



4-ROLL BENDING MACHINE

EVO – *THE BENDING EVOLUTION*

EVO – 4-ROLL BENDING MACHINE

BENDING BECOMES *CHILD'S PLAY*

The EVO is the latest innovation in sheet metal processing. It is equipped with numerous innovative and patented features that increase your production capacity and productivity, while having the lowest total cost of ownership. The high-quality components used in this machine and the latest version of the BENDtronic® control, which is installed as standard on all EVO machines, are particular highlights.

The integrated artificial intelligence (AI) in the BENDtronic® control enables an autonomous bending process*. With the help of information feedback, a closed loop is created in the bending process. The workpieces can be bent autonomously – without the need for an operator. Reworking is thus ruled out. Sheet metal bending becomes child's play.

This innovative technology not only enables an increase in production efficiency and excellent repeatability of bending results, but also enormous independence in the choice of supplier, as material fluctuations are compensated for by the intelligent system.

With the EVO, you save time and money – and increase your flexibility and efficiency in production.

* Autonomous bending is optional equipment.





AUTONOMOUS BENDING

The integrated artificial intelligence in the BENDtronic® control enables an autonomous bending process.



OPERATOR INSIDE

The intelligent control system acts as an integrated operator. The operators can concentrate on other tasks.



DESIGN FREEDOMS

Complex shapes can be bent from any radius without edges, reliably and precisely.



01

REDUCTION OF MAINTENANCE COSTS

The HAEUSLER Hybrid Drive System HHDS® reduces maintenance costs by up to 50% and allows an increase of the rotation speed by 60% compared to other round bending machines.

02

AVOIDANCE OF DOWNTIME

The use of optionally available special sensors enables predictive maintenance of the machine. This can reduce unplanned downtime.

03

MAXIMISING THE SHEET METAL BENDING RANGE

With the VSA technology, a performance increase of up to 85% can be realised. And with a smaller diameter of the top rollers, smaller radii can be achieved without losing power.

04

EASY HANDLING

The complete machine is designed in such a way that all possible adjustments (incl. changing the bending geometry and changing the top roller) can be carried out without special tools and in the shortest possible time.

05

BENDING BECOMES CHILD'S PLAY

The latest generation of HAEUSLER's patented BENDtronic® 6.0 control system with integrated artificial intelligence enables the operator to achieve perfect bending results right from the start.

06

BENDIT-OFFICE

Thanks to BendIT-Office, work preparations can be optimally carried out on the PC. Individual steps or the entire bending process can be simulated and prepared on the PC.



