

Suite 600 - 2889 E 12th Ave Vancouver, BC V5M 4T5

Toll Free: 1-866-566-7233 www.technicalsafetybc.ca

ENDRESS + HAUSER WETZER GMBH + CO KG OBERE WANK 1 87484 NESSELWANG GERMANY D-87484 Date: February 25, 2021

Account #: 59105 **Journal #:** 77488

Attn: ANDREAS MICIELI

Re: Application for Design Registration

The design, as detailed in your, TT412 reciprocal addendum, for a Fitting is accepted for registration as follows:

Registered To: ENDRESS + HAUSER WETZER CRN: 0F17572.51

GMBH + CO KG

Drawing #: SOR TW-E+H **Drawing Revision:** 0

This design was registered based on a technical review performed by the province of initial registration in accordance with the Association of Chief Inspectors policy on reciprocal recognition of design review.

Reviewer's Notes:

SOR: Addition of Thermowell TT412, DWG. No. 10000008805 - see Statutory Declaration for full SOR.

As required by CSA B51 4.2.1, this registration expires on 02-Apr-2025. This CRN is valid until the expiry date as long as the Manufacturer maintains a valid quality control program verified by an acceptable third-party agency until that date. Should the certification of the quality control program lapse before the expiry date, this registration shall become void. Any additional conditions of registration stated in TSSA CRN# 0F17572.ADD1 registration shall apply to BC registration.

(PROD) 30400-20 GST #: 87391 2802 RT0001



Toll Free: 1-866-566-7233 www.technicalsafetybc.ca

Contact me if you have any questions. The invoice for registration will be forwarded under separate cover.

Emilia Tam

emilia.tam@technicalsafetybc.ca Design Administration

cc:

(PROD) 30400-20 GST #: 87391 2802 RT0001



9410 - 20 Ave N.W. Edmonton, Alberta, Canada T6N 0A4

Tel: (780) 437-9100 / Fax: (780) 437-7787

March 28, 2019

Attention: Scott Islip

ROUND ENGINEERING INC

10 SEGWUN ROAD

WATERDOWN, ON L8B 0K6

Email:scott.islip@roundeng.com

The design submission, tracking number 2019-01599, originally received on March 05, 2019 was surveyed and accepted for registration as follows:

CRN:

0F17572.52

Accepted on: March 28, 2019

Reg Type:

NEW DESIGN

Expiry Date: April 02, 2025

Drawing No.: SCOPE OF REGISTRATION SUMMARY

Fitting type: THERMOWELL TT411 & TT412

Design registered in the name of: ENDRESS + HAUSER WETZER GMBH + CO KG

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

- It is our understanding that the fittings shall be pressure tested in accordance with the Code of construction prior to initial operation.

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

- 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 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 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 (780) 433-0281 ext 3382 or fax (780) 437-7787 or e-mail Stojanovic@absa.ca.

Sincerely.

STOJANOVIC, STEVAN, P. Eng.

DOP Cert. No. D00008849





In this space, show facsimile of

STATUTORY DECLARATION Registration of Fittings

I, Be	rnd Kunert ,	Quality Manager		as it will appear on the fitting.
	(name of applicant)	(position title) (must be	in a position of authority)	
of E	ndress + Hauser Wetzer GmbH+Co		·	Endress+Hauser 4
1	· ·	of manufacturer)		
locate	ed at Obere Wank 1, DE-87484 Nes	int address)	·	· -
	lemnly declare that the fittings listed k one)	•	subject to the Safety C	odes Act
	comply with the requirements of the comply with the requirements of the complex comple	itle of recognized North An	-	ecifies the dimensions,
	materials of construction, pressure	e/temperature ratings	and identification marking	ng of the fittings, or
\boxtimes	are not covered by the provisions	of a recognized North	American standard and	are therefore manufactured
	to comply with ASME B31.3, ASM (title of code of c	E Bioprocessing Equition or other application or other application or other applications are supplied to the construction or other applied to the construction of the construction or other applied to the construction of the	<u> </u>	supported by the attached
	data which identifies the dimension	ns, materials of constr	ruction, pressure/temper	ature ratings and the basis
٠	for such ratings, and the marking of	of the fittings for identi	fication.	
I furth	er declare that the manufacture of the	nese fittings is control	ed by a quality control p	rogram which has been
verifie	d by the following authority, SQS (IS	O 9001)	as being suitable	for the manufacture of these
fittings	s to the stated standard. The fittings	covered by this decla	aration, for which I seek	registration, are
	_			
Cate	gory F	ef description of fittings)		
In sup	port of this application, the following	. ,	ons and/or test data are	attached:
		TO 000DE OF ODA		
DRA	WINGS, CALCULATIONS, REPOR	15, SCOPE OF CRN		
DECL	ARED before me at Nesseliu	CNO in the Ge	FMan V of	
	(city)		(pi	ovince or state)
this _	$\frac{1}{1}$ day of $\frac{1}{1}$	rieory. 20	79	
	(Mor	th) / (Yea	r)	
(print	(a Commissioner of Oaths or Notary Pu	hlic		
	(a Commissioner of Oaths of Notary Po	blicj		
(sign)	(a Commissioner of Oaths or Notary Pu	hlic)	(signature of	applicant)
For A	· · · · · · · · · · · · · · · · · · ·	oney .	(Signature of	арриостту
	BSA Office Use Only:			•
NOTE				
	best of my knowledge and belief, the ard B51, Clause 4.2, and is accepte			Safety Codes Act and CSA
Regist	tration Number: 0F 1 7 5	72.52		STOJANOVIC MS p Administrator/SCO)
	Registered: MAR 2 8 201		Expiry Date:	02, 2025
The info	rmation you provide is necessary only for the ac e Equipment Discipline.	dministration of the programs	s as required by the Alberta Saf	ety Codes Act and Regulations in the

URNr.

/2019

(M/cw)

I hereby certify that the above standing is the true signature, signed before me of

Mr. Bernd Josef KUNERT, born on the 22nd of December 1962, resident 87466 Oy-Mittelberg, Hauptstr. 29,

personally known to me.

Nesselwang, the 15 of January 2019

Dr. Hans Michael Malzer, notary

F17572.52

Endress+Hauser Wetzer GmbH+Co. KG

page 1/4

SAFETY CODES ACT - PROVINCE OF ALBERTA

REGISTRATION OF FITTINGS

REGISTRATION NO.

DWG. NO. OF CAT. NO. Scope of

TYPE OF FITTINGS THE MOWELLS TT411

STEVAN STOJANOVIC, P.Eng. DESIGN SURVEY ENGINEER

Scope of Registration Summary

Product: Sanitary Thermowells

Code: ASME B31.3

Drawings: 10000007051, 10000007052, 10000007053, 10000007064, 1000000880 MAR 2 8 2019

Catalogue: iTHERM TT411, TT412

Thermowell Product	Drawing [5]	Material	Size [5]	MAWP	Max Temp. °C (°F)
Tri-Clamp Sanitary Ferrule [1]	10000007051 10000007052	A276/A479 316L A269 TP316L A240 316/316L A276 N10276 C-276 A574 N10276 C-276	DN8-18 (0.5"-0.75")	16 bar (232 psi)	-40 to 650 °C (-40 to 1202 °F)
Tri-Clamp, ISO2852 Sanitary Ferrule [1]	1000007051 10000007052 10000007053 10000007064 10000008805	A276/A479 316L A269 TP316L A240 316/316L A276 N10276 C-276 A574 N10276 C-276	DN12-21.3 (1/2")	16 bar (232 psi)	-40 to 650 °C (-40 to 1202 °F)
Tri-Clamp, ISO2852 Sanitary Ferrule [1]	10000007051 10000007052 10000007053 10000007064 10000008805	A182 F316L A269 TP316L A240 316/316L A276 N10276 C-276 A574 N10276 C-276	DN25-38 (1"-1.5") DN40-51 (2")	16 bar (232 psi)	-40 to 650 °C (-40 to 1202 °F)
Tri-Clamp, ISO2852 Sanitary Ferrule [1]	10000007052 10000007053 10000007064 10000008805	A182 F316L A269 TP316L A240 316/316L A276 N10276 C-276 A574 N10276 C-276	DN63.5 (2.5"), DN70-76.5 (3")	16 bar (232 psi)	-40 to 650 °C (-40 to 1202 °F)
DIN11851 [1]	1000007051 1000007052 10000007053 10000007064	A276/A479 316L A276 N10276 C-276 A574 N10276 C-276	DN25	40 bar (580 psi)	-40 to 600°C (-40 to 1112°F)

Thermowell Product	Drawing [5]	Material	Size [5]	MAWP	Max Temp. °C (°F)
DIN11851 [1]	1000007051 10000007052 10000007053 10000007064	A276/A479 316L A276 N10276 C-276 A574 N10276 C-276	DN32, DN40, *DN50	40 bar (580 psi)	-40 to 600 °C (-40 to 1112 °F)
Spherical- Cylindrical Weld-in adapter [3]	10000007051 10000007052	A276/A479 316L A269 TP316L A240 316/316L A276 N10276 C-276 A574 N10276 C-276	D30 x D40mm OF 17572.52	40 bar (580 psi)	-40 to 600 °C (-40 to 1112 °F)
Spherical Weld-in adapter [3]	10000007051 10000007052 10000007053 10000007064	A276/A479 316L A276 N10276 C-276 A574 N10276 C-276	D25	40 bar (580 psi)	-40 to 600 °C (-40 to 1112 °F)
Cylindrical Weld-in adapter [3]	10000007051 10000007052 10000008805	A276/A479 316L A269 TP316L A240 316/316L A276 N10276 C-276 A574 N10276 C-276	D30 x 40mm (D1" NPS) D1/2" NPS, D3/4" NPS	40 bar (580 psi)	-40 to 600 °C (-40 to 1112 °F)
Weld-in adapter	10000007051	A276/A479 316L A269 TP316L A240 316/316L A276 N10276 C-276 A574 N10276 C-276	D12 x 40mm	40 bar (580 psi)	-40 to 600 °C (-40 to 1112 °F)
ISO228 Thread-in adapter	10000007051 10000007052 [2]	A276/A479 316L A269 TP316L A240 316/316L A276 N10276 C-276 A574 N10276 C-276	G3/8 M12x1 metal-to-metal G1/2 metal-to-metal	16 bar (232 psi)	-40 to 650 °C (-40 to 1202 °F)
ISO228 Thread-in adapter	1000007052 1000007053 1000007064 10000008805	A182 F316L A269 TP316L A240 316/316L A276 N10276 C-276 A574 N10276 C-276	G1 for FLT50 G3/4 for FLT50 G3/4 for FLT20	40 bar [6] (580 psi)	-40 to 500 °C (-40 to 932 °F)
Type B Varivent [1]	10000007052 10000007064	A276/A479 316L A276 N10276 C-276 A574 N10276 C-276	31 mm	10 bar (145 psi)	-40 to 650 °C (-40 to 1202 °F)

