

## Technical Data Sheet: Model MW3 Inline Check Valve

### 1. DESCRIPTION

The MW3 Spring Loaded In-Line Check Valve is a general purpose rubber-faced check valve approved for use in fire-service systems.

The Spring Loaded In-Line Check Valve is manufactured with a brass body, brass seat, and a rubber-faced clapper assembly.

The valve may be installed vertically or horizontally. A tapped opening (with plug) is provided on the outlet chamber of the valve for system drain.

The check valves should be installed on the outlet riser of the deluge valve when installing a listed and approved preaction system.

#### Features

- Low friction loss.
- Rated to 250 psi (17.2 bar) water working pressure.
- Can be installed vertically or horizontally.
- 3/4" NPT drain connection above the clapper.
- 1 PSI cracking pressure

### 2. LISTINGS AND APPROVALS

Refer to Table 1.

### 3. TECHNICAL DATA

#### Specifications:

Pressure Rating - 250 psi (17.2 bar) water working pressure

Factory tested - Hydrostatically to 500 psi (34.5 bar)

Standard grooved connections - ANSI/AWWA C606-87

Tapped Bosses - One 3/4" (19 mm) NPT

#### Material Standards:

Refer to Figure 1

#### Ordering Information:

Refer to Table 1

### 4. INSTALLATION

The Spring Loaded In-Line Check Valve must be installed in an area not subject to physical damage. When corrosive atmospheres and/or contaminated water supplies are present, it is the owner's responsibility to verify compatibility with the Check Valve and associated equipment.

Prior to installing the valve, thoroughly flush the water supply piping to verify that no foreign matter is present. The Check Valve may be installed in the vertical or horizontal position in line with the directional flow arrow.

#### Hydrostatic Test:

The Check Valve is manufactured and listed for use at a maximum water working pressure of 250 psi (17.2 bar). The valve is factory tested at 500 psi (34.5 bar). Check Valves may be hydrostatically tested at 300 psi (20.7 bar) and/or 50 psi (3.4 bar) above the normal water working pressure, for limited periods of time (two hours), for the purpose of acceptance by the Authority Having Jurisdiction. If air testing is required, do not exceed 60 psi (4.1 bar) air pressure.



**WARNING:** Cancer and Reproductive Harm-  
www.P65Warnings.ca.gov

**Table 1: Ordering Information**

Model	Size Valve	Connection Type	Cv Factor	Friction Loss*	Shipping Weight	Part No.	Approvals	
							UL <sup>1</sup>	FM <sup>2</sup>
MW3	1-1/2"	Groove	68	5	4.5 lbs	61479	Yes	Yes
MW3	2"	Groove	102	8	6 lbs	61478	Yes	Yes
<b>Accessories</b>								
Trim kit - 1-1/2" and 2" Valves			61481					
*Expressed in equivalent length of schedule 40 pipe based on Hazen & Williams formula: C=120								
<sup>1</sup> UL Guide No. - HMER								
<sup>2</sup> FM Category - Single Check Valves								

## 5. OPERATION (Refer to Figure 1)

Flow through the MW3 Spring Loaded In-Line Check Valve lifts the rubber-gasketed clapper (4 and 5) off the seat (7) to enter the sprinkler piping. When flow through the valve stops, the spring loaded clapper (4) closes quickly. The rubber gasket (5) forms a tight seal against the brass water seat (7), trapping pressure above the clapper and preventing reverse flow from sprinkler piping.

## 6. INSPECTIONS, TESTS AND MAINTENANCE

### NOTICE

The owner is responsible for maintaining the fire protection system and devices in proper operating condition.

### ⚠ WARNING

Any system maintenance that involves placing a control valve or detection system out of service may eliminate the fire protection capabilities of that system. Prior to proceeding, notify all Authorities Having Jurisdiction. Consideration should be given to employment of a fire patrol in the affected areas.

The MW2 Check Valve must be kept free of foreign matter, freezing conditions (when used on wet systems), corrosive atmospheres, contaminated water supplies, and any condition that could impair its operation or damage the device.

It is imperative that the system be inspected and tested on a regular basis. The frequency of the inspections may vary due to contaminated water supplies, corrosive water supplies, and corrosive atmospheres. For minimum maintenance and inspection requirements, refer to NFPA 25. In addition, the Authority Having Jurisdiction may have additional maintenance, testing, and inspection requirements that must be followed.

### 6-A. Five-Year Internal Inspection (Refer to Figure 1)

Internal inspection of Check Valves is recommended every five years unless inspections and tests indicate more frequent inspections are required.

1. Notify the Authority Having Jurisdiction, remote station alarm monitors, and those in the area affected that the system will be taken out of service. Consideration should be given to employment of a fire patrol in the affected areas.
2. Close the water supply Main Control Valve, placing the system out of service.
3. Open the main drain. If necessary, open the system test valve to vent and completely drain the system.
4. Remove necessary fittings and/or piping to allow visual inspection.
5. Inspect the water seat (7). Wipe away all contaminants, dirt, and mineral deposits. Do not use solvents or abrasives.
6. Inspect the clapper for debris. Test the clapper (4) for freedom of movement.

### ⚠ CAUTION

Never apply any lubricant to seats, gaskets, or any internal operating parts of the valve. Petroleum-based grease or oil will damage rubber components and may prevent proper operation.

