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Rollmax microtubular heaters

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ROTFIL Group's international sales network continues to expand globally and with strategic focus on the emerging Asian and Chinese markets.

ROTFIL has a capillary worldwide distribution network ranging, from Australia to Central North and South America.

Growth trend on foreign markets is consistently positive, with competitiveness sustained by the assurance of quality.

The worldwide sales prestige earned by ROTFIL is also due to the development of solutions that meet production standards and international regulations, as has

been proven by a wide range of product certifications, including VDE, UL, CSA.

ROTFIL guarantees maximum sales collaboration with the client by developing made-to-measure samples and prototypes.

A fundamental plus is product delivery speed through automated warehouses that handle daily dispatch to all parts of the world.

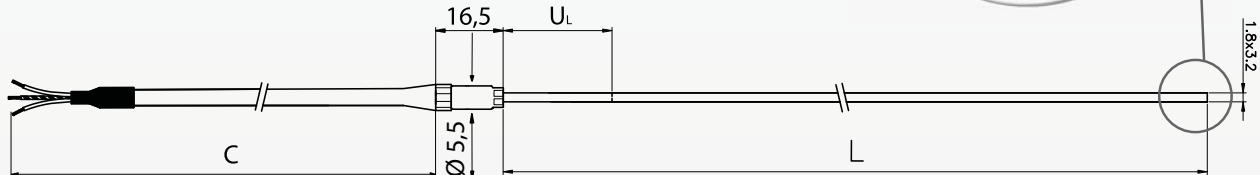
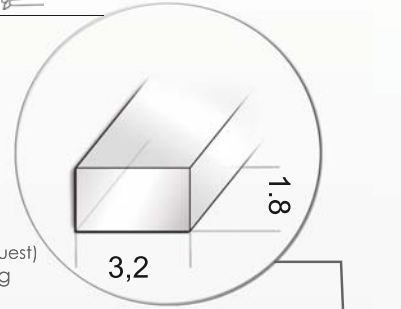
## rollmax 1,8 x 3,2


CODE: **SPPR** 

Coil heater with flat cross section

### Specifications

Sheath material	Stainless steel
Connection head dimensions	Ø 5.5 x 16.5
Unheated Length UL	45 mm
Length tolerance unheated zone	± 5%, least ± 2 mm
Length tolerance heated zone	± 3%
Minimum inner bending radius	4 mm
Cable Length	1 mt (Brown glass silicon sleeve )
Standard Wattage tolerance (cold)	±10% (Different tolerances available upon request)
High Voltage strenght:	1000V before coiling - 800 V after coiling



Total length L[mm]	Wattage [W] at 230 V	without Thermocouple part number 	unheated lenght UL[mm]
250	175	<b>SPPR000001</b>	45
300	200	<b>SPPR000002</b>	45
350	250	<b>SPPR000003</b>	45
400	300	<b>SPPR000004</b>	45
450	350	<b>SPPR000005</b>	45
500	400	<b>SPPR000006</b>	45
600	425	<b>SPPR000007</b>	45
700	450	<b>SPPR000008</b>	45

**OTHER WATTS AND LENGHTS AVAILABLE UPON REQUEST (UNTIL 3000 mm)**

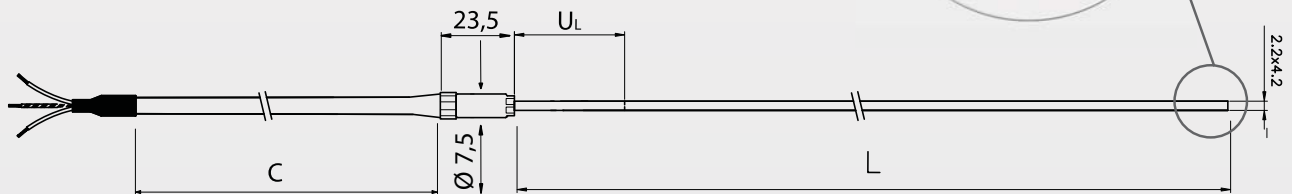
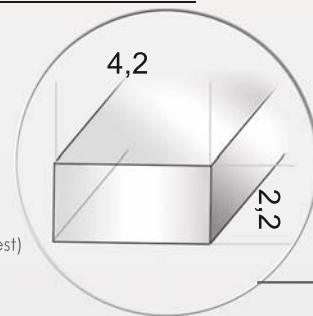
## rollmax 2,2 x 4,2



CODE: **SPRX/SPCR** 

Coil heater with flat cross section

### Specifications

Sheath material	Stainless steel
Connection head dimensions	Ø 7,5 x 23,5 mm
Unheated Length UL	45 mm
Length tolerance unheated zone	± 5%, least ± 2 mm
Length tolerance heated zone	± 3%
Minimum inner bending radius	4 mm
Cable Length	1 mt (Brown glass silicon sleeve )
Standard Wattage tolerance (cold)	±10% (Different tolerances available upon request)
High Voltage strenght:	1000V before coiling - 800 V after coiling



