



HEATING ELEMENTS



**ELECTRICAL HEATING AND COOLING
SOLUTIONS
FOR THE INDUSTRY**



VULCANIC

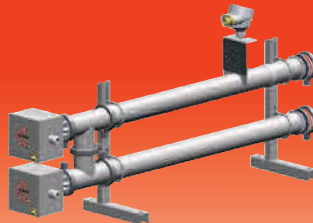
The Vulcanic group has been designing and manufacturing electrical process heating and temperature control solutions since 1973. Employing 550 people across 8 manufacturing locations, Vulcanic currently services 30 000 customers in 100 different countries across the globe and is an ISO 9001 v 2008 accredited company.



**You have an issue... let us solve it !
Vulcanic your worldwide local partner !**



Advice

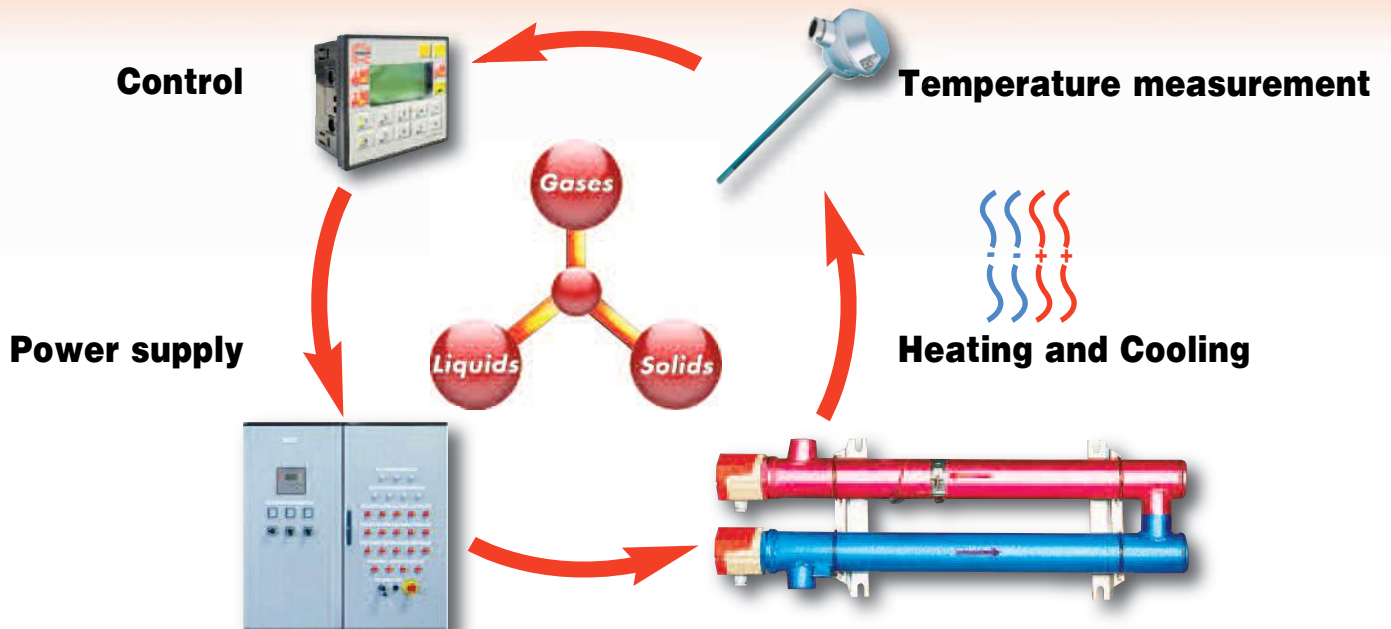


Design



Manufacturing

All in One Solutions





SERVED MARKETS



DESIGN EXPERTISE AND CODES

Vulcanic design teams support our partners from conceptual design and feasibility study throughout the life of the equipment. Our design capabilities include:

- Electrical design
- Mechanical design
- Thermal design
- Electronic design (hardware and software)
- Hydraulic design
- Automation
- Communication protocols
- Hazardous area certification



- AD 2000
- ASME
- CODAP
- EN 286

- PD 5500
- RCC-M / RCC-E
- STOOMWEZEN
- GOST



MANUFACTURING

Vulcanic offers the benefits of integrated "in house" manufacturing processes, using "state of the art" equipment to manufacture almost all components utilised within our product ranges. With only minimal dependance upon subcontractors, we remain in full control of Quality and Production schedules while maintaining a high level of know how in house.



