



ShaanXi Fullvision Pool And Environment Technology Co., LTD.

Automatic Multi-media Filter System

Our latest diatomaceous earth filtration technology Make sure
your pool is cleaner and clearer



Create A Better Water World

Company Profile

FULLVISION Co., Ltd. was established in 2005 in China, specializing in two key areas: water treatment technology and pool engineering construction. Over the past two decades, we have grown to become a leading enterprise in China's high-precision pool filtration industry and have contributed to the development of industry standards for swimming pool filters.

As a company with independent intellectual property and patented technologies, we operate a modern manufacturing facility dedicated to the research and development of water treatment equipment. Every year, we provide nearly 100 clients with integrated water treatment solutions, including design, production, installation, and operational maintenance.

Our proprietary "GLS Multi-media Filter System," which uses diatomaceous earth or perlite as the filter medium, offers a filtration precision of 1 micron and achieves a water turbidity level of 0.5 FTU, delivering outstanding filtration performance. The system features fully automated operation and an online remote control system, requiring no on-site personnel, making it one of the most advanced water treatment technologies available today.



The 5th generation Multi-media filter



1th generation



2nd generation



3rd generation



4th generation





GLS Auto Multi-media filter system

Equipment Overview

The Automatic filtration system independently developed and produced by Fullvision. It is the fifth generation product of the Multi-media filter family, continuing Real-pool's high-precision filtration 1 micron level, 0.5NTU turbidity.

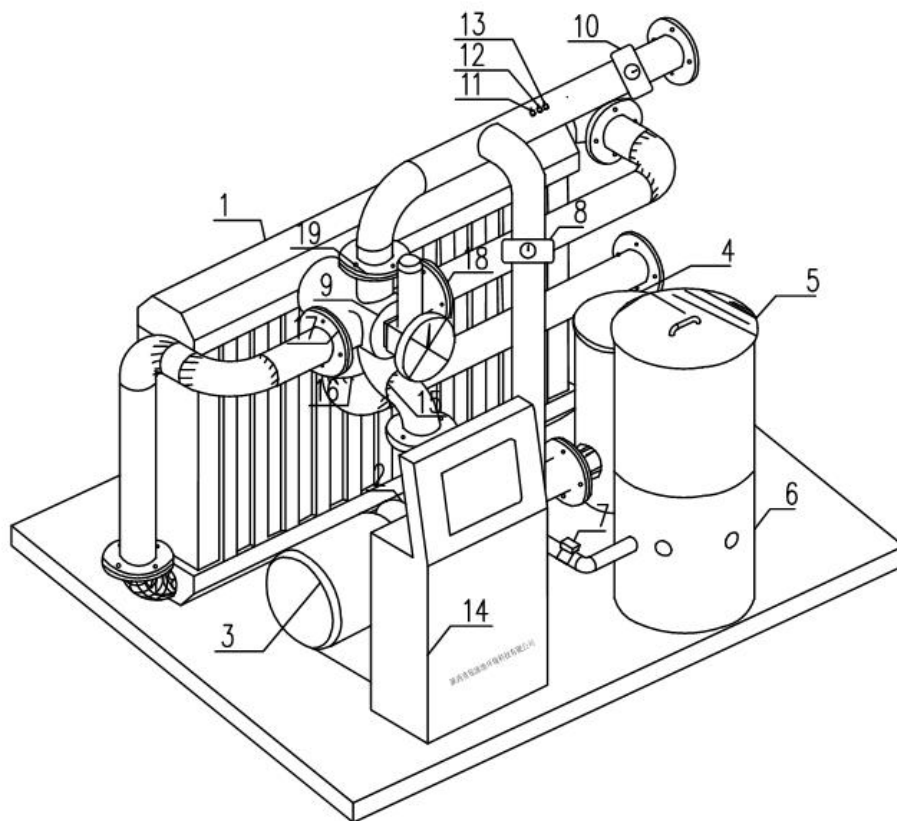
Upgraded the filtration module for market needs, with a larger effective filtration area and a longer service life, completely solving the problem filter element plate are facing. It is currently the most advanced swimming pool water treatment equipment in the world.

