

AIR MOTORS















Tervair manufactures a growing range of pneumatic equipment and tools. The equipment boasts of cutting edge features, comparable with the world's best technologies. Tervair equipment competes successfully against industry leading brands, feature for feature. Tervair pneumatic vane motors are manufactured under a robust ISO 9001:2015 QA system. The production facility is state of the art and the motors produced have a CE approval and Ex Certification.

Every pneumatic vane motor is thoroughly tested on a test bench for horsepower, speed and torque. We promise unrivalled product reliability. Spares are readily available at the distributor level and at our factory warehouse.

Tervair pneumatic vane motor start from 0.8 KW (1.07HP) and go upto 7.1KW (9.5HP) All motors can be ordered in Lube free versions for clean room environments.

Vane Motor Features & Advantages

- Vane motors are self-cooling and therefore run cool and can be operated continuously.
- They can be configured for high roational speeds.
- They can be stalled without damage to components, when stalled there is no • consumption of energy.
- Compact size compared to electrical motors.
- No decline in motor efficiency over time, bearings & vanes are replaceable to restore motors efficiency.
- No damage from overloading.
- Speed and torque can be variable by simple modulation of input air pressure and air volume.
- Easily and rapidly and repeatedly reversible.
- Easy maintenance & repair with low cost compared to electrical motors.
- Lightweight, cool running, stall resistance and explosion proof.
- Availability with mounting flexibility & full warranty.



Teryair Air Motors

Vane Motors Application

Teryair Vane Motors versatile workhorses that can be used in a diverse range of situations across numerous industries. Some of the typical products application industry-wise are.

Construction & Machinery Concrete vibrators / Hose & Cable Feeders / Pipe Cutting & Threading.

General Machinery Multiple uses such as power-driven tumblers, Barrels, Indexing tables, Paint finishing equipment.

Environmental Air Ventilation & Ducting Fans.

Valve Operating Actuation of Valves.

Lifting Applications Mucking Winches, Pneumatic Chain Hoist.

Conveyors Material Handling & Automatic Material Movement through the driver chain. Safe use in Hazardous Atmosphere in Chemical Industries.

Lubricated or Lube-free ?

The Lubricated series of vane motors are suitable for general applications. See the Code explanations on page six. Standard motors can take a maximum inlet air pressure of 7Kg/cm2 (7 bar) and like any other pneumatic machinery, needs a lubricator fitted online. Lubricated motors offer the most economical solution.

Applications where the working environment around the motor is sensitive to pollution, exhaust traces of oil mist are not allowable, need lube-free motors. These motors can operate totally without lubrication and do not exhaust any contaminants into the atmosphere. They are ideal for applications which need such clean environments such as food and pharma processing. Lube-free motors operate at a max pressure of 5.6kg/cm2 (5 bar)

Both Lubricated and lube-free motors are Atex Certified by default. They have an Ex code of 🐼 II 2GD Ex h IIC T6 Gb & 🐼 II 2GD Ex h IIC T4 Gb.

All teryair motors are CE certified as meeting European Directives: (2006/42/EC) Machinery Safety and Harmonized standards..

















Filter Regulator Lubricator









Motor Size	Line Size, Port Connection	Filter, Regulator, Lubricator Part No	Filter Part No	Regulator Part No	Lubricator Part No
1 VM	1/8"	FRL 3	F 3	R 3	L 3
2 VM	3/8"	FRL 9	F 9	R 9	L 9
4 VM	1/2"	FRL 12	F 12	R 12	L 12
6 VM	1/2"	FRL 12	F 12	R 12	L 12
8 VM	1"	FRL 25	F 25	R 25	L 25
16 VM	1-1/4"	FRL 32	F 32	R 32	L 32

Repair Kits

Motor Size	Part No
1 VM	8119701
2 VM	8039701
4 VM	8049701
6 VM	8059701
8 VM	8039701
16 VM	8109701

Service references

Motor Size	Mainteance Manual No, Rev
1 VM	MM-377 R00
2 VM	MM-368 R00
4 VM	MM-369 R00
6 VM	MM-370 R00
8 VM	MM-371 R00
16 VM	MM-372 R00





Air Motor Nomenclature

X	XX	X	X	Х	X
Size	Motor Type	Mounting	Lubricated or Lube-Free	Material of Construc- tion	Threading on Inlet and Outlet
1 2 4 6 8 16	VM - Vane Type PM - Piston Type VG - Vane Geared PG - Piston Geared	L - Face Type S- Foot Type T - Hub D - IEC Flange Type N - NEMA Flange Type	A- Lubricated O - Lube Free	L - SG Iron S - SS316	R- NPT G - BSPT

For example, 1VMTALR is a size 1, Vane type, Hub Mounted, Lubricated, SG Iron MOC with NPT threading



Explosion Proof

All Teryair air motors are ATEX approved and safe for use in explosive atmospheres Ex Codes Ex IIGD Ex IIC T6 Gb Ex IIGD Ex h IIIC T85degC 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 avaliable with SS construction available with SS + Lube Free





Technical Data 1 VM

Power	upto 0.35kW (0.45HP)
Torque	upto 0.55 Nm (5 lbs-in)
Air Consumption	0 to 30m3/hr (0 to 22 cfm)
Motor Weight	0.9kgs (2lbs)
Operating Pressure	1.4 to 7kg/cm2 (20 to 100PSI)
Max Allowable speed	7000 rpm (ATEX limit)*
REPAIR KIT for 1VM	Kit No 8119701 (Common for al springs, Oil Seals and O rings)

