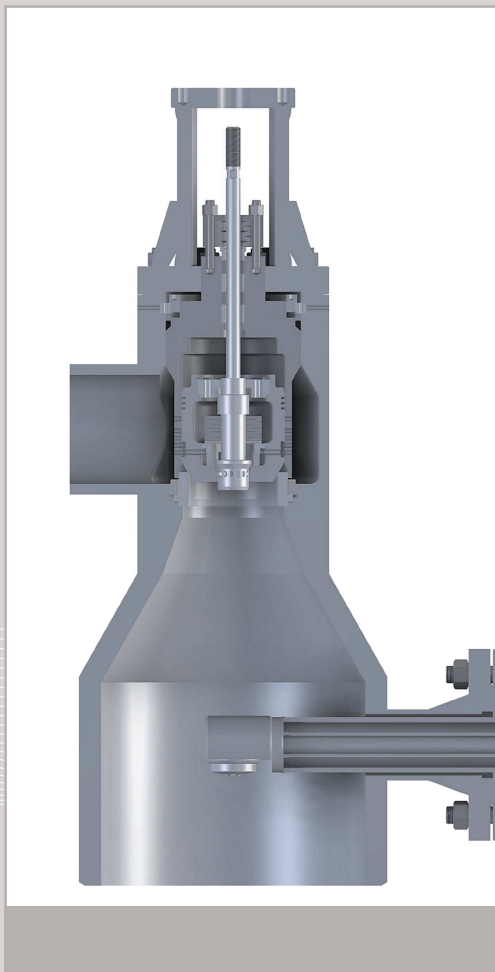


# HCVKC8 Valve



## Application

HCVKC8 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). HCVKC8 type is commonly used as turbine start or discharge valve and in process steam systems.

## Description

HCVKC8 is an angle valve. It incorporates steam cooler (ASD desuperheater) downstream of its pressure reduction stage. Basically, the valve consists of: forged body, self-sealing inner bonnet integrated with cage, main plug (perforated or profiled, pressure balanced by inner plug—so called pilot plug), and a seat. Two types of seat are available: screw-in or slip-in (the latter is pressed by screw plug). The cage drives the main plug. HCVKC8 valve works with media flow directed over the plug. 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. Valve's construction allows to increase the number of expansion's steps (additional appliances are assembled on the outlet connection pipe). Water injection follows the complete steam expansion. The steam cooler can be fed through vent valve or externally. Water atomized into very small droplets remain suspended and is almost immediate absorbed by the steam's stream. Any control of coolant's flow demands an implementation of additional injection valve.

However, steam feeding cooler does not need smooth and steady control. Its stream has constant volume easily regulated by means of orifice or manual throttling valve.

## Technical data

	inlet	outlet	pipeline of injected water	pipeline of the atomizing steam
Nominal diameter	DN50÷DN300	according to patron's demand	DN15÷DN50	DN15÷DN50
Nominal pressure	PN40÷PN400	PN16÷PN400	PN25÷PN400	PN25÷PN400
Connections	welding ready		bolted flanges; welding ready	bolted flanges; 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 nozzle	1.4541 (X6CrNiTi18-10) + stellite			
Hardening of the inner parts	stellite; nitriding; hardening			
Rangeability	60:1			
Leakage class	metal/metal sealing—IV (standard); V (improved)			
Body's gland	trapezoid, graphite			
Seal bushing	graphite			



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