

# INSTALLATION AND OPERATION MANUAL Floating floor elements

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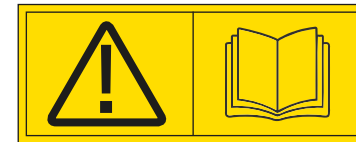


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Safety Instructions

Safety instructions are used for personal safety and protection from serious injury that can lead to death. The following instructions are intended to protect the product from damage.



General Safety Information

Before installation, operation or service, read and understand this installation and operational manual. Failure to follow installation and operating instructions could result in death or serious injury.

Special Safety Warnings

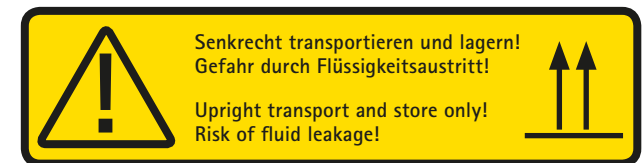
CAUTION



CAUTION CONTUSION / CRUSHING



CAUTION UPRIGHT TRANSPORT AND STORAGE



## Safety Instructions

### Qualified Personnel

The product described in this document may be operated only by qualified personnel. Compliance with the required safety regulations according to the country of use is required. Qualified personnel must be based on their training and experience to recognize risks associated with this product and to avoid possible hazards.

### Intended Use

The product described here may only be used for the intended application. If products and third-party components are used, they must be recommended or approved by VICODA. The successful and safe operation of the product presupposes proper transportation, proper storage, installation, assembly, installation, commissioning, operation and maintenance.

All additional works that are not described in this document have to be done by authorized VICODA personnel only. Any system changes that are not authorized by VICODA or any kind of additional works might cause damage to the spring element and the warranty will void.

### Disclaimer

We have checked that the contents of this document correspond to the described product. Since deviations cannot be precluded entirely, we cannot guarantee full agreement. The information contained in this publication is reviewed regularly and any necessary corrections are included in subsequent editions.



## Floating Floor Elements



VICODA floating floor elements are used for vibration isolation in technical and professional applications. The system frequency of the floating floor varies from 2 Hz to 5 Hz providing highest mitigation. The floating floor can be used as an active or as a passive vibration control device, depending on the application.

Floating floor elements can be equipped with sufficient damping to avoid any severe resonance effects. The type of damping depends on the planned application. Typical applications of floating floors are recording studios, concert halls, discotheques, gyms, heavy machinery or measurement equipment etc.

### General Arrangement Drawing

The main parts of a floating floor element are summarized within Fig. 2-1.

