



# LC2100 series

6 models with maximum loads between **12 and 48 t**  
**Flat-Top®** modular system  
Double trolley system with automatic reeving change



# LC





# 21000

In the 70s, the introduction of the **LINDEN 8000** series is considered to be a new concept in the world of cranes. This ingenious system allows the installation of cranes with different lifting capacities using the same standard system, giving the user great flexibility.

Since then **LINDEN COMANSA** has developed the **Flat-Top®** modular system, applying it to its entire range of tower cranes, which includes the LC2100 series. This family of cranes is currently made up of **six models between 170 and 750 metric tonnes**, with different versions according to their maximum load. These are big-capacity cranes (up to 48 tonnes), highly efficient in any type of construction and in mining, infrastructure, industry and civil engineering work.

Model	Free-standing height	Jib length	Jib-end load	Maximum load
21 LC 170 12t	64,9 m	60 m	2.200 kg	12.000 kg
21 LC 170 18t	64,9 m	60 m	2.200 kg	18.000 kg
21 LC 210 12t	64,9 m	64 m	2.400 kg	12.000 kg
21 LC 210 18t	64,9 m	64 m	2.400 kg	18.000 kg
21 LC 290 12t	64,9 m	74 m	2.700 kg	12.000 kg
21 LC 290 18t	64,9 m	74 m	2.700 kg	18.000 kg
21 LC 400 12t	96,8 m	80 m	3.000 kg	12.000 kg
21 LC 400 18t	96,8 m	80 m	3.000 kg	18.000 kg
21 LC 550 12t	87,9 m	80 m	4.000 kg	12.000 kg
21 LC 550 18t	87,9 m	80 m	4.000 kg	18.000 kg
21 LC 550 24t	86,4 m	80 m	3.250 kg	24.000 kg
21 LC 750 24t	81 m	80 m	7.000 kg	24.000 kg
21 LC 750 36t	81 m	80 m	7.000 kg	36.000 kg
21 LC 750 48t	81 m	80 m	6.500 kg	48.000 kg

## EASY ASSEMBLY THANKS TO THE FLAT-TOP® MODULAR SYSTEM

By removing the cat-head and the pendant-lines, **LINDEN COMANSA Flat-Top®** cranes offer considerable advantages that make their models a very interesting alternative for a large number of users and rental companies:

- **Quick, easy and safe installation** of light parts and of larger pre-assembled units.
- Structural components can be installed **directly from the truck**.
- **No large auxiliary cranes are needed** to raise the components to the necessary height.
- The complication of installing pendant-lines **is eliminated**.
- If space availability is an issue, the jib parts of the crane can be installed one by one since the jib **does not need to be pre-assembled on the ground**.
- The jib sections are **easily connected** using the same system as the LINDEN 8000: bolts on the top strut and screws on the bottom strut.

## OTHER ADVANTAGES OF THE FLAT-TOP® SYSTEM

- In certain cases, only a **Flat-Top®** crane can solve the problem where conventional models with pendant lines and its additional height are not suitable.
- **Flat-Top®** cranes offer maximum hoisting height for a given total crane height.
- In projects that require the use of several cranes, **Flat-Top®** models need fewer tower sections, since the distance required between the jibs of the various cranes is less than for cranes with tie rods. This **brings down the overall cost**, and in certain cases it may mean that the crane does not need to be braced.
- The lack of pendant lines prevents the upper cord in the jib from working with alternative forces (traction-compression). Consequently, the structure has increased resistance to the effects of fatigue.

As a result of the **Flat-Top®** modular system, the **LC2100 series** of cranes have been designed so that many of their tower and jib elements are compatible and interchangeable with the rest of the cranes in the series, and even with other models of different series.





## TOWER SECTIONS WITH PANEL STRUCTURE

The tower sections of the **LC2100 Series** are based on the **Flat-Top®** modular system, connected by bolts, successfully used for many years by **LINDEN COMANSA** in all its ranges, including the famous **LINDEN 8000**.

The panels are manufactured with very precise tolerances to make sure the weight of the structure is supported by the angles of the corner beams and not by the bolts. This guarantees long service life for the section as well as a quick and safe installation. Transport by panels considerably reduces the size of the package, and therefore the cost, which is a noteworthy advantage in long-distance freight operations.

