



3-ROLLS-PLATE BENDING MACHINE

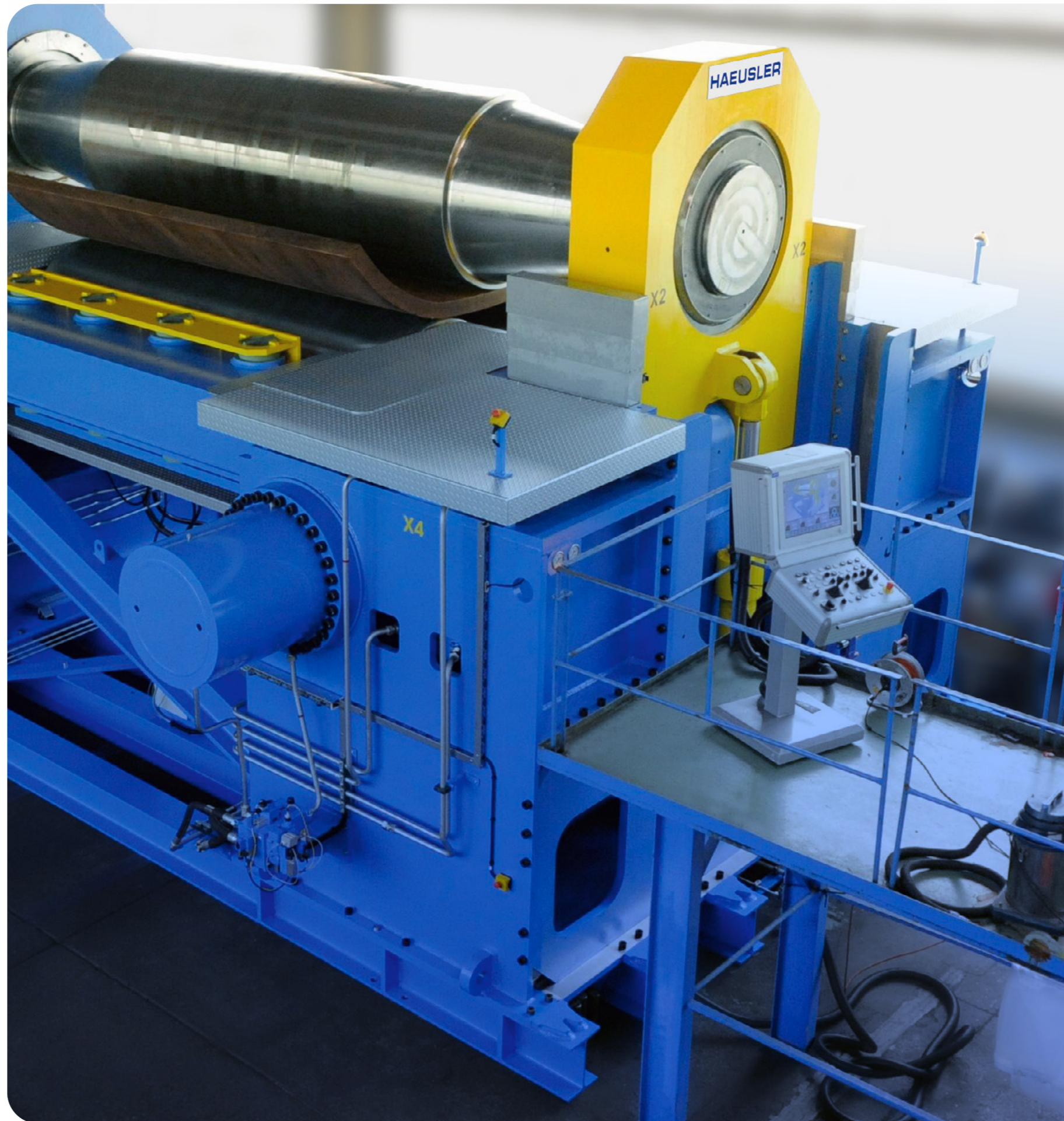
HDR – *THE PLATE BENDING GENIUS*

THE HDR ADAPTS. CONSTANT STRENGTH. VARIABLE GEOMETRY.

