

PRODUCT OVERVIEW

UROS-SUB BOW SPRING CENTRALIZER SUB

ENGINEERING SOLUTIONS FOR CHALLENGING WELLS

The UROS-SUB's single-piece design minimizes the risk of failure in high-risk wellbores, while allowing the centralizer to rotate on the sub body with minimal torque. This innovative solution is built to perform under extreme conditions, with the centralizer recessing into the sub body during run-in-hole (RIH) to pass through the tightest restrictions.

Key benefits of the UROS-SUB centralizer include its suitability for ultra-tight tolerance applications and a low equivalent circulating density (ECD) profile to minimize surge effects during RIH. The design enables rotation when fully compressed and features fewer offset bows for more efficient RIH. The interlocked band design combines the strength of a single-piece centralizer with optimized RIH performance. The sub body itself is manufactured to meet or exceed API 5CT standards for burst, collapse, and tensile strength, and it can be threaded to fit the specific casing string requirements.

KEY PRODUCT BENEFITS

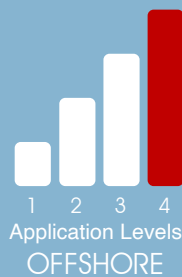
- Designed specifically for ultra-tight tolerance applications
- Low equivalent circulating density (ECD) signature to lower surge effect during run-in-hole (RIH)
- Allows for rotation when fully compressed
- Offset bows for more efficient RIH
- Will meet or exceed host casing burst and collapse specifications
- Interlocked band design gives the strength of a single piece centralizer

TARGET APPLICATIONS

- Deepwater
- Ultra-narrow annulus
- Alternative to standard subs

PRODUCT APPLICATION

The UROS-SUB is ideal for applications in deepwater environments, ultra-narrow close-tolerance conditions, and as a superior alternative to standard subs, which often have higher insertion forces due to bow designs.



CORE PRODUCT SIZING

| Product size | Centralizer Part Number |
|------------------------------------|-------------------------|
| 9-5/8" ID for use in 12-1/4" Hole | 0938-1214 UROS-SUB |
| 11-3/4" ID for use in 14-1/2" Hole | 1134-1412 UROS-SUB |
| 11-3/4" ID for use in 14-3/4" Hole | 1134-1434 UROS-SUB |
| 16" ID for use in 20" Hole | 1600-2000 UROS-SUB |
| 17" for use in 20" Hole | 1700-2000 UROS-SUB |

FULL CENTRALIZER PRODUCT RANGE

| MODEL | DUTY | STYLE | CONSTRUCTION | STANDOFF | UNDER-REAMED | FLEX | APPLICATION | | | | | | | | | | | | | | | |
|----------|-------|----------|--------------|----------|--------------|--------------|--------------|-------------|------------|------------|------------|---------------|-------------|-----------------|-----|---------------------|----------------------|---------|---------|---------|---------|--|
| | Light | Standard | Heavy | Slip-on | Hinged | Heat Treated | Single Piece | Welded Bows | Mechanical | Bow Spring | Solid Body | Standard Bows | Offset Bows | Close Tolerance | Sub | Used in tight spots | Used in restrictions | Level 1 | Level 2 | Level 3 | Level 4 | |
| OBH | ■ | | | | ■ | ■ | | | ■ | ■ | | | | | | | | ■ | | | | |
| OBH-W | ■ | | | | ■ | ■ | | ■ | | | | | | | | | | ■ | | | | |
| OSN | | | ■ | ■ | | | ■ | | | | ■ | | | | | | | ■ | | | | |
| USA | ■ | | | | | ■ | ■ | | | | | | | | | | | | | | | |
| ES | | ■ | | | | ■ | ■ | | | | | | | | | | | | | | | |
| OBS | | ■ | | | | ■ | ■ | | | | | | | | | | | | | | | |
| S2 | | | | ■ | | | ■ | | | | | | | | | | ■ | | | | | |
| S2-H | | ■ | | | ■ | | ■ | | | | | | | | | | ■ | | | | | |
| S2-HD | | | ■ | ■ | | | ■ | | | | | ■ | | | | | ■ | | | | | |
| TUR | | ■ | | | | ■ | ■ | | | | | ■ | | | | | ■ | | | | | |
| TUR-CT | | ■ | | | | ■ | ■ | | | | | ■ | | ■ | | | ■ | | | | | |
| TUR-SUB | | ■ | | | | ■ | ■ | | | | | ■ | | ■ | | | ■ | | | | | |
| UROS | | ■ | | | | ■ | ■ | | | | | ■ | | ■ | | | ■ | | | | | |
| UROS-CT | | ■ | | | | ■ | ■ | | | | | ■ | | ■ | | | ■ | | | | | |
| UROS-SUB | | ■ | | | | ■ | ■ | | | | | ■ | | ■ | | | ■ | | | | | |