

Columbus McKinnon

Columbus McKinnon Engineered Products Manufactures Lifting System for the First Time via Local Partners under the ‘Make in India’ Initiative

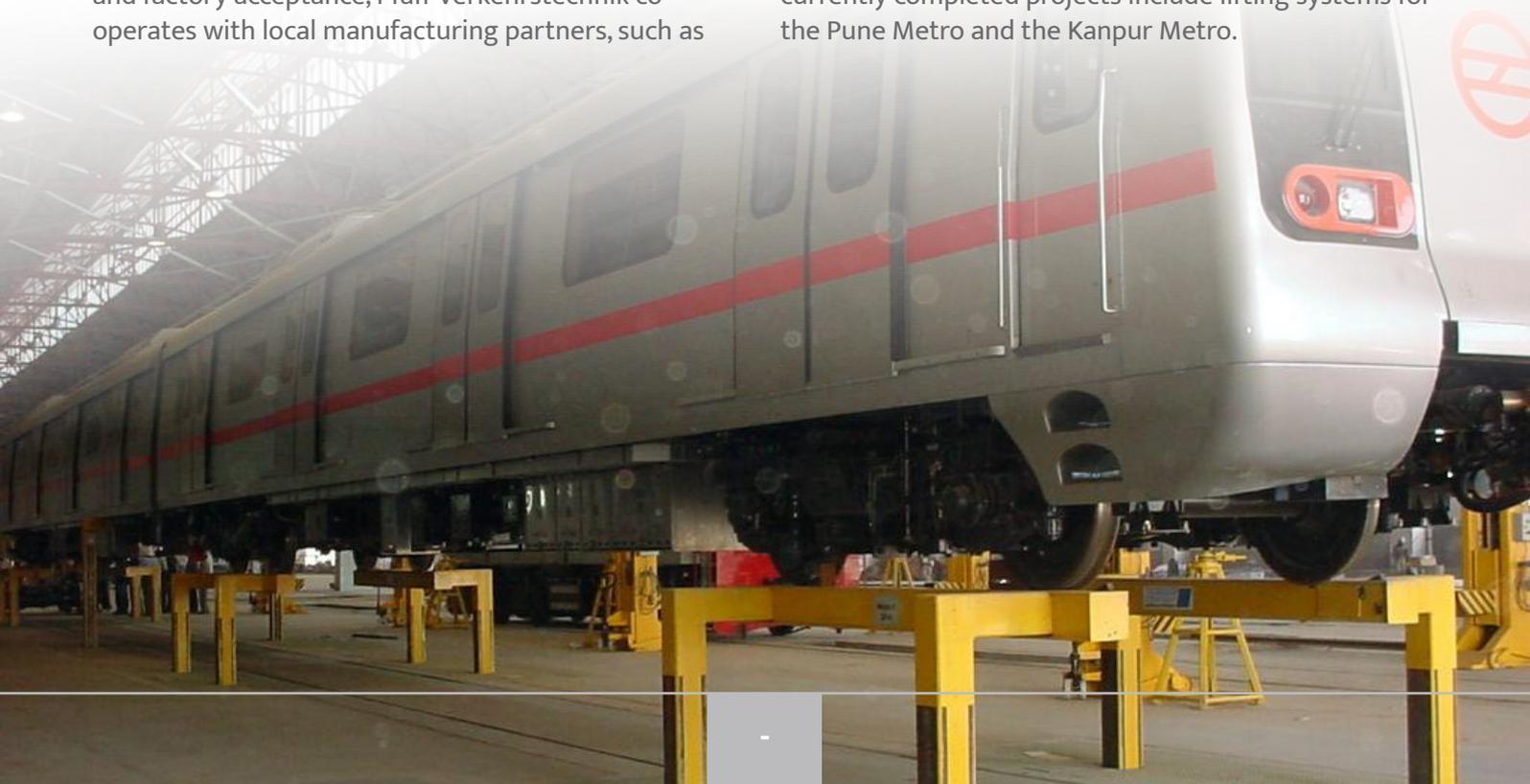
Pffaff Verkehrstechnik, which now trades as Columbus McKinnon Engineered Products, has delivered an underfloor lifting system to the Indian customer HYT Engineering Company, which, for the first time, has been manufactured locally under the ‘Make in India’ initiative, i.e. where the Indian manufacturing contribution is more than 50%.

