Production Program

RAS Reinhardt Maschinenbau GmbH

www.RAS-online.de
Folding

Frequently changing parts and small batch sizes require a universal bending technology. The most common bending techniques are press brake bending and folding. On a press brake the punch moves into the die. The blank located between the tools will be bent. On a folding machine the sheet is placed on a table. A gauging system positions the part to the bend line. The upper beam and lower beam clamp the material. During the bending cycle the folding beam moves up around a pivot point. For machines equipped with bi-directional bending, the folding beam can either move up or down depending on the bending direction.

Handling

The long flange of the part remains on the support table. As a result, folding is significantly faster, particularly for large parts. Additional bending supports are not needed. At the same time, folding is also safer as the operator is not in touch with the part during clamping and bending.

Even large workpieces can be handled by one person. Folding therefore is a very cost efficient bending method. If the bending direction changes on a large panel, folding machines are available that can bend in both directions (up/down).

The long flange of the part remains on the support table - the short flanges are bent.

Number of tools / Tool changes

Folding machines can bend any angle with a single tool. The machine automatically adjusts to the sheet thickness. The universal tools reduce the setup times as well as the investment and operating costs. Advanced automated folding machines come with an automatic tool changer.

Sensitive material surfaces

Folding reduces the sliding of tools against material surfaces to a minimum, or completely eliminates it on some machines (Multibend-Center, ProfileCenter). You will find no scratches on the material surface - ideal for stainless steel or coated sheets.

Bending radii

A radius can easily be created using a folder with small bending steps. By using small steps the outside of the radius will be very smooth and the individual steps will not be visible.

Tool wear

As there are only very slight relative movements between the tool and the material surface, the tooling shows no abrasion wear even after years of use.

Bending hems

Folding does not require special tools for hemming. Open or closed hems can be created.
Influence of sheet thickness tolerances

With folding technology, the folding beam tools touch the outside of the material and move exactly to the programmed angle. This angle reference is only on the outside of the material. As a result, sheet thickness tolerances do not affect the bend angle or the repeatability.

Influence of the gauging method

On a folding machine the entire part is inside the machine. Only a short flange stands out of the upper and lower beam tool. A folder gauges the part instead of the flange. Blanks tolerances disappear in the first flange. The area dimension and the opposite flanges are always accurate.

Symbols

- Machine bends up.
- Machine bends up and down (UpDown technology).
- The machine bends open ended profiles.
- The machine bends profiles and boxes/panels.
- The software programs the part automatically and recommends the best bending strategy with a 5-star ranking. The bending process is shown in a 3D simulation. Bending 4.0 realized!
- The software allows the programming of the part assisted by a 3D simulation.
- The machine has an automatic tool changer.

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### Product Finder

**Multibend-Center**
- 3060 x 2.0 mm
- 2560 x 2.0 mm
- 2160 x 2.0 mm

**UpDownCenter**
- 4060 x 2.5 mm
- 3200 x 3.0 mm

**XLTbend**
- 4060 x 2.5 mm
- 3200 x 3.0 mm

**UpDownBend**
- 4060 x 3.0 mm
- 3200 x 4.0 mm

**GIGAbend**
- 4060 x 5.0 mm
- 3200 x 6.0 mm

**FLEXibend**
- 4060 x 2.5 mm
- 3200 x 3.0 mm

**TURBObend plus**
- 3200 x 2.0 mm
- 2540 x 2.5 mm

**MiniBendCenter**
- 50 x 40
- 600 x 600
- x 3.0 mm

**ProfileCenter**
- 3200 x 2.0 mm

**XXL-Center**
- 8480 x 1.5 mm
- 6400 x 1.5 mm
- 4240 x 1.5 mm

**XL-Center**
- 3200 x 1.5 mm

**TURBObend**
- 3150 x 1.5 mm
Swing beam shears are machine tools that perform straight cuts on sheet metal. On a swing beam shear, the upper blade moves in a circular arc. The rigid design of the shear and the extremely low rake angle ensure that blanks as small as 10 to 15 x material thickness remain flat after cutting.

