

FLUXANA®

XRF Application Solutions

XRF Fusion Machines

VITRIOX® GAS
Gas Fusion Technology



VITRIOX® ELECTRIC
Electrical Fusion Technology



**NEW
DESIGN**

VITRIOX® GAS

The VITRIOX® GAS is a gas operated fusion machine with cold to cold automation and up to 6 positions that can operate simultaneously. Its technology is based on many years experience in XRF fusion and analysis. It offers:

Safety: optional platinum mould sensors, customer-specific safety housing and fume hood

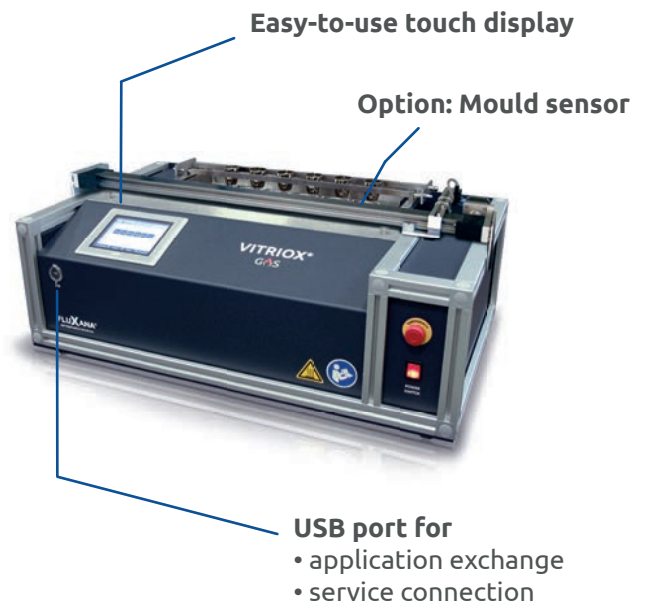
Precision: great advantages over pressed pellets preparation and good temperature control

Reliability: robust design and high quality parts ensure a long product life with low maintenance

Comfort: touch display for the storage of multiple application settings and fusion programs; easy-to-use software

Flexibility: upgradeable; ICP/AAS and peroxide option

Service: expert laboratory support; service team for international support; complete XRF solutions



ICP/AAS Option



Peroxide Option

VITRIOX® GAS 2, 4 and 6 stations

Technical Data	VITRIOX GAS 2XRF	VITRIOX GAS 4XRF	VITRIOX GAS 6XRF
Stations:	2 XRF	4 XRF	6 XRF
Voltage:	110 V/60 Hz 230 V/50 Hz	110 V/60 Hz 230 V/50 Hz	110V/60 Hz 230V/50 Hz
Power:	150 W	200 W	200 W
Temperatures:	0-1,450 °C	0-1,450 °C	0-1,450 °C
Permiss. air pressure:	4 bar	4 bar	4 bar
Permiss. natural gas pressure:	250 mbar	250 mbar	250 mbar
Permiss. propane gas pressure:	250 mbar	250 mbar	250 mbar
Permiss. oxygen gas pressure:	2 bar	2 bar	2 bar
Air consumption:	max. 1 m ³ /hr	max. 2 m ³ /hr	max. 3 m ³ /hr
Oxygen consumption:	max. 0.3 m ³ /hr at 3 bar	max. 0.8 m ³ /hr at 3 bar	max. 1.2 m ³ /hr at 3 bar
Natural gas consumption:	max. 0.48 m ³ /hr	max. 0.98 m ³ /hr	max. 1.44 m ³ /hr
Or LPG* liquefied petroleum gas	max. 0.33 m ³ /hr	max. 0.48 m ³ /hr	max. 0.61 m ³ /hr
Length:	500 mm	500 mm	500 mm
Width:	650 mm	650 mm	705 mm
Height:	300 mm	300 mm	300 mm
Weight:	~ 35 kg	~ 40 kg	~ 45 kg
Samples per h:	5 - 7	8 - 10	16 - 20

* LPG, bottled gas

Other versions on request. Please ask for installation requirements!

