

# **GUNTAMATIC**

### **GUNTAMATIC HEATING GMBH**

WE ARE ONE OF THE LEADING EUROPEAN MANUFACTURERS OF INNOVATIVE AND HIGH-EFFICIENCY BIOMASS BOILER HEATING SYSTEMS. OUR PRODUCTS ARE DISTINGUISHED BY EXCEPTIONAL RELIABILITY AND EASE OF USE.

#### WELL ESTABLISHED

With more than 120 sales and service agents in 17 countries, we are well established across Europe. We have built a reputation for high-quality products – from development through to production and from sales through to service.

#### **HOLISTIC THINKING**

As a systems provider we develop and produce highly durable and efficient boilers. The highly economical BIOSTAR range of pellet boilers is a perfect example.

#### **HEATING WITH PASSION**

We are engineers and boilermakers of conviction. With our requirements-based heating solutions, we aim to give our clients and trading partners the confidence of having chosen the right heating system.

#### **GUNTAMATIC HEATING GMBH**

Established: Company structure: Sales and service agents: Sales agents: Equity ratio: 1963 Family-owned 120 In 17 countries 100 %

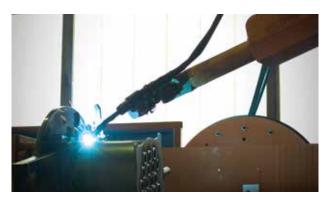
We think and act according to our values. Decency, honesty and dependability are important to us because we always aim to give our customers more than we promise.

> Günther Huemer, Managing Director of GUNTAMATIC Heating GmbH





To us, teamwork means transparency, acting in partnership and finding the best solution for your project.



Our production facilities are highly automated and our staff highly qualified. That is how we ensure the high quality and outstanding value for money of our heating systems.



The better the product, the lower the operating costs. This is why we pay attention to every detail in production.

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### DISCOVER THE BIOSTAR FAMILY

OUR BIOSTAR SYSTEMS ARE THE FIRST SERIES-PRODUCED, LOW-TEMPERATURE WOOD PELLET BOILERS AND FEATURE LEADING TECHNOLOGIES BASED ON MANY YEARS OF RESEARCH AND DEVELOPMENT. THE LATEST GENERATION OF BOILERS HAVE TOUCH-SCREEN CONTROL PANELS, OUR HIGHEST EVER HEATING EFFICIENCIES AND AN UNRIVALLED STANDARD OF USABILITY.



THE BIOSTAR PELLET BOILERS BIOSTAR 12 / 15 / 23 kW (BIOSTAR W)





#### FIRST CLASS TECHNOLOGY

- Modulating bio combustion control from 3 23 kW
- Fully automated from fuel delivery, to ash removal and air supply to boiler cleaning
- Patented, low-temperature, non-condensing design
- Components with 200% safety factor
- Safe and simple operation using touch screen control panel
- Lambda probe oxygen monitoring for perfect combustion
- Can be fitted without thermal store



#### **HIGHLY ADAPTABLE**

The BIOSTAR FLEX model's high quality vacuum fuel delivery system offers maximum scope for fuel store placement up to 25m away from the boiler. A specially developed vacuum fed fuel hopper provides optimum dust separation and minimal maintenance. The hard-wearing rotary valve guarantees 100% burn-back protection in conjunction with the gravity feed system. High-quality, low energy drive motors ensure low electricity usage.

The "Flex" fuel feed auger provides for complete emptying of the fuel store and precise delivery to the vacuum feed system. With the BOX version, a large steel webbing hopper with feed auger removes the need for a purpose-designed storeroom.



#### **NO BUFFER NEEDED**

The BIOSTAR can easily lower the temperature down to 38° C without loss of efficiency. In this way it requires no additional buffer tank. This not only saves time and space, but means that existing boilers can be replaced with major modifications.

**RESEARCH AND DEVELOPMENT** 



#### INTELLIGENT, USER FRIENDLY TOUCH SCREEN CONTROL PANEL

Control is by way of a touch-screen control panel with a straightforward and clearly organised menu structure. All relevant settings, component tests and fault messages are easily accessible. The settings can also be controlled via smartphone with an optional GSM module.

## After many years of research and development, the BIOSTAR is one of the most well proven low-temperature pellet boilers in Europe. Thanks to its touch-screen control panel and innovative technology, it is also one of the most advanced appliances on the market.

