

3-ROLL PLATE BENDING MACHINE

**FLEX** – *MORE FLEXIBLE,  
FASTER, SAFER*

## FLEX – 3-ROLL PLATE BENDING MACHINE

# MORE FLEXIBLE, FASTER, SAFER

## THE 3-ROLL PLATE BENDING MACHINE

FLEX stands for flexibility, speed, and safety – making it an indispensable tool for a wide range of manufacturing processes. HAEUSLER's new 3-roll bending machine forms workpieces **in a single pass**.

A wide variety of components, materials, and geometries can be processed with precision and repeatability – even without years of in-house bending experience! The new **Traction Control®** system automatically **ensures constant clamping** of the plate during the entire bending process. This provides maximum safety, as it prevents the plate from slipping.

*A machine system for those who don't want a second try.*



### MORE FLEXIBLE

Whether thin or thick, simple or complex – the machine reliably bends **a wide variety of geometries and materials** automatically at its optimum performance. Flexibility with maximum throughput.



### FASTER

Thanks to its unique bending technology, a cylinder can be manufactured **in a single pass**. This saves time, reduces process steps and significantly increases productivity.



### SAFER

The plate remains **securely clamped** throughout the entire bending process – there is no possibility of it slipping.



→ **MORE ABOUT:**  
[haeusler.com/en/flex](https://haeusler.com/en/flex)

1

#### BENDTRONIC® CONTROL SYSTEM

Haeusler's intelligent control system automatically creates the optimal bending scheme and bending process – without any prior knowledge on part of the operator or specific bending expertise, precise and repeatable bending is possible.

2

#### STURDY CONSTRUCTION

The front and rear columns are made from a single piece. The closed frame construction absorbs all process forces internally, which reduces foundation requirements, shortens assembly time, and saves space and costs.

3

#### LOW OPERATING COSTS

High-quality components, low-maintenance design and reduced downtime lower operating costs over the entire service life. Automatic central lubrication and easily accessible main components also facilitate maintenance and servicing.

4

#### TRACTION CONTROL® SYSTEM

During roller adjustment, the system ensures constant clamping of the plate and intelligent pressure control of all rollers.

5

#### LOW-WEAR ROLLER GUIDE

Our systems deliver consistently accurate results with minimal maintenance. This ensures reliable performance and high availability in daily operation.

# FLEX





## FLEXIBILITY

## FLEXIBLE FOR ALL INDUSTRIES

### A SMART PLATE BENDING MACHINE

The FLEX 3-roll bending machine is a true all-rounder. Whether thin or thick plates – the FLEX adapts to the requirements of every project. It masters a wide variety of components and geometries and reliably meets industry-specific requirements with its accessories.

Whether onshore or offshore wind turbines, silo and machine construction or container manufacturing – the FLEX masters the challenges of these industries like no other at competitive prices!



If your CFO loves bending,  
you must have a HAEUSLER!

