

Unical

XC-K 3



BREVETTO
Unical
PATENT

smoke pipes

PRESSURIZED CONDENSING BOILER LOW NO_x WITH THREE REAL SMOKE PASS

OUTPUT RANGE

from 116 to 3000 kW

OPERATION TEMPERATURE

no limit on the return temperature

SUPPLY

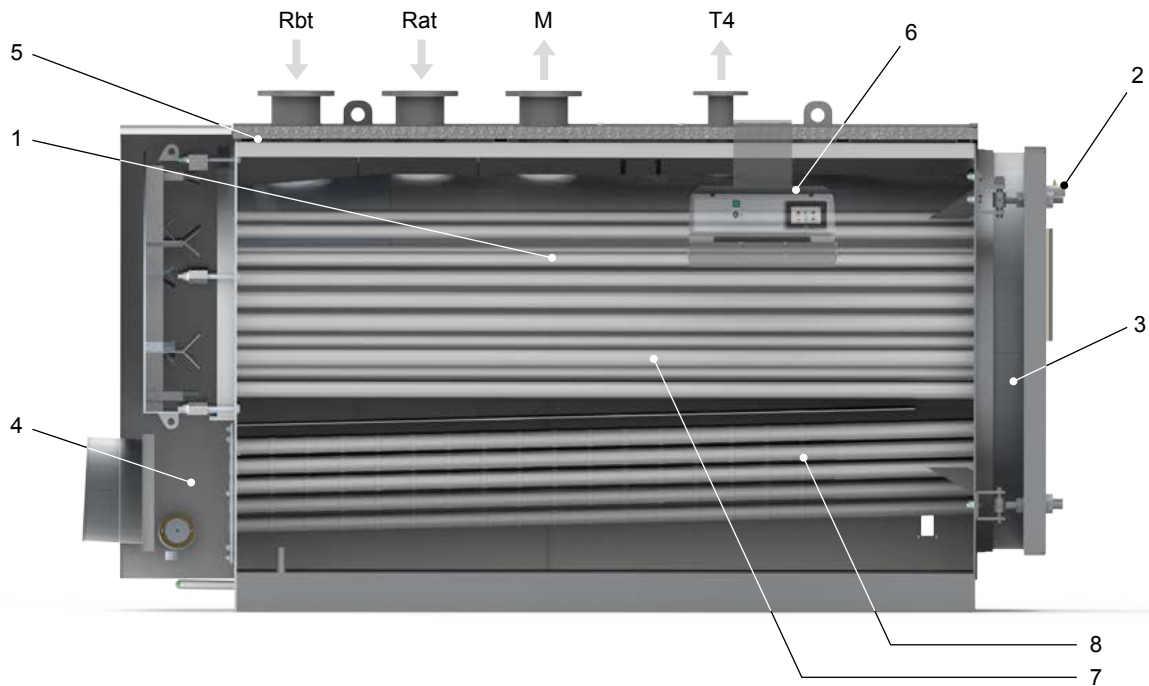
Natural Gas or LPG fed pressure jet burners

MODELS

116	125	200	300	348	400	500	650
800	1000	1250	1500	1750	2000	2500	3000

Outer shell in high resistance carbon steel – large water content – two return connections
three effective smoke passes, with passing flame, and front and rear tube plates in stainless steel AISI 316 L.

