

# Standard Operation Procedure Pressure Cell Safety

PSI registration no.:

PSI organizational unit: **3501**

Person responsible for room (name / phone):

**Rustem Khasanov / 5438, Matthias Elender / 5423**Building / room: **WEHA /Studio D**

## Hazards



### Hazards for humans

- Overstressed pressure cells and pressure cell components may explode
- The incorrect use of pressure equipment may lead to the pressure cell and the equipment failure
- The rules summarized below must be strictly followed in order to avoid any injury

## Safety Rules

### Organisational safety rules



- Handling of pressure cells is only allowed for the **trained persons** (scientists, engineers)
- Only the **trained persons** (scientists, engineers) are allowed to be present in Studio D during the pressure application and the pressure determination. The access of any external people, including users, during this time is strictly prohibited
- The personal safety equipment must be used. It is stored in Studio D and comprises of **face protection helmets, protection jackets and Kevlar gloves**.
- After pressure application, the pressure cell must stay within the "pressure application area" and inside the pressure protection cylinder **for at least 15-20 min**.  
**This rule is strictly applied after application of pressure above 75% of their maximum value!**
- As soon as the waiting-time is over, the cell must be **immediately** placed in an **ammo-box**. The cell can be removed from the ammo-box **only immediately before mounting it** on the sample stick.
- Loaded pressure cells are not allowed to stay outside the **ammo-box**. The transportation and storage of cell(s) is allowed only by using **ammo-boxes**.
- For pressures above 75% their maximum value, the dedicated protection cylinder for the ACS measurements must be used.
- No photos are allowed to be taken at the instrument GPD and in Studio D.

### Storage and workplace

- All loaded cells must be stored inside the **ammo-boxes**.
- The pressure cell transport is only allowed by using the **ammo-boxes**.

Every person must be instructed before handling pressure cells.



Lab coats must be worn in this area

### Personal protective measures

- **Hand protection:** When manipulating pressure cells, use the **Kevlar gloves**.
- **Head protection:** Use the face protection equipment (**helmet**).
- **Body protection:** Wear the **protection jacket**.

## Actions in an Accident, First Aid



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### Immediate life-saving measures

- Keep calm, **alert the emergency center (SIZ) on the phone number 3333**
- Give the following information: who is calling, what happened, where it happened.
- Take care of injured persons and provide First Aid. Keep attention to own safety.
- Medical consultation is indicated even after a virtually harmless event, if symptoms are recognized.

Date: Signature (room responsible):

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Date: Signature (group head):