Heating



## Indirect gas fired heater »Heat-X« Type G

# Heating with no CO<sub>2</sub>-production in poultry stables – long-lasting and efficient



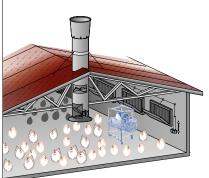
The »Heat-X« Type G is an indirect gas fired heater with a closed combustion system, especially designed for poultry houses.

Increasing energy costs and legal regulations force farmers to use efficient heating systems with low energy consumptions. The "Heat-X" Type G-line fully meets there requirements.

A closed combustion system means that the combustion air is taken from the outside, and the combustion gases are transported back to the outside. As a result no  $CO_2$  and no water vapor are brought into the poultry house. Therefore the big advantage is that the volume of the ventilated air can be strongly reduced so that energy can be saved.

Also, the closed combustion system decreases the humidity level. Consequently the feed stays drier which prevents from typical dieseases like Podo. So, the sickness and mortality rate decreases which leads to a higher output per bird flock.

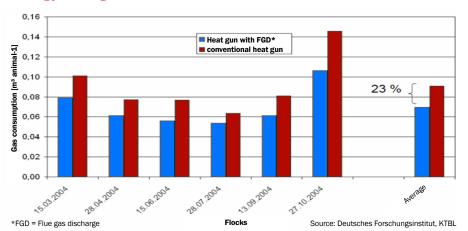
There is no open flame with a closed combustion system so that this effects insurance costs positively.



### **Advantages**

- No exhaust gases in the stable
- Energy saving due to lower air flow rates
- Approx. 15 % humidity reduction (better litter)
- Better animal performance
- Lower loss rate per stable
- Easy installation, no exhaust analysis needed
- Easy to service due to precise error indications
- Due to big openings the heat exchanger can be easily cleaned
- Lower insurance costs
- Well-engineered techniques
- Fan heater entirely made of stainless steel

### Energy savings due to low air flow rates





»Heat«-X Type 4G with a mobile console



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## »Heat-X« Type G is safe and reliable

The robust "Heat-X" Type G housing is entirely made of stainless steel and therefore perfectly usable for poultry houses.

Of course the heater is CE-certified and every single "Heat-X" Type G undergoes a final check. Electrical safety, correct emission values as well as general functions will be tested within this check.

The heat exchanger

The heat exchanger is made out of Sshaped tubes, each tube is feautred with its own atmospheric



gas burner that automatically sucks in the combustion air. With the atmospheric combustion mode the ambient air is used for the combustion and the combustion sucks in the needed amount of air autotmatically - analog to the direct combustion. This combustion mode is insensitive to dust and well-suited for more robust applications. The installation is easy and no exhaust analysis is needed.

Depending on the output of the heater more or less burners and tubes are integrated in the device. (Modular design)

#### The chimney

The flue gas connection respectively the chimney port are connected to flexible ducts. These ducts allow a flexible installation of the heater. The heater can be mounted underneath the ceiling or be placed in a very handy mobile console. Flue gas tracts of up to 7 meters are possible. Short flue gas tracts outside of the building prevent from ice formation during winter time.

#### Cleaning

The »Heat-X« Type G is due to its big openings easy to clean.

## Exemplary calculation for cost savings - broiler (42 days):

Average heating demand per bird flock, e. g. 35,000 kWh

Avergae gas price: 0.040 €/kWh to 0.065 €/kWh

# Average heating cost savings in the year:

(Assumption  $\approx$  23 % savings in the year)

Gas price €/kWh	7.5 Flocks/ Year*	Savings thanks to »Heat«-X Type 4G	
0.040	10,500€	322.00€	
0.045	11,813€	362.25€	
0.050	13,125€	402.50€	
0.055	14,438€	442.75€	
0.060	15,750€	483.00€	
0.065	17,063€	523.25€	

### **Technische Daten**

	»Heat-X« Type 3G	»Heat-X« Type 4G	»Heat-X« Type 5G
Output	39 – 60 kW	48 – 76 kW	66 – 99 kW
Air flow volume (heating)	6.000 m <sup>3</sup> /h	8.000 m³/h	10.000 m³/h
Throwing range	≈ 40 m	≈ 45 m	≈ 50 m
Electrical supply data	230V; 3.5A; 800W	230V; 3.9A; 900W	230V; 6,1A; 1.400W
Gas consumption G20 (natural gas)	6,9 m³/h	8,8 m³/h	11,4 m³/h
Min. gas connection pressure G20	17 – 60 mbar	17 – 60 mbar	17 – 60 mbar
Gas consumption G25 (natural gas)	7,8 m³/h	9,9 m³/h	12,8 m³/h
Min. gas connection pressure G25	20 – 60 mbar	20 – 60 mbar	20 – 60 mbar
Gas consumption G31 (propane)	5,2 kg/h	6,6 kg/h	8,6 kg/h
Min. gas connection pressure G31	30 – 60 mbar	30 – 60 mbar	30 – 60 mbar
Dimensions H x W x L	1.080 x 650 x 2.100 mm	1.080 x 650 x 2.100 mm	1.080 x 815 x 2.100 mm
Weight	140 kg	150 kg	175 kg

### **Accessories**





Room thermostat on/off

Interface unit



Mobile console



Large connection accessories