

INDO AEROGELS AND MEMBRANES

High-tech solutions to thermal insulation and heating Furnaces

GSTIN No. 27ALQPM6737M1Z7

Email: indomembranes@gmail.com

Phone No. +91-9145125010

Tube Furnace with controller and inert gas purging system

Indo Furnaces (IAM) offers a broad selection of Tube furnaces in convenient styles, sizes and temperature ranges for laboratory use.

This line has different sizes, temperature and Vacuum/Inert gas medium heating, Split type or Box type furnaces; all designed to provide convenient Furnaces for laboratory procedures that must be performed under Vacuum/inert gas or in air medium at elevated temperatures.

Many of these Tube Furnaces are offered with ceramic/Quartz tubes with an inert gas purging arrangements at both ends of Tube with fittings on Silicon rubber with cooling arrangement. These can be supplied with quartz/ceramic boats to be used to keep samples.

Heating elements: Kanthal A1 and MoSi₂

User must check the vapor pressure at operating temperature to ensure that operating conditions are within safety limits.

Material details:

Tube material: **Ceramic tube/ quartz tube**

End Flange material: **Tubular furnace with gas purging system and water circulation at end fittings**

Box type tube Furnace with PID controller and inert gas purging system

Address: RMS 20, Oppo. Karishma Hotel, Rabale MIDC, Navi Mumbai-400701

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Box type Tube furnace



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Split type Tube furnace



Split type Tube furnace with high pressure stirred tubular reactor



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Furnace Temperature 600 - 1800 °C Single heating zone					
Model*	Heating Length (Inch)	Wattage	Voltage	Overall dimension (cm)	Bore diameter (cm)
Indo-12S	12	1,300	230	40x30.5x43	2.5, 5, 7.5
Indo-12F	12	2,600	230	40x30.5x43	2.5, 5, 7.5
Indo-18S	18	3,000	240	53x48x43	2.5, 5, 7.5
Indo-24F	24	3,400	240	53x48x43	2.5, 5, 7.5
Indo-24S	24	4,710	240	65x48x43	2.5, 5, 7.5
Indo-36F	36	6,194	240	105x48x43	2.5, 5, 7.5

*Indo-12S/F- 12inch heating zone, S-Slow heating or F- fast heating

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Technical Specifications:

Product Name: tubular Furnace

Model: Indo/24S

Sr. No.	Technical Parameter	Technical range/values
1.	Maximum temperature	1200 °C
2.	Working temperature	1200 °C
3.	Controlling Thermocouple	K type, N Type
4.	Length	800 mm
5.	Width	450 mm
6.	Height	550 mm
7.	Weight	150 Kg
8.	Heating element	Kanthal A1
9.	Optional Accessories	Gloves, Heating Element, Tongs, Pirani Gauge, Vacuum Pump, Vacuum Fitting, Solenoid Valves
10.	Tube material	Quartz
11.	External Chamber Construction	MS Powder Coated
12.	Insulation	Cervac Board
13.	Flange	Stainless steel/ Aluminium
14.	Flange cooling	Water circulation
15.	Gaskets	Viton/Silicone gaskets

Photos of Tubeular Furnace Model: Indo/24S

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Controller 4X48



➤ The controller can be provided with

Four slots (48x48) or
Five slots (Three
48x48 , Two 48x24)

➤ PID (Proportional -
Integral - Derivative) with
Ramp & Soak

➤ Vessel surface
temperature display
RS 485 interface

Microprocessor controllers operate with three different modes.

PID (Proportional - Integral - Derivative)

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Proportional-Integral-Derivative Systems have three control functions.

Proportional control adjusts the heating in proportion to the temperature difference from the set point. Integral function compensates for any temperature control offset from the set point. The derivative function deals with the rate of change of the temperature.

This control can rapidly bring a system to a desired temperature with little or no overshoot and smooth, continuous regulation. These controllers are now self-tuning so that they can set the proportional band, compensate for any offset and adjust the proportional action to ensure that the temperature in the controlled system will be held at the set point with minimal deviation.

Ramp and Soak Programming

This control option allows the operator to program a time and temperature profile into the controller for automatic execution. This can consist of a series of different temperature settings and the length of time each is to be held. The rate of change from one setting to another can also be controlled if the changes are within the capability of the heating and/or cooling system. An additional feature provides for control of the approach to a critical temperature when over- shoots cannot be tolerated. A visual display prompts for all programming and timing functions.

Control	Module	Specifications
Operating Range	0-1200°	C
Digital Readout Resolution	1°	C
Digital Set point Resolution	1°	C
System Accuracy	+/-2°	C
High Limit Alarm	Red LED and Audio	
Thermocouple Burnout Prot.	Yes	
Thermocouple	Type	K
Communications Module	Serial port RS485	

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