

## Personal data resume

Personal data:	
Name:	Steen
First Name:	Jan
Date of Birth:	06-12-1957
Nationality:	Dutch
Registered office:	Ruisvoorn43 4007NE Tiel The Netherlands
Mobile:	+31623376194
Email:	Jan50steen@gmail.com
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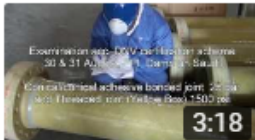

Certification:	DNV-GL certified inspector for FRP/GRP/GRE/RTR pipe installations. DNV-GL accredited examiner for ISO 14692-4
Languages:	English, German, Dutch, Dutch low Saxon

<b>2006-</b>	<b>Independent Consultant</b>
<b>1995-2006</b>	<b>Engineering &amp; Manufacturing Manager</b>
	<ul style="list-style-type: none"> <li>The department provides the following services: Installation management, Stress analysis, Design &amp; Technical calculations, Product development, Technical support to Sales, participation in International working groups regarding Standardization, Research &amp; Development and Project management.</li> <li>Manager, Materials &amp; Testing, research into Glass-fibres from listed and potential suppliers, Adhesives &amp; Resins; Qualification testing, Fire performance testing such as IMO L3 and Jet fire, etc.</li> <li>Member of the ISO 14692 committee.</li> <li>Chairman of the Claim committee: research, assessment, investigation and handling of claims.</li> <li>Co-ordinator with the UK – Marinetech programme, development of GRE through the major British Universities and Technical Institutions with specific research tasks.</li> </ul>
<b>1987-1995</b>	<b>Plastics and Rubber Institute TNO in Delft the Netherlands</b>
	Project-leader in the field of R&D composites materials/products.
	<b>Education</b>
<b>1985</b>	MSc. in Mathematics/Technical Mechanics
	University of Groningen, The Netherlands

ISO 14692 & DNV GL certification scheme			
1.	2021 - ongoing	ISO 14692 (2017)	Member of the revision group of the ISO 14692 (2017), just started. Role: Content creator, review of documents, as group finalized 5 contributions for reviewing, secretary.
2.	1996-2023	DNV GL & ISO 14692 part 4 DNV GL Exam committee	Chairman of the DNV GL exam committee. Certification of RTR bonders, laminators, pipefitter, supervisors, and inspectors (worldwide license) acc. ISO 14962 (2017) Initiator of the DNV GL scheme (now part 4 ISO 14692(2017) Role: the Chairman and Author
3.	2014-2021	Teaching "how to train"	Learn FSE how to train bonders and spoolbuilders Oman, Germany, Australia, The Netherlands Role: Inspector and "teacher"
4.	2013	Book	Certification (acc. DNV GL certification scheme) <i>the basis for part 4 ISO 14692 (2017), content creator.</i> Author: J. Steen
Examinations acc. DNV GL Certification scheme and ISO 14692 (2017) part 4			
5.	2008-2023	DNV GL Exams Examiner	Examination and Certification of RTR bonders, laminators, pipefitter, supervisors, and inspectors (worldwide license) acc. Practical and theoretical part (open questions). Jointing system adhesive bonded, laminating, Key Lock and high pressure threaded connections. According: NORSOK, ISO 14962 (2002 and 2017), and DNV GL Scheme Locations: <ul style="list-style-type: none"> <li>• KSA (FPI and Bondstrand) Several</li> <li>• China (Sinoma)</li> <li>• Norway (FPI and Ameron)</li> <li>• Australia Sydney, Melbourne, Darwin (Several systems: Laminating, RSLJ, Adhesive bonding, Threaded: DN 25-1500 mm: FPI, Ameron, Sinoma, Fiberdur)</li> <li>• Germany Fiberdur: Aachen, Hamburg</li> <li>• The Netherlands Fiberdur, Verstedden, Hardenberg:(Hoogezand, Rotterdam, Hoogerheide, Bergen op zoom) DN 200-800 mm</li> </ul> Role: DNV GL examiner

