



# Heizomat<sup>®</sup>

*Energy in balance with nature*



**Sun ► Biomass ► Heizomat ► Heat ► Life**





*Robert Bloos built the first automatic discharger system for woodchips in 1982. The idea behind it was to use wood from his own forest with the same comfort as he would fossil fuels. In the beginning the discharger system was only to supply the boiler with woodchips for his own agricultural business, yet more and more people showed their enthusiasm for the "Heizomat".*



*Today Heizomat has more than 200 employees incl. a large training workshop with 14 apprentices in the two Bavarian towns of Gunzenhausen / Maicha as well as Heidenheim in Central Franconia. The production area has developed from a garage to today's size of over 35,000 m<sup>2</sup>.*

*As well as automated boilers systems for woodchips and biomass, Heizomat has specialised itself in the construction of hand and crane operated chippers, filling technology for woodchip storage, woodchip transportation systems and gripper for trunk and treetop wood.*

*More than 30,000 installed heating systems and chippers worldwide stand for the quality and fully developed technology of Heizomat!*

### **Our production sites**



**Maicha, Bavaria**



**Heidenheim, Bavaria**

***Real workmanship! Our products  
are all produced in Germany.***





- 220 employees
- Over 30,000 customers
- Family business
- Made in Germany



"Energy in balance with nature! We have been building Made in Germany woodchip systems for 30 years under this motto. I am pleased that more than 30,000 customers worldwide use our systems to heat ecologically and yet as comfortably as with fossil fuels."  
Robert Bloos sen.

**A strong team**



*the HEIZOMAT staff*

*Pioneer! HEIZOMAT has been working with renewable resources for 30 years.*





Image shows design package special equipment

Our bestseller continues to be the HSK-RA series. This boiler type with complete cladding is characterised by its high effectiveness, its robust processing, best emission values and simple use.

The incineration is regulated with a lambda sensor. Feeding in the fuel takes place using the renowned Heizomat discharger technology.

The range of use of the HSK-RA series is between 15-200 kW.

Woodchips, sawdust, wood shavings or even pellets are used as fuel.



- Fully fireclay lining combustion chamber
- Emergency use possible with split logs
- Quick and simple maintenance



De-ashing augers for cleaning the heat exchanger.



