Data sheet

BRUNNER Pelletheizung (BRUNNER pellet heating)
BPH 7/24 and **BPH 9/30**

Product performance description

-Variable, adaptable power range from 7 kW to 24 kW or 9 to 30 kW for optimal adaptation to the required heat demand;

- automatic and quick ignition by high-performance heating element;

- Runtime-dependent automatic heat exchanger cleaning;

- minimal power consumption and lowest standby losses;

- Device design easy to operate and clean;

- large ash box (29 liter) with lid;

and much more

Highest operational safety

- detailed safety concept through the boiler control; continuous monitoring and control of all operating states, their notice on the display, as well as automatic archiving of both operating data and all messages;

- simple control with the modern touch display, which can be installed not only in the boiler room, but also in the living room;

- assured compliance with the required limit values of the 1st BImSchV level 2;

and much more

Special product features

- simple control with the modern touch display, which can be installed not only in the boiler room, but also in the living room;

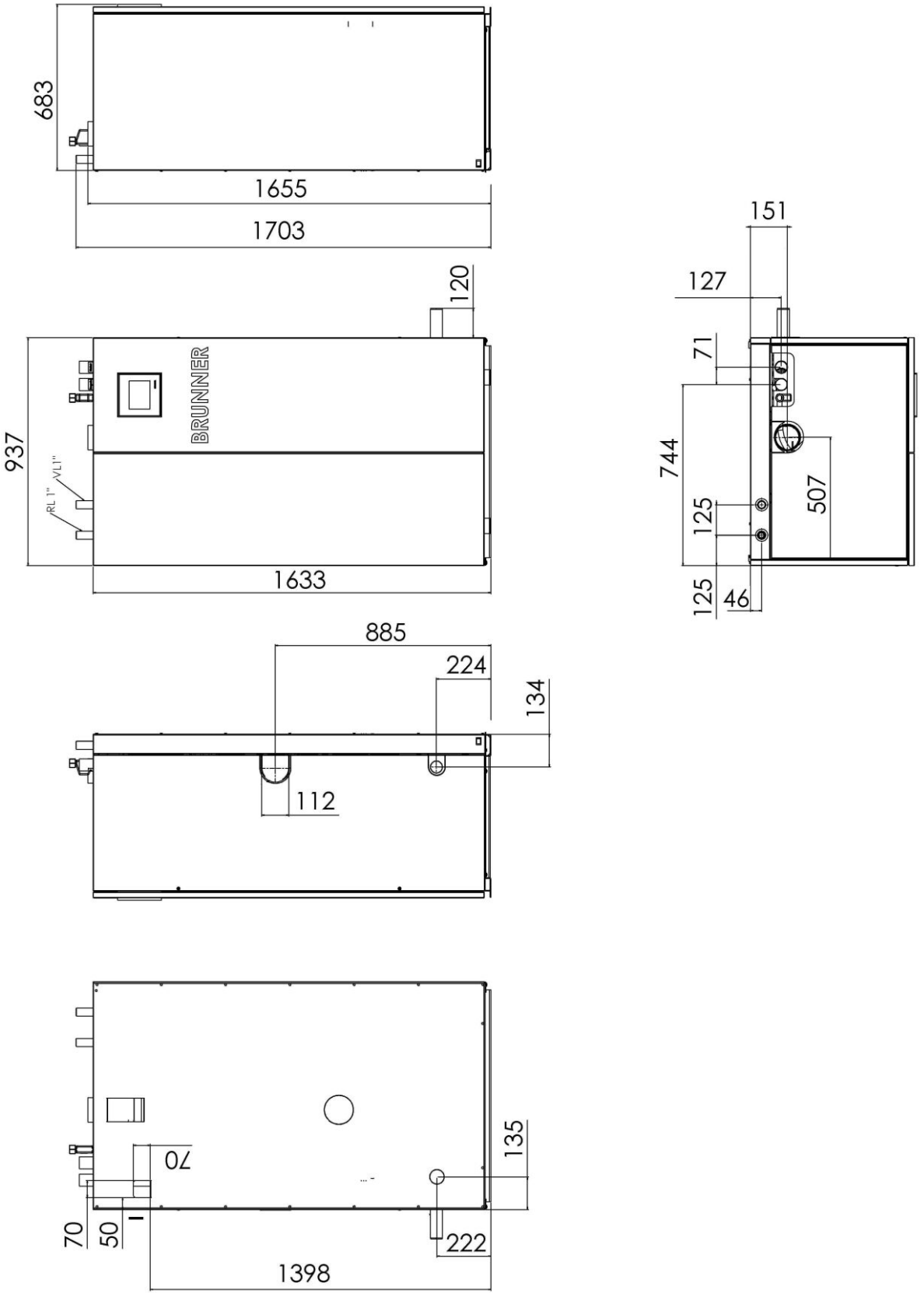
- Automatic ignition: only occurs when there is an actual heat request;

