



Product Catalogue

SAMPLE PREPARATION

www.xrfscientific.com

JANUARY 2024

About us

XRF Scientific—Experts for High End Sample Preparation

XRF Scientific Limited is an Australian listed company (ASX: XRF) based in Perth, Western Australia.

XRF manufactures equipment and chemicals, which are distributed to production mines, material companies and commercial analytical laboratories, in Australia and overseas, and used in the preparation of samples for analysis.

XRF has manufacturing, sales and support facilities located in Perth, Melbourne, Europe and Canada, plus a global network of distributors. The Company has representation in the United States, South America, Africa, the Middle East and Asia.

XRF's technology is used to measure the composition and purity of materials and is mainly applied in industrial quality control and in process control for manufacturing processes in industries such as metals and mining, construction materials, chemicals and petrochemicals.

XRF's products help customers

to improve product quality and performance, increase productivity and yield and reduce downtime and waste. Its businesses have established positions in their specialised markets.



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First commercial XRF flux
production by founding Director
David Brown at Sigma Flux



1972

1991



First "MFM" automated
gas fusion machine sold

First Phoenix automated
gas fusion machine sold



1994

2000



Commencement
of APS Labware

First Modutemp electrical
fusion machine sold



2001

2006



IPO and listing of XRF
Scientific as a public
company on the Australian
Securities Exchange

First international
office in Canada



2013

2013



Launch of first fully
automated electric fusion
machine xrFuse

First office in Europe via
acquisition of Socachim
SPRL, Belgium



2015

2016



Opening of a new office in
Germany and a precious
metals manufacturing facility
in Melbourne, Australia

Launch of next
generation Phoenix 2
gas fusion machine



2016

Content



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Service and support

Applications and service support; workshops and training; Installation, training & validation; preventive maintenance & repair.



9

Crushing, Grinding, Dividing

Fine jaws crushers (ORBIS); rotating sample dividers; bench-top, standard & large scale ring mills; but also combination systems allowing multiple sample steps to be combined into one process.



18

Fusion

xrFuse1,2&6 electric fusion instrument; Phoenix gas powered machines; manual fusion furnaces, automatic flux weighing, borate fluxes and additives (NH₄I tablets, LiBr sol., oxidising agents, . .); platinum labware, fusion accessoires.



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Platinum labware

Platinum and Platinum Alloy products. Crucibles, Dishes, Beakers, Fusion labware (Perl'X, Eagon2, K1 & K2, X-300, Vulcan, TheOx.), Boats, tongs, spatulas, electrodes and specialised items. Platinum care products (polishing system, reshapers, .).



58

Pressing

Manual & power presses; evacuable pellet dies; pressing accessoires; protective precut films; binding & grinding additives (Licowax®, cellulose, MIX55, .); aluminium cups.



67

Liquid analysis

Liquid sample cells/cups; x-ray films/foils (Mylar®, Polypropylene, Kapton®, Teflon®, Polyester); Pre-assembled sample cells/cups.



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Reference Material & XRF Drift Monitor

Set of calibration standards, XRF Drift monitors & customized fused glass disks. Method development for XRF & ICP analysis.

This comprehensive XRF Scientific catalogue indicates our full range of products. Not all products are available in all regions. Please do not hesitate to contact our local office for further information or referrals.

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.



Service and
Support

Applications and service Support

Our applications Scientists set up customized methods and works with you using your materials to establish the best approach to sample preparation.

- Development of analytical methods
- Improvement of your sample preparation performance with new chemicals or sample preparation equipment.
- On-site training
- On-site calibration assistance
- Seminars and workshops

Methods Developments for Sample Preparation

From sampling up to beads and pellets preparation (on site and/or in our application lab).

Selection of the most appropriate tools and devices, optimization of the operating conditions with selection of the chemicals and additives,

A large range of applications available: Alumina; Catalyser; Cement, raw materials and clinker; Calcite and calcium carbonate; Ferro Alloy; Glass and silica; Ores; Polymers; Refractory materials,

Support for Calibration of XRF Spectrometer

On site with validation procedure including stability test of the spectrometer, repeatability test of the sample preparation method, calibration curve, daily control with reference material and Statistical Quality Control Charts and Inter-Laboratory Alignment Check and Alignment Procedure (if more than 1 lab or instrument is implied).

Fused Calibration Beads

Single and multi-element standards of fused borate beads, customised for your calibration.

Manufactured from Certified Reference Materials (CRM) or customised for your analytical requirements.

The Fused Calibration Beads are 40mm or 32mm diameter. Thickness of approximately 4mm and perfectly flat.

Workshops & Training

On Site and/or in our Applications Lab:

Sample Preparation for XRF (Starter):

Sample preparation lecture and demonstration on the use of grinders, mixers, presses and fusion machines. In this workshop we introduce practical methods, with sufficient theory of the 'how's' and 'why's' of sample preparation for XRF analysis.

Sample Preparation by Fusion (Expert):

Revitalise your sample preparation with our workshop. Participants may bring their own samples or they can use supplied samples, such as iron ore, alumina, cement, ferroalloy etc.

Care & Maintenance of Platinum Labware:

The workshop will cover: the raw materials and alloys used and why, causes of failure in the laboratory, general care, cleaning and handling, reshaping and polishing techniques – hands on demonstrations.

Machine maintenance training or specific topics or applications on request





We are
committed
to providing you

...with the
best available
support.

XRF Scientific is committed
to assisting you in achieving
excellent analytical results and,
like you, we recognise, that
excellent results start with an
uncompromising approach to
sample preparation.

Installation, training & validation

When you buy a machine/instrument from XRF Scientific we take charge of the full installation to ensure that your machine is perfectly set up and configured to your user-specific applications.

During installation we also take the time to explain the new operator(s) all the relevant aspects of instrument operation, safety procedures, and also how to maintain operating conditions for accurate results and trouble-free performance.

Finally, we finish the installation by the validation of method(s) using your samples, and complete by carrying out repeatability tests.

Preventive maintenance & repair

XRF Scientific offers you several maintenance options to ensure your instrument/machine is in prime operating condition.

Contract type 1: Scheduled Preventive Maintenance + hotline + email assistance

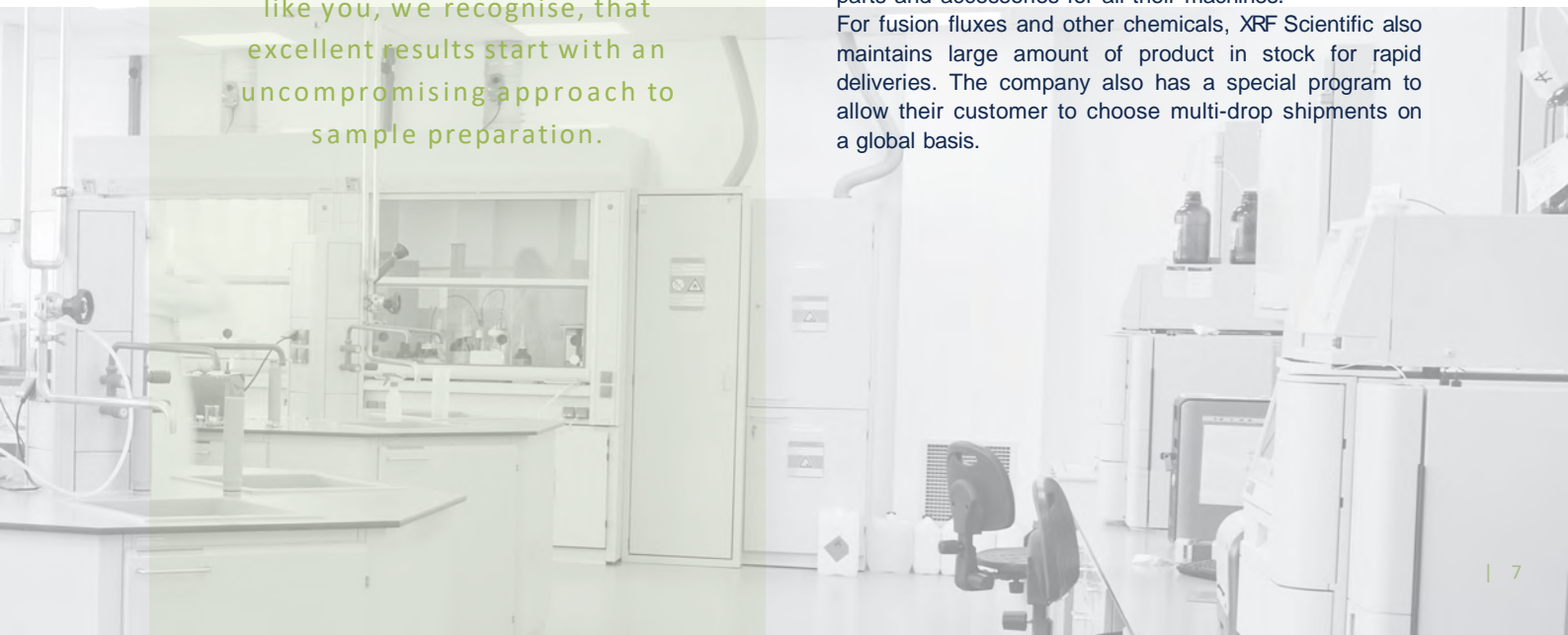
Contract type 2: Type 1 + Emergency visit

Contract type 3: Type 2 + Unlimited Emergency visit + Loan of a replacement machine in case of long period of break down.

Spares and consumable

XRF Scientific keeps in stocks an extensive range of spare parts and accessories for all their machines.









For fusion fluxes and other chemicals, XRF Scientific also maintains large amount of product in stock for rapid deliveries. The company also has a special program to allow their customer to choose multi-drop shipments on a global basis.



Get started with one of our Kits or complete applications packages

XRF Scientific provides a number of sample preparation and applications kits for XRF & ICP spectroscopy. These customised kits are composed of different combinations of sample preparation equipment, accessories, consumables, sets of calibration standards and drift monitors, to equip your laboratory with all the necessary tools for specific or varied sample analysis.

Fusion Basic Starter Kit

			
xrFuse1	1 x crucible (DC1) 1 x mould (32 or 40mm)	Flux and additives starter kit	Application Notes
			
Phoenix GO 1000	1 x crucible (AC2) 1 x mould (32 or 40mm)	Flux and additives starter kit	Application Notes


Pelletising Basic Starter Kit

			
xrPress	Evacuatable Pellet Die Complete	Binding additives, Aluminium Cups	Application Notes

Pulveriser + Fusion Basic Starter Kit

		
Bench Top Ring Mill	Grinding head in Chrome Steel or Tungsten Carbide	Fusion Basic Starter Kit

Application Packages

	<ul style="list-style-type: none"> → Starter Kit Basic + set of calibration beads/pellets + drift correction monitors → Starter Kit Basic + set of calibration beads/pellets + drift correction monitors + installation/validation onsite
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Hydraulic Crusher



Jaw Crushers



Jaw crusher

Jaw crusher and rotating sample divider combo

Vibratory Disc Mill



Laboratory ring/disc Mills

Range of heads

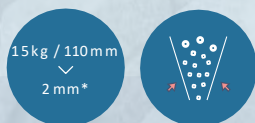
Sample Divider



Crushing & Grinding the Sample

LABORATORY CRUSHERS

OM50/OM100 - DOUBLE ACTING FINE JAW CRUSHERS



Our Orbis range consists of dual action fine crushers, designed by experts with decades of experience in sample preparation.

The efficiency of the dual action jaws allows for samples to be reduced by up to 55 times their original size. With large mining customers in mind, our flagship OM100 was designed to take drill core samples down to 2 mm in a single pass.

- OM50 & OM50 WM Initial size: < 70 mm
- OM100 Initial size: < 110 mm
- Final fineness: < 2 mm or even finer

Key features

- Large dual action jaws for faster processing times
- Jaws can be easily adjusted and can be reversed for long life
- Front loading hopper with large capacity
- Large motor capacity for added power and torque
- Easy to clean and maintain
- Enhanced safety features
- Customised sample collection such as jars for Photon Assay

Double-action Jaw Crusher

Most jaw crushers are designed so that a single moving plate crushes samples against a fixed plate. Our dual moving plates dramatically increases crushing efficiency and yields.

Technical specifications

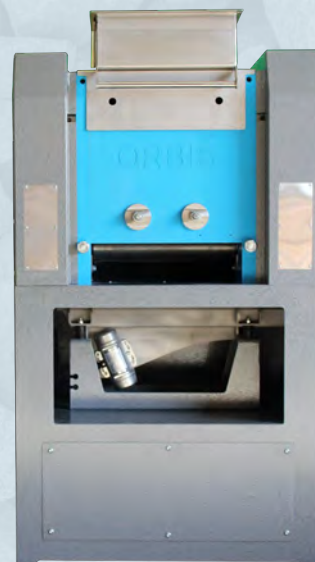
- Motor power (3 phase): 5.5kW OM50; 7.5kW OM50 WM & OM100
- Jaw width: 300mm OM50; 400mm OM50 WM & OM100
- Wear plates: High or Low Chrome
- Hopper capacity: 10kg OM50; 15kg OM50 WM & OM100
- Dust extraction: Superior dust removal (2 ports) and containment
- Dimensions:
 - OM50: 1300mm(D) x 730mm(W) x 1200mm(H) - Weight: 750kg
 - OM50 WM: 1300mm(D) x 830mm(W) x 1200mm(H) - Weight: 850kg
 - OM100: 1300mm(D) x 830mm(W) x 1200mm(H) - Weight: 950kg

Ordering information

- OM50: Orbis Laboratory Jaw Crusher 5.5kw; 10kg; 70mm>2mm
- OM50 WM: Orbis Laboratory Jaw Crusher 7.5kw; 15kg; 70mm>2mm
- OM100: Orbis Laboratory Jaw Crusher 7.5kw; 15kg; 110mm>2mm

Options available

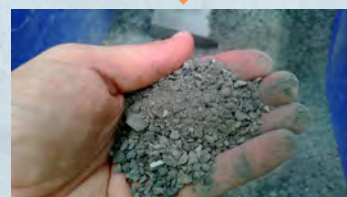
- Raiser Platform, Mechanical bin lifter, RSD, Smart RSD and Smart LSD



Robust and Safe Design

Our crushers were designed to withstand harsh mining conditions, processing high numbers of samples around the clock.

Maintenance is quick and easy by design, to ensure maximum uptime for laboratories of all sizes. Ergonomics can be improved through the addition of a sample lifting accessory.



* depending of the material

LABORATORY CRUSHERS

OM50/OM100 RSD - FINE JAW CRUSHER WITH RSD SAMPLE DIVIDER



The Orbis Crushers and Rotating Sample Dividers (RSD) have been designed to be used together for a one step crushing and splitting process. The sample is loaded into the Orbis Crushers then in one operation, it is crushed, conveyed to the RSD and then split into preset proportions of your choice.

Our Orbis range consists of dual action fine crushers, designed by experts with decades of experience in sample preparation.

The efficiency of the dual action jaws allows for samples to be reduced by up to 55 times their original size.

- OM50 & OM50 WM Initial size: < 70 mm
- OM100 Initial size: < 110 mm
- Final fineness: < 2 mm or even finer

Key features

- Two split options available
- Easy adjustment of the variable split
- Crushing and splitting in one step
- Large dual action jaws for faster processing times
- Front loading hopper with large capacity
- Large motor capacity for added power and torque
- Easy to clean and maintain

Technical specifications

- Motor power (3 phase): 5.5kW OM50; 7.5kW OM50 WM & OM100
- Jaw width: 300mm OM50; 400mm OM50 WM & OM100
- Wear plates: High or Low Chrome
- Hopper capacity: 10kg OM50; 15kg OM50 WM & OM100
- Dust extraction: Superior dust removal (2 ports) and containment

Ordering information

- OM50 RSD: Jaw Crusher with RSD (2 split) ; 10kg; 70mm>2mm
- OM50 WM RSD: Jaw Crusher with RSD (2 split) ; 15kg; 70mm>2mm
- OM100 RSD: Jaw Crusher with RSD (2 split) ; 15kg; 110mm>2mm



Automated Splitting

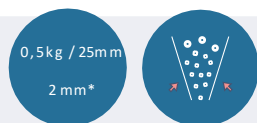
Orbis crushers feature both Rotary Sample Dividers (RSD) and Linear Sample Dividers (LSD) options.

