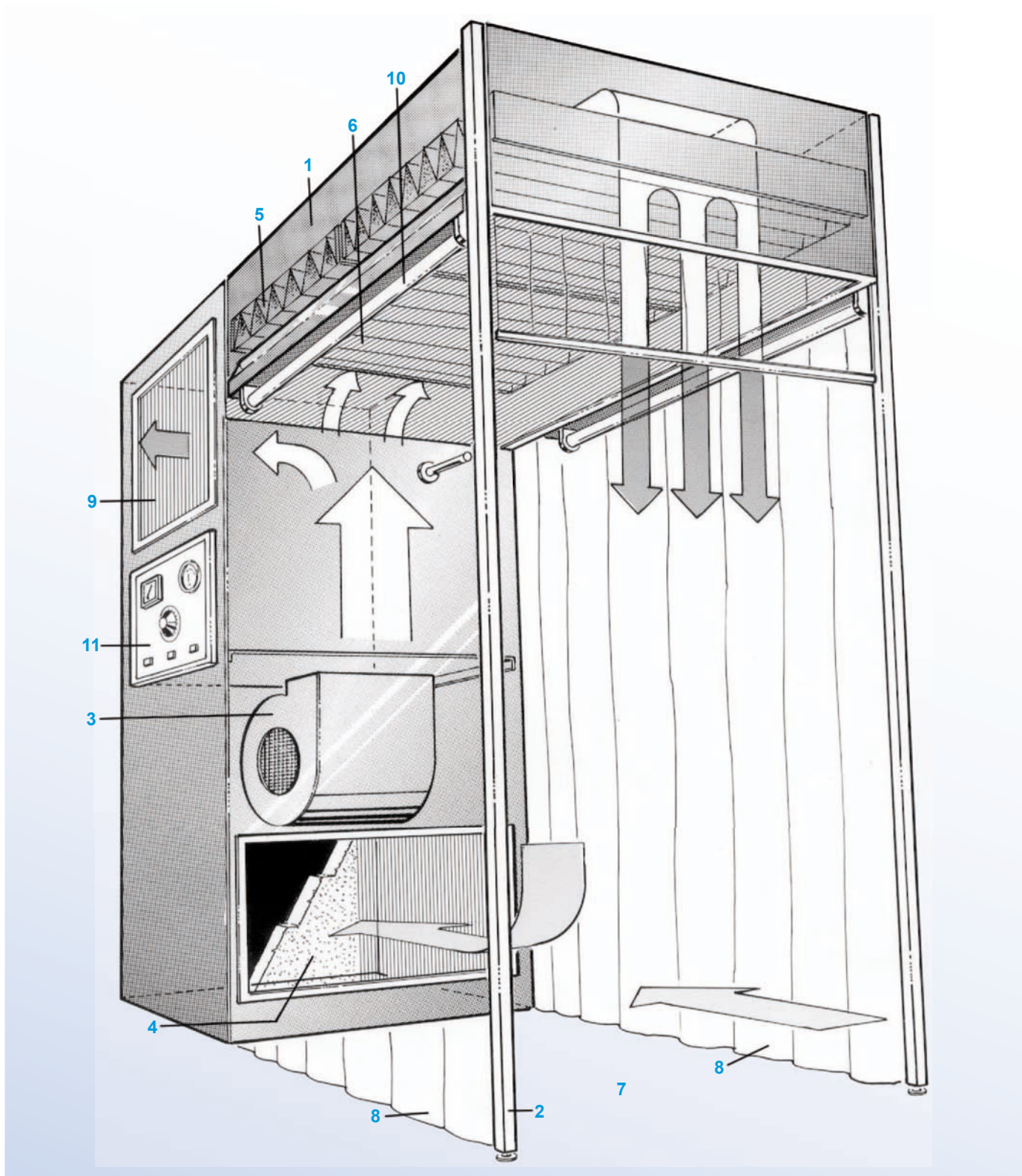


Clean Work Cabins Weighing Cabin WK

Technical Concept





Weighing Cabin (schematic)

Legend

- | | | | |
|--------------|--------------------------|------------------------------------------|-----------------|
| 1 Housing | 5 Supply air HEPA filter | 7 Work area | 10 Lighting |
| 2 Pedestals | 6 Discharge element | 8 PVC curtain | 11 Control unit |
| 3 Radial fan | | 9 Exhaust air HEPA filter (also lateral) | |
| 4 Prefilter | | | |

Product Description

Weighing cabins protect the operating personnel when weighing or filling products containing active agents. The weighing precision is not affected. At the same time, the products are kept sterile and particle free.

