AEROCOMPACT®

ENGLISH

Assembly Instruction

COMPACT**FLAT** SN 2 Mounting gauge

Version : 3.1
Language : English
Important! Read carefully before installation!

Legal Notice

Subject to change due to technical modifications! These assembly instructions correspond to the technical status of the delivered product and not to the current development status at the manufacturer. If pages or parts of the assembly instructions are missing, please contact the manufacturer's address given below. The original language of these assembly instructions is German. Any assembly instructions in another language are a translation of the assembly instructions in German. Therefore, in case of doubt or contradiction, the authentic German version shall prevail. The assembly instructions are protected by copyright. The assembly instructions may not be copied, reproduced, microfilmed, translated or converted for storage and processing in EDP systems, either in part or in full, without the written permission of the company AEROCOMPACT Europe GmbH.

Manufacturer

AEROCOMPACT Europe GmbH
Gewerbestrasse 14
6822 Satteins, Austria

office@aerocompact.com
www.aerocompact.com

Creation date

04/2024

TOC

GENERAL

These assembly instructions describe the assembly procedure and must be strictly adhered to. Read these assembly instructions carefully before starting assembly. Personnel must have carefully read and understood these instructions before starting any work. The basic prerequisite for safe working is compliance with all the safety and handling instructions in these assembly instructions. In addition, the local accident prevention regulations and general safety regulations for the area of application of the product apply. Illustrations in these instructions are for basic understanding and may differ from the actual design.

APPLICABLE DOCUMENTS

In addition to this manual, you have received an AEROTOOL project report, planning documents and drawings. Always comply with the instructions and instructions contained therein.

LIMITATION OF LIABILITY

All information and instructions in these assembly instructions have been compiled taking into account the applicable standards and regulations, the state of the art and our many years of knowledge and experience. Liability provisions are stated in our **terms** and conditions and can be accessed at **www.aerocompact.com/downloads**.

EXPLANATION OF SYMBOLS

SYMBOLS FOR INSTRUCTIONS


Prerequisites for action instruction


Step by step action instruction


Results of action steps


This note provides useful information for smooth installation

SYMBOLS IN ILLUSTRATIONS - ACTIVITIES


Check AEROTOOL project report or planning documents


Visual inspection


Activity by hand


Observe right angle


Optional component,
optional mounting variation

SYMBOLS IN ILLUSTRATIONS - TOOLS


Measuring tape, measure


Cordless screwdriver, screwdriver


Pencil, mark


Use a torque wrench,
Observe torque


Chalk line


Use Allen key


Scissors, tin snips, cut to size

SAFETY

The following list serves as an indication of the most common safety hazards that can occur when installing these products. There is no liability for the completeness of the risks presented. A concrete check of the necessary safety measures is to be carried out by an entrusted specialist company prior to installation.

PERSONNEL REQUIREMENTS

Installation may only be carried out by a specialist company and must be carried out strictly in accordance with the installation instructions, the project report and the planning documents. A specialist company is a company that is familiar with the installation and maintenance of photovoltaic systems as part of its normal business operations. National and local building regulations, standards and environmental protection must be complied with. Under no circumstances may the assembly personnel be under the influence of medication, alcohol, drugs or in any other condition that impairs consciousness (e.g. overtiredness). Trainee personnel may only carry out work under the instruction and supervision of specialist personnel who are authorized to train personnel.

WORKING SAFELY

The contractual partner shall ensure that the necessary safety measures and the relevant provisions of labor law and occupational health and safety law are observed during the assembly of products from AEROCOMPACT Europe GmbH. References by AEROCOMPACT Europe GmbH to the necessity of compliance with security measures are made without guarantee and without claim to completeness and serve only to support the contractual partner. The contractual partner is obliged to inform himself about all relevant regulations concerning occupational safety and to comply with them. AEROCOMPACT Europe GmbH expressly assumes no responsibility here and consequently no liability. Areas below the roof on which work is being carried out must be protected from any falling objects. Where this fails, the affected areas shall be closed to the public and to unauthorized personnel. In case of unsuitable weather conditions, work on the roof must not be continued any longer than necessary - or not started at all. Never carry out assembly work in strong winds. Strong wind exerts enormous forces on the large-area PV modules. There is a risk that a module could be torn off the roof and people could be injured. Never work in wet conditions or at temperatures below the freezing point. Depending on the roof pitch there is a risk of slipping. Only use suitable, intact and tested ladders. Set up and secure ladders according to instructions. Separate rules apply to mechanical climbing aids (elevators, cherry pickers, etc.). Never use the PV mounting system as a climbing aid. Keep sufficient distance from overhead electrical lines. Equipotential bonding between the individual system parts must be carried out in accordance with the respective country-specific regulations. When cutting materials, make sure that there are no burrs, especially at edges and corners, as there is a risk of injury.

BREAKTHROUGH PROTECTION

Skylights, skylights, large vents, etc. usually cannot withstand the weight or impact of a person. Such objects must be secured in a similar way as the edge of the roof. Corrugated fibre cement roofs can be prone to breakthrough over the entire surface. Define walking routes and secure them with load distribution measures. On roofing or roof structures that do not have sufficient load-bearing capacity (e.g. thin sheets, corrugated fibre cement), always work with load distribution aids.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Personal protective equipment is used to protect people from health and safety hazards at work. Personnel must wear personal protective equipment during installation. Personal protective equipment is explained below:

Wear safety goggles when drilling and sawing.

Wear safety footwear.

