

Dark gas radiant tubes Condor



Each object at a temperature above the absolute zero emits energy in the form of electromagnetic radiation. These rays travel in a straight line and may be reflected and converted into heat when hitting a solid. Dark gas radiant tubes Condor is a heating solution via radiation well adapted for average and high height industrial buildings, gymnasiums, depots and logistics platforms etc. The range CONDOR includes 4 models: TRP12 (12kW PCS, length 3,36 m), TRP24 (24kW PCS, length 6,36 m), TRP36 (36kW PCS, length 8,07 m), TRP50 (50kW PCS, length 8,07 m), yield (>31%), combustion giving low nitrogen oxide emission (class II).

Standard equipment

- Burner
- Built-in electric fume extractor
- Gas solenoid valve
- Multi-jet gas burner
- Security box
- Tubes in aluminized steel
- Reflectors in aluminized steel
- Electronic ignition
- Control of flame

Optional equipment

- Optional equipment
- Protection grill
- Gas connections/Fumes evacuation/Regulation.

Category

II 2E+3+ - heating unit for gas combustion, (I2E(R)B and I3+ in Belgium)
This appliance comply with the European norm EN 416-1:2009

Certification

... under number N°1312 CM 5627



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Radiant Panel

- 1 - Burner
- 2 - Reflector panel, Pre – assembled in factory
- 3 - Radiant tubes
- 4 - Brackets for suspension
- 5 - Fumes evacuation

Multi-jet gas burner

Two opposite multi-jet gas burners provide homogeneous heating in both parts of the radiant tube.
Combustion giving low nitrogen oxide emission.
High combustion efficiency, >90%.

This technology has successfully undergone the tests and control operations required the EC directive relating to the emissions of NOx, take care of the environment.

In conformity with EN416-1 class 2

Emitting panel

Emitting panel consist in radiant tubes and a reflector.
Ready for assembly emitting panels are dimensioned so as to minimize the cost of transportation. Enclosed edges of the emitting panels prevent the loss of radiation improving its quality.

Pre – assembled emitting panels are easy for implementation; economize 50% of time of montage.

Transportation on standard palettes

Radiant tube

Big quantity of tubes of smaller diameter in aluminized steel increases the direct radiant emission of 15% - 25%.
The diameter of the radiant tube is specially studied in order to have a long and a rapid flame and therefore to obtain the homogeneous temperature in the tube.

Important economy of energy consumption thanks to the efficiency of tubes.

Till 25% of radiant emission in addition.



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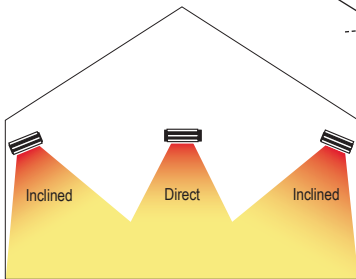
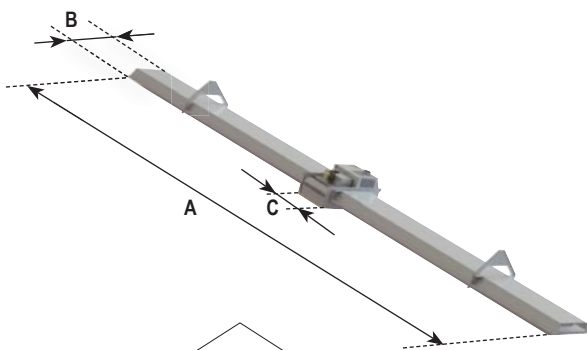
Performances

Models	TRP12	TRP24	TRP36	TRP50
Nominal power (PCS), kW	11,6	23,6	36	50
Nominal power (PCI), kW	10,5	21,3	32,5	45
Yield (en %)	>90	>90	>90	>90
NOx (mg/kWh)	< 200 / Class 2 (EN 416-1 : 2009)			

Dimensions

Models	TRP12	TRP24	TRP36	TRP50
A (mm)	3 360	6 360	8 072	8 072
B (mm)	538	538	678	818
C (mm)	352	352	352	352
Ø Gas	1/2"	1/2"	1/2"	1/2"
Ø Air	80	80	80	130
Ø Fumes	80	80	80	130
Weight	65 kg	110 kg	164 kg	202 kg

