

# SYSTEMS ENGINEERING

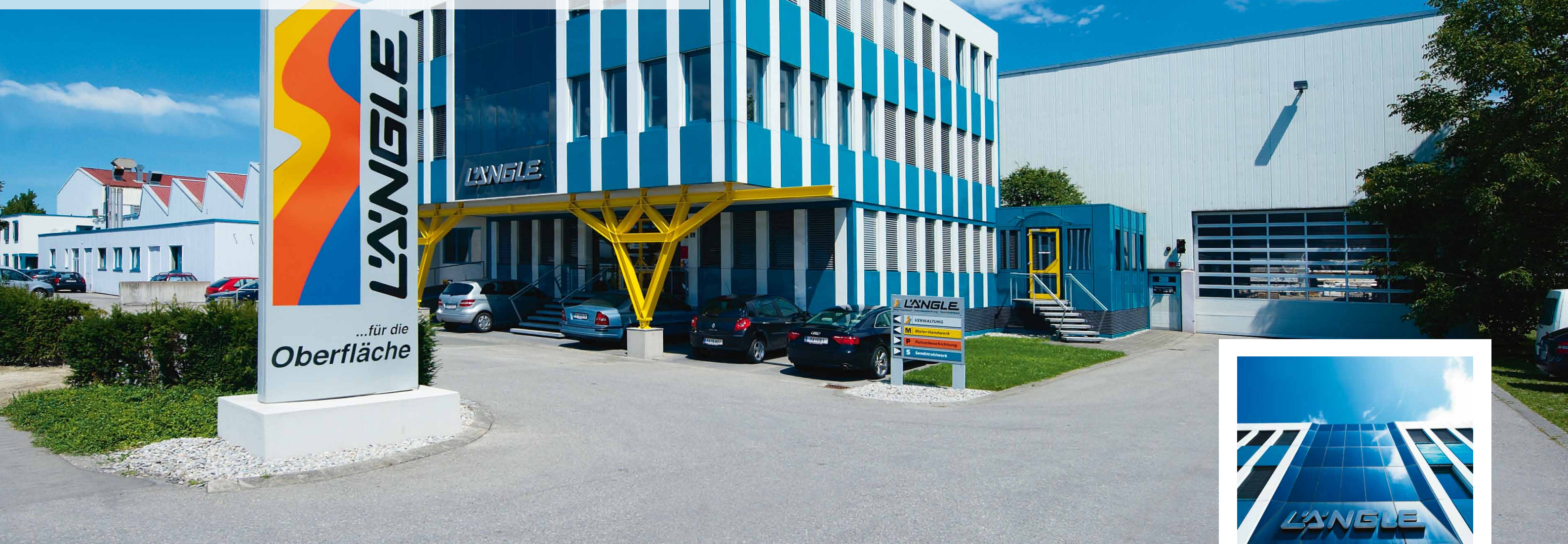
The full-service provider for coating systems





# Längle Group

Professionalism since 1856.



The success story of the Längle Group begins in 1856. Starting out as a single-handed endeavor, Längle today is a successful company with an excellent reputation that reaches far beyond the borders of Vorarlberg. The Längle Group presents itself as an interdisciplinary combination of powder coating, anodizing, wet painting, sand-blasting, painting and the construction of

complete solutions for surface technology. Längle devotes its passion to systems engineering. As a specialist in high quality coating systems, Längle offers the entire process from a single source, from the conception right through to the integration at the customer.

- Innovative, middle-sized company
- Many years of experience in powder coating
- Individual, high quality solutions
- In family ownership for five generations
- Customers throughout Europe





# Complete solutions

Turnkey ready – from a single source.



Längle Group is your contact for all surface process requirements. Thanks to the many years of experience in the construction and operation of coating systems, Längle is the specialist in systems engineering. A complete solution incorporates numerous individual components that need to be planned to the last detail in order to establish an entire system capable of

performing. Längle gladly accepts such challenges and offers everything necessary for professional coating solutions, from individual components through to turnkey coating systems. The range on offer is rounded off by various additional services – because everything is directed towards fulfilling your individual wishes.

