

MOBILE SPRAY AND DRYING BOOTH



MOBILE PAINTING & DRYING SOLUTION

ENGINEERED FOR INDUSTRIAL USE



The TWEKO MKFS mobile spray and drying booth is an integrated system designed for the application and drying of coatings on large workpieces where production floor space is limited.

Its **retractable enclosure** occupies minimal space when folded and can be fully extended manually by two workers within **2–3 minutes**, without the use of special equipment. Workpieces can be loaded into the working area using an **overhead crane, forklift or transport trolley**.

PURPOSE OF THE BOOTH

The MKFS booth is designed for the fast, safe and efficient application and drying of primers, paints, enamels and varnishes on large workpieces, including machine components, metal structures and industrial equipment.

The supply and exhaust ventilation system maintains **positive pressure** inside the working area, helping to isolate it from dust and contaminants in the surrounding workshop. This helps keep freshly coated surfaces clean.

Paint mist and overspray are contained within the enclosure and removed by the exhaust ventilation and filtration system. A uniform airflow improves working conditions for the painter and helps accelerate coating drying, while the **thermoventilation unit** maintains temperatures of up to **60 °C** for efficient drying.

KEY ADVANTAGES OF MKFS

- **Space-saving design.** The retractable enclosure frees up production floor space when folded.
- **Fast deployment.** Two workers can extend the booth manually within **2–3 minutes**.
- **Painting and drying in one booth.** Air heating up to 60 °C reduces drying time and production downtime.
- **Energy efficiency.** Recirculation during drying reduces energy consumption for air heating.
- **Flexible loading.** Workpieces can be loaded by overhead crane, forklift or trolley.
- **Safety.** Non-combustible materials, explosion-protected fans and automatic safety interlocks.



MAIN COMPONENTS

- **Enclosure.** Retractable portal-type steel structure covered with wear-resistant, non-combustible fabric and mounted on wheels. The fixed rear wall is made of sandwich panels. The enclosure can be extended and folded manually by two workers.
- **Entrance.** Double-panel zippered doors.
- **Heating and ventilation unit (HVU).** A stationary unit with a centrifugal supply fan, **G4 (EU4) pocket filters** and a stainless-steel heat exchanger with a diesel or gas burner; electric heating is also available. Pneumatically actuated dampers switch between supply, exhaust and recirculation modes.
- **Exhaust ventilation.** A centrifugal exhaust unit connected to the exhaust duct in the end wall. It can be installed behind the booth or outside the building and is equipped with quick-change filter frames.
- **Exhaust-air filtration.** Two-stage dry filtration with an efficiency of at least **95% (EU4)**: cardboard labyrinth filters with a holding capacity of up to **16 kg/m²** and PaintStop fibreglass filters with a holding capacity of up to **3.5 kg/m²**.
- **Lighting.** Ceiling and side luminaires provide uniform illumination of the working area.
- **Control panel.** Controls all operating modes and synchronises the equipment. It includes pressure sensors, a time relay, main power switch, lighting switch and operating-hours counter.

OPERATING MODES

- **Painting.** Supply and exhaust dampers are open and recirculation is closed, providing continuous air renewal.
- **Flash-off.** A **10–15 minute** purge removes coating vapours while airflow and temperature remain at painting-mode levels.
- **Drying.** The control system automatically leaves the supply and exhaust dampers approximately **10% open**, providing enough fresh-air exchange to prevent hazardous vapour concentrations. Heated air is recirculated to reduce energy consumption.
- **Cooling.** After drying, the booth automatically opens the supply and exhaust dampers and closes recirculation to cool the workpiece and working area.

SAFETY

Designed in accordance with applicable European safety and occupational health requirements.

- Non-combustible construction materials
- Explosion-protected fans and key ventilation components
- Automatic interlock that cuts compressed air to spray guns if ventilation stops
- Optional system for detecting and removing potentially explosive concentrations of paint mist.

TECHNICAL SPECIFICATIONS. BASIC CONFIGURATION

Item	Unit	MKFS-6	MKFS-9	MKFS-11	MKFS-13	MKFS-15
OVERALL DIMENSIONS						
External booth dimensions in unfolded state (L×W×H)	m	8.5×4.1×3.1	10.5×4.6×4.1	13×5.1×5.1	15×5.1×5.1	17.1×5.1×5.1
External booth dimensions in folded state (L×W×H)	m	3.3×4.1×3.1	3.5×4.6×4.1	3.7×5.1×5.1	4×5.1×5.1	4×5.1×5.1
Internal working area dimensions (L×W×H)	m	6.4×4×3	8.55×4.5×4	10.8×5×5	12.9×5×5	15×5×5
Double-panel zippered doors (W×H)	mm	3000×2800	3500×3500	4000×4500	4000×4500	4000×4500
AIR EXCHANGE PARAMETERS						
Air capacity	m ³ /h	12000	18000	23000	26000	30000
Air velocity inside the booth	m/s	0.28	0.28	0.26	0.26	0.28
VENTILATION SYSTEM POWER						
Exhaust ventilation unit power	kW	3	4	7.5	7.5	15
Supply ventilation unit power	kW	4	5.5	7.5	11	15
THERMAL ENERGY						
Diesel burner thermal power	kW	40–85	80–160	80–200	115–310	115–310
Gas burner thermal power	kW	35–85	60–170	85–200	95–300	95–300
Diesel fuel consumption	kg/h	3.4–7.2*	7–13*	7–13	8.6–26	8.6–26
Natural gas consumption	Nm ³ /h	3.7–8.9*	6.4–18*	6.4–18	10–32	10–32
Electric heat exchanger power consumption	kW/h	90	99	120	150	180
Air temperature	°C	16–60	16–60	16–60	16–60	16–60
POWER CONSUMPTION						
Power supply		3 phases / 380 V / 50 Hz				
Power consumption	kW	8	10	14	16	20

* Energy resource consumption depends on outside air temperature.

