

Who we are

ADC Inc., located near Cornell University in Ithaca, New York, is a leading developer and supplier of complex scientific components and instruments for large government laboratories and corporations around the world. Founded as a privately held company in 1995, ADC has grown into one of world's leading technology companies and has enjoyed 18 straight years of business growth and profitability with more than 500 customers located in over 26 countries. ADC's vision is to be a global leader in the development and manufacturing of innovative products for scientific and research markets.

Contact Us

126 Ridge Road
Lansing, NY, 14882

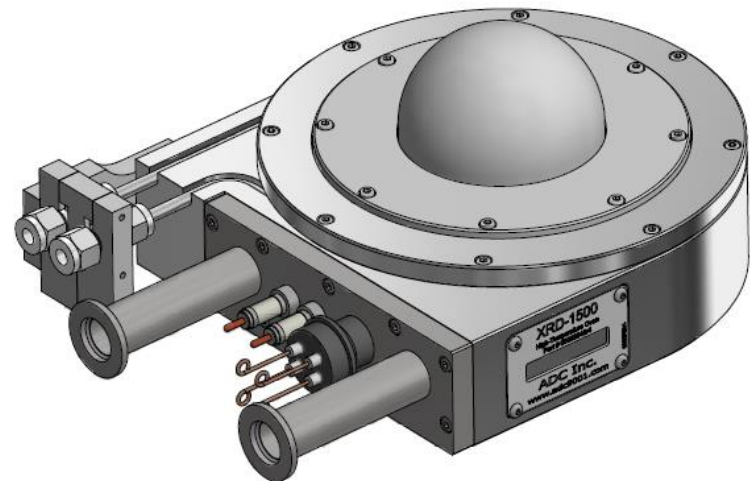
Phone: (607) 533-3531
Email: adc@adc9001.com
Web: www.adc9001.com



Advanced Design Consulting Inc.
126 Ridge Road
Lansing, NY, 14882



XRD-1500 High Temperature Oven



Innovation in Material Science...

New materials science calls for refined tools that enable X-ray research in well-defined environments and under controlled temperature conditions. The XRD-1500 High-Temperature Oven Chamber is a resourceful and dynamic sample stage for in-situ X-ray studies in different atmospheres up to 1500 °C. It guarantees superb temperature consistency in the sample as well as precise temperature measurement and control.

The XRD-1500 is an innovative heating High-Temperature Oven Chamber for in-situ diffraction studies on two, four, six or eight-circle goniometers up to 1500 °C. It fits all common goniometers. The XRD-1500 is exceptionally compact and lightweight. The heating plate design secures a high temperature regularity and respectable position stability at higher temperatures.

Applications

- | | |
|--|--------------------------------|
| Texture measurements | Stress analysis |
| Grazing incidence studies | Profile analysis |
| High resolution studies | Analysis of layered structures |
| Temperature-induced phase transition studies | |

Technical Specification

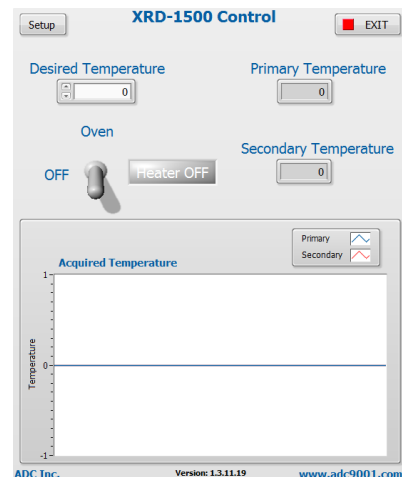
- | | |
|--------------------------|---|
| Temperature range: | 25 to 1500 °C |
| Atmospheres: | air, inert gas, vacuum (10^{-5} mbar) |
| Diameter/Height/Weight: | 199 mm / 99 mm / 9.7 Kg |
| Gases: | Air, O ₂ , N ₂ , He, other noncorrosive gases |
| Temperature measurement: | Thermocouples – Type C, K, R/S |
| Dome Material Options: | Beryllium, Quartz, Aluminum |