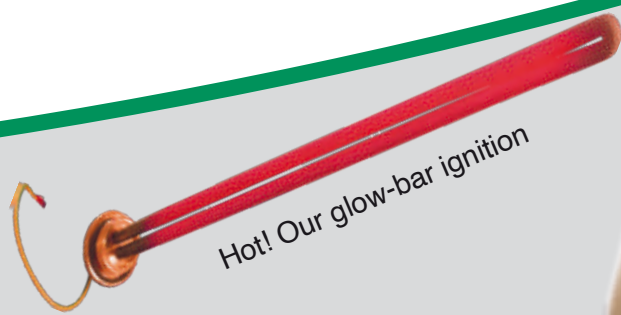
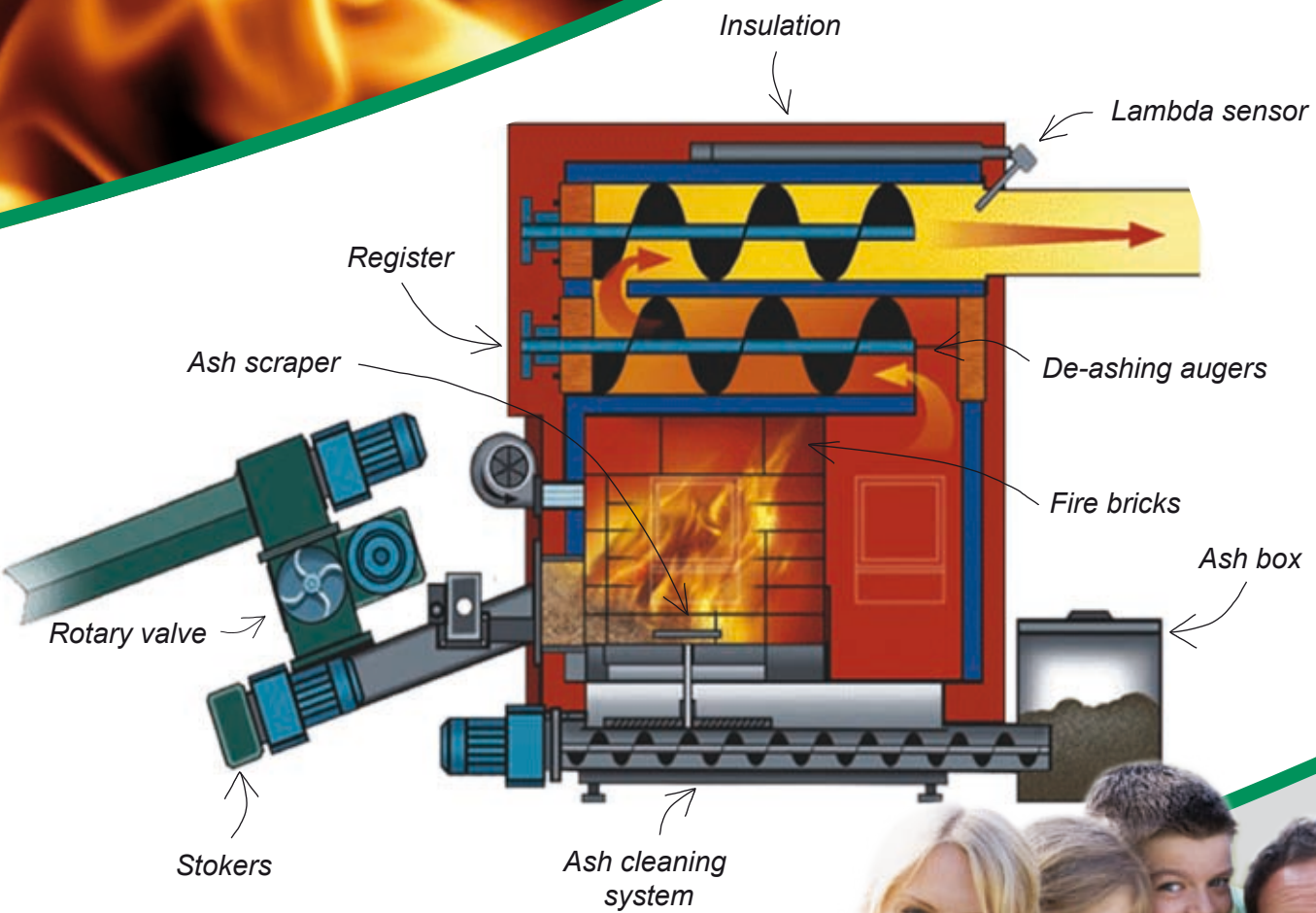
Our goal is a satisfied customer.



Stoker with primary air ducts.

We've got professionals! Our expert advisors will create the right solution for your heating together with you.

**HSK-RA**  
15 - 200 kW



Hot! Our glow-bar ignition



Fully fireclay lined combustion chamber.



Our HSK-RA boiler type is available with a output range of 15-200 kW.



Stable cast grate with ash scraper.

*Fully automatic! So that you can keep your time for where it's needed!*





The Agitator developed by HEIZOMAT in 1983, with a robust construction and perfect results that have not been matched to this day, allows fuel to be discharged from every room. Since 2011 our Agitator with the patented parallel extension can be equipped allowing the silo to be emptied circularly, with low noise and without rebounding.



Generous discharger head

The discharge auger with loosening geometry guarantees the trouble-free transportation of the heating material from the silo to the heating system. The high operational reliability is ensured by a 50/35 mm thick solid shaft.

The core of every HEIZOMAT discharger is the bevel helical gear developed by us with a conferrable torque of up to 5,000 Nm. This has a special seal that reliably prevents the intrusion of dust and dirt. It is powered by a drive motor which is flanged to the discharger channel outside of the silo. No undershelf is required!



- Bevel helical gear with up to 5,000 Nm torque
- Robust agitator since 1983
- large volumed route channel for optimum fuel transportation



4 chamber rotary valve with counter blade.



Robust agitator from 1-7 m, for the reliable transportation of fuel.

