

# Unical

## XC-K 3



BREVETTO  
**Unical**  
PATENT

smoke pipes

### PRESSURIZED CONDENSING BOILER LOW NO<sub>x</sub> WITH THREE REAL SMOKE PASS

OUTPUT RANGE

from 800 to 3000 kW

OPERATION TEMPERATURE

no limit on the return temperature

SUPPLY

pressure jet burners  
for Nat. gas - LPG - oil

MODELS

800

1000

1250

1500

1750

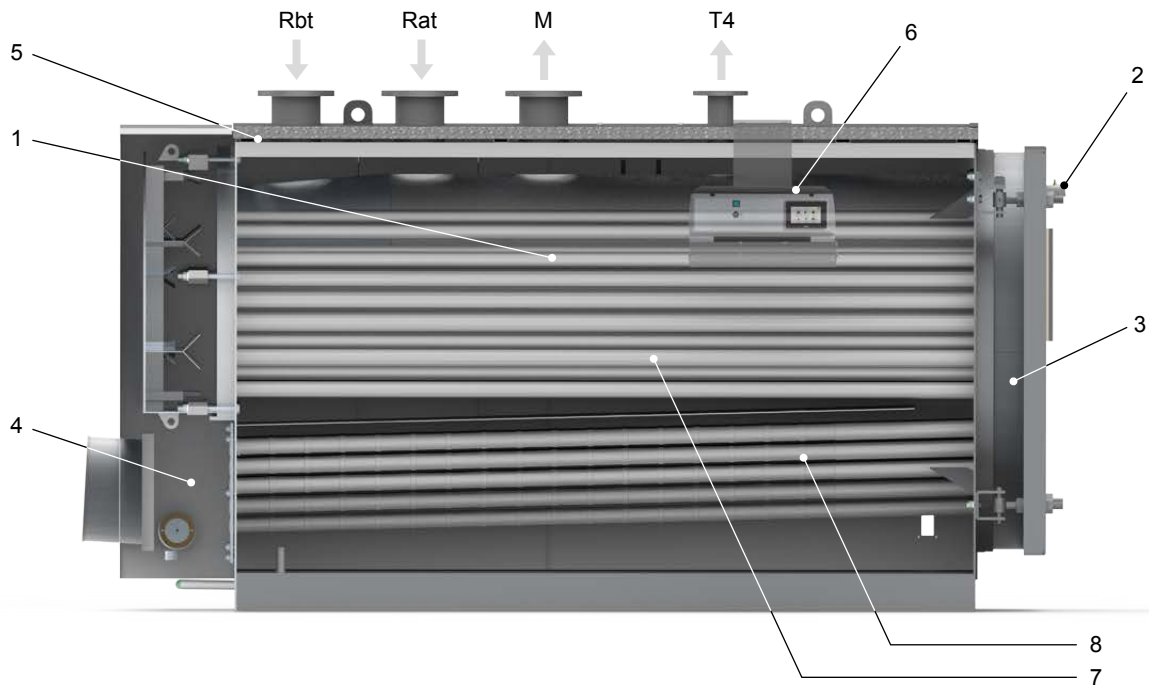
2000

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

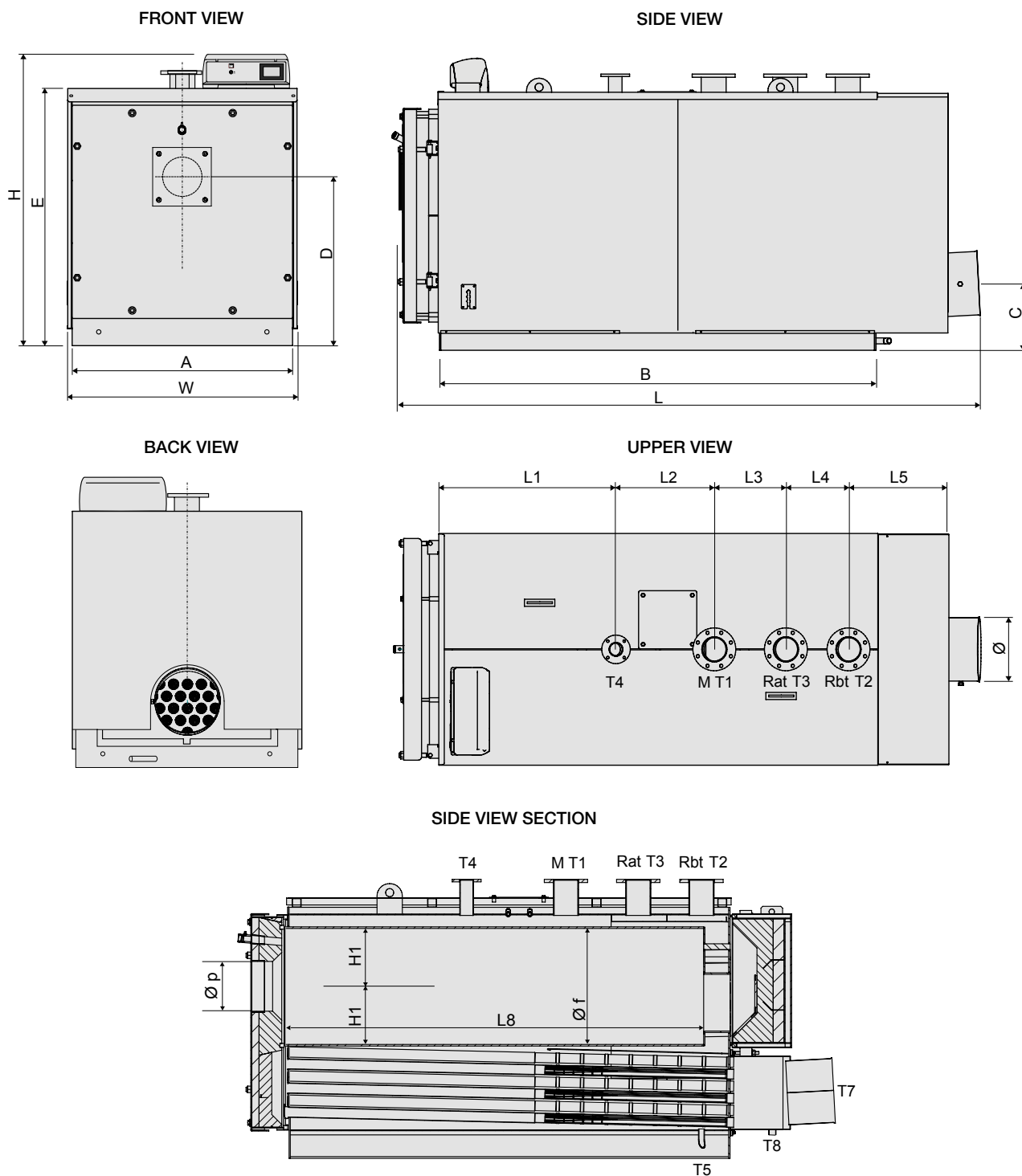


- |    |                             |     |  |
|----|-----------------------------|-----|--|
| 1. | Furnace                     | 8.  | Smoke tubes 3 Turn                               |
| 2. | Flame sight glass           | M   | Flow   |
| 3. | Door with flame sight glass | Rbt | Low temperature return                           |
| 4. | Smoke chamber               | Rat | High temperature return                          |
| 5. | Body insulation             | T4  | Expansion vessel<br>(Burner isn't supplied with) |
| 6. | Panel board                 |     |  |
| 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 NOX EMISSION**  
in combination with low NOx 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**

