



## SCVH Series Steam Conditioning Valve

### Description

Hiter SCVH Series is a Steam Conditioning Valve and is designed to simultaneously provide a pressure and temperature reduction of the steam by using a single control valve. This valve concept gives a substantial reduction in the installation investment costs when compared against traditional Pressure Reducing plus Desuperheater solution.

This kind of solution is popular in power plants, chemical plants and manufacturing industries to regulate steam pressures and steam temperatures. Each valve is designed to match specific customer requirements as inlet and outlet pressure, inlet and outlet temperature, connections diameters, capacity and safety function, etc, often requiring a customized design. This tailor made features provides high efficiency as the processes can be precisely controlled, while extend the life of the valve as it can work without sacrifices that might wear out its components early.

### Technical Specifications

<b>Construction</b>	According to ASME B16.34 and ASME Sec. VIII Div. 1
<b>Sizes</b>	Inlet from 3" to 16" and outlet from 4" to 60"
<b>Class</b>	Inlet from CL300 to CL2500 and outlet from CL150 to CL900 by ANSI B16.34
<b>End Connections</b>	Flanged - ASME B16.5 Welded BW - B16.25
<b>Flow Characteristic</b>	Modified Parabolic
<b>Trim Options</b>	Low Noise w/ up to 8 stages
<b>Flow coefficient - <math>C_v</math></b>	from 40 to 2150
<b>Leakage Class</b>	IV or V according to FCI 70-2
<b>Rangeability</b>	50:1 (even when a multi-stage setting is used to reduce pressure)
<b>Minimum speed with auxiliary spray mist:</b>	1,5 m/s (5 feet/sec)
<b>Positive bonnet seal (pressure seal)</b>	Yes
<b>Minimum differential pressure between cooling fluid and desuperheated steam</b>	7 bar (100 psi)
<b>Blowing device</b>	Can be supplied if necessary
<b>Construction materials</b>	See construction materials table



### Applications

The SCVH series valve is mainly used in Power Generation Centres, but also in Pulp and Paper industries, in Refineries, Petrochemicals, or any other process industry such as mining, food and beverage, sugar & ethanol, that uses steam to generate energy and/or to run their process.

## Benefits

The Steam Conditioning Valve SCVH series gives:

- Excelent rangeability in the steam conditioning;
- Direct control of cooling fluid, water or condensate;
- Higher product lifetime with lower maintenance costs;
- Customization for each specific application.

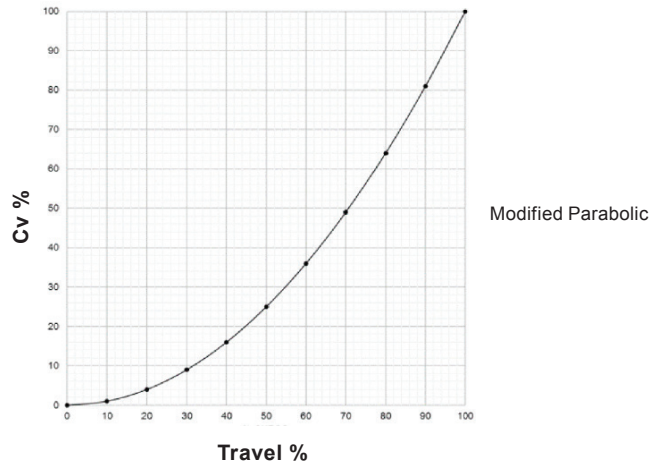
## Features:

### Rangeability

The Parabolic Modified Flow Characteristic in the low noise trim desing gives a very good controlability when comparing against the traditional linear characteristic find in most of the low noise trims availables.

The auxiliary steam assistance is taken after the first pressure reduction stage and passed thrugh a nozzle where it mixed with the colling water, helping to pulverize the amount of water, even in the lowest steam flow.

## Flow Characteristics - $C_v$



## Noise Reduction

The SCVH valve is designed to make the lowest noise level as possible. The uses of a special holed cage, results in a noise level perfectly acceptable in most of the applications. When required an even higher noise reduction, Hiter can supply a special low noise trim configuration with pressure reduction through multiple stages in order to grant the attendance to the requirements.

