



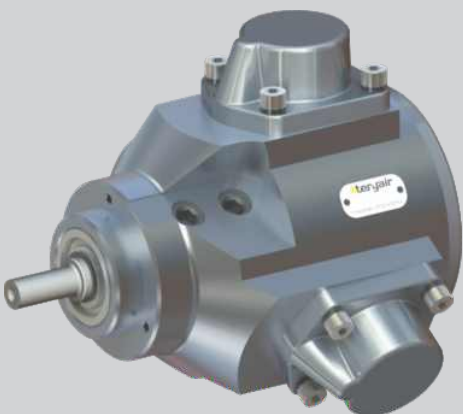
*“Top notch performance.  
Unbelievable prices.  
It's equipment you and  
your business can rely on.”*

**terryair<sup>®</sup>**  
[www.terryair.com](http://www.terryair.com)

**VM Vane Series**

**Air Motors**

**PM Piston Series**





Technical Ship  
Supply Products

Air Operated Diaphragm  
Pumps



Air Motors

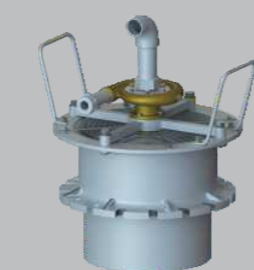
Surface Preparation  
Equipment



High-Pressure  
Water Jet Series

Industrial  
Ventilation Fans

Airless Paint Sprayers



# Introduction

Teryair has been designing, manufacturing, and supplying high-quality pneumatic equipment to customers worldwide for the past 20 years.

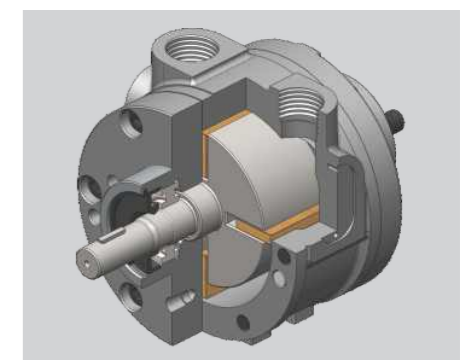
Teryair has an exceptional Air Motors manufacturing program. ATEX-certified and CE-approved, our air motors are exported and used in great numbers globally. Known for their durability, quality, and ease of maintenance they are highly sought after by the OEMs / machinery industry in Italy, South Korea, Australia, and the United States.

They are competitively priced to meet the needs of our customers. Our ISO-certified manufacturing facility at Vasai houses a test setup designed to test air consumption, power output, and torque at varying RPMs of the motors. Teryair motors are preferred over electric and hydraulic motors due to their compact size, superior features, and wide range of applications.

This brochure details Vane and Piston Air motors in numerous HP ratings. Teryair Motors come in a broad range of mounting and threading options to meet local regulations in most countries.

Our expertise lies in air motor mechanics and pneumatic engineering. The sole focus of our design team is to develop viable solutions to problems. Using CAD, our design engineers evaluate client objectives to design and prototype solutions. All design revisions and technical product details are well-documented.

**At Teryair, we strive to provide the latest and best products using quality concepts and advanced manufacturing techniques. A global standard for equipment, our products are renowned for their durability and reliability. With a motor for all your requirements, we guarantee a delightful experience.**



# Why Air Motors

## Special Advantages



### Instant stop / start and easy to reverse

The motors start and stop instantly, reducing latency. On reversible motors, a simple valve can immediately reverse motor direction.



### No damage on overload

The air motors automatically stall when overloaded, avoiding damage and energy loss. The engine resumes when the stalling condition is removed.



### Easy throttling and smooth control

The motor's speed, power, and torque can be easily regulated by controlling the input air pressure.



### Easy maintenance

We offer repair kits for all models. It is easy to repair worn vanes and bearings.



### High power - to - weight ratio

Air motors are more compact and lighter than electric motors.



### ATEX

All Teryair motors are ATEX-certified and comply with ATEX directive 2014/34/EU.



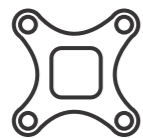
### Self-regulating cooling system

The air inside the motor expands as it runs so the motors always run at optimum temperatures even in hot environments.



### CE

All Teryair motors are CE-certified and comply with EU Directive 2006/42/EU on Machinery Safety.



### Variety of mounting options

Foot, Flange, Hub, IEC, and Nema options are available.

# How to read an Air Motor Curve

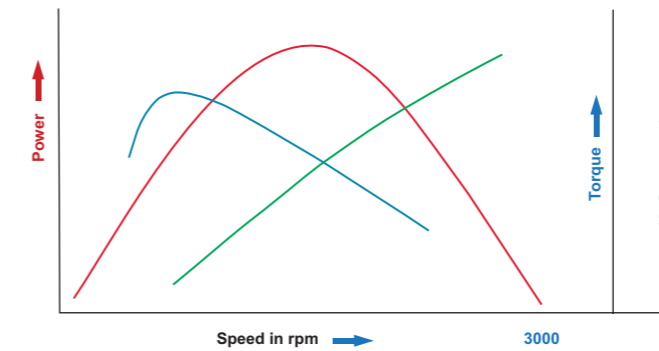
In contrast to Electric motors, Horsepower and Torque are developed rapidly, which is desirable for many applications. Air motors typically operate at higher speeds than Electric motors.

The relation between Power, Torque and Air-consumption is best understood when these values

are plotted against motor rotational speed.

The graph below is a typical representation of motor performance used by most manufacturers. In addition to providing an understanding of the motor's characteristics, the graphs are extremely useful for selecting (sizing) the correct air motor.

### Power, Torque and Air-consumption



#### Power Curve

Maximum power is generated at half the motor's free speed, in this case, 1500 rpm. As depicted by the red curve, if the motor is operated at slower speeds, the power decreases.

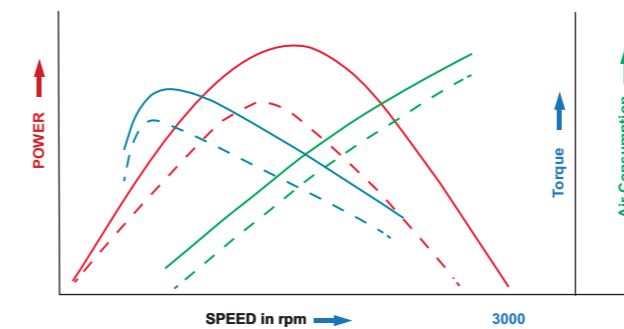
#### Torque Curve

The torque of an air motor increases with increasing load, but beyond about 15% (or 450rpm in this case) of free speed, torque drops sharply; this is the motor's stall point.

#### Air Consumption Curve

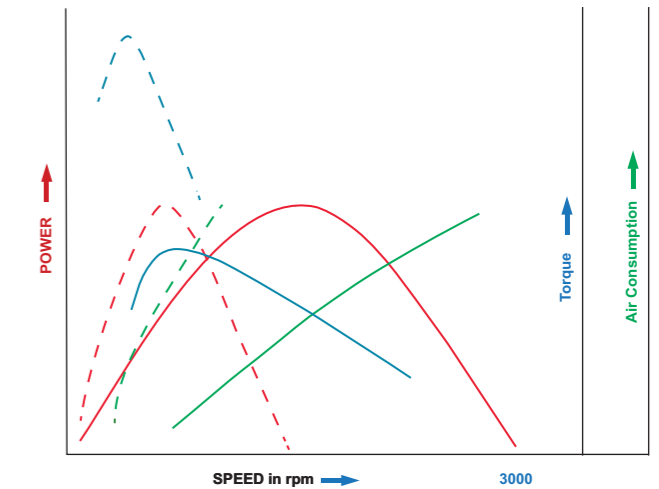
This green curve demonstrates that it is rational to operate these air motors between 15 and 50 per cent of their free speed, as air consumption increases steadily with speed.

### Effect of reducing input pressure



When input pressure is modulated, less power and torque are generated and less air is consumed, as depicted by the dotted lines in the graph above. This allows these Air motors to be easily adjusted to meet optimal load conditions.

### Effect of Gearing



When increased torque is required, a Gearbox can be added to multiply torque output while reducing output speed proportionally. The effect of gearing is depicted in the graph above.

The torque increases and the speed decreases, but the total power and air consumption remain unchanged.

# Selection of Air Motors

Teryair Vane motors are not designed to operate at free speeds for extended periods. This will result in excessive wear and tear.

Depending on the load (HP-torque etc.), one should select motors that are capable of handling the required load at half the free speed. Available air pressure is also an important factor. Air motors generate power proportional to the supplied air pressure and volume. To account for variables such as lower air pressures, starting loads, and overloads, it is recommended to select a larger size. All Teryair motor graphs depict predicted outputs at different supply pressures.

Teryair Vane motors should not be installed in

configurations where the axial load or radial load on the shaft exceeds permissible limits. This results in abnormal shaft loading and premature seizing of the rotors. Find the maximum allowable figures alongside the graphs of each motor size later in this catalogue.

Lastly, ensure that you are supplying clean and filtered compressed air; a Filter - Regulator - Lubricator is recommended and should be mounted as close as possible to the motor.

Teryair is ready to help you with your motor application. Over the years, with our experience in almost every application, we can assist you in picking the right motor.

## Air Motor Nomenclature

Air motors get their name from their ability to expand the air inside them when performing mechanical work. They are among the most durable and adaptable power units available to

design engineers. Their advantages and characteristics make them the preferred power source for industrial applications.

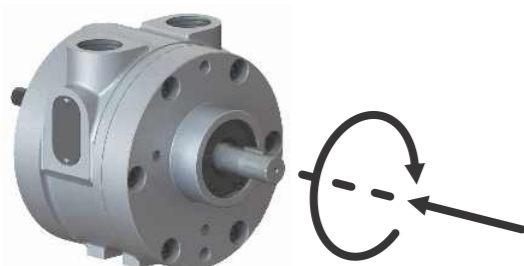
X Size	XX Motor Type	X Mounting	X Lubricated or Lube-Free	X Material of Construction	XX Explosion Proof	X Threading on Inlet & Outlet	X Rotating Direction	X No of Vanes
1	VM - Vane Type PM - Piston Type VG - Vane Geared PG - Piston Geared"	L - Face Type	A- Lubricated O - Lube Free	L - SG Iron S - SS	EX	R- NPT G - BSPT	C - Clockwise A - Anticlockwise	8- 8 Vanes
2		S- Foot Type						
4		T - Hub						
6		D - IEC Flange Type						
8		N - NEMA Flange Type						
16								

For example

4VMTALEXR is a size 4, Vane type, Hub Mounted, Lubricated, SG Iron MOC. Explosion Proof, NPT Threading, Reversible with 4 Vanes,

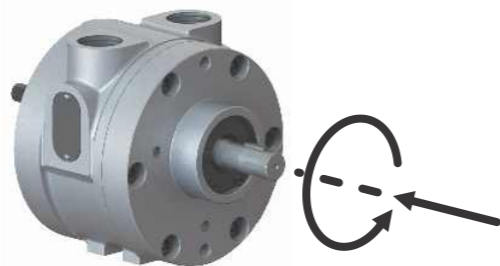
4VMTALEXR8 is a Size 4, Vane type, Hub Mounted, Lubricated, SG Iron MOC, Explosion Proof, NPT Threading, Reversible with 8 Vanes,

1VMTALEXRA is a Size 1, Vane type, Hub Mounted, Lubricated, SG Iron MOC, Explosion Proof, NPT Threading, Anticlockwise with 4 Vanes,



Clockwise

Clockwise nomenclature is clockwise when seen from front of motor



Anti-Clockwise

Anti Clockwise nomenclature is anti clockwise when seen from front of motor

# Teryair Manufacturing Program

## Air Motors - Vane Motors VM Series

The Teryair VM Series is a compact, cost-effective selection of motors ranging from 0.45HP to 9.5HP. There are six versions available in different power levels. The VM Series features lubricated and lube-free variants and numerous other options such as 4 or 8 vanes, NPT or BSPT, SG Iron or SS, clockwise, anticlockwise, and reverse rotations.

In summary, Teryair's VM series provides a wide range of options for machine designers. A simple nomenclature system, which is explained in the preceding page, makes it easy to place an order.

## Air Motors - Piston Motors PM Series

Teryair's PM Series are piston-driven devices with three or five radially positioned pistons. Due to their design, piston motors are slower than Vane motors but generate more torque.

Piston motors are ideal for heavy loads and slow speeds due to their improved starting and speed control. We offer three reversible piston motor variants.

See page no. 22

## A note about Gearbox pairing with Teryair Motors -

Teryair motors are compatible with myriad standard gearboxes, allowing for a wide range of speeds and torques. Standard mountings are available for Teryair motors that match those of standard gearboxes.

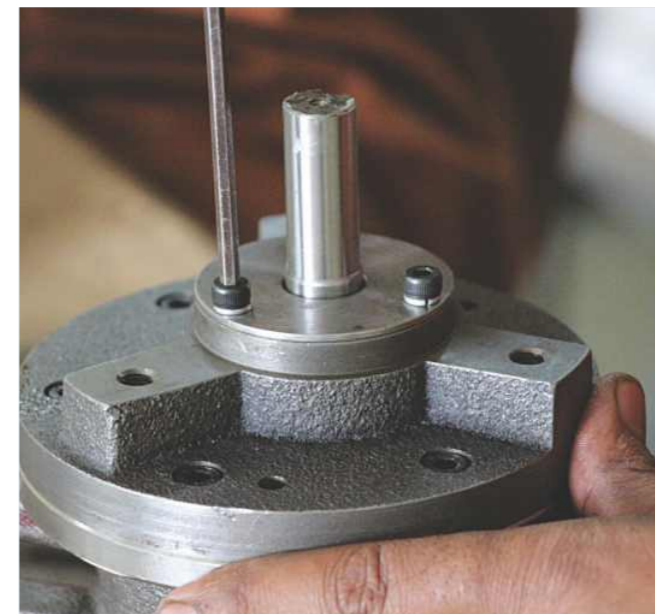
Alternatively, we can build the system for you and provide ready-to-use geared motors. Our technical staff at Teryair is standing by to assist you in choosing the correct gearbox for your application.

