Mandrel Benders
Hydraulic system
Company Profile

Baileigh Industrial consistently provides its customers with quality metal fabricating equipment in North America and Europe. Our product line consistently grows and currently offers mandrel tube/pipe benders, rotary draw tube/pipe benders, tube and pipe notchers, corner notchers, cold saws, band saws, sheet metal shears, sheet metal brakes, ironworkers, and we add new products on a daily basis. Baileigh Industrial has grown to be one of the largest and most respected sources of metal fabricating equipment in the world.

Baileigh Industrial takes great pride in having friendly and knowledgeable staff to assist you with determining the best machine for your application. We also maintain a worldwide network of dealers within the metal fabricating industry to offer you local sales assistance and after sale support. Our goal is to provide profitable solutions to your metal fabricating needs.

Mission Statement

To be the preferred supplier of quality fabrication equipment, systems and services by profitably responding to our customer’s needs with dependable deliveries, services, and products that offer innovative technology and unsurpassed value.
Hydraulic bending machine with numerical controlled bending axis (Y).
Fully hydraulic clamping, pressure die and mandrel extraction, 10 programmable bending speeds, and follower pressure die assist possibility.
All hydraulic movements are independently adjustable.

<table>
<thead>
<tr>
<th>MB-35-NCH-1</th>
<th>MB-42-NCH-1</th>
<th>MB-60-NCH-1</th>
<th>MB-80-NCH-1</th>
<th>MB-100-NCH-1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum bending OD x thickness (steel - 450 N/mm²) (mm)</td>
<td>35 x 2</td>
<td>42 x 2</td>
<td>60 x 3</td>
<td>80 x 3.5</td>
</tr>
<tr>
<td>Maximum bending OD x thickness (stainless steel - 700 N/mm²) (mm)</td>
<td>28 x 2</td>
<td>38 x 1.5</td>
<td>50.8 x 2</td>
<td>76 x 1.5</td>
</tr>
<tr>
<td>Maximum bending side x side x thickness (steel - 450 N/mm²) (mm)</td>
<td>25 x 25 x 2</td>
<td>35 x 35 x 2</td>
<td>50 x 50 x 3</td>
<td>60 x 60 x 4</td>
</tr>
<tr>
<td>Maximum section modulus (steel - 450 N/mm²) (cm³)</td>
<td>1.6</td>
<td>2.7</td>
<td>8.3</td>
<td>15.7</td>
</tr>
<tr>
<td>Maximum Centerline bending Radius (mm)</td>
<td>150</td>
<td>150</td>
<td>180</td>
<td>280</td>
</tr>
<tr>
<td>Maximum useful length with/without mandrel (mm)</td>
<td>2500</td>
<td>2500</td>
<td>3000</td>
<td>3500</td>
</tr>
<tr>
<td>Total power - (kW)</td>
<td>4</td>
<td>4</td>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td>Weight - (Kg)</td>
<td>2500</td>
<td>3200</td>
<td>3800</td>
<td>4000</td>
</tr>
<tr>
<td>Dimensions (mm)</td>
<td>3300x800x1150</td>
<td>3600x1150x1250</td>
<td>4100x1150x1250</td>
<td>4600x1350x1400</td>
</tr>
</tbody>
</table>

Options

Optional equipment
- Automatic tool retraction
- Automatic hydraulic pressure die assist
- Automatic mandrel lubrication
- Machine useful length increments (1m)
- Split die system (square/rectangular/others)
- Dies for profiles/tubes
- Booster (1D bends)
- Punching unit

PLC
Industrial alphanumeric keyboard
Monitoring alarms
Troubleshooting messages
Parts Counter
Manual/Auto/Programmable modes
Hydraulic bending machine, with numerical controlled bending axis (Y) and the plane of bending axis (Z). Fully hydraulic clamping, pressure die and mandrel extraction, 10 programmable bending speeds, and follower pressure die assist possibility.

All hydraulic movements independently adjustable.
3 computerized numerical controlled servo axis which manage BENDING (Y), FEEDING (X), & ROTATION (Z) axis in a complete AUTOMATIC cycle. Possibility to control up to 9 axis.
3 + 1 computerized numerical controlled servo axis which manage BENDING (Y), FEEDING (X), ROTATION (Z) & PUSH BENDING (V) in a complete AUTOMATIC and single stack cycle reducing production time.
Possibility to control up to 10 axis.

### MB-35CNC-V
- Maximum bending OD x thickness (steel - 450 N/mm²) - (mm): 35 x 2
- Maximum bending OD x thickness (stainless steel - 700 N/mm²) - (mm): 28 x 2
- Maximum bending OD x thickness (stainless steel - 700 N/mm²) - (mm): 25 x 25 x 2
- Maximum section modulus (steel - 450 N/mm³) - (cm³): 1.6

### MB-42CNC-V
- Maximum bending OD x thickness (steel - 450 N/mm²) - (mm): 42 x 2
- Maximum bending OD x thickness (stainless steel - 700 N/mm²) - (mm): 38 x 1.5
- Maximum bending OD x thickness (stainless steel - 700 N/mm²) - (mm): 35 x 35 x 2
- Maximum section modulus (steel - 450 N/mm³) - (cm³): 2.7

### MB-60CNC-V
- Maximum bending OD x thickness (steel - 450 N/mm²) - (mm): 60 x 3
- Maximum bending OD x thickness (stainless steel - 700 N/mm²) - (mm): 50.8 x 2
- Maximum bending OD x thickness (stainless steel - 700 N/mm²) - (mm): 50 x 50 x 3
- Maximum section modulus (steel - 450 N/mm³) - (cm³): 8.3

