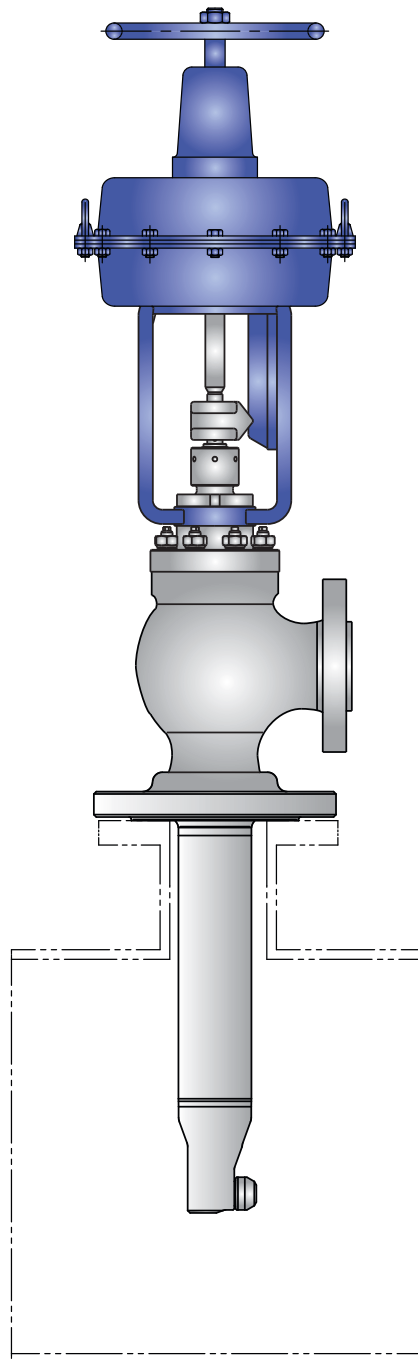


BVT-DP3

Probe-style desuperheater
with integrated water valve



BVT-DP3

Probe-style desuperheater
with integrated water valve

About us

BVT Sweden was started with the ambition of becoming world leading in critical applications in process steam and thermal power plant turbine bypass. Based in Säfte, BVT Sweden employs experts with over 30 years experience in turbine bypass, steam conditioning, temperature control, design and manufacturing processes. We design turbine bypass valves, select actuation to fit our customer's requirements. Our products are optimized on a per-order basis, and we have the experience necessary to design special solutions. These products cover steam conditioning valves, pressure reduction valves, stop valves, desuperheaters and spray water control valves.

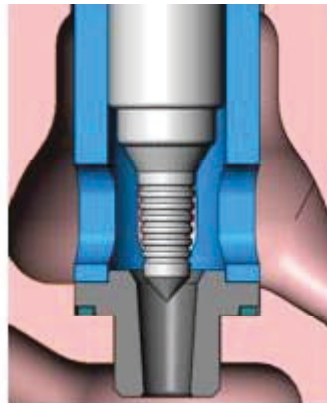
BVT-DP3 desuperheater

The BVT-DP3 probe-style desuperheater is a combination of injection nozzle and water control valve, designed for precise and economical control of steam temperature. Water enters through the flanged water connection, and is passed through the desuperheater body installed in the steam pipe. The desuperheater comes installed with a replaceable spring-loaded NS nozzle installed perpendicular to the steam flow. The size of the NS nozzle is selected based on the desuperheating spray water flow need as well as the pressure drop requirements of the internal water control valve.

Water injection is controlled by a diaphragm actuator based on measured downstream temperature.

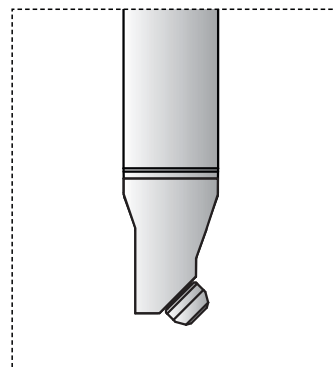
Water control valve

The cascade trim is designed for handling high pressure drops at low flow rates.



Upgrading existing installations

The nozzle holder can be designed so that the nozzle is angled 45° towards the center of the steam flow. This design makes it easier to use the new desuperheater in existing installations.