Splitting can be automated with the addition of a PLC controlled smart unit. Samples are weighed, which then allows the system to perform an automated split. Smart systems can be setup in dual configurations, with one central unit controlling two crusher/splitting units.

* depending of the material

LABORATORY CRUSHERS

MINI CRUSHER - MINI JAW CRUSHER



The Mini CRUSHER is a portable, primary sample preparation system designed for single pass crushing of material up to 25mm, down to 1-2mm.

Able to be set up in minutes, almost anywhere, the system is safe and easy to use, providing the productivity you need for onsite sample preparation in your drilling and sampling program.

The Mini CRUSHER is suitable for a broad range of applications and materials including rock chips, coarse material drilling samples such as RC and blasthole, to metallurgical and environmental samples.

The Mini CRUSHER is powered using a 24V universal power supply, suitable for use in all countries, and includes industry standard safety features such electrical interlocks and E-Stop, to make it a safe, easy to use experience.

Crushing at fast speeds, typical processing of 1kg of RC drilling material is complete in 1.5 minutes. Samples then have direct input into the Mini MILL or are ideal for bulk spectral analytical techniques.

Key features

- Fast crushing, up to 0.5 kg/minute.
- Quick jaw adjustment
- Safety switch stops operation on cover opening
- Easy to clean and maintain

Technical specifications

- Initial size: < 25 mm
- Final fineness: < 2m or even finer
- Electrical: 110 or 240 VAC 50/60 Hz, 500 W
- Jaw width: 50mm
- Wear plates: Tungsten Carbide
- Dust extraction: 30mm Dust Outlet
- Dimensions: 408mm(D) x 424mm(W) x 500mm(H) - Weight: 26.8kg

Ordering information

- MC10: Mini Crusher. Includes: Tungsten Carbide Jaws, 240V/12V Adapter, Peli-case.

Shipping dimensions

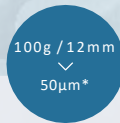
- Dimensions Case: 650mm(D) x 500mm(W) x 380mm(H)
- Weight: 34kg



* depending of the material

LABORATORY RING/DISC MILLS

OM222 - STANDARD RING MILL



The Orbis OM222 is a shaft driven pulveriser designed to process samples from as small as 200g to as large as 1500g down to -75 micron. The Orbis OM222 has a metal cabinet with a reinforced subframe, a powerful 2.2kw motor and enhanced safety features. The cabinet has removable panels on all sides to allow for superior access and ease of maintenance. The pneumatic clamping mechanism is available in a goose neck or bridge style to suit your individual needs.

- Initial size: < 12 mm
- Final fineness: < 75 µm or even finer

Head Options: A wide range of sample containers (heads) are available for samples from 1 to 1500 grams. These are made from carbon steel, chrome steel and tungsten carbide.

Key features

- Shaft driven for increased motor life
- Hard wearing metal cabinet
- Superior access for maintenance
- Lid controlled by gas struts for ease of lifting
- Pneumatic safety locking mechanism
- Single dust extraction point
- Range of bowls: 200g - 1500g

Technical specifications

- Motor power (1 or 3 phase): 2.2 kW.
- Dimensions: 700mm(D) x 1000mm(W) x 1300mm(H)
- Weight: 400kg

Ordering information

- OM222: Standard ring mill, Pneumatic clamp

Options available

- Ergonomic Pneumatic Lifting device

Shipping dimensions

- Dimensions: 850mm(D) x 1100mm(W) x 1450mm(H)
- Weight: 420kg

* depending of the material



LABORATORY RING/DISC MILLS

MINI MILL - MINI DISCS MILL



The Mini MILL is a portable sample preparation solution designed to reduce material from 3-4mm to ~50 µm, producing an optimal sample for further analysis.

Able to be set up in minutes, almost anywhere, the system is safe and easy to use, providing the productivity you need for onsite sample preparation in your drilling and sampling program.

The Mini MILL is powered using a 24V universal power supply, suitable for use in all countries.

The Mini MILL is designed to reduce <4mm material to a fine powder in a single pass. A typical 100 g sample will mill to <150 microns in approximately 1.5 minutes.

The Mini MILL is supplied with batch tray for samples up to ~100g and a flow-through chute for larger samples which allows the products to be collected using another container, adaptable to your own workflow.

The Mini MILL utilizes custom, hard-wearing tungsten carbide plates to minimize contamination and prolong plate life.

Key features

- Fast milling, up to 50g/minute.
- Safety switch stops operation on cover opening
- Easy to clean and maintain

Technical specifications

- Initial size: < 4 mm
- Final fineness: 50 – 200µm
- Electrical: 110 or 240 VAC 50/60 Hz, 500 W
- Discs: Tungsten Carbide
- Dimensions: 384mm(D) x 384mm(W) x 340mm(H) - Weight: 22.5kg

Ordering information

- MM10: Mini Mill. Includes: Tungsten Carbide Discs 240V/24V Adapter, Peli-case.

Shipping dimensions

- Dimensions Case: 650mm(D) x 500mm(W) x 380mm(H)
- Weight: 34kg



* depending of the material

LABORATORY RING/DISC MILLS

RANGE OF HEADS AND COMPOSITION OF MATERIALS

We offer a wide range of Heads to be used on the Standard Ring Mill OM222. The range of Heads includes: Carbon Steel, Chrome Steel and Tungsten Carbide. The choice of Head type is determined by the size and type of sample being pulverised.

Our grinding heads are not simply coated with Tungsten Carbide, Chrome and Carbon steel but are completely made in these materials. This way of manufacturing provides an improved impact performance and higher lifetime.



Specifications for CARBON STEEL Heads

Machine	Complete head	Nominal Volume	Rec Sample Weight
OM222	CARB-OM125	125ml	Min 20g / Max 100g
OM222	CARB-OM300	300ml	Min 20g / Max 250g
OM222	CARB-OM400	400ml	Min 20g / Max 350g
OM222	CARB-OM800	800ml	Min 100g / Max 700g
OM222	CARB-OM1000	1000ml	Min 200g / Max 800g
OM222	CARB-OM2000	2000ml	Min 400g / Max 1500g

Specifications for CHROME STEEL Heads

Machine	Complete head	Nominal Volume	Rec Sample Weight
OM222	CHRO-OM125	125ml	Min 20g / Max 100g
OM222	CHRO-OM300	300ml	Min 20g / Max 250g
OM222	CHRO-OM400	400ml	Min 20g / Max 350g
OM222	CHRO-OM800	800ml	Min 100g / Max 700g
OM222	CHRO-OM1000	1000ml	Min 200g / Max 800g
OM222	CHRO-OM2000	2000ml	Min 400g / Max 1500g

Specifications for TUNGSTEN CARBIDE Heads

Machine	Complete head	Nominal Volume	Rec Sample Weight
OM222	TC-OM125	125ml	Min 20g / Max 100g
OM222	TC-OM300	300ml	Min 20g / Max 250g

LABORATORY RING/DISC MILLS



Smart crusher with RSD systems setup in dual configurations, with one central unit controlling two crusher/splitting units.

RANGE OF HEADS AND COMPOSITION OF MATERIALS

Composition of Materials (1/2)

All figures are presented in ppm, except where noted and are typical to maximum values.

Symbol	Element	Agate	Carbon Steel	Chrome Steel	Tungsten Carbide	Zirconia
Ag	Silver		0.3			<0.2
Al	Aluminium	Trace	300	300	30	70
As	Arsenic			<100	<10	<1
Au	Gold		<0.2			0.04
B	Boron				<10	
Ba	Barium				<10	160
Br	Bromine					1
C	Carbon		0.48%	2%	5.50%	
Ca	Calcium		40		50	150
Cl	Chlorine					<10
Co	Cobalt		30	200	10%	3
Cr	Chromium		1200	12%	50	<10
Cs	Cesium					<1
Cu	Copper		250	200	30	<10
Fe	Iron	Trace	98%	86%	100	70
Ga	Gallium					1
Hf	Hafnium					1.30%

LABORATORY RING/DISC MILLS

RANGE OF HEADS AND COMPOSITION OF MATERIALS

Symbol	Element	Agate	Carbon Steel	Chrome Steel	Tungsten Carbide	Zirconia
In	Indium					0.01
K	Potassium	Trace			30	<20
La	Lanthanum					7
Mg	Magnesium					2%
Mn	Manganese	Trace	7000	3500	50	3
Mo	Molybdenum		100	100	50	<10
N	Nitrogen				100	40
Na	Sodium	Trace		<500	30	
Nb	Niobium		2	50	100	<10
Ni	Nickel		200	800	50	
P	Phosphorus		<100	140	30	
Pb	Lead		5	<100	30	<10
Rb	Rubidium					<10
Re	Rhenium					<0.05
S	Sulphur		<350	100	50	
Sb	Antimony		10		10	3
Sc	Scandium					1
Se	Selenium					<10
Si	Silicon		2500	4500	50	220
Sn	Tin		20	<100		
Sr	Strontium		0.3			1000
Ta	Tantalum		0.4		30	<1
Th	Thorium		0.4			4
Ti	Titanium			<100	30	450
U	Uranium		<1			0.6
V	Vanadium		<100	200	30	0.1
W	Tungsten		7	200	84.50%	<2
Zn	Zinc		10	<100	30	<10
Zr	Zirconium		<1	<100	<10	70.30%
Ce	Cerium					<10
Eu	Europium					0.5
Gd	Gadolinium					<0.5
Lu	Lutetium					0.3
Nd	Neodymium					<1
Sm	Samarium					<0.1
Tb	Terbium					<0.3
Y	Yttrium					0.1
Yb	Ytterbium					1

Only electric power
is required for this
instrument



Gas is required for
this instrument



External USB
communication link



LIMS ready



SWIRLING
The best homogenization system
Clockwise & counterclockwise



Electric fusion machine

Gas fusion machine

Automatic weighing machine

High purity molten fluxes

Fusion additives

Fusion accessories

Sample Preparation by Fusion

ELECTRIC FUSION MACHINE

XRFUSE1: 1 STATION



Rugged electric fusion machine designed for the preparation of 1 glass disk for XRF analysis or acid solution for analysis by AA or ICP.

Key features

PERFORMANCE

- Fully automatic & reproducible sample preparation
- One of the most efficient heating profiles available
- Speciality Ceramic holders/cradle – Zero Contamination
- Maximum Temperature: 1200°C

PRODUCTIVITY

- One (1) samples per loading; up to 4 samples per hour

SIMPLICITY

- Easy select menu with constant clear display of machine status
- Simple operation but advanced technology, self-checking to avoid errors

- Touch-screen interface, PLC control
- Ready to fuse with pre-defined fusion methods (12 programmable recipes)
- Programmable pre-heat/oxidation step

SAFETY

- Fully enclosed, lab staff are separated from hot material and from all moving parts
- Cool touch glass viewing window and all contact surfaces
- Fully automatic 'cold → cold' operation, even the crucibles are returned cold
- Fitted with over temperature protection, Stop button,...

Technical specifications

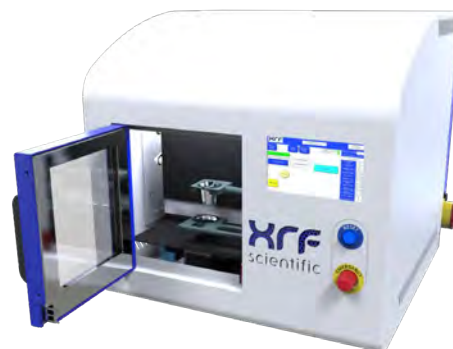
- Temperature: Max continuous 1200°C
- Heating: Silicon Carbide Elements
- Lining: High quality Ceramic Fibre.
- Thermocouple: 2 x type "R"
- Temperature Control: PLC Controlled, Over temperature protection
- Cooling: 2 stages mould and crucible cooling
- Electrical: 208-240 V; 50/60Hz; 16A, 1P.
- Dimensions: 605mm(L) x 740mm(D) x 580mm(H) - Weight: 70kg

Ordering information

- xrFuse1: Produces 1 sample XRF or ICP (with magnetic stirrer)

Shipping dimensions

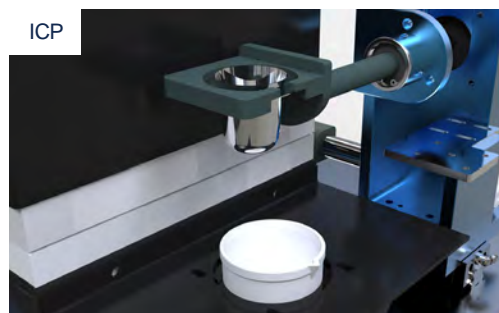
- Dimensions: 800mm(L) x 950mm (W) x 810mm (H)
- Weight: 130kg



The xrFuse1 is expandable to a two (2) place machine to follow your future growing requirements.



Suitable crucibles & moulds – page 42



ELECTRIC FUSION MACHINE

XRFUSE2: 2 STATION



Rugged electric fusion machine designed for the preparation of 1 to 2 glass disks for XRF analysis or acid solutions for analysis by AA or ICP.

Key features

PERFORMANCE

- Fully automatic & reproducible sample preparation
- One of the most efficient heating profiles available
- Speciality Ceramic holders/cradle – Zero Contamination
- Maximum Temperature: 1200°C

PRODUCTIVITY

- One (1) or Two (2) samples per loading; up to 8 samples per hour

SIMPLICITY

- Easy select menu with constant clear display of machine status
- Simple operation but advanced technology, self-checking to avoid errors

- Touch-screen interface, PLC control
- Ready to fuse with pre-defined fusion methods (12 programmable recipes)
- Programmable pre-heat/oxidation step

SAFETY

- Fully enclosed, lab staff are separated from hot material and from all moving parts
- Cool touch glass viewing window and all contact surfaces
- Fully automatic 'cold → cold' operation, even the crucibles are returned cold
- Fitted with over temperature protection, Stop button,...

Technical specifications

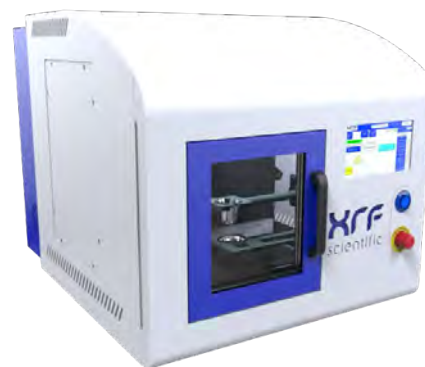
- Temperature: Max continuous 1200°C
- Heating: Silicon Carbide Elements
- Lining: High quality Ceramic Fibre.
- Thermocouple: 2 x type "R"
- Temperature Control: PLC Controlled, Over temperature protection
- Cooling: 2 stages mould and crucible cooling
- Electrical: 208-240 V; 50/60Hz; 16A, 1P.
- Dimensions: 605mm(L) x 740mm(D) x 580mm(H) - Weight: 75kg

Ordering information

- xrFuse2: Produces 2 samples simultaneously XRF or ICP (with magnetic stirrer)

Shipping dimensions

- Dimensions: 1010mm(L) x 1010mm(W) x 810mm(H)
- Weight: 165kg



Suitable crucibles & moulds – page 42



ELECTRIC FUSION MACHINE

XRFUSE6: 6 STATION



Rugged electric fusion machine designed for the preparation of 1 to 6 glass disks for XRF analysis or acid solutions for analysis by AA or ICP.

