



# LARGE-SPACE BOOTHS

for Commercial Vehicles, Special Parts,  
Construction Machines and Engine Building



Spirit of Air

# King Size booth



## HIGHEST LEVEL IN EQUIPMENT & QUALITY

Excellent surface quality, perfect protection against corrosion and outstanding optics are marking first-class products not only for spraying passenger cars, but also for commercial vehicles and in engine building.

### Competence by Experience

Having realized a great number of large spray booths in Germany and abroad, WOLF has become a preferred Partner in commercial vehicles, agricultural and construction machine sector. Also in general mechanical engineering, WOLF-spray booths are standing for highest quality and most modern technology.

### Customer-specific Solutions for any Demand

If semi-trucks, tramways, construction machines or wind turbines - WOLF offers you the solution to your requirements by own planning and production.

We are planning for you exactly the booth technology you need to realize your aims.

Highest reliability, easy maintenance, maximal energy efficiency and attractive appearance are always the basic features of the installed booths.

## BENEFITS

- ▶ Competence in planning and construction
- ▶ Renowned manufacturer of air-conditioning and ventilation plants
- ▶ High production depth on maximal quality level
- ▶ Own control system construction
- ▶ Strong and reliable service
- ▶ Best references in automotive and paint industry, institutes and training sector
- ▶ Representations in 14 countries
- ▶ Export to over 40 countries





## THE HIGHEST LEVEL OF ENERGY EFFICIENCY

As a manufacturer of ventilation and air-conditioning plants, WOLF is able to conceive even booths with complex airflow requirements, so that your spray booth is completely “one-stop” and 100 percent optimized – also regarding energy consumption.

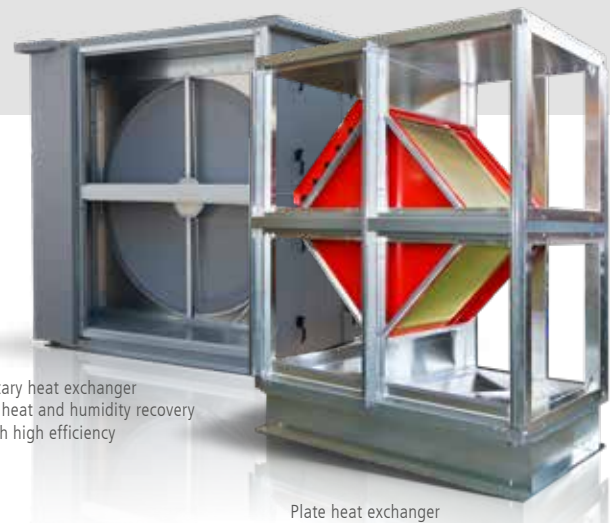
### Air Technology and Heat Recovery

One of the great advantages of WOLF is the wide ventilation and air-conditioning program by own production, providing the optimal conception for nearly any requirements.

Essential is, for example, the right selection and dimensioning of heat recovery systems. In most cases, the approved plate exchanger modules are used. If also humidity is to be transferred, highly efficient rotary heat exchangers are used.

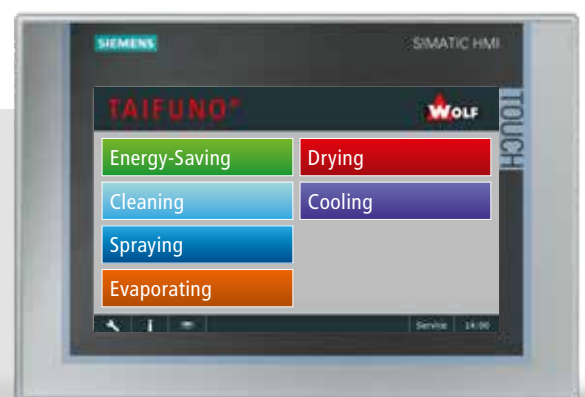
However, energy efficiency means far more than using heat recovery systems. Also control engineering plays a decisive part.

Rotary heat exchanger for heat and humidity recovery with high efficiency



### Control System and Regulation

Modern mode programs are controlling the optimal energy application for each kind of operation such as preparing, spraying, evaporating and drying. Single booth sections in large booths can be switched, so that only the respective zone where paintwork is done is run with full air capacity.



