stainless steel riffle splitter for coal sample preparation

Stainless steel riffle splitter is a classic and efficient sample reduction tool, which is widely used in the preparation of experimental samples of solid granular materials, such as coal, ores, chemical particles, building materials and metallurgical raw materials.

Stainless Steel Riffle Splitter

Stainless steel riffle splitter is designed according to the national standard GB474 coal sample preparation method, which ensures the scientific, accuracy and repeatability of the reduction process.

Structural Characteristics

1. All stainless steel: corrosion-resistant, easy-to-clean 304 or 316 stainless steel manufacturing, suitable for a variety of corrosive or high-cleanliness materials.
2. Channel uniform arrangement: composed of a group of pairs of sloped slots, the slope angle is strictly controlled at more than or equal to 60 degree, to ensure that the material can flow freely, to avoid adhesion or clogging.
3. Detachable structure: components are easy to clean and maintain, preventing cross-contamination of samples.
4. Multi-point reduction design: 10, 16, 20 grooves and other different models can be selected, the sample after reduction is more representative and uniform.

Core Advantages

1. High precision of reduction: through the uniform arrangement of oblique grooves to achieve equal proportion of physical sample, reduce human error.
2. High efficiency, no electricity operation: completely rely on gravity effect work, suitable for field or no electricity environment use, high reliability.
3. Strong durability: Stainless steel material ensures stable performance under high-frequency use.
4. Easy to operate: just pour the material evenly into the slot mouth, can be automatically divided into two, quickly complete a shrinkage process.

Working Principle

Based on the principle of gravity free fall and channel infusion, the stainless steel riffle splitter pours the well-mixed material from the inlet to the top of the equipment, and automatically diverts the material through the staggered metal inclined troughs, and the material is evenly distributed to the containers on both sides without any mechanical power intervention. Through one or more reduction, representative small samples can be obtained, while avoiding common problems such as specific gravity segregation and particle stratification.

Application Areas

1. Coal industry: used for commercial coal, raw coal, washed coal samples before the experiment shrinkage.
2. Mineral sampling: for iron ore, manganese ore, copper ore and other solid ore samples of sample making.
3. Metallurgy and building materials: sample preparation for concrete aggregate, quartz sand, sintered material and other materials.
4. Chemical and pharmaceutical industry: Equal proportion sampling of granular raw materials, catalysts, resins and other materials.
5. Scientific research and testing organizations: for the preparation of samples required for standard experiments and shrinkage verification.

Model	Particle size for reduction	Groove width	Number of grooves
N1	≤13mm	39mm	16 个
N2	≤6mm	18mm	18 个
N3	≤3mm	9mm	24 个
N4	≤1.25mm	5mm	30 个