JS RAGOS

Sheet-metal forming equipment




# Product Catalogue

Press brakes · Panel benders · V-grooving machines · Robotic bending cells

6 series | 80 models | 25–400 ton press brakes

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# Manufacturing sheet-metal forming equipment in Rugao

JS Ragos manufactures press brakes, panel benders, V-grooving machines and bending automation from Rugao, Nantong, Jiangsu Province, China. This catalogue collects the current series, their standard specifications and the configuration decisions that shape a machine order.



Rugao, Nantong, Jiangsu Province, China

MANUFACTURER
**Jiangsu RAGOS Intelligent Equipment Co., Ltd.**

ESTABLISHED
**2011**

LOCATION
**Rugao, Nantong, Jiangsu, China**

MODELS IN THIS CATALOGUE
**6 series, 80 models**

PRESS BRAKE RANGE
**25–400 ton; 800–6100 mm**

CONTROLLER CHOICES
**Availability and compatibility depend on the series**

Our range brings together hydraulic and all-electric press brakes, CNC panel benders, V-grooving machines and robotic bending cells. Compare the drive, motion and working dimensions against your parts.

Send a drawing or describe the work you plan to produce. We can discuss the machine, tooling and handling requirements together, then define the configuration in your quotation.

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# Established models. Batch production.

Established machine designs, batch production and component purchasing support cost control and repeat-order planning. Match the selected model and quoted configuration to the parts you plan to produce.

01 **Established machine designs**
Mature models give repeat orders a consistent starting point for discussing capacity, tooling and configuration.

02 **Batch production**
Ongoing production and component purchasing support cost control across the product range.

03 **Compare the configuration**
Review the controller, clamping, tooling, backgauge and handling equipment together. Confirm which items the quotation includes.

04 **Agree the acceptance method**
Define representative parts, material, tooling and measurements for any trial or acceptance visit.

05 **Plan the installation**
Confirm machine dimensions, access, handling, electrical supply and site requirements before delivery.

For repeat orders, identify the existing model and configuration so that any differences can be discussed before confirmation.

# Contents

Find the series, compare the key parameters and explore the configuration choices. Each product section links to the complete online specifications.


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# Choosing a series

Start with the operation and part geometry, then compare the drive, rated force and working dimensions. Press brakes, panel benders and V-grooving machines serve different steps in a sheet-metal workflow.

| Series | Drive and motion | Range | Choose it when |
|---|---|---|---|
| **MG** | Up-stroking hydraulic: the lower worktable moves up while the upper beam stays fixed | 35–100 ton, 1200–3100 mm | Part shape or handling suits a fixed upper beam and a lifting lower table |
| **NG** | All-electric servo: paired ball-screw drives with linear-scale feedback | 25–100 ton, 800–3000 mm | A servo drive fits the parts and the workshop, and an all-electric machine is preferred |
| **HG** | Electro-hydraulic: the upper beam (ram) moves | 35–400 ton, 1200–6000 mm | The general-purpose electro-hydraulic series fits the part range |
| **HM** | Electro-hydraulic: moving upper beam with dual-motor ratings | 80–320 ton, 2500–6100 mm | The working length, clearances and motor configuration suit the part and workshop |
| **AG / AGP** | CNC panel bender: suction-cup handling (AG) or clamping-arm handling (AGP) | 1000–2500 mm | Closed, four-sided flanges and box parts on thin sheet |
| **NVA** | Hydraulic CNC V-grooving | 1600–6200 mm | Visible folded parts require a groove before bending, with an agreed remaining section |

Ranges above are the published series ranges. Read the exact model values in the parameter tables that follow; a dash marks a value that is not published and Not applicable marks a field that does not apply.




MG SERIES · 5 MODELS

# MG Series

## UP-STROKING HYDRAULIC PRESS BRAKES

The MG series carries the die upward on the moving lower worktable while the upper beam stays fixed. Five models cover 35 to 100 ton and 1200 to 3100 mm. All five share a 390 mm daylight opening and a 100 mm worktable stroke.

### Up-stroking motion
The lower worktable carries the die upward while the upper beam remains fixed. The Y-axis stroke in the tables is the stroke of the moving lower worktable.

### RAGOS own control
Bending programs and job setup are held in the control interface so routine tasks can be prepared and recalled.

### Manual upper-tool clamping
Handles lock the upper tools; clamping positions follow the part shape and any interference.

### CNC backgauge
Positioning is set to the bending sequence; axis stroke and support arrangement are confirmed against the specific model.

Confirm the tooling, workpiece clearance and handling arrangement for your parts.

MG SERIES · SELECTION PARAMETERS

# MG — all 5 models

| Model | MG-1003 | MG-8025 | MG-6020 | MG-5016 | MG-3512 |
|---|---|---|---|---|---|
| Force (ton) | 100 ton | 80 ton | 60 ton | 50 ton | 35 ton |
| Length (mm) | 3100 mm | 2500 mm | 2000 mm | 1600 mm | 1200 mm |
| Frame gap (mm) | 2550 mm | 2090 mm | 1700 mm | 1220 mm | 1020 mm |
| Throat (mm) | 405 mm | 405 mm | 405 mm | 405 mm | 300 mm |
| Stroke (mm) | 100 mm | 100 mm | 100 mm | 100 mm | 100 mm |
| Daylight (mm) | 390 mm | 390 mm | 390 mm | 390 mm | 390 mm |
| Motor (kW) | 7.5 kW | 7.5 kW | 5.5 kW | 4.0 kW | 3.0 kW |
| Machine L (mm) | 3130 mm | 2650 mm | 2720 mm | 2210 mm | 1910 mm |
| Machine W (mm) | 1450 mm | 1350 mm | 1510 mm | 1510 mm | 1510 mm |
| Machine H (mm) | 2480 mm | 2320 mm | 2400 mm | 2270 mm | 2270 mm |
| Weight (kg) | 6600 kg | 4300 kg | 3500 kg | 2800 kg | 2200 kg |
| Cylinders | 3 pcs | 3 pcs | 3 pcs | 1 pcs | 1 pcs |
| Oil tank | 72 L | 55 L | 45 L | 40 L | 33 L |




