Sistema Atlantis

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Disposable formworks for the creation and renovation of swimming pools

daliform GROUP

Building Innovation © Creatori dell'Iglù®

LEGEND:

Water, swimming pools.

Utility passage

Certifications

Energy savings

Recycled material

SWITCHBOARD

Telephone	Fax
+39 0422 2083	+39 0422 800234

FOREIGN COMMERCIAL SECRETARY OFFICE

Telephone	Fax	e-mail
0422 208311	0422 800234	export@daliform.com

TECHNICAL SECRETARY OFFICE

Telephone	Fax	e-mail
0422 208350	0422 800234	tecnico@daliform.com

variable height from 56 cm to 300 cm

Sistema Atlantis

The Atlantis system has proven particularly effective for the construction and renovation of swimming pools of all shapes and sizes thanks to its flexible, fast and cheap use.

For some time, we have witnessed a growing expansion of facilities for the care and well-being of the person, spas, and water parks, where pools have a fundamental role.
Architectural, as well as functional and safety requirements, bring the necessity of pools of highly complex geometries, with frequent changes of shape and depth.
Optimal sizing is also very important for proper energy management related to water heating. The bottom of the existing structures must sometimes be raised in order to reduce the volume of the water.
Due to its affordability and versatility, the Atlantis system is particularly suitable, because it manages to meet the needs of the most complex projects with ease.

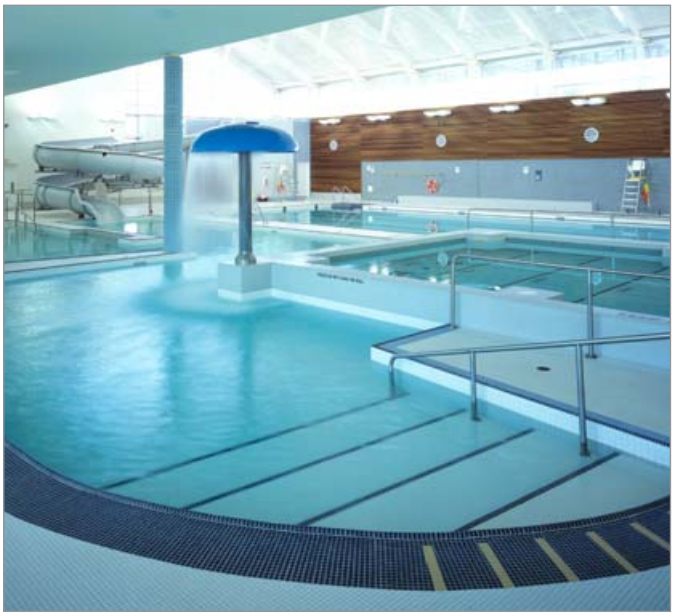
Advantages

- Ease of positioning as it is light-weight and simple to install through the linking of the elements, with time savings of up to 80%.
- Minimum use of concrete for level filling thanks to the lowered dome form, which permits maximum resistance with minimum slab thickness.
- Possibility, due to the pipe system, to have any height up to 3 m supplied to the yard.
- Possibility to bear loads of considerable size by providing the pillars with suitable reinforcement.
- Adaptable to non-standard spaces as the modules can be cut without underpinning.
- Simple material management in the yard, as it is not bulky and can be exposed to bad weather.
- Simple adaptation to various perimeters.
- Quick and immediate cutting and shaping of the modules.
- Passage of the underground systems in every direction.
- Levelling of the height.

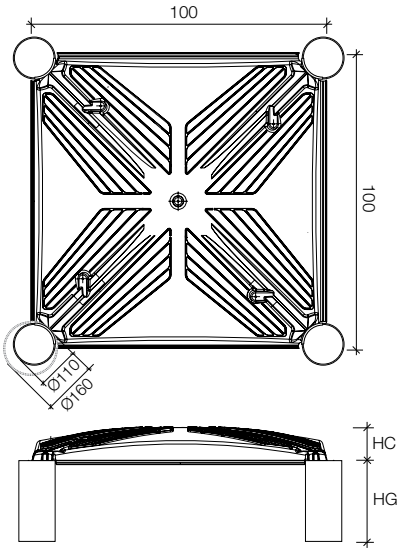
Applications

Atlantis is the ideal solution for the **renovation of swimming pools,** whether public, private, in resorts and spas, or also for the construction of a new swimming pool inside the existing one.
Faced with the need for a **renovation of the pool**, whether for cosmetic or functional reasons, **Atlantis is the ideal system for creating multi-level or inclined surfaces** where the available thickness allows for it.

