



# 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 size combinations available upon request

Materials:

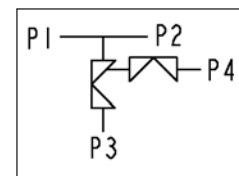
- 316L ASTM - A479
- DN 177440, 1.4435
- AL6XN
- Hastelloy C-22 & C-276
- Other materials available upon request

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



*Engineered for life*



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## 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).

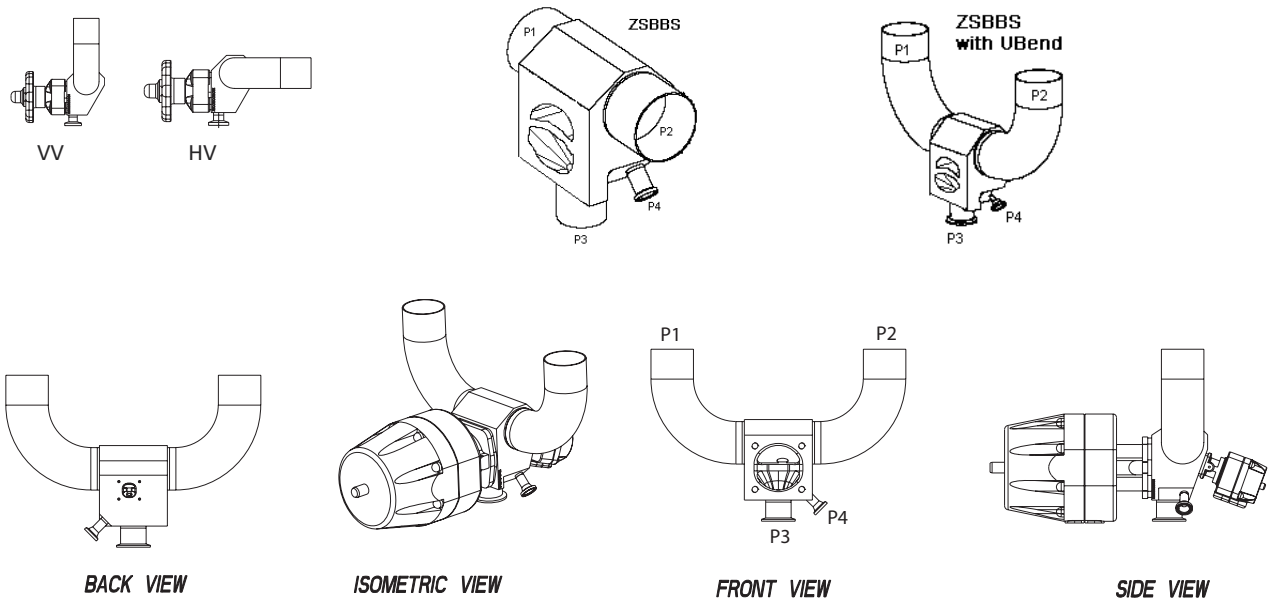
**Figure Number:** ZSBBS-2-428-4-428-.5-SVBT-419R-R-W-6-1-0

Configuration Example		ZSBBS	2	428	4		428	.5	SVBT	419R	R	W	6-1-0
Valve Body	Block Type	ZSBBS											
	Valve Size		2										
	Body End Connection (P3)			428									
	Zerostatic Tube Size				4								
	U-Bend Tube Orientation <sup>1</sup>												
	Zerostatic Tube End Connections (P1, P2)						428						
	Second Valve Size							.5					
	Second Valve Type (.5" only) <sup>2</sup>								SVBT				
	Second Valve End Connection (P4) <sup>3</sup>									419R			
	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-07. For additional figure numbers, see PFORD.



Please contact Pure-Flo CA at 805-520-7200 for the latest drawing and dimensional information. The above drawing should only be used as a general reference.