

CASTING MACHINES

Slipformer

mordimpianti

MACHINES AND EQUIPMENT FOR THE PRODUCTION
OF PRESTRESSED CONCRETE ELEMENTS



SLIPFORMER

The Nordimpianti's Slipformer machines represent the state of the art in the production of prestressed concrete elements both for floors and walls.

Available in several versions depending on the type of elements to be produced, the NORDIMPIANTI Slipformer offers a cost-effective solution for companies that are looking for a flexible approach to produce prestressed elements such as hollow core slabs, inverted T-beams, poles, lintels, half slabs, solid slabs, inverted double T-beams, grandstand panels and other special shapes.

The Slipformer casts elements in a single phase using the vibration method without the need for formworks.

The machine is modular and the power unit together with the hopper can be easily and quickly transferred to another forming insert to produce a different element.

Standard heights range from 60mm to 1000 mm while the width can be up to 1200 mm. Different widths are available according to customer requirements.

The heights of the elements, as well as the thickness of the vertical ribs can be varied within certain limits according to the application and the element specifications required.

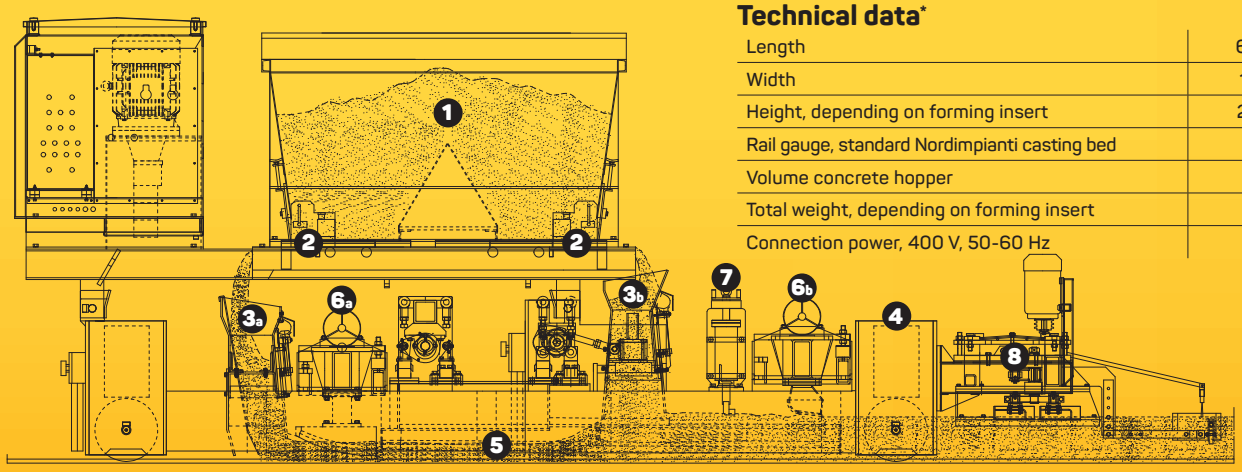


SLIPFORMER

Variety of prestressed elements







Technical data*

Length	6000 mm
Width	1800 mm
Height, depending on forming insert	2300 mm
Rail gauge, standard Nordimpianti casting bed	1410 mm
Volume concrete hopper	18 m^3
Total weight, depending on forming insert	8250 kg
Connection power, 400 V, 50-60 Hz	35 kW

*HOLLOW CORE SLAB SLIPFORMER MACHINE

h1000

A special profile only available from Nordimpianti

The large hollow core slabs JUMBO series have heights from 500 mm to 1000 mm and are available in widths of 2x600 mm or 1200 mm.

The slabs produced by NORDIMPIANTI's Slipformer are cast through a combination of concrete dosage and vibration ensuring a high level of compaction along every point of the element.

This series of elements have a particular constant cross section with two large lateral voids and a smaller centre void. Steel mesh can be inserted into the ribs of the lower part of the element.







The main applications of these special elements are:

- Tunnels, anti-landslide and avalanche guards
- Decking systems for road viaducts and bridges with spans of more than 18 m
- Industrial flooring systems with high loads

Excellent concrete compaction

Elements produced by NORDIMPIANTI's Slipformer machine are so well compacted that they are able to support the weight of a person immediately after casting.

slipformer

AVAILABLE FOR THE PRODUCTION OF VARIETY OF PRESTRESSED ELEMENTS



The NORDIMPIANTI Slipformer system

Concrete is delivered from the main hopper **(1)** by feeding tables **(2)** into delivery hoppers **(3a, 3b)** mounted on the forming insert **(4)**.

From here the concrete is delivered to the production bed and the voids are formed by a set of forming tubes **(5)**.

After the second delivery hopper **(3b)** there is a damper device **(7)** to distribute and compact the concrete before the rear vibrating group **(6b)**.

