

Steel construction: New application solution for offshore use

Form and force-locking Gap compensation under water

With the newly developed application system "Injection-Pad", the offshore industry has a groundbreaking solution for easy and fast gap compensation, even on submerged flange connections. The system is based on the metal-polymer MM1018 of the German polymer and coating specialist Diamant Metallplastic, which has proven its worth in bridge and steel construction.

Thanks to the Injection Pad, gaps between steel components can now be completely filled under pressure with the MM1018 metal polymer, even under water - for example, at the flange of docking sites (boat landings) for ships on offshore platforms.

Two individually tailored to the respective shape of the joint and welded together foils form the shell of an injection pad. The foil cover is cut-resistant and extremely elastic. The pad, which is equipped with several star-shaped filling and bleeding sockets, is inserted directly into the flange connection on site and filled with MM1018 - easily even below the water surface. Filling takes place via double cartridges with ready-to-use MM1018 metal polymer. The handling of the system is so simple that it also succeeds divers with rough work gloves and in poor operating conditions.

The new application system is completely self-contained, whereby the metal polymer is applied without water contact. The solution is therefore completely environmentally friendly and at the same time retains all the properties of MM1018 for form and force-locking gap compensation.

Thanks to its honey-like consistency, the material, including the foil, adapts to every structure and shapes even the smallest of features perfectly. For example, borders of screw holes without affecting the free movement of the screws. The foil covers themselves can be adapted to all standardized and individual shapes. In addition to the example of the flanges of Boat Landings, the Injection Pads open up numerous other on- and off-shore applications in hard-to-reach places where a safe gap compensation is required.

Diamant Metallplastic GmbH, headquartered in Mönchengladbach in the Rhineland, develops, formulates and produces metal polymers as well as polymer-based coatings and wear protection. Customers include the metalworking industry, mechanical engineering, the automotive sector, casting technology, steel and bridge construction and the maritime industry. Founded in 1886 and still managed as a family business, Diamant Metallplastic GmbH has a global sales network with more than 40 agents in major industrial centers around the world.