EVO – 4-ROLL BENDING MACHINE

ADVANTAGES

AT A GLANCE

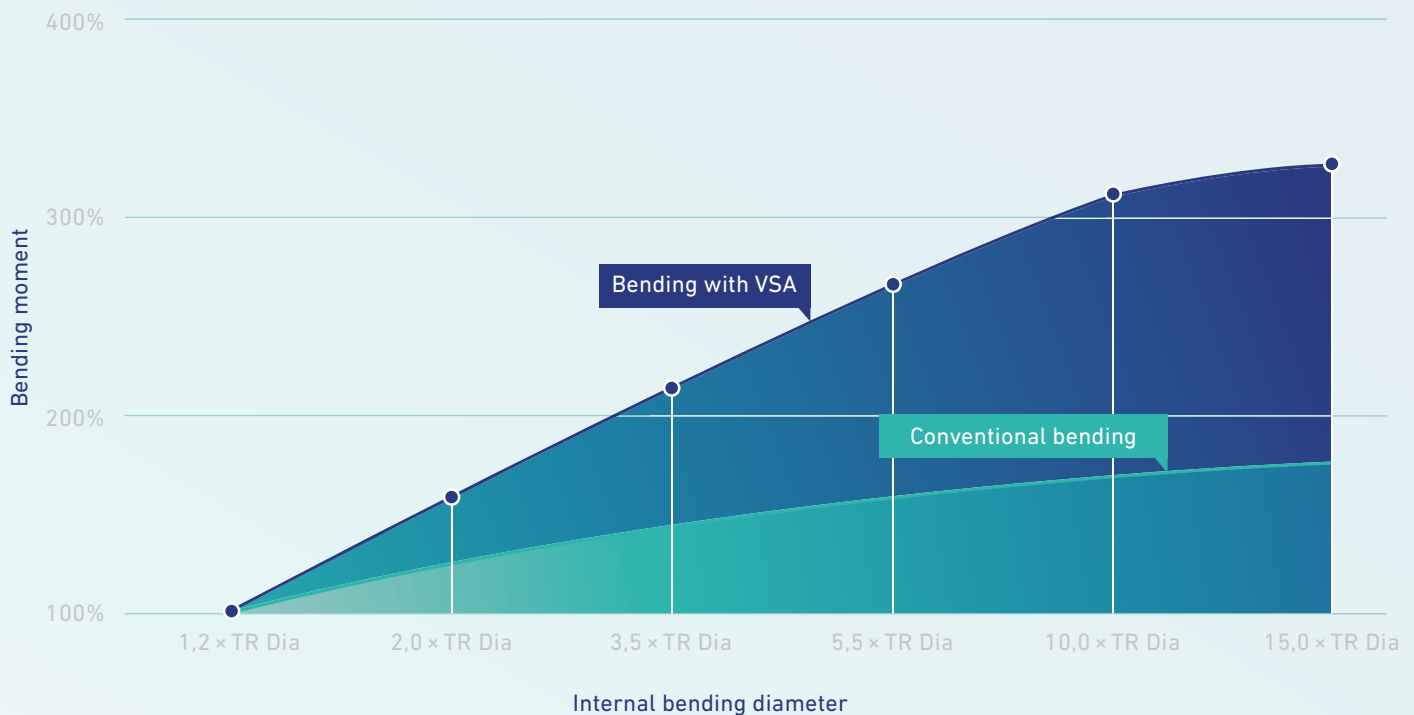
Low operating costs, increased productivity and easy to operate: the HAEUSLER EVO has a whole load of remarkable advantages under its belt. Of course in proven HAEUSLER quality.



HAEUSLER VSA

SHIFTING THE LIMITS – UP TO 85% MORE ROUNDING POWER

By using two instead of only one pivot point for each side roll swing arm fixation, the machine can individually be adjusted to either create a wide bending geometry for heavy wall thicknesses or a tight geometry if small diameters are to be bent.



The graph above shows the increase in bending moment that can be achieved with this new technology compared to a conventional 4-roll bending machine.

ACCESSORIES

TAILOR-MADE ACCESSORIES



UPPER SUPPORT

Upper supports simplify the bending of large diameters, as the plate to be bent can be held and supported at the 12 o'clock position during the bending process.



LATERAL SUPPORT

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



ROLLER CONVEYORS

Infeed roller conveyors (optionally also with centring device) simplify the loading of the machine. Sheets are placed on the roller table and transported into the machine.





50% COST SAVINGS

Lower operating costs through the use of electric motors in combination with planetary gearboxes.



