



BEDIENUNGSANLEITUNG

Gefahrstoffarbeitsplatz APA.145.75 und APA.145.90 nach
DIN 12924-4: 2012

OPERATING INSTRUCTIONS

Hazardous material workplace APA.145.75 and
APA.145.90 acc. to DIN 12924-4: 2012

GEBRUIKSAANWIJZING

Werkplaats voor gevaarlijke stoffen APA.145.75 en
APA.145.90 conform DIN 12924-4: 2012

MODE D'EMPLOI

Sorbonne de laboratoire APA.145.75 et APA.145.90 selon
DIN 12924-4: 2012

MANUAL DE INSTRUCCIONES

Puesto de trabajo para productos peligrosos APA.145.75 y
APA.145.90 según DIN 12924-4: 2012

ISTRUZIONI PER L'USO

Centro di lavoro per sostanze pericolose APA.145.75 e
APA.145.90 secondo la norma DIN 12924-4: 2012

OPERATING INSTRUCTIONS

Dear customer,

These operating instructions are for practical use and should be available to the user where the hazardous material workplace is to be used.

Please keep these operating instructions close to the unit.

An assured, faultless functioning of the hazardous material workplace is only ensured when these instructions are followed.

Do take note of the safety information.

Many thanks.

Your asecos team

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1. Development and manufacture

asecos GmbH, D-63584 Gründau
Sicherheit und Umweltschutz

2. Serial number

The serial number can be taken from the type plate at the top right of the front side of the hazardous material workplace.

3. Purpose of the product

In accordance with the hazardous materials regulations and the workplace regulations and laboratory guidelines, hazardous vapours, gases or suspended solids that are released must be fully captured at the place where they emerge or where they are created before they can have effects that are damaging to health or to the environment. The hazardous material workplace is a highly effective way of ensuring that no vapours, gases or suspended solids involved in handling hazardous working materials (filling containers, gluing, cleaning, preparing, etc.) pollute the breathable air. Furthermore it is ensured that no explosive gas-air mixtures can form inside. The user is protected from spraying chemicals and slivers by the sliding window.

4. Safety information

- Take notice of the legislation and provisions to be applied in dealing with hazardous materials.
- Only use the hazardous material workplace in a proper condition.
- Make sure that there are no fresh air currents above 0.2 m/s when selecting the place of erection as this can affect the functional capability.
- The user(s) is/are to be trained on handling of the hazardous material workplace.
- Observe the maximum weight with which the cabin may be loaded.
- Please check the material resistance of the surface of the hazardous material workplace for the use of aggressive materials.
- Any hazardous materials that escape must immediately be collected and removed.
- Take note of all information in these operating instructions.
- Please follow the instructions of the safety specialists, technical monitoring services (BG, GAA, pharmaceuticals councils), construction supervision etc.
- Please take notice of the accident prevention regulations and the workplaces ordinance
- The customer shall ensure the necessary exhaust and inlet air quantity.

5. Additional equipment, accessories

We offer you a variety of optional equipment as well as accessories for the ventilation-related connection of hazardous material workplaces. Exhaust air sets recommended by asecos:

SET 1: HF.L.25157

- 1 m flexible hose DN100
- 2 hose clamps
- 1 wall duct

SET 2: HF.L.25158

- 7.5 m flexible hose DN125
- 2 hose clamps
- 1 wall duct

SET 3: HF.L.26693 *

- Tube fan 150
- 2 reducers DN150/125
- 7.5 m flexible hose DN125
- 2 hose clamps
- 1 wall duct
- 6 self-drilling screws 4.2 x 16

