SYSTEMA
HEATING COOLING GREEN ENERGY

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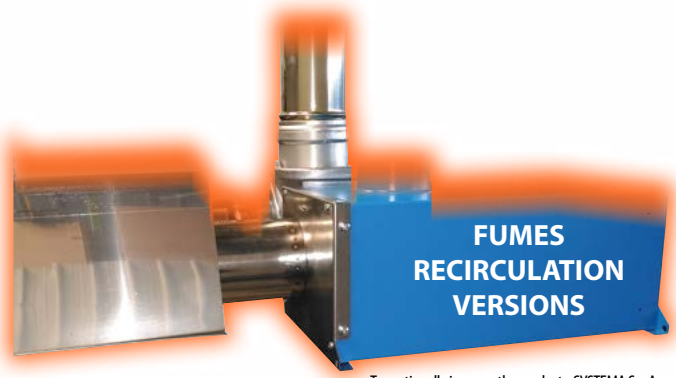
INFRA Energy Saving
Gas Radiant Tubes from 28 to 60kW

> Industrial radiant heating of medium and large environments <
> Availability of models with fumes recirculation system <

- **2 versions, Standard and R (Recirculation) for a total of 9 models with 6-9-12-15 m lengths**
- **Stainless steel combustion chamber for models 9-12-15 meters, 10 years guaranteed**
- **Power capacity from 28 to 60 kW**
- **For the heating of medium and large industrial environments, commercial areas and gyms**



TECHNICAL FEATURES

Hanging gas thermal unit "INFRA ES", equipped with:

- Gas burner equipped with all the control and safety devices
- Support brackets for the emitting tubes and the canopies, equipped with fixing screws, U final curves, springs and split pins for canopies.
- Reflecting canopies made of stainless steel.
- Calorized and aluminized emitting tubes with combustion chamber made of stainless steel. (INFRA 9, INFRA 12 and INFRA 15)
- VERSIONS WITH FUMES RECIRCULATION SYSTEM: INFRA 9 ES-R 53 and INFRA 12 ES-R 60 with combustion yields increased up to 93%

CERTIFICATIONS

- ☑ **CE Certification**
- ☑ **In accordance with the "LOW TENSION 73/23 CEE" regulation**
- ☑ **In accordance with the electro-magnetic compatibility ECM 89/336/CEE regulation**
- ☑ **Equipment checked according to the european standard: EN 416-1**
- ☑ **Sanitary and hygienic considerations of "INFRA Radiant Tubes", realized by Systema S.p.A. made by Dr. Giuseppe RAUSA, institute of Hygiene and Preventive Medicine of FERRARA UNIVERSITY.**

Rev. 04-01-2020

TECHNICAL DATA

MODELS		INFRA 6 ES 28	INFRA 9 ES 45	INFRA 12 ES 45	INFRA 6 ES 35	INFRA 9 ES 53	INFRA 12 ES 60	INFRA 15 ES 60	INFRA 9 ES-R 45	INFRA 12 ES-R 45
Versions		STANDARD			INCREASED				"R" RECIRCULATION	
Type of equipment		B_{22} - C_{12} - C_{32} - C_{42}			B_{22} - C_{12} - C_{32} - C_{42}				B_{22} - C_{12} - C_{32} - C_{42}	
Heat output (NCV)	kW	28,0	45,0	45,0	35,0	53,0	60,0	60,0	45,0	45,0
Combustion yield (NCV) *	%	90,5	90,8	90,1	90,9	90,6	90,7	90,7	**93,3**	**93,4**
Electrical power supply		1/N/PE ~ 50Hz 230V								
Air pressure switch calibration	Pa	60	60	60	60	60	60	60	60	60
Extractor power	W	100	100	100	100	180	180	180	180	180
Extractor fan	Ø mm	133	145	145	133	170	170	170	170	170
Gas attachment (female)	inches	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2
Air connection (male)	Ø mm	100	100	100	100	100	100	100	100	100
Fume attachment (female)	Ø mm	100	100	100	100	100	100	100	100	100
Weight standard version	kg	82,5	139	176	82,5	140,5	177,5	209,5	141,5	178,5
Weight with RBT hood insulated on top	kg	101,5	167,5	214	101,5	169	215,5	247,5	170	216,5
Nominal consumption at 15°C and 1013.25 mbar										
Natural gas G20	m^3/h	2,96	4,76	4,76	3,70	5,61	6,35	6,35	4,76	4,76
Butane G30	kg/h	2,21	3,55	3,55	2,76	4,18	4,73	4,73	3,55	3,55
Propane G31	kg/h	2,18	3,50	3,50	2,72	4,12	4,66	4,66	3,50	3,50