VITRIOX® ELECTRIC

The VITRIOX® ELECTRIC is a fully automatic fusion machine with cold to cold operation for 1, 2, 4 or 6 samples; 1 sample at a time. It has been designed to achieve the best possible results in day-to-day XRF laboratory routine. It offers:

Safety: casting dish monitoring, flux resistant **FLUXinert®** ceramics and safety housing with autolock function

Highest precision: closed oven design with lift bottom for high temperature control; unique high speed 3D rotation

Comfort: autosampler handles samples automatically; oven room observation via mirror; touch display with easy to use software

Flexibility: modular design, ICP/AAS option; continuous operation option

Service: expert laboratory support; service team for international support; complete XRF solutions; wide range of calibrations

Special applications: volatile element analysis; use of quartz crucibles

EU Patent: 2 901 131 B1
US Patent: 9 651 463 B2



NEW DESIGN

VITRIOX® 1 station



VITRIOX® 4 stations with ICP option

Option:
quartz crucibles



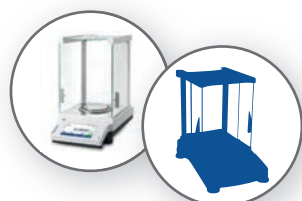
VITRIOX® ELECTRIC 1, 2, 4 and 6 stations

Technical Data	1 Station	2 Stations	4 Stations	6 Stations
Stations:	1 XRF / ICP	2 XRF / ICP	4 XRF / ICP	6 XRF / ICP
Voltage:	230 V/50-60 Hz	230 V/50-60 Hz	230 V/50-60 Hz	230 V/50-60 Hz
Power:	3000 W	3000 W	3000 W	3000 W
Power supply:	1~ AC / 16A	1~ AC / 16A	1~ AC / 16A	1~ AC / 16 A
Temperatures:	0-1,250 °C	0-1,250 °C	0-1,250 °C	0-1,250 °C
Permiss. air pressure:	6 bar	6 bar	6 bar	6 bar
Air consumption:	max. 1.5 m ³ /hr	max. 1.5 m ³ /hr	max. 1.7 m ³ /hr	max. 1.9 m ³ /hr
Protection category:	IP20	IP20	IP20	IP20
Length:	800 mm	1107.5 mm	1307.5 mm	1507.5 mm
Depth:	760 mm	760 mm	760 mm	760 mm
Height:	862 mm	862 mm	862 mm	862 mm
Weight:	~ 120 kg	~ 120 kg	~ 135 kg	~ 150 kg
Samples per h:	3	4	5	6

Other versions on request. Please ask for installation requirements!

NEW: BORAMAT®

The BORAMAT® Material Doser is an automatic dosing machine for flux in XRF analysis. It is designed to improve day to day routine in the laboratory, allowing the user to weigh faster and monitor every weighing. Since it is compatible with all common laboratory scales, it can be installed in most laboratories without having to invest in a new scale.



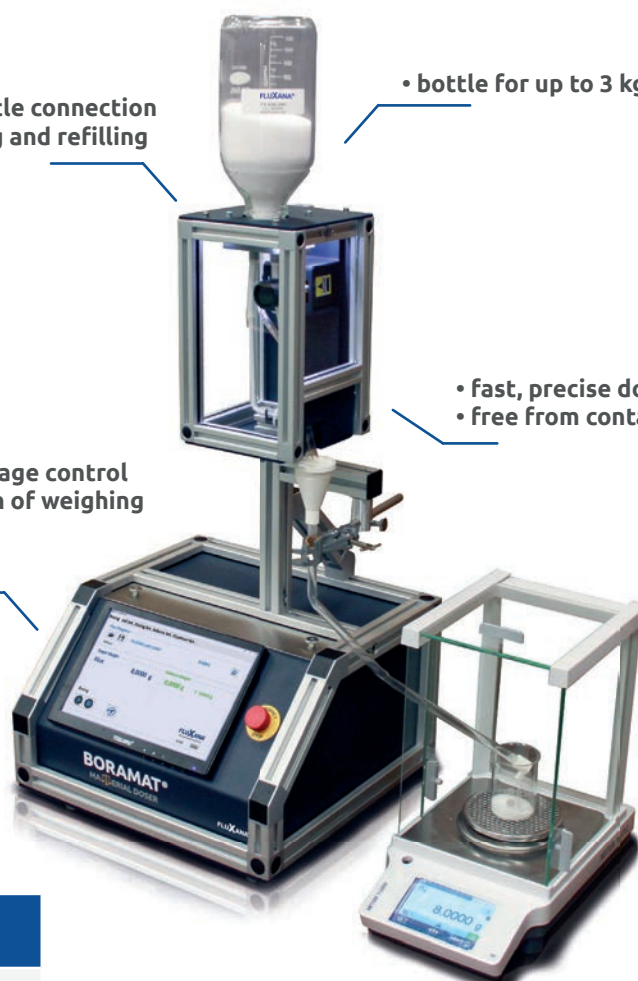
Works with all
common scales

- universal bottle connection
- easy changing and refilling

- bottle for up to 3 kg flux

- intelligent dosage control
- documentation of weighing protocols
- ready for LIMS

- fast, precise dosage
- free from contamination



- compatible with scales
from various manufacturers

Technical Data	BORAMAT®
Weight	17 kg
Power connection	100-240 V 50/60 Hz
Length	390 mm
Width	370 mm
Height (without bottle)	760 mm
Supply bottle	Thread GL45
Maximum bottle size	3 kg
Minimal balance precision	1 mg
Software	Windows 10
Scale requirements	Maximum Capacity: 220 g Readability: 0.1 mg Connection: RS232

Applications

We offer ready-to-go calibration packages for X-ray fluorescence analysis.

