

## CMIB

### Cement heads for COLOSSUS CMT system



up to 50,000 ft.lbf  
[68,000 N.m]



up to 2,000,000 lbm  
[907,184 kg]

#### APPLICATIONS

- Cementing operations with top-drive system on the rig
- Cementing operations requiring rotating and reciprocation of a liner
- Cementing operations with single or dual wiper plugs
- Well operations requiring ball drops
- Deepwater applications (Ultradeepwater CMIB)
- Shallow- to intermediate-depth land operations with smaller rigs (Light CMIB)

#### BENEFITS

- Prevents contamination of top drive and associated maintenance costs
- Improves cement integrity and enhances well stability and safety by enabling rotating or reciprocating a liner during cementing
- Maximizes rig safety during handling and rotation because of flush OD profile
- Increases rig safety with option for remote control of cement manifold from outside the rig floor

#### FEATURES

- Through bores up to 4 in [102 mm] for high displacement rates
- Modular system for different ball-drop and wiper-plug operations
- Optional remote-control unit
- Single-piece swivel housing that eliminates threads, flanges, and welds
- Optional Kelly valve for use in upper or lower end of swivel
- Design that prevents plugs or balls from floating into drop mechanisms
- Integral antirotation tie-off on the swivel housing

CMIB cement heads control the flow of cement and displacement fluids during liner cementing operations.

CMIB cement heads are internal-bypass manifolds that can be used when cementing liners with a top-drive system on the rig. The CMIB creates a flow path for cement and displacement fluids without allowing them to pass through the rig's top-drive assembly, preventing cement contamination of top-drive components.

A CMIB comprises a swivel and a manifold with modular ball-drop and plug-drop assemblies. The CMIB one-piece swivel housing eliminates threads, flanges, and welds while increasing strength and reducing the bending loads imposed on the inlets. Drop mechanisms are self-contained for low maintenance.

A CMIB head can be configured for single-plug, dual-plug, or single-ball-drop operations. They are also suitable for running and cementing all types of liner hangers, including rotating liner-hanger systems such as the COLOSSUS CMT\* cemented liner hanger system.

Rotating and/or reciprocating the liner while cementing improves cement integrity, enhancing well stability and safety.

#### Standard and deepwater applications

The Standard CMIB unit is suited for most oilfield applications. The Ultradeepwater CMIB unit is designed for rugged applications requiring high hook loads.

#### Optional remote control

The Standard and Ultradeepwater CMIB units can also be operated with a remote control unit. The unit is operated with a tablet that communicates over WiFi. The tablet, actuators, enclosure, connectors, conduit, antenna, and switch are ATEX-certified. Actuators have manual override capabilities, the system can be configured for single- or dual-plug operations, and the flag sub is resettable for dart launch indication.

#### Light unit for shallow land applications

The Light CMIB unit is well suited for smaller rigs on land where weight and handling are constraints, and for shallow- to intermediate-depth wells. The unit cannot be used with remote control.



Optional remote control unit

Standard and Ultradeepwater CMIB cementing head.

## CMIB Specifications

Unit Type	Size, in [mm]	Upper Connection, in	Lower Connection, in	Nominal OD, in [mm]	Minimum ID, in [mm]	Hook Load Rating, lbf [kg]	Torque Rating, ft.lbf [N.m]	Overall Length, <sup>†</sup> in [mm]
Ultradeepwater	6.625 [168.3]	6.625 full hole	6.625 full hole	13.000 [330.2]	4.000 [101.6]	2,000,000 [723,026]	50,000 [68,000]	128.74 [3,270]
Standard	6.625 [168.3]	6.625 full hole	6.625 full hole	13.000 [330.2]	4.000 [101.6]	1,594,000 [723,026]	50,000 [68,000]	128.74 [3,270]
Light	4.500 [114.3]	4.500 IF	4.500 IF	11.000 [84.5]	3.325 [84.5]	750,000 [340,194]	30,000 [41,000]	128.74 [3,270]

## CMIB Swivel Specifications

Unit Type	Size, in [mm]	Pipe Connection, in	Inlet Connection, in	Apparent Diameter, in [mm]	Nominal ID, in [mm]	Overall Length, <sup>†</sup> in [mm]
Standard and Ultradeepwater	6.625 [168.3]	6.625 full hole	WECO 2-1n 1502	22.000 [558.8]	4.000 [101.6]	66.000 [1,676]
Light	3.235 [84.5]	4.500 IF	WECO 2-1n 1502	22.000 [558.8]	3.235 [84.5]	64.000 [1,625]

<sup>†</sup> Overall length depends on tool configuration

## Remote Control Specifications

	Temperature Range, degF [degC]	Battery Life, <sup>‡</sup> hours	Indicators	Security	Plug Configuration	ATEX Certification
Standard and Ultradeepwater	-40 to 140 [-40 to 60]	more than 12	Battery and WiFi levels	User PIN	Single or Dual	Class 1 Division 2

<sup>‡</sup> Under flush cycle (highest current draw) and ambient temperature