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The best bending solution
United we stand, therefore TCI Cutting and Blecken join forces to create our industrial Bending division.

With the strength of TCI Cutting and the tons of experience of Blecken, we have created the industrial press brake series “Mach”, three models to meet the requirements of the industrial bending sector.

- Perfect configuration for precise bends
- Precision bends over the entire length
- Pumping system for the lower table
- Highly rigid design
- Easy and economical maintenance
TCI Cutting
BENDING DIVISION

The Mach series press brakes are designed to meet the bending needs of customers at very competitive prices, with their advanced electrical and mechanical characteristics.

They help to increase productivity and keep costs at a minimum, with an easy to use CNC and low hydraulic maintenance costs.

The new press brakes by TCI Cutting are ideal for complicated, precise, unique or repetitive high speed bending.

All TCI Cutting machines are designed to use the latest technology and the best material.
The use of synchronized valves ensures the best bending quality.

The reference position is automatically calibrated at the startup of the machine. Thanks to the use of ball bearings, positioning accuracy is 0.01mm. The servomotors are managed by the CNC providing a mechanical precision of 0.05mm.

With our vast experience and industry knowledge, we have incorporated as a standard on our machines, all the equipment necessary to provide flexibility and speed that allows customers to minimize production costs.
Mach One®
series
General Characteristics

- Cylinders treated with and coated in chrome with high accuracy of 0.001mm
- Quick tightening clamps
- Front support arms slidable along the length of the machine
- Central hydraulic system from HOERBIGER according to CE standards
- Two photocells on the back
- High quality tools
- Linear optical rulers with a precision of ± 0.01 mm
- Fully synchronized cylinders that provide the best bending on all occasions
- Back gauge system with 2 axes (X = 800 mm and R), with ± 0.01 mm. repeatability, controlled by CNC
- DELEM D66T CNC Control
- SIEMENS electrical components
- Automatic axis referencing when the machine is running
- Side protection according to CE standards
**Mach One 3175 175T**

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Technical data</th>
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</thead>
<tbody>
<tr>
<td>Bending length</td>
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<tr>
<td>Distance between columns</td>
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<tr>
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<td>Throat depth</td>
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<tr>
<td>Stroke length</td>
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<tr>
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<td>550 mm.</td>
</tr>
<tr>
<td>Back gauge range</td>
<td>800 mm.</td>
</tr>
<tr>
<td>Working height</td>
<td>900 mm.</td>
</tr>
<tr>
<td>Approach speed (adjustable)</td>
<td>180 mm/sec.</td>
</tr>
<tr>
<td>Bending speed (adjustable)</td>
<td>12 mm/sec.</td>
</tr>
<tr>
<td>Return speed</td>
<td>190 mm/sec.</td>
</tr>
<tr>
<td>Motor power</td>
<td>15 kW</td>
</tr>
<tr>
<td>Oil capacity</td>
<td>300 l.</td>
</tr>
<tr>
<td>Approximate Weight</td>
<td>10 tons</td>
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## Characteristics

<table>
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<tr>
<th>Characteristics</th>
<th>Technical data</th>
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<td>12 mm/sec.</td>
</tr>
<tr>
<td>Return speed</td>
<td>190 mm/sec.</td>
</tr>
<tr>
<td>Motor power</td>
<td>20 kW</td>
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<tr>
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<td>320 l.</td>
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<tr>
<td>Approximate Weight</td>
<td>13 tons</td>
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</tbody>
</table>
Machine configuration

Bending table of 3.100mm.
Bending table of 4.100mm.
DELEM D66T-2D numerical control with color graphics.
6 axis (Y1-Y2-X-R-Z1-Z2) with backstop.
Punches treated to 140 kg. 835 mm sections over the entire length of the machine.
One equal punch split into several sections with side anvils.
Matrix with 4 60mm wide mouths in 855 sections over the entire length of the machine.
Driver to adapt and center matrices.
Motorized Wila type compensation table adjustable from the control.
Two frontal sheet supports.
Safety regulations by laser.
Pneumatic upper and lower flanges.
Standard Equipment

- Backstop with 6 axes. (Y-1, Y-2, X, R, Z1, Z2)
- Adjustable height, sliding arms with front supports
- High quality upper and lower tools with heat treatment
- European Style clamping system
- Rear stops controlled by the CNC
- Throat depth of 410 mm
- Backstop with 2 clamps
- Linear rulers for axis control Y1 - Y2
- Motorized table compensation system controlled by CNC
- Pedal according to CE standards
- 2 photocells on the back of the machine
- Fully protected upper cylinders
- Delem D66 T control

Optional Equipment

- Choice of different lengths punches and dies
- Hydraulic oil cooler
- Variable table width and different V dies
- Front laser option
- WILA type clamping system
- Hydraulic or pneumatic upper and lower clamping system
- Special tools to fold thick materials
- Additional front supports
- Front sheet follower
Delem DA-66T
Human • machine interface

2D Touchscreen.
Displaying the part in 3D, both in simulation and production.
High resolution 17" TFT screen.
Compatible with Windows applications.
Two USB ports.
Multitasking environment.
Bending sensor with correction via interface.
Emergency Stop button.

