

Why use a GAST Rotary Vane Air Motor?

Variable Speed and Power Output

GAST Rotary Vane Air Motor speed and power can be precisely controlled by changing air pressure and flow. Each air motor model provides a wide range of speed and power output. Air throttling and pressure control is cost effective over electric motor speed controls.

Non-electrical Sparking

As a non-electrical device, the possibility of explosion from igniting flammable gases is greatly reduced. Most models meet the requirements of EC directive 94/9EC – ATEX 100a for use in Zones 1 and 2.

Easily Reversible

A four-way valve in the air line enables a GAST Rotary Vane Air Motor to be easily reversed. Actuating the valve causes a fast and complete reversal of rotation, even when the motor is running at full speed.

Cool Running

As the air motor turns, expanded air cools the motor. Units can be used in ambient temperatures up to 250°F (120°C) in a non-hazardous atmosphere.

Mounting flexibility

GAST Rotary Vane Air Motors provide multiple options with foot, hub, face mounting, and NEMA or IEC metric flange mounting available on most sizes. Combined flange and foot mounting is also available.

Long Life and Proven Dependability

You can put a GAST Rotary Vane Air Motor in places where they will not get much service and have the ability to run in dirty environments. With adequate air supply, GAST Rotary Vane Air Motors are very dependable.

Will Not Burn Out

Unlike electric motors that can be damaged, GAST Rotary Vane Air Motors can be stalled or overloaded indefinitely without damage.

Operate In All Positions

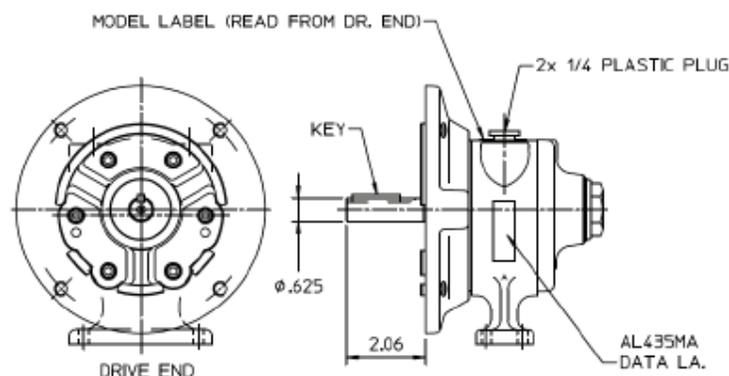
Mount GAST Rotary Vane Air Motors sideways, upside-down, in any position and they provide consistent performance.

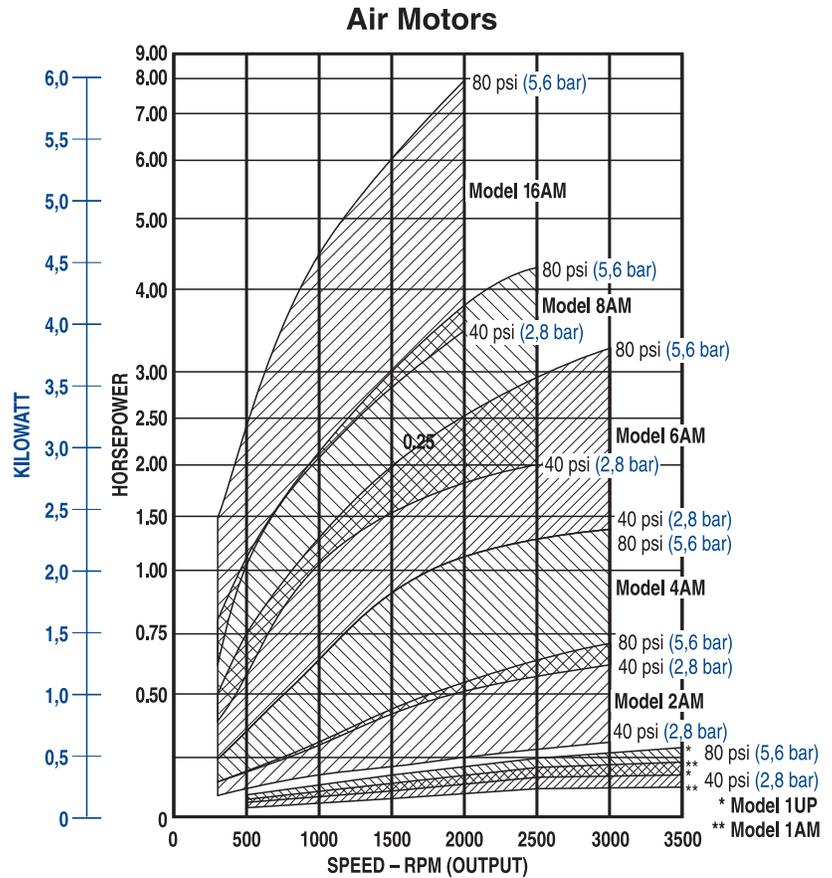
Compact and Portable

GAST Rotary Vane Air Motors provide maximum horsepower with minimum size and weight, as compared to equivalent electric motors.

GAST Design Expertise

GAST Manufacturing's Air Motor design team can look at customizing for special projects depending on size and scope. We can work with you on the best application and business solution.





Use of Air Motors in Hazardous Atmospheres

Most of the Gast Air Motors and some of the Gast Gear Motors in this catalog meet the requirements of the EC directive 94/9EC (ATEX 100a). They may be used in zones 1 and 2 where explosive atmospheres of gas or dust are likely to occur.

These are marked with II 2 G D c T4 in the catalogue and on the product. This indicates the air motor is Group II, Category 2, Gas and Dust Atmospheres, and a maximum surface temperature of 275 °F/135 °C. Check that the product driven by the air motor meets ATEX directive.

There are several points regarding the safety of air motors. Our air motors are not a source of electric sparks. However, it is possible that an article which is not part of the air motor (e.g., wrenches, hammers, etc.) could create a spark by sharply impacting a cast iron or aluminum case or the steel shaft of the air motor. [Note that electric motor enclosures for both class I and

II hazardous locations can be made of "...iron, steel, copper, bronze, or aluminum..." (UL 674, Electric Motors and Generators - Hazardous Locations, June 23, 1989; paragraph 4.2, page 6)].

Gast Air Motors are designed to be operated by compressed air, the expansion of which creates a cooling effect. As a result, the outside surface temperature of the air motor will not reach ignition temperature and a maximum surface temperature of 275 °F/135 °C. Operation of the air motor with compressed air purges a flammable mixture from the inside of the air motor. To prevent static electricity from being an ignition source electrically ground the metal air motor.

We do not guarantee the safety of any application, but to ensure the safe operation of an air motor in your application, always follow the product operation manual, follow ATEX 100a when operating in a hazardous atmosphere and consult with a qualified engineer.

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