

Gas Turbine Casings



Use of Technofast HiTemp HydraNuts has saved an Asian Utility many thousands of dollars in reduced down time and labor costs.

These hydraulically actuated nuts are fitted as direct replacements for standard nuts on the 7FA turbine half and vertical joints.

The HiTemp HydraNuts are interconnected and pressurized simultaneously. This gives an evenly ap-

plied load over the full flange and ensures that bolts are correctly loaded.

The previous method of torque tightening the bolts was time consuming and labor intensive, causing bolt, nut and flange damage, thus making subsequent removal difficult.

Utilizing HydraNuts, the half joint bolts (20x 2.1/4" and 10x2") were tensioned in 1 hour 12 minutes.

HiTemp HydraNuts are so called due to the unique patented seal designs' capability to be energized after thousands of hours at the elevated temperatures

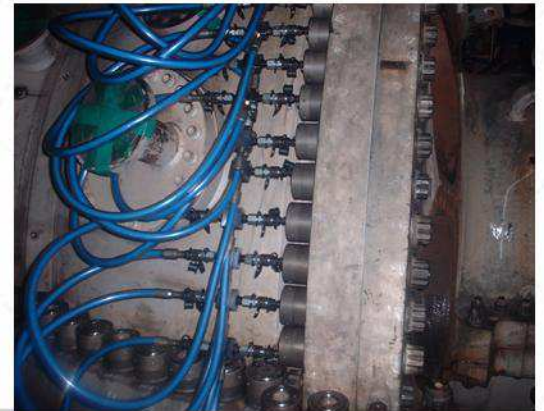
on the casing.

The vertical joint bolts (42x1.3/4" and 8x2") were tensioned in 1 hour 50 minutes.

Ease of removal is assured due to the fact that the bolts are held in tension whilst the lockring is unscrewed under zero load.

Outage schedules are now far more predictable due to bolting procedures being a known value, forced removal and costly replacement of bolts eradicated.

Subsequent unbolting of casing after 12 months service carried out in under 3 hours.



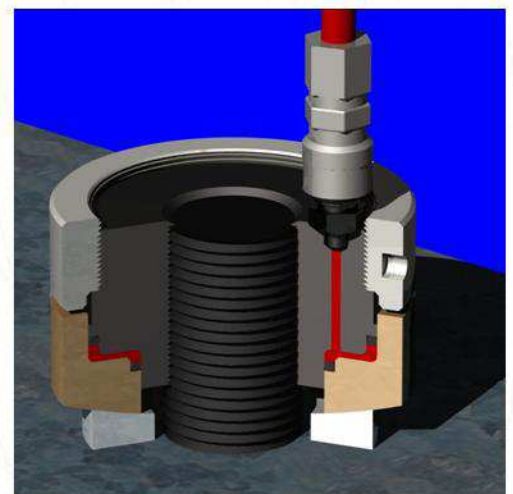
How does it work?

The HydraNut is screwed into position into the spot face. The quick connect coupling is connected and pressure is applied by a hydraulic pump.

The hydraulic force applied equals the pressure times the hydraulic area and is therefore a known load.

The bolt is stretched and the lockring is wound down to seat on the top face of the piston. The hydraulic pressure is released and the hose is disconnected.

Removal is simply a reversal of this procedure. No thread galling occurs due to minimal friction.



Benefits

*Fast

*Accurate

*Simple

*Safe


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precision engineered solutions

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