# DRY CHEMICAL FIXED PIPED FIRE SUPPRESSION SYSTEMS ACCESSORIES

Data/Specifications

# VAPOR-PROOF BLOW-OFF CAP

### Application

The blow-off cap, Part No. 7700, is designed for installation on ANSUL® fixed piped dry chemical nozzles. It is designed to protect the nozzle from becoming obstructed and to blow off by the pressure of the dry chemical at the nozzle when discharge begins.

### Description

The vapor-proof blow-off cap assembly consists of a nozzle adaptor, a threaded base plate and the cap itself. The purpose of the adaptor, Part No. 4500, is to provide an attachment point on the dry chemical nozzle for the threaded base plate. A chain is attached to the cap and is intended to permanently affix near the nozzle so the cap will not be lost during discharge.



#### Performance

The vapor-proof blow-off cap is intended to prevent clogging of the nozzle due to conditions in the hazard area, a paint spray booth for example. A slight pressure from within will cause the cap to be forcibly ejected from the base plate leaving the nozzle clear during discharge. Proper sealing and lubrication of the vapor-proof blow-off cap is provided through the use of a silicate type lubricant.

# 1/4 INCH CHECK VALVE

### Application

The 1/4 inch check valve is used where multiple pneumatic actuation points are used to actuate a dry chemical unit and/or to open a selector valve.

### Description

The 1/4 inch check valve is constructed of brass for corrosion resistance. The inlet is 1/4 inch NPT male and the outlet is 1/4 inch NPT male. The minimum working pressure is 100 psi (689.5 kPa) and the valve has an opening pressure of 2 psi (13.8 kPa).



### Performance

The use of a 1/4 inch check valve connected in series to an actuation line effectively isolates each actuation and prevents the pressurization of all lines when any one pneumatic actuator is operated.

#### Ordering Information

Part		Shipping Weight		
<u>No.</u>	<b>Description</b>	lbs.	(kg)	
22522	1/4 inch check valve	1/2	(.2)	

# SELECTOR VALVES

### Application

Selector valves are specifically designed for use with dry chemical systems where a single dry chemical unit can be utilized to protect more than one hazard. It is important to note that selector valve systems can only be used to protect one hazard at a time and will not be effective if two or more hazards are involved in fire simultaneously.

#### Description

The pneumatic selector valve is comprised of a manifold and the required number of ball valves with pneumatic actuators. The discharge manifold and ball valve sizes are determined by the size of the main supply pipe to the hazard in question. The number of valves is determined by the number of hazards to be protected.

The discharge manifold is constructed of Schedule 40 butt weld carbon steel fittings. The discharge ball valves utilize a full port valve with Teflon seats and seals. The pneumatic actuator operates one way only and is returned manually to the normal (closed) position after operation.



### Performance

The pneumatic selector valve is actuated (by a pneumatic charge) to allow dry chemical flow to the proper hazard. The pneumatic charge may originate from a manual pneumatic actuator which may also actuate the dry chemical unit. In installations utilizing electric detection and actuation (ultraviolet, thermostat), an electric signal automatically opens a solenoid valve which diverts the pneumatic charge to the proper selector valve.

#### **Ordering Information**

Contact ANSUL for further information.

# MANUAL PNEUMATIC ACTUATOR

### Application

The manual pneumatic actuator is designed to provide pneumatic actuation of an ANSUL dry chemical fixed piped system from a remote location. The use of a manual pneumatic actuator makes the dry chemical system independent of electrical power for actuation purposes.

### Description

The manual pneumatic actuator is made up of a cartridge receiver, mounting plate, cartridge cover, ring pin and the cartridge itself.

# MANUAL PNEUMATIC ACTUATOR (Continued)

The actuator utilizes a nitrogen charge and is pressurized to approximately 2100 psi (14,480 kPa) for LT-5/10 and LT-20/30 cartridges at 70 °F (21 °C). After filling the cartridge, it is weighed and the weight to the nearest 1/8 ounce is stamped on the curved shoulder of the cartridges for preventative maintenance purposes.

The mounting plate and cartridge cover are constructed of 20 gauge cold rolled low carbon steel. Actuation line connection to the actuator is 1/4 inch flare tube.



Cartridge Size (lb.) 30



#### Performance

A simple pull ring pin, push lever operation is all that is required to puncture the cartridge and release the nitrogen charge to actuate the dry chemical system. A variety of cartridge sizes are available with the proper size being determined by the length of the actuation line from the actuator to the unit.

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## Specifications

Manual pneumatic actuation capabilities shall be provided which require only that the operator pull the ring pin and push the actuator lever to actuate the dry chemical unit. The pneumatic actuator shall utilize a nitrogen filled cartridge. The cartridge shall be factory weighed and stamped with the correct weight to the nearest 1/8 ounce.

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# **Ordering Information**

•	Actuator Ship Assembly Pa 32746	oping <u>irt No.</u>	<u>Cartridge</u> LT-30	<u>Paint</u> Red epoxy	Shipping Weightlbs.(kg)6(2.7)
•	<u>Part No.</u> 5373	Cartridge Shipping <u>Assembly</u> LT-30	Cartridge <u>Thread</u> RH	Filling Pressure <u>psi (kPa)</u> 2100 14,480	Length <u>in. (cm)</u> 16 1/2 (41.9)

# **REMOTE BOOSTER ACTUATOR**

### Application

The booster actuator is designed to provide a nitrogen charge to dry chemical unit actuation systems where actuation lines may be long or a number of auxiliary pneumatically operated devices may be utilized and a single actuator cartridge may not provide sufficient pressure to operate the number of pneumatic devices installed.

### Description

The booster actuator consists of a pneumatically operated cartridge receiver, puncture pin assembly, and an enclosure. The actuator utilizes a 30 pound cartridge pressurized to 2100 psi (14,480 kPa) at 70 °F (21 °C). External connections are 1/4 inch NPT.



#### Performance

The booster actuator is pneumatically operated when the pressure in the actuation line reaches approximately 150 psi (1034 kPa). The puncture pin then pierces the nitrogen cartridge which releases the stored nitrogen pressure to actuate dry chemical units or to operate auxiliary pneumatically controlled devices.

### Specifications

When required, a booster actuator shall be provided to increase the actuation line pressure to a pressure sufficient to reliably operate all pneumatic devices installed. The booster actuator shall utilize a nitrogen filled cartridge. The cartridge shall be factory weighed and stamped with the correct weight to the nearest 1/8 ounce.

### **Ordering Information**

Part No.	Item	Shipping Weight lbs. (kg)	
23980	Booster actuator	16	(7.3)
5373	Replacement cartridge	5	(2.3)

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