Thermowell Product	Drawing [5]	Material	Size [5]	MAWP	Max Temp. °C (°F)
Type F, N Varivent [1]	10000007052 10000007064	A276/A479 316L A276 N10276 C-276 A574 N10276 C-276	50 mm, 68 mm	10 bar (145 psi)	-40 to 650 °C (-40 to 1202 °F)
DN11864-1-A [1]	10000007052	A276/A479 316L A269 TP316L A276 N10276 C-276 A574 N10276 C-276	DN25, DN40	40 bar (580 psi)	-40 to 500 °C (-40 to 932 °F)
SMS1147	10000007052	A276/A479 316L A269 TP316L A240 316/316L A276 N10276 C-276 A574 N10276 C-276	DN25, DN38, *DN51	25 bar (362 psi)	-40 to 600 °C (-40 to 1112 °F)
APV	10000007052	A276/A479 316L A269 TP316L A240 316/316L A276 N10276 C-276 A574 N10276 C-276	0 F□••7 5 7 2 ·	5 (6 62 psi)	-40 to 600 °C (-40 to 1112 °F)
Ingold	10000007052	A182 F316L A269 TP316L A240 316/316L A276 N10276 C-276 A574 N10276 C-276	⊘25mm x 30mm ⊘25mm x 46mm	25 bär (362 psi)	-40 to 600 °C (-40 to 1112 °F)
Neumo Biocontrol	10000007052	A276/A479 316L A269 TP316L A240 316/316L A276 N10276 C-276 A574 N10276 C-276	D25, D50, D65	16 bar (232 psi)	-40 to 600 °C (-40 to 1112 °F)

NOTES:

- [1] Ferrule supplied exactly as per drawing indicated in table above. Clamp to be provided by others. Clamp not included. Clamp shall have a valid CRN registered by the clamp supplier and with a pressure rating appropriate to the application but no greater than the ferrule MAWP indicated above. Note that Tri-Clamp is dimensionally compatible with ISO2852 and ASME Bioprocessing Equipment Standards.
- [2] Drawing 10000007052 includes only G1/2 metal-to-metal connection.
- [3] Weld-in adapter provided as per drawing indicated in table above. Weld to be specified by others and the weld pressure equipment/tank/vessel to which the weld-in adapter is attached to be provided by others and separately CRN approved.
- [4] Factory full penetration weld interface between probe and adapter tested. See calculations for further analysis.
- [5] For details of probe lengths and/or instrumentation connections, see respective drawings.
- [6] G1 for FLT50 MAWP 25 bar (362 psi) at max 150 °C (302 °F); G3/4 for FLT50/FLT20 MAWP 40 bar at max 100 °C (212 °F)

Approved by: Michael Pfanzelt

Title: Approval engineer

Approval Signature: i.A.

Date Signed: 2017-02-19

The above signed declares that the contents of this document are accurate, complete and true.



Inspection and Technical Services Manitoba

508 - 401 York Avenue Winnipeg Manitoba R3C 0P8 T (204) 945-3373 F (204) 948-2309

www.firecomm.gov.mb.ca/codes steam pressure.html

April 26, 2017

ENDRESS+HAUSER WETZER GMBH + CO. KG OBERE WANK 1, NESSELWANG, D-87484 GERMANY

Attn: MICHAEL PFANZELT

REGISTRATION OF VALVES AND FITTINGS

Manufacturer: ENDRESS+HAUSER WETZER GMBH + CO. KG

The design(s) for the following Valves/Fittings has been received by us and has been examined and accepted for registration in the Province of Manitoba as follows.

DRAWING / CATALOGUE	CRN	FILE
Dwg No. 10000007051, 10000007052, 10000007053,		
10000007064 & 1000008805	0F6744.4	37510
Catalogue: iTHERM TT411 & TT412.		

An invoice covering survey and registration fees is enclosed.

NOTE: This registration expires June 9, 2025.

This registration is valid until the indicated expiry date only if the Manufacturer maintains a valid quality management system approved by an acceptable third-party agency until that date. Should the approval of the quality management system lapse before the expiry date indicated above, this registration shall become void.

The registration of this design does not relieve the manufacturer, the owner or his agent of the responsibility for the design or construction of a fitting in accordance with the applicable Acts, Codes and Standards. Inspection and Technical Services assumes no responsibility by registering designs, examining plans and/or inspecting equipment or facility.

Regards,

Ryan Orlesky, C.E.T.

Design Surveyor

Office of the Fire Commissioner

Inspection and Technical Services Manitoba

508 - 401 York Avenue

Winnipeg, Manitoba, R3C 0P8

Phone: 204-945-3373

Email: ryan.orlesky@gov.mb.ca

URNT. M00962 /2016

MANITOBA

DEPARTMENT OF LABOUR AND IMMIGRATION 500 – 401 York Avenue Winnipeg, Manitoba R3C 0P8



STATUTORY DECLARATION REGISTRATION OF FITTINGS

(a) Design Qualification
Bernd Kunert, Quality Manager (See Note 2)
Quality Manager
(Position e.g.: president, plant manager, chief eng.)
of Endress + Hauser Wetzer GmbH+Co KG
(Name of company)
located at DE-87484 Nesselwang
(Plant Address)
do solemnly declare that the fittings listed hereunder, which are subject to the Boilers & Pressure Vessels Act,
comply with all the requirements of the ANSI/ASME codes as to their dimensions.
are not covered by the provisions of the ANSI/ASME codes, and are therefore constructed to comply with ASME B31.3; ASME Bioprocessing Equipment code or standard, and are designed to the best current engineering practice, as shown by the supporting test data.
(b) Quality Control of Manufacture
I further declare the manufacture of these fittings is controlled by a quality control program which complies with the requirements of ISO 9001:2008, and has been verified by the following authority or authorized agencySQS
The fittings covered by this declaration, for which I seek registration, are F
In support of the application, the following information, calculations and/or test data are attached:
iTHERM TT411 Thermowells; Drawings: 10000007051, 10000007052, 10000007053, 10000007064, 10000008805; See attached scope of registration summary: SR-TW-E+H-Rev0 for MAWP, Design temperature, MDMT& Material of construction.
Declared before me atin the province/state ofthe
day ofAD 20
A (commissioner for oaths)
Signature of Declarer
(For Official Use Only) The application is accepted for registration in Category in accordance with the Boilers and Pressure Vessels Act and CSA Standard B51.
This registration must be revalidated after ten (10) years from the date of acceptance.
EXFIRES JUNE 9, 2025
Registered Number CRN Ø F 6 7 4 4 . 4 For the Chief Inspector Date: April 26, 2017
Date.

Notes:

- (1) This form shall be completed and signed by the president or highest official in the manufacturing plant where the fitting is produced.
- (2) <u>Two</u> completed copies of Statutory Declaration form together with <u>two</u> copies of Catalogs, drawings or Bulletins illustrating above fittings shall be submitted.
- (3) All fittings are required to be registered in the name of the Manufacturer.

I hereby certify that the above standing is the true signature, signed before me of

Mr. Bernd Josef KUNERT, born on the 22nd of December 1962, resident 87466 Oy-Mittelberg, Haupstr. 29,

identified through presentation of his german identification card.

Nesselwang, the 14th of June 2016

Dr/Hans Michael Malzer, notary public



Scope of Registration Summary

Product:

Sanitary Thermowells

Code: ASME B31.3

Drawings: 10000007051, 10000007052, 10000007053, 10000007064, 10000008805

Catalogue: iTHERM TT411, TT412



Max Temp. °C (°F)	-40 to 650 °C (-40 to 1202 °F)	-40 to 650 °C (-40 to 1202 °F)	-40 to 650 °C (-40 to 1202 °F)	-40 to 650 °C (-40 to 1202 °F)	-40 to 600°C (-40 to 1112 °F)
MAWP	16 bar (232 psi)	16 bar (232 psi)	16 bar (232 psi)	16 bar (232 psi)	40 bar (580 psi)
Size [5]	DN8-18 (0.5"-0.75")	DN12-21.3 (1/2")	DN25-38 (1"-1.5") DN40-51 (2")	DN63.5 (2.5"), DN70-76.5 (3")	DN25
Material	A276/A479 316L A269 TP316L A240 316/316L A276 N10276 C-276 A574 N10276 C-276	A276/A479 316L A269 TP316L A240 316/316L A276 N10276 C-276 A574 N10276 C-276	A182 F316L A269 TP316L A240 316/316L A276 N10276 C-276 A574 N10276 C-276	A182 F316L A269 TP316L A240 316/316L A276 N10276 C-276 A574 N10276 C-276	A276/A479 316L A276 N10276 C-276 A574 N10276 C-276
Drawing [5]	10000007051	10000007051 10000007052 10000007053 10000007064 10000008805	10000007051 10000007052 10000007053 10000007064 10000008805	10000007052 10000007053 10000007064 10000008805	10000007051 10000007052 1000007053 10000007064
Thermowell Product	Tri-Clamp Sanitary Ferrule [1]	Tri-Clamp, ISO2852 Sanitary Ferrule [1]	Tri-Clamp, ISO2852 Sanitary Ferrule [1]	Tri-Clamp, ISO2852 Sanitary Ferrule [1]	DIN11851 [1]

Endress+Hauser Wetzer GmbH+Co. KG

MAWP Max Temp. °C (°F	40 bar -40 to 600 °C (580 psi) (-40 to 1112 °F)	40 bar -40 to 600 °C (580 psi) (-40 to 1112 °F)	40 bar -40 to 600 °C (580 psi) (-40 to 1112 °F)	40 bar -40 to 600 °C (580 psi) (-40 to 1112 °F)	40 bar -40 to 600 °C (580 psi) (-40 to 1112 °F)	16 bar -40 to 650 °C (232 psi) (-40 to 1202 °F)	40 bar [6] -40 to 500 °C (580 psi) (-40 to 932 °F)	
Size [5]	DN32, DN40, *DN50	D30 x D40mm	D25	D30 x 40mm (D1" NPS) D1/2" NPS, D3/4" NPS	D12 x 40mm	G3/8 M12x1 metal-to-metal G1/2 metal-to-metal	G1 for FLT50 G3/4 for FLT50 G3/4 for FLT20	
Material	A276/A479 316L A276 N10276 C-276 A574 N10276 C-276	A276/A479 316L A269 TP316L A240 316/316L A276 N10276 C-276 A574 N10276 C-276	A276/A479 316L A276 N10276 C-276 A574 N10276 C-276	A276/A479 316L A269 TP316L A240 316/316L A276 N10276 C-276 A574 N10276 C-276	A276/A479 316L A269 TP316L A240 316/316L A276 N10276 C-276 A574 N10276 C-276	A276/A479 316L A269 TP316L A240 316/316L A276 N10276 C-276 A574 N10276 C-276	A182 F316L A269 TP316L A240 316/316L A276 N10276 C-276 A574 N10276 C-276	
Drawing [5]	10000007051 10000007052 10000007053 10000007064	10000007051	10000007051 10000007052 1000007053 10000007064	10000007051 10000007052 10000008805	10000007051	10000007051 10000007052 [2]	10000007052 10000007053 10000007064 10000008805	
Thermowell Product	DIN11851 [1]	Spherical- Cylindrical Weld-in adapter [3]	Spherical Weld-in adapter [3]	Cylindrical Weld-in adapter [3]	Weld-in adapter	ISO228 Thread-in adapter	ISO228 Thread-in adapter	

Thermowell Product	Drawing [5]	Material	Size [5]	MAWP	Max Temp. °C (°F)
Type F, N Varivent [1]	10000007052 10000007064	A276/A479 316L A276 N10276 C-276 A574 N10276 C-276	50 mm, 68 mm	10 bar (145 psi)	-40 to 650 °C (-40 to 1202 °F)
DN11864-1-A [1]	10000007052	A276/A479 316L A269 TP316L A276 N10276 C-276 A574 N10276 C-276	DN25, DN40	40 bar (580 psi)	-40 to 500 °C (-40 to 932 °F)
SMS1147	10000007052	A276/A479 316L A269 TP316L A240 316/316L A276 N10276 C-276 A574 N10276 C-276	DN25, DN38, *DN51	25 bar (362 psi)	-40 to 600 °C (-40 to 1112 °F)
APV	10000007052	A276/A479 316L A269 TP316L A240 316/316L A276 N10276 C-276 A574 N10276 C-276	DN50	25 bar (362 psi)	-40 to 600 °C (-40 to 1112 °F)
plognI	10000007052	A182 F316L A269 TP316L A240 316/316L A276 N10276 C-276 A574 N10276 C-276	ø25mm x 30mm ø25mm x 46mm	25 bar (362 psi)	-40 to 600 °C (-40 to 1112 °F)
Neumo Biocontrol	10000007052	A276/A479 316L A269 TP316L A240 316/316L A276 N10276 C-276 A574 N10276 C-276	D25, D50, D65	16 bar (232 psi)	-40 to 600 °C (-40 to 1112 °F)

Clamp shall have a valid CRN registered by the clamp supplier and with a pressure rating appropriate to the application but no greater than the ferrule MAWP indicated above. Note that Tri-Clamp is dimensionally compatible with ISO2852 and ASME 1] Ferrule supplied exactly as per drawing indicated in table above. Clamp to be provided by others. Clamp not included. Bioprocessing Equipment Standards.

