

**FLO-TITE™**  
valves & controls

# Combination Steam Trap Testing & Blocking Ball Valves

## Models:

S251 1-Piece Seal-Weld Body Design

## Standard Port:

1/2"–1"

## Class 300 LB

Stainless Steel - 720 psi WOG

Carbon Steel - 740 psi WOG

## Steam Rated:

250 WSP @ 406°F

## Standard Product Numbers for 1pc Body S251:

S251-SS-YGG-O

S251-CS-YGG-O

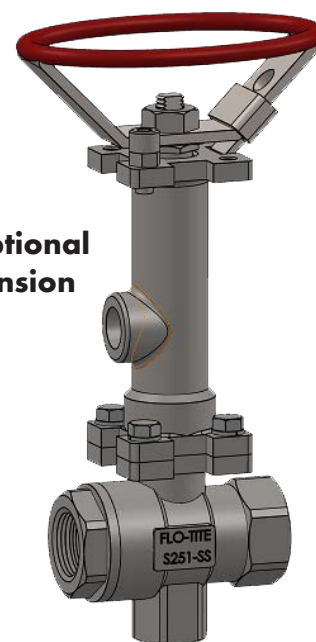


**S251 with standard oval handle 1pc Body**



## Design Features

- Visual Steam Trap Test – Provides a quick visual check of steam trap discharge.
- Eliminates the need for separate blocking and test valves in steam trap installations.
- Can be used to sample fluids or gases from process lines
- Gasket located ahead of body cap threads to ensure a tight seal and protect threads from flow media.
- Seal-welded body joint for additional external leak protection.
- Compact body and oval handle facilitate installation and operation in tight spaces.
- Vent port (threaded) allows safe diversion of test/blowout discharge.
- Safety Locking Handles
- ISO 5211 mounting pad for easy installation of stem extensions for line insulation.
- Blowout-proof stem.
- Complies with ASME B16.34 and EN 12516-1 standards.
- NPT threads comply with ASME B1.20.1.
- Adjustable stem packing.
- Shell wall tested to 1110 PSI.
- Corrosion-resistant black phosphate coating
- Anti-static grounding.
- Pressure-balanced ball design.

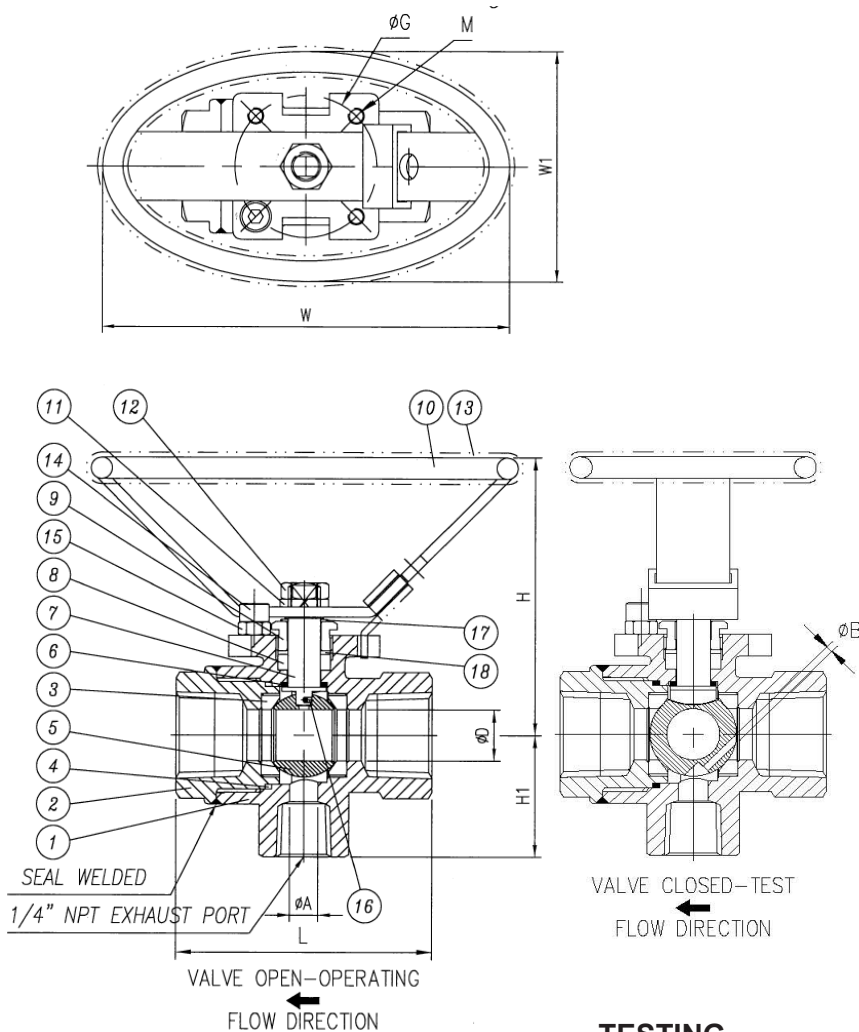


**S251 with Optional 3" Stem Extension 1pc Body**

**Simplify steam trap testing with Flo-Tite test valves — a compact, safe solution that eliminates the need for bulky tees, extra fittings, and multiple valves. Instantly validate steam trap performance with ease!**

**[www.flotite.com](http://www.flotite.com)**

## CSTTBV S251 - 1PC Body



## TESTING

All valves are factory tested in both the open and closed positions to verify seat and seal integrity. Seats are tested with 100 psi air per MSS-SP-72, submerged in water. Body testing is done with water at 1110 psi per ASME B16.34.

