# RAS FLEXIbend

## METAL FOLDING SYSTEM

| Technical Data FLEXIbend | RAS 73.30 | | RAS 73.40 | |
|---|---|---|---|---|
| Sheet Thickness max. (Mild Steel) | 3 mm | 11 ga. | 2.5 mm | 13 ga. |
| Working Length | 3200 mm | 125.9" | 4060 mm | 159.8" |
| Backgauge Depth (Standard) | 10 - 1550 mm | 0.4" - 61" | 10 - 1550 mm | 0.4" - 61" |
| Backgauge Accuracy | +/- 0.1 mm | +/- 0.004" | +/- 0.1 mm | +/- 0.004" |
| Upper Beam Open Height | 300 mm | 11.81" | 300 mm | 11.81" |
| CNC Folding Beam Adjustment | 80 mm | 3.15" | 80 mm | 3.15" |
| CNC Lower Beam Adjustment | 80 mm | 3.15" | 80 mm | 3.15" |
| Working Height | 900 mm | 35.43" | 900 mm | 35.43" |
| Machine Length | 4295 mm | 169" | 5155 mm | 203" |
| Machine Width | 2225 mm | 87.6" | 2225 mm | 87.6" |
| Machine Height | 1775 mm | 70" | 1775 mm | 70" |
| Machine Weight | 4300 kg | 9,480 lbs. | 5300 kg | 11,685 lbs. |
| Air pressure | 5 bar | 72.5 PSI | 5 bar | 72.5 PSI |
| Upper beam Motor | 4.0 kW | 5.5 hp | 4.0 kW | 5.5 hp |
| Folding Beam Motor | 4.0 kW | 5.5 hp | 4.0 kW | 5.5 hp |
| | | | | |
| **Speeds** | | | | |
| Upper Beam Speed | 40 mm/s | 1.575"/s | 40 mm/s | 1.575"/s |
| Folding Beam Speed | 90 deg/s | 90 deg/s | 90 deg/s | 90 deg/s |
| Backgauge Speed (10 – 1550 mm, 0.4" – 61") | 1.9 s | 1.9 s | 1.9 s | 1.9 s |

Modifications reserved. Pictures may show options.

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# Amazing Flexibility!

The FLEXIbend metal folding system is a study in flexibility. And flexibility is the key to providing customer solutions, and outperforming your competition in the future.

If your operation requires complex precision parts, including boxes, pans, enclosures, and panels, and you must have high levels of productivity and throughput at an affordable price, then the FLEXIbend is your system!

### Let's take a detailed look at why the FLEXIbend is so flexible

### Pictures Become Parts

You will be fascinated about the easy to use 15" large screen *Touch&More* control. With the revolutionary programming method the operator uses his finger as a pencil. He simply paints a flange and sizes it with his finger to the right dimension and angle. The *Touch&More* screen shows the finished part, simulates the folding sequence and shows whether the part can be folded or not. The CADalyzer automatically creates the program for most parts and shows the program, the finished part and the actual bend sequence all at one time.

### Nothing's impossible!

Flexibility and innovation is at the very heart of the FLEXIbend, so you can do literally anything you want to when it comes to creating unique, complex and value-added parts for your end users. For instance:
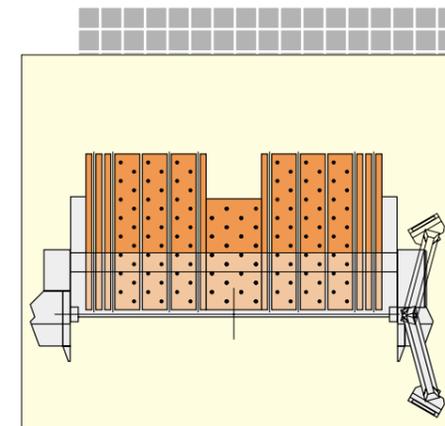
You can bend mild steel up to 3 mm (11 gauge) thick. The CNC is on a pendant, and moves easily to the back of the machine for operation from the rear. And the incredible flexible backgauge and sheet support system can be configured as "J" or "U" shape. Want to match the stop fingers to the notches on your workpiece? Done! Segmented "goat's foot" tooling allows you to create virtually any shape you wish. The lower beam tooling and folding beam tooling is also segmented, giving you the ability to accept reverse flanges.