## Special variants are available, ask for details

- Unidirectional or reversible VM Motors
- 8 Vane VM Motors for high start torques
- Lube Free VM Motors
- Stainless Steel SS316L Motors

## Future motors under development at Teryair

- Compact, lightweight air motors with planetary gearboxes in-built.
- Motors with built-in pneumatic braking systems.



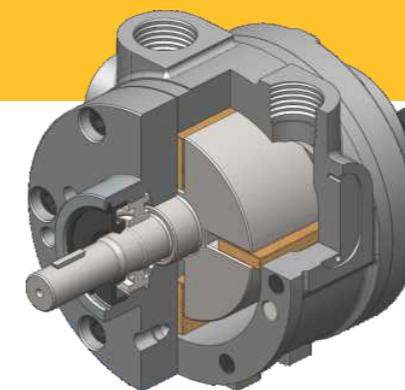
# Air Motors - VM Series

Teryair VM Series are a compact economical range of motors spanning 0.45HP to 9.5 HP. There are six models to choose from in varying powers.

Variants are available as Lubricated or lube-free, 4 or 8 vanes, NPT or BSPT, SG Iron or SS and

clockwise, anticlockwise or reversible rotations.

As one can see Teryair's VM series present a large choice to the machine designer. A simple nomenclature system described later in this catalogue offers an easy ordering system.



A cut away of a typical Vane Motor

Model No	Description	Max Output		Speed at Max Power	Maximum Torque		Starting Torque		Air Consumption at Max Power		Weight		Atex Code	Flange Details
		kW	hp		Nm	lb-in	Nm	lb-in	M3/Hr	cfm	kg	lb		
<b>Clockwise Rotation</b>														
1VMTALEXRC	1VM Ex PNEU. VANE MOTOR-HUB-SGI-NPT Clockwise	0.33	0.45	10000	0.65	5.6	0.39	3.48	35.1	20.5	1.0	2.2	Ex II 2GD Ex h IIC T6 Gb Ex II 2GD Ex h IIIC T85°C Db	Hub Mount
1VMSALEXRC	1VM Ex PNEU. VANE MOTOR-FOOT-SGI-NPT Clockwise	0.33	0.45	10000	0.65	5.6	0.39	3.48	35.1	20.5	1.1	2.4	Ex II 2GD Ex h IIC T6 Gb Ex II 2GD Ex h IIIC T85°C Db	Foot Mount
1VMNALEXRC	1VM Ex PNEU. VANE MOTOR-NEMA-SGI-NPT Clockwise	0.33	0.45	10000	0.65	5.6	0.39	3.48	35.1	20.5	1.7	3.7	Ex II 2GD Ex h IIC T6 Gb Ex II 2GD Ex h IIIC T85°C Db	Nema Mount
<b>Anti Clockwise Rotation</b>														
1VMTALEXA	1VM Ex PNEU. VANE MOTOR-HUB-SGI-NPT Anti Clockwise	0.33	0.45	10000	0.65	5.6	0.39	3.48	35.1	20.5	1.0	2.2	Ex II 2GD Ex h IIC T6 Gb Ex II 2GD Ex h IIIC T85°C Db	Hub Mount
1VMSALEXRA	1VM Ex PNEU. VANE MOTOR-FOOT-SGI-NPT Anti Clockwise	0.33	0.45	10000	0.65	5.6	0.39	3.48	35.1	20.5	1.1	2.4	Ex II 2GD Ex h IIC T6 Gb Ex II 2GD Ex h IIIC T85°C Db	Foot Mount
1VMNALEXRA	1VM Ex PNEU. VANE MOTOR-NEMA-SGI-NPT Anti Clockwise	0.33	0.45	10000	0.65	5.6	0.39	3.48	35.1	20.5	1.7	3.7	Ex II 2GD Ex h IIC T6 Gb Ex II 2GD Ex h IIIC T85°C Db	Nema Mount
<b>Reversible</b>														
1VMTALEXR	1VM Ex PNEU. VANE MOTOR-HUB-SGI-NPT	0.33	0.45	10000	0.65	5.6	0.39	3.48	35.1	20.5	1.0	2.2	Ex II 2GD Ex h IIC T6 Gb Ex II 2GD Ex h IIIC T85°C Db	Hub Mount
1VMSALEXR	1VM Ex PNEU. VANE MOTOR-FOOT-SGI-NPT	0.33	0.45	10000	0.65	5.6	0.39	3.48	35.1	20.5	1.1	2.4	Ex II 2GD Ex h IIC T6 Gb Ex II 2GD Ex h IIIC T85°C Db	Foot Mount
1VMNALEXR	1VM Ex PNEU. VANE MOTOR-NEMA-SGI-NPT	0.33	0.45	10000	0.65	5.6	0.39	3.48	35.1	20.5	1.7	3.7	Ex II 2GD Ex h IIC T6 Gb Ex II 2GD Ex h IIIC T85°C Db	Nema Mount
2VMTALEXR	2VM Ex PNEU. VANE MOTOR-HUB-SGI-NPT	0.68	0.93	3000	3.05	26.1	2.3	20.4	49.5	30	3.3	7.3	Ex II 2GD Ex h IIC T6 Gb Ex II 2GD Ex h IIIC T85°C Db	Hub Mount
2VMSALEXR	2VM Ex PNEU. VANE MOTOR-FOOT-SGI-NPT	0.68	0.93	3000	3.05	26.1	2.3	20.4	49.5	30	3.4	7.5	Ex II 2GD Ex h IIC T6 Gb Ex II 2GD Ex h IIIC T85°C Db	Foot Mount
2VMDALEXR	2VM Ex PNEU. VANE MOTOR-IEC-SGI-NPT	0.68	0.93	3000	3.05	26.1	2.3	20.4	49.5	30	4.8	10.6	Ex II 2GD Ex h IIC T6 Gb Ex II 2GD Ex h IIIC T85°C Db	IEC Mount
2VMNALEXR	2VM Ex PNEU. VANE MOTOR-NEMA-SGI-NPT	0.68	0.93	3000	3.05	26.1	2.3	20.4	49.5	30	4.8	10.6	Ex II 2GD Ex h IIC T6 Gb Ex II 2GD Ex h IIIC T85°C Db	NEMA Mount
4VMLALEXR	4VM Ex PNEU. VANE MOTOR-FACE-SGI-NPT	1.3	1.7	3000	6.3	56	3.5	31.2	132.5	78	4.2	9.3	Ex II 2GD Ex h IIC T6 Gb Ex II 2GD Ex h IIIC T85°C Db	Face Mount
4VMSALEXR	4VM Ex PNEU. VANE MOTOR-FOOT-SGI-NPT	1.3	1.7	3000	6.3	56	3.5	31.2	132.5	78	4.4	9.7	Ex II 2GD Ex h IIC T6 Gb Ex II 2GD Ex h IIIC T85°C Db	Foot Mount
4VMDALEXR	4VM Ex PNEU. VANE MOTOR-IEC-SGI-NPT	1.3	1.7	3000	6.3	56	3.5	31.2	132.5	78	5.6	12.3	Ex II 2GD Ex h IIC T6 Gb Ex II 2GD Ex h IIIC T85°C Db	IEC Mount
4VMNALEXR	4VM Ex PNEU. VANE MOTOR-NEMA-SGI-NPT	1.3	1.7	3000	6.3	56	3.5	31.2	132.5	78	5.8	12.8	Ex II 2GD Ex h IIC T6 Gb Ex II 2GD Ex h IIIC T85°C Db	NEMA Mount
6VMLALEXR	6VM Ex PNEU. VANE MOTOR-FACE-SGI-NPT	3	4	3000	13	115	7.2	63.6	228	128	8.7	19.2	Ex II 2GD Ex h IIC T6 Gb Ex II 2GD Ex h IIIC T85°C Db	Face Mount
6VMSALEXR	6VM Ex PNEU. VANE MOTOR-FOOT-SGI-NPT	3	4	3000	13	115	7.2	63.6	228	128	8.9	19.6	Ex II 2GD Ex h IIC T6 Gb Ex II 2GD Ex h IIIC T85°C Db	Foot Mount
6VMDALEXR	6VM Ex PNEU. VANE MOTOR-IEC-SGI-NPT	3	4	3000	13	115	7.2	63.6	228	128	10.4	22.9	Ex II 2GD Ex h IIC T6 Gb Ex II 2GD Ex h IIIC T85°C Db	IEC Mount
6VMNALEXR	6VM Ex PNEU. VANE MOTOR-NEMA-SGI-NPT	3	4	3000	13	115	7.2	63.6	228	128	9.4	20.7	Ex II 2GD Ex h IIC T6 Gb Ex II 2GD Ex h IIIC T85°C Db	NEMA Mount
8VMLALEXR	8VM Ex PNEU. VANE MOTOR-FACE-SGI-NPT	3.9	5.25	2500	21	185	13.6	120	293	175	11.8	26.0	Ex II 2GD Ex h IIC T4 Gb Ex II 2GD Ex h IIIC T135°C Db	Face Mount
8VMSALEXR	8VM Ex PNEU. VANE MOTOR-FOOT-SGI-NPT	3.9	5.25	2500	21	185	13.6	120	293	175	12.1	26.7	Ex II 2GD Ex h IIC T4 Gb Ex II 2GD Ex h IIIC T135°C Db	Foot Mount
8VMDALEXR	8VM Ex PNEU. VANE MOTOR-IEC-SGI-NPT	3.9	5.25	2500	21	185	13.6	120	293	175	14.6	32.2	Ex II 2GD Ex h IIC T4 Gb Ex II 2GD Ex h IIIC T135°C Db	IEC Mount
8VMNALEXR	8VM Ex PNEU. VANE MOTOR-NEMA-SGI-NPT	3.9	5.25	2500	21	185	13.6	120	293	175	14.0	30.9	Ex II 2GD Ex h IIC T4 Gb Ex II 2GD Ex h IIIC T135°C Db	NEMA Mount
16VMSALEXR	16VM Ex PNEU. VANE MOTOR-FOOT-SGI-NPT	7.1	9.5	2000	43	372	27.0	240	475	275	36.1	79.6	Ex II 2GD Ex h IIC T4 Gb Ex II 2GD Ex h IIIC T135°C Db	Foot Mount
16VMNALEXR	16VM Ex PNEU. VANE MOTOR-NEMA-SGI-NPT	7.1	9.5	2000	43	372	27.0	240	475	275	37.0	81.6	Ex II 2GD Ex h IIC T4 Gb Ex II 2GD Ex h IIIC T135°C Db	NEMA Mount