Total length L[mm]	Wattage [W] at 230 V	Without Thermocouple p. n. 	* With Thermocouple p. n. 	unheated lenght UL [mm]
300	175	<b>SPRX000001</b>	<b>SPRC000001</b>	45
350	210	<b>SPRX000002</b>	<b>SPRC000002</b>	45
400	250	<b>SPRX000003</b>	<b>SPRC000003</b>	45
450	280	<b>SPRX000004</b>	<b>SPRC000004</b>	45
500	315	<b>SPRX000005</b>	<b>SPRC000005</b>	45
550	350	<b>SPRX000006</b>	<b>SPRC000006</b>	45
600	385	<b>SPRX000007</b>	<b>SPRC000007</b>	45
700	450	<b>SPRX000008</b>	<b>SPRC000008</b>	45
800	525	<b>SPRX000009</b>	<b>SPRC000009</b>	45
900	600	<b>SPRX000010</b>	<b>SPRC000010</b>	45
1000	660	<b>SPRX000011</b>	<b>SPRC000011</b>	45
1200	800	<b>SPRX000012</b>	<b>SPRC000012</b>	45

**OTHER WATTS AND LENGHTS AVAILABLE UPON REQUEST (UNTIL 3000 mm)**

\* TC type: J ungrounded





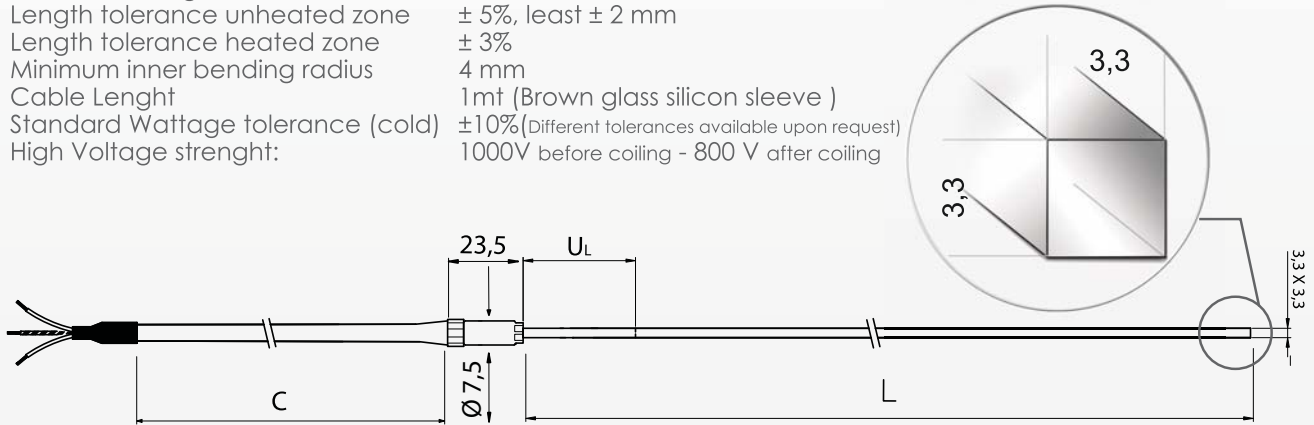
## rollmax 3,3 x 3,3



CODE: **SRLX/SRLC** 

Coil heater with square cross section

### Specifications

Sheath material	Stainless steel
Connection head dimensions	Ø 7,5 x 23,5 mm
Unheated Length UL	45 mm
Length tolerance unheated zone	± 5%, least ± 2 mm
Length tolerance heated zone	± 3%
Minimum inner bending radius	4 mm
Cable Length	1mt (Brown glass silicon sleeve )
Standard Wattage tolerance (cold)	±10% (Different tolerances available upon request)
High Voltage strenght:	1000V before coiling - 800 V after coiling



Total length L[mm]	Wattage [W] at 230 V	Without Thermocouple p. n. 	* With Thermocouple p. n. 	unheated lenght UL [mm]
250	125	SRLX000001	SRLC000001	45
	175	SRLX000002	SRLC000002	
300	150	SRLX000003	SRLC000003	45
	225	SRLX000004	SRLC000004	
350	175	SRLX000005	SRLC000005	45
	250	SRLX000006	SRLC000006	
400	200	SRLX000007	SRLC000007	45
	300	SRLX000008	SRLC000008	
450	225	SRLX000009	SRLC000009	45
	350	SRLX000010	SRLC000010	
500	250	SRLX000011	SRLC000011	45
	400	SRLX000012	SRLC000012	
600	300	SRLX000013	SRLC000013	45
	450	SRLX000014	SRLC000014	
700	350	SRLX000015	SRLC000015	45
	500	SRLX000016	SRLC000016	
800	400	SRLX000017	SRLC000017	45
	600	SRLX000018	SRLC000018	
900	450	SRLX000019	SRLC000019	45
	700	SRLX000020	SRLC000020	
1000	500	SRLX000021	SRLC000021	45
	800	SRLX000022	SRLC000022	
1200	600	SRLX000023	SRLC000023	45
	900	SRLX000024	SRLC000024	
1400	700	SRLX000025	SRLC000025	45
	1000	SRLX000026	SRLC000026	
1600	800	SRLX000027	SRLC000027	45
	1100	SRLX000028	SRLC000028	
1800	900	SRLX000029	SRLC000029	45
	1250	SRLX000030	SRLC000030	
2000	1000	SRLX000031	SRLC000031	45
	1400	SRLX000032	SRLC000032	