The list of flexibility factors goes on and on. And that's why the FLEXIbend is such a remarkable system.
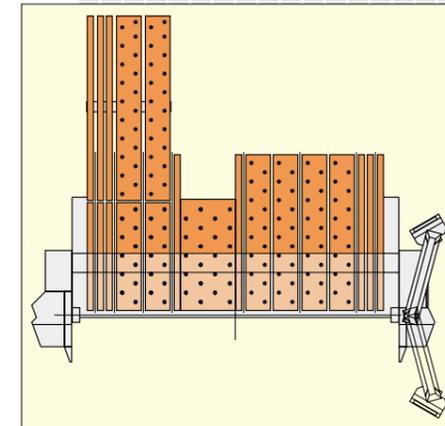
### The Integrated Backgauge And Sheet Support

The backgauge and sheet support system automatically holds, precisely positions, and offers flexible manipulation of your workpieces for maximum quality and productivity. A brushless AC servo motor drives the pop-up fingers units into position. With twin parallel guidance, the FLEXIbend backgauge reaches any dimension in under two seconds! All of the fingers drop down automatically for part rotation. And each finger unit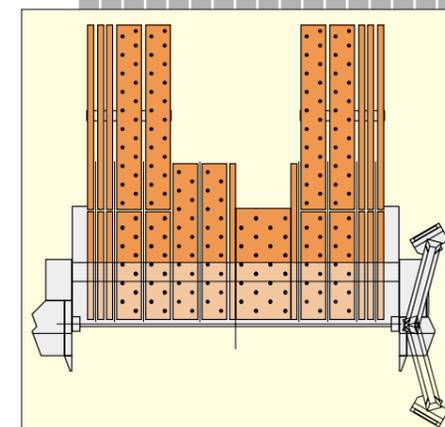 can be moved laterally on the backgauge to match up with notches for maximum accuracy. The stainless steel sheet support panels seamlessly fit into the high quality FLEXIbend design. One narrow sheet support panel allows rear operation even in standard configuration of the machine. For large parts, a "J" or "U" shape backgauge is a useful option. If parts come with flanges close to the lower tool, the sheet support can be moved backwards for additional flexibility.
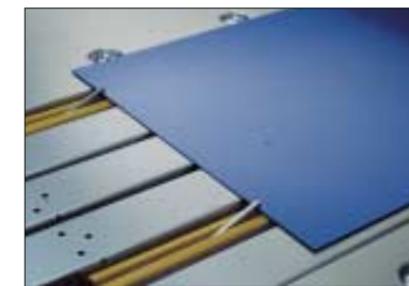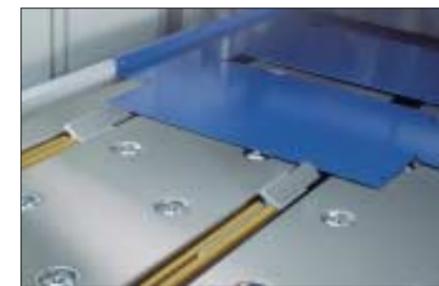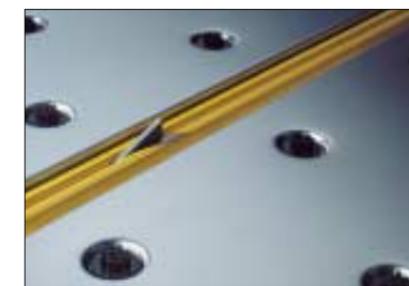

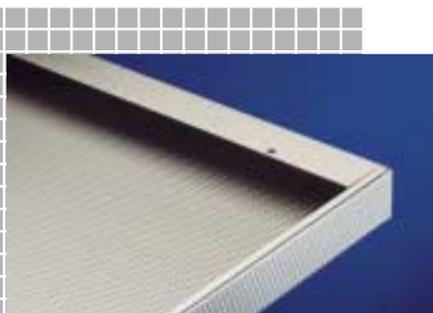*Depending on the dimension the front or rear pop-up fingers position the part*


*Ball casters (standard) or brushes (option) in the sheet support system*




*Standard backgauge*


*"J" shape backgauge left*


*"U" shape backgauge*

# Just What Makes The FLEXIbend So ... Flexible?!

**RAS**

### The Upper Clamping Beam
First, you will realize an abundance of free space in front, left and right of the beam so that you can create large wrappers with inside flanges up to 40 mm (1.575"). Equally generous free areas behind the beam also let your operators see the tools when creating large parts from the rear. The all new drive system opens the upper beam to 300 mm (11.81") and closes it at an incredible 40 mm (1.575") per second. And, the open and closed stroke position is programmable to any dimension so that you can create a virtual endless array of hems, which can make parts unique and versatile.
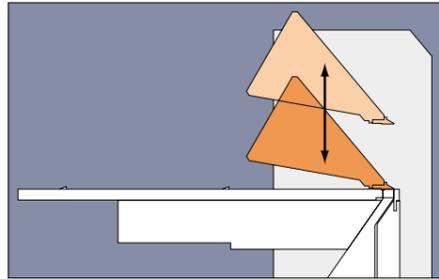

