



# **KANTHAL® FLOW HEATER 3.5 kW** **HEATING GASES UP TO 1100°C**

TECHNICAL SPECIFICATION

**KANTHAL®**

Part of Sandvik Group

## FLOW HEATER 3.5 kW BASIC VERSIONS

The Flow Heater 3.5 kW can be supplied in different basic versions with power connection cables included. There are additional accessories for insulation, temperature monitoring, and gas connection.

### 1A. FLOW HEATER 3.5 kW

#### BASIC DATA

<b>Article No.</b>	DFH100101
<b>Inlet connection</b>	flange PN 16 DN 50 (EN1092-1)
<b>Outlet connection</b>	without nozzle
<b>Total length</b>	362 mm
<b>Weight</b>	5.1 kg



### 1B. FLOW HEATER 3.5 kW WITH FLANGE ADAPTOR

#### BASIC DATA

<b>Article No.</b>	DFH100102
<b>Inlet connection</b>	1.4571 Swagelok Ø 12 mm (tube)
<b>Outlet connection</b>	without nozzle
<b>Total length</b>	428 mm
<b>Weight</b>	8.52 kg



### 1C. FLOW HEATER 3.5 kW WITH NOZZLE Ø 26.67 MM

#### BASIC DATA

<b>Article No.</b>	DFH100103
<b>Inlet connection</b>	flange PN 16 DN 50 (EN1092-1)
<b>Outlet connection</b>	with nozzle
<b>Total length</b>	397 mm
<b>Weight</b>	5.41 kg



### 1D. FLOW HEATER 3.5 kW WITH NOZZLE Ø 26.67 MM AND FLANGE ADAPTOR

#### BASIC DATA

<b>Article No.</b>	DFH100104
<b>Inlet connection</b>	1.4571 Swagelok Ø 12 mm (tube)
<b>Outlet connection</b>	with nozzle
<b>Total length</b>	420 mm
<b>Weight</b>	8.83 kg



