



# Sliding Saddles

The *safest*, most *efficient*, and most *effective* way to control movement at hanger locations in a dynamic piping system.



## Product Overview

Buckaroos Sliding Saddles are unique saddles that allow controlled linear movement at hanger locations in a dynamic piping system. The design includes two saddles. The upper is a heavy-gauge plain saddle that is adhered to the pipe insulation jacket with a peel-and-stick strip for easy installation. The lower saddle features the Buckaroos Short-Rib design and rests securely in the clevis hanger. The Short-Rib Saddle has two small ribs on the bottom of the saddle that help to secure the saddle at a centered position as it rests on the hanger. On the top of the Short-Rib Saddle is a thin layer of polytetrafluoroethylene (PTFE).

## "Sliding" Feature

The PTFE creates a very low coefficient of friction ( $\mu$ ) between the upper and lower saddles. Hence, the upper saddle is allowed to slide easily across the lower saddle as the pipe moves. Sliding Saddles are ideal for any system that experiences thermal growth such as hot water, chilled water, steam, ammonia refrigeration, medical gas or dual-temperature.



## Recommended Support

Buckaroos recommends installing Sliding Saddles in combination with a rigid insulation material as opposed to wood block supports. For operating temperatures of -290°F to 250°F a rigid, phenolic foam is best. From 250°F to 1200°F, calcium silicate should be specified.

The traditional method of insulating at hanger locations with an insulation saddle and a supporting wood block is not effective when linear movement takes place in the system. As the pipe moves, the focus of where the weight of the pipe rests may change. The hanger may lose its centered position and relocate closer to either edge of the saddle. When this occurs, the wood block is no longer supporting the weight and the fiberglass insulation is crushed. The area loses its insulation properties, the vapor barrier may be penetrated, and the saddle sometimes falls to the ground, creating a safety hazard. A combination of rigid insulation inserts and Sliding Saddles will provide even weight distribution with or without linear movement.

## Safety

As previously noted, traditional methods of insulating at hanger locations can provide an opportunity for the saddles to fall from the hanger and affect the safety of anyone below the pipe. Galvanized sheet metal falling from above can be compared to a knife or blade. Properly supported Sliding Saddles eliminate this hazard. The upper saddle will be able to move linearly without the fear of anything falling out of place.

## Value Engineering

Sliding Saddles are the ideal value engineering solution to costly, roller-style hangers, which have a tendency to rust. A combination of Sliding Saddles, rigid insulation and clevis hangers is economical and significantly more efficient. Each Sliding Saddle is labeled with a Sliding Saddle Sticker for easy recognition on the job site.



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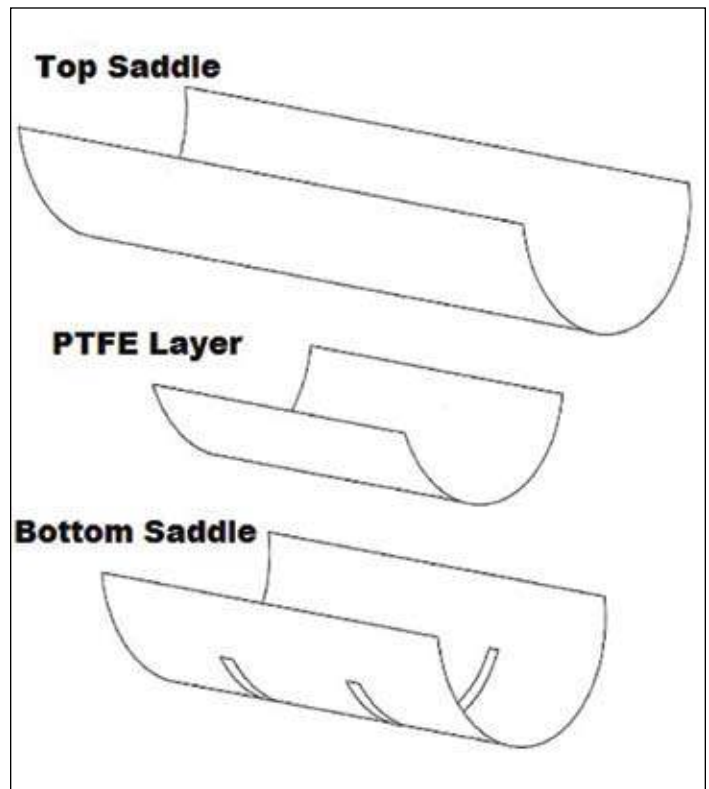


## Allowable Linear Movement

The Sliding Saddle allows for up to 4 inches of linear movement. With the theory that the hanger position will remain stable, the insulation insert and plain saddle must rest on the Short-Rib Saddle such that there is space available in the direction that movement is desired. The upper saddle shall not move past the end of the lower saddle at any time. If the product is being used on a static system, the product should be installed in a centered position over the hanger. The design engineer is responsible for determining the positioning of the saddles based on the desired linear movement allowance. Sliding Saddles are not meant to take the place of pipe guides. Custom sizes are available on a made-to-order basis for movement greater than 4 inches.

## Product Dimensions

Corresponding Insulation O.D.	Upper Saddle Length	Lower Saddle Length	Gauge
3 1/2	12"	8"	18
4	12"	8"	18
4 1/2	12"	8"	18
5	12"	8"	18
5 9/16	12"	8"	18
6 5/8	12"	8"	18
7 5/8	18"	14"	18
8 5/8	18"	14"	18
9 5/8	18"	14"	18
10 3/4	18"	14"	16
11 3/4	24"	14"	16
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