## Dimensions and Weights

SIZE	ØD	L	ØG	H	H1	W	W1	ØA	M	ØB
1/2"	0.49	2.48	1.42	2.41	1.14	3.58	2.20	0.28	M5	0.08
3/4"	0.59	2.85	1.42	2.59	1.23	3.58	2.20	0.28	M5	0.12
1"	0.79	3.11	1.42	2.71	1.72	3.58	2.20	0.28	M5	0.14

## Bill of Materials

No.	Parts	S251-SS	S251-CS	Qty
1	Body	ASTM A351 CF8M	ASTM A216 WCB	1
2	End Cap	ASTM A351 CF8M	ASTM A216 WCB	1
3	Seats	Super-Tek III	Super-Tek III	2
4	Gasket	Graphite	Graphite	1
5	Ball	ASTM A351 CF8M	ASTM A351 CF8M	1
6	Thrust Washer	RPTFE (25% CARBON)	RPTFE (25% CARBON)	1
7	Stem	ASTM A276-316	ASTM A276-316	1
8	Stem Packing	GRAPHITE	GRAPHITE	1
9	Gland	SS304	SS304	1
10	Handle	SS304	SS304	1
11	Handle Washer	SS304	SS304	1
12	Handle Nut	SS304	SS304	1
13	Handle Cover	PVC	PVC	1
14	Stop Screw	SS304	Carbon Steel	1
15	Nut	SS304	Carbon Steel	1
16	Anti-Static Device	SS316	SS316	1
17	Anti-Static Spring	SS301	SS301	1
18	Packing Protector	RPTFE (25% Carbon)	RPTFE (25% Carbon)	1

## TRACEABILITY:

FOUNDRY HEAT # FOR ALL VALVES

## THREADED ENDS

ANSI B1.20.1 NPT

BSP Threaded

Available, C/F

## MODELS

S251-SS Stainless Steel

S251-CS Carbon Steel

## SIZE Range 1/2" thru 1"

## ASME Class 300 Lb

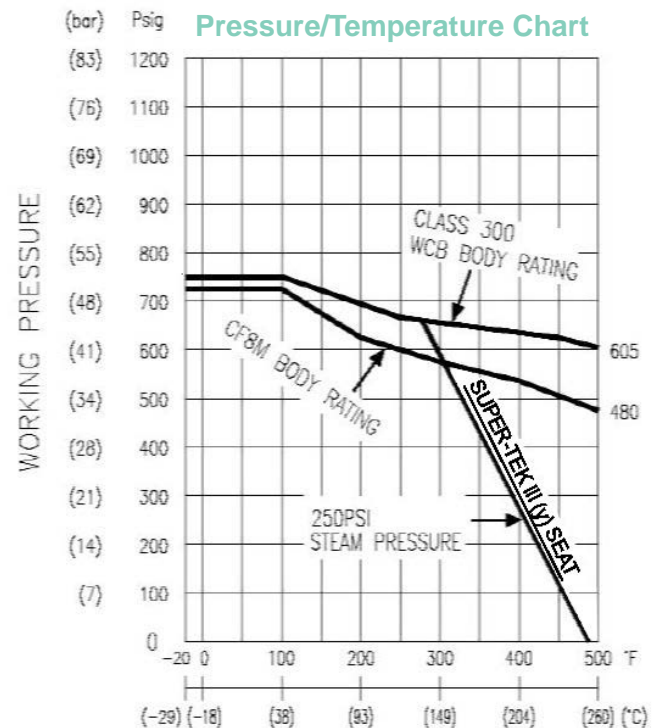
720 WOG (CF8M)

740 WOG (WCB)

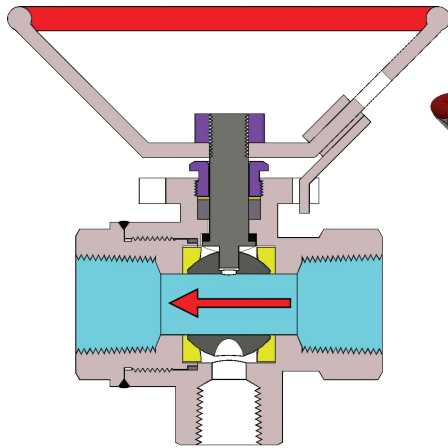
## ALSO AVAILABLE:

