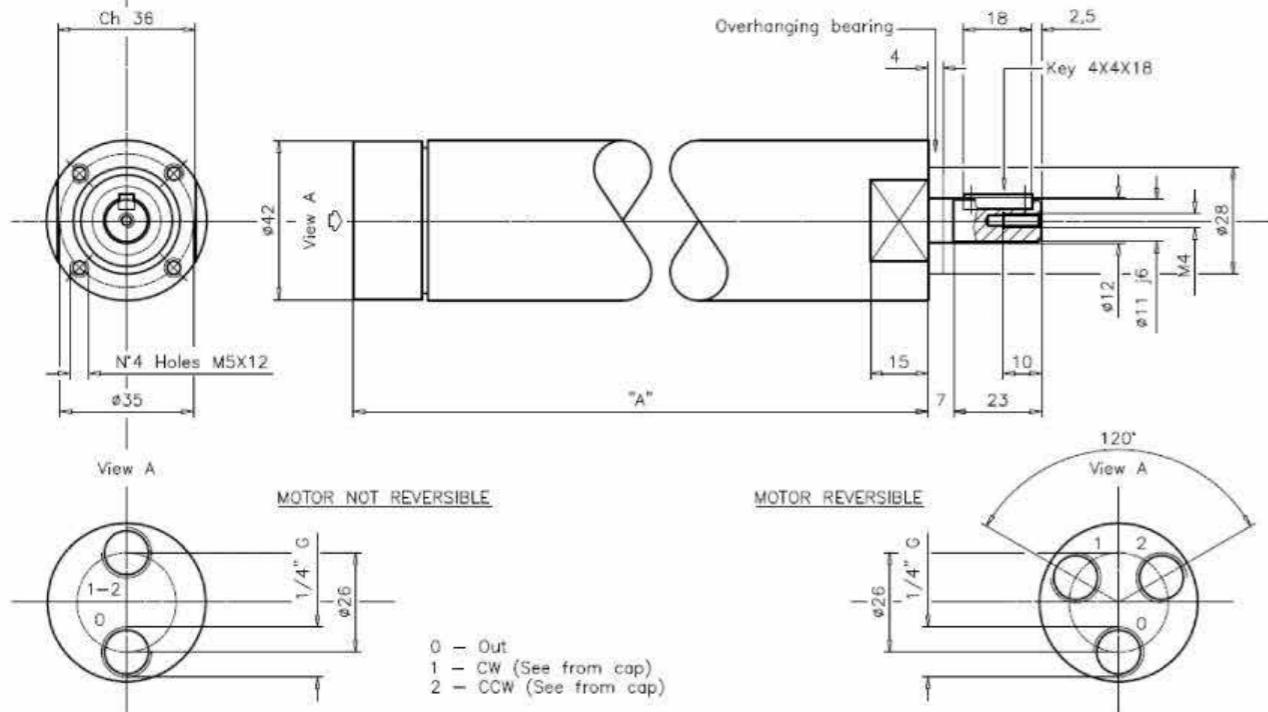


PERFORMANCES 9M

TYPE	POWER (kW)	MAX RPM	MIN STARTING TORQUE (Nm)	ROTATION	AIR CONSUMPTION (M3/min)	GEAR RATIO	WEIGHT (Kg)
9M70R	1,0	440	70	Reversible	1,36	36	3,3



GLOBE COMPACT VANE MOTORS SERIES M53



Model		Free speed r/min			Speed at max power r/min			Torque max. power Kgm			Starting torque NM			Torque NM			Quote "A" mm	Weight Kg.	Nº Reduction gear
Reversible	Not Reversible	7 bar	5 bar	3 bar	7 bar	5 bar	3 bar	7 bar	5 bar	3 bar	7 bar	5 bar	3 bar	7 bar	5 bar	3 bar			
M53R0	M53N0	15000	13400	11800	7500	6700	5900	0,5	0,3	0,1	0,6	0,4	0,2	0,9	0,6	0,3	118	0,9	0
M53R1A	M53N1A	3800	3400	3000	1900	1700	1500	1,9	1,4	0,7	2,9	1,8	1,0	3,9	2,8	1,4	118	0,9	1
M53R1B	M53N1B	2800	2550	2250	1400	1275	1125	2,6	1,9	0,9	3,9	2,8	1,3	5,2	3,8	1,8	118	0,9	1
M53R1C	M53N1C	2400	2180	1930	1200	1090	965	3,0	2,2	1,1	4,5	3,3	1,6	6,0	4,4	2,2	118	0,9	1
M53R1D	M53N1D	2100	1900	1690	1050	850	845	3,5	2,4	1,2	5,2	4,2	1,8	7,0	5,6	2,4	118	0,9	1
M53R2	M53N2	1200	1000	900	600	500	450	6,3	4,8	2,3	9,6	6,0	3,3	13	9,3	4,7	135	1,0	2
M53R2A	M53N2A	900	755	670	450	377	335	8,0	6,3	3,1	12	9,4	4,6	16	13	6,2	135	1,0	2
M53R2B	M53N2B	630	565	500	315	282	230	11	8,4	4,2	17	13	6,3	23	17	8,4	135	1,0	2
M53R2C	M53N2C	540	485	430	270	242	215	13	10	4,9	19	15	7,3	26	20	9,8	135	1,0	2
M53R2D	M53N2D	480	425	375	240	212	187	15	11	5,6	22	16	8,4	30	22	11	135	1,0	2
M53R3	M53N3	270	220	200	135	110	100	27	20	10	40	31	15	53	41	21	157	1,2	3
M53R3A	M53N3A	190	168	150	85	84	75	42	28	14	63	42	21	84	56	28	157	1,2	3
M53R3B	M53N3B	140	126	110	70	63	55	51	38	19	75	57	28	102	76	38	157	1,2	3
M53R3C	M53N3C	120	108	95	60	54	48	60	44	22	90	66	33	120	88	44	157	1,2	3
M53R3D	M53N3D	110	95	83	55	47	42	65	50	25	97	75	37	130	100	50	157	1,2	3
M53R4	M53N4	60	50	45	30	25	22	140	93	47	210	140	70	280	185	93	175	1,3	4
M53R4A	M53N4A	46	37	33	23	19	16	157	125	65	235	187	97	315	250	130	175	1,3	4
M53R4B	M53N4B	32	28	24	16	14	12	230	170	87	345	255	145	460	340	194	175	1,3	4
M53R4C	M53N4C	26	24	21	13	12	10	277	198	105	410	297	157	550	396	210	175	1,3	4
M53R4D	M53N4D	23	21	18	11	10	9	328	238	117	485	357	175	650	476	234	175	1,3	4

Air consum

a 6 bar 13,5 l/sec

a 5 bar 11,6 l/sec

a 4 bar 9,6 l/sec

a 3 bar 7,7 l/sec a 2 bar 5,7 l/sec

ATTENTION

The M53 air motors cannot be used over 60Nm torque. The figures shown in the green colored area should be considered purely as an indication.

LUBRICATION:

2-3 gocce/1' continuos operation
4-6 gocce/1' intermittent operation

Use 64 micron filtration or better

2000 N max.

Not admitted

da -20°C a +80°C

FILTRATION:

RADIAL LOAD:

AXIAL LOAD:

OPERATIVE TEMPERATURE:

PNEUMATIC MODULAR VANE MOTORS | HP 0,53 KW 0,38 | SERIES M53...

ATTITUDE:

The motors of the M53 series are endowed with case and end plate in AISI 303 stainless steel, and the possibility, upon request, of having even the exit shaft in the same material by adding "051" after the M53 code.

The gamma offers reversible and non reversible motors. Non reversible motors are furnished with standard dextrorse rotation (counter clockwise facing the shaft).

To order them with sinistrorse rotation add "015" after the code. There is often the need to coalesce the motor to other equipment or simply to an interfacing flange, in this case safe alignment is necessary. To achieve this, all motors may be assembled with a protruding bearing. To

order the motor with this modification, add "019" after the code.

The single-stage, two-stage and three-stage models may also be internally equipped with an irreversibility devise that prevents the exit shaft to rotate when the motor is in static condition. To order the motor with this devise, add "102" after the code.

The entire gamma is in accordance to European Directive for products destined to be uses in potentially explosive atmospheres ATEX II cat.2 G&D T3.

All the models of the M53 series can be ordered in version NO LUBE adding the N letter in front of the code of the article standard.

STAINLESS STEEL COMPACT VANE AIR MOTORS

Each type of the GLOBE-Archimedes compact vane air motors are also available in stainless steel models. The

stainless steel models have the same performances and dimensions as the standard versions.





RADIAL PISTON (RM) AIR MOTORS

The GLOBE RM air motors are a series of compact heavy duty radial piston air motors offering an exceptional range of control valve and output options. The motors are four or five cylinder radial piston design with oil bath lubrication and are designed to develop greater power than other motors of equivalent size.

RM motors are most suitable for heavy duty applications and can be supplied direct coupled to gearboxes. A variety of operating conditions can be achieved by utilisation of pressure regulators and flow control valves. Natural gas and other gases can also be used. Please consult our Applications Department.

ADVANTAGES INCLUDE:

- Modular motor, brake, gearbox and control valve options
- Relatively inexpensive variable speed control
- Intrinsically safe in hazardous environments (e.g. mines, petro-chemical etc.)
- Instantly reversible
- Resistant to dirty, damp conditions
- Positive start
- Rugged design
- Variety of mountings
- NEMA and S.A.E. interfaces:

RM210, RM410, RM510, and RM610 motors can be supplied in configurations approximating to NEMA interfaces.

RM410, RM510 and RM610 are also available with S.A.E. pump drives.

RM - 210



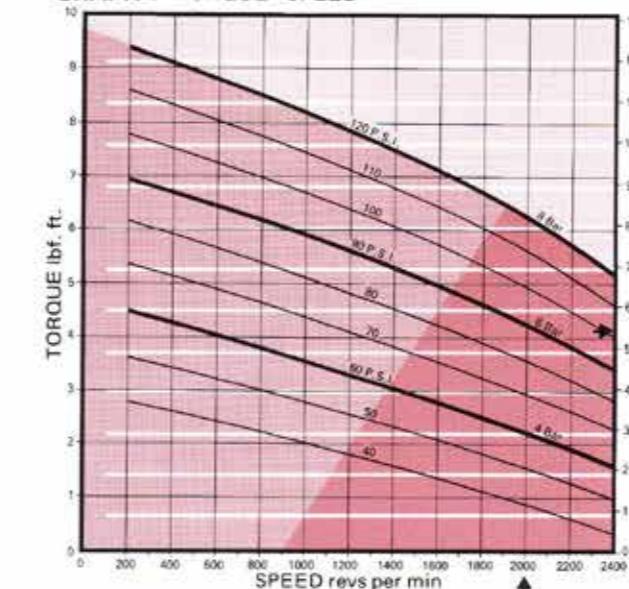
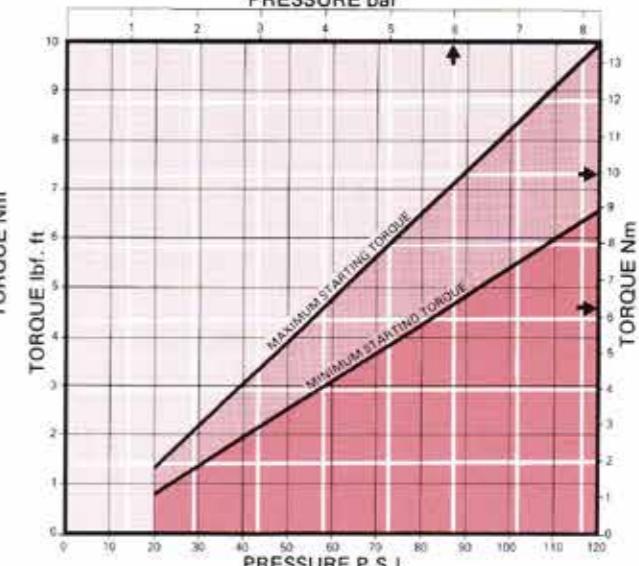
Type motor

110	1,7 kW / 2,3 hp
210	4 kW / 5,4 hp
310	7,5 kW / 10,1 hp
410	14 kW / 18,8 hp
510	22 kW / 29,5 hp
610	23 kW / 30,8 hp

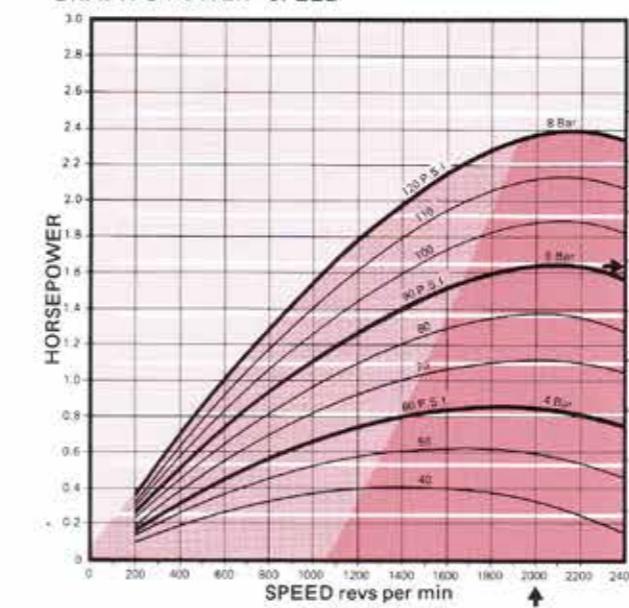


TYPICAL SELECTION BASED ON RM110

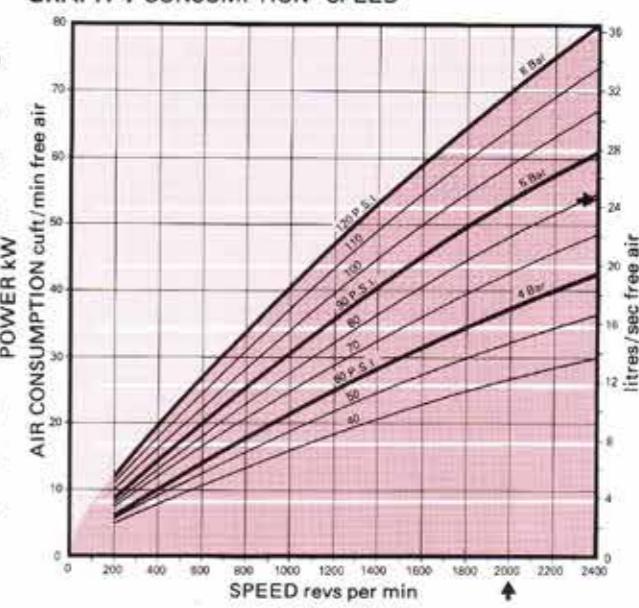
GRAPH 1 TORQUE - SPEED

GRAPH 2 STARTING TORQUE - PRESSURE
PRESSURE bar

GRAPH 3 POWER - SPEED



GRAPH 4 CONSUMPTION - SPEED



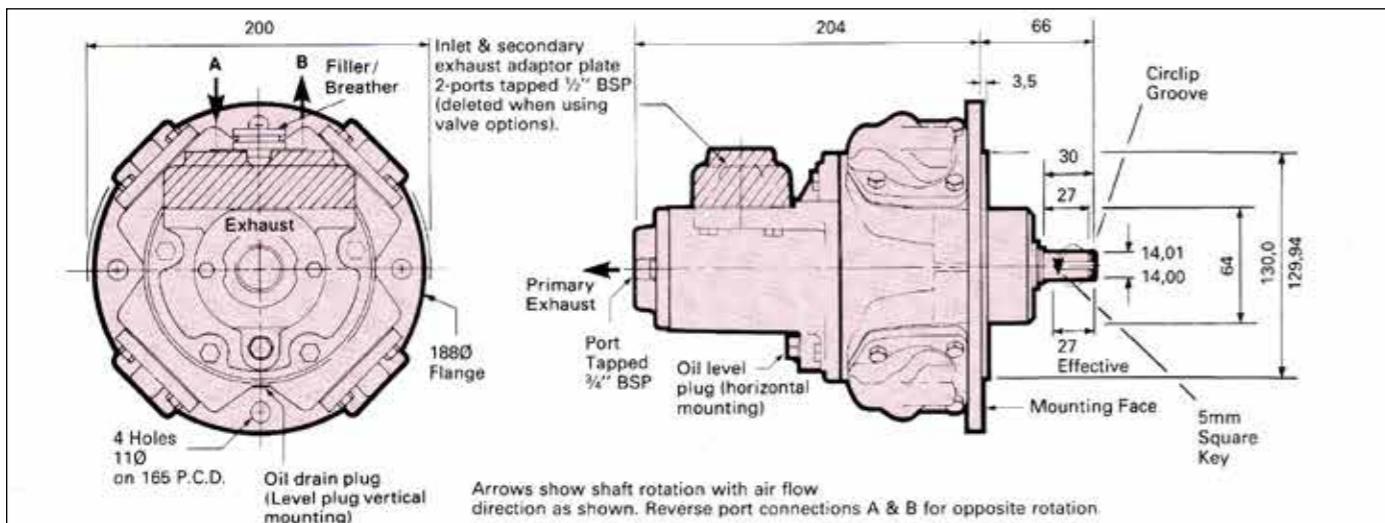
Reading graphs - Scales have been adjusted to enable bar and p.s.i. to be read from a common curve. Therefore only read p.s.i. with the left hand axis and bar with the right hand axis.

MOTOR SELECTION

Motor performance can be derived from the above graphs as in the examples shown. Where motors are not required to start under load, such as fan drives, selection may be made using either Graph 1 or Graph 3 using the required running torque or power only. For applications where the motor starts under load, such as hoists, winches or track drives, the starting torque in Graph 2

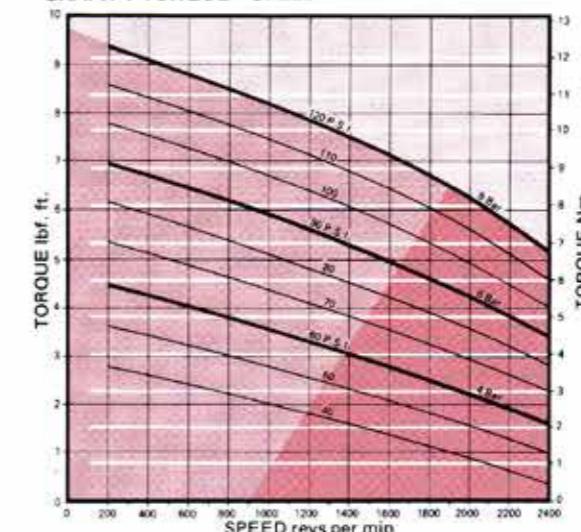
must also be considered. Starting torque varies between the maximum and minimum values shown, depending on the angular position of the output shaft.

1. Running torque example RM110 at 6 bar gives 5,5 Nm torque at 2000 r.p.m.
2. Starting torque example: RM110 at 6 bar gives between 6,2 and 10 Nm at start depending on output shaft position.
3. Output power example: RM110 at 6 bar gives 1,19 kW at 2000 r.p.m.
4. Air consumption example: RM110 at 6 bar and 2000 r.p.m. requires 24,2 l/sec. free air.

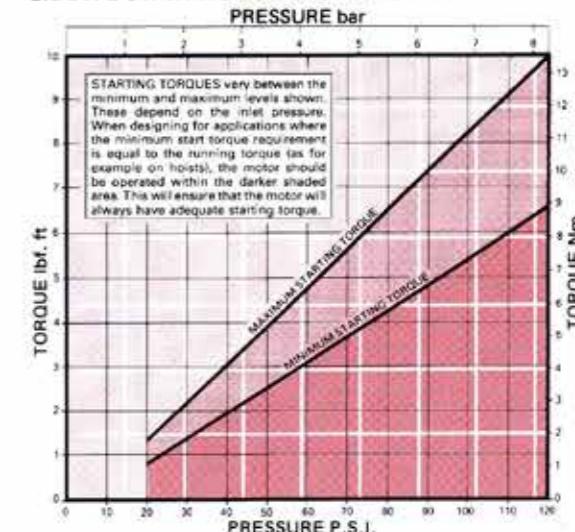


Reading graphs - Scales have been adjusted to enable bar and p.s.i. to be read from a common curve. Therefore only read p.s.i. with the left hand axis and bar with the right hand axis.

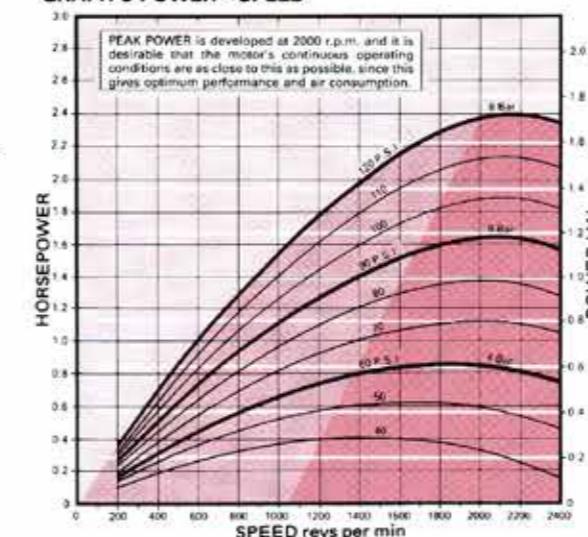
GRAPH 1 TORQUE - SPEED



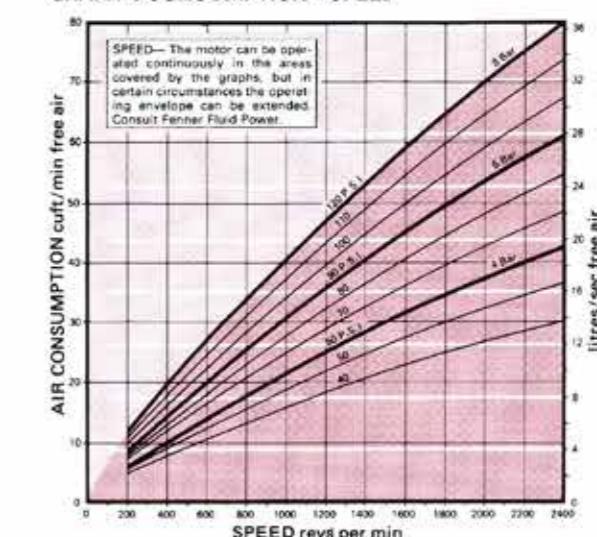
GRAPH 2 STARTING TORQUE - PRESSURE



GRAPH 3 POWER - SPEED



GRAPH 4 CONSUMPTION - SPEED

**LUBRICATING OIL CAPACITIES**

Horizontal 75 ml. Vertical 150ml.

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

MASS (MOTOR ONLY)

13 kg

MOMENT OF INERTIA

of rotating parts 0,01 gm²

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: 3-4 drops / minute continuous operation.

Lubricator drop rate: 6-10 drops / minute intermittent operation.

MAX OVERHUNG FORCE SHAFT

445 N.

TEMPERATURE RANGE

-20°C to +80°C

RM110 GEARED MOTOR INSTALLATION DETAILS

Maximum performance details listed below at 6 bar (90 psi). The performance under different conditions can be obtained by using the curves on page 150. A typical minimum gearbox efficiency of 90% can be expected.

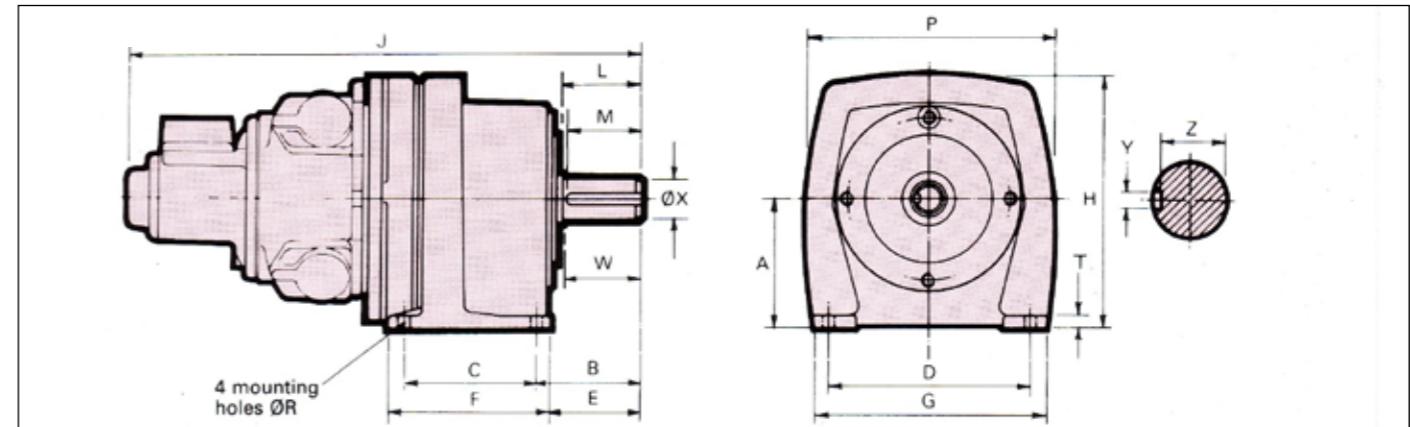
For higher pressures consult the manufacturer or their

distributors. The maximum overhung force is assumed acting midway along the output shaft; for other positions or higher loads on intermittent applications; consult the manufacturer of their distributors.

