

# PADDLE WHEEL AERATOR



High-Efficiency  
Aquaculture Aerator

[www.superiortransmission.co.id](http://www.superiortransmission.co.id)

**PRECISION ENGINEERING. MAXIMUM PERFORMANCE.**

Designed for modern aquaculture, our systems deliver reliable operation, superior durability, and efficient energy use—day after day.

**I. HIGH-EFFICIENCY DRIVE MOTORS**

Designed for 24/7 aquaculture operations, our motors deliver reliable power, superior efficiency, and long-term durability in humid and saline environments.

Key benefits:

- \* Lower energy use
- \* Longer lifespan
- \* Minimal maintenance
- \* Stable performance in harsh conditions



**1.05/1.3A SPM9 Series | Ultra-High Efficiency PM Motor IE5**

Technology: Permanent Magnet (PM) Synchronous Design.

Efficiency Rating: IE5 (89-92%) — The highest global standard for energy conservation.

Build: 304 Stainless Steel Housing.

Key Advantage: Delivering maximum torque at lower temperatures, the SPM9 significantly reduces operational electricity costs while offering superior corrosion resistance.

**1.1A SA9L Series | Stainless Steel**

Performance Motor

Efficiency Rating: IE2 (78%).

Design: High Power Factor architecture for optimized amperage draw.

Build: 304 Stainless Steel Housing.

Key Advantage: Specifically designed for "salt-mist" environments where standard motors fail due to surface oxidation.



**1.6A TH/TR Series | Heavy Duty**

Industrial Motor

Efficiency Rating: IE2 (78%).

Specification: 320V-400V @ 50Hz (TH) / 340-400 @ 50Hz (TR)

Service Factor: 1.35/1.15 SF (Indicates high tolerance for temporary overloads).

Builds: Cast Iron Framework + Marine Epoxy paint.

Key Advantage: A rugged, "workhorse" motor built for 24/7 intensive aeration cycles with high thermal reserve.

**1.3A FH Series | 4Spline Aerator Motor (0.55KW)**

Efficiency Rating: IE1 (75%).

Specification: 340V-400V @ 50Hz.

Service Factor: 1.35/1.15 SF (Indicates high tolerance for temporary overloads).

Build: Cast Iron Framework + Marine Epoxy paint.



**1.0/1.25A SGM Direct Drive Motor | Ultra-High Efficiency PM Motor IE5**

Eliminate Gearbox. Direct 110-115 RPM Output.

Unlike conventional systems that rely on high-speed motors combined with gear reducers, SGM is purpose-built to operate at optimal aerator speed without mechanical speed reduction. This direct-drive configuration significantly reduces friction losses, mechanical wear, and maintenance requirements.

Designed specifically for demanding aquaculture environments, SGM provides:

- \* Direct 110-115 RPM output without gearbox
- \* High torque performance for paddle wheel aerators
- \* Improved energy efficiency (no gearbox transmission loss)
- \* Reduced mechanical components and failure points
- \* Lower vibration and quieter operation

By eliminating the gearbox stage, SGM increases system efficiency, simplifies installation, and extends service life — making it an ideal drive solution for high-performance pond aeration systems.

## II. GEARBOX SERIES

Available in multiple housing materials to suit varying pond environments and mechanical stress.



 **Metallic & Cast Iron Series**  
**SS-110 – Stainless Steel 9-Spline Gearbox**  
*Seawater Corrosion Resistance (High Salinity)*



 **Metallic & Cast Iron Series**  
**CH-110 – Heavy Duty 9-Spline Cast Iron Gearbox**  
 7mm Cast Iron  
*Marine Epoxy Paint for extreme impact and chemical resistance*




 **Metallic & Cast Iron Series**  
**CI-110 – Standard 9-Spline Gearbox**  
 5mm Cast iron  
 Marine Epoxy Paint




 **Metallic & Cast Iron Series**  
**CI-130 – Standard 4-Spline Gearbox**  
 5mm Cast iron  
 Marine Epoxy Paint



 **Advanced Polymer Series**  
**Nylon-110 – Full Nylon 9-Spline Gearbox**  
*Rust Proof Gearbox*  
*Used in fresh water or low salinity*



 **Advanced Polymer Series**  
**SRG-110 – Re-inforced 9-Spline Gearbox Blue**  
*Steel Frame Reinforced Nylon Gearbox*

## III. STRUCTURAL COMPONENTS & MATERIAL STANDARDS

### Drive Shafts – ASTM International Standard

Manufactured to ASTM standards for superior strength, reliability, and global quality compliance.

### Non-Metallic Components – UV-Stabilized Polymers

Advanced polymer materials engineered for demanding aquaculture environments, providing:

- \* UV resistance against intense sunlight
- \* High impact durability against debris and water turbulence.

Designed for long-term reliability in tropical pond conditions.

### Metal Components (Shafts)

Manufactured to ASTM International standards, replacing Chinese GB standards to ensure globally recognized strength, reliability, and performance.