### EXPERIENCE THE BIOCOM AND POWERCORN SYSTEMS

THE BIOCOM RANGE IS AS USER-FRIENDLY AS IT IS ENERGY-EFFICIENT AND OFFERS HEAT OUTPUTS RANGING FROM 30 TO 400 KW. FEATURING MOVING, SELF CLEANING STEP GRATE TECHNOLOGY, THEY ENABLE CLINKERLESS COMBUSTION OF WOOD PELLETS OF VARYING QUALITIES AND CAN ALSO BURN GRAIN, WHEN FITTED WITH A STAINLESS STEEL LINER.



BIOCOM CASCADE CONFIGURATION Up to four systems, 400 kW maximum output

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#### PERFECT COMBUSTION

The sophisticated control software ensures that the hot air fan ignites the fuel quickly and efficiently. Grain or wood pellets are burned at the ideal degassing temperature of approx. 650°C so that the formation of clinker is avoided. A moving, self cleaning step grate provides for the right amount of movement in the bed of glowing fuel and the easy removal of ash. The combustion gases produced are cleanly converted into energy in a generously dimensioned secondary combustion zone using secondary air.



#### TURBULATORS AND HEAT EXCHANGER CLEANING

Dust is separated into a specially developed heat exchanger tube. Corrosive materials condense on the double-walled surface and this protects and cleans the heat exchanger, which uses every degree of heat.



#### SIMPLE AND HIGHLY EFFICIENT

The lambda probe and temperature sensors ensure perfect combustion. The touch screen control panel gives the user performance information, such as combustion efficiency and boiler output. An optional outside temperature based control provides for optimum heat distribution and creates a comfortable working or living space.



#### SELF CLEANING FOR ULTIMATE CONVENIENCE

A slowly rotating ash auger carries the grate ash into a large 60-litre ash bin for easy removal. The dust from the heat exchanger cleaning mechanism is automatically removed into an easy to empty 12-litre ash box.

### EXPERIENCE THE POWERCHIP BOILER RANGE

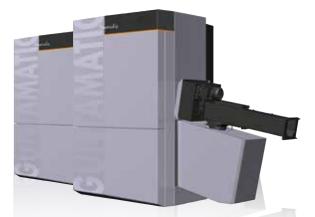
THE USER-FRIENDLY AND ULTRA-EFFICIENT POWERCHIP RANGE OFFERS UNIQUE FUEL FLEXIBILITY. THESE BOILERS WILL BURN WOOD CHIPS, WOOD PELLETS, GRAIN OR MISCANTHUS AND FUEL TYPE CAN BE CHANGED AT THE TOUCH OF A BUTTON. THEY ARE ESPECIALLY SUITABLE FOR FACTORIES, SCHOOLS, AGRICULTURAL FACILITIES AND DISTRICT HEATING SCHEMES. WITH TOUCH-SCREEN CONTROL PANELS THEY ARE ALSO VERY EASY TO OPERATE.



POWERCHIP 20/30, 40/50, POWERCORN 50 SPECIAL Three sizes



**POWERCHIP 75, 100** One size, range of outputs in modulation



**POWERCHIP CASCADE CONFIGURATION** Link up to four boiler systems, 400 kW maximum output.





#### **PERFECT COMBUSTION**

Sophisticated electronic controls ensure that the hot air fan ignites the fuel quickly and efficiently. Wood chips, wood pellets, miscanthus or grain are efficiently burned at the ideal temperature of 650°C. A self-cleaning, moving step grate provides for the right amount of movement in the bed of glowing fuel and the easy removal of ash. The hot combustion gases are re burned at temperatures up to 1,200°C and cleanly converted into energy in a generously proportioned secondary combustion chamber.

#### **TURBULATORS AND HEAT EXCHANGER**

The combustion gases are cleanly converted into hot water in a specially developed heat exchanger and dust removed by an efficient vacuum separator. The adjoining jacket-and-tube heat exchanger constantly cleans itself using moving turbulators and converts every degree of heat produced.



#### THE FEED AUGER

Wood chips, wood pellets, miscanthus or grain are conveyed by the fuel store feed auger, which is monitored by a burnback-inhibiting chute with safety cover into the feed auger. A sophisticated lambda control constantly optimises the fuel feed rate. Additional operational reliability is provided by the fill-level indicator in the boiler.



