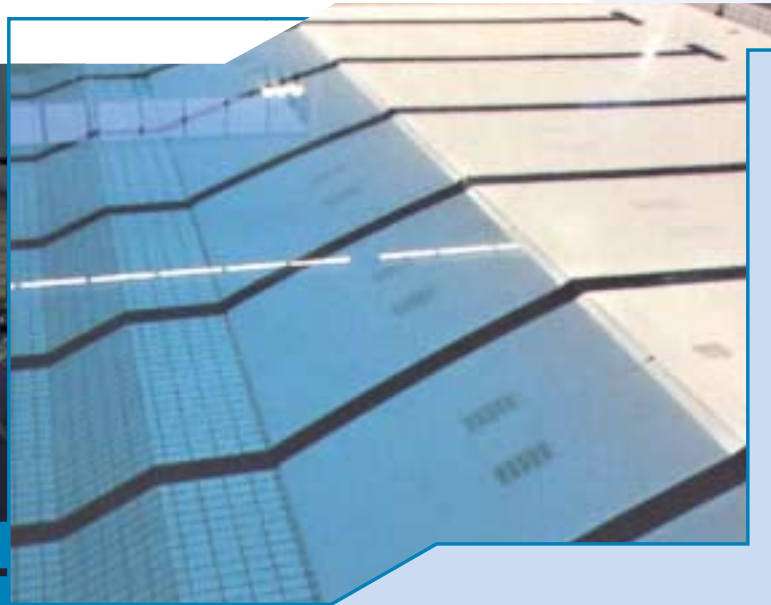


Variopool movable swimming pool floors and booms

Create the swimming pool you require



- Morning: Lane swimming, instruction swimming and elderly people
- Afternoon: Mother and children and leisure swimming
- Evening: Aquajogging, waterpolo training and diving instructions

Variopool is a specialized company dedicated to design, supply, installation and maintenance of *Variopool movable swimming pool floors and booms* in high performance, leisure and hydrotherapy pools for adjustment of waterdepth and pool dimensions.

VARIOPOL

THE REAL DEPTH INVESTMENT

The adaptability of a Variopool movable swimming pool floor

Waterdepth and pooldimensions are the main criteria which determine the possibilities a professional swimming pool accommodation may offer its users. A swimming pool accommodation where these criteria are fixed can therefore only be used by a limited number of users and a restricted number of activities. Moreover there is no possibility to anticipate for future changes in user preferences during the lifespan of the swimming pool accomodation.

A unique system that complies with the highest standards

In close cooperation with a team of professional experts and endusers, Variopool composed a list with specifications and conditions, based upon international standards, where movable floors and booms have to comply with. These specifications and conditions are the base for a unique system, known worldwide as the *Variopool system*. As times change and techniques renew, these specifications and conditions are always put central and subject to change, in the understanding that innovation is an ongoing process.



The swimmer as the starting point

Variopool offers a practical and financially attractive solution to this problem by taking all potential users and activities as the starting point. A *Variopool movable swimming pool floor* enables waterdepth adjustment at any required moment. Even a gradually sloping waterdepth is part of the standard adjustment range. A *Variopool movable swimming pool floor* adjusts a swimming pool accommodation with restrictions into a multifunctional pool, usable for all kinds of activities and all kind of users at any required moment throughout the day. It will be obvious that such an accommodation attracts severely more visitors resulting in a high revenue increase. And when the future shows a change in activities or user preferences, then it is clear that you have the solution in hand to adapt your swimming pool accommodation to the required depth and dimension.



Waterdepth at request

This statement explains exactly what can be expected from every *Variopool movable swimming pool floor*. Specific usergroups such as instruction swimmers, matchracing swimmers, waterpoloteams, divingcourse participants or aquarobicers with different programs in one pool are allowed to indicate their requirements for their specific activities with regard to waterdepth. Examples of different waterdepths for different usergroups are given in the next overview.

Usergroup	depth in metres	Usergroup	depth in metres
Instruction		Leisure	0.90 - 1.50
- babies	0.05 - 0.30	Disabled	0.60 - 1.40
- children	0.30 - 0.70	Waterpolo	1.80 - 2.00
- adults	0.50 - 1.50	Matchracing	1.10 - 2.00
Lane swimming	1.30 - 2.00	Aquarobics	0.70 - 1.10
Elderly people	0.60 - 1.40	Diving	3.50 - 5.00





Flexible dimensions and construction for purpose

Variopool movable floors and booms are designed and supplied in almost every dimension, for installation from hydrotherapy to olympic sized pools. When a swimming pool is only partially equipped with a movable floor, and no movable boom is included in the design, then the outer end of the movable floor is designed with a hinged flap to close off the area underneath the movable floor for the swimming public.