PERFORMANCE SUMMARY

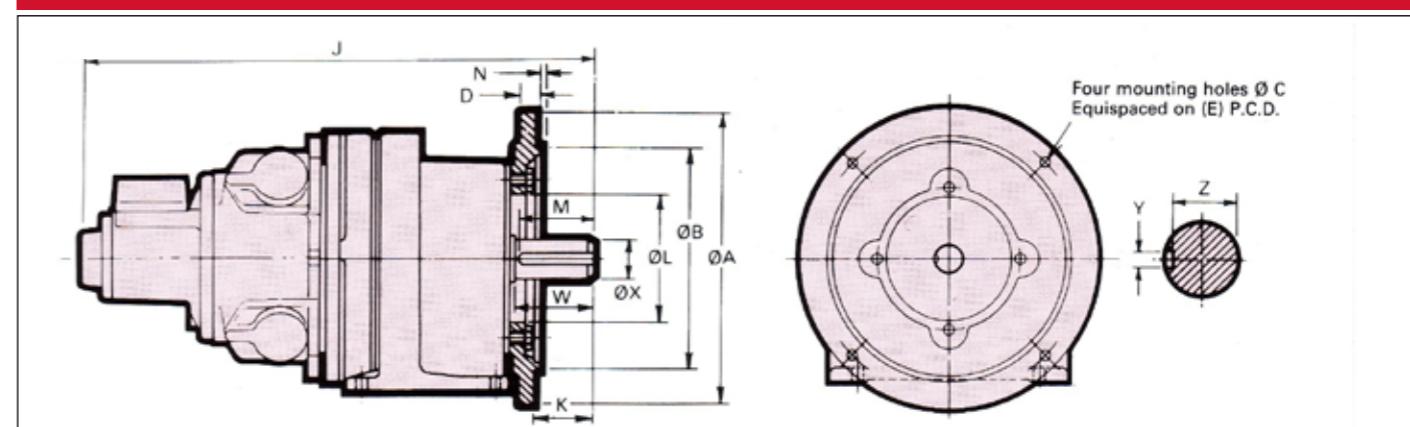
Gearbox Ratio	Maximum Power Conditions				Approx. Min. Start Torque		Max. Cont. rpm	Max. Overhung Force		
	Kw	hp	rpm	Torque		Nm	Ibf. ft.	N	Ibf.	
				Nm	Ibf. ft.					
2,8	1,1	1,5	758	14	10	17	13	866	970	218
5,1	1,1	1,5	415	25	19	30	23	474	1050	236
7,6	1,1	1,5	278	37	28	45	35	317	1110	250
9,1	1,1	1,5	231	45	34	54	42	264	1210	272
14	1,1	1,5	156	67	51	81	62	178	1320	297
22	1,1	1,5	94	110	84	133	102	108	2025	456
30	1,1	1,5	69	149	114	181	138	79	2180	491
60	1,1	1,4	35	280	213	339	259	40	4540	1020
88	1,1	1,4	24	414	316	501	382	27	4810	1080

BASE MOUNTED GEARBOX

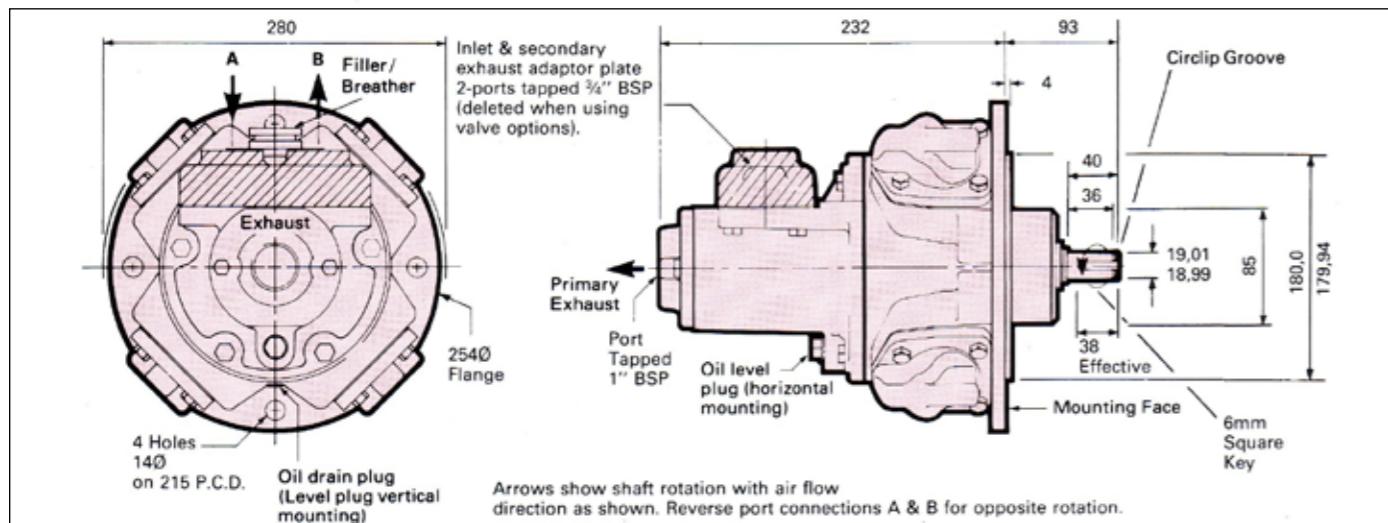


RATIO	A	B	C	D	E	F	G	H	J	L	M	P	R	T	W	X	Y	Z	MASS
2,8 to	100	80	105	140	65	135	170	195	405	53	45	188	11	13	50	24,009	7,964	20,0	23,6 kg
14:1																23,996	8,000	19,8	
22:1	125	90	125	170	75	155	200	240	421	62	55	200	14	15	60	28,009	7,964	24,0	29,5 kg
30:1	112	63	115	170	50,5	140	195	212	473	51	45	202	9	13	50	24,009	7,964	20,0	39 kg
60 & 88:1	132	83	135	205	68	165	235	257	505	63	55	252	12	14	60	28,009	7,964	24,0	65 kg
																27,996	8,000	23,8	

FLANGE MOUNTED GEARBOX

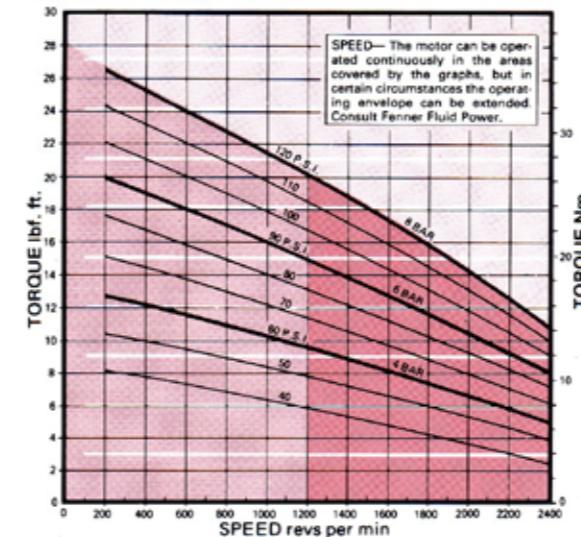


RATIO	A	B	C	D	E	J	K	L	M	N	W	X	Y	Z	MASS
2,8 to	200	130,000	12	11	165	405	50	N.A.	45	3,5	50	24,009	7,964	20,0	23,6 kg
14:1		129,937										23,996	8,000	19,8	
22:1	250	180,000	15	11	215	421	60	N.A.	55	4,0	60	28,009	7,964	24,0	29,5 kg
30:1	250	180,000	14	12	215	473	34,5	70	45	3,0	50	24,009	7,964	20,0	42 kg
60 & 88:1	300	230,000	14	16	265	505	41	130	55	5,0	60	28,009	7,964	24,0	69 kg
		229,928										27,996	8,000	23,8	

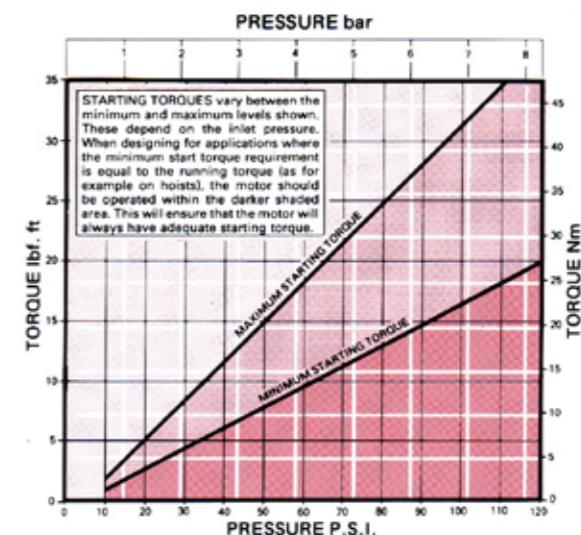


Reading graphs - Scales have been adjusted to enable bar and p.s.i. to be read from a common curve. Therefore only read p.s.i. with the left hand axis and bar with the right hand axis.

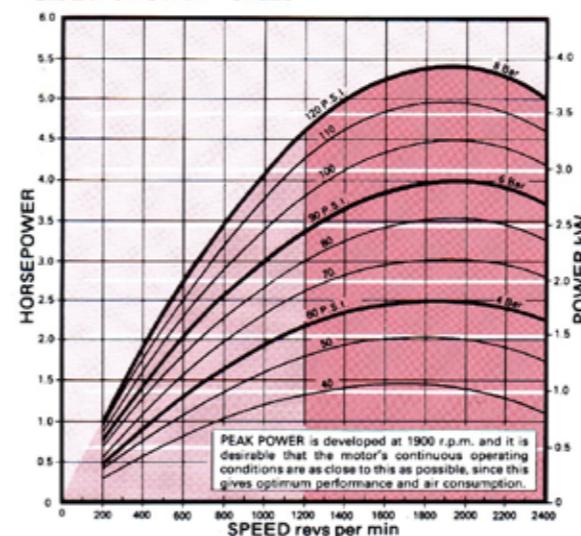
GRAPH 1 TORQUE - SPEED



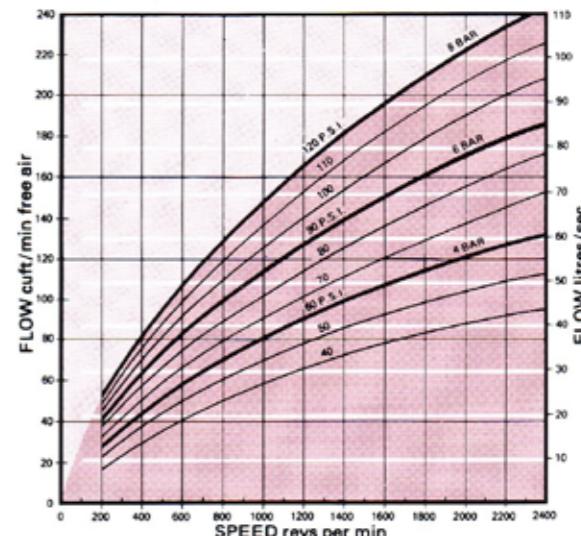
GRAPH 2 STARTING TORQUE - PRESSURE



GRAPH 3 POWER - SPEED



GRAPH 4 CONSUMPTION - SPEED



LUBRICATING OIL CAPACITIES

Horizontal 330 ml. Vertical 450ml.

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

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: 3-4 drops / minute continuous operation.

Lubricator drop rate: 6-10 drops / minute intermittent operation.

MASS (MOTOR ONLY)

26 kg

MOMENT OF INERTIA

of rotating parts 0,56 gm²

MAX OVERHUNG FORCE SHAFT

890 N.

TEMPERATURE RANGE

-20°C to +80°C

RM210 GEARED MOTOR INSTALLATION DETAILS

Maximum performance details listed below at 6 bar (90 psi). The performance under different conditions can be obtained by using the curves on page 154. A typical minimum gearbox efficiency of 90% can be expected.

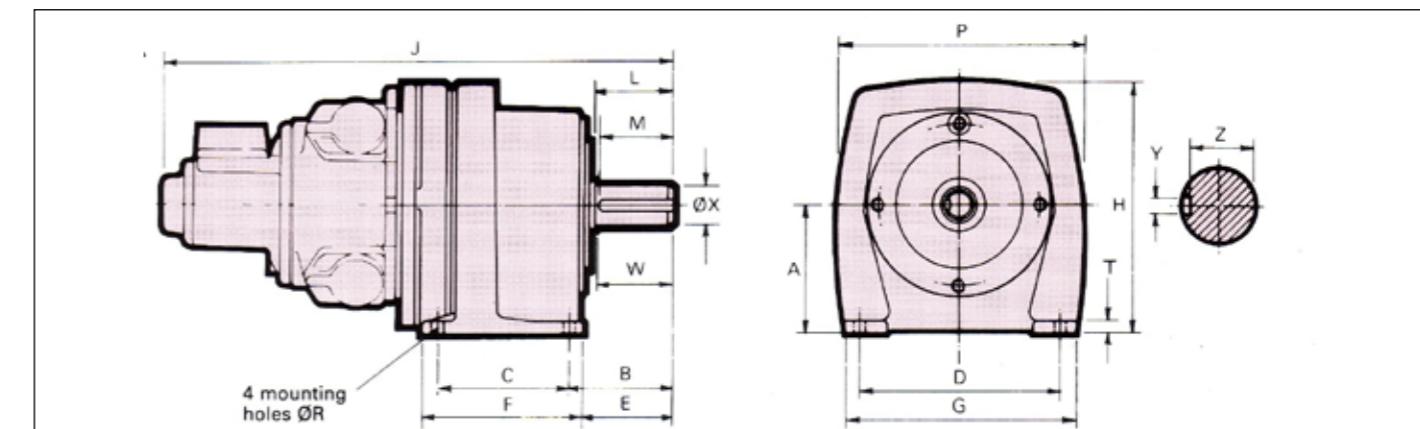
For higher pressures consult the manufacturer or their

distributors. The maximum overhung force is assumed acting midway along the output shaft; for other positions or higher loads on intermittent applications; consult the manufacturer of their distributors.

PERFORMANCE SUMMARY

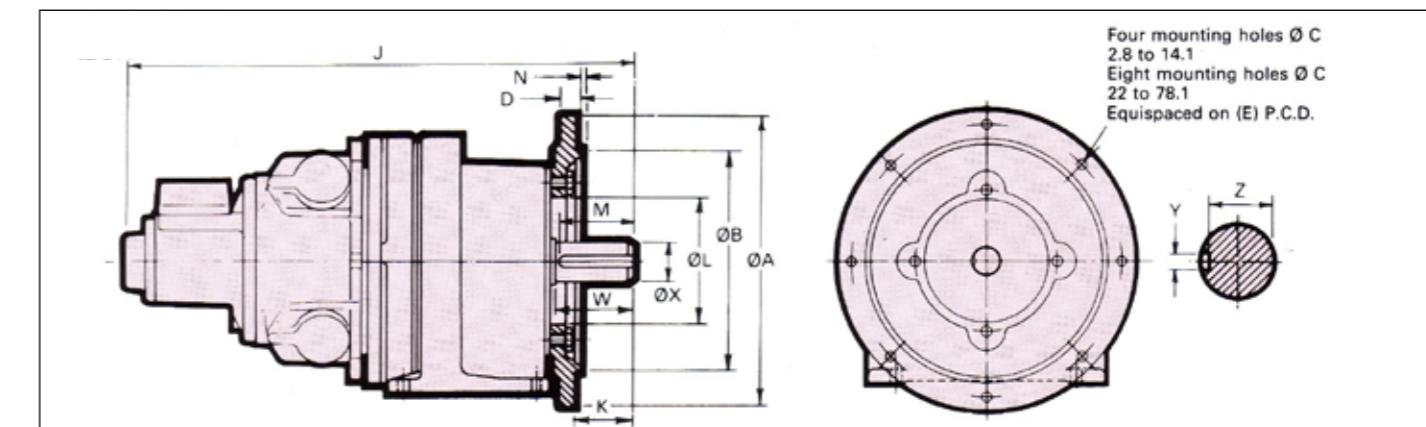
Gearbox Ratio	Maximum Power Conditions				Approx. Min. Start Torque		Max. Cont. rpm	Max. Overhung Force			
	Kw	hp	rpm	Torque		Nm	lbf. ft.				
				Nm	lbf. ft.						
2,7	2,8	3,8	720	36	27	49	37	886	1200	270	
4,9	2,8	3,8	401	65	49	88	67	494	1470	331	
7,6	2,8	3,8	256	101	77	137	105	315	1650	371	
9,1	2,8	3,8	214	121	93	165	126	263	1760	396	
13	2,8	3,8	146	178	136	242	184	179	1850	416	
22	2,8	3,8	87	297	226	403	307	108	6140	1382	
32	2,7	3,6	62	399	304	541	413	76	6590	1480	
58	2,7	3,6	34	730	557	991	756	41	11100	2490	
78	2,7	3,6	25	989	754	1342	1023	31	11100	2490	

BASE MOUNTED GEARBOX

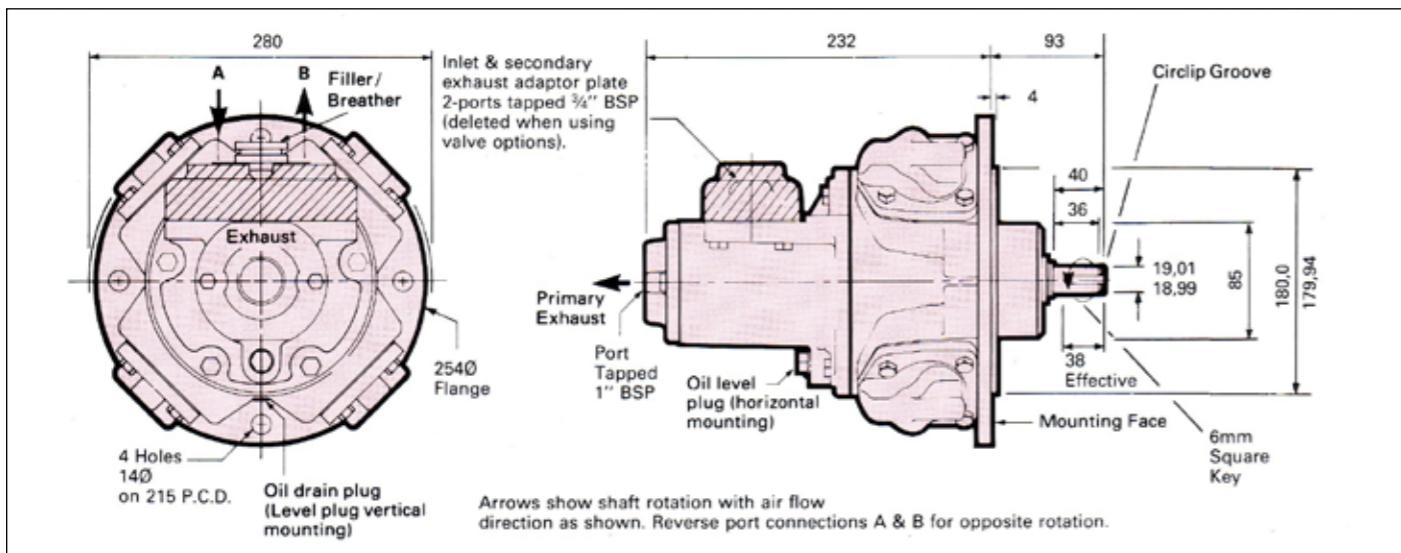


RATIO	A	B	C	D	E	F	G	H	J	L	M	P	R	T	W	X	Y	Z	MASS
2,7 to 13:1	125	90	125	170	75	155	200	252	476	62	55	254	14	15	50	28,009	7,964	24,0	50,6 kg
22 to 32:1	170	106	160	230	91	190	290	320	615	83	75	302	12	16	80	32,018	9,964	27,0	100 kg
58 & 78:1	170	118	170	240	94	218	290	320	648	83	75	302	14	18	80	38,018	9,964	33,0	106 kg
																38,002	10,000	32,8	

FLANGE MOUNTED GEARBOX

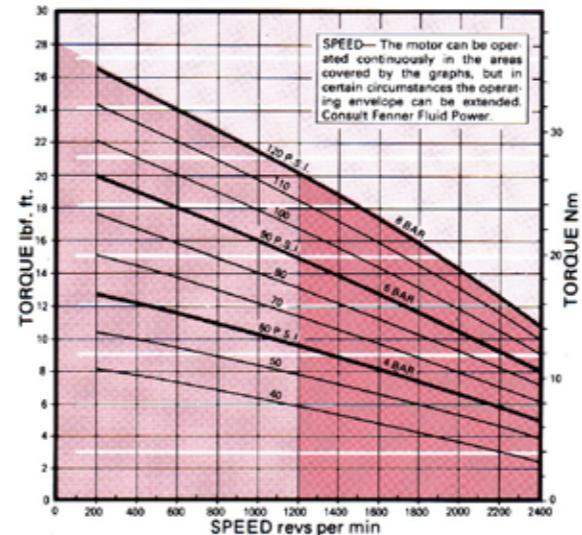


RATIO	A	B	C	D	E	J	K	L	M	N	W	X	Y	Z	MASS
2,7 to 13:1	250	180,000	15	11	215	476	60	N.A.	55	4	60	28,009	7,964	24,0	50,6 kg
22 & 32:1	350	250,000	18	18	300	615	59	130	75	5	80	32,018	9,964	27,0	112 kg
58 & 78:1	350	250,000	18	18	300	648	59	130	75	5	80	38,018	9,964	33,0	118 kg
		179,937			249,928							38,002	10,000	32,8	

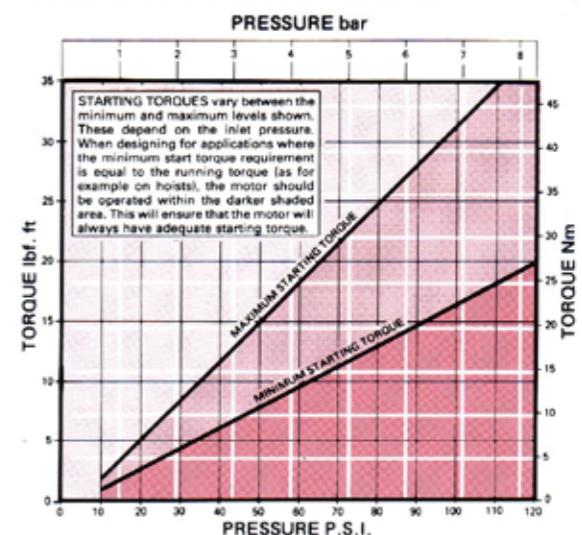


Reading graphs - Scales have been adjusted to enable bar and p.s.i. to be read from a common curve. Therefore only read p.s.i. with the left hand axis and bar with the right hand axis.

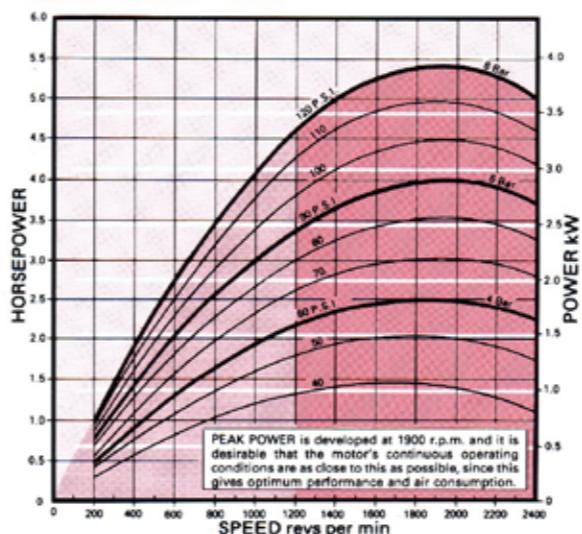
GRAPH 1 TORQUE - SPEED



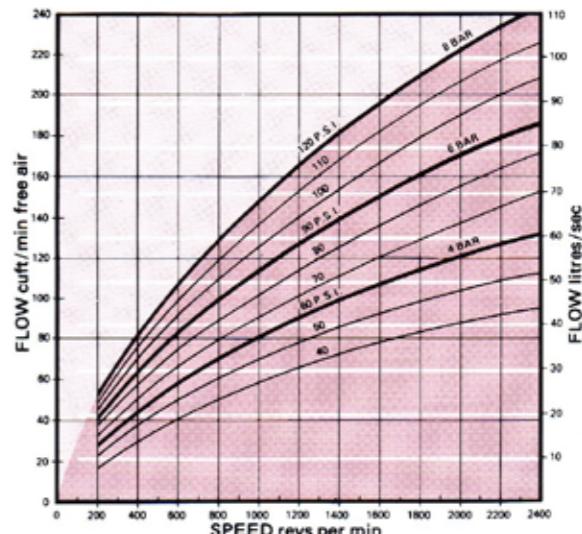
GRAPH 2 STARTING TORQUE - PRESSURE



GRAPH 3 POWER - SPEED



GRAPH 4 CONSUMPTION - SPEED



LUBRICATING OIL CAPACITIES

Horizontal 330 ml. Vertical 450ml.

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

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: 3-4 drops / minute continuous operation.

Lubricator drop rate: 6-10 drops / minute intermittent operation.

MASS (MOTOR ONLY)

26 kg

MOMENT OF INERTIA

of rotating parts 0,56 gm²

MAX OVERHUNG FORCE SHAFT

890 N.

TEMPERATURE RANGE

-20°C to +80°C

RM310 GEARED MOTOR INSTALLATION DETAILS

Maximum performance details listed below at 6 bar (90 psi). The performance under different conditions can be obtained by using the curves on page 158. A typical minimum gearbox efficiency of 90% can be expected.