Filtration ability of 1 micron, capable of filtering out suspended solids, gelatinous bodies, Escherichia coli, algae, protozoa and insects in water.

- Turbidity 0.5NTU
- Backwash time is as short as 60 seconds, with low water consumption
- Only use disinfectants, the water quality is naturally transparent and clean
- Stable operation, simple operation, and easy maintenance
- Area needs one-third of the traditional sand system, low equipment height and light operating weight, suitable various swimming pools
- Install on various floors without the need for load and foundation reinforcement
- Using high-precision, high-strength, corrosion-resistant materials with a service life of over 20 years;
- Low operating costs, mainly reflected in saving water, electricity, drugs, and heating costs



Equipment decomposition



1. Stainless steel filter
2. Water pump
3. Motor
4. Hair collector
5. Filter media tank
6. Filter media mixer
7. Filter media valve
8. Automatic internal circulation valve
9. Automatic five way valve
10. Automatic water filter valve
11. Temperature sensor
12. PH sensor
13. ORP sensor
14. Automatic control cabinet
15. Five way valve filter inlet
16. Five way valve backwash outlet
17. Five way valve inlet & outlet before filtering
18. Five way valve inlet & outlet before filtering
19. Five way valve filtered outlet

After use filter medium recovery device

The filter medium recovery device achieves zero emissions through solid-liquid separation and brings you backwash water recycling. Filter media waste can also be used in industries such as agricultural planting, truly achieving energy conservation, environmental protection, and pollution-free.



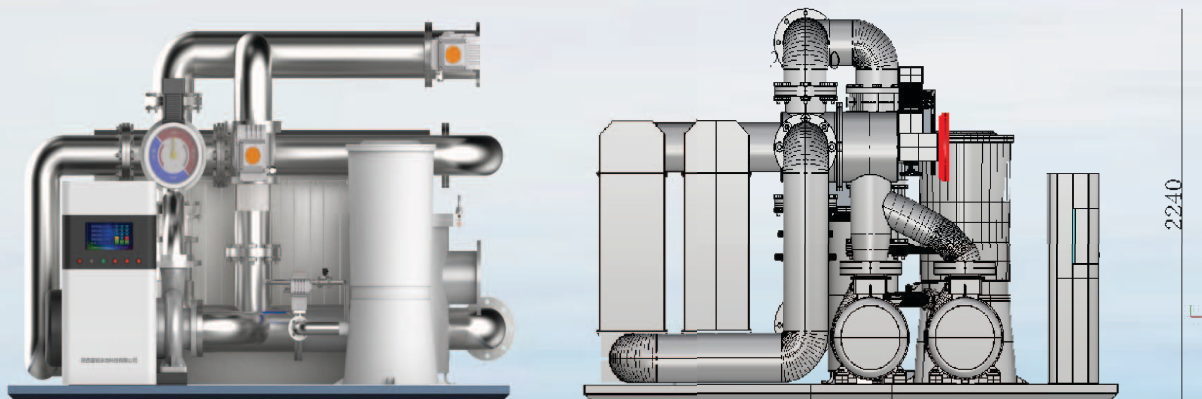
Main device composition

1. Stainless steel shell
2. Axial spiral conveying pump
3. Liquid level control device
4. Internal flushing device
5. Solid liquid separation device

GLS water treatment module machine room



GLS Auto Multi-media filter system





GLS water treatment module machine room							
Model	Water treatment capacity(m ³ /h)	Water pump efficiency	UV efficiency	heat exchange	Equipment specifications(mm)		
					L	W	H
GLS300-230AT	300	30KW (15KW*2)	6.1KW	700	3600	2000	1600
GLS400-240AT	400	37KW (18.5KW*2)	9.1KW	1000	3900	2100	1800
GLS500-250AT	500	45KW (22.5KW*2)	12.1KW	1200	4200	2300	2000
GLS600-260AT	600	60KW (30KW*2)	12.1KW	1400	4500	2600	2200

