

RDWEBB COMPANY

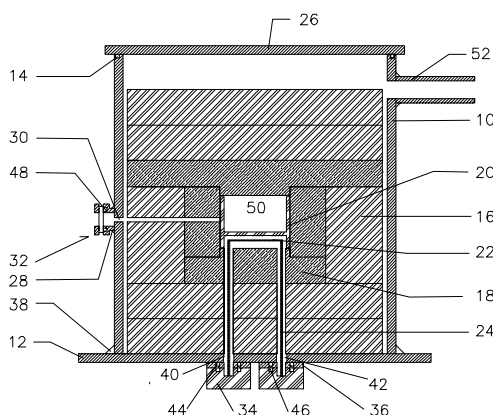
6 Huron Drive
Natick, MA 01760
USA

Air Cooled Vacuum Furnaces

Inexpensive Simple Reliable

The **RD-G** is a high temperature vacuum/inert gas furnace designed specifically for university, industrial, and government research laboratories. Both installation and operation are simple and inexpensive. No cooling water or drain is required and a standard wall outlet provides sufficient electrical power to operate the furnace at full temperature. There are no water cooling channels to clog, no chamber corrosion from galvanic action, and no water leaks degrading vacuum quality.

The table top furnace comes complete with all components required for operation as detailed in the specifications shown here. Since power consumption is less than 2 kW, a typical run can be made with a utility cost of less than one dollar. The **RD-G** is the ideal furnace for researchers who want to spend their time and money performing experiments rather than on buying and maintaining furnace equipment.



United States Patent
Patent Number: 5,987,053
Date of Patent: Nov. 16, 1999
Filed: Sept. 3, 1997

HIGH TEMPERATURE AIR COOLED
VACUUM FURNACE
Inventor: Richard Dyson Webb

	RD-G	TRADITIONAL
Cost	Low	High
Water Cooling	None	Yes
Flow Switches	None	Yes
Water Chiller	None	Yes
Plumbing	None	Extensive
Power	Wall Outlet	Dedicated
Installation	1 Day	Many Days
Temp Sensor	Pyro & TC	One Sensor
Instrumentation	Included	Optional
Power Usage	2 kW	20 kW
Add Ports	Easy	Difficult
Spare Parts	Inexpensive	Expensive
Operation	User Friendly	Complicated
Training Required	Minimal	Extensive

**RED
DEVIL
G**

2200°C

10⁻⁶ mbar

Phone: 401-267-8802
Fax: 401-262-4935
rdwebb@alum.mit.edu
www.rdwebb.com

THE WORLDWIDE STANDARD FOR HIGH TEMPERATURE MATERIALS RESEARCH LABORATORIES



	RD-G
Maximum Temperature	2200°C argon 2000°C vacuum, N2
Ultimate Vacuum with Turbo	10 ⁻⁶ mbar
Min. Heatup Time	2 hrs
Min. Cooldown Time	4 hrs
Opening Temperature	400°C
Work Zone	90mm dia X 50mm tall
Insulation	graphite
Heating Element	carbon-carbon
Mechanical Vacuum Pump	3 l/sec two stage
Optional High Vacuum Pump	240 l/sec turbo pump
Vacuum Valve	manual
Gas Inlet & Outlet Valves	manual
Overpressure Relief valve	+ 40 kPa
Flowmeter	20 SCFH
Bourdon Tube Gauge	+/- 100kPa
Vacuum Gauge	10 ⁻⁷ mbar to atm
Pyrometer	800°C to 2300°C
Thermocouple	0 to 1500°C
Programmable Controller	20 program storage
TC to pyro control	bumpless transfer
Communications	RS 232
Line Voltage	120 v or 240 v
Frequency	50/60 hz
Furnace Power	2 KW
Mech Pump Power	500 W
Furnace WxDxH 75kg	950mmX500mmX1100mm
Controls WDXH 50kg	500mmX400mmX400mm
Mechanical Pump 25 kg	150mmX550mmX250mm

