



# ITT



## Pure-Flo® Zero Static Back to Back Sample (ZSBBS)

The ZSBBS process fabrication is a modification of a standard Zero Static Tee. An integral valve located on the back of the valve assembly provides access to a sample port upstream of the Zero Static Tee weir. This sample port is utilized to take samples of the main process flow. The sample valve typically utilizes a .5" Bio-Tek or Pure-Flo valve.

The integral sample valve greatly reduces contact surfaces, hold up volume and possible deadlegs as compared to sample valves that are welded to the exterior of a standard Zero Static valve. The ZSBBS is an essential element of piping systems required to meet demanding L/D ratios suggested by the ASME BPE standard.

### Typical Applications

- Use point where sampling of loop water is required prior to opening main valve.

### Specifications

Standard Sizes:

- 0.5" - 2" (DN 15 - 50) Main valve size
- 0.5" - 4" (DN 15 - 100) Run size
- 0.5" Sample valve
- Other sizes available upon request

Materials:

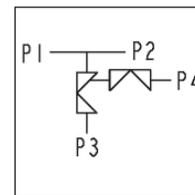
- 316L ASTM - A479
- DN 177440, 1.4435
- AL6XN
- Hastelloy C-22 & C-276
- Other materials available upon request

Standard End Connections:

- 14, 16, 18, 20 Gauge OD tubing
- DIN/ISO
- Tri-Clover Tri-Clamp®
- Others available upon request

Compatible with standard Pure-Flo topworks: See PFTOP for details on available manual bonnets or actuator.

Sample outlet features a reducing ferrule (.75" connection to a .5" port) to maximize drainability of the small diameter port.



### Flow Path



## How to Order a Zero Static Back to Back Sample

Zero Static Block Body with a 2" wrought stainless steel main valve and a 4" tube, all three outlets are buttweld, Bio-Tek sample valve with .75" Tri-Clamp connection, 25 Ra interior finish, standard exterior finish (Scotch Brite).

Figure Number: ZSBBS-2-428-4-428-.5-SVBT-419R-R-W-6-1-0

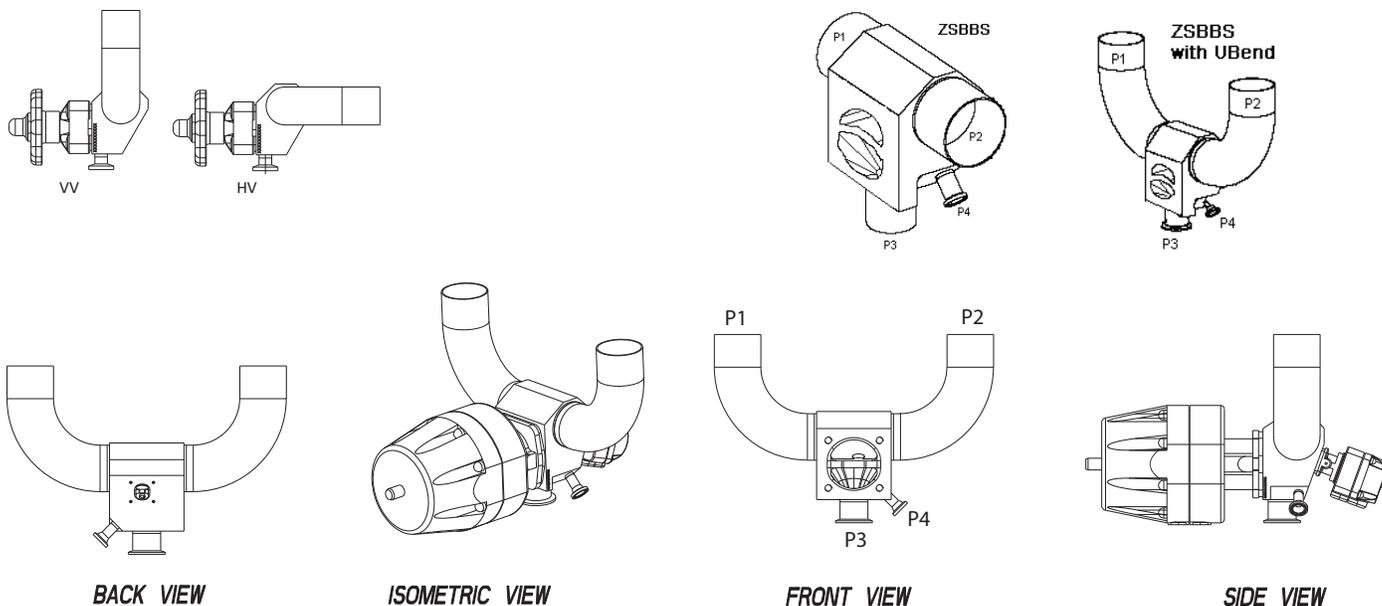
Configuration Example		ZID	1	419	2	419	.5	SVBT	419	R	W	6-1-0
Valve Body	Block Type	ZID	1	419	2	419	.5	SVBT	419	R	W	6-1-0
	Valve Size		1									
	Body End Connection (P3)											
	Zerostatic Tube Size			419								
	U-Bend Tube Orientation <sup>1</sup>				2							
	Zerostatic Tube End Connections (P1, P2)					419						
	Second Valve Size						.5					
	Second Valve Type (.5" only) <sup>2</sup>							SVBT				
	Second Valve End Connection (P4) <sup>3</sup>								419			
	Sample Outlet Side									R		
Body Material										W		
Polish Selections											6-1-0	

<sup>1</sup> For a U-Bend Vertical Tube, enter VV. For Horizontal Tube, enter HV. See drawings below for vertical tube and horizontal tube examples.

<sup>2</sup> For .5 inch valve, must specify Pure-Flo (PF) or Bio-Tek (BT). PF is recommended for steam applications.

<sup>3</sup> 419R refers to .75 x .5 reducing Tri-Clamp port connection required for drainability. .5" sample port is available upon request.

To add topworks, see BBTOP. For additional figure numbers, see PFORD.



Please contact ITT Engineered Valves for the latest drawing and dimensional information. The above drawing should only be used as a general reference.

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