Special vibrating groups **(6a, 6b)** provide a two stage concrete compaction. At the end of the casting process a smoother device **(8)** gives an excellent surface finish.

The forming tubes and the side formers create the shape and the voids of the elements.

The forming tubes and side formers have an oscillating movement backwards and forwards which together with the special vibrating group give excellent concrete compaction at every point along the element ensuring the element's excellent technical characteristics.

Top Advantages of NORDIMPIANTI's Slipformer machines



POSSIBILITY TO HAVE TRANSVERSAL STEEL REINFORCEMENT



MINIMUM DOWNTIME FOR FORMING INSERT CHANGING



ABILITY TO PRODUCE A LARGE RANGE OF PRODUCTS



POSSIBILITY TO LEAVE PROTRUDING MESH



PRODUCTION OF ELEMENTS WITH PARTICULAR ARCHITECTURAL FINISHES



PRODUCTION OF ELEMENTS UP TO 1 M HIGH

High concrete compaction
- The Slipformer vibration motors are specially designed for continuous working;
- The machine is available with two or three vibration stages in order to attain the best concrete compaction;

Production flexibility
- Element height from 60 mm up to 1000 mm;
- The Slipformer is able to produce a wide range of prestressed concrete elements such as hollow core slabs for floors and walls, inverted T and I-beams, inverted double T-slabs, vineyard posts, lintels, solid slabs, half slabs and grandstand panels;
  It is possible to insert steel wire mesh reinforcement;

Reliability
- Heavy-duty construction;
- NORDIMPIANTI Slipformer machines are Internationally proven;
- Most of mechanical parts are galvanized for durability and easy maintenance;
- Third party components are sourced from the world's most renowned suppliers;

User friendly
- The use of anti-wear materials to extend their working life.
- Wear parts designed to be easily changed reducing downtime to a minimum.
- The forming inserts can be quickly changed to enable production of slabs with different profiles or heights.

DESCRIPTION
SLIPFORMER TECHNOLOGY

The NORDIMPIANTI Slipformer machine is made up of 2 main units, a universal power unit together with a hopper and a forming insert module.

Power unit and hopper



The universal power unit houses the hydraulic pumps, the control box and the control panel.

The power unit, together with the hopper can be easily and quickly transferred to another forming insert to produce a different element.

Concrete is delivered from the main hopper by feeding tables into delivery hoppers and then onto the casting bed.

On the bed the concrete is formed into its profile and then compacted by vibrating units. The complete power unit can be removed and mounted on a different forming insert in order to change element production.

Forming insert



The forming insert is the product-specific part of Slipformer. It includes the delivery hoppers, vibrating units, wire guides, side formers and a set of forming tubes or dividers according to the elements being produced.

In the production of hollow core slabs, the height of the elements and the number of voids is determined by the forming tubes.

Different element heights can be manufactured by changing the forming tubes.

EXAMPLES OF DIFFERENT FORMING INSERTS AVAILABLE FOR THE NORDIMPIANTI SLIPFORMER


Hollow core slabs


Hollow core wall panel with coloured aggregate finish


Solid slabs


Inverted T-beams


Half slabs


Slabs with lattice ribs


Poles


Lintels


Foundation piles


Inverted double T-beams


Inverted double T-slabs


U panels

We have a range of machines capable of meeting all your needs

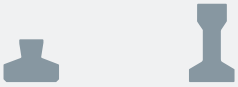


Poles and Lintels



Poles Lintels

Inverted T and I-beams



T-beams

I-beams
up to **220** mm high

Foundation piles



Prestressed slabs



Half slabs



Slabs with lattice ribs



Solid slabs

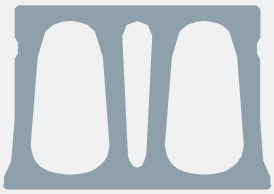
Hollow core slabs for floors



Hollow Core Slabs **11** hole
h **80** mm - h **300** mm



Hollow Core Slabs **7** hole
h **200** mm - h **500** mm



Hollow Core Slabs **3** hole
h **500** mm - **1000** mm

Hollow core wall panels



With concrete finish



Wall panels with coloured aggregate finish



Insulated Sandwich wall panels

Grandstand panels



For Stadium seating

Inverted bouble T-beams and slabs



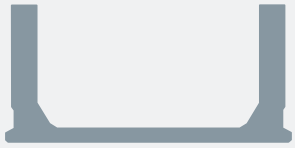
Inverted double T-Beams
h **500** mm - **1000** mm



Inverted double T-slabs



Inverted triple T-slabs



U Panels
up to h **1000** mm

CROSS SECTIONS AND DIMENSIONS OF THE PRESTRESSED CONCRETE ELEMENTS CAN BE ADAPTED TO CUSTOMER REQUIREMENTS

CASTING MACHINES

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(EN)



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