

Using seismic isolation technology to protect even lightweight artwork



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We deal in electrical equipment and electronics, including systems for protecting buildings, and we use THK products. To be able to sell our goods, we have to understand how they work. Lately we've been involved with a new exhibition facility housing ceramics and other items of traditional craftwork, which are being preserved as cultural assets. We've used THK seismic isolation devices to keep these valuable works safe from the effects of a major earthquake.

There are many different ceramic pieces displayed inside the facility, some lightweight and some quite heavy. A big tremor wouldn't just knock over lightweight items, it would send them flying, so ordinary seismic isolation devices wouldn't suffice. I don't think THK had previously made a device designed to hold a lightweight load like ceramic ware, but they persevered through trial and error. Eventually it became clear that placing each piece on its own isolation table was the wrong approach. They decided to use multiple linked tables instead, and this enabled them to perfect a seismic isolation system providing equal protection to pieces of widely varying weight.

After the Great East Japan Earthquake in 2011, I was saddened to hear from people who trade in and collect art and craftwork that a lot of pieces were no longer being displayed, having been packed up in crates out of concern that another major earthquake might occur. It's a great pity when works of art and fine craftsmanship, created for people to see and enjoy, are stowed away out of sight for protection. Our exhibition facility offers proof of the effectiveness of seismic isolation devices. I hope people will come and see how well they work so more people will understand that, with these devices, it's safe to put these beautiful pieces on display again.



Exhibition facility equipped with seismic isolation.