

Torq N' Seal® Installation Instructions

November 12, 2018

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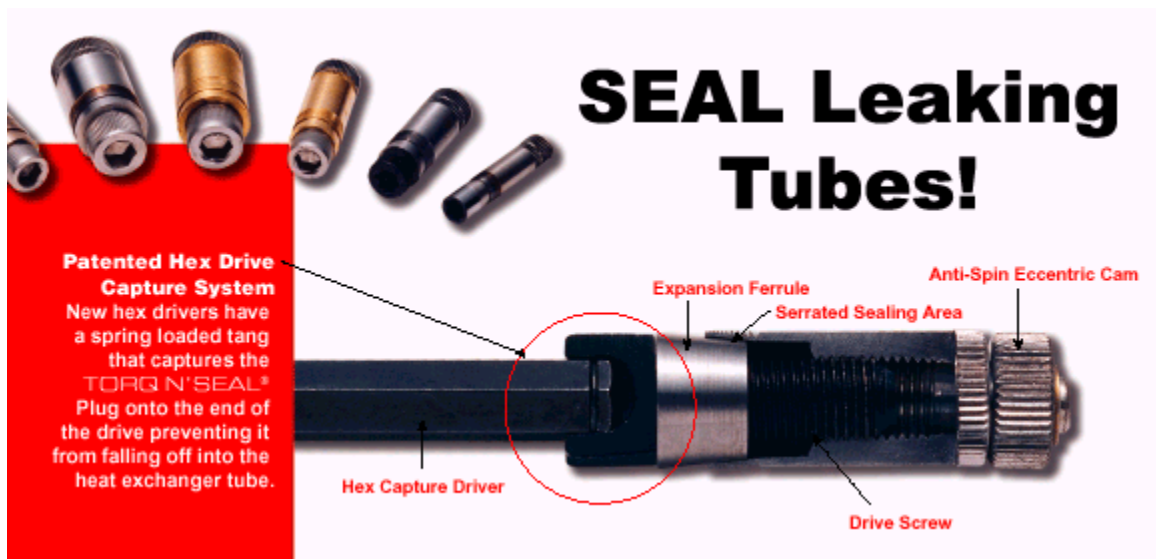
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Sealing to 6,500 psi!

Sizes from 0.300" to 2.000"

Available in Almost Any Material



85 Industrial Avenue, Little Ferry, New Jersey U.S.A. 07643
Phone: (201) 641-2130 /// Fax: (201) 641-2309 /// Email: SALES@JNTTECHNICAL.COM

Step 0: Order the Correct Torq N' Seal® Plugs

If you are unsure which Torq N' Seal® plug to choose, please contact one of our engineers at 201-641-2130 or SALES@JNTTECHNICAL.COM to assist you. After you have identified and procured the correct Torq N' Seal® plugs, you are ready to seal the leaking tubes. Follow these 5 simple steps below to ensure a permanent, positive seal up to **6,500 psi!**

Step 1: Tools You Will Need

1. Torq N' Seal® Plugs (*supplied by JNT*)
2. 3/8" Square Drive Torque Wrench (*supplied by Customer*)
3. Hex Capture Driver (*comes included with all Torq N' Seal® plug purchases*)



Step 2: Inspect Your Tubes

Inspect the tube for eccentricity (ovality) or severe tube damage (cracking, pitting, axial striations, widespread corrosion). Tube defects that run the length of the plug will provide a leak path. Eccentricity, or ovality, will not allow the plug to seal effectively as forces will not be evenly distributed during installation. We recommend installing the plug either before or after the tube defect, where possible. If the tube defect cannot be avoided (ie: thin tubesheet), then attempt to widen the bore and smooth out the defect with a Tube Brush or De-burring tool. In extreme cases, remove or aggressively ream the tube and use a larger Torq N' Seal® plug to plug the tubesheet hole directly. Ask about the Torq N' Seal® Tubesheet Ring for these applications.



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Step 3: Setup the Torque Wrench

Set the Torque Wrench according to the value on the Torq N' Seal® plug box label or from the chart below. Then affix the Hex Capture Driver to the Torque Wrench, followed by a Torq N' Seal® plug.

Torq N' Seal® High Pressure Tube Plug

US Patent Numbers: 6883547 & 9249916

Part Number: **TNS/490-510 (316SS)**
Quantity: **100**

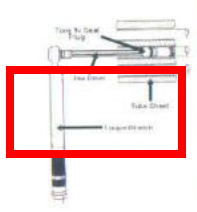
Material	
Brass	
Carbon Steel	
X Stainless Steel	
Titanium	
Duplex	

Install Torque

300 in-lb

Drive

1/4" HEX



Caution: Max Tube ID for this plug is .510"

JNT JNT Technical Services Inc.

