

Montréal, 6 février 2026.

ROB MCGREGOR
TITAN RESEARCH GROUP
1920 YONGE STREET SUITE 200
TORONTO ONTARIO
CANADA M4S 3E2

Fabricant : VEGA GRIESHABER KG
113 AM HOHENSTEIN
SCHILTACH
GERMANY D-77761

Numéro de dossier : 941154
Numéro(s) de dessin(s) : Scope of registration SOR-VF-REV2
- VEGAFLEX 81,82,83,86

Objet : Enregistrement des plans et devis – Confirmation de l'enregistrement

Bonjour,

Nous vous informons que votre demande d'enregistrement de plans et devis a été traitée et que cette conception a été enregistrée sous le numéro d'enregistrement canadien (NEC\CRN) suivant : **0F01226.06**.

Nous portons votre attention sur certaines exigences réglementaires concernant les installations sous pression, ainsi que des codes et normes qui y sont associés :

- Le fabricant doit maintenir un programme de contrôle de la qualité valide pour fabriquer un équipement selon ce NEC;
- Ce numéro d'enregistrement demeure valide tant et aussi longtemps que les paramètres de conception demeurent inchangés. Dans le cas d'accessoires, l'enregistrement est valide pour une durée de 10 ans à partir de la date d'enregistrement. Les documents de conception doivent alors être resoumis pour validation;
- Le fabricant doit nous transmettre une copie de la *Déclaration de conformité du constructeur (Manufacturer's Data Report)* pour chaque appareil ou chaudière fabriqué selon ce NEC dans les 30 jours suivant la signature de cette déclaration;
- Le numéro de dessin enregistré et le numéro de révision doivent être indiqués sur la déclaration de conformité pour les équipements fabriqués selon ce NEC.

Le présent avis d'approbation ne dégage pas le fabricant de ses responsabilités quant à la conception ou à la construction des équipements ou d'accessoires fabriqués selon un NEC.

Salutations distinguées,

Direction des équipements sous pression

Montréal

255, boul. Crémazie Est, 2^{ème} étage
Montréal (Québec) H2M 1L5
Téléphone : 514 873-2546
Sans frais : 1 866 262-2084
enregistrementdesplans@rbq.gouv.qc.ca
www.rbq.gouv.qc.ca

Montréal, le 6 février 2026.

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Manufacturer : VEGA GRIESHABER KG
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OUR REFERENCE : 941154
Design number : Scope of registration SOR-VF-REV2
- VEGAFLEX 81,82,83,86

Subject: Design registration confirmation

Hi,

We wish to inform you that your design registration application has been evaluated and that it was registered under the following Canadian Registration Number (CRN): **0F01226.06**.

The following is a reminder of your obligations regarding certain requirements of the regulation respecting pressure vessels, and the referenced codes and standards:

- The manufacturer must maintain a valid quality control program to manufacture equipment according to the CRN.
- The CRN remains valid as long as there are no changes to the design calculations that might affect the pressure boundary. The design registration of fittings expires 10 years after acceptance. It must, therefore, be resubmitted for validation.
- The manufacturer shall submit a copy of the *Manufacturer's Data Report* to us for each boiler or pressure vessel manufactured according to this CRN within 30 days following the signing of this report.
- The drawing number and the revision number registered under this CRN must be indicated on the *Manufacturer's Data Report* for equipment manufactured according to the CRN.

This notice of approval does not relieve the manufacturer of their responsibilities with respect to the design or fabrication of equipment manufactured according to this CRN.

Yours sincerely,

Direction des équipements sous pression

Montréal

255, boul. Crémazie Est, 2ième étage
Montréal (Québec) H2M 1L5
Téléphone : 514 873-2546
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www.rbq.gouv.qc.ca

Building Act (B-1.1)
Regulation respecting pressure vessels (B-1.1, r. 6.1)
Boiler, pressure vessel, and pressure piping code (CSA B51)

This declaration must be filled out and sent to the Régie du bâtiment du Québec (RBQ) by pressure fitting manufacturers when they make an application registration for fittings.

For more information on the application registration for fittings, consult the www.rbq.gouv.qc.ca/fittings-pv.

1. Fittings to register

List the fittings included in this declaration and that you wish to register.

N°	Description	Additional information (detail, calculations or approval sheets)
1	VEGAFLEX 81/82/83/86	Scope of Reg. SOR-VF-REV2: VEGAFLEX 81
2		[REDACTED] /
3		82 ([REDACTED]) /
4		83 [REDACTED] /
5		86 [REDACTED]

2. Declaration of the person in charge

The person in charge is someone in a position of authority, such as a vice-president, a plant manager or a chief engineer.