[2] Drawing 10000007052 includes only G1/2 metal-to-metal connection.

[3] Weld-in adapter provided as per drawing indicated in table above. Weld to be specified by others and the weld pressure equipment/tank/vessel to which the weld-in adapter is attached to be provided by others and separately CRN approved

[4] Factory full penetration weld interface between probe and adapter tested. See calculations for further analysis. [5] For details of probe lengths and/or instrumentation connections, see respective drawings. [6] G1 for FLT50 MAWP 25 bar (362 psi) at max 150 °C (302 °F); G3/4 for FLT50/FLT20 MAWP 40 bar at max 100 °C (212 °F)

Approval engineer	2017-02-19
Title: Approv	_ Date Signed: _
Michael Pfanzelt	ure: i.A.
pproved by:	pproval Signature:

The above signed declares that the contents of this document are accurate, complete and true.



345 Carlingview Drive Toronto, Ontario M9W 6N9 Tel.: 416.734.3300 Fax: 416.231.1626 Toll Free: 1.877.682.8772

www.tssa.org

March 23, 2017

MICHAEL PFANZELT ENDRESS + HAUSER WETZER GMBH+CO. KG 1 OBERE WANK NESSELWANG D-87484 DE

Service Request Type: BPV-Fitting Registration

Service Request No.: 2035260

Your Reference No.: ITHERM TT411, ADDENDUM ITHERM TT412
Registered to: ENDRESS + HAUSER WETZER GMBH+CO. KG

Dear MICHAEL PFANZELT,

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

CRN No.: 0F17572.ADD1

Main Design No.: Addition of Thermowell TT412, Dwg. No. 10000008805 Page 1-4 (see the

attachment to the Statutory Declaration Form for full scope of registration)

Expiry Date: 02-Apr-2025

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

The stamped copy of the approved registration and the invoice are mailed separately. Should you have any questions or require further assistance, 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,

Mark Valcic P. Eng. Engineer Specialist BPV

Tel.: 416-734-3494 Fax: 416-231-1626 Email: <u>mvalcic@tssa.org</u>



TECHNICAL STANDARDS & SAFETY AUTHORITY

14th Floor, Centre Tower 3300 Bloor Street West Toronto, Ontario Canada M8X 2X4



People for Process Automation

STATUTORY DECL		* 4
Registration of Fit	tings	
I,Bernd Kunert, Quality Manager		
(Name and Position, e.g. President, Plant Manager	r, Chief Engineer)	· · · · · · · · · · · · · · · · · · ·
of Endress + Hauser Wetzer GmbH+Co KG (Name of Manufacturer)		
		. 40 (0304) 2.09 440
Located at	+49 (8361) 3 08-0 (Telephone No.)	+49 (8361) 3 08-110 (Fax No.)
do solemnly declare that the fittings listed hereunder, which are subject that and Pressure Vessels Regulation, comply with all of the requirements of	to the Technical Standar of	ds and Safety Act, Boilers
(Title of recognized North American Standard Which specifies the dimensions, materials of construction, pressure/temperature	e ratings, identification marki	
or are not covered by the provisions of a recognized North American states ASME B31.3, ASME Bioprocessing Equipment as supported by the attached data pressure/temperature ratings and the basis for such ratings, the marking of	which identifies the dimensi	ons, material of construction,
I further declare that the manufacture of these fittings is controlled by a quality sy which has been verified by the following authority,SQS	rstem meeting the requiren	nents of <u>ISO 9001:2008</u>
The items covered by this declaration, for which I seek registration, are category _F this application, the following information and/or test data are attached as follows: ITHERM TT411 Thermowells; Drawings: 10000007051, 10000007052, 10000007053, 10000007064, 1000		
SR-TW-E+H-Rev0 for MAWP, Design temperature, MDMT& Material of construction.		
Declared before me at in the		_ OT
the day ofAD 20		
Commissioner for Oaths:		M00960
		///
(Printed name)	1/1/1	
	W/ MM	
(Signature)	(Signature of	Declarer)
FOR OFFICE USE ONL	Otlanda	Boilers and
To the best of my knowledge and belief, the application meets the requirements of <i>Technical Standards and Safety Act</i> , Boilers and Pressure Vessels Regulation, and Safety Act, Boilers and Pressure Vessels Regulation, and Pressure Vessels Regulation Reg	and Safety	Pressure Vessel Safety Progran
CSA Standard B51 and is accepted for registration in Pategory	Additionty	
CRN: 0F17572.5A001	REC	HSTERED
MARKVA/Cic PENG	CRNOP	75,72.57,00
negistered by.	Cianada	Waln
Dated: MARCH 23, 1617	Signed:	ARCH 23, 2017
NOTE: This registration expires on APRIL 2, 625		CONTROL OF THE CONTRO
PEGISTRATION. ADDITION OF TT412 DWG.1	FEB 19.2017 Fol \$ 10000008805	- LUBE MORE OF

M00960

URNr.

/2016

(M/cw)

I hereby certify that the above standing is the true signature, signed before me of

Mr. Bernd Josef KUNERT, born on the 22nd of December 1962, resident 87466 Oy-Mittelberg, Haupstr. 29,

identified through presentation of his german identification card.

Nesselwang, the 14th of June 2016

Dr. Hans Michael Malzer, notary public

Scope of Registration Summary

Product:

Sanitary Thermowells

Code: ASME B31.3

CRN OF 145725 ADD1
CRN OF 145725 ADD1
Technical Standards & Safety Authority
Boilers & Pressure
Rollers & Pressure
Safety Program

Drawings: 10000007051, 10000007052, 10000007053, 10000007064, 10000008805

Catalogue: iTHERM TT411, TT412

Thermowell Product	Drawing [5]	Material	Size [5]	MAWP	Max Temp. °C (°F)
Tri-Clamp Sanitary Ferrule [1]	10000007051	A276/A479 316L A269 TP316L A240 316/316L A276 N10276 C-276 A574 N10276 C-276	DN8-18 (0.5"-0.75")	16 bar (232 psi)	-40 to 650 °C (-40 to 1202 °F)
Tri-Clamp, ISO2852 Sanitary Ferrule [1]	10000007051 10000007052 10000007053 10000007064	A276/A479 316L A269 TP316L A240 316/316L A276 N10276 C-276 A574 N10276 C-276	DN12-21.3 (1/2")	16 bar (232 psi)	-40 to 650 °C (-40 to 1202 °F)
Tri-Clamp, ISO2852 Sanitary Ferrule [1]	10000007051 10000007052 10000007053 10000007064	A182 F316L A269 TP316L A240 316/316L A276 N10276 C-276 A574 N10276 C-276	DN25-38 (1"-1.5") DN40-51 (2")	16 bar (232 psi)	-40 to 650 °C (-40 to 1202 °F)
Tri-Clamp, ISO2852 Sanitary Ferrule [1]	10000007052 10000007053 10000007064 10000008805	A182 F316L A269 TP316L A240 316/316L A276 N10276 C-276 A574 N10276 C-276	DN63.5 (2.5"), DN70-76.5 (3")	16 bar (232 psi)	-40 to 650 °C (-40 to 1202 °F)
DIN11851 [1]	10000007051 10000007052 10000007053 10000007064	A276/A479 316L A276 N10276 C-276 A574 N10276 C-276	DN25	40 bar (580 psi)	-40 to 600 °C (-40 to 1112 °F)

Endress+Hauser Wetzer GmbH+Co. KG

			Boilers & Ply Program	agram	
Thermowell Product	Drawing [5]	Material	Size [5]	MAWP	Max Temp. °C (°F)
DIN11851 [1]	10000007051 10000007052 10000007053 10000007064	A276/A479 316L A276 N10276 C-276 A574 N10276 C-276	DN32, DN40, *DN50	40 bar (580 psi)	-40 to 600 °C (-40 to 1112 °F)
Spherical- Cylindrical Weld-in adapter [3]	10000007051	A276/A479 316L A269 TP316L A240 316/316L A276 N10276 C-276 A574 N10276 C-276	D30 x D40mm	40 bar (580 psi)	-40 to 600 °C (-40 to 1112 °F)
Spherical Weld-in adapter [3]	10000007051 10000007052 1000007053 10000007064	A276/A479 316L A276 N10276 C-276 A574 N10276 C-276	D25	40 bar (580 psi)	-40 to 600 °C (-40 to 1112 °F)
Cylindrical Weld-in adapter [3]	10000007051 10000007052 10000008805	A276/A479 316L A269 TP316L A240 316/316L A276 N10276 C-276 A574 N10276 C-276	D30 x 40mm (D1" NPS) D1/2" NPS, D3/4" NPS	40 bar (580 psi)	-40 to 600 °C (-40 to 1112 °F)
Weld-in adapter	10000007051	A276/A479 316L A269 TP316L A240 316/316L A276 N10276 C-276 A574 N10276 C-276	D12 x 40mm	40 bar (580 psi)	-40 to 600 °C (-40 to 1112 °F)
ISO228 Thread-in adapter	10000007051 10000007052 [2]	A276/A479 316L A269 TP316L A240 316/316L A276 N10276 C-276 A574 N10276 C-276	G3/8 M12x1 metal-to-metal G1/2 metal-to-metal	16 bar (232 psi)	-40 to 650 °C (-40 to 1202 °F)
ISO228 Thread-in adapter	10000007052 10000007053 10000007064 10000008805	A182 F316L A269 TP316L A240 316/316L A276 N10276 C-276 A574 N10276 C-276	G1 for FLT50 G3/4 for FLT50 G3/4 for FLT20	40 bar [6] (580 psi)	-40 to 500 °C (-40 to 932 °F)
Type B Varivent [1]	10000007052	A276/A479 316L A276 N10276 C-276 A574 N10276 C-276	31 mm	10 bar (145 psi)	-40 to 650 °C (-40 to 1202 °F)

page 2/4

Thermowell Product	Drawing [5]	Material	Size [5]	MAWP	Max Temp. °C (°F)
Type F, N Varivent [1]	10000007052 10000007064	A276/A479 316L A276 N10276 C-276 A574 N10276 C-276	50 mm, 68 mm	10 bar (145 psi)	-40 to 650 °C (-40 to 1202 °F)
DN11864-1-A [1]	10000007052	A276/A479 316L A269 TP316L A276 N10276 C-276 A574 N10276 C-276	DN25, DN40	40 bar (580 psi)	-40 to 500 °C (-40 to 932 °F)
SMS1147	10000007052	A276/A479 316L A269 TP316L A240 316/316L A276 N10276 C-276 A574 N10276 C-276	DN25, DN38, *DN51	25 bar (362 psi)	-40 to 600 °C (-40 to 1112 °F)
APV	10000007052	A276/A479 316L A269 TP316L A240 316/316L A276 N10276 C-276 A574 N10276 C-276	DN50	25 bar (362 psi)	-40 to 600 °C (-40 to 1112 °F)
plognl	10000007052	A182 F316L A269 TP316L A240 316/316L A276 N10276 C-276 A574 N10276 C-276	∅25mm x 30mm ∅25mm x 46mm	25 bar (362 psi)	-40 to 600 °C (-40 to 1112 °F)
Neumo Biocontrol	10000007052	A276/A479 316L A269 TP316L A240 316/316L A276 N10276 C-276 A574 N10276 C-276	D25, D50, D65	16 bar (232 psi)	-40 to 600 °C (-40 to 1112 °F)
					1

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THIS IS PART OF THIS IS A Safety huthority can be seen be seen being a safety program and sa

Clamp shall have a valid CRN registered by the clamp supplier and with a pressure rating appropriate to the application but no greater than the ferrule MAWP indicated above. Note that Tri-Clamp is dimensionally compatible with ISO2852 and ASME 11 Ferrule supplied exactly as per drawing indicated in table above. Clamp to be provided by others. Clamp not included Bioprocessing Equipment Standards.

