

## 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

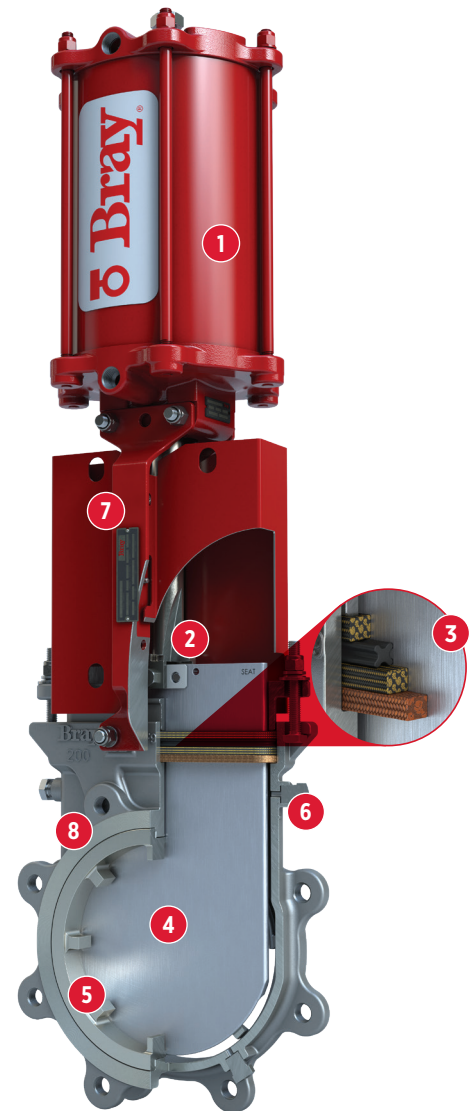
<b>Size Range</b>	NPS 4 to 12   DN 100 to 300
<b>Temperature Range</b>	-40°F to 392°F   -40°C to 200°C
<b>Pressure Rating</b>	NPS 4-12 150psi   DN 100-300 10 bar
<b>Body Style</b>	Single Piece Lug

## CERTIFICATIONS & APPROVALS

<b>Certifications</b>	CE/PED   UKCA   CRN
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## 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 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 (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.
- 8 Tungsten Carbide coated bore to provide superior abrasion resistance.

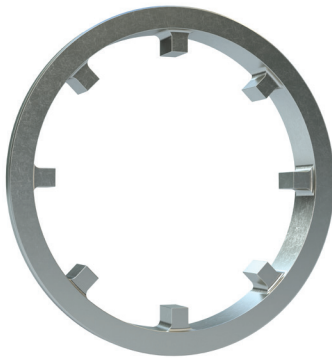


### DESIGN STANDARDS

<b>End Connections</b>	Flanged
<b>Face-to-Face</b>	MSS SP-81
<b>Flange Drilling</b>	ASME B16.5 CL150
<b>Design Standard</b>	MSS SP-81
<b>Testing Standard</b>	MSS SP-151

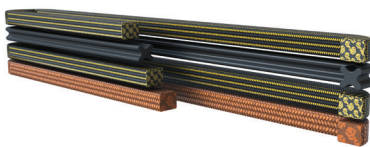
### STANDARD MATERIALS OF CONSTRUCTION

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



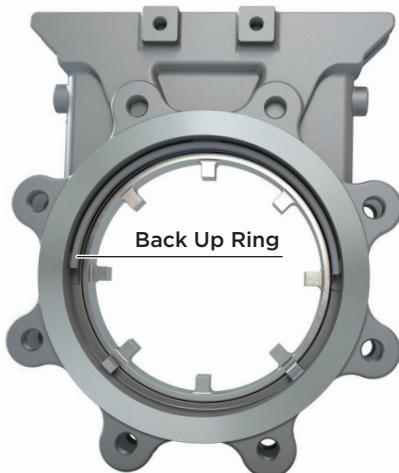
### HI-CHROME VORTEX BREAKER

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.



### 180° BACK UP RING

A welded-in 180° body back-up ring ensures the gate remains properly guided and aligned in horizontal orientations during operation.