

# 900 Series

0–6000 psig Manual Shutoff Valves



## Features

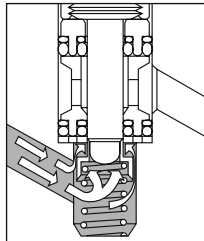
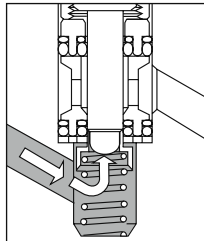
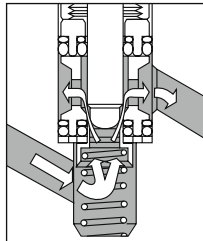
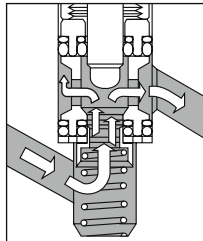
- Zero leakage
- Protected o-ring
- Full flow passages
- Freedom from wire drawing
- Panel mount standard
- Hand wheel or toggle handle

## Technical Data

<b>Body Construction Material</b>	316 or 303 stainless steel
<b>Stem Materials</b>	316, 303 or 17-4 PH stainless steel
<b>Gland Nut Materials</b>	Brass or 17-4 PH stainless steel
<b>O-ring Materials</b>	Buna N, Neoprene or Viton®
<b>Spring Material</b>	302 stainless steel
<b>Handle Materials</b>	<ul style="list-style-type: none"> <li>• Handle wheel: die-cast zinc, color blue</li> <li>• Toggle: forged steel, cadmium-plated</li> </ul>
<b>Leakage</b>	<ul style="list-style-type: none"> <li>• Internal: zero</li> <li>• External: zero</li> </ul>
<b>Operating Pressure</b>	0–6000 psig (414 bar)
<b>Proof Pressure</b>	9000 psig (621 bar)
<b>Burst Pressure</b>	Over 24,000 psig (1,655 bar)
<b>Temperature Range</b>	–40° F to +350° F (–40° C to +177° C) <i>Based on o-ring material, see "How to Order".</i>
<b>Connection Sizes</b>	¼"–¾"
<b>Actuating Force</b>	<ul style="list-style-type: none"> <li>• 900 Series: 20in/lbs</li> <li>• T900 Series: 20 lbs</li> </ul>

*Note: Proper filtration is recommended to prevent damage to sealing surface.*

## How it Works

 <p><b>Closed</b> O-ring seal on smooth finish of stem provides leak-tight shut-off. Pressure on o-ring increases sealing effectiveness.</p>	 <p><b>Opening</b> As stem is withdrawn, floating sleeve moves into position protecting the o-ring. Flow starts after 1½-turns of the handle.</p>	 <p><b>Throttling</b> O-ring is protected by sleeve. Throttling is controlled across tapered section of the stem.</p>	 <p><b>Full Open</b> Stem is withdrawn, permitting full flow with minimum pressure drop.</p>
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## Circle Seal Controls

