

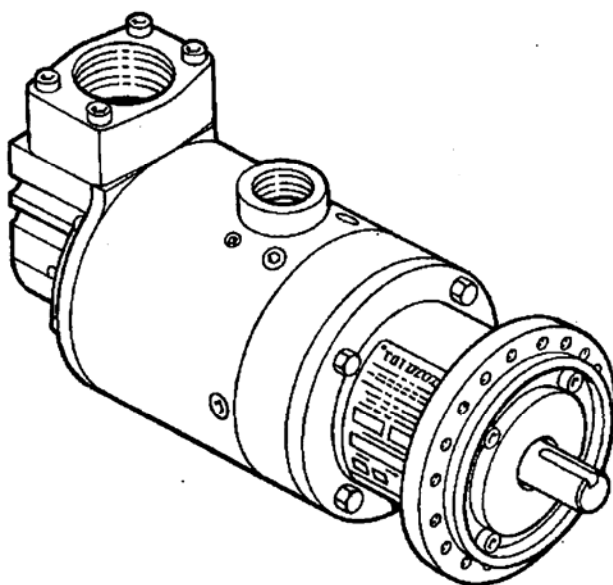
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# Installation Information for Model T30-M Air Motor

Part Numbers: T30X-60016-00R-1 &  
T30X-60016-00L-1

Effective for S/N: **9604-001** to Present



**IMPORTANT NOTE:**

The purpose of this manual is to provide preliminary information for the installation and operation of the Model T30-M air motor manufactured by TDI. If there are questions not answered by this manual, please contact your local TDI Turbostart distributor or dealer for assistance.



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**RJ Mann & Associates Inc.**  
*Engine Controls & Panels/Compressor Parts*  
860 North 9th Avenue, Brighton, CO 80603  
Ph: (303) 659-5139 Fax: (303) 659-5309  
[www.rjmann.com](http://www.rjmann.com)

<p style="text-align: center;"><b>TDI Model: T30-M</b> <b>P/N: T30X-60016-00X-1</b> <b>GENERAL SPECIFICATIONS</b></p>
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**Type:** Pneumatic Impulse two stage turbine

**Media:** Natural gas or compressed air

**Temperature:**

Media	-40°F to +175°F (-40°C to +79°C)
Ambient	-29°F to +175°F (-34°C to +79°C)
Storage	-40°F to +200°F (-40°C to +93°C)

**Pressure:**

Inlet Max.	150 psig (1034 kPa)
Proof:	600 psig (4137 kPa)
Burst:	1500 psig (10343 kPa)
Exhaust Max:	
	Continuous 15 psig (103 kPa)
	Intermittent 25 psig (172 kPa)