| Stefan Basler, CEO



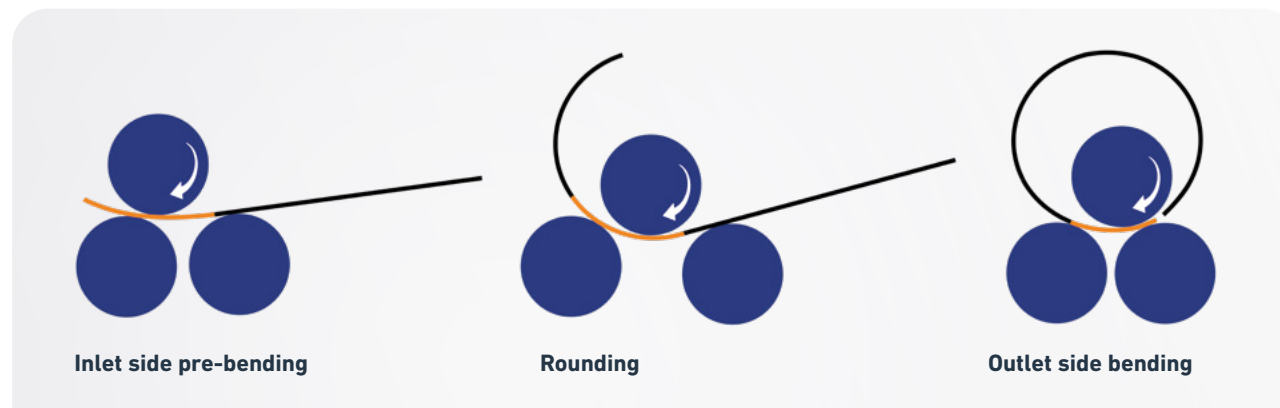
## SPEED

## BEND IN ONE PASS

### FAST AND FLEXIBLE

Flexibility, speed and investment security are crucial in a competitive environment. With the **BENDtronic®** control system and the new **Traction Control®** system from HAEUSLER, it is possible to bend workpieces **in a single pass**.

Fewer process steps, efficient bending sequences and a faster return on investment with HAEUSLER bending technology.



## SAFETY

## TRACTION CONTROL®

### SAFE AND CONSISTENT BENDING

For operators, one thing is paramount: a machine that works safely and reliably. This is precisely why the new **Traction Control®** was developed. Thanks to this system, the plate remains securely and **consistently clamped** throughout the entire bending process, preventing the workpiece from slipping or falling out unintentionally. The innovative **Traction Control®** therefore actively prevents bending errors and reduces the risk of accidents.





## INTELLIGENCE

# BENDTRONIC®

## PERFECT YOUR PRODUCTION WITH SMART CONTROL

The HAEUSLER BENDtronic® control system allows you to control not only the movements of the machine, but also the bending result itself. This software does not require years of in-house bending experience! In order to bend the desired product shapes and provide optimum support to the operator, the BENDtronic® is equipped with various tools:

### CAPACITY CALCULATOR

Feasibility check of the tasks. In addition, the machine utilisation, the remaining straight ends and the expected springback are calculated.

→ *Optimal preparation*

### BEND CALCULATOR

Calculates the required positions of the rollers to achieve the desired radius.

→ *Simply round*

### CALIBRATION CALCULATOR

Calculates in seconds the best recommended machine settings for calibration.

→ *No unnecessary bending tests*



→ **TEST THE BENDIT-SIMULATOR:**  
[haeusler.com/en/bendit-simulator](https://haeusler.com/en/bendit-simulator)

### CONE CALCULATOR

Supports the operator actively when bending cones. The software calculates if and how an individual cone can be bent on the machine. Furthermore, the required inclination of the rolls and the required pinch pressures are calculated.

→ *Time savings, no unnecessary bending attempts*

### MULTI RADII

Automatically generates a CNC program for complex geometries, also applicable for bending in several passes.

→ *Complex geometries possible*



## ACCESSORIES

# HAEUSLER HDR

## ACCESSORIES

With the optional accessories for the HDR plate bending machine, the bending experience can be optimised even further.



### TOP SUPPORT

The «Fail Safe Support» ensures maximum safety and perfect handling of the workpiece. Especially when bending large diameters, the position can be optimally maintained throughout the entire process.



### LATERAL SUPPORT

Fast and accurate bending is made extremely easy by the lateral supports. These can be attached to both sides of the machine. Precise tacking of the workpieces also enables fast assembly.



### INFEEED ROLLER TABLE

A fast process with high output is ensured by our infeed roller conveyors (with centering device) and also simplifies the feeding of the machine.