# Commercial Vehicles



## STATE-OF-THE-ART SPRAYING HALL FOR COMMERCIAL VEHICLES

A large spray booth with a length of 21,5 m as well as two preparation bays with a length of 17 m, each, provide not only the requirements for large-scale paintwork, but also the basics for optimal working processes.

If trucks, buses or industrial machines – nearly any size can be painted in the new paint shop in an adjusted area with efficient energy use. The spray booth can be divided into a 14,5 m and a 7 m section. In the large section, buses or commercial vehicles are painted, while the last third is separated.

The smaller booth section is mostly used for painting the numerous single parts of commercial vehicles.

On the elaborate preparation bays, also big vehicles can be treated completely and without manoeuvring. Each preparation bay has got a 2-zone-switching with vertical air guidance, so that as required only one zone or both of them can be ventilated. A further advantage is the heating as well as ventilation and de-aeration of the hall by the machinery of the preparation bays.





## OPTIMAL SERVICE CONDITIONS FOR COMMERCIAL VEHICLE AND BUS SECTOR

The inside dimensions of the booth are: length 25,5 m, width 6,0 m and height 5,5 m. Since the booth is divided by a roller door into two sections with a length of 15 m and 10,5 m, two vehicles can be painted and dried at the same time. A total of three high-performance machineries with a total air capacity of 103.000 m<sup>3</sup> an hour guarantee a very good air supply for spraying. The complete booth surface is equipped with a fine dust filter ceiling. Full-length ceiling lightings and low side lightings assure optimal light conditions in the booth.

The booth is heated with gas and brought to operation temperature within shortest time by powerful air heaters. The machineries are equipped with heat recovery systems, reducing the gas consumption of the burners by approx. 50 %. The modern control system determines the optimal fan speed control for the working processes cleaning, spraying, evaporation and drying. Spraying breaks are recognized by the control system, releasing automatically energy-saving programs and thus reducing the power and gas consumption of the booth to a minimum.





# Commercial Vehicles



## PAINTING SPECIAL SUPERSTRUCTURES

In this specialized company, commercial vehicles are professionally modified or provided with special superstructures. Finylla, chassis and/or superstructures are painted acc. to customer's request.

The spray booth (in masonry, 18 m long) is subdividable by roller doors into 2 sections (1/3 to 2/3). Ventilation in the smaller section is vertical, in the larger one diagonal, by two machineries side by side.





## COATING FOR THE WORLD MARKET LEADER

A solution for coating crane superstructures for trucks was realized for a well-known manufacturer at the Austrian location Lengau. The trucks drive to the site on their own wheels and are first cleaned from road dirt in the 15 x 6 x 5.5 m (L x W x H) large washing cabin with a high-pressure cleaner. The washing cabin consists of stainless steel system components and has an aeration system that can also be used for drying. The crane superstructures are then assembled individually according to customer requirements.

The fully assembled hydraulic articulated jib cranes are repainted at the connection point to the truck in two large-volume spraying/drying booths (15 x 6 x 5.5 m). The cabins are connected at the front by a roller door. If required, one of the booths can be used permanently for painting and the other for drying.

Two powerful ventilating units per booth ensure the best painting results.





# Commercial Vehicles

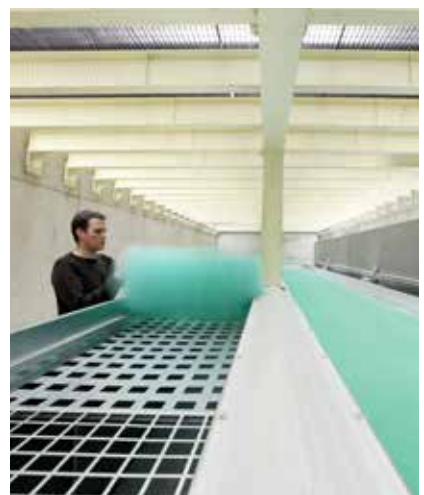


## PAINTING SPECIAL COMMERCIAL VEHICLES

This well-known manufacturer of dumping, disposal, pushing floor and special vehicles is working with two parallel large-space booths (20 x 5,5 x 6 m, each) with sectionally switched ventilation. Two powerful machineries are assigned to each booth.

