



Your search for electrical heating applications ends here..



S.S Envirothermal Technologies Pvt. Ltd

We take great pleasure in introducing ourselves. SS ENVIROTHERMAL TECHNOLOGIES PVT. LTD. (an IAF Veteran Enterprise) is formed by professionals in the field of marketing of resistance alloys, electrical heating elements and furnace insulation material like the vacuum formed ceramic fibre blocks etc.

We are a young organization with over 25 years of manufacturing, design and marketing experience and are proud to be the Indian Representatives for APERAM ALLOYS- RESCAL SAS- FRANCE-An Arcelor Mittal Group Company, for their range of resistance alloys used in the electrical heating applications. Rescal manufactures both Fe, Cr, Al, Nickel chromium and thermocouple alloy ranges.

Today we proudly state that we are associated with several leading OEM customers in India, as their major element suppliers and are involved from design stage to execution of the orders for their entire range of heating elements .

In addition we cater to several furnace users all over the country to whom we supply heating elements and total heating solutions. We also undertake furnace revamping services, from supply and application of refractory and heating system insulation material of the same.

The above activities make us reliable one stop shop for all your electrical heating applications.

RAW MATERIAL WE IMPORT FROM OUR PRINCIPALS

Resistance Alloys				Thermocouple Alloys
NiCr	FeCrAl	CuNi	Others	Thermocouple, Extension & Compensation
Resistohm® 80	Resistohm® 125	CuNi 44	Nickel 200	Type K
Resistohm® 70	Resistohm® 135	CuNi 23 Min	Nickel 201	Type E
Resistohm® 60	Resistohm® 140	CuNi 10	Nickel 212	Type J
Resistohm® 40	Resistohm® 145	CuNi 6	Invar®, FeNi 70	Type N
Resistohm® 30	Resistohm® Y	CuNi 2	N42, N52, Supra 50	Type T
Resistohm® 20	Resistohm® E	Phy 400	Clad 40	Type S
	Resistohm® PRM		Super Alloys	Tyermopile

Most alloys are processed from highest quality wire rod with Ø 5,50 to 16,00 mm coming from Aperam Alloys Imphy.



PROPERTIES OF RESISTANCE AND THERMOCOUPLE ALLOYS

ALLOYS	Ni	Cu	Cr	Fe	Others	DIN	W.std	Resistivity Ohms m ² /m	Density g/cm ³	maximum temperature
FeCrAl Alloys										
Pyromax PRM			23	bal	Al6%+	17470		1.45	7.1	1400
Resist ohm 145			23	Bal	Al6%+	17470		1.45	7.1	1300
Resist Ohm Y			22	Bal	Al5%Y+	17470		1.39	7.15	1300
Resist ohm 135			20	Bal	Al4.5%+	17470		1.35	7.25	1200
Resist ohm 125			17	Bal	Al3 %+	17470		1.25	7.35	1100
Ni Cr Alloys										
Resist OHM 80	77		20		Si+	17470	2.4869	1.08	8.35	1200
Resist Ohm 70	69		20		Si +	17470	2.4658	1.18	8.16	1250
Resist Ohm 60	60		15	Bal	Si+	17470	2.4867	1.12	8.2	1100
Resist Ohm 40	37		18	Bal	Si +	17470	1.4862	1.05	7.95	1050
Resist Ohm 30	30		20	Bal	Si +	17470	1.4860	1.04	7.90	1000
Resist ohm 20	20		25	Bal	Si +	17470	1.4843	0.95	7.8	1000
Cu Ni alloys										
CuNi 44	44	Bal			Mn+	17471	2.0842	0.49	8.9	600
CuNi 23	23	Bal			Mn +	17471	2.0881	0.30	8.9	400
CuNi 10	10	Bal				17471	2.0811	0.15	8.9	400
Cu Ni 6	6	Bal				17471	2.0807	0.10	8.9	300
Cu Ni 2	2	Bal				17471	2.0802	0.05	8.9	300

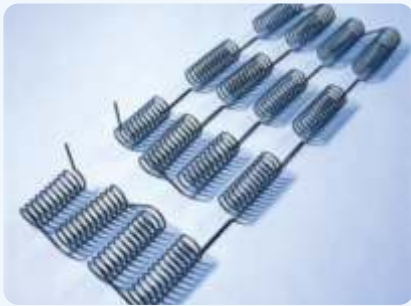
Chemical composition and main characteristics of thermocouple alloys

ALLOY	ANALYSIS %			Melting Point. °C	Resistivity	Density g/cm ³	Temp. Coef of resistance x10 ⁻⁶ /°C	Linear expansion Coef. x10 ⁻⁶ /°C	Thermal Conductivity W m ⁻¹ C ⁻¹ at 20°C
	Fe	Ni	Other						
KP (+)	90	10		1430	70	8.72	300	17	19.20
KP (-)	94		Cu2.20 - Si2.60- Others +	1400	29	8.60	1900	17	29.70
NP (+)	84.4		14.2 +	1420	100	8.53	90	17	23
NN (-)	95.6		- 4.40	1420	36.50	8.53	678	17	27

