



Singapore's first Potain MCT 1005 helps advance prefabricated construction

IMAGE SOURCE: Manitowoc

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15 January 2024 by Manitowoc

- Singapore's construction industry advances with the introduction of the first Potain MCT 1005 topless crane, aiding the Housing & Development Board's innovative PPVC housing project at Yishun Central 1 (N9C3).
- The Potain MCT 1005, with a 50 t capacity and 80 m jib, is specifically designed for the heavy lifting requirements of the PPVC method, which involves assembling precast modules with internal fixtures on-site.

- Debenho, the main contractor for the PPVC project, has rented the Potain MCT 1005 from Manta Equipment, a leading tower crane supplier in Singapore and long-term Potain partner.
 - The crane's capabilities include lifting up to 25 t precast modules, offering a choice of counterjibs for tight spaces, and providing up to 1,070 m of rope on the drum for extensive reach.
 - Configured with a 35 m jib and a 15 m counterjib for the Yishun project, the MCT 1005 can support over 34 t at nearly 35 m, and with a full 80 m jib, it can handle 6.5 t at 80 m.
 - A special handover ceremony for the crane's arrival in Singapore was led by Manitowoc's Brian Wang, SVP Emerging Markets; Paul Hui, director at Manta Equipment; and Wong Heng Ming, sales operations director for Asia.
 - The MCT 1005 will remain on the Yishun Central 1 site until the end of 2024 and is the second largest topless tower crane manufactured at Manitowoc's Zhangjiagang facility in China, following the MCT 1105.
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- The Prefabricated Prefinished Volumetric Construction (PPVC) method increases productivity on-site but depends on powerful and reliable tower cranes.
 - Main contractor, Debenho, has selected Singapore's first Potain MCT 1005 to construct a new PPVC housing development. The crane was purchased by Manta Equipment and rented to the main contractor Debenho for the project to place the precast modules.

The first Potain MCT 1005 topless crane in Singapore is helping the country's Housing & Development Board (HDB) continue its pioneering work around innovative building techniques. It was erected in October and boasts all the necessary strength to complete the Yishun Central 1 (N9C3) housing development using Prefabricated Prefinished Volumetric Construction (PPVC).

PPVC takes precast construction to the next level, through the onsite assembly of modules that are transported to the site complete with internal fixtures and fittings. It's a method of construction that greatly accelerates the timeframe, however, it requires tower cranes with the speed, strength, and reach to position the precast modules, which can typically weigh up to 25 t. It's exactly the type of application the Potain MCT 1005 was designed to handle, with its 50 t capacity, 80 m jib and up to 1,070 m of rope on the drum. For

added versatility on-site there's also a choice of counterjibs from 15 m to 20 m to fit even the tightest jobsites.



Maniowoc and Manta Equipment representatives came together for a special handover ceremony led by Brian Wang, SVP Emerging Markets at Maniowoc; Paul Hui, director at Manta Equipment; and Wong Heng Ming, sales operations director for Asia at Maniowoc.

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Main contractor Debenho has rented the crane from local equipment supplier Manta Equipment, which purchased the landmark unit. It is expected to remain onsite until the end of 2024, and its arrival in Singapore was celebrated at a special handover ceremony at Manta's offices in Tuas. Leading the ceremony were: Brian Wang, SVP Emerging Markets at **Maniowoc**; Paul Hui, director at Manta Equipment; and Wong Heng Ming, sales operations director for Asia at Maniowoc.

The MCT 1005 at Yishun will reach a final height under hook of 55 m and has been configured with a jib length of 35 m, supported by a 15 m counterjib. This will allow it to lift and place all the heavy PPVC sections as the jib can support over 34 t at almost 35 m in this configuration. With a full complement of 80 m jib, the MCT 1005 can handle 50 t between 3.5 – 16.8 m, and 6.5 t at 80 m. The MCT 1005 is the second largest topless tower crane to be manufactured at Manitowoc's Zhangjiagang facility in China, after the MCT 1105.

Manta Equipment is one of the largest tower crane suppliers in Singapore and has been a partner of Potain for several decades.

Source: Manitowoc

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