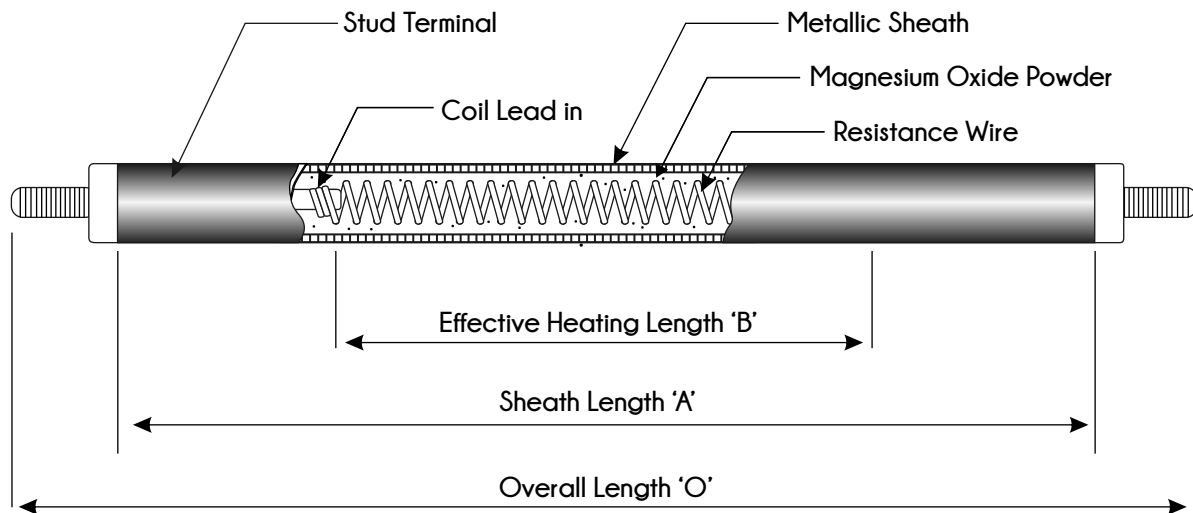


TUBULAR HEATERS



Features

Tubular heaters are highly adaptable to most applications where electrical heating is required. They can be used in their straight form or bent into various shapes.

Tubular heaters can be used in free air, clamped to a surface, placed inside a groove or cast into metal. These versatile heating elements are available in Steel, Stainless Steel or Incoloy outside sheath and can be utilized in application temperatures of up to 1400°F.

Tubular heaters use 80% Nickel 20% Chromium high grade coiled resistance wire as a heating core. This core is welded at both ends to pins that provide a cold section that varies in length depending on the application requirements. The coil-pin assembly is precisely centered inside a heavy gauge, oversize metal tube, and embedded inside a 96% pure, high-grade MgO insulating medium. This assembly is then compacted through a roll-reducing process that reduces the outside tube diameter to its final size, and transform the MgO matrix into a rock-hard solid that acts as an excellent heat transferring medium, as an electric insulation with high dielectric strength. Finally, heaters are annealed inside a high-temperature furnace to eliminate internal stresses accumulated during the cold-forming and roll-reducing process to make them soft. Heating elements are then formed into special shapes.

Application

For heating almost any liquid or viscous materials including acids, water, synthetic oils, lube oils as well as air, gases, steam or low melting point solids.

Typical Applications

- Forming machines
- Heating molds and platens
- Radiant heating
- Embedded or cast into metal

Material sheath selection and application:

COPPER

Heating of fresh water free from chloride or other aggressive chemicals. Copper element may nickel plated to provide protection in certain applications. Maximum sheath temperature in water 180°C.

INCOLOY 800/840

A nickel chrome alloy used for heating liquids where resistance to stress corrosion is required. Maximum sheath temperature 850°C.

STAINLESS STEEL 304

Heating gases, where oxidation or corrosion is likely. Selection will depend on the media to be heated and the operating conditions. Maximum sheath temperature 750°C.

