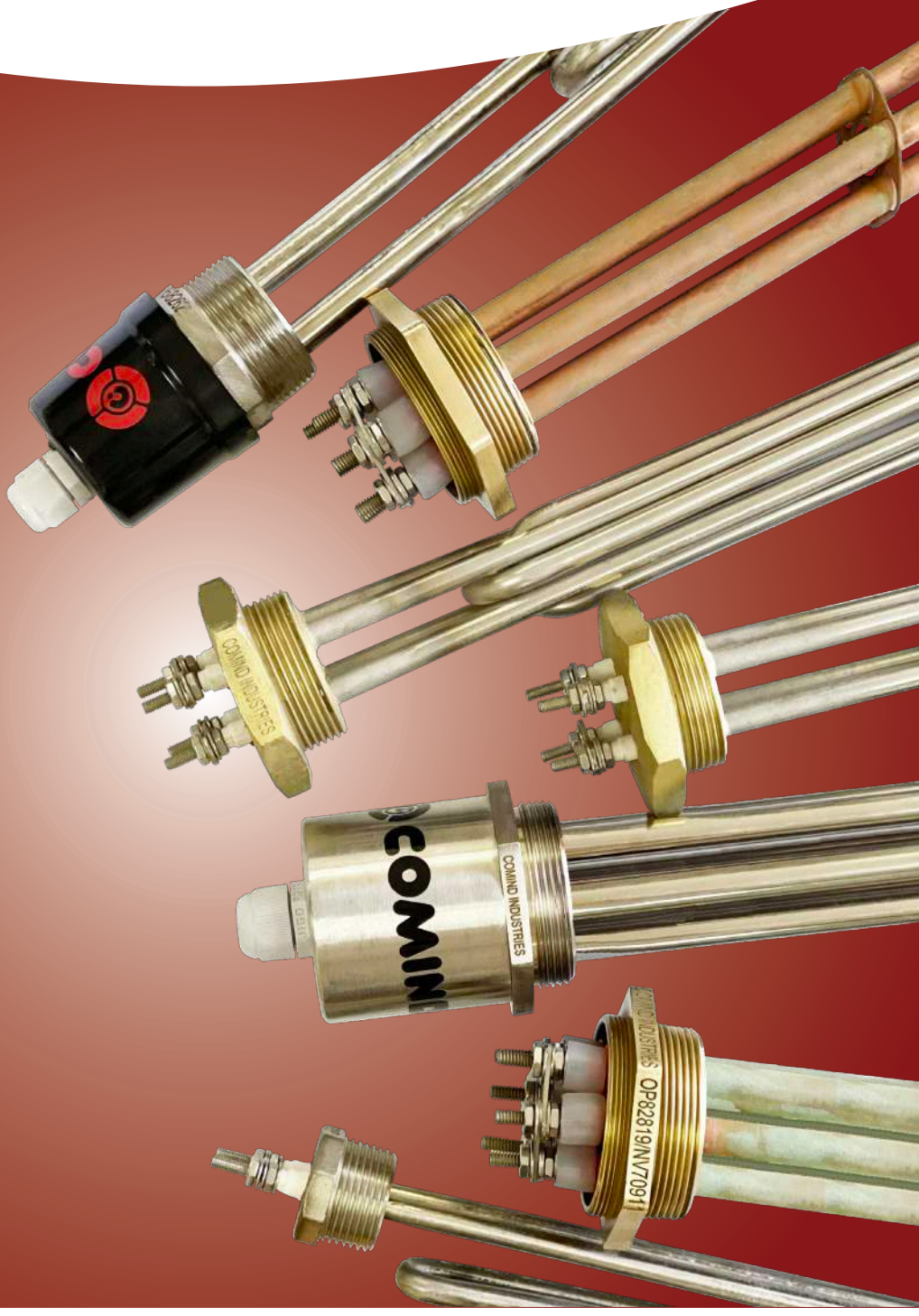
THREAD TYPE HEATER

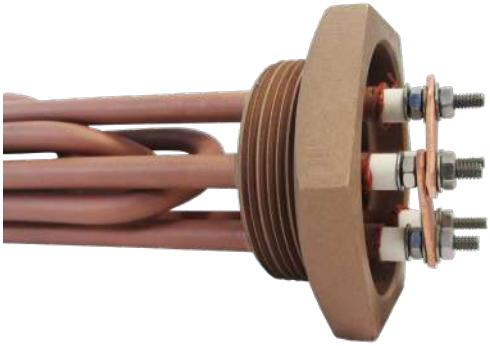
COMIND INDUSTRIES



TECHNOLOGY . QUALITY

OVERVIEW

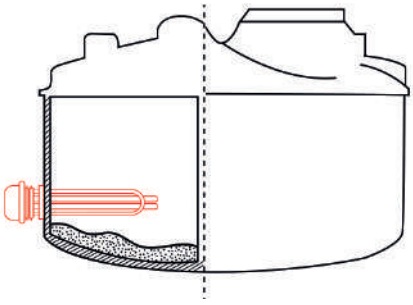
COMIND® screw type heaters are products specially designed to be installed in ponds or vessels where there is a connection thread.
They are manufactured according to the power and voltage specified by the customer.
They are provided in various sizes, power ranges, voltages and thread types to suit the needs of our customers.