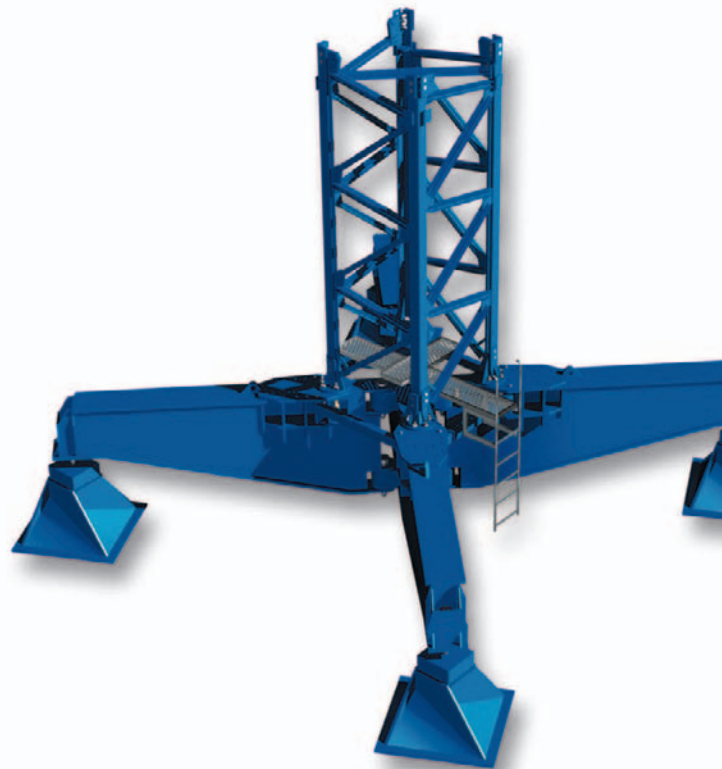
All **LINDEN COMANSA** sections have a transition between them, either directly or by using a frame, allowing them to reach great heights by using reinforced sections and **offering owners of fleets of cranes great versatility** for making multiple combinations.

## CROSS BASE

All the cranes of the series have a folding cross base (4.5 m, 6 m, 8 m or 10 m), which can be transported as a **single item**. For assembly, the base is unfolded and leveled using guide screws in a straightforward manner.

By means of the versatile **LINDEN COMANSA** coupling system with anchoring feet, these bases can be adapted to the different tower sections, in some cases obtaining free-standing heights of **more than 100 m**.

For special applications that need to avoid public highways or railways, the **LC2100** has an optional portal with a width of 6 meters. Furthermore, the **R&D department of LINDEN COMANSA** can study other portal sizes on demand.



## MECHANISMS

All cranes of the **LC2100 series** are equipped with the **LINDEN COMANSA** double trolley reeving system, which improves their load chart in two ways:

- With one trolley, working in simple reeving, the capacity of the crane increases towards the end of the jib, with faster working speeds.
- The two trolleys and double reeving ensure maximum load capacity.

The switch from double to single reeving or vice-versa is automatic. When working with simple reeving, the rear trolley is fixed to a structure at the base of the jib, allowing **completely independent movements of the simple reeving trolley.**

All models of the series have a hoisting system with frequency control, allowing the loads to be positioned precisely. Likewise, the “positioning mode” supports operation at **micro-speeds**, achieving total control and precise placing of the loads.

**New 50 and 65 kW frequency-controlled hoisting mechanisms** have been designed, improving the already excellent performance of the latest generation of hoist winches, of which the 110 kW version is maintained. In addition to increasing the maximum speeds with light loads, the new mechanisms allow the optional use of the large-capacity **Lebus** drums, carrying **up to 1,320 meters of cable.**







## DIGITAL INDICATORS

All cranes of the **LC2100** series are equipped with the **Lincomatic** system of digital indicators as a standard, offering the crane operator all information required to improve crane control and safety: reach, hook height, moment, maximum load, data log, etc.

This **user-friendly and intuitive system** is compatible with the **Anti-collision System** and it also offers the possibility of including a **Forbidden Zone** function. This option restricts jib and load access to areas previously programmed as “Forbidden zones”, as well as gradually stopping the movement of the jib when it comes close to one of these areas.



## ACCESSORIES AND OPTIONAL ELEMENTS

The oscillations produced in a crane are comparable to what one would encounter in a car without shock absorbers. Sudden pulls during loading or unloading procedures will make the crane oscillate. This happens with all cranes, regardless of the brand.

The **LC2100 Series** includes the **BM16 oscillation absorber** as an option, ensuring crane oscillations are absorbed quicker and improving quality and performance on site. The working principle of the **LINDEN COMANSA** patented oscillation absorber is similar to those dampers mounted at the top of some skyscrapers. The counterweights are freely suspended in a pendant basket, laterally connected to the structure by hydraulic shock absorbers. This system is mostly used on specific applications, such as the construction of chimneys for thermal and nuclear power plants.

Also for specific applications, such as hyperbolic cooling towers, the cranes of the **LC2100 series** include optional **jibs for dismantling individual jib elements** and counterweights before dismantling with jacking cage.

# LC2100 series

## GENERAL CHARACTERISTICS

- **Six models**, with maximum loads between 12 and 48 tonnes.
- High modularity among cranes of the same series, thanks to the **Flat-Top®** system.
- **Double trolley** system with automatic reeving change.
- **Quick, easy and safe installation** of light modules.
- Tower sections with **panel structure**, easy to transport.
- **New mechanisms**, more powerful and with increased cable bearing capacity.



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