The weighing cabins can be used for on-site tables as well as floor scales. Weighing cabins operate with low-turbulence displacement flow and fulfill the DIN EN ISO 14644-1 class 5.0 requirements or M3.5 (100) according to US Fed. Standard 209E.

Constructional Design and Dimensions

Weighing cabins have a rectangular housing design **1** whose upper horizontal segment is supported at the end with pedestals **2** on both sides. Instead of the pedestals, the ceiling module can be suspended from the ceiling on-site. The installed speed controlled radial fan **3** takes in the air through a prefilter **4** positioned near the floor and pushes the air through an HEPA-filter **5** and air discharge element **6** into the work area **7**, flushing the area with a clean air and a low-turbulence vertical displacement-flow. Transparent PVC curtains **8** are utilized for the side partition of the working area. The front side (operating side) remains open.

In order to maintain negative pressure in the cabin work area the return air collected at the prefilter is set to be larger than the supply air-flow from the discharge element. The additional air-flow portion is taken from the room containing the

cabin. It flows in through the open operating side. For air balance the same rate of exhaust air is returned through the HEPA filter **9** into the room where the cabin is located (option: connection to on-site exhaust-system), preventing the discharge of harmful substances into the room.

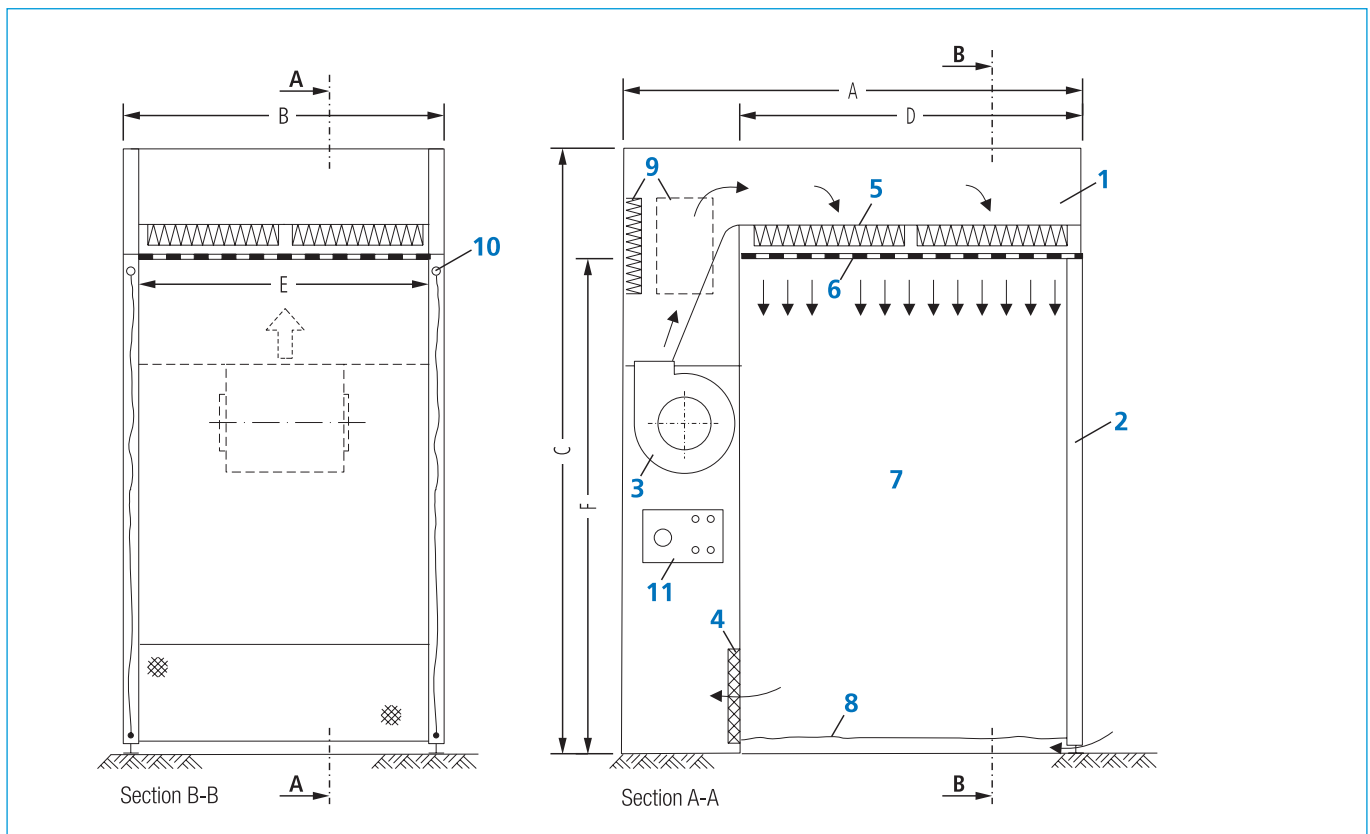
The light system **10** ensures an even illumination of the entire work area. The discharge element is used to laminarize the unidirectional displacement flow and is available as a fine-mesh polyester fabric or as perforated stainless steel plate. The stainless steel version is largely unaffected from mechanical influences and the fabric option ensures the best laminar flow and due to its transparency the lighting can also be positioned above the discharge element.

