Advantages

• ALLFI HP tubing in seamless cold-drawn stainless steel for maximum corrosion resistance: ideal for all high pressure applications.
• Quality and safety at extreme pressures.
• Manufactured to ALLFI’s strict specifications concerning material strength, pressure testing, bore quality, dimensions, corrosion resistance and analysis for the safe application in extreme high pressure usage.
• Guaranteed reliability based on strict inspection tests with material and inspection certificates.
• HP tubings are available in lengths of approx. 6 – 7m.
• ALLFI HP tubing is also available in special lengths and as straight or custom bent special nipples.
• For cyclic pressures and alternating loads we recommend our autofrettaged tubings and nipples.
• The tubing dimensions match with the ALLFI high pressure program of valves and fittings.
• HP tubings in W.Nr. 1.4301 and for a working pressure of 4000 bar are available from stock. Other materials and metric tubing on request.
• Other dimensions are available on request.

Options

• Autofrettaged tubings and tubing arcs.

Accessories:

• Manual coning/threading tools and bending tools
Technical data – Specification

The special features of these tubes are the high proof stress and tensile strength whilst still maintaining a high elongation. The pressure resistance is reinforced by a very good inside surface quality.

Tolerances

AD and ID ± 0.1mm
WD ± 10 %

Surface Finish

External: Max. flaw depth 5 % of wall thickness
Internal: Free from scores, folds and inclusions exceeding 0.1mm, max. 5 flaws >0.05mm

Quality Control

Quality control includes:
• dimensional checks
• technological examination
• tensile test
• metallographic tests
• i.-c.-test to DIN 50914
• indentification tests
• eddy-current test to BS 3889

Identifying Marks

All tubes are identified over their entire length in indelible ink. The marking of the production run guarantees a complete quality control.
Advantages

• Precisely bent nipples are easily mounted and lead to tensionfree connections.
• High mechanical strength due to cold forming.
• Nipples in various standard lengths or according to your individual needs are available.
• Straight and 90°-nipples are available from stock.

Technical data – Specification

• Minimal bending radius:
  OD 6.35mm (1/4”): 25mm
  OD 9.52mm (3/8”): 50mm
  OD 14.30mm (9/16”): 75mm
• Max. working pressure corresponds to ALLFI HP tubings.

Options

• Automatically hooped nipples
Advantages
• Production of customer-specific coiled tubing.
• Tube bends and elbows can be produced from workshop drawings.
• Precision bends facilitate installation.
• Complete pipe system for water-jet cutting machinery.

Technical data – Specification
• Tubing coils can be produced from 1/4” (6.35mm ext. dia.) high-pressure tubes, also 3/8” (9.52mm ext. dia.) and 9/16” (14.30mm ext. dia.) bends and radii can be supplied.

Options
• Automatically hooped HP tube
• On spot piping for 2D and 3D plants
• Piping for cutting robots
Advantages

- Protection of environment at leaks in the pipework and spray emerges
- Low cost solution

Technical data – Specification

- Solutions with metal, metalplast and polyflex tubes; matching the dimensions of ALLFI HP-tubings
The requirements for high-pressure components for waterjet cutting continuously increase due to higher operating pressures and pressure cycles. At the same time, these components should have a longer lifetime for reliable maintenance cycles. One promising method to achieve this is the post-processing of components using Autofrettage pressure.

**Definition**
Autofrettage is French and means Even shrinkage. In our case, this means the deliberate introduction of residual stresses in thick-walled components by a high internal pressure, the flow pressure must exceeded

**Advantages**
- The plasticising on the inside wall causes a micro defuse manufacturing conditional micro notches.
- Unequal power distribution over the cross-section of bent HP-Tubes are eliminated on the inside fiber.
- Increasing the operational safety
- Increasing the endurance strength between 50% and 150%.
- The life of autofretted components subject to a lower scattered area.

**Application**
ALLFI operates an HD Autofrettagepumpe for pressures up to 14,000 bar. Which are achieved allowing the Autofrettage effect even at the highest-quality materials.

