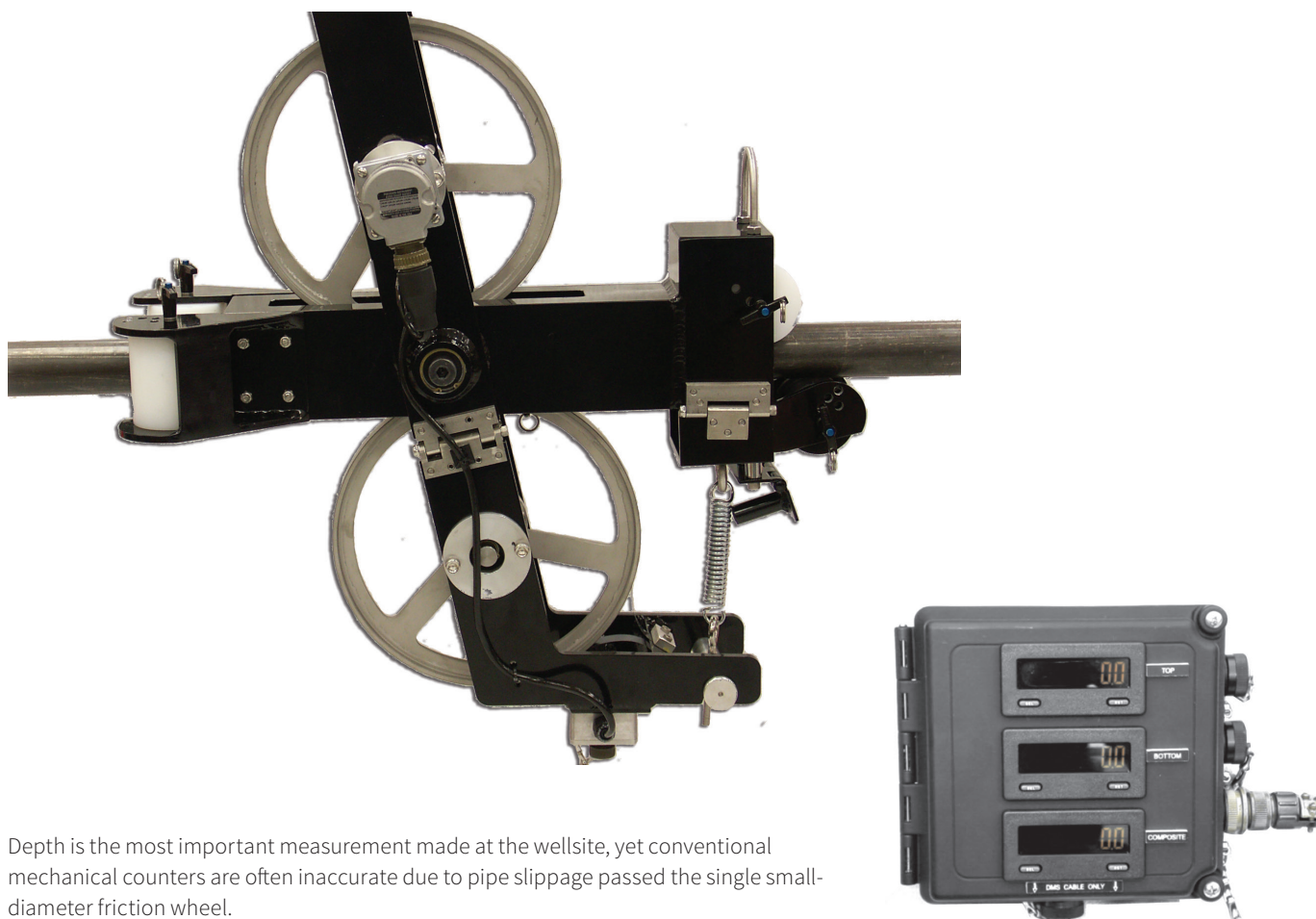


## Depth Measuring System (DMS)

Better depth measurement means safer, more efficient operations with higher user confidence.



Depth is the most important measurement made at the wellsite, yet conventional mechanical counters are often inaccurate due to pipe slippage passed the single small-diameter friction wheel.

Our Depth Measuring System is a dual-wheeled measuring device for accurate depth measurements of coiled tubing operations at the wellsite or during reel-to-reel spooling.

The DMS also employs proprietary software-controlled slippage compensation for a significantly more accurate measurement of the length of tubing spooled.

### Data manipulation module

The display module is mounted in the control cabin of the coiled tubing unit. This module is used to display and reset depth and speed. This display module also houses the onboard processor that runs the Fastest Wheel Algorithm (FWA). Digital display meters show the measured depth from the top and bottom wheels, as well as the composite depth from the FWA. Quadrature signals can be fed to any data acquisition system. The three connectors on the right side of the display are the outputs to any data acquisition system (DAS).

### Features and benefits

- Adjustable for 1 ¼" to 2 ¾" coiled tubing
- Dual wheel design with dual depth encoders
- Slippage detection and compensation via microprocessor using FWA
- Internally mounted measuring wheel scrapers
- Integrates with Orion™ DAS and Cerberus™ to produce depth correction for temperature, stretch and buckling
- Stand-alone device compatible with any DAS
- Robust, field-proven design

936.777.6200 | 24 Hour Support

## Depth Measuring System (DMS)

### Cutting-edge technology

The DMS is a precision measuring instrument that is designed to be quickly and easily installed or removed from the coiled tubing prior to transport.

An ordinary depth counter's accuracy is hindered by depth wheel slippage.

The DMS design works to alleviate this problem in three ways:

- A lever-arm movement is used to maintain a high frictional contact force between the measuring wheels and the tubing.
- Two tungsten-coated stainless steel measuring wheels are used for accuracy and dependability in harsh operating environments
- A microprocessor is incorporated to run the FWA, while continually monitoring the speed of both wheels' electronic position encoders. The bottom wheel serves as master depth and the top wheel serves as backup depth. The top wheel takes over as master when the bottom wheel's speed is slower from slippage. The DMS displays a "composite" depth value.



A padded storage box is provided for DMS transport and storage.

## Specifications

Mechanical	
<b>Head</b>	
Weight	35 lbs
Length	30"
Height	24"
Width	13"
Wheel Circumference	36"
<b>Display</b>	
Enclosure	6" x 6" x 4"
Type	NEMA 4X
<b>Electrical</b>	
Supply Voltage	5 VDC (head), 12 VDC (display)
Pulses/Rev	600/150
Frequency	100kHz
Output	2-channel Quadrature
Temperature Range	-30° to 85° C

936.777.6200 | 24 Hour Support