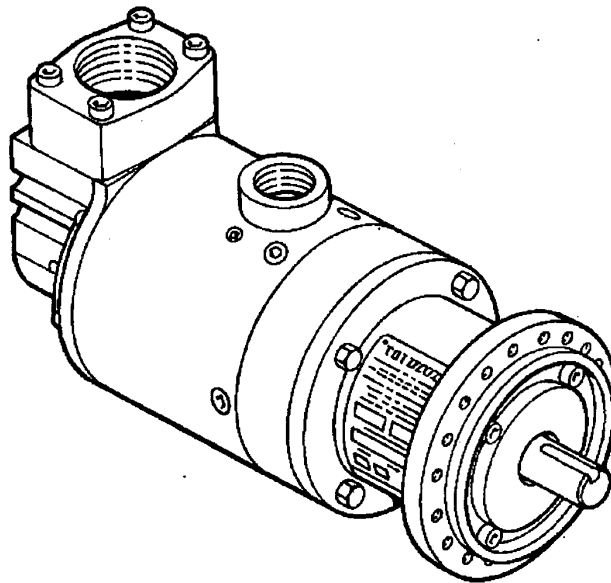

Installation Information for Model T30-M Air Motor

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.

Issued: September 1996

TECH DEVELOPMENT INC.
6800 POE AVENUE • BOX 13557 • DAYTON OHIO • 45413-0557
PHONE: (937) 898-9600 • FAX: (937) 898-8431

<p style="text-align: center;">TDI Model: T30-M P/N: T30X-60016-00X-1 GENERAL SPECIFICATIONS</p>

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 (H₂S) 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.

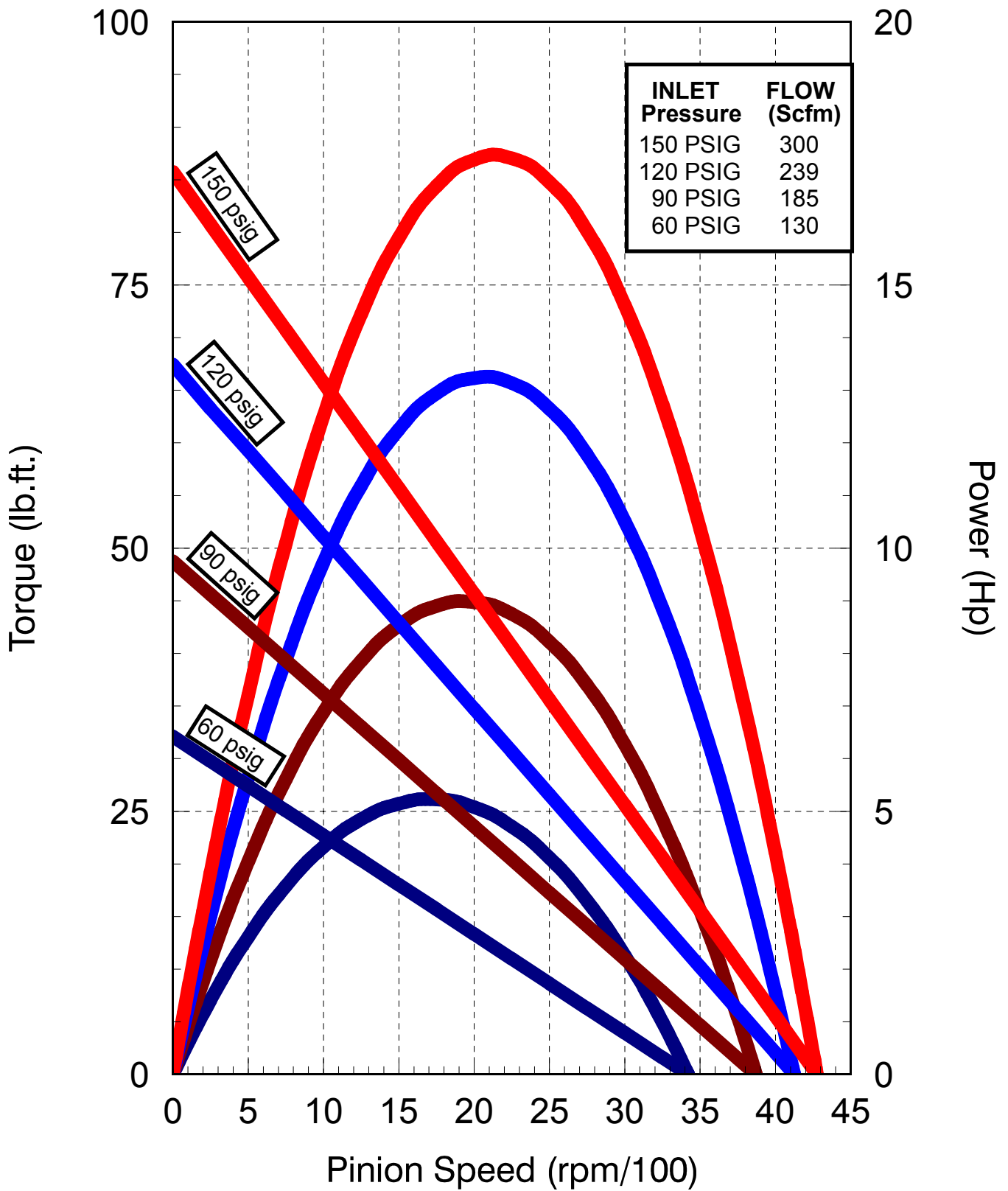
APPROVED SOURCE:

