

北京文宸科技有限责任公司，提供专业的气动马达解决方案。

*Desoutter*



**Industrial** Tools



## ***Air Motors***

- *160 W to 2900 W*
- *Comprehensive range*
- *Lubrication free*
- *Stainless steel*
- *High torques*

电话：+86(0)10 8039 0881，手机：13331090881，网址：[www.bjwenchen.com](http://www.bjwenchen.com)

**More Than Productivity**

# Why choose Desoutter Air Motors ?

Desoutter offers a wide range of rotating vane air motors in stainless steel and lubrication free versions, with power ranging from 0.16 kW (0.21 hp) to 2.9 kW (3.9 hp). Most motors can be supplied as either unidirectional with a threaded shaft, or reversible with a keyed shaft. Alternative output options are also available. Desoutter air motors can also be ATEX certified for environments with potentially explosive atmospheres.

Air motors are an ideal solution for many applications in such varied equipment as material handling, packaging, strapping, or printing machinery, petrochemical and agricultural equipment, food processing machinery, and many more custom and standard machines.

Air motors offer many advantages over electric motors, and are often the only feasible option for driving automation.

## BENEFITS OF AIR MOTORS OVER ELECTRIC MOTORS

- MAY BE LOADED UNTIL FULLY STALLED
- OVERLOAD SAFE
- TORQUE INCREASE AT MOUNTING LOAD
- LOW INSTALLATION COSTS
- EXPLOSION PROOF
- OPERATIONALLY SAFE (DUST, GAS, WATER)
- LOW WEIGHT AND SMALL SIZE
- HIGH POWER DENSITY
- CAN BE STERILIZED

The perfect solution for your application...



Textile



Marine



Petrochemical



Food Processing



Agricultural Equipment



Printing Machinery



Chemical



Strapping Machinery

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ATEX available

## Why choose a Air Motor



### Heavy duty

- **VERY LOW MAINTENANCE**
- **RESISTANT TO AGGRESSIVE AGENTS**
- **SPECIAL DESIGN FOR FOOD INDUSTRY**
- **SUITABLE FOR HIGH AND LOW TEMPERATURES**
- **SUITABLE FOR DIRTY ATMOSPHERES**
- **ROBUST DESIGN**
- **NO RISK OF OVERHEATING**



### Efficiency

- **LIGHT AND COMPACT PRODUCT**
- **STOP & START** REPEATEDLY WITHOUT DAMAGE
- **NO OVERLOAD RISK** MOTOR STALLS WITHOUT DAMAGE
- **ATEX AVAILABLE** FOR POTENTIALLY EXPLOSIVE ENVIRONMENTS
- **WIDE ACCESSORIES RANGE** & MODULAR OUTPUT FOR CUSTOMIZATION
- **EASY TO CONTROL, ADJUST, INSTALL & REVERSE**
- **HIGH PERFORMANCE** WITH **LOW AIR CONSUMPTION**



### Environmentally Friendly

- **SUITABLE FOR CLEAN ATMOSPHERES**
- **DESIGNED FOR LOW AIR CONSUMPTION**
- **LUBRICATION FREE OPTION**
- **NO ADDITIONAL POLLUTION**

# Selecting your Air Motor

## Glossary information:

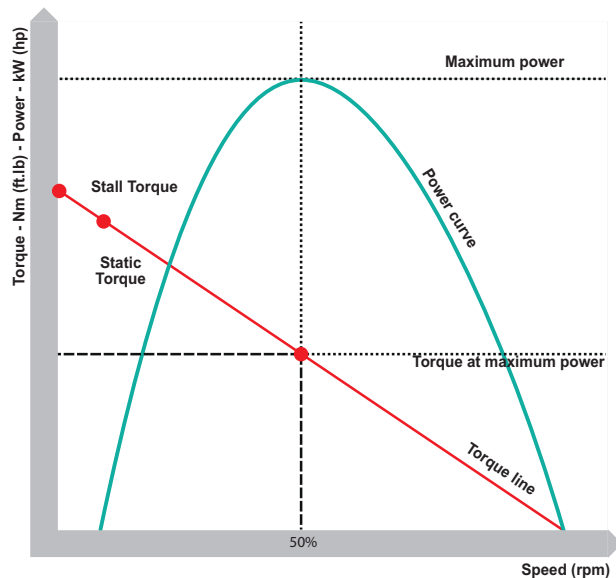
<b>M R 16 12300 K S L SI</b>	
Vane Air Motor  O = Clockwise rotation R = Reversible	Power in kW 16 = 0.10-0.16 25 = 0.16-0.25 39 = 0.23-0.39 84 = 0.58-0.84 180 = 1.40-1.83 290 = 2.52-2.91
	Free speed  K = Keyed shaft T = Threaded Shaft  S = Stainless steel  L = Lubrication free  SI = Silencer included

## Air motor performance

Air motor performance depends on the air pressure and air flow being supplied to the tool. By adjusting pressure and flow, we can change the torque and speed output of the air motor. Air motor peak performance is at **6.3 bar (90 psi)**.

The **main technical references** of an air motor are:

- **POWER IN Watt (hp)**
- **SPEED AT MAXIMUM POWER, rpm**
- **TORQUE AT MAXIMUM POWER, Nm (ft.lb)**
- **STATIC TORQUE, Nm (ft.lb)**
- **FREE SPEED, rpm**
- **AIR CONSUMPTION AT MAXIMUM POWER, l/s (cfm)**



Some applications require a certain stall torque. This can be calculated by taking the torque at maximum power and multiplying this by two. Regulating the pressure is necessary when controlling the stall torque.

# Selecting your Air Motor

## Adjusting the performance of the Air Motor

The performance can be modified using a regulator that **reduces or increases the air pressure** to the motor. Consequently there is an decrease or increase of the power, **torque and speed values**.

To calculate performance when the supply pressure is different to 6.3 bar, multiply the data at 6.3 bar by the correction factors below.

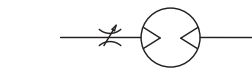
Performance coefficient vs the pressure:

AIR PRESSURE (Bar)	(Psi)	SPEED	TORQUE	AIR CONSUMPTION
7	101	1.01	1.09	1.11
6	87	0.99	0.95	0.96
5	73	0.93	0.79	0.77
4	58	0.85	0.63	0.61
3	44	0.73	0.48	0.44

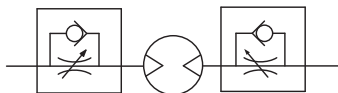
There are two methods to adjust the performance of a motor

- WITH AN AIR FLOW REGULATOR TO CONTROL THE SPEED
- WITH AN AIR PRESSURE REGULATOR TO CONTROL THE TORQUE

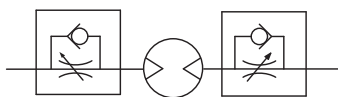
**Speed is controlled by restricting the air flow to the motor.**  
The flow regulator should feature a combined non-return valve.



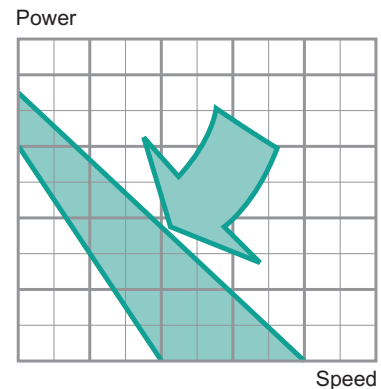
Supply throttling, non-reversible motor



Supply throttling, reversible motor



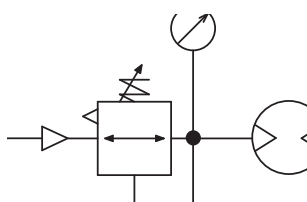
Exhaust throttling, reversible motor



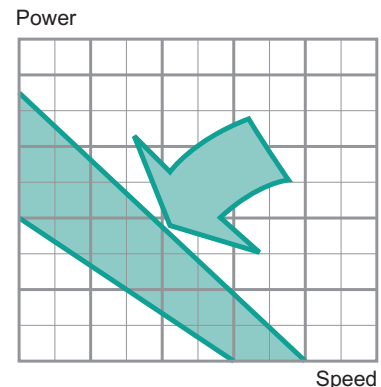
### Regulation of the air motor performance

Air pressure is used to control torque  
Control should be via a regulator, filter, lubricator.

**Torque is controlled by regulating the pressure of the motor air supply.**



Pressure regulation at motor inlet



# Selecting your Air Motor

## General rules

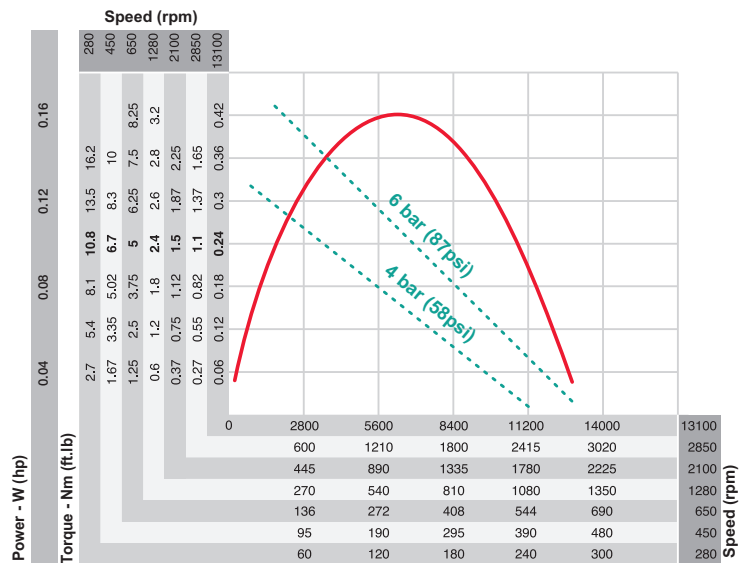
After first determining whether a single direction or a reversible motor is required, the next step is to consider the required output speed and torque together with the operational conditions.

As a general rule try to select a motor with twice the free speed of the speed required under load. By using the performance graphs indicated on the following pages it is then possible to ensure that the motor meets the requirements specified.

### Example:

**What motor is required to produce an output torque of 6 Nm at 200 rpm.**

The motor should be reversible and 6.3 bar supply pressure is available.



### • Step One

#### Select the motor type at maximum power

The maximum torque of the M25 Series motor is 10.8 Nm (7.4 ft-lb). Since a reversible motor is required the MR25 will be used.

### • Step Two

#### Select the appropriate motor speed

As a rule try to select a motor with twice the free running speed of the speed required since this will usually coincide with the high power band of the motor. For this example we require 200 rpm so use a motor of about 400 rpm free running speed. The closest is 450 rpm so try the MR25-450-KL.

### • Step Three

#### Confirm the motor is suitable for the application

By plotting both the torque (6 Nm - 4.4 ft-lb) and speed (200 rpm) on the graph an intersection is found. Provided the intersection is below the torque line for the motor (straight line) then the motor is suitable for the application.



# M16-KL Series

**0.10 - 0.16 kW (0.14 - 0.22 hp)**



For EX certification according to the ATEX directive (II 2G T4 IIC D110°C) use order PN. 205 054 076 3 (book as one order together with motor).



Air pressure 6.3 bar (91 psi)

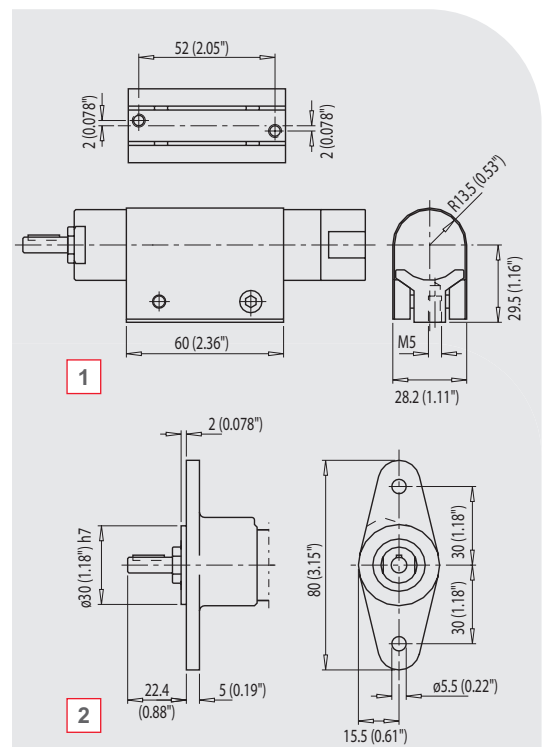
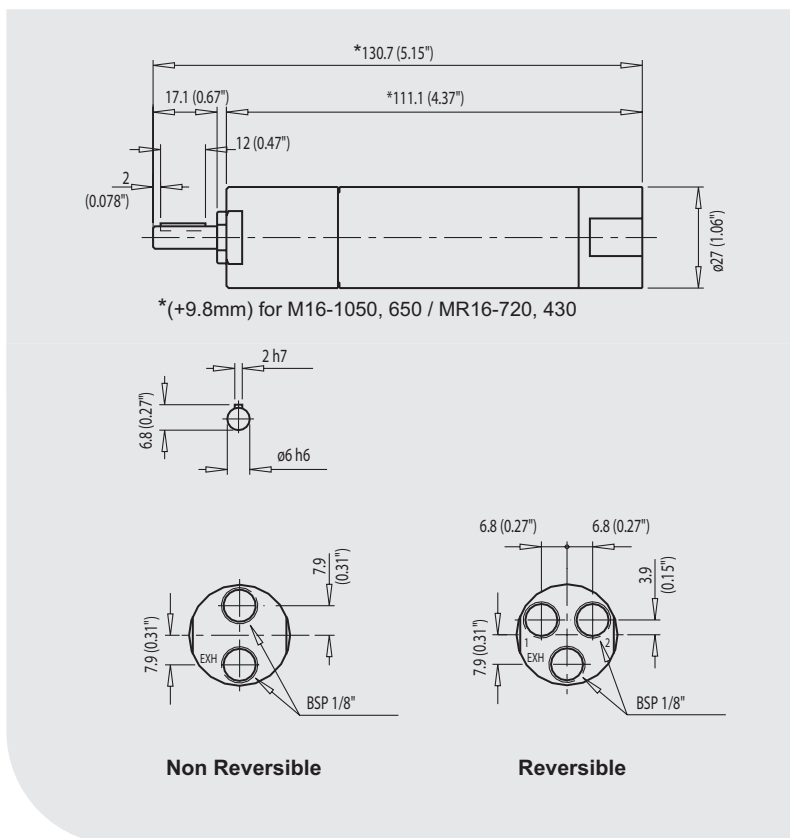
MODEL	PART NUMBER	MAX OUTPUT		TORQUE AT MAX OUTPUT		MINI STARTING TORQUE		FREE SPEED	AIR CONS. AT MAX OUTPUT		WEIGHT	
		kW	hp	Nm	ft.lb	Nm	ft.lb	rpm	l/s	cfm	kg	lb

### Non Reversible

M16-18500-KL	205 147 892 4	0.16	0.22	0.17	0.12	0.26	0.19	18500	4.2	8.9	0.30	0.66
M16-4460-KL	205 147 893 4	0.16	0.22	0.70	0.50	1.0	0.73	4460	4.2	8.9	0.30	0.66
M16-2660-KL	205 147 894 4	0.16	0.22	1.1	0.78	1.7	1.2	2660	4.2	8.9	0.30	0.66
M16-1050-KL	205 147 895 4	0.16	0.22	2.9	2.1	4.2	3.1	1050	4.2	8.9	0.33	0.73
M16-650-KL	205 147 896 4	0.16	0.22	4.7	3.4	7.0	5.1	650	4.2	8.9	0.33	0.73