The upper blade penetrates the metal sheet above the lower blade and supplies clean, right-angled cuts with almost no burr.

The cutting gap can be easily adjusted by simply turning the cutting gap eccentric.

The upper blade moves away from the lower blade after cutting. This keeps the blade sharp for a long time.

Our innovative swing beam cutting technology guarantees clean, straight, dimensionally accurate and rightangled cuts.

<table>
<thead>
<tr>
<th>Products</th>
<th>Dimensions</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>POWERcut</td>
<td>4040 x 5.0 mm</td>
<td>34</td>
</tr>
<tr>
<td></td>
<td>3190 x 6.3 mm</td>
<td></td>
</tr>
<tr>
<td>PRIMEcut</td>
<td>3100 x 3.0 mm</td>
<td>36</td>
</tr>
<tr>
<td>SMARTcut</td>
<td>3100 x 2.0 mm</td>
<td>37</td>
</tr>
<tr>
<td></td>
<td>2540 x 2.0 mm</td>
<td></td>
</tr>
</tbody>
</table>

Our innovative swing beam cutting technology guarantees clean, straight, dimensionally accurate and rightangled cuts.

The pivoting movement of the swing beam prevents the blank from jamming between the lower blade and the backstop.
Office software with one-click programming starting from a STEP, DXF, GEO file of the part. No expert knowledge required. Fast, safe, precise.

The best bending sequences are shown according to the highest the 5-star ranking.

The 3D simulation shows the folding sequence and possible collisions. New products can already be evaluated during the design process.

The Multibend-Center is characterized by speed and high productivity levels.

Scratch-free bending of sensitive materials. No tool wear.

Four-sided boxes can be as tall as 203 mm.

Due to highest levels of precision and repeatability, the parts are suitable for laser welding.

Fully automatic bending sequences: positioning, rotation, bending, and tool change.
Loading and unloading

In addition to manual loading and unloading, there are a variety of options for automatic loading and unloading of the machine. Depending on the requested degree of automation and the manufacturing conditions, the handling systems on the loading and unloading side can be individually configured.

- **Multibend-Center with MiniFeeder loading component.** Blanks are supplied on a scissor table.
- **Multibend-Center with single or double station gantry loader.**
- **Multibend-Center with robot loading.** Provision of the blanks on Euro-pallets. The robot can also flip the blanks. Intelligent robot: No programming or teaching required.
- **Multibend-Center with robot loading.** Blanks supplied from a storage system. The robot can also flip the blanks. Intelligent robot: No programming or teaching required.
- **Suction frame of the gantry loader with 6 suction cups used to peel up the blank and 45 freely moveable suction cups.**
- **Touchless double sheet detection arm on the suction frame after lifting of the blank.**
- **Automatic program loading can be added to the MiniFeeder or gantry loader by scanning a barcode or QR code label on the blank.**
- **Multibend-Center with manual part unloading via finished part buffer or automatically by intelligent robot.** Rotation station for finished parts. Provision of the pallets by U-shaped pallet station.
- **Multibend-Center with manual part unloading via finished part buffer or automatically by intelligent robot.** Rotation station for finished parts. A pallet magazine provides pallets. Back panel magazine provides back panels for vertical stacking, the robot attaches them automatically to the pallet.
- **Multibend-Center with touchless double sheet detection arm on the suction frame.**

### Technical data

<table>
<thead>
<tr>
<th>Model</th>
<th>Bending length max.</th>
<th>Sheet thickness max.</th>
<th>Box height max.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multibend-Center RAS 79.31-2</td>
<td>3060 mm</td>
<td>2.0 mm</td>
<td>203 mm</td>
</tr>
<tr>
<td>Multibend-Center RAS 79.26-2</td>
<td>2560 mm</td>
<td>2.0 (2.5) mm</td>
<td>203 mm</td>
</tr>
<tr>
<td>Multibend-Center RAS 79.22-2</td>
<td>2160 mm</td>
<td>2.0 (2.5) mm</td>
<td>203 mm</td>
</tr>
</tbody>
</table>
Office software with one-click programming starting from a STEP, DXF, GEO file of the part. No expert knowledge required. Fast, safe, precise.