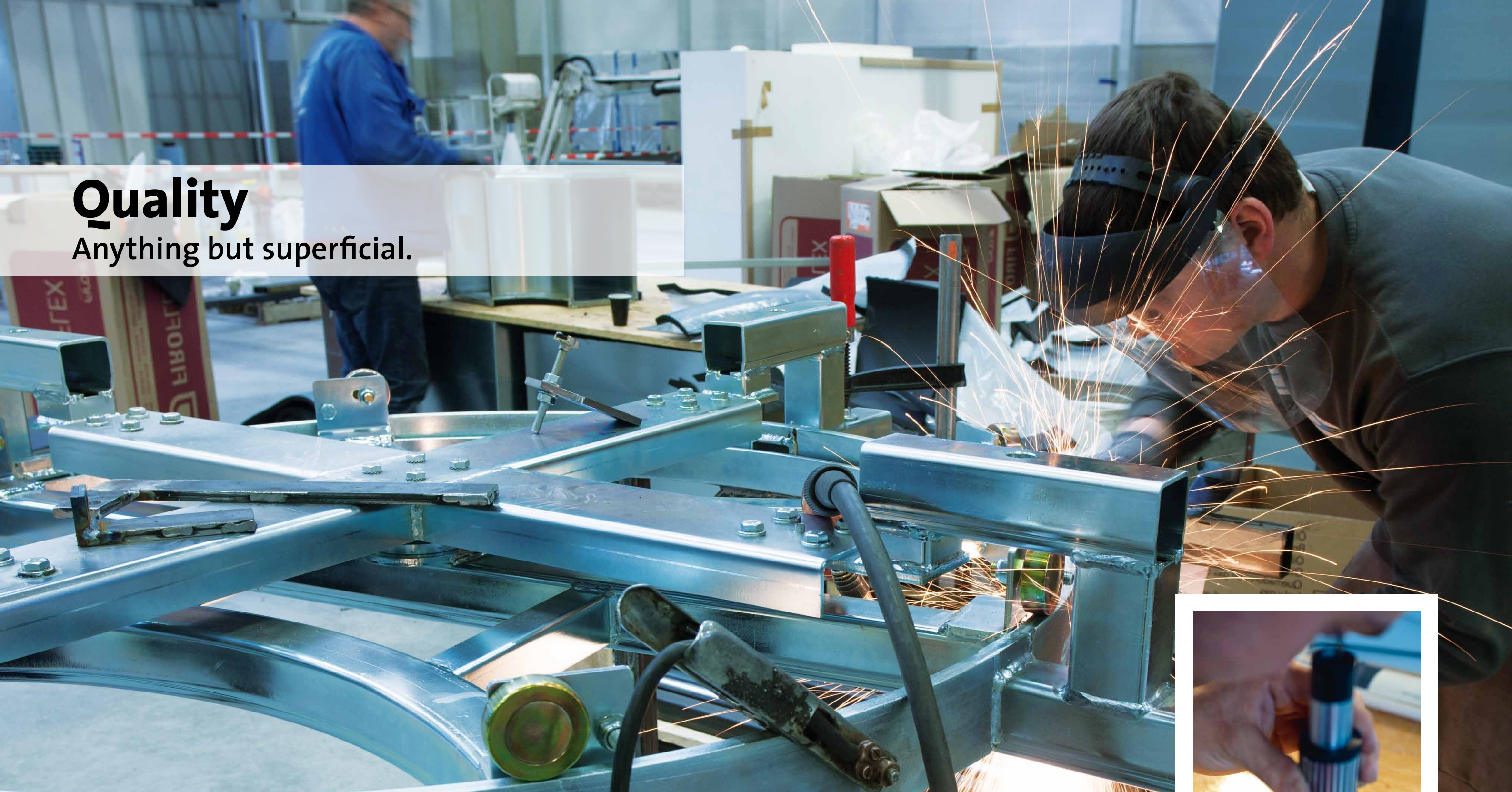
- All-round service from A to Z
- One contact for all fields
- Planning, coordination and execution
- Staff training, hanger construction, optimization
- Specialist in the construction and operation of systems





# Quality

Anything but superficial.



Längle remains faithful to one principle: the highest quality on all levels and during all processes: from the preparation, through the processing right on to the finishing. Quality means that all product characteristics fulfill the defined requirements completely. Accordingly a high value is placed on quality assurance as well as the optimization of work procedures. With

systems engineering, Längle produces fail-safe, trouble-free and flexible systems – based on the motto: “Quality is when the customer returns and not the product.” The most important partners are renowned suppliers, with whom Längle has maintained many years of cooperation, as well as qualified personnel.

