

# Flora connection evaluation system (CES)

## Minimize risk by ensuring correct torque on every connection

## **Applications**

- Monitoring premium and API tubular connection makeups
- Monitoring sensitive CRA connections
- Performing accurate and precise torque measurements to avoid faulty connections

### **Features and Benefits**

- Monitors torque vs. turn and analyzes the connection during makeup
  - Prevents over torquing and damage to connections
  - Protects connections and reduces the chance of rejections, failures, and resultant downtime
- Enables real-time data transmission
  - Easily identify anomalies for immediate graph viewing by the customer onshore, regardless of office location
  - Remote thread inspectors can independently scrutinize graphs, record their own logged comments, and apply their own Accept/Reject recommendations for every record
- Detects shoulder position automatically
- Controls SpeedMaster<sup>™</sup> valve and dump valve outputs automatically
- Imports and exports approved job plans from shore preventing manual data entry errors
- · Generates job reports on-demand
- Complies with CE marked, ATEX, IECEx, AEx Zone 1 certification

The Baker Hughes Flora™ connection evaluation system (CES) controls and records the makeup of premium and API tubular connections. It monitors torque levels to detect faulty connections and is a key element for accurate connection makeup and connection integrity. Figure 2 shows an example of the software identifying an anomaly on the torque turn graph.

Equipped with advanced software services, the torque turn system can prevent under and over torquing, as well as identify torque-turn events during the job, and even securely share data over the internet to connected SMEs globally.

Technical specifications	
Certification	IECEx Zone 1
Operating temperature	-40°F to 140°F (-40°C to 60°C)
Remote data	Capable

## Safety and handling

Before handling, transporting, or use, review the Owner's Manual for guidance.



Figure 1: Example of the software identifying an anomaly on the torque turn graph.

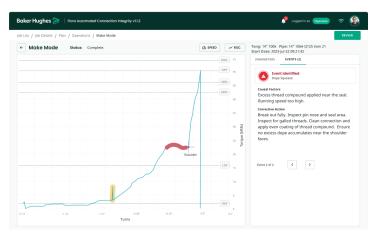


Figure 2: Flora CES in a transport console.