



Water softener softliQ:SE

Intended use

The water softener softliQ:SE must only and exclusively be used for the softening and partial softening of cold drinking water.

The water softener protects water pipes and connected water-carrying systems from scaling, as well as from malfunctions and damage caused by scaling. The water softener does not prevent corrosion.

The water softeners are designed for the continuous supply of soft water.

Recommendations for use:

- Water softener softliQ:SE18: 1 – 4 persons
- Water softener softliQ:SE21: 1 – 9 persons
- Water softener softliQ:SE24: 1 – 12 persons

Mode of operation

The water softener works according to the ion exchange principle.

The iQ mode controls the system capacity and regeneration time based on AI. The point of regeneration can also be set at a fixed time. Should water be required during the regeneration process, non-softened water is available.

During each regeneration, only the used-up system capacity is regenerated. Only as much salt is used as necessary. For hygienic reasons, the system releases a complete regeneration after three days

at the latest.

Grünbeck myProduct-App

The water softener can be controlled and registered on the move via the myProduct app.



Structure

- Salt tank with sieve bottom
- Removable housing of the technical equipment for access to the control valve and brine valve
- Safety float
- Exchanger filled with ion exchange resin and glass beads
- Connection hoses
- Salt tank lid with light sensor for salt volume detection and control via touchscreen
- Safety plug with cable

Scope of supply

- Water softener softliQ:SE
- Connection module
- Water test kit for total hardness
- Installation and connection material

