



GOOD REASONS FOR

# PHOENIX VFD SERIES GAS FUSION MACHINE

# BROADEST RANGE OF SAMPLES

When you are dealing with a difficult application you need the flexibility to control process parameters.

- The Phoenix allows you to add ammonium iodide at just the right time in the process in a repeatable and controllable manner. (Alumina)
- It has the ability to vary the cooling rate to find that delicate balance between cracking and crystallisation. (Copper)
- It ensures all preoxidation has occurred with a two stage heating process.

In addition to the above, there are also a range of custom modifications that can be made for your individual requirements.

## Established Technology

Phoenix gas fusion machines have been at the forefront of XRF sample preparation for over twenty years.

In that time our products have built a reputation for fusing the most difficult samples in a repeatable and reliable manner.

The Phoenix machine is in operation all over the world from Mongolia to Saudi Arabia and beyond.

# KEY FEATURES



## Visibility

You can see all stages of the fusion process unfold in the crucible, this is crucial when trying to understand the complexities of each reaction. **With the P2 VFD you can see through the glass.**



## Safe Operation

Cold-to-cold, fully automated – requiring no manual intervention. Sophisticated electrical and gas safety systems make the Phoenix one of the safest machines on the market.



### **Flexible Programming**

Up to 7 user-customizable fusion programs can be stored in the microprocessor memory, each involving up to 4 different steps; Pre-heating (oxidation), fusion, fusion with swirling, casting and cooling.

### **Reliability**

Our machines are built to last, we have installations where the same machine has run continuously for 15 years.

# TECHNICAL SPECIFICATIONS XRF, ICP AND ALKALI FUSIONS

Technical specification	Phoenix M VFD	Phoenix P2 VFD
Construction	Single external aluminium case	
Door	Cool touch glass viewing window	
Size (HxWxD)	310 x 880 x 630mm	
Weight	90kg	110kg
Maximum temperature	1250°C (1600°C flame temperature)	
Number of beads produced simultaneously	3–6	3–6
Fully automatic	✓	✓
VFD blue screen with touch buttons	✓	✓
Recipe database	✓	✓
Pre-melting	✓	✓
Variable speed swirling and frequency	✓	✓
Separate mould preheating	✓	✓
Adjustable speed pouring and angle	✓	✓
Two stage fully regulated cooling	✓	✓
Separate oxygen injector	optional	–
Ammonium iodide injector	optional	–
ICP fusion mode	optional	optional
Crucible/ mould holders	Inconel/ autolocking crucible holders	
Crucible	30–40g	
Mould	32/40mm, 40–100g	
Safety	Emergency stop button Active burner monitoring / Automatic gas cut-off safety system Cold-to-cold operation	

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

**Please see our website for 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.



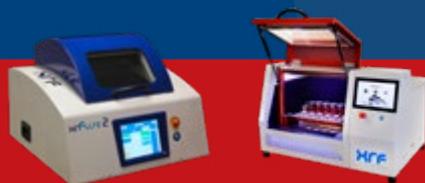
## Labware

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 (VIC) Pty Ltd**  
24/200 Canterbury Road  
Bayswater Victoria, 3153 Australia  
P: +61(0) 3 9720 6339  
F: +61 (0) 3 9720 6412  
E: sales@xrfscientific.com

**SALES EUROPE**

**XRF Scientific Europe SPRL**  
XRFS Training Center  
103 rue de la Consolation  
1030 Schaerbeek, Belgium  
P: +32 (0) 2 762 77 12  
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)

**SALES NORTH AMERICA AND LATIN AMERICA**

**XRF Scientific Americas Inc**  
620 Cathcart Suite 259  
Montreal, QC H3B 1M1, Canada  
Canada & USA: +1 (866) 834 0179  
P: +1 (514) 871 4997  
F: +1 (514) 908 1386  
E: info.americas@xrfscientific.com