

GOOD REASONS FOR  
**PHOENIX II**  
GAS FUSION MACHINE

# A NEW ERA IN GAS FUSION TECHNOLOGY

The oxygen enriched gas fusion machine has always been the machine of choice for the best analytical laboratories. The Phoenix II uses the latest IR and control technology to significantly extend the capability of the technology. The improvements in control and consistency will enhance result accuracy and repeatability, while the absolute measurement of temperature will increase the existing broad range of uses. In the hands of an experienced user the possibilities are endless.

## Programmable Fusion Parameters

- Preheating temperature and duration
- Main heating temperature and duration
- Swirling duration, speed and frequency
- Pouring angle and speed
- Cooling (2 stages)
- "Fusion complete" alarm
- XRF or ICP Mode

## Innovative Fusion Technology

The reputation of the Phoenix has been established in nearly 1000 installations worldwide in the last 20 years. In that time it has shown itself to be the reliable and flexible workhorse of the fusion laboratory; beloved by chemists and laboratory managers alike.

The Phoenix II takes that base of reliability and adds a number of class leading features that makes it the most advanced fusion machine on the market.

## KEY FEATURES



### ABCS: Adaptive Burner Control System

The revolutionary adaptive burner control system allows the user to set the burner temperature electronically at the user interface. The ABCS then automatically modifies flow parameters to ensure this temperature is achieved and maintained throughout the fusion cycle.



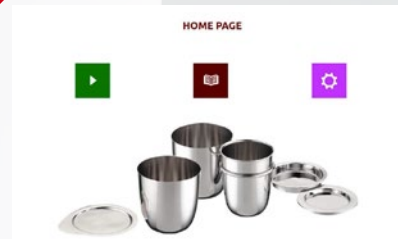
### Safe Operation

The Phoenix II is the safest gas machine on the market. The gas burners and all high temperature items are enclosed behind a glass door. All external surfaces are safe to touch and are considerably cooler than comparable machines. The gas shut-off and electrical safety systems also meet the highest possible standards.



### Established Reliability

The core features of this machine are the same as the original phoenix or have been re-designed based on the lessons learned from millions of hours of operation. The machine has been extensively validated and undergone rigorous customer testing.



### Advanced User Interface

The Phoenix II user interface has the look and feel of a modern laboratory instrument. The simple touch screen user interface is easy to use and allows the simple programming of recipes, visual tracking of the status of the machine and easy access to higher level functionality and service.

# TECHNICAL SPECIFICATIONS XRF, ICP AND ALKALI FUSIONS

Technical specification	3 or 6 place
Construction	External aluminium case
Lid	Cool touch glass viewing window
Size (HxWxD)	600 x 900 x 650mm H 900mm with lid open
Weight	110kg
User interface	Touch screen user interface
Programmable recipes	Up to 20 user-defined recipes with naming flexibility
Maximum temperature	1150°C (1600°C flame temperature)
Burner	PHOENIX GAS/O2 24 point head
Temperature measurement	Infrared temperature control sensors
Power requirement	50/60Hz, 1-phase, 110/220Volt
Maximum energy consumption	5 MJ/HR per burner
Maximum gas flow* 3 place	Full machine main + mould: LPG 4.73 NI/min; Oxygen 5.4NI/min
Maximum gas flow* 6 place	Full machine main + mould: LPG 9.46NI/min; Oxygen 10.8NI/min
Cradle / mould holders	Inconel or palladium
Crucible	30–40g
Mould	32/40mm, 40–100g
Throughput	Up to 30 beads per hour (with the 6 station)
Safety	Emergency stop button Cold-to-cold operation
Noise	<70db

\* regarding gas consumption

We reserve the right to change the design or specification of our products without notice. Some of the information contained in this brochure is general in nature and customers should check that it is applicable to their individual circumstances.

# ONGOING SUPPORT

The purchase of any XRF Scientific fusion machine, gas or electric, is the beginning of an ongoing relationship where we and our distributors provide you with access to a broad range of support and technical services to meet your fusion needs.

Whether you are new to fusion or a seasoned professional, we have a range of services to increase the accuracy and throughput of your application.

- Advice on appropriate selection of flux and standards
- Organization of platinum remake processes
- Technical advice on difficult fusion issues
- On-site support and preventative maintenance programs

**Please see our website for more details of our representatives in your area:**  
[www.xrfscientific.com](http://www.xrfscientific.com)

# THE COMPLETE SOLUTION



## Flux

We are the world's pre-eminent manufacturer of flux. We can provide standard borate fluxes or custom solutions to meet your specific needs.



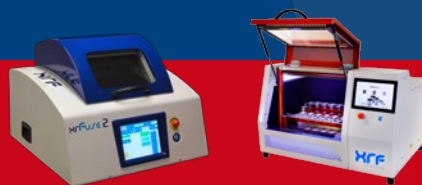
## Labware

We manufacture labware for all our fusion instruments in house. We can also provide a remake service for the transfer from other labware designs.



## Weighing

The XrWeigh allows the rapid and accurate measurement of flux. Increasing laboratory throughput and process repeatability.



**SALES AUSTRALIA**

**XRF Technology (WA) Pty Ltd**

67 Boulder Rd. Malaga

Western Australia, 6090 Australia

P: +61 8 6240 3000

F: +61 8 6240 3099

sales@xrfscientific.com

**SALES EUROPE**

**XRF Scientific Europe SPRL**

Avenue de Roodebeek 282

1030 Schaerbeek, Belgium

P: +32 (0) 2 762 77 12

F: +32 (0) 2 762 55 07

E: info.eu@xrfscientific.com

**XRF Scientific Europe GmbH**

Seligenstädter Str. 100

63791 Karlstein, Germany

P: +49 (0) 6188 954 2761

F: +49 (0) 6188 954 2799

E: stefan.lang@xrfscientific.com



**CORPORATE OFFICE**

**XRF Scientific LTD**

86 Guthrie Street

Osborne Park WA 6017, Australia

P: +61 (0) 8 9244 0600

F: +61 (0) 8 9244 9611

E: info@xrfscientific.com

[www.xrfscientific.com](http://www.xrfscientific.com)