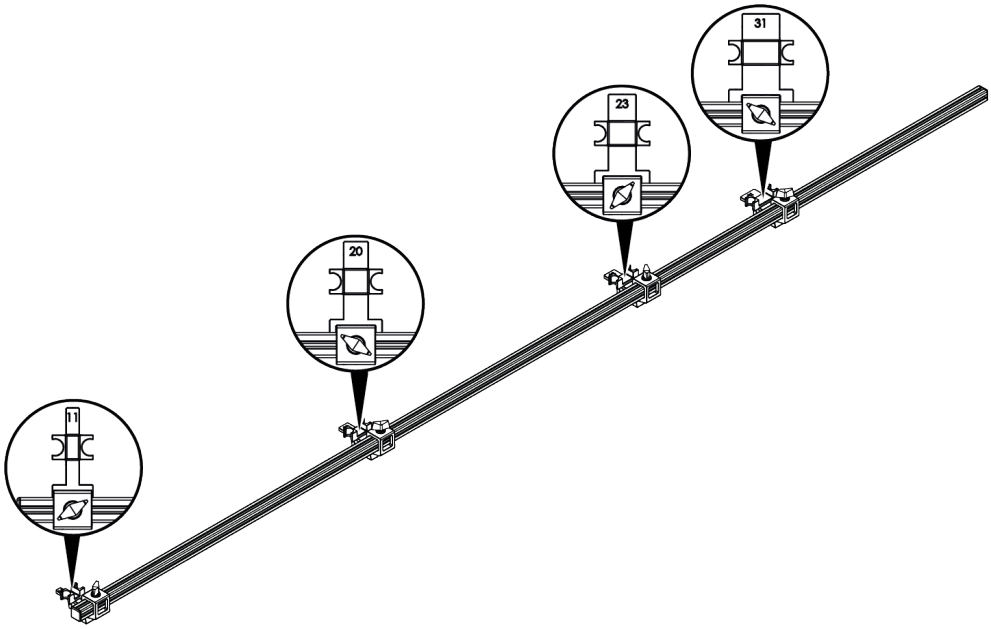
Helmets must be worn by all persons working on the construction site.

Wear cut-resistant work gloves during installation.

Use fall protection.

SET UP MOUNTING GAUGE

PREPARATION



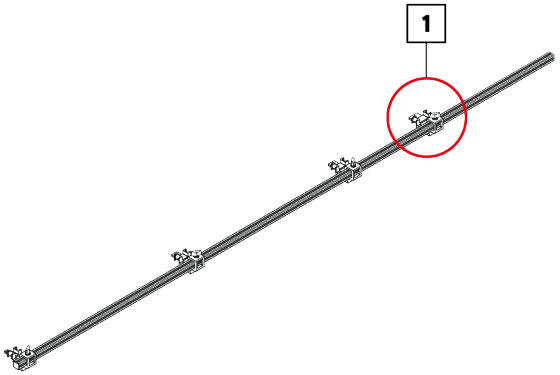
The mounting gauge can be used to align the base rails and feet. The spacers supplied have different dimensions for the **SN2 PLUS system**; the correct arrangement of the spacers is determined by the project-related planning documents.

Spacer dimensions: **11 mm, 20 mm, 23 mm, 31 mm**

Correct choice of spacers for SN2 PLUS system

ATTENTION: The table below shows the order in which the spacers are to be inserted.

The choice of the last spacer (1) depends on the system variant.

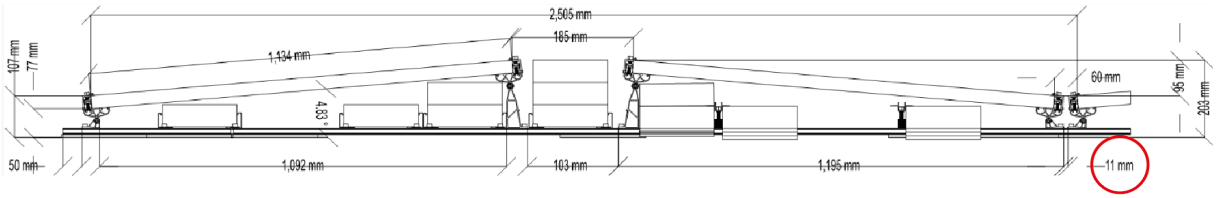


SYSTEM VARIANTS SN2 PLUS

SN2 PLUS long side clamping 5°	11 mm
SN2 PLUS long side Clamping 10°	23 mm
SN2 PLUS short side clamping 5°	20 mm
SN2 PLUS short side clamping 10°	31 mm

SN2 PLUS example Aerotool

The following example shows an **SN2 PLUS 5° system with long side clamping**. In this example, the last spacer must be **11 mm**.



RACKING PARAMETER

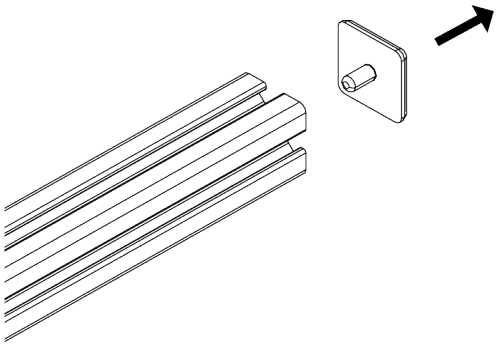
Bracket tilt α [°]:	5
Ridge gap [mm]	185
Eave gap [mm]	11
Static coefficient of friction	0.3

SYSTEM DEFINITION:

System variation	Connected base rail
Type of clamping:	long side clamping
Ballast position:	Ballast below modules onl
Preassembly	☐

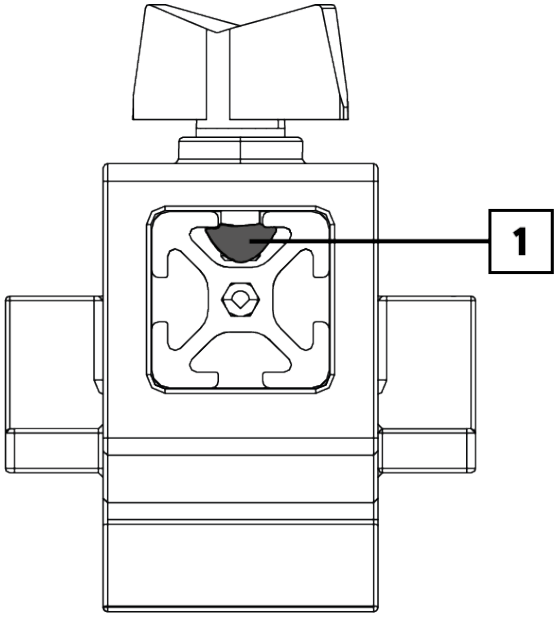
Remove end cap

To insert the spacers, remove the end cap on one side.