TITANIUM

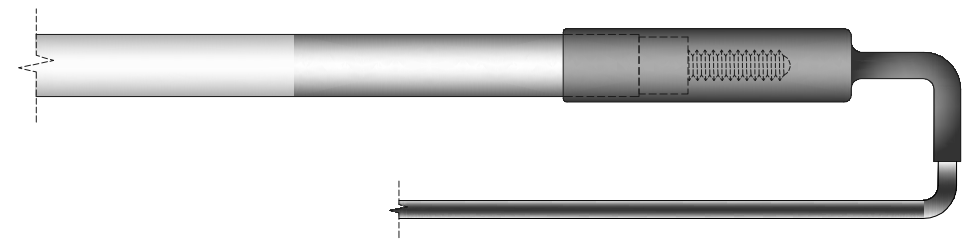
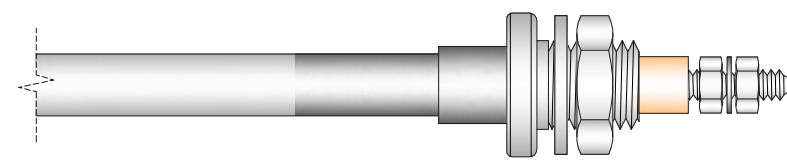
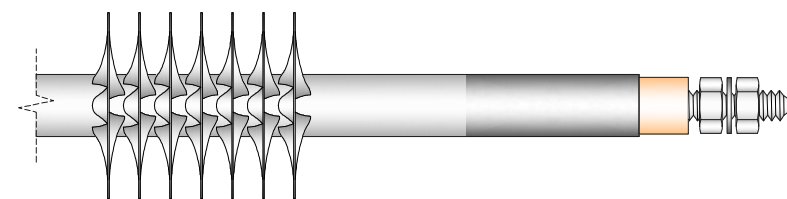
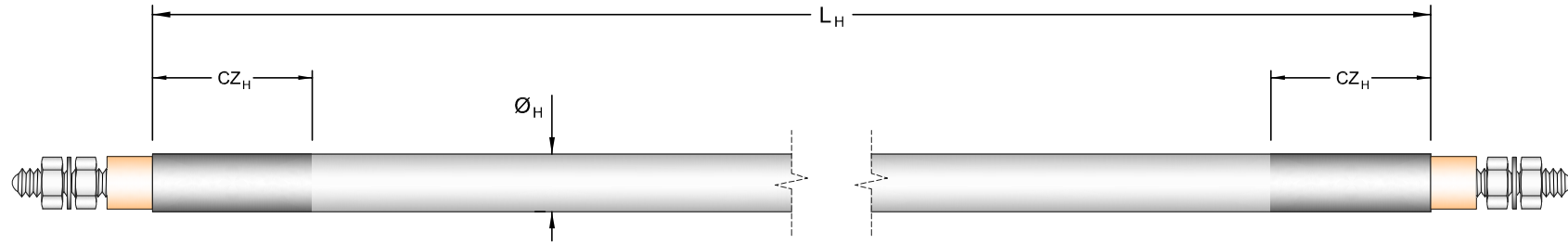
Heating aggressive liquids where other metal sheathed materials do not have the required corrosion resistance. Selection will depend on the chemical composition of the media to be heated. Maximum sheath temperature 500°C.

STRAIGHT TUBULAR HEATER



To Order : Please specify the complete assembly, indicate the code letter or value for each option.

Model	Length, L_H	Cold Zone-CZ _H	Diameter - \varnothing_H	Sheath	Wattage	Supply	Options



STRAIGHT TUBULAR HEATER ORDER CODE TABLE



To Order : Please specify the complete assembly, indicate the code letter or value for each option.

