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Assembly Scheme of 1FC-075-09-10.6W Faraday Cage Workstation





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1. General Information

1.1 Introduction

STANDA's faraday cages are dedicated to be used in such demanding applications as confocal microscopy, electrophysiology, medical research and other application where screening sensitive devices from unwanted electromagnetic waves and electrostatic fields is crucial. Lightweight but at the same time sturdy Faraday cage frame is easy with STANDA's vibration isolation table tops and workstations.

1.2 Safety

This manual uses certain terms that are important for your safety.

Shock Warning

Given when there is a risk of injury from electrical shock.

Warning

Used to denote a danger that may result in injury.

Attention

Used to denote a situation that may result in damage to components of the system.

1.3 Location of the Faraday Cage

To ensure optimal operation of the system, it must be installed on a surface that satisfies certain requirements. The surface must be even. It is important that an appropriate location for the system is chosen. The system must be installed in the vicinity of bearing walls or columns, where the impact of low-frequency oscillation is smaller. Furthermore, it is advisable to avoid placing the system in the vicinity of other sources of vibration such as elevators, ventilation systems, industrial equipment, and airflows.

Warning

The system is a metal-made current conductor. If used together with electrical devices, the table must be earthed.

2. Basic Installation

2.1. Preparation

- 1) Assembly of the vibration isolation system by user manual 1VIS10W.

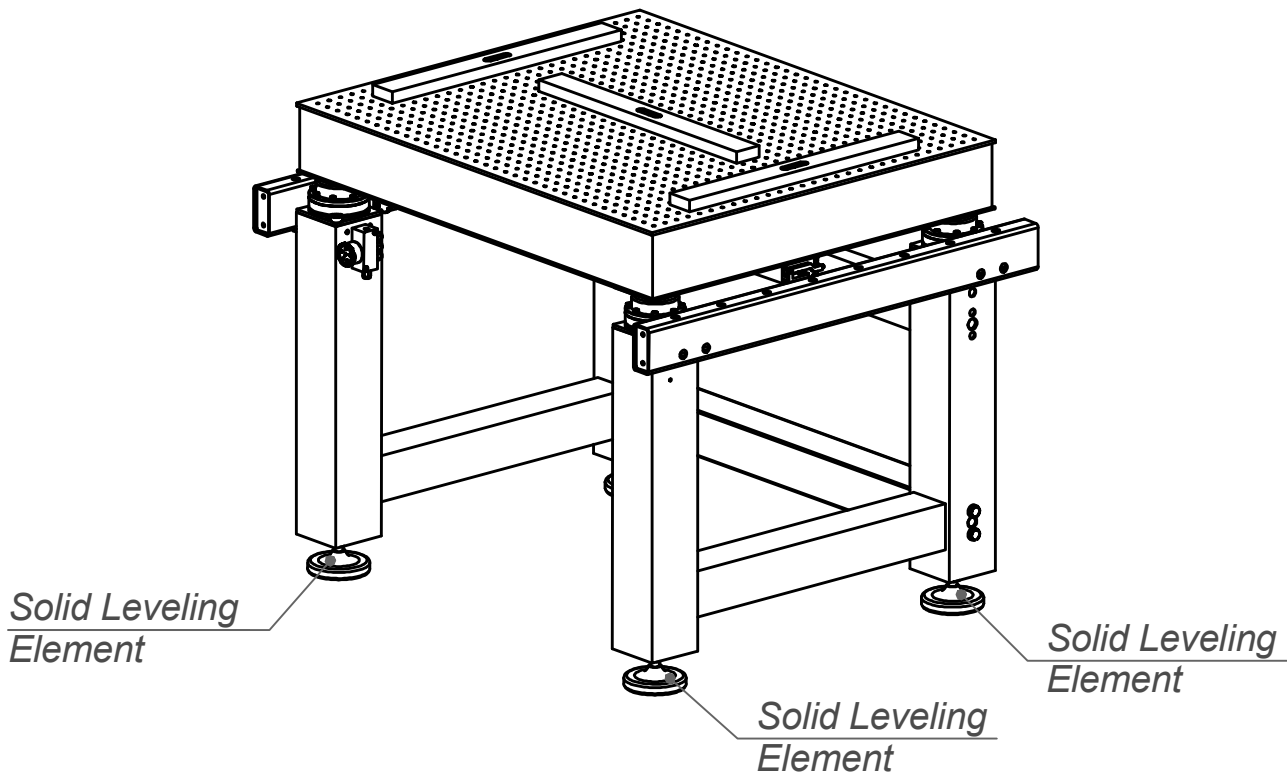


Fig. 1. Breadboard horizontal level adjustment

- 2) Put breadboard on the base with fixed support plates.
- 3) Adjust breadboard to horizontal level by screw in or screw out the base supports. After level adjustment fix each solid leveling element position with locknut.
- 4) Hook up pneumatic joints and adjust breadboard height position according to Fig. 14 "User Manual". Using Needle Valve setup correct pneumatic system operation.
- 5) Turn off air input and remove breadboard from the base. After unscrew support plates.

