

HYDROGEN ATMOSPHERE BATCH FURNACE SYSTEM 1450° or 1700°C (2640° or 3100°F)

High temperature atmosphere applications can now be processed both efficiently and economically with minimal technical expertise. CM Furnaces has developed a line of "hot wall" batch furnaces with complete process control for temperature and atmosphere without the added expense of "cold wall" vacuum construction. Offered in two temperature ranges and several sizes, these furnaces meet virtually any application requirement where vacuum is not absolutely necessary. Furnaces are complete systems with all features required for operation, bundled into one compact frame with conveniently located controls.

The 1500 Series (to 1450C/2640F) and the 1700 Series (to 1700C/3100F) are ideal for a variety of applications. Temperature profiles are completely programmable for multiple ramps and soaks. The atmosphere mixing panel allows either pure hydrogen or a mixture of reducing and inert (nitrogen and/or argon) atmospheres. It is even possible to debind/delube and sinter in the same cycle.

With safety our main concern, CM Furnaces put all of our 50 years experience with hydrogen processing into the robust safety system on these furnaces. All aspects of hydrogen usage are monitored with immediate fail safes in place for any situation.



USED IN THE FOLLOWING PROCESSES:

- MIM Debind and Sintering
- P/M Delube and Sinter
- Metallizing
- Brazing
- Ceramic Co-Firing
- Annealing
- Hydrogen Atmosphere Firing and Sintering
- Laboratory Research



CM Model 1516 GSH2FL

FULL SYSTEM INCLUDES FURNACE WITH

- Total System Packaged in Common, Compact Frame
- Hanging Molybdenum Elements for Reducing and Reducing/Inert Atmospheres
- High Purity Alumina Fiber Insulation Package for Efficiency and Rapid Response
- Programmable Ramp and Soak Control - 16 segments per recipe, 4 recipes
- Atmosphere Mixing Panel
- Hydrogen Safety System and Burn Off
- Guaranteed Purges
- Independent Overtemperature Thermocouple and Instrument
- Type "B" Thermocouples
- Allen-Bradley PLC with Touch Screen
- Phase Angle-Fire SCR Power Controller
- Step-Down Transformer
- Water-Cooled Door Seal and Element Terminals
- CE Compliant Systems Available
- Atmosphere Humidifier (Bubbler) Available
- Dewpoint and Oxygen Monitors Available

SPECIFICATIONS FOR 1500 AND 1700 SERIES HYDROGEN ATMOSPHERE BATCH FURNACES

	1512GSH2FL	1516GSH2FL	1712GSH2FL	1716GSH2FL
Maximum Operating Temperature	1450°C / 2640°F	1450°C / 2640°F	1700°C / 3100°F	1700°C / 3100°F
Chamber Dimensions W x H x D	13" x 11" x 12"	16" x 16" x 16"	13" x 11" x 12"	16" x 16" x 16"
Door Opening W x H	10" x 10 3/4"	14" x 14 3/4"	10" x 10 3/4"	14" x 14 3/4"
Outside Dimensions W x H x D	67" x 81" x 65"	67" x 81" x 65"	67" x 81" x 65"	67" x 81" x 65"
Furnace Weight (Pounds)	1750	1900	1850	2000
Number of Elements	6	8	6	8
Power Requirement (MAX) KVA	21	30	21	30
Power Requirement (Nominal) KVA	8.5	12	9.5	14
Standard Voltage Requirement	480 / 3-Phase	480 / 3-Phase	480 / 3-Phase	480 / 3-Phase
Service Entrance Current Requirement	35	60	35	60