

# Control Valve Selection by Application

## Pulp and Paper

### Pulp and Paper



W7432

Area	Type	Application	Valve Type	Considerations
<b>Pulp Mill</b>				
Digester	Directly steamed batch digester	Liquor fill valve	CV500 <b>eplug™</b> valve	---
		White liquor to digester valve	V300 <b>Vee-Ball®</b> valve	---
		Black liquor to digester valve	CV500 <b>eplug</b> valve	---
		Blow-back steam valve	V300 <b>Vee-Ball</b> valve	---
		Gas-off valve	V500 <b>eplug</b> valve	---
		Cooking valve	CV500 <b>eplug</b> valve	Alloy 6 trim is recommended to prolong valve life
	Indirectly steamed batch digester	Liquor fill valve	CV500 <b>eplug</b> valve	---
		White liquor to digester valve	V300 <b>Vee-Ball</b> valve	---
		Black liquor to digester valve	CV500 <b>eplug</b> valve	Optional sealed bearings can help ensure longer life and smooth stroking
		Blow-back valve	V300 <b>Vee-Ball</b> valve	
		Gas-off valve	V500 <b>eplug</b> valve	Sealed bearings can prevent impurities from seizing up the valve.
		Indirect steam valve	EZ <b>easy-e®</b> valve	WhisperFlo™ trim is recommended to minimize noise
		Digester top recirculation valve	CV500 <b>eplug</b> valve	Straight-through flow path allows high consistency stock flow
		Digester bottom recirculation valve	CV500 <b>eplug</b> valve	Alloy 6 trim is recommended to improve erosion resistance
		Condensate return valve	V500 <b>eplug</b> valve	Reversible seat ring helps prevent downtime
		Direct steam valve	CV500 <b>eplug</b> valve	Free-floating seat allows self-centering of the of the ball for superior cycle life
		Steam temperature control (desuperheater)	DMA/AF or DVI <b>CON-TEK®</b> desuperheater	External spraywater control valve required.

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Area	Type	Application	Valve Type	Considerations
Batch digester—low-energy process	Warm black liquor accumulator	Warm liquor to Warm fill pump valve	PSP <b>POSI-SEAL</b> ® package, A41 <b>POSI-SEAL</b> valve	Soft seal recommended for tight shutoff in both directions
		Mill water temperature control valve through cooler	V150 <b>Vee-Ball</b> ® valve	A stainless steel body with alloy 6 inlay is recommended for this extremely erosive application
		Digester liquor return header valve	PSP <b>POSI-SEAL</b> package, A41 <b>POSI-SEAL</b> valve	ENVIRO-SEAL® packing is recommended to control caustic liquid emissions
		Warm liquor flow valve through liquor cooler	V300 <b>Vee-Ball</b> valve	A stainless steel body is recommended for corrosion resistance
		Warm fill control valve	V300 <b>Vee-Ball</b> valve	---
	Cool black liquor and displacement tank	Digester liquor return header valve	PSP <b>POSI-SEAL</b> package, A41 <b>POSI-SEAL</b> valve	---
		Displacement tank bypass valve	PSP <b>POSI-SEAL</b> package, A41 <b>POSI-SEAL</b> valve	Soft seal recommended for tight shutoff in both directions
		Cool liquor level control valve to liquor filter	V150 <b>Vee-Ball</b> valve	---
		Warm liquor to cool-temperature control valve	ED <b>easy-e</b> ® valve	---
		Cool liquor pad to Warm fill pump valve	PSP <b>POSI-SEAL</b> package, A41 <b>POSI-SEAL</b> valve	A horizontal shaft position is recommended to prevent excess wear of the bearings
		Brown stock filtrate level control valve	V150 <b>Vee-Ball</b> valve	---
	Hot black liquor accumulator and white liquor accumulator	Digester liquor return header valve	PSP <b>POSI-SEAL</b> package, A41 <b>POSI-SEAL</b> valve	ENVIRO-SEAL® packing is recommended to control caustic liquid emissions
		Cool white liquor to heat exchanger valve	V300 <b>Vee-Ball</b> valve	---
		Steam temperature control (desuperheater)	DMA/AF or DVI <b>CON-TEK</b> desuperheaters	External spraywater control valve required.
		Hot liquor to hot fill pump valve	V300 <b>Vee-Ball</b> valve	Alloy 6 trim recommended to help prevent erosion damage and prolong valve life