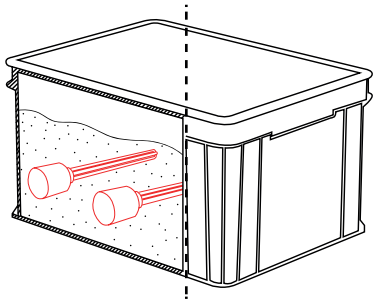
Applications:

- Copper material: Hot water storage, heating of non-corrosive solutions and antifreeze.
- Stainless steel material: Solutions with soap or detergent materials and corrosive elements.
- Incoloy material: Air, gas, corrosive solutions and saturated vapors.

Adaptations:



Screw-in type heater mounted on the end of a water storage tank.



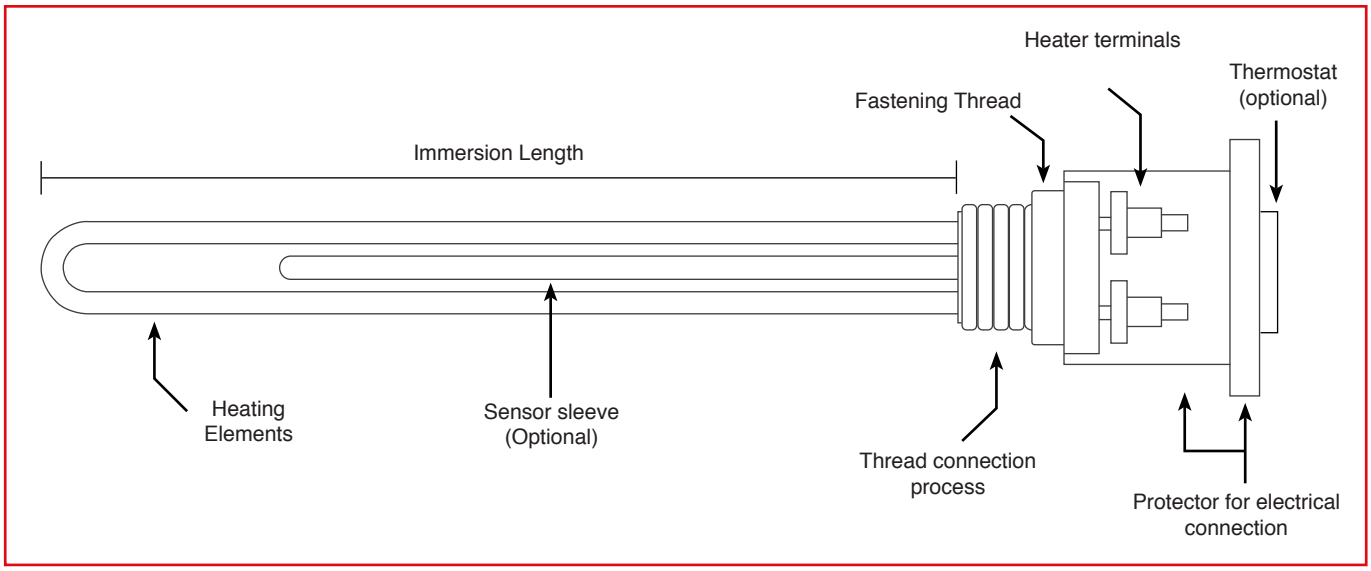
Screw-in heaters mounted on the front of a water jar.

SCAN AND REVIEW OUR THEMATIC VIDEO

For technical advice, please contact your assigned salesperson.

CUSTOM MANUFACTURING

PARTS OF A THREADED HEATER:



Selection guide

This type of resistor is specially designed to be installed in ponds or vessels where there is a connection wire, they are provided in powers from 350watts to 38 Kw. They are generally used in small and medium size vessels with pressures over 3000 psi, it is extremely practical in its installation and uninstallation, because they can be screwed to the wall of the pond.

HOW TO APPLY FOR YOUR RESISTANCE?