Models	TRP12	TRP24	TRP36	TRP50	
Installation height minimum (m)	Direct	3,6	4,5	5,5	6,5
	Inclined	3	3,5	4,5	5,5
Installation height maximum (m)	Direct	5	8	10	12
	Inclined	4	5	6,5	8

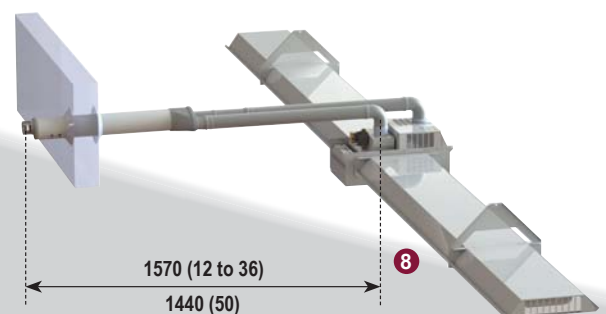
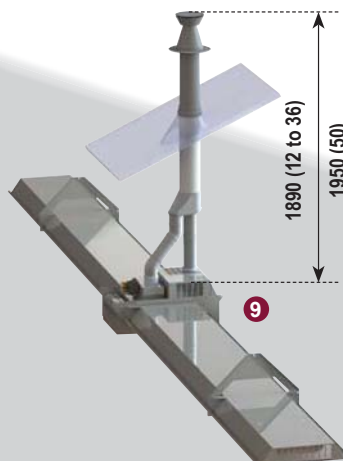
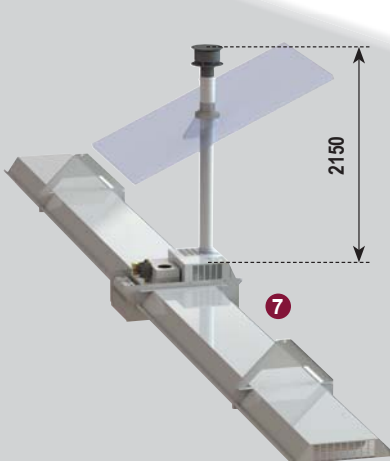


