

**Infrared brooders KROMS PILOT 6 BP/HP
Infrared brooders KROMS PILOT 12 BP/HP
Temperature control systems**

Livestock heating



Infrared brooders KROMSCHROEDER PILOT

Greater efficiency with significant gas savings Ideal solution for optimal poultry and pig installation

Innovative desing

KROMSCHROEDER infrared brooders consist of a cone-shaped stainless steel burner which, together with its aluminium canopy, provides a greater amount of heating at the level of the animals with lower energy consumption.

In addition to all proven advantages of KROMSCHROEDER brooders, the PILOT brooder incorporated a patented micropilot burner, which ensures main burner ignition when required without the need of power supply, thus eliminating unnecessary gas consumption.

It is not longer necessary to turn off the brooders a gas consumption of the pilot is minimal.

Infrared radiation. Principle of working

The sun gives living creatures heat in the form of infrared electromagnetic waves. These have the particularity that they travel across the air without heating it, affecting the mass of objects, surfaces and living creatures, when they become heat and increases their temperature.

Kromschroeder brooders work on the same principle.

Infrared radiation gives an agreeable feeling in the surface of bodies. The indirect effect of radiant heat can be noted by heating of the surrounding surfaces, such as the floor and other objects. The result is an extremely comfortable ambient temperature, which can be achieved with relatively low air temperatures.

The mathematical formula expressing the physical correlation between air temperature and radiation temperature is as follows

$$t_R = t_L + t_S$$

Where: t_R = resulting temperature
 t_L = air temperature
 t_S = mean radiant temperature

This expression tells us that we can obtain the same degree of comfort with different air temperatures.

Radiant heat offsets low air temperatures.



Because of the lower air temperature, the difference between the interior and the exterior air temperature is considerably reduced, minimizing losses through air renewal to a large extent. Consequently, you save energy and considerably cut your operating costs.

With convective heating systems, hot air rises, far away from the area where it is needed.

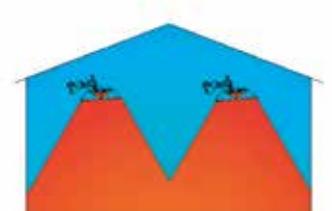
Infrared radiation, however, heats the objects and living creatures it comes into contact with. The air is heated indirectly, upon contact with the hot masses. The heat is therefore transmitted to where it is needed. What's more, the temperature is distributed evenly, thanks to the cone-shaped design of the radiant surfaces, producing uniform circles with different comfort levels. The animals can move freely, choosing the most suitable area for their heat requirements.

Advantages of Kromschroeder PILOT Brooders:

- High energy efficiency: up to 40% energy savings compared to conventional systems
- Over 35% reduction in CO₂ emissions
- Greater coverage area per brooder: the availability of 6 and 12 kW capacities allows a system to be set up with a more suitable number.
- High quality, durability and comfortable warmth
- Possibility of various heating areas
- No dust stirred up or draughts produced
- Quick heat-up time
- Early return on investment



