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May 01, 2018

Jerome Grant
DEZURIK
250 RIVERSIDE AVE N
SARTELL MN 56377
US

Service Request Type: BPV-Fitting Registration
Service Request No.: 2286096
Your Reference No.:
Registered to: DEZURIK

Dear Jerome Grant,

Technical Standards and Safety Authority (TSSA) is pleased to inform you that your submission has been reviewed and registered as follows:

CRN No.: 0C0707.5R5
Main Design No.: VALVES: BAW, BOS-US, PEC, PEF
Expiry Date: 01-May-2028

Please be advised that a valid quality control system must be maintained for the fitting registration to remain valid until the expiry date.

A stamped copy of the approved registration and invoice for engineering services will be sent to you shortly. Should you have any questions or require further assistance, however, please contact a Customer Service Advisor at 1.877.682.TSSA (8772) or e-mail customerservices@tssa.org. We will be happy to assist you. When contacting TSSA regarding this file, please refer to the Service Request number provided above.

Yours truly,

Zivko Gacevic P. Eng.
Mechanical Engineer, BPV
Tel.: 416-734-3429
Fax: 416-231-6183
Email: zgacevic@tssa.org



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 345 Carlingview Drive
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Show facsimile of manufacturer's logo or trademark, as it will appear on the fitting, in the space below



STATUTORY DECLARATION Registration of Fittings

I, Jerome D. Grant, P.E. Engineering Industry Standards Manager
(Name and Position, e.g. President, Plant Manager, Chief Engineer)

of DeZURIK, Inc.
(Name of Manufacturer)

Located at 250 Riverside Ave N, Sartell MN 56377 USA (320) 259-2000 (320) 259-2201
(Plant Address) (Telephone No.) (Fax No.)

do solemnly declare that the fittings listed hereunder, which are subject to the **Technical Standards and Safety Act**, Boilers and Pressure Vessels Regulation, comply with all of the requirements of
See individual product Design Summaries in attached document binder
(Title of recognized North American Standard)

which specifies the dimensions, materials of construction, pressure/temperature ratings, identification marking the fittings and service;

or are not covered by the provisions of a recognized North American standard and are therefore manufactured to comply with _____ as supported by the attached data which identifies the dimensions, material of construction, pressure/temperature ratings and the basis for such ratings, the marking of the fitting for identification and service.

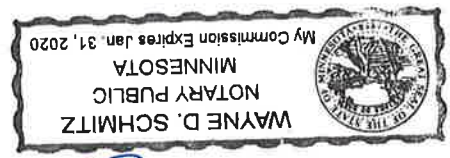
I further declare that the manufacture of these fittings is controlled by a quality system meeting the requirements of ISO 9001-2008 which has been verified by the following authority, TUV

The items covered by this declaration, for which I seek registration, are category C type fittings. In support of this application, the following information and/or test data are attached as follows:

Verification data in attached includes technical bulletins, wall thickness, Finite Element Analysis, & Materials of Construction.
(drawings, calculations, test reports, etc.)

Declared before me at Sartell in the State of Minnesota
 the 13th day of April AD 2018.

Commissioner for Oaths:
Wayne Schmitz
(Printed name)
Wayne Schmitz
(Signature)



Jerome D. Grant
(Signature of Declarer)

FOR OFFICE USE ONLY

To the best of my knowledge and belief, the application meets the requirements of the **Technical Standards and Safety Act**, Boilers and Pressure Vessels Regulation, and CSA Standard B51 and is accepted for registration in Category "C".

CRN: 0C0707.5RS

Registered by: Zivko Gacevic

Dated: MAY 1, 2018

NOTE: This registration expires on: MAY 1, 2028

TECHNICAL STANDARDS AND SAFETY AUTHORITY
 Boilers and Pressure Vessels Safety Program

REGISTERED

CRN: 0C0707.5RS
 Signed: Sacne Zivko
 Date: MAY 1, 2018

*Information provided in this application is releasable under the Freedom of Information and Privacy Protection Act and may be disclosed upon request.

PN 09553 (04/17) Note: See attached documents for Scope of Registration. z.g. 5/11/18

DeZURIK, Inc.

DeZURIK BAW Butterfly Valves

The BAW AWWA butterfly valves are produced in standard sizes 80mm to 1800 mm (3"-72"). Sizes up to 3600 mm (120") are available on application. Standard body materials are cast iron and ductile iron and are available with flanged ends in all sizes or mechanical joint ends in sizes 100 mm to 1200 mm (4"-48"). Two resilient seat material options are available. The BAW butterfly valves have provided successful service since 1997.