At durability problems, or the demand for increasing the durability, we recommend you to leave us do the autofrettage fo HP-Tubes and HP-component. We will be glad to futher advise you.
<table>
<thead>
<tr>
<th>Art.No.</th>
<th>Description</th>
<th>Price €</th>
</tr>
</thead>
<tbody>
<tr>
<td>801400</td>
<td>HP-tubing 6,35 mm 1/4&quot;, Id=2,4 mm, price per meter, material 1.4404</td>
<td>28.00</td>
</tr>
<tr>
<td>801401</td>
<td>HP-tubing 6,35 mm 1/4&quot;, Id=1,6 mm, price per meter, material 1.4404</td>
<td>32.00</td>
</tr>
<tr>
<td>801402</td>
<td>HP-tubing 6,35 mm 1/4&quot;, Id=2,4 mm, price per meter, material HP 160</td>
<td>42.00</td>
</tr>
<tr>
<td>801404</td>
<td>HP-tubing 6,35 mm 1/4&quot;, Id=2,1 mm (0.083&quot;), price per meter, material 1.4404</td>
<td>30.00</td>
</tr>
<tr>
<td>803800</td>
<td>HP-tubing 9,52 mm 3/8&quot;, Id=3,2 mm, price per meter, material 1.4404</td>
<td>40.00</td>
</tr>
<tr>
<td>803802</td>
<td>HP-tubing 9,52 mm 3/8&quot;, Id=3,2 mm, price per meter, material HP 160</td>
<td>72.00</td>
</tr>
<tr>
<td>809100</td>
<td>HP-tubing 14,3 mm 9/16&quot;, Id=4,76 mm, price per meter, material 1.4404</td>
<td>70.00</td>
</tr>
<tr>
<td>809102</td>
<td>HP-tubing 14,3 mm 9/16&quot;, Id=4,8 mm, price per meter, material HP 160</td>
<td>150.00</td>
</tr>
<tr>
<td></td>
<td><strong>Nipples - special designs on request</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Tubing coils, Tube bends - special designs on request</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Protecting tube covers</strong></td>
<td></td>
</tr>
<tr>
<td>870114</td>
<td>Metalplast tube to fit 1/4&quot; HP-tubings, price per meter</td>
<td>7.00</td>
</tr>
<tr>
<td>870138</td>
<td>Metalplast tube to fit 3/8&quot; HP-tubings, price per meter</td>
<td>9.00</td>
</tr>
<tr>
<td>870191</td>
<td>Metalplast tube to fit 9/16&quot; HP-tubings, price per meter</td>
<td>12.00</td>
</tr>
<tr>
<td>870214</td>
<td>Metal tube to fit 1/4&quot; HP-tubings, price per meter</td>
<td>6.00</td>
</tr>
<tr>
<td>870238</td>
<td>Metal tube to fit 3/8&quot; HP-tubings, price per meter</td>
<td>8.00</td>
</tr>
<tr>
<td>Art.No.</td>
<td>Description</td>
<td>Price €</td>
</tr>
<tr>
<td>----------</td>
<td>-------------------------------------------------------</td>
<td>---------</td>
</tr>
<tr>
<td>870291</td>
<td>Metal tube to fit 9/16&quot; HP-tubings, price per meter</td>
<td>10.00</td>
</tr>
<tr>
<td></td>
<td><strong>Autofrettage - on request</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Spare parts and accessories</strong></td>
<td></td>
</tr>
<tr>
<td>000114</td>
<td>Pipe clip 1/4&quot; Plastic</td>
<td>6.00</td>
</tr>
<tr>
<td>000138</td>
<td>Pipe clip 3/8&quot; Plastic</td>
<td>6.00</td>
</tr>
<tr>
<td>000191</td>
<td>Pipe clip 9/16&quot; Plastic</td>
<td>7.00</td>
</tr>
</tbody>
</table>