

Low-Profile Spider/Elevator 400

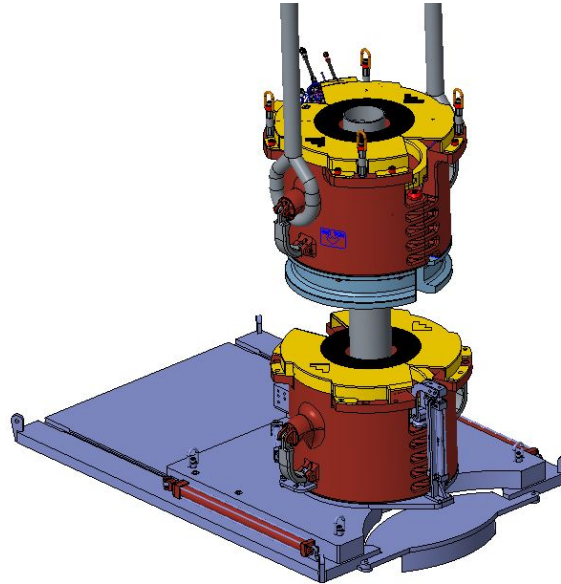
Safely and efficiently runs heavy-load, tapered, and coated riser strings in deepwater connection makeup and breakout operations

Applications

- Deepwater connection makeup and breakout operations
- Riser string loads up to 400 tons (362,874 kg)
- Riser string outside diameters (ODs) up to 16 in. (406.4 mm)
- Tapered or specially coated riser strings

Features and Benefits

- By making the spider and elevator interchangeable tools, the low-profile spider/elevator (LPSE) 400 minimizes rig equipment.
- The LPSE 400 is powered by air or hydraulic pressure for hands-free operations. The LPSE 400 spider sits on top of a sliding base plate and moves with the plate as it retracts. When the sliding base plate is retracted, large-OD equipment can pass through the rig floor to facilitate running riser accessories. This eliminates manual installation and removal when tripping risers, and removes personnel from hazardous areas.
- The 34-in. (863.6-mm) tool height enables making up connections closer to the rig floor, which eliminates scaffolding and associated safety risks.
- The LPSE 400 has multiple slips to accommodate different pipe sizes. The slips are easy to remove and install, and they are interchangeable between the spider and elevator tools.
- The slips and elevator provide power-down preloading for positive gripping of riser strings.



The Weatherford LPSE 400 enables safe and efficient riser-running operations in deep water.

- The slips incorporate Micro-Grip[®] technology that reduces die marking on pipe and prevents damage to special pipe coatings, including thermal-sprayed aluminum.
- The LPSE 400 is compatible with the Weatherford integrated safety interlock system. When combined with the LPSE 400, the interlock system prevents the spider and elevator from opening at the same time, which virtually eliminates dropped riser strings.
- The greasing system prevents moving parts from locking.

Tool Description

The Weatherford LPSE 400 acts as both spider and elevator during connection makeup and breakout operations in deep water. The LPSE 400 runs riser strings weighing up to 400 tons (362,874 kg) and strings with ODs up to 16 in. (406.4 mm), as well as tapered and specially coated riser strings. The LPSE 400 has several design features that enhance operational efficiency, reduce safety risks to personnel, and mitigate pipe damage.



Low-Profile Spider/Elevator 400

Specifications

Tool height	34 in. (863.6 mm)	
Pipe OD range	10.7 to 16 in. (271.8 to 406.4 mm)	
Maximum system hydraulic pressure	2,500 psi (17.2 MPa)	
Minimum system air pressure	116 psi (0.8 MPa)	
Rated load	400 tons (362,874 kg)	
Weight	Tool	6,935.8 lb (3,147 kg)
	Top guides	13 lb (6 kg)
	Slip set	1,477 lb (670 kg)
	Total	8,246 lb (3,740 kg)
Minimum design temperature	-4°F (-20°C)	
Operational temperature	32 to 158°F (0 to 70°C)	



* Micro-Grip is a registered trademark of Weatherford in the United Kingdom and Norway.