2.2 Installing the Base Tray

- 1) Attach the holders (10) to the base tray by screws (1)
- 2) Position the base tray (11) on the frame, ensuring that the mounting holes of tray coincides with holes of the frame.
- 3) Fit a washer (8) onto each of the four bolts (6) provided, then fit the bolts through the frame and tighten to secure the base tray in place.
- 4) Attach the support plate to the piston by screw (2).

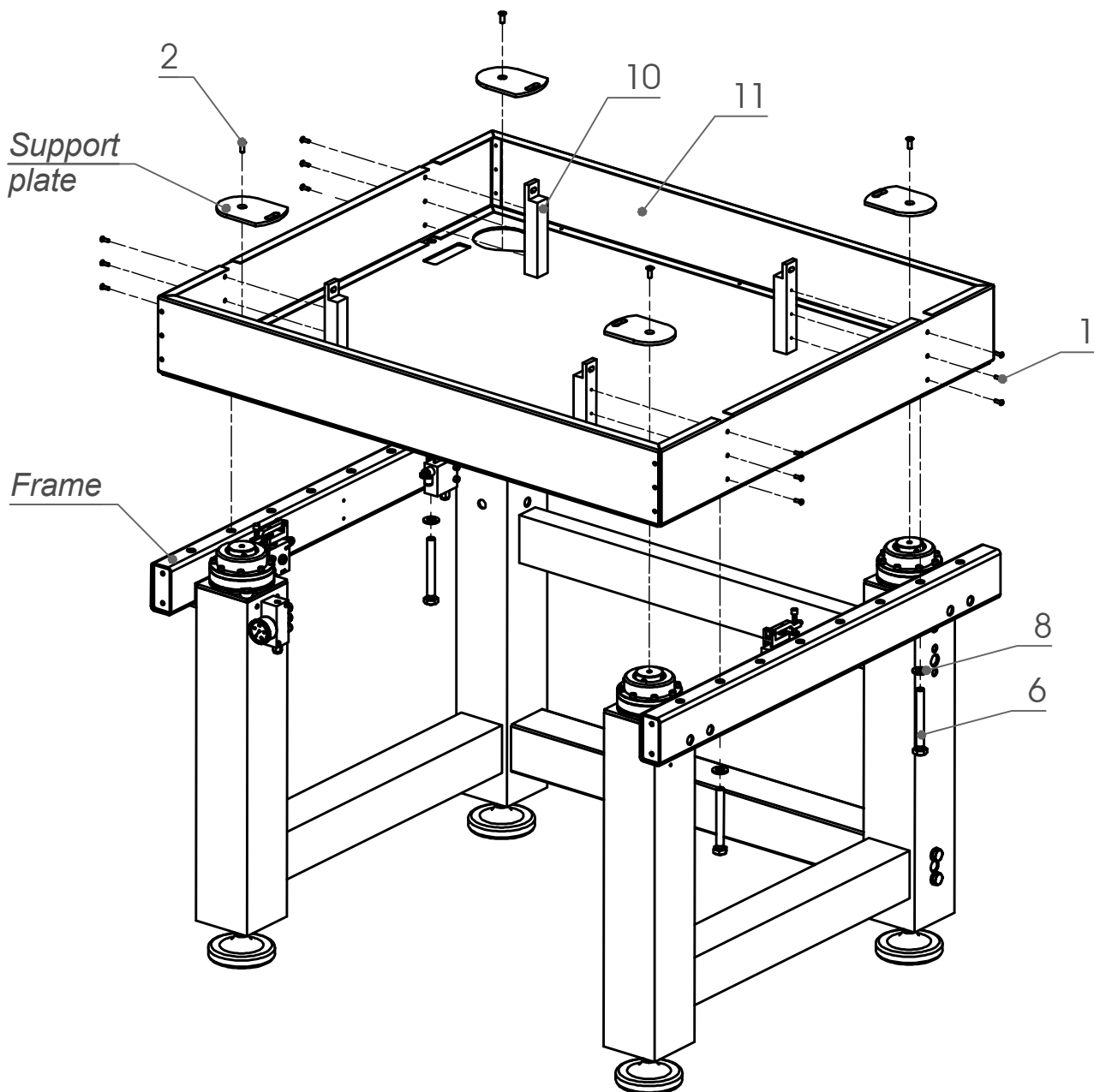


