

DESIGNED FOR CHALLENGING APPLICATIONS

The **Series 19** segmented ball valve is a versatile design that can be utilized across a wide variety of applications within pulp and paper facilities for both control and on-off service.

The **Series 19L** segmented ball valve offers an extension to the Series 19 design, for use in the most demanding control service applications within facilities where severe service, erosion-resistant trim materials are required.



CHALLENGE: Typical valves show extreme solids buildup or accelerated erosion after only a few months of service in harsh pulp & paper applications.



SOLUTION: Bray's S19L valves show no signs of abrasion or erosion after 24+ months of service in similar severe service applications.

VERSATILITY & PERFORMANCE IN ONE VALVE

EASY MAINTENANCE

Valve design ensures simplified field maintenance, reduced downtime, and low cost of ownership.

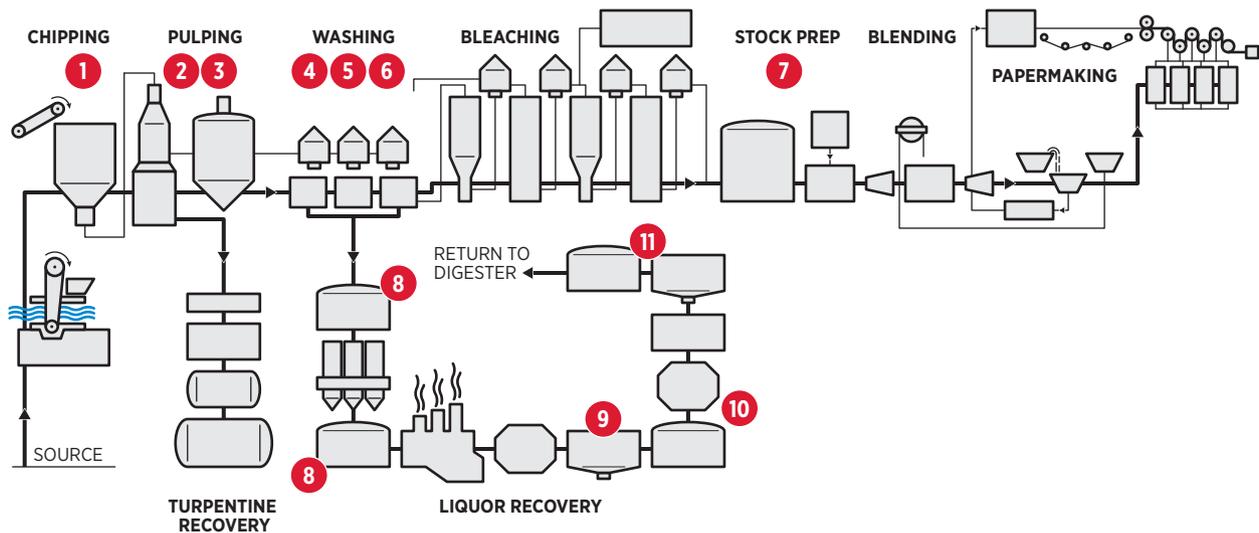
SOLIDIFIED MEDIA HANDLING

Sharp leading edge of segment is designed to cut through solidified media.

UNINTERRUPTED FLOW

Minimal cavities and straight through bore path ensure uninterrupted flow of media.

PULP & PAPER PROCESS — SEVERE SERVICE APPLICATIONS



SERIES 19L SEGMENTED BALL VALVES EXCEL IN THESE DEMANDING APPLICATIONS

1 Digester Level	5 Pulp Detrashing	9 Green Liquor
2 Digester Blow Valve	6 Pulp Cleaning	10 Lime Milk
3 Digester Gas-Off Valve	7 Paper Stock	11 Lime Mud Underflow
4 Pulp Screens & Rejects	8 Weak/Strong Black Liquor	