### MB-80CNC-V
- Maximum bending OD x thickness (steel - 450 N/mm²) - (mm): 80 x 3.5
- Maximum bending OD x thickness (stainless steel - 700 N/mm²) - (mm): 76 x 1.5
- Maximum bending OD x thickness (stainless steel - 700 N/mm²) - (mm): 60 x 60 x 4
- Maximum section modulus (steel - 450 N/mm³) - (cm³): 15.7

### MB-100CNC-V
- Maximum bending OD x thickness (steel - 450 N/mm²) - (mm): 104 x 4
- Maximum bending OD x thickness (stainless steel - 700 N/mm²) - (mm): 100 x 1.5
- Maximum bending OD x thickness (stainless steel - 700 N/mm²) - (mm): 80 x 80 x 5
- Maximum section modulus (steel - 450 N/mm³) - (cm³): 30

### Options
- **Optional equipment**
  - Automatic mandrel lubrication
  - Machine useful length increments (1m)
  - Split die system (square/rectangular/others)
  - Dies for profiles/tubes
  - Booster (1D bends)
  - Punching unit
  - Extra axis

### Technical Specifications
- **Maximum Centerline bending Radius (mm)**: 200
- **Maximum useful length with/without mandrel (mm)**: 4000
- **Total power (kWh)**: 24.4
- **Weight (Kg)**: 310
- **Dimensions (mm)**: 5700x1300x1600

*Proprietary software.*

*User-friendly 3D touch screen controller.*
8 computerized numerical controlled servo axis which manage BENDING (Y), FEEDING (X), ROTATION (Z), PUSH BENDING (V), POB V&H (U,R) & MANDREL V&H (U1&R1) allowing production of the most complex parts in a complete AUTOMATIC cycle. Possibility to control up to 16 axis.

- **MB-35-CNC-R**
  - Maximum bending OD x thickness (steel - 450 N/mm²) - (mm): 35 x 2
  - Maximum bending OD x thickness (stainless steel - 700 N/mm²) - (mm): 28 x 2
  - Maximum bending side x side x thickness (steel - 450 N/mm²) - (mm): 25 x 25 x 2
  - Maximum section modulus (steel - 450 N/mm²) - (cm³): 1.6

- **MB-42-CNC-R**
  - Maximum bending OD x thickness (steel - 450 N/mm²) - (mm): 42 x 2
  - Maximum bending OD x thickness (stainless steel - 700 N/mm²) - (mm): 38 x 1.5
  - Maximum bending side x side x thickness (steel - 450 N/mm²) - (mm): 35 x 35 x 2
  - Maximum section modulus (steel - 450 N/mm²) - (cm³): 2.7

- **MB-80-CNC-R**
  - Maximum bending OD x thickness (steel - 450 N/mm²) - (mm): 60 x 3
  - Maximum bending OD x thickness (stainless steel - 700 N/mm²) - (mm): 50.8 x 2
  - Maximum bending side x side x thickness (steel - 450 N/mm²) - (mm): 50 x 50 x 3
  - Maximum section modulus (steel - 450 N/mm²) - (cm³): 8.3

- **MB-80-CNC-R**
  - Maximum bending OD x thickness (steel - 450 N/mm²) - (mm): 80 x 3.5
  - Maximum bending OD x thickness (stainless steel - 700 N/mm²) - (mm): 76 x 1.5
  - Maximum bending side x side x thickness (steel - 450 N/mm²) - (mm): 60 x 60 x 4
  - Maximum section modulus (steel - 450 N/mm²) - (cm³): 15.7

- **MB-100-CNC-R**
  - Maximum bending OD x thickness (steel - 450 N/mm²) - (mm): 104 x 4
  - Maximum bending OD x thickness (stainless steel - 700 N/mm²) - (mm): 100 x 1.5
  - Maximum bending side x side x thickness (steel - 450 N/mm²) - (mm): 80 x 80 x 5
  - Maximum section modulus (steel - 450 N/mm²) - (cm³): 30

**Options**
- **Optional equipment**
  - Automatic mandrel lubrication
  - Machine useful length increments (1m)
  - Split die system (square/rectangular/others)
  - Dies for profiles/tubes
  - Booster (1D bands)
  - Punching unit
  - Extra axis
Overview

Baileigh Industrial provides a wide range of standard & customized products. We design, produce and supply our own bending machines from Ø 6 up to Ø 355mm, electric, hydraulic driven, semi-automatic or fully automatic CNC-machines, fixed, variable and multi-radii machines up to 16 CNC-axis.

“Top-quality, Know-how, High-tech and professional service are our keys to success.”

Options

- **Bending options**
  - Hydraulic pressure die assist with adjustable speed (*)
  - Booster system for radii till 1D (**) (*) Optional only in DH and CNC models
  - (**) Available options for all models

- **Other options**
  - Automatic mandrel lubrication
  - Split die system (square/rectangular/others)
  - Machine useful length increments (1m)

Software

- Programs archive
- Tool editor
- Tube editor
- Anti-collision
- 3D view
- Error alarms
- Troubleshooting
- Counters (time/units)
- Remote assistance
- Spring back compensation
- “.step” and “.dxf” files import

Solutions

Integrated Bending Solutions, our machines are ready to be easily attached to automatic loading & unloading systems, welding detection, punching, cutting, end-forming, among others.

Services

- Online Assistance
- Software updates
- Maintenance
- Guarantee Extension
- On-line consults
- Engineering
- Prototypes

All data stated in this brochure are indicative and are subject to changes without previous notice.
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