

RHINO WIRE[®] **INSTALLATION GUIDE**



THE INNOVATIVE RHINO WIRE SCREENS ARE DESIGNED TO BE A REPLACEMENT FOR THE WIRE CLOTH OR SYNTHETIC SIDE TENSION SCREEN THE CUSTOMER IS USING TODAY.

RHINO WIRE SHOULD BE INSTALLED WITH THE SAME ATTENTION AND PRECAUTION AS THE SCREEN IT IS REPLACING.

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Note: Although Rhino Wire is a wire cloth replacement, the installation requires more detail.

- Rhino Wire should be handled with care during transport and installation.
- Do not over-tighten screens.
- Do not expose polyurethane screens to heat in excess of 185°F.
- Store Rhino Wire Screens out of direct sun light when not in use.

1. DECK INSPECTION -

Visually inspect your screen machine for potential issues.

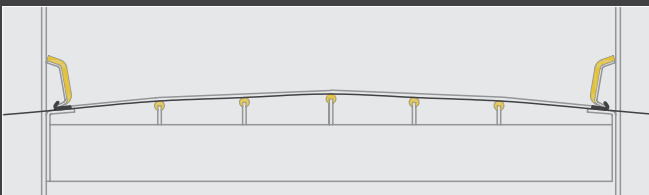
- Are the Crown Bars worn, deformed, asymmetrical or damaged?
- Inspect the Clamping Rails for acceptable use. Look for worn/thin or uneven edges. Is the bolting mechanism acceptable?
- Inspect the coil and leaf springs: are they weak or broken?
- Inspect for cracks, broken welds or loose bolts anywhere in the Screen Box or Screen Deck.
- Is your feed to the Screen Box hitting any part of the Feed Box?

Note: A crack in a cross support will cause movement under the screen and will prematurely wear the screen out from the bottom, voiding the warranty.

Recommended: Crown Bar Protectors should be replaced every time new Rhino Wire screens are installed. If Crown Bar Protectors are not replaced, the screens may not sit properly resulting in breakage.

Repair all of the above before proceeding.

2. PRE-INSTALLATION -



- With Crown Bar Protectors installed run a string from side-plate to side-plate. Pull string tight. *Reference graphic above.*
- Check for gaps between the Crown Bar Protectors and string.
- If there are gaps, the height of the bucker bars must be adjusted to eliminate the gaps.

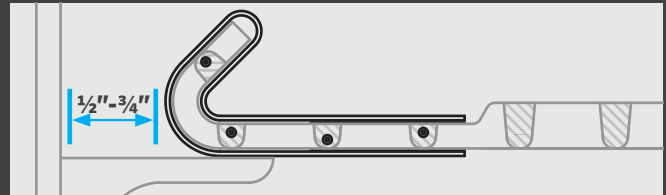
Reference machine manufacturing guidelines.

Note: Do not install Rhino Wire until gaps between the screen and Crown Bars have been removed. Breakage to the Rhino Wire will occur if gaps are not fixed.

CHECK THE WIDTH -

(SIDE TENSIONED MACHINE)

- Place Rhino Wire in the desired area or replacement location.
- There should be a 1/2" to 3/4" space outside each hook to allow for proper tensioning of the Rhino Wire.
- Does the width of the Rhino Wire, end to end of the hooks, allow sufficient room for stretching the Rhino Wire during installation? *Reference graphic below.*



CHECK THE LENGTH -

(SIDE TENSIONED MACHINE)

- Check that the length and profile of the Clamp/Tension Rail match the length and profile of the Rhino Wire.
- Do not install the Rhino Wire if the profile and length do not match. The screen(s) will break during production.

CHECK THE SCREEN LEDGE -

- Inspect and clean the screen ledge of any debris or build up.
- Remove excess fines from the ledge prior to installation of new Rhino Wire.

CHECK THE CROWN BARS -

- Crown Bar urethane protection needs to be inspected and replaced or approved for service.

Recommended: Install urethane crown bar for longer screen life.