2.1 Design

I, the undersigned, Holger Sack Head of Product Compliance & Safety
(Name of the person in charge) (Title of the person in charge)

from VEGA Grieshaber KG, located at Am Hohenstein 113, 77761 Schiltach, Germany
(Company's name) (Plant's address)

hereby declare that the above-mentioned fittings and subject to the Regulation respecting pressure installations:

comply with the requirements of the ANSI/ASME codes as to their dimensions, identification, material and purpose
or

are not covered by the ANSI/ASME codes, but are in compliance with ASME B31.3 - 2022
(Name of code or standard)

code or standard and are designed according to the best current engineering practice, as proven by the enclosed approval report.

2.2 Manufacturing quality control

I further declare that the manufacture of these fittings is controlled by a quality control program that complies with the requirements of the following code: ISO 9001:2015, and has been verified by DEKRA
(Name of code) (Authorized agency)

Signature of the person in charge:

H. Sack

Date (yyyy-mm-dd): 2024-05-07

3. Declaration of commissioner for oaths

I certify that this declaration has been administered before me, at Mason, OH, on 2024-05-09.
(Location) (Date (yyyy-mm-dd))

Signature of commissioner for oaths:

Donald Jackson

Date (yyyy-mm-dd):

2024-05-09

Stamp the seal:



DONALD R JACKSON
Notary Public
State of Ohio
My Comm. Expires
May 9, 2029

4. Registration confirmation (for RBQ's use only)

As far as I know, this application complies with the requirements of the Act and with standard CSA B51, Part 1, section 4.2, and is accepted for registration in the class _____.

This registration expires in ten (10) years after the date of registration indicated above, and it must be validated again after this period.

Canadian registration number (CRN):

Registration date (yyyy-mm-dd):



Documents to attach

Any application registration for fittings must include these documents:

- Statutory Declaration Registration of Fittings (2 copies)
- Detailed calculations or burst test report (1 copy)
- Detailed technical drawings or catalogues (2 copies)
- Example of the manufacturer's marking (1 copy)
- Proof that a valid and approved quality control program has been implemented (1 copy)
- Form Application for design registration (1 copy)

Sending the form

This declaration is necessary to submit an application for design registration. Design registration applications must be sent by email only to enregistrementdesplans@rbq.gouv.qc.ca.

Documents must be in PDF format and in separate files.



SOR-VF, Rev.2- Scope of Registration Summary:


VEGAFLEX 81 [Redacted] / 82 [Redacted] /
83 [Redacted] / 86 [Redacted]

Product Assembly Type	Fitting Design	Fitting Description	Materials of °Construction [2E]	Maximum Design Pressure (bar) and Temperature (°C) [1]
VEGAFLEX 81	ASME BI.20.1 NPT Thread	Male NPT: ¾", 1, 1-½", 2", 3", 4"	UNS 531603, SA-479 (316L, 1.4404, 1.4435) UNS 530403, SA-479 (304L, 1.4307) UNS N06022, SB-574 (C22, 2.4602) UNS N04400, SB-564, (Monel 400, 2.4360)	Standard Version Up to 40 bar Maximum -40 °C up to 200 °C
	DIN 3852-A, G-Thread (Whitworth BSP)	Male G ¾, 1, 1-½, 2		
[Redacted]	ASME BI.20.1 NPT Thread	Male NPT: ¾", 1, 1-½"	UNS 531603, SA-479 (316L, 1.4404, 1.4435)	Cryogenic Version De-rated to 100 bar maximum -60 °C up to 150 °C
	DIN 3852-A, G-Thread (Whitworth BSP)	Male G ¾, 1, 1-½, 2		
Cable Probe: ø 2 mm, ø 4 mm	ASME B16.5	NPS 1", 1-½", 2", 2-½", 3", 3-1/2", 4", 6", 8" and 10" Type: RF, FF, RJF (Cryogenic Version)	Group 2.3, UNS 530403, SA-182 (F304L, 1.4307) Group 2.3, UNS 531603, SA-182 (F316L, 1.4404)	By Flange °Class (150 thru 2500) and Material De-rated to 100 bar Maximum -60 °C up to 150 °C
		NPS 1", 1-½", 2", 2-½", 3", 3-1/2", 4", 6", 8" and 10" Type: RF, FF, RJF (Standard Version)		Group 2.2, UNS 531600, SA-182 (F316, 1.4401) Group 3.8, UNS N06022, SB-462, (C22, 2.4602)
Rod Probe: ø 8 mm ø 12mm	ASME B16.5	NPS 1", 1-½", 2", 2-½", 3", 3-1/2", 4", 6", 8" and 10" Type: RF, FF, RJF (Standard Version)	Group 3.8, UNS N10276, SB-462, (C276, 2.4819) Group 3.4, UNS N04400, SB-564 (Monel 400, 2.4360)	Up to 40 Bar maximum -60C up to 150 °C
		NPS 1", 1-½", 2", 2-½", 3", 3-1/2", 4", 6", 8" and 10" Type: RF, FF, RJF (Cryogenic Version)		Up to 40 bar maximum -40 °C to 200 °C
Coax Probe: ø 21.3 mm, ø 42.2 mm	Masoneilan (Proprietary Flange)	Masoneilan Type 1200 (Cryogenic Version)	Group 3.4, UNS N04400, SB-564 (Monel 400, 2.4360)	Up to 40 bar maximum -60 °C up to 150 °C
	Masoneilan (Proprietary Flange)	Masoneilan Type 1200 (Standard Version)		Up to 40 bar maximum -40 °C to 200 °C
	Fisher (Proprietary Flange)	Fisher 249C (Cryogenic Version)		Up to 40 bar maximum -60 °C up to 150 °C