Fig. 2. Installation of the base tray

2.3 Installing the Breadboard

- 1) *Place the breadboard accurately on top of the pneumatic supports in the base tray. If you need to adjust the location of the breadboard, lift the breadboard over the supports.*

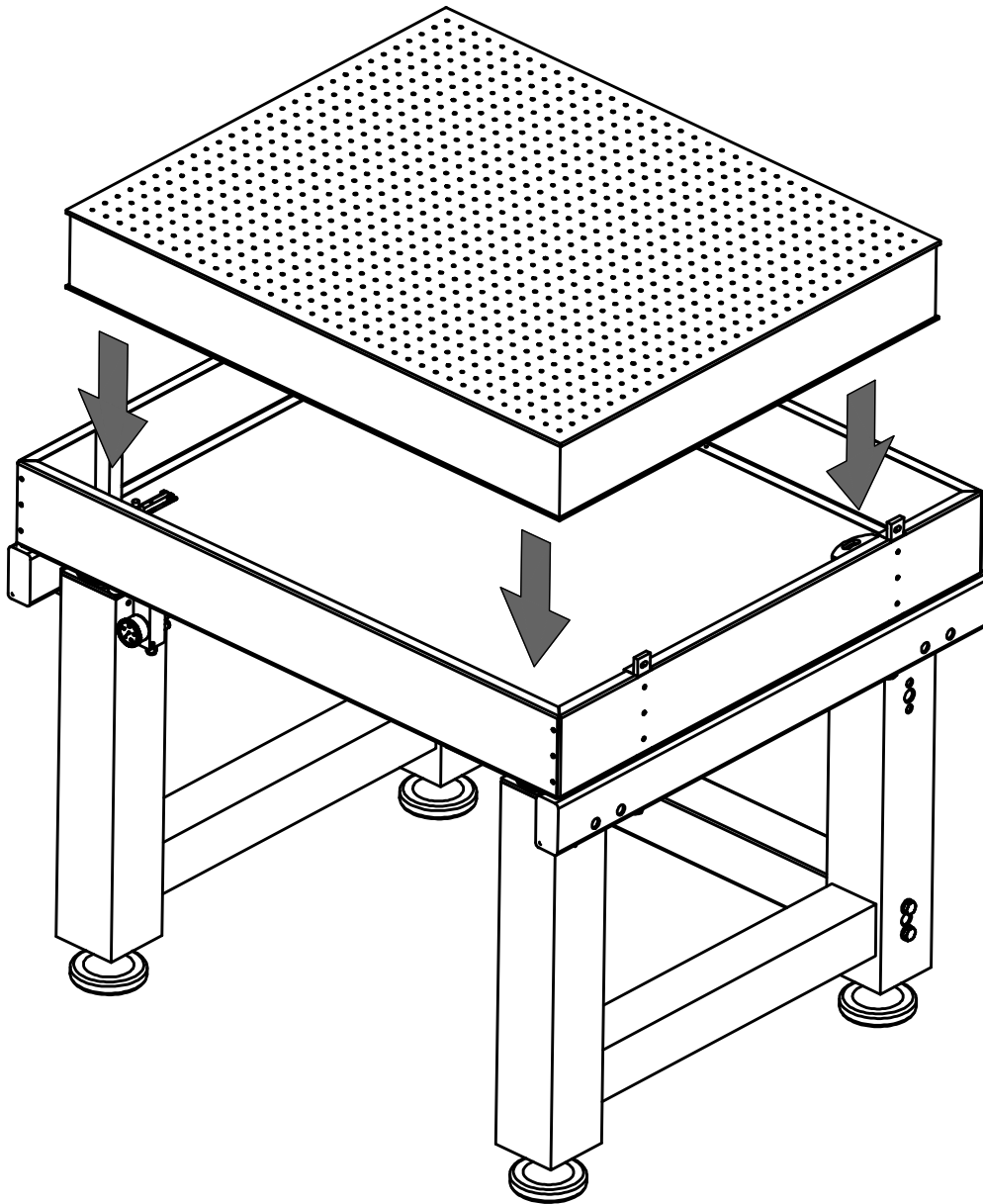


Fig. 3. Installing the breadboard

- 2) When the system is completely floating, check the distance between the breadboard and the base tray (see fig. 4). Dimension must be 24 ± 1 mm.