Heating element manufacturing



CNC machining



Sensor manufacturing



Welding



Wiring

CERTIFICATION



- ISO 9001: 2008
- PED 97/23/EC cat I-IV
- ATEX 94/9/EC
- IECEx
- TR CU
- CCOE
- VDE
- UL
- DNV
- INMETRO





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Applications : Tubular sheathed elements are quasi universal solution used to heat up solids, liquids or gas through the JOULE EFFECT up to about 800°C. Depending on their use, they transfer their energy by natural or forced convection, by conduction or induction.

SEALING

WP+: Waterproof resin sealing. The most standard one. Excellent sealing that guarantees insulation in case of prolonged storage or application in moisture conditions. Maximum admitted connection temperature of 160°C.

TM : Silicon cost effective solution operational up to a connection temperature of 350 °C in environment exempt from moisture.

HT : Cement high temperature, no water-tight sealing, operational up to a connection temperature of 450°C. Using in atmospheres without moisture.

TUBE Ø

6,5 - 6,8 - 8 - 8,5
10,2 - 16 - 18 - 22
(mm)

LENGTH

up to 6 m

SURFACE LOAD

up to 20 W/cm²

VOLTAGE

up to 750 V

CONNECTIONS

Threaded terminals
M4 or M6 for Ø8
M5 for Ø8,5
M5 or M6 for Ø10,2
M6 for Ø16
Spade terminal
Clamping screw
Copper lead
Nickel lead

FASTENINGS

Three-piece union
Crimped threaded union
Brazed threaded union
Welded threaded union
Hooks

MATERIALS

Carbon steel	2 W/cm ²
AISI 321/Din 1.4541	2 W/cm ²
Carbon steel	4 W/cm ²
AISI 321/Din 1.4541	4 W/cm ²
AISI 316L/Din 1.4404	6 W/cm ²
Incoloy 800/Din 1.4876	10 W/cm ²
Incoloy 825/Din 2.4858	10 W/cm ²
Copper	10 W/cm ²
AISI 904L/Din 1.4539	12 W/cm ²

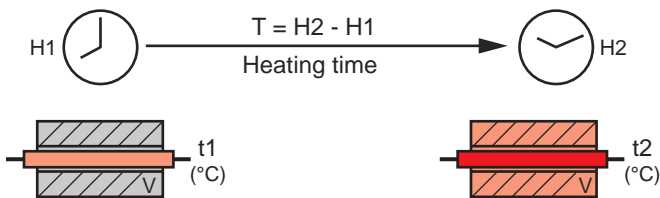
SURFACE LOAD	APPLICATION
2 W/cm ²	Oil, fuel oil, heat transfer fluid
2 W/cm ²	Air, gas, solids
4 W/cm ²	Circulating light oil
4 W/cm ²	Air, circulating fluids, solids
6 W/cm ²	Process heating water
10 W/cm ²	Air, gas, solids
10 W/cm ²	Sanitary water
10 W/cm ²	Circulating fresh water
12 W/cm ²	Circulating water

BENT TO SHAPE

Tubular heating elements can be shaped to suit your requirements. We can manufacture and deliver special elements quickly and cost-effectively.

DETERMINATION OF REQUIRED POWER

To heat a volume V (solid, liquid or gas) in a given time T (without state modification).



Units to be known

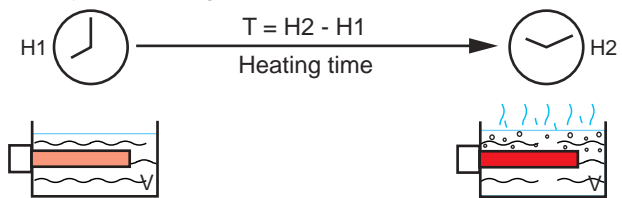
- V : Volume in liter or dm³
- ρ : Density en kg/dm³
- V x ρ : Mass to be heated in kg
- t1 : Initial temperature in °C
- t2 : Final temperature in °C
- Cp : Specific heat kcal/kg.°C
- T : Heating time in hours.

Result : P = Power to be installed in kW

1,2 : safety factor taking into account the tolerances on voltage supply and ohmic value of the heating element.

$$P = \frac{V \times \rho \times C_p \times (t_2 - t_1) \times 1,2}{860 \times T}$$

Vaporization of a mass M (liquid) in a given time T when the liquid is already at its boiling temperature.