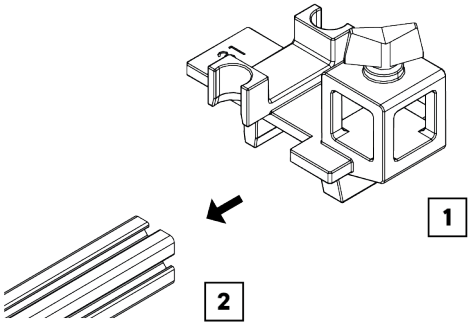
Insert spacer

When inserting the spacers, ensure that the sliding block is positioned correctly (see illustration).

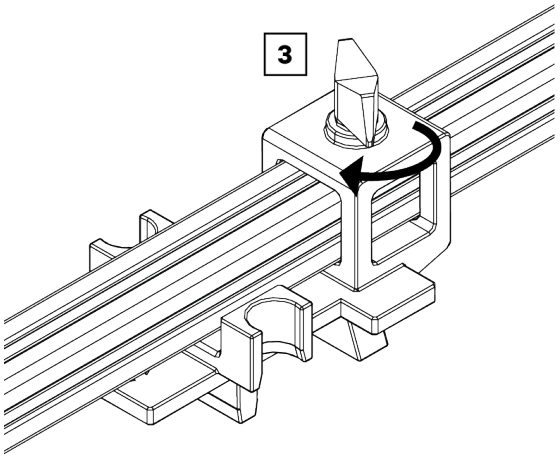


Preparation mounting gauge for base rails

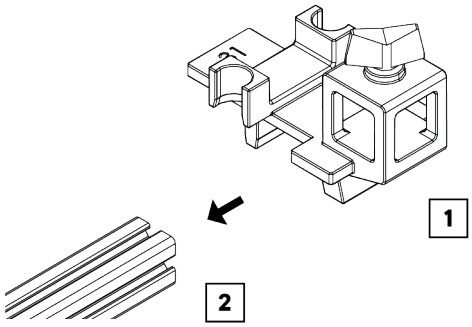
Insert the spacer (1) into the guide rail (2) and move it to the desired position.



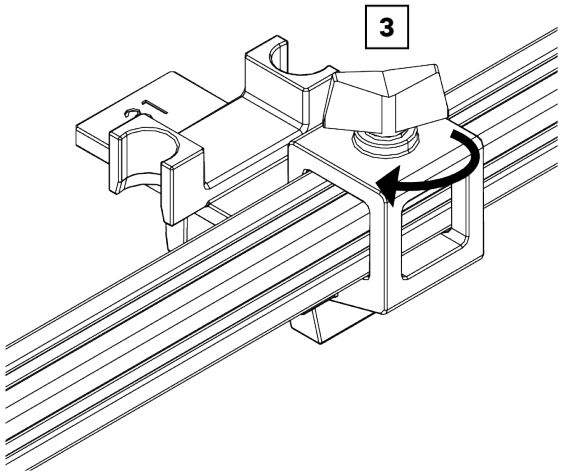
After positioning, tighten the spacer with the locking screw (3).



Preparation of mounting gauge for feet

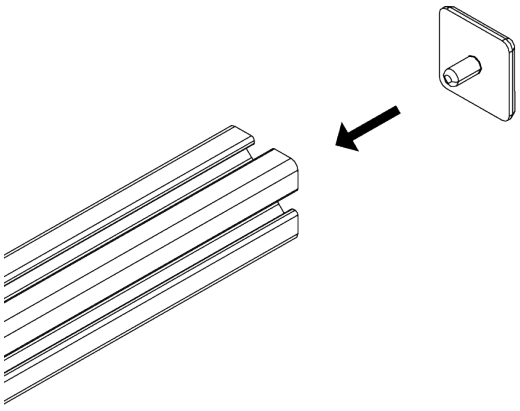


- Insert the spacer (1) into the guide rail (2) and move it to the desired position.



- After positioning, tighten the spacer with the locking screw (3).

Reattach the end cap



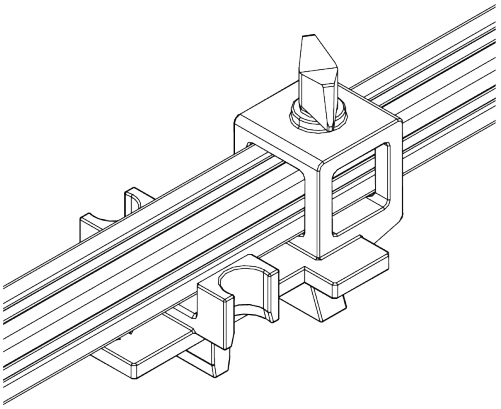
- After inserting all spacers, reattach the end cap accordingly.

SET UP MOUNTING GAUGE

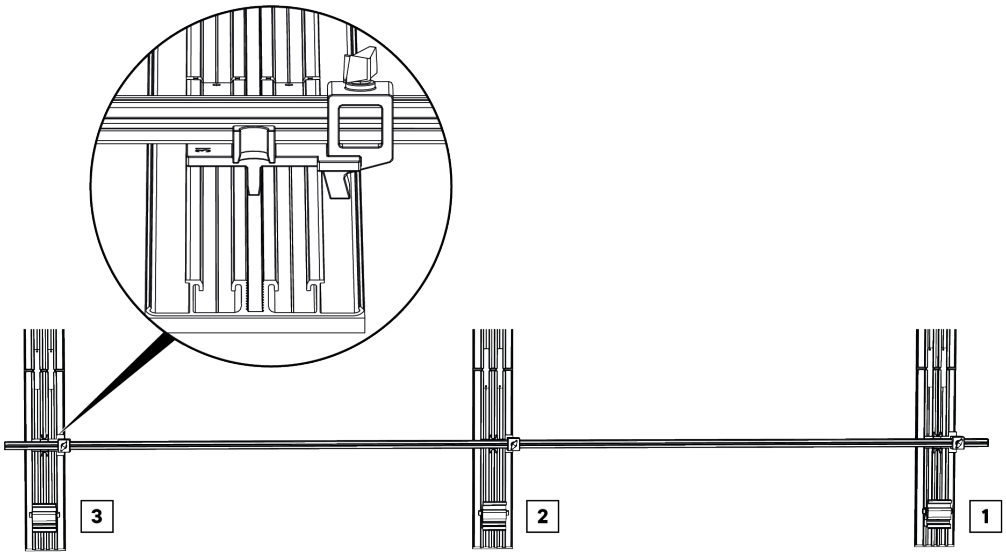
BASE RAILS

Positioning the spacer

☐ Prepare spacers for aligning base rails.



