SCHRÖDER GROUP

Extremely efficient by hand

Small series production with Schröder folding machines at Oswald Meister GmbH

User

The company Oswald Meister is a plumber's workshop that exists since 135 years in Crimmitschau, east of Germany. The 28 employees are mainly working in the divisions roof plumbing, heating installation as well as bath and sanitary installation. Since 2004 the long-established company is also very successul in one special field: in-roof systems for solar collectors and photovoltaic-modules where collectors are integrated as part of the roof. For leading manufacturers Oswald Meister has developed smart assembly solutions, e.g. rear ventilated systems. (www.oswald-meister.de)

Success

In-roof-systems are single projects. Because of this suppliers of solar systems order only small amounts of holders and mountings. Moreover the systems for each collector type are very individual. Good reasons that the owner Holm Meister is looking at this niche business with reasonable commerical assessment. While motorized Schröder-machines are used in all areas of the company, a production line of manually-operated machines has been set up. At Oswald Meister more manual folding machines from Hans Schröder Maschinenbau are used in parallel than at any other customer's factory in Europe.

Machines in use

- **Manual folding machine AK 2000**
  - Folding machine
  - Up to 2 mm at 400 N/mm²
- **Manual folding machines AKV 4000**
  - Reinforced manual foldling machine for sheets up to 4000 mm working length
  - Clamping beam range up to 90 mm for goat's foot tools
- **Segment folding machine ASK 1000**
  - Patented quick tool clamping
- **Manual shear HS**
  - Manual cuttings of up to 2 mm thick sheets

„In the field of in-roof-assembly solutions we have developed processes that enable us to produce flexibly and efficiently series with about 100 metal sheets without investing in motorized machines", explains the company owner Holm Meister. „The cutting and up to 13 folds per work piece are completed on stations of Schröder machines that are configured and modified for certain production steps." In other words, we are working here with rationalization concepts that are similar to mass production."

Eight manual folders type AK 2000 and one machine with four meters working lengths, type AKV 4000 are in use in the production hall. In addition, they use four universal segment folding machines type ASK 1000 with the eccentric quick clamping device for an easy tool change and four eccentric guillotines type HS. For the mountings and fixing systems in the solar sector 0,7-millimeter colour-coated-aluminium tapes, blank aluminium sheet up to 1,56 mm as well as pleated lead sheets are being processed. Hence Oswald Meister needs about 20 tons of sheet metal per year.

„We really do appreciate Schröder machines. They enable us to work permanently true-to-size and are very robust - so robust that they forgive us for little adjustments and extensions that we make."

Holm Meister
Owner

Individual modifications

Four to five folding machines type AK 2000 are standing in a row. For the next fold the plumber brings the work piece to the already setup machines. Besides of standard tools the company Oswald Meister GmbH also uses many special tools on machines are often modified as well. Examples are milled grooves in the clamping- and bottom beam, an extended lever or a foot control for the folding beam. Production manager Holger Naumann explains: "The assembly systems and the modifications on the folding machines are results of a common development process. The systems consist of profiles with unusual bending legs or conical parts. What we produce here, cannot be produced on a standard machine. A lot of our know-how went in the invention of special tools."

Forgery-proof constructions

Through the own development of manufacturing processes the sheet metal flashings from Oswald Meister GmbH are indeed unique. The failed plagiarism of another company can be seen as a striking proof. "That someone wanted to copy our construction, but was not able to, did show us: It is right: Do not let the design of the tools prescribe the design of the part but develop your own solutions for your production."

With rich experience in the development of sheet metal flashings and mounting systems for In-roof-systems, Oswald Meister GmbH is able to create new solutions for further modules and panels in the short-term. With this production method this plumber's workshop is able to react flexible. If the demand for in-roof-systems continues to rise - what some industry experts do forecast - it will be easy for the company in Crimmitschau to increase production: With the MAKV the company is already using another powerful and versatile motorized folding machine of Hans Schröder Maschinenbau.

Schröder Group

The Schröder Group consists of Hans Schröder Maschinenbau GmbH, located in Wessobrunn, Germany, and SCHRÖDER-FASTI Technologie GmbH, located in Wermelskirchen, Germany.

Founded in 1949, Hans Schröder Maschinenbau GmbH combines traditional and modern aspects in mechanical engineering. Successfully managed as a quality and customer-oriented family company, Hans Schröder Maschinenbau specialises in the development of modern machine concepts for folding and cutting sheet metal.

Thanks to the 2006 integration of the Fasti Company and its workshops and a global presence, the Schröder Group is now a leading provider of machines for folding, cutting, crimping, beading, and circular folding sheets of all kinds. The diversity of the range of precision machines ranges from proven solutions for trade to innovative, high-performance machines for automated industrial production. The Schröder Group now employs more than 240 workers at various domestic and international locations.

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