

# ***TDI TURBOTWIN T30-M Air Turbine Motor***

## ***TURBOTWIN T30 SERIES*** The Benefits Are Yours

- The gear train and bearings are factory grease-packed for the life of the motor, so it requires no maintenance. There are no rubbing parts, so there is no external lubrication required. Lubricator problems, installation expense, system maintenance, and the messy and hazardous oil film around the turbine exhaust . . . all are eliminated.
- The TURBOTWIN T30 air turbine motor fits a wide range of engine applications, up to 20 horsepower. One basic design can be used for a broad range of pre-lube and post-lube pump motors, plus extended cycle operations.
- The TURBOTWIN T30 air turbine motor is ideal for remote applications. The motor requires no control lines or electrical wiring for its operation. Non-lubricated supply air is ideal for low temperature applications. With few moving parts, repairs are low cost and simple to perform.
- Piping consists of only a single supply line with a ball valve or TDI relay valve in the line. There are no complicated control lines needed. See the typical manual or electric installation diagrams.
- The efficient twin-turbine motor design increases the torque applied to the driven member, using less air than competitive designs. Refer to the TURBOTWIN T30 performance curves for 6 nozzle models. The T30-M Series includes models with 3, 6, and 12 nozzles.
- The TURBOTWIN T30-M air turbine motor can be used over a wide range of drive pressures from 30 psig (2 BAR) to 150 psig (10 BAR). It is suitable for operation on either compressed air or natural gas. The lightweight, 29 Lb, unit is capable of delivering over 25 HP (18.7 kW) at only 120 psig (8 BAR).
- The TURBOTWIN T30-M air turbine motor contains absolutely no plastic or composite materials. All components are made from high strength aluminum or steel alloy.
- The durable turbine motor design in the TURBOTWIN Series has no rubbing parts. It's tolerant of solid and liquid contamination in the supply gas with nearly no adverse affects. The motor is well adapted to running on "sour" natural gas.

