

Quality and efficiency made of experience!

Oil- and gas heated boilers for the professionals manifold proven.

A compact unit with integrated vertical burner. Water under high pressure will be heated quickly to the required temperature, adjusted by the thermostat.

Outstanding features:

- No downtime losses because hot water is available in seconds.
- No preheat time.
- There is no need that hot water is transported through the pump: The water is compressed before and will be heated then. The durability of the pump can be extremely extended by that.
- Reduce investment costs.
- Reduce assembly costs.
- The efficiency can be multiplied by parallel connection of several boilers.
- High efficiency and low consumption of fuel (equal efficiency compared to modern reservoir systems).
- EC-Type examination manufactured boiler.
- Easy maintainance.
- Biodiesel proofed (requires modifications)*.



*Notice when biodiesel is used: All fuel leading parts have to be exchanged for those that are tested and proved for biodiesel. The capacity improves by 3-4 % in comparison to normal oil. We could provide a conversion kit for delivered boilers.

Application areas:

- Cleaning techniques: factories, petrol stations, car washes, airports.
- Hygienic techniques: slaughterhouses, meat manufactories, dairies, breweries, filling factories (water & juice), fast food industry.
- Cleaning buildings: facades, roofs and floors.
- Renovation: concrete, marine (shipbuilding industry), large scale plants, tasks for environmental damages and sewer rehabilitation.
- Supply of process heat in manufacturing i.e. degreasing machines.

Tuning set for oil burner

A patent protected diffusor, which can be modified subsequently, provides even under difficult conditions a clean and soot free burning. The maintenance intervals of burners that are subject to permanent starts and stops can be postponed enormously. A positive side effect is a higher degree of efficiency up to 3 %.

Digital thermostat

A digital control is available for a surcharge. The PTC sensor responds much faster than the standard capillary tube sensor in a one-step system if the burner switches off, and activates the system again. This is an advantage if high and constant temperatures are required.



Mixing unit



Delta oil pump



Störk digital thermostat
Surcharge MP10400972-2

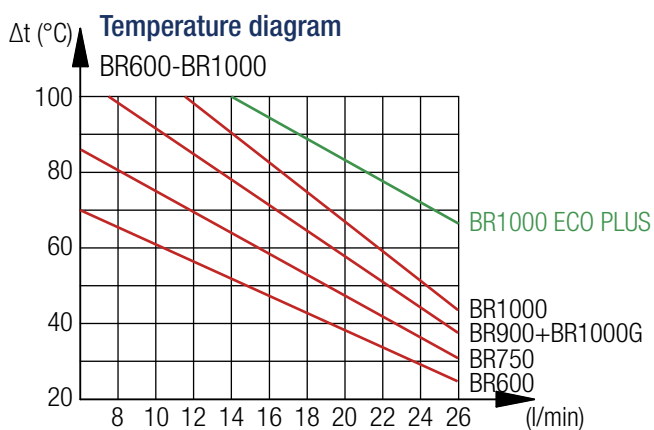
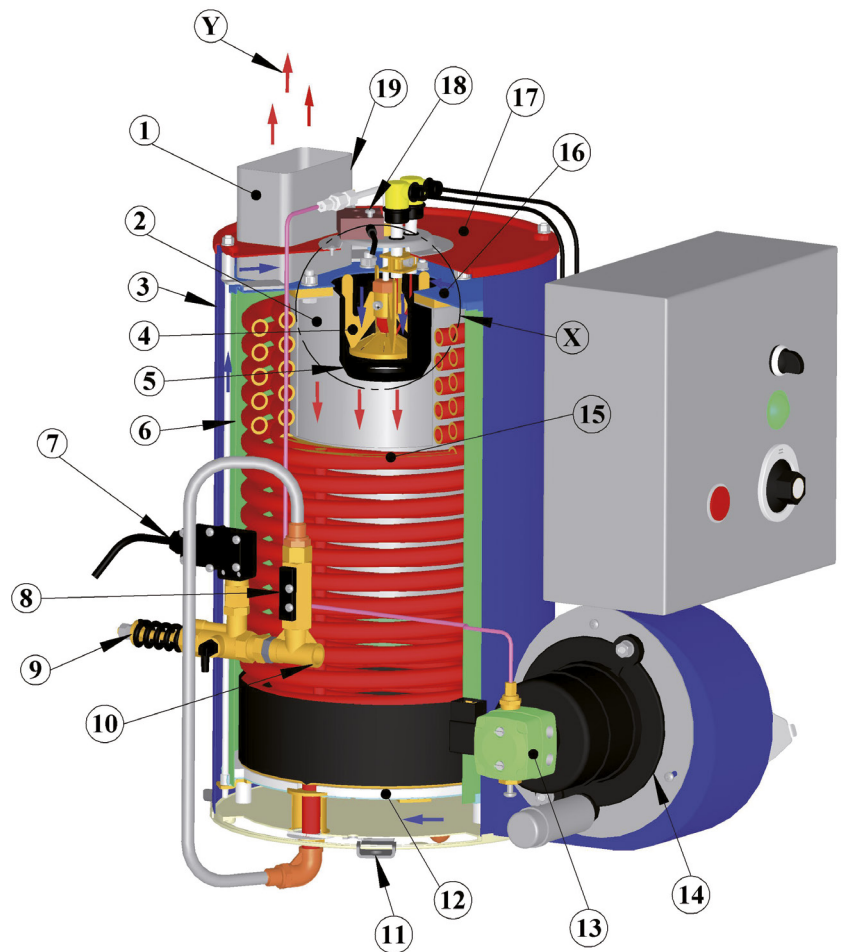


