

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

APPLICATIONS

Knotter	High Density (HD) Cleaners
Rejects	Cyclone Separators
Pulpers	Junk Trap

SPECIFICATIONS

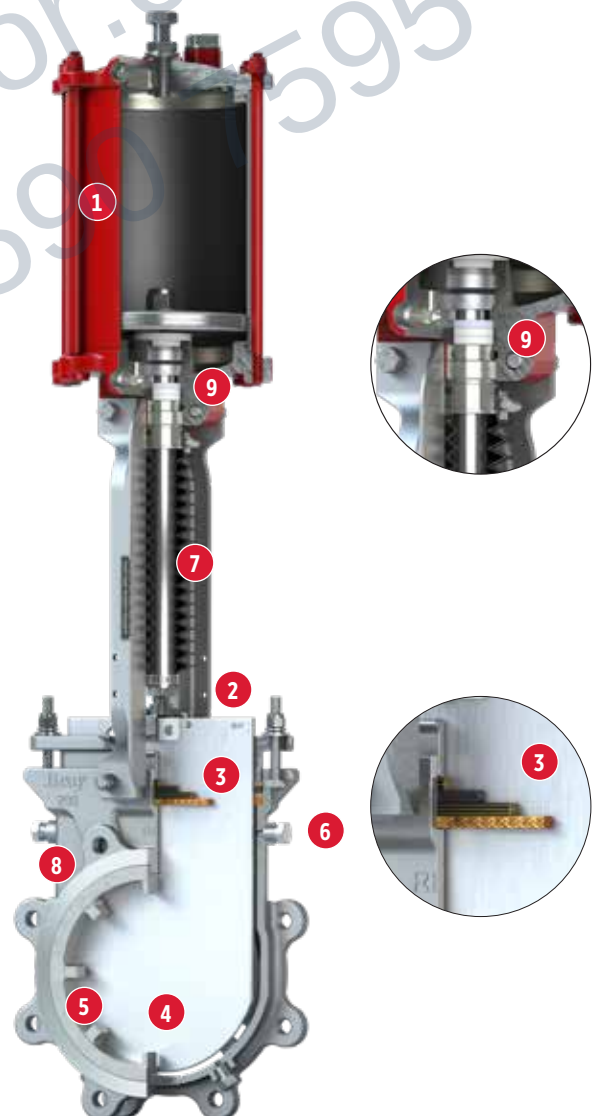
Size Range	NPS 4 to 12 DN 100 to 300
Temperature Range	-40°F to 392°F -40°C to 200°C
Pressure Rating	NPS 4-12 150psi DN 100-300 10 bar
Body Style	Single Piece Lug

CERTIFICATIONS & APPROVALS

Certifications	CE/PED CRN
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FEATURES

- 1 Pneumatic actuator sized and designed for reject/recycle media and high cycle applications.
- 2 High strength 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 High performance packing system featuring a base layer copper scraper and rounded, machined packing chamber with live-loaded packing gland system extends service life and enhances performance.
- 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 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 Bellows provided to protect the piston rod from accumulation of media that could damage the seals.
- 8 Tungsten carbide coated bore to provide superior abrasion resistance.
- 9 Actuator with dual rod seal arrangement (primary PTFE packing, secondary urethane wiper seal) for higher cycle life and improved ingress protection.



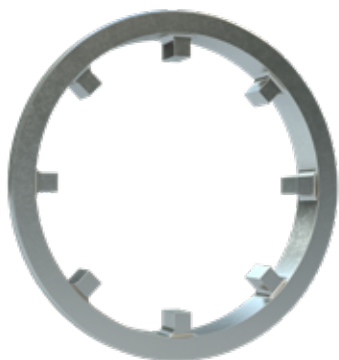
DESIGN STANDARDS

End Connections	Lugged
Face-to-Face	MSS SP-81
Flange Drilling	ASME B16.5 CL150
Design Standard	MSS SP-81

Consult factory for other flange drillings

STANDARD MATERIALS OF CONSTRUCTION

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



HI-CHROME VORTEX BREAKER

Engineered to disrupt cyclonic flow and effectively handle reject materials such as staples, wire, and sand, the Hi-Chrome vortex breaker offers superior performance and extended service life.



HIGH PERFORMANCE PACKING SYSTEM

Featuring a base layer copper scraper to prevent rejects during high-cycle applications, this advanced heavy-duty packing system ensures reliability. The rounded, machined packing chamber and live-loaded packing gland system extend service life and enhance performance.



240° BACKUP RING

A welded-in 240° body backup ring ensures the gate remains properly guided and aligned in horizontal orientations during operation.