from SE21

- Leak sensor

from SE24

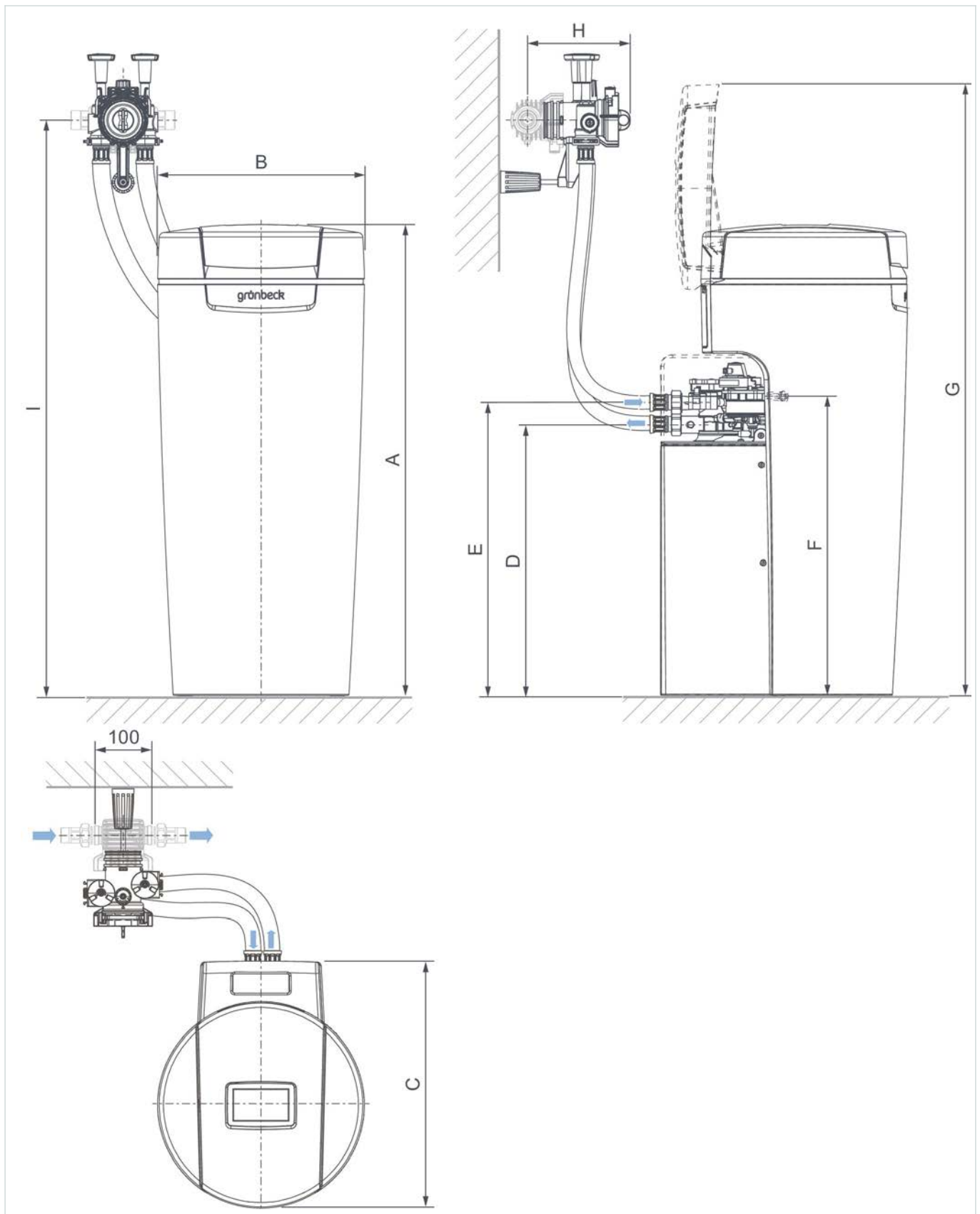
- Drain connection
- Hose insulation

Not included in scope of supply

- cliQlock basic module



Technical specifications



Dimensions and weights			SE18	SE21	SE24
A	Height	mm	815	815	815
B	Width	mm	360	360	360
C	Depth	mm	430	430	430
D	Height soft water connection	mm	470	470	470
E	Height raw water connection	mm	510	510	510
F	Height of safety overflow, brine tank	mm	520	520	520
G	Height salt dissolving tank with lid	mm	1060	1060	1060
H	Depth connection	mm	178	178	178
I	Height connection	mm	1000	1000	1000
Operating weight		kg	65,0	68,0	72,0

Connection data		SE18	SE21	SE24
Nominal diameter of drain connection		≥ DN 50	≥ DN 50	≥ DN 50
Mains connection voltage	VAC	100 - 250	100 - 250	100 - 250
Mains connection frequency	Hz	50/60	50/60	50/60
Electrical power input operation	W	8	14	14
Power input in standby	W	≤ 3,5	≤ 3,5	≤ 3,5
Protection class		II	II	II

Performance data		SE18	SE21	SE24
Nominal pressure		PN 10	PN 10	PN 10
Operating pressure	bar	2 - 8	2 - 8	2 - 8
Nominal flow (0 °dH, 0 °f, 0 mol/m ³) acc. to DIN EN 14743 at a pressure loss of 1.0 bar	m ³ /h	1,8	2,1	2,4
"Nominal flow at a pressure loss of 1.0 bar in accordance with DIN 19636 (raw water hardness 20 °dH (35.6 °f, 3.56 mol/m ³), soft water hardness 8 °dH (14.2 °f, 1.42 mol/m ³))"	m ³ /h	3,0	3,5	4,0
Nominal capacity variable per m ³ and °dH per exchanger	m ³ x °dH	6,0 - 14,0	8,0 - 20,0	9,0 - 23,0
Nominal capacity variable per m ³ and °f per exchanger	m ³ x °f	11,0 - 25,0	14,0 - 36,0	16,0 - 41,0
Nominal capacity variable in mol per exchanger	mol	1,1 - 2,5	1,4 - 3,6	1,6 - 4,1
Capacity per kg of regeneration salt	mol/kg	6,7 - 4,5	7,1 - 4,5	7,1 - 4,5
Regeneration time for a complete regeneration	min	20 - 40	20 - 40	20 - 40
Regeneration (1x per day) in case of reduction in capacity	%	> 50	> 50	> 50

