

AUX PRDS VALVE



BOMAF[®]
Special Valve Solutions

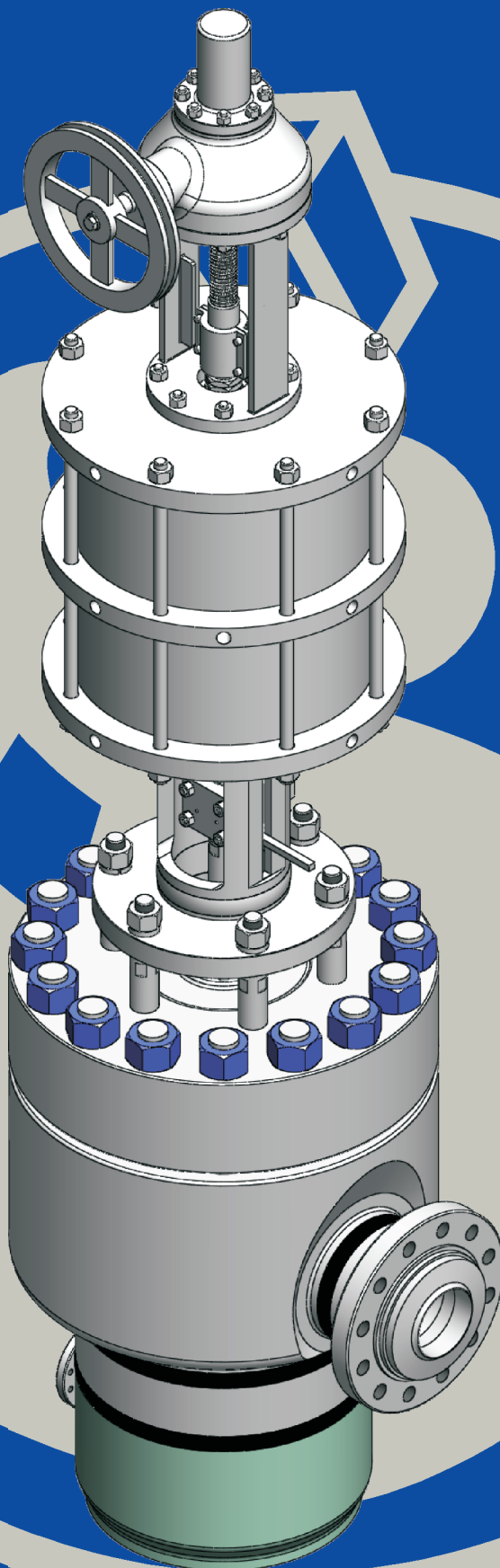
ROBUST ACTUATOR

ANGLE DESIGN

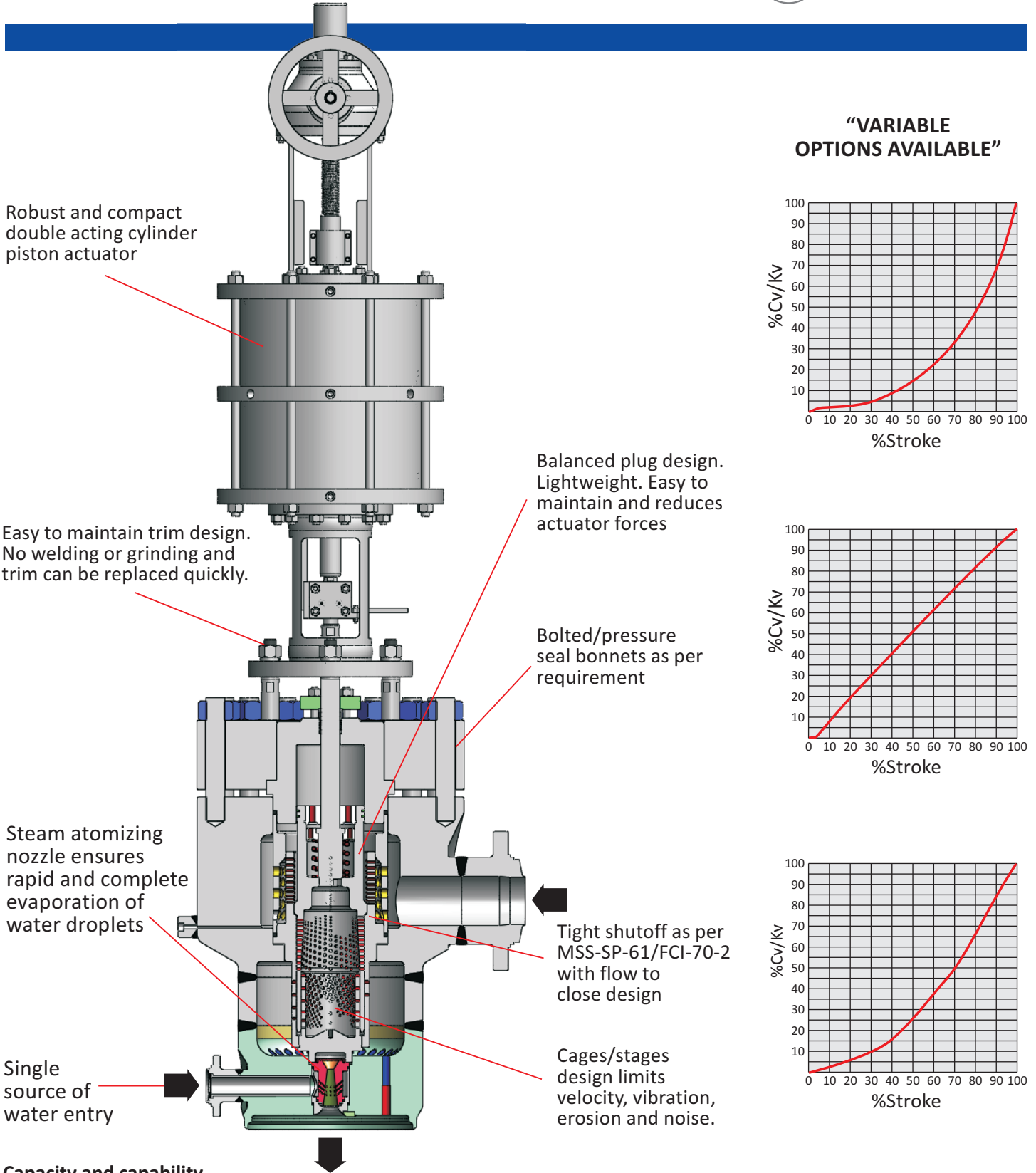