SOR-VF, Rev.2- Scope of Registration Summary:

VEGAFLEX 81 [Redacted] / 82 [Redacted] / 83 [Redacted] /
86 [Redacted]

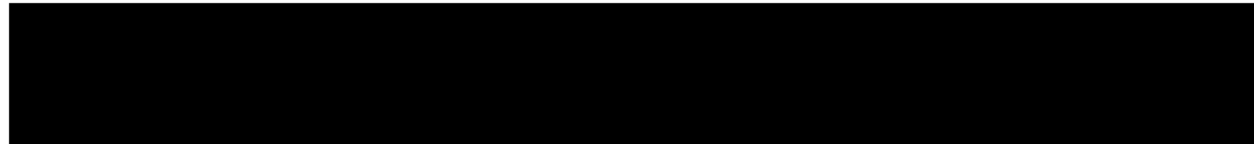


Product Assembly Type	Fitting Design	Fitting Description	Materials of °Construction [2E]	Maximum Design Pressure (bar) and Temperature (°C) [1]
VEGAFLEX 81  Cable Probe: ø 2 mm, ø 4 mm Rod Probe: ø 8 mm ø 12mm Coax Probe: ø 21.3 mm, ø 42.2 mm	Fisher (Proprietary Flange)	Fisher 249C (Standard Version)	Group 2.3, UNS S30403, SA-182 (F304L, 1.4307) Group 2.3, UNS S31603, SA-182 (F316L, 1.4404) Group 2.2, UNS S31600, SA-182 (F316, 1.4401) Group 3.8, UNS N06022, SB-462, (C22, 2.4602) Group 3.8, UNS N10276, SB-462, (C276, 2.4819) Group 3.4, UNS N04400, SB-564 (Monel 400, 2.4360)	Up to 40 bar maximum -40 °C up to 200 °C
		Fisher 249B/259B (Cryogenic Version)		Up to 40 bar maximum -20 °C to 200 °C
		Fisher 249B/259B (Standard Version)		Up to 40 bar maximum -20 °C to 200 °C

[1] NOTE: For ASME B16.5 flanges, maximum pressure of VEGAFLEX 81 is limited by flange Class and material, and shall not exceed 40 bar at any time for the standard version and shall not exceed 100 bar at any time for the Cryogenic Version.

[2] NOTE:

- A. Flange standards according to ASME B16.5 and proprietary flange styles Fisher 249B/259B, Fisher 249C, Fisher Special Return and Masoneilan Type 1200.
- B. ASME flange faces styles RF, FF and RJF.
- C. ASME flange sizes: 1" thru 10".
- D. ASME flange Classes: 150# thru 2500#.
- E. Materials for °Chemical Compatibility and pressure: 304L (1.4307), 316 (1.4401), 316L (1.4404 and 1.4435), Hastelloy C276 (2.4819), Hastelloy C-22 (2.4602) and Monel 400 (2.4360).