**ENVIRONMENTALLY  
SAFE**

**APPLICATION  
VERSATILITY**

**SIMPLICITY**

**EASE of  
INSTALLATION**

**LOWER AIR  
CONSUMPTION**

**BROAD RANGE  
OF OPERATION**

**HEAVY DUTY  
CONSTRUCTION**

**CONTAMINATED  
SUPPLY GAS**

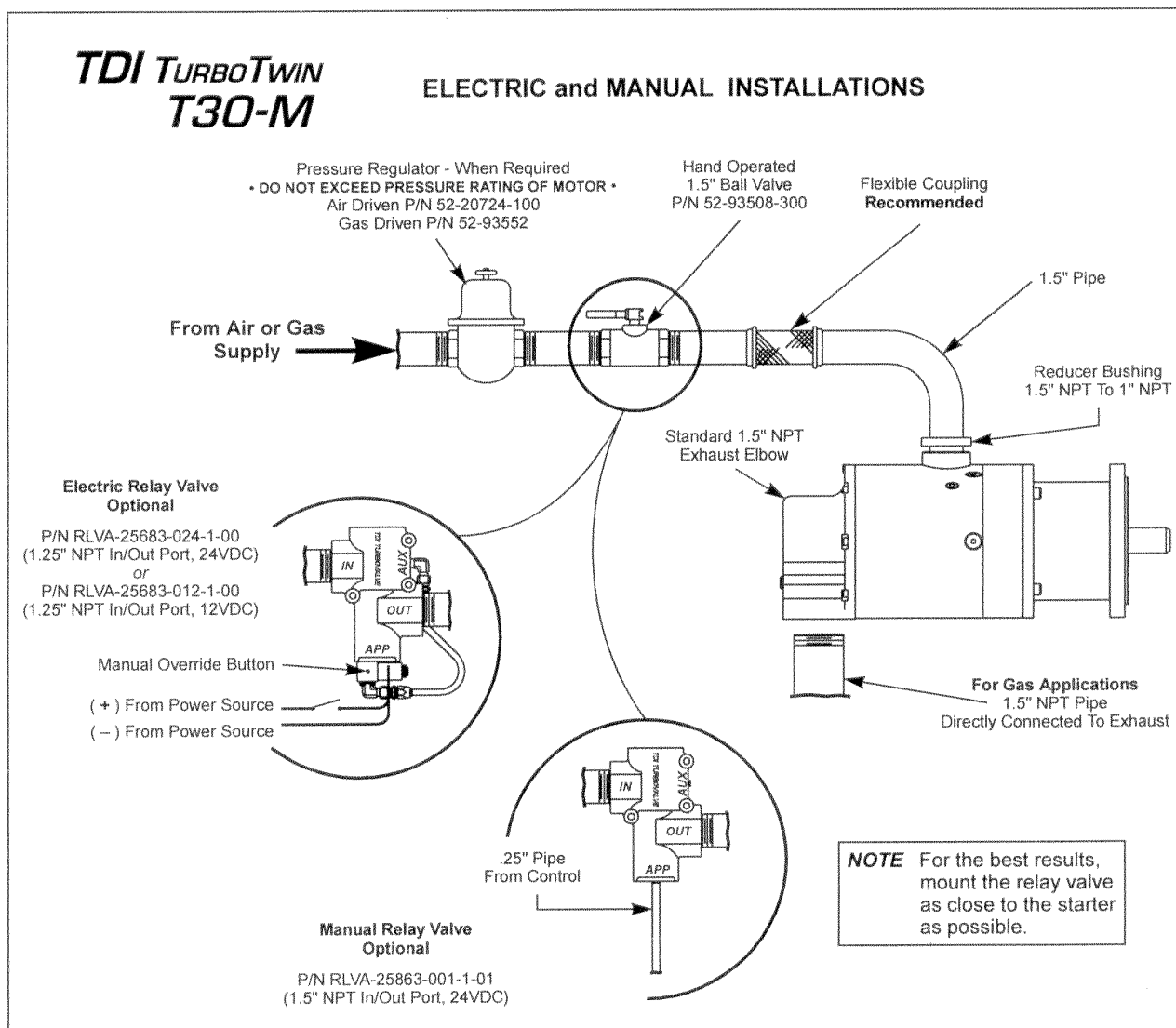
- TECH DEVELOPMENT INC. introduced the first turbine technology for starting industrial engines in 1979. The TURBOTWIN T30 Series features an innovative and more reliable turbine motor than anything on the market today.

