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Household water purifiers

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Foreword

This Japanese Industrial Standard has been revised by the Minister of Economy, Trade and Industry through deliberations at the Japanese Industrial Standards Committee as the result of proposal for revision of Japanese Industrial Standard submitted by Japan Water Purifier Association (JWPA)/Japanese Standards Association (JSA) with a draft being attached, based on the provision of Article 12, paragraph (1) of the Industrial Standardization Act applied mutatis mutandis pursuant to the provision of Article 16 of the said Act. This edition replaces the previous edition (**JIS S 3241** : 2015), which has been technically revised.

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Household water purifiers

1 Scope

This Japanese Industrial Standard mainly specifies the requirements for the household water purifiers among water treatment instruments having the functions to reduce the dissolved substances, turbidity etc. in tap water using a filter medium (hereafter referred to as water purifiers). Water purifiers using reverse osmosis membranes (reverse osmosis membrane modules) as the filter medium and the server type water purifiers are excluded.

2 Normative references

Part or all of the provisions of the following standards, through reference in this text, constitute provisions of this Standard. The most recent editions of the standards (including amendments) indicated below shall be applied.

JIS B 7505-1 *Aneroid pressure gauges — Part 1 : Bourdon tube pressure gauges*

JIS S 3201 *Testing methods for household water purifiers*

3 Terms and definitions

For the purpose of this Standard, the following terms and definitions, and those given in JIS S 3201 apply.

3.1

continuous type water purifier (Type I)

water purifier in which the purified water obtained is not stored in a tank etc. but is continuously fed from the water purifier and to which the water pressure is constantly applied

3.2

continuous type water purifier (Type II)

water purifier used by being connected to a faucet etc., in which the purified water obtained is not stored in a tank etc. but is continuously fed from the water purifier and to which the water pressure is not constantly applied to the water purifier attached to the outlet side of the faucet or other water-supply terminal instrument

3.3

under-sink type water purifier

continuous type water purifier whose body is attached under a sink etc.

3.4

bibcock direct-coupled type water purifier

continuous type water purifier (Type II) whose body is directly attached to the tip of faucet etc. by the user

3.5

stationary type water purifier

continuous type water purifier whose body is connected to the tip of faucet etc. through a hose by the user

3.6

water purifier housed in faucet

continuous type water purifier (Type II) whose water purifying cartridge is built in a faucet or in which the water purifier is integrated with a faucet

3.7

pot/pitcher type water purifier

batch operation type water purifier not connected to a faucet, which supplies the filtered water by means of spontaneous filtration, having a filtered water receiver used as a pot/pitcher

3.8

inlet side

upstream side of flow against the target instrument such as a water purifier in the flow of water

3.9

outlet side

downstream side of flow against the target instrument such as a water purifier in the flow of water

3.10

flow channel changeover mechanism

changeover mechanism of the flow channel in a water purifier in which both the tap water and the purified water can be used by changeover

Note 1 to entry The flow channel changeover mechanism includes the changeover mechanism of the flow posture such as straight or shower.

3.11

setting for purified water discharge

changeover setting for the flow channel of water to use the purified water in a water purifier equipped with a flow channel changeover mechanism in which the water flow path is changed over between tap water and purified water

3.12

water purifying cartridge

portion constituting the water purifier in which filter material/medium is housed in to mainly satisfy the water purifying performance of water purifier

Note 1 to entry Generally periodically replaced and used.

Note 2 to entry Some water purifiers shall have pressure resistance performance and durability performance because they are subjected to the water pressure during the service, and others are not required to have pressure resistance performance and durability performance because they are not subjected to the water pressure during the service since they are housed in the body having the pressure resistance structure.

3.13

water purifier adaptable to multiple faucets (POE)

water purifier installed at the water-supply gate of each house such as immediately downstream of a water metre of each house to supply purified water to multiple faucets in a house

Note 1 to entry Consisting of a continuous type water purifier (Type I), a check valve installed on the inlet side and a free residual chlorine concentration control mechanism.

Note 2 to entry “POE” means “Point of Entry.”

Note 3 to entry Water purifiers used for business purposes and architectural structures like buildings are excluded.