NG SERIES · 6 MODELS

# NG Series

ALL-ELECTRIC SERVO PRESS BRAKES

The NG series is all-electric. Paired ball-screw drives with linear-scale position feedback coordinate both sides. Six models cover 25 to 100 ton and 800 to 3000 mm. Hydraulic cylinder count and oil tank capacity are not applicable to this series.

### Paired ball-screw drives
Two drives coordinate both sides of the ram, with linear-scale position feedback.

### Ram and backgauge data
Ram raising/lowering speed, bending speed, backgauge travel and axis configuration are listed per model.

### Electrical requirements
Power supply capacity and total power are listed per model; verify against the site supply before order.

### Match the machine to the part
Agree the tooling, target angle and sample-check method for the parts you plan to make.

Confirm the electrical supply and the axis configuration for the selected model in the quotation.

# Servo drive. Controlled positioning.

Review the ram drive, backgauge and electrical requirements together for the selected NG model.




NG-6020 all-electric servo press brake

## Paired ball-screw drives

Servo drives coordinate the two sides of the ram, with linear-scale position feedback.

## All-electric motion

The ram is driven by servo motors and mechanical transmission without a hydraulic circuit.

## Backgauge and axes

Compare axis configuration and positioning travel in the full model specifications. Confirm the controlled motions in the quotation.

## Electrical installation

Confirm supply voltage, phase, frequency, connection and protection requirements for the quoted machine. Motor power and supply capacity are different quantities.

Agree the tooling, target angle and sample-check method against your parts.

NG SERIES · SELECTION PARAMETERS

# NG — all 6 models

| Model | NG-1003 | NG-8025 | NG-6020 | NG-4015 | NG-3512 | NG-2508 |
|---|---|---|---|---|---|---|
| Force (ton) | 100 ton | 80 ton | 60 ton | 40 ton | 35 ton | 25 ton |
| Length (mm) | 3000 mm | 2500 mm | 2000 mm | 1500 mm | 1200 mm | 800 mm |
| Frame gap (mm) | 2870 mm | 2190 mm | 1930 mm | 1430 mm | 1130 mm | 750 mm |
| Throat (mm) | 400 mm | 400 mm | 400 mm | 400 mm | 400 mm | 400 mm |
| Stroke (mm) | 200 mm | 150 mm | 150 mm | 150 mm | 150 mm | 150 mm |
| Daylight (mm) | 500 mm | 420 mm | 420 mm | 420 mm | 420 mm | 420 mm |
| Motor (kW) | 22 × 2 kW | 20 × 2 kW | 15 × 2 kW | 11 × 2 kW | 7.5 × 2 kW | 11 kW |
| Machine L (mm) | 3730 mm | 3230 mm | 2720 mm | 2210 mm | 1910 mm | 1510 mm |
| Machine W (mm) | 1810 mm | 1710 mm | 1510 mm | 1510 mm | 1510 mm | 1210 mm |
| Machine H (mm) | 2550 mm | 2500 mm | 2400 mm | 2270 mm | 2270 mm | 2270 mm |
| Weight (kg) | 8200 kg | 7200 kg | 5000 kg | 3500 kg | 3000 kg | 2000 kg |
| Axis config | 6+1 axes | 6+1 axes | 6 axes | 6 axes | 4 axes | 3 axes |
| Supply | 60 kVA | 52 kVA | 34.5 kVA | 29.5 kVA | 20.75 kVA | 14.25 kVA |
| Cylinders | Not applicable | Not applicable | Not applicable | Not applicable | Not applicable | Not applicable |
| Oil tank | Not applicable | Not applicable | Not applicable | Not applicable | Not applicable | Not applicable |




HG SERIES · 31 MODELS

# HG Series

ELECTRO-HYDRAULIC PRESS BRAKES

The HG electro-hydraulic series uses a moving upper beam. Thirty-one models cover 35 to 400 ton and 1200 to 6000 mm. Compare the key specifications on the following pages.

### Electro-hydraulic drive
Hydraulic drive with an electric control of the ram position.

### Operating speeds
Compare approach, bending and return speeds in the complete online model data; each describes a different part of the cycle.

### Frame and throat
Check the distance between frames and throat depth against the part envelope in the full specifications.

### Installation planning
Review machine dimensions and weight in the full model data, then confirm access and installation requirements.

For the smaller models, start with the force and working length; for the larger frames, check transport dimensions early.

HG SERIES · SELECTION PARAMETERS

# HG — models 1–15 of 31

For the smaller models, start with the force and working length; for the larger frames, check transport dimensions early.