### rollmax 3 X 3

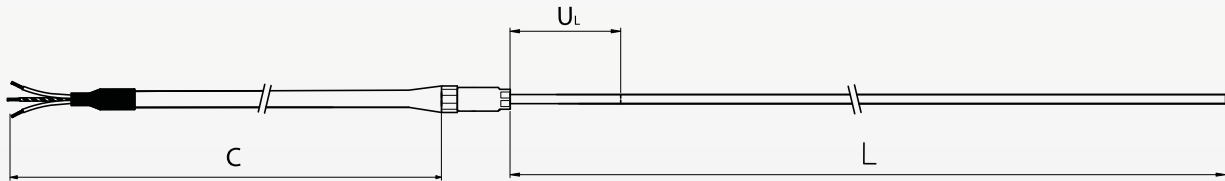
with and without thermocouple

### rollmax 2,5 X 4

with and without thermocouple

### rollmax Ø 3 - Ø 3,3 - Ø 3,7 - Ø 4

with and without thermocouple



Coil heaters with square/flat/round cross section

#### Specifications

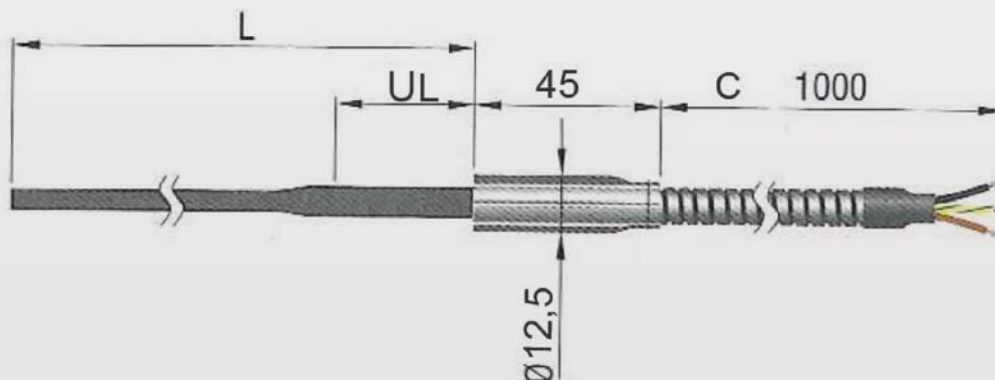
Sheath material	Stainless steel
Connection head dimensions	see page 11
Unheated Length UL	upon request
Unheated length tolerance	± 5%, at least ± 2 mm (Different tolerances available upon request)
Heated length tolerance	± 3% (Different tolerances available upon request)
Minimum inner bending radius	4 mm
Cable protections/options	see page 12
Standard Wattage tolerance (cold)	±10% (Different tolerances available upon request)
High Voltage strenght:	1000V before coiling - 800 V after coiling (for Ø 3,7mm 1500 V available upon request)
Max supply voltage:	260 V
Max streight lenght	3000 mt

### maxi rollmax 4 X 8.5

Coil heater with flat cross section - SPECIAL APPLICATION FOR DIE CASTING NOZZLES

#### Specifications

Sheath material	Stainless steel
Connection head dimensions	Ø 12.5 x 45 mm
Unheated Length UL	upon request
Unheated length tolerance	± 5%, at least ± 2 mm (Different tolerances available upon request)
Heated length tolerance	± 3% (Different tolerances available upon request)
Minimum inner bending radius	10 mm



## HOW TO ORDER ROLLMAX

send this page to: Rotfil srl - info@rotfil.com



### STRAIGHT



	SECTION	WITHOUT TC	WITH TC
	3 X 3	AVAILABLE <input type="checkbox"/>	AVAILABLE <input type="checkbox"/>
	3,3 X 3,3	AVAILABLE <input type="checkbox"/>	AVAILABLE <input type="checkbox"/>
	1,8 X 3,2	AVAILABLE <input type="checkbox"/>	NOT AVAILABLE <input type="checkbox"/>
	2,2 X 4,2	AVAILABLE <input type="checkbox"/>	AVAILABLE <input type="checkbox"/>
	2,5 X 4	AVAILABLE <input type="checkbox"/>	AVAILABLE <input type="checkbox"/>
	Ø 3	AVAILABLE <input type="checkbox"/>	AVAILABLE <input type="checkbox"/>
	Ø 3,3	AVAILABLE <input type="checkbox"/>	AVAILABLE <input type="checkbox"/>
	Ø 3,7	AVAILABLE <input type="checkbox"/>	AVAILABLE <input type="checkbox"/>
	Ø 4	AVAILABLE <input type="checkbox"/>	AVAILABLE <input type="checkbox"/>

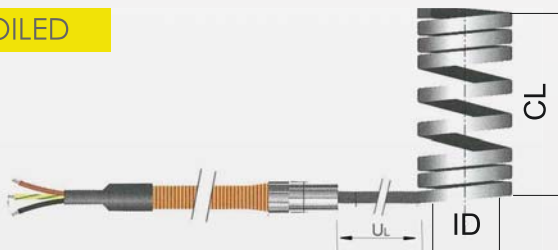
SECTIONS WITH THERMOCOUPLE

TC type J  K

TOTAL STRAIGHTLENGTH L: .....  
 UNHEATED LENGHT UL: .....  
 CABLE LENGHT C: .....  
 WATT: .....  
 VOLT: .....  
 CABLE OPTION SEE PAGE 12  
 CABLE PROTECTION SEE PAGE 12

