Cutting. Bending. Forming.

RAS TURBObend

METAL FOLDING SYSTEM

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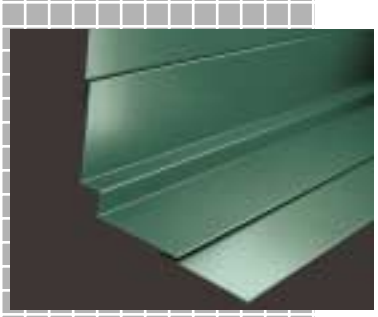
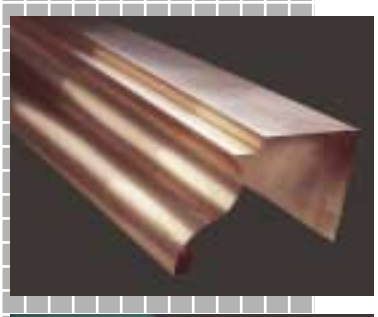
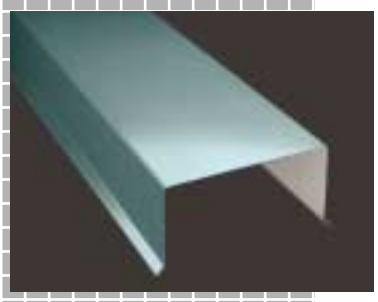
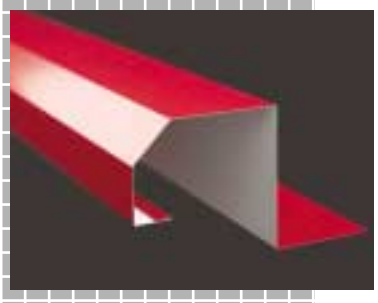
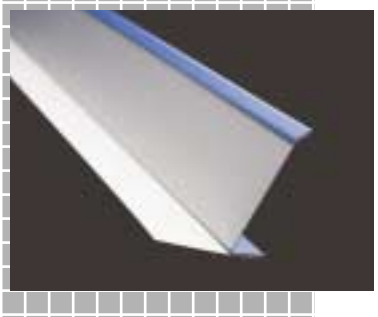
Welcome to the future!











RAS introduces the fastest and most revolutionary metal folding system on planet earth … the RAS TURBObend.

Designed for the roofing, architectural, and metal construction markets, the TURBObend is completely revolutionary from its simple-to-use-control to its fast, sophisticated, easy to use, and accurate folding system. It is simply the best folding system on the market today.

The incredible thing about the TURBObend is its perfect combination of machine quality and user-friendly control. We have manufactured the most rigid machine components and incorporated them into a solid, extremely accurate machine tool. You will be amazed how quick, accurate and easy you will complete a part in the future. As material thickness changes, the machine automatically sets itself to the new material. Forget about old-fashioned manual adjustments on the folding beam. Don't compromise! You earn your money with quality parts that fit and can be assembled on the construction site as quickly as possible. The RAS TURBObend can provide the quality you are looking for.

Where does all this precision and speed come from?

RAS engineers utilize Finite Element Analysis to design each machine component for an optimum of low deflection, tension and torsion. This system provided them the means to develop a folding beam that twists less than 5/1000 of a degree under full 1.5 mm (16 gauge) load. One look at the deep and robust folding beam and you know why the bends are so incredibly accurate.

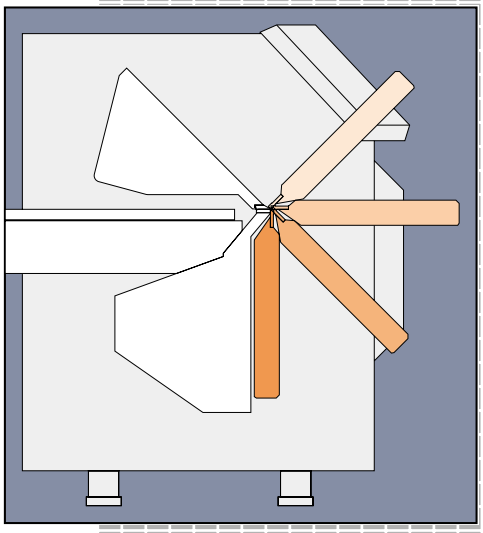
RAS has used the most modern control technology and highest dynamic drive motor system to rotate the folding beam. The machine performs at blinding fast speed of 80 degrees per second precisely to the correct programmed angle. The backgauge system, incorporating AC-servo motors, positions the part for each bend. The standard backgauge system is extremely versatile, compact, accurate and fast. The machine is easily located into a very small, compact space.

