

Quality and Audit Regulations

for the Attainment and Awarding of the

-S E A L O F Q U A L I T Y-

- Technical Flood Protection –



3rd edition,

published in April 2020

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Manufacture, delivery and initial installation of technical flood protection products

Implementation regulations for system testing

3rd edition,
published in April 2020

Quality and Audit Regulations

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Quality and Audit Regulations

Manufacture of mobile flood protection systems

0. Preliminary notes

This third Edition of the Quality and Audit Regulations, last updated in March 2020 is based on the first edition (dated July 2014) and the second edition (published in November 2014). It was necessary to issue this third edition, in order to avoid confusion and misinterpretation. It contains all the guidelines and values from the second edition, according to which all system checks up until December 2019 were conducted. Consequently, the results of previous checks are also in line with this third edition of the Quality and Audit Regulations. This third edition will supersede the first and second editions as soon as it is published on the Flood Protection Association (EVH) website .

1. Scope

The EVH quality and test regulations apply to the manufacture, delivery and initial installation of mobile flood protection systems.

Changes relating to the test criteria must be reported. Furthermore, after three years the manufacturer must prove that the audit result still meets the test criteria of the initial application and must submit an application to continue using the Seal of Quality. The Quality Committee reserves the right to verify this information.

For the purposes of these Quality and Audit Regulations, mobile flood protection systems are divided into:

Assessment groups ▶ Civil Protection = Certification mark **K**
Property protection = Certification mark **O**
Flood Protection Lines = Certification mark **L**

2. General Terms and Conditions

2.1 Standards and regulations

The generally accepted rules of sound engineering practice, in compliance with relevant standards, are applicable to the manufacture of mobile flood protection systems. Relevant EN standards, where these exist, also apply.

2.2 Authorisation to test and supervise

The assessments and tests are duly carried out by the EVH Quality Committee according to Article 9 of its Articles of Association as well as by an independent auditor appointed by the Association. The practical tests are carried out by the applicant at a test site deemed suitable by the assessors,

under the supervision of the assessors. The assessors will complete a detailed test report.

3. Assessment groups and test criteria

3.1 Assessment group – Civil Protection – K

Definition: *Location-independent products and systems*

e.g. sandbag systems, movable barrier systems, tank systems, inflatable dams, etc.

Note: The test specifications for the assessment group K are currently being revised as a result of the considerable differences between the functional and material and technical features between the assessment group K and groups O and L. They will be recorded here when complete.

3.2 Assessment group – Property Protection – O

Definition: *Planned, fixed and mobile systems for the protection of defined openings in buildings for the duration of a flood or for permanent installation.*

e.g. dam beams, panel systems, window and door/gate systems, pipeline closures, automatic and self-erecting systems, etc.

The test is performed on the defined openings with smooth surfaces.

3.2.1 Test sample size of the Property Protection assessment group O

Closure sealing on three sides	O1	Width	3 metres
		Height	1 metre impoundment height
Closure sealing on three sides	O2	Width	1 metre
		Height	1 metre filling level
Closure sealing on four sides	O3	Width	1 metres
		Height	1 metre impoundment height/full damming
			0.1 metre overflow
			1 metre impoundment height above riverbed level
Pipeline closures: O4	These special closures are assessed, where necessary, according to particular test conditions, which are noted in the test report.		
Automatic/self-erecting systems: O5			

3.3 Assessment group – Flood Protection Lines - L

Definition: *Planned, fixed and mobile systems for the protection of large areas or entire districts at fixed, predetermined locations for the duration of floods.*

e.g. dam beams, panel systems and glass wall systems.

3.3.1 Test sample size of the Flood Protection Lines assessment group L

Width 5.60 metres - see test report

Height 1 metre impoundment height from the upper edge base construction

With at least one central support, two projecting wall connections and an aligned substructure.

Note: It is possible that there will be deviations in the stated sample sizes and impoundment heights for the assessment groups O and L. These should be noted in the test report.

3.4 EVH test criteria and assessment categories

3.4.1 Storage and transport volume

m³ storage needed for every m² of flood protection

Category 0: no additional storage requirement (permanently installed systems) Category 1: 0.01-0.2 m³ per m²

Category 2: 0.21-0.5 m³ per m²

Category 3: >0.5 m³ per m²

3.4.2 Assembly/dismantling times

Without logistics and without hoist, according to 3.4.1.
10 m between the storage of the system parts and the audit box

Category 0: <1 min. per m²

Category 1: 1–2 min. per m²

Category 2: 2–5 min. per m²

Category 3: 5–15 min. per m²

Category 4: > 15 min. per m²

3.4.3 Density

Slow filling – min. 1 hour constant water level/clear water. Density test at 1 m damming height related to square metres of protected area. Three measurements of 2 min. at 15 min. intervals

Category 0: No leakage

Category 1: <0.2 litres per minute and m²

Category 2: 0.2 to 0.5 litres per minute and m²

Category 3: 0.5 to 1.0 litres per minute and m²

Category 4: 1.0 to 2.0 litres per minute and m²

Category 5: >2.0 litres per minute and m²

3.4.4 Statics

The applicant must present a structural analysis for the protection system submitted for testing that takes account of the framework conditions according to the respective test sample size.

