

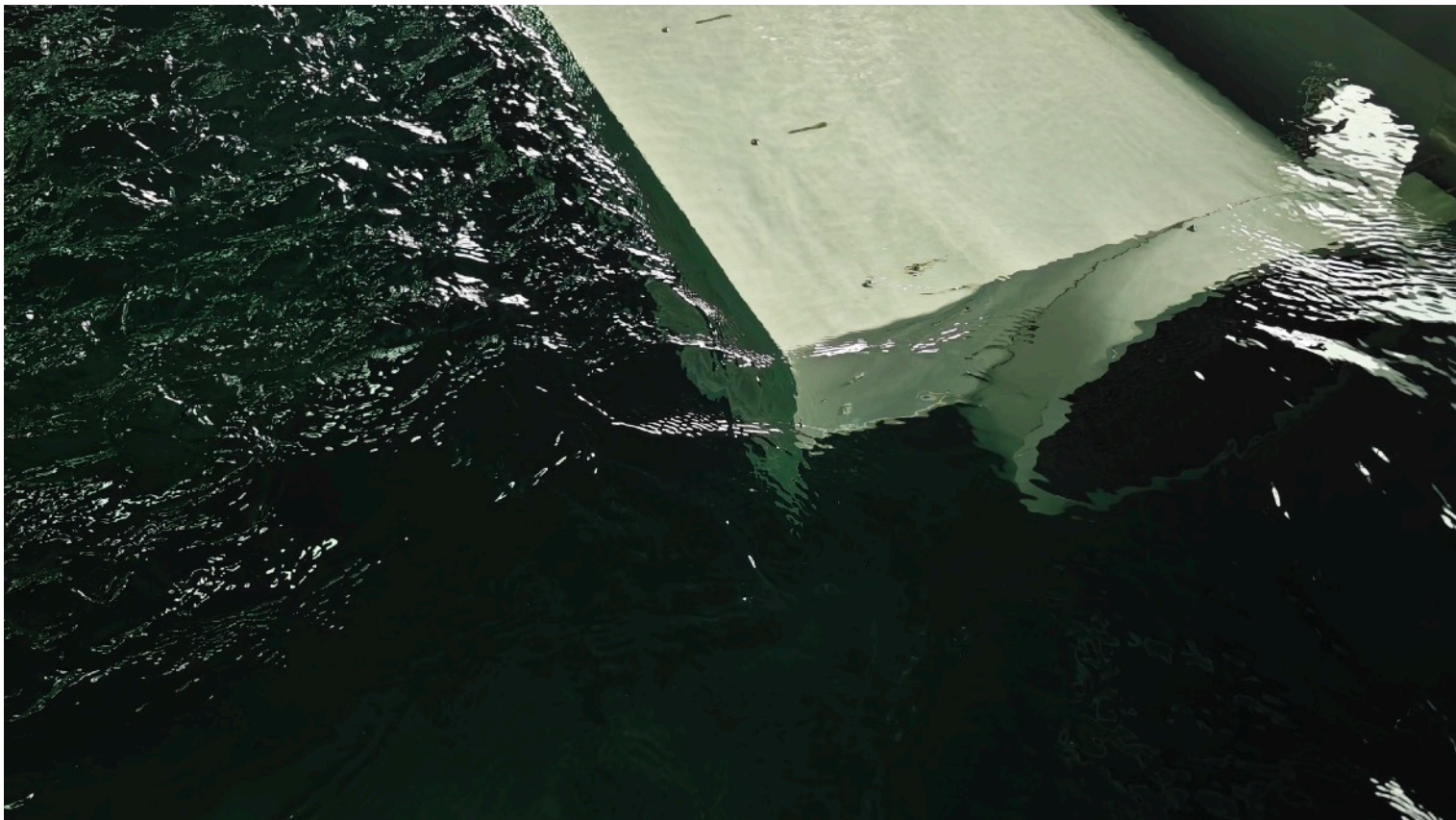
SWIMILES®

Assemble just right



Address: Factory 3-2, No. 1, Lingshan Village, Dagang Town, Nansha District, Guangzhou
TEL: +86 2087319587 | E-mail: info@swimiles.com | Website: www.swimiles.com






