

## GLOBE PFG-RED PLANETARY GEARED VANE MOTORS

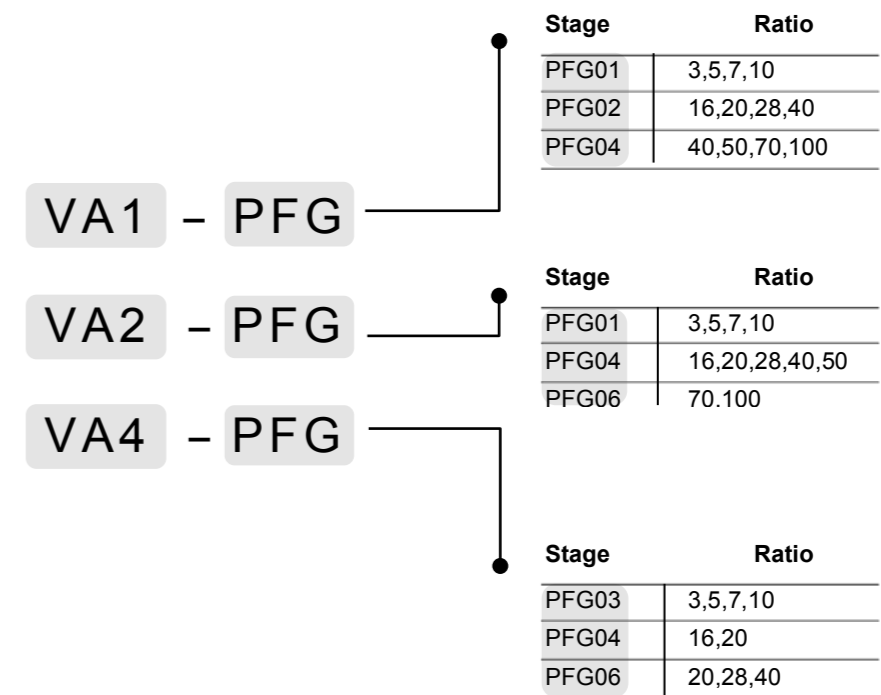
The GLOBE PFG-red motors are of the vane type and are available with a wide range of planetary reducers ranging from  $i = 3:1$  to  $i = 1000:1$  (reductions above  $i = 100:1$  on request)

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
- Suitable for oil-free operation
- Radial and axial loads permitted
- Oil free possible

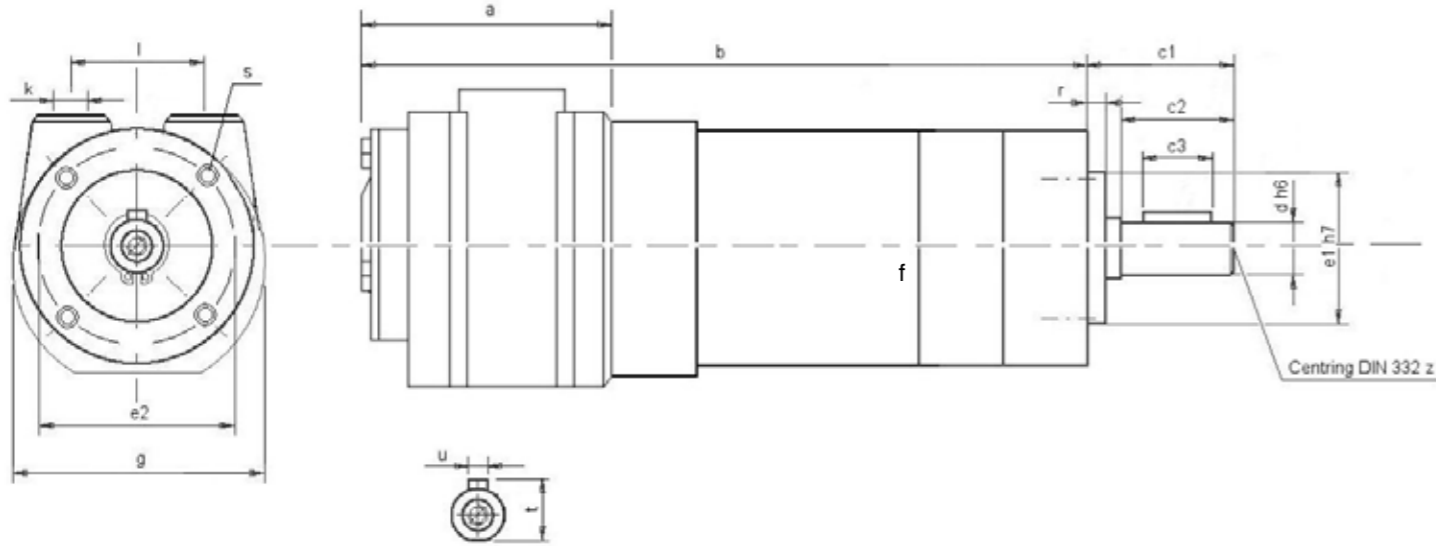


## ORDERING CODES



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

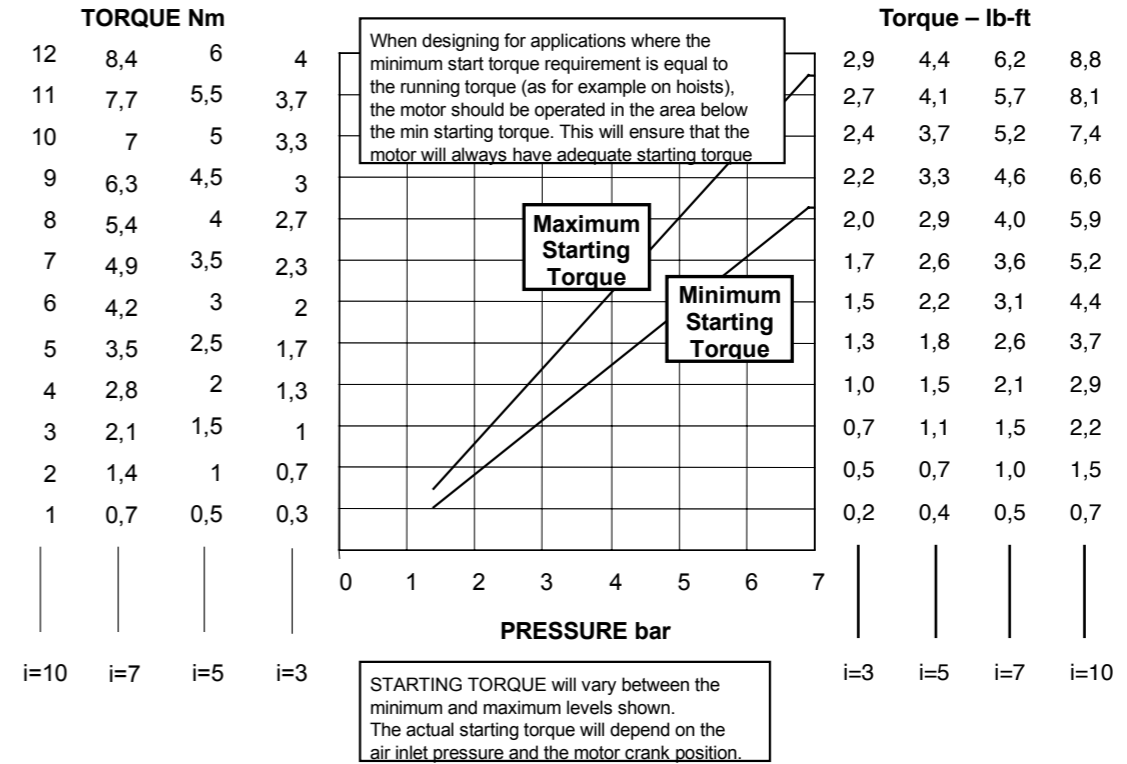
For example: VA1PFG02  $i=16$  or VA4PFG07  $i=70$



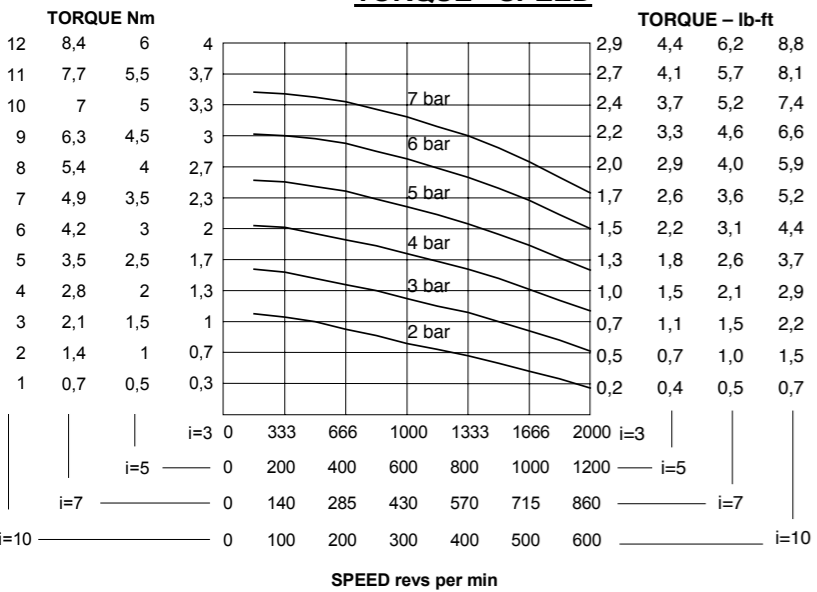
Motor	i	a	b	c1	c2	c3	d	e1	e2	f	g	k
VA1PFG01	3 5 7 10	69 (2.71")	175 (6.89")	39 (1.53")	30 (1.18")	25 (0.98")	14k6 (0.55")	40h7 (1.57")	52 (2.05")	65 (2.56")	71 (2.79")	1/4"NPT
VA1PFG02	16 20 28 40	69 (2.71")	198 (7.79")	39 (1.53")	30 (1.18")	25 (0.98")	14k6 (0.55")	40h7 (1.57")	52 (2.05")	65 (2.56")	71 (2.79")	1/4"NPT
VA1PFG04	40 50 70 100	69 (2.71")	226 (8.89")	49 (1.93")	40 (1.57")	32 (1.26")	20k6 (0.79")	55h7 (2.16")	70 (2.76")	85 (3.35")	71 (2.79")	1/4"NPT

Motor	l	r	s	t	u
VA1PFG01	36 (1.42")	8 (0.31")	M5x10 (0.39")	16 (0.63")	5 (0.19")
VA1PFG02	36 (1.42")	8 (0.31")	M5x10 (0.39")	16 (0.63")	5 (0.19")
VA1PFG04	36 (1.42")	8 (0.31")	M6x12 (0.47")	22,5 (0.88")	6 (0.23")

