



Inspired by **temperature**

Assembly system

Assembly manual

huber

Assembly system

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1 Introduction

1.1 Identification / symbols in the documentation

The following identifications and symbols are used in the texts and illustrations.




Identification / symbol	Description
→	Reference to information / procedure.
»TEXT«	Reference to a chapter in the documentation. In the digital version, the text is clickable.
>TEXT< [NUMBER]	Reference to the wiring diagram in the annex. The designation and the search digit are specified.
>TEXT< [LETTER]	Reference to a drawing in the same paragraph. The designation and the search digit are specified.
•	List, first level
–	List, second level

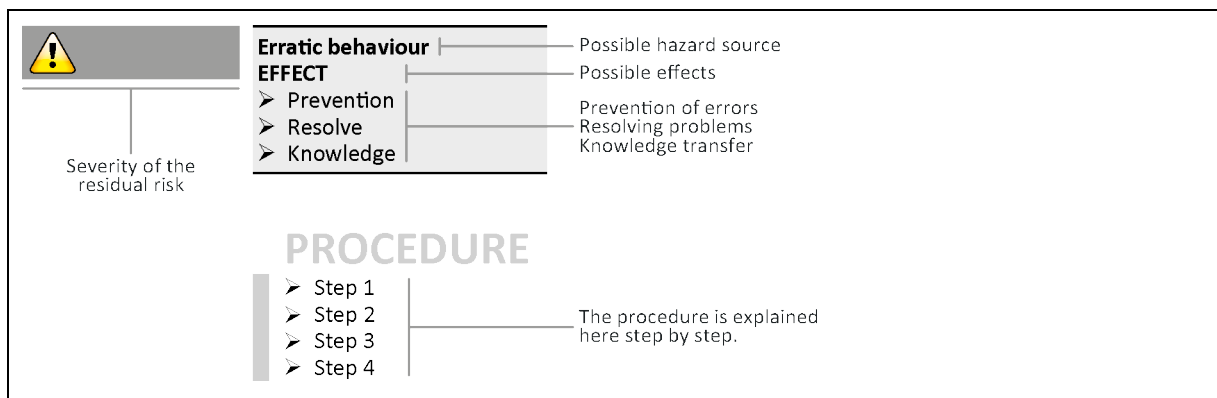
Overview

1.2 Safety

1.2.1 Symbols used for Safety Instructions

Safety instructions are indicated by the below combinations of pictograms/signal words. The signal word describes the classification of the residual risk when the documentation is disregarded.

 DANGER	Denotes an immediate hazardous situation that will result in death or serious injuries.
 WARNING	Denotes a general hazardous situation that may result in death or serious injuries.
 CAUTION	Denotes a hazardous situation that can result in injury.
NOTE	Denotes a situation that can result in material damage.
INFORMATION	Denotes important notes and usable hints.



Safety information and procedure

The safety information in this documentation is designed to protect the operating company, the operator and the equipment from damage. Safety instructions appear at the beginning of each chapter and before instructions. First inform yourself about any residual risks due to misuse before you start an operation.

1.2.2 Safety during commissioning

The following chapters are relevant for accessories in connection with a Huber temperature control unit, and apply in addition to the operation manual of the temperature control unit used here. If you have any questions, please contact our Customer Support. Keep this documentation for future reference.

2 Wrench sizes and torques

Observe the proper wrench sizes for the pump connection at the temperature control unit. The following table lists the pump connections and the resulting wrench sizes, as well as the torque values. Always perform a leak test afterwards and re-tighten the connections if required. The values of the maximum torques (see table) must **not** be exceeded. Protect the pump connections against undue twisting by counterholding.

Connection	Sleeve nut wrench size	Connector wrench size	Recommended torques in Nm	Maximum torques in Nm
M16x1	19	17	30	35
M24x1.5	27	27	47	56
M30x1.5	36	32	79	93
	36	36	79	93
M38x1.5	46	41/46	130	153
M45x1.5	50	50	200	210
G-thread (flat-sealing)	Adapt the torque to the material of the flat seal used. First hand-tighten the temperature control hose. When using adapter pieces, do not overtighten the G-thread on the pump connection when connecting a temperature control hose. When connecting a temperature control hose to the adapter piece, secure the G-thread against overtightening.			

Overview wrench sizes and torques

3 Safety instructions

! CAUTION The temperature control unit is not protected against overturning when the accessory is installed
SEVERE INJURIES AND MATERIAL DAMAGE

- Mounting accessories can cause the temperature control unit to become top-heavy.
- Take precautions to prevent the unit from overturning.

! CAUTION The temperature control unit is transported / moved when the accessory is installed
INJURIES CAUSED BY THE TEMPERATURE CONTROL UNIT OVERTURNING

- Remove the accessory before the temperature control unit is transported / moved.

! CAUTION Accessory is lifted onto the temperature control unit without an industrial truck
INJURIES

- Only lift the accessory onto the temperature control unit with an industrial truck..

! CAUTION The personal protective equipment is not worn during assembly
INJURIES

- Wear your personal protective equipment during assembly (e.g. cut-resistant gloves, safety footwear, etc.).

! CAUTION Projecting parts of the housing are not protected against impact from limbs
INJURIES

- The circumference of the temperature control unit increases when accessories are attached. Take the required protective measures to prevent impact from limbs.

NOTE

Temperature control unit is used without extra expansion vessel and without dummy plugs
PROPERTY DAMAGE CAUSED BY FLOODING THE ROOMS

- When the temperature control unit is used without an installed extra expansion vessel, the dummy plugs must be reinstalled in the temperature control unit.

NOTE

No leak test is performed after installation
PROPERTY DAMAGE CAUSED BY FLOODING THE ROOMS

- Check the installation for leaks.

NOTE

Temperature control unit is used without extra expansion vessel and without dummy plugs
PROPERTY DAMAGE CAUSED BY FLOODING THE ROOMS

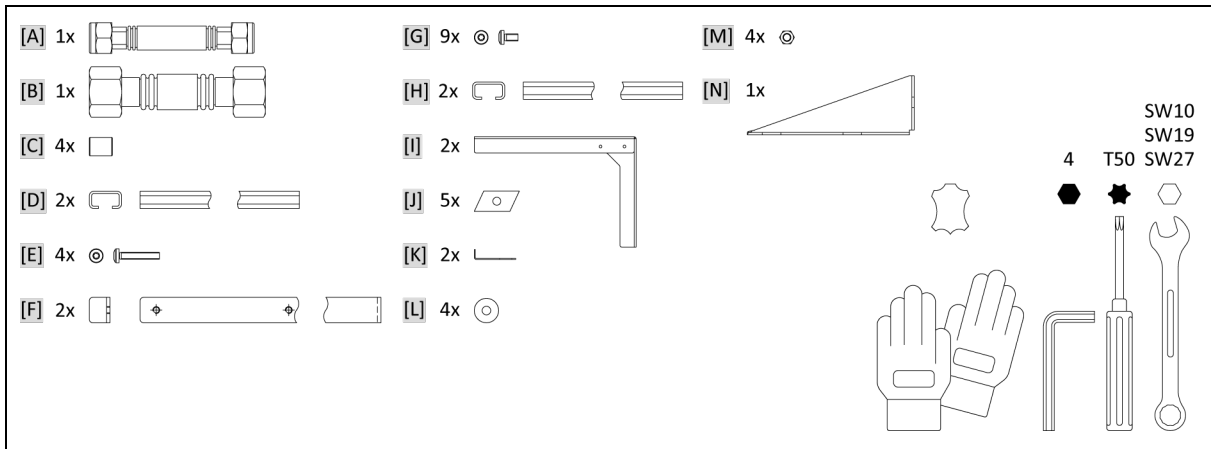
- When the temperature control unit is used without an installed extra expansion vessel, the dummy plugs must be reinstalled in the temperature control unit.

NOTE

The specified tightening torques are not observed during assembly
MATERIAL DAMAGE

- The specified tightening torques must be observed during assembly. This prevents the screws from coming loose due to vibrations.

4 Mounting the extra expansion vessel



Content and tool

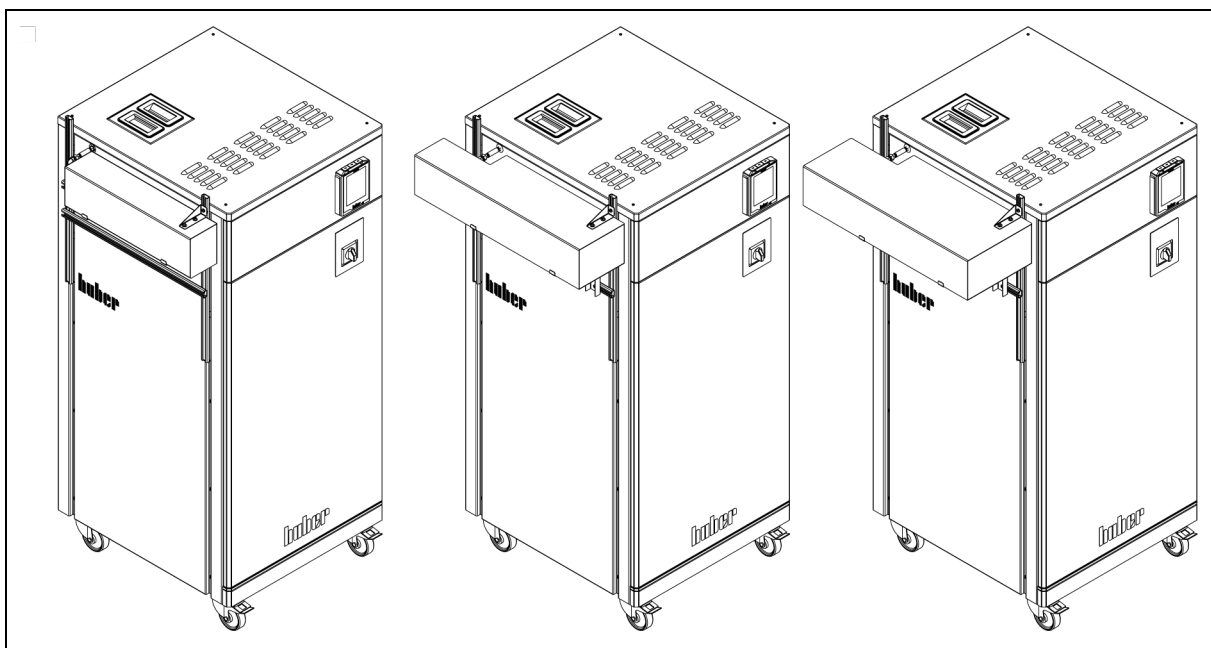
[A] >Connector< (M16x1)	[G] >Screw< (M6x12, 10 Nm)	[M] >Nut< (M5, 6 Nm)
[B] >Connector< (M24x1,5)	[H] >C-rail< (↔ 667 or 833 mm)	[N] >Angle piece<
[C] >Distance sleeve<	[I] >Support< (optional for 10, 20 or 30 liters)	
[D] >C-rail< (↔ 667 mm)	[J] >Slot nut< (M6)	
[E] >Screw< (M6x35, 10 Nm)	[K] >Angle bracket<	
[F] >Positioning rail< (↔ 416 mm)	[L] >Washer<	