- Simple execution of the exhaust gas test by the chimney sweep;

- in combination with the BRUNNER heating center: perfect coordination of all heat generators, heat consumers and storage, as well as mobile control via smartphone, tablet, PC at www.mybrunner.de;

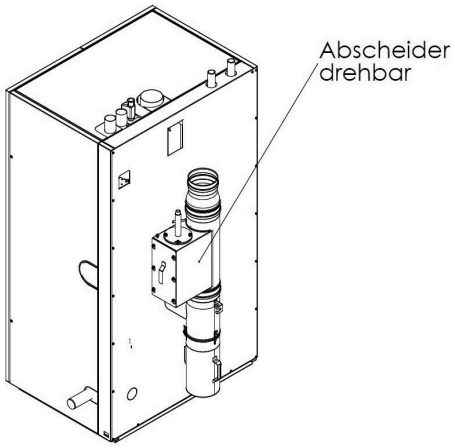
and much more

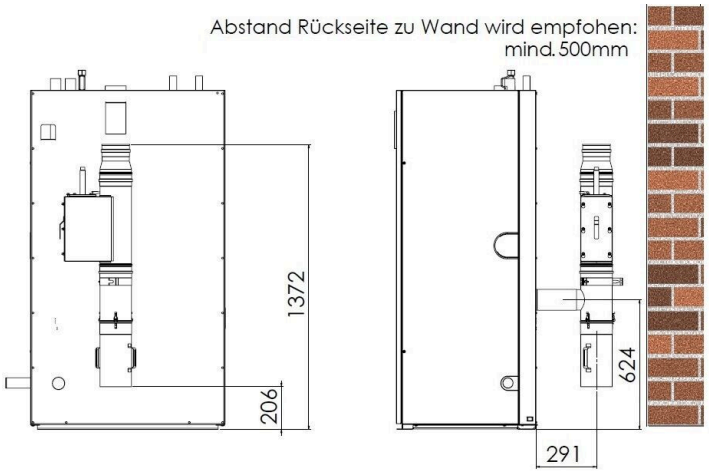
1 Dimension sheets

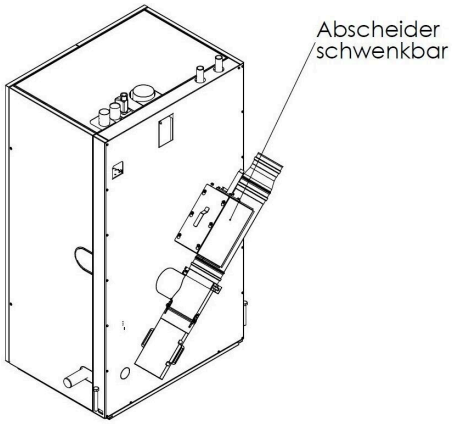


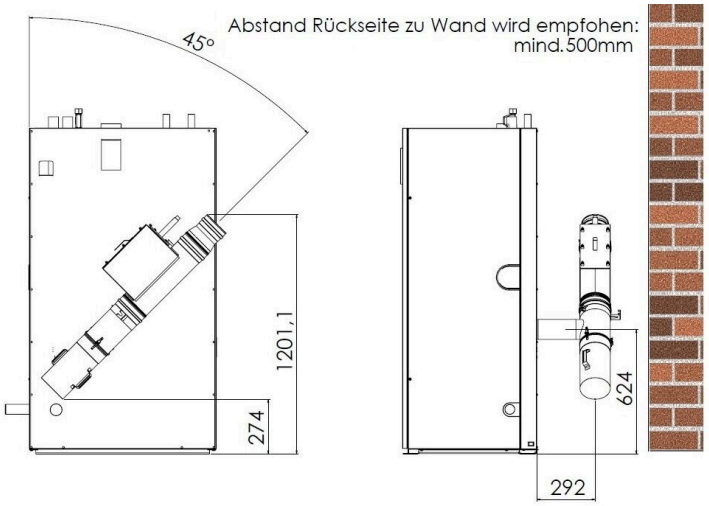
1.1 BPH separator (UE10160)