## CORE PARAMETERS

| Model | Force (ton) | Bend length (mm) | Stroke (mm) | Daylight (mm) | Motor (kW) |
|---|---|---|---|---|---|
| **HG-35-1200** | 35 ton | 1200 mm | 160 mm | 450 mm | 4 kW |
| **HG-50-1600** | 50 ton | 1600 mm | 160 mm | 450 mm | 5.5 kW |
| **HG-60-2000** | 60 ton | 2000 mm | 160 mm | 450 mm | 7.5 kW |
| **HG-80-2500** | 80 ton | 2500 mm | 160 mm | 450 mm | 7.5 kW |
| **HG-110-2500** | 110 ton | 2500 mm | 200 mm | 500 mm | 9.7 kW |
| **HG-110-3200** | 110 ton | 3200 mm | 200 mm | 500 mm | 9.7 kW |
| **HG-110-4000** | 110 ton | 4000 mm | 200 mm | 500 mm | 10.2 kW |
| **HG-130-2500** | 130 ton | 2500 mm | 200 mm | 500 mm | 10.2 kW |
| **HG-130-3200** | 130 ton | 3200 mm | 200 mm | 500 mm | 10.2 kW |
| **HG-130-4000** | 130 ton | 4000 mm | 200 mm | 500 mm | 10.2 kW |
| **HG-130-5000** | 130 ton | 5000 mm | 200 mm | 500 mm | 15.2 kW |
| **HG-170-3200** | 170 ton | 3200 mm | 200 mm | 500 mm | 10.2 kW |
| **HG-170-4000** | 170 ton | 4000 mm | 200 mm | 500 mm | 15.2 kW |
| **HG-170-5000** | 170 ton | 5000 mm | 200 mm | 500 mm | 15.2 kW |
| **HG-170-6000** | 170 ton | 6000 mm | 200 mm | 500 mm | 18.5 kW |

## DIMENSIONS AND WEIGHT

| Model | Frame gap (mm) | Throat (mm) | Machine L (mm) | Machine W (mm) | Machine H (mm) | Weight (kg) |
|---|---|---|---|---|---|---|
| **HG-35-1200** | 1000 mm | 300 mm | 1800 mm | 1255 mm | 2400 mm | 3000 kg |
| **HG-50-1600** | 1260 mm | 300 mm | 2100 mm | 1355 mm | 2400 mm | 4000 kg |
| **HG-60-2000** | 1600 mm | 400 mm | 2235 + 415 mm | 1600 mm | 2370 mm | 4600 kg |
| **HG-80-2500** | 2000 mm | 400 mm | 2680 + 370 mm | 1930 mm | 2500 mm | 5500 kg |
| **HG-110-2500** | 2000 mm | 400 mm | 2690 + 380 mm | 1930 mm | 2540 mm | 6500 kg |
| **HG-110-3200** | 2700 mm | 400 mm | 3390 + 380 mm | 1910 mm | 2540 mm | 7200 kg |
| **HG-110-4000** | 3500 mm | 400 mm | 4190 + 380 mm | 1910 mm | 2585 mm | 8500 kg |
| **HG-130-2500** | 2000 mm | 400 mm | 2690 + 380 mm | 1920 mm | 2540 mm | 6600 kg |
| **HG-130-3200** | 2700 mm | 400 mm | 3390 + 380 mm | 1920 mm | 2545 mm | 7300 kg |
| **HG-130-4000** | 3500 mm | 400 mm | 4190 + 380 mm | 1920 mm | 2595 mm | 8550 kg |
| **HG-130-5000** | 4100 mm | 400 mm | 4990 + 380 mm | 1920 mm | 2695 mm | 13000 kg |
| **HG-170-3200** | 2700 mm | 400 mm | 3400 + 390 mm | 1940 mm | 2720 mm | 9000 kg |
| **HG-170-4000** | 3300 mm | 400 mm | 4200 + 390 mm | 1940 mm | 2720 mm | 10500 kg |
| **HG-170-5000** | 4100 mm | 400 mm | 5000 + 390 mm | 1940 mm | 2820 mm | 15000 kg |
| **HG-170-6000** | 5000 mm | 400 mm | 5900 + 390 mm | 1940 mm | 2870 mm | 17000 kg |

# HG — models 16–31 of 31

## CORE PARAMETERS

| Model | Force (ton) | Bend length (mm) | Stroke (mm) | Daylight (mm) | Motor (kW) |
|---|---|---|---|---|---|
| **HG-220-3200** | 220 ton | 3200 mm | 200 mm | 500 mm | 15.2 kW |
| **HG-220-4000** | 220 ton | 4000 mm | 200 mm | 500 mm | 18.5 kW |
| **HG-220-5000** | 220 ton | 5000 mm | 200 mm | 500 mm | 18.5 kW |
| **HG-220-6000** | 220 ton | 6000 mm | 200 mm | 500 mm | 22 kW |
| **HG-250-3200** | 250 ton | 3200 mm | 250 mm | 550 mm | 18.5 kW |
| **HG-250-4000** | 250 ton | 4000 mm | 250 mm | 550 mm | 18.5 kW |
| **HG-250-5000** | 250 ton | 5000 mm | 250 mm | 550 mm | 18.5 kW |
| **HG-250-6000** | 250 ton | 6000 mm | 250 mm | 550 mm | 22 kW |
| **HG-320-3200** | 320 ton | 3200 mm | 300 mm | 600 mm | 22 kW |
| **HG-320-4000** | 320 ton | 4000 mm | 300 mm | 600 mm | 22 kW |
| **HG-320-5000** | 320 ton | 5000 mm | 300 mm | 600 mm | 22 kW |
| **HG-320-6000** | 320 ton | 6000 mm | 300 mm | 600 mm | 22 kW |
| **HG-400-3200** | 400 ton | 3200 mm | 300 mm | 600 mm | 30 kW |
| **HG-400-4000** | 400 ton | 4000 mm | 300 mm | 600 mm | 30 kW |
| **HG-400-5000** | 400 ton | 5000 mm | 300 mm | 600 mm | 30 kW |
| **HG-400-6000** | 400 ton | 6000 mm | 300 mm | 600 mm | 30 kW |