### Reversible

MR16-12350-KL	205 147 897 4	0.10	0.14	0.15	0.11	0.19	0.14	12350	3.6	7.6	0.30	0.66
MR16-2950-KL	205 147 898 4	0.10	0.14	0.60	0.43	0.78	0.57	2950	3.6	7.6	0.30	0.66
MR16-1800-KL	205 147 899 4	0.10	0.14	1.0	0.72	1.3	0.95	1800	3.6	7.6	0.30	0.66
MR16-720-KL	205 147 900 4	0.10	0.14	2.5	1.8	3.1	2.3	720	3.6	7.6	0.33	0.73
MR16-430-KL	205 147 901 4	0.10	0.14	4.1	3.0	5.0	3.6	430	3.6	7.6	0.33	0.73



### OPTIONAL ACCESSORIES

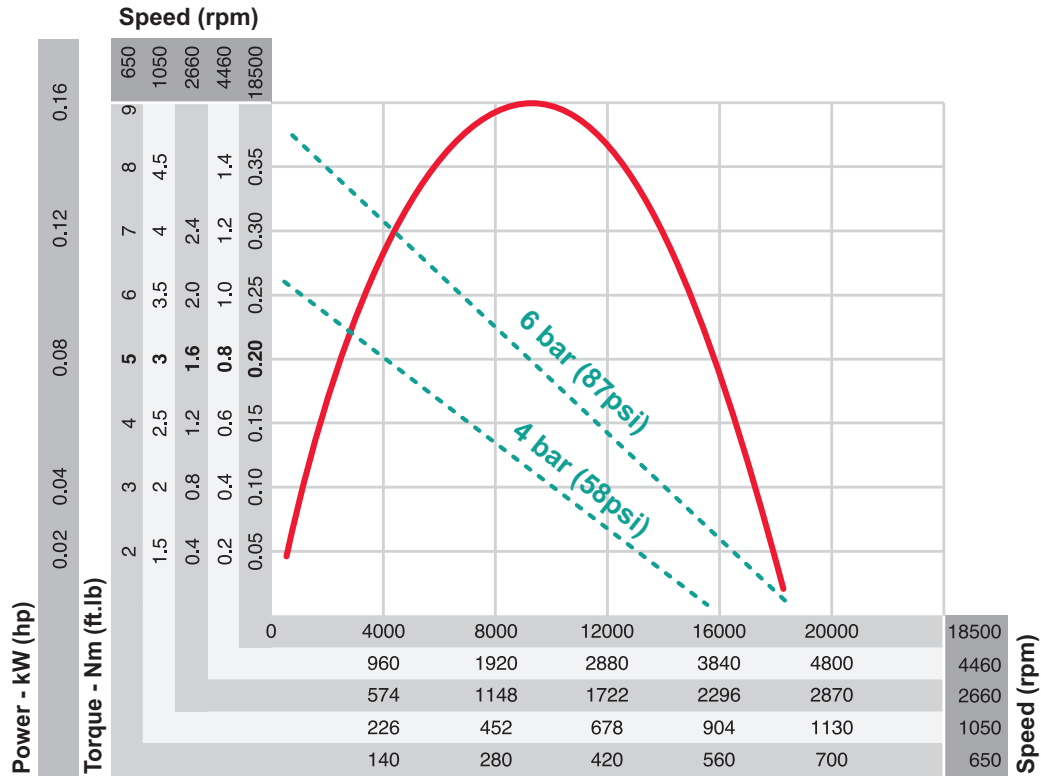
ITEM	PART NO.
1 Mounting foot	205 053 649 3
2 Mounting flange	205 053 640 3

Other optional accessories: see page 28

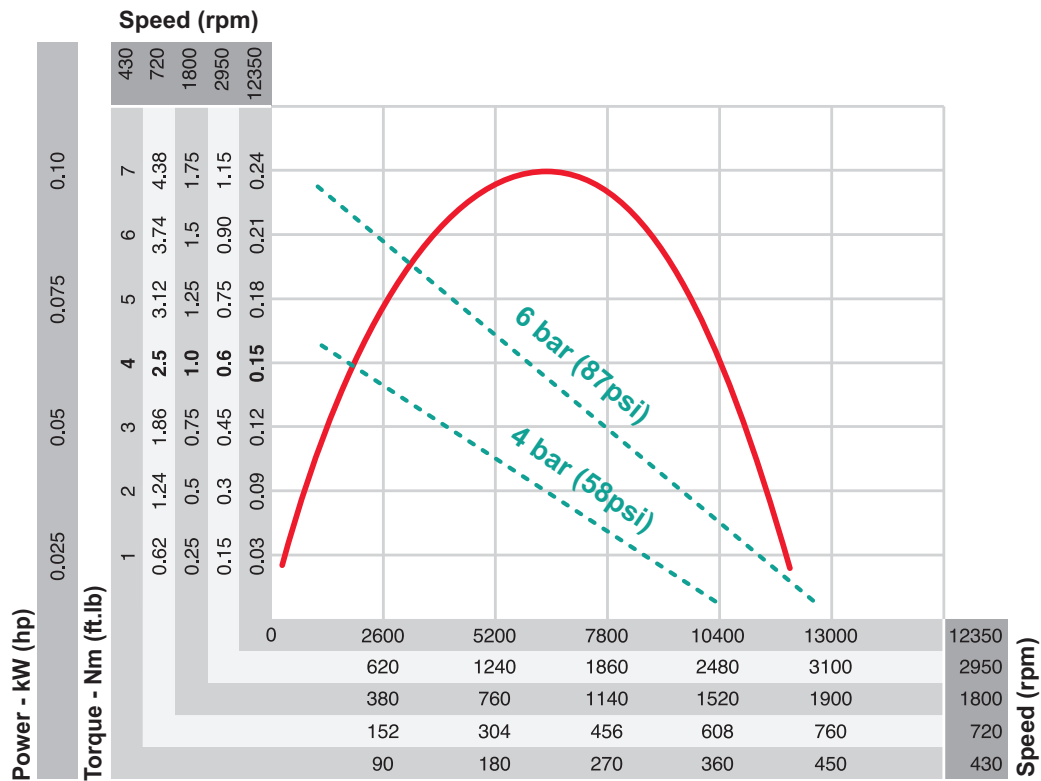
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M16-KL at air pressure 6.3 bar (91 psi)  
Non Reversible



MR16-KL at air pressure 6.3 bar (91 psi)  
Reversible





# M16-KSL Series

**0.10 - 0.16 kW (0.14 - 0.22 hp)**  
**Stainless steel**



For EX certification according to the ATEX directive (II 2G T4 IIC D110°C) use order PN. 205 054 076 3 (book as one order together with motor).



Air pressure 6.3 bar (91 psi)

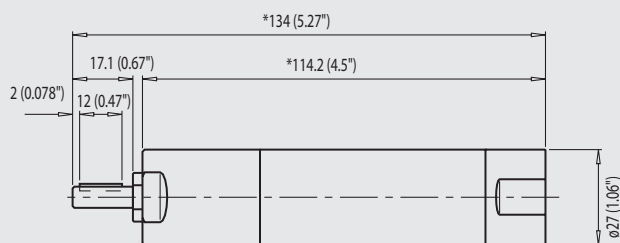
MODEL	PART NUMBER	MAX OUTPUT		TORQUE AT MAX OUTPUT		MINI STARTING TORQUE		FREE SPEED	AIR CONS. AT MAX OUTPUT		WEIGHT	
		kW	hp	Nm	ft.lb	Nm	ft.lb	rpm	l/s	cfm	kg	lb

## Non Reversible

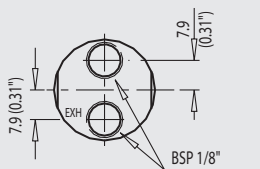
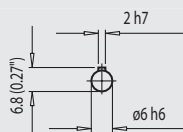
M16-18500-KSL	205 147 902 4	0.16	0.22	0.17	0.12	0.26	0.19	18500	4.2	8.9	0.37	0.82
M16-4460-KSL	205 147 903 4	0.16	0.22	0.70	0.50	1.0	0.73	4460	4.2	8.9	0.37	0.82
M16-2660-KSL	205 147 904 4	0.16	0.22	1.1	0.78	1.7	1.2	2660	4.2	8.9	0.37	0.82
M16-1050-KSL	205 147 905 4	0.16	0.22	2.9	2.1	4.2	3.1	1050	4.2	8.9	0.40	0.88
M16-650-KSL	205 147 906 4	0.16	0.22	4.7	3.4	7.0	5.1	650	4.2	8.9	0.40	0.88

## Reversible

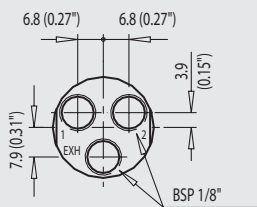
MR16-12350-KSL	205 147 907 4	0.10	0.14	0.15	0.11	0.19	0.14	12350	3.6	7.6	0.37	0.82
MR16-2950-KSL	205 147 908 4	0.10	0.14	0.60	0.43	0.78	0.57	2950	3.6	7.6	0.37	0.82
MR16-1800-KSL	205 147 909 4	0.10	0.14	1.0	0.72	1.3	0.95	1800	3.6	7.6	0.37	0.82
MR16-720-KSL	205 147 910 4	0.10	0.14	2.5	1.8	3.1	2.3	720	3.6	7.6	0.40	0.88
MR16-430-KSL	205 147 911 4	0.10	0.14	4.1	3.0	5.0	3.6	430	3.6	7.6	0.40	0.88



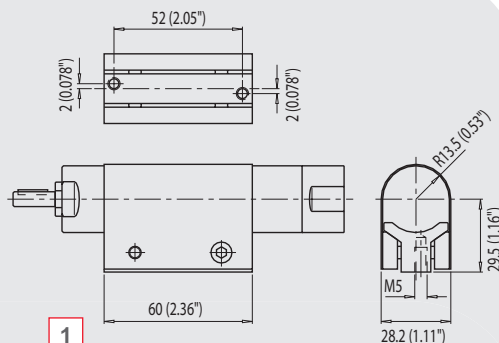
\*(+ 9.8mm) for M16-1050, 650 / MR16-720, 430



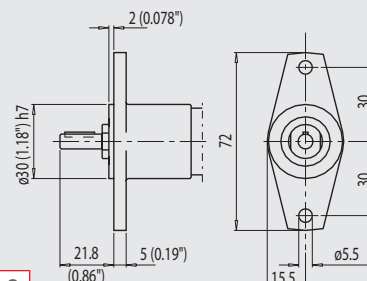
Non Reversible



Reversible



1



2

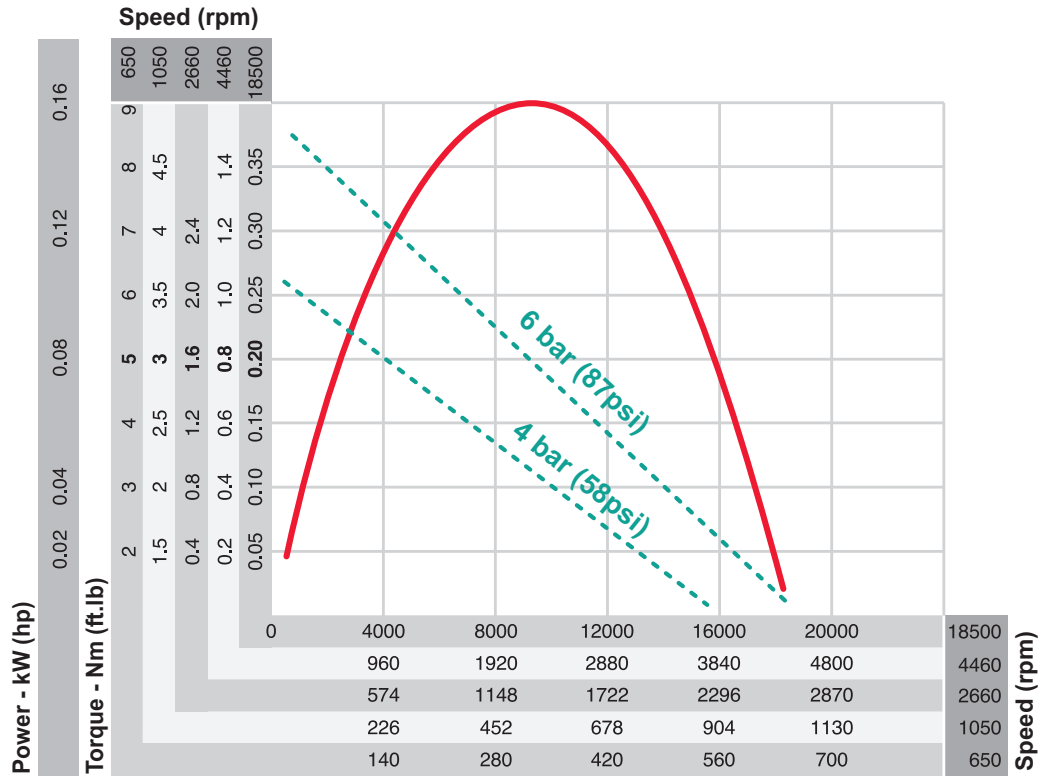
## OPTIONAL ACCESSORIES

ITEM	PART NO.
1 Mounting foot	205 053 653 3
2 Mounting flange	205 053 645 3

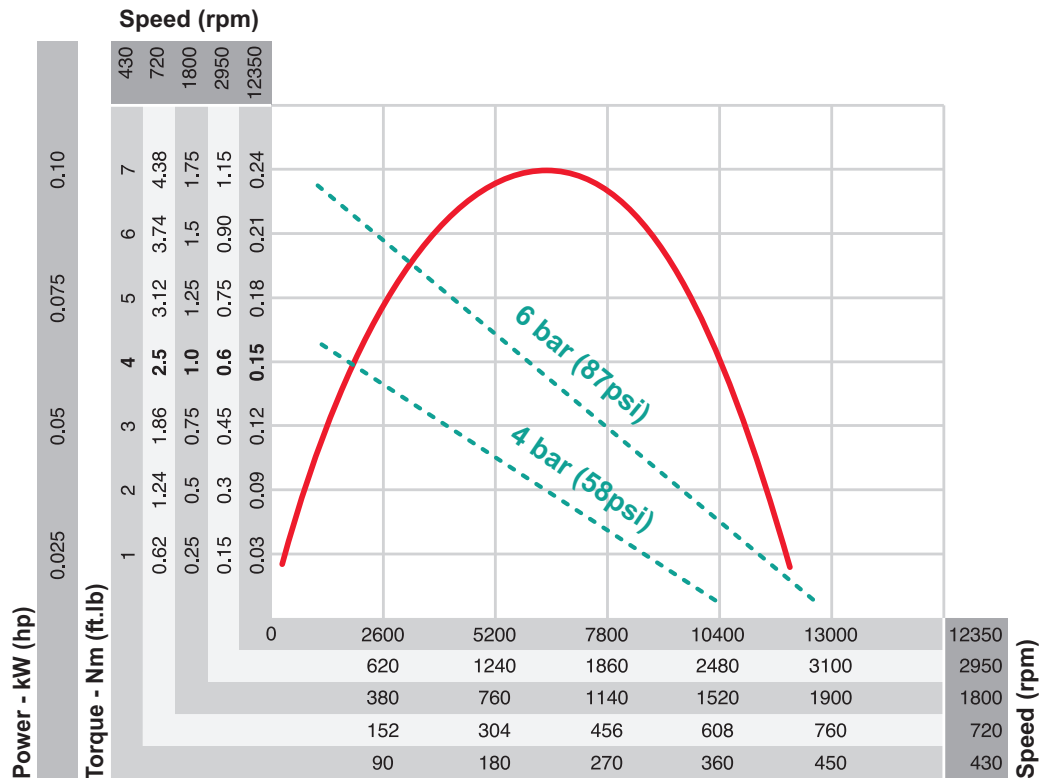
Other optional accessories: see page 28

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M16-KSL at air pressure 6.3 bar (91 psi)  
Non Reversible



