

**DESIGNED FOR CHALLENGING APPLICATIONS**

The **Series 19/ Series 19L** is a versatile segmented ball valve, designed for **control** or **on-off** services in a variety of challenging sugar processing applications, including:

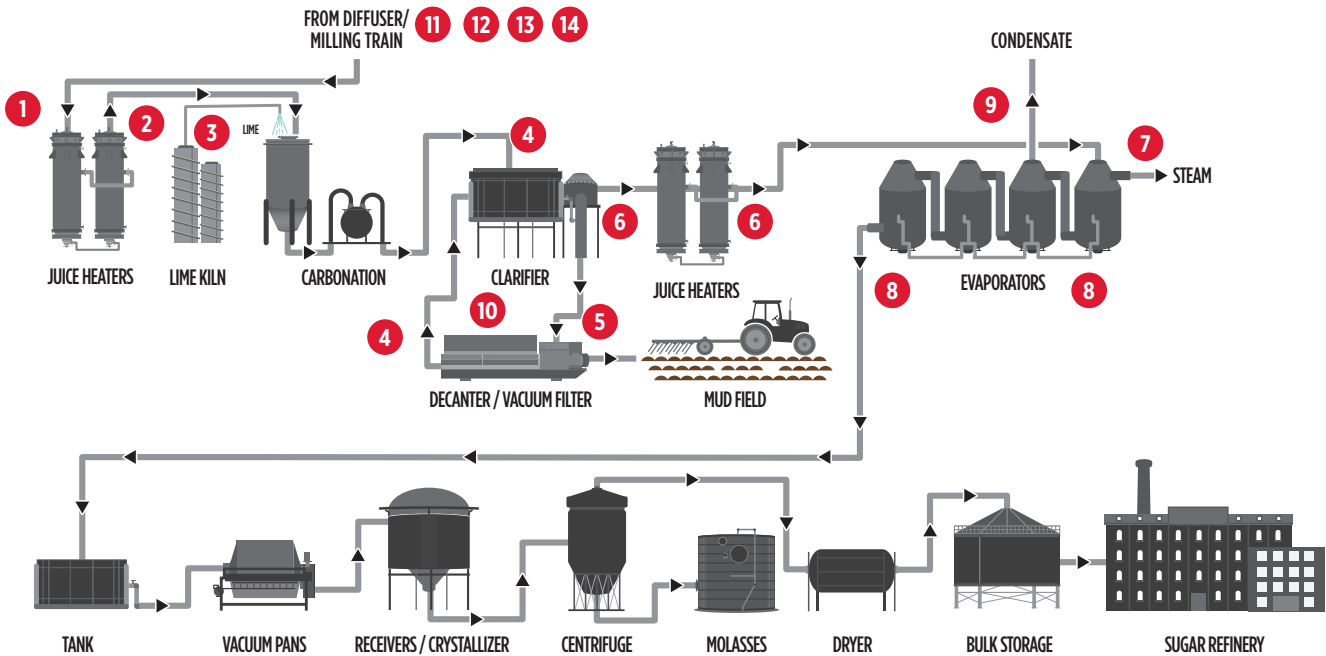
- > Syrup
- > Thin Juice
- > Clear Juice
- > Milk of Lime
- > Pressed Pulp Water
- > Steam
- > Flocculant
- > Condensate
- > Dirty Raw Juice
- > Diffuser Spent Water
- > Wet Ash
- > Sugar Mud
- > Flume Wash
- > Strainer Washout



**CHALLENGES:** Typical valves show extreme solids buildup or accelerated erosion after only a few months of service in harsh sugar processing applications.

**SOLUTIONS:** Bray's S19L valves show no signs of abrasion or erosion after 36+ months of service in similar sugar processing applications.

**SUGAR PROCESS**



CONTROL APPLICATION	CONTROL VALVE BRAY SERIES	
	S19	S19L
1 Dirty/Raw Juice	—	■
2 Flocculant	■	—
3 Milk of Lime	■	■
4 Thin Juice	■	—
5 Sugar Mud	—	■
6 Clear Juice	■	—
7 Steam	■	—

CONTROL APPLICATION	CONTROL VALVE BRAY SERIES	
	S19	S19L
8 Syrup	■	—
9 Condensate	■	■
10 Wet Ash	—	■
11 Pressed Pulp Water	—	■
12 Strainer Washout	—	■
13 Diffuser Spent Water	—	■
14 Flume Water	—	■

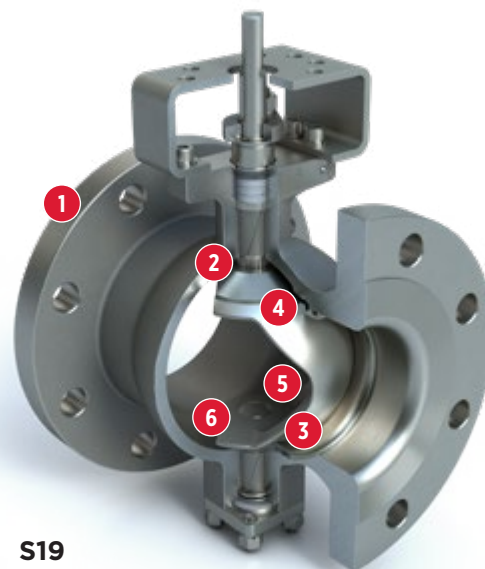
**SPECIFICATIONS**

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

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

**S19 STANDARD FEATURES**

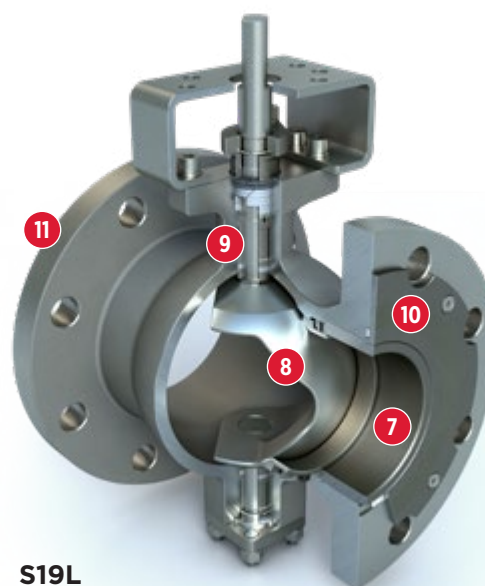
- 1 ONE-PIECE BODY:** Rigid, robust shell withstands pipe loading and eliminates potential leak paths.
- 2 SPLINED STEM TO SEGMENT CONNECTION:** Provides efficient torque transmission and precise control, with low hysteresis and reduced deadband.
- 3 ENERGIZED SEAT:** Ensures sealing at low differential 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 EROSION RESISTANT DOWNSTREAM LINERS/SEATS:** High-hardness liner and seat materials prevent body wall and seat erosion due to high velocities.
- 8 TRIM OPTIONS:** Specialized materials and ultra-hard coatings available for segment and body bore, to optimize performance in various levels of erosive services.
- 9 BEARING SEALS:** Protects bearings, packing and stem area from ingress of media and possible damage.
- 10 EASY MAINTENANCE:** Flanged retainer provides easy external access for seat and liner replacement. Seat is replaceable without removing the segment and shaft.
- 11 MULTIPLE FACE-TO-FACE OPTIONS:** Offers a variety of standard dimensions to fit all major rotary control valve installations.



**S19L  
SEVERE SERVICE**