Maximun operating temeratures

Thermocouple	3.20 mm	1.60 mm	0.81 mm	0.51 mm	0.81 mm
NP (+)	1260 °C	1090 °C	980 °C	870 °C	760 °C
NN (-)	1260 °C	1090 °C	980 °C	870 °C	760 °C

COILED WIRE ELEMENTS



Spiral Elements To Suite Installation In Grooved Refractory Bricks

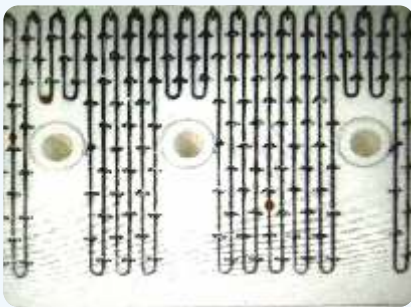


Heating Element Wound On Grooved Ceramic Formers And Special Shapes



Heating Elements Supported On Ceramic Tubes

Corrugated Wire & Strip Elements



Corrugated Wire Element Fully Stapled To Vacuum Formed Board For Roof Mounted Applications And Tilting Furnaces

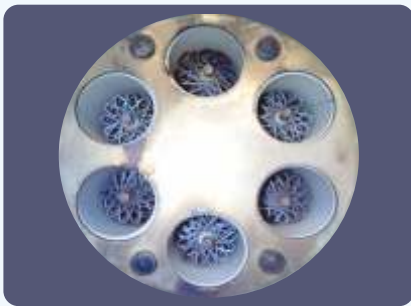


Corrugated Strip Type Element in FeCrAl and NiCr



Rod over bend Heating elements in NiCr and FeCrAl wires .

Porcupine Heaters & Heaters Bank



Porcupine Heating Elements For High Velocity And High Volume Air Heating Applications



Ready to install Coiled Wire heater banks for hot air generation



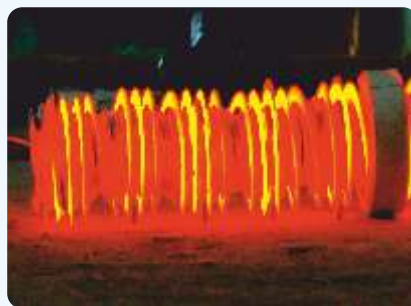
Heater Banks with Straight Wires for High Temperature Hot air generation , Tempering and Glass forming furnaces

Bird Cage / Bundle Rod Elements



High powered , Maintenance friendly radiant tube heating elements ranging from 52mm dia to 180mm dia made of wires from 2mm to 8.25mm from 1KW to 75 KW per element .

Edgewound Heaters



Among the radiant tube heating elements we also supply edge wound bayonet type heating elements both in NiCr and FeCrAl Alloys .

Our specially developed ceramics enable us to manufacture elements as low in diameter from 35mm to 115mm spool diameters and use strip of 1x 4 mm to 2.5 x 15mm .

Edge Wound heating elements enables to install higher power in a small areas as compared to bundle rod heaters.

Vacuum Formed Ceramic Boards

APPLICATIONS

- INDUSTRIAL AND LABORTORY FURNACES
- MELTING AND HOLDING FURNACES
- THERMAL TREATMENT FACILITIES
- PROTECTIVE GAS GENERATORS
- HEATING EQUIPMENT AND APPARATUS

SERVICES

- DESIGNED TO CUSTOMER SPECIFICATIONS
- TOTAL DESIGN SUPPORTS
- COMPLETE INSTALLATIONS AND COMMISSIONING SERVICES
- MODERNIZATION , ENERGY EFFICIENT FURNACE DESIGN



Tubular Heaters & Mgo Filled Heater Banks



Oil Outflow Heaters



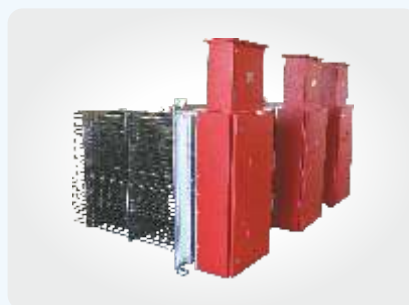
Water Heater with Flame Proof Enclosure



Heater For Spray Drying Applications, Rating From 6kw To 200kw



Purge Air Heater



Air Heater Bank for Spray Dryer & Bag Filter Application Capacity 850KW



Heater Assembly for Powder Coating Oven Range 40KW to 200KW

FURNACE SPARES



Ceramic Boards



Ceramic Fibre Blanket



Anchors And Cuplocks For Insulation



Terminal Braids



Special Shaped Refractories



Heater And Element Spares



Furnace Fans And Blowers



Furnace Fans And Blowers



Retorts For Furnaces

We stock and supply various kinds of ceramic components including ceramic fiber blankets, boards and refractory material and casted products for various furnace applications.

FURNACE REVAMPING



60 Ton Aluminium Homogenising Furnace



1800 Kw Solution Annealing Furnace For Aerospace



350 KW PYROLYTIC REACTOR FURNACE FOR FLUOROCARBONS

Our Clients



Sundaram Fasteners Limited



JUST TO NAME A FEW OF OUR MAJOR CUSTOMERS

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