MR16-KSL at air pressure 6.3 bar (91 psi)  
Reversible





# M25-KL / TL Series

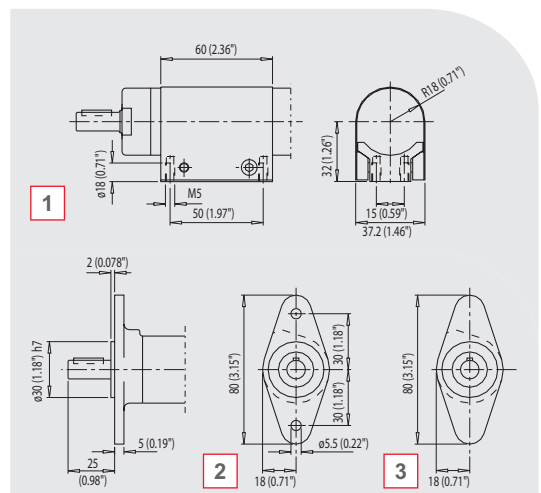
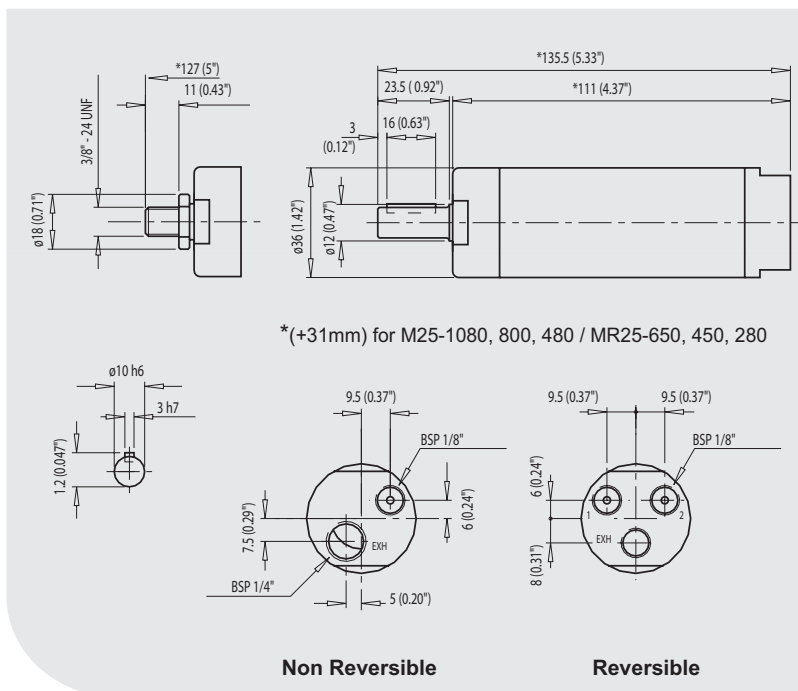
0.16 to 0.25 kW (0.22 to 0.34 hp)

**Ex** For EX certification according to the ATEX directive (II 2G T5 IIC D85°C) use order PN. 205 054 077 3 (book as one order together with motor).



Air pressure 6.3 bar (91 psi)

MODEL	PART NUMBER	MAX OUTPUT		TORQUE AT MAX OUTPUT		MINI STARTING TORQUE		FREE SPEED	AIR CONS. AT MAX OUTPUT		WEIGHT	
		kW	hp	Nm	ft.lb	Nm	ft.lb	rpm	l/s	cfm	kg	lb
<b>Non Reversible - Keyed shaft</b>												
M25-20400-KL	205 147 822 4	0.25	0.34	0.25	0.18	0.45	0.33	20400	5.3	11.2	0.55	1.21
M25-4750-KL	205 147 823 4	0.25	0.34	1.1	0.8	2.0	1.5	4750	5.3	11.2	0.55	1.21
M25-3500-KL	205 147 824 4	0.25	0.34	1.5	1.1	2.7	2.0	3500	5.3	11.2	0.55	1.21
M25-2130-KL	205 147 825 4	0.25	0.34	2.4	1.7	4.5	3.3	2130	5.3	11.2	0.55	1.21
M25-1080-KL	205 147 826 4	0.24	0.32	4.3	3.2	8.0	5.9	1080	5.3	11.2	0.75	1.65
M25-800-KL	205 147 827 4	0.24	0.32	6.0	4.4	10.5	7.7	800	5.3	11.2	0.75	1.65
M25-480-KL	205 147 828 4	0.24	0.32	9.9	7.3	17.0	12.5	480	5.3	11.2	0.75	1.65
<b>Non Reversible - Threaded shaft</b>												
M25-20400-TL	205 147 829 4	0.25	0.34	0.25	0.18	0.45	0.33	20400	5.3	11.2	0.55	1.21
M25-4750-TL	205 147 830 4	0.25	0.34	1.1	0.8	2.0	1.5	4750	5.3	11.2	0.55	1.21
M25-3500-TL	205 147 831 4	0.25	0.34	1.5	1.1	2.7	2.0	3500	5.3	11.2	0.55	1.21
M25-2130-TL	205 147 832 4	0.25	0.34	2.4	1.7	4.5	3.3	2130	5.3	11.2	0.55	1.21
M25-1080-TL	205 147 833 4	0.24	0.32	4.3	3.2	8.0	5.9	1080	5.3	11.2	0.75	1.65
M25-800-TL	205 147 834 4	0.24	0.32	6.0	4.4	10.5	7.7	800	5.3	11.2	0.75	1.65
M25-480-TL	205 147 835 4	0.24	0.32	9.9	7.3	17.0	12.5	480	5.3	11.2	0.75	1.65
<b>Reversible</b>												
MR25-13100-KL	205 147 836 4	0.16	0.22	0.24	0.18	0.35	0.26	13100	5.0	10.6	0.55	1.21
MR25-2850-KL	205 147 837 4	0.16	0.22	1.1	0.8	1.3	0.96	2850	5.0	10.6	0.55	1.21
MR25-2100-KL	205 147 838 4	0.16	0.22	1.5	1.1	1.8	1.3	2100	5.0	10.6	0.55	1.21
MR25-1280-KL	205 147 839 4	0.16	0.22	2.4	1.7	3.0	2.2	1280	5.0	10.6	0.55	1.21
MR25-650-KL	205 147 840 4	0.16	0.22	5.0	3.7	5.9	4.4	650	5.0	10.6	0.75	1.65
MR25-450-KL	205 147 841 4	0.16	0.22	6.7	4.9	8.0	5.9	450	5.0	10.6	0.75	1.65
MR25-280-KL	205 147 842 4	0.16	0.22	10.8	8.0	13.4	9.9	280	5.0	10.6	0.75	1.65



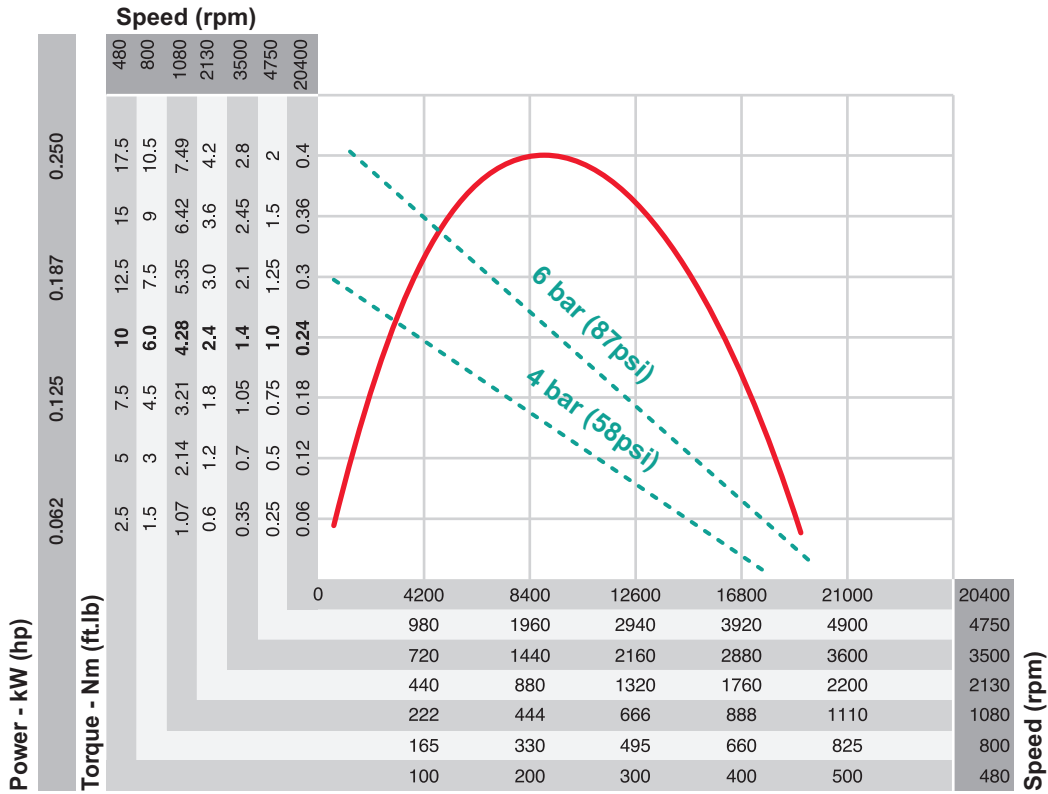
### OPTIONAL ACCESSORIES

ITEM	PART NO.
1 Mounting foot	205 053 646 3
2 Mounting flange with holes	205 054 062 3
3 Mounting flange without holes	205 053 639 3

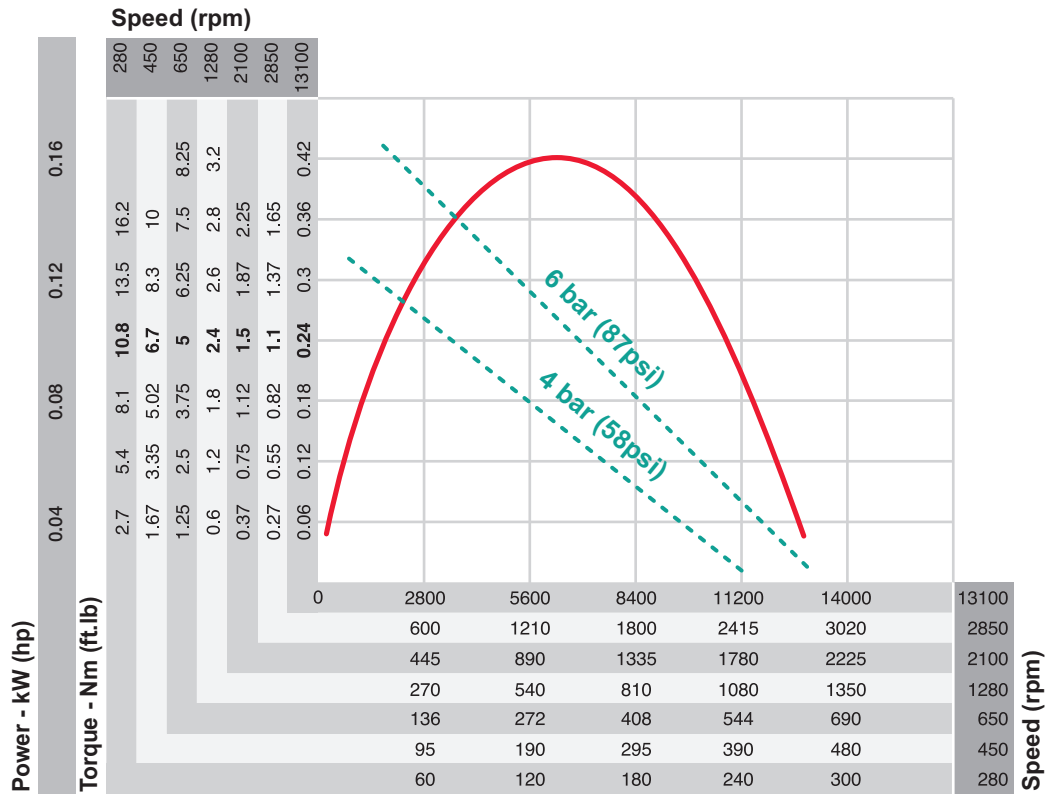
Other optional accessories: see page 28

电话：+86(0)10 8039 0881，手机：13331090881，网址：www.bjwenchen.com

M25-KL at air pressure 6.3 bar (91 psi)  
Non Reversible



MR25-KL at air pressure 6.3 bar (91 psi)  
Reversible





# M25-KSL Series

**0.16 to 0.25 kW (0.22 to 0.34 hp)  
Stainless steel**

**Ex** For EX certification according to the ATEX directive (II 2G T5 IIC D85°C) use order PN. 205 054 077 3 (book as one order together with motor).



Air pressure 6.3 bar (91 psi)

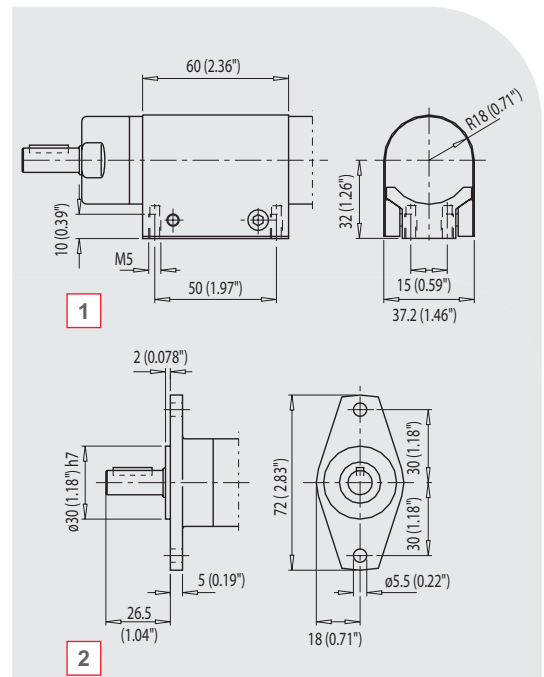
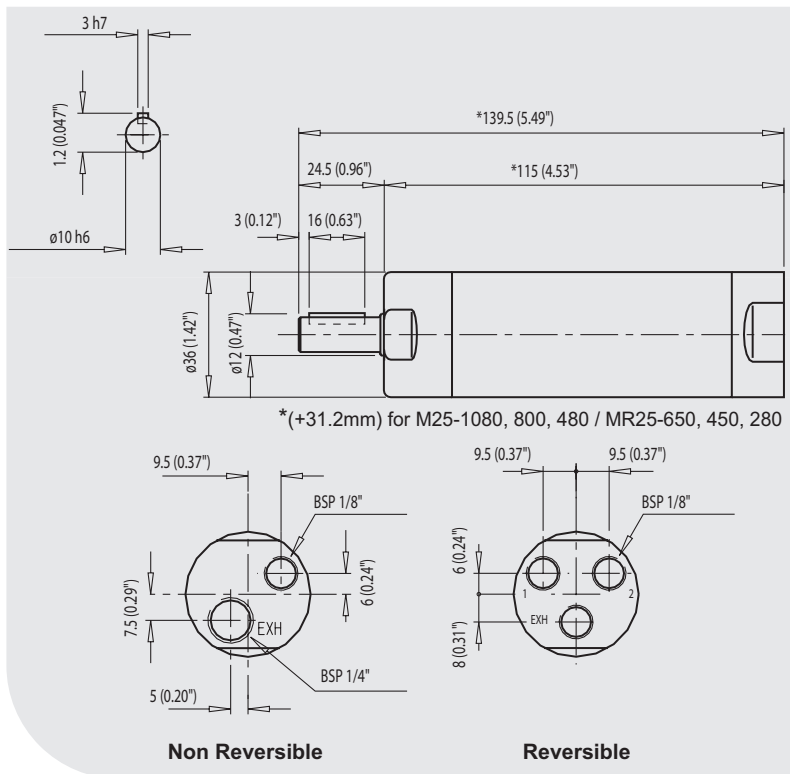
MODEL	PART NUMBER	MAX OUTPUT		TORQUE AT MAX OUTPUT		MINI STARTING TORQUE		FREE SPEED	AIR CONS. AT MAX OUTPUT		WEIGHT	
		kW	hp	Nm	ft.lb	Nm	ft.lb	rpm	l/s	cfm	kg	lb