Separator with BPH 7/24 or BPH 9/30:



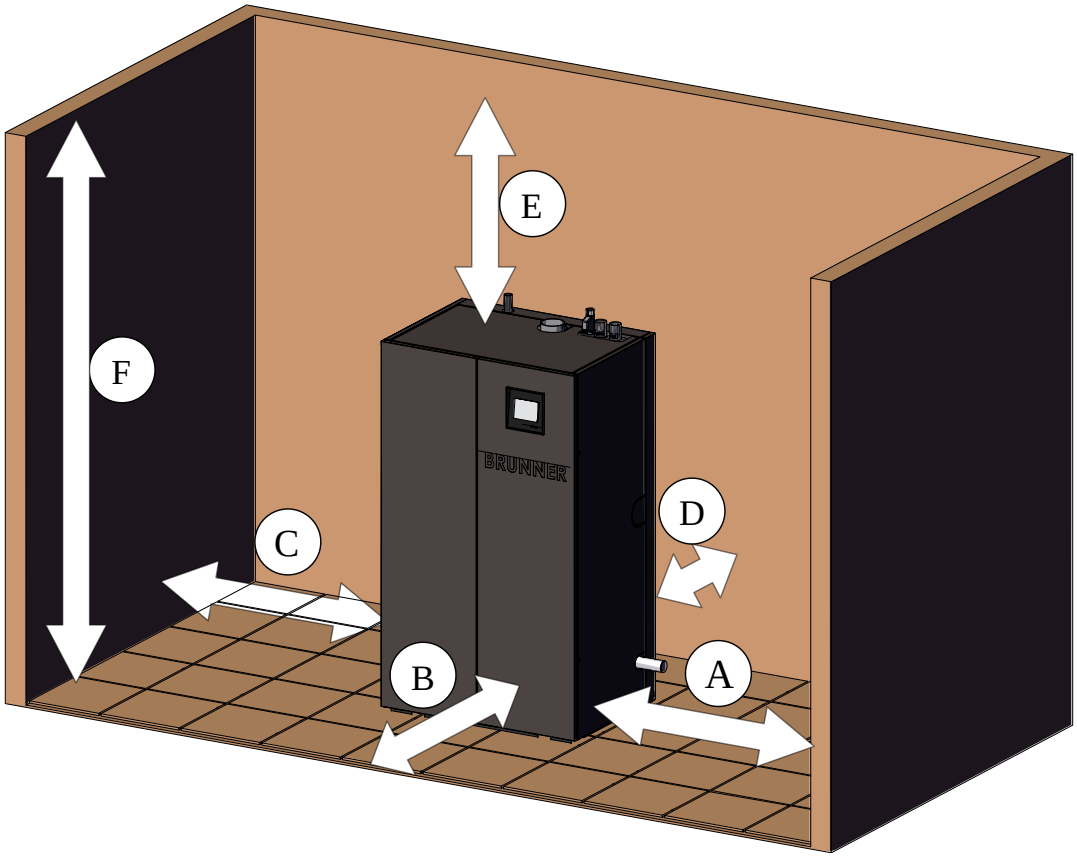






2 Minimum clearances

It is necessary to adhere to the minimum clearances when setting up the boiler in order to ensure accessibility for maintenance and service work on the boiler.
Exhaust systems must be easily accessible for the chimney sweep for measuring, checking and cleaning work. A suitable stand area should therefore be planned.



