

Catalogue

ENGLISH



high heat technology

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**For additional information
visit our website at:**

www.icaldaie.com

We make power, we produce heat,
we work for the future.



A leading company
which is recognisable
for its investment
into research and
development and its
capacity to transfer
know-how.





The company was established in 1958 principally in the manufacture of industrial steam boilers. Since then, the company has further utilised its knowledge and skills into the design and production of domestic and commercial hot water boilers.

Energy saving and environmental protection are fundamental to the basis of the boiler design and research. ICI CALDAIE presently holds a leading position in the heating industry as a result of its ongoing research activity and development of highly reliable and advanced technology boilers.



Expertise and updated knowledge are key elements to successfully participate in today's market

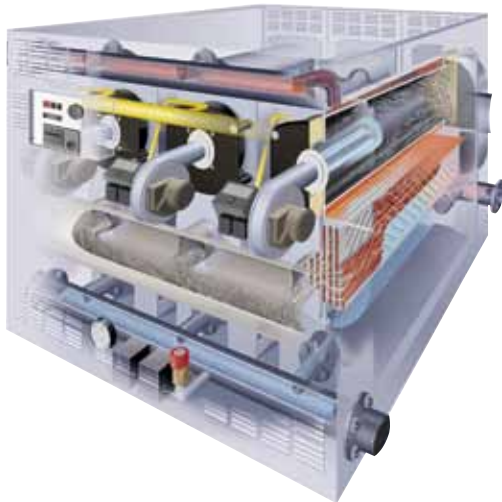


TRAINING



Expertise and updated knowledge are key elements to successfully participate in today's market. These are the skills that the ICI Caldaie Training Center is designed to promote to its customers. The training program includes the opportunity to demonstrate the functioning of domestic boilers, heat meters, large condensing boilers, solar systems and industrial steam boilers.

By request, subject specific seminars can be accommodated, such as industrial plant design and installation according to the PED norms, centralised boiler plant with satellite metering stations, installation of three star boilers or condensing boilers in cascade arrangement, application of hydrogen fuel systems for cogeneration on domestic applications.



During the training, visits are made to the production department, highlighting technical details that are not always apparent in the boilers. These can be discovered together with the QC material approvals and tests that every boiler undertakes during the production process.

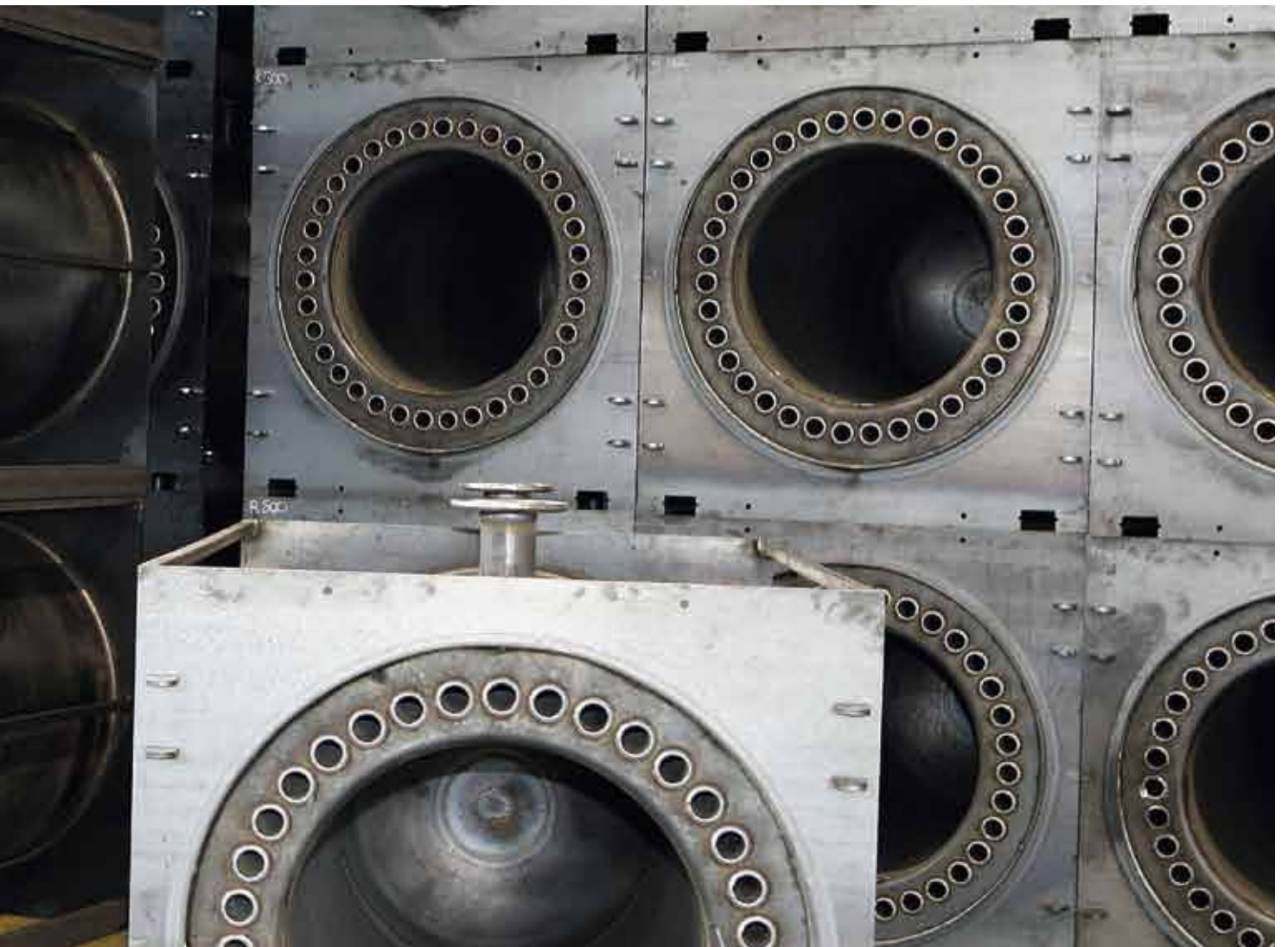


ICI CALDAIE has a wide product range to suit most heating applications



PRODUCTION

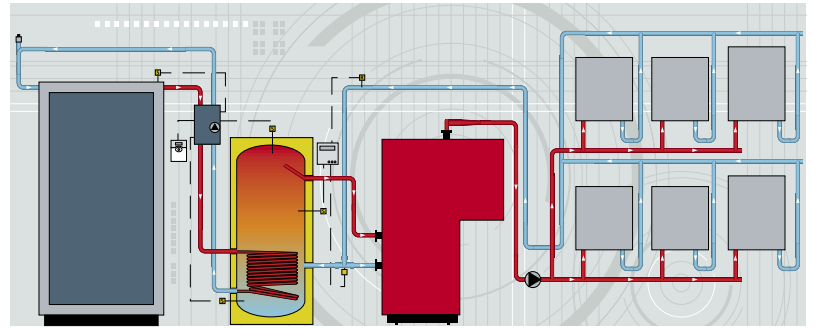
ICI CALDAIE produces boilers for the Domestic Market from 23-35 kW, Commercial Boilers from 22 - 3,500 kW, and Industrial Boilers for Pressurised Hot Water Systems. Within the above markets, ICI CALDAIE has acquired an international reputation for products of the highest quality.



The favourite solution for building energy classification



MULTI-AUTONOMOUS SYSTEM



ISOL solar collector

Puffer

MONOLITE condensing boiler

ICI CALDAIE Metering stations



This system combines the highest energy efficiency of the building With the full independence of each apartment:
Low consumption, with no maintenance, can be integrated with renewable and environmentally friendly energy sources; this is the favourite solution for building energy classification.



We manufacture innovative customised designs to meet our customer's requirements



BOILER HOUSES

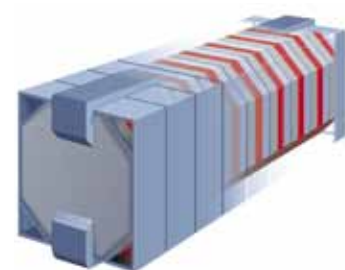


Complete and compact packages for customised boiler plant requirements. We specialise in the production of Packaged Boilerhouses designed in co-operation with our customers in order to guarantee safety, reliability and quality of the supply. The systems are designed to the latest standards of plant requirements and to a required efficiency performance.

It is an ideal solution where it is impossible or impractical to find the space for a new boilerhouse or an existing boilerhouse that cannot be upgraded. Our product range comprises light compact designs for commercial heating systems and for larger industrial applications.



Energy saving and environmental protection are fundamental to the basis of the boiler design and research.



RESEARCH AND DEVELOPMENT



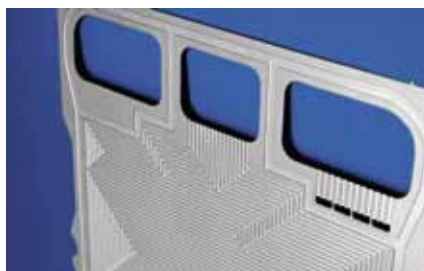
We are involved in state of the art boilers, owing to 50 years of technological progress. Our resources for research and development are focused on two main features:

Industrial systems, where research integrates components with boilers to achieve higher efficiency, together with easy-to-use operation and low emissions.

The development of new electronic control systems allows us to save on personnel and boiler remote control. Commercial heating systems, where the matching of boiler and heat metering units allow a considerable efficiency increase of the building; moreover, the integration with solar panels and renewable energies helps to cut on heating costs and offers a better environmental impact.

We take care of pollution and environmental respect, as a matter of fact our new developing technologies allow a considerable reduction of carbon dioxide and other pollutant emissions such as carbon monoxide and NOx.

Our research on fuel cells and steam reformer presents Sidera 30 at a further evolution on heating plants integrating the production of electricity. The innovation of our project consists in the use of hydrogen as fuel, presently obtained by reformed natural gas.



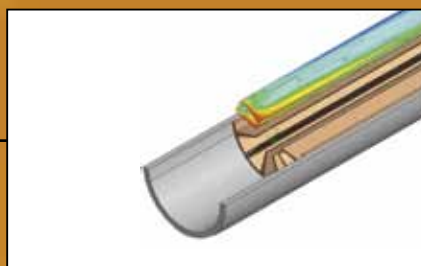
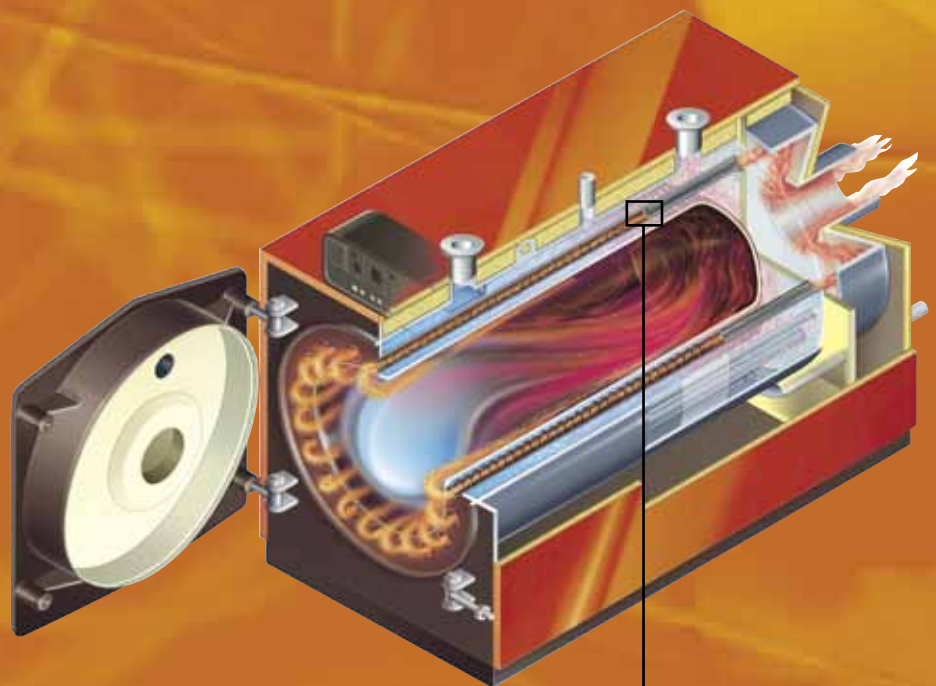


THE 3 STARS EFFICIENCY SYSTEM patented by ICI Caldaie

Fin-e® is a system that increases the boiler efficiency up to the 3 stars level according to the European norm 192 issued on August 19, 2005: energy saving reduces environmental impact.

Fin-e® is an aluminium extrusion, with internal fins, inserted on the back side of the boilers' smoke tubes in order to guarantee the complete contact between surfaces.

While flue gas transmits thermal energy along the finned surfaces, its own temperature is reduced before it reaches the smoke chamber and therefore it exits at the chimney at a very low temperature.



Commercial Range Fin-e®



18. Commercial Range Fin-e®
Boilers Series: REX F

OUTPUT FROM 70 TO 1300 KW



REX F

THREE PASS REVERSE FLAME WET BACK

The REX F boiler is a three pass reverse flame horizontal firetube boiler suitable for use on gaseous fuels. Thanks to the Fin-e ® system, the REX F boiler efficiency is rated at 3 star according to the 92/42/CEE, directive on efficiency, i.e. the maximum efficiency that can be achieved with a traditional boiler.

In addition it incorporates:

- flanged front plate without T-butt weld to the furnace
- dished furnace back and rear plate
- high water volume
- anti scale and anti condensate design
- reversible door opening
- casing made of easy-to-mount painted steel panels

Model	Boiler Code	Output	Input	Efficiency		Pressure Drop	Burner blast tube length	Burner hole Ø	Water volume	Dimensions	Weight	Ø C
		kW	kW	100%	30%	mbar	mm	mm	l	(H x L x P mm)	kg	mm
REX 7 F	83801210	70	74	94,34	94,80	0,9	200-250	130	105	1030 x 750 x 994	222	200
REX 8 F	83801220	80	84,7	94,45	94,70	1,1	200-250	130	105	1030 x 750 x 994	222	200
REX 9 F	83802210	90	95	94,54	95,00	0,9	200-250	130	123	1030 x 750 x 1119	266	200
REX 10 F	83802220	100	106	94,70	94,80	1,1	200-250	130	123	1030 x 750 x 1119	266	200
REX 12 F	83802230	120	126,5	94,86	95,10	1,3	200-250	130	123	1030 x 750 x 1119	266	200
REX 15 F	83803210	150	157,8	95,06	95,70	1,3	200-250	160	172	1080 x 800 x 1364	357	250
REX 20 F	83803220	200	210	95,24	95,30	2,2	200-250	160	172	1080 x 800 x 1364	357	250
REX 25 F	83804210	250	264	94,88	95,38	2,4	200-250	160	220	1080 x 800 x 1614	442	250
REX 30 F	83805210	300	316	95,09	95,59	2,4	200-250	180	300	1180 x 900 x 1614	489	250
REX 35 F	83806210	350	367	95,37	95,60	3,4	200-250	180	356	1180 x 900 x 1864	556	250
REX 40 F	83807210	400	420	95,24	95,40	4,7	230-280	225	360	1190 x 940 x 1822	600	250
REX 50 F	83808210	500	524	95,42	95,70	4,8	270-320	225	540	1380 x 1160 x 1946	871	300
REX 62 F	83809210	620	649	95,53	95,90	7,3	270-320	225	645	1380 x 1160 x 2235	981	300
REX 75 F	83810210	750	786	95,42	95,92	5,8	270-320	280	855	1510 x 1290 x 2247	1230	350
REX 85 F	83810220	850	891	95,40	95,80	8,0	270-320	280	855	1510 x 1290 x 2247	1230	350
REX 95 F	83811210	950	997	95,29	95,79	5,9	270-320	280	950	1510 x 1290 x 2497	1446	350
REX 100 F	83812210	1020	1069	95,42	95,80	4,5	270-320	280	1200	1660 x 1440 x 2477	1880	400
REX 120 F	83812220	1200	1259	95,31	95,81	6,2	270-320	280	1200	1660 x 1440 x 2477	1880	400
REX 130 F	83812230	1300	1364	95,31	95,70	7,3	270-320	280	1200	1660 x 1440 x 2477	1880	400

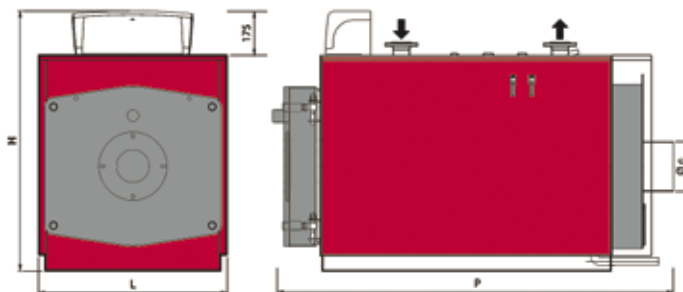
Maximum working pressure: 5 bar

Fuel: natural gas, LPG

Minimal return water temperature: 55°C

For higher pressure, please contact our Sales Dept.

ATTENTION: THE CONTROL PANEL IS SOLD SEPARATELY FROM BOILER. ALWAYS SPECIFY THE PANEL CODE WHEN PLACING AN ORDER CHOOSING FROM THOSE PROPOSED IN THE SECTION TO THE FOOTER.



Standard equipment

- Outer casing with high density insulation
- Turbolators
- Cleaning tool

Control Panel and Optional

	Code	For details see
Thermostatic control panel	QAC10ELM	Page 55
Control panel with digital controller RVA 43 for on/off and high/low burners	QCLI4301	Page 52
Control panel with digital controller RVA 63 for modulating burners	QCLI6301	Page 52
Calorifier sensor for controllers RVA	17120078	Page 52
Volt free kit	KITDO01	Page 54

OUTPUT FROM 1400 TO 3500 KW



REX F

THREE PASS REVERSE FLAME WET BACK

The REX F boiler is a three pass reverse flame horizontal firetube boiler suitable for use on gaseous fuels. Thanks to the Fin-e ® system, the REX F boiler efficiency is rated at 3 star according to the 92/42/CEE, directive on efficiency, i.e. the maximum efficiency that can be achieved with a traditional boiler.

In addition it incorporates:

- flanged front plate without T-butt weld to the furnace
- dished furnace back and rear plate
- high water volume
- anti scale and anti condensate design
- lagged and clad with circular stucco aluminium casing which are fitted at the factory



Model	Boiler Code	Output	Input	Efficiency		Pressure Drop	Burner blast tube length	Burner hole Ø	Water volume	Dimensions	Weight	Ø C
		kW	kW	100%	30%	mbar	mm	mm	l	(H x L x P mm)	kg	mm
REX 140 F	83813210	1400	1468	95,37	95,87	6,6	350-400	320	1500	1746 x 1470 x 2886	2665	400
REX 160 F	83813220	1600	1675	95,52	95,80	7,1	350-400	320	1500	1746 x 1470 x 2886	2665	400
REX 180 F	83814210	1800	1885	95,49	95,70	7,6	450-500	320	1650	1746 x 1470 x 3096	2815	400
REX 200 F	83815210	2000	2094	95,51	95,80	6,6	450-500	360	2000	1876 x 1600 x 3220	3730	500
REX 240 F	83816210	2400	2518	95,31	95,40	8,1	450-500	360	2300	1876 x 1600 x 3480	3980	500
REX 300 F	83817210	3000	3142	95,48	95,60	8,6	450-500	400	3150	2146 x 1870 x 3480	5306	550
REX 350 F	83818210	3500	3670	95,37	95,87	9,6	450-500	400	3650	2146 x 1870 x 3935	5806	550

Maximum working pressure: 5 bar

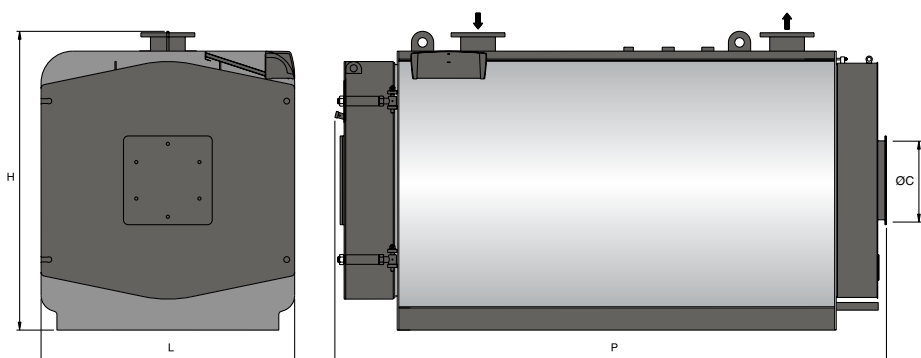
Fuel: natural gas, LPG

Minimal return water temperature: 55°C

For higher pressure, please contact our Sales Dept.



ATTENTION: THE CONTROL PANEL IS SOLD SEPARATELY FROM BOILER. ALWAYS SPECIFY THE PANEL CODE WHEN PLACING AN ORDER CHOOSING FROM THOSE PROPOSED IN THE SECTION TO THE FOOTER.



Standard equipment

- Outer casing with high density insulation
- Turbolators
- Cleaning tool

Control Panel and Optional

	Code	For details see
Thermostatic control panel	QAC10ELM	Page 55
Control panel with digital controller RVA 43 for on/off and high/low burners	QCLI4301	Page 52
Control panel with digital controller RVA 63 for modulating burners	QCLI6301	Page 52
Calorifier sensor for controllers RVA	17120078	Page 52
Volt free kit	KITDO01	Page 54

Commercial Range

- .22 Low NOx boilers Series:**
Series: BLUNOx.e / BLUNOx B.e
 - .24 Hot water reverse flame boilers**
Series: REX / REX K / REX DUAL
 - .30 Three-pass low NOx**
Series: GREENOx.e
 - .32 Heat metering modules**
 - .33 Calorifiers Series: BL / BV / BVX**
 - .38 Solid fuel boilers Series:**
SC / SP
-

HEATING CIRCUIT ONLY

EFFICIENCY



BLUNOX.e

THREE PASS REVERSE FLAME WET BACK



The BLUNOX.e boiler was developed to incorporate the latest technology to ensure an environmentally friendly performance.

The Reverse flame boiler incorporates a stainless steel inner sleeve (INOX AISI 310S) which creates partial flue gas re-circulation, resulting in low emissions and high efficiency rated at 3 star according to the 92/42/CEE.

Additional benefits:

- low NOx, low CO emissions
- flanged front plate without T-butt weld to the furnace
- dished furnace back
- high water volume
- anti scale and anti condensate design
- casing made of easy-to-mount painted steel panels, inclusive of front and rear panels

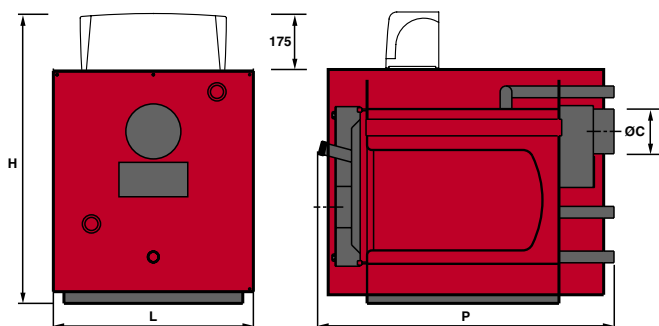
Model	Boiler Code	Output		Input		Efficiency		Pressure Drop	Burner blast tube length	Burner hole Ø	Water volume	Dimensions (H x L x P mm)	Weight	Ø C
		kW	kW	100%	30%	mbar	mm							
BLUNOX.e 19	81080020	22	23,7	92,83	91,40	0,2	min 130	120	33	795 x 525 x 830	95	127		
BLUNOX.e 27	81080030	31,4	33,7	93,18	91,20	0,3	min 130	120	44	845 x 580 x 845	110	127		
BLUNOX.e 34	81080045	40	42,5	94,12	91,08	0,3	min 130	120	66	935 x 660 x 980	150	178		
BLUNOX.e 43	81080050	50	53,4	93,63	91,10	0,4	min 130	120	66	935 x 660 x 980	150	178		
BLUNOX.e 60	81080065	70	74,6	93,83	91,54	0,4	min 130	120	88	965 x 660 x 1080	180	178		

Maximum working pressure: 3 bar

Fuel: natural gas, lpg, light oil

Minimal return water temperature: 55°C

ATTENTION: THE CONTROL PANEL IS SOLD SEPARATELY FROM BOILER. ALWAYS SPECIFY THE PANEL CODE WHEN PLACING AN ORDER CHOOSING FROM THOSE PROPOSED IN THE SECTION TO THE FOOTER.



Standard equipment

- Outer casing with high density insulation
- Turbolators
- Cleaning tool

Control Panel and Optional

	Code	For details see
Thermostatic control panel	QB1ELM	Page 55
Extended base	90090010	-
Control panel with digital controller RVA 43 for on/off and high/low burners	QCLI4301	Page 52
Control panel with digital controller RVA 63 for modulating burners	QCLI6301	Page 52
Calorifier sensor for controllers RVA	17120078	Page 52
Volt free kit	KITDO01	Page 54

HEATING CIRCUIT AND DOMESTIC HOT WATER

EFFICIENCY

★ ★ ★

BLUNOX.e B

THREE PASS REVERSE FLAME WET BACK



The BLUNOX.e B boiler was developed to incorporate the latest technology to ensure an environmentally friendly performance by incorporating a stainless steel inner sleeve (INOX AISI 310S) which results in low NOx, low CO emissions and high efficiency rated at 3 star according to the 92/42/CEE. The BLUNOX.e B also incorporates a fixed coil horizontal heater for rapid production and storage of Domestic Hot Water.

In addition to the BLUNOX.e boiler benefits, it provides:

- selectable calorifier capacity from 150 to 250 litres
- boiler – calorifier connection kit, suitable for each boiler model
- calorifier protective magnesium anode

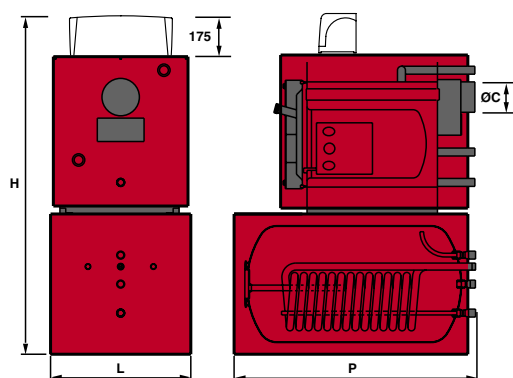
Model	Boiler Code	Output	Input	Efficiency		Pressure Drop	Calorifier max output	D.H.W. tank capacity	D.H.W. Production	Max output in 10'	Dimensions H x L x P	Weight kg
		kW	kW	100 %	30 %	mbar	kW	l	lt/min.	l/10min.		
BLUNOX.e B 19/150	81080120	22	23,7	92,83	91,40	0,2	29,3	150	9,6	193	1405 x 610 x 1037	200
BLUNOX.e B 27/150	81080130	31,4	33,7	93,18	91,20	0,3	29,3	150	12,8	225	1455 x 610 x 1037	210
BLUNOX.e B 27/200	81080135	31,4	33,7	93,18	91,20	0,3	36	200	13,3	280	1505 x 660 x 1157	230
BLUNOX.e B 27/250	81080138	31,4	33,7	93,18	91,20	0,3	42,8	250	13,6	325	1505 x 660 x 1407	250
BLUNOX.e B 34/150	81080148	40	42,5	94,12	91,08	0,3	29,3	150	12,8	225	1545 x 610 x 1037	250
BLUNOX.e B 34/200	81080140	40	42,5	94,12	91,08	0,3	36	200	15,7	300	1595 x 660 x 1157	270
BLUNOX.e B 34/250	81080145	40	42,5	94,12	91,08	0,3	42,8	250	17,4	363	1595 x 660 x 1407	290
BLUNOX.e B 43/150	81080158	50	53,4	93,63	91,10	0,4	29,3	150	12,8	225	1545 x 610 x 1037	250
BLUNOX.e B 43/200	81080150	50	53,4	93,63	91,10	0,4	36	200	15,7	300	1595 x 660 x 1157	270
BLUNOX.e B 43/250	81080155	50	53,4	93,63	91,10	0,4	42,8	250	18,6	375	1595 x 660 x 1407	290
BLUNOX.e B 60/150	81080168	70	74,6	93,83	91,54	0,4	29,3	150	12,8	225	1575 x 610 x 1037	280
BLUNOX.e B 60/200	81080160	70	74,6	93,83	91,54	0,4	36	200	15,7	300	1625 x 660 x 1157	300
BLUNOX.e B 60/250	81080165	70	74,6	93,83	91,54	0,4	42,8	250	18,6	375	1625 x 660 x 1407	320

Maximum working pressure: 3 bar

Fuel: natural gas, lpg, light oil

Minimal return water temperature: 55°C

**ATTENTION: THE CONTROL PANEL IS SOLD SEPARATELY FROM BOILER.
ALWAYS SPECIFY THE PANEL CODE WHEN PLACING AN ORDER CHOOSING
FROM THOSE PROPOSED IN THE SECTION TO THE FOOTER.**

**Standard equipment**

- Outer casing with high density insulation
- Turbolators
- Cleaning tool
- Boiler-calorifier kit connection, suitable for each boiler model, complete with:
 - calorifier pump
 - non-return valve
 - copper tubes
 - tube extension MF (for 19 and 27 models only)

Control Panel and Optional

	Code	For details see
Thermostatic control panel	QB1BELM	Page 55
Control panel with digital controller RVA 43 for on/off and high/low burners	QCLI4301	Page 52
Control panel with digital controller RVA 63 for modulating burners	QCLI6301	Page 52
Calorifier sensor for controllers RVA	17120078	Page 52
Volt free kit	KITDO01	Page 54

OUTPUT FROM 70 TO 1300 KW

EFFICIENCY



REX

THREE PASS REVERSE FLAME WET BACK

The REX boiler is a three pass reverse flame horizontal firetube boiler suitable for use on liquid and gaseous fuels.

The boiler is robust, giving long life, high efficiency and easy maintenance, which are guaranteed by:

- flanged front plate without T-butt weld to the furnace
- dished furnace back and rear plate
- high water volume
- anti scale and anti condensate design
- reversible door opening
- casing made of easy-to-mount painted steel panels

Model	Boiler Code	Output	Input	Efficiency		Pressure Drop	Burner blast tube length	Burner hole Ø	Water volume	Dimensions	Weight	Ø C
		kW	kW	100%	30%	mbar	mm	mm	l	(H x L x P mm)	kg	mm
REX 7	83801010	70	76	92,11	90,18	0,8	200-250	130	105	1030 x 750 x 994	216	200
REX 8	83801020	80	87	91,95	90,23	1,0	200-250	130	105	1030 x 750 x 994	216	200
REX 9	83802010	90	98	91,84	90,30	0,8	200-250	130	123	1030 x 750 x 1119	258	200
REX 10	83802020	100	109	91,74	90,40	1,0	200-250	130	123	1030 x 750 x 1119	258	200
REX 12	83802030	120	131	91,60	90,45	1,1	200-250	130	123	1030 x 750 x 1119	258	200
REX 15	83803010	150	163	92,02	91,15	1,2	200-250	160	172	1080 x 800 x 1364	346	250
REX 20	83803020	200	218	91,74	91,36	1,9	200-250	160	172	1080 x 800 x 1364	346	250
REX 25	83804010	250	272	91,91	90,40	2,0	200-250	160	220	1080 x 800 x 1614	431	250
REX 30	83805010	300	325	92,31	90,62	2,0	200-250	180	300	1180 x 900 x 1614	475	250
REX 35	83806010	350	380	92,11	90,50	2,9	200-250	180	356	1180 x 900 x 1864	542	250
REX 40	83807010	400	433	92,38	90,81	4,1	230-280	225	360	1190 x 940 x 1872	584	250
REX 50	83808010	500	542	92,25	90,71	4,2	270-320	225	540	1380 x 1160 x 1946	853	300
REX 62	83809010	620	672	92,26	90,68	6,4	270-320	225	645	1380 x 1160 x 2235	963	300
REX 75	83810010	750	813	92,25	90,60	5,2	270-320	280	855	1510 x 1290 x 2247	1205	350
REX 85	83810020	850	921	92,29	90,73	7,2	270-320	280	855	1510 x 1290 x 2247	1205	350
REX 95	83811010	950	1030	92,23	90,70	5,2	270-320	280	950	1510 x 1290 x 2497	1417	350
REX 100	83812010	1020	1106	92,22	90,65	4,0	270-320	280	1200	1660 x 1440 x 2477	1843	400
REX 120	83812020	1200	1301	92,24	90,67	5,5	270-320	280	1200	1660 x 1440 x 2477	1843	400
REX 130	83812030	1300	1409	92,26	90,61	6,5	270-320	280	1200	1660 x 1440 x 2477	1843	400

Maximum working pressure: 5 bar

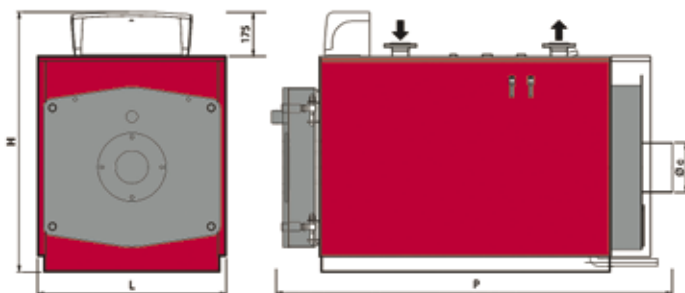
For higher pressure, please contact our Sales Dept.

Fuel: natural gas, lpg, light oil

Minimal return water temperature: 55°C



ATTENTION: THE CONTROL PANEL IS SOLD SEPARATELY FROM BOILER.
ALWAYS SPECIFY THE PANEL CODE WHEN PLACING AN ORDER CHOOSING FROM THOSE PROPOSED IN THE SECTION TO THE FOOTER.



Standard equipment

- Outer casing with high density insulation
- Turbulators
- Cleaning tool

Control Panel and Optional

	Code	For details see
Thermostatic control panel	QAC10ELM	Page 55
Control panel with digital controller RVA 43 for on/off and high/low burners	QCLI4301	Page 52
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OUTPUT FROM 1400 TO 6000 KW

EFFICIENCY



REX

THREE PASS REVERSE FLAME

The REX boiler is a three pass reverse flame horizontal firetube boiler suitable for use on liquid and gaseous fuels.