Key features

- ✓ Compact design
- ✓ Nozzles resistant to flashing
- ✓ Water atomization pressure is maintained at each nozzle at any flow condition
- ✓ High rangeability and cooling efficiency
- ✓ Simple installation and maintenance (plug & play)
- ✓ Great turndown

Specifications

Capacity

Multiple options based on customer needs

Characteristics

Special

Control range (water valve)

up to 200:1

Pressure class

EN PN up to 400

ASME up to 2500

Installation

Horizontal installation recommended. In case of other installations, contact BVT Sweden AB.

Nozzle orientation

90° with steam flow

45° angled towards center of steam pipe

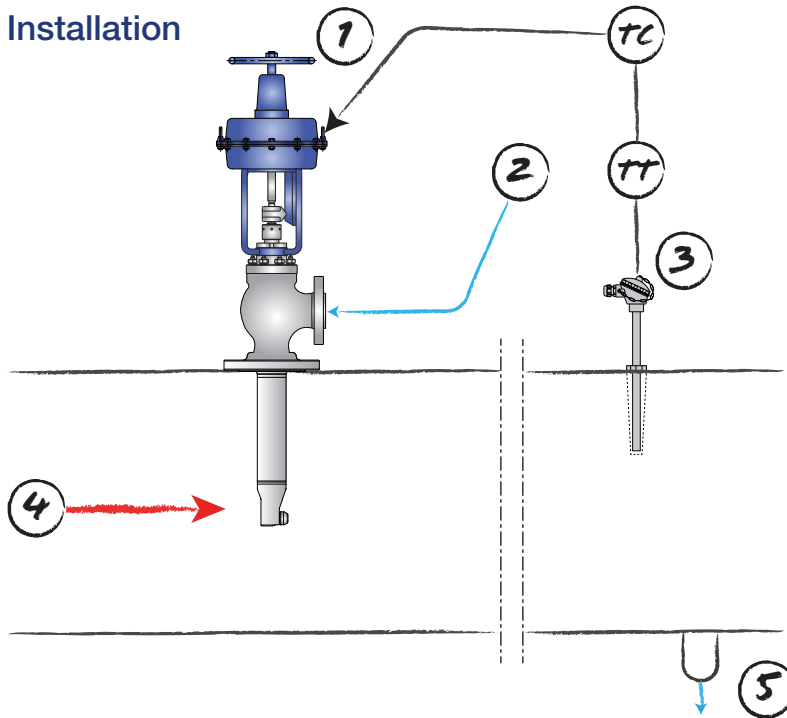
BVT	-	DP3	-	NS 20.25
Desuperheater Probe				
Nozzle size				

BVT-DP3 PRODUCT CODE

BVT-DP3

Probe-style desuperheater with integrated water valve

Installation



1. DP3 DESUPERHEATER
2. SPRAY WATER/ CONDENSATE
3. TEMPERATURE SENSOR
4. SUPERHEATED STEAM
5. DRAINAGE
- TT. TEMPERATURE SENSOR
- TC. TEMPERATURE CONTROL



Certificate of Approval

This is to certify that the Management System of:

BVT Sweden AB

Körkarlsvägen 8, 653 46 Karlstad, Sweden

has been approved by LRQA to the following standards:
ISO 14001:2015 | ISO 9001:2015

P.G. Cornelissen
P.G. Cornelissen - Area Manager North Europe

Issued by: LRQA Sverige AB

for and on behalf of: Lloyd's Register Quality Assurance Limited

Current issue date: -

Expiry date: -

Certificate identity number: 10169985

Original approval(s):

ISO 14001 - 1 February 2019

ISO 9001 - 1 February 2019

Approval number(s): ISO 14001 - 00002108 / ISO 9001 - 00002109

The scope of this approval is applicable to:

Sales, development, engineering, service and upgrades of valves and accessories for power and process applications.



