

UNDERWATER WINDOWS// COMPANY PROFILE



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UNDERWATER WINDOWS®

A COMPANY IN CONSTANT EVOLUTION

Underwater Windows® is a privately owned company established in 2010 by Mark Hoentjen. Underwater Windows® is an innovative company with 10 years of experience in editing and installing high quality underwater windows for your pool, zoo's or other applications involving "underwater windows".

The motto of the company is to provide a unique window to meet the demands for the project and its customer. Our slogan is "Building the dream into your pool".

We have to our credit a long clientele list in various different window applications in numerous countries all over the world. Our associates are professional engineers and have a long experience and expertise in their respective fields. Our ability to deliver all services from our "own house" regarding an installation or delivery makes us unique. It has been a well known fact that the quality of environment in which people work and live decides their well being health and productivity. With the advancement of technology, the building concepts have no longer remained just a dead structure enveloping a space, but it represents almost a living organism with complex area relationship. The complexity involved in a optimally designed engineering system taking into consideration the unique purpose for which the building is built, keeping intact the architectural and interior culture and interdisciplinary coordination calls for a specialist who is well versed with the mechanical requirements of the building and has flexible approach towards evolving solutions to the problems in fine

coordination with the architect, structural and other consultants. It has no longer remained a secret that a well planned and designed approach right from the inception of the project can save a lot money and time for the owners. We are proud to meet the current needs of customers by providing well-integrated and coordinated consulting services for mechanical engineering.

We are being exposed to overseas assignments for a long time, the professional standards of our services are at par with that which one can find abroad. Many leading clients and architects have shown their trust in our abilities which is obvious from the enclosed long list of our clientele.

In addition, we have our own way of creating water resistant products. The client does not have to worry and can enjoy a completely, waterproof, product. Our products are equipped with their own brand name and are chlorine and salt resistant to normal levels. In addition, the products of Underwater Windows® are fully tested for underwater usage and don't affect the organic life large aquariums. Underwater Windows® has its own team of Dutch specialists who are working over the world and are fully certified in the field of placing and editing acrylic. We deliver standard windows up to a length of 7800 x 3000 mm, if the client desires a greater size then we can bond these, "invisible", in our workshop or on location to an endless length. This all makes Underwater Windows® so flexible for your needs.



A WELL-KNOWN FOREIGN STATEMENT IS "GOD CREATED THE EARTH, BUT THE DUTCH CREATED THE NETHERLANDS"



Plexiglas® underwater windows can be used in private swimming pools and in hotel or spa facilities, simply as a modern and original decorative element or to illuminate adjoining rooms, taking advantage of the natural light that filters through the underwater window. It can be installed in infinity pools, in public swimming pools, the windows can be used for watching or filming swimmers or other sports water. In zoos and aquariums they serve to reflect on the life of animals under water. It can also be manufactured for industrial use, such as for large water tanks, and in various architectural projects that get very impressive visual effects.

Underwater Windows® are made of Plexiglas® GS acrylic, that has undergone specific tests for underwater use and it has all the certificates that accredit it. It complies, a variety of certificate's that can be send on request. Plexiglas® windows are UV resistant and have a 30 year guarantee against yellowing.

This Plexiglas® has a very smooth, clear and bright surface. Its appearance and its resistance they are obtained thanks to a special slower manufacturing process, which guarantees their quality, under numerous ISO certificates. Other acrylics, with different composition and manufacturing process, are not as resistant against breakage or UV rays and very quickly begin to present small fissures and deteriorate. Plexiglas® GS acrylic can be manufactured in any size and color, it is also possible make curved models, with the same resistance. There is the possibility of making engravings on the Plexiglas® and also to illuminate it.

