

HIGH QUALITY AUTOMATED POWDER COATING

- Professional INO powder coating plant for wet and dry painting with GEMA profi powder chamber.
- The painted pieces were tested in 600 hours of salt chamber test, carried out and certified by Henkel Austria, standard: DIN EN ISO 9227 (NSS).
- Certified 0% environmental pollution impact.
- We support wet and dry paint on the same line.
- Up to 15% of powder saving. The system collects powder and reuses it.

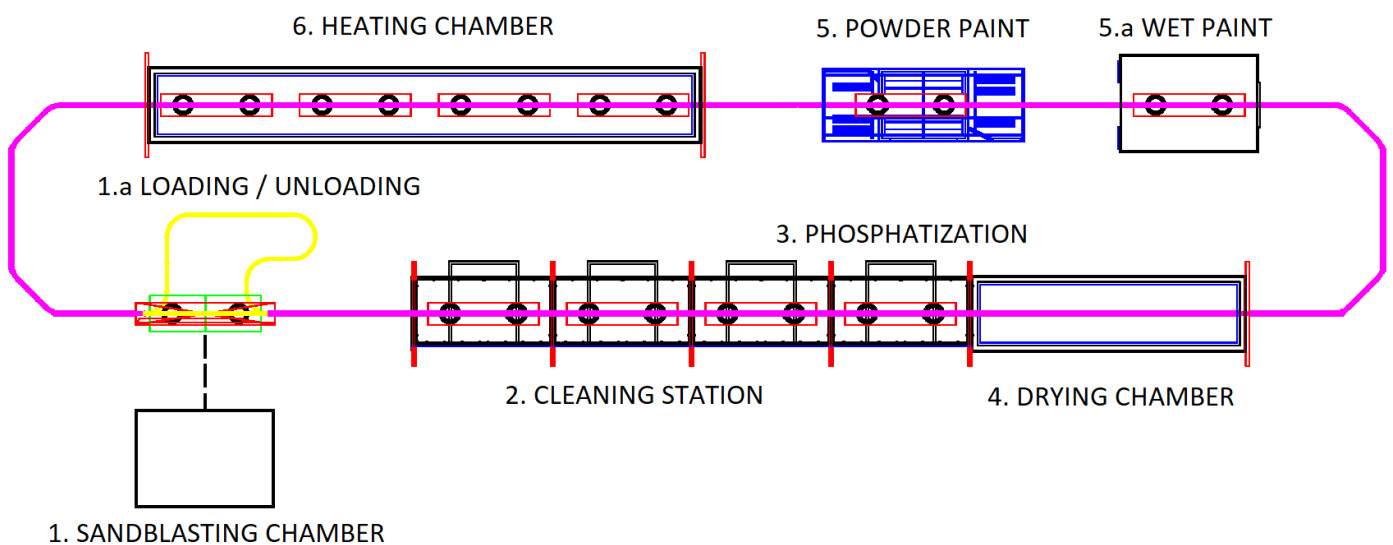


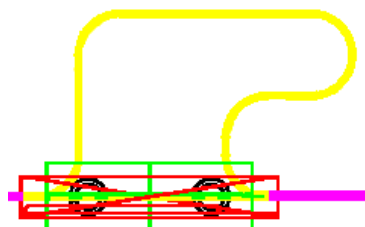
Fig. 1 Sandblasting chamber



Fig. 2 Professional Siemens automated regulation of whole process

1. SAND BLASTING CHAMBER and LOADING / UNLOADING RAMP

- 1. Quality sandblasting chamber with metal grains for surface treatment, each piece is sandblasted.
- 1.a LOADING / UNLOADING RAMP



2. CLEANING STATION

- 3 stations for pre-treatment (washing)

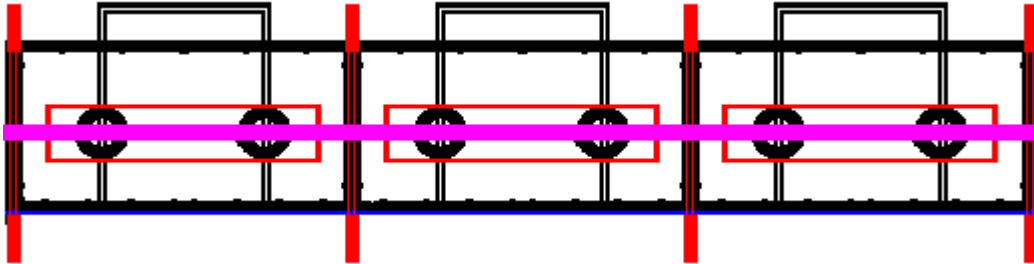


Fig. 1: Automated dosing of degreasing agents



Fig. 2: Henkel electronic for dosing agents



Fig. 3: Wastewater treatment plant, **certified 0% environmental pollution impact**

3. PHOSPHATIZATION

- Phosphating is the core process of the pretreatment. The phosphate film is a porous and semi-conductive inorganic conversion layer formed by the reaction between steel/zinc coating and the phosphate solution. The formed layer can improve the adhesion of coating on the metal body effectively; moreover, supply to the piece an excellent under-film corrosion resistance and waterproof property)

