

Al Kharafi pools (Desjoyaux System)

A) Structure: Patented active permanent casing

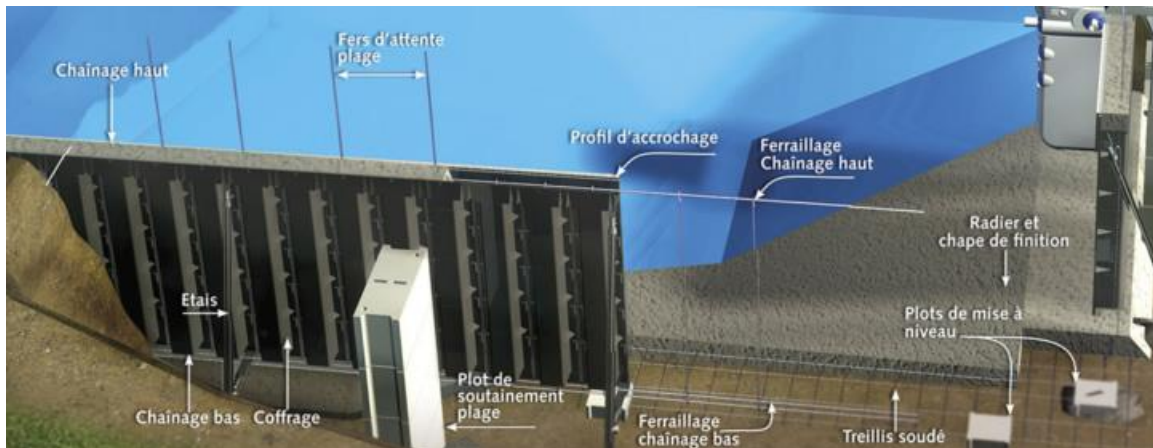
How can rapid construction be combined with enduring reliability and the freedom to create any shape of pool you like?

The Desjoyaux casing structure concept, known as the Active Permanent Casing, solves this conundrum.

The shape and size of your pool are determined by assembling a series of panels that form the structure's "active permanent casing" ... This exclusive process ensures that the pool is strong and long-lasting, while offering great creative freedom in terms of its design; the installation technique maximizes the pool's service life by casting a reinforced concrete bed-slab and by installing the reinforcement and casting the side-walls in a single operation. Your Desjoyaux pool is a rot-proof, self-supporting, mono bloc structure.

Our casing panels are manufactured using recycled polypropylene mixed with carbonate. In the final stage of recycling these materials, the panels are then buried to form a durable structure. Turning waste into a source of bathing pleasure is a dream come true with Desjoyaux pools.

Your pool comes with a 10-year warranty covering the product and installation work.



Benefits of the Desjoyaux casing structure

The polypropylene active permanent casing provides:
All the benefits of a reinforced concrete structure (safety, warranty cover, etc.) but none of the drawbacks (formwork and form stripping, and the need for internal and external coatings).
Our active casing features a series of posts, solving the expansion-related problems inherent to concrete designs.
The bed-slab and side-walls are cast in a single operation to form a monolithic structure, eliminating the risk of separation that would be unavoidable with a two-stage casting process.
An unlimited choice of shapes and sizes.
80% of the technical challenges are resolved at the factory, resulting in record-breaking construction times.
Additional benefits:
Industrially mature, patented exclusive technique
Exceptionally resistant to frost and ground movements
Rot-proof casing
Self-supporting structure
10 year warranty
The structure is delivered to the site according to the requested pool size and shape.
Manufacturing and installation processes certified by Bureau Veritas

B) Desjoyaux Compact filtration system

Looking for rapid installation, anti-leak reliability, effective filtration and water savings? You've guessed it – Desjoyaux's patented filtration concept has all the answers! Inspired by outboard boat engines, the exclusive Desjoyaux system has a completely pipe less design. This eliminates the need for long and costly buried pipe-laying work and reduces the risk of leaks. When installed, the unit can straddle the pool wall, be built into the structure, or be incorporated into stairs (depending on the options available). Desjoyaux's filtration unit concept features a submerged filtration compartment that also houses the spotlight, and a technical compartment, built into the pool deck.

Filtration is carried out via a skimmer. The water then passes through a filter with a screening size 6 to 15 microns, before being re-released into the pool through the discharge nozzles. This circulation system means that the entire volume of water in the pool can be filtered and also be treated with disinfecting products located in a prefilter. As a result, no waste water is drained off, making the filtration process more environmentally friendly, and the pool water is still crystal clear and free from leaves,

insects and other particles. The ingenuity of Desjoyaux's filtration concept also makes it an ideal solution for the renovation of any swimming pool. It is also available with a number of different comfort options, such as water heating, a blower, counter-current swimming, etc.

