www.vibrocast.it

Vibroforming Machines and Modls

for precast concrete elements

VC VibroCast™

Innovation makes the difference !

Over 40 years experience in precast technology

The solid experience of VibroCast™ is crucial in providing our customers with the most appropriate solutions based on their own specific investment requirements, logistic conditions and production needs.
As a result of this solid background, the idea was conceived to create and make available a technology capable of meeting all the requirements of a growing and quality-sensitive market.

High quality, brilliant Italian design, simple to use, reliable, economical to run and operate, versatile are all words that can be used to describe our plants and equipment.

With a constant attention to the needs of our customers and the innovative technical solutions implemented on our equipment, we are able to meet the widest range of requirements and produce tailor-made molds upon request.

Dedication, professionalism, experience and flexibility are always at the forefront while we work to provide our customers with the solutions they are looking for.

VibroCast™ technology is the best solution for all companies requiring high productivity and flexibility in their production system.

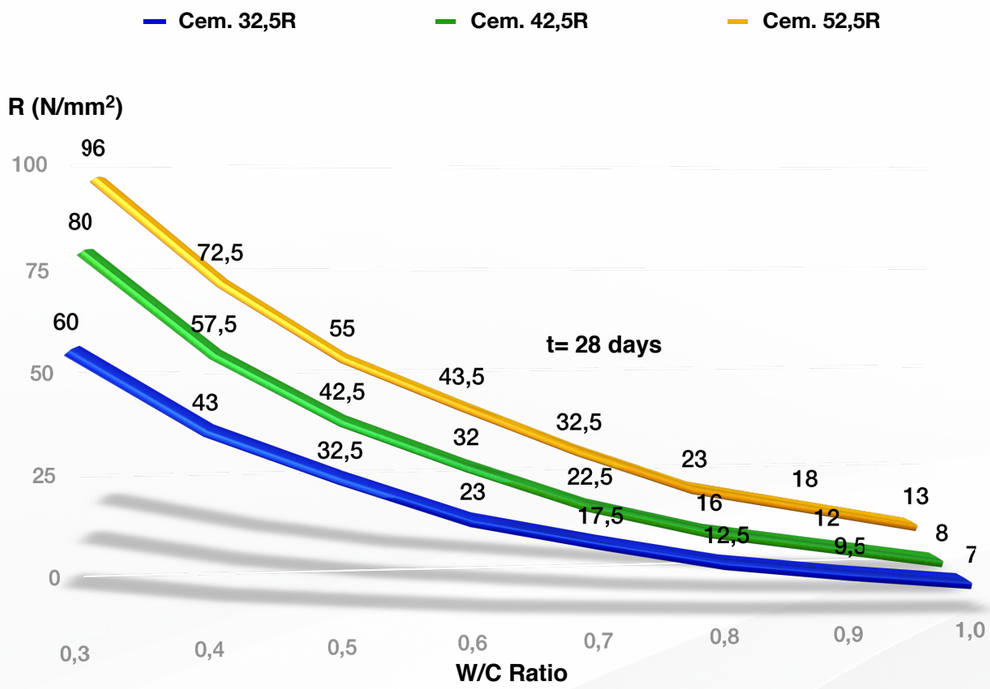
VibroCast™ specializes in the design of machinery and molds for the production of reinforced and non-reinforced concrete products for the construction and civil engineering industries.

Using this technology, the mold is first filled with concrete and then vibrated to obtain the selfcompactionof the material. After setting, the mold is turned over to release the finished product.

By applying vibration to the mold only and not to the entire machine, we are able to minimize the noise produced by the vibrators.

Based on years of expertise in the industrial prefabrication industry, our technology is constantly evolving to meet the new requirements of our customers.

Mechanical strength of the concrete



VibroCast™ technology provides a substantial increase of mechanical strength and quality of the manufactured product.

Our machines work with a dryer concrete (W/C=0,40) compared to the conventional system (W/C=0,50).

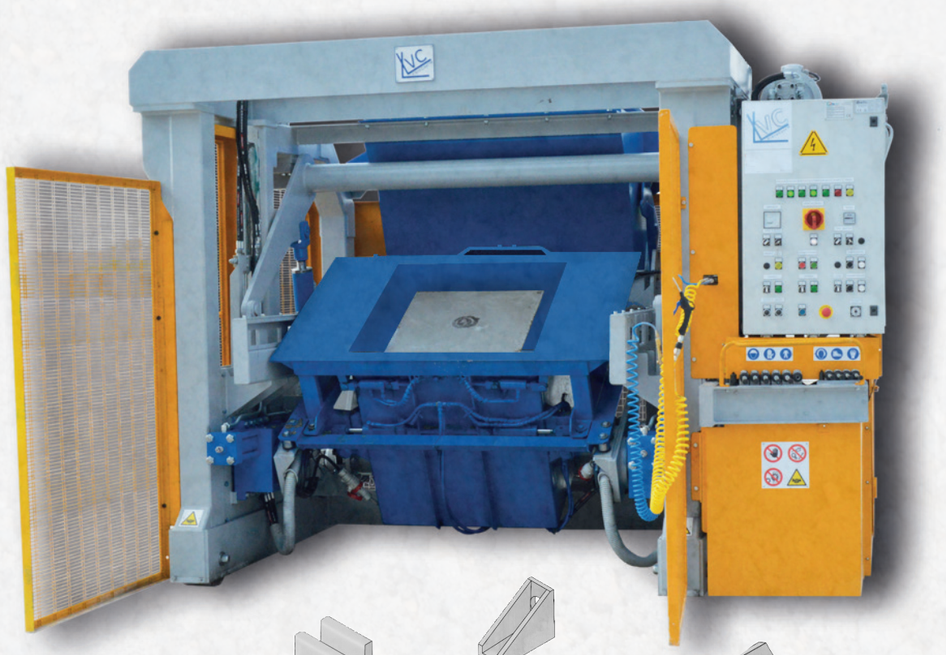
VibroCast™ in the world

Thanks to our Agents and Dealers we can cover a wide world area.