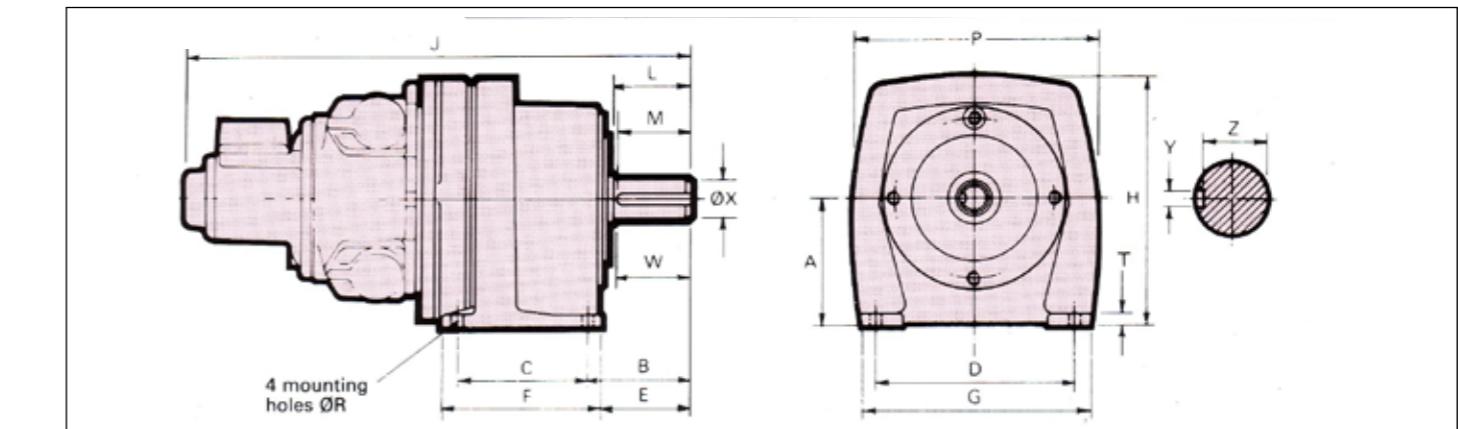
For higher pressures consult the manufacturer or their

distributors. The maximum overhung force is assumed acting midway along the output shaft; for other positions or higher loads on intermittent applications; consult the manufacturer of their distributors.

PERFORMANCE SUMMARY

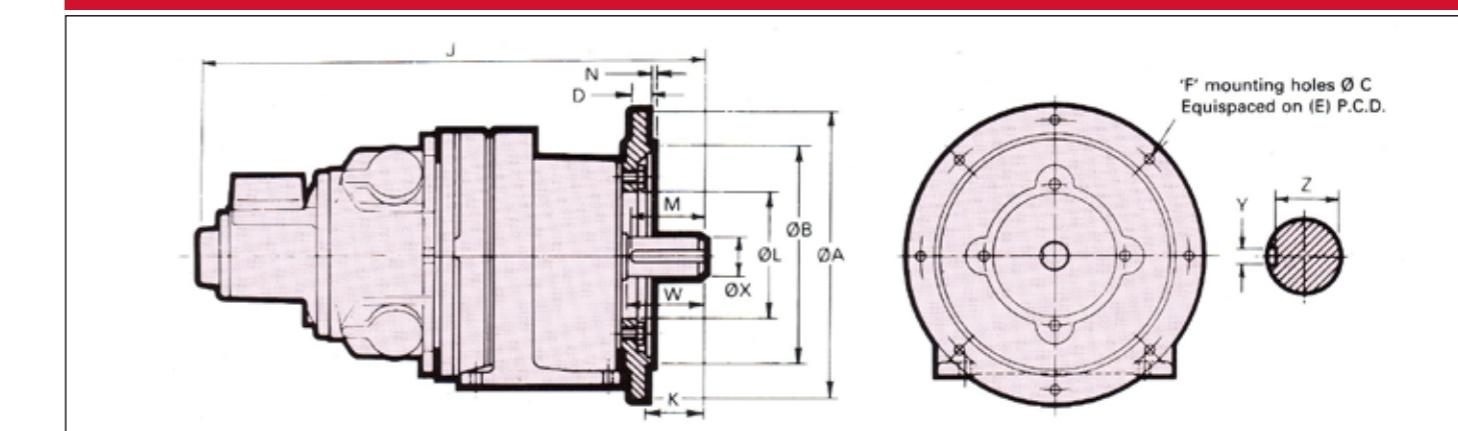
Gearbox Ratio	Maximum Power Conditions				Approx. Min. Start Torque		Max. Cont. rpm	Max. Overhung Force		
	Kw	hp	rpm	Torque		Nm	Ibf. ft.	N	Ibf.	
				Nm	Ibf. ft.					
2,8	6,1	8,2	647	87	66	90	68	863	1270	286
5,0	6,1	8,2	358	158	120	162	124	477	1490	335
7,1	6,1	8,2	253	223	170	230	175	337	1690	380
8,9	6,1	8,2	203	278	212	287	219	270	1770	398
13	6,1	8,2	136	414	316	427	325	182	1860	419
21	5,8	7,8	86	624	476	643	490	114	8010	1800
31	5,8	7,8	57	931	710	959	732	77	10200	2290
56	5,8	7,8	32	1674	1277	1725	1316	43	12900	2900
85	5,8	7,8	21	2512	1916	2588	1974	28	21400	4810

BASE MOUNTED GEARBOX

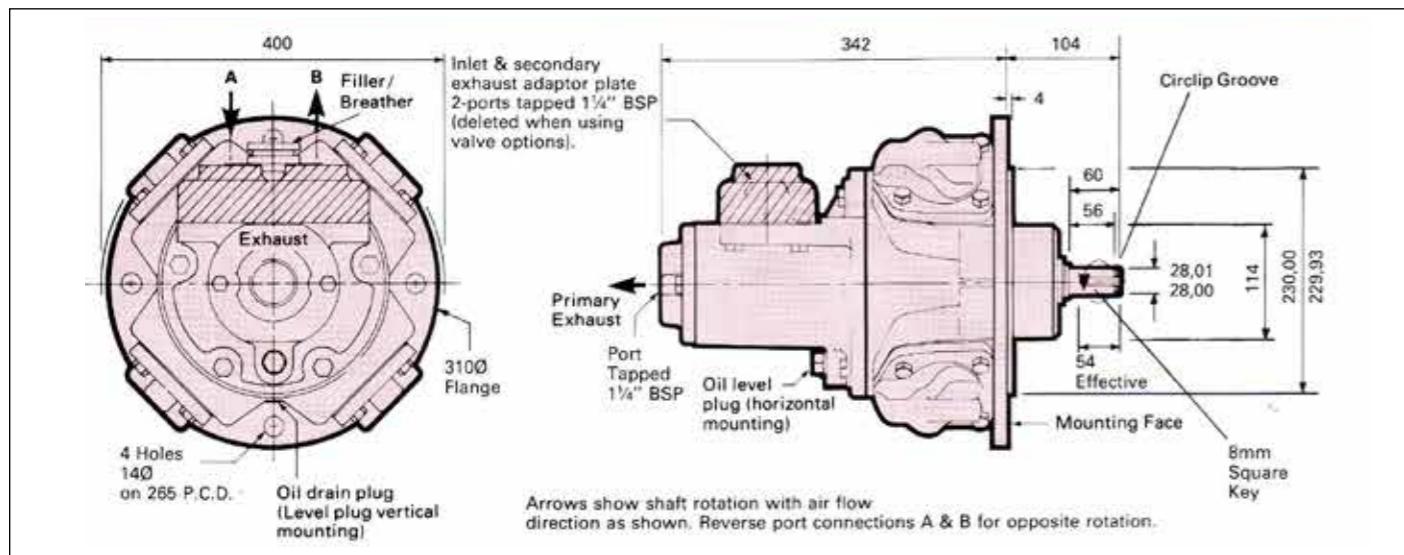


RATIO	A	B	C	D	E	F	G	H	J	L	M	P	R	T	W	X	Y	Z	MASS
2,8 to	155	115	165	210	95	205	250	308	600	83	75	305	14	25	80	38,018	9,964	33,0	85,5 kg
13:1																38,002	10,000	32,8	
21 & 31:1	170	118	170	240	94	218	290	320	702	83	75	305	14	18	80	38,018	9,964	33,0	130 kg
56:1	190	150	195	275	123	247	320	365	710	114	100	350	22	22	114	45,018	13,957	39,5	145 kg
85:1	225	155	265	335	133	312	390	425	778	124	120	400	22	25	124	55,030	15,597	49,0	200 kg
																55,011	16,000	49,8	

FLANGE MOUNTED GEARBOX

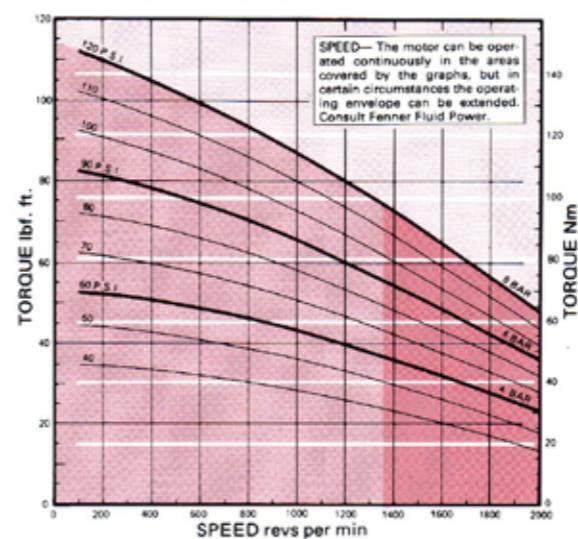
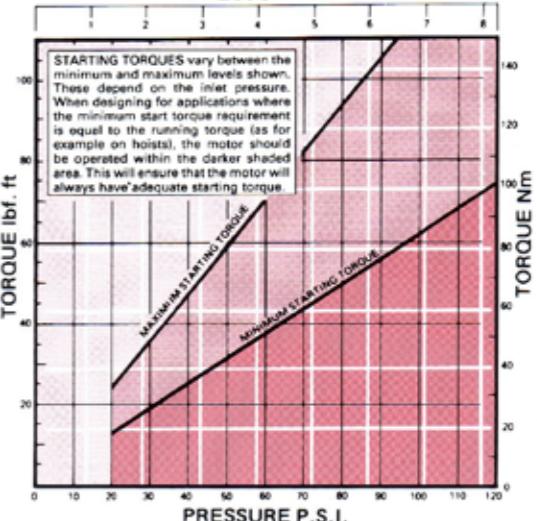


RATIO	A	B	C	D	E	F	J	K	L	M	N	W	X	Y	Z	MASS
2,8 to	300	230,000	15	15	265	4	600	80	N.A.	75	4	80	38,018	9,964	33,0	85,5 kg
13:1		229,928											38,002	10,000	32,8	
21 & 31:1	350	250,000	18	18	300	4	702	59	130	75	5	80	38,018	9,964	33,0	138 kg
56:1	450	350,000	19	20	400	8	710	80	180	100	5	114	45,018	13,957	39,5	155 kg
85:1	550	450,000	19	22	500	8	778	85	230	120	5	124	55,030	15,597	49,0	212 kg
		449,903											55,011	16,000	48,8	

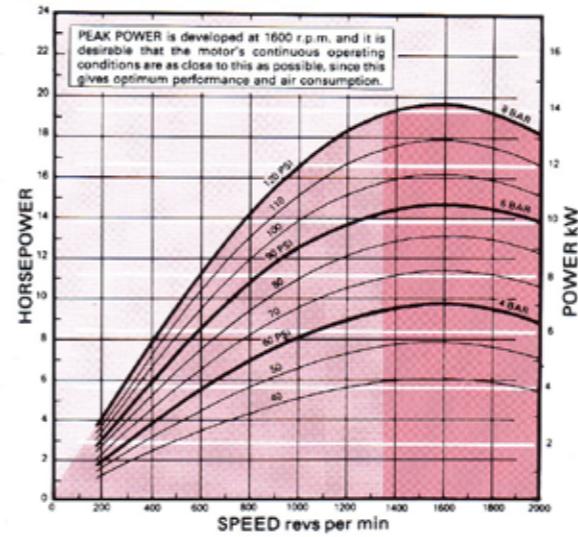


Reading graphs - Scales have been adjusted to enable bar and p.s.i. to be read from a common curve. Therefore only read p.s.i. with the left hand axis and bar with the right hand axis.

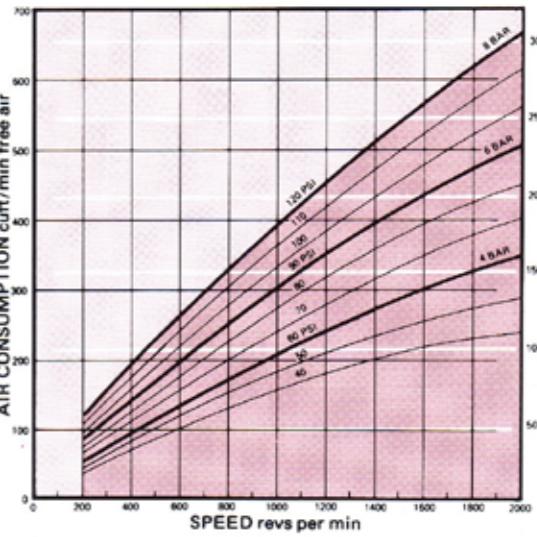
GRAPH 1 TORQUE - SPEED

GRAPH 2 STARTING TORQUE - PRESSURE
PRESSURE bar

GRAPH 3 POWER - SPEED



GRAPH 4 CONSUMPTION - SPEED



LUBRICATING OIL CAPACITIES

Horizontal 500 ml. Vertical 940ml.

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

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: 3-4 drops / minute continuous operation.

Lubricator drop rate: 6-10 drops / minute intermittent operation.

MASS (MOTOR ONLY)

62 kg

MOMENT OF INERTIA

of rotating parts 4,1 gm²

MAX OVERHUNG FORCE SHAFT

1330 N.

TEMPERATURE RANGE

-20°C to +80°C

RM410 GEARED MOTOR INSTALLATION DETAILS

Maximum performance details listed below at 6 bar (90 psi). The performance under different conditions can be obtained by using the curves on page 162. A typical minimum gearbox efficiency of 90% can be expected.

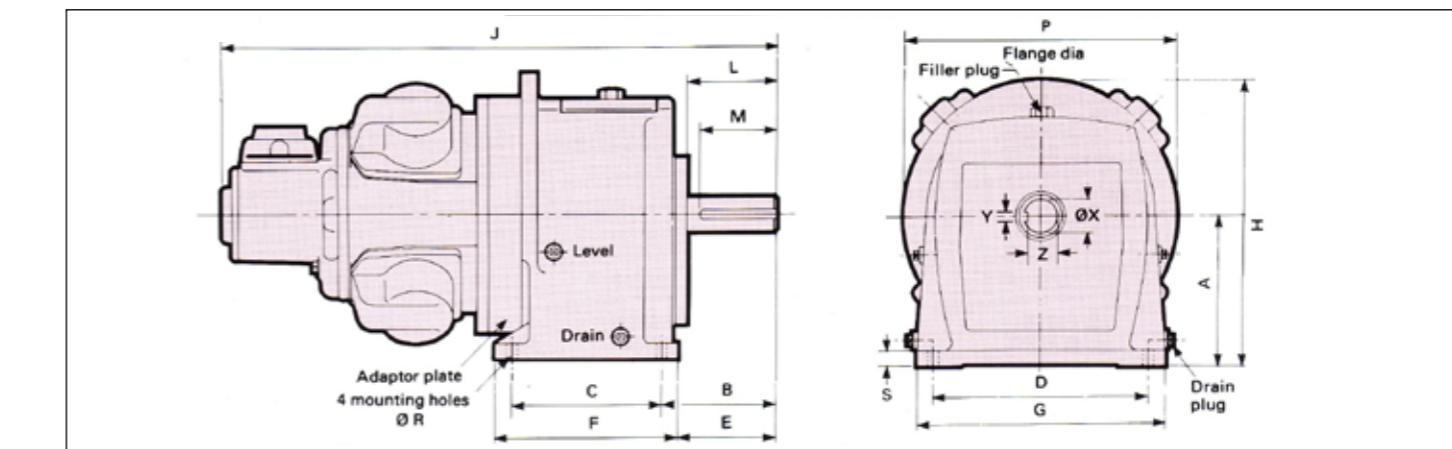
For higher pressures consult the manufacturer or their

distributors. The maximum overhung force is assumed acting midway along the output shaft; for other positions or higher loads on intermittent applications; consult the manufacturer of their distributors.

PERFORMANCE SUMMARY

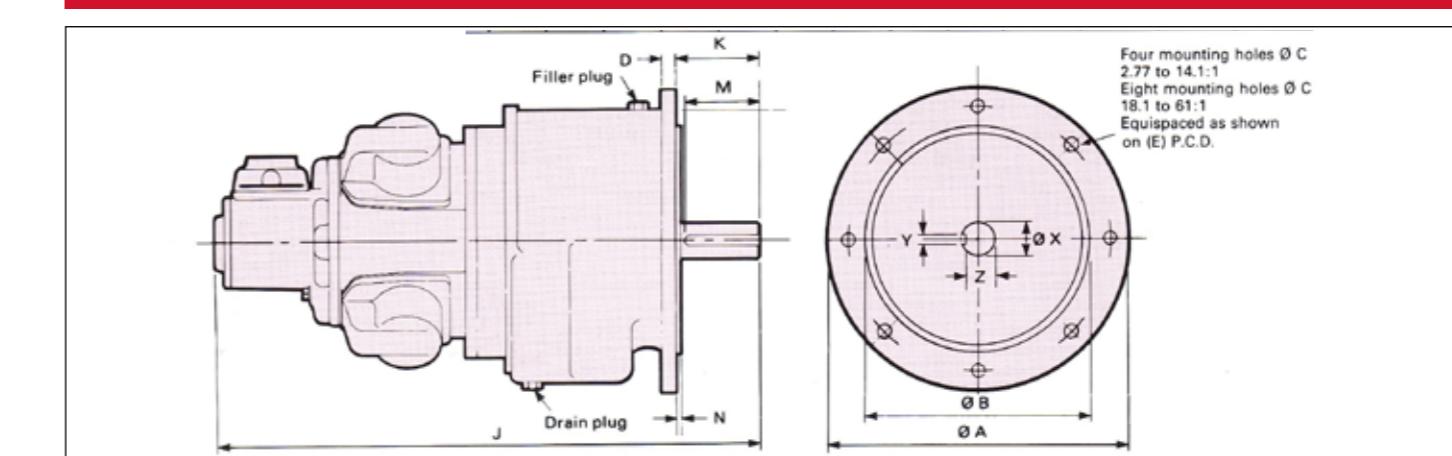
Gearbox Ratio	Maximum Power Conditions				Approx. Min. Start Torque		Max. Cont. rpm	Max. Overhung Force			
	Kw	hp	rpm	Torque		Nm	lbf. ft.				
				Nm	lbf. ft.						
2,8	10,5	14,1	578	168	128	189	145	722	6890 1550		
4,5	10,5	14,1	360	271	206	304	232	449	7470 1680		
7,2	10,5	14,1	222	438	334	493	376	277	8620 1940		
11	10,5	14,1	148	656	500	738	563	185	9560 2150		
14	10,5	14,1	113	857	654	964	736	142	10200 2300		
18	10,0	13,4	88	1042	795	1172	894	111	16900 3800		
24	10,0	13,4	67	1371	1046	1543	1177	84	17100 3850		
28	10,0	13,4	57	1612	1230	1814	1383	71	18200 4100		
37	10,0	13,4	44	2106	1607	2370	1807	55	20400 4600		
61	10,0	13,4	26	3514	2680	3953	3015	33	24400 5500		

BASE MOUNTED GEARBOX

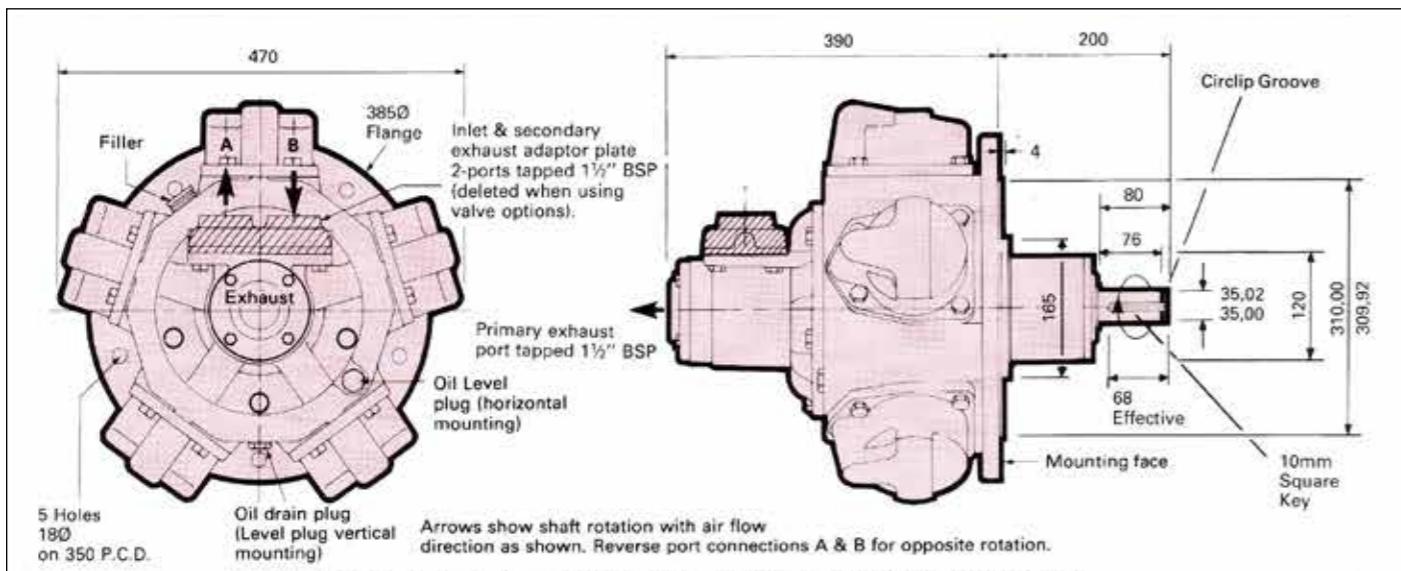


RATIO	A	B	C	D	E	F	G	H	J	L	M	P	R	X	Y	Z	MASS
2,8 to 14:1	190	151	195	275	125	246	320	365	716	105	100	350	14	45,02	13,98	39,5	146 kg
														45,00	39,3	39,3	
18 to 61:1	265	185	305	380	152	365	440	490	816	138	125	450	28	65,03	17,98	58,0	273 kg
														65,01	17,94	57,8	

FLANGE MOUNTED GEARBOX

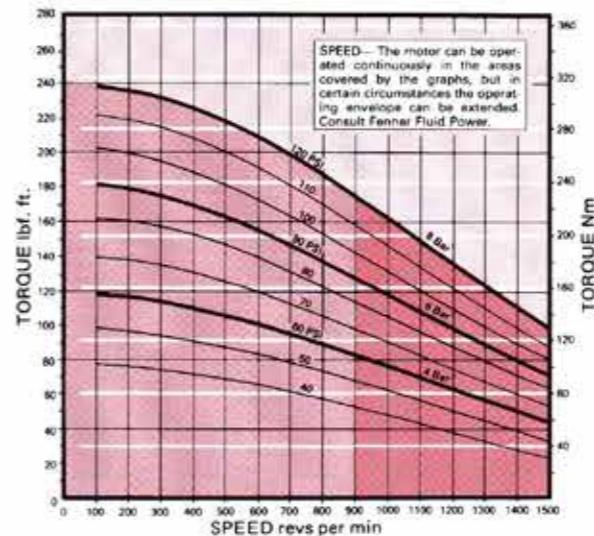
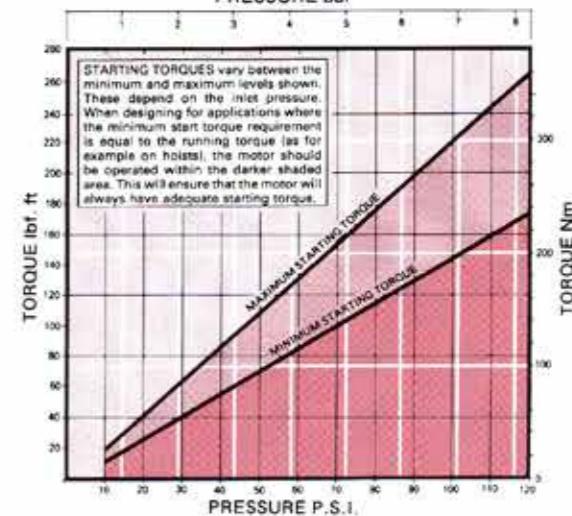


RATIO	A	B	C	D	E	J	K	M	N	X	Y	Z	MASS
2,8 to 14:1	400	300,00 299,92	4 x 18	19	350	716	110	100	6	45,02	13,98	39,5	146 kg
18 to 61:1	550	450,00 449,92	8 x 18	22	500	816	140	125	6	65,03	17,98	58,0	273 kg
										65,01	17,94	57,8	

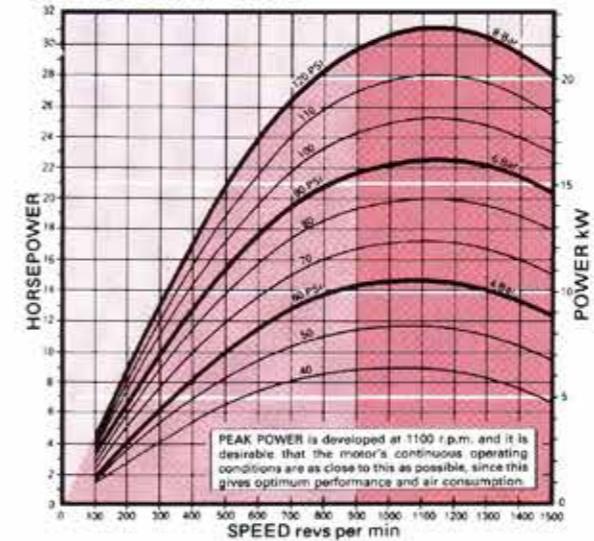


Reading graphs - Scales have been adjusted to enable bar and p.s.i. to be read from a common curve. Therefore only read p.s.i. with the left hand axis and bar with the right hand axis.