If you have dreamed of a metal folding system, the RAS TURBObend will fulfill those dreams.

The TURBObend components

Folding Beam

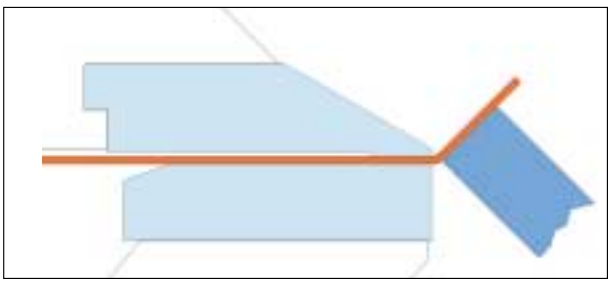
The folding beam is the most important component of the folding process. The accuracy of its rotational movement is directly responsible for the precision of the angle on the part. Therefore RAS has dedicated special attention to this component. Optimized by using the Finite Element Analysis, the folding beam gets its unique rigid form, shape and depth. Very fast at 80 degrees per second, it moves up to the correct angle and smoothly brings the beam to a precision stop. The RAS TURBObend gets your production to the point you have never been able to achieve before. You will produce exactly the precision and repeatable angles that you have always desired.

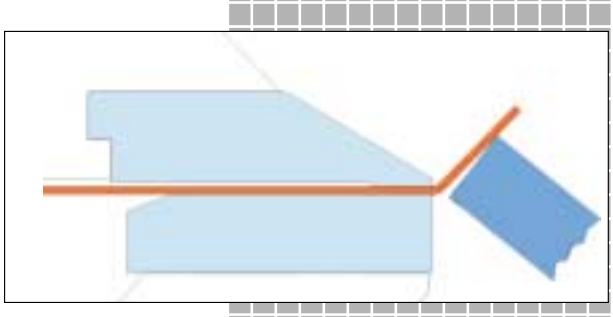


Automatic folding beam adjustment … a must for perfect bend results!

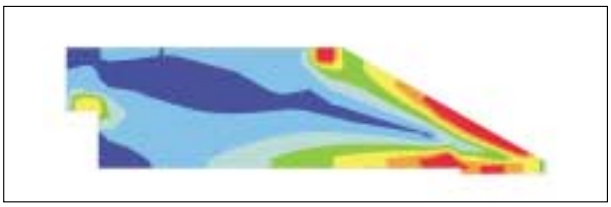
You want to point the way to the future of your workshop when buying a CNC-controlled machine? Then you should be concerned about old-fashioned, mechanical manual adjustments for material thickness changes. RAS uses a patented system that gives a completely new outlook to material thickness adjustment. The folding beam of the RAS TURBObend moves not only up and down, but also in and out. You can bend up to 1.2 mm (18 gauge) material using the 10 mm (0.39") folding beam tool. For maximum capacity you will use the 20 mm (0.78") wide tool. What does this mean? Well, first it means that you can bend better radii. You can bend coated and painted materials without scratching the surface. Third, the bend angles will be always accurate and repeatable. The machine makes the adjustments automatically, not the operator, so they will always be correct. Fourth, you will protect and extend the machine life of this very important investment.