First-class HAEUSLER quality and expertise paired with durability and low operating costs - that's exactly what you get with the HDR 3-roll plate bending machine from HAEUSLER. The HDR impresses with the individually adjustable bending geometry of the bottom rollers, which enables the bending of very thick sheets as well as small diameters. Thanks to the use of the patented top roll adjustment of exclusively pressurised cylinders and the resulting symmetry, the best bending results can be achieved.



| Jörg Haeusler, President HAEUSLER AG



→ **MORE UNDER:**
haeusler.com/en/hdr

HDR – 3-ROLLS-PLATE BENDING MACHINE

POWER DEVELOPMENT WITH FEELING

The new HDR design with all its advantages is based on over 90 years of development. We firmly believe that the design concept is superior to all other concepts available on the market. Based on this fact, we have protected our model with a worldwide patent.



HDR MEANS PRECISION

Accuracy and perfect bending results – accurate to the millimetre. Even with 300 mm wall thickness.



INNOVATIVE BENDING PROCESS

Thanks to its 100% symmetrical design, the HDR can deliver the best and most accurate bending results.



HIGHEST TORQUES

Superior torque enables high forming rates and thus faster production times.

In addition to the conceptual advantages of the HDR, numerous other design aspects, such as the rigid construction of the machine frame, the symmetrical force application, the fully enclosed guide plates, and the robust spherical roller bearings, contribute to our HDR machines achieving uniquely high quality and a long service life.

1

OPTIMAL BENDING RESULTS

Through the practical, ideal arrangement of the durable guide elements, the HDR meets the high demands on accuracy and reproducibility.

2

STRUCTURE OF THE FRAME

HAEUSLER uses an intermediate gear for the bottom rollers, which creates a closed frame structure. This ensures high frame stability.

3

FOUNDATION

Thanks to the compact design of the newly developed HAEUSLER HDR, the foundation dimensions are relatively small and simple, resulting in minimal foundation costs for the customer.

4

THE POWER FLOW

The force flow is significantly more direct than that of competitors, while maintaining maximum rigidity. This also gives the HDR an extremely stable construction.

5

CONSTRUCTION OF THE MACHINE

Symmetrical machine design. Optimum bending result, highest accuracy can be realised.

6

CYLINDER TYPE AND SIZE

In the HDR, the top roller is moved by four identical cylinders. These are all pressure cylinders, so that synchronisation can be achieved with very high accuracy. Optimum bending result, highest accuracy can be realised.



SETTING

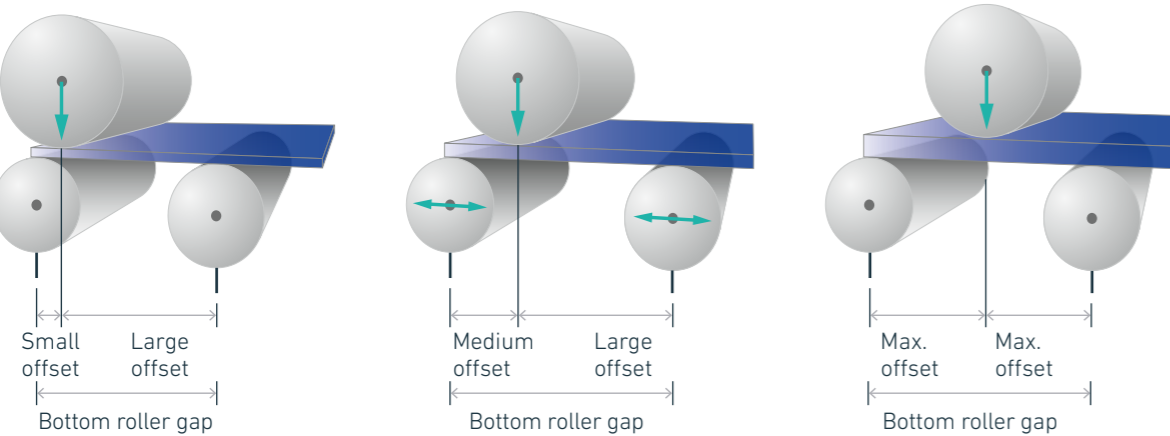
ROLLER SETTING

As with all sheet metal bending machines, special attention must be paid to precise and low-wear roller guidance in order to ensure maximum bending accuracy.

HAEUSLER has developed a patented concept that enables extremely long guideways and at the same time guarantees the highest possible positioning accuracy. This is achieved by the absolutely symmetrical design of all roller adjustment cylinders, which are only subjected to pressure in order to adjust the rollers. All HDR cylinders are absolutely identical, both for the bottom and top roller adjustment.