[2] Drawing 10000007052 includes only G1/2 metal-to-metal connection.

[3] Weld-in adapter provided as per drawing indicated in table above. Weld to be specified by others and the weld pressure equipment/tank/vessel to which the weld-in adapter is attached to be provided by others and separately CRN approved.

[4] Factory full penetration weld interface between probe and adapter tested. See calculations for further analysis. [5] For details of probe lengths and/or instrumentation connections, see respective drawings. [6] G1 for FLT50 MAWP 25 bar (362 psi) at max 150 °C (302 °F); G3/4 for FLT50/FLT20 MAWP 40 bar at max 100 °C (212 °F)

pproval engineer	2017-02-19
4	Date Signed: _
Title:	ق ا
ınzelt	Stated fact
Michael Pfanzelt	i.A.
Approved by: Mich	Approval Signature:

The above signed declares that the contents of this document are accurate, complete and true.

| Boilers & Pressure Vessels |

Safety Program

Standards & Safety Authority |



Endress+Hauser Wetzer GmbH+Co.KG, Obere Wank 1, DE- 87484 Nesselwang

Ianet Townsend CSA International 178 Rexdale Boulevard Toronto, ON M9W 1R3

Ph: 416.747.4291 Fax: 416.401.6795

Email: janet.townsend@csagroup.org

Endress + Hauser

People for Process Automation

Contact

Michael Pfanzelt

FES

Phone +498361 308 479

Michael.Pfanzelt@wetzer.endress.com

Nesselwang, 19 February 2017

Endress + Hauser Thermowell iTHERM TT411, TT412 CRN registration addendum to CSA-0F1502.6 (Quebec & Saskatchewan)

Dear Ms. Townsend.

We are pleased to submit our addendum application providing additional variants of thermowells previously CRN registered under the TT411 brand name to include the TT412 brand name which registers drawings 10000007051, 10000007052, 10000007053, 1000007064. The TT412 brand name addition, which is the subject of this addendum pertains solely to drawing 10000008805. In drawing 10000008805 the only change of design that differs from CRN approved drawing under TT411 brand name are the instrumentation connections to the thermowells at the top side of the thermowells. These thermometer/thermocouple instrumentation connections are outside the pressure boundary and are not subject to process pressure. However, for the record we have provided a revised report to include this explanation and to add drawing 10000008805. The attached forms and documentation in support of Ontario Category F fitting addendum application per CSA B51 para. 4.2.8 (b) as follows:

- 1. Calculation TW-E+H-SAN-Rev1 (2 copies)
- 2. Previously registered Drawings: (2 copies)

· 10000007051, 10000007052, 10000007053, 10000007064

3. New addendum drawing 10000008805 (2 copies)

4. Scope of Registration Summary SR-TW-E+H-Rev0 (2 copies)

5. Previously registered iTHERM TT411 catalogue

6. New addendum iTHERM TT412 catalogue

7. TSSA statutory declaration (2 originals notarized)

ATTACHMENT TO 178 Rexdate Boulevard, Foronto, UN Canada M9W 1R3

Scope of Registration Summary

Product:

Sanitary Thermowells

Code: ASME B31.3

Drawings: 10000007051, 10000007052, 10000007053, 10000007064, 10000008805

Catalogue: iTHERM TT411, TT412



Thermowell Product	Drawing [5]	Material	Size [5]	MAWP	Max Temp. °C (°F)
Tri-Clamp Sanitary Ferrule [1]	10000007051 10000007052	A276/A479 316L A269 TP316L A240 316/316L A276 N10276 C-276 A574 N10276 C-276	DN8-18 (0.5"-0.75")	16 bar (232 psi)	-40 to 650 °C (-40 to 1202 °F)
Tri-Clamp, ISO2852 Sanitary Ferrule [1]	10000007051 10000007052 10000007053 10000007064 10000008805	A276/A479 316L A269 TP316L A240 316/316L A276 N10276 C-276 A574 N10276 C-276	DN12-21.3 (1/2")	16 bar (232 psi)	-40 to 650 °C (-40 to 1202 °F)
Tri-Clamp, ISO2852 Sanitary Ferrule [1]	10000007051 10000007052 10000007053 10000007064 10000008805	A182 F316L A269 TP316L A240 316/316L A276 N10276 C-276 A574 N10276 C-276	DN25-38 (1"-1.5") DN40-51 (2")	16 bar (232 psi)	-40 to 650 °C (-40 to 1202 °F)
Tri-Clamp, ISO2852 Sanitary Ferrule [1]	1000007052 1000007053 1000007064 10000008805	A182 F316L A269 TP316L A240 316/316L A276 N10276 C-276 A574 N10276 C-276	DN63.5 (2.5"), DN70-76.5 (3")	16 bar (232 psi)	-40 to 650 °C (-40 to 1202 °F)
DIN11851 [1]	10000007051 10000007052 10000007053 10000007064	A276/A479 316L A276 N10276 C-276 A574 N10276 C-276	DN25	40 bar (580 psi)	-40 to 600 °C (-40 to 1112 °F)



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Thermowell Product	Drawing [5]	Material	Sizo [5]	C.R.N.:	MAWPE	Max Temp. °C (°F)
DIN11851 [1]	1000007051 1000007052 1000007053 10000007064	A276/A479 316L A276 N10276 C-276 A574 N10276 C-276	DN32, DN40, *DN5	i /a Rexidale Book	40 bar (580 psi)	-40 to 600 °C (-40 to 1112 °F)
Spherical- Cylindrical Weld-in adapter [3]	10000007051 10000007052	A276/A479 316L A269 TP316L A240 316/316L A276 N10276 C-276 A574 N10276 C-276	D30 x D40mm		40 bar (580 psi)	-40 to 600 °C (-40 to 1112 °F)
Spherical Weld-in adapter [3]	1000007051 1000007052 1000007053 10000007064	A276/A479 316L A276 N10276 C-276 A574 N10276 C-276	D25		40 bar (580 psi)	-40 to 600 °C (-40 to 1112 °F)
Cylindrical Weld-in adapter [3]	10000007051 10000007052 10000008805	A276/A479 316L A269 TP316L A240 316/316L A276 N10276 C-276 A574 N10276 C-276		D30 x 40mm (D1" NPS) D1/2" NPS, D3/4" NPS		-40 to 600 °C (-40 to 1112 °F)
Weld-in adapter	10000007051	A276/A479 316L A269 TP316L A240 316/316L A276 N10276 C-276 A574 N10276 C-276	D12 x 40mm		40 bar (580 psi)	-40 to 600 °C (-40 to 1112 °F)
ISO228 Thread-in adapter	10000007051 10000007052 [2]	A276/A479 316L A269 TP316L A240 316/316L A276 N10276 C-276 A574 N10276 C-276	G3/8 M12x1 metal-to-metal G1/2 metal-to-metal		16 bar (232 psi)	-40 to 650 °C (-40 to 1202 °F)
ISO228 Thread-in adapter	10000007052 10000007053 10000007064 10000008805	A182 F316L A269 TP316L A240 316/316L A276 N10276 C-276 A574 N10276 C-276	G1 for FLT50 G3/4 for FLT50 G3/4 for FLT20		40 bar [6] (580 psi)	-40 to 500 °C (-40 to 932 °F)
Type B Varivent [1]	10000007052 10000007064	A276/A479 316L A276 N10276 C-276 A574 N10276 C-276	31 mm		10 bar (145 psi)	-40 to 650 °C (-40 to 1202 °F)

Thermowell Product	Drawing [5]	Material	Size [5]	MAWP	Max Temp. °C (°F)
Type F, N Varivent [1]	10000007052 10000007064	A276/A479 316L A276 N10276 C-276 A574 N10276 C-276	50 mm, 68 mm	10 bar (145 psi)	-40 to 650 °C (-40 to 1202 °F)
DN11864-1-A [1]	10000007052	A276/A479 316L A269 TP316L A276 N10276 C-276 A574 N10276 C-276	DN25, DN40	40 bar (580 psi)	-40 to 500 °C (-40 to 932 °F)
SMS1147	10000007052	A276/A479 316L A269 TP316L A240 316/316L A276 N10276 C-276 A574 N10276 C-276	DN25, DN38, *DN51	25 bar (362 psi)	-40 to 600 °C (-40 to 1112 °F)
APV	10000007052	A276/A479 316L A269 TP316L A240 316/316L A276 N10276 C-276 A574 N10276 C-276	DN50	25 bar (362 psi)	-40 to 600 °C (-40 to 1112 °F)
Ingold	10000007052	A182 F316L A269 TP316L A240 316/316L A276 N10276 C-276 A574 N10276 C-276	Ø25mm x 30mm Ø25mm x 46mm	25 bar (362 psi)	-40 to 600 °C (-40 to 1112 °F)
Neumo Biocontrol	10000007052	A276/A479 316L A269 TP316L A240 316/316L A276 N10276 C-276 A574 N10276 C-276	D25, D50, D65	16 bar (232 psi)	-40 to 600 °C (-40 to 1112 °F)



NOTES:

- [1] Ferrule supplied exactly as per drawing indicated in table above. Clamp to be provided by others. Clamp not included. Clamp shall have a valid CRN registered by the clamp supplier and with a pressure rating appropriate to the application but no greater than the ferrule MAWP indicated above. Note that Tri-Clamp is dimensionally compatible with ISO2852 and ASME Bioprocessing Equipment Standards.
- [2] Drawing 10000007052 includes only G1/2 metal-to-metal connection.
- [3] Weld-in adapter provided as per drawing indicated in table above. Weld to be specified by others and the weld pressure equipment/tank/vessel to which the weld-in adapter is attached to be provided by others and separately CRN approved.
- [4] Factory full penetration weld interface between probe and adapter tested. See calculations for further analysis.
- [5] For details of probe lengths and/or instrumentation connections, see respective drawings.
- [6] G1 for FLT50 MAWP 25 bar (362 psi) at max 150 °C (302 °F); G3/4 for FLT50/FLT20 MAWP 40 bar at max 100 °C (212 °F)

Approved by:	Micha	el Pfanzel	t	Title:	Approv	al engineer	
			Motern found				
Approval Signat	ure:	i.A.	James 1	Date S	Signed: _	2017-02-19	

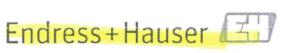
The above signed declares that the contents of this document are accurate, complete and true.





