





1.2 Technical Data

RHK-AK 70-101 P

Designation	Unit	RHK-AK 70 / 75 (P)	RHK-AK 99 / 100 / 101(P)
Transport width	mm	890	890
Transport length	mm	1595	1845
Transport height	mm	1670	1670
Water content	Liter	385	475
Weight	kg	1400	1500
Heat exchanger surface	m²	7,20	8,90
Heat output range	kW	20-70 / 22,5-75	29,7-99 / 30-100 / 30-101
Nominal heat output	kW	70 / 75	99 / 100 / 101
Efficiency with wood chips FL/PL	%	94,6/94,6 / 94,5/94,5	94,2 / 94,1
Flue draft requirements chimney	Pa	5	
Flue draft mass flow FL / PL	g/s	47 / 17	63 / 23
Flue gas temperature FL/PL	°C	103/65 / 101/65	95 / 65
Necessary feed pressure FL / PL	Pa	12/12 / 13/13	15 / 15
Water pressure drop at 10K	mbar	15,20	15,70
Water pressure drop at 20K	mbar	4,00	4,13
max. operating pressure	bar	3 respectively 5**	
Heat flow	Inch	1 1/2	
Heat return	Inch	1 1/2	
Reserve flow	Inch	1	
Reserve return	Inch	1	
Filling/Emptying	Inch	1/2	
Thermowell	Inch	1/2	
Flue pipe diameter	mm	200	250
min. supply/exhaust air	cm²	200	250
Flow rate at 15K	m³/h	4,30	5,70
Boiler doors		2	2
Boiler class		5	
Seasonal space heating energy efficiency		82	82
max. Flow temperature without SWT****	°C	85	
max. Flow temperature with SWT****	°C	95*****	
min. Return temperature	°C	55	
Fuel type		A1 / P16S - P31S / M30 acc. to DIN EN ISO 17225-4	
Recommended buffer volume	Liter	20 / kW Nominal heat output***	
Electrical power consumption P _{min} /P (P)	kW	0,161/0,055 / 0,174/0,058	0,238 / 0,071
Standby power consumption	kW	0,01	
Cold water temperature SWT****	°C	10	
max. operating pressure SWT****	bar	3	
Mode of operation		non-condensing	
Airborne noise emission L _{WA}	dBA	57*	
Reduction measures airborne noise		Flue gas silencer**	
Electrostatic particle separator		2x Heizoclean EF185 in FG-collector and 2x im flue 3**	
Electrical connection		400V / 3N PE - CEE plug 16A	
Electrical protection		C 16A	
FI-circuit breaker		Typ A IΔN 30mA	

* Airborne noise emissions of the wood chip boiler system in the boiler room; no informative value for noise emissions at the chimney end or its surrounding areas
 ** Depending on equipment
 *** Deviating in case of funding
 **** Safety heat exchanger
 ***** Tolerances of the safety thermostate must be observed

The system shall only be operated under negative pressure!