Key features

PERFORMANCE

- Fully automatic & reproducible sample preparation
- One of the most efficient heating profiles available
- Speciality Ceramic holders/cradle – Zero Contamination
- Maximum Temperature: 1250°C

PRODUCTIVITY

- One (1) or Two (6) samples per loading; up to 30 samples per hour

SIMPLICITY

- Easy select menu with constant clear display of machine status
- Simple operation but advanced technology, self-checking to avoid errors

- Touch-screen interface, PLC control
- Ready to fuse with pre-defined fusion methods (12 programmable recipes)
- Programmable pre-heat/oxidation step

SAFETY

- Fully enclosed, lab staff are separated from hot material and from all moving parts
- Cool touch glass viewing window and all contact surfaces
- Fully automatic 'cold → cold' operation, even the crucibles are returned cold
- Fitted with over temperature protection, Stop button,...

Technical specifications

- Temperature: Max continuous 1250°C
- Heating: Silicon Carbide Elements
- Lining: High quality Ceramic Fibre.
- Thermocouple: 2 x type "R"
- Temperature Control: PLC Controlled, Over temperature protection
- Cooling: 2 stages mould and crucible cooling
- Electrical: 380 - 415 VAC or 208 - 220 VAC 50/60 Hz; 3 phase.
- Dimensions: 1110mm(L) x 800mm(D) x 580mm(H) - Weight: 100kg

Ordering information

- xrFuse6: Produces 6 samples simultaneously XRF
- xrFuse6 ICP: Produces 6 samples simultaneously ICP (with magnetic stirrer)

Options Available

- ICP module with magnetic stirring (for xrFuse6); Ammonium iodide injection

Shipping dimensions

- Dimensions: 1340mm(L) x 1010mm(W) x 810mm(H)
- Weight: 220kg



Suitable crucibles & moulds – page 42

XRF



ICP



GAS FUSION MACHINE

PHOENIX GO 1000 - 1 STATION GAS



This new compact design Phoenix machine uses gas only, without the need for oxygen and compressed air. You can now experience all of the great features of our Phoenix fusion machine, in a compact and more economic format.

This gas fusion machine is designed for the preparation 1 glass disk for XRF analysis or 1 dissolution for analysis by AA or ICP.

Key features

- 1 fusion station
- Gas Only fan forced burner – new technology
- Fully Automatic: PREMELTING, MELTING, SWIRLING, POURING and COOLING
- Maximum Temperature 1200+ °C (1100°C typical process temperature)
- Multiple Heating Steps Programmable
- Temperature measurement: Thermocouple near flame (indicative)
- Touch screen user interface
- Up to 100 user-defined recipes with naming flexibility
- Homogenization by Swirling
- Separate mould preheating
- Mould & crucible cooled above the burner
- Crucible/mould holders: Inconel, hastalloy or palladium
- Emergency stop button; Automatic gas cut-off safety system, Active burner monitoring Cold-to-cold operation, Safety rated lid switch
- USB communication link

Technical specifications

- Electrical: 110 or 240 VAC 50/60 Hz
- Dimensions: 480mm(L) x 470mm(D) (or 660mm with gas regulator) x 540mm(H) - Weight: 60kg
- Gas: propane/LPG :0.5- 1bar

Ordering information

- PHOENIX GO 1000: Produces 1 sample simultaneously XRF & ICP

Shipping dimensions

- Dimensions: 810mm(L) x 860mm(W) x 800mm(H);
- Weight: 90kg



Suitable crucibles & moulds – page 40



GAS FUSION MACHINE

PHOENIX GO: 4 STATION



This new Phoenix machine uses gas only, without the need for oxygen and compressed air. You can now experience all of the great features of our Phoenix fusion machine, in a compact and more economic format.

This gas fusion machine designed for the preparation 1 to 4 glass disks for XRF analysis or dissolutions for analysis by AA or ICP.

Key features

- 4 fusion stations
- Gas Only fan forced burner – new technology
- Fully Automatic: PREMELTING, MELTING, SWIRLING, POURING and COOLING
- Maximum Temperature 1200+ °C (1100°C typical process temperature)
- Multiple Heating Steps Programmable
- Temperature measurement: Thermocouple near flame (indicative)
- Touch screen user interface
- Up to 100 user-defined recipes with naming flexibility
- Homogenization by Swirling
- Separate mould preheating
- Mould & crucible cooled above the burner
- Crucible/mould holders: Inconel, hastalloy or palladium
- Emergency stop button; Automatic gas cut-off safety system, Active burner monitoring Cold-to-cold operation, Safety rated lid switch
- USB communication link

Technical specifications

- Electrical: 110 or 240 VAC 50/60 Hz
- Dimensions: 763mm(L) x 598mm(D) x 530mm(H) - Weight: 75kg
- Maximum Gas flow: propane/LPG :0.5- 1bar

Ordering information

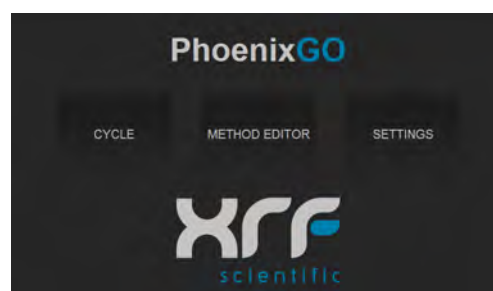
- PHOENIX GO 4000: Produces 4 samples simultaneously XRF & ICP

Shipping dimensions

- Dimensions: 1040mm(L) x 820mm(W) x 790mm (H)
- Weight: 130kg



Suitable crucibles & moulds – page 40



GAS FUSION MACHINE

PHOENIX II: 4 OR 6 STATION



Rugged gas fusion machine designed for the preparation of 1 to 6 glass disks for XRF analysis or acid solutions for analysis by AA or ICP.

Robust, simple, made for massive production.

Up to 30 beads per hour (with the 6 place)

Key features

- 4 or 6 fusion stations
- Fully Automatic: PREMELTING, MELTING, SWIRLING, POURING and Bi-Level COOLING
- Individual station selection
- Maximum Temperature 1250°C (1600°C flame temperature)
- VFD Blue Screen with Touch Buttons
- Up to 6 user-defined recipes
- Homogenization by Swirling, variable frequency and speed
- Adjustable speed pouring and angle
- Separate mould preheating
- Mould retraction for precise control of cooling
- Cooling: 2 stages mould cooling
- Safe enclosed, cold to cold operation
- Cool touch glass viewing window
- Emergency stop button; Automatic gas cut-off safety system
- USB communication link

Technical specifications

- Electrical: 110 or 240 VAC 50/60 Hz
- Dimensions: 900mm(L) x 650mm(D) x 600mm(H)
H 900mm with lid open
- Weight: 110kg
- Gas : propane/LPG :30mbar or alternative natural gaz:80mbar;
Air: 5bar, Oxygen: 4bar

Ordering information

- PHOENIX P2/VFD 4000: Produces 4 samples simultaneously (XRF or ICP)
- PHOENIX P2/VFD 6000: Produces 6 samples simultaneously (XRF or ICP)

Shipping dimensions

- Dimensions: 1160mm(L) x 950mm(W) x 880mm(H)
- Weight: 180kg



Suitable crucibles & moulds – page 40



GAS FUSION MACHINE

Phoenix GO 2000 ICP - 2 station GAS



This new gas fusion machines are designed to do multiple and repeatable fusions with peroxide, hydroxide and carbonate.

This new Phoenix machine uses gas only, without the need for oxygen and compressed air.

This instrument is developed for high up time applications and made to endure repetitive exposure to aggressive environments.

The user interface is designed in such a way that it can meet the need for the most versatile application with an infinity of steps configurable.

Key features

- 2 fusion stations
- Gas Only fan forced burner – new technology
- Fully Automatic: PREHEATING, HEATING, SWIRLING and COOLING
- Temperature: 300 - 1000°C
- Multiple Heating Steps Programmable
- Temperature measurement: Thermocouple near flame (indicative)
- Touch screen user interface
- Up to 100 user-defined recipes with naming flexibility
- Homogenization by Swirling
- Crucible cooled above the burner
- Emergency stop button; Automatic gas cut-off safety system, Active burner monitoring Cold-to-cold operation, Safety rated lid switch
- USB communication link

Technical specifications

- Electrical: 110 or 240 VAC 50/60 Hz
- Dimensions: 480mm(L) x 470mm(D) (or 660mm with gas regulator) x 540mm(H) - Weight: 60kg
- Gas: propane/LPG :0.5- 1bar

Ordering information

- PHOENIX GO 2000 ICP: Produces 2 samples simultaneously ICP

Shipping dimensions

- Dimensions: 810mm(L) x 860mm(W) x 800mm(H); Weight: 90kg



GAS FUSION MACHINE

Phoenix GO 8000 ICP - 8 station GAS



This new gas fusion machines are designed to do multiple and repeatable fusions with peroxide, hydroxide and carbonate.

This new Phoenix machine uses gas only, without the need for oxygen and compressed air.

This instrument is developed for high up time applications and made to endure repetitive exposure to aggressive environments. With his 8 fusion stations, this Phoenix is specially made for high volume

The user interface is designed in such a way that it can meet the need for the most versatile application with an infinity of steps configurable

Key features

- Gas Only fan forced burner – new technology
- Fully Automatic: PREHEATING, HEATING, SWIRLING and COOLING
- Temperature: 300 - 1000°C
- Multiple Heating Steps Programmable
- Temperature measurement: Thermocouple near flame (indicative)
- Touch screen user interface
- Up to 100 user-defined recipes with naming flexibility
- Homogenization by Swirling
- Crucible cooled above the burner
- Emergency stop button; Automatic gas cut-off safety system, Active burner monitoring Cold-to-cold operation, Safety rated lid switch
- USB communication link

Technical specifications

- Electrical: 110 or 240 VAC 50/60 Hz
- Dimensions: 763mm(L) x 598mm(D) x 530mm(H) - Weight: 75kg
- Gas : propane/LPG :0.5 - 1bar

Ordering information

- PHOENIX GO 8000 ICP: Produces 8 samples simultaneously ICP

Shipping dimensions

- Dimensions: 1040mm(L) x 820mm(W) x 780mm(H); Weight: 130kg



AUTOMATIC WEIGHING: FLUX

XRWEIGH-S-FL

LIMS



The xrWeigh has been developed for the fast, accurate measurement of flux and other powder based chemicals for precision applications. In a typical laboratory environment, the introduction of the xrWeigh will reduce the time needed for manual weighing by up to 75%. The instrument is simple to use with an easy-to-follow user interface, requiring little or no training. A range of weights and tolerances are configurable and can be optimized for the combination of speed and accuracy for each method.

Key features

- Flux loading via XRF flux bottles with anti-spill loading system or a 2kg capacity sealable hopper
- High end precision weighing balance:
 - In built stability checking system
 - Adjustable load receptor with overload detection
 - Internal calibration weight
 - Force compensation technology weighing system
 - Daily reminder to recalibrate balance
- Simple touch screen operation for selection of target weight and range
- Dispense either granular or microbeads flux in standard or ratio modes (sample to flux ratio)
- In Range / Out of Range Weight Indication:
 - Audible tone (can be disabled)
 - Touchscreen indicator
 - Dispensing bay illumination indicator
- Built in barcode reader
- Remote access through VNC technology
- LIMS data

Technical specifications

- Capacity: 1 Vial or 1 crucible
- Sample weight capacity: 0.1 – 20g
- Weighing precision: 0.1mg
- Power requirements: 230 or 115 V, 50/60 Hz, 150W, IEC power inlet
- Dimensions: 25mm (W) x 600mm (D) x 500 (H)
- Weight: 20kg

Ordering information

- xrWeigh-S-FL: Automatic weighing flux

Shipping dimensions

- Dimensions: 750mm(L) x 800mm(W) x 750mm(H)
- Weight: 61kg



Granular or Microbeads Flux

Two technologies are combined to achieve fast and precise flux dosing. Weigh a variety of flux types in granular or microbeads forms.



AUTOMATIC WEIGHING: FLUX

XRWEIGH CAROUSEL

LIMS



The xrWeigh takes the hard work out of flux weighing, removing a repetitive task from your laboratory while improving accuracy and traceability.

Simple Operation – “One touch” operation, just turn it on! Attach flux bottle, set your target and let the Carousel do the rest

Fast – Weigh 30 vials of flux in less than 20 minutes

Easy Clean – Simple flux bottle replacement, easy access for cleaning, low maintenance

Reliable – Based on the existing single system architecture, simple modular design, extensively tested

Key features

- In built stability checking system
- Adjustable load receptor with overload detection
- Internal calibration weight for improved accuracy and repeatability
- Force compensation technology weighing system
- Simple touch screen operation for selection of target weight and range

Technical specifications

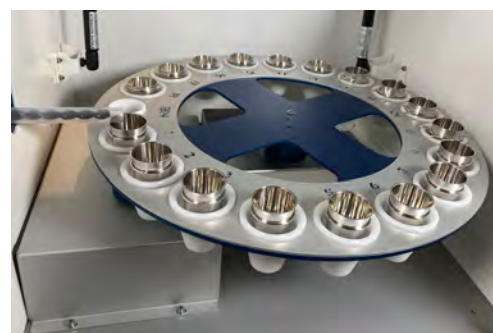
- Capacity 30 Vials or 18 crucibles
- Readability: 0.1mg
- Accuracy $\leq 1\text{mg}$ (speed dependent)
- Linearity: $\pm .2\text{mg}$
- Speed > 90 vials per hour
- Dimensions: 750mm(W) x 600mm(D) x max. 420mm(H)
 - Weight: 35kg

Ordering information

- xrweigh carousel: Automatic weighing flux with carousel – Capacity 30 vials or 18 crucibles
- 3064130: xrWC Vial & Deep Blue Cap - 250 vials

Shipping dimensions

- Dimensions: 1040mm (L) x 820mm(W) x 780mm (H)
- Weight: 80kg



HIGH PURITY MOLTEN FLUXES



Homogenous Composition

Thanks to our proprietary manufacturing process, our chemicals show a precise and stable composition over time.

Customs Blends

We offer custom-tailored fluxes for your application. We can vary the Li:B ratio, the granulometry and non-wetting agent or oxidizer content.

Fused & Homogeneous

XRFS Fluxes are non-hygroscopic vitreous particles across both product forms either granular or beaded (spherical). With a density level to ensure the flux in the crucible does not exceed more than 50% capacity and a consistent low LOI (water content <0.04%) that will maintain the sample:flux ratio in line with good analytical results.

Outstanding Purity

All our Fluxes are fully analysed and documented across 20 relevant elements providing you, the analyst, with the reassurance of not having to necessarily re-calibrate the spectrometer with each delivery/batch.

Full Range of Fusion Fluxes

We offer a full range of premium fusion fluxes. No matter what is your fusion method, we have the flux to suit your application.

GRANULAR OR BEADED FLUXES WITHOUT ADDITIVES

We offer a full range of fluxes with different Li:B ratio to suit your application. All products are available in 2 grades: standard (99.99+%) and high purity (99.998+%).