TECHNICAL STANDARDS & SAFETY AUTHORITY

14th Floor, Centre Tower 3300 Bloor Street West Toronto, Ontario Canada M8X 2X4



People for Process Automation

Registration	of Fittings	
1	or Fittings	
I, Bernd Kunert, Quality Manager Quality Manager (Name and Position, e.g. President, Plant I	Manager Chief Engineer)	
	vianager, Oner Engineer)	
of Endress + Hauser Wetzer GmbH+Co KG (Name of Manufactu	rer)	
Located at DE 97494 Neccelyand	+49 (8361) 3 08-0 +49 (8361) 3 08-1	10
Located atDE-87484 Nesselwang (Plant Address)	(Telephone No.) (Fax No.)	
do solemnly declare that the fittings listed hereunder, which are su and Pressure Vessels Regulation, comply with all of the requiren		Boilers
(Title of recognized North Americal which specifies the dimensions, materials of construction, pressure/temporal which specifies the dimensions of construction of the	an Standard) perature ratings, identification marking the fittings and sen	vice;
or are not covered by the provisions of a recognized North Americ ASME B31.3; ASME Bioprocessing Equipment as supported by the attached pressure/temperature ratings and the basis for such ratings, the ma	d data which identifies the dimensions, material of const	ply with truction,
I further declare that the manufacture of these fittings is controlled by a qua- which has been verified by the following authority,SQS	ality system meeting the requirements of ISO 9001:2	2008
The items covered by this declaration, for which I seek registration, are category	F type fittings. In sur	oport of
this application, the following information and/or test data are attached as follows ITHERM TT411 Thermowells, Drawings: 1000007051, 10000007052, 10000007053, 100000070 SR-TW-E+H-Rev0 for MAWP. Design temperature.MDMT& Material of construction.	: 064, 10000008805; See attached scope of registration summary:	
Declared before me at in th	e of	
45.00		
the day of AD 20	M00957	7
Commissioner for Oaths:	1	
		1
(Printed name)	10/ Mest	
(Printed name) (Signature)	(Signature of Declarer)	
(Signature)		
	EONLY	
(Signature) FOR OFFICE USE To the best of my knowledge and belief, the application meets the requireme Technical Standards and Safety Act, Boilers and Pressure Vessels Reguli	E ONLY onts of the	
(Signature) FOR OFFICE USE To the best of my knowledge and belief, the application meets the requireme Technical Standards and Safety Act, Boilers and Pressure Vessels Regult CSA Standard B51 and is accepted for registration in Category	E ONLY onts of the) CSA Group
(Signature) FOR OFFICE USE To the best of my knowledge and belief, the application meets the requireme Technical Standards and Safety Act, Boilers and Pressure Vessels Reguli	E ONL Y Ints of the lation, and REGISTERED	
(Signature) FOR OFFICE USE To the best of my knowledge and belief, the application meets the requireme Technical Standards and Safety Act, Boilers and Pressure Vessels Regult CSA Standard B51 and is accepted for registration in Category	E ONL Y Ints of the ation, and	
(Signature) FOR OFFICE USE To the best of my knowledge and belief, the application meets the requireme Technical Standards and Safety Act, Boilers and Pressure Vessels Regult CSA Standard B51 and is accepted for registration in Category CRN: CSA - OF 15026	E ONL Y Ints of the lation, and REGISTERED	Group



URNr.

M00957 /2016

(M/cw)

I hereby certify that the above standing is the true signature, signed before me of

Mr. Bernd Josef KUNERT, born on the 22nd of December 1962, resident 87466 Oy-Mittelberg, Haupstr. 29,

identified through presentation of his german identification card.

Nesselwang, the 14th of June 2016

Dr. Hans Michael Malzer, notary public



REGISTERED

CRN: CJA - OFITOS. 6

Registration Process administered by CSA Group per CSA B51

Technical Review performed per CSA B51 Performed by: ANRIC Enterprises Inc.

URM. MOG 471 / 2017

MANUFACTURERS NAM		HWEST TERRITORIES	
	E: Endress + Hauser Wetzer GmbH+Co	KG	
MANUFACTURERS ADD	RESS: DE-87484 Nesselwang		
PLANT LOCATIONS: Ne	sselwang, Germany; Greanwood, USA; Suz	chou China	
	FITTINGS TO BE REGISTERED. CIRCLE C		TITLE DE THE STANGARD DE CONSTAUCT
B Flanges: all flenges C Valves: all line valves D Expansion joints, flexible E Strainers, filters, sepand Measuring devices, inclupressure transmitters G Centified capacity-rated bollers, pressure vessel H Pressure retaining comp	iding pressure gauges, level gauges, sight gla pressure relief devices acceptable as primary s, piping and fusible plugs onenis that do not fall into one of the above c	esee, levels, or over pressure protection on stegories	ASME 831.3; ASME Bioprocessing Equipmen
	less 1 🗆 Class 2 🗀 Class 3 🗇, (Meeting Cl		
	name, trademark, or logo as it will indress + Hauser (777	FORGED E WELDED L WROUGHT E CAST COMER OTHER THECH THERE
	People for Process Automation		
sponsibility for the quality v knowledge represents t noerature ratings, and id	rager (we note 3) employed by Endress-Hi of the end product do solemnly declare he product for which registration is accura- entification markings are in accordance	that the information contained ht. The dimensions, materials with the herain named stands	d in this form is true end to the best : s of construction, pressure irds. I further declare that the
Bernd Kunert, Quality Man sponsibility for the quality knowledge represents to apperature ratings, and ide nufacture of these fitting to part and has been you	r of the end product do solemnly declare he product for which registration is sougl entification markings are in accordance v is is regulated by a Quality Control Progr	that the information contains th. The dimensions, material with the herein named standa am which extends to each pla as being suitable for the	d in this form is true and to the best s of construction, pressure inds. I further declare that the ant where fabrication occurs in whole at purpose and I make this solemn
Bernd Kunert, Quality Man pensibility for the quality knowledge represents to apperature ratings, and id nufacture of these fitting in part and has been veri deration conscientiously	of the end product do solemnly declare he product for which registration is sough entification markings are in accordance to a is regulated by a Quality Control Progration by SOS	that the information contains th. The dimensions, meterials with the herein named standa am which extends to each pla as being suitable for the it is of the same force and eff	d in this form is true and to the best s of construction, pressure inds. I further declare that the ant where fabrication occurs in whole at purpose and I make this solemn
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ternd Kunert, Quality Man ponsibility for the quality knowledge represents to aperature ratings, and id nufacture of these fitting in part and has been ver deration conscientiously mature of Declarer:	of the end product do solemnly declare the product for which registration is acuge entification markings are in accordance to a regulated by a Quality Control Progrifted by SQS believing it to be true and though that	that the information contains th. The dimensions, material with the herein named stands am which extends to each place as being suitable for the lit is of the same force and eff USETHIS	d in this form is true and to the best is of construction, pressure irds. I further dactare that the saft where fabrication occurs in wholest purpose and I make this solemn fect as if made under eath. SPACE FOR THE
Bernd Kunert, Quality Man sponsibility for the quality knowledge represents to apperature ratings, and id anufacture of these filting an part and has been ven claration conscientiously anature of Declarar: clarad before me at a day of anniasioner of Oatha	of the end product do solemnly declare he product for which registration is sough entification markings are in accordance to a is regulated by a Quality Control Progration by SOS	that the information contains th. The dimensions, material with the herein named stands am which extends to each place as being suitable for the lit is of the same force and eff USETHIS	d in this form is true and to the best s of construction, pressure inds. I further daciare that the ant where fabrication occurs in whole at purpose and I make this solemn fect as if made under oath.
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Bernd Kunert, Quality Man ponsibility for the quality knowledge represents to apperature ratings, and id anufacture of these filtre claration conscientiously nature of Declarer: clared before me at a day of anmissioner of Oathe tolary Public: (sign)	of the end product do solemnly declare he product for which registration is acuge entification markings are in accordance to its regulated by a Quality Control Progrified by SQS beligging it to be true and knowing that AD (Affix Official anal to the right) This space for Regu	that the Information contains th. The dimensions, material with the herein named standa am which extends to each place as being suitable for the it is of the same force and eff USETHIS OFFI	d in this form is true and to the best sof construction, pressure ands, I further declare that the sent where fabrication occurs in whole triprose and I make this solemn fect as if made under oath. SPACE FOR THE CIAL SEAL
Bernd Kunert, Quality Man pensibility for the quality knowledge represents to pperature ratings, and in ufacture of these fitting in part and has been ver claration conscientiously nature of Declarer: clared before me at a	r of the end product do solemnly declare he product for which registration is aduging entification markings are in accordance to a is regulated by a Quality Control Progrified by SOS belighing it to be true and knowing that AD (Affix Official again to the right) This space for Regular registration must be revalidated after the	that the information contains th. The dimensions, material with the herein named standa which extends to each place as being suitable for the lit is of the same force and efficient the same	d in this form is true and to the best sof construction, pressure inds. I further dactare that the ant where fabrication occurs in whole tpurpose and I make this solemn fect as if made under eath. SPACE FOR THE CIAL SEAL
Bernd Kunert, Quality Man pensibility for the quality knowledge represents to aperature ratings, and id aperature of these fitting a part and has been ven claration conscientiously nature of Declarer: clared before me at a day of anniesioner of Oatha tolary Public: (sign) Thi	r of the end product do solemnly declare he product for which registration is aduging entification markings are in accordance to a is regulated by a Quality Control Progrified by SOS belighing it to be true and knowing that AD (Affix Official again to the right) This space for Regular registration must be revalidated after the	that the information contains that the informations, material with the herein named stands which extends to each place as being suitable for the lit is of the same force and efficient of the	d in this form is true and to the best sof construction, pressure inds. I further declare that the ent where fabrication occurs in whole the purpose and I make this solemn fect as if made under eath. SPACE FOR THE CIAL SEAL CIAL SEAL CREDWARD ISLAND
Bernd Kunert, Quality Man pensibility for the quality knowledge represents to apperature ratings, and in perature of these fitting an pari and has been ver claration conscientiously nature of Declarer: clared before me at a	r of the end product do solemnly declare he product for which registration is aduging entification markings are in accordance to a is regulated by a Quality Control Progrified by SOS belighing it to be true and knowing that AD (Affix Official again to the right) This space for Regular registration must be revalidated after the	that the information contains that the informations, material with the herein named stands which extends to each place as being suitable for the lit is of the same force and efficient of the	d in this form is true and to the best sof construction, pressure ands. I further declare that the ant where fabrication occurs in whole the purpose and I make this solemn fect as if made under eath. SPACE FOR THE CIAL SEAL CIAL SEAL EXTERIORCE, ICE EDWARD ISLAND ND & ENVIRONMENT

