

## FOCUS ON APPLICATIONS

---

*PRODUCT QUALITY BEGINS WITH TOOL SURFACE*

### ROLL FORMING PARTS: A BETTER SURFACE = TOP QUALITY TOOLS = OPTIMISED TOOL SERVICE LIFE!

Forming rollers are used in applications like the manufacture of reinforcement mesh. The typical structure required is formed using appropriate machinery and dies. Our Italian customer also supplies its customers with the associated forming dies for notching, chamfering and marking, made from either reinforced steel or hard metals.



The company used to brush and polish some 5,000 dies per year by hand, which was time-consuming and hence expensive. Moreover, doing this manually leads to variations in surface roughness, which in turn has downsides when the dies are used to manufacture end products like reinforcement mesh.

*Reinforcement mesh produced by forming rollers*

#### **Precision quality from the outset**

To prevent this vicious cycle and refine the quality of the dies it delivers with its systems, Montemurro now uses OTEC Präzisionsfinish process and machine technology.

From a mechanical surface processing perspective, the challenge in this special application lies in ensuring that the roughness is consistently spot-on. In this case, it has to be reduced from 0.8 to 0.3. And that requires the perfect combination of process and abrasive.

To produce top quality results, under no circumstances must the surface be too smooth, because friction between the die and the workpiece plays a key role in the cost-efficiency of the forming process. It has an impact not only on factors like forming speed, but also on the service life of the finished dies.



## FOCUS ON APPLICATIONS

---

### **Process development: the secret of success**

In contrast with other workpieces where “smoother is better”, the customer’s requirement here (a roughness of 0.3) demanded absolute precision.

OTEC’s service package always includes process development to establish the ideal media, process, processing time, and so on. So to meet this stringent specification, we tested various samples at our Finishing Center.

The SF 2 105 Dry from the SF Series for dry polishing fitted the bill perfectly. It features two holders and a 200 l fill volume suitable for workpieces up to 400 mm in diameter.

The machine’s high processing forces and flow rates cut processing times, making it extremely cost-efficient. Montemurro can now count on a reliable die-manufacturing process, and its customers, on long service life and lower unit costs.



*OTEC Präzisionsfinish SF Series machine*

### **The company**

OTEC Präzisionsfinish GmbH is a technology leader and provides precision technology for achieving perfect surfaces. OTEC machines are used for deburring, grinding, smoothing and polishing, with the aim of improving surface quality on tools and products. With a network of over 60 distributors worldwide, OTEC is there for international customers from a wide range of sectors. Customers benefit from OTEC’s in-depth technical expertise when it comes to developing the perfect interplay of machine and abrasive.



## FOCUS ON APPLICATIONS

---

### **Press contact**

OTEC Präzisionsfinish GmbH

Heinrich-Hertz-Straße 24

75334 Straubenhardt-Conweiler Germany

Tel. + 49 (0) 70 82 - 49 11 20

Fax + 49 (0) 70 82 - 49 11 29

[info@otec.de](mailto:info@otec.de)

[www.otec.de](http://www.otec.de)