INFORMATION

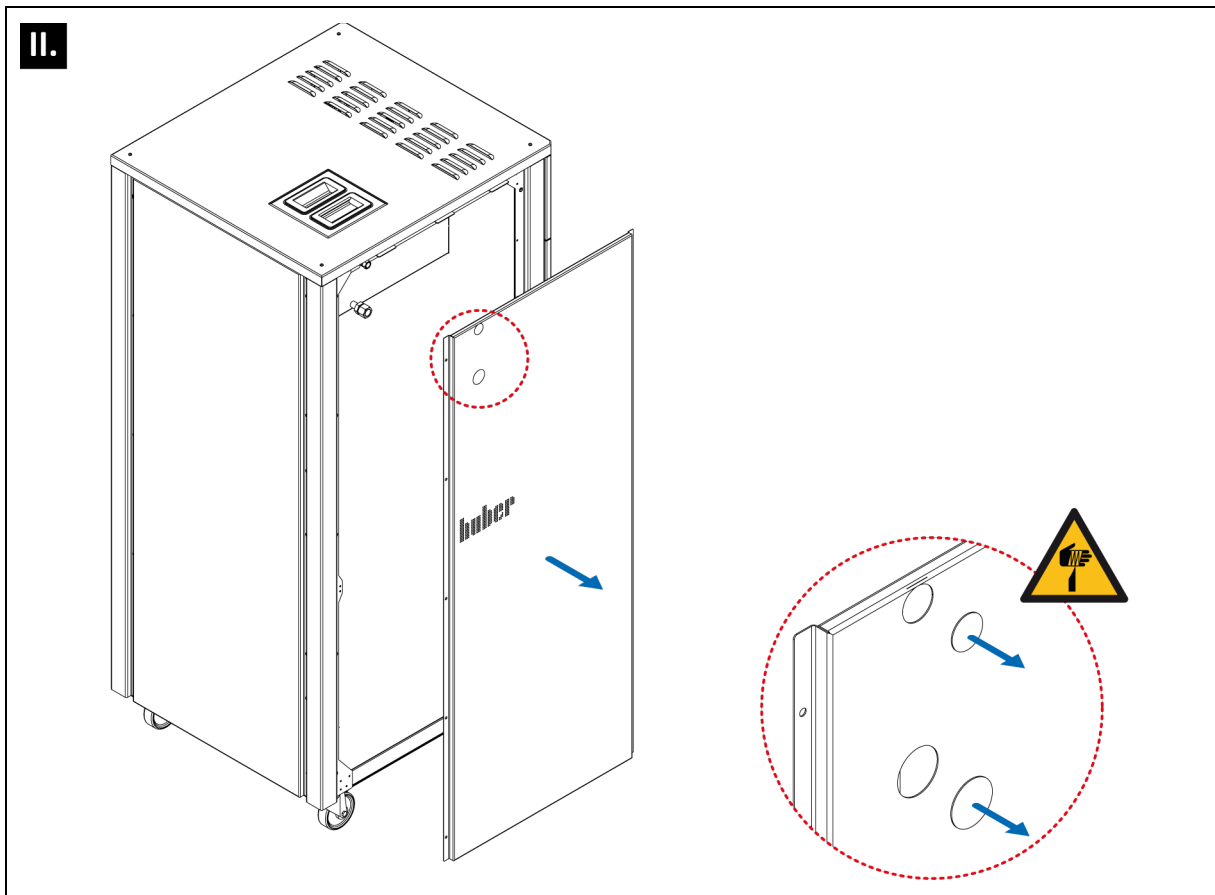
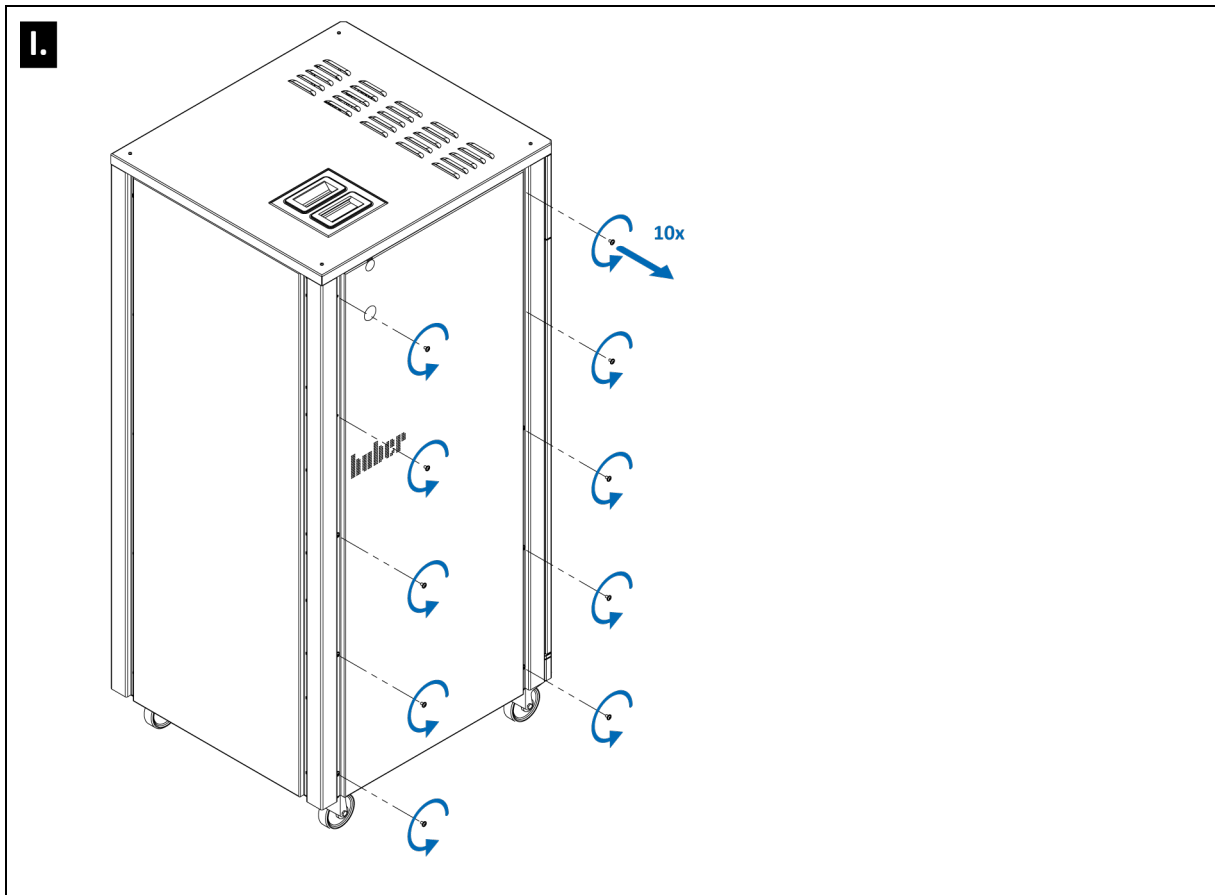
The assembly system allows for the direct attachment of an extra expansion vessel to the temperature control unit.

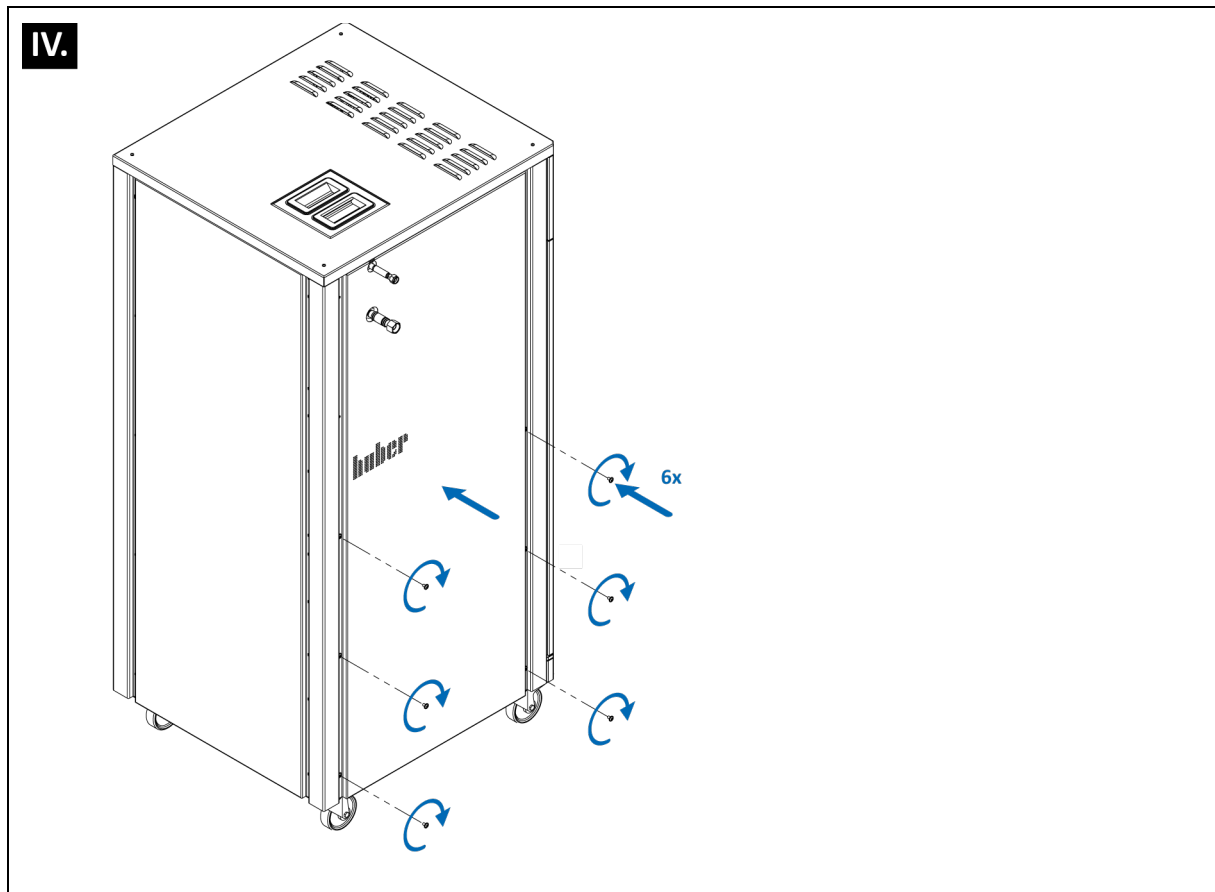
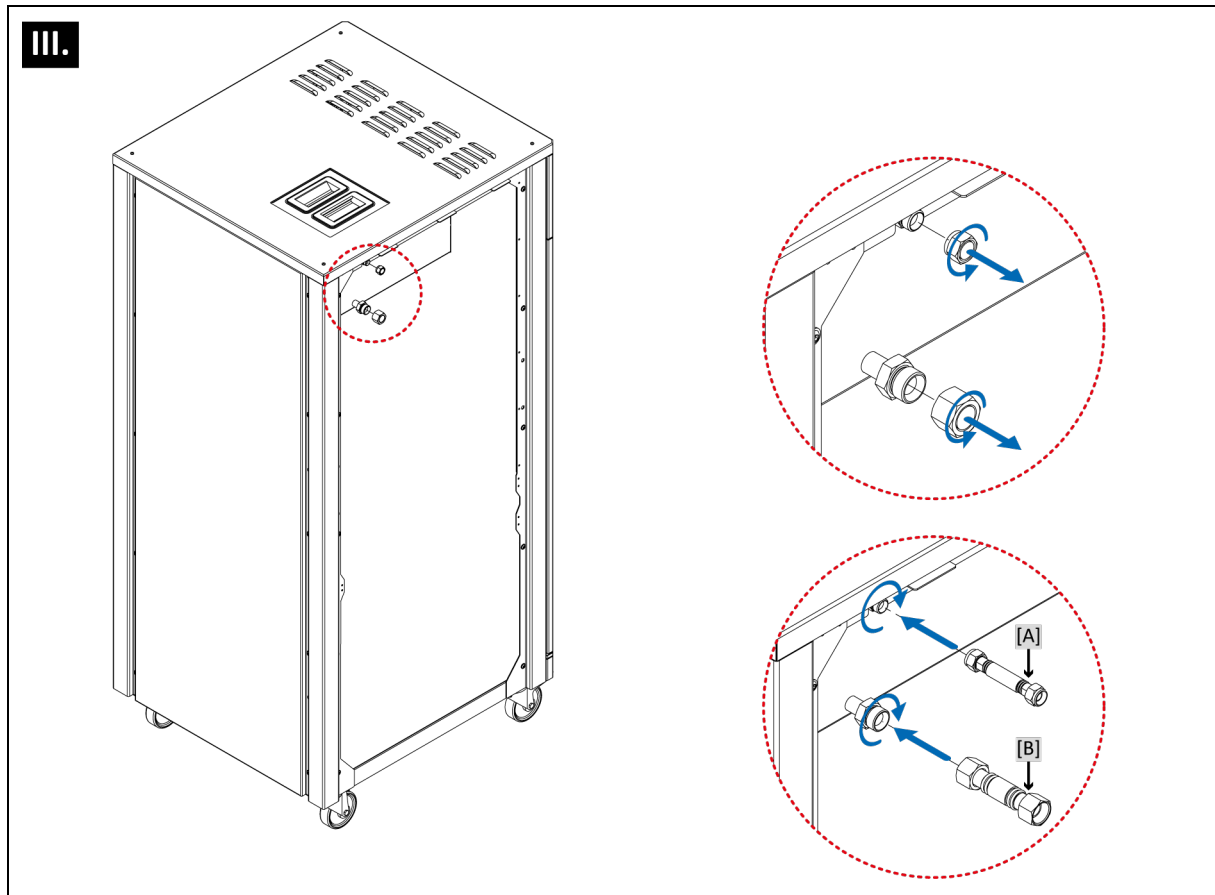
Preparations for assembly:

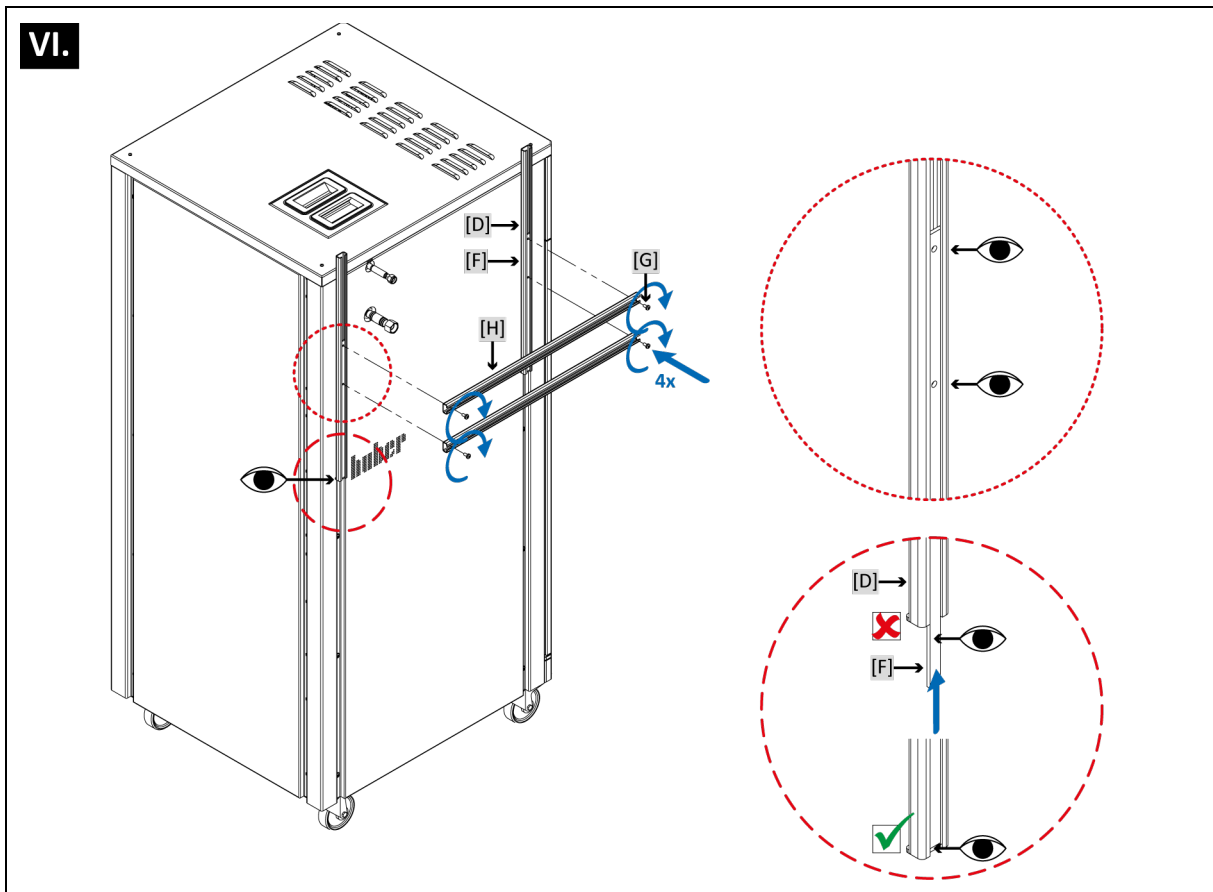
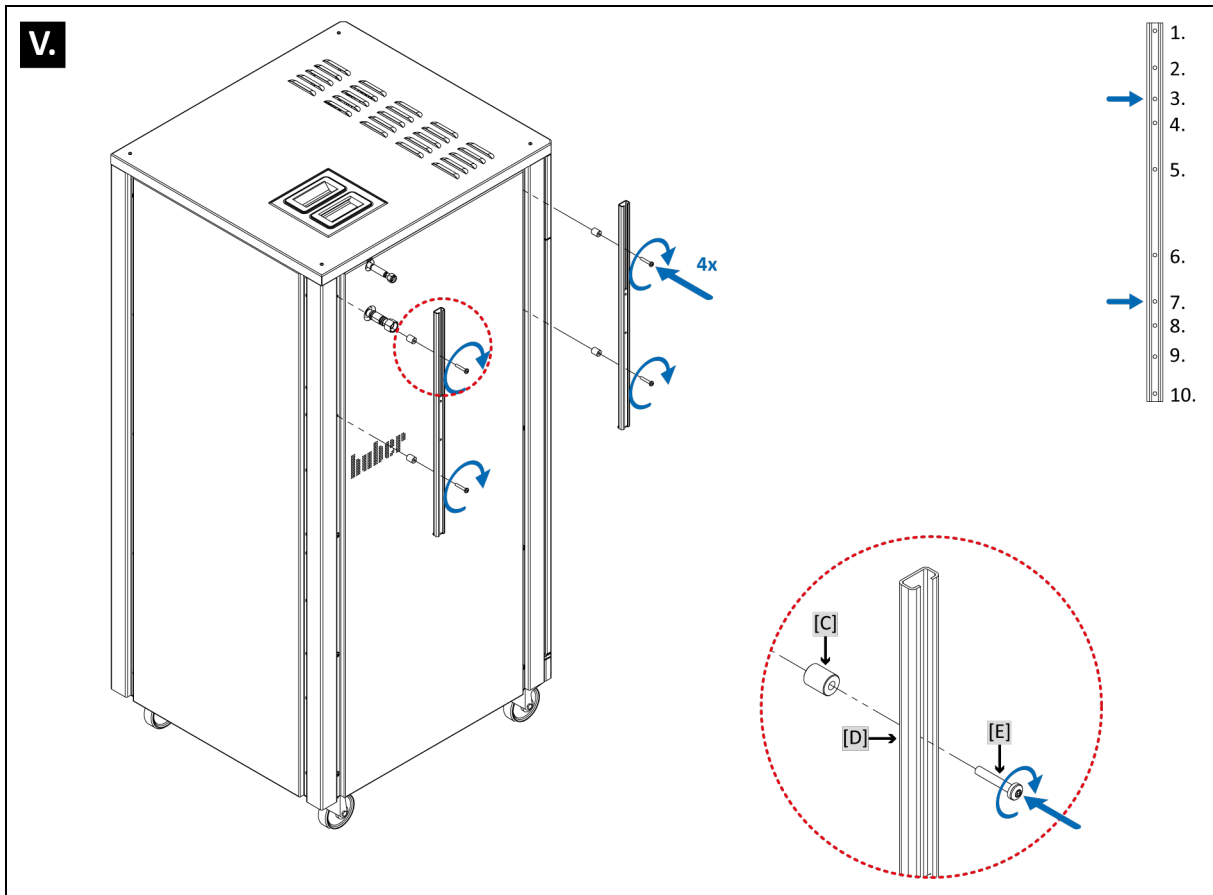
- Dismantle the housing part from the temperature control unit, loosen 10 screws for that purpose. Remove precut housing parts.
- Attach connectors to lead the connections to the outside.
- Mount the housing part on the temperature control unit, fit 6 screws for that purpose. Keep material that is not required for later use.

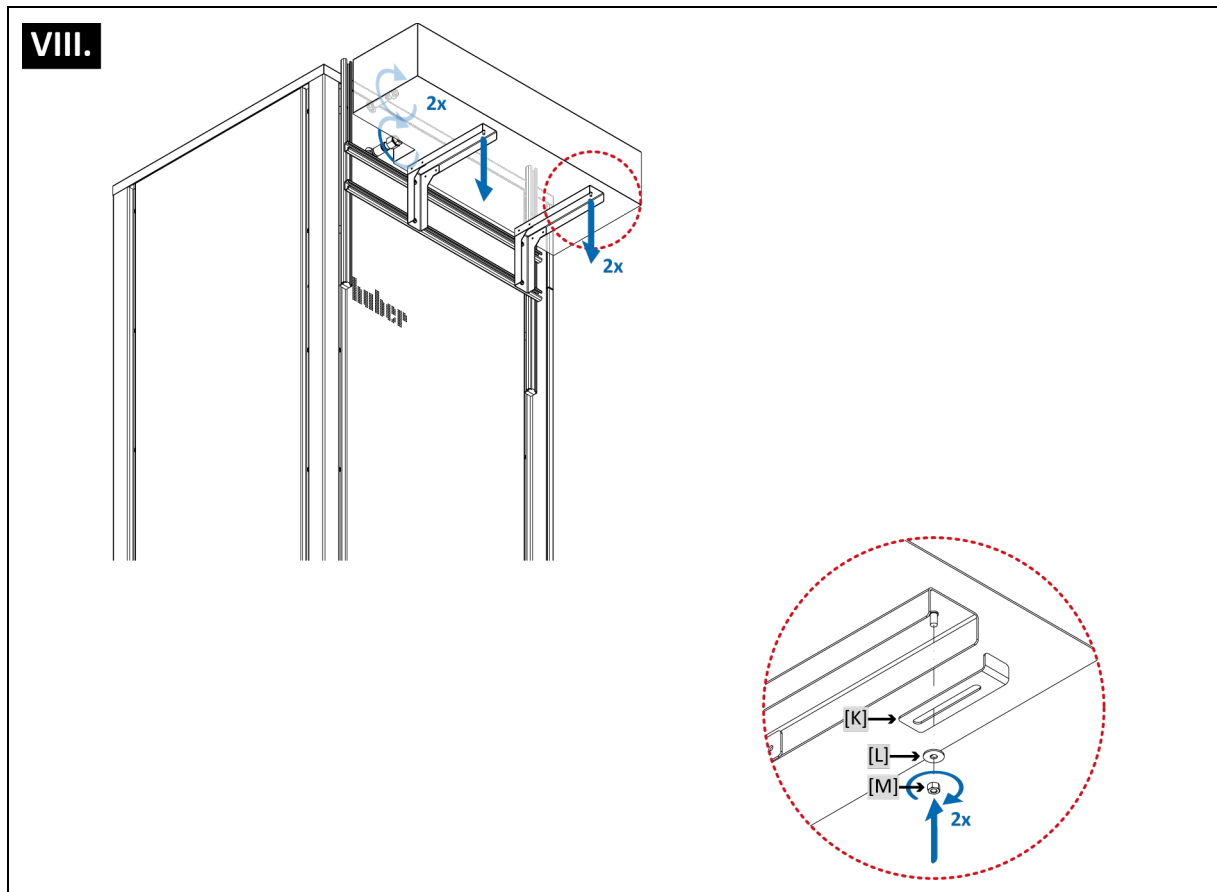
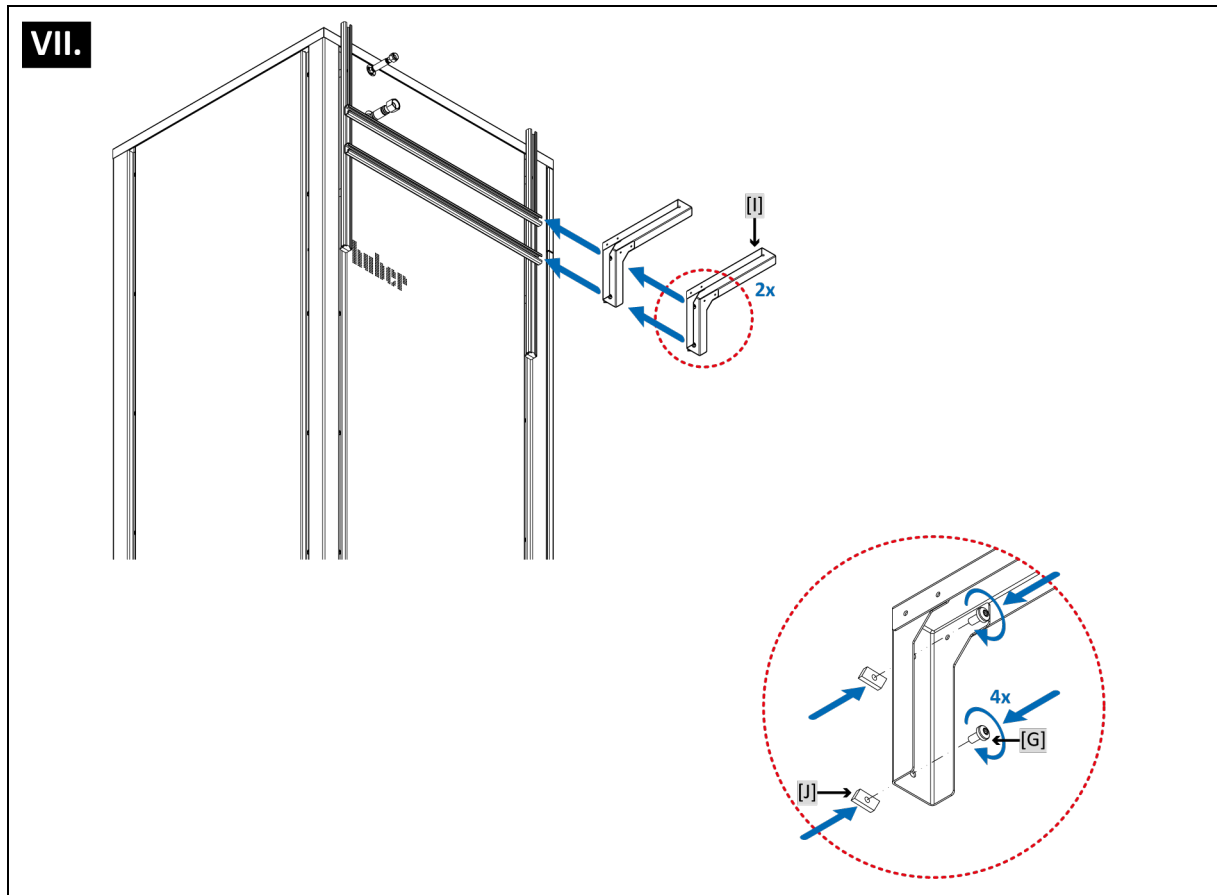


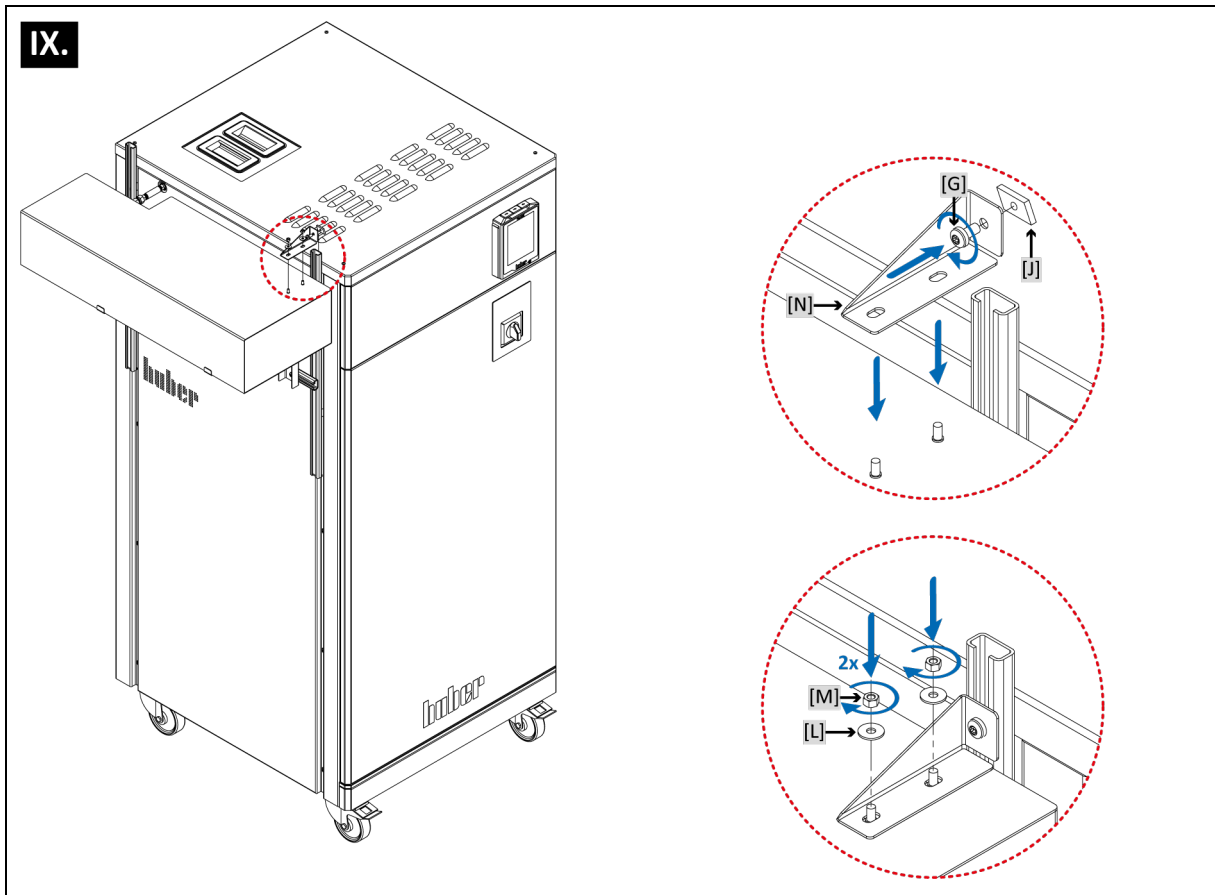
Temperature control units with installed extra expansion vessel (from left to right: 10, 20 and 30 liters)