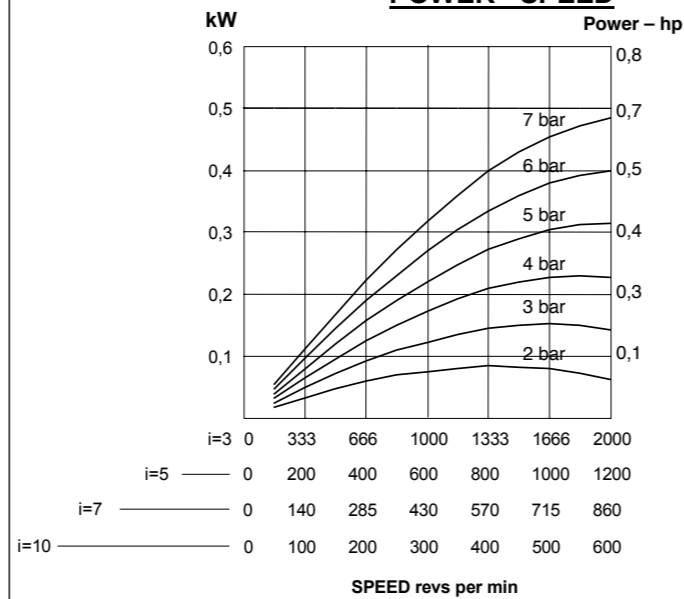
TORQUE - PRESSURE



TORQUE - SPEED



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

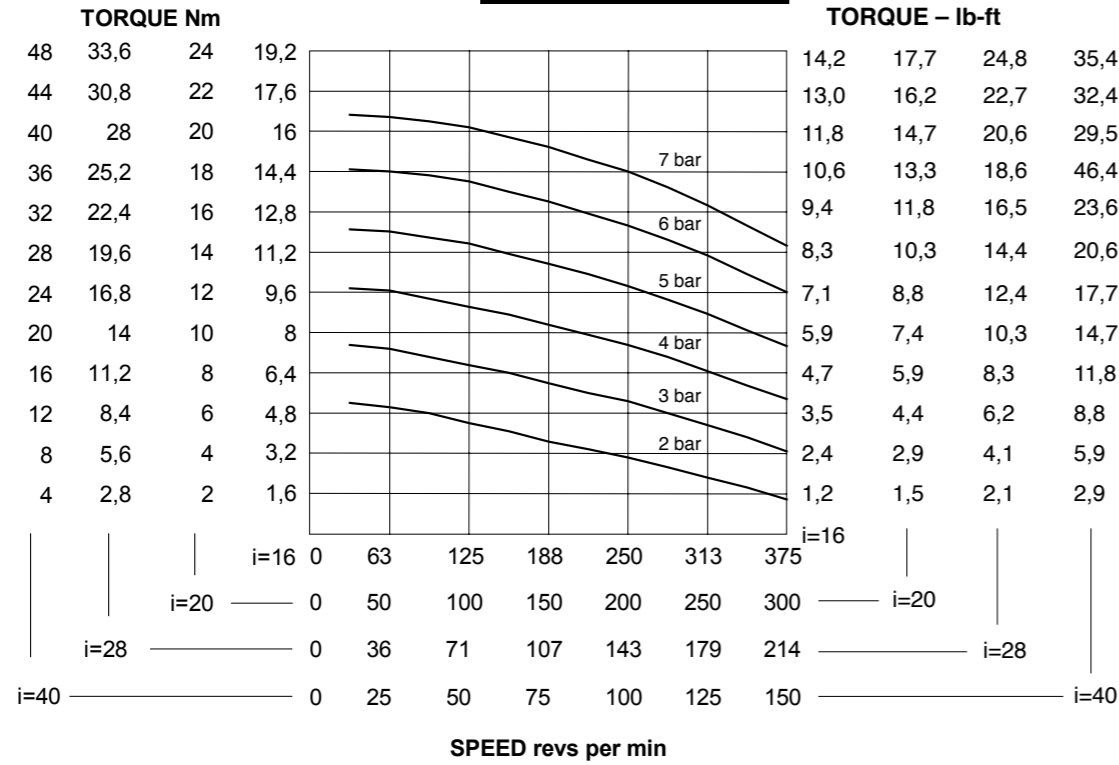
AIRLINE FILTRATION AND LUBRICATION

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.

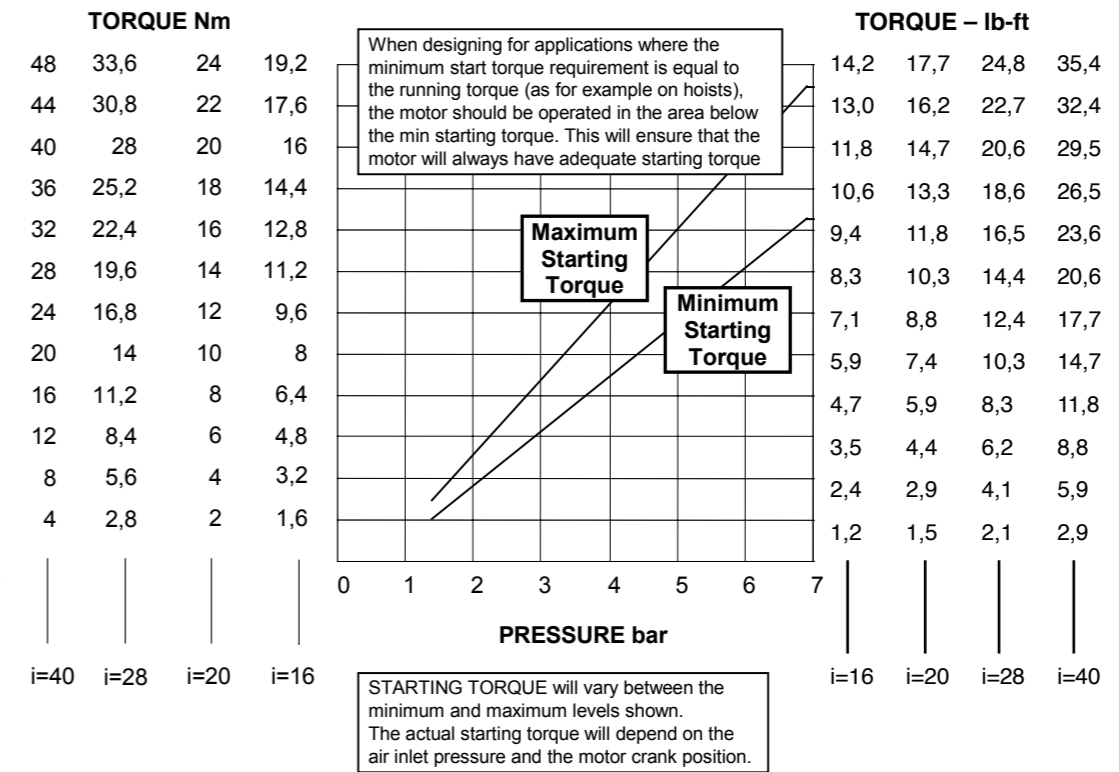
Lubricator drop rate 4-5 drops/minute continuous operation

Lubricator drop rate 9-12 drops/minute intermittent operation

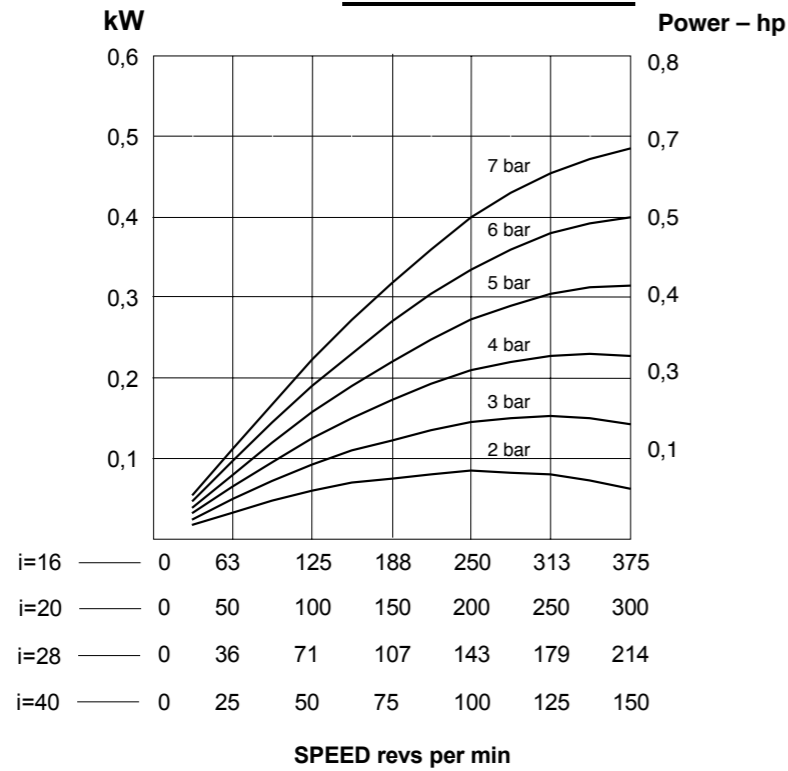
**TORQUE - SPEED**



**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).

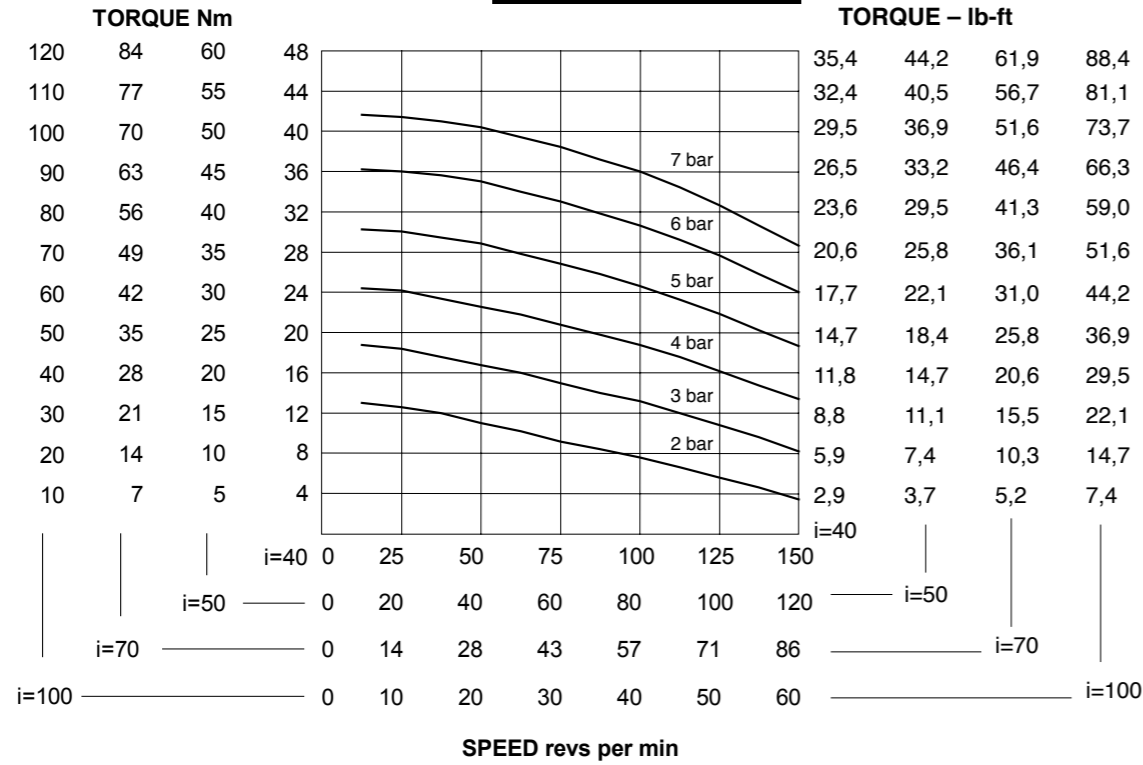
Maximum radial load: 930 N  
 Maximum axial load: 1080 N

