

Casing Drive System™



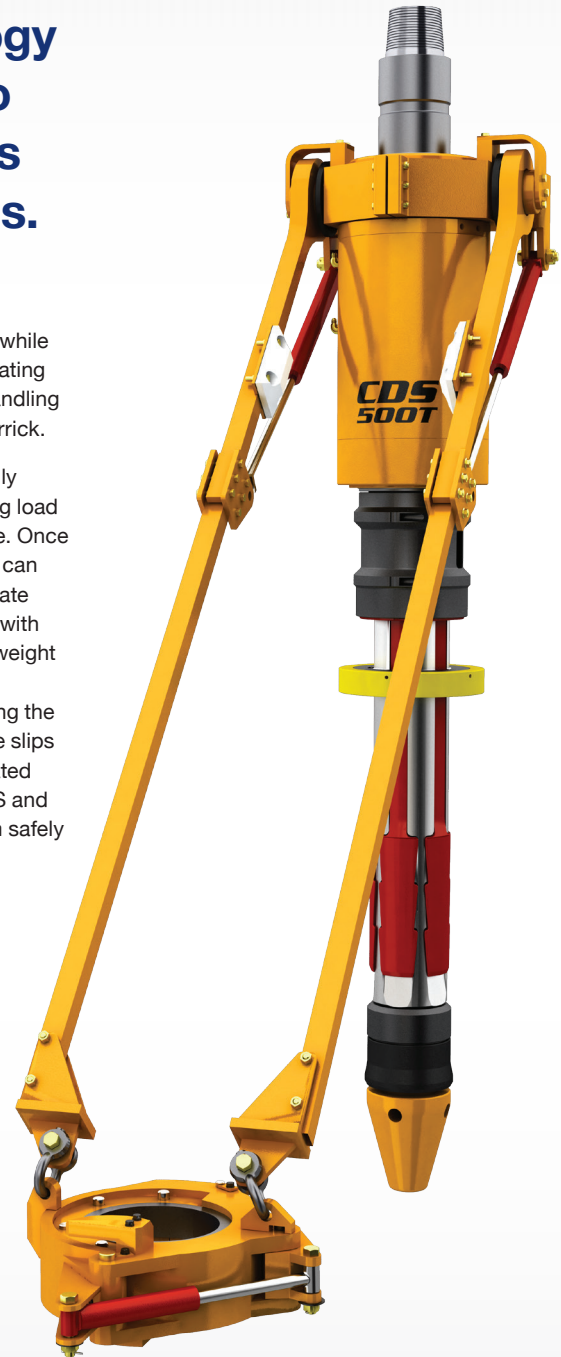
Casing Drive System™ (CDS) technology maximizes the utility of the top drive to enhance tubular, meeting the demands of today's complex and horizontal wells.

The CDS allows simultaneous rotation, reciprocation and circulation of the casing string. Tesco now provides the CDS as part of a full-service casing running offering. Easily installed on any manufacturer's top drive system, and with a track record of millions of feet, the CDS is the industry's most versatile and proven casing running tool.

The CDS can be quickly installed on virtually any top drive enabled rig in the world with typically no modifications to any existing drilling equipment. The CDS eliminates the need for increased manpower on the rig floor and in the derrick by replacing manual single joint elevator, with the CDS's integrated link-tilt system incorporating extendable bails and hydraulic single joint elevators which enable the casing to be picked up at the V-door. The link tilt system then positions the casing joint

over the hole and supports the casing while lowering the CDS and top drive, eliminating the need unnecessary manual pipe-handling on the rig floor and a stabber in the derrick.

Our CDS works with a top drive to easily attain smooth make up with no bending load and with precise control on final torque. Once the connection is made up, circulation can be initiated, and the CDS may manipulate the entire string of casing. When used with a slip/spider assembly, the CDS zero-weight interlock system eliminates the risk of dropping the casing string by preventing the CDS from releasing the casing until the slips are set. Reduce risks normally associated with casing running by adding our CDS and ensure that your casing gets to bottom safely and efficiently.



