Hydraulic Swing Beam Shear

POWERcut

- **Cutting**
- Bending
- Forming

RAS Reinhardt Maschinenbau GmbH

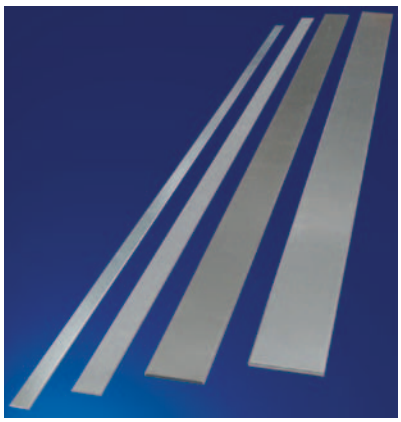
POWERcut

RAS POWERcut: Much more than just power!

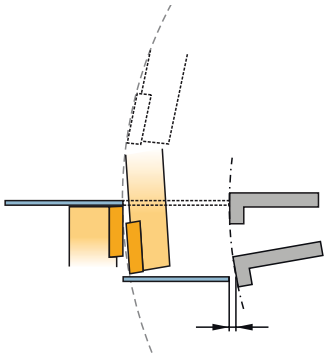
A concept for all requirements

Do you often find burrs on the cut pieces, because you forgot to adjust the blade clearance properly? Are you often miffed at twisted small parts and too big remnant parts? Do you often walk around your existing machine to collect semi-finished parts and have to bring them back to the front of the shear? Do you often miss the backgauge as the light gauge material hangs down behind the blade? Do you have to handle most workpieces again after cutting for sorting them according to size and for separating scrap?

If you are fighting these problems, RAS offers you the perfect solution. The RAS POWERcut swing beam shear: powerful, easy-to-use, accurate.



Twist free small strips

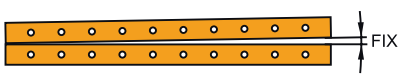


Swing beam cutting

Swing Beam Technology

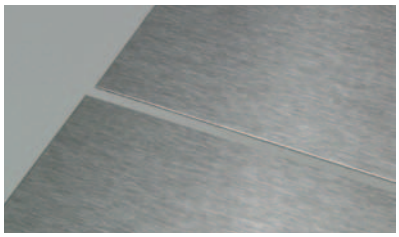
Using the swing beam technology the upper blade swings down in an arcing movement and contacts the workpiece from above. As it does so, the backstop opens and does not press the part against the lower blade. That assures lifetime accuracy of the machine. It also means, that you don‘t have to change or sharpen blades as often, keeping your shop producing parts with less downtime.

The extremely low rake angle contributes to a twist free cutting even on small strips. This result is based on the very rigid construction, the powerful drive motor and maintenance-free roller bearings.

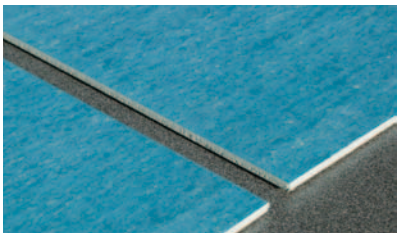


Twist free cuts due to extremely low rake.

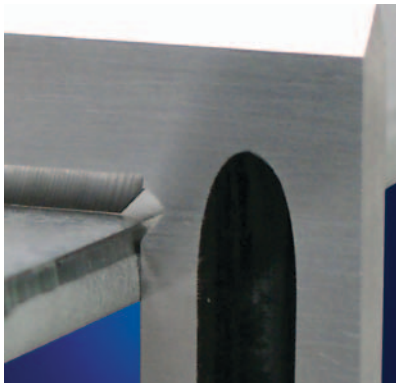
No matter what type of material ...



... brushed stainless steel ...



... or plastic blanks ...