**AIRLINE FILTRATION AND LUBRICATION**

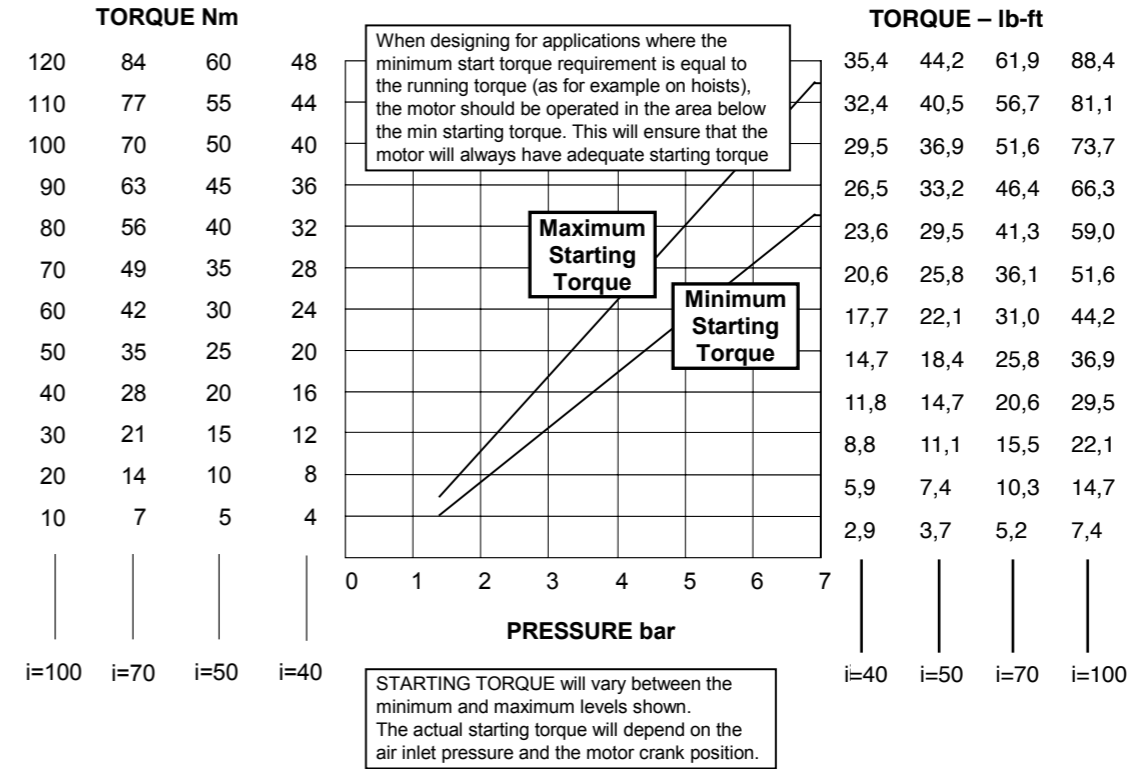
Use 64 micron filtration or better. Choose a lubricator suitable for the flow required. Prior to initial start-up, inject oil into the inlet port.

Lubricator drop rate 4-5 drops/minute continuous operation  
 Lubricator drop rate 9-12 drops/minute intermittent operation

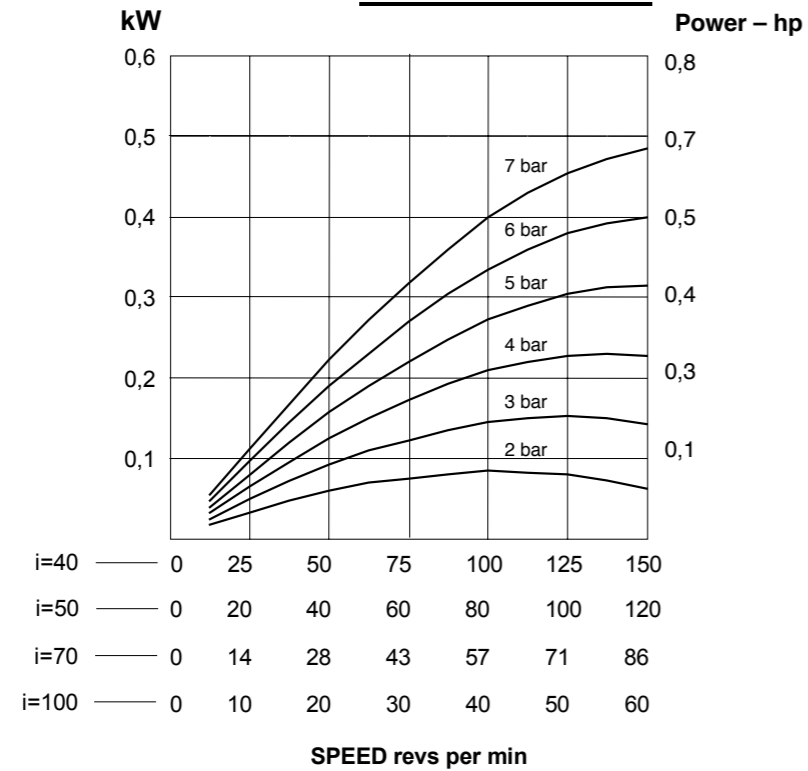
**TORQUE - SPEED**



**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: 1770 N

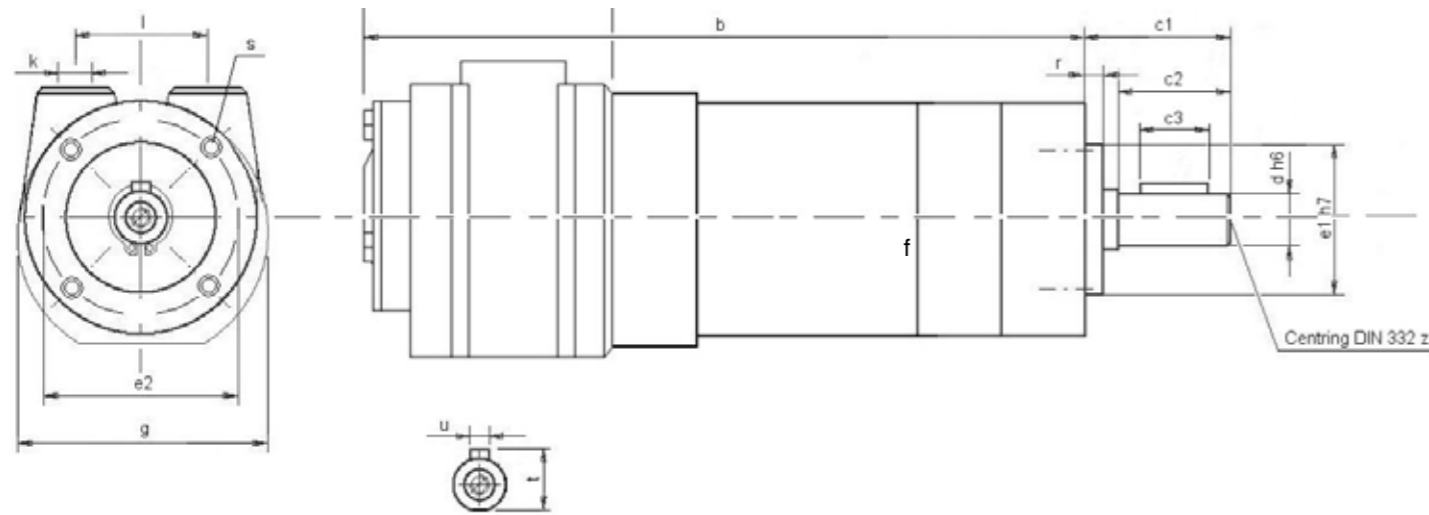
Maximum axial load: 2180 N

**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

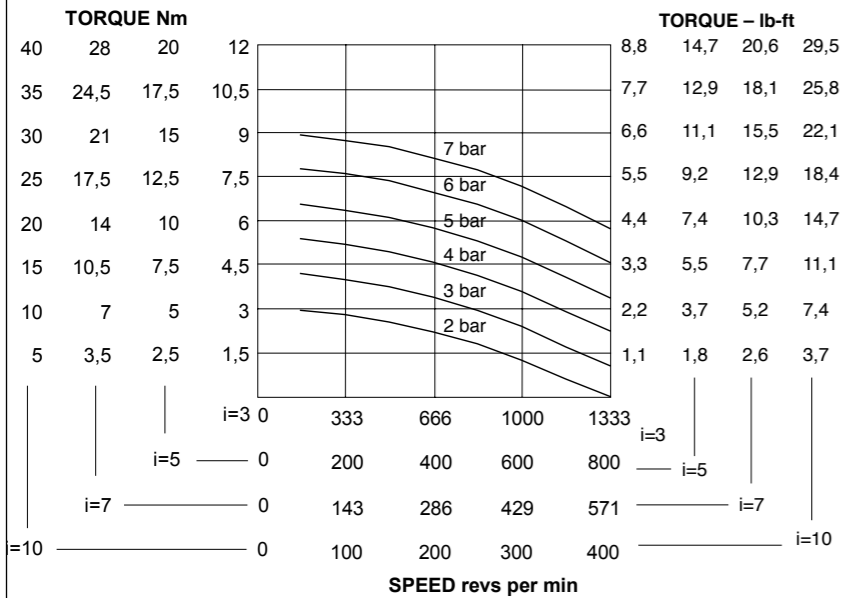
Lubricator drop rate 9-12 drops/minute intermittent operation



