Finishing lines and single machines
Putting the finishing touches to top-quality tubes
Seamless and welded tube finishing lines and machines

Ready for sale

As a reliable partner in plant engineering and construction, SMS group offers fully integrated lines and standalone machines for seamless and welded tube finishing. From the primary product to the ready-for-sale tube – our business partners can source all the equipment they need from just one company. They have a responsible specialist contact and the assurance that all plant components are ideally matched.

The range of finishing equipment covers upsetting and sizing presses, hydrostatic pipe testers that comply with all applicable certification requirements, right up to machining equipment for chamfering/beveling or threading. The SMS group product portfolio also includes high-performance milling and cutting machines. All machines are designed for fully automatic operation and can be linked using smart automation solutions.

Customized tube finishing lines, standalone machines within integrated lines, and offline solutions can all be realized with SMS group’s range of plant and equipment.

- Machining equipment
  - Threading machines
  - Coupling threading machines
  - Chamfering machines
  - Roll dressing machines
- Upsetting presses
- Sizing presses
- Straightening machines
- Hydrostatic pipe testers
- Bundling stations
- Handling equipment
- Heat treatment plants
- Other standalone machines
Tube end finishing
The right fitting for every tube

**Threading machines**
SMS group offers a wide range of threading machines that are used by tube and pipe manufacturers to produce high-quality end products to international standards, such as API (American Petroleum Institute) or GOST (Gossudarstvenny Standart), as well as all types of premium joints. The product portfolio includes not only high-precision machines with a rotating tube (type TCG) but also high-performance machines with rotating tools (type CTM).

**Coupling threading machines**
The precision coupling threading machines (type RMG) from SMS group are used to manufacture couplings. These machines are capable of cutting all customary threads for the OCTG industry in one set-up, meaning close tolerances can be complied with. Whether it’s for a standalone machine or an integrated solution, you can count on SMS group coupling threading machines for the reliable manufacture of couplings.

**Chamfering machines**
Chamfering machines from SMS group ensure precise, burr-free pipe ends. Precise chamfering and front-end facing create the ideal conditions for perfect pipe ends — vital prerequisites for the finished tube or for further processing.
Upsetting press
When it comes to reliable pipe end forming that conforms to all relevant standards, SMS group upsetting presses are the right solution. The machine can upset tubes for tubings and drillpipes within precise tolerances in one or more stages. The customized configuration of these powerful upsetting presses means even special upsetting profiles can be achieved.

The intelligent SMS group design allows for set-ups comprising several tools and upsetting shells, and thus reduced tool changing times. Maintenance work is simpler thanks to the machine’s easy accessibility, so shutdown periods are shorter.

Sizing press
The demand for ever closer tolerances and thin walls mean the tube end needs to be sized, particularly if premium threads are to be cut precisely. With its powerful sizing press SMS group has just the right machine to meet these requirements.

The use of inside, outside, or combination tools ensures extremely precise sizing results for both line pipes and oil country tubular goods. Fast, straightforward tool changes, coupled with the easy accessibility of all key elements for maintenance purposes, mean press downtimes can be minimized and operating times fully utilized.
Using high-performance frame or column-type straightening machines, tube producers are capable of manufacturing products with maximum straightness and roundness that reliably meet strict tolerance requirements. The automatically adjustable rolls in the machine enable the right straightening strategy to be selected, in order to produce the required straightening force. In addition to smooth-ended tubes, upset tubes can also be precisely aligned using short-stroke cylinders.

The entire straightening process is subject to computer-assisted monitoring, which in turn guarantees a high degree of process stability and consistently high product quality.

The 6 and 10-roll straightening machines from SMS group can be equipped with various drive models and can be used either as hot straighteners in a heat treatment line or as cold straighteners.
In order to test tubes under realistic conditions, they are subjected to an internal hydrostatic pressure test. This test method and test pressures of up to 1700 bar are used to test the tubes for leak-tightness and to examine their mechanical strength properties.

The results of this test demonstrate the suitability of the tubes for the relevant practical application. Given the various requirements that the pipe testers have to satisfy, such as tube diameter and length, or the test pressure level or number of tubes to be tested, SMS group pipe testers are available in a variety of designs. This means machines can be provided with one or more test positions to meet all relevant requirements.
SMS group bundling stations are automated systems that produce tube bundles of various shapes and sizes. As well as tubes, these stations can also bundle square and rectangular hollow sections.

The station is preset before bundling, taking the number of tubes per bundle, the individual tube weights and dimensions, and the weight of the bundle into account. To prepare the bundles produced for onward transportation, manual or automatic strapping machines are used.
Other standalone machines
All machines from a single source for optimal processes

SMS group also offers other innovative standalone machines that secure the long-term viability of production processes. All the machinery, equipment, and services plant owners receive from SMS group are from just one source – for perfectly connected processes and a minimum of interfaces in the case of standalone machines. Coupled with a high level of automation, this ensures the best possible coordination and harmonization of all processes.

SMS group supplies other standalone machines for finishing:
- Drifter
- Automatic measuring and marking system (AMS)
- Flushing station

In addition, SMS group incorporates other equipment units to create a fully integrated finishing line, such as:
- Full-body and pipe-end testing equipment
- Coupling screw-on units
- Tube coating equipment
Heat treatment plants with induction or gas-based heating are offered by the SMS group of companies.

The range also includes all the necessary equipment, including units, descaling systems, induction coils, and cooling beds.

To satisfy the high quality requirements and attain the mechanical properties that are both desired and required for OCTG applications, a technically complex system of heat treatment is essential. Strictly controlled procedures must be followed when heating and cooling the tubes.

**Tube quench & temper lines**

Induction systems from SMS Elotherm are used to quench and temper tubes and comprise an induction heating section with downstream quenching unit, followed by an induction tempering section to achieve the desired hardening parameters. The quench & temper lines can be adjusted in a matter of minutes to new dimensions, steel grades, or tubes for special applications, and offer impressively high levels of cost efficiency, precision, and flexibility.

The gas-based furnace technology from SMS group ensures the closest temperature tolerances are adhered to. The result is a consistent and homogeneous temperature distribution, thus enabling uniform mechanical properties to be achieved over the whole length and cross-section of the tube. The heat treatment concept developed by SMS group, including the newly designed quench system, ensures a high-percentage transformation of the martensitic microstructure is achieved.
### Energy Cost Ratio (gas/electric)

<table>
<thead>
<tr>
<th>R &gt; 8</th>
<th>5 &lt; R &lt; 8</th>
<th>R &lt; 5</th>
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<tbody>
<tr>
<td>Less than 10t/hour</td>
<td>10-20t/hour</td>
<td>Over 20t/hour</td>
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**Induction Technology**
- Lower investment
- Less installation space required
- Zero emissions

**Combustion Technology**
- Wider range of tube diameters
- Better temperature tolerances on the tube (x/-3°C)
- Heat treatment of tubes with poor steel grade is possible (excellent material uniformity)
The information provided in this brochure contains a general description of the performance characteristics of the products concerned. The actual products may not always have these characteristics as described and, in particular, these may change as a result of further developments of the products. The provision of this information is not intended to have and will not have legal effect. An obligation to deliver products having particular characteristics shall only exist if expressly agreed in the terms of the contract.