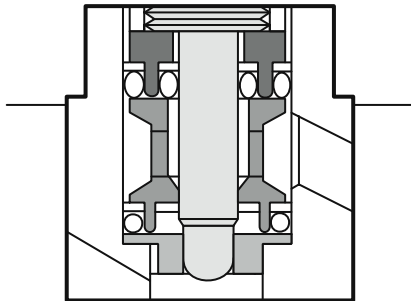
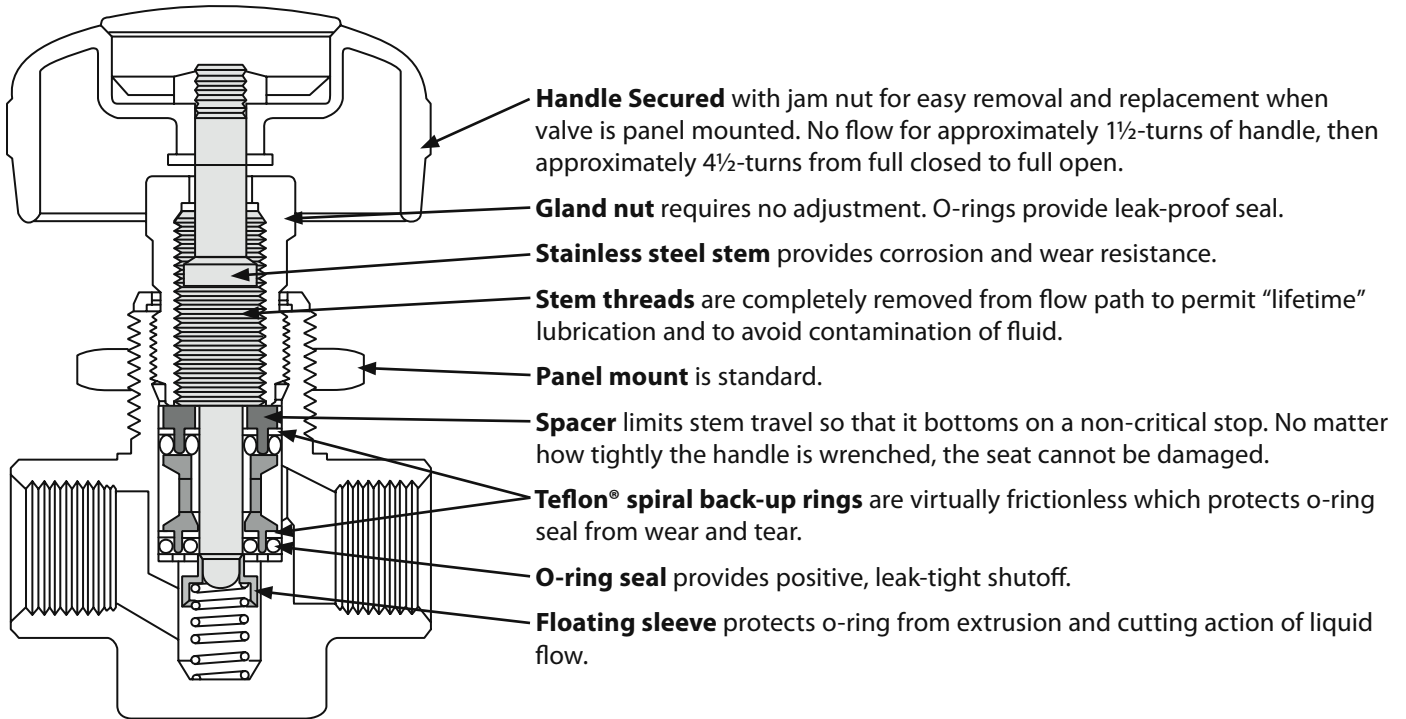
2301 Wardlow Circle • Corona, CA 92880  
Phone (951) 270-6200 • Fax (951) 270-6201  
www.circle-seal.com

shutoff valves

# 900 Series

## Engineering Features

Standard Design



PCTFE or Teflon® seat eliminates the need for o-ring seal and floating sleeve.

### N-, B-, A900 Series design detail

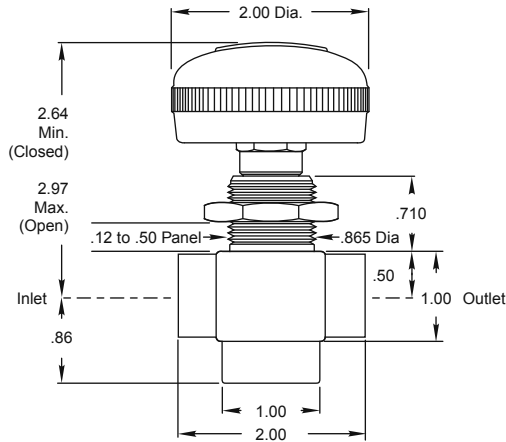
Stem, seat and seal combine to provide accurate metering, full flow in either direction, and zero leakage shutoff.

N900 (nylon seat) Series valves are for general use. B900 (PCTFE seat) or A900 (Teflon® seat) Series valves should be used for fluids not compatible with nylon or for service over +250° F.