Note: Crown bar rubber is an acceptable substitute for urethane. However, the wear life of rubber will be less than urethane.

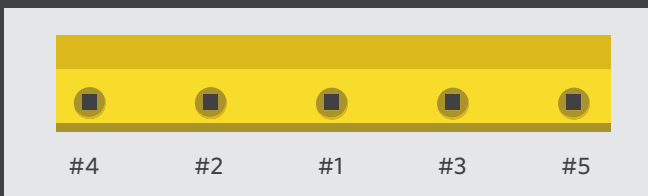
3. INSTALLATION; TENSIONING & J-BOLTS -

1. Place Rhino Wire on the deck and center; look for 1/2" to 3/4" clearance outside each hook.



- If you have a center hold-down bar, place the hold-down bar first, placing it in position and install with nuts only *finger tight*.
- Place the Tension Rails into hooks of Rhino Wire and *finger tighten* the nuts. Make sure the screen is still centered.
- Tension Rail should be seated in hooks properly. If a Tension Rail sits too high on the hook, it will fold the hook out, causing damage. *Reference picture on the following page for proper tension rail seating.*
- Using a wrench, start by tightening the bolt in the middle of tension rail. Then tighten the other bolts moving out from the middle and alternating side to side. *Reference graphic below.*

Notes: General rule of thumb - It should take 20 lbs. of force to lift the screen off of the crown bar.



After initial tensioning, inspect the screen for uniformity across the Crown Bars.

Excessive torque on the tension rails may cause screen failure.

- Finish tightening side tension rail bolts until the screen is firmly held down onto the crown bar.
- Install J-bolts.

J-BOLTS, DONUTS, CENTER HOLD DOWN BAR -
All screens over 84" wide (OCW) must use J-bolts & Donuts or a center hold-down bar to secure the Rhino Wire onto the Crown Bars.

- Follow the appropriate J-bolt pattern shown in the graphics to the right. Place J-bolt and donut within 2"- 3" from each end of the screen panel and space the remaining J-bolts evenly.
- Secure J-bolts and donuts through the opening nearest crown bar. Cut through and secure the screen web if the opening is smaller than the J-bolts ($\frac{1}{2}$ " diameter).

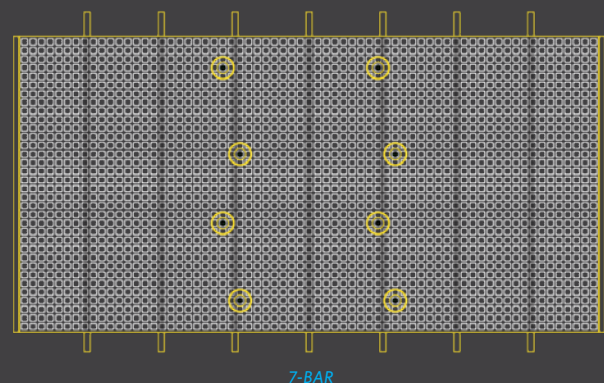
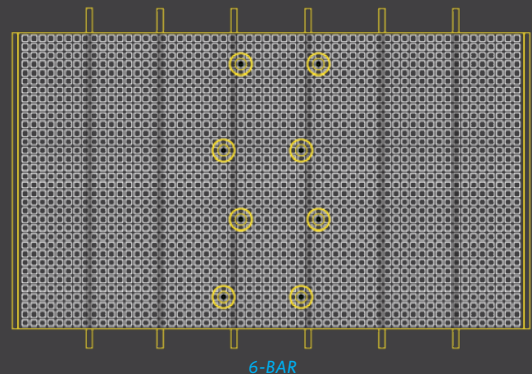
Note: There should be one J-bolt and Donut for every foot of the screen.

Warning: Do not over-tighten J-bolts. If a Donut deflects or "cups" the screen surface, it will cause excessive wear in this area.