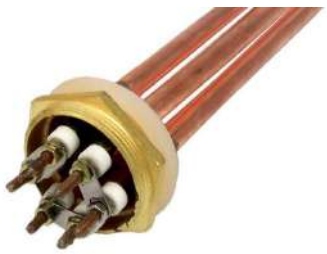
- Analyze environment where it will be used
- Max. flow rate or volume
- Time required for the heating process
- Vessel dimensions
- Initial temperature
- Final temperature

OPTIONS

- Lengths, nuts and special powers manufactured upon request.
- Different types of steel (316, 304, 321), INCOLOY or Copper.
- Cold zones upon customer's request.
- Incorporation of thermostat in different ranges.
- Control thermocouples for different temperatures

SPECIFICATIONS:

OPTIONS	SPECIFICATION
Tube material	Stainless steel quality 304L and 316L, Copper, Incoloy 800, Titanium or other special alloys.
Thread Dimensions	3/4 , 1", 1"1/4, 1"1/2, 2", 2"1/2, 3" OPCIONAL NPT O BSP.
Protective Boxes or Caps	PVC, Carbon Steel, Stainless Steel, Explosion-proof (ATEX).
Controles	Capillary thermostats or temperature sensors (Pt-100, J, K).
Pod	Option to install sheaths for temperature sensors or others.



PRODUCT LINE

PRONTA ENTREGA

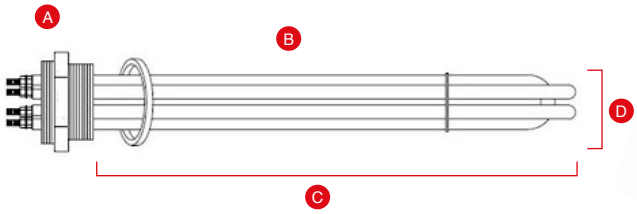
Product assembly
Delivery 3 working days

IRC Models

CLEAN WATER

GENERAL CHARACTERISTICS

- Threads from 1” to 2” 1/2 NPT.
- High charge density (up to 10W/cm2)
- Thermostat not included.
- Includes electrical protection cover
- Copper heating element



A	B					C	D	
TYPE THREAD	MATERIAL TUBE	THREADED MATERIAL	POWER (Kw)	VOLTS (V)	WATT/Cm2	LONG IMMERSION	NUMBER OF ELEMENTS	MODEL
1” NPT	COPPER	BRONZE	1	220 V	10	150 mm	1	IRC11
1” NPT	COPPER	BRONZE	2	220 V	10	300 mm	1	IRC12
1” 1/4 NPT	COPPER	BRONZE	1	220 V	10	150 mm	1	IRC21
1” 1/4 NPT	COPPER	BRONZE	2	220 V	10	300 mm	1	IRC22
1” 1/2 NPT	COPPER	BRONZE	1	220 V	10	185 mm	1	IRC31
1” 1/2 NPT	COPPER	BRONZE	2	220 V	10	260 mm	1	IRC32
2” NPT	COPPER	BRONZE	3	220 / 380V	10	300 mm	3	IRC41
2” NPT	COPPER	BRONZE	6	220 / 380V	10	300 mm	3	IRC42
2” NPT	COPPER	BRONZE	6	220 / 380V	10	600 mm	3	IRC43
2” NPT	COPPER	BRONZE	9	220 / 380V	10	600 mm	3	IRC44
2” NPT	COPPER	BRONZE	9	220 / 380V	10	900 mm	3	IRC45
2” NPT	COPPER	BRONZE	12	220 / 380V	10	900 mm	3	IRC46
2” NPT	COPPER	BRONZE	15	220 / 380V	10	900 mm	3	IRC47
2” 1/2 NPT	COPPER	BRONZE	6	220 / 380V	10	600 mm	3	IRC51
2” 1/2 NPT	COPPER	BRONZE	9	220 / 380V	10	600 mm	3	IRC52
2” 1/2 NPT	COPPER	BRONZE	12	220 / 380V	10	900 mm	3	IRC53
2” 1/2 NPT	COPPER	BRONZE	15	220 / 380V	10	900 mm	3	IRC54

PRODUCT LINE

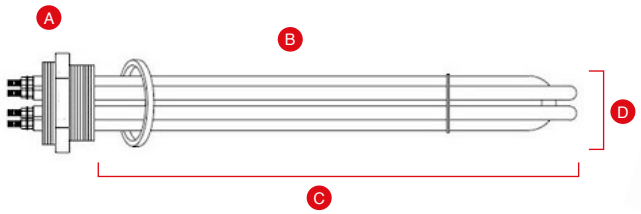
PRONTA ENTREGA
Product assembly
Delivery 3 working days

IRSS-2 Models

PROCESS WATER

GENERAL CHARACTERISTICS

- Threads from 1” to 2” 1/2 NPT.
- Medium load density.
- Includes sensor pocket
- Includes electrical protection cover
- Stainless steel heating element Quality 304L