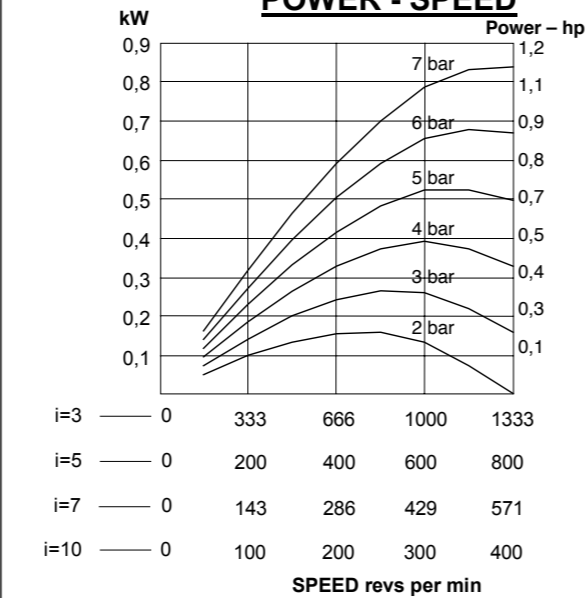
Motor	i	a	b	c1	c2	c3	d	e1	e2	f	g
<b>VA2PFG01</b>	3 5 7 10	72 (2.83")	174 (6.85")	39 (1.54")	30 (1.18")	25 (0.98")	14 k6 (0.55")	40 h7 (1.57")	52 (2.05")	65 (2.56")	102 (4.02")
<b>VA2PFG04</b>	16 20 28 40 50	72 (2.83")	227 (8.94")	49 (1.93")	40 (1.57")	32 (1.26")	20k6 (0.79")	55 h7 (2.17")	70 (2.76")	85 (3.35")	102 (4.02")
<b>VA2PFG06</b>	70 100	72 (2.83")	254 (10.00")	61 (2.40")	50 (1.97")	40 (1.57")	25 k6 (0.98")	80 h7 (3.15")	100 (3.94")	120 (4.72")	102 (4.02")
<b>VA2PFG08</b> On request	120 160 200	72 (2.83")	308 (12.12")	95 (3.74")	80 (3.14")	70 (2.75")	40 k6 (1.57")	110 h7 (4.33")	130 (5.11")	155 (6.10")	102 (4.01")

Motor	k	l	r	s	t	u
<b>VA2PFG01</b>	3/8"NPT	55 (2.17")	8 (0.31")	M5x10 (0.39")	16 (0.63")	5 (0.20")
<b>VA2PFG04</b>	3/8"NPT	55 (2.17")	8 (0.31")	M6x12 (0.47")	22.5 (0.89")	6 (0.24")
<b>VA2PFG06</b>	3/8"NPT	55 (2.17")	10 (0.39")	M10x20 (0.79")	28,0 (1.10")	8 (0.31")
<b>VA2PFG08</b> On request	3/8"NPT	55 (2.17")	14 (0.55")	M10x20 (0.79")	43,0 (1.69")	12 (0.47")

**TORQUE - SPEED**



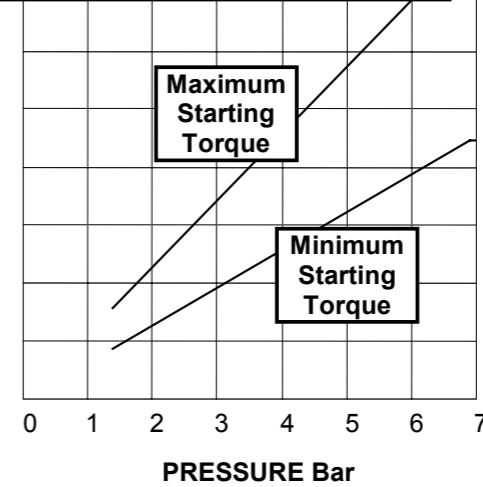
**POWER - SPEED**



**TORQUE - PRESSURE**

TORQUE Nm	TORQUE - lb-ft
40 28 20 12	8,8 14,7 20,6 29,5
35 24,5 17,5 10,5	7,7 12,9 18,1 25,8
30 21 15 9	6,6 11,1 15,5 22,1
25 17,5 12,5 7,5	5,5 9,2 12,9 18,4
20 14 10 6	4,4 7,4 10,3 14,7
15 10,5 7,5 4,5	3,3 5,5 7,7 11,1
10 7 5 3	2,2 3,7 5,2 7,4
5 3,5 2,5 1,5	1,1 1,8 2,6 3,7
i=10 i=7 i=5 i=3	i=3 i=5 i=7 i=10

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.

Muffler supplied with motor.  
Motor is reversible.