### Non Reversible

M25-20400-KSL	205 147 843 4	0.25	0.34	0.25	0.18	0.45	0.33	20400	5.3	11.2	0.63	1.21
M25-4750-KSL	205 147 844 4	0.25	0.34	1.1	0.81	2.0	1.5	4750	5.3	11.2	0.63	1.21
M25-3500-KSL	205 147 845 4	0.25	0.34	1.5	1.1	2.7	2.0	3500	5.3	11.2	0.63	1.21
M25-2130-KSL	205 147 846 4	0.25	0.34	2.4	1.7	4.5	3.3	2130	5.3	11.2	0.63	1.21
M25-1080-KSL	205 147 847 4	0.24	0.32	4.3	3.2	8.0	5.9	1080	5.3	11.2	0.83	1.65
M25-800-KSL	205 147 848 4	0.24	0.32	6.0	4.4	10.5	7.7	800	5.3	11.2	0.83	1.65
M25-480-KSL	205 147 849 4	0.24	0.32	9.9	7.3	17.0	12.5	480	5.3	11.2	0.83	1.65

### Reversible

MR25-13100-KSL	205 147 850 4	0.16	0.22	0.24	0.18	0.35	0.26	13100	5.0	10.6	0.63	1.21
MR25-2850-KSL	205 147 851 4	0.16	0.22	1.1	0.81	1.3	0.96	2850	5.0	10.6	0.63	1.21
MR25-2100-KSL	205 147 852 4	0.16	0.22	1.5	1.1	1.8	1.3	2100	5.0	10.6	0.63	1.21
MR25-1280-KSL	205 147 853 4	0.16	0.22	2.4	1.7	3.0	2.2	1280	5.0	10.6	0.63	1.21
MR25-650-KSL	205 147 854 4	0.16	0.22	5.0	3.7	5.9	4.4	650	5.0	10.6	0.83	1.65
MR25-450-KSL	205 147 855 4	0.16	0.22	6.7	4.9	8.0	5.9	450	5.0	10.6	0.83	1.65
MR25-280-KSL	205 147 856 4	0.16	0.22	10.8	8.0	13.4	9.9	280	5.0	10.6	0.83	1.65



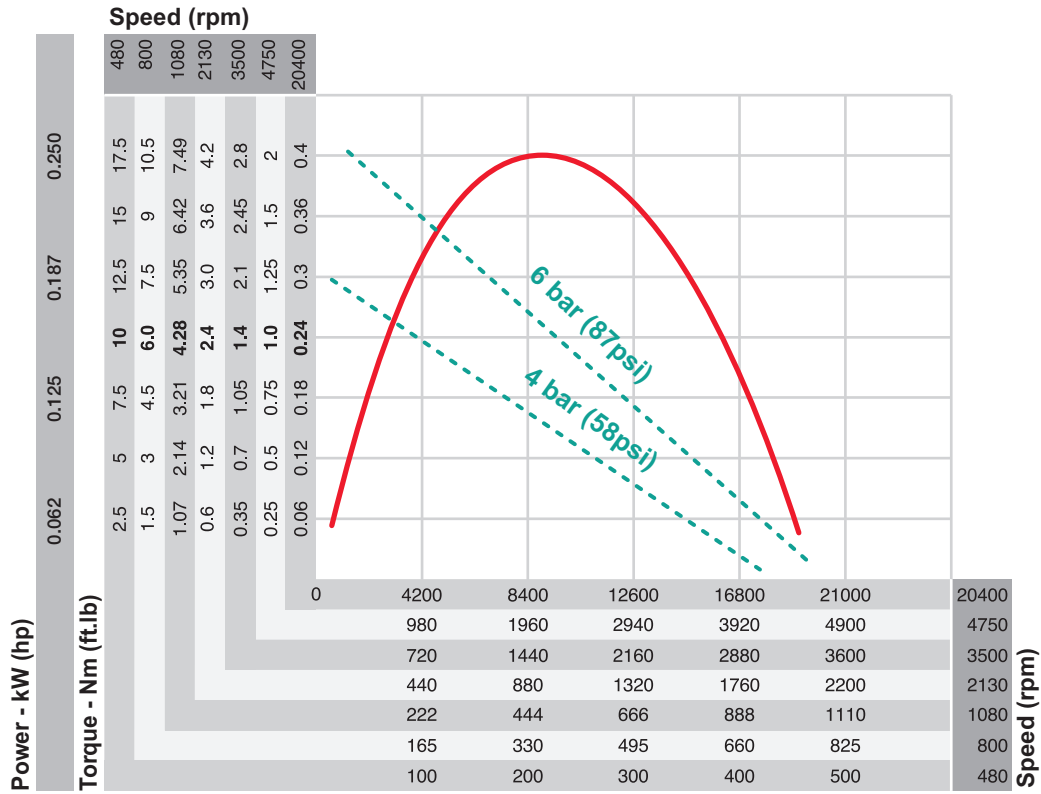
### OPTIONAL ACCESSORIES

ITEM	PART NO.
1 Mounting foot	205 053 652 3
2 Mounting flange	205 053 644 3

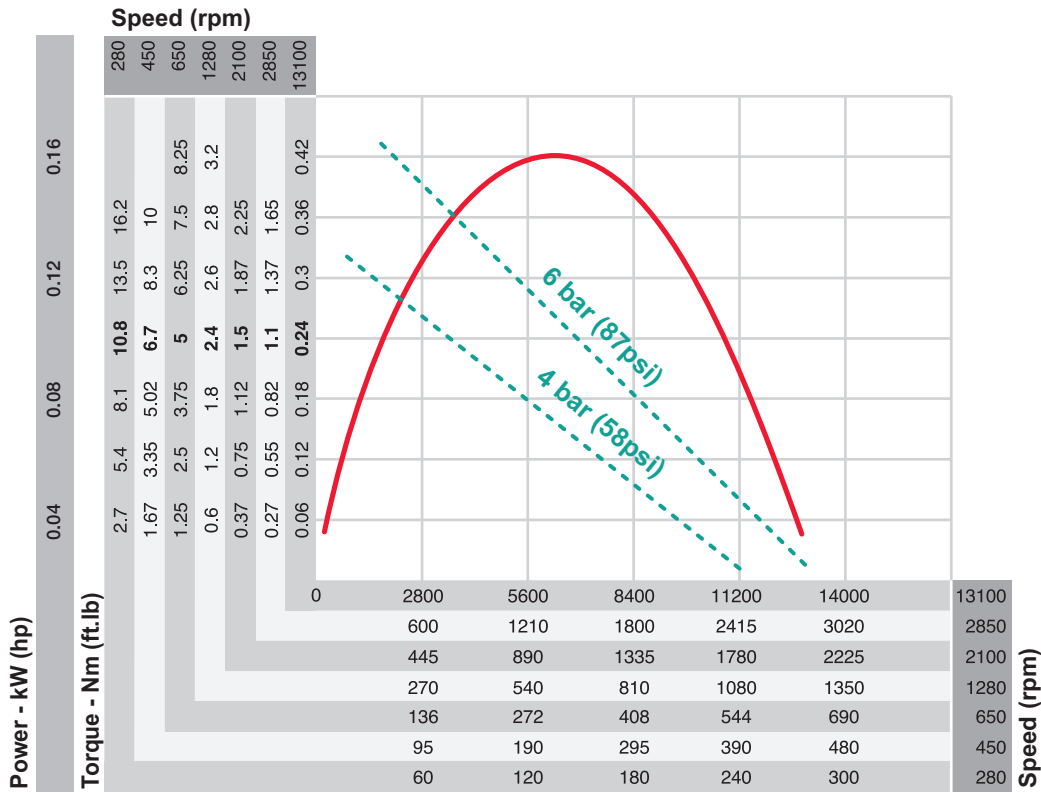
Other optional accessories: see page 28

电话：+86(0)10 8039 0881，手机：13331090881，网址：www.bjwenchen.com

M25-KSL at air pressure 6.3 bar (91 psi)  
Non Reversible



MR25-KSL at air pressure 6.3 bar (91 psi)  
Reversible





# M39-KL / TL Series

0.23 to 0.39 kW (0.31 to 0.52 hp)



For EX certification according to the ATEX directive (II 2G T5 IIC D85°C) use order PN. 205 054 077 3 (book as one order together with motor).



Air pressure 6.3 bar (91 psi)

MODEL	PART NUMBER	MAX OUTPUT		TORQUE AT MAX OUTPUT		MINI STARTING TORQUE		FREE SPEED	AIR CONS. AT MAX OUTPUT		WEIGHT	
		kW	hp	Nm	ft.lb	Nm	ft.lb	rpm	l/s	cfm	kg	lb

### Non Reversible - Keyed shaft

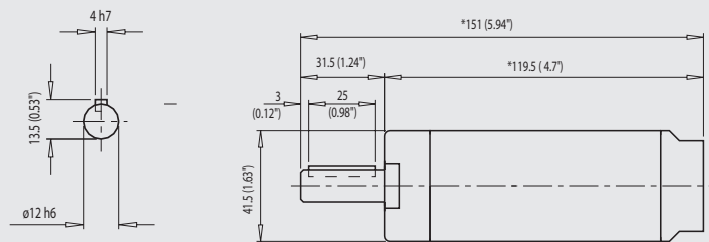
M39-19000-KL	205 147 857 4	0.39	0.52	0.4	0.3	0.76	0.56	19000	8.3	17.6	0.75	1.65
M39-5320-KL	205 147 858 4	0.39	0.52	1.4	1.0	2.7	2.0	5320	8.3	17.6	0.75	1.65
M39-2950-KL	205 147 859 4	0.39	0.52	2.6	1.9	4.9	3.6	2950	8.3	17.6	0.75	1.65
M39-2350-KL	205 147 860 4	0.39	0.52	3.2	2.3	6.1	4.5	2350	8.3	17.6	0.75	1.65
M39-1170-KL	205 147 861 4	0.38	0.51	6.3	4.6	12.0	8.9	1170	8.3	17.6	1.02	2.25
M39-650-KL	205 147 862 4	0.38	0.51	11.3	8.4	21.6	15.9	650	8.3	17.6	1.02	2.25
M39-520-KL	205 147 863 4	0.38	0.51	14.0	10.3	26.8	19.8	520	8.3	17.6	1.02	2.25

### Non Reversible - Threaded shaft

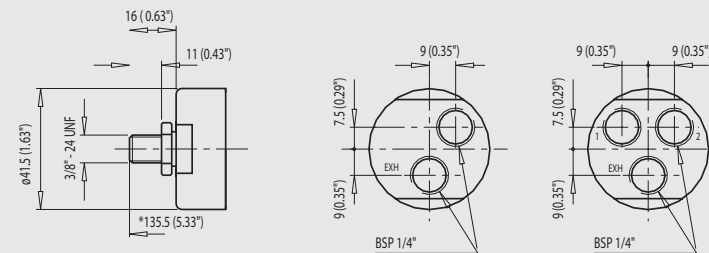
M39-19000-TL	205 147 864 4	0.39	0.52	0.4	0.3	0.76	0.56	19000	8.3	17.6	0.75	1.65
M39-5320-TL	205 147 865 4	0.39	0.52	1.4	1.0	2.7	2.0	5320	8.3	17.6	0.75	1.65
M39-2950-TL	205 147 866 4	0.39	0.52	2.6	1.9	4.9	3.6	2950	8.3	17.6	0.75	1.65
M39-2350-TL	205 147 867 4	0.39	0.52	3.2	2.3	6.1	4.5	2350	8.3	17.6	0.75	1.65
M39-1170-TL	205 147 868 4	0.38	0.51	6.3	4.6	12.0	8.9	1170	8.3	17.6	1.02	2.25
M39-650-TL	205 147 869 4	0.38	0.51	11.3	8.4	21.6	15.9	650	8.3	17.6	1.02	2.25
M39-520-TL	205 147 870 4	0.38	0.51	14.0	10.3	26.8	19.8	520	8.3	17.6	1.02	2.25

### Reversible

MR39-13300-KL	205 147 871 4	0.24	0.32	0.34	0.25	0.46	0.34	13300	7.8	16.5	0.75	1.65
MR39-3650-KL	205 147 872 4	0.24	0.32	1.2	0.9	1.6	1.2	3650	7.8	16.5	0.75	1.65
MR39-1990-KL	205 147 873 4	0.24	0.32	2.1	1.6	3.0	2.2	1990	7.8	16.5	0.75	1.65
MR39-1670-KL	205 147 874 4	0.24	0.32	2.7	2.0	3.7	2.7	1670	7.8	16.5	0.75	1.65
MR39-800-KL	205 147 875 4	0.23	0.31	4.9	3.6	7.0	5.2	800	7.8	16.5	1.02	2.25
MR39-450-KL	205 147 876 4	0.23	0.31	9.1	6.7	12.6	9.3	450	7.8	16.5	1.02	2.25
MR39-360-KL	205 147 877 4	0.23	0.31	11.4	8.4	15.6	11.5	360	7.8	16.5	1.02	2.25

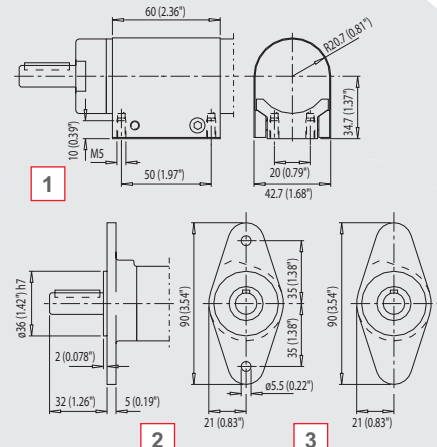


\*(+33.5mm) for M39-1170, 650, 520 / MR39-800, 450, 360



Non Reversible

Reversible



### OPTIONAL ACCESSORIES

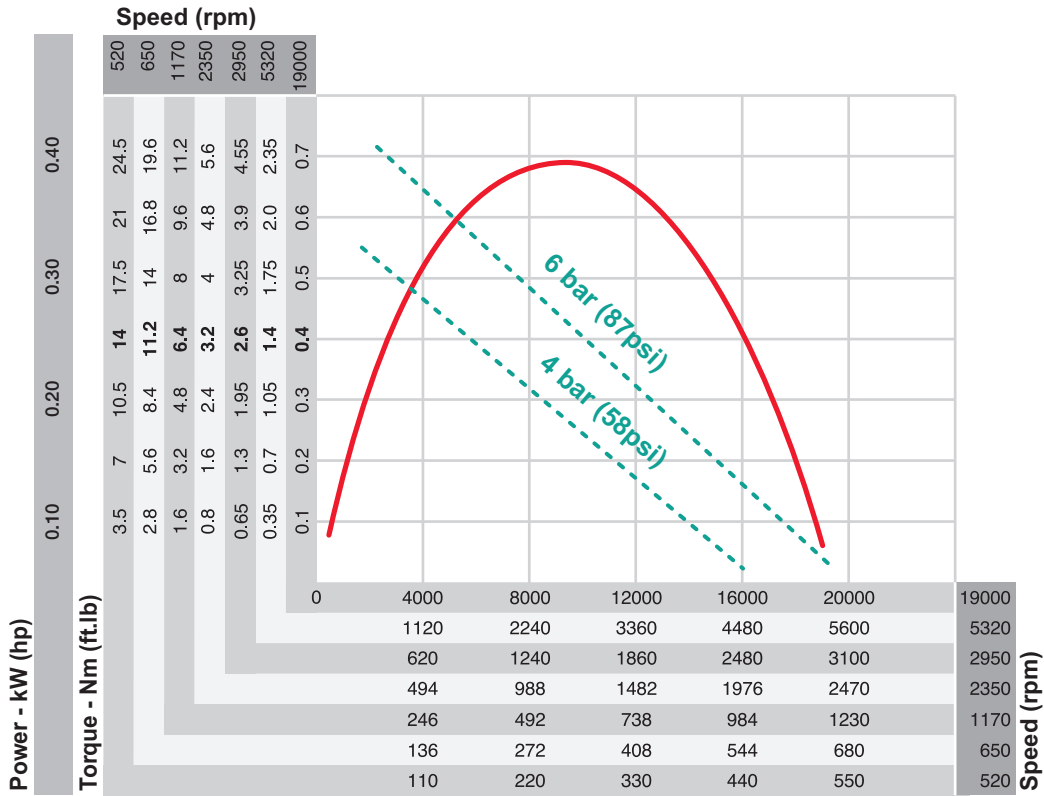
ITEM	PART NO.
1 Mounting foot	205 053 647 3
2 Mounting flange with holes	205 054 067 3
3 Mounting flange without holes	205 053 638 3