Thanks to the customizable elevator pipes, it allows the creation of **inclined surfaces up to a maximum height of 300 cm**. The possibility to adjust the height of the elevator tube within a centimetre also makes it possible to **easily create slopes** in structures that have a finished bottom and surface with different inclinations, with a **considerable saving in terms of time and costs of intervention**. The system can also be used for terracing.



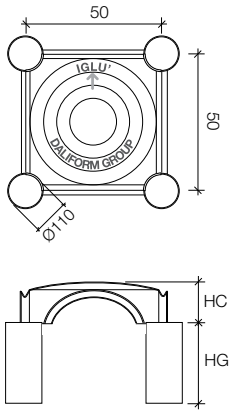
Atlantis System range



Sistema Atlantis 100%


	H cm. ▸	from H 56 to H 80	from H 81 to H 110
Working dimensions bxb	cm	100 x 100	100 x 100
Dome height HC	h cm	12	12
Leg height HG	h cm	from 44 to 68	from 69 to 98
Pipe diameter Ø	mm	110	110
Quantity of concrete to the crown	m^3/m^2	from 0,038 to 0,040	from 0,040 to 0,043
Pipe diameter Ø	mm	160	160
Quantity of concrete to the crown	m^3/m^2	from 0,043 to 0,047	from 0,047 to 0,053
Pallet dimensions*	axbxh	110 x 110 x 250 h	110 x 110 x 250 h
	Weight kg.	740	740
	Units	70	70
	Sqm	70	70

*Data refer only to the cover.
The product does not fear the bad weather and it can be stored outside.



Sistema Atlantis


	H cm. ▸	from H 56 to H 80	from H 81 to H 110
Working dimensions bxb	cm	50 x 50	50 x 50
Dome height HC	h cm	16	16
Leg height HG	h cm	from 40 to 64	from 65 to 94
Pipe diameter Ø	mm	110	110
Quantity of concrete to the crown	m^3/m^2	from 0,048 to 0,056	from 0,056 to 0,068
Pallet dimensions*	axbxc	110 x 110 x 250 h	110 x 110 x 250 h
	Weight kg.	510	510
	Units	300	300
	Sqm	75	75

*Data refer only to the cover.
The product does not fear the bad weather and it can be stored outside.

Example table of distributed load with Atlantis 100x100 cm - pipe Ø11cm h. 90 cm - slab h 10 cm

Type of road load	Overload	Hood thickness	Slat thickness Rck30	Scree thickness	Pressure on the ground	Welded mesh	
	Kg/m²	cm	cm	cm	Kg/cm²	mm	mesh cm.
Example 1	2500	10	15	30	0,42	double Ø 8	20 x 20
Example 2	5000	16	20	35	0,86	double Ø 8	20 x 20

The table expresses, starting from the various examples of overload and of thickness (to be given to the slab), the pressures that would be applied to the feet of the structure, in relation to the (eventual) thicknesses of the lean concrete.






from H 111 to H 140	from H 141 to H 170	from H 171 to H 200	from H 201 to H 230	from H 231 to H 260	from H 261 to H 300
100 x 100	100 x 100	100 x 100	100 x 100	100 x 100	100 x 100
12	12	12	12	12	12
from 99 to 128	from 129 to 158	from 159 to 188	from 189 to 218	from 219 to 248	from 249 to 288
110	110	110	110	110	110
from 0,043 to 0,046	from 0,046 to 0,049	from 0,049 to 0,051	from 0,051 to 0,054	from 0,054 to 0,057	from 0,057 to 0,060
160	160	160	160	160	160
from 0,053 to 0,059	from 0,059 to 0,065	from 0,065 to 0,070	from 0,070 to 0,076	from 0,076 to 0,082	from 0,082 to 0,088
110 x 110 x 250 h	110 x 110 x 250 h	110x110x250	110x110x250	110x110x250	110x110x250
740	740	740	740	740	740
70	70	70	70	70	70
70	70	70	70	70	70






from H 111 to H 140	from H 141 to H 170	from H 171 to H 200	from H 201 to H 230	from H 231 to H 260	from H 261 to H 300
50 x 50	50 x 50	50 x 50	50 x 50	50 x 50	50 x 50
16	16	16	16	16	16
from 95 to 124	from 125 to 154	from 155 to 184	from 185 to 214	from 215 to 244	from 245 to 284
110	110	110	110	110	110
from 0,068 to 0,080	from 0,080 to 0,089	from 0,089 to 0,100	from 0,100 to 0,111	from 0,111 to 0,122	from 0,122 to 0,136
110 x 110 x 250 h	110 x 110 x 250 h	110x110x250	110x110x250	110x110x250	110x110x250
510	510	510	510	510	510
300	300	300	300	300	300
75	75	75	75	75	75

