



DET NORSKE VERITAS

MANUFACTURING SURVEY

ARRANGEMENT

MSA NO. R-3625
The MSA consists of 6 pages

Between
Vacon Oyj
VAASA Finland

and
Det Norske Veritas AS
VAASA OFFICE

Extent
This Manufacturing Survey Arrangement (MSA) is applicable to

FREQUENCY CONVERTERS

subject to testing and inspection for conformance with the requirements of DNV Classification Rules, as stated herein.

The MSA implies that the Manufacturer is authorised to perform the testing and inspection without the attendance of the Surveyor and to prepare the certificates which will be validated by DNV.

Validity
The MSA is valid until 2018-06-30
The MSA will, however, be invalid if the Manufacturer's Quality System Certificate No. FI120025 has expired or is cancelled.

If any person suffers loss or damage which is proved to have been caused by any negligent act or omission of Det Norske Veritas, then Det Norske Veritas shall pay compensation to such person for his proved direct loss or damage. However, the compensation shall not exceed an amount equal to ten times the fee charged for the service in question, provided that the maximum compensation shall never exceed USD 2 million. In this provision "Det Norske Veritas" shall mean the Foundation Det Norske Veritas as well as all its subsidiaries, directors, officers, employees, agents and any other acting on behalf of Det Norske Veritas.

1. SCOPE OF WORK

For products to be certified according to Det Norske Veritas Rules for Ships, and DNV Offshore Standards.

Products covered by this agreement are listed in Type Approval Certificates as referred to in item 1.1 Reference Documents.

1.1 Reference Documents

- I. DNV Rules for Classification of Ships Pt. 4, Ch. 8
- II. DNV Offshore Standards, latest edition in force at time of certification.
- III. Relevant IEC standards.
- IV. The manufacturer's documented procedures for inspection and testing
- V. Valid DNV Type Approval Certificates
- VI. Quality System Certificate No. FI120025
- VII. The Manufacturing Survey Arrangement, MSA No. R-3625.
- VIII. MPQA Report No. MPQA-VIRTA-5 of 2014-11-27

This Manufacturing Survey Arrangement does not exempt the Manufacturer from obtaining approval of new frequency converter types when new types are introduced.

1.2 Audits performed by DNV

Compliance with the conditions agreed in this MSA is subject to control and review by auditing as follows:

- a) Periodical quality system audits are to be made at the agreed intervals, ref. Quality System Certificate (QSC).
- b) Periodical audits of the MSA function are to be performed ones per year.
- c) Project-specific audits or spot checks may be made to ensure compliance of the products with Rule requirements.

For this purpose the Surveyor shall at all reasonable times be given access to the manufacturing plant and to the relevant manufacturing documents and records.

1.3 Agenda for the MSA-audits

The agenda for the audits will be proposed by DNV in the notification of the meeting.
The agenda will be chosen from this typical list:

- a) Organisation, responsibilities and qualifications of relevant personnel.
- b) The efficiency of the implementation of the MSA.
- c) Operational procedures and instruction related to the MSA agreement.
- d) Manufacturing process, inspection and testing.
- e) Test reports.
- f) Products, properties and applications.
- g) Product marking and traceability and control of non-conforming product.
- h) Claims, trends, questions from clients and others.
- i) Manufacturers handling of customer claims for components certified under this MSA, follow up and corrective action agreed between the manufacturer, customer and DNV.
- j) Review of possible problem areas rose from previous MSA audits.
- k) Information to be updated.
- l) Statistical results from testing.

Each meeting will be minuted by DNV, and the record will be distributed to participants.
Any problems found should be handled as no-conformities in the QSC implemented corrective action system.

1.4 Test requirements

Test requirements are stated in DNV Rules Pt.4, Ch.8, Sec7, Table B2 "Testing and inspection of semi-conductor converters for motor drives".

2. REPORTING BY MANUFACTURER

2.1 Manufacturing Records

Records shall be made of the relevant manufacturing data and the results of all specified testing and inspection necessary for conformance to the Rules.

2.2 Inspection Report

Inspection reports are to be prepared by the Manufacturer and the following text is to be printed or stamped on the inspection report:

"This is to certify that the product described above has been made by an approved process and has been satisfactorily tested in accordance with DNV Rules for Classification. This certificate is issued in accordance with the survey arrangement authorised by DNV in MSA No. R-3625, which is controlled by regular auditing."