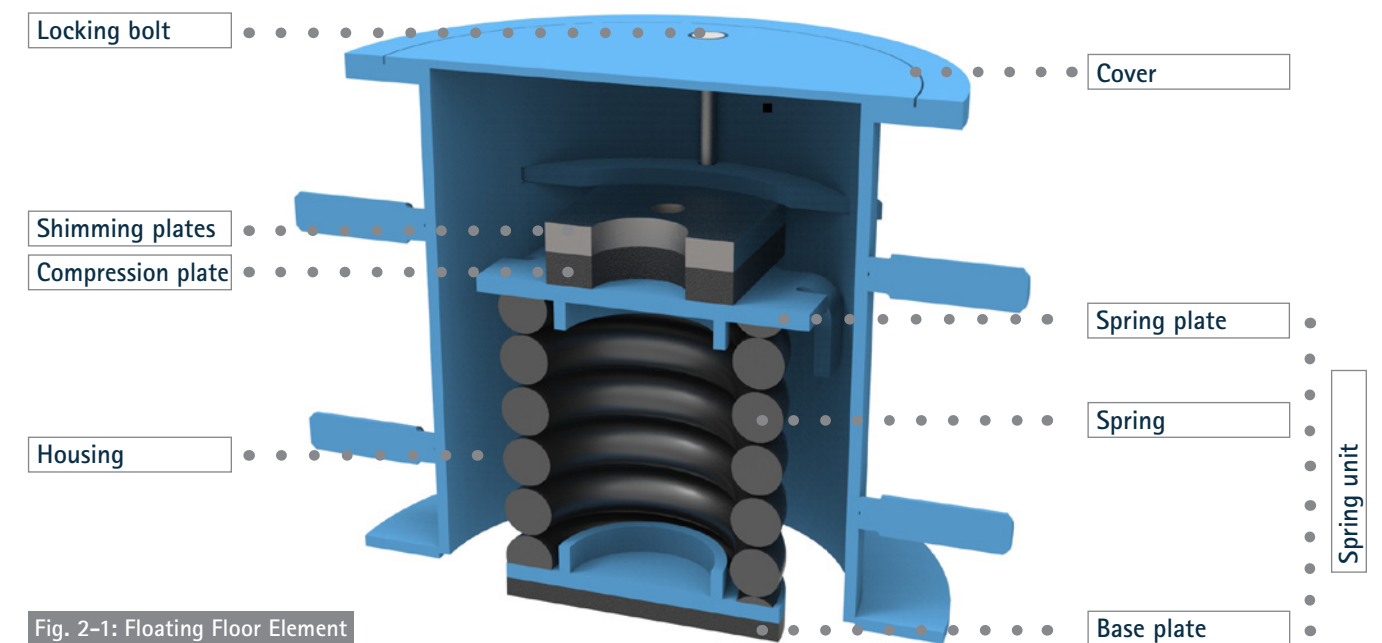


Fig. 2-1: Floating Floor Element

### Standard Corrosion Protection

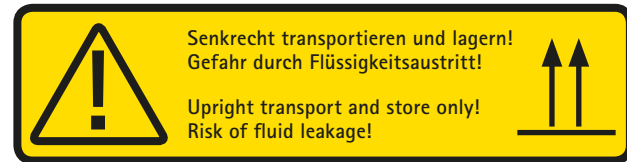
The components receive the following standard surface treatment:

- Housing: hot dipped galvanized
- Compression plate, spring and base plate: thick layer passivation, 12 µm
- Spring: Cathodic immersion process (CIP)

## Handling and Pre-Commissioning

### Handling and Shipping Procedure

The standard marking and transportation procedure is specified in: QP002-Standard VICODA packaging, marking and transportation procedure.



### Unpacking Procedure / Delivery Conditions

Prevent for shocks during unpacking. Attention with sharp tools during unpacking so that the surface of the element will not be damaged.

They are delivered with shimming plates for height adjustment of the gap between the ground and the floating floor.

Depending on the variant, the spring unit is either delivered bonded or laced together with a plastic strap. The strap does not need to be removed.



## Installation Procedure



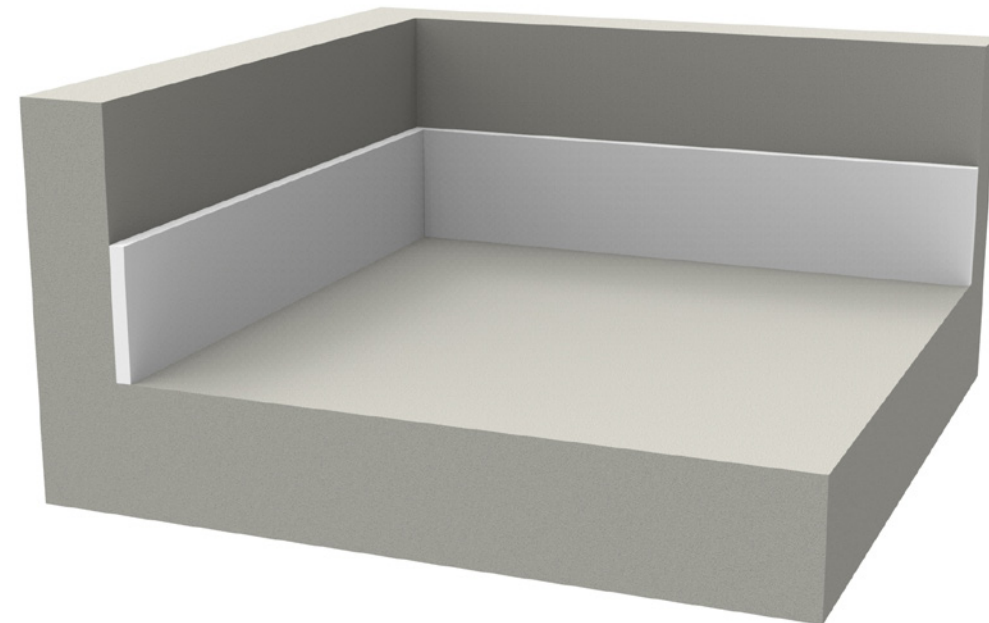
Depending on the local circumstances, the installation procedure may be different. The aim to grant vibration isolation, though, is the same.