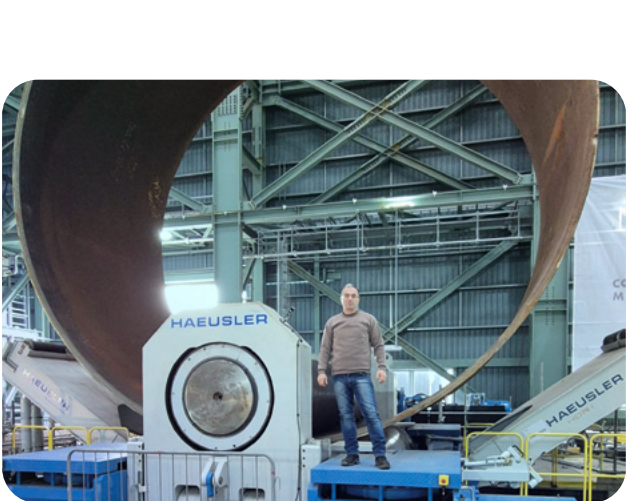
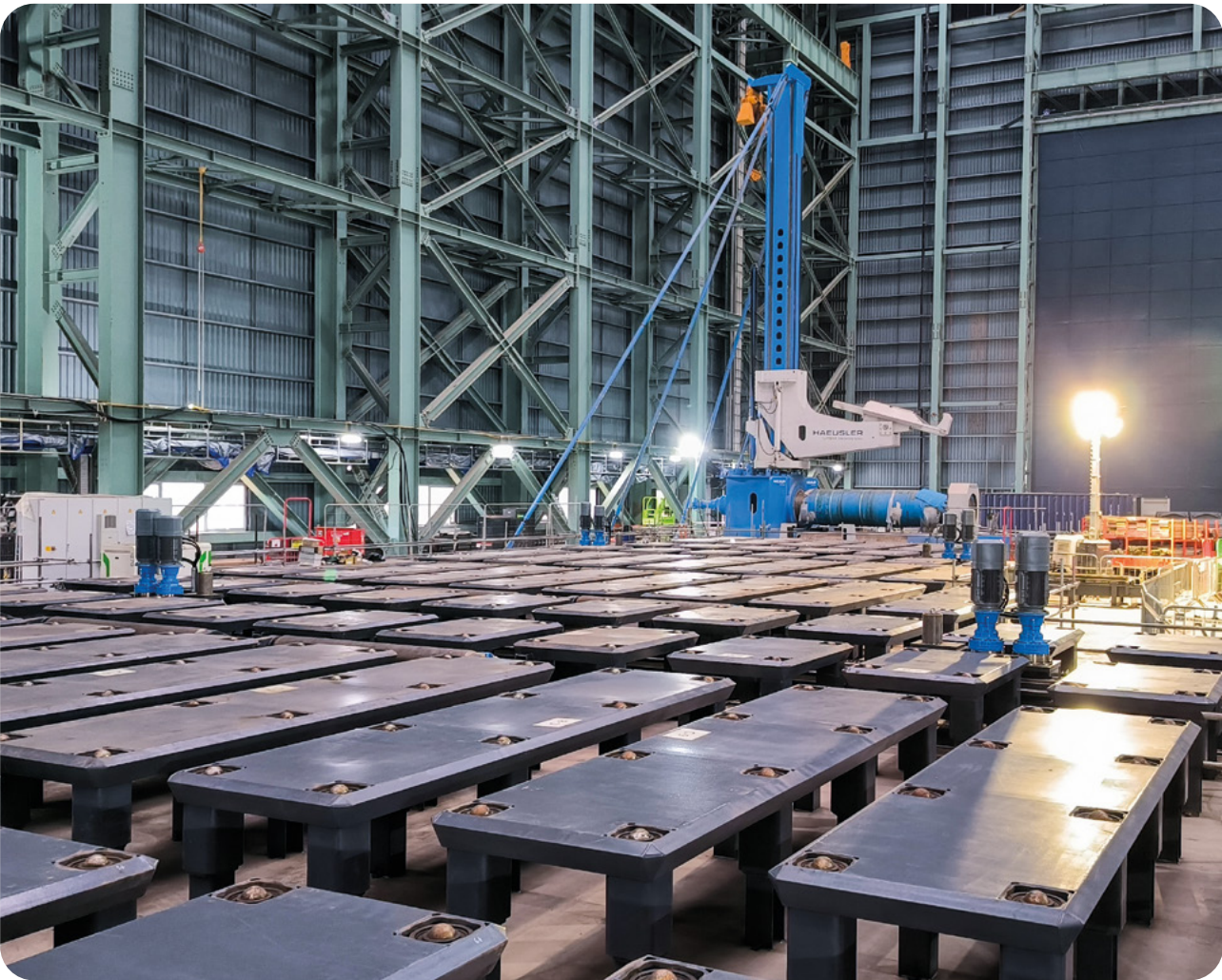
3-ROLL IN ACTION