MAIN COMPONENTS

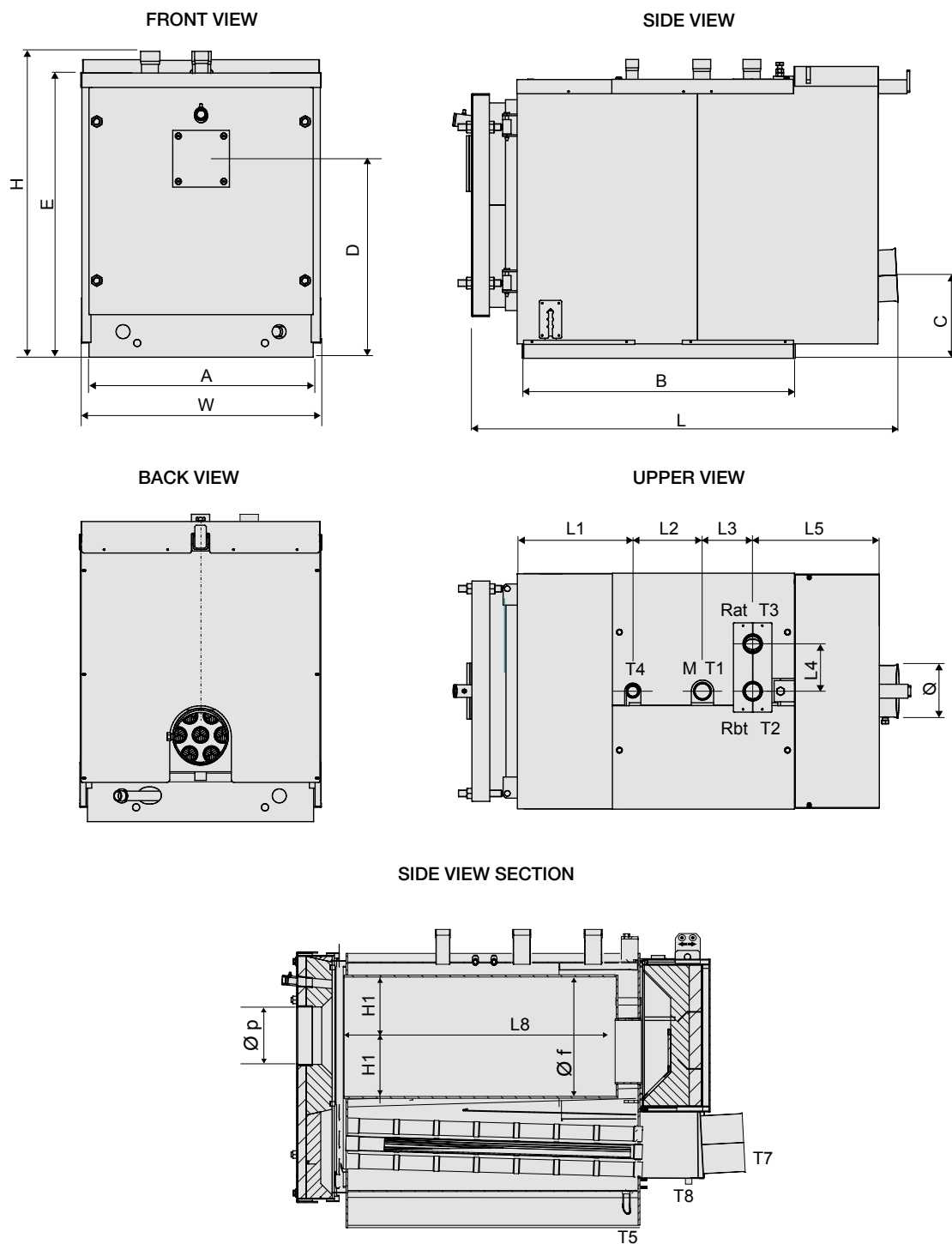


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|----|-----------------------------|-----|------------------------------|
| 1. | Furnace | 8. | Smoke tubes 3 Turn |
| 2. | Flame sight glass | M | Flow |
| 3. | Door with flame sight glass | Rbt | Low temperature return |
| 4. | Smoke chamber | Rat | High temperature return |
| 5. | Body insulation | T4 | Expansion vessel |
| 6. | Panel board | | (Burner isn't supplied with) |
| 7. | Smoke tubes 2 Turn | | |

PRODUCT PLUS VALUES

- **PASSING FLAME AND FRONT AND REAR TUBE PLATES IN AISI 316 L STAINLESS STEEL**
- **SMOKE CHAMBER IN AISI 304 STAINLESS STEEL**
with condensate drain connection
- **SECOND AND THIRD SMOKE PASS WITH PIPES OF THE SAME SIZE**
- **STAINLESS STEEL SMOKE PIPES**
containing extruded profiles in Al/Si/Mg with a **nanotechnological treatment** which makes resistant to the acidic condensates from diesel fuel
- **EXTERNAL CIRCULAR SHELL IN CARBON STEEL**
- **LOW NO_x EMISSION**
in combination with low NO_x burners
- **POSSIBILITY OF ASSEMBLY IN BOILER HOUSE**
- **SUITABLE FOR TWO STAGE PRESSURE JET AND TWO STAGE PROGRESSIVE MODULATING BURNERS**
- **TWO RETURN CONNECTIONS**
- **COMMAND AND CONTROL PANEL (optional)**
electronic type with Ufly P thermoregulation, which allows the management of the one-stage, two-stage or modulating burners.
- **ADJUSTABLE DOOR WITH DOUBLE OPENING FOR INSPECTION OF THE 2ND AND 3RD SMOKE PASS**
- **REAR DOOR OF THE INVERSION CHAMBER BETWEEN 1ST AND 2ND SMOKE PASS**
- **QUIET OPERATION**

