

# Technical Data Sheet: CTHU 5-1/8" X 15,000 psi Quad

All HEC HU Well Intervention Equipment is manufactured and tested according to HEC Quality Management Standards

Performance Requirement Level: PR1 Through Bore: 5-1/8" Rated Working Pressure: 15,000 psi Rated Hydraulic Pressure: 1,500 psi Note: Hydraulic Pressure can be applied up to 3,000 psi. in emergency situations

### **Temperature Ranges:**

Metallic: -20 to 250°F Elastomers: 20 to 200°F

# Assembly Weights and Dimensions:

| 5-1/8" x 15M  | Flange x<br>Flange | Stud x<br>Stud | Stud x<br>Flange | Flange x<br>Stud |  |  |  |
|---|--------------------|----------------|------------------|------------------|--|--|--|
| Weight (lbs.) w Shear Bonnets                                   | 5,810              | 5,170          | 5,640            | 5,640            |  |  |  |
| Height (in.)  | 68.5               | 55.5           | 61               | 61               |  |  |  |
| Width, Bonnets Closed (in.)<br>w/ locking screws Unlocked       | 60.50              |                |                  |                  |  |  |  |
| Width, Bonnets Closed (in.)<br>w/ locking screws locked         | 53.75              |                |                  |                  |  |  |  |
| Width, Bonnets Open (in.)<br>w/ locking screws unlocked         | 79.75              |                |                  |                  |  |  |  |
| Width, Shear Bonnets Closed (in.)<br>w/ locking screws unlocked | 81.5               |                |                  |                  |  |  |  |
| Width, Shear Bonnets Open (in.)<br>w/ locking screws unlocked   | 99.00              |                |                  |                  |  |  |  |

### **Operating Capacities:**

| SIZE AND WORKING<br>PRESSURE | CONFIGURATION        | GALLONS TO<br>OPEN RAMS (1<br>SET) | GALLONS TO<br>CLOSE RAMS (1<br>SET) | LOCKING SCREW<br>TURNS (EACH<br>END) | CLOSING<br>RATIO | OPENING<br>RATIO |
|------------------------------|----------------------|------------------------------------|-------------------------------------|--------------------------------------|------------------|------------------|
| 5-1/8" 15M                   | Standard             | 0.6                                | 0.6                                 | 13.5                                 | 7.91:1           | 3.5:1            |
| 5-1/8" 15M                   | Tandem Shear Booster | 0.7                                | 1.4                                 | 15.5                                 | 15.8:1           | 3.5:1            |

#### **Elastomers:**

Acrylonitrile Butadiene Rubber (NBR) Nominal Operating Range: 20 to 200°F



# **Operational Characteristics Summary**

- Ram Access: 200 cycles with 10 pressure cycles
- Fatigue Test: 546 open/close cycles, 78 pressure test
- Slip/Seal Ram
  - Rated for up to 50,000 lbs. of hang off
  - Recommended hydraulic pressure for hang off: 3000 psi.
  - Locking screws locked
- Shear and Seal Rams
  - Recommended hydraulic pressure for shearing tube: 3000 psi.
  - $\circ$   $\;$  Shear bonnets and boosters must be installed to use shear rams
- CTHU temperature rating
  - 20°F to +200°F

#### **Recommended Shear Operation:**

- Tandem Boosters must be installed to shear
- Accumulator Pressure to Shear: 3000 psi.
- Horn Equipment recommends isolating well bore pressure using pipe rams and slip rams below the shear rams.
- It is recommended that shear rams be replaced and/or inspected after shearing operation by OEM.