The boiler is robust, giving long life, high efficiency and easy maintenance, which are guaranteed by:

- flanged front plate without T-butt weld to the furnace
- dished furnace back and rear plate
- high water volume
- anti scale and anti condensate design
- reversible door opening
- lagged and clad with circular stucco aluminium casing which are fitted at the factory



Model	Boiler Code	Output	Input	Efficiency		Pressure Drop	Burner blast tube length	Burner hole Ø	Water volume	Dimensions	Weight	Ø C
		kW	kW	100%	30%	mbar	mm	mm	l	(H x L x P mm)	kg	mm
REX 140	83813010	1400	1517	92,29	90,36	6,0	350-400	320	1500	1746 x 1470 x 2886	2600	400
REX 160	83813020	1600	1733	92,33	90,41	6,5	350-400	320	1500	1746 x 1470 x 2886	2600	400
REX 180	83814010	1800	1950	92,31	90,50	7,0	450-500	320	1650	1746 x 1470 x 3096	2750	400
REX 200	83815010	2000	2167	92,29	90,30	6,0	450-500	360	2000	1876 x 1600 x 3220	3650	500
REX 240	83816010	2400	2600	92,31	90,60	7,5	450-500	360	2300	1876 x 1600 x 3480	3900	500
REX 300	83817010	3000	3250	92,31	90,55	8,0	450-500	400	3150	2146 x 1870 x 3480	5200	550
REX 350	83818010	3500	3792	92,30	90,20	9,0	450-500	400	3650	2146 x 1870 x 3935	5700	550
REX 400	83819010	4000	4333	92,31	91,80	9,0	450-500	400	4450	2326 x 1980 x 4310	7420	600
REX 450	83820010	4500	4865	92,50	91,90	10,0	500-550	400	4900	2326 x 1980 x 4660	7920	600
REX 500	83821010	5000	5402	92,56	91,90	10,0	500-550	450	6200	2529 x 2180 x 4729	9530	650
REX 600	83822010	6000	6480	92,59	91,90	12,0	530-580	450	6980	2529 x 2180 x 5230	11330	650

Maximum working pressure : 5 bar from REX 140 to 350
6 bar from REX 400 to 600

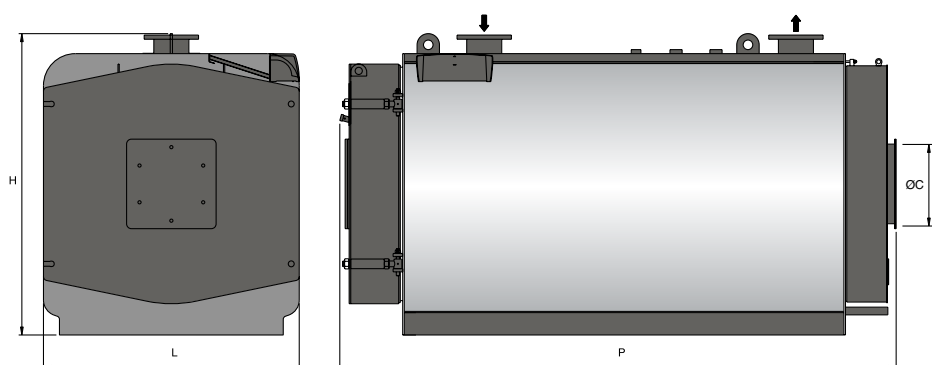
Fuel: natural gas, lpg, light oil, heavy oil

Minimal return water temperature: 55°C

For higher pressure, please contact our Sales Dept.



* FOR BOILER FROM 400 UP TO 600 THE CONTROL PANEL IS PROVIDED AS STANDARD EQUIPMENT

**Standard Equipment (REX 140-350)**

- outer casing with high density insulation
- turbolators
- cleaning tool

Standard Equipment (REX 400-600)

- outer casing with high density insulation
- turbolators
- cleaning tool
- boiler thermometer
- boiler manometer
- 1st safety limit thermostat - manual reset
- 2nd safety limit thermostat - manual reset
- boiler control thermostat
- control panel IP55 1~ 230V 50 Hz

Control Panel and Optional

	Code	For details see
Thermostatic control panel	QAC10ELM	Page 55
Control panel with digital controller RVA 43 for on/off and high/low burners	QCLI4301	Page 52
Control panel with digital controller RVA 63 for modulating burners	QCLI6301	Page 52
Calorifier sensor for controllers RVA	17120078	Page 52
Volt free kit	KITDO01	Page 54

UNASSEMBLED KIT FORM

REX K

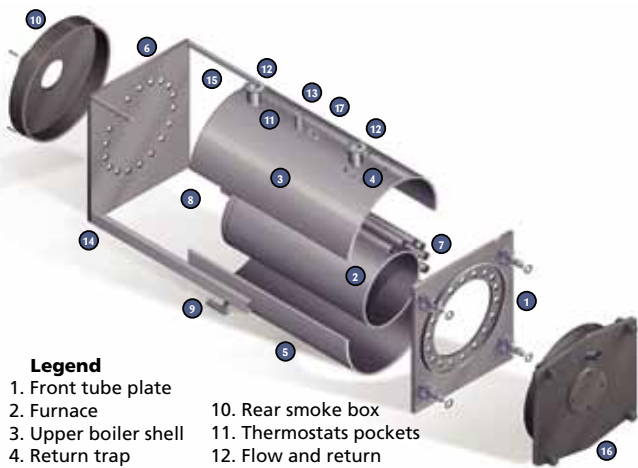
THREE PASS REVERSE FLAME WET BACK

Prepared for site welding, REX K boilers are designed for installation in boiler rooms where no access has been provided for pre-assembled boilers.

The pressure test is made at the end of the assembly.

The REX K / KF boiler has the same technical and mechanical characteristics of the REX / F boiler.

The single pieces are available on pallets with the assembly instructions. (Assembly and welding are not included in the boiler selling price).



Legend

- 1. Front tube plate
- 2. Furnace
- 3. Upper boiler shell
- 4. Return trap
- 5. Lower boiler shell
- 6. Rear tube plate
- 7. Smoke tubes
- 8. Rear stay support
- 9. Boiler drain
- 10. Rear smoke box
- 11. Thermostats pockets
- 12. Flow and return
- 13. Safety valves connections
- 14. Boiler frame
- 15. Upper frame support
- 16. Boiler door
- 17. Eyebolt

Model standard	Boiler Code standard	Efficiency		Output kW	Burner blast tube length mm	Burner hole Ø mm	Water volume l	Dimensions (H x L x P mm)	Weight kg	Ø C mm
		100%	30%							
REX K 7	83801050	92,11	90,18	70	200-250	130	105	1030 x 750 x 994	216	200
REX K 8	83801060	91,95	90,23	80	200-250	130	105	1030 x 750 x 994	216	200
REX K 9	83802070	91,84	90,30	90	200-250	130	123	1030 x 750 x 1119	258	200
REX K 10	83802080	91,74	90,40	100	200-250	130	123	1030 x 750 x 1119	258	200
REX K 12	83802090	91,60	90,45	120	200-250	130	123	1030 x 750 x 1119	258	200
REX K 15	83803050	92,02	91,15	150	200-250	160	172	1080 x 800 x 1364	346	250
REX K 20	83803060	91,74	91,36	200	200-250	160	172	1080 x 800 x 1364	346	250
REX K 25	83804020	91,91	90,40	250	200-250	160	220	1080 x 800 x 1614	431	250
REX K 30	83805020	92,31	90,62	300	200-250	180	300	1180 x 900 x 1614	475	250
REX K 35	83806020	92,11	90,50	350	200-250	180	356	1180 x 900 x 1864	542	250
REX K 40	83807020	92,38	90,81	400	230-280	225	360	1190 x 940 x 1872	584	250
REX K 50	83808020	92,25	90,71	500	270-320	225	540	1380 x 1160 x 1946	853	300
REX K 62	83809020	92,26	90,68	620	270-320	225	645	1380 x 1160 x 2235	963	300
REX K 75	83810030	92,25	90,60	750	270-320	280	855	1510 x 1290 x 2247	1205	350
REX K 85	83810040	92,29	90,73	850	270-320	280	855	1510 x 1290 x 2247	1205	350
REX K 95	83811020	92,23	90,70	950	270-320	280	950	1510 x 1290 x 2497	1417	350
REX K 100	83812040	92,22	90,65	1020	270-320	280	1200	1660 x 1440 x 2477	1843	400
REX K 120	83812050	92,24	90,67	1200	270-320	280	1200	1660 x 1440 x 2477	1843	400
REX K 130	83812060	92,26	90,61	1300	270-320	280	1200	1660 x 1440 x 2477	1843	400
REX K 140	83813040	92,29	90,36	1400	350-400	320	1500	1660 x 1440 x 2500	2600	400
REX K 160	83813050	92,33	90,41	1600	350-400	320	1500	1660 x 1440 x 2500	2600	400
REX K 180	83814050	92,31	90,50	1800	450-500	320	1650	1660 x 1440 x 2500	2750	400

Maximum working pressure: 5 bar

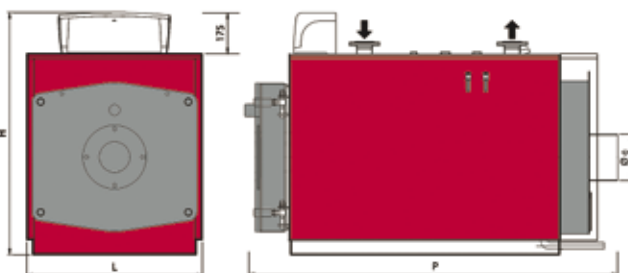
Fuel: natural gas, lpg, light oil

Minimal return water temperature: 55°C

For higher pressure, please contact our Sales Dept.



ATTENTION: THE CONTROL PANEL IS SOLD SEPARATELY FROM BOILER. ALWAYS SPECIFY THE PANEL CODE WHEN PLACING AN ORDER CHOOSING FROM THOSE PROPOSED IN THE SECTION TO THE FOOTER.



Standard equipment

- Outer casing with high density insulation
- Turbolators
- Cleaning tool

Control Panel and Optional	Code	For details see
Thermostatic control panel	QAC10ELM	Page 55
Control panel with digital controller RVA 43 for on/off and high/low burners	QCLI4301	Page 52
Control panel with digital controller RVA 63 for modulating burners	QCLI6301	Page 52
Calorifier sensor for controllers RVA	17120078	Page 52
Volt free kit	KITDO01	Page 54

UNASSEMBLED KIT FORM

REX KF

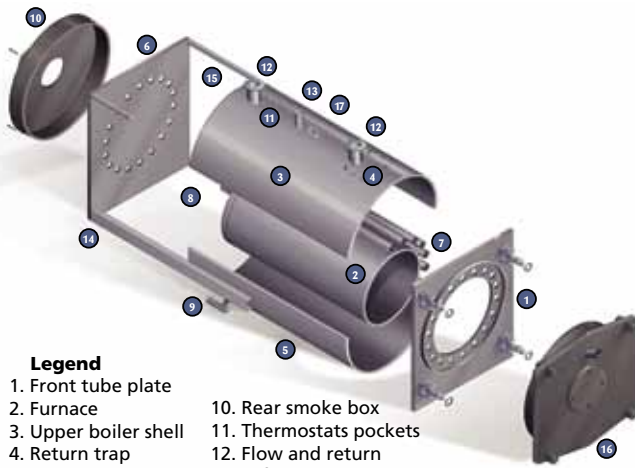
THREE PASS REVERSE FLAME WET BACK

Prepared for site welding, REX K boilers are designed for installation in boiler rooms where no access has been provided for pre-assembled boilers.

The pressure test is made at the end of the assembly.

The REX K / KF boiler has the same technical and mechanical characteristics of the REX / F boiler.

The single pieces are available on pallets with the assembly instructions. (Assembly and welding are not included in the boiler selling price).

**Legend**

- | | |
|-----------------------|-------------------------------|
| 1. Front tube plate | 10. Rear smoke box |
| 2. Furnace | 11. Thermostats pockets |
| 3. Upper boiler shell | 12. Flow and return |
| 4. Return trap | 13. Safety valves connections |
| 5. Lower boiler shell | 14. Boiler frame |
| 6. Rear tube plate | 15. Upper frame support |
| 7. Smoke tubes | 16. Boiler door |
| 8. Rear stay support | 17. Eyebolt |
| 9. Boiler drain | |

Model standard	Boiler Code standard	Efficiency		Output kW	Burner blast tube length mm	Burner hole Ø mm	Water volume l	Dimensions (H x L x P mm)	Weight kg	Ø C mm
		100%	30%							
REX K 7 F	83801250	94,34	94,80	70	200-250	130	105	1030 x 750 x 994	216	200
REX K 8 F	83801260	94,45	94,70	80	200-250	130	105	1030 x 750 x 994	216	200
REX K 9 F	83802270	94,54	95,00	90	200-250	130	123	1030 x 750 x 1119	258	200
REX K 10 F	83802280	94,70	94,80	100	200-250	130	123	1030 x 750 x 1119	258	200
REX K 12 F	83802290	94,86	95,10	120	200-250	130	123	1030 x 750 x 1119	258	200
REX K 15 F	83803250	95,06	95,70	150	200-250	160	172	1080 x 800 x 1364	346	250
REX K 20 F	83803260	95,24	95,30	200	200-250	160	172	1080 x 800 x 1364	346	250
REX K 25 F	83804220	94,88	95,38	250	200-250	160	220	1080 x 800 x 1614	431	250
REX K 30 F	83805220	95,09	95,59	300	200-250	180	300	1180 x 900 x 1614	475	250
REX K 35 F	83806220	95,37	95,60	350	200-250	180	356	1180 x 900 x 1864	542	250
REX K 40 F	83807220	95,24	95,40	400	230-280	225	360	1190 x 940 x 1872	584	250
REX K 50 F	83808220	95,42	95,70	500	270-320	225	540	1380 x 1160 x 1946	853	300
REX K 62 F	83809220	95,53	95,90	620	270-320	225	645	1380 x 1160 x 2235	963	300
REX K 75 F	83810230	95,42	95,92	750	270-320	280	855	1510 x 1290 x 2247	1205	350
REX K 85 F	83810240	95,40	95,80	850	270-320	280	855	1510 x 1290 x 2247	1205	350
REX K 95 F	83811220	95,29	95,79	950	270-320	280	950	1510 x 1290 x 2497	1417	350
REX K 100 F	83812240	95,42	95,80	1020	270-320	280	1200	1660 x 1440 x 2477	1843	400
REX K 120 F	83812250	95,31	95,81	1200	270-320	280	1200	1660 x 1440 x 2477	1843	400
REX K 130 F	83812260	95,31	95,70	1300	270-320	280	1200	1660 x 1440 x 2477	1843	400
REX K 140 F	83813240	95,37	95,87	1400	350-400	320	1500	1660 x 1440 x 2500	2600	400
REX K 160 F	83813250	95,52	95,80	1600	350-400	320	1500	1660 x 1440 x 2500	2600	400
REX K 180 F	83814250	95,49	95,70	1800	450-500	320	1650	1660 x 1440 x 2500	2750	400

Maximum working pressure: 5 bar

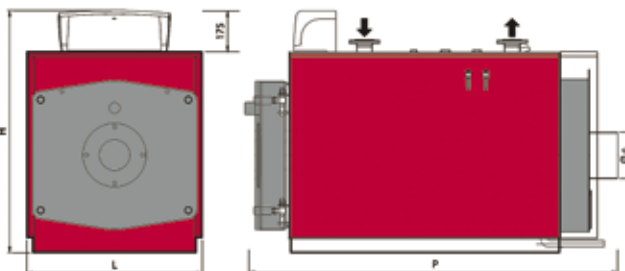
Fuel: natural gas, lpg, light oil

Minimal return water temperature: 55°C

For higher pressure, please contact our Sales Dept.



ATTENTION: THE CONTROL PANEL IS SOLD SEPARATELY FROM BOILER.
ALWAYS SPECIFY THE PANEL CODE WHEN PLACING AN ORDER CHOOSING FROM THOSE PROPOSED IN THE SECTION TO THE FOOTER.

**Standard equipment**

- Outer casing with high density insulation
- Turbolators
- Cleaning tool

Control Panel and Optional

	Code	For details see
Thermostatic control panel	QAC10ELM	Page 55
Control panel with digital controller RVA 43 for on/off and high/low burners	QCLI4301	Page 52
Control panel with digital controller RVA 63 for modulating burners	QCLI6301	Page 52
Calorifier sensor for controllers RVA	17120078	Page 52
Volt free kit	KITDO01	Page 54

ADJACENT MODULES

REX DUAL / DUAL F**THREE PASS REVERSE FLAME WET BACK**

REX DUAL / DUAL F boilers consists of two equal capacity adjacent modules, connected with flow and return headers, providing:

- high working flexibility to face variable heat demand
- high reliability against boiler failure (half power is always guaranteed in case one module fails)
- the digital sequencer (optional) mounted inside the control panel allows intelligent management of two high/low burners

Model standard	Boiler Code standard	Model F	Boiler Code F	Output	Burner blast tube length	Burner hole Ø	Water volume	Dimensions	Weight	Ø C
				kW	mm	mm	l	(H x H1 x L x P in mm)	kg	mm
REX DUAL 80	83807030	REX DUAL 80 F	83807230	800	230-280	225	720	1690 x 1015 x 1901 x 1872	1.167	250
REX DUAL 100	83808030	REX DUAL 100 F	83808230	1000	270-320	225	1080	1880 x 1205 x 2341 x 1946	1.705	300
REX DUAL 124	83809030	REX DUAL 124 F	83809230	1240	270-320	225	1290	1900 x 1205 x 2341 x 2235	1.925	300
REX DUAL 150	83810050	REX DUAL 150 F	83810250	1500	270-320	280	1710	2155 x 1335 x 2600 x 2247	2.409	350
REX DUAL 170	83810060	REX DUAL 170 F	83810260	1700	270-320	280	1710	2155 x 1335 x 2600 x 2247	2.409	350
REX DUAL 190	83811030	REX DUAL 190 F	83811230	1900	270-320	280	1900	2155 x 1335 x 2600 x 2497	2.833	350
REX DUAL 200	83812070	REX DUAL 200 F	83812270	2040	270-320	280	2400	2405 x 1485 x 2900 x 2477	3.686	400
REX DUAL 240	83812080	REX DUAL 240 F	83812280	2400	270-320	280	2400	2405 x 1485 x 2900 x 2477	3.686	400
REX DUAL 260	83812090	REX DUAL 260 F	83812290	2600	270-320	280	2400	2405 x 1485 x 2900 x 2477	3.686	400

Maximum working pressure: 5 bar

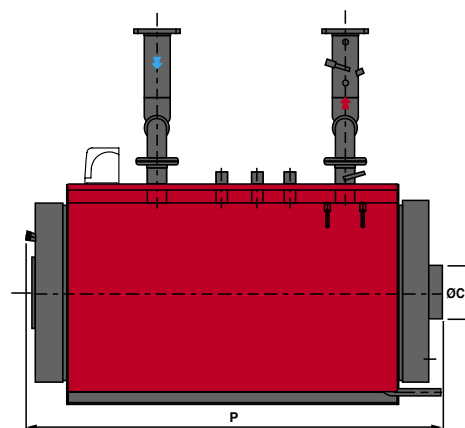
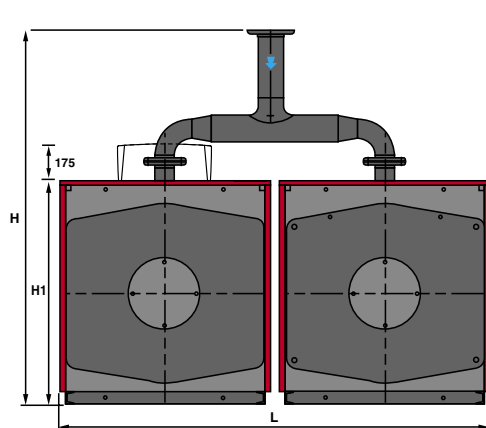
Fuel: natural gas, lpg, light oil

Minimal return water temperature: 55°C

For higher pressure, please contact our Sales Dept.



ATTENTION: THE CONTROL PANEL IS SOLD SEPARATELY FROM BOILER.
ALWAYS SPECIFY THE PANEL CODE WHEN PLACING AN ORDER CHOOSING FROM THOSE PROPOSED IN THE SECTION TO THE FOOTER.

**Standard equipment**

- Outer casing with high density insulation
- Turbolators
- Cleaning tool
- Pipe-work manifold and headers

Control Panel and Optional

Thermostatic control panel

Code

QA1ELMD

For details see

Page 55

Digital sequencer control panel

31020012

Page 54

Outside probe

17090038

Page 54

STACKED MODULES

REX DUAL / DUAL F**THREE PASS REVERSE FLAME WET BACK**

REX DUAL / DUAL F boilers consists of two equal capacity stacked modules, connected with flow and return headers housed in the back of the boiler, providing:

- high working flexibility to face variable heat demand
- high reliability against boiler failure (half power is always guaranteed in case one module fails)
- the digital sequencer (optional) mounted inside the control panel allows intelligent management of two high/low burners
- global insulation coating for two modules to reduce the external surface area and radiation loss.

Model standard	Boiler Code standard	Model F	Boiler Code F	Output	Burner blast tube length	Burner hole Ø	Water volume	Dimensions	Weight	Ø C
				kW	mm	mm	l	(H x L x P x P3 in mm)	kg	mm
REX DUAL 14	83801030	REX DUAL 14 F	83801230	140	200-250	130	210	1693 x 930 x 1365 x 996	442	200
REX DUAL 16	83801040	REX DUAL 16 F	83801240	160	200-250	130	210	1693 x 930 x 1365 x 996	442	200
REX DUAL 18	83802040	REX DUAL 18 F	83802240	180	200-250	130	246	1693 x 930 x 1490 x 1121	536	200
REX DUAL 20	83802050	REX DUAL 20 F	83802250	200	200-250	130	246	1693 x 930 x 1490 x 1121	536	200
REX DUAL 24	83802060	REX DUAL 24 F	83802260	240	200-250	130	246	1693 x 930 x 1490 x 1121	536	200
REX DUAL 30	83803030	REX DUAL 30 F	83803230	300	200-250	160	344	1793 x 980 x 1798 x 1400	776	250
REX DUAL 40	83803040	REX DUAL 40 F	83803240	400	200-250	160	344	1793 x 980 x 1798 x 1400	776	250
REX DUAL 50	83804030	REX DUAL 50 F	83804230	500	200-250	160	440	1793 x 980 x 2048 x 1650	882	250
REX DUAL 60	83805030	REX DUAL 60 F	83805230	600	200-250	180	600	1993 x 1080 x 2299 x 1650	969	250
REX DUAL 70	83806030	REX DUAL 70 F	83806230	700	200-250	180	712	1993 x 1080 x 2299 x 1900	1.114	250
REX DUAL 80	83807040	REX DUAL 80 F	83807240	800	230-280	225	720	2244 x 1122 x 2440 x 1795	1.167	250
REX DUAL 100	83808040	REX DUAL 100 F	83808240	1000	270-320	225	1080	2624 x 1342 x 2490 x 1847	1.705	300
REX DUAL 124	83809040	REX DUAL 124 F	83809240	1240	270-320	225	1290	2640 x 1342 x 2792 x 2113	1.925	300
REX DUAL 150	83810070	REX DUAL 150 F	83810270	1500	270-320	280	1710	2935 x 1472 x 2756 x 2087	2.409	350
REX DUAL 170	83810080	REX DUAL 170 F	83810280	1700	270-320	280	1710	2935 x 1472 x 2756 x 2087	2.409	350

Maximum working pressure: 5 bar

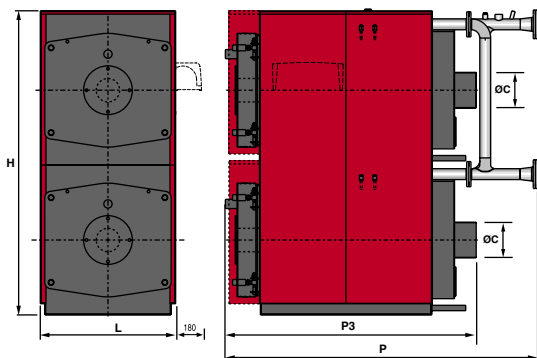
Fuel: natural gas, lpg, light oil

Minimal return water temperature: 55°C

For higher pressure, please contact our Sales Dept.



ATTENTION: THE CONTROL PANEL IS SOLD SEPARATELY FROM BOILER. ALWAYS SPECIFY THE PANEL CODE WHEN PLACING AN ORDER CHOOSING FROM THOSE PROPOSED IN THE SECTION TO THE FOOTER.

**Standard equipment**

- Outer casing with high density insulation
- Turbolators
- Cleaning tool
- Pipe-work manifold and headers

Control Panel and Optional

Thermostatic control panel

QA1ELMD

For details see

Page 55

Digital sequencer control panel

31020012

Page 54

Outside probe

17090038

Page 54



OUTPUT FROM 120 TO 700 KW

EFFICIENCY



GREENOx.e

THREE PASS WET BACK



The series GREENOx.e boilers are 3 pass design. They offer excellent results in terms of efficiency and low emissions, using traditional burners (yellow flame) or low-NOx burners (blue flame):

- environmentally friendly performance with low NOx combustion level
- high efficiency rated at 3 star according to the 92/42/CEE
- high water volume
- anti scale and anti condensate design
- reversible double door opening
- casing made of easy-to-mount painted steel panels

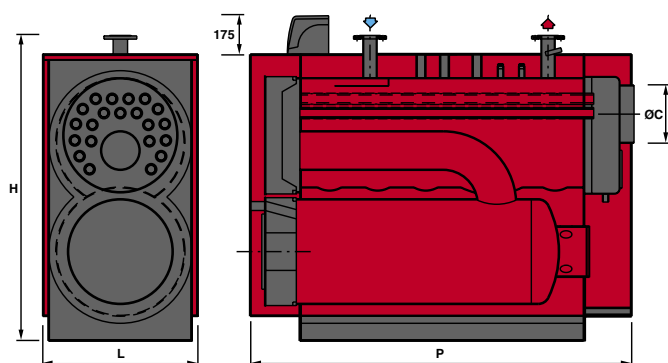
Model	Boiler Code	Output	Input	Efficiency		Pressure Drop	Burner blast tube length	Burner hole Ø	Water volume	Dimensions	Weight	Ø C
		kW	kW	100%	30%	mbar	mm	mm	l	(H x L x P mm)	kg	mm
GREENOx.e 10	83090095	109	115	94,78	95,70	1,2	200-250	160	296	1400 x 715 x 1735	615	200
GREENOx.e 12	83090100	120	126	95,24	95,70	1,4	200-250	160	296	1400 x 715 x 1735	615	200
GREENOx.e 15	83090130	150	157	95,54	96,05	2,5	200-250	160	296	1400 x 715 x 1735	615	200
GREENOx.e 20	83090160	200	210	95,24	95,57	2,6	200-250	160	296	1400 x 715 x 1735	615	200
GREENOx.e 25	83090200	250	262	95,42	95,95	2,5	200-250	170	412	1520 x 755 x 1895	735	250
GREENOx.e 30	83090250	300	315	95,24	95,73	3,9	200-250	170	412	1520 x 755 x 1895	735	250
GREENOx.e 35	83090300	350	367	95,37	95,90	3,9	200-250	225	505	1675 x 800 x 1948	850	250
GREENOx.e 40	83090350	400	420	95,24	95,76	4,7	200-250	225	505	1675 x 800 x 1948	850	250
GREENOx.e 47	83090400	470	493	95,33	95,80	4,6	200-250	225	738	1805 x 875 x 2227	1110	250
GREENOx.e 60	83090500	600	630	95,24	95,77	4,0	200-250	225	863	1925 x 945 x 2228	1390	250
GREENOx.e 70	83090600	700	734	95,37	95,85	5,6	200-250	225	863	1925 x 945 x 2228	1390	250

Maximum working pressure: 5 bar
For higher pressure, please contact our Sales Dept.

Fuel: natural gas, lpg, light oil

Minimal return water temperature: 55°C

ATTENTION: THE CONTROL PANEL IS SOLD SEPARATELY FROM BOILER. ALWAYS SPECIFY THE PANEL CODE WHEN PLACING AN ORDER CHOOSING FROM THOSE PROPOSED IN THE SECTION TO THE FOOTER.



Standard equipment

- Outer casing with high density insulation
- Turbolators
- Cleaning tool

Control Panel and Optional	Code	For details see
Thermostatic control panel	QAC10ELM	Page 55
Control panel with digital controller RVA 43 for on/off and high/low burners	QCLI4301	Page 52
Control panel with digital controller RVA 63 for modulating burners	QCLI6301	Page 52
Calorifier sensor for controllers RVA	17120078	Page 52
Volt free kit	KITDO01	Page 54

OUTPUT FROM 800 TO 2600 KW

EFFICIENCY



GREENOx.e

THREE PASS WET BACK



The series GREENOx.e boilers are 3 pass design. They offer excellent results in terms of efficiency and low emissions, using traditional burners (yellow flame) or low-NOx burners (blue flame):

- environmentally friendly performance with low NOx combustion level
- high efficiency rated at 3 star according to the 92/42/CEE
- high water volume
- anti scale and anti condensate design
- reversible double door opening
- lagged and clad with circular stucco aluminium casing which are fitted at the factory

Model	Boiler Code	Output	Input	Efficiency		Pressure Drop	Burner blast tube length	Burner hole Ø	Water volume	Dimensions	Weight	Ø C
		kW	kW	100%	30%	mbar	mm	mm	l	(H x L x P mm)	kg	mm
GREENOx.e 80	83090804	800	839	95,35	95,88	2,8	300-350	280	1200	1775 x 1380 x 2535	1970	350
GREENOx.e 90	83090900	900	944	95,34	95,92	3,5	300-350	280	1200	1775 x 1380 x 2535	1970	350
GREENOx.e 100	83091004	1000	1050	95,24	95,76	2,6	360-410	280	1365	1825 x 1490 x 2589	2760	400
GREENOx.e 120	83091204	1200	1259	95,31	95,83	4,0	360-410	320	1365	1825 x 1490 x 2589	2760	400
GREENOx.e 140	83091400	1400	1469	95,30	95,84	5,5	360-410	320	1570	1825 x 1490 x 2899	2995	400
GREENOx.e 170	83091700	1700	1784	95,29	95,79	6,3	360-410	320	1880	1965 x 1640 x 2941	3700	400
GREENOx.e 200	83092000	2000	2099	95,28	95,79	8,8	360-410	360	2340	1965 x 1640 x 3441	4330	400
GREENOx.e 230	83092300	2300	2415	95,24	95,77	9,4	360-410	360	2340	1965 x 1640 x 3441	4330	400
GREENOx.e 260	83092600	2600	2840	95,20	95,80	12,0	360-410	360	2754	1965 x 1640 x 3941	5050	400
GREENOx.e 300	83093000	3000	3150	95,24	95,80	14,0	360-410	360	2754	1965 x 1640 x 3941	5050	400

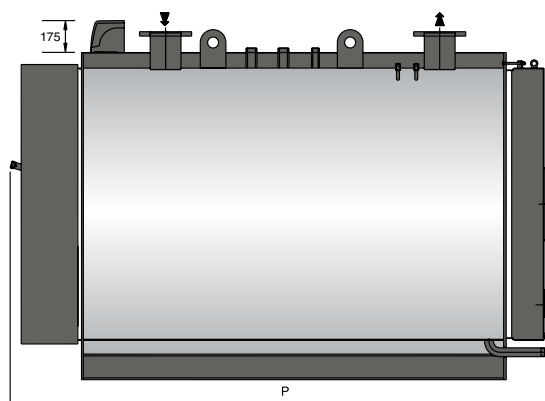
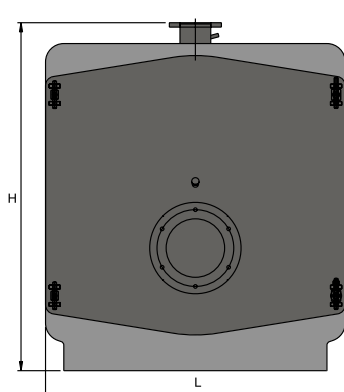
Maximum working pressure: 5 bar
For higher pressure, please contact our Sales Dept.

Fuel: natural gas, lpg, light oil

Minimal return water temperature: 55°C



**ATTENTION: THE CONTROL PANEL IS SOLD SEPARATELY FROM BOILER.
ALWAYS SPECIFY THE PANEL CODE WHEN PLACING AN ORDER CHOOSING
FROM THOSE PROPOSED IN THE SECTION TO THE FOOTER.**



Standard equipment

- Outer casing with high density insulation
- Turbolators
- Cleaning tool

Control Panel and Optional

	Code	For details see
Thermostatic control panel	QAC10ELM	Page 55
Control panel with digital controller RVA 43 for on/off and high/low burners	QCLI4301	Page 52
Control panel with digital controller RVA 63 for modulating burners	QCLI6301	Page 52
Calorifier sensor for controllers RVA	17120078	Page 52
Volt free kit	KITDO01	Page 54

NEREIX



An appliance to connect individual heating circuits / domestic hot water circuits to a centralised plant, whereby the end users can individually manage their own consumption of thermal power, whilst gaining the advantage of energy conservation and reliability achieved by the use of a central plant.

It allows for:

- Individual choice of temperature
- Choice of ON/OFF timing
- Pay only the energy used
- No gas piping in the house
- Centralized boiler check up
- High efficiency
- Large d.h.w production
- No chimneys in the house

HEATING AND DOMESTIC HOT WATER PACKAGE

MASTER UNIT

- Control of 250 modules
- Port RS232 to connect with local PC
- Modem to transfer data to a remote control
- Serial port RS485 for data exchange with unity "slave" of modules
- Digital inputs
- Output relays used to command and control central heating

BUS SIGNAL AMPLIFIER

To amplify the signals when the length of the BUS exceeds 400 meters

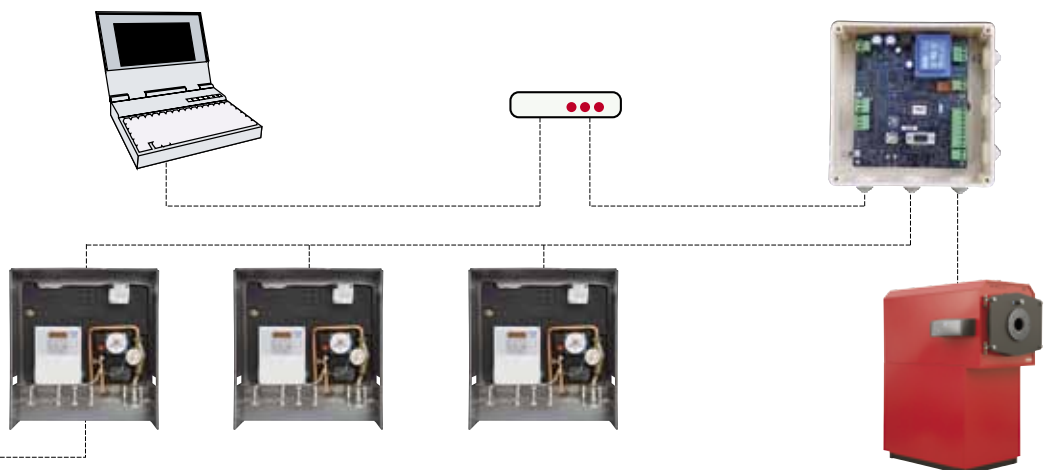
SOFTWARE

MS-Windows based with a database to manage different systems

Main duties:

- Data base for storage record of every calls.
- Display of following information:
 - Consumptions of domestic hot and cold water.
 - Annual or Seasonal Consumption
 - Metering in units of 1/1000
- Internal parameters:
 - Flow and Return Temperature.
 - Instantaneous Flow.
 - Instantaneous Duty, Water Volume.
 - Clock.

