

MUFFLE FURNACE



Elevate your laboratory and industrial processes with the Vector Muffle Furnace series—high-quality, general-purpose furnaces designed for precision and reliability across a multitude of sectors. Ideal for applications in metalworking, ceramics, food processing, jewelry, dentistry, cement, lime, gypsum, and mining industries, these furnaces are engineered to meet the rigorous demands of modern laboratories and production facilities.



VTR 13-011



Vector Muffle - Ash Furnace

Versatile and Reliable High-Temperature Furnaces

Overview

With maximum operating temperatures ranging from 1100 °C up to 1700 °C, Vector Muffle Furnaces provide the necessary conditions for various high-temperature processes. Whether you are performing ashing, quality control testing, melting, preheating, or heat treatment, these furnaces offer the versatility and performance required for even the most demanding applications.

The furnace chamber is constructed from high-temperature resistant ceramic insulation, ensuring optimal thermal efficiency and durability. The cell comprises vacuum-formed fiber plates and fire bricks, providing excellent insulation and energy savings. A standard chimney facilitates the safe discharge of fumes and smoke generated during operation, maintaining a clean and safe laboratory environment.

Equipped with a programmable PID microprocessor control unit, Vector Muffle Furnaces deliver precise temperature control and stability. The illuminated touch LCD display allows for easy monitoring and adjustment, showing real-time temperature readings. Users can program multiple heating profiles with options for 5 programs with 5 steps or 10 programs with 10 steps, enabling complex thermal processes tailored to specific applications.



Vector Muffle - Ash Furnace

Key Features:

Wide Temperature Range: Continuous working temperatures of 1100 °C, 1200 °C, and 1300 °C cater to various material processing requirements.

Programmable Control: Advanced PID microprocessor with programmable settings allows for customized heating programs and precise control over temperature profiles.

High-Quality Insulation: Inner chamber made from high-temperature resistant ceramic insulation for enhanced durability and energy efficiency.

User-Friendly Interface: Illuminated touch LCD display provides clear visibility and ease of operation, including date/time recording and initial work recording.

Safety Features: Includes a protection program against power outages and fault/warning commands to ensure safe operation.

Enhanced Performance: Features such as increased heating speed per minute and a night adjustment program optimize furnace performance and energy consumption.

Durable Construction: Built with robust materials to withstand demanding industrial environments, ensuring longevity and reliability.

Vector Muffle Furnaces are suitable for a wide range of applications, including:

Metal Industry: Heat treatment, annealing, and stress relieving of metal components.

Ceramics and Glass: Firing and sintering of ceramic materials and glass components.

Food Industry: Ashing of food samples for quality control and analysis.

Jewelry and Dentistry: Melting and casting of precious metals, burnout processes.

Cement, Lime, and Gypsum: Quality control testing, material analysis, and sample preparation.

Mining Industry: Ore sample testing, mineral analysis, and assay work.

TECHNICAL SPECIFICATION

Model	VTR-13-011-5	VTR-13-011-7	VTR-13-011-10	VTR-13-011-20
Continuous Working Temperature (oC)	1100-1200-1300			
Internal Volume (Lt.)	5	7	10	20
Inner Chamber	High temperature resistant ceramic insulation			
Control Unit	Programmable PID Microprocessor Control Unit			
Program and Step-1	5 Programs – 5 Steps			
Program and Step-2	10 Programs – 10 Steps			
Network (V - Hz)	220V – 50Hz			
Power (Watt)	2000W	3000W	3000W	3500W
Internal Hopper Measurements	15x23x15	17x23x17.5	20x27x18.5	28x32x25x23
External Dimensions	44x49x55	46.5x49x57.5	49x51x60	54x54x68