FLUX NAME	Description	Melting P. (°C)	Quantity
FLUX ST100	Sodium Tetraborate	740°	1 or 2 kg
FLUX LT100	Lithium Tetraborate	920°	1 or 2 kg
FLUX LM100	Lithium Metaborate	845°	1 or 2 kg
FLUX LT80:LM20	80% Lithium Tetraborate/20% Lithium Metaborate	900°	1 or 2 kg
FLUX LT70:LM30	70% Lithium Tetraborate/30% Lithium Metaborate	890°	1 or 2 kg
FLUX LT66:LM34	66% Lithium Tetraborate/34% Lithium Metaborate	875°	1 or 2 kg
FLUX LT50:LM50	50% Lithium Tetraborate/50% Lithium Metaborate	870°	1 or 2 kg
FLUX 12:22	35.3% Lithium Tetraborate/64.7% Lithium Metaborate.	845°	1 or 2 kg

HIGH PURITY MOLTEN FLUXES

GRANULAR OR BEADED FLUXES WITH ADDITIVES

We offer a full range of fluxes with integrated additives. Our standard catalog includes various flux compositions with different LiBr or LiI contents. All products are available in 2 grades: standard (99.99+%) and high purity (99.998+%).

We also offer fluxes with embedded oxidizers such as LiNO_3 and NaNO_3 . If you can't find what you need in the list, just contact us, we'll make your very own product to your request.



Granular or beaded fluxes with Lithium Bromide

FLUX NAME	Description	Melting P. (°C)	Quantity
FLUX LT100+02LiBr	Lithium Tetraborate + 0.2% Lithium Bromide	920°	1 or 2 kg
FLUX LT100+05LiBr	Lithium Tetraborate + 0.5% Lithium Bromide	920°	1 or 2 kg
FLUX LT66:LM34+02LiBr	Flux LT66:LM34 + 0.2% Lithium Bromide	875°	1 or 2 kg
FLUX LT66:LM34+05LiBr	Flux LT66:LM34 + 0.5% Lithium Bromide	875°	1 or 2 kg
FLUX LT50:LM50+02LiBr	Flux LT50:LM50 + 0.2% Lithium Bromide	870°	1 or 2 kg
FLUX LT50:LM50+05LiBr	Flux LT50:LM50 + 0.5% Lithium Bromide	870°	1 or 2 kg

Granular or beaded fluxes with Lithium Iodide

FLUX NAME	Description	Melting P. (°C)	Quantity
FLUX LT100+05LiI	Lithium Tetraborate + 0.5% Lithium Iodide	920°	1 or 2 kg
FLUX LT66:LM34+05LiI	Flux LT66:LM34 + 0.5% Lithium Iodide	875°	1 or 2 kg
FLUX LT50:LM50+05LiI	Flux LT50:LM50 + 0.5% Lithium Iodide	870°	1 or 2 kg

Granular fluxes with Oxidizers

All fluxes are available with addition of various % of lithium nitrate or sodium nitrate. The oxidizing agent is embedded in the flux and will not separate during handling. Not available for beaded flux.

FLUX NAME	Description	Melting P. (°C)	Quantity
FLUX LT100+5LN	Lithium Tetraborate + 5% Lithium nitrate	-	1 or 2 kg
FLUX LT66:LM34+10LN	Flux LT66:LM34 + 10% Lithium nitrate	-	1 or 2 kg
FLUX 12:22+20SN	Flux 12:22 + 20% Sodium nitrate	-	1 or 2 kg

Granular fluxes with Oxidizers & Lithium Bromide

FLUX NAME	Description	Melting P. (°C)	Quantity
FLUX LT66:LM34+10LN+05LiBr	Flux LT66:LM34 + 10% Lithium nitrate + 0.5% Lithium Bromide	875°	1 or 2 kg

HIGH PURITY MOLTEN FLUXES

Granular fluxes with Internal Standard

FLUX NAME	Description	Melting P. (°C)	Quantity
FLUX Ni+	Thulium doped flux for High Accuracy Nickel Analysis	-	1 kg
FLUX Fe+	Terbium doped flux for High Accuracy Iron Analysis	-	1 kg
FLUX Al+	Rubidium doped flux for High Accuracy Al & Si Analysis	-	1 kg

Technique using flux with Internal Standard

- Precision significantly better than either conventional XRF or other analysis
- The technique is fast
- X-ray technique independent of conventional α -correction, relying only on the ratio of the analyte to IS peaks.

ADDITIVES: TO IMPROVE

A full range of additive is available, from the non-wetting agents to oxidizers.

A fusion procedure relies on the dissolution of a properly oxidized sample in the molten flux. During the procedure, a sub-oxidized sample can be oxidized with a nitrate-based compound. When heated, such oxidizer will promote the full oxidation of your sample in order to ensure a complete dissolution in the flux.

The non-wetting (nwa) agents will avoid the melt sticking on both the crucibles and the molds. Too little nwa could result in dirty crucibles and cracked beads.

Our fluxes are available with the additives integrated at the factory. But for method development, an inventory of various additives are convenient tools in any fusion lab.

Oxidising Agent

	Description	Melting P. (°C)	Quantity
LiNO ₃	Lithium nitrate, crystal powder	264	1 kg
NaNO ₃	Sodium nitrate, crystal powder	308	1 kg
FerroOX1	Oxidizer mix for Fusion of ferro-alloys	-	1 kg

HIGH PURITY MOLTEN FLUXES

Non Wetting Agent (NWA)

	Description	Melting P. (°C)	Quantity
LiBr	Lithium bromide, crystal powder	552	1 kg
LiBr-sol	Lithium bromide, solutions (250g/l) Non-wetting agent in solution ready for dispensing.	-	1 l
LiBr15	Lithium bromide, solutions (250g/l) – dropper Non-wetting agent in solution ready for dispensing.	-	15 ml
LiI	Lithium iodide, crystal powder	469	100 g
LiI50	Lithium iodide, crystal powder	469	50 g
LiI-sol	Lithium Iodide, solutions (250g/l) Non-wetting agent in solution ready for dispensing.		
NH ₄ I-tab	Ammonium Iodide, Tablets (21.4mg - 66.6% NH ₄ I)	551	1500 tablets/ bottle
NH ₄ I	Ammonium Iodide anhydrous Powder	551	500 g

Miscellaneous

	Description	Melting P. (°C)	Quantity
Li ₂ CO ₃	Lithium carbonate, powder, High-Purity 99.99+%	723	1 kg
Na ₂ CO ₃	Sodium carbonate, powder, High-Purity 99.99+%	720	1 kg

Other Additives

	Description	Quantity
SiO ₂	Silicon Dioxide (SiO ₂ , granular 75-150 µ), assay 99.99% min.	1 kg
Iron Ore	Synthetic Iron Ore Calibration Standard	100g Jar

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XRF SCIENTIFIC

maintains large amount of product in stock for rapid deliveries. The company has also a special program to allow their customer to choose multi-drop shipments on a global basis

FUSION ACCESSORIES

Glass Disk Remover

The Glass Disk Remover is a vacuum pick-up tool for picking up and placing the fused glass disk.

Item Code	Description
SO-462-3125	Handling tool for glass disk.



FUSION ACCESSORIES

Clear Plastic Boxes

Store your fused beads and press tablets in good condition. Transparent boxes with sealed lid

Item Code	Description
SO-TB001	Transparent boxes with sealed lid Ext. : Ø45 x 12mm - 100 pcs



TONGS

Platinum tip stainless steel tong

Item Code	ESTIMATED WEIGHT (g)
TGS250	250mm long with 5 or 10g per tong
TGS300	300mm long with 5 or 10g per tong



Platinum tip stainless steel tong with radiation shield

Item Code	ESTIMATED WEIGHT (g)
TGF420	420mm long with 12g per tong
TGF620	620mm long with 12g per tong



ZIRCONIUM CRUCIBLES

Zirconium is effective crucible material for fusions using: Sodium carbonate: Decomposes most silicates of chromium, nickel, calcium, aluminum, also sulfates of barium and lead; halides of silver.

Sodium peroxide: Fusion for very refractory or high-silica materials such as chromite, magnetite, ilmenite, rutile, silicon, silicon carbide and certain alloys and steel.



Crucible for manual fusion

CODE NUMBER	TOP DIAMETER (mm)	BOTTOM DIAMETER (mm)	DEPTH (mm)	STANDARD THICKNESS
ZLF55	51	38	43	1.6 mm

Crucible for automatic fusion equipment

Phoenix crucible

CODE NUMBER	TOP DIAMETER (mm)	BOTTOM DIAMETER (mm)	DEPTH (mm)	LID
XP10035	48/42	32	45	XP10056

Standard thickness: 1.6mm

Flanged Rim: A formed rim, integral to the crucible (no welded on), at the crucible's top edge.

xrFuse crucible

CODE NUMBER	TOP DIAMETER (mm)	BOTTOM DIAMETER (mm)	DEPTH (mm)	LID
ZFX400	34	28	34	ZFX400L



Crucibles

Dishes

Capsules, beakers

Fusion labware

Speciality products

Refining service

Platinum care products

Platinum Labware

XRF Scientific Platinum Labware

XRF Scientific provides an extensive range of Platinum Crucibles, Dishes and Moulds. Our Platinum Labware comes in standard configurations or we can assist in the design and manufacture of specialised platinum products. We take great pride in the fact that it can meet your laboratory needs from the most basic platinum utensils through to the most intricate individual designs.

- Perfect analytical surface
- Produced seamless to avoid weak spots
- Accurate flatness for correct and reproducible analytic results
- Inspected high purity materials

Materials

Metals used for laboratory apparatus must have the following properties:

- High temperature strength
- High melting point
- Ductility
- Corrosion resistance
- Oxidation resistance



Platinum and its alloys possess these qualities and is therefore the most widely used metal for analytical laboratory apparatus. Properties of platinum and some common platinum alloys are briefly discussed here. All platinum from XRF Scientific conforms to International Metal Standards.

Platinum

Platinum is the best known and least rare of the platinum group metals. Its high melting point, 1773 °C, ductility and excellent resistance to chemical attack by acids and fusion mixtures makes it very suitable for laboratory ware.

Platinum 5% Gold

Universally accepted material of choice for crucible and casting moulds for spectrographic analysis by x-ray fluorescence (XRF). The alloy has higher temperature strength than pure platinum and has a "non-wetting" property, which results in easy removal of the sample after fusion and allows for many reproducible assays.

Platinum 3.5% Rhodium

The rhodium alloys have higher hardness and high temperature strength making it suitable for more aggressive conditions.

Platinum 10% Rhodium

This alloy has melting point of 1850 °C, it has greater hardness and higher strength than other platinum alloy. It is capable of maintaining its shape under the hottest furnace conditions.

Auralloy

This alloy combines the "non-wetting" property of the Pt/Au alloy and the extra strength and durability of Pt/Rh alloys.

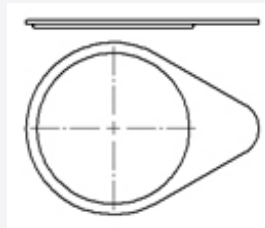
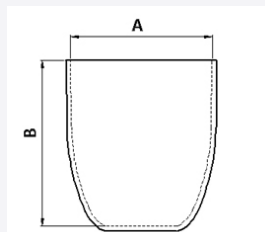
Fusion Alloy

Platinum/Gold 5% alloy with added dopants for enhanced grain structure and increased strength at fusion temperatures. Better suited to harsh fusion conditions such as fusion lines.

CRUCIBLES

STANDARD FORM CRUCIBLES

Code Number	Capacity (cc)	Diameter (mm)	Depth (mm)	Estimated weight (g)				
				Standard Form	Reinforced			Standard LID only
GCS2.5	2.5	12	15	3	4	4	5	2
GCS5	5	20	22	4	5	5	6	2
GCS8	8	25	24	6	7	7	8	2
GCS10	10	25	28	7	7.5	8	9	3
GCS15	15	30	31	11	12	13	14	4
GCS20	20	33	35	15	16	17	18	5
GCS25	25	36	34	19	20	21	23	5
GCS30	30	40	36	22	24	26	27	7
GCS35	35	41	38	25	26	27	32	7
GCS40	40	42	42	30	32	34	36	7
GCS50	50	45	44	38	40	42	45	8
GCS60	60	45	47	46	48	50	54	9
GSC70	70	49	53	50	52	54	63	12
GCS80	80	51	53	51	54	63	72	14
GCS90	90	54	57	52	59	71	81	15
GCS100	100	56	57	59	68	73	90	17
GCS110	110	56	60	68	71	81	95	19
GCS120	120	64	66	84	88	90	98	22
GCS150	150	65	69	100	104	107	114	27
GCS200	200	80	65	150	159	165	180	30
GCS250	250	81	73	175	179	183	190	32
GCS700	700	107	105	300	305	315	320	50



Available Capacity
2.5-700ml (larger sizes
made to order)

Options
Lids, reinforced rims
and/or bases.



Reinforcing with a rigid rim
Reinforcing of the rim gives the crucible a more robust character enabling regular handling with tongs, and reducing rim deformation.

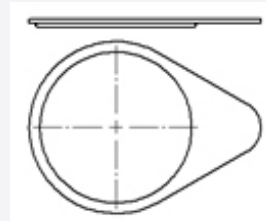
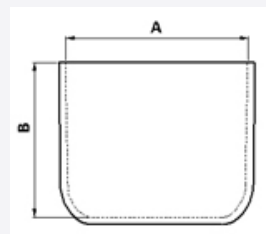
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All are offered in: Pure platinum - Pt/Au alloy 95/5 - Pt/Rh alloy 97/3 - Pt/Rh alloy 90/10 – Fusion Alloy

CRUCIBLES

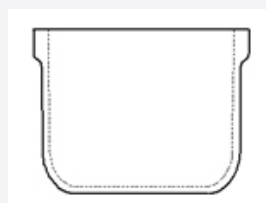
LOW PROFILE CRUCIBLE

Code	Capacity	Diameter	Depth	Estimated weight (g)				
				Standard Form	Reinforced			Standard LID only
					RIM only	Base only	RIM & BASE	
GCL8	8	25	21	6	7	7	8	2
GCL10	10	27	23	7	7.5	8	9	3
GCL15	15	30	27	11	12	13	14	4
GCL20	20	33	28	15	16	17	18	5
GCL25	25	36	30	19	20	21	23	5
GCL30	30	40	32	22	24	26	27	7
GCL35	35	42	33	25	26	27	32	7
GCL40	40	43	34	30	32	34	36	7
GCL50	50	46	37	38	40	42	45	8
GCL60	60	48	39	46	48	50	54	9
GCL70	70	52	41	50	52	54	63	12
GCL75	75	52	44	50	53	58	67	13
GCL80	80	52	47	51	54	63	72	14
GCL90	90	57	48	52	59	71	81	15
GCL100	100	57	51	59	68	73	90	17
GCL110	110	57	54	68	71	81	95	19
GCL120	120	57	57	84	88	90	98	22
GCL125	125	58	59	97	101	105	114	25
GCL150	150	60	60	122	126	110	124	26



Available Capacity
8-150ml (larger sizes
made to order)

Options
Lids, reinforced rims
and/or bases



VOLATILE MATTER CRUCIBLE

Code Number	Capacity (cc)	Diameter (mm)	Depth (mm)	Estimated weight (g)	
				Crucible	Flanged cover
GVM10	10	25	28	7	6
GVM15	15	31	31	11	8
GVM20	20	33	35	15	9
GVM25	25	36	35	19	10
GVM30	30	40	36	22	11
GVM40	40	42	42	30	13
GVM50	50	45	44	38	14



DISHES

Evaporating dishes may be ordered also with reinforced rim and heavy base. The additional cost for reinforcement is far outweighed by longer life and ease of handling. If covers are required, please specify.