Status 01.01.2024

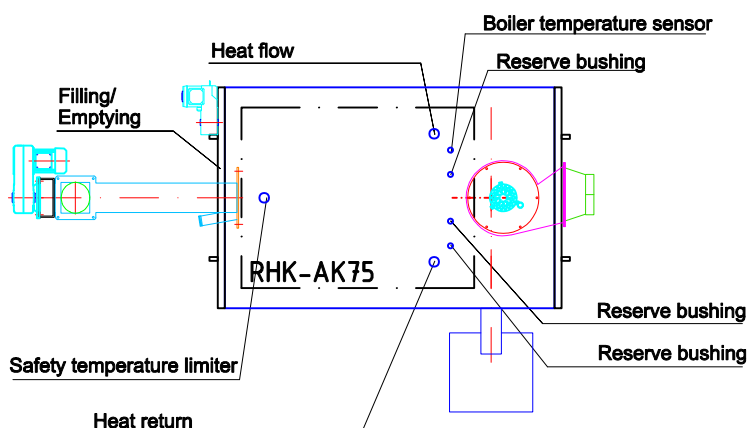
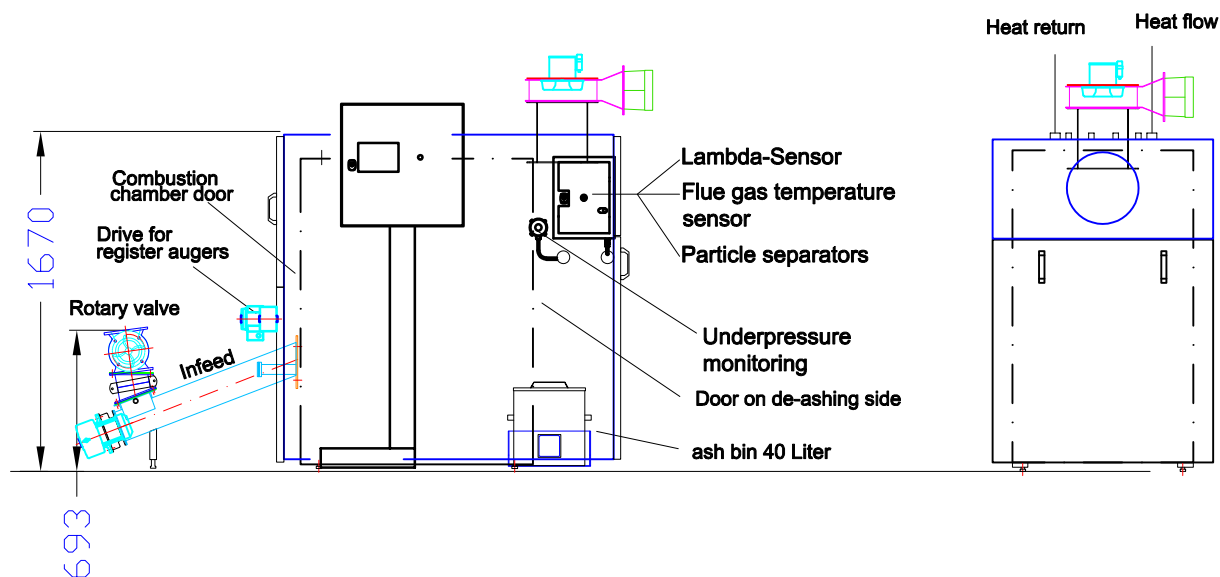
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1.3 Connections - Attachments



The flue gas system must be resistant to condensation and may be operated in damp/wet mode. The boiler should be accessible from three sides.

Room height and position of the multicyclone/particle separators after consultation with the Heizomat specialist advisor.

For connection points for the necessary potential equalization on the boiler, see the supplementary sheets for installing potential equalization and installing the particle separators.

We recommend a buffer storage volume of 20 L/kW of nominal heat output or the specifications of the respective country.

We reserve the right to make technical changes that serve the purpose of ongoing development.

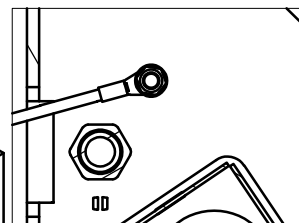
The equipment of the system can vary depending on the legal requirements of the destination country.

1.4 Equipotential bonding and Shielding of the sensor lines



Grounding cable (min. 6mm² CU) from controller box EF185 to the controller box of the boiler.

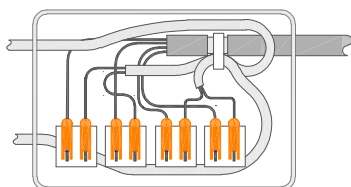
Grounding cable boiler (min. 16mm² CU)



Shielded sensors including shielded connection cables are to be used for **boiler temperature-, flue gas temperature-, return temperature- and return temp. mixer.**

If the cables need to be extended, the shields in the clamping socket must be connected to each other electrically conductive.

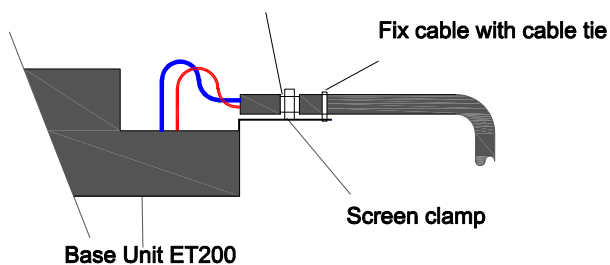
Grounding cable (up to 100 kW min. 6mm², above 100 kW 10mm²) from the boiler controller box to the equipotential bonding bar



Grounding of the sensor cables in the control box:

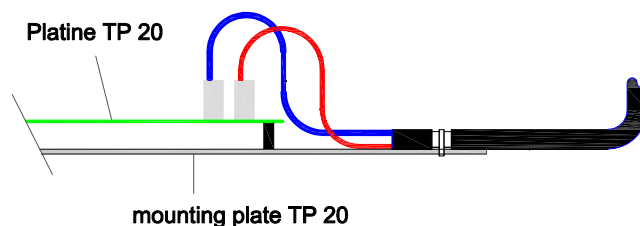
HeizoControl ET100/ET200:

Uncover cable shielding in the area of screen clamp and fix it with cable ties.

