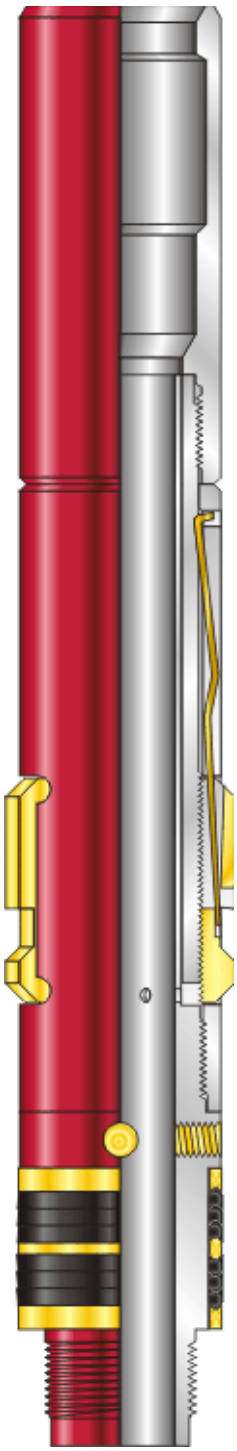
WX Lock Mandrel



Weatherford's WX lock mandrel is an industry-standard, selective mandrel that lands and locks subsurface flow controls in Weatherford's WX selective landing nipples. WX lock mandrels are engineered and tested to Weatherford standards. Attached to a WXX or WPX equalizing assembly, the mandrel can act as a tubing plug to hold pressure from either direction.

The mandrel features keys with square, locking shoulders to land in selective WX nipple profiles. The shoulders bear the pressure loading from above. Replacing the WX keys with WXN keys converts the lock from WX to WXN.

Applications

The mandrel sets slickline flow controls during completion, installation, and production. Typical controls include the following:

- Pump-through plugs for injecting fluids into the well
- Blanking plugs for shutting in a well or testing the tubing
- Instrument hangers for temperature and pressure recorders
- Downhole chokes for reducing surface flowing pressures
- Pump-open plugs for a temporary tubing plug that can be pumped open and used for production without running slickline

Features, Advantages and Benefits

- Retractable locking keys permit faster run-in on slickline, reducing service cost.
- WX lock holds pressure in both directions. allowing blanking of the tubing and use as a secondary barrier.
- Large ID though the mandrel and the internal fishing neck provides higher flow volumes to maximize production.
- Selective running tools allow the operator control to locate, land, and lock into the intended landing nipple.

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Specifications

Tubing		Legacy Assembly Number						
Size (in./*mm*)	Weight (lb/ft, *kg/m*)	API[a] Certified	Non-API Certified	Seal OD (in./*mm*)	Minimum ID (in./*mm*)	Bottom Connection (in.)	Legacy Running Tool Number	GS or DU Pulling Tool (in./*mm*)
1.660 *42.2*	2.40 *3.57*	N/A[b]	L60.1250.XX	1.250 *31.75*	0.625 *15.88*	7/8 - 20 UN 2A	R19.125.00	1 *25.4*
1.900 *48.3*	2.76 *4.11*	N/A[b]	L60.1500.XX	1.500 *38.10*	0.750 *19.05*	1-1/8 - 16 UN 2A	R19.150.00	1-1/2 *38.1*
2.062 *52.4*	1.62 *2.41*	N/A[b]	L60.1625.XX	1.625 *41.28*			R19.162.00	
2.375 *60.3*	4.60 to 4.70 *6.84 to 6.99*	L70.1875.XX	L60.1875.XX	1.875 *47.63*	1.000 *25.40*	1-3/8 - 14 UN 2A	R19.187.00	2 *50.8*
2.875 *73.0*	6.40 to 6.50 *9.52 to 9.67*	L70.2313.XX	L60.2313.XX	2.313 *58.75*	1.380 *35.08*	1-3/4 - 12 UN 2A	R19.231.00	2-1/2 *63.5*
3.500 *88.9*	10.20 *15.18*	L70.2750.XX	L60.2750.XX	2.750 *69.85*	1.750 *44.45*	2-1/4 - SLB	R19.275.00	3 *76.2*
	9.30 *13.84*	L70.2813.XX	L60.2813.XX	2.813 *71.45*			R19.281.00	
4.000 *101.6*	11.00 *16.37*	L70.3313.XX	L60.3313.XX	3.313 *84.15*	2.125 *53.98*	2-3/4 - 12 SLB	R19.331.00	3-1/2 *88.9*
4.500 *114.3*	12.75 *18.94*	L70.3813.XX	L60.3813.XX	3.813 *96.85*	2.620 *66.55*	3-1/16 - SLB	R19.381.00	4 *101.6*
5.500 *139.7*	17.00 *25.30*	L70.4562.XX	L60.4562.XX	4.562 *115.87*	3.120 *79.25*	4 - SLB	R19.456.00	5 *127.0*

[a]American Petroleum Institute

[b]This size has not been API certified

For Internal Use:
Link to Endeca assembly part numbers: WX Lock Mandrel

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