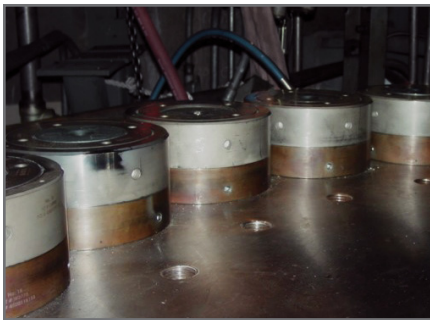
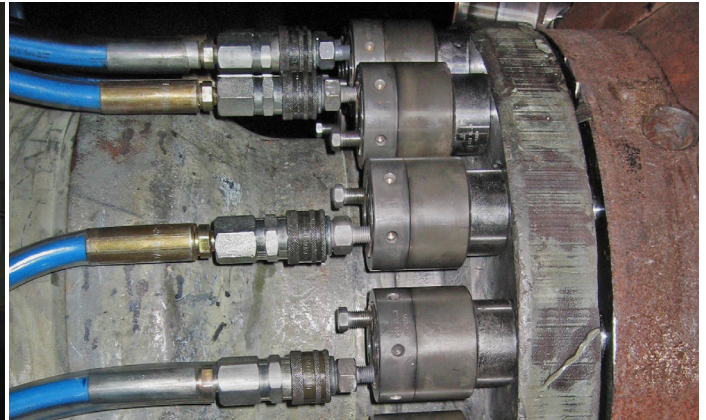
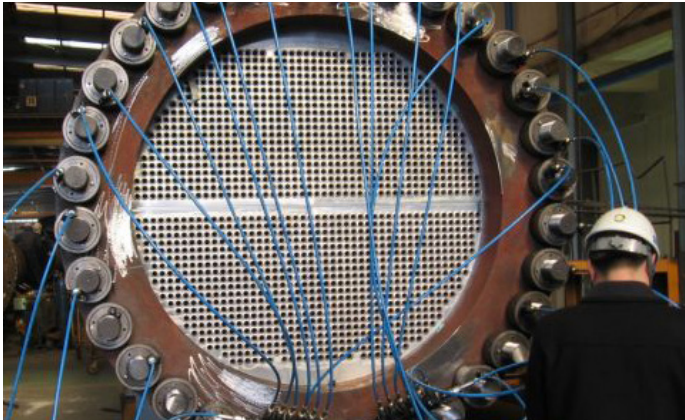


Nuclear Products and Services



Reactor Coolant Pump – Low Profile Design



Main Steam Relief Valve – BWR Plant



Multiple size HydraNuts to fit each application

The HydraNut® bolt tensioning system consists of the HydraNut, hydraulic pumping unit, and hoses. Replacing the original hex nut, the HydraNut is a self-contained single tensioning unit that remains on the flange during operation. Saving time and improving the accuracy, reliability, and repeatability of bolting any critical flange is the main benefit.

Utilizing the HydraNut tensioning method eliminates the risk of galling the stud, nut, or flange, dramatically reducing the time for disassembly and reassembly. Worker safety and equipment reliability increases by eliminating heavy slugging wrenches, torque wrenches, and tensioners. The tensioning or loading on each stud is completed by the HydraNut system hydraulics, requiring minimal work from the technicians thus reducing worker fatigue.

The HydraNut system is installed on valves, steam generators, reactor coolant pumps, and heat exchangers across multiple industries including PetroChem, Power Generation, Pulp & Paper, Mining, and Oil & Gas. The HydraNut is qualified and supplied for safety-related applications in Nuclear Power Plants.

Key Features

<ul style="list-style-type: none"> • 100% simultaneous tensioning 	<ul style="list-style-type: none"> • Even loading of the gasket
<ul style="list-style-type: none"> • Hydraulic area is fixed; linear relationship between pressure and preload 	<ul style="list-style-type: none"> • Accuracy of the retained load is repeatable
<ul style="list-style-type: none"> • Eliminates time consuming star pattern used with other equipment 	<ul style="list-style-type: none"> • Significantly reduces stud tensioning and flange closer times
<ul style="list-style-type: none"> • Eliminates torquing under load thus reducing the risk of galling the stud nut or flange 	<ul style="list-style-type: none"> • Equipment reliability increases
<ul style="list-style-type: none"> • Eliminates the use of heavy tensioning equipment for each stud 	<ul style="list-style-type: none"> • Worker safety increases

