

## Pneumatic Actuated Main Burner Oil Valve Systems

### System Description

The Skotch Trifecta is a valve system with all components housed within a single valve body. Conventional systems require at least three valves and actuators to accomplish what we provide with a single valve system. We perform all key functions including fuel sequencing, atomizing and purging of the down stream piping.

Model T1005 is a fail in last position precision switching valve system, while Models T1006 and T1007 are designed to fail in the closed position. Both offer Trifecta's proven performance advantages over separate valves or packaged multiple valve systems, including:

- Prevention of out-of-sequence operation, eliminating contamination of the atomizing or purging media.
- Purge sequence is an integral part of our valve closure, allowing almost instantaneous switching from firing to purging modes.

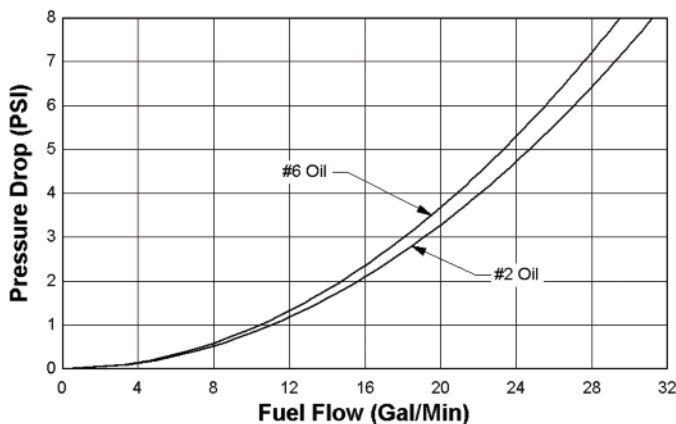
### Application

The T1005/T1006/T1007 valves are used with oil fired burners requiring steam or air atomization. All models are completely self contained, and all necessary accessories are provided, including position indication switches and junction box.

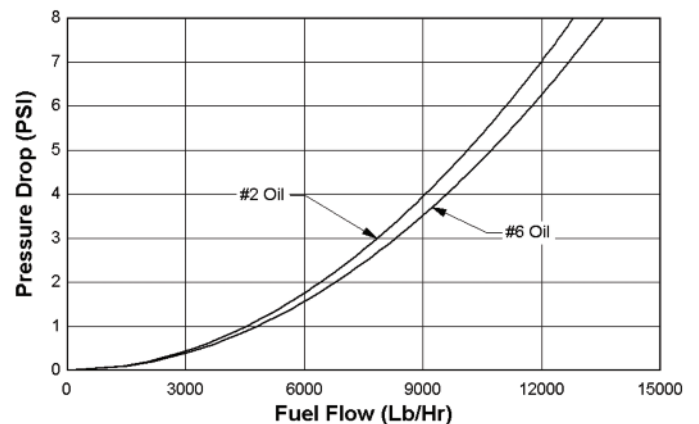
When incorporating appropriate options/accessories, model T1006 is Factory Mutual approved for use as a "combination oil safety shutoff, atomizing, and purge valve."