Units to be known

- M : Weight of the liquid in kg.
- L : Latent heat of vaporization in kcal/kg
- T : Heating time in hour.

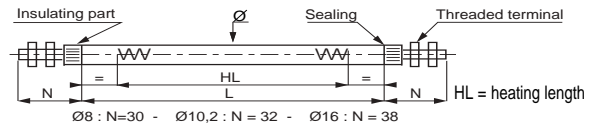
Result : P = Power to be installed in kW

1,2 : safety factor taking into account the tolerances on voltage supply and ohmic value of the heating element.

$$P = \frac{M \times L \times 1,2}{860 \times T}$$

STANDARD STRAIGHT TUBULAR HEATING ELEMENTS

Connection by M6 threaded steel rod.
The elements are annealed, so that they can be bent them to shape.



Ø 8 mm in AISI 321/Din 1.4541 - 2 W/cm² – TM seals

P/N.	Power +5 -10%	Voltage 1P	L (mm)	HL (mm)	Weight (kg)
27501-21	250 W	230 V	760	500	0,2
27501-22	500 W	230 V	1260	1000	0,3
27501-23	1000 W	230 V	2250	1990	0,5
27501-24	1500 W	230 V	3250	2990	0,8
27501-25	2000 W	230 V	4240	3980	1,0

Ø 10,2 mm in AISI 321/Din 1.4541 - 2 W/cm² TM seals

P/N.	Power +5 -10%	Voltage 1P	L (mm)	HL (mm)	Weight (kg)
27501-11	250 W	230 V	650	390	0,23
27501-12	500 W	230 V	1040	780	0,4
27501-13	1000 W	230 V	1820	1560	0,7
27501-14	1500 W	230 V	2600	2340	0,94
27501-15	2000 W	230 V	3380	3120	1,2
27501-16	3000 W	230 V	4940	4680	1,8

Ø 10,2 mm in VLY/AISI 904L/Din 1.4539 - 4 W/cm² WP+ seals

P/N.	Power +5 -10%	Voltage 1P	L (mm)	HL (mm)	Weight (kg)
26501-40	250 W	230 V	355	195	0,15
26501-41	500 W	230 V	550	390	0,2
26501-42	750 W	230 V	745	585	0,27
26501-43	1000 W	230 V	940	780	0,34
26501-44	1500 W	230 V	1330	1170	0,5
26501-45	2000 W	230 V	1720	1560	0,62
26501-46	3000 W	230 V	2500	2340	0,9

Ø 16 mm in AISI 321/Din 1.4541 - 2 W/cm² – TM seals

P/N.	Power +5 -10%	Voltage 1P	L (mm)	HL (mm)	Weight (kg)
27501-01	500 W	230 V	760	500	0,6
27501-02	1000 W	230 V	1260	1000	1,1
27501-03	1500 W	230 V	1750	1490	1,5
27501-04	2000 W	230 V	2250	1990	1,9
27501-05	3000 W	230 V	3250	2990	2,8
27501-06	4000 W	230 V	4240	3980	3,6
27501-07	5000 W	230 V	5240	4980	4,5

Ø 8 mm in Incoloy 800/Din 1.4876 - 6 W/cm²- TM seals

P/N.	Power +5 -10%	Voltage 1P	L (mm)	HL (mm)	Weight (kg)
28501-51	500 W	230 V	630	330	0,15
28501-52	1000 W	230 V	960	660	0,23
28501-53	2000 W	230 V	1630	1330	0,4
28501-54	3000 W	230 V	2290	1990	0,5
28501-55	4500 W	230 V	3290	2990	0,8
28501-56	6000 W	400 V	4280	3980	1,0
28501-57	8000 W	400 V	5610	5310	1,3

Ø 10,2 mm in VLY/AISI 904L/Din 1.4539 - 2 W/cm² - TM seals

P/N.	Power +5 -10%	Voltage 1P	L (mm)	HL (mm)	Weight (kg)
26501-30	250 W	230 V	550	390	0,2
26501-31	500 W	230 V	940	780	0,34
26501-32	750 W	230 V	1330	1170	0,5
26501-33	1000 W	230 V	1720	1560	0,62
26501-34	1500 W	230 V	2500	2340	0,9

