

# FLUXANA

Your supplier for  
XRF Application Solutions

# HD

ELEKTRONIK  
Fusion machines

## Vaneox - Pressing Technology

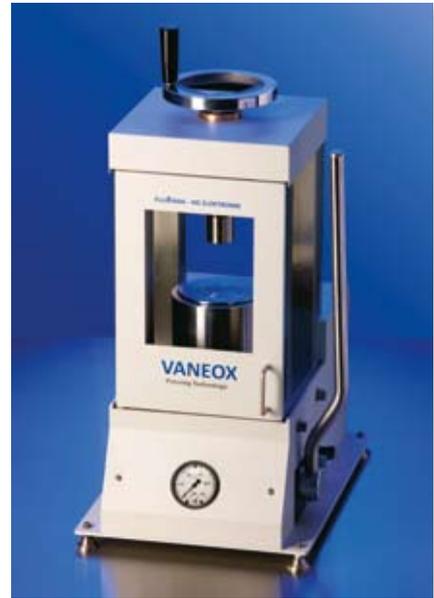
### Tools:

- Press
- Die
- XRF - Mixer
- Filling tool for BOREOX
- Milling and Accessories
- Alu cups
- Pelletfilms
- Binder
- Sample Storage



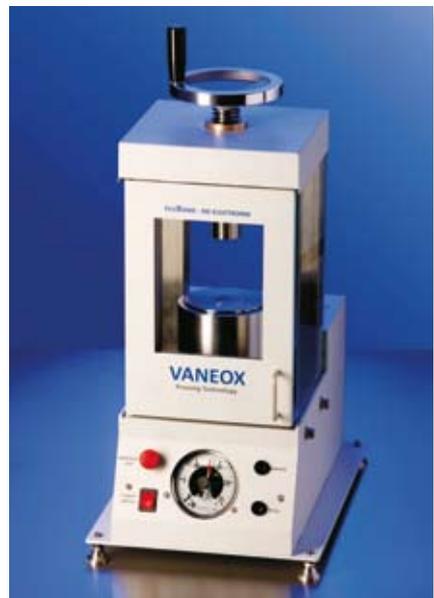
## Vaneox - 25t manual

Max pressure	25t
Pressure display	0-25t
Piston	115mm
Stroke	30mm
Bolster Screw diameter	40mm
Bolster Screw Travel	200mm
Min. distance between pressing faces	70mm
Max. distance between pressing faces	170mm
Dimensions (W x H x D)	340 x 840 x 475mm
Weight	110kg



## Vaneox - 25t automatic

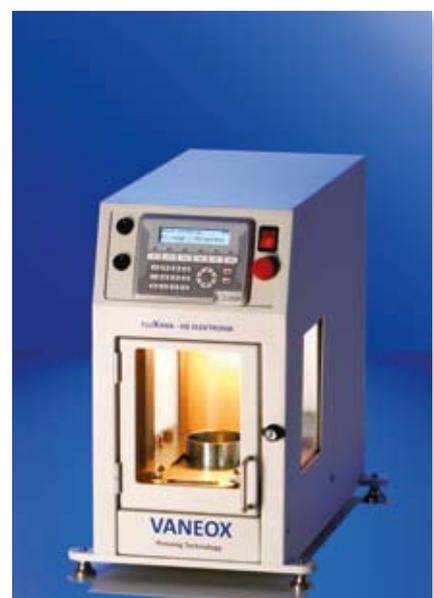
Max pressure	25t
Pressure display	0-25t
Piston	115mm
Stroke	30mm
Bolster Screw diameter	40mm
Bolster Screw Travel	200mm
Min. distance between pressing faces	70mm
Max. distance between pressing faces	170mm
Voltage	230V/50Hz, 110V/60Hz
Dimensions (W x H x D)	340 x 840 x 475mm
Weight	115kg



## Vaneox - 40t automatic

- first bench top unit worldwide
- integrated die for all common preparation techniques  
e.g. 32mm, 40mm, 40/32mm rings, 51.5/35mm rings, also customer specific diameters with or without ring possible.
- 10 different application programs
- 3 ramping steps programmable
- Press chamber lightening

Max pressure	40t
Pressure display	Display
Piston	100mm
Stroke	60mm
Voltage	230V/50Hz, 110V/60Hz
Dimensions (W x H x D)	340 x 490 x 550mm
Weight	120kg



## The Table

- every Vaneox can be mounted stationary to the table
- the table has an integrated drawer for all needed accessories
- manufactured of robust steel
- height 750 mm, width 910 mm, depth 760 mm



## The Die

The dies are designed for use with our hydraulic presses. Halide disks for infrared analysis are usually produced with 13mm sized dies.

The larger sized dies with 32 and 40mm are commonly used in pressing samples for XRF and XRD analysis and many other industrial applications. Nevertheless Fluxana can produce dies with diameters between 8 and 51mm. All of the dies are equipped with nitrile O-ring seals and 2 pellets to press the sample between.