3.14

free residual chlorine concentration control mechanism

mechanism which regulates the concentration of free residual chlorine in the water-supply piping on the outlet side of water purifier, integrated in a POE type water purifier

Note 1 to entry Having such functions as a bypass for part of tap water and the re-addition of free residual chlorine.

3.15

pump

device for pressurizing tap water in order to activate a water purifier

Note 1 to entry Water purifiers are usually activated by the tap water pressure; however, a pump is sometimes installed for the cases when the water pressure is low, when an especially high water pressure is required for purifying the water, and the like.

4 Classification

The classification of water purifiers is as shown in Table 1. Examples of structure for respective types are shown in Figure 1 to Figure 9. Each enclosed part in Figure 1 to

Figure 9 shows the water purifier to which this Standard applies.

Table 1 Types of water purifier

	Type	Diagram
Continuous type water purifier (Type I)	Under-sink type water purifier	Figure 1
	Stationary type water purifier	Figure 2
	POE type water purifier	Figure 3
Continuous type water purifier (Type II)	Under-sink type water purifier	Figure 4
	Bibcock direct-coupled type water purifier	Figure 5
	Stationary type water purifier	Figure 6
	Water purifier housed in faucet	Figure 7
Batch operation type water purifier	Pot/pitcher type water purifier	Figure 8
	Portable type water purifier	Figure 9

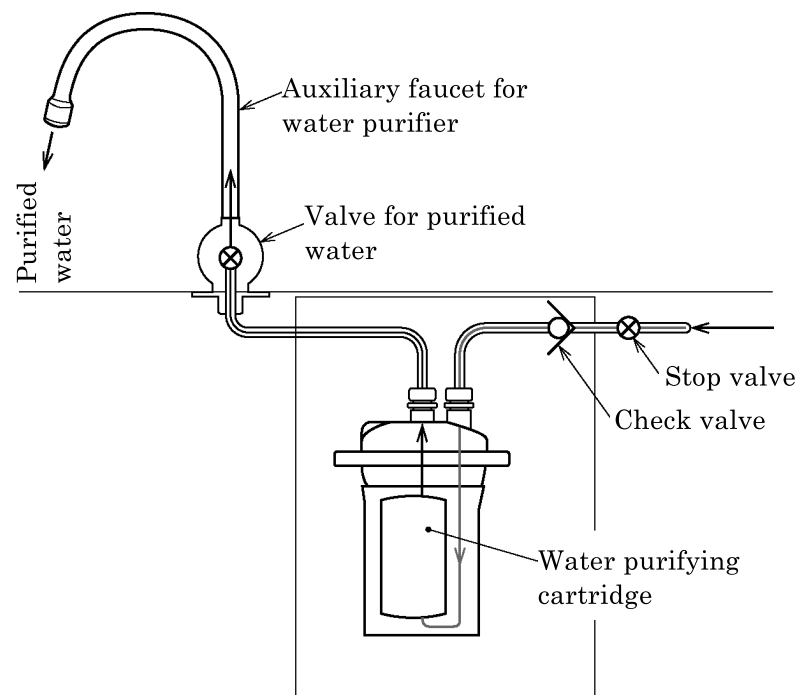


Figure 1 Example of under-sink type water purifier of continuous type water purifier (Type I)