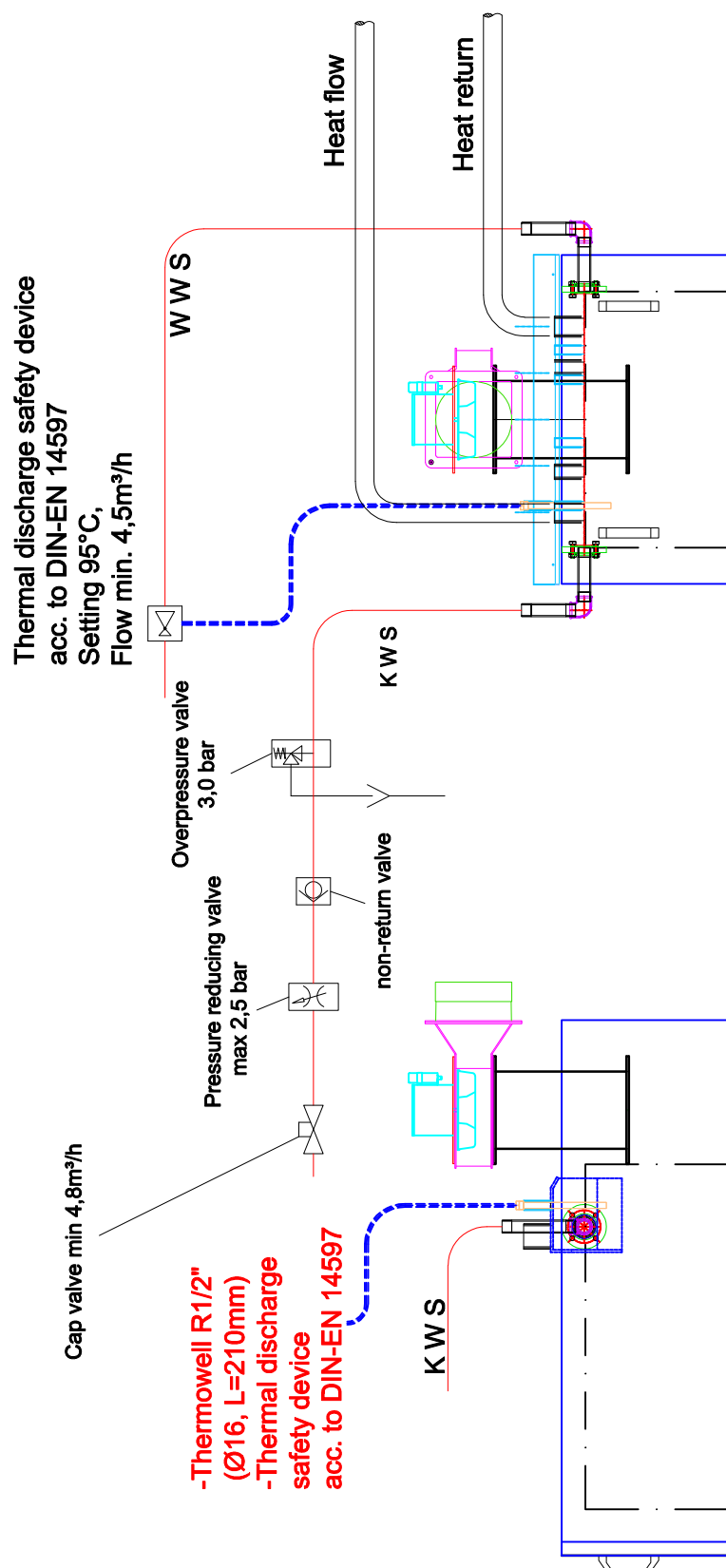


HeizoControl TP 20:

Uncover cable shielding in the area of screen clamp. Fix the cable with cable ties ensure the connections between the contacts.



1.5 Safety heat exchanger with thermal discharge safety device*



* Special equipment

** Tolerances of the safety thermostate must be observed

Important note:

In this sheet shut off devices, ventilation systems and safety devices are not marked. For dimensioning of the different valves and devices the relevant heating engineer is responsible. These have to be built in system- dependend due to standards and regulations.

- Installation of safety temperature limiter (STB) always on heat flow side
- max. flow temperature 95°C**

Thermowell for thermal safety discharge:

R₂ 1", D=16mm, L=210mm
Type 3065, DIN TH79703

WWS -Hot water outlet for thermal safety discharge
mount valve on outlet

KWS -Cold water inlet for thermal safety discharge

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