



RAS TURBObend *plus*

METAL FOLDING SYSTEM

Technical Data TURBObend <i>plus</i>	RAS 62.25		RAS 62.30	
Material Thickness max. (mild steel)	2,5 mm	13 ga.	2 mm	14 ga.
Working Length	2540 mm	100"	3200 mm	125.9"
Backstop Depth (Standard)	10 - 1550 mm	0.4-61"	10 - 1550 mm	0.4-61"
Backgauge Accuracy	+/- 0.15 mm	+/- 0.006"	+/- 0.15 mm	+/- 0.006"
Upper Beam Open Height max.	200 mm	7.87"	200 mm	7.87"
CNC-Folding Beam Adjustment max.	5.5 mm	0.2"	5.5 mm	0.2"
Working Height	850 mm	33.5"	850 mm	33.5"
Machine Length	3690 mm	145"	4340 mm	170.0"
Machine Width	2100 mm	83.7"	2100 mm	82.7"
Machine Height	1380 mm	54.3"	1380 mm	54.3"
Machine Weight net	2800 kg	6180 lbs	3500 kg	7725 lbs
Air Pressure	5 bar	72.5 PSI	5 bar	72.5 PSI
Upper Beam Power	1.1 kW	1.5 hp	1.1 kW	1.5 hp
Folding Beam Power	2.2 kW	3.0 hp	2.2 kW	3.0 hp
Speeds				
Upper Beam Speed	26 mm/s	1.0"/s	26 mm/s	1.0"/s
Folding Beam Speed	80 Grad/s	80 deg/s	80 Grad/s	80 deg/s
Backstop Speed (10 to 1550 mm / 0.4" to 61")	1.9 s	1.9 s	1.9 s	1.9 s

Modifications reserved. Pictures may show options.

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RAS REINHARDT
MASCHINENBAU
G M B H



The New Definition Of Metal Folding:

RAS proudly presents: the TURBObend plus!

Now you can have it all: speed, flexibility, power and the added versatility for profiles and cassettes. If you are in the architectural, roofing, metal construction, sign, or you simply need maximum flexibility in your job shop business, the TURBObend *plus* is your machine! With the TURBObend *plus* you can create virtually any application you can imagine in top precision quality and breathtaking speed.

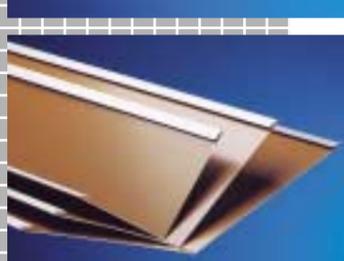
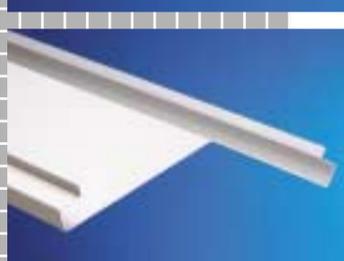
You will be fascinated about the easy to use 15" large screen *Touch&More* control. With the revolutionary programming method the operator uses his finger as a pencil. He simply paints a flange and sizes it with his finger to the right dimension and angle. The *Touch&More* screen shows the finished part, 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.

When segmented tooling is required for a box or pan application, the *Touch&More* control will choose the appropriate tools and graphically displays their loading position on the machine! Then, just load in the tooling, insert the blank, and start folding parts. It's fast, flexible, versatile and accurate.

Innovation and Creativity ... it's at the heart of the system!

RAS engineers set out to create a next level of versatility for the roofer, architectural, metal construction, job shop and sign industries. Using affordability as the focus, they added an impressive list of features for those shops whose customers want everything from sign enclosures, to lighting fixtures, to architectural shapes to roofing applications. The TURBObend *plus* is that machine! The most sophisticated, easy to use, fastest, most accurate metal folding system on the market. Using FEA (Finite Element Analysis), they designed a folding beam that twists less than 5/1000 of a degree under full 2 mm (14 gauge) load, and reconfigured its profile to be even more resistant to force load than any other system you can buy.

Using the powerful *Touch&More* control, the TURBObend *plus* is almost like having an extra employee. But that's not all. With frequency inversion technology and ultra-fast direct drive motors, the folding beam moves at 80 degrees per second, and gently folds your angles to the precise degree you wish. The all new innovative backgauge design offers you a variety of backgauge options, like "J" or "U" shape. Speed, flexibility and low cost ... all in one system!



