

Lift Solutions

AN EXCEPTIONAL KNOW-HOW



World expert of tailor-made sites, Manitowoc commits to be at your side.

The exceptional site, pharaonic, out of the ordinary, the technical achievement ...

With the assistance of our organization with worldwide cover, a highly qualified team, with a strong experience acquired through several decades, will answer accurately your specific requirements.

With a recognized know-how, Manitowoc offers you clever solutions, a precision work, and always with a strict sense of safety rules.

A team at your service:



3. Complete and permanent Assistance:
- After-Sales Service
 - technical support
 - spare parts
 - technical documentation
 - training

Manitowoc will guide you from the beginning of your project and through every step of your construction



1. Detailed analysis depending on your site constraints:
- crane model
 - working height
 - installation on the site



2. Technical study in-depth for all special configuration:
- climbing in the building
 - anchorage
 - mixed masts
 - special wind conditions

Big construction works

Manitowoc has prestigious references in the whole world to its credit.

Our commitment to technical innovation and the manufacturing of high-performance cranes of high capacities allows us to offer systematically profitable solutions adapted to your requirements.

Manitowoc is involved in each step of your project, from the study to the execution, and provides support during the whole execution time.

> RUSSIA - Bridge of Russky Island to Vladivostok

Two Potain tower cranes have worked for the execution of the bridge connecting the Russky Island to Vladivostok: a Topless MDT 368 (16 t) crane and a Maxi MD 1100 (50 t), both anchored to the bridge piers with hook heights of respectively 324 m and 335 m.

Once the bridge was finished, 3 records have been beaten: the longest cable-stayed bridge of the world with 1,104 m length, bridge with the highest piers with 324 m height and the bridge with the shortest construction time of just 43 months.

Manitowoc has proudly accepted the challenge in an especially restrictive context:

- site localized in a seismic zone
- anchorages with large span of up to 17 m
- special 4 m mast cross-section for the MDT 368
- installation of a hoisting winch for big height/high speed on the MDT 368



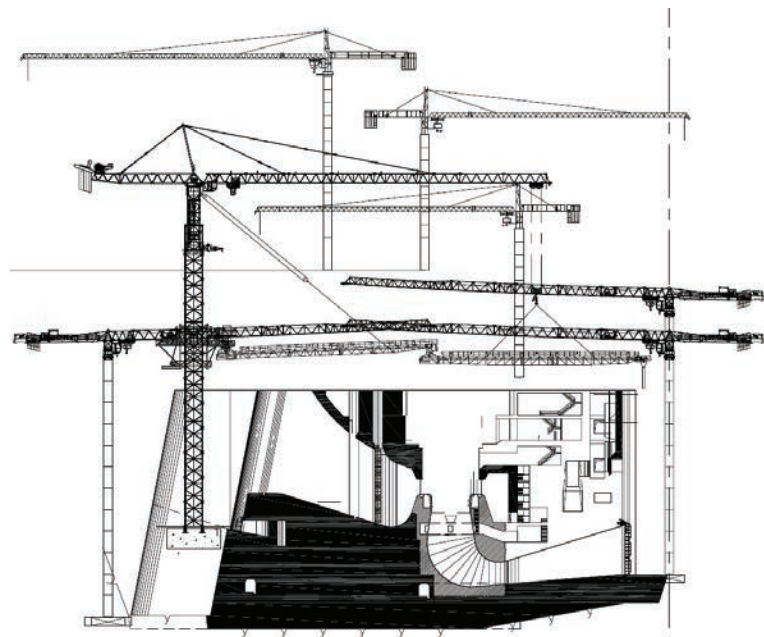
> LAOS - Xayaburi Dam

The Potain tower cranes are at the heart of a hydropower mega project, cementing once more the reputation of Manitowoc brand as the leading supplier of lift equipment for dam building projects.

A team of 19 Potain cranes is constructing the Xayaburi dam in northern Laos. It will be 820 m long, 150 m wide, 35 m height and will have an annual production capacity of 7,400 GWh once completed.

Two Potain MD 1600s 64 t capacity are fitted with Potain's Topbelt concrete placing system, enabling each crane to pour up to 600 t of concrete per hour at a radius of up to 105 m. Alongside the two MD 1600s at the Xayaburi Dam are 17 other Potain cranes.

Working in unison, Lift Solutions together with its local partner provided the unique solution to the project, which includes erection and maintenance, to ensure the maximum efficiency.





For high and big constructions

Manitowoc takes up a challenge and supplies you a customized solution, adapted to your requirements while observing your site constraints.

External anchorage

This technique of anchoring to the building by means of anchorage frames allows to reach breathtakingly heights exceeding 200 m, 300 m and more.