DESIGN SUMMARY:

SIZES	BODY MATERIALS	DESIGN CODE	AWWA* CLASSES	NOTES
80mm-1800mm (3"-72")	Cast Iron ASTM A126, Class B (AWWA Class 25A-150B)* Ductile Iron ASTM A536 Grade 65-45-12 (AWWA Class 25A-250B)*	ASME B16.1 <i>Gray Iron Pipe Flanges and Flanged Fittings</i> ASME B16.42 <i>Ductile Iron Pipe Flanges and Flanged Fittings</i> AWWA C504 <i>Rubber Seated Butterfly Valves</i> AWWA C111 <i>Rubber-Gasket Joints for Ductile-Iron Pressure Pipe and Fittings</i>	25A, 75B, 150B, 250B	BAW Valve flange thicknesses and bolt patterns comply with ASME B16.1 Class 125, for AWWA pressure classes 25A, 75B, 150B, and 250B through 2400 mm (96"). For Sizes 2600 mm (102") and larger, flange bolt patterns and thicknesses comply with AWWA C516 & C207. Mechanical joint ends comply with AWWA C111. See attached tables, drawings and ER1802 for compliance to AWWA C504 & C516 minimum body shell thickness, and ASME 16.1, AWWA C516 & C207 flange and bolting dimensions. Valve temperature ratings are limited by the rubber seat material options (180F for NBR and 290F for EPDM). See Bulletin 43.00-2. Reference ASTM A395 / A395M Scope Paragraph 1.1 (This specification covers ductile iron castings for pressure – retaining parts for use at elevated temperatures. Castings of all grades are suitable for use up to 450F.)
2000mm- 600mm (78"-120")	Cast Iron ASTM A126, Class B (AWWA Class 25A-75B)* Ductile Iron ASTM A536 Grade 65-45-12 (AWWA Class 25A-250B)* (108" & 120" not available above AWWA Class 150B)	ASME B16.1 <i>Gray Iron Pipe Flanges and Flanged Fittings</i> AWWA C516 <i>Large-Diameter Rubber Seated Butterfly Valves, Sizes 78 In. (2,000 mm) and Larger</i> AWWA C207 <i>Steel Pipe Flanges for Waterworks Service, Sizes 4 In. Through 144 In. (100 mm Through 3,600 mm)</i>	25A, 75B, 150B, 250B	See Bulletin 43.00-2 <i>AWWA Butterfly valves</i> for further description, materials of construction, and applicable standards for DeZURIK AWWA butterfly valves.

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e.g. 5/1/78

DeZURIK, Inc.
DeZURIK BOS-US Resilient-Seated Butterfly Valves

The BOS-US butterfly valves are produced in standard sizes 50mm (2") to 900 mm (36"). Standard body materials are ductile iron (2" – 36") and cast iron (24" – 36"). Two resilient seat material options are available, NBR and EPDM. The BOS-US butterfly valves are available in lugged and wafer bodies. The (2" – 20") valve sizes have been in service since 2006. The (24" – 36") valve sizes have been in service since 1974.

DESIGN SUMMARY:

SIZES	BODY MATERIALS	DESIGN CODE	CLASS	NOTES
50 mm – 500 mm (2" – 20")	Ductile Iron, ASTM A536 Grade 65-45-12	ASME B16.42 Ductile Iron Pipe Flanges and Flanged Fittings	150	Conforms to ASME B16.42 Class 150 flange drilling, body wall thickness and pressure-temperature ratings.
600 mm - 900 mm (24" - 36")	Cast Iron, ASTM A126 Class B Ductile Iron, ASTM A536	ASME B16.1 Cast Iron Pipe Flanges and Flanged Fittings ASME B16.5 Pipe Flanges and Flanged Fittings AWWA C504 Rubber-Seated Butterfly Valves		Flange bolt patterns comply with ASME B16.1, Class 125 and ASME B16.5, Class 150. Valve temperature ratings are limited by the seat material options (180F for NBR and 250F for EPDM). Wall thickness exceeds AWWA C504, Class 150B standard. Shaft diameter meets AWWA C504, Class 75B standard. Valves have a blowout proof shaft per API 609 standard. See Bulletins 46.00-2B and 40.00-1 BOS-US Resilient-Seated Butterfly Valves for further description, materials of construction, and applicable standards.

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 Technical Standards & Safety Authority
 Boilers & Pressure Vessels
 Safety Program

Z. G. 5/11/78

DeZURIK, Inc.