The following sections describe the installation of the floating floor elements. The steps are recommendations, based on VICODA experience in the installation of floating floors. If the installation should be carried out in a different way, the alternative installation method has to be agreed with VICODA.

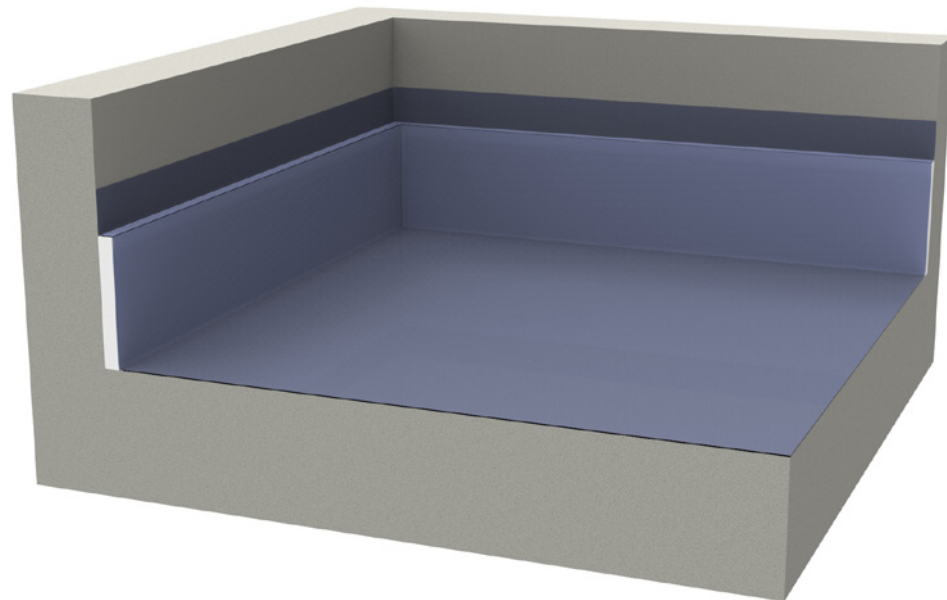
### Overview / General Steps

The installation procedure consists of the following steps:

#### Step 1: Placement of polystyrene plates on room walls

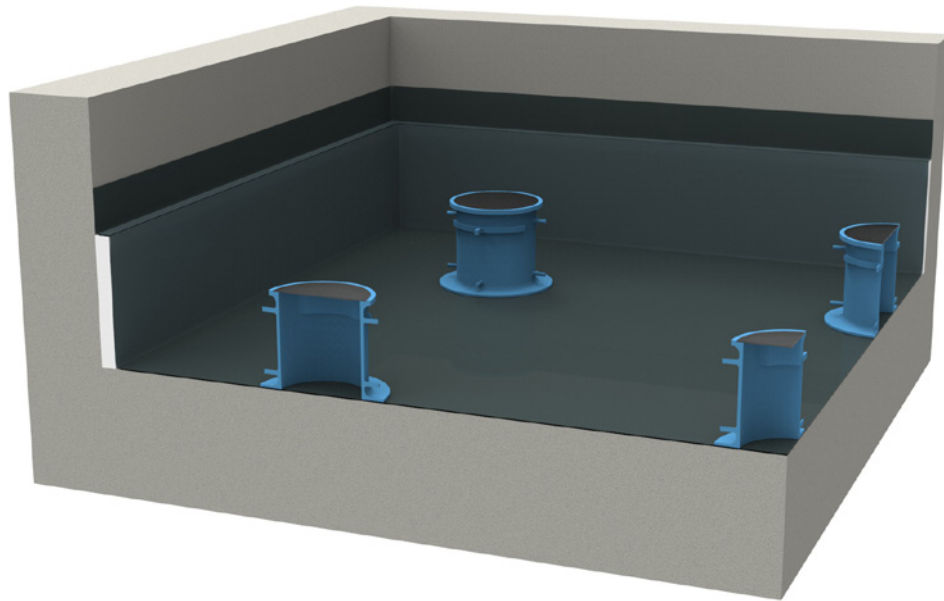


Step 2: Creation of separating layer between floating floor and ground to avoid bonding



