the pressure equipment safety authority

9410 - 20 Ave N.W.
Edmonton, Alberta, Canada T6N 0A4
Tel: (780) 437-9100 / Fax: (780) 437-7787

June 09, 2025

Attention: Rob McGregor
TITAN RESEARCH GROUP
1920 YONGE STREET 2ND FLOOR
TORONTO, ON M4S 3E2

The design submission, Tracking Number 2025-02279, Web Portal Number 2025-S1859, originally received on April 07, 2025 was surveyed and accepted for registration as follows:

CRN : 0F25223.2 **Accepted on:** June 09, 2025

Reg Type: ADDITION TO ACC. FITTING **Expiry Date:** April 05, 2034

Drawing No. : SOR-PS6X Rev 1 As Noted

Fitting type: Assembly

Design registered in the name of : VEGA GRIESHABER KG

The registration is conditional on your compliance with the following notes:

The registration is approved based on proof test suitable.

The glass window is not part of registration as it is understood it is not pressure boundary.

Antenna is not part of registration.

There is no unlisted material per code of construction.

As indicated on AB-41 Statutory Declaration or AB-351 Declaration of Conformity form and submitted documentation, the code of construction is ASME B31.3.

- It is our understanding that the fitting(s), included as the scope of this submission, that is(are) subject to the Safety Codes Act shall comply with the requirements of the indicated Standard or Code of Construction on the AB-41 Statutory Declaration or AB-351 Declaration of Conformity as supported by the attached data which identifies the dimensions, materials of construction, press./temp. ratings and the basis for such ratings, and the identification marking of the fittings.
- This registration is valid only for fittings fabricated at the location(s) covered by the QC certificate attached to the accepted AB-41 Statutory Declaration or AB-351 Declaration of Conformity form.
- This registration is valid only until the indicated expiry date and only if the Manufacturer maintains a valid quality management system approved by an acceptable third-party agency, and maintains a valid Certification of Authorization Permit if required by the jurisdiction where manufacturing takes place, until that date.
- Should the approval of the quality management system lapse before the expiry date indicated above, this registration shall become void.

An invoice covering survey and registration fees will be forwarded from our Revenue Accounts.

If you have any question don't hesitate to contact me by phone at (587) 686-9340 or fax (780) 437-7787 or e-mail Liu@absa.ca.

Sincerely,

LIU, XING, P. Eng.
DOP Cert. No. D00008861

STATUTORY DECLARATION
Registration of Fittings
Single or Multiple Fitting Designs within one Fitting Category

I, Martin Schmitt (name of applicant), Director of Quality Management (position title) (must be in a position of authority)

of VEGA Grieshaber KG (name of manufacturer)

located at AM Hohenstein 113, 77761, Schiltach, Deutschland (plant address)

do solemnly declare that the fittings listed hereunder, which are subject to the Safety Codes Act (select only one)

☐ comply with the requirements of _____ (title of recognized North American Standard) which specifies the dimensions, materials of construction, pressure/temperature ratings and identification marking of the fittings, or

☒ are not covered by the provisions of a recognized North American standard and are therefore manufactured to comply with ASME B31.3-2020 (title of code of construction or other applicable document) as supported by the attached data which identifies the dimensions, materials of construction, pressure/temperature ratings and the basis for such ratings, and the identification marking of the fittings.

I further declare that the manufacture of these fittings is controlled by a quality control program which has been verified as described in the below Table as being suitable for the manufacturing of these fittings to the stated standard, regulation, code, guideline or other applicable document. The fittings covered by the declaration for which I seek registration are as provided in the Supplementary Sheet(s) attached.

Quality Program Verification and Manufacturing Sites

A copy of the Quality Certificate from each manufacturing site must be included

Item #	Product Description, Model or Series	Quality Program	Scope of Certification	Expiry Date	Verifying Organization	Location(s) Plant Name and address
1.	SOR-PS6X-REV1	ISO 9001:2015	See QA cert.	2025-01-02	DEKRA	see QA Cert.
2.						

Tracking #:_____

In support of this application, the following information, calculations and/or test data are attached:

Scope of registration SOR-PS6X, Rev.1 , VEGAPULS 6X

Signed electronically before me in Markham, Ontario while the Declarant was located in Germany on December 16, 2022 in accordance with Reg. 431/20 and the Ontario Electronic Commerce Act and securely online via video.