Tech Development, Inc.
6800 Poe Ave
Dayton, Ohio 45414-4557

Telephone: 937-898-9600
Fax: 937-898-8431

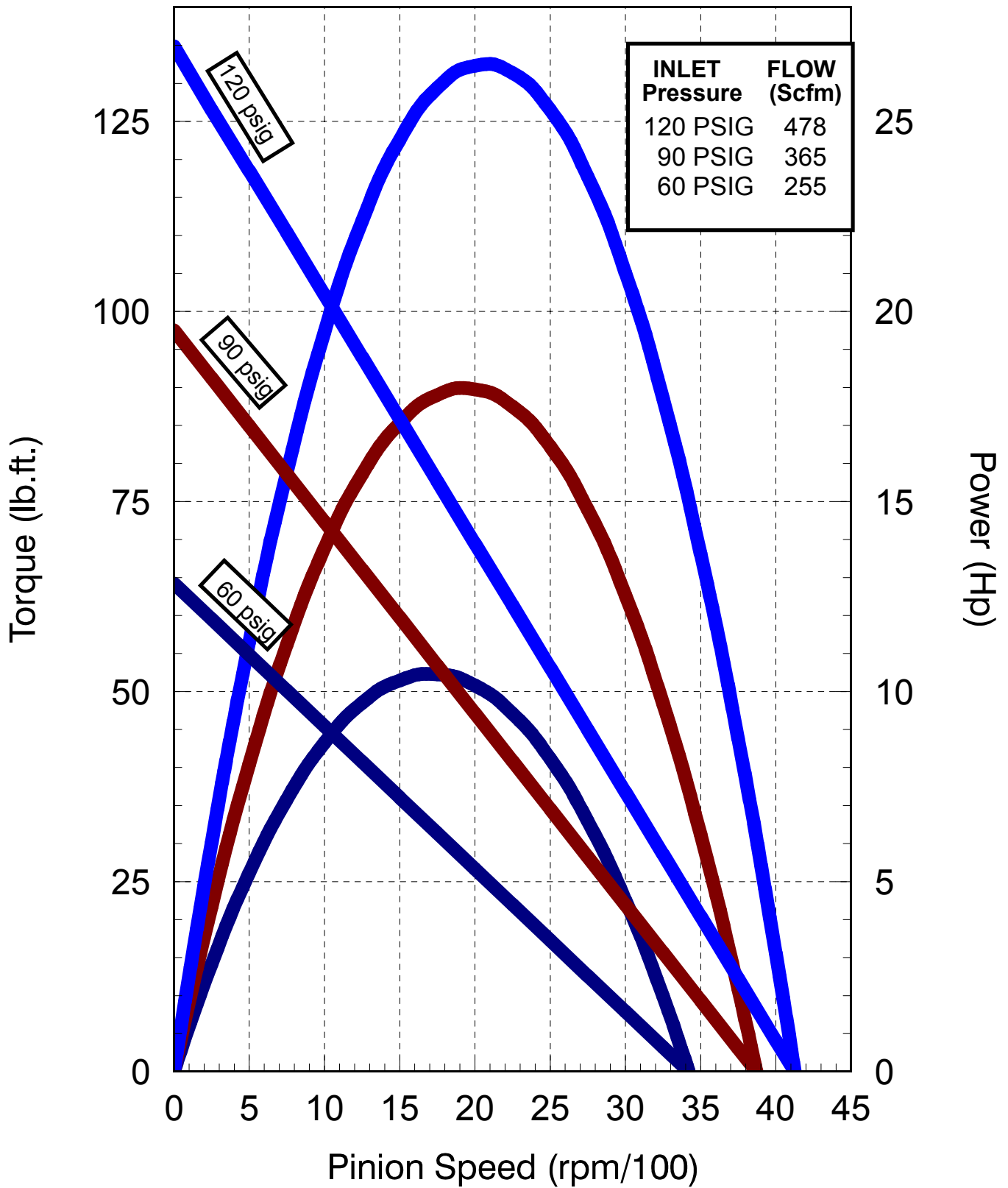
T303 Performance

3 Nozzles, 70°F, Compressed Air, 11.4:1 RATIO



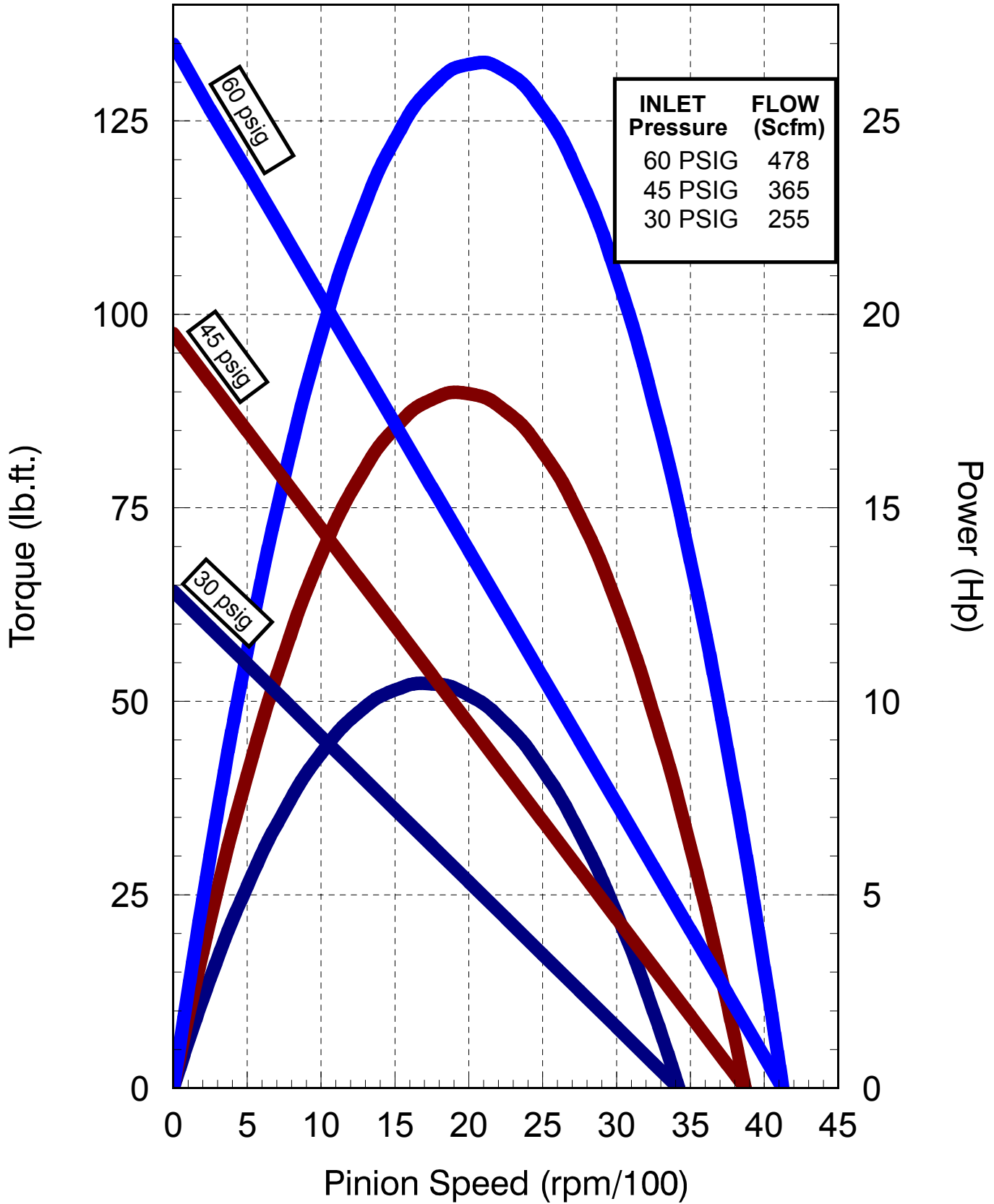