Interfaces	SE18	SE21	SE24
Interfaces	WLAN 2.4 GHz	WLAN 2.4 GHz	WLAN 2.4 GHz

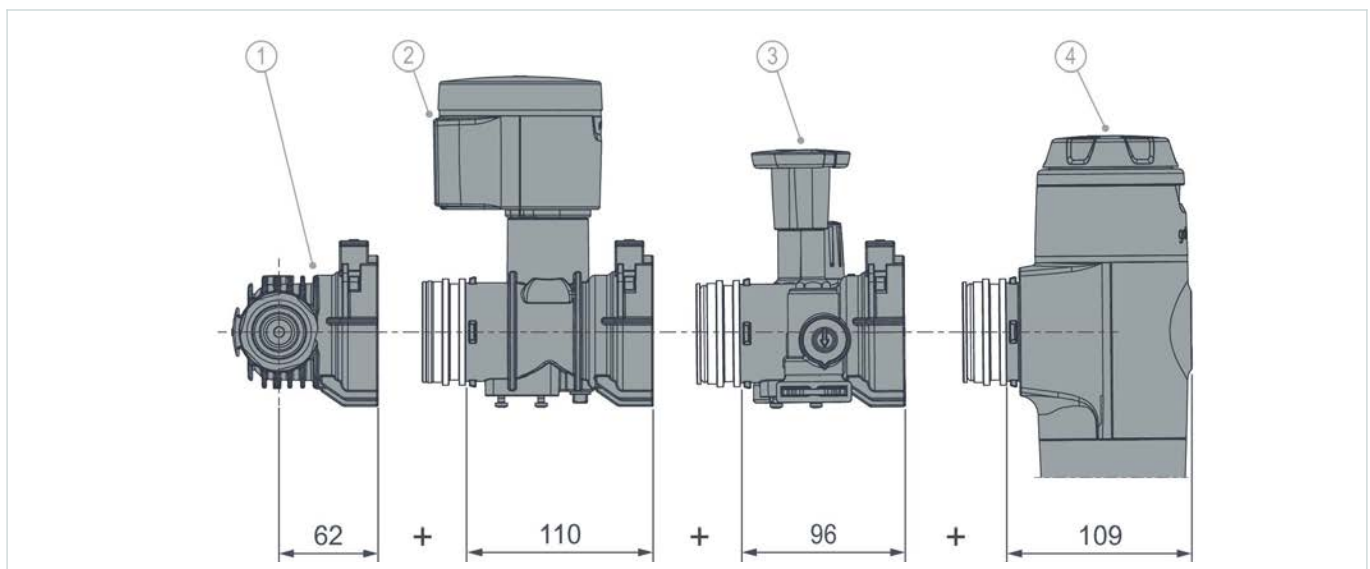


Filling volumes and consumption data		SE18	SE21	SE24
Resin volume	l	5	7,5	9
Salt consumption at complete regeneration	kg	0,15 - 0,55	0,2 - 0,8	0,23 - 0,95
Regeneration salt supply	kg	≤ 35	≤ 35	≤ 35
Salt consumption per m ³ and °dH	kg/(m ³ x °dH)	0,03 - 0,04	0,03 - 0,04	0,03 - 0,04
Salt consumption per m ³ and °f	kg/(m ³ x °f)	0,01 - 0,02	0,01 - 0,02	0,01 - 0,02
Salt consumption per mol	kg/mol	0,14 - 0,22	0,14 - 0,22	0,14 - 0,22
Flushing water flow	m ³ /h	≤ 0,3	≤ 0,4	≤ 0,6
Total waste water volume per complete regeneration	l	21 - 31	28 - 43	32 - 51
Waste water volume with complete regeneration per m ³ and °dH	l/(m ³ x °dH)	3,50 - 2,20	3,50 - 2,20	3,50 - 2,20
Waste water volume with complete regeneration per m ³ and °f	l/(m ³ x °f)	1,90 - 1,20	1,90 - 1,20	1,90 - 1,20
Waste water volume with complete regeneration per mol	l/mol	19,00 - 12,00	19,00 - 12,00	19,00 - 12,00

Certificates	SE18	SE21	SE24
Registration num DIN/DVGW	NW-9151CT0491		

General data		SE18	SE21	SE24
Media temperature	°C	5 - 30	5 - 30	5 - 30
Ambient temperature	°C	5 - 40	5 - 40	5 - 40
Air humidity (non-condensing)	%	≤ 90	≤ 90	≤ 90
Field of application number of persons		1 - 4	1 - 9	1 - 12
Order no.		189000020000	189000030000	189000040000