Ø 10,2 mm in Incoloy 800/Din 1.4876- 6 W/cm² TM seals

P/N.	Power +5 -10%	Voltage 1P	L (mm)	HL (mm)	Weight (kg)
28501-41	500 W	230 V	560	260	0,2
28501-42	1000 W	230 V	820	520	0,3
28501-43	2000 W	230 V	1340	1040	0,5
28501-44	3000 W	230 V	1860	1560	0,7
28501-45	4500 W	230 V	2640	2340	1,0
28501-46	6000 W	400 V	3420	3120	1,2
28501-47	8000 W	400 V	4460	4160	1,6
28501-48	10000 W	400 V	5500	5200	2,0

Ø 16 mm in AISI 321/Din 1.4541 - 4 W/cm² – TM seals

P/N.	Power +5 -10%	Voltage 1P	L (mm)	HL (mm)	Weight (kg)
27501-62	1000 W	230 V	760	500	0,6
27501-63	2000 W	230 V	1260	1000	1,1
27501-64	3000 W	230 V	1750	1490	1,5
27501-65	4500 W	230 V	2500	2240	2,1
27501-66	6000 W	400 V	3250	2990	2,8
27501-67	7500 W	400 V	3990	3730	3,4
27501-68	9000 W	400 V	4740	4480	4,0

Ø 8 mm in AISI 321/Din 1.4541 - 4 W/cm² – WP+ seals

P/N.	Power +5 -10%	Voltage 1P	L (mm)	HL (mm)	Weight (kg)
27501-81	500 W	230 V	760	500	0,2
27501-82	1000 W	230 V	1260	1000	0,3
27501-83	2000 W	230 V	2250	1990	0,5
27501-84	3000 W	230 V	3250	2990	0,8
27501-85	4500 W	230 V	4740	4480	1,1

Ø 10,2 mm in AISI 321/Din 1.4541 - 4 W/cm² – TM seals

No.	Power +5 -10%	Voltage 1P	L (mm)	HL (mm)	Weight (kg)
27501-71	500 W	230 V	650	390	0,23
27501-72	1000 W	230 V	1040	780	0,4
27501-73	2000 W	230 V	1820	1560	0,7
27501-74	3000 W	230 V	2600	2340	0,94
27501-75	4500 W	230 V	3770	3510	1,4
27501-76	6000 W	400 V	4940	4680	1,8

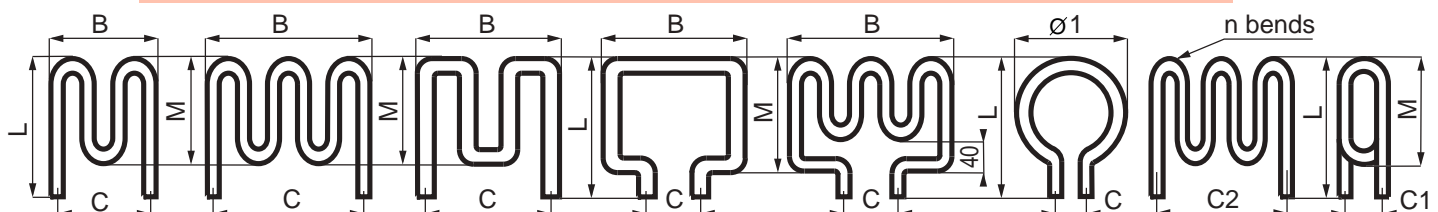
Ø 10,2 mm in VLY/AISI 904L/Din 1.4539 - 7 W/cm²- WP+ seals

P/N.	Power +5 -10%	Voltage 1P	L (mm)	HL (mm)	Weight (kg)
26501-10	500 W	230 V	385	225	0,14
26501-11	750 W	230 V	495	335	0,18
26501-12	1000 W	230 V	605	445	0,22
26501-13	1500 W	230 V	830	670	0,3
26501-14	2000 W	230 V	1050	890	0,38
26501-15	3000 W	230 V	1500	1340	0,54
26501-16	4500 W	400 V	2170	2010	0,8
26501-17	6500 W	400 V	3060	2900	1,1
26501-18	9000 W	400 V	4180	4020	1,5
26501-19	13500 W	400 V	6185	6025	2,2

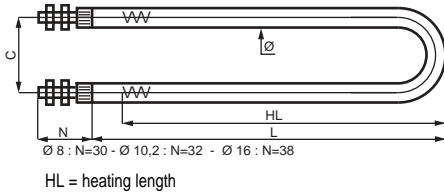
Ø 16 mm in Incoloy 800/Din 1.4876 - 6 W/cm² TM seals