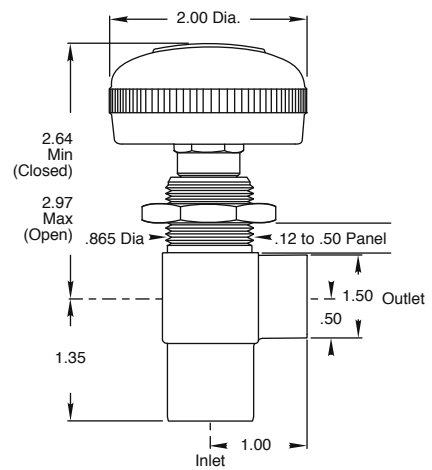
# 900 Series

## Dimensions

### 900 SERIES Handwheel Actuated

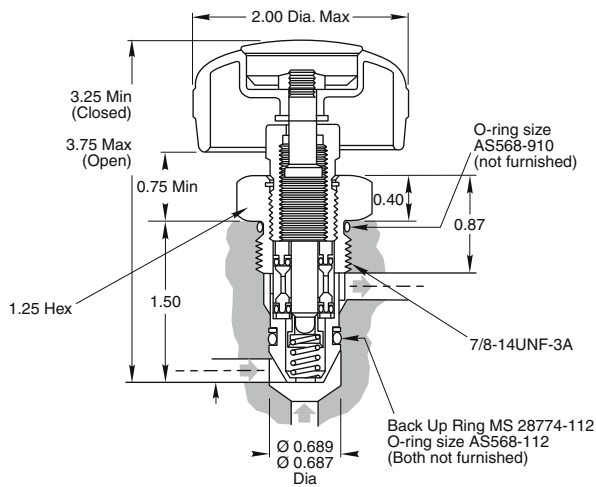


### R900 SERIES Right Angle



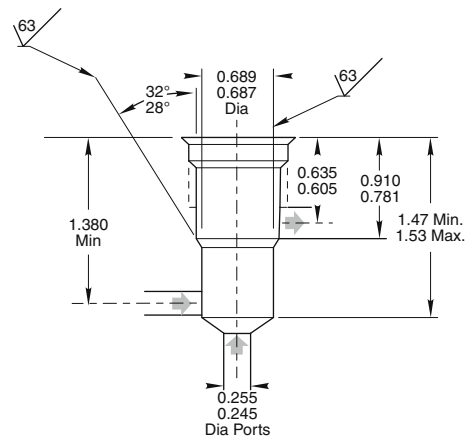
Prefix part number for 900, R900, Y900 and Z900 Series with N, B, or A if bi-directional flow capability is required.

### C900 SERIES Manifold Mounted



C900 Series—inlet size 0.203, outlet size 0.250. O-ring seals for manifold cavity are furnished by customer.

### C900 SERIES Manifold Mounted Cavity

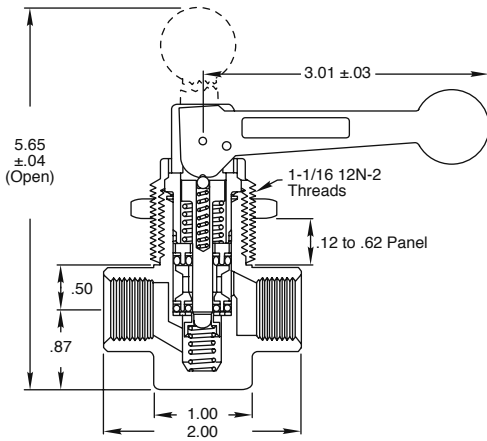


Cavity per AND10050-10 or SAE 3/8" straight thread connection (7/8-14UNF-3B) except as shown.

# 900 Series

## Dimensions

### T900 SERIES Toggle Actuated

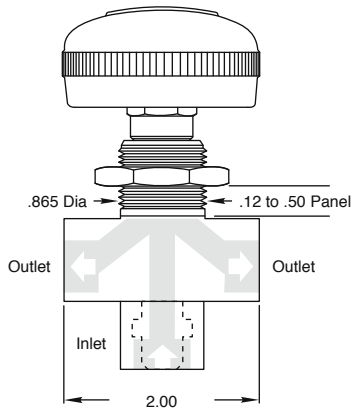


Spring and ball detent positively position handle open or closed. Holes are provided in toggle cam and clevis to permit locking valve closed against tampering.

Handle arc is 90°. Valve is open when handle is parallel with stem, closed when handle is in a plane parallel with body. Closed position of handle may be positioned (360°) as required by "cracking" gland nut, positioning handle and retightening gland nut.

Stem and seat design permit rapid actuation of the toggle handle with a minimum of opening and closing shock to the system.

