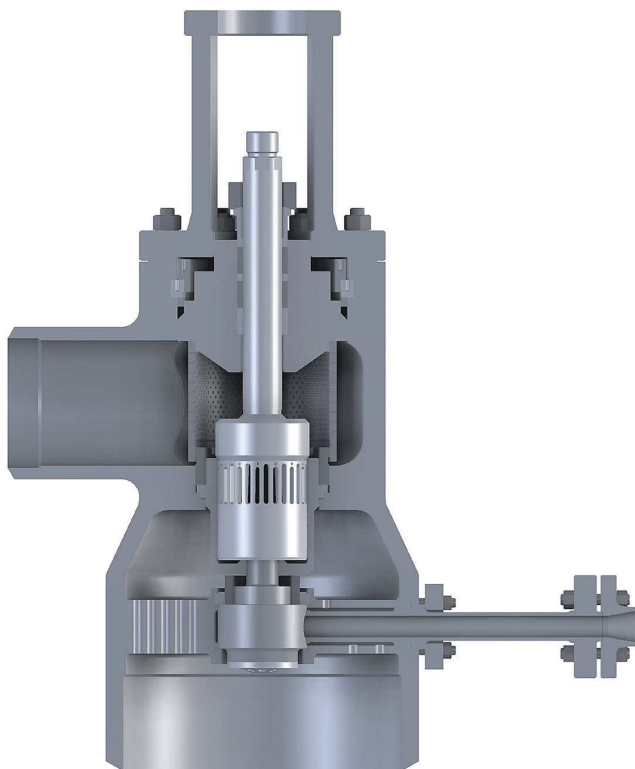


## HCVKC2 Valve



### Application

HCVKC2 steam conditioning valve combines pressure and temperature control in a single valve. Temperature reduction is up to water injection under low pressure conditions (a condensate can be administered). HCVKC2 type is commonly used as turbine start or discharge valve and in process steam systems.

### Description

HCVKC2 is an angle valve. It incorporates a spraywater manifold and atomizing steam implementation downstream of its pressure reduction stage. Basically, the valve consists of: forged body, self-sealing inner bonnet integrated with cage, and main plug (perforated, pressure balanced by inner plug—so called pilot plug). Two types of seat are available: screw-in or slip-in (the latter is pressed by screw plug). Lower part of the seat has perforated throttling bushing and atomizing steam nozzle. A medium undergoes multistep expansion. Firstly, the expansion occurs in vents of perforated throttling bushing of the seat, which opens one after another according to the plug's move. Further expansion is up to throttling plates fixed at the valve's outlet. Their number coincides with the given work characteristics of the valve. Water injection follows the complete steam expansion. Atomizing steam reach the nozzles during first stage of valve's opening. The occurrence of smaller droplets permits the water to remain suspended and its almost immediate absorption by the steam's stream. HCVKC2 valve works with media flow directed over the plug. Any control of coolant's flow demands an implementation of additional injection valve. HCVKC2 valve also has the special version: with unbalanced plug.

### Technical data

	inlet		outlet	connection pipe of injected water
Nominal diameter	DN50÷DN300		according to patron's demand	DN15÷DN50
Nominal pressure	PN40÷PN400		PN16÷PN400	PN40÷PN400
Connections	welding ready			bolted flanges; welding ready
Flow coefficient Kvs	10÷1300 m <sup>3</sup> /h			
Body	1.0460 (P250GH) 1.5415 (16Mo3)	1.7335 (13CrMo4-5) 1.7380 (10CrMo9-10)	1.7715 (14MoV6-3) 1.4903 (X10CrMoVNB9-1)	1.4901 (X10CrWMoVNB9-2)
Plug	1.4541(X6CrNiTi18-10)	1.4057(X17CrNi16-2)	1.4125 (X105CrMo17)	
Seat	1.4541(X6CrNiTi18-10)	1.4057(X17CrNi16-2)	1.4125 (X105CrMo17)	
Stem	1.4057 (X17CrNi16-2)	1.4923 (X22CrMoV12-2)		
Injection nozzle	1.4541(X6CrNiTi18-10) + stellite			
Hardening of the inner parts	stellite; nitriding; hardening			
Rangeability	50:1			
Leakage class	metal/metal sealing—IV (standard); V (improved)			
Body's gland	trapezoid, graphite			
Seal bushing	graphite			



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