FLAT BOTTOM DISH

Code Number	Capacity (cc)	Diameter (mm)	Depth (mm)	Estimated weight (g)				
				Standard Form	Reinforced			Standard LID only
GD20	20	41	20	6	7	8	9	6
GD25	25	42	23	8	9	10	12	10
GD35	35	49	25	12	13	14	16	13
GD40	40	51	26	15	17	18	20	14
GD50	50	53	29	17	19	21	25	15
GD60	60	58	30	20	21	23	27	19
GD75	75	65	30	25	27	30	33	22
GD100	100	70	33	33	35	37	40	25
GD125	125	74	34	42	44	45	48	28
GD150	150	77	41	50	53	55	60	33
GD175	175	84	40	55	59	64	68	41
GD200	200	90	43	67	71	75	80	44
GD250	250	94	42	80	82	83	88	51
GD300	300	110	45	94	98	100	105	55
GD400	400	115	48	133	137	140	148	58
GD500	500	124	50	170	179	185	200	61
GD750	750	124	75	270	290	310	350	61



EVAPORATION DISH

Code Number	Capacity (cc)	Diameter (mm)	Depth (mm)	Estimated weight (g)
GED55	55	59	22	28
GED80	80	59	30	32
GED100	100	67	28	40
GED125	125	69	32	42
GED150	150	69	40	50



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Couldn't find the perfect match?

Just contact us and we find the matching product together. We manufacture custom made products exactly to your specification. Or our application engineers will help you design and implement the needed solution.

DISHES

MILK ANALYSIS DISH

Code Number	Capacity (cc)	Top diameter (mm)	Bottom diameter (mm)	Depth (mm)	Estimated weight (g)
GMD13	13	42	32	12	12
GMD30	30	50	40	17	16
GMD45	45	55	40	25	22



CAPSULES & BREAKERS

CAPSULE-KAWIN CRUCIBLE

Code Number	Capacity (cc)	Top diameter (mm)	Bottom diameter (mm)	Depth (mm)	Estimated weight (g)
GCK8	8	28	20	15	9
GCK16	16	33	20	30	23
GCK19	19	34	20	35	25



BEAKER

Code Number	Capacity (cc)	Top diameter (mm)	Depth (mm)	Estimated weight (g)
GB110	110	45	70	170
GB220A	220	68	60	200
GB220B	220	59	80	230



All are offered in: Pure platinum - Pt/Au alloy 95/5 - Pt/Rh alloy 97/3 - Pt/Rh alloy 90/10 – Fusion Alloy

FUSION LABWARE

XRF Scientific manufactures a range of products for most automatic fusion equipment available. Non-standard or special items can be manufactured on request. Ongoing developments in analytical processes results in constant changes to laboratory equipment. If a product is not shown contact us for more detailed information or quotation.



FUSION LABWARE SUITABLE FOR PHOENIX

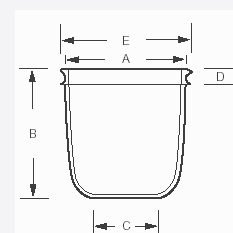
Ring Crucible

Code Number	Dimensions (mm)					Estimated weight (g)
	A	B	C	D	E	
AC1	34	36	20	8	37.5	40
AC2	34	43	20	12	37.5	40
AC3	34	36.5	20	9	40	40



Rolled Lip Crucible

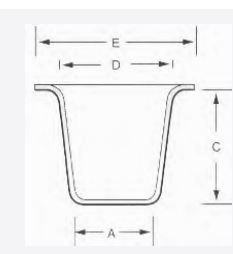
Code Number	Dimensions (mm)					Estimated weight (g)
	A	B	C	D	E	
AC4	33	38	21	7	39	40
AC5	33	30	20	7	38	30
AC6	40	35	22	4	50	36
AC7	33	41	21	9	39	40



Autolock Crucible Holders Available in Platinum/Gold

Solution (ICP-AES)

Code Number	Dimensions (mm)					Estimated weight (g)
	A	B	C	D	E	
AC10	17	-	18	27	34	15
AC11	35	-	45	50	55	50
AC12	13	-	30	31	42	20



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Couldn't find the perfect match?

Just contact us and we find the matching product together. We manufacture custom made products exactly to your specification. Or our application engineers will help you design and implement the needed solution.

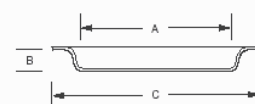
FUSION LABWARE

FUSION LABWARE SUITABLE FOR PHOENIX

Mould

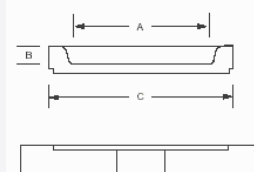
Code Number	Dimensions (mm)			Estimated weight (g)
	A	B	C	
AM1	29/31	3	42	60-100
AM2	30/32	3	42	60-100
AM3	30/32	4	42	60-100
AM4	30/32	3	46	60-100
AM5	32/34	3	46	60-100
AM5-5	32/34	5	46	60-100
AM6	33/35	3	46	60-100
AM6.4	33/35	4	46	60-100
AM7	39/41	4	52	60-100
AM7.5	39/41	5	52	60-100
AM7.6	39/41	6	52	60-100
AM8	39/41	3	56	60-100
AM12	34/36	4	55	60-100
AM13	38/40	4	52	60-100

Mould Holders Available in Platinum/Gold



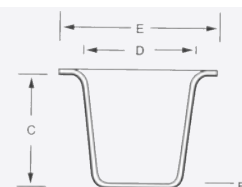
Mould Furnace Type and Plate

Code Number	Dimensions (mm)			Estimated weight (g)
	A	B	C	
AM9	39/41	35	44	93
AMH10	41.5	-	54	27



Mouldable

Code Number	Dimensions (mm)					Estimated weight (g)
	A	B	C	D	E	
AM11	29/31	3	25	44	56	80-150
AM10	39/41	3	25	44	56	80-150



All are offered in: Pure platinum - Pt/Au alloy 95/5 - Pt/Rh alloy 97/3 - Pt/Rh alloy 90/10 – Fusion Alloy

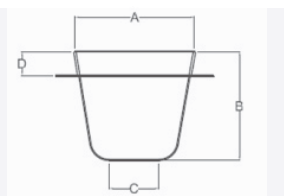
FUSION LABWARE

FUSION LABWARE SUITABLE FOR XRFUSE



Crucible

Code Number	Dimensions (mm)					Estimated weight (g)
	A	B	C	D	E	
DC1	36	35.5	19	6	44	30
DC2	36	35.5	19	6	44	40



Mould

Code Number	Dimensions (mm)			Estimated weight (g)
	A	B	C	
DM1	39/41	4	50	60-100
DM2	37/39	4	50	60-100
DM5	32/34	4	42	60-100
DM6	30/32	4	42	60-100

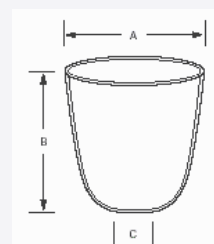


FUSION LABWARE SUITABLE FOR MODUTEMP



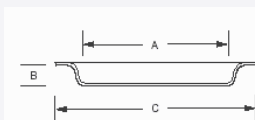
Crucible

Code Number	Dimensions (mm)			Estimated weight (g)
	A	B	C	
TC1	36	35	18	30
TC2	36	40	18	30



Mould

Code Number	Dimensions (mm)			Estimated weight (g)
	A	B	C	
TM1	39/41	3	50	60-100
TM2	30/32	3	42	60-100



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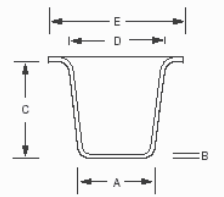
Fusion Alloy: alloy with added dopants for enhanced grain structure

- Extended service life - cost reduction
- Higher deformation resistance - increased functionality
- Preservation of the moulds flatness - more accurate and reproducible analysis results

FUSION LABWARE

FUSION LABWARE SUITABLE FOR MODUTEMP

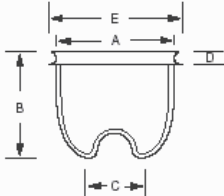
Mouldable

Code Number	Dimensions (mm)					Estimated weight (g)	
	A	B	C	D	E		
TG1	39/41	3	30	45	56	130	

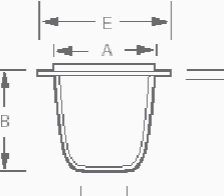
FUSION LABWARE SUITABLE FOR CLAISSE®



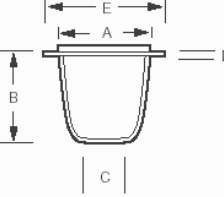
Dimple Crucible

Code Number	Dimensions (mm)					Estimated weight (g)	
	A	B	C	D	E		
CC1	37	32	20	5	43	26	
CC2	37	32	20	5	43	30	
CC8	35	35	21	3	43	60	
CC21	36.5	32	20	5.5	43	26	
CC22	36.5	32	20	5.5	43	31	

Flat Base Crucible

Code Number	Dimensions (mm)					Estimated weight (g)	
	A	B	C	D	E		
CC3	35	35	17	3.5	40	21	
CC4	35	35	21	3.5	44	26	
CC24	36.5	32	20	5.5	43	26	
CC25	36.5	32	20	5.5	43	30	

Flat Base Side Dimple Crucible

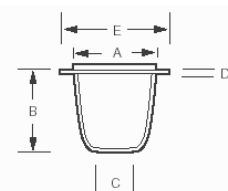
Code Number	Dimensions (mm)					Estimated weight (g)	
	A	B	C	D	E		
CC5	37	32	26	5	43	30	
CC26	36.5	32	20	5.5	43	26	
CC27	36.5	32	20	5.5	43	30	

FUSION LABWARE

FUSION LABWARE SUITABLE FOR CLAISSE®

Flat Base NO Side Dimple Crucible

Code Number	Dimensions (mm)					Estimated weight (g)
	A	B	C	D	E	
CC5-N	37	32	26	5	43	30
CC23	31.6	35	15	3.9	43	24



Mould

Code Number	Dimensions (mm)			Estimated weight (g)
	A	B	C	
CM1	30/31	6	39	18 or 30
CM9	30/32	6	39	21 or 27
CM2	31/33	6	41	19 or 32
CM21	31.5/32.6	6	41	31
CM3	32/34	6	41	21 or 36
CM13	32/36	6	45	40 or 50
CM4	32/38	6	45	22 or 36
CM22	34.5/35.6	3.5	44	44
CM5	35/37	6	44	25 or 48
CM8	37/40	6	49	28 or 48
CM6	38/41	6	49	29 or 48
CM10	38/40	6	48	34 or 43
CM23	39.5/40.6	3.5	49	49
CM7	40/42	6	49	34 or 48

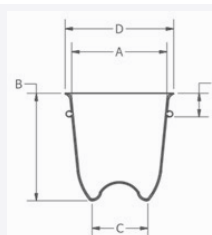


FUSION LABWARE SUITABLE FOR EAGON 2



Dimple Crucible

Code Number	Dimensions (mm)					Estimated weight (g)
	A	B	C	D	E	
EC2	32.5	37	20	37.5	6	40
EC4	33.8	36.5	18.7	37.5	8	40
EC6	33.2	36.5	16	38.5	6	40



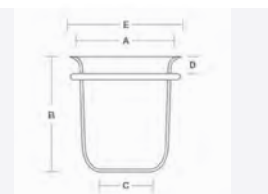
All are offered in: Pure platinum - Pt/Au alloy 95/5 - Pt/Rh alloy 97/3 - Pt/Rh alloy 90/10 – Fusion Alloy

FUSION LABWARE

FUSION LABWARE SUITABLE FOR EAGON 2

Flat Base Crucible

Code Number	Dimensions (mm)					Estimated weight (g)
	A	B	C	D	E	
EC3	32.5	37	20	6	37.5	40
EC5	33.8	36.5	18.7	8	37.5	40



Mould

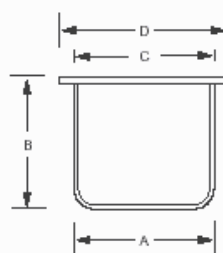
Code Number	Dimensions (mm)			Estimated weight (g)
	A	B	C	
EM3	31/32.5	3.5	50	40 or 80
EM11	39/40.5	3.5	56	60 or 100



FUSION LABWARE SUITABLE FOR PERL'X®

Crucible

Code Number	Dimensions (mm)				Estimated weight (g)
	A	B	C	D	
PC1	41	40	41	49	116
PC2	41	40	41	49	80
PC3	44	40	44	52	90
PC4	38	40	42	50	75
PC5	28	40	38	50	70
PC6	28	40	40	50	75
PC7	34	22	46	54	80
PC9	42	41	40	50	90
PC10	32.7	40	40.40	50	78



Couldn't find the perfect match?

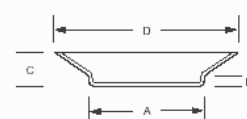
Just contact us and we find the matching product together. We manufacture custom made products exactly to your specification. Or our application engineers will help you design and implement the needed solution.

FUSION LABWARE

FUSION LABWARE SUITABLE FOR PERL'X®

Mould

Code Number	Dimensions (mm)				Estimated weight (g)
	A	B	C	D	
PM2	30/32	3	5	55	40
PM3	30/32	3.5	11.5	65	50
PM8	32/33.5	3.5	11.5	65	50
PM10	33.5/35.5	3.5	11.5	65	50
PM6	35.5/36.5	3	5	55	50
PM5	35.5/36.5	3.5	11.5	65	50
PM7	39.5/40.5	3	11.5	65	58
PM4	39.5/40.5	3.5	11.5	65	58
PM9	39.5/40.5	4	11.5	65	58
PM11	30/32	3.6	10.2	65	70

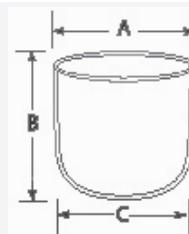


FUSION LABWARE SUITABLE FOR KATANAX®



Crucible

Code Number	Dimensions (mm)			Estimated weight (g)
	A	B	C	
KC1	40	32		26
KC2	40	32		30
KC4 Flared	44	32		43



Mould

Code Number	Dimensions (mm)			Estimated weight (g)
	A	B	C	
KM1	30/31	6	39	18 or 30
KM2	31/33	6	41	19 or 32
KM3	32/34	6	41	21 or 36
KM4	32/38	6	45	22 or 36
KM5	35/37	6	44	25 or 48
KM8	37/40	6	49	28 or 48
KM6	38/41	6	49	29 or 48
KM7	40/42	6	49	34 or 48
KM9	30/32	6	39	18 or 30



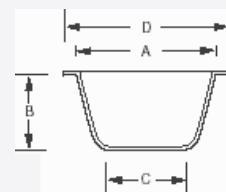
FUSION LABWARE

FUSION LABWARE SUITABLE FOR HERZOG

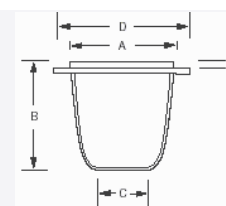


Crucible

Code Number	Dimensions (mm)					Estimated weight (g)
	A	B	C	D	E	
HC1	49	30	37	-	-	90
HC2	49	30	37	56	-	110

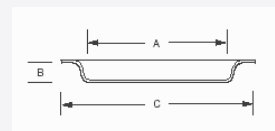


Code Number	Dimensions (mm)					Estimated weight (g)
	A	B	C	D	E	
HC3	36	36.5	22	44	5	40
HC4	36	38.5	22	44	5	40



Mould

Code Number	Dimensions (mm)			Estimated weight (g)
	A	B	C	
HM1	29/31	3	44	40
HM5	32/34	3.5	44	60
HM2	38/41	3	52	50
HM3	39/41	4	50	30-100
HM4	39/41	4	50	SQ
				120



FUSION LABWARE SUITABLE FOR VULCAN / AUTOFLUXER / VITRIOX MACHINES



Three Pin Crucible

Code Number	Dimensions (mm)						Estimated weight (g)
	A	B	C	D	E	F	
SC1	35	38	20	5	60	8	31
SC2	44	38	26	5	60	8	50
SC3	39	43	22	5	60	8	38

