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## **Stringent tests prove that BeaconMedæs equipment is earthquake-proof**

**Stringent earthquake testing has proved that BeaconMedæs, part of the Atlas Copco Group, is the first medical air equipment supplier in the world to have its products rated as earthquake-proof. The rating has been provided by the California Office of Statewide Health Planning and Development (OSHPD) under the Seismic Prequalification Program (OSP), which came into force in 2009. BeaconMedæs' innovative products, including scroll air equipment, lubricated rotary vane vacuum systems and claw vacuum systems, have proven resistant to the most severe earthquake conditions.**

This is a significant achievement for BeaconMedæs, which supplies medical air, gas and vacuum equipment to hospitals across the globe, including in some of the world's most seismically active areas. The company has recently invested further resources in the design of earthquake-resistant equipment that is compliant with the International Building Code (IBC), which, since 2009, has become more stringent. Under the IBC, all equipment placed in a building must handle a predetermined g-force level or seismic spectrum ( $S_{DS}$ ). This is calculated according to the level of seismic activity in the area, with the maximum  $S_{DS}$  being 2.48. As an example, a machine placed on the rooftop of a highly seismic area such as in Memphis, USA, will have to endure a much higher  $S_{DS}$  than one located in a relatively low-risk area.

It was to ensure that its medical air equipment could meet such strong seismic activity that BeaconMedæs submitted its scroll air equipment, lube vane and claw vacuum systems to the OSHPD for testing. The testing consisted of placing the machinery on a huge hydraulic shaker table and shaking it to the desired  $S_{DS}$  value, which was measured through accelerometers. The results demonstrated that BeaconMedæs equipment is able to endure the most severe seismic levels, with the company's scroll air equipment and lubricated rotary vane vacuum systems being rated to an  $S_{DS}$  level of 2.2 and the smallest tower scroll (2 Hp) and claw vacuum systems being capable of handling an even higher  $S_{DS}$  level of 2.5.

Becoming certified by the OSHPD means that BeaconMedæs medical air equipment is now fully compliant with the IBC, and appropriate for use in the most seismically active areas such as Southern California. In order to achieve these results, BeaconMedæs had to carefully design its medical air systems to overcome the challenges that severe earthquakes entail, with both lubricated rotary vane vacuum systems and scroll air systems being mounted on pump feet with a design appropriate to seismic stress to minimize vibration.

For more information about BeaconMedaes' full range of earthquake-proof medical air and vacuum solutions please visit: <http://www.beaconmedaes.com/>

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**BeaconMedæs** is a global leader providing complete medical gas solutions including medical air, medical vacuum, gas distribution equipment and pipeline components. BeaconMedæs has several assembly facilities plus an extensive sales and service presence throughout the world. In July 2006, BeaconMedæs was acquired by Atlas Copco and has since become the global competence center for medical solutions within Atlas Copco. More information on BeaconMedæs can be found at [www.beaconmedaes.com](http://www.beaconmedaes.com).

**Quality Air** is a division within Atlas Copco's Compressor Technique business area. It develops engineers, manufactures and markets dryers, gas dehydration/gas generation equipment, medical air solutions, and biogas upgrades worldwide. Products are offered under several brands to a wide range of industries including oil and gas, chemical, industrial manufacturing, medical and rental. The main production facilities are in China, Belgium, Italy and USA. The divisional headquarters is located in Antwerp, Belgium.