Safety equipment

Sectioning

Pressure flow heater, 110 / 230V, oil- and gas heated, type BR

P.	Description
1	Chimney
2	Boiler
3	Outer casing
4	Mixing unit
5	Flame tube
6	Inner casing
7	Pressure switch
8	Flow switch
9	Safety valve
10	Water inlet
11	Fastening shackle
12	Insulating plate (oxide ceramics)
13	Oilpump (obsolete for gas operated machine)
14	Fan motor
15	Heating coil
16	Inner lid
17	Outer lid
18	Photocell
19	Exhaust temperature limiter
X	When using the BR1000G the burner, oil specific control and safety devices will be exchanged against gas specific parts
Y	Blue arrow – fresh air, red arrow – exhaust gas



Range of efficiency of the different types:

By varying the oil respectively gas pressure and adjustment of the combustion air, the units can be adjusted within the required range of efficiency. By parallel circuits of several units the efficiency can be multiplied.

The diagram shows accessible water temperatures operated with 10 bar oil pressure resp. max. gas output. With pleasure we will assist you when calculating the individual requirements.



BR600
40-50KW



BR750
50-62KW



BR900
62-73KW



BR1000G+2.0
45-70KW



BR1000
65-80KW



BR1000 Eco Plus
65-95KW

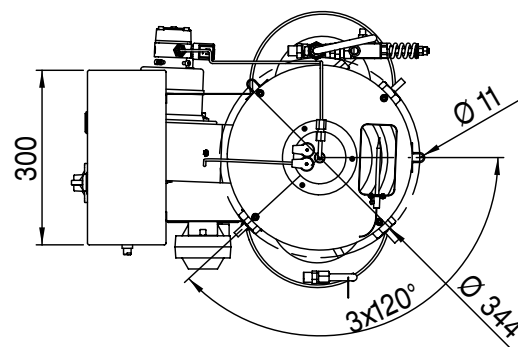
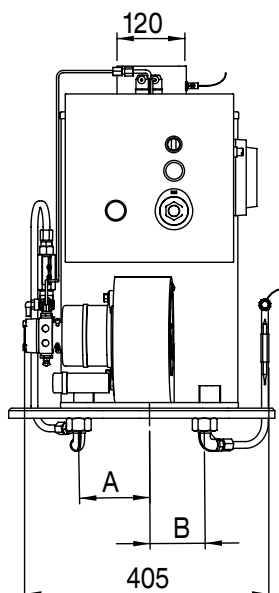
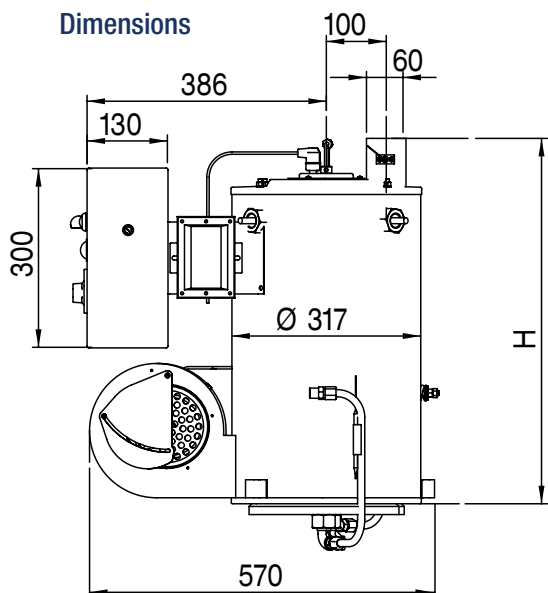
Technical Data

Type BR, oil heated, 230V 50Hz / 110V 50-60Hz

Description / Type	Hc*	bar	BR600	BR750	BR900	BR1000
Content, heating coil	3/8"	300	2,40 Ltr.	2,80 Ltr.	3,45 Ltr.	4,17 Ltr.
	3/8"	500	2,10 Ltr.	2,56 Ltr.	3,50 Ltr.	4,30 Ltr.
	3/8"	700	-	1,14 Ltr.	1,70 Ltr.	1,62 Ltr.
	1/2"	200	5,23 Ltr.	4,40 Ltr.	6,89 Ltr.	5,75 Ltr.
Allowed operating pressure [bar]	3/8"		300	300	300	300
	3/8"		500	500	500	500
	3/8"		-	700	700	700
	1/2"		200	200	200	200
Allowed operating temperature [°C]			95	95	95	95
Dimension l x w x h [mm] *			570x405x535	570x405x625	570x405x710	570x405x810
Weight [kg] *	3/8"	300	50,30	58,00	64,00	68,00
	3/8"	500	53,80	62,50	69,20	74,00
	3/8"	700	63,60	74,50	85,10	91,60
	1/2"	200	49,20	56,20	58,50	62,90
Tube length of heating coil [m]	3/8"		23	28	36	40
	1/2"		22	26	28	32
Tube- Ø of heating coil [mm]	3/8"	300	17,2	17,2	17,2	17,2
	3/8"	500	18,0	18,0	18,0	18,0
	3/8"	700	18,0	18,0	18,0	18,0
	1/2"	200	21,4	21,4	21,4	21,4
Operating voltage [V/Hz]			230/50	230/50	230/50	230/50
			110/50	110/50	110/50	110/50
Total current consumption [Watt]			400	400	400	400
Nozzle [G/h]			1,25	1,5	1,5 or 1,65	1,75
max. oil flow [l/h]			4,35 - 5,35	5,93 - 7,26	5,93 - 8,63	6,92 - 9,15
Effect. range of capacity [kW]			40-50	50-62	62-73	65-80
Efficiency of combustion [%]			>=91	>=91	>=91	>=91
Max. exhaust gas temperature [°c]			230	230	230	210
Flue gas loss [%]			<=9	<=9	<=9	<=9
Soot value according to Bacherach			0-1	0-1	0-1	0-1