**Duty Cycle:** Intermittent to 4 hours continuous

**Speed:**

Continuous	500-3000 rpm
Intermittent	See motor Curves

**Gear Ratio:** 11.4:1

**Rotation:** CCW (LH) viewed from shaft end.

**Leakage:** External, Zero under pressure limits.

**Shaft Seal:** Lip Type

**Bearings:** Ball and Needle grease packed for Life of unit.

**Inlet Size:** 1" NPT (See Motor Envelope drawing page 3)

**Exhaust Size:** 1 1/2" NPT Threaded, 90° Elbow per attached Dwg.  
(See Motor Envelope drawing page 3)

**Materials:** See T30-M IPB with Material callouts. (See page 5&6)

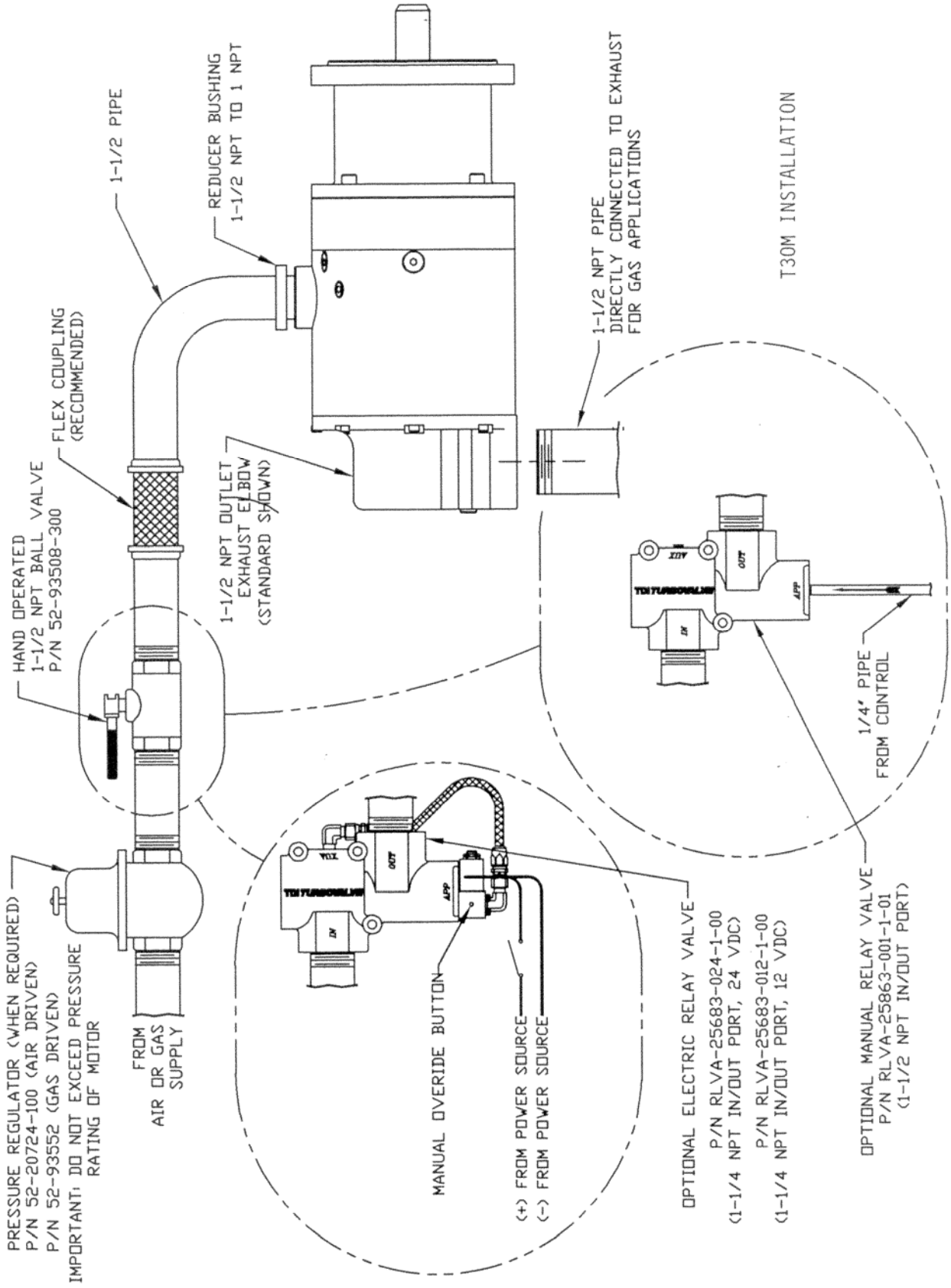
**Finish:** Painted TDI - Blue

**Specifications:** Wetted materials shall be suitable for exposure to sour gas (H<sub>2</sub>S) per NACE MR-01-75, latest revision.

**Identification:** Direction of rotation shall be permanently identified on the nameplate.

**Performance:** Curves attached for the 3 & 6 nozzle units on air and methane gas. See pages 7-10

**Weight:** 24.5 lbs.



PRESSURE REGULATOR (WHEN REQUIRED)  
 P/N 52-20724-100 (AIR DRIVEN)  
 P/N 52-93552 (GAS DRIVEN)  
 IMPORTANT: DO NOT EXCEED PRESSURE  
 RATING OF MOTOR

FROM  
 AIR OR GAS  
 SUPPLY

HAND OPERATED  
 1-1/2 NPT BALL VALVE  
 P/N 52-93508-300

FLEX COUPLING  
 (RECOMMENDED)

1-1/2 PIPE

REDUCER BUSHING  
 1-1/2 NPT TO 1 NPT

1-1/2 NPT OUTLET  
 EXHAUST ELBOW  
 (STANDARD SHOWN)

