



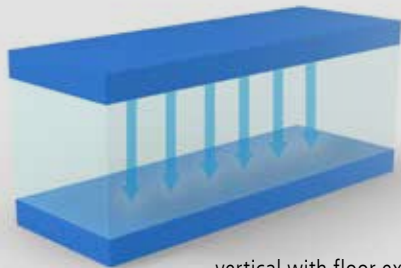
SPRAY BOOTHS FOR COMMERCIAL VEHICLES AND INDUSTRY

Wet Paint Coating Systems
for Industry and Craft

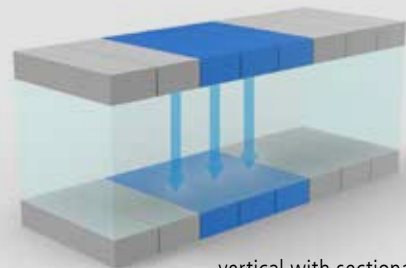
Spirit of Air

Spray Booths in all variants

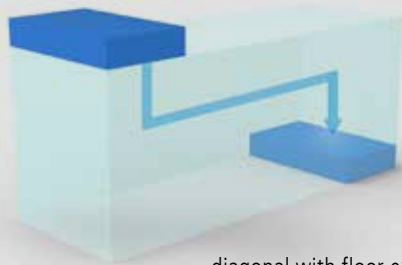
VENTILATION VARIANTS



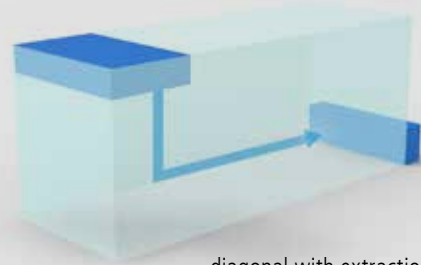
vertical with floor extraction



vertical with sectional ventilation



diagonal with floor extraction



diagonal with extraction wall

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 mechanical engineering.

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, mechanical engineering, construction machines, boats 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 handling, 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



THE HIGHEST LEVEL OF ENERGY EFFICIENCY

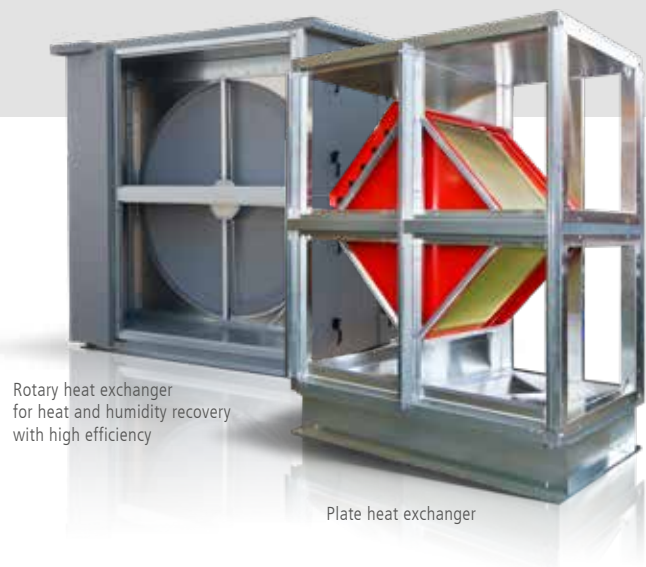
As a manufacturer of ventilation and air-conditioning plants, WOLF is able to conceive even booths with complex airflow requirements, so that your spray booth is completely “one-stop” and 100 percent optimized – also regarding energy consumption.

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.

Heating is ideally done with hot water, which is generated for example by a CHP unit or a heat pump. However, it can still be heated conventionally with gas or oil. Optionally, the supply air can be equipped with a cooling function, which ensures a pleasant indoor climate in view of ever-increasing summer temperatures.



Control System and Regulation

Modern mode programs are controlling the optimal energy consumption for each kind of operation such as cleaning, spraying, evaporating and drying. Single 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 of 17 m, each, provide not only the requirements for large-scale paintwork, but also the basics for optimal working processes.

If trucks, buses, caravans or industrial machines – nearly any size can be painted in the new paint shop in an adjusted area with efficient energy consumption. 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 optionally equipped 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 only one zone or both of them can be ventilated as required. A further advantage is the heating as well as ventilation and deaeration 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 m³ 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. Finally, 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 booth with a high-pressure cleaner. The washing booth 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-space spraying/drying booths (15 x 6 x 5.5 m). The booths are connected at the front side by a roller door. If required, one of the booths can be used permanently for painting and the other one for drying.

Two powerful ventilating units per booth ensure best painting results.