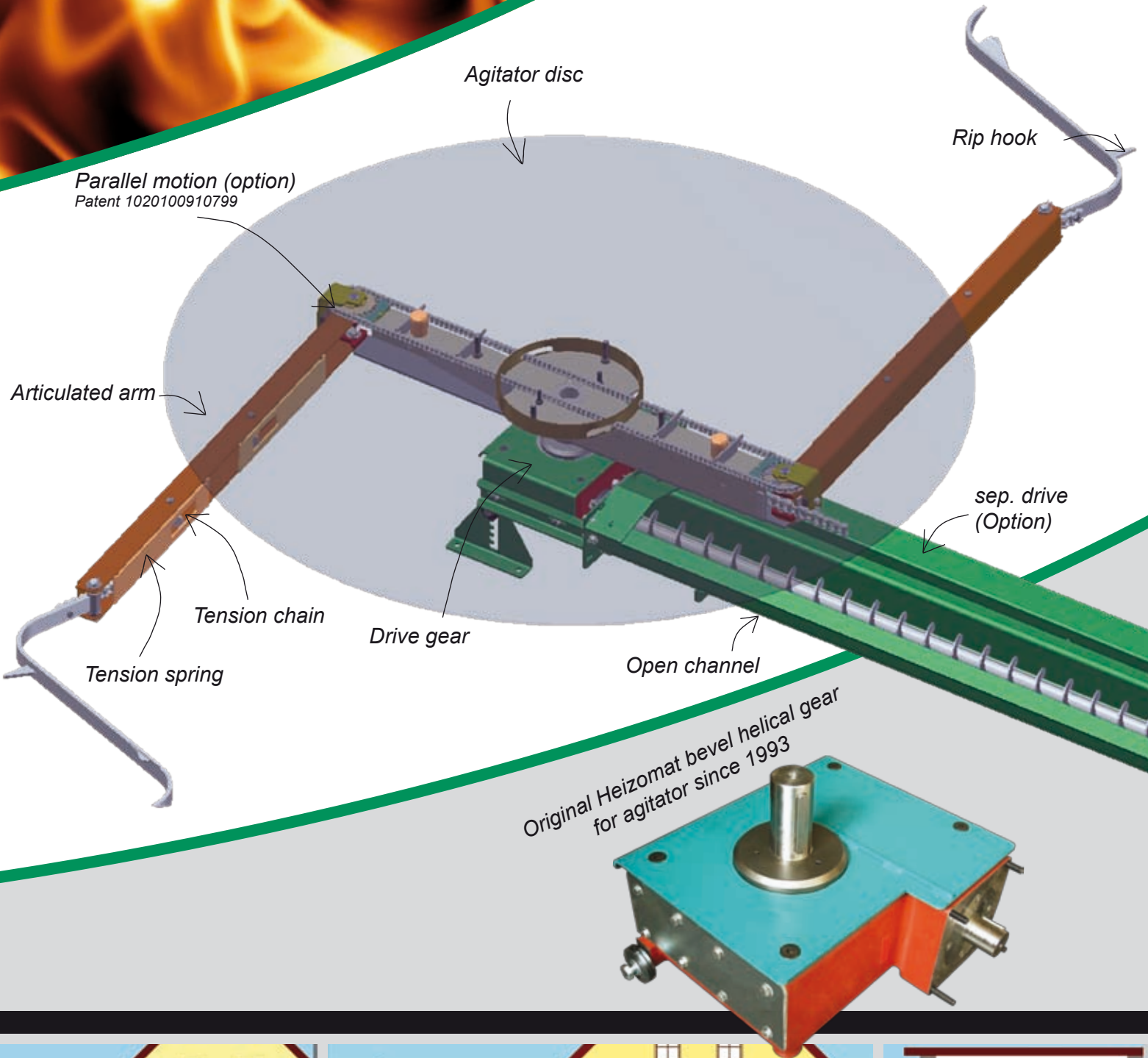


Discharger head with rip hook.

**Robust!** Using our route channel, fuel up to G50 is securely transported and reliably led to the fire via the 4 chamber rotary valve!