Use mounting gauge



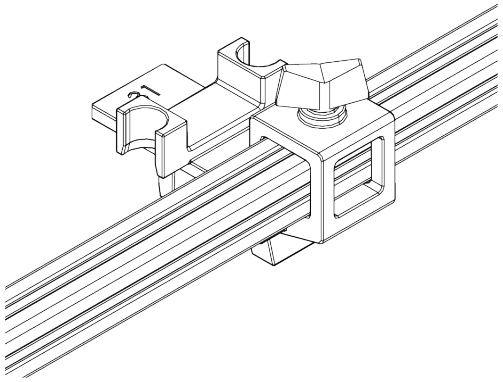
☐ Determine the distances between the base rails according to the planning documents.
☐ Position the mounting gauge and tighten the spacer.
☐ Reposition the mounting gauge, placing the spacer from the base rail (1) against the base rail (3).
☐ Position the two new base rails.
ⓘ Place the mounting gauge horizontally along the base rails several times to ensure parallelism.

☑ The mounting gauge is now set and can be used as a gauge for the project.

SN 2 (5° OR 10°)

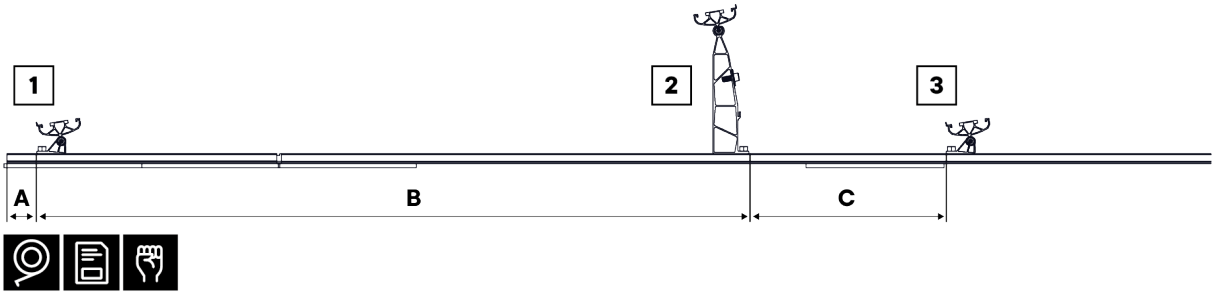
Positioning the spacer

Prepare the spacers for aligning the feet.



Position feet.

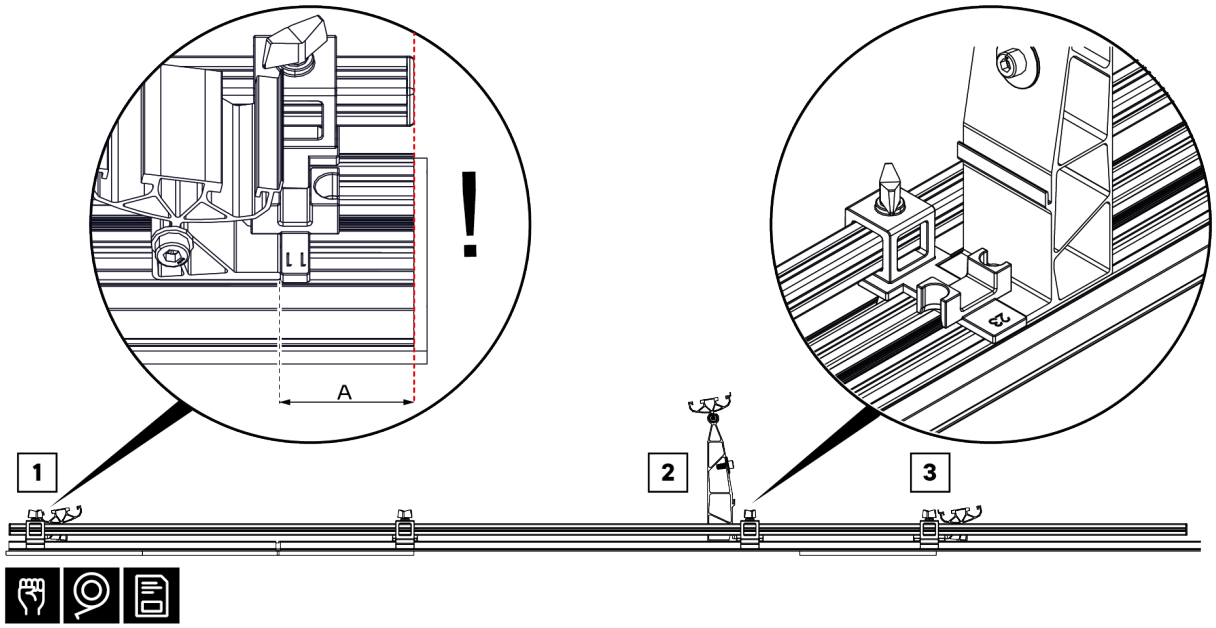
The distance dimensions of the feet must be taken from the planning documents.



Mount the first three feet (1-3) according to the assembly instructions.

Use mounting gauge

ⓘ The spacers must be arranged in accordance with the planning documents. It is important to ensure that the mounting jig is positioned flush with the base rail.



☐ Place the spacers on the feet (1-3) and tighten them.

