

## **VSB Series (PTFE/Steel) Slide Bearings**

VSB slide bearing systems offer a low profile solution for allowing relative movement between structural elements. Thermal cycles, seismic activity, variable loading conditions, and long term material changes are some of the conditions that must be accommodated by the structural system. Typical applications are at floor and roof framing connections along expansion joint lines in large structures, truss base plates, pipe supports, heat exchangers, and other process equipment.

VSB slide bearing systems are comprised of an upper and lower element. In the basic format, the sliding interface is PTFE to PTFE (teflon to teflon). The upper element is sized to provide full coverage of the lower element throughout the range of allowed movement. This ensures that full contact is maintained on the lower element and allows the upper element to act as an "umbrella" for the lower element. Following this best practice approach for element sizing will maximize product life cycle by eliminating partial loading situations and minimizing the risk that foreign material will enter the sliding interface.

The simplest format for a VSB slide bearing system consists of 3/32" glass-filled PTFE bonded to a 10 gage steel (carbon or stainless steel) backing plate. The upper element is attached to the upper structural element with the PTFE face down, while the lower element is attached to the lower structural element with the PTFE face up. The slide bearing elements can be supplied with holes and slots to match the opening in the structural system.

Voss Engineering, Inc. offers a variety of options within the VSB series products to address a wide range of structural connection requirements. For example, the PTFE on the upper element can be replaced with polished stainless steel to allow for higher loading when combined with the glass-filled PTFE lower element. Another option is to include an elastomeric component (SORBTEX® or FIBERLAST®) in the lower element to provide for rotation capacity or vibration dampening.

Shipment lead times for VSB Series slide bearings can be as short as 1-2 working days when stock materials are specified. Voss stocks the following materials:

<b>VSB SERIES SLIDE BEARING STOCK MATERIAL OPTIONS</b>			
<b>COMPONENT</b>	<b>THICKNESS</b>	<b>TYPE</b>	
Backing Plate	10 ga. (.135")	Carbon Steel	
	10 ga. (.135")	G90 Galvanized Sheet	
	10 ga. (.135")	Stainless Steel, ASTM A240, TYPE 304	
	1/4" (.25")	Carbon Steel, ASTM A36	
Friction Surface	PTFE(teflon)	3/32" (.094")	Glass Filled PTFE
		1/16" (.063")	Unfilled PTFE
		3/32" (.094")	Unfilled PTFE
		1/8" (.125")	Unfilled PTFE
	Polished Stainless Steel	20 GA. (.036")	A240, TYPE 304, Polish: Mirror (#8)
		14 GA. (.075")	A240, TYPE 304, Polish: Mirror (#8)
10 GA. (.135")		A240, TYPE 304, Polish: Mirror (#8)	
Elastomeric Pad	SORBTEX®	1/8"	Preformed Fabric Pad (CDP)
		3/16"	
		15/64"	
		9/32"	
		11/32"	
		1/2"	
		5/8"	
		3/4"	
		1"	
		FIBERLAST®	
	3/8"		
	1/2"		
	5/8"		
	3/4"		
	1"		
	ADDITIONAL BACKING PLATE OPTIONS ARE AVAILABLE BY REQUEST		

Please contact Voss to discuss your specific your application.

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