

# SUPER Clamp

For use on LS Piggybacks

# SUPER Clamp II

For use on STD Piggybacks

SEPT 2017

RANGER BRAKE

**EFFECTIVE AUGUST 15, 2017: ALL RANGER BRAKE Standard Stroke BPS Model Piggyback KITS: will use our SUPER Clamp II [Advanced Clamp-band technology]**

Over 10 years ago, RANGER BRAKE introduced our SUPER\_CLAMP kit as standard on all our BPS \_ LS [long-stroke] piggybacks. Since then, literally hundreds of thousands of these clamp kits have been used to EASE the installation of piggyback's.

**THE SUPER-CLAMP provides a wider-window of alignment tolerance EASING the installation process... the first time. When others leak, the SUPER CLAMP seals...**

With the advent of more and more cheaper chamber designs in the market, issues between the mating surfaces are growing... [that's the contact surface between the existing/ installed NPH and the new Piggyback].

Every combination of NPH and replacement Piggyback has a different angle/edge coin or edge/thickness.

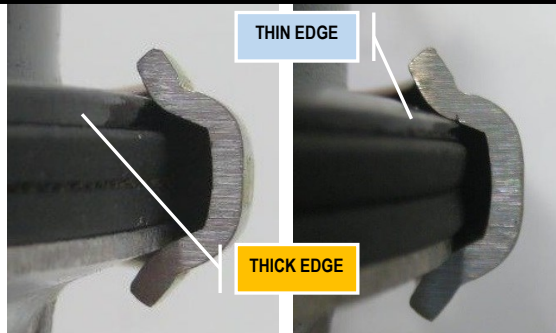
The below images should help illustrate the sizeable difference in edge/thickness and edge/coining between two brands as an example. These VARIATIONS in EDGE DESIGN cause **ALIGNMENT AND LEAK ISSUES** unless the clamp-band design tolerates these variations in design...

### Typical OLD STYLE [FLANGED] DESIGN

#### THICK EDGE /DOUBLE ANGLE CLAMP DESIGN:

This configuration causes a NARROW compression area resulting in poor alignment and diaphragm distortion.

These conditions cause poor diaphragm sealing therefore increasing the risk of leaks...



#### THIN EDGE /DOUBLE ANGLE W/COINED EDGE CLAMP DESIGN:

While this configuration slightly improves on the compression area it will cause the housing edge to bottom out against the inside of the clamp wall.

This condition will decrease the torque against the diaphragm also increasing the risk of leaks...

### To REDUCE OR ELIMINATE installation issues...

RANGER BRAKE, features our advanced SUPERCLAMP\_II on all our BPS MODEL STANDARD STROKE PIGGYBACKS.

# SUPER Clamp II

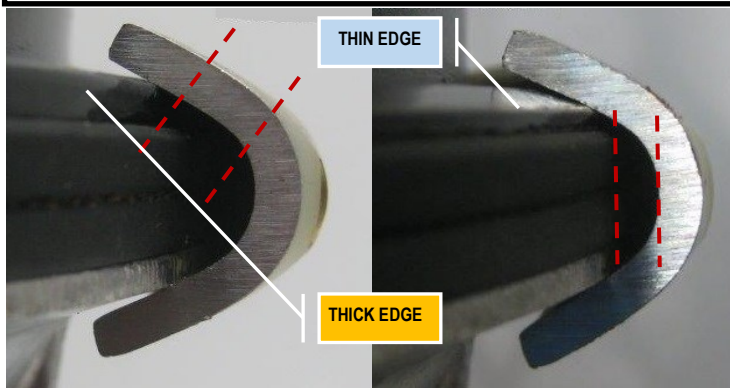
### NEW STYLE\_ [Advanced Clamp-band Technology]

# SUPER Clamp II

#### THICK EDGE /RANGER SINGLE ANGLE CLAMP DESIGN:

The SUPER CLAMP II \_ SINGLE ANGLE clamp design greatly **WIDENS** the compression area between the NPH and CENTER adapter surfaces providing a more balanced compression of the diaphragm during tightening.

Any alignment or diaphragm distortion issues are eliminated with the SUPER\_CLAMP II...



#### THIN EDGE /RANGER SINGLE ANGLE CLAMP DESIGN:

The SUPER CLAMP II \_ SINGLE ANGLE clamp design also **WIDENS** the gap between the housing edge [THICK or THIN] eliminating any chance of a bottom-out condition.

By design, tightening the SUPER CLAMP II offers balanced compression even during excessive tightening...

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