superTube®

The new dimension of performance



ENERGIE EFFIZIENZ made in Germany

reduziert

0085 DVGW CERT

Schwank
INNOVATIVE HEATING SOLUTIONS

superTube®: The new generation of tube heater

The Innovation Carries the Name superTube®

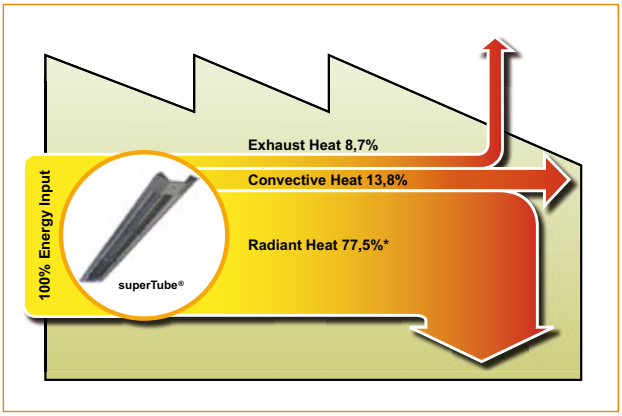
The name stands as a synonym for forward-thinking product features. superTube® converts up to 77.5%* of primary energy into usable heat radiation. Schwank once again sets a new benchmark in the industry with this economic and energy-efficient tube heater.



Through continuous development by the Schwank Innovation Centre involving computational fluid dynamics [CFD], superTube® is the embodiment of energy efficiency and high performance. A new reflector geometry, the innovative duo-insulation, radiation-enhanced reflector materials, and the Whisper Jet burner makes superTube® stand out. By default, the superTube® is available in 2-stage operation mode. Optionally fully modulating operation is available reducing on/off cycles and saving up to an additional 7% of energy. Due to the extraordinary construction and the aesthetic design superTube® can be integrated into various demanding applications.

Radiant efficiency up = Energy costs down

By using superTube® the energy costs can be reduced by up to 32% compared to standard tube heaters. The radiation factor of 77.5%* reflects the proportion of radiant heat converted into useful energy.
The higher the value, the better the efficiency of the infrared heater. The heat content [convection heat], typically rising unused to the ceiling, can be reduced by a significant proportion. Therefore industrial buildings can be heated up faster and more economically – an advantage that pays off quickly.



Energy flow chart tube heater: Radiant heat – the higher the proportion of radiation, the more heat reaches the floor: This saves energy.

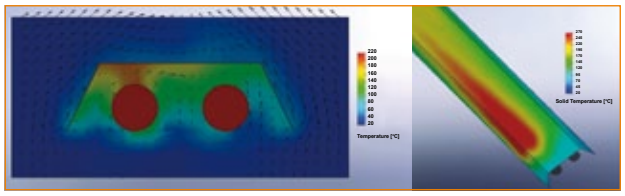
Advantages at a glance

- The most energy-efficient Schwank tubeheater
- Radiation factor of up to 77.5%*
- Specially coated reflector material to increase the heat radiation
- Delta-Duo-insulation reducing the convective heat element
- Newly developed reflector geometry [Delta-reflector] carried out in simulation laboratory
- Whisper Jet burner for extremely long laminar flame
- Fully modulating operation mode, 2-stage burner technology as standard
- Available in various colors
- Aesthetic design
- Quality „Made in Germany“

* Radiant factor of superTube 630 measured by DVGW laboratory according to DIN EN 416-2

Physics that makes heating expensive

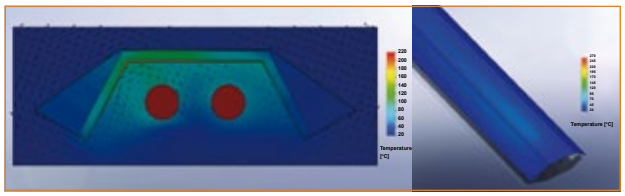
The reflectors of the tube heaters are mainly used for reducing the convection heat losses. Standard tube heater reflectors are not or just poorly insulated [Image 01]. Due to Non-insulation and therefore hot reflectors, the heat will be delivered up to the ceiling. This has a negative effect on the energy consumption and can result in up to 45% of the unused energy below the ceiling.