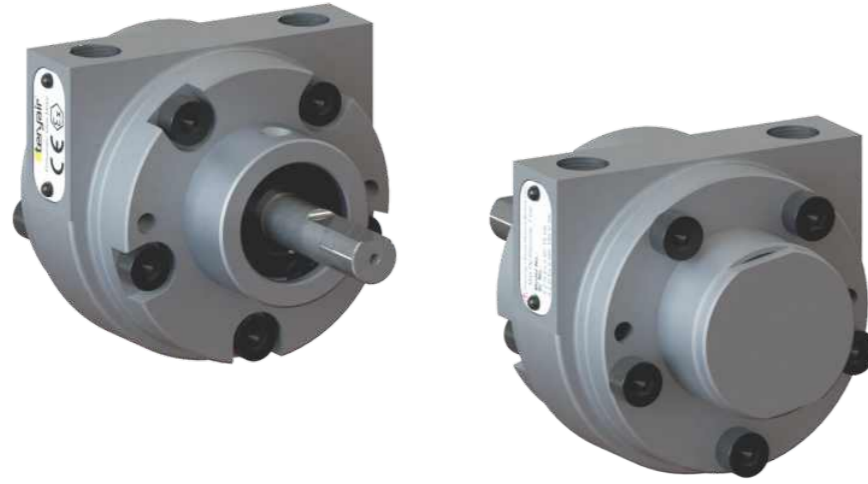
# Air Motors - VM Series

## 1VM AIR MOTOR

MAX POWER  
0.33 kW, 0.45 HP

SPEED  
10000-15200 rpm

WEIGHT  
1.0 Kgs, 2.2 lbs



### Foot Mounting 1VM

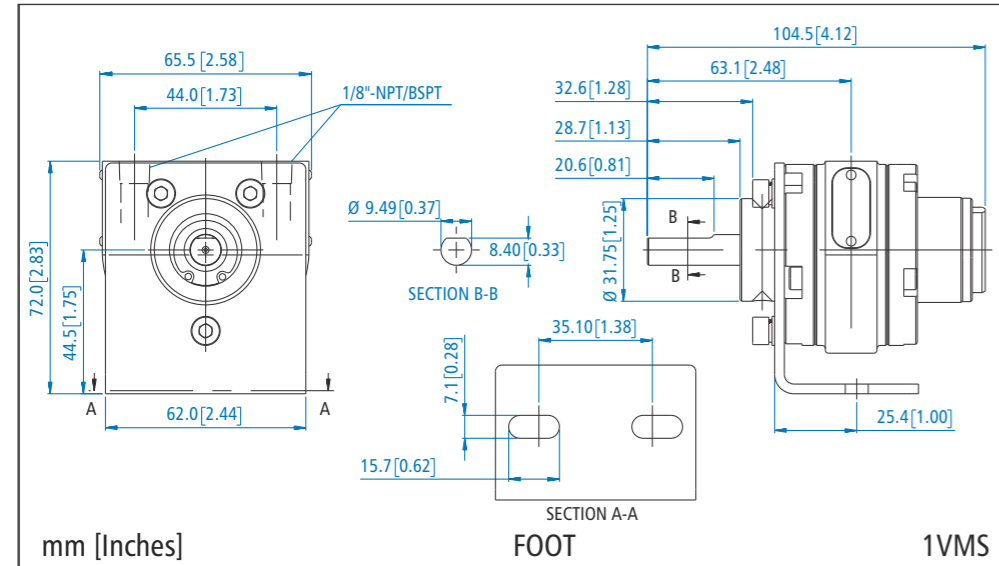
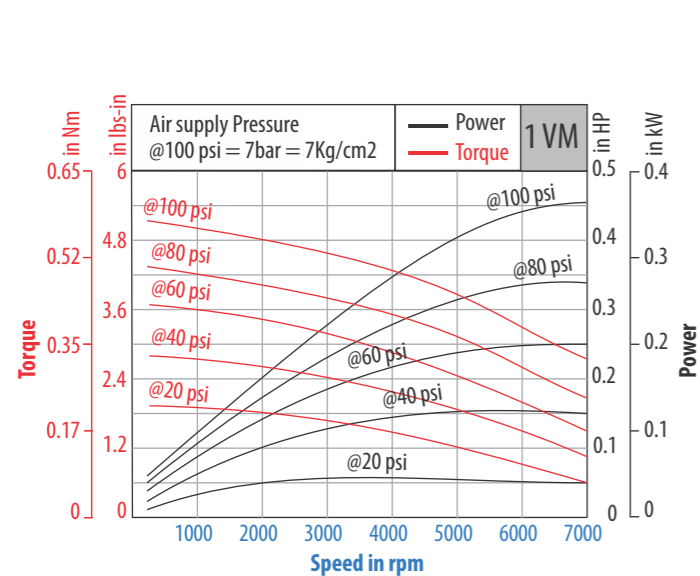


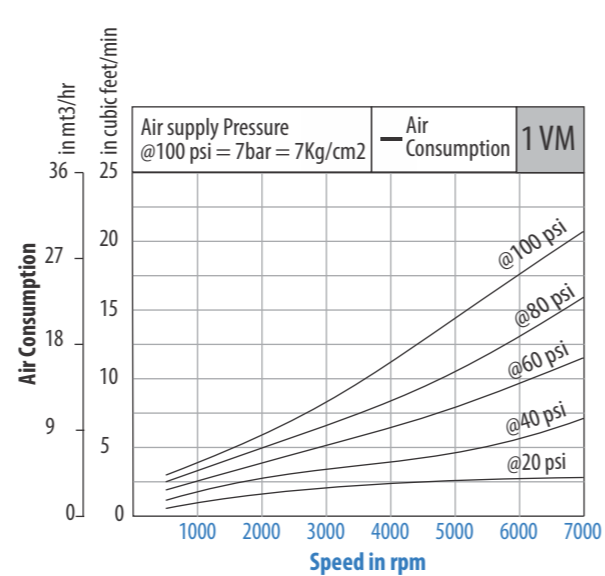
Chart for Radial Load Data

Model No	X (Nm)
1VM	18 N
2VM	400 N
4VM	170 N
6VM	300 N
8VM	620 N
16VM	400 N

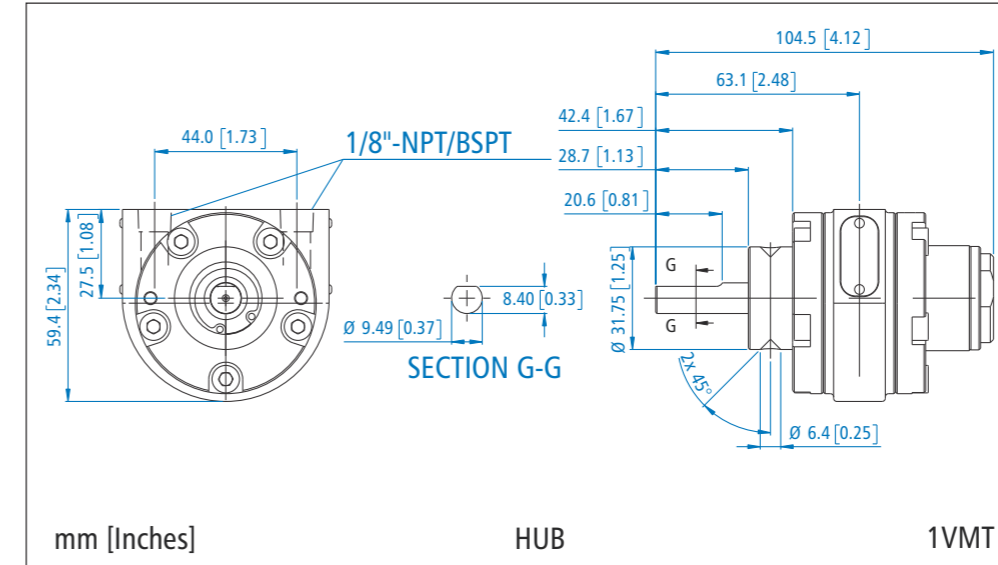
### Power & Torque Graphs 1VM



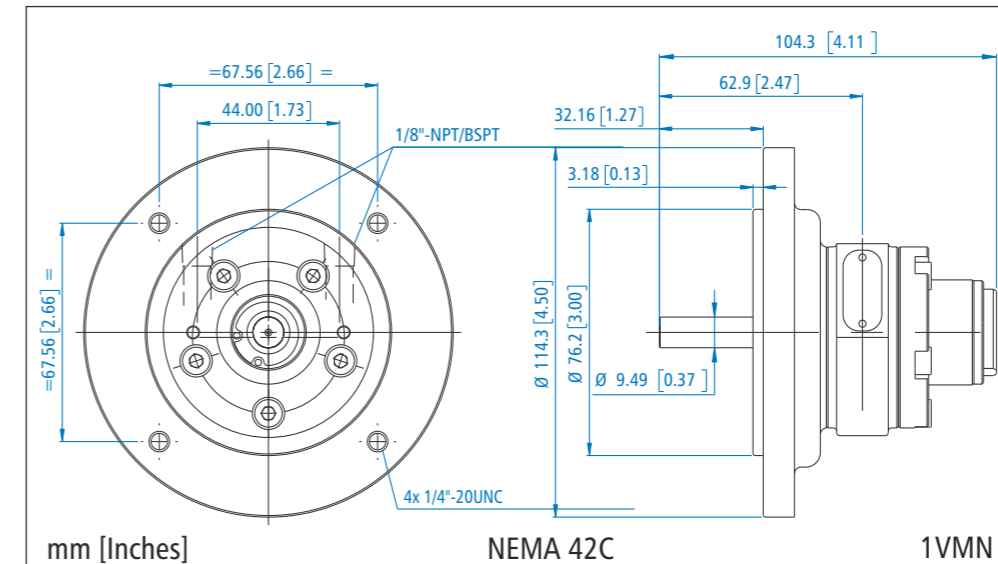
### Air Consumption Graphs 1VM



### Hub Mounting 1VM



### NEMA Flange Mounting 1VM



For detailed specs,  
pl see table on page 8



**Explosion Proof**  
All Teryair air motors are ATEX approved and safe for use in explosive atmosphere.  
Codes  
Ex II 2GD Ex h IIC T6 Gb  
Ex II 2GD Ex h IIIC T85°C Db



**Approvals and Certifications**  
All Teryair air motors are CE marked and manufactured under an ISO 9001:2015 Quality system - SGS.



#### Added Features

- Cool running
- Variable speeds
- Load to stall
- Instantly reversible
- Available as lube free
- Available with ss construction available with SS + Lube Free

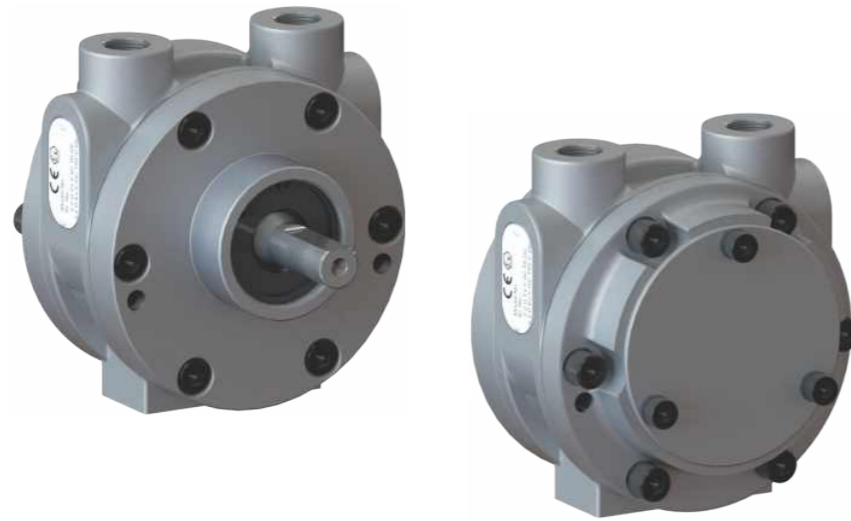
# Air Motors - VM Series

## 2VM AIR MOTOR

MAX POWER  
0.68 kW, 0.93 HP

SPEED  
3000-8000 rpm

WEIGHT  
3.3 Kgs, 7.3 lbs



### Foot Mounting 2VM

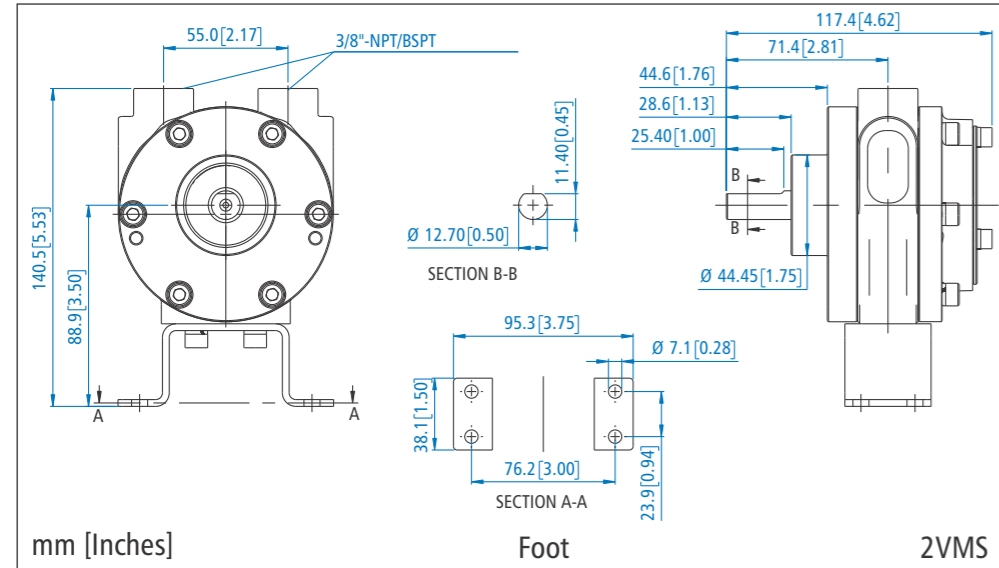
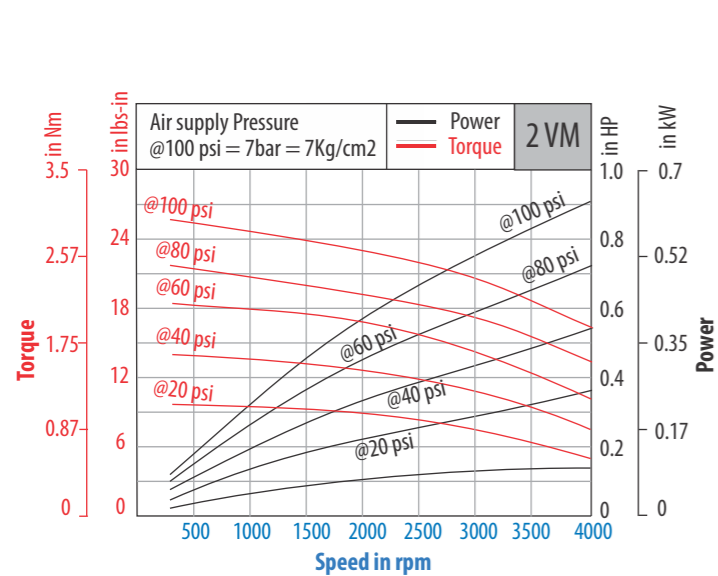