FEATURES & BENEFITS

- Ability to simultaneously rotate and reciprocate enables the operator to make up casing, reach bottom in tortuous wellbores, and improve cementation
- Eliminates and/or works in conjunction with conventional casing running equipment (i.e. power tongs, traveling rig elevators, top drive, and casing fill up tool)
- Many CDS configurations and ratings ensure compatibility with various rigs for conventional casing running and casing while drilling operations
- The utilization of the link tilt system and automated hands free operation greatly reduces the exposure to unnecessary risks and improves rig safety

RIGTELLIGENCESM FOR THE FUTURE

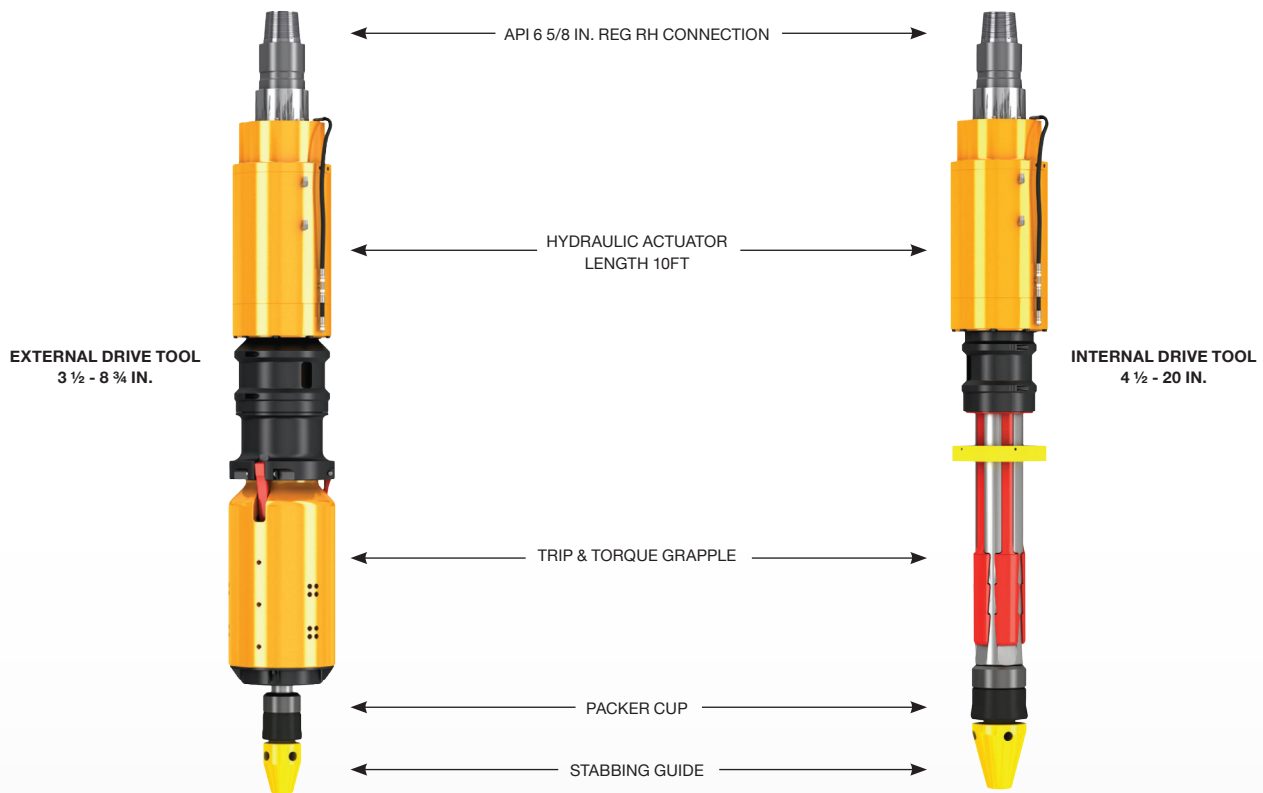
WWW.NABORS.COM

Casing Drive System™



TECHNICAL SPECIFICATIONS*

Hoisting Capacity	350 Ton External	100 Ton Internal - 4½ in. 200 Ton internal - 5½ in. 400 Ton Internal - 7 in. 500 Ton Internal - 9% to 20 in.	750 Ton Internal
Casing Sizes	3 ½ - 8 5/8 in.	4 ½ - 20 in.	9 5/8 - 20 in.
Length	10 ft	10 ft	19 ft
Zero Weight String Maximum Torque	29,500 ft-lbs	59,000 ft-lbs	50,000 ft-lbs
Maximum Drilling Fluid Pressure	5,000 PSI	5,000 PSI	5,000 PSI
Maximum Operating Speed	200 RPM	200 RPM	100 RPM
Maximum Push Down Capacity	25,000 lbs	25,000 lbs	40,000 lbs



*All specifications are subject to customization and continuous product improvement.

RIGTELLIGENCESM FOR THE FUTURE

WWW.NABORS.COM