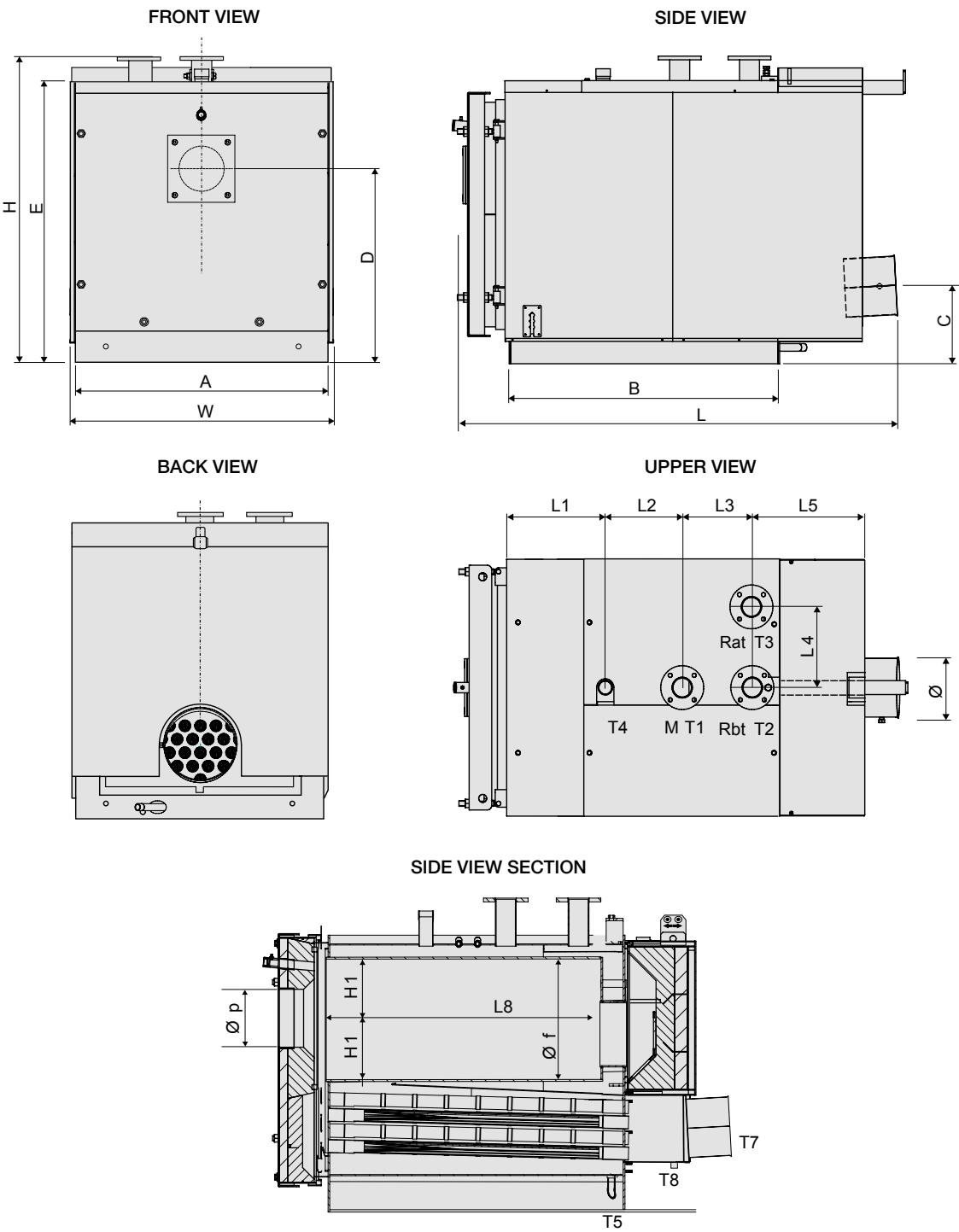
DIMENSIONS XC-K 3 116-125



XC-K 3	L	B	L1	L2	L3	L4	L5	L8	W	A	H	H1	C	D	E	Ø	Ø f
	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
116	1532	981	414	250	180	170	454	920	840	790	1073	180	299	699	1002	180	360
125	1532	981	414	250	180	170	454	920	840	790	1073	180	299	699	1002	180	360

XC-K 3	T1 (M)	T2 (R)	T3 (R)	T4	T5 (Sc)	T6 (Ø p)	T7 (S)	T8 (Scond)	Weight
	inch	inch	inch	inch	inch	mm	mm	mm	kg
116	G 2"	G 2"	G 2"	G 1 ¼"	G 1"	135	180	40	-
125	G 2"	G 2"	G 2"	G 1 ¼"	G 1"	135	180	40	-

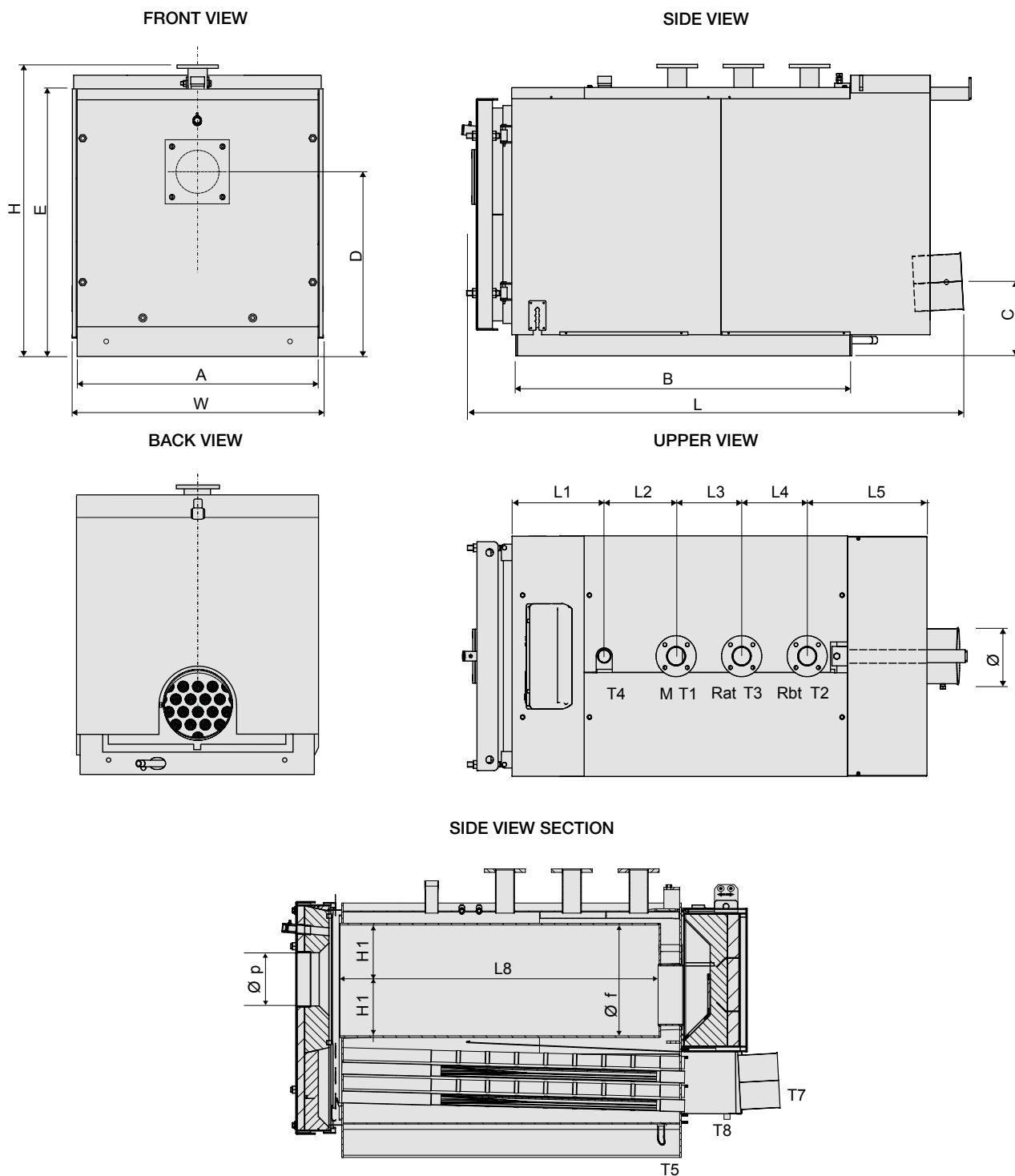
DIMENSIONS XC-K 3 200-300



XC-K 3	L	B	L1	L2	L3	L4	L5	L8	W	A	H	H1	C	D	E	Ø	Ø f
	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
200	1758	1174	435	300	270	255	435	1080	1000	950	1243	214	329	778	1132	200	428
300	1922	1214	470	300	320	275	590	1120	1110	1060	1338	259	324	821	1230	250	518