A	B					C	D	
TYPE THREAD	MATERIAL TUBE	THREADED MATERIAL	POWER (Kw)	VOLTS (V)	WATT/Cm2	LONG IMMERSION	NUMBER OF ELEMENTS	MODEL
1” NPT	STAINLESS STEEL 316L	STAINLESS STEEL 304	0.75	220 V	7	150 mm	1	IRSS211
1” NPT	STAINLESS STEEL 316L	STAINLESS STEEL 304	1.5	220 V	7	300 mm	1	IRSS212
1” 1/4 NPT	STAINLESS STEEL 316L	STAINLESS STEEL 304	1	220 V	5	150 mm DOUBLE TURN	1	IRSS221
1” 1/4 NPT	STAINLESS STEEL 316L	STAINLESS STEEL 304	2	220 V	5	300 mm DOUBLE TURN	1	IRSS222
1” 1/2 NPT	STAINLESS STEEL 316L	STAINLESS STEEL 304	1.5	220 V	6	200 mm DOUBLE TURN	1	IRSS231
1” 1/2 NPT	STAINLESS STEEL 316L	STAINLESS STEEL 304	3	220 V	6	400 mm DOUBLE TURN	1	IRSS232
1” 1/2 NPT	STAINLESS STEEL 316L	STAINLESS STEEL 304	5	220 V	5	600 mm DOUBLE TURN	1	IRSS233
2” NPT	STAINLESS STEEL 316L	STAINLESS STEEL 304	3	220 / 380V	5	300 mm	3	IRSS241
2” NPT	STAINLESS STEEL 316L	STAINLESS STEEL 304	6	220 / 380V	5	600 mm	3	IRSS242
2” NPT	STAINLESS STEEL 316L	STAINLESS STEEL 304	9	220 / 380V	5	900 mm	3	IRSS243
2” 1/2 NPT	STAINLESS STEEL 316L	STAINLESS STEEL 304	12	220 / 380V	5	600 mm DOUBLE TURN	3	IRSS251
2” 1/2 NPT	STAINLESS STEEL 316L	STAINLESS STEEL 304	18	220 / 380V	5	900 mm DOUBLE TURN	3	IRSS252

PRODUCT LINE

PRONTA ENTREGA

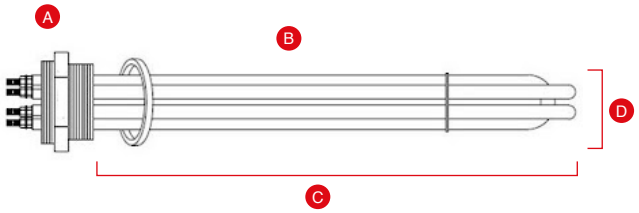
Product assembly
Delivery 3 working days

IRSS-1 Models

MEDIUM DENSITY OIL

GENERAL CHARACTERISTICS

- Threads from 1” to 2” 1/2 NPT.
- Low density of load.
- Includes sensor pocket
- Includes electrical protection cover
- Heating element in stainless steel quality 304L



A	B					C	D	
TYPE THREAD	MATERIAL TUBE	THREADED MATERIAL	POWER (Kw)	VOLTS (V)	WATT/Cm2	LONG IMMERSION	NUMBER OF ELEMENTS	MODEL
1” NPT	STAINLESS STEEL 304	STAINLESS STEEL 304	1	220 V	2.2	500 mm	1	IRSS111
1” 1/4 NPT	STAINLESS STEEL 304	STAINLESS STEEL 304	1	220 V	2.2	500 mm	1	IRSS121
1” 1/2 NPT	STAINLESS STEEL 304	STAINLESS STEEL 304	1	220 V	2.2	320 mm	1	IRSS131
1” 1/2 NPT	STAINLESS STEEL 304	STAINLESS STEEL 304	1.5	220 V	2.2	500 mm	1	IRSS132
1” 1/2 NPT	STAINLESS STEEL 304	STAINLESS STEEL 304	2	220 V	2.2	600 mm	1	IRSS133
2” NPT	STAINLESS STEEL 304	STAINLESS STEEL 304	1.5	220 / 380V	2.2	300 mm	3	IRSS141
2” NPT	STAINLESS STEEL 304	STAINLESS STEEL 304	3	220 / 380V	2.2	300 mm	3	IRSS142
2” 1/2 NPT	STAINLESS STEEL 304	STAINLESS STEEL 304	1.5	220 / 380V	2.2	300 mm	3	IRSS151
2” 1/2 NPT	STAINLESS STEEL 304	STAINLESS STEEL 304	3	220 / 380V	2.2	600 mm	3	IRSS152
2” 1/2 NPT	STAINLESS STEEL 304	STAINLESS STEEL 304	6	220 / 380V	2.2	1000 mm	3	IRSS153