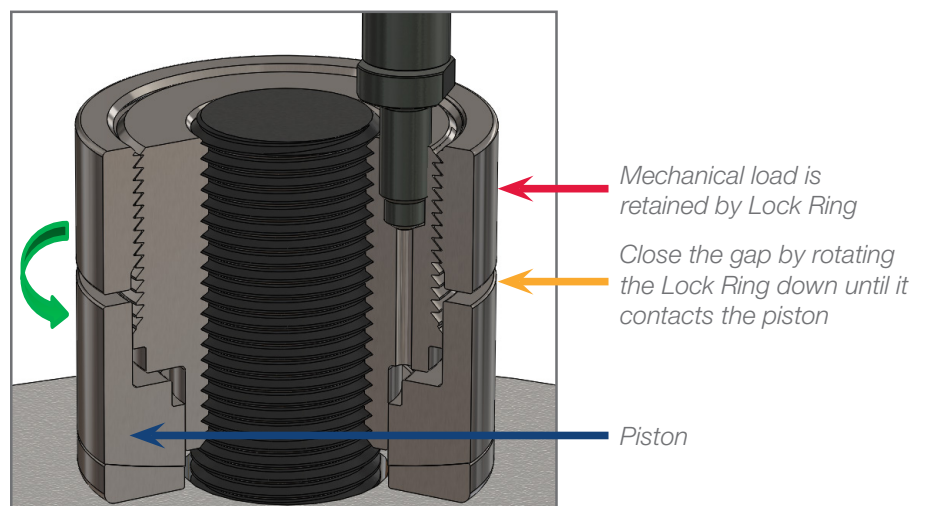
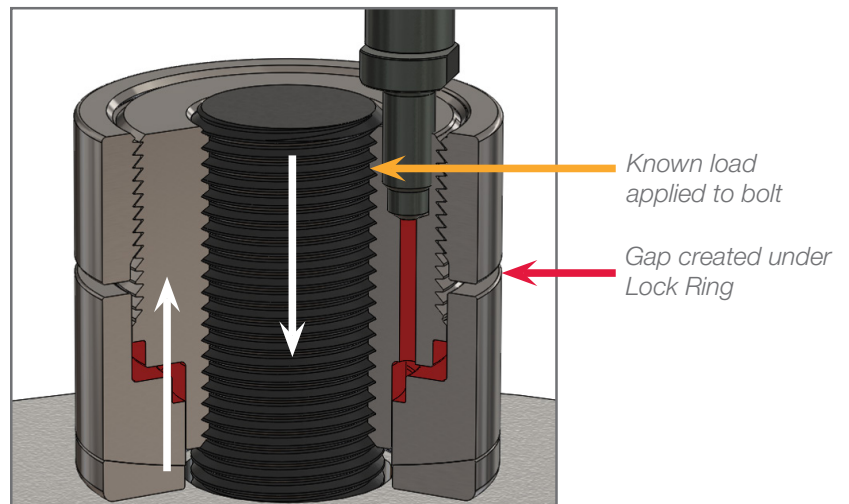
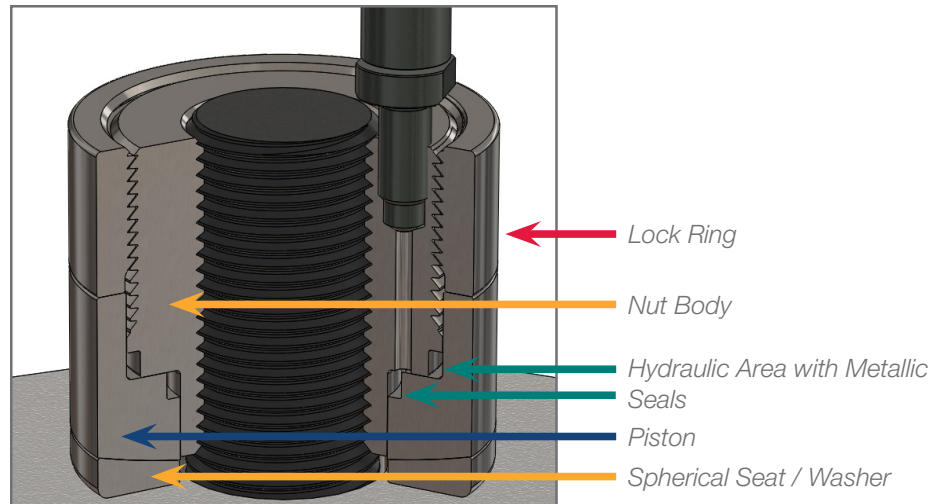
Nova HydraNut®

Bolt Tensioning System

The HydraNut is a self-contained singular unit, with an integrated mechanical lock ring that retains load, generated through the use of hydraulics.

How it Works

- The Spherical Washer is placed on the flange and the HydraNuts are screwed down onto each stud
- Each HydraNut is pressurized 100% simultaneously, using manifolds and hydraulic hoses
- As the pressure builds the Nut Body is forced upwards thus stretching / tensioning the studs
- A small gap will appear between the Lock Ring and Piston. This is visual indication that the studs have been tensioned. The studs are now under hydraulic load
- The Lock Ring is screwed down until it comes in contact with the Piston
- Hydraulic pressure is then released
- Now the studs are held with mechanical load being retained by the interference of the Lock Ring and Piston
- Hydraulic hoses are then removed and the HydraNut remains on the flange during plant operation



CONTACT INFORMATION:

18001 Sheldon Road, Middleburg Heights, OH 44130
+1.216.267.3200