Martin Schmitt

SignNow e-signature ID: ca10c7bee7...
12/16/2022 14:06:25 UTC

(Signature of the Declarer)

December 16, 2022

(Date)

DECLARED before me at Markham (city) in the Province of Ontario (province, territory, or state)

this 16th day of December (Month), 2022 (Year)

(print) Hailian Wang

(a Commissioner of Oaths or Notary Public)

(sign) _____

SignNow e-signature ID: d39dc65cbe...
12/16/2022 14:11:27 UTC

(a Commissioner of Oaths or Notary Public)

Hailian Wang NOTARY PUBLIC ONTARIO

SignNow e-signature ID: 09ef3a134b...
12/16/2022 14:11:27 UTC

Commission does not expire

(expiry date (mm/dd/yy))

Hailian Wang
Licensed Paralegal and Notary Public
Law Society of Ontario Licensee #P16391

Commissioner of Oaths / Notary Public in and for: _____

(province, territory, or state)

For ABSA Office Use Only:

NOTES: _____

To the best of my knowledge and belief, the application meets the requirements of the Safety Codes Act and CSA Standard B51, Part 1, Clause 4.2, and is accepted for registration in Category _____.

CRN: _____

Registered Date: _____

Expiry Date: _____

Signature: _____

(Signature of the Administrator/SCO)

The information you provide is necessary only for the administration of the programs as required by the Alberta Safety Codes Act and Regulations in the Pressure Equipment Discipline

2025-02279

ABSA

SAFETY CODES ACT - PROVINCE OF ALBERTA

ACCEPTED: 0F25223.2

See acceptance letter for conditions of registration.

Date: 2025-06-09 By:

XING LIU, P. Eng.
DOP: D00008861

This stamp and signature have been affixed electronically to this registered design as required by Section 20(1) of the Pressure Equipment Safety Regulation, in accordance with the Electronic Transactions Act.

Tracking #: _____

Table 1 Scope of Fitting Designs**

Item #	Primary Pressure Bearing / Retaining Component	Material of Construction	Port Connections and Size Range	MDMT	Rated Pressure		Pressure Class(es) / Schedule(s)	Design Code(s) of Construction	Reference Catalogue (pages) or Drawing(s)
					At Ambient Temperature	At Maximum Temperature			

Table 2 Additional Scope Information

List/Attach Additional Detail and References (Product Configurations, Options, Illustrations, etc.)
Example: Series X Options

** For additional alternatives of Table 1, refer to Form AB-41a, Guide for Completing Form AB-41

Tracking #:_____

SOR-PS6X, Rev. 1: Scope of Registration Summary VEGAPULS 6X

I. Revision 0 // Phase 1

Product Assembly Type	Example Fitting Design*	Process Connection Description	Example Materials of Construction*	Maximum Design Pressure (bar) and Temperature (°C)
VEGAPULS 6X [redacted] Plastic horn antenna - type code B	ASME B16.5	≥3”	PP-C PP-GF30	-1…+2 bar -40 … 80 °C
	EN1092-1	≥DN80		
	JIS	≥DN80		
	British Standard	≥3”		

Product Assembly Type	Example Fitting Design*	Process Connection Description	Example Materials of Construction*	Maximum Design Pressure (bar) and Temperature (°C)
VEGAPULS 6X [redacted] PTFE plated flanges - type code F	EN1092-1	≥DN25	316/316L Alloy C22 (2.4602) Duplex 22 / 1.4462 Superduplex 25 / 1.4410 6MO/SMO 254 / 1.4547 PTFE PFA	-1 … +25 bar -196 … +150 / +200 °C**
	British Standard	≥1“		
	ASME B16.5	≥1“		
	JIS	≥DN25		
	GOST 33259-2015	≥DN25		

SOR-PS6X, Rev. 1: Scope of Registration Summary VEGAPULS 6X

Product Assembly Type	Example Fitting Design*	Process Connection Description	Example Materials of Construction*	Maximum Design Pressure (bar) and Temperature (°C)
VEGAPULS 6X [redacted] Metal framed lens antenna - type code C	British Standard	≥3''	316/316L Alloy C22 (2.4602) Duplex 22 / 1.4462 Superduplex 25 / 1.4410 6MO/SMO 254 / 1.4547 PEEK	-1 … +3 bar -40 … +150 / +200 °C**
	JIS	≥DN80		
	EN1092-1	≥DN80		
	ASME B16.5	≥3''		
	GOST 33259-2015	≥DN80		
	ASME BPE	≥3''		

