

# CDI Tuff Breed®



Acumen has partnered with CDI Tuff Breed® to develop our own unique packing sets for the hydraulic fracturing and well servicing industry. Whatever abrasive, high-pressure, high-volume operation you have planned, we have you covered. When it comes to your well service packing, CDI Tuff Breed® and Acumen's well service products enhance pumping performance on multiple fronts.

## HARSH DUTY Header Ring

The Acumen HARSH DUTY header ring is a highly engineered composite well service packing component made of two proprietary elastomers. Each material is specifically designed to address the harsh environments in pressure pumping. One material reduces the wear that commonly occurs in fluid ends, while the other offers superior resiliency and seal ability. The new profile includes a unique outside diameter (OD) lip that, when correctly inserted during installation, wipes the stuffing box wall of any debris.

An additional feature is a sand barrier on the inside diameter (ID) which traps sand thereby extending the life of the packing. The new header ring was designed based on customer requirements and field tested to ensure reliability.

Controlled field testing showed packing life extended up to 30% when installed in pumps with new or low-wear fluid ends. In addition, the engineered profile of the header ring helps minimize wear inherent when pumping abrasives. This translates into less downtime, lower fluid end replacement expense, and better overall pumping efficiencies.

- OD lip removes debris during installation
- ID design traps sand and minimizes pressure ring wear
- Proprietary elastomers mitigate fluid end wear

## ACU-GOLD Packing

Acumen and CDI Tuff Breed® have also developed ACU-GOLD Packing to address the need for a 100% aramid packing used in hydraulic fracturing services. Goal was to develop packing that does not prematurely wear out stuffing box and plungers, unlike competitors' products on the market today. ACU-GOLD packing is engineered to provide the strength required for today's harsh services while addressing Total Cost of Ownership that service companies measure success by.

- Proprietary 100% Aramid blend fabric construction
- Enhanced internal lubrication additives for superior performance
- Significantly less wear on mating surfaces than competition
- TCO is reduced across fleets

## ACU-VANTAGE Packing

ACU-VANTAGE is a cost-effective solution to the changing economic conditions that service companies face in the hydraulic fracturing sector. The result is a robust product that performs in a wide range of services, while maintaining quality, and being an economical solution.

- Proprietary Aramid composite fabric construction
- Unique elastomer coating developed for extended life
- Designed for strength and abrasion resistance
- Economical solution to address pricing pressures faced by service companies

ACU-GOLD and ACU-VANTAGE complete and replacements sets are available in all common sizes for both FRAC and Cement Services. Additionally, both packing sets are available with our HARSH DUTY Header Ring and/or our standard header ring.