#### MAXIMUM SAFETY

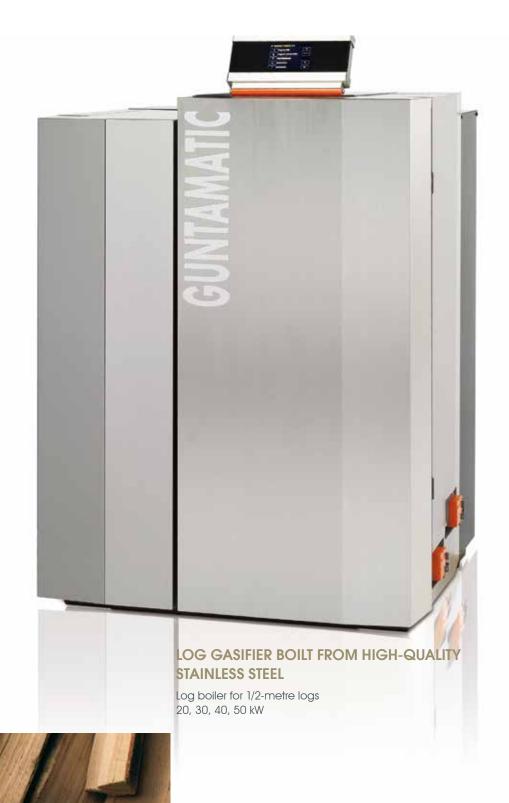
The integral flue draught fan not only provides exactly the right amount of air but also creates a constant draw in the firebox. In conjunction with the burnback-inhibiting fuel chute and a tested fire safety flap, complete burn-back protection is provided for. The touch screen control panel offers fault diagnosis and the option of remote monitoring from your mobile phone ensures you are always in control.

#### THE FUEL DELIVERY SYSTEM

The durable fuel feed auger with sprung-arm agitator conveys wood chips, wood pellets, miscanthus or grain with the minimum of force and without overloading the equipment. Durable gears and electric motors offer maximum operational reliability. The unique modular structure simplifies transportation and assembly of the system.

### BMK FUTURE-PROOF HEATING

THE NEW BMK IS THE IDEAL SOLUTION FOR ANYONE LOOKING FOR AN INNOVATIVE AND SOLID LOG BOILER. IT IS EXCEPTIONALLY USER-FRIENDLY, DURABLE AND SETS NEW STANDARDS IN TERMS OF EFFICIENCY AND RELIABILITY.





### EXCEPTIONAL PRACTICALITY AND EASE OF USE.

This appliance is high-quality, durable and features a firebox made from high grade stainless steel. The advanced, modulating design enables unrivalled combustion efficiency at temperatures of over 1400°C. This enables the boiler to burn a wide variety of fuel and fuel hopper capacities of 166 or 215 litres minimise the time between fills. Combined with an automatic ignition option, the BMK is one of the most modern and sophisticated log boilers on the market.



#### THE POWER OF RESPONSIBILITY

The experience gained from manufacturing thousands of log boilers is combined with an inexhaustible desire for perfection.

- High-quality stainless steel fire box
- Fully insulated combustion zone
- Zone control of combustion air
- Variable heat exchanger output modulation
- Unique, automatic hot-air ignition
- Combustion optimised using lambda probe
- Easy to operate using touch-screen control panel
- Thermal store program with refuel prompt
- Long refuelling intervals
- Efficiency up to 94%



#### FIRST CLASS COMBUSTION

The technological heart of the BMK has proven itself a thousand times over. In the latest generation of boilers, this has been further optimised to offer unrivalled reliability. The burn chamber features exceptionally controllable combustion and means the appliance can easily cope with a wide variety of fuel quality.

## THE PRO INDUSTRIAL BIOMASS PLANT

THE PRO SERIES OFFERS UNRIVALLED LEVELS OF FUEL ECONOMY AND SAFETY FOR MEDIUM TO LARGE SCALE WOOD PELLET AND WOOD CHIP HEATING. THANKS TO THE MODULAR DESIGN, THESE MEDIUM TO LARGE SCALE SYSTEMS ARE VERY FLEXIBLE AND OFFER HEAT OUTPUTS OF UP TO 1000 KW.





