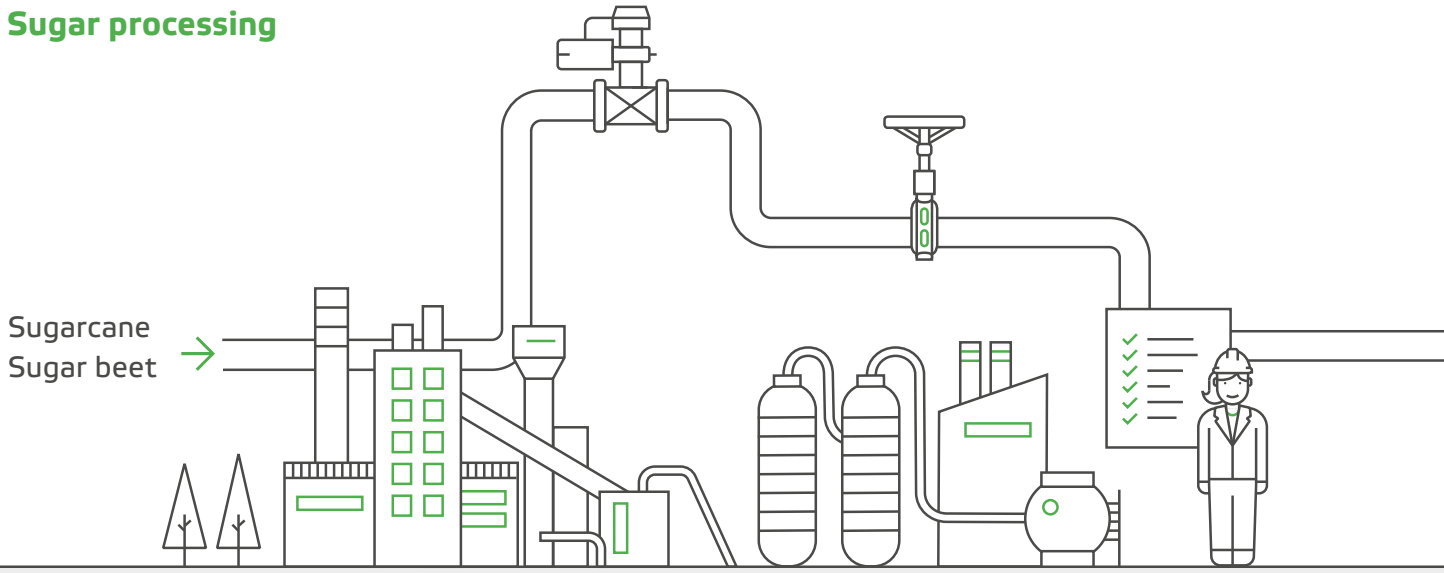
Valmet FORWARD

For reliable production in tough process conditions

Valve solutions for sugar processes

For reliable production in tough process conditions

Sugar processing

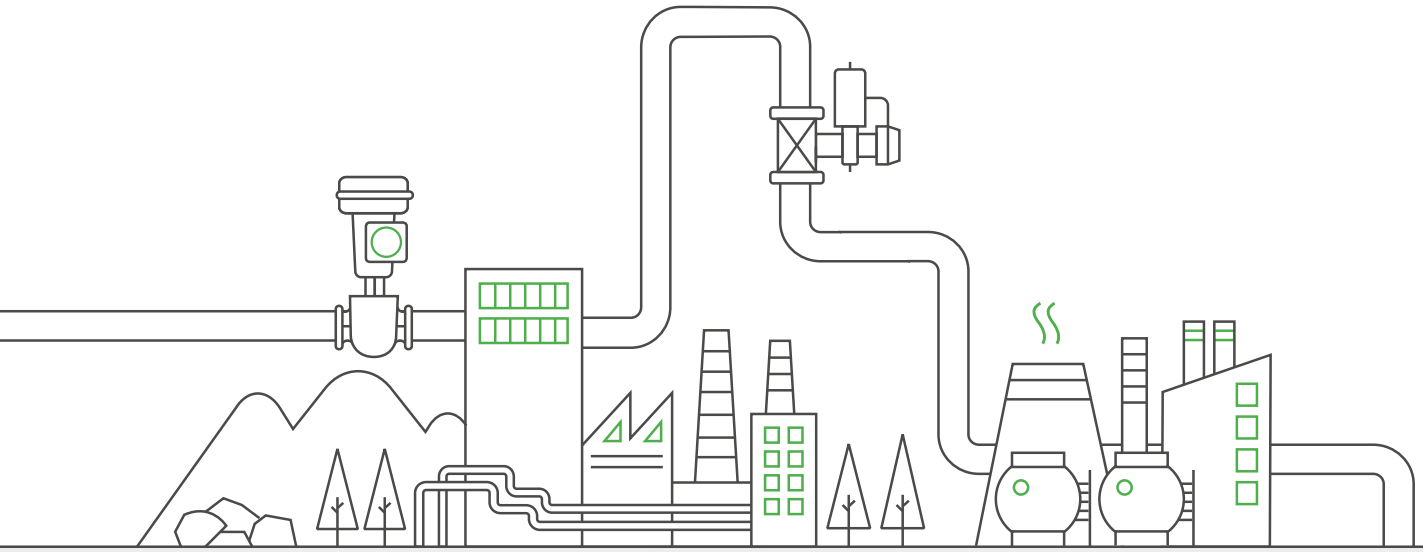


Producing sugar from cane or beets uses processes that involve, high-temperatures, corrosive chemicals and high flow velocities. Valmet provides high performance valves for each stage of the process from milling and extraction, to filtration and chemical treatment, to refining.

Milling and extraction

The raw materials, sugarcane or sugar beet, are milled and then the sugar is extracted to produce a sugar-rich juice. Jamesbury™ Wafer-Sphere™ butterfly valves keep your processes operating smoothly from start to finish, and deliver lower installed costs together with more up-time.

Sugar is a familiar product that is used both by the food industry and to produce fuel ethanol. However, the processes used to extract sugar from sugar cane, sugar beet