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Torq N' Seal® Plug - Recommended Installation Torque					
Carbon Steel		Stainless Steel / Monel		Brass / 90-10 Copper Nickel	
Plug Size	Torque (in-lbs)	Plug Size	Torque (in-lbs)	Plug Size	Torque (in-lbs)
0.250" - 0.290"	75	0.250" - 0.290"	75	0.250" - 0.290"	75
0.300" - 0.400"	100	0.300" - 0.400"	100	0.300" - 0.400"	100
0.410" - 0.560"	250	0.410" - 0.560"	300	0.410" - 0.560"	200
0.570" - 0.740"	350	0.570" - 0.740"	500	0.570" - 0.740"	250
0.750" - 0.990"	450	0.750" - 1.500"	600	0.750" - 1.500"	350
1.000" - 1.490"	550	1.000" - 1.490"	700	1.000" - 1.490"	450
1.500" - 2.000"	700	1.500" - 2.000"	800	1.500" - 2.000"	550

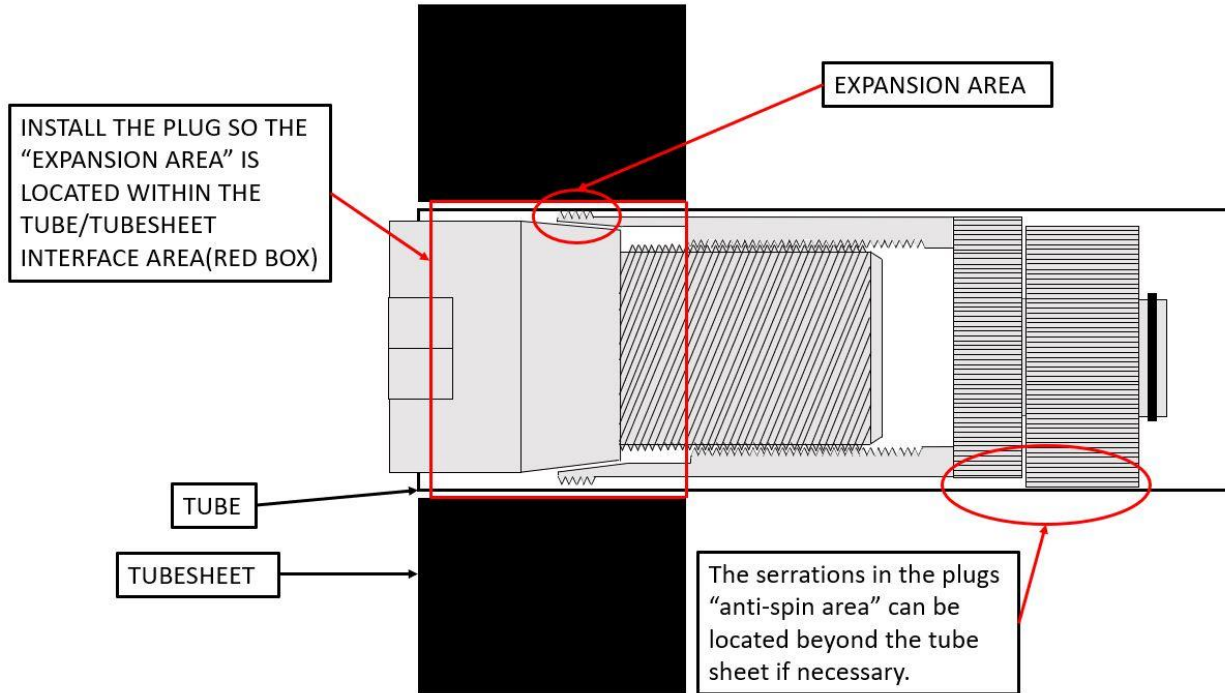


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Step 4: Select Tube Plugging Location

Insert the plug into the leaking tube so that the sealing area of the plug is within the tube/tubesheet interface area.



Step 5: Expand the Torq N' Seal® Plug

Slowly rotate the torque wrench clockwise until the anti-spin eccentric cam locks the plug into place. You should feel about 100 in-lbs of resistance at this point.

Continue to increase the torque slowly by rotating clockwise until you reach the recommended installation torque. Use a slow and steady rotation to increase the torque, thus reducing the stresses on the plug, tube, and tubesheet. The recommended installation torque will be clearly displayed on the box of Torq N' Seal® plugs. Torq N' Seal® plugs can be torqued up to 50% higher than recommended.



Remove the Hex Capture Drive from the plug with a swift pull away from the tubesheet and installation is complete. Your tube is now sealed in excess of **6,500 psi** by Torq N' Seal®, simple as that.



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