GLS Auto Multi-media filter system										
Model	Treatment capacity (m ³ /h)	Filter area (m ²)	Water pump efficiency(kw)	Equipment specifications(mm)			Pipe line (mm)	net weight (kg)	Operating weight(kg)	backwash time(s)
				L	W	H				
GLS15-201AT	15-10	1.5	1.5	1150	950	1200	50	250	290	30
GLS20-202AT	20-30	2	2.2	1200	900	1200	50	300	360	30
GLS30-203AT	30-40	3	3	1500	1300	1300	50	400	480	35
GLS40-204AT	40-55	4	5.5	1500	1300	1300	65	450	600	35
GLS60-206AT	60-75	6	7.5	1900	1310	1350	80	510	670	40
GLS80-208AT	80-95	8	9.2	2000	1400	1500	100	600	800	40
GLS100-210AT	110-115	10	11	2100	1400	1500	100	680	980	40
GLS150-215AT	150-165	15	15	2150	1850	1600	125	750	1160	45
GLS200-220AT	200-230	20	18.5	2400	2000	1700	150	860	1360	45
GLS300-230AT	300-330	30	30/(15*2)	2900	3100	2150	200	1350	2400	45
GLS400-240AT	400-450	40	37/(18.5*2)	2900	3300	2200	200	1600	3800	50
GLS500-250AT	500-550	50	45/(22*2)	3000	3400	2300	250	2300	4700	50
GLS600-260AT	600-650	60	55/(30*2)	3200	3600	2400	250	3400	6800	50

Comparison of usage effects



Before Filtration

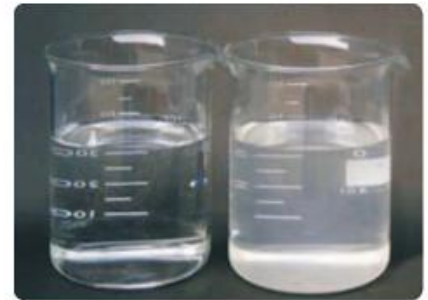


After Filtration

High precision filtering



raw water



GLS system sand system

GLS D.E. system VS Sand system (filter ability 100m³/h)

mode	Area		Filter effect		Backwash water consumption (ton/once)
	floor	space(m ²)	filter area(m ²)		
GLS filter	3	10	1~2	≤0.5	0.83
Sand filter	6	3.14	10~20	≤3	36.24

Filter media

Diatomaceous earth

Diatoms lived in ancient aquatic environments and over millions of years their accumulated remains formed deposits that were compressed into a chalky, white, or off-white powder known as diatomaceous earth. The primary component of diatomaceous earth is silica which is a mineral that has various industrial and agricultural uses. DE is characterized by its porous and abrasive nature, making it useful for a range of applications. Due to its fine particle size and high porosity, DE is commonly used as a filtering agent in water purification processes, swimming pool filters and other filtration systems.

Perlite

Perlite is made from soft aluminosilicate rock that expands rapidly when heated, as the water in its structure turns to steam. This expanded structure is then milled to the desired particle size distribution to make various grades of filter aid products. Perlite filter aids are very light in density, making them exceptional in their capacity to retain large quantities of suspended solids in a filter cake without blocking.

Usage

Using 0.2kg/m² as the standard, when the filtration capacity is 60 cubic meters per hour, the one-time usage amount is 0.2kgx6 square meters=1.2kg, and the usual usage frequency is once a day. Alternatively, 30kg of filter agent can be injected into a 100L auxiliary tank at once, which means that 30/1.2=25 days of continuous operation without supplementing diatomaceous earth

Diatomaceous earth



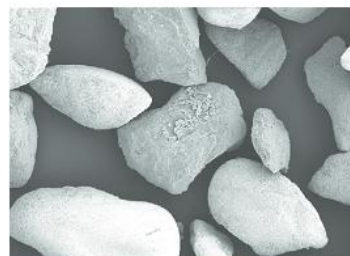
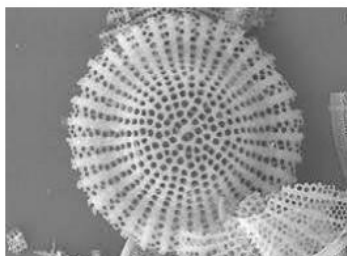
Perlite