VRM. MOG471 | 20/7

NOVA SCOTIA

NEW BRUNSWICK

UNIFORM STATUTORY DECLARATION FORM FOR THE REGISTRATION OF FITTING DESIGNS

PRINCE EDWARD ISLAND

✓ NEWFOUNDLAND AND LABRADOR

٧	NUNAVUT	V YUKON	✓ NORTHWES	T TERRITOR	ES							
	MANUFACTURERS NAME:	Endress + Hauser Web	zer GmbH+Co KG									
	MANUFACTURERS ADDRES	SS: DE-87484 Nesselwa	ang									
	PLANT LOCATIONS: Nessel											
		TINGS TO BE REGISTER			LY		Inu	OF THE	STANDA	RO OF	CONSTRUC	CTION
	A Pipe fittings, including coup B Flanges: all flanges	ilings, tees, elbows, Ys, plu	ugs, unions, pipe caps,	or reducers								
1	C Valves: all line valves											
	D Expansion joints, flexible co E Strainers, filters, separators		mblies: all types									
1	Measuring devices, including pressure transmitters	g pressure gauges, level g	jauges, sight glasses, l	evels, or			ASME	D31 3 /	SME Bio	DIOCOE	sing Equipr	laam
	G Certified capacity-rated pres		table as primary over p	ressure protect	tion on			2010,7	OINE DIO	process	any Edoily	I CIN
	boilers, pressure vessels, pi H Pressure retaining compone		e of the above categori	es								
	N Nuclear components: Class				ments)							
Ī	SHOW MANUFACTURERS NA	ME, TRADEMARK, OR L	OGO AS IT WILL APP	EAR ON THE	PRODU	CT			E QF, CON			
	Enc	iress+Hai	usar (F				CAST		THER 6	WRO	DUGHT &	
	EHC	11622+Udi	usei (L)				maci		EK:			
		People for Process Au	utomation									
r	LIST OF SUPPORTING DOCU	MENTATION AND IDENT	TEICATION OF THE A	CTUAL ITEMS	TO BE	REGI	STER	ED:		_		-
on.	ITHERM TT411 Thermowells; Drawings			4, 10000008805;	See attac	hed sco	pe of re	gistration	summan	4		
l	SR-TW-E+H-Rev0 for MAVVP, Design t	temperature, MDM 18 Material of	r construction,									
_	ECLABATION.											
1	ECLARATION: Bernd Kunert, Quality Manage	Er (see note 3) employs	ed by Endress+Hauser W	etzer GmbH + Co	KGand	being	the p	erson	having	fuli a	uthority	and
re	sponsibility for the quality of y knowledge represents the	the end product do sol	emnly declare that the	ne information	n conta	ined i	in this	form i	s true a	ind to	the bes	st of
te	mperature ratings, and ident	lification markings are in	n accordance with th	e herein nam	ned star	ndard	s. I fu	rther d	eclare	that t	he	
or	anufacture of these fittings is in part and has been verified	d by SQS	$\overline{}$	as being suit	able for	r that	DUMO	se and	I I make	e this	solemn	
de	claration conscientiously be	lighing it to be true ing	knowing that it is of	the same for	rce and	effec	t as if	made	under	oath.		
Si	gnature of Declarer:	and this	V	10047	1							
12	eclared before me at	- 0 -0		USE	THI	s s	SPA	CE	FO	R -	THE	
	is day of	AD			OF	FIC	LA	L S	EAL			
	ommissioner of Oaths											
٦C	Notary Public: (sign)											
_	(4	Affix Official seal to the rig		A cath a ribe com		_						
	This re	inis egistration must be reva	space for Regulatory a alidated after ten (10		the ďat	e of a	cçept	ance		- 21	Fa.	
	OH1242 Q 4d						New	a brad				1
С	:RN:	-						rvice				i
F	ID#: 2115	-			R	Malati	red C		242	90	A00.1	/
					-	€ 18		17/	04/1	8	2	
	otes: All fittings shall be registered in	n the name of the Manufa	cturer.		E	ngine	ering ar	d loss	tion Se	right		
2.	Each category shall be suppor	rted with two Statutory Dec			F	logist	erend	1	1	27		
3.	The declaration shall be made	by the person having full	authority and						ORUYO			
	sponsibility for the quality of the Quality control programs shall		ion		7				Y ACT A JRE VES		ND	
	a maximum interval of five (5))										6 06/200)3
									_			

URM. MOG 471 / 2017

MANUFACTURERS NAM		HWEST TERRITORIES	
	E: Endress + Hauser Wetzer GmbH+Co	KG	
MANUFACTURERS ADD	RESS: DE-87484 Nesselwang		
PLANT LOCATIONS: Ne	sselwang, Germany; Greanwood, USA; Suz	chou China	
	FITTINGS TO BE REGISTERED. CIRCLE C		TITLE DE THE STANGARD DE CONSTAUCT
B Flanges: all flenges C Valves: all line valves D Expansion joints, flexible E Strainers, filters, sepand Measuring devices, inclupressure transmitters G Centified capacity-rated bollers, pressure vessel H Pressure retaining comp	iding pressure gauges, level gauges, sight gla pressure relief devices acceptable as primary s, piping and fusible plugs onenis that do not fall into one of the above c	esee, levels, or over pressure protection on stegories	ASME 831.3; ASME Bioprocessing Equipmen
	less 1 🗆 Class 2 🗀 Class 3 🗇, (Meeting Cl		
	name, trademark, or logo as it will indress + Hauser (777	FORGED E WELDED L WROUGHT E CAST COMER OTHER THERESTEE OTHER
	People for Process Automation		
sponsibility for the quality v knowledge represents t noerature ratings, and id	rager (we note 3) employed by Endress-Hi of the end product do solemnly declare he product for which registration is accura- entification markings are in accordance	that the information contained ht. The dimensions, materials with the herain named stands	d in this form is true end to the best : s of construction, pressure irds. I further declare that the
Bernd Kunert, Quality Man sponsibility for the quality knowledge represents to apperature ratings, and ide nufacture of these fitting to part and has been you	r of the end product do solemnly declare he product for which registration is sougl entification markings are in accordance v is is regulated by a Quality Control Progr	that the information contains th. The dimensions, material with the herein named standa am which extends to each pla as being suitable for the	d in this form is true and to the best s of construction, pressure inds. I further declare that the ant where fabrication occurs in whole at purpose and I make this solemn
Bernd Kunert, Quality Man pensibility for the quality knowledge represents to apperature ratings, and id nufacture of these fitting in part and has been veri deration conscientiously	of the end product do solemnly declare he product for which registration is sough entification markings are in accordance to a is regulated by a Quality Control Progration by SOS	that the information contains th. The dimensions, meterials with the herein named standa am which extends to each pla as being suitable for the it is of the same force and eff	d in this form is true and to the best s of construction, pressure inds. I further declare that the ant where fabrication occurs in whole at purpose and I make this solemn
dernd Kunert, Quality Man pensibility for the quality knowledge represents to apperature ratings, and a nufacture of these fitting on parl and has been ver deration conscientiously mature of Declarer:	of the end product do solemnly declare he product for which registration is sough entification markings are in accordance to a is regulated by a Quality Control Progration by SOS	that the information contains th. The dimensions material with the herein named standa am which extends to each pk as being suitable for the it is of the same force and eff	d in this form is true and to the best of construction, pressure urds, I further declare that the safe where fabrication occurs in wholest purpose and I make this solemn fect as if made under eath.
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Bernd Kunert, Quality Man sponsibility for the quality knowledge represents to apperature ratings, and id anufacture of these filting an part and has been ven claration conscientiously anature of Declarar: clarad before me at a day of anniasioner of Oatha	of the end product do solemnly declare he product for which registration is sough entification markings are in accordance to a is regulated by a Quality Control Progration by SOS	that the information contains th. The dimensions, material with the herein named stands am which extends to each place as being suitable for the lit is of the same force and eff USETHIS	d in this form is true and to the best s of construction, pressure inds. I further daciare that the ant where fabrication occurs in whole at purpose and I make this solemn fect as if made under oath.
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Bernd Kunert, Quality Man ponsibility for the quality knowledge represents to apperature ratings, and id anufacture of these filtre claration conscientiously nature of Declarer: clared before me at a day of anmissioner of Oathe tolary Public: (sign)	of the end product do solemnly declare he product for which registration is acuge entification markings are in accordance to its regulated by a Quality Control Progrified by SQS beligging it to be true and knowing that AD (Affix Official anal to the right) This space for Regu	that the Information contains th. The dimensions, material with the herein named standa am which extends to each place as being suitable for the it is of the same force and eff USETHIS OFFI	d in this form is true and to the best sof construction, pressure ands, I further declare that the sent where fabrication occurs in whole triprose and I make this solemn fect as if made under oath. SPACE FOR THE CIAL SEAL
Bernd Kunert, Quality Man pensibility for the quality knowledge represents to pperature ratings, and in ufacture of these fitting in part and has been ver claration conscientiously nature of Declarer: clared before me at a	r of the end product do solemnly declare he product for which registration is aduging entification markings are in accordance to a is regulated by a Quality Control Progrified by SOS belighing it to be true and knowing that AD (Affix Official again to the right) This space for Regular registration must be revalidated after the	that the information contains th. The dimensions, material with the herein named standa which extends to each place as being suitable for the lit is of the same force and efficient the same	d in this form is true and to the best sof construction, pressure inds. I further dactare that the ant where fabrication occurs in whole tpurpose and I make this solemn fect as if made under eath. SPACE FOR THE CIAL SEAL
Bernd Kunert, Quality Man pensibility for the quality knowledge represents to aperature ratings, and id aperature of these fitting a part and has been ven claration conscientiously nature of Declarer: clared before me at a day of anniesioner of Oatha tolary Public: (sign) Thi	r of the end product do solemnly declare he product for which registration is aduging entification markings are in accordance to a is regulated by a Quality Control Progrified by SOS belighing it to be true and knowing that AD (Affix Official again to the right) This space for Regular registration must be revalidated after the	that the information contains that the informations, material with the herein named stands which extends to each place as being suitable for the lit is of the same force and efficient of the	d in this form is true and to the best sof construction, pressure inds. I further declare that the ent where fabrication occurs in whole the purpose and I make this solemn fect as if made under eath. SPACE FOR THE CIAL SEAL CIAL SEAL CREDWARD ISLAND
Bernd Kunert, Quality Man pensibility for the quality knowledge represents to apperature ratings, and in perature of these fitting an pari and has been ver claration conscientiously nature of Declarer: clared before me at a	r of the end product do solemnly declare he product for which registration is aduging entification markings are in accordance to a is regulated by a Quality Control Progrified by SOS belighing it to be true and knowing that AD (Affix Official again to the right) This space for Regular registration must be revalidated after the	that the information contains that the informations, material with the herein named stands which extends to each place as being suitable for the lit is of the same force and efficient of the	d in this form is true and to the best sof construction, pressure ands. I further declare that the ant where fabrication occurs in whole the purpose and I make this solemn fect as if made under eath. SPACE FOR THE CIAL SEAL CIAL SEAL EXTERIORCE, ICE EDWARD ISLAND ND & ENVIRONMENT

