



> **DEBURRING, ROUNDING, OXID REMOVAL - ALL INCLUSIVE**

The EM 5N II+2 represents the 3rd generation of wet deburring technology from ERNST. Configured to process a mix of steel, non-ferrous alloys and coated materials this model delivers intense edge rounding in addition to perfect deburring results as well as oxid removal up to 25 mm.

>> **1. Working Module: The Highly Flexible ERNST Deburring Drum**

The literarily flexible deburring drum removes any burr or dross after laser cutting and/or punching / shearing. The soft foam coating easily adapts to large deviations in material thickness and distortion. Material is mainly removed within a narrow distance from the contoured edges. The point pressure of the abrasive on the solid surface is so low, that coated materials can be processed. The abrasive applied is in form of rectangular sheets and reduces consumables cost approximately 50% compared to wide belts. The deburring drum interacts with the material by it's own weight and is designed to freely float on top of the material. The drum oscillates with over 50 strokes per minute. This guarantees a very even usage of the abrasive. The abrasive is pneumatically tensioned and can be changed in less than 4 minutes. The abrasives therefor have above average lifespan.

>> **2. + 3. Module: Abrasive Brush Rollers**

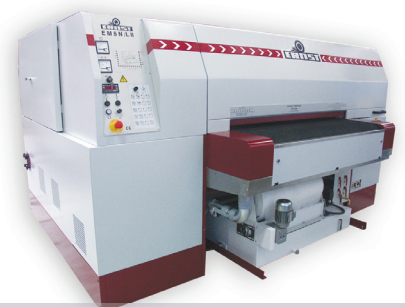
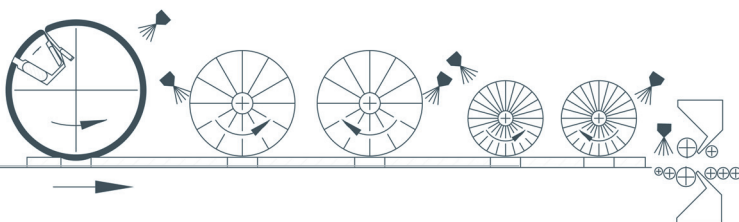
Two counter rotating heavy duty abrasive brush rollers, diameter 350 mm, round the edges of your parts by removing material. The rollers oscillate across the feed direction and can also be controlled in RPM (optional). These tools generate a very intensive rounding of the edges as they are required for parts typical in stainless applications in the food processing and medical equipment industry. The rollers are available in both sand paper abrasives as well as abrasive non-wovens.

>> **4.+5. Module: Oxid removing brushes**

Two counter rotating brushes out of spring steel fingers with a diameter of 250 mm can clean laser cut parts of a thickness up to 25 mm. The principle of operating is, that the brittle oxid layer is destroyed by the spring steel fingers that are working like thousands of small hammers. The oxid layer bursts and can be washed away. As this principle is working with very low friction, the lifetime of the tools is tremendous.

>> **6. + 7. Module: Washing and Drying Station**

At the exit of the machine a washing and drying station cleans the parts with high volume filtered emulsion sprayed onto the parts and a high pressure air venturi system in combination with a grooved squeegee roll.



EM 5N II+2



**PAUL ERNST
MASCHINENFABRIK GMBH**

Alte Meckesheimer Straße
74927 Eschelbronn / Germany

Tel.: +49 (0) 62 26-95 04 - 0
Fax: +49 (0) 62 26-95 04 - 41

www.ernst-maschinen.de
email: info@ernst-maschinen.de

>> Accessories and Special Executions

Small ferrous parts down to credit card size (40 cm²) can be processed with the optional magnetic track. The track covers 300 mm width.

Non magnetic parts such as stainless steel or aluminum can be processed with a vacuum system with minimum requirements of 100 cm² for the size of small parts

The machine is available in 900 mm, 1400 mm and 1600 mm working width.

>> Other Options

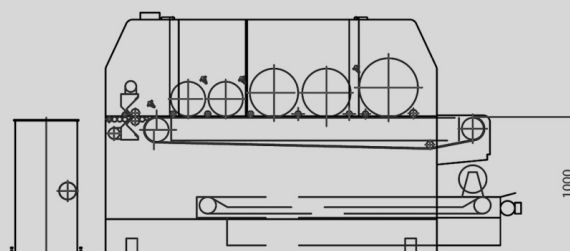
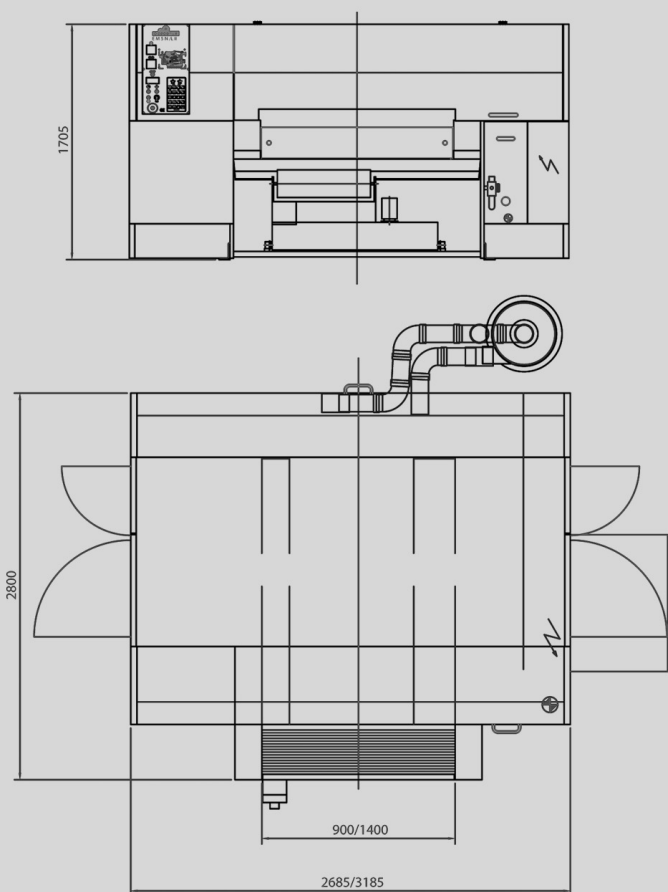
Very oily parts cause premature deterioration of the emulsion and we recommend an oil separator.

If the oxid removal for parts up to 6 mm is sufficient, stainless steel brushes can be used instead of the spring steel fingers. The stainless steel brush can remove the oxid on parts up to 6 mm thick and can be used whenever breaking of the sharp edge is sufficient.

For customers primarily processing aluminum a reaction container is available to maintain the integrity of the emulsion and remove even small aluminum particles.

We reserve the right to make design changes at any time without prior notice.

> TECHNICAL SPECIFICATIONS



EM 5N II+2

| | | |
|--------------------------|---------------|---------------|
| Working Width (standard) | 900 mm | 1400 mm |
| Weight | 3800 kg | 4700 kg |
| Power | 39 kW | 45 kW |
| Amperage | 82 A | 95 A |
| Air | 80 NI / 5 bar | 80 NI / 5 bar |
| Abrasive Dimensions | 900x1540 mm | 1400x1540 mm |