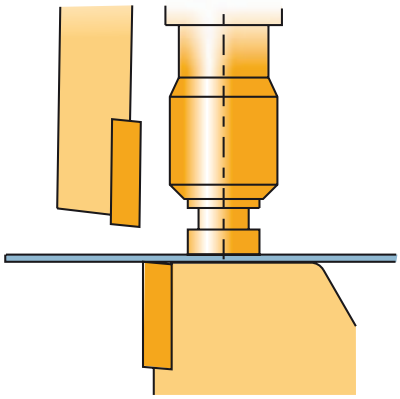


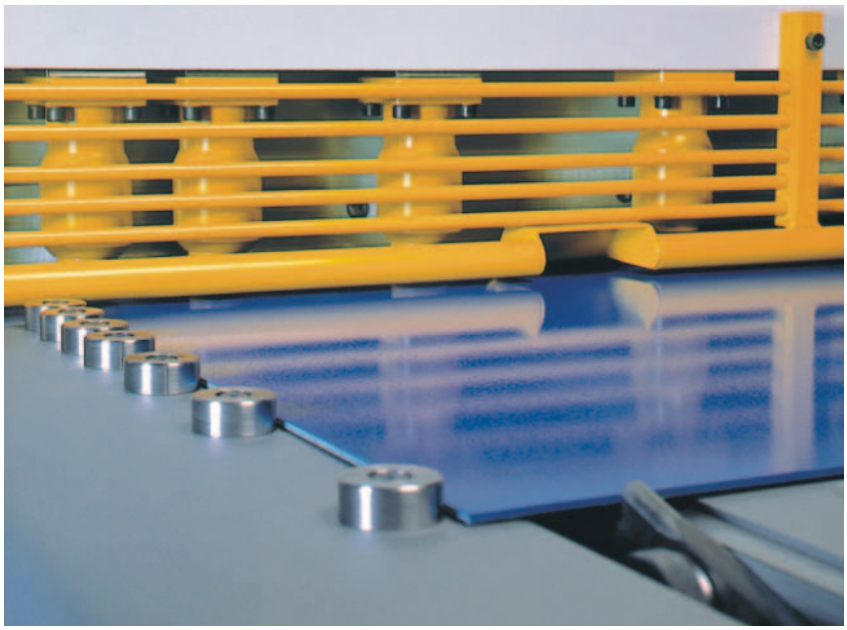
… the POWERcut cuts them sharp and clean.

POWERcut

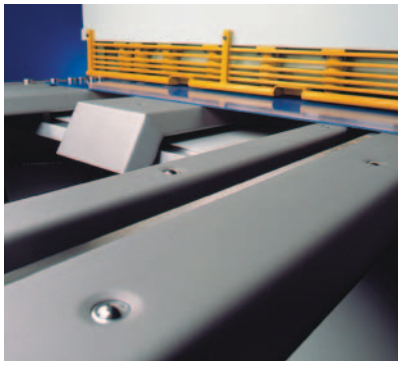
Shear Table

Side and front beveled shear tables allow for easy material handling. The extremely wide squaring arm and the table extension offer a large surface support, keeping material from hanging down and maintain a safe working area for the operator. The finger protection has deep finger pockets and offers maximum safety, allows for optimum use of the material and gives the operator maximum viewing to the cutting line.



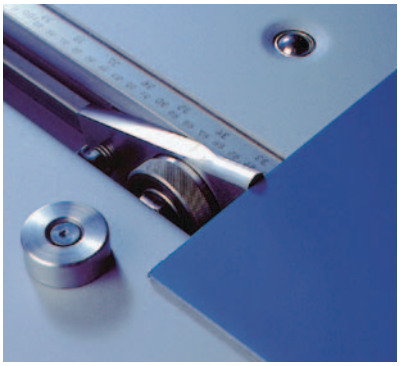


Squaring arm and deep finger pockets for an optimum material use.
The hold-down cylinders with a polyurethane coating insure a slip free cutting.



Side and front beveled shear tables and ball casters.

The moveable table extension allows extending the squaring arm or the table extension within seconds.