CGS  CGM  CTF  CFL  CMR

### COILED

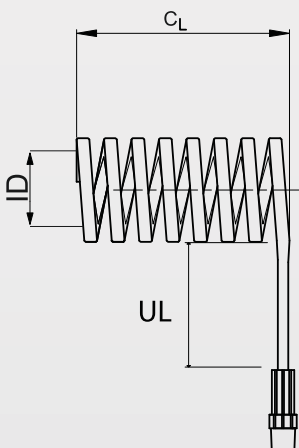


unheated lenght UL :.....(STANDARD 45 MM)

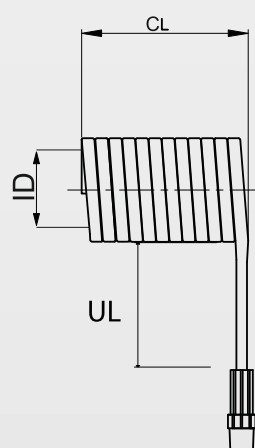
INTERNAL DIAMETER ID:.....  
 COILED LENGHT CL: .....  
 NUMBER OF PIECES: .....

### COILING OPTIONS

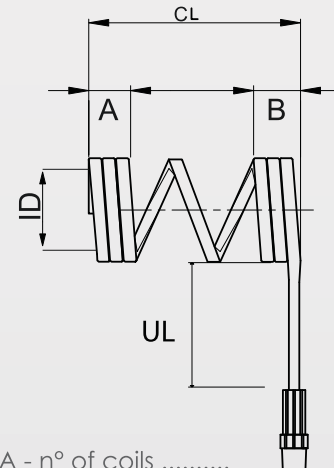
UNIFORM COIL  
 Total n° of coils .....



COMPACT COILING



CUSTOMIZED COILING  
 Total n° of coils .....



A - n° of coils .....  
 B - n° of coils .....

### CABLE EXIT OPTIONS

S RADIAL



R TANGENTIAL



N AXIAL 45°



L AXIAL 90°



## Mini Coil Heaters

minirollmax 1.3 x 2.3



minirollmax Ø 1,4



minirollmax Ø 1,8



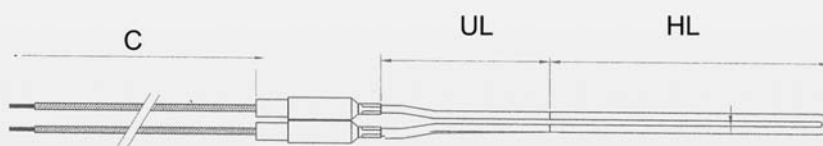
### Specifications

Sheath material:	CrNi Steel or Nickel
Resistive wire:	NiCr 8020
Max supply voltage	260V
Watt tolerance (cold) standard:	± 10% (other tolerances upon request)
High voltage strength (cold):	800V
Max total straight length L:	3000 mm
Unheated Length tolerance:	± 5%, at least ±2 mm
Heated Length tolerance:	± 3%,
Minimum bending radius:	3 mm
Cable connector	see page 11

CAN BE SUPPLIED STRAIGHT "U" BENDED OR COILED

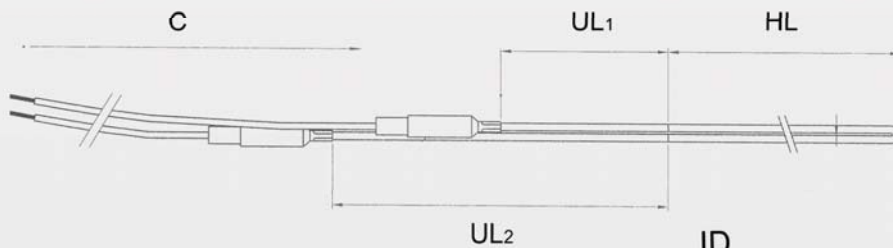
**"U" bended with equal unheated lengths**

Straight length  $L = 2(UL + HL)$

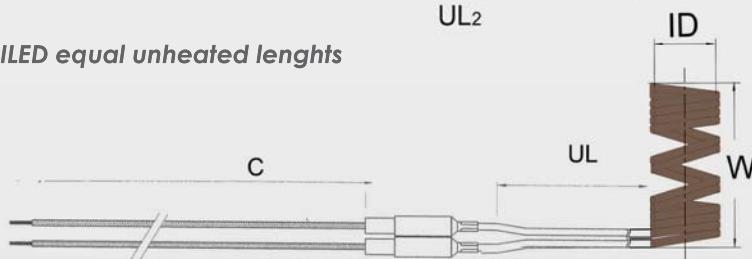


**"U" bended different unheated lengths**

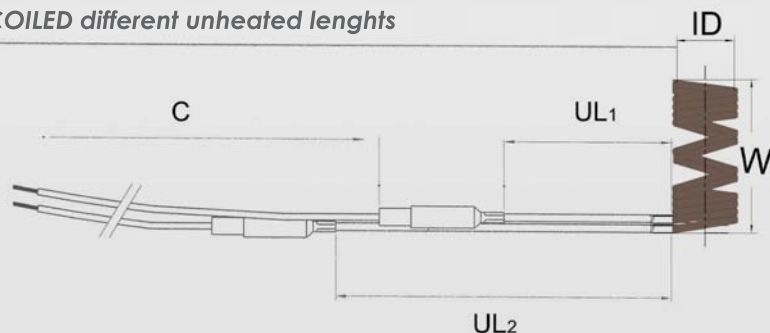
Straight length  $L = UL_1 + UL_2 + 2HL$