## DIMENSIONS AND WEIGHT

| Model | Frame gap (mm) | Throat (mm) | Machine L (mm) | Machine W (mm) | Machine H (mm) | Weight (kg) |
|---|---|---|---|---|---|---|
| **HG-220-3200** | 2700 mm | 400 mm | 3410 + 400 mm | 2020 mm | 2785 mm | 10700 kg |
| **HG-220-4000** | 3500 mm | 400 mm | 4210 + 400 mm | 2030 mm | 2785 mm | 12000 kg |
| **HG-220-5000** | 4100 mm | 400 mm | 5010 + 400 mm | 2200 mm | 2880 mm | 18000 kg |
| **HG-220-6000** | 5000 mm | 400 mm | 5910 + 400 mm | 2250 mm | 3330 mm | 22000 kg |
| **HG-250-3200** | 2700 mm | 400 mm | 3420 + 435 mm | 2080 mm | 3060 mm | 12500 kg |
| **HG-250-4000** | 3500 mm | 400 mm | 4220 + 435 mm | 2085 mm | 3060 mm | 14500 kg |
| **HG-250-5000** | 4100 mm | 400 mm | 5020 + 390 mm | 2200 mm | 3300 mm | 20000 kg |
| **HG-250-6000** | 5000 mm | 400 mm | 5980 + 430 mm | 2240 mm | 3400 mm | 26000 kg |
| **HG-320-3200** | 2700 mm | 400 mm | 3450 + 405 mm | 2400 mm | 3220 mm | 15700 kg |
| **HG-320-4000** | 3500 mm | 400 mm | 4250 + 405 mm | 2400 mm | 3270 mm | 18000 kg |
| **HG-320-5000** | 4100 mm | 400 mm | 5060 + 390 mm | 2460 mm | 3610 mm | 23500 kg |
| **HG-320-6000** | 5000 mm | 400 mm | 5980 + 430 mm | 2470 mm | 3800 mm | 27500 kg |
| **HG-400-3200** | 2700 mm | 450 mm | 3800 mm | 2400 mm | 3500 mm | 21000 kg |
| **HG-400-4000** | 3500 mm | 450 mm | 4600 mm | 2400 mm | 3700 mm | 22000 kg |
| **HG-400-5000** | 4100 mm | 450 mm | 5600 mm | 2400 mm | 3950 mm | 25900 kg |
| **HG-400-6000** | 5000 mm | 450 mm | 6600 mm | 2400 mm | 4200 mm | 31500 kg |




HM SERIES · 28 MODELS

# HM Series

ELECTRO-HYDRAULIC PRESS BRAKES, DUAL MOTOR

The HM electro-hydraulic series includes 28 models with dual-motor ratings, from 80 to 320 ton and 2500 to 6100 mm. Compare rated force, working length, daylight, stroke and motor power on the following pages.

### Larger worktables
Worktable lengths from 2500 mm to 6100 mm for long parts.

### Dual-motor rating
Main motor power is listed in the dual rating used by the source, e.g. 5.5 × 2 kW.

### Machine footprint
Check overall dimensions and any additional base projection in the full model specifications.

### Operating speeds
Use the complete online data to compare approach, bending and return speeds for the selected model.

For the longest frames, confirm the transport and installation route before order.

HM SERIES · SELECTION PARAMETERS

# HM — models 1–14 of 28

For the longest frames, confirm the transport and installation route before order.

## CORE PARAMETERS

| Model | Force (ton) | Bend length (mm) | Stroke (mm) | Daylight (mm) | Motor (kW) |
|---|---|---|---|---|---|
| **HM-80-2500** | 80 ton | 2500 mm | 200 mm | 450 mm | 5.5 × 2 kW |
| **HM-110-2500** | 110 ton | 2500 mm | 200 mm | 500 mm | 5.5 × 2 kW |
| **HM-110-3200** | 110 ton | 3200 mm | 200 mm | 500 mm | 5.5 × 2 kW |
| **HM-110-4100** | 110 ton | 4100 mm | 200 mm | 500 mm | 5.5 × 2 kW |
| **HM-130-2500** | 130 ton | 2500 mm | 200 mm | 500 mm | 7.5 × 2 kW |
| **HM-130-3200** | 130 ton | 3200 mm | 200 mm | 500 mm | 7.5 × 2 kW |
| **HM-130-4100** | 130 ton | 4100 mm | 200 mm | 500 mm | 7.5 × 2 kW |
| **HM-130-5100** | 130 ton | 5100 mm | 200 mm | 500 mm | 7.5 × 2 kW |
| **HM-130-6100** | 130 ton | 6100 mm | 200 mm | 500 mm | 7.5 × 2 kW |
| **HM-170-2500** | 170 ton | 2500 mm | 200 mm | 500 mm | 7.5 × 2 kW |
| **HM-170-3200** | 170 ton | 3200 mm | 200 mm | 500 mm | 7.5 × 2 kW |
| **HM-170-4100** | 170 ton | 4100 mm | 200 mm | 500 mm | 7.5 × 2 kW |
| **HM-170-5100** | 170 ton | 5100 mm | 200 mm | 500 mm | 7.5 × 2 kW |
| **HM-170-6100** | 170 ton | 6100 mm | 200 mm | 500 mm | 7.5 × 2 kW |