## Construction Materials

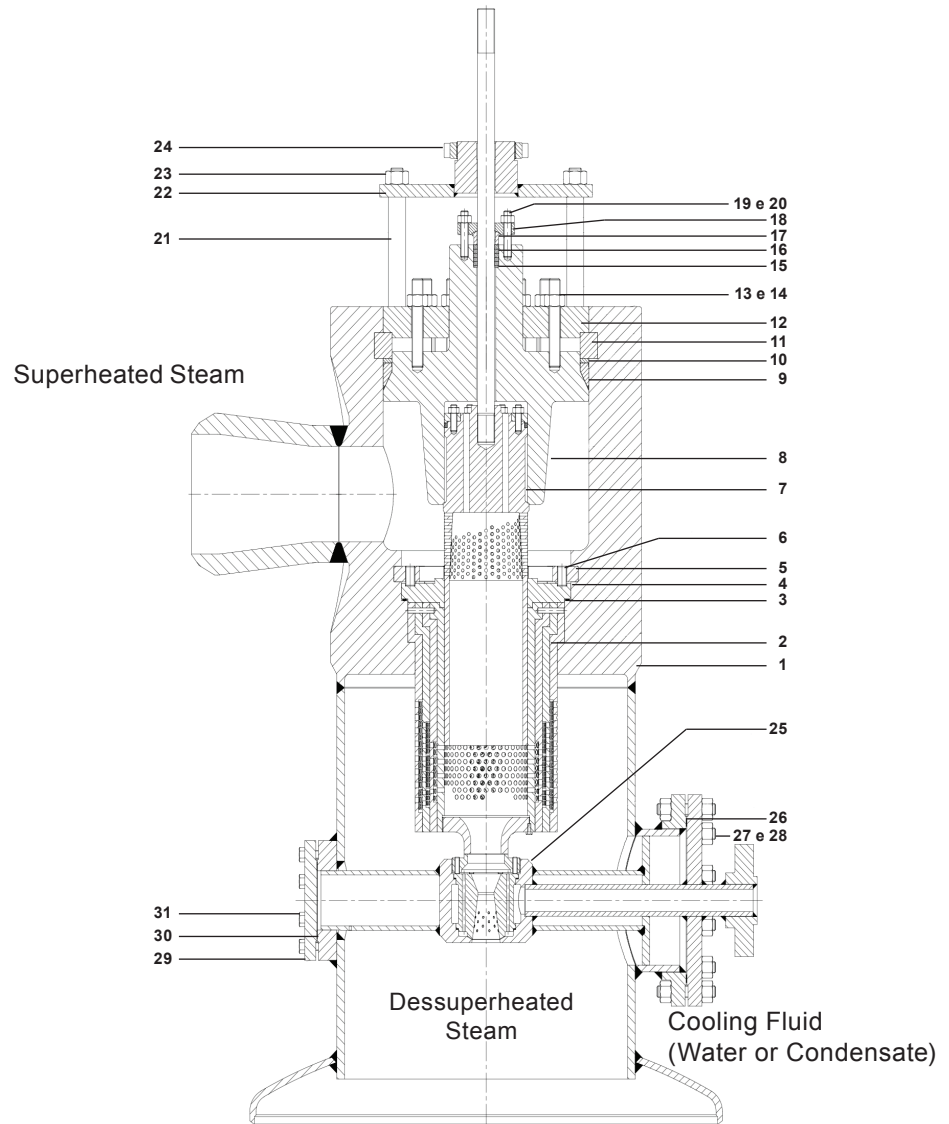
### ASME B16.34

Body	Cage	Plug	Seat	Pressure (kfg/cm <sup>2</sup> )	Temperature (°C)
A216 Gr. WCB	Stainless Steel 410 Hardened	Stainless Steel 410 Hardened		85	420
A182 Gr. 105					
A217 Gr. WC9	A182 Gr. F22 Nitrided	A182 Gr. F22 Nitrided / Stellite		153	530
A182 Gr. F22					
A217 Gr. C12A	A182 Gr. F91 Nitrided	A182 Gr. F91 Nitrided / Stellite		190	566
A182 Gr. F91					

## List of Components

No.	Part
1	Body Assy
2	Cage Assy
3*	Gasket
4	Seat
5	Segmented Ring
6	Hex. Socket Screw
7	Plug Assy
8	Bonnet
9*	Gasket
10	Spacer Ring
11	Segmented Ring
12	Cover
13	Stud
14	Nut
15	Packing Retainer
16*	Packing
17	Packing Follower
18	Packing Flange
19	Packing Studs
20	Packing Nuts
21	Spacer
22	Adapter (Actuator)
23	Nut
24	Lock Nut
25	Desuperheater Assy
26*	Gasket
27	Stud
28	Nut
29	Flange
30*	Gasket
31	Hex. Bolt Screw

\*Spare parts.



# Steam Conditioning Valve SCVH System