or grain frequently involve harsh conditions and uninterrupted production. This demands valves that provide continuous, dependable performance for high productivity and high up-time. That's why sugar processing mills around the world rely on Neles™, Jamesbury™ and Stonel™ flow control solutions to keep their sugar processes running.



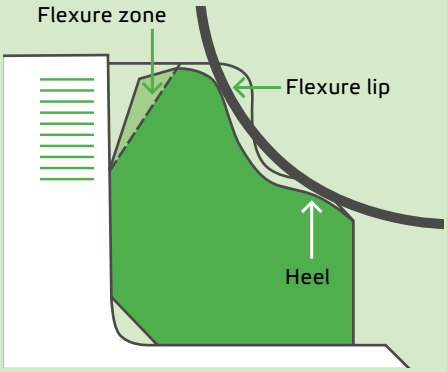
Filtration and chemical treatment

The juice is further refined with more filtering, clarification and evaporation. From here the sugar can either be crystalized for use as sugar or concentrated into molasses to ferment into ethanol. Our offers valves to handle all kinds of liquids, from viscous to volatile.

Refining

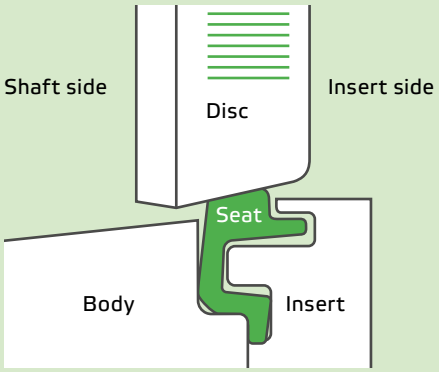
The juice is further refined with more filtering, clarification and evaporation. From here the sugar can either be crystalized for use as sugar or concentrated into molasses to ferment into ethanol. We offer valves to handle all kinds of liquids, from viscous to volatile.

