

# Spray painting preparation

WOLF - Universal Working Bays for spraying preparation and spot repair



Spirit of Air®



# Universal Working Bays



## WHAT MAKES FOR PERFECT SPRAYING CONDITIONS?

When it comes to repairs, the perfect top coat is prepared by the team in the prep station - putting this station and its team into sharp focus. If this preparation is sub-standard, it will be impossible to achieve a consistent finish even with the best top coat. WOLF Universal Working Bays meet the highest demands in terms of technical equipment and best possible surface finish.

Along with the term "Universal Working Bay", the idea of creating one place suitable for all prep work was devised by WOLF several years ago:

- ▶ Filling
- ▶ Dry sanding
- ▶ Spray priming
- ▶ Dry or wet sanding
- ▶ Coarse cleaning

In addition to spot repair work, prep stations are increasingly becoming the place for minor damage repairs, including the top coat application.

This has led to the introduction of advanced technical equipment, such as roller curtain dividers, IR heaters, optimal lighting and robust ventilation equipment.

When designing and equipping a prep station it is important to consider the scheduled throughput and any special operating requirements. At WOLF, we develop the most technically rational and cost effective solution possible, in line with the customer's stated objectives.





Prep stations with fabric supply air ducts

## SUPPLY AIR

### Supply air ducts

Air flows into the prep station through a supply duct equipped with discharge grates which runs the length of the station. The supply duct is fed by a supply air system (WLE).



Prep stations with supply air duct

### Fabric supply air ducts

These ducts can be used as an alternative to the ducts described above. They are lightweight, visually attractive, and can be easily removed for cleaning. Perforations can be provided depending on individual requirements.



WD-A supply air unit - heating medium: hot water

### WD-A supply air unit

Usually three of these units, but more if necessary, are installed directly below the shop ceiling in front of the prep stations. The air flows directly into the space through discharge dampers.



Air supply via filter ceiling

### Filter ceilings

A filter ceiling above the prep station is the best way to achieve clean air inside the workspace. The same filter quality as in a spray booth can be provided. When used with roller side curtains, it is possible to achieve a uniform vertical flow pattern.

# Ventilation

## EXTRACTION



Floor extract system

### Floor extraction systems

Floor extraction systems are the most efficient extraction method, since they offer the shortest distance for any overspray to travel to the separation filters. Special versions feature integral hydraulic ramps to ensure optimal extraction around the platform.



Wall extract system

### Wall extraction systems

Wall extraction systems are installed in locations where foundation work is not possible or desirable. In combination with specially perforated fabric supply air ducts, these systems can also achieve excellent directional flow toward the wall extraction system.

## UNIT TECHNOLOGY

### High performance units - the WLE series

WOLF's well known and high performance WLE combined supply and extract air systems have also proven to be a success in prep stations. Heating is provided either by gas, oil, or hot water. Filtered air is routed from the system to the prep stations by a supply air duct. If filter ceilings have been provided above the working bays, the supply air is routed directly into each plenum using controlled dampers.

Whenever possible, units are equipped with heat recovery systems. Units are available with different ratings. An air flow rate of 15,000 m<sup>3</sup>/h per bay is considered a minimum requirement.

