



## Technical Data Sheet: HDU 7-1/16" X 10,000 psi

All HEC HU Blowout Preventers are manufactured and tested according to HEC Quality Management Standards

**Part Number:** 710MHDU

**Performance Requirement Level:** PR1

**Through Bore:** 7-1/16"

**Rated Working Pressure:** 10,000 psi

**Rated Hydraulic Pressure:** 1,500 psi

Note: Hydraulic Pressure can be applied up to 3,000 psi. in emergency situations

**Pipe Diameter Ranges:** 2-1/16" to 5-1/2"

**Temperature Ranges:**

Metallic: -20 to 250°F

Elastomers: 20 to 200°F

**Assembly Weights and Dimensions:**

7-1/16" x 10M	Flange x Flange	Stud x Stud	Stud x Flange	Flange x Stud
Weight (lbs.) w/o Shear Bonnets	7,470	6,810	7,140	7,140
Height (in.)	48.625	33.313	41.344	40.469
Width, Bonnets Closed (in.) w/ locking screws Unlocked	85			
Width, Bonnets Closed (in.) w/ locking screws locked	77			
Width, Bonnets Open (in.) w/ locking screws unlocked	114			
Width, Shear Bonnets Closed (in.) w/ locking screws unlocked	Regular Booster		116	
	SD Booster		130	
Width, Shear Bonnets Open (in.) w/ locking screws unlocked	Regular Booster		141	
	SD Booster		155	

-150 lbs. for Snubbing Style

+426 lbs. with Boosters

+775 lbs. with SD Booster

**Operating Capacities:**

SIZE AND WORKING PRESSURE	CONFIGURATION	Gallons to Open Rams (1 set)	Gallons to Close Rams (1 set)	Closing Ratio	Locking Screw Turns (Each End)	Opening Ratio
7-1/16" 5, 10, 15M	Standard	1.3	1.4	6.9:1	19.5	2.9:1
7-1/16" 10, 15M	REG. Shear Booster	1.7	3.5	13.8:1	24	4.4:1
7-1/16" 10, 15M	SD Booster	1.7	4.6	19.3:1	24	4.4:1

405-793-9101 131 Sunnyslane Rd. P.O. Box 6145 Moore, Oklahoma 73153

[www.hornequipment.com](http://www.hornequipment.com)

Rev. 7/2019



**Minimum Operating Pressure For a low Pressure Seal (MOPFLPS):**

Ram Type	Operator Type		
	Standard	Tandem Booster	SD Booster
Blind	200	100	72
Pipe	250	125	89
VBR	750	375	268

**Operating Pressure to effect a wellbore seal at rated working pressure:**

Ram Type	Operator Type		
	Standard	Tandem Booster	SD Booster
Blind	1,700	850	608
Pipe	1,800	900	644
VBR	2,200	1,100	787

**Elastomers:**

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

**Test Results:**

- Ram Access: 200 cycles with 10 pressure cycles
- Fatigue Test: 546 open/close cycles, 78 pressure test
  - Ram Locking completed during fatigue testing
- Low Temperature Test: 3 pressure cycles at 20°F
- Hot Temperature Test: 10 pressure cycles and 1 hour hold time at 200°F
- Shear: Maximum shear pressure: 3000 psi.
  - Shear Doors with Tandem Boosters **must** be installed to shear pipe
- Hang Off
  - 7-1/16" HU Pipe Rams
    - Rated up to 450,000 lbs.
    - 3-1/2" test mandrel with 18° taper
  - Note: Do not recommend hanging off on the smallest size pipe for VBR rams
- Stripping
  - 7-1/16" HU
    - 3-1/2" test mandrel
    - 50,000 ft. of pipe stripped at 3,000 psi wellbore
  - Not Recommended on VBR's or flex packers



**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.