Model	Length, L _H	Cold Zone-CZ _H	Diameter - Ø _H	Sheath	Wattage	Supply	Options	
HE-SDF	3500	100	1	S4	1500	220	0	0

Model	Description
HE-S	Straight
HE-SF	Straight, Finned
HE-SDF	Straight, Defrost

Diameter	
1	Ø8.2mm
2	Ø11.2mm

Material	
S4	Stainless 304
S6	Stainless 316
Inc840	Incoloy 840

Material		
0	0	0
SP	BR	Brass
M14	S4	Stainless 304
M16	S6	Stainless 316
M18		
12B		
12N		

Example:

HE-SDF	3500	100	1	S4	1500	220	0	0
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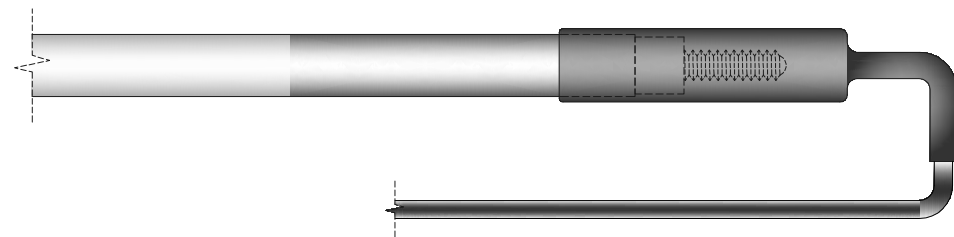
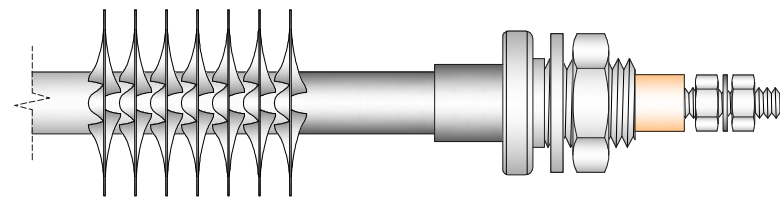
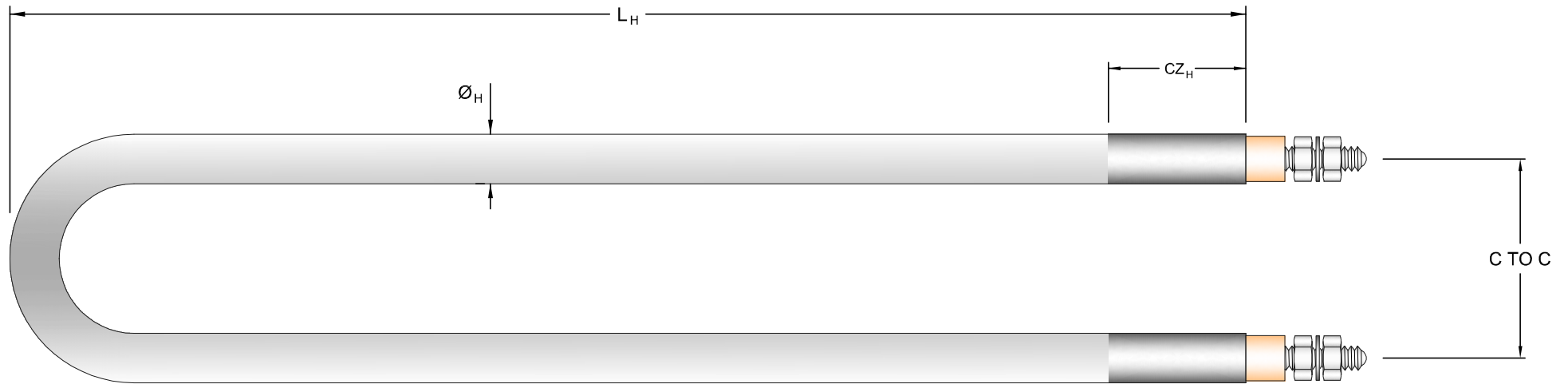
- Straight Tubular, Defrost Heater
- 3500mm... Immersion Length
- 100mm... Cold Zone
- Ø8.2mm... Sheath Diameter
- SS304 Sheath Material
- 1,500 Watts... Wattage
- 220 VAC... Supply
- None

U - SHAPED TUBULAR HEATER



To Order : Please specify the complete assembly, indicate the code letter or value for each option.

Model	Length, L_H	Cold Zone-CZ _H	CTC	Diameter - \varnothing_H	Sheath	Wattage	Supply	Options



U - SHAPED TUBULAR HEATER ORDER CODE TABLE



To Order : Please specify the complete assembly, indicate the code letter or value for each option.