001

Lloyd's Register Group Limited, its affiliates and subsidiaries, including Lloyd's Register Quality Assurance Limited (LRQA), and their respective officers, employees or agents are, individually and collectively, referred to in this document as 'Lloyd's Register'. Lloyd's Register assumes no responsibility and shall not be liable to any person for any loss, damage or expense caused by reliance on the information or advice in this document or for any loss, damage or expense caused by reliance on the information or advice in this document or for any loss, damage or expense caused by reliance on the information or advice in this document or for any loss, damage or expense caused by reliance on the information or advice in this document. Issued by: LRQA Sverige AB, Box 1007, S-201 08 Stockholm, Sweden. For and on behalf of: Lloyd's Register Quality Assurance Limited, 1 Trinity Park, Bicester, Oxfordshire OX25 3JN, United Kingdom.

Page 1 of 1



Certificate No. / Zertifikat Nr.: 50329/1

CERTIFICATE

in accordance with the requirements of the Pressure Equipment Directive 2014/68/EU

ZERTIFIKAT
in Übereinstimmung mit den Anforderungen der Druckgeräterichtlinie 2014/68/EU

This is to certify that the quality assurance system of
Hiermit wird bescheinigt, dass das Qualitätssicherungssystem des Unternehmens

BVT Sweden AB

SE-653 46 Karlstad

Sweden / Schweden

has been assessed by LR Deutschland GmbH in accordance with the requirements of Annex III
durch die LR Deutschland GmbH entsprechend den Forderungen des Anhangs III

Module H

to the Pressure Equipment Directive 2014/68/EU and

conforms to the requirements for the products shown below:

der Druckgeräterichtlinie 2014/68/EU geprüft und bewertet wurde und für die folgenden Produkte die Anforderungen erfüllt:

Valves and accessories for power and process applications,
for details see Annex 1 to this certificate.

Ventile und Ausrüstungsteile für Anwendungen in der Wärme- und Verfahrenstechnik,
Einzelheiten siehe Anhang 1 dieses Zertifikates.

Approval is subject to continued maintenance of the quality assurance system
in accordance with the requirements of the above-mentioned directive.

Die Zulassung gilt unter der Voraussetzung, dass das Qualitätssicherungssystem fortlaufend aufrechterhalten wird und die Forderungen oben genannter Richtlinie erfüllt.

Authorisation is hereby given to use the below-mentioned Notified Body Identification Number
of LR Deutschland GmbH in accordance with the requirements of the specified directive
in relation to the products as named above:

Hiermit wird die Genehmigung erteilt, folgende Kennnummer der LR Deutschland GmbH als Notifizierte Stelle
in Übereinstimmung mit der angegebenen Richtlinie in Bezug auf die oben genannten Produkte zu verwenden:

CE 0525

Certificate expiry date / Zertifikatgültigkeit bis:

31.01.2022

Hamburg, 01.11.2019
Place and Date
Ort und Datum

K. Wolf
Name, Signature, Certifier
Name, Unterschrift, Zertifizierer

Lloyd's Register Group Limited, its affiliates and subsidiaries, including Lloyd's Register Quality Assurance Limited (LRQA), and their respective officers, employees or agents are, individually and collectively, referred to in this document as 'Lloyd's Register'. The Lloyd's Register assumes no responsibility and shall not be liable to any person for any loss, damage or expense caused by reliance on the information or advice in this document or for any loss, damage or expense caused by reliance on the information or advice in this document or for any loss, damage or expense caused by reliance on the information or advice in this document. Issued by: LRQA Sverige AB, Box 1007, S-201 08 Stockholm, Sweden. For and on behalf of: Lloyd's Register Quality Assurance Limited, 1 Trinity Park, Bicester, Oxfordshire OX25 3JN, United Kingdom.

ZE-1110 on Rev. 3, (09/19)

Lloyd's Register Deutschland GmbH, Überseeallee 10, D-20457 Hamburg, Deutschland
T: +49 349 700 10-100 F: +49 950 69 2625 Email: PressureSystems.Germany@lr.org

Seite 1 von 1

This is a copy of an electronic document. In the event of any conflict or ambiguity between the copy and the electronic document which is retained and published by Lloyd's Register, the original electronic and certified version shall always prevail.

Körkarlsvägen 8
653 46 Karlstad
SWEDEN

E-mail
sales@bvtsweden.com

Åmålsvägen 13
661 32 Säffle
SWEDEN