



SCVH Series Steam Conditioning Valve

Description

Spirax Sarco by Hiter SCVH Series is a Steam Conditioning Valve and is designed to simultaneously provide a pressure and temperature reduction of steam by using a single control valve. The SCVH valve concept gives a substantial reduction in the installation investment costs when compared against traditional Pressure Reducing plus Desuperheater solutions. The SCVH 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, connection diameters, capacity and safety function, etc, often require a customized design. These custom made features provide high efficiency as the processes can be precisely controlled, while extending the life of the valve as it can work without sacrifices that might wear out its components early.

Technical specifications

Construction	According to ASME B16.34 and ASME Sec. VIII Div. 1
Sizes	Inlet from 3" to 16" and outlet from 4" to 60"
Class	Inlet from CL 300 to CL 2500 and outlet from CL 150 to CL 900 by ANSI B16.34
End Connections	Flanged - ASME B16.5 Welded - BW B16.25
Flow Characteristic	Modified Parabolic
Trim Options	Low Noise w/ up to 8 stages
Flow coefficient - Cv	from 40 to 2,150
Leakage Class	IV or V according to FCI 70-2
Rangeability	50:1 (even when a multi-stage setting is used to reduce pressure)
Minimum speed with auxiliary spray mist:	1.5 m/s (5 ft/s)
Positive bonnet seal (pressure seal)	Yes
Minimum differential pressure between cooling fluid and desuperheated steam	7 bar (100 psi)
Blowing device	Can be supplied if necessary
Materials	See materials table



Applications

The SCVH series valve is mainly used in power generation centers, but also in pulp and paper industries, in refineries, petrochemicals, or any other process industry such as mining, food and beverage, sugar and ethanol, that uses steam to generate energy and/ or to run their process.

Benefits

- The Steam Conditioning Valve SCVH series gives:
- Excellent rangeability in steam conditioning
 - Direct control of cooling fluid, water or condensate
 - Higher product lifetime with lower maintenance cost
 - Customization for each specific applications

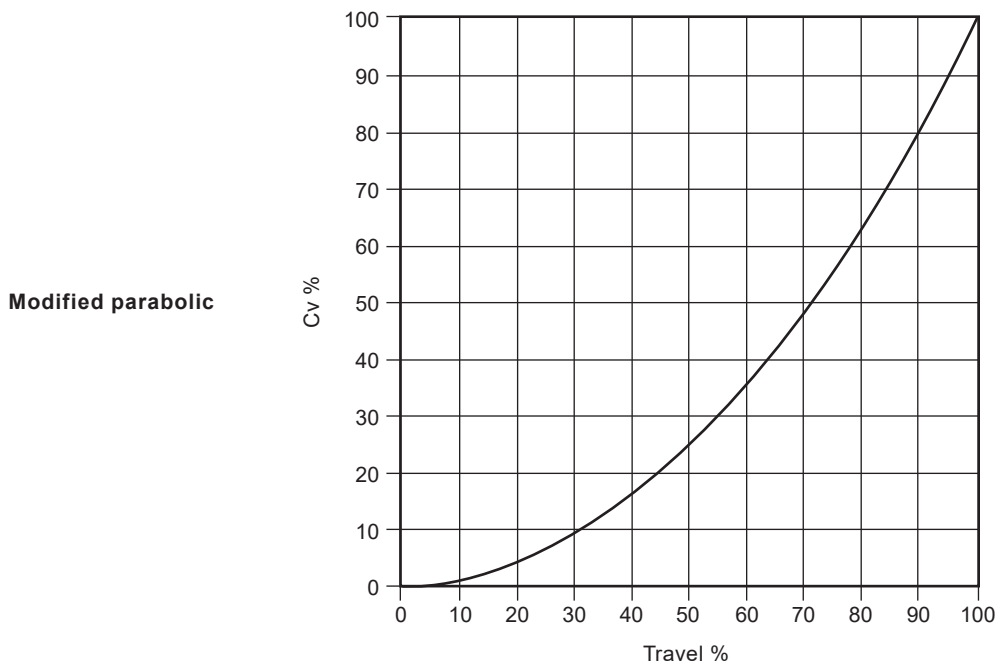
Features

Rangeability

The Parabolic Modified Flow Characteristic in the low noise trim design allows for excellent controllability when comparing against the traditional linear characteristic found in most of the low noise trims available.