#### **MAXIMUM SAFETY**

This range features extremely high-quality components, backed up by 15 years of research, development and manufacturing experience. This guarantees maximum safety, low maintenance costs and long service life. For larger heat output requirements, several systems cascaded together offer high levels of reliability and efficiency in modulation. This offers great benefits for commercial and industrial users.



#### **HIGH EFFICIENCY COMBUSTION**

Fuel is gasified with controlled primary air and controlled combustion conditions. The amount of air and fuel required is regulated by lambda probe, which ensures maximum efficiency. Combustion gases are fed with secondary air in a large combustion zone and generate temperatures of 1,300  $^{\circ}$  C.



#### **SELF CLEANING**

Vertically arranged turbulators continually move up and down to keep the heat exchanger clean. This prevents the build up of efficiency-reducing deposits and ensures consistently low heat losses. Moreover, they make sure that the boiler can run for long periods with minimal maintenance or cleaning.



#### SERIES PRODUCTION ADVANTAGES / SPARE PARTS AVAILABILITY

PRO industrial boilers are standardized, series-produced heating systems. They use the highest quality components, which have been extensively tested. Spare parts are easily and quickly available and can be replaced by your heating engineer on site or by an authorised service technician.

#### **HIGHEST LEVELS OF FIRE SAFETY**

A sophisticated burn back protection system offers high levels of safety. A suction fan generates a constant negative pressure in the combustion chamber and an automatic rotary valve prevents burn back. Larger systems are also equipped with a temperature control in the fuel store.

### BIOSTAR TECHNICAL DATA AND SPECIFICATIONS



#### **BIOSTAR FLEX-VACUUM FUEL OUTFEED**

- 1. Door to ash bin
- 2. Grate cleaning plate
- 3. Primary Air
- 4. Self-cleaning grate
- 5. Secondary air
- 6. Spiral jet
- 7. Burn back proof drop shaft
- 8. Combustion zone
- 9. Automatic heat exchanger cleaning
- 10. Cleaning motor
- 11. Hot air ignition
- 12. Ceramic insulation
- 13. Full insulation
- 14. Turbulator
- 15. Tubular heat exchanger
- 16. Extraction draught fan
- 17. Flue gas sensor
- 18. Lambda probe
- 19. Touch screen control panel
- 20. Fill level sensor
- 21. Motor 22. Drive
- 23. Suction fan
- 24. Hopper tank
- 25. Conveyor auger for pellets
- 26. Monitoring sensor
- 27. Rotary sluice valve

### MODULATING BIO COMBUSTION CONTROL

Perfect modulation at peak efficiency from 26-100%, enables the boiler to automatically adjust to suit heat demand. This avoids cold starts, lengthens the boiler's working life, drives high combustion efficeincies, and leads to reduced fuel consumption.

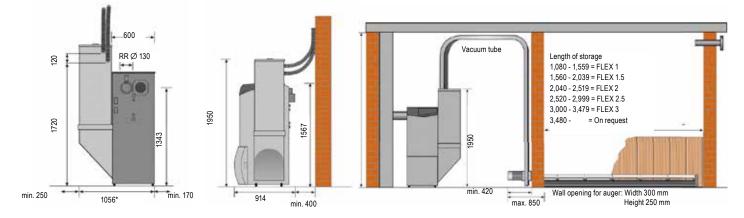
#### HEAT EXCHANGER

Tubular heat exchanger with variable output. The higher the speed of the combustion gases, the greater the heat exchanger efficiency. No condensation formation even at low temperatures due to the patented injection system.

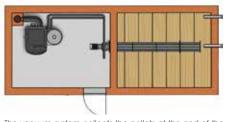
#### VACUUM FUEL OUTFEED

 Optimised vacuum dust separation
Rotary feeder positioning after feed auger means no pellets break, a permanent seal and permanent burn-back prevention.