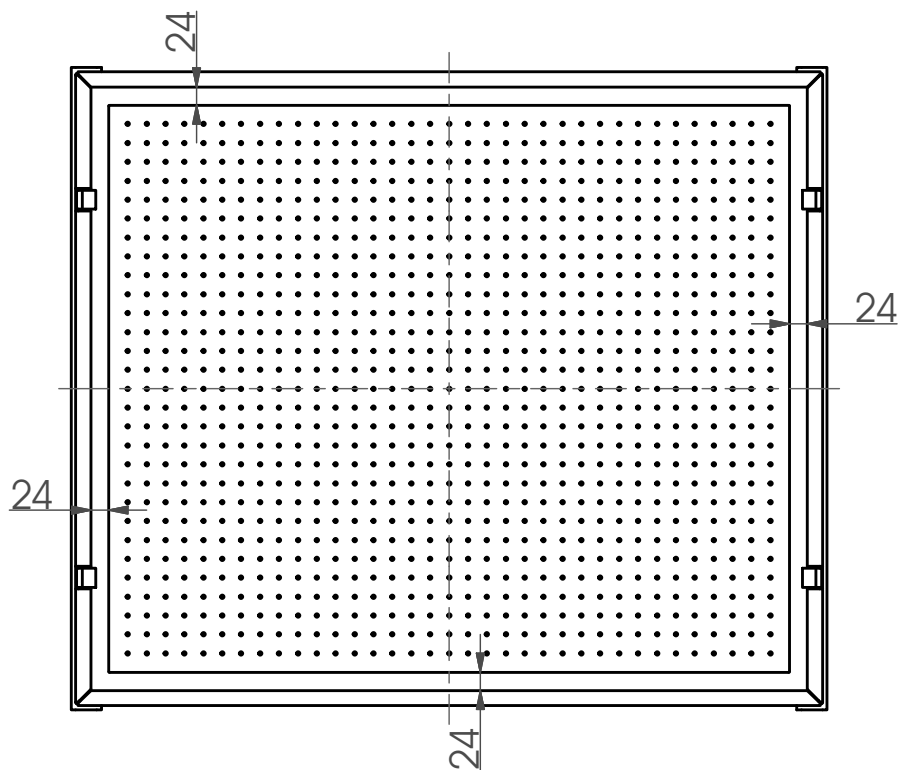


Fig. 4. Setting the breadboard into the base tray

3) Attach the breadboard to the pneumatic vibration isolation supports by screws (4).

