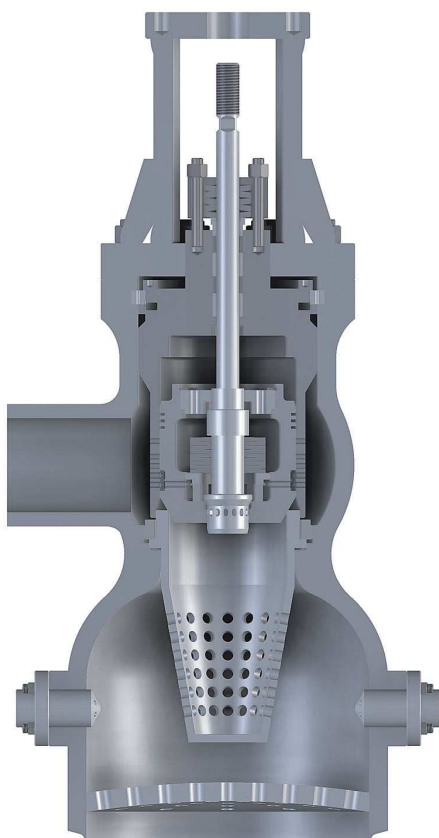


# HCVKC6 Valve



## Application

HCVKC6 steam conditioning valve combines pressure and temperature control in a single valve. It is commonly used as turbine start or discharge valve.

## Description

HCVKC6 is an angle valve. The water is delivered by a set of highly efficient nozzles assembled in spray chamber under the valve's seat. Forged body of the valve has equal walls' thickness (gauge), what reduces the thermal stresses during valve's warming up and cooling. Basically, the valve consists of: body, self-sealing inner bonnet integrated with cage, main plug (perforated or piston-type, pressure balanced by inner plug—so called pilot plug), and slip-in seat (pressed by screw plug). The cage drives the main plug. The mentioned seat has the perforated throttling device on its outlet. At the very beginning of the valve's stroke the pilot plug works. It controls small flows and reduces the pressure differences which affect the main plug. The reduced dynamic forces acting on main plug might permit choosing a smaller actuator. If the pilot plug fully opens, the main plug starts moving. Piston-type one opens the vents of active cage. In case of perforated plug, only its perforation is responsible for pressure reduction; the cage does not. HCVKC6 valve works with media flow directed over the plug. A medium undergoes multistep expansion. Firstly, the expansion occurs on plug itself (active stage). Next two steps (of passive nature) occur at seat's perforation and on throttling plate. Valve's construction allows to increase the number of expansion's steps (additional appliances are assembled on the outlet connection pipe). Any control of coolant's flow demands an implementation of additional injection valve.

## Technical data

	inlet		outlet	connection pipe of injected water
Nominal diameter	DN50÷DN300		according to patron's demand	DN15÷DN40
Nominal pressure	PN40÷PN400		PN16÷PN400	PN40÷PN400
Connections	welding ready			welding ready
Flow coefficient Kvs	40÷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 nozzles	1.4305 (X8CrNiS18-9)	1.4571 (X6CrNiMoTi17-12-2)		
Hardening of the inner parts	stellite; nitriding; hardening			
Rangeability	20:1			
Leakage class	metal/metal sealing—IV (standard); V (improved)			
Body's gland	trapezoid, graphite			
Seal bushing	graphite			



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