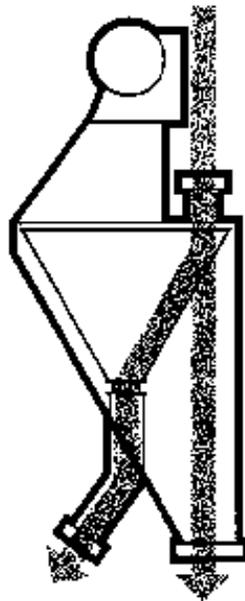


PRV Rotary Cutter Sampler for Chute Sampling of Fine Dry Solids

PRV Model Numbers

PRV-200 PRV-300 PRV-450 PRV-600

The number following the PRV model designation indicates cutter radius (mm).



The PRV rotating sampler is designed to be installed with gravity flow streams of relatively fine, non-adhering solids material to obtain representative composite sample. Chute angles are maintained at 60 degrees or greater for effective discharge and minimize build-up on interior surfaces. The mechanism is designed for rugged, heavy-duty use and for low maintenance in continuous service.

The illustration sketch is applicable to the PRV mechanism in design configuration employing a gearmotor drive coupled to the cutter shaft directly by a self-aligning grid coupling. Alternately, a tooth pulley-belt drive from the gearmotor is provided for minimum headroom installation. The cutter shaft is supported by dual flange bearings for either drive configuration. The integral construction is steel plate with abrasion resistant liner as specified. An abrasion resistant polymer coating can be provided, or stainless steel and other abrasion resistant materials as applicable.

Sample quantity extracted is determined by cutter angle and rotation speed. Rotation speeds are set to maintain standards for cutter speed through the material being sampled, according to radius of cutter, to avoid sample bias. Cutter opening for fine solids is adjustable up to 18 degrees (five percent extraction) by means of simple mechanical brackets. A hinged inspection door with safety switch is provided to access the brackets for cutter angle adjustment. Cutter angle is selected to obtain the proportion of sample specified.

Cutter blades are replaceable, fabricated from type 304 stainless steel or other wear resistant material as specified. Cutter edges are inspected and adjusted through a removable access plate. Stainless steel cutter edges are replaceable.

Motor drives are typically 1/3 HP or 1/2 HP according to sampler model required and application requirements. A timer-starter control unit model PB-200 series is available for stand-alone operation of a PRV sampler. Alternatively, the sampler can be operated from a remote or centralized control system, or a programmed logic controller.

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