THE FUNCTIONAL PRINCIPLE OF THE 3-ROLLER MACHINES

The 3-roll machine offers decisive advantages in sheet metal processing: The reduced bending length means that material is utilised more efficiently, while at the same time the highest bending quality and improved workpiece handling are achieved. The integrated HDR system is the only concept on the market that allows highly variable adjustment of the bending geometry - maximum adaptability for every requirement!



- | | | | |
|------------|--|--|------------|
| min | <ul style="list-style-type: none">• Min. bending length• Smaller wall thickness• Asymmetrical position of the bottom rollers | <ul style="list-style-type: none">• Maximum bending length• Maximum wall thickness• Symmetrical position of the bottom rollers | max |
|------------|--|--|------------|



**PREMIUM
3-ROLLER DRIVE**

The high-quality 3-roller drive enables precise handling of the sheet and high traction.

**INNOVATIVE DRIVE
SYSTEM**

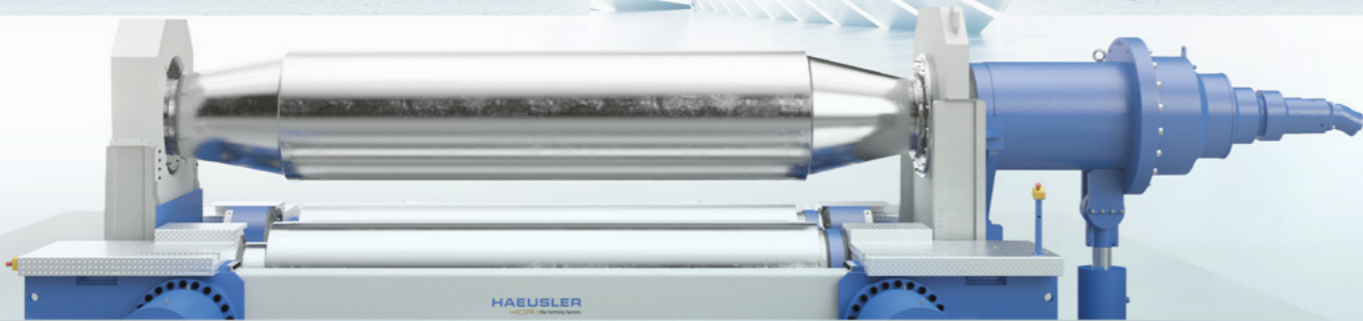
All drives have fast-acting hydraulic brakes for high precision and no sheet movement during bending.

CONSTRUCTION

STABLE FRAME CONSTRUCTION

Our HDR base frame is designed so that the front and rear uprights are made from a single piece. This means that the frame does not have to be split horizontally and bolted together, giving the HAEUSLER-HDR a very stable design.

A particular advantage is that no dynamic process forces are introduced into the foundation, so that only a minimal machine pit is required. The HDR is **particularly compact** and achieves **maximum stability with bending forces** - with maximum cost savings.



MINIMUM MACHINE PIT

The closed base frame design minimises the machine pit.



MAXIMUM STABILITY

Maximum stability under high bending forces.



MOST RELIABLE TECHNOLOGY

Products of the finest quality from Germany & Switzerland.

CHARACTERISTICS

HAEUSLER HDR CHARACTERISTICS OVERVIEW

- CYLINDER TYPE**
Pressure cylinder for moving the top and bottom rollers
- BRAKES**
Fast-acting hydraulic brakes for stopping rollers
- STRUCTURE OF THE MACHINE**
Symmetrical construction
- INSTALLED TORQUE**
Very high torque
- CYLINDER SIZE**
Four identical cylinders for the movement of the top roller
- UPRIGHT STAND**
Manufactured in one piece, even for the largest machine sizes
- LUBRICATION**
Automatic centralised grease lubrication
- GUIDANCE WAY**
Very long guideways
- FOUNDATION**
Simple and small with minimal machine pit
- MAINTENANCE**
Easy access to all HDR main cylinders for any maintenance work
- MATERIAL OF THE CASTORS**
High-alloy heat-treated steel.
The rollers are hardened for special applications
- INTELLIGENT SYSTEMS**
Overload protection system
Absolute measuring system
Automatic centralised lubrication system



CALIBRATION

HAEUSLER HDR CALIBRATION

This machine simplifies the calibration of cones. By adjusting all three rollers and the design of the bottom roller bearings, it is possible to calibrate cones on the HAEUSLER HDR.