Flue connection

Sealed roof chimney B 22

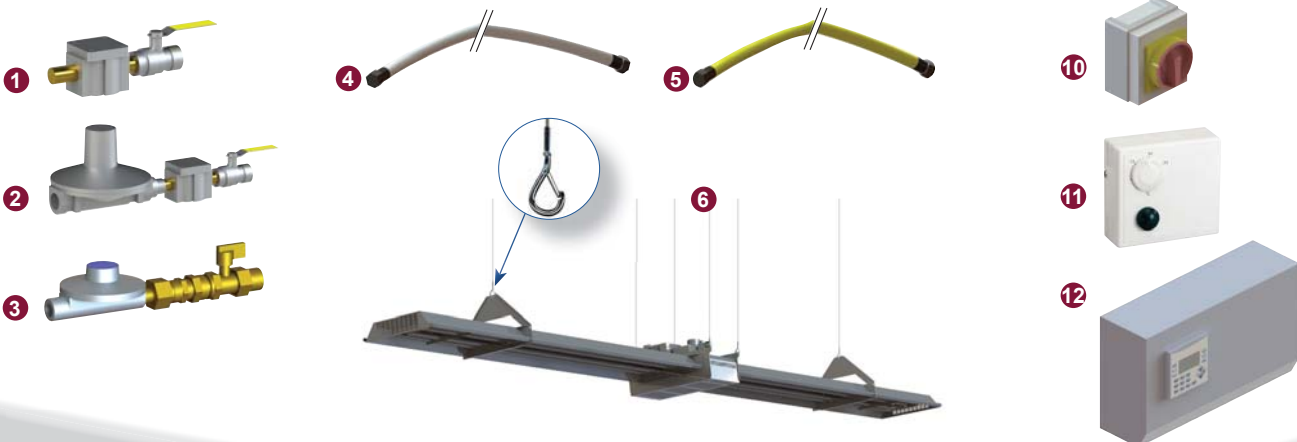
Concentric roof duct C 32

Concentric wall duct C 12



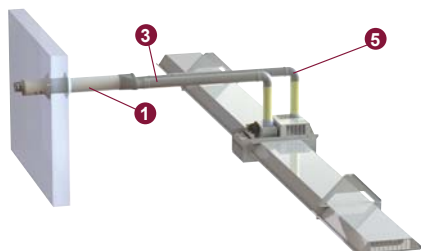
Rates

Models		12	24	36	50	
Natural gas		TRP12SG20	TRP24SG20	TRP36SG20	TRP50SG20	
Propane		TRP12SG31	TRP24SG34	TRP36SG31	TRP50SG31	
Gas connections	Natural gas kit 20 mBar	1		KG20		
	Natural gas kit 300 mBar	2		KDGN55		
	Propane gas kit 1,5 Bar/37 mBar	3		KDP55		
	½" hose for public buildings	4		FLXERP		
	½" hose for industrial buildings	5		FLXIND1/2		
Fix.	Protection grill		GRTRP12	GRTRP24	GRTRP36	GRTRP50
	Kit suspension cables (3m length) + brackets	6	SUP512	SUP524	SUP536	SUP550
Flue pipes	Sealed roof chimney B22	7		KB2280TRP		KB22130TRP
	Concentric wall duct C12	8		KC1280TRP		KC12130TRP
	Concentric roof duct C32	9		KC3280TRP		KC32130TRP
	Single extension 1m			LE80100		LE100100
	Single extension 0,5m			LE80050		LE100050
	Single elbow 90°			CE8090		CE10090
	Single elbow 45°			CE8045		CE10045
	Concentric extension 1m			LC80100		-
	Concentric extension 0,5m			LC80050		-
	Concentric elbow 90°			CC8090		-
	Concentric elbow 45°			CC8045		-
Regulation	Isolatable proximity terminal block	10		BSAT4P		
	Thermostat with resulting probe(6 units maxi)	11		THE01RAD		
	Control unit (interface) "Web-controller (1 by zone)	12		ACR		