The VibroCast™ widespread organization ensures to the final customer a business support with its after-sales service, capable to satisfy all their needs.

VibroCast™ VC 100

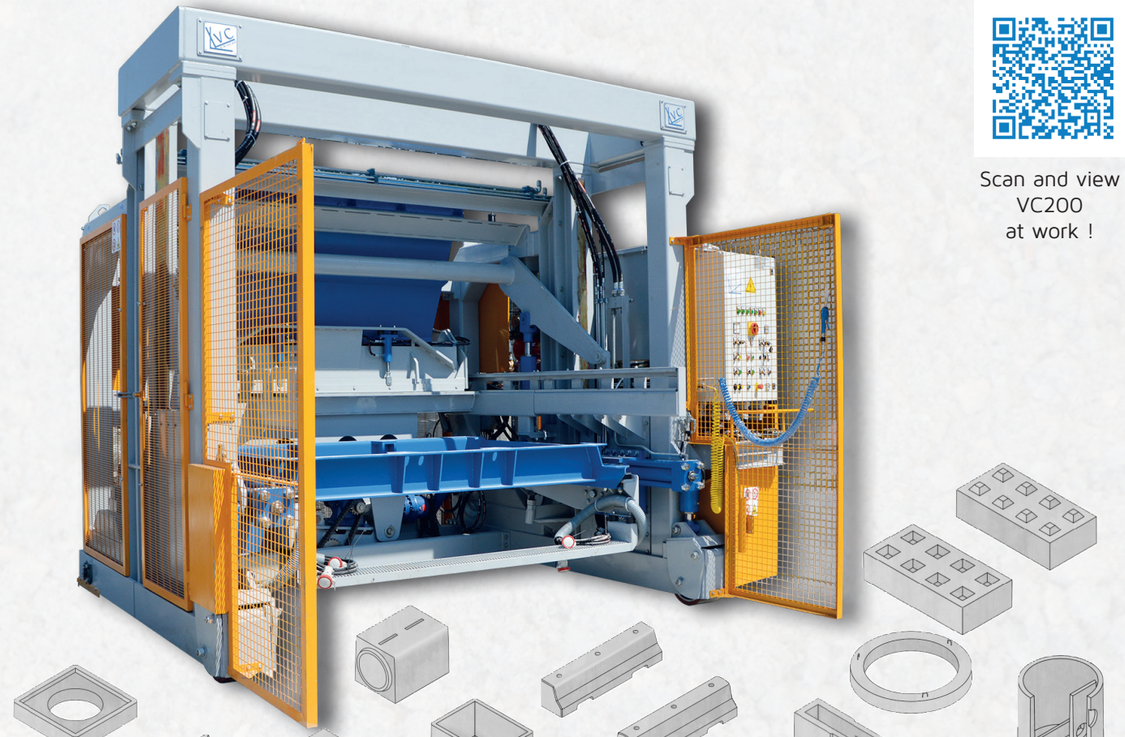
Scan and view
VC100
at work !



TECHNICAL PARAMETERS OF VIBROCAST™ MACHINE		
Machine Model	VC 100 N	VC 100 S
Power installed (kW)	14	14
Vibrators high frequency	2	2
Vibration power (kN)	19,6	19,6
Working tension (V)	400	400
Hopper high (mm)	2300	2400
Hopper capacity (m3)	0,8	1
Machine dimensions (mm)	3250 x 2500 H 2500	3450 x 2500 H 2650
Machines weight (Kg)	6000	6.500
Max weight of elements (Kg)	2000	2000
Working cycles time (min/max)	2' / 4'	2' / 4'
Máx Dimension Elements	w1200 x 1200 H 1000	w1400 x 1400 H 1100

VibroCast™ VC 200

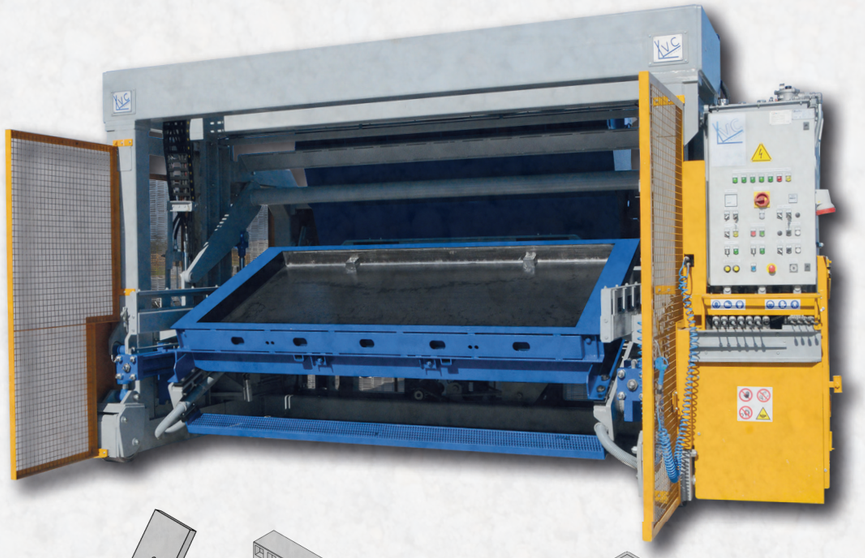
Scan and view
VC200
at work !