* SET 3 is a supplement for SET 2 for hose lengths up to 15 m

HF.L.20974	Conversion kit for the lateral lead-through of the exhaust air left/right
HF.ME.1565+75	Media connection for water with shut-off valve and drain valve for APA.145.75
HF.ME.1565+90	Media connection for water with shut-off valve and drain valve for APA.145.90
HF.ME.8237	Media supply 1 x natural gas for APA.145.75/90 with shut-off valve
HF.ME.1245+75	Media supply 1 x water, 1 x natural gas and water outlet for APA.145.75
HF.ME.1245+90	Media supply 1 x water, 1 x natural gas and water outlet for APA.145.90
HF.GE.9500	Laboratory bench (support frame) for APA.145.75, height-adj. 740–770 mm
HF.GE.8264	Laboratory bench (support frame) for APA.145.90, height-adj. 740–770 mm
HF.GE.12742	Laboratory bench (support frame) for APA.145.90, height-adj. 720–970 mm
HF.GE.15552	Support frame, standing work, (H x W x D) 865 x 900 x 625 mm
HF.GE.15810	Support frame, sitting work, (H x W x D) 685 x 900 x 625 mm

HF.GE.18678	Support frame, standing work, (H x W x D) 865 x 900 x 625 mm, with facing panel for size 59 cabinet
EP.ML.25321	Optional cover for pharmaceutical exhaust APA.145.75, RAL 7035
EP.ML.22495	Optional cover for pharmaceutical exhaust APA.145.90, RAL 7035

Please contact your local specialised dealer.

6. Start up and operation

The hazardous material workplace is intended for a work bench with a depth of at least 600 mm. The load-bearing capacity of the bench must be at least 100 kg/m². After placing the hazardous material workplace onto the work bench, please check whether the hazardous material workplace is in a horizontal position. Otherwise please align the hazardous material workplace horizontally by underlaying with strips.

The customer must provide a sufficiently sized extraction air connection prior to commissioning of the hazardous material workplace.

There is an earthed plug with 4 m cable on the rear wall of the hazardous material workplace for connection to the power supply. The green LED ("mains") must light up after the self-test. Now press the On/Off switch to put the hazardous material workplace into operation ("Ventilation On/Off"). The green LED ("Operation") must light up as well as the integrated lamp.

Please use the continuous handle to open and close the sliding window.
Please press the On/Off switch to switch off the hazardous material workplace.

If the hazardous material workplace has an option for media supply, the operation of the gas and water outlets (positioned on the inside rear wall) is possible by way of rotary valves on the menu bar.

CAUTION: Gas tapping is only possible if the rotary valve is slightly depressed beforehand. The hazardous material workplace must be subjected to a safety check before use.

7. Functional and safety inspection, care and maintenance

The hazardous material workplace is a safety-related equipment, which must, in accordance with § 4 section 3 Workplaces Ordinance, be maintained at least once a year and tested for function by a specialist. The functional capability is checked by means of the integrated air monitoring, such that a functional check of the hazardous material workplace is continuously performed during operation.

Disassembly of the baffle wall: The baffle wall can be removed for cleaning by loosening the four knurled screws. Please clean the hazardous material workplace using ordinary, mild household cleaner.

8. Please act as below in response to malfunctions:

Malfunction	Reason – action
Green LED "Mains" not illuminated	Check whether power is connected <ul style="list-style-type: none"> Green LED "Mains" is faulty. Call service. The electronic system is faulty. Call service.
Green LED "Operation" does not light up after switching on	Check whether power is connected <ul style="list-style-type: none"> Green LED "Operation" is faulty. Call service. The electronic system is faulty. Call service.
Integrated lamp cannot be switched on	<ul style="list-style-type: none"> Bulb defective. Please replace.
The red LED "Malfunction exhaust air" lights up during operation	<ul style="list-style-type: none"> Exhaust air malfunction. Check pressure loss of exhaust air pipe Exhaust fan defective. Replace fan.
Sliding window is difficult to operate or cannot be operated at all	<ul style="list-style-type: none"> Counterweight not exactly positioned. Call service.

NOTE: In case of defects, please contact your local specialised dealer.

9. Ventilation adjustment /monitoring

The integrated exhaust air fan extracts a minimum volume of 330 m³/h from the hazardous material workplace. This extraction volume is sufficient in accordance with the air-related test to DIN 12924-4: 2012 (in conjunction with BS EN 14175-3 section 5.4) to prevent pollutants from escaping from the hazardous material workplace (laboratory test).

The power of the fan is sufficient for the connection of an exhaust pipe DN125 with a length of up to 7.5 m with 2 x 90° bends by the customer. If an exhaust pipe with DIN 100 is used, the length of the exhaust pipe is reduced to 1 m.