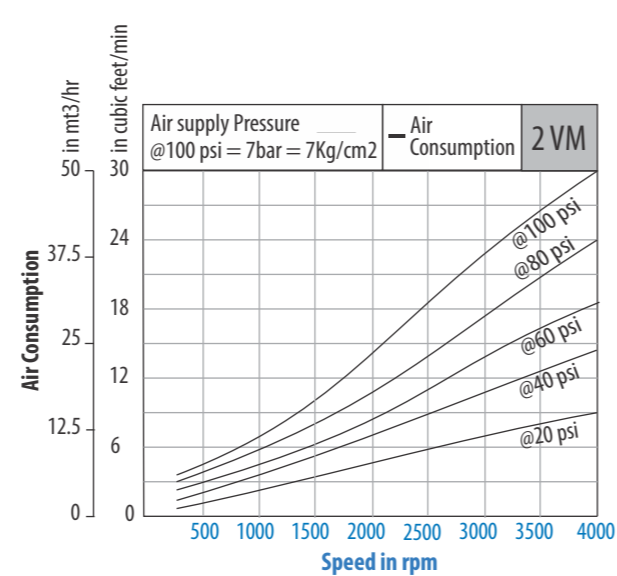
Chart for Radial Load Data

Model No	X (Nm)
1VM	18 N
2VM	400 N
4VM	170 N
6VM	300 N
8VM	620 N
16VM	400 N

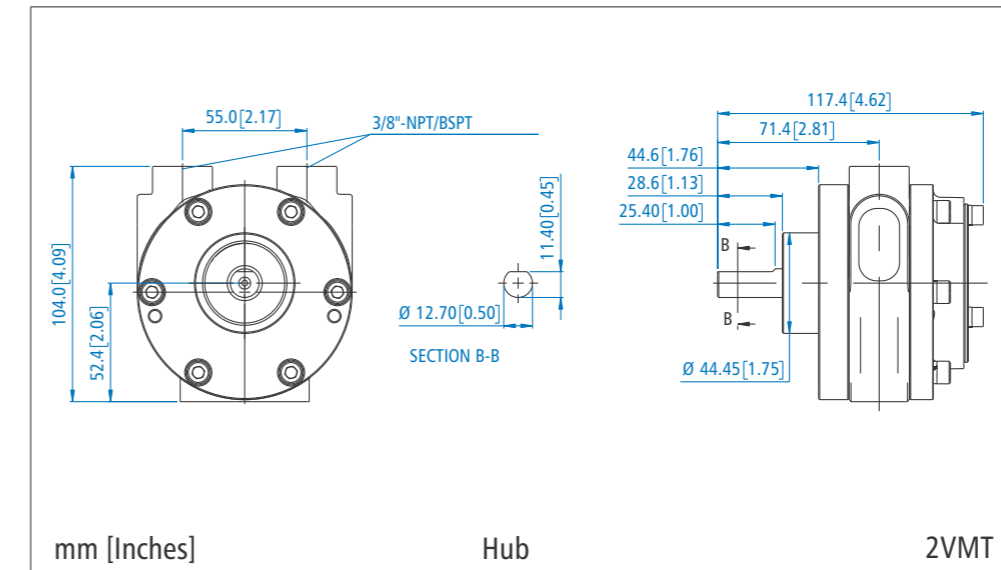
### Power & Torque Graphs 2VM



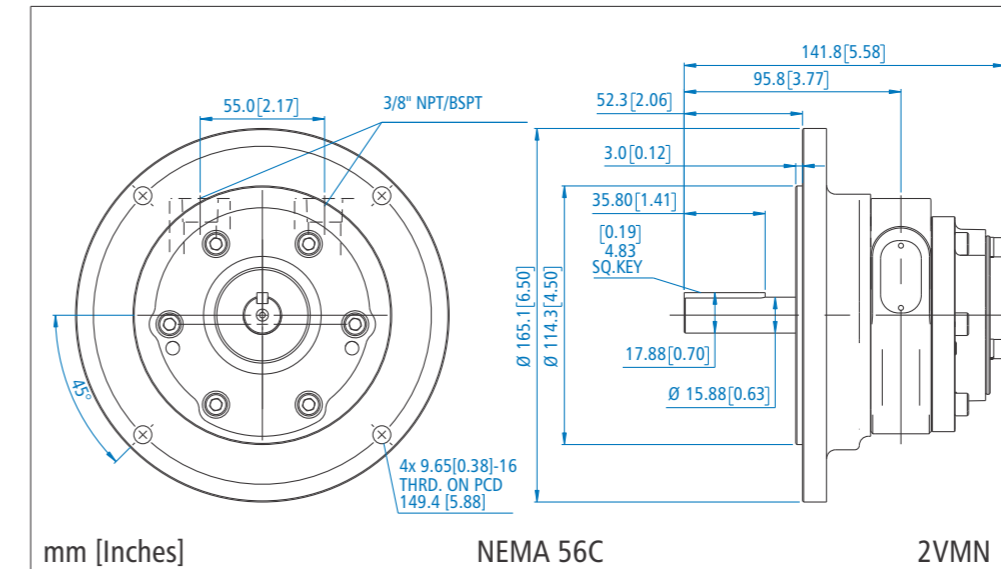
### Air Consumption Graphs 2VM



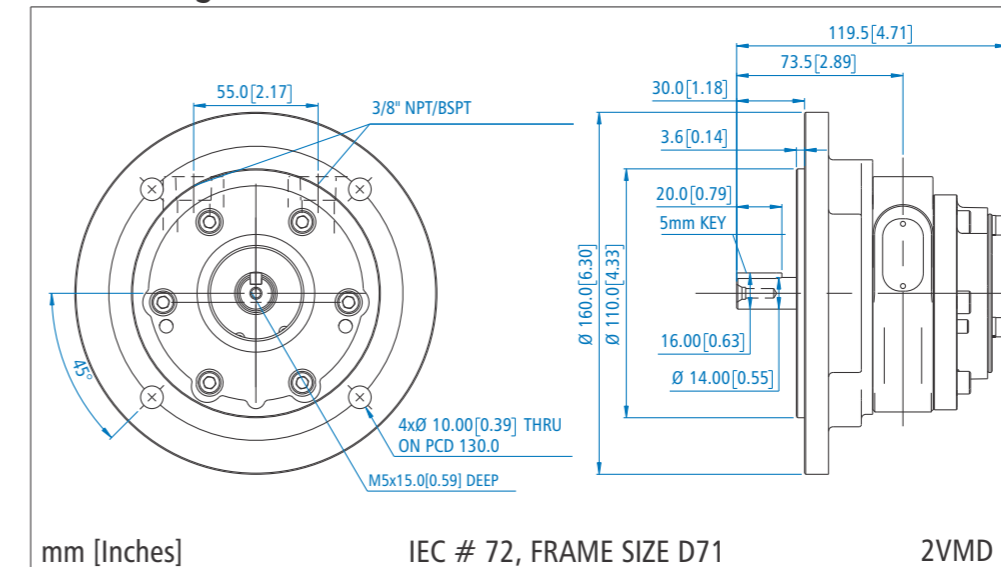
### Hub Mounting 2VM



### NEMA Flange Mounting 2VM



### IEC Mounting 2VM



For detailed specs,  
pl see table on page 8



**Explosion Proof**  
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Codes  
Ex II 2GD Ex h IIC T6 Gb  
Ex II 2GD Ex h IIIC T85°C Db



**Approvals and Certifications**  
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**Added Features**  
Cool running  
Variable speeds  
Load to stall  
Instantly reversible  
Available as lube free  
Available with ss construction available with SS + Lube Free

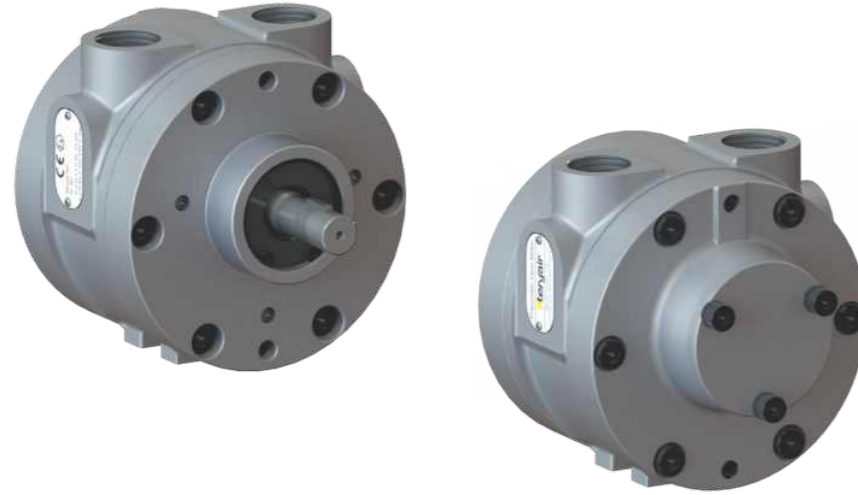
# Air Motors - VM Series

## 4VM AIR MOTOR

MAX POWER  
1.3 kW, 1.7 HP

SPEED  
3000-7900 rpm

WEIGHT  
4.2 Kgs, 9.3 lbs



### Foot Mounting 4VM

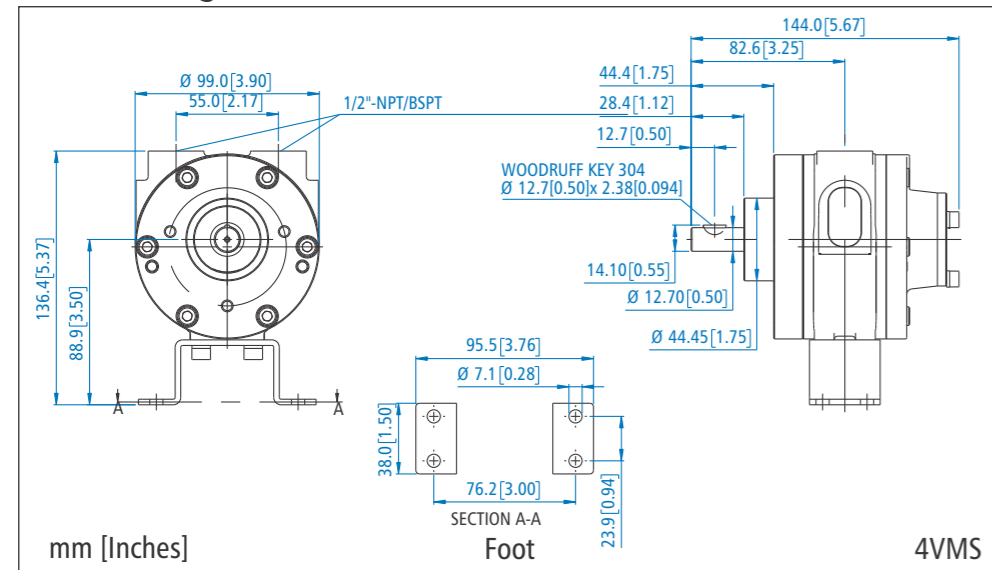
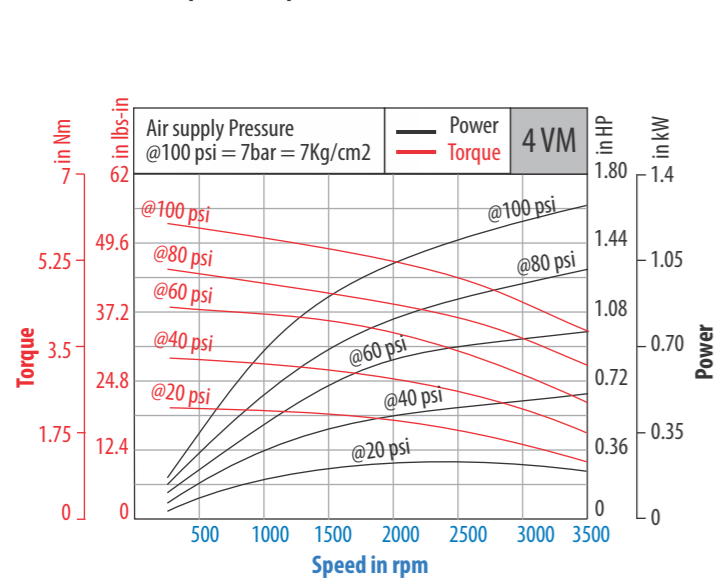