Depending on weighing cabin use – for floor or table scales – the prefilter is placed at various heights.

Construction Material

The following material is available:

Housing and pedestals	Stainless steel, smoothed, alternatively steel sheet (coated)
Discharge element.	Stainless steel or polyester
Lateral boundary	PVC or acrylic glass



Operational Readiness and -Safety

The weighing cabins are installed complete and delivered ready for operation. Each unit undergoes a thorough internal manufacturing inspection.

Discharge velocity of the low-turbulent displacement flow is approx. 0,45 m/s during operational time. The velocity can be reduced outside the operational time e.g. at night and during non-business days, down to 0,25 m/s through a night-day switch (optional).

The functionality and the safe operation of the weighing cabins during the practical operation remains guaranteed, due to the constant monitoring of the supply-air volume flow, by means of an integrated volume-flow measuring system as well as the readjustment of the fan-output manually at the switch and control unit. **11.**

Key Features

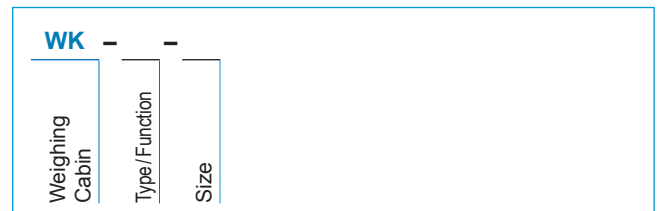
- Vertical, low-turbulence displacement flow
- Applicable for on-site table or floor scales
- Compact, operational unit
- Available in several standard sizes or other dimensions on request
- Housing, discharge element and side partitions are available in different materials
- Two-stage prefilter with G4 filter mat and F7 filter cassette
- HEPA filter H14 filter for supply air and exhaust air
- Installed radial fan with speed-controlled drive motor
- Measuring system for pressure differential and volume flow or air velocity
- High operational safety due to permanent supervision of air velocity and air-flow rate
- Design acc. to GMP-Guideline easy to clean and to disinfect

Technical Data 1)

	Unit	Size		
		1	2	3
Total dimensions				
- Length A	mm	1900	1900	2200
- Width B	mm	1300	1600	1900
- Height C	mm	2700	2700	2700
Dimensions work zone				
- Length D	mm	1300	1300	1600
- Width E	mm	1300	1600	1900
- Height F	mm	2200	2200	2200
Air-flow rate				
- Supply air	m³/h	2750	3350	4900
- Return air	m³/h	3850	4700	6850
- Exhaust air	m³/h	1100	1350	1950
Fan power	kW	2,2	2,8	2×2,2
Lighting	W	2×30	2×30	2×58
Operation				
Voltage/Frequency	V/Hz	400/50		
weight approx.	kg	300	450	700

1) Dimensons are adjustable according to customer requirements

Type Designation



Type/Function	Size
T for table scales	1 1300 × 1300 × 2200 [mm]
B for floor scales	2 1300 × 1600 × 2200 [mm]
	3 1600 × 1900 × 2200 [mm]
	4 Special dimensions

Submittal Text

_____ pcs. Weighing Cabin

The weighing cabin housing is an air-tight cleanroom design with low-turbulence, vertical displacement flow and is according to DIN EN ISO 14644-1 Class 5.0 requirements.