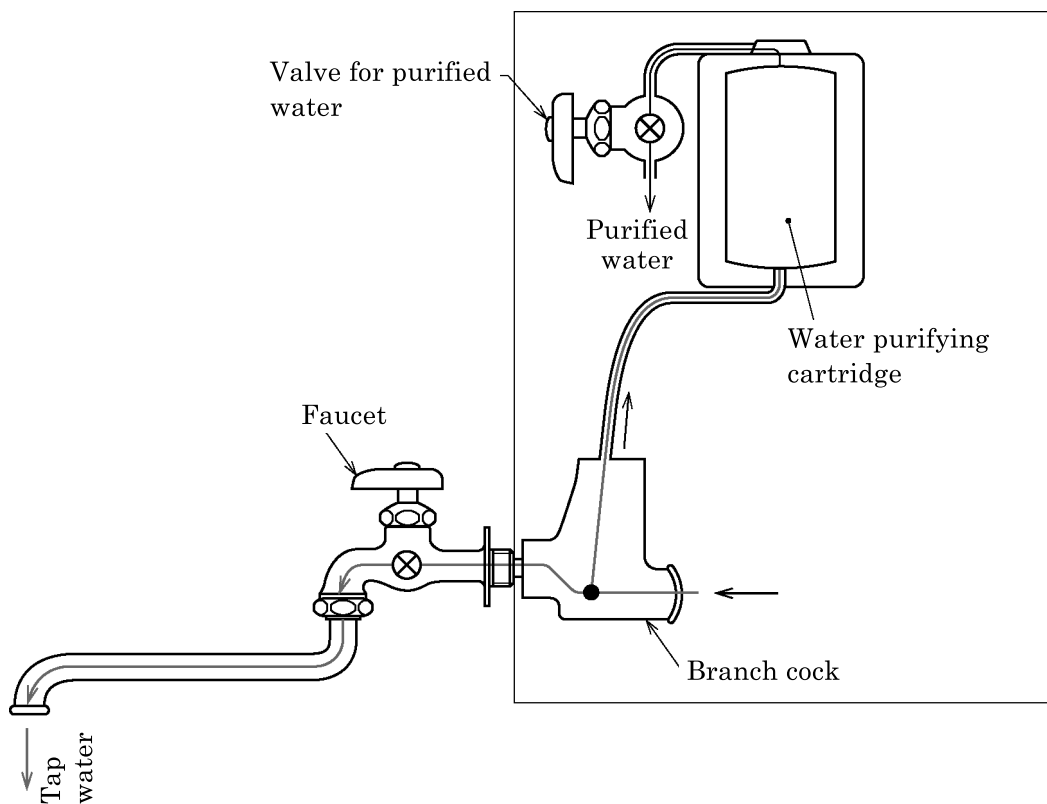


Figure 2 Example of stationary type water purifier of continuous type water purifier (Type I)

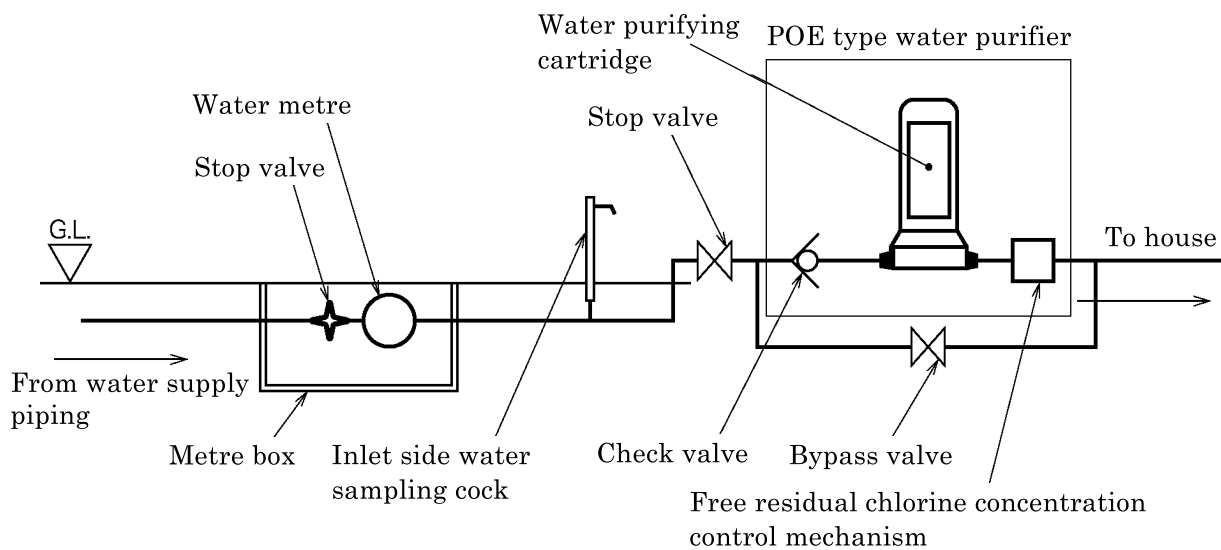


Figure 3 Example of POE type water purifier of continuous type water purifier (Type I)