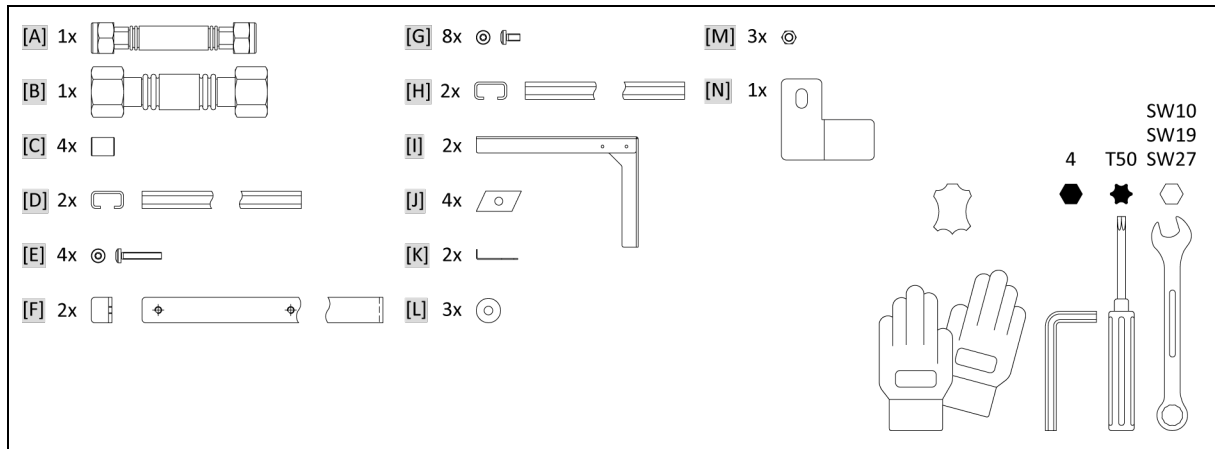








5 Mounting the extra expansion vessel for ADR



Content and tool

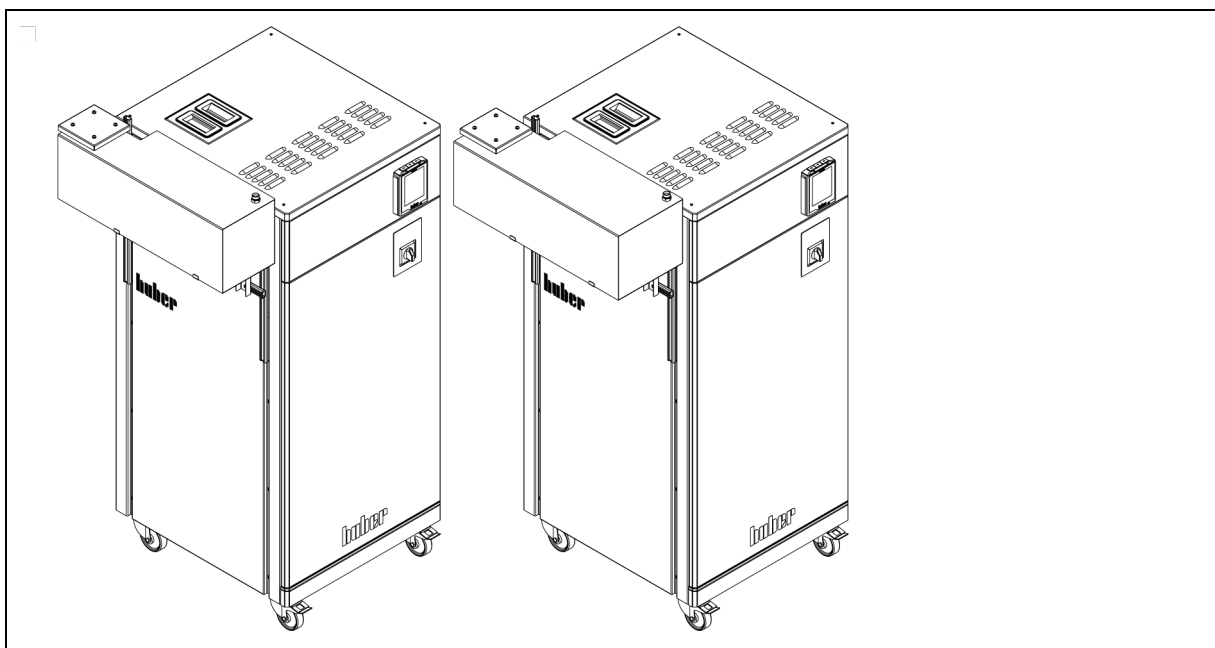
[A] >Connector< (M16x1)	[G] >Screw< (M6x12, 10 Nm)	[M] >Nut< (M5, 6 Nm)
[B] >Connector< (M24x1,5)	[H] >C-rail< (↔ 667 or 833 mm)	[N] >Angle piece<
[C] >Distance sleeve<	[I] >Support< (optional for 10, 20 or 30 liters)	
[D] >C-rail< (↔ 667 mm)	[J] >Slot nut< (M6)	
[E] >Screw< (M6x35, 10 Nm)	[K] >Angle bracket<	
[F] >Positioning rail< (↔ 416 mm)	[L] >Washer<	

INFORMATION

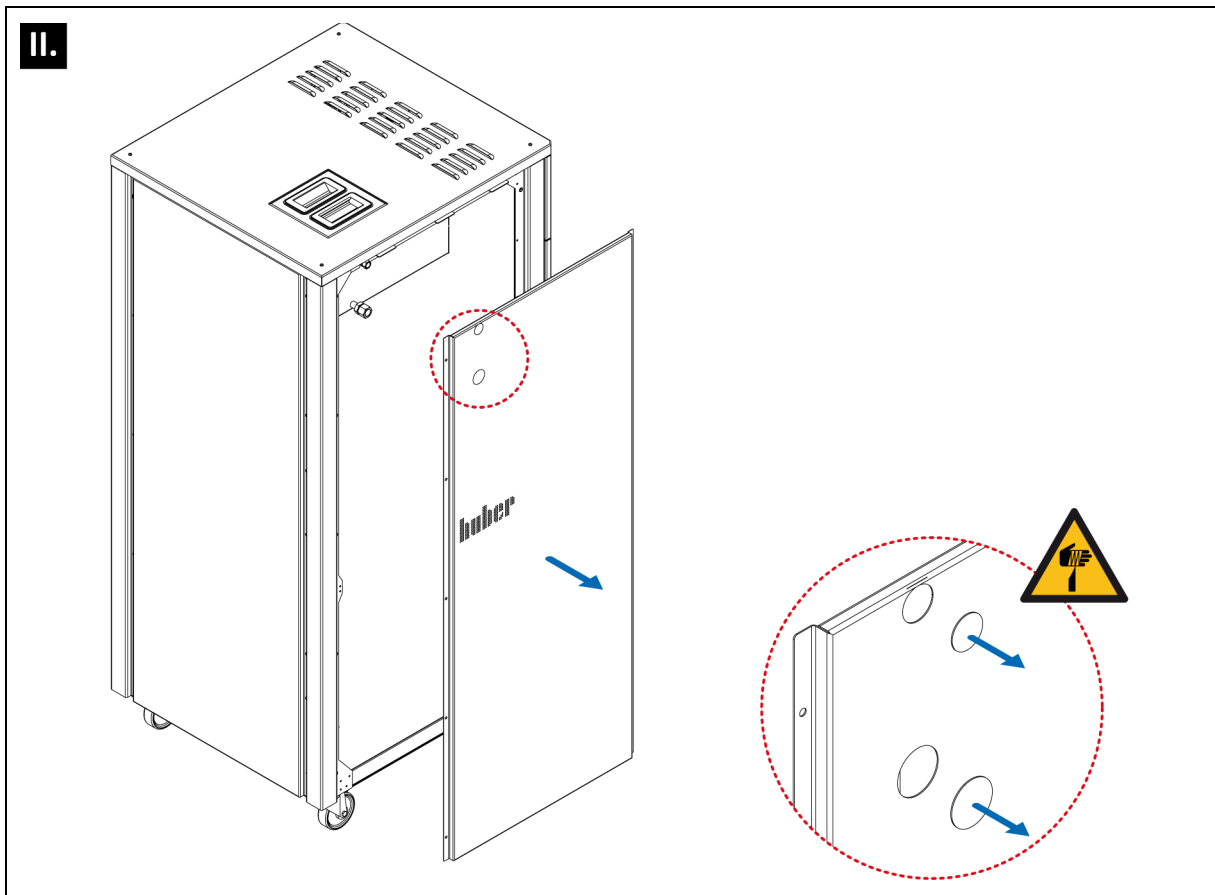
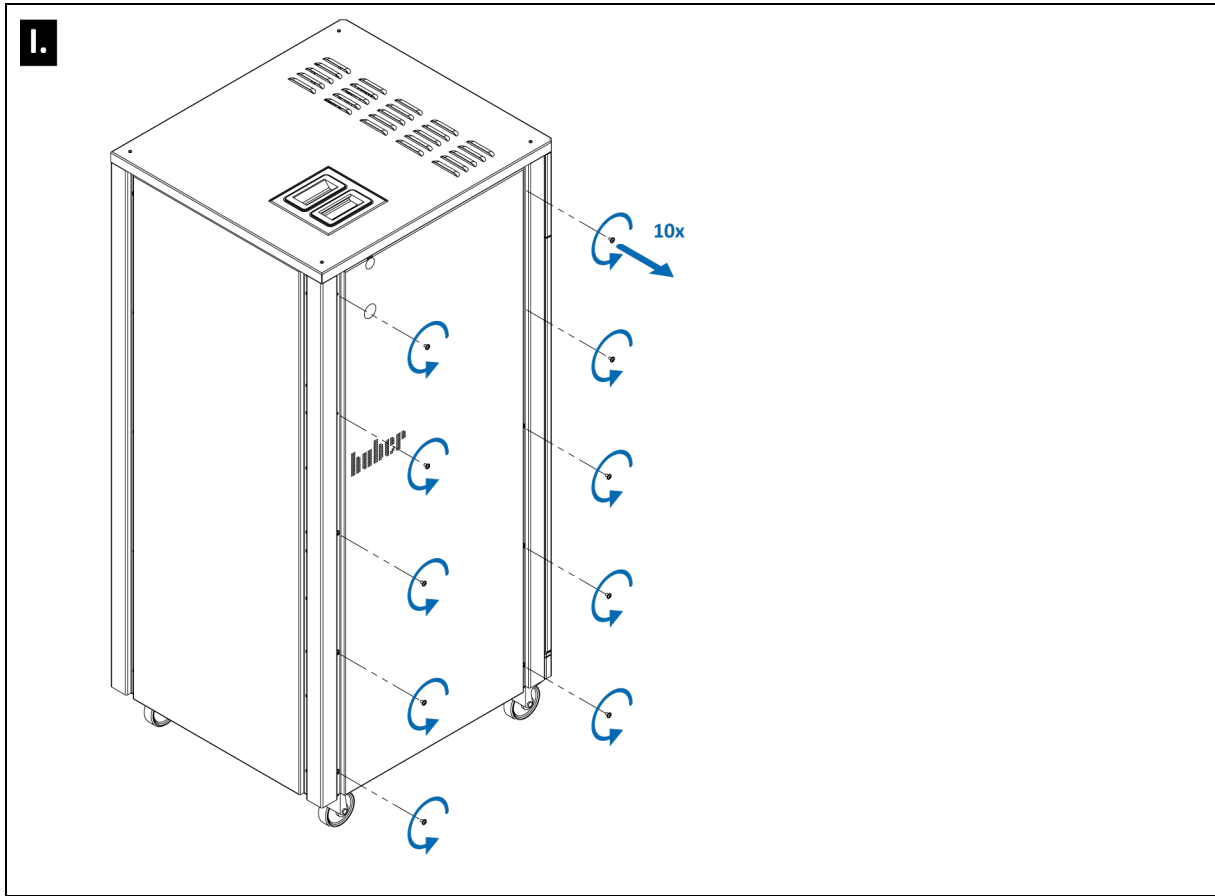
The assembly system allows for the direct attachment of an extra expansion vessel to the temperature control unit.

