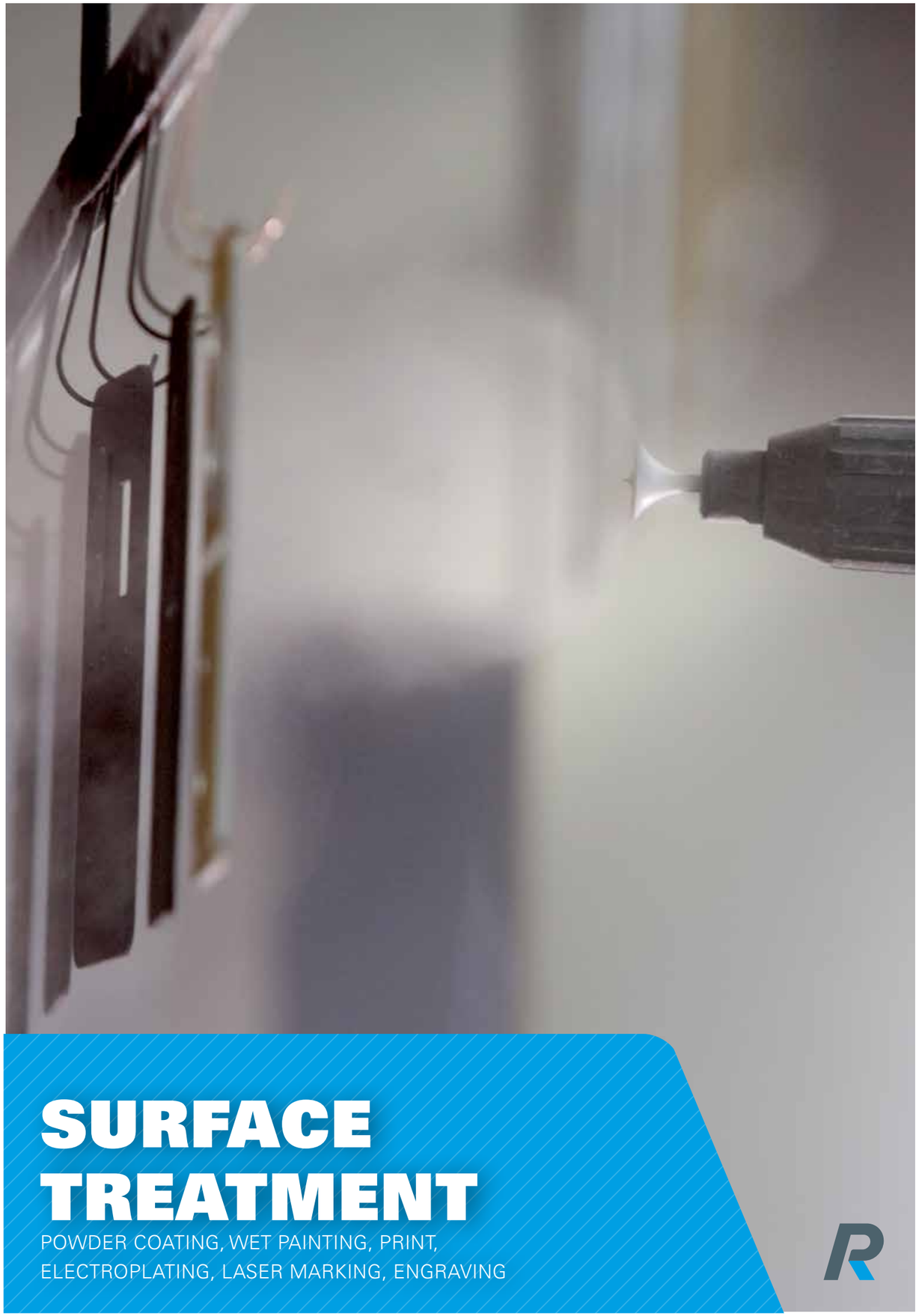

SURFACE TREATMENT

POWDER COATING, WET PAINTING, PRINT,
ELECTROPLATING, LASER MARKING, ENGRAVING

POWDER COATING & WET PAINTING

We provide the indispensable final touch by finishing the surface in a way that fulfills both the visual and the technical requirements of the product.

WET PAINTING & POWDER COATING

The quality of the final product relies on the perfect finish. Underlying this are the color selection and specification on the basis of all common RAL colors using environmentally acceptable and fully automated powder coating processes or wet painting. Surface treatment stands for visible perfection. Individual requests can be fulfilled with the gloss levels matt, silk gloss and gloss as well as with smooth, fine structure and coarse structure finishes.