P/N.	Power +5 -10%	Voltage 1P	L (mm)	HL (mm)	Weight (kg)
28501-31	500 W	230 V	470	170	0,4
28501-32	1000 W	230 V	630	330	0,5
28501-33	2000 W	230 V	960	660	0,8
28501-34	3000 W	230 V	1300	1000	1,1
28501-35	4500 W	230 V	1790	1490	1,5
28501-36	6000 W	400 V	2290	1990	1,9
28501-37	8000 W	400 V	2950	2650	2,5
28501-38	10000 W	400 V	3620	3320	3,1
28501-39	12000 W	400 V	4280	3980	3,6
28501-40	15000 W	400 V	5280	4980	4,5

Examples of shaped heating elements



U-SHAPED TUBULAR HEATING ELEMENTS



Electrical connections with steel threaded terminals M6

On request

Connection by carbon steel crimped threaded rod : order xx514 instead of xx504.

Ø 8 mm in Incoloy 800 / Din 1.4876 - 10 W/cm² WP+, C = 30

P/N.	Power +5 -10%	Voltage 1P	L (mm)	HL (mm)	Weight (kg)
28504-81	500 W	230 V	200	100	0,1
28504-82	1000 W	230 V	300	200	0,15
28504-83	2000 W	230 V	500	400	0,24
28504-84	3000 W	230 V	695	595	0,33
28504-85	4500 W	230 V	995	895	0,5
28504-86	6000 W	400 V	1295	1195	0,6
28504-87	8000 W	400 V	1690	1590	0,8
28504-88	10000 W	400 V	2090	1990	1

Ø 10,2 mm in AISI 321/Din 1.4541- 2 W/cm², TM, C = 29

P/N.	Power +5 -10%	Voltage 1P	L (mm)	HL (mm)	Weight (kg)
27504-11	250 W	230 V	325	195	0,2
27504-12	500 W	230 V	520	390	0,4
27504-13	1000 W	230 V	910	780	0,7
27504-14	1500 W	230 V	1300	1170	0,9
27504-15	2000 W	230 V	1690	1560	1,2
27504-16	3000 W	230 V	2470	2340	1,8

Ø 10,2 mm in Incoloy 800 / Din 1.4876 - 6 W/cm², WP+, C = 45

P/N.	Power +5 -10%	Voltage 1P	L (mm)	HL (mm)	Weight (kg)
28504-41	500 W	230 V	280	130	0,2
28504-42	1000 W	230 V	410	260	0,3
28504-43	2000 W	230 V	670	520	0,5
28504-44	3000 W	230 V	930	780	0,7
28504-45	4500 W	230 V	1320	1170	1
28504-46	6000 W	400 V	1710	1560	1,2
28504-47	8000 W	400 V	2230	2080	1,6
28504-48	10000 W	400 V	2750	2600	2

Ø 10,2 mm in AISI 904L / Din 1.4539 - 12 W/cm², WP+, C = 45

P/N.	Power +5 -10%	Voltage 1P	L (mm)	HL (mm)	Weight (kg)
26504-59	6000 W	230 V	910	780	0,7
26504-60	7000 W	230 V	1015	885	0,8
26504-61	8000 W	230 V	1165	1035	0,9
26504-63	10000 W	400 V	1415	1285	1,1
26504-65	12000 W	400 V	1660	1530	1,3
26504-69	15000 W	400 V	2060	1930	1,6

Ø 16 mm in AISI 316L/Din 1.4404 SP* - 6 W/cm², WP+, C = 45

P/N.	Power +5 -10%	Voltage 1P	L (mm)	HL (mm)	Weight (kg)
28504-01	500 W	230 V	235	185	0,4
28504-02	1000 W	230 V	315	165	0,5
28504-03	2000 W	230 V	480	330	0,8
28504-04	3000 W	230 V	650	500	1,1
28504-05	4500 W	230 V	895	745	1,5
28504-06	6000 W	400 V	1145	995	1,9
28504-07	8000 W	400 V	1475	1325	2,5
28504-08	10000 W	400 V	1810	1660	3,1
28504-09	12000 W	400 V	2140	1990	3,6
28504-10	15000 W	400 V	2640	2490	4,5

