#### Oberflächentechnik **Surface Engineering**

# Power Stage<sup>©</sup> System for optimum vehicle positioning



Spirit of Air

### **Power Stage**<sup>©</sup>



# Power Stage<sup>®</sup>

Power Stage<sup>®</sup> is a pioneering new development that facilitates vehicle refinishing in spray booths and preparation stations. Convincing technical advantages improve, simplify and speed-up work in the paint shop.

This simple but ingenious concept uses a pivot-mounted platform to move the vehicle into the perfect position quickly, infinitely and easily, at a touch of a finger. This enables paint sprayers to work in an ergonomically correct position, which means that the painting process takes less effort and is consequently less tiring. First class conditions for applying paint and achieving a high quality finish.

Vertical vehicle surfaces can now be inclined into the air stream as required. This creates ideal inflow conditions during evaporation and drying, whilst also preventing runs on vertical surfaces. Spray paint fumes are extracted across the entire surface, and additionally, on the respective exposed side of the Power Stage<sup>®</sup>.

# BENEFITS

- Optimal positioning through infinitely variable rotation of the work surface
- Unbeatable ergonomics and reduced effort
- Optimum conditions for the application of paint and achieving a high quality finish
- Avoids runs on vertical surfaces
- Ideal inflow conditions during evaporation and drying of vertical surfaces
- New filter service concept

# AREAS OF APPLICATION

- Combined paint spraying and drying booths (without transverse carriage)
- Preparation stations

### **Ergonomics** and quality





# ERGONOMICS

Work on the floor areas (sills) and roofs of vehicles is frequently performed under ergonomically unfavourable conditions. This can compromise quality. With Power Stage<sup>®</sup>, this problem is consigned to the past, as the vehicle can be rotated to allow ease of access. With a rotation range of up to +/- 30 degrees around the longitudinal platform axis, it is possible to orient almost every plane of the vehicle so that work can be carried out in an ergonomically appropriate manner.

Positioning on demand allows many previously difficult tasks to be performed easily and with less effort.

- Optimum orientation of the work surface
- ▶ Tilt angle of up to 30 degrees
- Excellent access to vehicle floor and roof areas
- Ergonomic working position for less effort

### QUALITY

Power Stage<sup>®</sup> setting options create perfect conditions for working and spray painting to achieve the very best results. The spray gun can now reach most areas of the vehicle while being held at an optimum angle. This lets the spray painter concentrate fully on the application process. By orienting vertical surfaces into a shallower angle the formation of runs can be avoided.

- The best conditions both to stay focused on work and for achieving a high quality finish
- Optimum spray gun angle
- Runs on vertical surfaces are prevented

### **Overview**

# **Power Stage**<sup>©</sup>

- Optimum spray gun angle Spray gun at an ideal angle relative to the surface
- State of the art touch control Incremental and continuous control of the Power Stage<sup>®</sup>



• Optimum accessibility of sill areas



New filter change concept for up to 3 filter stages







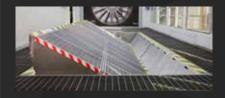


#### Efficient drying

Short evaporation and drying times due to ideal orientation in the air stream



+/- 30 degrees inclination Stable support and precise positioning at any angle



**Retrofit** Installation possible in booths with pits up to 1,1 metre deep



Filter area
Continuous filter area,
full extraction power in every position



### Drying, layout



Inclined into the air stream, hence significantly shorter evaporation and drying times

- Ideal inflow conditions during evaporation and drying
- Shorter process times in combination with Multi-Air
- Process reliability with Red-Eye<sup>®</sup> drying, even in critical spots

# DRYING

Power Stage<sup>®</sup> offers unique benefits – not only when actively working on a surface, but also during the evaporation and drying process. Vertical surfaces and those at low levels which previously required significantly longer drying times compared to horizontal surfaces, can now be perfectly oriented into the air stream. This results in significantly reduced evaporation and drying times.

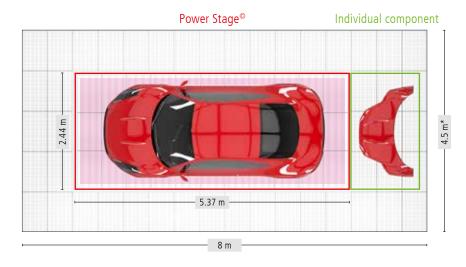
Thanks to fast-drying clear lacquers, drying inside the spray booth has also become attractive again.

To live up to their name, these materials require good inflow conditions. Power Stage<sup>®</sup> ensures the best possible conditions for this.

The fastest evaporation and drying process is achieved using Power Stage  $^{\odot}$  in combination with the Multi-Air system.

The orientation of surfaces towards the nozzle results in perfect inflow conditions and therefore the shortest possible process times. The Red-Eye<sup>®</sup> system monitors and controls the drying temperature and ensures compliance with drying parameters.

A new development (Power Stage<sup>®</sup>), together with targeted and effective ventilation technology (Multi-Air) as well as state of the art control technology (Red-Eye<sup>®</sup>) can cover the paint process from beginning to end more speedily and reliably than ever before.



Sufficient space for the efficient drying of individual components

# LAYOUT

Installation of the Power Stage<sup>®</sup> in an 8 m booth leaves space for spraying and drying individual components in a separate area with extraction.

### Filter concept, control system, retrofitting





# FILTER CONCEPT

The Power Stage<sup>®</sup> filter system is located underneath the casing. A clever drawer system allows the insertion of up to three separate filter stages, such as concertina filters and other filter mats. The system is highly flexible; filter type and filter arrangement can be optimised to match individual requirements.

This filter changing concept is a genuine innovation and unique to this system. Filters can be changed very quickly by simply pulling out the drawers – no grate lifting required. All filters are changed in minutes with very little effort.

- Large extraction area
- Up to three filter stages
- Accommodated in the innovative filter drawer system
- Flexible and adaptable to individual requirements
- Filter change service position
- Filter change without grate lifting



Up to 3 filter stages for long service intervals.

# CONTROL SYSTEM

Power Stage<sup>®</sup> features an advanced and intuitive controller. The touchpanel located inside the booth is resistant to contamination and can be easily cleaned if necessary. The degree of rotation of the Power Stage<sup>®</sup> platform can be directly specified or allowed to be infinitely variable.

- Advanced touch controls
- Simple operation
- Can be fitted into the booth wall



# RETROFITTING

Power Stage<sup>®</sup> can be retrofitted to any spray booth or prep station that has foundations throughout. Its interface makes it compatible with a wide variety of systems.

- Required foundation depth: 1,1 m
- Required foundation width: 4 m

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Concept and patent application Development Manufacture

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