

## 600 SERIES

## CONTINUOUS, ALLOY HEARTH, ATMOSPHERE FURNACES TO 1200°C (2200°F)

The CM 600 Series furnaces are available in a variety of configurations from manually loaded lab-scale units to fully automated production systems. The two basic system configurations are continuous belt furnaces and pusher style furnaces. Both types utilize nickel alloy muffles in the entrance and heated section. These furnaces can be used for either inert or reducing atmosphere applications.

The furnaces are constructed of heavy gauge steel that is welded and reinforced. All power components and controls are located on the main frame assembly. Ceramic plate heaters with embedded Kanthal A1 wire serve as heating elements. A high alumina fiber insulation package provides for efficient operation.

Controls include a microprocessor based temperature controller, a zero cross-over SCR power

controller, type "N" thermocouples, and independent overtemperature instrumentation.

The CM 600 Series includes a line of small belt furnaces for low volume production. Nitrogen end curtains are normally supplied on these systems. The belt drive system utilizes variable speed solid state SCR power control. Rollers and drive components are designed to minimize friction and maintain belt alignment.

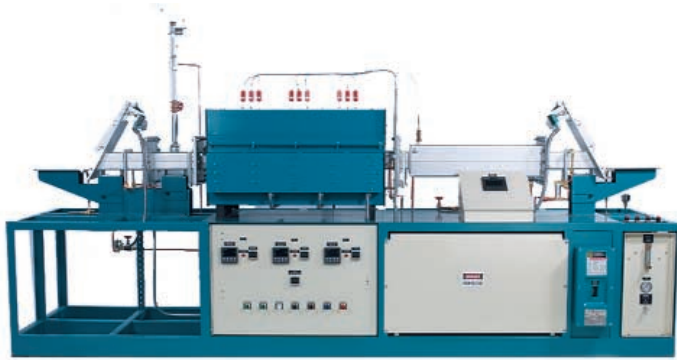
The continuous pusher furnaces typically include atmosphere doors, entrance section, heated section and a cooling section. Complete atmosphere controls and safety systems are incorporated. When automated, the pusher plates (carrier trays) form a train and are pushed through the furnace by an external stoker.



Model 644-36-3Z Belt

### USED FOR THESE AND OTHER APPLICATIONS:

- Lighting
- Powder Metals
- Refractory Metals
- Annealing
- Brazing
- Sintering
- Heat Treating



**Model 646-36-3Z Manual Pusher**

### FULL SYSTEMS INCLUDE:

- Total system packaged in common frame including power and control components
- Heavy Gauge Welded and Reinforced Steel Frame
- Ceramic Plates Heaters with Kanthal A1 Wire Embedded
- High Grade Alumina Fiber Insulation Package
- Nickel Alloy Muffle
- Water-Jacketed Cooling Section
- Microprocessor Based Set Point Temperature Control
- Zero Cross-over SCR Power Controller
- Independent Overtemperature Instrumentation
- Type "N" Thermocouples
- Atmosphere Control and Safety System

### OPTIONAL FEATURES:

- Turn-key Automation (pusher)
- Preheat or Burn-out Sections
- Multiple Zone Control
- Data Recording Equipment

#### TYPICAL SIZES (FOR REFERENCE ONLY)

MODEL NUMBER	FURNACE TYPE	HEATED OPENING H x W	HEATED LENGTH	NUMBER OF ZONES	MAXIMUM TEMPERATURE	ATMOSPHERES
636-36-1Z	Belt	3" x 6"	36"	1	1200°C (2200°F)	Inert Reducing
636-48-3Z	Belt	3" x 6"	48"	3	1200°C (2200°F)	Inert Reducing
636-48-3Z	Belt	3" x 8"	48"	3	1200°C (2200°F)	Inert Reducing
638-60-3Z	Belt	3" x 8"	60"	3	1200°C (2200°F)	Inert Reducing
6312-72-3Z	Belt	3" x 12"	72"	3	1200°C (2200°F)	Inert Reducing
644-36-1Z	Pusher	4" x 4"	36"	1	1200°C (2200°F)	Inert Reducing
646-36-1Z	Pusher	4" x 6"	36"	1	1200°C (2200°F)	Inert Reducing
666-48-3Z	Pusher	6" x 6"	48"	3	1200°C (2200°F)	Inert Reducing
666-60-3Z	Pusher	6" x 6"	60"	3	1200°C (2200°F)	Inert Reducing
688-60-3Z	Pusher	8" x 8"	60"	3	1200°C (2200°F)	Inert Reducing
688-72-3Z	Pusher	8" x 8"	72"	3	1200°C (2200°F)	Inert Reducing