*Dimensions and weights are without control system and safety device. Total weight for safety device and control: 9,6 kg

Dimensions



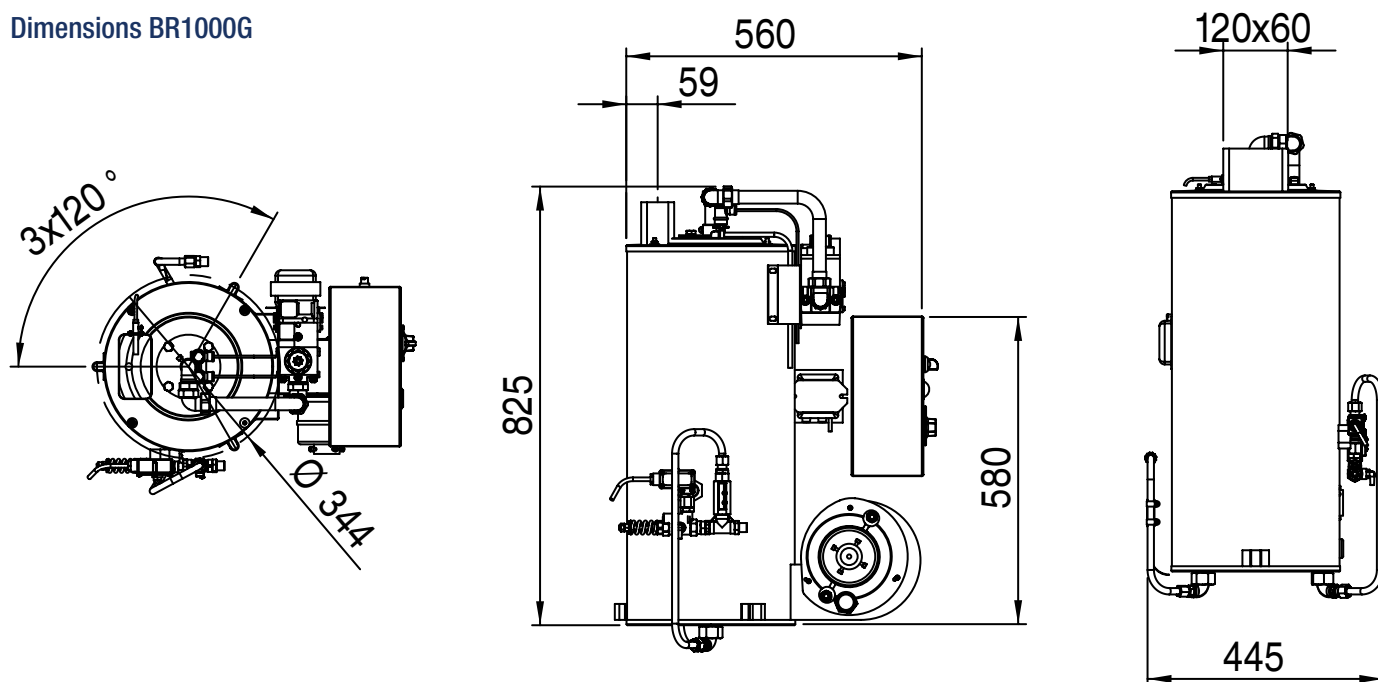
mm	A3/8"	A1/2"	B3/8"	B1/2"	H
BR600	126	132	99	101	535
BR750	126	132	99	101	625
BR900	126	132	99	101	710
BR1000	126	132	99	101	810

Technical Data

Type BR1000G, gas heated, 230V 50Hz

Description	200 bar	300 bar	500 bar	700 bar
Content, heating coil	5,75 Ltr.	4,17 Ltr.	4,30 Ltr.	1,62 Ltr.
Nennweite	1/2"	3/8"	3/8"	3/8"
Allowed operating temperature [°C]	95	95	95	95
Dimension l x w x h [mm] *	550x550x850	550x550x850	550x550x850	550x550x850
Weight [kg]	71,90	77,00	83,00	100,60
Tube length of heating coil [m]	32	40	40	40
Tube- Ø of heating coil [mm]	21,4	17,2	18,0	18,0
Operating voltage [V/Hz]	230/50	230/50	230/50	230/50
Total current consumption [Watt]	400	400	400	400
Gas pressure [mbar]	20 - 100	20 - 100	20 - 100	20 - 100
Gas types and consumption at max. power	Erdgas H = 6-7 m³/h , Erdgas L = 7-10 m³/h , Propan/Butan (Flüssig) = 2-3 kg/h			
Effect. Range of capacity [kW]	45-70	45-70	45-70	45-70
Efficiency of combustion [%]	>=91	>=91	>=91	>=91
Max. exhaust gas temperature [°c]	210	210	210	210
Flue gas loss [%]	<=9	<=9	<=9	<=9

Dimensions BR1000G



Chimney valve

We would like to recommend you a retrofit kit with chimney valve, big fan wheel, a long flame tube and a modified ionization electrode. The item number is MP10400331.



