FLUXANA®

XRF Application Solutions

VITRIOX®

Electrical Fusion Technology
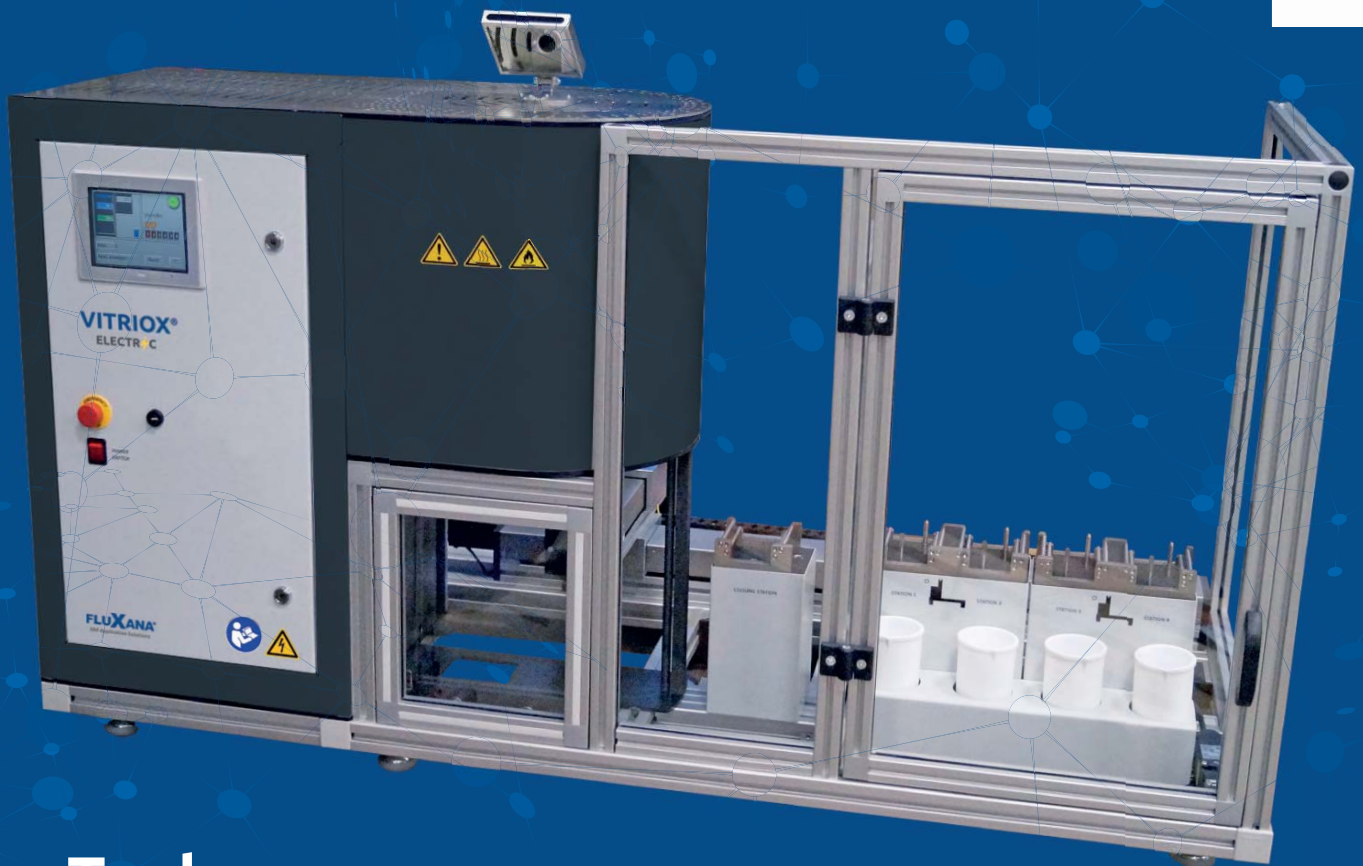

Tools:

- Fusion machine
- Flux
- Flux mixtures for specific applications
- Platinum ware
- Applications
- Sample Storage

NEW: Touch Display

German utility patent, international patent pending

Fusion technology is used to prepare samples to be analyzed with an X-ray fluorescence machine. It is also used to improve precision over pressed powder technology.

VITRIOX®

- Fully automatic cold to cold operation for 1, 2, 4 or 6 samples; 1 sample at a time
- Highest precision (ISO 29581-2 „expert performance" for all kinds of material
- Full microprocessor control with a storage for 10 different application settings
- High temperature control allows use of applications with variable temperature settings
- Works with all common flux mixtures

VITRIOX® 6 stations with ICP option

Exclusive Features:

- **NEW:** USB port
- **NEW:** Monitoring of casting dishes
- **NEW:** ICP Option
- **NEW:** Touch Display
- Lift bottom furnace
- Agitation by high speed rotation (250 rpm, bidirectional)
- Observation of the sample during fusion using a mirror
- Crucible holder and oven floor made from **FLUX**inert® ceramic (no attack from lithiumborate, can be cleaned in diluted HCl)
- Autosampler handles up to 6 samples automatically
- Optional: Extra position for continuous operation available (loading and unloading of samples during fusion program)
- Optional: Use of lids on the crucibles for volatile elements like F, Cl or S
- Optional: Oven ceiling made from **FLUX**inert®

VITRIOX® 1 station with ICP option

VITRIOX® 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 / 16 A	1~ AC / 16 A	1~ AC / 16 A	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 m³/hr	max. 1.5 m³/hr	max. 1.7 m³/hr	max. 1.9 m³/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!