FOR FURTHER INFORMATION, PLEASE REFER TO SEPARATE LITERATURE



KRONOS CHRONOTHERMOSTAT

- Thermostat function
- Easy temperature setting
- Thermostatic timer function with weekly program set by the user
- Easy programming owing to graphic display
- DWH temperature setting (for Radiax Combi)
- Consumption display
- Diagram of room temperature trend in the last 24 hours
- Diagram of heat consumption trend in the last 12 months
- Optional extras:
 - Humidity measuring
 - Remote control via mobile phone



BL

HORIZONTAL COIL CALORIFIER

Fixed coil horizontal heater for rapid production and storage of Domestic Hot Water.

Standard equipment:

- polyurethane foam lagging
- painted steel casing
- protective magnesium anode

Anticorrosive treatment:

Inorganic vitreous-enamel coating suitable for potable water according to DIN 4753.33

Working pressure: 6 bar

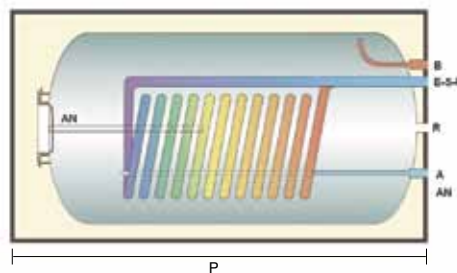
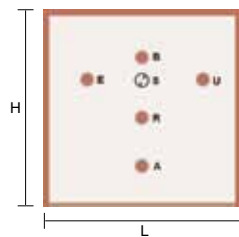
Model	Code	Exchange power	Heating time	DHW production		Dimensions			Weight
				Continous	First 10 min.	L	H	P	
				kW (1)	min.(2)	l/h (1)	l (1)	mm	
BL 150	84070151	29,3	12	765	225	610	610	1.000	100
BL 200	84070201	36	13	940	300	660	660	1.125	130
BL 250	84070251	42,7	14	1.115	375	660	660	1.375	160

(1) Primary temperature 80 - 70° C, secondary temperature 10 – 45° C, storage temperature 60° C

(2) Time needed to heat the calorifier water from 10 to 45° C.

Key

- E1 Primary inlet
- U1 Primary outlet
- A Sanitary water inlet
- B Sanitary water outlet
- AN Anode
- R Recirculation
- T Thermometer connection 1/2"
- TS Thermostat connection 1/2"





BV

COIL CALORIFIER

Fixed coil vertical heater for rapid production and storage of Domestic Hot Water

Standard equipment:

- 30 mm thick polyurethane insulation
- external flexible polyurethane lagging
- N° 2 protective magnesium anodes
- inspection flange (only for models 800÷1000)
- sensor housing not fitted

Anticorrosive treatment:

Inorganic vitreous-enamel coating suitable for potable water according to DIN 4753.33

Working pressure: 10 bar up to 500 litre, 6 bar from 800 litre

Model	Code	Exchange power	Heating time	DHW production		Dimensions		Weight
				Continuous	First 10 min.	Diameter	Height	
		kW (1)	min. (2)	l/h (1)	l (1)	mm	mm	kg
BV 160	84071600	27	15	663	176	620	1.056	57
BV 200	84072000	30	17	737	210	620	1.329	66
BV 300	84073000	44	18	1.081	311	675	1.560	97
BV 400	84074000	55	19	1.351	399	775	1.553	123
BV 500	84075000	63	20	1.543	473	775	1.818	144
BV 800	85520116	95	20	2.334	1.417	870	1.830	220
BV 1000	85520117	130	19	3.194	1.817	870	2.080	245

(1) Primary temperature 80 - 70° C, secondary temperature 10 - 45° C, storage temperature 60° C

(2) Time needed to heat the calorifier water from 10 to 45° C



BVS

DOUBLE COIL CALORIFIER

Fixed double coil vertical heater for rapid production and storage of Domestic Hot Water.

Standard equipment:

- 30 mm thick polyurethane insulation
- external flexible polyurethane lagging
- N° 2 protective magnesium anodes
- inspection flange (only for models 800÷1000).
- sensor housing not fitted

Anticorrosive treatment:

Inorganic vitreous-enamel coating suitable for potable water according to DIN 4753.33

Working pressure: 6 bar

Model	Code	Lower exchanger (solar)				Upper exchanger (integration)				Dimensions		Weight
		Power	Heating time	DHW production		Power	Heating time	DHW production		Diameter	Height	
				Continuous	First 10 min.			Continuous	First 10 min.			
		kW (1)	min. (2)	l/h (1)	l (1)	kW (1)	min. (3)	l/h (1)	l (1)	mm	mm	kg
BVS 300	85520136	37	21	909	615	22	19	540	261	660	1.360	100
BVS 500	85520137	57	23	1.400	946	37	19	909	436	760	1.640	140
BVS 800	85520138	71	30	1.744	1.417	44	25	1.081	637	940	1.850	205
BVS 1000	85520139	95	28	2.334	1.817	44	32	1.081	751	940	2.100	230

Data referred to a single exchanger

(1) Primary temperature 80 - 70° C, secondary temperature 10 - 45° C, storage temperature 60° C

(2) Time needed to heat the calorifier water from 10 to 60° C

(3) Time needed to heat the upper calorifier water (40% of the total) from 10 to 60° C



BVX

STAINLESS STEEL CALORIFIER

Fixed coil vertical heater for rapid production and storage of Domestic Hot Water. Rigid polyurethane foam lagging and PVC coating

Standard equipment:

- 30 mm thick polyurethane insulation
- external flexible polyurethane lagging
- inspection flange
- sensor housing not fitted

Material: stainless steel AISI 316L

Working pressure: 6 bar

Model	Code	Exchange power	Heating time	DHW production		Dimensions		Weight
				Continuous	First 10 min.	Diameter	Height	
		kW (1)	min. (2)	l/h (1)	l (1)	mm	mm	kg
BVX 200	84100007	49	15	1.200	287	550	1.420	53
BVX 300	84100004	55	17	1.367	264	650	1.460	75
BVX 400	84100005	55	19	1.367	402	700	1.640	100
BVX 500	84100006	83	18	2.055	558	700	1.900	111
BVX 600	84100008	83	21	2.055	650	800	2.130	121
BVX 800	84100009	96	20	2.364	1.422	1.000	2.050	164
BVX 1000	84100002	131	19	3.231	1.823	1.000	2.300	176

(1) Primary temperature 80 - 70° C, secondary temperature 10 - 45° C, storage temperature 60° C

(2) Time needed to heat the calorifier water from 10 to 45° C



BVXS

DOUBLE COIL STAINLESS STEEL CALORIFIER

Fixed double coil vertical heater for rapid production and storage of Domestic Hot Water. Rigid polyurethane foam lagging and PVC coating.

Standard equipment:

- 30 mm thick polyurethane insulation
- external flexible polyurethane lagging
- inspection flange
- sensor housing not fitted

Material: stainless steel AISI 316L

Working pressure: 6 bar

Model	Code	Lower exchanger (solar)				Upper exchanger (integration)				Dimensions		Weight
		Power	Heating time	DHW production		Power	Heating time	DHW production		Diameter	Height	
				Continuous	First 10 min.			Continuous	First 10 min.			
		kW (1)	min. (2)	l/h (1)	l (1)	kW (1)	min. (3)	l/h (1)	l (1)	mm	mm	kg
BVXS 200	84100010	49	15	1.200	287	19	18	417	160	550	1.420	577
BVXS 300	84100011	55	17	1.367	264	19	20	417	250	650	1.460	667
BVXS 400	84100012	55	19	1.367	402	22	22	483	330	700	1.640	813
BVXS 500	84100013	83	18	2.055	558	45	20	980	450	700	1.900	1430
BVXS 600	84100014	83	21	2.055	650	45	23	980	540	800	2.130	1520
BVXS 800	84100016	96	20	2.364	1.422	49	24	1.048	645	1.000	2.050	1693
BVXS 1000	84100017	131	19	3.231	1.823	49	31	1.048	760	1.000	2.300	1808

Data referred to a single exchanger

(1) Primary temperature 80 - 70° C, secondary temperature 10 - 45° C, storage temperature 60° C

(2) Time needed to heat the calorifier water from 10 to 60° C

(3) Time needed to heat the upper calorifier water (40% of the total) from 10 to 60° C



AT

STAINLESS STEEL BUFFER VESSEL

For storage of DHW and suitable for the fitting of a removable u-tube heat exchanger available from 2.000 up to 10.000 lts.
An horizontal version is available upon request.

Material: stainless steel AISI 316L or AISI 304

Working pressure: 6, 8 or 10 bar

Model	Diameter	Height	Inlet	Outlet	Recirculation	Blow down	Manhole internal diameter	Manhole flange diameter
	mm	mm	in	in	in	in	mm	mm
AT 2000	1.100	2.450	2"	2"	1"1/4	2"	400	57
AT 2500	1.100	2.750	2"	2"	1"1/4	2"	400	66
AT 3000	1.250	2.765	2"	2"	1"1/4	2"	400	97
AT 4000	1.400	2.850	2" 1/2	2" 1/2	1"1/4	2"1/2	400	123
AT 5000	1.600	2.900	2" 1/2	2" 1/2	1"1/4	2"1/2	400	144
AT 8000	1.800	3.610	3"	3"	1" 1/2	3"	400	220
AT 10000	1.800	4.360	3"	3"	1" 1/2	3"	400	245



Coils for calorifiers

U-tube exchanger suitable for the production of hot water.
Primary medium hot water up to 100° C.

Material: stainless steel AISI 316L or AISI 304

Working pressure: 9 bar

Model	Heating Surface	Duty (1)	pipes internal diameter	pipes thickness	working pressure	inlet / outlet connections	Diameter	Length
	m ²	kW	mm	mm	bar	in	mm	mm
04	4	146	18	1	6	1" 1/4	480	720
05	5	182	18	1	6	1" 1/4	480	850
06	6	226	18	1	6	1" 1/4	480	950
07	7	260	18	1	6	1" 1/4	480	1.100
08	8	297	18	1	6	1" 1/4	480	1.250
09	9	347	18	1	6	1" 1/4	480	1.380
10	10	395	18	1	6	1" 1/4	480	1.520

(1) Calculated considering: production of domestic hot water, primary temperatures 80-70°C and storage temperature 60°C.



Insulation

RIGID INSULATION

70 mm thickness hard polyurethane slabs
Clad with a 0,8 mm thickness aluminium sheet
Supplied fitted
Available for tanks up to 5000 litres

SOFT INSULATION

50 mm thickness soft polyurethane slabs
SKAY type cladding
Tanks up to 5000 litres: supplied fitted
Tanks bigger than 5000 litres: shipped loose



Permanent cathodic protection

Electronic impressed-current titanium anode for permanent cathodic protection
Different from a magnesium anode, this system doesn't need a periodic check and it's not subjected to consumption
Ideal for the protection of storage tanks and water heaters using highly aggressive water

Compulsory for AISI 304 tanks
Advised for AISI 316 L tanks



INOX flanges

Available on request both AISI 304 and AISI 316L flanged connections from DN15 up to DN 200

Flanges PN6, PN 10 or PN16
UNI 2276/78

Electrical resistances

Electrical resistances are available on request

Material: stainless steel AISI 316L

Power: from 2000W up to 40 kW
Voltage: 220 or 380 V

Connections: screwed or flanged





AUTOMATICALLY FIRED

SC-SCV**BIOMASS FIRED BOILER**

SC-SCV boilers are designed for functional use of wood and other biomass such as chip, sawdust, blocks, nut shells, etc. For medium/high duties, the boiler can be equipped with an automatic feed system.

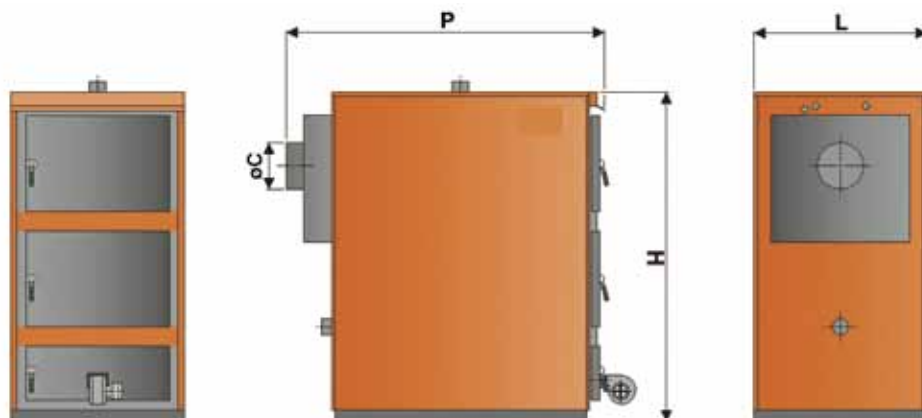
The boiler is available in two versions: SC version with thermostatic draught controller, and SCV with combustion air fan.

- Large combustion chamber volume and load capacity
- combustion chamber with 8 mm wall thickness to resist corrosion
- seamless tubes exchanger
- large heating surface for low flue gas temperature

Model	Heat output	Heat input	Pressure drop	Water side pressure drop	Water volume	DHW production	Dimensions	Ø C	Weight
	kW	kW	mbar	mbar	l	lt/min	(H x L x P mm)	mm	kg
SC-SCV 25	29,0	36,0	0,1	100	115	18	870 x 620 x 1220	194	320
SC-SCV 40	46,5	57,6	0,2	110	145	18	1030 x 620 x 1220	194	360
SC-SCV 60	69,8	86,2	0,3	120	200	25	1240 x 700 x 1440	220	550
SC-SCV 80	93,0	114,5	1,0	125	250	25	1490 x 700 x 1440	220	650
SC-SCV 100	116,3	142,3	1,1	125	390	30	1620 x 850 x 1520	250	950
SC-SCV 150	174,5	214,5	1,2	130	725	30	1920 x 1000 x 1860	250	1450
SC-SCV 200	232,6	286,0	1,5	135	980	30	2420 x 1000 x 1860	273	1800
SC-SCV 250	290,7	363,8	1,7	135	1250	30	2720 x 1000 x 1860	273	2000
SC-SCV 300	348,9	429,2	1,9	145	1650	30	2150 x 1200 x 2000	273	2250
SC-SCV 400	465,2	574,5	2,4	180	1800	30	2500 x 1200 x 2000	300	3000
SC-SCV 500	581,5	715,2	2,9	220	1950	30	2650 x 1300 x 2450	350	3600
SC-SCV 600	697,8	858,3	3,2	240	2250	30	3000 x 1300 x 2450	350	4100
SC-SCV 800	930,4	1144,4	3,7	330	3400	30	3300 x 1600 x 2700	400	4800
SC-SCV 1000	1163,0	1430,5	4,2	380	3950	30	3600 x 1600 x 2900	400	5500

Maximum working pressure: 2,5 bar for models 25-100; 2 bar for models 150-1000

Fuel: biomass

**Standard Equipment**

- outer casing with high density insulation
- draught controller (only SC)
- induced air fan (only SCV)
- ash box (up to SC/SCV 100)
- control and safety thermostats
- thermometer
- safety exchanger
- cleaning tool

Options**Remarks****For details**

Preparation for automatic feeder		Please contact ICI CALDAIE
Automatic feeder	1,5 – 3 – 8 m ³	Please contact ICI CALDAIE
Precombuster	Humidity up to 50%	Please contact ICI CALDAIE
Ciclón	Ash separator	Please contact ICI CALDAIE
Multiciclón	Ash separator	Please contact ICI CALDAIE



SP

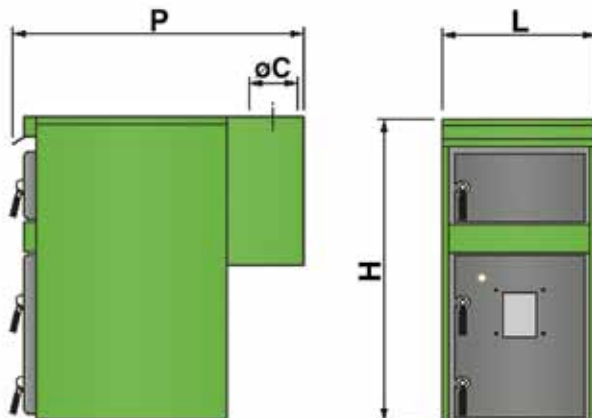
PELLET FIRED BOILER

The Series SP are automated wood pellet fired boilers, complying to norms EN12809 and EN303-5 second. They are constructed from a body boiler in steel, with a pressure jet burner, a control system and a system of feeding to stoker.

- three pass design to ensure good solid fuel combustion
- the cleaning of the boiler is facilitated from the two fast opening and closing front doors
- large volume for the accumulation of ashes.
- complete combustion assisted by the grate design ensuring no unburnt carbon in ash.
- pellet burner is specially designed for the application on the biomass boilers with a high performance centrifugal fan producing a horizontal flame like traditional burners.
- The pellet fuel is fed through an auger which can be operated on / off, high / low and is complete with electronic control system.
- The combustion air is supplied by a variable speed fan which adapts to the demand for power and requirement of combustion air to suit the supply of fuel from the stoker.

Model	Heat output		Heat input	Efficiency	Working pressure	Water volume	Dimensions	Weight	Ø C
	min	max							
	kW	kW	kW	%	bar	l	(H x L x P mm)	kg	mm
SP 25	12,5	25	27	91	3	120	1220 x 620 x 915	320	150
SP 35	20	34,5	38	91	3	120	1220 x 620 x 915	320	150
SP 50	25	50	55	91	3	150	1220 x 620 x 1075	380	180
SP 65	30	65	71	91	3	200	1500 x 700 x 1350	600	200
SP 100	50	100	110	91	3	250	1500 x 700 x 1550	650	200

Higher output up to 350 kW available on request.



Standard Equipment

- outer casing with high density insulation
- Pellet Burner
- Electronic Controller
- Stoker with servomotor
- Stainless Steel Grate
- Pellet Hopper of 220 kg capacity

Tiroir cendre

Code

Ash box

Programmer for burner ignition

Kit for operation on wood chip

Safety exchanger



Condensing Range

- .42 Condensing boilers**
Series: WALL
 - .46 Single pass boilers**
Series: MONOLITE
 - .48 Condensing range, 3 pass boiler**
Series: CODEX
 - .49 Reverse flame boilers**
Series: STELT / STELT DUAL
 - .51 Three-pass boilers with condenser**
Series: GREENOx BT COND
 - .52 Accessories**
Control panels
-



WALL

MODULAR CONDENSING BOILER FOR OUTSIDE INSTALLATION – PREMIX BURNER

The WALL series are hot water condensing boilers specially designed for modular use. Each module consists of a 125 or 150 kW boiler with single pass combustion chamber and condensing section underneath, both constructed from AISI 316 L anti-acid stainless steel. Combustion of each module is provided by a total premix burner. Up to 4 modules can be joined together for a maximum output of 600 kW.

- very low NOx and noise level
- high water volume
- boiler sequence and weather compensation function
- fully packaged unit complete with hydraulic & gas headers, control and safety devices
- gas/water outlet side is selectable (to be specified on the order)
- external stainless steel casing for outside installation
- twin water return

Model	Boiler Code	Output		Input	Efficiency			Pressure Drop	Dimensions	Ø C	Weight
		70°C*	50-30°C**		70°C*	50-30°C**	50-30°C**				
		kW	kW	kW	100%	100%	30%	mbar	(H x L x P mm)	mm	kg
UNASSEMBLED KIT VERSION											
WALL 125	81029125	113	124	115	98,3	107,5	109	2,4	1265 x 795 x 1975	125	250
WALL 150	81029150	137	150	140	98,3	107,5	109	3,4	1265 x 795 x 1975	125	250
WALL 250	81029250	227	248	231	98,3	107,5	109	2,4	1265 x 1368 x 1975	250	500
WALL 300	81029300	274	300	279	98,3	107,5	109	3,4	1265 x 1368 x 1975	250	500
WALL 375	81029375	340	372	346	98,3	107,5	109	2,4	1265 x 1946 x 1975	250	750
WALL 450	81029450	412	450	419	98,3	107,5	109	3,4	1265 x 1946 x 1975	250	750
WALL 500	81029500	454	496	461	98,3	107,5	109	2,4	1265 x 2523 x 1975	250	1000
WALL 600	81029600	549	600	558	98,3	107,5	109	3,4	1265 x 2523 x 1975	250	1000
SKID MOUNTED VERSION											
WALL 125 M	81029126	113	124	115	98,3	107,5	109	2,4	1335 x 795 x 1975	125	335
WALL 150 M	81029151	137	150	140	98,3	107,5	109	3,4	1335 x 795 x 1975	125	335
WALL 250 M	81029251	227	248	231	98,3	107,5	109	2,4	1335 x 1368 x 1975	250	660
WALL 300 M	81029301	274	300	279	98,3	107,5	109	3,4	1335 x 1368 x 1975	250	660
WALL 375 M	81029376	340	372	346	98,3	107,5	109	2,4	1335 x 1946 x 1975	250	985
WALL 450 M	81029451	412	450	419	98,3	107,5	109	3,4	1335 x 1946 x 1975	250	985
WALL 500 M	81029501	454	496	461	98,3	107,5	109	2,4	1335 x 2523 x 1975	250	1300
WALL 600 M	81029601	549	600	558	98,3	107,5	109	3,4	1335 x 2523 x 1975	250	1300

Maximum working pressure: 4 bar

Fuel: natural gas or LPG

No minimal return water temperature required

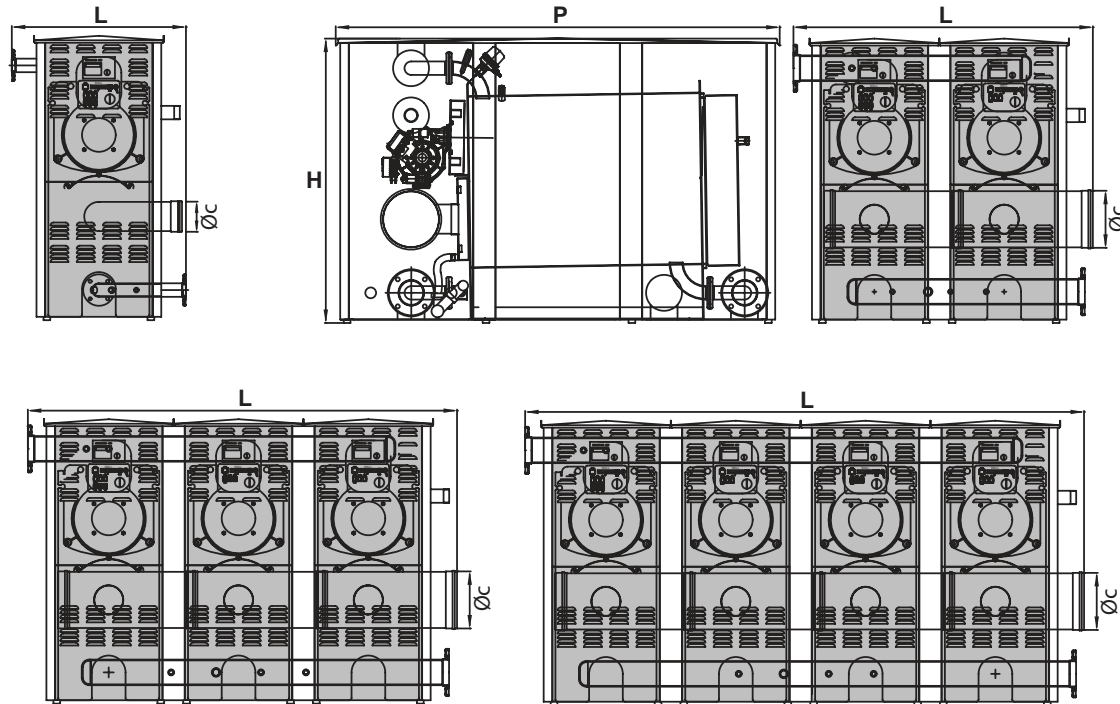
* Average temperature - ** Flow and return temperature

Options

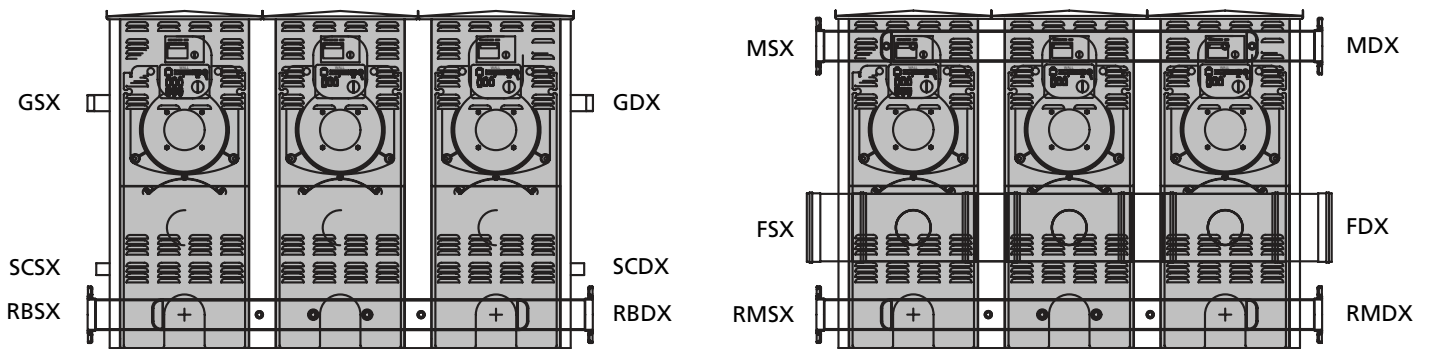
Code

CASING WITH INSULATION	WL-15031
SKID FOR UNASSEMBLED KIT VERSION WALL 250-300	94070086
SKID FOR UNASSEMBLED KIT VERSION WALL 375- 450	94070087
SKID FOR UNASSEMBLED KIT VERSION WALL 500-600	94070088
Acid condense neutralizer	81020001

Technical drawings



When placing your order, be sure to specify the side of the following headers: gas, flues, hydraulic (flow and return) and condensate drain.

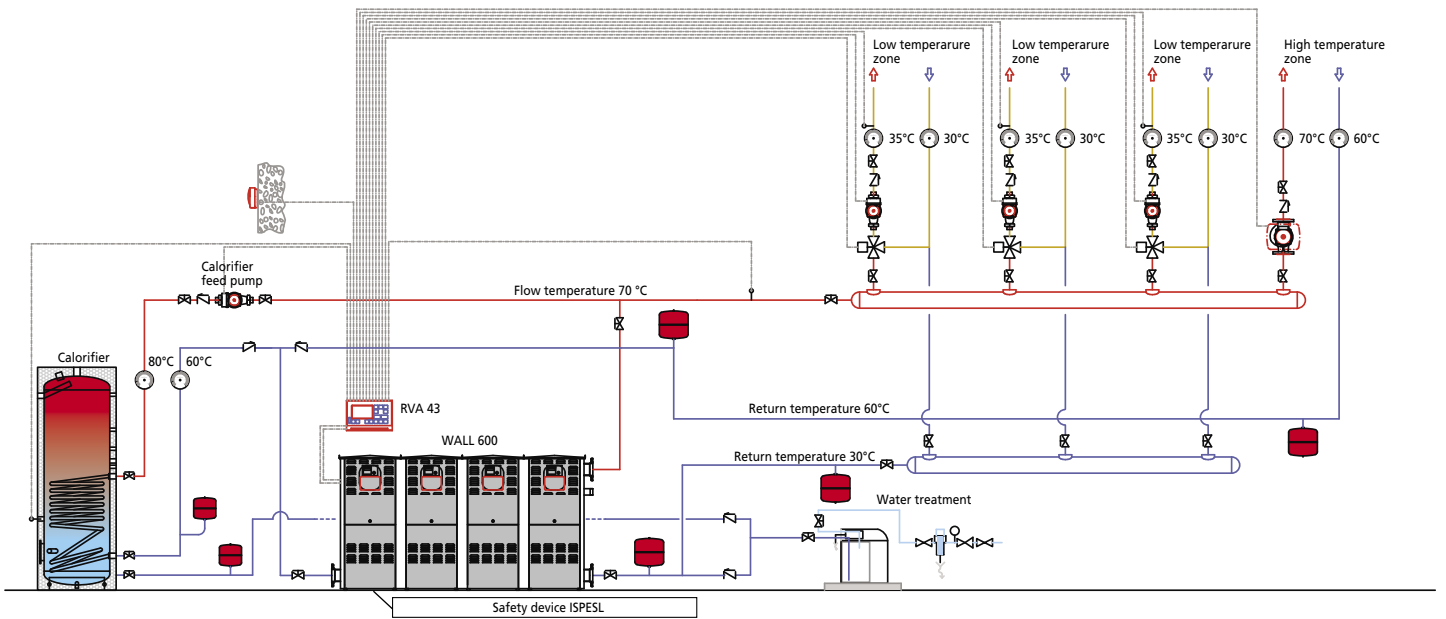


Legend:

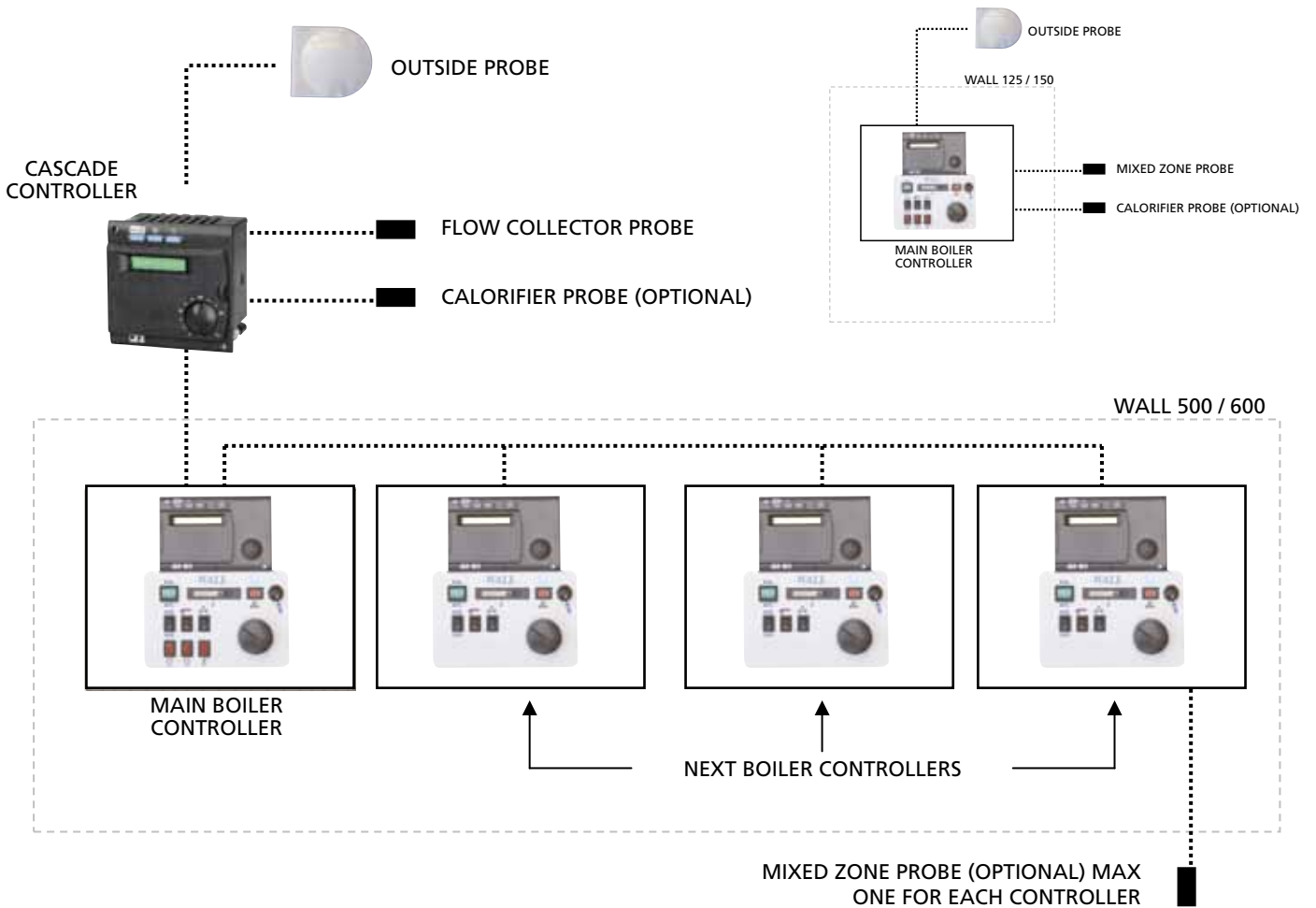
GSX = Gas left
 GDX = Gas right
 SCSX = Condensate drain left
 SCDX = Condensate drain right
 RBSX = Low temperature return left

RBDX = Low temperature return right
 MSX = Flow left
 MDX = Flow right
 FSX = Flues left
 FDX = Flues right

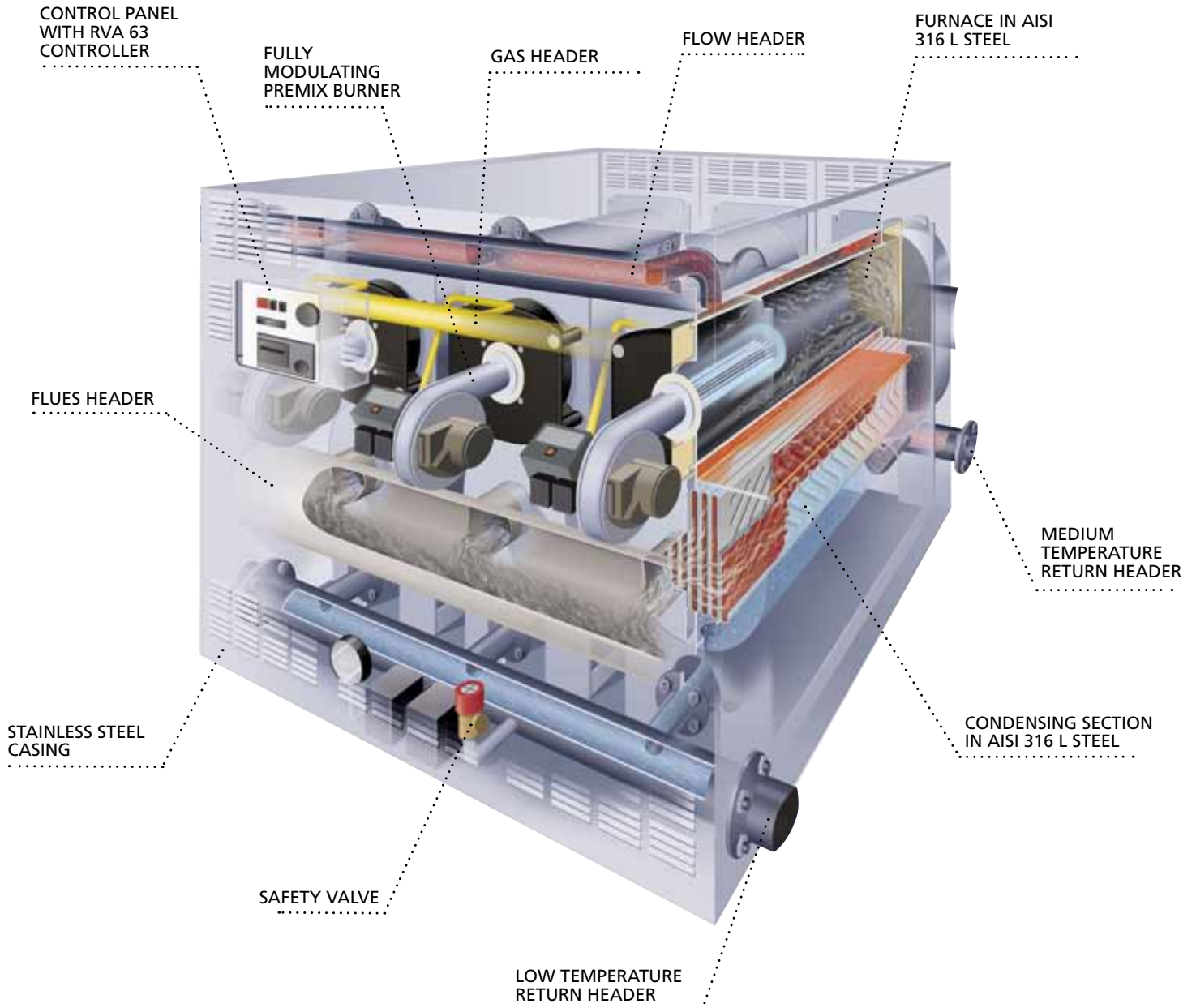
Plant diagram



SINGLE OR CASCADE BOILER CONTROL



WALL



Standard Equipment

- outer casing with high density insulation
- control panel with RVA 63 for each module with possibility to control:
 - one direct or mixed heating circuit
 - one DHW circuit
- cascade master controller RVA 43 (for models 300, 450 and 600)
- premix burner
- hydraulic headers (flow, return, condensate drain)
- gas header
- flue header
- safety accessories



SUITABLE FOR PRESSURE JET BURNERS

MONOLITE JB

CONDENSING BOILER

The MONOLITE JB has a very high efficiency (max. 109%) which places it at the peak of the classification according to European standards (Output Directive 92/42/EEC). The AISI 316 Ti furnace and vertical flues are capable of resisting attacks from acidic condensation.