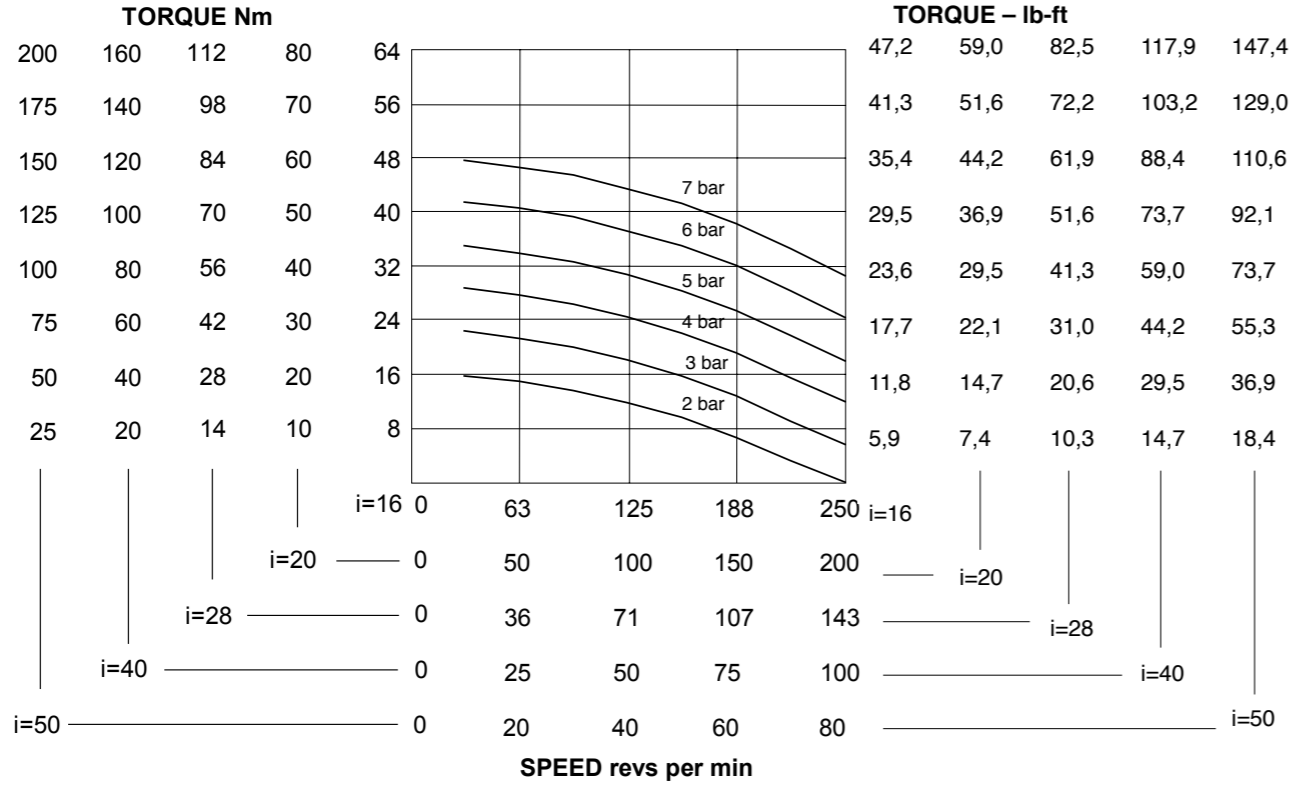
**ATTITUDE**

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

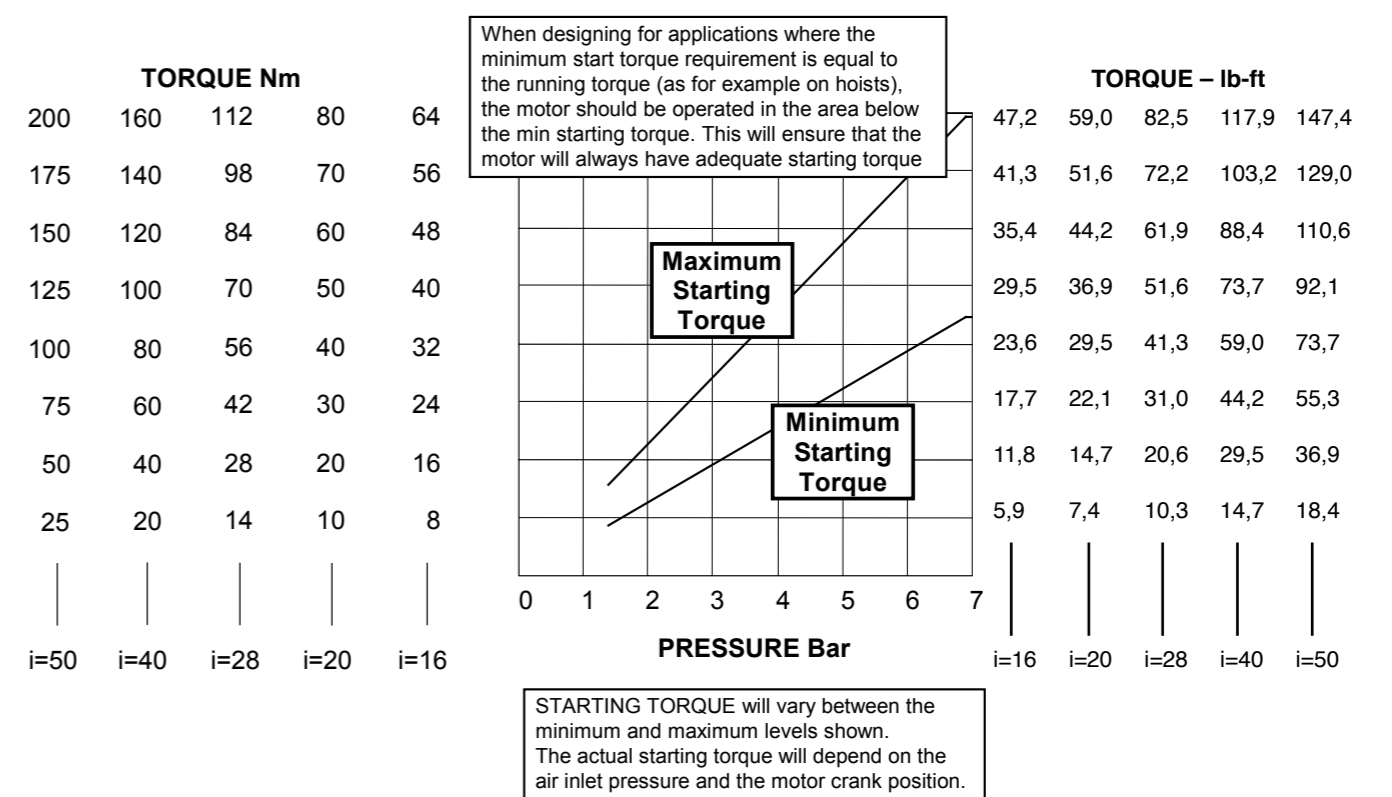
**AIRLINE FILTRATION AND LUBRICATION**

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

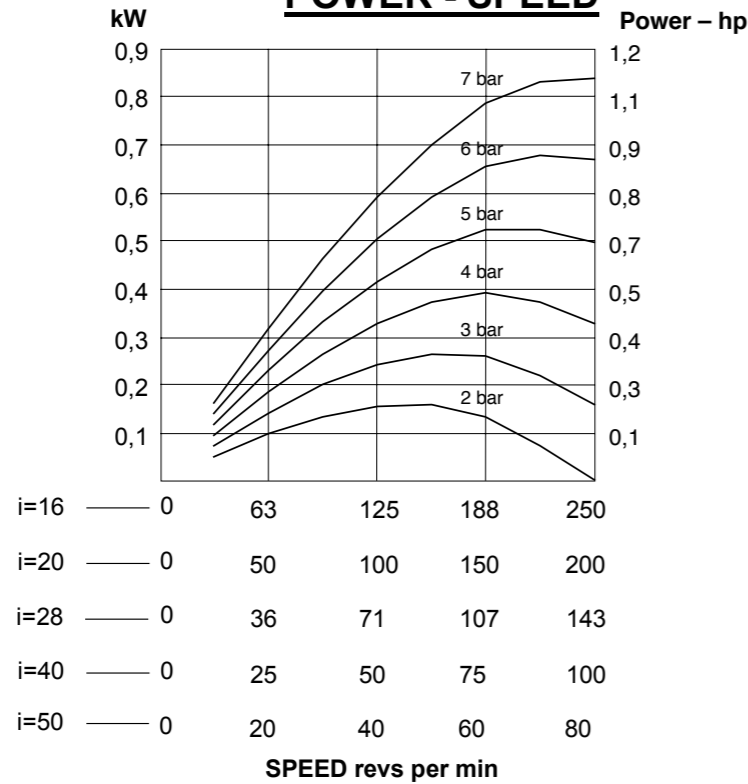
**TORQUE - SPEED**



**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

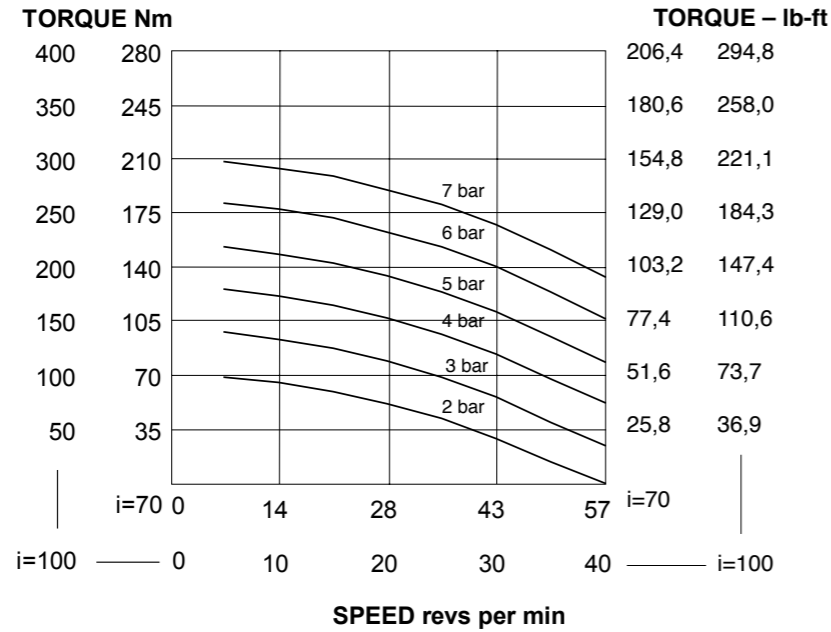
**AIRLINE FILTRATION AND LUBRICATION**

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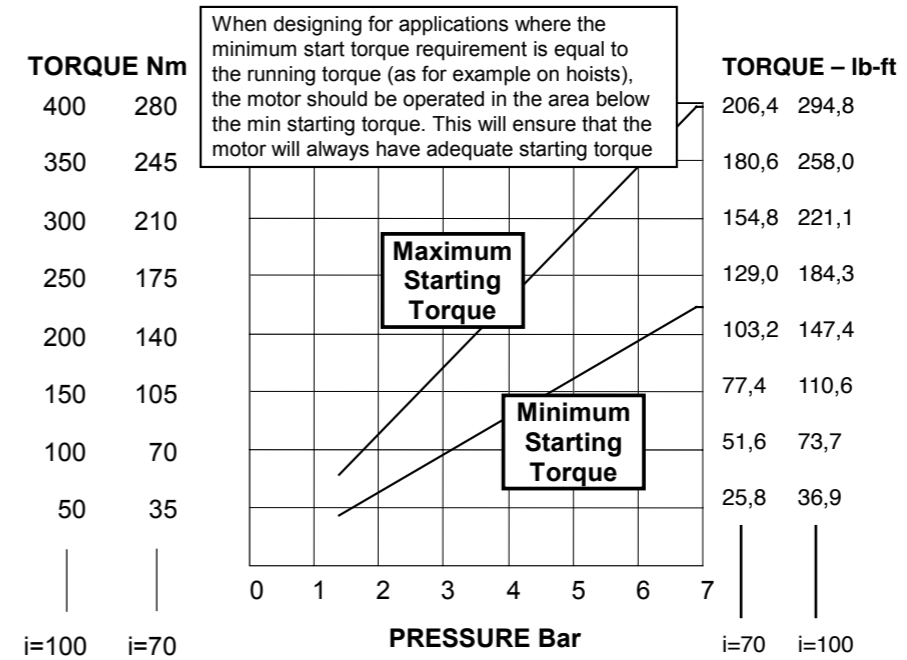
Lubricator drop rate 4-5 drops/minute continuous operation

Lubricator drop rate 9-12 drops/minute intermittent operation

**TORQUE - SPEED**

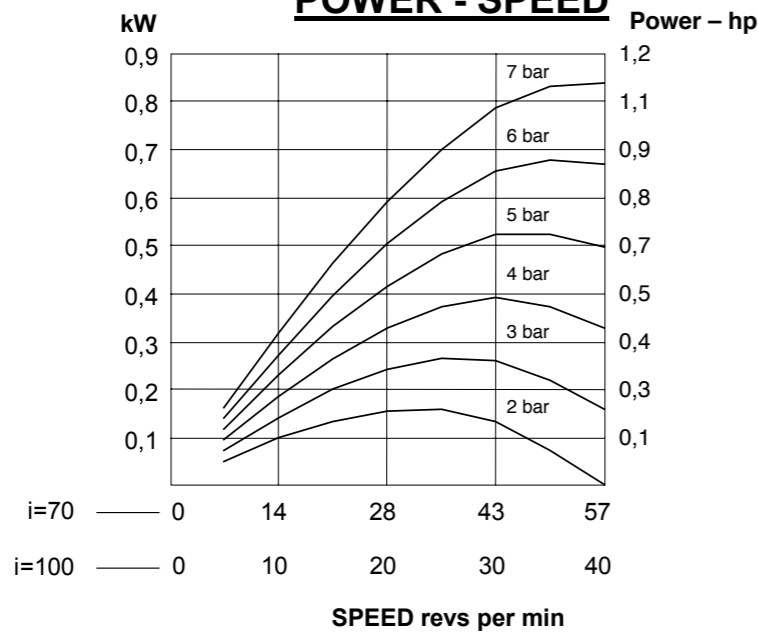


**TORQUE - PRESSURE**



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: 3000 N

Maximum axial load: 3730 N

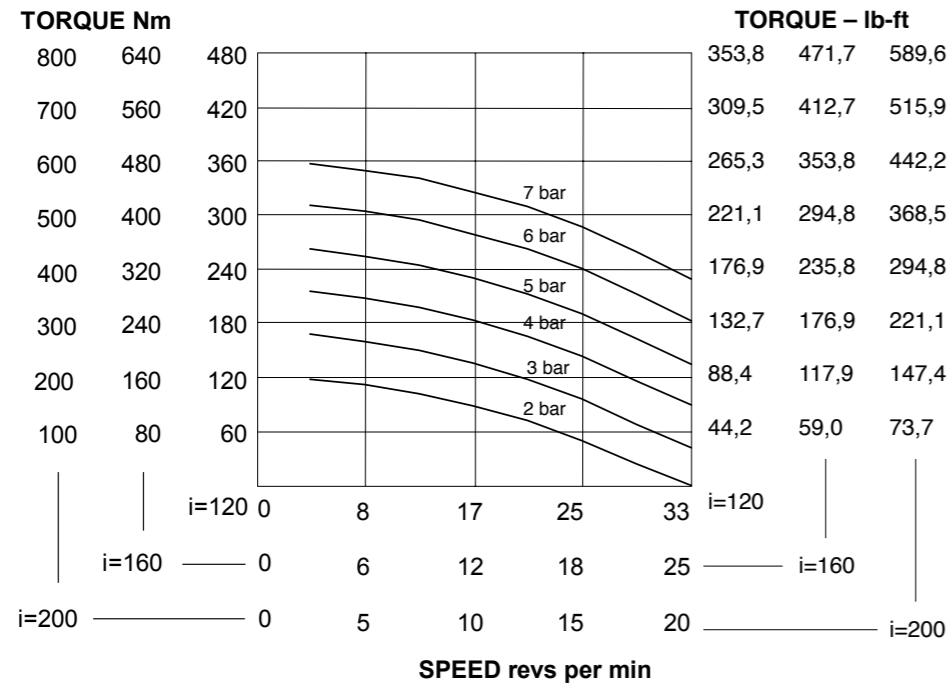
**AIRLINE FILTRATION AND LUBRICATION**

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.