- Fail-safe, reliable systems
- Simple and flexible solutions
- Lasting partnerships
- Competent, renowned and regional suppliers
- Long standing, qualified personnel





# Pretreatment

Starting point for perfection.

Perfection and quality can only be ensured by properly treated raw materials. Paint and powder adhere better to specifically pretreated parts, while corrosion protection is increased. Therefore contaminations are thoroughly removed from the surfaces using special procedures. The choice of suitable pretreatment methods is thus a deciding factor in systems engineering

and must be exactly attuned to the individual requirements of the customer – for example in respect of types of materials and flow of parts. Thereby the ecological requirements are taken into account just as much as the economical demands.

- Dip pretreatment
- Spray pretreatment
- Ultrasound cleaning
- Manual cleaning systems
- Continuous and cycling systems
- Single-chamber- and multi-chamber systems





# Application

The heart of the coating system.



With the powder application the parts are treated with electrostatically charged powder paints. This work process serves as much for the refinement as for the protection of the surface. According to the respective requirement profile of the system, the suitable application system will be selected, designed and produced.

This way of refinement is especially environmentally friendly, since no solvents and thinners are used. The remaining coating material is collected, prepared and re-used. With renowned partners, the Längle Group offers professional and custom-tailored solutions for the application.

- Manual coating and automatic coating
- Color quick change units
- Reuse-optimized systems
- Fine filters
- Cyclone separation
- Ultrasonic sieves
- Gap control





# Ovens

Optimum heat for every application.

The ovens assume two main functions at once in the coating process: the drying of any dampness that remains on the parts after pretreating, as well as stoving the color after its application. The perfect oven possesses good insulation, a sophisticated air circulation as well as optimal flow behavior and a guaranteed exact stoving temperature with the best possible heat

recycling. In Längle's coating systems only high quality equipment is used – a further essential factor contributing to consistently high quality in the end products.

- Chamber ovens
- Tunnel ovens
- High temperature ovens
- Infrared ovens
- Fueled by oil, gas or electricity
- Directly or indirectly heated





# Water treatment

Not only clean, but pure.

Purity means as much as “free of any contamination” and is especially in industrially used water of particular relevance. Pure water – in other words distilled water, distillate equivalent or demineralized water – is highly important in the most diverse areas of technology. Also with coating the water used must be the purest possible. It is therefore cleaned and

desalinated in the run-up in order to achieve the most perfect results possible. Längle thereby places a high value on using high performance and environmentally friendly water treatment plants in its systems.

- DI-Water systems
- Reverse osmosis systems
- Water softeners
- Water analysis
- Test systems
- Pure water facilities





# Waste water treatment

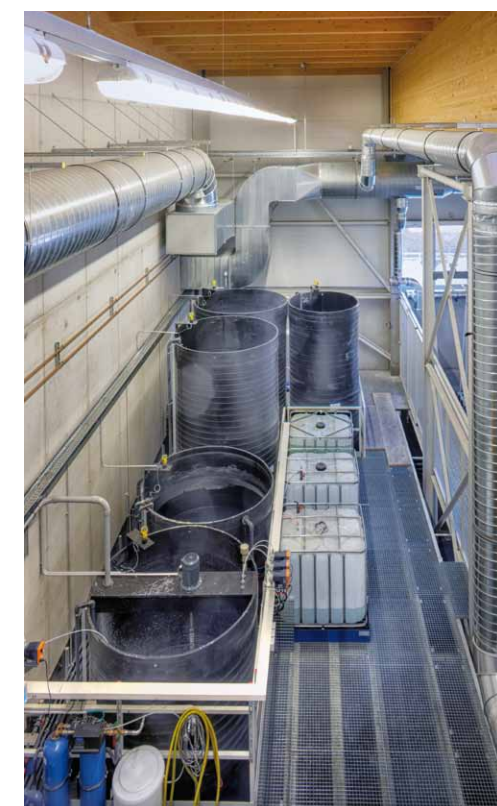
Energy saving and environmentally friendly.



For the sake of our environment contaminated water is cleaned after usage in the waste water treatment system. Whether to have waste-water-free or conventional water treatment with induction: Know-how and experience make Längle a strong partner in this area. For a few years now waste-water-free water treatment has been enjoying increasing popularity.

In this procedure the water is concentrated by vacuum distillation and the distillate is fed back into the process. In order to achieve a high performance and efficiency, it is important to use a high quality evaporator. Längle therefore uses quality products from Germany, exceeding the standards by far.