We offer:

- standard anchoring sequences for the most current cases
- customized anchoring sequences for the most complicated sites and for optimizing the number of anchorages

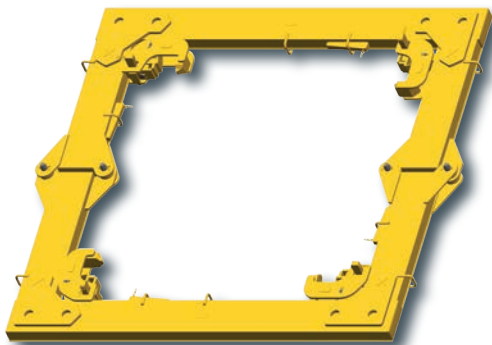
One or several frames fixed to the structure by rigid connections can be fitted according to the final height to be reached. The unusual stresses caused by the big height are therefore perfectly transmitted to the structure.

Manitowoc includes in its standard offer anchoring frames for all mast cross-sections of 1.2 m, 1.6 m, 2 m, 2.45 m, 2.5 m and more.

In addition we ensure support for the connecting beam design:

- supply of the manufacturing drawing
- execution and supply of the parts

Anchoring to the building can be applied to the tower cranes with horizontal jib or to cranes with luffing jib.





➤ FRANCE - Tour InCity in Lyon

In the heart of Lyon, France, an ambitious commercial development is taking shape that will dominate the city's skyline. It only has 39 stories, but the finished height will be 200 m, making it the third tallest building in France. 16 t capacity Potain MD 550 top-slewing tower crane and a 12 t capacity Potain MDT 222 topless city crane were positioned on the site, building one floor per week. The Lift Solutions team has designed the perfect lifting solution. The Potain MDT 222 climbed internally and was erected with a specially-adapted floor climbing system in which a unique frame is attached to the building's concrete core. The MD 550 was anchored outside of the building by the means of external frames.

- Study and production of anchoring sequences and connexion points tailor-made to the building geometry.
- Climbing in the building using a cantilever frame
- Study and calculation of the position and the jib length in order to ensure the maximal cover and a minimum disruption

> TURKMENISTAN - Luxury hotel in Ashgabat

A Potain MD 265 B crane erected on mixed masts and anchored to the building operates for the construction of the hotel:

- connecting beams of 18 m length designed in 2 parts for optimizing the transport,
- reinforced anchorage frames in order to increase the free standing height,
- mixed masts 2.5/2 m for reaching a working height of 135 m

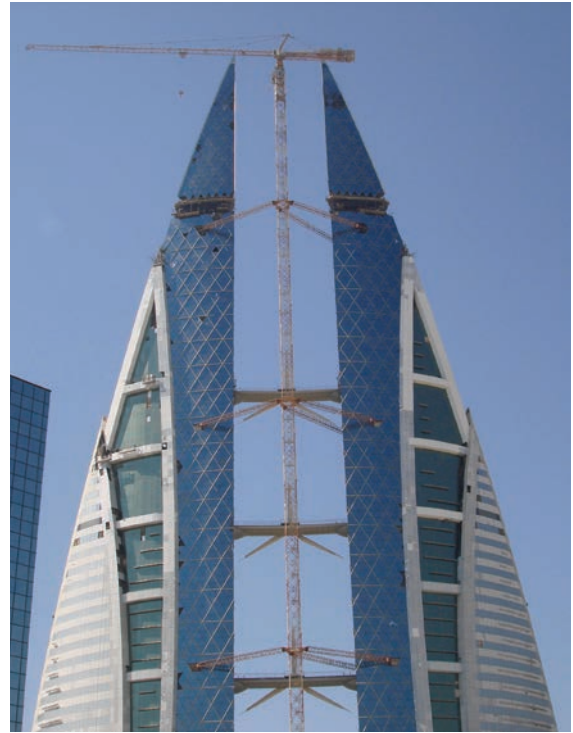
Combining these two points has enabled us to reduce to the max. the number of frames to be used.



> MIDDLE EAST - World Trade Center

A Potain crane of K type has been used for the construction of the World Trade Center in Bahrain:

- anchorages with 24 m span,
- final height of 265 m.



> PORTUGAL - Corgo viaduct

Potain cranes are taking part in the viaduct construction, major element of a new highway for connecting the Portuguese town Porto with the Spanish border.

Five cranes of MD and MDT types, 8 t and 12 t, are used, with working heights up to 123 m.

Please note that the anchorage to the building is applicable to «smaller» cranes, erected on 1.2 m or 1.6 m masts, for example.

Climbing in the building

Climbing of the crane resting on the building (floor, elevator shaft, external supports) allows to increase considerably the working height and to adapt to the work progress.

Kept by the climbing collars fixed to different levels, the crane rises by climbing at the same time as the construction without adding mast sections.

Heightening is carried out easily and rapidly by means of a hydraulic unit.

You take advantages of optimum performances at reduced costs!

