Water chillers that are built to last



Shaken, shattered, and shocked. In recent years, the devastating impact of earthquakes has been witnessed around the world.

Designing buildings to withstand an earthquake is not only sensible, but also ethical for areas at high risk for seismic activity. As shown in Figure 1, California is not the only US location at high risk; other high-risk areas include the Pacific Northwest, St. Louis, Charleston, and Memphis.

The International Building Code (IBC) and The California Office of Statewide Health Planning and Development (OSHPD) agree. All 50 states have adopted the IBC requirement that non-structural components, such as active HVAC and electrical equipment, located in an essential facility such as a hospital, police station, or emergency shelter, remain operable after a seismic event.

To meet the IBC requirement, manufacturers must demonstrate compliance by either shaker-table testing, analysis, or experience data.

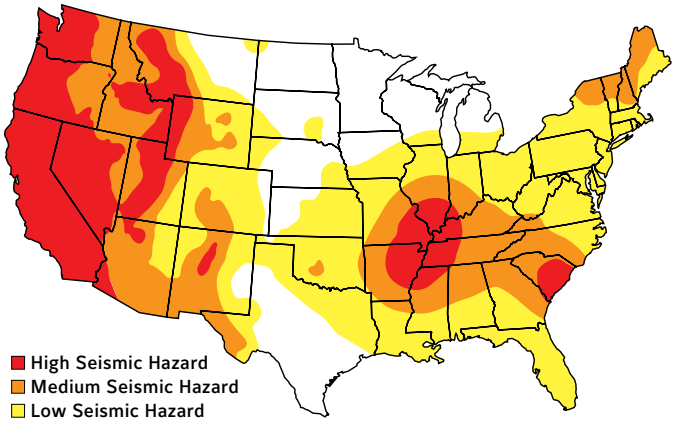


Figure 1: Seismic high-risk areas in the United States.

Johnson Controls

In 2004, Johnson Controls was the first manufacturer to successfully complete a shaker-table test of a large-capacity, water-cooled, centrifugal chiller. The test was held at the Structural Engineering and Earthquake Laboratory at the University of Buffalo.

All YORK® chillers, which are manufactured by Johnson Controls, meet the IBC seismic requirements.

Several YORK units also meet the California Office of Statewide Health Planning and Development (OSHPD) Special Seismic Certification Preapproval. See Figure 2 for a listing.

All YORK chillers meet IBC seismic requirements

To earn Special Seismic Certification Preapproval, several models within a product line are required to successfully demonstrate functional operation after a shaker-table test. YORK water chillers have been tested on both neoprene isolation pads for rigid-mount applications, as well as springs for above-grade applications.

All Johnson Controls equipment is engineered and manufactured for the highest level of safety. So, if your facility requires seismic-approved equipment, include YORK water chillers.

Special Seismic Certification Preapproval

YORK YK Centrifugal Chillers



- S_{DS} level of 1.6 g mounted on neoprene pads.

YORK YMC² Centrifugal Chillers



- S_{DS} level of 1.45 g mounted on neoprene pads.
- S_{DS} level of 0.97 g mounted on specially designed seismic spring isolators that are restrained in both the horizontal and vertical directions.

Seismic Certified

Meets IBC and OSHPD requirements

Figure 2: YORK YK and YMC² Centrifugal Chillers meet the Special Seismic Certification Preapproval of OSHPD. (Note: S_{DS} = design spectral response acceleration at short periods [g], per IBC-2009.)

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