



Micro-Grip® Tong Jaws

The patented* Weatherford Micro-Grip system is used in hydraulic power tong jaws to minimize die marks on corrosion-resistant alloy (CRA) tubulars. Conventional power tong jaws are equipped with jaws and dies that penetrate the surface of the pipe when the tong jaws are engaged. These penetration points can create sites for stress corrosion cracking and sulfide stress cracking that can compromise the integrity of the tubular string. In contrast, Micro-Grip system inserts use serrated vertical gripping bars embedded in an elastomer that distribute the rotational torque equally over many small gripping elements, leaving only a shallow indentation of each gripping element in the pipe surface. Extensive testing has proved that use of the Micro-Grip system prevents corrosion in well environments with high concentrations of carbon dioxide (CO₂) and hydrogen sulfide (H₂S).



Applications

- Handling systems for high-CRA tubulars
- Corrosive environments
- Long-term wellbore integrity applications
- Aluminum-coated riser systems
- Frequently used test strings (to minimize damage)

Features, Advantages, and Benefits

- The jaws fit standard, field-proven Weatherford power tongs without special modifications and with standard operating procedures for operational efficiency.
- The jaws preserve tubular integrity against CO₂ and H₂S corrosion damage.
- Tong-induced load distribution causes minimal marking for less damage to tubing and casing—preventing stress-corrosion-induced failures for long-term tubular integrity.
- The power tong has no hydraulic bladders to maintain, which reduces system downtime.
- Easy handling means no special power equipment is needed.

Additional Information

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*U.S. Patent No. 6332377