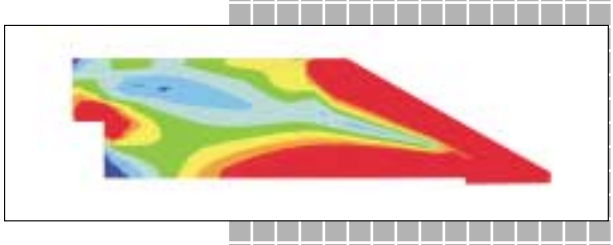
Why it's essential to adjust the folding beam precisely!





Accurate angles with correct folding beam adjust-ment (left). Inaccurate bends with incorrect adjustment (right).





Stress chart for the upper beam tool with correct (left) and incorrect (right) adjust-ment.

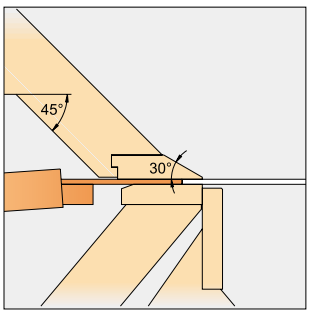
The RAS TURBObend … get r

Human engineering (Ergonomics)
One look and you will see that the TURBObend is designed for operator needs. The *Touch&More* control gives the operator a perfect angle to see the screen, even if he is working from the center of the machine. Don't forget the small footprint, the TURBObend will fit even in the smallest workshop.

Upper Beam
An innovative eccentric elbow pivot and drive shaft system incorporated with the most modern control technology combine quick drive motions and high clamping pressures. Other systems use chains and torsion bars, this is just not the modern state-of-the-art way to do this. The RAS system will allow you to produce open and closed hems to the perfect dimension. If the parts require an open hem, the upper beam can be programmed to stop at any dimension. Ask for precision hems … ask for a RAS TURBObend.

The innovative eccentric elbow pivot and drive shaft for ultra-quick upper beam motions

The upper beam offers even more. The speed of a machine is crucial when you need to know how quickly the equipment will pay for itself. The upper beam closes from 120 mm (4.7") in a quick 1.8 seconds. Compare this with other systems.



Upper beam with generous free space around the tool.

The free space around the upper beam is critical for the number of parts that can be done with the machine. A single, universal 30 degree sharp tool offers all the free space that is required for even the most complex roofing, architectural or metal construction parts. For aluminum and zinc blanks, RAS offers a 1.5 mm (0.06") and a 2.5 mm (0.1") radius tool.

Lower beam
Next, let's move down to the lower clamping beam. For maximum sturdiness, the deep box configuration of the lower beam is directly locked to the side frame. This assures you that you will have tremendous rigidity, virtually eliminate deflection and give you torsion-free folding. This means precision, quality parts not only today but for years to come.

Sheet support panels pulled back, when parts require free space behind the lower beam tool.

eady for the future!

From the rear, the TURBObend offers a compact backgauge for a small overall footprint. You can fit it anywhere!

With the front spring steel fingers (Standard) you will produce hems without irregulations on the material surface.

The solid front fingers and the machined lower beam tool (option) is the optimum configuration, when things can sometimes get a bit rough

Backgauge and sheet support system

The backgauge is designed to position the workpiece to the precise dimension for the flange, and to support the sheet so the operator doesn't have to. Let's take a closer look at the TURBObend backgauge and sheet support system.

The back fingers design allows easy and mar free turning of the workpiece.

First, you have a choice of front spring steel or solid stop fingers. The backgauge fingers are driven by a brushless AC servo-motor. In under two seconds they accurately position the part to any dimension within the 1000 mm (40") backstop depth. The whole system is driven by a parallel guidance digital measuring system. The TURBObend makes it very easy. This precision backgauge system delivers accurate flange dimensions and parts that fit, time after time.

The stop fingers drop down automatically when part rotation is required. Plus, the inherent design of the back fingers allows the operator to rotate work pieces easily without scratches and marks.