The cone can be held in position by tilting all three rollers. Continuous calibration can be carried out without additional manipulators.



ACCESSORIES

HAEUSLER HDR ACCESSORIES

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



TOP SUPPORT

Top support simplifies the bending of large diameters. The fail-safe top support design ensures maximum safety when bending large weft diameters. The integrated load indicator and central emergency stop keep you in control at all times.



LATERAL SUPPORT

Lateral supports can be fitted on both sides and support the operator when bending large diameters.



CALIBRATION OF THE CONES

By tilting all three rollers, the cone can be brought into a position on the machine in which it can be held stably. This enables continuous calibration of cones. Cones can also be calibrated without manipulators.



INFEEED ROLLER TABLE

Infeed roller tables simplify the loading of the machine. Sheets are placed on the roller table and transported from there into the round bending machine.

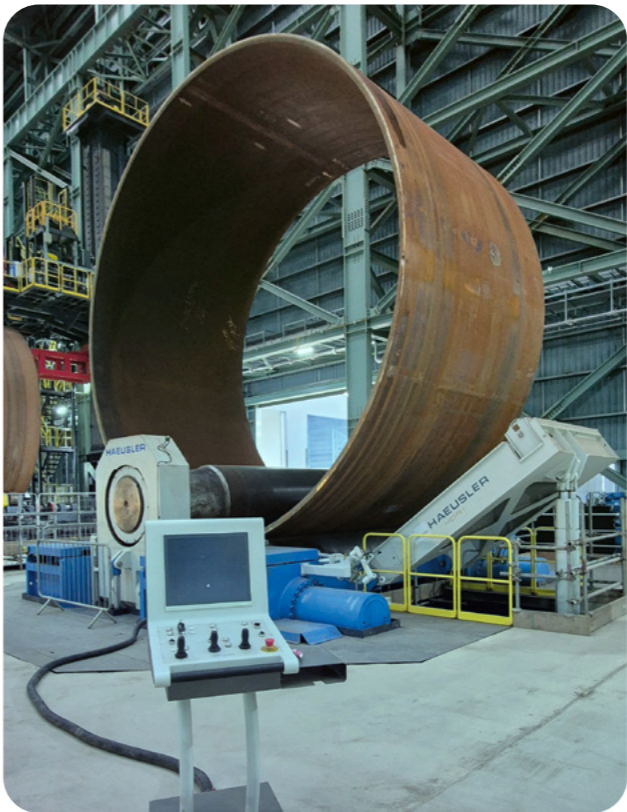


REFERENCE

SEAH WIND – WORLD’S LARGEST OFFSHORE PRODUCTION

HDR4200-3622 and three other large round bending machines were successfully put into operation at our customer SeAH Wind (England) in 2024. Shot diameters of up to 8 metres are currently being bent, with the system designed for diameters of up to 15 metres.

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

BENDTRONIC

PERFECT CONTROL

BENDTRONIC® CONTROL SYSTEM

The HAEUSLER-BENDtronic® control system with artificial intelligence makes it possible to control not only the movements of the machine, but also the bending result itself.

The BENDtronic® is equipped with various tools to bend the desired product shapes and provide the operator with optimum support:

CAPACITY CALCULATOR

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

APPLE CALCULATOR

Calculates the different possibilities to achieve the usually desired "apple shape" of a cylindrical part when rolling it.
→ *Options and time saving*

BEND CALCULATOR

Calculates the required positions of the rollers to achieve the desired radius.
→ *Simply round*



INDUSTRIES

«SUITABLE FOR ALL INDUSTRIES»

WORLDWIDE FOR EVERY APPLICATION

WIND TURBINES

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



POWER PLANT CONSTRUCTION

Used for all bending and moulding work to reactor construction.



SHIPBUILDING

Shipyards bend thick steel walls with the VRM machine.




OFFSHORE

For the production of monopiles is this system ideal.



HAEUSLER SERVICE


The highly professional HAEUSLER service team takes care of your needs immediately: Installation, commissioning, training and preventive maintenance - worldwide.



**HOTLINE
SUPPORT**



**FIELDSERVICE
ON YOUR LOCATION**



**REMOTE
ACCESS**



**SERVICE
PACKAGE**

The combined service package includes a telephone hotline, fieldservice and remote access support.