The *Variopool system* is completely built up from stainless steel and synthetic materials fully resistant to enduring submersion in swimming pool water. It is a buoyant construction which is adjusted to the desired depth by means of an hydraulic actuating system and stainless steel cables. This construction allows high loadings, offers maximum safety and is extremely hygienic.



Easy to operate, maximum safety and extremely hygienic

Easy operation

The *Variopool movable floor* is controlled by PLC technology and can be operated from platform level through a waterproof "touch screen" operating panel. This ensures extremely easy operation for adjustment to preselected depths. Access for dedicated pool staff members is simply restricted by using passwords before the system can be operated safely.



Maximum safety

Safety was and still is one of the main conditions during the design stadium. For this reason *Variopool movable floors* are provided with several safety features:

- When the movable floor only partially covers the poolarea, hinged flaps are connected to the outer end of the construction in order to prevent swimmers from entering the area underneath.
- The movable floorsurface and flaps are provided with an anti-slip profile in compliance with international standards as DIN 59017b and BS 7044.
- The gap between the movable floor and the poolwall is kept to a maximum of 8 mm as allowed by international standards.
- The actual waterdepth above the movable floor is shown continuously on electronic displays in the pool hall.
- When the waterdepth above the movable floor is adjusted to a level less then a preset value, one or more displays in the poolhall will show the text "no diving" automatically.
- The operating panel for water depth adjustment is only accessible for dedicated pool staff members who are in possession of the right password and proper user instructions. When the operating panel is switched off, waterdepth and no diving display remain continuously operating and visible for pool users.
- In case of a failure the movable floor will not sink away because of the buoyancies which are integrated in the construction. Undesired rising is prevented by the integrated safety valves in the hydraulic system.
- The main guarantee for safe operation is that *Variopool movable floors and booms* comply with international health- and safety regulations.

Extremely hygienic

Hygiene is a vital element in the design process of a *Variopool movable floor*. For this purpose the following features are included :

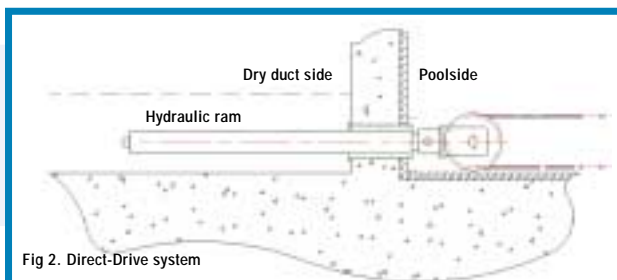
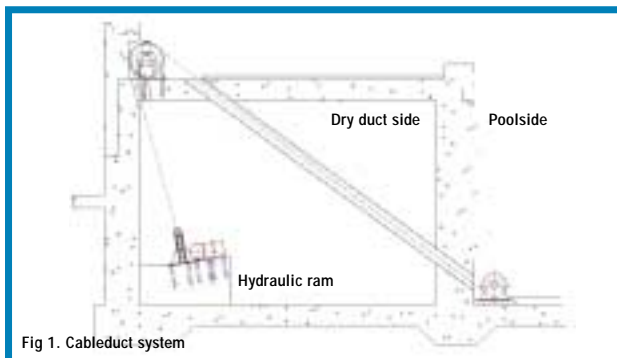
- Grilles in the surface secure undisturbed water circulation throughout the pool.
- The drive system is positioned outside the pool preventing poolwater getting contaminated with hydraulic oil.
- However *Variopool movable floors* are not sensitive to fouling, removal of debris from the area underneath the movable floor may appear necessary from time to time. In order to allow easy access, *Variopool movable floors* are equipped with large hatches or can be put in the special cleaning position allowing easy cleaning direct from platform level using regular cleaning equipment.

Actuating systems

Variopool offers two different types of actuating systems, each with its distinguished advantages :

Cableduct system This conventional system includes for one or more embedded cableducts to guide the stainless steel cables to above waterlevel from where they can be led to the actuating room. Typical advantage of the cable duct system is that the level of this actuating room is not restricted. (fig 1)

Direct-drive system This innovated system includes positioning of the rams directly and perpendicular to the poolwall. The stainless steel cables are directly connected with the ramplungers, so that embedded parts are not required and civil works are completely eliminated. (fig 2)



Floorsurface systems

Variopool movable floors can be supplied in 3 different options:

- Stainless steel mainframe covered with polypropylene panels; this is a very durable system and is designed following the latest technologies. The surface complies with international anti-slip standards and the chance for future osmosis is absolutely nil.
- Stainless steel mainframe covered with glass fibre reinforced polyester panels; construction is the same as above except that the surface panels are made from high quality iso-npg polyester resin.