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

Flow Characteristics - Cv



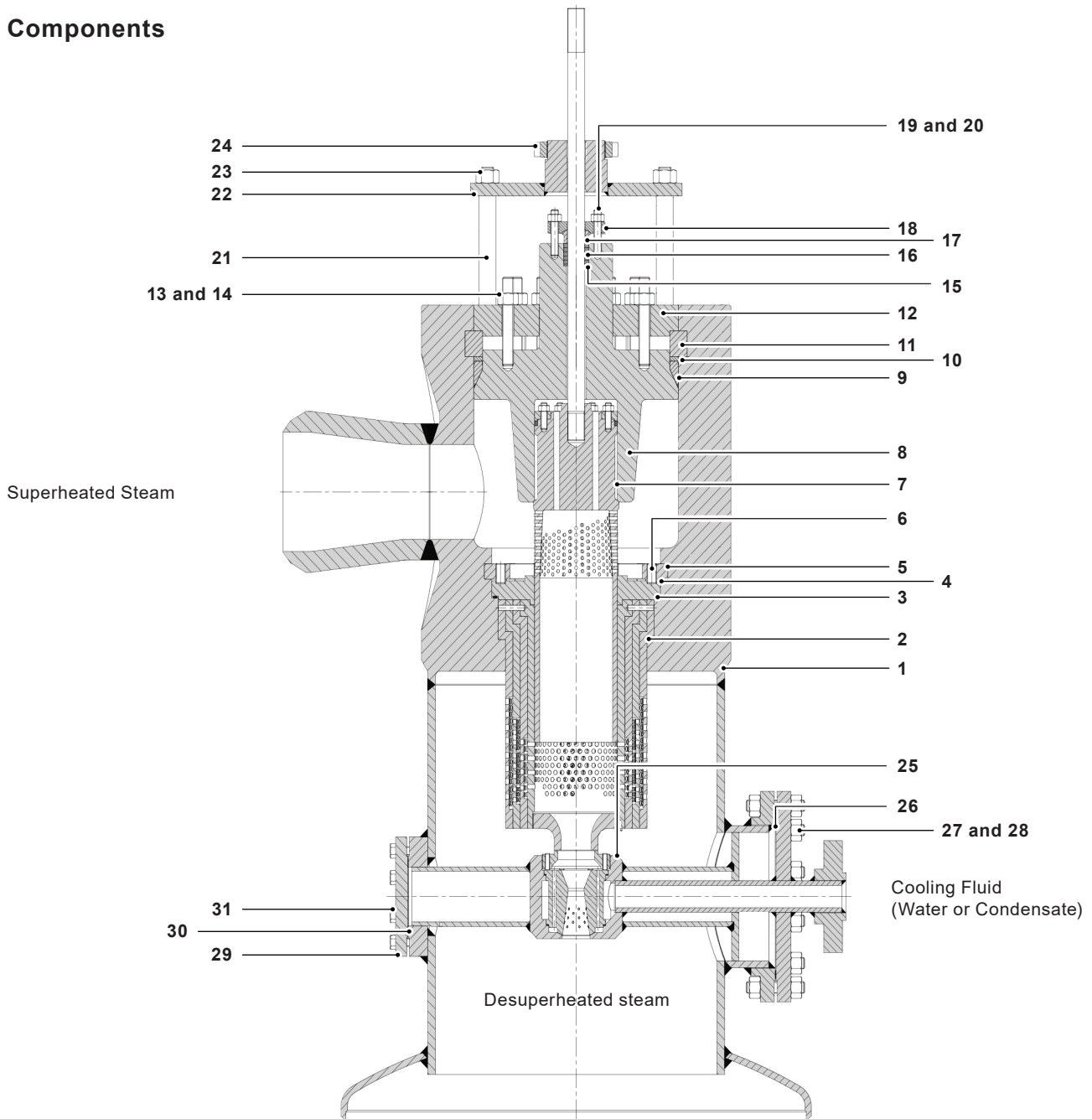
Noise reduction

The SCVH valve is designed to produce the lowest noise level as possible. The use of a special ported cage, results in a noise level perfectly acceptable in most applications. When required, an even higher noise reduction can be supplied as a special low noise trim configuration with pressure reduction through multiple stages in order to meet specification requirements.

Materials - ASME B16.34

Body	Cage	Plug	Seat	Pressure psi (bar)	Temperature °F (°C)
A216 Gr. WCB A182 Gr. 105	Stainless Steel 410 Hardened	Stainless Steel 410 Hardened		1208 (83.3)	788 (420)
A217 Gr. WC9 A182 Gr. F22	A182 Gr. F22 Nitrided	A182 Gr. F22 Nitrided / Stellite		2176 (150.0)	986 (530)
A217 Gr. C12A A182 Gr. F91	A182 Gr. F91 Nitrided	A182 Gr. F91 Nitrided / Stellite		2702 (186.3)	1050 (566)