Stem Extension

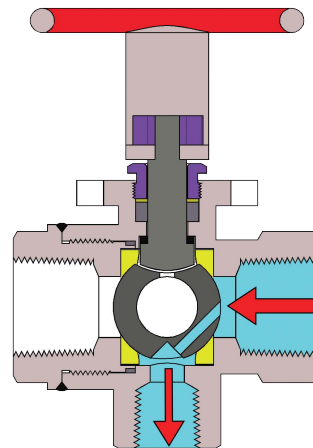
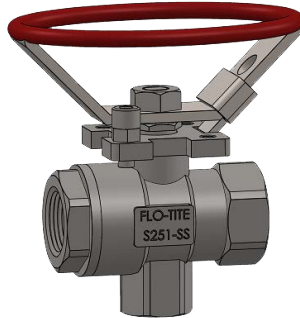
All sizes 250 WSP



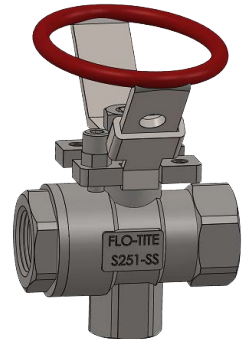
## CSTTBV S251 - 1PC Body



**NORMAL OPEN**  
Flow is Straight Through



**TEST POSITION (Closed)**  
Flow Discharges  
Through Test Port



## Application &amp; How it works.

The **Flo-Tite S251 Combination Steam Trap Testing & Blocking Ball Valve** provides a fast, simple, and visible method for diagnosing steam trap performance.

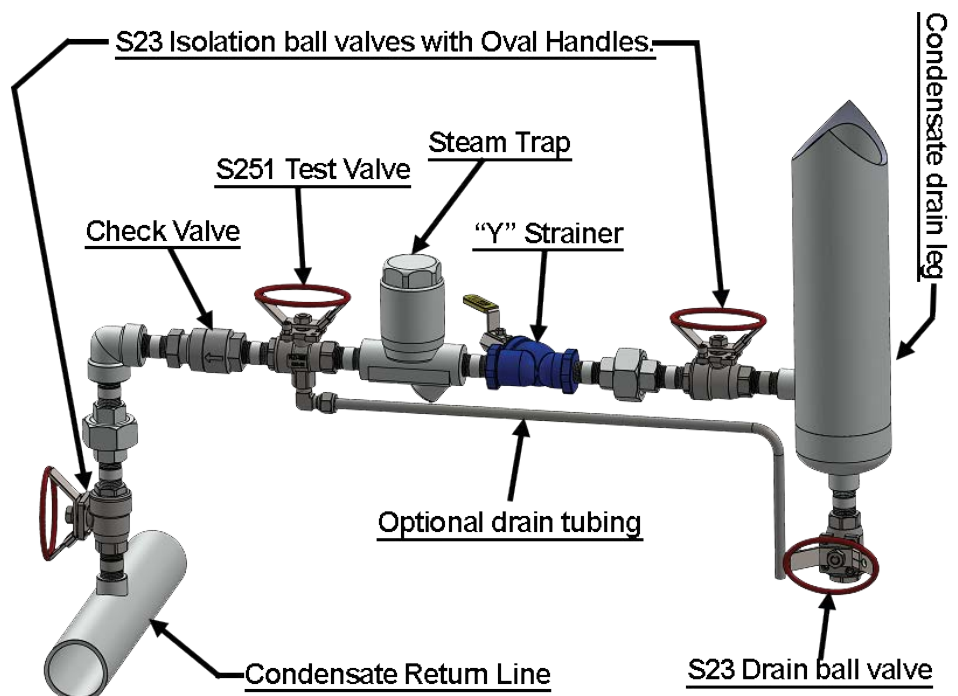
Turning the oval handle 90° to the "Test" position diverts the trap discharge through the test port for immediate visual inspection.

During normal operation, the S251 valve — installed downstream of the trap — remains open to allow standard discharge. A quarter-turn of the handle shifts the specially designed ball, redirecting discharge through the bottom port for easy evaluation. A threaded connection on the test port allows for safe routing of the discharge, helping to prevent burns or accidents during testing.

## Installation

The **Flo-Tite S251** Combination Steam Trap Testing & Blocking Ball Valve must be installed on the outlet side of the steam trap.

Care should be taken to position the discharge port safely, minimizing any risk to personnel



## *Unique Valve Designs for Safety and Convenience*

### *Seal Welded Body*



### *Safety Trigger Locking Handle*



## *Standard Unique Features*

- Flo-Tites safety trigger handle is designed to prevent accidental movement.
- The valve can be latch locked in the open or closed positions.
- The valve can also be padlocked to limit unwanted access.
- The safety trigger locking device is also standard.



# **SAFETY FIRST!!!**



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