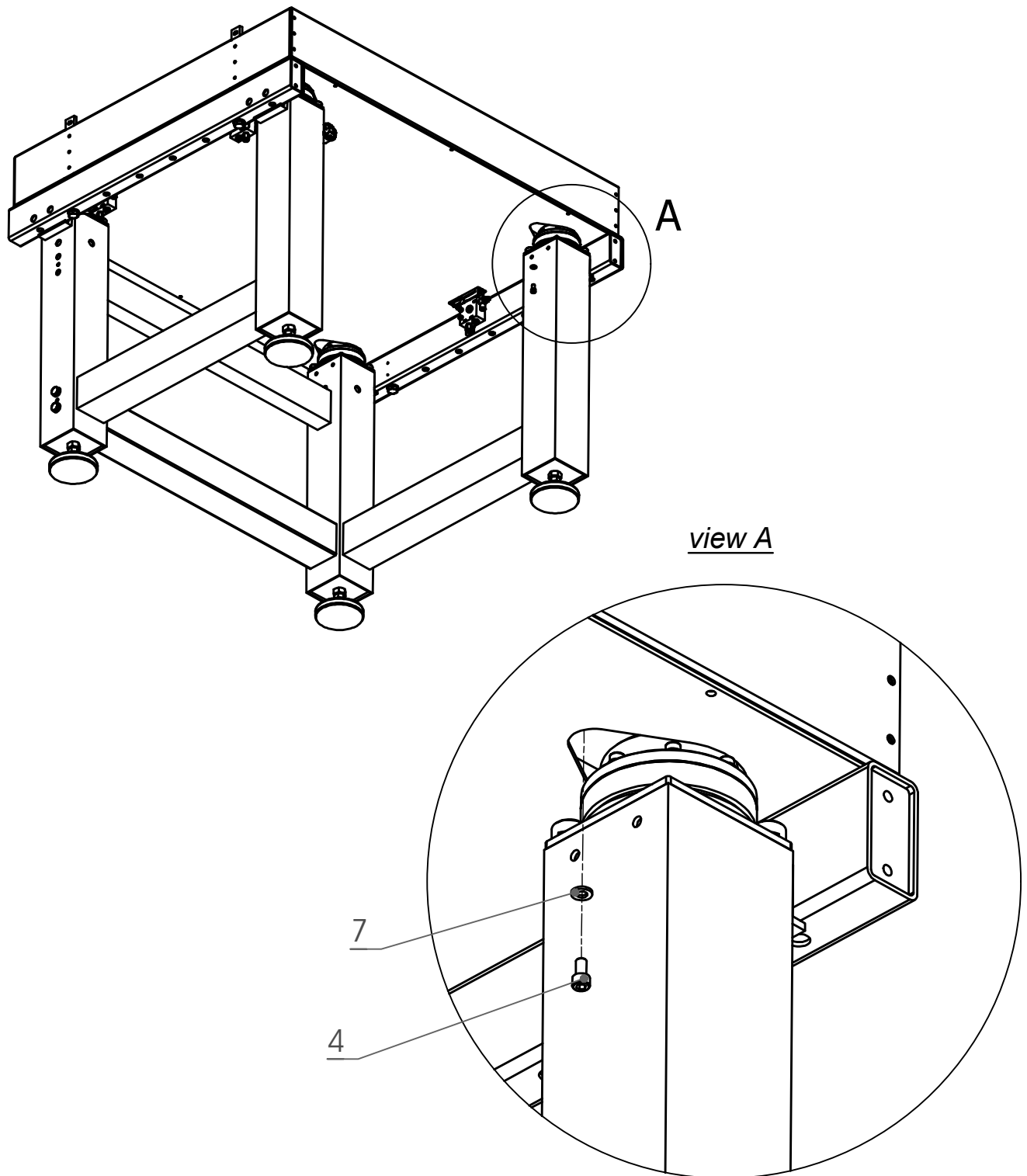


Fig. 5. Installing the breadboard

2.4 Assembling the Frame

- 1) Fix each crossbars (12, 13, 14, 15) to the walls (16, 17) using the supplied screws (2)

