



Upgrading Split Ring Style Mandrel Retention with light weight, reliable Lock Rings

SAFETY



SAVINGS



TIME



Industry:

Steel Processing –
Slitting, Pickling &
Galvanizing of Flat Roll Steel

Project Goal:

Replace traditional bolt
together split rings with a
simpler, safer, more reliable
solution

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Situation:

A Midwest processor of flat rolled steel was using traditional steel split-ring style lock rings to secure their re-coiler mandrels in place. The steel split retention rings utilized thread and bolt fixtures, known to be heavy and requiring cumbersome tools, to secure the two ring halves together. Throughout the years the customer experienced bolt-thread failure, which resulted in unplanned downtime during mandrel changeovers, in addition to damaged retention rings, which increased the risk of injury during the extraction process of the damaged rings.

Solution:

HYSON's *INSTAclamp™* **Retention Ring** was selected and integrated into the slitting line recoiling machine for mandrel retention. The INSTAclamp Ring, manufactured from military grade aluminum and featuring a patented latching mechanism delivered a safer, lighter, "less-touch" solution.

Result:

Designed to fit the customer's mandrel, the lighter weight rings with repeatable latching system met the expectations of the customer. The INSTAclamp ring is a simpler, safer, and more reliable solution to secure the re-coiler mandrels in place. Additionally, the cumbersome installation tools were eliminated, along with the latching failures. Upgrading to the INSTAclamp Lock Rings resulted in quick mandrel changeovers and more threading time.

Customer Impact:

- ✓ **Safety:** Light weight aluminum.
- ✓ **Safety:** Reduced risk of injury due to failed mandrel clamps.
- ✓ **Cost Savings:** Down time due to bolt thread damage was eliminated.
- ✓ **Time:** Installation time was reduced to less than 10 seconds.
- ✓ **Time:** Eliminated unplanned downtime associated with bolt-thread failures.

