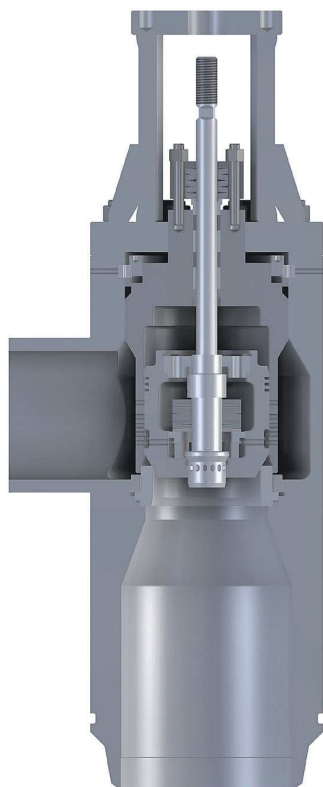


# HCVK1 Valve



## Application

Regulatory valve of HCVK1 type is ready to perform with heavy erosive media. It is suitable to control the highly demanding parameters, also during infinite critical conditions. High coefficient of the pressure recycling is the advantage of this valve. It perfectly fits if the reduction of noise and/or cavitation are of extreme importance. The valve also qualifies if an increased ability of the tuning is needed and/or the reduction of actuator's power. HCVK1 type is commonly used as boiler feed and/or start valve and turbine start and discharge valve. In general: in installations calling for medium and/or high reduction of steam parameters.

## Description

HCVK1 is an angle valve. Basically, it consists of: forged body, self-sealing inner bonnet integrated with cage, and main plug (piston-type or 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). A medium undergoes single-stage expansion. 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. HCVK1 valve works with media flow directed over the plug. Its construction allows to increase the number of expansion's steps (additional appliances are assembled on the outlet connection pipe). The valve also has the special version: with unbalanced plug.

## Technical data

|                              |   |                          |                         |                          |
|------------------------------|---|--------------------------|-------------------------|--------------------------|
| Inlet's nominal diameter     | DN50-DN300  |                          |                         |                          |
| Outlet's nominal diameter    | according to patron's demand                      |                          |                         |                          |
| Nominal pressure             | PN40-PN400  |                          |                         |                          |
| Connections                  | welding ready                                     |                          |                         |                          |
| Flow coefficient Kvs         | 10÷1300 m <sup>3</sup> /h                         |                          |                         |                          |
| Body                         | 1.0460 (P250GH)                                   | 1.4541 (X6CrNiTi18-10)   | 1.7715 (14MoV6-3)       | 1.6368 (15NiCuMoNb5-6-4) |
|                              | 1.5415 (16Mo3)                                    | 1.4404 (X2CrNiMo17-12-2) | 1.4903 (X10CrMoVNb9-1)  |                          |
|                              | 1.7335 (13CrMo4-5)                                | 1.7380 (10CrMo9-10)      | 1.4901 (X10CrWMoVNb9-2) |                          |
| Plug                         | 1.4541(X6CrNiTi18-10)                             | 1.4057(X17CrNi16-2)      | 1.4125 (X105CrMo17)     | titanium BT-9            |
| Seat                         | 1.4541(X6CrNiTi18-10)                             | 1.4057(X17CrNi16-2)      | 1.4125 (X105CrMo17)     | titanium BT-9            |
| Stem                         | 1.4057 (X17CrNi16-2)                              | 1.4923 (X22CrMoV12-2)    |                         |                          |
| Hardening of the inner parts | stellite; nitriding; hardening                    |                          |                         |                          |
| Rangeability                 | 200:1   |                          |                         |                          |
| Leakage class                | metal/metal sealing – IV (standard); V (improved) |                          |                         |                          |
| Body's gland                 | trapezoid, graphite                               |                          |                         |                          |
| Seal bushing                 | graphite; PTFE                                    |                          |                         |                          |

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