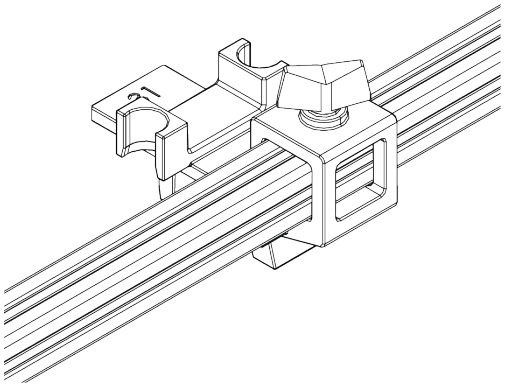
ⓘ A spacer always remains non-functional here and is placed between feet (1) and (2).

☐ The adjusted mounting gauge can now be repositioned by placing the spacer from bracket (1) to bracket (3).
☐ Position the new front and rear foot and then mount according to the assembly instructions
☑ The mounting gauge is now set for the **SN 2 system** and can be used for the project.

SN 2 PLUS

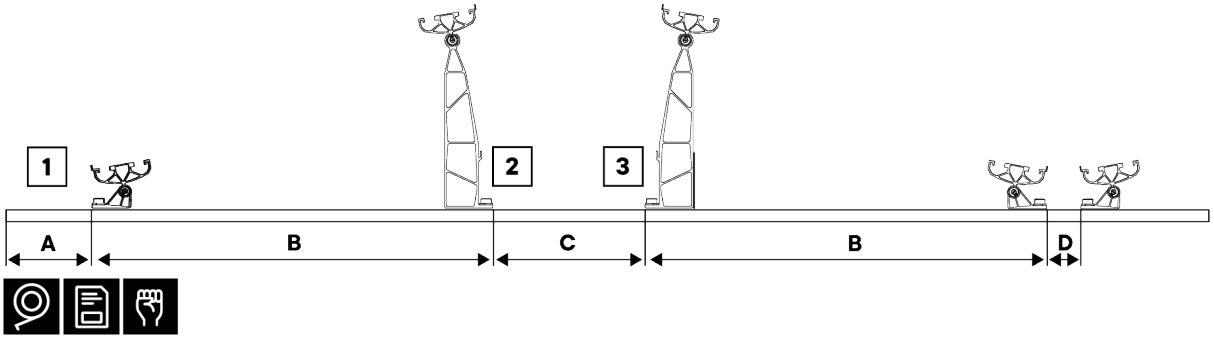
Prepare spacers

☐ Prepare spacers for aligning feet.



Position feet.

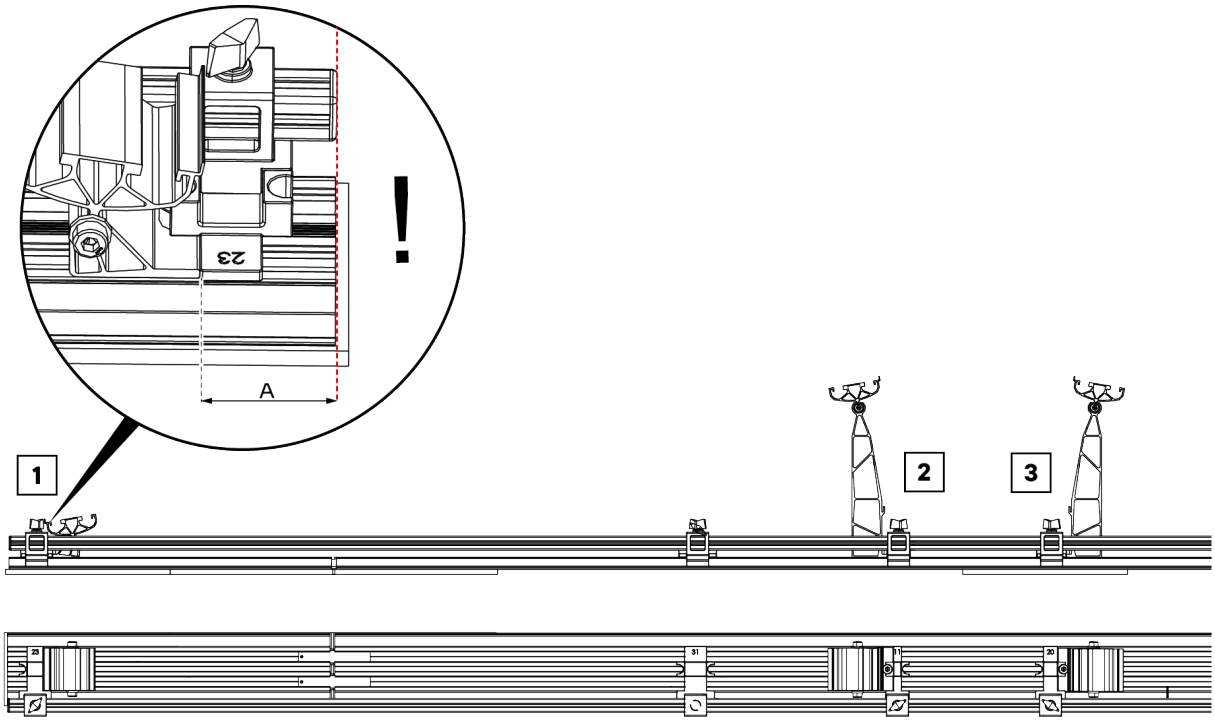
ⓘ The distances between the front and rear feet must be taken from the planning documents. **Dimension D** has the dimensions of spacer (1).



☐ Mount the first three feet (1 to 3) according to the assembly instructions.

Use mounting gauge

ⓘ The spacers must be arranged in accordance with the planning documents. It is important to ensure that the mounting gauge is positioned flush with the base rail.