Product Assembly Type	Fitting Design	Fitting Description	Materials of °Construction [2E]	Maximum Design Pressure (bar) and Temperature (°C) [1]
VEGAFLEX 82	ASME B1.20.1 NPT Thread	Male NPT: ¾", 1", 1-½", 2"	UNS S31603, SA-479 (316L, 1.4404, 1.4435) UNS S30403, SA-479 (304L, 1.4307) UNS N06022, SB-574 (C22, 2.4602) UNS N04400, SB-564, (Monel 400, 2.4360)	Up to 40 bar maximum -40 °C up to 200 °C
	DIN 3852-A, G-Thread (Whitworth BSP)	Male G: ¾, 1, 1-½, 2		
	ASME B16.5	NPS 1", 1-½", 2", 2-½", 3", 3-1/2", 4", 6", 8" and 10" Type: RF, FF, RJF	Group 2.3, UNS S30403, SA-182 (F304L, 1.4307) Group 2.3, UNS S31603, SA-182 (F316L, 1.4404) Group 2.2, UNS S31600, SA-182 (F316, 1.4401) Group 3.8, UNS N06022, SB-462, (C22, 2.4602) Group 3.8, UNS N10276, SB-462, (C276, 2.4819) Group 3.4, UNS N04400, SB-564 (Monel 400, 2.4360)	By Flange °Class (150 thru 300) and Material De-rated to 40 bar maximum -40 °C up to 200 °C
Cable Probe: ø 4mm, ø 6mm	Masoneilan	Masoneilan Type 1200		Up to 40 bar Maximum @ -40...200 °C
Rod Probe: ø 16mm	Fisher (Proprietary Flange)	Fisher 249C		
		Fisher 249B/259B		

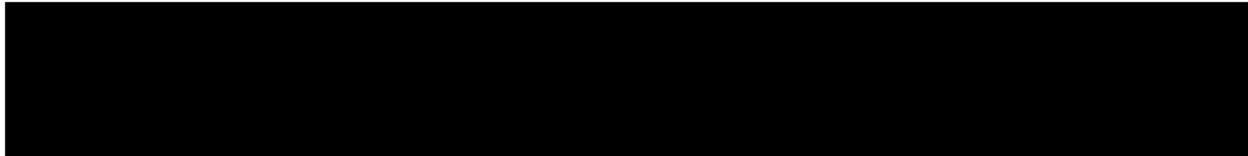



Product Assembly Type	Fitting Design	Fitting Description	Materials of °Construction [2E]	Maximum Design Pressure (bar) and Temperature (°C) [1]
VEGAFLEX 83 	ASME B16.5	NPS 1", 1-½", 2", 2-½", 3", 3-½", 4", 6", 8" and 10" Type:RF, FF	Group 2.3, UNS 530403, SA-182 (F304L, 1.4307) Group 2.3, UNS 531603, SA-182 (F316L, 1.4404) Group 2.2, UNS 531600, SA-182 (F316, 1.4401)	By Flange °Class (150 thru 300) and Material De-rated to 16 bar maximum -40°C up to 150 °C
	Masoneilan (Proprietary Flange)	1/2", 4", 6", 8" and 10"	Group 3.8, UNS N06022, SB-462, (C22, 2.4602) Group 3.8, UNS N10276, SB-462, (C276, 2.4819) Group 3.4, UNS N04400, SB-564 (Monel 400, 2.4360)	Up to 16 bar maximum -40°C up to 150 °C
	ASME BPE	Type:RF, FF	UNS 531603, SA-182 (F316L, 1.4404) UNS 531603, SA-240 (316L, 1.4435)	By Flange °Class (150 thru 300) and Material De-rated to 40 bar maximum -40 °C up to 200 °C
Cable Probe: ø 4mm				
Rod Probe: ø 8 mm ø 10 mm				

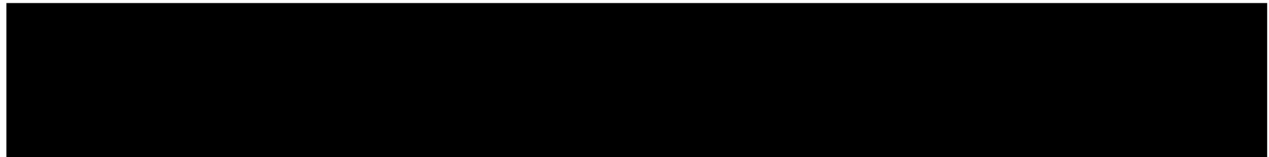
[1] NOTE: For ASME B16.5 flanges, maximum pressure of VEGAFLEX 83 is limited by flange Class and material, and shall not exceed 16 bar at any time.


