


# VSGIC Desuperheater



  
*Engineering  
GREAT Solutions*

**Integrated desuperheating solution  
for steam conditioning valves**

# VSGIC Desuperheater

The VSGIC is a spray water control valve designed for applications with permanent high water pressure drop in steam conditioning. It houses a single spring loaded spray water nozzle which can be installed in the outlet of a VLB or VLBP steam conditioning valve, or alternatively as a component in a DAM desuperheater.

## Key features

### > Integrated water valve

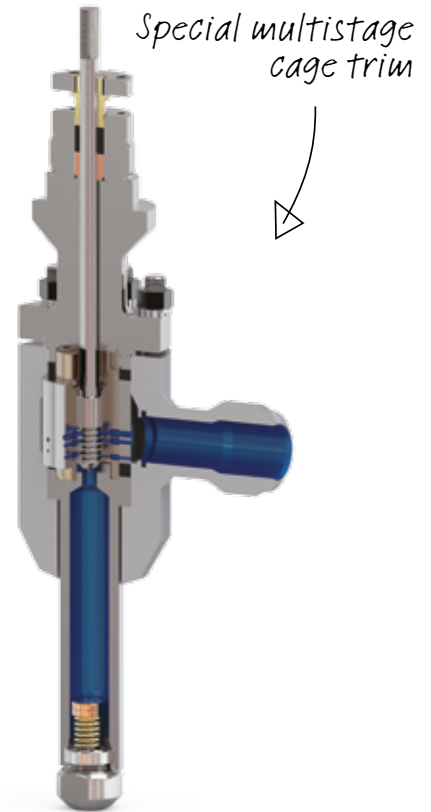
A steam conditioning valve can be combined with the VSGIC, making any external spray water control valve superfluous.

### > High pressure drop

The VSGIC trim features a multistage cage that allows for a pressure drop between incoming and outgoing spray-water of up to 150 bar.

### > Spray nozzle

An OP spray nozzle is installed in the outlet of the VSGIC, and handles the injection of spray water into the steam. The nozzle features a spring which extends as the pressure in the nozzle holder increases. Water is rotated around the nozzle plug thanks to the special arrangement of the water channels. Stem and seat are designed to create maximum water velocity at the nozzle edge point, which improves water atomisation.



Unique nozzle improves water atomisation

## Benefits

- > High pressure drop
- > Long service life
- > Low maintenance requirements



## Product specification

**Product type**  
VSGIC

**Leakage class**  
ANSI Class V

**Manufactured by**  
IMI CCI, Sweden

**Rangeability**  
Up to 50:1

**Selection**  
Use IMI CCI PowerSiz sizing program

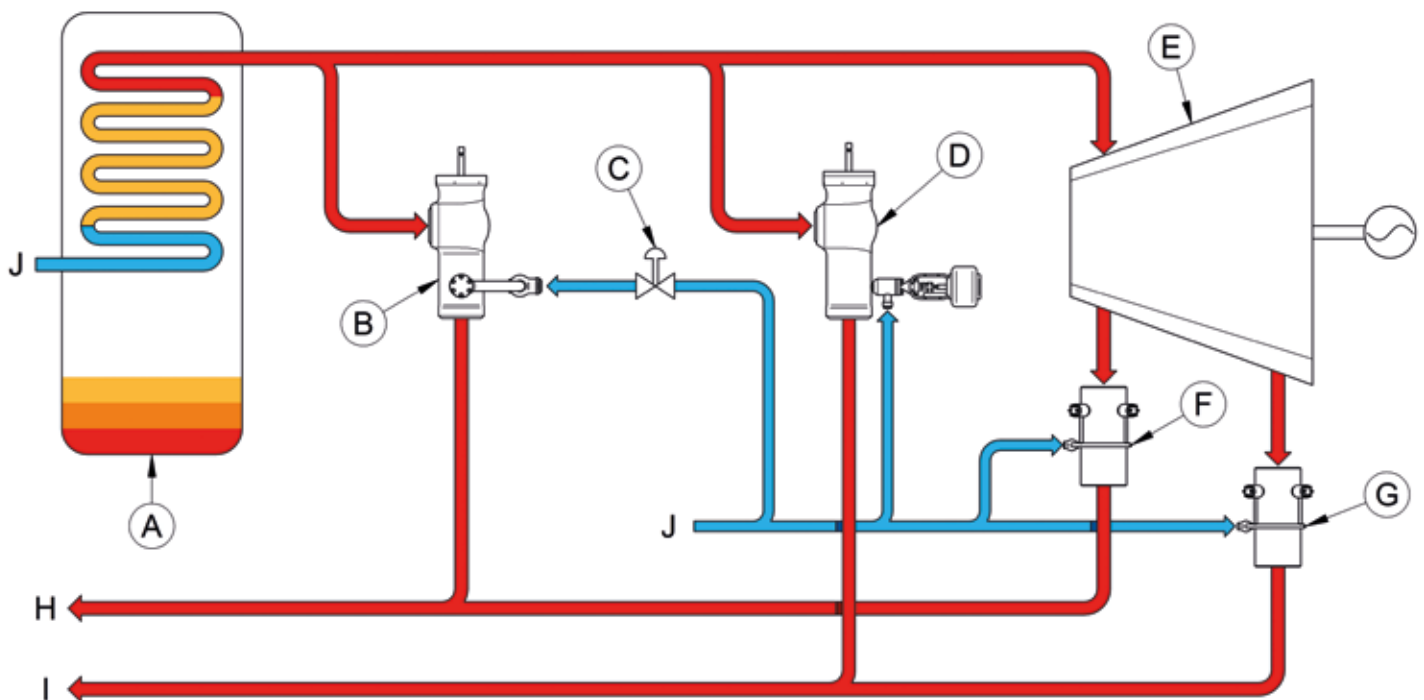
**Regulatory standards**  
PED, ASME, ISO 9001/14001/18001

**Pressure class**  
Up to ANSI 1500

**Pressure drop**  
 $\Delta P_{max} = 150 \text{ bar}$

## Installation example

When used as a component in a DAM desuperheater.



- |   |   |
|---|---|
| <b>A</b> Boiler                             | <b>F</b> DAM turbine extraction desuperheater |
| <b>B</b> VLBP turbine bypass valve          | <b>G</b> DAM turbine exhaust desuperheater    |
| <b>C</b> External spray water control valve | <b>H</b> Process steam 1                      |
| <b>D</b> VLBP turbine bypass valve + VSGIC  | <b>I</b> Process steam 2                      |
| <b>E</b> Steam turbine                      | <b>J</b> Feedwater/condensate                 |

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