





BNX



DESCRIPTION







Monobloc low-pressure reverse flame wet back steam boiler, suitable for liquid or gaseous fuels. It is a brand-new boiler, designed to guarantee high-quality steam at low operating pressures and with high peak loads. It has the latest generation user interface equipped with notification and alarm systems, and with optimised dimensions for the installation in small-size heating plant rooms to facilitate routine inspection and maintenance operations.

FEATURES

-  **Design pressure: 0,98 o 0,5 bar**
-  **Heat output: 69,8 ÷ 2035 kW**
-  **Steam capacity: 100 ÷ 3000 kg/h**
-  **Efficiency: > 91,0 %**

For higher or lower pressures see our commercial department

ADVANTAGES

-  **New certification**
CE certification as a whole according to the PED Directive
-  **Reduced size**
Redesigned to optimise the dimensions for the installation in small-size heating plant rooms and to facilitate routine maintenance and inspection operations
-  **Reliability and durability**
Maximum reliability and durability guaranteed through design with low surface heat losses.
-  **High steam quality**
At high load the internal separator prevents the entrainment of water droplets to the steam outlet, the steam produced is then always of high quality having a very high dryness fraction.
-  **Simplified user interface**
Latest generation user interface provided with warning and alarm systems
-  **Constant supply of high quality steam**
Thanks to the generously dimensioned steam chamber the boiler can meet the varying demand of the system including instantaneous peak demands

Low-pressure reverse flame steam boiler

MODELS

BNX 0.98 bar

(69,8 ÷ 2035 kW)

Design pressure: **0,98 bar**

Operating pressure: **0,2 - 0,9 bar**

Heat output: **69,8 ÷ 2035 kW**

Steam capacity: **100 ÷ 3000 kg/h**

Efficiency: **> 91,0 %**

BNX 0.7 bar

(69,8 ÷ 2035 kW)

Design pressure: **0,7 bar**

Operating pressure: **0,2 - 0,65 bar**

Heat output: **69,8 ÷ 2035 kW**

Steam capacity: **100 ÷ 3000 kg/h**

Efficiency: **> 91,0 %**

BBNX 0.5 bar

(69,8 ÷ 2035 kW)

Design pressure: **0,5 bar**

Operating pressure: **0,2 - 0,45 bar**

Heat output: **69,8 ÷ 2035 kW**

Steam capacity: **100 ÷ 3000 kg/h**

Efficiency: **> 91,0 %**

AVAILABLE CERTIFICATIONS



RECOMMENDED TECHNOLOGIES

MAIN APPLICATIONS

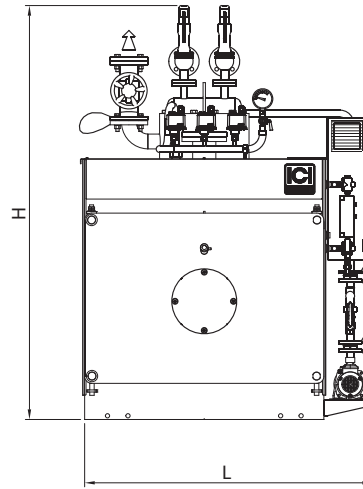
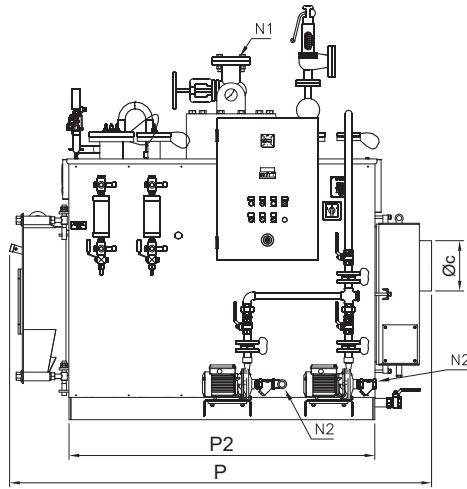
- ⊕ Tanning industry
- ⊕ Hospitals
- ⊕ Dairy Industry
- ⊕ Accommodation facilities
- ⊕ Distilleries
- ⊕ Chemical and pharmaceutical industries
- ⊕ Beer industry
- ⊕ Manufacturing industry
- ⊕ Wine farms

TECHNICAL DATA

Model	Heat Output	Flow thermal	Steam capacity *	Volume level H ₂ O	Total volume H ₂ O	Flue gas pressure drop	Gas consumption	Diesel fuel consumption	Nafta consumption	Empty weight
BNX	kW	kW	kg/h	l	l	mbar	Nm ³ /h	kg/h	kg/h	kg
100	69,8	77,4	100	146	198	0,7	7,9	6,5	6,9	650
150	105	115	150	250	410	1,5	11,9	9,8	10,3	830
350	233	256	350	515	805	3,5	26,4	21,8	22,9	1260
500	349	383	500	690	875	3,5	39,6	32,6	34,3	1480
700	465	511	700	800	995	5,0	52,9	43,5	45,8	1580
850	581	639	850	1100	1400	4,5	66,1	54,4	57,2	2180
1000	698	767	1000	1100	1400	6,0	79,3	65,3	68,7	2180
1400	897	985	1350	1560	2010	5,1	100,8	83,1	87,3	2730
1700	1163	1278	1700	1790	2280	7,0	132,3	108,9	114,5	2930
2000	1395	1533	2000	2050	3020	7,5	158,7	130,7	137,4	3830
2650	1744	1917	2650	3100	4240	6,5	198,3	163,3	171,8	5130
3000	2035	2236	3000	3100	4240	7,5	231,4	190,6	200,4	5130

