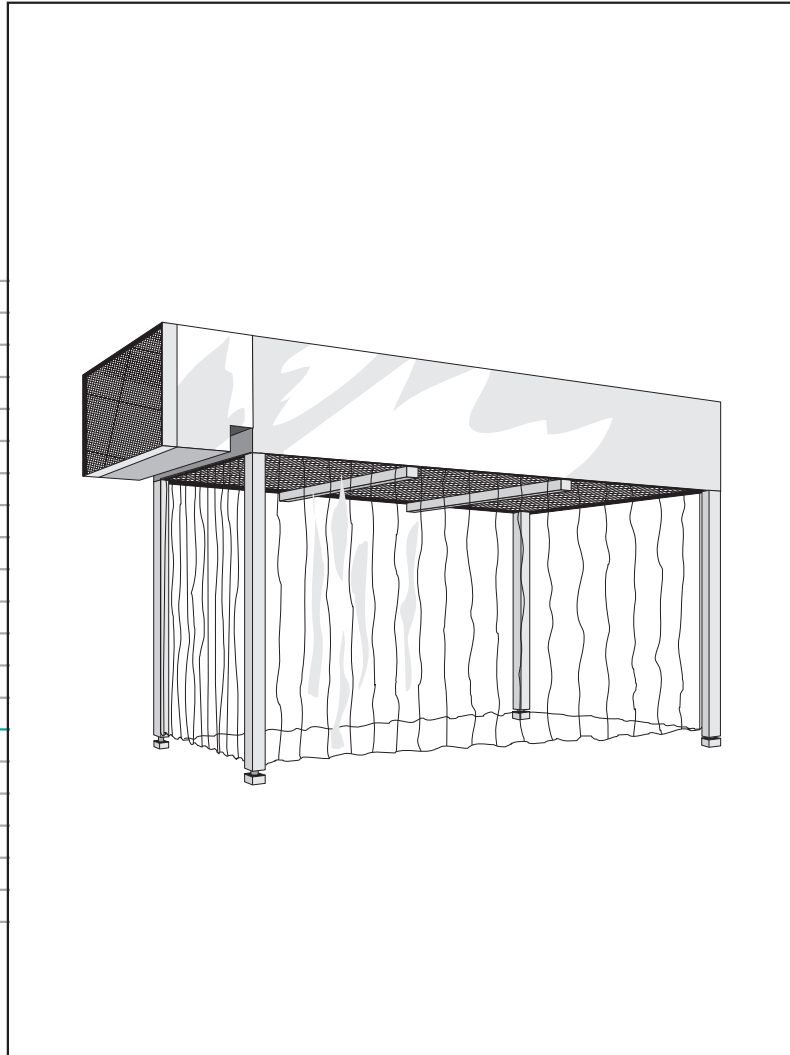


Technical Selection



Clean work cabins RAK, Type AV

Preliminary remarks

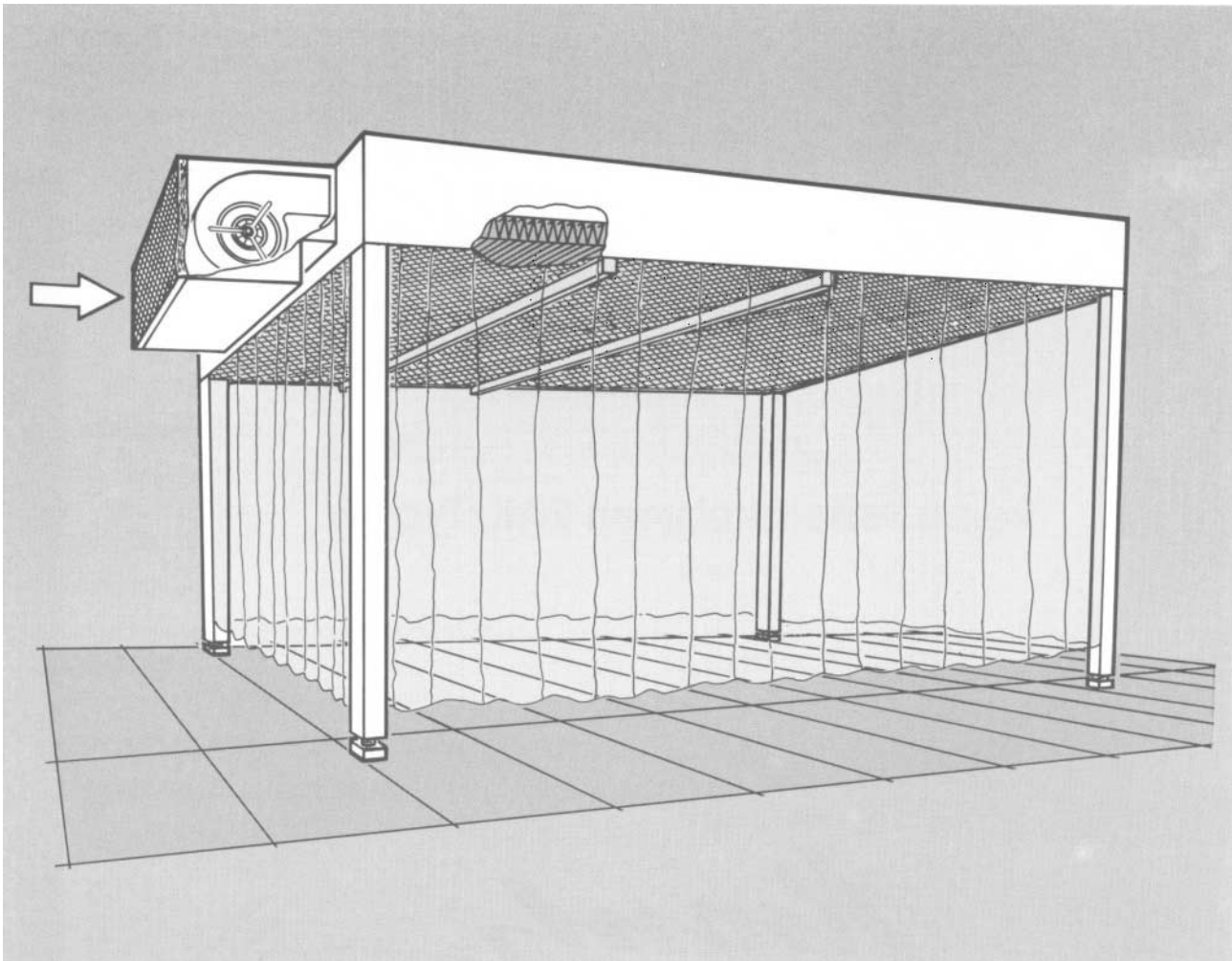
Clean work cabins (RAK for short) from KRANTZ KOMPONENTEN are used where large-area clean workplaces are needed, e.g. in the production and processing of larger products, sterile filling in pharmaceutical production or assembly on production lines in precision mechanics. RAK also enable operating personnel to occupy the clean work zone. RAKs operate with vertical, low-turbulence displacement ventilation and fully meet the requirements of cleanliness classes 5 to 8 acc. DIN EN ISO 14 644-1 or M 3.5 (100) to M 6.5 (100 000) acc. US Federal Standard 209 E.

Construction design and function

The radial fan **2** with adjustable-speed drive motor takes in indoor air via the prefilter **1** and conveys it via the HEPA filter **3** into the work zone **10**, which is flushed with the clean air using vertical, low-turbulence displacement flow. The pollutants emitted in the work zone are displaced downwards by the low-turbulence displacement flow from the clean zone. Crossflows are prevented.

The built-in lighting **9** ensures even illumination of the whole work zone.

The filter casing **4** with lateral fan chamber **5** is erected on screw-on standing legs **6** with a height adjuster **7**. Fully transparent plastic aprons **8** demarcate the sides of the RAK.



Clean work cabin

Construction materials

The following materials are available for manufacturing RAKs:

Housing:

Chipboard, plastic-coated on all sides

Sheet steel, painted on all sides

Stainless steel, polished

Standing legs:

Steel, painted

Stainless steel

Side partition:

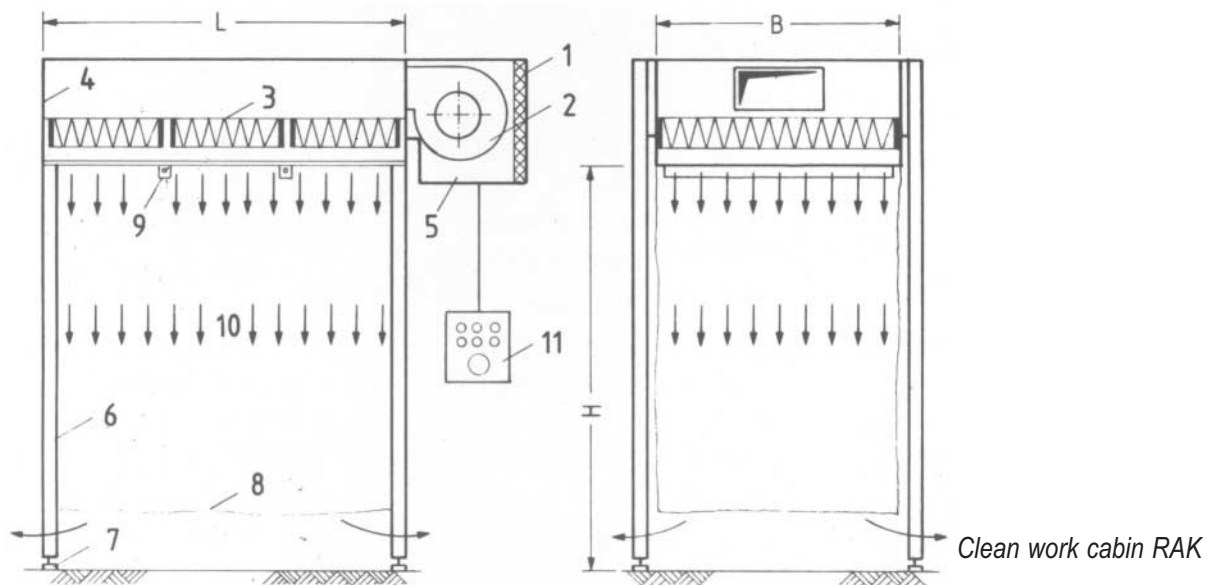
PVC

Acrylic glass

Operational readiness and safety

As a rule, RAKs from KRANTZ KOMPONENTEN are assembled on site from prefabricated elements. The HEPA filter is then installed with a leakage test.

The functional or working safety of RAKs is ensured by permanent supervision of the prefilter condition by pressure difference measurement and the velocity of the low-turbulence air flow with a built-in volume flow rate throughput gauge. The fan capacity can be kept in the setpoint range by manual readjustment at the switching and control unit 11.



Technical data		AV 1.3/1.6	AV 1.3/1.9	AV 1.3/2.2	AV 1.6/1.9	AV 1.6/2.2	AV 1.6/2.5	AV 1.9/1.9	AV 1.9/2.2	AV 1.9/2.5
Width B	mm	1300	1300	1300	1600	1600	1600	1900	1900	1900
Length L	mm	1600	1900	2200	1900	2200	2500	1900	2200	2500
Height H	mm	Standard height = 2000; other heights can be selected								
Air volume flow rate	l/s	935	1110	1285	1365	1585	1800	1620	1880	2135
	m ³ /h	3370	4000	4630	4920	5700	6480	5840	6770	7690
Fan power	kW	1.4	2.0	3.1	3.1	3.1	4.4	3.1	4.4	5.2
Lighting	W	2 x 36	2 x 36	3 x 36	2 x 58	3 x 58	4 x 58	3 x 58	4 x 58	4 x 58
Operating voltage	V / Hz	230 / 50		3 x 400 / 50						
Weight (without standing legs)	kg	270	300	340	350	390	440	400	460	500

Other dimensions on request!

Available accessories

- Standing legs with casters
- Side partition with lamellate plastic apron
- Side partition with solid plastic panes
- Sound attenuator to reduce fan noise
- Bypass connection for air supply from the available air-conditioning system
- Cooling coil including temperature control
- Ionizer

Features

- Vertical, low-turbulence displacement flow
- Available in various sizes
- Housing, standing legs and side partition available in various materials
- Built-in radial fan with adjustable-speed drive motor
- Device for measuring pressure differential and volume flow rate
- High operational safety by permanent supervision of volume flow rate

Tender text

Clean work cabin with vertical flow for class 5 acc. DIN EN ISO 14 644-1 or class M 3.5 (100) acc. US Federal Standard 209 E,

consisting of:

air-tight filter casing to clean room requirements, including sealing frame for HEPA filter,

gauge for pressure differential and volume flow rate, built-in lighting,

fan housing for lateral attachment to filter casing, including built-in radial fan with adjustable-speed drive motor and built-on G3 prefilter to DIN EN 779,

standing legs with height adjuster,

fully transparent plastic apron as surrounding side partition,

switching and control unit with speed controller for the fan drive motor, including all electric actuators and control devices,

H14 HEPA filter to DIN EN 1822.

Technical data:

Width:	.....	mm
Length:	.....	mm
Height:	.....	mm
Filter class 1):		H14
Air volume flow rate:	.....	l/s (m ³ /h)
Fan power:	.....	kW
Lighting:	.....	W
Operating voltage:	.....	V / Hz

Materials

- Filter casing and fan housing:
 - Chipboard, plastic-coated on all sides
 - Sheet steel, painted
 - Stainless steel, polished
- Standing legs:
 - Steel, painted
 - Stainless steel
- Side partition:
 - PVC
 - Acrylic glass

Colour:

- Housing: RAL
- Base: RAL

Make:

KRANTZ KOMPONENTEN

Type:

AV

Subject to technical alterations!

1) Other filter classes possible