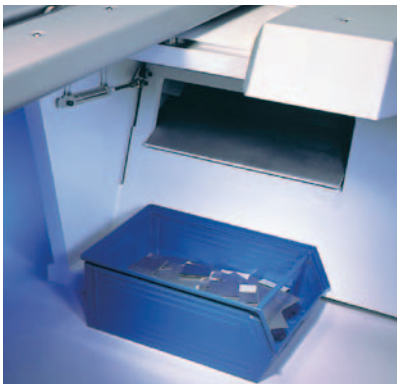


Front stops (available also with a precision scale) allow an accurate part positioning.

POWERcut

Sorting and Sheet Support System: Simply brilliant!

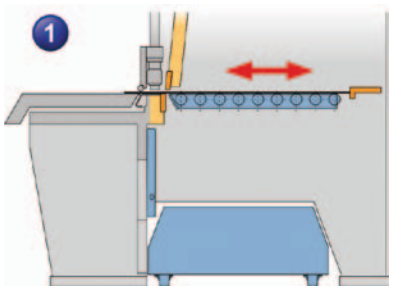
Sorting and sheet support system at the rear of the machine.



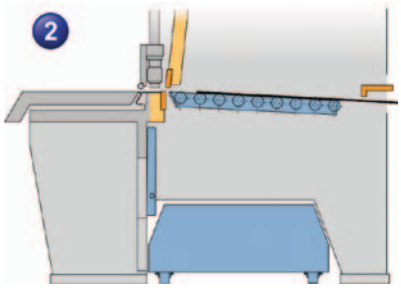
Small parts chute delivers small pieces into a container in front of the machine.

CNC Backstop

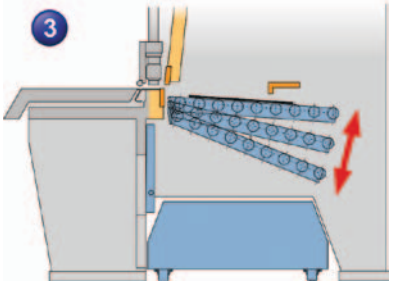
A brushless servo drive with clearance-free ball screw-spindle and linear guiding systems with anti-friction bearings positions the CNC backstop quick and accurate. The swing beam can be released automatically with the optional contact stops in the backstop. It starts moving as soon as the material touches two of the sensor.



The sheet support system supports the material horizontally before the cut. This eliminates the material from hanging down and guarantees for perfect dimensions.

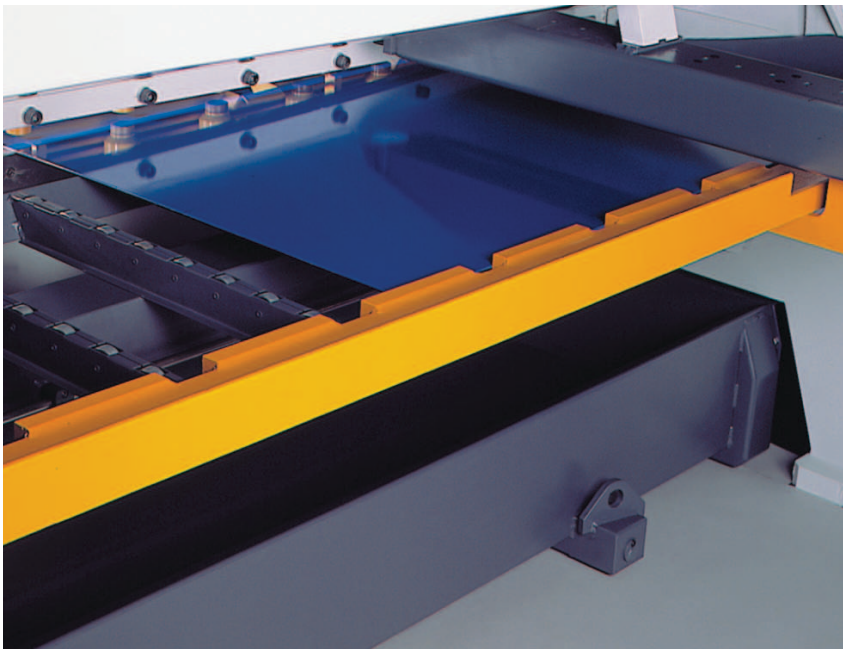


Extremely long blanks can be routed below the backstop. Therefore the backstop moves to its maximum position and the sheet support slightly tilts down.