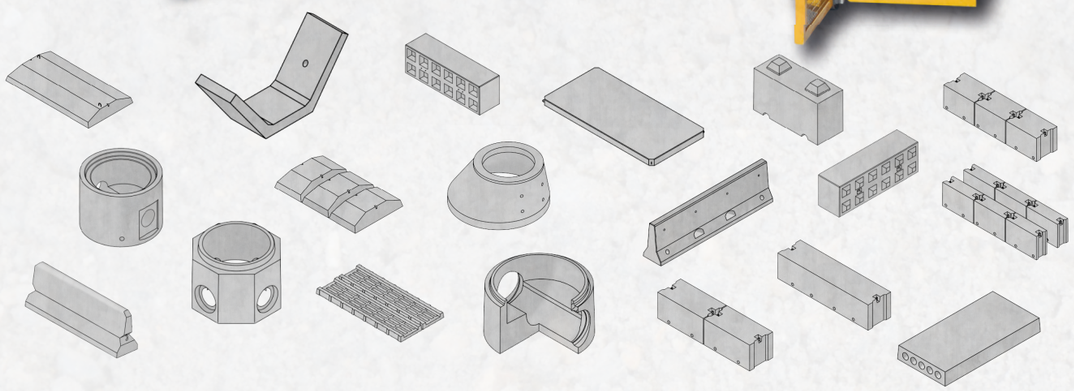


TECHNICAL PARAMETERS OF VIBROCAST™ MACHINE		
Machine Model	VC 200 N	VC 200 S
Power installed (kW)	30	30
Vibrators high frequency	2+2	2+2
Vibration power (kN)	19,6	19,6
Working tension (V)	400	400
Hopper high (mm)	2700	2950
Hopper capacity (m3)	1,5	1,5
Machines weight (Kg)	4450 x 4500 H 3000	4450 x 4500 H 3400
Machines weight (Kg)	9000	9800
Max weight of elements (Kg)	3000	3000
Working cycles time (min/max)	2' / 7'	2' / 7'
Máx Dimension Elements	w2000 x 2000 H 1100	w2000 x 2000 H 1350

VibroCast™ VC 300

Scan and view
VC300
at work !

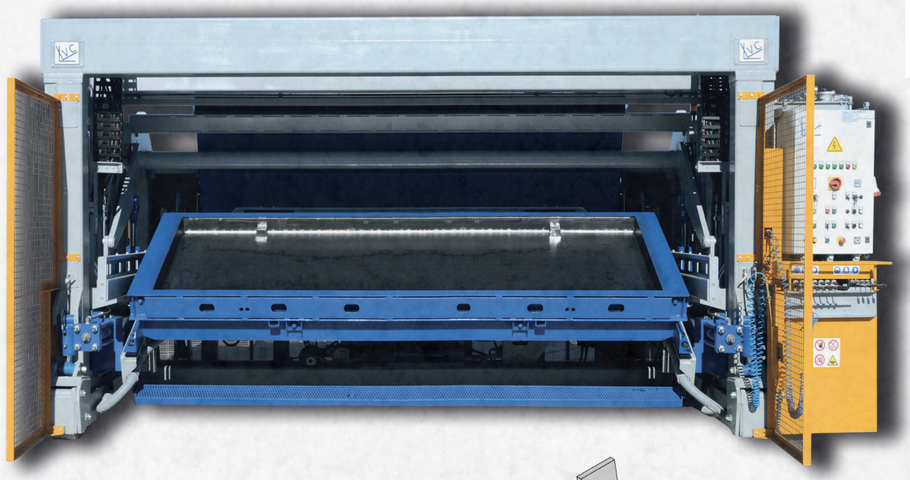


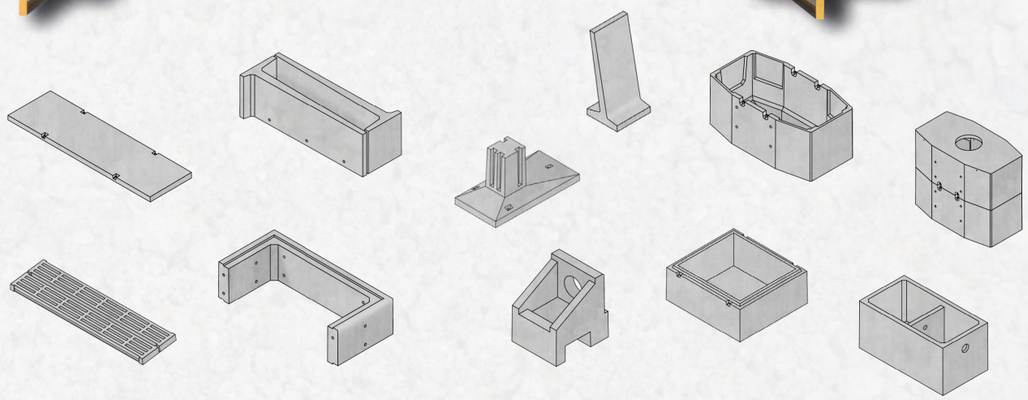


TECHNICAL PARAMETERS OF VIBROCAST™ MACHINE		
Machine Model	VC300 N	VC 300 S
Power installed (kW)	30	30
Vibrators high frequency	2+2	2+2
Vibration power (kN)	19,6	19,6
Working tension (V)	400	400
Hopper high (mm)	2700	2950
Hopper capacity (m3)	2,4	2,4
Machine dimensions (mm)	5450 x 4500 H 3200	5450 x 4500 H 3500
Machines weight (Kg)	11000	11800
Max weight of elements (Kg)	3000	3600
Working cycles time (min/max)	4' / 10'	4' / 10'
Max Dimension Elements	w3000 x 2000 H 1100	W3200 x 2000 H 1350

VibroCast™ VC 400

Scan and view
VC400
at work !