# Discharger System

1000 - 7000 mm



**Inclined storage auger for internal fuel storage.**



**Underground storage for simple filling with agricultural equipment.**



**Overhead discharger for woodchip storage.**

*Energy saving champions! Our systems are all equipped with the most efficient drive motors.*





*The versatility of organic fuels knows no limits. The task of the RHK-AK series is to use this multiplicity as a heating material.*

*A round cyclone combustion chamber at the heart of the boiler is the guarantee for the optimum transfer of heat to the boiler water. The counter-rotating air supply ensures very good combustion of the fuel.*

*Through high-temperature cast blocks primary air is added to the combustion. Through the full fireclay lining of the combustion chamber, secondary air is specifically mixed into the combustion process and an optimum heat yield is achieved.*

*Everything which inertly turns to gas or burns is slowly moved towards the de-ash system with the chain catches and thereby optimally burned out.*



- Combustion chamber made from refractory concrete
- Material thickness of all boilers min. 6 mm
- Does not need to be switched off during boiler cleaning



**Generous heat exchanger with cleaning auger.**



**Major systems for local heat networks.**

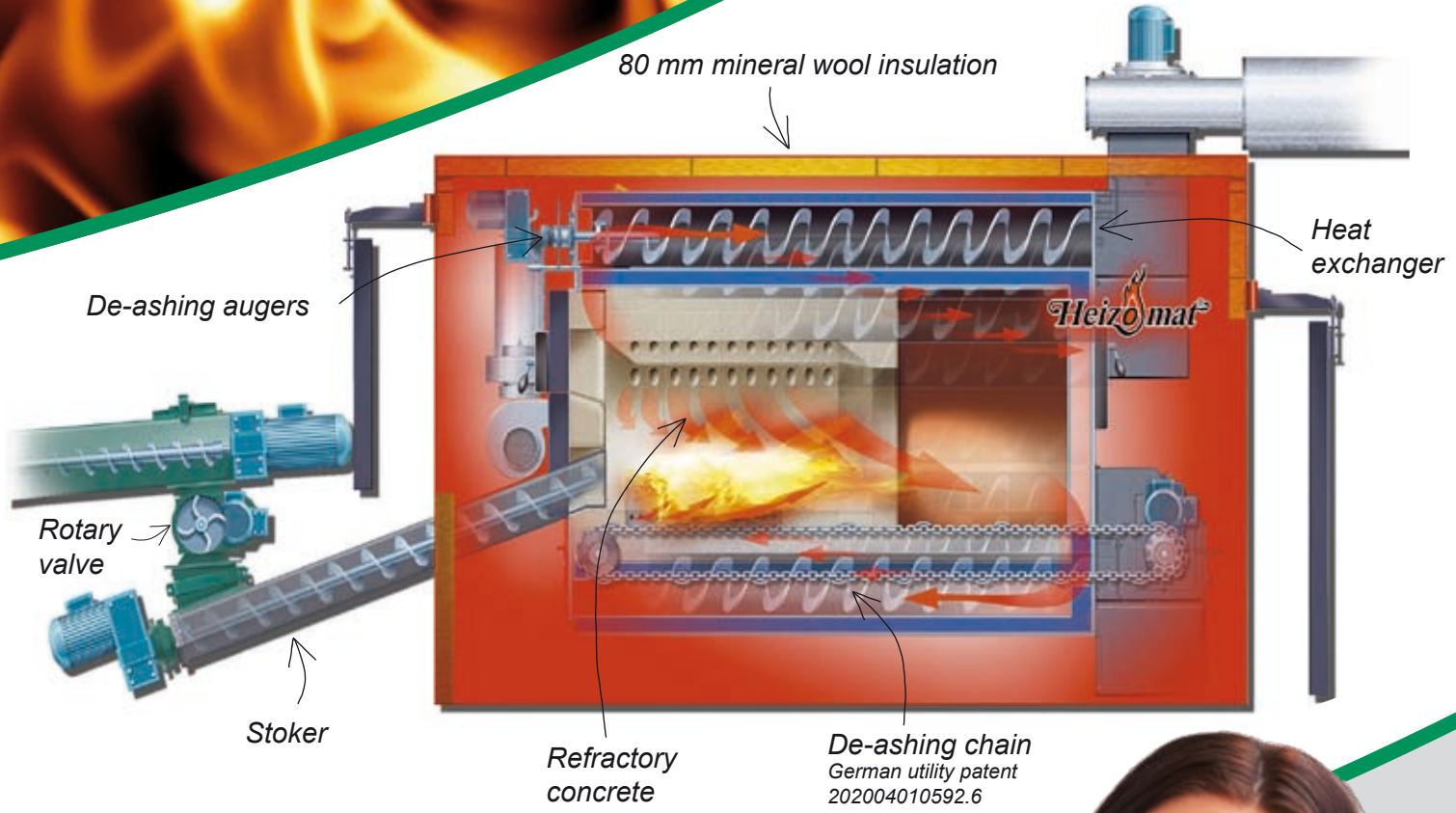


**Combustion chamber with de-ashing chain.**

*Naturally! With our horizontal boiler construction the combustion takes place completely naturally at the highest efficiency.*