DeZURIK PEC Eccentric Plug Valves

The DeZURIK PEC Eccentric Plug valves are produced in standard sizes 15mm (.5") to 1800 mm (72"). Standard body materials are cast iron, ductile iron, carbon steel, and stainless steel. Flanged end connections are available in cast iron and ductile iron in all sizes, and carbon steel and stainless steel up to 500mm (20"). Mechanical Joint end connections are available in cast iron and ductile iron in sizes 80mm (3") to 1200mm (48"). Threaded end connections are available in all materials in sizes up to 100mm (4"). Many resilient seat material options are available. PEC valves have been in successful service for over 50 years.

DESIGN SUMMARY:

SIZES	BODY MATERIALS	DESIGN CODE	PRESSURE RATING	NOTES
15mm-1800mm (.5" - 72")	ASTM A126 Class B Cast Iron ASTM A536 Grade 65-45-12 Ductile Iron	AWWA C517 <i>Resilient Seated Cast Iron Plug Valves</i> ASME B16.1 <i>Cast Iron Flanges</i> ASME B16.42 <i>Ductile Iron Flanges</i> ASME B16.5 <i>Pipe Flanges and Flanged Fittings</i> AWWA C111/A21.11 <i>Rubber-Gasket Joints</i>	175 psi (.5"-12" CI) 150 psi (14"-72" CI) 285 psi (.5"-12" DI) 250 psi (14"-72" DI)	PEC valve line meets the design safety factor requirements of AWWA C517. Engineering Report ER0706 summarizes the design analysis. Flange bolt patterns comply with ASME B16.1 Class 125, ASME B16.42 Class 150, and ASME B16.5 Class 150. Mechanical Joint end connection dimensions and bolt patterns comply with AWWA C111/A21.11. Valve temperature ratings are limited by the rubber plug face seat materials or 450F for cast iron or ductile iron valves with all-metal plugs. See Bulletin 12.00-1B or 1D. Reference ASTM A395/A395M Scope Paragraph 1.1. This specification covers ductile iron castings for pressure retaining parts use at elevated temperatures. Castings of all grades are suitable for use up to 450F. See Bulletin 12.00-1B and 12.00-1D <i>PEC Eccentric Plug Valves Technical</i> for further description, materials of construction, and applicable standards for PEC eccentric plug valves. See Engineering Report ER0709 for verification that the carbon steel and stainless steel valves meet the allowable stress limits found in the ASME Pressure Vessel Code, Section II, Part D, Materials, Table 1A.
15mm-500mm (.5" - 20")	Carbon Steel, ASTM A216, WCB Stainless Steel, ASTM A743, ASTM A351, CF8M		275 psi (.5-20" SST) 285 psi (.5-20" CS)	

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 Technical Standards & Safety Authority
 Boilers & Pressure Vessels
 Safety Program

2.6.5/1/18

DeZURIK, Inc.
DeZURIK PEF 100% Port Eccentric Plug Valves

The DeZURIK PEF 100 % Port Eccentric Plug valves are produced in standard sizes 50mm (3”) to 900 mm (36”) with Flanged and Mechanical Joint body end connections. Standard body materials are cast iron and ductile iron. Several resilient seat material options are available. PEF valves have been in successful service for over 10 years.

DESIGN SUMMARY:

SIZES	BODY MATERIALS	DESIGN CODE	PRESSURE RATING	NOTES
80mm-900mm (3” - 36”)	ASTM A126 Class B Cast Iron ASTM A536 Grade 65-45-12 Ductile Iron	AWWA C517 <i>Resilient Seated Cast Iron Plug Valves</i> ASME B16.1 <i>Cast Iron Flanges</i> ASME B16.42 <i>Ductile Iron Flanges</i> ASME B16.5 <i>Pipe Flanges and Flanged Fittings</i> ASME/AWWA C111/A21.11 <i>Rubber-Gasket Joints</i>	175 psi (3”-12”) 150 psi (14”-36”)	PEF valve line was designed to meet the requirements of AWWA C517. Engineering Report ER0708 summarizes the design analysis. Flange bolt patterns comply with ASME B16.1 Class 125, ASME B16.42 Class 150, and ASME B16.5 Class 150. Mechanical Joint end connection dimensions and bolt patterns comply with AWWA C111/A21.11. PEF temperature ratings are limited by the rubber plug face seat material and packing material. See Bulletin 12.60-1B <i>PEF 100% Port Eccentric Plug Valves Technical Specifications</i> for further description, materials of construction, and applicable standards for PEF plug valves.

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26. 5/11/18