

## GAS X0-X1-X2-X3-X4-X5CE

Gas burners one stage with: die-cast aluminum body, fan at high pressurisation, combustion head with adjustment at high efficiency and high flame stability and protection cover with noise reduction plate.

Compact overall dimensions and disposition rationalized of the components with accessibility facilitated for the operations of setting and maintenance.

Available in the versions METHANE (natural gas) or G.P.L. (to specify at the order) on demand specific versions for town gas, coal gas or biogas.

Gas train completely assembled, electrically linked and tested; complete of working valve with flow adjustment, safety valve, minimum gas pressure switch and stabiliser filter of gas pressure.

Versions F with cover of protection in steel and specific features for the application on industrial ovens and bakery ovens.

Complete of connector plug / socket 7 poles, flange and gasket for installation on generator.



Fig. 1 GAS X0CE

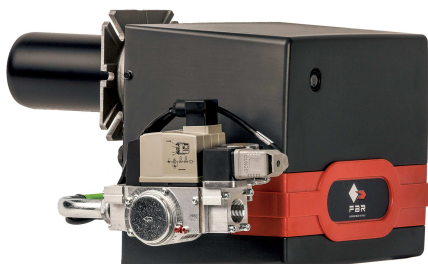


Fig. 2 GAS X2CE

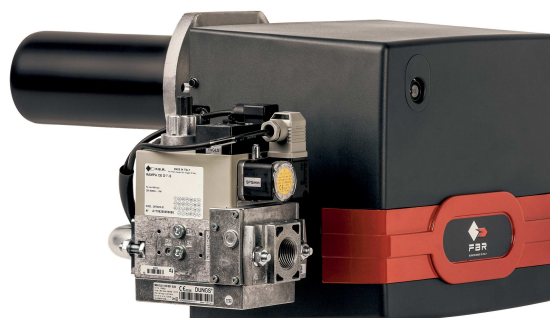


Fig. 3 GAS X3CE

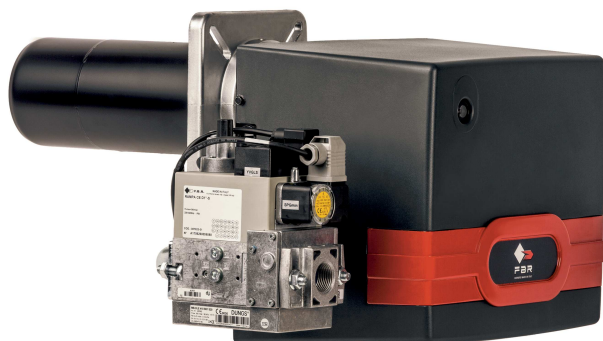


Fig. 4 GAS X4CE



Fig. 5 GAS X5CE

## TECHNICAL DATA AND OPERATING RANGE DIAGRAM

MODEL		GAS X0CE	GAS X1CE	GAS X2CE	GAS X3CE	GAS X4CE	GAS X5CE
Thermal power min. - max. *	[Mcal/h]	10-29.5	20-50	35-80	60-150	100-200	130-300
Thermal power min. - max. *	[kW]	11.6-34.3	23.2-58.1	40.7-93	69.8-174	116-232	151-349
Gas flow G20 (NATURAL GAS) min. - max. *	[Nm³/h]	1.2-3.4	2.3-5.8	4.1-9.4	7-17.5	11.7-23.4	15.2-35.1
Gas flow G31 (L.P.G.) min. - max. *	[Nm³/h]	0.5-1.3	0.9-2.2	1.6-3.6	2.7-6.8	4.5-9	5.8-13.5
Fuel: NATURAL GAS (second family) - L.P.G. (third family)							
Fuel category:	I2R,I2H,I2L,I2E,I2E+,I2Er,I2ELL,I2E(R)B/I3B/P,I3+,I3P,I3B,I3R						
Intermittent working operation (min. 1 stop every 24 hours) one stage							
Environmental conditions operation / storage:	-15...+40°C / -20...+70°C, rel. humidity max. 80%						
Max. temperature combustion air	[°C]	60	60	60	60	60	60
Min. pressure gas train D1/2"-S NATURAL GAS/L.P.G. **	[mbar]	7/18	14/31	-	-	-	-
Min. pressure gas train D3/4"-S NATURAL GAS/L.P.G. **	[mbar]	-	-	18/24	-	-	-
Min. pressure gas train D1"-S NATURAL GAS/L.P.G. **	[mbar]	-	-	-	14/31	14/21	27/33
Min. pressure gas train D1"1/4-S NATURAL GAS/L.P.G. **	[mbar]	-	-	-	-	-	16/25
Max. pressure at the entry of valves (Pe. max)	[mbar]	60	60	360	360	360	360
Nominal electric power	[W]	80	110	130	200	226	540
Fan motor	[W]	50	75	75	110	200	370
Nominal motor current absorption	[A]	0.5	0.6	0.6	0.9	1.1	2.4
Power supply:	1/N~230V-50Hz						
Electric protection degree:		IP 40	IP 40	IP 40	IP 40	IP 40	IP 40
Noisiness *** min. - max.	[dB(A)]	52-55	59-60	60-61	64-66	64-66	67-71
Burner weight ****	[kg]	8	10	10	13	15	24

\* Reference conditions: Environment temperature 20°C - Barometric pressure 1013 mbars - Altitude 0 metre (sea level).