#### FLEX-VACUUM FUEL DELIVERY SYSTEM



- Vacuum container: approx. 100 litres
- Vacuum pipe: max. 25 m (1st floor: max. 15m)
- Refill time: 8 10 min.
- Weight per metre of fuel-store auger: approx. 40 kg



The vacuum system collects the pellets at the end of the outfeed auger and sucks them to the fuel hopper. The fuel store does not have to be directly adjacent to the boiler. The vacuum tube can span distances of up to 25 m.



min. 200

#### **BIOSTAR BOX VACUUM DELIVERY SYSTEM**



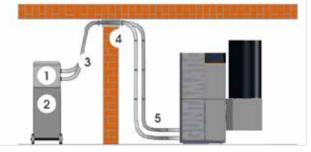
Technical data	12	15	23	
Fuel	Pellets ENPlusS A1	Pellets ENPlus A1	Pellets ENPlus A1	EU-Norm EN14961-2
Rated output	12	15	23**	kW
Minimum output	3.3	3.5	6.9	kW
Required flue draught	0,1	0,1	0,15	mbar
Boiler temperature	38 - 80	38 - 80	38 - 80	°C
Boiler weight	298	300	305	kg
Minimum flow rate	600	600	600	l/h
Water system resistance	11.7	17.2	37.7	mbar
Heat exchanger cleaning	automatic	automatic	automatic	
Integrated ash box	38	38	38	litres
Boiler efficiency	94.7	94.8	94.7	%

\* BIOSTAR W: width = 1.620 mm

\*\* BIOSTAR 23W output = 20 kW

### **BIOCOM / POWERCORN** TECHNICAL DATA AND SPECIFICATIONS



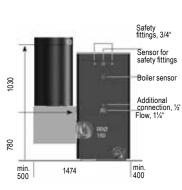


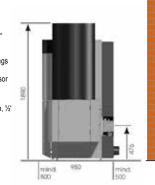
#### **BIOCOM / POWERCORN**

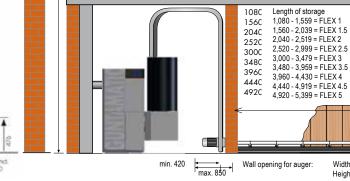
- 1. Firebox door
- 2. Step grate primary air
- 3. Combustion chamber
- 4. Fill level indicator
- 5. Spiral jet secondary air
- 6. Gas combustion zone
- 7. Boiler lid
- 8. Turbulators
- 9. Heat exchanger tubes
- 10. Combustion fan
- 11. Heat exchanger cleaning mechanism
- 12. Flue pipe connection
- 13. Lamda probe
- 14. Thermostat
- 15. Cleaning/ grate drive
- 16. Ash auger
- 17. Ash bin
- 18. Touch screen control panel
- 19. Stainless steel liner for grain

- 1. Ash removal vacuum
- 2. 200 Litre ash bin
- 3. Vacuum Tube
- 4. Rockwool fire proof liner
- 5. Fire protection ring

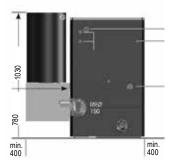
**BIOCOM/POWERCORN 30-50** 

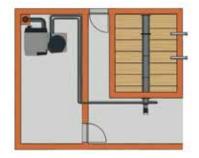






BIOCOM/POWERCORN 75-100





The vacuum system picks up the pellets at the end of the outfeed auger and conveys them to the fuel hopper.

- Vacuum container: approx. 200 litres

- Vacuum pipe: max. 25 m (1st floor: max. 15m)

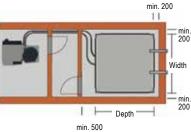
The storeroom does not have to be directly adjacent to the boiler room. The vacuum tube can span distances of up to 25 m.

#### **BOX VACUUM FUEL OUTFEED**

Box	7.5	8.3	11	14	
Width	2.1	2.9	2.5	2.9	m
Depth	2.1	1.7	2.5	2.9	m
Height	1.8-2.5	1.9-2.5	1.8-2.5	1.9-2.5	m
Hopper capacity		6.1-8.3	8.3-11.0	10.2-14.1	m³

