

SINTEF Building and Infrastructure confirms that

Grohe Red NG

has been found to be fit for use in Norway and to meet the provisions regarding product documentation given in the regulation relating to the marketing of products for construction works (DOK) and regulations on technical requirements for building works (TEK), with the properties, fields of application and conditions for use as stated in this document

1. Holder of the approval

Grohe Werk AG
 Industriepark Edelburg
 58675 Hemer, Germany

2. Product description

Grohe Red NG boiling water tap is a faucet which provides boiling water from a separate water boiler. The faucet is delivered as an integrated solution (Fig. 1) or as a separate tap (Fig. 2). The product consists mainly of a tap, a water boiler, a safety valve/backflow preventer, a filter and certified supply hoses. The product is installed in the kitchen counter.

3. Fields of application

Grohe Red NG boiling water tap is installed in the kitchen as a replacement for a traditional kitchen tap or as a supplement to a traditional kitchen tap. The product is used for cooking and cleaning. Examples:

- Sterilization of cutting boards and knives.
- Preparation of coffee, tea etc.
- Boling potatoes, pasta etc. (pre heating)
- Cleaning of pots and cookware.

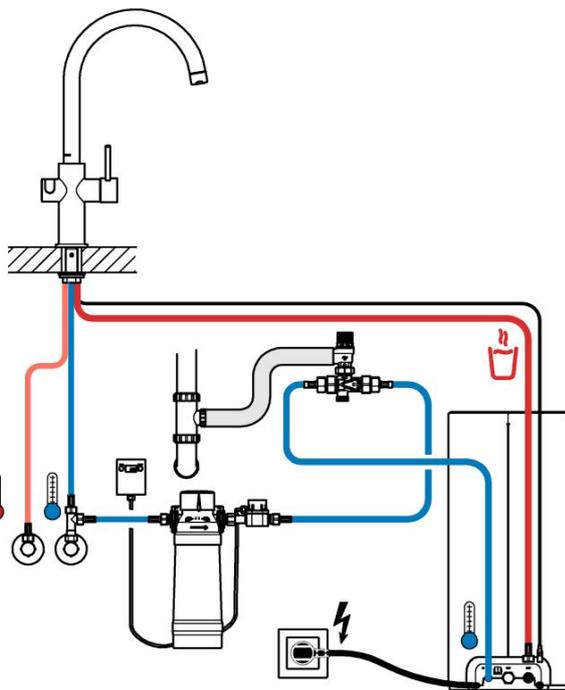


Fig. 1
 Grohe Red NG integrated tap

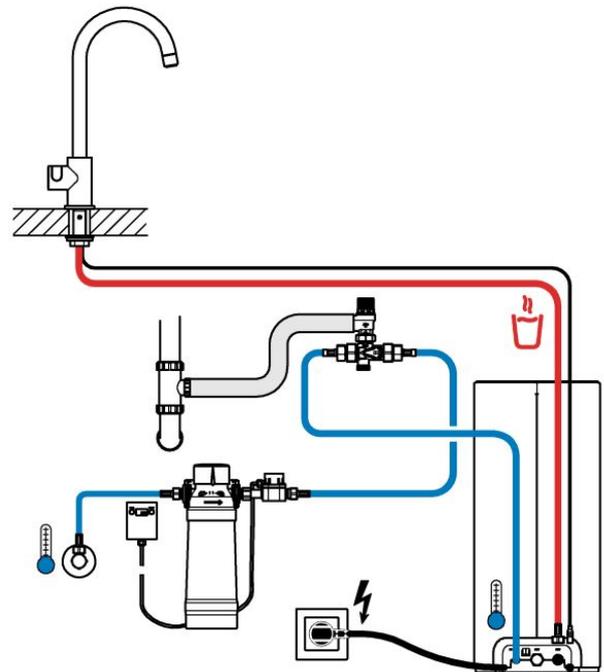


Fig. 2
 Grohe Red NG separate tap

Table 1 Components list

Product	Description	Faucet	Boiler	Safety Valve	Filter set	Figure /Type
30079001	GROHE Red II Duo C-sp Boiler L EU	409244045	40831045	40411	40438	1
30079DC1	GROHE Red II Duo C-sp Boiler L EU	409244DC4	40831045	40411	40438	1
30080001	GROHE Red II Mono C-sp Boiler L EU	409247045	40831045	40411	40438	2
30083001	GROHE Red II Duo C-sp Boiler M EU	409244045	40830045	40411	40438	1
30083DC1	GROHE Red II Duo C-sp Boiler M EU	409244DC4	40830045	40411	40438	1
30085001	GROHE Red II Mono C-sp Boiler M EU	409247045	40830045	40411	40438	2
30325001	GROHE Red II Duo L-sp Boiler L EU	409246045	40831045	40411	40438	1
30325DC1	GROHE Red II Duo L-sp Boiler L EU	409246DC4	40831045	40411	40438	1
30327001	GROHE Red II Duo L-sp Boiler M EU	409246045	40830045	40411	40438	1
30327DC1	GROHE Red II Duo L-sp Boiler M EU	409246DC4	40830045	40411	40438	1