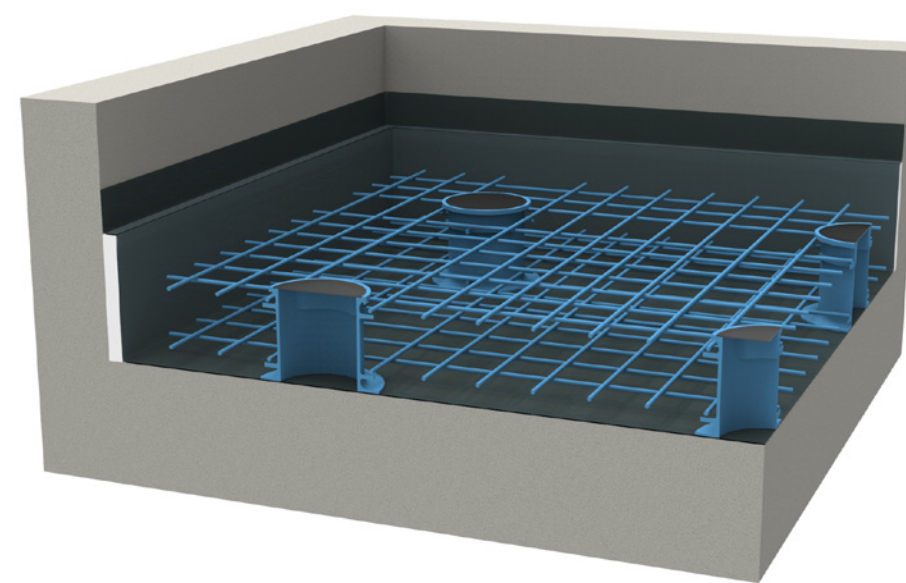
This can either be realized by covering the ground floor and the polystyrene plates with a plastic sheet or using Paraffin spray.

Step 3: Placement of floating floor elements on prescribed positions



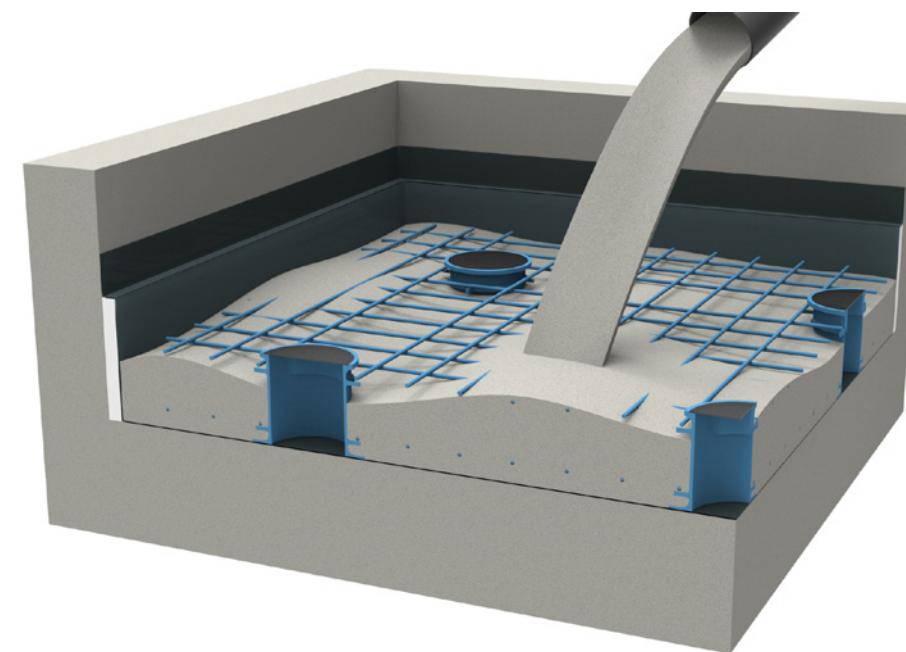
The cover must be placed on the housing to keep concrete from leaking in. A silicone caulk should be applied to the bottom disk of the housing prior to placement for the same reason.