The inspection report to contain all relevant information of tests and inspections as required by the Rules.

Each inspection report is to be given a DNV Certificate number. Data for the certificate of semi-conductor converter is to be confirmed by manufacturer, and submitted to local DNV office together with the manufacturer's inspection report for validation.

The inspection report together with data for the certificate is to be stored at manufacturer.

2.3 Non-conformances

All customer complaints to components delivered under this agreement shall be reported to DNV. At once the manufacturer has received a customer complaint on component certified under this MSA agreement DNV local office shall be notified. It is up to DNV to decide if further involvement is necessary or not at that time. However, closing of customer complaints reported to DNV and corrective actions implemented by the manufacturer will be discussed under the periodical MSA audit.

3. REPORTING BY DNV GL

3.1 Validation of Inspection Reports

The inspection reports prepared by the Manufacturer will be reviewed and endorsed by DNV Surveyor, and are only valid with such endorsement and stamping.

3.2 Information to Manufacturer

DNV will inform the Manufacturer of new or amended Rules and regulations which would affect the arrangements authorised.

4. MARKING FOR IDENTIFICATION

4.1 Marking

Products which have been satisfactorily tested and inspected shall be marked as required by the Rules. The product is further to be marked with a steel stamp furnished by DNV.

In addition they are at least to be marked with:

- Manufacturer's trade mark or name/initials
- Number and/or initials to identify the product against the Product Certificate

Only those product covered by this arrangement are permitted marked.

4.2 Handling of the Steel Stamp

The Quality Assurance Manager is kept responsible for the steel stamp and the stamp can only be used by authorised personnel.

The steel stamp cannot be transferred to subsidiary companies belonging to the same group.

A worn out or damaged steel stamp is to be returned to DNV who will supply a new steel stamp.

The steel stamp is to be returned to DNV when the survey arrangement has expired or is cancelled.

5. MONITORING AND ADMINISTRATION OF THE MSA

The DNV GL Vaasa Office is responsible for:

- 1) Surveillance of the MSA through the periodical MSA audits.
- 2) The daily contact with the Manufacturer.
- 3) Review and validation of inspection certificates.
- 4) Invoicing of the product certification according to the inspection certificates.
- 5) Filing of the inspection certificates according to internal procedures.
- 6) Review statistical reports.

6. FEES AND PAYMENT TERMS

- Fees for certification of products will be charged in accordance with DNV's current Scale of Fees.

7. REGULATION FOR THE CERTIFICATION SERVICES

Regulations with respect to obligations, publications, suspension, withdrawal/cancellation and appeal are given in DNV's Standards for Certification No. 1.1, "General Description of the CMC-Services", Section 2.7.

8. VALIDITY

Any changes in production process, procedures or other matter that may influence the validity of the MSA or condition stated herein are to be submitted to local DNV office for evaluation.

The MSA will be invalid if:

- a) The DNV GL Type Approval Certificates are expired or are cancelled.
- b) The QSC has expired or is cancelled.
- c) The possible non-conformities from the MSA audits are not responded to and/or corrective actions are not implemented within the agreed time.
- d) The certification fees are not paid.

Either party shall have the right to terminate this MSA subject to three months written notice.

9. LIABILITY AND INDEMNITY

If any person suffers loss or damage which is proven to have been caused by any negligent act or omission of the Society, the the Society shall pay compensation to such person for his proven direct loss or damage. However, the compensation shall not exceed an amount equal to ten times the fee charged for the service in question. The maximum compensation shall never exceed USD 2 million.

In this provision the "Society" shall mean DNV GL AS as well as its direct and indirect owners, affiliates, subsidiaries, directors, officers, employees, agents and any other person or entity acting on behalf of DNV GL AS.

10. LAW AND JURISDICTION

This MSA shall be governed and construed in accordance with the laws of Norway.

Any dispute arising in relation to or as a consequence of this MSA, which cannot be settled amicably through negotiations between the parties, shall be subject to the courts of Oslo, Norway.

Place and date: Vaasa, Finland

2015-05-12



*Timo Kasi
General Manager
Vacon Drives Finland
Vaasa*



*Arto Virtanen
for Det Norske Veritas AS
Principal Surveyor
Turku office*