Commercial Vehicles

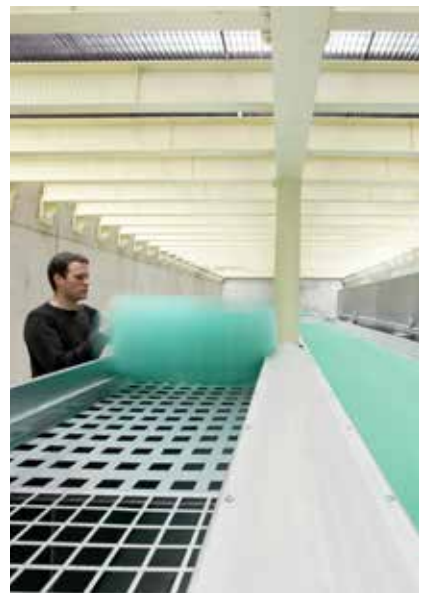


PAINTING SPECIAL COMMERCIAL VEHICLES

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 painter.



Commercial Vehicles



PERFECT CORROSION PROTECTION

The requirements for corrosion protection of vehicles are increasing – also 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 up – 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 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%.





ENERGY-EFFICIENT PAINTING OF WORK PLATFORMS

If you want to work safely at heights and setting up scaffolding is too time-consuming, mobile aerial work platforms are indispensable. Large models are built on trucks and form a solid unit, similar to a telescopic crane. After installing the telescopic boom superstructure on the truck frame, welding and joints are repainted. Since the vehicles can reach a considerable size, a very large spray booth of 19,0 x 5,5 x 5,0 m (L x W x H) is required.

For best painting results over the entire surface of the booth, air guidance is vertical from top to bottom. By dividing it into 7 ventilation sections, the air quantity and thus the energy requirement can be reduced by almost 60 %, since only the zone is ventilated where painting is just being done. The ventilation unit is placed on a steel construction platform above the spray booth to save space.



Special Parts



70 M LARGE-SPACE SPRAY BOOTH

This company is specialized on big and heavy workpieces such as bridge components, commercial vehicles, low-loaders 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 was planned and expanded later.





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 mountain regions, 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 all-season heat recovery VARIO®WRG.



Special Parts



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. The booths are equipped with a heat recovery system.





MANUAL SLIDING TRACK WITH TRANSVERSE CONVEYOR

A wide range of parts is required for the production of vehicles for winter service and for the maintenance of lawns. The parts have to be coated flexibly at high quality standards regarding corrosion protection and surface. The ideal solution was a painting line with manual sliding track for hanging the components. After pre-treatment in a sandblasting booth, the parts are first primed and then

top-painted. Priming and top-painting are each carried out in a separate booth combination of painting, evaporating and drying. The parts are suspended on long load beams of a manual sliding track, for which 3 lanes are available. After each process step, the beams can be moved to the return lane by means of a transverse conveyor.



Construction Machinery



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 extractions. The VARIO heat recovery of the ventilation units, which can be used throughout the year, significantly contributes to energy saving.





HEAVY STEEL COMPONENTS FOR CONSTRUCTION MACHINERY

In the factory of a big construction machinery manufacturer, large welded constructions are produced and then dispatched to several locations for final assembly. A large-space washing booth of 25,0 x 7,0 m with drying function, 2 spraying / drying booths of 16,5 x 6,0 m each with separate drying booth of 16,5 x 6,0 m and 1 spraying / drying booth of 16,5 x 7,0 m with separate drying booth of 16,5 x 7,0 m are installed.

All booths have a diagonal air guidance, so that no foundation pits were required. The original intention was to just prime the parts for dispatch and top-painting them before assembly only. However, it turned out that in the booths themselves, top-painting in the requested quality is possible. Meanwhile, only finished parts leave the factory.



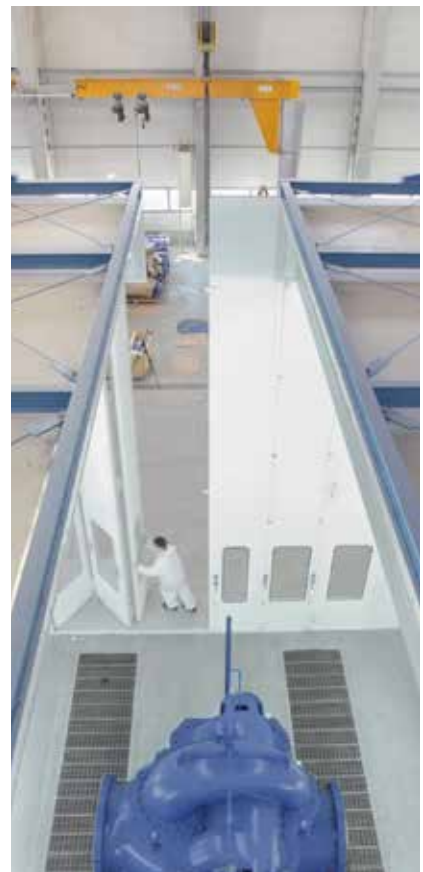
Mechanical Engineering



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 (L x W x H) 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 in a WOLF coating line.