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Area	Type	Application	Valve Type	Considerations
Recovery cycle	Black liquor evaporators/ concentrators	First-through sixth-effect liquor level valve	V150 <b>Vee-Ball</b> <sup>®</sup> valve	Alloy 6 seal and bearings are recommended for exceptional erosion resistance
		First-through sixth-effect condensate level valve	V150 <b>Vee-Ball</b> valve	HD (heavy-duty) metal seal is recommended to help prevent erosion damage. Low pressure drops and flow rates are recommended
		Clean condensate flash tank level valve	ET <b>easy-e</b> <sup>®</sup> valve	---
		Intermediate product liquor flash-tank level valve	V150 <b>Vee-Ball</b> valve	Hardened trim recommended. There is a high probability of cavitation and vibration in this application.
		Soap-skimming tank level valve	V150 <b>Vee-Ball</b> valve	HD (heavy-duty) metal seal is recommended for higher pressure drops
		Foul-condensate hotwell level valve	ED <b>easy-e</b> valve	Anti-cavitation trim is available
		Concentrator condensate level valve	ET <b>easy-e</b> valve	---
		Concentrator liquid level valve	V150 <b>Vee-Ball</b> valve	---
		Product liquor flash tank level valve	V150 <b>Vee-Ball</b> valve	Alloy 6 inlay is recommended for resistance to cavitation and erosion
		Steam to first-effect valve	EWD <b>easy-e</b> <sup>®</sup> valve	Restricted-capacity trim is recommended if flow demands might require higher capacity and full-size trim later
		Flash steam from Intermediate product flash tank valve	8560 <b>edisc</b> <sup>®</sup> valve	---
		Flash steam from clean condensate flash tank valve	8560 <b>edisc</b> valve	---
		Steam to concentrator valve	EWD <b>easy-e</b> valve	Restricted-capacity trim is recommended if flow demands might require higher capacity and full-size trim later
		Vapor from concentrator valve	8532 <b>edisc</b> valve	Soft seat recommended for better shutoff
		Flash steam from product liquor tank valve	V150 <b>Vee-Ball</b> <sup>®</sup> valve	---
		Contaminated condensate to sewer valve	PSP <b>POSI-SEAL</b> <sup>®</sup> package, A41 <b>POSI-SEAL</b> valve	---
		Soap to processing valve	V150 <b>Vee-Ball</b> valve	---
		Liquor feed to fifth- and sixth-effect valve	V150 <b>Vee-Ball</b> valve	An HD (heavy-duty) metal seal is recommended for higher pressures and greater resistance to cavitation damage
		Cooling Water to condenser valve	8532 <b>edisc</b> valve	---
		Steam to NCG (non-condensable gas) ejector valve	EZ <b>easy-e</b> valve	WhisperFlo™ trim recommended for noise reduction
		NCG (non-condensable gas)-to-incinerator valve	V150 <b>Vee-Ball</b> valve	---
			V300 <b>Vee-Ball</b> valve	For higher pressures
		Feed liquor to concentrator valve	V150 <b>Vee-Ball</b> valve	---
Steam temperature control (desuperheater)	DMA/AF or DVI <b>CON-TEK</b> <sup>®</sup> desuperheater	External spraywater control valve required.		

