

Presentation of Fairland Pool Heat Pumps

Part 1: Brief Conclusion

Part 2: Unique Energy-Saving & Reliability Technology

Part 3: Why should you choose Fairland to cooperate with

Part 4: Technical Issues May Concern.

Part 1: Brief Conclusion

Foreword:

In order to expand your pool heat pump business in target markets, your esteemed company may need a strong partner with following advantages:

- A. Top Quality & Suitable Models for your target Markets.
- B. Experienced & Innovative R&D to meet your requirements well.
- C. Reliable & Mutual Understanding.

Fairland Electric

As the *No. 1 Pool Heat Pump Manufacturer & Designer* in China, Fairland Electric was founded in 1990's, originally a professional heat pump air conditioner manufacturer. We have 10 years experience in production and our R&D team has 20 years experience in air-conditioning design & technical fields. Following are what we can do for you in expanding pool heat pumps business.

- A. Top quality with creative & unique technology
- B. Strong R&D team based on 20 years experience in air-conditioning technology.
- C. We have been devoting to provide reliable & best service to our esteemed clients.

Part 2: Unique Energy-Saving & Reliability Technology

Top Main

A. Updated Japanese Inverter Technology.

- 1. At air temp of 20 °C, COP is > 6.2, at air temp of 15 °C, COP is > 4.5;.
- 2. It makes efficiency 15~30% higher than any other competitors.
- 3. The superior efficiency of Fairland Heat Pumps saves 80% running costs of a conventional Electric Pool Heater.

B. Powerful & Reliable Guarantee.

5 years for Titanium heat exchanger, **3 years** for the whole unit.

C. Titanium Heat Exchanger of Unique Design.

- 1. Pressure-tested, original & unique design guarantees highest heat exchanging efficiency.
- 2. First Class Titanium Heat Exchanger totally guarantees Anti-Rusting.

More details:

- **Commercial Control System Adopted.**
More accurate than domestic control system & guarantees more stability and reliability.
- **Water flow switch of special design.**
Automatic stop in low water pressure, double Self-Security, it protects the whole system.
- **Water flow direction of special design**
For the titanium water tank, Inlet is below and Outlet is above, which make higher efficiency in heating because the hot water is lighter and will go up. (The competitors design the water flow direction according to water chiller, it's opposite and make lower efficiency.)
- **Compressor Capacitor of special design.**
We set the temperature of capacitor up to 130 °C for more reliable and stable performance, which specially comes from our Tropical Technology. (Normal capacitors setting temp is 70~90 °C)
- **Automatic Restart adopted.**
- **Intelligent defrosting design.**
- **Mechanical or Electronic control for optional.**
- **Quiet running noise lowest to 45 decibel.**

Part 3. Fairland Position & Speciality

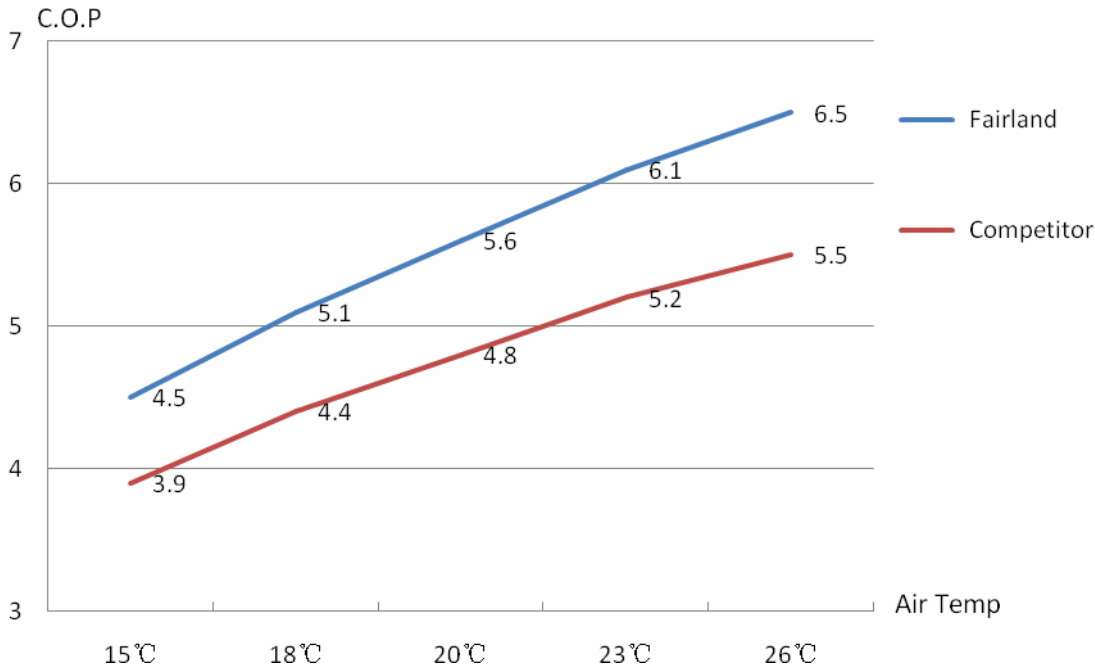
一、 Why should choose Fairland?

