

**Certification Programme ZP  
“Zertifizierungsprogramm” 0650  
of DVGW CERT GmbH, Bonn**

**Shower System with Heat Recovery**

Doc. type	ZP
Author	DVGW CERT GmbH
Status	28.10.2024

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## 1 Certification Procedure

Products water national

## 2 Accreditations

An accreditation No. D-ZE-16028-01 exists for the procedure at German accreditation body (Deutsche Akkreditierungsstelle GmbH) (DAkkS), Berlin.

## 3 Certification Mark

DVGW CERT Mark of Conformity.



Registration number scheme: CW-0650DP0001

CW = DVGW certification mark Water,  
0650 = product code, DP = 2024, 0001 = consecutive no.

## 4 Type of Certificate and Test Procedure

Attestation of conformity (5-year term)

## 5 Scope

This ZP applies to shower systems with heat recovery for connection to the drinking water installation. A shower system consists of: Shower drainage channel, heat exchanger, associated connection components, etc.

The heat exchanger can also be certified with this ZP.

This attestation of conformity makes no statements about the quality or functionality of the shower system, nor about the level of efficiency achieved. It contains tests relating to the general technical regulations for drinking water installations in accordance with DIN EN 806 and DIN 1988-100, protection of drinking water and drinking water quality. Requirements are also placed on the connection technology of the system.

Product group	Product code	Product type
Appliances and devices with drinking water connection	06 50	Shower system with heat recovery

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## 6 Testing laboratories

Testing laboratories accredited in accordance with EN ISO/IEC 17025 for the relevant test bases and contractually bound to DVGW CERT GmbH.

## 7 Requirements

### 7.1 Hygienic requirements

The following regulations apply to proof of hygienic suitability:

Until 31 December 2026:

Certificates of conformity issued by a certification body in accordance with German national requirements are mandatory.

From 01.01.2027:

EU-certificates of conformity issued by notified bodies in accordance with the minimum hygiene requirements laid down in Implementing Decision (EU) 2024/368 must be used.

Alternatively, attestations of conformity issued by a certification body in accordance with the national German requirements can still be used until 31 December 2032.

Applies from 01.01.2033:

EU-certificates of conformity issued by notified bodies in accordance with the minimum hygiene requirements laid down in Implementing Decision (EU) 2024/368 are mandatory.

### 7.2 Type Testing

#### 7.2.1 Requirements according to DIN 1988-100

The requirements of DIN 1988-100 "Protection of drinking water, maintenance of drinking water quality", Section 9 "Separation by single or double walls" apply to this application.

Categorisation of the requirements in accordance with section 9.1 "Connection or installation of DHW heaters":

- Hot water heater with indirect heating

In accordance with section 9.2 "Allocation of design types", Table 1:

- Design type 1 Intermediate medium

A double wall with a safety medium in the intermediate zone (liquid or gas) and an audible or visual alarm system is always suitable if separation between the drinking water and the second fluid is required.

To fulfil these requirements, a double-walled safety pipe must be used for the heat transfer.

To prevent contamination of the drinking water by the heat transfer fluid (heated domestic hot water), suitable precautions must be taken in the event of leaks in the heat-transferring pipe wall. This can be realised, for example, by a leakage protection system with an alarm function.

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To protect the cold drinking water against backflow or backpressure caused by heated drinking water, a suitable safety fitting in accordance with DIN EN 1717 (e.g. a backflow preventer in accordance with DIN EN 13959) must be installed.

### 7.2.2 Requirements for the connection technology

Pipe connections must fulfil the requirements of the technical test specification DVGW W 534 (P): "Pipe connectors and pipe connections in drinking water installations".

In accordance with DVGW W 534 (P), Table 2 "*Pipe connections that are considered permanently tight without special verification in accordance with this test specification*", the pipe connections mentioned can be used without further testing if the connections are made professionally.

For the pipe connections not mentioned, in particular for the pipe connections between the heat exchanger pipes and the drinking water installation, the requirements according to the following sections must be fulfilled:

Section 12.1 Dimensions of the connectors

Section 12.2 Surface quality / homogeneity of the connectors

Section 12.3 Behaviour in the event of overpressure

Section 12.4 Behaviour under negative pressure

Section 12.5 Behaviour during the pressure surge test

Section 12.6 Behaviour during the thermal shock test

## 8 Surveillance

The stipulations described in the GO apply (Section 5 Surveillance procedure).

Only the "control test" procedure is to be used for this certification programme.

### 8.1 General information

The Surveillance tests to be carried out are described in the table in the appendix.

### 8.2 Production control by the manufacturer (self-Surveillance)

The manufacturer must carry out its own production checks in such a way that a reliable assessment of production is possible.

The type and scope of the testings are based on the table in the appendix.

### 8.3 Surveillance Test (external Surveillance)

The task of external surveillance is to check the manufacturer's own surveillance of the production of the certified components on the basis of its organisation and records and to verify the conformity of the manufactured product with the original type.