- reduced jib radius
- powerful load curves
- no overslewing limitation
- short crane tower (the crane is raised inside the construction)
- standard crane reusable in all configurations
- optimised transport (limited number of packages)
- reduced climbing equipment which can be reused
- possible application on cranes with horizontal jib and luffing jib

We supply equipment for each standard mast type with cross-sections from 1.2 m to 2.45 m.



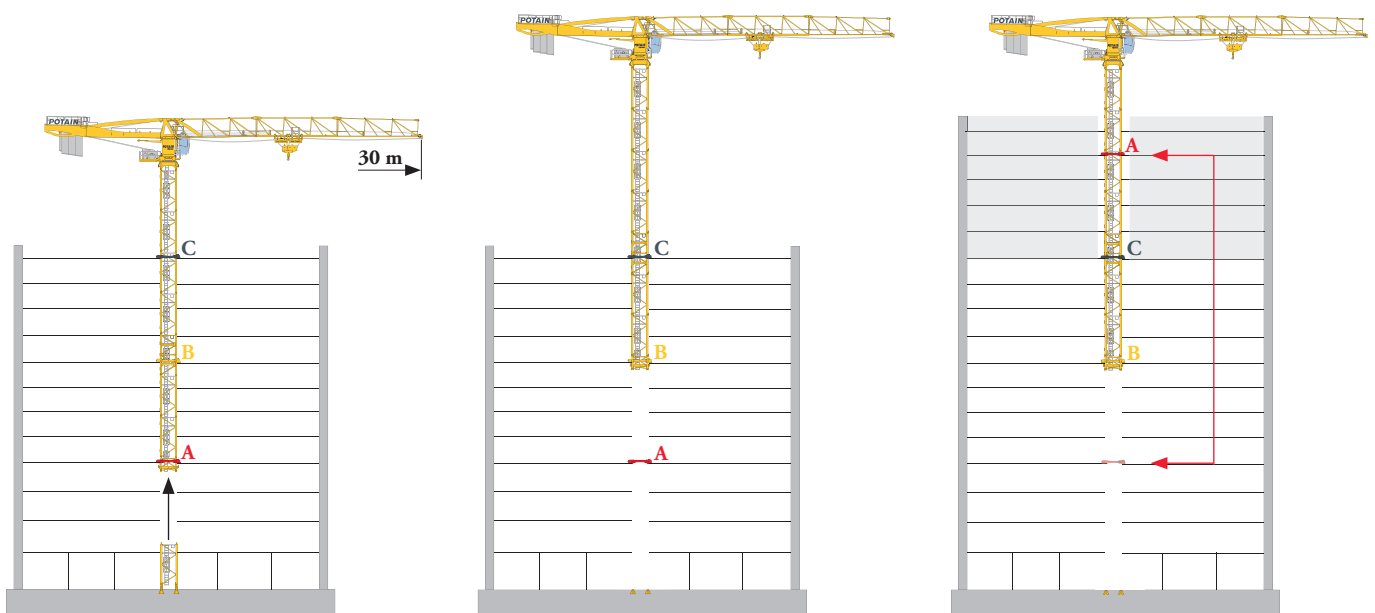


> RUSSIA - Mercury City Tower

An MR 295 H16 (45 m jib) is in the middle of the construction site of the highest tower in Europe, the Mercury City Tower of the financial quarter in Moscow. It is erected inside the concrete structure of more than 300 m height.

- customized climbing sequences
- special climbing collars
- assistance in dismantling the crane

