

Automatic Fluorescent Pellet Press For Xrf Sample Preparation

Item Number: KT-YGB



Introduction

Streamline analytical laboratory workflows with this highly efficient automatic fluorescent pellet press. Featuring robust sixty-ton hydraulic pressure, advanced PLC touchscreen control, and versatile mold configurations, it guarantees the consistent, crack-free sample preparation required for high-accuracy X-ray fluorescence analysis.

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Application	Description	Key Benefit
Geological & Mining Exploration	Pressing raw ores, minerals, and geological core samples into uniform pellets.	Eliminates mineralogical matrix effects for accurate elemental quantification.
Cement & Building Materials	Routine quality control analysis of raw meal, clinker, and finished cement powders.	Fast cycle times and high structural integrity for automated laboratory lines.
Metallurgical Slag Analysis	Preparation of blast furnace slags, sinters, and alloy powders.	Robust compaction resists degradation under high-power X-ray beams.
Battery & Energy Research	Pressing cathode and anode active materials, solid electrolytes, and carbon compounds.	Ensures high-density contact surfaces for reliable electrochemical characterization.
Ceramics & Refractories	Compacting high-purity oxides, carbides, and nitrides into analytical pellets.	High-pressure capability ensures binder-free pelletizing of hard powders.
Catalyst & Chemical Synthesis	Preparing heterogeneous catalysts and chemical powders for bulk composition testing.	Contamination-free processing preserves pure chemical integrity.
Environmental Monitoring	Analyzing soil, fly ash, and industrial waste powders.	Stable pellet preparation for rapid screening of toxic heavy metals.
Academic & Scientific Research	Custom academic research involving advanced powder compaction and material science.	Highly customizable pressure programs for experimental flexibility.

Technical Parameter	Specification Value (Model KT-YGB)	Notes / Standards
Model Number	KT-YGB	Series Identifier
Control Mode	Touch screen operation, PLC program control	Supports bilingual interface (CN/EN)
Mold Types (Optional)	Boric acid cup, Aluminum cup, Steel ring, Plastic cup	Specialized profiles for each mold
Maximum Pressure	60 Tons (60 T)	Fully adjustable up to maximum
Dwell Time	Arbitrary / Program-controlled	User-defined hold durations
Piston Stroke	100 mm	Large stroke for easy access
Column Opening	220 mm	Accommodates large mold setups
Equipment Dimensions	650 mm × 540 mm × 1240 mm (L × W × H)	Compact floor-standing design
Equipment Weight	Approx. 360 kg	Ultra-stable heavy-duty chassis
Power Supply	AC Three-phase 380 V ± 5%, 50 Hz	High-efficiency industrial power
Rated Power	1.3 kW	Energy-efficient motor operation

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Power Cable	Five-wire (Three-phase + Zero + Ground), Length > 2 m	Standard industrial safety connection
Hydraulic Oil Type	L-HM46 High-Pressure Anti-wear Hydraulic Oil	Long life, excellent shear stability
Operating Ambient Temp	5 °C ~ 40 °C	Wide operating temperature range

ID	Component Name	Functional Role
1	Screw	Manual height adjustment for mold clamping
2	Crossbar	Heavy-duty steel structural beam to absorb vertical load
3	Mold	Specialized high-hardness tooling for pellet forming
4	Platen / Platform	Smooth, rounded workspace for sample loading
5	Electrical Door	Secure access panel for electrical maintenance
6	Limit Bump	Mechanical safety limit to prevent over-travel
7	Swing Handle	Ergonomic handle for quick crossbar positioning
8	Column	High-tensile strength support pillars
9	Outer Sleeve	Structural sleeve for powder containment and leveling
10	Mold Upper Indenter	Precision-machined face for direct sample compression
11	Touch Screen	HMI interface for recipe entry and process monitoring
12	Power	Main power switch and indicator
13	Stop / Release Pressure	Instant emergency relief and cycle termination
14	Start	Initiates the programmed pressing cycle
15	Demold	Triggers the automated piston-up demolding stroke
16	Main Door	Front access to hydraulic power unit and filters
17	Casters	Heavy-duty locking wheels for easy placement