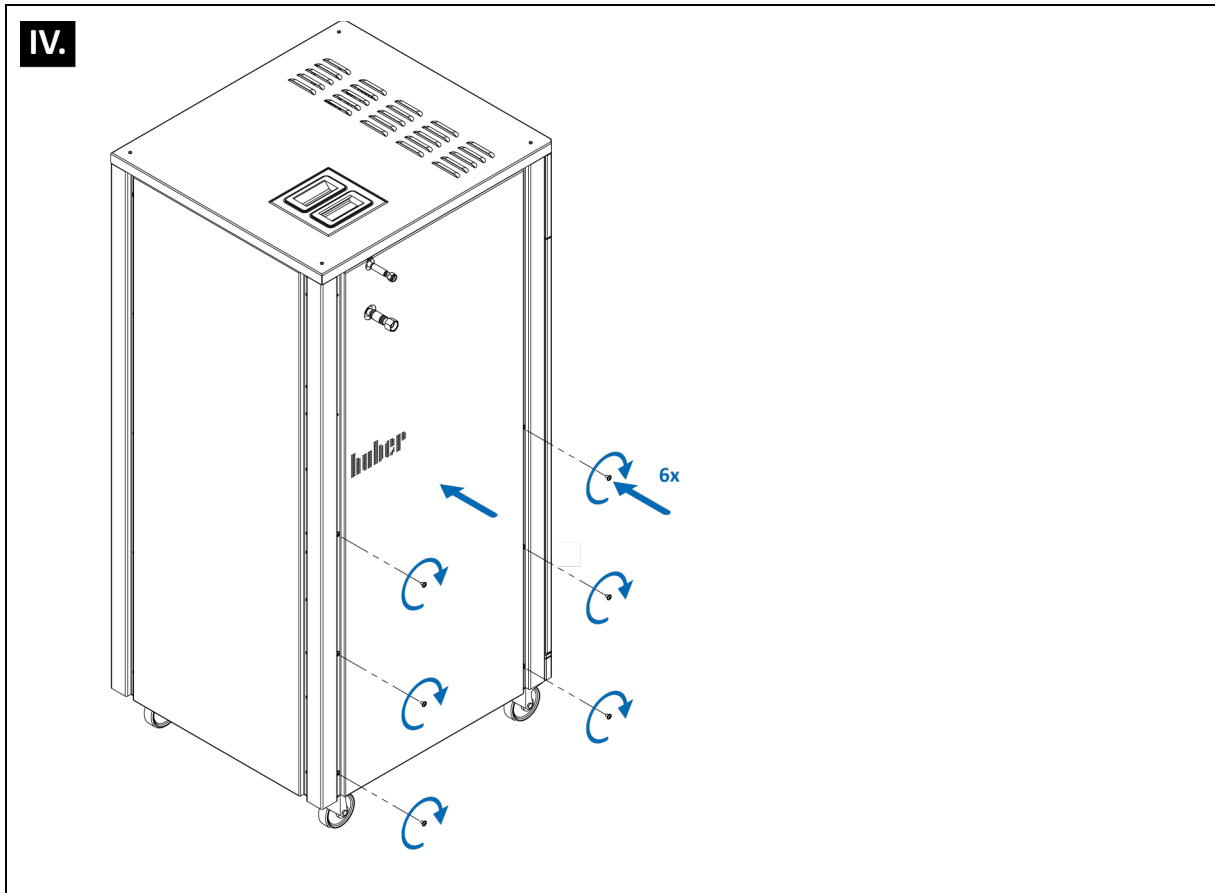
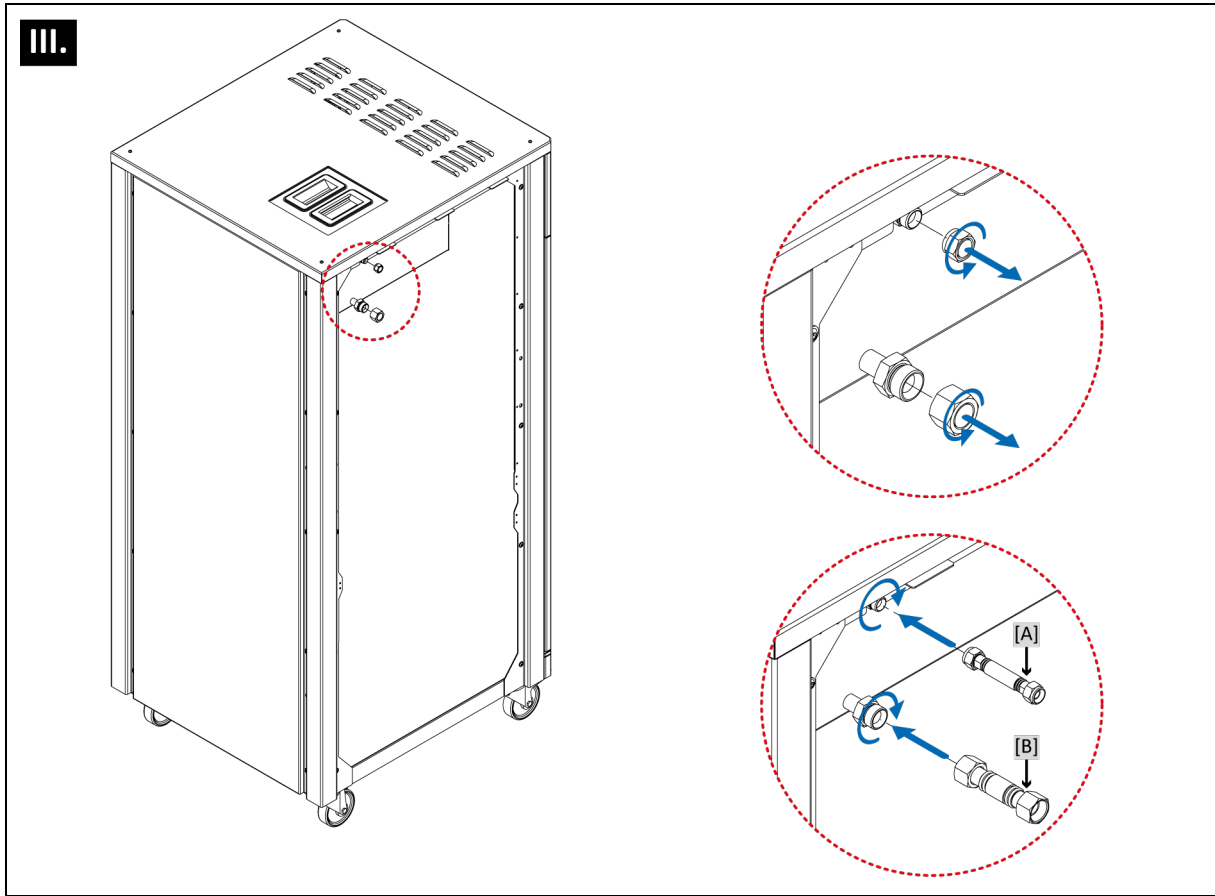
Preparations for assembly:

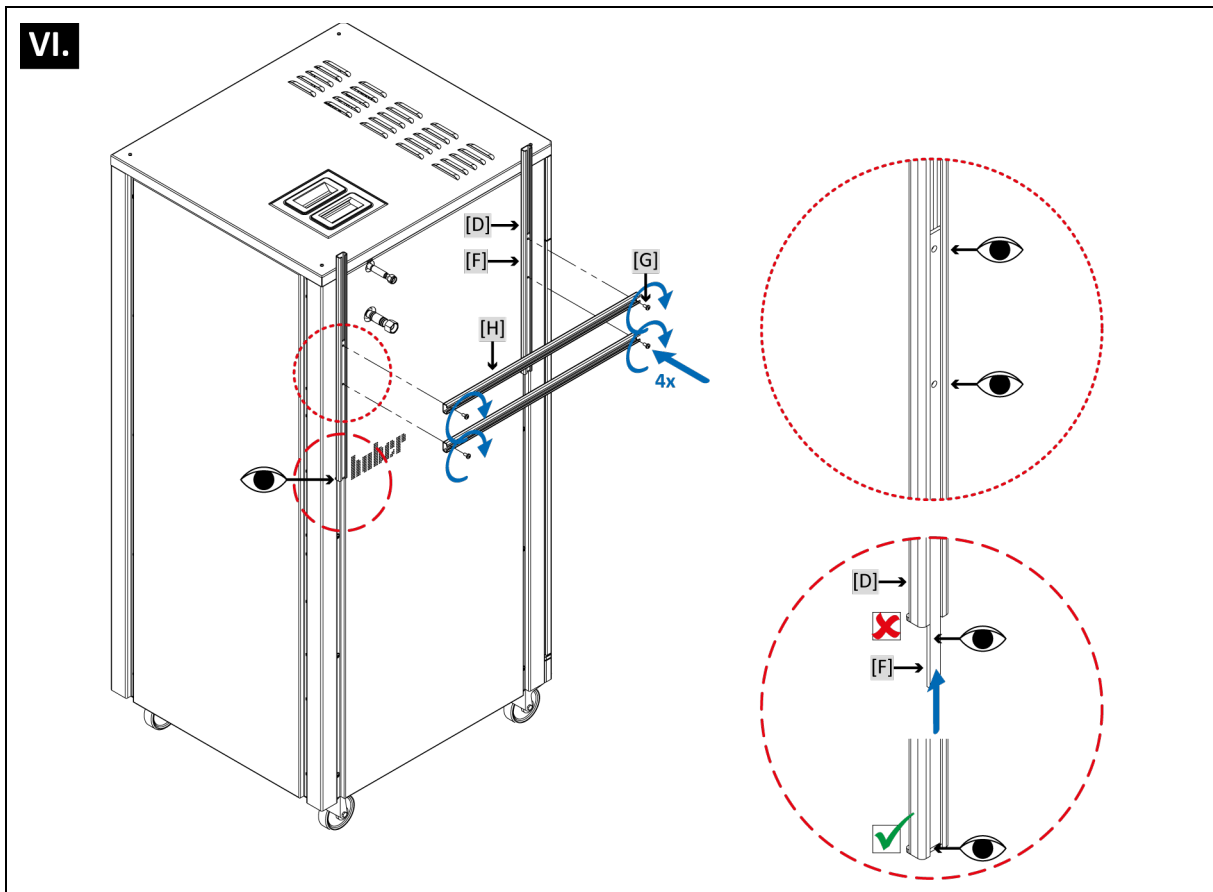
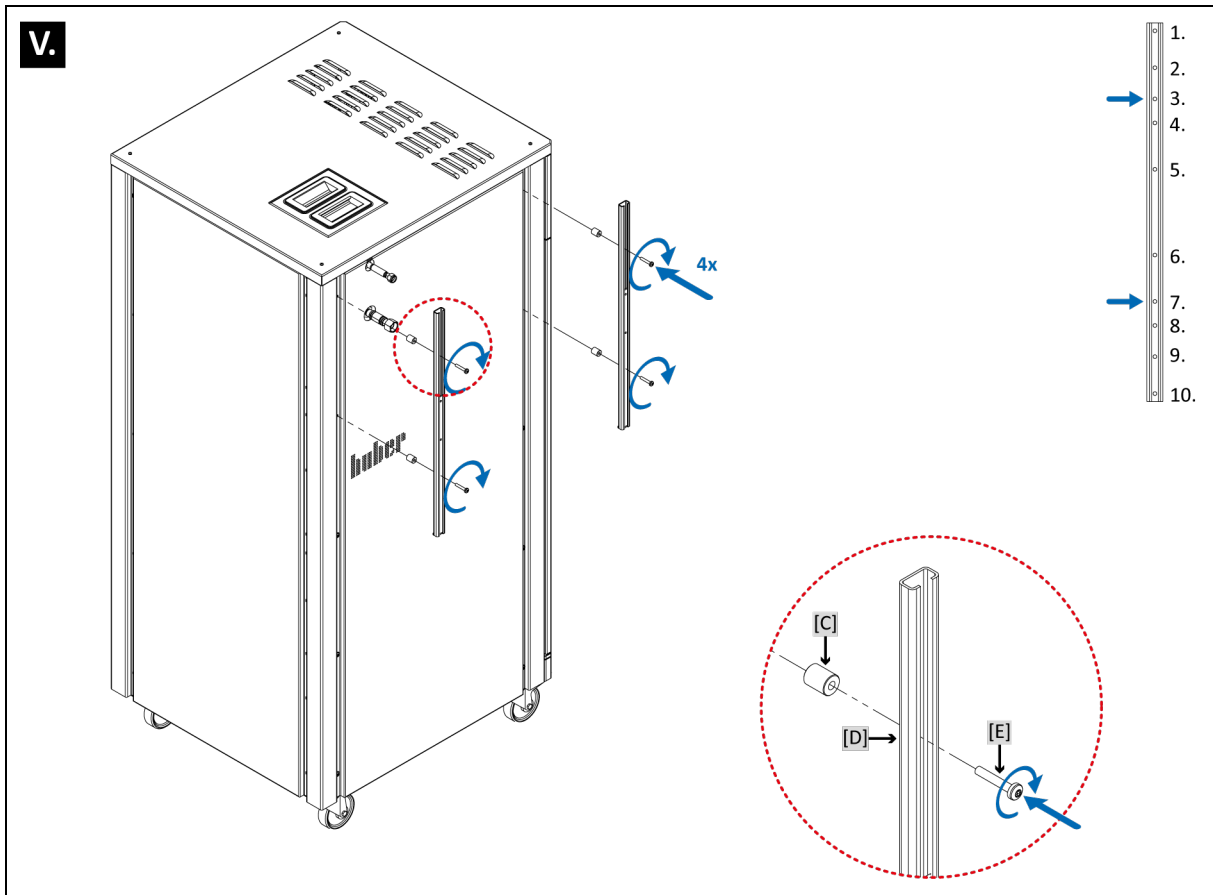
- Dismantle the housing part from the temperature control unit, loosen 10 screws for that purpose. Remove pre-cut housing parts.
- Attach connectors to lead the connections to the outside.
- Mount the housing part on the temperature control unit, fit 6 screws for that purpose. Keep material that is not required for later use.

