

# **Machines for Offshore Pipe Mills**

We form your ideas – since 1921





Graebener – Experience since 1921

# A brief historical review







More than 95 years of experience in steel processing and forming technology are the basis for the most modern production technology in order to meet the most sophisticated requirements.







ALL DE STATE OF THE STATE OF TH

### **Graebener Today**

Today, GRAEBENER represents an association of companies with technological expertise in the hydraulic sector as well as in the milling and forming technology.











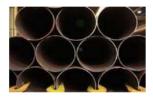
### **Target Custo**mers



Shipbuilding/ Shipyards



Milling technology for optimum weld seam preparation for modern joining techniques (laser-, laser-hybrid-welding)



**Pipe Production** 



From the individual machine to complete systems for the production of large and precision pipes



Wind tower manufacturers On-/Offshore



From roll bending machines to milling machines for the production of segments



Automotive Industry / Suppliers



Forming technology in the field of hydroforming, hot stamping systems (press hardening) & prototyping, small series production



**New Technologies** 



Technology and system partner for metallic microstructure plates; e.g. for the fuel cell technology.

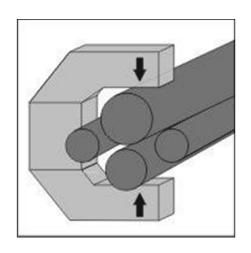


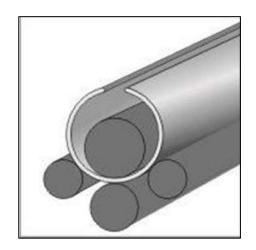
## **Pre-Bending Press**





perfectly suitable for the production of cones and cylindric cans





### Offshore Pipe Mill

# **4-Roll Bending Machine**

### 4-Roll Bending Machine

Graebener can rely on more than 20 years of experience in the production of 4-roll bending machines.



### 4-Roll Bending Machine

#### Supporting Yoke

For the 4-roll bending machine, Graebener provides the option of a supporting yoke. Using this supporting yoke allows for much shorter pre-bent edges. Another advantage of the supporting yoke: Slimmer top rolls can be used, which saves exchange top rolls and ensures an optimum straightness of the pipe shells to be formed – for small and large material thicknesses – since the crowning is optimized by the force of the supporting yoke.



## 4-Roll Bending Machine

#### Function of the supporting yoke

- Due to the supporting yoke function it is finally possible to raise the prebending capacity of a roll to the same level as the round bending capacity. Flame cutting of the "straight edges", which has been customary so far, no longer is necessary thus saving working time and material costs while at the same time increasing the economic efficiency.
- Thanks to the small number of exchange top rolls, standstill times due to roll changes are avoided which, in turn, increases the turnout of the machine and its efficiency.





















We form your ideas – since 1921

