

EMCP HISTORY



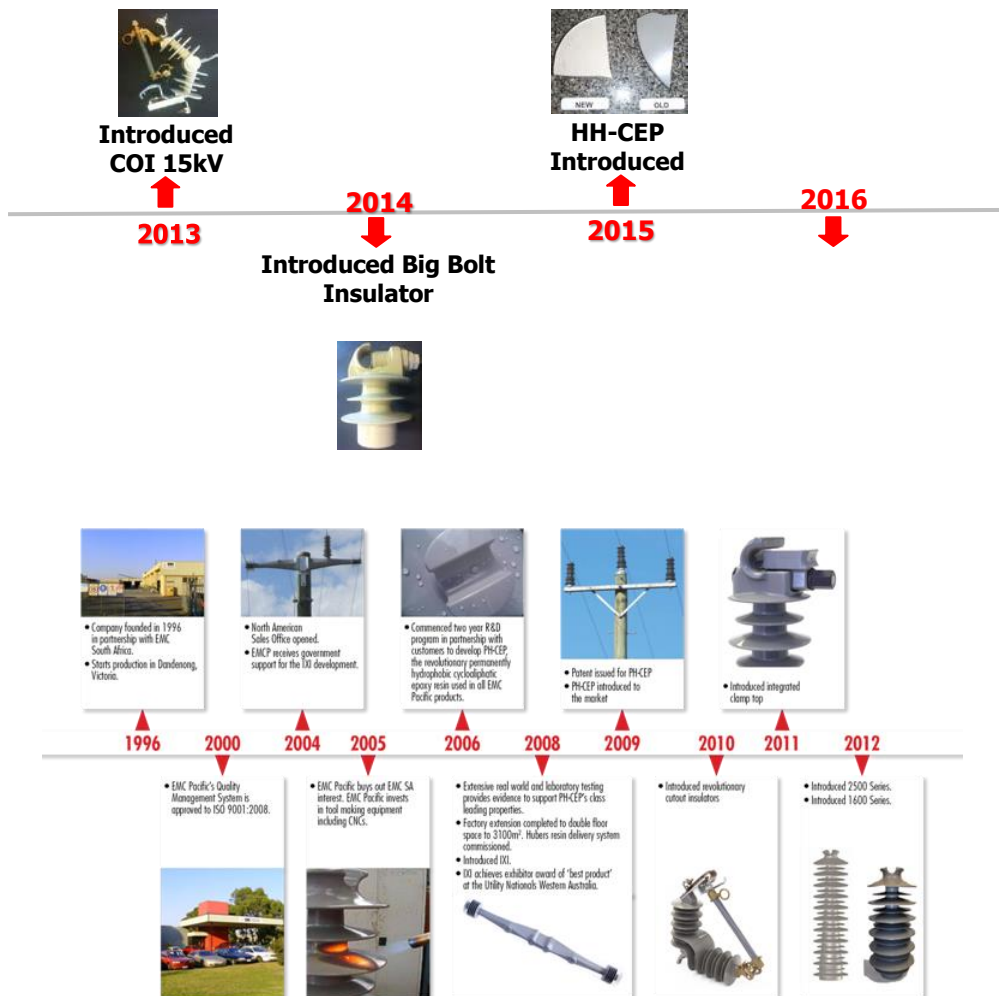
Established in 1996, EMC Pacific Aust ("EMCPA") is a privately owned Australian company producing epoxy resin insulators, bushings and custom electrical components. We are Australia's largest insulator and bushing manufacturer. Our head office and manufacturing facilities are located in Dandenong South, Victoria.

In our infancy we drew on the experience of our sister facility EMC of the Republic of South Africa, which had supplied outdoor epoxy resin insulators and bushings since 1982. By 2000 we were producing all products and tooling in-house, and today we are leaders in our field with our innovative and collaborative approach to solving industry challenges.

EMCPA is the only insulator and bushing company that uses H-SIL (the patented filler which provides permanent hydrophobicity or water repellence). We are a well-established key supplier of hydrophobic insulators and bushings to Australian Electrical Utilities and OEM's, and we export to Asia and North America.

Since 2005 EMCPA has been testing its products for compliance to North American standards (including IEEE, ANSI, CEA and CSA). We have also established a wholly owned subsidiary EMC Pacific Holdings Ltd based in British Columbia, Canada to service the North American market.

We pride ourselves on our strong relationships with customers. A key contributor to our success has been working with the industry to make product improvements and responding to our customers' unique design requirements. Over 18 years' experience in manufacture and supply for worldwide applications has given EMC Pacific considerable knowledge in the right choice of materials, correct manufacturing techniques and suitable designs for diverse and unique environments and different levels of pollution and climatic conditions. This experience has both benefited our customers, with improvement in system reliability, and in turn fed back into Research and Development programs designed to further improve designs and performance of the products.



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Cycloaliphatic epoxy resin technology (CEP) has been used successfully in outdoor insulator applications since the late 1960's in Europe, the United States and Mexico, and was introduced to South Africa in the late 70's. Australia was more recent in adopting the CEP technology, with the first insulators being supplied by EMCPA to the Far North Queensland Electricity Board (Ergon) in 1996.

CEP insulators offer a higher dielectric strength, bending strength, tensile strength and impact strength than glazed porcelain and glass, whilst also being much lighter. However, field experience in Australia (with our harsh UV, low to zero rainfall over extended periods, long line lengths in difficult and remote locations and unique coastal pollution conditions) identified that CEP lacks long term water repellence and salt pollution shedding characteristics which can significantly compromise insulator performance and longevity.

In 2006-2008 we worked with our customers to develop a patented silca treatment process (H-SIL) which renders the silica filler permanently water repellent (hydrophobic). In 2009 we introduced it to all our products. This unique process significantly addressed the two key drawbacks of CEP insulators whilst retaining or enhancing proven CEP insulator advantages.

EMCPA HH-CEP insulators are now utilised in every mainland state of Australia, as well as in Canada and the USA.

It is important to note that insulators utilising HH-CEP surface hydrophobicity are not reliant on oil migration to the surface like with silicone insulators, but rather the hydrophobicity comes from within the matrix throughout the entire formulation and will not deplete over time nor is it compromised when chipped or broken.

Permanent hydrophobicity, whilst maintaining all of the identified benefits of CEP insulators, reduces discharge activity, prevents tracking and erosion of the insulator surface, assists natural washing of pollutants and reduces maintenance, line losses and insulator life costs. HH-CEP positively contributes to maintaining improved long term network reliability can reduce greenhouse gas through lower distribution losses whilst providing safer lower weight components to power utility employees. This technology advance allows EMCPA's HH-CEP products to be suitable for all applications including coastal and high UV environments at medium voltages up to 72kV with great confidence.