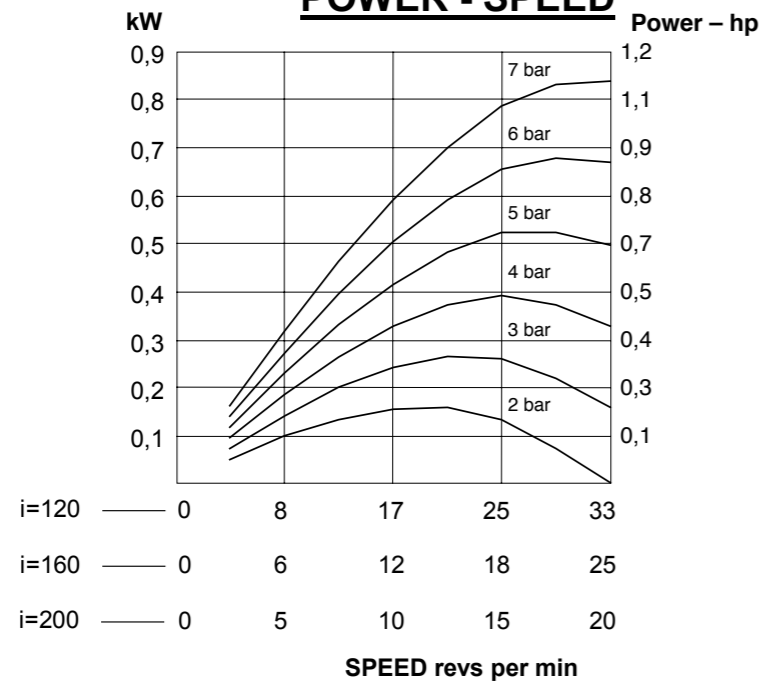
Lubricator drop rate 4-5 drops/minute continuous operation

Lubricator drop rate 9-12 drops/minute intermittent operation

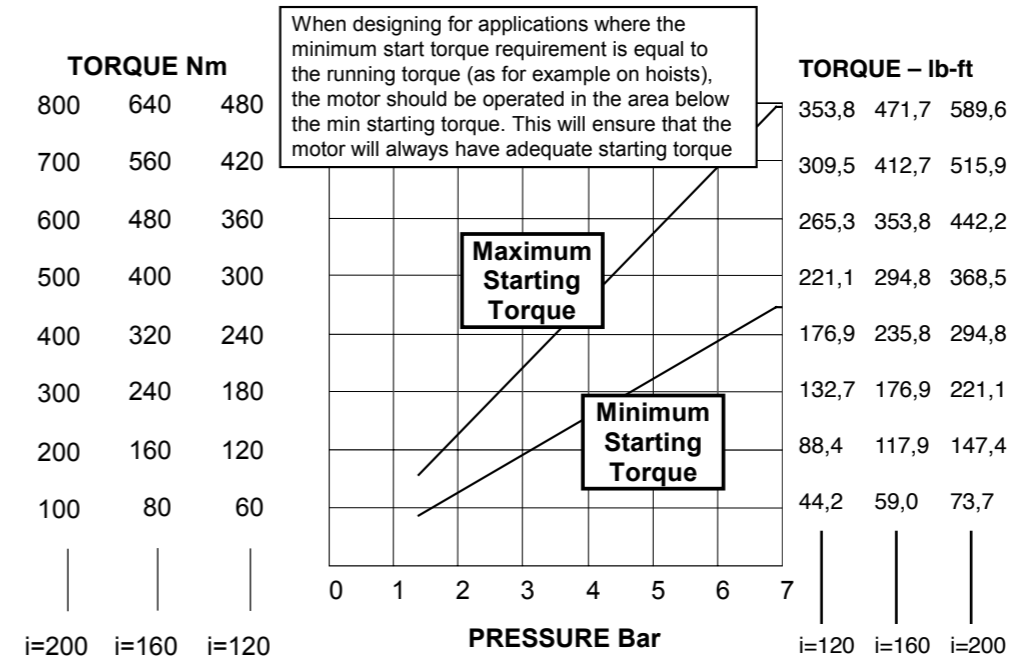
**TORQUE - SPEED**



**POWER - 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

**Maximum Starting Torque**

**Minimum 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.

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

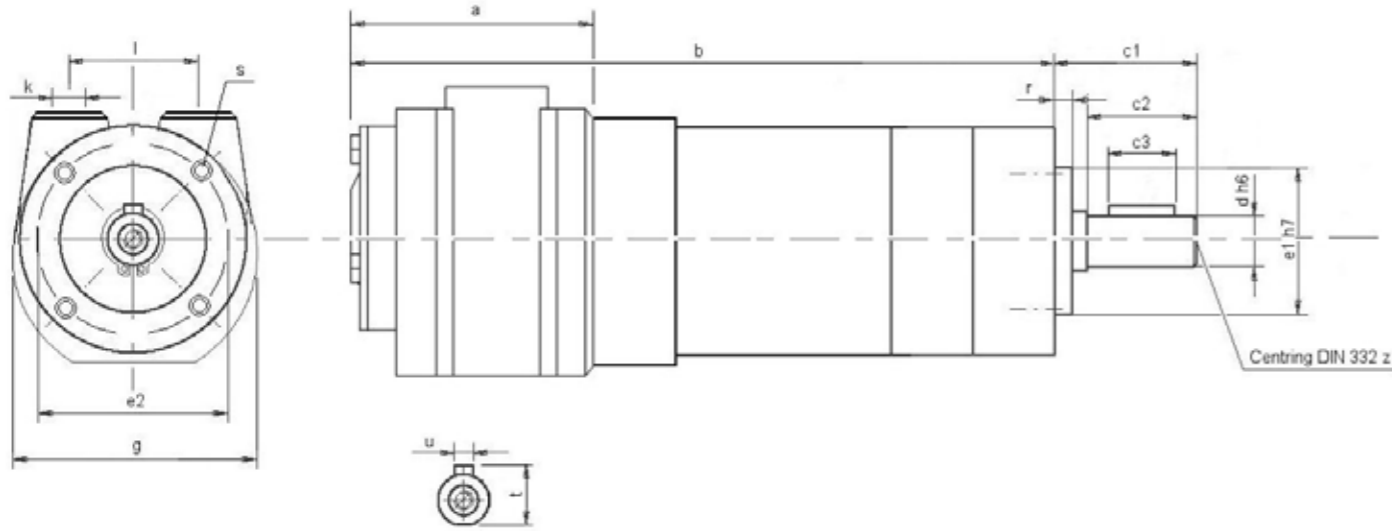
**AIRLINE FILTRATION AND LUBRICATION**

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

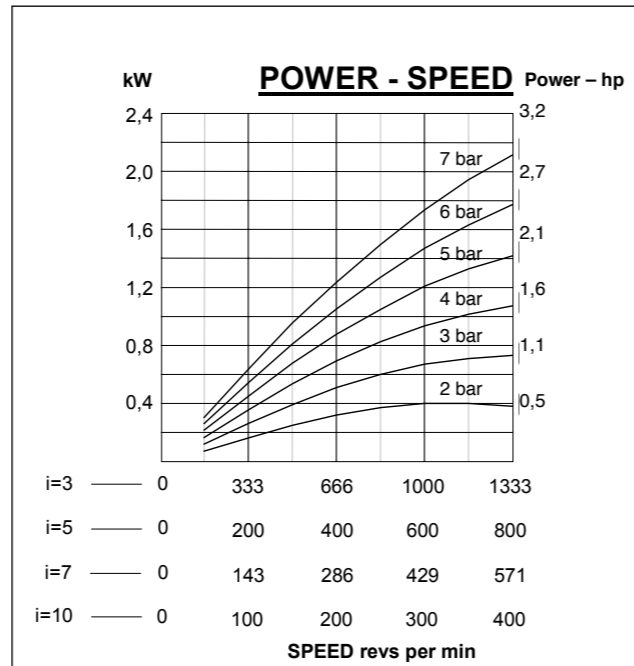
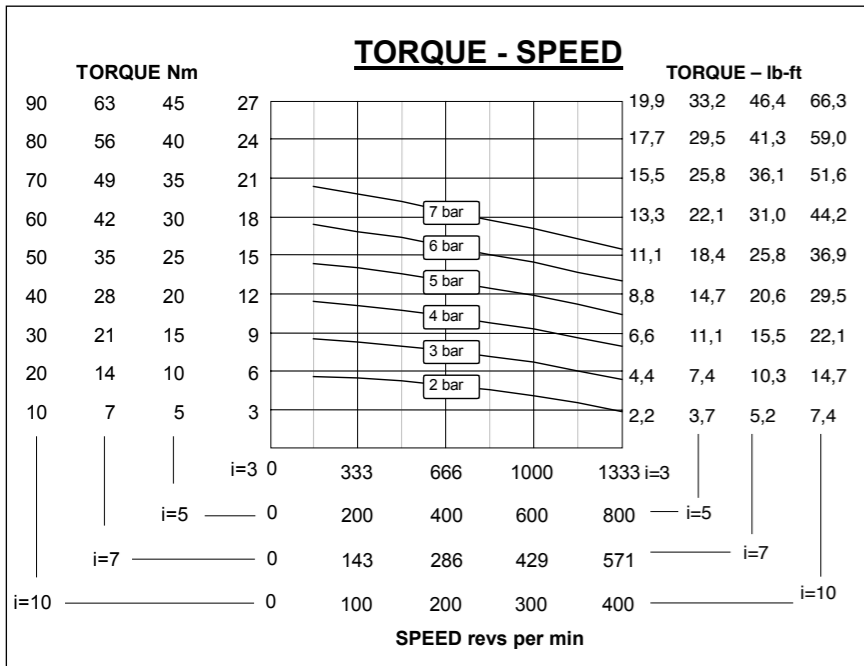
Lubricator drop rate 9-12 drops/minute intermittent operation