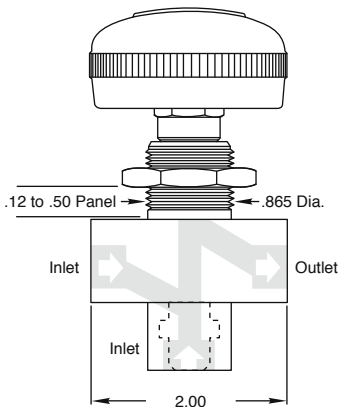
### Y900 SERIES Triport



### Y900 & Z900 Series Part Numbers

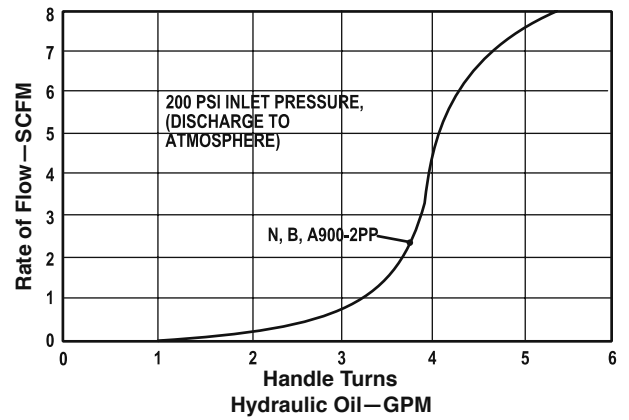
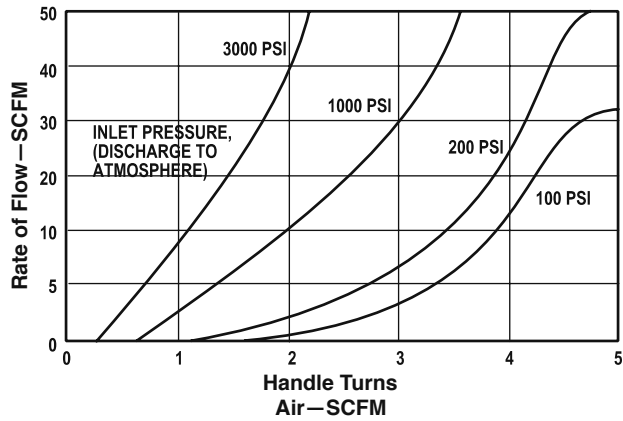
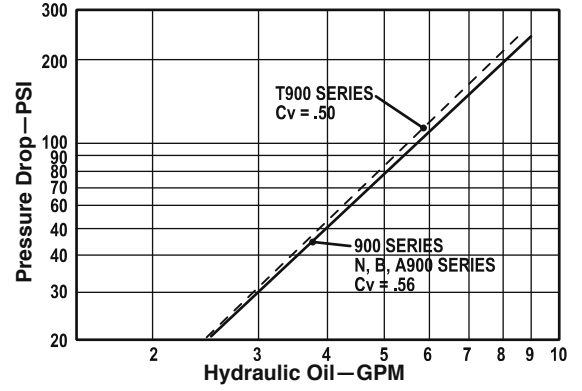
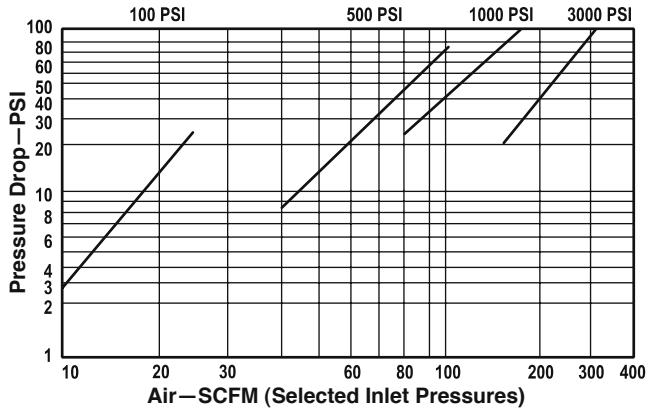
Part Number	Inlet	Outlet
Y900-2PPP	1/4" female pipe	1/4" female pipe
Z900-2PPP	1/4" female pipe	1/4" female pipe
Y900-4BBB	1/4" female tube	1/4" female tube
Z900-4BBB	1/4" female tube	1/4" female tube
Y900-6BBB	3/8" female tube	3/8" female tube
Z900-6BBB	3/8" female tube	3/8" female tube
Y900-4T6BB	1/4" male tube	3/8" female tube
Z900-4T6BB	1/4" male tube	3/8" female tube
Y900-6TBB	3/8" male tube	3/8" female tube
Z900-6TBB	3/8" male tube	3/8" female tube