In order to award the seal of quality, only the structural analysis presented by the applicant for the test object is checked for plausibility and is not generally transferable to the structural analysis of property and the values required for that property.

Europaverband Hochwasserschutz e.V. accepts no liability for the design accuracy and compliance with structural analyses or for functional reliability in its application.

3.4.5 Manufacturer competence

Alongside the application documents, the applicant must also provide evidence of liability cover to an appropriate amount and evidence of quality assurance measures. (see item 4.2)

4. Other testing regulations

4.1 Protection of trade secrets

In order to obtain the certification mark, the applicant must submit the appropriate documentation for the proposed assessment group to the Quality Committee, in accordance with the minimum requirements listed in the documentation.

These documents contain product-related company and business secrets, which are particularly worth protecting and are therefore subject to strict confidentiality. The unauthorised use of the above is punishable under Section 203 of the German Criminal Code and Section 17 of the Act Against Unfair Competition.

Consequently, the members of the Quality Committee and auditors undertake to maintain strict confidentiality and secrecy in this respect by means of separate written declarations of commitment, with contractual penalties attached, to be deposited with the Association's board. Contraventions will be rigorously pursued.

4.2 Documentation

The following documents are to be submitted to the Association of Flood Protection (EVH) by the applicant: (see also item 4.3)

- a) a) Simple application letter
- b) b) Signed letter of obligation

The following are to be submitted on paper to the assessors only:

- c) Description of the system
- d) Operating instructions
- e) Construction drawings
- f) Detailed drawings
- g) Storage and maintenance instructions
- h) Cleaning instructions
- i) Data sheets for the materials used
- j) Verification of structural analysis
- k) Proof of indemnity insurance cover
- l) Proof of quality assurance measures (e.g. ISO 9000 etc.)

4.3 Assignment

The application documents (a and b), submitted for the purpose of obtaining the seal of quality, are to be sent to the Europaverband Hochwasserschutz e.V. board in triplicate. The Association board shall then instruct the Quality Committee and assessors.

5. Labelling

5.1 Conferment

Companies that manufacture protection systems in accordance with these Quality and Test Regulations can use the **Flood Protection Seal of Quality** for these systems, provided they were awarded the right to use the seal of quality when the award certificate was handed over, and that compliance with the specified quality is assured. The assessment group or groups (**K | O | L**) must be specified separately under the seal of quality.

The seal of quality may only be used in conjunction with an indication of the assessment group or groups for which it was awarded, and with reference to the respective quality and test regulations. This information must also be stated on the award certificate as well as on the respective test report.

5.2 Application

The Seal of Quality that has been awarded may only be used for the system inspected and in accordance with the Quality and Audit Regulations, the award certificate and the associated test report submitted here.

6. Changes

- 6.1 These Quality and Audit Regulations can be supplemented and further developed in light of technical progress. Changes require the prior written consent of the EVH board.

7. Costs

- 7.1 Each audit procedure and the award process for the Seal of Quality are subject to a charge.

After submitting the application, the applicant will receive an estimate of both the fixed costs and the costs of the services of the Quality Committee.

Letter of Obligation

- Application form -

1. The signature of the applicant or company representative hereby applies to Europaverband Hochwasserschutz e.V. for

- the right to use the Seal of Quality for the manufacture, supply and initial installation of technical flood protection products in the following assessment group(s):

☐ Flood Protection Lines

☐ Property Protection

☐ Civil Protection

featuring the system designation

.....

2. The undersigned/the signature of the company representative confirms that

- the Articles of Europaverband Hochwasserschutz e.V. and
- the Quality and Audit regulations of Europaverband Hochwasserschutz e.V.

have been duly noted and are hereby acknowledged as binding without reservation.

Place/Date

Company stamp and signature

Award certificate

The Quality Committee of Europaverband Hochwasserschutz e.V. hereby awards the FLOOD PROTECTION SEAL OF QUALITY to (name of product)

.....

In accordance with the audit results and the paperwork submitted by the company:

.....

The seal of quality recognised by Europaverband Hochwasserschutz e. V. and protected as a collective trademark for the production, delivery and initial installation of technical flood protection products of the assessment group(s), having been registered with the German Patent and Trademark Office..... the

FLOOD PROTECTION SEAL OF QUALITY

The use of the Seal of Quality is permitted only in conjunction with the system appointed the Seal of Quality and is valid in combination with the test report number

.....

Koblenz, (date)

EUROPAVERBAND HOCHWASSERSCHUTZ E.V.

Chairman of the Quality Committee

Chairman

Secretary