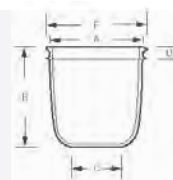


FUSION LABWARE

FUSION LABWARE SUITABLE FOR VULCAN /
AUTOFLUXER / VITRIOX MACHINES

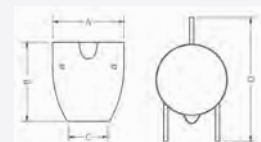
Rolled Lip Crucible

Code Number	Dimensions (mm)					Estimated weight (g)
	A	B	C	D	E	
SC4	33	38	22	7	39	40



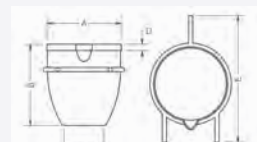
Three Pin Crucible

Code Number	Dimensions (mm)					Estimated weight (g)
	A	B	C	D	E	
SC5	34	38	20	60	13	25
SC10	34	38	20	60	13	38



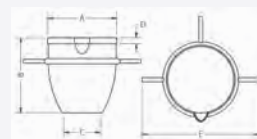
Three Pin Crucible with Ring and Reinforced Rim

Code Number	Dimensions (mm)						Estimated weight (g)
	A	B	C	D	E	F	
SC6	34	38	20	3	60	13	44
SC7	36	38	22	3	60	13	51
SC9	36	38	22	3	60	13	33



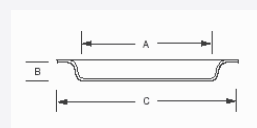
Offset Three Pin Crucible with Ring and Reinforced Rim

Code Number	Dimensions (mm)						Estimated weight (g)
	A	B	C	D	E	F	
SC8	34	38	20	3	60	13	44



Mould (Square Flange)

Code Number	Dimensions (mm)			Estimated weight (g)
	A	B	C	
SM1	29/31	3	41	27
SM2	30/32	3	41	29
SM3	32/34	3	41	31
SM4	34/36	3	51	45
SM5	39/41	3	51	45

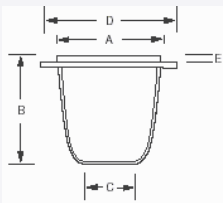


FUSION LABWARE

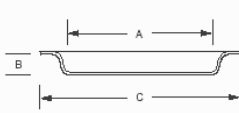
FUSION LABWARE SUITABLE FOR EQUILAB



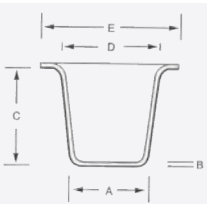
Crucible

Code Number	Dimensions (mm)					Estimated weight (g)	
	A	B	C	D	E		
EQC1	36	28	34.52	6	46.5	50	

Mould

Code Number	Dimensions (mm)			Estimated weight (g)	
	A	B	C		
EQM1	29/31	5	49	40	
EQM3	31/33	5	49	40	
EQM5	34/36	5	49	50	
EQM7	39/41	5	49	50	

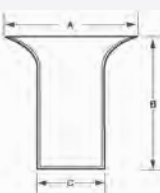
Mouldable

Code Number	Dimensions (mm)					Estimated weight (g)	
	A	B	C	D	E		
EQM11	31/34	3	30	37.8	46	80	

FUSION LABWARE SUITABLE FOR LINN



Crucible

Code Number	Dimensions (mm)			Estimated weight (g)	
	A	B	C		
MC1	41	49.5	20	38	
MC2	35	48	20	35	

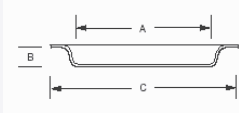


All are offered in: Pure platinum - Pt/Au alloy 95/5 - Pt/Rh alloy 97/3 - Pt/Rh alloy 90/10 – Fusion Alloy

FUSION LABWARE

FUSION LABWARE SUITABLE FOR LINN

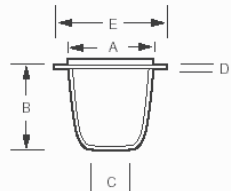
Mould

Code Number	Dimensions (mm)			Estimated weight (g)	
	A	B	C		
MM1	31/33	3	41	30	
MM2	39/41	3	51	45	

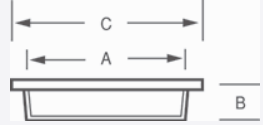


FUSION LABWARE SUITABLE FOR NIEKA

Crucible

Code Number	Dimensions (mm)					Estimated weight (g)	
	A	B	C	D	E		
NC1	36	32	20	5	43.0	25	

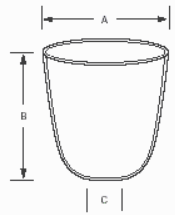
Mould

Code Number	Dimensions (mm)			Estimated weight (g)	
	A	B	C		
NM1	30/31	6	40	28	
NM3	32/34	6	42	29	
NM5	35/37	6	45	30	
NM7	40/42	6	50	34	



FUSION LABWARE INITIATIVE SCIENTIFIC

Crucible

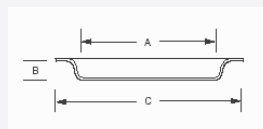
Code Number	Dimensions (mm)			Estimated weight (g)	
	A	B	C		
BC4	33	34	18	35	
BC2	34.5	36	26	30	
BC3	40	39	26	35	

FUSION LABWARE

FUSION LABWARE INITIATIVE SCIENTIFIC

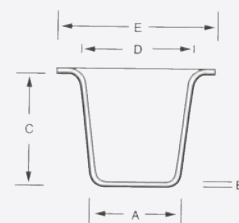
Mould

Code Number	Dimensions (mm)			Estimated weight (g)
	A	B	C	
BM1	32/34	3	49	60-100
BM2	38/40	3	54	60-100
BM3	39/41	3	54	60-100



Mouldable

Code Number	Dimensions (mm)					Estimated weight (g)
	A	B	C	D	E	
BM8	32/34	3	30	40	49	100
BM7	32/34	6	30	40	49	100
BM5	39/41	3	30	45	55	150
BM6	40/42	3	30	45	55	150

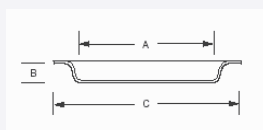


FUSION LABWARE MULTI PURPOSE



Multi-Purpose Spun Type Mould

Code Number	Dimensions (mm)			Estimated weight (g)
	A	B	C	
XM1	29/31	5	42	20-40
XM36	29/31	4	49	20-40
XM2	30/31	6	37	20-40
XM35	35/40	8	44	40
XM34	30/35	5	50	40
XM28	36/38	3	55	30-50
XM3	38/40	3.5	52	30-50
XM4	38/40	8	48	30-50

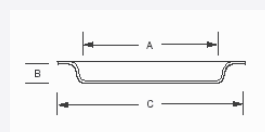


FUSION LABWARE

FUSION LABWARE MUTLI PURPOSE

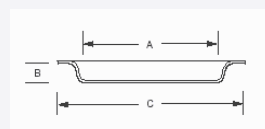
Multi-Purpose Spun Type Mould

Code Number	Dimentions (mm)			Estimated weight (g)
	A	B	C	
XM5	39/41	5	52	30-50
XMD1	29/31	6	42	40
XMD3	30/32	6	42	40
XMD4	31/33	6	52	50
XMD5	32/34	6	46	40
XMD7	35/37	6	48	50
XMD9	38/40	5	52	60
XMD10	39/41	5	52	60
XMD11	39/41	6	52	60
XMD12	40/42	6	52	60



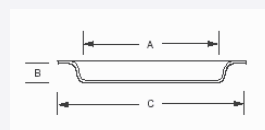
Multi-Purpose Spun Type Mould (Square or Round Flange)

Code Number	Dimentions (mm)			Estimated weight (g)
	A	B	C	
XM29	29/31	4	41	30
XM30	30/32	4	41	30
XM31	32/34	4	41	30
XM32	34/36	4	51	50
XM33	39/41	4	51	50



Multi-Purpose Pressed Type Mould

Code Number	Dimentions (mm)			Estimated weight (g)
	A	B	C	
XM6	29/31	3	42	45-100
XM7	30/32	2.4	42	45-100
XM8	30/32	3	42	45-100
XM9	30/32	4	42	50-100
XM10	32/34	3	46	50-100
XM11	33/34	2.4	46	50-100

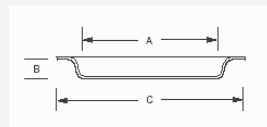


FUSION LABWARE

FUSION LABWARE MUTLI PURPOSE

Multi-Purpose Pressed Type Mould - Continued

Code Number	Dimentions (mm)			Estimated weight (g)
	A	B	C	
XM27	36/38	3	55	60-100
XM12	38/40	3	52	60-100
XM13	38/40	4.5	52	60-100
XM14	39/41	3	52	60-100
XM15	39/41	4	52	80-100



ELECTRODES



Our electrodes and anodes are manufactured for different types of electro-chemical analysis. Electrodes are available with a closed or open front cylinder. We use a Unimesh expanded sheet for the basket which is lighter and has excellent strength and structure, ideal for electrogravimetry processes. The frame is made from platinum 3% iridium for extra strength and is made at 1.5mm diameter.

Other than the table below we can manufacture any shape or size to your specifications, varying basket size or wire diameters.

Standard Electrodes

Code Number	Weight (gm)	Description	Total stem height (mm)	Cylinder diameter (mm)	Cylinder height (mm)
EF3535	21	Mesh cylinder with side stem	150	35	35
EF3550	24	Mesh cylinder with side stem	150	35	50
EF5050	31	Mesh cylinder with side stem	150	50	50
EF4542	27	Mesh cylinder with side system and 15 mm open front	150	45	42
ES1071 (spiral)	12	1.3mm diameter x 7 spirals x 15mm diameter spirals	150	15	50

Schoniger Type

Code Number	Weight (gm)	Description	Wire gauge (mm)	Total stem length (mm)	Cage height (mm)
SCHO18G	3.8	Wire mesh bent U-Shape	18	40	12
SCHO22G	1.6	Wire mesh bent U-Shape	22	40	12



Sample Carriers

Code Number	Weight (gm)	Height (mm)	Width (bent) (mm)	Body height
SAMC-OGG	3.9	44.4	9.5	12.7

FUSION LABWARE

MICRO-ANALYSIS

Micro Boats

Code Number	Lenght	Width*	Depth	Weight
MCB	40	10	10	10
MCB	50	10	10	11
MCB	75	10	10	16
MCB	90	10	10	19

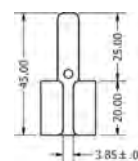
(*) Other widths available including 10, 12 and 15 mm

PAN-TGA

Code Number	Lenght	Width*
Pan without handle	Quantity lots x 10 pieces	0.3 to 0.5 g each
Pan with handle	Quantity lots x 10 pieces	0.3 to 0.5 g each

ICP-MS Torch Shield

Code Number	Weight (g)	Description	Total height (mm)	Cylinder diameter (mm)	Cylinder height (mm)
ICPMS	2.95	Pure platinum shield to improve life of ICP-MS Quartz torches	45	20	20



SPECIALITY PRODUCTS

TONGS

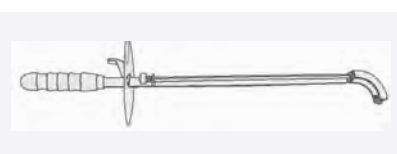
Platinum tip stainless steel tong

Code Number	Weight (g)
TGS250	250mm long with 5 or 10g per tong
TGS300	300mm long with 5 or 10g per tong



Platinum tip stainless steel tong with radiation shield

Code Number	Weight (g)
TGF420	420mm long with 12g per tong
TGF620	620mm long with 12g per tong



Titanium tong

Code Number	Weight (g)
TGF250	250mm long
TGF350	350mm long



Couldn't find the perfect match?

Just contact us and we find the matching product together. We manufacture custom made products exactly to your specification. Or our application engineers will help you design and implement the needed solution.

SPECIALITY PRODUCTS

CUSTOM FABRICATIONS & Precision Engineered Products

XRF Scientific can supply a wide range of speciality products to supplement their standard range of labware. Contact us to discuss your particular requirements.

Evaporating Materials > Sputtering Targets > Sheets > Ribbons > Thermocouple Wires

Custom fabrications

Code Number	Dimensions (mm)	Weight (g)
Custom Fabrications	Please provide shape, dimensions, alloy and the general purpose. (with drawing, if possible)	Based on your specs



REFINING SERVICE



We offer refining services that can help you reclaim value from used products at the end of their life cycle. Our terms for refining used laboratory ware are among the most competitive in the industry. Additionally, we can set up a weight metal account for the remanufacturing of all precious metals products or offer payouts at competitive rates.

Refining

Our refining team is dedicated to help customers get the most out of their precious metals. Damaged laboratory ware, like crucibles, moulds, thermocouple wires, foil, etc.; can be sent to us for refining. Choose from a range of convenient payment options: Credit of funds to your account, credit of metal to your weight metal account (for use against future orders).

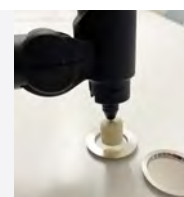


PLATINIUM CARE PRODUCTS

POLISHING FOR MOULDS

Moulds should be polished when they lose their sheen, are scratched or have performed approximately 1000 fusions.

Code Number	Description
SO-MINI-POL	Polishing complete system: Cordless mini polisher (Variable Speed)
SO-POL-KIT	Polishing kit: Polishing Paste (1x6µm-5g + 1x1µm-5g) + 10 Felt Pads



PLATINIUM CARE PRODUCTS

MOULD & CRUCIBLE CLEANING HOLDERS (IN PTFE)

Mould cleaning holder helps to protect casting surface during cleaning.

Acid resistant – T° range: - 250°C to 290°C

Code Number	Description
3039860	5 crucibles Dimensions: Ø Base 110mm (140mm with crucibles) x (H) 280mm
3039850	12 moulds Dimensions: Ø Base 110mm x (H) 280mm



**when the labware falls outside
your control specifications it's
time for remanufacture**



**return scrap
for credit**



**receive new
items**

Electric power is
required for this instrument



Hydraulic presses

Pressing accessories

Binding & grinding additives

Powder mixing and accessories

Sample preparation by pelletizing

HYDRAULIC PRESSES

MANUAL HYDRAULIC PRESSES

A manually operated hand press designed for preparing powder samples for IR and X-Ray Fluorescence Analysis. It features an accurate pressure gauge, tough housing with polycarbonate safety door.

The xrPress MT25 pump also provides an improved hand pump system for an efficient and easy hand pumping.

Key features

- Compact bench top design
- Polycarbonate safety guards
- Adjustable upper bolster
- Vacuum Ports
- Pressure release valve
- Secure fixation with rubber suction feet
- Optional digital pressure display for precise pressure applications (0.01 Ton increments)

Technical specifications

- Maximum Load: 25 Tons
- MT25: Load Range (0.5 Ton increments): 2 – 25 Ton
- MT25D: Load Range (0.01 Ton increments): 2 – 25 Ton
- Upper Pressing Area (Top Screw Diameter): 45mm
- Top Lead Screw Vertical travel: 112mm
- Lower Pressing area (Piston Diameter): 105mm
- Piston Stroke: 25mm
- Max/Min Dist. between Pressing Faces: 185mm - 73mm
- Dimensions (H min/max x W x D): 497/609 x 370 x 300 mm
- Weight: 49kg

Ordering information

- **xrPRESS** MT25: Manual Hydraulic Press - 25 Ton
- **xrPRESS** MT25D: Manual Hydraulic Press with digital display - 25 Ton

Shipping dimensions

- Dimensions: 800mm(L) x 600mm(W) x 670mm(H)
- Weight: 65kg



HYDRAULIC PRESSES

MOTORIZED HYDRAULIC PRESS T25



The MotorT25, is a power assisted hydraulic press operating to 25 Tons. The press has been designed to handle a wide variety of pressing applications, including XRF and IR sample preparation.