Burner unit



Dungs gas multi block



UV optical flame sensor
MP10440001 as surcharge



Safety equipment

Gross price list, oil heated boiler, 230V 50 Hz, WITHOUT safety system

Equipped with: casings of zinc coated sheet steel (AISI 304 available), furthermore the outer casing is powder coated (AISI 304 available), 230 V / 50Hz, ignition transformer, fan motor and solenoid valve, WITHOUT switchbox, WITHOUT control and safety equipment.

Boiler type	Operating press. [bar]	Nom. width	Steel heating coil ST		Stainless steel heating coil 1.4301	
			Item number		Item number	
BR600/200	200	1/2"	on request		on request	
BR750/200	200	1/2"	V1040001101		V1040001107	
BR750/300	300	3/8"	V1040001102		V1040000503	
BR750/500	500	3/8"	V1040001117		V10400006	
BR750/700	700	3/8"	V1040001117-1			
BR900/200	200	1/2"	V1040001103		V1040001108	
BR900/300	300	3/8"	V1040000602		V1040000504	
BR900/500	500	3/8"	V104000037		V1040000601	
BR900/700	700	3/8"	V104000037-2			
BR1000/200	200	1/2"	V1040001104		V1040001109	
BR1000/300	300	3/8"	V1040000509		V1040000506	
BR1000/500	500	3/8"	V1040000510		V1040000603	
BR1000/700	700	3/8"	V10400005101		on request	

Gross price list, oil- and gas heated boiler, 230V 50 Hz, WITH safety system

Equipped with: switch box with content according to the circuit diagram, adjustable thermostat, exhaust temperature limiter, flow switch, safety valve, flame control, 3m electric cable. The basic equipment corresponds to the units shown on the previous sides.

Additionally the gas boilers are equipped with gas specific safety parts.

Boiler Type	Operating press. [bar]	Nom. width	Steel heating coil ST		Stainless steel heating coil 1.4301	
			Item number		Item number	
BR600/200	200	1/2"	V1040001403		V1040001409	
BR750/200	200	1/2"	V1040001405		V1040001410	
BR750/300	300	3/8"	V10400005102		V1040001112	
BR750/500	500	3/8"	V1040001401		V1040001118	
BR900/200	200	1/2"	V1040001407		V1040001411	
BR900/300	300	3/8"	V1040001110		V1040001113	
BR900/500	500	3/8"	V1040001404		V1040001119	
BR1000/200	200	1/2"	V1040001408		V1040001412	
BR1000/300	300	3/8"	V1040000511		V1040001114	
BR1000/500	500	3/8"	V104000040		V1040001402	
BR1000G/200	200	1/2"	V10440010		V10440011	
BR1000G/300	300	3/8"	V10440002		V10440008	
BR1000G/500	500	3/8"	V10440003		V10440009	

Surcharges for specific equipment

The following surcharges have to be added to the basic version, shown on table page 6.

Description / Type	BR600	BR750	BR900	BR1000	BR1000G
Inner casing stainless steel 1.4301	M10400030	M10400031	M10400032	M10400033	M10400033-1
Outer casing stainless steel 1.4301	M10400005	M10400006	M10400007	M10400008	M10400008
Diffusor (Tuningset)	-	B10400320	B10400320	B10400320	-
110V version (motor, solenoid valve, ignition)	M10430002	M10430002	M10430002	M10430002	M10430002
Biodiesel version (oil pre heater)	B10400326-1	B10400326-1	B10400326-1	B10400326-1	-
Low pressure version (press. switch, valve)	MP10400965	MP10400965	MP10400965	MP10400965	MP10400965
Digital thermostat + PTC sensor	MP10400972-2	MP10400972-2	MP10400972-2	MP10400972-2	MP10400972-2

Pressure flow heater, gas heated, BR1000G 2.0

Advanced economic gas boiler

The new gas burner, made by Theodor Henrichs GmbH can easily be controlled by a digital thermostat and a two- step gas multi block. We achieved a better start up with liquid gas. Our pressure flow heater BR1000G 2.0 is the right choice for you if constant temperatures are needed.

Advantages:

- Heating capacity of approx. 70KW low exhaust gas temperature
- Exhaust gas emissions are observed despite high efficiency
- Permanent temperatures by intelligent control
- improved start up, especially with liquid gas

Please contact us for further information.

Surcharge M10440001

Dimension BR1000G 2.0 see BR1000G



Mixing unit



2 step gas multi block



Störk digital thermostat



Safety equipment

Pressure flow heater, oil heated, DC

For mobile usage, independent from alternating voltage net, type BR...12/24 V.

The innovative burner technology of Theodor Henrichs GmbH permits an uncomplicated usage of commercial vehicles with 12V or 24V board tension.

Version 1

Our base is a 230 V burner with our approved components.

This is an entirely DC unit, as the flame control too is available in 12 V and 24 V version.

Additional motor for the oil pump is no longer required. The proven Delta pump will be used as a fuel pump. A DC ignition transformer, with high ignition performance, guarantees a safe ignition, even under unfavourable conditions.