Ø 8 mm in AISI 316L / Din 1.4404 SP* - 6 W/cm², WP+, C = 25

P/N.	Power +5 -10%	Voltage 1P	L (mm)	HL (mm)	Weight (kg)
28504-21	500 W	230 V	315	165	0,15
28504-22	1000 W	230 V	480	330	0,23
28504-23	2000 W	230 V	815	665	0,4
28504-24	3000 W	230 V	1145	995	0,55
28504-25	4500 W	230 V	1645	1495	0,8
28504-26	6000 W	400 V	2140	1990	1
28504-27	8000 W	400 V	2805	2655	1,3

Ø 10,2 mm in AISI 904L / Din 1.4539 - 2 W/cm², WP+, C = 45

P/N.	Power +5 -10%	Voltage 1P	L (mm)	HL (mm)	Weight (kg)
26504-31	500 W	230 V	465	385	0,4
26504-33	1000 W	230 V	855	775	0,7
26504-34	1500 W	230 V	1245	1165	1,0
26504-35	2000 W	230 V	1635	1555	1,2
26504-36	3000 W	230 V	2415	2335	1,8

Ø 10,2 mm in AISI 316L/Din 1.4404 SP* - 6 W/cm², WP+, C=29

P/N.	Power +5 -10%	Voltage 1P	L (mm)	HL (mm)	Weight (kg)
28504-11	500 W	230 V	280	130	0,2
28504-12	1000 W	230 V	410	260	0,3
28504-13	2000 W	230 V	670	520	0,5
28504-14	3000 W	230 V	930	780	0,7
28504-15	4500 W	230 V	1320	1170	1
28504-16	6000 W	400 V	1710	1560	1,2
28504-17	8000 W	400 V	2230	2080	1,6
28504-18	10000 W	400 V	2750	2600	2

Ø 10,2 mm in AISI 904L / Din 1.4539 - 12 W/cm², WP+, C = 45

P/N.	Power +5 -10%	Voltage 1P	L (mm)	HL (mm)	Weight (kg)
26504-51	1000 W	230 V	255	125	0,2
26504-52	1500 W	230 V	320	190	0,2
26504-53	2000 W	230 V	385	255	0,3
26504-55	3000 W	230 V	515	385	0,4
26504-57	4000 W	230 V	645	515	0,5
26504-58	5000 W	230 V	775	645	0,6

Ø 16 mm in Incoloy 800 / Din 1.4876 - 6 W/cm², WP+, C = 65

P/N.	Power +5 -10%	Voltage 1P	L (mm)	HL (mm)	Weight (kg)
28504-31	500 W	230 V	235	185	0,4
28504-32	1000 W	230 V	315	165	0,5
28504-33	2000 W	230 V	480	330	0,8
28504-34	3000 W	230 V	650	500	1,1
28504-35	4500 W	230 V	895	745	1,5
28504-36	6000 W	400 V	1145	995	1,9
28504-37	8000 W	400 V	1475	1325	2,5
28504-38	10000 W	400 V	1810	1660	3,1
28504-39	12000 W	400 V	2140	1990	3,6
28504-40	15000 W	400 V	2640	2490	4,5

Ø 8 mm in AISI 312 / Din 1.4541 - 2 W/cm², TM, C = 25

P/N.	Power +5 -10%	Voltage 1P	L (mm)	HL (mm)	Weight (kg)
27504-21	250 W	230 V	380	250	0,2
27504-22	500 W	230 V	630	500	0,3
27504-23	1000 W	230 V	1125	995	0,5
27504-24	1500 W	230 V	1625	1495	0,8
27504-25	2000 W	230 V	2120	1990	1

Ø 8 mm in Incoloy 800 / Din 1.4876 - 6 W/cm², WP+, C = 30

P/N.	Power +5 -10%	Voltage 1P	L (mm)	HL (mm)	Weight (kg)
28504-51	500 W	230 V	315	165	0,2
28504-52	1000 W	230 V	480	330	0,2
28504-53	2000 W	230 V	815	665	0,4
28504-54	3000 W	230 V	1145	995	0,5
28504-55	4500 W	230 V	1645	1495	0,8
28504-56	6000 W	400 V	2140	1990	1
28504-57	8000 W	400 V	2805	2655	1,3

Ø 10,2 mm in AISI 904L / Din 1.4539 - 4 W/cm², WP+, C = 45

P/N.	Power +5 -10%	Voltage 1P	L (mm)	HL (mm)	Weight (kg)
26504-41	500 W	230 V	270	190	0,2
26504-43	1000 W	230 V	465	385	0,34
26504-44	1500 W	230 V	660	580	0,5
26504-45	2000 W	230 V	855	775	0,62
26504-46	3000 W	230 V	1245	1165	0,9
26504-47	4500 W	230 V	1830	1750	1,3
26504-48	6000 W	230 V	2415	2335	1,73