\*\* Minimal feeding-gas pressure to the gas train to get the maximum power of the burner, considering counter-pressure in combustion chamber of value 0 (zero).

\*\*\* Measured sonorous pressure in the laboratory combustion, with functional burner on beta boiler to 1 metre of distance (UNI EN ISO 3746 law).

\*\*\*\* For burners: GAS X0CE - GAS X1CE - GAS X2CE - GAS X3CE - GAS X4CE with cover in steel (F) add 3 kg to the weight.

\*\*\*\* For burner GAS X5CE with cover in steel (F) add 5 kg to the weight.

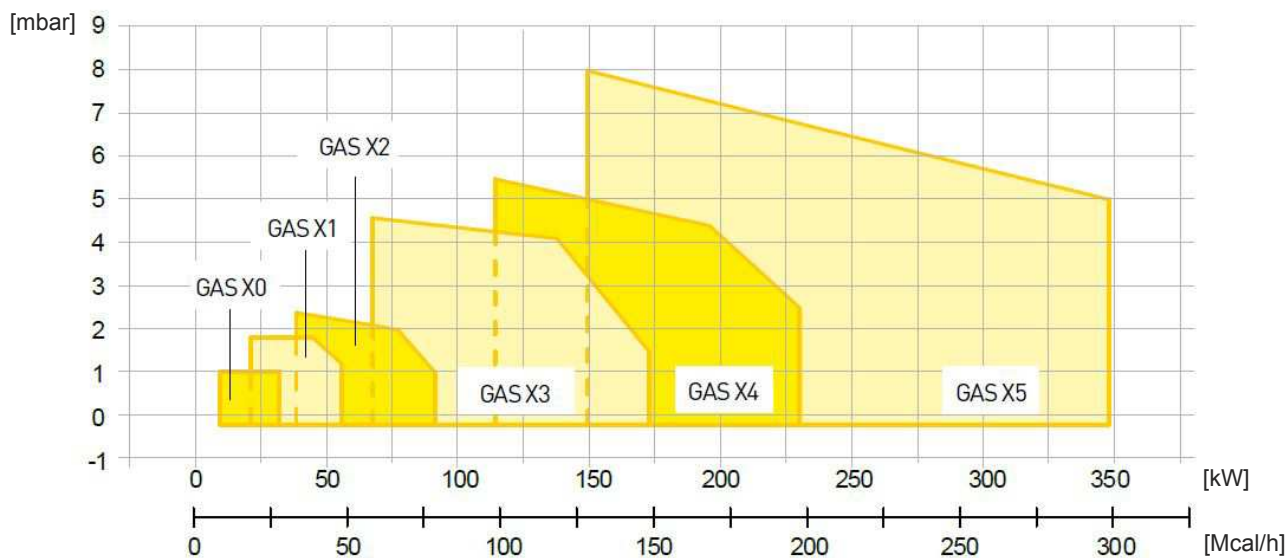
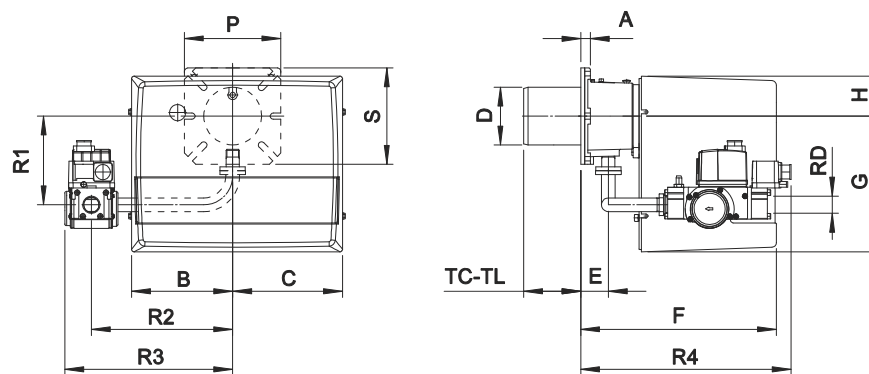


