

- KOVOFINIŠ is a modern Czech company with a tradition dating back to 1951. During its existence KOVOFINIŠ has successfully implemented projects all over the world. Our company has its own technical, development and production facilities. Thanks to the continuous development of know-how, we are the leading European manufacturer of equipment for surface treatment and disposal of industrial waste water. All the equipment we supply is designed with the environment in mind and according to the customer's needs.
- The KOVOFINIŠ company premises consist of an administrative building, production facilities, warehouses and a canteen. The production facilities cover 17,500 m<sup>2</sup>. The production area includes - electroplating coating line, painting line, research laboratory and waste water treatment plant.
- The quality of our management is certified according to ISO 9001. The environmental management of the company is certified according to ISO 14001. We are also holders of the German WHG certificate for surface treatment and waste water treatment.













Our product portfolio consists of turnkey technological solutions for:

Surface pretreatment

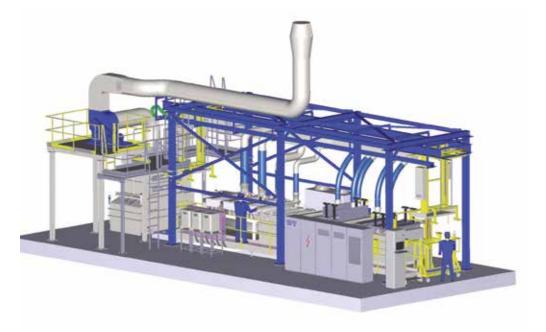
Galvanic and chemical surface treatment

Spray painting

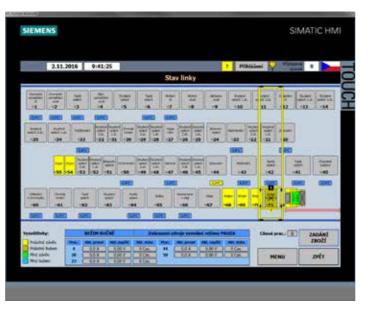
Waste water treatment

# Services

- Technology proposals and quality checks in relation to specific customer requirements and needs
- Project outline incl. documentation for negotiation with government or local authorities
- > Drafts for building works
- > Planning, design and efficient construction process
- > Production, delivery and installation incl. commissioning
- Auditor's reports
- User and maintenance staff training
- Operation and maintenance instruction incl. technical documentation
- > Participation during Test Run Operation
- Service
- Commercial-financial services
- Consulting
- Process automation systems including free programmable treatment programs and visualisation









# Project life cycle

#### **Research and Development**

Our experienced and skilled specialists keep up and develop new technologies. We are able to apply brand new technologies to suit customer needs.

There are three specialized workplaces in our facilities. The first one is our own research laboratory, where we analyze customer's samples and design customized solutions. The second one is galvanizing line, where we verify effectivity and efficiency of designed technology on customer's goods. This galvanizing line also serves for cooperations with our partners. The third facility is our own powder painting line and paintshops, where we paint our products.

### **Engineering and Design**

We have technical specialists for:

- Surface pretreatment and degreasing systems
- Galvanic and electroplating systems
- > Electrical engineering and designing
- Programming
- Painting
- Transport and conveyor systems
- Waste water treatment

We use modern CAD systems, which promote high productivity and flexibility of project development. Our team of programmers is ready to implement customer demands for control systems on Siemens platform. Our control systems enable changes in program for each batch. The visualization and archiving of the technological process is matter of course.







#### Production

Our wide production facilities enable contract realization on very short notice. We take advantage of high quality in processing of stainless and carbon steel and plastics. To achieve highest quality features of our products we have state of the art equipment.

#### Installation

To reduce the installation period, we insist on precise pre-assembly in our factory prior to installation on-site. Long-time experienced and qualified workers are guarantee of a smooth installation on-site. Our delivery also includes commissioning and training of operating staff. We help our customers with production start-up and with solving operational problems.

#### Service

We provide quick and high quality service during and after warranty period. Regular professional maintenance significantly prolongs operating lifetime of delivered facilities. Preventive maintenance inspections help to prevent breakdowns and to save costs from interruption of production.