A	500 mm	Maintenance side
B	600 mm	Operating side
C	50 mm	Wall clearance
D	50 mm	Wall clearance
E	367 mm	Maintenance (removal of heat exchanger-cleaning)
F	2000 mm	Resulting room height

Distances to fuel stores
The Model Firing Ordinance (MFeuV) is decisive for the minimum distances between fireplaces and flue systems to combustible components or fuel stores.
Distances to fuel stores conform §12 (3):
If fireplaces are set up in the rooms in accordance with Paragraph 2 No. 2 to 4, these must:
- be outside the required collecting areas for leaking fuel and
- have a distance of at least 1 m from containers for heating oil or diesel fuel.

A distance of 0.1 m is sufficient if it has been proven that the surface temperature of the fireplace does not exceed 40° C.

3 Technical data BPH 7/24 and BPH 9/30

Parameter	UM	BPH 7/24	BPH 9/30
Operational mode		heat value, non-condensing	heat value, non-condensing
Heat output range	kW	7 - 24	9 - 30
Boiler efficiency Nominal heat output	%	93,3	94,2
Boiler class (EN 303-5/2012)		5	5
Operating pressure	bar	3	3
Dimensions			
Dimension boiler with sheeting (w x d x h)	mm	937 x 673 x 1633	937 x 673 x 1633
Mounting dimension boiler-body (w x d x h)	mm	927 x 660 x 1570	927 x 660 x 1570
Mounting weight boiler-body, min.	kg	250	250
Total weight	kg	370	370
Pellet weight in the day container	kg	55	55
Ash-tank drawdown	per year	3 - 4	3 - 4
Duration of burning (at nominal load)	h	6,5	6
Recomanded buffer storage volume, min.	liter	750	1000
Data on water connections			
Boiler water content	liter	78	78
Connecter flow/return Ø	DN (Zoll)	AG 25 (1“)	AG 25 (1“)
Size MAG (expansion vessel)	liter	-	-
Boiler flow temperature, max.	°C	75	75
Boiler return temperature, min.	°C	35	35
Height flow	mm	1703	1703
Height return	mm	1703	1703
Water-side resistance ΔT=20K	mbar	5,1	6,5
Water-side resistance ΔT=10K	mbar	18,0	19,0
Height floor drain / condensate drain	mm	223	223
Connection of heat exchanger flushing	Zoll	IG 3/4“	IG 3/4“
Line dimension up to BHZ / buffer tank	DN (Zoll)	25 (1“) / 25 (1”)	25 (1“) / 25 (1”)
Data for chimney calculation (DIN EN 13884-1)			
Exit gas temperature nominal capacity	°C	125	125
Exit gas temperature part load	°C	120	120
Flue gas mass flow nominal capacity	kg/h (g/s)	46,8 (13,0)	54,0 (15,0)

Parameter	UM	BPH 7/24	BPH 9/30
Flue gas mass flow part load	kg/h (g/s)	17,3 (4,8)	21,6 (6,0)
Height exhaust pipe connection	mm	1658	1658
Exhaust pipe connection Ø	mm	100	100
Necessary delivery pressure	Pa	3	3
Available delivery pressure	Pa	-	-
Combustion air connection set Ø	mm	110	110
Height of combustion air connection (break-through in cladding)	mm	885	885
Permitted type of installation with RLU mode of operation		FC_{42x} and FC_{52x}	FC_{42x} and FC_{52x}
Content CO_2	%	15,6	15,9

Note on exhaust gas routing
In the case of room air-independent operation, the connection line must generally be at least 50 Pa over-pressure-tight. We recommend our connecting line system.
When renovating, we recommend our SET chimney renovation.

Note on combustion air routing for room air-independent installation The BPH has been tested for room air-independent operation in accordance with installation types **FC_{42x}** and **$FC5_{2x}$** . The use of the “external supply air accessory pack”, item no. PH003060 is required for this type of installation!