- Evaporator
- Neutralization
- Waste water analysis
- Filter and Filter press
- Lot conditioning





# Conveyor systems

Efficient, flexible and safe.



The requirements of the transport system in a coating facility are comparable to the transport systems on our streets: A flexible, dynamic and fast system is needed, that avoids jams and accidents. The right choice guarantees an efficient and safe progression of the parts through the entire coating process. The parts have to go through numerous stations on their way to being

finished products – from the pretreatment through the application and the stoving, all the way to the packaging. In order to ensure a smooth material flow, the transport system is planned by Längle in advance and specifically aimed to suit the individual requirements.

- Manual pushing systems
- Power & Free
- Circular feeding systems
- Automated cranes
- Part carrier feeding systems
- Elevating stations





# Additional services

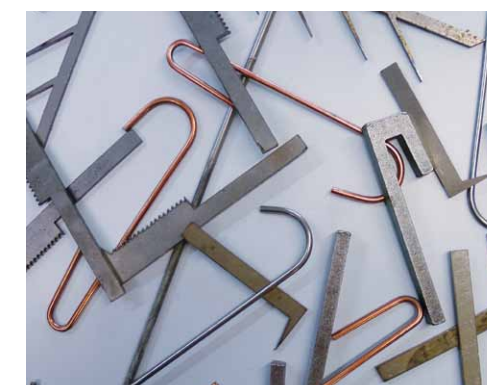
The “Längle trouble-free package”.



The satisfaction of the customer is top priority. Therefore Längle Group does not just deliver the complete coating system with all its technical components, but also trains the staff and, within the framework of the “Längle trouble-free package”, supplies further valuable additional services. In this way the competent Längle-team remains with you in an advisory capacity from the

first conversation through to the final completion of your facility and supports you in organizational tasks such as in the optimization of your procedures or taking care of official matters. Through this all-round service a smooth commissioning is guaranteed and an efficient running of your facility assured for the long term.

- Staff training
- Taking care of official matters
- Process- and sequence optimization
- Procurement optimization
- Hanger construction and –maintenance
- Lab equipment





# Staff training

Competent right from the start.

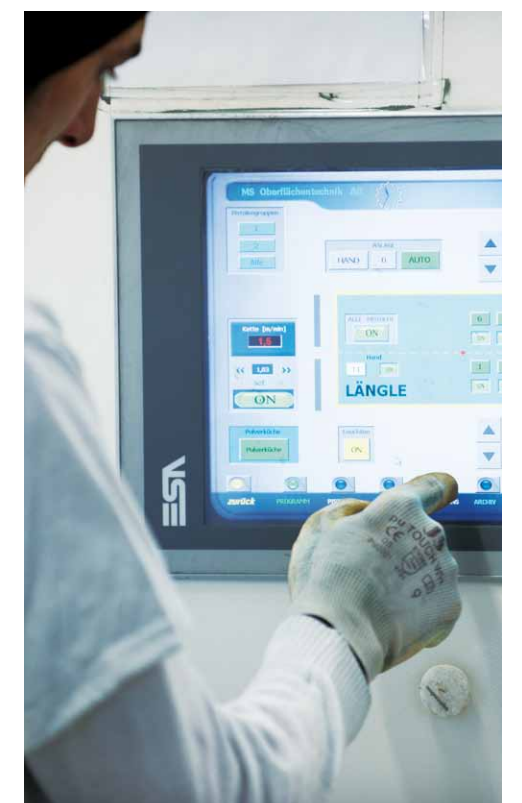


The Längle Group has gathered profound know-how and valuable experience with the most diverse of parts and procedures through the many years of running their own coating systems. Längle proudly passes this knowledge on to its customers and offers you the possibility of completing a training course directly in Längle's production. Even while your new complete system

is being built, your personnel will be trained for all the relevant positions – until every move is perfected. Thus the coating can commence as soon as the facility has been completed and from the commissioning onwards a high production performance can already be guaranteed.

#### Training in the areas:

- Coating
- Quality control
- Bonding
- Dip tank monitoring
- Water- and waste water treatment
- Preparation for GSB membership





**Längle GmbH**  
Bundesstraße 6-8, A-6833 Klaus  
Telefon: +43 5523 59 66-0  
Telefax: +43 5523 59 66-81  
[office@laengle.com](mailto:office@laengle.com)  
[www.laengle.com](http://www.laengle.com)