The faultless ventilation function is automatically controlled by a monitoring electronics system. A differential pressure measurement device monitors air volumes in the extraction air shaft. The pressure sensor has an adjustable nominal value.

The nominal value is set in relation to the stated nominal (minimum) air quantity. An alarm (lighting up of the red LED "Exhaust air malfunction" and acoustic signal) is issued in the case if an approx. 10 % deviation from the set rated air value. The acoustic alarm can be cancelled by pressing the "Reset" button. The optical alarm only stops when the rated value is again attained. Operation of the air monitoring unit is ensured by the integrated rechargeable battery, even in case of a power failure.

10. Construction, mode of operation

The hazardous material workplace mainly consists of plastic-coated high-grade sheet steel, RAL 7035 light grey. A jointless, liquid-tight plastic sump serves as the working surface. The melamine-resin coated baffle wall and all components for exhaust air are made of plastic. An inserted melamine-resin MDF board serves for pressure relief and simultaneously as a cover. The bulbs in the work area are mounted to avoid glare and have a lighting intensity of approx. 500 lx. There is an integrated exhaust air fan in the head section of the hazardous material workplace (optional: without exhaust air fan).

The gases, vapours or suspended solids originating from handling hazardous materials are collected by effective extraction via the suction slots in the rear section and discharged to the exhaust system. Safe and correct functioning is shown by the ventilation monitoring mechanism which is fitted as standard.

11. Electronic monitoring system/self-test

The hazardous material workplace APA.145.xx is fitted as standard with an electronic monitor.

The electronic monitor performs a self-test after first connection of the device to a power supply. Depending on the programmed start delay, the self-test takes approx. 1 or 2 1/2 minutes. For this, the LEDs are consecutively switched on and off, the exhaust fan is switched on and the pressure sensor checked.

The two green LEDs light up if proper condition is established.

The self-test can be started manually. For this, keep the reset-button pressed for 3 seconds.

The electronic monitoring system is arranged in the front left area with the following operating elements:

- Display mains connection = green LED
- Display operation = green LED
- Display exhaust air malfunction = red LED
- Reset of acoustic alarm = reset button

12. Option media supply

The additional media supply consists of a water and/or gas connection and an outlet. The gas and water outlet is arranged on the rear wall, the shut-off valves at the front. The supply line for gas and water provided by the customer must be installed on the rear side of the hazardous material workplace, immediately above bench height. Uniflex hose connections with 1/2" internal thread with NBR gasket are available for this purpose. Connection may only take place by a "competent person".

13. Earth connection

If the hazardous material workplace is placed on a conductive base (e.g. metal bench), the cabinet must be earthed to the existing earth connection (M5). This is situated on the rear wall above the exhaust air fan.