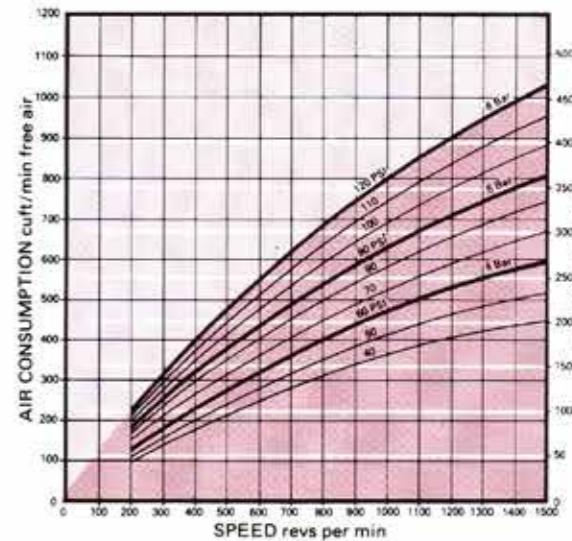
GRAPH 1 TORQUE - SPEED

GRAPH 2 STARTING TORQUE - PRESSURE
PRESSURE bar

GRAPH 3 POWER - SPEED



GRAPH 4 CONSUMPTION - SPEED

**LUBRICATING OIL CAPACITIES**

Horizontal 1,1 l. Vertical 2,1 l.

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

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: 3-4 drops / minute continuous operation.

Lubricator drop rate: 6-10 drops / minute intermittent operation.

MASS (MOTOR ONLY)

115 kg

MOMENT OF INERTIA

of rotating parts 14 gm²

MAX OVERHUNG FORCE SHAFT

6500 N.

TEMPERATURE RANGE

-20°C to +80°C

RM510 GEARED MOTOR INSTALLATION DETAILS

Maximum performance details listed below at 6 bar (90 psi). The performance under different conditions can be obtained by using the curves on page 166. A typical minimum gearbox efficiency of 90% can be expected.

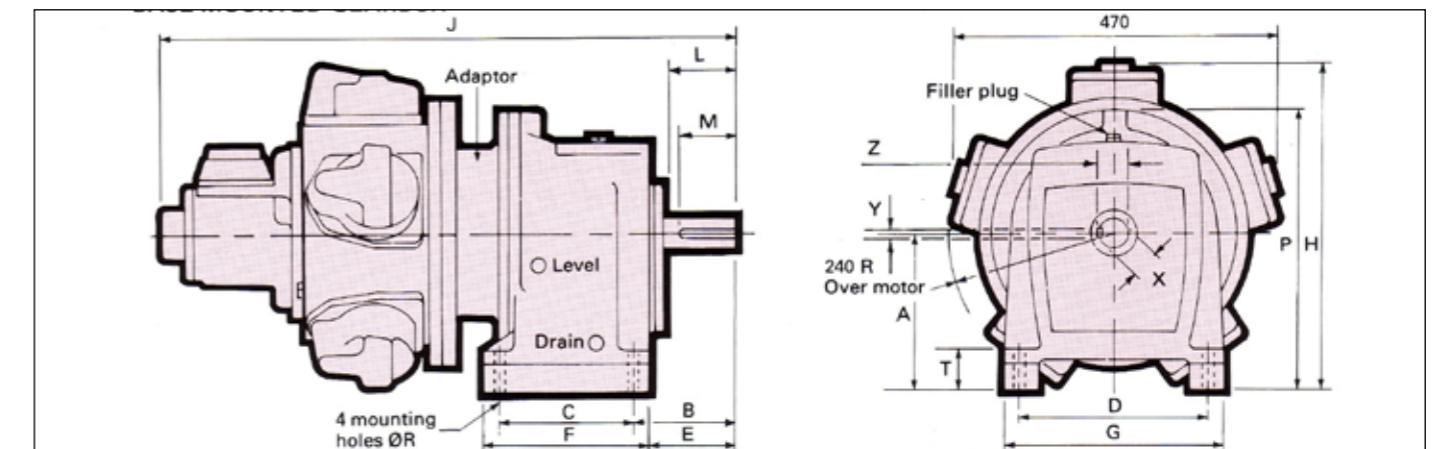
For higher pressures consult the manufacturer or their

distributors. The maximum overhung force is assumed acting midway along the output shaft; for other positions or higher loads on intermittent applications; consult the manufacturer of their distributors.

PERFORMANCE SUMMARY

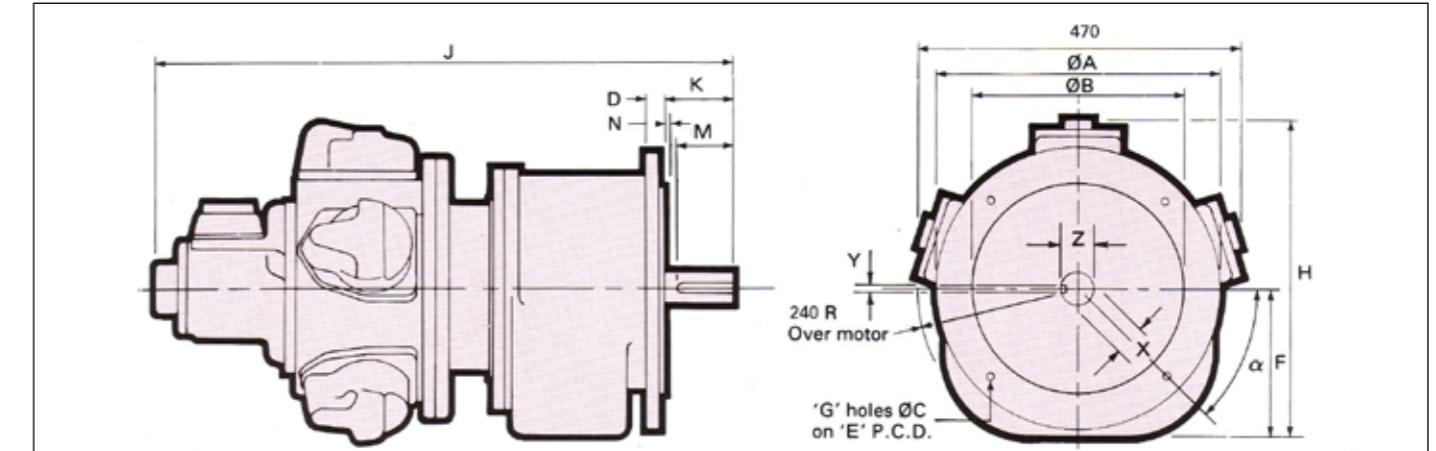
Gearbox Ratio	Maximum Power Conditions				Approx. Min. Start Torque		Max. Cont. rpm	Max. Overhung Force			
	Kw	hp	rpm	Torque		Nm	lbf. ft.				
				Nm	lbf. ft.						
2,8	16,3	21,9	415	363	277	447	341	542	7660 1722		
3,9	16,3	21,9	292	517	394	636	485	381	8608 1935		
8,7	16,3	21,9	132	1139	869	1403	1070	173	16090 3617		
22	15,5	20,7	53	2681	2045	3303	2519	69	37220 8367		
31	15,5	20,7	37	3870	2952	4767	3636	48	42760 9612		
39	15,5	20,7	30	4798	3659	5910	4508	39	46900 10543		

BASE MOUNTED GEARBOX

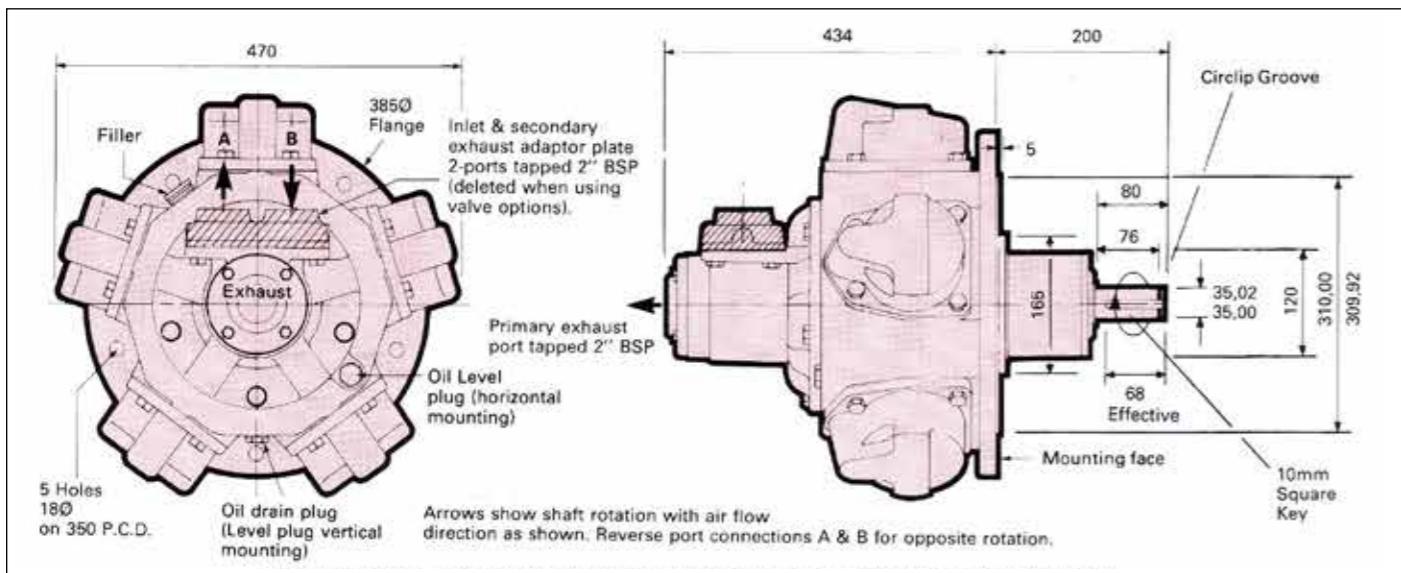


RATIO	A	B	C	D	E	F	G	H	J	L	M	P	R	T	X	Y	Z	MASS
2,8 & 3,9:1	230	151	195	275	125	246	322	470	825	105	100	406	14	59	45,018	14,000	48,50	210 kg
8,7:1	225	155	325	335	113	396	390	465	888	110	100	425	22	30	55,030	16,000	59,00	280 kg
22 to 39:1	335	267	460	460	226	530	530	515	1088	201	200	545	32	44	100,035	28,000	105,99	540 kg
															100,012	27,948	105,68	

FLANGE MOUNTED GEARBOX

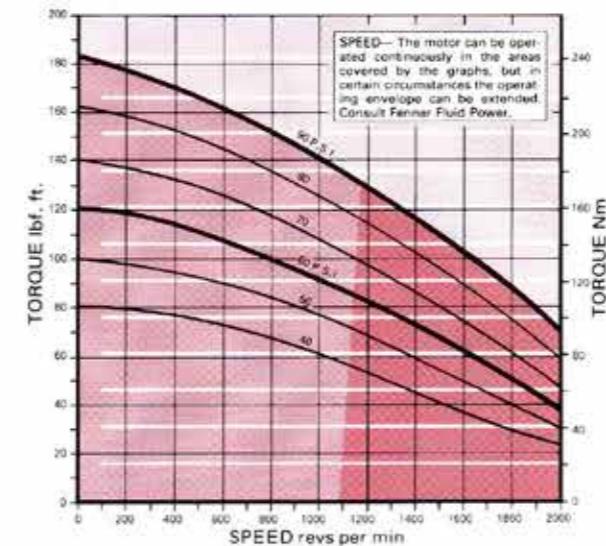
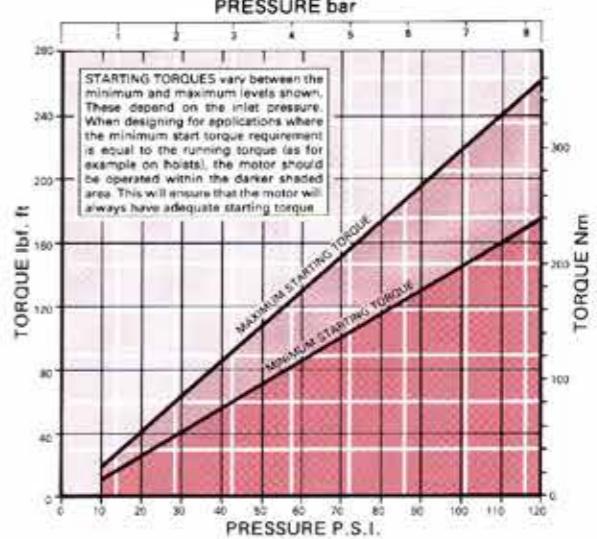


RATIO	A	B	C	D	E	α	F	G	H	J	K	M	N	X	Y	Z	MASS
2,8 & 3,9:1	400	300,00	18	19	350	45°	220	4 OFF	460	825	110	100	6	45,018	14,000	48,50	206 kg
8,7:1	450	350,00	19	25	400	45°	230	8 OFF	470	888	110	100	5	55,030	16,000	59,00	293 kg
		299,92												100,012	27,948	105,68	
		349,91												55,011	15,957	58,71	

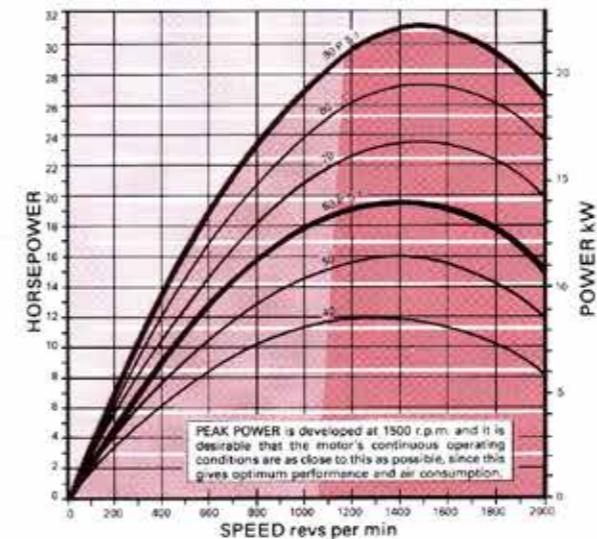


Reading graphs - Scales have been adjusted to enable bar and p.s.i. to be read from a common curve. Therefore only read p.s.i. with the left hand axis and bar with the right hand axis.

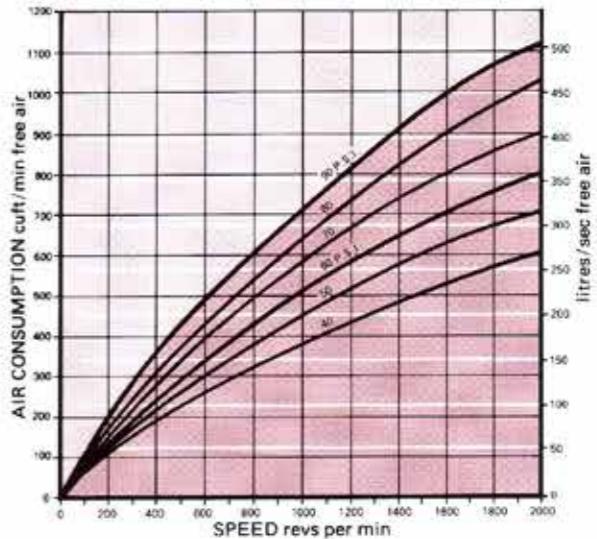
GRAPH 1 TORQUE - SPEED

GRAPH 2 STARTING TORQUE - PRESSURE
PRESSURE bar

GRAPH 3 POWER - SPEED



GRAPH 4 CONSUMPTION - SPEED

**LUBRICATING OIL CAPACITIES**

Horizontal 1,1 l. Vertical 2,1 l.

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

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: 3-4 drops / minute continuous operation.

Lubricator drop rate: 6-10 drops / minute intermittent operation.

MASS (MOTOR ONLY)

125 kg

MOMENT OF INERTIA

of rotating parts 14 gm²

MAX OVERHUNG FORCE SHAFT

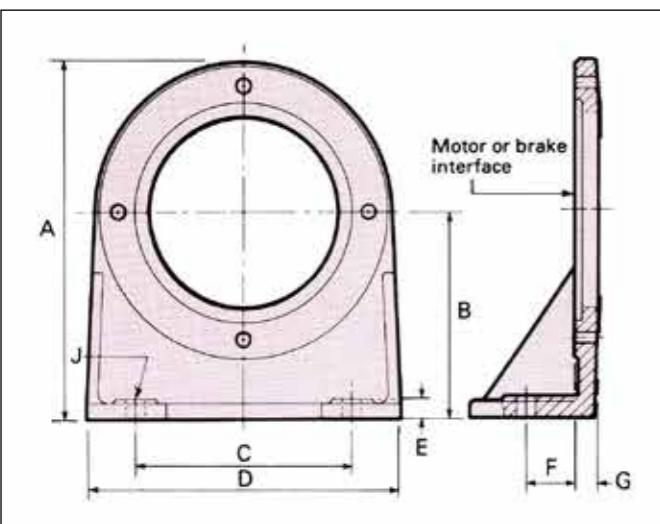
6500 N.

TEMPERATURE RANGE

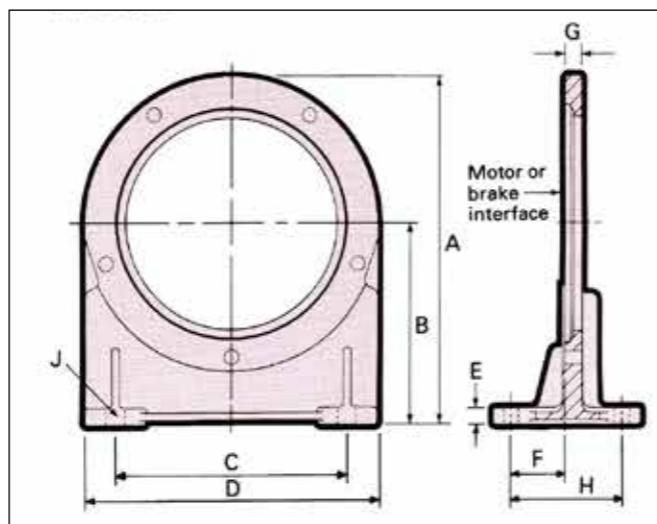
-20°C to +80°C

FOOT BRACKETS AND SILENCERS

FOOT BRACKET FOR RM- 050, 210, 310, 410



FOOT BRACKET FOR RM- 510, 610

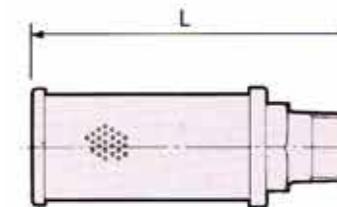


	050	110	210	310	410	510	610
A	220	220	310	370	372	457	457
B	125	125	180	215	215	264	264
	124,5	124,5	179,5	214,5	214,5	263,5	263,5
C	140	140	190	228	228	305	305
D	203	203	280	330	330	386	386
E	10	10	20	19	21	22	22
F	32	32	42	52	52	70	70
G	16	16	19	22	22	22	22
H	-	-	-	-	-	146	146
J	2 x Ø 14	2 x Ø 14	2 x Ø 18	2 x Ø 20	2 x Ø 20	2 x Ø 22	2 x Ø 22

SILENCERS

Silencers screw directly into the primary and secondary exhaust ports. Note - control valves also have secondary exhaust ports. These silencers are designed for intermittent use, for continuous operation consult the manufacturer or your local distributor. If it is necessary to pipe the exhaust away from the motor, care must be taken to adequately size the pipework to avoid build up

of back pressure in the system. If in doubt consult our Applications Department.



Normally supplied in kit form complete with fittings.

	050	110 primary	110 secondary	210 primary	210 secondary	310	410	510	610
Size	3/8"	3/4"	1/2"	1"	3/4"	1 1/4"	1 1/4"	1 1/2"	2"
L	84	90	76	110	90	200	200	234	Consult FPP



VALVE OPTIONS

This range of bolt on valves offers very sensitive speed and directional control. One frictionless 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 RAISED 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 or geared motor.

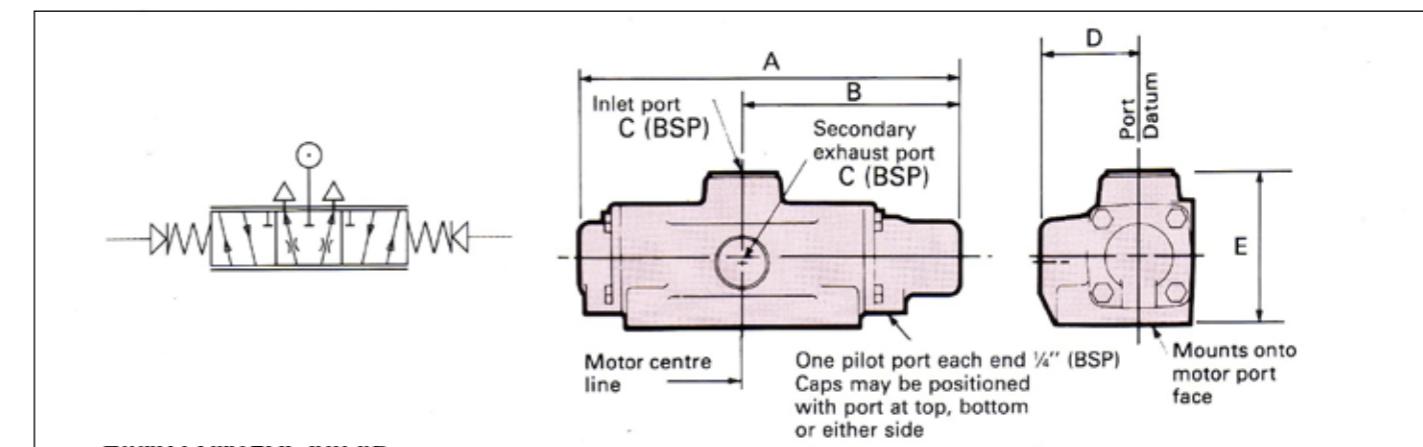
1. REMOTELY CONTROLLED (RCV) - This option is usually controlled from a remote position by one of the PC series or LC2 units shown opposite. A variable air pilot signal is applied to either end of the valve spool, depending on the required direction of motor rotation. The pilot pressure range is between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

2. 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.

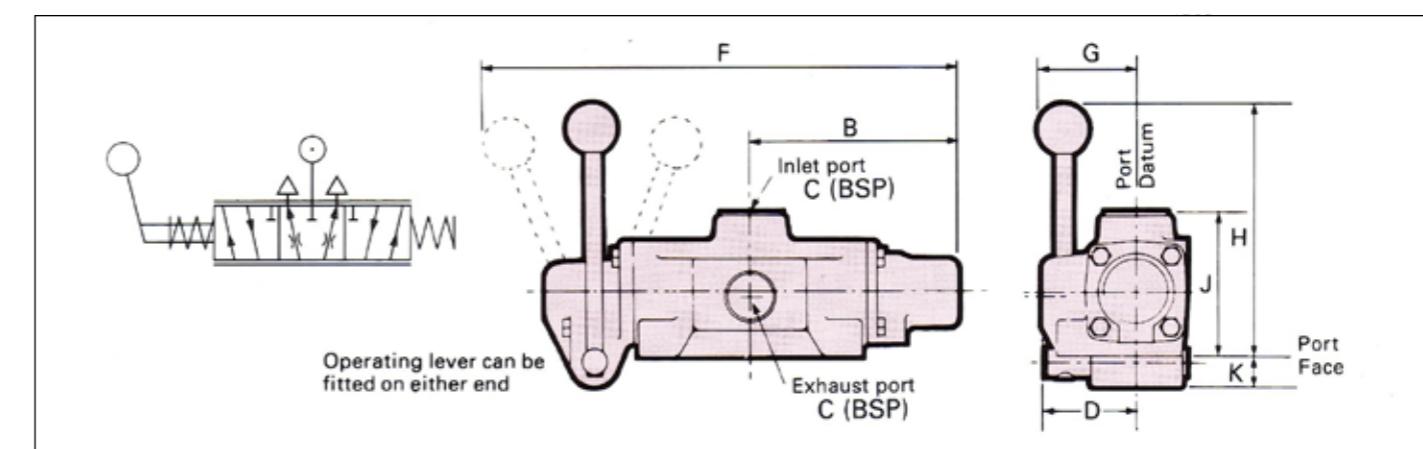
PRESSURE DROP

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.