4. FINAL INSPECTION -

- Push thumb down hard on Rhino Wire. It must be tight with little or no deflection.
- Pull test: It should take 20 lbs. of force to lift the screen off of the Crown Bar.
- Inspect for any gaps between the Rhino Wire and Crown Bar.
- Are the Tension Rails *seated* into the hooks properly? Are all tension rail bolts and J-bolts firmly tightened?
- Run the screen with no material for a few minutes and re-check tension.
- Inspect all bolts and tensioning 2 hours after running the initial installation and once before or after each shift.

SUGGESTED DONUT POSITIONS -



5. TROUBLESHOOTING -

Issues that cause breakage.

- Screen is too flat or material has not been cleaned off of the hook ledge.
- Screen has gaps and does not fit tightly against all crown bar supports.



- Screen is not stretched tightly enough to lie flat on all crown bar supports.
- Missing, damaged, or worn out Crown Bar Protectors.
- Rhino Wire screens that have been used or reused.
- Improperly tensioned/tightened screens.
- J-bolts are not in the correct location.

OPERATION OF YOUR SCREEN MACHINE AND SCREEN BOX -

- Is the machine transversely level?
- Are there any obstructions to free movement of the Screen Box?
- Is the screen machine operating at the manufacturer's recommended speed and throw?

CLAMP RAILS -

- Are the clamp rails in the same configuration as the original equipment?
- Are the clamp rails the same length as the Rhino Wire?
- Are the clamp rails seated properly?
- Is the hook type and size correct for the clamp rail?

FEED MATERIAL -

- Is the machine being fed as close as possible to the feed end of the machine?

Note: Feed material should be dropped onto a feed box and not directly on the Rhino Wire.

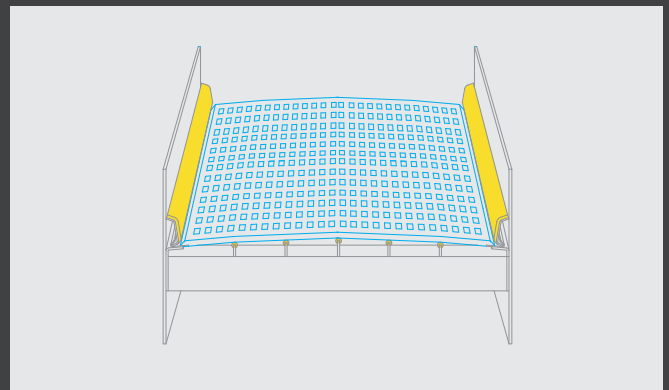
- Is the fall of the feed kept to a minimum?
- Is the feed spread evenly across the screen deck?
- Is there blinding over on the Rhino Wire that acts as a counterweight, lifting the screen cloth off the crown bars?

SPRAY DEFLECTORS -

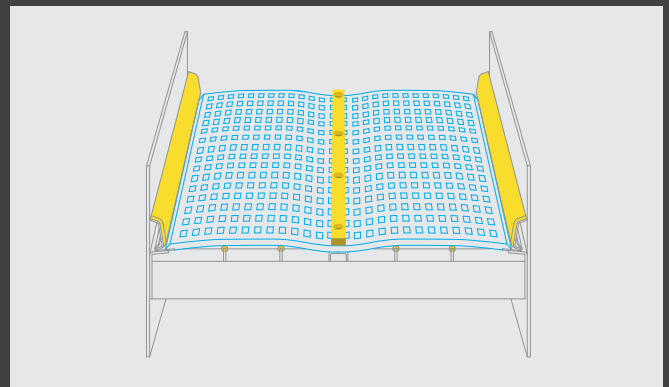
- Are the Spray Deflectors clear of the Rhino Wire?
- Are the Spray Deflectors plugged, or are the stream spreaders worn?
- Does the high-pressure water hit Rhino Wire in a concentrated area?
- Are the Spray Deflectors at least 6" off the deck, and spraying at a 45° angle?
- Does a Sluice Box drop a high volume of water on to the Rhino Wire?



Note: Proper seating and distance to back wall.



Single Crown Installation



Center Hold-Down Bar Installation

For a digital version of this manual visit:
rhinohydeproducts.com/products/rhino-wire/