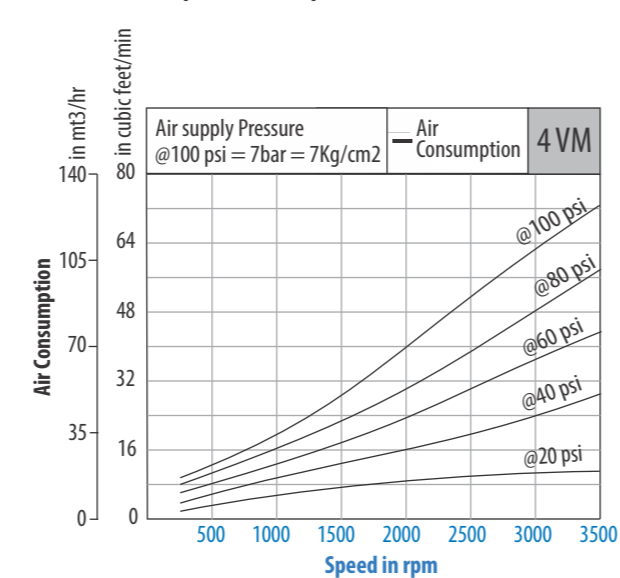
Chart for Radial Load Data

Model No	X (Nm)
1VM	18 N
2VM	400 N
4VM	170 N
6VM	300 N
8VM	620 N
16VM	400 N

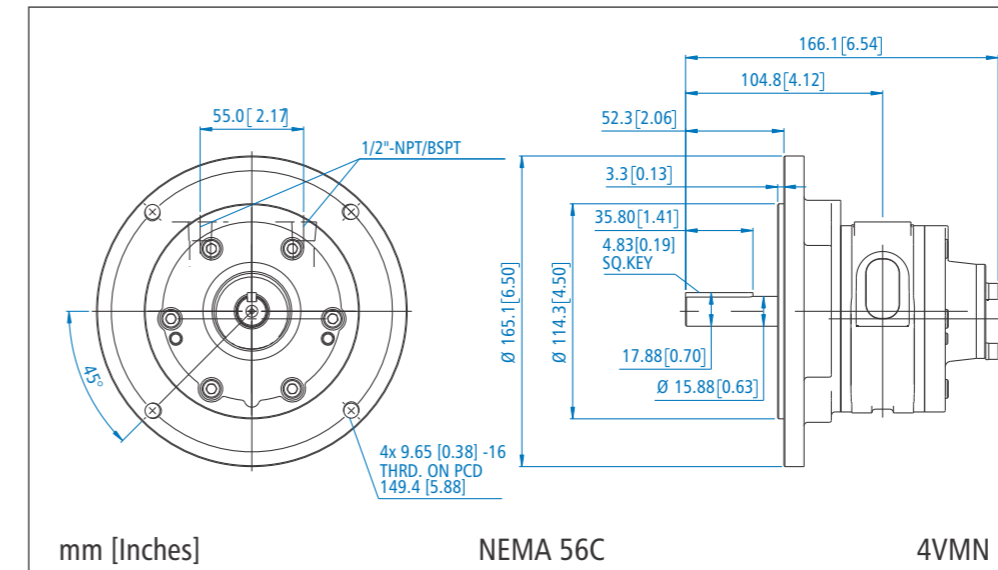
### Power & Torque Graphs 4VM



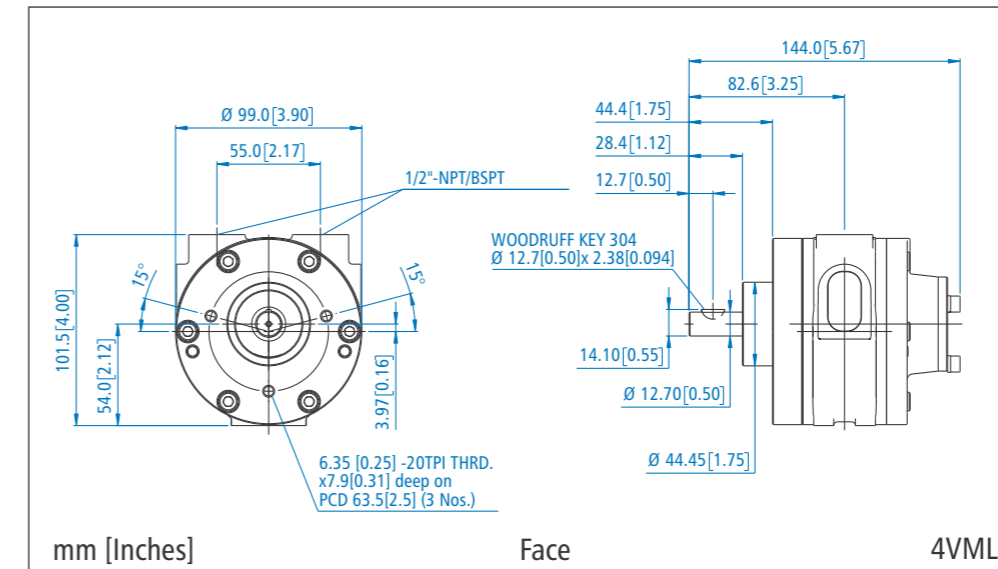
### Air Consumption Graphs 4VM



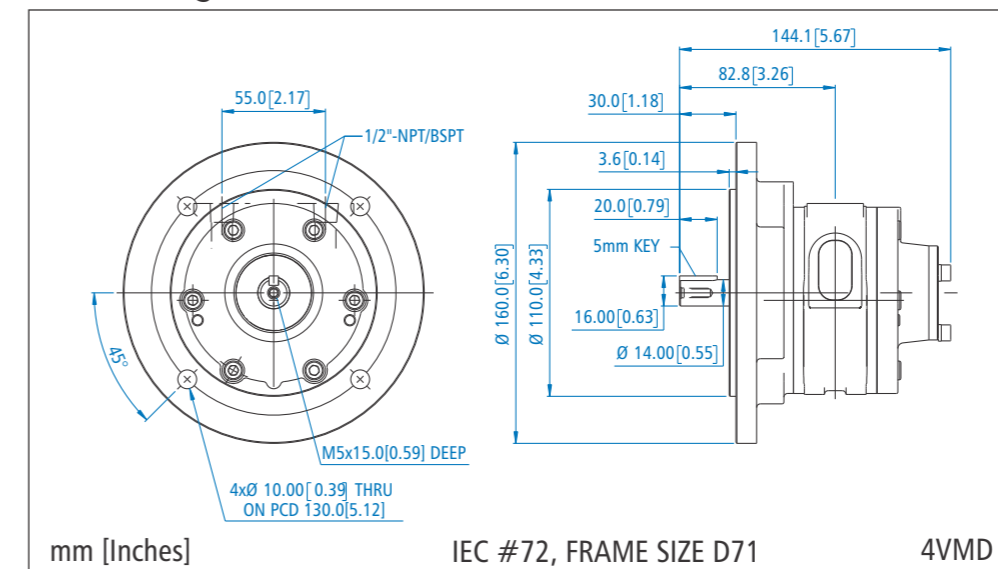
### NEMA Flange Mounting 4VM



### Face Mounting 4VM



### IEC Mounting 4VM



For detailed specs,  
pl see table on page 8



**Explosion Proof**  
All Teryair air motors are ATEX approved and safe for use in explosive atmosphere.  
Codes  
Ex II 2GD Ex h IIC T6 Gb  
Ex II 2GD Ex h IIIC T85°C Db



**Approvals and Certifications**  
All Teryair air motors are CE marked and manufactured under an ISO 9001:2015 Quality system - SGS.



**Added Features**  
Cool running  
Variable speeds  
Load to stall  
Instantly reversible  
Available as lube free  
Available with ss construction available with SS + Lube Free



# Air Motors - VM Series

## 6VM AIR MOTOR

MAX POWER  
3 kW, 4 HP

SPEED  
3000-7900 rpm

WEIGHT  
8.7 Kgs, 19.2 lbs



### Foot Mounting 6VM

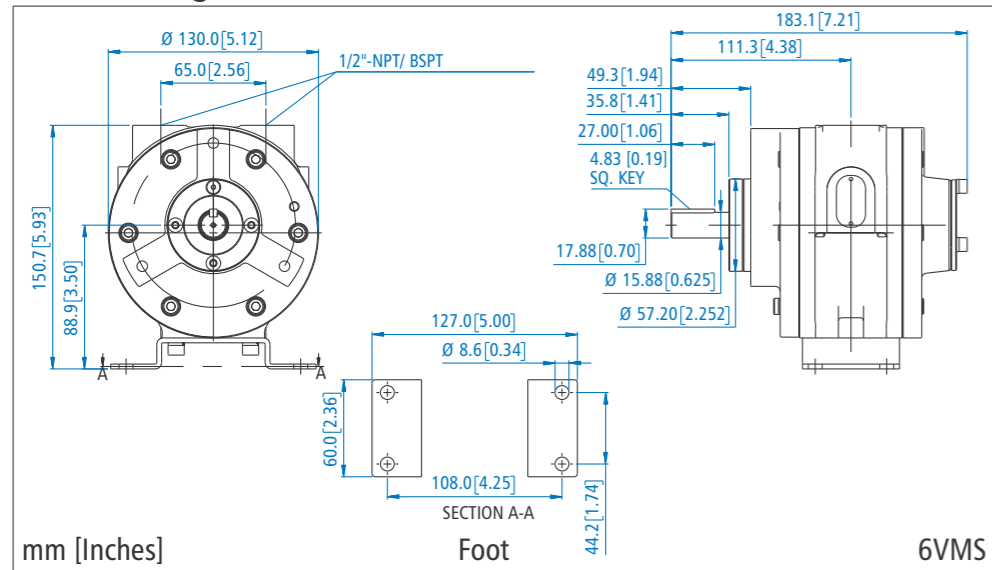
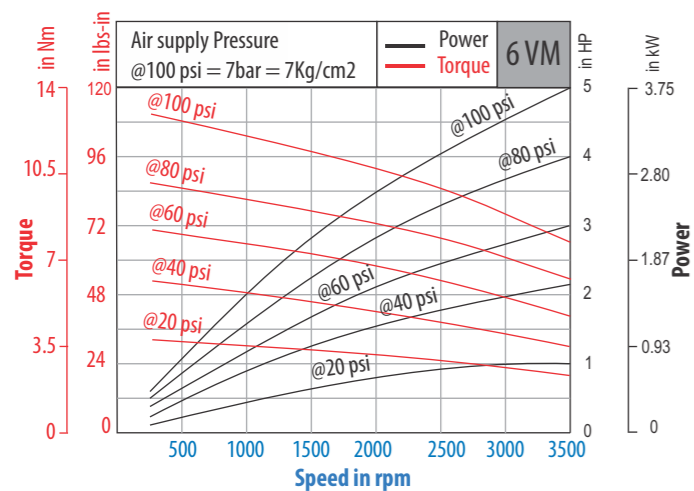