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Area	Type	Application	Valve Type	Considerations
Batch digester—low-energy process	Digester	Digester hot header return valve	PSP <b>POSI-SEAL</b> <sup>®</sup> package, A41 <b>POSI-SEAL</b> valve	---
		Digester warm header return valve	PSP <b>POSI-SEAL</b> package, A41 <b>POSI-SEAL</b> valve	Counterclockwise disk rotation is recommended
		Digester main pressure control valve	CV500 <b>eplug</b> <sup>™</sup> valve	---
		Air receiver to digester valve	PSP <b>POSI-SEAL</b> package, A41 <b>POSI-SEAL</b> valve	A horizontal shaft position is recommended to prevent excess wear of the bearings
		Digester air-evacuation valve	PSP <b>POSI-SEAL</b> package, A41 <b>POSI-SEAL</b> valve	Wafer or single-flanged construction available
		Relief to blow tank valve	CV500 <b>eplug</b> valve	---
		Digester steam packer valve	CV500 <b>eplug</b> valve	An oversized actuator is recommended
		Digester relief to hot accumulator valve	CV500 <b>eplug</b> valve	---
		Digester relief screen blow-back valve	CV500 <b>eplug</b> valve	---
		Digester top recirculation valve	PSP <b>POSI-SEAL</b> package, A41 <b>POSI-SEAL</b> valve	ENVIRO-SEAL <sup>®</sup> packing is recommended to control caustic liquid emissions
		Digester sparger steam valve	ED <b>easy-e</b> <sup>®</sup> valve	---
		Digester bottom recirculation valve	PSP <b>POSI-SEAL</b> <sup>®</sup> package, A41 <b>POSI-SEAL</b> valve	ENVIRO-SEAL <sup>®</sup> packing is recommended to control caustic liquid emissions
		Digester cone flush dilution valve	CV500 <b>eplug</b> <sup>™</sup> valve	---
		Digester displacement fill valve	PSP <b>POSI-SEAL</b> package, A41 <b>POSI-SEAL</b> valve	---
		Digester warm-fill inlet valve	CV500 <b>eplug</b> valve	---
		Digester hot-fill Inlet valve	PSP <b>POSI-SEAL</b> package, A41 <b>POSI-SEAL</b> valve	---
Steam temperature control (desuperheater)	DMA/AF or DVI <b>CON-TEK</b> <sup>®</sup> desuperheater	External spraywater control valve required.		

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Area	Type	Application	Valve Type	Considerations
Recovery cycle	Kraft recovery boiler black-liquor system	BLOX tank-level control valve	V150 or V200 <b>Vee-Ball</b> <sup>®</sup> valves	Anti-cavitation trim might be necessary if the process contains high pressure drops
		Sluice tank-level control valve	V150 or V200 <b>Vee-Ball</b> valves	---
		DCE (direct-contact evaporator) level control valve	V150 or V200 <b>Vee-Ball</b> valves	---
		Black liquor emergency divert valve	V150 or V200 <b>Vee-Ball</b> valves	For higher pressure drops, used a flanged Design V150 valve
		Black liquor recirculation flow or pressure control valve	V150 or V200 <b>Vee-Ball</b> valves	---
		Auxiliary fuel/natural gas regulator	1098-EGR regulator	---
		Auxiliary fuel/fuel oil valve	EZ <b>easy-e</b> <sup>®</sup> valve	---
		Black liquor shutoff valve	V150 or V200 <b>Vee-Ball</b> valves	Sticking can occur; consider an oversized actuator
		Green liquor from dissolving tank valve	V500 <b>eplug</b> <sup>™</sup> valve	For longer service life, use ceramic trim and reverse the flow
		Weak wash to dissolving tank valve	V150 or V200 <b>Vee-Ball</b> valves	---
		Weak wash to scrubber valve	V150 or V200 <b>Vee-Ball</b> valves	---
		Sootblower steam valve	ES <b>easy-e</b> valve	A welded stem and plug assembly is recommended
		Smothering steam to precipitator valve	EZ <b>easy-e</b> valve	---
		Smothering steam to DCE (direct-contact evaporator) valve	EZ <b>easy-e</b> valve	WhisperFlo <sup>™</sup> trim is recommended to minimize noise
		Steam to mix tank valve	EZ <b>easy-e</b> valve	WhisperFlo <sup>™</sup> trim is recommended to minimize noise
		Steam to black liquor header valve	EZ <b>easy-e</b> valve	Stainless steel body and trim are recommended to provide resistance to erosion damage
		Steam to air preheater valve	EZ <b>easy-e</b> valve	---
		Steam temperature control (desuperheater)	DMA/AF or DVI <b>CON-TEK</b> <sup>®</sup> desuperheater	External spraywater control valve required.