### 6-B. Maintenance (Refer to Figure 1)

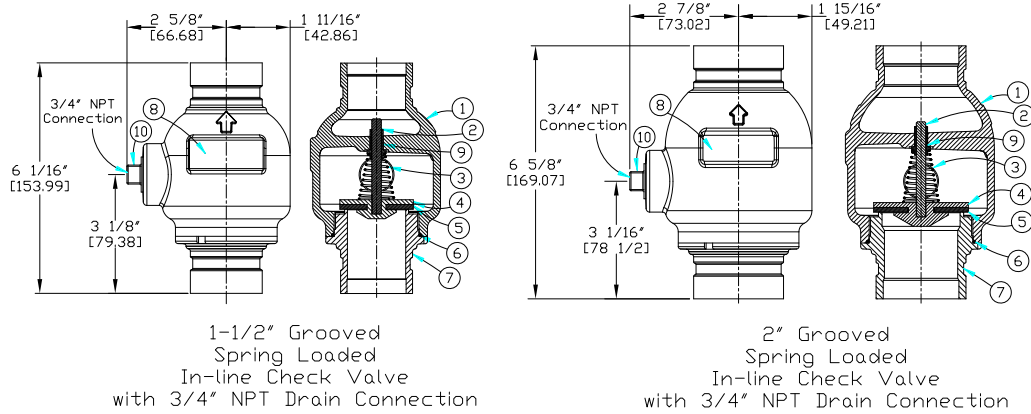
1. Perform steps 1 through 5 of paragraph 10-A FIVE-YEAR INTERNAL INSPECTION.
2. To remove clapper rubber (5):
  - a. Use proper wrench and disassemble valve from system piping.
  - b. Inspect the clapper and rubber from inlet end. If the clapper rubber shows signs of wear, such as cracking, cuts, or excessively deep grooves where the rubber contacts the water seat, replace the valve.

## 7. AVAILABILITY

The MW3 Check Valve is available through a network of domestic and international distributors. See the Minimax Fire Protection Web site for closest distributor or contact Minimax Fire Protection.

## 8. GUARANTEES

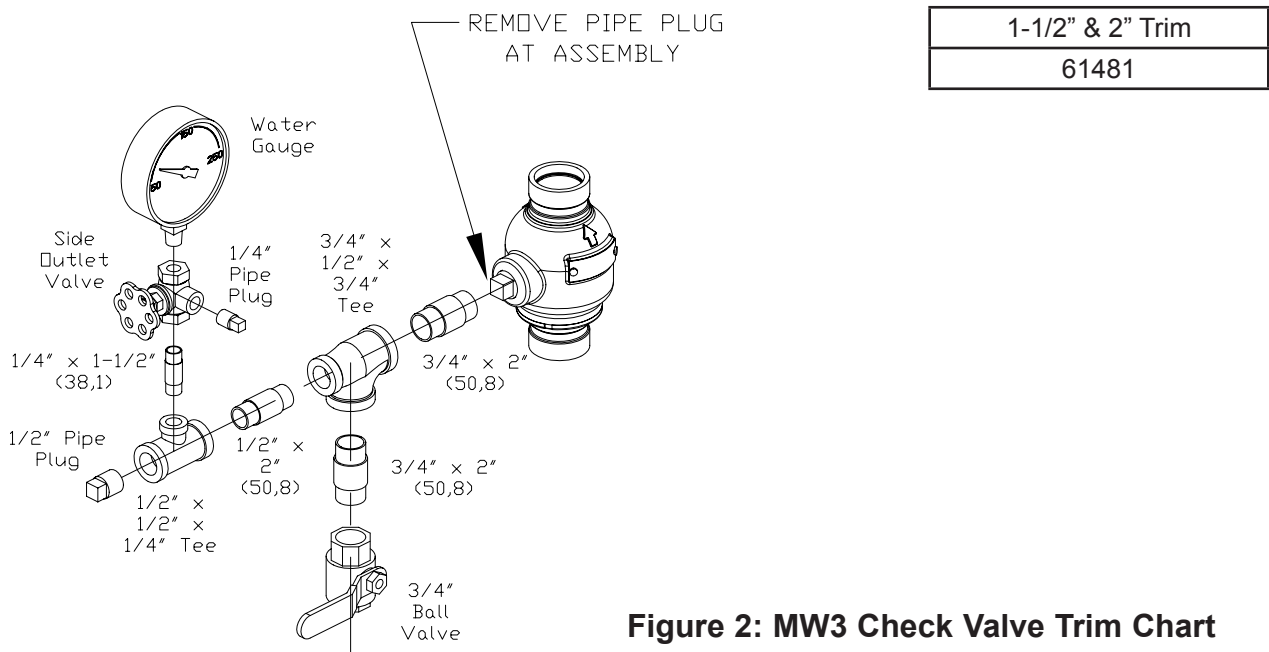
For details of warranty, refer to Minimax Fire Protection's current list price schedule or contact Minimax Fire Protection directly.



**Figure 1: Dimensions and Components**

Item No.	Description	Material	No. Req'd.
1	Body, Grooved	Brass, UNS-C83600	1
2	Guide Rod	Stainless Steel, UNS-S30300	1
3	Spring	302 Stainless Steel	1
4	Clapper, (2" valve)	UNS-C46400 Naval Brass	1
	Clapper, (1-1/2" valve)	UNS-C83600 Naval Brass	1
5	Seat Rubber	EPDM, ASTM D2000	1
6	O-ring	Buna-N	1
7	Seat	Brass, UNS- C83600	1
8	Data Plate	Aluminum Etched	1
9	Bushing, Guide Rod	Stainless Steel, Type 17-4	1
10	3/4" Pipe Plug	Brass	1

**No replacement parts available. Replace complete valve.**



**Figure 2: MW3 Check Valve Trim Chart**