INDIVIDUAL PACKAGE

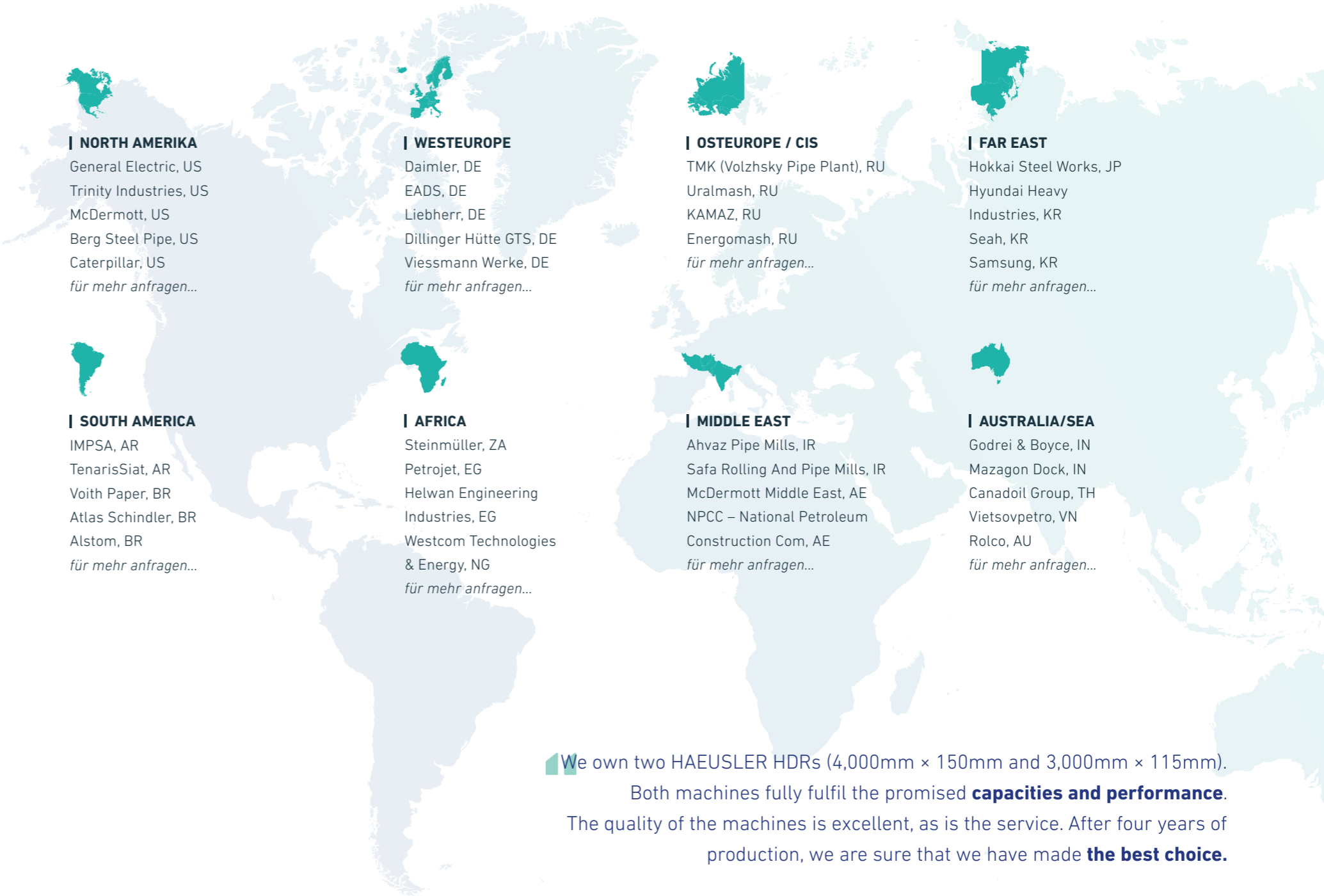
HAEUSLER offers customised support that is tailored to your individual requirements.


ASK OUR EXPERTS

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HAEUSLER WORDLWIDE

HAEUSLER sees itself as an export-orientated company. Our machines are on all continents and in more than 100 countries.



 We own two HAEUSLER HDRs (4,000mm × 150mm and 3,000mm × 115mm). Both machines fully fulfil the promised **capacities and performance**. The quality of the machines is excellent, as is the service. After four years of production, we are sure that we have made **the best choice**.