✓ Climbing principle





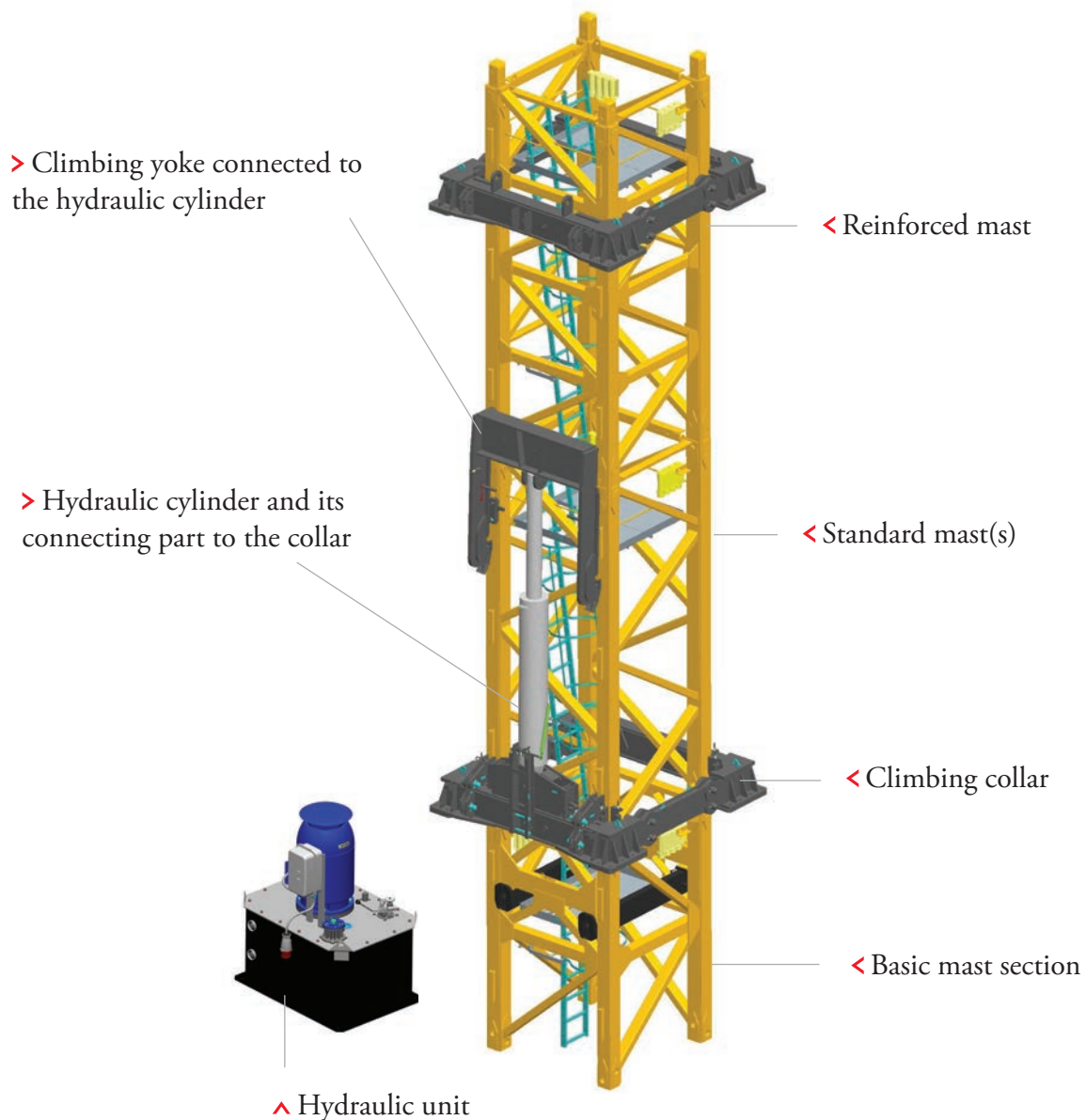
> TURKEY - Zorlu Levent

Two MCR 225 A cranes work for the construction of a building in Istanbul with a final height of 200 m. They rest on different floors by means of collars and then rise at the same time as the building (standard climbing sequences).

> A reduced and reusable equipment

You invest an optimised capital in a reduced and reusable equipment for installing your crane for climbing inside the building.

- three collars
- minimum one reinforced mast section (fitted at the level of the climbing collar)
- a basic mast section (short mast section located at the crane tower base)



(Illustration: «during climbing»)



> FRANCE - Iter

Potain tower cranes are building one of the world's largest experimental nuclear fusion reactors at a huge site in the south of France.

Among the six Potain cranes working on the project, two Topless tower cranes, the MDT 308 (12 t) and the MDT 368 (16 t) and four traditional top-slewing tower cranes, the MD 610 M40 (40 t), the MD 485 B M20 (20 t), the MD 560 B M25 (25 t) and the MD 175 B (8 t).

Lift Solutions, which provides specialist engineering support, was closely involved in the crane planning and installation on the project. The proximity and expertise of the Crane Care service were decisive assets.