The boiler may operate with any kind of pressure jet gas burners, always ensuring the highest performance, which is provided by:

- recovery of the latent heat by condensation of the water vapour present in the flue gases;
- extremely low flue temperature, equal to that of the return water plus about 10°C;
- reduction to a minimum of heat loss through the boiler casing, as the boiler may operate regularly alternating total off-periods without limits, below the water temperature.
- twin water return

Model	Boiler Code	Output		Input	Efficiency		Pressure Drop	Burner blast tube length	Burner hole Ø	Water side pressure drop	Water vol.	Dimensions	Weight	Ø C
		70°C*	50-30°C**		70°C*	50-30°C**								
		kW	kW	kW	100%	30%	mbar	mm	mm	mbar	l	(H x L x P mm)	kg	mm
MONOLITE 75 JB	81020076	87	95	88	98,3	109	0,8	150-200	150	8	150	1825 x 936 x 990	220	150
MONOLITE 95 JB	81020096	110	120	112	98,3	109	1,0	150-200	150	12	210	1825 x 963 x 1330	280	180
MONOLITE 125 JB	81020126	145	158	147	98,3	109	1,1	150-200	150	22	200	1825 x 963 x 1330	320	180
MONOLITE 160 JB	81020160	186	203	189	98,3	109	1,5	150-200	180	12	308	2151 x 1060 x 1550	520	200
MONOLITE 210 JB	81020210	244	266	248	98,3	109	2,0	150-200	180	22	285	2151 x 1060 x 1550	590	200
MONOLITE 270 JB	81020270	313	343	319	98,3	109	2,1	150-200	180	16	340	2200 x 1060 x 1801	680	200
MONOLITE 350 JB	81020350	406	445	414	98,3	109	2,3	150-200	225	11	392	2310 x 1198 x 1817	1030	250
MONOLITE 440 JB	81020440	511	559	520	98,3	109	2,5	150-200	225	17	560	2310 x 1198 x 2331	1230	250
MONOLITE 550 JB	81020550	639	699	650	98,3	109	2,7	150-200	225	27	523	2310 x 1198 x 2331	1270	250
MONOLITE 610 JB	81020610	709	775	721	98,3	109	3,4	150-200	225	34	523	2310 x 1198 x 2331	1270	250
MONOLITE 670 JB	81020670	779	851	792	98,3	109	4,1	150-200	225	41	523	2310 x 1198 x 2331	1270	250

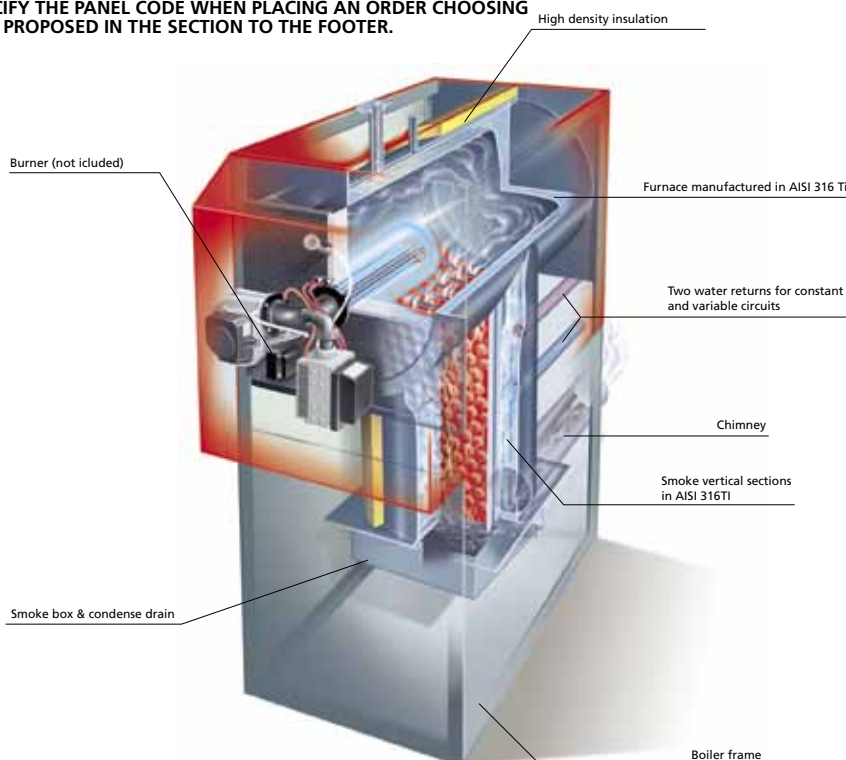
Maximum working pressure: 5 bar

Fuel: natural gas or LPG

No minimal return water temperature required

* Average temperature - ** Flow and return temperature

ATTENTION: THE CONTROL PANEL IS SOLD SEPARATELY FROM BOILER. ALWAYS SPECIFY THE PANEL CODE WHEN PLACING AN ORDER CHOOSING FROM THOSE PROPOSED IN THE SECTION TO THE FOOTER.



Standard equipment

- Outer casing with high density insulation



WITH PREMIX BURNER

EFFICIENCY
★★★★

MONOLITE GT

CONDENSING BOILER

The MONOLITE GT has a very high efficiency (max. 109%) which places it at the peak of the classification according to European standards (Output Directive 92/42/EEC). The AISI 316 Ti furnace and vertical flues are capable of resisting attacks from acidic condensation.

The boiler is already equipped with a fully modulating premix burner, thus ensuring the highest performance, which is provided by:

- recovery of the latent heat by condensation of the water vapour present in the flue gases;
- extremely low flue temperature, equal to that of the return water plus about 10°C;
- reduction to a minimum of heat loss through the boiler casing, as the boiler may operate regularly alternating total off-periods without limits, below the water temperature;
- twin water return
- very low NOx and noise level.

Model	Boiler Code	Output		Input	Efficiency			Pressure Drop	Dimensions	Ø C	Weight
		70°C*	50-30°C**		70°C*	50-30°C**	50-30°C**				
		kW	kW	kW	100%	100%	30%	mbar	(H x L x P mm)	mm	kg
MONOLITE 45 GT	81020047	52	57	53	98,3	107,5	109	0,6	1825 x 936 x 1267	150	200
MONOLITE 70 GT	81020070	81	88	82	98,3	107,5	109	0,8	1825 x 936 x 1267	150	220
MONOLITE 95 GT	81020097	110	120	112	98,3	107,5	109	1,0	1825 x 963 x 1607	180	280
MONOLITE 125 GT	81020127	145	158	147	98,3	107,5	109	1,1	1825 x 963 x 1607	180	320

Maximum working pressure: 5 bar

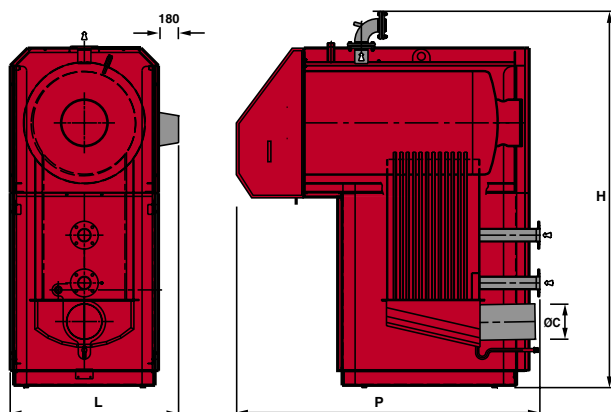
Fuel: natural gas or LPG

No minimal return water temperature required

* Average temperature - ** Flow and return temperature



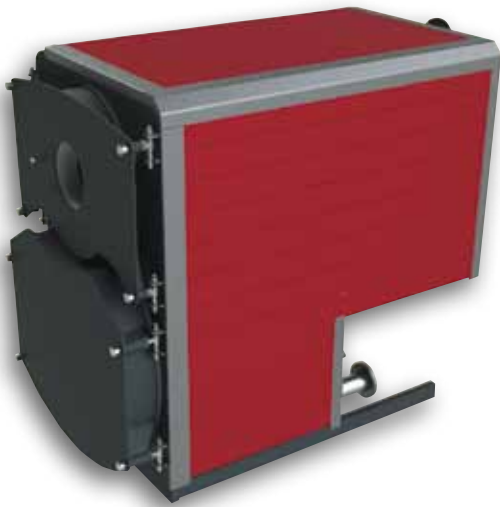
ATTENTION: THE CONTROL PANEL IS SOLD SEPARATELY FROM BOILER. ALWAYS SPECIFY THE PANEL CODE WHEN PLACING AN ORDER CHOOSING FROM THOSE PROPOSED IN THE SECTION TO THE FOOTER.



Standard equipment

- Outer casing with high density insulation

Control Panel and Optional	Code	For details see
Thermostatic control panel	QC1ELM	Page 56
Control panel with digital controller RVA 43 for on/off and high/low burners	QCLI4301	Page 52
Control panel with digital controller RVA 63 for modulating burners	QCLI6301	Page 52
Calorifier sensor for controllers RVA	17120078	Page 52
Volt free kit	KITDO01	Page 54
Acid condense neutralizer	81020001	Page 54



CODEX

CONDENSING BOILER – STAINLESS STEEL AISI 316 Ti 3 PASS BOILER

3 pass condensing steel boiler with single pass combustion chamber and with low heat load, suitable for pressure jet burners.

Combustion chamber and condensing section underneath both constructed in titanium stainless steel **AISI 316 Ti**.

The Codex has a very high efficiency (max 109%) for the particular shape of gas plates which allow to obtain high exchange surfaces and turbulence of gasses.

This boiler is designed for single or modular use.

Reversible door opening heat insulated with ceramic fiber,

The outer casing is completely isolated with high density rockwool.

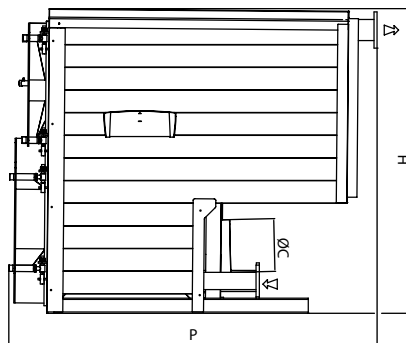
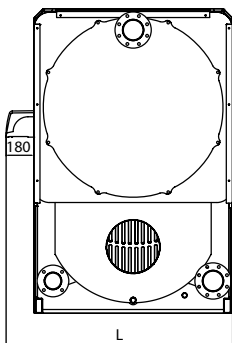
Model	Boiler Code	Output		Input	Efficiency			Efficiency 30%	Water side	Water side pressure drop	Water Volume	Weight	Dimensions			
		70°C*	50/30°C**		70°C*	50/30°C**	50/30°C**						H	L	P	Øc
		kW	kW		kW	%	%						%	mm	mm	mm
CODEX 600	81022060	549	600	558	98,3	107,5	108,5	2,1	5	1191	1360	1907	1357	1948	350	
CODEX 800	81022080	732	800	744	98,3	107,5	108,5	3,7	5	1191	1360	1907	1357	1948	350	
CODEX 1000	81022100	914	1000	930	98,3	107,5	108,5	4,2	5	1900	1776	1995	1487	2443	350	
CODEX 1200	81022120	1097	1200	1116	98,3	107,5	108,5	6,2	5	1900	1776	1995	1487	2443	350	
CODEX 1400	81022140	1280	1400	1302	98,3	107,5	108,5	8,3	5	1828	1850	2140	1567	2437	400	
CODEX 1600	81022160	1463	1600	1488	98,3	107,5	108,5	10,8	5	1828	1850	2140	1567	2437	400	

Maximum working pressure: 5 bar

* Average temperature - ** Flow and return temperature



ATTENTION: THE CONTROL PANEL IS SOLD SEPARATELY FROM BOILER. ALWAYS SPECIFY THE PANEL CODE WHEN PLACING AN ORDER CHOOSING FROM THOSE PROPOSED IN THE SECTION TO THE FOOTER.



Standard equipment

- Outer casing high density insulation

Control Panel and Optional	Code	For details see
Thermostatic control panel	QC1ELM	Page 56
Control panel with digital controller RVA 43 for on/off and high/low burners	QCLI4301	Page 52
Control panel with digital controller RVA 63 for modulating burners	QCLI6301	Page 52
Calorifier sensor for controllers RVA	17120078	Page 52
Volt free kit	KITDO01	Page 54
Acid condense neutralizer	81020001	Page 54

EFFICIENCY
★★★★★



STELT CONDENSING BOILER

STELT is a commercial hot water condensing boiler for single or modular use. Small dimensions, high water content and very high efficiency (up to 107%) are the main features of this boiler. STELT is an ICI CALDAIE patented condensing boiler that allows the new technology of condensing to be easily utilised on a new or existing heating circuit. The furnace, the boiler shell and the horizontal flue sections are fully manufactured in titanium stainless steel AISI 316 Ti.

- recovery of the latent heat by condensation of the water vapour present in the flue gases;
- extremely low flue temperature, equal to that of the return water plus about 15°C;
- twin water return.

Model	Boiler Code	Output		Input	Efficiency		Pressure Drop	Burner blast tube length	Burner hole Ø	Water side pressure drop	Water vol.	Dimensions	Weight	Ø C
		70°C*	50-30°C**		70°C*	50-30°C**								
		kW	kW	kW	100%	30%	mbar	mm	mm	mbar	l	(H x L x P mm)	kg	mm
STELT 75	81026201	68,6	75	69,8	98,3	108,5	0,7	150-250	130	5	97	1190 x 773 x 1155	170	150
STELT 90	81026202	82,3	90	83,7	98,3	108,5	0,9	150-250	130	7	97	1190 x 773 x 1155	170	150
STELT 120	81026203	110,2	120	112,2	98,3	108,5	1,5	150-250	130	13	97	1190 x 773 x 1155	170	150
STELT 160	81026302	147,0	160	149,5	98,3	108,5	2,5	150-250	145	22	112	1290 x 873 x 1155	205	180
STELT 220	81026402	201,2	220	204,7	98,3	108,5	2,5	150-250	145	41	149	1290 x 873 x 1410	220	180
STELT 270	81026502	246,9	270	251,2	98,3	108,5	1,6	170-250	180	22	230	1290 x 1003 x 1463	330	200
STELT 320	81026503	294,0	320	299,1	98,3	108,5	2,5	170-250	180	31	230	1290 x 1003 x 1463	330	200

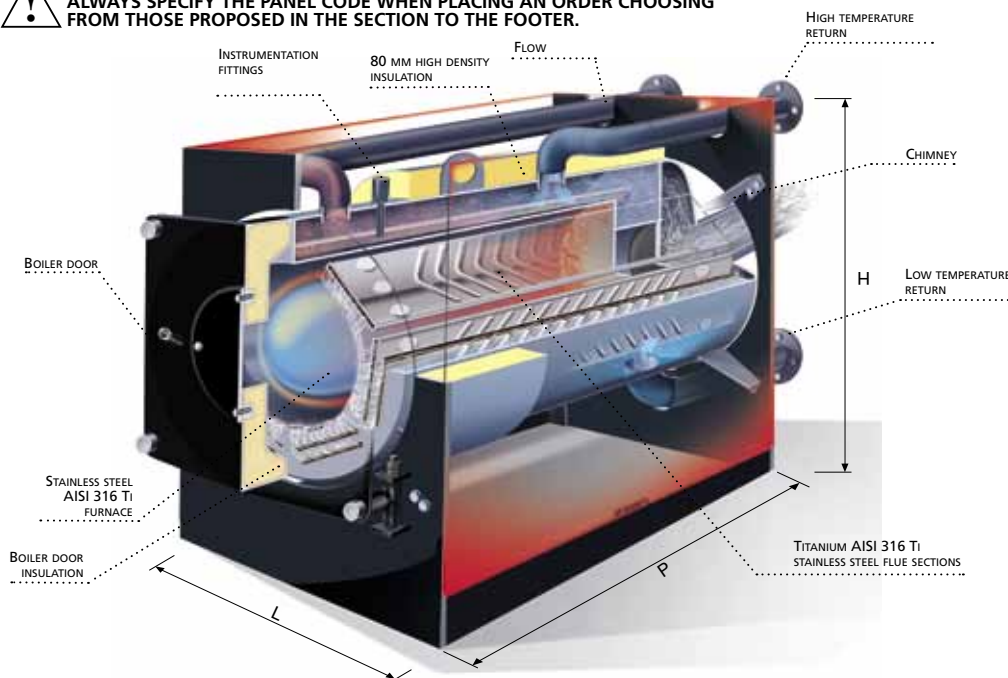
Maximum working pressure: 5 bar

Fuel: natural gas or LPG

No minimal return water temperature required

* Average temperature - ** Flow and return temperature

ATTENTION: THE CONTROL PANEL IS SOLD SEPARATELY FROM BOILER. ALWAYS SPECIFY THE PANEL CODE WHEN PLACING AN ORDER CHOOSING FROM THOSE PROPOSED IN THE SECTION TO THE FOOTER.



Standard equipment

- Outer casing with high density insulation

Control Panel and Optional	Code	For details see
Thermostatic control panel	QC1ELM	Page 56
Control panel with digital controller RVA 43 for on/off and high/low burners	QCLI4301	Page 52
Control panel with digital controller RVA 63 for modulating burners	QCLI6301	Page 52
Calorifier sensor for controllers RVA	17120078	Page 52
Volt free kit	KITDO01	Page 54
Acid condense neutralizer	81020001	Page 54



STACKED MODULES

EFFICIENCY
★★★★

STELT DUAL

CONDENSING BOILER

Owing to its slim design, the STELT DUAL boiler can be installed in the most plant rooms, particularly where the access is a problem. High water content and the twin water return, allow an easy installation for every plant application. New condensing technology can be used on the traditional heating circuits as well (radiators, heating fan coils, etc.) increasing the efficiency up to 107%.

With the same characteristics of the STELT boiler, the STELT DUAL boiler additionally features:

- high working flexibility to face variable heat demand
- high reliability against boiler failure (half power is always guaranteed in case one module fails)
- the digital sequencer (optional) mounted inside the control panel allows intelligent management of two high/low burners

Model	Boiler Code	Output		Input	Efficiency		Pressure Drop	Burner blast tube length	Burner hole Ø	Water side pressure drop	Water vol.	Dimensions	Weight	Ø C
		70°C*	50-30°C**		70°C*	50-30°C**								
		kW	kW	kW	100%	30%	mbar	mm	mm	mbar	l	(H x L x P mm)	kg	mm
STELT DUAL 150	81026207	137,8	150	140,2	98,3	107,0	0,7	150-250	130	8	194	2004 x 941 x 1642	360	150
STELT DUAL 180	81026205	165,4	180	168,2	98,3	107,0	0,9	150-250	130	10	194	2004 x 941 x 1642	360	150
STELT DUAL 240	81026206	222,6	240	226,4	98,3	106,0	1,5	150-250	130	19	194	2004 x 941 x 1642	360	150
STELT DUAL 320	81026305	299,6	320	304,8	98,3	105,0	2,5	150-250	145	33	224	2204 x 991 x 1647	435	180
STELT DUAL 440	81026405	404,2	440	411,2	98,3	107,0	2,5	150-250	145	62	298	2204 x 991 x 1982	465	180
STELT DUAL 540	81026505	496,1	540	504,7	98,3	107,0	1,6	170-250	180	33	460	2204 x 1274 x 1996	690	200
STELT DUAL 640	81026506	588,0	640	598,1	98,3	107,0	2,5	170-250	180	47	460	2204 x 1274 x 1996	690	200

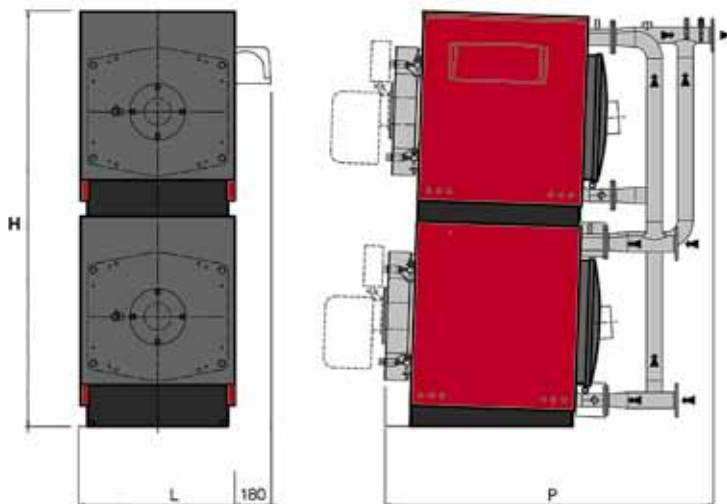
Maximum working pressure: 5 bar

Fuel: natural gas or LPG

No minimal return water temperature required

* Average temperature - ** Flow and return temperature

ATTENTION: THE CONTROL PANEL IS SOLD SEPARATELY FROM BOILER. ALWAYS SPECIFY THE PANEL CODE WHEN PLACING AN ORDER CHOOSING FROM THOSE PROPOSED IN THE SECTION TO THE FOOTER.



Standard equipment

- Outer casing with high density insulation
- Pipe-work manifold and headers

Control Panel and Optional	Code	For details see
Thermostatic control panel	QC1ELMD	Page 56
Digital sequencer control panel	31020012	Page 54
Outside probe	17090038	Page 54
Acid condense neutralizer	81020001	Page 54

EFFICIENCY
★★★★

GREENOX BT COND

THREE PASS WET BACK WITH CONDENSER



These boilers are fitted with double skin third pass gas tubes which the boiler to operate with a return water temperature of 35 °C. Owing to the low water temperature in the boiler and the particular shape of the flue gas passages inner surfaces, the flue gases exiting from the outlet of the boiler pass into a flue gas condenser installed downstream of the boiler, where the temperature of the gases drop below dew point. The droplets of condensate are then conveyed into the specially inclined flue ways, in order to drain. The stainless steel AISI 316 Ti horizontal gas passes are characterized by tapered projecting parts obtained from a pressed plate heat exchanger. The inner surface has a particular corrugated shape capable of transmitting both sensible heat (due to the fall in the flue gas temperature) and latent heat

Model	Boiler Code	Output		Input	Efficiency 100%		Efficiency 30%	Water side pressure drop	Dimensions (H x L x P mm)	Weight kg	Ø C mm
		70°C*	50-30°C**		70°C*	50-30°C**	50-30°C**				
		kW	kW	kW	%	%	%	mbar			
GREENOX BT COND 180	83081850	1646	1800	1674	98,3	107,5	109	8,0	2288 x 1640 x 4180	5560	400
GREENOX BT COND 200	83082050	1829	2000	1860	98,3	107,5	109	9,5	2288 x 1640 x 4180	5560	400
GREENOX BT COND 230	83082350	2103	2300	2140	98,3	107,5	109	10,0	2288 x 1640 x 4180	5560	400
GREENOX BT COND 260	83082650	2377	2600	2419	98,3	107,5	109	14,0	2394 x 1640 x 4680	5835	500
GREENOX BT COND 300	83083050	2743	3000	2791	98,3	107,5	109	15,0	2394 x 1640 x 4680	5835	500

Maximum working pressure: 5 bar

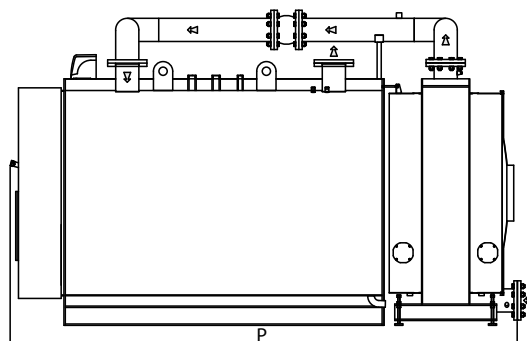
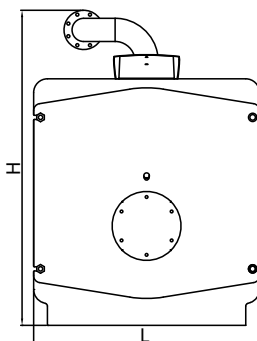
Fuel: natural gas or LPG

Minimal return water temperature required 35° C

* Average temperature - ** Flow and return temperature



ATTENTION: THE CONTROL PANEL IS SOLD SEPARATELY FROM BOILER. ALWAYS SPECIFY THE PANEL CODE WHEN PLACING AN ORDER CHOOSING FROM THOSE PROPOSED IN THE SECTION TO THE FOOTER.



Standard equipment

- Outer casing with high density insulation

Control Panel and Optional	Code	For details see
Thermostatic control panel	QA1BTELM	Page 56
Control panel with digital controller RVA 43 for on/off and high/low burners	QCLI4301	Page 52
Control panel with digital controller RVA 63 for modulating burners	QCLI6301	Page 52
Calorifier sensor for controllers RVA	17120078	Page 52
Volt free kit	KITDO01	Page 54
Acid condense neutralizer	81020001	Page 54



Digital controller control panel RVA43/RVA63

Standard equipment:

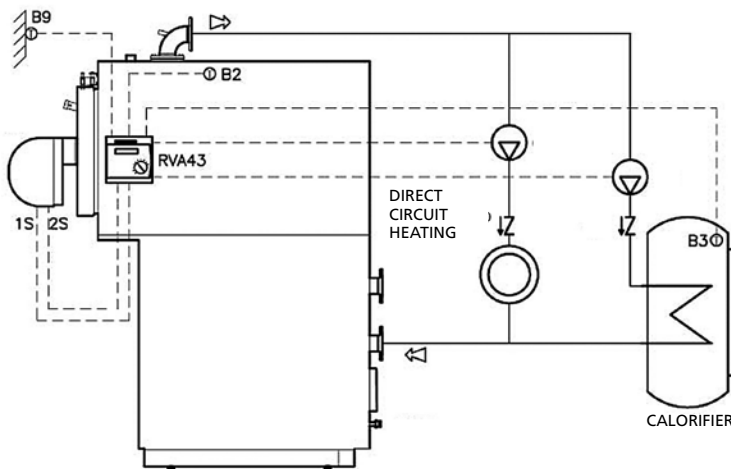
- Digital controller RVA 43
- 2 control thermostats
- 1 safety limit thermostat
- 1 thermometer
- 1 low limit thermostat
- 1 main on/off switch
- 1 burner on/off switch
- 1 heating circuit pump on/off switch
- 1 calorifier pump on/off switch
- 1 switch automatic/manual setting
- 1 boiler sensor
- 1 outside sensor



FUNCTIONS OF THE CONTROLLERS

FUNCTIONS	RVA43	RVA63
High/low burner control	■	
High/low progressive burner control	■	■
Modulating burner control		■
Cascade control as master unit	■	
Direct heating circuit control	■*	■
	■	■
Mixed heating circuit control		■
Weather-compensated temperature control	■	■
Automatic adjustable heating curve	■	■
Automatic winter/summer commutation	■	■
Daily heating programs available	■	■
Minimum burner running time	■	■
Pump overrun	■	■
Pump seizure protection	■	■
Frost protection	■	■

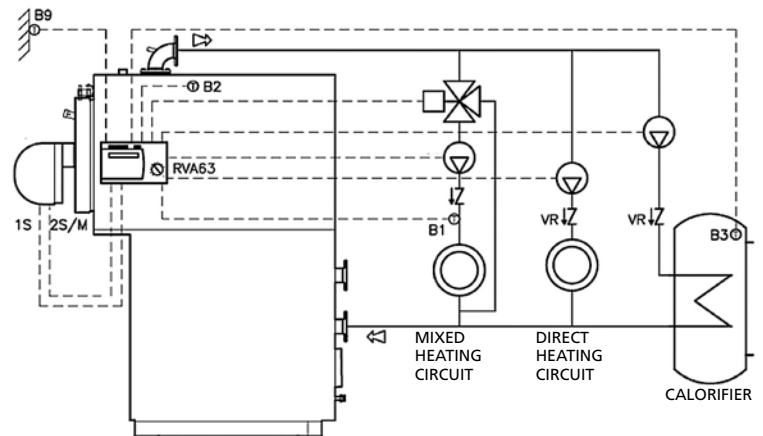
* Not when master



RVA 43 Controller



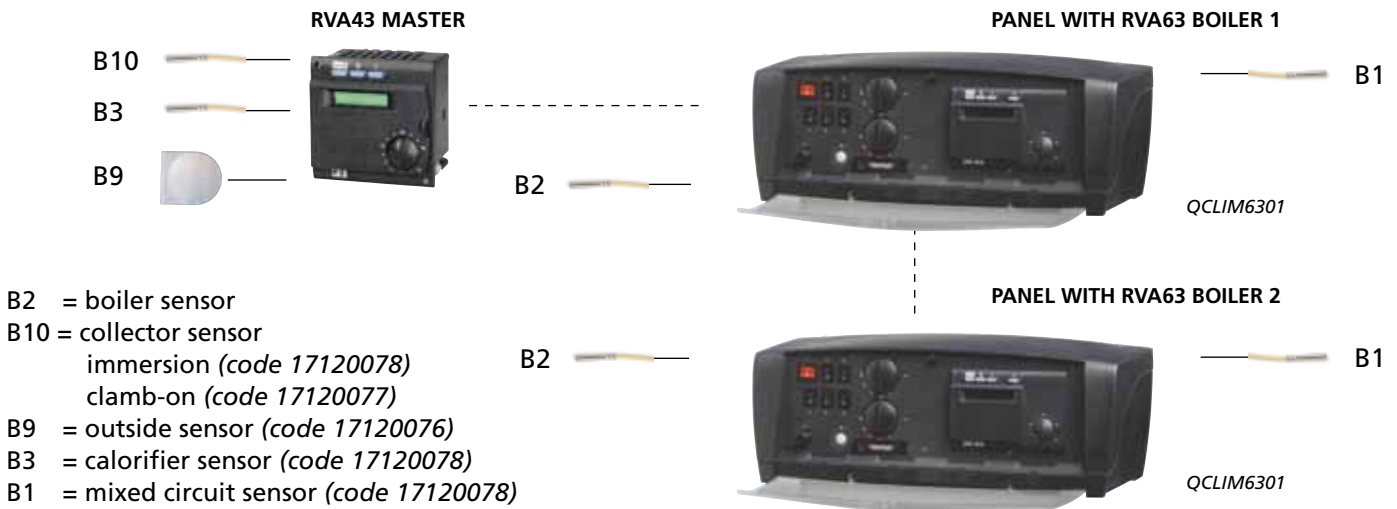
RVA 63 Controller



Description	Note	Code
RVA 43 controller control panel	For any boiler with high/low burner	QCLI4301
RVA 63 controller control panel	For any boiler with modulating burner	QCLI6301
RVA 43 controller		17120070
RVA 63 controller		17120071
Immersion calorifier sensor	Suitable only for controllers RVA 43 and RVA 63	17120078
Immersion boiler sensor	Suitable only for controllers RVA 43 and RVA 63	17120078
Immersion collector sensor	Suitable only for controllers RVA 43 and RVA 63	17120078
Clamb-on collector sensor	Suitable only for controllers RVA 43 and RVA 63	17120077
Outside sensor	Suitable only for controllers RVA 43 and RVA 63	17120076
Room sensor	Suitable only for controllers RVA 43 and RVA 63	17120079

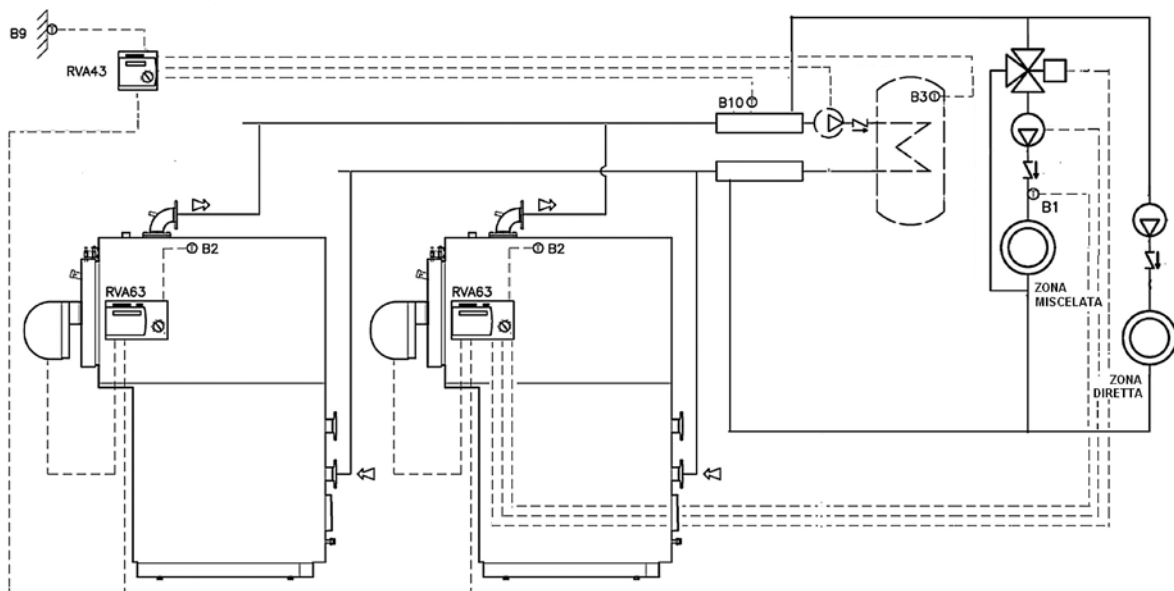
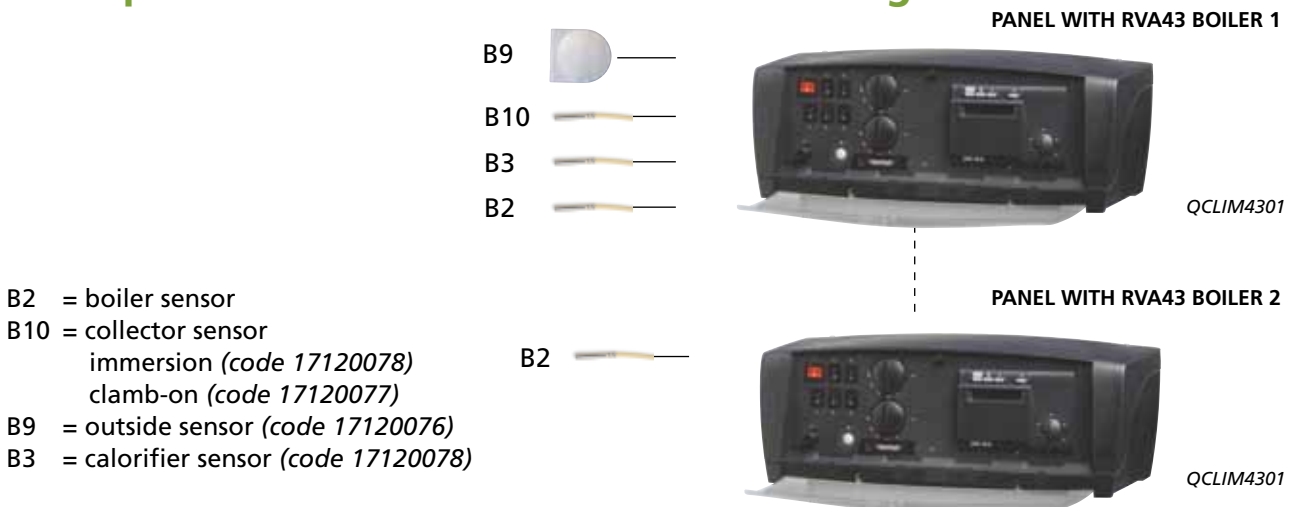
The correct working is guarantee with original items only

Example of boiler cascade control with progressive or modulating burners



The digital controller control panels are inclusive of boiler sensor and outside sensor; in case of cascade control, only one outside sensor is used; collector sensor and calorifier/mixed circuit sensors must be ordered separately.