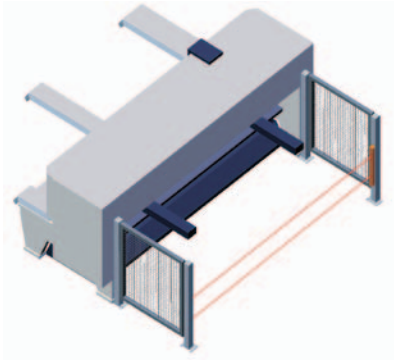


After the cut is made, the sorting system can tilt to three different angles. Even small strips of 40 mm / 1.57" can slide down quiet and gently.

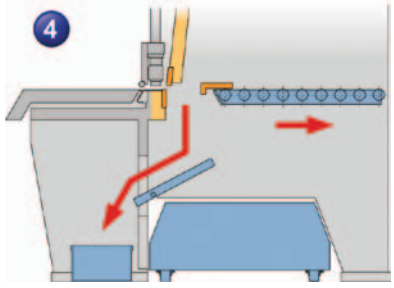
POWERcut



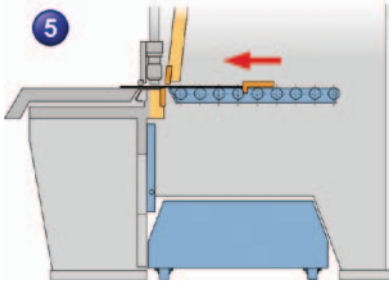
The sheet support system guides even thin materials safely to the CNC backstop.



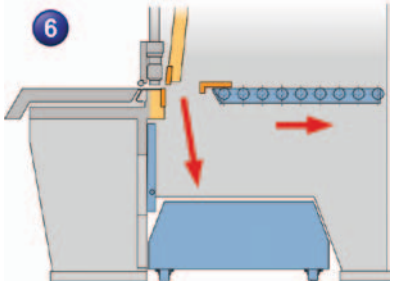
Rear protection with fences and light beam system.



The integrated CNC small parts chute delivers cut pieces (200 x 500 mm/ 7.87" x 19.68" maximum) into a container in front of the machine.



Transport back function: The CNC backstop can push a cut piece below the finger protection back to the operator. Less running around, more production time.



For trim cuts the sheet support moves backwards so that trim cuts can fall into the scrap container.

POWERcut

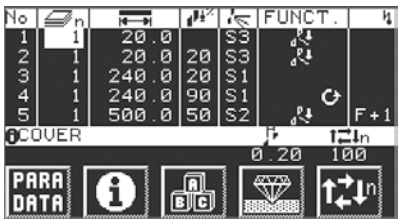
RAS POWERcut: It‘s sharp

CNC Controller

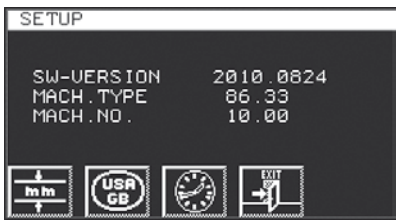
You can move the CNC along the front of the machine for optimum access and visibility. The graphic screen shows five program lines at a time and offers a perfect overview about the program cycle.

