

**Mills Machine Company, Inc.**  
Custom Manufacturing, Customer Service and Rapid Response.

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## Stabilizers - Section 12

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Please call for custom options and other accessories.

Visit our web site:  
[www.MillsMachine.com](http://www.MillsMachine.com)

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## Overview

Mills Machine custom manufactured stabilizers are used to keep the drill rod centered in the hole. They are available in a wide range of construction with all wear surfaces coated with carbide hard-facing.

All stabilizers are made with heavy walled steel pipe. Stabilizers larger than 8 1/2" OD are normally made with an inner as well as an outer pipe for rigidity and strength. There is full, direct flow circulation provided. We will discuss the specific design with you before accepting your order.

All stabilizers are made with 4142 heat-treated, steel tool joints. All ribs are fully welded on both sides and have hard facing. Optional replaceable cast carbide ribs are available to increase the gage life.

Mills offers **five standard styles of stabilizers: Smooth, Flow Through, Straight Ribbed, Spiral Ribbed, and Straight-Spiral Ribbed.**

### Smooth Stabilizers



Smooth

Smooth Stabilizers are normally a couple of inches smaller than the borehole ID and can have an inner and outer barrel.

### Flow Through Stabilizers



Smooth Flow Through

Flow Through Stabilizers are for larger diameter stabilizers. They allow the cuttings to flow between the inner and outer barrel.

### Straight Ribbed Stabilizers



Straight Ribbed

Straight Ribbed Stabilizers can have three or more ribs (4 ribs is the most common) depending on the application. The ribs are welded to the steel tubing and are hard faced down the entire length to extend the gage life.

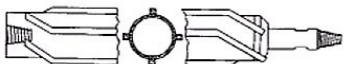
### Spiral Ribbed Stabilizers



Spiral Ribbed

Spiral Ribbed Stabilizers feature hard-faced ribs which are hand spiraled around the steel body to give 360 degree wall contact and to assist in cutting removal.

### Spiral-Straight Ribbed Stabilizers



Spiral/Straight Ribbed

Spiral-Straight Ribbed Stabilizers give the wall contact of the spiral stabilizer while reducing the cost of the spiraling process.

Please call for custom options and other accessories.

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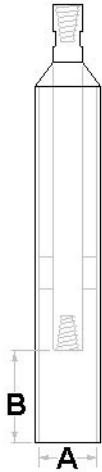
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## Over Hammer Stabilizers

### Smooth Over Hammer Stabilizer



The Mills Machine over-hammer stabilizer is built with the rugged construction that is standard for our units and with the ability to take the punishment of direct connection to the down hole hammer. The stabilizer is designed for the specific hammer that it is coupled with.

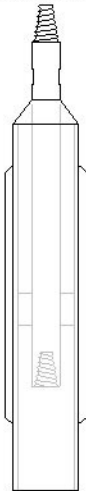
Although more often of smooth design it can be built with straight or spiral ribs. The top connection matches the drill pipe while the bottom is designed to overlap and protect the hammer.

We can design the top neck to your specific requirements. A float valve can be inserted into the bottom box connection if required.

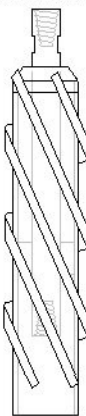
It is essential that the over-hammer stabilizer application questionnaire at back of this section be filled out for the proper design of the stabilizer.

In building a stabilizer we will build the stabilizer I.D., dimension A , to fit the case diameter. The case housing length, dimension B , is the length of the stabilizer case over the hammer. These dimensions must be specified.

### Straight Ribbed Over Hammer Stabilizer



### Spiral Ribbed Over Hammer Stabilizer



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