*Programmable upper beam position during clamping and unloading*

And finally, the upper beam automatically clamps the special RAS tools: Goat's foot tools for boxes and pans, sharp tools for profiles, and radius tools for special applications.
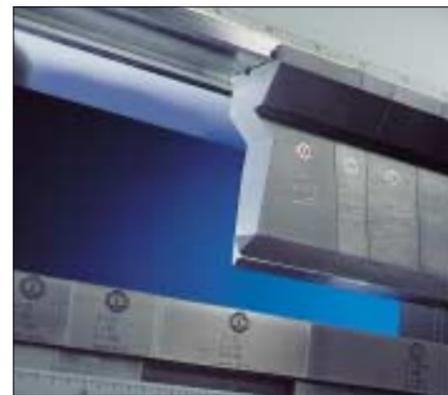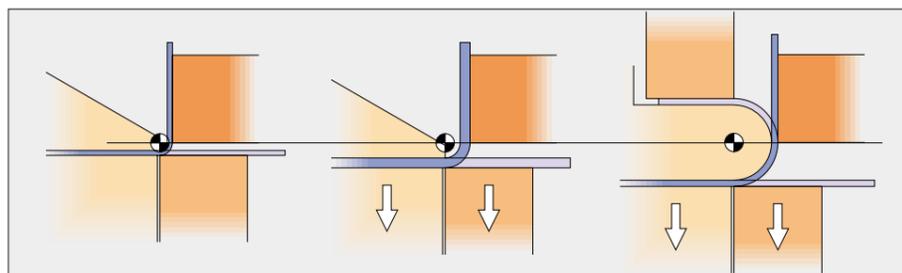

*Automatic upper beam tool clamping system*

### The Lower Beam
The lower beam, like many other RAS components, is FEA (Finite Element Analysis) designed with a deep box configuration for maximum resistance to deflection and for torsion free rigidity. This means high precision work, longer machine life, and a solid


*Segmented lower beam tooling for reverse flanges of up to 40 mm (1.575").*


*Large free space of up to 40 mm (1.575") in front of the beam*

return on your investment. Even more impressive, the lower beam automatically adjusts up to 80 mm (3.15") for changes in material thickness, giving you optimum bend radii and radius tool capabilities. What's more? The lower beam tooling is segmented and raised to 40 mm (1.575") so you can do reverse flanges for increased part flexibility.


*CNC folding beam and CNC lower beam adjustment: indispensable for perfect radii, precision parts and long machine life*
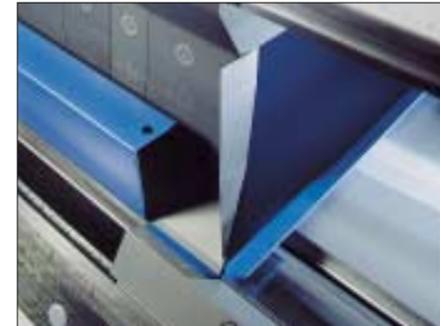

*Segmented folding beam tools for flexibility in any situation*

### The Folding Beam
The folding beam is the most critical component in metal folding. The RAS folding beam is also FEA designed, for torsion free deflection and maximum resistance. But this beam is also unique as it integrates three special features: 1) all folding beam tools are
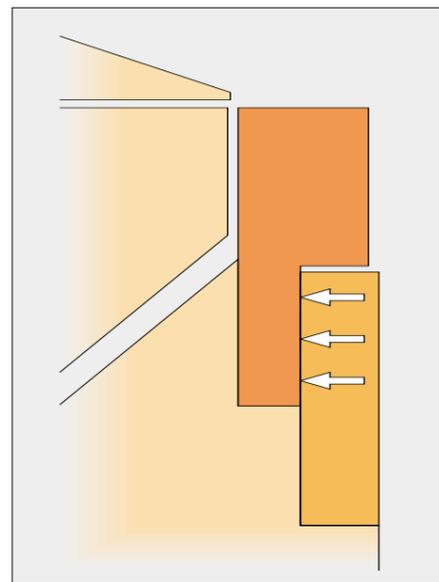