**COILED equal unheated lengths**



**COILED different unheated lengths**



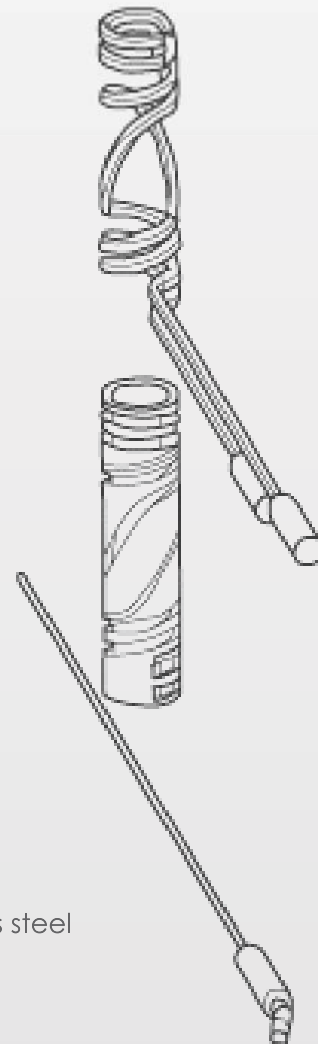
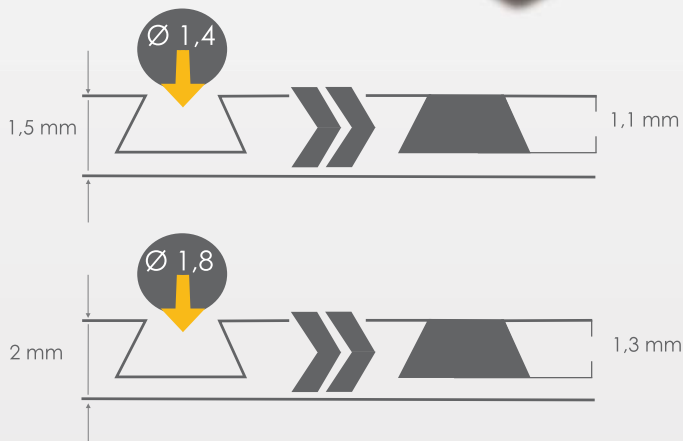




**Formax** is the ultimate answer in the field of precision heating of hot runner nozzles. Formax is based on the established system of minirollmax, with an individual slot on a turning part for the realization of an optimal temperature distribution. A sheath surface up to 12,5 W/cm/sq and a minimum thickness of the wall of 1,5 mm, makes formax a very efficient heater and open a new dimension of electrical heating.

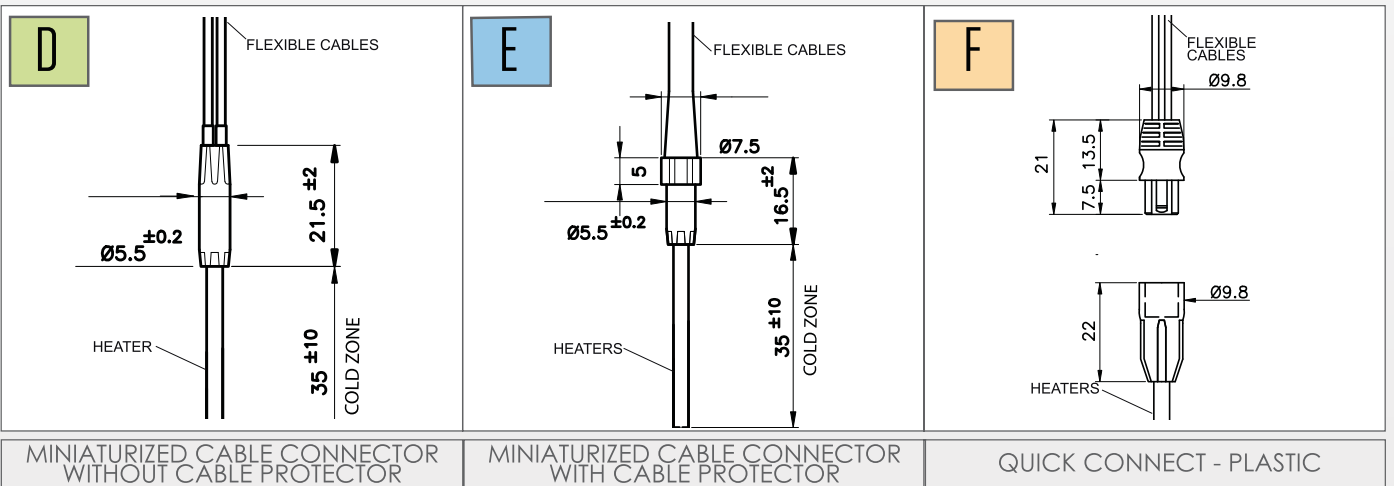
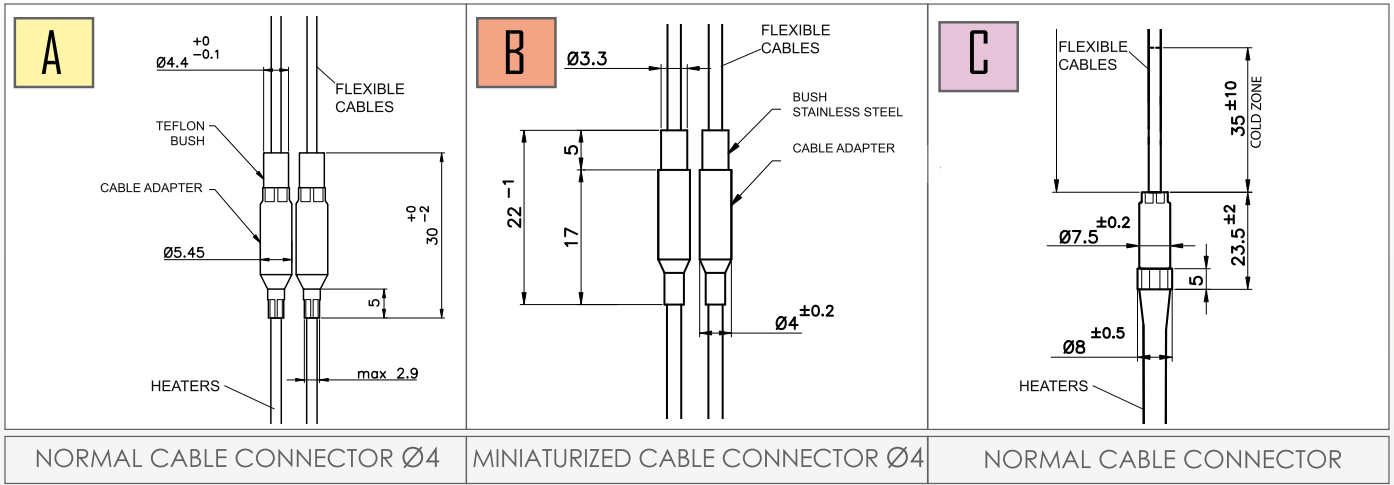


