

# Automatic Fluorescence Sample Preparation Press 40 Ton Lab Pellet Press For Xrf Analysis

Item Number: PYGA



## Introduction

Maximize your XRF analytical accuracy with this premium automatic 40-ton fluorescence sample preparation press featuring advanced PLC touchscreen controls integrated automatic demolding cycles and high-pressure hydraulic reliability to deliver consistent high-density pellets for precise industrial spectroscopic laboratory material testing.

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Application	Description	Key Benefit
<b>Scientific Research</b>	High-pressure preparation of powder pellets for advanced XRD, XRF, and FTIR spectroscopic analysis in university and national laboratories.	Eliminates human error, yielding highly uniform pellets for ultra-precise academic research.
<b>Pharmaceutical &amp; Chemical</b>	Compacting active pharmaceutical ingredients (APIs), excipients, and raw chemical powders into high-density discs for structural analysis.	Maintains high chemical purity with easy-to-clean mold surfaces to avoid cross-contamination.
<b>Catalytic Reaction</b>	Compacting catalyst substrates and active metallic powder mixtures into stable pellets for high-temperature and high-pressure reactor testing.	Prevents sample crumbling under thermal stress, ensuring accurate evaluation of catalytic efficiency.
<b>Ceramic Materials</b>	Compaction of high-performance technical ceramics, oxides, and nitrides prior to sintering and microstructural evaluation.	Ensures high green density and uniform pore distribution, minimizing defects during downstream firing.
<b>Electronics Industry</b>	Processing semiconductor materials, target sputtering materials, and piezoelectric components into dense, uniform disks.	Delivers outstanding physical density and structural integrity required for precise electronic characteristic mapping.
<b>Battery &amp; Energy Research</b>	Compressing solid-state electrolytes, lithium-ion battery electrode formulations, and supercapacitor powder materials for electrochemical testing.	Maximizes particle-to-particle contact, providing highly accurate electrical conductivity and ionic transport measurements.
<b>Jewelry &amp; Gemstones</b>	Nondestructive analysis preparation of precious metals, minerals, and gemstone powders for rapid elemental composition verification.	Retains sample matrix integrity, enabling precise classification and grading of valuable minerals.
<b>Cement &amp; Ore Processing</b>	Pressing raw meal, clinker, cement powder, iron ore, and geological slag with boric acid backing for routine XRF quality control.	Rapid, high-throughput sample prep that stands up to harsh, high-dust industrial processing environments.

Technical Parameter	Specification Value
<b>Model Identifier</b>	PYGA
<b>Control Mode</b>	PLC Program Control via Color Touchscreen (Bilingual Chinese/English support)
<b>Maximum Compression Force</b>	40 Metric Tons (40 T)
<b>Dwell Time (Hold Time)</b>	Fully Adjustable / Arbitrary Duration
<b>Piston Maximum Stroke</b>	100 mm
<b>Daylight / Vertical Column Clearance</b>	220 mm
<b>Compatible Mold Formats</b>	Boric Acid Cup, Aluminum Cup, Steel Sleeve, Plastic Cup / Ring
<b>External Dimensions (L x W x H)</b>	650 mm x 540 mm x 1240 mm
<b>Total Net Weight</b>	Approx. 325 kg

Technical Parameter	Specification Value
Electrical Power Supply	AC Three-Phase 380 V $\pm$ 5%, 50 Hz
Rated Power Consumption	1.3 kW
Power Cable Assembly	Five-Core (3 Phase Lines + 1 Neutral + 1 Ground), Length > 2 meters
Recommended Hydraulic Fluid	L-HM46 High Wear-Resistant Hydraulic Oil
Safe Operating Temperature Range	10 °C to 40 °C