Other optional accessories: see page 28

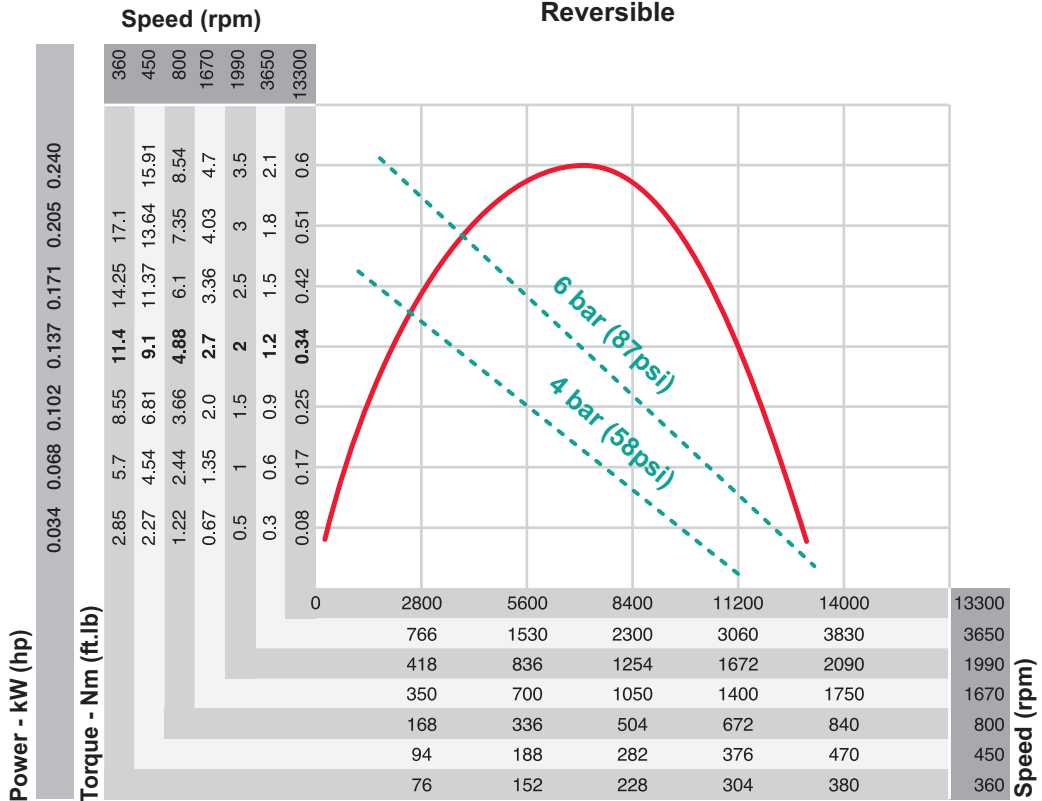
电话: +86(0)10 8039 0881, 手机: 13331090881, 网址: www.bjwenchen.com



M39-KL at air pressure 6.3 bar (91 psi)  
Non Reversible



MR39-KL at air pressure 6.3 bar (91 psi)  
Reversible





# M39-KSL Series

**0.23 to 0.39 kW (0.31 to 0.52 hp)**  
**Stainless steel**



For EX certification according to the ATEX directive (II 2G T5 IIC D85°C) use order PN. 205 054 077 3 (book as one order together with motor).



Air pressure 6.3 bar (91 psi)

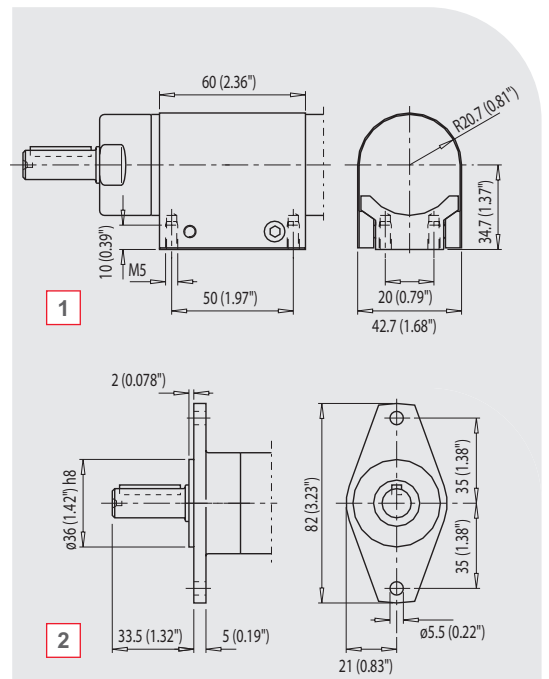
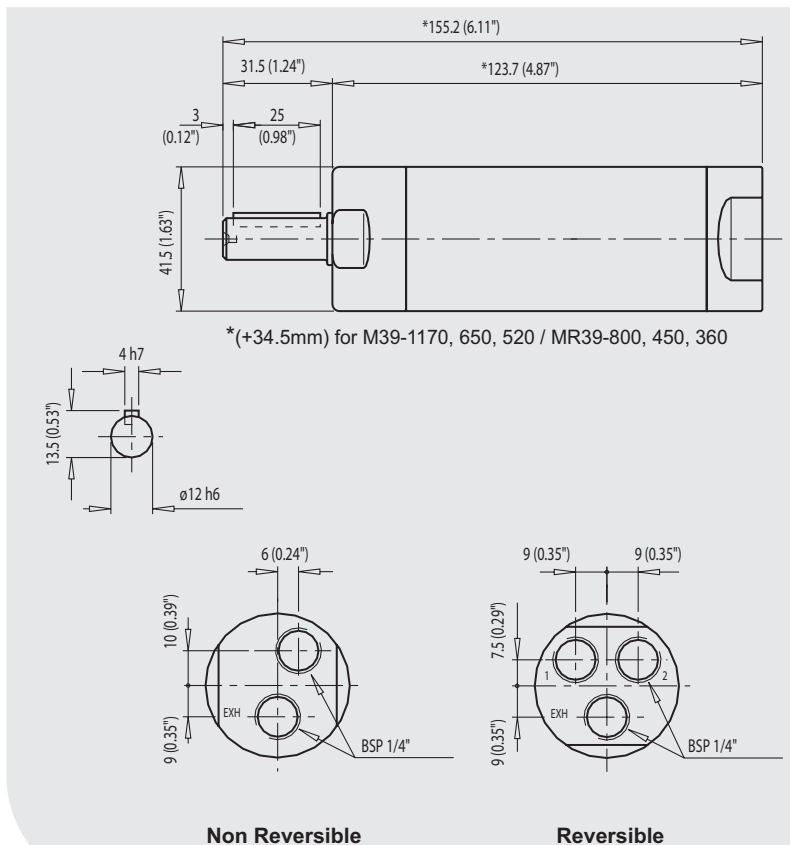
MODEL	PART NUMBER	MAX OUTPUT		TORQUE AT MAX OUTPUT		MINI STARTING TORQUE		FREE SPEED	AIR CONS. AT MAX OUTPUT		WEIGHT	
		kW	hp	Nm	ft.lb	Nm	ft.lb	rpm	l/s	cfm	kg	lb

### Non Reversible

M39-19000-KSL	205 147 878 4	0.39	0.52	0.4	0.3	0.76	0.56	19000	8.3	17.6	0.75	1.65
M39-5320-KSL	205 147 879 4	0.39	0.52	1.4	1.0	2.7	2.0	5320	8.3	17.6	0.75	1.65
M39-2950-KSL	205 147 880 4	0.39	0.52	2.6	1.9	4.9	3.6	2950	8.3	17.6	0.75	1.65
M39-2350-KSL	205 147 881 4	0.39	0.52	3.2	2.3	6.1	4.5	2350	8.3	17.6	0.75	1.65
M39-1170-KSL	205 147 882 4	0.38	0.51	6.3	4.6	12.0	8.9	1170	8.3	17.6	1.02	2.25
M39-650-KSL	205 147 883 4	0.38	0.51	11.3	8.4	21.6	15.9	650	8.3	17.6	1.02	2.25
M39-520-KSL	205 147 884 4	0.38	0.51	14.0	10.3	26.8	19.8	520	8.3	17.6	1.02	2.25

### Reversible

MR39-13300-KSL	205 147 885 4	0.24	0.32	0.34	0.25	0.46	0.34	13300	7.8	16.5	0.75	1.65
MR39-3650-KSL	205 147 886 4	0.24	0.32	1.2	0.9	1.6	1.2	3650	7.8	16.5	0.75	1.65
MR39-1990-KSL	205 147 887 4	0.24	0.32	2.1	1.6	3.0	2.2	1990	7.8	16.5	0.75	1.65
MR39-1670-KSL	205 147 884 4	0.24	0.32	2.7	2.0	3.7	2.7	1670	7.8	16.5	0.75	1.65
MR39-800-KSL	205 147 889 4	0.23	0.31	4.9	3.6	7.0	5.2	800	7.8	16.5	1.02	2.25
MR39-450-KSL	205 147 890 4	0.23	0.31	9.1	6.7	12.6	9.3	450	7.8	16.5	1.02	2.25
MR39-360-KSL	205 147 891 4	0.23	0.31	11.4	8.4	15.6	11.5	360	7.8	16.5	1.02	2.25



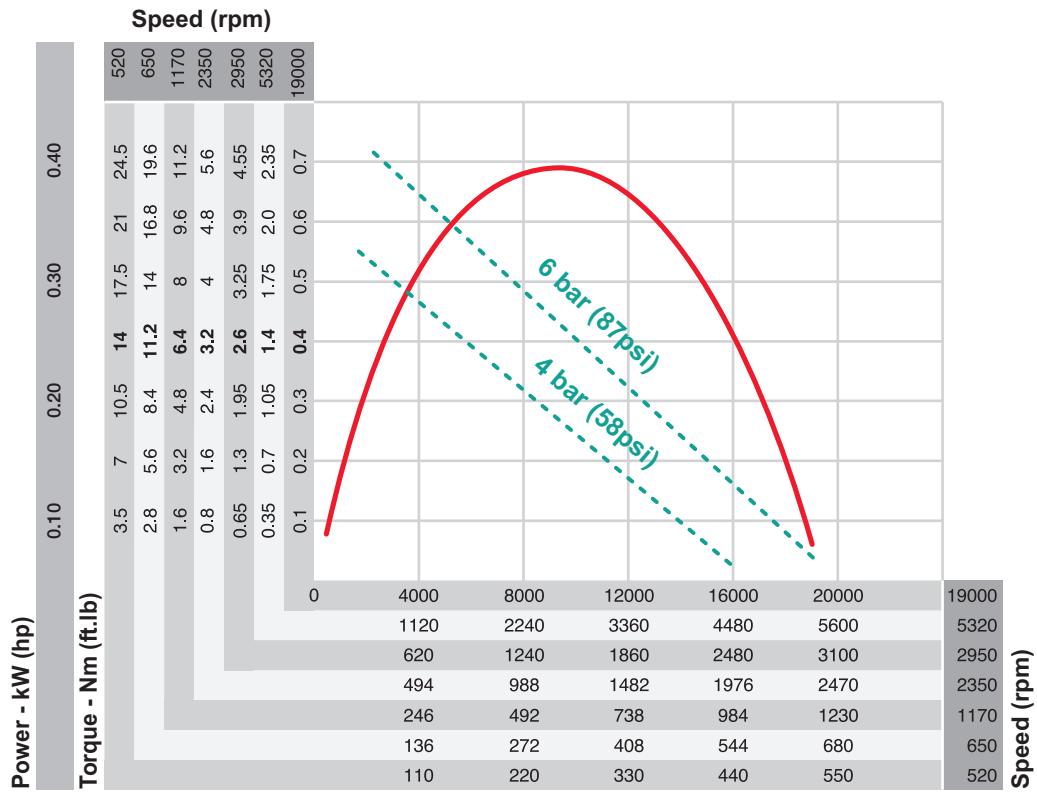
### OPTIONAL ACCESSORIES

ITEM	PART NO.
1 Mounting foot	205 053 651 3
2 Mounting flange	205 053 643 3

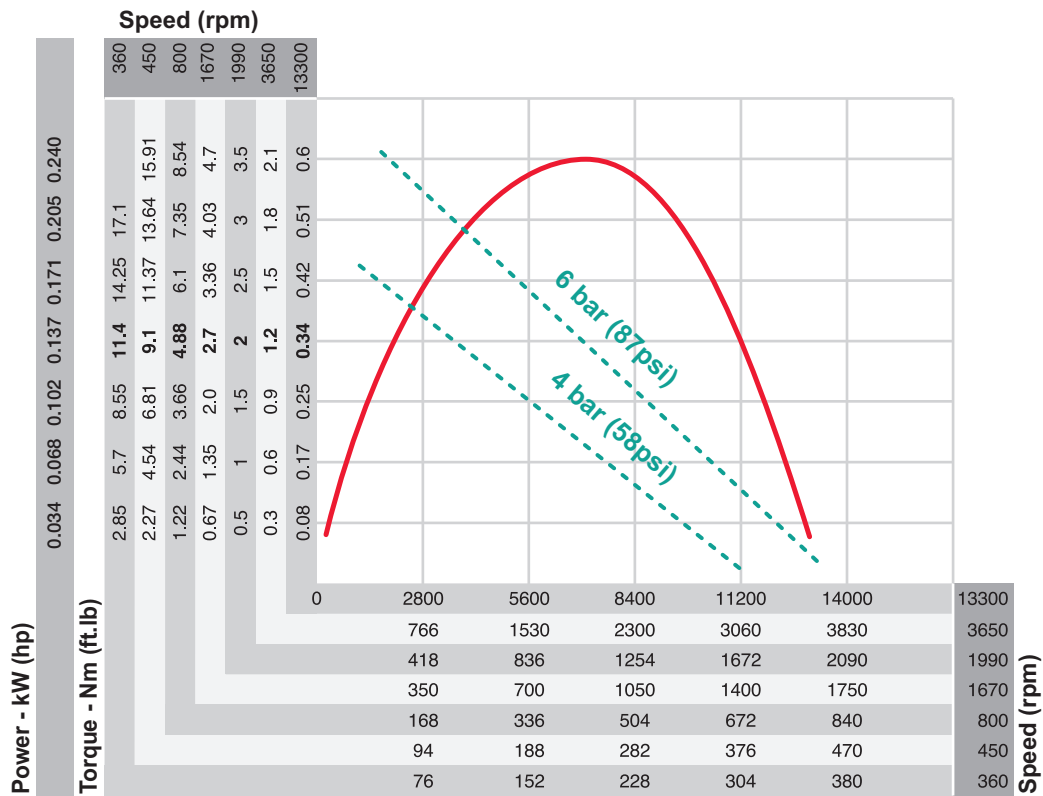
Other optional accessories: see page 28

电话：+86(0)10 8039 0881，手机：13331090881，网址：www.bjwenchen.com

M39-KSL at air pressure 6.3 bar (91 psi)  
Non Reversible



MR39-KSL at air pressure 6.3 bar (91 psi)  
Reversible



# M84-K Series

**0.58 to 0.84 kW (0.78 to 1.13 hp)**



For EX certification according to the ATEX directive (II 2G T4 IIC D110°C) use order PN. 205 054 076 3 (book as one order together with motor).