**RHK-AK**  
30 - 990 kW



Safe!  
Our 4 chamber rotary valve



Clean combustion  
thanks to optimum ventilation.



Our RHK-AK boiler type is available  
with a output range of 30-990 kW.



Flexible extension  
systems for ash disposal.

Good thinking! Thanks to the ash chain of the RHK-AK even cinder-carrying fuels are optimally utilised.





**NEW**

**Always one step ahead!**

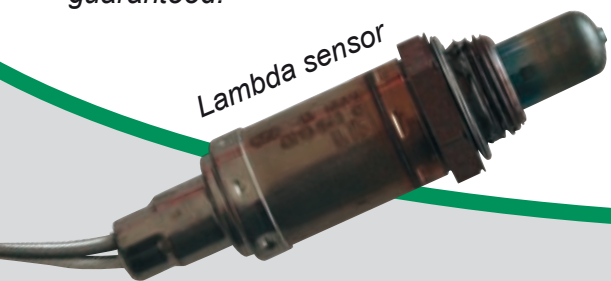
Sensational technology with self-explanatory menu navigation.

This is the new Touch Control TS7 with Simatic.

30 years of experience in combustion technology and state-of-the-art Siemens technology characterise the best Heizomat control unit of all time.

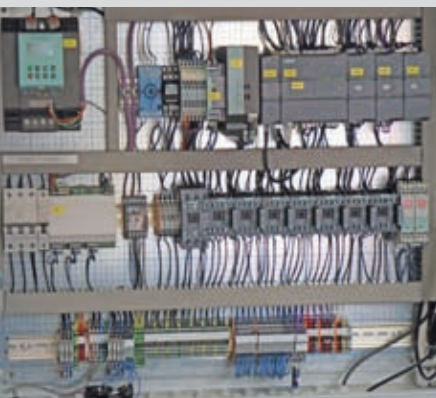
Thanks to the industrial quality and the use of Siemens components a global availability of replacement parts as well as a long life cycle are guaranteed.

- Load stage regulation
- Firebed forming
- Lambda regulation
- Return flow increase
- Return-temperature monitoring
- Operating hours counter for various operation processes
- Sm@rtServer for visualisation on a smartphone or PC
- Selection of various fuels which are freely definable
- Chimney sweep mode for full and part load measurement
- Measured value recording over 2 h or 48 h
- Modbus-TCP interface for building control
- external boiler temperature setting, 0-10 V
- and much more!



Lambda sensor

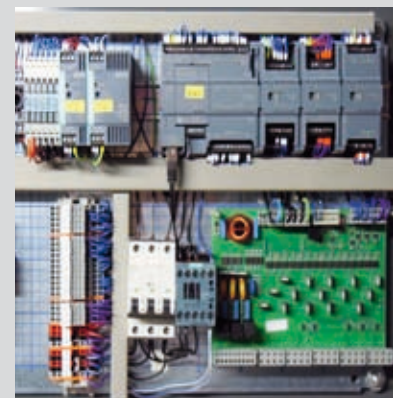
*Everything under control*



Controller box from 5 motors.



We produce and programme our control units ourselves.