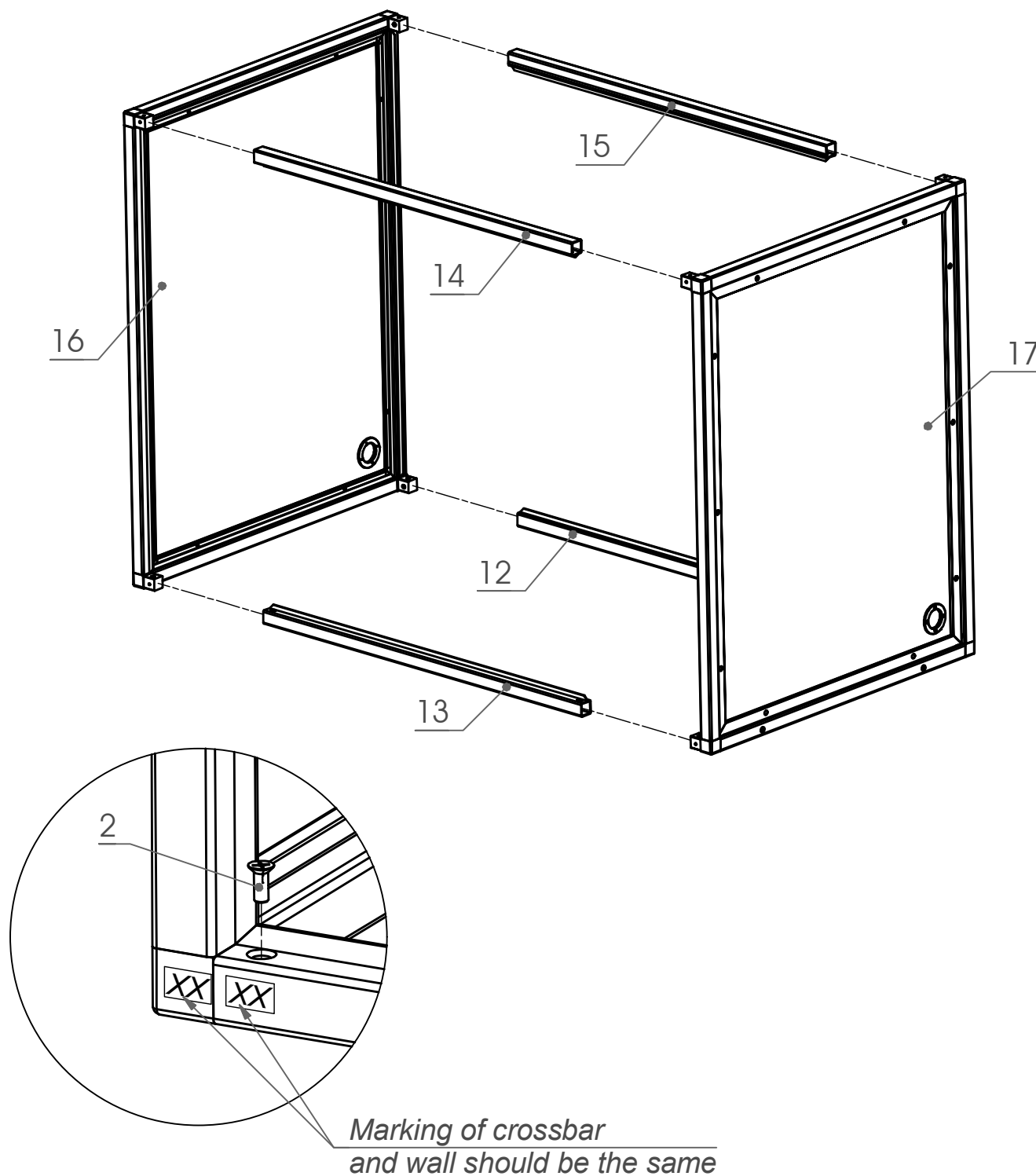


Fig. 6. Assembling the frame

2.5 Fitting the Panels

- 1) Fit the panels to the frame. The panels are held in place by fixing plates (21).
- 2) Front panel (20) are held in place by magnetic catches.