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Area	Type	Application	Valve Type	Considerations
Recovery cycle	Recausticizing and lime recovery systems	Steam to green liquor heater valve	EZ <b>easy-e</b> <sup>®</sup> valve	Stainless steel body and trim are recommended to provide resistance to erosion damage
		Green liquor from dissolving tank valve	V500 <b>ēplug</b> <sup>™</sup> valve	---
		Lime mud to dregs filter valve	V500 <b>ēplug</b> valve	Ceramic trim is recommended for this highly erosive application
		Dregs slurry Underflow from green liquor clarifier valve	V500 <b>ēplug</b> valve	Reverse flow with a sacrificial spool piece of pipe to minimize valve damage
		Clarified green liquor to slaker valve	V150 <b>Vee-Ball</b> <sup>®</sup> valve	A stainless steel body might be needed to prevent corrosion
		Lime mud slurry underflow from white liquor clarified valve	V500 <b>ēplug</b> valve	Ceramic trim is recommended for this highly erosive application
		Clarified white liquor to digester valve	V300 <b>Vee-Ball</b> valves	---
		Lime mud washer Underflow	V500 <b>ēplug</b> valve	Ceramic trim is recommended for this highly erosive application
		Weak wash to dissolving tank	V150 <b>Vee-Ball</b> valve	A stainless steel body might be needed to prevent corrosion
		Dilution water for lime mud transfer valve	EZ <b>easy-e</b> valve	Hardened trim is recommended to protect against erosion
		Lime mud to filter valve	V500 <b>ēplug</b> valve	Reverse flow with a sacrificial spool piece of pipe to minimize valve damage
		Natural gas to lime kiln burner valve	V150 <b>Vee-Ball</b> valve	A soft seal is recommended for tight shutoff
		Fuel oil to lime kiln burner valve	EZ <b>easy-e</b> valve	ENVIRO-SEAL <sup>®</sup> packing is recommended to control caustic liquid emissions
		White liquor recirculation to causticizer valve	A31A <b>POSI-SEAL</b> <sup>®</sup> valve	---
		White liquor feed to pressure filter valve	A31A <b>POSI-SEAL</b> valves	Purged bearings can help improve valve life
		Lime mud slurry underflow from white liquor pressure filter valve	V500 <b>ēplug</b> valve	A stainless steel body with alloy 6 inlay is recommended for this extremely erosive application. Using reverse flow can also reduce damage to the valve body.
		Lime mud feed to pressure filter valve	A31A <b>POSI-SEAL</b> valves	---
		Lime mud recirculation to lime mud mixer valve	A31A <b>POSI-SEAL</b> valve	---
		Lime mud pressure filter underflow valve	V500 <b>ēplug</b> valve	Reverse flow with a sacrificial spool piece of pipe to minimize valve damage. Ceramic trim is also recommended.
		Dregs precoat filter level valve	V500 <b>ēplug</b> valve	---
Causticizer level valve	V500 <b>ēplug</b> valve	---		
Lime mud filter level valve	V500 <b>ēplug</b> valve	Reverse flow with a sacrificial spool piece of pipe to minimize valve damage. Ceramic trim is also recommended.		
Steam temperature control (desuperheater)	DMA/AF or DVI <b>CON-TEK</b> <sup>®</sup> desuperheater	External spraywater control valve required.		