REMOTE CONTROL VALVE



HAND CONTROL VALVE



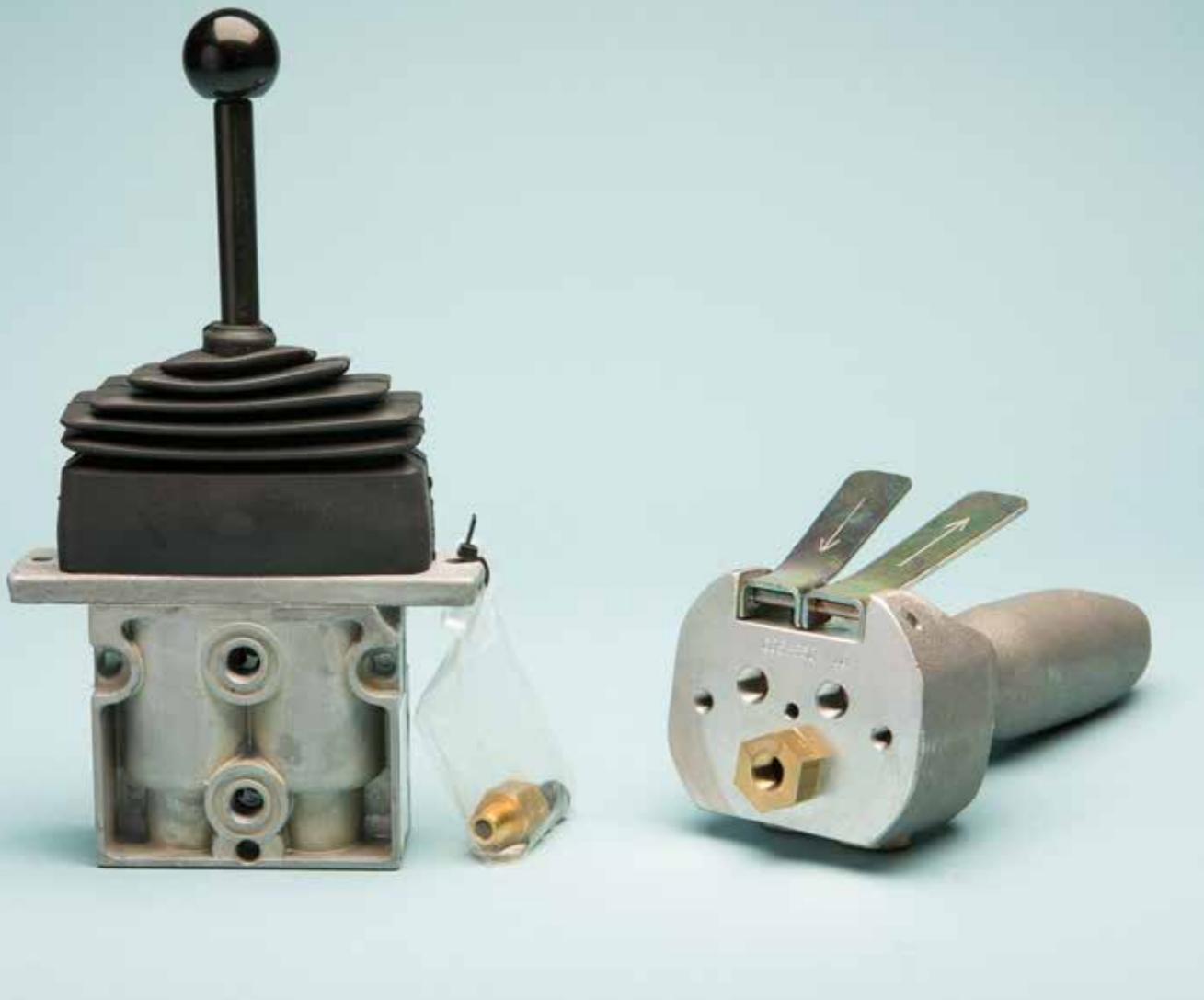
Motors	A	B	C (BSP)	D	E	F	G	H	J	K
050 & 110	210	118	1/2"	61	84	270	61	162	84	21
210	210	118	3/4"	61	84	270	61	162	84	21
310	280	160	1"	72	103	365	75	193	103	27
410	280	160	1 1/4"	72	114	365	75	198	112	22
510	355	197	1 1/2"	97	137	413	90	190	137	27
610										

PENDANT CONTROLS (PC2, 4 OR 6)

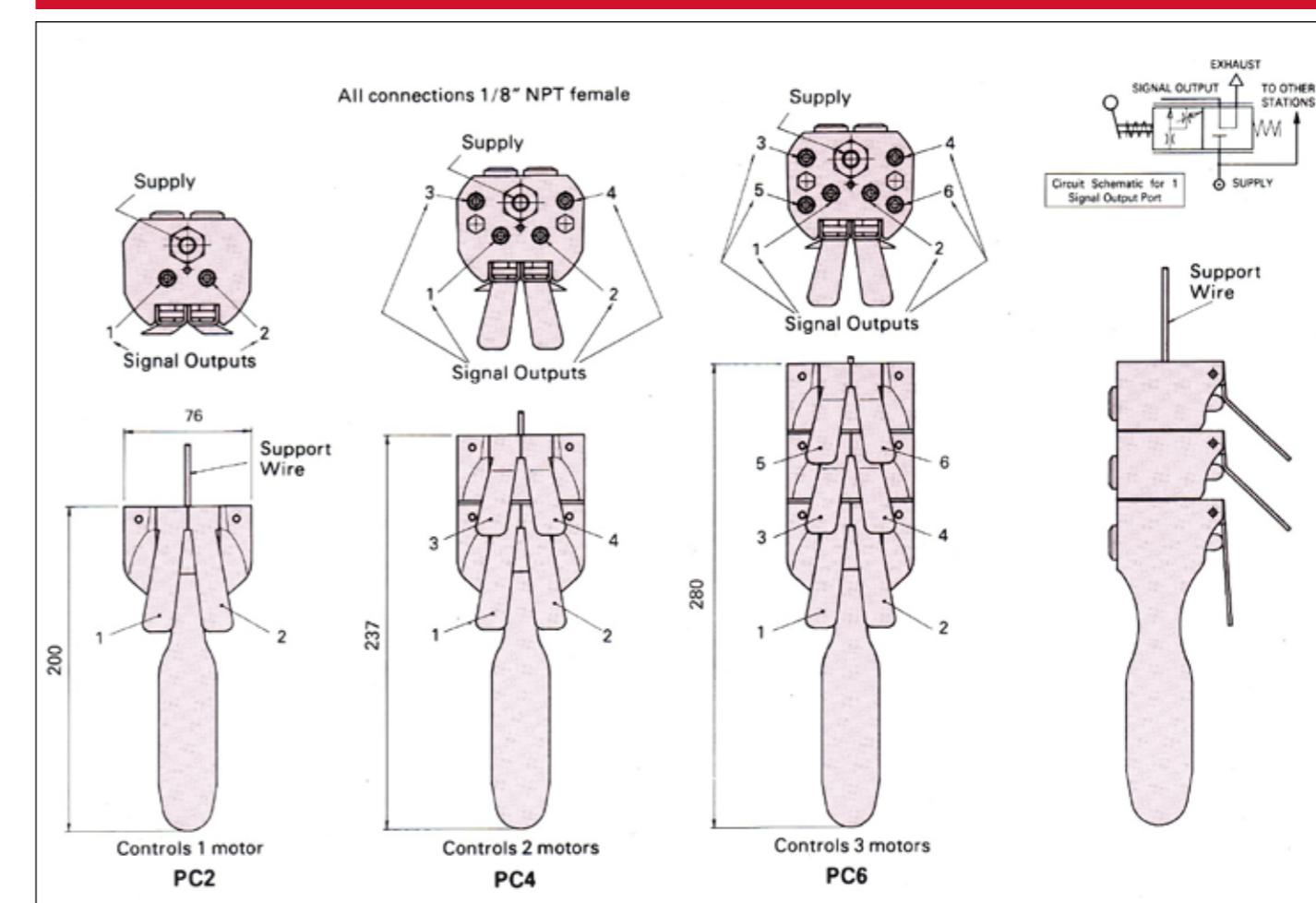
The PC2, 4 and 6 remote controllers are designed specifically for use with the RCV modules opposite. They provide the correct range of pilot pressure required to operate the RCV units, and give excellent control of motor speed. The PC2 is used to control one (hoist) motor; the PC4 can control two motors independently (say hoist and long travel); the PC6 can control three motors independently (hoist, long travel, traverse). Motors of different sizes can be controlled from the same unit.

Control line lengths of 36m (120ft) give excellent response. For distance in excess of this consult the manufacturer or distributors. The control lines are small bore eliminating the need for large capacity air supply lines between motor and controllers. If required, supply pressure can be taken form the tapping on the RCV.

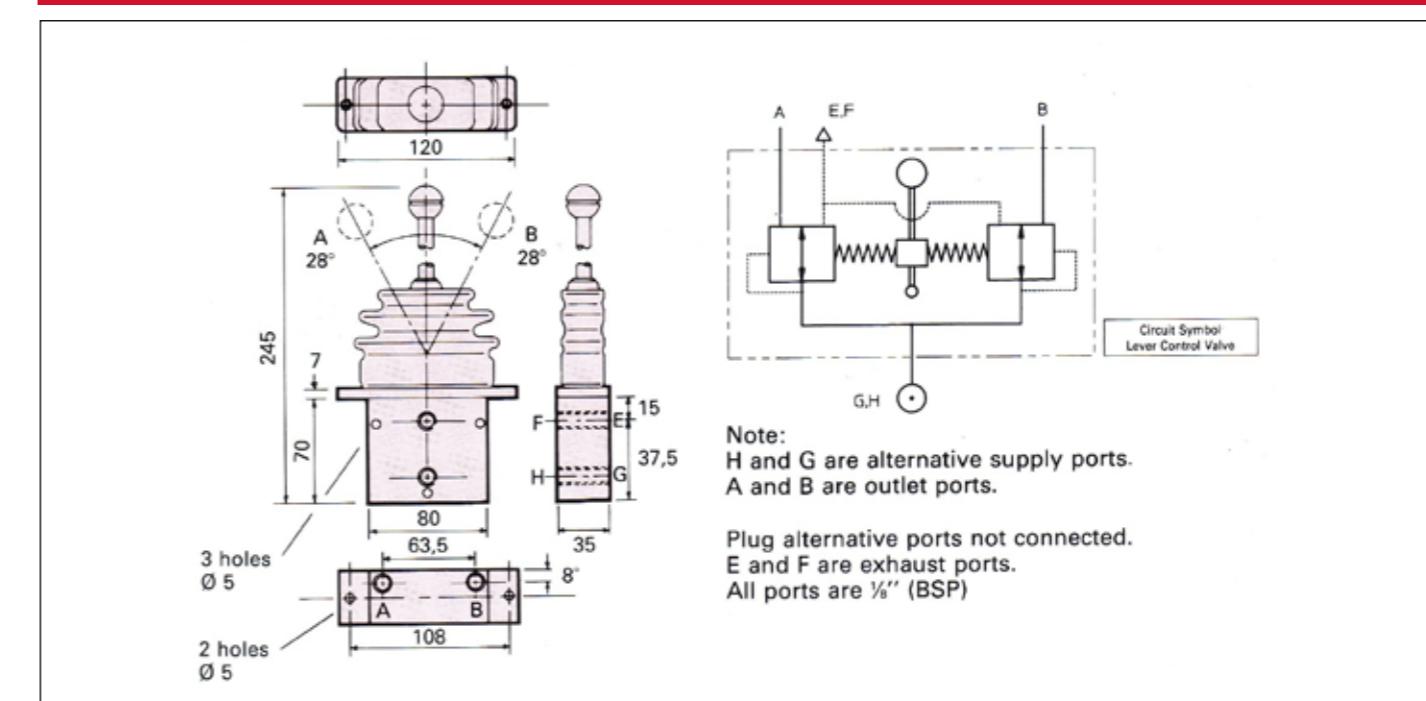
MARINE VERSIONS AVAILABLE. PC2M, PC4M OR PC6M



PENDANT CONTROLS



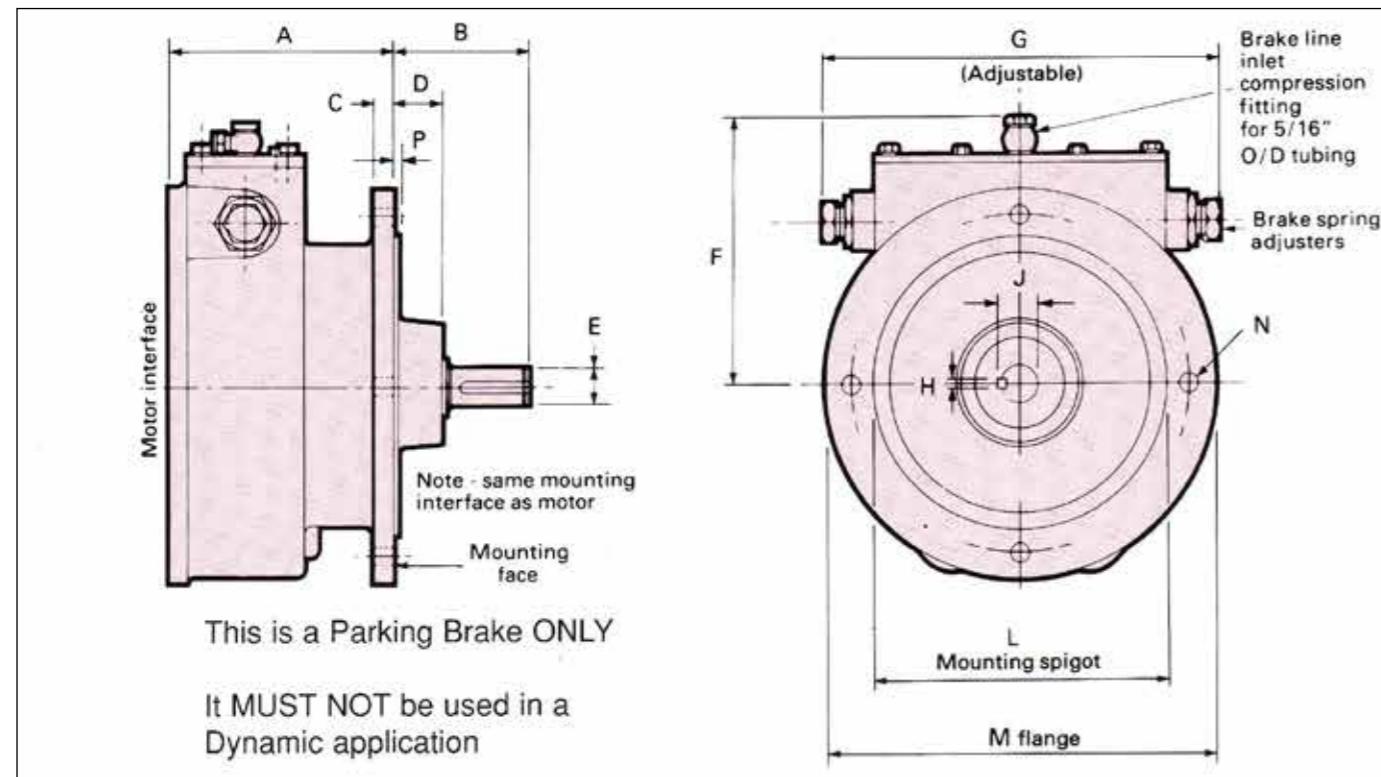
LEVER CONTROL (LC2) MARINE STYLE (LC2M)



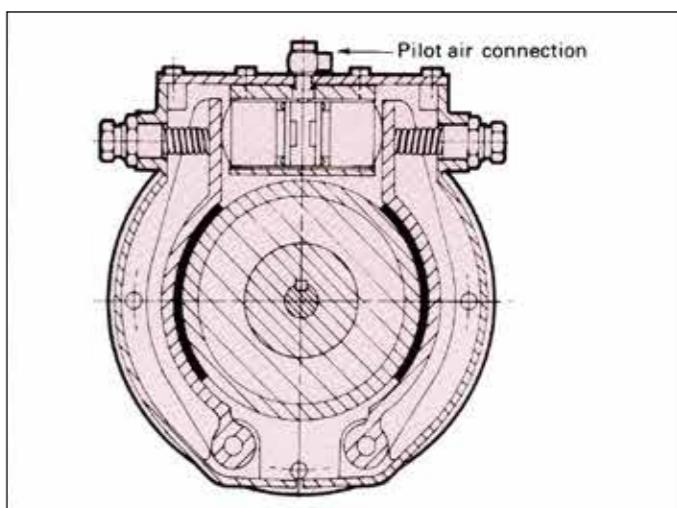
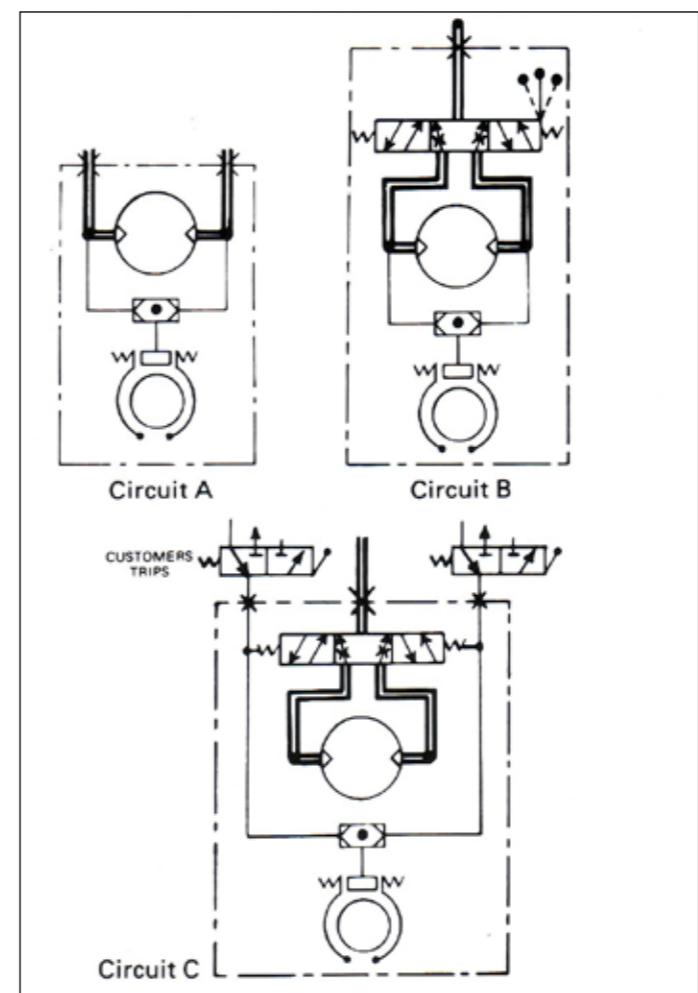
BRAKE INSTALLATION DETAILS

The brake module bolts directly into the motor mounting face and has exactly the same interface as the motor. As shown on the drawing below, the brake consists of two spring applied shoes pressed against a central hub. These shoes are released by applying air pressure to the cylinder/piston assembly. The brake torque can be varied

by means of two spring adjusters but it is normally set that a pilot pressure of 4.1 (60 p.s.i.) will fully release it. Pressures below this level will progressively reduce the braking torque available. The brakes are set at the plant but it may be necessary to make adjustments on site to suit the individual application.



Motors	A	B	C	D	E	F	G	P
050	100	66	8	30	14,01 14,00	126	210	3,6
110	100	66	8	30	14,01 14,00	126	210	3,6
210	115	93	11	46	19,01 18,99	129	235	4,0
310	140	104	15	46	22,01 21,99	160	270	4,0
410	175	104	16	37	28,01 28,00	206	340	4,0
510	172	96	16	16	35,02 35,00	268	450	5,1
610	172	96	16	16	35,02 35,00	268	450	5,1



CIRCUIT (A) - Applies to braked motors supplied without control valving. The unit will be fitted with a shuttle valve to allow brake operation for dual rotation.

CIRCUIT (B) - Units supplied with hand (HCV) controlled reversible valves. If trips are required they must be of the mechanical style (customers supply).

CIRCUIT (C) - Units supplied with remotely controlled valves. When override trips are required, they must be superimposed in the signal line close to the motor unit and be of the 3 way style. (Signal lines cut and exhausted in the tripped position).

H	J	L	M	N-MOUNTING HOLES			
				NO.	Ø	P.C.D.	BOLT LENGTH (MAX)
5,00	16,00	130,00	188	4	11	165	28
4,97	15,87	129,94					
5,00	16,00	130,00	188	4	11	165	28
4,97	15,87	129,94					
6,00	21,50	180,00	254	4	14	215	25
5,97	21,27	179,94					
8,00	31,01	230,00	305	4	14	265	40
7,94	37,71	229,93					
10,00	38,00	310,00	385	5	18	350	35
9,96	37,71	309,92					
10,00	38,00	310,00	385	5	18	350	35
9,96	37,71	309,92					



COMPACT PISTON AIR MOTORS

WORKING PRINCIPLE

The compact radial piston air motor operates without rod or crank shaft. The radial arranged pistons travel along a curve and are controlled by the centre.

The static control shaft supplies the driving pistons with the necessary air. Air supply and release openings along the static shaft are periodically opened and closed by the rotation of the rotor to pressurise or release the pistons in an appropriate sequence.

Six of the twelve driving pistons are actively contributing to the torque at any moment. Once reaching the highest point on the curve, the air driving the piston is released by the control unit and the piston is forced into its lowermost position. This operating principle is equivalent with the one of a simple cylinder.

The compact piston air motor's high torque is due to the power transmission of the pistons along the large external diameter of the curve. The friction connected with the travel along the curve is low due to the installation of rollers at the tip of the pistons. This results in high lifetime of the drive.

Noise emissions were determined according to the noise measuring standards ISO 11202 and within the frame of the ISO 11200 standards. The measured noise levels were below 78 dB for the RM012 and RM024. The pneumatic drive thus fulfils the noise regulations without requirement for ear protection devices.

We recommend to operate the drive within a speed range of 50 – 350 R.P.M. shaft dimensions can be adapted according to the specific requirements of the client. Dimensions in millimetres.

ADVANTAGES

Air motors offer a unique form of drive and incorporate advantages not found in other prime movers.

- Simple and inexpensive variable speed and torque control with a flow control valve and/or pressure regulator.
- Intrinsically safe for explosion proof environments. The compact piston air motors are certified according to the European explosion directive ATEX II cat. 2 G&D T5.
- Air motors can be stalled indefinitely under load. They will not overheat or burn out.
- Long lifetime because of low friction and a minimum of parts that are exposed to wear.
- Controllable over a wide speed range.
- Instantly reversible, operated with a simple control valve.
- Resistant to warm, dirty and damp conditions.
- No shock start up which improves the life span of the equipment.
- 12 pistons for very low speeds and smooth running.
- Improved design pistons for longer life time.
- Oil free running.
- Silicone free so very useful in mixing applications.
- Available with front flange, which incorporates an extra bearing.
- Small dimensions.
- Special version for food and chemical industry.
- ATEX approved.

WHY CHOOSE A COMPACT PISTON AIR MOTOR?

Within the air motor family the compact piston air motor takes a special place, because this motor is often used in applications where other air motors can not be used.

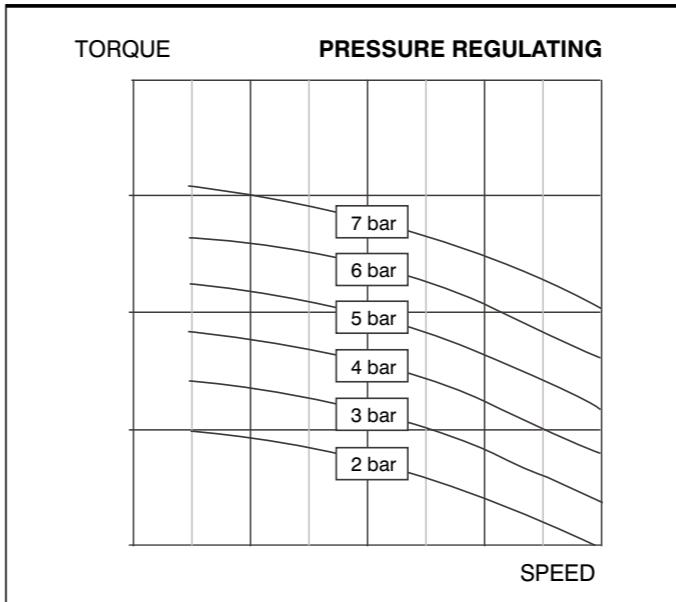
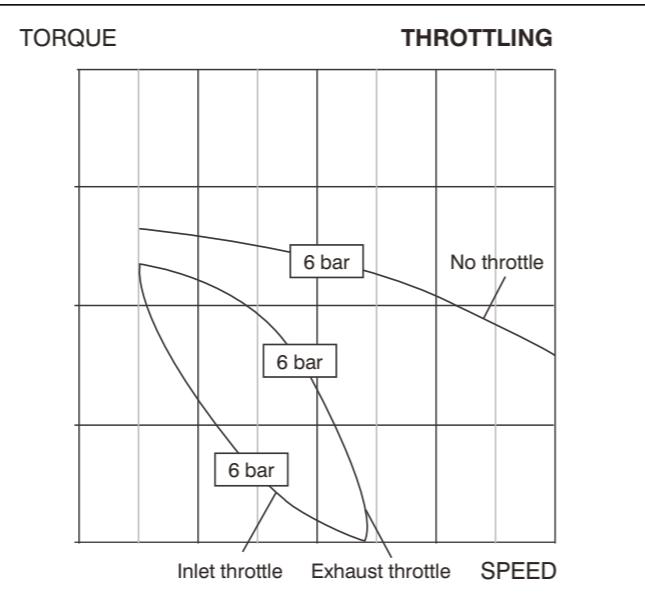
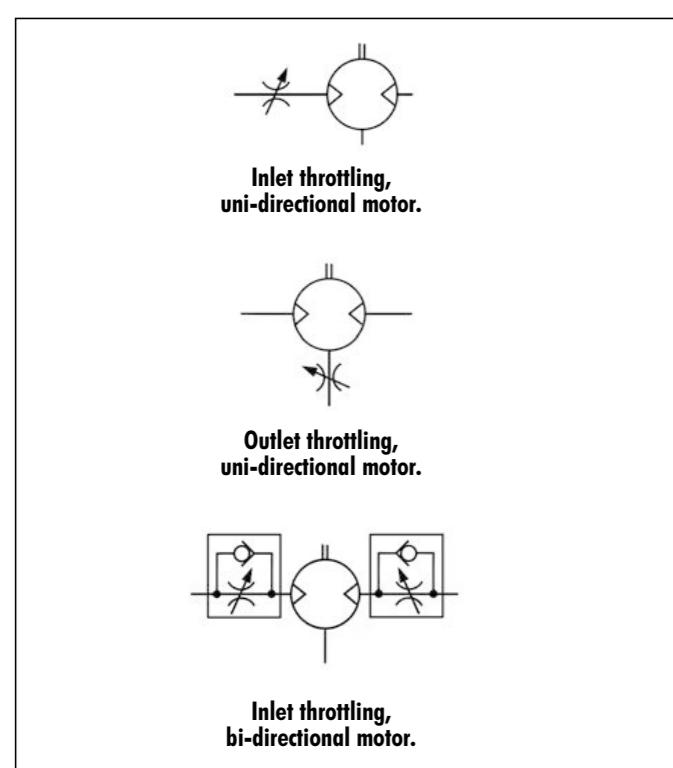
- High torque at low speed of rotation. Therefore most of the times a gearbox is not necessary.
- Highest torque at start-up. The compact piston air motor does not have a variable starting torque. This always guarantees the rated starting torque.
- Possibility to connect up to three units in series if higher torque or power is required.
- Very low air consumption due the use of pistons, low internal friction and low internal air leakage.
- Low noise emission that fulfils the noise regulations without requiring ear protection.
- The compact piston air motors can be supplied directly coupled to a wide range of gearboxes such as planetary, helical bevel helical and worm gears.
- Due to the low speed of rotation the compact piston air motor is especially suitable for applications in which the air motor is constantly in stall.
- Compact construction made out of aluminium with steel shaft. Also available in a plastic housing with a stainless steel shaft.
- Integrated brake function. When both the inlet and outlet port are pressurised, the motor functions as a brake with a torque that is 50% of the starting torque.
- Able to run without lubrication. The compact piston air motors can operate with a minimum of lubrication. Complete oil-less operation is possible in certain applications. Consult GLOBE Airmotors BV or your local distributor for more information.

