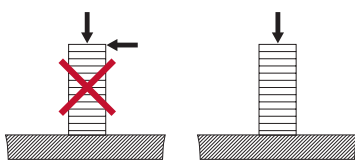
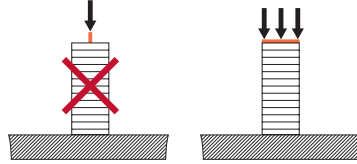


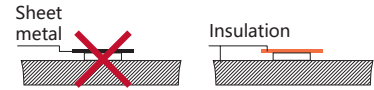
## Installation Precautions of Piezo Stack



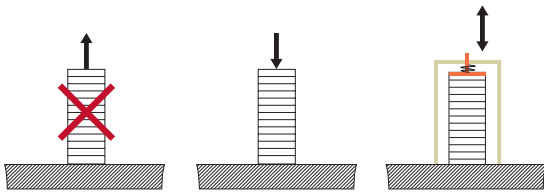
The actuators must only be stressed axially. Tilting and shearing forces must be avoided.



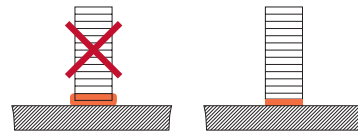
The force must be applied on the full surface of the actuator in order to assure a good load distribution.



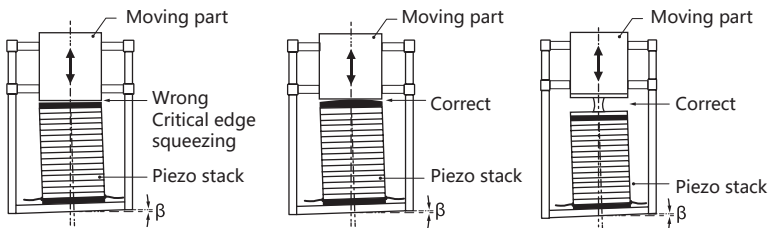
For linear actuators it's recommended not to use a metal plate on top and bottom in order to avoid short circuit.



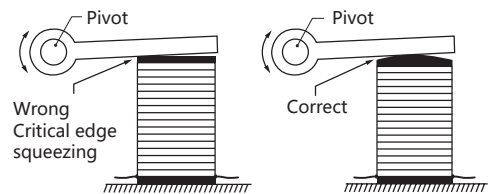
The actuators without preload are sensitive to pulling forces. It's recommended to apply a pre-load in order to optimize the performances of the actuators.



Epoxy glues are well suited for gluing piezo ceramics.



Piezo stack can't withstand shear, lateral and torsion force. Loading force needs to apply to the center of the moving end of piezo stack in motion direction. And no clamping force in the periphery of piezo stack.



Do not apply a force on a point of Piezo stack. Try to avoid damage to the piezo stack caused by edge extrusion during installation and use.

## Other Precautions

- It cannot be used beyond the given voltage range of the parameter table;
- Do not scrape off the side coating of the stacked ceramic;
- Piezo stack without preload cannot withstand tension. It is recommended to load preloaded force, which is one-tenth of the output;
- The environment where piezo stack is located should be kept dry;
- Temperature changes or load changes will cause internal charging of the ceramic. Before using the ceramic, it is recommended to use a few hundred ohm resistors to discharge the ceramic;
- To prevent the surface of piezo stack from contacting conductive or corrosive substances, the surface can be cleaned with isopropanol, and avoid contact with isopropanol at high temperatures and excessive ultrasonic cleaning;
- Connect the red lead to the positive terminal of the power supply. The unleaded piezo actuator is the positive electrode near the dot side electrode;
- Avoid pulling the lead wire forcefully, and do not move the ceramic by pulling;
- Do not touch the ceramic surface directly with your hands, so as not to reduce the stability of the ceramic;
- If you use glue to fix the ceramic, please make sure that the glue between the ceramic and the bonding surface is very thin, press lightly to fix it.