For manual and fully automated powder coating, a separate workshop is available. Manual wet painting capabilities extend our product portfolio.

MACHINERY FOR POWDER COATING

- GEMA powder coating system
- WURSTER pre-treatment system
- SWISS SPEEDY KONTUR deburring machine

EXAMPLES FOR TYPICAL MATERIALS

- Aluminum
- Steel
- Stainless steel

USUAL PART SIZES

- Max. height of parts: 900 mm
- Max. width of parts: 450 mm
- Max. length of parts: 450 mm

POWDER COATING & WET PAINTING

FINISHING

POWDER COATING

/41

ELECTROPLATING

Functional electroplating enables metal coatings and is used for protection against corrosion and wear, for protection against external influences and to improve the electrical conductivity.

CHROMATING

The chrome (VI)-free passivation of aluminum is an approved and common practice in many parts of the industry. It is preferred in the electronics industry on account of the low surface resistance and in the aerospace industry because of the high corrosion protection. The method most widely used is colorless passivation, also as a bonding agent for the powder coating and painting that follow. Its properties include low abrasion resistance, the benefits of low coating thickness in combination with homogeneous surface optics with optimum finish quality, electrical conductivity and solderability.

ELECTROPLATING EQUIPMENT

Chromate conversion plant for rack plating

- Number of bath rows: 2
- Number of stations / baths: 32
- Control system: fully automatic program control, individual control if required
- Coating material: Surtec 650
- Parts carrier usable dimensions in direction of motion (dimensions can vary depending on rack and mounting) length: max. 450 mm, width: max. 1250 mm, height: max. 1000 mm
- Approvals / Surtec 650 specifications:
  – IMDS.No.: 30429267
  – MIL - DTL - 81706B
  – MIL - DTL - 5541F
  – LN9368-3 No. 1108

FURTHER TECHNOLOGY SERVICES

- Anodizing
- Electroplating (chrome plating, galvanizing, nickel plating)
- KTL coating

ELECTROPLATING

VOLUME PARTS

SINGLE PARTS

/42

PRINTING

What is so special about today‘s printing applications is their immense diversity and complexity.

SILK SCREEN

The silk screen printing technology is particularly suitable for flat components, like metals, plastics and glass. Printing on case parts, type plates, front panels, graphic signs and advertising material can be done according to individual design requirements. The color ensures durability of the product - spot or special colors are an essential part of screen printing. Durability and stability as well as resistance to chemical, physical and weather influences are characteristics of the process in technical and functional applications.

PAD PRINTING

Pad printing is particularly suitable for three-dimensional objects. With the help of elastic pads made of silicone rubber, it is used as an indirect offset printing process mainly on industrial products. Thanks to its high elasticity, the pad can adapt to all sorts of printing stock without difficulty so that it can print even on coarsely structured surfaces, convex and concave forms, cavities and uneven surfaces.

HD / DIGITAL PRINTING

HD printing is particularly suitable for flat, multi-colored components. The imprint has extremely high resolution and its strength is a major feature. Customized and personalized printing speaks for this economical printing technique. Two-dimensional or partial overprints or structuring form the basis of modern customized series printing on digital models.

TYPICAL COLOR SYSTEMS FOR PRINTING

HKS, RAL, RAL Design, Pantone, colors mixed according to sample

PRINTING

PAD PRINTING

AUTOMATED PROCESS

/45

LASER MARKING

An intense laser beam enables labeling or marking of workpieces and guarantees consistent visible quality during the entire production process.

LASER MARKING / LASER ENGRAVING

Laser marking or laser engraving is permanent, forgery-proof and easy to read. It can be performed fast, automatically and to individual specifications.

On metal or on plastics: laser marking is suitable for many materials and applications. Individual and machine-readable data such as text, numbers, graphics and codes can be applied directly in production.

Laser markers are among the most reliable labeling systems. Laser marking is permanent and also abrasion-resistant, heat resistant, acid-proof, water-resistant, smear-proof and forgery proof.

FIBER LASER

Material

- Cr-Ni Steel (1.4301/ 1.4016) raw
- Cr-Ni Steel (1.4301/ 1.4016) polished
- Steel (S235 JR) galvanized
- Steel (S235 JR) powder-coated
- Aluminium raw and / or anodized
- Copper
- Brass
- All common plastics

Colors

- Black
- White
- Annealing colors

Code

- Data matrix
- Barcode

Data

- Direct marking at the machine
- DXF

LASER MARKING

LASER ENGRAVING

ENGRAVING PROCESS