Product Assembly Type	Example Fitting Design*	Process Connection Description	Example Materials of Construction*	Maximum Design Pressure (bar) and Temperature (°C)
VEGAPULS 6X [redacted] Threaded types - type code T VEGAPULS 42 [redacted]	DIN3852-A	G-Thread ≥¾''	316/316L Alloy C22 (2.4602) Duplex 22 / 1.4462 Superduplex 25 / 1.4410 6MO/SMO 254 / 1.4547 PEEK	-1 … +40 bar -40 … +150 / +250 °C**
	ASME B1.20.1	NPT ≥¾''		

II. Revision 1 // Phase 2

Product Assembly Type	Example Fitting Design*	Process Connection Description	Example Materials of Construction*	Maximum Design Pressure (bar) and Temperature (°C)
VEGAPULS 6X [redacted] Threaded types - type code T	DIN3852-A	G-Thread 1,5''	PVDF	-1 … +3 bar -40 … +80 °C
	ASME B1.20.1	NPT 1,5'''		

Product Assembly Type	Example Fitting Design*	Process Connection Description	Example Materials of Construction*	Maximum Design Pressure (bar) and Temperature (°C)
VEGAPULS 6X [redacted] Hygienic - type code H VEGAPULS 42 [redacted]	DIN32676, ISO2852 DIN11851 DIN11864-1 / -2 / -3 Varinline Form N and F SMS 1145 NEUMO BioControl DB50 ASME BPE	G-Thread 1'' / 1,5'' (ISO228-1)	316/316L Alloy C22 (2.4602) Duplex 22 / 1.4462 Superduplex 25 / 1.4410 6MO/SMO 254 / 1.4547 PEEK PTFE	-1 … +25 bar -40 … +150 °C
	Hygienic fitting F40 with compression nut	F40		-1 … +16 bar -40 … +150 °C

[redacted]	Hygienic fitting with tension flange	DN32		-1 … +16 bar -40 … +150 °C

SOR-PS6X, Rev. 1: Scope of Registration Summary VEGAPULS 6X

Product Assembly Type	Example Fitting Design*	Process Connection Description	Example Materials of Construction*	Maximum Design Pressure (bar) and Temperature (°C)
VEGAPULS 6X [redacted] - type code G / K / L / N / D	British Standard JIS EN1092-1 ASME B16.5 GOST 33259-2015 ASME BPE	G-Thread ¾'' / 1'' / 1,5'' / 2'' / 3''	316/316L Alloy C22 (2.4602) Duplex 22 / 1.4462 Superduplex 25 / 1.4410 6MO/SMO 254 / 1.4547 HK-40 / 1.4848 Ceramic	-1 … +100 bar -40 … +150 °C / +250 °C**

Product Assembly Type	Example Fitting Design*	Process Connection Description	Example Materials of Construction*	Maximum Design Pressure (bar) and Temperature (°C)
VEGAPULS 6X [redacted] Horn antenna for high temperatures - type code L / N / D	British Standard JIS EN1092-1 ASME B16.5 GOST 33259-2015 ASME BPE	G-Thread 1,5'' / 2'' / 3''	316/316L Alloy C22 (2.4602) Duplex 22 / 1.4462 Superduplex 25 / 1.4410 6MO/SMO 254 / 1.4547 HK-40 / 1.4848 Ceramic	-1…+160bar -196 … +450 °C

SOR-PS6X, Rev. 1: Scope of Registration Summary VEGAPULS 6X

*Further connections and materials are possible like:
Process connections: threaded connections, pipe connections, industrial flanges according to DIN, ASME, EN, GOST, JIS or equivalent norms and industry standards.
Materials: stainless steels according to EN 100088-1 (except 1.4305) or other standards and other corrosion resistant materials, e.g. Hastelloy, Monel, Inconel, Incoloy, Tantalum.

**Depends on w/ or w/o rod extension, parts under pressure are identical

I the undersigned hereby confirm that the above is accurate, correct and complete,

Approved by: Matthias Kunz
Date: April 8, 2024
Title: Product Safety Engineer
Signed: M. Kunz

VEGA Grieshaber KG
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www.vega.com