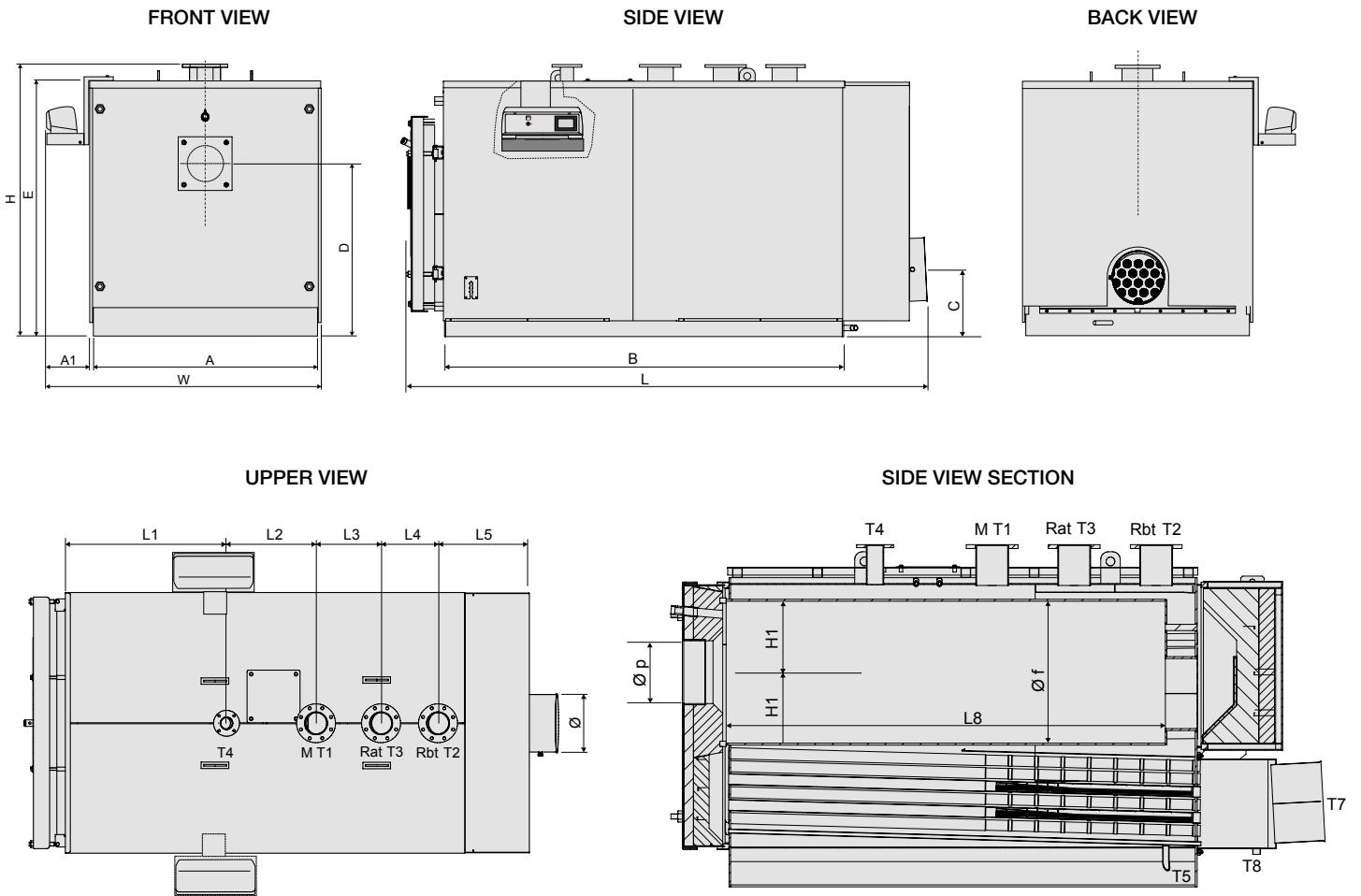
DIMENSIONS XC-K 3 800-1000



XC-K 3	L	B	L1	L2	L3	L4	L5	L8	W	A	H	H1	C	D	E	$\varnothing$	$\varnothing f$
	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 (Scand)	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



