

# RDT



## Wear Knot™ Drill Pipe

RDT is pleased to announce the launching of its first Patent Pending product that was created to solve early middle tube outside diameter wear due to today's aggressive drilling applications. Our new Wear Knot™ Drill Pipe design is engineered to protect against OD wear on the drill pipe tube as well as stabilize the joint in the well bore. Taking into consideration all the different worldwide drilling applications there are these days and also the different drill pipe nominal sizes that will be needed, the Wear Knot Drill Pipe is manufactured for Range 2 or 3.

### Features and Benefits

In today's increased application of extended reach horizontal drilling technology in Shale plays, the drill pipe is being exposed to different fatigue and wear characteristics than traditional drilling of the past. Basically, the drill string is being run upside down in compression causing the middle section of the tube to wear prematurely compared to the tool joint life. This results in washouts in the mid-section which creates high non-productive time for the Operators drilling

these Shale plays. Another intrinsic benefit of the Wear Knot Drill Pipe is the ability to reduce friction and drag forces in directional and horizontal wells. This characteristic creates less chance of keyseating of your tubular into the formation. Additionally, not only will it improve the tube section wear characteristics but will allow more weight to be put on the bit to increase penetration rates. By adding this mid-joint stabilization the drill pipe tube life will increase substantially and help reduce premature failures by reducing the concentration stresses on the pipe.

In the case of Range 3 drill pipe applications to increase tripping times, the Wear Knot Drill Pipe will enable you to extend its service life beyond the average two to three years that most Range 3 drill pipes have due to mid-section wear in abrasive drilling formations. When you combine Re-Tool Jointing Services with our Wear Knot Drill Pipe, the drill pipe's service life will extend two to three times more than conventional pipe. This will attribute to a substantial cost savings for your tubular goods.



## Technical Description

Our new integral Wear Knot design is the first of its kind. Currently, the targeted OD of our Wear Knot will be between 1/2" - 1" larger than the drill pipe tube outside diameter and will be 1/2" to 7/8" thick. Duraband NC will be used for the hard banding material in the Wear Knot section.

As far as connections, the Wear Knot Drill Pipe will be available in all API, Double shoulder (DS) and DT (RDT's High Torque) connections.

## Usage Application

The most common application for the Wear Knot Drill Pipe will be in the US Shale Horizontal Plays where excessive wear in the mid-tube section is seen. Alternative applications for usage of our product would be when drilling through salt domes in offshore situations and vertical land drilling in abrasive formations.



Application	Drill Pipe Size	Tool Joint OD	Wear Knot Size	Range
US Shale Plays	4"	4 7/8" - 5 1/4"	4 1/2"	II or III
Land Abrasives Formations	5"	6 5/8"	6"	II or III
Offshore Salt Domes	5 1/2"	7" - 7 1/4"	6 1/2"	II or III

## Wear Knot™ Drill Pipe Dimensions

The following dimensions are API nominal common sizes and can be changed due to Customer request or other connection configurations:

DP Size	Range	Tool Joint	A	B
3 1/2"	II or III	4 7/8" OD x 2 9/16" ID	4 1/2"	12"
4"	II or III	5 1/4" OD x 2 9/16" ID	4 1/2"	12"
4 1/2"	II or III	6 1/4" OD x 3" ID	5 1/2"	12"
5"	II or III	6 5/8" OD x 3 1/4" ID	6"	12"
5 1/2"	II or III	7 1/4" OD x 3 1/2" ID	6 1/2"	12"
6 5/8"	II or III	8 1/2" OD x 4 1/2" ID	7 5/8"	12"

A = Wear Knot OD

B = Wear Knot Length