URM. MOG 471 / 20/77

DMILOKWIZIY	ATUTURT DECLARATION FORM	FUR THE REGISTRATION	OF FITTING DESIGNS
NEW BRUNSWICK NUNAVUT	NOVA SCOTIA PRINI YUKON PORT	CE EDWARD ISLAND THWEST TERRITORIES	NEWFOUNDLAND AND LABRADOR
MANUFACTURERS NAME:	Endress + Hauser Wetzer GmbH+Co	KG	
MANUFACTURERS ADDRES	S: DE-87484 Nesselwang		
	wang, Germany; Greenwood, USA; Su		
	TINGS TO BE REGISTERED. CIRCLE C		TITLE OF THE STANDARD OF CONSTRUCTION
B Flanges: all flanges C Valves: all line valves	ilings, tees, elbows, Ys, plugs, unions, pipe	, ,	
D Expansion joints, flexible co	onnections, and hose assemblies: all type: i, and sleam traps	3	
	g pressure gauges, level gauges, sight gla	esses, levels, or	ASME B31.3; ASME Bioprocessing Equipment
G Certified capacity-rated pre-	ssura rellef devices ecceptable as primary	over pressure protection on	
bollers, prossurs vessels, p H Pressurs retaining compone	liping and fusible plugs enis that do not fall into one of the above c	atagories	
N Nuclear components: Class	1 D Cises 2 D Class 3 D, (Meeting C	NSC or ASME requirements)	
SHOW MANUFACTURERS NA	ME. TRADEMARK, OR LOGO AS IT WIL	L APPEAR ON THE PRODUCT	TYPE OF CONSTRUCTION FORGED & WELDED & WROUGHT &
End	dress+Hauser 🛭	宝 .	CAST D OTHER STANDSON E
	People for Process Automation		THE STATE OF THE S
LIST OF SUPPORTING DOCU	IMENTATION AND IDENTIFICATION OF	THE ACTUAL ITEMS TO BE REG	ISTERED;
	is: 10000007051, 10000007052, 10000007053, 100	00007064, 10000008805; See attached sc	ope of registration summary:
SR-TW-E+H-RevO for MAWP, Design	temperature, MDMT& Material of construction.		1
my knowledge represents the	f the end product do solemnly declare product for which registration is soughtification markings are in accordance is regulated by a Quality Control Prograd by SQS	that the information contained int. The dimensions, materials with the herein named standar ram which extends to each plai	of construction, pressure da. I further declare that the nt where fabrication occurs in whole purpose and I make this spiemn
Signature of Declarer:	and Will	M00471	
Declared before me at	000		SPACE FOR THE
This day of	AD	OFFIC	CIAL SEAL
Commissioner of Oaths or Notary Public: (sign)		-	
	(Affix Official sesi to the right)		
-0.1		ulatory Authority use	
	registration must be revaildated after	PRESSURE	scceptance.
CRN: 0H1242.9 A	<u>ad.1</u>	ES BYROSONE VEC	
FID#: 2115		MOVASCOTIA	(4)
	_	Data April 13/17	
Notes:	1	C.R.N. OH 1343.984	IQ <u>T</u> OI
All fittings shall be registered Each category shall be sunner	in the name of the Manufacturer. orded with two Statutory Declaration	Dwg as described	-
forms and one copy of supporting	a documentation.	Signed Thomas Perry	1
 The declaration shall be made responsibility for the quality of the 	e by the person having full authority and e end product.	1 d 1	$\hat{\mathbf{C}}$
4. Quality control programs shall	be resubmitted for validation	Part One	/ and 40 Finders To 4 22 22 2
at a maximum interval of five (5)		BROWN ATION	Sect. 1.0 - Fittings Rev. 1 06/2003

URM. MO0471 20/7

NEW BRUNSWICK NUNAVUT	YUKON YUKON	PRINCE EDWARD ISLAND NORTHWEST TERRITORIES	NEWFOUNDLAND AND LABRADOR
MANUFACTURERS NAME	Endress + Hauser Wetzer	GmbH+Co KG	
MANUFACTURERS ADDR	ESS: DE-87484 Nesselwang		
	selwang, Germany, Greenwoo	od, USA; Suzhou China D. CIRCLE ONE CATEGORY ONLY	TITLE OF THE STANDARD OF CONSTRUCTION
A Pipe fittings, including co B Flanges: all flanges C Valves: all line valves		s, unions, pipė caps, or reducers	IIILE OF THE STANDARD OF CONSTRUCTION
E Strainers, filters, separate Measuring devices, inclu- pressure transmitters G Certified capacity-rated p boilers, pressure vessels	ors, and steam traps ding pressure gauges, level gau	iges, sight glasses, levels, or le as primary over pressure protection on	ASME B31.3; ASME Bioprocessing Equipment
		, (Meeting CNSC or ASME requirements)	
	name, trademark, or Loc Idress+Hau	ser EII	FORGED WELDED WROUGHT W CAST DOTHER BY DESCRIBE OTHER:
	People for Process Auto		machined
LIST OF SUPPOSTING DO	CLIMENTATION AND IDENTIE	ICATION OF THE ACTUAL ITEMS TO BE RE	GIETEDEN.
my knowledge represents themperature ratings, and idmanufacture of these fittings or in hard and has been very	of the end product do soler he product for which registra entification markings are in a is regulated by a Quality C fied by SQS	by Endress+Hauser Wetzer GmbH + Co KG and belinnly declare that the information containe ation is sought. The dimensions, material accordance with the herein named stands control Program which extends to each place as being suitable for the same force and eff	d in this form is true and to the best of s of construction, pressure ands. I further declare that the ant where fabrication occurs in whole at purpose and I make this solemn
Declared before me at	of the	11-11	SPACE FOR THE
This day of	AD		CIAL SEAL
Commissioner of Oaths or Notary Public: (sign)		- RANGE NOLING	71
	(Affix Official seal to the right		FETY
Thi	This s s registration must be revali	pace for Regulatory Authority use STIPE Ve dated after ten (10) years from the date of	racceptance.
CRN: 0H1242.9		REGISTRATION OF	
FID#: 2115		GRN OH	1242.97 Add
Each category shall be sur forms and one copy of suppor The declaration shall be m responsibility for the quality of	ade by the person having full at	aration CHIEF BOILER INOTE	3/2017
at a maximum interval of five (BLRs [PwSect. 1.0 - Fittings Rev. 1 06/2003
		FITTINGS CON	PONENTS

URM. MOG 471 / 20/77

DMIPURMSTA	ATUTURY DECLARATION FORM	I FOR THE REGISTRATION	OF FITTING DESIGNS			
NEW BRUNSWICK NUNAVUT	YNOVA SCOTIA PRINI YUKON PORT	CE EDWARD ISLAND THWEST TERRITORIES	NEWFOUNDLAND AND LABRADOR			
MANUFACTURERS NAME:	Endress + Hauser Wetzer GmbH+Co	KG				
MANUFACTURERS ADDRES	S: DE-87484 Nesselwang					
	wang, Germany; Greenwood, USA; Su					
	TINGS TO BE REGISTERED. CIRCLE		TITLE OF THE STANDARD OF CONSTRUCTION			
B Flanges: all flanges C Valves: all line valves	ilings, tees, elbows, Ys, pluge, unione, pipe	, .				
D Expansion joints, flexible co	onnections, and hose assemblies: all type: i, and sleam traps	3				
	g pressure gauges, level gauges, sight gia	asses, levels, or	ASME B31.3; ASME Bioprocessing Equipment			
G Certified capacity-rated pre-	ssura relief devices ecceptable as primary	over pressure protection on				
bollers, prossure vessels, p H Pressure retaining compone	liping and fusible plugs enis that do not fall into one of the above c	:atagories				
N Nuclear components: Class	1 D Cises 2 D Class 3 D, (Meeting C	NSC or ASME requirements)				
SHOW MANUFACTURERS NA	ME. TRADEMARK, OR LOGO AS IT WIL	LL APPEAR ON THE PRODUCT	TYPE OF CONSTRUCTION FORGED & WELDED & WROUGHT &			
End	dress+Hauser	록 }	CAST D OTHER STANDSON E			
	People for Process Automation		11145/11/104			
LIST OF SUPPORTING DOCL	IMENTATION AND IDENTIFICATION OF	THE ACTUAL ITEMS TO BE REG	ISTERED:			
	is: 10000007051, 10000007052, 10000007053, 100	000007084, 10000008805; See attached sc	ope of registration summary:			
SR-TW-E+H-Rev0 for MAWP, Design	temperature, MDMT& Material of construction.		1			
my knowledge represents the	f the end product do solemnly declare product for which registration is soughtification markings are in accordance is regulated by a Quality Control Prograd by SQS	a that the information contained ght. The dimensions, materials with the herein named standan gram which extends to each plai	of construction, pressure ds. I further declare that the it where fabrication occurs in whole purpose and I make this splemn			
Signature of Declarer:	and this	M00471				
Declared before me at	000	USETHIS	SPACE FOR THE			
This day of	AD	OFF10	CIAL SEAL			
Commissioner of Oaths or Notary Public: (sign)		-				
	(Affix Official sesi to the right)					
		ulatory Authority use	teres			
	registration must be revalidated after	PRESSURE	acceptance.			
CRN: 0H1242.9 A	<u>ad.1</u>	SP B THE VER				
FID#: 2115		MONASCOTIA	(4)			
	_	Date April 13/17				
Notes:	1	C.R.N. OH 1343.984	DIDI			
All fittings shall be registered Each category shall be sunner	In the name of the Manufacturer. orted with two Statutory Declaration	Dwg. as described	,			
forms and one copy of supportin	a documentation.	Signed Thomas Perry	1			
 The declaration shall be made responsibility for the quality of the 	e by the person having full authority and e end product.	1 d 1	$\hat{\mathbf{C}}$			
4. Quality control programs shall	be resubmitted for validation	Part One				
t a maximum interval of five (5) years. Sect. 1.0 - Fittings Rev. 1 06/2003						

URM. MOG 471 / 20/7

NUNAVUT	YUKON	NORTHWEST TERRITORIES	✓ NEWFOUNDLAND AND LABRADOR
MANUFACTURERS NAME:	Endress + Hauser Wetzer G	imbH+Co KG	
MANUFACTURERS ADDRE	SS: DE-87484 Nesselwang		
PLANT LOCATIONS: Ness	elwang, Germany; Greenwood	, USA; Suzhou China	
CATEGORY OF F	TTINGS TO BE REGISTERED.	CIRCLE ONE CATEGORY ONLY	TITLE OF THE STANDARD OF CONSTRUCT
B Flanges: all flanges C Valves: all line valves D Expansion joints, flexible of	plings, tees, elbows, Ys, plugs, technique, and hose assemblie	And the second desired	
pressure transmitters	ng pressure gauges, level gauge	es, sight glasses, levels, or as primary over pressure protection on	ASME B31.3; ASME Bioprocessing Equipme
boilers, pressure vessels,			
N Nuclear components: Class	ss 1 🗆 Class 2 🗀 Class 3 🗀,	(Meeting CNSC or ASME requirements)	
	ame. Trademark, or Logo dress + Haus	er ET	TYPE OF CONSTRUCTION FORGED & WELDED & WROUGHT & CAST ID OTHER: DESCRIBE OTHER: THE CONSTRUCTION FOR THE CONSTRUCT
	People for Process Autom		Tractined
LIST OF SUPPORTING DOC	UMENTATION AND IDENTIFIC	ATION OF THE ACTUAL ITEMS TO BE F	REGISTERED;
y knowledge represents the imperature ratings, and idea anufacture of these fittings in part and has been verifical action conscientiously beginning of Declarer:	of the end product do solemn to product for which registration intification markings are in acc is regulated by a Quality Cor and by SOS	ly declare that the information contains is sought. The dimensions, matericordance with the herein named standard Program which extends to each as being suitable for the same force and the suitable for the same force and t	dards. I further declare that the plant where fabrication occurs in whole that purpose and I make this solemn
ommissioner of Oaths			
Notary Public: (sign)			
	(Affix Official seal to the right)		
	This space	e for Regulatory Authority use	
This	registration must be revalida	ted after ten (10) years from the date	ot acceptance.
CRN: 0H1242.9 A	dd.1		
 Each category shall be supporting and one copy of supporting. The declaration shall be made. 	in the name of the Manufacture orted with two Statutory Declarat g documentation. e by the person having full autho	ion DATE 4/1	242.9 ADD1 8/2017
esponsibility for the quality of the Quality control programs sha	e end product. If be resubmitted for validation	BOILERS	BRANC
t a maximum interval of five (5)		· ·	Sect. 1.0 - Fittings Rev. 1 06/2003