The best bending sequences are shown according to the highest the 5-star ranking.

The 3D simulation shows the folding sequence and possible collisions. New products can already be evaluated during the design process.

Automatic part positioning by a suction gauging system.
High flexibility in handling due to front suction cups and small part suction cups.
Upper beam tools for boxes up to 400 mm tall.

The automatic tool changer places the tools of the upper beam in position.
Maximum bending accuracy due to the patented beam-in-beam folding beam design.
Extended flexibility, as the folding beam can be used as a gauging stop.

Accurate alignment of long and narrow parts with the active squaring arm.

**Technical data**

<table>
<thead>
<tr>
<th>Model</th>
<th>Bending length max.</th>
<th>Sheet thickness max.</th>
<th>Box height max.</th>
</tr>
</thead>
<tbody>
<tr>
<td>UpDownCenter RAS 78.43</td>
<td>4060 mm</td>
<td>2.5 mm</td>
<td>400 mm</td>
</tr>
<tr>
<td>UpDownCenter RAS 78.33</td>
<td>3200 mm</td>
<td>3.0 mm</td>
<td>400 mm</td>
</tr>
</tbody>
</table>
Folding Machines

XLTbend

The best bending sequences are shown according to the highest the 5-star ranking.

The 3D simulation shows the folding sequence and possible collisions. New products can already be evaluated during the design process.

Office software with one-click programming starting from a STEP, DXF, GEO file of the part. No expert knowledge required. Fast, safe, precise.

Maximum bending accuracy due to the patented beam-in-beam folding beam design.

Accurate alignment of long and narrow parts with the active squaring arm.

Rectangular and T-shape gauging system

The suction cups of the hybrid gauging system hold the part through a sequence of bends to the stop fingers.

If the outside edges of the blank are not straight, individual stop fingers can be deactivated.

Extended flexibility, as the folding beam can be used as a gauging stop.

Control monitor on gauging system side

Quick tool change: Place upper and folding beam tools according to setup instructions ... they will be clamped automatically.

Technical data

<table>
<thead>
<tr>
<th></th>
<th>Bending length max.</th>
<th>Sheet thickness max.</th>
</tr>
</thead>
<tbody>
<tr>
<td>XLTbend RAS 71.40</td>
<td>4060 mm</td>
<td>2.5 mm</td>
</tr>
<tr>
<td>XLTbend RAS 71.30</td>
<td>3200 mm</td>
<td>3.0 mm</td>
</tr>
</tbody>
</table>
Folding Machines

UpDownBend

Gauging system extended to its maximum dimension.

Gauging system retracted to its minimum position.

Flexible part positioning. Individual stop fingers can be deactivated.

Extended flexibility, as the folding beam can be used as a gauging stop.

Flexible folding beam in 180 degree position.

Tall upper beam tools allow the production of deep boxes.

Gauging system variations.

Technical data

<table>
<thead>
<tr>
<th></th>
<th>Bending length max.</th>
<th>Sheet thickness max.</th>
</tr>
</thead>
<tbody>
<tr>
<td>UpDownBend RAS 78.40</td>
<td>4060 mm</td>
<td>3.0 mm</td>
</tr>
<tr>
<td>UpDownBend RAS 78.30</td>
<td>3200 mm</td>
<td>4.0 mm</td>
</tr>
</tbody>
</table>
**Folding Machines**

**GIGAbend**

Tall upper beam tools used for deep boxes (500 mm opening height).

Automatic adjustment of machine to sheet thickness and bend radius.

Technical data

<table>
<thead>
<tr>
<th></th>
<th>Bending length max.</th>
<th>Sheet thickness max.</th>
</tr>
</thead>
<tbody>
<tr>
<td>GIGAbend RAS 76.40</td>
<td>4060 mm</td>
<td>5.0 mm</td>
</tr>
<tr>
<td>GIGAbend RAS 76.30</td>
<td>3200 mm</td>
<td>6.0 mm</td>
</tr>
</tbody>
</table>

Part design flexibility due to slim but rigid tools.

Upper beam tool with large front free space.

Gauging system options: rectangular, J, and U shape.

