CLA-VAL™

— MODEL — 129AF-1

# High Level Shut-off Valve

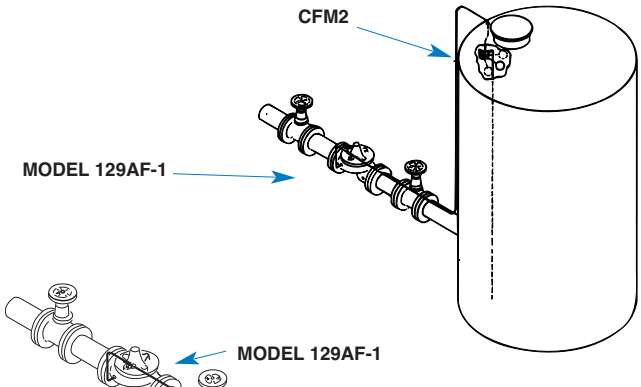
- **Accurate Repeatable High Level Shut-off**
- **"Fail-Safe" Construction**
- **No Packing Glands Assure Leak-Proof Service**
- **Serviced Without Removing From Line**
- **Position Indicator is Standard Equipment**

The Cla-Val Model 129AF-1 High Level Shut-Off Valve automatically opens to fill a storage tank and closes tightly when liquid level reaches a predetermined point. No attention is required once adjusted to the desired level. It is a hydraulically-operated, diaphragm-actuated, pilot-controlled globe pattern valve. Should the diaphragm become damaged the valve will close tight, providing "fail safe" operation. The 129AF-1 is controlled by a CFM2 float actuated pilot mounted near the high level shut-off point in the tank. The float pilot control is a precision-lapped plate type valve actuated by a float attached to a lever arm.

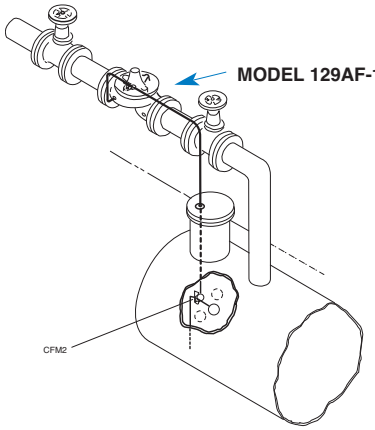
## Typical Application

The Model 129AF-1 is installed in the fill line to either underground or above ground fuel storage tanks. When the float is down, the valve is wide open allowing tank filling, As the float rises, flow through the pilot control is slowly throttled which causes the main valve to throttle smoothly to a tightly closed position when the tank is full.

## CFM2 Float Control



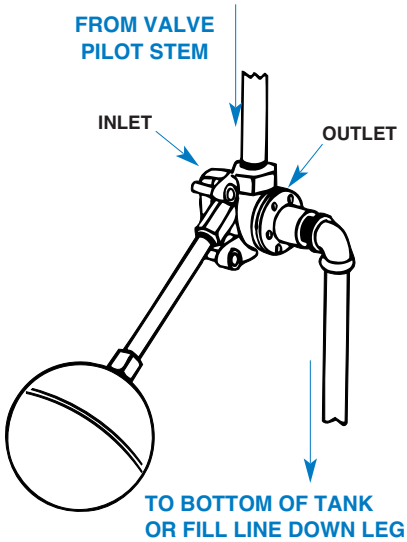

ABOVE GROUND STORAGE TANK



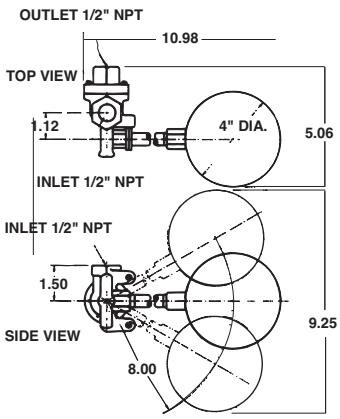

BELOW GROUND STORAGE TANK

The CFM2 float control is mounted in or near an access hatch and within close proximity of the 129AF-1 valve. The control is located inside the tank with the center line three inches below desired shut off level. Provision must be made for a 1/2" pipe connecting valve and control inlet and for a 1/2" pipe from control outlet to near tank bottom. If inlet pressure, when flowing, is less than 10 PSI please consult Cla-Val for recommendations.

## Installation Detail




TO BOTTOM OF TANK OR FILL LINE DOWN LEG

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## Specifications

Sizes
2", 2 1/2", 3", 4", 6", 8", 10", 12", 14", 16'
Globe Pattern

## End Details

Flanged:
Cast Aluminum, 150 ANSI B16 1
Cast Steel, 150 and 300 ANSI B16.5
Ductile Iron, 150 and 300 ANSI B16.42

## Pressure Ratings

150 Class - 175 PSI Ma'
150 Class - 275 PSI Ma.
250 Class - 300 PSI Ma
300 Class - 400 PSI Ma,

## Temperature Range

—40° to + 180° F

## Materials

*Main valve body & cover:*
Cast Aluminum 356-T6
Cast Bronze ASTM B62
Ductile Iron ASTM A-536
Cast Stainless Steel 303
Cast Steel ASTM A216-WC
*Tubing and fittings:*
Copper
Stainless Steel
*Pilot controls:*
Aluminum 356-TG
Bronze ASTM B61
Stainless Steel 303
*Rubber Parts:*
Buna-N® Synthetic Rubber
Viton
*Main valve trim:*
Stainless Steel 303
Bronze ASTM B61