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Area	Type	Application	Valve Type	Considerations
Kamyr continuous digester	Dual- or single-vessel digester	High-pressure feeder purge valve	V300 <b>Vee-Ball</b> <sup>®</sup> valve	An alloy 6 inlay can provide resistance to erosion
		White liquor to bottom circulation valve	V300 <b>Vee-Ball</b> valve	A stainless steel body with an alloy 6 V-notch is recommended
		White liquor flow to modified cooking circulation valve	V300 <b>Vee-Ball</b> valve	A stainless steel body with an alloy 6 V-notch is recommended
		White liquor flow to make-up liquor line valve	V300 <b>Vee-Ball</b> valve	---
		Steam temperature control (desuperheater)	DMA/AF or DVI <b>CON-TEK</b> <sup>®</sup> desuperheater	External spraywater control valve required.
		Black liquor flow valve	V150 <b>Vee-Ball</b> valve	A stainless steel body with an alloy 6 V-notch is recommended
		Blow line flow valve	V300 <b>Vee-Ball</b> valve	---
		Inner counterwash flow valve	V300 <b>Vee-Ball</b> valve	---
		Digester outlet device differential pressure valve	V300 <b>Vee-Ball</b> valve	A stainless steel body with an alloy 6 V-notch is recommended
		Chip chute level valve	V150 <b>Vee-Ball</b> valve	An alloy 6 inlay can provide resistance to erosion
		Level tank level valve	V500 <b>Vee-Ball</b> valve	A rotary attenuator is available to reduce noise in high pressure drop applications
		Flash-tank level valve	8560, 8532 <b>edisc</b> <sup>®</sup> valves	---
		Steam vessel pressure valve	V150 <b>Vee-Ball</b> valves	---
		Steam vessel safety relief valve	V150 <b>Vee-Ball</b> valves	---
		Digester pressure relief valve	CV500 <b>ēplug</b> <sup>™</sup> valve	Optional sealed bearings can help ensure longer life and smooth stroking
		Digester pressure valve	V300 <b>Vee-Ball</b> valves	---
		Flash steam pressure valve	8560 or 8532 <b>edisc</b> valves	---
		Chip bin temperature valve (steam from flash tank #2)	8532 <b>edisc</b> valve	A metal seal is recommended for resistance to erosion
		Chip bin temperature valve (steam from low-pressure steam line)	V150 <b>Vee-Ball</b> valves	An alloy 6 inlay will provide resistance to erosion
		Modified cooking circulation temperature valve	V300 <b>Vee-Ball</b> valves	---
		Wash circulation temperature control valve	V300 <b>Vee-Ball</b> valves	A stainless steel body with an alloy 6 V-notch is recommended
		Steaming vessel relief valve	V150 <b>Vee-Ball</b> valves	A rotary attenuator is available to reduce noise in high pressure drop applications
		Steaming vessel relief screen blowback valve	V500 <b>ēplug</b> valve	---
		Steaming vessel relief screen blowback valve	V300 <b>Vee-Ball</b> valves	---
		Digester extraction to No. 1 flash tank valve	CV500 <b>ēplug</b> valve	---

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Area	Type	Application	Valve Type	Considerations
Kamyr continuous digester	Dual- or single-vessel digester	Modified cooking circulation flow valve	8560 <b>edisc</b> <sup>®</sup> valve	---
		Wash circulation flow valve	V300 <b>Vee-Ball</b> <sup>®</sup> valves	---
		Top circulation Isolation valve	Large full-bore ball valve	Contact your Fisher sales office
		Top circulation pressurization valve	V300 <b>Vee-Ball</b> valves	For low pressure drop applications, consider the Design V150 or V200 Vee-Ball valve
		Blow-line Isolation valve (on-off)	Large full-bore ball valve	Contact your Fisher sales office
		Blow-line dilution valve (throttling)	V300 <b>Vee-Ball</b> valves	An alloy 6 Inlay is essential to protect valve body against erosion. Alloy 6 bearings will provide extended valve life.
		Digester sample valve	Large full-bore ball valve	Contact your Fisher sales office
		Blow-line sample valve	CV500 <b>eplug</b> <sup>™</sup> valve	---
		White liquor to sand-separator valve	V500 <b>eplug</b> valve	Reverse flow with a sacrificial spool piece of pipe to minimize valve damage
		Digester Extraction switching valve	DSV (contact your Fisher sales office)	---
		Modified cooking extraction switching valve	DSV (contact your Fisher sales office)	---
		Wash extraction switching valve	DSV (contact your Fisher sales office)	---
		Sand separator dump valve	Large full-bore ball valve	Contact your Fisher sales office
		M.C. (modified-cooking) heater condensate level valve	V500 <b>eplug</b> <sup>™</sup> valve	---
		Wash heater condensate valve	V500 <b>eplug</b> valve	High probability of vibration or cavitation damage
		B.C. (bottom-circulation) heater condensate level valve	V500 <b>eplug</b> valve	Reverse flow with a sacrificial spool piece of pipe to minimize valve damage
		Condensate flash-tank level valve	V150 <b>Vee-Ball</b> <sup>®</sup> valves	---
		Condensate conductivity to tank valve	V300 <b>Vee-Ball</b> valves	Reverse flow with a sacrificial spool piece of pipe to minimize valve damage
	Condensate conductivity to dump valve	V300 <b>Vee-Ball</b> valves	ENVIRO-SEAL <sup>®</sup> packing is recommended to control caustic liquid emissions	
	Water conductivity to dump valve	V150 <b>Vee-Ball</b> valves	A composition ball seal can provide Class VI shutoff	
	Dual-vessel digester	Bottom circulation flow valve	V300 <b>Vee-Ball</b> valves	A stainless steel body and alloy 6 inlay are recommended for this erosive application
		Impregnation vessel bottom dilution (lower) valve	V300 <b>Vee-Ball</b> valves	---
		Impregnation vessel bottom dilution (upper) valve	V300 <b>Vee-Ball</b> valves	---
		Impregnation vessel relief valve	CV500 <b>eplug</b> valve	---
		Bottom circulation temperature valve	V300 <b>Vee-Ball</b> valves	A stainless steel body with an alloy 6 V-notch is recommended