Why Choose US



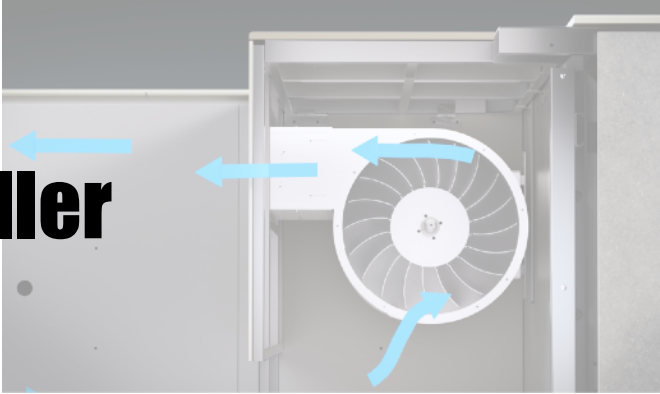
Counter-Current System

Revolutionizing Pool Technology

Unlike traditional propellers that create chaotic water flow, our paddlewheel laminar technology generates stable, uniform currents throughout the entire swim area, recreating authentic open-water training conditions.

-  Rapid Deployment
-  Logistical Convenience
-  Swimming Comfort
-  Energy Efficiency
-  Cost Revolution

Paddlewheel VS. Propeller



While most manufacturers of propeller-based counter-current systems – whether horizontal configurations (Endless Pools from US, BINDER from Germany, EVA from Netherlands) or vertical installations (SWIMEO from France, Eco from China) – fundamentally rely on creating high-velocity turbulence that mixes with pool water to reduce flow speed, resulting in radially diminishing currents centered on the discharge port. This ‘turbulent dissipation’ methodology not only exhibits high energy consumption and suboptimal user experience, but more critically poses inherent safety risks.

To address these limitations, SWIMILES® has pioneered a paddlewheel-driven laminar flow generator, seamlessly integrated with modular pool architectures.

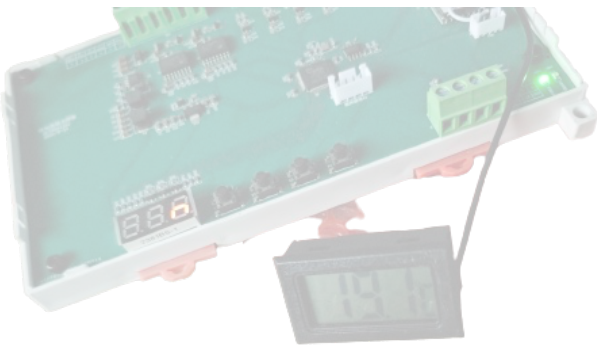
	Paddlewheel	Propeller
Mechanism	Radical-flow impeller with waterwheel-blade design	Axial-flow accelerator with helical blade array
Flow Velocity and Water Flow Distribution	Stable and even	High-velocity jet stream
Initial Flow Velocity	1-2 m/s	>10 m/s, the mainstream is concentrated near the center
Turbulence	NO	Significant turbulence can create discomfort for swimmers. Competing manufacturers implement flow management systems such as buffer tanks or honeycomb flow panels to regulate water movement, but these stabilization features inherently reduce operational efficiency
Power-to-Flow Ratio	800 m³/h per 1000W	100-150 m³/h per 1000W
Representative Brands	SWIMILES (CHN) SwimEx (US)	Endless Pools (US) BINDER (DEU) EVA (NLD) SWIMEO (FRA) Eco (CHN)

BLDC (Brushless DC Motors), induction motors, and hydraulic motors serve as the three primary power solutions for counter-current generators. Manufacturers typically implement one dominant technology based on application scenarios and cost structures.

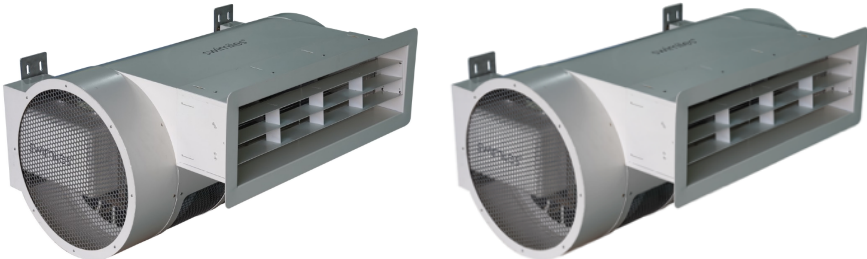
BLDC Induction Motor Hydraulic Motor

	BLDC	Hydraulic Motor	Induction Motor
Mechanism	Permanent magnets and inductor coils interact to generate electromagnetic force	The electric motor drives an oil pump, which transmits hydraulic fluid to power a hydraulic motor	Electromagnetic interaction between stator and rotor windings produces mechanical torque
Voltage in Wet Conditions	24V DC	/	110-380V AC
Safety	YES	YES	NO
Efficiency	High, $\pm 80\%$	Low, $\leq 50\%$	High, 90%
Cost	Relatively high	Relatively high	Low
Strengths	Safe, high efficiency, submersible operation with simplified structural design	Safe	Cost-effective
Weaknesses	Relatively high cost; complex control system	Low efficient; hydraulic system required; high maintenance; leakage risks	Safety hazard; mandatory dry-wet segregation; power units require external pool placement, leading to constrained structural design
Representative Brands	SWIMILES (CHN) BINDER (DEU) EVA (NLD) SWIMEO (FRA)	Endless Pools (US)	Eco (CHN) SwimEx (US)