## DEVELOPMENT HISTORY

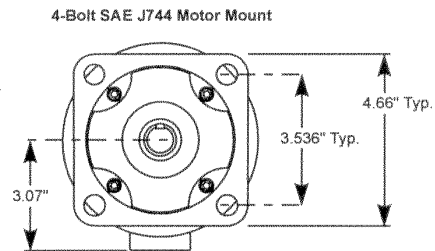
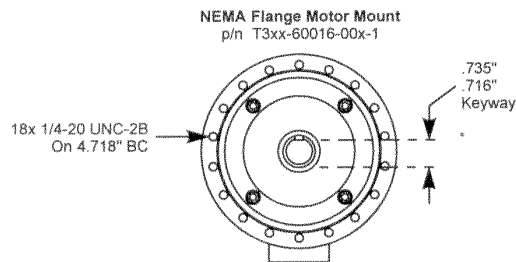
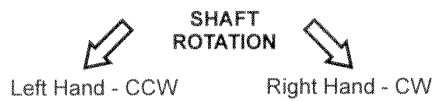
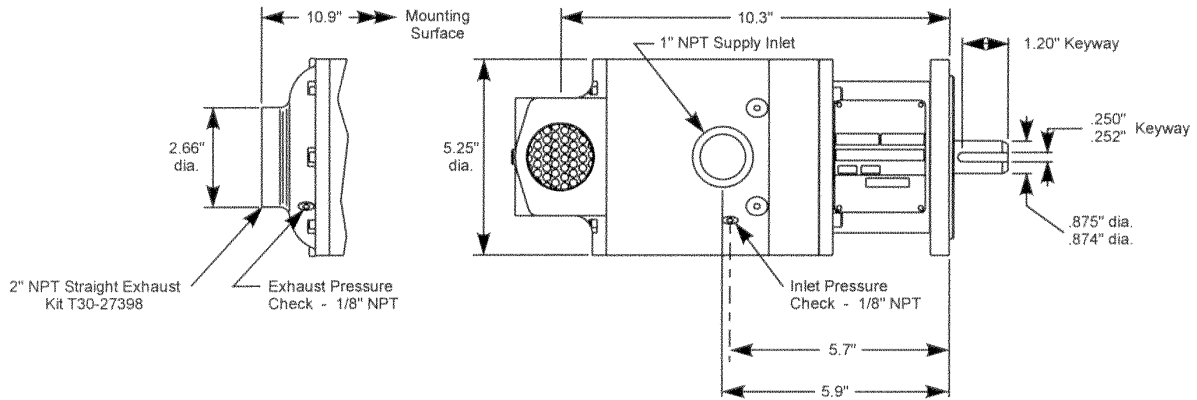
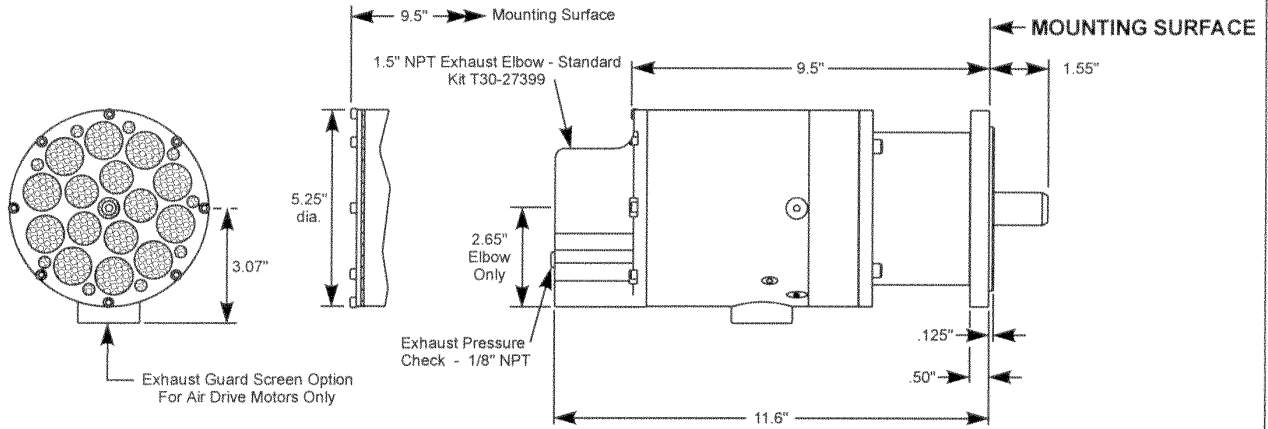
The TURBOTWIN T30 air turbine motor is the result of TDI's continuing turbine motor / starter design innovations. Based on our successful TURBOTWIN T100 Series starters, the TURBOTWIN T30 air turbine motor should exceed customer requirements in every installation.

- The high horsepower of a turbine air motor combined with the planetary gear speed reducer results in a very efficient and compact unit. The TURBOTWIN T30 Series models are powered by a pair of axial flow turbines coupled to a simple planetary gear reduction set. Model T30-M uses either a 4-bolt SAE flange mount or a versatile 18-bolt NEMA flange mount.