1-1/2 NPT PIPE  
 DIRECTLY CONNECTED TO EXHAUST  
 FOR GAS APPLICATIONS

T30M INSTALLATION

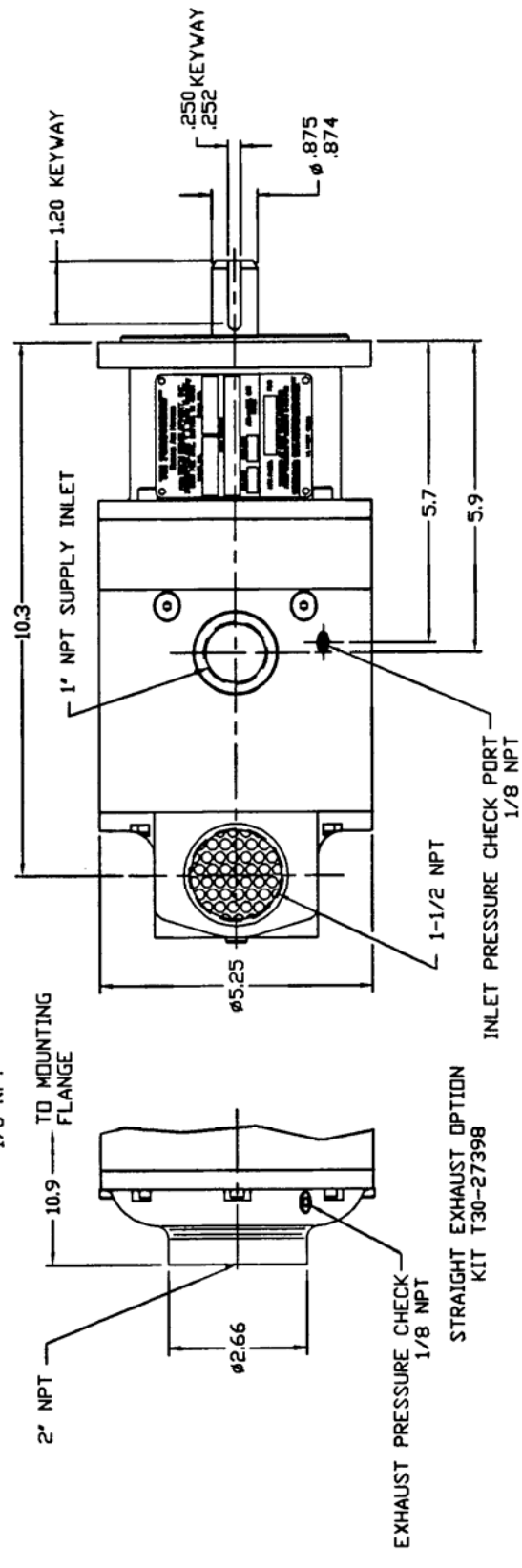
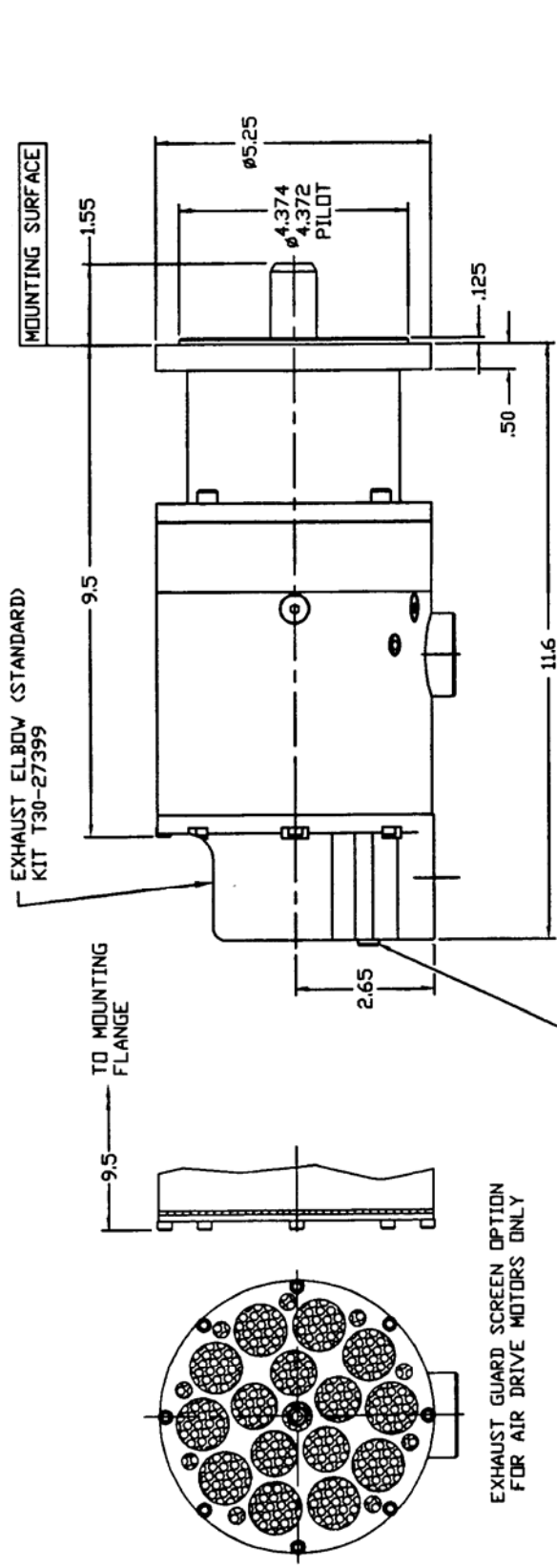
MANUAL OVERRIDE BUTTON

(+) FROM POWER SOURCE  
 (-) FROM POWER SOURCE

OPTIONAL ELECTRIC RELAY VALVE  
 P/N RLVA-25683-024-1-00  
 (1-1/4 NPT IN/OUT PORT, 24 VDC)  
 P/N RLVA-25683-012-1-00  
 (1-1/4 NPT IN/OUT PORT, 12 VDC)

OPTIONAL MANUAL RELAY VALVE  
 P/N RLVA-25863-001-1-01  
 (1-1/2 NPT IN/OUT PORT)

1/4" PIPE  
 FROM CONTROL



T30M MOTOR ASSEMBLY