### Z900 SERIES Triport



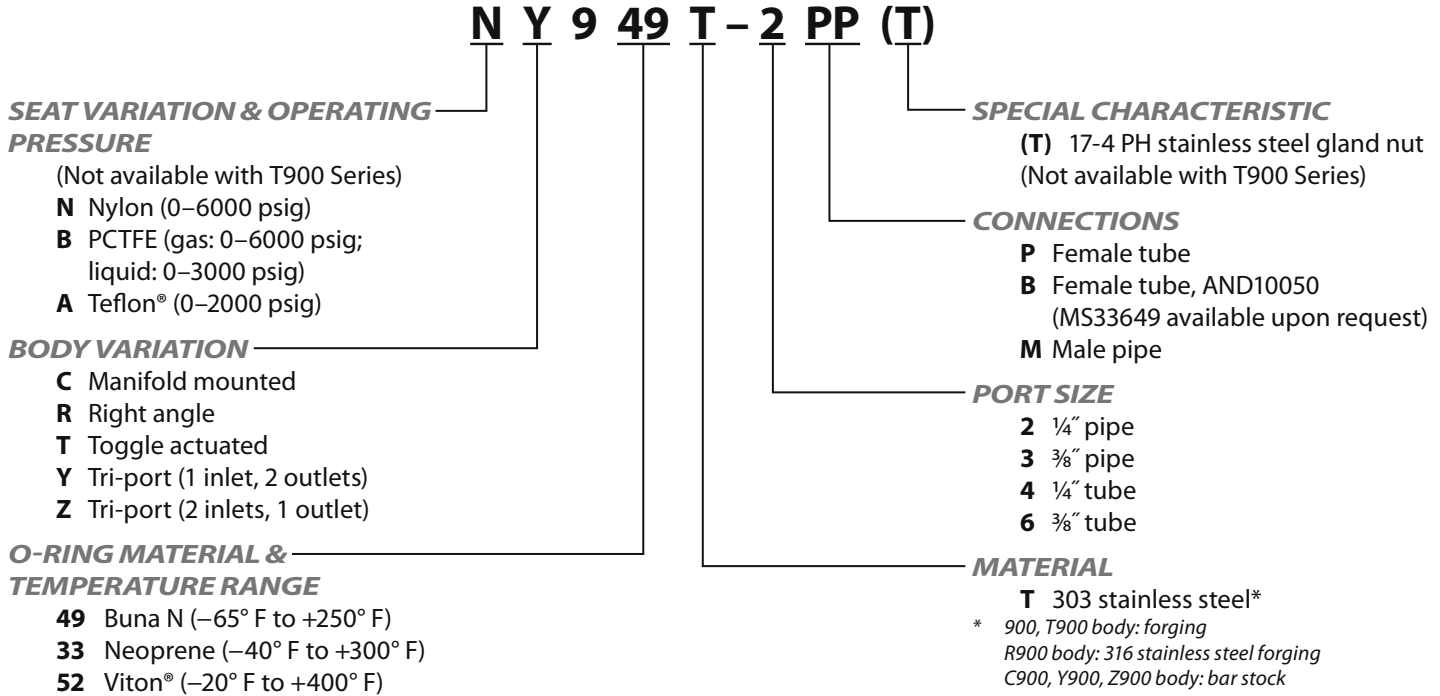
# 900 Series

## Typical Flow Curves: 900 & T900 Series



# 900 Series

## How to Order



### Repair Kits

In normal service, the only part(s) which may require replacement is(are) the seal(s). A repair kit may be ordered by placing a "K/" in front of the complete part number (i.e. K/949T–2PP).

### For Your Safety

It is solely the responsibility of the system designer and user to select products suitable for their specific application requirements and to ensure proper installation, operation, and maintenance of these products. Material compatibility, product ratings and application details should be considered in the selection. Improper selection or use of products described herein can cause personal injury or property damage.