The parts are painted according to customer specifications in 3 vertically ventilated large-space booth, each 14 x 6 x 5 m (L x W x H).

Parts up to 3.500 kg can be suspended on the load beams of an overhead conveyor and pushed through the production process.

Heavier parts are moved into the booths on heavy-duty trolleys 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 booth.

One of the booths is equipped with a humidification system, providing optimal process conditions for drying water paints with high layer thickness.



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. The spray booth consists of two areas: large-space booths for heavy special pumps up to 10.000 kg and a conveyor system for serial pumps up to 500 kg.

The fully assembled heavy pumps are degreased in a washing booth by 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 spraying/drying booth with 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 serial pumps pass 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.





FINE WOOD IN FULL SPLENDOUR

In a shipyard on the shores of Lake Constance, elegant wooden sailing boats are painted high-gloss in a WOLF large-space spray booth. 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 case of floods, the level of Lake Constance may rise

to the spray booth site. Therefore, it stands on a concrete base, and paint mist extraction takes place by lateral extraction 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.



Contract Coating



BY THE HALL CRANE DIRECTLY INTO THE BOOTH

One of Germany's biggest contract coaters has expanded his capacities for wet painting of large parts by 2 large-space booths of 15,0 x 6,0 x 4,7 m (L x W x H) each. Mainly power heads for rail vehicles and masts for wind turbines are painted.

In order to be able to place the heavy components by the hall crane directly in the booths, each of them has got 10,0 m long slots in the booth ceiling. The slots can be closed by a horizontal roller blind, so that a controlled air balance in the booth is ensured.





SMALL BUT NICE

At an attachment manufacturer for landscape maintenance, a small spray booth with manual suspension conveyor has been installed. It allows an easy handling of the components within the booth, with the parts being hung up and down in front of the sliding gate.

The plant was placed on the even hall floor without any foundation work. Paint mist extraction is done by an extraction wall with dry separation.



Gear Motors



CIRCULAR CONVEYOR IN SMALLEST SPACE

Some gear motors have to be painted in small quantities in the colour requested by customer. In order to do this as efficiently as possible, a small spray booth with Power & Free circular conveyor was installed.

The components are suspended at a lowering station of the loading and unloading point, manually pushed until they are taken over by the automatic conveyor and automatically pass two lanes through the spray booth and the dryer.

In the spray booth, two painters can work at the same time and specify the working cycle individually. The finished parts are either taken off at the discharge point or pass the plant for a second paint coat. Here is a separate branch.

The plant was installed on the even hall floor, no foundation work was required.





LIGHT AND HEAVY THROUGH THE SAME BOOTH

The task was to paint many small light as well as few large heavy components in a spray booth with dryer, suspended at a conveyor. This was solved by two tracks of a heavy-duty manual sliding track installed close to each other and a lightweight Power & Free conveyor. After the spray booth, the tracks are separated in the dryer and follow a separate lane.

The parts on the automatic conveyor are cycled by the dryer and transported to close before the two discharge points with lowering station. The workers can decide which part is unloaded in which place for immediate packaging. The conveyor takes empty crossbeams to the feeding point, where another lowering station is installed. At the feeding point, it is decided if the components pass the painting process once or twice.



Hall Construction



EXTRACTION FOLLOWS THE PAINTER

When long steel beams are coated, it makes little sense to extract the paint mist even where no spraying is being done. It is better to have a ventilation only in the really necessary place. The significantly lower air capacity reduces energy consumption and saves investment costs. A specialist in hall construction made of steel and wood applies a fire protection coating on the steel beams already in the factory. The beams are placed by the hall crane in a 25 m long spraying area which is open to the top.

The painter is wearing a transmitter on his belt, which is detected by several aeras, so that the plant knows precisely his position. The paint mist is always extracted in the right place without the painter having to press a button.





YOUR REQUEST, OUR SERVICE – WE ARE ON SITE WITH YOU

The WOLF service team is organised decentrally. Our specially trained service engineers start their tours from various fixed locations in Germany.

The customer service centre in Geisenfeld is where all ends meet. Deployment and timing are planned for a smooth flow. This organisation structure ensures a cost-effective service with fastest response time.



**SPECIALLY TRAINED
SERVICE TECHNICIANS**



**RELIABLE
ONLINE SERVICE**



**COMMUNICATION
DIRECTLY WITH WOLF**



SPRAYING AND DRYING BOOTHS

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