Warning! You will need a little more space than for the previous version.

Upon request we will send you a survey or 3D data.

Version 2

We are still able to provide you with the previous version with voltage transformer and an additional pump motor, but we explicitly advice against that.

Outstanding features:

- No downtime losses because hot water is available in seconds.
- No preheat time.
- There is no need that hot water is transported through the pump:
The water is compressed before and will be heated then.
The durability of the pump can be extremely extended by that.
- Reduce investment costs.
- Reduce assembly costs.
- The efficiency can be multiplied by parallel connection of several boilers.
- High efficiency and low consumption of fuel
(equal efficiency compared to modern reservoir systems).
- EC-Type examination manufactured boiler.
- Easy maintainance.
- Biodiesel proofed (requires modifications).

Digital thermostat

A digital control is available for 24V for a surcharge. The PTC sensor responds much faster than the standard capillary tube sensor in a one- step system if the burner switches off, and activates the system again. This is an advantage if high and constant temperatures are required.



Mixing unit



Var. 1: DC fan motor with oil pump coupling



Störk digital thermostat
Surcharge MP10400972-2



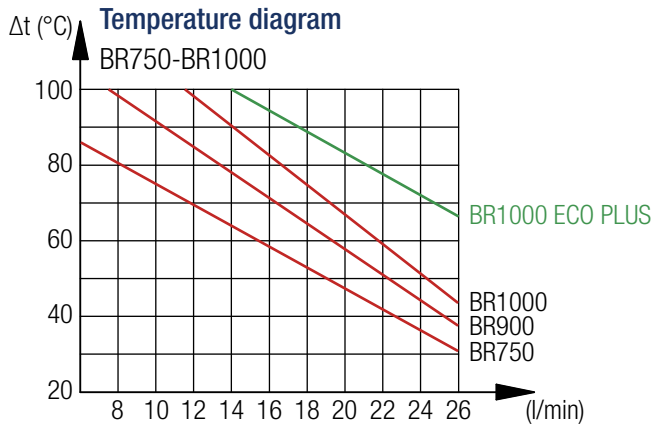
Mounting example

Preconditions:

- 12/24 V- data system with a sufficient dimensioned generator. (28A with 12V and 14A with 24V.)
- Sufficient fresh water (tank or external filling station)
- Sufficient storage of heating oil.

Application areas:

- Removal of residues caused by chemical accidents (diesel, oil, grease and other chemicals)
- Rehabilitation of canals and pipes, disinfection, cleaning of garbage containers, cleaning of facades, concrete rehabilitation.



The diagram shows achievable water temperatures with 10 bar oil pressure. With pleasure we will assist you when calculating the individual requirement

Attention:

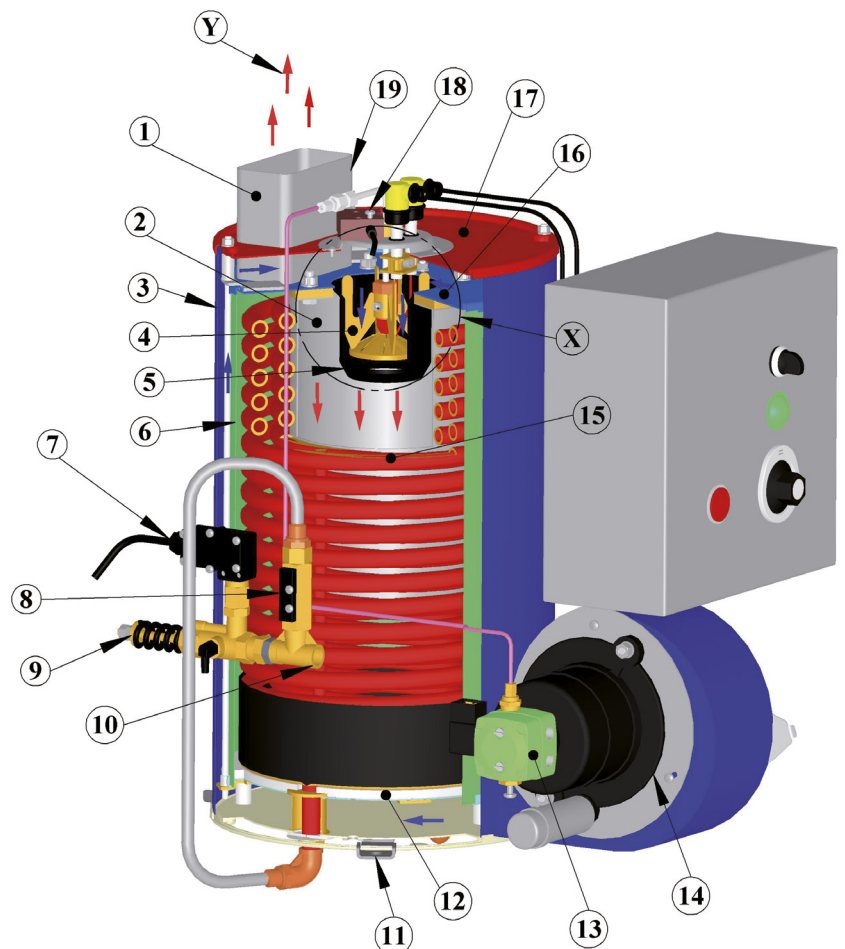
Please note our progressive development of the 12 V respectively 24 V burner, where a DC motor is used with direct connection to the oil pump.