Item No.	Description
PR-L33000	Evacuable pellet die, 13mm for IR
PR-CD-60XX*	Die with 2 pellets and piston, XX=diameter in mm
PR-CD-6032R	Die with 2 pellets and piston and stamp tool. Pressed samples of 32mm in a ring with an OD of 40mm
PR-CD-6040R	Die with 2 pellets and piston and stamp tool, pressed samples of 35mm in a ring with OD of 40mm
PR-CD-6035R	Die for use with ring WZ-0002 (see below)

\* 8-51mm diameter available  
Other diameters on request.

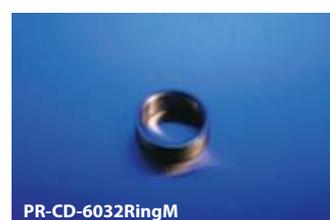
## Rings for pellets

Used for manual and automatic sample handling  
Robust design

Item No.	Description	Quantity
WZ-0002	Outerdiameter 51.5mm Innerdiameter 35mm Height 8.6mm Groove outside of 2.5mm	1
PR-CD-6032RingM*	Outerdiameter 40mm Innerdiameter 32mm Height 14mm	1
PR-CD-6040RingM**	Outerdiameter 40mm Innerdiameter 35mm	1

\* Suitable for PR-CD-6032R (see Die table)

\*\* Suitable for PR-CD-6040R (see Die table)



## XRF – Mixer and accessories

- variable speed control between 0-3000 rpm
- powerful 46 watt motor
- continuous or touch activation
- red LED is illuminated while unit is turned on
- shock-absorber feet
- includes rubber platform cover
- 145 x 175 x 140 mm (W x D x H)
- Weight 1,9 kg
- Power AC 230V/50Hz or 110V/60Hz



Item No.	Description	Quantity
<b>MU-K-Mixer</b>	Mixer to mix powder with wax (does not include holding clip for mixing beakers)	1
<b>MU-K-Holder</b>	Holding clip for mixing container to use with XRF-Mixer	1
<b>MU-SContainer</b>	Mixing container 40ml	1 Set (100 pcs.)
<b>MU-MB-380-1</b>	Mixing balls, 9mm*	1 Set (100 pcs.)
<b>BM-0002-1</b>	CEREOX (Licowax C Micropowder) wax binder for XRF	250g
<b>MU-K-Ring</b>	O-Ring to fix the holding clip on the XRF-Mixer	1 pack (5 pcs.)
<b>MU-K-Mat</b>	Anti slip mat	1
<b>BX-0006-P</b>	Plastic forceps for mixing balls	1
<b>MU-XRF-Mixing Set</b>	XRF Mixing Starter Kit (XRF-Mixer, Holding clip, 5 O-Rings, 100 containers, 100 balls, 1 bottle wax (250g), 1 anti slip mat, 1 plastic forceps)	1

\* also available in 5mm, 7mm and 12,7mm, please ask for a quote



## BOREOX replaces the harmful boric acid.

Especially for low quantities of samples a BOREOX backing might be a solution.

To place the sample in the center we offer a special tool to pour the sample into the die.

A piston helps to press before filling the BOREOX on top.



Item No.	Description
<b>PR-CD-BA32</b>	Filling tool BOREOX backing for die 32mm
<b>PR-CD-BA40</b>	Filling tool BOREOX backing for die 40mm

## Mills and Grinding

- Quick, efficient pulverization and homogenization
- High sample throughput due to short grinding times and two grinding stations
- Reproducible results by digital preselection of grinding time and vibrational frequency
- Large range of grinding jars



Item No.	Description	Quantity
<b>MU-RMM400</b>	Mixer Mill MM400 for 100-240V, 50/60Hz	1
<b>MU-RMM400-MZr35</b>	Grinding jar of Zirconia 35ml	1
<b>MU-RMM400-MK25ZRO</b>	Grinding ball 25mm of Zirconia	1
<b>MU-RMM400-MWC25</b>	Grinding jar of tungsten carbide 25ml	1
<b>MU-RMM400-KWC15</b>	Grinding ball 15mm of tungsten carbide	1

Other mills with accessories on request.

## Alu Cups

Alu cups are used to stabilize your sample from 2 sides. However for a successful use the sample must show at least some binding properties. Another advantage of this method is the possibility of labeling and sucking with autosamplers.