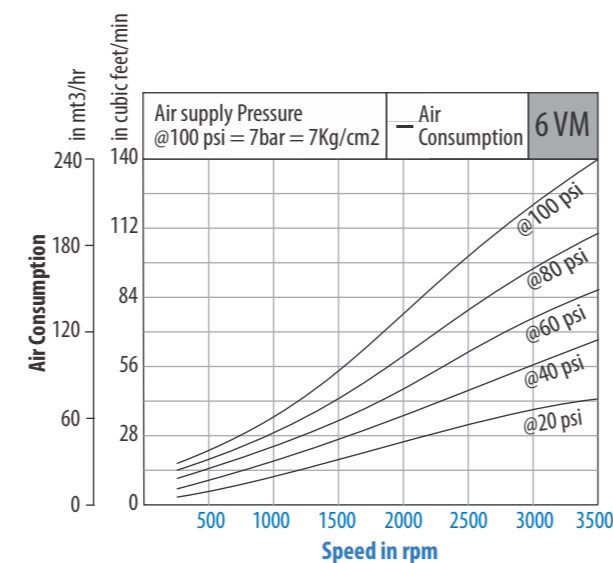
Chart for Radial Load Data

Model No	X (Nm)
1VM	18 N
2VM	400 N
4VM	170 N
6VM	300 N
8VM	620 N
16VM	400 N

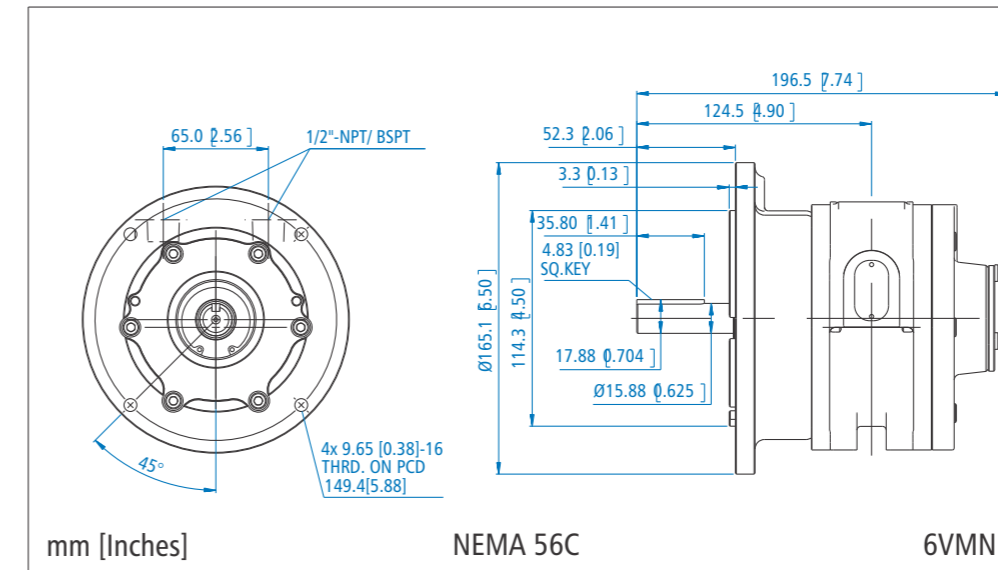
### Power & Torque Graphs 6VM



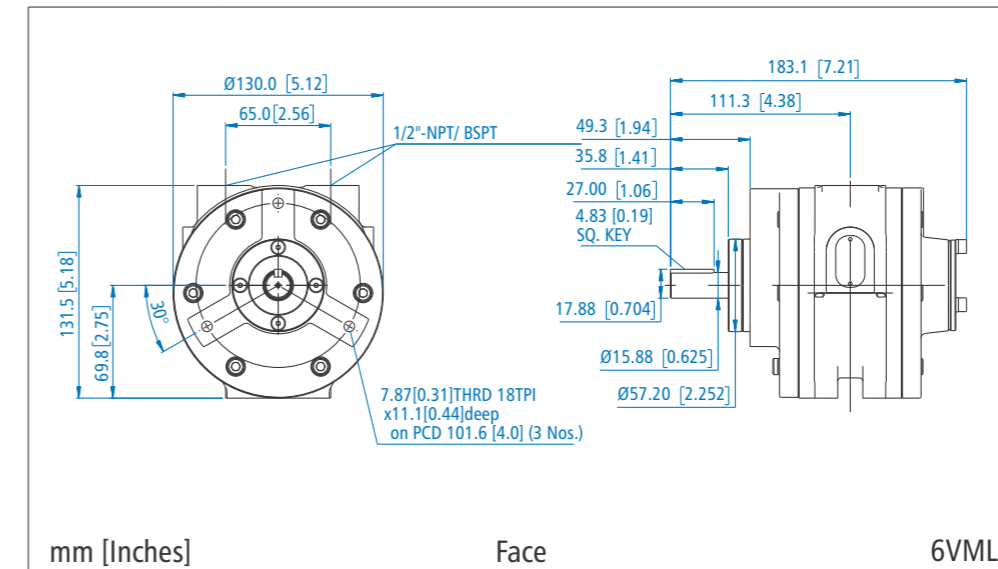
### Air Consumption Graphs 6VM



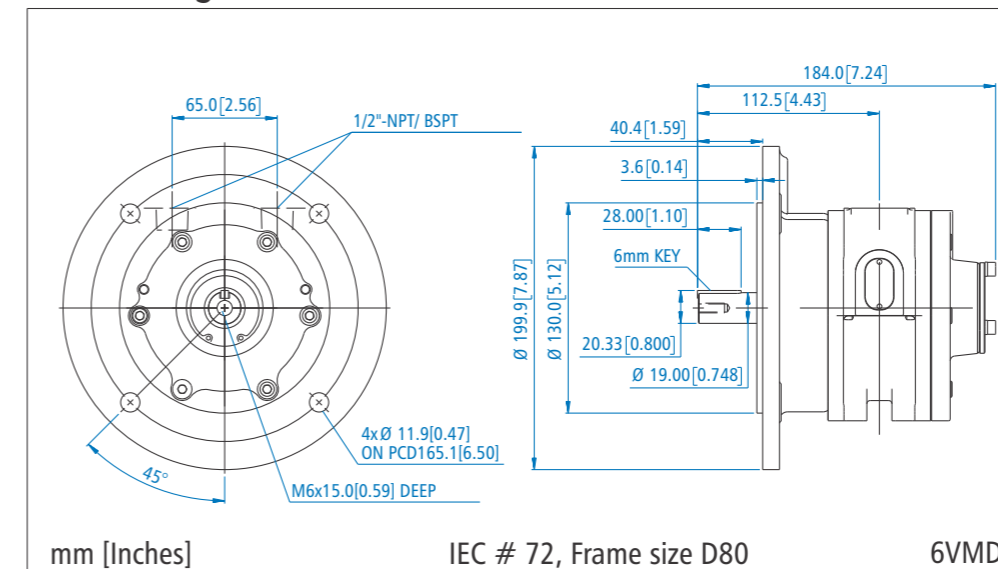
### NEMA Flange Mounting 6VM



### Face Mounting 6VM



### IEC Mounting 6VM



For detailed specs,  
pl see table on page 8



**Explosion Proof**  
All Teryair air motors are ATEX approved and safe for use in explosive atmosphere.  
Codes  
Ex II 2GD Ex h IIC T6 Gb  
Ex II 2GD Ex h IIIC T85°C Db



**Approvals and Certifications**  
All Teryair air motors are CE marked and manufactured under an ISO 9001:2015 Quality system - SGS.



**Added Features**  
Cool running  
Variable speeds  
Load to stall  
Instantly reversible  
Available as lube free  
Available with ss construction available with SS + Lube Free

# Air Motors - VM Series

## 8VM AIR MOTOR

MAX POWER  
3.9 kW, 5.25 HP

SPEED  
2500-7000 rpm

WEIGHT  
11.8 Kgs, 26 lbs



### Foot Mounting 8VM

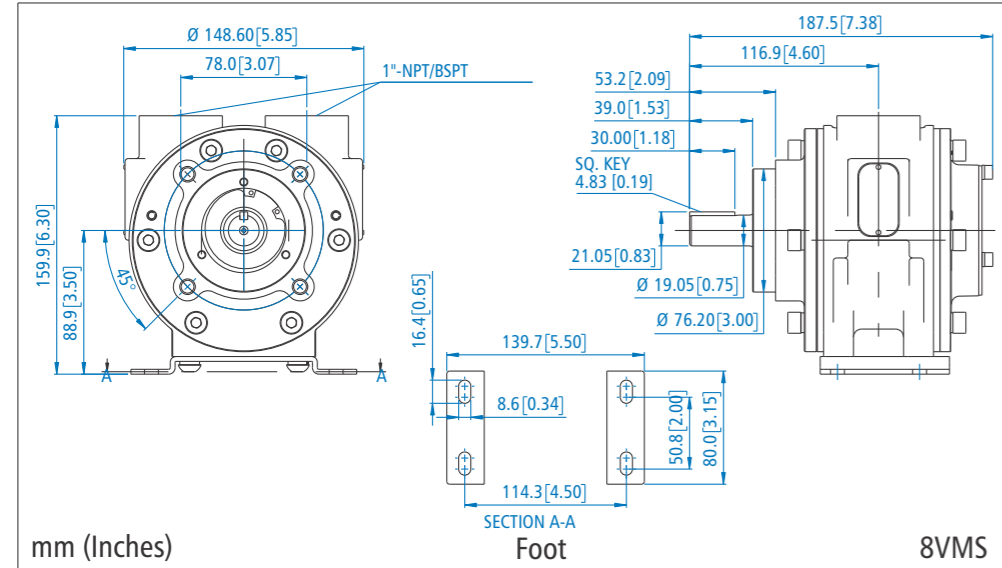
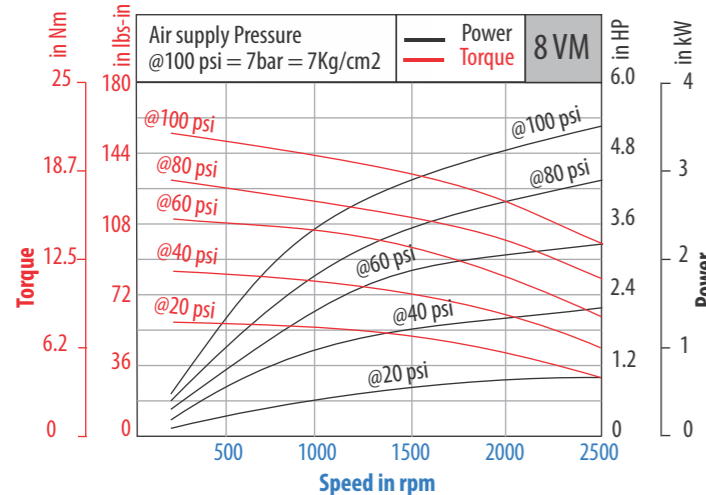


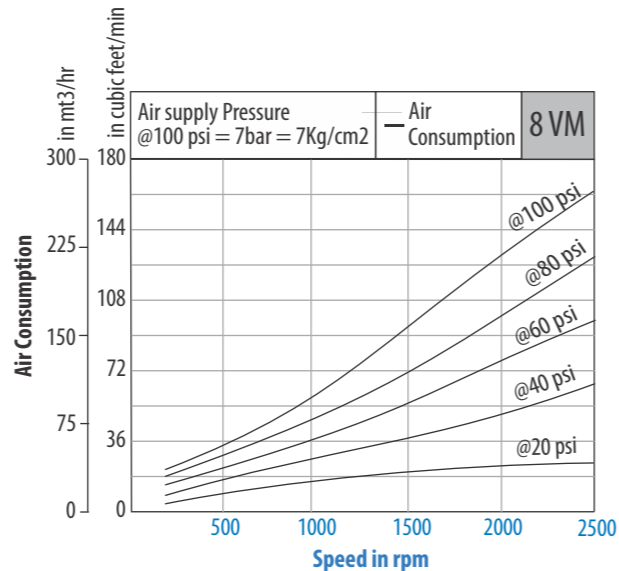
Chart for Radial Load Data

Model No	X (Nm)
1VM	18 N
2VM	400 N
4VM	170 N
6VM	300 N
8VM	620 N
16VM	400 N

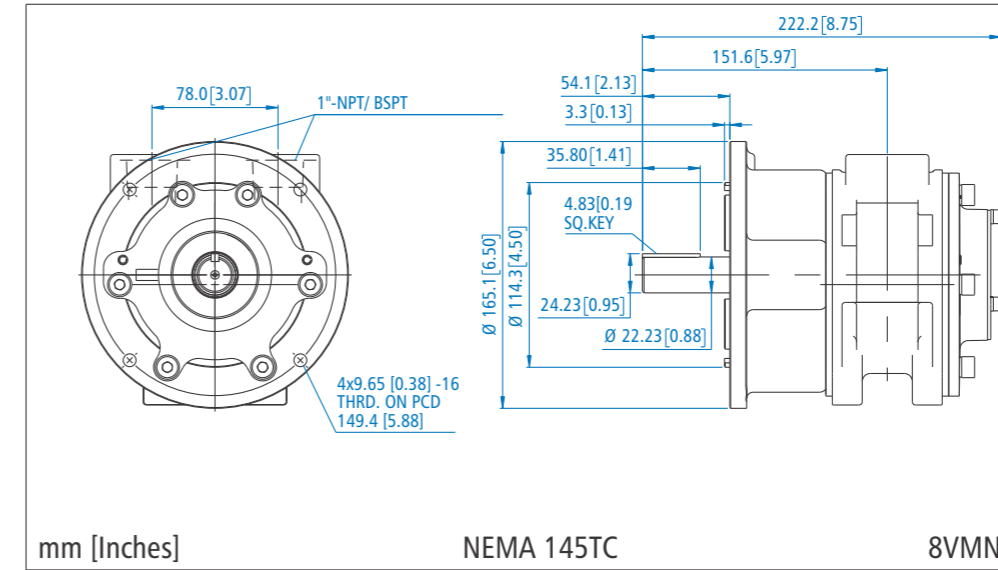
### Power & Torque Graphs 8VM



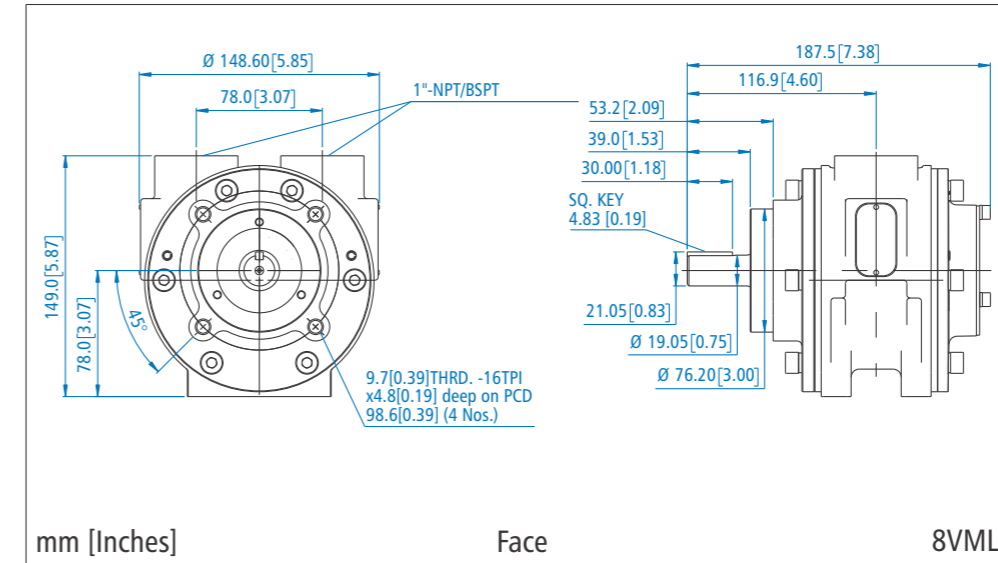
### Air Consumption Graphs 8VM



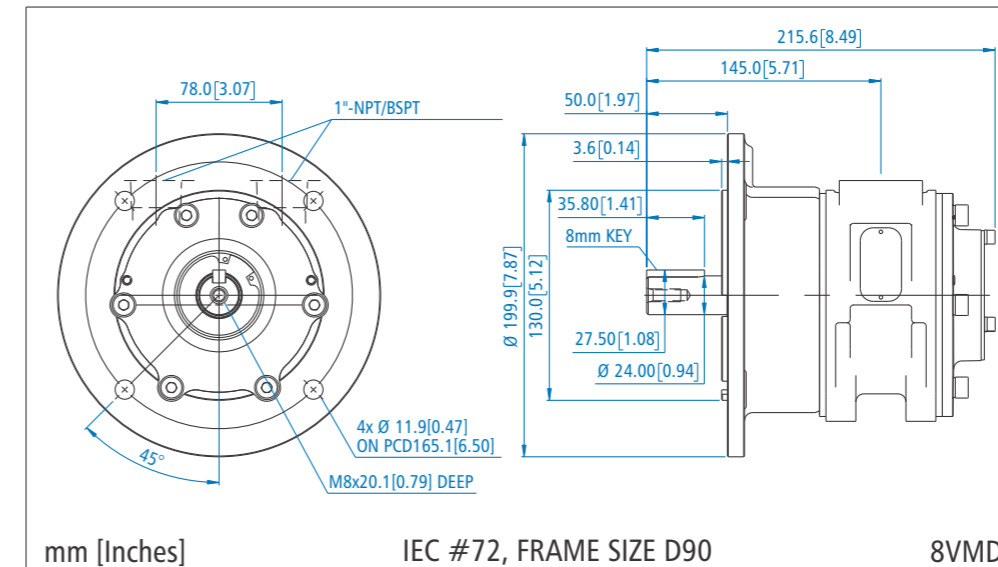
### NEMA Flange Mounting 8VM



### Face Mounting 8VM



### IEC Mounting 8VM



For detailed specs,  
pl see table on page 8



**Explosion Proof**  
All Teryair air motors are ATEX approved and safe for use in explosive atmosphere.  
Codes  
Ex II 2GD Ex h IIC T4 Gb  
Ex II 2GD Ex h IIIC T135°C Db



**Approvals and Certifications**  
All Teryair air motors are CE marked and manufactured under an ISO 9001:2015 Quality system - SGS.