MODELS

HDR IS CHOICE

1089 SERIES	HDR-hy 3000-1089	HDR-hy 3500-1089	HDR-hy 4000-1089
Rolls width (mm)	3000	3500	4000
Rounding capacity (mm)	105	95	90
Pre-bending capacity (mm)	80	70	65
1360 SERIES	HDR-hy 3000-1360	HDR-hy 3500-1360	HDR-hy 4000-1360
Rolls width (mm)	3000	3500	4000
Rounding capacity (mm)	125	115	110
Pre-bending capacity (mm)	100	90	80
1662 SERIES	HDR-hy 3000-1662	HDR-hy 3500-1662	HDR-hy 4000-1662
Rolls width (mm)	3000	3500	4000
Rounding capacity (mm)	145	135	125
Pre-bending capacity (mm)	120	105	95
2081 SERIES	HDR-hy 3000-2081	HDR-hy 3500-2081	HDR-hy 4000-2081
Rolls width (mm)	3000	3500	4000
Rounding capacity (mm)	160	150	140
Pre-bending capacity (mm)	140	125	115
2548 SERIES	HDR-hy 3000-2548	HDR-hy 3500-2548	HDR-hy 4000-2548
Rolls width (mm)	3000	3500	4000
Rounding capacity (mm)	185	170	160
Pre-bending capacity (mm)	165	145	135
3170 SERIES	HDR-hy 3000-3170	HDR-hy 3500-3170	HDR-hy 4000-3170
Rolls width (mm)	3000	3500	4000
Rounding capacity (mm)	210	195	185
Pre-bending capacity (mm)	185	170	155
3622 SERIES	HDR-hy 3000-3622	HDR-hy 3500-3622	HDR-hy 4000-3622
Rolls width (mm)	3000	3500	4000
Rounding capacity (mm)	225	210	200
Pre-bending capacity (mm)	205	185	170

4105 SERIES	HDR-hy 3000-4105	HDR-hy 3500-4105	HDR-hy 4000-4105
Rolls width (mm)	3000	3500	4000
Rounding capacity (mm)	240	225	210
Pre-bending capacity (mm)	215	195	175
4618 SERIES	HDR-hy 3000-4618	HDR-hy 3500-4618	HDR-hy 4000-4618
Rolls width (mm)	3000	3500	4000
Rounding capacity (mm)	265	245	230
Pre-bending capacity (mm)	240	215	195
5161 SERIES	HDR-hy 3000-5161	HDR-hy 3500-5161	HDR-hy 4000-5161
Rolls width (mm)	3000	3500	4000
Rounding capacity (mm)	275	255	240
Pre-bending capacity (mm)	250	225	205
6337 SERIES	HDR-hy 3000-6337	HDR-hy 3500-6337	HDR-hy 4000-6337
Rolls width (mm)	3000	3500	4000
Rounding capacity (mm)	290	290	275
Pre-bending capacity (mm)	290	270	245
7977 SERIES	HDR-hy 3000-7977	HDR-hy 3500-7977	HDR-hy 4000-7977
Rolls width (mm)	3000	3500	4000
Rounding capacity (mm)	340	340	340
Pre-bending capacity (mm)	340	325	295



STANDARD FEATURES

- Movable 21.5» touch control panel including high-end BENDtronic® control system
- Continuously adjustable rotation speed between 0 and 8 m/min
- Machine prepared for remote maintenance
- Automatic pressure readjustment of the bottom roller
- Automatic switch-off of the hydraulics for the position of the rollers
- Ultra-compact design to reduce or even eliminate foundation costs
- Safety ripcord

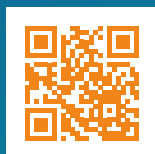


OPTIONAL FEATURES

- Cone bending device, for bending conically shaped workpieces
- Upper support, for easier bending of large diameters
- Lateral support, for support when bending large diameters
- BendIT-Office
- Autonomous bending
- Machine prepared for quick change of top rollers
- Interchangeable top rollers with different diameters, for bending small diameter wefts
- Hardened rollers if black and stainless material is to be bent
- Infeed roller conveyor for easy feeding of the sheets into the machine
- Centring device for the infeed roller table, for automatic centring of the sheets before bending

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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.



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| the forming factory

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