

Rotational Alignment Sub

(RAS) (V-Packing Seal)

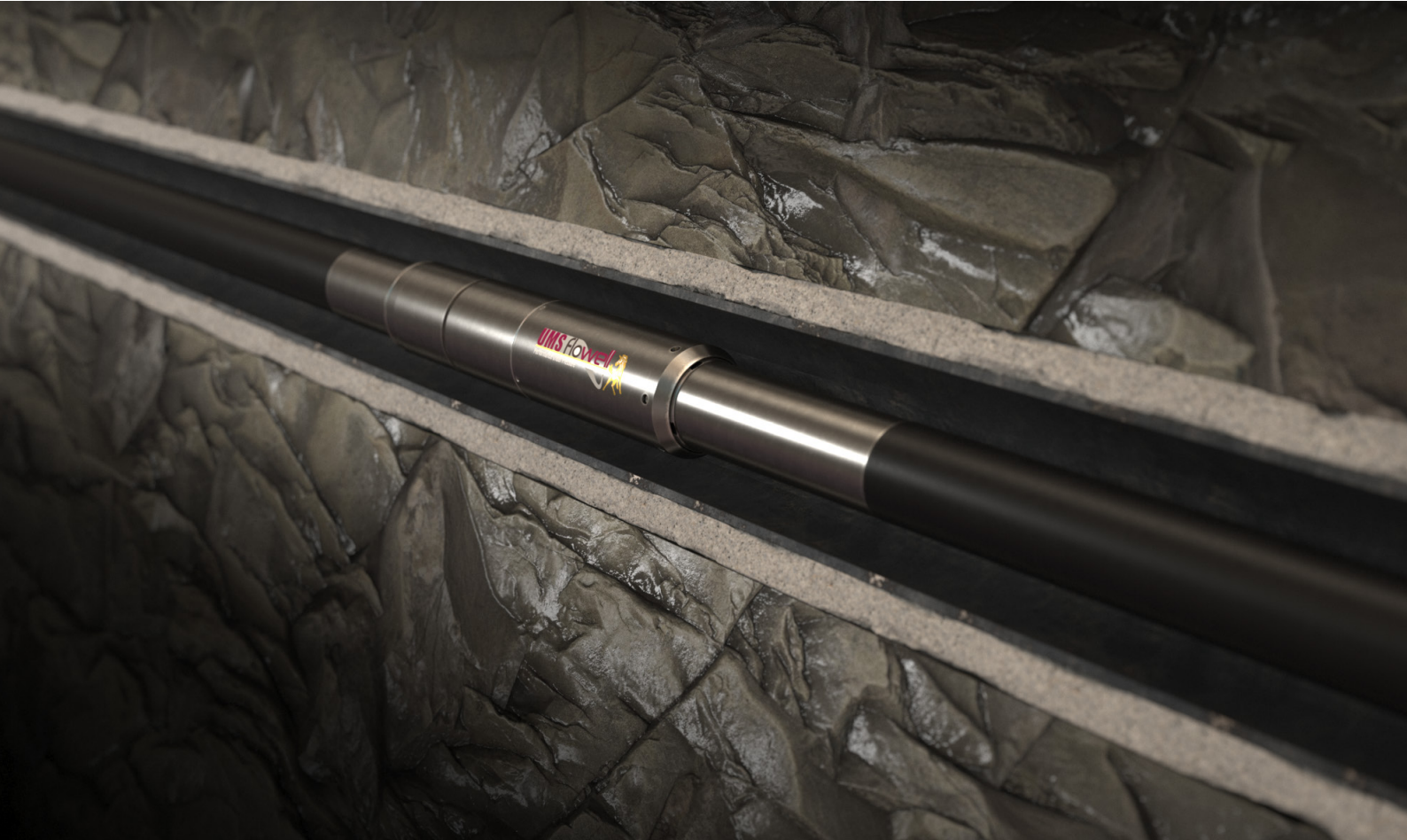
UMS Flowell Rotational Alignment Sub (RAS) is a quick and easy way to orientate your completion. The RAS is used to assist with the orientation of well completion assemblies within a well completion string. A typical example would be the orientation between upper and lower y-tools in dual ESP completions.

The RAS is lockable to left and right hand rotation in 6 degree increments. The RAS has 30 self-meshing clutch teeth that orientate the tubing hanger to the body. The orientation mechanism requires no power tongs to torque the mechanism into the locked position. The RAS uses a bidirectional V-stack seals for redundancy, to provide a leak proof connection between the production tubing and production casing.

The RAS can be supplied in different tubing sizes, materials, and different elastomeric or non-elastomeric seal materials to meet the customer's requirements. Where height adjustment is also required, the UMS Flowell Tubing Adjustable Union (TAU) should be used.



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Features & Benefits

- Available in sizes from 2-3/8" up to 5-1/2"
- Other sizes available on request
- Compact design
- Clutch design allows quick and easy orientation in 6° increments
- Locked to right and left-hand rotation

Specifications

- Low alloy or 13Cr metallurgy
- Viton, Aflas, or HNBR elastomers or non-elastomeric stacks available for high temperature applications
- 6500psi MWP limited by elastomers
- Matched tubing tensile and compression ratings



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| Part Number | Box Thread | Pin Thread | OD (in) | ID (in) | Length (in) |
|---------------|----------------------|----------------------|---------|---------|-------------|
| RU13-0010 | 4-1/2" 12.6# VAM TOP | 4-1/2" 12.6# VAM TOP | 5.86 | 3.919 | 50 |
| RU13-0050-010 | 3-1/2" 9.2# VAM TOP | 3-1/2" 9.2# VAM TOP | 5.00 | 2.99 | 50 |
| RU13-0050-020 | 3-1/2" 9.3# EUE | 3-1/2" 9.3# EUE | 5.00 | 2.99 | 50 |
| RU-2375-01 | 2-3/8" 4.6# JFE BEAR | 2-3/8" 4.6# JFE BEAR | 3.531 | 1.995 | 43 |
| RU-5500-01 | 5-1/2" 20# VAM TOP | 5-1/2" 20# VAM TOP | 7.00 | 4.778 | 57 |