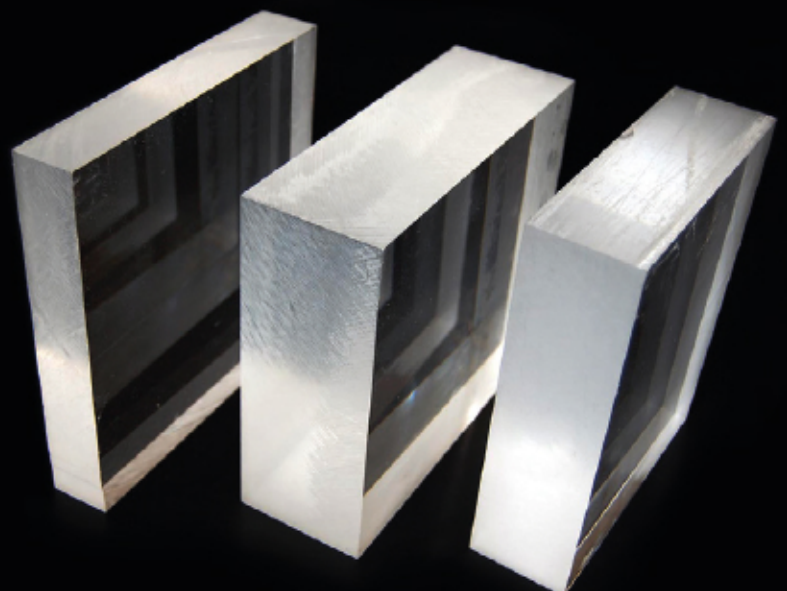
We look forward to participate and support you in your ventures.

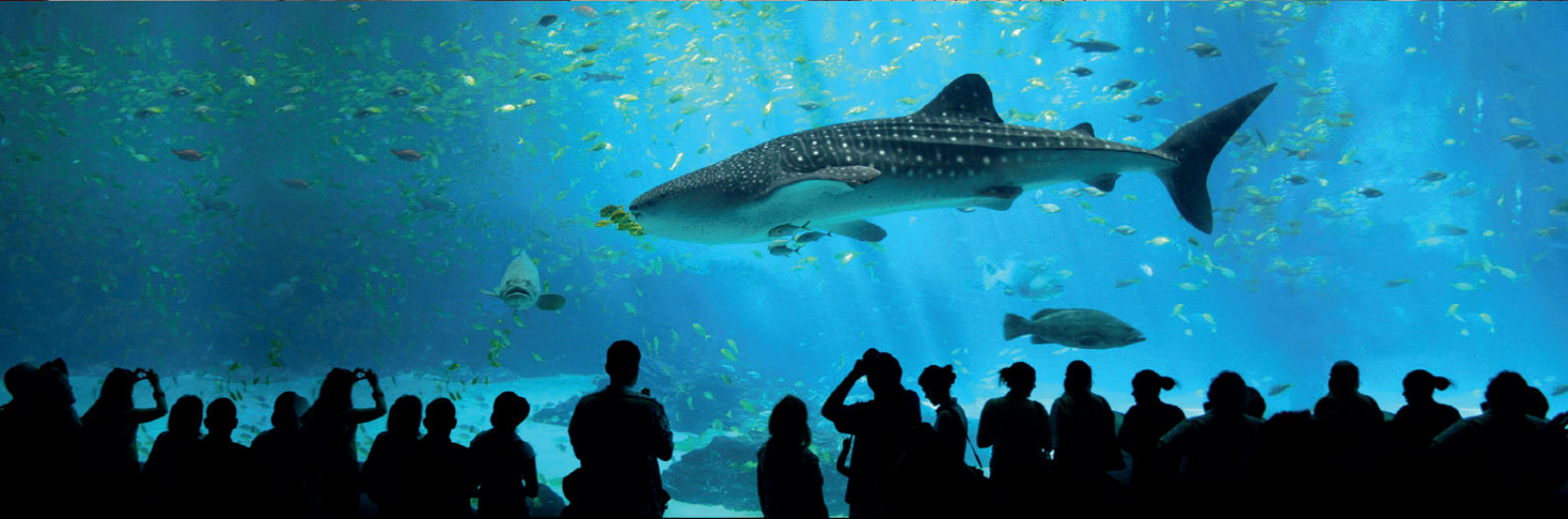
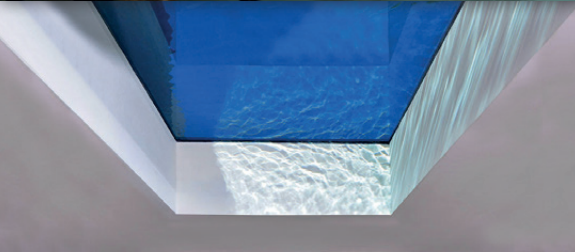
Michiel van Rijsingen & Mark Hoentjen



Our Unique 30 Years Warranty

We are the only company that offers a 30 years warranty on their Acrylic Windows.
(For more information contact us).





