Zap-Lok® is a patented pipe connection system developed by NOV Tuboscope that does entirely without welding.

The connection is effected by pressfitting and is suitable for all types of line pipe (gas sour/non-sour, oil, water), including offshore and high-pressure projects. Zap-Lok® is capable of connecting pipes in outside diameters of 60.3 to 323.9 mm (2 3/8” to 12 3/4”).

On the machines developed by NOV Tuboscope, one pipe end is given a bell shape, and the other a pin shape. During pipe-laying, special equipment is used to push the pin end into a bell end and press them together to a tight fit.

Since welding and X-raying can be dispensed with, the laying of Zap-Lok® pipes is extremely fast and cost-effective. Given the simplicity of the process, up to 300 pipes can be laid per day.

The system has been successfully used for some 30 years in many countries.

How Zap-Lok® works

**Connection and coating**

TK linings and the Zap-Lok® connections ensure seamless corrosion protection along the pipeline as well as increased flow rates and minimum surface deposits.

Art design and information: NOV Tuboscope

**Time savings**

<table>
<thead>
<tr>
<th>Time</th>
<th>Sch. 80 Welded</th>
<th>Sch. 40 Welded</th>
<th>Zap-Lok® connection</th>
</tr>
</thead>
<tbody>
<tr>
<td>16 mins</td>
<td>1,5 hours</td>
<td>2,5 hours</td>
<td></td>
</tr>
</tbody>
</table>

The Zap-Lok® system accelerates pipe-laying operations significantly. Zap-Lok® only takes a fraction of the time needed for a welded joint. Besides welding, X-raying and deburring of the welds are also rendered superfluous.

Art design and information: NOV Tuboscope

**Cost savings**

A major item in pipeline construction is skilled man hours. The Zap-Lok® system permits savings here of up to 90%: instead of qualified welders, all that is needed is a small team of workers and a hydraulic Zap-Lok® press.

Art design and information: NOV Tuboscope