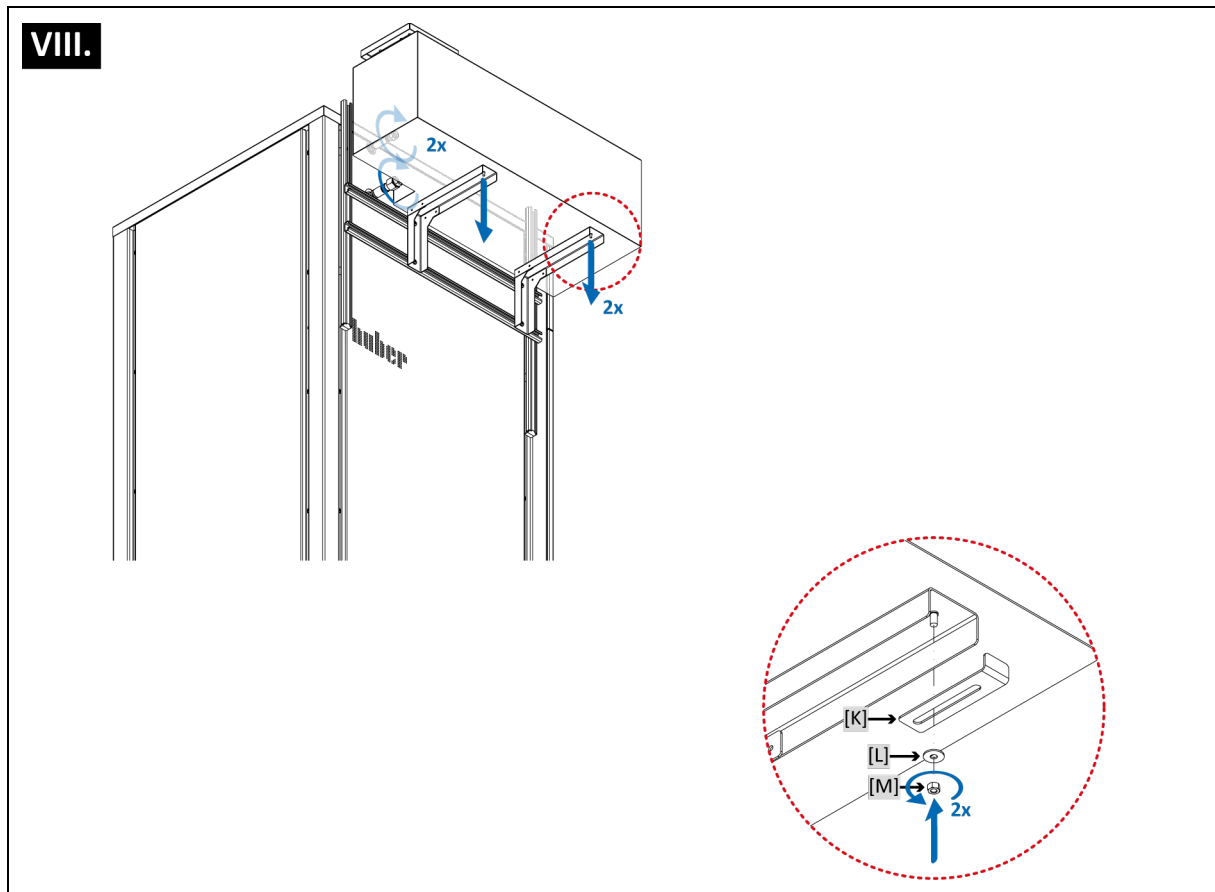
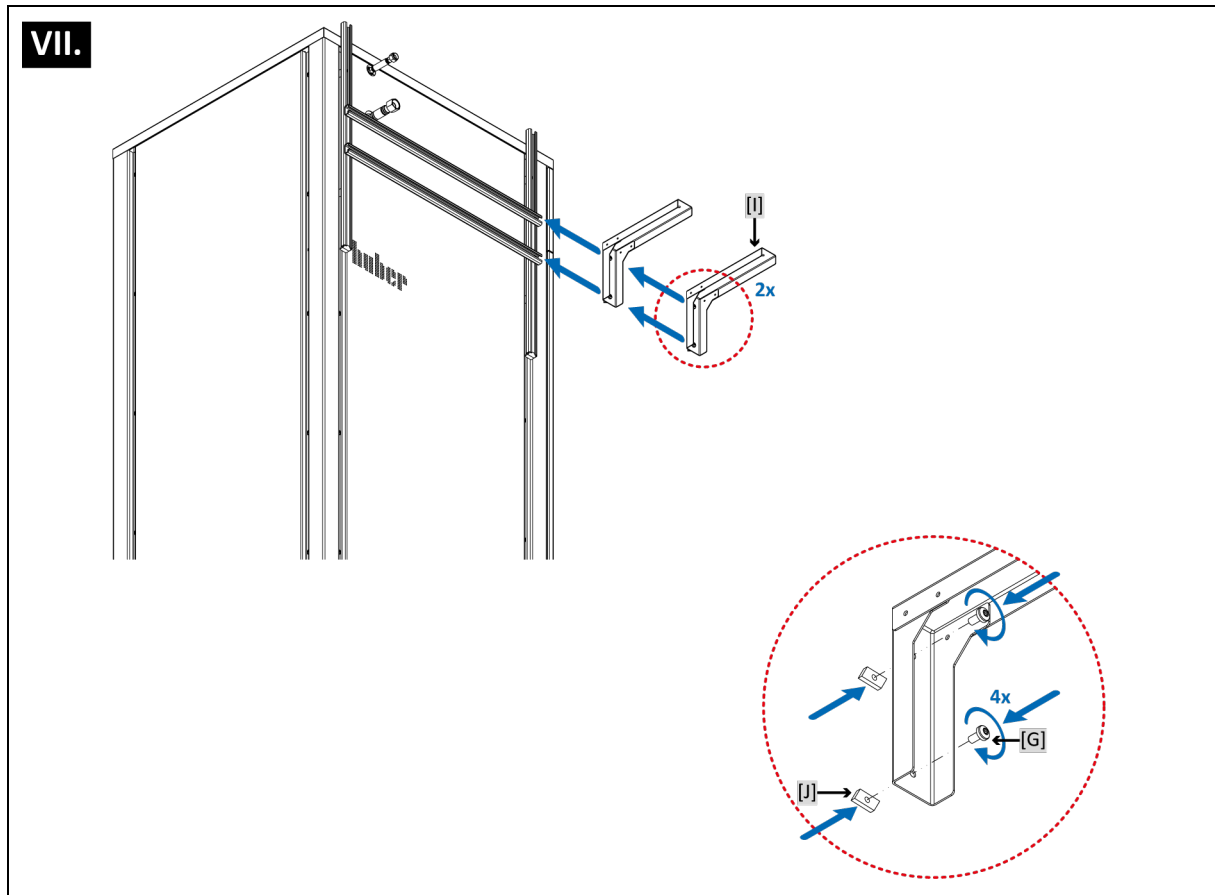


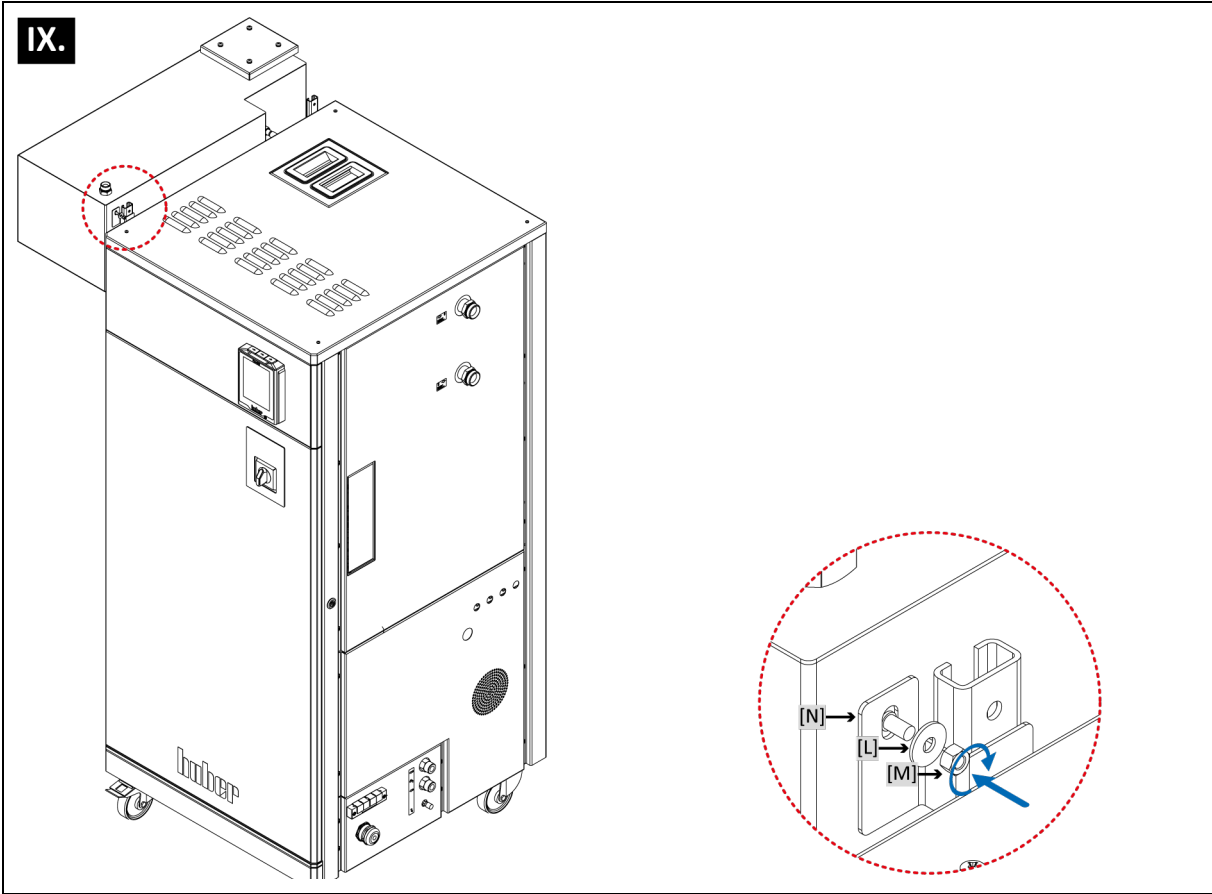
Temperature control unit with installed extra expansion vessel (from left to right: 20 and 30 liters)



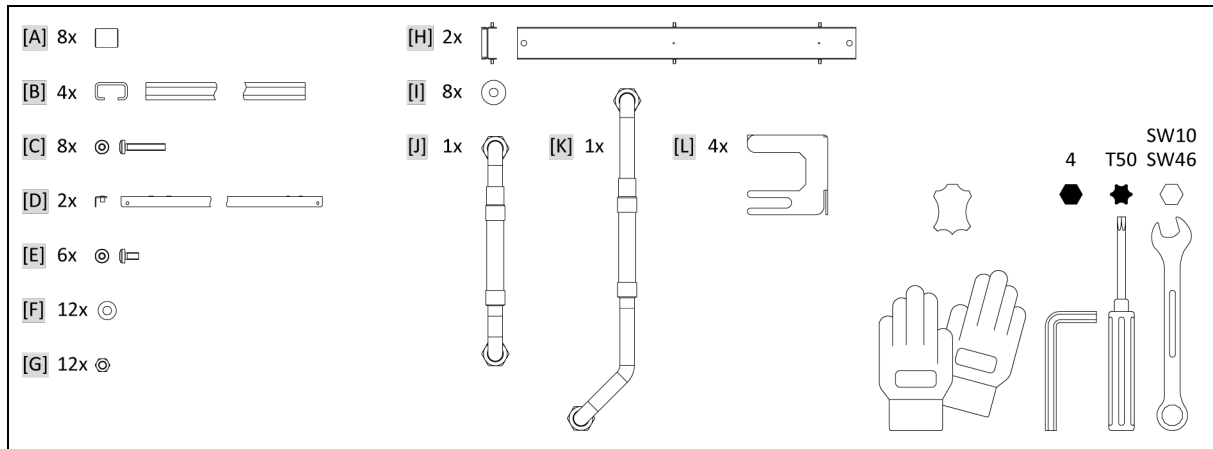








6 Mounting the Flow Control Cube (FCC)



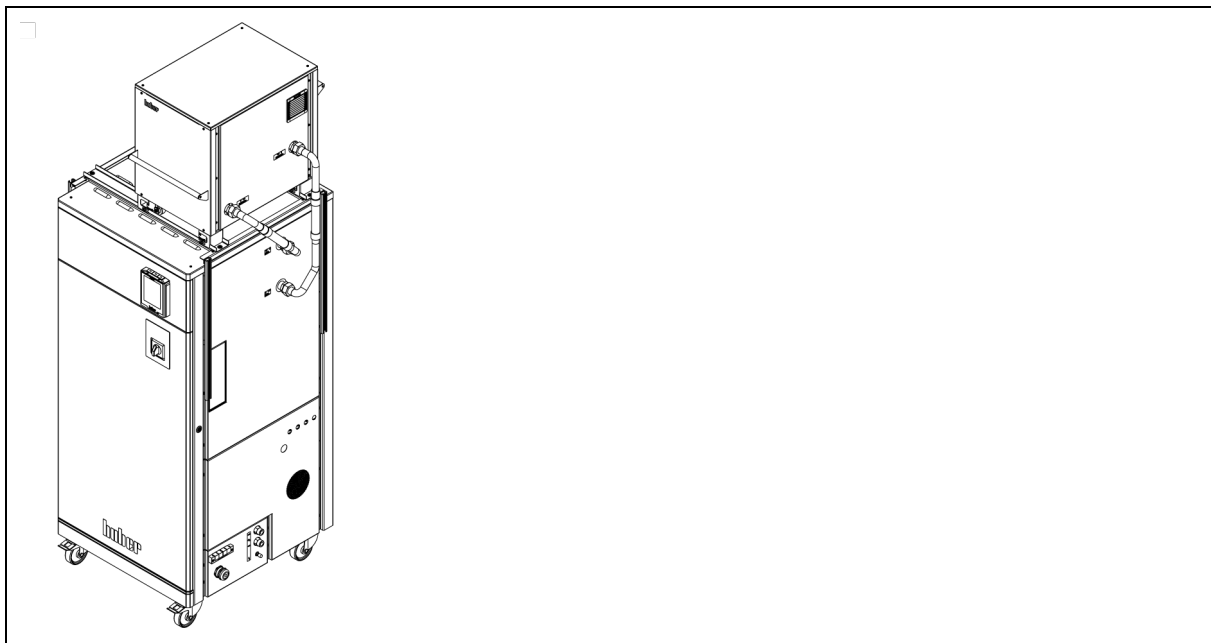
Content and tool

- [A] >Distance sleeve<
- [B] >C-rail< (↔ 667 mm)
- [C] >Screw< (M6x35, 10 Nm)
- [D] >L-rail< (↔ 667 to 833 mm)
- [E] >Screw< (M6x12, 10 Nm)
- [F] >Washer< (Ø 12 mm)
- [G] >Nut< (M6, 10 Nm)
- [H] >Guide rail< (↔ 734 to 922 mm)
- [I] >Washer< (Ø 18 mm)
- [J] >Connection FCC input< (figure without insulation)
- [K] >Connection FCC output< (figure without insulation)
- [L] >Mounting plate<