**Added Features**

- Cool running
- Variable speeds
- Load to stall
- Instantly reversible
- Available as lube free
- Available with ss construction available with SS + Lube Free

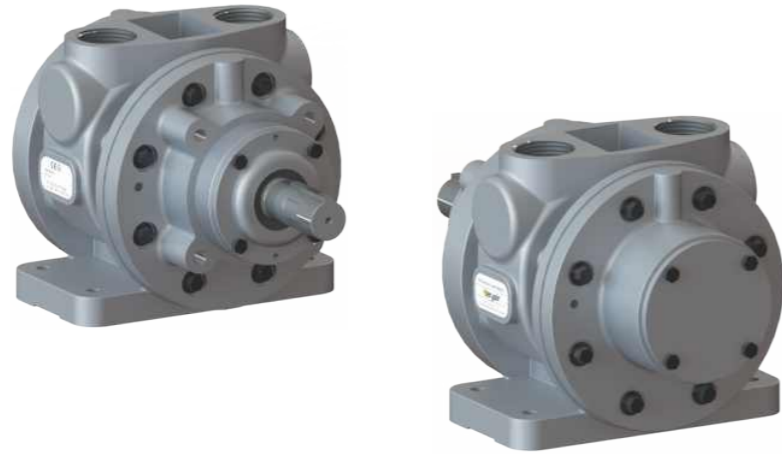
# Air Motors - VM Series

## 16VM AIR MOTOR

MAX POWER  
7.1 kW, 9.5 HP

SPEED  
2000-4000 rpm

WEIGHT  
36.1 Kgs, 79.6 lbs



### Face & Foot Mounting 16VM

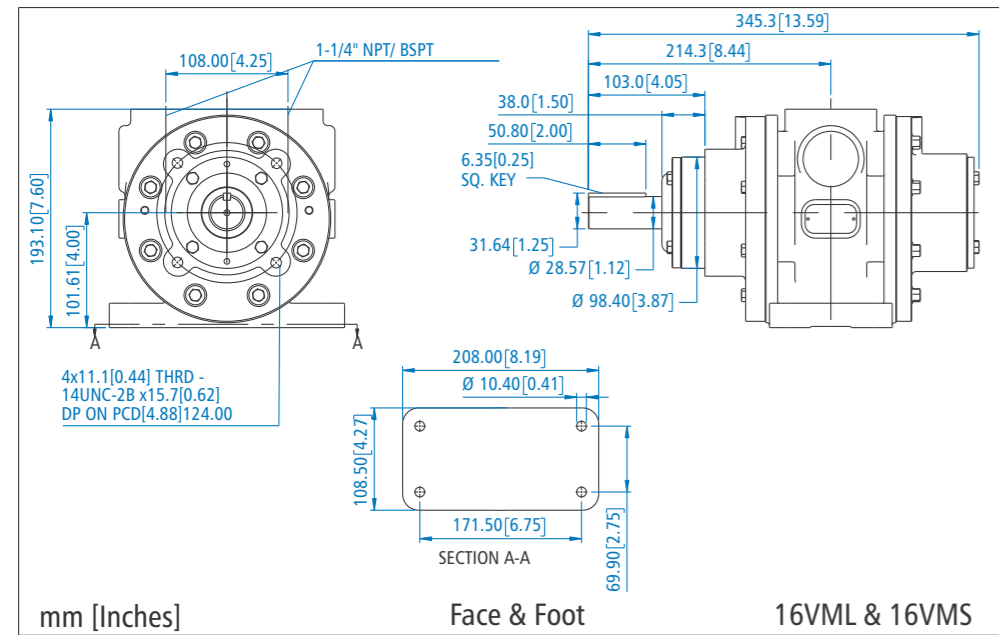
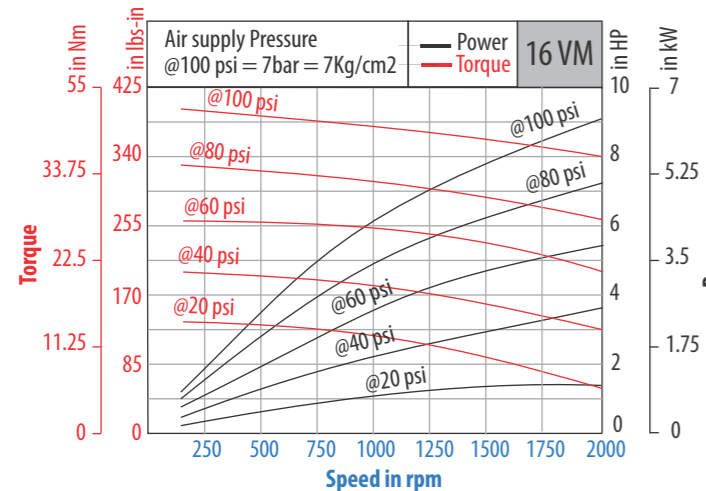


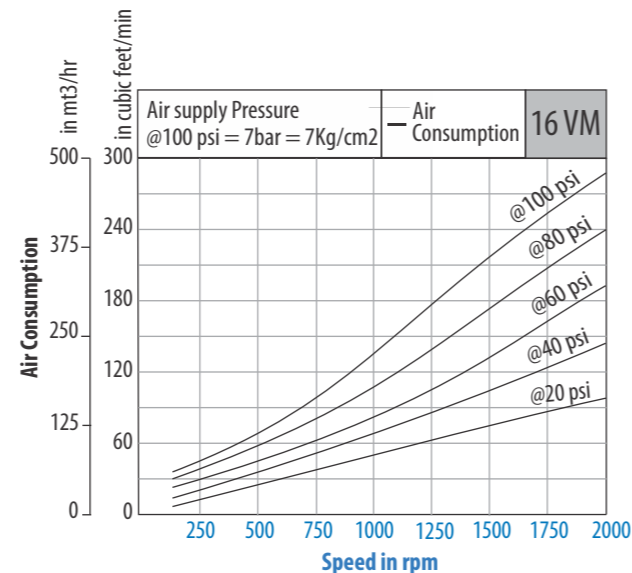
Chart for Radial Load Data

Model No	X (Nm)
1VM	18 N
2VM	400 N
4VM	170 N
6VM	300 N
8VM	620 N
16VM	400 N

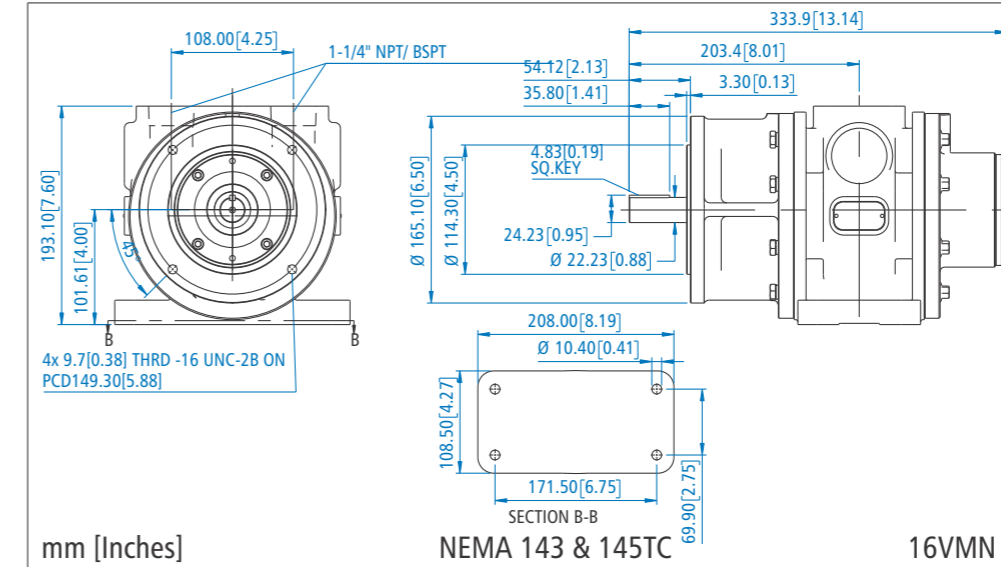
### Power & Torque Graphs 16VM



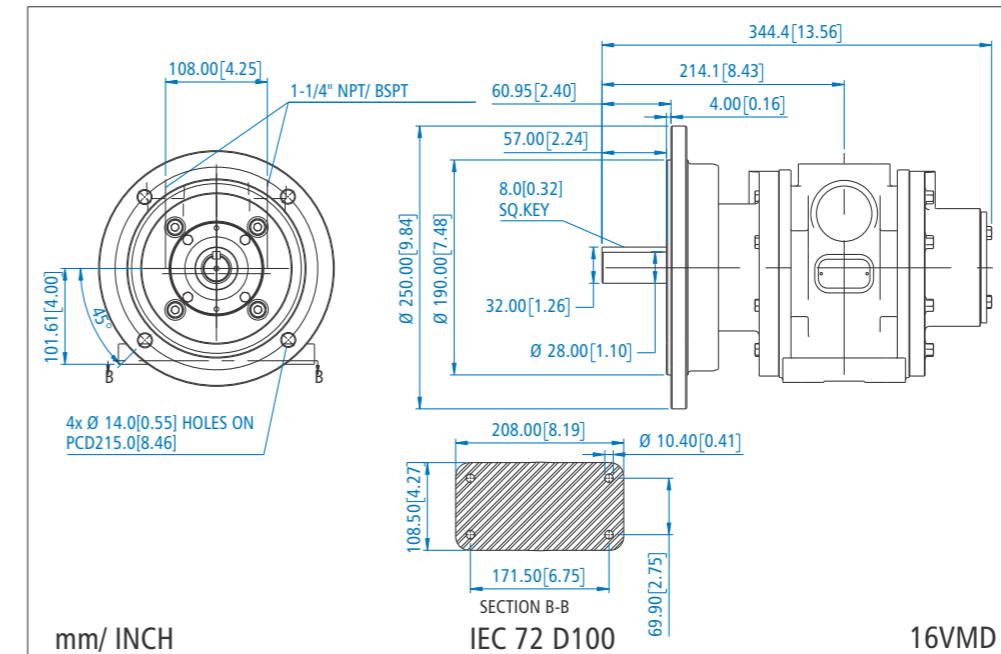
### Air Consumption Graphs 16VM



### NEMA Flange Mounting 16VM



### IEC Mounting 16VM



For detailed specs,  
pl see table on page 8



**Explosion Proof**  
All Teryair air motors are ATEX approved and safe for use in explosive atmosphere.  
Codes  
Ex II 2GD Ex h IIC T4 Gb  
Ex II 2GD Ex h IIIC T135°C Db



**Approvals and Certifications**  
All Teryair air motors are CE marked and manufactured under an ISO 9001:2015 Quality system - SGS.



**Added Features**  
Cool running  
Variable speeds  
Load to stall  
Instantly reversible  
Available as lube free  
Available with ss construction available with SS + Lube Free

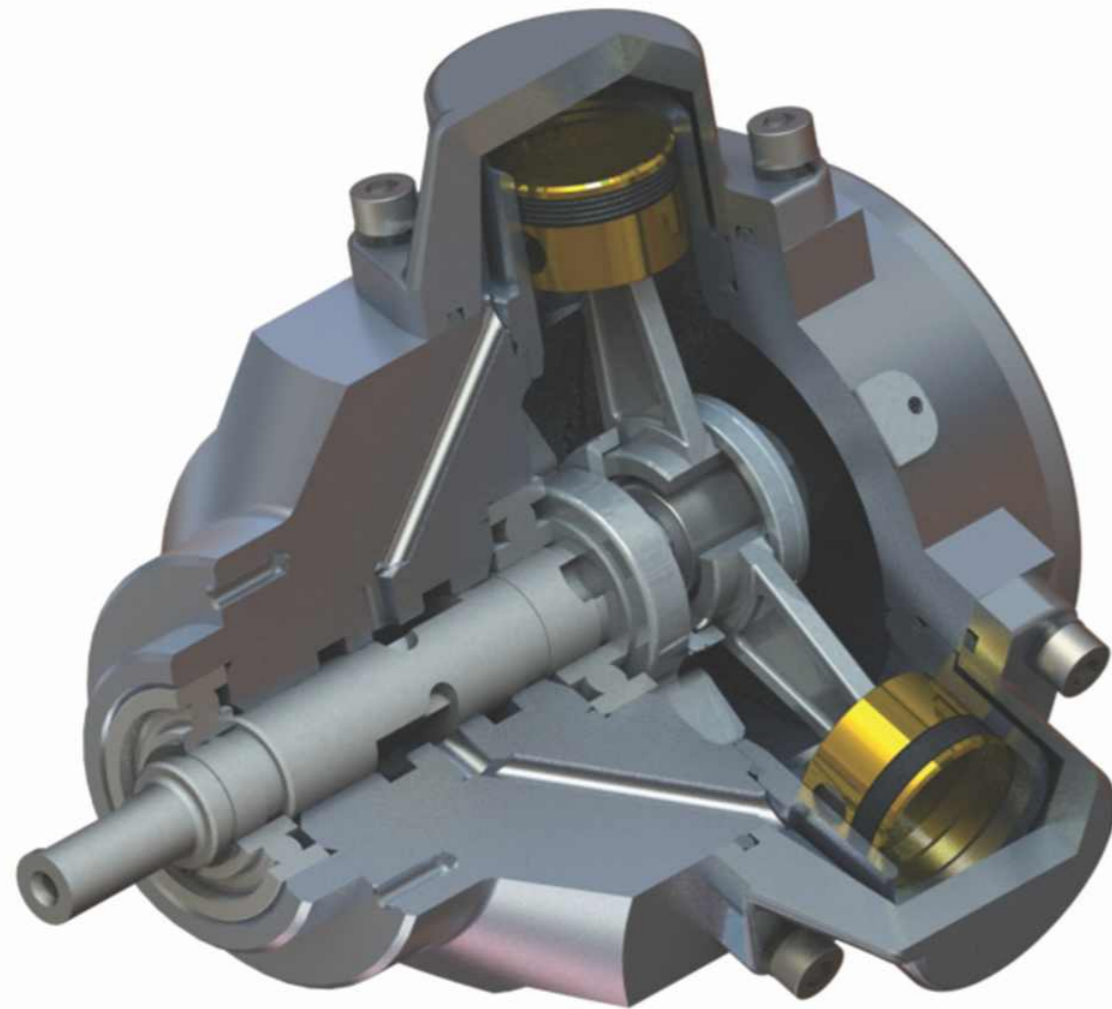
# Air Motors - PM Series

Teryair's PM Series are Piston driven models, either 3 or 5 Pistons radially mounted. Because of the construction Piston models run slower but

generate higher torque when compared to an equivalent Vane motor. There are 3 models to choose from. All are reversible.

