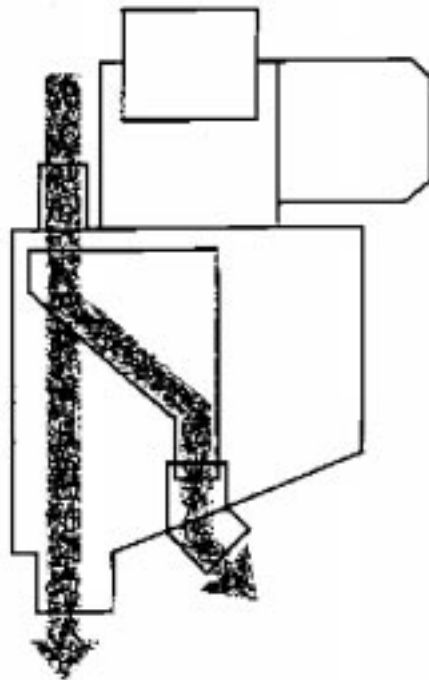


# PRV-S Rotary Cutter Slurry Sampler for Gravity Pipe Flows

## PRV-S Model Numbers

PRV-200S PRV-300S PRV-400S

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



The PRV-S rotating cutter slurry sampler is designed to obtain representative composite samples from slurry flows by extraction from a vertical falling flow stream. The slurry cutter is rotated through the stream by a gearmotor drive. The mechanism is designed for rugged, heavy-duty use and for low maintenance in continuous service.

Applications of the PRV-S rotating cutter ("vezin") sampling mechanism are for relatively low flow rates of slurry in gravity pipeline flow. Frequently, a PRV-S sampler serves as a secondary or tertiary stage of multistage slurry sampling with primary samples extracted from large slurry flows with Powerroll traversing first-stage sampling.

The illustration sketch is applicable to the PRV-S mechanism in design configuration employing a tooth pulley-belt drive for minimum headroom installation. Alternately, a gearmotor drive can be coupled to the cutter shaft directly by a self-aligning grid coupling. The cutter shaft is supported by dual flange bearings for either drive configuration.

Cutter opening is adjustable up to 18 degrees (five percent extraction) by means of simple mechanical brackets. Cutter angle is selected to obtain the proportion of sample specified. A hinged inspection door with safety switch is provided to access the brackets for cutter angle adjustment. Cutter blades are replaceable, fabricated from type 304 stainless steel or other wear resistant material as specified.

Motor drives typically are 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-S sampler. Alternatively, the sampler can be operated from a remote or centralized control system, or a programmed logic controller when the sampler is part of a multistage system.