Pellets =  $650 \text{ kg/m}^3$ Grain =  $750 \text{ kg/m}^3$ 

Filling and air-extraction pipes GUNTAMATIC Height Rigid steel plate floor



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Width 300 mm Height 250 mm

Technical data	BIOCOM 30 POWERCORN 30	BIOCOM 40	BIOCOM 50	BIOCOM 75 POWERCORN 75	BIOCOM 100	
Fuel BIOCOM	Wood pellets ENPlu	us A1 and A2	POWERCORN 50	POWERCORN 75		EU-Norm EN14961-2
Fuel POWERCORN			ain ÖNORM M7139**	* (Miscanthus and a	gricultural pellets****)	
Boiler output: Wood pellets	7-30	9-40	12-50	22-75	22-100	kW
Boiler output: Grain (with slaked lime additive)	7-25		12-40	21-70		
Required flue draught	0.15	0.15	0.15	0.15	0.15	mbar
Boiler temperature Wood pellets	50-80	50-80	50-80	60-80	60-80	°C
Boiler temperature Grain	70-80		70-80	70-80		
Return temperature Wood pellets	>40	>40	>40	>45	>45	°C
Return temperature Grain	>55		>55	>55		
Return boost	Pump	(RA60 with therma	l store)	Pump (return boost with thermal store)		
Water capacity	128	128	147	256	256	litres
Operating pressure (max.)	3	3	3	3	3	bar
Ash bin, "grate"	60	60	60	80	80	litres
Ash bin, "heat exchanger"	12	12	12	12	12	litres
Flue connection diameter	150	150	150	180	180	mm
Weight	550* / 562**	553	585*/667**	865* / 890**	865	kg
Weight of lower unit	340	340	340* / 410**	430	430	kg
Weight of heat exchanger	180* / 192**	183	215* / 227**	405	405	kg
Weight of feed auger	70	70	70	70	70	kg
Weight of drive unit	26	26	26	26	26	kg
Weight Including feed auger	40	40	40	40	40	kg
Safety heat exchanger	Yes					
Power supply	230 V / 13 A					

In cascade mode, up to four boilers can be connected

Details for BIOCOM range Details for POWERCORN range

\*\* \*\*\* \*\*\*

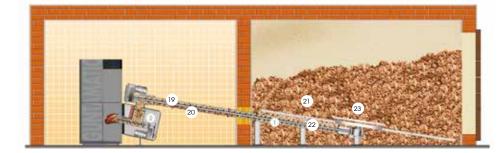
The boiler is capable of burning grain if permitted by local regulations and the specified emission limits are complied with. The systems are fundamentally suitable for use with organic fuels; however there are no specific type approvals available. The possibility of such use should be verified in each particular case with reference to the relevant local regulations and emission limits.

### POWERCHIP TECHNICAL DATA AND SPECIFICATIONS



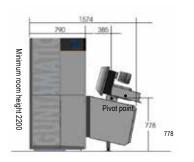
#### POWERCHIP

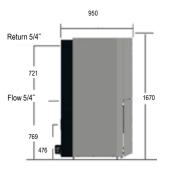
- 1. Firebox door
- 2. Step grate primary air
- 3. Combustion chamber
- 4. Fill level indicator
- 5. Spiral jet secondary air
- 6. Gas combustion zone
- 7. Boiler lid
- 8. Turbulators
- 9. Heat exchanger tubes
- 10. Combustion fan
- 11. Heat exchanger cleaning mechanism
- 12. Flue pipe connection
- 13. Lamda probe
- 14. Thermostat
- 15. Cleaning/ grate drive
- 16. Ash auger
- 17. Ash bin
- 18. Touch screen control panel
- 19. Burn back protection
- 20. Feed auger
- 21. Wall opening

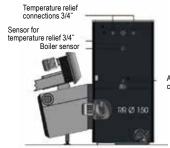


1. Room safety thermostat 2. Fuel feed auger

#### **POWERCHIP UP TO 50 KW**

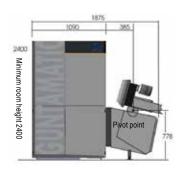




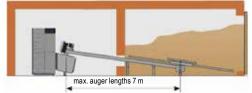


Additional connection 1/2"

#### **POWERCHIP 75 KW OR OVER**



#### **FUEL STORE FEED AUGER**



#### FUEL STORE OPTIONS

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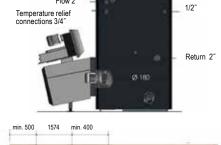
Power supply



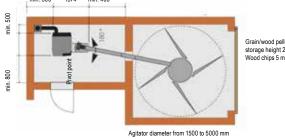
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Flow 2"

Returr



Flow 2"