TECHNICAL PARAMETERS OF VIBROCAST™ MACHINE		
Machine Model	VC 400 N	VC 400 S
Power installed (kW)	30	30
Vibrators high frequency	2+2	2+2
Vibration power (kN)	19,6	19,6
Working tension (V)	400	400
Hopper high (mm	2700	2950
Hopper capacity (m3)	3,2	3,2
Machine dimensions (mm)	6500 x 4500 H 3200	6500 x 4500 H 3600
Machines weight (Kg)	14000	15000
Max weight of elements (Kg)	4000	4000
Working cycles time (min/max)	4' / 10'	4' / 10'
Max Dimension Elements	W4200 x 2000 H 1100	W4200 x 2000 H 1350

Main advantages

HIGH PRODUCTIVITY
This technology alone can perform the work of many workers in a shorter time with higher quality.

LIMITED PRODUCTION AREA
Is required a very limited production area, perfect solution for all customers that have not wide area production or it's very expensive.

MAINTENANCE
Fast maintenance and availability of on-site components is our goal.

MANPOWER
Only 1 operator on VC machine is required for the handling, and 1 worker to provide the concrete with forklift.

VERSATILITY
All VibroCast™ machines are mobile, only a flat area is required. No additional cost required for any work of civil engineering to begin production.

FAST CHANGE OF PRODUCTION
In 20 min the operator can change completely his production simply by changing the mold on the machine.

SIMPLE AND USER FRIENDLY EQUIPMENT
No needs special training to operate with the machine, all operators can operate on it without instructions.

RELIABLE
Maintenance operations are very limited, thanks to the choice of high durable components and simplicity of our machines.

MOLDS
All molds are manufactured under specific customer request.

LOW INVESTMENT
Comparing with the conventional way to work, with dedicated area for static molds, huge quantity of manpower, dedicated areas for molds storage, this VC technology result very fast in terms of ROI.

HIGH CLS STRENGTH
VC Machines work with a W/C= 0,40. Means that with this technology we can achieve a very High Compression Strength (up to 60-70 MPa).

STEEL REINFORCEMENT
With our molds we can produce elements with or without steel reinforcement, as per customer requests. If the customer needs can also use a polypropilene fiber reinforcement.

COMPLICATED MOLDS
The peculiarity of our molds, hallmark of VC, is that we always find the ideal solution for the customer, even performing complicated hydraulic molds.

Examples of concrete elements

Applications

Reinforced box culvert with a total weight of 3.700 kg produced with the VibroCast™ VC300S in Poland.

Examples of products achievable with vibroforming machines.

On the top: blocks for retaining walls.
In the middle: pipes for drainage.
Below: interlocking elements for ground containment.

On the left picture an example of kurbstones integrated with water drainage.
On the right picture a New Jersey barrier with integrated flowepot.

Examples of inspection box culvert for electrical and water connections, with possibilities for male-female couplings and lateral imprintings.

The picture on the left shows how to work with double VC100N mold installed on the VC300N.

With this configuration the machine can produce two different dimensions of box culverts each cycle.

Below: elements for rainwater drainage.

Applications

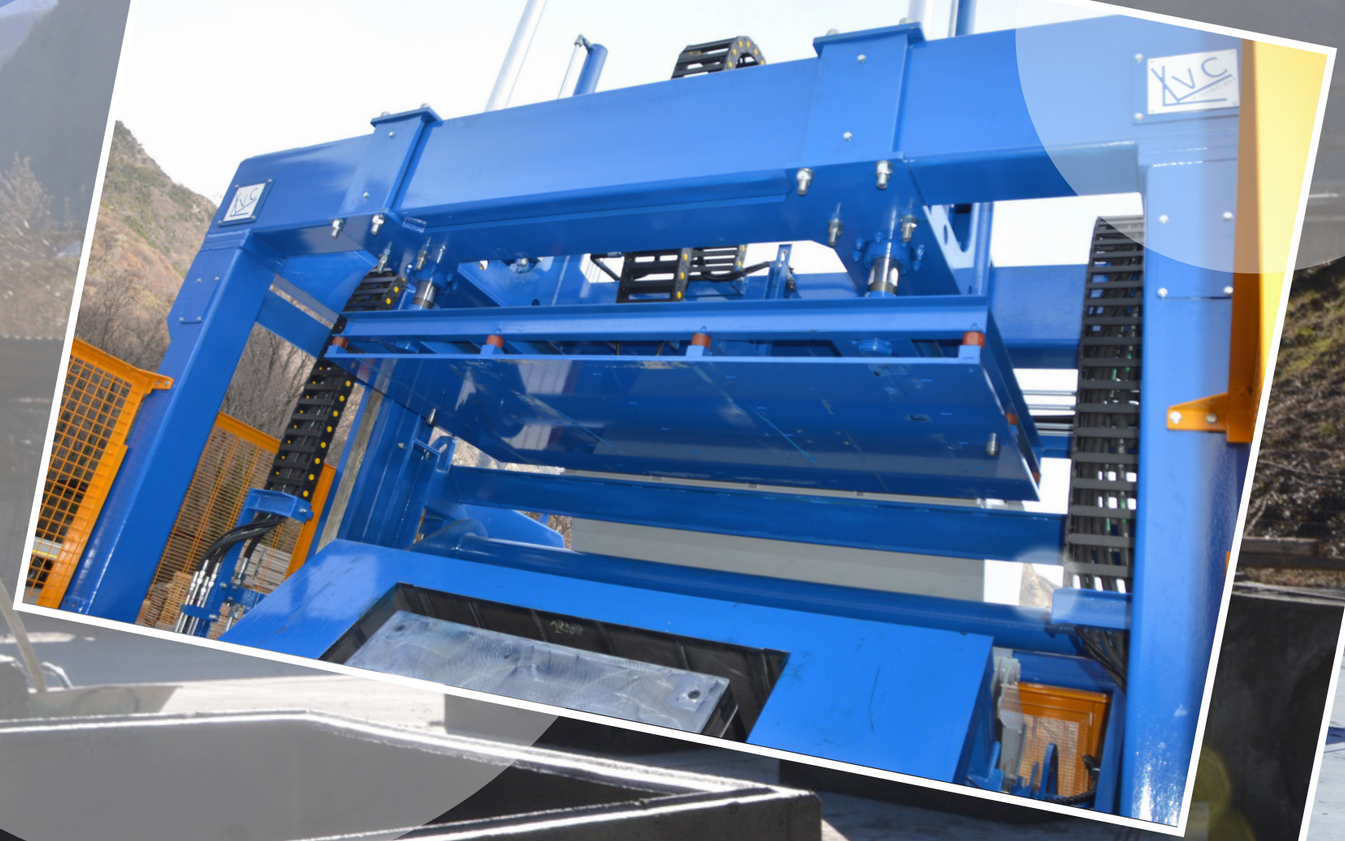
Interlocking road tiles.