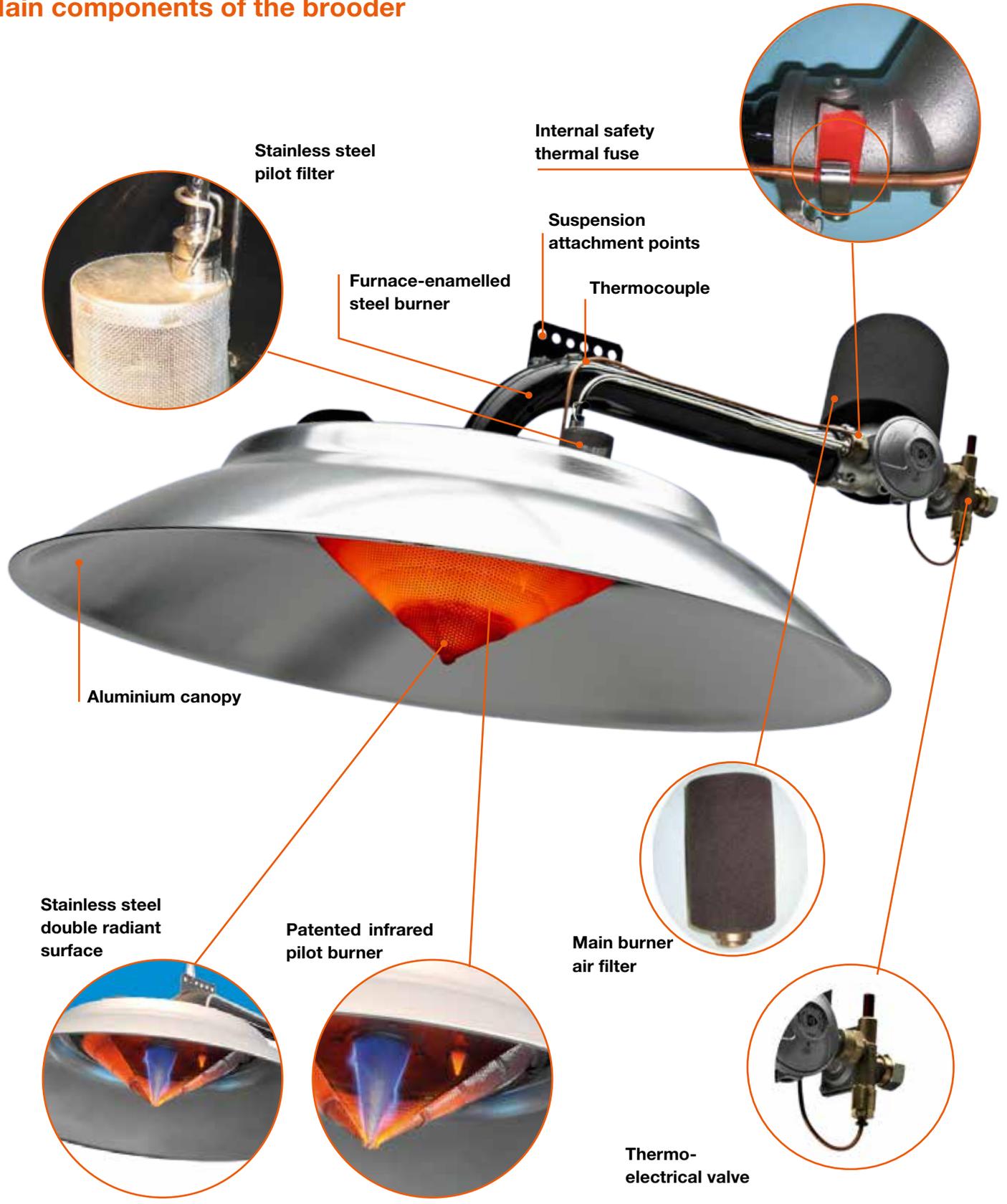
Hot air heating



Radiation heating

Low maintenance
Safety and reliability

Main components of the brooder



KROMS PILOT 6 - KROMS PILOT 12

For medium and large poultry installations
For pig fattening sectors



KROMS PILOT 6 - KROMS PILOT 12

Infrared gas brooder with double radiating surface of stainless steel and patented infrared micro-pilot, for medium and large poultry installations and pig fattening sectors.

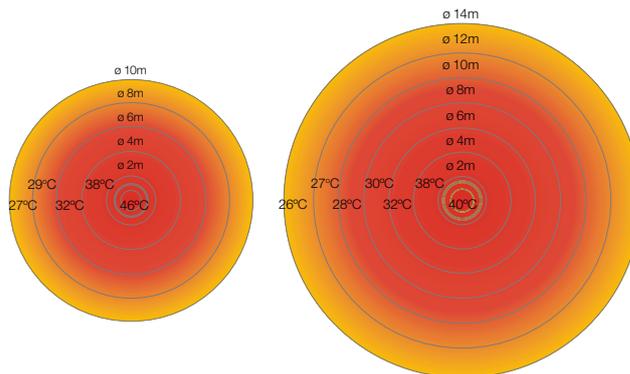
- Capacities of 6 and 12 kW
- Equipped with thermoelectric safety valve and internal thermal safety fuse
- Air filter
- EC type-examination Certificate

Technical features		KROMS 6 BP	KROMS 12 BP	KROMS 6 HP	KROMS 12 HP
Capacity (kW)		6,00	12,00	6,20	11,90
Consumption	Propane gas (g/h)	18 / 406	18 / 852	18 / 446	18 / 867
	Natural gas (m ³ /h)	0,026 / 0,50	0,26 / 0,98	-	-
Working pressure (mbar)		50 / 300	50 / 300	50 / 1400	50 / 1400
Minimum distances recommended		KROMS 6 BP	KROMS 12 BP	KROMS 6 HP	KROMS 12 HP
A (m)		1,50 - 1,80	1,70 - 2,20	1,50 - 1,80	1,70 - 2,20
B (m)		0,75	0,75	0,75	0,75
C (m)		0,40	0,40	0,40	0,40
Coverage in number of animals (*)		KROMS 6 BP	KROMS 12 BP	KROMS 6 HP	KROMS 12 HP
Broilers		1800 to 2100	2900 to 3500	1800 to 2100	2900 to 3500
Turkeys		600	1150	600	1150
Guinea fowls		1000	1700	1000	1700
Ducks		530	1050	530	1050
Pigs		Fattening	-	Fattening	-
Control type applicable		KROMS 6 BP	KROMS 12 BP	KROMS 6 HP	KROMS 12 HP
PILOT centralized control panel		X	X	X	X
PILOT zone control panel		X	X	X	X

(*) Reference values. Various factors come into play such as external temperatures, relative humidity, the degree of insulation of buildings, density of birds per m², etc. For a more accurate calculation in each case, please contact our technical department.