The pressure can be directly set at the manometer. A safety switch prevents pressing with an open door. An illuminated emergency pushdown button is also mounted at the front plate.

Pushing the green button starts the pressing process and it stops with reaching the predefined pressure. The blue button releases the pressure gently until the position is back in his normal position.

The MotorT25 is durable, easy to use and ideal for repetitive pressing operations at higher loads when used in conjunction with Lightweight Dies for x-ray fluorescence sample preparation.

Key features

- Compact bench to design
- Polycarbonate safety guards
- Safety rated lid switch
- Adjustable upper bolster
- Large working distance between pressing surfaces
- Vacuum Ports
- Pressure release valve
- Secure fixation with rubber suction feet
- Low noise operation < 70 dBa

Technical specifications

- Maximum Load: 25 Tons
- Load Range (1.0 Ton increments): 2 – 25 Ton
- Upper Pressing Area (Top Screw Diameter): 45mm
- Top Lead Screw Vertical travel: 112mm
- Lower Pressing area (Piston Diameter): 105mm
- Piston Stroke: 25mm
- Max/Min Dist. between Pressing Faces: 185mm - 73mm
- Dimensions (H min/max x W x D): 497/609 x 370 x 400 mm
- Weight: 63kg

Ordering information

- **XRPRESS** ET25: Motorized Hydraulic Press - 25 Tons (230v, 50Hz)

Shipping dimensions

- Dimensions: 800mm(L) x 600mm(W) x 670mm(H)
- Weight: 85kg



HYDRAULIC PRESSES

AUTO HYDRAULIC PRESSES



The Auto Presses are programmable, microprocessor controlled, power assisted hydraulic presses, with 8, 15 25 and 40 Tons load capability, designed for a wide variety of pressing applications.

The microprocessor control allows up to 6 user defined operation cycles each with up to 10 segments. Programming is carried out using the high contrast LCD screen which graphically displays each program segment in turn via intuitive symbols and prompts.

Key features

- Microprocessor controlled
- Intuitive user interface
- Large high contrast display
- Multi-sequence programming
- 6 user defined operation cycles
- Standard safety features

Technical specifications

- Max. Load on Ram (Piston) T8: 1-8 Tons (0.2 Ton increments)
- Max. Load on Ram (Piston) T15: 2-15 Tons (0.2 Ton increments)
- Max. Load on Ram (Piston) T25: 3-25 Tons (0.5 Ton increments)
- Max. Load on Ram (Piston) T40: 4-40 Tons (0.5 Ton increments)
- Electrical: 240 VAC 50/60 Hz .
- Base Footprint 425mm(W) x 405mm(D)
- Height (without lead screw): 545-640mm
- Sample Area: 220mm(Dia) x 155mm(H) - Weight: 95 - 135kg

Ordering information

- **AUTO T8:** Auto Hydraulic Press / Digital Display - 8 Tons (230v, 50Hz)
- **AUTO T15 :** Auto Hydraulic Press / Digital Display - 15 Tons (230v, 50Hz)
- **AUTO T25:** Auto Hydraulic Press / Digital Display - 25 Tons (230v, 50Hz)
- **AUTO T40 :** Auto Hydraulic Press / Digital Display - 40 Tons (230v, 50Hz)

Shipping dimensions

- Dimensions (AUTO T8; 15; 25) : 1070mm(L) x 610mm(W) x 670mm(H)
- Weight (AUTO T8; 15; 25): 124kg



HYDRAULIC PRESSES

Auto-APEX400 HYDRAULIC PRESS



The Auto-APEX400 hydraulic press is dedicated to the production of pressed pellets for XRF laboratories. It is a benchtop press designed for repetitive use in high-throughput testing environments and can produce sample pellets in steel rings, aluminium cups, or as unsupported pellets.

Easy sample loading

Access to the die is via a pull-out drawer, positioned at a comfortable height for repeated sample filling. The external position of the die when filling prevents build-up of stray powder inside the machine.

Key features

- Fully automatic and programmable pressing cycles
- Quickshift Technology for automatic pellet extraction
- Supports use of ring dies and standard dies
- Sample loading made easy
- Compact, benchtop press

Dies

- 32mm Pellet Die Complete
- 40mm Pellet Die Complete
- 40 x 32mm Pellet Die Complete
- 40 x 35mm Pellet Die Complete
- 51.5 x 35mm Pellet Die Complete

Technical specifications

- Rated load range: 10 – 400kN (1.0-40t)
- Load resolution: 10 kN (0.1t)
- Units of display: KN, tonnes US tons
- Final pellet thickness: 0 – 14mm
- Dimensions (H x D x W): 573 x 346 x 462mm - Weight: 120kg

Ordering information

- Auto-APEX400: Auto Hydraulic Press / Digital Display
- 40 Tons (230v, 50Hz)

Shipping dimensions

- Dimensions: 1070mm(L) x 610mm(W) x 670mm(H)
- Weight: 185kg



PRESSING ACCESSORIES & ADDITIVES

EVACUABLE PELLET

Hardened stainless steel Evacuatable Pellet Dies, used for compacting powdered samples into disks or briquettes.

Simplified handling for the 13...50mm: only the sliding part has to be removed.

All of the dies are equipped with nitrile O-ring seals and an evacuation port to allow for the removal of moisture, if desired, during the pressing process.

Key features

- Hardened Stainless Steel
- Highly polished pellets
- Unique simplified handling

Evacuatable Pellet Die complete

Code Number	DIMENSIONS (mm)
MA-E03-H	3mm evacuatable pellet die; Max load 1.5 Tons
MA-E05-H	5mm evacuatable pellet die; Max load 4.0 Tons
MA-E08-H	8mm evacuatable pellet die; Max load 6.0 Tons
MA-E10	10mm evacuatable pellet die complete; Stainless Steel, Max load 7.0 Tons
MA-E13	13mm evacuatable pellet die complete; Stainless Steel, Max load 10.0 Tons
MA-E20	20mm evacuatable pellet die complete; Stainless Steel, Max load 20.0 Tons
MA-E25	25mm evacuatable pellet die complete; Stainless Steel, Max load 30.0 Tons
MA-E32	32mm evacuatable pellet die (2.9kg); Max load 40.0 Tons – Lightweight dies
MA-E40	40mm evacuatable pellet die (2.9kg); Max load 40.0 Tons - Lightweight dies
MA-E50	50mm evacuatable pellet die; Max load 40.0 Tons



Unique simplified handling

Fill the Die Set, put the plunger on top and start

pressing with your lab press. At the end of the pressing, instead of taking out and dismounting the Die Set, just simply pull out the bottom slider and with some smooth pressure, the pellet will be released.



EVACUABLE PELLET

Hardened stainless steel Evacuatable Pellet Dies for pressing into steel rings for compacting powdered samples into press tablets. Used as backup tool for the automated system combining pulverizing mill and pellet press.

Fitted to accept standard dimensions of steel rings.

Code Number	DIMENSIONS (mm)
MA-XRF40/32	Evacuatable Pellet Die XRF Series for 40/32 mm steel Rings Steel Rings 40x32x14mm
MA-XRF40/35	Evacuatable Pellet Die XRF Series for 40/35 mm steel Rings Steel Rings 40x35x14mm
MA-XRF51.5/35	Evacuatable Pellet Die XRF Series for 51.5/35 mm steel Rings Steel Rings 51.5 x 35 x 8.5 mm



PRESSING ACCESSORIES & ADDITIVES

STEEL RINGS

Code Number	Description
SO-STR-40/35	Steel Rings OD:40mm, ID:35mm, H:14mm
SO-STR-40/32	Steel Rings OD:40mm, ID:32mm, H:14mm
SO-STR-51.5/35	Steel Rings OD:51.5mm, ID:35mm, H:8.7mm



FILLING TOOL

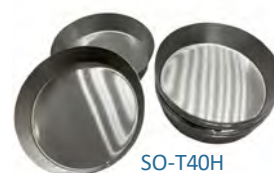
Press Pellet Filling Tool / Preparing Firm Backing with Boric acid or MIX55 for small quantity of sample.

Code Number	Description
SO-FL040	40mm filling tool



ALUMINUM CUPS

Code Number	Pellet produced	Description	Package
SO-S32	32mm	Straight Walled Aluminum cups 30 x 8mm - Back side painted	1000pcs/box
SO-T32	32mm	Tapered Aluminum cups 31.8 x 9mm	1000pcs/box
SO-S40P	40mm	Straight Walled Aluminum cups 38.5 x 9.5mm - Back side painted	600pcs/box
SO-S40HP	40mm	Straight Walled Aluminum cups 39.8 x 7.5mm - Back side painted	600pcs/box
SO-S40H	40mm	Straight Walled Aluminum cups 39.8 x 7.5mm	500pcs/box
SO-T40	40mm	Tapered Aluminum cups 39.5 x 9.5mm	500pcs/box
SO-T40H	40mm	Tapered Aluminum cups 39.8 x 9.5mm	500pcs/box



PRESSING ACCESSORIES & ADDITIVES

BINDING & GRINDING ADDITIVES

Composed of a precise blend of cellulose and wax, the **xr-Tab MIX55** tablets are specifically designed for samples that require intensive grinding and strong binding properties. These tablets not only act as a grinding aid but also serve as a reliable binder, ensuring the formation of stable and durable pressed powder tablets.

The optimized composition of the MIX55 formula allows for a reduced quantity of material per pressed tablet, enhancing both efficiency and performance in XRF analysis.



xr-Tab Mix55: Mix Cellulose/Wax: UNIVERSAL - grinding & binding additive. Can be blended with sample at 5 – 25% by weight. Excellent self-binding properties with adequate grinding abrasiveness during normal grinding cycle.

Code Number	Description	Package
1016560	xr-tab MIX55 tablets; 330mg - MIX Cellulose/Wax	1.5kg 4540pcs/bottle

LICOWAX: UNIVERSAL - binding additive. Can be blended with sample at 10 – 25% by weight. Excellent self-binding properties.

Code Number	Description	Package
SO-press004	Licowax® C micropowder	0.75kg
SO-press0041	Licowax® C micropowder	5kg
SO-press005	Licowax® C micropowder	20kg

CELLULOSE: Grinding & binding additive. Can be blended with sample at 10 – 20% by weight. Good self-binding properties with adequate grinding abrasiveness during high grinding cycle.

Code Number	Description	Package
SO-press002	Cellulose powder	0.8kg
1016550	xr-tab C20 tablets; 330mg - Cellulose	1.5kg (4540pcs/bottle)

FREEBORE: Used undiluted as sample matrix.

Code Number	Description	Package
SO-press0011	FreeBORE powder	0.8kg

PRECUT PELLET FILM

Protective Die Pellet Film: Perfect method to protect surface of die pellets and to avoid cross contamination.

Code Number	Description	Package
SO-PF32	Precut Pellet Film – 32mm	500pcs/box
SO-PF40	Precut Pellet Film – 40mm	500pcs/box



PRESSING ACCESSORIES & ADDITIVES

BINDING POWDER MIXER - VORTEX

This Powder Mix accessory is designed to mix and homogenize a powder sample with a binding additive prior to compression into pellets for XRF analysis. Homogenizing, milling and mixing with aid of balls.

Key features

- Compact and Ergonomic Design
- Fitted with a "roller" clamp to hold many type of vials sizes and diameter
- Simplified handling
- Variable Speed
- Two working mode : continue or touch

Technical specifications

- Motor: 0 to 3000 rpm
- Dimensions: 175mm(D) x 145mm(W) x 140mm(H) - Weight: 2kg

CODE NUMBER	Description
SO-PM01KIT	Powder Mix - Vortex (35 W, 230V, 50HZ) – Complete XRF Kit INC. 100 Vials and Mixing Balls



MIXING VIALS

The polystyrene vials are suitable to mix and homogenize a powder sample with a binding additive prior to compression into pellets for XRF analysis. Homogenizing, milling and mixing with aid of balls.

Code Number	Description
SO-PM03	Mixing vials (with snap caps) - 100 vials
SO-PM07	Mixing vials (with screw caps) - 100 vials



MIXING BALLS

Methyl methacrylate ball to help the mixing and homogenization of a powder sample with a binding additive prior to compression into pellets for XRF analysis.

Code Number	Description
SO-PM06	Methyl methacrylate ball - 9mm; 100/bag



CLEAR PLASTIC BOXES

Store your fused beads and press tablets in good condition. Transparent boxes with sealed lid

Code Number	Description
SO-TB001	Transparent boxes with sealed lid Ext.: Ø45 x 12mm - 100 pcs (fused glass disk and press pellets)





XRF sample cups

XRF thin films

XRF Sample Cup & Film

XRF SAMPLE CUPS

XRF Scientific offers a comprehensive selection of XRF sample cups to fit many different spectrometers. Manufactured from a select blend of contaminant-free polyethylene, these disposable cups are offered in standard universal sizes of 32, 35, 40, 45 and 47mm.

i

Couldn't find the perfect match?
Just contact us and we find the matching product together.

	Code Number	Description (Packaging: 100/pack)	OD (mm)	ID (mm)	H (mm)	VOL. (mm)
	CUP-SO-32	Universal: Single Open Ended Cup/Ring/Collar	32	25	24	10
	CUP-SO-40	Universal: Single Open Ended Cup/Ring/Collar	40	32	24	18
	CUP-SO-47	Thermo®: Single Open Ended Cup/Ring/Collar	47	38	18.5	15
	CUP-BRU1-40	Bruker® & Thermo®: Double Open Ended with Lid	40	34	21	14
	CUP-BRU2-40	Bruker®: Double Open Ended with Lid	40	35	30	18
	CUP-PAN1-35	Panalytical®: Double Open Ended with Lid	35	28	30	14
	CUP-UN1-45	Universal: Double Open Ended with Lid	45	39	34	20
	CUP-SPEC1-32	Spectro®: Double Open Ended with Lid	32	25	23	10
	CUP-UN3-32	Universal: Double Open Ended - Cup/Ring/Cap	32	26	26	14
	CUP-PAN2-35	Panalytical®: Double Open Ended - Cup/Ring/Cap	35	28	32	18
	CUP-PAN3-45	Panalytical®: Double Open Ended - Cup/Ring/Cap	45	40	32	36
	CUP-DOU-32	Universal: Double Open Ended - Cup/2 Rings	32	26	24	12
	CUP-UN4-35	Universal: Double Open Ended - Cup/Ring/Cap	35	28	30	16
	CUP-DOU-40	Universal: Double Open Ended - Cup/2 Rings	40	32	24	18
	CUP-DOU-45	Universal: Double Open Ended - Cup/2 Rings	45	40	30	32
	CUP-OUX1-32	Universal: Double Open Ended - Cup/2 Rings	32	30	38.5	18
	CUP-MC1-31	Universal: Double Open Ended - Cup/2 Rings	31	17	21	10
No photo	CUP-UN2-32	Niton®: Double Open Ended - Cup/Ring/Cap	32	26	24	12

XRF THIN FILMS

MYLAR®, POLYPROPYLENE, KAPTON®, TEFLON®, POLYESTER & HOSTAPHAN®.

XRF Scientific x-ray films are carefully selected because of their minimal impurity trace levels and their thickness uniformity that ensures reproducibility from one lot to the next.