PRODUCT LINE

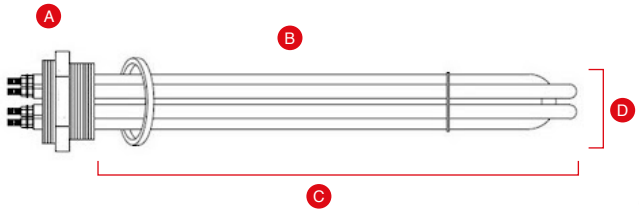
PRONTA ENTREGA
Product assembly
Delivery 3 working days

IRY Models

CORROSIVE SOLUTIONS

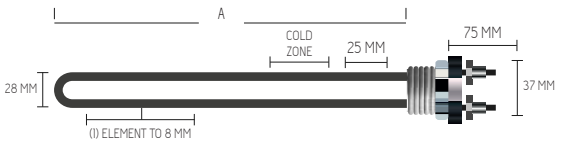
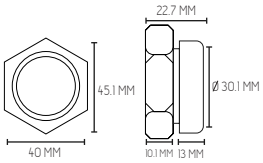
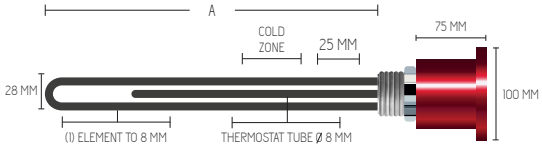
GENERAL CHARACTERISTICS

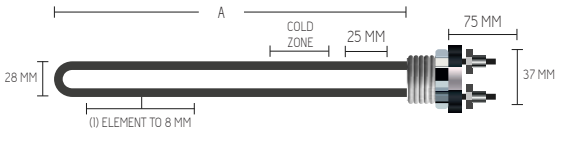
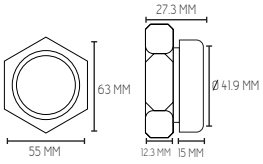
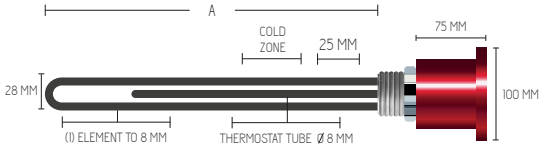
- Threads from 1” to 2” 1/2 NPT.
- Medium load density.
- Includes sensor pocket
- Includes electrical protection cover
- Heating element in Incoloy 800

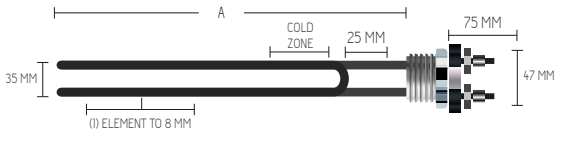
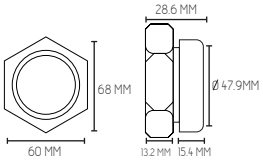
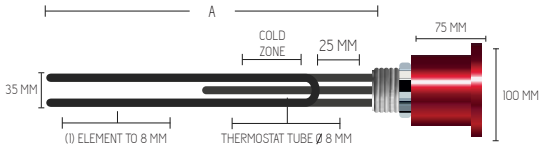


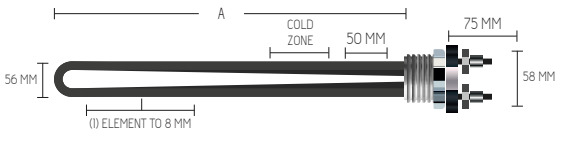
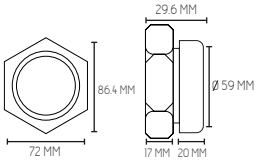
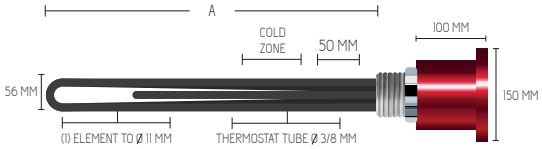
A	B					C	D	
TYPE THREAD	MATERIAL TUBE	THREADED MATERIAL	POWER (Kw)	VOLTS (V)	WATT/Cm2	LONG IMMERSION	NUMBER OF ELEMENTS	MODEL
1” NPT	INCOLOY	STAINLESS STEEL 304	0.75	220 V	7	150 mm	1	IRY11
1” NPT	INCOLOY	STAINLESS STEEL 304	1.5	220 V	7	300 mm	1	IRY12
1” 1/4 NPT	INCOLOY	STAINLESS STEEL 304	1	220 V	5	150 mm DOUBLE TURN	1	IRY21
1” 1/4 NPT	INCOLOY	STAINLESS STEEL 304	2	220 V	5	300 mm DOUBLE TURN	1	IRY22
1” 1/2 NPT	INCOLOY	STAINLESS STEEL 304	1.5	220 V	6	200 mm DOUBLE TURN	1	IRY31
1” 1/2 NPT	INCOLOY	STAINLESS STEEL 304	3	220 V	6	400 mm DOUBLE TURN	1	IRY32
1” 1/2 NPT	INCOLOY	STAINLESS STEEL 304	5	220 V	5	600 mm DOUBLE TURN	1	IRY33
2” NPT	INCOLOY	STAINLESS STEEL 304	3	220 / 380V	5	300 mm	3	IRY41
2” NPT	INCOLOY	STAINLESS STEEL 304	6	220 / 380V	5	600 mm	3	IRY42
2” NPT	INCOLOY	STAINLESS STEEL 304	9	220 / 380V	5	900 mm	3	IRY43
2” 1/2 NPT	INCOLOY	STAINLESS STEEL 304	12	220 / 380V	5	600 mm DOUBLE TURN	3	IRY51
2” 1/2 NPT	INCOLOY	STAINLESS STEEL 304	18	220 / 380V	5	900 mm DOUBLE TURN	3	IRY52

