

OVERVIEW

The Bray Series 942 Vortex Breaker Knife Gate Valve is engineered for on/off service and isolation of pulp and paper recycle and rejects applications. The 942 offers superior performance in demanding, high-cycle services that require shearing capabilities such as cyclone separators and recycle high density cleaners.

Bray Series 942 heavy duty is an engineered solution featuring a standard replaceable Vortex Breaker designed to interrupt cyclonic flow formation which causes premature gate damage.

APPLICATIONS

Knotter	HD Cleaners
Rejects	Cyclone Separators
Pulpers	Junk Trap

FEATURES

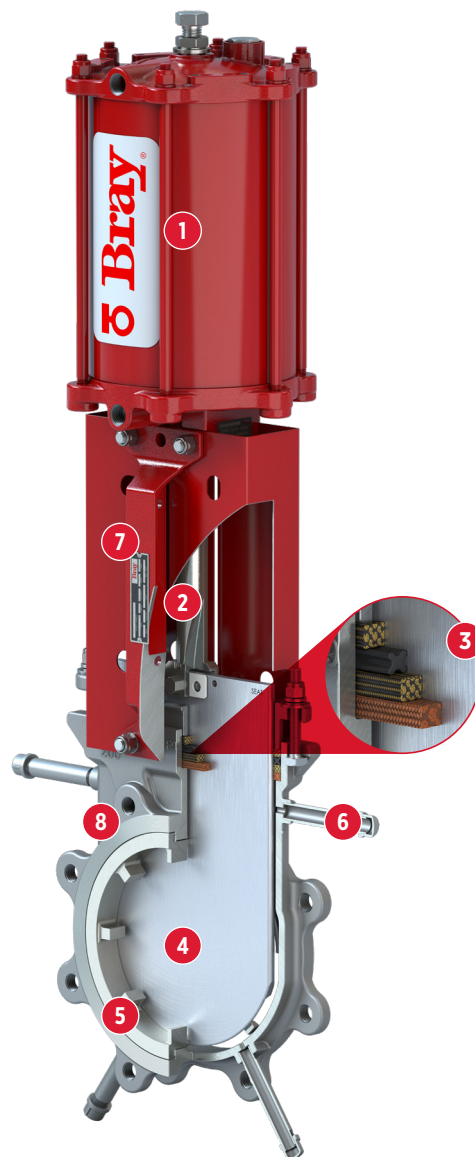
- 1 Pneumatic actuator sized and designed for slurry media and high cycle applications.
- 2 High strength (100 ksi) B8M Stainless steel bolting stabilizes the gate for proper alignment and addresses high-cycle challenges by incorporating a PTFE damper to alleviate the effects of vibration.
- 3 HD packing system using a copper scraper and high performance packing, including machined packing chamber, live-loaded packing gland to ensure extended cycle life.
- 4 Heat treated 17-4PH H-1025 gate with rounded edge, suitable for high cycles and longer packing life. Back-up ring ensures the gate is guided in horizontal orientations and remains aligned during cycling.
- 5 Hi-Chrome vortex breaker (500 HB) designed to disrupt cyclonic flow formation of reject materials (staples, wire, nails, sand, etc.) provides extended service life.
- 6 Purge ports in seat and chest enable complete flushing during cycling for enhanced maintenance and performance.
- 7 Metal gate guards to prevent stock accumulation on the top works. The use of studs and Nylock nuts prevents loosening in vibration-prone environments.
- 8 Tungsten Carbide coated downstream bore to allow superior abrasion resistance.

SPECIFICATIONS

Size Range	NPS 4 to 12 DN 100 to 300
Temperature Range	-40°F to 392°F -40°C to 200°C
Pressure Rating	NPS 4-12 150psi DN 100-300 10 bar
Body Style	Single Piece Lug

CERTIFICATIONS & APPROVALS

Certifications	CE/PED UKCA
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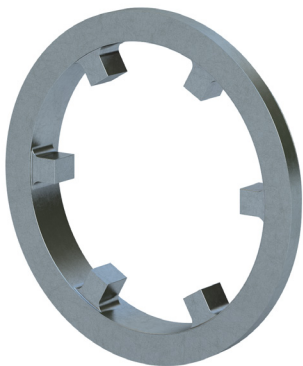
DESIGN STANDARDS

Valve Design	Manufacturer Standard
Seat Tightness	MSS SP-151
End Connections	Flanged
Face-to-Face	MSS SP-81
Flange Drilling	ASME B16.5 CL150
Design Standard	MSS SP-81
Testing Standard	MSS SP-151

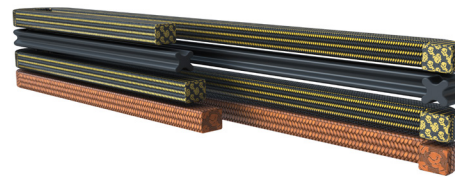
STANDARD MATERIALS OF CONSTRUCTION

Body	CF8M (316)
Gate	17-4PH H-1025
Seat	Hard Faced
Stem	304
Packing	4-layer (Copper-Kevlar-Quad Seal-Kevlar)
Vortex Breaker	Hi-Chrome

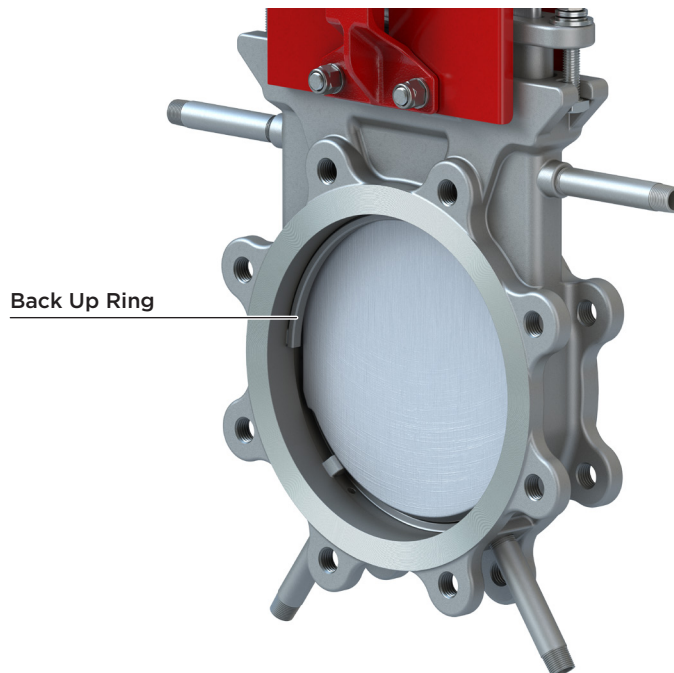
VORTEX BREAKER



HD PACKING



180° BACK UP RING



Welded in 180° body backing ring that provides support to the gate.