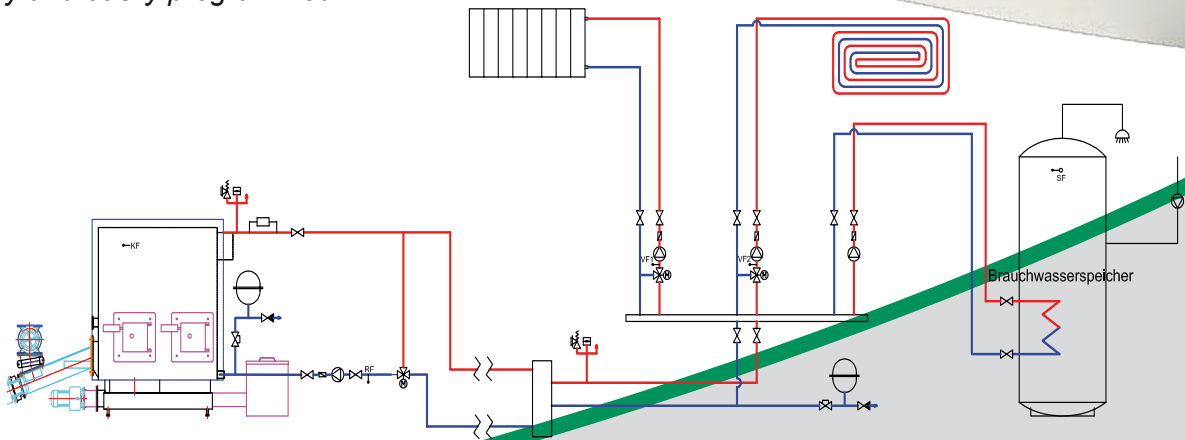
Controller box up to 5 motors.

*Flexible! Using the glow-bar ignition you can operate our systems in continuous, ignition or e-boiler modes.*



The control of your heater loops is controlled by our system controller **HEIZOCONTROL MX**. The controller has over 14 relay outputs and four pulse with modulation (PWM) – outputs for the speed control of energy-saving high-efficiency pumps that can be optionally switched to the discharge of a 0-10V signal.

Furthermore, the controller is equipped with a frequency input, three impulse inputs as well as a variety of different sensor inputs. Thanks to the integrated SD card slot the controller can be quickly and easily programmed.



- Control unit with lambda sensor since 1996
- Modulating operation through load stage control
- Storage of numerous fuels
- Ignition or continuous mode possible
- Speed-regulated control of the pumps
- Extendable to up to 7 heating circuits
- Freely programmable
- Simple updating/programming via SD card



Control units with our control units



**Triac - 3-button operation with 3 buttons.**



**Our TouchControl is a child's play.**



**Built by professionals for you.**

*Clever! Thanks to our TouchControl we can steplessly adjust the power of our boilers.*





Heizotrans



**HEIZOTRANS** Woodchip blower with loading trough. With our ejection tube you can fill silos that are up to 10 m tall. Our blower is powered by a 11 kW electric motor. If the Heizotrans is equipped with load control a flow rate of up to 60 m<sup>3</sup>/h is possible. The filling funnel is available with 3,000 mm x 1,100 mm or 2,500 mm x 1,100 mm outer dimensions.

Heizoschnecke



**HEIZOSCHNECKE** Inclined storage conveyor for the filling of internal storage. The filling auger can be installed with up to 6 m length and with a maximum incline of 45 °. Depending on version, the transportation speed is max. 30 m<sup>3</sup>/h.

Heizotrans



**WOODCHIP ELEVATOR** Using our Elevator you can fill silos up to 10 m tall with minimal dust. The system is powered by just one motor. It moves up to woodchip at up to 30 m<sup>3</sup>/h via the 3,000 mm x 1,100 mm or 2,500 mm x 1,100 mm filling funnel to the elevator conveyor. From there the material is moved upwards and transferred to a second auger.



- Woodchip Machines with "Tested Safety" mark
- Woodchip Machines for 30-80 cm trunk diameters
- Filling technology for woodchips



**Heizogreif**  
for logs and treetop wood.



**Heizohack** hand-feed chipper  
for 30-40 cm diameter trunk.



**Heizotrans**  
woodchip blower.

*Consistent! At Heizomat it's all about the use of renewable resources.*



**Heizhack**

**HEIZOHACK hand-feed machines** Our hand-feed chippers are the only products on the market that have been awarded the "German Equipment and Product Safety Act (GPSG)" mark for tested safety. The machines are powered by a PTO shaft or an electric or diesel engine (certain types only).