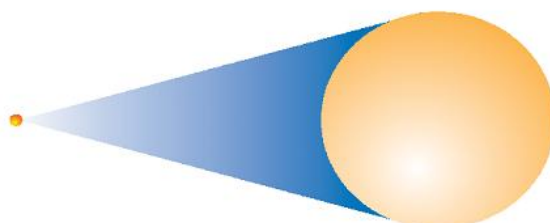
Quartz sand



Microscopic comparison of filter material particles



Comparison of particle size of filter media





Energy saving, efficient and environmental

Water-saving technologies

Through the independently developed high-efficiency backwashing technology, our backwashing time has been significantly reduced from minutes to seconds. And our anti Scaling structure, which greatly reduces the backwash water consumption of the GLS system, and the comprehensive water consumption is reduced by 80% compared to the traditional sand filtration system.

1. No chemical dilution for water replenishment
2. Reduce backwash time by 90%
3. Increase filtering accuracy by 5 times
4. 2 years without changing the water in the swimming pool



80%

Reduce water by 80%



30%

Reduce Electricity by 30%-50%

Electricity-saving technology

The GLS automatic filtration system is always in efficient operation, saving 30% to 50% of energy consumption compared to traditional sand filtration systems

1. The amount of water added for heating can be ignored
2. There is no invalid filtering
3. Completely omitting the ozone system
4. Can achieve unfiltered heating

Patent technology

Digital control

GLS system has the traditional bidirectional filtration technology, which effectively prevents the deposition of filter layers caused by unidirectional filtration through different filtration directions. Combined with an intelligent dosing system, Siemens intelligent control module and digital metering system, to add filter media according to your needs, saving you time and effort.

Automatic five way valve

GLS system adopts independent patented five way valve technology, which efficiently changes the the direction of water flow inside the filter without the need for shutdown, maximizing water treatment efficiency.

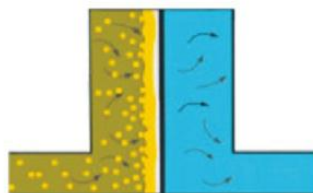
Filter

GLS filtration system features a specially coated 316L stainless steel built-in filtration module as the main filter body, combined with Bidirectional backwashing technology. It has the characteristics of high filtration efficiency, corrosion resistance, and no need for disassembly and cleaning throughout its entire life cycle.

Bidirectional filtering technology

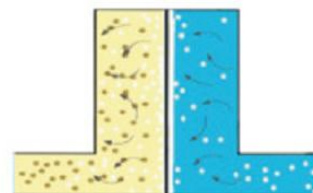
Filter process

Raw water passes through the filter medium from left to right, accumulating dirt on the filter medium and reducing the flow rate

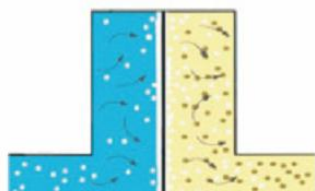


Backwashing process

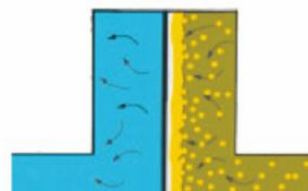
During the Backwashing process, wash away the accumulated material and filter media on the left side, and form a filter membrane on the right side



Backwashing process



Filter process





Intelligent operation, unmanned operation

Based on big data and artificial intelligence technology, GLS water treatment module machine room can adjust the filtering, heating, disinfection operation time and frequency, pump speed, effluent temperature and other parameters according to the performance curves of each component under different working conditions and the operation records of the swimming pool water quality parameter unit, with the principle of maintaining the highest energy efficiency operation of the system, to ensure that the water treatment station is always in the lowest energy consumption state.