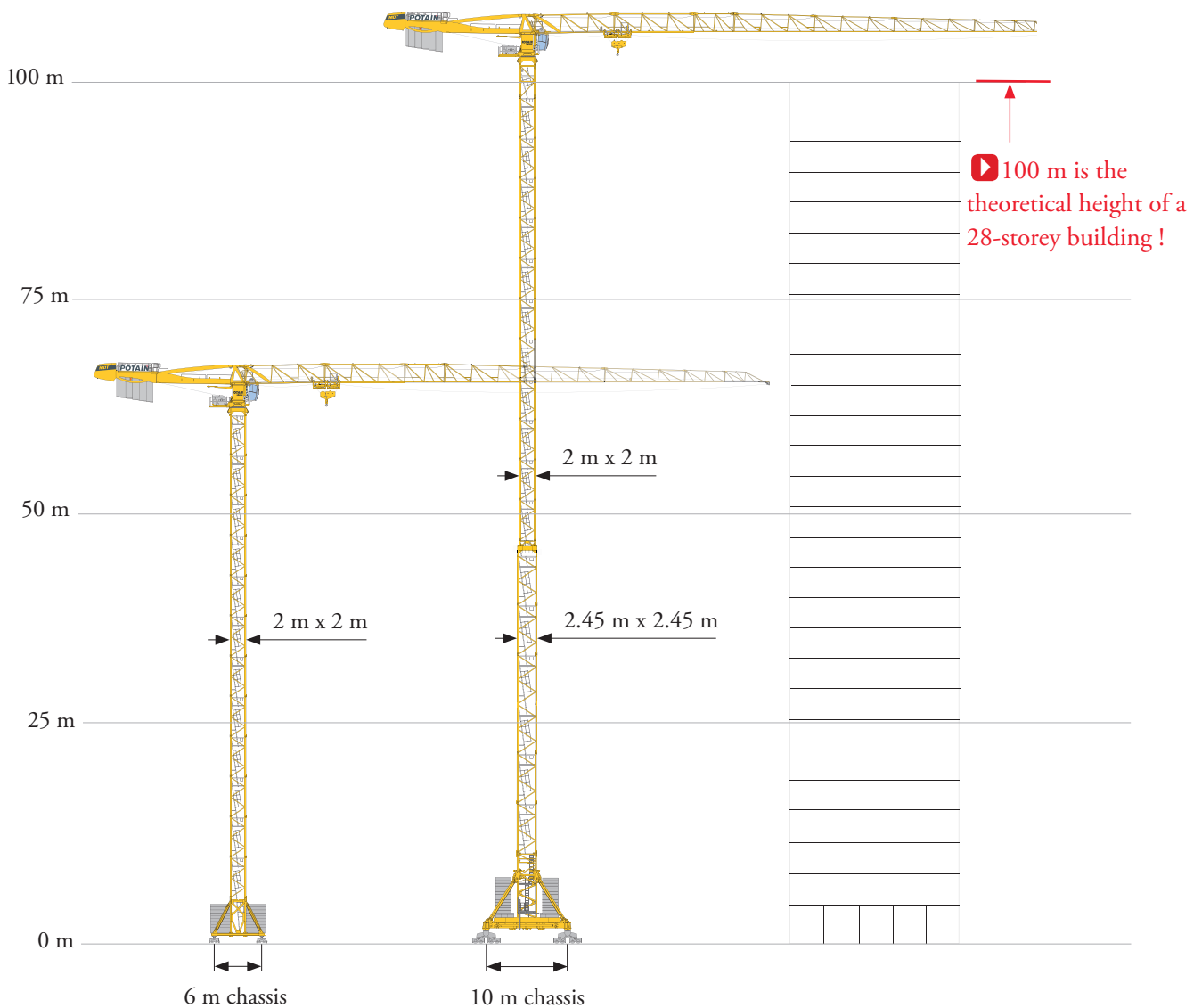
The cranes were selected not only for their capabilities but also for their proven reliability and performance on countless other job sites.

Mixed masts

This installation type allows you to increase considerably the free standing height without any specific equipment but mast sections with large base and a connecting mast.

- very high hook height, free standing crane
- no special equipment required
- use of standard elements (optimization of your stockyard)
- easy and rapid erection