SWIMILES®’s all-in-one motor-drive system seamlessly integrates the motor and driver into a compact, potting-sealed unit. Utilizing proprietary resin encapsulation technology, it achieves military-grade waterproofing (IP68 certified) while maintaining critical components within 7°C of the ambient pool temperature.



Counter-Current System Specification

Model	Model 510	Model 520
Illustration		
Description	1M-Elite	2M-Xtreme
Input Voltage	110V/220V	110V/220V
Power Supply	1500 W	3000 W
Flow Volume	950 m ³ /h	1200 m ³ /h
Water Outlet Area (length × width)	80 × 22 cm	80 × 22 cm
Flow Velocity	0-1.5 m/s	0-1.8 m/s
Maximum Swimming Speed (100m)	1'13"	56"
Dimensions (length × width × height)	105 × 80 × 54 cm	113 × 80 × 54 cm
Weight	110kg	120kg

Low-Voltage BLDC Motor Specification

Model	Model 510	Model 520
Working Voltage	24 V	24 V
Waterproof Rating	IP68	IP68

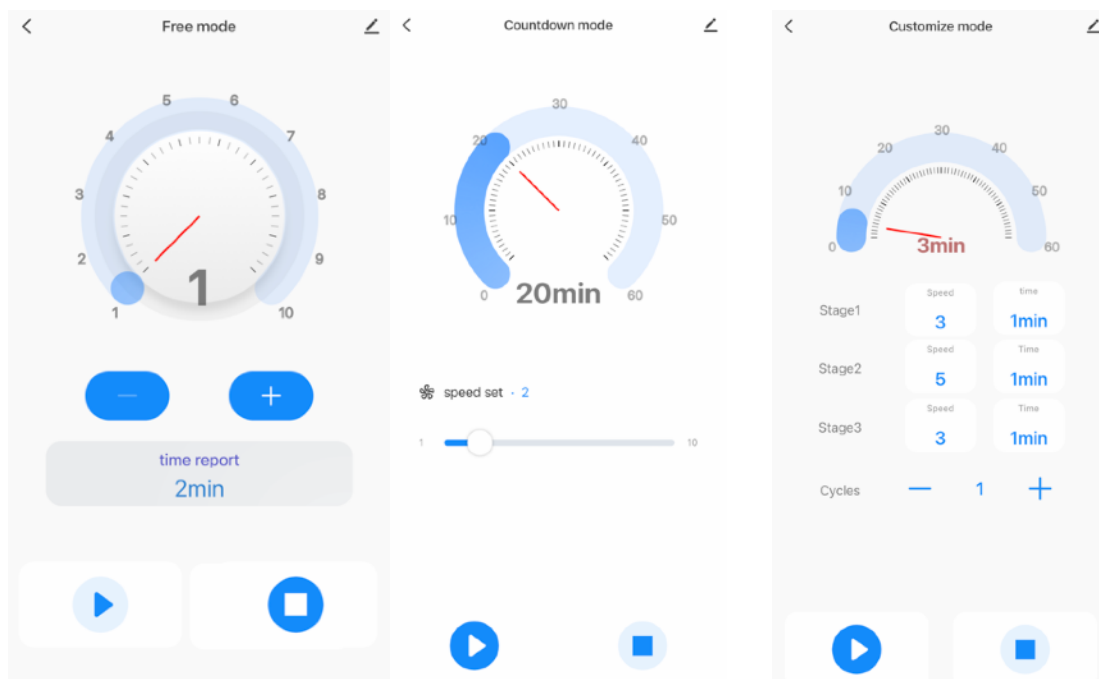


Intelligent Control Hub for Counter-Current System

Mobile-Oriented Real-Time Regulation via Tuya IoT Platform



If you don't want to surface during your swim to adjust the speed with your phone, you can simply turn the control **knob** inside the pool to change the pace.



The app features three swimming modes — Free Mode, Countdown Mode, and Custom Mode — allowing users to adjust time duration and flow speed according to their preferences.



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