Step 4: Placement of reinforcing steel bars per static calculation



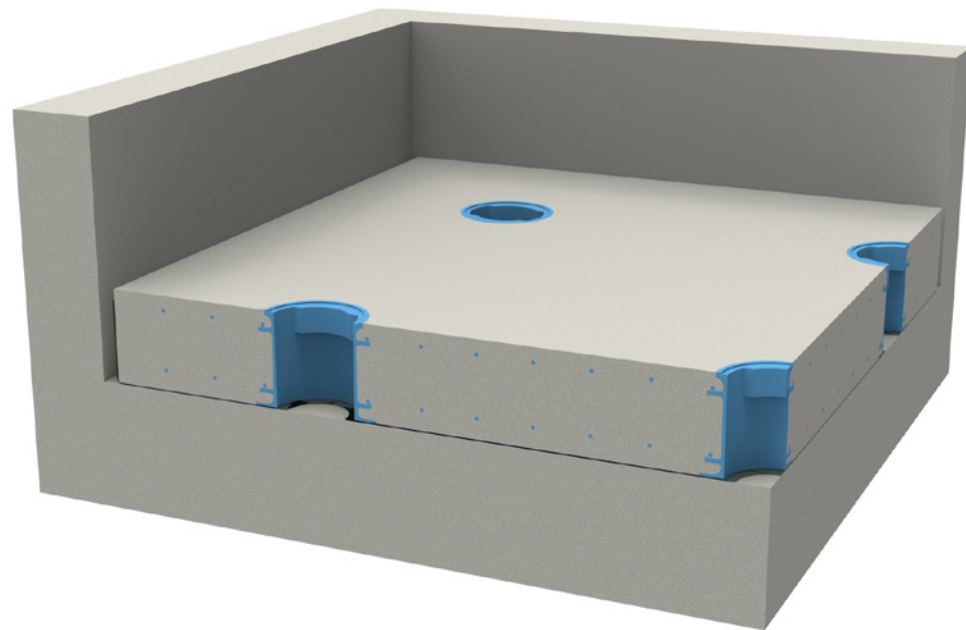
The elements must be pressed on the ground by the weight of the steel bars to assure that no concrete can leak into the housing from below.