Example of boiler cascade control with high/low burners

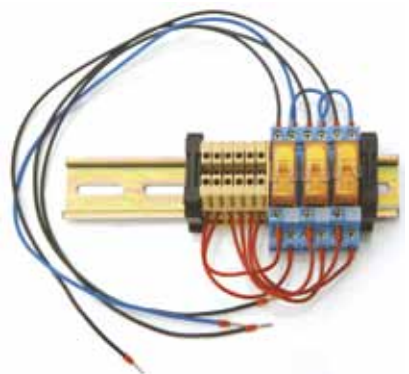




Climatic control panel for modular boilers

The climatic control panel for modular boilers manages the high level performance of the burner's stages and the variable temperature function when an outside probe is fitted

Description	Note	Code
Digital sequencer control panel	For boilers REX DUAL - DUAL BT - STELT DUAL	31020012
Outside sensor	To be used only with digital sequencer	17090038



Volt Free Kit

This kit, to be fitted to control panel, complete with relays and plugs, supplies 3 contacts for remote signals

Description	Note	Code
Volt Free Kit	For all boilers with standard control panel	KITDO01



Acid condensate neutralizer

To complete the equipment of the condensing boilers ICI caldaie offers acid condensate neutralizer kit. The kit is supplied in two models, standard or with pump.

Description	Notes	Code
Acid condensate neutralizer	For boiler output <800 kW	81020001
Acid condensate neutralizer with pump	For boiler output >800 kW	81020002



Wieland plugs and cables

Boiler / burner wiring is made quick and safe by means of Wieland plugs supplied with this kit. The burner must be provided with Wieland plugs

Description	Notes	Code
Wieland plugs and cables		90050040

Thermostatic control panel for individual Generator of Commercial Range

Control panel complete with:

- 1 main switch
- 2 boiler control thermostats
- 1 safety limit thermostat- manual reset
- 1 pump thermostat
- 1 burner on-off switch
- 1 pump on-off switch
- 1 boiler thermometer

Description	Note	Code
Thermostatic control panel	For GREENOX.E, REX, REX K, REX F, REX K F	QAC10ELM

Control panel complete with:

- 1 main switch
- 1 boiler control thermostats
- 1 safety limit thermostat- manual reset
- 1 pump thermostat
- 1 burner on-off switch
- 1 pump on-off switch
- 1 boiler thermometer
- 1 pump overrun thermostat

Description	Note	Code
Thermostatic control panel	For BLUNOX.e	QB1ELM

Control panel complete with:

- 1 main switch
- 1 boiler control thermostat
- 1 safety limit thermostat - manual reset
- 1 pump thermostat
- 1 Pump overrun thermostat
- 1 calorifier control thermostat
- 1 d.h.w. thermostat
- 1 burner on-off switch
- 1 pump on-off switch
- 1 calorifier pump on/off switch
- 1 boiler thermometer

Description	Note	Code
Thermostatic control panel	For BLUNOX.e B	QB1BELM

Thermostatic control panel for DUAL Generator of Commercial Range

Control panel complete with:

- 2 boiler control/high limit thermostats for the two high/low burners
- 2 safety limit thermostats
- 2 burner on/off switches
- 2 pump thermostats
- 2 boiler thermometers
- 1 pump on/off switch
- 2 hours run meters

Description	Note	Code
Thermostatic control panel	For REX DUAL, REX DUAL F	QA1ELMD



Thermostatic control panel for individual Generator of Condensing Range

Control panel complete with:

- 1 main switch
- 2 control thermostats
- 1 safety limit thermostat – manual reset
- 1 pump thermostat
- 1 burner on/off switch
- 1 pump on/off switch
- 1 boiler thermometer

Description	Note	Code
Thermostatic control panel	For MONOLITE JB, MONOLITE GT, CODEX, STELT	QC1ELM

Control panel complete with:

- 1 power supply light
- 2 control thermostats
- 1 safety limit thermostats – manual reset
- 1 pump thermostat
- 1 burner on/off switch
- 1 pump on/off switch
- 1 boiler thermometer

Description	Note	Code
Thermostatic control panel	For GREENOX BT COND	QA1BTELM

Thermostatic control panel for DUAL Generator of Condensing Range

Control panel complete with:

- 2 boiler control/high limit thermostats for the two high/low burners
- 2 safety limit thermostats manual reset
- 2 burner on/off switches
- 2 boiler thermometers
- 1 pump on/of switch

Description	Note	Code
Thermostatic control panel	For STELT DUAL	QC1ELMD



Industrial Range

- .63 Steam plant overview Serie: FLASH**
 - .64 Steam generator Serie: FX**
 - .66 Steam boiler Series: BX / SIXEN / GX**
 - .72 Steam plant ancillaries**
 - .74 Economiser ECXV**
 - .80 Accessories FX**
 - .82 Total safety system for steam boilers Serie: TSS**
 - .84 Medium temperature hot water boilers
Series: ASX / ASGX**
 - .88 Low temperature hot water boilers Serie: TNX**
 - .90 Low temperature hot water boilers with
low Nox Serie: TNOX**
 - .92 Thermal oil heaters Series: OPX / OPX REC**
 - .94 Steam generator Series: EVX**
-

+12%

ENERGY SAVING IN INDUSTRIAL

1 Burner control...

- Fully modulating control
- Use of variable speed fan
- O2 trim

...can save up to

2% thermal energy
30% electric energy

2 Auto TDS control...

- Reduces amount of boiler blowdown required
- Reduces water carryover with steam
- Use of air actuated valve instead of electric

...can save up to

0,4% thermal energy
5% salts and chemicals

3 Waste heat recovery...

- Use of flue gas economizer
- Use of flues / air preheater

...can save up to

5% thermal energy

4 Deaerator ...

- High density and thickness insulation lagging

...can save up to

0,45% electric energy
70% salts and chemicals

5

1

2

BOILER PLANTS



- Boiler insulation...** ⑤
- High density and thickness insulation lagging
 - Elimination of heat bridges between hot vessel and cladding

...can save up to
0,1% thermal energy

Feed water control... ⑥

- Use of multistage high efficiency pumps
- Use of variable speed feed water pumps
- Use of modulating feed water system for feed water rating matched to steam demand

...can save up to
15% electric energy

Water treatment... ⑦

- Reduces amount of boiler blowdown required
- Avoids scaling inside the boiler which affect heat transfer rate between the water and the hot gases

...can save up to
5% thermal energy





STEAM PRODUCTION FROM 9 TO 163 KG/H

FLASH

ELECTRIC STEAM GENERATOR



The FLASH is an automatic electric steam generator. Its safety and longlasting features make the FLASH generator the ideal steam producer for cleaning and ironing centres which require reduced maintenance and quick response to intermittent steam demand.

- easy and quick installation
- reduced maintenance due to absence of combustion
- exemption from supervision being an unfired boiler
- quick steam production
- different sets of heaters available to increase flexibility

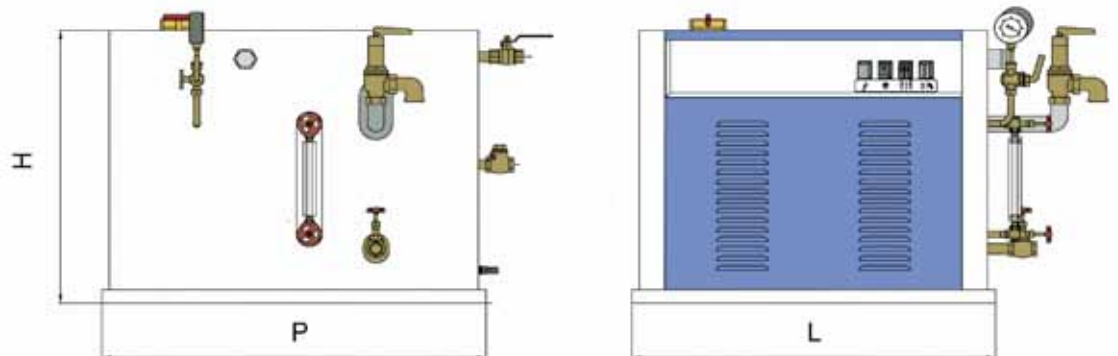
Model	Output	Steam production	Water volume	Dimensions (P x L x H)	Characteristics
	kW	kg	l	mm	
FLASH 15	7;10;12;15	9,5; 13,6; 16,3; 20,4	16	550 x 440 x 980	4 steam outlets
FLASH 15 electro	7;10;12;15	9,5; 13,6; 16,3; 20,4	16	550 x 440 x 980	4 steam electrovalves
FLASH 24	7;10;12;15;18	9,5; 13,6; 16,3; 20,4; 24,5	24	580 x 660 x 730	1 steam outlet
FLASH 26	7;10;12;15;18	9,5; 13,6; 16,3; 20,4; 24,5	24	580 x 660 x 730	condensate trap, 2 steam outlets
FLASH 60	from 20 to 60	from 27 to 81,5	55	710 x 750 x 568	1 steam outlet
FLASH 60 combi	from 20 to 60 x 2	from 27 to 81,5 *2	55 x 2	710 x 750 x 1136	2 steam outlets
FLASH 180	from 20 to 60 x 3	from 27 to 81,5x3	55 x 3	710 x 750 x 1704	3 steam outlets

Standard voltage: 1~ 230V or 3/N~ 400V 50 Hz

Design pressure: 4,5 or 7 bar

Standard equipment:

- level indicator
- main steam stop valve/s
- safety valve
- pressure gauge
- pressure switches
- automatic level control
- feed water pump
- non-return valve
- blowdown valve
- electric heater/s
- switches and alarm lamps



Optional	Code	Remarks
Boiler body in AISI 304 stainless steel	No code	
Special voltage	No code	3~ 230V or 3~ 400V
Feed water tank	No code	
Double independent heaters set	No code	For FLASH 24/26



FX

THREE PASS REVERSE FLAME WET BACK BOILER

Automatic and high efficiency quick steam generator with reverse flame fire tubes. Particulary suitable for ironing and small utilities with reduced boiler house supervision, tanks to low water and reduced overall dimensions.

Prices available on request

Model	Boiler code	Heat output		Heat input		Efficiency at 100% load	Steam production*	Working P min/max	Water volume NWL	Water volume TOTAL	Weight
		kW	kcal/h	kW	kcal/h						
FX 50 QEM	86014055	31,7	27.300	34,8	29.900	91,09	50	3-4,5	50	59	430
FX 100 QEM	86014105	70,5	61.000	77,4	67.000	91,04	100	3-4,5	50	59	430
FX 150 QEM	86014155	105,7	91.000	116,2	99.900	90,96	150	3-4,5	50	59	430
FX-DUAL 100 QEM	86014103	63,4	55.000	69,6	60.000	91,09	100	3-4,5	100	118	830
FX-DUAL 200 QEM	86014205	141,0	121.000	154,9	133.000	91,04	200	3-4,5	100	118	830
FX-DUAL 300 QEM	86014305	211,4	182.000	232,4	200.000	90,96	300	3-4,5	100	118	830

*Steam production actual from feed water at 80°C

Model	Boiler code	Heat output		Heat input		Efficiency at 100% load	Steam production*	Working P min/max	Water volume NWL	Water volume TOTAL	Weight
		kW	kcal/h	kW	kcal/h						
FX 50 QEL	86014056	31,7	27.300	34,8	29.900	91,09	50	3-4,5	50	59	430
FX 100 QEL	86014106	70,5	61.000	77,4	67.000	91,04	100	3-4,5	50	59	430
FX 150 QEL	86014156	105,7	91.000	116,2	99.900	90,96	150	3-4,5	50	59	430
FX-DUAL 100 QEL	86014104	63,4	55.000	69,6	60.000	91,09	100	3-4,5	100	118	830
FX-DUAL 200 QEL	86014206	141,0	121.000	154,9	133.000	91,04	200	3-4,5	100	118	830
FX-DUAL 300 QEL	86014306	211,4	182.000	232,4	200.000	90,96	300	3-4,5	100	118	830

*Steam production actual from feed water at 80°C

Standard equipment FX

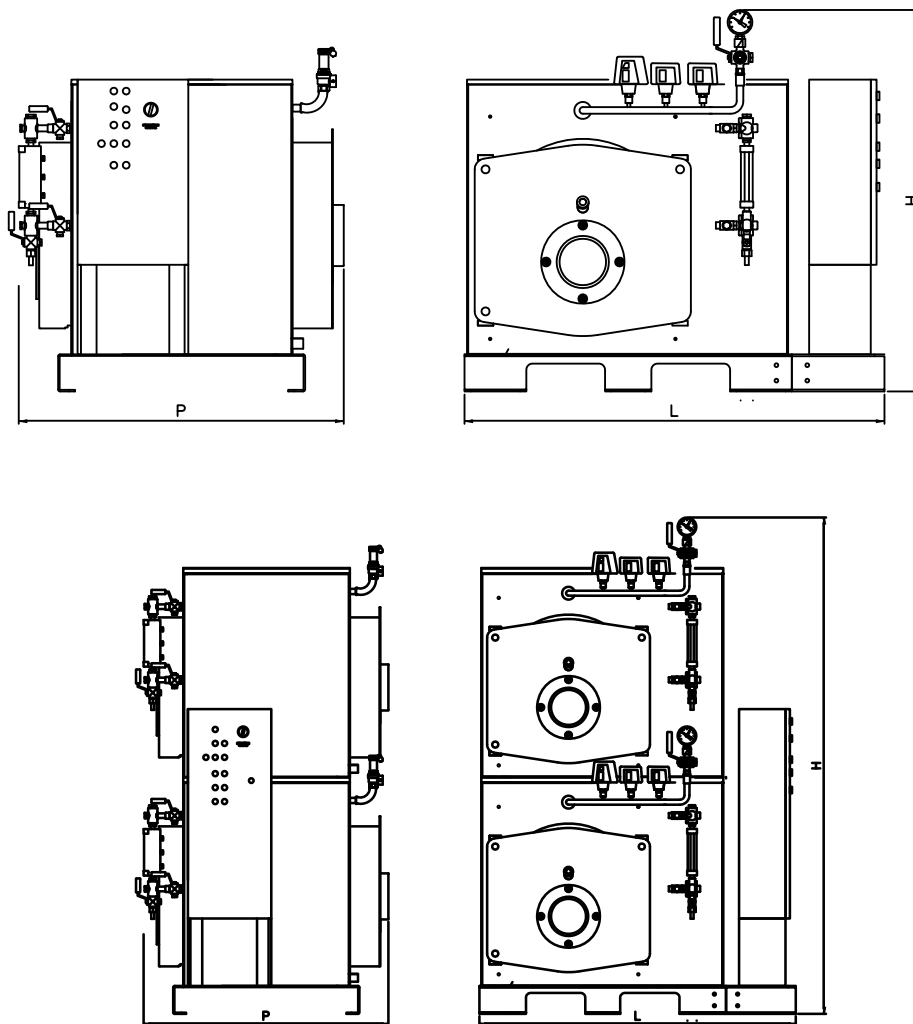
- 1 level regulator
- 2 low level safety probes
- 1 limit pressure switch
- 1 safety pressure switch
- 1 second stage pressure switch
- 1 spring safety valve
- 1 feed water unit (feed pump, isolating valve, non return valve)
- 1 level indicator
- 1 pressure gauge
- 1 steam stop valve
- 1 timed bottom blowdown pneumatic valve
- 1 panel control with electrical connections

Standard equipment FX Dual

- 2 level regulators
- 4 low level safety probes
- 2 limit pressure switch
- 2 safety pressure switch
- 2 second stage pressure switch
- 2 spring safety valve
- 1 feed water unit (2 feed pumps, 2 isolating valves, 2 non return valves)
- 2 level indicators
- 2 pressure gauges
- 2 steam stop valves
- 2 timed bottom blowdown pneumatic valves
- 1 panel control with electrical connections

Model	Furnace resistance	Burner blast tube length	Fuel consumption		Dimensions				
					H	L	L1	P	Øc
	mbar	mm	Natural gas	Diesel oil	mm	mm	mm	mm	mm
FX 50	0,4	150-200	3,6	2,9	1200	1300	-	1050	200
FX 100	1,5	150-200	8,0	6,6	1200	1300	-	1050	200
FX 150	3,2	150-200	11,9	9,8	1200	1300	-	1050	200
FX 100 DUAL	0,4	150-200	7,1	5,9	2100	1300	-	1050	200
FX 200 DUAL	1,5	150-200	15,8	13,0	2100	1300	-	1050	200
FX 300 DUAL	3,2	150-200	23,8	19,6	2100	1300	-	1050	200

Fuel: gas or light oil - Flue gas temperature: 220°C (con natural gas with 10% CO₂)



Optional	Code	For details see
Steam header kit for Fx dual	96140150	Page 80
Platform kit for Fx e Fx Dual	96140100	Page 80
Steam trap kit for Fx o Fx Dual	96140200	Page 80
Double safety valve kit	96140060	Page 80
Double level indicator kit	96140070	Page 81
Feed pump kit for Fx	96140080	Page 81
Feed pump kit for Fx Dual	96140090	Page 81
Feed water pre-heater kit	96140040	Page 81
High level probe kit	96140110	Page 81



BX

THREE PASS REVERSE FLAME WET BACK



ICI steam boiler model BX is specifically designed for operation at 1 bar g. only.

The steam dome on top of the shell increases the steam space volume as well as the distance between the evaporating surface and the steam outlet connection, resulting in high quality dry steam in spite of the low pressure.

- supplied fully packaged and ready for installation
- quality dry steam owing to large steam space and steam drum
- full stainless steel casing for food or sanitary applications
- standby feed pump as standard

Model	Boiler code	Heat output	Heat Input	Steam production	Working P min./max.	Water volume		Dry weight
						NWL	Total	
		kW	kW	kg/h	bar	l	l	kg
BX 60	86120064	70	77	100	0,2 / 0,9	146	198	470
BX 90	86120094	105	116	159	0,2 / 0,9	250	410	660
BX 200	86120204	233	258	354	0,2 / 0,9	515	805	1080
BX 300	86120304	349	387	530	0,2 / 0,9	705	1050	1400
BX 400	86120404	465	516	708	0,2 / 0,9	815	1210	1520
BX 500	86120504	581	645	883	0,2 / 0,9	1035	1540	1960
BX 600	86120604	698	774	1060	0,2 / 0,9	1175	1740	2200
BX 800	86120804	930	1032	1415	0,2 / 0,9	1480	2225	2600
BX 1000	86121004	1163	1292	1770	0,2 / 0,9	1695	2530	3200
BX 1200	86121204	1395	1550	2000	0,2 / 0,9	2050	3020	3600
BX 1500	86121504	1744	1937	2650	0,2 / 0,9	2805	3840	4400
BX 1750	86121754	2035	2260	3000	0,2 / 0,9	3100	4240	4900

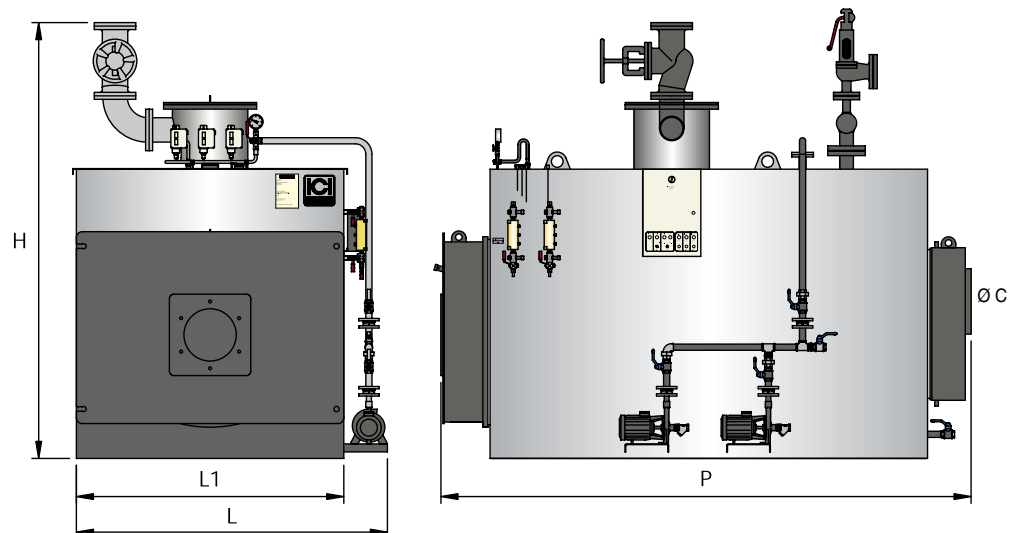
Higher steam production up to 5100 kg/h available on request

Steam production actual from feed water at 80°C

Design pressure: 1 bar

Standard equipment

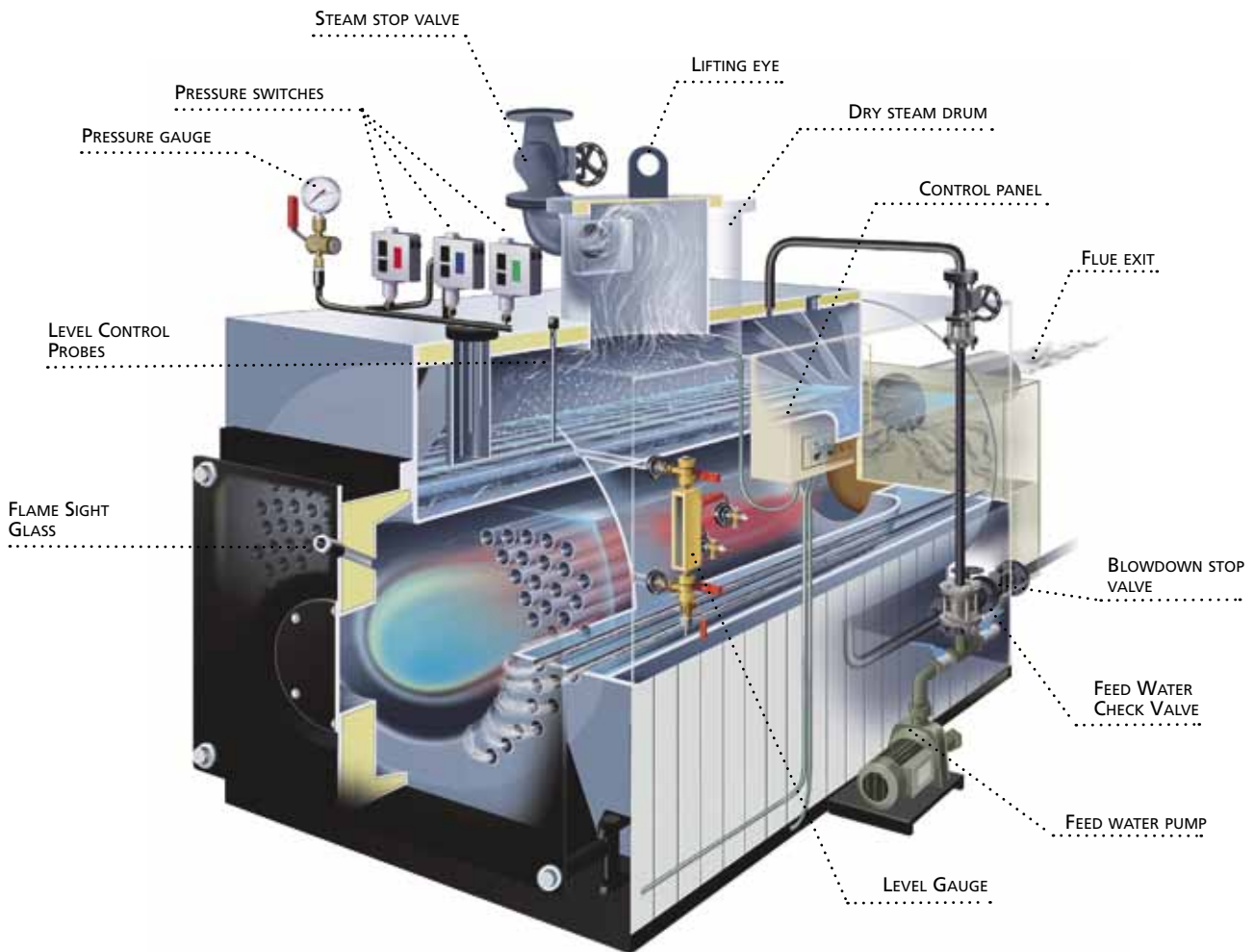
- 2 level indicators
- 1 main steam stop valve
- 2 spring safety valves
- 1 pressure gauge
- 1 limit pressure switch
- 1 second stage pressure switch
- 1 safety pressure switch, manual reset
- 1 automatic level control
- 1 low level safety probe
- 1 extra low level safety probe
- 2 feed water pumps
- 2 strainers
- 3 isolating valves
- 3 non-return valves
- 1 blowdown stop valve
- 1 control panel 1~ 230V 50 Hz for BX 60÷200
3/N~ 400V 50 Hz for BX 300÷1750



Model	Furnace resistance	Burner blast tube length	Burner hole diam.	Fuel consumption			Dimensions				
				Natural gas	Diesel oil	Heavy oil	ØC	H	L	L1	P
	mbar	mm	mm	st Nm ³ /h	kg/h	kg/h	mm	mm	mm	mm	mm
BX 60	0,7	240-290	130	7,9	6,5	6,8	180	1500	1200	750	1215
BX 90	1,5	280-330	160	11,9	9,8	10,3	200	1680	1220	900	1720
BX 200	3,5	280-330	180	26,4	21,8	22,9	250	2010	1400	1080	2060
BX 300	3,5	310-360	225	39,6	32,6	34,3	250	2260	1590	1240	2092
BX 400	5,0	310-360	225	52,8	43,5	45,7	250	2260	1590	1240	2342
BX 500	4,5	350-400	280	66,0	54,4	57,2	300	2280	1750	1400	2384
BX 600	6,0	350-400	280	79,2	65,3	68,6	300	2280	1750	1400	2633
BX 800	5,5	370-420	280	105,7	87,0	91,5	350	2570	1900	1550	2633
BX 1000	7,0	370-420	280	132,3	108,9	114,5	350	2570	1900	1550	2963
BX 1200	7,5	370-420	320	158,7	130,7	137,4	400	2720	2000	1680	3160
BX 1500	6,5	420-470	360	198,3	163,3	171,7	450	3000	2200	1840	3419
BX 1750	7,5	420-470	360	231,4	190,5	200,4	450	3000	2200	1840	3719

Fuel: gas, light oil or heavy oil

Flue gas temperature: 220°C (on natural gas with 10% CO₂)



Optional	Code	For details see
High level alarm kit	90060010	Page 78
Automatic blowdown system (from BX 60 to 200)	86900037	Page 77
Automatic blowdown system (from BX 300 to 2000)	86900044	Page 77
ECXV economiser	According to model	Page 74



SIXEN

THREE PASS REVERSE FLAME WET BACK BOILER



Ici steam boiler model Sixen is a reverse flame 3 pass wet back horizontal boiler. Boiler's body is suitable for use on gaseous and liquid fuels. The boiler is fully provided with all the accessories for regulating and safety for the automatic operation.