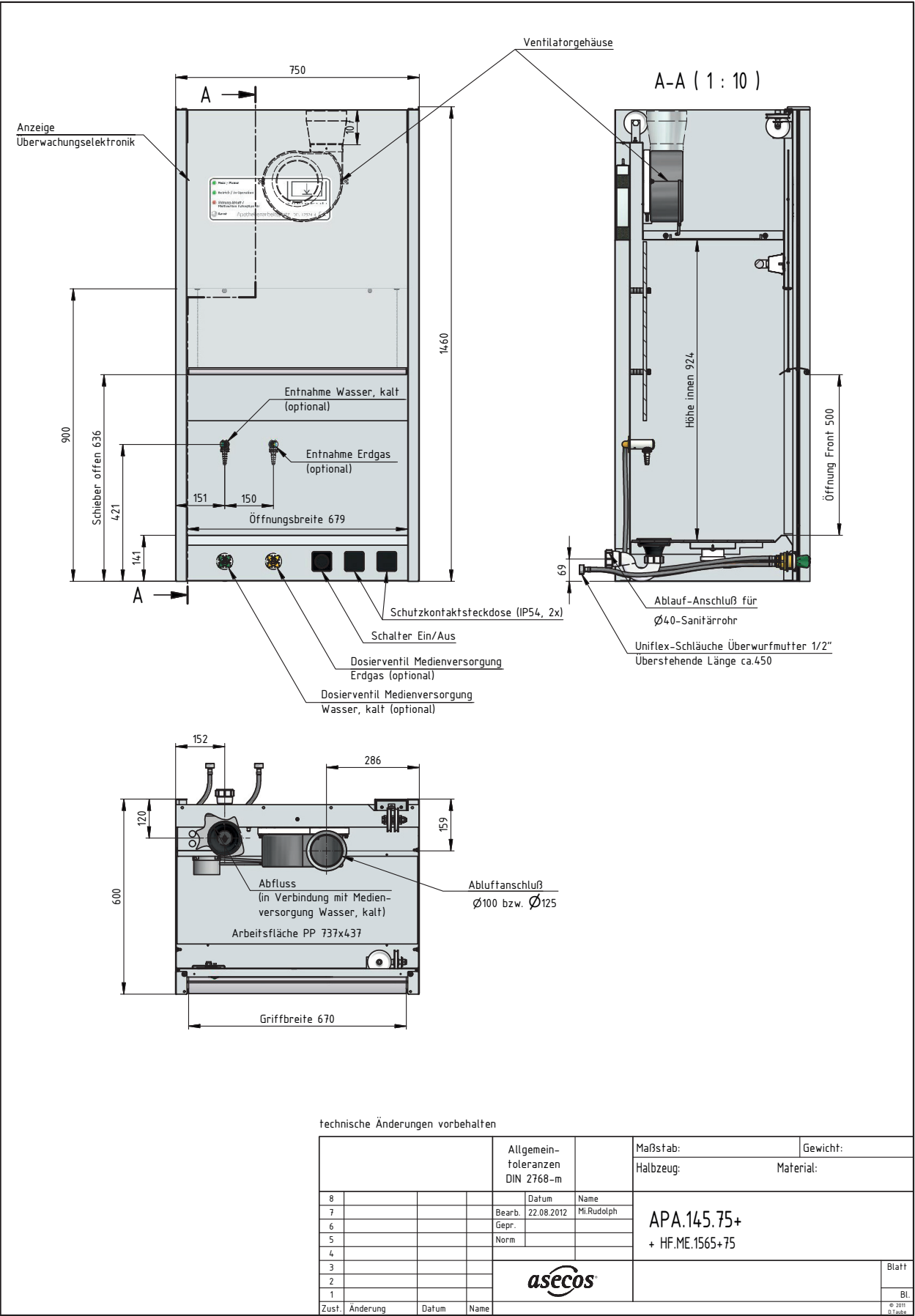
14. Technical data

The figures in the table are provided as a guide, and are not to be used in the sense of assured properties.

Technical data	Hazardous material workplace 750 wide	Hazardous material workplace 900 wide
External dimensions		
Height	1450 mm (from top edge of bench top/ support frame)	1450 mm (from top edge of bench top/ support frame)
Width	750 mm	900 mm
Depth	600 mm	600 mm
Internal dimensions		
Clear height between working area and inner lining	924 mm	924 mm
Width	740 mm	890 mm
Depth	440 mm	440 mm
Usable working areas		
Width	680 mm	820 mm
Depth	440 mm	440 mm
Max. total load on working area	200 N on area 120 x 120 mm acc. to DIN 12924-4	200 N on area 120 x 120 mm acc. to DIN 12924-4
Sump volume	5 l	6 l
Total weight	70 kg	77 kg
Sound level	53,5dB (A)	53,5dB (A)
Service conditions		
Operating temperature	15–40° C	15–40° C
Climatic resistance	70% rel. humidity without condensation	70% rel. humidity without condensation
Rec. volumetric flow (acc. to DIN EN 14175-3)	330 m ³ /h	330 m ³ /h
Loss of device pressure	315 Pa	315 Pa
Electrical		
Supply voltage	85–264 VAC, 47–63 Hz	
2 earthed sockets	230 V/16 A	
1 energy saving lamp	18 W	
1 On/Off switch		
1 electronic monitoring unit, battery buffered		
1 exhaust air fan	230 V/50 Hz, 137 W, 2000 rpm	

The figures conform to the state of the art as and when these operating instructions were printed.
Changes to these values without notice as a result of further technical development are explicitly permitted.