Programmable functions:
Backstop dimension
Cutting gap adjustment
Stroke length
Trim cut dimension
Stack selection
Return to operator function
Part counter
Cycle counter
Stroke: single or continuous
Contact stop (option)
Program information
Operator instructions
Hour meter
Language selection
mm/inch conversion

Moveable CNC control



Screen: Cutting program



Screen: Language selection and mm/ inch conversion

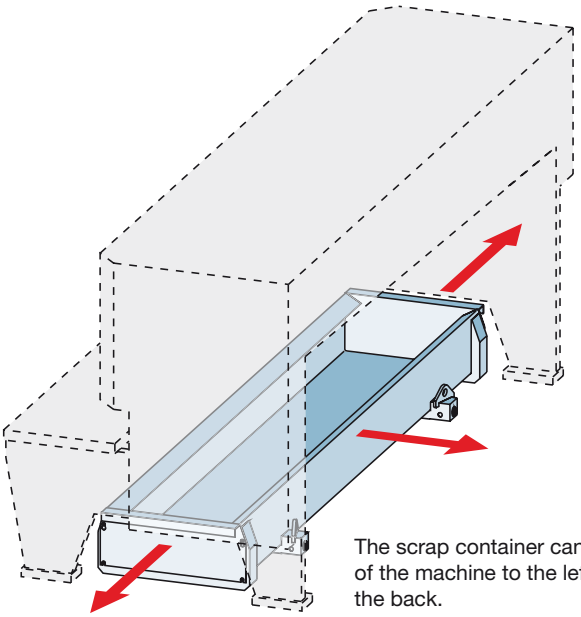
Cutting Gap Adjustment

Precision and burr free cuts require an adjustment of the blade clearance. The CNC calculates the clearance from the material thickness and the hardness of the material. When the operator starts a program, the machine first sets the cutting gap and then allows starting the program.

POWERcut

Scrap container

Trim cuts can be separated into the solid and spacious scrap container during the cutting cycle. It can be pulled out of the machine to the left, the right or to the rear of the machine and can be transported by a forklift or a crane. For unloading, a panel can be easily removed to allow the scrap to be removed.

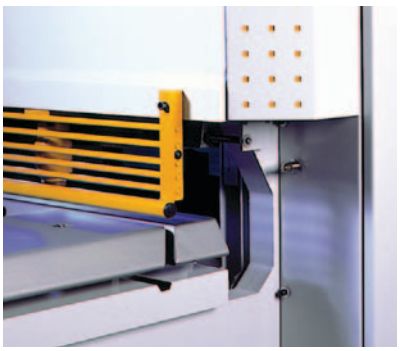


The scrap container can be pulled out of the machine to the left, the right or to the back.

Voluminous scrap container

Blade change

Unscrew and slide out dull blades through the side free space. After sharpening the blades will be easily screwed on. Since a crown is machined into the beam, no blade shimming is required. You are back to production after only a short interruption.



Side free space for an easy blade change

POWERcut

Technical Data		RAS 86.43		RAS 86.33
Material thickness (mild steel)	5.0 mm	3/16"	6.3 mm	1/4"
Cutting length	4040 mm	159.05"	3190 mm	125.59"
Backstop dimension	5 - 1000 mm	0.2"-39.4"	5 - 1000 mm	0.2"-39.4"
Backstop accuracy	+/- 0.1 mm	+/- 0.004"	+/- 0.1 mm	+/- 0.004"
Blade angle	1 deg	1 deg	1.2 deg	1.2 deg
Strokes per minute	28 - 46	28-46	30 - 64	30-64
Table extension	2	2	1	1
Hold down cylinders	20	20	16	16
Side free space for blade change	100 mm	3.94"	100 mm	3.94"
Working height	800 mm	31.5"	800 mm	31.5"
Machine length	4730 mm	186.2"	3830 mm	150.8"
Machine depth w/o squaring arm	2195 mm	86.4"	2195 mm	86.4"
Machine depth with squaring arm	3275 mm	128.9"	3275 mm	128.9"
Machine height	1725 mm	67.9"	1725 mm	67.9"
Drive Power max.	18.5 kW	25.4 hp	18.5 kW	25.4 hp
Weight net approx.	9500 kg	20900 lbs	6800 kg	15000 lbs
Air pressure	6 bar	80 PSI	6 bar	80 PSI

RAS Reinhardt Maschinenbau GmbH
Richard-Wagner-Str. 4–10
71065 Sindelfingen · Germany
Tel. +49-7031-863-0
Fax +49-7031-863-185

www.RAS-online.de
Info@RAS-online.de

05/2011