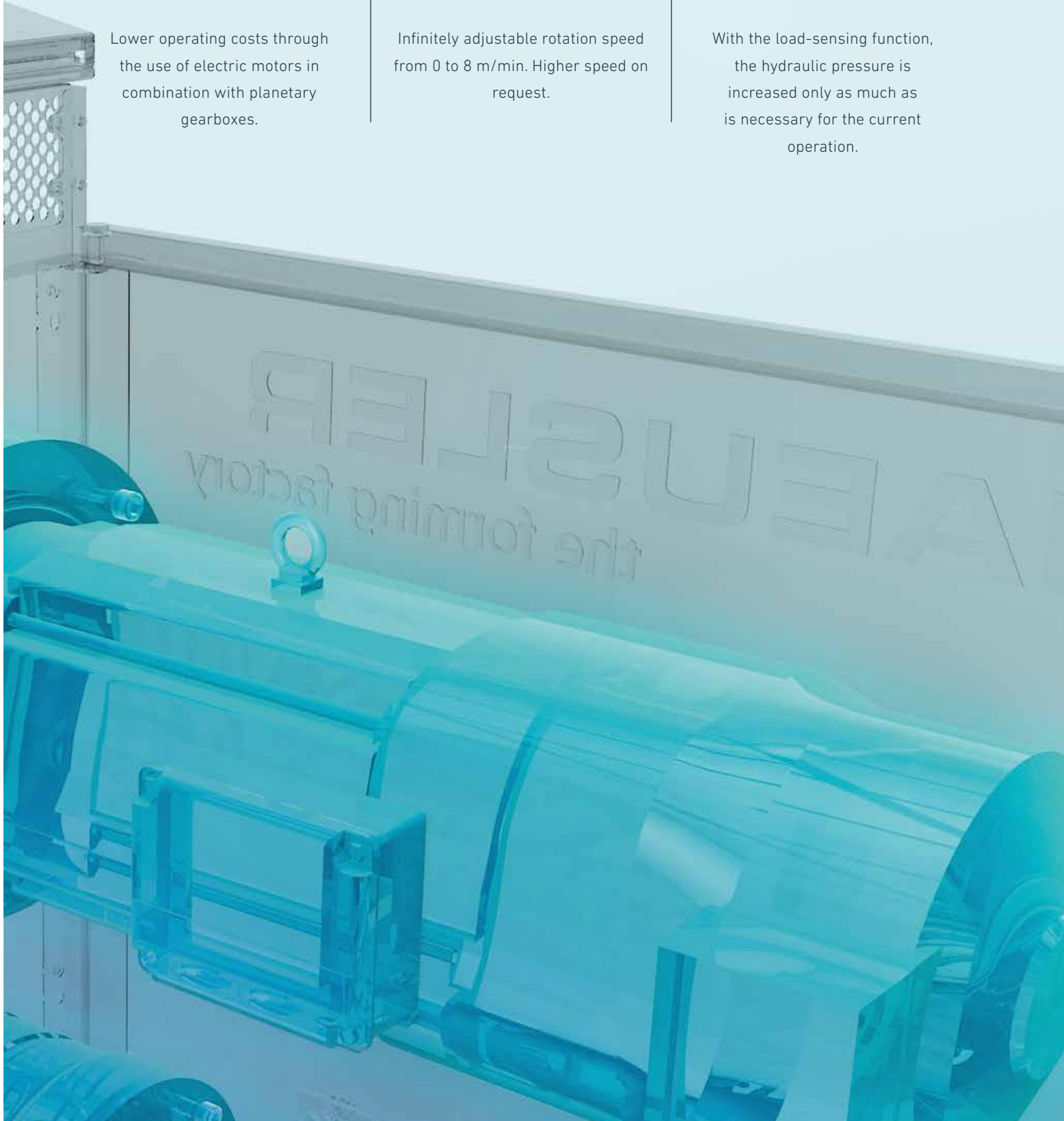
50% MORE PRODUCTIVITY

Infinitely adjustable rotation speed from 0 to 8 m/min. Higher speed on request.



25% ENERGY SAVINGS

With the load-sensing function, the hydraulic pressure is increased only as much as is necessary for the current operation.



ENERGY EFFICIENCY

SAVE ENERGY

In the EVO model series, the rotation of the rollers is driven electrically. This has the advantage that hydraulic power is no longer required. In addition, the hydraulic unit for the position of the rollers switches off after some time when not in use. Both result in lower power consumption and thus cost savings.

As an option, HAEUSLER machines can be equipped with the innovative load-sensing function. This technology only builds up as much hydraulic pressure for the position of the rollers as is needed in the current operation. This results in an impressive energy saving of approximately 25%.

AUTONOMOUS BENDING

BENDTRONIC®

PERFECT CONTROL

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.

In order to be able to bend the desired product shapes and optimally support the operator, the BENDtronic® contains 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*

| 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*

| AUTONOMOUS BENDING

With the help of the system's intelligent information feedback, a fully autonomous bending process is possible from the first sheet with no scrap.

→ *No rejects, personnel efficiency*

| SINGLE RADIUS MULTIPASS

Automatically generates a CNC programme, also applicable for bending in several passes.