The Desjoyaux filtration system harnesses the gyratory flow principle, generating savings in two areas:

1. By eliminating the need for back-wash maintenance operations, the system saves water and avoids discharging treated water to the sewer. This approach economizes an estimated 200 liters of water per operation, compared with sand-based filtration.
2. The circulating pump consumes less electricity, due to the absence of pipes that would normally cause pressure head losses in the water circuit.

Benefits of Desjoyaux pipe less filtration

The pipe less filtration unit provides:
Faster filtration and outstanding water quality; the water is renewed in only two hours, compared with an average of six hours with a conventional system.
Very fine filtration (6 to 15 microns, compared with 8 microns for bottled mineral water), thanks to Desjoyaux's patented filtering bag.
Additional benefits:
Reduced risk of leaks
Quick to install
Proven effectiveness
Easy maintenance
Simple winterization procedure
Decreased head losses
Built-in spotlight
Low-maintenance design
Easy servicing
Corrosion-proof material
High filtration power
Fits all types of new and renovated pool
Filtering bag:
Patented by Desjoyaux
Vacuum-based models for the Desjoyaux filtration range;

6-,15- or 30-micron filter media

Benefits:

Easy to use and clean (either using a hose or by washing at 30°C in a washing machine).

Very tough, and inexpensive to maintain.

When salt is thrown on the opposite side of filtration the sensors measured the same level in 25 minutes (surface/red) and 35 minutes (hopper/blue).

Red: sensors on water surface level

Black: sensors in the middle level

Blue: sensors on the bottom of the pool

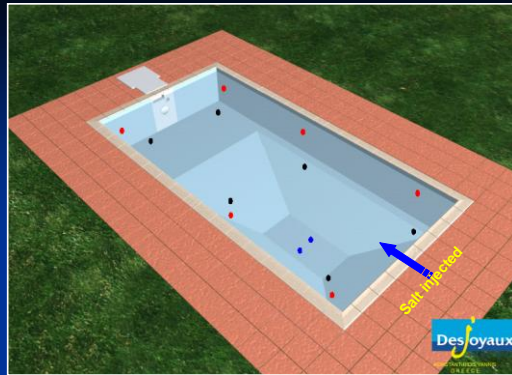


CHART 2: CONDUCTIVITY PER MINUTE
INJECTION #2: OPPOSITE SIDE OF FILTRATION

Time in minutes	Conductivity in uS/cm													
	point 1	point 2	point 3	point 4	point 5	point 6	point 7	point 8	point 9	point 10	point 11	point 12	point 13	point 14
0.25	403	409	402	500	404	408	402	401	401	403	401	407	399	400
4	475	445	467	499	467	465	461	460	466	468	466	476	502	400
8	458	447	462	470	468	470	457	459	459	468	462	472	454	461
12	459	451	461	464	465	468	457	459	459	465	460	470	455	460
20	459	451	461	463	465	463	457	459	459	465	459	465	458	459
25	459	455	459	463	464	461	457	459	459	459	459	459	459	459
35	459	455	459	459	463	460	458	459	459	459	459	459	459	459
60	459	455	459	459	460	459	459	459	459	459	459	459	459	459

A comparison test with traditional Filter was done afterwards:

- Pool 10m x 5m depth from 1.20 to 1.80 m
- 2 Skimmers
- 2 Inlets
- Water was homogeneous after 45 minutes at the bottom of the pool.

Conclusion

- Desjoyaux Filter is 30% faster than traditional Filter



C) Water Proofing & Finishing:

1) Inner walls & floor.

The interior walls and bottom of the pool are waterproof finished with 1.50mm thick Re- inforced PVC Liner Light Blue with the below properties.

*Re- inforced with Polyester Mesh and High Polymer Water Proofing Membrane.

*Rot- Proof, Non Toxic and Ultra Violet Resistant.

*Fungicides and Bactericides Treated.

*High expandability and contraction, thus prevents any leakage.

2) Coping Stone.

The edge of the pool walls are fixed with Desjoyaux Rectangular Tile and the corners with Desjoyaux Rectangular Corner Pieces having 0.25m width and 0.50 m length. These Copings are of High Quality Anti-Slip Artificial Stones.

The following pictures are showing the efficiency of the water proofing even in the worst cases.



... down to the sea



Desjoyaux
POOLS

Crack on the deck



... to the pool

Desjoyaux
POOLS

.. Pool still filled



Crack stopped by the pool