T306 Performance

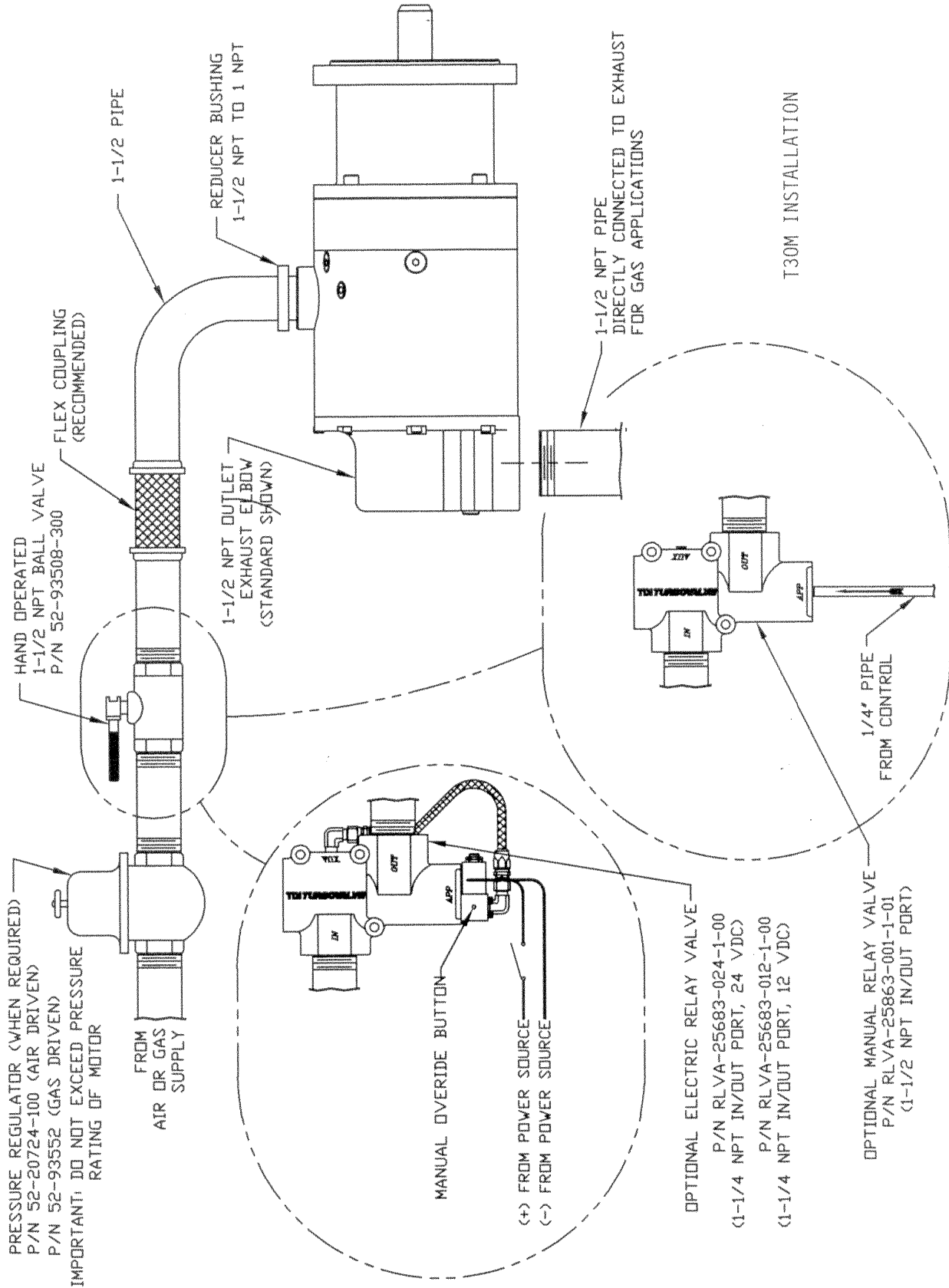
6 Nozzles, 70°F, Compressed Air, 11.4:1 RATIO