Certifications

- Technical Construction Certificate issued by the Technical and Test Institute for Constructions Prague (Czech Republic).
- Technical Construction Certificate issued by the Agency for Quality Control and Innovation in Building (Hungary).
- Hygienic Certificate issued by the National Institute of Hygiene (Poland)
- Acoustic check for the verification of DIN standards, Avis Technique issued by the French institute CSTB.
- Series of loading and breaking tests certified by the University of Padua.
- Member of the Green Building Council Italia
- Company Certified according to International Standards UNI EN ISO 9001 (Quality), UNI EN ISO 14001 (Environment) and SA 8000 (Social responsibility).
- Certification of Conformity to the Environmental Compatibility Criteria *(CCA).*

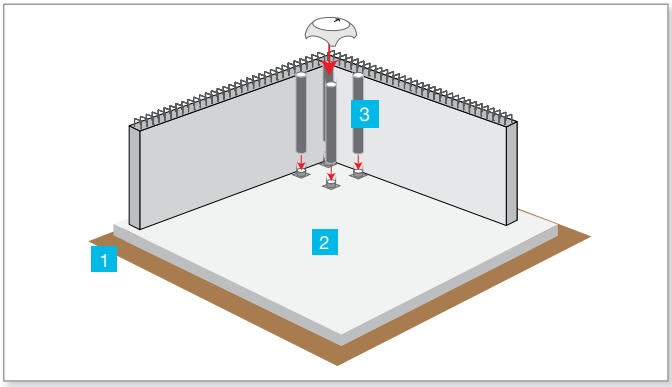
Installation method (Images and schemes referred to atlantis 50x50 cm with pipe having diameter 11 cm)

The Atlantis System is made up of three basic elements in its standard configuration: Atlantis **formwork** h 16 cm *(A)*, **pipe** *(B)* diameter 110 mm (external and of a variable height, slip-on **pipe base** *(C)* with an enlarged support surface.
In order to plug the formworks laid against the wall, it is suggested to use the panel accessory made of polystyrene.
The **Atlantis** formworks are simple to install: the procedure consists of inserting the pipe into the slip-on base and then linking the **Atlantis** formwork to the far end of the pipe using the bayonet coupling. Each piece can be hooked to the adjacent piece thanks to the shaped grooves for the **male/female** linking. For this, simply position them in horizontal rows from the left to the right, with the **arrow on the top** turned outward from the operator, proceeding to the end of each row.
Thanks to the modularity and lightness of Atlantis, each operator will be able to position up to 30 m^2 per hour standing comfortably in an erect position.

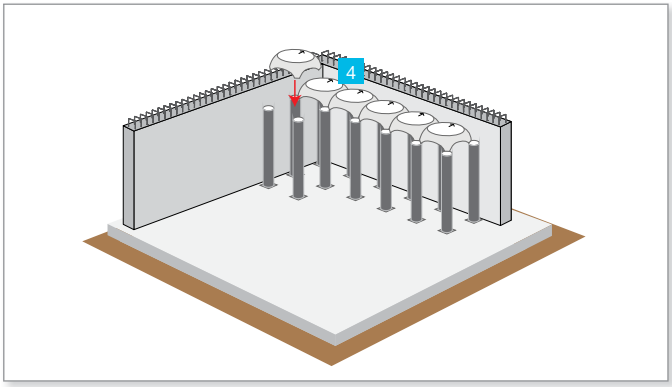



Details of the complete Atlantis System positioning sequence.