### WD-A supply air unit, WK extract system

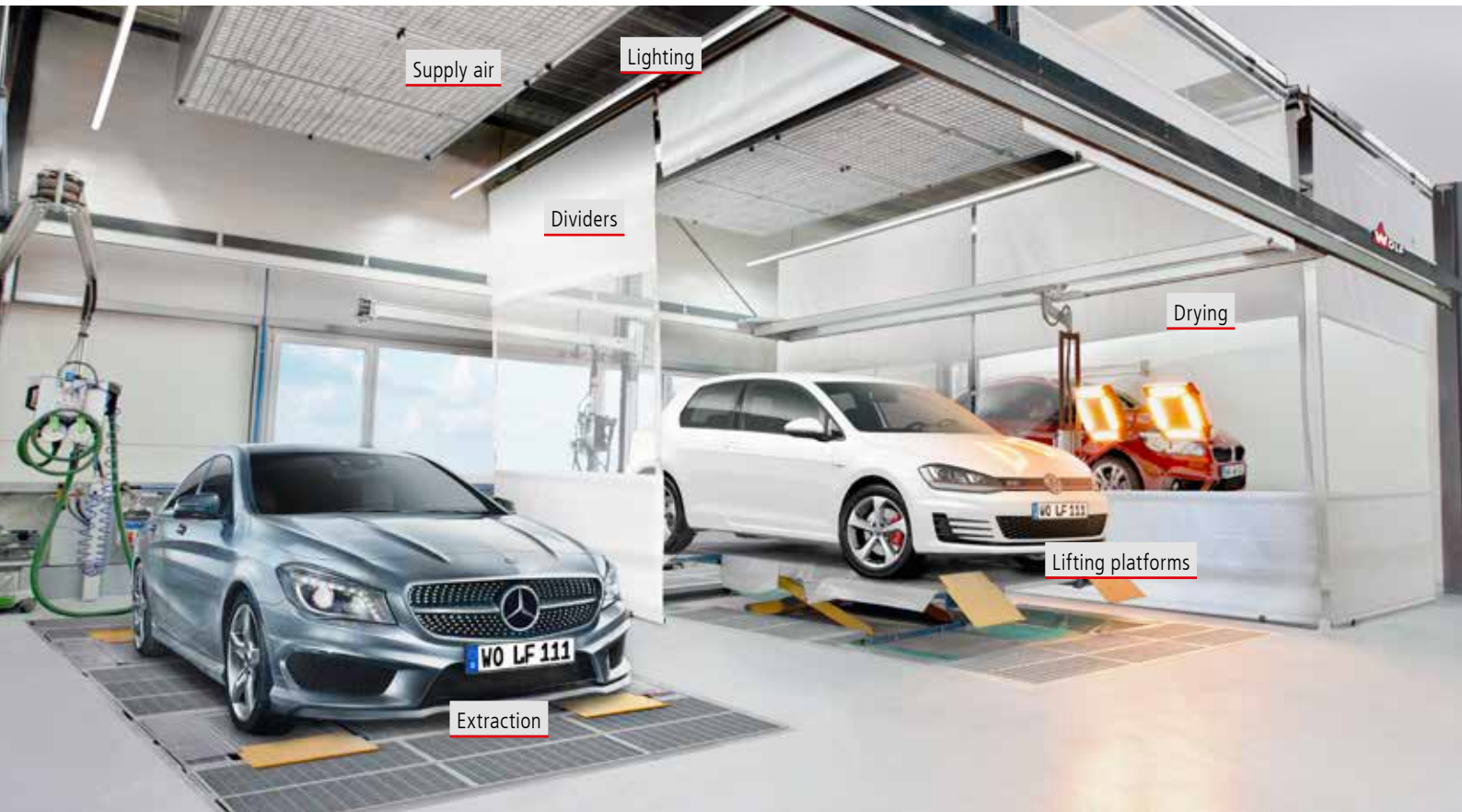
This combination is often selected when there is insufficient space for a combined air supply and extraction system. This approach can only be applied if heating by hot water is possible. Every unit features an air flow rate of around 6200 m<sup>3</sup>/h, a supply air filter, a hot water heating coil, and a supply air fan. The connected electrical load and power consumption are very low.

Extract air is routed to the WK air extraction system through a common duct and exhausted through the roof.



WD-A supply air unit

WLE high performance unit



## EQUIPMENT VERSIONS

WOLF offers a broad spectrum of equipment options for prep stations.  
We arrange modern and attractive work stations in line with the wishes and needs of our customers.

### 1 Supply air

Air supply via filter ceiling  
Alternative option: air supply via discharge ducts,  
air supply via WDA units

### 2 Lighting

LED systems are becoming increasingly popular  
LED strip lighting from WOLF with integral roller curtains

### 3 Dividers

using electrical roller curtains  
Alternative: using regular curtains

### 4 Extraction

Floor extraction system  
Alternative: wall extraction system

### 5 Lifting platforms

Lifting platforms integrated into the grates  
Alternative: Power Stage (larger base dimensions)

### 6 Drying

Rail-mounted IR heaters  
Alternative: mobile heater



# Control system



## CONTROL SYSTEM for air supply / extraction systems

Extraction in individual working bays is delivered on demand - by the operator simply pushing a button on their work station.

At that point, an extract damper assigned to the respective area to be extracted opens. The run time for the air supply / extraction system can be preset in the control system using an adjustable timer. After this time has expired the system automatically goes into standby mode, unless a control unit has been activated again in the meantime.

## STANDARD OPERATING MODES

Alternative operating modes are available in the control unit in addition to the main "spraying mode" function:

### Shop heating

In this mode, the system is switched to recirculating air operation, and all extract valves are open. The temperature of the shop space is regulated by a room thermostat. The system can also be programmed with a room temperature night setback. This makes it possible to dispense with shop heating in the system ventilation area.

### Shop ventilation

In this mode, the system runs just as in "spraying mode" in plain fresh air operation, but here the air is extracted equally across all prep stations.





Spot repair area: floor extraction system with filter ceiling, lighting, roller curtain dividers



Spot repair system: wall extraction system with strip lighting, roller curtain dividers, 3 fabric air supply ducts per bay



Spot repair system: floor extraction system with strip lighting, roller curtain dividers, 2 fabric air supply ducts per bay



Prep stations with LED strip lighting and integral roller curtains

## SPOT REPAIR and minor damage repair

WOLF offers additional equipment for carrying out spot repair work that also involves applying base coats and clear lacquer finishes. Using roller curtain dividers is a sensible approach to protecting the work area from dust and dirt. With its own filter ceiling and clean air supply, each station now comes even closer to achieving booth conditions. Lighting is very important as well. WOLF's LED strip lighting, complete with built-in roller curtains, enables optimal lighting and adjustment of light intensity.



## DRYING

IR heaters are indispensable for precise and forced drying operations in the prep station. Depending on how the prep station is designed, mobile or rail-mounted (portable) heaters can be used.

## LIGHT EVOLUTION<sup>©</sup>

Compared to conventional lighting, the "Light Evolution" LED concept offers noticeably better and more pleasant lighting for work, with significantly reduced electricity bills.

In addition, LEDs provide greater luminance. The anti-reflection light emitting surfaces, with no point sources of light, help to create a pleasant working environment.

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