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Kamyr continuous digester	Dual-vessel digester	Trim liquor downflow valve	V300 <b>Vee-Ball</b> <sup>®</sup> valve	---		
		Bottom circulation Isolation valve	Large full-bore ball valve (Contact your Fisher sales office)	---		
		Impregnation vessel cooling liquor flow valve	V300 <b>Vee-Ball</b> valve	---		
		Trim liquor switching valve	DSV (contact your Fisher Sales office)	---		
		Bottom circulation return switching valve	DSV (contact your Fisher sales office)	---		
		Bottom circulation screen backflush valve	8560 <b>edisc</b> <sup>®</sup> valve	---		
	Diffusion washer	First-stage backflush tank level valve	8560 <b>edisc</b> valve	---		
		First-stage filtrate tank (bypass) valve	8560 <b>edisc</b> valve	---		
		First-stage filtrate tank (makeup) valve	8560 <b>edisc</b> valve	A horizontal shaft position is recommended to prevent excess wear of the bearings		
		Second-stage backflush tank level valve	8560 <b>edisc</b> valve	ENVIRO-SEAL <sup>®</sup> packing is recommended to control caustic liquid emissions		
		Second-stage filtrate tank level makeup valve	8560 <b>edisc</b> valve	---		
		First-stage backflush valve	8560 <b>edisc</b> valve	---		
		Second-stage backflush valve	8560 <b>edisc</b> valve	Use a Novex metal seal if bi-directional shutoff is required		
		First-stage backflush tank pressure valve	EZ <b>easy-e</b> <sup>®</sup> valve	---		
		Second-stage backflush tank pressure valve	EZ <b>easy-e</b> valve	WhisperFlo <sup>™</sup> trim is recommended to minimize noise		
		First-stage wash flow valve	8560 <b>edisc</b> valve	ENVIRO-SEAL <sup>®</sup> packing is recommended to control caustic liquid emissions		
		Wash water flow for float out valve	V150 <b>Vee-Ball</b> valve	---		
		<b>Pulp or Utilities</b>				
		Recovery or power boilers	Water/steam power cycle	Medium-pressure heater drain valve	V500 <b>eplug</b> <sup>™</sup> valve, PV valve	Reverse flow with a sacrificial spool piece of pipe to minimize valve damage
Low-pressure heater drain valve	V500 <b>eplug</b> valve, PV valve			---		
Condensate collection tank level valve	V500 <b>eplug</b> valve			---		
Demineralized make-up water valve	V150 <b>Vee-Ball</b> valve			---		
Boiler feedwater regulator valve	HP valve			Hardened trim is essential in this highly erosive service		
Boiler feedwater regulator bypass valve	HP valve			Hardened trim is essential in this highly erosive service		
Boiler feedwater pump recirculation valve	HP valve			---		
Desuperheater heating steam valve	8560 <b>edisc</b> valve			---		