Model	Length, L _H	Cold Zone-CZ _H	CTC	Diameter - Ø _H	Sheath	Wattage	Supply	Options	
HE-UF	400	50	65	1	Inc840	2500	220	M14	BR

Model	Description
HE-U	U-Shaped
HE-UF	U-Shaped, Finned
HE-UDF	U-Shaped, Defrost

Diameter	
1	Ø8.2mm
2	Ø11.2mm

Material	
S4	Stainless 304
S6	Stainless 316
Inc840	Incoloy 840

Material		
0	0	0
SP	BR	Brass
M14	S4	Stainless 304
M16	S6	Stainless 316
M18		
12B		
12N		

Example:

HE-UF	400	50	65	1	INC840	2500	220	M14	BR
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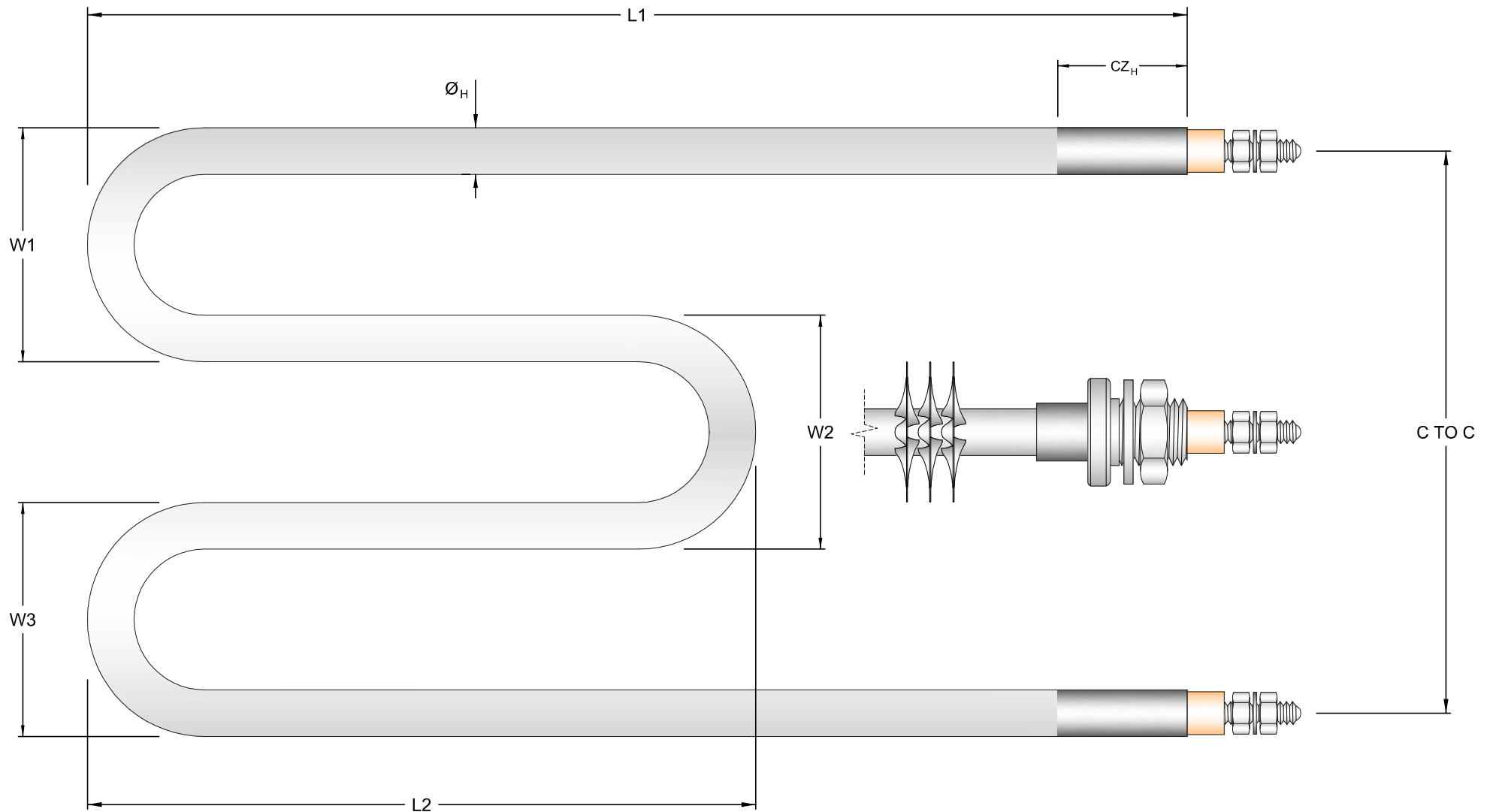
- U-Shaped, Finned, Tubular Heater
- 400mm... Immersion Length
- 50mm... Cold Zone
- 65mm... Center To Center (CTC)
- Ø8.2mm... Sheath Diameter
- Incoloy 840 Sheath Material
- 2,500 Watts... Wattage
- 220 VAC... Supply
- M14 Connection, Brass