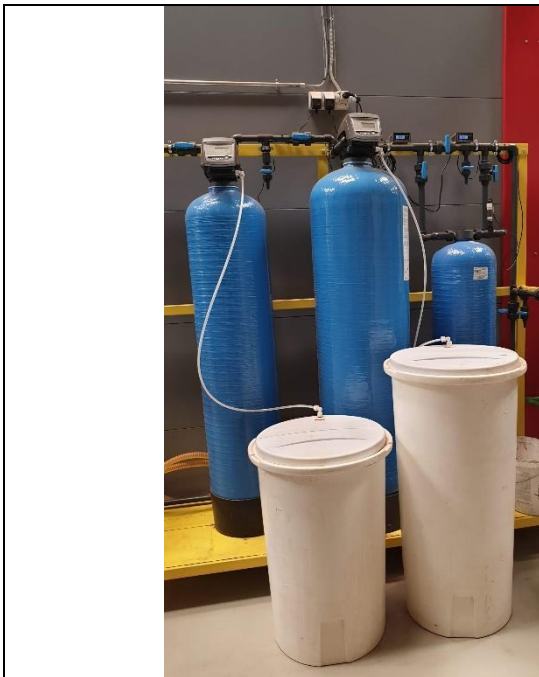
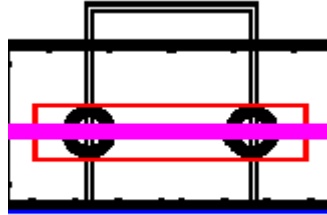


Fig. 4: Phosphating is the core process of the pretreatment



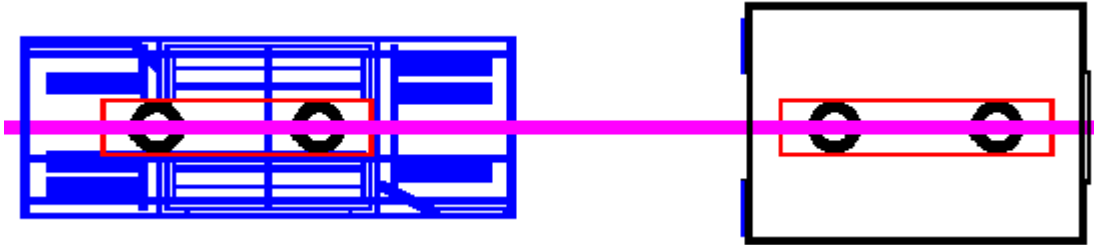
Fig. 5: Henkel technology

4. DRYING CHAMBER

- To insure clean and dry surface
- Masking and preparing for paint

5. POWDER PAINT

5.a WET PAINT



- Gema profi-cabin for automated powder dispensing
 - 4 optical scanners, for recognition of outline object on whole surface (1cm section)
 - 6 automated guns on each side of the cabin
 - horizontal servomotor movement (x and y axis) of powder guns, each side, according to the scanned surface



Fig. 6: Automated powder painting pistols with horizontal servo movement



Fig. 7: Automated powder painting pistols with horizontal servo movement

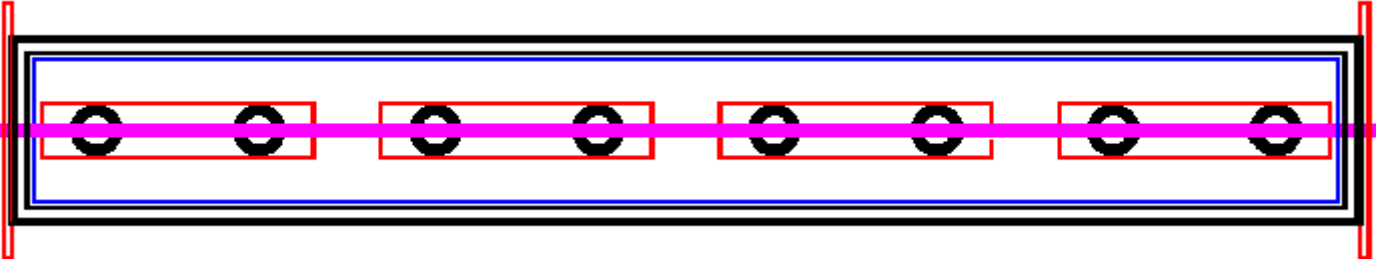


Fig. 8: Servo motors on all pistols for horizontal positioning to the optimum distance towards colored piece



6. HEATING CHAMBER

- 4 stations polymerization up to 200 °C for powder painting



INFORMATION ON WORKPIECES

- Type of workpieces: different metal elements
- Workpieces material: steel
- Thickness of workpieces (metal sheets and profiles): 2-20 mm
- Our workpieces are blasted with steel grains before they go in to painting procedures

MAXIMUM DIMENSIONS OF WORKPIECES

- Length: 4.000 mm
- With: 1.450 mm
- Height: 1.450 mm
- Maximum weight of the workpieces per one cycle: 6.000 N
- Maximum weight of the single workpiece: 3.000 N
- The maximum surface of workpieces: 12 m²

TECHNICAL SUPPORT

- Engineering approach and support to ensure the quality product
- Qualified team of workers in production
- Quality control
- Implementation possibility of semi automated and automated logistics process