# REFERENCE SEAH 3-ROLLER IN OPERATION

## 3-ROLLERS FOR WIND TURBINES

Two 3-roll and two other 4-roll plate bending machines were successfully put into operation at our customer SeAH Wind (England) in 2024. Shell diameters of up to 8 metres are currently being bent, with the system designed for diameters of up to 15 meters.

The special 3-roll bending machine for calibration and the innovative roundness and forming measuring system from HAEUSLER guarantee the customer the highest accuracy and simplest quality monitoring.



The HAEUSLER 3-roll bending machine is undoubtedly **the most modern machine** I have ever operated. Its strength and robustness enable it to process even the thickest sheets with ease. The **BENDtronic-system** is a real innovation that significantly reduces the stress of finding new settings for each sheet size for new projects.

| Mr. Croft, Plate roll operator SeAH Wind



INDUSTRIES

«SUITABLE FOR ALL INDUSTRIES»  
WORLDWIDE FOR EVERY APPLICATION

TANKS

Large tanks on trains or trucks for transporting raw materials.



SILO BUILDING

Cylindrical silos for storing various raw materials.



BOILER

This machine is ideal for boilers and water tanks.



WIND TURBINES

For the production of monopiles, piers and towers for wind turbines.



OFFSHORE

For the production of monopiles this system is ideal.



POWER PLANT CONSTRUCTION

Used for all bending and moulding work to reactor construction.



REFERENCES

REFERENCES  
WORLDWIDE

| WEST EUROPA

Kvaerner Masa Yards, FIN  
Vickers Shipbuilding, GB  
Chantiers Navals, DE  
Nuovi Cantieri Apuania, IT  
Equimetal, PT  
*For more inquiries...*

| EAST EUROPA

Stankoimport, RU  
Metallurgimport, RU  
KAMAZ, RU  
Energomash, RU  
*For more inquiries...*

| ASIA

Bohai Shipbuilding, CN  
SEPCO, CN  
China Shipping, CN  
Hudong, KR  
Korea Heavy Industries, KR  
*For more inquiries...*

| AFRICA

Dorbyl Heavy Engineering, ZA  
Petrojet, EG  
Helwan Engineering Industries, EG  
Westcom Technologies & Energy, NG  
*For more inquiries...*

| NEAR EAST

P.T. McDermott, UAE  
Mazagon Dock, IND  
Larsen and Turbo, IND  
Cochin Shipyards, IND  
Construction Com, AE  
*For more inquiries...*

| AUSTRALIA/OZEANIA

Canadoil Group, TH  
Vietsovpetro, VN  
Rolco, AU  
Protube Engineering Pty, AU  
Thornton Engineering, AU  
*For more inquiries...*

| SOUTH AMERICA

Estaleiro Alianca, BR  
TenarisSiat, AR  
Voith Paper, BR  
Atlas Schindler, BR  
Alstom, BR  
*For more inquiries...*

| NORTH AMERICA

Kvaerner, US  
Newport Shipbuilding, US  
Northrop Grumman, US  
Pontoon Boat LLC, US  
Caterpillar, US  
*For more inquiries...*


SERVICES

WORLDWIDE  
SUPPORT

To ensure your productivity, HAEUSLER offers a wide range of support solutions – in other words: «You are in good hands worldwide!»