For the first time, the factory acceptance test of an underfloor lifting system including load tests was carried out on site in India in June 2023 and was approved at the first attempt in Ahmedabad without any flaws. To meet the requirements of the initiative and factory acceptance, Pfaff Verkehrstechnik cooperates with local manufacturing partners, such as

Stahl India, part of Columbus McKinnon, and Techno Industries, a leading Indian manufacturer of cranes, lifts and escalators.

First Factory Acceptance Test on Site in India

In previous and already completed projects with underfloor lifting systems, the acceptance tests were still carried out in Europe, for example in 2002 for the Delhi Metro at the Shastri Park Depot, which is still in operation there after more than 20 years. Pfaff was also the supplier of India’s first six-carriage lifting system, built in 2013 to connect New Delhi Airport. This was followed by an eight-carriage system in 2021, which was commissioned at the Badli depot in New Delhi. Other currently completed projects include lifting systems for the Pune Metro and the Kanpur Metro.



The pre-assembled system, which was accepted in Ahmedabad, is currently on its way to HYT Engineering, where it will be prepared for final assembly at the Shakurbasti depot near New Delhi. From the end of 2023, it will be used there for the maintenance and servicing of eight-carriage Vande Bharat trains. The end user of the lifting system is the state-owned railway company Indian Railways. It operates most of the nationwide rail transport.

Initiative for Economic Growth in India

The 'Make in India' initiative is a campaign launched by the Indian government in 2014 to make the country a global manufacturing hub by strengthening the domestic manufacturing industry, creating jobs and promoting economic growth. The initiative has led to some significant investments in India and positioned the country as an attractive manufacturing location. The Vande Bharat Express is a domestic high-speed train – also 'Made in India'. It reaches top speeds of 180km/h, with an operating speed of 130km/h on its short routes for safety reasons.

The Vande Bharat Express connects major Indian cities within a day's travel, which is extremely important for commuting. For example, it runs between New Delhi and Varanasi – a distance of about 800 kilometres, which it covers in about 8 hours – compared to up to 14 hours required by other trains. The train offers a range of passenger conveniences, including air-conditioned carriages, comfortable seats, large panoramic windows, Wi-Fi, GPS-based information systems and a modern entertainment system.

Pre-Assembled Modules on the Way to Assembly

With the new underfloor lifting system from Pfaff Verkehrstechnik, complete Vande Bharat trains with a total length of 192m can be raised to an ergonomic working height, for example for inspection or to comfortably carry out maintenance work such as the replacement of bogies. The synchronisation of the wheel lifting platforms is controlled within a narrow tolerance range of +/- 5mm, meaning that over the entire length, the maximum height deviation of the lifting platforms is only 10mm. The cantilever design ensures that the removed bogies can be pushed underneath the lifted train for separate maintenance.



Pfaff Verkehrstechnik produces lifting system for the first time via local manufacturing partners in India under the 'Make in India' initiative



Example of a project that has already been completed: an 8-carriage system at the Badli depot in New Delhi

Commissioning Planned before the End of the Year

The underfloor lifting systems comply with the highest safety regulations, such as the European standard for vehicle lifts DIN EN 1493. Delivery in pre-assembled modules minimises assembly times on site. Thanks to this modern system, the Vande Bharat trains can be maintained in a much shorter time than before. Due to short setup times, the vehicles are quickly ready for operation again, and their operating times in transport use are extended. When not in use, the systems can be retracted into foundation pits flush with the ground.

The delivery and installation of the lifting systems at the Shakurbasti depot is scheduled to be completed by August 2023, so that operations can begin in the workshops after handover and training of the operating crew.

About Columbus McKinnon Engineered Products

Columbus McKinnon Engineered Products GmbH, Kissing/Germany, is a company of the listed **Columbus McKinnon Corporation (CMCO)**, Charlotte/USA, a leading supplier of lifting and materials handling equipment. The company has ranked with its brand

Pfaff-silberblau for many decades amongst the technology leaders in components and system solutions for mechanical motion and lifting technology. The portfolio ranges from sophisticated screw jack elements to innovative linear drives through to powerful lifting tables and wire rope winches. Based on these components, Columbus McKinnon Engineered Products also offers customized solutions for a wide range of different fields of application and supplies complete planning, installation and maintenance of turnkey jacking systems for rail vehicles used worldwide.



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