- Pressed-in coil heater with user-defined groove profile
- Reproducible power distribution
- Minimal wall thickness for reduced clearances
- Lowest power available in the middle of a nozzle
- Brass as cylinder raw material
- See connection options in next page



### Specifications

- Bush material: brass
- Internal diameter upon request (from 6,0 to 40 mm)
- Min wall thickness of brass 1,5 or 2,00 mm
- Tolerance on internal diameter  $\pm 0,05$  mm
- Bush length upon request (from 25 to 150 mm)
- Bush length tolerance  $\pm 0,5$  mm
- Sheath material of the incorporated rollmax : Nickel/Stainless steel
- Max surface temperature: 650°C
- Max watt density 12,5 W / sq cm
- Insulation resistance (cold): >10 M Ohm at 500 V DC
- External Thermocouple coiled upon request
- Other characteristics see page 8



connection options	ROLLMAX			ROLLMAX FLAT					ROLLMAX				SEALING	
	1,3 x 2,3	1,4	1,8	1,8 x 3,2	3 x 3	3,3 x 3,3	2,2 x 4,2	2,5 x 4	3,0	3,3	3,7	4,0	STANDARD	AVAILABLE ON REQUEST
<b>A</b> NORMAL CABLE CONNECTOR Ø4														
<b>B</b> MINIATURIZED CABLE CONNECTOR Ø4														
<b>C</b> NORMAL CABLE CONNECTION														
<b>D</b> MINIATURIZED CABLE CONNECTOR WITHOUT CABLE PROTECTION														
<b>E</b> MINIATURIZED CABLE CONNECTOR WITH CABLE PROTECTION														
<b>F</b> QUICK CONNECT PLASTIC CONNECTION				ONLY WITHOUT THERMOCOUPLE										

### cable options

PTNI: PTFE/NIKEL: MAX 260°

AVAILABLE COLOURS



GLTE: GLASS-TEFLON/ NIKEL: MAX 300°

### cable protection options



CGS

PTFE insulated Nickel cables protected by a strong, flexible, thick glass / silicone sheath