XC-K 3	T1 (M) PN6	T2 (R) PN6	T3 (R) PN6	T4 inch	T5 (Sc) inch	T6 (Ø p) mm	T7 (S) mm	T8 (Scond) mm	Weight kg
200	DN 65	DN 65	DN 65	G 1 ½"	G 1"	180	200	40	-
300	DN 80	DN 80	DN 80	G 2"	G 1"	180	250	40	-

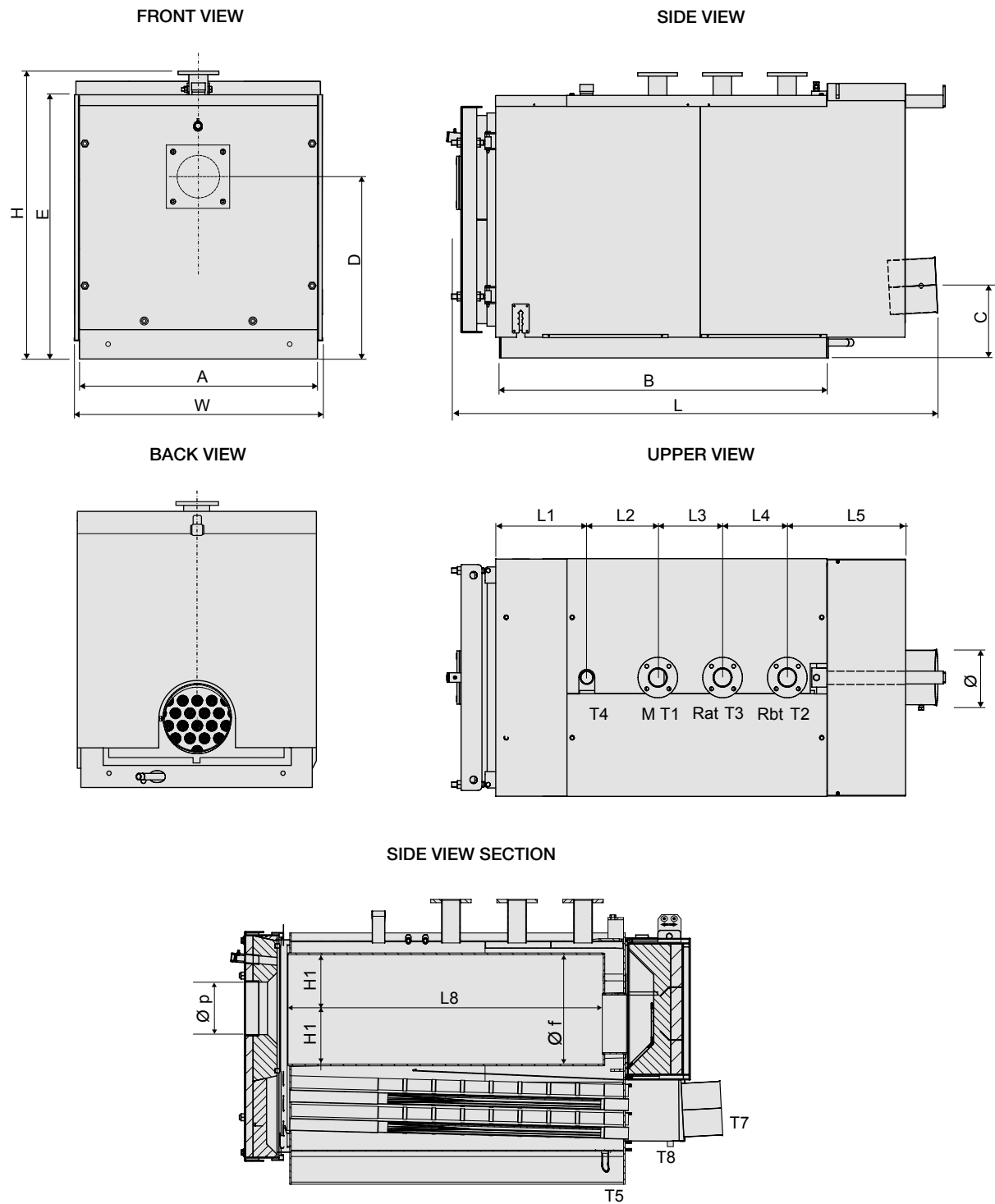
DIMENSIONS XC-K 3 348-400



XC-K 3	L	B	L1	L2	L3	L4	L5	L8	W	A	H	H1	C	D	E	Ø	Ø f
	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
348	2283	1575	435	340	310	310	567	1480	1110	1060	1338	257	342	821	1232	250	530
400	2283	1575	435	340	310	310	567	1480	1110	1060	1338	257	342	821	1232	250	530

XC-K 3	T1 (M) PN6	T2 (R) PN6	T3 (R) PN6	T4 inch	T5 (Sc) inch	T6 (Ø p) mm	T7 (S) mm	T8 (Scond) mm	Weight kg
348	DN 80	DN 80	DN 80	G 2"	G 1"	180	250	40	-
400	DN 80	DN 80	DN 80	G 2"	G 1"	180	250	40	-