Electric connection	M.E.	BPH 7/24	BPH 9/30
Power supply	VAC, A, Hz	230, 16, 50	230, 16, 50
Power input at nominal load	W	97	106
Standby	W	12	12

Emission parameters

	UM	BPH 7/24	BPH 9/30
Emissions according to the requirements for Germany-1.BImSchV; bei 13%O_2			
CO at nominal heat output	mg/m³	8	12
CO at part load	mg/m³	13	16
Dust at nominal heat output	mg/m³	8	6
Dust at part load	mg/m³	4	6
Dust at nominal heat output with OekoTube-Inside	mg/m³	0,1	0,4
OGC at nominal heat output	mg/m³	1	1
OGC at part load	mg/m³	1	1
NOx at nominal heat output	mg/m³	77	90

	UM	BPH 7/24	BPH 9/30
NOx at part load	mg/m³	73	86
Emissions according to the requirements for Switzerland -LRV; bei 13%O_2			
CO at nominal heat output	mg/m³	8	12
CO at part load	mg/m³	13	16
Dust at nominal heat output	mg/m³	8	6
Dust at part load	mg/m³	4	6
OGC at nominal heat output	mg/m³	1	1
OGC at part load	mg/m³	1	1
NOx at nominal heat output	mg/m³	77	90
NOx at part load	mg/m³	73	86
Emissions according to the requirements for Austria-Art.15a; bei 13%O_2			
CO at nominal heat output	mg/MJ	5	8
CO at part load	mg/MJ	8	10
Dust at nominal heat output	mg/MJ	5	4
Dust at part load	mg/MJ	3	4
OGC at nominal heat output	mg/MJ	0	0
OGC at part load	mg/MJ	1	1
NOx at nominal heat output	mg/MJ	54	58
NOx at part load	mg/MJ	47	56

Specific parameters

	UM	BPH 7/24	BPH 9/30
For calculating the generator expenditure figures according to EnEV or DIN V 4701-10			
Efficiency in static operation		0,93	0,94
Efficiency in the basic cycle GZ		0,85	0,86
Useful heat given off by the heat generator during a basic cycle	kWh	14,64	18,30
Power share heating circuit		1	1
Max. usage performance in operation Qnmax	kW	24	30
Average usage performance in operation QNmax	kW	21,6	27
Temperature hysteresis	K	20	20
Auxiliary energy demand basic cycle QHE, GZ	kWh	0,059	0,065
Mean electrical power consumption in stat. operation	W	97	106

	UM	BPH 7/24	BPH 9/30
To calculate the generator expenditure figures according to EnEV or DIN 18599			
Standby loss at at an average boiler temperature of 70 °C		0,011	0,011
Load on which the heat generator test is based (= part load)		0,29	0,30
Boiler temperature in the test case at nominal load	°C	75,0	75,0
Boiler temperature in the test case at part load	°C	75,0	75,0

Information according to the Delegated Regulation (EU) 2015/1187		**BPH 7/24**	**BPH 9/30**
Energy efficiency class		A+	A++
Rated heat output	kW	24	30
Energy efficiency index EEI		124	126
Annual use efficiency of space heater	%	82	82
Special precautions		-	-

Information according to (EU) 2015/1189		**BPH 7/24**	**BPH 9/30**
Heating mode		automatically	automatically
Recommended buffer volume	liter	750	1000
Condensing boiler		no	no
Solid fuel boiler with cogeneration		no	no
Combination heater		no	no
Exclusive fuel		Pure wood pellets according to EN 17225-2, class A1	Pure wood pellets according to EN 17225-2, class A1
Other suitable fuels		no	no
Emitted useful heat at nominal heat output (P_n)	kW	24,0	30,0
Emitted useful heat at 30% of the nominal heat output (P_p)	kW	7,2	9,0
Fuel efficiency at nominal heat output (η_n)	%	86,4	87,2
Fuel efficiency at 30% of nominal heat output (η_p)	%	87,8	87,6
Auxiliary power consumption at nominal heat output (el_{max})	kW	0,097	0,106
Auxiliary power consumption at 30% of the nominal heat output (el_{min})	kW	0,055	0,076
Auxiliary power consumption in standby mode (P_{SB})	kW	0,012	0,012

Annual space heating emissions (related to 10% O_2, dry flue gas, 0°C, 1013 mbar)			
PM	mg/m³	7	8
OGC	mg/m³	1	1
CO	mg/m³	17	21
NO_x	mg/m³	102	119

Testing and approval by testing institutes

Our products have been adequately tested and approved by recognized testing institutes. We will be happy to send you the respective reports if required.

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