Step 5: Pouring of concrete



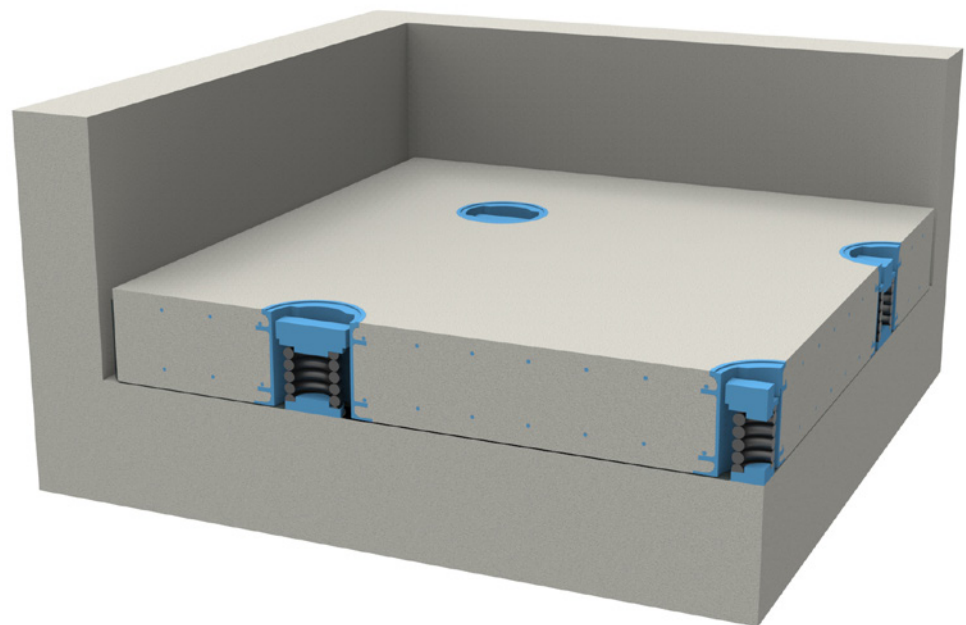


Step 6: Preparation of jack up process

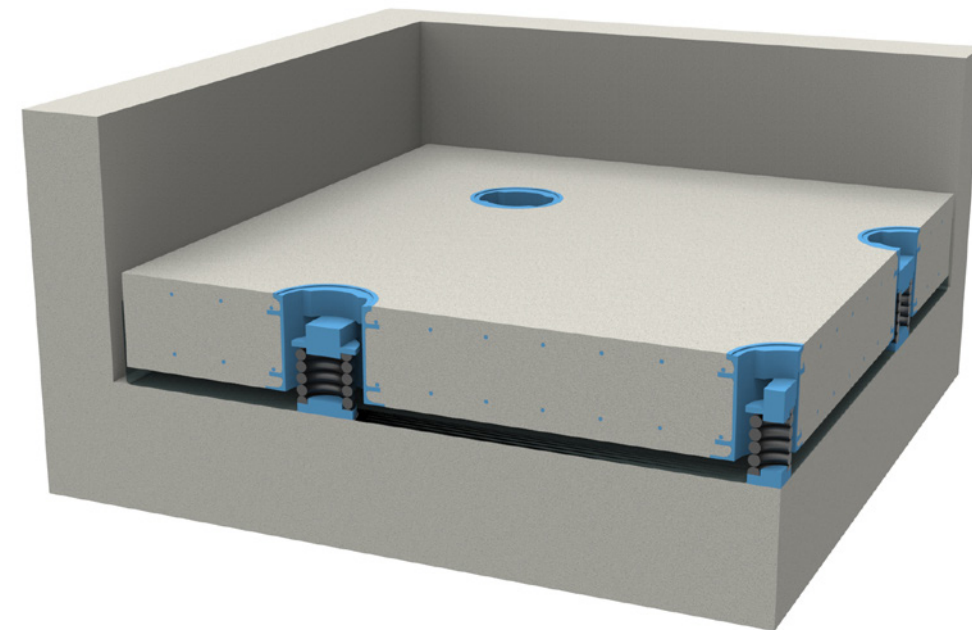


After receiving 80% of concrete strength: removal of polystyrene plates and housing covers, Cutting the plastic sheet inside the housing