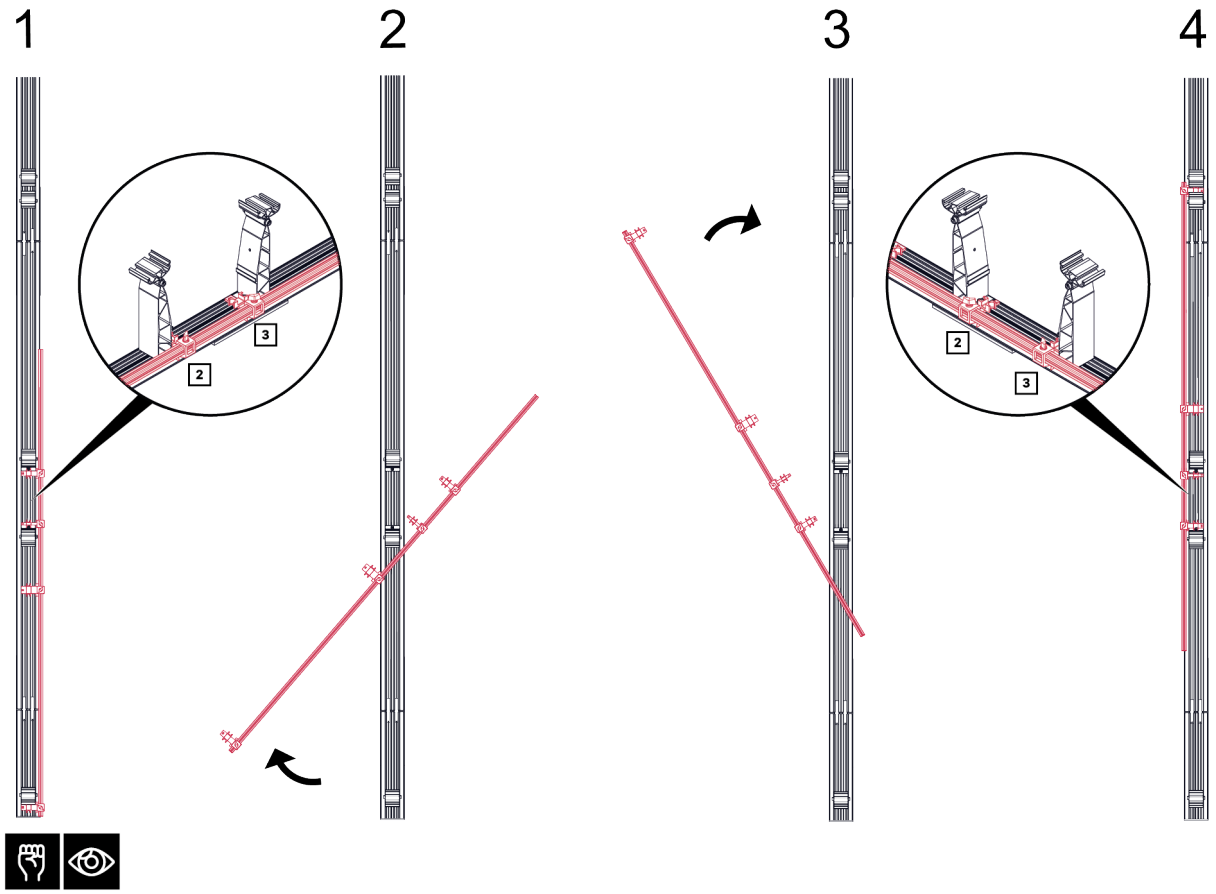


☒ Place the spacers on the brackets (1-3) as shown in the illustration and then tighten them.

ⓘ A spacer always remains here and is placed between foot (1) and (2).

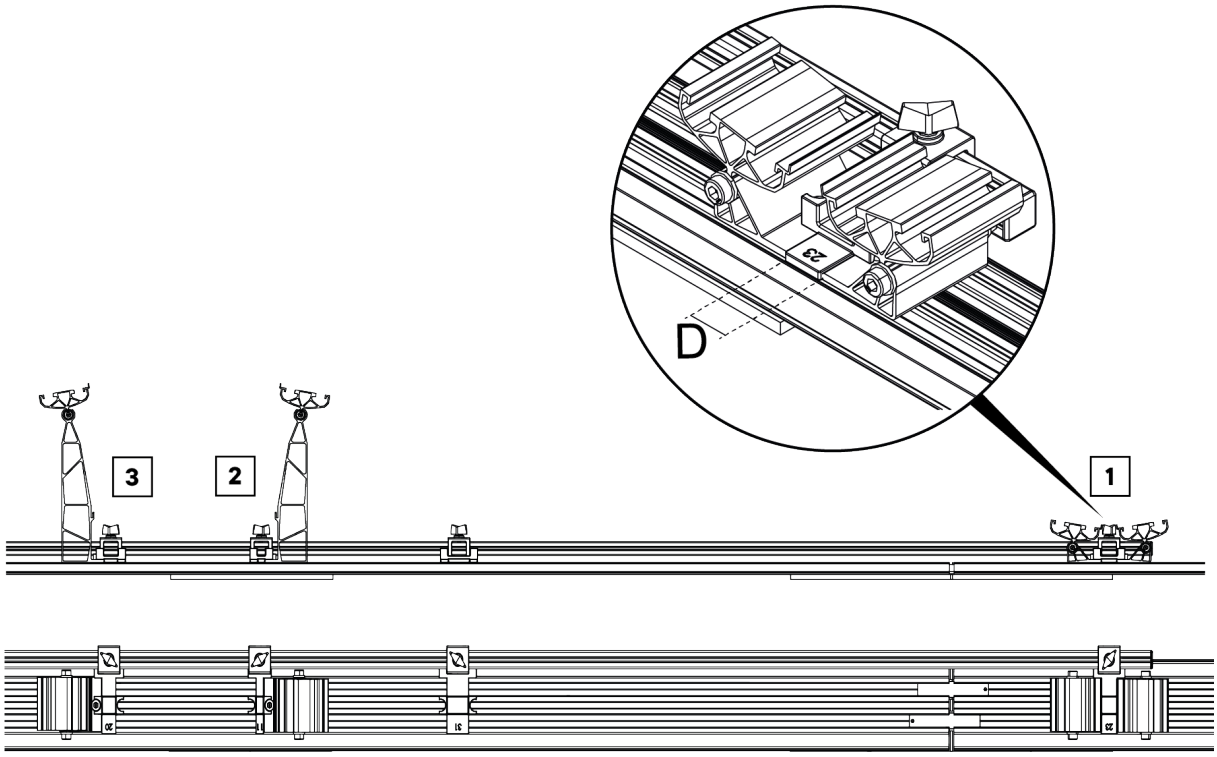
Reposition the mounting gauge

ⓘ With the **SN 2 PLUS system**, the mounting gauge is placed on the opposite side, the following illustration shows the process.