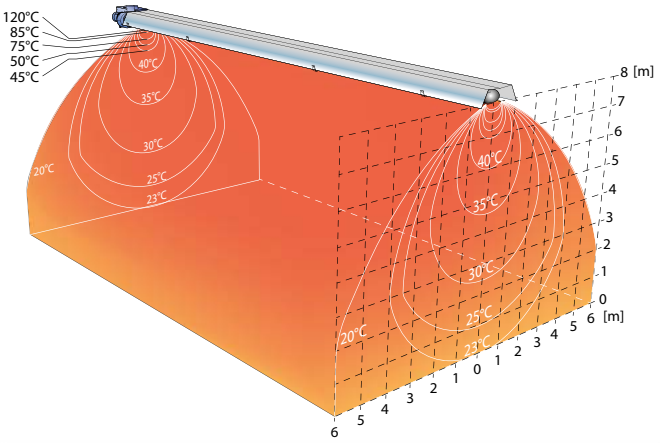
* Standard conditions

MODELS		INFRA 6 ES 35 BL	INFRA 9 ES 53 BL	INFRA 12 ES 60 BL
Versions		BLULINE		
Type of equipment		B_{22} - C_{12} - C_{32} - C_{42}		
Heat output (NCV)	kW	35,0	53,0	60,0
Combustion yield (NCV) *	%	90,9	90,6	90,7
Electrical power supply		1/N/PE ~ 50Hz 230V		
Air pressure switch calibration	Pa	60	60	60
Extractor power	W	100	180	180
Extractor fan	Ø mm	133	170	170
Gas attachment (female)	inches	1/2	1/2	1/2
Air connection (male)	Ø mm	100	100	100
Fume attachment (female)	Ø mm	100	100	100
Weight standard version	kg	82,5	140,5	177,5
Weight with RBT hood insulated on top	kg	101,5	169	215,5
Nominal consumption at 15°C and 1013.25 mbar				
Natural gas G20	m^3/h	3,70	5,61	6,35
Butane G30	kg/h	2,76	4,18	4,73
Propane G31	kg/h	2,72	4,12	4,66

* Standard conditions

THERMAL MONITORING WITH INFRA 9 ES 45

CONDITION TEST: max surface temperature of the radiant tube: 450°C, type of heated material: wood-cartoon with a surface of 0.5 m2 and a thickness of 5 mm, suspended in the air.
The temperatures are taken after 90 of thermal radiation, working temperature: 16°C and air speed <0,15 m/s



INFRA ES functions combined with INET control panel

Automatic working according to the program and timer settings

INET control panel to manage 16 equipments:

1 thermal zone . . . . . .CODE 00CECR2678
2 thermal zones . . . . . .CODE 00CECR2680
3 thermal zones . . . . . .CODE 00CECR2682
4 thermal zones . . . . . .CODE 00CECR2684

- **2 working temperature,**
- **Daily/weekly settings, Timer, hour counter** and holiday function
- Control by PC or ModBUS using SYS850 or SYS830 control panel and management software (optional)

ATTENTION

We invite you to contact our Technical Dept. to receive detailed information about PC connection or ModBUS and for installations of INFRA radiant tubes managed by SYS850 or SYS830 control panel..

INFRANET, SYS850 or SYS830 controllers are available to manage more thermal zones (please contact the Technical Dept. of Systema)

INFRA ES combined with CE control panel

CE control panel with digital thermostat, remote temperature probe and ON/OFF function:

Standard versions
and control of digital temperature

1 thermal zone . . . . . Code 00CEQU1196/A
2 thermal zones . . . . . Code 00CEQU1198/A
3/4 thermal zones . . . . . Code 00CEQU1200/A

Chrono-thermostat versions
with daily/weekly setting, timer

1 thermal zone . . . . . Code 00CEQU1197/A
2 thermal zones . . . . . Code 00CEQU1199/A
3/4 thermal zones . . . . . Code 00CEQU1201/A

INFRA ES combined with SLIM control panel

SLIM control panel, 1 thermal zone, with Chrono-thermostat and digital temperature control

1 radiant tube . . . . . Code 00CEQU2667
2 radiant tube . . . . . Code 00CEQU2668
3 radiant tube . . . . . Code 00CEQU2669

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