MYLAR®

	Code Number	Description	Package
2.5μ	MYL-2.5Roll	MYLAR®, 2.5μ, Continuous Roll - 7.6cm x 91.4 m	1 roll/box
	MYL-2.5Circ05	MYLAR®, 2.5μ, Pre-cut Circle – Ø63.5mm	500pcs/box
	MYL-2.5sheet05	MYLAR®, 2.5μ, Pre-cut sheet – 7.6cm x 7.6cm	500pcs/box
3.0μ	MYL-3.0Circ05	MYLAR®, 3.0μ, Pre-cut Circle – Ø89.0mm	500pcs/box
	FV-130-112	MYLAR®, 3.0μ; <i>FILMVELOPES CIRCLES</i> Ø38.1mm	100pcs/box
	FV-130-212	MYLAR®, 3.0μ; <i>FILMVELOPES CIRCLES</i> Ø50.8mm	100pcs/box
3.5μ	MYL-3.5Roll	MYLAR®, 3.5μ, Continuous Roll - 7.6cm x 91.4 m	1 roll/box
	MYL-3.5Circ05	MYLAR®, 3.5μ, Pre-cut Circle – Ø63.5mm	500pcs/box
	MYL-3.5Circ055	MYLAR®, 3.5μ, Pre-cut Circle – Ø89.0mm	500pcs/box
	MYL-3.5Circ051	MYLAR®, 3.5μ, Pre-cut Circle – Ø76.0mm	100pcs/box
	MYL-3.5sheet05	MYLAR®, 3.5μ, Pre-cut sheet – 7.6cm x 7.6cm	500pcs/box
	MYLS-3.5Circ001	MYLAR® Low sulfur, 3.5μ, Pre-cut Circle – Ø76mm	100pcs/box
	MYLS-3.5Circ05	MYLAR® Low sulfur, 3.5μ, Pre-cut Circle – Ø63.5mm	500pcs/box
	MYLS-3.5Circ10	MYLAR® Low sulfur, 3.5μ, Pre-cut Circle – Ø89mm	1000pcs/box
	FV-135-112	MYLAR®, 3.5μ; <i>FILMVELOPES CIRCLES</i> Ø38.1mm	100pcs/box
	FV-135-212	MYLAR®, 3.5μ; <i>FILMVELOPES CIRCLES</i> Ø50.8mm	100pcs/box
6.0μ	MYL-6.0Roll	MYLAR®, 6.0μ, Continuous Roll - 7.6cm x 91.4 m	1 roll/box
	MYL-6.0Circ05	MYLAR®, 6.0μ, Pre-cut Circle – Ø63.5mm	500pcs/box
	MYL-6.0Circ055	MYLAR®, 6.0μ, Pre-cut Circle – Ø89.0mm	500pcs/box
	MYL-6.0Circ051	MYLAR®, 6.0μ, Pre-cut Circle – Ø76.0mm	100pcs/box
	MYL-6.0sheet05	MYLAR®, 6.0μ, Pre-cut sheet – 7.6cm x 7.6cm	500pcs/box
	MYLS-6Circ001	MYLAR® Low sulfur, 6.0μ, Pre-cut Circle – Ø76mm	100pcs/box
	MYLS-6Circ05	MYLAR® Low sulfur, 6.0μ, Pre-cut Circle – Ø63.5mm	500pcs/box
	MYLS-6Circ055	MYLAR® Low sulfur, 6.0μ, Pre-cut Circle – Ø89mm	500pcs/box
	FV-160-112	MYLAR®, 6.0μ; <i>FILMVELOPES CIRCLES</i> Ø38.1mm	100pcs/box
	FV-160-212	MYLAR®, 6.0μ; <i>FILMVELOPES CIRCLES</i> Ø50.8mm	100pcs/box
12.0μ	MYL-12.0Roll	MYLAR®, 12.0μ, Continuous Roll - 7.6cm x 91.4 m	1 roll/box
	MYL-12.0sheet05	MYLAR®, 12.0μ, Pre-cut sheet – 7.6cm x 7.6cm	500pcs/box

XRF THIN FILMS

POLYPROPYLENE

	Code Number	Description	Package
4.0μ	POLYP-4.0Roll	POLYPROPYLENE, 4.0μ, Continuous Roll - 7.6cm x 91.4 m	1 roll/box
	POLYP-4.0Circ05	POLYPROPYLENE, 4.0μ, Pre-cut Circle – Ø63.5mm	500pcs/box
	POLYP-4.0Circ055	POLYPROPYLENE, 4.0μ, Pre-cut Circle – Ø89.0mm	500pcs/box
	POLYP-4.0Circ051	POLYPROPYLENE, 4.0μ, Pre-cut Circle – Ø76.0mm	100pcs/box
	POLYP-4.0sheet05	POLYPROPYLENE, 4.0μ, Pre-cut sheet – 7.6cm x 7.6cm	500pcs/box
	POLYPS-4.0Circ001	POLYPROPYLENE, Low sulfur 4.0μ, Pre-cut Circle – Ø76mm	100pcs/box
	POLYPS-4.0Circ05	POLYPROPYLENE, Low sulfur 4.0μ Pre-cut Circle – Ø63.5mm	500pcs/box
	POLYPS-4.0Circ055	POLYPROPYLENE, Low sulfur 4.0μ, Pre-cut Circle – Ø89mm	100pcs/box
	FV-240-112	POLYPROPYLENE ,6.0μ; <i>FILMVELOPES CIRCLES</i> Ø38.1mm	100pcs/box
	FV-240-212	POLYPROPYLENE ,6.0μ; <i>FILMVELOPES CIRCLES</i> Ø50.8mm	100pcs/box
5.0μ	POLYP-5.0Roll	POLYPROPYLENE, 5.0μ, Continuous Roll - 7.6cm x 91.4 m	1 roll/box
	POLYP-5.0Circ05	POLYPROPYLENE, 5.0μ, Pre-cut Circle – Ø63.5mm	500pcs/box
	POLYP -5.0sheet05	POLYPROPYLENE, 5.0μ, Pre-cut sheet – 7.6cm x 7.6cm	500pcs/box
6.0μ	POLYP-6.0Roll	POLYPROPYLENE, 6.0μ, Continuous Roll - 7.6cm x 91.4 m	1 roll/box
	POLYP-6.0Circ05	POLYPROPYLENE, 6.0μ, Pre-cut Circle – Ø63.5mm	500pcs/box
	POLYP-6.0Circ055	POLYPROPYLENE, 6.0μ, Pre-cut Circle – Ø89.0mm	500pcs/box
	POLYP-6.0Circ051	POLYPROPYLENE, 6.0μ, Pre-cut Circle – Ø76.0mm	100pcs/box
	POLYP -6.0sheet05	POLYPROPYLENE, 6.0μ, Pre-cut sheet – 7.6cm x 7.6cm	500pcs/box
	POLYPS-6.0Circ055	POLYPROPYLENE, Low sulfur 6.0μ, Pre-cut Circle – Ø89mm	500pcs/box
12.0μ	POLYP-12.0Roll	POLYPROPYLENE, 12.0μ, Continuous Roll - 7.6cm x 91.4 m	1 roll/box
	POLYP -12.0sheet05	POLYPROPYLENE, 12.0μ, Pre-cut sheet – 7.6cm x 7.6cm	500pcs/box
25.40μ	POLYP-25.4Roll	POLYPROPYLENE, 25.4μ, Continuous Roll - 7.6cm x 15.2 m	1 roll/box
	POLYP-25.4Roll01	POLYPROPYLENE, 25.4μ, Continuous Roll –10.2cm x 15.2m	1 roll/box
	KAP-25.4sheet	KAPTON®, 25.4μ, Pre-cut sheet – 7.6cm x 7.6cm	500pcs/box

XRF THIN FILMS

KAPTON®

	Code Number	Description	Package
7.5μ	KAP-7.5Roll	KAPTON®, 7.5μ, Continuous Roll - 7.6cm x 15.2m	1 roll/box
	KAP-7.5Roll05	KAPTON®, 7.5μ, Continuous Roll - 7.6cm x 91.4m	1 roll/box
	KAP-7.5sheet	KAPTON®, 7.5μ, Pre-cut sheet – 7.6cm x 7.6cm	500pcs/box
12.7μ	KAP-12.7Roll	KAPTON®, 12.7μ, Continuous Roll - 7.6cm x 15.2m	1 roll/box
	KAP-12.7Roll05	KAPTON®, 12.7μ, Continuous Roll - 7.6cm x 91.4m	1 roll/box
	KAP-12.7sheet	KAPTON®, 12.7μ, Pre-cut sheet – 7.6cm x 7.6cm	500pcs/box
25.4μ	KAP-25.4Roll	KAPTON®, 25.4μ, Continuous Roll - 7.6cm x 15.2m	1 roll/box

HOSTAPHAN®

	Code Number	Description	Package
2.0μ	HOST-2.0Roll	HOSTOPHAN®, 2.0μ, Continuous Roll - 7.6cm x 91.4 m	1 roll/box
	HOST-2.0sheet05	HOSTOPHAN®, 2.0μ, Pre-cut sheet – 7.6cm x 7.6cm	500pcs/box
3.0μ	HOST-3.0Roll	HOSTOPHAN®, 3.0μ, Continuous Roll - 7.6cm x 91.4 m	1 roll/box
	HOST-3.0sheet05	HOSTOPHAN®, 3.0μ, Pre-cut sheet – 7.6cm x 7.6cm	500pcs/box
3.5μ	HOST-3.5Roll	HOSTOPHAN®, 3.5μ, Continuous Roll - 7.6cm x 91.4 m	1 roll/box
	HOST-3.5sheet05	HOSTOPHAN®, 3.5μ, Pre-cut sheet – 7.6cm x 7.6cm	500pcs/box





XRF Drift monitors

Reference materials

Reference Material & XRF Drift Monitor

XRF DRIFT MONITORS

The main use of an XRF monitor sample is to correct for instrumental drift over time. It is not necessarily a certified Reference Material (CRM) or calibration standard but can be used to correct for any changes in the calibration due to variation in instrument performance. The monitor should have good long term stability so that XRF instrument programs can be used for long periods without recalibration.

The prime requirement of a monitor is that the count rates for the elements it contains do not change over time. It is not necessary that the count rates of the elements be near those of the samples being analysed, but certain potential errors are reduced if there is an order of magnitude correspondence between the count rates from the monitor and the samples being analysed. Apart from other considerations this minimizes counting times.



AUSMON Monitors

manufactured by XRF Scientific, have excellent long term stability and this enables them to be used to monitor instrument performance and count rates over extensive periods. Where very low concentrations are being determined, the count rate of the monitor is set not to match the analytes, but it is set to obtain a counting error smaller than required for analysis in a short counting time. Where major elements are being determined, and where the spectrometer has a high sensitivity to those elements, the count rate from the monitor has been adjusted not to exceed count rates that cannot be accurately handled by modern measuring equipment.

Instrument Maintenance

The data obtained from regular analysis of the monitor can also be used to evaluate instrument performance and the laboratory environment. Because these drift monitors do not change with time, intensity changes are indicative of some change in the instrument. A decrease in intensities may indicate instrument maintenance is required. For example, it is common for scintillation counters to decrease in efficiency due to moisture reacting with the NaI crystal. When this happens, the shorter wavelengths (eg SnK α) are minimally affected while there is a large decrease in intensity for longer wavelengths, (eg FeK α).

Checking Instrument Performance

Since the monitors vary very little, different laboratories can compare intensities from the monitor to check that the instruments are giving acceptable performance.

AUSMON – “Silicates & General” contains 53 elements, so it is possible to make a comparison using all the selectable parameters, ie changing crystals, detectors and collimators, etc.

Composition










This monitor contains the following elements as majors:

Fe ₂ O ₃	MnO	TiO ₂	CaO	K ₂ O	SO ₃
2.7%	1.0%	1.0%	1.5%	1.9%	1.7%
P ₂ O ₅	SiO ₂	Al ₂ O ₃	MgO	Na ₂ O	F
1.5%	24%	11.7%	10.3%	5.7%	5.7%

Additionally the sample contains approximately 0.2 – 0.5% of each of the following:

Sc, V, Cr, Co, Cu, Ni, Zn, Ga, Gd, Ge, Se, As, Rb, Sr, Br, Cl, Y, Zr, Nb, Mo, Ag, Cd, Sn, Sb, Te, Cs, Ba, La, Ce, Nd, Pr, Sm, Yb, Hf, Ta, W, Bi, Pb, Tl, Th & U.

XRF DRIFT MONITORS

	Standard types*	No. of Elements	Stock Code
	Silicates & General	53	1201010
	Majors: Si, Al, Mg, Na, Fe, Mn, Ti, Ca, K, F, S, P.		
	Minors: Sc, V, Cr, Co, Cu, Ni, Zn, Ga, Gd, Ge, Se, As, Rb, Sr, Br, Cl, Y, Zr, Nb, Mo, Ag, Cd, Sn, Sb, Te, Cs, Ba, La, Ce, Nd, Pr, Yb, Sm, Hf, Ta, W, Bi, Pb, Tl, Th, U.		
	Iron Ores	28	1201020
	Majors: Fe, Si, Al, Ca, F, Na, Mg, Ti.		
	Minors: P, S, Cl, K, V, Cr, Mn, Co, Ni, Cu, Zn, As, Br, Sn, Ba, Pb, Mo, Cd, Sb, Bi.		
	Bauxite	29	1201030
	Majors: Al, Fe, Si, Ca, F, Na, Mg, Ti.		
	Minors: P, S, Cl, K, Ti, V, Cr, Mn, Co, Ni, Cu, Zn, As, Br, Sn, Ba, Pb, Mo, Cd, Sb, Bi, Ga.		
	Mineral Sands	39	1201040
	Majors: Ti, Fe, Zr, Si, Y, La, Ce, F, Mg, Al, Na.		
	Minors: P, S, K, Pr, Nd, Yb, Cl, Ca, Sc, V, Mn, Cr, Co, Ni, Cu, Zn, Br, As, Sr, Nb, Mo, Cd, Sn, Sb, Ba, Hf, Pb, Th, U.		
	Cement	19	1201050
	Majors: Ca, Si, Al, Mg, Fe, Na, Cl, S, F.		
	Minors: P, K, Ti, Cr, Mn, Zn, Sr, Br, Ba, Pb, As, Ni, Ti, Pb, Se.		
	Manganese Ores	15	1201070
	Majors: Mn, Fe, Si, Na, Mg, Al, Ti, Ba, V.		
	Minors: P, K, Ca, Br, Pb.		
	High Nickel Products	25	1201080
	Majors: Ni, Fe, S, Si, F, Na, Mg, Al.		
	Minors: P, Cl, K, Ca, Ti, Mn, Cr, Co, Cu, Zn, As, Se, Br, Mo, Ag, Pb, Bi.		
	Rare Earths	39	1201090
	Majors: La, Ce, Nd, Y, Al, Mg, Si, P, Na, Fe.		
	Minors: Pr, Sm, Eu, Tb, Gd, Dy, Ho, Er, Tm, Yb, Lu, F, S, Cl, K, Ca, Sc, Ti, Mn, Ni, Br, Sr, Zr, Nb, Ba, Hf, Pb, Th, U.		
	Sulphides - Lead, Zinc, Iron & Copper Ores	32	1201100
	Majors: Pb, Zn, Fe, Cu, Ni, S, Na, Mg, Al, Si, P, Ca, As, Sb, Bi.		
	Minors: Cl, K, Ti, Co, Cr, Mn, Se, Ag, Cd, Sn, Ba, U, Mo, Te, Tl, F, Sr.		

*Available in both 40mm & 32mm diameter size. Additional types & sizes available upon request

REFERENCE MATERIALS

REFERENCE MATERIALS CERTIFIED FOR PT, PD, AU, AG



*Quality internationally accepted Reference Materials
affordable for use on an every batch basis.*

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- Proficiency testing (PT's)
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- Preparation of Powder Sample Sets
- XRF samples



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FUSED CALIBRATION BEADS

Single and multi-element standards of fused borate beads, customised for your calibration. Manufactured from Certified Reference Materials (CRM) or customised for your analytical requirements. The Fused Calibration Beads are 40mm or 32mm diameter. Thickness of approximately 4mm and perfectly flat.



*Our applications Scientists will help you design
and implement the needed solution.*





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