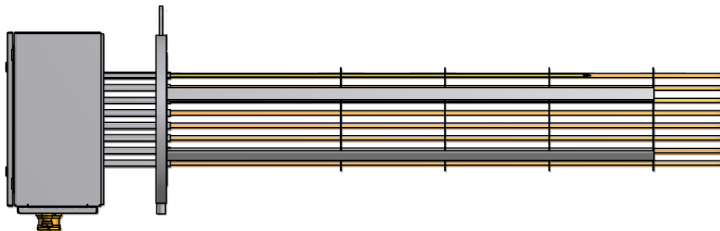


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# Explosion-proof Immersion Heater Type D-8800

Sinus Jevi has developed, designed and manufactured explosionproof Ex 'de' heating equipment for hazardous areas. The flame-proof (d) enclosures have been designed for non save areas to protect the environment against gas-explosions, caused by sparking by electrical connections of the heating elements and control devices.



**SINUS  
JEVI  $\Omega$**



Liquids



Gasses



Solids



Spaces



Resistors

### Advantages:

- Up to 2.5 megawatt per single unit
- Large reduction maintenance costs
- Light construction
- Easy access
- Economical

### The best of both worlds

It is also possible to have 'The best of Both Worlds'. Where the advantages of both -d- and -e- can be combined to arrive at the most cost effective, tailor-made solution for your industrial heating requirements.

### Technical description

#### IMMERSION HEATER

##### Type D-8800

##### Certification

##### ATEX certified:

Ex II 2G      Ex de [ia] IIC T6 to T1 Gb (IS circuit)  
Ex II 2G      Ex de IIC T6 to T1 Gb (non IS circuit)

##### IEC/EN 60079-0: 2009

Is applicable for heating up liquids and gases.

The material of the standard certified increased safety enclosure is stainless steel.

Standard features of the heater:

- Up to 36" flange acc. ANSI B 16.5; material carbon steel, high alloy steel, nickel alloy, monel etc.
- degree of protection of the enclosure: IP 66
- diameter of heating elements: Ø8.5 mm, Ø10.2 mm, Ø12.7 mm and Ø16 mm or cartridge heating elements Ø12.5 to 31.5 mm.
- material of elements: high alloy steel, nickel alloy and copper alloy.
- immersion length up to 3000 mm: see table.
- retractable heating elements by means of carbon steel or stainless steel compression fittings/bite couplings or cartridge heating elements.
- baffle plates material: stainless steel.
- heater battery can be provided with:
  - 1) Protective and/or control devices: thermostat, thermocouple or pt100.

- 2) Temperature transmitters.
- 3) Anti-condensation heater.
- 4) Certified cable glands

Standard material: brass

- Maximum supply voltage: 1250 Volt, 3 phase

Ambient temperature: -40°C - +50°C

The maximum allowable energy-dissipation of the tubular heating elements has been based on a maximum Watt-density which is physically depending on the fluid temperature, type of fluid and process condition. The temperature setting of the safety device has to prevent that the maximum temperature shall not exceed the temperature class.

Sinus Jevi designs, engineers and manufactures complete explosion-proof heating units for industrial appliances, according to customers specification.

### Applications

- heating mineral, heavy and heat transfer oil,
- fuelgas pre- and afterheating,
- heating and superheating gases (nitrogen, hydrogen, natural gas, carbondioxide, fuelgas, etc.)
- regenerationheating,
- defrosting,
- feed waterheating,
- evaporating water,
- glycol seperators,
- heating other fluids.

