

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

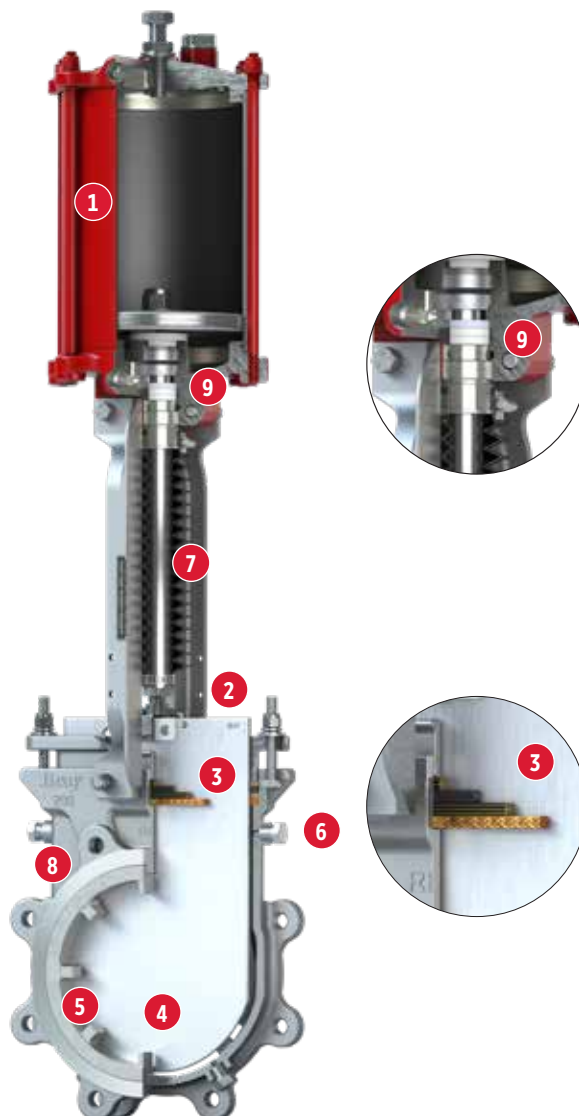
| | |
|--------------------------|-------------------------------------|
| Size Range | NPS 4 to 12 DN 100 to 300 |
| Temperature Range | -40°F to 392°F -40°C to 200°C |
| Pressure Rating | NPS 4-12 150psi DN 100-300 10 bar |
| Body Style | Single Piece Lug |

CERTIFICATIONS & APPROVALS

| | |
|-----------------------|--------------|
| Certifications | CE/PED CRN |
|-----------------------|--------------|

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.



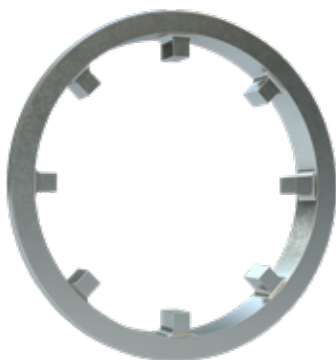
DESIGN STANDARDS

| | |
|------------------------|------------------|
| 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

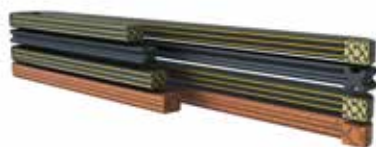
STANDARD MATERIALS OF CONSTRUCTION

| | |
|-----------------------|--|
| 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.