AVAILABLE COLOURS STANDARD



BROWN

ON REQUEST



GREEN



BLUE



BLACK



WHITE



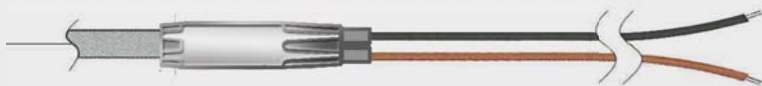
CGM

PTFE insulated Nickel cables protected by a flexible metal braid



CTF

PTFE insulated Nickel cables protected by a flexible metal



CFL

PTFE insulated Nickel cables non protected

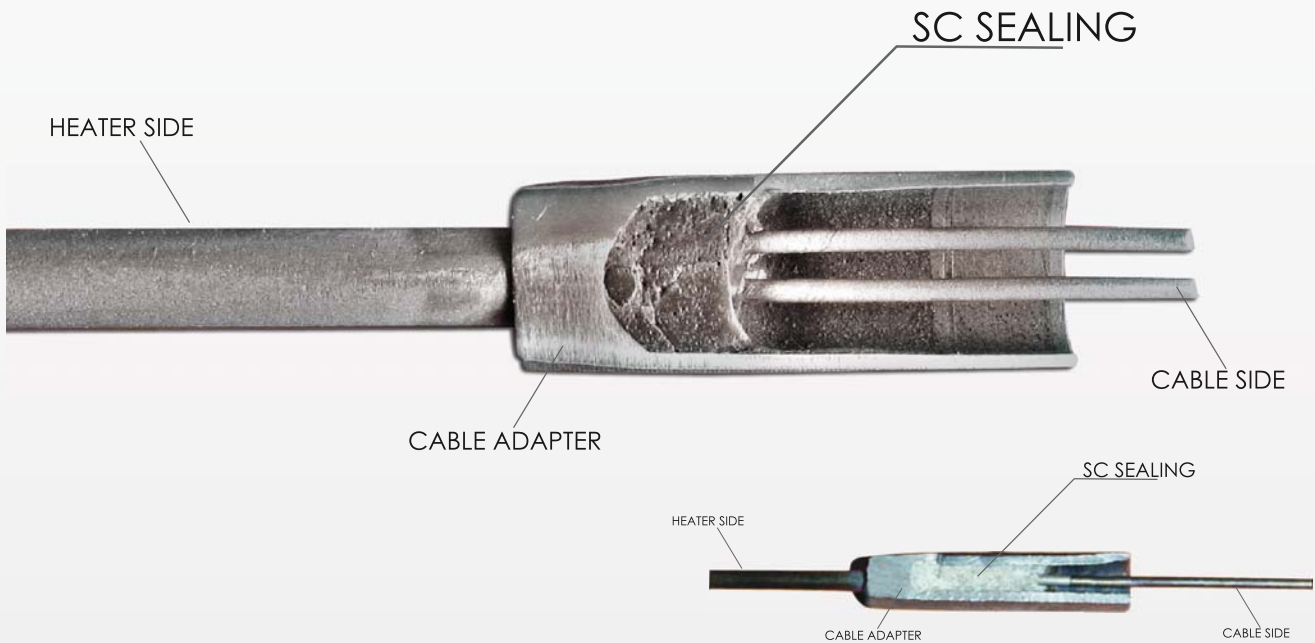


CMR

Specific solution for Mini Rollmax with two single adapters

**SC SEALING insulation system**

Resistant to high temperatures (working temperature 400° C)



Since over 20 years an inimitable feature of Rotfil heaters.

SC SEALING crystal compound is a unique sealing which guarantees the maximum insulation and the longest life of the heaters also in extreme working conditions. SC SEALING represents a durable and efficient barrier preventing any contamination to get inside the heater.

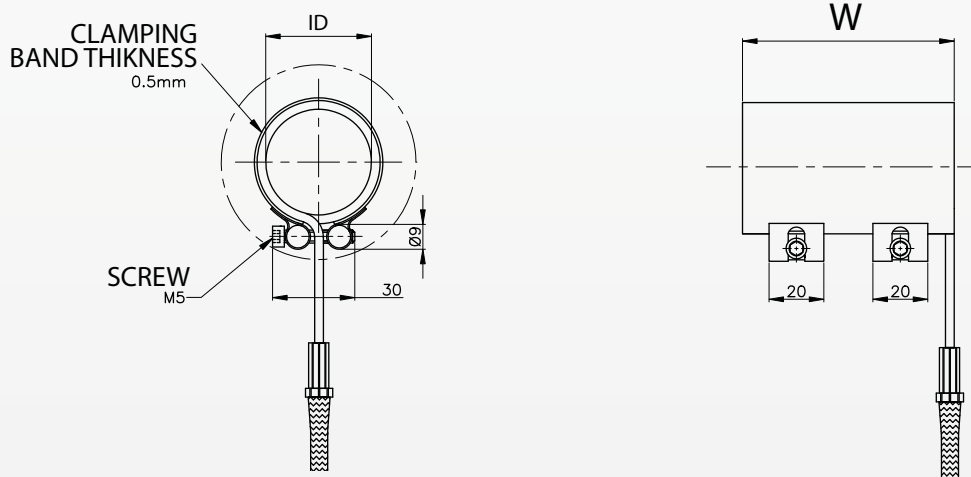
Moisture, water , acid , oils , gas etc cannot get through the SC barrier whose main characteristic is the perfect adhesion to the metallic and ceramic walls inside the heater and can withstand to working temperatures up to 400°C.

Before applying the adaptor the ROLLMAX with SC Sealing stay 24 hours in condensing humidity test cabinet and after are tested at 100 G Ohm insulation.

Standard on all Mini Rollmax 1,3x2,3, - 1,4 - 1,8 available upon request on all other cross sections.

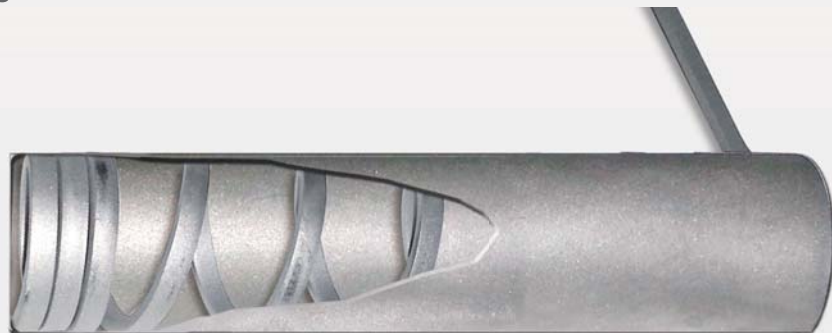
See page 11 for more details.