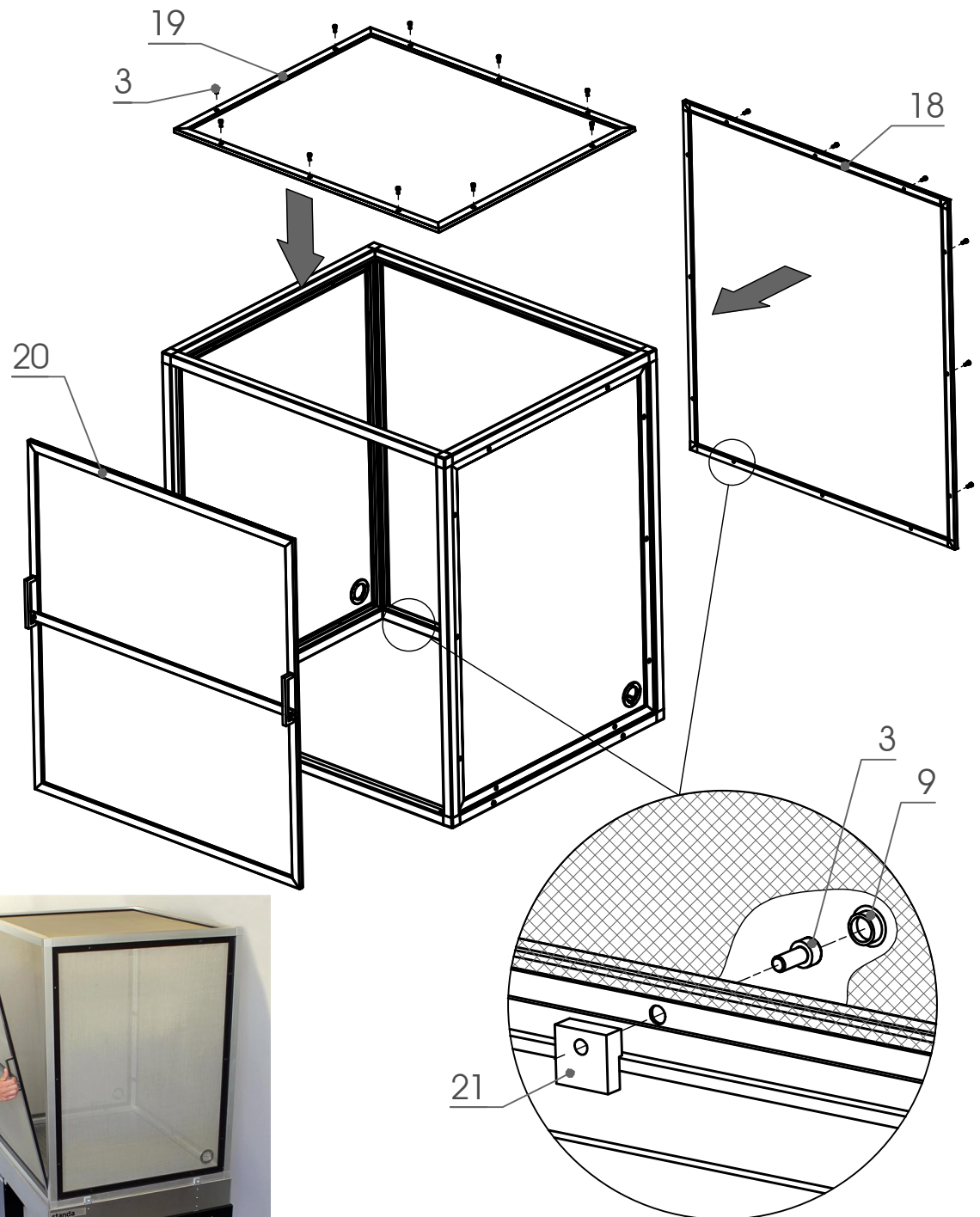


Fig. 7. Fitting the panels

2.6 Fitting the Cage to the Workstation

- 1) Position the cage on the workstation. Check the distance between the breadboard and the cage. Dimension must be 5 mm.
- 2) Fit a washer (7) to each of the four bolts (5) and tighten to secure the cage in place.