## DIMENSIONS AND WEIGHT

| Model | Frame gap (mm) | Throat (mm) | Machine L (mm) | Machine W (mm) | Machine H (mm) | Weight (kg) |
|---|---|---|---|---|---|---|
| **HM-80-2500** | 2000 mm | 400 mm | 2680 + 370 mm | 1950 mm | 2500 mm | 6000 kg |
| **HM-110-2500** | 2000 mm | 400 mm | 2690 + 380 mm | 1950 mm | 2540 mm | 7200 kg |
| **HM-110-3200** | 2700 mm | 400 mm | 3390 + 380 mm | 2000 mm | 2540 mm | 8000 kg |
| **HM-110-4100** | 3500 mm | 400 mm | 4190 + 380 mm | 2000 mm | 2585 mm | 9000 kg |
| **HM-130-2500** | 2000 mm | 400 mm | 2690 + 380 mm | 2020 mm | 2540 mm | 8000 kg |
| **HM-130-3200** | 2700 mm | 400 mm | 3390 + 380 mm | 2020 mm | 2540 mm | 9000 kg |
| **HM-130-4100** | 3500 mm | 400 mm | 4190 + 380 mm | 2020 mm | 2595 mm | 10000 kg |
| **HM-130-5100** | 4100 mm | 400 mm | 4990 + 380 mm | 2020 mm | 2695 mm | 11500 kg |
| **HM-130-6100** | 5000 mm | 400 mm | 5890 + 380 mm | 2020 mm | 2745 mm | 15000 kg |
| **HM-170-2500** | 2000 mm | 400 mm | 2710 + 390 mm | 2030 mm | 2720 mm | 8500 kg |
| **HM-170-3200** | 2700 mm | 400 mm | 3410 + 390 mm | 2030 mm | 2720 mm | 9800 kg |
| **HM-170-4100** | 3500 mm | 400 mm | 4210 + 390 mm | 2030 mm | 2720 mm | 12000 kg |
| **HM-170-5100** | 4100 mm | 400 mm | 5010 + 390 mm | 2030 mm | 2820 mm | 14000 kg |
| **HM-170-6100** | 5000 mm | 400 mm | 5900 + 390 mm | 2030 mm | 2870 mm | 17000 kg |

# HM — models 15–28 of 28

## CORE PARAMETERS

| Model | Force (ton) | Bend length (mm) | Stroke (mm) | Daylight (mm) | Motor (kW) |
|---|---|---|---|---|---|
| **HM-220-2500** | 220 ton | 2500 mm | 200 mm | 500 mm | 7.6 × 2 kW |
| **HM-220-3200** | 220 ton | 3200 mm | 200 mm | 500 mm | 7.6 × 2 kW |
| **HM-220-4100** | 220 ton | 4100 mm | 200 mm | 500 mm | 7.6 × 2 kW |
| **HM-220-5100** | 220 ton | 5100 mm | 200 mm | 500 mm | 7.6 × 2 kW |
| **HM-220-6100** | 220 ton | 6100 mm | 200 mm | 500 mm | 7.6 × 2 kW |
| **HM-250-2500** | 250 ton | 2500 mm | 250 mm | 550 mm | 7.6 × 2 kW |
| **HM-250-3200** | 250 ton | 3200 mm | 250 mm | 550 mm | 7.6 × 2 kW |
| **HM-250-4100** | 250 ton | 4100 mm | 250 mm | 550 mm | 7.6 × 2 kW |
| **HM-250-5100** | 250 ton | 5100 mm | 250 mm | 550 mm | 7.6 × 2 kW |
| **HM-250-6100** | 250 ton | 6100 mm | 250 mm | 550 mm | 7.6 × 2 kW |
| **HM-320-3200** | 320 ton | 3200 mm | 300 mm | 600 mm | 11.5 × 2 kW |
| **HM-320-4100** | 320 ton | 4100 mm | 300 mm | 600 mm | 11.5 × 2 kW |
| **HM-320-5100** | 320 ton | 5100 mm | 300 mm | 600 mm | 11.5 × 2 kW |
| **HM-320-6100** | 320 ton | 6100 mm | 300 mm | 600 mm | 11.5 × 2 kW |

## DIMENSIONS AND WEIGHT

| Model | Frame gap (mm) | Throat (mm) | Machine L (mm) | Machine W (mm) | Machine H (mm) | Weight (kg) |
|---|---|---|---|---|---|---|
| **HM-220-2500** | 2000 mm | 400 mm | 2710 + 400 mm | 2120 mm | 2780 mm | 9700 kg |
| **HM-220-3200** | 2700 mm | 400 mm | 3410 + 400 mm | 2120 mm | 2780 mm | 12000 kg |
| **HM-220-4100** | 3500 mm | 400 mm | 4210 + 400 mm | 2120 mm | 2780 mm | 14500 kg |
| **HM-220-5100** | 4100 mm | 400 mm | 5010 + 400 mm | 2120 mm | 2880 mm | 17500 kg |
| **HM-220-6100** | 5000 mm | 400 mm | 5910 + 400 mm | 2120 mm | 2980 mm | 21000 kg |
| **HM-250-2500** | 2000 mm | 400 mm | 2715 + 595 mm | 2200 mm | 3060 mm | 12000 kg |
| **HM-250-3200** | 2700 mm | 400 mm | 3415 + 595 mm | 2200 mm | 3060 mm | 15000 kg |
| **HM-250-4100** | 3500 mm | 400 mm | 4215 + 595 mm | 2200 mm | 3060 mm | 17500 kg |
| **HM-250-5100** | 4100 mm | 400 mm | 5020 + 390 mm | 2200 mm | 3300 mm | 21000 kg |
| **HM-250-6100** | 5000 mm | 400 mm | 5980 + 430 mm | 2200 mm | 3400 mm | 26000 kg |
| **HM-320-3200** | 2700 mm | 400 mm | 3460 + 550 mm | 2400 mm | 3265 mm | 22500 kg |
| **HM-320-4100** | 3500 mm | 400 mm | 4260 + 550 mm | 2400 mm | 3265 mm | 26000 kg |
| **HM-320-5100** | 4100 mm | 400 mm | 5060 + 390 mm | 2400 mm | 3500 mm | 30000 kg |
| **HM-320-6100** | 5000 mm | 400 mm | 5980 + 430 mm | 2400 mm | 3700 mm | 35000 kg |