Optional digital display for folding beam adjustment.

During the folding sequence the sheet rests on the machine table. No need to lift the part.

Quick tool set-ups due to the automatic tool clamping system.

The PowerBooster clamps the blanks with 120 tons of pressure to guarantee straight bends.

At the same time, the PowerBooster offers impressive performance when hems need to be closed.
FLEXIbend

Bend tabs with segmented folding beam tools.

Part design flexibility due to slim but rigid tools.

Optional digital display for the folding and lower beam adjustment.

In addition to the rectangular gauging system, optional „J“ and „U“ shapes can be configured.

Part lined up with the squaring arm.

### Technical data

<table>
<thead>
<tr>
<th></th>
<th>Bending length max.</th>
<th>Sheet thickness max.</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLEXIbend RAS 73.40</td>
<td>4060 mm</td>
<td>2.5 mm</td>
</tr>
<tr>
<td>FLEXIbend RAS 73.30</td>
<td>3200 mm</td>
<td>3.0 mm</td>
</tr>
</tbody>
</table>
**Folding Machines**

**TURBObend plus**

- **Control panel on an arm**
- **Sheet support tables with ball casters**
- **Upper beam with sharp tools**
- **Segmented upper beam tools with front free space**
- **Segmented upper beam tools with rear free space**
- **Tools with quick clamping system**
- **Setting the CrownTool for crowning on the folding beam.**
- **Rear of the TURBObend plus with rectangular gauging system**

**Technical data**

<table>
<thead>
<tr>
<th>Model</th>
<th>Bending length max.</th>
<th>Sheet thickness max.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TURBObend plus RAS 62.30</td>
<td>3200 mm</td>
<td>2.0 mm</td>
</tr>
<tr>
<td>TURBObend plus RAS 62.25</td>
<td>2540 mm</td>
<td>2.5 mm</td>
</tr>
</tbody>
</table>
MiniBendCenter

Simple to use Office software starts from a STEP file of the part with 3D visualization of the bending processes.

Fully automatic up and down bending with a maximum sheet thickness of 3 mm.

The RAS MiniBendCenter is the world’s only folding center for small parts. The blanks are automatically loaded, aligned and squared. Tool setup is automatic.

Robotic loading offers maximum flexibility. Blanks can be loaded from a bulk material box or from stacks.

Measuring the parts by a laser scanner.

Several bending stations can be setup along the length of the machine. Complex parts can be completed in a single run.

Highest levels of precision and repeatability

Dedicated unloading of the finished parts depending on floor space conditions, material flow, and sensitivity of the parts.

Unloading of finished parts into bulk material containers.

Technical data

<table>
<thead>
<tr>
<th></th>
<th>Sheet thickness max</th>
<th>Blank size min</th>
<th>Blank size max</th>
</tr>
</thead>
<tbody>
<tr>
<td>MiniBendCenter RAS 79.05</td>
<td>3.0 mm</td>
<td>50 x 40 mm</td>
<td>600 x 600 mm</td>
</tr>
</tbody>
</table>

The automatic tool setup allows for quick change-over between parts and the production of small batch sizes.
Bending Centers

ProfileCenter

Office software with one-click programming starting from a STEP, DXF, GEO file of the part. No expert knowledge required. Fast, safe, precise.

Premier bending accuracy due to automatic alignment of the supplied blanks.

Folding beam movement for scratch-free bending.

Automatic bending of complex profiles without operator intervention. The unique FlexGripper handling system automatically changes its gripping position when needed.

Automatic bending with fast cycle times. The workpiece does not have to be positioned at the stops during bending process.

Complex geometries can be bent due the large free space around the tools.

Scratch-free bending of pre-coated or galvanized sheets as well as of stainless steel as the folding beam tool rolls away with the flange.

Batch size 1 production is possible as the machine automatically adapts to changing sheet thicknesses and material types.

Precise flange dimensions, angles and straightness of the profiles.