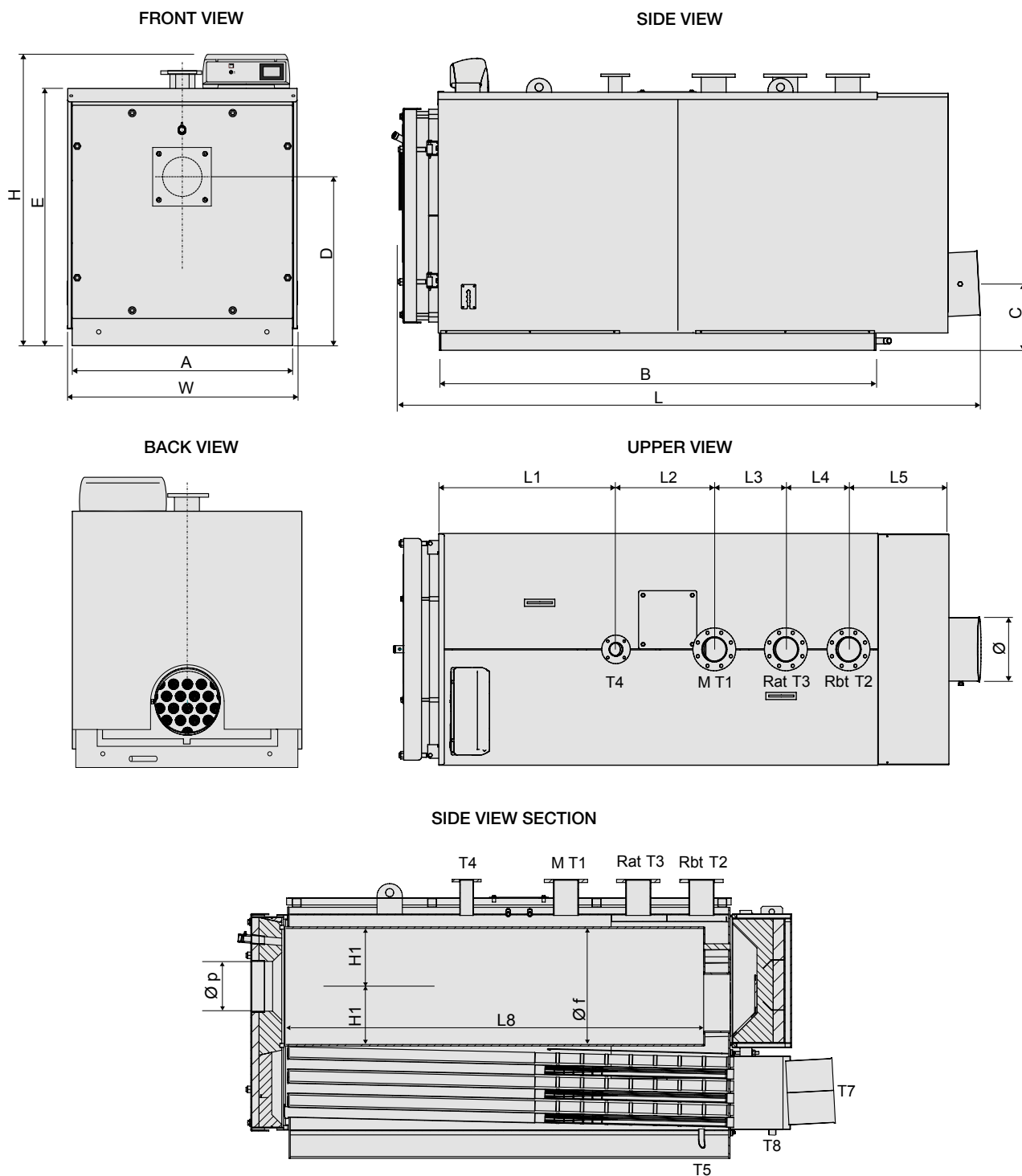
DIMENSIONS XC-K 3 500÷650



XC-K 3	L	B	L1	L2	L3	L4	L5	L8	W	A	H	H1	C	D	E	Ø	Ø f
	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
500	2340	1595	416	340	330	330	568	1450	1240	1190	1582	292	381	938	1392	300	584
650	2662	1915	576	500	330	330	567	1850	1240	1190	1582	321	381	938	1392	300	642

XC-K 3	T1 (M)	T2 (R)	T3 (R)	T4	T5 (Sc)	T6 (Ø p)	T7 (S)	T8 (Scond)	Weight
	PN6	PN6	PN6	inch	inch	mm	mm	mm	kg
500	DN 100	DN 100	DN 100	G 2"	G 1"	-	300	40	-
650	DN 100	DN 100	DN 100	G 2"	G 1"	-	300	40	-