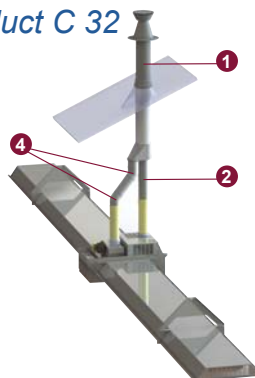


Flue connection

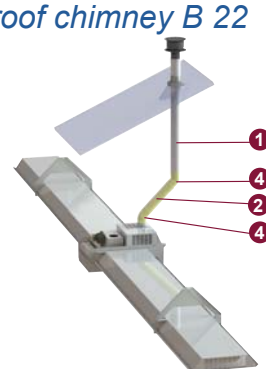
Concentric wall duct C 12



Concentric roof duct C 32



Sealed roof chimney B 22

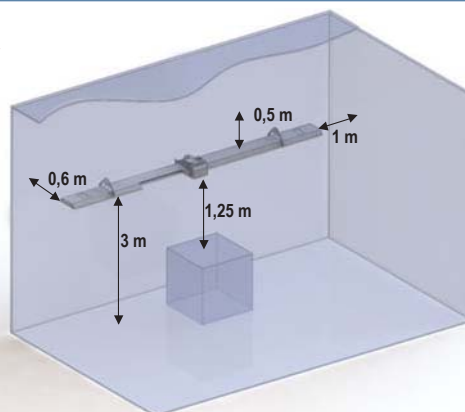


	Chimney B22		Wall duct C12		Roof duct C32	
	TRP 12 to 36	TRP 50	TRP 12 to 36	TRP 50	TRP 12 to 36	TRP 50
Total length of basic terminal kit	2150 mm	2150 mm	1570 mm	1440 mm	1890 mm	1950 mm
External section	mini 400 mm	mini 400 mm	mini 200 mm	190 mm	mini 250 mm	985 mm
Terminal diameter (through wall)	80 mm	130 mm	125 mm	200 mm	125 mm	200 mm
Maximum total authorized height	8 m	8 m	6 m	6 m	8 m	8 m
Concentric/Chimney kit code	① KB2280TRP	KB22130TRP	KC1280TRP	KC12130TRP	KC3280TRP	KC32130TRP
Add the number of concentric or single tube extensions according to the desired length, within the maximum authorized length.						
Concentric extension diameter	-	-	125/80 mm	-	125/80 mm	-
Maximum concentric extension length	-	-	4 m	-	6 m	-
Concentric extension code 500 mm	-	-	LC80050	-	LC80050	-
Concentric extension code 1000 mm	-	-	LC80100	-	LC80100	-
Concentric elbow 45° code	-	-	CC8045	-	CC8045	-
Concentric elbow 90° code	-	-	CC8090	-	CC8090	-
Single tube flue extension diameter	80 mm	130 mm	80 mm	130 mm	80 mm	130 mm
Maximum flue extension length	6 m	6 m	4 m	4 m	6 m	6 m
Combustive air extension diameter	-	-	80 mm	130 mm	80 mm	130 mm
Maximum combustive air extension length	-	-	4 m	4 m	6 m	6 m
Single extension code 500 mm	② LE80050	LE130050		LE130050		LE130050
Single extension code 1000 mm	③ LE80100	LE130100		LE130100		LE130100
Single elbow 45° code	④ CE8045	CE13045		CE13045		CE13045
Single elbow 90° code	⑤ CE8090	CE13090		CE13090		CE13090

Installation height and dimensions

PRINCIPLE :

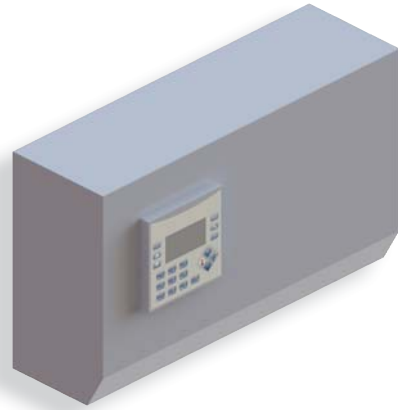
The temperatures of the surface of the radiant tube don't allow installing the units in rooms which have a risk of explosion (gases or dust). In addition it's obligatory to respect the safety distances (minimum) as indicated in the picture.



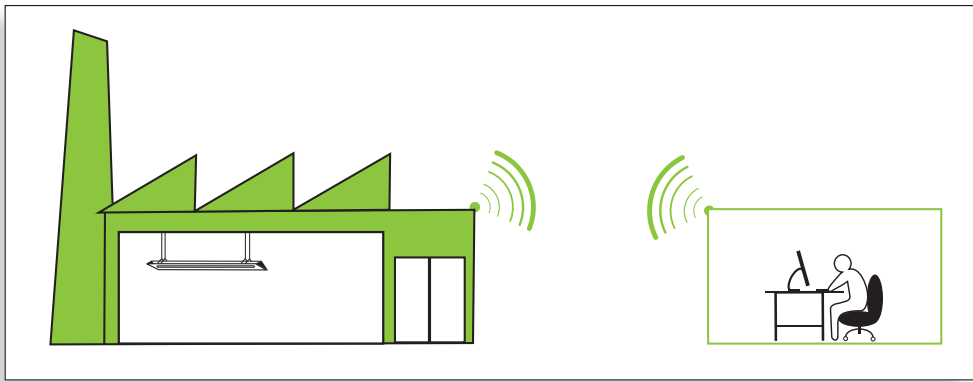
Regulation

Web-Controller

Aircalo has developed the application Web – Controller in order to manage and maintain the heating installations. The system consists of regulation box and a command able to manage till 12 radiant tubes Condor.



Principe :



The regulation of the heating installation is assured by Web – Controller which is connected to the informatics network system of the company. The user can program the heating system by connecting to the internet:

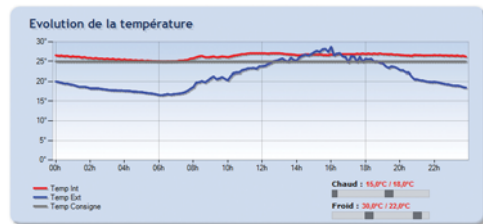
- Temperature settings, hour's regulation, annual calendar.
- Setting in operation and laying-off the radiant tubes in real time, functioning tracking.



Energy consumption tracking by your smartphone.

SUIVI DU FONCTIONNEMENT

Date début: 11/05/2011 Installation: Automate 1



Web – Controller accumulate the data concerning the energy consumption. It can also inform you about an abnormal consumption.

The principal technical organs of the heating units (radiant tubes and gas air heaters) are controlled by the Web – Controller which can alert the user about the damages.