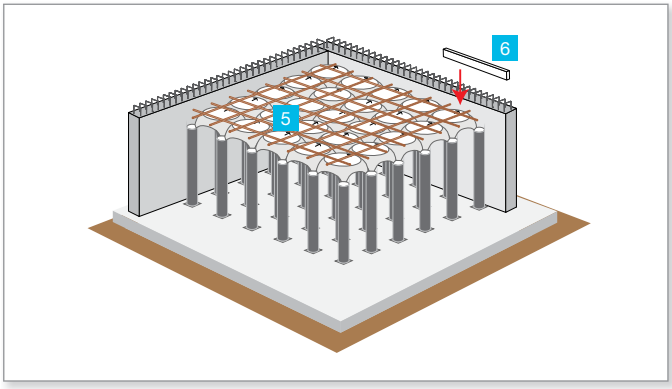
Method for creating under-floor cavities



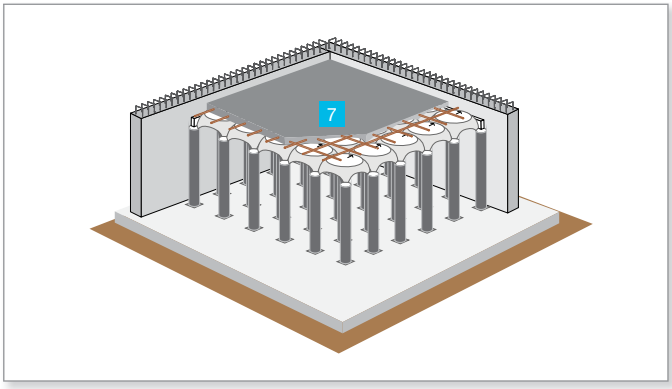
1 Preparation of the natural ground.
2 Preparation of the lean concrete foundation, to be sized **according to the loads and capacity of the ground.**
3 Pose of Atlantis system (foot+pipe+formwork)



5 Pose the elements from left to the right; once completed a row, proceed with next one.



5 Laying the welded mesh Ø 6 20x20 above the formworks.
6 Insert polystyrene panels, between wall and formwork, along the cavity perimeter.



7 Realization of concrete casting, filling previoulsy Atlantis pipes and then covering the formworks till reaching the quote of project.

⚠ To ensure a correct installation and perfectly created under-floor cavity please refer to the product's usage requirements.

Dry assembly method

fig. 1 - Dry positioning of the first formwork, the arrow is facing the foundation curb

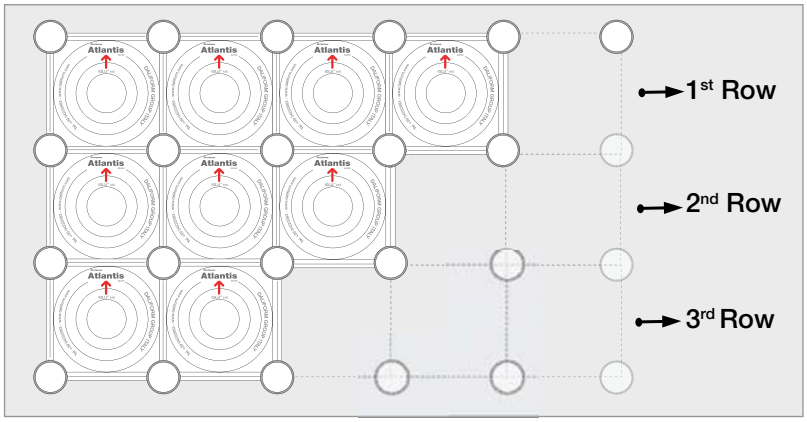


fig. 2 - Dry positioning sequence of the modules by row

1 Position the first element to the upper left with respect to the work surface, making sure that the arrow is pointing up; *(fig. 1)*

2 Unite the elements in sequence, by horizontal row, proceeding from the left towards the right and from the top downwards (following the direction normally used for writing), as shown graphically on the crown of each unit. *(fig. 2)*

Case study: renovation of a municipal swimming pool

In a municipal swimming pool the need arose to create a safe swimming environment for children. The existing pool was very deep, and this was the main problem to be solved.

Using the Atlantis system, the bottom of the pool was raised to create a smooth sloping floor. The space under the Atlantis formwork was used for utilities. The PVC pipes used in the Atlantis system was cut to size so that the new concrete floor could be level. The concrete cover had to have the same thickness. The framework was modelled to fit the curved sides of the pool.

This project demonstrates the flexibility and variety of use of the Atlantis system. The main advantage for the owner of the pool is that the Atlantis system stood as the most economical solution to renovate the pool.