→ *Time saving*

| MULTI-RADII

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

→ *Complex geometries possible*

| 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 saving, no unnecessary bending tests*

| CALIBRATION CALCULATOR

Calculates in seconds the best recommended machine settings for calibration.

→ *No unnecessary bending tests*





BENDIT-OFFICE

BENDIT-OFFICE

PERFECT WORK PREPARATION

BendIT-Office brings the in-house measures for preparing the production of sheet metal products to a new level.

With BendIT-Office, work preparation can be optimally carried out on the PC. The software provides exactly the same calculations as on the machine. Thus it is possible to test settings in advance and create variants for the optimum production process.

The programme is easy to use and the intuitive user interface is identical to the control panel of the EVO machine.



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.

THE EVO MODEL RANGE

EVO IS
CHOICE

15 SERIES	EVO 21015	EVO 26015	EVO 31015
Rolls width (mm)	2100	2600	3100
Rounding capacity (mm)	12	11	10
Pre-bending capacity (mm)	9	9	8
31 SERIES	EVO 21031	EVO 26031	EVO 31031
Rolls width (mm)	2100	2600	3100
Rounding capacity (mm)	17	15	14
Pre-bending capacity (mm)	14	13	12
49 SERIES	EVO 21049	EVO 26049	EVO 31049
Rolls width (mm)	2100	2600	3100
Rounding capacity (mm)	22	20	18
Pre-bending capacity (mm)	18	17	16
71 SERIES	EVO 21071	EVO 26071	EVO 31071
Rolls width (mm)	2100	2600	3100
Rounding capacity (mm)	28	25	23
Pre-bending capacity (mm)	23	21	20
102 SERIES	EVO 21102	EVO 26102	EVO 31102
Rolls width (mm)	2100	2600	3100
Rounding capacity (mm)	39	35	32
Pre-bending capacity (mm)	32	29	27
139 SERIES	EVO 26139	EVO 31139	EVO 41139
Rolls width (mm)	2600	3100	4100
Rounding capacity (mm)	42	38	33
Pre-bending capacity (mm)	34	32	28
196 SERIES	EVO 26196	EVO 31196	EVO 41196
Rolls width (mm)	2600	3100	4100
Rounding capacity (mm)	48	44	38
Pre-bending capacity (mm)	41	38	34

283 SERIES	EVO 26283	EVO 31283	EVO 41283
Rolls width (mm)	2600	3100	4100
Rounding capacity (mm)	65	60	52
Pre-bending capacity (mm)	54	50	45

385 SERIES	EVO 26385	EVO 31385	EVO 41385
Rolls width (mm)	2600	3100	4100
Rounding capacity (mm)	77	71	62
Pre-bending capacity (mm)	65	60	54

513 SERIES	EVO 26513	EVO 31513	EVO 41513
Rolls width (mm)	2600	3100	4100
Rounding capacity (mm)	94	86	75
Pre-bending capacity (mm)	78	72	65

680 SERIES	EVO 31680	EVO 41680
Rolls width (mm)	3100	4100
Rounding capacity (mm)	103	90
Pre-bending capacity (mm)	86	77

871 SERIES	EVO 31871	EVO 41871
Rolls width (mm)	3100	4100
Rounding capacity (mm)	118	104
Pre-bending capacity (mm)	101	90

Round bending capacity calculated with a yield strength of 260 MPa at a sheet width of 2000 mm, 2500 mm, 3000 mm or 4000 mm.
 Bending capacity calculated with a yield strength of 260 MPa at a sheet width of 2000 mm, 2500 mm, 3000 mm or 4000 mm.

STANDARD FEATURES

- Variable swing arm adjustment of the VSA® side rollers
- HAEUSLER Hybrid Drive System HHDS®
- 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
- Electro-mechanical holding system for the rotation of the top roller
- Automatic pressure readjustment of the bottom roller
- Automatic pressure compensation of the bottom roller cylinders
- Standard cooling system for ambient temperatures up to 35° C
- Automated axis optimisation
- 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

- Two-roller drive of the top and bottom roller
- Cone bending device, for bending conically shaped workpieces
- Extended 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
- Gas pressure accumulator, for calibrating already welded cylinders
- 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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