

# Acumen HD Quick Release Valve Seat Puller

## Mud Pump Operation

### Instructions

Carefully read all instructions before operating HD Quick Release Valve Seat Puller (HD QRVSP). Please also view operational video.

1. Proper Personal Protective Equipment (PPE) required during operation.
2. Inspect all components prior to each use ensuring puller is in correct working order.
3. Use proper puller head for the valve seat being removed.
4. Ensure bottom nose is fully threaded (hand tight) onto all-thread before inserting puller into valve seat. Bottom of all-thread should be flush with bottom nose. If bottom nose is left loose, damage to puller assembly may occur.  
*Warranty does not cover damage caused by bottom nose being left loose.*
5. Insert puller into ID of full open valve seat.  
*Warranty does not cover damage incurred by dropping puller onto valve seat.*
6. \*Optional: Install Acumen Centralizer/Stabilizer Bushing to assist in aligning all-thread to help ensure a straight pull.
7. \*Optional: Install 2" nut on bottom section of all-thread to prevent damage to puller assembly when puller tries to eject upward. 2" nut should be 1-2" below the Acumen H-Block.  
*Warranty does not cover damage caused by puller assembly ejecting from fluid end.*
8. Install Acumen H-Block over threaded flange and all-thread.
9. Install hydraulic jack onto all-thread.
10. Install 2" nut onto all-thread.
11. Align 2" nut and jack directly over valve seat to ensure a straight pull.
12. Tighten 2" nut firmly onto hydraulic jack.  
*Grab all-thread and forcefully lift upward to ensure puller head is properly coupled with valve seat. Continue to thread 2" nut down until tight on top of hydraulic jack.*
13. Install tie down over all-thread and properly secure to prevent puller, jack, and Acumen H-block from ejecting from fluid end.  
*Warranty does not cover damage caused by puller, jack, and/or H-block not being secured.*
14. Pressure up and extend jack until valve seat disengages.
15. Remove tie down off all-thread.
16. Remove 2" nut off all-thread.
17. Remove jack off all-thread.
18. Remove Acumen H-Block from threaded flange and all-thread.
19. Remove puller assembly from fluid end.
20. Tilt puller assembly on its side.
21. Slide valve seat and puller head up to disengage puller head jaws.
22. Slide valve seat off puller head.
23. Move puller over to next valve seat to be removed.
24. Repeat steps 5 thru 23 until all valve seats have been removed.

### WARRANTY:

**GUARANTEED FOR MECHANICAL DEFECT AND WORKMANSHIP. TOOL IS SPECIFICALLY DESIGNED TO PULL VALVE SEATS AND IS NOT TO BE USED FOR ANY OTHER PURPOSE. TOOL IS TO BE REGULARLY INSPECTED CLEANED OF DIRT AND GRIME TO ENSURE PROPER FUNCTION WHILE OPERATING.**

**WARRANTY DOES NOT COVER DAMAGE CAUSED BY PULLER SHAFT BEING HIT, BY BOTTOM NOSE BEING LEFT LOOSE, BY PULLER ASSEMBLY EJECTING FROM FLUID END MODULE, BY DROPPING PULLER ONTO VALVE SEAT AND BY NOT PROPERLY SECURING PULLER, JACK, AND/OR ACUMEN H-BLOCK TO FLUID END MODULE.**

**ACUMEN IS NOT RESPONSIBLE FOR INJURIES DUE TO IMPROPER OPERATION OR FAILURE TO PROPERLY SECURE HD QRVSP TOOL AND RELATED PARTS.**