



REVISED 25SEPT2011  
White Mountain Process

## Mixer Motor Selection Guide

Please note White Mountain Process uses industry standard top of the line motors. Air mixer motors are typically Gast or Altas Copco and electric agitator motors are Baldor, Marathon or equivalent. We do use industry standard C Face or other mount so you can get spare motors thru us, or any motor supply shop without any hassles. WMPProcess also offers sanitary and cGMP mixers and agitator motors.

### **AIR MOTOR (PNEUMATIC OPERATED MOTOR)**

Air motors are variable speed, cool running, intrinsically safe so typically good for XP areas, and will not burn out. They do require compressed air and can be noisy.

Air Motor, 175-1750rpm speed range typical on a direct drive and 35-350rpm typical on a gear drive agitator, requires compressed air, these are typical industrial duty style motor (Gast or Altas Copco or equivalent).

Pneumatic motors run by compressed air, typically 60-80psig, air flow required depends on motor HP. They do require a filter/regulator/lubricator (FRL) and air control valve typically. The air control valve adjusts air flow to vary the speed of the mixer. Some available options:

- Air Motor with filter/regulator/lubricator/speed control valve provides you with the industrial air operated motor, with all the pneumatic accessories except the compressed air to run the mixer
- Non lubricated air motor, or all stainless steel sanitary air motor – for sanitary and ultraclean blending applications. For clean room applications we have special sanitary all stainless air motor suggestions.
- WMPProcess offers air motors in 1, 2, and 3hp as standard and as shown on the website, and fractional HP and 5HP upon request
- For compressed air flow requirements – see <http://96.125.169.105/air-motor-consumption/>

## **ELECTRIC AGITATOR MOTOR**

Electric motors are very quiet, accurate, and easy to incorporate controls/automation. Most users have 110volt 1ph readily available so up to 1hp motors can be run easily, and 3phase power typically required for 2hp motors and larger.

Most electric motors WMPProcess provides are AC motors, and are TEFC (totally enclosed fan cooled) high quality industrial duty 24/7 motors (typical motor is Baldor, Marathon, or equivalent). With variable speed the motors are inverter duty rated. We offer a lot of experience and expertise in sanitary and ultraclean all stainless steel motors and mixers.

Some options available:

- Electric motor ,1750rpm, TEFC with 110 volt 1ph plug and 6' cord. Standard wall plug for 15-20amp circuit, 1hp typically the max motor available for 110volt.
- TEFC is a standard AC motor, totally enclosed fan cooled. For XP or instrinsically safe areas you will need a different style.
- Electric Motor, 175-1750rpm, TEFC with speed controller wired and 110 volt 1ph plug and 6' cord (for gear drive mixers 35-350rpm is typical, other ranges available)
- On tote bridge mixer speed controller is mounted to bridge. On Tote Cap mixers or C Clamp controllers are typically shipped loose
- Electric Motor, 175-1750rpm (or 35-350rpm), TEFC, with speed controller, 230/460volt 3ph 60hz – 3 phase power
- All stainless steel motors are available to suit
- For motor amp draw please see -- <http://96.125.169.105/electric-motor-amp-draw/>

Other options available include 575volts, 50hz motors, XP Class I Div I Group D and other explosion proof ratings, 12volt battery operated, DC motors, and all stainless steel sanitary mixer motors to suit. Custom automated mixing and blending systems with PLC control etc are available from [www.wmprocess.com](http://www.wmprocess.com). For UL tagging, CSA, RoHS just let us know, and we are happy to quote to your specifications.

WMPProcess engineering is happy to price these for you to make sure they suit your exact requirements.

## **EXPLOSION PROOF MOTORS**

XP Class I Div I Group D is the most common explosion proof mixer motor. Air motors are intrinsically safe. We offer other Groups such as C, E, F, G and offer Nema 7/9 XP operator stations.

## **VARIABLE SPEED CONTROLLERS FOR AGITATOR ELECTRIC MOTORS**

Electronic box to provide variable speed to mixer motor, available in Nema 1, Nema 4 washdown duty, and all stainless steel sanitary enclosures. Any voltage available. We also offer wiring of controllers to motors as option

## **TACHOMETERS FOR MIXERS**

We offer a variety of tachometer options including intrinsically safe, with digital display boxes and custom close loop motor control.

## **HYDRAULIC MOTORS**

Available upon request

## **BATTERY OPERATED MOTORS**

12volt and 24volt available on request

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

“mix it up”