Control and reliability



Ball valve seat cross-section

Flexible lip seat design: The Jamesbury flexible lip seat is a unique seat lip and heel design. Deflection of the flexible lip allows the seat to store energy. The flexible lip contacts the ball in the sealing zone, while the heel supports the ball as a bearing surface. The valve body design includes a specific flexure zone that allows the seat to flex but prevents excessive movement that would cause permanent deformation.



Wafer-Sphere™ seat and cross-section

Performance under pressure: When assembled, the Wafer-Sphere's flexible lip seat is energized by the disc, allowing bubble-tight sealing. On the insert side of the valve, flow pressure pivots the seat forward, amplifying sealing force. On the shaft side, the spherical seat profile creates a tighter seal as pressure pivots the seat against the insert.

Jamesbury ball valves

Jamesbury ball valves are the proven standard for tight, long-lasting seat sealing capability. Their unique floating ball design and flexible lip seat geometry provide optimal, bi-directional seat recovery.

Jamesbury™ Xtreme™ seat material

We offer a range of valves with the Xtreme seat made from an engineered fluorocarbon polymer. It withstands a broad range of pressures and temperatures, making it suitable for multiple applications.

Long life cycle performance

- Unique floating ball design with flexible lip seat
- Full bi-directional sealing
- Optimal bi-direction seat recovery
- Seat flexion prevents permanent deformation
- Reduced costs and improved process efficiency
- Ideal for a range of processes and liquids

Made for extreme

- Highly engineered filled-fluorocarbon composition
- Tight sealing performance
- Enhanced seat recovery for highpressure and temperature ratings -420° to 500° F
- Excellent chemical and abrasion resistance
- Extended valve cycle life for a wide range of process flow applications

Stonel™ Axiom™ valve controllers

The Axiom™ is a discrete on/off valve controller for quarter-turn automated valves. It offers unmatched reliability, convenience and cost-saving benefits for hazardous and general purpose process applications. The high accuracy position sensor system offers convenient push-button settings and it is solid state, with no moving wear points, to ensure precise, reliable position feedback. The integral pneumatic pilot valve also offers features which further enhance the operating performance of the automated on/off valves. The Axiom is constructed to withstand the most challenging plant environments and it is available in Standard, Intrinsically safe, Non-incendive, and Explosion proof versions.

- Corrosion proof, temporarily submersible
- Suitable for use in hazardous areas
- High visibility mechanical and electronic open/closed indication
- Durable enclosure and manifold
- Sealed and potted electronic components
- Broad array of communication options
- Optional Wireless Link capabilities for set-up, safety and diagnostics

Valves for sugar processing

Sugar processing conditions

Continuous operation / Slurry handling / Erosive fluids / High temperatures / Caustic and corrosive chemicals

Neles Valves for sugar processing

Jamesbury Wafer-Sphere high-performance butterfly valves

Jamesbury™ Quadra-Powr™ X spring diaphragm rotary actuators

Neles pneumatic cylinder actuators, B1-series

Jamesbury small weld/ threaded end ball valves, 4000-series

Jamesbury manual gear actuators, M-series

Jamesbury ball valves, 7000- and 9000-series

Jamesbury Wafer-Sphere high-performance butterfly valves, 835-series

Neles V-port segment valves, R-series

Neles™ Neldisc™ butterfly valves, L-series

Neles ceramic ball valves, E-series

Stonel Axiom valve controllers

Neles™ NDX™ intelligent valve controllers

Features and benefits

- High reliability
- High uptime
- High process accuracy and efficiency
- Corrosion resistant
- Low automation costs
- Easy maintenance
- Low maintenance needs
- Very long service life
- Very cost effective

Highlights

Wafer-Sphere high performance butterfly valves offer significantly longer operation life than rubber lined butterfly valves, as well as delivering higher uptime and lower maintenance costs.

Valmet's professionals around the world work close to our customers and are committed to moving our customers' performance forward – every day.

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