# 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 manufatured 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 washs, airports.
- Hygenic 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 thermostate Surcharge MP10400972-2



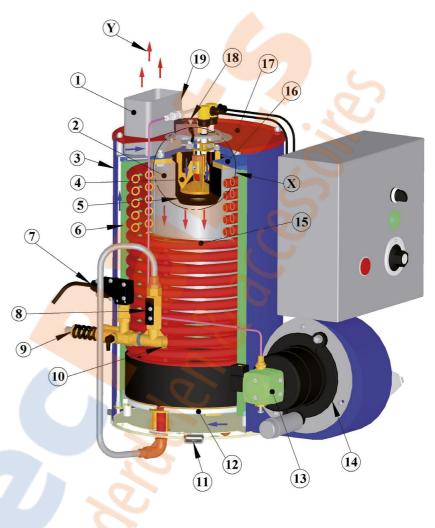
Safety equipment

### Sectioning

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



	December				
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				
Υ	Blue arrow – fresh air, red arrow – exhaust gas				



# Δt (°C) Temperature diagram BR600-BR1000 80 40 BR1000 ECO PLUS BR1000 BR900+BR1000G BR750 BR600 8 10 12 14 16 18 20 22 24 26 ((/min))

### 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

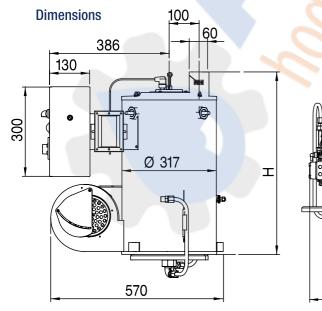
## **Technical Data**

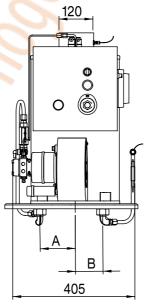
Type BR, oil heated, 230V 50Hz / 110V 50-60Hz

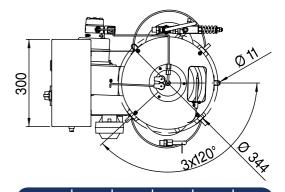


*	bor	DDCOO	DDZEO	DDOOO	DD1000
					BR1000
		· · · · · · · · · · · · · · · · · · ·	· ·		4,17 Ltr.
		2,10 Ltr.	<u> </u>		4,30 Ltr.
		-			1,62 Ltr.
	200			-	5,75 Ltr.
		300	300	300	300
		500	500	500	500
3/8"		-	700	700	700
1/2"		200	200	200	200
		95	95	95	95
		570x405x535	570x405x625	570x <mark>405x7</mark> 10	570x405x810
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
3/8"		23	28	36	40
1/2"		22	26	28	32
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
		230/50	230/50	230/50	230/50
	10	110/50	110/50	110/50	110/50
		400	400	400	400
		1,25	1,5	1,5 or 1,65	1,75
		4,35 - 5 <mark>,35</mark>	5,93 - 7,26	5,93 - 8,63	6,92 - 9,15
		40-50	50-62	62-73	65-80
		>=91	>=91	>=91	>=91
		230	230	230	210
		<=9	<=9	<=9	<=9
		0-1	0-1	0-1	0-1
	3/8" 3/8" 3/8" 1/2" 3/8" 1/2" 3/8" 3/8" 3/8"	3/8" 300 3/8" 500 3/8" 700 1/2" 200 3/8" 3/8" 3/8" 3/8" 1/2" 3/8" 300 3/8" 700 1/2" 200 3/8" 700 1/2" 200 3/8" 300 3/8" 300 3/8" 500 3/8" 500 3/8" 700	3/8"       300       2,40 Ltr.         3/8"       500       2,10 Ltr.         3/8"       700       -         1/2"       200       5,23 Ltr.         3/8"       500         3/8"       -         1/2"       200         95       570x405x535         3/8"       300       50,30         3/8"       500       53,80         3/8"       700       63,60         1/2"       20       49,20         3/8"       23         1/2"       22         3/8"       300       17,2         3/8"       300       17,2         3/8"       500       18,0         3/8"       700       18,0         1/2"       200       21,4         230/50       110/50         400       1,25         4,35 - 5,35       40-50         >=91       230         <=9	3/8"       300       2,40 Ltr.       2,56 Ltr.         3/8"       700       -       1,14 Ltr.         1/2"       200       5,23 Ltr.       4,40 Ltr.         3/8"       300       300         3/8"       500       500         3/8"       -       700         1/2"       200       200         95       95       95         570x405x535       570x405x625         3/8"       300       50,30       58,00         3/8"       500       53,80       62,50         3/8"       700       63,60       74,50         1/2"       200       49,20       56,20         3/8"       23       28         1/2"       22       26         3/8"       300       17,2       17,2         3/8"       300       17,2       17,2         3/8"       300       18,0       18,0         1/2"       200       21,4       21,4         2,4       21,4       21,4         230/50       230/50       110/50         110/50       110/50       10/50         40-50       50-62       >=91 </td <td>3/8"         300         2,40 Ltr.         2,80 Ltr.         3,45 Ltr.           3/8"         500         2,10 Ltr.         2,56 Ltr.         3,50 Ltr.           3/8"         700         -         1,14 Ltr.         1,70 Ltr.           1/2"         200         5,23 Ltr.         4,40 Ltr.         6,89 Ltr.           3/8"         300         300         300           3/8"         500         500         500           3/8"         -         700         700           1/2"         200         200         200           95         95         95         95           3/8"         300         50,30         58,00         64,00           3/8"         300         50,30         58,00         64,00           3/8"         500         53,80         62,50         69,20           3/8"         700         63,60         74,50         85,10           1/2"         20         26         28           3/8"         23         28         36           1/2"         22         26         28           3/8"         300         17,2         17,2         17,2</td>	3/8"         300         2,40 Ltr.         2,80 Ltr.         3,45 Ltr.           3/8"         500         2,10 Ltr.         2,56 Ltr.         3,50 Ltr.           3/8"         700         -         1,14 Ltr.         1,70 Ltr.           1/2"         200         5,23 Ltr.         4,40 Ltr.         6,89 Ltr.           3/8"         300         300         300           3/8"         500         500         500           3/8"         -         700         700           1/2"         200         200         200           95         95         95         95           3/8"         300         50,30         58,00         64,00           3/8"         300         50,30         58,00         64,00           3/8"         500         53,80         62,50         69,20           3/8"         700         63,60         74,50         85,10           1/2"         20         26         28           3/8"         23         28         36           1/2"         22         26         28           3/8"         300         17,2         17,2         17,2

<sup>\*</sup>Dimensions and weights are without control system and safety device. Total weight for safety device and control: 9,6 kg





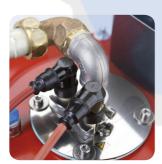


mm	A3/8"	A1/2"	B3/8"	B1/2"	Н '
BR600	126	132	99	101	535
BR750	126	132	99	101	625
BR900	126	132	99	101	710
BR1000	126	132	99	101	810



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 I x w x h [mm] *	550x550x850	550x550x850	550x550x850	5 <mark>50x55</mark> 0x <mark>85</mark> 0
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	<i>2</i> 0 - 100
Gas types and consumption at max. power	Erdgas H = 6-7 m <sup>3</sup> /h , E <mark>rdga</mark> s L = 7-10 m <sup>3</sup> /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**



Burner unit



Dungs gas multi block



UV optical flame sensor MP10440001 as surcharge



Safety equipment

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