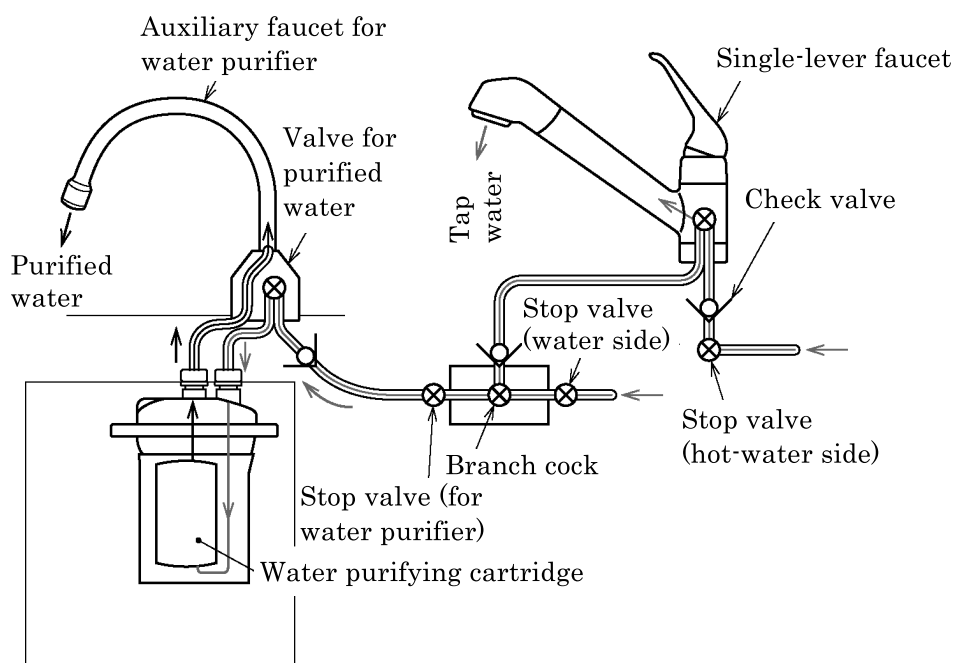


Figure 4 Example of under-sink type water purifier of continuous type water purifier (Type II)

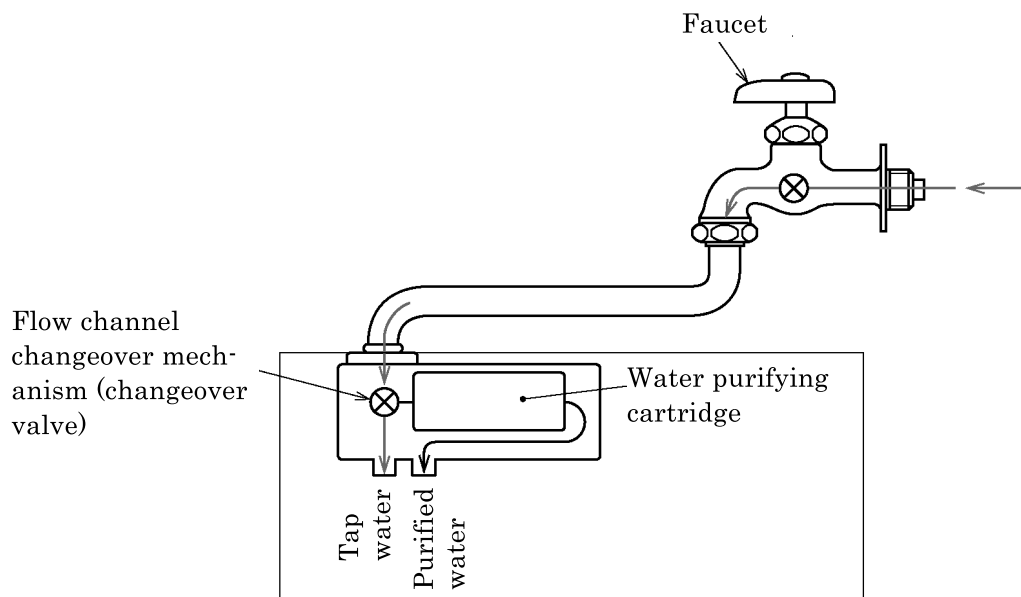


Figure 5 Example of bibcock direct-coupled type water purifier of continuous type water purifier (Type II)