SPECIFICATIONS

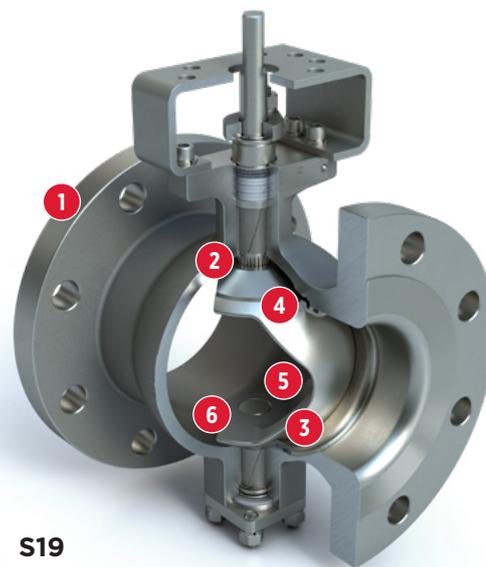
Size Range	NPS 1 to 16 (DN 25 to 400)
Pressure Ratings	ASME Class 150 300 600
Temperature Range	-50°F to 500°F (-46°C to 260°C)
Port	Standard, 60°, 30° Custom on request
Construction	Single Piece Body
End Connections	Flanged Flangeless (Wafer) ¹
Flanged Face-to-Face	ISA 75.08.02 (ASME B16.10 Optional)

Application	Control Isolation
Leakage Classification	Resilient Seat¹: Class VI per ANSI/FCI 70-2 IEC 60534-4
	Metal Seat: Class IV per ANSI/FCI 70-2 IEC 60534-4
Flow Characteristics	Equal Percentage
Rangeability	300:1

NOTE:
 1 Only applies to S19 model.

S19 STANDARD FEATURES

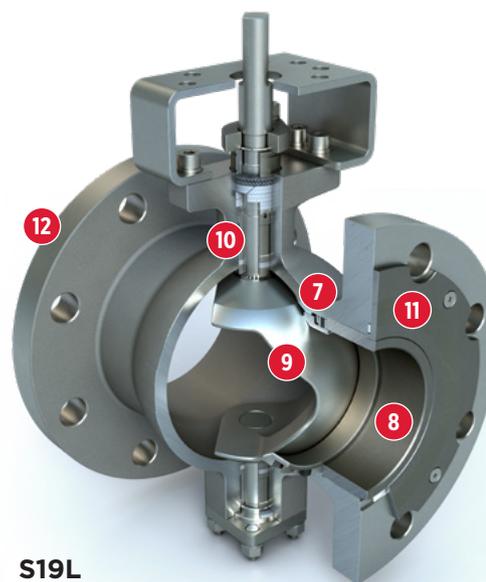
- 1 ONE-PIECE BODY:** Rigid, robust shell withstands pipe loading and eliminates potential leak paths.
- 2 SPLINED STEM TO SEGMENT CONNECTION:** Provides efficient torque transmission and precise control, with low hysteresis and reduced deadband.
- 3 ENERGIZED SEAT:** Ensures sealing at low differential pressures while minimizing torque requirements at higher differential pressures.
- 4 PROTECTED SEALING AREA:** Seats are designed to direct media flow away from the sealing area.
- 5 INTERNAL COATINGS:** High-performance coatings ensure long life and corrosion resistance.
- 6 FIELD REPLACEABLE COMPONENTS:** All spare parts are designed to be easily field replaced to reduce downtime and cost of maintenance.



**S19
STANDARD SERVICE**

S19L ADDED FEATURES

- 7 PRESSURE BALANCED SEAT DESIGN:** Capable of sealing under full differential pressures with low torques.
- 8 EROSION RESISTANT DOWNSTREAM LINERS/SEATS:** High-hardness liner and seat materials prevent body wall and seat erosion due to high velocities.
- 9 TRIM CUSTOMIZATION:** Specialized materials and ultra-hard coatings to optimize performance in various levels of erosive services.
- 10 BEARING SEALS:** Protects bearings, packing, and stem area from ingress of media and possible damage.
- 11 EASY MAINTENANCE:** Flanged retainer provides easy external access for seat and liner replacement. Seat is replaceable without removing the segment and shaft.
- 12 MULTIPLE FACE-TO-FACE OPTIONS:** Fits all major rotary control valve installations.



**S19L
SEVERE SERVICE**