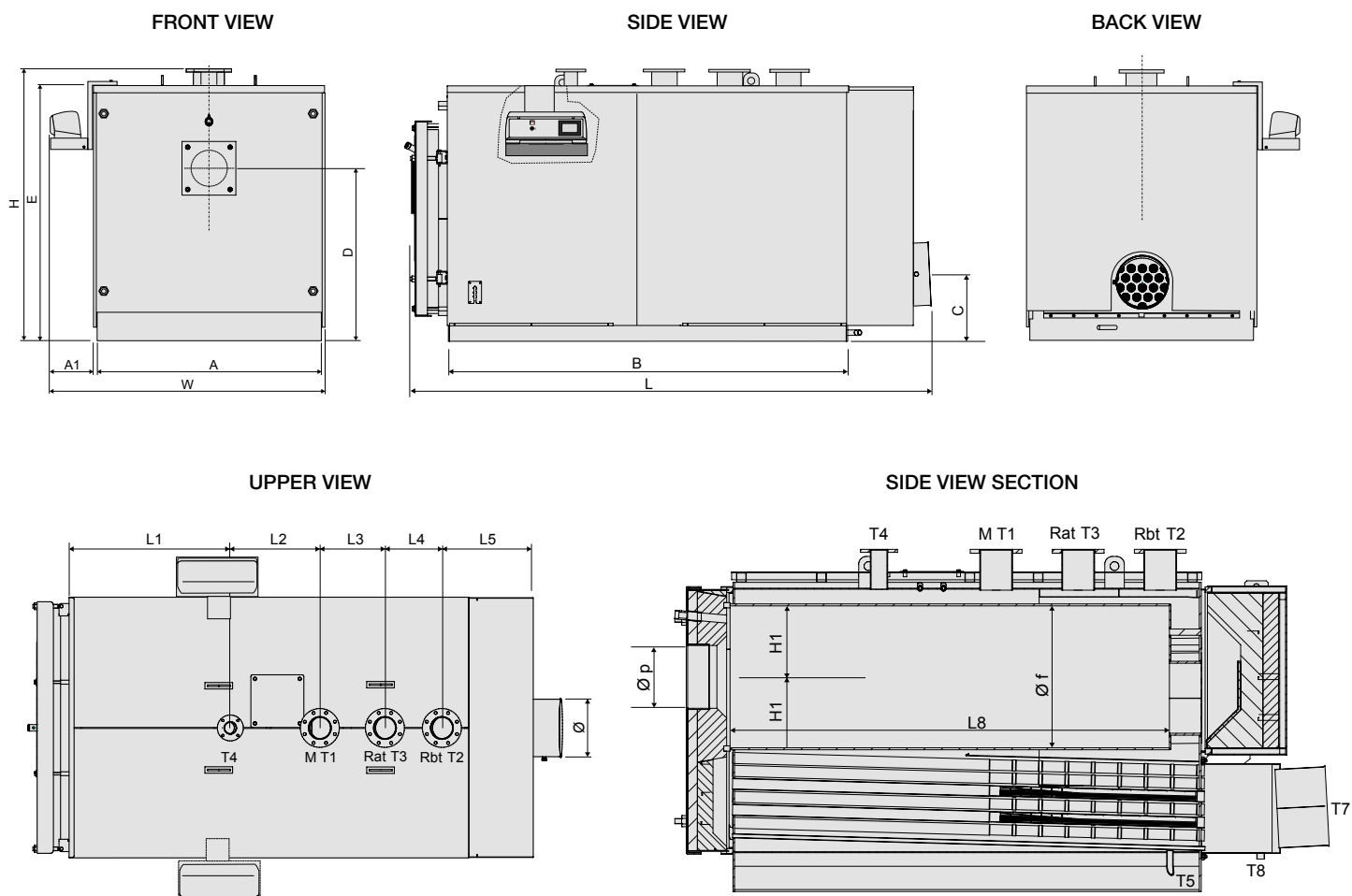
DIMENSIONS XC-K 3 800-1000



XC-K 3	L	B	L1	L2	L3	L4	L5	L8	W	A	H	H1	C	D	E	Ø	Ø f
	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
800	2794	1981	530	550	350	350	612	1850	1290	1240	1630	320	376	952	1447	350	640
1000	3221	2440	990	550	400	350	562	2310	1290	1240	1630	320	376	952	1447	350	640

XC-K 3	T1 (M)	T2 (R)	T3 (R)	T4	T5 (Sc)	T6	T7 (S)	T8 (Scond)	Weight
	PN6	PN6	PN6	PN6	inch	mm	mm	mm	kg
800	DN 125	DN 125	DN 125	DN 65	G 1"	270	350	40	2020
1000	DN 125	DN 125	DN 125	DN 65	G 1"	270	350	40	2350

DIMENSIONS XC-K 3 1250÷3000



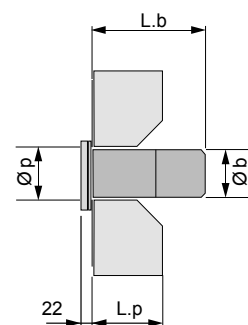
XC-K 3	L	B	L1	L2	L3	L4	L5	L8	W	A	A1	H	H1	C	D	E	Ø	Ø f
	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
1250	3293	2399	748	600	420	420	697	2250	1792	1495	297	1760	297	365	1104	1643	400	730
1500	3643	2749	1098	600	420	420	697	2250	1792	1495	297	1760	297	365	1104	1643	400	730
1750	3622	2650	804	600	420	550	817	2500	1932	1580	302	1922	405	471	1218	1809	450	810
2000	3970	2998	1151	600	420	550	817	2842	1932	1580	302	1922	405	471	1218	1809	450	810
2500	4332	3272	960	805	580	610	809	2845	2369	1980	329	2457	463	621	1619	2253	550	926
3000	4738	3678	1366	805	580	610	795	3250	2369	1980	329	2457	463	621	1619	2253	550	926

XC-K 3	T1 (M) PN6	T2 (R) PN6	T3 (R) PN6	T4 PN6	T5 (Sc) inch	T6 (ø p) mm	T7 (S) mm	T8 (Scond) mm	Weight kg
1250	DN 150	DN 150	DN 150	DN 80	G 1"	320	400	40	3200
1500	DN 150	DN 150	DN 150	DN 80	G 1"	320	400	40	3500
1750	DN 200	DN 200	DN 200	DN 100	G 1"	320	450	40	4200
2000	DN 200	DN 200	DN 200	DN 100	G 1"	320	450	40	4600