- Completely self supporting construction manufactured from full glass fibre reinforced polyester fully according the design of *Variopool movable swimming pool floors* as formerly supplied by Polymarin. Especially applicable when floorpanels need exchange due to excess of the design lifespan, thus using the advantage that civil/mechanical foundations, actuating- and control systems can remain operable and minimum downtime is required.

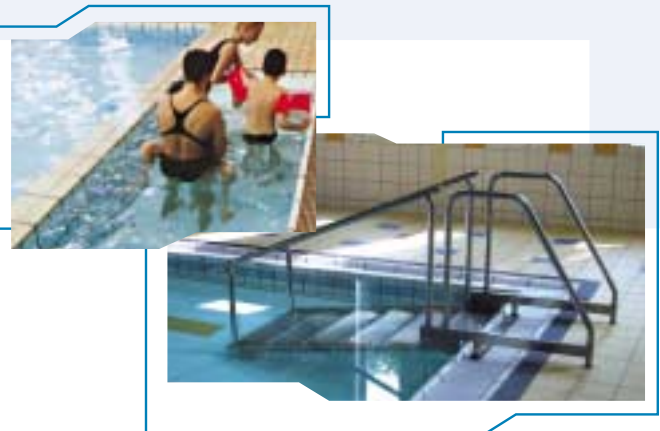
Long lifespan and low maintenance costs

Variopool movable floors have a proven lifespan of more than 20 years. Maintenance is simple because the complete actuating and control system is located outside the pool. The installation itself does not require much more than a yearly inspection on safety and eventual replacement of small wear and tear items such as steelcables, pulleysheaves and seals.

A unique and favourable advantage of every *Variopool movable floor* is that for such periodical inspection, maintenance or repairwork, draining of the pool is not necessary. All these activities can be carried out easily when the pool remains filled with as result that visitors are able to use the pool directly after the *Variopool Service Engineer* has left the pool. The *Variopool system* reduces downtime for maintenance to an absolute minimum and does not leave visitors unsatisfied.

