

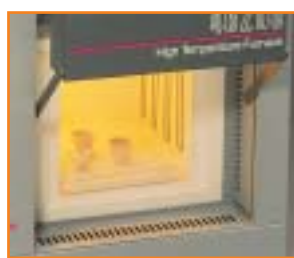
Thermolyne Furnaces



High Performance 1700°C



Element replacement is simple



Continuous air circulation

Product Description

Unique Door Design

- Unique door mechanism provides safe, easy door operation.
- Door is spring loaded to assist in easy opening and closing. The movement keeps the hot surface of the door away from the operator, avoiding excessive heat upon opening.
- Self-aligning door seal is incorporated to minimize heat loss and increase chamber uniformity.

Interchangeable Control Modules

- Programmable control modules are interchangeable to allow operator flexibility and ease of access if interchanging is needed. Simply remove control module from sleeve and insert the other controller. Requires no rewiring or disassembling.

Fast Heat-up

- The furnace can reach 1600°C in approximately 40 minutes (see graphs).
- Heat-up rate allows for optimum element life. (Faster heat-up rates may endanger SuperKanthal 33 elements.)

Air Ventilation

- Continuous air circulation maintains cool case temperature of 50°C at maximum chamber temperature of 1700°C and ensures longevity of electronic components.

High Temps? No Problem!

- Choice of 216 or 1000 cubic inch capacities
- Temperature to 1700°C - continuously
- Inert gas injection ports
- ☆ 24 Month Warranty



Type F46200

Unitized Controller

- The combination of chamber and controller requires only one electrical hook-up and saves bench space.

Inert Atmosphere

- Two inert gas injection ports: one on top of the unit and one on back. Ports are 0.38" (0.95 cm) diameter and are supplied with plugs.

Operation

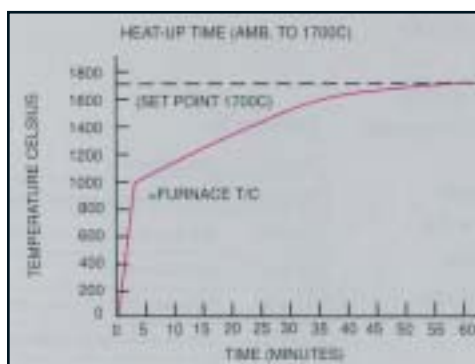
- All D1 and E1 controllers have RS232 digital communications as standard feature.
- No power cord supplied. Electrical connection requires fixed wiring.
- Extremely reliable control units are backed by a 24 month warranty.
- Choose from three distinctive applications-oriented temperature controllers:
 - C1:** Digital programmable control with one stored program of 8 segments. The furnaces that use this control also utilize a mechanical Over Temperature Protection relay.
 - D1:** Digital programmable control with 4 stored programs, 16 segments per program. The controller also includes RS232 communications. The furnaces that use this control also utilize a mechanical Over Temperature Protection relay.
 - E1:** Digital programmable control with 20 stored programs, 16 segments per program. The controller also includes RS232 communications. The furnaces that use this control also utilize a mechanical Over Temperature Protection relay.

Applications

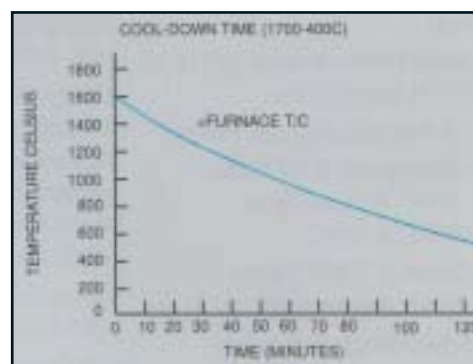
This 1700°C furnace is ideally suited for wide variety of high temperature applications:

- Composite research
- Precious and exotic metals treatment
- High temperature ceramic research
- Powder Metallurgy

Thermolyne Furnaces



Furnace Heat-up Time



PRODUCT SPECIFICATIONS								
Type	Chamber Dimensions Inches (cm)			Overall Dimensions Inches (cm)			Chamber cu. in. (l)	Shipping Weight Lb. (kg)
	W	H	D	W	H	D		
F461100	6 (15)	6 (15)	6 (15)	28 (71.1)	18.5 (46.9)	18 (45.7)	216 (3.5)	190 (86)
F46200	10 (25.4)	10 (25.4)	10 (25.4)	34 (86.3)	22.5 (57.1)	22 (55.8)	1000 (16)	193 (87.5)
F46240CM (chamber)			Uniformity at 1700°C ±3.1°C			Stability at 1700°C ±.8°C		

ORDERING INFORMATION								
Model #	Volts	Electrical (50/60 Hz) Amps	Watts	Operating Temp Range °C	Temp Control Group	Stabilization Amps	Watts	US List Price
F46118CM	208	40	8320	800-1700	C1	12	2500	\$13,368.00
F46110CM	240	40	9600	800-1700	C1	10	2500	\$13,368.00
F46110CM-33 ¹	240	40	9600	800-1700	C1	10	2500	\$13,368.00
F46128CM	208	40	8320	800-1700	D1	12	2500	\$13,280.00
F46120CM	240	40	9600	800-1700	D1	10	2500	\$13,474.00
F46120CM-33 ¹	240	40	9600	800-1700	D1	10	2500	\$13,474.00
F46128CM-75	208	40	8320	800-1700	E1	12	2500	\$16,686.00
F46120CM-75	240	40	9600	800-1700	E1	10	2500	\$16,686.00
F46120CM-33-75 ¹	240	40	9600	800-1700	E1	10	2500	\$16,727.00
F46238CM	208	40	8320	800-1700	C1	24	5000	\$19,699.00
F46230CM	240	40	9600	800-1700	C1	21	5000	\$19,699.00
F46230CM-33 ¹	240	40	9600	800-1700	C1	21	5000	\$19,699.00
F46248CM	208	40	8320	800-1700	D1	24	5000	\$19,457.00
F46240CM	240	40	9600	800-1700	D1	21	5000	\$19,457.00
F46240CM-33 ¹	240	40	9600	800-1700	D1	21	5000	\$19,457.00
F46248CM-75	208	40	8320	800-1700	E1	24	5000	\$22,660.00
F46240CM-75	240	40	9600	800-1700	E1	21	5000	\$22,660.00
F46240CM-33-75 ¹	240	40	9600	800-1700	E1	21	5000	\$22,660.00

¹ CE marked.

All models are CSA.

The maximum current is determined by the limiting factor set by the current controller. In the event that 40 amperes is not available, the current controller may be set to limit the current to some similar value at the expense of a somewhat longer heat-up time.

The variation in current is a result of molybdenum disilicide heating elements having a large change in resistance with increasing temperatures.