PANEL BENDERS · 5 MODELS

# AG / AGP Series

## CNC PANEL BENDERS

The AG and AGP panel benders form closed flanges on thin sheet. AG models handle the workpiece with suction cups; AGP models use a clamping arm. Five models cover bending lengths from 1000 to 2500 mm and all use the SL300-PD CNC system.




AG-1000 — suction-cup handling




AGP-2000 — clamping-arm handling

### Suction-cup handling (AG)
AG-1000 and AG-1500 handle the workpiece with suction cups.

### Clamping-arm handling (AGP)
AGP-1500, AGP-2000 and AGP-2500 handle the workpiece with a clamping arm.

### Cast iron frame
A cast iron frame forms the machine foundation; frame stiffness supports the positioning of the bending mechanisms under load.

### Sheet thickness limits
Listed maximum thickness: 3.0 mm aluminium, 2.0 mm cold-rolled sheet, 1.2 mm stainless steel.

### Four-sided forming
Minimum internal dimensions for four-sided and two-sided forming are listed per model.

### Axis configuration
Axis configurations vary by model. Confirm the included axes and any additional-axis options in the quotation.

### Part geometry
Check bend height, internal dimensions, tool access and the turning sequence against the complete drawing.

### Typical applications
Doors, electrical cabinets, kitchen equipment, furniture and refrigerator doors.

Panel bending suits closed, four-sided flanges on thin sheet; check the minimum internal dimensions against the part.

AG / AGP SERIES · SELECTION PARAMETERS

# AG / AGP — all 5 models

| Model | AG-1000 | AG-1500 | AGP-1500 | AGP-2000 | AGP-2500 |
|---|---|---|---|---|---|
| Handling | Suction-cup type | Suction-cup type | Clamping-arm type | Clamping-arm type | Clamping-arm type |
| Bending length | 1000 mm | 1500 mm | 1500 mm | 2000 mm | 2500 mm |
| Sheet length | 1100 mm | 1600 mm | 1600 mm | 2100 mm | 2600 mm |
| Sheet width | 1000 mm | 1250 mm | 1250 mm | 1250 mm | 1250 mm |
| Bending height | 170 mm | 170 mm | 170 mm | 170 mm | 175 mm |
| Min. 4-side inside | 350 × 150 mm | 350 × 150 mm | 360 × 180 mm | 360 × 180 mm | 360 × 180 mm |
| Min. arc radius | 1.2 mm | 1.2 mm | 1.2 mm | 1.2 mm | 1.2 mm |
| Fastest bend | 0.5 s/bend | 0.5 s/bend | 0.5 s/bend | 0.5 s/bend | 0.5 s/bend |
| Angle | 0–360° | 0–360° | 0–360° | 0–360° | 0–360° |
| Al max | 3.0 mm | 3.0 mm | 3.0 mm | 3.0 mm | 3.0 mm |
| CR max | 2.0 mm | 2.0 mm | 2.0 mm | 2.0 mm | 2.0 mm |
| SS max | 1.2 mm | 1.2 mm | 1.2 mm | 1.2 mm | 1.2 mm |
| CNC system | SL300-PD | SL300-PD | SL300-PD | SL300-PD | SL300-PD |
| Axes | 8 axes standard | 11 axes standard | 12 axes standard / 14 axes optional | 13 axes standard / 14 axes optional | 13 axes standard |
| Total power | 23.95 kW | 31.3 kW | 31.05 / 31.85 kW | 44.65 / 45.05 kW | 47 kW |