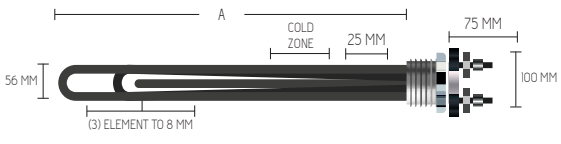
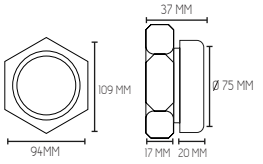
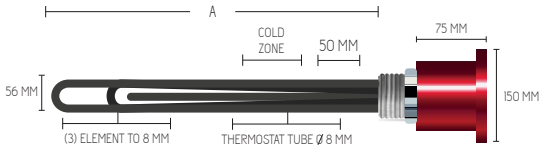
THREAD SIZES:

HEATER CONNECTION NUT 1” NPT	NUT SIZE 1” NPT	HEATER NUT CONNECTION 1” NPT WITH BUILT-IN THERMOSTAT
		

HEATER CONNECTION NUT 1” 1/4 NPT	NUT SIZE 1” 1/4 NPT	HEATER NUT CONNECTION 1” 1/4 NPT WITH BUILT-IN THERMOSTAT
		

HEATER CONNECTION NUT 1” 1/4 NPT DOUBLE TURN	SIZE NUT 1” 1/2 NPT DOUBLE TURN	HEATER CONNECTION NUT 1” 1/2 NPT DOUBLE TURN WITH BUILT-IN THERMOSTAT
		

HEATER NUT CONNECTION 2” NPT DOUBLE TURN	NUT SIZE 2” NPT DOUBLE TURN	HEATER NUT CONNECTION 2” NPT WITH BUILT-IN THERMOSTAT: 3 ELEMENTS
		

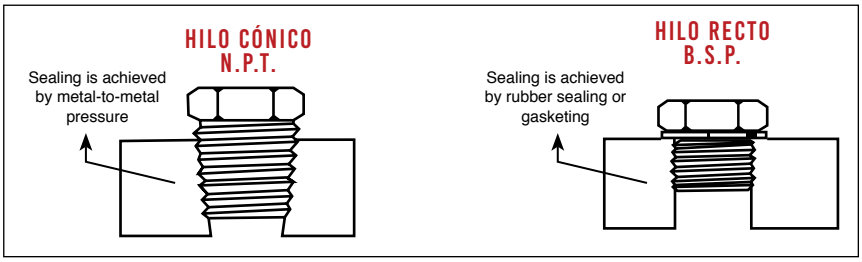
HEATER CONNECTION NUT 2” 1/2 NPT 3 ELEMENTS	NUT SIZE 2” 1/2 NPT	HEATER NUT CONNECTION 2” 1/2 NPT WITH BUILT-IN THERMOSTAT: 3 ELEMENTS
		

IMMERSION APPLICATIONS:

Applications	Clean water, freeze protection, hot water storage, boilers and water heaters.	Hot water, steam boilers, slightly corrosive solutions generally in lower percentages.	Petroleum, gases, slightly corrosive liquids, stagnant or heavy oils, high temperature, low flow gas heating.	Process water, soap and detergent solutions, soluble cutting oils, demineralized or deionized water.	Mildly corrosive solutions	Aggressive and corrosive and corrosive solutions	Food equipment
Tube material	Copper	Incoloy or Copper	Steel	Stainless Steel	Stainless Steel	Incoloy	Incoloy or Stainless Steel
Thread material	Steel	Steel	Steel	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel

SPECIFICATIONS:

Options	Tube material	Thread Dimensions	Protective Boxes or Caps	Controls	Pod
Specifications	Stainless steel quality 304L and 316L, Copper, Incoloy 800, Titanium or other special alloys	3/4, 1", 1"1/4, 1"1/2, 2", 2"1/2, 3" OPCIONAL NPT O BSP.	PVC, Carbon Steel, Stainless Steel, Explosion-proof (ATEX).	Capillary thermostats or output to control	Optional Temperature Sensor Sleeve



THREAD DIMENSIONS N.P.T.