The system has functions such as autonomous analysis, self diagnosis, automatic protection, automatic reset, automatic warning, automatic replenishment and drainage, and automatic power on/off, and can operate intelligently throughout its entire life cycle



System dynamic matching control

Realize dynamic matching operation of all moving parts, efficient and energy-saving



Automatic water replenishment/drainage control

Real time monitoring of water quantity and quality, achieving automatic replenishment and drainage



Online anti scaling control

Online monitoring of ion concentration in cooling water to ensure that the heat exchanger does not scale



Mobile APP monitoring

Through cloud control technology, achieve mobile app monitoring and parameter setting



Water outlet temperature control

Improve operational energy efficiency by manually switching units



Safety monitoring of the crew

monitoring of the operation status of the unit to ensure its safety and security

APP control does not require a person to be on duty

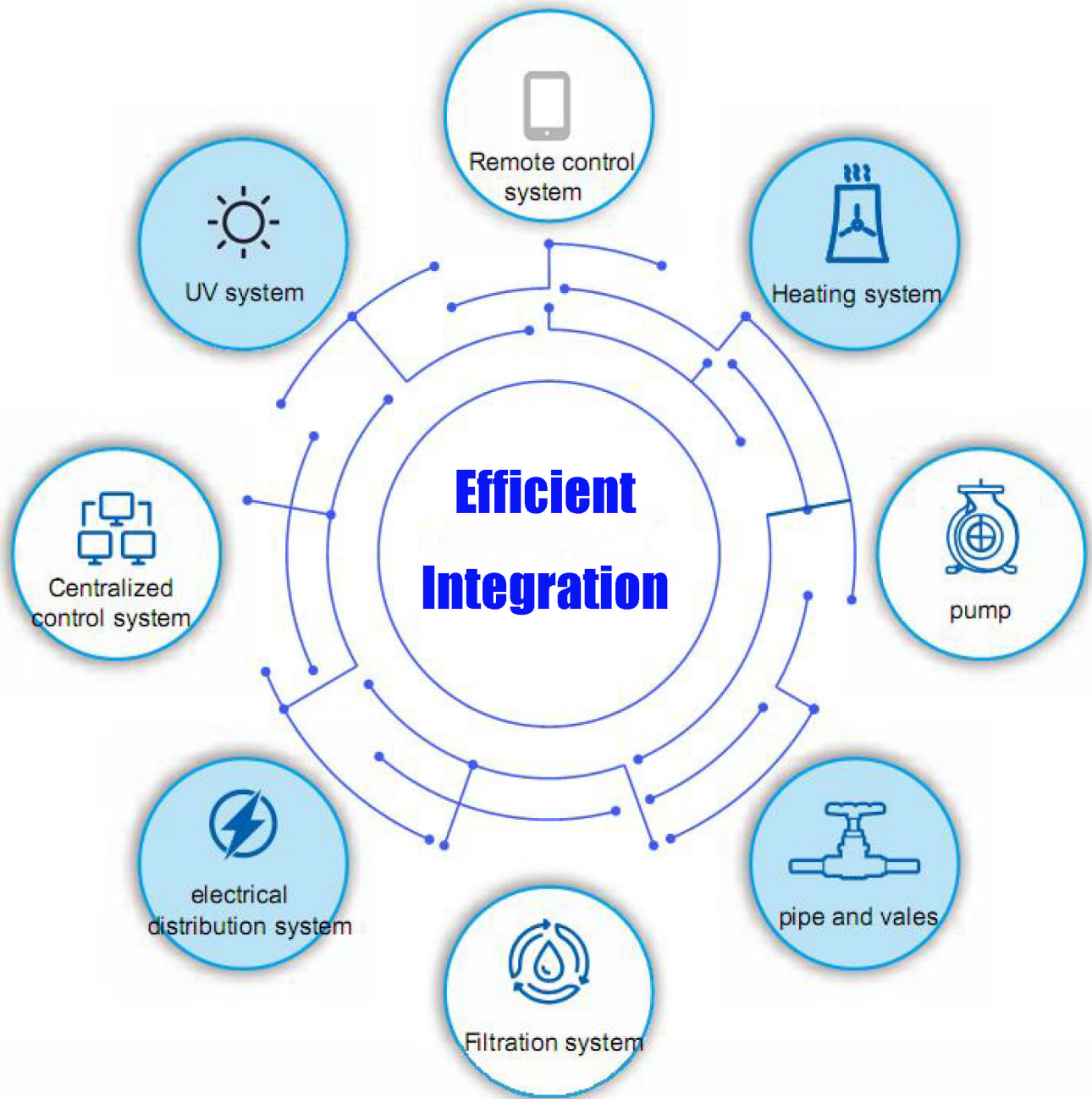
Highly intelligent centralized control technology and cloud control technology make the operation of the unit extremely simple, without the need to equip a special room manager. Users can use the APP to control or monitor the unit anytime and anywhere. It can also connect the unit to the building automatic control system through a variety of communication protocols, and remotely control the unit in the monitoring center, which greatly reduces the management cost.