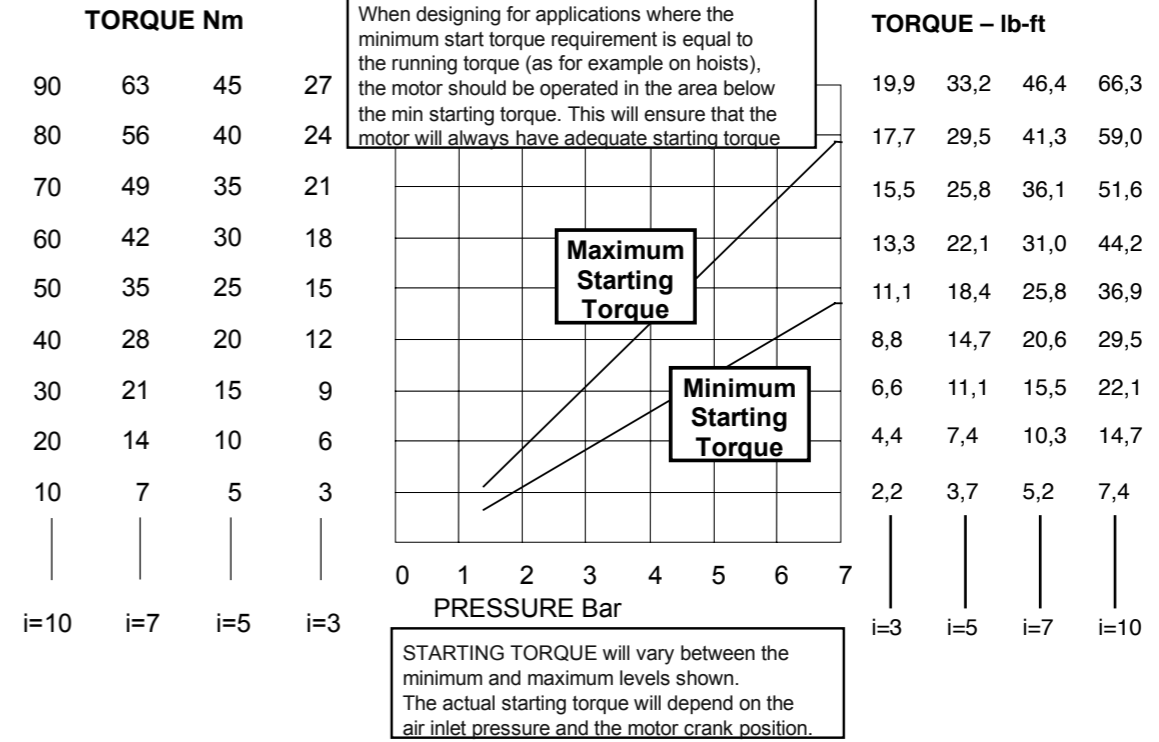


Motor	i	a	b	c1	c2	c3	d	e1	e2	f	g
VA4PFG03	3 5 7 10	89 (3.50")	213 (8.39")	49 (1.93")	40 (1.57")	32 (1.26")	20h6 (0.79")	55h7 (2.17")	70 (2.76")	85 (3.35")	102 (4.02")
VA4PFG04	16 20	89 (3.50")	244 (9.61")	49 (1.93")	40 (1.57")	32 (1.26")	20h6 (0.79")	55h7 (2.17")	70 (2.76")	85 (3.35")	102 (4.02")
VA4PFG06	20 28 40	89 (3.50")	271 (10.67")	61 (2.40")	50 (1.97")	40 (1.57")	25h6 (0.98")	80h7 (3.15")	100 (3.94")	120 (4.72")	102 (4.02")
VA4PFG07 On request	50 70	89 (3.50")	309 (12.17")	95 (3.74")	80 (3.15")	70 (2.76")	40h6 (1.57")	110h7 (4.33")	130 (5.12")	150 (5.91")	102 (4.02")

Motor	k	l	r	s	t	u
VA4PFG03	½"NPT	55 (2.17")	8 (0.31")	M6x12 (0.47")	22,5 (0.89")	6 (0.24")
VA4PFG04	½"NPT	55 (2.17")	8 (0.31")	M6x12 (0.47")	22,5 (0.89")	6 (0.24")
VA4PFG06	½"NPT	55 (2.17")	10 (0.39")	M8x16 (0.63")	28,0 (1.10")	8 (0.31")
VA4PFG07 On request	½"NPT	55 (2.17")	14 (0.55")	M10x20 (0.79")	43,0 (1.69")	12 (0.47")



### TORQUE - PRESSURE



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

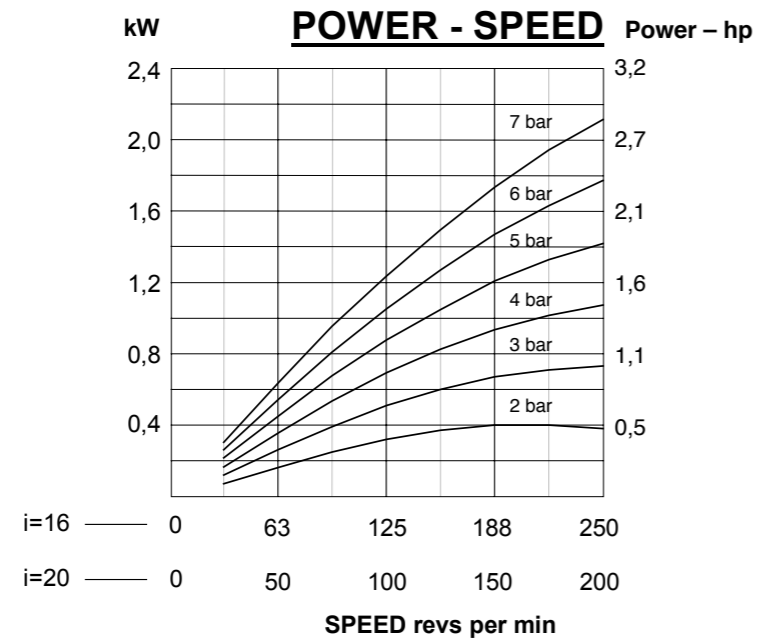
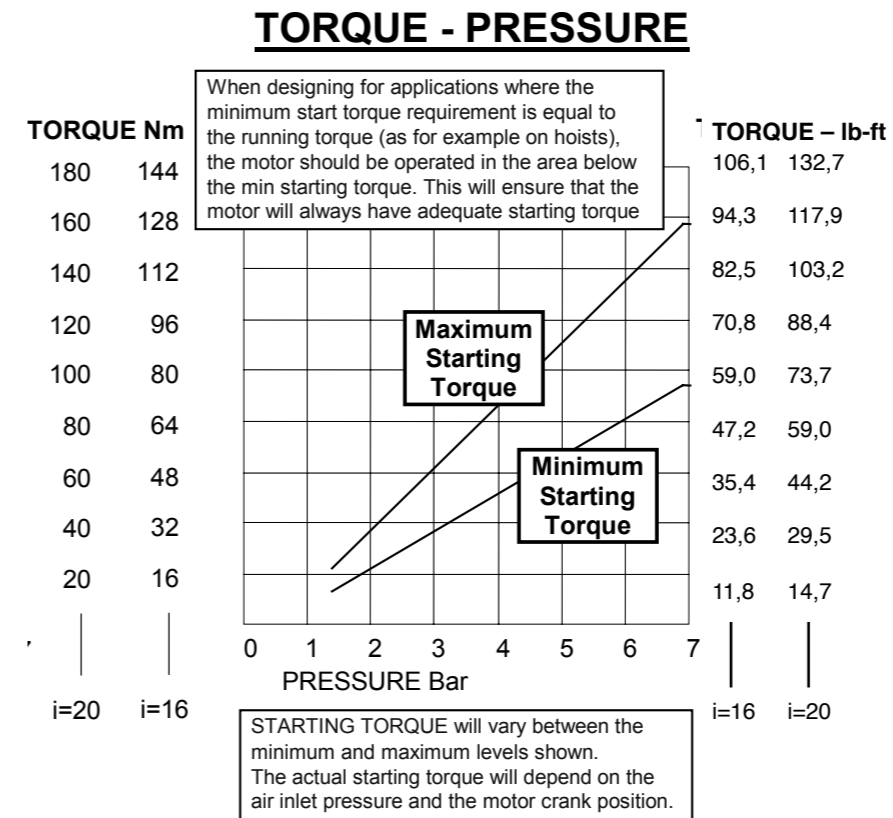
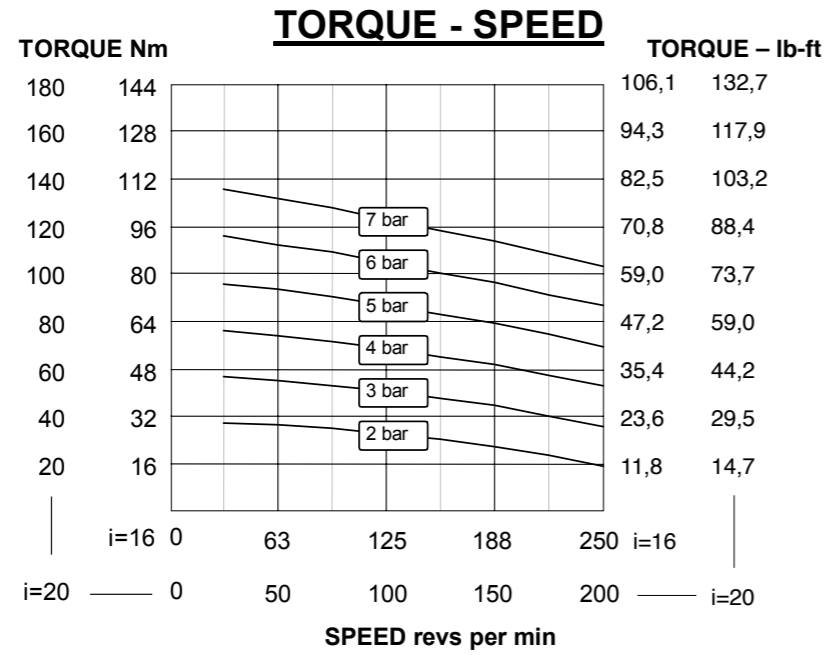
Maximum axial load: 2180 N