Fairland, as the No.1 Pool Heat Pump Manufacturer & Designer in China, we have the Technology Innovation, Total Quality Control, Unique Cost Advantage & Reliable Service to support our worldwide partners by Long-term & Mutual benefit cooperation:

Competitive Points	Main Reasons & Facts
Technology Innovation	<ol style="list-style-type: none"> 1. Fairland always focus on <i>innovation for easy life of customers</i>. Our R&D team has 20 years experience in Heat Pump technology. 2. Updated Japanese Inverter Technology, which offers 15-30% higher C.O.P than any other Rivals in the world. 3. We adopt the first class Titanium Heat Exchanger with special design.
Total Quality Control	<ol style="list-style-type: none"> 1. We have 10 years production experience in Heat Pump products. 2. All machines must be 100% tested in the Test Room at the production line, and each testing is of 45 minutes before packing. 3. We have Test Center to do Spot-checking of 3% from each container. 4. We adopt first class material, and main components are Japanese or France brands. Our production is under CE & ISO9001 Standard.

Unique Cost Advantage	<ol style="list-style-type: none"> 1. We are the No.1 & the Only one Pool Heat Pump manufacturer mainly in Heat Pump air conditioner business. Our yearly output of 250,000 sets air conditioners supports the Pool heat pump business with the Unique Cost Advantage. 2. Thus we are able to spare more profit to guarantee good service & better quality control.
Reliable Service	<ol style="list-style-type: none"> 1. We offer 5 years for Titanium Heat Exchanger & 3 years for whole unit guarantee service. 2. We offer 2% spare parts free of charge for supporting after service. 3. Any problem you may meet will be responded within 24 hours, and urgent spare parts can be quickly supplied.

二、Comparative C.O.P in various air temp.



Part 4: Technical Issues May Concern.

1. Low Failure Rate & High Reliability.

Our Failure Rate of Pool Heat Pump is 0.5% in year 2006 according to our client's feedback.

2. Need Titanium Heat exchanger

OK, we have special design titanium heat exchanger with PVC-U case & insulation cover to reduce noise and save energy.

3. Inverter Technology (High Efficiency Technology).

Others are all adopted capillaries or TX Valve to control the gas flow. We don't need it and we can control the gas flow freely to get the highest C.O.P. in different temp.

4. C.O.P. of efficiency

OK. We have COP between 4.5-6.5. (Between Air temp: 15 °C and 26 °C.)

6. Need range of 5 – 60KW or above.

OK, they are all available already. For 5-16KW, single phase is available. For 23KW or above three phases is suggested for safety performance.

7. Need low noise level.

OK. For Fairland's Heat Pump Pool Heater, the noise level: around 45dB for 5/12KW model, around 48dB for 16KW, around 55dB for 16/30KW.

8. Need large ventilation surface but compact designs.

OK, we already have it.

9. Compressors of high class.

For models below 16KW, we produce with HITACHI rotary compressors of Japan. For models above 16KW, we produce with SANYO scroll compressors of Japan.

10. Need Environment Friendly Refrigerant

OK, we can do both R407C and R410a. But we mainly adopt R407C in our products. The main reason is that R407C is lower gas pressure and similar efficiency as R410a. Therefore, it could have a higher reliability.

11. Defrosting Cycle

OK, we have it. Above 7 °C, the defrosting function works very well.

12. Lowest Operating Temperature.

Above 7 °C air temp operation is most popular because consumers probably would not swim under 7 °C. All main Pool Heat Hump brands design according to this.

13. Certification

We have CE and other needed documents.

14. Need easy connection

OK, we already have it.

15. Controller & Display designs

We have 3 options: (1) LCD Controller; (2) LED Controller; (3) Mechanical Controller

16. Need line up designs of horizontal or ventilation models.

OK, we already have it.