Sectioning

Pressure flow heater, 12/24V, oil heated, type BR
Since 2017

P.	Description
1	Chimney
2	Boiler
3	Outer casing
4	Mixing unit
5	Flame tube
6	Inner casing
7	Pressure switch
8	Flow switch
9	Safety valve
10	Water inlet
11	Fastening shackle
12	Insulating plate (oxide ceramics)
13	Oilpump (obsolete for gas operated machine)
14	Fan motor
15	Heating coil
16	Inner lid
17	Outer lid
18	Photocell
19	Exhaust temperature limiter
Y	Blue arrow – fresh air, red arrow – exhaust gas

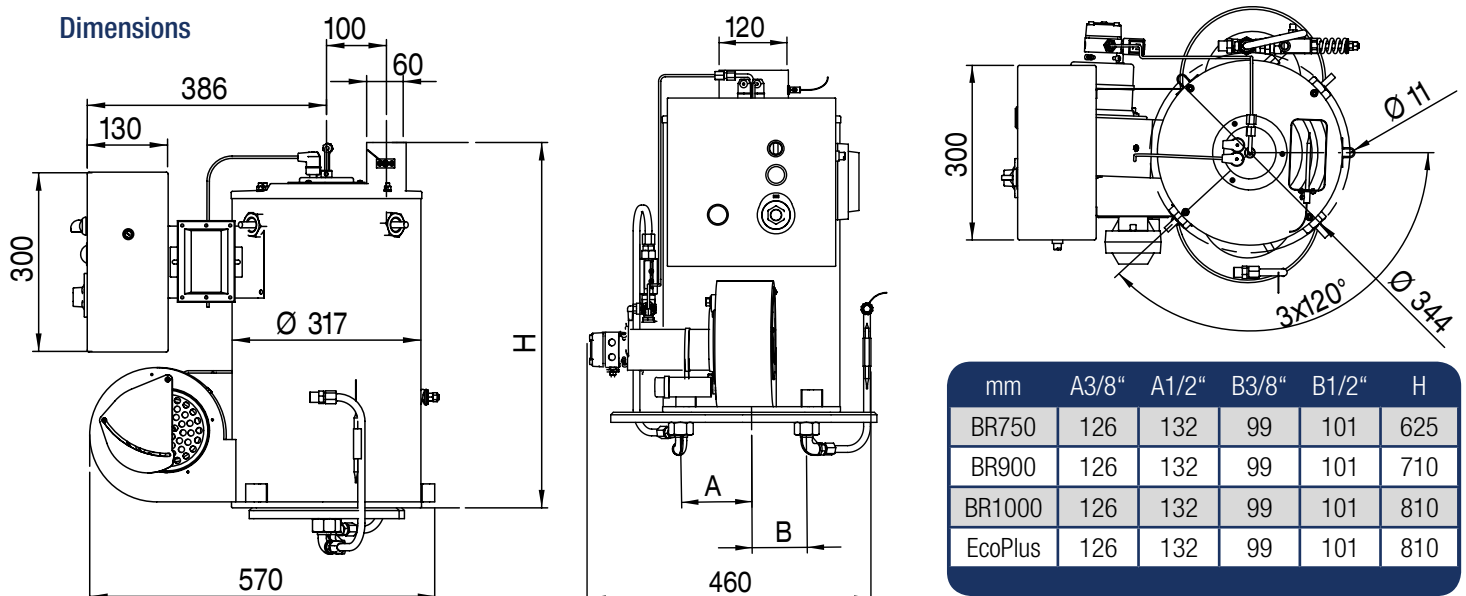


Technical Data

Type BR, oil heated, 12-24V DC

Description / Type	HZ*	Bar	BR750	BR900	BR1000	BR1000EcoPlus
Content, heating coil	3/8"	300	2,80 Ltr.	3,45 Ltr.	4,17 Ltr.	4,17 Ltr.
	3/8"	500	2,56 Ltr.	3,50 Ltr.	4,30 Ltr.	4,30 Ltr.
	3/8"	700	1,14 Ltr.	1,70 Ltr.	1,62 Ltr.	1,62 Ltr.
	1/2"	200	4,40 Ltr.	6,89 Ltr.	5,75 Ltr.	5,75 Ltr.
Allowed operating pressure [bar]	3/8"		300	300	300	300
	3/8"		500	500	500	500
	3/8"		700	700	700	700
	1/2"		200	200	200	200
Allowed operating temperature [°C]			95	95	95	95
Dimension l x w x h [mm] *			570x460x625	570x460x710	570x460x810	590x460x810
Weight [kg] *	3/8"	300	58,00	64,00	68,00	69,00
	3/8"	500	62,50	69,20	74,00	75,00
	3/8"	700	74,50	85,10	91,60	92,60
	1/2"	200	56,20	58,50	62,90	63,90
Tube length of heating coil [m]	3/8"		28	36	40	40
	1/2"		26	28	32	32
Tube- Ø of heating coil [mm]	3/8"	300	17,2	17,2	17,2	17,2
	3/8"	500	18,0	18,0	18,0	18,0
	3/8"	700	18,0	18,0	18,0	18,0
	1/2"	200	21,4	21,4	21,4	21,4
Operating voltage [V]			12/24V	12/24V	12/24V	12/24V
Total current consumption [Watt]			336	336	336	336
Nozzle [G/h]			1,5	1,5 oder 1,65	1,75	2,25
max. oil flow [l/h]			5,93 - 7,26	5,93 - 8,63	6,92 - 9,15	9,15 - 12,00
Effect. range of capacity [kW]			50-62	62-73	65-80	90-95
Efficiency of combustion [%]			>=91	>=91	>=91	>=91
Max. exhaust gas temperature [°C]			230	230	210	210
Flue gas loss [%]			<=9	<=9	<=9	<=9
Soot value according to Bacherach			0-1	0-1	0-1	0-1