VC300N machine sold in Poland with the mold for the production of twelve elements of road tiles each cycle.

The theoretical estimated daily production is around 2000 pieces.

Different types of interlocking flat tiles realized with vibroforming machine..

Products for retaining walls realized by VibroCast™ VC300N in Algeria..



The press device
optional is highly
recommended
for all the concrete
products which need
male/female couplings

On the previus page:
channels realized with a VC100S sold in Indonesia.

On the full page: Aqua channels.

On this page: water dreinage channels with male/female couplings under installation on site.

Tipical installation of 4 meter cattle slats for animals.

On top channels for road water drainage.

On full page examples of box culvert extensions.

Increasingly the demand for fiber optic boxes.

DAMPAK
DROMTECH

NEW HOLLAND
B45

On the full page: example of basements for temporary fences and relative mold realization.

Box culvert for the collection of the raining water and below an example of road barrier 2 meters long prearrenged for the insertion of vertical pole, lateral connections with other barriers and floor anchoring.

On the top mold for road slab production (mt 3,0 x 2,0) designed to insert two reduction for slab of mt 1,5 - 1,0.

With this solution, the costumer can produces three types of road slabs with one mold. In the middle, mold with both reductions installed to produce the slab mt 3,0 x 1,0. Below, road slab mold under construction.

Example of road slab and "jomb" slab.

Removable screwed boxes.

Example of pipe production with one mold with extractable internal core.
It's possible to produce two pipes diam. mm 1.000 each cycle.
The cycle time takes average 5 minutes.

The male-female profile is guaranteed by special metal rings provided by VibroCast™.
The mold is equipped with hydraulic hooks pressing the ring inside the concrete.

VibroCast™

Example of urban architectural concrete element.

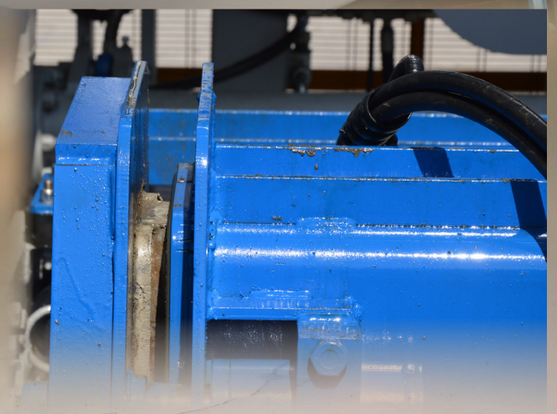
During commissioning phase, VibroCast™ technicians will provide all necessary assistance in finding an appropriate concrete for the correct execution of the production.

The high technical skills and knowledge of the concrete, are just some of the characteristics of VibroCast™.