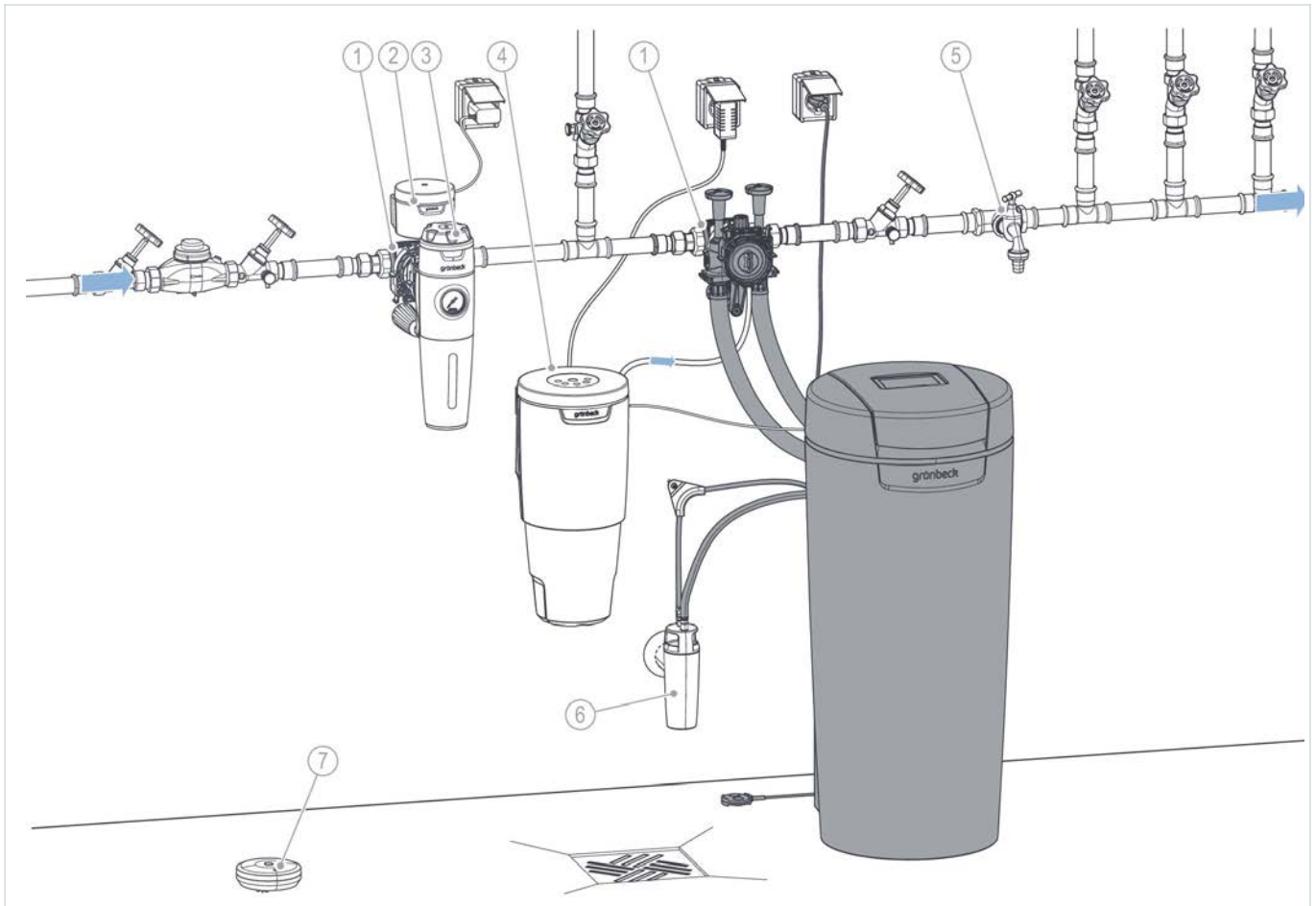
Modular cliQlock system setup dimensions



Designation	Designation
1 cliQlock basic module	3 cliQlock connection module (softliQ)
2 Leakage protection protectliQ:B	4 pureliQ X drinking water filter series



Installation example



Designation	Designation
1 cliQlock basic module	5 Water withdrawal point
2 Leakage protection protectliQ:B	6 Drain connection DN 50 acc. to DIN EN 1717
3 Fine filter pureliQ:KDX	7 Water sensor (protectliQ)
4 Dosing system exaliQ	



Installation example



Designation	Designation
1 Safety device protectliQ	5 Water withdrawal point
2 Dosing system exaliQ	6 Drain connection DN 50 acc. to DIN EN 1717
3 cliQlock basic module	7 Water sensor (protectliQ)
4 Fine filter pureliQ:KDX	



Requirements for the installation site

Obey the local installation directives, general guidelines and technical specifications.

