

# Composite companions

*Composite tanks and tankers are revolutionising the transport of hazardous cargo but they require specialised valves and fittings*

**T**here was a time when the only option to transport very corrosive cargoes was a lined tank container.

However, in the past few years, a small revolution has taken place in the niche sector of hazardous cargo with composite tanks and tankers. More and more players are launching this new type of tank container, but one of the best known and established manufacturers is Admor Composites.

Admor Composites is a company based in Finland and has over 50 years' experience of composite manufacturing through its mother company Muovityö Hiltunen Oy. Research and development of transport tanks started over 20 years ago and since then Admor Composites has developed a full range of transport tanks and today it is providing the widest product range and features in the market.

The rapid growing success of composite tank containers is hardly astonishing. It provides many advantages in comparison to the steel equivalent. First of all, it is resistant to a larger scope of highly corrosive chemicals. Admor is capable of building tanks with various inner materials depending on requirements of the transported media.

Next, composite tanks are very durable because they don't rust or wear and do not require regular maintenance. Furthermore, they have a lower carbon footprint as they are on average 40 percent lighter than their steel counterparts and are therefore capable of carrying higher payloads. They are also energy efficient, as they can maintain stable temperature thanks to the dynamic characteristics of the composite structure and lack of cold bridges.

## Less empty driving

The specific vessel material also allows more effective transport as the product to be transported can be changed which means less empty driving, thanks to non-stick materials which are easier to clean saving man hours and water. All this together makes composite tanks environmentally friendly and a sustainable choice providing great return on investment.

However, specialist tanks such as composite tanks also require specialised valves and fittings that can withstand the highly corrosive cargo. The most common valves for these applications are halar lined valves. Admor Composites has a long-standing business relationship with valve supplier Perolo. Perolo is active in many markets and is widely respected as an innovative and quality supplier.

Its Halar lined valves make up the bulk in the firm's high corrosion range. These valves have 316 stainless steel castings that are lined with Halar coating. The internal parts that are in contact with the hazardous material can be made out of Hastelloy C276, Hastelloy C22, Titanium, Ceramic or more recently PVDF depending on the requirements of the transported cargo. This way Perolo ensures a fit for most corrosive chemicals.

When asked about the co-operation between Admor and Perolo, Admor sales manager Juha Hiltunen comments: "Just like Perolo in valve industry, we've been pioneering the composite tank industry. Long experience provides expertise and unique manufacturing techniques to guarantee the high quality. Decades of experience gives an edge for both of us, we are capable of providing many unrivaled features and technical solutions in the market."

"Our clients transporting hazardous chemicals demand quality and chemically resistant materials in their equipment. Perolo valves are a great companion to Admor transport tanks, completing the chemically resistant and corrosion free tanks."

"The coating material Halar (ECTFE) of Perolo valves is a premium material with excellent chemical resistance, which is also one of Admor's material options for the most demanding use."

With the constant search for more durable and greener solutions, composite tanks have a bright future ahead. Both Admor Composites and BIP Perolo are looking forward to a strong and solid partnership for future projects.

"Composite tanks have proven their added value and interest is growing rapidly. To respond to demand we have invested in brand new premises multiplying our production capacity, but we also need trusted and innovative partners like Perolo to support our growth and continuous development."



Composite tanks need specialised valves and fittings that can withstand the highly corrosive cargo



Admor composite swap tanks



The Halar coating material of Perolo valves is a premium material with excellent chemical resistance, which is also one of Admor's material options for the most demanding use

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