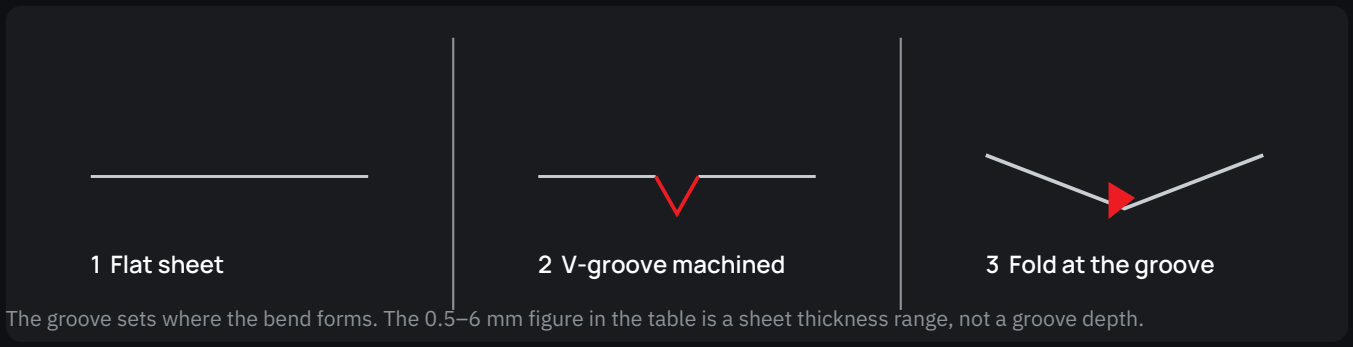
V-GROOVING · 5 MODELS

# NVA Series

## HYDRAULIC CNC V-GROOVING MACHINES

The NVA series machines a V-shaped groove along the intended bend line. Five models cover processing lengths from 1600 to 6200 mm, with a listed processing width of 10–1600 mm and a listed sheet thickness range of 0.5–6 mm.

GROOVE-BEFORE-BEND — CONCEPT DIAGRAM (NOT TO SCALE)




The groove sets where the bend forms. The 0.5–6 mm figure in the table is a sheet thickness range, not a groove depth.

### Groove before bending

Positioning and clamping hold the sheet while a V-shaped groove is machined along the intended bend; reducing the remaining thickness at that line sets where the bend forms.

### Groove layout and tooling

Confirm the groove profile, cutting route, tool arrangement and clamping layout for the selected NVA model.

### Thickness, not groove depth

The 0.5–6 mm figure is a sheet thickness range, not a groove depth. There is no universal minimum remaining thickness; it follows material and the required bend.

### Positioning resolution

Y- and Z-axis minimum resolutions of ±0.01 mm are listed; Y-axis travel 1250 mm and Z-axis travel 15 mm.

### Hydraulic clamping

Hydraulic clamping system data is listed per model, e.g. 3 kW / 8 L / 10 MPa.

### Confirm the cutting cycle

Agree cutting, return and feed speeds for the selected configuration and material.

A V-groove machine is usually specified together with the bending operation that follows it.

NVA SERIES · SELECTION PARAMETERS

# NVA — all 5 models

| Model | NVA-1600 | NVA-3200 | NVA-4200 | NVA-5200 | NVA-6200 |
|---|---|---|---|---|---|
| Processing length | 1600 mm | 3200 mm | 4200 mm | 5200 mm | 6200 mm |
| Processing width | 10–1600 mm | 10–1600 mm | 10–1600 mm | 10–1600 mm | 10–1600 mm |
| Sheet thickness | 0.5–6 mm | 0.5–6 mm | 0.5–6 mm | 0.5–6 mm | 0.5–6 mm |
| Min. edge distance | 8 mm | 8 mm | 8 mm | 8 mm | 8 mm |
| Y-axis travel | 1250 mm | 1250 mm | 1250 mm | 1250 mm | 1250 mm |
| Z-axis travel | 15 mm | 30 mm | 30 mm | 30 mm | 30 mm |
| Hydraulic system | 3 kW / 8 L / 10 MPa | 2.2 kW / 8 L / 10 MPa | 2.2 kW / 8 L / 10 MPa | 2.2 kW / 8 L / 10 MPa | 2.2 kW / 8 L / 10 MPa |
| Electrical capacity | 10.18 kVA | 13.75 kVA | 13.75 kVA | 13.75 kVA | 13.75 kVA |
| Total power | 9.1 kW | 11 kW | 11 kW | 11 kW | 11 kW |

# Reading the parameter tables

Read capacity together with working space, part geometry and the selected machine configuration.

### Capacity and working space
Check the required force and working length alongside stroke, opening height and throat depth. Confirm tool and part clearances for your application.

### “Not applicable”
Marks a field that does not apply to the design — for example cylinder count on an all-electric model.

### “—”
Marks a value that is not published for that model. Ask for it against your part.

### Units
Use the unit shown for each field. The force unit “ton” follows the source data; its convention is not specified. Request a confirmed equivalent in kN if needed.

### Model codes
Quote the complete series and model code. Use the table values rather than inferring dimensions from the model name.

### Installation and utilities
Request the full specification and installation drawing for the selected machine, including footprint, electrical supply and any air or hydraulic requirements.

Confirm final capacity, tooling, controls and utilities against the quotation and approved configuration before ordering.

# Robotic bending cells

A robotic bending cell combines a press brake with a robot, an end-of-arm gripper and positioning stations. Cell design starts with part geometry, material, batch volume and bending sequence.




Press brake with robot, gripper and positioning stations

**Press brake**
Selected for the material, part geometry and bend sequence

**Robot options**
FANUC, KUKA, ABB or Yaskawa; confirm the project configuration

**Gripper**
Designed around the part, payload and gripping surfaces

**Stations**
Re-gripping and part presentation matched to the bend sequence

**Part review**
Check reach, collisions, payload and available floor space

Review the press brake, robot, gripper and stations as one system. The same part can require different gripping positions at different steps in the bend sequence.

Share drawings, material, batch size and the proposed floor layout. Agree part presentation, re-gripping, access protection and recovery procedures for the complete cell.

# Control systems, clamping and tooling

The items below are configuration choices, not a single standard package. The control system, the clamping method and the tooling are selected together with the machine. Whether an item is standard or an option depends on the series and is fixed in the quotation.

## CONTROL SYSTEMS

### RAGOS own CNC system

Bending programs and job setup held in the control interface so routine tasks can be prepared and recalled.