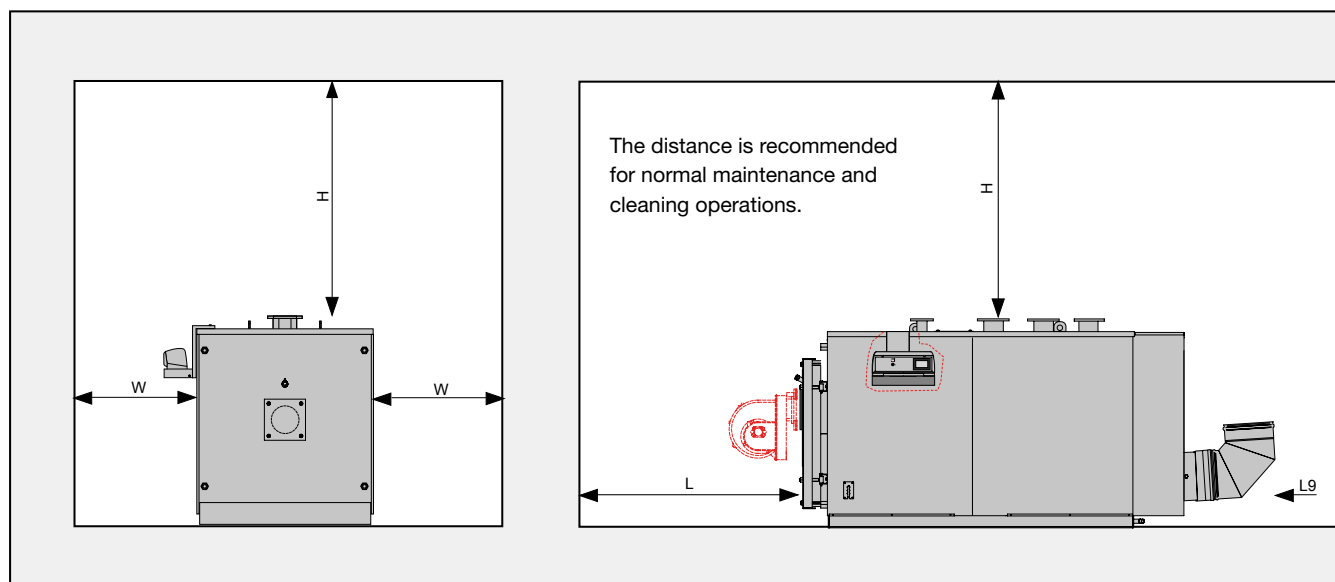
XC-K 3	T1 (M) PN16	T2 (R) PN16	T3 (R) PN16	T4 PN16	T5 (Sc) inch	T6 (ø p) mm	T7 (S) mm	T8 (Scond) mm	Weight kg
2500	DN 250	DN 250	DN 250	DN 125	G 1"	380	550	40	-
3000	DN 250	DN 250	DN 250	DN 125	G 1"	380	550	40	-

BURNER BLAST TUBE DIMENSIONS

MODEL	Length Burner dimension		Door drilling	
	Ø b mm	L.b mm	Ø p mm	L.p mm
XC-K 3 116-125	115	300	135	169
XC-K 3 200	160	300	180	170
XC-K 3 300 - 348 - 400	160	300	180	171
XC-K 3 500-650	200	200	220	171
XC-K 3 800	250	300	270	171
XC-K 3 1000	250	300	270	171
XC-K 3 1250	300	350	320	207
XC-K 3 1500	300	350	320	207
XC-K 3 1750	300	390	320	278
XC-K 3 2000	300	390	320	278
XC-K 3 2500	360	400	380	310
XC-K 3 3000	360	400	380	310



POSITIONING IN BOILER ROOM



Clearance (mm)

XC-K 3	W	L	L9	H
116	800	1300	800	1800
125	800	1300	800	1800
200	800	1300	800	1800
300	800	1300	800	1800
348	800	1300	800	1800
400	800	1300	800	1800
500	800	1300	800	1800
650	800	1300	800	1800

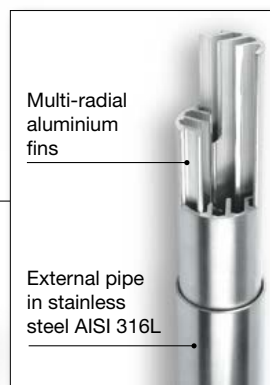
XC-K 3	W	L	L9	H
800	1300	4300	1000	1500
1000	1300	3700	1000	1500
1250	1300	3200	1000	1500
1500	1300	3200	1000	1500
1750	1300	3600	1000	1500
2000	1300	3600	1000	1500
2500	1300	4300	1000	1500
3000	1300	4700	1000	1500

SPECIAL SMOKE PIPES (patented)

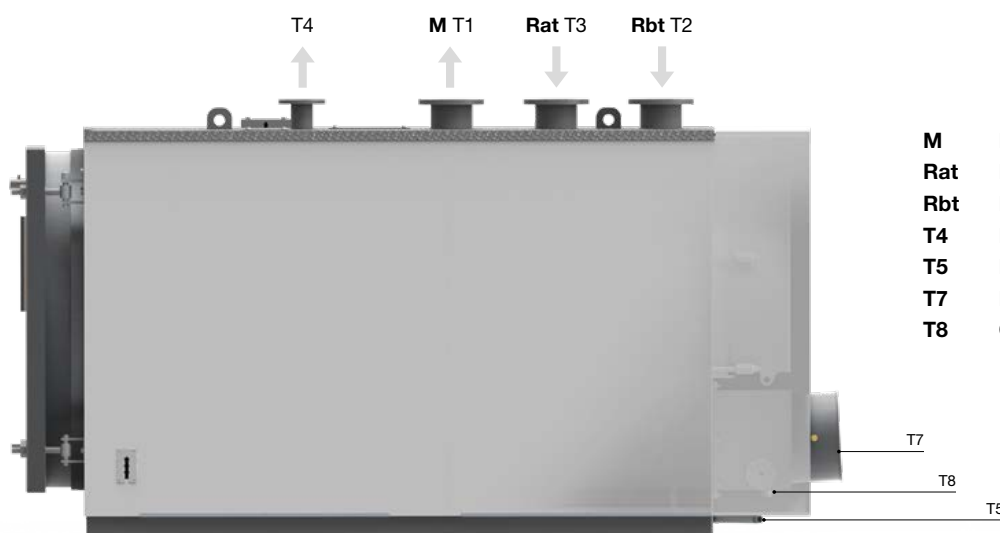
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SMOKE PIPES:

- Exceptional thermal exchange
- Functional outflow of the condensate
- Absence of wet acidic deposits
- Washout, for gravity, of the smooth exchange surfaces
- Greater duration
- Nanotechnological treatment (for oil version)