[2] NOTE:

- A. Flange standards according to ASME B16.5 and proprietary flange style Masoneilan Type 1200.
- B. ASME flange faces styles RF and FF.
- C. ASME flange sizes from 1 thru 10 inch
- D. ASME flange Classes: 150# thru 300#.
- E. Materials for Chemical °Compatibility and pressure: 304L (1.4307), 316 (1.4401), 316L (1.4404 and 1.4435), Hastelloy °C276 (2.4819), Hastelloy C-22 (2.4602) and Monel 400 (2.4360).



Product Assembly Type	Fitting Design	Fitting Description	Materials of °Construction [2E]	Maximum Design Pressure (bar) and Temperature (°C) [1]
VEGAFLEX 86  Cable Probe: ø 2 mm ø 4 mm Rod Probe: ø 16 mm Coax Probe: ø 42.2 mm	ASME B1.20.1 NPT Thread	Male NPT: 1½"	UNS S31603, SA-479 (316L, 1.4404, 1.4435) UNS S30403, SA-479 (304L, 1.4307) UNS N06022, SB-574 (C22, 2.4602) UNS N04400, SB-564, (Monel 400, 2.4360)	400 bar maximum Standard Version -196...280 °C Hi-Temp Version -196...450 °C
	DIN 3852-A, G-Thread (Whitworth BSP)	Male G: 1½"		
	ASME B16.5	NPS 1", 1-½", 2", 2-½", 3", 3-1/2", 4", 6", 8" and 10" Type: RF, FF, RJF	Group 2.3, UNS S30403, SA-182 (F304L, 1.4307) Group 2.3, UNS S31603, SA-182 (F316L, 1.4404) Group 2.2, UNS S31600, SA-182 (F316, 1.4401)	By Flange °Class (150 thru 2500) and Material De-rated to 400 bar maximum Standard Version -196...280 °C Hi-Temp Version -196...450 °C
	Masoneilan (Proprietary Flange)	Masoneilan Type 1200	Group 3.8, UNS N06022, SB-462, (C22, 2.4602) Group 3.8, UNS N10276, SB-462, (C276, 2.4819) Group 3.4, UNS N04400, SB-564 (Monel 400, 2.4360)	De-rated to 40 bar maximum Standard Version -196...280 °C Hi-Temp Version -196...450 °C



Product Assembly Type	Fitting Design	Fitting Description	Materials of °Construction [2E]	Maximum Design Pressure (bar) and Temperature (°C) [1]
VEGAFLEX 86 	Fisher (Proprietary Flange)	Fisher Type 249C	Group 2.3, UNS S30403, SA-182 (F304L, 1.4307) Group 2.3, UNS S31603, SA-182 (F316L, 1.4404)	De-rated to 40 bar maximum, Standard Version -196...280 °C Hi-Temp Version -196...450 °C
Cable Probe: ø 2 mm ø 4 mm		Fisher Type 249B/259B	Group 2.2, UNS S31600, SA-182 (F316, 1.4401) Group 3.8, UNS N06022, SB-462, (C22, 2.4602)	De-rated to 40 bar maximum, Standard Version -196...280 °C Hi-Temp Version -196...450 °C
Rod Probe: ø 16 mm Coax Probe: ø 42.2 mm		Fisher Special Return (GE3218)	Group 3.8, UNS NI0276, SB-462, (C276, 2.4819) Group 3.4, UNS N04400, SB-564 (Monel 400, 2.4360)	De-rated to 16 bar maximum Standard Version -196...280 °C Hi-Temp Version -196...450 °C

[1] NOTE: For ASME B16.5 flanges, maximum pressure of VEGAFLEX 86 is limited by flange Class and material, and shall not exceed 400 bar at any time.

[2] NOTE:

- A. Flange standards according to ASME B16.5 and proprietary flange styles Fisher 249B/259B, Fisher 249C, Fisher Special Return and Masoneilan.
- B. ASME flange faces styles RF, FF and RJF.
- C. ASME flange sizes from 1 thru 10 inch
- D. ASME flange Classes: 150# thru 2500#.
- E. Materials for Chemical Compatibility and pressure: 304L (1.4307), 316 (1.4401), 316L (1.4404 and 1.4435), Hastelloy C276 (2.4819), Hastelloy C-22 (2.4602) and Monel 400 (2.4360)

Approved by: **Matthias Kunz**

Signed:



Title: **Product Safety Engineer**

Date approved: **April 26, 2024**