

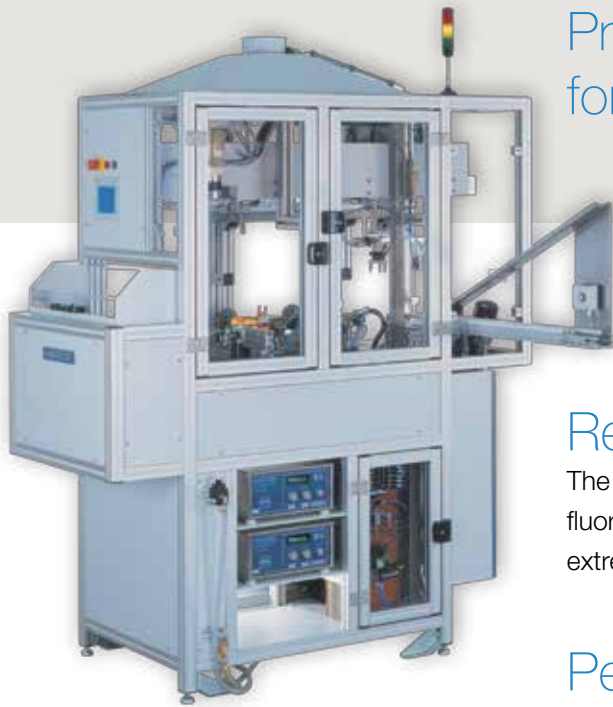
# HA-HF16

Automatic fusion machine



**HERZOG**

## Preparation of oxidic sample materials for x-ray fluorescence analysis



HA-HF16

### Reproducible sample preparation

The HA-HF16 prepares oxidic sample materials for x-ray fluorescence analysis. The fusion technique produces extremely accurate samples.

### Perfect sample quality

The borate/sample mixture is pre-dosed into platinum/gold crucibles. Each of the crucibles is inserted in one of the 16 pockets of the input magazine. The operator then starts up the operating sequence on the touch screen. The program-controlled crucible movement ensures perfect homogenization during the fusion process.

### Ideal for use in modern labs

All components of the machine are neatly accommodated on a single stand. The integrated handling system silently and reliably takes care of all the transport routines in the machine. The two independently working high-frequency heating systems for crucible and casting disk guarantee the safe and reliable operation of the fusion system. The HA-HF16 has been purpose-designed to meet the requirements of modern laboratories.

Input magazine



## Temperature control

A non-contact pyrometer holds the melt at a constant temperature. This ensures that a reproducible temperature curve, appropriate to the relevant sample quality, is maintained throughout the fusion process.



## Process control

The procedures of the HA-HF16 are controlled by an integrated programmable logic control system.

This allows 16 different program sequences to be predefined and started separately on the touch screen for each sample.

## Reliable program sequencing

Following the melting process, the melted sample material is poured into a preheated platinum/gold pouring dish and then gradually cooled.

The melt is then cooled in the surrounding air until it solidifies. After solidification, a special air jet cools the pouring dish further.

## Output of intact glass beads only

A vacuum pick-up takes only intact glass beads to the delivery chute. Up to 16 completed samples can be buffered.

These are available to the operator to transfer to the analytical instrument.

Alternatively, the glass beads can be transported back to the input magazine for further manual handling.



Handling system



16 different program sequences



Vacuum pick-up



Fusion unit with crucible and pouring dish

# Technical data HA-HF16

<b>Colour</b>	Anodized silver/white
<b>Labelling</b>	English
<b>Dimensions L x W x H</b>	
Machine	1780 x 750 x 2000 mm
Machine floor area	1115 x 750 mm
<b>Machine Weight</b>	570 kg
<b>Power supply and consumption</b>	
Voltage	3 x 400 V / 50 Hz or 60 Hz
Neutral conductor	Not required
Power consumption	7 KVA
<b>Compressed air supply and consumption</b>	
Pressure control	5 – 10 bar
Consumption	Approx. 25 NI/sample
Flow	Approx. 100 NI/min
Connection	hose connector DN = 13 mm
<b>Dust extraction</b>	
Extraction output	14 m <sup>3</sup> /min
	Pressure stat. (max.) 480 Pa
Connection	DN = 125 mm
<b>Electrical cabinet</b>	
PLC system	S7
Control voltage	24 V DC
Protection type	IP 44
Insulation class	B
<b>Cooling water</b>	
Input pressure	< 6 bar
Differential pressure	> 3.5 bar
Flow	2-3 l/min
Connection	2 x hose connector DN = 13 mm
<b>Sample types</b>	
Oxidic materials, maximum grain size	< 0.1 mm
Fusion temperature	max. 1400 °C
<b>Possible sample diameter</b>	29, 32 or 40 mm (depending on pouring dish)
<b>Sample input and output</b>	
- Manual in Pt/Au crucible in the input magazine.	
- Output of glass beads via a delivery chute	
<b>Options</b>	
- Output conveyor system with magazine function	
- Extractor fan	
- Coolant re-cooling system	
- Multiple light	

**CE**  
 The machine is manufactured in accordance with European CE Directives  
 We reserve the right to make technical modifications

HA-HF16/01/2015/EN-1

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