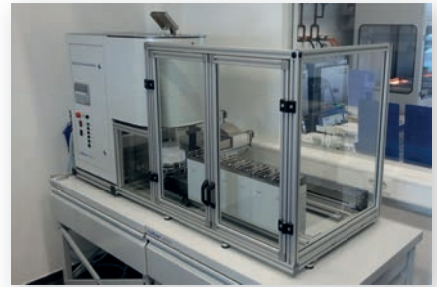
Please see our application flyer for further information or visit www.fluxana.com/application/packages



Safety Housing with Safety Glass

All **VITRIOX® ELECTRIC** fusion machines come with our customer-specific safety housing, which prevents hot surface contact by the user.

We recommend a separate safety housing with attached fume hood for all **VITRIOX® GAS** fusion machines.



Fume Hood

Fume hood made of high-grade steel

- Motor (230 V/50 Hz/90 mA) continuously variable to 2760 r.p.m., 110 V version also available.
- Height 300 mm, width 840 mm, depth 640 mm

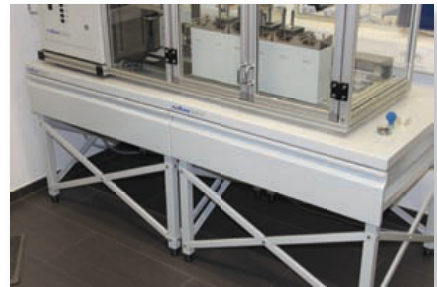


The Table

Together with the VITRIOX® fusion machines and the safety housing, these tables form a professional setup.

The tables have an integrated drawer for all required accessories. Made of robust steel.

- Height 730 mm, width 910 mm, depth 760 mm



Tools

Item No.	Description	Quantity
FS-OZ327	Crucible tongs, platinum shoes, length 230 mm, ca. 5 g Pt	1
VU-US1.9kit	Ultrasonic bath with heating, Vol. ca. 1.9 l for cleaning	1
WZ-0004	Suction tool for beads and pellets	1
VU-Tiegel_AI2O3	Aluminium oxide crucible for determination of LOI (loss on ignition). Inexpensive and very robust alternative to platinum	1



Flux

Borate flux with guaranteed purity from in-house production. All fluxes are delivered with specifications of analysis.

Anhydrous homogeneous pre-fused fluxes with a low loss on ignition and defined granulometry. With these fluxes, the sample is totally dissolved in a borate glass with a perfect surface.



- Non-hygroscopic
- Dust < 1%
- > 99.98 %

Item No.	Description
FX-X00	Lithium metaborate
FX-X20	Lithium tetraborate : Lithium metaborate 20:80
FX-X35	Lithium tetraborate : Lithium metaborate 35.3:64.7 1.2:2.2
FX-X50	Lithium tetraborate : Lithium metaborate 50:50
FX-X65	Lithium tetraborate : Lithium metaborate 66:34
FX-X80	Lithium tetraborate : Lithium metaborate 80:20
FX-X100	Lithium tetraborate

Available in different quantities. Other fluxes on request. Included non-wetting agents available.

NEW: All fluxes available with a defined granulometry for BORAMAT® (FX-X100-P)

Platinum Ware

We supply platinum ware made from platinum/gold 95/5 for fusion machines and laboratory needs. Old platinum ware is accepted for recycling as credit against your next order.

We also offer all platinum ware in FKS. This surface finishing increases the lifetime of your crucibles and moulds.



Item No.	Description	OD mm	ID mm	Height mm	Bottom mm	Weight g
FS-VIT01	Crucible VIT. E	34	20	38	0.5	45
FS-VIA4005	Mould VIT. E	31	29	3.8	0.8	30
FS-VIA4006	Mould VIT. E	36	34	3.8	0.8	46
FS-VIA4007	Mould VIT. E	34	32	3.8	0.8	30
FS-VIA4008	Mould VIT. E	41	39	3.8	0.8	46
FS-OT866	Crucible VIT. GAS	34	20	38	0.5	45
FS-OT867	Crucible VIT. GAS	36	22.5	38	0.5	54
FS-OA434	Mould VIT. GAS	31	29	3.8	0.8	31
FS-OA877	Mould VIT. GAS	34	32	3.8	0.8	31
FS-OA438	Mould VIT. GAS	36	34	3.8	0.8	45
FS-OA439	Mould VIT. GAS	41	39	3.8	0.8	46

For your order in platinum FKS, just add "FKS" to the part number! Other sizes on request. Molds with 1.4 mm bottom available.