Optionally either zone 1 or zone 2 is ventilated vertically. Alternatively each booth can be ventilated diagonally over its whole length.

The generous substructure – which can be walked upon – enables an especially comfortable filter exchange.







## EXCLUSIVE SURFACE FOR SPECIAL VEHICLES

With this spray booth (18 x 6 m, in masonry, diagonally ventilated), this contract coating company is well prepared for any case.

Who loves the special, will paint with WOLF. Thus, you will shine anywhere, for example with the exclusive special horse transporter.

Nevertheless, working ergonomics are not neglected by WOLF: The large assembly pit with ventilation and good luminous conditions is an optimal working place also for the sprayer.



# Commercial Vehicles



## PERFECT CORROSION PROTECTION

The requirements for corrosion protection of vehicles are increasing – even for large heavy-duty low-loaders. In order to meet these requirements, the paint shop of a vehicle manufacturer was completely reequipped. A total of four booths, each with a size of 22,0 x 6,0 x 5,0 m (l x w x h), were built – two of which are spray booths, one for sandblasting and one for zinc spraying. When zinc is applied in arc process, fine zinc dust is produced, which must be reliably extracted since it is both flammable and explosive.

Therefore, the necessary dust filter system has got explosion protection flaps and rupture discs. Smooth surfaces on the booth inside walls prevent deposits and can easily be cleaned. The two spraying/drying booths are equipped with a sectional ventilation. Only in the area where spraying is just being done, three of the eight sections are actively ventilated and exhausted. In this way, the air volume of the booth and thus the energy requirement can be reduced by over 60%.







