# Guide to replacing individual tubes



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Due to continuous development, the drawings, installation steps and technical data detailed here may change.

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## Replacing individual tubes



Whenever replacing defective or damaged tubes, gloves and safety glasses must be worn.

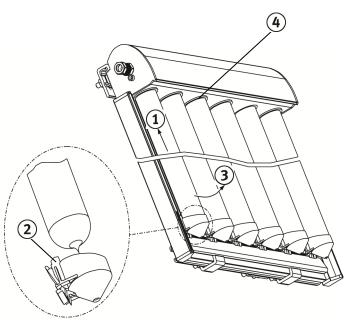
### 1. Removing mechanically damaged tubes

- 1. Carefully remove glass shards, without damaging the CPC reflector surface.
- 2. Remove residual glass from the manifold.
- 3. Then remove the tube retainer.

### 2. Removing tubes which are not mechanically damaged

- 1. Remove the tube retainer at the lower end. To achieve this, push the tube approximately 1/4" upwards into the manifold (pos. 1) to release the tube retainer. Grip the tube retainer by hand, while pushing the two release levers (pos. 2) downwards with thumb and forefinger, and remove the tube retainer by lifting it in the direction of the manifold.
- 2. Raise the tube a little, and while rotating it slightly around the longitudinal axis, pull it straight downwards and remove it. For installations on flat roofs, protect the end of the tube by grasping it with a glove, and pull it down to the ground, then guide the end of the tube along the ground in a straight line. If there is insufficient space to pull the tube completely out in a downwards direction, the 8 mm internal metal tube can be bent by up to approximately 20° upwards from the collector level (pos.3). Caution: a risk of cracking arises if the tube is bent by more than 20°.

### 3. Installing individual tubes



- 1. Ensure that the location of the sealing ring (pos.4) in the manifold is clean.
- Coat the upper tube end with grease paste or soap, so that the tube can be easily pushed through the silicone ring in the manifold.
- Install the new tube in a manner corresponding to the manner in which the defective tube was removed. While rotating the tube slightly, push it through the silicone ring into the manifold.
- 4. Place the tube retainer on the end of the tube. Grip the end of the reflector contour with the tube retainer raised, push the tube retainer between the two notches on the aluminum frame, push downwards and into the groove in the frame.
- 5. Pull the tube downwards into the tube retainer as far as it will go.