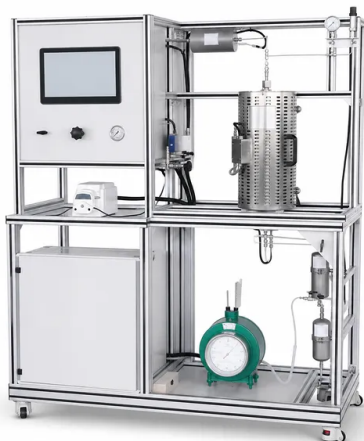


Educational Unit Operations Pilot Plant For Intraparticle Diffusion Effective Factor Measurement

Item Number: LPK-SRID



Introduction

Designed for chemical engineering university labs, this pilot plant allows hands-on determination of catalyst particle intraparticle diffusion effective factors and gas-solid reaction kinetics using a fixed-bed tubular reactor with industrial touchscreen control, bridging theory and practical reactor design.

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Parameter / Module	Details
Reactor Configuration	Fixed-bed tubular reactor optimized for gas-solid catalytic reactions
Heating & Thermal Control	Open-type furnace with programmable temperature controller for rapid reactor access
Control System	Industrial-grade all-in-one computer with touchscreen interface and data logging
Safety Interlocks	Built-in high-limit temperature shutdown and over-pressure relief system
Frame Material & Mobility	High-strength anodized aluminum alloy frame equipped with lockable casters
Physical Dimensions	≤ 1480 mm × 580 mm × 1780 mm (L × W × H)
Experimental Capabilities	Determination of the internal diffusion effective factor (η); Measurement of gas-solid intrinsic reaction kinetics; Performance of catalyst activation, evaluation, and regeneration cycles