The Integrated Backgauge And Sheet Support

Another real plus is the unlimited back-gauge versatility. Each backstop units comes with three position pop-up fingers. They are driven by a brushless AC servo motor with twin parallel guidance and position the workpiece to any dimension in under 2 seconds.

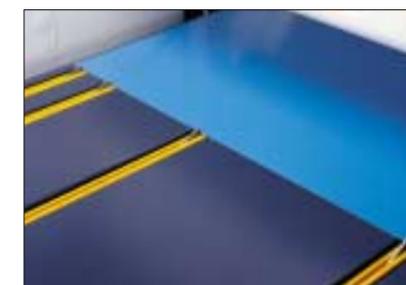
The backstop system can come as "J" or "U" shape with lengths up to 3050 mm (120"). Think about it. Your operator can run small parts from the front of the machine. For large and heavy parts, the operator handles the workpiece from the rear of the machine. With the simplified handling he can fold even large workpieces all by himself.



Front solid stop fingers



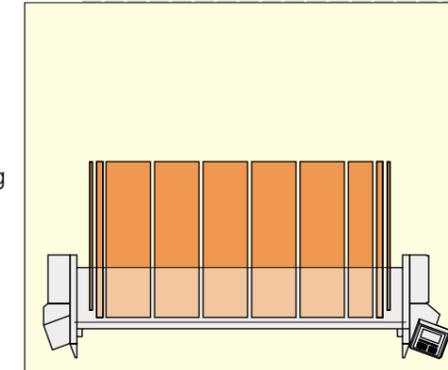
Fingers down: Rotation without collision



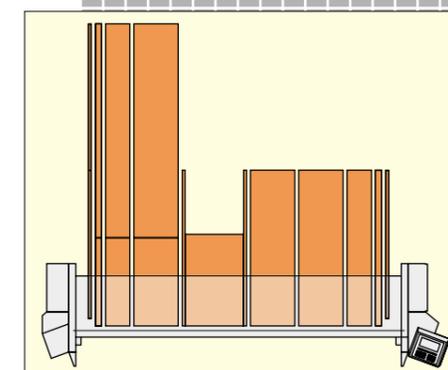
Middle stop fingers



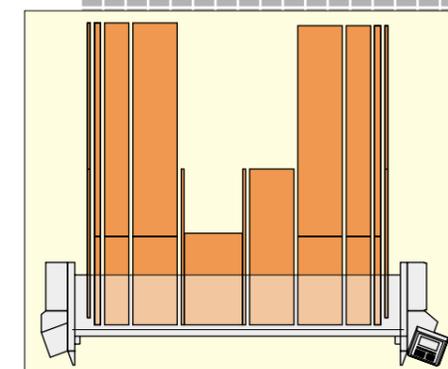
Sheet support panels moved backwards to accommodate reverse flanges



Standard sheet support and backgauge system



**"J" shape backgauge left
(Option: CNC on a pendant)**

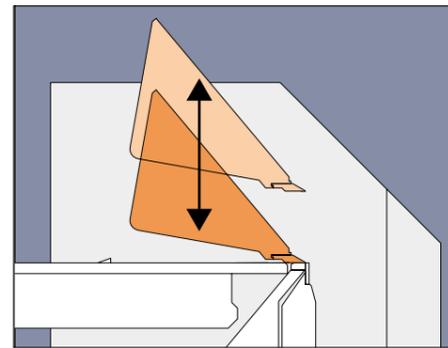


**"U" shape backgauge
(Option: CNC on a pendant)**

Put Your Shop In The plus Column ... With The RAS TURBObend *plus!*

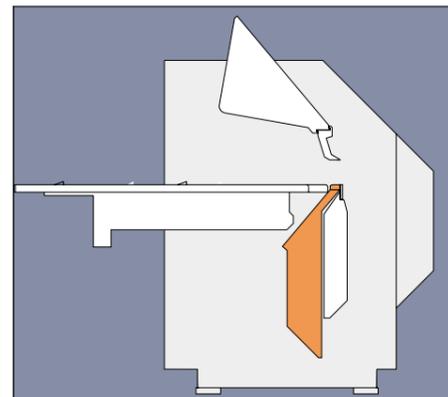
The Upper Clamping Beam

A super-fast drive system opens and closes the beam at 26 mm (1.0") per second, up to a height of 200 mm (7.87"). As the open and close position is programmable, you can create any variety of hems, thus making your parts unique and versatile. The special upper clamping beam shape offers extra large areas in front of the beam. Large free areas behind the beam allow your operators to see the tools when creating large parts from the rear. Features you will hardly find anywhere else!



