HCVKC9 Valve



Application

HCVKC9 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). HCVKC9 type is commonly used as turbine start or discharge valve. It also functions together with condenser without the dump tube.

Description

HCVKC9 is an angle valve. It incorporates a spraywater manifold and atomizing steam implementation downstream of its pressure reduction stage. The forged body has self-sealing inner bonnet integrated with cage, which drives the main plug (perforated, pressure balanced by inner plug-so called pilot plug). The slip-in seat (pressed by screw plug) has channels to secure the steam uptake necessary to atomization. Injection nozzles are at outlet connection pipe. HCVKC9 valve works with media flow directed over the plug. A medium undergoes multistep expansion. Firstly, the expansion occurs on the perforated plug itself – its vents open one after another according to the plug's move. Next steps are 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. Any control of coolant's flow demands an implementation of additional injection valve. HCVKC9 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		DN40÷DN100
Nominal pressure		PN40÷PN400		PN16÷PN400		PN40÷PN400
Connections		welding ready			bolted flanges; welding ready	
Flow coefficient Kvs		10÷1300 m³/h				
Body	,	.0460 (P250GH) 1.7335 (13CrMo4- .5415 (16Mo3) 1.7380 (10CrMo9-		,	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 (X22CrMoV			/12-2)		
Hardening of the inner parts		stelliting; nitriding; hardening				
Rangeability		60:1				
Leakage class		metal/metal sealing-IV (standard); V (improved)				
Body's gland		trapezoid, graphite				
Seal bushing		graphite				

