



## Cylinder Assemblies • 500 psi [34.5 bar]

*designed for use with*

### 3M™ Novec™ 1230 Fire Protection Fluid

Thank

#### Description

Firetrace Clean Agent cylinders are manufactured, tested and stamped in accordance with DOT 4BW500 or DOT 4B500. Refer to dimensional details. All cylinders are equipped with back pressure type valves. A piston in the valve bore is equipped with a rubber seal that keeps the Agent under pressure within the cylinder. A small hole in the piston allows cylinder pressure to equalize on both sides of the piston. Since the area at the top of the piston is greater than the area at the bottom of the piston, the net force seals the piston against the valve discharge outlet. When the cylinder pressure on the top assembly is relieved by means of automatic or manual activation, the internal piston slides to its full open position, allowing cylinder discharge.

Attached to the bottom of the cylinder valve is a siphon tube. The siphon tubes are straight, allowing for cylinder installation to be vertically upright only (valve on top).

On the cylinder valve is a 1/8" pipe outlet stamped "P". This outlet transmits cylinder pressure to an optional low pressure indicating switch, which when used, supervises the internal cylinder pressure.

Another 1/8" N.P.T. pipe outlet on the cylinder valve stamped "M" is available for use as a pressure source to drive the piston actuator slave control heads on a multiple cylinder system or to actuate a pressure operated switch.



Novec 1230 system cylinders are:

Part Number	Cylinder Size	Max Fill	Min Fill	Valve Size
FTF 100035	15 Liters	35 lb [16Kg]	8 lb [3.5Kg]	1" (25mm) Valve
FTF 100070	29 Liters	75 lb [34Kg]	16 lb [7.5 Kg]	1" (25mm) Valve
FTF 100150	62 Liters	160 lb [73Kg]	33 lb [15 Kg]	1 ½" (40mm) Valve
FTF 100250	103 Liters	270 lb [122Kg]	55 lb [25Kg]	1 ½" (40mm) Valve
FTF 100375	153 Liters	400 lb [181Kg]	82 lb [37.5Kg]	2 ½" (65mm) Valve
FTF 100560	227 Liters	600 lb [272Kg]	121 lb [55Kg]	2 ½" (65mm) Valve
FTF 100900	368 Liters	950 lb [431Kg]	196 lb [89Kg]	2 ½" (65mm) Valve



### Product Overview

The Firetrace Cylinder Assembly is factory filled with 3M™ Novec™ 1230 Fire Protection Fluid in one-pound (1 lb) or half-kilogram (0.5 Kg) increments to achieve the calculated agent mass required. The cylinder is then pressurized with dry nitrogen to 500psi at 70 °F [34.5 bar at 21.1 °C].

### Features:

- High-flow-rate valve
- Calibrated Pressure Gauge
- Over-pressure safety device (PRD)
- Manual, Electric or Pressure operated (Pneumatic) Actuation
- Optional Equipment
  - Liquid-level indicator
  - Pressure Supervisory Switch
  - Discharge Pressure Switch
  - Floor-mounting brackets

The Cylinder Assembly is equipped with a brass, differential pressure-type valve with a NPT pipe outlet. A piston in the valve bore is equipped with a rubber seal to contain the extinguishing agent under pressure within the cylinder. An orifice in the axis of the piston allows cylinder pressure to equalize on the top and bottom of the piston. The pressurized area at the top of the piston is greater than the area at the bottom of the piston. The net force seals the piston against the valve seat. When the cylinder pressure on the top of the piston is relieved (by means of automatic or manual activation) there is only pressure acting against the bottom of the piston and the piston slides to its full open position. This allows the cylinder discharge through the distribution piping network connected to the valve outlet.

A siphon tube is threaded into the valve assembly. The siphon tube is straight, allowing the cylinder to be installed in a vertically upright orientation (valve on top) only.

Firetrace Clean Agent Cylinders are manufactured, tested and stamped in accordance with DOT 4BW500 or DOT 4B500, TC and are UL Component Recognized. Refer to technical specification for details.

### Firetrace International

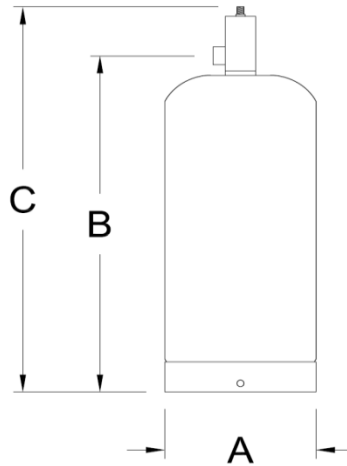
8435 N. 90<sup>th</sup> Street #2 • Scottsdale, AZ 85258 USA • +1-480-607-1218 • +1-480-315-1316 (Fax) • [www.firetrace.com](http://www.firetrace.com)

All specifications and information indicated above are subjected to change without prior notice.

# Technical Specifications



## Dimensions:



## Environmental Limitations:

- **Storage Temperature:** 0 °F [-17.8 °C] to 130° F [54.4 °C]
- **System Operating Pressure:** 500psi at 70 °F [34.5 bar at 21.1 °C]

## Engineering Considerations:

Proper Cylinder Assembly size and agent fill shall be determined using only genuine Firetrace Flow Calculation Software version 4.XX (P/N: FTF000313).

Floor loading varies as a function of the quantity of extinguishing agent fill required in each Cylinder Assembly and the optional accessories included on the system. Contact Firetrace for additional guidance on installed weights and dimensions.

The System Cylinder is manufactured, tested and stamped in accordance with DOT and TC regulations, it is UL Component recognized.

## Service Notes:

Cylinders Assemblies shall be designed, filled, pressurized and maintained by trained personnel in accordance with Firetrace Design, Installation and Maintenance Manuals and related prescriptive documents.

## ORDERING INFORMATION

Two (2) Cylinder Wall Straps (P/N: FTF400XXX) are required to when installing the Cylinder Assembly. In order to fill and pressurize the Cylinder Assembly, a "Top Plug" version must be specified and purchased when ordering the system. One cylinder bracket is to be used for the 35lb (16Kg) and 70lb (32Kg) cylinders. Two cylinder brackets must be used for 250lb (113Kg) to 950lb (170Kg) cylinders.

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