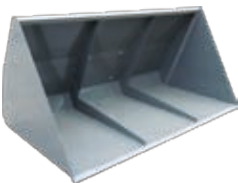
**Heizhack**

**HEIZOHACK crane-feed machines** The chipper for the professional, for a trunk diameter of 50 or 80 cm. Our chippers with crane constructions are very powerful when used on treetop and round logs.



**Heizogreif**

**HEIZOGREIF** You can transport logs and treetop with our forestry gripper. Even larger quantities of brush no problem for the Heizogreif with an opening width of up to 1.50 m.



**Heizoschaufel**

**HEIZOSCHAUFEL**  
Light goods bucket for woodchips with 1 m<sup>3</sup> / 2 m<sup>3</sup> / 3 m<sup>3</sup>.



**HeizoCont returnable container with moving floor.**



**Heizohack crane-feed chipper for 50-80 cm diameter trunk.**



**Heizoschaufel Bucket for woodchips.**

*Rounded! Quick and clean filling of your silo is possible with our filling systems!*





	RHK-AK 30	RHK-AK 50	RHK-AK 60	RHK-AK 75	RHK-AK 100	RHK-AK 154	RHK-AK 155
Heat capacity (kW)	0 - 36	0 - 50	0 - 60	0 - 75	0 - 101	0 - 149	0 - 149
Heat exchange surface (m <sup>2</sup> )	3,40	4,50	5,60	7,20	8,90	14,10	13,90
Weight boiler / system (kg)	900 / 1343	1000 / 1443	1150 / 1593	1400 / 1843	1500 / 1943	2570 / 3010	2320 / 2763
Water capacity (l)	165	205	250	385	475	712	510
Length (mm)	1700	1900	2100	1950	2200	2790	2865
Width (mm)	860	860	860	1085	1085	1565	1150
Height (mm)	1585	1585	1585	1645	1645	1895	2065
Flue tube height vertical / horizontal (mm)	1766 / 1300	1766 / 1300	1766 / 1300	1778 / 1392	1778 / 1392	2134 / 1618	- / 1868
Flue tube Ø (mm)	200	200	200	200	250	300	300
Operating pressure max (bar)	3,0	3,0	3,0	3,0	3,0	3,0	3,0
Boiler temperature max (°C)	95	95	95	95	95	95	95
Return temperature min (°C)	>55	>55	>55	>55	>55	>55	>55
Heat flow	1 1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	DN 80	DN 80
Heat return	1 1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	DN 80	DN 80
Safety heat flow	1"	1"	1"	1 1/2"	1 1/2"	1 1/2"	1 1/2"
Safety heat return	1"	1"	1"	1 1/2"	1 1/2"	1 1/2"	1 1/2"



	RHK-AK 204	RHK-AK 205	RHK-AK 300	RHK-AK 400	RHK-AK 500	RHK-AK 650	RHK-AK 850	RHK-AK 990
Heat capacity (kW)	0 - 199	0 - 199	0 - 300	0 - 400	0 - 500	0 - 600	0 - 800	0 - 990
Heat exchange surface (m <sup>2</sup> )	18,00	18,00	29,70	33,75	37,10	56,00	74,00	85,00
Weight boiler / system (kg)	3108 / 3737	2860 / 3489	5400 / 6029	6200 / 6829	6800 / 7429	8500 / 9129	9900 / 10529	14000 / 14629
Water capacity (l)	985	660	1258	1580	1805	2680	3940	5600
Length (mm)	3290	3365	3490	3990	4290	4385	5086	5900
Width (mm)	1565	1150	1880	1880	1880	2146	2146	2650
Height (mm)	1895	2065	2035	2035	2035	2066	2066	3050
Flue tube height vertical / horizontal (mm)	2134 / 1618	- / 1868	2297 / 1771	2297 / 1771	2297 / 1771	2307 / -	2307 / -	2923 / -
Flue tube Ø (mm)	300	300	300	350	350	400	400	400
Operating pressure max (bar)	3,0	3,0	3,0	3,0	3,0	3,0	3,0	3,0
Boiler temperature max (°C)	95	95	95	95	95	95	95	95
Return temperature min (°C)	>55	>55	>55	>55	>55	>55	>55	>55
Heat flow	DN 80	DN 80	DN 80	DN 80	DN 80	DN 125	DN 125	DN 150
Heat return	DN 80	DN 80	DN 80	DN 80	DN 80	DN 125	DN 125	DN 150
Safety heat flow	1 1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	DN 80	DN 80	DN 100
Safety heat return	1 1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	DN 80	DN 80	DN 100