W - SHAPED TUBULAR HEATER



To Order : Please specify the complete assembly, indicate the code letter or value for each option.

Model	Length, L1-mm	Length, L2-mm	Cold Zone-CZ _H	CTC	Diameter - \varnothing_H	W1	W2	W3	Sheath	Wattage	Supply	Options



W - SHAPED TUBULAR HEATER ORDER CODE TABLE



To Order : Please specify the complete assembly, indicate the code letter or value for each option.

Model	Length, L1-mm	Length, L2-mm	Cold Zone-CZ _H	CTC	Diameter - Ø _H	W1	W2	W3	Sheath	Wattage	Supply	Options	
HE-WF	600	400	50	148.8	2	40	80	40	S6	2000	220	12B	S6

Model	Description
HE-W	W-Shaped
HE-WF	W-Shaped, Finned

Diameter	
1	Ø8.2mm
2	Ø11.2mm

Material	
S4	Stainless 304
S6	Stainless 316
Inc840	Incoloy 840

Material		
0	0	0
SP	BR	Brass
M14	S4	Stainless 304
M16	S6	Stainless 316
M18		
12B		
12N		

Example:

HE-WF	600	400	50	148.8	2	40	80	40	S6	2000	220	12B	S6
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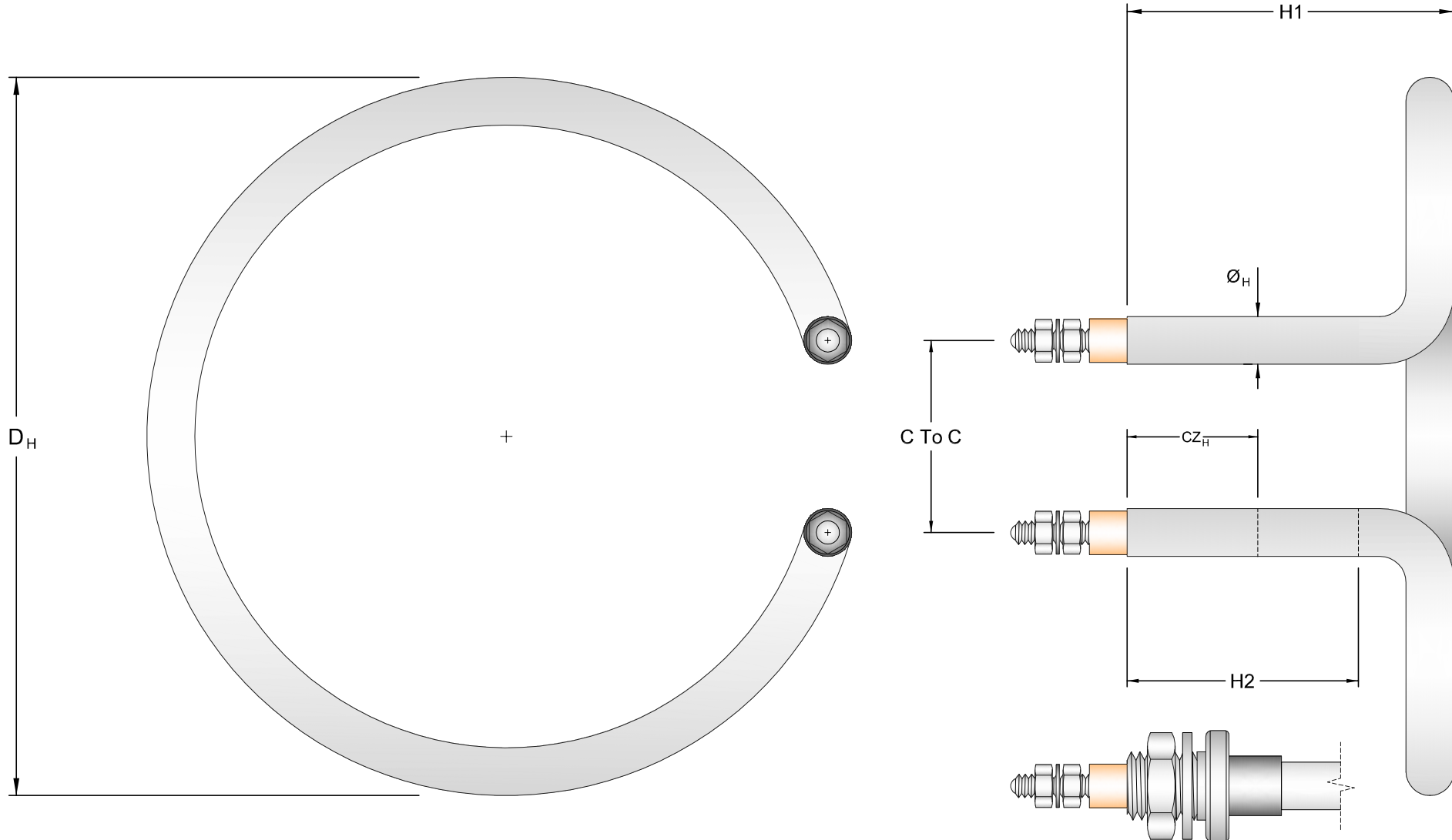
- W-Shaped, Finned, Tubular Heater
- 600mm... Length, L1
- 400mm... Length, L2
- 50mm... Cold Zone
- 148.8mm... Center To Center (CTC)
- Ø11.2mm... Sheath Diameter
- 40mm... Width, W1
- 80mm... Width, W2
- 40mm... Width, W3
- SS316 Sheath Material
- 2,000 Watts... Wattage
- 220 VAC... Supply