*Dimensions and weights are without control system and safety device. Total weight for safety device and control: 9,6 kg



Gross price list, oil heated boiler, 12V or 24V, WITHOUT safety system

Equipped with: covers of zinc coated sheet steel AISI 304 available), furthermore the outer case is powder coated (AISI 304 available), 12V ignition transformer, 12V fan motor and 12V solenoid valve, WITHOUT switch box, control and safety equipment.

Boiler type	Operating press. [bar]	Nom. width	Steel heating coil ST		Stainless steel heating coil 1.4301	
			Item number		Item number	
BR750/200	200	1/2"	V11400016-12o.24V		V11400019-12o.24V	
BR750/300	300	3/8"	V11400001-12o.24V		V11400010-12o.24V	
BR750/500	500	3/8"	V11400002-12o.24V		V11400011-12o.24V	
BR750/700	700	3/8"	V11400003-12o.24V			
BR900/200	200	1/2"	V11400017-12o.24V		V11400020-12o.24V	
BR900/300	300	3/8"	V11400004-12o.24V		V11400012-12o.24V	
BR900/500	500	3/8"	V11400005-12o.24V		V11400013-12o.24V	
BR900/700	700	3/8"	V11400006-12o.24V			
BR1000/200	200	1/2"	V11400018-12o.24V		V11400021-12o.24V	
BR1000/300	300	3/8"	V11400007-12o.24V		V11400014-12o.24V	
BR1000/500	500	3/8"	V11400008-12o.24V		V11400015-12o.24V	

Gross price list, oil heated boiler, 12V or 24V, WITH safety system

Equipped with: 112V ignition transformer, 12V fan motor and 12V solenoid valve, adjustable thermostat, exhaust temperature limiter, flow switch, safety valve, pressure switch, flame control, 3m electric cable. Additional information see above.

Boiler type	Operating press. [bar]	Nom. width	Steel heating coil ST		Stainless steel heating coil 1.4301	
			Item number		Item number	
BR750/200	200	1/2"	V11400016S-12o.24V		V11400019S-12o.24V	
BR750/300	300	3/8"	V11400001S-12o.24V		V11400010S-12o.24V	
BR750/500	500	3/8"	V11400002S-12o.24V		V11400011S-12o.24V	
BR900/200	200	1/2"	V11400017S-12o.24V		V11400020S-12o.24V	
BR900/300	300	3/8"	V11400004S-12o.24V		V11400012S-12o.24V	
BR900/500	500	3/8"	V11400005S-12o.24V		V11400013S-12o.24V	
BR1000/200	200	1/2"	V11400018S-12o.24V		V11400021S-12o.24V	
BR1000/300	300	3/8"	V11400007S-12o.24V		V11400014S-12o.24V	
BR1000/500	500	3/8"	V11400008S-12o.24V		V11400015S-12o.24V	

Surcharges for specific equipment

The following surcharges have to be added to the basic version.

Description / Type	BR750		BR900		BR1000	
Inner casing stainless steel 1.4301	M10400031		M10400032		M10400033	
Outer casing stainless steel 1.4301	M11400001		M11400002		M11400003	
Diffusor (Tuningset)	B10400320		B10400320		B10400320	
Biodiesel version (oil pre-heater)	B10400326-1		B10400326-1		B10400326-1	
Low pressure version (press. switch, valve)	MP10400965		MP10400965		MP10400965	
24V Digital thermostat + PTC sensor	MP10400972-2		MP10400972-2		MP10400972-2	

Pressure flow heater, oil heated, BR1000 Eco Plus

Innovation

The new burner technology of Theodor Henrichs GmbH respects despite high efficiency the legal requirements of „BImSchG“. The heating capacity of approx. 90-95 KW can easily be controlled by a digital thermostat and a two-step pump. If constantly high temperatures are need the pressure flow heater BR1000 ECO PLUS is exactly what you need.

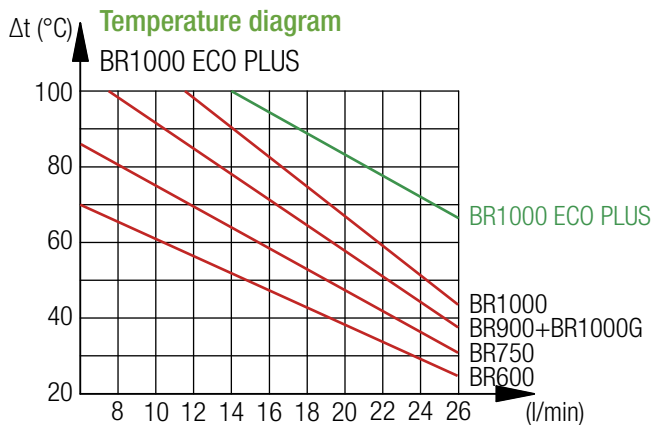
Advantages:

- Heating capacity of 90-95 KW low exhaust gas temperatures
- Exhaust gas emissions are observed despite high efficiency
- Permanent temperatures by intelligent control

Application area:

- Hygiene: filling automats for water and juices.
- Renovation: rehabilitation of canal and pipe systems.
- Availability of renovation: concrete rehabilitation.