Customer: Public institution
Swimming pool - Area: 800 m²
Capacity: concrete layer n/a
Thickness: 25 cm (10")
Material: Atlantis
State: Existing swimming pool
Installation of the system: Atlantis system 50x50 cm, pipe Ø11 cm

Specifications

Renovation of a swimming pool through the supply and installation of recycled plastic formwork **Atlantis by Daliform Group** consisting of modular formworks positioned for the rapid formation, dry, of a self-bearing pedestrian-accessible platform over which to perform the concreting of C25/30 to fill the formwork to the top (level) and of an upper slab of _____ cm reinforced with welded mesh Ø _____ cm of mesh 20 x 20 cm, levelled and smoothed with a plastering trowel.

The **Atlantis system** shall be composed of recycled plastic formwork such as **Iglù®** with convex cover with dimensions **50x50 cm**, h 16 cm and sustained by pipes Ø110 mm, di h _____ cm, complete with slip on bayonet connection feet, which can be walked on when dry, guaranteeing a **breaking resistance** of 150 kg in correspondence of the centre of the arch with an 8 x 8 cm clamp.

or

The **Atlantis 100% system** shall be composed of recycled plastic formwork such as **Iglù®** with convex cover with dimensions **100x100 cm**, h 12 cm and sustained by pipes Ø110 (or Ø160) mm, di h _____ cm, complete with slip on bayonet connection feet, which can be walked on when dry, guaranteeing a **breaking resistance** of 150 kg in correspondence of the centre of the arch with an 8 x 8 cm clamp.

Formworks in recycled plastic, such as **Iglù®**, for the formation of the **Atlantis system**, must not release polluting substances, have an **Environmental Compatibility Certification** and be produced by a Company Certified according to International Standards **UNI EN ISO 9001** (Quality), **UNI EN ISO 14001** (Environment); **BSI OHSAS 18001** (Safety) and **SA 8000** (Social responsibility).
The company that supplies the formworks such as **Iglù®**, for the formation of the **Atlantis system** , must also exhibit the product certificate approved by an **EOTA** *(European Organisation for Technical Approvals) member agency.*

Including accessories, waste, cutting and all other expenses: _____ /m² _____

Supply and installation cost grid

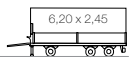
Example referred to the Atlantis system 100x100 cm with pipe Ø 11 cm

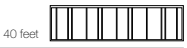
No.	Item	U.M.	Quantity	Unit price	Total
1	Supply of Atlantis formwork L 100 x L 100 x H 12 cm	m²	1		
2	Supply of Ø 110 mm pipe with basew	no.	4		
3	Dry positioning of the Atlantis system on the foundation	H/m²	0.05		
4	Supply and positioning of the welded mesh Ø 6/20x20 cm	Kg/m²	2.328		
5	Supply and casting of concrete C25/30 - formwork up to the crown	m³/m²	0.034		
6	Supply and casting of concrete C25/30 - filling of the pipes*	m³/m²			
7	Supply and casting of concrete C25/30 - thickness upper slab	m³/m²			
				Total cost €/m²	

* 0.036 m²/m³ per ml of pipe

Logistics - pallet capacity

MEANS OF TRANSPORT	NO. OF PALLETS
Tractor (8.20/9.60x2.45)	14/16
Trailer (6.20x2.45)	10
Tractor+ Trailer type “BIG” (8.40+7.20x2.45)	14 + 12
Semi-trailer (13.60x2.45)	24
20 feet container	10*
40 feet container	20*





* the m² per pallet can vary based on the type of container.

The information contained in this catalogue could be changed. Before placing an order, request a confirmation or updated information from the DALIFORM GROUP, which reserves the right to make changes at any moment without notice. In consideration of recycled material, it is specified that there are tolerance margins caused by environmental factors.

www.daliform.com

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Made in Italy

daliform GROUP
Building Innovation © Creatori dell'Iglù®

Tel. +39 0422 2083 - Fax +39 0422 800234
export@daliform.com - www.daliform.com
Via Serenissima, 30 - 31040
Gorgo al Monticano (TV) - Italy

Certified Management System
ISO 14001:2004 - ISO 9001:2008 - BS OHSAS 18001:2007

Partner of
GBC Italia

PRODOTTO CONFORME
ai criteri di
COMPATIBILITÀ AMBIENTALE
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