# Chemical and electrochemical surface pretreatment

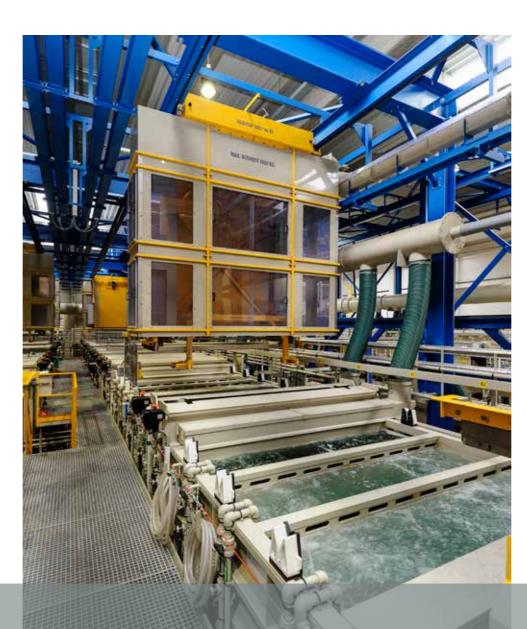
#### **Devices for pretreatment prior:**

- Polishing
- Cold forming
- Electroplating
- Hot-dip galvanizing
- Paint coating

#### **Devices for:**

- Degreasing
  - Chemical
  - Electrolytic
  - Ultrasonic
- Pickling of
  - Steel
  - Non-ferrous metal, light metal and their alloys
- Phosphating
  - Zinc and multi-cationic
  - Iron phosphating
- > Aluminium pretreatment
  - Chromate treatment
  - Chrome-free conversion coatings
- Stripping of
  - Paint
  - Metal
  - Alloy coatings





## Equipment:

- > Spray and immersion cleaning machines with compact design
- > Passage-type spray cleaning machine
- Spray booths

- Devices for:
- Passivation
- Preservation
- Chemical metal plating
  - Nickeling
  - Coppering
- Phosphating
  - Manganese
  - Thick-coated



Barrel-type cleaning machines

- Degreasing and cleaning boxes
- > Automatic lines and tank equipment
- > Parts for surface pretreatment lines

#### **Chemical surface treatment**

Metal dyeing (metal blacking etc.)

# Galvanizing and electrochemical surface treatment

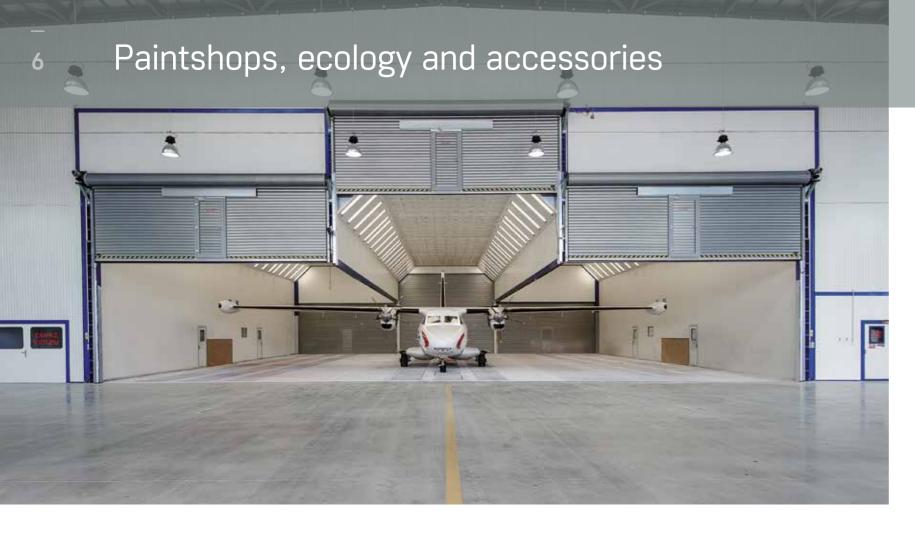




### We offer galvanizing plants for electrochemical surface treatments:

- > Zinc plating including after-treatment
  - Chromating
  - Chrome-free passivation and sealing
- Zinc alloy plating
  - Zinc-nickel
  - Zinc-iron
- > Hexavalent chromium free applications
- Copper plating
- Chromium plating
  - Decorative
  - Hard chrome plating
- Nickel plating
  - Dull
  - Semi-gloss
  - Bright
- Tin alloy plating
- Precious metal plating
  - Gold
  - Silver
- Aluminium anodizing
  - Decorative
  - Chrome
  - Hard
- Electrolytic polishing