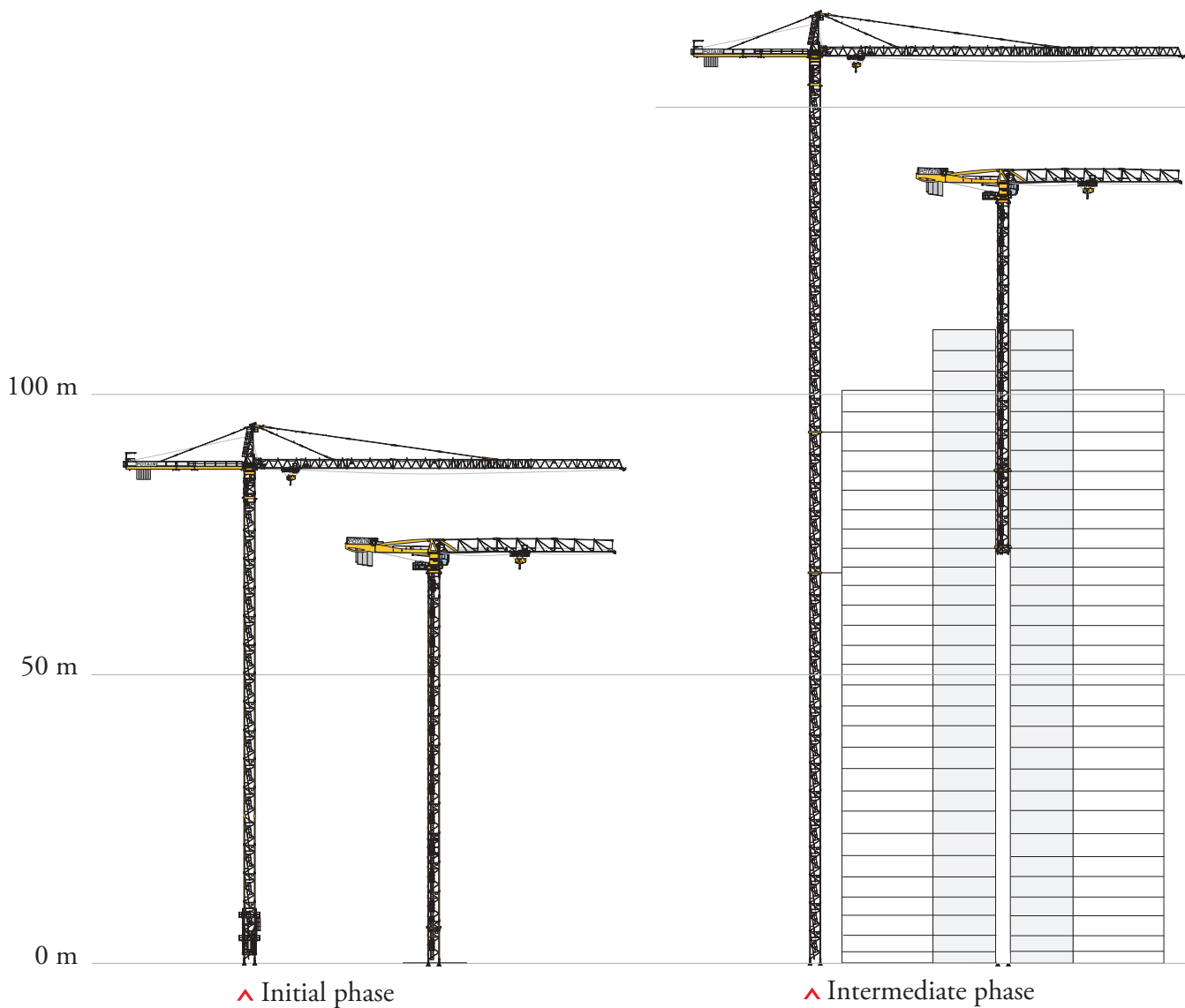
➤ Example of performances obtained

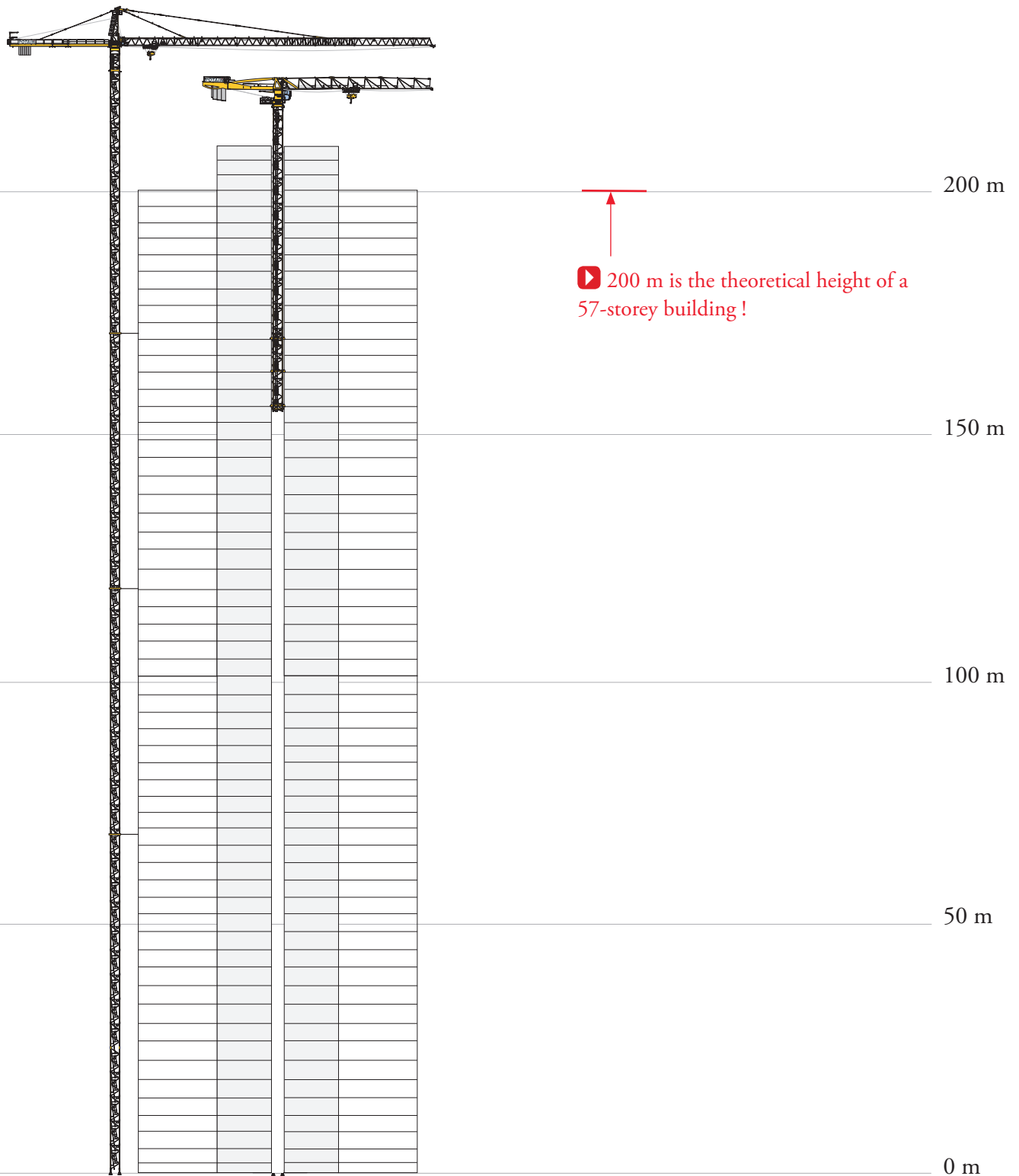


Safety and productivity are the key words

We supply "turn-key" solutions, well-proven and reliable for all special installations and for all Potain cranes (Topless, with tie bars, with luffing jib).