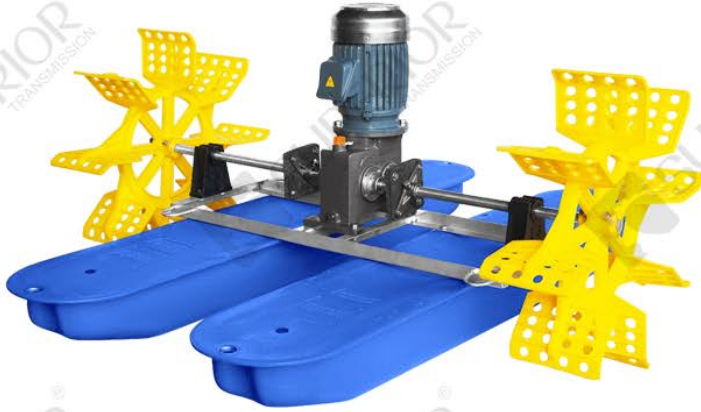
### Non-Metal Components (Floats, Paddle Wheels, Covers)

Made from HDPE (high density poly ethylene, PP (polypropylene), and Nylon using virgin resin injection molding. This ensures strong, UV-resistant parts with longer service life and no impurities from recycled plastics.

## ■ Paddle Wheel Aerator

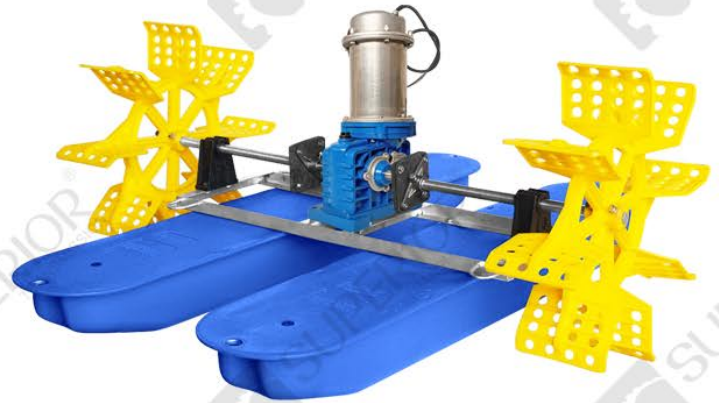
### Standard

Two-Impeller paddle wheel aerator



### Water Cooled

Two-Impeller paddle wheel aerator



## ■ Superior Standard Series

Standard	Motor Model	Metallic	Advanced Polymer	kW	Hp	Voltage	Efficiency (kg/KW.H)	DO (kg/Hr)	Current (A) (Max)	Speed	Impeller	Floats
YC4-0.55	FHs90 1Q	CI-130	SRG4-130	0.55	1	220 3Q	1.1	0.9	5.4	107	2	2
	FH90	CI-130	SRG4-130	0.55	1	380 3Q	1.1	0.9	2.2	107	2	2
YC9-0.75	THs100 1Q	CI-110	SRG4-110	0.75	1	220 3Q	1.3	1.2	5.4	107	2	2
	TR100	CI-110	SRG4-110	0.75	1	380 3Q	1.3	1.2	2.4	107	2	2
	TH100	CH-110	Nylon-110	0.75	1	380 3Q	1.4	1.3	2.8	107	2	2
YC9-1.5	TH100	CH-110	Nylon-110	1.5	2	380 3Q	1.4	2.2	3.7	107	4	3
YC9-2.2	TH100	CH-110	Nylon-110	2.2	1	380 3Q	1.5	3.4	5.1	107	6	3

## ■ Superior Water Cooled Series

WaterCooled	Motor Model	Advanced Polymer	Advanced Polymer	kW	Hp	Voltage	Efficiency (kg/KW.H)	DO (kg/Hr)	Current (A) (Max)	Speed	Impeller	Floats
SC9-0.75	SA9 1Q	SRG9-110	Nylon-110	0.75	1	220 3Q	1.3	1.2	5.4	107	2	2
	SPM9 1Q	SRG9-110	Nylon-110	0.75	1	220 3Q	1.3	1.2	5.4	65/85/107	2	2
	SPM9 1Q	SRG9-110	Nylon-110	1.5	1	220 3Q	1.4	2.2	10.8	65/85/107	4	3
SC9-0.75	SA9	SRG9-110	Nylon-110	0.75	1	380 3Q	1.3	1.2	2.2	107	2	2
	SA9L	SRG9-110	Nylon-110	0.75	1	380 3Q	1.3	1.2	1.6	107	2	2
	SPM9	SRG9-110	Nylon-110	0.75	1	380 3Q	1.3	1.2	1.4	65/85/107	2	2
SC9-1.5	SA9	SRG9-110	Nylon-110	1.5	2	380 3Q	1.4	2.2	3.7	107	4	3
	SA9L	SRG9-110	Nylon-110	1.5	2	380 3Q	1.4	2.2	3.2	107	4	3
	SPM9	SRG9-110	Nylon-110	1.5	2	380 3Q	1.4	2.2	2.8	65/85/107	4	3
SC9-2.2	SA9	SRG9-110	Nylon-110	2.2	3	380 3Q	1.5	3.4	5.1	107	6	3
	SA9L	SRG9-110	Nylon-110	2.2	3	380 3Q	1.5	3.4	4.5	107	6	3
	SPM9	SRG9-110	Nylon-110	2.2	3	380 3Q	1.5	3.4	4.0	65/85/107	6	3



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SUPERIOR TRANSMISSION  
are willing to be a great partner with you for creating future.