Types of tap:

- 1) Faucet with integrated outlet for boiling water
- 2) Separate tap for boiling water

4. Properties

Water tightness

Safety valve has passed the functional requirements concerning water tightness according to EN 1488.

Magnetic valve in boiler has passed leaktightness tests according to EN 15091.

Mixer taps have passed the functional requirements according to EN 817 and NKB 4.

Scald safety

Grohe Red NG utilize a touch button scald safety mechanism. The mechanism requires the user to press and hold the operating mechanism within a limited amount of time to draw off boiling water.

Backflow prevention

Non-return valves are installed on the filter unit and the safety valve.

5. Environmental aspects

Chemicals hazardous to health and environment

The product contains no hazardous substances with priority in quantities that pose any increased risk for human health and environment. Chemicals with priority include CMR, PBT or vPvB substances. The health and environmental evaluation does not include the electric and electronic components.

Effect on indoor environment

The product is not regarded as emitting any particles, gases or radiation that have a perceptible impact on the indoor climate, or to have any significant impact on health.

Effect on soil, surface water and ground water

Effect on soil, surface water and ground water

The product is evaluated to emit no substances to drinking water in amounts that can cause taste, smell or is dangerous to the health.

Waste treatment/recycling

The product shall be sorted as metal, EE-waste and residual waste. The product shall be delivered to an authorized waste treatment plant for material and energy recovery. Electrical and electronic components shall be delivered to a facility authorized to handle EE-waste.

Environmental declaration

No environmental declaration (EPD) has been worked out for the product.

6. Special conditions for use and installation

Leakage prevention

Grohe Red NG boiling water tap shall always be installed with an approved active leakage detection system in the kitchen counter. Taps and other system components must be installed in such a way that possible leakages will not damage other installations or building parts.

Installation

After installation, the tap and its components should be easily accessible for maintenance and replacement of parts. When installed, only components from the approved system can be used, see Table 1.

System components must be installed according to the installation manual.

Cleaning/maintenance

The installation manual is to be used.

Voltage

Grohe Red NG boiling water tap operates on 230 V current.

Protection against overflow

Excess water from the boiler will be discharged into the waste water outlet below the kitchen sink using the supplied safety valve and piping.

7. Factory production control

The product is produced in Germany and Portugal for Grohe AG.

The holder of the approval is responsible for the factory production control in order to ensure that the product is produced in accordance with the preconditions applying to this approval.

The manufacturing of the product is subject to continuous surveillance of the factory production control in accordance with the contract regarding SINTEF Technical Approval.

8. Basis for the approval

The approval is based on a systems assessment, documentation of the properties of the subcomponents, and type testing as documented in the following reports:

- DTI, Addendum to test report, order No. 710843A dated 15.08.2017
- DTI, Addendum to test report, order No. 710843B dated 15.08.2017
- DTI, Addendum to test report, order No. 710843C dated 15.08.2017
- DTI, Test Report No. 757222-2, dated 22.05.2017
- DTI, Test Report No. 757222-1, dated 22.05.2017
- SINTEF Byggforsk, Test Report 2017:00190 dated 26.06.2017
- DARE!! Measurements, Test Report 17C00381RPT02 dated 01.06.2017
- DARE!! Measurements, Test Report 17C00553RPT02 dated 12.06.2017

- SGS, Technical Report No.: L2DM0002 dated 30.06.2017
- TZW, Kontrollprüfbericht NW-6311BP0082 dated 27.08.2015
- OFI Technologie & Innovation, Prüfbericht Nr.: 406.680 dated 27.04.2012

9. Marking

The products main components shall be marked with the manufacturer's identity symbol. The approval mark for SINTEF Technical Approval No. 20609 may also be used.



Approval mark

10. Liability

The holder/manufacturer has sole product responsibility according to existing law. Claims resulting from the use of the product cannot be brought against SINTEF beyond the provisions of Norwegian Standard NS 8402

for SINTEF Building and Infrastructure

Hans Boye Skogstad
Approval Manager