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The shear is dead, long live the shear

Several industrial companies think that metal shears have no future. However, there is no economical way around shears when it comes to cutting strips and rectangular blanks. Neither punches nor lasers can compete with the efficiency of the shears for such jobs. This is also the case at Gramm GmbH & Co. KG, located at Lake Constance in Germany, who invested in a RAS Powercut2 swing-beam shear.

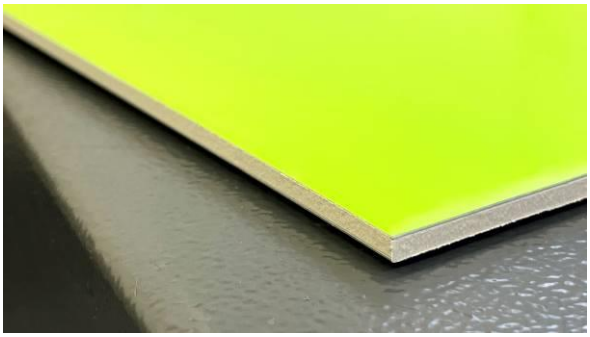
Gramm is the specialist for modern, innovative metal roof and facade solutions. Demanding customers and architects can expect quality and precision from a single source. In order to be able to meet this objective, production with the highest quality standards and the most modern machine technologies is required in addition to solid craftsmanship.

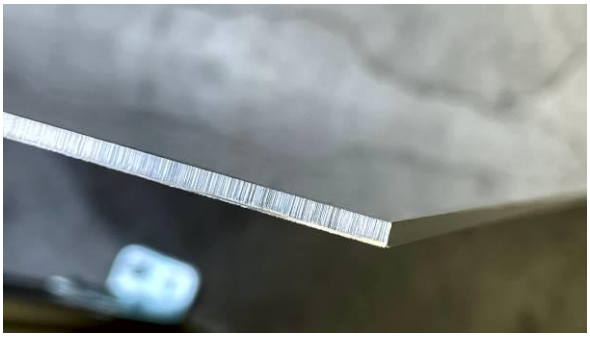
It is therefore not surprising that Gramm was one of the first companies that ordered the new Powercut2 model with a cutting capacity of 6.3 mm and a working length of 3190 mm. Gramm has chosen the extended 1500 mm sheet support and backgauge in order to be able to divide large format sheets comfortably in the middle.

Ingo and Sandra Gramm founded Gramm GmbH & Co. KG in 2001. 45 employees work in the family-owned company today. All of them have a passion for good craftsmanship, innovative design and one hundred percent customer orientation. Gramm's facades are impressive in both function and design.

Prokurist Mark Weigel explains: "We offer a large variety of materials for our metal facades including steel, stainless steel, titanium zinc and aluminum as well as expanded metal, perforated sheet and Alucobond. Row materials that may later be powder-coated are used on the buildings, as are materials that have been color-coated in advance."

The RAS Powercut2 swing-beam shear handles this variety perfectly. It delivers accurate cuts and clean, virtually burr-free cutting edges. The sheet thicknesses at Gramm ranges from 0.8 to four millimeters aluminum and from 0.7 to two millimeters steel. The shears therefore still have sufficient reserves for thicker or harder materials. The company's own buildings underline the creative spirit and architectural possibilities.

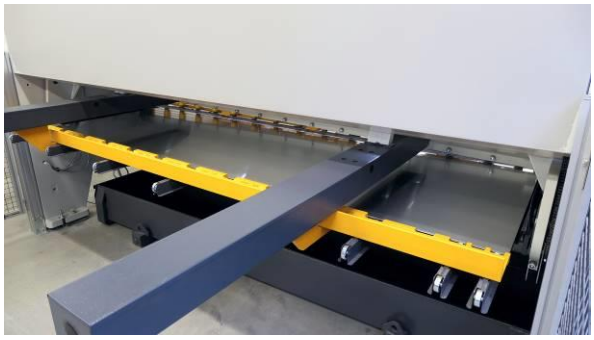




With its large and clear 15 inch touch monitor, the Powercut2 is ideal for shop floor programming. The control is able to slide along the front of the machine providing the operator the best possible access and visibility. With three working levels, the software adapts to every upcoming task. In the simple mode for occasional users, only the basic data such as, cutting dimension, number of pieces, sheet thickness and material type are requested.

The machine then automatically sets the cutting gap, moves the backstop to position and releases the machine's power for cutting. A sheet support system holds up the blank before cutting and delivers the cut pieces to the rear via roller conveyors after cutting.

In the advanced simple mode for more experienced users, you can select all the sorting functions of the shear. This allows different cuts to be sorted during the cutting process. Parts can be delivered over the roller conveyor at 3 different angles. A steep angle for normal blanks results in fast delivery and a high cutting sequence for serial cuts. The flat angle is selected for sensitive workpieces that require gentle unloading to avoid scratches or damaged corners.



Machine operator Thomas Haag explains, "With the return-to-sender function, blanks can be brought back to the shear table, so that a long strips can be divided into smaller rectangles." Small parts up to 200 x 500 mm can be specifically discharged to the front into a small parts box. Trim cuts fall into a large-volume scrap box, which separates the good parts from the scrap during the cutting process. If you go one step further, complete cutting programs with several program lines can be created and saved in program mode.

Swing beam shearing used in the RAS Powercut2 shear design ensures twist free cuts. Other than guillotine shears, the swing beam shears works with a fixed shearing angle between the upper and lower blades, regardless of whether thin or thick sheets are cut. This requires a solid machine design and also explains the additional costs compared to simple guillotine shears. As a

result of this, the RAS POWERcut2 creates plane cuts starting from strips that are ten to fifteen times the sheet thickness.

The front area of the shear table is the operator's work area. Its design is essential for easy and efficient handling. Thomas Haag appreciates the ergonomics and says, " The wide, beveled and robust shear tables with embedded ball casters simplify loading and rotating of the metal sheets."

Gripping groves between the shear tables allow excellent access and easy material handling. The finger guard rail provides a good view of the material being cut in the illuminated work area, and finger pockets allow optimum material utilization. The hold-down pressure automatically adjusts to the cutting force and avoids marks on soft material surfaces.

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