Equipped with a radial fan (standard) with a speed-controlled drive-motor and a discharge element as well as integrated illumination (approx. 750 lux).

For the on-site installation

- Table scale
- Floor scale
- Housing with height adjustable pedestals
- Mobile housing design
- Suspended housing design
- Housing with stainless steel pedestals, smoothed
- Housing with steel sheet pedestals, with disinfectant proof powder-coating, RAL_____
- Prefilter G4
- Prefilter F7
- HEPA-Filter H14 for supply air with sealing frame for contact device
- HEPA-Filter H14 for exhaust-air with sealing frame contact device
- Discharge element stainless steel
- Discharge element polyester
- Side partition - PVC foil curtain
- Side partition - acrylic glass
- Measuring system for differential pressure and volume flow or air velocity
- Switch and control unit with speed-controller for fan drive motor
 - installed in external control cabinet
 - integrated in weighing cabin
- with day/night switch including all electrical actuating elements and control devices

Technical Data

Dimensions Work Area

Length mm
Width mm
Height mm

Total Dimensions

Length mm
Width mm
Height mm

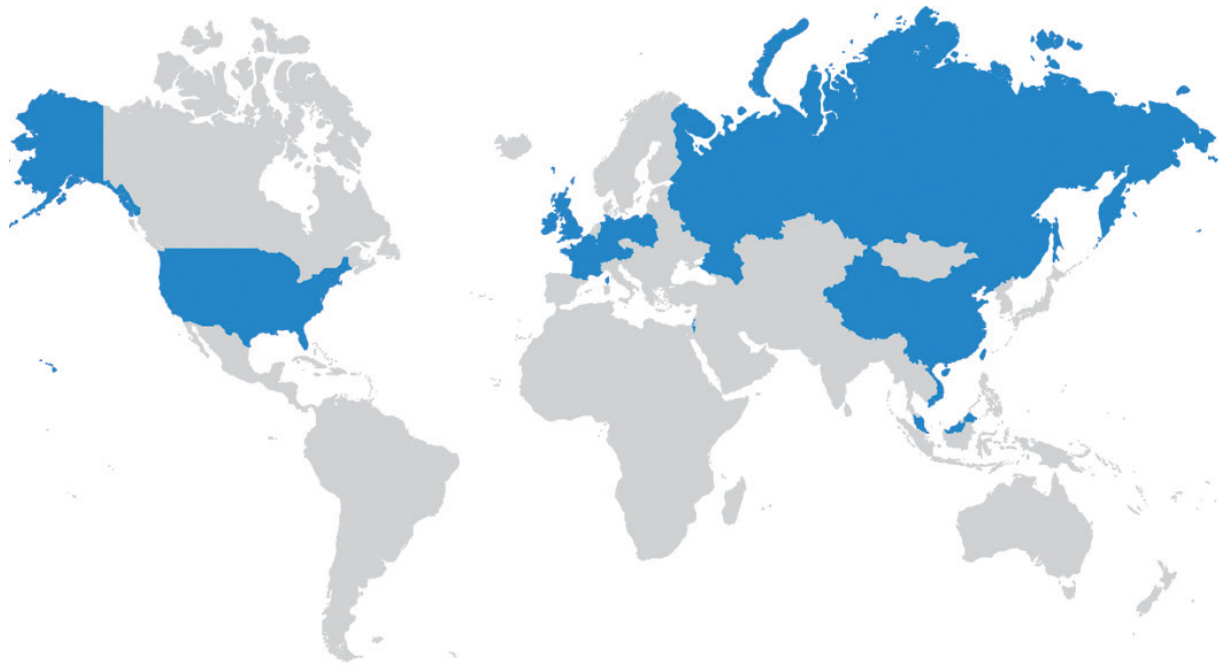
Air-flow

Supply air. m³/h
Return air. m³/h
Exhaust air. m³/h

Fan power W
Illumination W
Operation voltage 400 V / 50 Hz

Manufacturer Exyte Technology GmbH
Type WK-__-__

Local Support Wherever You Need Us



Exyte Technology GmbH
Rosine-Starz-Str. 2-4
71272 Renningen
Germany
Phone +49 711 8804-8000
Email info@exyte-technology.net

Exyte Technology Shanghai Co., Ltd.
No. 139 Beimin Road,
Chedun, Songjiang
201611 Shanghai, China
Phone + 86 21 37838360
Email info@exyte-technology.net