### Design

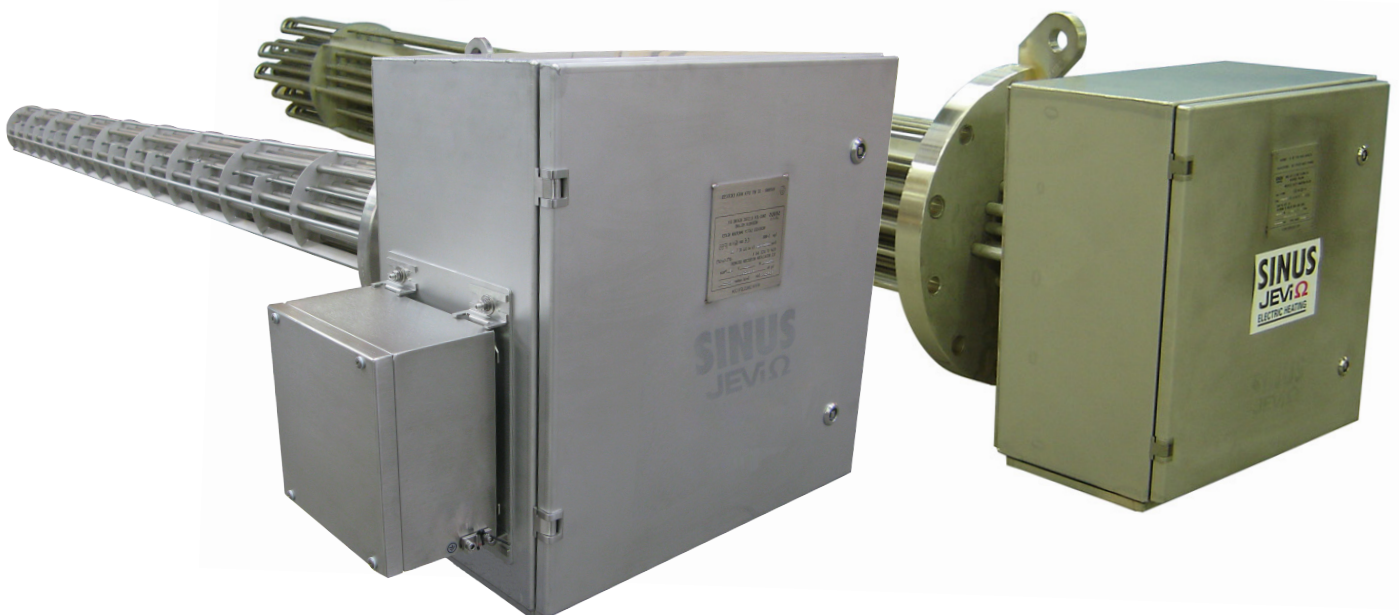
Pressure vessels or a combination of vessels form an intergral part of heating units in many appliances. In the shell, explosion proof batteries can be mounted up to 36" outer dimension.

Vessels can be designed in accordance with several codes as Stoomwezen "Rules for pressure vessels", AD-Merkblätter, British Standard, ASME, PS 5500 etc. and in accordance with the PED directives.

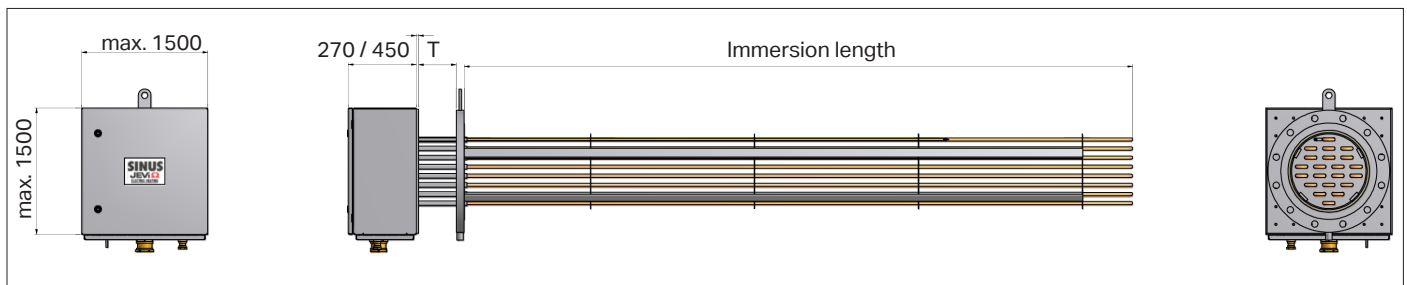
Mostly the heating units are delivered complete with a total control system.