> Example of performances





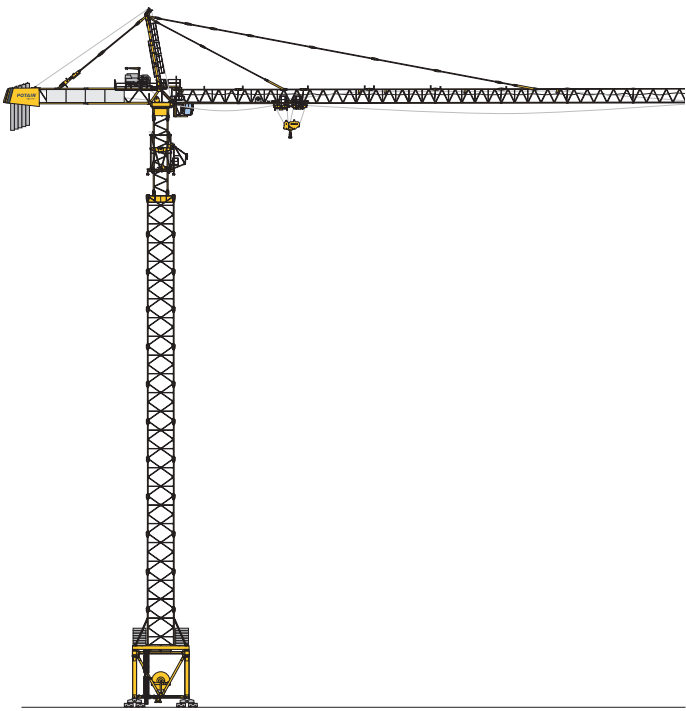
▶ 200 m is the theoretical height of a 57-storey building !

^ Final phase

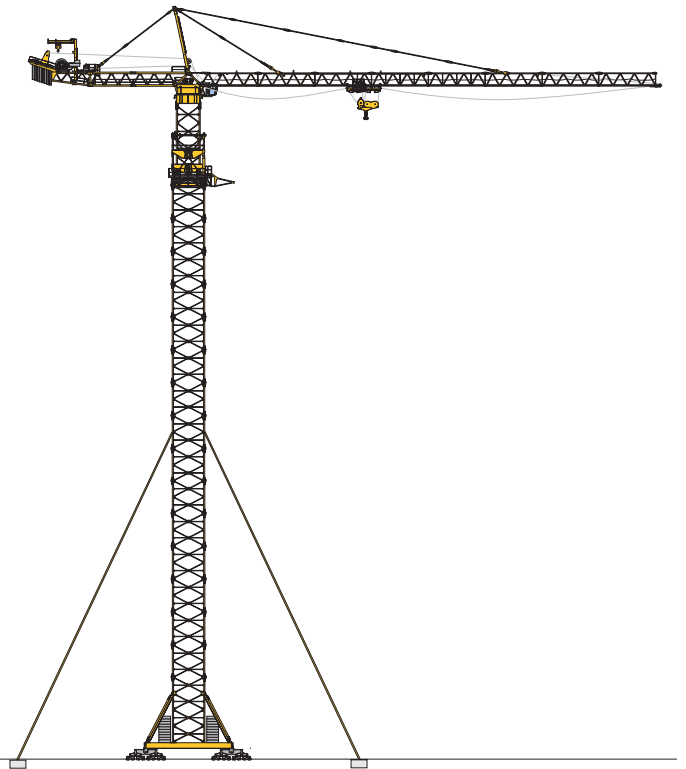
> However the height, there is always a Potain solution