App Control

The highly intelligent centralized control technology and cloud control technology make the operation of the unit extremely simple, without the need for specialized computer room management personnel. Users can use the APP to control or monitor the unit anytime and anywhere. Multiple communication protocols can also be used to connect the units to the building automation system, allowing for remote control of the units from the monitoring center, significantly reducing management costs.

Efficient integration, space saving



Sand filtration system: The sand tank filtration system has numerous supporting equipment, complex on-site construction, low level of intelligence, and high system energy consumption.

GLS Filter system: With concept of system solutions utilizes modern cutting-edge technology, draws on 19 years of independent research and development experience and wisdom, simplifies complexity, and transforms complex electromechanical engineering into intelligent electromechanical integrated products.

Saving space



Complex Pipe lines
&
Multiple water pumps

50~60%
Space saving

Just Filter system



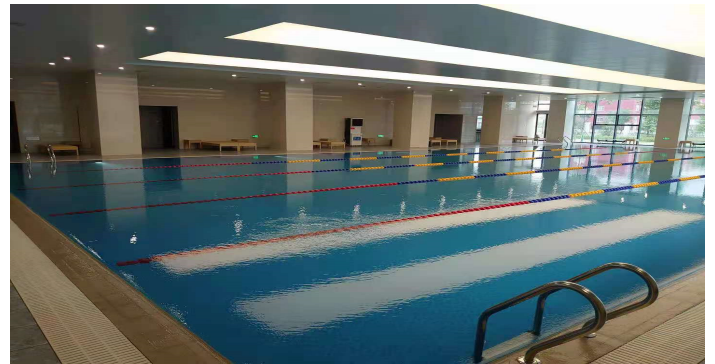


Cases

In past 20 years, Shaanxi FULLVISION Pool and Environmental Technology Co., Ltd. has produced over 300 impressive swimming pool filtration systems, and we are proud of these achievements. FULLVISION only provides filtration systems for swimming pools. Welcome to learn more.