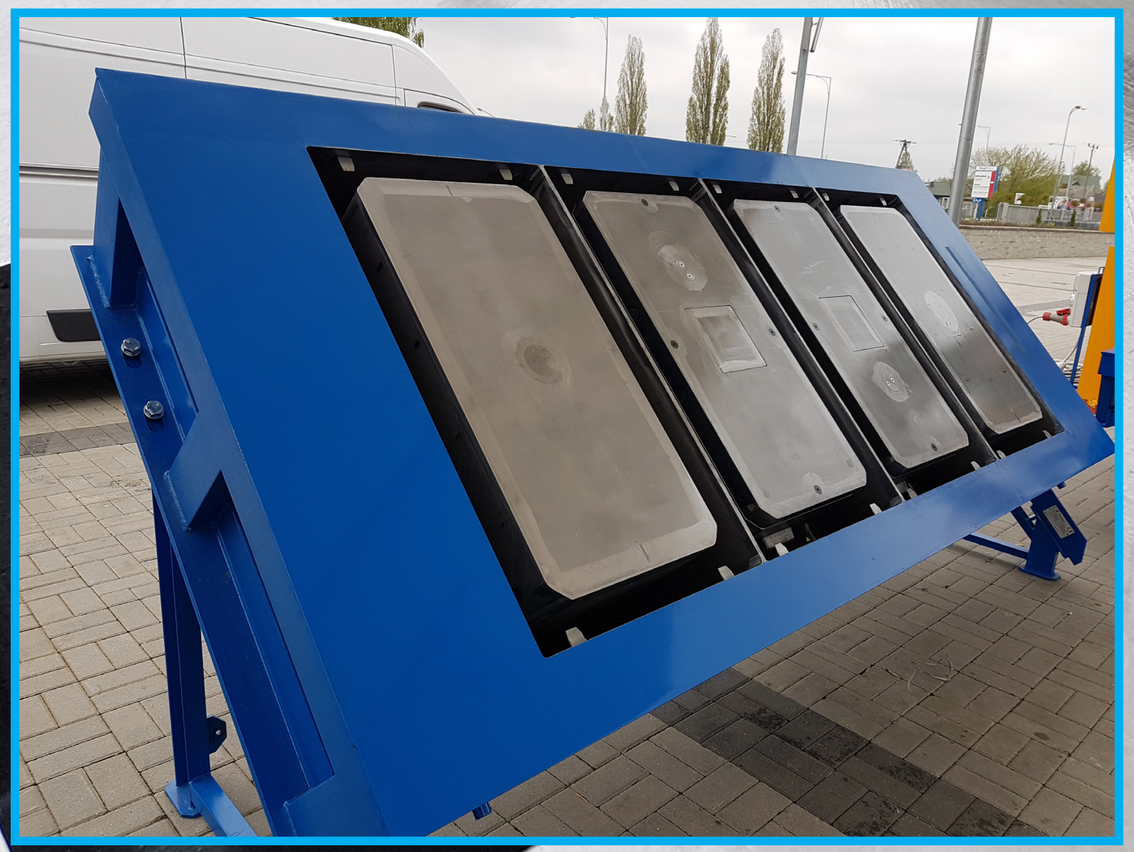
4 meters mold for lintel production

In this configuration the customer can produce 11 differents type of lintels combining all the supplied reductions.

Example of 500 mm. reduction installable on road slab mold.



Example of 200 and 300 mm reductions installable on road slab mold.



VibroCast™ is the result of years of field experience and customer focus.

Technology, high quality of components used, durability of our systems and ease of use are our main targets.

All internal parts of the mold are welded and smoothed without use of putty.

Optionals

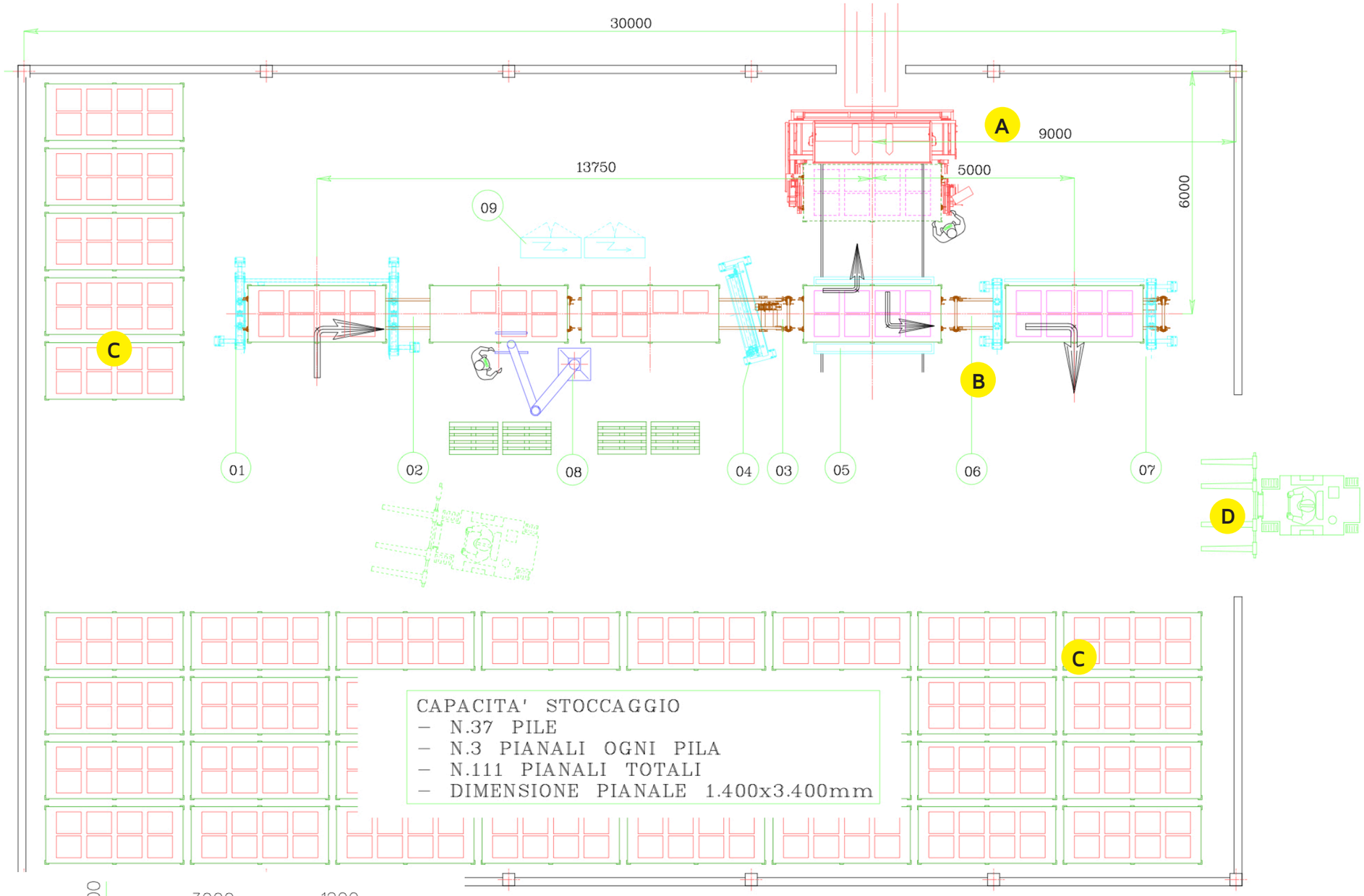
On full page the extra lenght of the drawer with this optional we can cover up to 2.350 mm of mold.

In the boxes below the metal rings to imprinting the male-female profile on the pipe mold.

On the left the pick-up device for New Jersey barrier.

On the right the hopper with hydraulic opening system.