Our offer	1.2 m	1.6 m	2 m	2.45 m	2.5 m	4 m	5.5 m
Climbing inside the building	●	●	●	●			
Anchorage frame	●	●	●	●	●	●	●
Connecting mast	1.6 / 1.2 m	2 / 1.6 m	2.45 / 2 m		4 / 2.5 m	5.5 / 4 m	

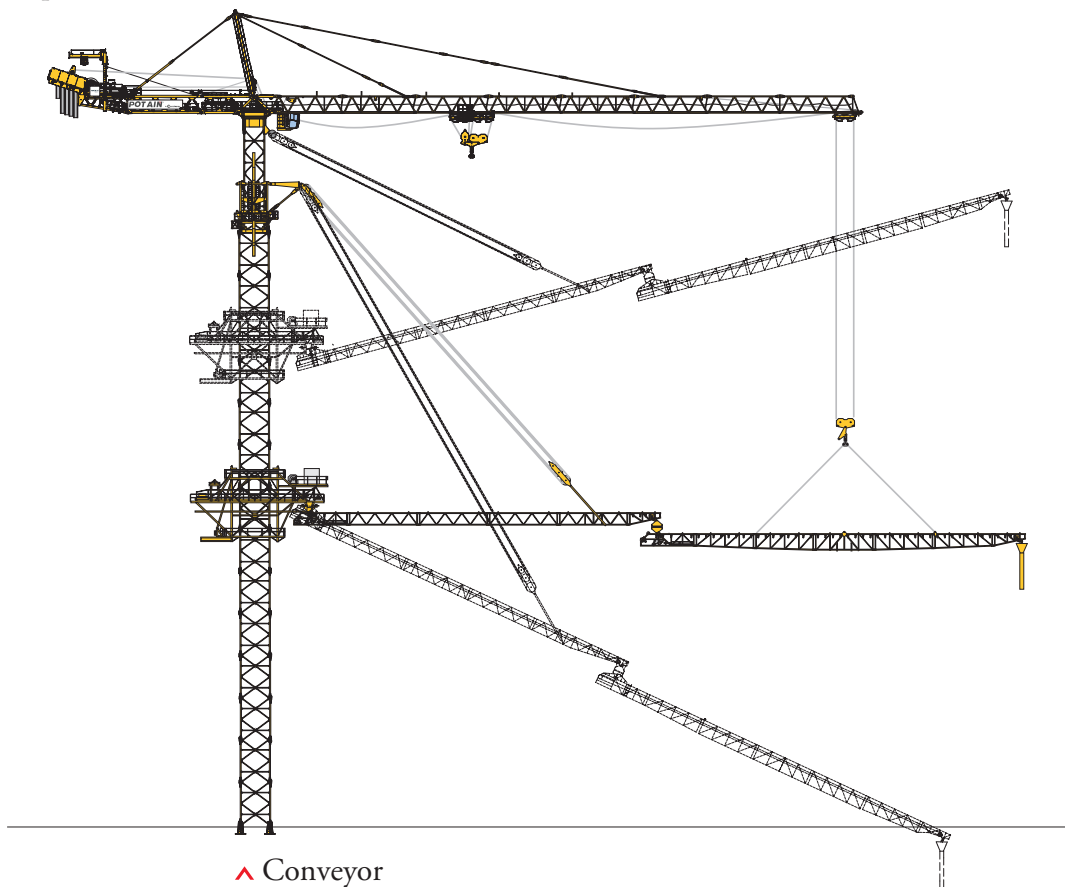
> Special solutions



▲ On portal base

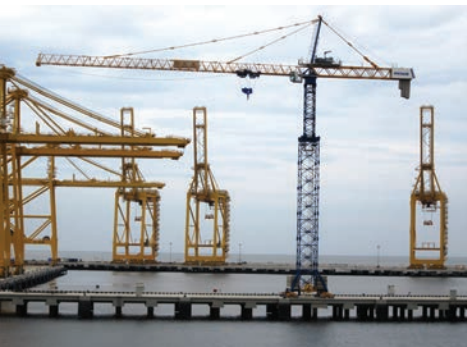
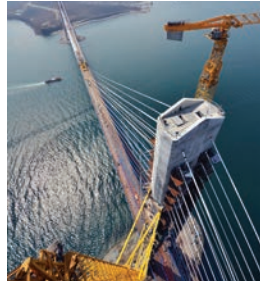


▲ Guyed



▲ Conveyor

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Manitowoc Crane Care when you need it.

The assurance of the world's most advanced crane service and support to get you back to work fast.



Manitowoc Finance helps you get right to work generating profits for your business.

Financial tools that help you capitalize on opportunity with solutions that fit your needs.

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