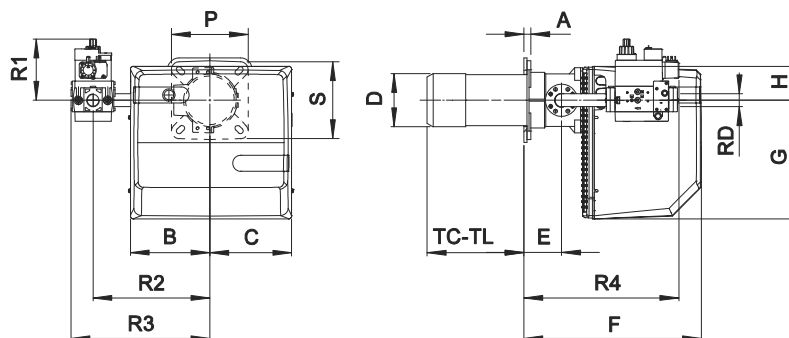
Fig. 6 X = Thermal power Y = Pressure in the combustion chamber

The firing rates has been obtained based on test boilers in accordance with EN267 standards and are indicative of matching the burner to the boiler. For the correct operation of the burner, combustion chamber dimensions must be in accordance with current regulation. In case of non-compliance, contact the manufacturer.



**Fig. 7** Dimensions GAS X0CE - GAS X1CE - GAS X2CE - GAS X3CE - GAS X4CE

MODEL	A	B	C	D	E	F	G	H	P	S	TC	TL *	R1	R2	R3	R4	RD	Gas train weight
GAS X0CE D1/2"-S	15	140	140	90	43	265	169	72	150	150	90	150	132	200	254	240	Rp 1/2	2 kg
GAS X1CE D1/2"-S	15	162	175	90	43	305	210	65	150	150	90	150	132	200	254	240	Rp 1/2	2 kg
GAS X2CE D3/4"-S	15	162	175	90	43	305	210	65	150	150	90	150	138	220	262	328	Rp 3/4	3 kg
GAS X3CE D1"-S	16	185	195	108	54	340	248	70	200	160	130	250	168	280	337	361	Rp 1	8 kg
GAS X4CE D1"-S	20	185	195	125	78	368	248	70	200	200	160	280	173	280	337	385	Rp 1	8 kg

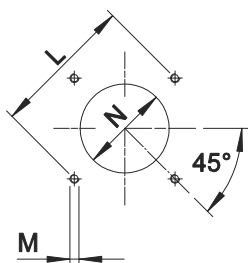


**Fig. 8** Dimensions GAS X5CE

MODEL	A	B	C	D	E	F	G	H	P	S	TC	TL *	R1	R2	R3	R4	RD	Gas train weight
GAS X5CE D1"-S	18	207	213	138	98	462	310	90	200	200	250	335	160	305	362	403	Rp 1	8 kg
GAS X5CE CT-D1"-S	18	207	213	138	98	462	310	90	200	200	250	335	160	305	480	403	Rp 1	9 kg
GAS X5CE D1"1/4-S	18	207	213	138	98	462	310	90	200	200	250	335	160	305	362	450	Rp 1 1/4	8 kg
GAS X5CE CT-D1"1/4-S	18	207	213	138	98	462	310	90	200	200	250	335	160	305	480	450	Rp 1 1/4	9 kg

\* For different flame lengths, please contact our Technical-Sales Department.

## BOILER PLATE



**Fig. 9** Boiler plate

\*\* Suggested dimension of connection between burner and generator.

MODEL		L min	L **	L max	M	N min	N **	N max
GAS X0CE	mm	130	150	170	M8	100	110	130
GAS X1CE	mm	130	150	170	M8	100	110	130
GAS X2CE	mm	130	150	170	M8	100	110	130
GAS X3CE	mm	150	170	170	M8	120	130	140
GAS X4CE	mm	170	205	226	M10	130	140	160
GAS X5CE	mm	205	226	226	M10	150	150	180



**FBR**

## PRODUCT SPECIFICATION

# GAS BURNERS ONE STAGE

SK\_071054\_C\_en

### SHORT DESCRIPTION

Gas burners on stage.

### DETAILED SPECIFICATION

Gas burner one stage composed by:

- Die-cast aluminum body;
- Fan at high pressurisation;
- Combustion head with adjustment at high performance and elevated flame stability equipped with inox steel blast tube and steel flame disc;
- Protection cover with noise reduction plate;
- Flange and insulating gasket for fixing at boiler;
- Single-phase power supply;
- Safety air pressure switch to stop the burner in case of failed or anomalous fan operation;
- Gas train with safety valve and adjustment valve;
- Ionisation probe for flame detection;
- IP 40 electric protection level.

### CONFORMING TO:

- CE rules;
- 2004/108/CE Directive E.M.C.;
- 2006/95/CE Directive L.V.;
- 2006/42/CE Directive M.D.;
- 97/23/CE Directive P.E.D.;
- 2009/142/CE Directive GAS;
- Reference rules: EN676 (gas) - EN746-2 (industrial thermoprocessing equipment).

### STANDARD EQUIPMENT

- Isomart gasket;
- Flange with insulating gasket;
- Burner nameplate;
- Warranty;
- Instruction handbook for installation, use and maintenance.

### OPTIONAL

- Antivibration couplings;
- Handle gas taps.