Model No	Description	Max Output		Speed at Max power	Max Torque 300 rpm		Air Consumption at Max Power		Atex Code*
		kW	hp	RPM	Nm	lb-in	M3/Hr	cfm	
20PM	20PMEx Pneu. Piston motor - NPT	0.25	0.33	2000	1	8.8	25.4	15	Ex II 2GD Ex h IIC T6 Gb Ex II 2GD Ex h IIIC T85°C Db
30PM	Coming soon	-	-	-	-	-	-	-	-
40PM	Coming soon	-	-	-	-	-	-	-	-

\*Atex applied for



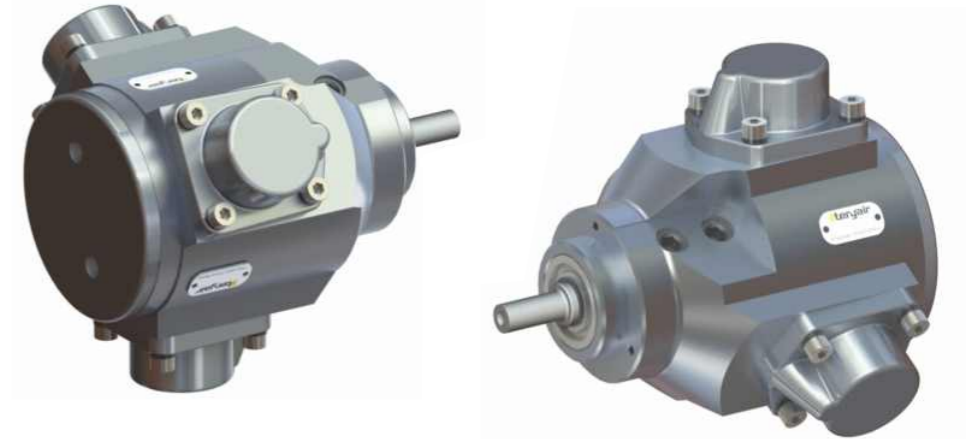
# Air Motors - PM Series

## 20 PM

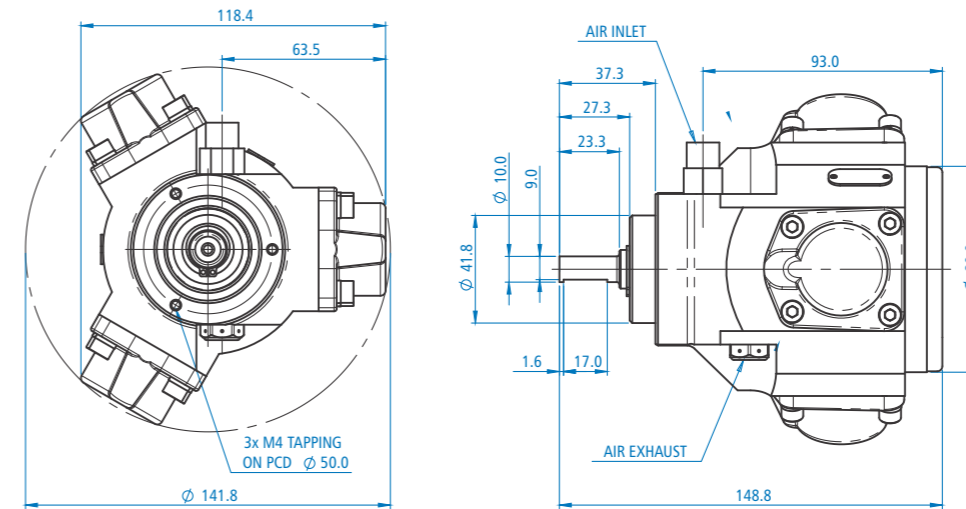
MAX POWER  
0.25 kW, 0.33 HP

SPEED  
220-2000rpm

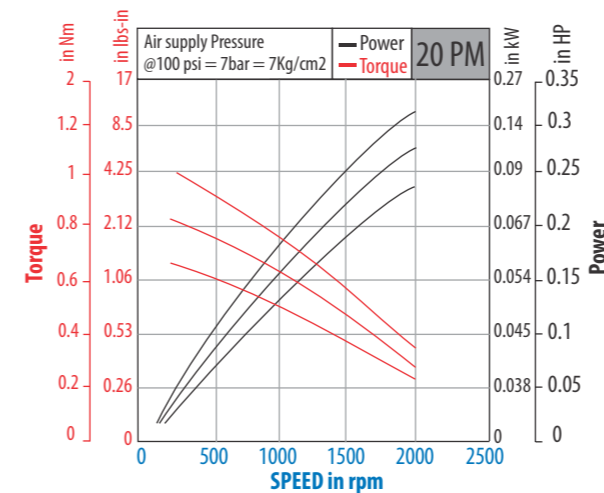
WEIGHT  
2.0 Kgs, 4.4 lbs



### Dimensional Data 20PM



### Power & Torque Graphs 20PM



#### Explosion Proof

All Teryair air motors are ATEX approved and safe for use in explosive atmosphere. Codes  
Ex II 2GD Ex h IIC T6 Gb  
Ex II 2GD Ex h IIIC T85°C Db



#### Approvals and Certifications

All Teryair air motors are CE marked and manufactured under an ISO 9001:2015 Quality system - SGS.



#### Added Features

Cool running  
Variable speeds  
Load to stall  
Instantly reversible  
Available as lube free  
Available with ss construction  
available with SS + Lube Free

# Mufflers for Air Motors

Teryair Mufflers significantly reduce the operating noise of these high-speed motors to an acceptable level. They are standard equipment on all Teryair motors and replacements can be ordered as required.



For 1 VM



For 2 VM



For 4, 6, 8 VM



For 16 VM

Part No.	Description	Thread Connection	Motor Size
8119801	Muffler NPT	1/8" Male NPT	1VM
8119802	Muffler BSPT	1/8" Male BSPT	1VM
8035002	Muffler NPT	3/8" Male NPT	2VM
8035005	Muffler BSPT	3/8" Male BSPT	2VM
2009715	Muffler NPT	1/2" Male NPT	4VM & 6 VM
8045004	Muffler BSPT	1/2" Male BSPT	4VM & 6 VM
8065002	Muffler NPT	1" Male NPT	8VM
8065004	Muffler BSPT	1" Male BSPT	8VM
6374030	Muffler NPT	1 1/4" Male NPT	16VM
8105004	Muffler BSPT	1 1/4" Male BSPT	16VM

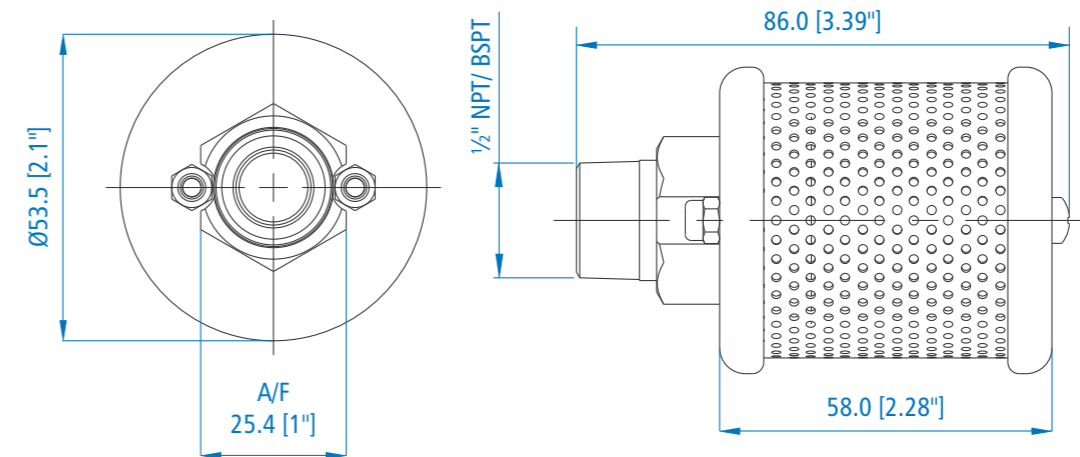


For 4, 6, 8 VM



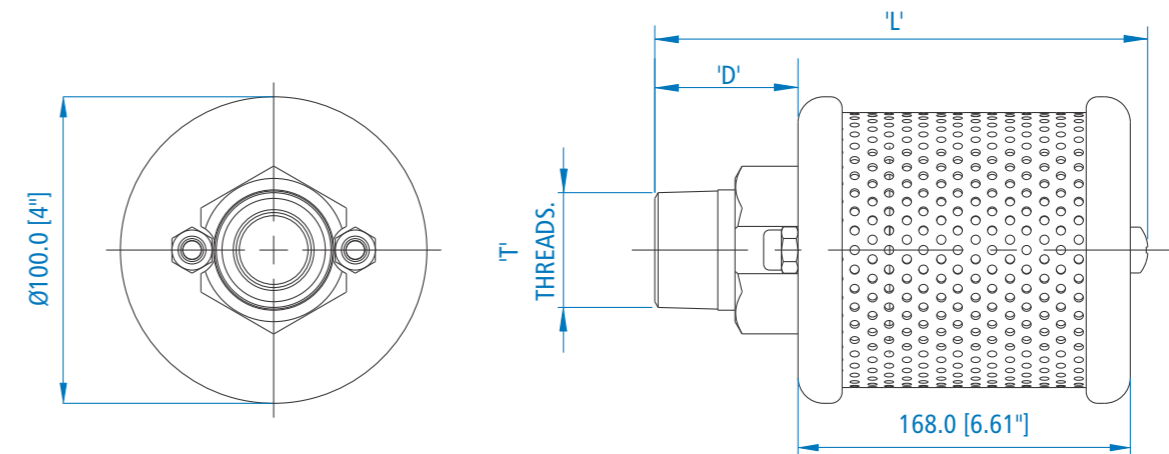
For 16 VM

## 1/2" Muffler



## 1" & 1 1/4" Muffler

Sr.No.	T THREADS.	'L'	'D'
1	1" NPT / BSPT	218.0mm [8.58"]	38.1mm [1.50"]
2	1 1/4" NPT / BSPT	230.0mm [9.00"]	50.8mm [2.00"]



# Notes

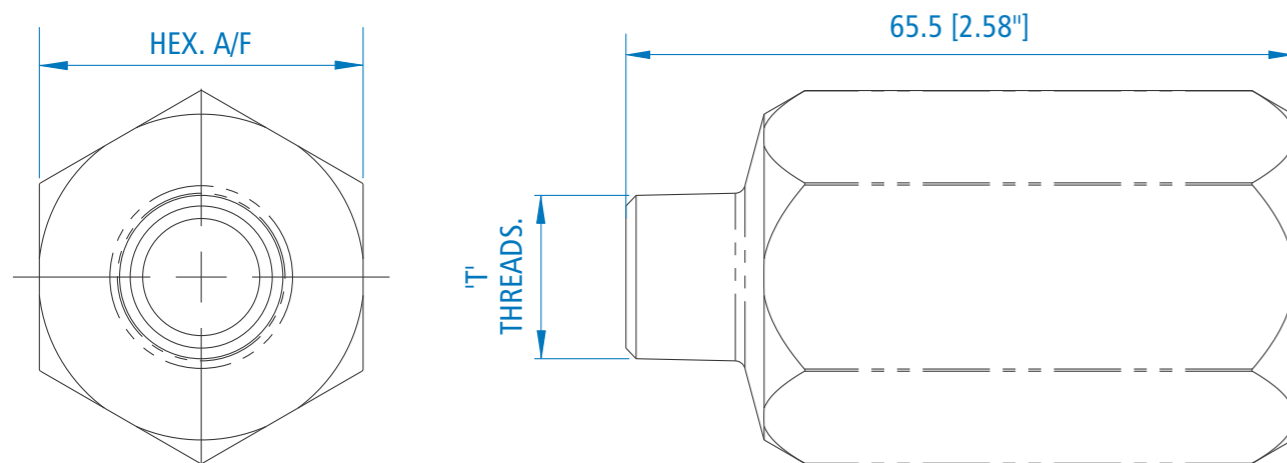


For 1 VM



For 2 VM

Sr.No.	'T' THREADS.	HEX. A/F
1	1/8" NPT / BSPT	28.5mm [1 1/8"]
2	1/4" NPT / BSPT	31.8mm [1 1/4"]
3	3/8" NPT / BSPT	




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[www.terryair.com](http://www.terryair.com)

ISO 9001:2015

**Teryair Equipment Pvt. Ltd.**

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e-mail: [info@terryair.com](mailto:info@terryair.com)