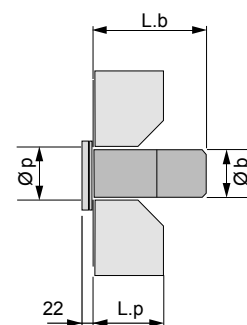
XC-K 3	L	B	L1	L2	L3	L4	L5	L8	W	A	A1	H	H1	C	D	E	Ø	Ø f
	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
1250	3293	2399	748	600	420	420	697	2250	1792	1495	297	1760	297	365	1104	1643	400	730
1500	3643	2749	1098	600	420	420	697	2250	1792	1495	297	1760	297	365	1104	1643	400	730
1750	3622	2650	804	600	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)	T2 (R)	T3 (R)	T4	T5 (Sc)	T6 (øp)	T7 (S)	T8 (Scond)	Weight
	PN6	PN6	PN6	PN6	inch	mm	mm	mm	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

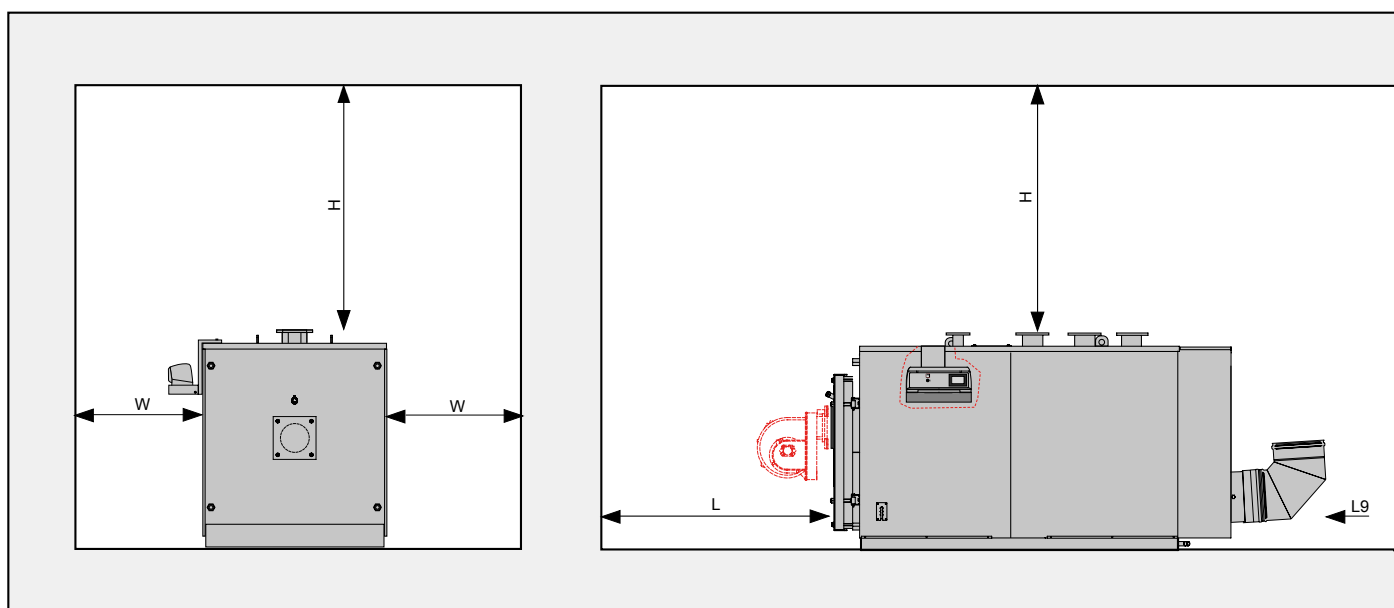
XC-K 3	T1 (M)	T2 (R)	T3 (R)	T4	T5 (Sc)	T6 (øp)	T7 (S)	T8 (Scond)	Weight
	PN16	PN16	PN16	PN16	inch	mm	mm	mm	kg
2500	DN 250	DN 250	DN 250	DN 125	G 1"	380	550	40	-
3000	DN 250	DN 250	DN 250	DN 125	G 1"	380	550	40	-