VERSIONS OF UNDERWATER WINDOWS®

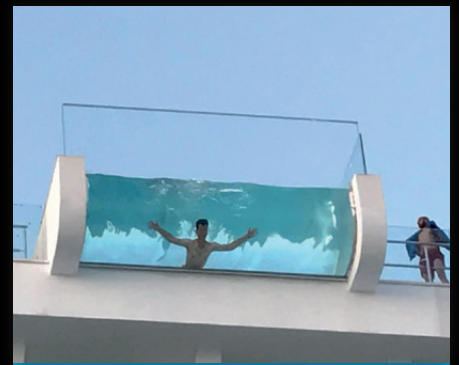
Plexiglas® GS acrylic is very versatile and this allows many different types of underwater windows to be manufactured, for adaption to each type of pool.
Some examples are:



OVERFLOW



FOUR SIDE



SPECIALS



OPEN TOP



CURVED OVERFLOW



BOTTOM

The design, as well as the price, must be calculated in each specific case since a previous study is necessary. They can be made to measure for any type of installation, both underwater / submerged as for a dry area. They can be completely straight or curved windows. They can be made in any color you want.

They are manufactured as standard up to a size of 3000 x 7800 mm. Its thickness ranges from 40 mm to 290 mm. This thickness is calculated carefully depending on where it is to be installed. If you want sizes larger than the standard dimensions you can perform, with pieces bond on site or previously at the factory.

PLEXIGLAS® GS HAS GREAT ADVANTAGES OVER GLASS:

- It is 25 times harder than glass but 63% lighter.
- It is more resistant and safe against impacts. Hardness H4.
- It is resistant to scratches and chemicals.
- It is a single block without lamination.
- Does not break / shatter
- Unlike glass, Plexiglas® absorbs and tolerates overpressures.
- It can be polished even under water.
- The thermal conductivity of acrylic is lower than laminated glass, so the insulation is better which results in; no condensation, less heat loss of pool water
- Optical transmission. Acrylic transmits more light than glass. Up to 92% of visible light is transmitted through acrylic. Mineral glass transmits 80-90%, depending on the type of glass and manufacturer. This is especially relevant, when comparing load bearing transparent materials with the same depth. These windows are usually several centimeters thick, which makes differences in the optical transmittance particularly noticeable. Bullet proof glass is a well known type of load-bearing glass and transmits, similarly to other types of mineral glass, a white- to green-type of light. This phenomenon is not observable with Acrylic.
- Scratch resistance. The surface of acrylic is softer and more easily scratched than mineral glass. It is advised to check the acrylic cleaning guidelines in order to prevent abrasive or chemical damage. It is easy to polish acrylic in order to remove blemishes. Scuffed mineral glass would on the other hand need to be completely replaced.
- UV Resistance. Using acrylic outdoors exposes the material to potentially high amounts of ultraviolet radiation (UV). It is a common misconception that UV rays lead to the yellowing of acrylic glazing. This might be true for low quality acrylic. Plexiglas is immune even against high UV radiation. Up to 30 years are guaranteed by the manufacturer. Safety glass consists of multiple layers of mineral glazing, separated by plastic laminate. Normal plastic laminates are not resistant against UV and are especially sensitive to humidity.
- Weight. Acrylic glass has a lower density, which can range from 1150-1190 kg/m³. This is less than half the density of glass which ranges from 2400 to 2800 kg/m³. Transportation and assembly of acrylic building materials is consequently easier and cheaper.