### Delem controllers

Delem DA-69T, DA-60S, DA69S and DA53Tx controllers are listed as control options.

### Cybelec controllers

Cybelec CT12PS, CT15PS and VisiTouch Pac VP88 are listed as control options.

### ESA controllers

ESA S840 and S850 are listed as control options.

### Offline software

Delem Profile-S2D and S3D, and ESABEND 3D-M, prepare bending programs away from the machine.

## CLAMPING AND TOOLING

### WILA hydraulic clamping

Hydraulic upper-tool clamping option.

### Rolleri pneumatic clamping

Pneumatic upper-tool clamping option.

### Amada SGRIP mechanical clamping

Mechanical upper-tool clamping option, also listed as an Amada type clamp.

### Amada style one-touch punch holder

Amada style European one-touch press-brake punch holder.

### Crowning

Mechanical and hydraulic crowning options are listed for deflection compensation.

## BACKGAUGE, SAFETY AND DRIVE

### CNC backgauge

Positioning is set to the bending sequence; axis stroke and support arrangement follow the model.

### Safeguarding

Select protective devices and operating controls for the complete machine and its intended use; confirm the guarding and access arrangement.

### Angle measurement

Angle measurement options are listed for in-process angle control.

### Hydraulic drives

Rexroth DSVP and HAWE ePrAX hydraulic drives are listed as premium options.

### Robotic integration

Robotic integration, end-effector and loading/re-grip options are listed for cell builds.

Confirm controller compatibility, included tooling and the selected options in the machine quotation. Availability depends on the series and configuration.

# Shearing, rolling and welding

Complete the workshop with equipment for cutting blanks, forming curved parts and joining assemblies. Discuss each machine against the material, geometry and production requirements.



## Guillotine shearing machine

Straight-line cutting of sheet blanks and strips, with blade clearance and backgauge settings matched to the work.

Specify material grade, thickness, cutting length and the required edge quality.




## Four-roll plate rolling machine

Form cylindrical and curved sheet or plate components; discuss cone-forming arrangements for tapered parts.

Specify material, width, thickness, target diameter and pre-bending requirements.



## Handheld laser welding machine

A handheld welding head provides access to suitable joints and assemblies.

Confirm the laser source, output, joint requirements and protective arrangements for the quoted unit.




## Arc welding robot

A robot, welding equipment and part fixtures coordinate repeatable joint paths.

Review joint access, reach, fixturing, power source and the intended production cycle.

# Configure, quote, deliver

Bring the machine, tooling, automation and delivery requirements into one quotation. Define the scope for each stage before confirming the order.

| Step | What is decided | What we need from you |
|---|---|---|
| **1 · Model and drive** | Series and model, rated bending force, working length, stroke and daylight. | Material and grade, thickness, maximum part length, the bend geometry. |
| **2 · Configuration** | Control system and software, clamping method, tooling, crowning, backgauge axes, safety devices. | What you already own, the shop's programming habits, and the parts that are hardest to bend. |
| **3 · Automation** | Whether a robotic cell or a re-grip station is worth it for the batch pattern. | Batch size, repeat frequency, part drawings and how the part is presented today. |
| **4 · Delivery and acceptance** | Transport dimensions and route, foundation and installation, trial bending items and acceptance criteria. | Site access, power supply, the acceptance parts and the target angle and inner radius. |

Confirm the quoted configuration, site requirements, delivery arrangements, service scope and acceptance criteria together. Agree any sample trial with a specified material, tool set and measurement method.

# Preparing an enquiry

Send the details you already have. A drawing, material, thickness and working length give us a practical starting point for discussing the machine and configuration.

### Material and grade

What the sheet is: cold-rolled steel, stainless steel, aluminium, and the grade.

### Thickness

The nominal thickness, and the thickest and thinnest points you will actually bend.

### Maximum length

The longest bend line in the part family, in millimetres.

### Drawing or sketch

A part drawing or a dimensioned sketch, with the bend lines marked.

### Bend geometry

Target angle and inner radius, and how many bends per part.

### Batch size and repeat

How many parts per batch, and how often the batch repeats.

### Company and country

Company name and the country the machine will work in, for the electrical and delivery route.

### What you already have

Existing tools, controllers or software, so the configuration does not duplicate them.

You can contact us before the list is complete. If a drawing is not ready, describe the part and the operation and we will work through the rest with you.

# Explore the range. Plan the next step.

Use the product pages for the complete specifications, then send the drawing and requirements for your application.

| | | |
|---|---|---|
| 1 | Pick the operation | Press brake, panel bender or V-grooving, from the part geometry. |
| 2 | Pick the series | Compare the four press-brake series on drive and motion. |
| 3 | Pick the model | Match rated force and working length to the part family. |
| 4 | Configure | Control, clamping, tooling and automation. |
| 5 | Send the enquiry | Material, thickness, length, drawing, batch size. |

## Press brakes

- **Press brakes, four series**
- **HG series, 31 models**
- **NG series, 6 models**
- **MG series, 5 models**
- **HM series, 28 models**

## More equipment and contact

- **AG / AGP panel benders, 5 models**
- **NVA grooving machines, 5 models**
- **Robotic bending cell**
- **All products**
- **Contact and enquiry**

# Contact

Tell us the part and the operation, and we will answer with the series, the model and the configuration that fits it.

Send the part drawing or sketch, the material and thickness, the maximum bend length, and the batch size. If you already have a model in mind, send the model code and we will confirm the configuration against it.

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