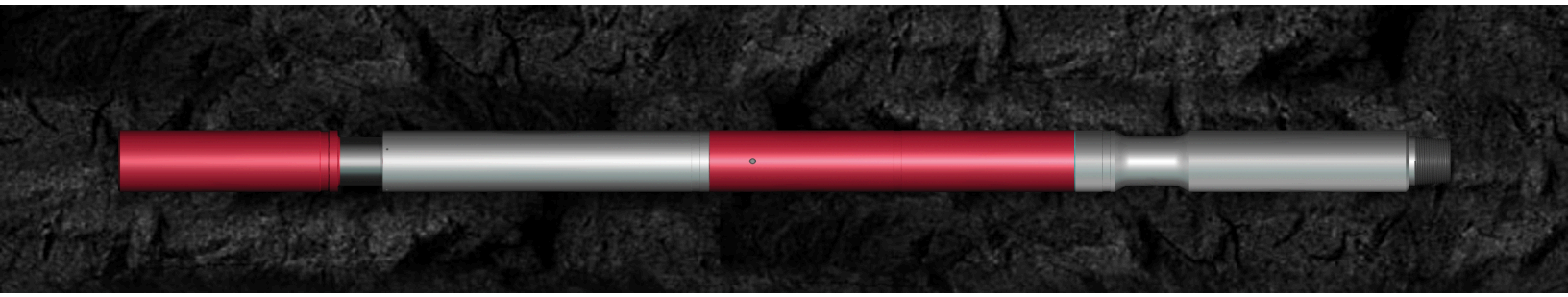
WZL INDUSTRIES

WZL BUMPER SUB

Fishing, Coring and Workover Tool

TRIED AND TRUE

This traditional downhole tool has numerous applications during fishing, coring and workover operations.



FEATURES & BENEFITS

The WZL bumper sub is a tried-and-true downhole tool that has for years been trusted to complete fishing, testing and plug-and-abandonment jobs around the world. Its versatility allows operators to engage and release various fishing or testing tools, or apply constant and precise weight to sensitive milling and cutting tools.

As the name suggests, the bumper sub is built to jar or “bump” upward or downward to dislodge stuck equipment or clear debris.

Like other WZL jarring tools, our bumper sub features a sealed and lubricated spline drive that provides long service life under high torque and stroking applications. External sealing surfaces are tungsten carbide coated to enhance wear and corrosion resistance, and standard seals are effective to 250°F (120°C). For hot hole environments, the sub can be dressed with seals effective to 400°F (200°C).

SPECIFICATIONS – IMPERIAL

Nominal OD (in)	Length closed (ft)	Thru bore (in)	Tensile yield (lb)	Torsional yield (ft-lb)	Pump open area (in²)	Stroke (in)
3 ⅛	7.8	1.00	142,200	6,600	4.0	20
4 ¼	8.3	1.88	233,400	13,800	8.3	20
4 ¾	10.5	2.25	390,000	20,000	11.8	20
6 ½	11.1	2.25	968,800	44,600	19.6	20
8	11.8	3.00	1,158,700	127,000	30.7	20

Specifications are based on as-new condition and are subject to change without notice.

SPECIFICATIONS – METRIC

Nominal OD (mm)	Length closed (m)	Thru bore (mm)	Tensile yield (daN)	Torsional yield (N·m)	Pump open area (mm²)	Stroke (mm)
79	2.4	25	63,300	8,900	26,000	508
108	2.5	48	103,800	18,700	5,400	508
121	3.2	57	173,500	27,100	7,600	508
165	3.4	57	430,900	60,500	12,700	508
203	3.6	76	515,400	172,200	19,800	508

Specifications are based on as-new condition and are subject to change without notice.