☐ Turn the mounting gauge through 180°, leaving the spacers (2) and (3) between the two rear feet.

Mounting the front feet

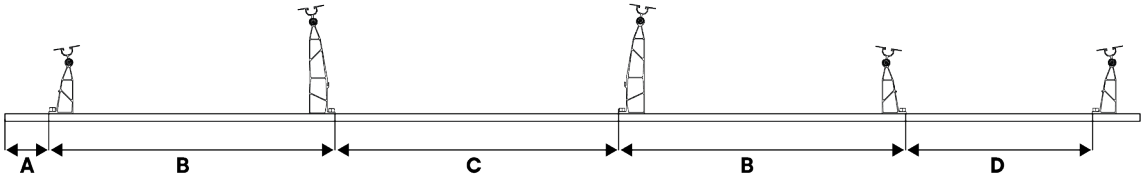


☐ Place the two new front feet on the spacers (1) on the left and right and tighten.
☑ The mounting gauge are now set for the **SN 2 Plus system** and can be used as gauge for the project.

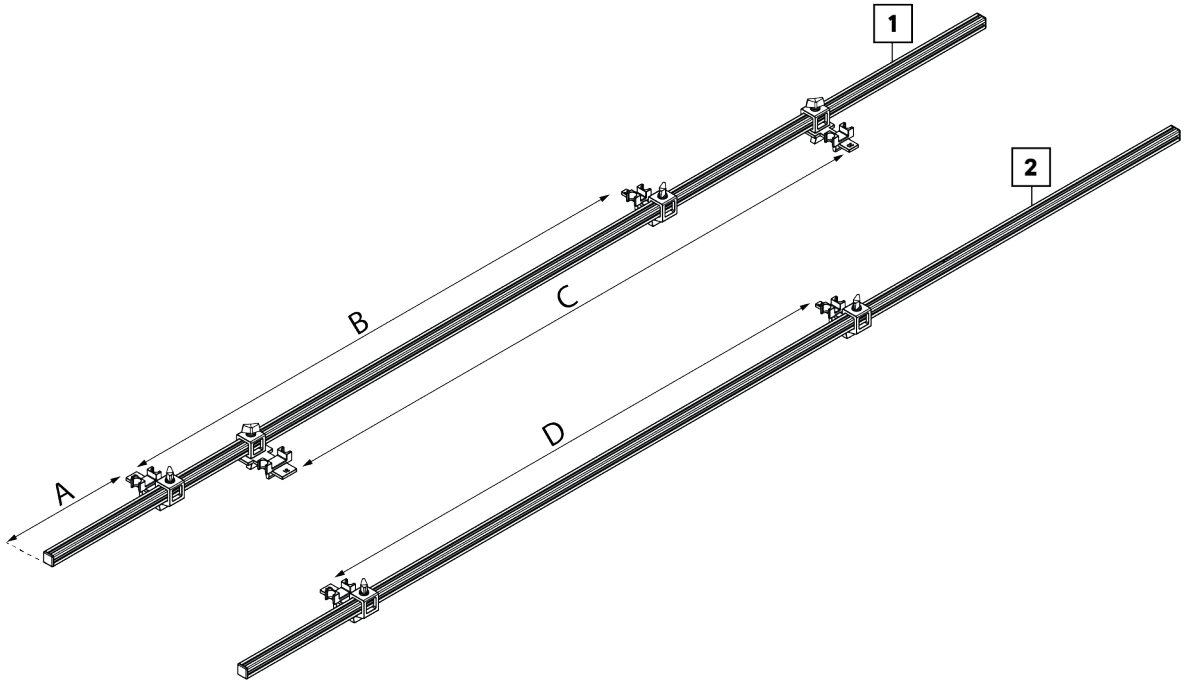
SN2 Q PLUS

Attach spacers to the mounting gauges

Two mounting gauges are required for positioning the feet in the SN2 Q PLUS system . The distance dimensions of the feet must be taken from the planning documents.



- The dimensions **A**, **B** and **C** are set with the **first mounting gauge**.
- The dimensions **D** are set with the **second mounting gauge**.