Training and workshops			
6.	2010-2023	Training	<p>Training according to ISO 14692 (2017): Adhesive Bonding, Laminating and Threaded connections:</p> <p>Workshops:</p> <ul style="list-style-type: none"> <li>• The Netherlands (Fiberdur)</li> <li>• Kali Und Saltz, Germany</li> <li>• Alstom, Germany</li> <li>• SBPI, France,</li> <li>• Others.</li> </ul> <p>Role: Trainer</p>
7.	2007-2023	Training ISO 14692, Workshop	<p>Explaining and guiding through the ISO 14692 (2002) and ISO 14692 (2017).</p> <ul style="list-style-type: none"> <li>• Bondstrand KSA</li> <li>• Amiantit KSA</li> <li>• Employee Fiberdur (Germany)</li> <li>• Engineering company The Netherlands</li> <li>• Private person, emirates, thru the internet</li> <li>• DNV GL, Norway</li> <li>• Aramco KSA</li> <li>• Others</li> </ul> <p>Role: Teacher</p>
8.	2016  2023	Article ISO 14692	<p>Article: Quick guide into the ISO 14692(2017)</p> <p>This article gives a connecting red thread about the ISO 14692 and the relation with the previous version 2002.</p> <p>Role: Author</p> <p>Minor adjustments</p>
9.	2014-2015	Inspector	<p>Performing inspections on behalf of Shell Qatar of GRP manufacturer.</p> <p>Duration 1 year</p> <p>Role: inspector</p>
10.	2013-2016	Inspector	<p>Performing inspections of training of bonders in Oman on behalf of BP.</p> <p>Role: BP Inspector</p>
11.	2020	Consultancy	<p>Shell Moerdijk, The Netherlands</p> <p>Role Consultant</p>
12.	2006-2021	Consultancy	<p>Various</p>
13.	2010-2021	Surveyor	<p>Guarding quality (SBPI, Bondstrand KSA, Versteden &amp; Fiberdur)</p> <p>Role: Inspector, Engineering manager, Consultant</p>
Installation and assembly Guides			
14.	2022 ongoing	Consultant	<p>EDF, Large diameter pipes nuclear power stations.</p>
15.	2021	Co-Author	<p>Specification Vopak the Netherlands</p>
16.	2016-2022	Author	<p>Fiberdur Germany Technical Bulletins&gt;20</p>
17.	2016-2020	Guides	<p>Made assembly guides based on the principle for every step a photo. This makes the assembly guides also readable for the less literate.</p> <ul style="list-style-type: none"> <li>• Assembly guide laminating</li> <li>• Assembly guide adhesive bonding</li> </ul> <p>Role: initiator and author</p>

18.	2016-2020	Installation guide	Role: initiator and author
<b>Testing</b>			
19.	1996-2023	Testing acc. ASTM D 1598	As required by Shell, PDO, Statoil, VOPAK, SAIPEM, and many others: Set up of 1000hrs test programs acc. the UKOOA, ISO 14692, and Shell Dep. based on following formula (multiplication of sets): {DN 250, DN400, DN600, ...} * {Pipe, Fitting, joint type, Flange} * {GRE, GRVE} * {PN <sub>1</sub> , PN <sub>2</sub> , PN <sub>3</sub> } * {2} The Netherlands, Singapore, Germany, KSA for several GRP manufacturers. Role: Initiator and/or project leader of the test program
20.	1996-2023	Testing acc. ASTM D 1599	Performed hundreds of short-term tests. About 50 % author of an extensive report meaning incl/ DSC Tg, Glass resin content, Pressure Time curve, and full traceability. Many times in presence of a third-party witness (engineering company, end-user, or a third party) Role: Initiator and/or project leader of the test program
21.	2015	Impact test	In compliance with ASTM D 2444-99, with third party witness Role: Author is
22.	1998-2023	IMO L3 Fire tests IMO L2 IMO L1	Performed over 30 IMO L3 tests at Efectis The Netherlands. Always with third-party witness. Made several videos during these test. With engineering company performed the IMO L1 and IMO L2 tests. The Netherlands Role: Project leader and designer of the insulation when applicable.
23.	1996	Jet fire tests	Performed Jet Fire test at Sintef Trondheim Norway Role: Project leader
24.	2010-2023	Tensile tests ASTM D2105	Several tensile tests performed at e.g. IKV (University) Aachen, University Eindhoven Role: Project leader
25.	2012-2018	Parallel plate tests, ASTM D2412	Several Parallel plate test in laboratory Germany Role: Project leader and author report
26.	2019	Electric conductivity, ASTM D257-07	Performed tests, made the reports, and also the instruction video Role: Initiator, Author
27.	2014-2021	Development Shavers	DN 25-1000mm Role: Consultant
28.	1996-2021	Research activiteit	Several Role: Initiator, project leader
<b>Failure Analysis (major)</b>			
29.	2023	Failure analysis	Romania, Role: Author failure report
30.	2018-2020	Failure analysis	Rawec, Rabigh, KSA 2 projects of high importance Role: Author failure report