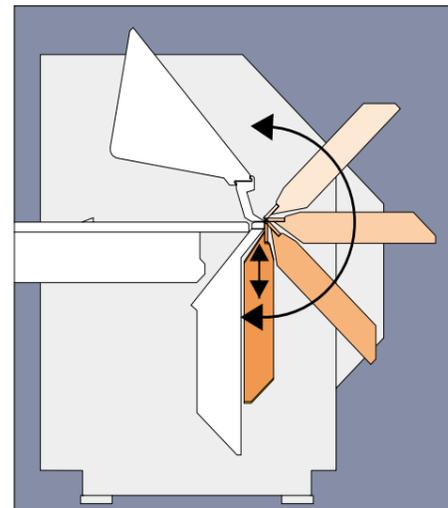
The Lower Clamping Beam

The lower clamping beam is FEA designed with a deep box configuration and is directly linked to the side frame for maximum resistance to deflection and torsion free rigidity. This means high precision work, long machine life, a solid return on your investment, and perfect parts day by day.



The Folding Beam

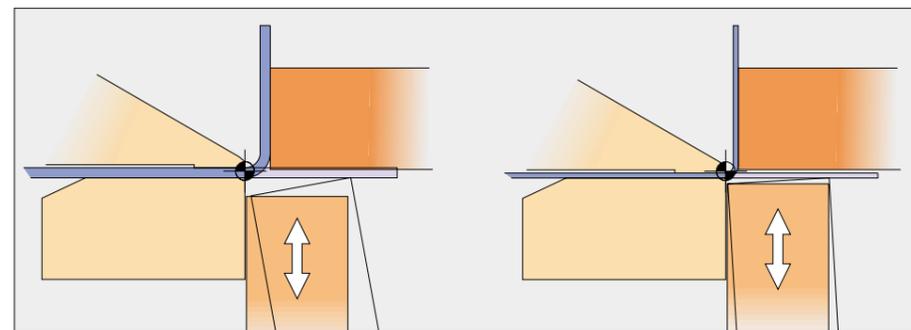
The folding beam on the TURBObend *plus* is another example of engineering superiority. Designed for deflection resistance, the folding beam is slim-line designed, which guarantees a torsion free configuration for accurate and precise metal folding parts. And with lightning fast 80 degrees per second speed, your productivity is insured. An equally impressive plus is its ability to adjust the folding beam automatically for different material thicknesses. In less than 10 seconds everything is finished. You will always produce with the optimum adjustment and you will have no down time, even if the material thicknesses change all the time.



The folding beam reaches its position with a 0.1 degree accuracy.



Extra stiff folding beam with Slim-Line-Design.



Automatic folding beam adjustment for different material thicknesses in less than 10 seconds.

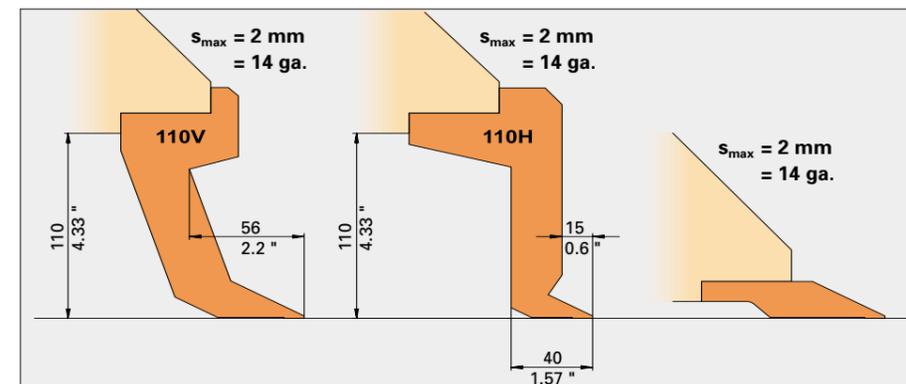


The RAS Tooling System

The three segment sharp tool can be taken on and off by a single operator in no time. The exclusive RAS goat's foot tooling is precision designed, and literally "quick-clamps" and locks in

position so that it is ready to work within seconds. No other tool system offers so much free space around the tool for all different part geometries. C-flanges can be as long as 56 mm (2.2"). Handy tool segments of maxi-

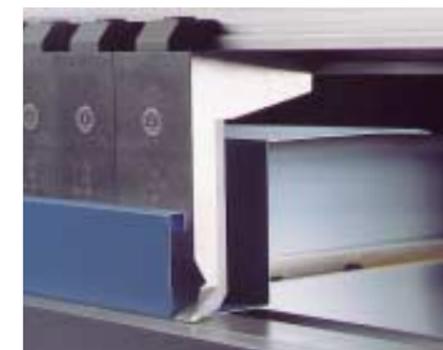
mum 200 mm (7.874") length make it extremely simple to change tools. Four sided boxes can be as deep as 110 mm (4.3") and the tools are designed for the creation of all possible part shapes with a single universal set of tools.