Sample Storage

It is important to keep reference materials prepared as beads or pellets in a dust free and dry environment.

There is a wide range of boxes and containers for single or multiple samples and standards for XRF.



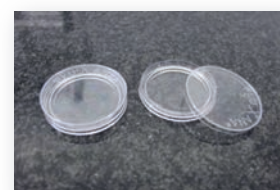
Item No.	Description	Compartments	Qty/Set
BX-0001-18	Box 210 x 120 x 35 mm with lid	18x max 32 mm pellets/cup	1
BX-0001-24	Box 330 x 220 x 53 mm with lid	24x max 52 mm pellets/cup	1
BX-0002-5	Drawer cabinet with 5 drawers, each with 42 partitions for D max 34 mm, H 17 mm (ideal for pellets D max 34 mm)	210x max 34 mm pellets	1
BX-0003-5	Drawer cabinet with 5 drawers, each with 25 partitions for D max 42 mm, H 17 mm (ideal for pellets D max 42 mm)	125x max 42 mm pellets	1
BX-0004-39	Box for single pellet H 15 mm	max 34 mm pellets	100
BX-0004-46	Box for single pellet H 16 mm	max 42 mm pellets	100
BX-0004-46-6	Box for single pellet H 6 mm	max 46 mm pellets	100
BX-0004-50	Box for single pellet H 25 mm	max 50 mm pellets	100
BX-0006-P	Plastic tweezers for beads		1
BX-0010	Desiccator W350 x H334 x D410 mm incl. dry pearls, tray for dry pearls and hygrometer to combine with storage case 1x BX-0002-5 or 1x BX-0003-5 or 3x BX-0001-24		1
BX-0011	Desiccator W640 x H550 x D410 mm incl. dry pearls, tray for dry pearls and hygrometer to combine with storage case 4x BX-0002-5 or 4x BX-0003-5 or 12x BX-0001-24		1
WZ-0004	Handling tool for glass beads and pellets		1

Additional individual drawers to add to the cabinet are available in various colors. Other dimensions on request.

For storing your beads and pellets, we would recommend:

NEW: BX-0004-47:

Boxes to store individual samples with bead protection at the inner edge of the box. It prevents damage to the bead by avoiding contact of the bead surface to the box.

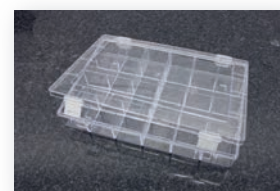


BX-0001-18 / BX-0001-24:

Boxes to store your individual samples.

BX-0004-39 / BX-0004-46 / BX-0004-50 / BX-0004-46-6:

Store 32 mm (40 mm) samples in these transparent boxes with sealed lid.



BX-0002-5, BX-0003-5:

Cabinets with drawers suitable for storage of non-hygroscopic samples.

BX-0010, BX-0011:

Desiccators to store your sensible calibration and monitor samples. Ideal combination with BX-0002-5, BX-0003-5 or BX-0001-24.

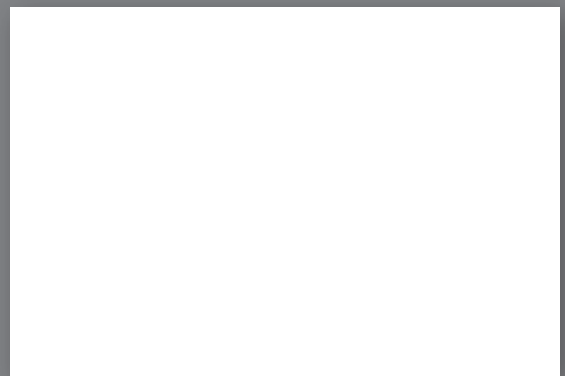


Tip: Use our WZ-0004 tool to handle your pellets and beads and avoid finger contact.



FLUXANA® GmbH & Co. KG
Borschelstraße 3, 47551 Bedburg-Hau, Germany
Tel.: +49 (0) 2821 997 32-0
Fax: +49 (0) 2821 997 32 29
E-Mail: info@fluxana.de
Web: www.fluxana.com

Amtsgericht Kleve: HR-A 2935, HR-B 8211
Ust-IdNr.: DE 814692564, Steuer-Nr. 116/5755/0442
Finanzamt Kleve



Official agent