01 Temperature and flow distribution of a standard tube heater

Our Technological Edge makes Heating Inexpensive

superTube® reduces the heat transfer to the top of the reflector by a specially developed Delta-Duo-Insulation and its thermally enhanced device geometry. This saves money and reduces CO_2 emissions. By using high quality aluminum plated steel, a reflectivity grade of approx 95% [Figure 02, left] can be achieved. The convection heat part delivered toward the ceiling is minimised by the Duo Delta-Insulation [Figure 02, right]. Combined with proven Schwank components such as the combustion optimised burner Whisper Jet, superTube® is a reliable high quality product.



02 Temperature and flow distribution of a superTube®

superTube®: The new generation of tube heaters

- Increase of the infrared radiation [radiation factor of 77.5%*] and reduction of convection heat due to:
  - Newly developed reflector geometry [Delta-reflector] carried out in simulation laboratory
  - Specially coated reflector material
  - Duo insulation [high temperature resistance]
- Whisper Jet burner with blowing fan for very long, laminar flame
- Standard colour: RAL 9007 grey aluminum; other colours on request
- Fully modulating operation mode, 2-stage burner technology as standard
- Expandable with heat recovery system **hybridSchwank**

*** Radiant factor of superTube 630 measured by DVGW laboratory according to DIN EN 416-2**

	3...			6...			9...		
	15	20	25	20	30	40	30	40	50
Dimensions (mm)									
A	800			800			800		
B	2960			5920			8880		
Tube	2x2790			4x2890			2x2790 2x5950		
C	3760			6720			9680		
Nat. gas H G 20/Hi,n 9,97 kWh/m³									
Gas input [kW]	15,0	19,0	25,0	19,0	29,0	39,0	29,0	39,0	49,0
Gas consumption [m³/h]	1,50	1,91	2,51	1,91	2,91	3,91	2,91	3,91	4,91
Nat. gas L G 25/Hi,n 8,57 kWh/m³									
Gas input [kW]	15,0	19,0	25,0	19,0	29,0	39,0	29,0	39,0	49,0
Gas consumptiont [m³/h]	1,75	2,22	2,92	2,22	3,38	4,55	3,38	4,55	5,72
Propan G 31/Hi,n 12,87 kWh/kg									
Gas input [kW]	15,0	19,0	25,0	19,0	29,0	39,0	29,0	39,0	49,0
Gas consumptiontt [m³/h]	1,17	1,48	1,95	1,48	2,25	3,03	2,25	3,03	3,81
Weight [kg]	136			241			346		
Exhaust connection	ø 100								
Gas connection	R ½“					R ¾“	R ½“	R ¾“	
Electrical supply	230 V / 50 Hz ~								
Electrical consumption [W]	104					91	104	91	
Ignition and control	Spark ignition and ionisation electrode run by automatic controllerCE-Identifikation								

Application

Room air independent installation [Art. C] as single exhaust or herringbone system.

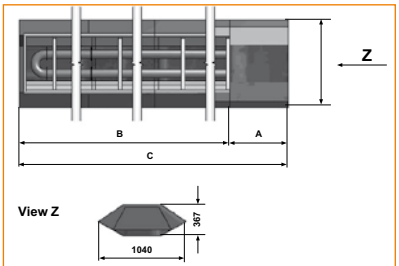
3 sizes available: 3,7 / 6,7 / 9,6 m

6 different performance classes: 15 to 50 kW

Gas connection pressure

min: Natural Gas H: 20 mbar
Natural Gas L: 22 mbar
Propan: 40 mbar

max: 60 mbar





Grey Aluminium
RAL 9007
[Standard colour]



Flame Red
RAL 3000
[Optional colour]



Gentian Blue
RAL 5010
[Optional colour]



Anthracite Grey
RAL 7016
[Optional colour]

Pale White
RAL 9002
[Optional colour]

superTube®/4SGB/2./4610 [Subject to technical changes]

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