**standard clamping band**

INTERNAL DIAMETER ID = .....

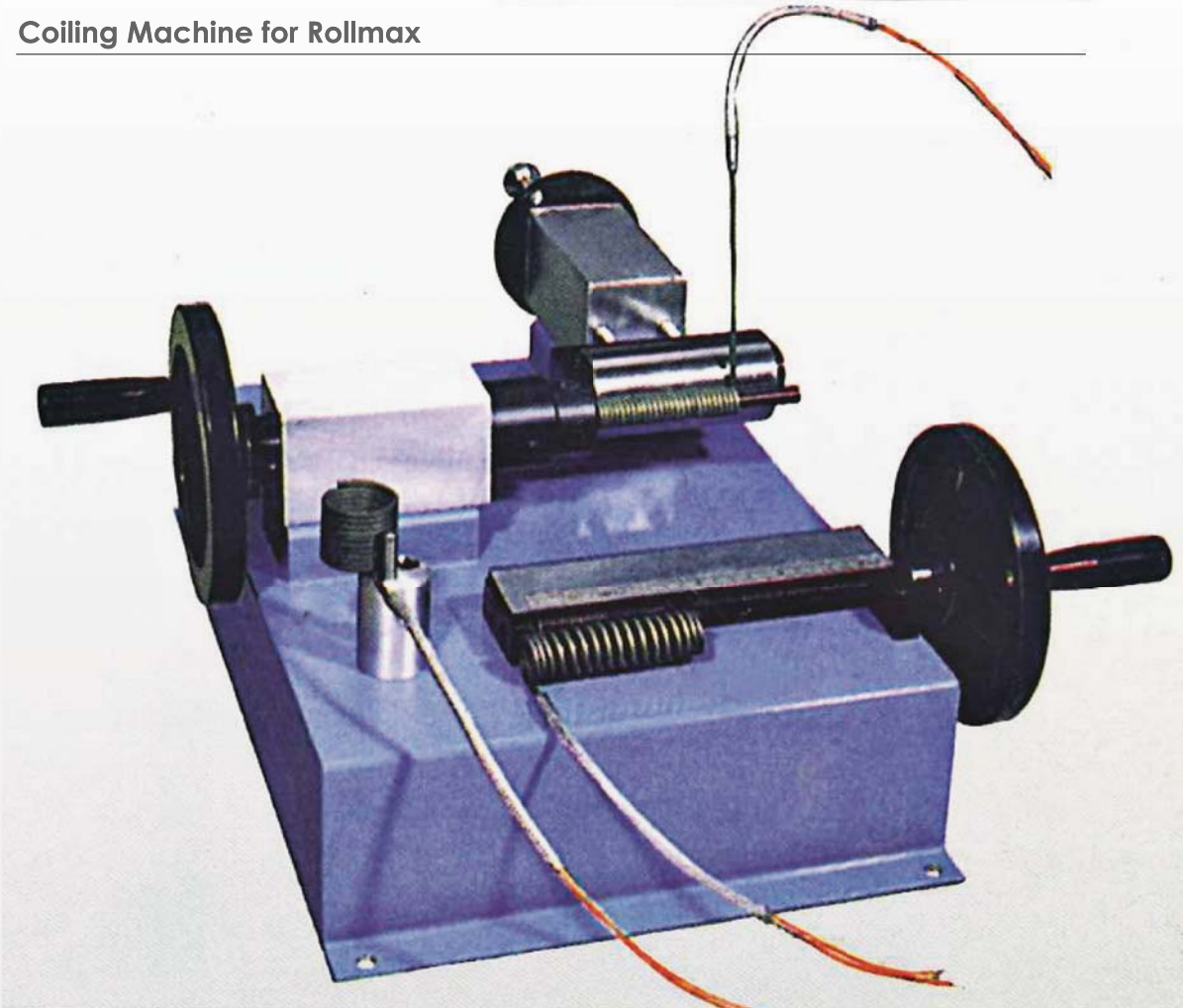
CLAMPING BAND WIDTH W = .....

**rollmax with reflector tube**

The heating elements with reflector tubes "easymax" are characterized by extreme mechanical precision and a thermal profile which corresponds perfectly to the requirements of each specific application.

**Technical data:**

Material of the reflector tube NiCr steel  
 Applicable to all Rollmax and mini Rollmax cross sections  
 Internal diameter, length, watt, volt, upon specific request of the customer  
 Very tight internal diameter tolerance also (+/-0,02)  
 Possibility to make also very long reflector tubes (500 mm max)  
 Perfect contact of the Rollmax with the inner side of reflector tube  
 Possibility to coil together with the Rollmax also an external T/C

**Coiling Machine for Rollmax**

This tool is available from stock.

It allows to coil ROLLMAX heaters precisely and easily preserving all electrical characteristics of the heaters as well as a good contact between the internal surface of the ROLLMAX and the surface of the cylinder to be heated. It also foresees a screw device that with the help of a graduated scale which allows a precise spacing of the coils and the desired orientation of the cable outlet. The machine is supplied together with an instruction manual which allows immediate and easy operation.

These instructions are also available on our internet web page under "Rollmax" section.

In case of order please specify the diameter of cylinder on which the ROLLMAX must be assembled. Every diameter requires a specific mandrel.



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