*Segmented folding beam tools e.g. for off set bend lines*


*The segmented folding beam tools are automatically clamped*

segmented, 2) a standard crowning system, and 3) automatic standard tool clamping. This means total flexibility, incredible precision and maximum productivity all in one! And, with its lightning fast 90 degree per second movement, and its automatic material thickness adjustment in less than five seconds, you have the most versatile productive combination on the market!
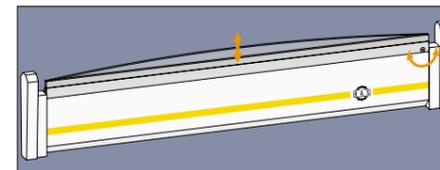

*Integrated crowning system for optimum adjustments at all material thicknesses*


*Clean and accessible stored tools: the tool carriage*

### RAS Precision Tooling
The high tensile strength and precision ground upper beam tools will snap-on and be automatically clamped in the integrated tool seat. No other tool system offers so much free space for all imaginable folding geometries. C-flanges can be as long as 62 mm (2.44"). Handy tool segments of maximum 200 mm (7.874") length make it extremely simple to change tools.

The high tensile strength folding beam tools are also segmented, and come together with the standard crowning system. There are 25 mm (0.984") wide folding beam tools available for 3 mm (11 ga) material thickness and 12 mm (0.472") tools for blanks up to 1.5 mm (16 ga). And all tools are attached automatically!

The lower beam tooling is also segmented for greater flexibility, and are made with a 40 mm (1.57") height so that reverse flanges can be accommodated, adding even more total capability to your shop's operating latitude.
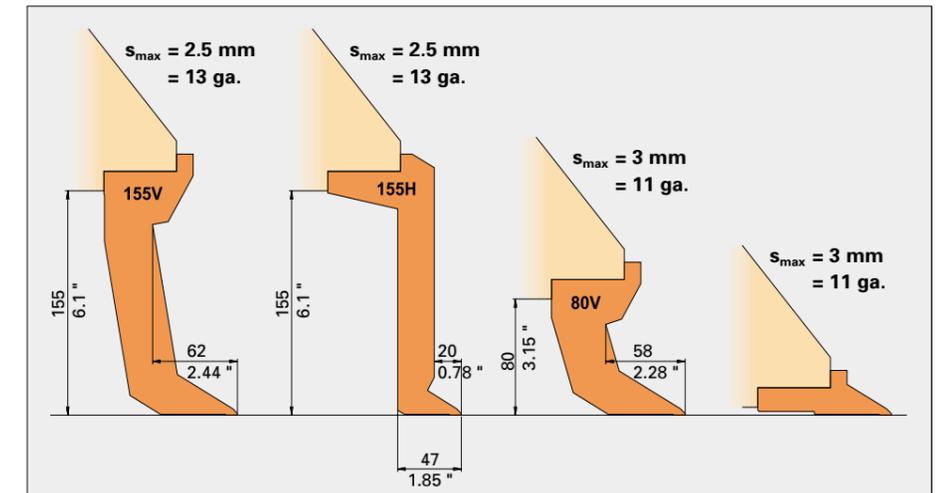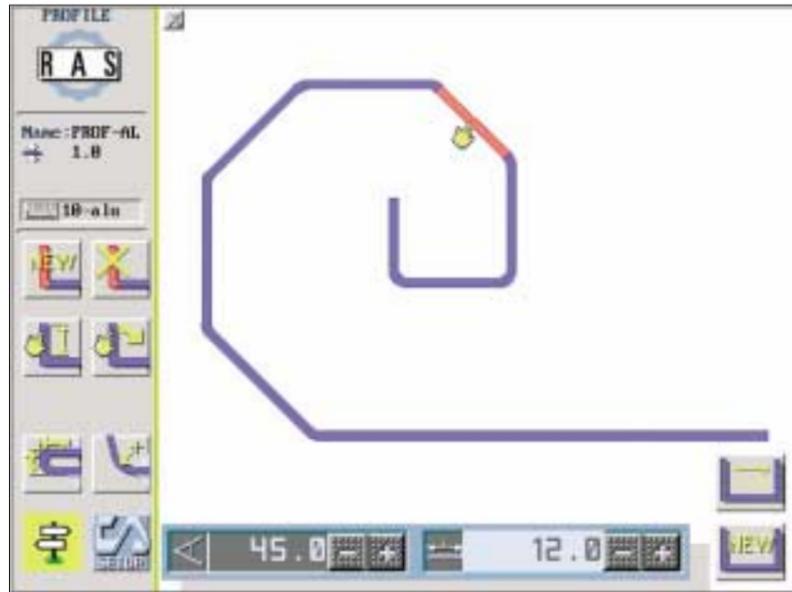

