



North American
Manufacturing Company

Flow Control Business Group
AUTOMATIC SHUTOFF VALVES
Manual Reset and Motorized

Bulletin 1518/1519

July 2001



1518 Manual Reset



1519 Motorized

- **Sanctioned: UL, FM, CGA** (IRI approvable)
- **Proof-of-Closure Switch**
- **High Capacity/High Pressure**
- **Large Open/Shut Indicator**
- **Metal-to-Metal Seating**
- **Ambient or Fluid Temperature Limits:**
–20 F to 140 F (–28 C to 60 C)
- **NEMA 4 Enclosure**

Normally-closed valves. Powering of an internal solenoid or magnetic clutch permits opening. Interruption of power supply results in virtually instantaneous closure. Listed/Approved for clean fuel gas. Suitable for many other gases. Unlisted versions available for some special gases and liquids.

TYPICAL APPLICATIONS

North American Automatic Shutoff Valves are used in fuel supply lines on industrial furnaces, ovens, kilns, boilers, and other heating equipment. They shut off fuel automatically and instantly upon any break in electric power or the safety circuit. They cannot be opened until an interlocking safety or control circuit is complete, restoring power to the valve.

They could be suitable for pipe lines carrying a variety of gases and liquids used in processes other than combustion.

Use Manual Reset Valves where "manned" operation is required or preferred.

Specify Motorized Valves where remote or "unmanned" operation is needed. Not recommended for oil applications where on/off cycling is more than 6 cycles per hour.

1518 and 1519 Valves are for emergency automatic shutdown only - following any shutdown, close manual shutoff valves promptly.

STANDARDS

All North American 1518 and 1519 Automatic Shutoff Valves have the following *standard* characteristics:

- Sanctioned by FM, UL, and CGA.
- Approvable by IRI.
- Enclosure meets NEMA 1, 3, 3S, 4, 12, and CSA 2, 3, and 4.
- SPDT "Proof-of-Closure" switch.
- DPDT "Valve Open" switch.
- Prewired terminal block.
- Pipe sizes $\frac{3}{4}$ " through 6".
- Cast iron body.
- 115 V ac / 60 Hz operation (other characteristics available).
- Top assembly position is field rotatable.
- 6 seconds opening time for most motorized valves on 60 Hz.

OPTIONS

- Steel body.
- Expanded capacity ports.†
- Companion flanges (order separately).†

†Not available for all sizes.

See Specifications 1518/1519 for size, capacity, trim, and weight of each Manual Reset and Motorized Valve (Sanctioned and Non-sanctioned).

Sanctioned Valves carry FM, UL, and CGA labels for natural gas and propane gas. All are IRI approvable. Maximum pressure differentials vary from 30 to 125 psi (depending on size). Sizes -7 and -8-XF are not suitable for #2 oil.

Non-sanctioned Valves, which carry no agency approvals, are for potential use on special fluids. Fluid analysis is always required to determine suitability, pressure allowance, and valve materials. Additionally, 1518U and 1519U are good for #1 and #2 fuel oils, but carry no agency approvals.

All valves (except 1519-8-XF, -8-XFS, U-8-XF, and U-8-XFS--max. 125 F [52 C]) are suitable for ambient and fluid temperatures from -20 F to 140 F (-28 C to 60 C) on AC electrical power.

Valve action closes aggressively within one second of power loss. A two-stage latch/return motion by the operator can open a Manual Reset Valve after it is re-powered. Motorized Valves allow flow to begin within one second of powering: They are fully open in six seconds for most sizes.

PERFORM FREQUENT FIELD INSPECTIONS, LEAK TESTS, AND PROPER MAINTENANCE TO ASSURE CONTINUED SATISFACTORY VALVE PERFORMANCE. REFER TO INSTALLATION/MAINTENANCE BULLETINS.

DO NOT OPERATE MOTORIZED VALVES MORE THAN ONE CYCLE PER MINUTE FOR PERIODS OVER 15 MINUTES TO AVOID OVERHEATING MOTOR.

WARNING: Situations dangerous to personnel and property can develop from incorrect operation of combustion equipment. North American urges compliance with National Safety Standards and Insurance Underwriters recommendations, and care in operation.

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