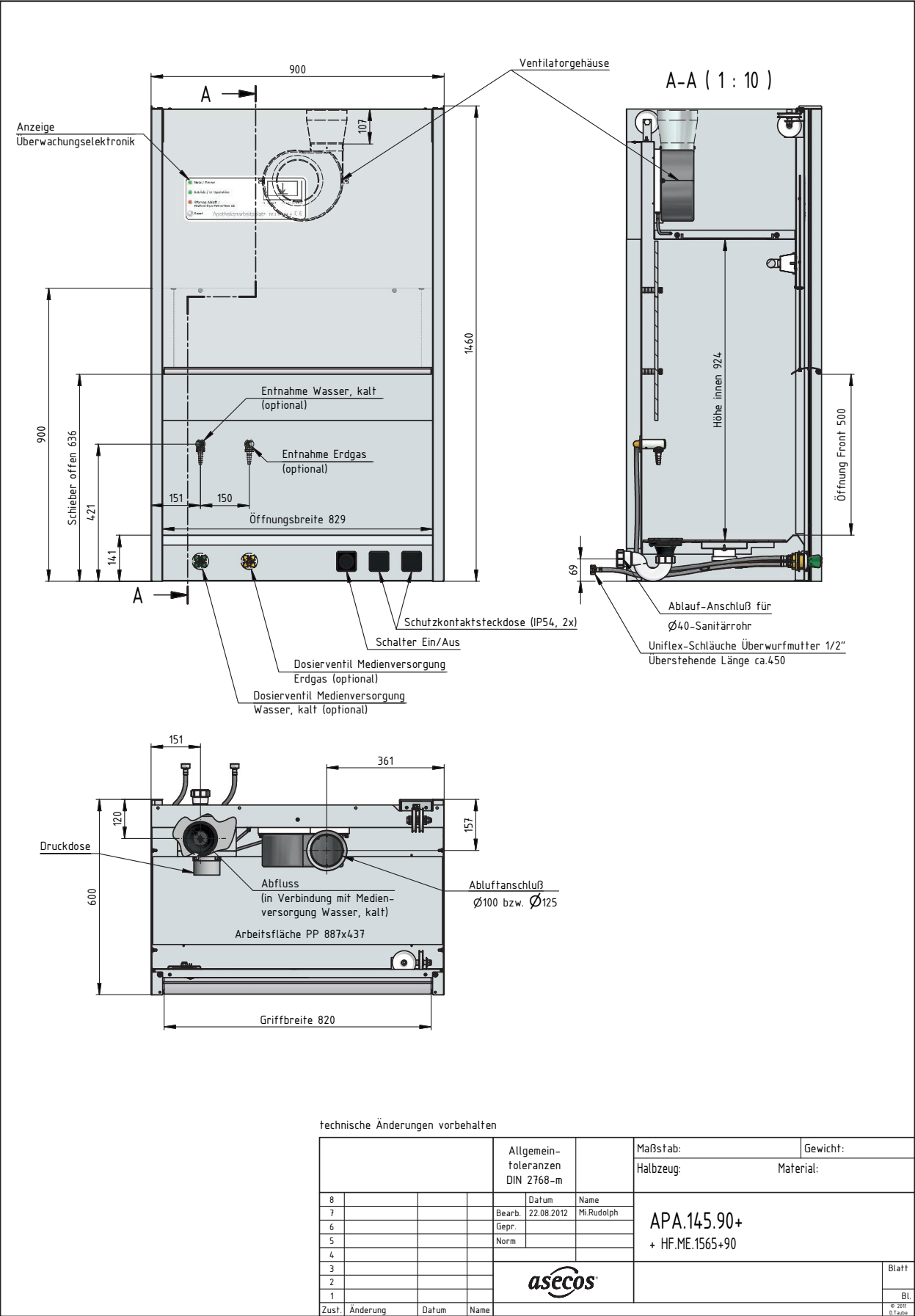
15. APA.145.75 connections



technische Änderungen vorbehalten

				Allgemein- toleranzen DIN 2768-m		Maßstab:		Gewicht:	
						Halbzeug:		Material:	
8				Datum	Name	APA.145.75+ + HF.ME.1565+75			
7				Bearb.	Mi.Rudolph				
6				Gepr.					
5				Norm					
4									
3				asecos®					
2									
1									
Zust.	Änderung	Datum	Name					Blatt	
								Bl.	
								© 2011 G. Tiedt	