Average temperatures obtained under ideal conditions, with a air temperature close to 22 °C.

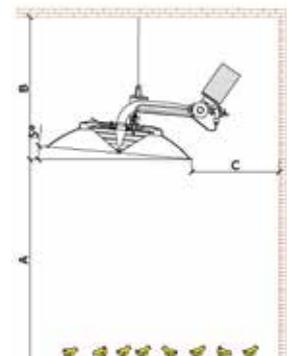
This information may vary slightly according to the degree of insulation of the building and the total number of brooders running at any one time.



KROMS PILOT 6

KROMS PILOT 12

Detail of hanging position brooder



Safety and reliability

Easier to integrate into automated installations

Control systems with power supply

Centralized or zone control systems for KROMS PILOT brooder models allow temperature control of the building by means of a central computer or a room thermostat.

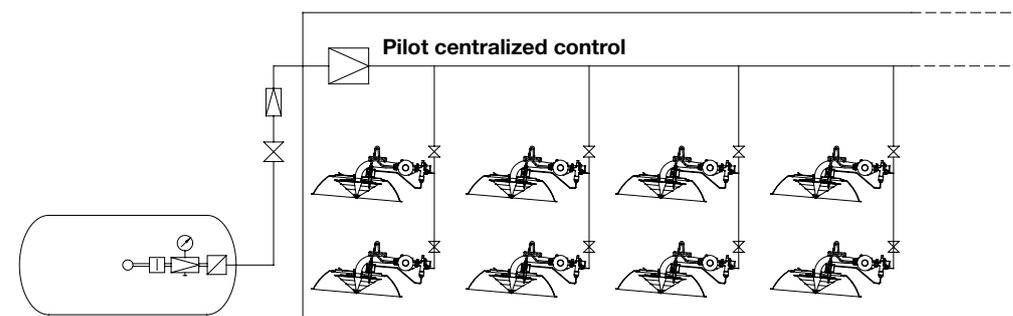
They are equipped with an electrovalve for gas which allows them to be integrated into an automatic ON/OFF control system (230 Vac / 50-60 Hz).



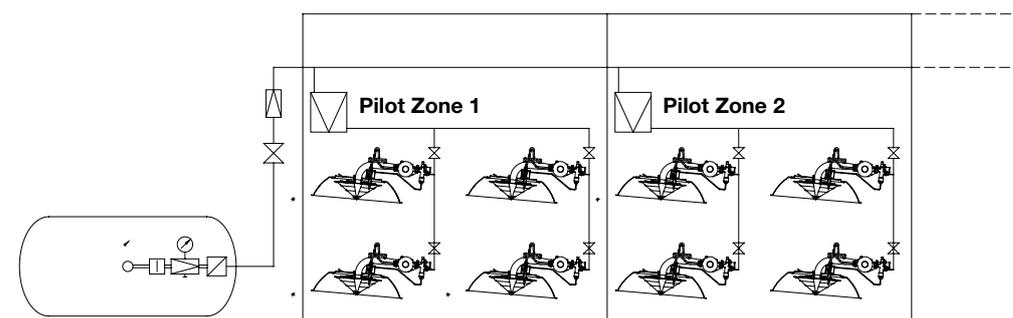
Control panel type	Inlet pressure (bar)	Maximum numbers of brooders to be controlled (1)			
		KROMS 6		KROMS 12	
		NG	PROPANE	NG	PROPANE
PILOT BP centralized control (2)	0,30	28	36	13	16
PILOT HP centralized control (2)	1,40	-	40	-	20
PILOT BP zone control (2)	0,30	6	12	3	6
PILOT HP zone control (2)	1,40	-	16	-	8

(1) Values vary according to the controller installed before the control panel.

(2) The control panel version (BP or HP) corresponds to the version of the brooder that it is to control.



System layout of KROMS PILOT brooders with centralized control panel



System layout of KROMS PILOT brooders with zone control panel



Experts in Livestock heating.

Kromschroeder, S.A. has emerged as a leading company in manufacturing and selling of products and system, as well as in rendering services to the different fields of distribution and efficient use of energy.

With a highly qualified team and a wide range of products and innovative systems for the development of energy efficiency, Kromschroeder, SA grants full satisfaction to the most demanding needs and expectations of customers.

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