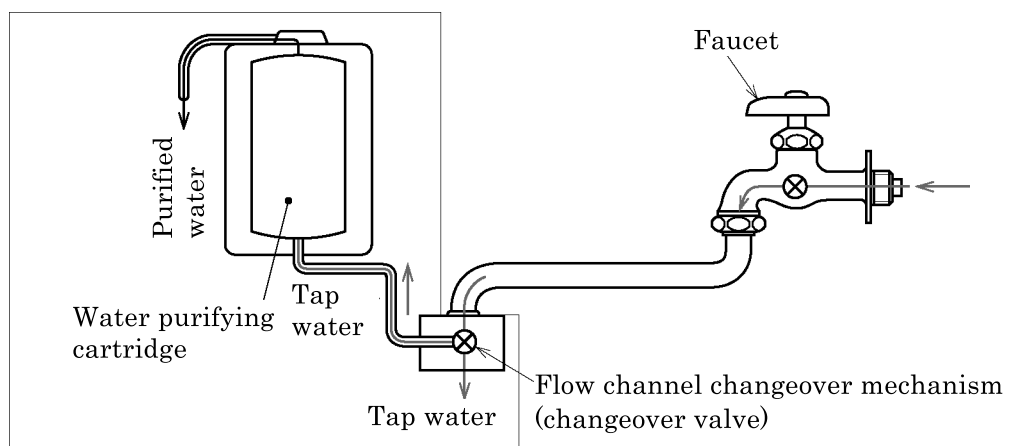
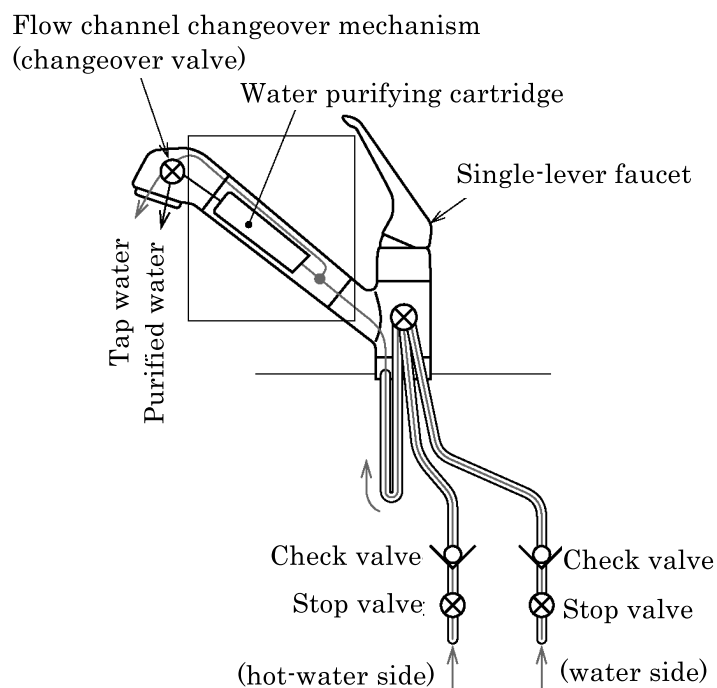
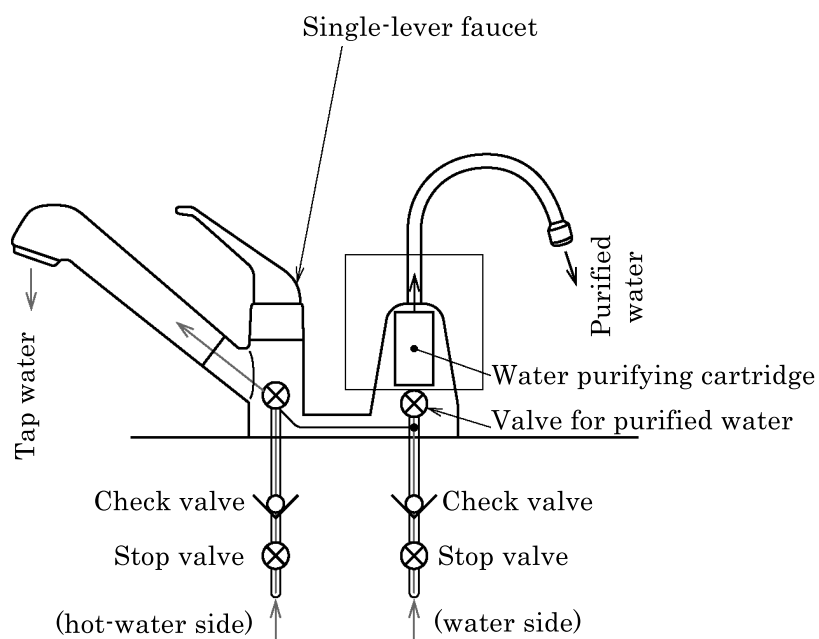