FLOW TO CLOSE

TIGHT SHUT OFF

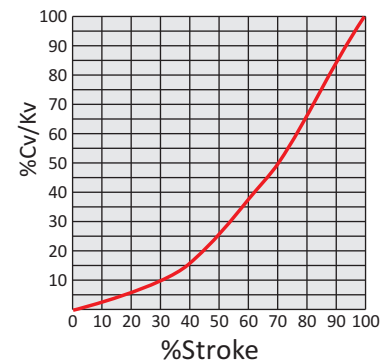
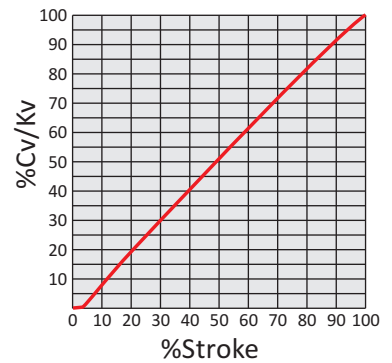
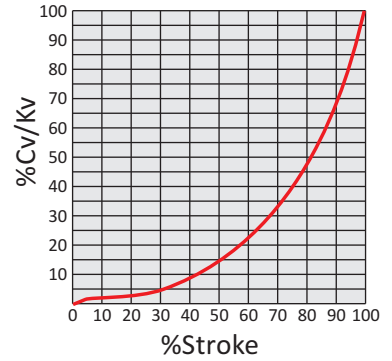
MAINTENANCE FRIENDLY