VibroCast™ palletization system



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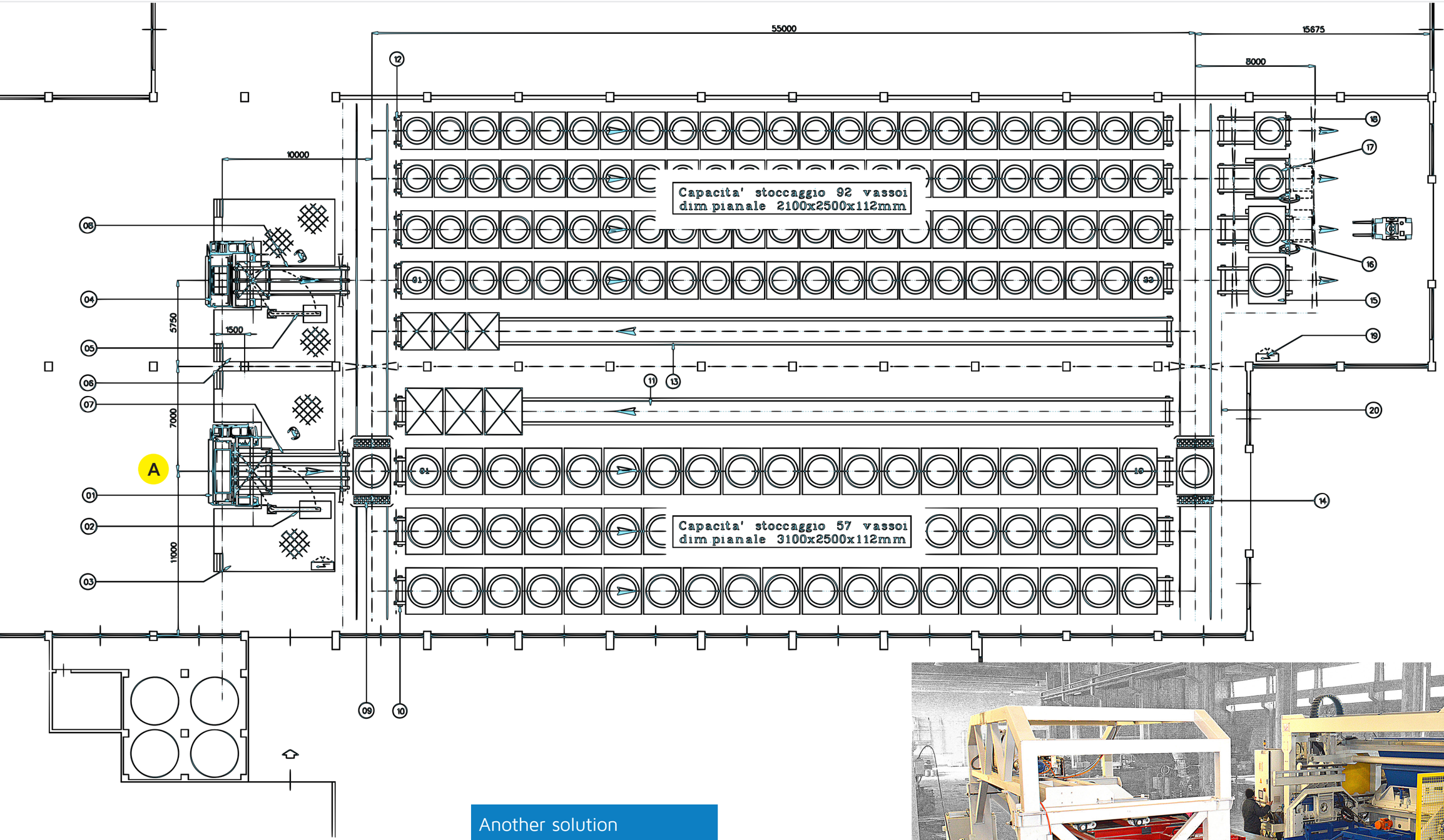
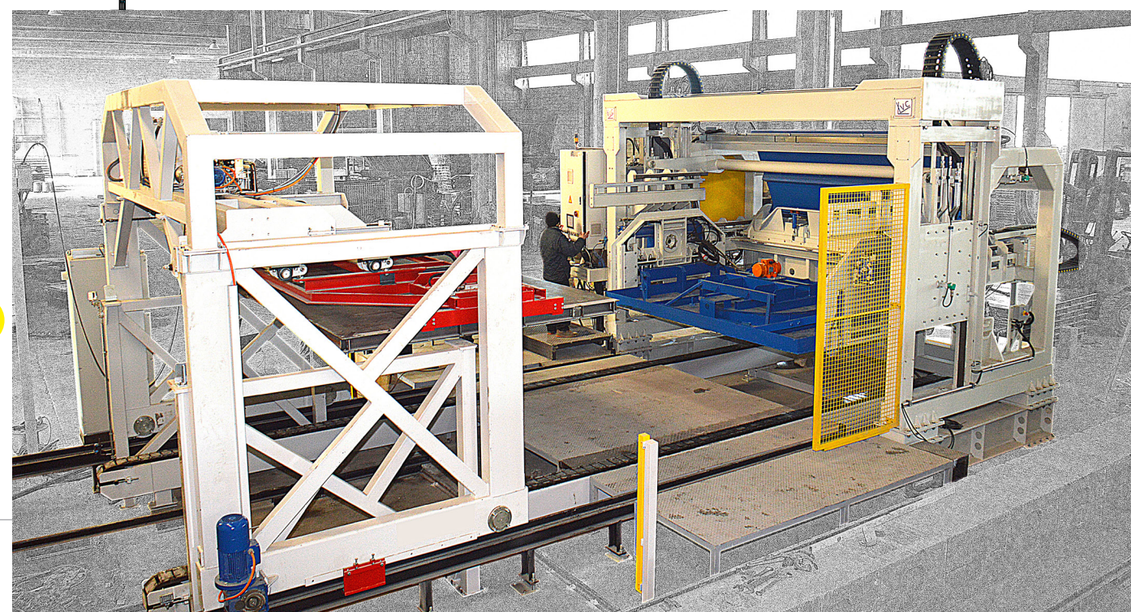
D