Item No.	Description	Quantity
<b>AC-530-1</b>	Alu cups straight wall 30mm x 8mm for 32mm pellets	<b>1.000 pcs</b>
<b>AC-538-6</b>	Alu cups straight wall 38,5mm x 9,5mm for 40mm pellets	<b>600 pcs</b>
<b>AC-550-6</b>	Alu cups straight wall 39,8mm x 7,5mm for 40mm pellets	<b>600 pcs</b>
<b>AC-532-1</b>	Alu cups taper wall 31mm x 7,9mm for 32mm pellets	<b>1.000 pcs</b>
<b>AC-540-6</b>	Alu cups taper wall 39,8mm x 9,2mm for 40mm pellets	<b>600 pcs</b>

## Pelletfilm

The use of the pelletfilm allows also to press polymers using a standard die and press.

Also the pelletfilm avoids extra cleaning of the die and any contamination of your sample

Please ask for more details.



Item No.	Description	Diameter / mm
<b>TF-PF-32500</b>	Pelletfilm 500 pieces	32
<b>TF-PF-40500</b>	Pelletfilm 500 pieces	40

## Binder

For the preparation of pressed pellets for XRF, in most cases, a binder is required.

One of the traditional materials used as a binder or backing material is boric acid. However, recently, this will be classified by REACH as toxic. Based on this health issue, boric acid is now not considered an appropriate material for this application. FLUXANA can now offer "**BOREOX**", a direct replacement. This is a harmless organic material which shows excellent binding properties and high stability under x-rays. It is particularly good when used as a backing material.



Alternatively, "**CEREIX**" can be used. CEREIX is comprised of a wax, previously known as Hoechstwax. This material is clean and very stable under x-rays. Mixed with a sample (1 part wax to 4 parts sample) CEREIX forms a perfect pellet with any material.

**CELLEOX** is a cellulose based binder. The binding properties are not so good as BOREOX and CEREIX. Therefore it is mostly used as grinding aid. A particular property is the adsorption of liquids so it can be used, mixed with aggressive liquids, for analysis in a sample cup.

**MULTIMIX** is a grinding aid which is harder than CELLEOX and especially good for hard sample materials such as cement or sand. Typically, 2 to 3 0.25 gram tablets would be added to 30 gram of sample in the mill.

Sample and binder must be mixed homogeneously.  
FLUXANA recommends their automatic mixer (MU-K-Mixer)

Item No.	Description	Quantity
<b>BM-0008</b>	BOREOX (replacement for boric acid) for XRF	250 g
<b>BM-0008-B</b>	BOREOX (replacement for boric acid) for XRF	20 kg
<b>BM-0002-1</b>	CEREIX* (Licowax C, Hoechstwax) for XRF	250 g
<b>BM-0002-1b</b>	CEREIX* (Licowax C, Hoechstwax) for XRF	20 kg
<b>BM-0003-250</b>	CELLEOX Cellulose powder for XRF	250 g
<b>BM-0003-20</b>	CELLEOX Cellulose powder for XRF	20 kg
<b>BM-0003-1</b>	Cellulose C20 grinding aid tablets a 0,33g	1 kg
<b>BM-0003-5</b>	Cellulose C20 grinding aid tablets a 0,33g	5 kg
<b>BM-PXR-225</b>	Multimix grinding aid tablets a 0,25g	125 g
<b>BM-PXR-225-1k</b>	Multimix grinding aid tablets a 0,25g	1 kg

\* CEREIX is a binder which forms very stable pellets.



# 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-0010



BX-0011



BX-0001-24



BX-0003-5

Item No.	Description	Compartments	Qty/Set
<b>BX-0001-18</b>	Box 210 x 120 x 35mm with lid	18x max 32mm pellets/cups	1
<b>BX-0001-24</b>	Box 330 x 220 x 53mm with lid	24x max 52mm pellets/cups	1
<b>BX-0002-5</b>	Drawer cabinet with 5 drawers, each with 42 partitions for D max 34mm, H 17mm (ideal for pellets D max 34mm)	210x max 34mm pellets	1
<b>BX-0003-5</b>	Drawer cabinet with 5 drawers, each with 25 partitions for D max 42mm, H 17mm (ideal for pellets D max 42mm)	125x max 42mm pellets	1
<b>BX-0004-39</b>	Box for single pellet H 15mm	max 32mm pellets	1
<b>BX-0004-46</b>	Box for single pellet H 16mm	max 42mm pellets	1
<b>BX-0004-46-6</b>	Box for single pellet H 6mm	max 46mm pellets	1
<b>BX-0004-50</b>	Box for single pellet H 25mm	max 50mm pellets	1
<b>BX-0006-P</b>	Plastic tweezers for beads		1
<b>BX-0010</b>	Desiccator W350 x H334 x D410mm 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
<b>BX-0011</b>	Desiccator W640 x H550 x D410mm 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
<b>WZ-0004</b>	Handling tool for glass beads and pellets		1

Additional, individual drawers to add 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 32mm (40mm) samples in these transparent boxes with sealed lid.

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

Drawer cabinets suitable for direct 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 tool WZ-0004 to handle your pellets and beads and avoid finger contact.





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