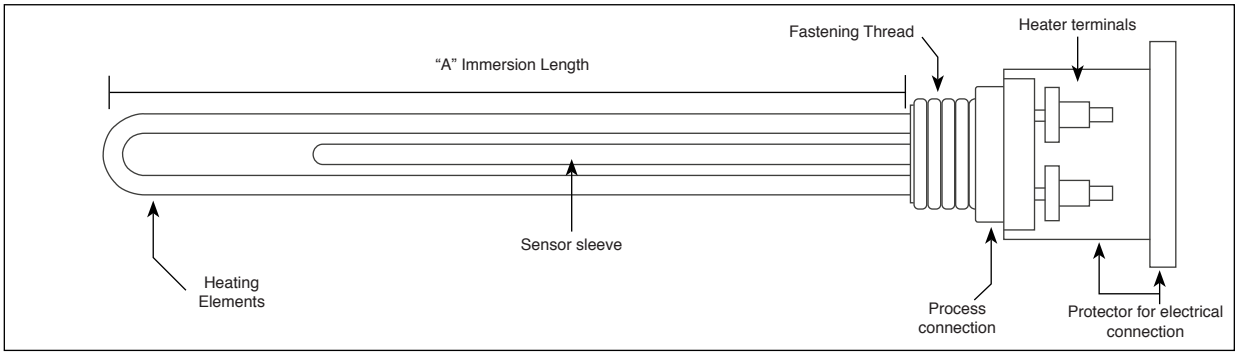
Nominal diameter inches	Outer diameter mm.	Core diameter mm.	Fillet depth mm.	Weight mm	Fillets per inches
1/8	10,287	8,769	0,759	0,941	27
1/4	13,716	11,458	1,129	1,411	18
3/8	17,145	14,887	1,129	1,411	18
1/2	21,336	18,434	1,451	1,814	14
3/4	26,670	23,768	1,451	1,814	14
1	33,401	29,867	1,767	2,209	11.1/2
1.1/4	42,164	36,630	1,767	2,209	11.1/2
1.1/2	48,260	44,726	1,767	2,209	11.1/2
2	60,325	56,791	1,767	2,209	11.1/2
2.1/2	73,025	67,945	2,540	3,175	8
2.1/2	73,025	67,945	2,540	3,175	8
3	88,900	83,820	2,540	3,175	8

B.S.P. THREAD DIMENSIONS

Nominal diameter inches	Outer diameter mm.	No. Threads p/inch	Pitch in mm.	Average diameter mm.	Diameter at bottom mm.
1/8	9.728	28	0,907	9.14	8.56
1/4	13.158	19	1,337	12.30	11.44
8/8	16.66	19	1,337	15.80	14.95
1/2	20.95	14	1,814	19.79	18.63
5/8	22.91	14	1,814	21.75	20.58
8/4	26.44	14	1,814	25.28	24.11
7/8	30.20	14	1,814	29.04	27.87
1”	33.25	11	2.309	31.77	30.29
1 1/8	37.89	11	2.309	36.42	34.94
1 1/4	41.91	11	2.309	40.43	38.95
1 8/8	44.32	11	2.309	42.84	41.36
1 1/2	47.80	11	2.309	46.32	44.84
1 3/4	53.74	11	2.309	52.27	50.79
2”	59.61	11	2.309	58.13	56.65
2 1/4	65.71	11	2.309	64.23	62.75
2 1/2	75.18	11	2.309	73.70	72.23
2 8/4	81.53	11	2.309	80.05	78.58
3”	87.88	11	2.309	86.40	84.93

ORDER YOUR CUSTOMIZED SCREW-IN HEATER

Customer name: _____ **Reference:** _____ **Date:** _____



NOTE: The drawing is for illustrative purposes only.