* steam capacity with feed water at 80 °C

* empty weight refers to the model with single pump 0,98 bar



DIMENSIONS

Model	H	L	P	P2	ØC	N1	N2
BNX	mm	mm	mm	mm	mm	DN/in	DN/in
100	1280	1000	1225	820	180	1"1/4	1"
150	1723	1290	1720	1170	200	40	1"
350	2000	1340	2060	1510	250	50	1"
500	2042	1420	2085	1510	250	65	1"
700	2108	1420	2335	1760	250	65	1"
850	2409	1540	2625	2010	300	80	1"
1000	2409	1540	2625	2010	300	80	1"
1400	2325	1770	2625	2010	350	100	1"
1700	2639	1750	2925	2310	350	100	1"
2000	3009	1940	3160	2515	400	125	1"
2650	2923	2080	3720	3015	450	150	1"
3000	2923	2080	3720	3015	450	150	1"

H is the value with spring safety valves; for boilers with balance safety valves the height is reduced by approximately 300 mm

STANDARD EQUIPMENT

Monitoring instrumentation, comprising:

- Large dial 3 way test valve manometer
- Limit pressure switch
- Manual reset safety pressure switch
- Regulation pressure switch (only for versions with 2 pumps)

Blow down system comprising:

- Rapid discharge ball valve with manual lever

Automatic conductivity probe level control system comprising:

- Pump start probe and pump shut-off probe
- 1st and 2nd alarm probes and low level burner lockout
- Safety probe for maximum level

Boiler control panel, IP 55:

- **BNX 100 - 350** : 1/N ~ 230V 50 Hz
- **BNX 500 - 3000** : 3/N ~ 400V 50 Hz

AVAILABLE CONDITIONS

Single feed water pump

Steam-side accessory unit including

- Steam outlet/crown valve
- balanced safety valve
- Reflex level indicator gauge
- Level indicator gauge drain and shut-off valve unit

Feed water delivery system containing:

- 1 Centrifugal pump for water at 90°C
- 1 feed water shut-off valve
- 1 pump suction filter
- 2 non-return valves

Twin feed pumps

Accessories on the steam side, including:

- Steam outlet/crown valve
- 2 safety valves
- 2 Reflex level indicator gauges
- 2 indicator drain and shut-off valve units

Feed water delivery system containing:

- 2 centrifugal electric pumps suitable for water at 90°C
- 4 delivery shut-off valves
- 2 pump suction filters
- 3 non-return valves

PRODUCT CODES

Model	0,98 bar		0,7 bar
	1 pump	2 pumps	2 pumps
BNX 100	86420100	86420104	86420106
BNX 150	86420150	86420154	86420156
BNX 350	86420350	86420354	86420356
BNX 500	86420500	86420504	86420506
BNX 700	86420700	86420704	86420706
BNX 850	86420850	86420854	86420856
BNX 1000	86421000	86421004	86421006
BNX 1400	86421400	86421404	86421406
BNX 1700	86421700	86421704	86421706
BNX 2000	86422000	86422004	86422006
BNX 2650	86422650	86422654	86422656
BNX 3000	86423000	86423004	86423006

Model	0,5 bar	
	1 pump	2 pumps
BBNX 100	86430100	86430104
BBNX 150	86430150	86430154
BBNX 350	86430350	86430354
BBNX 500	86430500	86430504
BBNX 700	86430700	86430704
BBNX 850	86430850	86430854
BBNX 1000	86431000	86431004
BBNX 1400	86431400	86431404
BBNX 1700	86431700	86431704
BBNX 2000	86432000	86432004
BBNX 2650	86432650	86432654
BBNX 3000	86433000	86433004

ACCESSORIES AVAILABLE FOR THE RANGE

Code	Description	1 Pump		2 Pumps		
		BNX	BBNX	BNX	BBNX	BNX RU
See "Accessories" section	BNX automatic purging system	■	■	■	■	■
See "Accessories" section	Standby feed water pump	■	■			
17090037	Salinity control unit (pneumatic TDS) (starting from BNX 1400)	■	■	■	■	■
17090035	Salinity control unit (electric TDS) (starting from BNX 1400)	■	■	■	■	■
17090051	Salinity control unit (electric light TDS) (up to BNX 1000)	■	■	■	■	■
38040100	Sample cooler	■	■	■	■	■
90060010	High level safety kit	■	■	■	■	■
90060073	2nd stage regulation pressure switch BNX 500-3000	■	■	■	■	■
86900081	Sistema sicurezza globale GSS 72 L (BNX 100-1000)	■	■	■	■	■
86900080	Safety system GSS 72 H	■	■	■	■	■
QCTETERM	Eterm Easy manager panel	■	■	■	■	■
90060078	Cascade control panel for steam boilers	■	■	■	■	■

COMPONENTS FOR HEATING PLANT ROOM COMPATIBLE WITH THE RANGE



ECXV
Vertical energy saver



DEG
Atmospheric deaerator



VRC
Condensate collection tank



ADD
Feed water treatment unit for steam boilers



VRC-V
Condensate collection tank



BDV
Blowdown vessel