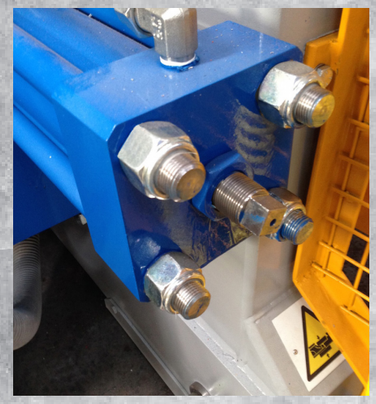
For those customers who have special requirements of space, VibroCast™ offers different palletization systems, from semi-automated to fully automated systems.



Another solution
for a fully automated
vibroforming line.



VibroCast™ construction details and related benefits



Tool-less “quick coupling” system for quick mold change to reduce changeover time and prevent oil spillages on the ground electric connections water resistant.

Machine advantages

HEAVY REINFORCED STEEL STRUCTURE

Reinforced frame with increased thicknesses for optimum vibration resistance and mechanical stress.

DUAL ADJUSTABLE MOTORS FOR THE OVERTURNING SYSTEMS

Dual adjustable hydraulic actuators for the rotation, as standard on the whole range of our machines. This system allows the production of important dimensions products.

N.2 SEPARATE HYDRAULIC PUMPS, TANKS AND OIL FILTERS FOR MACHINE AND MOLDS

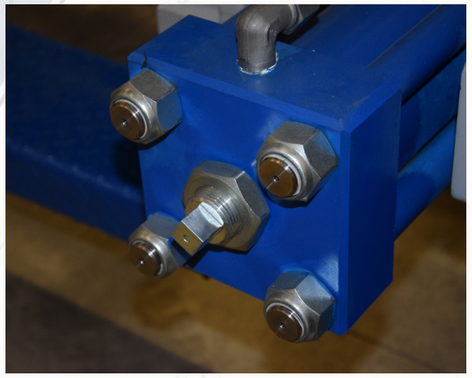
Separate hydraulic circuit machine / mold for separate control of pressures.

DEMOLDING OIL SYSTEM INCLUDED

The demolding oil system, composed of compressor, oil tank and suction pump is a supply included in all our range of machines.

DUAL ADJUSTABLE TILTING MOTORS

Adjustable actuator on the tilting front / back for a precise offset adjustment.
This system allows the rise of the mold always parallel to the ground, fundamental in the demolding of the big box culverts or high products.



SCREWED ON CONSUMABLES FOR EASY REPLACEMENT

All wear parts such as drawer guides, waiting bench and wheels are easily replaceable thanks to screwed inserts.

PLC TECHNOLOGY FOR ENERGY SAVING AND MACHINE OPERATIONS

In the entire range of VibroCast™ machines, there is a PLC to optimize consumption and the general operations of the machine.

REMOTE TELEASSISTANCE

Remote PLC diagnostics to reduce the machine breakdown time.
Thanks to VibroCastTM qualified technicians,
we are able to detect the possible failure immediately from Italy.

Machine advantages

INTERNAL CHAMFER WELDED AND ROUNDED

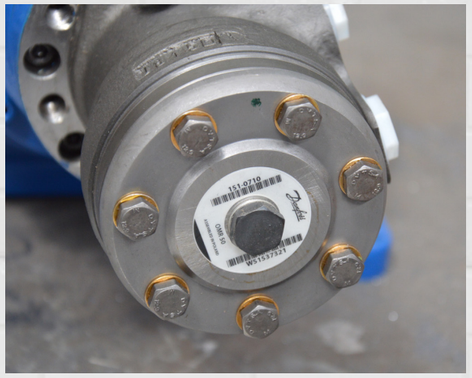
All our molds have interior chamfers welded and rounded. This feature keeps unaltered in time the quality of performance of the manufactured articles made.

N.3 INVERTERS CONTROLLING THE MAIN HYDRAULIC MOTOR AND VIBRATORS

On all our range are present 3 inverters for engine management / main pump and control up to four vibrators for molds.

HIGH QUALITY COMPONENTS

The choice of using excellent components with an high availability on the market, guarantees to the customer fast maintenance resulting in time savings on machine downtime.



N.4 SEPARATE HYDRAULIC OPENINGS FOR THE MOLDS

The whole range of VibroCast™ machines, comes out with 4 distributors for the hydraulic movement of the molds. This allows the use of special molds with complicated hydraulic openings.

FAST CONNECTIONS TO THE CONTROL PANEL

All control panels are connected to the machine through HARTING connectors. Fast maintenance thanks to quick removal of the control cabinet.

"QUICK COUPLING SYSTEM" BETWEEN MACHINE AND MOLDS

Quick-change mold with the "quick coupling system" (Max 15-20 min) avoids the use of tools and, mostly, the undesired loss of oil on the floor.

FAST AND EASY FRONT WHEELS ADJUSTMENT

Adjustable front wheels, simply by hydraulic board lever.
The adjustment is provided by the main electric hydraulic pump, no more manual operation required.
Micrometrical adjustments can be done easily thanks to an adjustable flow hydraulic valve.
(Starting from machine VC 200 N).

COMPLETE SET OF SPARE PARTS AND TOOLS BOX

Supplied with all machines, is provided a kit of parts and tools box with a dedicated tools, for all regular maintenance needed.

Transportation

The VibroCast™ machines can be carry on truck as special transport without escort (max width mt. 3,0) or inside the container disassembled for long marithime transportation.

Graphic&Print

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