16. APA.145.90 connections



17. Spare parts

Order Nr.	Spare part
EP.E.1226	Radial fan
EP.E.1227	Condenser
EP.E.23123	Electronic system
EP.E.23125	9V rechargeable battery
EP.E.23124	Power supply unit 12V
EP.E.1078	Differential pressure monitor
EP.E.24306	G fuse 5x20 mm, 250 V, T 800 mA
EP.E.1079	Electrical sockets with earthing contact
EP.E.15891	Pushbutton
EP.E.1081	Rocker switch
EP.E.1356	Light strip
EP.E.1561	Fluorescent tube 18 W
EP.K.22497	Sliding window APA.145.90
EP.K.25307	Sliding window APA.145.75
EP.K.25467	Worktop APA.145.90
EP.K.25468	Worktop APA.145.75
EP.K.24341	Worktop APA.145.90 for basin
EP.K.25308	Worktop APA.145.75 for basin

18. Declaration of Conformity



Declaration of Conformity

We _____

asecos GmbH
Sicherheit und Umweltschutz
Weiherfeldsiedlung 16-18
D-63584 Gründau

have in sole responsibility developed, designed and produced the following products

Description _____

Hazardous material workplaces
APA.145.75 APA.145.90

And declare that this product complies with the following standard(s) or directive(s) in this declaration

2006/42/EC

Directive of the European Parliament and of the Council on the approximation of the laws, regulations and administrative provisions of the Member States for machines (**Machinery Directive**)

2006/95/EC

Directive of the European Parliament and of the Council on the approximation of the legal regulations of the Member States relating to electrical equipment designed for use within certain voltage limits (**Low Voltage Directive**)

2004/108/EC

Directive of the European Parliament and of the Council on the approximation of the legal regulations of the Member States with regard to electromagnetic compatibility (**EMC Directive**)

94/9/EC

Directive of the European Parliament and of the Council on the approximation of the legal regulations of the Member States concerning equipment and protective systems intended for use in potentially explosive atmospheres (**ATEX**)

The following European standard(s) was/were applied

BS EN ISO 12100-1
BS EN ISO 12100-2

Safety of machinery –
Basic concepts, general principles for design –
Part 1: Basic terminology, methodology (ISO 12100-1:2003)
Part 2: Technical principles (ISO 12100-2:2003)

BS EN 60204-1

Safety of machinery – electrical equipment of machines
Part 1: General requirements (IEC 60204-1:2005, modified)

BS EN ISO 13857

Safety of machinery - Safety distances to prevent hazard zones being reached by upper and lower limbs (ISO 13857:2008)

BS EN 61000-6-2

Electromagnetic compatibility (EMC) – Part 6-2: Generic standards
Immunity for industrial environments (IEC 61000-6-2:2005)

BS EN 61010-1

Safety requirements for electrical equipment for measurement, control, and laboratory use - Part 1: General requirements

BS EN 14175-2

Fume cupboards - Safety and performance requirements

BS EN 14175-3

Fume cupboards - Type test methods



Declaration of Conformity



The following national standard(s), directive(s) and regulation(s) was/were applied


DIN 12924-4:2012

Laboratory furniture – fume cupboards; fume cupboards for pharmacies; main dimensions, requirements and tests

BGR 120

The trade association health and safety at work rules – laboratories

Identification

CE  II 3/- Gc T4

Technical documentation

in the possession of the manufacturer

Operating instructions

enclosed with the equipment

Authorized representative for documentation

Dipl.-Ing. Karl-Heinz Möhn

Place of issuance / Date

asecos GmbH

Gründau, August 31st, 2012

Michael Schrems
Managing Partner

Ihr Fachhändler:

Your specialist dealer:

Uw vakhandelaar:

Votre commerçant spécialisé :

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