Air pressure 6.3 bar (91 psi)

MODEL	PART NUMBER	MAX OUTPUT		TORQUE AT MAX OUTPUT		MINI STARTING TORQUE		FREE SPEED	AIR CONS. AT MAX OUTPUT		WEIGHT	
		kW	hp	Nm	ft.lb	Nm	ft.lb	rpm	l/s	cfm	kg	lb
<b>Non Reversible</b>												
M84-21000-K	205 147 912 4	0.84	1.13	0.74	0.55	1.2	0.88	21000	16.5	35	1.2	2.6
M84-6700-K	205 147 913 4	0.84	1.13	2.4	1.8	3.9	2.9	6700	16.5	35	1.2	2.6
M84-4200-K	205 147 914 4	0.84	1.13	3.8	2.8	6.2	4.6	4200	16.5	35	1.2	2.6
M84-2550-K	205 147 915 4	0.84	1.13	6.3	4.6	10	7.4	2550	16.5	35	1.2	2.6
M84-1500-K	205 147 916 4	0.83	1.11	10.6	7.8	16	12	1500	16.5	35	1.3	2.9
M84-960-K	205 147 917 4	0.83	1.11	17	12	25	18	960	16.5	35	1.3	2.9
M84-570-K	205 147 918 4	0.83	1.11	27	20	45	33	570	16.5	35	1.3	2.9
M84-320-K	205 147 919 4	0.81	1.09	48	35	75	55	320	16.5	35	2.7	6.0
M84-200-K	205 147 920 4	0.81	1.09	75	55	120	88	200	16.5	35	2.7	6.0
M84-125-K	205 147 921 4	0.81	1.09	125	92	200	150	125	16.5	35	2.7	6.0
M84-80-K	205 147 922 4	0.79	1.06	190	140	310	230	80	16.5	35	4.9	10.8
M84-50-K	205 147 923 4	0.79	1.06	300	220	490	360	50	16.5	35	4.9	10.8

<b>Reversible</b>												
MR84-17000-K	205 147 924 4	0.62	0.83	0.68	0.5	0.75	0.55	17000	14.5	31	1.2	2.6
MR84-5250-K	205 147 925 4	0.62	0.83	2.2	1.6	2.5	1.8	5250	14.5	31	1.2	2.6
MR84-3350-K	205 147 926 4	0.62	0.83	3.5	2.6	4.0	2.6	3350	14.5	31	1.2	2.6
MR84-2000-K	205 147 927 4	0.62	0.83	5.8	4.3	6.5	4.8	2000	14.5	31	1.2	2.6
MR84-1170-K	205 147 928 4	0.61	0.82	9.8	7.2	10.5	7.7	1170	14.5	31	1.3	2.9
MR84-750-K	205 147 929 4	0.61	0.82	15	11	16	12	750	14.5	31	1.3	2.9
MR84-450-K	205 147 930 4	0.61	0.82	25	18	27	20	450	14.5	31	1.3	2.9
MR84-250-K	205 147 931 4	0.60	0.80	44	32	48	35	250	14.5	31	2.7	6.0
MR84-160-K	205 147 932 4	0.60	0.80	70	52	75	55	160	14.5	31	2.7	6.0
MR84-95-K	205 147 933 4	0.60	0.80	115	85	125	92	95	14.5	31	2.7	6.0
MR84-62-K	205 147 934 4	0.58	0.78	175	130	190	140	62	14.5	31	4.9	10.8
MR84-40-K	205 147 935 4	0.58	0.78	275	200	300	220	40	14.5	31	4.9	10.8



With Mounting Flange



With Mounting Foot



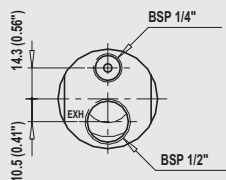
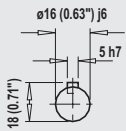
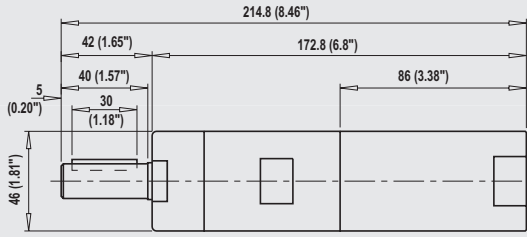
Curves: see page 22

**Non Reversible**

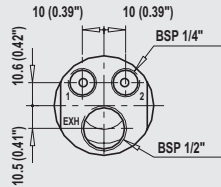
- M84-21000-K
- M84-6700-K
- M84-4200-K
- M84-2550-K
- M84-1500-K
- M84-960-K
- M84-570-K

**Reversible**

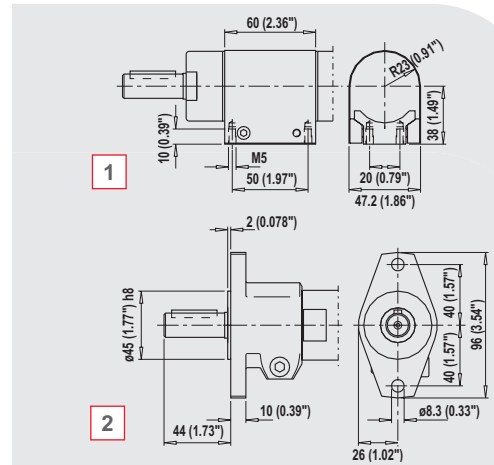
- MR84-17000-K
- MR84-5250-K
- MR84-3350-K
- MR84-2000-K
- MR84-1170-K
- MR84-750-K
- MR84-450-K



Non Reversible



Reversible



**OPTIONAL ACCESSORIES**

ITEM	PART NO.
1 Mounting foot	205 053 650 3
2 Mounting flange	205 053 641 3

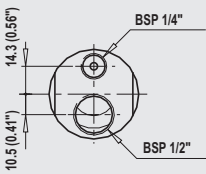
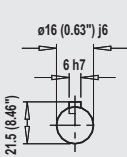
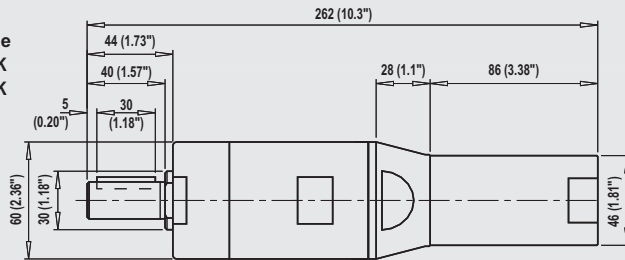
Other optional accessories: see page 28

**Non Reversible**

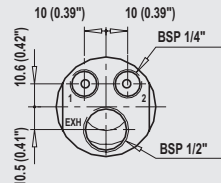
- M84-320-K
- M84-200-K
- M84-125-K

**Reversible**

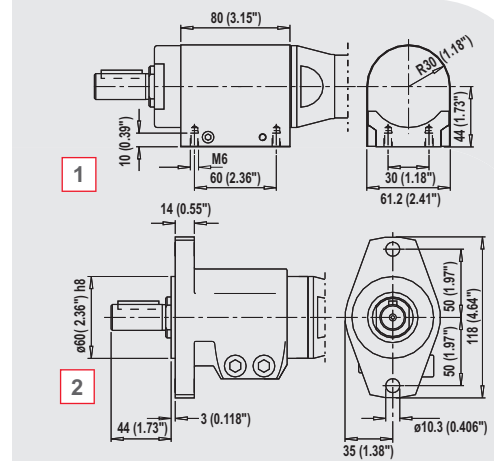
- MR84-250-K
- MR84-160-K
- MR84-95-K



Non Reversible



Reversible



**OPTIONAL ACCESSORIES**

ITEM	PART NO.
1 Mounting foot	205 053 648 3
2 Mounting flange	205 053 642 3

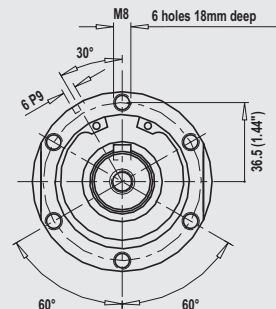
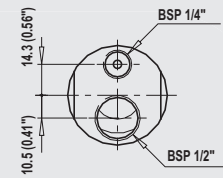
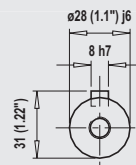
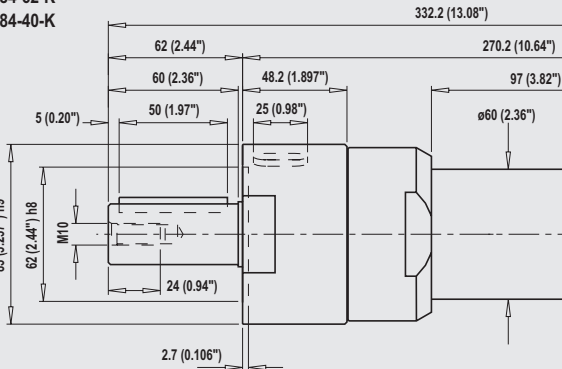
Other optional accessories: see page 28

**Non Reversible**

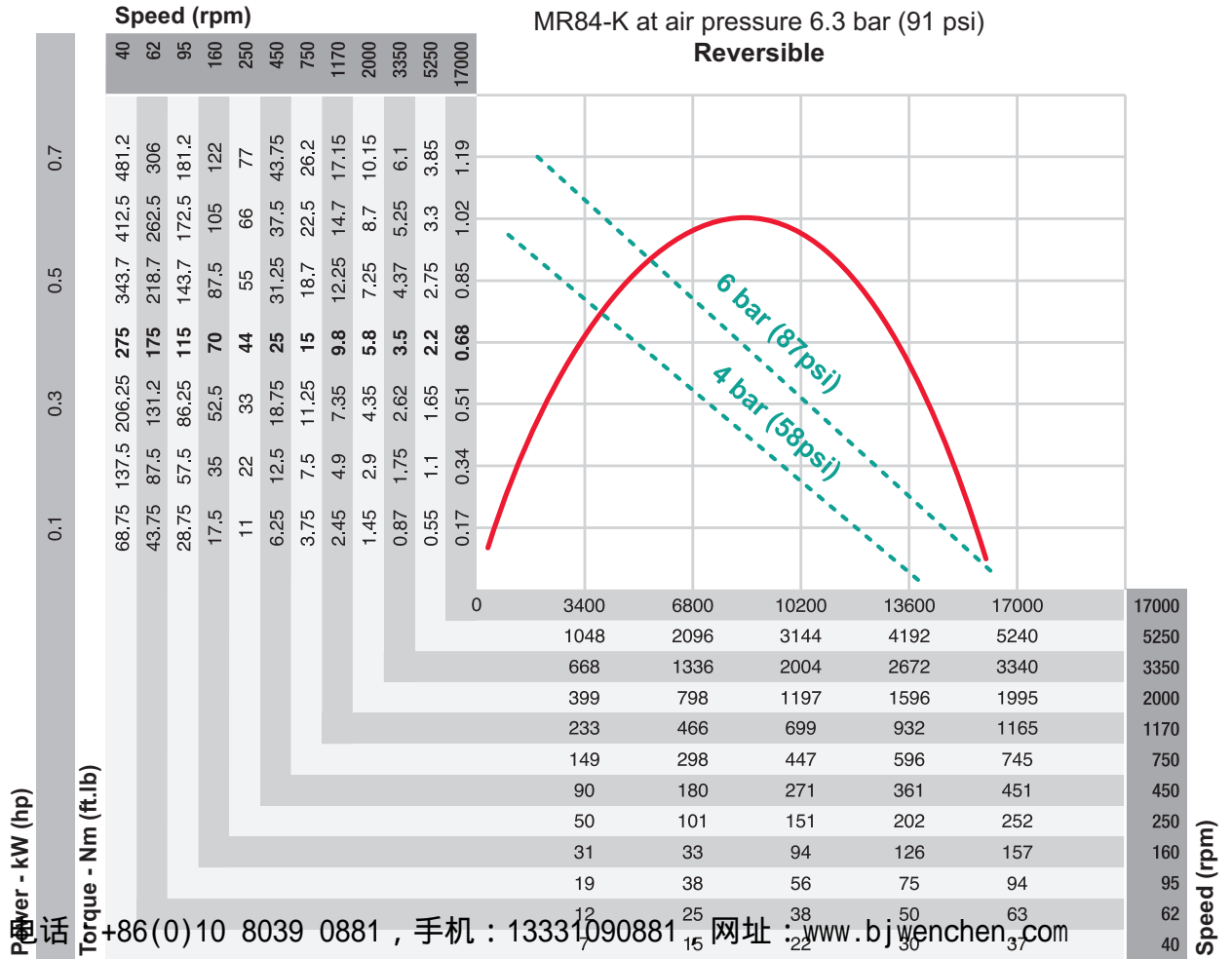
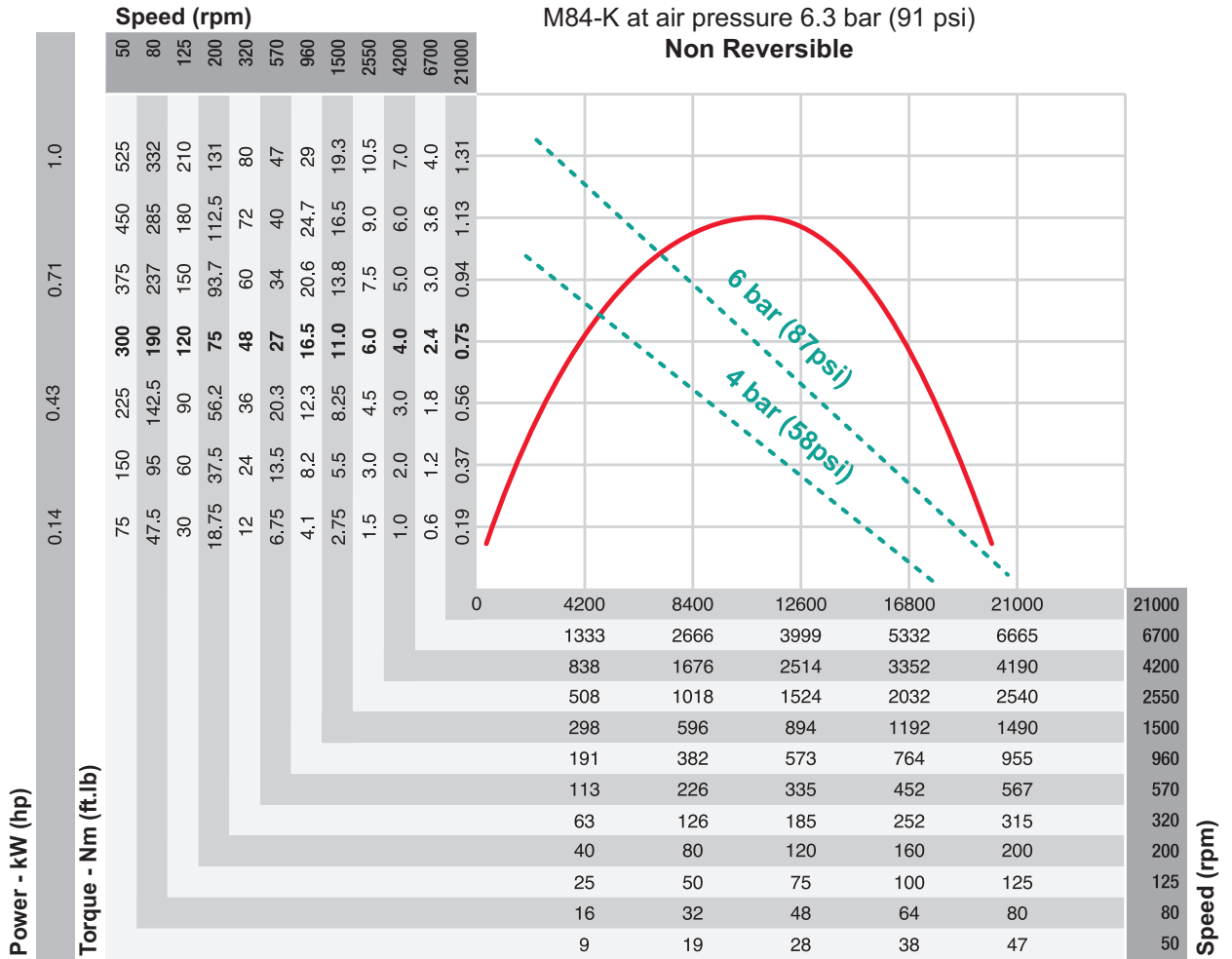
- M84-80-K
- M84-50-K