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Area	Type	Application	Valve Type	Considerations	
Recovery or power boilers	Water/steam power cycle	Contaminated condensate dump valve	V500 <b>eplug</b> ™ valve	---	
		Condenser hotwell recirculation valve	V500 <b>eplug</b> valve	---	
		Condenser/cooling tower water valve	PSP <b>POSI-SEAL</b> ® package, A41 <b>POSI-SEAL</b> valves	---	
		Sootblower steam valve	ED <b>easy-e</b> ® valve	A welded stem and plug assembly is recommended	
		High-pressure steam vent valve	HP valve, CVX-P <b>CON-TEK</b> ® valve	Low-noise trim is available	
		Superheater attemperation Water valve	HP valve	High-pressure application	
		Continuous blowdown valve	HP valve	---	
		Intermittent blowdown valve	HP valve	A welded plug and stem assembly is recommended	
		High/medium steam pressure-reducing valve	EHA valve	EHA valve	Angle valve changes the angle of impingement and can greatly improve valve life
				CVX-P <b>CON-TEK</b> valve	Larger sizes, higher pressures and temperatures
		Medium/low steam pressure-reducing valve	EHA valve	EHA valve	Angle valve changes the angle of impingement and can greatly improve valve life
				CVX-P <b>CON-TEK</b> valve	Larger sizes, higher pressures and temperatures
High/medium or medium/low steam-conditioning valve	CVX-A or CVX-C <b>CON-TEK</b> valves	---			
Steam	---	Main steam to process valve	CVX-P <b>CON-TEK</b> valve	Steam conditioning valve	
		Main process to low-pressure let-down	CVX-C <b>CON-TEK</b> valve		
Kamyr continuous digester	Diffusion washer	Second-stage Wash flow valve	8560 <b>edisc</b> ® valve	A horizontal shaft position is recommended to prevent excess wear of the bearings	
		Blow-line Isolation from diffusion Washer valve	Large full-bore ball valve	Contact your Fisher sales office	
		Blow-line Isolation from high-density storage valve	Large full-bore ball valve	Contact your Fisher sales office	
		First-stage extraction flow valve	V150 <b>Vee-Ball</b> ® valves	---	
		Second-stage Wash Isolation valve	V150 <b>Vee-Ball</b> valve	---	
		Second-stage extraction flow valve	V150 <b>Vee-Ball</b> valve	ENVIRO-SEAL® packing is recommended to control caustic liquid emissions	
		Filtrate to digester temperature valve	V150 <b>Vee-Ball</b> valve	---	

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Area	Type	Application	Valve Type	Considerations
<b>Basis Weight Control</b>				
Basis weight control	---	---	Basis weight control assembly	System includes Vee-Ball valve, electric actuator, and control system. Contact your Fisher sales office.
<b>Paper Machine</b>				
Paper machine	Wet end	Steam temperature control (desuperheater)	DMA/AF or DVI <b>CON-TEK®</b> desuperheaters	External spraywater control valve required.
	Dryer section		51000 valve	
	Dye addition	Dye addition into the mix box	24000C <b>Steel Little Scotty</b> valves, 24000S Series valves	Steel and stainless steel globe valves, DN 15 to DN 80 or 1/2 to 3 inches
			Heater drain	42000 valve
	---	Alum	24000C <b>Steel Little Scotty</b> valves, 24000S Series valves	Steel and stainless steel globe valves, DN 15 to DN 80 or 1/2 to 3 inches
		Percol	24000C <b>Steel Little Scotty</b> valves, 24000S Series valves	Steel and stainless steel globe valves, DN 15 to DN 80 or 1/2 to 3 inches
		Roller pressure control	24000F valve	Stainless steel wafer valve, 1/2 or 1 inch
			24000SB valve	Globe-type valve made from bar stock, 1/2, 3/4, or 1 inch
			24000C <b>Steel Little Scotty</b> valves, 24000S Series valves	Steel and stainless steel globe valves, DN 15 to DN 80 or 1/2 to 3 inches
		Talc	24000C <b>Steel Little Scotty</b> valves, 24000S Series valves	Steel and stainless steel globe valves, DN 15 to DN 80 or 1/2 to 3 inches
		Cooling water, utility	24000 <b>Bronze Little Scotty</b> valve	Bronze utility valve, 1/2 to 2 inches
			21000 <b>Lo-T</b> valve	Lined butterfly valve, 2 to 6 inches
			25000 <b>Lo-T</b> valve	Butterfly valve, 2 to 8 inches
		pH control (acid and caustic)	42000 valve	Eccentric-plug rotary valve, DN 25 to DN 150 or 1 to 6 inches
<b>WWT (Waste-Water Treatment)</b>				
WWT	---	---	51000	Low-flow valve, 1/4 or 1/2 inches
			26000	Lined wafer valve, DN 25 or 1 inch
			86000	Lined sleeve valve, 1 inch
			24000C <b>Steel Little Scotty</b> valves, 24000S Series valves	Steel or stainless steel globe valves, DN 15 to DN 80 or 1/2 to 3 inches

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# Control Valve Selection by Application

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## *Pulp and Paper*

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