Safety Housing with Safety Glass

All **VITRIOX®** electrical fusion machines come with our customer-specific safety housing, which prevents any hot surface contact by the user. With the optionally available continuous operation, cold samples can be removed while maintaining user safety.

Fume Hood

Fume hood made of high-grade steel

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

The Table

- Together with the VITRIOX® and the hood, these 2 tables form a professional setup
- Height 769 mm, total width for 2 tables 1820 mm, depth 760 mm
- The tables have an integrated drawer for all required accessories
- Manufactured of robust steel

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%
- Special fluxes on request
- > 99.98%

Item No.	Description	Quantity in kg
FX-X100-2	Lithium tetraborate	2
FX-X100-25N	Lithium tetraborate	25
FX-X80-2	Lithium tetraborate : Lithium metaborate 80:20	2
FX-X80-2LiBr	Lithium tetraborate : Lithium metaborate 80:20 +0.4 % LiBr	2
FX-X65-2	Lithium tetraborate : Lithium metaborate 66:34	2
FX-X65-25N	Lithium tetraborate : Lithium metaborate 66:34	25
FX-X50-2	Lithium tetraborate : Lithium metaborate 50:50	2
FX-X50-25N	Lithium tetraborate : Lithium metaborate 50:50	25
FX-X20-2	Lithium tetraborate : Lithium metaborate 20:80	2
FX-X20-25N	Lithium tetraborate : Lithium metaborate 20:80	25
FX-X35-2	Lithium tetraborate : Lithium metaborate 35.3:64.7 1.2:2.2	2
FX-X00-2	Lithium metaborate	2

Platinum Ware

We supply platinum ware made from platinum/gold 95/5 for
fusion machines and laboratory needs.
We accept old platinum ware 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 molds.

Please ask for a quote.

Item No.	Description	OD mm	ID mm	Height mm	Bottom mm	Weight g
FS-VIT01	Crucible	34	20	3.8	0.5	45
FS-VIA4005	Mold	31	29	3.8	0.8	30
FS-VIA4006	Mold	36	34	3.8	0.8	46
FS-VIA4007	Mold	34	32	3.8	0.8	30
FS-VIA4008	Mold	41	39		0.8	46

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

Tools

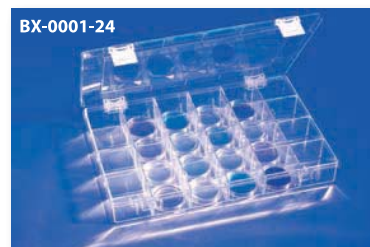| Item No.	Description	Quantity
FS-OZ327	Crucible tongs, platinum shoes, length 230 mm, ca. 5 g Pt	1
VU-US1.9kit	Ultrasonic bath with heating, Vol. ca. 1.9 l for cleaning	1
WZ-0004	Suction tool for beads and pellets	1
VU-Tiegel_Al2O3	Aluminum oxide crucible for determination of LOI (loss on ignition). Inexpensive and very robust alternative to platinum	1

VU-Tiegel_Al2O3

VU-US1.9kit

Applications

We offer ready-to-go calibration packages for X-ray fluorescence analysis.
Please see our applicaton flyer for further information.

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.

BX-0001-24

BX-0010

BX-0011

BX-0003-5

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 colours.
Other dimensions on request.

For storing your beads and pellets, we would recommend

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.
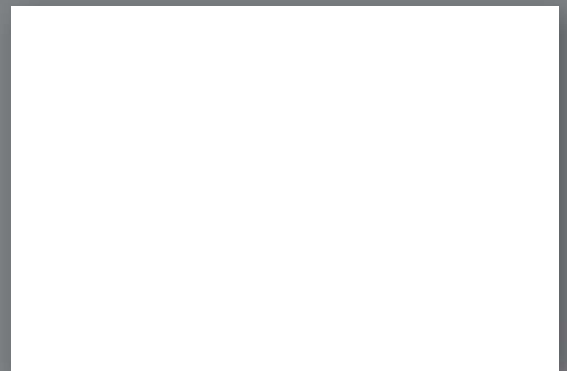
BX-0010, BX-0011:
Desiccators to store your sensible calibration and monitor samples.
Ideal combination with BX-0002-5, BX-0003-5 or BX-0001-24.

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

Official agent