**Reversible**

- MR84-62-K
- MR84-40-K



# M84-K Series



电话: +86(0)10 8039 0881, 手机: 13331090881 网址: www.bjwenchen.com

# 2H410 Series

**0.66 kW (0.85 hp)**

**Maximum Torque 102 Nm (75 ft.lb), Worm Drive Motors**



For EX certification according to the ATEX directive (II 2G c IIC T6)



Air pressure 6.3 bar (91 psi)

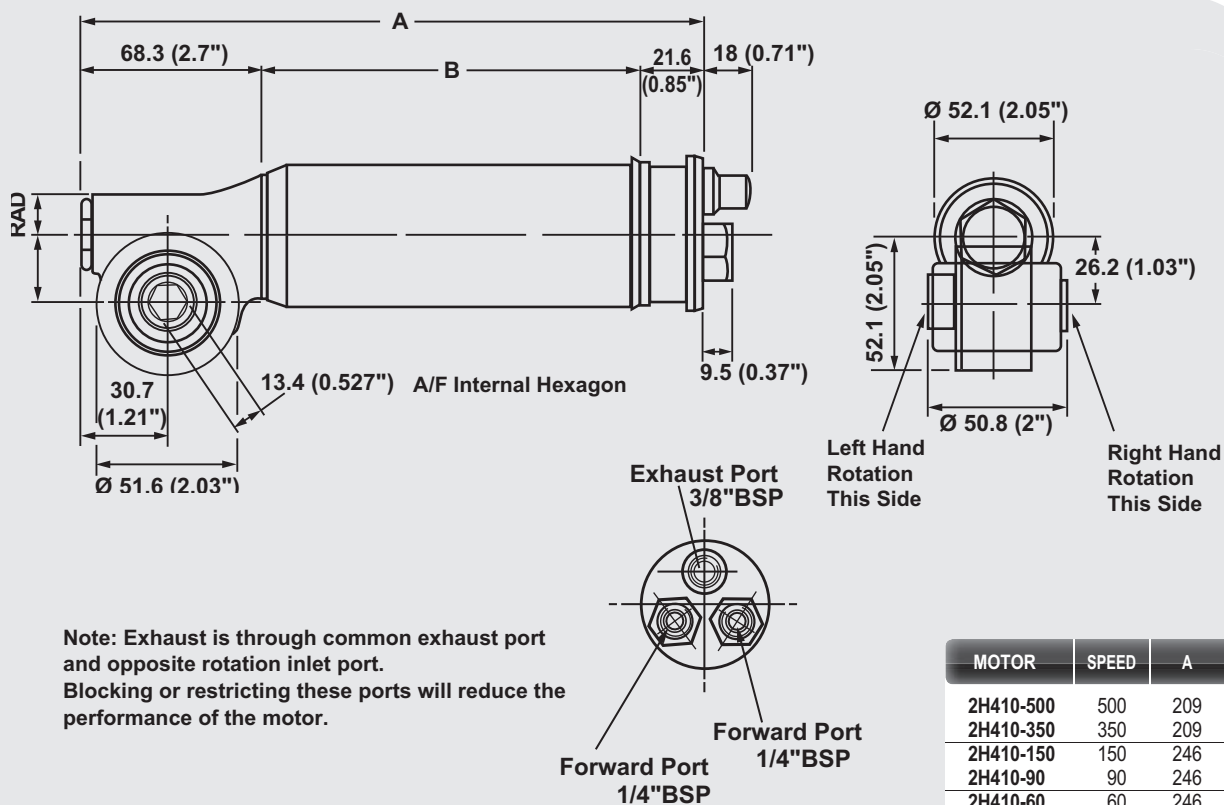
MODEL	PART NUMBER	MAX OUTPUT		NO LOAD SPEED	TORQUE AT MAX OUTPUT		MIN HOSE BORE PRESSURE		MIN SAFE WORKING	MAX AIR CONSUMPTION		WEIGHT	
		kW	hp		rpm	Nm	ft.lb	mm		in.	bar	l/s	cfm

## Reversible

2H410-500	1307664	0.66	0.85	500	39	28.8	12	1/2	6	17	36	1.7	3.7
2H410-350	1307744	0.66	0.85	350	51	37.6	12	1/2	6	17	36	1.7	3.7
2H410-150	1307824	0.66	0.85	150	102	75.2	12	1/2	6	17	36	2.0	4.4
2H410-90	1307904	0.66	0.85	90	102	75.2	10	3/8	4	10	21	2.0	4.4
2H410-60	1308034	0.66	0.85	60	102	75.2	10	3/8	2.8	9	19	2.0	4.4
2H410-500 ATEX	205 147 319 4	0.66	0.85	500	39	28.8	12	1/2	6	17	36	1.7	3.7
2H410-350 ATEX	205 147 320 4	0.66	0.85	350	51	37.6	12	1/2	6	17	36	1.7	3.7
2H410-150 ATEX	205 147 321 4	0.66	0.85	150	102	75.2	12	1/2	6	17	36	2.0	4.4
2H410-90 ATEX	205 147 322 4	0.66	0.85	90	102	75.2	10	3/8	4	10	21	2.0	4.4
2H410-60 ATEX	205 147 323 4	0.66	0.85	60	102	75.2	10	3/8	2.8	9	19	2.0	4.4

The 2H410 motor can also be supplied equipped with a worm drive gearbox, allowing the drive to be taken from each side of the head for either right hand or left hand rotation.

The standard output is 13.33mm (0.527") size on flats internal hexagon. 3/8" or 1/2" square adaptors are available as an option.





# M180 Series

1.40 to 1.83 kW (1.88 to 2.45 hp)



For EX certification according to the ATEX directive (II 2G T4 IIC D110°C) use order PN. 205 054 076 3 (book as one order together with motor).



Air pressure 6.3 bar (91 psi)

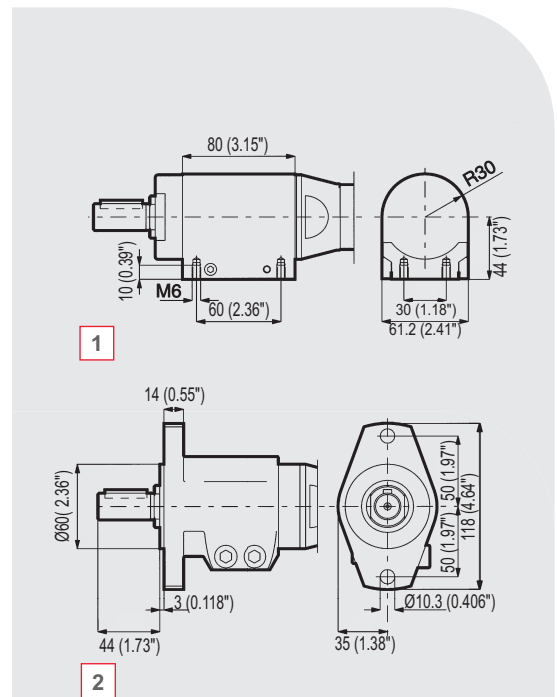
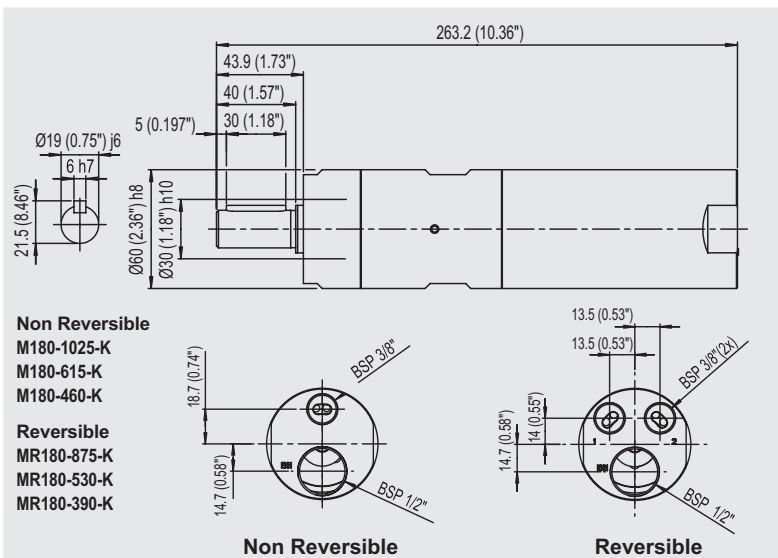
MODEL	PART NUMBER	MAX OUTPUT		TORQUE AT MAX OUTPUT		MINI STARTING TORQUE		FREE SPEED	AIR CONS. AT MAX OUTPUT		WEIGHT	
		kW	hp	Nm	ft.lb	Nm	ft.lb	rpm	l/s	cfm	kg	lb

## Non Reversible

M180-1025-K	205 147 972 4	1.83	2.45	33	24	52	39	1025	36	76.3	2.9	6.4
M180-615-K	205 147 973 4	1.83	2.45	55	41	86	64	615	36	76.3	2.9	6.4
M180-460-K	205 147 974 4	1.83	2.45	74	55	117	87	460	36	76.3	2.9	6.4
M180-250-K	205 147 975 4	1.80	2.41	135	100	217	160	250	36	76.3	5.1	11.1
M180-155-K	205 147 976 4	1.80	2.41	222	164	333	245	155	36	76.3	5.1	11.1
M180-250-K-SI	205 147 977 4	1.80	2.41	135	100	217	160	250	36	76.3	5.3	11.7
M180-155-K-SI	205 147 978 4	1.80	2.41	222	164	333	245	155	36	76.3	5.3	11.7

## Reversible

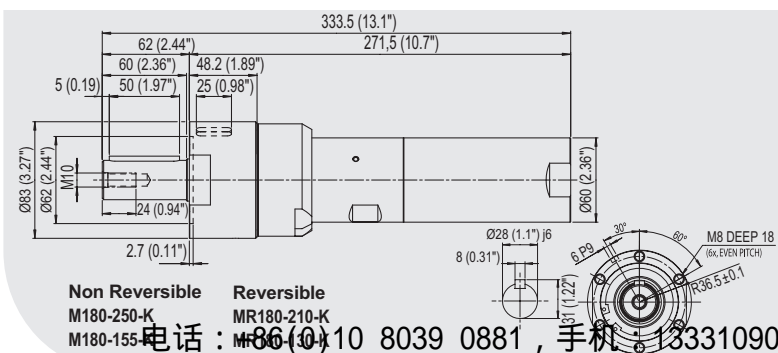
MR180-875-K	205 147 965 4	1.43	1.92	29	22	46	33	875	31	65.7	2.9	6.4
MR180-530-K	205 147 966 4	1.43	1.92	47	35	75	55	530	31	65.7	2.9	6.4
MR180-390-K	205 147 967 4	1.43	1.92	64	48	101	75	390	31	65.7	2.9	6.4
MR180-210-K	205 147 968 4	1.40	1.88	116	86	308	227	210	31	65.7	5.1	11.1
MR180-130-K	205 147 969 4	1.40	1.88	190	141	187	138	130	31	65.7	5.1	11.1
MR180-210-K-SI	205 147 970 4	1.40	1.88	116	86	308	227	210	31	65.7	5.3	11.7
MR180-130-K-SI	205 147 971 4	1.40	1.88	190	141	187	138	130	31	65.7	5.3	11.7



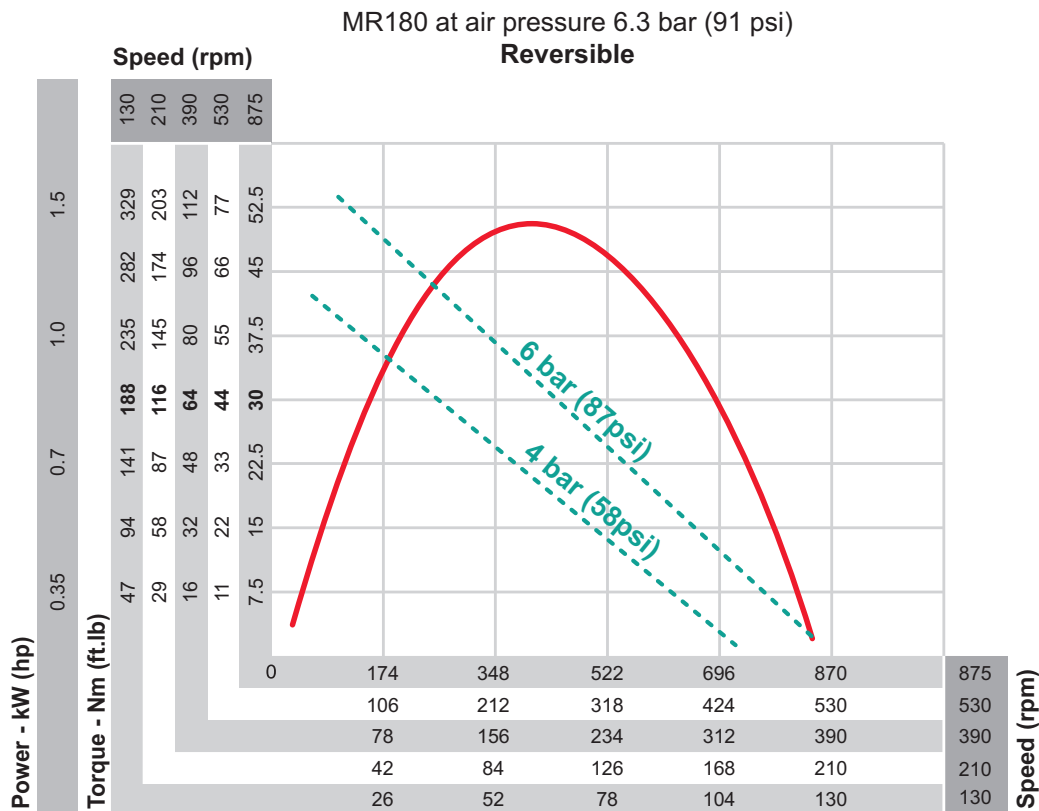
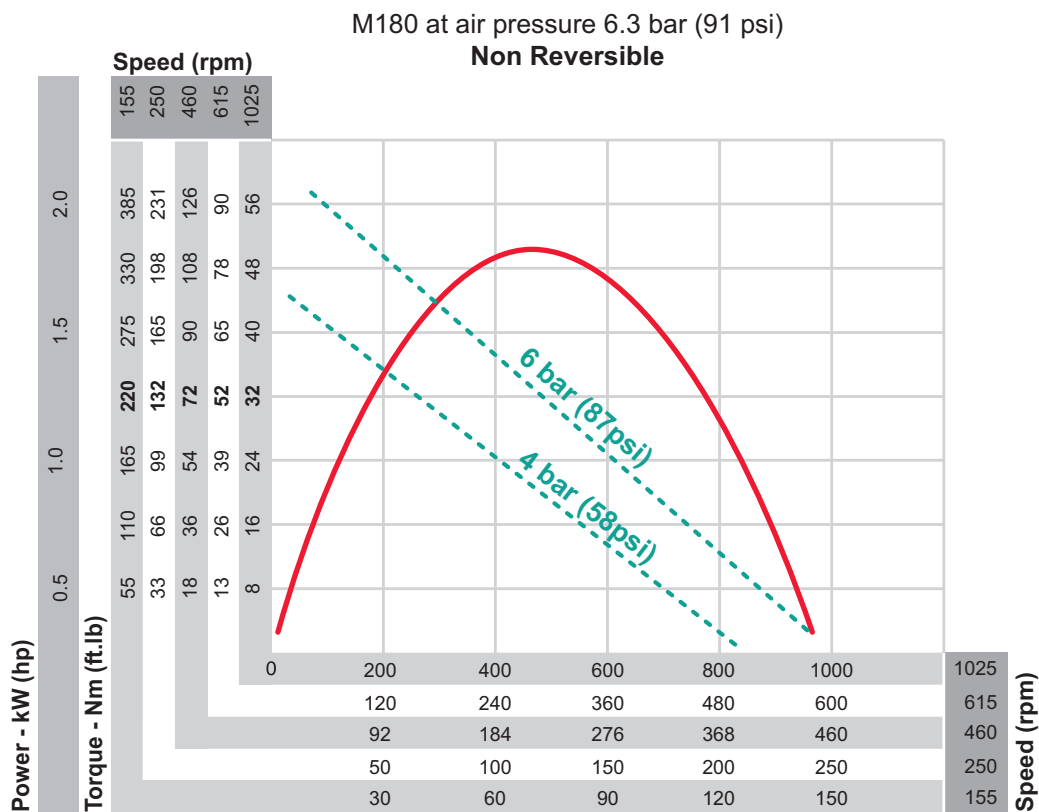
## OPTIONAL ACCESSORIES