## Technical data / fuel



*BIOMASS with its approx. 3.0 kWh/kg is the energy source of the future. Grass, straw, reeds, shells and pips will become more important in the future.*



*WOODCHIP, the optimum fuel for our HSK-RA and RHK-AK boiler. Woodchip are usually attained during maintenance measures from forest residues and is a continuously renewable fuel.*



*PELLETS are pressed sawdust and can be used in all of our boilers. The advantage of pellets over woodchip is in the smaller required space. However, the annual fuel costs are relatively high.*



*SAWDUST / WOOD SHAVINGS from wood-processing operations are optimally used in our heating systems. Optimal combustion is possible thanks to our sophisticated ventilation.*



	HSK-RA 15	HSK-RA 30	HSK-RA 40	HSK-RA 60	HSK-RA 75	HSK-RA 100	HSK-RA 150	HSK-RA 200
Heat capacity (kW)	0 - 14,5	0 - 33	0 - 40	0 - 60	0 - 75	0 - 96	0 - 150	0 - 199
Heat exchange surface (m <sup>2</sup> )	2,60	3,80	4,90	5,90	8,10	10,50	15,70	20,90
Weight boiler / system (kg)	575 / 1018	770 / 1213	860 / 1303	950 / 1393	1300 / 1743	1470 / 1913	2140 / 2583	2660 / 3103
Water capacity (l)	170	188	210	255	280	360	625	810
Length (mm)	800	935	1135	1335	1335	1635	1695	2660
Width (mm)	740	740	740	740	890	890	930	930
Height (mm)	1442	1442	1442	1442	1550	1550	1980	1980
Flue tube height vertical / horizontal (mm)	1565 / 1245	1565 / 1245	1565 / 1245	1565 / 1245	1659 / 1340	1659 / 1340	2147 / 1777	2147 / 1777
Flue tube Ø (mm)	180	200	200	200	200	200	200	200
Operating pressure max (bar)	3,0	3,0	3,0	3,0	3,0	3,0	3,0	3,0
Boiler temperature max (°C)	95	95	95	95	95	95	95	95
Return temperature min (°C)	>55	>55	>55	>55	>55	>55	>55	>55
Heat flow	1"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	2"	2"
Heat return	1"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	2"	2"
Safety heat flow	1"	1"	1"	1"	1"	1"	1 1/4"	1 1/4"
Safety heat return	1"	1"	1"	1"	1"	1"	1 1/4"	1 1/4"





**Systems for your residential building**



**Systems for your farm**



**Systems for your business**



**Systems for your heating network**

Our partner:



**1982 Founded by Robert Bloos**

**1982 The first Heizomat is installed**

**1984 Rotary valve as back-burning protection**

**1986 HSK-A with horizontal heat exchanger**

**1987 Automatic de-ashing**

**1989 First chipper is constructed**

**1990 Boiler type up to 800 kW**

**1992 Chippers up to 40 cm**

**1993 Development of the agitator drive gear**

**1996 Automatic heat exchange cleaning**

**1997 Automatic ignition**

**1998 Installation of lambda sensor**

**2000 RHK-AK prototype**

**2003 Channel in route form**

**2004 First Heizotrans is installed**

**2005 Boiler control via TouchControl**

**2005 Installation of the glow-bar**

**2005 HM14-800 KL is constructed**

**2006 Rotary valves with their own drive**

**2006 Discharger with separate drive**

**2008 Construction of boilers up to 990 kW**

**2009 Visualisation of the TouchControl**

**2011 TouchControl with Mod-Bus**

**2012 TouchControl TS7 with Simatic**

**2012 Heizomat turns 30**

**2013 Vertical conveyor for woodchips**

**2013 TouchControl TS7 with buffer management**

**and when would you like us to install your Heizomat?**



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