Standard:
Screen resolution 1280 x 1024, 32 bit.
256 MB Storage capacity.
3D graphics card.
Work online with Standard Windows®
Integrated OEM Panel.
Multi language interface.

Programming:
Easy configuration of products and tools.
Programming and visualization of the product in actual scale.
Automatic calculation of the bending sequence.
Easy modification of the bending sequence.
Possibility to program Hemming operations.
Programmed table on a single screen.
Main Characteristics

- Numerical control with color graphics
- Safety photocells
- Silent internal pump
- Hydraulic system regulated by synchronized valves
- High precision optical lines
- Quickly adjustable clamping
- Hardened and verified tools for quick adjustment
- System with back gauge (fingers) with double linear guides, LED contact indicator
- Active hydraulic compensation system
- Electrical cabinet with high quality components
- Start&Stop system
<table>
<thead>
<tr>
<th>Characteristics</th>
<th>30T</th>
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<th>50T</th>
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### Configurations Mach Five

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</tbody>
</table>

**Units:**
- tons
- mm
- mm/sec
- kW
- l
Machine configuration

Hybrid energy saving system ENERGY EFFICIENT (up to 50%).
Esautomation S650 numerical control.
4 axis (Y1-Y2-X-R) + 4 optional (Z1-Z2-X5-X6) with back gauge.
Safety regulations by Lazer Safe.
Pneumatic upper and lower clamping.
Silent hydraulic pumps.
Die with 4 sides by Rolleri (v=16-22-35-50).
Rolleri punch h=135\degree \cdot \text{angle} = 85\degree \cdot \text{beam}=0.8 \cdot \text{load}=100\text{T/m}
Standard equipment

- Back gauge with 4 axes (Y-1, Y-2, X, R)
- Height adjustable, sliding front support arms
- Heat treated high quality upper and lower tools
- European Style clamping system
- Back gauge controlled by the CNC
- Throat depth of 300 to 500mm
- Back gauge with 2 fingers
- Lazer Safe
- Flex system
- Pedal according to CE standards
- Fully protected upper cylinders
- Esautomation S650 control
- VOITH pump
- GIU optical lines
- HOERBIGER plumbing
- Electrical cabinet: TELEMECANIQUE-SCHNEIDER, ESAUTOMATION

Optional equipment

- Additional axes Z1 and Z2
- Additional axes X5 or X6
- European Style upper and lower clamping
- Wila Pro upper clamping
- Wila Premium upper clamping
- Wila lower clamping
- Hydraulic unit
- Pneumatic locking table
- Additional gauge
- Frontal fine sheet follower
- Oil cooling system
- Kit Iris Plus - Lazer Safe
- Kit Clever Crowning, pumped via CNC active compensation system
- Numerical Control (CNC) ESA S650W
- Active compensation system Clever Crowning
Mach Five Options

CLEVER CROWNING

With the Clever Crowning system, the CNC independently interprets the bending angle correction without operator intervention. This ensures a perfect bend, even on irregular surfaces.

RETRACTABLE BACK GAUGES

This option provides support for thin sheets when the bend is far from the edges. The retractable back gauges can be activated via the CNC.
Kit IRIS PLUS

Speed and accuracy, by means of the multipoint laser sensor, the change in velocity is 0mm from the contact with the part and the angle control system ensures a high quality result from the first bend. The Iris Plus system takes a frame every millisecond, for the perfect bending control.

FLEX

Innovative system for managing structural deflections, which ensures perfect bending over the entire length, regardless of the length of the sheet. The CNC receives data from the sensors of the cylinders, this information is interpolated to correct the required parameters.
**ESA S650W**

Human • machine interface

Versatile PC, 15” high resolution touch screen 4:3.
Unlimited flexibility and performance.
The strong built-in processor allows comfortable
working in a 3D environment (Metalix, Radan, Esa).
Direct import of parts (.dxf files) and tool library manager.
Manager for tools, punches and dies.
Angle measurement and correction with most available devices.

**General specifications**

- High resolution 15” touch screen 4:3 (XGA 1024x768).
- CPU PC: AMD Embedded GX 420 CA 2GHz with 4GB RAM.
- CPU CNC: AMD LX-LX800 500MHz with 128MB RAM.
- FPGA integrated logics, surface mounting, fiber optic.
- Ergonomic aluminum enclosure with panel that includes buttons and direct access switches.
- 20GB Hard Drive 2.5” (expandable).
- Preset for standard pc keyboard and mouse (ps2 standard connectors).
TCI Cutting Representatives

- Algeria
- Australia
- Austria
- Belgium
- China
- Colombia
- Czech Republic
- Denmark
- Egypt
- USA
- England
- Finland
- France
- Germany
- Holland
- Hungary
- India
- Italy
- Jordan
- Morocco
- Mexico
- Middle East
- Poland
- Portugal
- Romania
- Russia
- South Africa
- Spain
- Sweden
- Switzerland
- Taiwan
- Turkey
- Venezuela