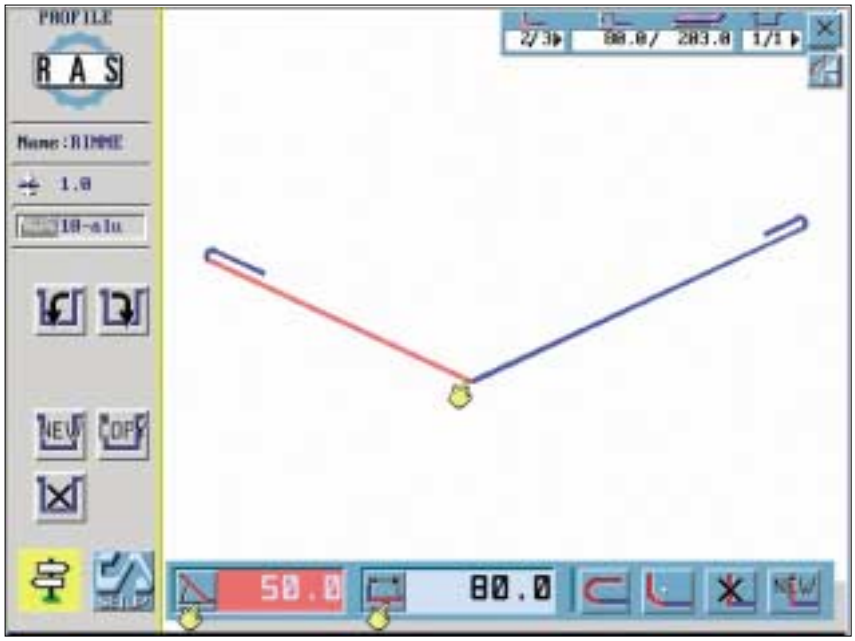
The RAS TURBObend: A metal folding system, that has been designed for everything required in roofing, architectural or metal construction part creation. Why? Because the RAS engineering team asked customers just like you what they would wish for if they could design the perfect folding system. You have the result in front of you: the RAS TURBObend. The metal folding system of your choice.

Call us right now to see a live demonstration of a TURBObend in our Technology Center.

We are standing by to answer your questions, and to help you increase productivity while reducing costs in your operation. It's worth it. Guaranteed.

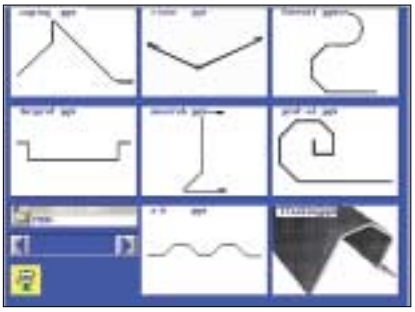
RAS

TOUCH & More



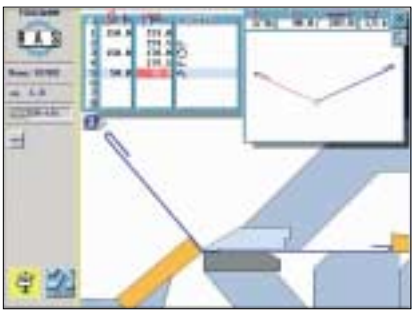
Use your finger as a Pencil

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.

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.

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.

Technical Data		RAS TURBObend
Sheet Thickness Max. (at 400 N/mm²)	1.5 mm	16 Ga.
Working Length	3150 mm	124"
Backgauge Depth (Standard)	8-1000 mm	0.315"-40"
Backgauge Accuracy	+/- 0.15 mm	+/- 0.006"
Upper Beam Open Height	120 mm	4.725"
CNC Folding Beam Adjustment	5.5 mm	0.2"
Working Height	850 mm	33.5"
Machine Length	4320 mm	170.0"
Machine Width	1400 mm	55.1"
Machine Height	1380 mm	54.3"
Machine Weight	2500 kg	5.500 lbs.
Air Pressure	5.5 bar	73 PSI
Drive Power Total	3 kW	4 hp
Speeds		
Upper Beam Clamping Speed	66 mm/sec	2.6"/sec
Folding Beam Speed	80 deg/sec	80 deg/sec
Backgauge Speed (8 to 1000 mm/0.315" to 40")	1.9 sec	1.9 sec

Modifications reserved. Picture may show options.

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