Technical data

<table>
<thead>
<tr>
<th></th>
<th>Sheet thickness max.</th>
<th>Blank size min.</th>
<th>Blank size max.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ProfileCenter</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RAS 79.30</td>
<td>2.0 mm</td>
<td>100 x 600 mm</td>
<td>700 x 3200 mm</td>
</tr>
</tbody>
</table>

The best bending sequences are shown according to the highest the 5-star ranking.

The 3D simulation shows the folding sequence and possible collisions. New products can already be evaluated during the design process.
XXL-Center

If several bending sequences are possible, the software proposes the best option with a 5-star ranking.

Retractable table sections for easy blank loading and flipping.


Drawing of a profile on the touchscreen monitor. Automatic programming of the bending sequence with just one mouse click. No expert knowledge required. New profiles can already be evaluated in the office.

2D or 3D simulation of the bending sequences and visualization of possible collisions.

Scratch-free bending of pre-coated materials as the folding beam tool rolls away from the flange.

Secured bending accuracy due to automatic alignment of the blanks.

Many parts geometries can be bent due to a 300 degree free space in front of the folding beam (patented).

Grippers position the part. This ensures precise flange dimensions and fast bending sequences.

No part rotation required since the machine bends up and down. High productivity due to fast bending cycles.

Technical data

<table>
<thead>
<tr>
<th>Model</th>
<th>Bending length max.</th>
<th>Sheet thickness max.</th>
<th>Backstop</th>
</tr>
</thead>
<tbody>
<tr>
<td>XXL-Center RAS 75.08-2</td>
<td>8480 mm</td>
<td>1.5 mm</td>
<td>12 - 750 mm</td>
</tr>
<tr>
<td>XXL-Center RAS 75.06-2</td>
<td>6400 mm</td>
<td>1.5 mm</td>
<td>12 - 750 mm</td>
</tr>
<tr>
<td>XXL-Center RAS 75.04-2</td>
<td>4240 mm</td>
<td>1.5 mm</td>
<td>12 - 750 mm</td>
</tr>
</tbody>
</table>
Bending Centers

XL-Center

Drawing of a profile on the touchscreen monitor. Automatic programming of the bending sequence with just one mouse click. No expert knowledge required. New profiles can already be evaluated in the office.

If several bending sequences are possible, the software proposes the best option with a 5-star ranking.

2D or 3D simulation of the bending sequences and visualization of possible collisions.

Grippers position the part. This ensures precise flange dimensions and fast bending sequences.

Scratch-free bending of pre-coated materials as the folding beam tool rolls away from the flange.

Many parts geometries can be bent due to a 300 degree free space in front of the folding beam (patented).

No part rotation required since the machine bends up and down. High productivity due to fast bending cycles.

The gauging system can produce automatically tapered parts.

Scratch-free bending of pre-coated materials as the folding beam tool rolls away from the flange.

No programming required for accurate and perfectly interlocking profiles (tapered parts).

Technical data

<table>
<thead>
<tr>
<th></th>
<th>Bending length max.</th>
<th>Sheet thickness max.</th>
<th>Backstop</th>
</tr>
</thead>
<tbody>
<tr>
<td>XL-Center RAS 63.30</td>
<td>3200 mm</td>
<td>1.5 mm</td>
<td>6.5 - 750 mm</td>
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</tbody>
</table>
Folding Machines

TURBObend

Technical data

<table>
<thead>
<tr>
<th></th>
<th>TURBObend RAS 61.31</th>
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</thead>
<tbody>
<tr>
<td>Bending length max.</td>
<td>3150 mm</td>
</tr>
<tr>
<td>Sheet thickness max.</td>
<td>1.5 mm</td>
</tr>
<tr>
<td>Backstop</td>
<td>6.0 - 1000 mm</td>
</tr>
</tbody>
</table>

Automatic folding beam adjustment for thin and thick materials.

Stop finger at minimum stop dimension.

Rear of the TURBObend with rectangular gauging system.
Swing Beam Shears

POWERcut

The sorting and sheet support system holds the blank flat before the cut. This eliminates the material from hanging down and guarantees for perfect cutting dimensions.

Extra long sheets can be cut while passing underneath the backgauge. The backgauge moves to its maximum dimension and the sheet support moves slightly downward.