Ø 10,2 mm in Incoloy 800 / Din 1.4876 - 10 W/cm² WP+, C = 45

P/N.	Power +5 -10%	Voltage 1P	L (mm)	HL (mm)	Weight (kg)
28504-71	500 W	230 V	180	80	0,13
28504-72	1000 W	230 V	255	155	0,2
28504-73	2000 W	230 V	410	310	0,3
28504-74	3000 W	230 V	570	470	0,4
28504-75	4500 W	230 V	805	705	0,6
28504-76	6000 W	400 V	1035	935	0,75
28504-77	8000 W	400 V	1350	1250	1
28504-78	10000 W	400 V	1660	1560	1,2
28504-79	15000 W	400 V	2440	2340	1,8

Ø 16 mm in AISI 321/Din 1.4541 - 2 W/cm², TM, C = 45

P/N.	Power +5 -10%	Voltage 1P	L (mm)	HL (mm)	Weight (kg)
27504-01	500 W	230 V	380	250	0,65
27504-02	1000 W	230 V	630	500	1,1
27504-03	1500 W	230 V	875	745	1,5
27504-04	2000 W	230 V	1125	995	1,9
27504-05	3000 W	230 V	1625	1495	2,8
27504-06	4000 W	230 V	2120	1990	3,6
27504-07	5000 W	230 V	2620	2490	4,5

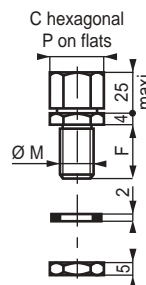
Ø 16 mm in Incoloy 800 / Din 1.4876 - 10W/cm², WP+, C = 65

P/N.	Power +5 -10%	Voltage 1P	L (mm)	HL (mm)	Weight (kg)
28504-61	1000 W	230 V	200	100	0,34
28504-62	2000 W	230 V	300	200	0,5
28504-63	3000 W	230 V	400	300	0,7
28504-64	4500 W	230 V	550	450	0,9
28504-65	6000 W	400 V	695	595	1,2
28504-66	8000 W	400 V	895	795	1,5
28504-67	10000 W	400 V	1095	995	1,9
28504-68	12000 W	400 V	1295	1195	2,2
28504-69	15000 W	400 V	1595	1495	2,7
28504-70	20000 W	400 V	2090	1990	3,6

* SP = scoured and passivated

FIXING ACCESSORIES

Threaded nipples allow a watertight fixing of tube 26501 and 26504. Supplied with nut and gasket. Max. pressure : 10 bar

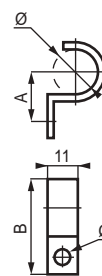


P/N.	Tube Ø (mm)	Ø M	C (mm)	P (mm)	F (mm)	P/N.in pack	Weight (kg)
55144-04	6.5/6.8	14 x 1,5	22	19	14	4	0,26
55145-04	8	14 x 1,5	22	19	14	4	0,25
55146-04	10.2	16 x 1,5	25,5	22	14	4	0,30
55147-04	16	20 x 1,5	31,2	27	14	4	0,39
55148-04	20	24 x 1,5	37	32	14	4	0,52

Inside Ø of fixing = Ø Tube

Fixing brackets in chrome-plated steel:

These brackets allow elements to be fixed to flat or slightly convex surfaces and permit expansion.

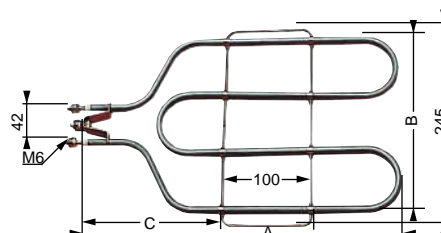


P/N.	Tube Ø (mm)	A (mm)	B (mm)	P/N.in pack	Weight (kg)
55140-10	6.5/6.8	11	22	10	0,02
55140-99	6.5/6.8	11	22	100	0,20
55141-10	8	12	23	10	0,03
55141-99	8	12	23	100	0,30
55142-10	10.2	12	25	10	0,04
55142-99	10.2	12	25	100	0,40
55143-10	16	15	30	10	0,05
55143-99	16	15	30	100	0,50

HEATING ELEMENTS FOR INDUSTRIAL OVENS

Heat-resistant stainless steel sheathed elements for industrial ovens and drying cabinets up to 300°C. Heating by natural convection (air) or radiation (solids).