CONNECTION



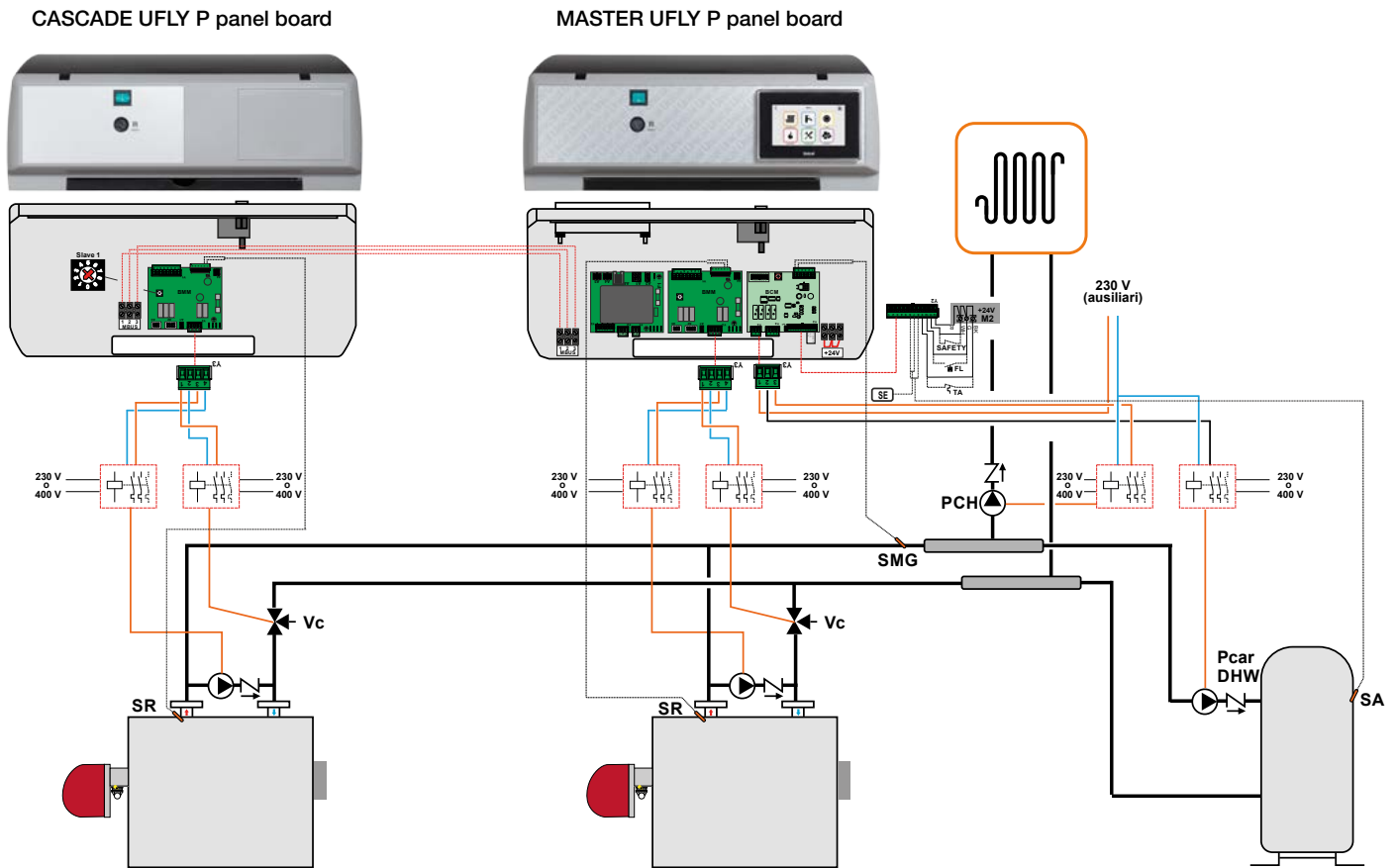
- M** Flow
Rat High temperature return
Rbt Low temperature return
T4 Expansion vessel
T5 Drain Boiler
T7 Flue gas exhaust
T8 Condensation drain

XC-K 3	CONNECTIONS					
	M (T1) inch / PN 6	R (T2 - T3) at/bt inch / PN 6	T4 inch / PN 6	T5 inch	T7 Ø mm	T8 Ø mm
116 - 125	G 2"	G 2"	G ¼"	G 1"	180	DN 40
200	DN 65	DN 65	G ½"	G 1"	200	DN 40
300	DN 80	DN 80	G 2"	G 1"	250	DN 40
348 - 400	DN 100	DN 100	G 2"	G 1"	300	DN 40
500 - 650	DN 100	DN 100	G 2"	G 1"	300	DN 40
800 - 1000	DN 125	DN 125	DN 65	G 1"	350	DN 40
1250 - 1500	DN 150	DN 150	DN 80	G 1"	400	DN 40
1750 - 2000	DN 200	DN 200	DN 100	G 1"	450	DN 40
XC-K 3	M (T1) PN 16	R (T2 - T3) at/bt PN 16	T4 PN 16	T5 inch	T7 Ø mm	T8 Ø mm
2500	DN 250	DN 250	DN 225	G 1"	550	DN 40
3000	DN 250	DN 250	DN 125	G 1"	550	DN 40

ELECTRICAL, HYDRAULIC, INSTALLATION DIAGRAMS AND CONTROLLERS can be unloaded from the web site www.unical.eu at the page of the product

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BASIC SCHEME OF SYSTEM OPERATION



SMG	Global Flow sensor
SR	Heating sensor
PRC	Boiler recirculation pump (connect to BMM)
SA	DHW storage temperature sensor
P.car DHW	Cylinder charging pump (connect on BCM)
P. CH	Heating circuit pump (connect to BCM)
PCL	2-way valve Boiler

For condensing boilers, no boiler recirculation pump (PRC) is required.