

GOOD REASONS FOR

XrFuse 1

ELECTRIC FUSION MACHINE

## OVERVIEW

The XrFuse 1 is an instrument that allows for the seamless sample preparation of glass beads for XRF and ICP solutions. The machine expands our range of industry leading electric fusion machines that are already available in two and six positions. The XrFuse 1 takes all of the robust and reliable features from the XrFuse 2 and 6, into a compact machine, ideal for lower throughput users or specialised applications. Through our proprietary quick change-out mechanism, users can alternate between XRF glass bead and ICP solutions preparations in a matter of seconds.

The unit is cold-to-cold, fully CE certified, extremely safe and easy to use.

### Programmable Fusion Parameters

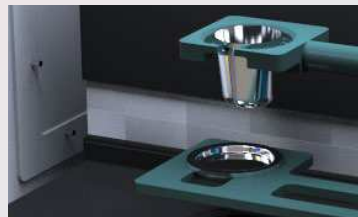
- Preheating temperature and duration
- Main heating temperature and duration
- Rocking duration, speed and amplitude
- Stand duration
- Pouring angle
- Cooling (2 stages)
- Pause at any time
- "Fusion complete" alarm
- XRF or ICP Mode

### Established Technology

The XrFuse range of automated electric fusion machines has been developed based on more than 25 years of experience of fusion technology and applications.

Designed with the latest thermal imaging technology, consumer tested in the biggest XRF laboratories in the world, XrFuse is designed with the customer in mind.

## KEY FEATURES



### Zero Contamination

The ceramic cradle and holders ensure that the environment for creating beads has zero contamination from these sources.

### Safe Operation

The external surfaces on the machine have been modelled and developed with the latest IR technology. This ensures all external surfaces are safe to touch. The machine is CE certified and independently tested.

**XrFuse**  
electric fusion



# TECHNICAL SPECIFICATIONS XRF, ICP AND ALKALI FUSIONS

Technical specification	1 place
Construction	Single external aluminium case
Door	Cool touch glass viewing window Safety-interlocked during fusion and standby mode
Size (HxWxD)	520x550x700mm
Weight	40kg
User interface	Touch screen user interface password protected engineer levels
Programmable recipes	Up to 24 user-defined recipes with naming flexibility
Insulation	Ceramic fibre board
Maximum temperature	1200°C, real time temperature reading
Heating elements	Silicon carbide
Thermocouples	Type R
Over temperature protection	2nd thermocouple and insulation case thermostat
Power requirement	50/60Hz, 1-phase, 208–220 Volt
Power consumption	3kW
Cradle / mould holders	Hi-purity ceramic, contamination proof
Crucible	30–40g
Mould	32/40mm, 40–60g
Throughput	Up to 6 samples per hour
Safety	Emergency stop button Cold-to-cold operation Maximum external temperature of 50°C CE certified independently tested by Pilz Cat 4 rated dual safety circuit
Noise	<70db

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 an XrFuse is the beginning of an ongoing relationship where we provide a range of services to our customers.

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)

# A DIVERSE RANGE OF APPLICATIONS

The XrFuse 1 user interface is designed in such a way that it can meet the need for consistency of a production laboratory, while at the same time giving the analytical chemist the flexibility to modify parameters as required. Cold-to-cold operation means it is an ideal solution

where the health and safety requirements of a production environment need to be strictly adhered to. If on the other hand, method development is the critical requirement, the instrument can be configured in a custom manner to meet specific experimental needs.

# 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

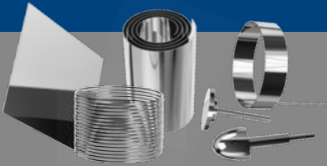
We manufacture labware for all our fusion instruments in house. We can also provide a remake service for the transfer from other labware designs.



## Weighing

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





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