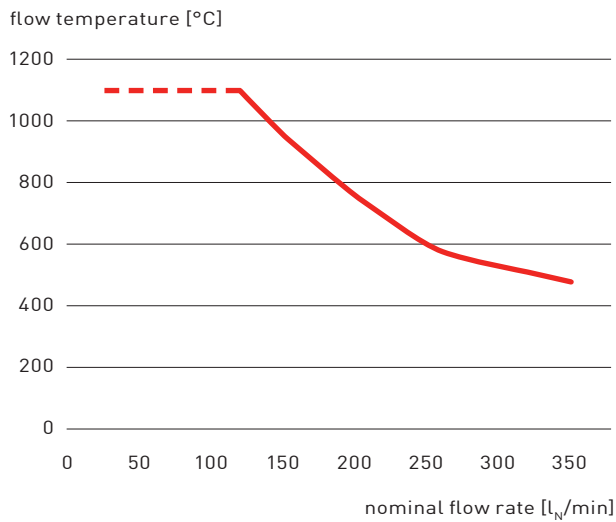
## SPECIFICATIONS

**OPERATING DATA** (Valid for all 4 basic versions fully equipped)

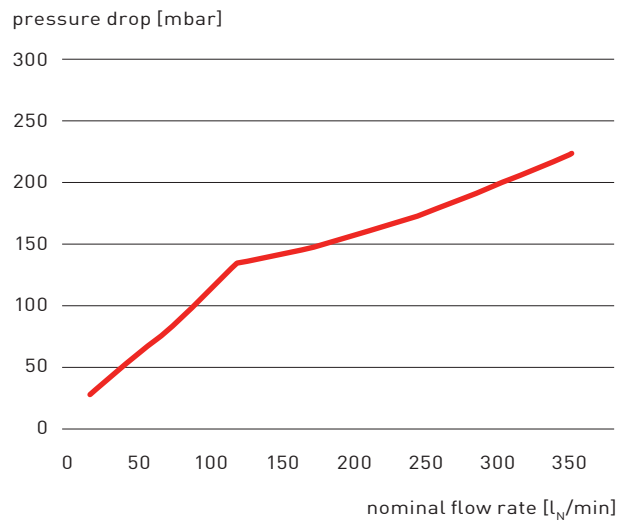
<b>Fluid</b>	air, N <sub>2</sub> , O <sub>2</sub> , CO <sub>2</sub> *	
<b>Nominal volume flow (air)</b>	1.2 – 21 m <sub>N</sub> <sup>3</sup> /h	0.71 – 12.4 cfm
	20 – 350 l <sub>N</sub> /min	
<b>Mass flow (air)</b>	1.4 – 27.1 kg/h	
<b>Operating pressure</b>	< 1.5* bar absolute	< 22 PSI absolute
<b>Max. pressure drop</b>	350 mbar	5.1 PSI
<b>Inlet temperature</b>	< 100°C	< 212°F
<b>Max. outlet temperature (air)</b>	1100°C*	2012°F
<b>Ambient temperature</b>	< 40°C	< 104°F
<b>Installation</b>	horizontal	
<b>Tube material</b>	1.4835	

\* for higher temperatures, higher pressure or other gas, please contact your Kanthal sales representative.