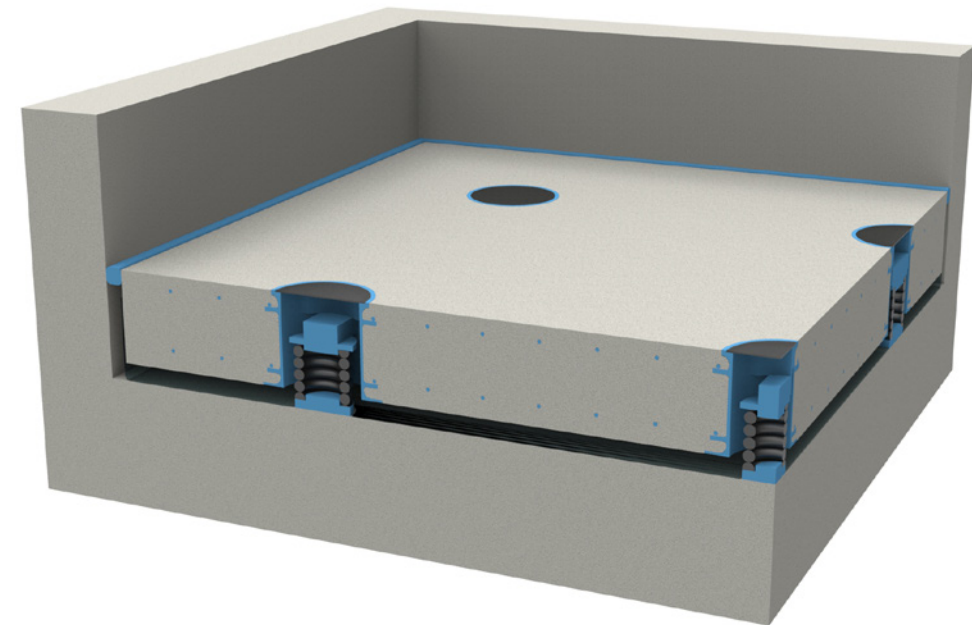
Step 7: Insertion of spring units



Step 8: Jack-up process of the floating floor (see page 12)



Step 9: Insertion of elastic sealings in gap between floating floor and wall, place covers



### Jack-up Process of Floating Floor Element

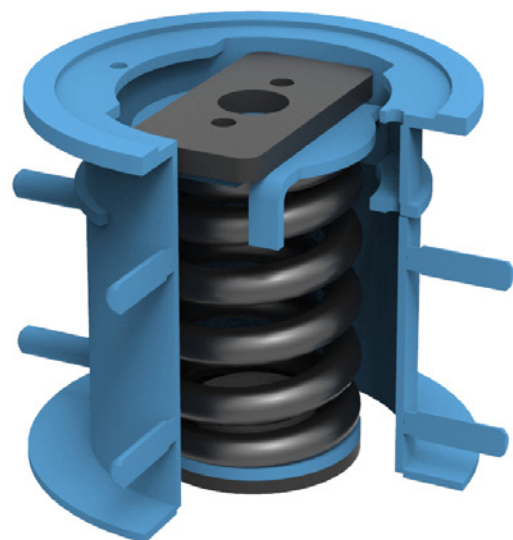
Generally, several floating floor elements have to be jacked up by compressing the springs. The sequence in which the springs will be compressed, must be predetermined and varies for each case.

In a first step, the spring in the floating floor element is compressed to its nominal load. After the balance between spring reaction force and the dead load of the floating floor is reached, the slab slightly starts to lift off from the bottom. The requested gap between floating floor and bottom can be adjusted by subsequent shimming of the floating floor elements.

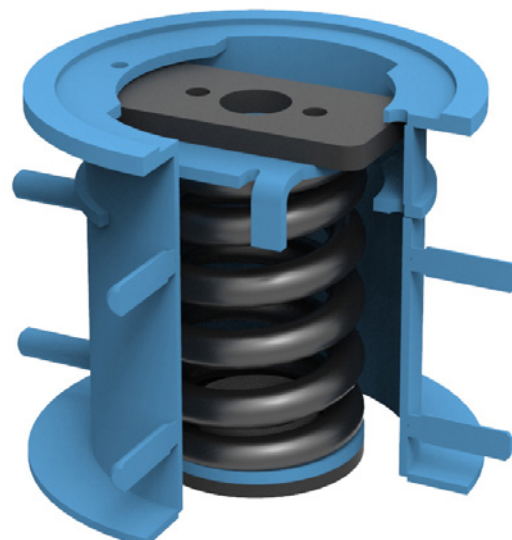


The jack up procedure for a single floating floor element is as follows:

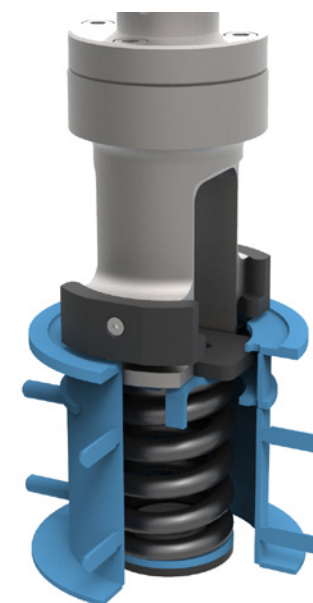
1. Insert compression plate into floating floor element.  
*Attention: Do not interchange shimming plates and the compression plate!*



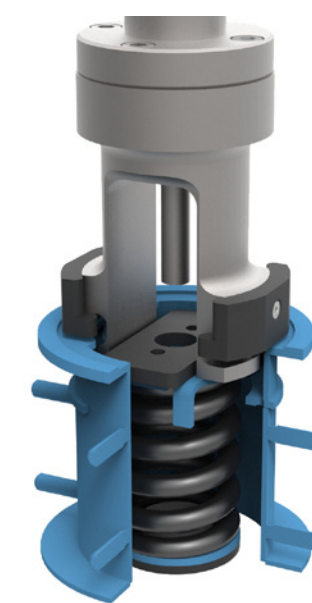
2. Turn compression plate 90°.