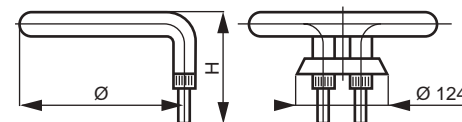
Supply voltage: 230V single phase. Connection by M6 threaded terminals and M6 ground terminal.



P/N.	Power +5 -10%	A (mm)	B (mm)	C (mm)	Weight (kg)
4501-20	1000 W	272	173	125	0,180
4501-21	1250 W	302	218	145	0,200
4501-22	1500 W	356	218	155	0,220

TUBULAR ELEMENTS FOR HOTPLATES

Stainless-steel sheathed element in a flat circular shape to heat solids up to 300°C by conduction (2 heating stages from 1000W upwards). Supply voltage : 230V single phase. Connection by flat terminals with calliper.



P/N.	Power +5 -10%	Ø (mm)	H (mm)	Weight (kg)	Fig.
4501-01	500 W	109	60	0,160	A
4501-02	1000 W	145	75	0,400	B
4501-03	1400 W	180	75	0,600	B
4501-04	2000 W	220	75	0,700	B

Accessories :

Clips for models 4501-01 (Weight 0,040 kg)



P/N. 4501-08 - 2 holes, 86 mm between centres

P/N. 4501-09 - 2 holes, 138 mm between centres

SQUARE-SECTION HEATING ELEMENTS

Especially suited to heat flat and cylindrical surfaces, their square cross-section allows a large area of contact with the object to be heated. This enables large transfers of heat and high temperatures (max. 700°C on the heating element).

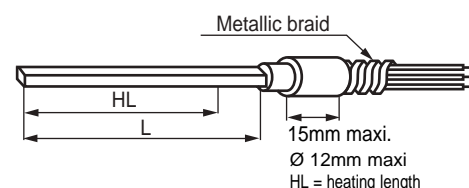
Sheathed elements are available either straight or shaped to your requirements (minimum bend radius = 19 mm)

Tubes of 5x5 or 7,1x7,1 section are in stainless steel.

Connection at one end by 60cm cable with earth wire protected by metal braid.

HT seals.

The heating element is retained in a groove.



P/N.	Load 2 W/cm ²				
	Power +5 -10% single phase	Voltage	Section (mm)	L (mm)	HL (mm)
26680-21	250 W	230 V	5X5	690	640
26680-22	500 W	230 V	5X5	1290	1250
26681-21	250 W	230 V	7,1X7,1	490	450
26681-22	500 W	230 V	7,1X7,1	940	900
26681-23	750 W	230 V	7,1X7,1	1380	1340
26681-24	1000 W	230 V	7,1X7,1	1840	1800
26681-25	1500 W	230 V	7,1X7,1	2720	2680

P/N.	Load 4 W/cm ²				
	Power +5 -10% single phase	Voltage	Section (mm)	L (mm)	HL (mm)
26680-41	250 W	230 V	5x5	360	320
26680-42	500 W	230 V	5x5	665	625
26680-43	750 W	230 V	5x5	1040	1000
26681-41	1000 W	230 V	5x5	1290	1250
26681-42	250 W	230 V	7,1x7,1	381	230
26681-43	500 W	230 V	7,1x7,1	584	450
26681-44	750 W	230 V	7,1x7,1	762	670
26681-45	1000 W	230 V	7,1x7,1	965	900
26681-46	1500 W	230 V	7,1x7,1	1371	1350
26681-47	2000 W	230 V	7,1x7,1	1854	1800
26681-48	2500 W	230 V	7,1x7,1	2743	2300

P/N.	Load 6 W/cm ²				
	Power +5 -10% single phase	Voltage	Section (mm)	L (mm)	HL (mm)
26680-61	250 W	230 V	5x5	250	210
26680-62	500 W	230 V	5x5	460	420
26680-63	750 W	230 V	5x5	665	625
26681-61	250 W	230 V	7,1x7,1	190	150
26681-62	500 W	230 V	7,1x7,1	381	300
26681-63	750 W	230 V	7,1x7,1	457	450
26681-64	1000 W	230 V	7,1x7,1	660	600
26681-65	1500 W	230 V	7,1x7,1	965	900
26681-66	2000 W	230 V	7,1x7,1	1270	1200
26681-67	2500 W	230 V	7,1x7,1	1540	1500



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