## DESCRIPTION of OPERATION

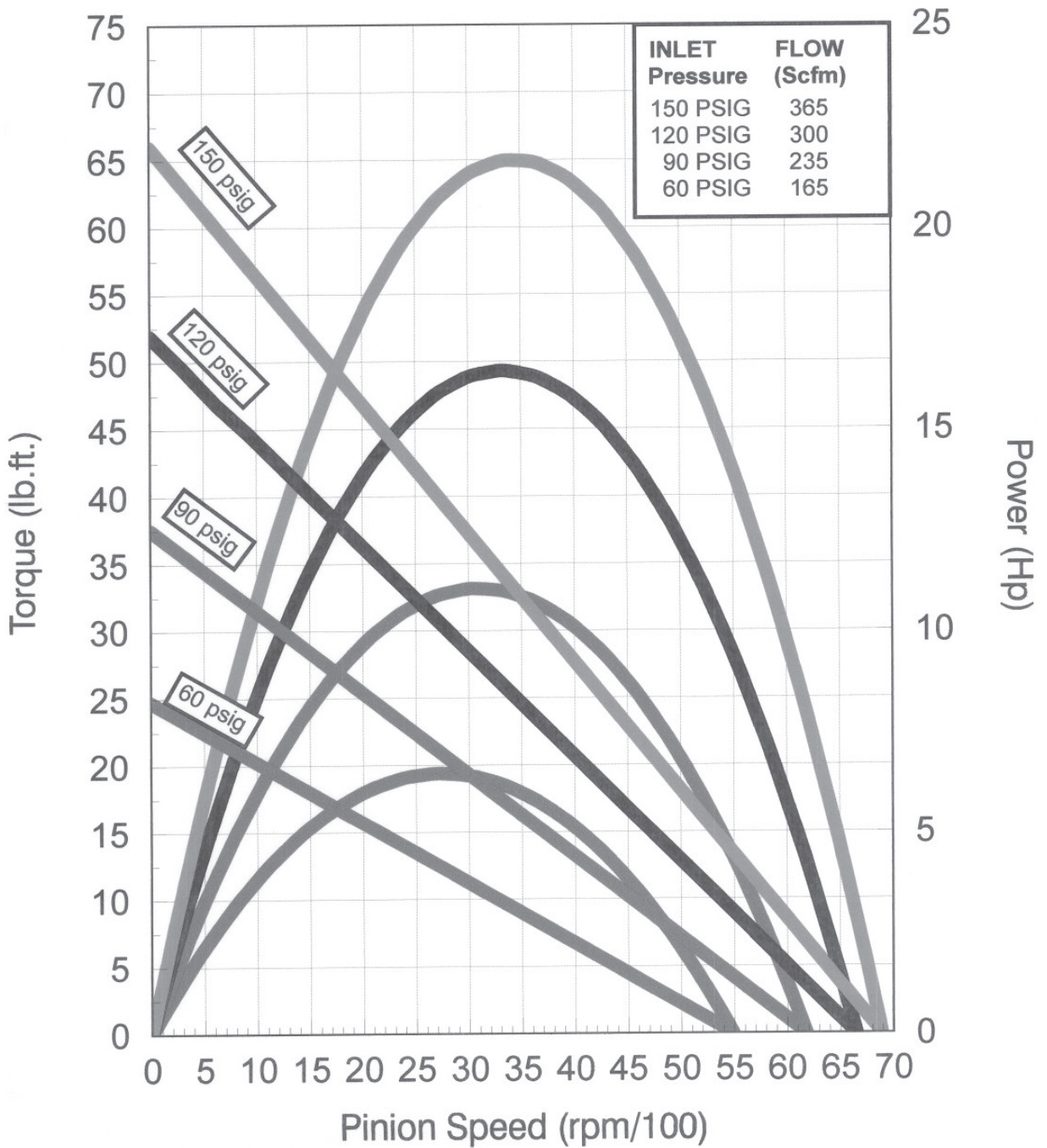


## DIMENSIONAL DATA



# T303 Performance

3 Nozzles, 70°F, Methane Gas, 9.0:1 RATIO



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