### **Delivery of equipment:**

- For paint coating
  - Water-based
  - Organic solvent-based
  - Powder
- > With separation system
  - Dry-type
  - Wet-type
- > Glaze-coating machines, high-pressure spraying
- Dryers and furnaces
  - Electrical
  - Gas
  - Infra-red

- > Air supply and air exhaust units including filtration
- Accessories
  - Pressure containers
  - Degreasing boxes
  - Mixing equipment
  - Setting tunnels
  - Pressure air regulation and cleaning units
- > Modification of existing booths for new transport systems such as overhead conveyors
- Conveyors and transport systems

# 7 Dip painting



## Equipment for painting:

- > Dip painting
- Electrophoretic coating
  - Anaphoretic coating (ATL)
  - Cataphoretic coating (KTL)



# KOVO FINIŠ

4.00

# Scope of delivery

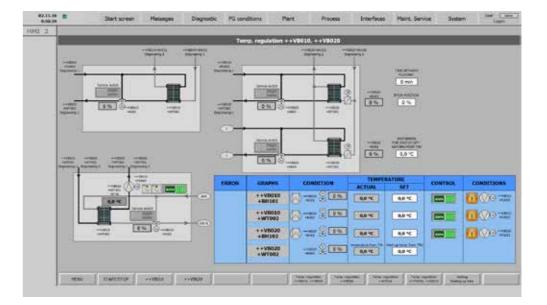
### Our delivery includes:

- > Turn-key fully automatic lines and plants with controlled loading and unloading sections
- Program controlled processing and transport systems
- Rack or barrel lines
- Manually controlled lines
- > Lines with hoist or conveyor transport systems
- > Galvanizing tanks for manual operation
- Accessories:
  - rack and barrel equipment •
  - bath preparation units •
- > Bath maintenance and regeneration: automatic additive dosing, automatic oil separation, filtration, selective cleaning (Nickel bath), sludge separation equipment for phosphating baths
- > Program control, program modification, process visualization and archiving











# Waste Water Treatment Plants

We have suitable solutions for individual customer needs and requirements for waste water treatment. We know proper legislation concerning environmental regulations. Our plants and equipment set the highest standard in environmental care.

#### For waste water treatment with content of:

- Acids and alkalines
- > Oil, grease and other petroleum products
- Cyanides
- Hexavalent chromium
- Nitrites
- Oxidants and reducers
- > Heavy metals and other metals
- Complex-forming agents
- Harmful anions
  - Phosphate
  - Fluorides
- Ammonia ions
- > Over-spray treatment from paintshops
- Dispersed agents
  - Teflon
  - Graphite





- Electrical industry

  - > Paintshops including pretreatment

## Area of application:

- Galvanic processes
- Chemical processes
- Glass industry
- Degreasing processes

# Waste Water Treatment Plants



#### Plants and equipment:

- > Turn-key automatic waste water treatment plants
  - Continuous
  - Batch
- Demulsifying plants
- > Chemical dosing and preparation units
- Sludge separators
- Filters
  - Sand
  - Belt
  - Sorption
- Ion exchangers
- Flotation units
- > Zero Liquid Discharge systems with the use of
  - Microfiltration
  - Ultrafiltration
  - Reverse osmosis
  - Vacuum evaporators
- Reactors and storage tanks
- > Program process control
- Process visualization and archiving





#### We also provide:

- > Technological suggestion and verification in our research laboratory
- > Chemical-technological calculations for approval negotiations
- > Assistance with government approval negotiations

### Ecology

Our environmental solutions reduce harmful impacts on environment and minimize the amount of waste water, exhalation and sludge production with:

- > Optimizing solution for rinsing systems
- Recirculating and regenerating baths
- Absorbing gaseous substances



