Who we are…

• Established in 2006 to supply API drilling tubular tools
• Over 150 years of experience in tubular manufacturing
• Co-founders of two different Tubular Manufacturing Companies

• API Facility:
  • Spec 5DP
  • Spec 5CT
  • Spec 7-1
  • Q1 Spec
Who We Are…

What we do…

• Products
  - Wear Knot™ Drill Pipe
  - Drill Pipe
  - Landing Strings
  - Premium Tubing
  - Upset Casing
  - Heavy Weight Drill Pipe
  - Drill Collar
  - Drilling Accessories

• Services:
  - OCTG 3rd Party Processing
  - Internal Plastic Coating (PCI-USA)
  - Re-Tool Jointing
  - Re-Certified
  - Hard Banding
Manufacturing Yearly Capacity

- 24,000 jts of Drill Pipe
- 6,000 jts of HWDP
- 6,000 jts of Drill Collars
- 12,000 Drilling Accessories
- 96,000 jts of Coated Drill Pipe
- 60,000 Tons of Processed Tubing/Casing
• 2 Weld Lines for Drill Pipe & HAD
• 1 Thru Hole weld line for WearKnot Drill Pipe
• 18 CNC machines for threading & profiling
• 4 OD Tube Turners
• 2 Spiraling Machines
• 1 Upsetter up to 7-5/8”
• Heat Treat
• 3 Stub welding stations
• 4 Hard banding stations
• EMI, SEA, Hydro and Weighth Measure and Stencil
• Full Length UT
• Metallurgy Laboratory
• NDT Testing – Level II
• Documentation
• Sizes: 2-3/8” to 6-5/8”
• Connections: API & Premium threads
• All grades & weights
• Range II & III
• NS-1 grade available
• Optional Hard Banding & Internal Plastic Coating

• Drill pipe Pup Joints
• 4145HT material
• Length: 5’, 10’, 15’ & 20’ (Custom length as required)
Drill Collars

- All raw material is US made (4145HT TIMKEN)

- Material Specs:
  - Minimum yield: 120k Lbs
  - Minimum tensile: 130k Lbs
  - BHN: 285 - 341
  - Sizes: 2-7/8” – 14”
  - Slick or Spiraled
  - Available with Slip recessed and/or zip

- Custom specifications
• NEW API
• Re-manufacture API
• NS-1
• TUFF Tube HWT (New Product)
• All raw material is US made
• Range II & III
• Standard or Spiraled
• Integral or welded (based on customer request)
• 27” Tool joints for extra service
• Hard Banding optional
- **NEW or Re-manufactured**
- **Lift Subs**
- **Cross-overs**
- **Bit Subs**
- **Pump-in Subs**
- **Top Drive Subs**
- **Specialized subs based of Customer specs**
- **Kellys – All sizes**
• Engineered to protect against premature OD wear in the mid section of the drill pipe

• Developed for drilling in:
  • Horizontal Shale Plays
  • Extremely Abrasive Formations
  • Offshore Salt Dome
  • Extended Reach Drilling (ERD)

• RDT’s first:
  • Patented product
  • Trade Mark product
Other Benefits are:

- Reduce buckling effects by better centralization
- Reduce drag and friction forces in ERD and Horizontal Drilling
- Better hole cleaning in ERD and Horizontal drilling
- Extends the service life of Range 3 drill pipe
- Allows for more WOB in ERD and Horizontal extended reach wells due to stiffness
- Better bending stress distribution
- **Handles Compression forces better than standard Drill pipe**
• ID in the WKDP section is designed to be equal to the Pin ID.
• WKDP section material is designed of high alloy content to endure wear cycle
• WKDP section is 18” long
• Upsets in WKDP section elongates the wall thickness profile to around 22” long
• Wear Knot™ section OD is designed to have around 1/2" less Tool Joint OD.
• Hard Band used is Casing Friendly and is applied 3/32" raised.
• Wear Knot™ section wall thickness has 2 to 3 more wall thickness compared to regular API or Premium drill pipe tubes.
• Connections can be either:
• API
• “Double Shoulder” – DS
• High Torque – DT
• Hard Banding is in the Wear Knot™ section
Upset Casing

- Integral connection tubular design using standard API threads to maintain interchangeability
- Design to drill, ream, rotate or can run in the hole as conventional casing with no special handling considerations.
- Can be run with TopDrive, elevator and slips, Casing Running Tools (CRT)
- Substantial time and cost savings
- 3rd Party threads by request; Premium, Semi-Premium, API, Flush Joint, Semi-Flush
## Upset Casing Features and Advantages

