

Enclosed Riffle Sample Divider Sealed Riffle Splitter For Laboratory Material Reduction

Item Number: KT-MF

Introduction

Engineered for representative laboratory sampling, this enclosed riffle sample divider prevents dust dispersion while delivering unbiased material splitting. Available in galvanized or stainless steel, the sealed design ensures high sample uniformity, operator safety, and exceptional precision across demanding quality control protocols.

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Application	Description	Key Benefit
Coal Quality Verification & Proximate Analysis	Sub-sampling crushed run-of-mine coal, washed fines, and coke breeze to determine calorific value, ash content, volatile matter, and total moisture.	Retains volatile moisture and critical superfine ash components through sealed dust containment, ensuring high compliance with thermal fuel testing specifications.
Geological Exploration & Ore Assaying	Splitting drill core crushings, pulverized rock samples, and metallic ores prior to XRF, ICP-OES, and fire assay procedures.	Delivers unbiased multi-point splitting without cross-sample contamination, preserving geochemical grade accuracy across heavy mineral matrices.
Metallurgical Sinter & Pellet Testing	Homogenizing and reducing iron ore fines, direct reduced iron (DRI), sinter feed, and fluxing agents for physical and chemical analysis.	Resists continuous abrasive wear from high-density, sharp-edged particles while maintaining strict dimensional accuracy across all dividing chutes.
Cement & Aggregate Quality Control	Dividing clinker, raw meal, crushed limestone, sand, and gravel for granulometric sieve analysis and compressive strength testing.	Ensures representative distribution of coarse and fine aggregate fractions without slot clogging, fulfilling stringent civil engineering construction standards.
Chemical Catalysts & Fertilizer Granules	Splitting homogeneous synthetic beads, extruded catalyst carriers, prilled urea, and mixed granular agricultural nutrients.	Stainless steel contact surfaces prevent metallic contamination and resist chemical degradation, safeguarding purity during high-value product verification.

Environmental Soil & Solid Waste Sampling	Dividing dry contaminated soils, incinerator bottom ash, and industrial sludge granules prior to heavy metal and hazardous leachate testing.	Sealed enclosure eliminates operator exposure to toxic dust and volatile particulate hazards while securing chain-of-custody analytical reproducibility.
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System Identifier	Enclosure Type	Material of Construction	Operational Mode	Application Compatibility
KT-MF-1A	Open Hopper	Heavy-Duty Galvanized Steel	Gravity Riffle Flow	General industrial screening, dry aggregates, and non-hazardous ores
KT-MF-1AM	Sealed Dust-Tight Enclosure	Heavy-Duty Galvanized Steel	Enclosed Gravity Riffle Flow	Dust-prone coal testing, high-throughput mineral sampling, standard labs
KT-MF-2B	Open Hopper	Premium Grade Stainless Steel	Gravity Riffle Flow	Non-corrosive chemicals, food-grade granules, non-dusting geology
KT-MF-2BM	Sealed Dust-Tight Enclosure	Premium Grade Stainless Steel	Enclosed Gravity Riffle Flow	High-purity assaying, corrosive minerals, volatile moisture coal analysis

Model Size Code	Maximum Feed Particle Size (mm)	Chute Slot Width (mm)	Total Number of Chutes	Splitting Ratio
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KT-MF Large (□□)	≤13	20.7	16	1:1 Representative Division
KT-MF Medium (□□)	≤6	8.0	24	1:1 Representative Division
KT-MF Small (□□)	≤3	5.0	32	1:1 Representative Division

Standard Specification Index	Maximum Feed Particle Size (mm)	Chute Slot Width (mm)	Total Number of Chutes	Recommended Sample Matrix
KT-MF Standard 4#	≤13	32.0	12	Coarse run-of-mine coal, crushed stone, coarse gravel
KT-MF Standard 3#	≤6	15.0	16	Crushed coal, metallurgical coke, medium-grain minerals
KT-MF Standard 2#	≤3	8.0	24	Washed coal fines, crushed metallic ores, raw clinker
KT-MF Standard 1#	≤1	5.0	32	Pulverized coal, fine dry powders, geological assay dust

Specification Parameter	Technical Detail
Discharge Chute Incline Angle	≥60° Precision Slope for Rapid Gravitational Clearance
Division Uniformity Tolerance	±1.0% between dual receiving containers on compliant feed
Receiving Vessel Configuration	Dual slide-in modular pans with integrated dust-seal lip
Hopper Access Mechanism	Top-loading enclosed flap / seal cover for zero fugitive dust
Surface Treatment	Passivated / mirror-buffed stainless steel or zinc-plated galvanized finish