



# E-Series Zero Static U-Bend and Non-Faceted Zero Static Tee

ITT developed the first Zero Static block body valves in 1997. Zero Static block bodies have become the standard for point of use applications in the Biopharmaceutical industry, where the reduction of product contact surface and hold up volume is critical. Point of use valves allow process fluids to be transferred, sampled, drained or diverted with minimal impact on critical systems such as WFI and purified water.

The new E-Series Zero Static U-Bend and Non-Faceted Zero Static Tee maintain the essential functional characteristics of minimal deadleg, minimal hold up volume, and optimal drainability of the original Zero Static valve design while improving the cost effectiveness of block body assemblies.

The E-Series U-Bend design utilizes ASME autoweld elbow fittings, resulting in an increased U-Bend centerline dimension as compared to the original Pure-Flo Zero Static valve design. E-Series U-Bend welds are left in the as-welded condition. Outlet fitting welds are polished to valve surface finish requirements.



E-Series Zero Static U-Bend



Non-Faceted Zero Static Tee

Both the E-Series Zero Static U-Bend and Non-Faceted Zero Static Tee designs feature minimized exterior body machining, minimizing overall valve costs without affecting valve performance.



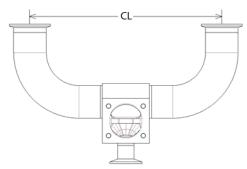
Faceted Body



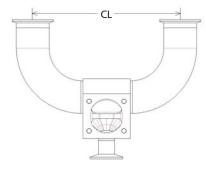
Non-Faceted Body



# E-Series Zero Static U-Bend and Non-Faceted Zero Static Tee







Zero Static U-Bend

	E-Series vs. U-Bend ZSBBVV (HV)Center Line Dimensions (CL)												
Valve Size Run Size	0.5" (DN15)	0.75" (DN20)	1" (DN25)	1.5" (DN40)	2" (DN50)	2.5" DN(65)	3" (DN80)	4" (DN100)					
0.5" E-Series (DN15)	8.25 (209.5)	8.25 (209.5)	8.25 (209.5)	9.75 (247.6)	11.75 (298.5)	13.25 (336.5)	14.75 (374.6)	18.25 (463.5)					
0.5" (DN15)	4.5 (114.3)	5 (127)	6.12 (155.5)	8.5 (216)	11(279.4)	12.5 (317.5)	14 (355.6)	17 (431.8)					
0.75" E-Series (DN20)		8.25 (209.5)	8.25 (209.5)	9.75 (247.6)	11.75 (298.5)	13.25 (336.5)	14.75 (374.6)	18.25 (463.5)					
0.75" (DN20)		5 (127)	6.12 (155.5)	8.5 (216)	11(279.4)	12.5 (317.5)	14 (355.6)	17 (431.8)					
1" E-Series (DN25)			8.25	9.75 (247.6)	11.75 (298.5)	13.25 (336.5)	14.75 (374.6)	18.25 (463.5)					
1" (DN25)			6.12 (155.5)	8.5 (216)	11(279.4)	12.5 (317.5)	14 (355.6)	17 (431.8)					
1.5" E-Series (DN40)				11.75 (298.5)	13.75 (349.3)	15.25 (387.4)	16.75 (425.5)	20.25 (514.4)					
1.5" (DN40)				8.5 (216)	11(279.4)	12.5 (317.5)	14 (355.6)	17 (431.8)					
2" E-Series (DN50)					14.75 (374.6)	16.25 (412.8)	17.75 (450.8)	21.25 (539.8)					
2" (DN50)					11(279.4)	12.5 (317.5)	14 (355.6)	17 (431.8)					

All values are in Inches (DN).

# **Model Codes**

Туре	Description
ZSBBT	ZSBBT: Zero Static Tee (Block Body)
ZSBT	ZSBT: Zero Static Tee (NF)
ZSBBVV	ZSBBVV: Zero Static Block U-Bend: Vertical Tube, Vertical Valve
EZSBVV	EZSBVV: Zero Static E-Series Vertical U-Bend, Vertical Valve
ZSBBHV	ZSBBHV: Zero Static Block U-Bend: Horizontal Tube, Vertical Valve
EZSBHV	EZSBVV: Zero Static E-Series Horizontal U-Bend, Vertical Valve
ZSBBS	ZSBBS: Zero Static Back to Back Sample Valve
ZDP	ZDP: Zero Static Valve with Downstream Purge