<table>
<thead>
<tr>
<th>Features</th>
<th>Advantage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Premium chemistries</td>
<td>Improved wear factor on tube body for drilling or reaming while rotating operations</td>
</tr>
<tr>
<td>Integral coupling</td>
<td>Fewer connection failures. 50% reduction of leakage failure</td>
</tr>
<tr>
<td>Upset processed box</td>
<td>No coupling required; allows bending moment “like drill pipe”</td>
</tr>
<tr>
<td>Upset area has the same API coupling dimensions</td>
<td>No change in length, ID or OD</td>
</tr>
<tr>
<td>Controlled yield on upset area</td>
<td>Reduces risk of connection failure</td>
</tr>
<tr>
<td>Offered in seamless as well as ERW</td>
<td>Cost vs. Application option</td>
</tr>
<tr>
<td>Elevator shoulder</td>
<td>No square shoulders that can hang-up on running operations</td>
</tr>
<tr>
<td>Torque shoulder connection</td>
<td>Semi-premium type torque ratings with internal flush ID profile</td>
</tr>
<tr>
<td>Offered in “new” API OD dimensions as well as “old” API OD dimensions</td>
<td>Allows drilling programs to maintain casing tolerances using “old” API dimensions</td>
</tr>
<tr>
<td>Offered in both buttress (BTX) &amp; long thread (LTX) connections</td>
<td>Maintains interchangeability with API connections</td>
</tr>
</tbody>
</table>
# Premium Tubing: Features & Advantages

<table>
<thead>
<tr>
<th>Features</th>
<th>Advantage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Robust Chemistry like “Drill Pipe”</td>
<td>Better wear profile for long lasting service life</td>
</tr>
<tr>
<td>Higher remaining body wall</td>
<td>Increase of service life in tube wall</td>
</tr>
<tr>
<td>Extended Upset</td>
<td>Increase of service life by increasing tool joint re-cuts</td>
</tr>
<tr>
<td>Premium 2-Step connection</td>
<td>Field proven connection for Completion or Work Strings</td>
</tr>
<tr>
<td>Optional Tubular Identification</td>
<td>Improve traceability through serial numbers</td>
</tr>
<tr>
<td>Offered in various grades of steel</td>
<td>Improve String Application</td>
</tr>
</tbody>
</table>

- **Enhanced Grades**
- **Tubing ID Tag**
- **Extended Upset**
- **Premium Connection**
• **Clean Steel with optimal physical attributes**
  
  A. Tightly controlled chemistry (PSL1, PSL2, PSL3)
  B. Exceptional chemistries - *Drill Pipe “alike”*
  C. Minimum 92% RBW - *extended tube body life*

• **Domestic Sources**
  
  D. US Steel
  E. TMK Koppel-Ipsco
  F. Other sources

• **International Sources**
  
  G. Tubos Reunidos
  H. Others
Premium Tubing - Upset Process

- 7-5/8” double-toggle, Hot-forged upsetter
- Upset Range from 2-3/8” – 7-5/8” OD
- Up to 7-1/4” - 7-1/2” extended length upsets offer maximum recuts
Premium Tubing - Heat Treat Process

• 2-3/8” - 5-1/2” tubing OD range

• Steel Grades:
  • API: N80, L80, P110, P-110HC, Q125
  • Specialty: T-95, CY-110,
  • Enhanced and proprietary grades

• Heat Treatment Line
  • Continuous induction hardening furnace
  • Aggressive water quench
  • Gas temper walking beam furnace
  • In line hot straightening
  • In house lab testing
Premium Tubing - Inspection Process

- In House Metallurgical Lab
- Full Length Drift
- SEA
- EMI
- Optional FLUT
- Hydrostatic Pressure Testing
- Automated Weigh, Tally, Stencil, & OD Coat
Who We Are…

Premium Tubing - High Speed Thread Process

• Fully Automated climate controlled building.
• 2 Dual lines with automated material handling system:
  • Line #1: Up to 3” OD x 34’ long pieces.
  • Line #2: Up to 7” OD x 48’ long pieces.
• In-Line Thread Inspection
• In-Line Thread Phosphate
Internal Plastic Coating

- Internal Fusion-Bond Thermal-Set Powder Coatings to OCTG Products

- Internal Pipe Coating Extends the useful life of OCTG Products

- Various coating systems

- Coating Products performed well in rigorous testing per:
  - NACE Standard TM0185-2000
  - ASTM D 4060-07
  - ASTM D 4541
  - ASTM G 171
Who We Are…

Tubular Identification

• High Alloy Stainless Steel
• 800°F + - Pressure Impervious
  –IPC
  –Inspection: MPI, EMI, Ultrasonic
• Tool Joint Wear Indicator
• Laser Etched 2D Code – Customer Specific
• Corrosive & Chemical Resistant
• TAM Tag comes in two sizes:
  • 1” – with a thickness of 0.090” (Drill Pipe, HWDP, DC, Accessories)
  • ¾” – with a thickness of 0.048” (Tubing)
Benefits on Choosing RDT

Product
- Material Selection
- Robust Chemistries
- Heavier Body Wall
- Extended Upsets
- Superior Mechanical Properties
- Traceability

Process
- Vertically Integrated
- Premium Metallurgy
- Complete Schedule Control
- Cost Control
- TQM across all processing segments
- Internal Pipe Coating – PCI located next door

Longer Service Life
Low Cost Producer
Summary

• Industry "Step Change" in Tubular Technology
• Using Drilling Technology “Know How” into Completion Goods
• Re-Engineering Tubular Goods for today’s and tomorrow’s well designs