With the quick clamp system, tools can be changed in seconds. The tool seat is integrated directly into the upper beam.



The boundless front and side free space can accommodate return flanges up to 56 mm (2.165").

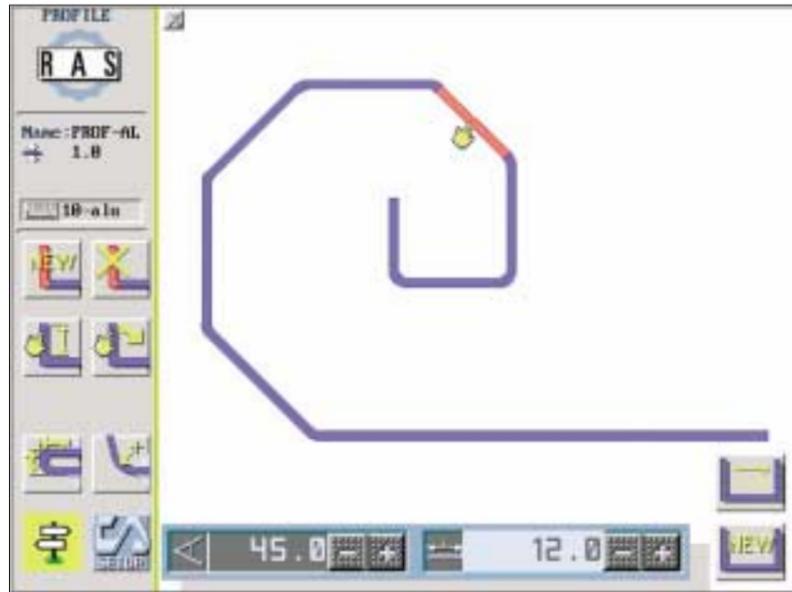


Rear free tools allow parts as narrow as 40 mm (1.575").



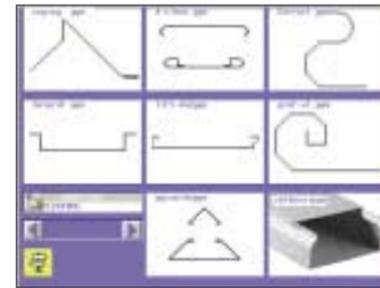
The sharp tool can be set in place and taken off with a flick of the wrist.

TOUCH & More



Use your finger as a Pencil

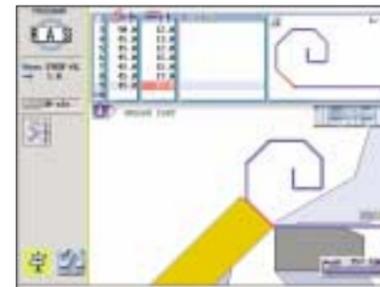
With the revolutionary 15" *Touch&More* control you can use your finger as a pencil. Simply paint a flange and size it with your finger to the right dimension and angle. Use the same shape for any material (i. e. 2 mm aluminum or 0.75 mm mild steel). For the data input a full keyboard is always available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



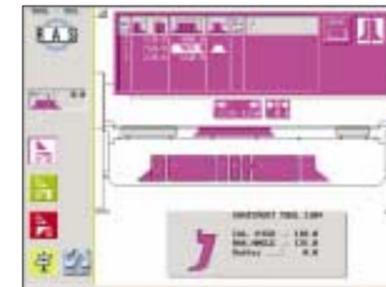
Locate each part program visually in the easy to use program library. To create a part icon the *Touch&More* offers a photo function, or you can load a picture of the part from your product catalog.



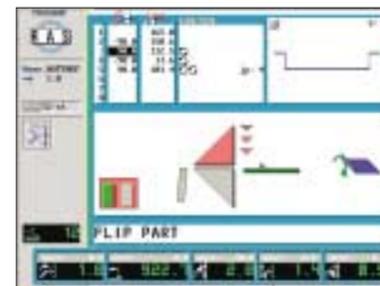
Set all program data in the program information window. This is where you can select the material thickness, material quality and the corresponding technology table for angle corrections and bend allowances.



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.