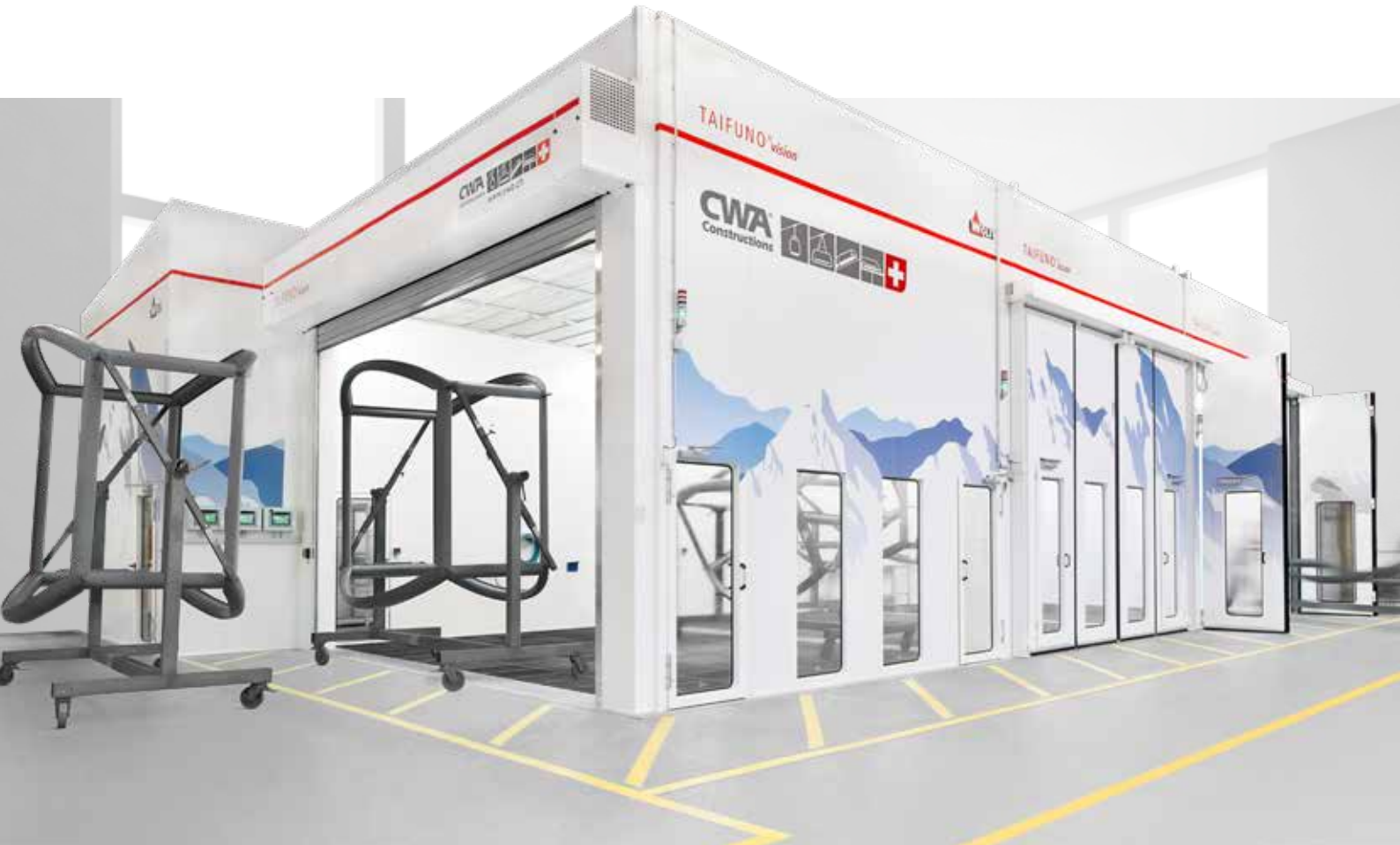
## 70 M LARGE-SPACE SPRAY BOOTH

This company is specialized on big and heavy workpieces such as bridge components, commercial vehicles, flat-bed trucks or containers. The booth is impressive solely by its dimensions: 70 m length, 7 m width and 15 m height. Here, special vehicles together with crane booms can be painted optimally. By pits in the foundations, the workpieces can also be painted from below.

The division into 6 zones enables an especially energy-saving painting. Only the zone is active, where you are just working. For being able to paint in two zones at the same time, the space for a second machinery group has already been planned, so that for a higher throughput, there is still upside potential.



## Special Parts



## MARKET LEADER OPTS FOR WOLF

The manufacturer of aerial cable cars, monorails, funicular cable cars and special vehicles made of aluminium sets high demands to his spray booth.

The products are exposed to extreme weather conditions. In tropical areas and by the sea, a very high protection against corrosion is necessary, whereas in high mountains, UV-protection is essential. Colour variety is quite as high as in the automotive industry.

We have supplied a highly flexible passage spray booth, subdivided into the three sections painting, evaporating and drying. It can also be used as large-space booth for shuttle cable cars. Moreover, each booth section can also be operated as a combi-booth.

The booths are equipped with the quick evaporation system Multi-Air and the new all-season heat recovery VARIO®WRG.







## OPEN-SPACE SPRAY BOOTH FOR BIG STEEL CONSTRUCTIONS

The spraying zone is 24 m long and wide, subdivided into 8 working bays with 10 x 5 m, each. Each of them can separately be ventilated on site. The whole spraying zone is covered by filter ceilings.

The paint mist is extracted by paint mist separation mats, arranged below the gratings of the working bays.

The booth is rated so that paintwork can be done on two working fields at the same time. Inlet air flows into the filter ceiling over the selected zone, outlet air is extracted into the floor ducts of the zone. The booth is ventilated by two powerful combined air inlet / outlet machineries with a total air capacity of 66.000 m<sup>3</sup>/h. The booths are equipped with a heat recovery system.



# Construction Machinery



## SPRAY BOOTH FOR EXCAVATORS

On the Russian production site of this well-known excavator manufacturer, WOLF has planned and realized together with their local partner a large spray booth for completely assembled crawler excavators. The booth consists of a total of 4 large-space booths of 18 x 8 x 8 m, each.

The excavators are passing all booths. The plant consists of:

Washing booth → Adhesive water drier → Spray booth → Oven

The booths are equipped with powerful machineries with heat recovery systems.







## ABOVE-FLOOR LARGE-SPACE SPRAY BOOTH

Where excavator blades could cause damage to cables or pipes, suction excavators are increasingly being used. They simply suck away the loosened soil like a huge vacuum cleaner. In a large-space spray booth with 11,0 x 5,5 x 4,5 m (l x w x h), both the single parts of the suction excavator and the completely assembled truck frames are painted.

For drying, the painted parts are put into a separate dryer same size as the spray booth. Since no foundation pits could be created being close to a river, both the spray booth and the dryer have got lateral wall suction. The VARIO heat recovery of the ventilation units, which can be used throughout the year, significantly contributes to energy saving.