#### 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



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

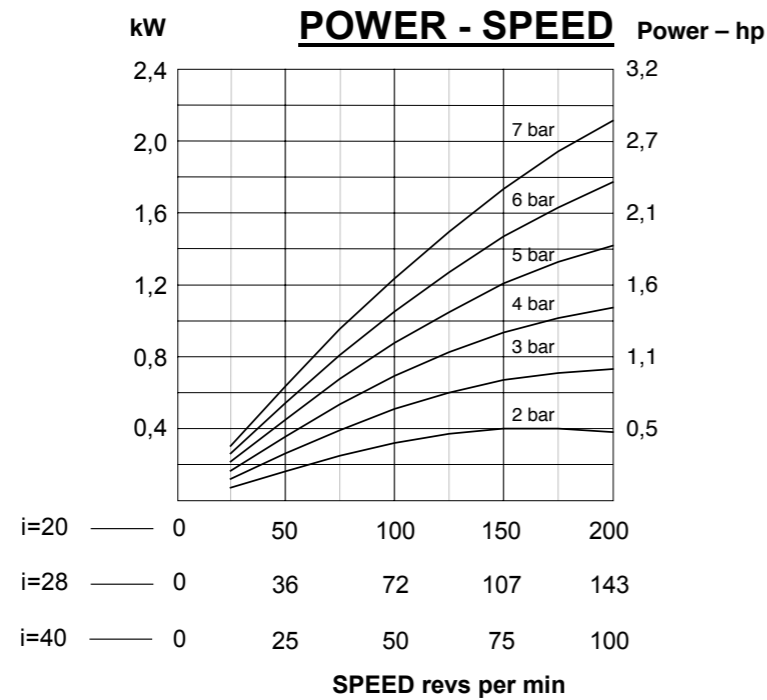
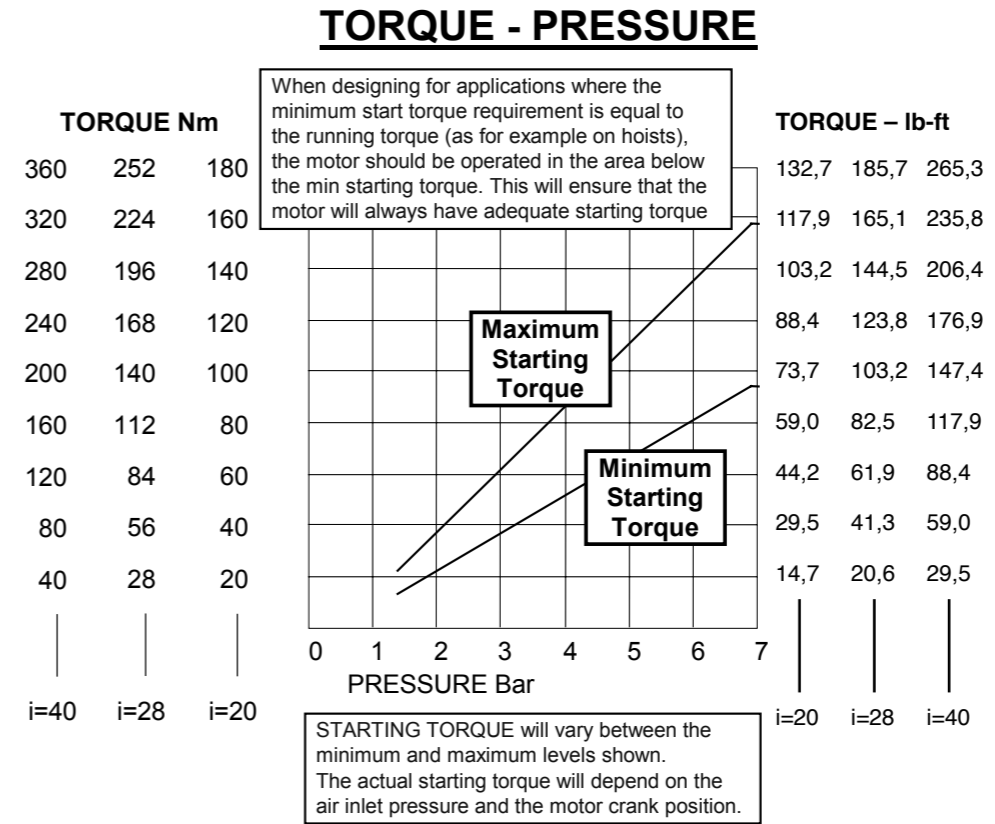
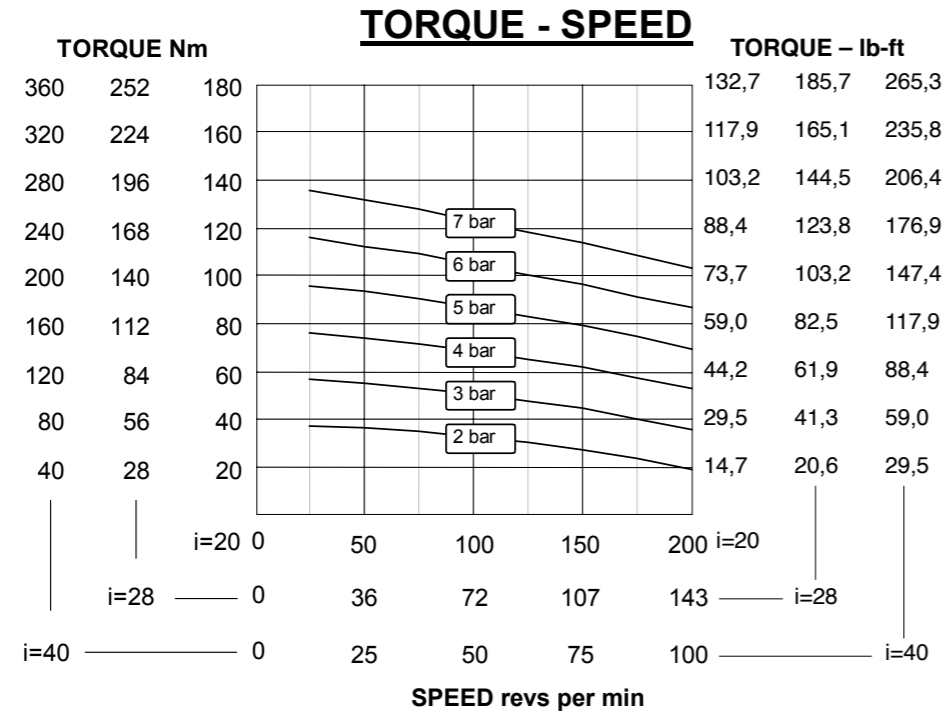
Maximum axial load: 2180 N

**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



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

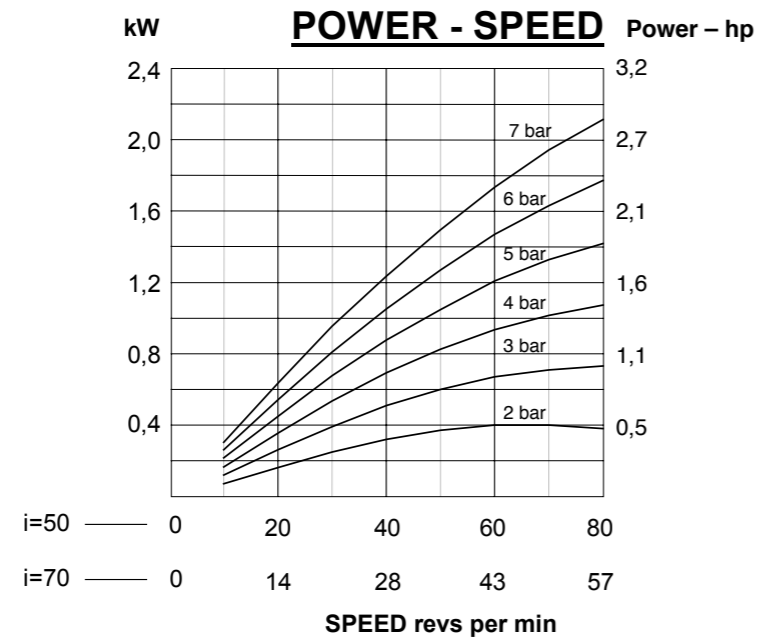
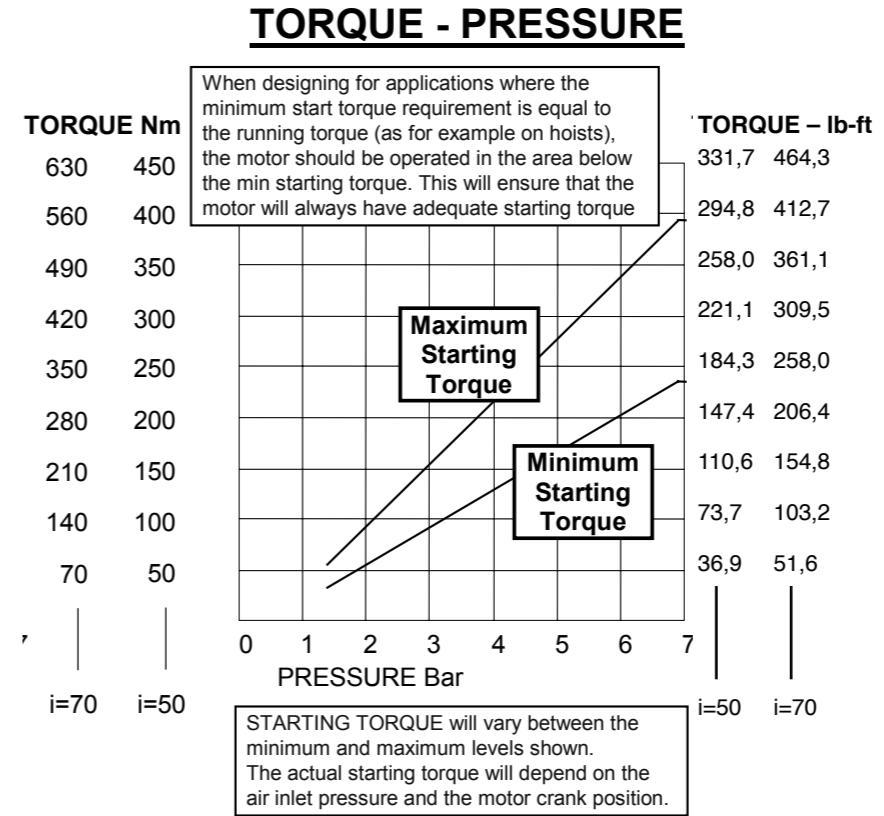
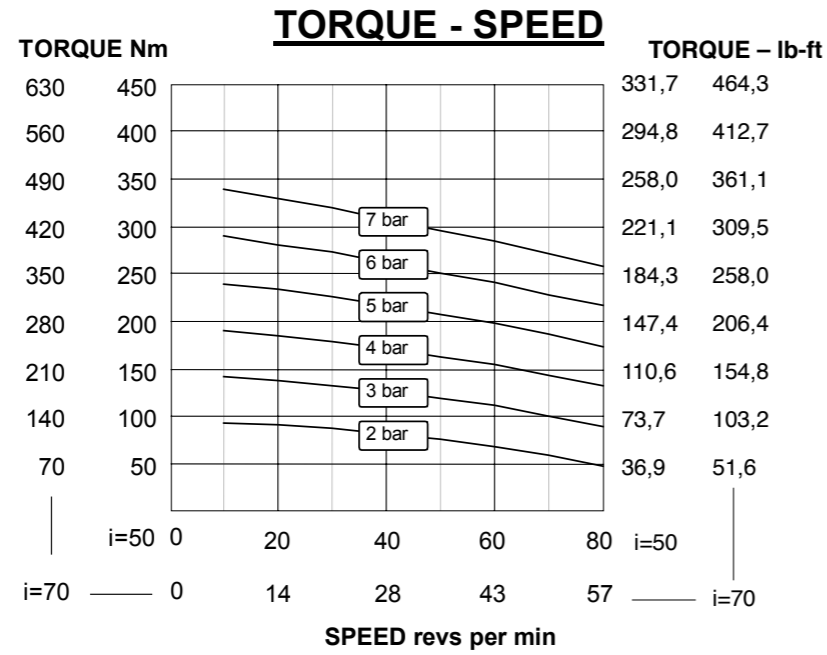
Maximum axial load: 3730 N

**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



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