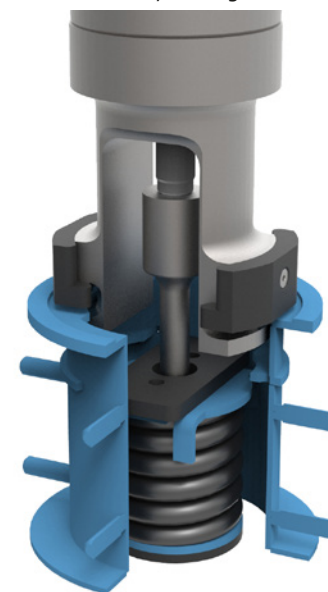
3. Insert installation tool (to be acquired or rented from VICODA).



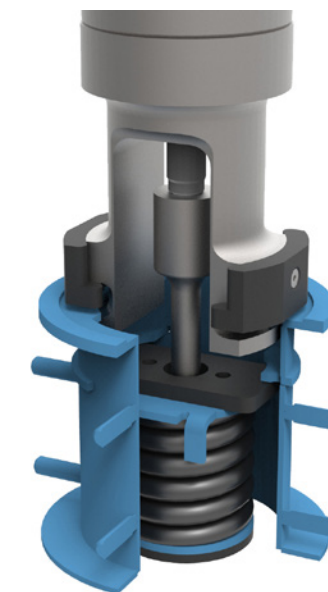
4. Turn installation tool 90°.



5. Compress the spring to at least nominal and maximum block load. Make sure the spring plate slides smoothly through the slot.

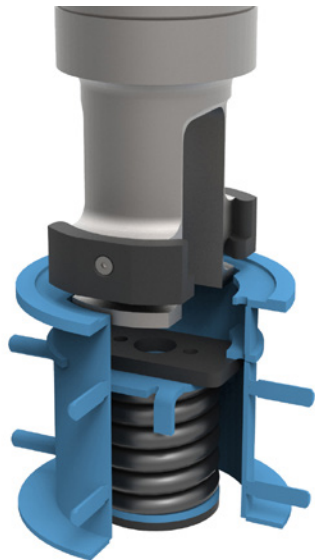


6. Turn compression plate 90°.

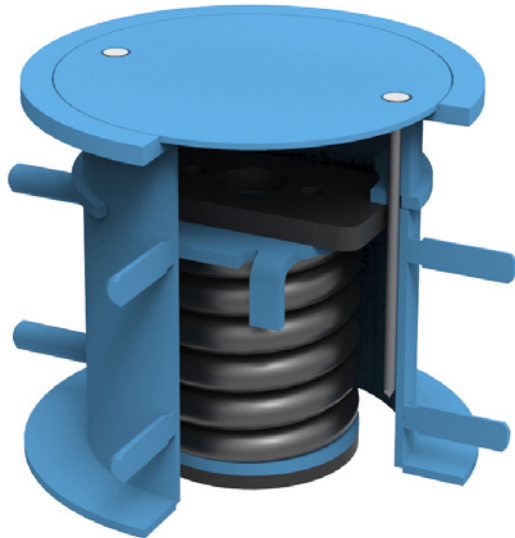




7. Extract installation tool.



8. Insert locking bolts and put cover on the floating floor element.



The procedure described above (steps 1 through 7) must be repeated with shimming plates until the planned gap between the floating floor and the ground is reached.

REQUIRED TOOLS FOR INSTALLATION	
Tool	Description
Installation tool	To be purchased or rented from VICODA
Compression plate turning tool	Common screwdriver or similar

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