SPEED REGULATION

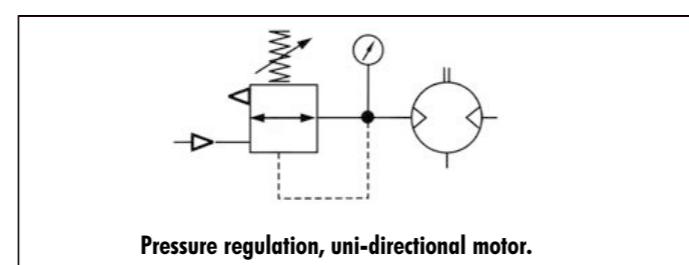
Controlling the performance of an air motor is done by regulating the air supply. This is relatively cheap and simple. The methods to regulate the air supply are throttling and pressure regulation.

THROTTLING

The air flow is controlled by placing a flow control valve at the inlet port or the outlet port of the air motor. Throttling will reduce the maximum speed of the motor but will not affect the starting performance; the air pressure is unaffected at low flow conditions i.e. starting. Note the difference in the graph between throttling on the inlet port and outlet port.

THROTTLING METHODS**PRESSURE REGULATOR**

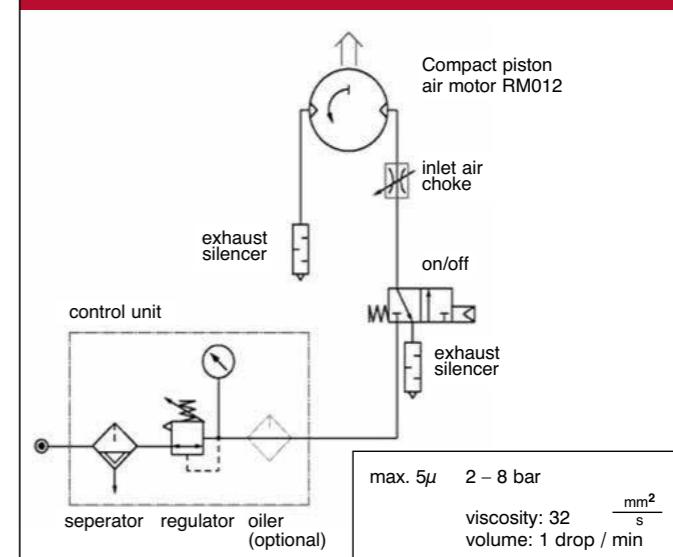
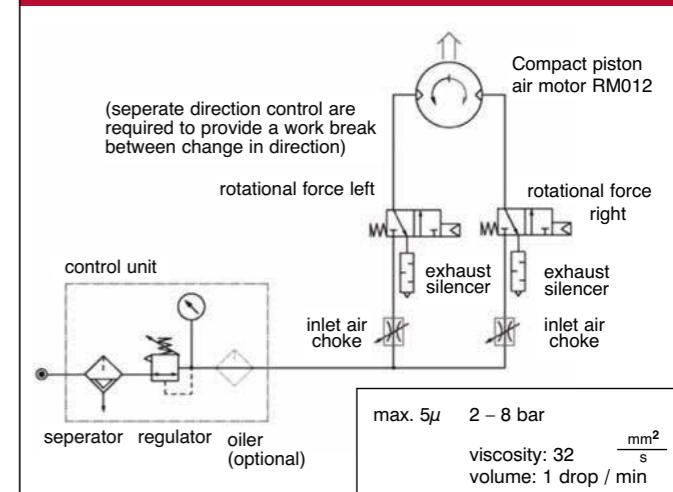
The speed and power can also be reduced by installing a pressure regulator on the incoming air supply. The pressure regulator reduces the air pressure to the motor. A pressure regulator is always fitted on the inlet port. By using a pressure regulator the torque on the output shaft will be affected, starting torque is best controlled with this method.

PRESSURE REGULATING METHOD

When both the speed and the torque are to be controlled the best configuration is to use a pressure regulator in the air line to the motor and a flow control valve on the outlet port. This way every point in the torque-speed graph can be set accurately.

DIRECTIONS OF ROTATION

The GLOBE piston air motors can be used both as a uni-directional and as a bi-directional air motor. When the air motor is used in a non-reversible application, it is sufficient to use a 2/2 or a 3/2 valve. For the reversible motor you can use either a 5/3 or two 3/2 valve to gain directional control.

UNI - DIRECTIONAL**BI - DIRECTIONAL**

AIR SUPPLY**AIR QUALITY**

To insure optimal working conditions for the GLOBE piston air motors, the air supply must be dry, filtered and lubricated. A 5 micron filter or better is recommended. The GLOBE piston air motors should be lubricated sufficiently. Oilless operations are possible in certain applications.

AIR LINE RESTRICTIONS

Air line restrictions on the inlet side of the motor will result in performance loss. Therefore it is important to make sure that the desired air pressure is available at the motor during operation. The pressure reading at the compressor or pressure regulator may be different than the pressure available at the motor. Performance loss can also occur by an exhaust restriction generating back pressure on the outlet side of the motor. An insufficiently sized silencer, valve or coupling is usually the cause.

GEARED VANE AIR MOTORS

Although air motors can be adjusted over a wide range of speed and torque, the output characteristics are not always suitable for the application. To achieve the required output speed and torque a gearbox can be coupled directly to the air motor.

GLOBE Airmotors BV has a wide range of gear units such as planetary, helical, bevel helical and worm gears in their program. Consult GLOBE Airmotors BV or your local distributor for more detailed information.

**ORDERING CODES RM012 AND RM024**

type of motor		
RM012	ø135 x 6	12 Nm
RM024	ø175 x 80	24 Nm
RM048	ø135 x 6	48 Nm

RM012

—

S

X

X

RM024

RM048

material of housing

S	nickel-plated steel	IP 50
I	Inox (RM024 only)	IP 64
P	plastic (RM012 only, non atex)	IP 64

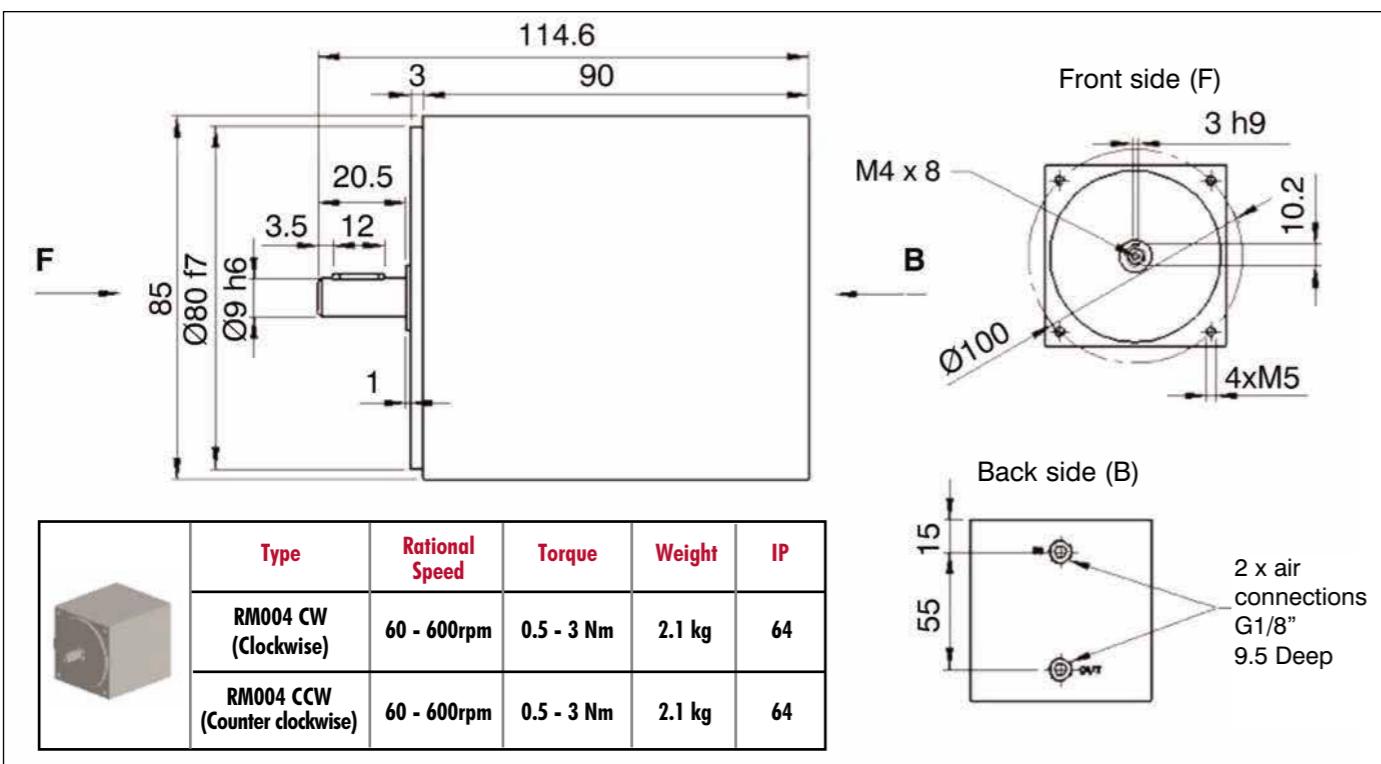
flange option

X	no flange	max. 150 N
F	flange	max. 2'000 N

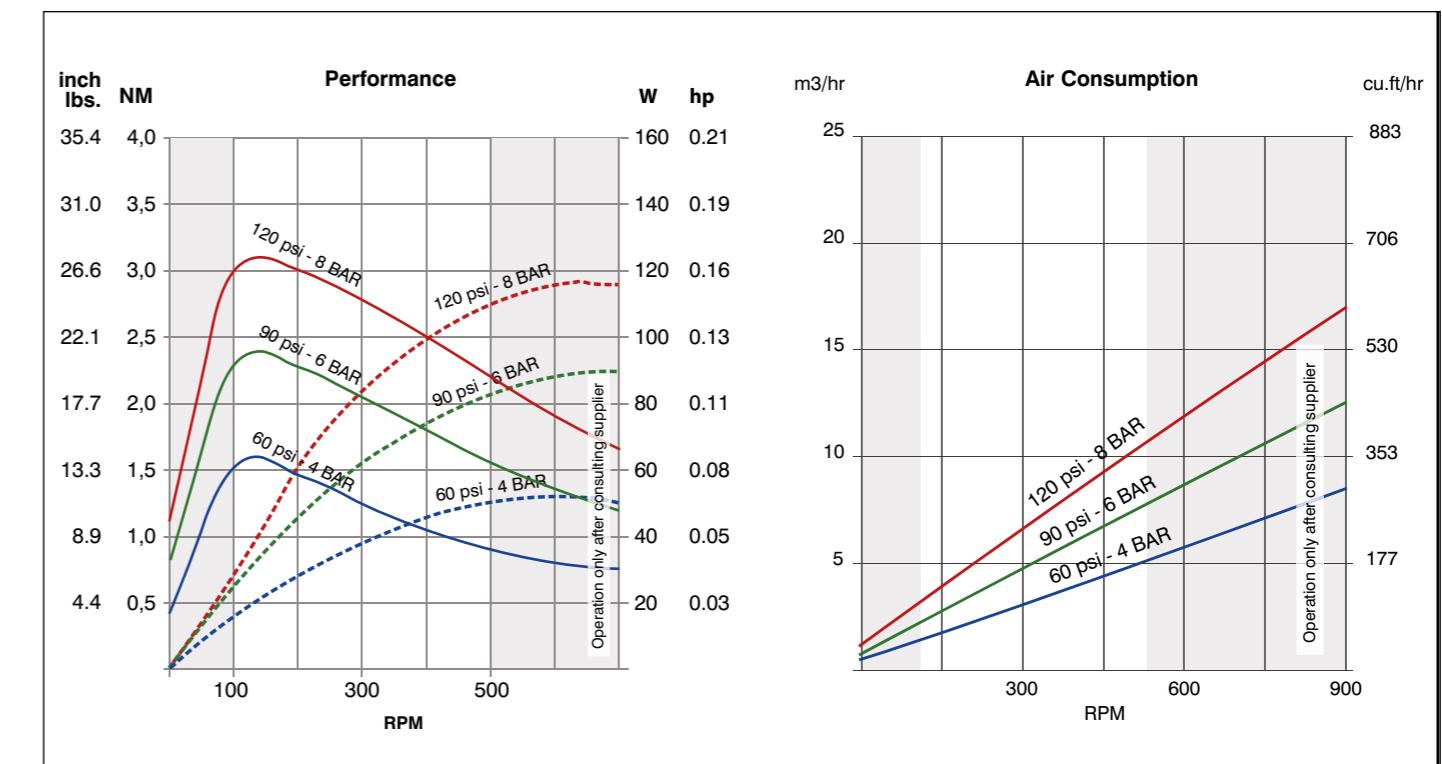
POSSIBLE TYPES

RM012 / RM024 / RM048 -SXX	Steel housing
RM012 / RM024 / RM048 -SFX	Steel housing and flange
RM012 / RM024 / RM048 -SXA	Steel housing ATEX
RM012 / RM024 / RM048 -SFA	Steel housing, flange, ATEX
RM012 - PXX	Plastic housing, water resistant, stainless shaft and covers
RM012 - PFX	Plastic housing, flange with extra bearing, water resistant, stainless shaft and covers
RM024 / RM048 -IXX	Inox housing, water resistant, stainless shaft and covers
RM024 / RM048 -IFX	Inox housing, flange, water resistant, stainless shaft and covers
RM048 -IXA	Stainless steel housing, water resistant, stainless shaft and covers, ATEX
RM048 -IFA	Stainless steel housing, water resistant, stainless shaft and covers, ATEX