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Sampling is carried out by an authorised representative of the inspection body exclusively at the manufacturer's production site or central warehouse.

If a manufacturer has several production sites, at least one test sample must be taken from each production site. The sample must be taken as part of the Surveillance of the production facility/inspection.

The type and scope of testing of the products removed (control test) are carried out in accordance with the tables in the appendix.

Surveillance of the production site/inspection:

In principle, the Surveillance of the production facility/inspection must be carried out every two years on site at the manufacturer's production facility. If the manufacturer has several production sites that are subject to a common QM system, it must be ensured that all production sites are audited at least once every six years.

Proof of external Surveillance is provided by the testing laboratory at least every 2 years in the form of a control test report (DVGW CERT GmbH form) from the production site Surveillance department and test reports on the test samples taken.

## 9 Labelling

The product must be labelled in accordance with the specifications in the rules of procedure, section 5.9 "Labelling". In addition, the determined efficiency must be indicated on the rating plate or packaging and on the product documentation (operating/installation instructions, technical data sheet).

## 10 Applicable documents

In the case of undated references, the current edition of the following documents applies.

- Geschäftsordnung (GO) der DVGW CERT GmbH zur Zertifizierung von Produkten im nicht harmonisierten Bereich, <40014>
- Bewertungsgrundlagen des Umweltbundesamtes für Materialien und Werkstoffe im Kontakt mit Trinkwasser (gemäß § 15 Trinkwasserverordnung)
- UBA-EMPFEHLUNG: Konformitätsbestätigung der trinkwasserhygienischen Eignung von Produkten
- DIN 1988-100: Ausgabe August 2011  
Schutz des Trinkwassers, Erhaltung der Trinkwassergüte
- DIN EN 1717: Ausgabe August 2011  
Schutz des Trinkwassers vor Verunreinigungen in Trinkwasser-Installationen und allgemeine Anforderungen an Sicherungseinrichtungen zur Verhütung von Trinkwasserverunreinigungen durch Rückfließen
- DIN EN 681-1: Ausgabe November 2006  
Elastomer-Dichtungen – Werkstoffanforderungen für Rohrleitungsdichtungen für Anwendungen in der Wasserversorgung und Entwässerung – Teil 1: Vulkanisierter Gummi

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- DIN EN 10204: Ausgabe Januar 2005  
Metallische Erzeugnisse – Arten von Prüfbescheinigungen
- DIN EN 10226-1: Ausgabe Oktober 2010  
Rohrgewinde für im Gewinde dichtende Verbindungen – Teil 1: Kegelige Außengewinde und zylindrische Innengewinde – Maße, Toleranzen und Bezeichnungen
- DIN EN 13959: Ausgabe Januar 2005  
Rückflussverhinderer DN 6 bis einschließlich DN 250 – Familie E, Typ A, B, C und D
- DIN EN 16421: Ausgabe Mai 2015  
Einfluss von Materialien auf Wasser für den menschlichen Gebrauch – Vermehrung von Mikroorganismen
- DVGW Arbeitsblatt GW 2 (A): Ausgabe Mai 2012  
Verbinden von Kupferrohren für die Gas- und Wasser-Installation innerhalb von Gebäuden und Grundstücken
- DVGW Prüfgrundlage W 534 (P): Ausgabe Juli 2015  
Rohrverbinder und Rohrverbindungen in der Trinkwasser-Installation
- EN ISO/IEC 17025: Allgemeine Anforderungen an die Kompetenz von Prüf- und Kalibrierlaboratorien ISO/IEC 17025

## 11 Period of validity

This certification programme is valid from 28.10.2024.

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## 12 Annex

### Requirements according to DIN 1988-100:

Type test according to section 7.2.1 of this ZP.

External surveillance:

- Visual inspection of the double-walled safety heat exchanger tubes
- Functional tests, if available; of the warning system used (e.g. acoustic).

### Requirements for the connection technology:

In accordance with section 7.2.2 of this ZP.

For metal screw connectors: Dimensional and leak test

For soldered joints: Visual inspection of the soldered connection,

For unlisted connector types requirements according to the table below

**Table A: Scope of testing for type testing, in-house and external surveillance of showers with Heat recovery**

Requirements and tests		Required for		
		Initial inspection/ Type testing	Self-surveillance (WPK)	External surveillance (IS/AT)
	Hygienic requirements			
7.1 (ZP)	Hygienic requirements	X	with every delivery *) (Identity and document check)	2 annually Document review (Validity of the proofs) *)
12	Connection test according to DVGW W 534 (P)			
12.1	Dimensions of the connectors	X	with every delivery	2 annually
12.2	Surface finish, Homogeneity of the connectors	X	with every delivery	2 annually
12.3	Behaviour with overpressure	X		2 annually
12.4	Behaviour with negative pressure	X		2 annually
12.5	Behaviour during pressure surge test	X		2 annually
12.6	Behaviour during temperature cycling test	X		
13	Labelling	X	visually at every Delivery)	2 annually

\*) Proof of suitability of materials for drinking water hygiene in contact with drinking water