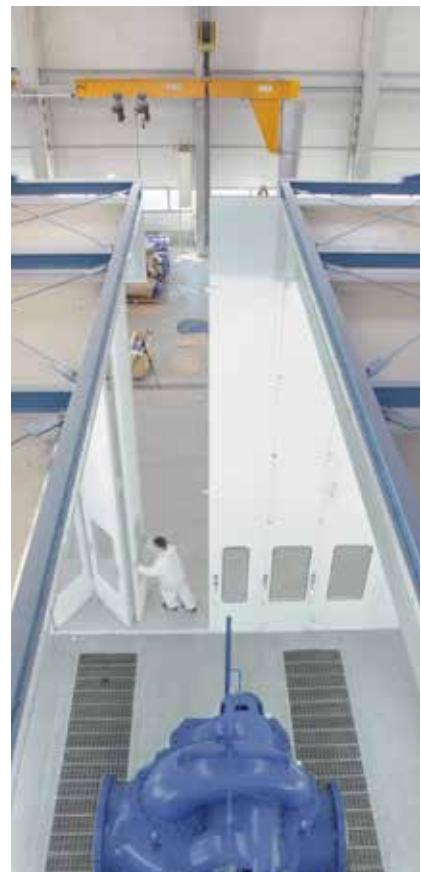
# Mechanical Engineering



## PAINT FOR HIGH-PERFORMANCE PUMPS

This well-known pump manufacturer is painting large pumps with weights up to 25 t and dimensions of 5,5 x 4 x 3 m in his new spray booth.

The pumps are brought into the booth by means of a bridge crane. For this purpose, the booth roof is opened automatically in the middle.







## PAINTING OF MARINE CRANES

At the Slovenian site of a well-known crane manufacturer, marine cranes are coated seawater-resistant on a WOLF coating line.

The individual parts are painted according to customer specifications in 3 vertically ventilated large capacity cabins each measuring 14 x 6 x 5 m (L x W x H).

Parts weighing up to 3,500 kg can be suspended on the load beams of an overhead conveyor and pushed through the production process.

Heavy parts are moved into the cabs on heavy-duty wagons with a forklift.

The parts are fed outdoors under a large hall roof. Depending on whether the parts are already primed, they are either cleaned in the washing hall or prepared for painting in the blasting cabin.

One of the booths is equipped with a humidification system, which can greatly accelerate the drying process for water-based paints.



# Mechanical Engineering



## TOP LEVEL INDUSTRIAL COATING

For the leading manufacturer of high-density canned motor pumps near Freiburg, a complete paint hall was optimally designed in close cooperation with the customer. The painting system consists of two areas, large-space booths for heavy special pumps up to 10,000 kg and a conveyor system for series pumps up to 500 kg.

The fully assembled heavy pumps are degreased in a washing cabin using a high-pressure cleaner. For drying, the ventilation system can be switched to circulating air operation and the temperature can be increased. The large parts are then coated in a painting/drying plant 7 x 5 x 5 m (L x W x H).

The large-space booths are equipped with electric chain hoists for lifting the parts. To be able to paint safely from below, the load bar is suspended form-fitted.

The fully assembled series pumps go through the painting process from degreasing, drying of adhesive water, painting, evaporating, drying, in a conveyor system with manual sliding system.

The plant can be retrofitted with a Power & Free conveyor system if required.







## MARTIN YACHT

In a shipyard on the shores of Lake Constance, elegant wooden sailing boats are painted high-gloss in a WOLF large-space paint shop. The inside dimensions of the booth are 18,0 x 6,0 x 5,0 m (l x w x h). In order to consume as little energy as possible, the booth has got a sectional ventilation with four extraction zones, requiring a significantly lower air capacity than conventional spray booths. In the event of flooding, the level of Lake Constance can rise to the

spray booth site. Therefore, it is standing on a concrete base, and paint mist extraction takes place by lateral suction walls above the base. Since painting with a spray gun is being done only above the waterline, there are no disadvantages due to sidewall extraction. A particular challenge was the exact fitting of the booth into the roof structure of the building to be able to make full use of the hall height.



# SPRAYING AND DRYING BOOTHS

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