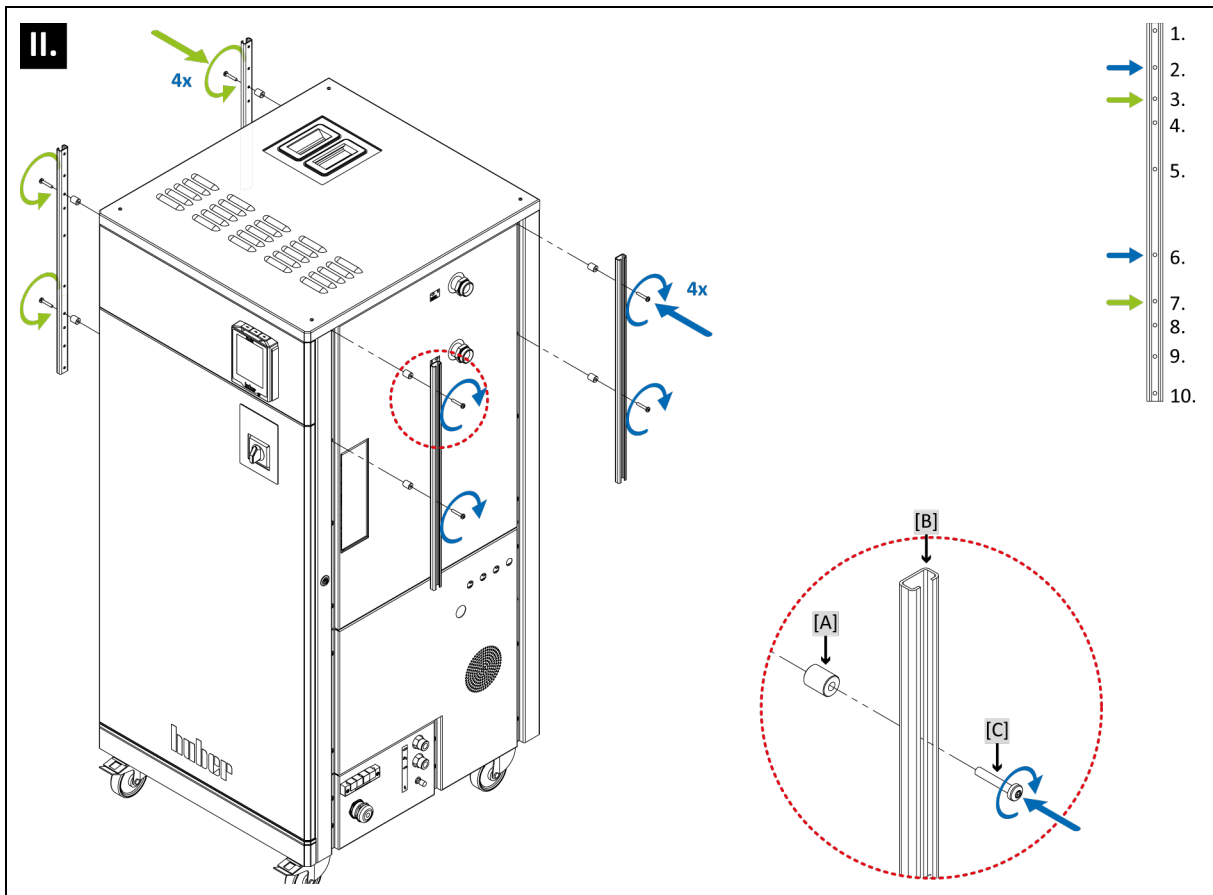
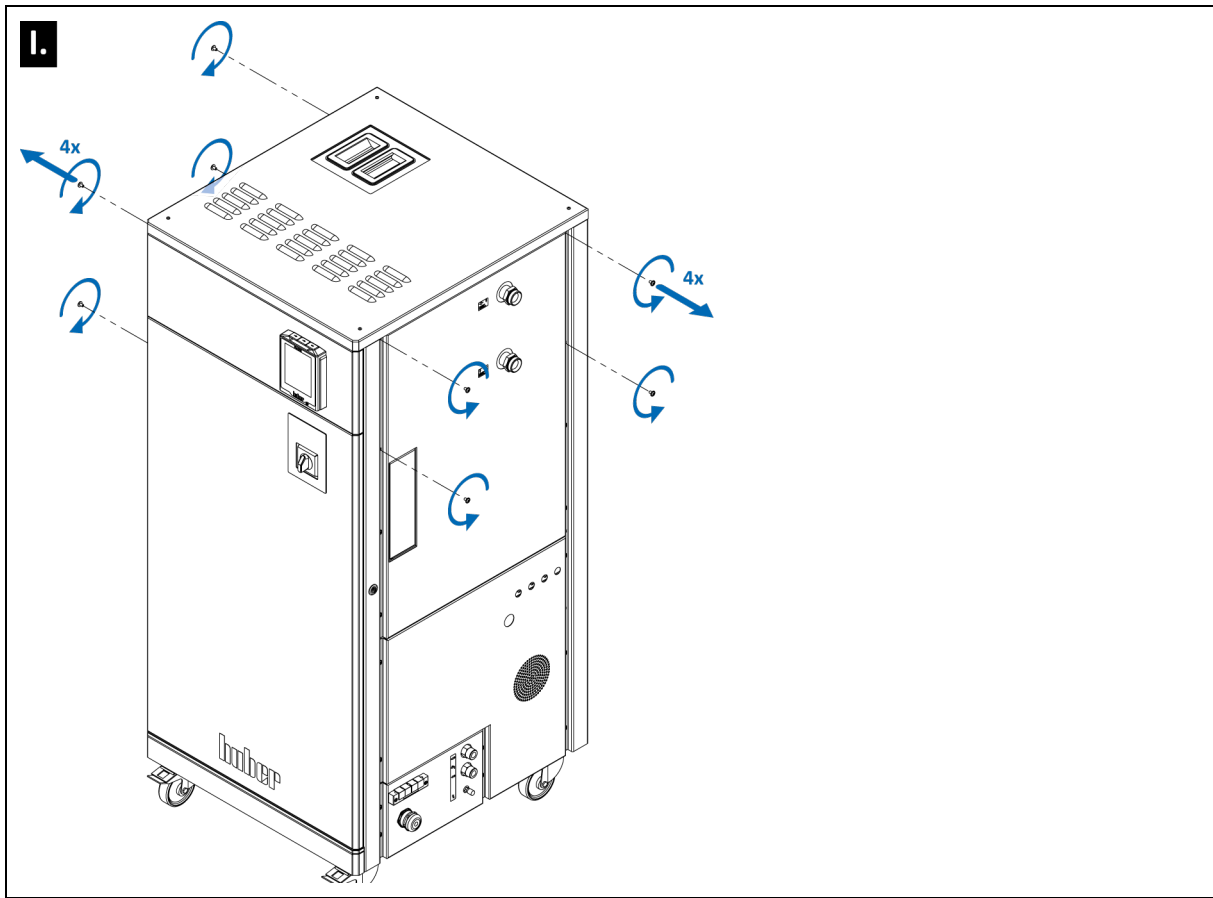
INFORMATION

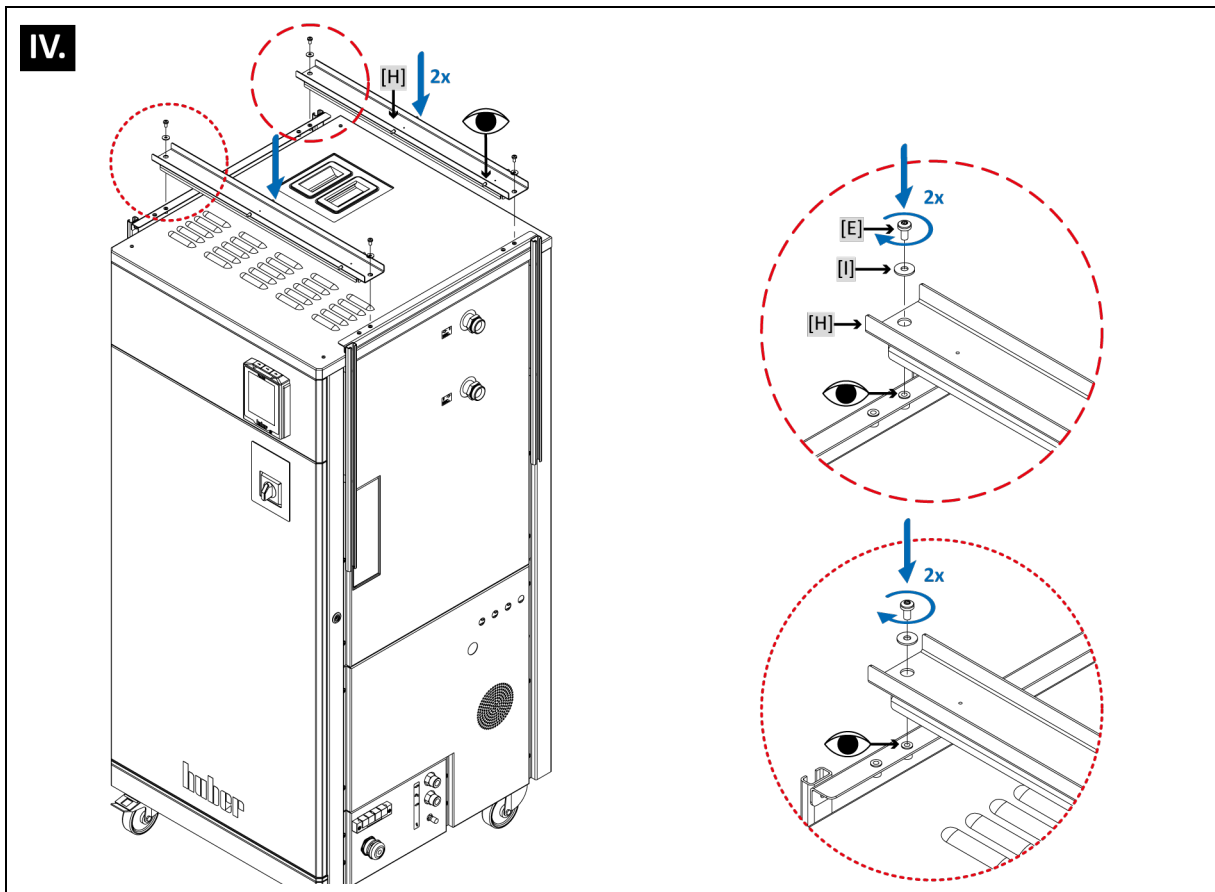
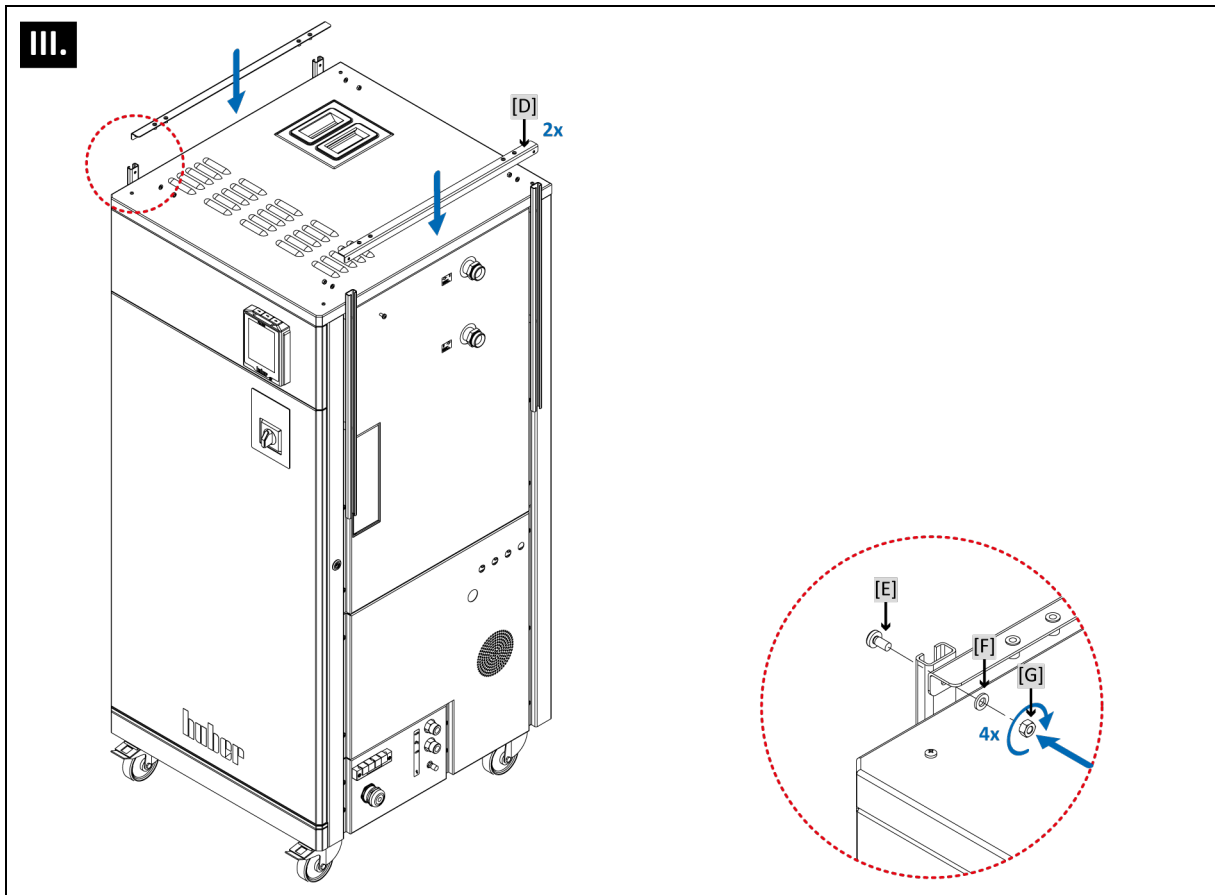
The assembly system allows for the direct attachment of a Flow Control Cube (FCC) to the temperature control unit. If an extra expansion vessel is to be used, it must be mounted beforehand.