## BURNER BLAST TUBE DIMENSIONS

MODEL	Length Burner dimension		Door drilling	
	Ø b mm	L.b mm	Ø p mm	L.p mm
XC-K 3 800	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
800	1300	3700	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

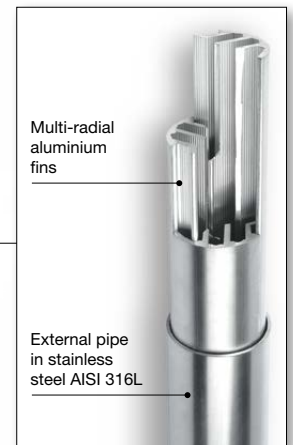
The distance is recommended for normal maintenance and cleaning operations.

## SPECIAL SMOKE PIPES (patented)

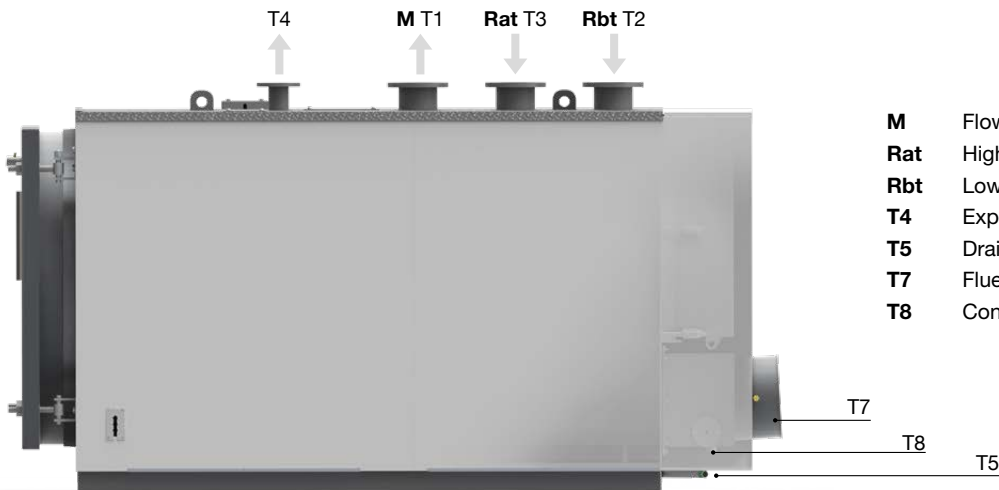
### SMOKE PIPES:

- 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)