Swimming pool of Xi 'an Physical Education Institute



Swimming pool of Baoji Municipal Party school



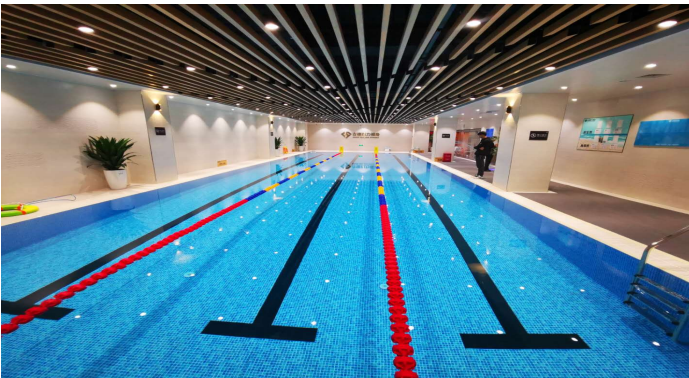
Infinity Pool at Sanya konin Hotel

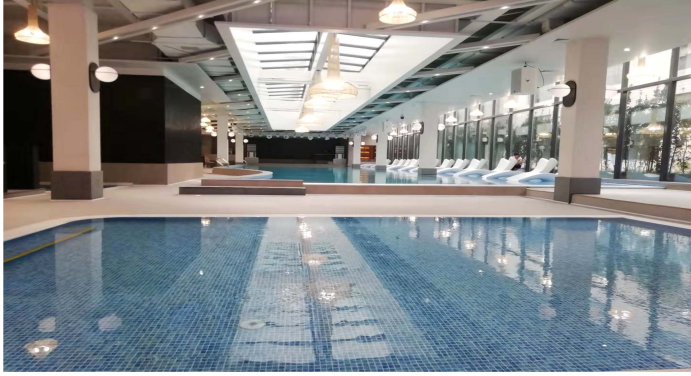




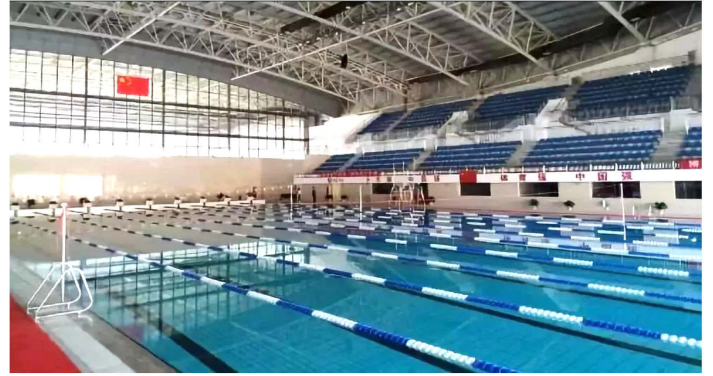
ULLVISION



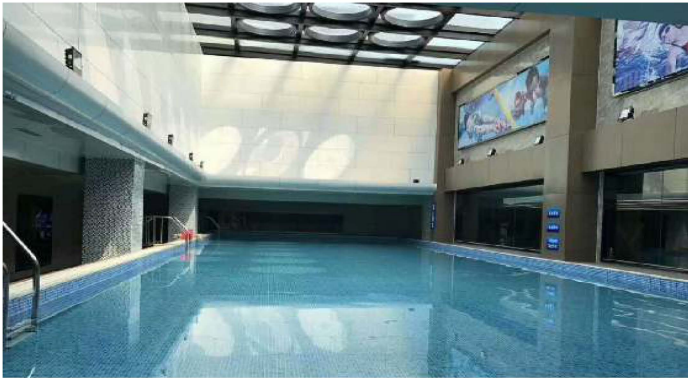




swimming pool of Yinchuan Hailiang Fitness Club



Swimming pool at Gian Sports Center



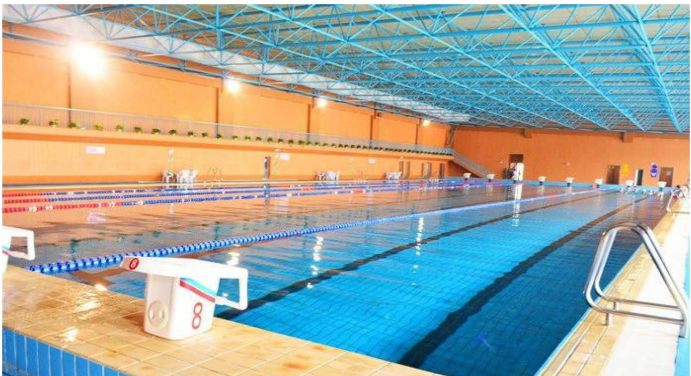
Shaanxi zero distance swimming club



Huaxing Sports Natatorium No. 1 Store



Golden Swan Bay swimming Pool



swimming pool of Shanxi Yuncheng Sports Center



swimming pool of Changan Culture Square

F U L L V I S I O N
Create a better water world

Shaanxi Fullvision Pool and Environment Technology Co., Ltd.

Address: Room 2805, Building C, Phase II, Fortune Center, Gaoxin 3rd Road, Xi'an City, Shaanxi Province

WEBSITE: WWW.FULLVISIONPOOL.COM

E-MAIL: June@fullvisionpool.com