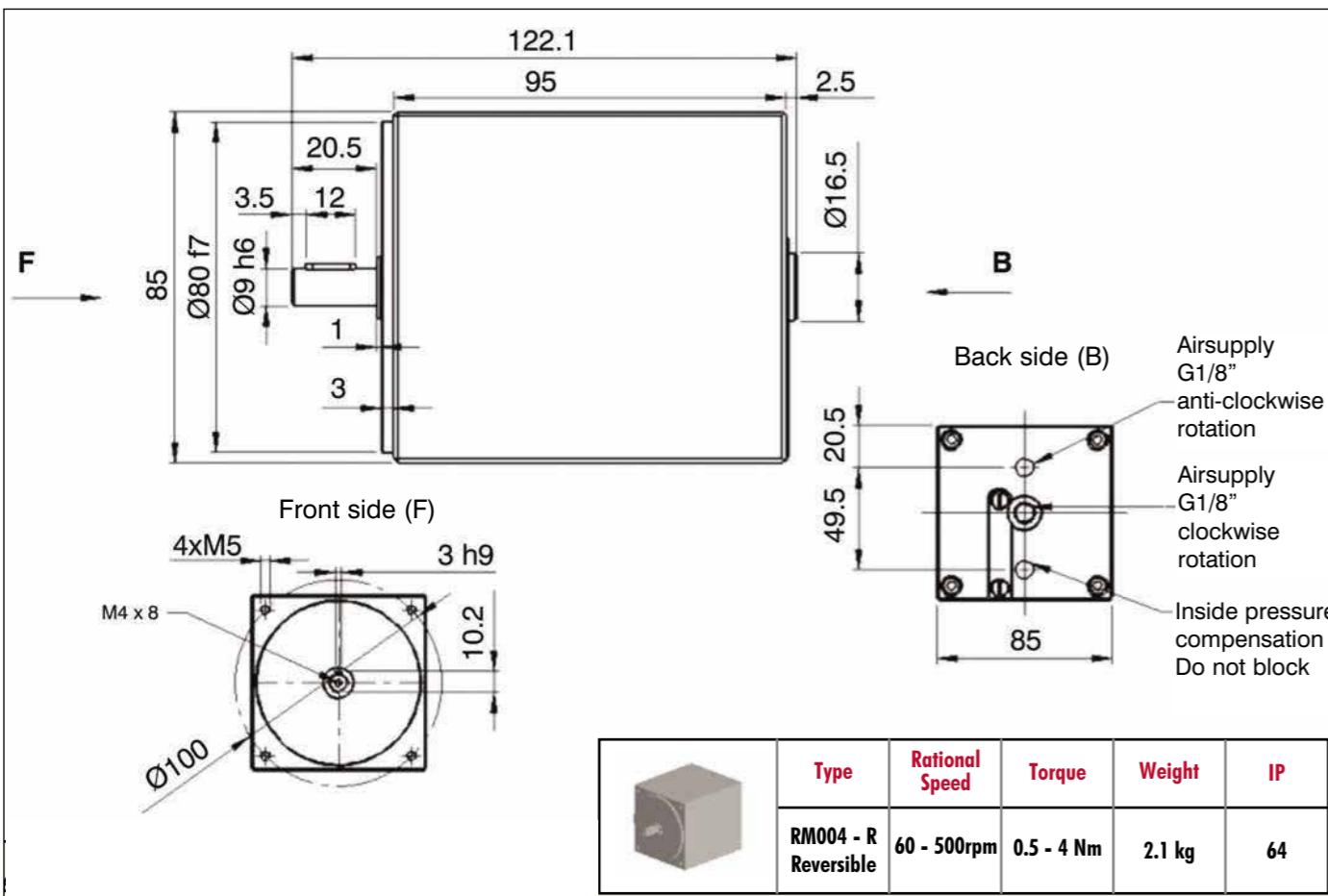
DIMENSIONS RM004 CW, CCW



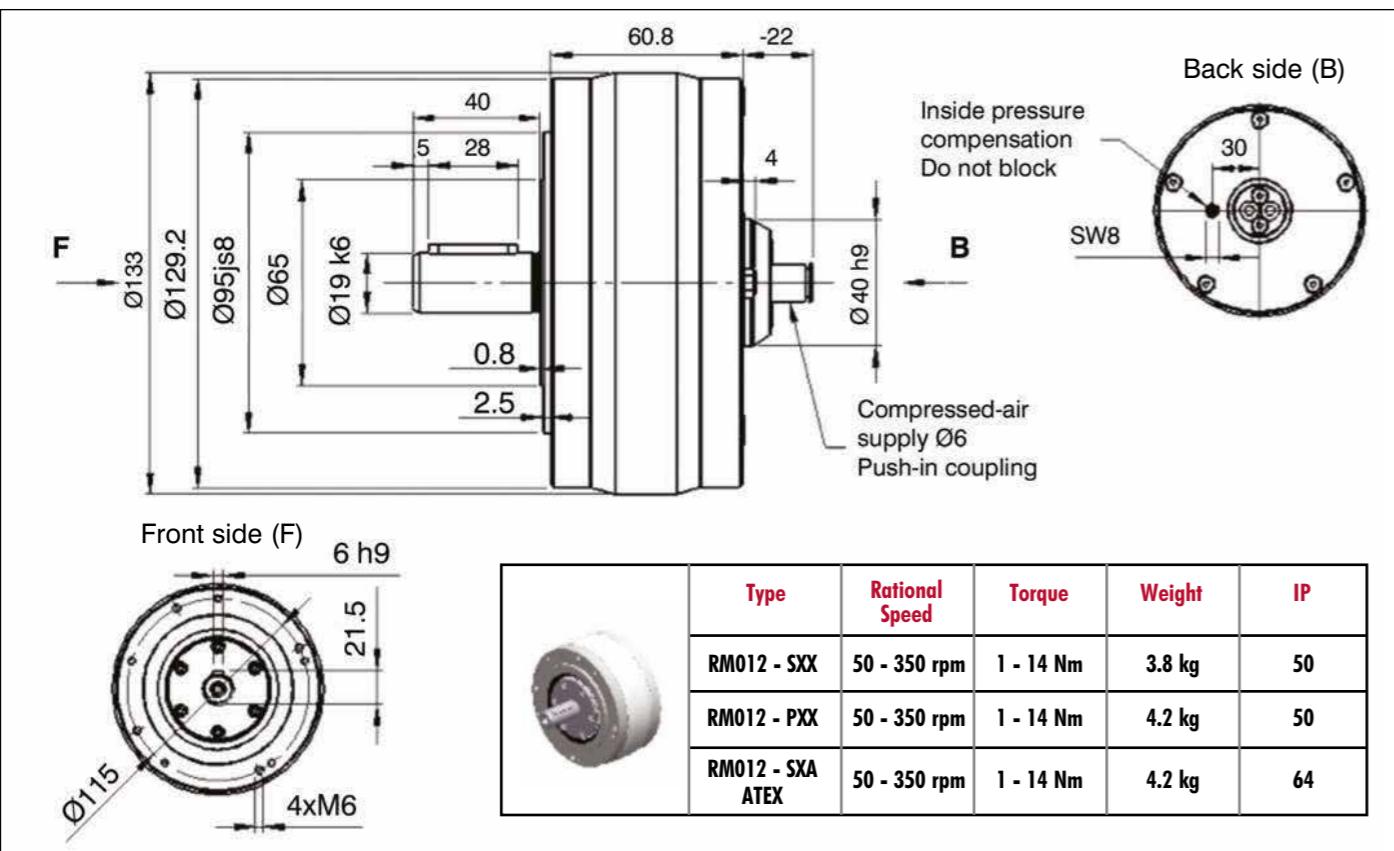
PERFORMANCE RM004



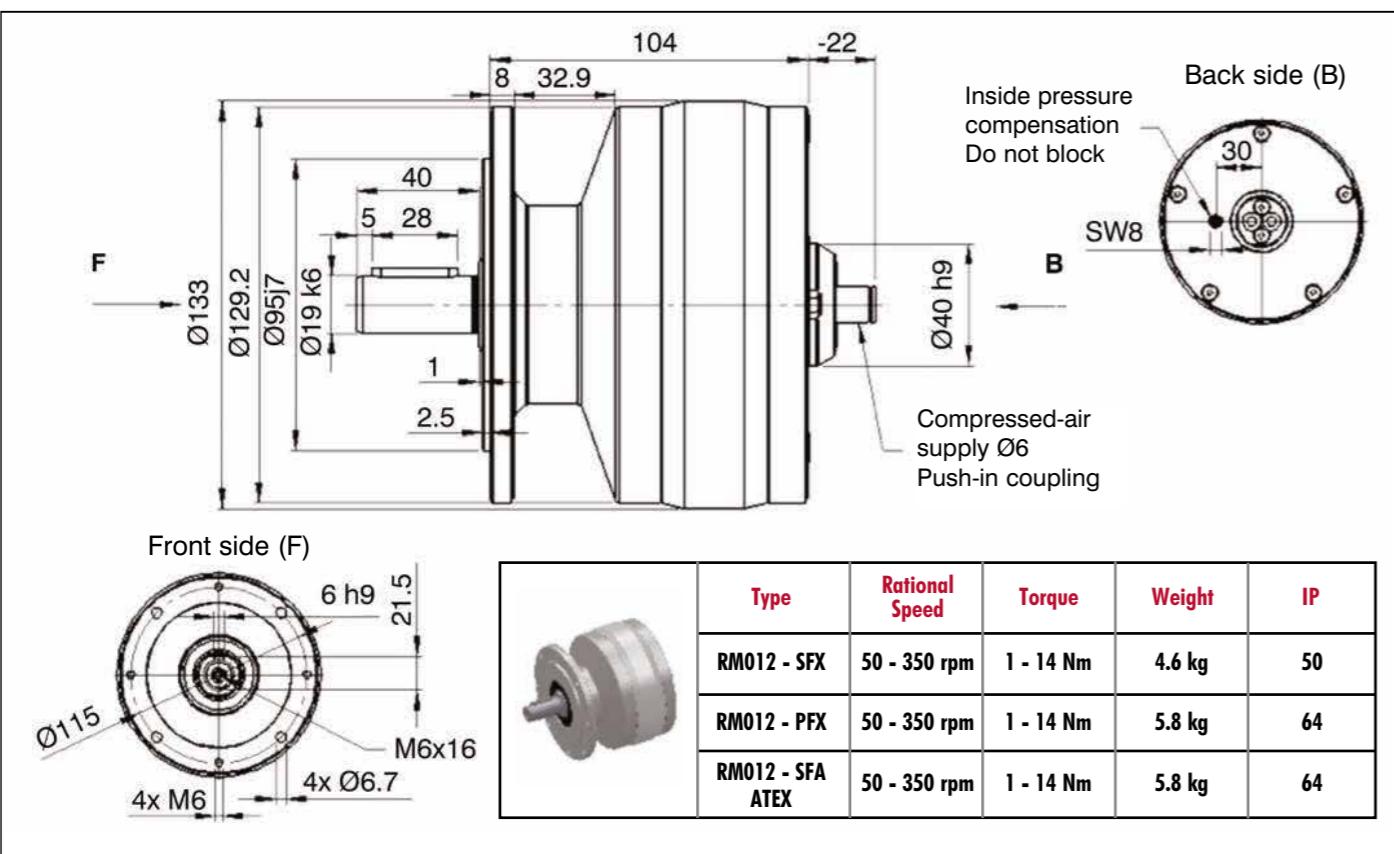
DIMENSIONS RM004 - R REVERSIBLE



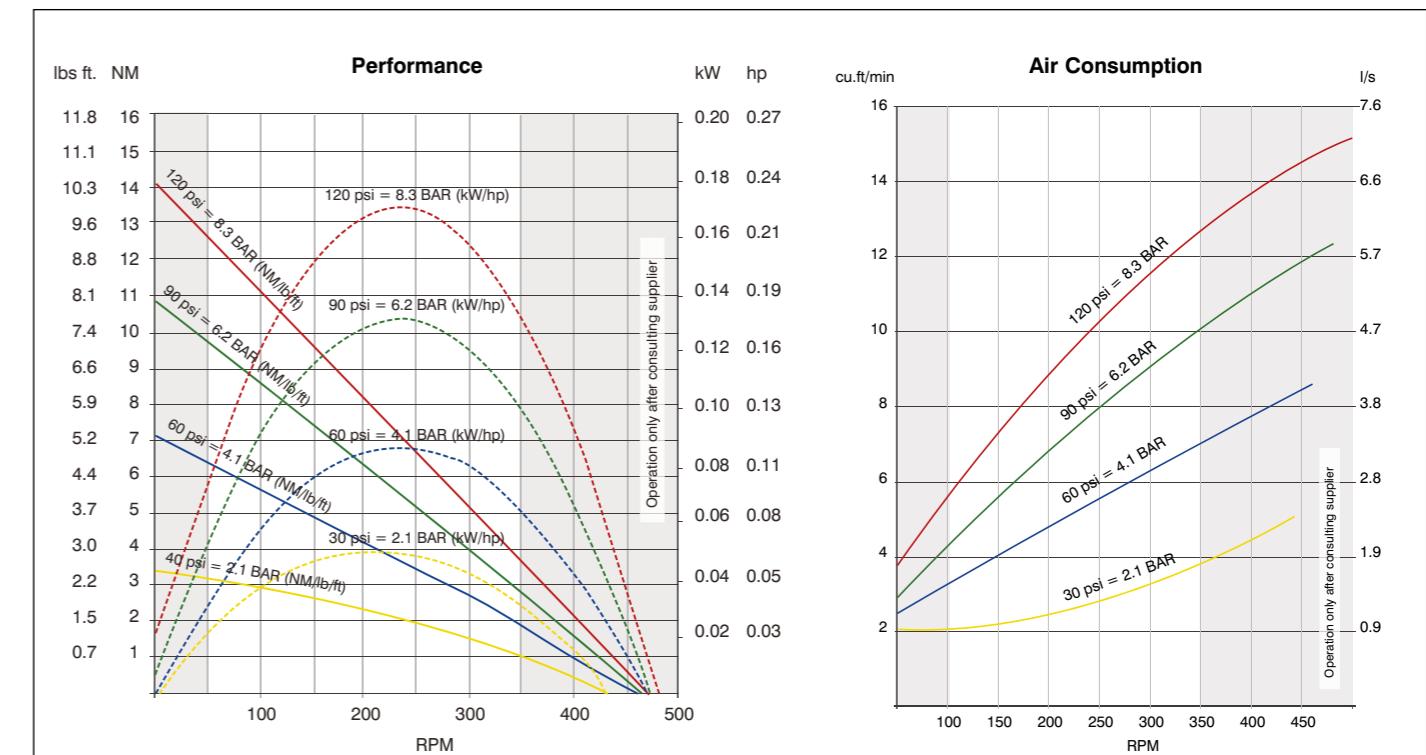
DIMENSIONS RM012 - SXX, PXX, SXA ATEX



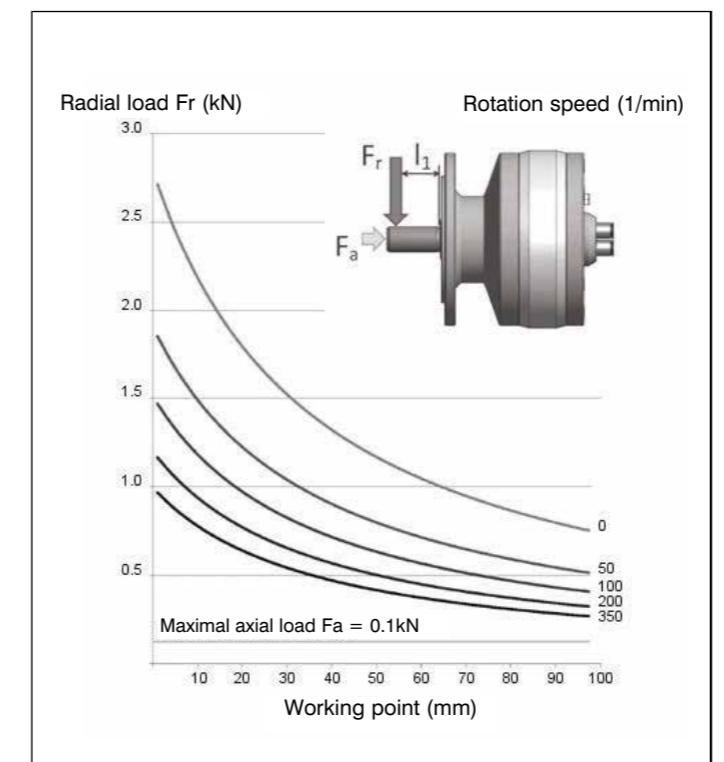
DIMENSIONS RM012 - SFX, PFX, SFA ATEX



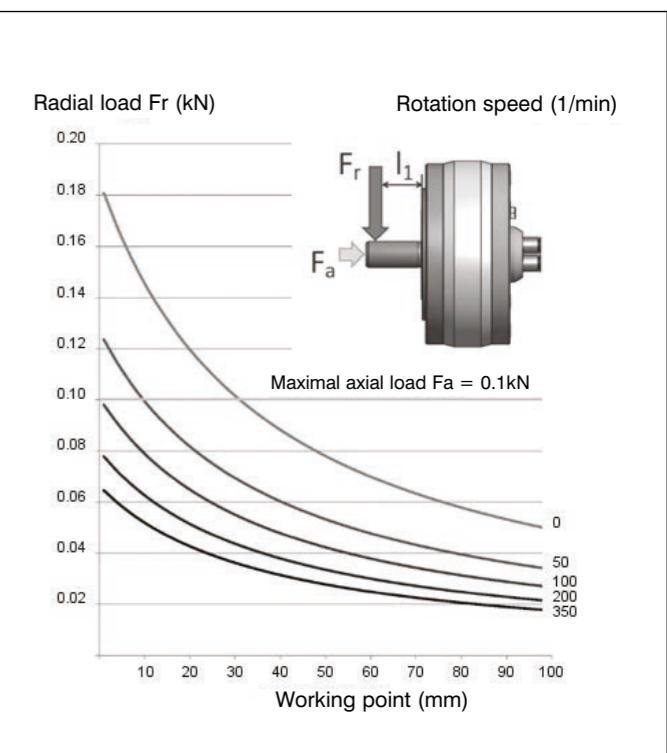
PERFORMANCE RM012



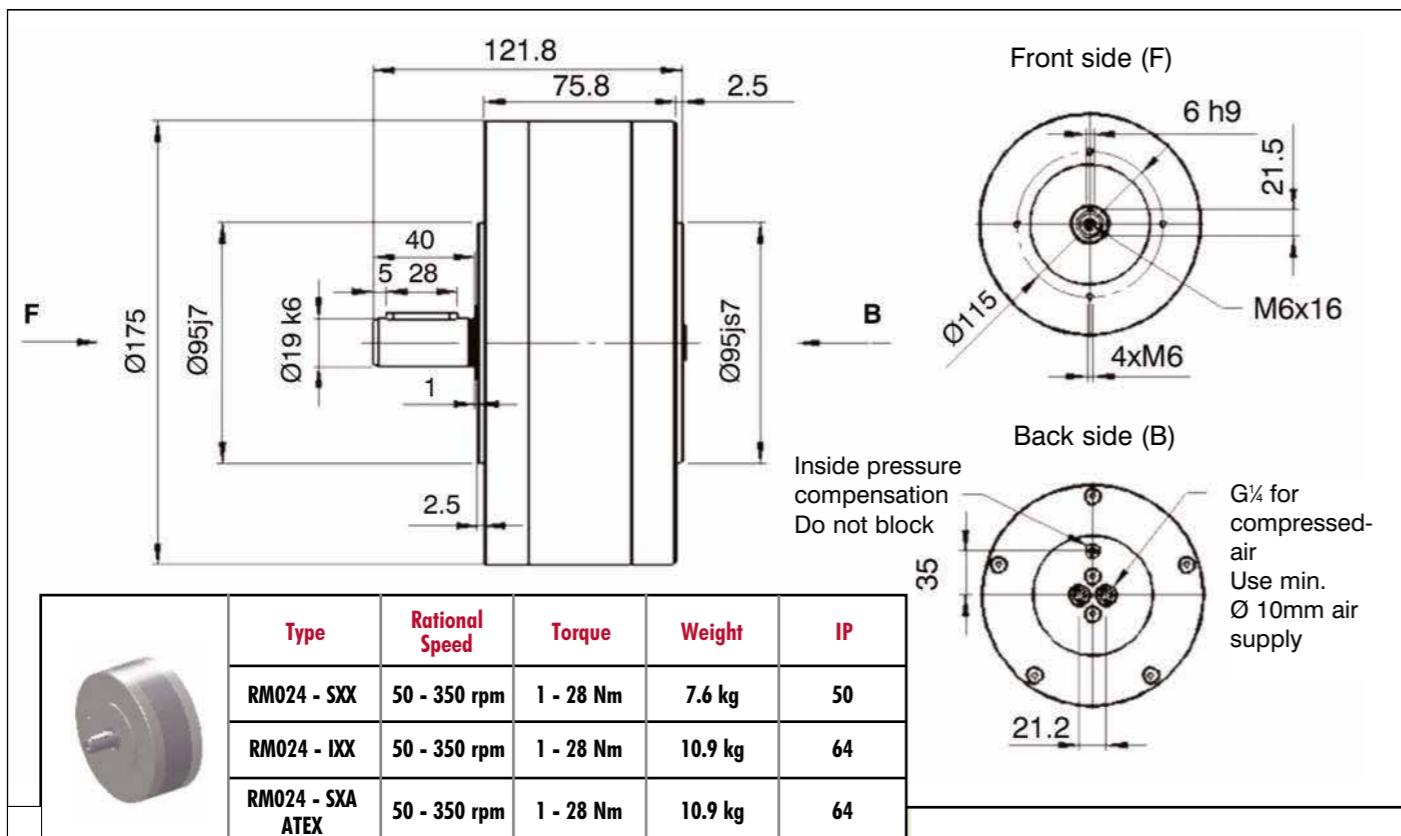
LOAD DIAGRAM FOR RM012 SFA, SFX, PFX



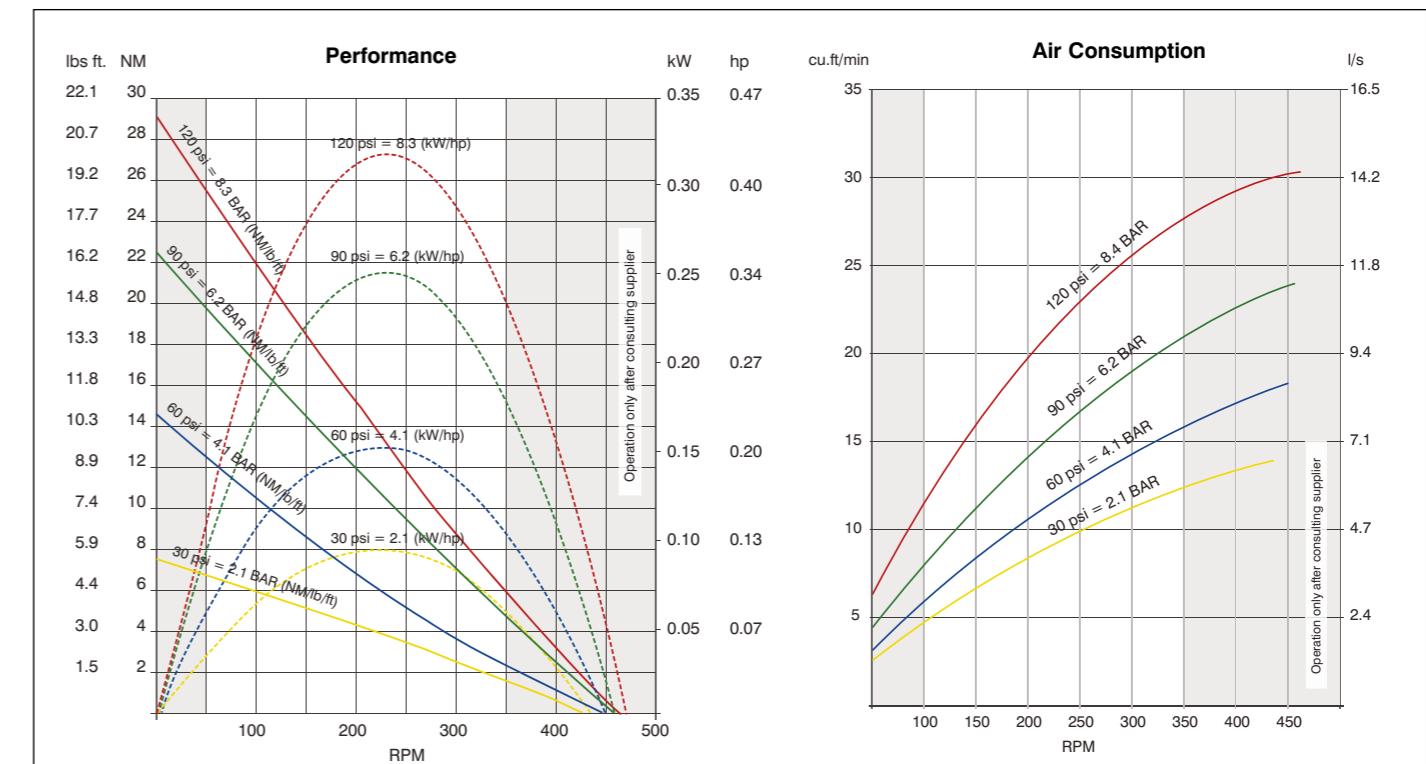
LOAD DIAGRAM FOR RM012 SXX, SXA, PXX



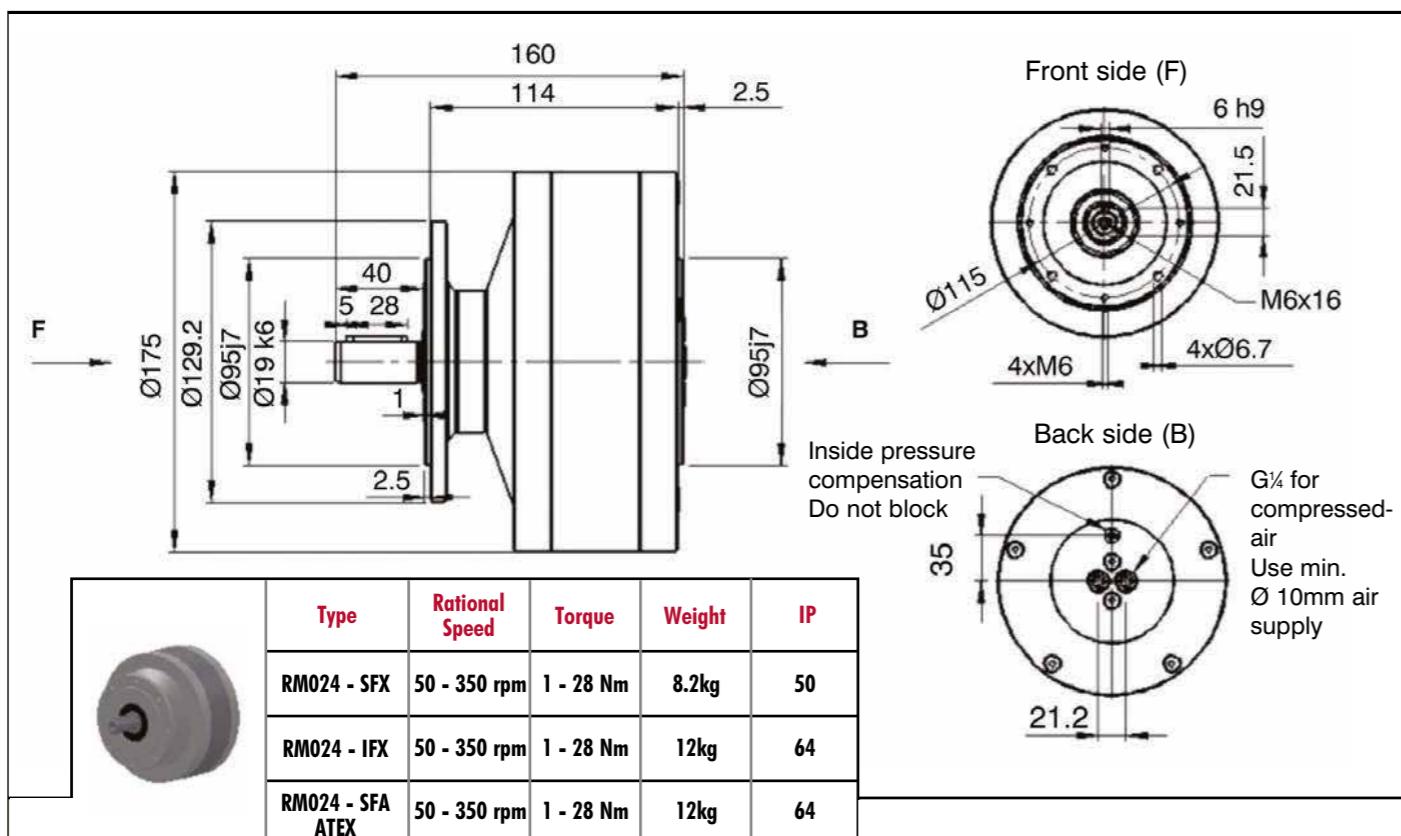
DIMENSIONS RM024 - SXX, IXX, SXA ATEX



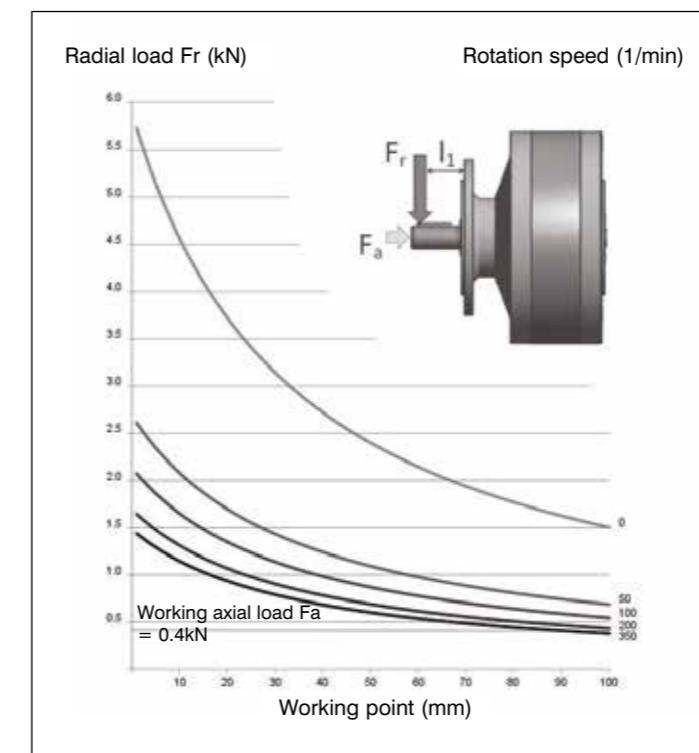
PERFORMANCE RM024



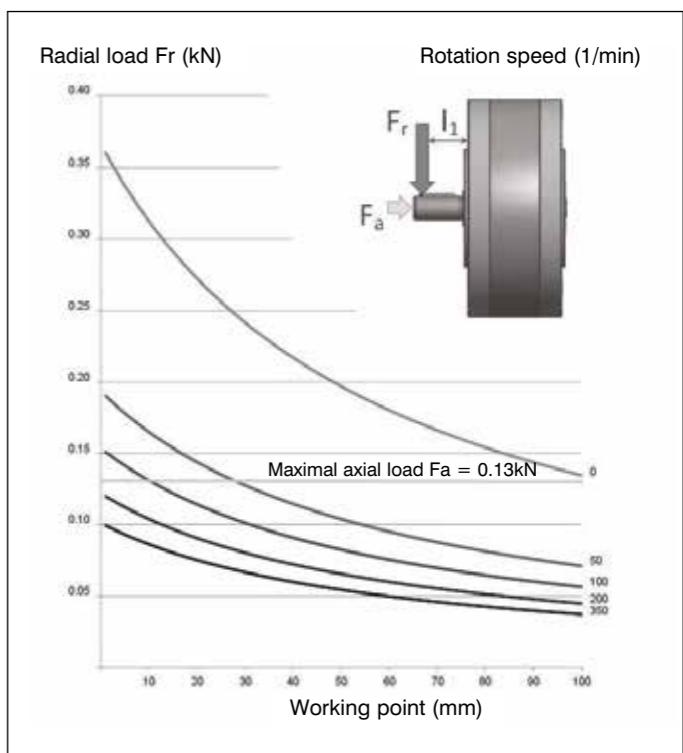
DIMENSIONS RM024 - SFX, IFX, SFA ATEX



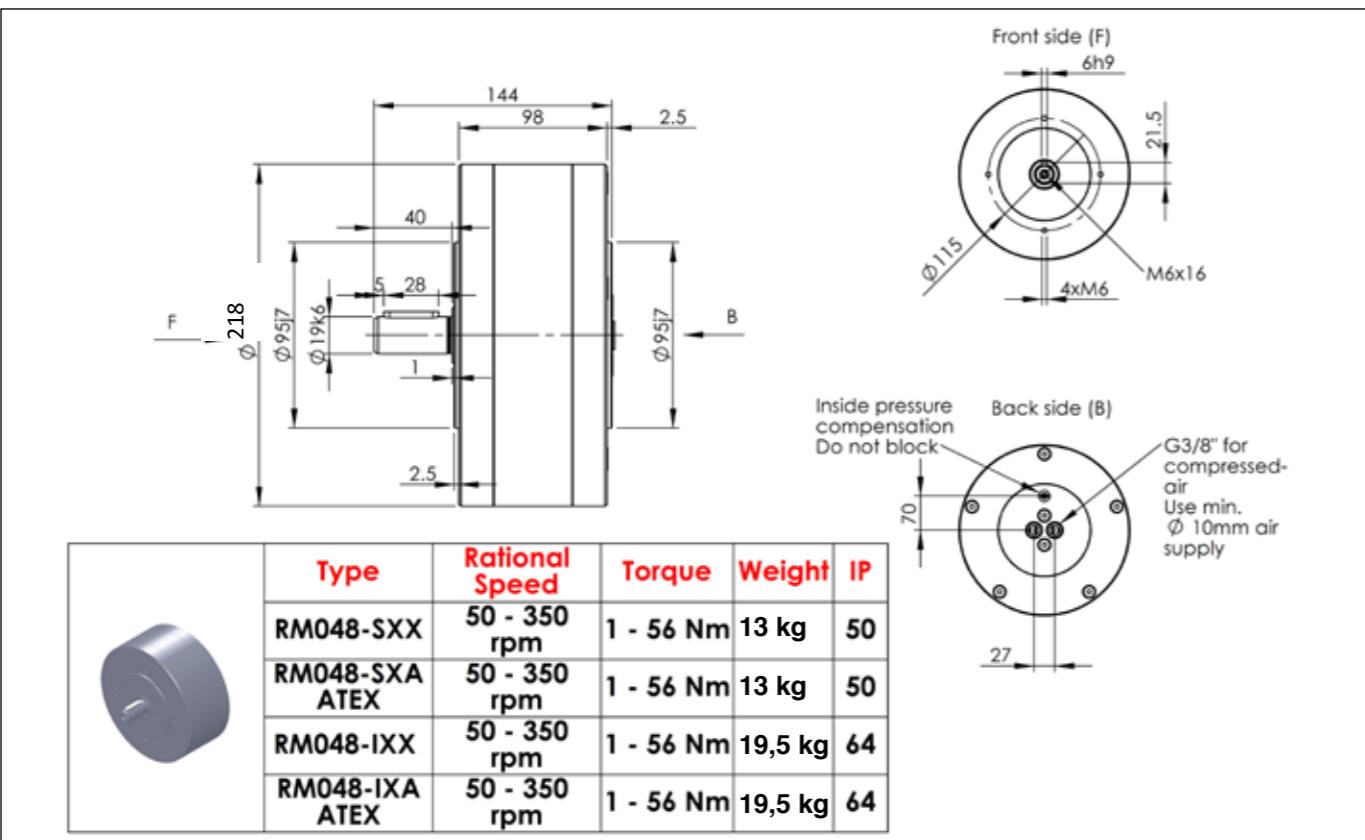
LOAD DIAGRAM FOR RM024 SFX, IFX, SFA



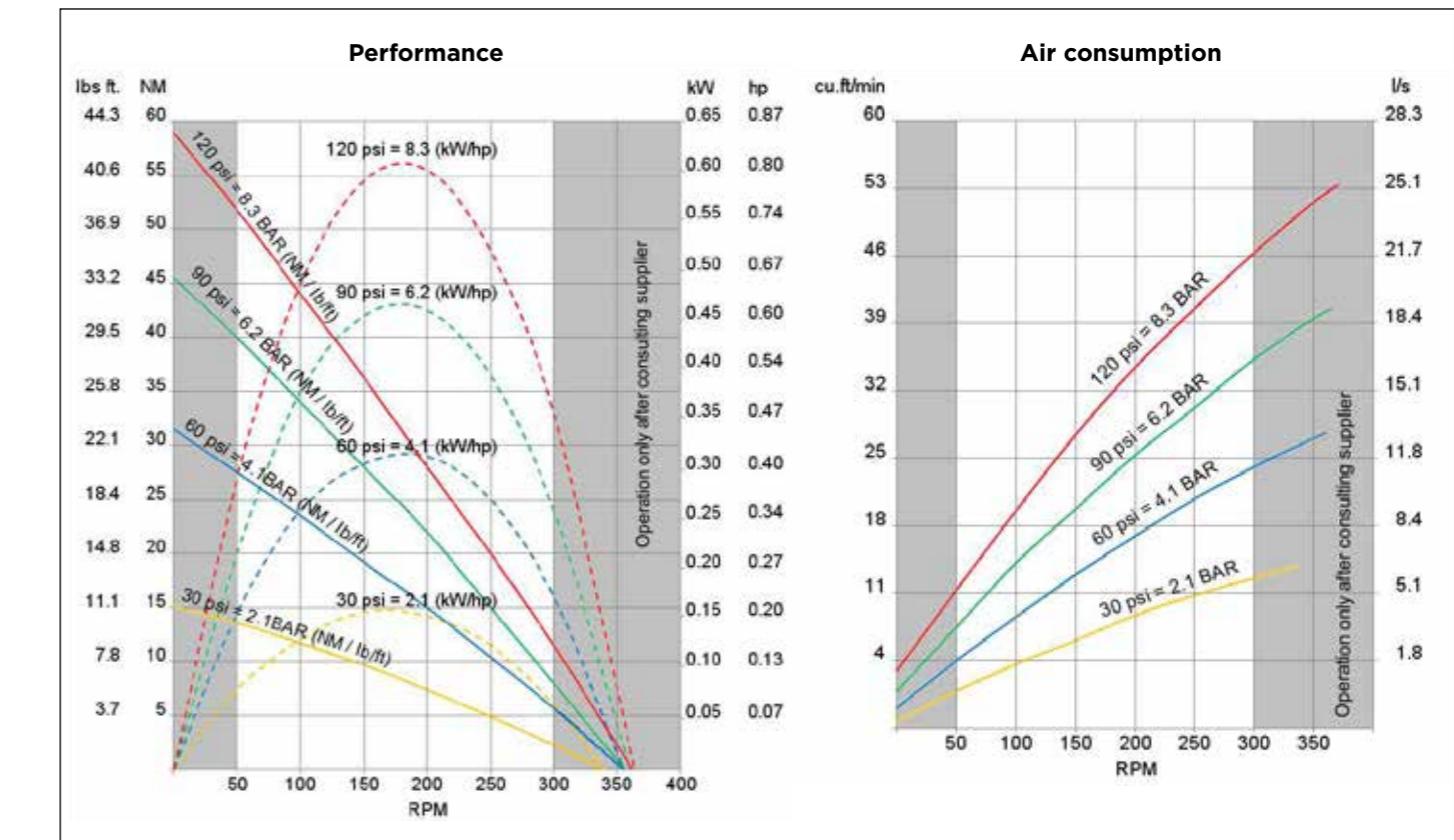
LOAD DIAGRAM FOR RM024 SXX, IXX, SKA



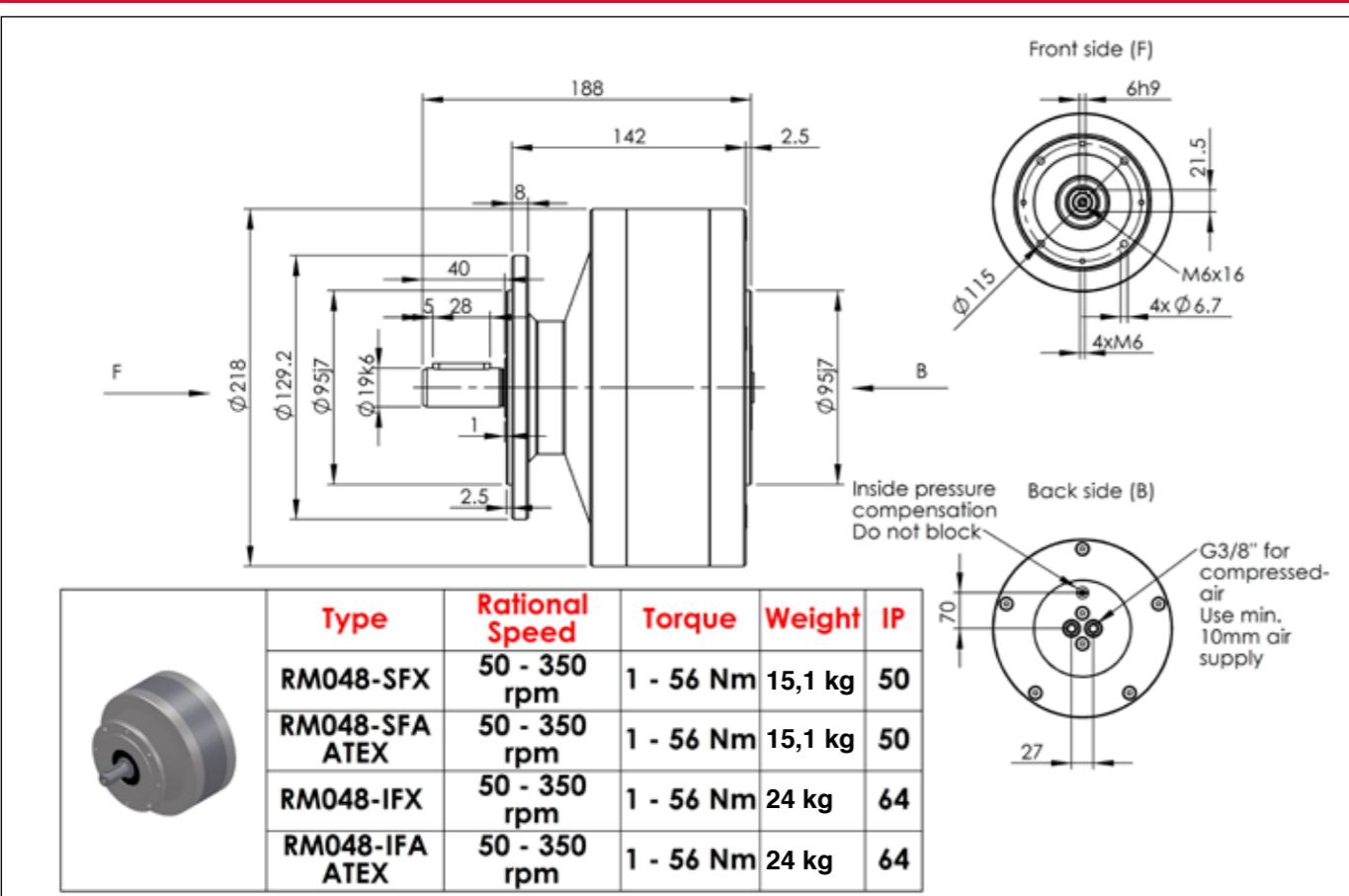
DIMENSIONS RM048 - SXX, SXA ATEX, IXX, IXA ATEX



PERFORMANCE RM048



DIMENSIONS RM048 - SFX, SFA ATEX, IFX, IFA ATEX



BRAKED COMPACT PISTON AIR MOTORS

GLOBE Airmotors BV has a wide range of pneumatic brakes which can be mounted onto our compact piston air motors. For more information contact your GLOBE Airmotor supplier.





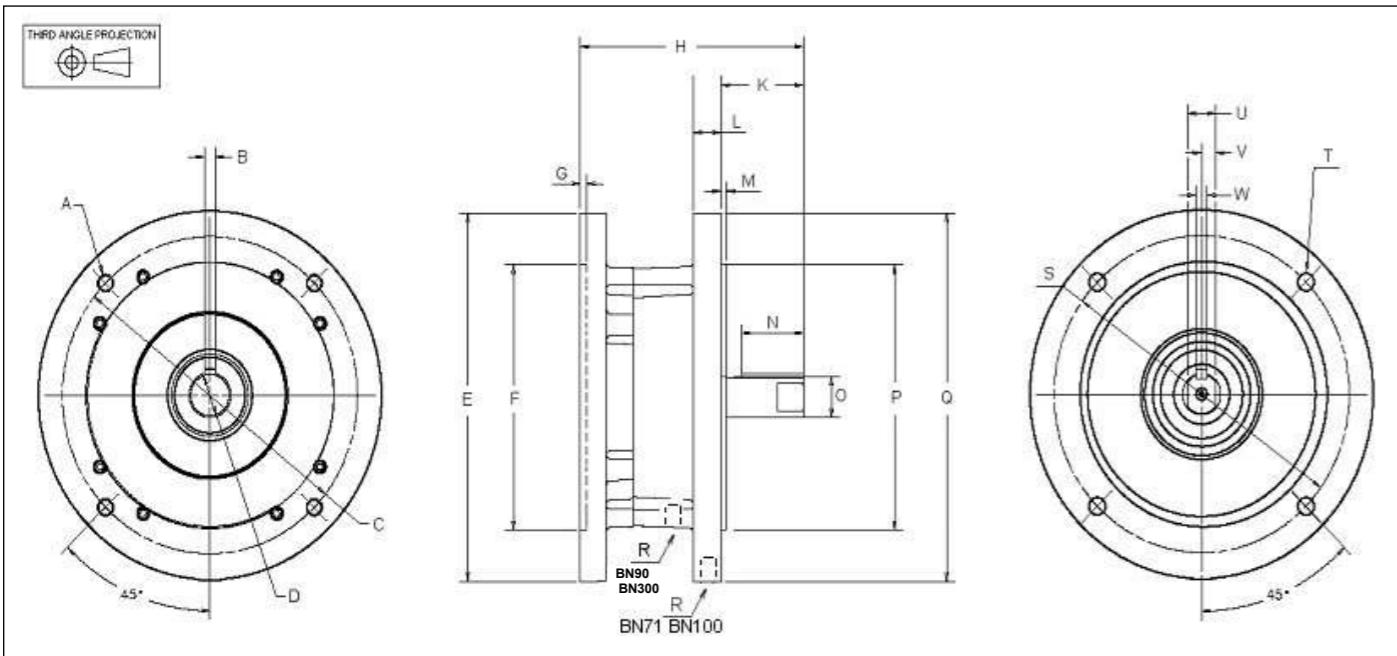
GLOBE PNEUMATIC BRAKES - BN SERIES

GLOBE BN brakes are fail-safe brakes (spring engaged, air released). They can be used as a static brake and under certain conditions in dynamic applications. The brake module bolts directly onto the motor mounting face with an IEC or NEMA connection flange. The brakes are certified according to the European Explosive Directive ATEX II cat. 2 G&D T3 (in static applications only).

THE ADVANTAGES OF THE BN BRAKES INCLUDE:

- Brake can be used in dynamic applications;
- Field serviceable;
- Easy flange connection according to IEC and NEMA standards;
- Low maintenance because very few parts are exposed to wear;
- Compact design;
- Easy interchangeable because of independent brake module;
- Cast-iron housing and excellent thermal capacity for use in harsh environments;
- Long life-time;
- Certified according to the European Explosive Directive ATEX II cat. 2 G&D T3.

PNEUMATIC BRAKES - BN SERIES - IEC MOUNTING



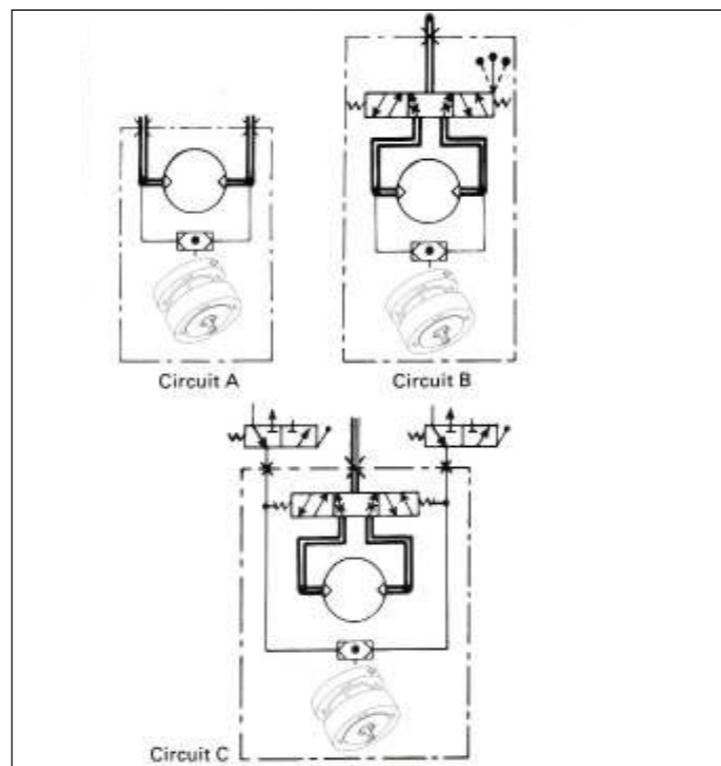
Brake type	A Ø	B	C Ø	D Ø	E Ø	F Ø	G	H	K	L	M	N	O Ø
BN71	10	5	130	14h7	160	110h7	3,5	137	30	44,6	2,3	25	14h7
BN90	M10	8	165	24h7	200	130h7	5	195	50	13	3,5	45	24h7
BN100	M12	8	215	28h7	250	180h7	5	163	60	19	4	55	28
BN300	M14	10h9	265	38h7	300	230h7	4	234	79	-	4	55	38k6

Brake type	P Ø	Q Ø	R	S Ø	T Ø	U	V	W
BN71	110h7	160	1/8BSP	130	10	11	5,5	5
BN90	130h7	200	1/8BSP	165	12	18	9	8
BN100	180	250	1/8BSP	215	14	20,6	10,3	8
BN300	230h7	300	1/8BSP	265	M14	20,6	10,3	8

