Low Cost & High Performance

SUPERMAX
SUPERMAX2
SUPERMAX TS and TS2

1.900” to 4-1/2”
5” to 13-3/8”
2-3/8” to 7”

APPLICATIONS for SUPERMAX TS and TS2
1. Production casing for frac. job
2. Production casing for low pressure gas wells
3. Casing for shale plays with high pressure frac. job
4. Tubing for thermal application (Huff & Puff, SAGD)
5. Liner for horizontal section

APPLICATIONS for SUPERMAX2
1. Interchangeable with standard SUPERMAX or SUPERMAX2
2. Internally flush to avoid turbulence
3. High torque resistance
4. Low hoop stress on the coupling

Pros and cons of API Connection:
BTC:
Pros: High joint strength
Cons: Poor leak resistance

LTC:
Pros: Good leak resistance
Cons: Prone to jump out

SUPERMAX2 has:
- Joint strength of Buttress
- Leak resistance of 8 round (Option)

Resilient seal for high gas pressure application

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**SUPERMAX Feature of Design**

1. Threaded Coupled on non-upset plain end
2. Taper: 1/16
3. 8TPI for SUPERMAX, 5TPI for SUPERMAX2
4. Pin: Bare
   Coupling: Phosphated

**SUPERMAX Performance Summary**

**Reduced Cost Alternative to EUE**

1. Non upset tubing
2. Easy Threading
   Short thread length, and easy machining
3. Cheaper Accessories
4. Extended product life
   Multiple Rethreading Capability
5. Small coupling OD
   Fit for Low Clearance

**High Performance**

1. Sealing integrity
   Excellent internal pressure resistance
   - Unique thread engagement (Fig. below)
   - Tight machining tolerance
   - Make up torque and position control
2. Joint Strength
   Tensile strength equal to pipe body
3. Resistance to galling
   Multiple make and break capabilities

**Thread Engagement of SUPERMAX Thread**

- **API 8 Round Thread**
  - High contact pressure
- **API Buttress Thread**
  - Low contact pressure
  
  As API Buttress pin thread move axially, high contact pressure cannot be induced on the load falinks

- **SUPERMAX Thread**
  - Load and stabbing flanks of SUPERMAX threads contact and high contact pressure is energized on both flanks upon make up same as API 8 Round threads.
**SUPERMAX Examples of Applications**

**LOW COST**

1. Production tubing for oil well in which API EUE is used
2. Reclamation of API EUE tubing with insufficient upset length for repair

**HIGH PRESSURE RESISTANCE**

3. Low pressure gas well (lower than 5,000 psi) in which premium connection is used
4. Tubing for high pressure frac. Job

**SMALL COUPLING OD**

5. Smaller coupling OD than API EUE enable to run;
   - 2-7/8” inside 4-1/2”, 3-1/2” tubing inside 5” and 5-1/2” These combinations enhance production volume, and increase pump rate for frac. Job
   - In case of 4-1/2” Casing repair with 3-1/2” Flush connection, 2-3/8” SUPERMAX can be run instead of macaroni tubing.
   - Gives more room for ESP cable

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**Coupling OD of SUPERMAX**

<table>
<thead>
<tr>
<th>Pipe OD (in)</th>
<th>Weight (lbs/ft)</th>
<th>WT (in)</th>
<th>Std OD (in)</th>
<th>SC OD (in)</th>
<th>JE (%)</th>
<th>API EUE (OD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-3/8”</td>
<td>4.60</td>
<td>0.190</td>
<td>2.875</td>
<td>2.700</td>
<td>114</td>
<td>3.063</td>
</tr>
<tr>
<td>2-7/8”</td>
<td>6.40</td>
<td>0.217</td>
<td>3.500</td>
<td>3.250</td>
<td>112</td>
<td>3.668</td>
</tr>
<tr>
<td>3-1/2”</td>
<td>9.20</td>
<td>0.254</td>
<td>4.250</td>
<td>3.900</td>
<td>100</td>
<td>4.500</td>
</tr>
<tr>
<td>4-1/2”</td>
<td>12.60</td>
<td>0.271</td>
<td>5.000</td>
<td>4.950</td>
<td>102</td>
<td>5.563</td>
</tr>
</tbody>
</table>

**OTHERS**

6. Tubing for thermal application (Huff & Puff)

   **(Option)**
   - Internal plastic coating
   - Glass fiber lining
   - Special clearance coupling 20°bevel
   - Resilient seal (Teflon Ring)
**SUPERMAX2** (5” to 13-3/8”)

Pros and cons of API Connection:

**BTC:**
- **Pros**: High joint strength
- **Cons**: Poor leak resistance

**LTC:**
- **Pros**: Good leak resistance
- **Cons**: Prone to jump out

**APPLICATIONS for SUPERMAX2**

1. Production casing for frac. job
2. Production casing for low pressure gas wells

**SUPERMAX TS and TS2** (2-3/8” to 7”)

**Additional Feature of SUPERMAX-TS series**

1. Interchangeable with standard SUPERMAX or SUPERMAX2
2. Internally flush to avoid turbulence
3. High torque resistance
4. Low hoop stress on the coupling

**APPLICATIONS for SUPERMAX TS and TS2**

1. Casing for shale plays with high pressure frac. job
2. Tubing for thermal application (Huff & Puff, SAGD)
3. Liner for horizontal section

*(Option)*

**SUPERMAX-TSR**

Resilient seal for high gas pressure application

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