

AUTOMATIC PROCESSING FURNACE SYSTEMS

Automatic Processing Furnace Systems (APF) and Ceramic Processing Furnace Systems (CPF) are from the Astro Division of Thermal Technology. They provide fully automatic, unattended operation at temperatures to 2000° C. Parts processing may be cycled in under two hours with rapid temperature ramp up (>100° C/min) and ramp down (>300° C/min).

Hot zones are designed to operate in wet or dry hydrogen, fully dissociated dry ammonia, inert gases, nitrogen, or vacuum. The large surface area heating elements provide excellent temperature uniformity within the working volume. Molybdenum sheet, molybdenum wire mesh, or tungsten wire mesh heating elements are used, depending on the operating temperature. A variety of work volumes, temperatures, and processing capabilities are offered to match the system to the customer's requirements.

The APF/CPF systems are cold wall, radiation shielded, bell-style batch furnaces. The double-wall, all stainless steel furnace chamber hydraulically lifts off the base plate and hearth, providing full work area access for loading parts and instrumentation. The furnace system uses a microprocessor for digital temperature control and processing sequences. More than 25 separate, complete processing programs may be held in memory at one time. Programs are easily entered and may be modified during operation on a temporary or permanent basis. After loading and starting, operation is fully automatic. An audio/visual alarm signals the end of a cycle.

FEATURES

- Excellent Temperature Uniformity
- Temperature to 2000° C
- Fast Cycle Time
- Problem Free Cofiring of Metallized Ceramics
- Fast Thermal Response
- Atmosphere Containment for Accurate Control
- Precision Programming and Control
- Large Range Sizes and Capacities
- Dew Point Monitoring
- Automatic Processing
- Process Sequence Control
- Fast Response to Parameter Changes
- Wet and Dry Hydrogen Operation
- Field-Proven Trouble-Free Performance
- Easy Loading

STANDARD WORK ZONES

Model No.	Work Zone Size	Work Zone Volume	Max Work Load
APF-0716	6" diameter x 12" high	0.2 cubic feet	40 pounds
APF-0925	8" diameter x 16" high	0.5 cubic feet	75 pounds
APF-1230	10" diameter x 20" high	0.9 cubic feet	150 pounds
APF-1836	15" diameter x 28" high	3.1 cubic feet	500 pounds
APF-2444	20" diameter x 36" high	6.5 cubic feet	1000 pounds
APF-3060	24" diameter x 48" high	12.6 cubic feet	1500 pounds
CPF-0716-MS	4" diameter x 10" high	0.1 cubic feet	40 pounds
CPF-0925-MS	5.5" diameter x 14" high	0.2 cubic feet	75 pounds
CPF-1230-MS	8.5" diameter x 16" high	0.5 cubic feet	150 pounds

CPF-1836-MS	12.5" diameter x 20" high	1.4 cubic feet	500 pounds
CPF-2444-MS	17.5" diameter x 24" high	3.3 cubic feet	1000 pounds
CPF-3060-MS	21.0" diameter x 36" high	7.2 cubic feet	1500 pounds

Other Sizes Available



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