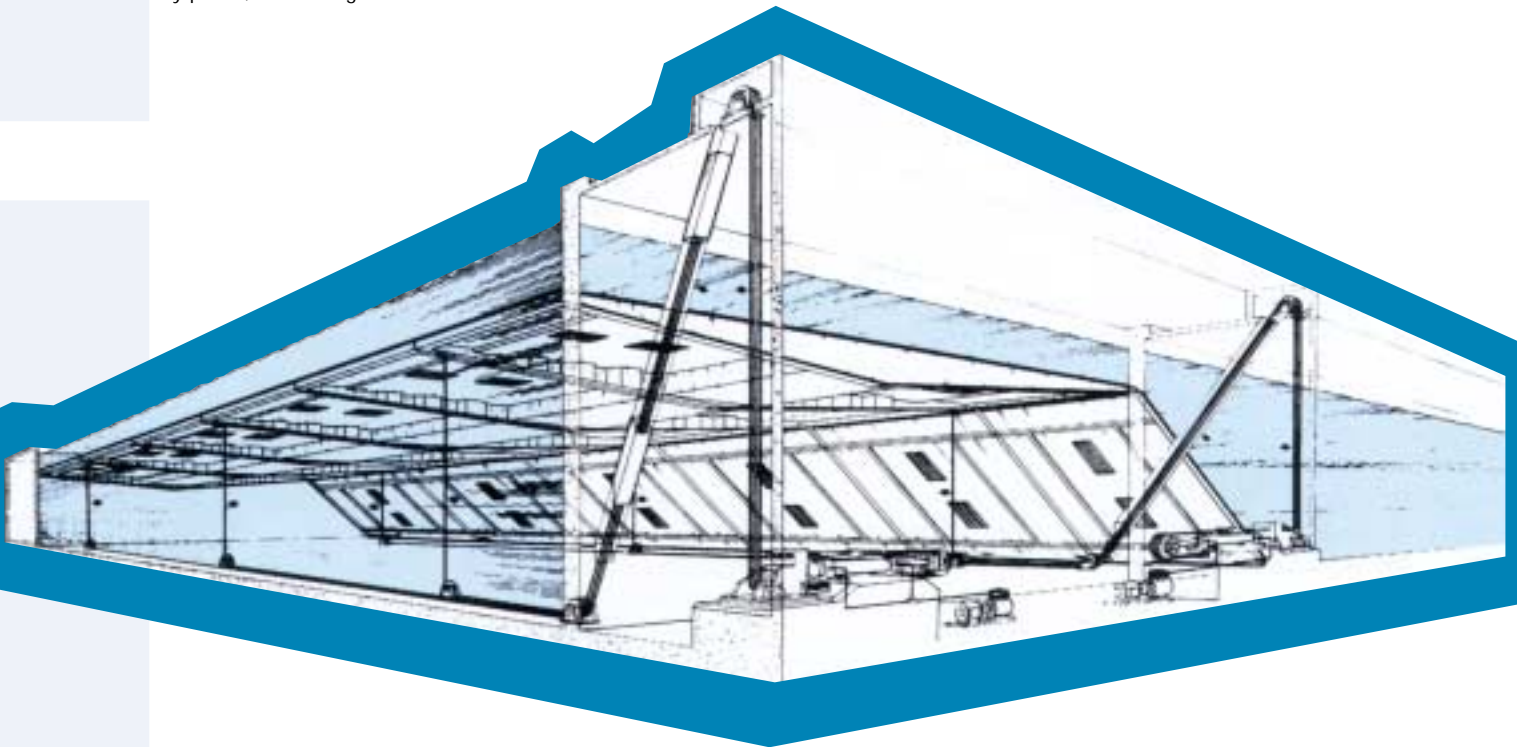
Suitable for hydrotherapy pools

Variopool movable floors are especially designed for use in hydrotherapy pools where many small groups of users require frequent adaption of the waterdepth. And provided the availability of supporters, the movable floor can also be used as an elevating instrument allowing users proper and easy access to the pool for disabled people. For enhanced ease of pool entrance these movable floors can be equipped with additional or integrated stairs or rampsystems. Gradual depth adjustment starting from platform level and the positioning of handrails make the *Variopool movable floor* extremely suitable for every kind of hydrotherapy.



Quality as a standard

Variopool is used to work for employers with the highest possible demands with regard to quality. The guarantee for a product that complies with all design standards is that Variopool operates according to the ISO-9000 quality control system. However, even more important is the close cooperation with the employer, since Variopool regards this as the pivot element to supply a superior product. It is not incidental that Variopool has an extended reference list including many well known national- and international professional swimming accommodations. Problemanalyses, planning, monitoring, costcontrol and adaption to your ideas and requirements when needed. Quality as standard in every phase, from design to aftersales.



Contact Variopool directly or through its agents, and find out more about possibilities and proposals for your pool!



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Variopool is the direct continuation of Polymar in *Variopool movable floors and booms* from Polymar in, formerly the trendsetting company manufacturer on this particular field of interest. Over 30 years of experience, ongoing specialization and innovation in the area of professional swimming pools in general and movable floors and booms in particular, have lead to the separating towards a fully specialized company with the name Variopool. The choice to continue under the name Variopool is as naturally as logical, since movable floors and booms are well known worldwide under the name Variopool for many years.

Variopool submersible and traversale swimming pool booms.

When programming different activities for different users in one and the same pool simultaneously, Variopool may provide the optimal solution by temporary limiting these swimming areas by means of a *Variopool movable boom*. Different activities take place undisturbed now while using the swimming pool accommodation at maximum level thus generating the highest possible revenues.

Variopool movable booms may be supplied in two primary configurations either allowing the boom to move in horizontal or in vertical direction whatever fits the purpose of the swimming pool accommodation. Both configurations have their own distinguished advantages for flexibility but have in common that its keen design is based upon smooth, safe and easy operation and minimal turn around time.

Variopool submersible booms

Variopool submersible booms are designed to move vertically inside the pool basin creating partition of the pool at one fixed position. The system is easily operated from platform level by one staff member only pushing the up or down button at the control panel. The movement of the boom itself is effected by an hydraulic actuating system of the same type as used for actuating movable floor systems.



Variopool traversale booms

Variopool traversal booms are designed to move horizontally inside the pool basin creating partition of the pool at almost every required position. Due to keen solutions to clear design criteria in terms of speed and turn around time, *Variopool traversal booms* excel in ease of movement which can be experienced today in many well known high performance swimming accommodations.



Variopool booms have many options for usage in high performance swimming pool accommodations including: anchoring of starter blocks, inserting balustrades, connecting time registration systems, attaching match racing lines or including foot ledges. Every piece of Variopool equipment is carefully designed based upon safety and easy operation. In order to prevent the construction from staining especially at static water level, *Variopool booms* offer the highest degree of mirror polished stainless steel. Moreover this special feature often contributes much to the interior attractiveness of the swimming pool accommodation.

Operating systems of movable floors and booms are interlocked by several safety features preventing swimmers from entering the pool or the use of air bubble systems when the positions of floors and booms do not comply with preset conditions.



According to the latest international standards *Variopool movable boom designs* are based upon partition of the different swimming areas to the full depth range in order to prevent swimmers from moving underneath the equipment.

Especially for application in high performance swimming pools the required strength and stiffness of the boom is adjusted to the loadings from racing lines and swimmers turning alongside the boom. Maximum horizontal and vertical deflection under these specific loadings is related to strict tolerances as given by FINA and are therefore incorporated in the structural design by thorough calculations.