### FLOW TEMPERATURE IN CLEAN AIR



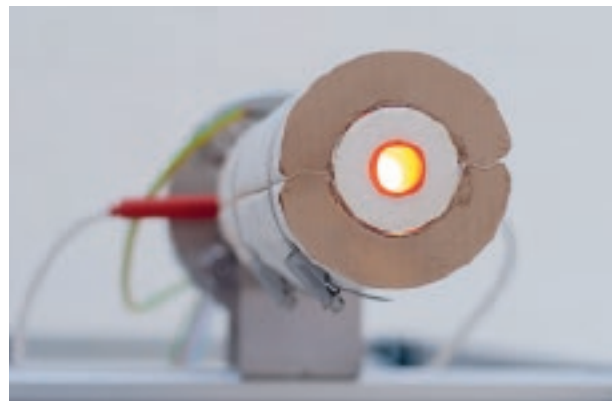
### PRESSURE DROP IN CLEAN AIR



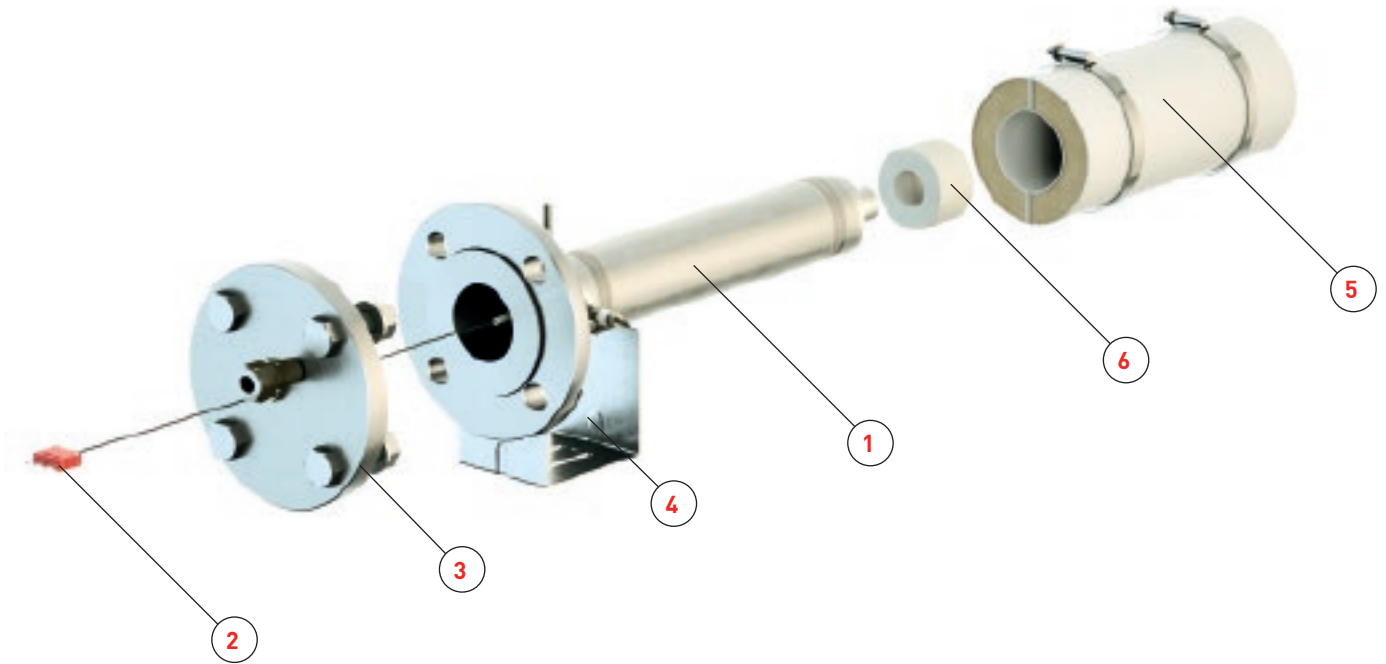
### ELECTRICAL DATA

<b>Power</b>	3.5 kW
<b>Voltage</b>	1 x 230 V

including 2 electrical connectors with 2 m cable and plugs



## ACCESSORIES



POS.	DESCRIPTION	ARTICLE NO.	WEIGHT [KG]
1	Flow Heater 3.5 kW Basic Version	See page 2	-
2	Internal thermocouple with ferrule fitting	DFH120002	0.03
3	Flange adaptor (incl. Thermocouple and Swagelock Ø 12 mm)	DFH120001	3.42
4	Mounting bracket	DA101664	0.33
5	Microporous insulation with clamps	DFH400003	0.66
6	Fibrothal nozzle insulation	DFH400002	0.02
7	Control Cabinet 3.5 kW	DFH126001	15

## 2. THERMOCOUPLE WITH FERRULE FITTING

### TECHNICAL DATA

<b>Article No.</b>	DFH120002
<b>Type</b>	T/C type N in Inconel sheath with plug (3 pins with ground sheath)
<b>Dimensions</b>	Ø 1.5 mm, L = 500 mm
<b>Fitting connection</b>	M8 x 1 thread with sealing



### 3. FLANGE ADAPTOR

#### TECHNICAL DATA

<b>Article No.</b>	DFH120001
<b>Flange</b>	1.4571 PN 16 DN50 outer Ø 165 mm
<b>Inlet</b>	1.4571 Swagelok Ø 12 mm (tube)
<b>Thermocouple</b>	T/C type N in Inconel sheath for over temperature protection inside the heater



### 4. MOUNTING BRACKET

#### TECHNICAL DATA

<b>Article No.</b>	DH500400
<b>Material</b>	1.4404
<b>Dimensions (WxHxD)</b>	200 mm x 80 mm x 2 mm



### 5. MICROPOROUS INSULATION WITH CLAMPS

#### TECHNICAL DATA

<b>Article-No.</b>	DFH400003
<b>Material</b>	Microporous half shells
<b>Dimensions</b>	Outer Ø 112 mm, L = 250 mm
<b>Attachment</b>	Pair of clamps



### 6. FIBROTHAL NOZZLE INSULATION

#### TECHNICAL DATA

<b>Article No.</b>	DFH400002
<b>Material</b>	Fibrothal F17/LS
<b>Dimensions</b>	Outer Ø 78 mm, L = 35 mm



### 7. CONTROL CABINET 3.5 kW

#### TECHNICAL DATA

<b>Article No.</b>	DFH126001
<b>Dimensions (WxHxD)</b>	400 mm x 300 mm x 210 mm