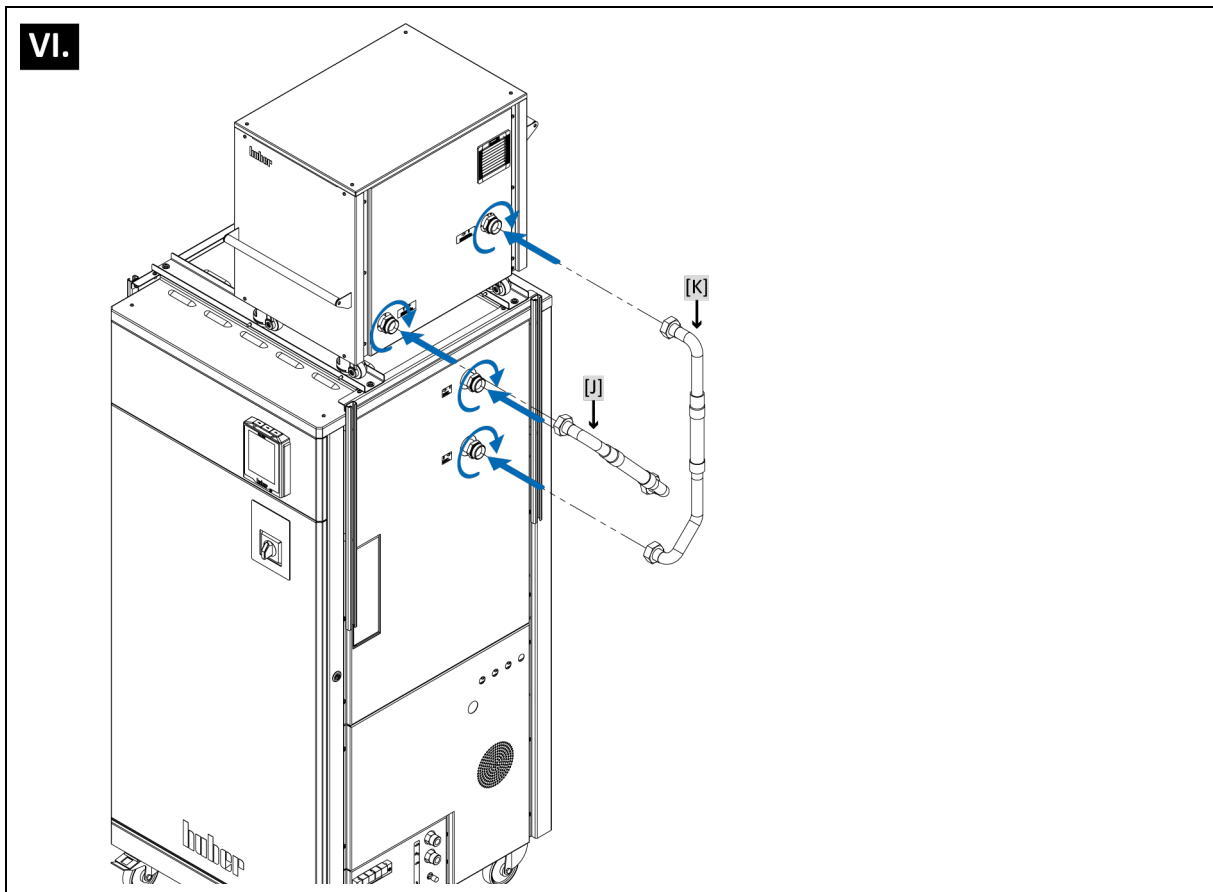
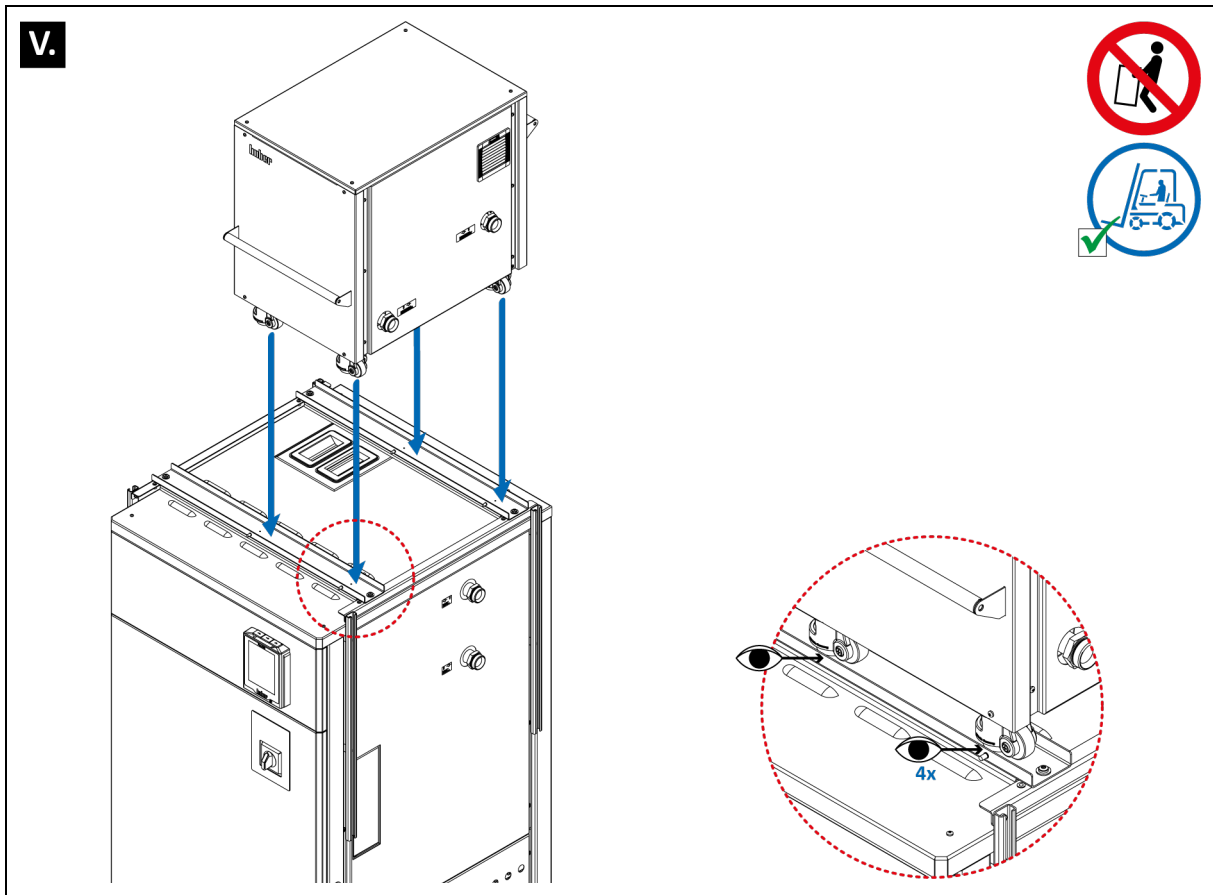
→ Page 10, section »Mounting the extra expansion vessel« or → Page 16, section »Mounting the extra expansion vessel for ADR«.

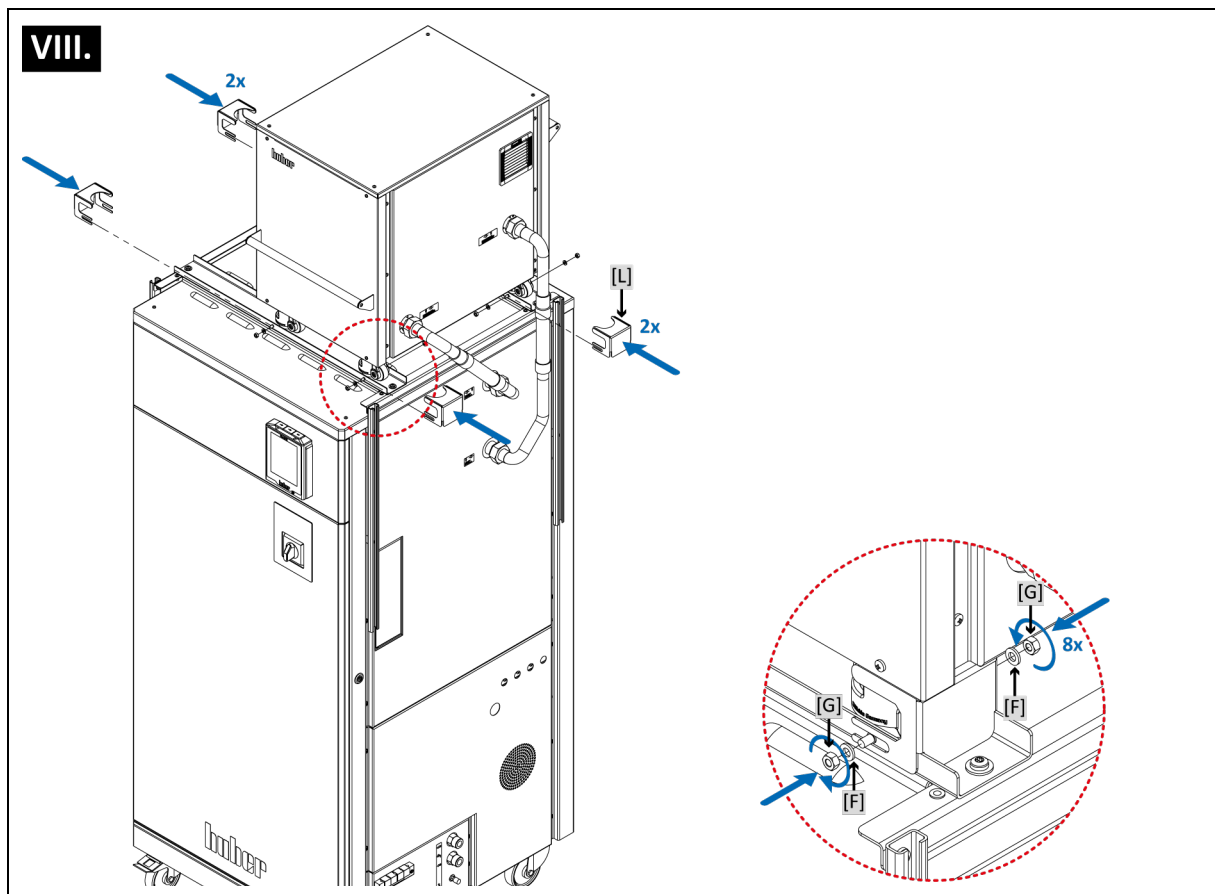
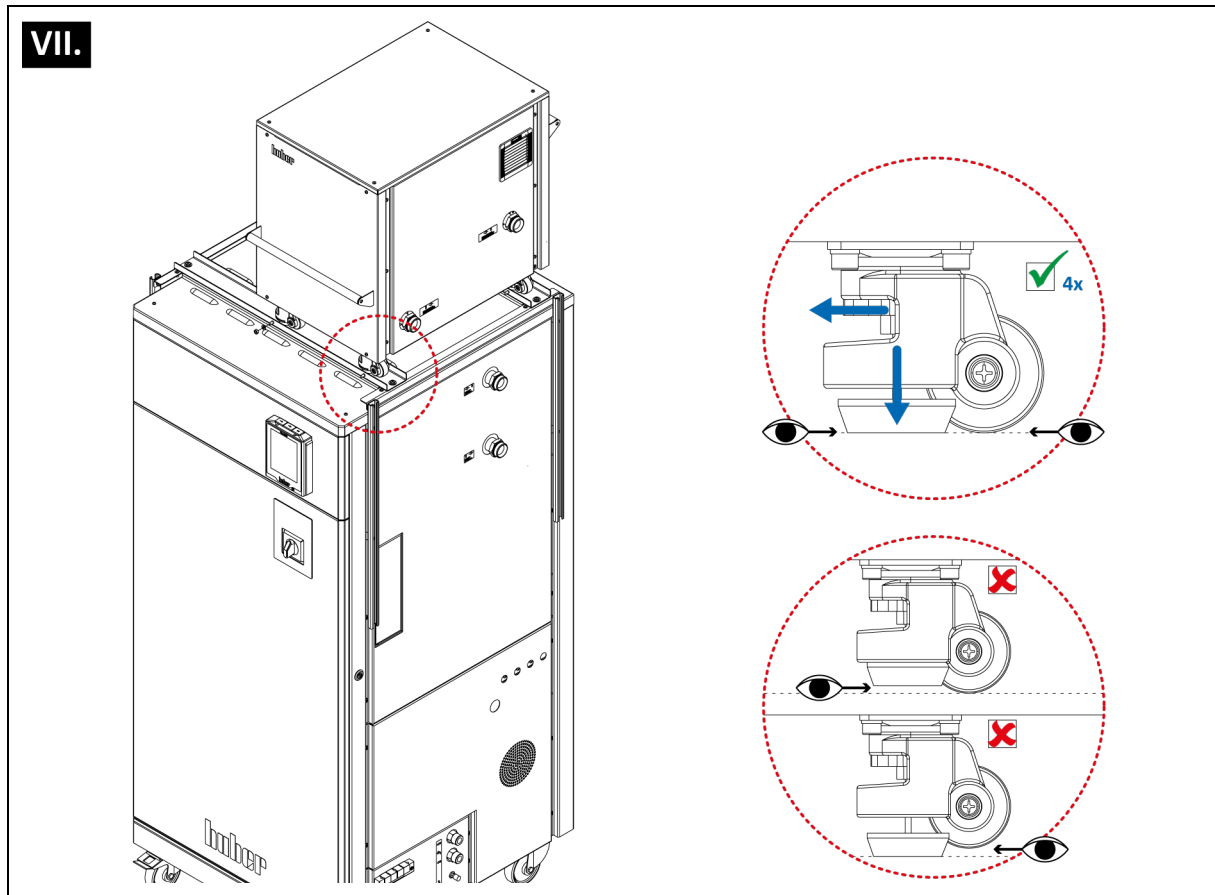


Temperature control unit with installed Flow Control Cube (FCC)









Inspired by **temperature** designed for you

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