EXTRA SERVICES

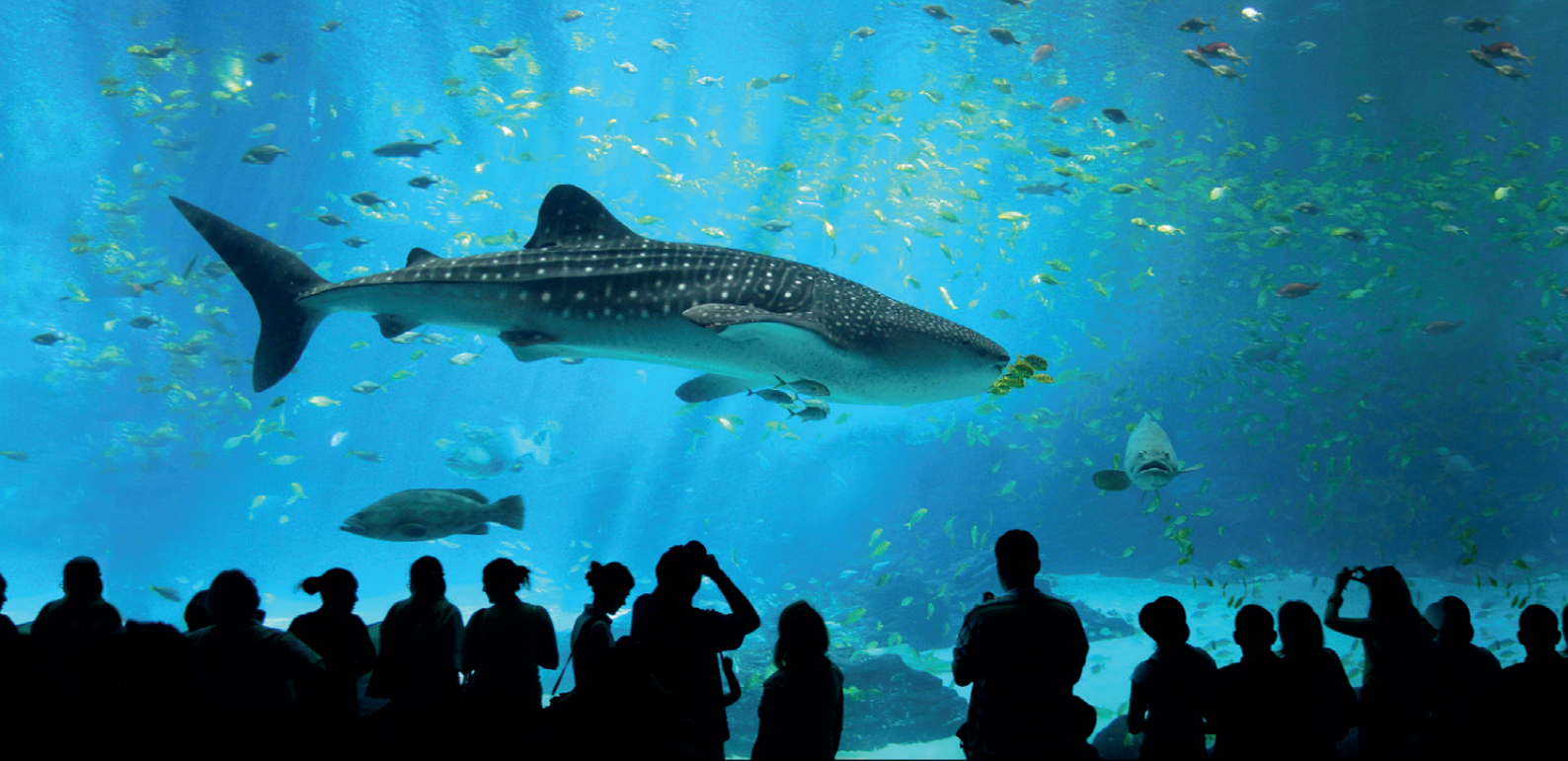
Underwater Windows® provides extra services to the client.

Our team consists of specialized professionals who know the field of acrylic and sealings.

Extra services that can be provided.

- Polishing windows
- Bonding acrylic products
- Bending of acrylate products
- Waterproofing of swimming pools through flexible 2k coating
- Detecting leaks in your pool using sonar
- Lasering/water jet acrylic products

All our products are tested for underwater applications in combination with our products.



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