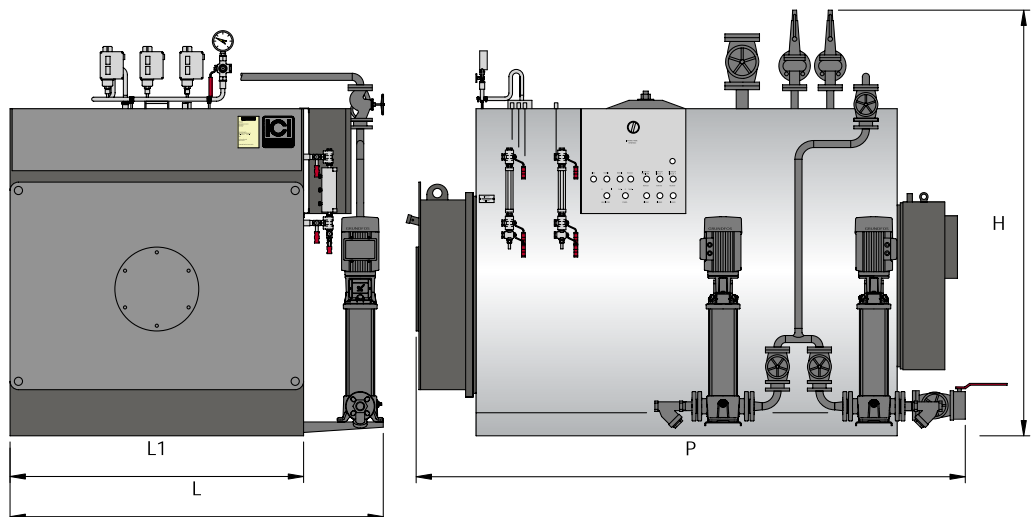
Prices available on request

Model	Boiler code	Heat output		Heat input		Efficiency at 100% load	Steam production*	Working P min/max	Water volume	Water volume total	Weight
		kW	kcal/h	kW	kcal/h						
SIXEN 350	86240350	238	205.100	265	227.900	90,00	350	8-11,5	590	810	1500
SIXEN 500	86240500	341	293.000	379	325.600	90,00	500	8-11,5	670	920	1620
SIXEN 650	86240650	443	380.900	492	423.200	90,00	650	8-11,5	900	1120	2000
SIXEN 800	86240800	545	468.800	606	520.900	90,00	800	8-11,5	950	1250	2120
SIXEN 1000	86241000	681	586.000	757	651.100	90,00	1000	8-11,5	1280	1830	2720
SIXEN 1350	86241350	920	791.100	1022	879.000	90,00	1350	8-11,5	1475	2190	3250
SIXEN 1700	86241700	1158	996.200	1287	1.106.900	90,00	1700	8-11,5	2000	2640	3700
SIXEN 2000	86242000	1363	1.172.000	1514	1.302.200	90,00	2000	8-11,5	2300	3050	4250
SIXEN 2500	86242500	1703	1.465.000	1893	1.627.800	90,00	2500	8-11,5	2490	3380	5000
SIXEN 3000	86243000	2044	1.758.000	2271	1.953.300	90,00	3000	8-11,5	2825	4020	5650
SIXEN 3500	86243500	2385	2.051.000	2650	2.278.900	90,00	3500	8-11,5	3600	5000	6950
SIXEN 4000	86244000	2726	2.344.000	3028	2.604.400	90,00	4000	8-11,5	4800	6950	8550
SIXEN 5000	86245000	3407	2.930.000	3786	3.255.600	90,00	5000	8-11,5	5200	7400	9600

*Steam production actual from feed water at 80°C

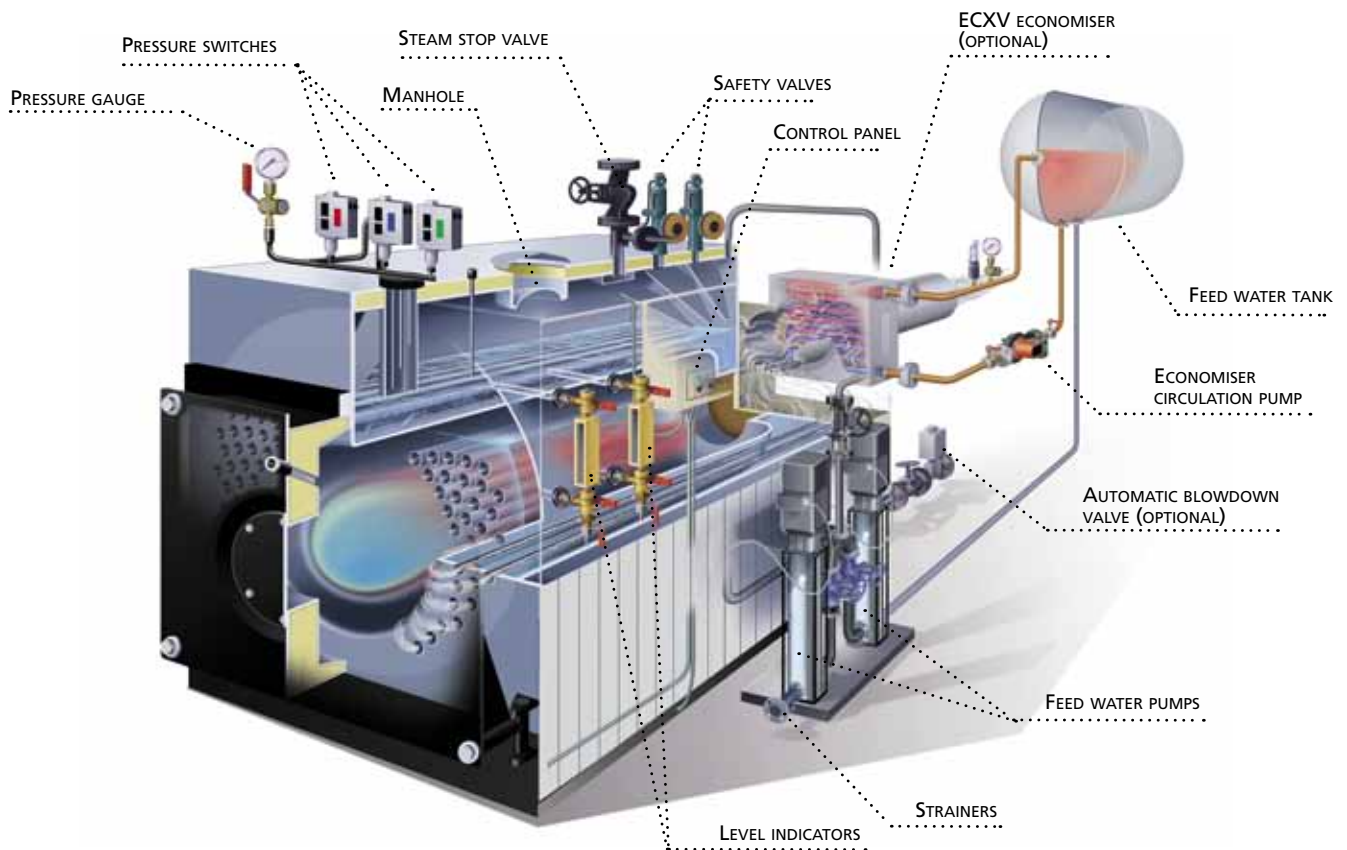
Standard equipement:

- 2 level indicators
- 1 main steam stop valves
- 1 pressure gauge
- 1 limit pressure switch
- 1 second stage pressure switch
- 1 safety pressure switch, manual reset
- 1 automatic level control
- 1 low level safety probe
- 1 extra low level safety probe
- 2 feed water pumps
- 2 strainers
- 3 isolating valves
- 3 non-return valves
- 1 blowdown stop valve
- 1 control panel 3/N 400V 50 bHz



Model	Furnace resistance	Burner blast tube length	Fuel consumption			Dimensions				
						H	L	L1	P	Øc
	mbar	mm	Natural gas	Diesel oil	Heavy oil	mm	mm	mm	mm	mm
SIXEN 350	5,0	280-330	27,1	22,3	23,5	1810	1510	1230	1840	250
SIXEN 500	6,5	280-330	38,8	31,9	33,6	1810	1510	1230	2090	250
SIXEN 650	5,0	320-370	50,4	41,5	43,6	1930	1630	1350	2130	300
SIXEN 800	5,0	320-370	62,0	51,1	53,7	1930	1630	1350	2350	300
SIXEN 1000	7,0	350-400	77,5	63,8	67,1	2140	1840	1560	2350	350
SIXEN 1350	6,5	350-400	104,6	86,2	90,6	2140	1840	1560	2760	350
SIXEN 1700	9,5	370-420	131,8	108,5	114,1	2300	1990	1710	2790	400
SIXEN 2000	10,0	370-420	155,0	127,7	134,2	2300	1990	1710	3150	400
SIXEN 2500	6,5	420-470	193,8	159,6	167,8	2460	2170	1880	3200	450
SIXEN 3000	9,0	420-470	232,5	191,5	201,4	2530	2210	1880	3700	450
SIXEN 3500	9,0	480-530	271,3	223,4	234,9	2720	2350	2020	3770	500
SIXEN 4000	10,0	480-530	310,0	255,3	268,5	2840	2470	2140	4280	550
SIXEN 5000	11,0	480-530	387,6	319,2	335,6	2960	2590	2260	4530	600

Fuel: gas, light oil or heavy oil - Flue gas temperature: 240°C (on natural gas with 10% CO₂)



Optional	Code	For details see
High level alarm kit	90060010	Page 78
Automatic blowdown system (from SIXEN 350 to 3500)	86900039	Page 77
Automatic blowdown system (from SIXEN 4000 to 5000)	86900042	Page 77
TDS control system	17090037	Page 77
Sample cooler	38040102	Page 77
Modulating feed water system	No code	Page 79
Self monitoring low level alarms	No code	Page 78
Self monitoring high level alarm	No code	Page 78
ECXV economiser	According to model	Page 74



GX

THREE PASS WET BACK BOILER

Medium - high pressure steam boiler GX is a genuine three pass wet back horizontal fire tube boiler, designed in accordance with the latest EU codes and produced especially for industrial plants. The GX boiler is manufactured incorporating the latest technology and provides excellent performance, in order to satisfy the special requirements of reliability, endurance and control.

- supplied fully packaged and ready for installation
- large steam space and evaporation surface for good quality dry steam
- large heating surface without use of turbulators for a low heat release
- flanged tube plates for full flexibility of the vessel during the combustion process
- standby feed pump as standard



Model	Boiler code		Heat output kW	Heat input kW	Steam production kg/h	Working P min./max. bar		Water volume l		Dry weight kg	
	12 bar	15 bar				12 bar	15 bar	NWL	Total	12 bar	15 bar
GX 1000	86161000	86171000	1163	1292	1700	8 / 11,5	10 / 14,3	4565	5940	6500	7300
GX 1200	86161200	86171200	1395	1550	2040	8 / 11,5	10 / 14,3	4445	5805	7100	8000
GX 1500	86161500	86171500	1744	1938	2560	8 / 11,5	10 / 14,3	5475	6960	8500	9500
GX 1750	86161750	86171750	2035	2261	3000	8 / 11,5	10 / 14,3	5395	6890	9600	10700
GX 2000	86162000	86172000	2326	2584	3410	8 / 11,5	10 / 14,3	6615	8435	10500	11800
GX 2500	86162500	86172500	2907	3230	4270	8 / 11,5	10 / 14,3	7640	9610	11500	12800
GX 3000	86163000	86173000	3488	3876	5100	8 / 11,5	10 / 14,3	7955	9865	13000	14300
GX 3500	86163500	86173500	4070	4522	6000	8 / 11,5	10 / 14,3	9565	11940	14300	16000
GX 4000	86164000	86174000	4651	5168	6820	8 / 11,5	10 / 14,3	10280	12630	16000	18000
GX 5000	86165000	86175000	5814	6460	8500	8 / 11,5	10 / 14,3	11180	14120	18000	20000
GX 6000	86166000	86176000	6977	7752	10240	8 / 11,5	10 / 14,3	13345	16530	21000	23200
GX 7000	86167000	86177000	8140	9044	12000	8 / 11,5	10 / 14,3	15970	20030	24000	26200
GX 8000	86168000	86178000	9302	10336	13600	8 / 11,5	10 / 14,3	20050	25700	26500	29000
GX 9000	86169000	86179000	10465	11628	15300	8 / 11,5	10 / 14,3	22060	28140	30000	32500
GX 10000	86169900	86179900	11628	12920	17000	8 / 11,5	10 / 14,3	24620	31120	33000	36000
GX 12000	86169912	86179912	13953	15500	20000	8 / 11,5	10 / 14,3	29250	37500	38000	42000

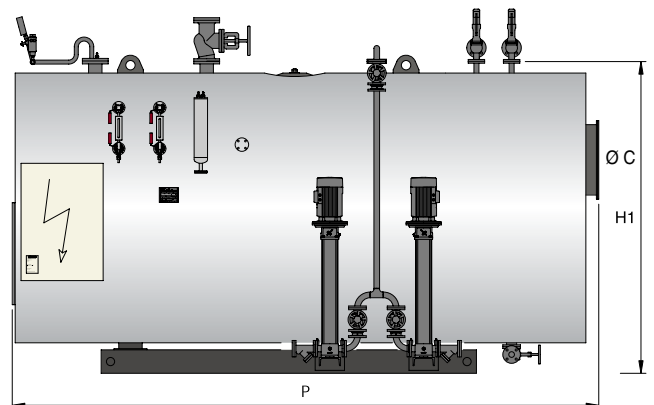
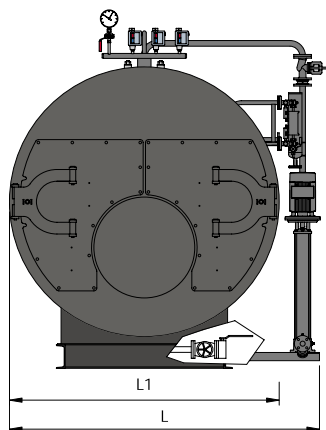
Higher duty up to 17441 kW (25000 kg/h) available on request

Higher pressure available upon request

Steam production actual from feed water at 80°C

Standard equipment

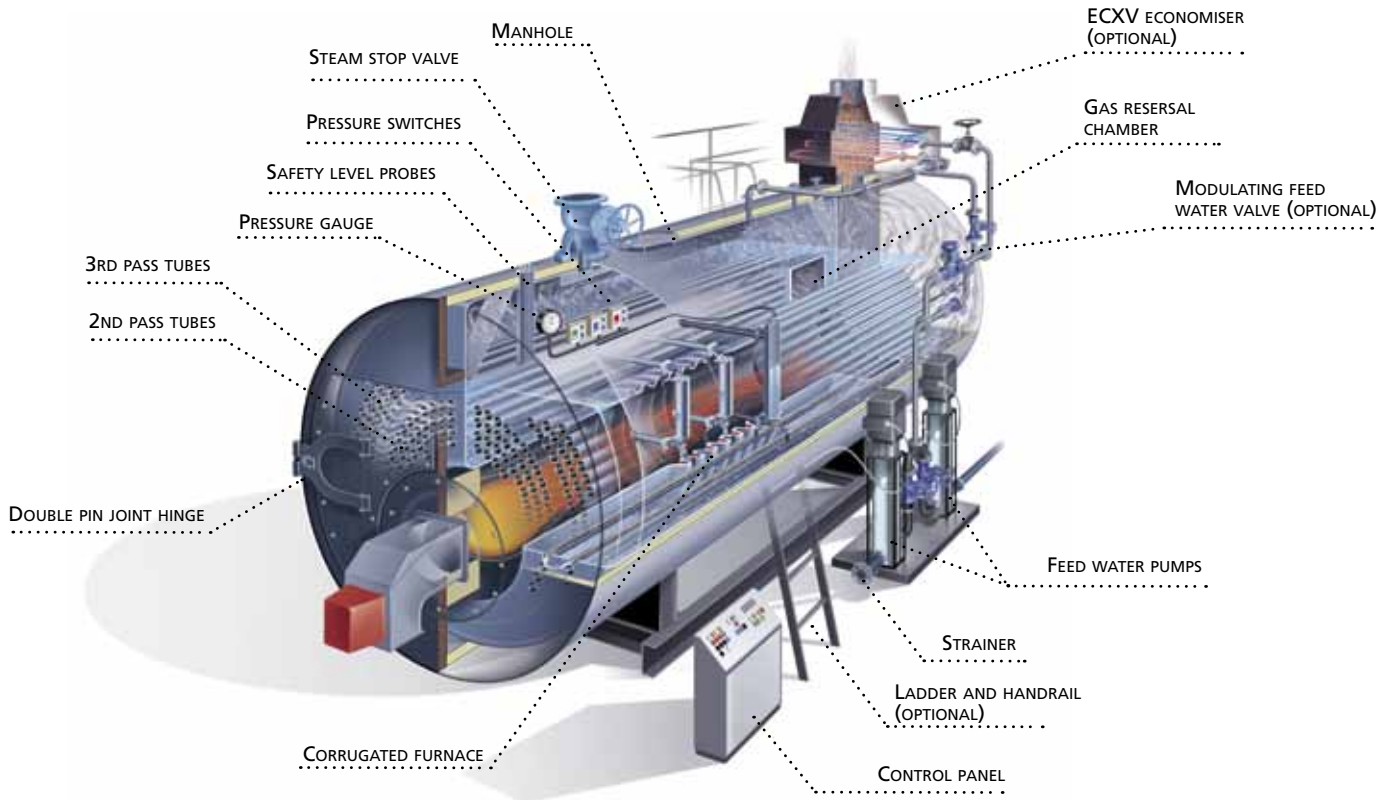
- 2 level indicators
- 1 main steam stop valve
- 2 spring safety valves
- 1 pressure gauge
- 1 limit pressure switch
- 1 second stage pressure switch
- 1 safety pressure switch, manual reset
- 1 automatic level control
- 1 low level safety probe
- 1 extra low level safety probe
- 2 feed water pumps
- 2 strainers
- 3 isolating valves
- 3 non-return valves
- 1 blowdown stop valve
- 1 control panel 3/N~ 400V 50 Hz



Model	Furnace resistance	Burner blast tube length	Burner hole diam.	Fuel consumption			Dimensions				
				Natural gas	Diesel oil	Heavy oil	ØC	H1	L	L1	P
	mbar	mm	mm	st Nm ³ /h	kg/h	kg/h	mm	mm	mm	mm	mm
GX 1000	5,5	min. 320	subject to burner type	132,3	108,9	114,5	400	2280	2450	2000	4100
GX 1200	7,0	min. 320	subject to burner type	158,7	130,7	137,4	400	2280	2450	2000	4100
GX 1500	7,0	min. 320	subject to burner type	198,4	163,4	171,8	450	2460	2550	2180	4100
GX 1750	7,0	min. 320	subject to burner type	231,5	190,6	200,5	450	2460	2650	2180	4100
GX 2000	8,5	min. 320	subject to burner type	264,6	217,9	229,1	500	2460	2650	2180	4600
GX 2500	8,0	min. 320	subject to burner type	330,7	272,3	286,4	550	2620	2760	2300	4900
GX 3000	9,0	min. 320	subject to burner type	396,8	326,8	343,6	600	2760	2900	2340	5100
GX 3500	10,5	min. 320	subject to burner type	463,0	381,3	400,9	600	2720	2900	2400	5600
GX 4000	10,0	min. 380	subject to burner type	529,1	435,7	458,2	650	2920	3000	2500	5700
GX 5000	10,5	min. 380	subject to burner type	661,4	544,7	572,7	650	3000	3200	2640	5700
GX 6000	12,0	min. 430	subject to burner type	793,7	653,6	687,3	700	3200	3300	2740	6300
GX 7000	12,0	min. 430	subject to burner type	925,9	762,5	801,8	700	3350	3460	2880	6750
GX 8000	14,0	min. 430	subject to burner type	1058,2	871,5	916,4	800	3500	3620	3040	7250
GX 9000	14,0	min. 500	subject to burner type	1190,5	980,4	1030,9	900	3600	3750	3200	7650
GX 10000	15,0	min. 500	subject to burner type	1322,8	1089,3	1145,5	900	3685	3750	3280	8050
GX 12000	19,0	min. 550	subject to burner type	1586,9	1306,9	1374,2	1100	3900	4000	3500	8600

Flues: gas, light oil or heavy oil

Flue gas temperature: 235°C (on natural gas with 10% CO2)



Optional	Code	For details see
High level alarm kit	90060010	Page 78
Automatic blowdown system	86900042	Page 77
TDS automatic control system	17090037	Page 77
Sample cooler	38040102	Page 77
Modulating feed water system	No code	Page 79
Self monitoring low level alarms	No code	Page 78
Self monitoring high level alarm	No code	Page 78
ECXV economiser	According to model	Page 75
Ladder and handrail	No code	



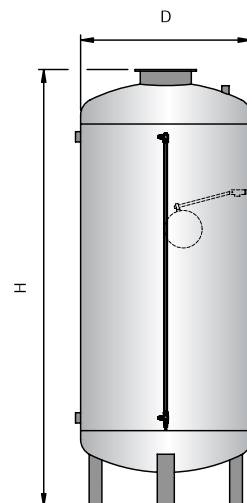
VRC

VERTICAL FEED WATER TANK

- designed for boiler feed water storage and condensate handling
- available in AISI 316 L stainless steel
- available for all steam boilers

Standard equipment

- 1 level indicator
- 1 floating type level controller
- 1 drain valve



Model	Available in AISI 316L stainless steel	Total volume	To suit boiler steam production	Dimensions		Dry weight
				D	H	
		l	kg/h	mm	mm	kg
VRC 200	85520046	200	160	440	1470	35
VRC 300	85520048	300	340	550	1460	44
VRC 500	85520047	500	510	600	1900	60
VRC 800	85520056	800	850	800	1890	84
VRC 1000	85520045	1000	1020	800	2140	90
VRC 1500	85520070	1500	1370	1100	1910	142
VRC 2000	85520054	2000	2040	1100	2410	159
VRC 2500	85520058	2500	2560	1270	2240	179
VRC 3000	85520053	3000	3410	1270	2540	223
VRC 4000	85520074	4000	4270	1400	2830	335
VRC 5000	85520075	5000	5100	1600	2860	385

Storage time 1 hr approx



BDV

BLOWDOWN VESSEL

- provides safe expansion and cooling of boiler blowdown
- inlets and manifolds available for bottom, TDS and level gauges blowdown
- meets local or national requirements

Standard equipment:

- 1 cooling water system (40-105°C) via cold water injection
- 1 set of inlet stop and check valves
- 1 pressure gauge
- 1 drain valve

Description	Code	Remarques
Blowdown vessel	85520064	

DEG

ATMOSPHERIC DEAERATOR

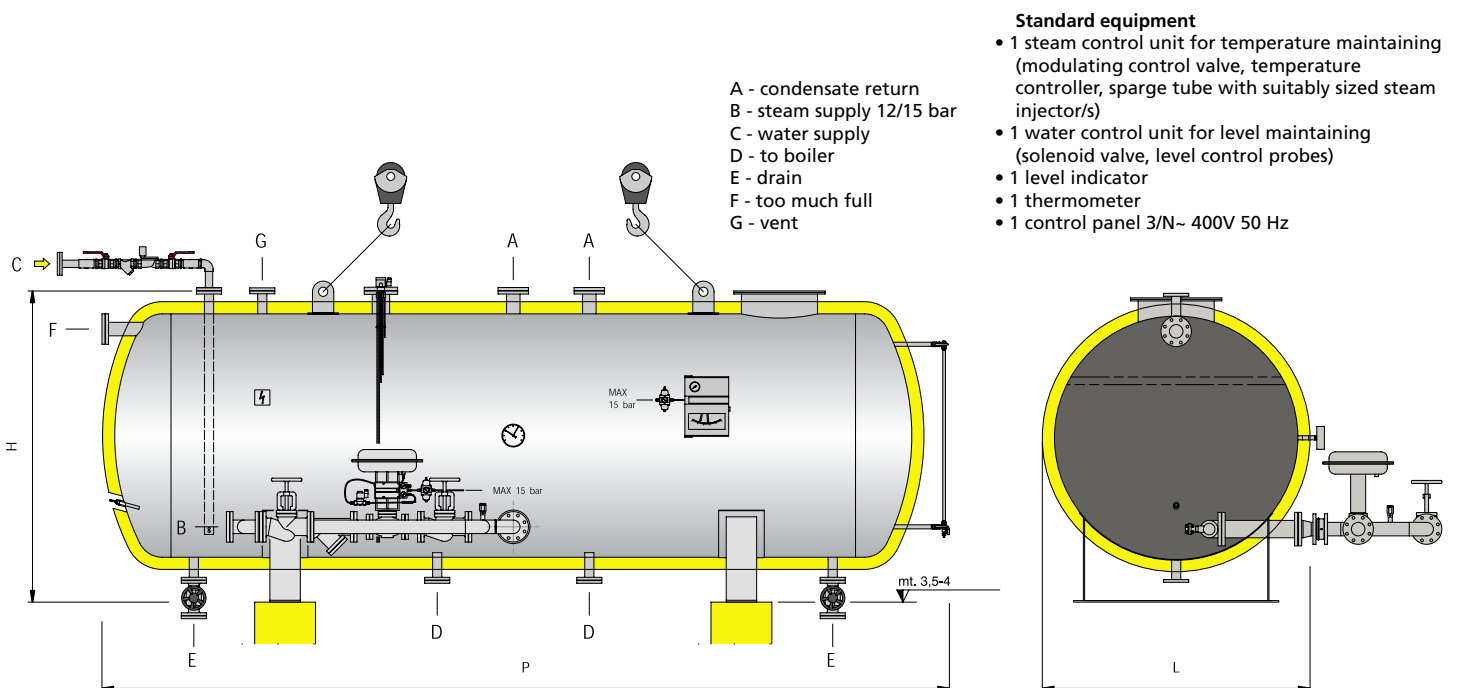


- reduces the concentration of dissolved corrosive gases in boiler feed water
- higher and controlled feed water temperature
- available for all steam boilers up to 10 t/h

Model	Product code	Total volume	Deaeration capacity	Steam consumption	Dimensions			Dry weight
					H	L	P	
		l	kg/h	kg/h	mm	mm	mm	kg
DEG 500	85500015	500	510	74	1170	830	1930	140
DEG 1000	85500012	1000	1020	147	1320	1030	2350	330
DEG 1500	85500026	1500	1700	246	1320	1030	3250	415
DEG 2000	85500028	2000	2040	295	1620	1300	2540	550
DEG 2500	85500025	2500	2560	370	1620	1300	3130	650
DEG 3000	85500005	3000	3400	491	1850	1480	3230	700
DEG 4000	85500014	4000	4260	616	1980	1630	3190	1050
DEG 5000	85500016	5000	5100	737	2200	1830	3030	1250
DEG 8000	85500018	8000	8500	1229	2220	1830	4500	1800
DEG 10000	85500022	10000	10000	1446	2110	1860	5580	2100

Storage time 1 hr approx

Water temperature 5-90°C, steam pressure 12 bar





ECXV

VERTICAL ECONOMISER

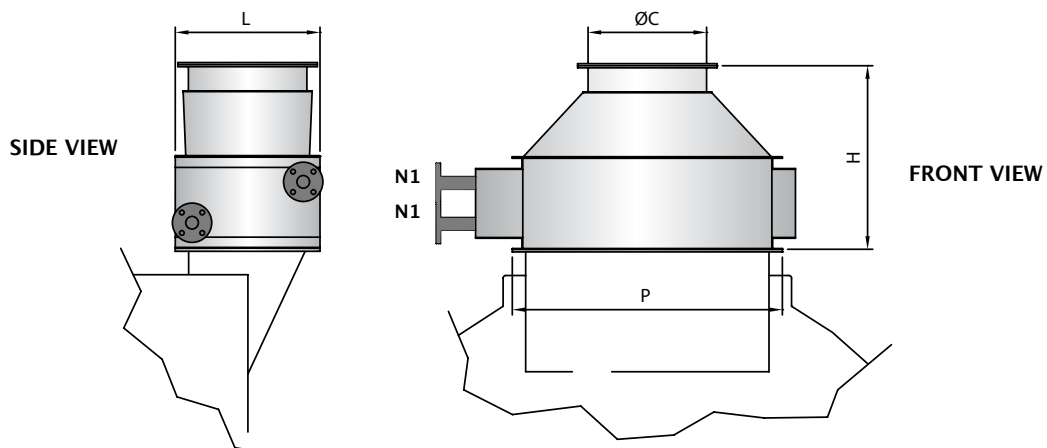
Gas flows contain a considerable heat potential at high temperatures. The economiser uses this potential for the preheat of the feed water, thus increasing the boiler efficiency.

- non-condensing economizer for gas fired boilers only
- boiler efficiency increase min. 4% at any rated output with consequent reduction of the fuel cost
- less thermal shock due to higher feed water temperature
- supplied fully integrated in the boiler package
- the economizer can run dry

Model	To suit boiler	Duty	Efficiency increase	Flue gas pressure drop	Exiting flue gas temperature	Dry weight	Dimensions				
							N1	ØC	H	L	P
		kW	%	mbar	°C	kg	in/DN	mm	mm	mm	mm
ECXV 2-6	SIXEN 350	15	6,7	0,1	119	85	1"	250	400	278	710
	SIXEN 500	21	6,1	0,2	131						
	SIXEN 650	25	5,6	0,3	139						
	SIXEN 800	30	5,2	0,4	146						
	SIXEN 1000	34	4,9	0,5	152						
ECXV 8-12	SIXEN 1350	47	5	0,3	149	124	25	350	400	380	910
	SIXEN 1700/GX 1000	54	4,7	0,4	155						
	SIXEN 2000/GX 1200	62	4,4	0,5	160						
ECXV 15-20	SIXEN 2500/GX 1500	82	4,7	0,2	155	178	40	450	550	552	1030
	SIXEN 3000/GX 1750	92	4,5	0,3	158						
ECXV 25-35	SIXEN 3500/GX 2000	101	4,3	0,4	162	232	40	550	575	708	1280
	SIXEN 4000/GX 2500	142	4,9	0,4	152						
	SIXEN 5000/GX 3000	161	4,6	0,5	157						
ECXV 40-50	GX 3500	179	4,4	0,7	160	269	40	650	700	642	1280
	GX 4000	267	5,7	1,9	135						
	GX 5000	315	5,4	2,8	141						
ECXV 60-70	GX 6000	391	5,6	2,3	138	341	50	700	700	732	1480
	GX 7000	435	5,3	2,9	143						
ECXV 80	GX 8000	502	5,4	2,8	142	438	50	800	700	822	1530
ECXV 90-100	GX 9000	564	5,4	2,5	142	510	65	900	700	912	1630
	GX 10000	606	5,2	3,0	145						

Working pressure 18 bar

The boiler dimensions are subjected to the economizer fitting. Please contact our Sales Dept for further information.



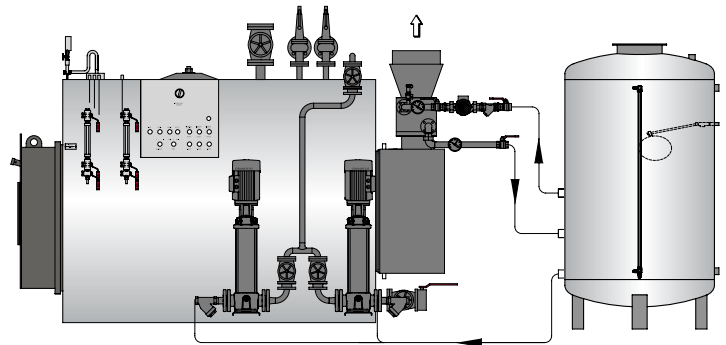
Model	To suit boiler	Setting (A)					Setting (B)				
		Code	Inlet temperature	Exiting temperature	flow	Water pressure drop	Code	Inlet temperature	Exiting temperature	flow	Water pressure drop
			°C	°C	l/h	bar					
			°C	°C	l/h	bar	°C	°C	l/h	bar	
ECXV 2-6	SIXEN 350	85500090	75	90	891	0,02	-	Setting (B) not available			
	SIXEN 500		75	90	1209	0,02					
	SIXEN 650		75	90	1485	0,04					
	SIXEN 800		75	90	1728	0,05					
	SIXEN 1000		75	90	1945	0,06					
ECXV 8-12	SIXEN 1350	85500120	75	90	2695	0,19	85500110	80	109	1370	0,15
	SIXEN 1700/GX 1000		75	90	3096	0,26		80	107	1700	0,21
	SIXEN 2000/GX 1200		75	90	3555	0,31		80	106	2040	0,29
ECXV 15-20	SIXEN 2500/GX 1500	85500140	75	90	4701	0,13	85500135	80	107	2560	0,03
	SIXEN 3000/GX 1750		75	90	5275	0,15		80	106	3000	0,07
ECXV 25-35	SIXEN 3500/GX 2000	85500170	75	90	5791	0,18	85500160	80	105	3400	0,06
	SIXEN 4000/GX 2500		75	90	8141	0,21		80	108	4270	0,07
	SIXEN 5000/GX 3000		75	90	9231	0,26		80	107	5100	0,09
ECXV 40-50	GX 3500	-	75	90	10263	0,37	85500175	80	105	6000	0,13
	GX 4000		Setting (A) not available			80		114	6820	0,27	
ECXV 60-70	GX 5000	-	Setting (A) not available			85500190	80	113	8500	0,3	
	GX 6000		Setting (A) not available				80	113	10240	0,44	
ECXV 80	GX 7000	-	Setting (A) not available			85500220	80	111	12000	0,57	
ECXV 90-100	GX 8000	-	Setting (A) not available			85500230	80	112	13600	0,58	
	GX 9000		Setting (A) not available				80	112	15300	0,18	
	GX 10000	-	Setting (A) not available				80	111	17000	0,19	

ECXV fitting diagram in a closed circuit with vertical feed water tank or deaerator

SETTING (A)

Standard equipment:

- 1 safety valve
- 1 circulating pump
- 3 isolating valves
- 1 filter
- 2 thermostats



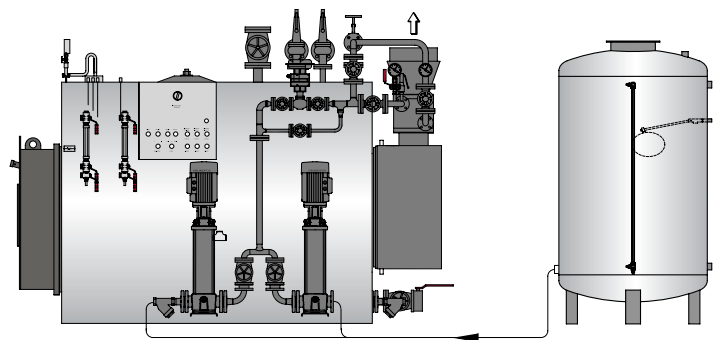
ECXV fitting diagram between feed water pumps and boiler with modulating level control system

SETTING (B)

Standard equipment:

- 1 safety valve (18 bar)
- 3 isolating valves
- 1 thermostat
- 1 pressostat

A modulating feed water system is required



Accessories

Code

Remarks

Flue gas bypass for light oil fuel	-	Required when the burner is dual fuel fired
Special design for liquid fuel	-	Please specify the fuel type
Stainless steel design	-	AISI 304 o AISI 316



ADD

WATER TREATMENT SYSTEMS

Water treatment system designed for treatment of feed water of the steam boiler, in order to prevent scale deposits and oxygen corrosion inside the boiler. The treatment consists in water softening via ion exchange resins and oxygen scavenging via dosing of chemical additives.

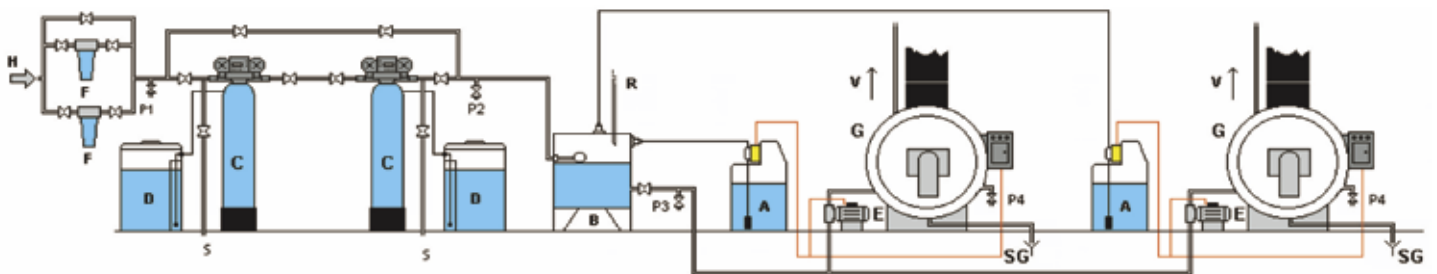
The selection of the equipment is based on the following plant parameters:

- boiler steam production
- condensate return
- boiler working hours per day
- raw water hardness

The following tables help a quick selection:

SELECTION TABLE	Working 8÷12 h/day						Working 16÷24 h/day					
	Hardness ≤ 30° F			Hardness 30° ÷ 50° F			Hardness ≤ 30° F			Hardness 30° ÷ 50° F		
	Condensate return			Condensate return			Condensate return			Condensate return		
Boiler capacity kg/h	30%	50%	80%	30%	50%	80%	30%	50%	80%	30%	50%	80%
100÷1020	C	C	A	E	D	C	BB	BB	AA	DD	CC	AA
1370÷2040	F	E	B	H	F	D	DD	DD	AA	FF	EE	BB
2560÷3000	G	F	D	I	H	E	EE	DD	BB	GG	FF	DD
3400÷5100	I	H	E	J	J	F	GG	FF	DD	II	HH	EE
6000÷6820	J	I	F	K	J	H	HH	GG	DD	JJ	II	FF
8500÷10240	K	J	G	L	K	I	JJ	II	FF	KK	JJ	GG

Sel.	Model (single)	Sel.	Model (duplex)	Hydraulic connections		Max flow m3/h	Resins per column l	Cycle per column m3°F
				in				
-	-	AA =	ADD 90 D	1"		1,6	15	90
B =	ADD 150	BB =	ADD 150 D	1"		2,4	25	150
C =	ADD 210	CC =	ADD 210 D	1"		2,8	35	210
D =	ADD 300	DD =	ADD 300 D	1"		3,2	50	300
E =	ADD 450	EE =	ADD 450 D	1"		4,1	75	450
F =	ADD 600	FF =	ADD 600 D	1"		4,5	100	600
G =	ADD 800	GG =	ADD 800 D	1¼"		5	130	800
H =	ADD 1050	HH =	ADD 1055 D	1½"		8	175	1050
I =	ADD 1350	II =	ADD 1355 D	1½"		11,5	225	1350
J =	ADD 1950	JJ =	ADD 1955 D	2"		16	325	1950
K =	ADD 3000	-	-	2"		18	500	3000
L =	ADD 4300	-	-	2"		20	725	4300



LEGEND

- | | |
|-----------------------|------------------------------|
| H) raw water inlet | SG) boiler blow down |
| F) filters | A) dosing unit for chemicals |
| C) softener | V) steam |
| S) softener discharge | R) condensate return |
| B) deareator | D) brine tank |
| G) steam boiler | E) boiler's pump |
| P) sample taking | |

Standard equipment:

- softner with single or dual system via volume control
- brinetank/s
- inlet sand filter/s
- dosing station for chemicals and 50 kg of oxygen scavenger



TDS control system

FOR BOILER TDS CONTINUOUS CONTROL

- avoids carryover problems due to high TDS levels
- remote indication of operating conditions
- probe cleaning plus compensation for scaling for precise TDS control

Standard equipment:

- 1 conductivity probe
- 1 isolating valve
- 1 check valve
- 1 pneumatic blowdown valve
- 1 blowdown controller

Description	Code	Remarks
TDS automatic control system	17090037	



Sample cooler

FOR BOILER WATER ANALYSIS

- corrosion resistant materials for long life and contamination free samples
- counter current flow for efficient cooling
- compact and maintenance free design

Standard equipment:

- 1 sample cooler
- 1 sample inlet valve
- 1 cooling water inlet valve

Description	Code	Remarks
Sample cooler	38040102	



Automatic blowdown system

FOR TIME CONTROLLED BOILER BOTTOM BLOWDOWN

- adjustable blowdown interval and duration
- repetition or omission of blowdown avoided

Standard equipment:

- 1 blow-down valve with pneumatic actuator
- 1 air electro-valve
- 1 panel mounted timer

Description	Code	Remarks
Automatic blowdown system	86900037	For BX boilers from model 60 to 200
Automatic blowdown system	86900044	For BX boilers from model 300 to 2000
Automatic blowdown system	86900039	For SIXEN boilers from model 350 to 3500
Automatic blowdown system	86900042	For SIXEN boilers 4000 to 5000 and GX boilers



Self monitoring low level alarms

CERTIFIED TO P.E.D. 97/23/EC

- safe operation and low maintenance
- helps to reduce boiler house supervision

Standard equipment:

- 2 Low level safety conductivity probes "fail safe"
- 2 High integrity self monitoring low level controllers in the control panel

Description	Code	Remarks
Self monitoring low level alarms	No code	



Self monitoring high level alarm

CERTIFIED TO P.E.D. 97/23/EC

- safe operation and low maintenance
- helps to reduce boiler house supervision

Standard equipment:

- 1 High level safety conductivity probe "fail safe"
- 1 High integrity self monitoring high level controller in the control panel

Description	Code	Remarks
Self monitoring high level alarm	No code	



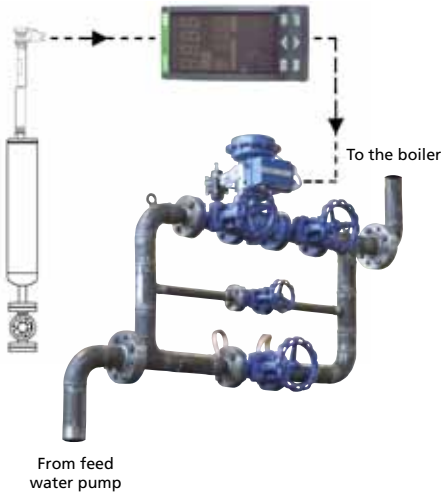
High level alarm kit

- provides reliability against boiler over flooding
- meets local or national requirements

Standard equipment:

- 1 high level conductivity probe
- 1 electronic relay in the boiler control panel

Description	Code	Remarques
High level alarm kit	90060010	



Modulating level control system

VIA MODULATING FEED WATER VALVE

With this system, the water level is maintained by a PID controller regulating a pneumatic valve in the feed water line with a continuously running feed pump. The feed water flow rate is smoothly matched to the steam demand, thus avoiding cycling of the steam output which occurs with on/off control.

