

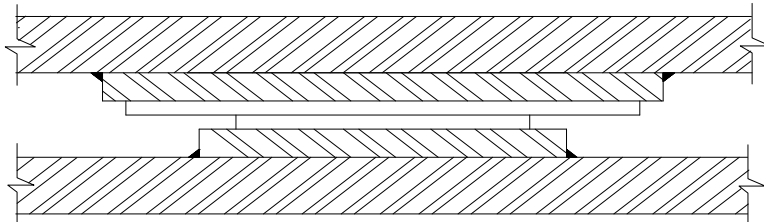
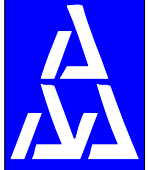


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TRI*SLIDETM

*Low Friction Slide Bearings
for
High Temperature Service*

TRI*SLIDE™ HIGH TEMP SLIDE BEARINGS

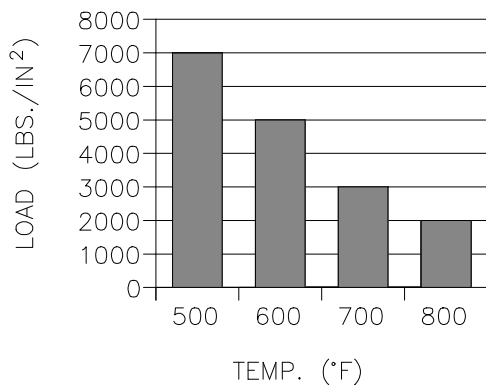
Type TSSM

General Specifications

TRI*SLIDE™ high temperature slide bearings are made of a stainless steel upper slide bearing bonded to a steel backing plate and a Meehanite® lower slide bearing constrained by a steel backing plate and frame. TRI*SLIDE™ high temperature slide bearings are designed to reduce frictional resistance to movement at support or restraint points in piping systems and process equipment. When utilized properly, TRI*SLIDE™ high temperature slide bearings will not show any significant wear during the expected life of the process plant.

Sizing for Loads and Movements

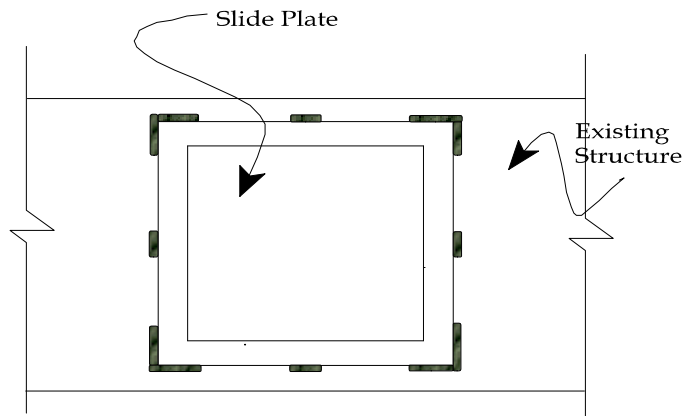
The lower slide bearing element should be sized for the load and the upper slide bearing element should be sized for the movement. To calculate the minimum bearing area of the lower high temp bearing pad in square inches, divide the load carried by the slide bearing element by the maximum load bearing rating in pounds per square inch. For a bearing temperature of 700 °F and a load of 25,000 pounds, the required lower bearing area would be $25,000 \text{ lbs} / 3000 \text{ lbs/in}^2 = 8.333 \text{ in}^2$. Note also that as the temperature increases, the load carrying capacity of the slide bearing decreases.



In addition to the dimensions of the high temperature bearing pad calculated above, 1 ½" should be added to each of the four sides. In other words, if your lower bearing was determined to be 4" by 3", the outside of the steel frame containing the slide bearing would be 7" by 6". The slide bearing backing plate can be any desired thickness with a minimum of ¼" recommended. The lower slide bearing pad will be ½" thick Meehanite®.

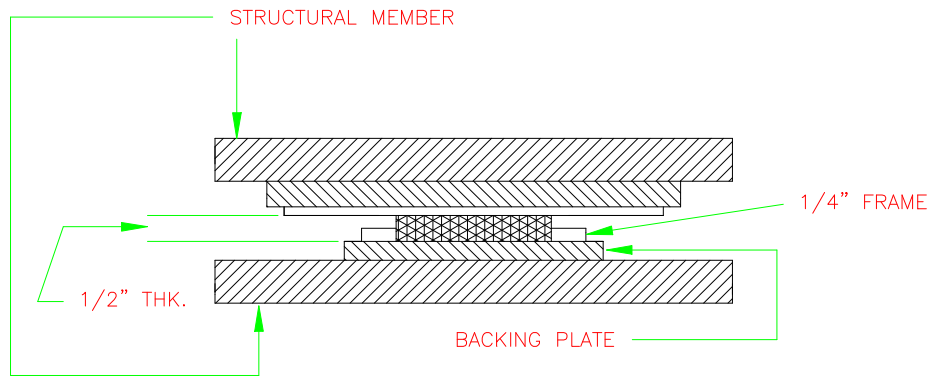
To properly size the upper slide bearing element, adhere to the following procedure:

1. Start with the required lower slide bearing area that you have determined to be necessary to carry the load. Do not use the dimensions of the steel frame.
2. To the width required for load, add two times the lateral movement expected. Then add 1" or twenty (20) percent of the lateral movement, whichever is greater.
3. To the length required for load, add two times the axial movement expected. Then add 1" or twenty (20) percent of the axial movement, whichever is greater.
4. For the upper slide bearing element, AAA Technology recommends a backing plate with a ½" lip on all sides. A larger lip can be provided upon request. A smaller lip is not recommended since the slide plates are to be welded in place and a smaller lip may lead to separation of the high temp slide bearing from the backing plate upon installation.
5. The upper slide bearing element is made of a 20 gauge Stainless Steel plate welded to a Carbon Steel backing plate. The backing plate may be as thin as 10 gauge, but you may specify any thickness you require.



Resistance to Movement

The coefficient of friction for the stainless steel slide bearing over the Meehanite® lower slide bearing is .15. In other words, when a vertical load of 10,000 pounds is carried on a TRI*SLIDE High Temp Slide Bearing, a resistance force of 1,500 pounds must be overcome before movement occurs.



Construction Options

Standard TRI*SLIDE™ high temp slide bearing assemblies are constructed of the following:

Type TSSM	Thickness	Material
Upper Backing Plate	10 Ga. (Min.)	Carbon Steel = CS
Upper Slide Surface	0.03"	Stainless Steel = SS
Lower Slide Surface	0.50"	Meehanite® = M
Frame - Lower Backing Plate	0.50"	Carbon Steel = CS
Lower Backing Plate	0.25" (Min.)	Carbon Steel = CS

Type TSSM TRI*SLIDE high temp slide bearing options are as follows:

- ▶ Slide Bearing Thickness = as stated in table above
- ▶ Backing Plate Thicknesses = Minimums as above
- ▶ Backing Plate Materials = Stainless Steel (SS), Carbon Steel without a finish (Black), Carbon Steel with Red Oxide Primer (Painted), Hot Dip Galvanized Carbon Steel (HDG)

Additional Construction Options

- ▶ **Holes** - If required, holes for bolting the slide bearings to the structure may be specified by the customer. Bolt holes should not pass through the slide bearing surfaces.
- ▶ **Studs or Anchors** - If studs or anchors are to be welded to the backing plate, specify a backing plate thickness equal to at least the diameter of the stud or anchor.

Recommended Installation Procedure for a TRI*SLIDE Type TSSM High Temp Slide Bearings - A typical TRI*SLIDE™ TSSM slide bearing will be supplied with a smaller Meehanite® bearing pad for use as the lower element and a larger Stainless Steel bearing pad for use as the upper element.

1. The lower element should be installed first.
2. The Meehanite® bearing should be covered with a material that will protect it from weld splatter during installation.
3. Once the Meehanite® bearing is properly protected, the backing plate on the lower element should be stitch welded. If the bearing plate is to be seal welded, use the skip and fill technique.
4. After the lower element has been installed, completely cover the Meehanite® on the lower slide bearing and the Stainless Steel upper slide bearing.
5. Once the slide bearing surfaces are properly protected, the backing plate on the upper Stainless Steel slide bearing should be stitch welded to the structure. The Stainless Steel slide bearing may be seal welded, if desired.

6. After welding or other installation methods are concluded, the protective covering must be removed from the Meehanite[®] surface and the Stainless Steel slide bearing surface to allow for the desired movement to occur.
4. Define the Lower Element Properties
 - a. Slide Bearing Length, Width and Thickness
 - b. Backing Plate Length, Width and Thickness
 - c. Backing Plate Material
5. Describe any Holes and/or Slots required, if any - Tagged sketches should be attached to clarify hole and slot locations and sizes.
6. Describe the Studs or Anchors required, if any - Tagged sketches should be attached to clarify stud and anchor sizes and locations

How to Specify Type TSSM TRI*SLIDE™ High Temp Slide Bearings

Specify the following items to describe the slide bearings desired:

1. Customer Tag Number (Identifier)
2. Type "TSSM"
3. Define the Upper Element Properties
 - a. Slide Bearing Length, Width and Thickness
 - b. Backing Plate Length, Width and Thickness
 - c. Backing Plate Material

For example:

- # Tag #1, Type TSSM
- # U, SS Slide Bearing 9", 6", .03", Backing Plate 10", 7", 10 Ga., CS Black
- # L, M Slide Bearing 3", 2", .50", Backing Plate 6", 5", 0.25, CS Black

FAX, mail, courier or E-Mail your requirements to us for a complimentary price and delivery quotation. We at AAA Technology welcome an opportunity to serve you!



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