- Protection from frost, severe heat exposure and direct sunlight
- Protection from chemicals, dyes, solvents and their vapours
- Ambient temperature and radiation temperature in the immediate vicinity
 - ≤ 25 °C for applications in the drinking water sector
 - ≤ 40 °C for purely technical applications
- Protection from heat sources (e. .g. heating systems, boilers and hot water pipes)
- Access for maintenance work (take required space into consideration)
- Sufficiently illuminated as well as aerated and ventilated
- Horizontal installation surface with sufficient load-bearing capacity to support the operating weight of the product
- Drinking water filter and pressure reducer, if required (e. (e.g. fine filter pureliQ:KDX)
- Floor drain or corresponding safety device with water stop function (e. g. leakage protection protectliQ:B)
- Salt water resistant lifting system in case the drain connection is located at a higher level
- Drain connection ≥ DN 50
- Shut-off valves and possibility of sampling upstream and downstream of the product
- Pipe with sufficient load-bearing capacity to support the operating weight of the product
- in Denmark, Finland, Norway and Sweden: Pressure reducer with an outlet pressure of < 0.8 MPa upstream from the product







Electrical installation

- Schuko socket with continuous power supply (max. 1.2 m from the control unit). The socket must not be coupled with light switches, emergency heating switches or the like.

Water installation

Accessories

Availability may vary depending on the country.

	SE18	SE21	SE24
 <p>Adapter kit 190 mm on 100 mm cliQlock basic module DN 25 Order no.: 101000110000 To shorten the installation distance</p>	✓	✓	✓
 <p>cliQlock basic module DN 20 Order no.: 101000070000 for installing the modular cliQlock system into the drinking water system</p>	✓	✓	✓
 <p>cliQlock basic module DN 25 Order no.: 101000080000 for installing the modular cliQlock system into the drinking water system</p>	✓	✓	✓
 <p>cliQlock basic module DN 32 Order no.: 101000090000 for installing the modular cliQlock system into the drinking water system</p>	✓	✓	✓
 <p>Double screw connection 1 1/4" Order no.: 115334 for direct connection of the filter and water softener or for the connection of 2 cliQlock basic modules DN 25</p>	✓	✓	✓
 <p>Drain connection DN 50 acc. to DIN EN 1717 Order no.: 188875 For small-scale water softeners, backwash filters and system separators</p>	✓	✓	–





Accessories

Availability may vary depending on the country.

	SE18	SE21	SE24
 <p>Hose insulation softliQ:SE Order no.: 189000050000 for professional thermal insulation of the connection hoses</p>	✓	✓	–
 <p>Extension set for connection hoses DN20 Order no.: 187860e to extend the existing connection hoses by 800 mm to 1.6 m overall</p>	✓	✓	✓
 <p>Closing cap for cliQlock module system Order no.: 101000100000 as blind plug for cliQlock module system</p>	✓	✓	✓
 <p>Wall bracket 75 kg Order no.: 189000010000 for increased-strength attachment for reduced installation space on the ground or higher water pipes</p>	✓	✓	✓
 <p>Additive for raw water outlet softliQ:SE, ME28, ME32 Order no.: 189000070000 to branch a raw water pipe (e. g. for garden water)</p>	✓	✓	✓
 <p>additive for soft water outlet softliQ:SE Order no.: 189000060000 to branch off a 0 °dH pipe (e.g. for a separate pipe to the heating system, technical application, etc.)</p>	✓	✓	✓




Consumables

	SE18	SE21	SE24
 <p>Regeneration salt 25 kg sack Order no.: 127001 Regeneration salt in tablet form according to EN 973 type A for the regeneration of ion exchangers.</p>	✓	✓	✓
 <p>Water test kit total hardness °dH and °f Order no.: 170187000000 For determining water hardness</p>	✓	✓	✓



Recommended products

Availability may vary depending on the country.

	SE18	SE21	SE24
 <p>Fine filter pureliQ:KDX Order no.: 101000020000 Fine filter with pressure reducer for the filtration of drinking water.</p>	✓	✓	✓
 <p>Fine filter pureliQ:KX Order no.: 101000010000 Fine filter for filtration of drinking water.</p>	✓	✓	✓
 <p>Leakage protection protectliQ:B Order no.: 126000010000 Continuously monitors critical areas in wet rooms, e.g. kitchens, bathrooms, laundry rooms, etc., and protects rooms and their furnishings from water damage</p>	✓	✓	✓