Grain/wood pellets bulk storage height 2,5 m Wood chips 5 m

Technical data	Powerchip 20/30	Powerchip 40/50	Powerchip 75	Powerchip 100	
Fuel		Wood chips G 30, G 50*			
		Wood pellets El	NPlus A1 and A2		EU-Norm EN14961-2
		Grain ** and Miscanthus ***			
Boiler output	Wood chips 7 - 30	Wood chips 12 - 50	Wood chips 22 - 75	Wood chips 25,5 - 85	kW
	Wood pellets 7 - 30	Wood pellets 12 - 50	Wood pellets 22 - 75	Wood pellets 22 - 100	kW
	Grain 7 - 25	Grain 12 - 25	Grain 21 - 70 (with slat	ed lime additive)	kW
	Miscanthus 7 - 25	Miscanthus 12 - 25	Miskanthus 21 - 70 (wit	h slaked lime additive)	kW
Required flue draught	0.15	0.15	0.15	0.2	mbar
Boiler temperature	65 - 80 (70 Grain)	65 - 80 (70 Grain)	65 - 80 (70 Grain)	65 - 80 (70 Grain)	°C
Return temperature	55	55	55	55	°C
Return boost	Pump (RA60 with thermal store) Pump (Return boost with thermal store)				
Water capacity	128	147	256	256	litres
Operating pressure (max.)	3	3	3	3	bar
Ash bin, "grate"	60	60	80	80	litres
Ash bin, "heat exchanger"	12	12	12	12	litres
System width	1574	1574	1875	1875	mm
Flue pipe connection diameter	150	150	180	180	mm
Overall weight (without feed auger)	550	585	865	865	kg
Weight of lower unit	340	340	430	430	kg
Weight of heat exchanger	180	215	405	405	kg
Weight of feed auger	75	75	75	75	kg
Temperature-relief heat exchanger		Y	es		

In cascade mode up to four different boilers can be combined. \* In order to ensure fault-free operation, the G50 standard criteria must be precisely com-plied with. Therefore, please make sure wood chipper blades are sharp or alternatively use G30 woodchips. \*\* additional equipment required. \*\*\* additional lining required.

400 V / 13 A

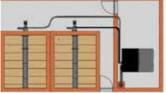
### PRO INDUSTRIAL BIOMASS PLANT TECHNICAL DATA AND SPECIFICATIONS



#### **PRO FEATURES AND BENEFITS**

- 1. Step grate primary air
- 2. Gasification chamber
- 3. Ember bed control
- 4. Cleaning cover
- 5. Turbulators
- 6. Heat exchanger
- 7. Combustion fan
- 8. Automatic cleaning device
- 9. Flue pipe connection
- 10. Lambda probe
- 11. Flue gas probe
- 12. Step grate drive
- 13. Ash bin
- 14. Touch screen control panel
- 15. LED power indicator

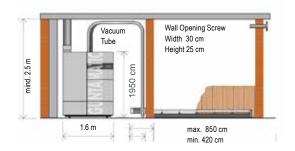
#### PRO FLEX PELLET FUEL DELIVERY SYSTEM



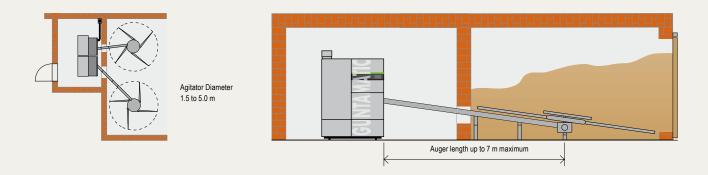
Length of storage 1,080 - 1,559 = FLEX 1 2,520 - 2,999 = FLEX 2,5 1,560 - 2,039 = FLEX 1.5 3,000 - 3,479 = FLEX 3 2,040 - 2,519 = FLEX 2 3,480 - 3,959 = FLEX 3,5