ITEM	PART NO.
1 Mounting foot	205 053 648 3
2 Mounting flange	205 053 642 3

Other optional accessories: see page 28









# M290 Series

2.52 to 2.91 kW (3.38 to 3.90 hp)

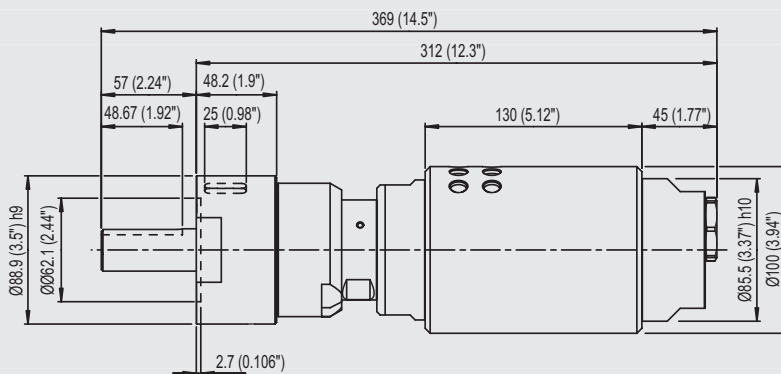


For EX certification according to the ATEX directive (II 2G T4 IIC D110°C) use order PN. 205 054 076 3 (book as one order together with motor).



Air pressure 6.3 bar (91 psi)

MODEL	PART NUMBER	MAX OUTPUT		TORQUE AT MAX OUTPUT		MIN STARTING TORQUE		FREE SPEED	AIR CONS. AT MAX OUTPUT		WEIGHT	
		kW	hp	Nm	ft.lb	Nm	ft.lb	rpm	l/s	cfm	kg	lb
<b>Non Reversible</b>												
M290-2660-K-SI	205 147 962 4	2.91	3.90	21	15.5	30	22	2660	55	116	8.4	18.5
M290-680-K-SI	205 147 963 4	2.91	3.90	81	60	120	89	680	55	116	8.4	18.5
M290-174-K-SI	205 147 964 4	2.86	3.84	314	231	471	347	174	55	116	8.7	19.1
<b>Reversible</b>												
MR290-2500-K-SI	205 147 959 4	2.56	3.43	20	15	29	21	2500	51	108	8.4	18.5
MR290-630-K-SI	205 147 960 4	2.56	3.43	77	57	115	85	630	51	108	8.4	18.5
MR290-158-K-SI	205 147 961 4	2.52	3.38	304	224	456	336	158	51	108	8.7	19.1



BSP 1/2" OR NPTF 1/2"-14

23 ±0.1

Non Reversible

57.3° ±0.1° (2x)  
R23 ±0.1

Reversible

BSP 1/2" OR NPTF 1/2"-14

35 (0.25")

+0.05  
0

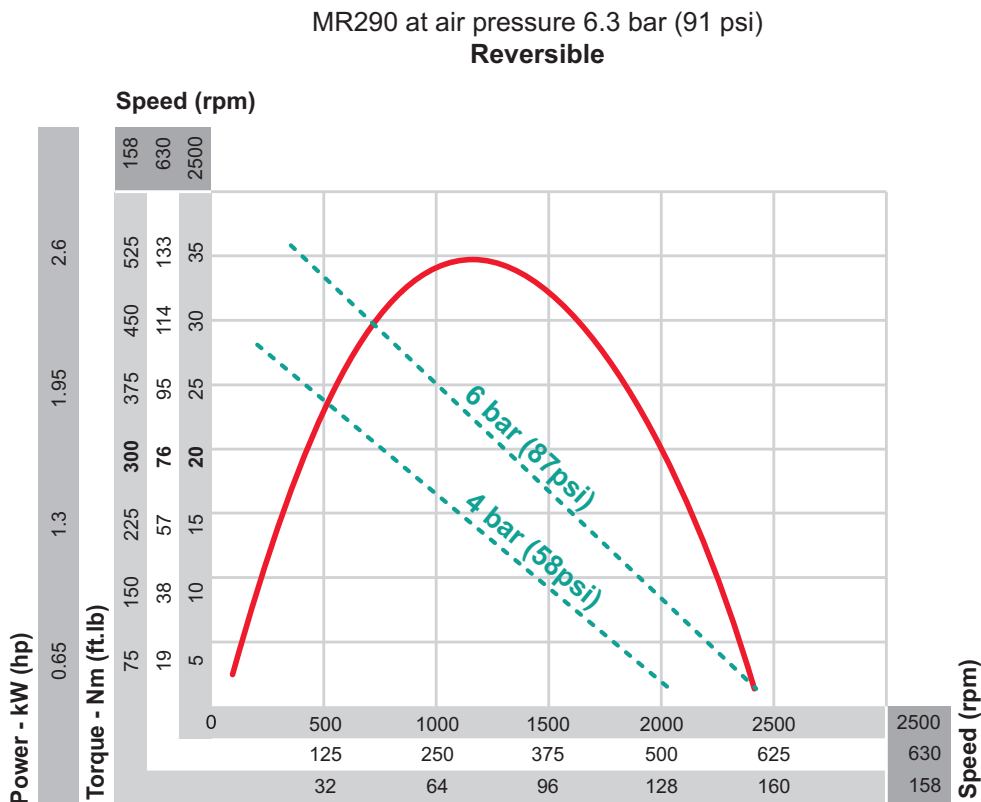
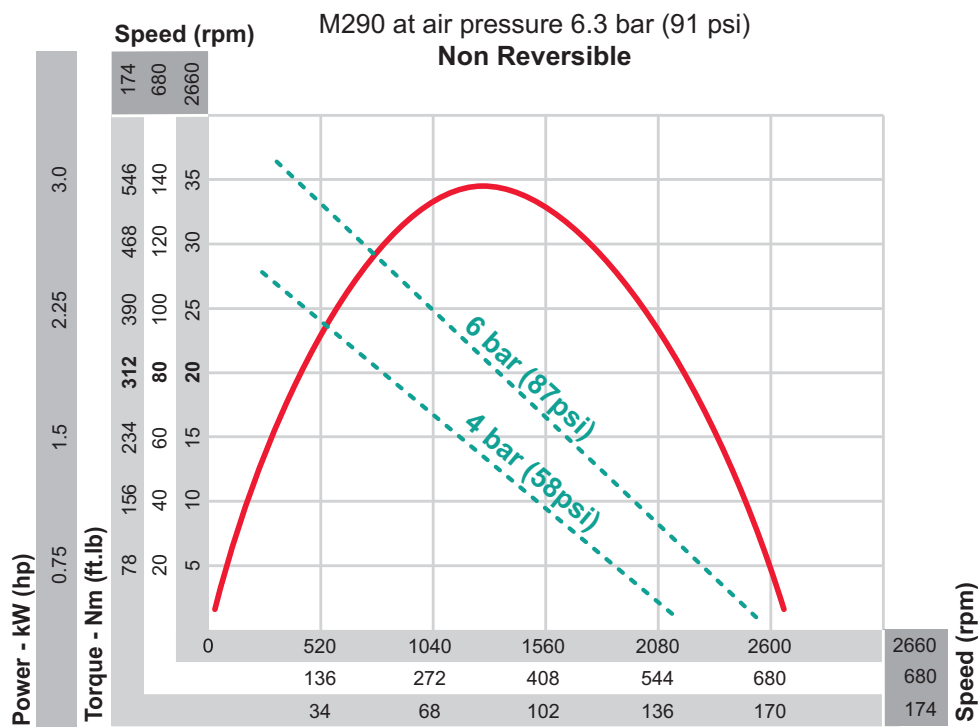
1.4 (1")

R38.1 ±0.1

30°  
6 Py

5/16-18 UNC DEPTH 11 (6x)

21.8 (0.86")



# Accessories

Good air quality is the key to getting the best of your air motor. It is therefore recommended that a regulator filter and lubricator is fitted to the air supply and that the air flow is suitably regulated.

## M16-..../ M25-..../M39-..../ M84



### OPTIONAL ACCESSORIES

ITEM	M16	M25	M39	M84/M180
1 Silencer - sinter bronze (Noise clamp 15 dB(A) - Power loss 10)	205 054 1743	205 054 1753	205 054 1753	205 054 1763
2 Silencer (Noise clamp 20 dB(A) - Power loss 10)	205 054 1773	205 054 1773	205 054 1773	205 054 1773
3 Silencer (Noise clamp 25 dB(A) - Power loss 7)	205 054 1783	205 054 1783	205 054 1783	205 054 1783

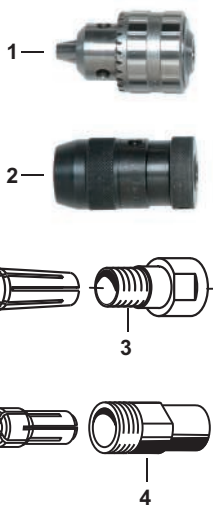
The silencer 3 has a 1/2" threaded port. They need to be connected to the motor via a tube or hose with suitable connections.

The silencer 2 has a 3/8" threaded port. M16, M25 and M39 need to be connected to the motor via a tube or hose with suitable connections.

## M25-....TL / M39-....TL

### OPTIONAL ACCESSORIES

ITEM	PART NO.
1 Chuck threaded 3/8-24 UNF - cap. 8mm (5/16") with key	205 053 013 3
1 Chuck threaded 3/8-24 UNF - cap. 10mm (3/8") with key	205 052 954 3
1 Chuck threaded 3/8-24 UNF - cap. 13mm (1/2") with key	473113
2 Keyless chuck threaded 3/8" UNF - cap 8mm (5/16")	473433
2 Keyless chuck threaded 3/8" UNF - cap 10mm (3/8")	473423
2 Keyless chuck threaded 3/8" UNF - cap 13mm (1/2")	205 047 819 3
3 CNOMO collet-holder	615 523 019 0
• CNOMO collet ø 3mm	615 526 048 0
• CNOMO collet ø 6mm	615 526 049 0
• CNOMO collet ø 6.35mm (1/4")	615 526 050 0
• CNOMO collet ø 8mm	615 526 051 0
4 Serie 200 collet-holder	615 523 023 0
5 Serie 200 collet-nut	615 607 144 0
• Serie 200 resilient collet, collet ø2.4 to 3.2mm (1/8")	615 526 061 0
• Serie 200 resilient collet, collet ø5.2 to 6mm	615 526 062 0
• Serie 200 resilient collet, collet ø5.55 to 6.35mm (1/4")	615 526 063 0
• Serie 200 resilient collet, collet ø7.2 to 8mm	615 526 064 0
• Serie 200 resilient collet, collet ø8.7 to 9.5mm (3/8")	615 526 065 0



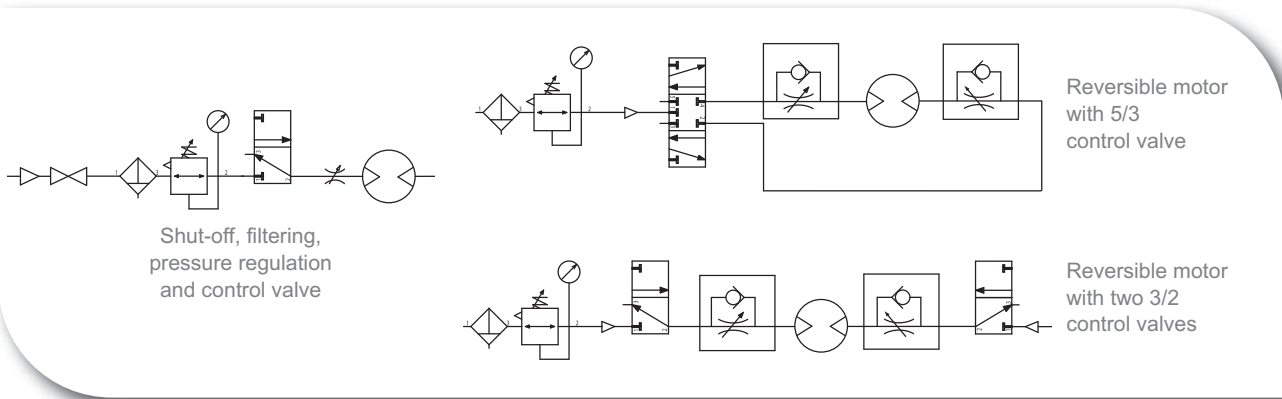
For more information about **Air Line Accessories and Stands** please ask for the Desoutter Industrial Tools catalogue (Part No. 2050484013) or visit [www.desouttertools.com](http://www.desouttertools.com)



# Installation and incorporation

- **Good air quality is the key to achieving the best Air Motor efficiency**, in terms of Power, Torque, Speed and life time performance, it is recommended to have air with which is supplied **must be filtered and regulated, and advisable to use Filter, Regulator, Lubricator, air flow regulator.**
- **Always use the recommended air hose bore for air feed and exhaust hoses**
- It is advisable that the **diameter of the exhaust hose is greater than the air supply hose.**
- **Check that the couplings don't reduce the air flow.**
- Minimum air network pressure: **7 bar (101 psi)** and regulator pressure setting: **6.3 bar (91.4 psi)**
- Pipe length between air treatment unit and valve: **max. 1.5m (4.9 ft)**
- Pipe length between valve and air motor: **max. 3m (9.8 ft)**

MOTOR TYPE	INLET CONNECTION THREAD	EXHAUST CONNECTION THREAD	INLET HOSE DIAMETER		EXHAUST HOSE DIAMETER (Non reversible)		EXHAUST HOSE DIAMETER (Reversible)	
	BSP	in.	mm	in.	mm	in.	mm	in.
M16	1/8	1/8	5.0	3/16	8.0	5/16	6.3	1/4
M25	1/8	1/4	6.3	1/4	10.0	3/8	8.0	5/16
M39	1/4	1/4	8.0	5/16	10.0	3/8	8.0	5/16
M84	1/4	1/2	10.0	3/8	16.0	5/8	13.0	1/2
2H410	1/4	3/8	8.0	5/16	-	-	13.0	1/2
M180	3/8	3/4	13.0	1/2	20.0	13/18	13.0	1/2
M290	1/2	-	16.0	5/8	-	-	16.0	5/8



**3D available on website**

Log on to [www.desouttertools.com](http://www.desouttertools.com)  
and go to dedicated air motor web site...





# Notes

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