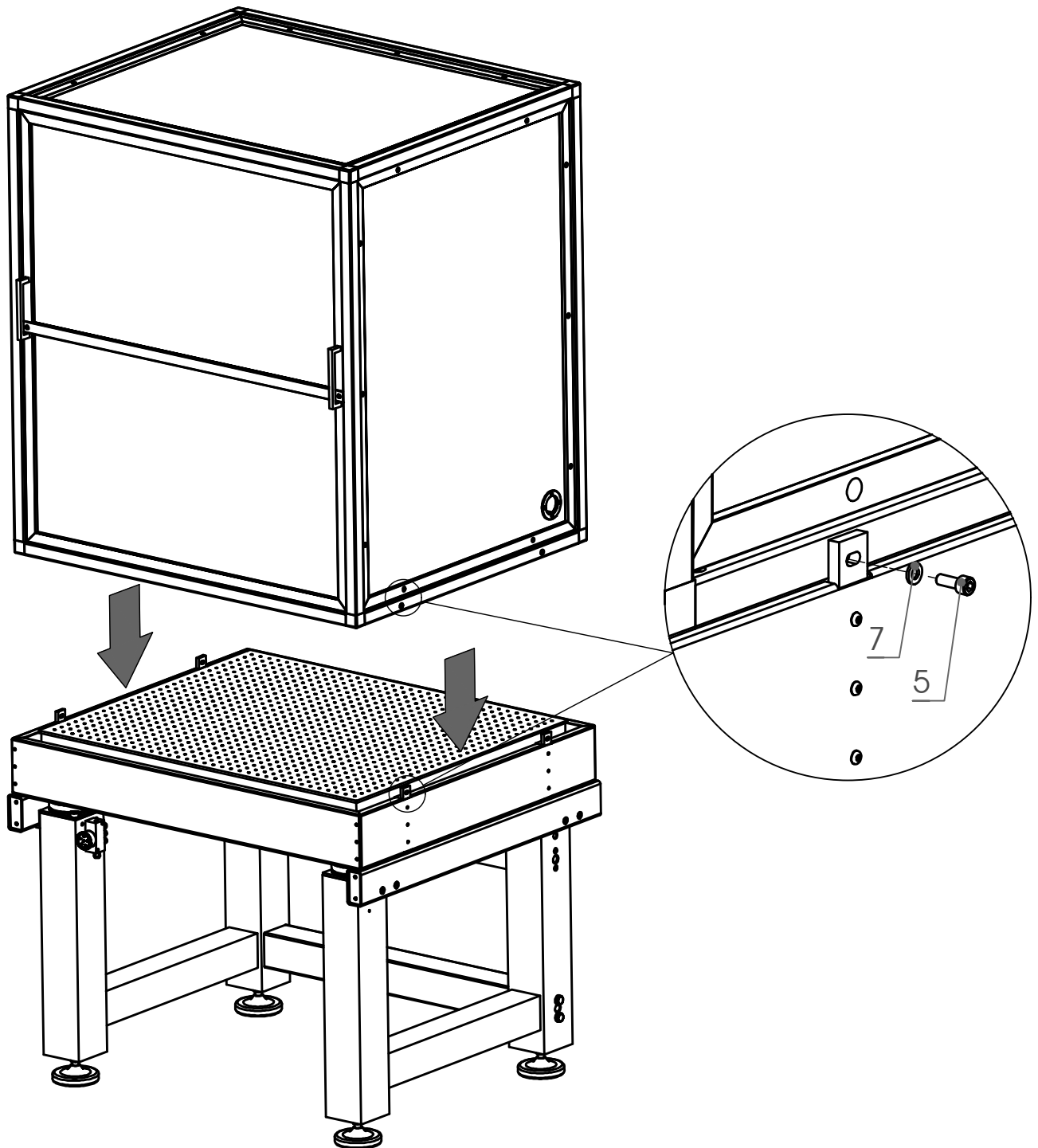







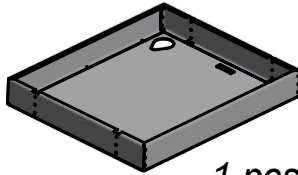
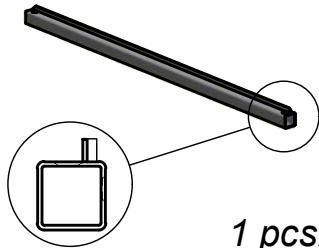
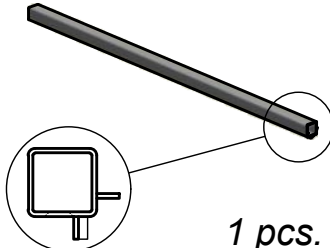



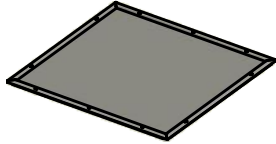
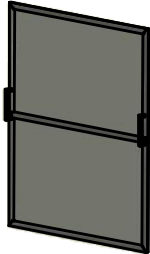
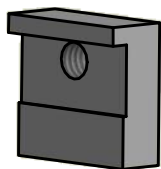


Fig. 8. Fitting the cage to the workstation

3. Parts list

<p>1 - screw M4x10 ISO7380</p>  <p>12 pcs.</p>	<p>2 - screw M6x16 DIN965</p>  <p>8 pcs.</p>	<p>3 - screw M5x12 DIN912</p>  <p>22 pcs.</p>	<p>4 - screw M6x12 DIN912</p>  <p>4 pcs.</p>
<p>5 - screw M6x20 DIN912</p>  <p>4 pcs.</p>	<p>6 - screw M12x100 DIN933</p>  <p>4 pcs.</p>	<p>7 - washer 6,4 DIN125</p>  <p>8 pcs.</p>	<p>8 - washer 13 DIN125</p>  <p>4 pcs.</p>
<p>9 - plastic cap</p>  <p>22 pcs.</p>	<p>10 - holder</p>  <p>4 pcs.</p>	<p>11 - base tray</p>  <p>1 pcs.</p>	<p>12 - crossbar</p>  <p>1 pcs.</p>
<p>13 - crossbar with magnets</p>  <p>1 pcs.</p>	<p>14 - crossbar with magnets</p>  <p>1 pcs.</p>	<p>15 - crossbar</p>  <p>1 pcs.</p>	<p>16 - left wall</p>  <p>1 pcs.</p>
<p>17 - right wall</p>  <p>1 pcs.</p>	<p>18 - back panel</p>  <p>1 pcs.</p>	<p>19 - top panel</p>  <p>1 pcs.</p>	<p>20 - door</p>  <p>1 pcs.</p>

21 - fixing plate



22 pcs.