AUX PRDS VALVE WITH MOTIVE STEAM ATOMIZING NOZZLE



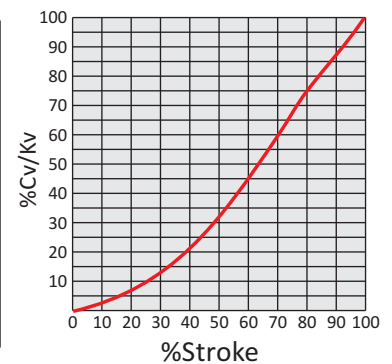
"VARIABLE OPTIONS AVAILABLE"



Capacity and capability

Particulars	Inlet	Outlet
Nominal width	DN 50 to 450/ 2" - 18"	DN 80 to 1400/ 3" - 56"
Nominal pressure	PN 16 to 630/ ASME 150 to 4500#	PN 16 to 530/ ASME 150 to 4500#
Material	1.0460/A 105, 1.5415/A 182 F11, 1.7380/A 182F22.1.4903/A182F91/A182F92	
End Connection	Butt-weld and Flanged	
Characteristic Curve	Linear / Equal Percentage / Modified / Characterised	
Seat	As per FCI 70-2 Class-V	
Trim	Labyrinth disc stack/ Perforated Cage/Additional Cylinders & Plates	
Rangeability	1:10/1:25/1:40/1:50/1:100	
Actuator	Pneumatic/Hydraulic/Electric	
Opening/ Closing Time	As per Requirement	

* For higher & smaller sizes consult factory
 * For higher rangeability consult factory



Advantages of Bomafa PRDS Valve:

The valve maintains tight shut off maintaining Class V seat leakage as per MSS-SP-61/FCI-70-2. High rangeability of 1:50 is provided. Even higher rangeability/turndown is provided on requirements and customer specific request.

The valve has series of pressure reducing stages/cages for severe let down applications. There is complete velocity control on the full load with noise levels reduced below acceptable limits. The valve body is specifically tailor made design as per the process condition to ensure minimum wall thickness that reduces thermal stress and shock.

The maintenance is low on cost and user friendly as it has a rapid trim change over from top. Double acting or single acting spring return cylinder piston actuators are provided for longer stroke, higher thrust, compact design and ease of maintenance. Hydraulic and electric actuators are also provided as an alternate option Long lasting trim due to low velocities and coupled with proper material selection.

Warming/drain/preheating is recommended for elevated temperatures and if the valve is going to remain closed most of the time. Installation friendly, can be installed in horizontal and vertical direction.

The best method of water injection is deployed in this valve. It has State of the Art Laval jet motive steam atomising nozzle that ensures no impingement of water on hot body walls and also downstream piping leading to elimination of expensive thermal sleeves and liners.

It provides substantial savings to the customer in terms of installation as the downstream straight length required in alloy steel material is short and transition sockets and pipes can be installed very close to the valve.