T312 Performance

12 Nozzles, 70°F, Compressed Air, 11.4:1 RATIO





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

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

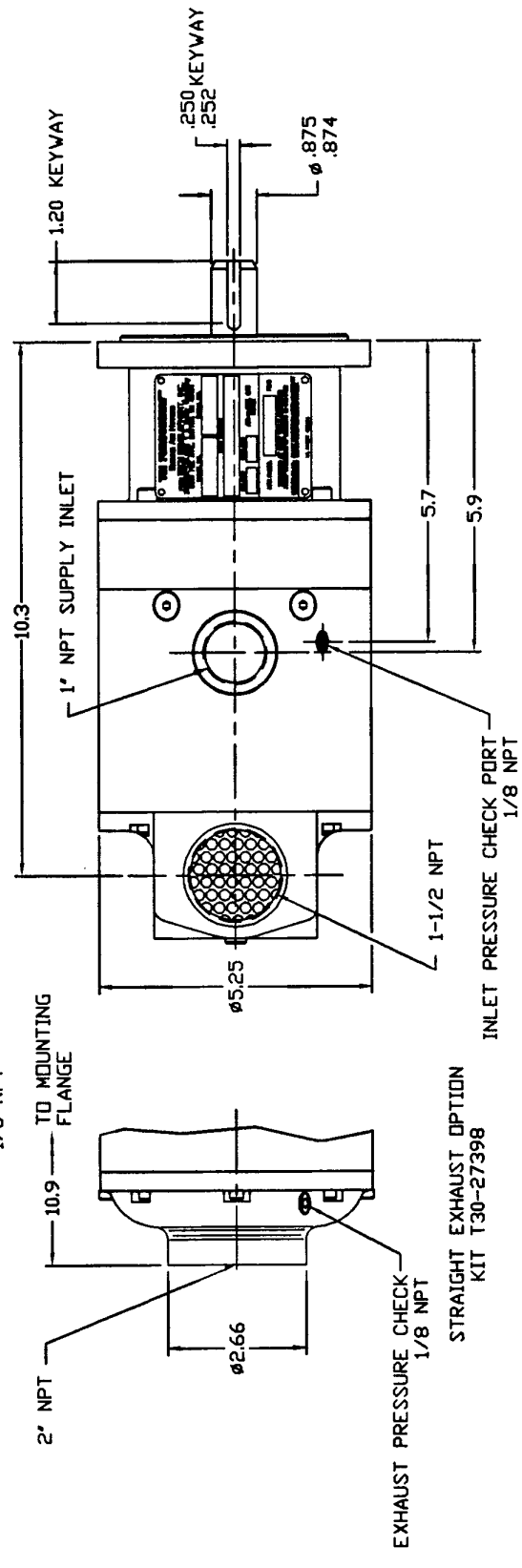