Features and benefits

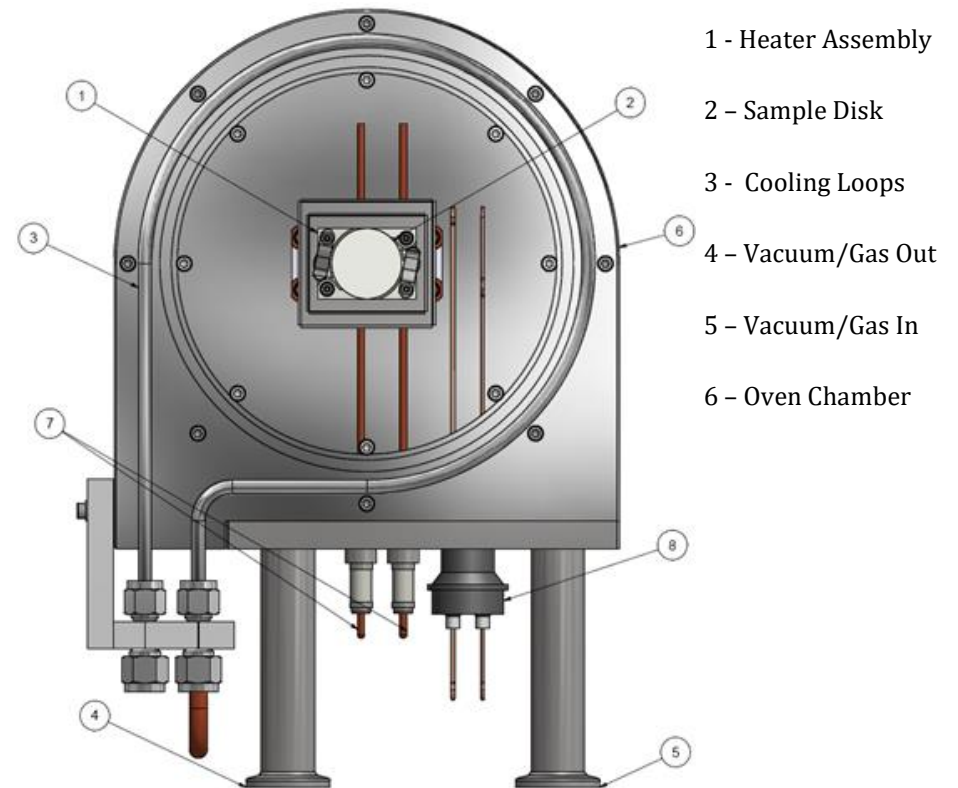
- Exceptional sample temperature regularity due to environmental heating
- Dependable measurement and control of the sample temperature
- Sample mounting for optimum data quality
- Easy interchange of samples
- Chemically passive sample carrier
- Easy installation in most standard powder diffractometers
- Durability
- Automatic heating one button operation
- Integrated work station
- Universal and application specific sample base
- Safety and ergonomically designed system and process chamber
- Compact and mobile

Heat Controller

- Fully build and tested controller is included with the purchase of a XRD-1500 oven
- Uses standard 100–250 V / 50-60 Hz power supply
- Graphical data display of real time during each run
- Easy to set for desired temperature
- Choice of using 1, 2 or both thermocouples
- Primary and secondary temperature indicators
- Visual readout on the control unit showing temperature, control power, and heating power



Oven Chamber



- The temperature sensor in XRD-1500 is located directly under the sample in a protective ceramic sample holder.
- The Heater assembly houses the high temperature heater capable of temperatures above 1500°C.

XRD-1500 Accessories

Recirculating Water Chiller

EQ-KJ5000 is a CE certified water-cooled chiller with built in refrigeration that provides a clean, environmentally friendly, and reliable source of temperature controlled liquid for closed loop systems.



Pumping Station

The pumping station consists of a vacuum pump, a vacuum gage, a venting valve, and a manual gate valve. The compact dimensions and high performance of the dry HiCube Eco pumping station is ideal for the XRD-1500.