→ [HAEUSLER.COM/GLOBAL-SERVICE](https://www.haeusler.com/global-service)

GLOBAL SERVICES




### WORKSHOPS & TRAININGS

We train your operators and maintenance personnel at our premises or on your machines.




### REPAIR & MAINTENANCE

As part of regular maintenance, we replace wearing parts or carry out a revision of the machine.




### RETROFIT & MODERNISATION

Business management aspects often speak in favour of modernisation instead of purchasing a new machine.




### SPARE PART ORDER

If a component is defective, HAEUSLER Global Service delivers almost every spare part worldwide.



### KNOW-HOW & PERFORMANCE

Our knowledge in bending technology has been built up for over 85 years and passed on to subsequent generations.



### CUSTOMISED SERVICE PACKAGES

You will receive premium service packages individually tailored to your needs.

FLEX IS CHOICE

1100 SERIES	FLEX 3000-1100	FLEX 4000-1100
Rolls width (mm)	3000	4000
Rounding capacity (mm)	102	89
Pre-bending capacity (mm)	78	63
1400 SERIES	FLEX 3000-1400	FLEX 4000-1400
Rolls width (mm)	3000	4000
Rounding capacity (mm)	122	106
Pre-bending capacity (mm)	93	76
1700 SERIES	FLEX 3000-1700	FLEX 4000-1700
Rolls width (mm)	3000	4000
Rounding capacity (mm)	141	123
Pre-bending capacity (mm)	113	92
2100 SERIES	FLEX 3000-2100	FLEX 4000-2100
Rolls width (mm)	3000	4000
Rounding capacity (mm)	155	135
Pre-bending capacity (mm)	130	107
2600 SERIES	FLEX 3000-2600	FLEX 4000-2600
Rolls width (mm)	3000	4000
Rounding capacity (mm)	178	156
Pre-bending capacity (mm)	155	127
3300 SERIES	FLEX 3000-3300	FLEX 4000-3300
Rolls width (mm)	3000	4000
Rounding capacity (mm)	205	180
Pre-bending capacity (mm)	186	154

Rounding capacity calculated with a yield strength of 260 MPa for a sheet width of 3000 mm or 4000 mm.  
Pre-Bending capacity calculated with a yield strength of 260 MPa for a sheet width of 3000 mm or 4000 mm.

- ✓

STANDARD FEATURES

  - Including high-end BENDtronic® control system (movable 21.5" touch control panel)
  - Continuously adjustable rotation speed between 0 and 8 m/min
  - Electromechanical braking for the rotation of the upper roller
  - Ultra-compact design to reduce or even eliminate foundation costs
  - Safety ripcord
- +

OPTIONAL FEATURES

  - Cone bending device, for bending conically shaped workpieces
  - Advanced cooling system for ambient temperatures up to 45 °C
  - Upper support, for easier bending of large diameters
  - Lateral support, for support when bending large diameters
  - BendIT-Office
  - Interchangeable top rollers with different diameters, for bending small diameter
  - Hardened rollers if black and stainless material is to be bent
  - Infeed roller conveyor for easy feeding of the sheets into the machine
  - Centering device for the infeed roller table, for automatic centring of the sheets before bending



## **FOLLOW** *US!*

In order to keep you up to date on current topics,  
we are also present for you on the social web – follow  
us on our social media channels and get information  
about our company, products, career opportunities  
and trade fair events.



**HAEUSLER**.COM  
| the forming factory

**HAEUSLER AG Duggingen** | Baselstrasse 21 | 4202 Duggingen | Switzerland  
T +41 61 755 22 22 | F +41 61 755 22 00 | [info@haeusler.com](mailto:info@haeusler.com) | [www.haeusler.com](http://www.haeusler.com)