- 1/2" BSP Connection, SS316

CIRCULAR WITH VERTICAL ENDS TUBULAR HEATER



To Order : Please specify the complete assembly, indicate the code letter or value for each option.

Model	Diameter - D_H	Height, H1	Height, H2	Cold Zone-CZ _H	C To C	Diameter - \varnothing_H	Sheath	Wattage	Supply	Options



CIRCULAR WITH VERTICAL ENDS TUBULAR HEATER ORDER CODE TABLE



To Order : Please specify the complete assembly, indicate the code letter or value for each option.

Model	Diameter - D _H	Height, H1	Height, H2	Cold Zone-CZ _H	C To C	Diameter - Ø _H	Sheath	Wattage	Supply	Options	
HE - CVE	600	400	50	75	60	2	S4	2000	220	M18	S4

Model	Description
HE - CVE	Circular Heater With Vertical Ends

Diameter	
1	Ø 8.2mm
2	Ø 11.2mm

Material	
S4	Stainless 304
S6	Stainless 316
Inc840	Incoloy 840

Material		
0	0	0
SP	BR	Brass
M14	S4	Stainless 304
M16	S6	Stainless 316
M18		
12B		
12N		

Example:

HE - CVE	600	400	50	75	60	2	S4	2000	220	M18	S4
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- Circular Heater With Vertical Ends Tubular Heater
- 600mm... Diameter, DH
- 400mm... Height, H1
- 50mm... Height, H2
- 75mm... Cold Zone
- 60mm... Width
- Ø11.2mm... Sheath Diameter
- SS304... Sheath Material
- 2,000 Watts... Wattage
- 220 VAC... Supply
- M18 Connection, SS304