## Fluids

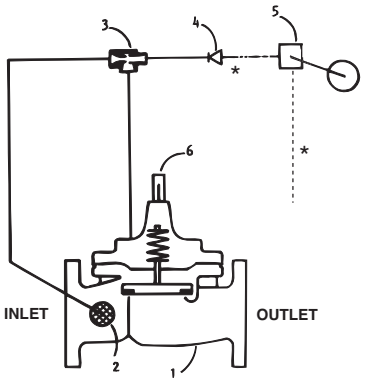
Aviation Fuels:
Military: MIL-T-5624L, MIL-T-83133'
MIL-G-5572
Commercial JET A, JET A-1
*Other Light Petroleum Products*
Other Materials Available
on Special Order

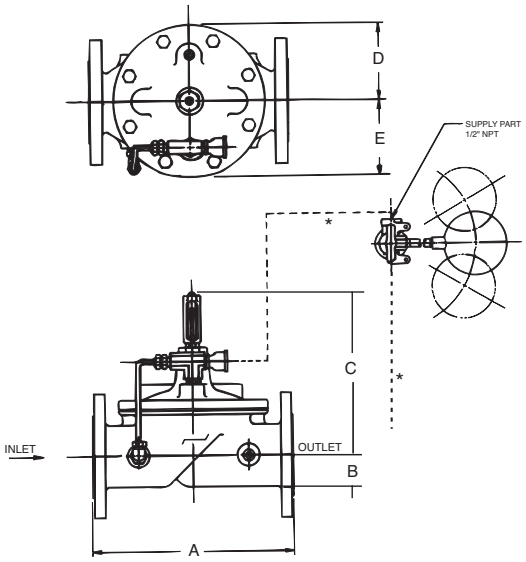
## Specify When Ordering

1 Size
2 Pressure Class
3 Main Valve Material
4 Pilot Control Material
5 Tubing and Fitting Material
* CUSTOMER SUPPLIED

## Schematic Diagram

| Item | Description |
|---|---|
| 1 | 100AF Hytrol Main Valve |
| 2 | X46 Strainer |
| 3 | X47 Ejector |
| 4 | Bell Reducer |
| 5 | CFM2 Float Control |
| 6 | X101 Valve Position Indicator |




## Dimension (IN INCHES)

| VALVE SIZE | A 125 & 150 ANSI | A 250 & 300 ANSI | B | C | D | E |
|---|---|---|---|---|---|---|
| 2" | 9.38 | 10.00 | 1.50 | 8.38 | 3.38 | 3.38 |
| 2½ | 11.00 | 11.62 | 1.69 | 9.50 | 4.03 | 4.03 |
| 3" | 12.00 | 13.25 | 2.06 | 10.12 | 4.62 | 4.62 |
| 4" | 15.00 | 15.62 | 3.19 | 15.12 | 5.81 | 5.81 |
| 6" | 20.00 | 21.00 | 4.31 | 17.75 | 8.00 | 8.00 |
| 8" | 25.38 | 26.38 | 5.31 | 21.00 | 10.12 | 10.12 |
| 10" | 29.75 | 31.12 | 9.25 | 25.50 | 11.94 | 11.94 |
| 12" | 34.00 | 35.50 | 10.75 | 29.50 | 14.12 | 14.12 |
| 14" | 39.00 | 40.50 | 12.62 | 32.62 | 16.50 | 16.50 |
| 16" | 41.38 | 43.50 | 15.50 | 35.00 | 17.84 | 17.84 |

## Purchase Specifications

The valve shall open to allow filling of the tank and shall close tightly when liquid level reaches predetermined high level. The valve shall consist of a main valve and a remotely located float control. The main valve shall be a hydraulically operated, diaphragm actuated, globe pattern valve. It shall contain a resilient, synthetic rubber disc, having a rectangular cross-section, contained on three and one-half sides by a disc retainer and disc guide forming a tight seal against a single renewable seat. The valve stem shall be guided at both ends by a bearing in the valve cover and an integral bearing in the valve seat. The diaphragm assembly shall be the only moving part and shall form a sealed chamber in the upper portion of the valve, separating operating pressure from line pressure.

The diaphragm shall consist of nylon fabric bonded with synthetic rubber and shall not be used as a seating surface. Packing glands and/or stuffing boxes are not permitted and there shall be no pistons operating the valve. All necessary repairs shall be possible without removing the valve from the line. If the diaphragm becomes damaged the valve shall close tight. Valve shall be equipped with a position indicator.

The pilot control shall be a precision-lapped, rotary-disc, plate type valve. Positioning of the pilot valve shall be by a float and arm assembly.

This valve shall be the Model 129AF-1 High Level Shut-Off Valve as manufactured by Cla-Val, Newport Beach, California.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E-129AF-1 (R-11/2013)

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