To ensure complete compability and optimal design, the complete engineering and manufacturing of both heating unit and control system is preferable.

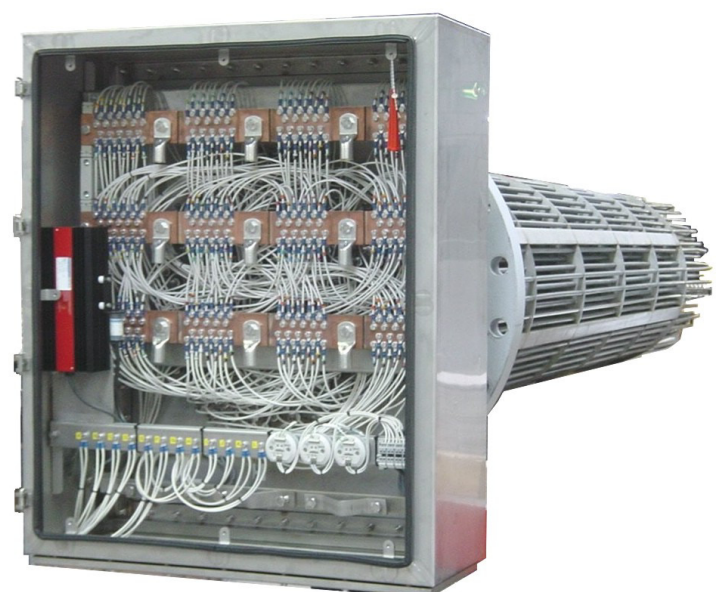
Please sent your exact data requirements, so we can quote custom built heating equipment.



Type D-8800 Ex de [ia] IIC T6-T1 Gb / Ex de IIC T6-T1 Gb						
Increased safety enclosure size #A	Type	Number	Flange 150#	Immersion length (mm)	Maximum capacity gasses (kW)	Maximum capacity liquid (kW)
400 x 400 mm	D-8800	M 0561-10	12"	1000	30	60
	D-8800	M 0561-20	12"	2000	90	150
	D-8800	M 0561-30	12"	3000	150	250
500 x 500 mm	D-8800	P 1021-10	16"	1000	60	150
	D-8800	P 1021-20	16"	2000	180	400
	D-8800	P 1021-30	16"	3000	300	600
600 x 600 mm	D-8800	S 1601-10	20"	1000	85	200
	D-8800	S 1601-20	20"	2000	250	500
	D-8800	S 1601-30	20"	3000	420	700
800 x 800 mm	D-8800	V 2001-10	30"	1000	200	600
	D-8800	V 2001-20	30"	2000	600	1000
	D-8800	V 2001-30	30"	3000	1000	1500
1000 x 1000 mm	D-8800	W 3161-10	36"	1000	300	650
	D-8800	W 3161-20	36"	2000	1000	1900
	D-8800	W 3161-30	36"	3000	1500	2500



Temperature class		Distance enclosure to heater (T)
T6	85°C	50 mm
T5	100°C	75 mm
T4	135°C	100 mm
T3	200°C	150 mm
T2	300°C	200 mm
T1	450°C	250 mm



Interior junction box D-8800 Ex



Sinus is one of the pioneers in the field of explosion proof heating equipment, today we are still operating at the forefront. We manufacture according to ATEX as well as IECEx and EAC directives.

For the production of Ex-proof equipment a PQAN (Product Quality Assurance Notification) is issued by TUV-Nord. Our ISO-9001 and ISO-14001 systems are also monitored by this organisation.

**NIBE**