Foot Mounting IVM



NEMA Flange Mounting 1VM



Power	upto 0.35kW (0.45HP)
Torque	upto 0.55 Nm (5 lbs-in)
Air Consumption	0 to 30m3/hr (0 to 22 cfr
Motor Weight	0.9kgs (2lbs)
Operating Pressure	1.4 to 7kg/cm2 (20 to 10
Max Allowable speed	7000 rpm (ATEX limit)*
REPAIR KIT for 1VM	Kit No 8119701 (Commo



IVM AIR MOTOR

Power and Torque Graphs 1VM





Air Consumption Graph IVM



ll variants, includes Blades, Bearings, Shims, Blade







Technical Data 2VM

Power	upto 0.7kW (0.9HP)
Torque	upto 2 Nm (19 lbs-in)
Air Consumption	0 to 50 m3/hr (0 to 30 cfm)
Motor Weight	3.25 kgs (7.15 lbs)
Operating Pressure	1.4 to 7kg/cm2 (20 to 100P
Max Allowable speed	4000 rpm (ATEX limit)
REPAIR KIT for 2VM Hub/Foot	Kit No 8039701 (includes rings)
REPAIR KIT for 2VM IEC/NEMA	Kit No 8039702 (includes l rings)

Foot Mounting 2VM



NEMA Flange Mounting 2VM



2VM AIR MOTOR

Power and Torque Graphs 2VM





2VM Air Motor rear view

Air Consumption Graph 2VM







Blades, Bearings, Shims, Blade springs, Oil Seals and O Blades, Bearings, Shims, Blade springs, Oil Seals and O









Technical Data 4VM

Power	upto 1.25 kW (6.7 HP)
Torque	upto 4 Nm (35 lbs-in)
Air Consumption	0 to 120 m3/hr (0 to 72 cfm
Motor Weight	3.8 kgs (8.3 lbs)
Operating Pressure	1.4 to 7kg/cm2 (20 to 100P
Max Allowable speed	3500 rpm (ATEX limit)
REPAIR KIT for 4VM Face/Foot	Kit No 8049701 (includes E rings)
REPAIR KIT for 4VM IEC/NEMA	Kit No 8049701 (includes E rings)

Foot Mounting 4VM



NEMA Flange Mounting 4VM



Power and Torque Graphs 4VM 4 VM ≞ ∛ ... 1.80 Г 1.4

1.44

1.08

0.72

0.36

0

3000 3500

1.05

- 0.70 **- 0**.70

- 0.35

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4VM Air Motor rear view

1500

2000

SPEED in rpm

2500

4VM AIR MOTOR

Air supply Pressure @100 psi = 7bar = 7Kg/cm2

500

1000

in Nm 7

5.25

10RQUE 3.5

1.75

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49

37.

24.

12.







Blades, Bearings, Shims, Blade springs, Oil Seals and O Blades, Bearings, Shims, Blade springs, Oil Seals and O











6VM AIR MOTOR

Power and Torque Graphs 6VM





6VM Air Motor rear view

Technical Data 6VM

Power	upto 3 kW (4 HP)
Torque	upto 12 Nm (105 lbs-in)
Air Consumption	0 to 240 m3/hr (0 to 140 d
Motor Weight	7.5 kgs (16.5 lbs)
Operating Pressure	1.4 to 7kg/cm2 (20 to 100
Max Allowable speed	3500 rpm (ATEX limit)
REPAIR KIT for 6VM Face/Foot	Kit No 8059701 (includes rings)
REPAIR KIT for 6VM IEC/NEMA	Kit No 8059701 (includes rings)

Foot Mounting 6VM



NEMA Flange Mounting 6VM



Air Consumption Graph 6VM







s Blades, Bearings, Shims, Blade springs, Oil Seals and O s Blades, Bearings, Shims, Blade springs, Oil Seals and O



IEC Flange Mounting 6VM







8VM AIR MOTOR

Power and Torque Graphs 8VM





8VM Air Motor rear view

Technical Data 8VM

Power	upto 4kW (5 HP)
Torque	upto 15 Nm (130 lbs-in)
Air Consumption	0 to 300 m3/hr (0 to 175 c
Motor Weight	11 kgs (24.2 lbs)
Operating Pressure	1.4 to 7kg/cm2 (20 to 100
Max Allowable speed	2500 rpm (ATEX limit)
REPAIR KIT for 8VM	Kit No 8069701 (includes rings)

Foot Mounting 8VM



NEMA Flange Mounting 8VM



Air Consumption Graph 8VM







Blades, Bearings, Shims, Blade springs, Oil Seals and O













16VM AIR MOTOR

Power and Torque Graphs 16VM





16VM Air Motor rear view

Technical Data 16VM

Power	upto 7 kW (9.5 HP)
Torque	upto 35 Nm (294 lbs-in)
Air Consumption	0 to 470 m3/hr (0 to 270 cfm)
Motor Weight	32 kgs (70 lbs)
Operating Pressure	1.4 to 7kg/cm2 (20 to 100PSI)
Max Allowable speed	2000s rpm (ATEX limit)
REPAIR KIT for 16VM	8109701 Common for all variar springs, Oil Seals and O rings

Face and Foot Mounting 16VM



Air Consumption Graph 16VM







nts, includes Blades, Bearings, Shims, Blade

NEMA Flange Mounting 16VM







Teryair Equipment Pvt. Ltd.

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Air Motor Indl rev 00 dec 2020