After the cut is made, the sheet support system can tilt to three different angles. Even small strips of 40 mm can slide down quietly and gently.

The programmable small parts chute delivers cut pieces (max. 200 x 500 mm) into a container in front of the machine.

The sheet support system guides even thin materials exactly to the CNC backstop.

Front stops (available also with a precision scale) allow an accurate part positioning.

Small parts chute for sorting small blanks.

Spacious scrap container

Side free space for an easy blade change

Return-back function: The CNC backstop can push a cut piece below the finger protection back to the operator. Less running around, more production time.

For trim cuts the sheet support moves backwards so that cut strips can fall into the spacious scrap container.

Technical data

<table>
<thead>
<tr>
<th>Powercut RAS 86.43</th>
<th>Powercut RAS 86.33</th>
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</thead>
<tbody>
<tr>
<td>Cutting length max.</td>
<td>4040 mm</td>
</tr>
<tr>
<td>Sheet thickness max.</td>
<td>5.0 mm</td>
</tr>
<tr>
<td>Gauging depth</td>
<td>5 - 1000 (1500) mm</td>
</tr>
</tbody>
</table>
**PRIMEcut**

- Control with touch screen monitor
- Lever for the cutting gap adjustment on the PRIMEcut.
- Parts chute for cut piece delivery to the rear.
- Twist free cutting even on small strips

**SMARTcut**

- Parts chute for cut piece delivery to the front.
- The foot lever switches the parts chute direction.
- Convenient blank alignment with the LED cutting line illumination.

**Technical data**

<table>
<thead>
<tr>
<th>Model</th>
<th>Cutting length max.</th>
<th>Sheet thickness max.</th>
<th>Gauging depth</th>
</tr>
</thead>
<tbody>
<tr>
<td>PRIMEcut RAS 53.30</td>
<td>3100 mm</td>
<td>3.0 mm</td>
<td>5 - 750 mm</td>
</tr>
<tr>
<td>SMARTcut RAS 52.30</td>
<td>3100 mm</td>
<td>2.0 mm</td>
<td>5 - 750 mm</td>
</tr>
<tr>
<td>SMARTcut RAS 52.25</td>
<td>2540 mm</td>
<td>2.0 mm</td>
<td>5 - 750 mm</td>
</tr>
</tbody>
</table>
EasyFormer

“Teach” function

„Automatic“ function

Flanging wheels FL: Flanging without swiveling the part.

Crimping bead

Double seaming wheels

Swaging wheels for insulation work

Screw-in seam

Hose seam for hydraulic pipes

Glass panel touch control

Stop plate for insulation pipes

UnLock function opens the wheels immediately in an emergency.

Technical data

<table>
<thead>
<tr>
<th></th>
<th>Sheet thickness max.</th>
<th>Wheel center distance</th>
<th>Working depth max.</th>
</tr>
</thead>
<tbody>
<tr>
<td>EasyFormer RAS 12.65-2</td>
<td>3.0 mm</td>
<td>100 mm</td>
<td>400 mm</td>
</tr>
<tr>
<td>EasyFormer RAS 12.35-2</td>
<td>1.75 mm</td>
<td>63 mm</td>
<td>255 mm</td>
</tr>
</tbody>
</table>
## Swaging Machines

### RAS 11.35

- **Technical data**
  - **Sheet thickness max.**: 1.25 mm
  - **Wheel center distance**: 50 mm
  - **Working depth max.**: 200 mm

### RAS 11.15

- **Technical data**
  - **Sheet thickness max.**: 1.25 mm
  - **Wheel center distance**: 50 mm
  - **Working depth max.**: 200 mm

**Swaging wheels**

- 9 pairs of wheels included

**Production of edge flanges for air duct components.**

### RAS 21.20

- **Technical data**
  - **Sheet thickness max.**: 1.5 mm
  - **Fl. height (min. - max.)**: 6 - 15 mm
  - **Speed**: 0 - 9.4 m/min

**Top attachment for button punch**

**Automatic sheet guide system**

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Duct Seaming Machines

**DuctZipper V-shape**

- Air duct with a single seam joint
- Air duct with two seam joints
- Air duct

**DuctZipper L-shape**

- The DuctZipper in L-shape is specifically designed for large ducts. On the DuctZipper-L, the working position is rotated by 45 degrees. The horizontal flange of the duct rests on the table while the vertical flange is directed straight up. Gripping grooves in the vertical wall let the operator easily hold and guide the duct while passing it through the machine.