Components



No.	Part
1	Body assembly
2	Cage assembly
3*	Gasket
4	Seat
5	Segmented Ring
6	Hexagon socket screw
7	Plug assembly
8	Bonnet

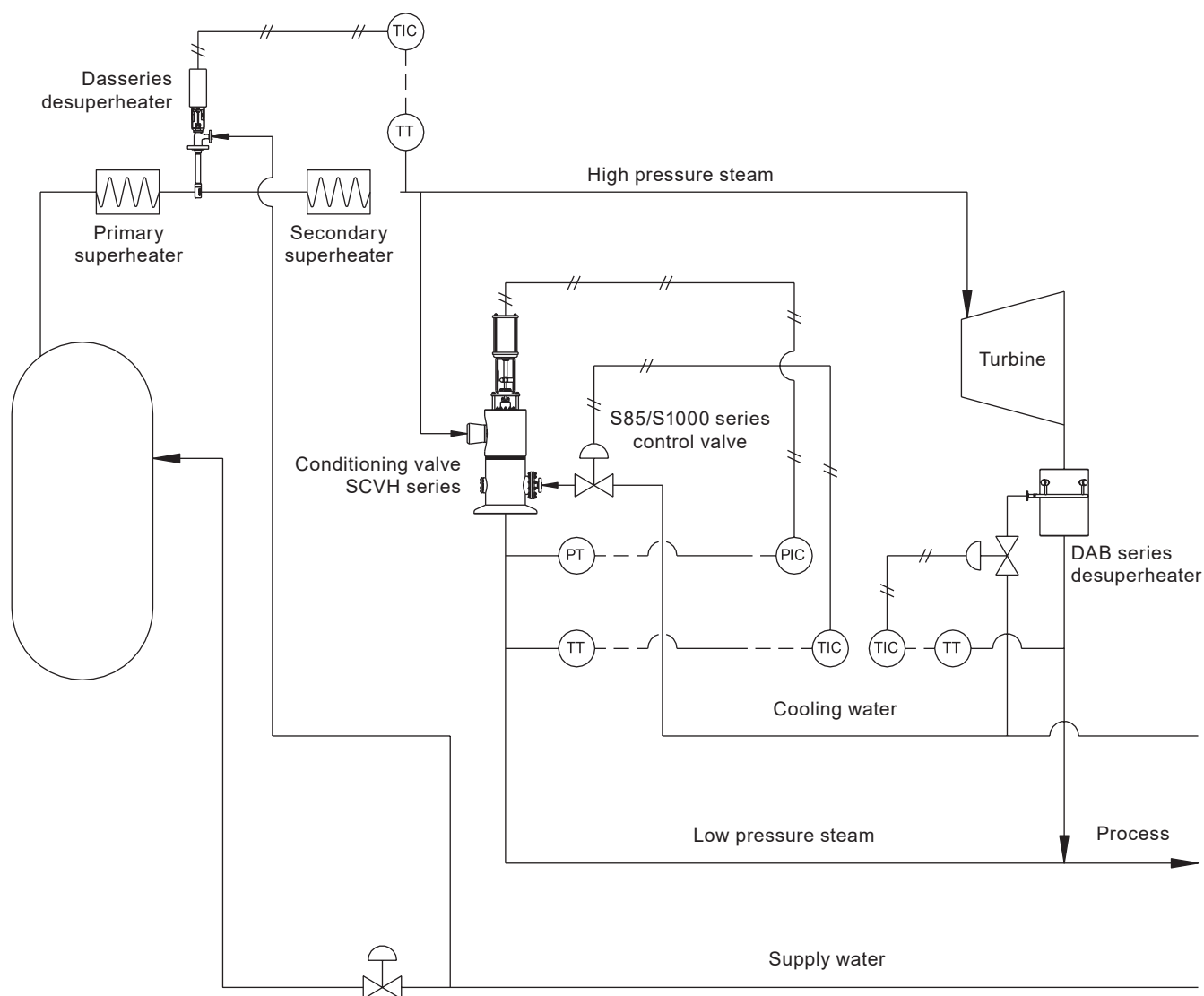
No.	Part
9*	Gasket
10	Spacer ring
11	Segmented ring
12	Cover
13	Stud
14	Nut
15	Packing retainer
16*	Packing

No.	Part
17	Packing follower
18	Packing flange
19	Packing studs
20	Packing nuts
21	Spacer
22	Adapter (Actuator)
23	Nut
24	Lock nut

No.	Part
25	Desuperheater assembly
26*	Gasket
27	Stud
28	Nut
29	Flange
30*	Gasket
31	Hexagon bolt screw

*Spare parts.

Steam Conditioning Valve SCVH System



Steam Conditioning Valve SCVH System (continued)