Please contact us for further information, the technical data will be printed on the following page.



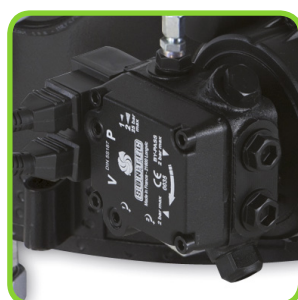
Range of capacity of the different types:

Within the indicated range of capacity the machines can be adjusted to the required capacity by varying the oil or gas pressure respectively and by adjusting the combustion air. Parallel connection of several machines, multiply the capacity.

The diagram shows the achievable water temperatures with an oil pressure of 13 bar. With pleasure we will assist you when calculating your individual requirements.



Mixing unit



Suntec 2 step pump



Störk digital thermostat



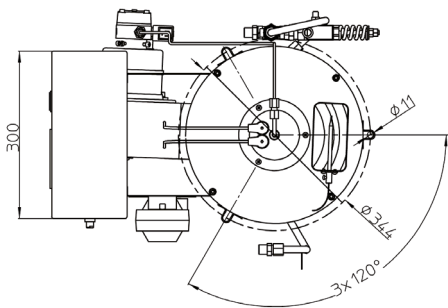
Safety equipment

Technical Data

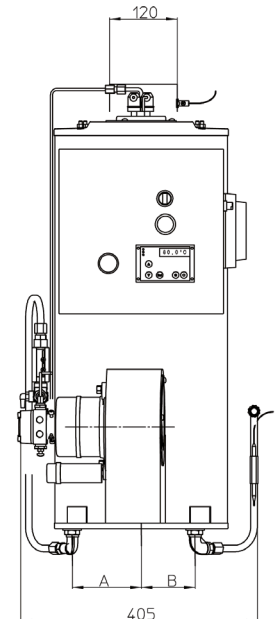
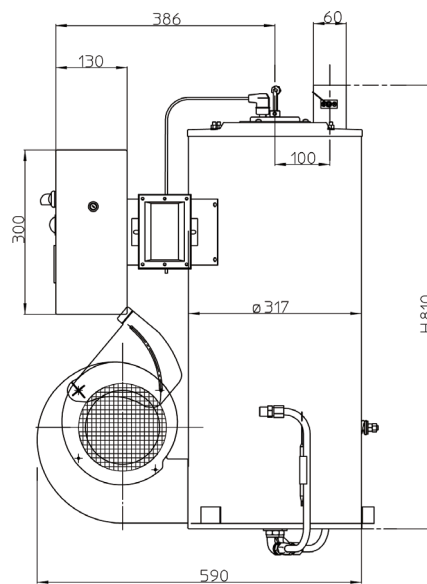
Type BR1000 Eco Plus, oil heated, 230V 50Hz, 12V and 24V

Description	200 bar	300 bar	500 bar	700 bar
Content, heating coil	7,60 Ltr.	4,17 Ltr.	3,66 Ltr.	1,62 Ltr.
Nominal width heating coil	1/2"	3/8"	3/8"	3/8"
Allowed operating temperature [°C]	95	95	95	95
Dimension l x w x h [mm]	590x405x850	590x405x850	590x405x850	590x405x850
Weight [kg]	63,90	69,00	75,00	92,60
Tube length of heating coil [m]	32	40	40	40
Tube Ø of the heating coil [mm]	21,4	17,2	18,0	18,0
Operating voltage/ Frequency [V/Hz]	230/50	230/50	230/50	230/50
	12 and 24	12 and 24	12 and 24	12 and 24
Total current consumption [Watt]	440	440	440	440
Oil pressure [bar]	7 - 14	7 - 14	7 - 14	7 - 14
Nozzle [G/h]	2,25	2,25	2,25	2,25
max. fuel consumption [l/h]	9,15 - 12	9,15 - 12	9,15 - 12	9,15 - 12
Heating capacity [kW]	90-95	90-95	90-95	90-95
Efficiency of combustion [%]	>=91	>=91	>=91	>=91
Max. exhaust gas temperature [°C]	230	230	230	230
Exhaust gas loss [%]	<=9	<=9	<=9	<=9

Dimensions BR1000 Eco Plus



The difference to our standard boiler BR1000 is the bigger fan wheel housing



Gross price list, oil heated boiler BR1000 Eco Plus, 230V 50 Hz, WITH safety control

Equipped with: switch box with content according to circuit diagram, digital thermostat, PTC-sensor, 2-step-pump, temperature limiter, flow switch, safety valve, flame control, diffusor long, inner coat of stainless steel, 3m electric cable, big fan housing & fan wheel.

The basic equipment corresponds to the units of page 4. (Surcharge M10440001-2)

Boiler type	Operation pressure [bar]	Nomin. width	Steel heating coil ST		Stainless steel heating coil 1.4301	
			Item number		Item number	
BR1000EcoPlus/200	200	1/2"	V1040001408-ECO		V1040001412-ECO	
BR1000EcoPlus/300	300	3/8"	V1040000511-ECO		V1040001114-ECO	
BR1000EcoPlus/500	500	3/8"	V10400040-ECO		On request	