Operating conditions

1. Operating conditions (describe in detail)

2. Material to be heated (specify):

3. Operating temperature °C

4. Operating pressure:

5. ☐ Indoor ☐ Outdoor

6. Environment of the area (Classified):
☐ Yes ☐ No

7. Ambient temperature: °C

Heater specifications

1. Classification: *Volts:* *Fase:* *KW:*

2. Thread size
Elements ☐ 3/4 ☐ 1" 1/4 ☐ 1"1/2
☐ 2" ☐ 2"1/2 ☐ 3" ☐ 1"

3. Thread material ☐ Bronze ☐ Stainless steel.

4. Hilo de la rosca
☐ N.P.T ☐ B.S.P

5. Heating element material
☐ Steel 304L ☐ Steel 316L ☐ Titanium
☐ Copper ☐ Incoloy

6. Number of Elements
☐ 1 Ele. Horquilla ☐ 2 Ele. Horquilla ☐ 3 Ele. Horquilla
☐ 1 Ele. type "J" ☐ 2 Ele. type clip ☐ 3 Ele. type clip
☐ 1 Ele. type clip

7. Heating element immersion length
"A" Millimeters (mm):

8. Protective box material for electrical connection
☐ Without Box ☐ PVC
☐ Stainless steel. ☐ Anti explosive

9. Other special features
Sensor sleeve
☐ Yes ☐ No Sensor Type ☐
Termostato capilar
☐ 0-50°C ☐ 0-120°C ☐ 0-300°C

10. Thermostat location:
☐ Internal adjustment (Inside electrical protection box) ☐ External adjustment (Electrical protection box cover)

11. Model number:

TABLERO ELÉCTRICO FABRICACIÓN A MEDIDA

Empresas Comind cuenta con un equipo de ingenieros y técnicos especialistas en el diseño y fabricación de tableros para diversos usos, de los cuales podemos destacar:

- Tableros de distribución de fuerza y alumbrado.
- Tablero de comando de motores.
- Tableros de control.
- Tableros partidores suaves y variadores de frecuencia.
- Centros de distribucion de carga BT.
- Fabricados bajo norma IEC o NEMA.
- Tensión de diseño: hasta 1000VAC.
- Tensión de empleo: hasta 600VAC.
- Niveles de cortocircuito según requerimiento.
- Desarrollos según sus indicaciones técnicas.

COMIND CONNECT

TABLERO ELÉCTRICO DE LÍNEA

Control Simple (Solo Proceso)	Capacidad				
	4kW	10kW	15kW	30kW	50kW
Tipo de Alimentación	Monofásica	Trifásica			
Capacidad Nominal*	25A	20A	32A	50A	100A
Capacidad Máxima Recomendada	18A	15A	25A	45A	76A
Tensión de Alimentación	220Vac	380 Vac			
Interruptor General	1x25A 10kA curva "C"	3x25A 10kA curva "C"	3x40A 10kA curva "C"	3x63A 10kA Caja Moldeada	3x110A 10kA Caja Moldeada
Protección Diferencial	2x25A 30mA	4x25A 30mA	4x40A 30mA	4x63A 30mA	Toroide
Accionamiento de Carga	Relé de Estado Sólido	Contactor Trifásico (Mitsubishi)			
Capacidad de Carga	1x25A Carga 4-32Vdc	3x18A Carga 220Vac	3x32A Carga 220Vac	3x50A Carga 220Vac	3x100A Carga 220Vac
Control de Temperatura	Digital, 48x48mm Modelo AX4-01				
Entrada de Sensor	Configurable en Bornera (RTD: Pt100, Termocuplas J y K)				
Tipo de Gabinete	Caja Metalica, Pintura Texturizada RAL 7032, sin puerta interior				
Dimensiones del Gabinete	400X300x210mm	500X400x210mm	500X400x210mm	600x500x210mm	600X500x210mm
Grado de Protección	IP 55				
Código de Venta	**PLN02500001**	**PLN02500002**	**PLN02500003**	**PLN02500004**	**PLN02500005**

VISITA NUESTRA WEB

COMIND INDUSTRIES

SUCURSALES EN CHILE

ANTOFAGASTA
+5655 2246 090
+56 9 820 91 434
ANTOFAGASTA@COMIND.CL

VALPARAISO
+56 9 7211 6964
VALPARAISO@COMIND.CL

OFICINA CENTRAL
LANIN 1637 / CONCHALI
SANTIAGO DE CHILE
+ 56 224766200
CONTACTO@COMIND.CL

CONCEPCIÓN
+5641 2 732 255
CONCEPCION@COMIND.CL

ATENCIÓN LATAM
+56982091437
INFO@COMINDINDUSTRIES.COM

GAMEN
www.gamen.cl
ingproyectos@gamen.cl
Teléfono: 75 2 381886

INDUMATE
Ventas@indumate.cl
https://indumate.cl/
Teléfono: (75) 238 1886

SUPERBIDON
ventas@superbidon.cl
www.superbidon.cl

ESTADOS UNIDOS
https://www.comindindustries.com
info@comindindustries.com

PERÚ
https://www.comind.pe
ventas@comind.pe

BRASIL
http://www.grupocomind.com.br
vendas@grupocomind.com.br

BOLIVIA
http://www.tritecbolivia.com
lapaz@tritecbolivia.com

Distribuidores Autorizados

GAMEN

INDUMATE

SUPERBIDON envases industriales