

ROPE HEATERS 30V, 40V, 60V & 80V (80/20 NI-CR CORE WIRE)

Application

Cooperheat rope heaters can be wound onto pipe diameters between 152mm and 508mm. They provide an excellent and reliable means of preheating when positioned each side of the weld joint to be welded.

Specification

The core of the element is stranded nickel chromium wire insulated with porcelain beads and protected with a closely braided nichrome wire outer covering, which has an even heat distribution along its surface eliminating any hot spots. Uniform maximum temperatures of up to 250°C can be achieved. Cold tails are welded for durability and terminated with 60A connectors.

Stock Reference	Type Reference	Volts	Length (mm)	Diameter (mm)	kW	Pipe Size (NB Inch)
26001	RH84	30	2,135	16.5	1.35	3 to 6 Inch
26010	RH84LD	30	2,135	9.5	0.67	¾ to 3 Inch
26003	RH117	40	2,970	16.5	1.8	3 to 6 Inch
26011	RH117LD	40	2,970	9.5	0.90	¾ to 3 Inch
26000	RH168	60	4,270	16.5	2.7	6 to 10 Inch
26012	RH168LD	60	4,270	9.5	1.35	¾ to 3 Inch
26020	RH168HD	60	4,270	16.5	5.4	10 Inch and up
26002	RH234	80	5,940	16.5	3.6	6 to 10 Inch
26013	RH234LD	80	5,940	9.5	1.8	¾ to 3 Inch
26021	RH234HD	80	5,940	16.5	7.2	10 Inch and up

SINGLE, DOUBLE & 4-BANK CHANNEL ELEMENTS

The channel element can be used to preheat and post heat large welded fabrications including steam drums and pressure vessels, they can also be used as a heat source in temporary furnace installations where multiple heat treatments need to be carried out

A coiled element manufactured from solid drawn 9 swg ICA 135 Or Ni/Cr core wire and insulated with 95% sintered alumina beads, is supported in a stainless steel tray.

The supply voltages for single channels are 30V, 60V or 80V and a range of multi-bank elements can be made up from single elements connected either in series or parallel. These elements are powered directly from the incoming 380V or 415V 3-Phase supply, via a 6-Way, 3-Phase Control trolley (stock reference 14003)

Channel elements can also be supplied utilising 60V or 80V supplies which can be powered and controlled via standard 60V and 80V output, 50kVA or 70kVA heat treatment machines.

Working temperatures of up to 750°C can be achieved, the heaters are capable of higher temperatures using Kanthal core wire. Cold tails are welded not crimped for durability and safe working. Strongly constructed of high grade materials the channel element is designed to withstand a long on site working life and in addition has the following features; portable, designed for extended periods of operation, suitable for a wide range of heat treatment applications, selection of sizes, can be used for temporary furnace applications for large fabrications.

For post weld heat treatment (PWHT) of large, welded constructions, including steam drums and vessels or for use in furnaces, channel heaters are often more practical than applying large numbers of 60V ceramic heating pad elements. The most common channel element is known as the 4-bank.

Their rugged construction comprises of a stainless steel channel which contains the 9 s.w.g. ICA 135 element coil. Dependent upon customer preference we can also produce, upon request, channel elements with cores formed using Ni Cr 60/16 or 80/20 as the core material.

Application – Internal bulk head heat treatment of vessel seams. (see illustration below)

In specific cases, in the post weld heat treatment of welded seams of large vessels it is sometimes more practical to make a thermally insulated compartment inside the vessel and then heat the compartment by means of channel elements such as 4-banks.

These elements are used to heat the insulated compartment by resting on transversely placed mild steel channels. The compartment is produced by insulating the outside area of the vessel to be heat treated and then enclosed internally by means of two mild steel insulated bulkhead fitted inside the vessel.