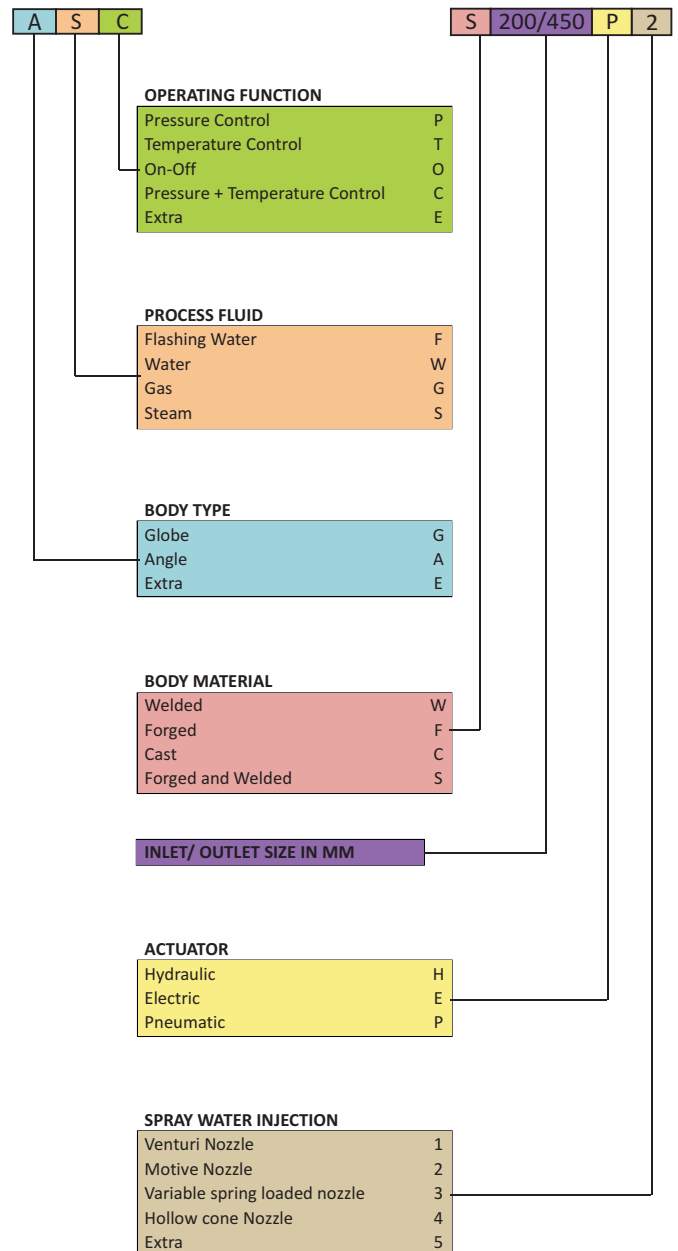
Function / Operation :

The State of the Art Laval jet motive steam atomising nozzle has the most advanced desuperheating technology. It can be installed in any direction and is compact, light weight and easily removable. It needs shortest possible distance downstream of the desuperheating point and is the most efficient form in severe service applications. It covers wide industrial applications from process, to bypass to Aux PRDS applications.

This nozzle creates very high velocity and turbulence leading to instantaneous evaporation of the water/coolant. The coolant is passed through a preheating chamber around this nozzle and is then injected through a series of small holes/jets thereby assisting atomisation by the high pressure steam passing at super critical velocity through the laval jet nozzle. This mist like fluid is further sheared at the exit by the stripping action of the accelerated high pressure steam which also passes through the holes of engineered size exiting the exit annulus. The resultant pattern of discharge has the water particles surrounded by a complete cover/sheath of steam so that no contact is made with the downstream main pipe and hot body walls ensuring optimum operational effectiveness with no pipeline erosion.

Because of this nozzle the valve will operate successfully even at low steam velocity and loads as when the load drops down but the atomising steam is constantly flowing through the nozzle and is fully effective across full load conditions. This characteristic is unique and is different from other desuperheating principle, nearly all of which depend on turbulence due to high steam velocity across the pipe by rapid evaporation for an inevitable percentage of large water droplets.

DECODIFICATION/MODEL



(Example : ASCS 200/450 P2)



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Range of Products



HP Bypass valve



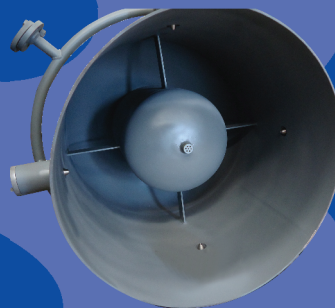
Minimum flow
re-circulation valve



LP Bypass valve
for 660 MW power plant



Desuperheater-integral
multinozzle type



Dump tube



Spray water control
valve for 660 mw



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