*Large free space for a flexible part design*
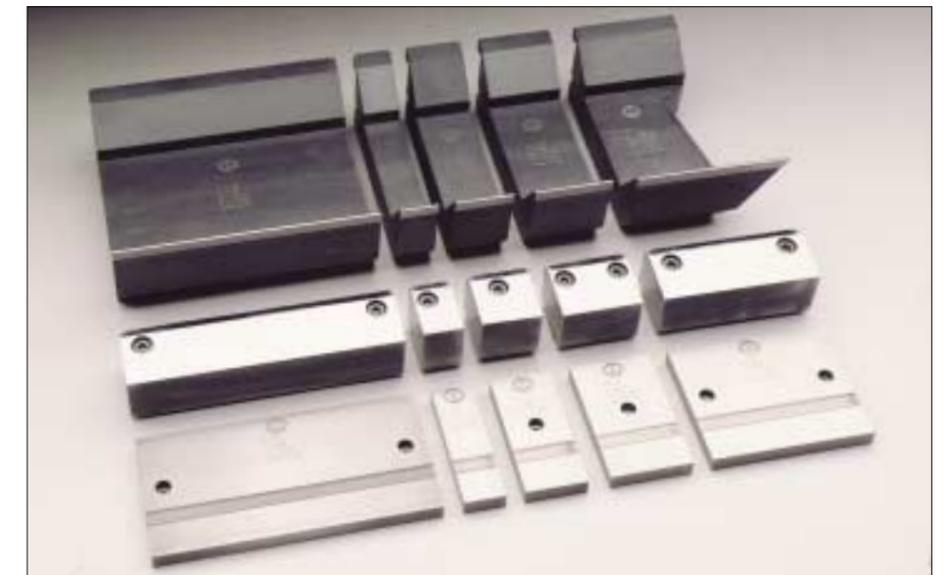

*Segmented tooling for the upper, lower and folding beam*

# T**O**UCH *& More*



## Use your finger as a Pencil

With the revolutionary 15" *Touch&More* control you can use your finger as a pencil. Simply paint a flange and size it with your finger to the right dimension and angle. Use the same shape for any material (i. e. 2 mm aluminum or 0.75 mm mild steel). For the data input a full keyboard is always available at the lower part of the TouchScreen.



Locate each part program visually in the easy to use program library. To create a part icon the *Touch&More* offers a photo function, or you can load a picture of the part from your product catalog.

Set all program data in the program information window. This is where you can select the material thickness, material quality and the corresponding technology table for angle corrections and bend allowances.
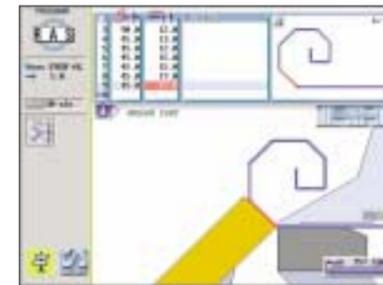
The CADalyzer creates a part program using the part drawing. It shows the program, the finished part and the actual bend sequence all at one time. Simplicity also means: automatic blank calculation with tools and machine components being shown in their real dimensions.
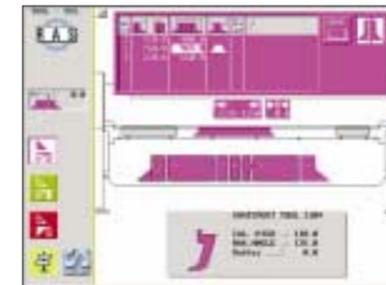
The setup instruction displays which tool segments are required for the bending length of the part. This information is available for the upper beam, the folding beam and the lower beam. For easy setup, the *Touch&More* graphically displays the tool shape.
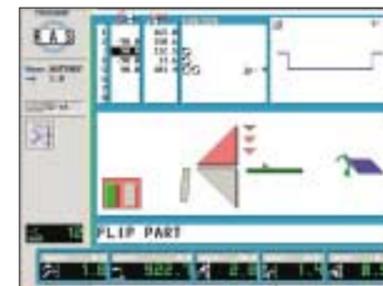
After the program is started, the graphic shows the operator which foot pedal he needs to press. With programmable operator instructions such as "Rotate", "Flip" or "Paint up" even inexperienced operators can produce perfect parts instantly. For optimum overview the control shows 8 bending steps at a time.

If someone operates the machine occasionally, he can use the EasyGo operation. Simply enter an angle, a backstop dimension and the material thickness and you are ready to go. If you want to bend "by eye" just press the push buttons and start each machine movement separately.