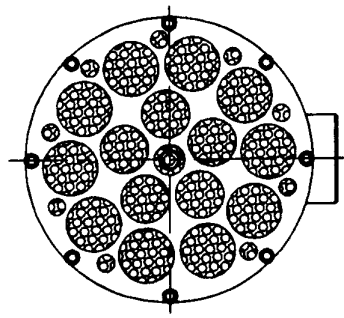
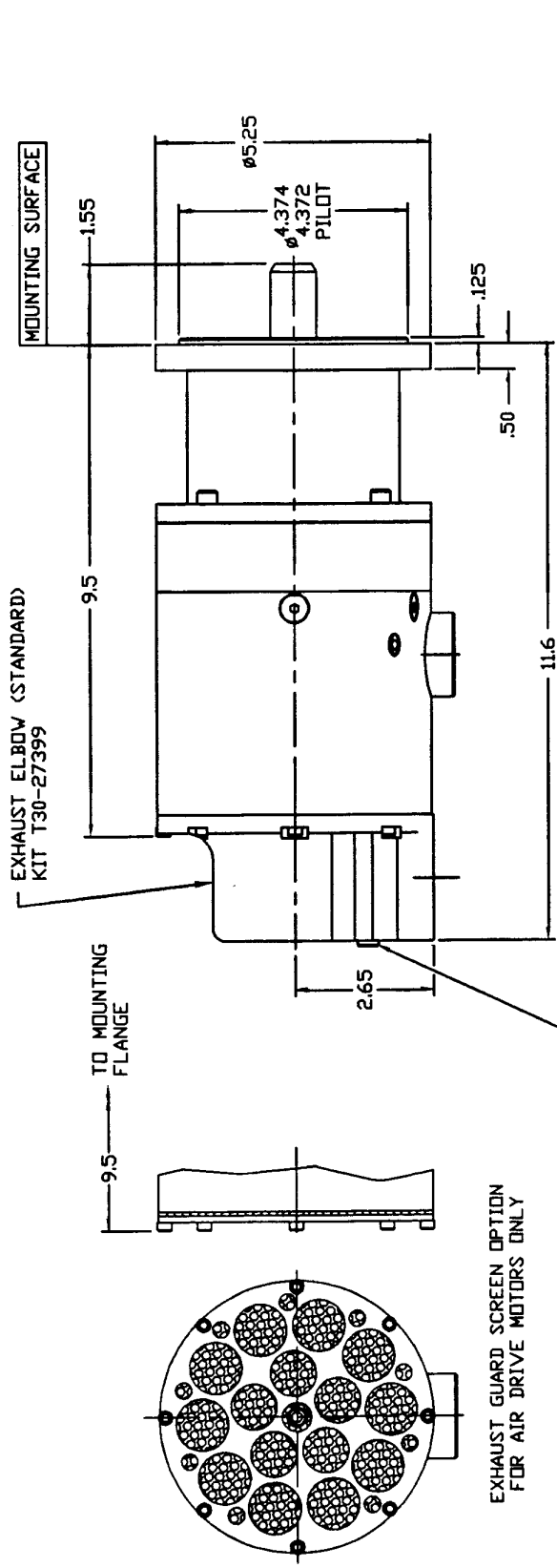
P/N RLVA-25683-024-1-00
 (1-1/4 NPT IN/OUT PORT, 24 VDC)

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

NOTES

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