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## CONNECTION



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

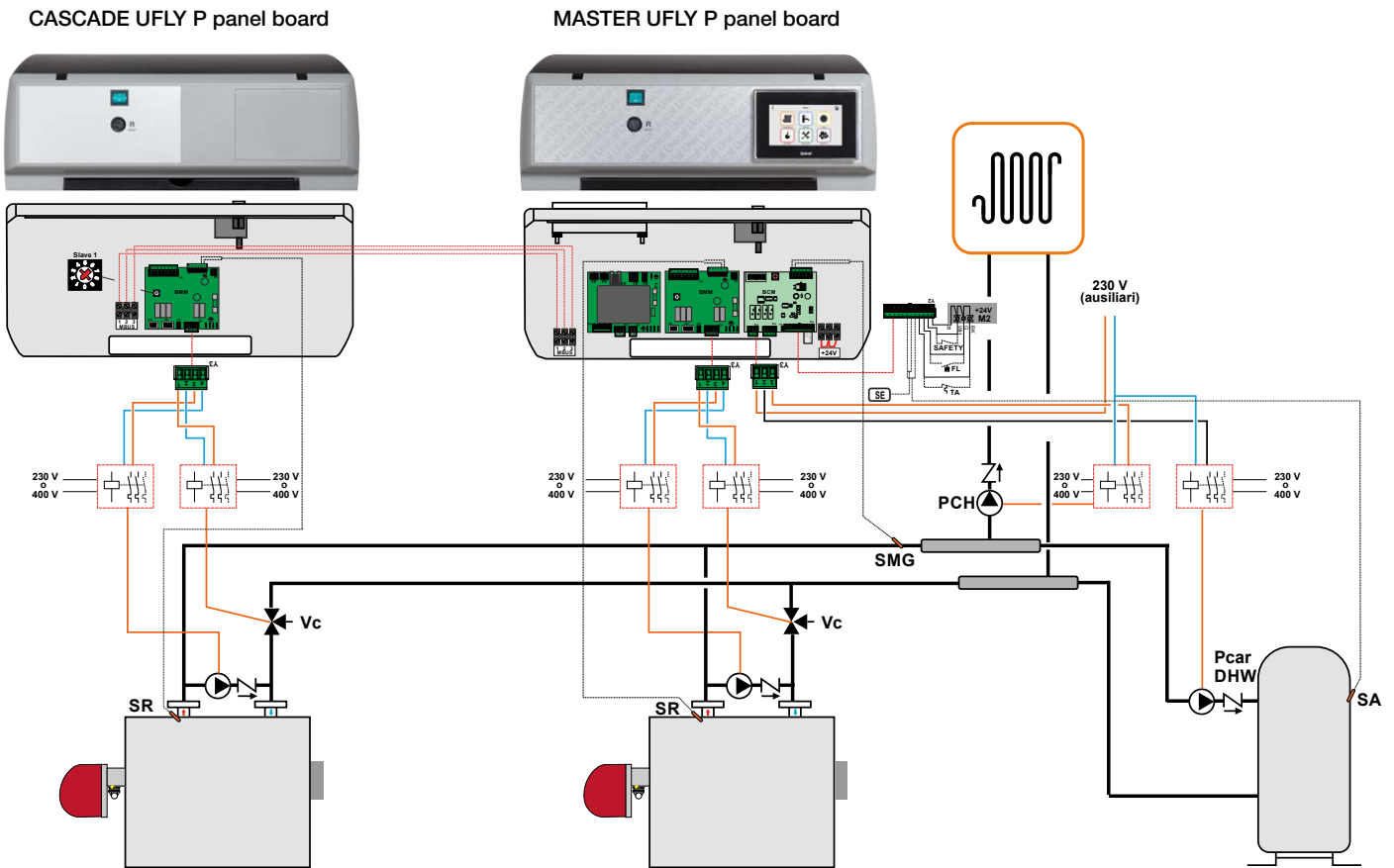
XC-K 3	CONNECTIONS					
	M (T1) PN6 - DN	R (T2-T3) at/bt PN6 - DN	T4 PN6 - DN	T5 inch	T7 Ø mm	T8 Ø mm
800-1000	DN 125	DN 125	DN 65	G 1"	350	DN 40
1250	DN 150	DN 150	DN 80	G 1"	400	DN 40
1500	DN 150	DN 150	DN 80	G 1"	400	DN 40
1750	DN 200	DN 200	DN 100	G 1"	450	DN 40
2000	DN 200	DN 200	DN 100	G 1"	450	DN 40

XC-K 3	CONNECTIONS					
	M (T1) PN16 - DN	R (T2-T3) at/bt PN16 - DN	T4 PN16 - DN	T5 inch	T7 Ø mm	T8 Ø mm
2500	250	250	225	G 1"	550	DN 40
3000	250	250	125	G 1"	550	DN 40



## 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.