31.	2015	Failure analysis	Pressurized salt cavern to be used in case of an electric power failure, Germany. A project of high importance Role: Member of the investigation team
32.	2009	Failure Analysis	The Netherlands Damage to water fire system Role: Project leader
33.	2005	Failure analysis	District heating system Germany Role: Project leader
Video's (>250000 views), content creator			
34.	Youtube Views: 14000		Practical part of DNV GL Exam laminators at V... The practical part of DNV GL exam, according to ISO 14692 (2017), of laminators at Verstedden,...
35.	Youtube Views: 126000		assembly laminated joint DN 200 PN 40 may 2... DNV GL Practical Exam: Assembly of a FPI laminated joint DN200 PN40 inclusive fitlayer an...
36.	Youtube Views: 45000		Assembly adhesive bonded joint DN200 PN40 ... Practical exam by DNV GL : Assembly adhesive bonded joint taper taper TB/TS DN 200 mm PN 4...
37.	Youtube Views: 8700		Assembly threaded joint (FPI) full pipe lenght ... Make up of 8" yellow box FPI pipe joint as part of DNV practical exam When we did the first exam...
38.	Youtube Views: 4900		DNV examination certification assembly thre... www.grpcenter.com, jan50steen@gmail.com, contacts SA: dana@realvisions.com See this l
39.	Youtube Views: 19000		Examination acc. DNV Examination scheme s... www.grpcenter.com, jan50steen@gmail.com, contacts SA: dana@realvisions.com See this link.
40.	Youtube Views: 10800		Examination acc DNV certification scheme... www.grpcenter.com, jan50steen@gmail.com, contacts SA: dana@realvisions.com See this
41.	Youtube Views: 5500		Examination acc DNV certification scheme sp... www.grpcenter.com, jan50steen@gmail.com, contacts SA: dana@realvisions.com See this link..
42.	Playlist: <a href="https://www.youtube.com/playlist?list=PLcV20pT1g4v8cikAbr_tDE13SRrkN_Vcb">https://www.youtube.com/playlist?list=PLcV20pT1g4v8cikAbr_tDE13SRrkN_Vcb</a>		

43.	2010-2023	Other technical video's	<ul style="list-style-type: none"> <li>• IMO L3 test</li> <li>• Short term burst test</li> <li>• Electric conductivity tests</li> <li>• Electric conductive laminate</li> <li>• Bulkhead penetration (Youtube, views: 10000 views)</li> <li>• Shavers</li> <li>• Manufacturing of elbows, tees, and reducers</li> <li>• How to use Barcol hardness meter</li> <li>• How to use a heating blanket</li> <li>• Installation of Key Lock pipe down the hole</li> <li>• Several Research activities</li> </ul> <p>In many countries Role: storybook, filmer, editor, director.</p>
<p>Note: Sometimes details of the manufacturing company or engineering company or end-user are left out for company reasons.</p>			

**DNV GL - EXAMINATOR**



Naam:	J. Steen
Geboortedatum:	06-12-1957
Certificatieschema:	GRP
Nr. overeenkomst:	1-10975361068
Geldig tot:	27-09-2023

**DNV·GL**

**GRP Pipe Field Specialist Inspector**



Naam:	J. Steen
Geboortedatum:	06-12-1957
Geboorteplaats:	den Ham (Overijssel)
Certificaatnummer:	CERT-GRPIN-20140528-10001
Certificatie datum:	28-05-2014
Vervaldatum:	28-05-2023

**DNV·GL**

**DNV·GL**

# CERTIFICATE OF COMPETENCE

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Certificate number: CERT-GRPIN-20140528-10001-Rev.3	Exam date: 28 May 2014	Valid till: 28 May 2023
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DNV GL Business Assurance B.V. declares that:

**J. Steen**

Date of birth: 6 December 1957	
Place of birth: den Ham (Overijssel)	

Has fulfilled the conditions to be certified as:

**RTR / FRP / GRP Inspector**  
**Glass reinforced Plastics (GRP/RTR) pipe installations,**  
**Competence profiles section, Attachment D2-2**

Date of examination	: 28 May 2014
Place of examination	: Barendrecht
Country of examination	: The Netherlands
Examination organisation	: DNV supervision

This Certificate of Competence is valid only after the certificate holder has signed, as per examination date until 28 May 2023. The validity conditions of this Certificate of Competence are specified in the relevant standard, endorsed by the DNV GL Certification Committee of GRP pipes Attachment D1 and relates to ISO 14692. See reverse side for the information statement by employer and prolongation by DNV GL Business Assurance B.V. Additional information can also be stated in the column "supplementary remarks".

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Thus agreed and signed, The certificate holder:	Barendrecht, 31 August 2020 DNV GL Business Assurance B.V.
Signature	 D.R. Scheele Management Representative

This Certificate is property of DNV GL Business Assurance B.V. Misuse will render this Certificate null and void. DNV GL Business Assurance B.V. P.O. Box 9599, 3007 AN Rotterdam, The Netherlands, E-mail: [vakbekwaamheid@dnvgl.com](mailto:vakbekwaamheid@dnvgl.com). DNV GL Business Assurance B.V. is registered at the Dutch College Bescherming Persoonsgegevens, nr: m1012137.