Standard equipment:

- 1 capacitance probe with preamplifier
- 1 modulating control valve with pneumatic actuator
- 1 air electrovalve
- 2 isolating valves
- 2 bypass valves
- 1 level controller in the boiler control panel

Description	Code	Remarks
Modulating level control system	No code	

Modulating level control system

VIA VARIABLE SPEED FEED WATER PUMP



- steady feedwater flowrate matched to steam demand
- avoids cycling of steam output
- considerable electric energy saving
- on/off or modulating mode selectable
- automatic timed pumps changeover for standby pump protection

Standard equipment:

- 1 capacitance probe with preamplifier
- 1 frequency converter ("inverter") integrated in one feed pump
- 1 PID level controller in the boiler control panel

Description	Code	Remarks
Modulating level control system	No code	

Quick connection plugs kit

FOR SAFE BOILER – CONTROL PANEL WIRING



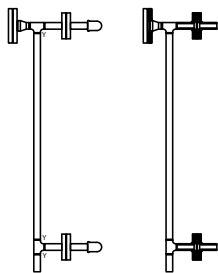
When the boiler control panel is delivered apart from the boiler, this kit provides the quickest and easiest connection between boiler junction box and control panel.

- fault- free unique connections
- saves time for complex wiring

Standard equipment:

- boiler electric junction box
- boiler / control panel connection wires and plugs
- control panel / burner connection wires and plugs (only when the burner is part of ICI CALDAIE supply)

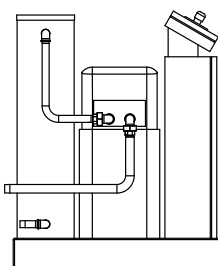
Description	Code	Remarks
Quick connection plugs kit	No code	



Steam header kit

Steam header KIT for FX DUAL.

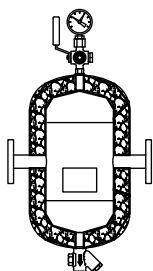
Description	Code	Model
Steam header KIT for FX DUAL	96140150	COL



Platform kit

Platform KIT for FX and FX DUAL composed by: 15 liters resin water softener, stainless steel AISI 304 feed tank 150 LTS, magnetic level regulator, connection for condensate return, connection for possible water pre-heater with feed water pre-heater kit, suitable to house the control panel. Provided on a base with independent electrical and water connection to the boiler already prepared.
Dimensions: 600x260x1020 cm.

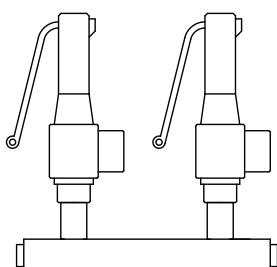
Description	Code	Model
Platform KIT for FX and FX DUAL	96140100	BAS



Steam trap kit

Steam trap kit for FX and FX DUAL available for boilers complete with steam header, complete with manometer, 1/2" valve, 3/4" steam trap.

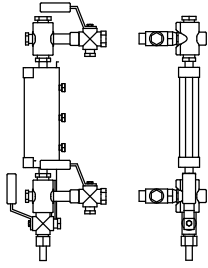
Description	Code	Model
Steam trap KIT for FX and FX DUAL	96140200	SEP
For FX DUAL to match with steam header	96140150	



Double safety valve kit

One extra spring safety valve for FX and FX DUAL.

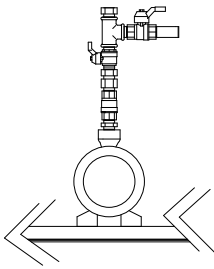
Description	Code	Model
Double safety valve KIT	96140060	SIC



Double level indicator kit

2nd indicator level with level gauge and group taps for FX and FX DUAL.

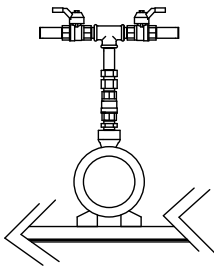
Description	Code	Model
Double level indicator KIT	96140070	IND



Feed pump kit

Standby feed pump for FX, complete with accessories for hydraulic and electrical connection to the boiler.

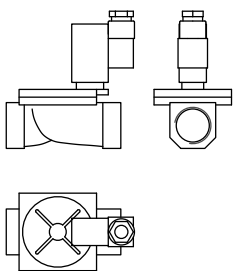
Description	Code	Model
Standby feed pump for FX	96140080	POM1



Feed pump kit

Standby feed pump for FX DUAL, complete with accessories for hydraulic and electrical connection to the boiler.

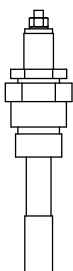
Description	Code	Model
Standby feed pump for Fx Dual	96140090	POM2



Feed water pre-heater kit

Feed water pre-heater kit for FX e FX DUAL composed by thermostat and electric valve.

Description	Code	Model
Feed water pre-heater KIT	96140040	PRE



High level probe kit

High level probe kit for FX and FX DUAL composed by probe and relais. For FX DUAL order 2 KITS.

Description	Code	Model
High level probe kit	96140110	PRE



TSS

TOTAL SAFETY SYSTEM FOR STEAM BOILERS

Total safety system designed to guarantee totally safe boiler operation in compliance with the new European Directive in matter of boiler operation without supervision for 24 or 72 hours of continuous boiler operation.

This system – CE certified by Notified Body as an assembly complying with the European Directive 97/23/EC – consists of a series of equipments fitted and tested at our factory.



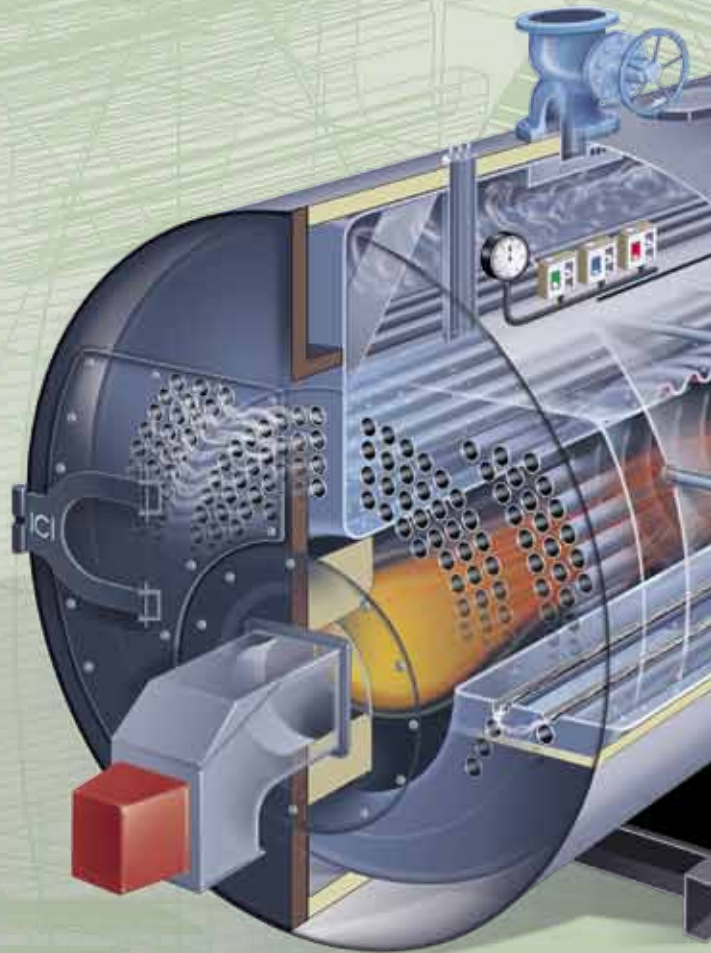
Pressure control system composed by:

- Safety pressure switch "fail safe", manual reset
- Continuous pressure transmitter



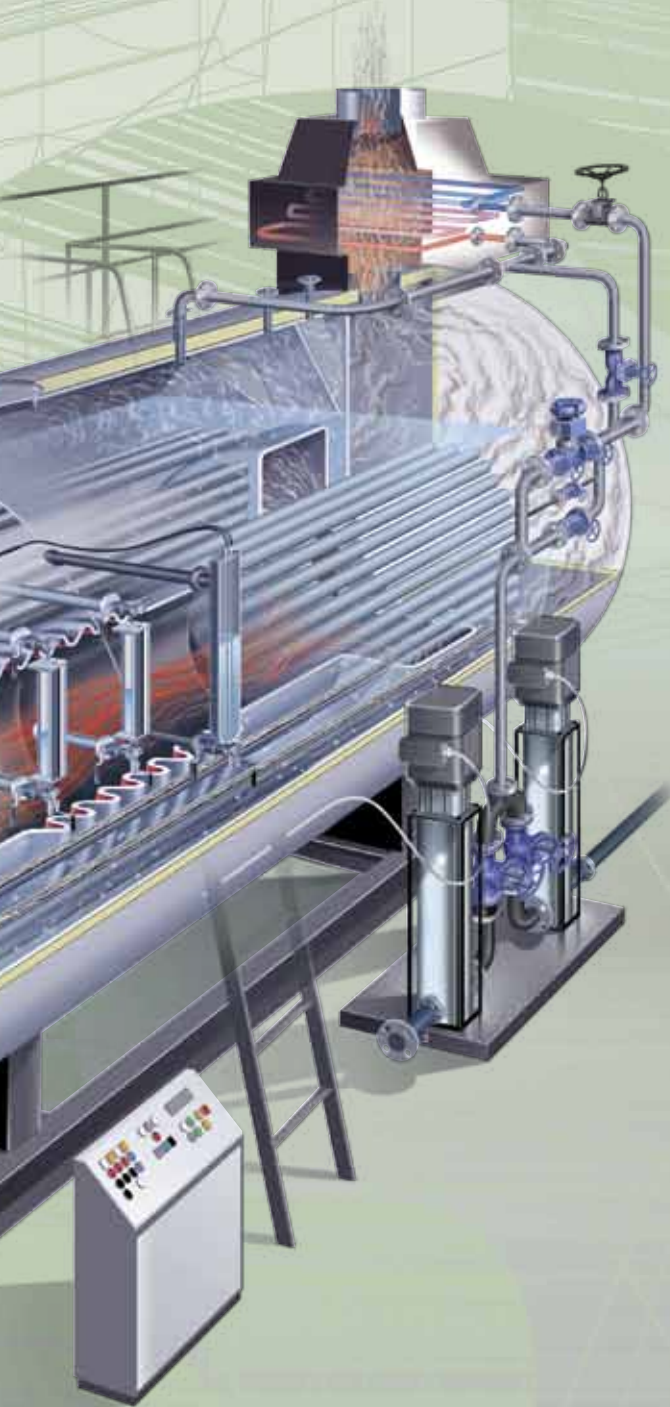
Level control system composed by:

- Two independent "fail safe" low level probes connected to two distinct self monitoring relays
- One high level alarm probe
- Capacitance probe for continuous level monitoring



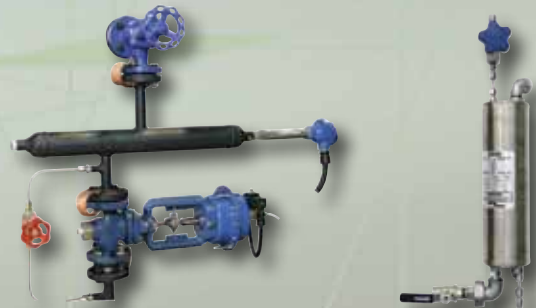
Description	Code	Remarks
TSS 24	86900060	24 hours
TSS 72	86900061	72 hours

72
TSS



Boiler blowdown control system composed by:

- Pneumatic valve with handle for manual operation, closed on power failure
- Compressed air solenoid valve



Boiler TDS control system composed by:

- Conductivity probe for TDS level measuring with temperature compensation function
- blowdown pneumatic valve
- sample cooler



Boiler main control panel certified for the management of the safety chains with self diagnosis function, comprising:

- Integrated PLC for setting and visualizing the statuses and alarms with self-monitoring logics
- Board mounted operator panel with "user friendly" interface



ASX

THREE PASS REVERSE FLAME WET BACK



The ICI ASX Medium Temperature Hot Water Boiler is a three pass reverse flame furnace wet back boiler. The boiler is a complete package and requires only a firm level base. The construction utilises material tested according the European standards, metals are tested by ultrasonic inspection, while the welds by radiographics and dye penetrants.

- supplied fully packaged and ready for installation
- large volume furnace to suit perfect combustion of both liquid and gaseous fuels

Model	Boiler code		Heat output	Heat input	Water side pressure drop	Working T max.		Water volume	Dry weight	
	5 bar	12 bar				5 bar	12 bar		5 bar	12 bar
			kW	kW	mbar	°C	°C	l	kg	kg
ASX 200	86180200	86190200	233	258	13	130	150	735	1400	1540
ASX 300	86180300	86190300	349	388	16	130	150	750	1600	1760
ASX 400	86180400	86190400	465	517	17	130	150	865	1700	2035
ASX 500	86180500	86190500	581	646	21	130	150	1060	2200	2420
ASX 600	86180600	86190600	698	775	20	130	150	1220	2200	2970
ASX 800	86180800	86190800	930	1034	26	130	150	1535	2600	3300
ASX 1000	86181000	86191000	1163	1292	24	130	150	1765	3000	3850
ASX 1200	86181200	86191200	1395	1550	22	130	150	2170	3400	4510
ASX 1500	86181500	86191500	1744	1938	30	130	150	2680	5000	5000
ASX 1750	86181750	86191750	2035	2261	28	130	150	3050	6000	6000
ASX 2000	86182000	86192000	2326	2584	32	130	150	3560	7300	7300
ASX 2500	86182500	86192500	2907	3230	39	130	150	4360	7200	7920
ASX 3000	86183000	86193000	3488	3876	48	130	150	5450	9000	9000

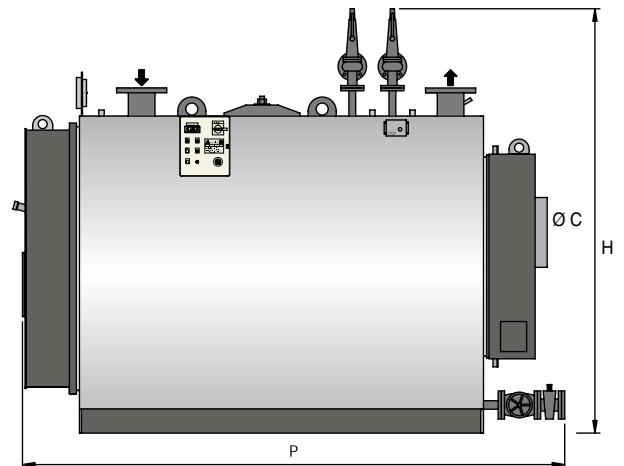
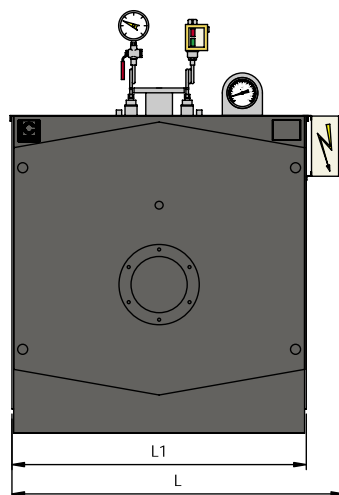
Water side pressure drop is from $\Delta T=20^{\circ}C$

Working T max recommended, not compulsory

Design pressure: 5 or 12 bar

Standard equipment

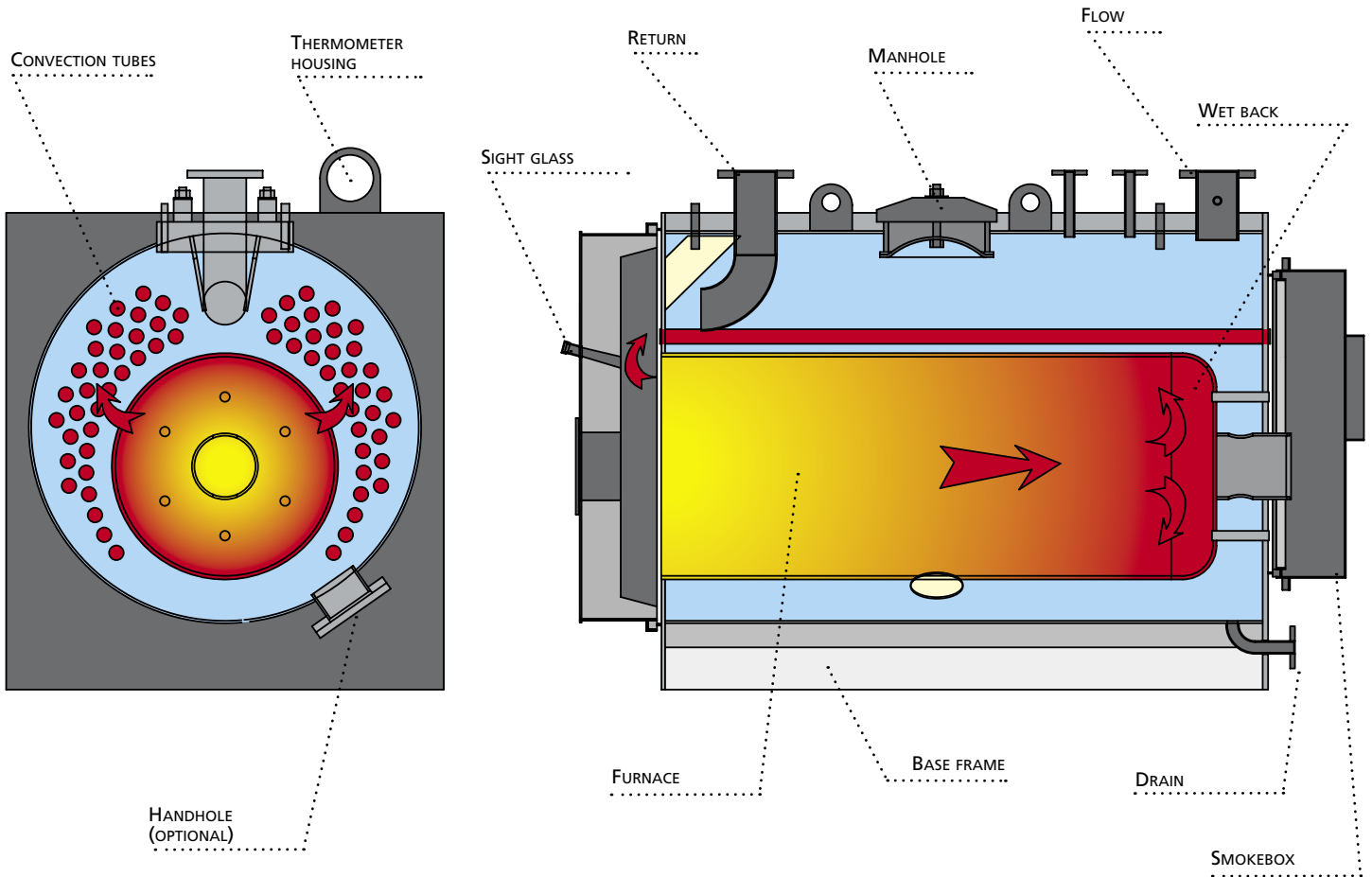
- 2 safety valves
- 1 pressure gauge
- 1 thermometer
- 1 safety thermostat, manual reset
- 1 safety pressure switch, manual reset
- 1 drain valve
- 1 control panel 3/N~ 400V 50 Hz



Model	Furnace resistance	Burner blast tube length	Burner hole diam.	Fuel consumption			Dimensions				
				Natural gas	Diesel oil	Heavy oil	ØC	H	L	L1	P
	mbar	mm	mm	st Nm ³ /h	kg/h	kg/h	mm	mm	mm	mm	mm
ASX 200	3,5	280-330	180	26,4	21,8	22,9	250	1730	1290	1080	2100
ASX 300	3,5	310-360	225	39,7	32,7	34,4	250	1780	1380	1170	2100
ASX 400	5,0	310-360	225	52,9	43,6	45,8	250	1780	1380	1170	2300
ASX 500	4,5	350-400	280	66,1	54,5	57,3	300	1940	1530	1320	2300
ASX 600	6,0	350-400	280	79,3	65,3	68,7	300	1940	1530	1320	2550
ASX 800	5,5	370-420	280	105,9	87,2	91,7	350	2090	1660	1450	2600
ASX 1000	7,0	370-420	280	132,3	108,9	114,5	350	2090	1660	1450	2900
ASX 1200	8,0	370-420	320	158,7	130,7	137,4	400	2190	1750	1540	3100
ASX 1500	6,5	420-470	360	198,4	163,4	171,8	450	2445	1930	1720	3400
ASX 1750	7,5	420-470	360	231,5	190,6	200,5	450	2445	1930	1720	3700
ASX 2000	8,0	480-530	360	264,6	217,9	229,1	450	2455	1950	1740	3700
ASX 2500	9,0	480-530	400	330,7	272,3	286,4	550	2595	2160	1900	4250
ASX 3000	9,5	480-530	400	396,8	326,8	343,6	600	2765	2160	1950	4550

Fuel: gas, light oil or heavy oil

Flue gas temperature: 220°C (on natural gas with 10% CO₂)





ASGX

THREE PASS WET BACK

Medium temperature hot water boiler ASGX is a genuine three pass wet back horizontal fire tube boiler, designed in accordance with the latest EU codes and produced especially for industrial plants.

The ASGX boiler is manufactured incorporating the latest technology and provide excellent performance, in order to satisfy the special requirements of reliability endurance and control.

- supplied fully packaged and ready for installation
- large heating surface without use of turbulators for a low heat release
- flanged tube plates for full flexibility of the vessel during the combustion process

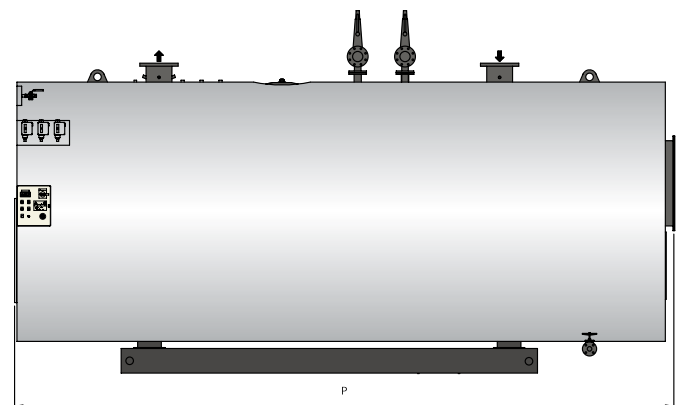
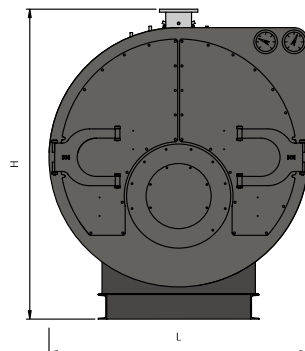
Model	Boiler code	Heat output	Heat input	Water side pressure drop	Working T max.	Water volume	Dry weight
		kW	kW	bar	°C	l	kg
ASGX 1200	86900120	1395	1533	20	150	4800	6500
ASGX 1500	86900150	1744	1916	25	150	5000	7500
ASGX 1750	86900175	2035	2236	32	150	5200	8500
ASGX 2000	86900200	2325	2555	20	150	5970	9400
ASGX 2500	86900250	2907	3195	27	150	6500	10500
ASGX 3000	86900300	3488	3833	36	150	7600	11500
ASGX 3500	86900350	4070	4473	50	150	8890	13000
ASGX 4000	86900400	4651	5111	66	150	9660	15000
ASGX 5000	86900500	5814	6389	50	150	11020	17000
ASGX 6000	86900600	6977	7667	70	150	12430	19000
ASGX 7000	86900700	8140	8945	95	150	15700	22000
ASGX 8000	86900800	9302	10222	70	150	17600	25000
ASGX 9000	86900900	10465	11500	90	150	18800	27500
ASGX 10000	86900990	11628	12920	115	150	19600	30000

Water side pressure drop is from $\Delta T=20^{\circ}\text{C}$

Design pressure: 12 bar

Standard equipment

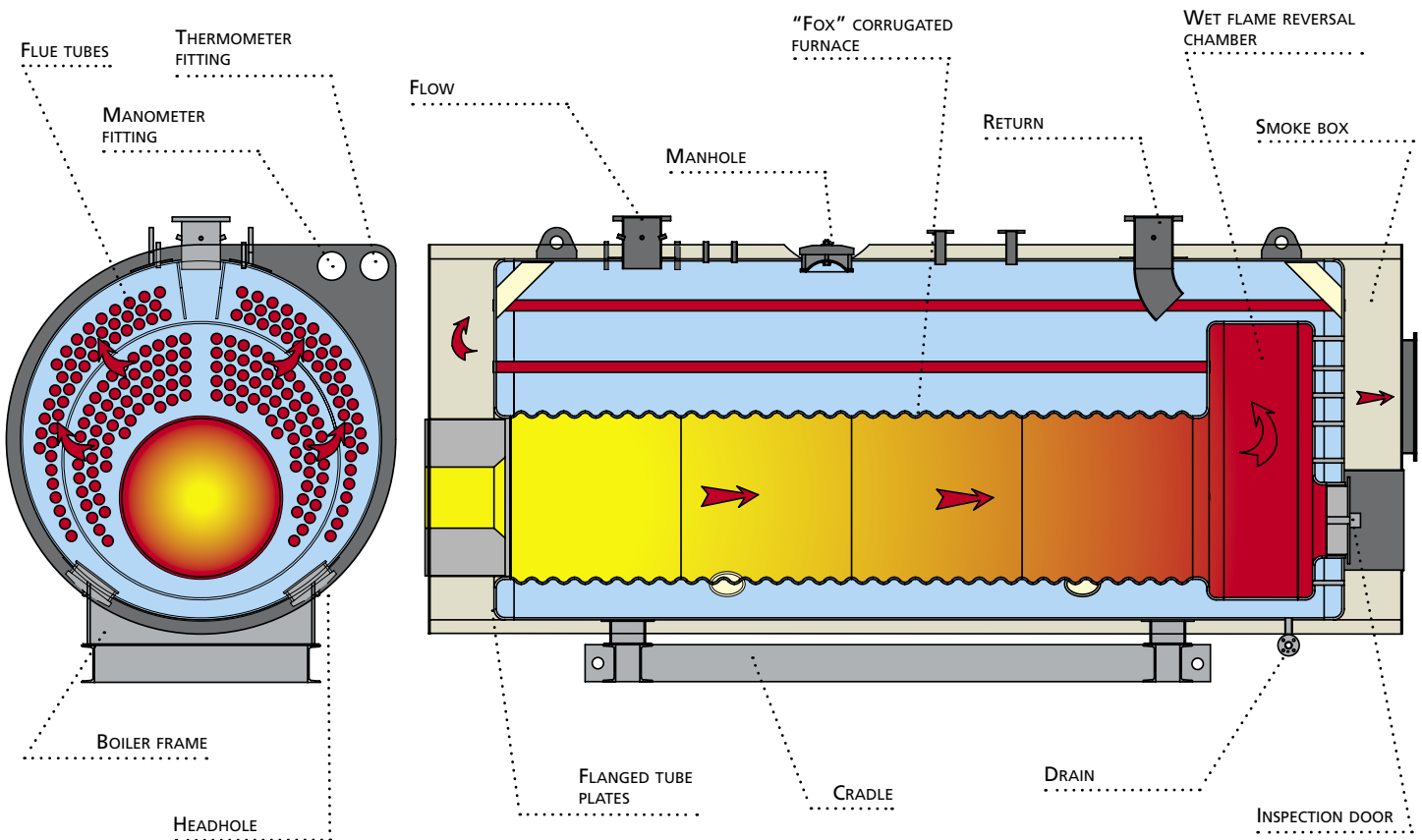
- 2 safety valves
- 1 pressure gauge
- 1 thermometer
- 1 safety thermostat, manual reset
- 1 safety pressure switch, manual reset
- 1 drain valve
- 1 control panel 3/N~ 400V 50 Hz



Model	Furnace resistance	Burner blast tube length	Burner hole diam.	Fuel consumption			Dimensions			
				Natural gas	Diesel oil	Heavy oil	ØC	H	L	P
	mbar	mm	mm	st Nm ³ /h	kg/h	kg/h	mm	mm	mm	mm
ASGX 1200	7,0	min. 320	subject to burner type	156,9	129,3	135,9	400	2200	1800	4000
ASGX 1500	7,0	min. 320	subject to burner type	196,2	161,6	169,9	450	2250	1900	4100
ASGX 1750	7,0	min. 320	subject to burner type	229,0	188,5	198,3	450	2400	2000	4100
ASGX 2000	8,5	min. 320	subject to burner type	261,6	215,4	226,5	500	2400	2000	4500
ASGX 2500	8,0	min. 320	subject to burner type	327,1	269,3	283,2	550	2550	2100	4900
ASGX 3000	9,0	min. 320	subject to burner type	392,4	323,2	339,8	600	2600	2100	5000
ASGX 3500	10,5	min. 320	subject to burner type	457,9	377,1	396,5	600	2600	2150	5500
ASGX 4000	10,0	min. 380	subject to burner type	523,3	430,9	453,1	650	2720	2260	5600
ASGX 5000	10,5	min. 380	subject to burner type	654,1	538,7	566,4	650	2900	2450	5700
ASGX 6000	12,0	min. 430	subject to burner type	785,0	646,4	679,8	700	3000	2490	6200
ASGX 7000	12,0	min. 430	subject to burner type	915,8	754,2	793,1	800	3100	2600	6800
ASGX 8000	14,0	min. 430	subject to burner type	1046,5	861,9	906,3	800	3300	2750	7000
ASGX 9000	14,0	min. 500	subject to burner type	1177,4	969,6	1019,6	900	3300	2800	7300
ASGX 10000	15,0	min. 500	subject to burner type	1322,8	1089,3	1145,5	900	3400	3000	7600

Fuel: gas, light oil or heavy oil

Flue gas temperature: 220°C (on natural gas with 10% CO₂)





OUTPUT FROM 3000 UP TO 7000 kW

TNX

THREE PASS WET BACK BOILER



TNX is a genuine three pass wet back horizontal fire tube boiler, designed in accordance with the latest EU codes and produced especially for large heating circuits.

The boiler is robust and giving long life and high efficiency.

