## **CM**FURNACES INC.

## CONTINUOUS WIRE, STRIP AND TUBE ANNEALING FURNACES

The 200 Series continuous annealing furnaces are designed for years of trouble-free service in the processing of wire, rod, strand, strip and tube products. These furnaces are ideally suited for copper, copper alloy, nickel, nickel chrome, titanium, stainless steel and refractory metals. The 200 Series features heavy-duty construction, an energy saving combination of fiber and brick insulation, precise temperature control and requires minimal maintenance.

Three temperature ranges are offered to cover a wide variety of applications. These include the LTSA series to 1000°C (1850°F) utilizing ceramic plate heaters with Kanthal A1 wire; the SA series to 1200°C (2200°F) utilizing silicon carbide heating elements; and the HTSA series to 1750°C (3200°F) utilizing a molybdenum wound muffle. All designs feature top and bottom heating of the process tubes. Temperature and power control is completely contained on the framework of the furnaces. Step-down transformers and SCR power controllers are used in conjunction with setpoint microprocessor controllers for each zone. Separate overtemperature instrumentation is provided standard and thermocouple alloys are chosen depending on the actual operating temperature.

The 200 Series furnaces are equipped with gas manifolds that permit individual control of each process tube for inert and/or reducing atmosphere. All furnaces are available with stainless steel water-cooling tanks that vary in length depending on the exit temperature required.



USED FOR CONTINUOUS ANNEALING OF THESE AND OTHER MATERIALS:

- Wire
- Rod
- Strand
- Strip
- Cable
- Tube
- Copper
- Copper Alloy
- Nickel
- Nickel Chrome
- Titanium
- Stainless Steel
- Refractory Metals

Model LTSA-180-4

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www.cmfurnaces.com



Model LTSA-60-10-1Z

## FURNACE SYSTEMS INCLUDE:

- Heavy Gauge Steel Construction
- Total System in Common Frame
- Top and Bottom Heating of Process Tubes
- Tube Support System to Minimize Sag and Drift
- High Efficiency Fiber and Brick Insulation Package
- Heating Elements:
- LTSA = Kanthal A1 Ceramic Plate Heaters SA = Silicon Carbide Rods HTSA = Molybdenum Wound Muffle
- Microprocessor Set-Point Temperature Control
- Single or Multiple Zone Control
- Atmosphere Panel and Manifold
- Independent Overtemperature Thermocouple and Instrument For Each Zone
- SCR Power Controllers
- Step-Down Transformers
- Stainless Steel Water Cooling Tanks (where required)
- Factory Testing and Tuning

TYPICAL SIZES (FOR REFERENCE ONLY), ADDITIONAL SIZES AVAILABLE						
MODEL NUMBER	HEATED LENGTH (in)	HEATED LENGTH (mm)	COOLING LENGTH (in)	COOLING LENGTH (mm)	NO. OF TUBES	MAX. OPERATING TEMPERATURE
LTSA-60-30-6	60	1524	30	762	6	1000°C (1850°F)
LTSA-60-30-12	60	1524	30	763	12	1000°C (1850°F)
LTSA-90-45-6	90	2286	45	1143	6	1000°C (1850°F)
LTSA-90-45-12	90	2286	45	1143	12	1000°C (1850°F)
LTSA-120-60-6	120	3048	60	1524	6	1000°C (1850°F)
LTSA-120-60-12	120	3048	60	1524	12	1000°C (1850°F)
LTSA-120-120-20	120	3048	120	3048	20	1000°C (1850°F)
LTSA-180-90-12	180	4572	90	2286	12	1000°C (1850°F)
SA-90-45-12	90	2286	45	1143	12	1200°C (2200°F)
SA-120-60-12	120	3048	60	1524	12	1200°C (2200°F)
SA-120-120-20	120	3048	120	3048	20	1200°C (2200°F)
SA-180-90-16	180	4572	90	2286	16	1200°C (2200°F)
SA-180-120-20	180	4572	120	3048	20	1200°C (2200°F)
SA-240-120-16	240	6096	120	3048	16	1200°C (2200°F)
SA-240-180-20	240	6096	180	4572	20	1200°C (2200°F)
SA-300-150-20	300	7620	150	3810	20	1200°C (2200°F)
SA-300-300-20	300	7620	300	7620	20	1200°C (2200°F)
HTSA-36-36-4	36	914	36	914	4	1750°C (3200°F)