Orientation Code	U-Bend Orientation Codes Description (ZSBBS, ZDP types only)
VV	VV: Vertical U-Bend Tube with Vertical Valve Orientation
EVV	EVV: E-Series Vertical U-Bend, Vertical Valve
HV	HV: Horizontal U-Bend Tube with Vertical Valve Orientation
EHV	EHV: E-Series Horizontal U-Bend, Vertical Valve

Items highlighted in gold are E-Series or Non-Faceted



# How to Order a E-Series Zero Static U-Bend

E-Series .5" Zero Static Block, wrought stainless steel, 2" U-bend vertical tube, all three outlets have tri-clamp ends, 25 Ra interior finish, standard exterior finish (Scotch Brite), both interior and exterior electropolish.

#### Figure Number: EZSBVV-.5-W-419-2-X19-6-1-3

	Configuration Example		.5	W	419	2	X19		6-1-3	
	Block Type <sup>1</sup>	EZSBVV								
	Valve Size		.5							la al
<u>~</u>	Body Type <sup>2</sup>			W						
Boo	Connection (P1)				419					
Ve	Zerostatic Tube Size					2				
Va	Zerostatic Tube End Connection (P1,P2 or P1)						X19			
	Zerostatic Tube Second End Connection (P2) <sup>3</sup>							•		. 🗆 .
	Polish Selections								6-1-3	

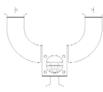
- 1 EZSBVV for vertical tube, vertical valve. EZSBHV for horizontal tube, vertical valve. See drawings below for vertical tube and horizontal tube examples.
- 2 For Bio-Tek BW is used.
- 3 Second end connection can be provided if end connections are different. To add topworks, see BBTOP-07. For additional figure numbers, see PFORD.

#### How to Order a Zero Static U-Bend

.5" Zero Static Block, wrought stainless steel, 2" U-bend vertical tube, all three outlets have tri-clamp ends, 25 Ra interior finish, standard exterior finish (Scotch Brite), both interior and exterior electropolish.

### Figure Number: ZSBBVV-.5-W-419-2-X19-6-1-3

	Configuration Example	ZSBBVV	.5	W	419	2	X19	6-1-3	
	Block Type <sup>1</sup>	ZSBBVV							
	Valve Size		.5						
<del>\</del>	Body Type <sup>2</sup> Connection (P1)			W					
go	Connection (P1)				419				\
Хe	Zerostatic Tube Size					2			
\sqr	Zerostatic Tube End Connection (P1,P2 or P1)						X19		
	Zerostatic Tube Second End Connection (P2) <sup>3</sup>								
	Polish Selections							6-1-3	



- 1 ZSBBVV for vertical tube, vertical valve. ZSBBHV for horizontal tube, vertical valve. See drawings below for vertical tube and horizontal tube examples.
- 2 For Bio-Tek BW is used.
- 3 Second end connection can be provided if end connections are different.

To add topworks, see BBTOP-07. For additional figure numbers, see PFORD.



# How to Order a Non-Faceted Zero Static Tee

Non-Faceted ZSBT with a 1" wrought stainless steel main valve with Tri-Clamp end connection and a 2" tube with buttweld ends, 25 Ra interior finish, standard exterior finish (Scotch Brite).

Figure Number: ZSBT-1-W-419-2-X28-6-1-0

	Configuration Example	ZSBT	1	W	419	2	X28		6-1-0
	Block Type	ZSBT							
	Valve Size		1						
5	Body Type			W					
Body	Body End Connection				419				
Valve	Zerostatic Tube Size					2			
Va	Zerostatic Tube End Connection						X28		
	Zerostatic Tube Second End Connection							•	
	Polish Selections								6-1-0



To add topworks, see BBTOP-07. For additional figure numbers, see PFORD.

# How to Order a Faceted Zero Static Tee

ZSBBT with a 1" wrought stainless steel main valve with Tri-Clamp end connection and a 2" tube with buttweld ends, 25 Ra interior finish, standard exterior finish (Scotch Brite).

Figure Number: ZSBBT-1-W-419-2-X28-6-1-0

	Configuration Example	ZSBBT	1	W	419	2	X28	6-1-0
	Block Type	ZSBBT						
	Valve Size		1					
5	Body Type			W				
Body	Body End Connection				419			
Valve	Zerostatic Tube Size					2		
Va	Zerostatic Tube End Connection						X28	
	Zerostatic Tube Second End Connection							
	Polish Selections							6-1-0



To add topworks, see BBTOP-07. For additional figure numbers, see PFORD.