URM. MO0471 20/7

NEW BRUNSWICK NUNAVUT	NOVA SCOTIA	PRINCE	EDWARD ISLAND WEST TERRITORIES	✓ NEWFOUNDLAND AND LABRADOR
MANUFACTURERS NAME	Endress + Hauser Wetzer	r GmbH+Ca Ki	3	
MANUFACTURERS ADDR	ESS: DE-87484 Nesselwang			
	selwang, Germany, Greenwoo			
CATEGORY OF	FITTINGS TO BE REGISTERE	D. CIRCLE ON	E CATEGORY ONLY	TITLE OF THE STANDARD OF CONSTRUCTION
B Flanges: all flanges C Valves: ell line valves D Expansion joints, flexible E Strainers, filiters, separate Measuring devices, incluipressure transmitters G Certified capacity-rated publiers, pressure vassels	uplings, tees, elbows, Ys, plugs connections, and hose assemb rs, and steam traps ting pressure gauges, level gau ressure relief devices acceptab , piping and fusible plugs ments that do not fall into one o	blies: all types yges, sight glass ble as primary o	ses, levels, or ver préssure protection on	ASMÉ B31.3; ASME Bioprocessing Equipment
N Nuclear components: Cla	ass 1 🗆 Class 2 🗅 Class 3 🗖	, (Meeting CNS	C or ASME requirements)	
SHOW MANUFACTURERS	NAME, TRADEMARK, OR LOG	GO AS IT WILL	APPEAR ON THE PROD	UCT TYPE OF CONSTRUCTION
En	dress+Hau			FORGED BY WELDED BY WROUGHT WE CAST ID OTHER BY DESCRIBE OTHER: machined
	People for Process Auto	mation		
LIST OF SUPPORTING DO	CUMENTATION AND IDENTIF	ICATION OF TH	E ACTUAL ITEMS TO BE	REGISTERED:
	ngs: 10000007051, 10000007052, 100		007064, 10000008805; See attac	ched scope of registration summary:
SR-TW-E+H-Rev0 for MAWP, Desi	on temperature, MDMT& Material of co	onstruction.		
responsibility for the quality my knowledge represents the temperature ratings, and idemanufacture of these fittings or in part and has been verification conscientiously signature of Declarer:	of the end product do soleme product for which registra entification markings are in a sis regulated by a Quality Cred by SQS believing it to be true and killing to the solement of the solem	nnly declare the stion is sought accordance will control Program	nat the information control. The dimensions, mate that the herein named stem which extends to each as being suitable to is of the same force and USETH	I being the person having full authority and ained in this form is true and to the best of chals of construction, pressure andards. I further declare that the h plant where fabrication occurs in whole or that purpose and I make this solemn deflect as if made under oath.
This day of	AD		O F	FICIAL SEAL
Commissioner of Oaths or Notary Public: (sign)		r		gapanaga a r v v v v v v v v v v v v v v v v v
ii Notary Fubile. (Sign)	(Affix Official seal to the right)			NUNAVUT
CRN: OH1242.9 A FID#: 2115 Notes: 1. All fittings shall be registere 2. Each category shall be support forms and one copy of support 3. The declaration shall be ma	This species registration must be revalided at 1 and 1	pace for Regula dated after ter dated after ter urer. urer.	CRN OHIO	te of acceptance. and Pressure Vessels Act EISTERED 42.9 N Add I
responsibility for the quality of the end product. Chair Inspector Light Control programs shall be resubmitted for validation				
at a maximum interval of five (1		Sect. 1.0 - Fittings Rev. 1 06/2003
			Territorial	Registration Fee

URM. MOG 471 / 2017

	UNIFORM STA	TUTORY DECLARATION FO	RM FOR THE REGISTRA	TION OF FITTING DESI	GNS
•	NEW BRUNSWICK NUNAVUT	✓ NOVA SCOTIA ✓P	RINCE EDWARD ISLAND ORTHWEST TERRITORIES	✓ NEWFOUNDLAND AND	
	MANUFACTURERS NAME:	Endress + Hauser Wetzer GmbH+	Co KG	- AFF	
	MANUFACTURERS ADDRES	S: DE-87484 Nesselwang			
		wang, Germany, Greenwood, USA; TINGS TO BE REGISTERED. CIRC		TITLE OF THE SYANDARD	F CONSTRUCTION
	A Pipe fittings, including couple Flanges; all flanges C Valves: ell fine valves D Expansion joints, flaxible co E Strainers, filters, separators, Messuring devices, including pressure transmitters C Certified capacity-rated pressure vessels, pl H Pressure retaining compone	lings, teas, elbows, Ys, plugs, unions, naections, and hose assemblies: all f, and steam traps g prosaure gauges, sight sure relief devices acceptable as print sure relief devices acceptable as print	pipe caps, or reducers ypes r glasses, levels, or lery over pressure protection on vs categories	ASME 831.3; ASME Sloproc	ezeing Equipment
	SHOW MANUFACTURERS NA	ME. TRADEMARK, OR LOGO AS IT	WILL APPEAR ON THE PRODU	CI TYPE OF CONSTR	
	End	lress+Hauser	E	PORGED & WELDED & W CAST D OTHER & DESCRIBE OTHER: machined	ROUGHT of
		People for Process Automation		Machined	
1	LIST OF SUPPORTING DOCU	MENTATION AND IDENTIFICATION	OF THE ACTUAL ITEMS TO SE	REGISTERED:	
I CHESTON SID TO	DECLARATION: Bernd Kunert, Quality Manage espensibility for the quality of the persent of these fittings is in part and has been verified eclaration conscientiously belignature of Declarer:	Jerne It to be true and knowing the	are that the information containing the dimensions, materics with the herein named star ogram which extends to each as being suitable for nat it is of the same force and USETHI	ned in this form is true and ials of construction, pressul dards. I further declare that plant where fabrication occ that purpose and I make th	to the best of re I the urs in wholo is solemn h.
_	<i>(</i> A	Affix Official seel to the right)			
N 1 2 for 3, re	CRN: OH1242.9 Ad CRN: 2115 Notes: All fittings shall be registered in Etich category shall be support orms and one copy of cupporting of The declaration shall be made is exponsibility for the quality of the	gistration must be revalidated effet d. 1 I the name of the Menufacturer, ed with two Statutery Declaration documentation, by the person having full authority and end product.	North REGI UNDER THE THE BOILER VESS C.R.N. OH	4.00	96300
fo 3, re 4,	orma and one copy of supporting of the declaration shall be made in	documentation. by the person having full authority and end product. se resubmitted for validation	C.R.N. OH!	242.9 T nday	v. 1 06/20



505 - 6th Street, Suite 200 New Westminster, BC V3L 0E1

> Toll Free: 1-866-566-SAFE Fax: (778) 396 - 2064 www.safetyauthority.ca

ENDRESS + HAUSER WETZER GMBH+CO KG OBERE WANK 1 NESSELWANG GERMANY D-87484

Date:

June 11, 2015

Account #: 59105 Journal #: 62858 Our File #: 5542682

Attn: MICHAEL PFANZELT

Application for Design Registration

The design, as detailed in your, iTHERM TT411, for a Fitting is accepted for registration as follows:

Registered To: ENDRESS + HAUSER WETZER GMBH+CO KG

CRN: 0F17572.51

Drawing #: 10000007051,7052, 7053, 7064

Conditions Of Registration:

Registration of Sanitary Thermowells as per scope of registration sheets (2 pages).

This design was registered based on a technical review performed by the province of initial registration in accordance with the Association of Chief Inspectors policy on reciprocal recognition of design review.

Reviewer's Notes:

As required by CSA B51 4.2.1, this registration expires on April 02, 2025. This CRN is valid until the expiry date as long as the Manufacturer maintains a valid quality control program verified by an acceptable third-party agency until that date. Should the certification of the quality control program lapse before the expiry date, this registration shall become void.

Contact me if you have any questions. The invoice for registration will be forwarded under separate cover.

SHARON PETERS

boiler.designregistration@safetyauthority.ca Design Administration

cc:

(PROD) 30400-20 GST #: 87391 2802 RT0001 page 1/2



Scope of Registration Summary

Product:

Sanitary Thermowells

Drawings: 10000007051, 10000007052, 10000007053, 10000007064

Catalogue: iTHERM TT411

Code: ASME B31.3

THIS IS PAR CRNOF 175 72.5 Technical Standards & Safety Authority Technical Standards & Safety Authority Boilers & Pressure Vessels Boilers & Pressure Vessels

Thermowell Product	Туре	Size	MAWP	Max Temp. (°F
Weld - in	Spherical	DN25 (25mm)	200 psi [1]	0 to 250
Adapter Veld-in Adapter	Spherical - Cylindrical	D40 x 40mm	200 psi [1]	0 to 250
Weld-in Adapter	Cylindrical	D30 x 40mm	200 psi [1]	0 to 250
Microclamp	ISO 2852	DN8-18 mm (0.5- 0.75")	16 bar [2]	-40 to 752
Microclamp	Tri-clamp, 3-A ISO 2852	DN8-18 mm (0.5- 0.75")	16 bar [2]	-40 to 752
Sanitary Flange	ISO 2852	DN12-21.3	16 bar [2]	-40 to 752
Sanitary Flange	ISO 2852	DN25-38 (1- 1.5")	16 bar [2]	-40 to 752
Sanitary Flange	ISO 2852	DN40-51 (2")	16 bar [2]	-40 to 752
Sanitary Flange	ISO 2852	DN63.5 (2.5")	16 bar [2]	-40 to 752
Sanitary Flange	ISO 2852	DN70-76.5 (3")	16 bar [2]	-40 to 752
Varivent D	Туре В	31 mm	10 bar	-40 to 752
Varivent D	Type F	50 mm	10 bar	-40 to 752
Varivent D	Type N	68 mm	10 bar	-40 to 752
DIN11851	DIN11851	DN25	40 bar	0 to 250
DIN11851	DIN11851	DN32	40 bar	0 to 250
DIN11851	DIN11851	DN40	40 bar	0 to 250

Thermowell Product	Туре	Size	MAWP	Max Temp. (°F)
DIN11851	DIN11851	DN50	40 bar	0 to 250
Ingold	Ingold	25x30mm	25 bar	-40 to 752
	Ingold	25x46mm	25 bar	-40 to 752
ingold	SMS 1147	DN25	25 bar	-40 to 752
SMS	SMS 1147	DN38	25 bar	-40 to 752
SMS	SMS 1147	DN51	25 bar	-40 to 752
SMS	DIN11864-1-A	DN25	40 bar	-40 to 752
Asceptic Asceptic	DIN11864-1-A	DN40	40 bar	-40 to 752
Threaded	ISO228	G1, G3/4 [4]	25 bar	0 to 302
Threaded	ISO228	G1, G3/4	40 bar	0 to 212

^[1] Subject to ASME BPE table DT-2-1, 200 psig @ 100 F; 165 psi @ 250 F

M.Přanzelt

The undersigned hereby confirms that the above information is complete and representative: 1. 1 1 1 11

Signed by: Michael Pfanzelt	Signature: i.A. Mora full
Date: 2015-03-16	Title: Safety engineer
0F11572.51 THIS IS PA	1572.5
Safety CRN OF Technical Standards	se Safety Authoris Sesure Vessels April 1
BCSA J# 62858	West
	9 February 15 SR-TW-E+H-Rev0.doc

^[2] ISO 2852 is compatible with ASME BPE, first established in 1974, pre-dating ASME BPE.

^[3] Materials of construction S31603 316L, N10276 C-276