








## System Overview

The JFE Steel Clear-Run® Advanced Tubular System sets a new benchmark in Oilfield best practice, offering a high value alternative to traditional 'dope-based' OCTG processes. Clear-Run® delivers greatly improved Operational, Commercial and Safety performance and completely removes key negative Environmental aspects of established industry practice.

## Problems Solved

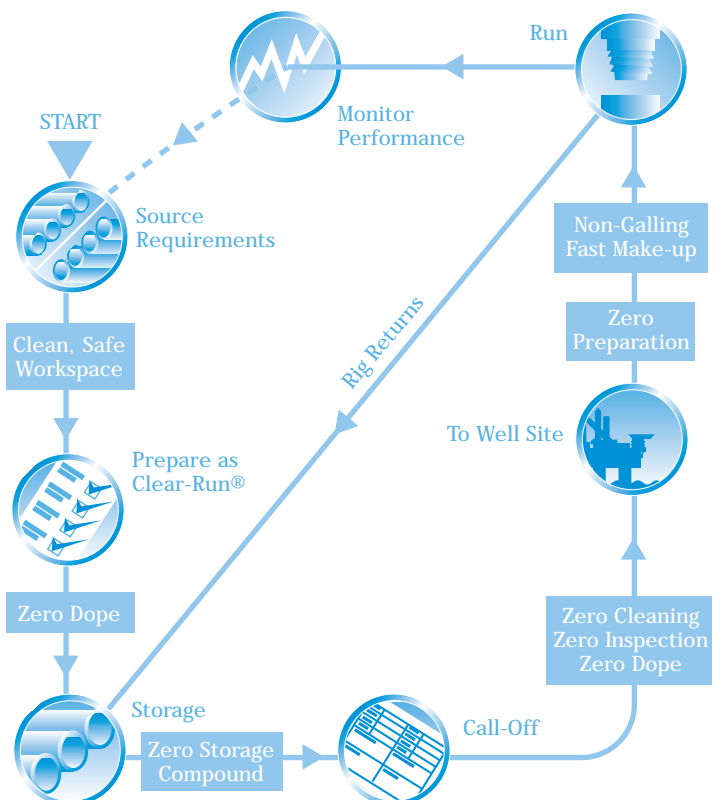
From the very first exploration wells through to the increasingly complex and environmentally sensitive programmes undertaken in the Oil & Gas industry of today, 'Oilfield Tubulars' have been handled using a process with the following inherent problem areas;

-  Contamination of the Well Bore and Formation with Pipe Dope
-  Fouling of Down Hole Equipment with Pipe Dope
-  Costly Onshore and Offshore Thread Cleaning and Preparation
-  Frequent Incidence of Connection Galling
-  'Dirty', Unsafe Workspaces Shop/Yard/Rig
-  In-Storage Connection Corrosion
-  High Residual Environmental Impact

The JFE Steel Clear-Run® Advanced Tubular System removes or reduces all these negative aspects, yielding direct savings in Cost and Time and greatly reducing the Environmental impact of OCTG operations.

In full Commercial application, Clear-Run® has delivered improved Rig-Time efficiency through the removal of tubular preparation time and the achievement of benchmark safe make-up speed and connection integrity levels. A Pipe Dope is not required at any point in the manufacture, storage or running of OCTG deployed using the Clear-Run® system. Corrosion inhibition and anti-galling properties are integral Clear-Run® features and there is no requirement for connection cleaning and preparation on the outward or inward journey, to and from the Well Site.

Key components of the JFE Clear-Run® system are recyclable/bio-degradable, adding to the overall reduction in environmental impact achieved by the removal of Dope from the entire process.



JFE Steel Clear-Run® Advanced Tubular System

The Clear-Run® Advanced Tubular System covers the entire OCTG Life Cycle from Mill to Well, through Return and Re-Use in a single integrated process. Features and benefits of Clear-Run® at key points in this life cycle include;

### At the Mill / Machine Shop

Under the Clear-Run® system, the need for pipe Dope during connection make-up is removed, creating significantly cleaner, safer workspaces. The Clear-Plate® component of the Advanced Tubular System provides anti galling properties to all Clear-Run® OCTG from this point in the process.

### In the Pipe Yard

Immediately prior to storage, the JFE-Glide® component of the Advanced Tubular System is applied to connection threads making all Clear-Run® joints

corrosion resistant and ready for offshore running without the need for further cleaning and preparation.

Tubulars returning from the Rig Site require no routine cleaning and corrosion protection treatment prior to re-storage.

### At the Rig Site

Zero cleaning, zero preparation, zero Dope - just remove the protectors and run in hole.

## System Components

### CLEAR PLATE

A significant technological advance in OCTG anti-gall treatment, this component of the Clear-Run® system has been developed by Hunting & JFE Steel in collaboration with our coatings technology partner company, MP (Eastern).

### JFE GLIDE

High performance friction reduction and corrosion resistance without Dope, enabling faster, cleaner make-up of tubulars at the Well Site. 'Transparent' and biodegradable characteristics facilitate detailed thread inspection without cleaning. JFE-Glide™, formally Hunting Clear-Glide® was developed by Hunting in collaboration with our technology partner, R.S. Clare.



**JFE**

JFEBEAR - A connection for today's Oil and Gas Industry  
A new breed of premium thread connection that was designed to exceed API class 1 requirements for Compression and Torque, Bending and External Pressure. JFEBEAR Clear-Run® has successfully completed a connection load test programme based on ISO13679.

In addition to the service elements of material sourcing, connection machining and logistics, the JFE Steel Clear-Run® Advanced Tubular System has three proprietary product components;