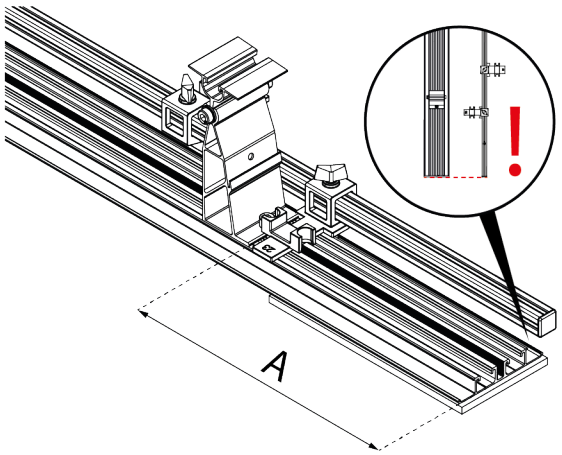


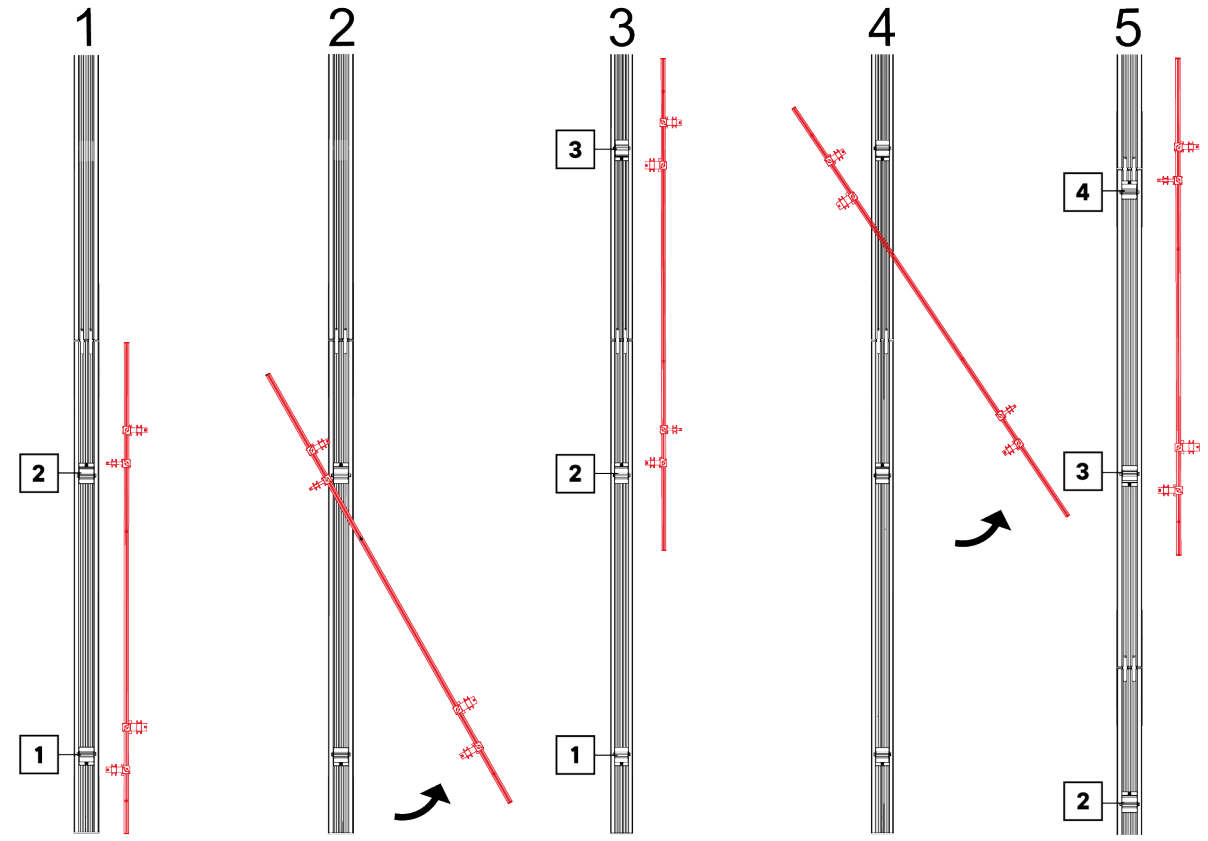
- Insert **4** spacers into the mounting gauge (1) as shown in the illustration. The dimensions of the spacers **do not have to be taken into account**.
- Insert **2** spacers into the mounting gauge (2) as shown in the illustration. The dimensions of the spacers **do not have to be taken into account**.
- The mounting gauges are now set for the **SN2 Q Plus system** and can be used as gauges for the project.

First mounting gauge

ⓘ The distances **A**, **B** and **C** are set with the first mounting gauge.

ⓘ Align the mounting gauge **flush** with the base rail.



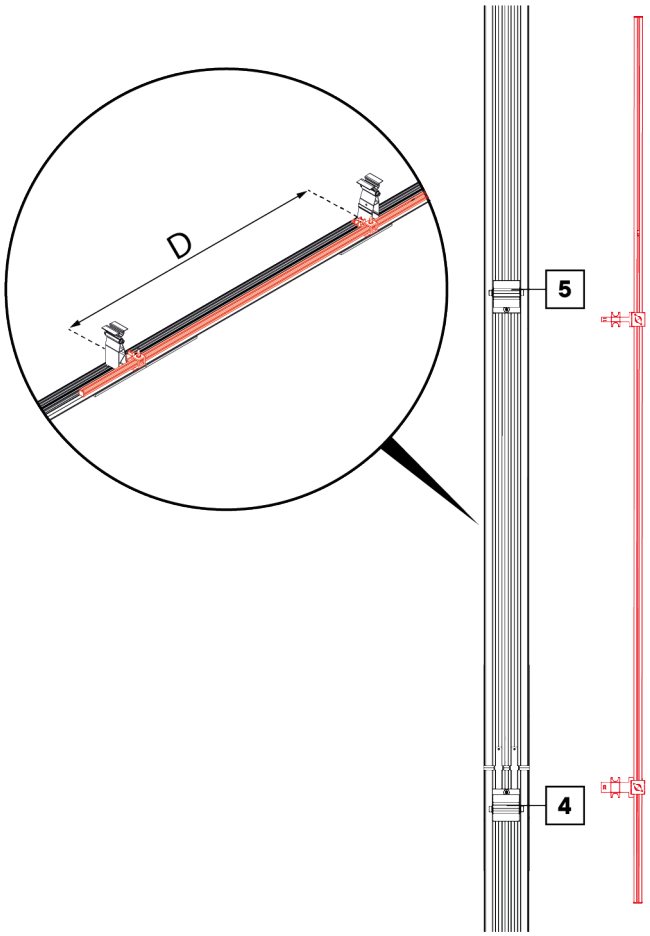


- ☐ Place the mounting gauge flush with the base rail and mount the feet (1) and (2).
- ☐ Turn the assembly gauge by **180°** and place it on the rear foot (2).
- ☐ Mount the rear foot (3) and turn the assembly gauge **180°** again.
- ☐ Place the assembly gauge on the rear foot (3) and then mount the front foot (4).

ⓘ The following front foot is mounted to the **second mounting gauge**.

Second mounting gauge

ⓘ The distance **D** is set with the **second assembly gauge**.



☐ Place the assembly gauge on the front foot (4) and mount the following front foot (5).
☐ The other feet must be mounted in the order already described in this chapter.

Europe / APAC

AEROCOMPACT® Europe GmbH
Gewerbestraße 14
6822 Satteins
Austria
phone: +43 5524 22 566
e-mail: office@aerocompact.com

USA / Canada

AEROCOMPACT® Inc.
901A Matthews Mint Hill Road
Matthews, NC 28105
USA
phone: +1 800 578 0474
e-mail: office.us@aerocompact.com

India

AEROCOMPACT® India Private Ltd.
Hub and Oak
C-360, Defence Colony
New Delhi, 110024
phone: +91 888 26 32 902
e-mail: office.in@aerocompact.com