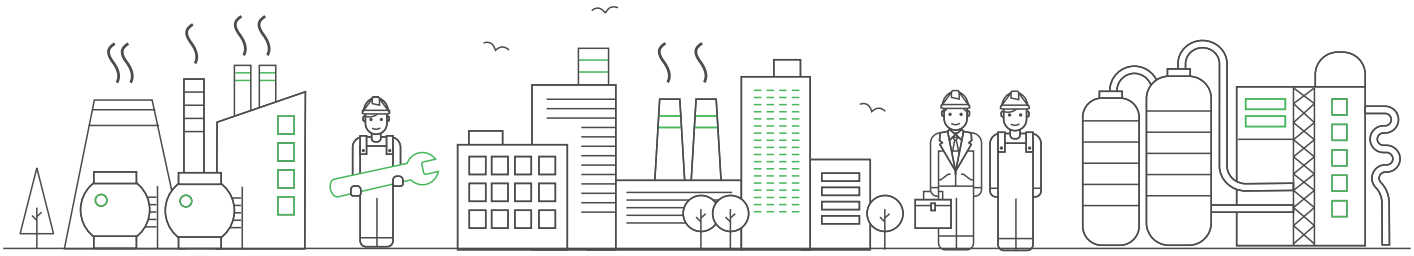

Maintenance recommendation for PX / PZ capping valves

Regular on-site inspection every 2 to 3 years			
Component	**Check**	**Finding**	**Action**
Valve	Test/Inspect all safety jamming components and ensure proper function	Malfunction	Replace
Actuator	Test switches	Malfunction	Adjust/replace
Instrumentation	Check instrumentation connections, fittings and components for leakages	Leakage	Tightening/replace
Valve	Check gland packing for leakages	Leakage	Tightening/replace
	Check body seal for leakages	Leakage	Refurbishment
	Check optional water purge system	Blocked	Cleaning
	Wash/Flush Liquor and chips and clean Ball/Seat and inspect for damages	Damages	Rotate ball and replace seat ring
Actuator	Stroke the valve and check actuator stops open & closed	If out of range	Adjustment
	Remove actuator housing cover and inspect components: Lever arm, bearings etc.	Damages/Corrosion	Refurbishment
	Cylinder/piston blow by	Leakage	Refurbishment
Valve actuator	Check mounting bolts tightness	Loose	Tighten
	Stroke the valve and check tilting device functionality	Damages	Adjustment/Refurbishment
	Measure break away torques open and close	If out of range	Adjustment/Refurbishment
Valve	Field leak test	Leakage	Measure gap and adjust if needed

IMPORTANT!
Take adequate safety measures when working with the valve mounted on the top of digester.

Wearing out of devices:

Capping valve

Rear tilting device

SG9000 on-off valve controller

Operational benefits:

- Improved plant availability
- Optimized performance
- Ensured quality
- Improved safety

valmet.com/flowcontrol

Factory refurbishment

5 to 7 years depending on cooking process

VALVE	
Item	**Action**
Soft parts	Replace
Bearings	Replace / upgrade to latest design
Ball	Refurbish / replace and pairing to the seat
Seat ring	Replace
Body	Sand blasting
	Replace body bolting
	Machining of sealing surfaces
Body and tightness test	According to standards

ACTUATOR	
Item	**Action**
Soft parts	Replace
Cylinder / piston / piston rod	Replace if worn.
Linkage	Repair if worn.
Housing	Replace if worn.
Mounting bolts	Replace
Limit screws	Replace if damaged
Instrumentation	Repair / Replace

Valmet can recommend spare products and spare parts for commissioning and startup and to be kept as operational stock in order to address damage to equipment in a timely manner.

During maintenance Valmet technicians check parts that are not mentioned and replace damaged parts if possible.
Valmet technicians also make recommendations for future inspection and maintenance.

Positioner diagnostics help monitor valve condition and performance between outages as well as determine whether a particular valve needs attention.
Positioner diagnostics also contribute during outages to the quality and effectiveness of maintenance with the aim of maximizing reliability, performance and valve lifetime.

Valmet supports its customers in leveraging valve positioner, control loop and OEM data to predict and prevent valve related issues, facilitate planning and prioritize actions. Contact us for more info on digitalization and AI-based services.