- Easily accessible forming rolls for maintenance work.

- Improved seaming accuracy also results in a reduced distortion of the duct cross-section.

**Technical data**

<table>
<thead>
<tr>
<th>DuctSeamer</th>
<th>Sheet thickness max.</th>
<th>Duct cross-sec. min.</th>
<th>Speed</th>
</tr>
</thead>
<tbody>
<tr>
<td>DuctZipper RAS 20.12</td>
<td>1.0 - 1.25 mm</td>
<td>140 x 140 mm</td>
<td>15 m/min.</td>
</tr>
<tr>
<td>DuctZipper RAS 20.10</td>
<td>0.5 - 1.00 mm</td>
<td>100 x 100 mm</td>
<td>15 m/min.</td>
</tr>
</tbody>
</table>

Even very large ducts can be produced with only two operators.

- Operating speed doubled: After the first duct is finished and removed, the operator clamps the next duct with the AutoPilot and is ready to pass the next air duct through the machine.

DuctZipper with SealJet for maximum tightness and energy efficiency.

Duct seam inserted with gel sealant for the highest tightness requirements.

Autopilot and reinforced seaming bar on the RAS 20.12 DuctZipper.
### SpeedySeamer

Standing seam, Pittsburgh seam, Snaplock seam, and "S" seam

"S" seam and drive cleat

Set of rolls for Pittsburgh seam

Stiffening pliers for consistent radii

Scale for radius adjustments

Rolls for standing seams

Tape measure for quick roll positioning

**SpeedySeamer with lubricant spraying unit for stainless steel applications.**

**Technical data**

<table>
<thead>
<tr>
<th>SpeedySeamer RAS 22.09</th>
<th>Sheet thickness max.</th>
<th>Rollforming stations</th>
<th>Speed</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.5 mm</td>
<td>9</td>
<td>16 m/min.</td>
<td></td>
</tr>
</tbody>
</table>

**Technical data**

<table>
<thead>
<tr>
<th>SpeedySeamer RAS 22.07</th>
<th>Sheet thickness max.</th>
<th>Rollforming stations</th>
<th>Speed</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.5 mm</td>
<td>7</td>
<td>16 m/min.</td>
<td></td>
</tr>
</tbody>
</table>

### VENTIrounder

For rounding elbow blanks with Snaplock, Pittsburgh or Standing seams.

Stiffening pliers for consistent radii

Rolls easily adjustable to the width of the part

For standing seams

**Technical data**

<table>
<thead>
<tr>
<th>VENTIrounder RAS 40.91</th>
<th>Sheet thickness max.</th>
<th>Working length</th>
<th>Speed</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.25 mm</td>
<td>1500 mm</td>
<td>10 m/min.</td>
<td></td>
</tr>
</tbody>
</table>
Seam Closing Machine

RAS 25.15

For closing inside and outside seams on round pipe.

Technical data

<table>
<thead>
<tr>
<th>Model</th>
<th>Sheet thickness max.</th>
<th>Working length</th>
<th>Shaft diameter</th>
</tr>
</thead>
<tbody>
<tr>
<td>RAS 25.15</td>
<td>0.88 mm</td>
<td>1520 mm</td>
<td>90 mm</td>
</tr>
</tbody>
</table>

Design  Sawing  Plasma cutting

Milling  Turning  Grinding

Welding  Powder coating  Assembly

Electrical assembly  Quality inspection

RAS - Regional production for global sustainability
Headquarters in Sindelfingen. In the foreground „Steel object“.

Effringen - factory and artwork

RAS Systems LLC in Georgia, USA

All sheet thickness refer to 400 N/mm² tensile strength. Subject to changes. Pictures may show options.

Founder Wilhelm Reinhardt

Managing Directors Rainer Stahl and Willy Stahl

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