

Stainless Steel Laboratory Sampling Scoop And Industrial Bulk Material Sampling Shovel

Item Number: KT-CYC



Introduction

Engineered for representative bulk and laboratory sampling this heavy gauge stainless steel sampling scoop and shovel collection delivers contamination free performance superior chemical resistance and precise increment extraction across mining chemical geological agricultural and pharmaceutical quality control testing workflows

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Application	Description	Key Benefit
Mining and Mineral Exploration	Extracting primary crushed run-of-mine ores, concentrates, and tailings directly from conveyor drop points, chutes, and aggregate piles.	Wide shovel mouths prevent mechanical bridging and collect representative fractions of rocks up to 100 mm without size exclusion.
Chemical and Polymer Manufacturing	Gathering intermediate pellets, catalyst beads, synthetic resins, and powdered additives from industrial blenders and transport hoppers.	Non-reactive stainless steel surfaces prevent organic solvent degradation and eliminate plasticizer or metal ion cross-contamination.
Pharmaceutical and Fine Chemical QA	Precision sampling of bulk active pharmaceutical ingredients (APIs), excipients, and granulations held in transport drums and storage bins.	Crevice-free polished construction allows complete alcohol swabbing and autoclave sterilization to maintain cGMP batch purity.
Agricultural and Grain Inspection	Penetrating grain silos, seed hoppers, animal feed containers, and fertilizer sacks to extract composite quality-grading increments.	Pointed-nose profile penetrates tightly packed grains cleanly without crushing husks or causing localized particle classification.
Environmental and Soil Analysis	Collecting topsoil, sediment cores, sludge cakes, and solid waste fractions from remediation zones and effluent discharge containment areas.	Corrosion-resistant 1.0 mm wall thickness withstands abrasive siliceous grits, moisture, and mild acidic soil chemistries.
Metallurgy and Foundry Quality Control	Sampling metallurgical coke, fluxing agents, alloying powders, and sand mold mixtures during raw charge batching procedures.	High mechanical rigidity ensures structural stability against hot, dense particulate masses without thermal deformation.
Construction and Cement Testing	Scooping clinker, dry mortar mixes, fine sand, and gravel aggregates prior to particle size grading in analytical sieve shakers.	Calibrated dimensional sizes align with mechanical sieving increments, facilitating smooth transfer directly into standard test sieves.

Model Identifier	Product Category	Tip / Mouth Profile	Opening Width (mm)	Bowl Length (mm)	Bowl Depth / Height (mm)	Sheet Thickness (mm)	Max Particle Size Suitability (mm)
KT-CYC-S300	Standard Sampling Shovel	Broad Rectangular Chute	300	Proportional Heavy Base	Extended Rim	1.0	Up to 100 mm
KT-CYC-S150	Standard Sampling Shovel	Broad Rectangular Chute	150	Proportional Heavy Base	Extended Rim	1.0	Up to 50 mm
KT-CYC-S100	Standard Sampling Shovel	Broad Rectangular Chute	100	Proportional Heavy Base	Extended Rim	1.0	Up to 25 mm
KT-CYC-P150	Pointed Sampling Scoop	Sharp Pointed Penetrator (61.0)	150	150	75	1.0	Granules / Compact Powders
KT-CYC-P080	Pointed Sampling Scoop	Sharp Pointed Penetrator (61.0)	80	80	45	1.0	Powders / Medium Particles
KT-CYC-P050	Pointed Sampling Scoop	Sharp Pointed Penetrator (61.0)	50	50	30	1.0	Fine Powders / Micro Granules

Engineering Parameter	Specification Detail
Base Alloy	Premium Grade Austenitic Stainless Steel
Metal Sheet Gauge	Uniform Calibrated $\delta = 1.0$ mm
Cleaning Compatibility	Ultrasonic bath, autoclave sterilization, ethanol/solvent wipe-down, hot detergent wash
Edge Treatment	Deburred, smooth-rolled perimeter edges with high-rigidity nose contour
Handle Fastening	Sanitary welded structural handle assembly designed for heavy-mass payload stability
Sampling Method Compliance	Conforms to standard manual increment extraction practices requiring scoop aperture $\geq 3 \times$ top particle diameter (d_{max})