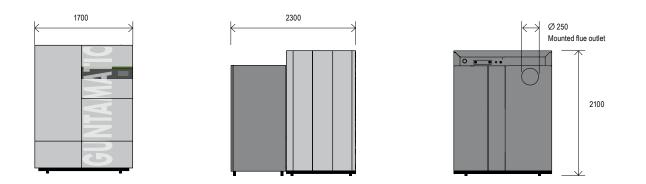


3,960 - 4,439 = FLEX 4 4,440 - 4,919 = FLEX 4.5 4,920 - 5,399 = FLEX 5



### PRO WOOD CHIP FUEL DELIVERY SYSTEM





Technical data	Type PRO 175	Set PRO 350	Set PRO 600	Set PRO 850		
	Type PRO 250	Set PRO 425	Set PRO 750	Set PRO 1000		
		Set PRO 500				
Fuel PRO		Wood Chips	G30 and G50		ÖNORM M7133	
		Wood Pellets ENplus A1 and A2				
Fuel PRO Flex		Wood Pellets E	Nplus A1 and A2		EU-Norm EN14961-2	
Boiler output PRO (Flex) 175	188	Overall performar	nce results from a comb	ination of modules	kW	
Boiler output PRO (Flex) 250	199,5* / 250**				kW	
Required chimney draft	0,1	0,1	0,1	0,1	mbar	
Boiler temperature	60 - 85	60 - 85	60 - 85	60 - 85	°C	
Return temperature	55	55	55	55	°C	
Water content	600	1.200	1.800	2.400	litres	
Operation pressure	max. 3	max. 3	max. 3	max. 3	bar	
Ash content	max. 240	max. 480	max. 720	max. 960	litres	
Flue pipe diameter (outside)	250	2x 250	3x 250	4x 250	mm	
Total weight	approx. 2,000	approx. 4,000	approx. 6,000	approx. 8,000	kg	
Safety heat exchanger	Yes	Yes	Yes	Yes		
Electrical usage	400 V / 20 A	400 V / 20 A	400 V / 20 A	400 V / 20 A		

\* Nominal power module for below 400 kW \*\* Maximum boiler output

### BMK TECHNICAL DATA AND SPECIFICATIONS



#### **BMK**

- 1. Large primary combustion chamber
- 2. Cast iron grate
- 3. Ash bin
- 4. Preheated secondary air
- 5. Preheated primary air
- 6. Turbo secondary combustion area
- 7. Turbulators
- 8. Cleaning lever
- 9. Combustion fan
- 10. Flue pipe connection
- 11. Touch screen control panel
- 12. Low energy servo motos for primary and secondary air
- 13. Thick all round insulation
- 14. Secondary gas duct
- 15. Automatic Ignition Option

#### **SECONDARY COMBUSTION ZONE:**

Fully insulated gasification, ignition and secondary combustion zone. Easy removal of ash bin.

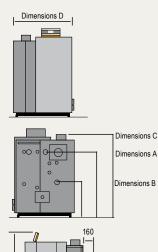
#### ZONE CONTROL OF COMBUSTION AIR:

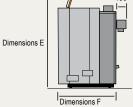
The right amount of oxygen in the right place for all secondary combustion

#### **HEAT EXCHANGER:**

Tubular heat exchanger with variable output; cleaned from outside.

Technical data	BMK 20/30	BMK 40/50	
Heating output	20/30	40/50	kW
Boiler dimensions with insulation Width, D	973	973	mm
Height, E	1440	1640	mm
Depth, F	940	940	mm
Fuel capacity	166	215	litres
Fuel box width	370	370	mm
Fire box depth	580	580	mm
Water capacity	125	175	Liter
Max. operating pressure	3	3	bar
Carriage weight approx.	630	730	kg
Flow and return	R 1 1/4	R 1 1/4	Zoll
Flow height / Return height	1047 / 568	1247 / 568	mm
Height of flue connection, C (without elbow)	1334	1534	mm
Flue connection diameter (external)	150	150	mm
Required flue draught	0.12	0.12	mbar
Boiler dimensions (no insulation) Width	965	965	mm
Height	1310	1510	mm
Depth	795	795	mm
Power supply	230V / 13 A	230V / 13 A	





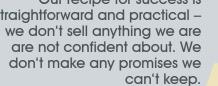


As a market leader, we pay special attention to the build quality of each and every boiler. If you should encounter any problems we will make sure you are offered a suitable solution as quickly as is possible.

Because of our approved network of service agents we can offer the highest levels of customer service available.

Our recipe for success is straightforward and practical – we don't sell anything we are are not confident about. We don't make any promises we

> Kurt Kaufmann, Service Manager since 1984



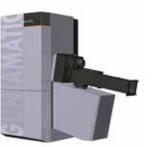




BIOSTAR Low-temperature pellet boiler



POWERCHIP / Woodchip boiler



POWERCHIP / Woodchip boiler





POWERCORN / Grain fuel boiler



BIOCOM / Industrial pellet boiler

# **GUNTAMATIC** HEATING GMBH

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