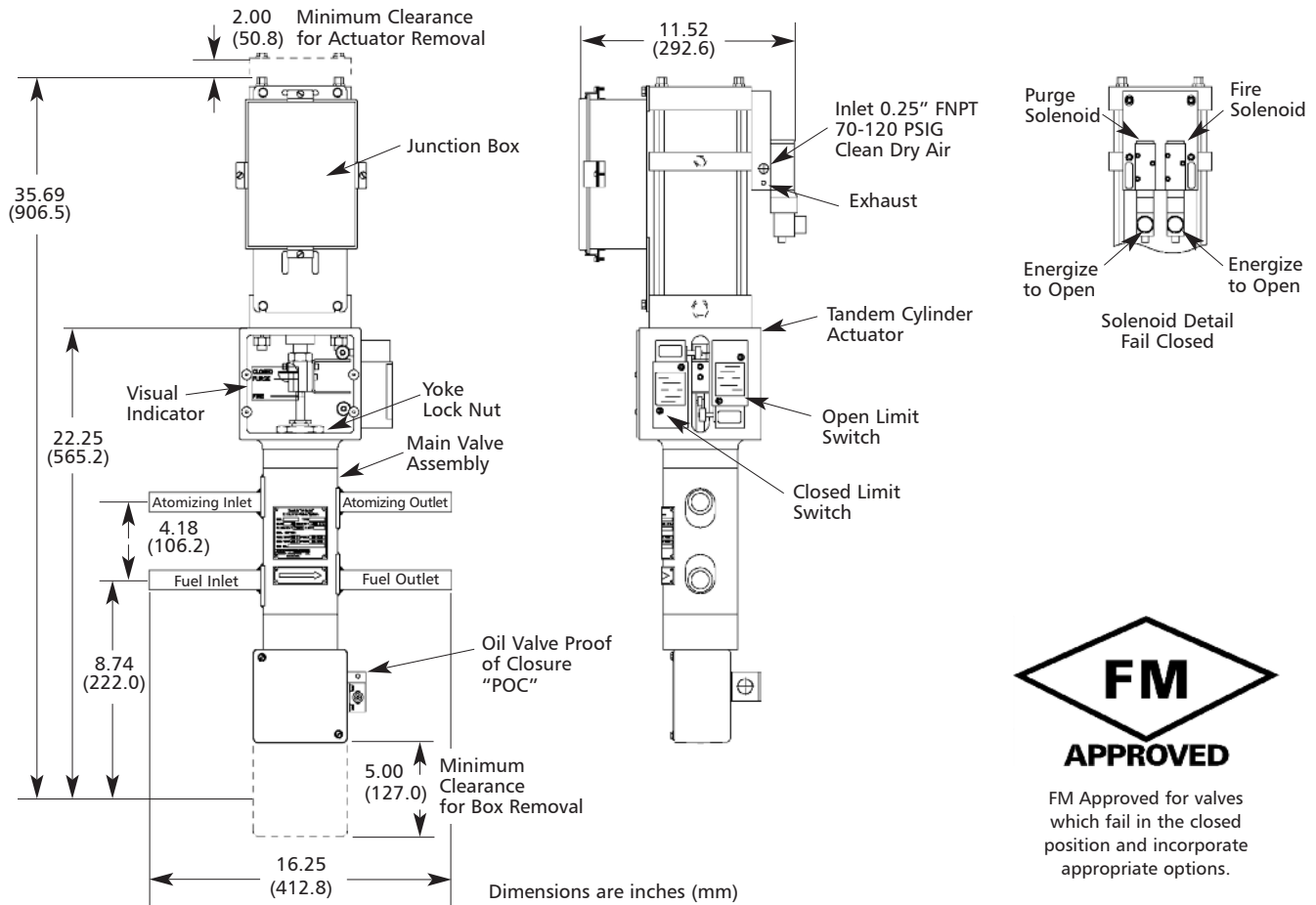
T1005/T1006/T1007 Valve Systems



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# Dimensional Specifications for the T1005/T1006/T1007



## Specifications for the T1005/T1006/T1007

**Design Pressure and Temperature**

Standard Valve: 300 PSIG @ 450°F  
 Optional: 600 PSIG (fuel) @ 450°F

**Maximum Differential Pressure:**

Equal to design rating

**Sizes:** ¾" or 1"

**End Connections:**

Sch. 40 or 80 Spigot, Butt Weld, ANSI CL. 300  
 Raised Face Flange, socketweld,  
 Male NPT in Sch. 80

**Flow Orientation:**

Left-to-right or right-to-left  
 Field reversible (consult factory)

**Failure Mode:**

Closed or last position upon electric or pneumatic failure.

**Shutoff Classification:**

Per ANSI/FCI 70-2  
 Atomizing seat – Meets or exceeds CL. IV  
 Purge seat – Meets or exceeds CL. IV  
 Fuel seat – Meets or exceeds CL. VI

**Total Stroke:** 1 ¼" for both models

**Operating Speed:**

Opening – Approximately 0.8 seconds, maximum

determined by speed control.

Closing – Oil valve closure in approximately 1 second, full closure in approximately 2 seconds

**Ambient Temperature Rating:**

Standard: 140°F (FM approved)  
 Optional: 180°F (non-FM approved)

**Electrical Rating:**

Standard: Nema 1, 3, 4, 13  
 Optional: Nema 7 Class 1 Div 2  
 Nema 7 Class 1 Div 1 (consult factory)

**Switch Rating:** 10 Amps at 125 VAC

**Solenoid Supply Voltages:**

110 VAC, 220 VAC, 50/60 Hz  
 12, 24, 48, 125 VDC

**Air Supply Pressure:**

70-120 PSIG – Clean, dry air

**Weight:** Approximately 85 lbs per valve assembly

**Cv Ratings:**

Atomizing Cv – 10.0  
 Purge Cv\* – 3.5  
 Fuel Cv – 10.0

\*Note Total Atomizing flow in Purge position is limited to the atomizing Cv.