Brake type	Flange type	Holding torque	Release pressure
BN71	IEC 71 (B5)	14 Nm	3,4 bar
BN90	IEC 90 (B5)	29 Nm	3,4 bar
BN100	IEC 100 (B5)	75 Nm	3,4 bar
BN300-4	IEC 132 (B5)	300 Nm	2,2 bar
BN300-6	IEC 132 (B5)	450 Nm	3,2 bar
BN300-4	IEC 132 (B5)	600 Nm	4,3 bar

INSTALLATION OPTIONS

The brake releases with pneumatic pressure. When the pneumatic pressure drops below a pre-set air pressure the brake engages.

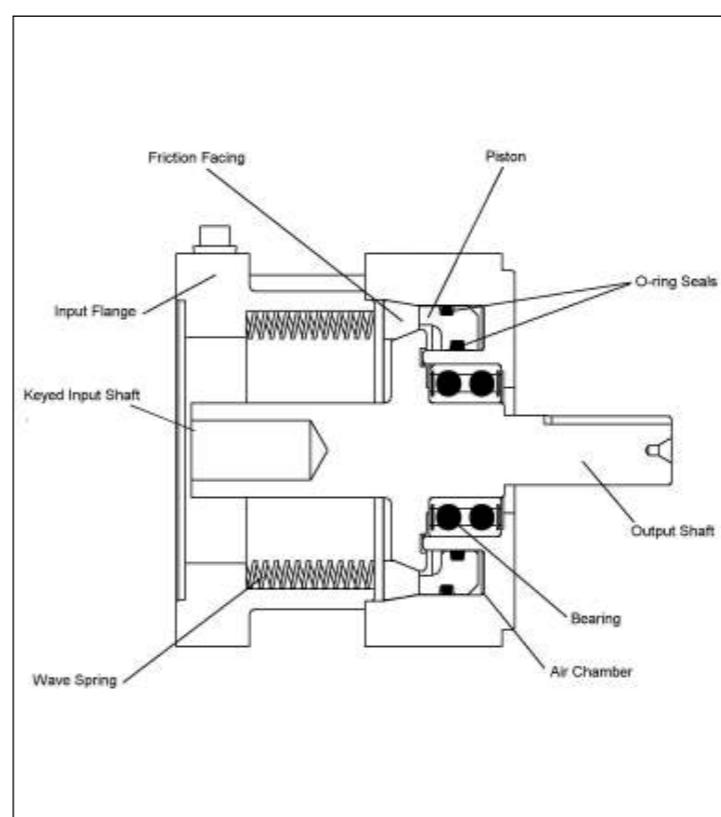


CIRCUIT (A): installation without control valve. The shuttle valve allows brake operation for dual rotation.

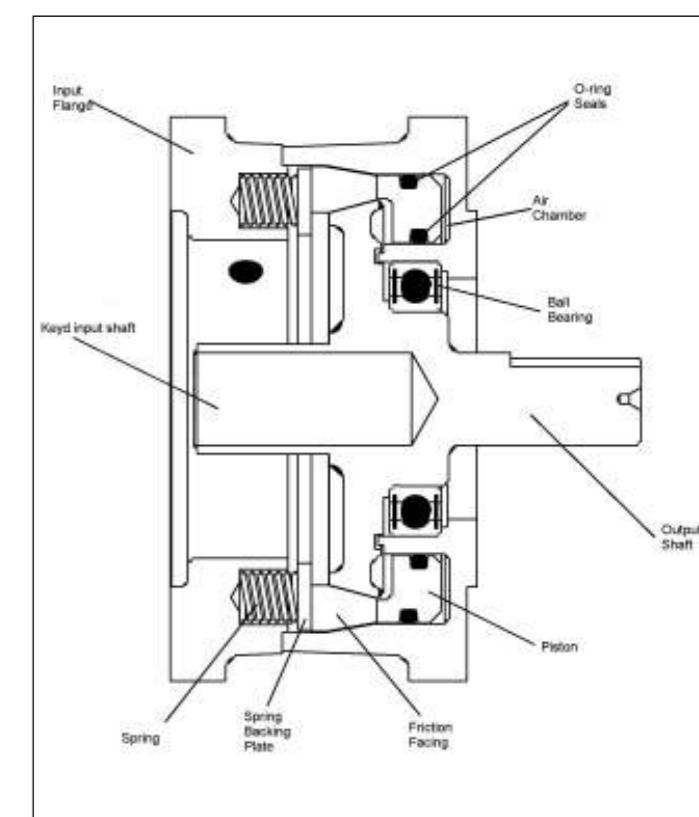
CIRCUIT (B): Installation with hand control valve (HCV). The HCV controls the rotation direction of the output shaft. The shuttle valve allows brake operation for dual rotation.

CIRCUIT (C): Installation with remote controlled valve (RCV). The RCV makes it possible to change the rotation direction of the shaft from a distance. The shuttle valve allows brake operation for dual rotation.

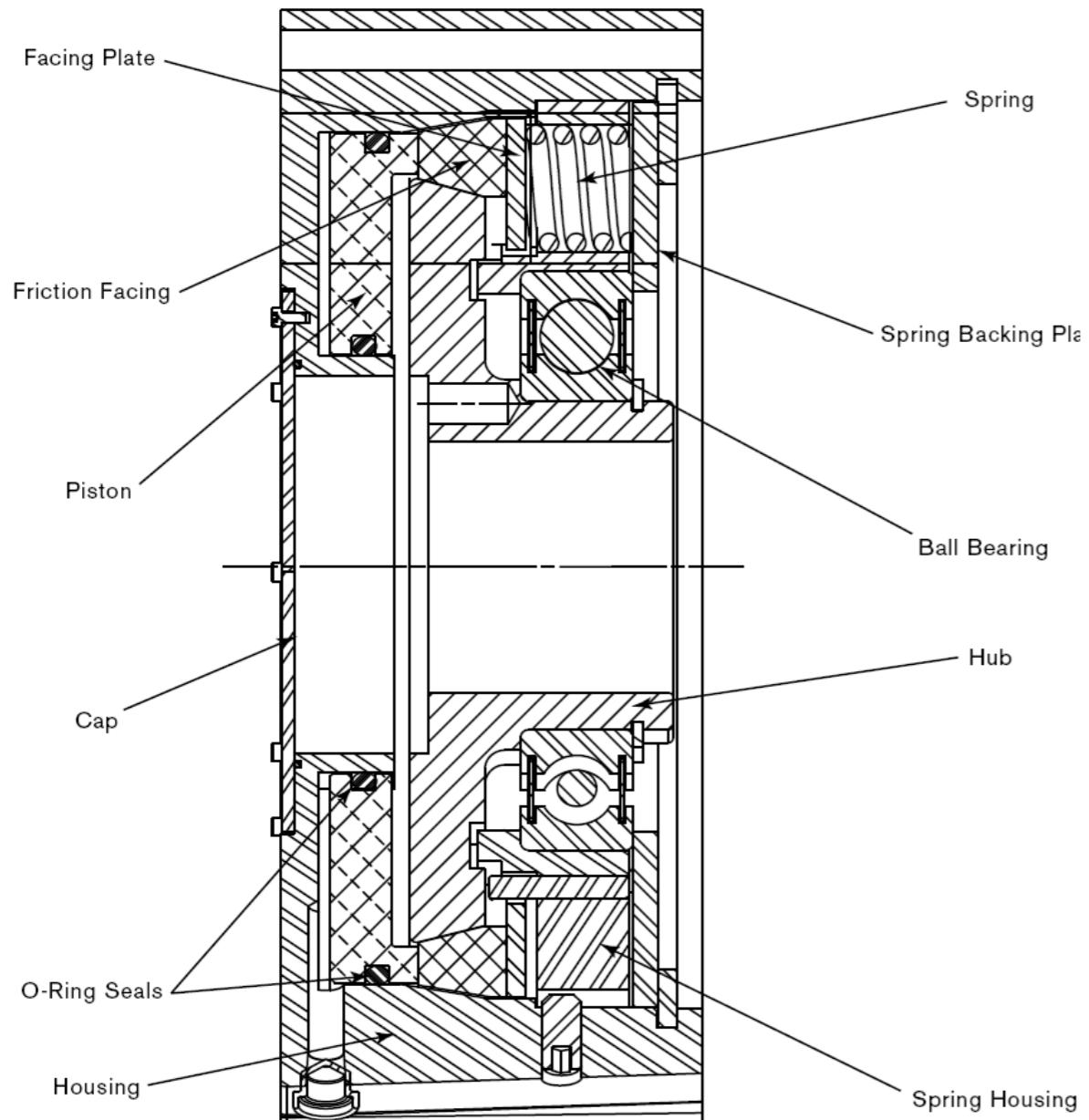
SECTION DRAWING GLOBE BN71 AND BN90 BRAKE



SECTION DRAWING GLOBE BN100 BRAKE



SECTION DRAWING GLOBE BN300 BRAKE (WITHOUT FLANGES AND SHAFT)



WINCH SYSTEM



Especially for winching manufacturers GLOBE Airmotors developed a complete winch system. This system provides a complete system that might include the following options:

STAINLESS STEEL CABINET WITH BUILD-IN OPTIONS:

- GFRL-FRL (Filter, reducer and lubricator)
- 3 way on/ off valve
- Emergency stop
- LC-2 (lever control) / PLC-2 (pendant control)

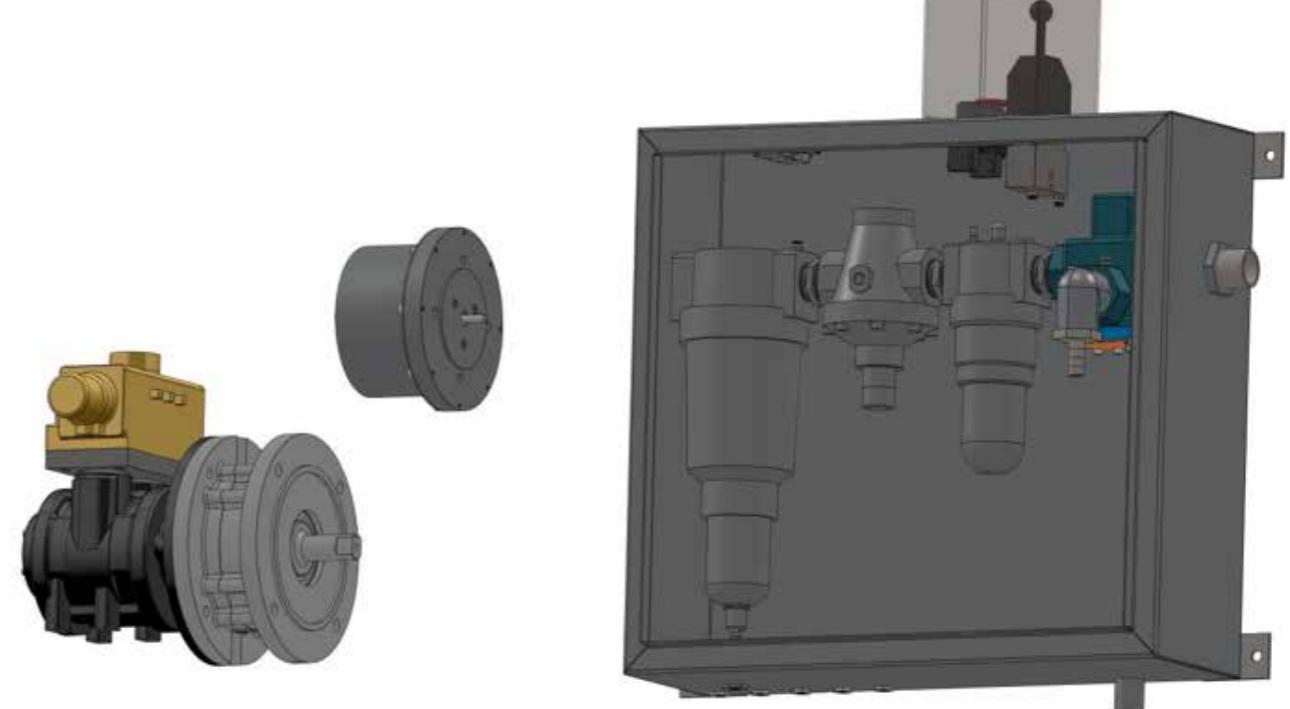
LIMIT SWITCH:

- Connected directly to the winch
- Connection to the emergency stop in the cabinet

AIR MOTOR + BRAKE + GEARBOX + CONTROL VALVE:

- GLOBE air motor
- Brake directly mounted onto the motor
- Gearbox
- Control valve directly mounted on top of the motor
- The control valve has a special feature (biased) enabling the user to have full speed when lifting and a reduced speed when lowering, a special feature for winching applications
- Piping between the control valve and the brake suitable for the biased function of the valve

GLOBE Airmotors is known for their custom solutions, this isn't any different with the winch system. Any other ideas, special demands or extra options are possible.





STAINLESS STEEL MOTORS

Due to a growing demand for stainless steel air motors, GLOBE Airmotors is constantly working to meet these demands by introducing more and more stainless steel air motors. GLOBE Airmotors has the following stainless steel air motors on stock:

Vane air motors
VS4CI
VA4CI
VS6CI
VA6CI
Compact vane air motors
2M02RS
2M10RS
5M05RS
5M34RS
Compact piston air motors
RM012-PXX
RM012-PFX
RM024/RM048-IXX
RM024/RM048-IFX
GFRL-FRL (Filter, reducer and lubricator)
G1/8" until G2"
Options
For other options or possibilities in stainless steel, please contact GLOBE Airmotors