- supplied fully packaged and ready for installation
- large water volume
- large heating surface
- flanged tube plates for full flexibility of the vessel during the combustion process

Model	Boiler code	Heat output	Heat input	Efficiency at 100% load	Water side pressure drop	Working T max.	Water volume	Dry weight
		kW	kW	%	mbar	°C	l	kg
TNX 3000	83473000	3000	3261	92,0	19,5	110	4496	6300
TNX 3500	83473500	3500	3804	92,6	26,6	110	5212	6950
TNX 4000	83474000	4100	4457	92,7	36,5	110	6441	8200
TNX 5000	83475000	5000	5435	92,2	22,2	110	7335	8970
TNX 6000	83476000	6000	6522	92,2	32,0	110	9088	11280
TNX 7000	83477000	7000	7609	92,9	43,6	110	10066	12160

Water side pressure drop is from $\Delta T=20^{\circ}C$

Design pressure: 6 bar

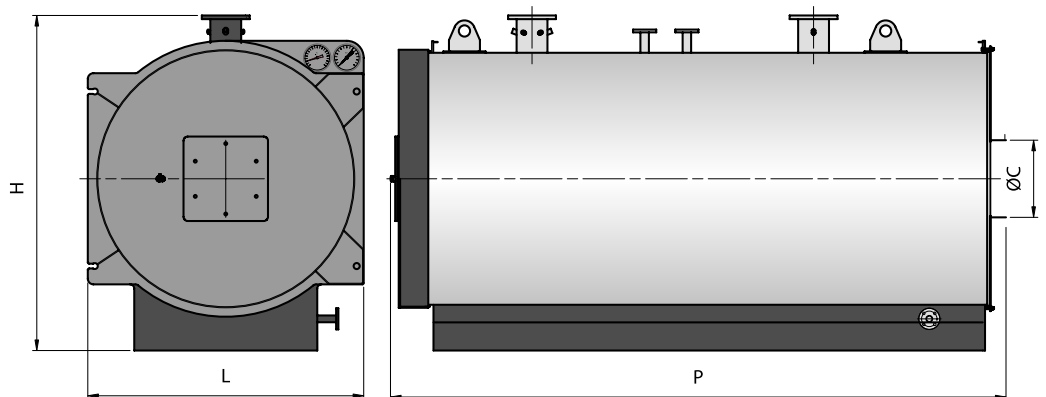
Model	Furnace resistance	Burner blast tube length	Burner hole diam.	Fuel consumption			Dimensions			
				Natural gas	Diesel oil	Heavy oil	ØC	H	L	P
	mbar	mm	mm	st Nm ³ /h	kg/h	kg/h	mm	mm	mm	mm
TNX 3000	13,5	300-400	400	333,9	274,9	289,1	550	2400	1960	3872
TNX 3500	16,0	300-400	400	389,5	320,7	337,3	550	2400	1960	4372
TNX 4000	11,7	300-400	500	456,3	375,8	395,2	600	2610	2170	4372
TNX 5000	14,0	300-400	500	556,4	458,2	481,9	600	2615	2170	4872
TNX 6000	12,0	300-400	500	667,7	549,9	578,2	700	2765	2320	5372
TNX 7000	14,0	300-400	500	779,0	641,5	674,6	700	2765	2320	5872

Flues: gas, light oil or heavy oil

Flue gas temperature: 180°C (on natural gas with 10% CO₂)

Standard equipment

- 1 pressure gauge
- 1 thermometer
- 1 safety thermostat, manual reset
- 1 safety pressure switch, manual reset
- 1 control panel 3/N~ 400V 50 Hz



OUTPUT FROM 8000 UP TO 12000 kW

TNX

THREE PASS WET BACK BOILER

TNX is a genuine three pass wet back horizontal fire tube boiler, designed in accordance with the latest EU codes and produced especially for large heating circuits.

The boiler is robust and giving long life and high efficiency.

- supplied fully packaged and ready for installation
- large water volume
- large heating surface
- flanged tube plates for full flexibility of the vessel during the combustion process



Model	Boiler code	Heat output	Heat input	Efficiency at 100% load	Water side pressure drop	Working T max.	Water volume	Dry weight
		kW	kW	%	mbar	°C	l	kg
TNX 8000	83478000	8000	8648	92,51	95	110	14250	17900
TNX 9000	83479000	9000	9730	92,50	70	110	15700	18600
TNX 10000	83479900	10000	10870	92,00	90	110	17230	22000
TNX 12000	83479990	12000	13043	92,00	115	110	18600	25000

Higher output available on request

Water side pressure drop is from $\Delta T=20^{\circ}\text{C}$

Design pressure: 6 bar

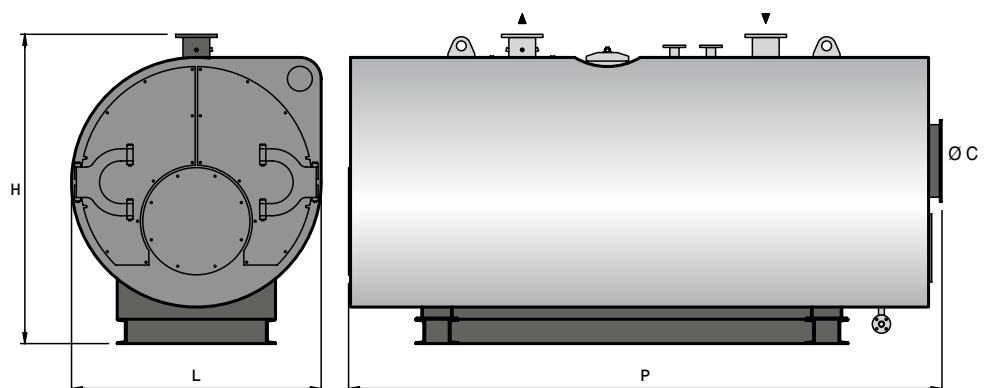
Model	Furnace resistance	Burner blast tube length	Burner hole diam.	Fuel consumption			Dimensions			
				Natural gas	Diesel oil	Heavy oil	ØC	H	L	P
	mbar	mm	mm	st Nm ³ /h	kg/h	kg/h	mm	mm	mm	mm
TNX 8000	12,0	400-450	600	885,4	729,1	766,7	800	3140	2620	6600
TNX 9000	13,0	400-450	600	996,2	820,4	862,7	800	3250	2740	6600
TNX 10000	14,0	400-450	600	1112,9	916,5	963,7	900	3350	2860	7000
TNX 12000	15,0	550-600	700	1335,4	1099,7	1156,4	1000	3350	2860	7400

Flues: gas, light oil or heavy oil

Flue gas temperature: 180°C (on natural gas with 10% CO₂)

Standard equipment

- 1 pressure gauge
- 1 thermometer
- 1 safety thermostat, manual reset
- 1 safety pressure switch, manual reset
- 1 control panel 3/N~ 400V 50 Hz





OUTPUT FROM 2500 TO 6000 KW

TNOX

THREE PASS WET BACK BOILER WITH EXTRA LOW Nox

TNOX is a genuine three pass wet back horizontal fire tube boiler, designed in accordance with the latest EU codes and produced especially for large heating circuits.

The boiler is robust and giving long life and high efficiency.

- supplied fully packaged and ready for installation
- large water volume
- large heating surface
- flanged tube plates for full flexibility of the vessel during the combustion process
- large volume for low Nox level



Model	Boiler code	Heat output	Heat input	Efficiency at 100% load	Water side pressure drop	Working T max.	Water volume	Dry weight
		kW	kW	%	mbar	°C	l	kg
TNOX 2500	83472510	2500	2688	93,01	38	110	4496	6300
TNOX 3000	83473010	3000	3226	92,99	54	110	5212	6950
TNOX 3500	83473510	3500	3763	93,01	74	110	6441	8200
TNOX 4000	83474010	4100	4409	93,00	41	110	7335	8970
TNOX 5000	83475010	5000	5376	93,00	62	110	9088	11280
TNOX 6000	83476010	6000	6452	93,00	89	110	10066	12160

Water side pressure drop is from $\Delta T=20^{\circ}C$

Design pressure: 6 bar

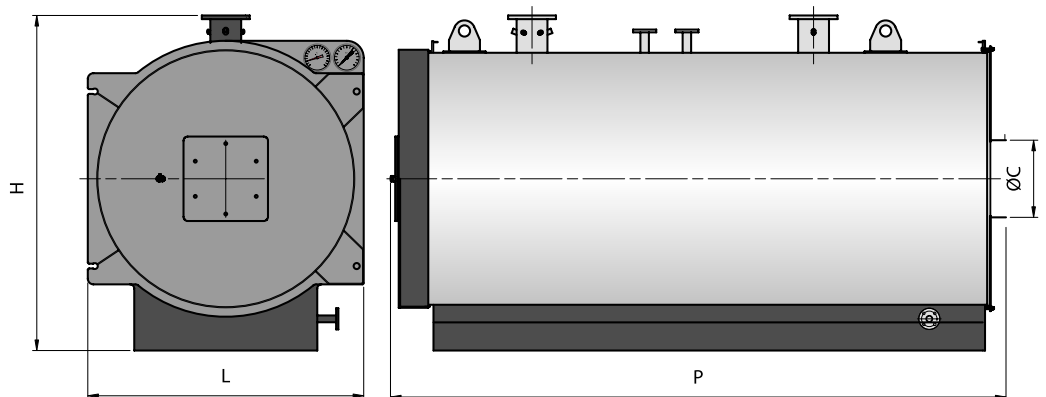
Model	Furnace resistance	Burner blast tube length	Burner hole diam.	Fuel consumption			Dimensions			
				Natural gas	Diesel oil	Heavy oil	H	L	P	Ø C
	mbar	mm	mm	st Nm ³ /h	kg/h	kg/h	mm	mm	mm	mm
TNOX 2500	9,1	300-400	400	275,2	226,7	238,4	2460	2135	3879	550
TNOX 3000	12,5	300-400	400	330,2	272,0	286,0	2460	2135	4379	550
TNOX 3500	10,7	300-400	500	385,2	317,3	333,6	2700	2345	4379	600
TNOX 4000	11,5	300-400	500	451,3	371,7	390,8	2700	2345	4879	600
TNOX 5000	10,0	300-400	500	550,5	453,3	476,7	2820	2495	5379	700
TNOX 6000	11,0	300-400	500	660,5	543,9	572,0	2820	2495	5879	700

Flues: gas, light oil or heavy oil

Flue gas temperature: 180°C (on natural gas with 10% CO₂)

Standard equipment

- 1 pressure gauge
- 1 thermometer
- 1 safety thermostat, manual reset
- 1 safety pressure switch, manual reset
- 1 control panel 3/N~ 400V 50 Hz



OUTPUT FROM 7000 TO 10000 KW

TNOX

THREE PASS WET BACK BOILER WITH EXTRA LOW Nox

TNOX is a genuine three pass wet back horizontal fire tube boiler, designed in accordance with the latest EU codes and produced especially for large heating circuits.

The boiler is robust and giving long life and high efficiency.

- supplied fully packaged and ready for installation
- large water volume
- large heating surface
- flanged tube plates for full flexibility of the vessel during the combustion process
- large volume for low Nox level



Model	Boiler code	Heat output	Heat input	Efficiency at 100% load	Water side pressure drop	Working T max.	Water volume	Dry weight
		kW	kW	%	mbar	°C	l	kg
TNOX 7000	83477010	7000	7568	92,5	97	110	14300	16000
TNOX 8000	83478010	8000	8649	92,5	107	110	15900	18600
TNOX 9000	83479010	9000	9729	92,5	103	110	17650	22800
TNOX 10000	83479910	10000	10811	92,5	118	110	20400	24200

Higher output available on request

Water side pressure drop is from $\Delta T=20^{\circ}\text{C}$

Design pressure: 6 bar

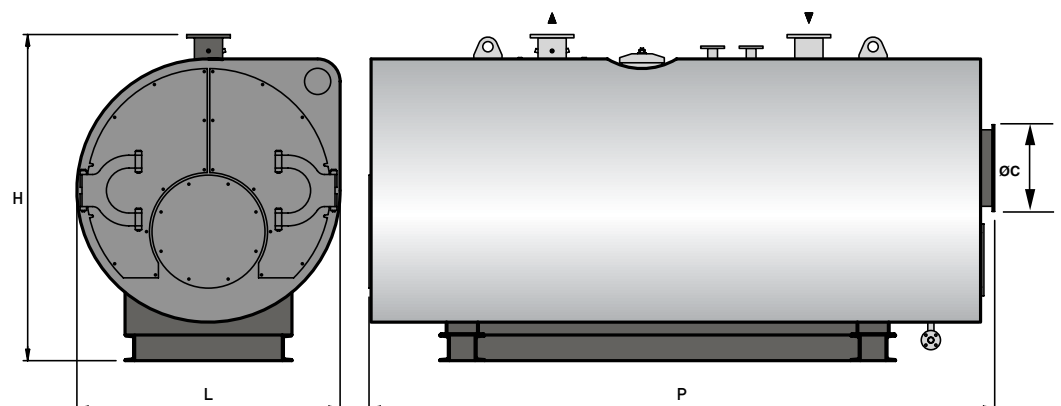
Model	Furnace resistance	Burner blast tube length	Burner hole diam.	Fuel consumption			Dimensions			
				Natural gas	Diesel oil	Heavy oil	H	L	P	Ø C
	mbar	mm	mm	st Nm ³ /h	kg/h	kg/h	mm	mm	mm	mm
TNOX 7000	13,0	400-450	600	634,6	667,3	770,6	3150	2775	6700	700
TNOX 8000	14,0	400-450	600	725,3	762,7	880,7	3300	2975	6700	700
TNOX 9000	14,0	400-450	600	815,9	858,0	990,8	3300	2975	7450	800
TNOX 10000	15,0	550-600	700	906,6	953,3	1100,9	3650	3275	7500	900

Flues: gas, light oil or heavy oil

Flue gas temperature: 180°C (on natural gas with 10% CO₂)

Standard equipment

- 1 pressure gauge
- 1 thermometer
- 1 safety thermostat, manual reset
- 1 safety pressure switch, manual reset
- 1 control panel 3/N~ 400V 50 Hz





OPX

THREE PASS COIL TYPE HEATER



OPX is a three pass, horizontal thermal oil heater with flue exit at the back of the boiler. The heater is designed with low heat losses and very high oil velocity in order to eliminate cracking: thermal oil disease during superheating. The very low thermal capacity, for a reduced use of refractory cement, allows reliability against superheating risks even, at worst, during oil circulation stopping.

OPX is generously sized with low heat release criteria, manufactured incorporating the latest technology and providing excellent performance.

Model	Code	Heat output	Heat input	Efficiency	Oil side pressure drop	Working T max.	Oil volume	Dry weight
		kW	kW	100%	bar	°C	l	kg
OPX 100	87110100	116	137	84,87	1,44	300	40	650
OPX 200	87110200	233	270	86,30	1,70	300	80	900
OPX 300	87110300	349	405	86,17	1,94	300	120	1200
OPX 400	87110400	465	541	85,95	1,00	300	210	1500
OPX 500	87110500	581	676	85,95	1,84	300	250	1650
OPX 600	87110600	698	810	86,17	1,60	300	210	1750
OPX 800	87110800	930	1081	86,03	1,20	300	290	2200
OPX 1000	87111000	1163	1351	86,08	1,68	300	460	2650
OPX 1200	87111200	1395	1622	86,00	1,00	300	680	3750
OPX 1500	87111500	1744	2028	86,00	1,70	300	700	3800

Oil side pressure drop is from $\Delta T = 40^\circ C$

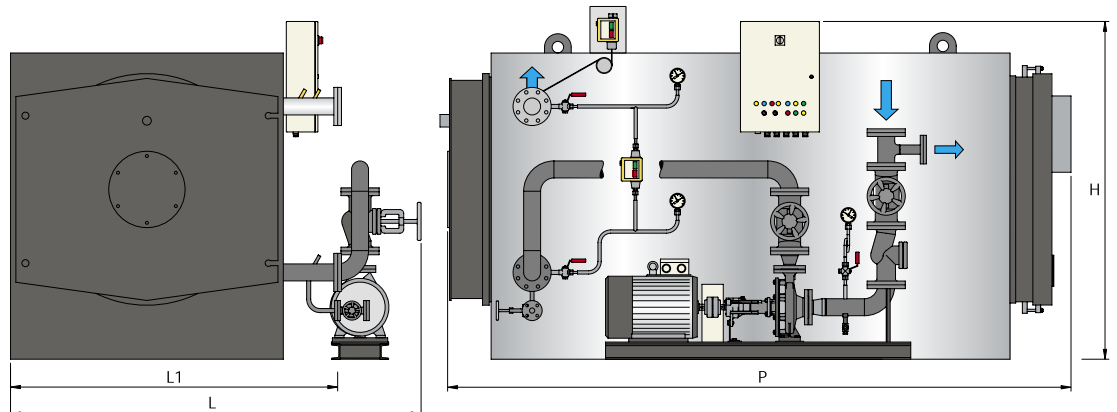
Design pressure 10 bar

Model	Furnace resistance	Burner blast tube length	Burner hole diameter	Fuel consumption			H	L	L1	P	Ø C
	mbar	mm	mm	Natural gas	Diesel oil	Heavy oil	mm	mm	mm	mm	mm
OPX 100	0,5	280-330	160	14,0	11,6	12,2	1150	1330	1145	1540	200
OPX 200	1,0	280-330	225	27,6	22,7	23,9	1400	1510	1295	1780	250
OPX 300	1,5	310-360	225	41,4	34,1	35,9	1600	1730	1495	1805	250
OPX 400	2,0	310-360	280	55,4	45,6	47,9	1650	1790	1545	2070	300
OPX 500	4,0	310-360	280	69,2	57,0	59,9	1645	1765	1515	2315	350
OPX 600	3,5a	350-400	280	83,0	68,3	71,9	1695	1885	1605	2390	350
OPX 800	4,0	370-420	280	110,7	91,2	95,9	1725	1910	1635	2940	350
OPX 1000	3,5	370-420	280	138,3	113,9	119,8	1805	1985	1715	3050	400
OPX 1200	4,0	370-420	320	166,1	136,8	143,8	1915	2180	1845	3500	450
OPX 1500	5,0	420-470	320	207,6	171,0	179,8	2050	2300	1935	3900	500

Fuel: gas, light oil or heavy oil - Flue gas temperature: 350° C (on natural gas with 10% CO₂)

Standard equipment

- 1 oil filter
- 2 isolating valves
- 1 thermal oil pump
- 3 pressure gauges
- 1 differential pressure switch
- 1 safety thermostat, manual reset
- 1 flue gas sensor
- 1 drain valve
- 1 control panel 3/N ~ 400 V 50 Hz



OPX REC

THREE PASS COIL TYPE HEATER

OPX REC is a three pass, horizontal thermal oil heater with flue exit at the back of the boiler directed to a heat recuperator. The heater is designed with low heat losses and very high oil velocity in order to eliminate cracking: thermal oil disease during superheating. The very low thermal capacity, for a reduced use of refractory cement, allows reliability against superheating risks even, at worst, during oil circulation stopping. OPX REC is generously sized with low heat release criteria, manufactured incorporating the latest technology and providing excellent performance. Before being expelled to the chimney, the flue gases pass through a built-in recuperator where the flue gas temperature is further reduced by preheating the combustion air, thus achieving a global efficiency over 91%. The hot air is then carried to the industrial type burner which is always supplied with the OPX REC heater.



Model	Code	Heat output	Heat input	Efficiency	Oil side pressure drop	Working T max.	Oil volume	Dry weight
		kW	kW		100%	bar		
OPX 1000 REC	87111001	1163	1277	91,07	1,68	300	460	3500
OPX 1200 REC	87111201	1395	1533	91,00	1,00	300	680	4800
OPX 1500 REC	87111501	1744	1916	91,02	1,70	300	700	5000
OPX 2000 REC	87112000	2326	2555	91,04	1,60	300	1350	6800
OPX 2500 REC	87112500	2907	3194	91,01	1,30	300	1600	8600
OPX 3000 REC	87113000	3488	3833	91,00	1,80	300	1520	10500
OPX 4000 REC	87114000	4651	5110	91,02	2,00	300	2300	14000
OPX 5000 REC	87115000	5814	6388	91,01	1,90	300	2500	17500
OPX 6000 REC	87116000	6977	7666	91,01	2,00	300	2800	21000
OPX 8000 REC	87118000	9302	10222	91,00	2,90	300	3650	28000

Oil side pressure drop is from $\Delta T = 40^\circ \text{C}$

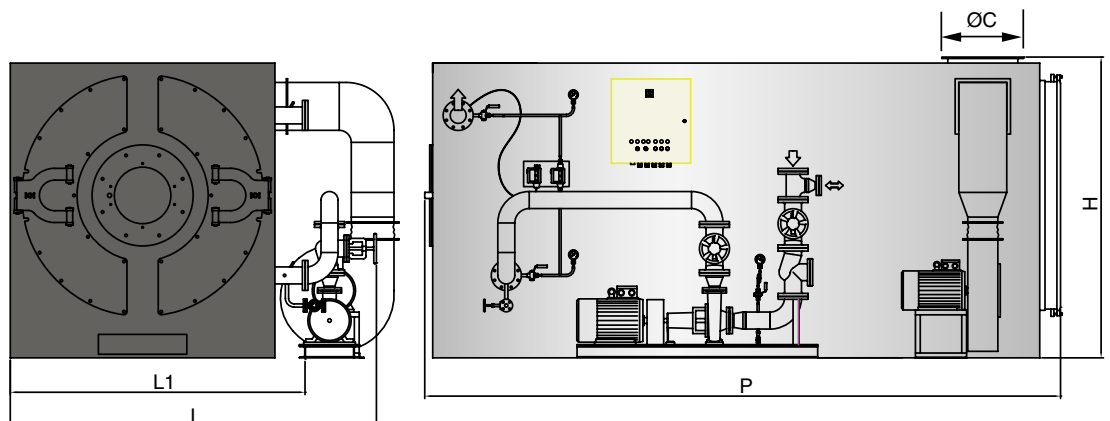
Design pressure 10 bar

Model	Furnace resistance	Burner blast tube length	Burner hole diameter	Fuel consumption			H	L	L1	P	Ø C
	mbar	mm	mm	Natural gas	Diesel oil	Heavy oil	mm	mm	mm	mm	mm
OPX 1000 REC	5,5	280-330	280	130,7	107,6	113,2	2000	2150	1715	3800	400
OPX 1200 REC	6,0	280-330	320	156,9	129,2	135,9	2120	2300	1845	4300	450
OPX 1500 REC	7,5	310-360	320	196,2	161,6	169,9	2250	2500	1935	4600	500
OPX 2000 REC	8,0	310-360	350	261,5	215,4	226,5	2700	2700	2250	4700	550
OPX 2500 REC	9,0	310-360	360	327,0	269,3	283,2	2900	2900	2350	5200	600
OPX 3000 REC	10,0	350-400	380	392,4	323,1	339,8	2850	3000	2474	5600	600
OPX 4000 REC	12,0	370-420	400	523,2	430,9	453,1	3300	3300	2650	6350	650
OPX 5000 REC	15,0	370-420	400	654,0	538,6	566,4	3800	3450	2950	7000	700
OPX 6000 REC	18,0	370-420	400	784,9	646,4	679,7	3800	3600	2950	7750	800
OPX 8000 REC	19,0	420-470	450	1046,5	861,9	906,3	3800	3750	2950	8000	850

Fuel: gas, light oil or heavy oil - Flue gas temperature: 350°C (on natural gas with 10% CO_2)

Standard equipment

- 1 oil filter
- 2 isolating valves
- 1 thermal oil pump
- 3 pressure gauges
- 1 differential pressure switch
- 1 safety thermostat, manual reset
- 1 flue gas sensor
- 1 drain valve
- 1 control panel 3/N - 400 V 50 Hz

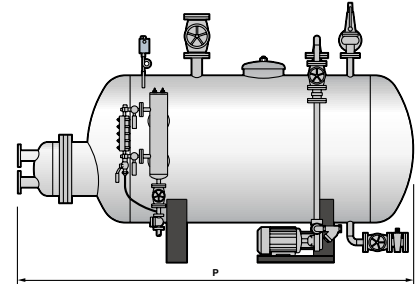
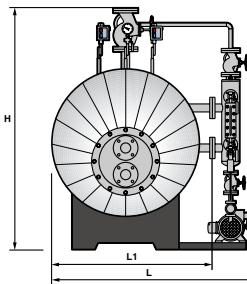




EVX

INDIRECT STEAM GENERATOR

EVX is a very large indirect steam generator. The thermal oil passes through the stainless steel coil in the closed circuit within OPX the boiler. The generator provides excellent steam quality and dryness as in a traditional steam boiler. Suitable for all plant requirements.



Model	Code	Output	Steam production	Working P min/max	Water volume		Dry weight	Dimensions			
					NWL	Total		ØC	H	L	P
		kW	kg/h	bar	l	l	kg	mm	mm	mm	mm
EVX 200	87140212	233	341	8 / 11,5	500	650	600	1450	1300	900	2000
EVX 300	87140312	349	512	8 / 11,5	615	800	850	1500	1350	950	2200
EVX 400	87140412	465	680	8 / 11,5	960	950	1050	1600	1400	1000	2400
EVX 500	87140512	581	855	8 / 11,5	1000	1300	1150	1700	1500	1100	2700
EVX 600	87140612	698	1024	8 / 11,5	1350	1750	1350	1850	1650	1250	3000
EVX 800	87140812	930	1370	8 / 11,5	1580	2050	1550	1850	1650	1250	3500
EVX 1000	87141012	1163	1710	8 / 11,5	2070	2600	1700	2000	1750	1350	3600
EVX 1200	87141212	1395	2050	8 / 11,5	2220	2950	1850	2000	1750	1350	3800
EVX 1500	87141512	1744	2560	8 / 11,5	3100	4050	2400	2250	1950	1550	3800
EVX 2000	87142012	2326	3400	8 / 11,5	3600	4700	2550	2250	1950	1550	3800
EVX 2500	87142512	2907	4250	8 / 11,5	3390	4850	2900	2300	2050	1550	4300
EVX 3000	87143012	3488	5100	8 / 11,5	3910	5500	3400	2400	2150	1650	4500
EVX 4000	87144012	4651	6820	8 / 11,5	5000	6500	3800	2500	2250	1750	4600
EVX 5000	87145012	5814	8500	8 / 11,5	6100	8000	4500	2650	2350	1850	4900
EVX 6000	87146012	6977	10000	8 / 11,5	8300	10800	5500	2800	2500	2000	5900
EVX 8000	87148012	9302	13600	8 / 11,5	9500	12300	7200	3000	2650	2150	6300

Steam production is from feed water at 80°C

Thermal oil temperature 280/240°C

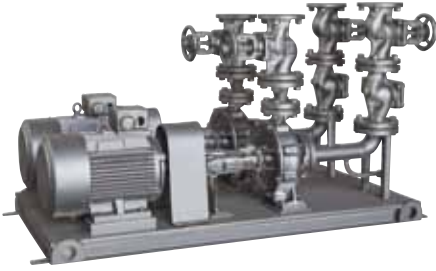
Standard equipment:

- 2 level indicators
- 1 main steam stop valve
- 2 spring safety valves
- 1 pressure gauge
- 1 limit pressure switch
- 1 safety pressure switch, manual reset
- 1 automatic level control
- 1 low level safety probe
- 1 extra low level safety probe
- 2 feed water pumps
- 2 strainers
- 3 isolating valves
- 2 non-return valves
- 1 blowdown stop valve
- 1 control panel 3/N 400V 50 Hz

Optional	Code	For details see
High level alarm kit	No code	Page 76
Automatic blowdown system	86900033	Page 75
TDS control system	17090037	Page 75
Sample cooler	38040102	Page 75
Modulating feed water system	No code	Page 77
Self monitoring low level alarms	No code	Page 76
Self monitoring high level alarm	No code	Page 76
ECXV economiser	According to model	Page 72

PMX

STANDBY THERMAL OIL CIRCULATION PUMP



- full reliability against system stopping due to service pump failure
- supplied completely connected and wired to the thermal oil heater

Standard equipment:

- 1 thermal oil pump
- 1 isolating valves on pump inlet and outlet
- 1 filter
- 1 pressure gauge
- 1 drain valve

Description	Code	To suit boiler
PMX 100	87050100	OPX 100
PMX 200	87050200	OPX 200
PMX 300	87050300	OPX 300
PMX 400	87050400	OPX 400
PMX 500	87050500	OPX 500
PMX 600	87050600	OPX 600
PMX 800	87050800	OPX 800
PMX 1000	87051000	OPX 1000
PMX 1200	87051200	OPX 1200
PMX 1500	87051500	OPX 1500
PMX 2000	87052000	OPX 2000 REC
PMX 2500	87052500	OPX 2500 REC
PMX 3000	87053000	OPX 3000 REC
PMX 4000	87054000	OPX 4000 REC
PMX 5000	87055000	OPX 5000 REC
PMX 6000	87056000	OPX 6000 REC
PMX 8000	87058000	OPX 8000 REC

ESP

THERMAL OIL EXPANSION VESSEL

DESIGN PRESSURE:
5 BAR



- pressurized by air or nitrogen
- supplied fully packaged and ready for installation

Standard equipment:

- 1 pressure gauge
- 1 level indicator
- 1 safety valve
- 1 level controller
- 1 pressure switch
- 1 safety pressure switch
- 2 nitrogen/air solenoid valves
- 1 nitrogen/air check valve
- 1 nitrogen/air manifold



Description	Volume	Code	To suit boiler*
ESP 200	200	87170200	OPX 100-200-300
ESP 400	400	87170400	OPX 400-500-600
ESP 800	800	87170800	OPX 800-1000
ESP 1000	1000	87171000	OPX 1200-1500
ESP 1500	1500	87171500	OPX 2000-2500 REC
ESP 2000	2000	87172000	OPX 3000-4000 REC
ESP 3000	3000	87173000	OPX 5000-8000 REC

* = subject to plant parameters; to be checked before order



Package Boiler House

.98 ICI Box

.99 Package boiler house

.100 Customised package boiler plant

ICI Box

COMPACT PACKAGED BOILER HOUSE



ICI Box is a package plant room for small and medium heating circuits. ICI Box is the optimal solution when it is difficult or not convenient to find the space and cover the expenses for the construction of a conventional boilerhouse.

It is supplied with all the safety devices and accessories according latest European standards, ready to be piped to existing or new circuits.

- saving on costs of installation of pipework.
- saving on construction costs
- saving on time for installation
- easy maintenance
- simplifies projects budget costs calculations
- system fully tested and certified
- absolute safety against gas leakages as the plant room is out of any building
- light structure for installation on robust roofs

Model	Output	Dimensions
MINI BOX	Up to 640 kW	(2400 x 1600 x 2300 h)
MEDI BOX	Up to 1.280 kW	(2400 x 3149 x 2300 h)
MEDI BOX SPECIAL	Up to 1.600 kW	(2400 x 3149 x 2995 h)
MAXI BOX 1	Up to 1.920 kW	(2400 x 3950 x 2300 h)
MAXI BOX 1 SPECIAL	Up to 2.000 kW	(2400 x 3950 x 2995 h)
MAXI BOX 2	Up to 2.560 kW	(2400 x 4700 x 2300 h)
MAXI BOX 2 SPECIAL	Up to 3.000 kW	(2400 x 4700 x 2995 h)

Standard equipment:

- Roofing / Side Walls anti-fire construction
- Door "60 minutes" anti-fire construction
- Boiler
- Burner with accessories
- Chimney
- Boiler Circulation Pumps
- Anti-condensate Pumps (not supplied for condensing boiler house)
- Electrical circuit
- Pipe-work
- Control Thermostats
- Safety Thermostats
- Thermometer
- Pressure Switches
- Pressure Gauges
- On-Off Fuel Valve
- Safety Valves
- Expansions Vessel
- Pressurisation Equipment ...
- Ventilation Louvres
- Fire Extinguisher.



Package boiler house

ICI Caldaie Packaged Boiler House is a package plant room for small and medium heating circuits.

ICI Caldaie Packaged Boiler House is the optimal solution when it is difficult or not convenient to find the space and cover the expenses for the construction of a conventional boilerhouse.

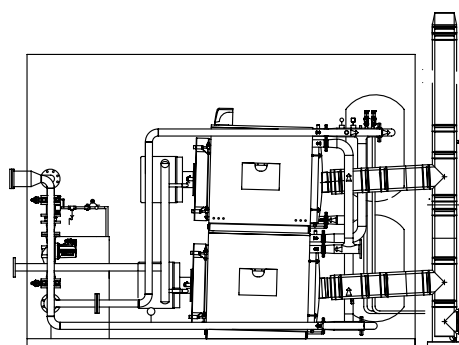
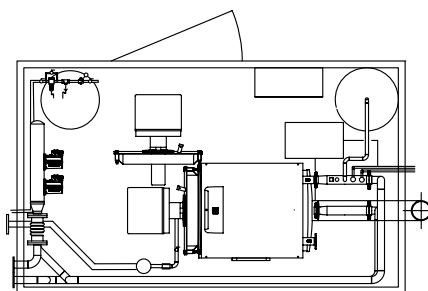
It is supplied with all the safety devices and accessories according latest European standards, ready to be piped to existing or new circuits.

- saving on costs of installation of pipework.
- saving on construction costs
- saving on time for installation
- easy maintenance
- simplifies projects budget costs calculations
- system fully tested and certified
- absolute safety against gas leakages as the plant room is out of any building
- robust and highly insulated boiler room
- suitable for different locations within the boiler life

Model	Output	Type	Dimensions
	kW		(H x L x P mm)
Classe A	93 - 186	traditional	3000 x 2000 x 3000
Classe A	232 - 407	traditional	3000 x 2000 x 4000
Classe A	465 - 581	traditional	3000 x 2400 x 4000
Classe D	186 - 233	double furnace	3000 x 2000 x 3000
Classe D	302 - 581	double furnace	3000 x 2000 x 4000
Classe E	105 - 407	low temperature	3000 x 2000 x 4000
Classe E	465 - 581	low temperature	3000 x 2400 x 4000
Classe C	70 - 145	condensing	3000 x 2000 x 3000
Classe C	186 - 314	condensing	3000 x 2000 x 4000
Classe C	407 - 511	condensing	3000 x 2400 x 4000

Standard equipment:

- Roofing / Side Walls anti-fire construction
- Door "60 minutes" anti-fire construction
- Boiler
- Burner with accessories
- Chimney
- Boiler Circulation Pumps
- Anti-condensate Pumps (not supplied for CLASSE C)
- Electrical circuit
- Pipe-work
- Control Thermostats
- Safety Thermostats
- Thermometer
- Pressure Switches
- Pressure Gauges
- On-Off Fuel Valve
- Safety Valves
- Expansions Vessel
- Pressurisation Equipment ...
- Ventilation Louvres
- Fire Extinguisher.



Customised package boiler plant

PACKAGED BOILER HOUSE



ICI Caldaie Packaged Boiler House is a customized package plant room for large heating circuits or industrial plants (steam, thermal oil or MTHW). ICI Caldaie Packaged Boiler House is the optimal solution when it is difficult or not convenient to find the space and cover the expenses for the construction of a conventional boilerhouse.

It is supplied with all the safety devices and accessories according latest European standards, ready to be piped to existing or new circuits.

- saving on costs of installation of pipework.
- saving on construction costs
- saving on time for installation
- easy maintenance
- simplifies projects budget costs calculations
- system fully tested and certified
- absolute safety against gas leakages as the plant room is out of any building
- robust and highly insulated boiler room
- completely designed according to customer specifications
- suitable for different locations within the boilerhouse lifetime

Model	Type
heating boiler plant	specifications to be provided for a quotation
steam boiler plant	specifications to be provided for a quotation
thermal oil boiler plant	specifications to be provided for a quotation
MTHW boiler plant	specifications to be provided for a quotation

Standard equipment:

- Roofing / Side Walls anti-fire construction
- Door "60 minutes" anti-fire construction
- Boiler (steam, thermal oil or MTHW)
- Burner with accessories
- Chimney
- Regulation and safety accessories according to boiler type and customer specification
- Electrical circuit
- Pipe-work
- Ventilation Louvres
- Fire Extinguisher.



Company fully registered with Quality Assurance to ISO 9001:2008

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