Figure 6 Example of stationary type water purifier of continuous type water purifier (Type II)

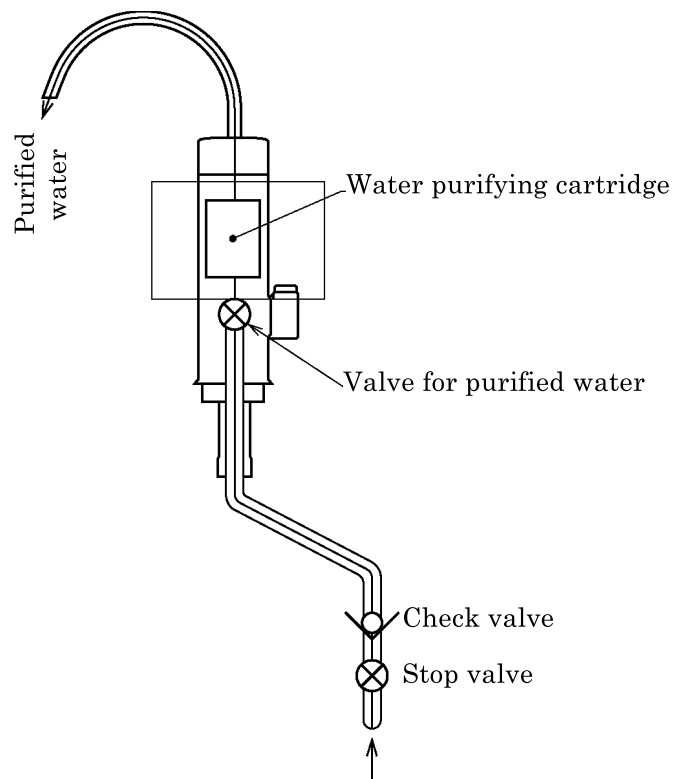


a) Type where water purifying cartridge is housed in water faucet spout



b) Type 1 where water purifying cartridge is housed in water faucet body

Figure 7 Example of water purifier housed in faucet of continuous
water purifier (Type II)



c) Type 2 where water purifying cartridge is housed in water faucet body
Figure 7 (concluded)

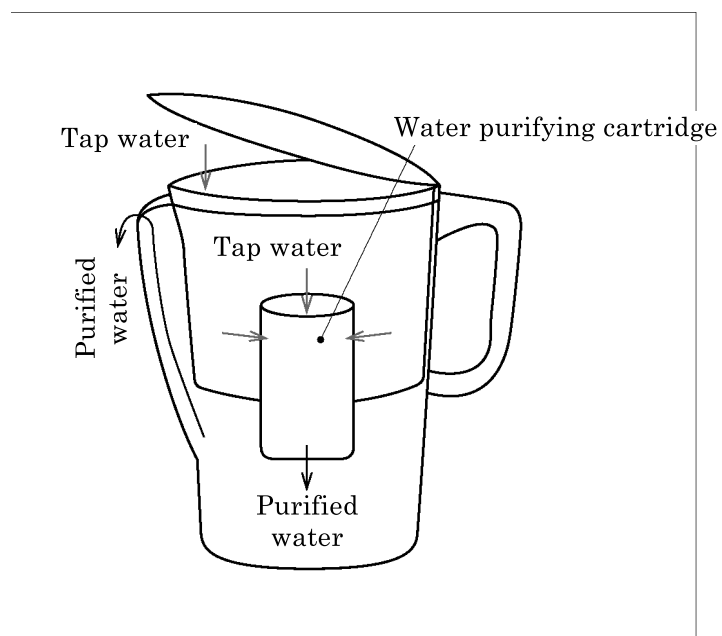


Figure 8 Example of pot/pitcher type water purifier of batch operation type