



# HYDRO ROYAL



SWIMMING POOL HEAT PUMPS

# Exceeding Expectations *Every Step of the Way*

## *The High Efficiency, Ultra- Quiet Heat Pump Series*

### **The Absolute Highest Standard of Manufacturing Quality**

The entire family of Hydroroyal™ Heat Pumps is manufactured with the highest quality components, state of the art testing and come with AHRI Performance Certification.

### **Investment Payback**

A swimming pool is an investment and Hydroroyal heat pumps double the value you get from your investment by making it warm and enjoyable for more days per year and more hours per day.

Extend your swimming season and get the most out of your pool. Your family can exercise, relax, swim and entertain in warm water even on cooler days.

### **Save Money**

The most efficient way to heat your pool. Hydroroyal heat pumps are environmentally friendly and provide lower operating costs.

### **Save Energy**

Specially designed State of the Art TXV (Thermal Expansion Valve) has been optimized for the new, environmentally friendly refrigerant R-410A. It precisely regulates the flow of refrigerant through our patent pending coil to achieve maximum efficiency at lower temperatures, allowing lower cost of operation.

### **Titanium Heat Exchanger**

Impervious to corrosion and erosion, our heat exchangers provide maximum efficiency and performance for heat exchange. All 2" plumbing to maintain full water flow.

### **Rifled Titanium Design**

The heat exchangers feature a unique rifled design allowing for maximum surface contact between your pool and the heat source. The tight rifling allows for more efficiency by reducing weight, waste and materials cost.

### **Scroll Compressor**

Silent scroll technology uses minimal energy to achieve maximum output. Combined with low speed fan, lower RPM's use less energy and operate at lower sound and vibration levels making Hydroroyal heat pumps super quiet.

### **Performance & Efficiency**

The Maximum Heat for Minimal Cost

Patented Refrigerant Metering System for more efficiency and better performance, especially in colder weather. Also works in conjunction with our Thermal Expansion Valve and our patent-pending coil design.

The Evaporator Coil is super sized, meaning more square-footage of coil with higher performance in colder weather.

# Features and Benefits *For Complete Pool Pleasure*

## Intelligent Control

*Customize operation with the most comprehensive control board available*

## Solar Hybrid Operation Capability

Our REVOLUTIONARY control board's dual sensor detects and controls operation of your pool solar system and allows your heat pump to operate when the solar isn't meeting your demands.

## Personal Preferences

Habla-Español? Parlez-vous Français? Choose from English, German, Spanish, French and Portuguese for your heat pump.

- Display in Celcius or Farenheit.
- Digital lockout feature keep renters or children from zadjusting controls.

## Even Heat Option

Keeps your pool warm consistently 24 hours a day.

## Dual Thermostat

Set two separate temperatures for pool and spa.

## Self-Diagnostic Display

Back Lit LCD displays information if a problem occurs. Displays information in real words, not confusing codes.

## Compatible With All Automation Systems

Whether you have an existing automation system, or are considering adding remote control, the Hydroroyal is designed to work with ANY automation system. Hook up is quick and simple.

## Superior Design & Testing

*Every Component, every unit factory-tested*

## Mass Flow Metering System

Changes the unit automatically for perfect operation and performance.

Accurate volume to 1/100th of an ounce.

## Durable ABS Plastic Cabinet

No rust, wipes clean.

## Automated Helium (He) Testing

100 times more sensitive to leak detection than all of our competitors.

Virtually eliminates any refrigerant loss and ensures your heater's performance.

## Diagnostic Display Board

Identifies potential problems, in real words, not code.

## Interlocked Testing Stations

Every unit must pass every quality test before it can move down the line.

Linking every test ensures a perfect unit every time.

## Ultra Quiet

*Higher quality components and smarter design make for a whisper quiet unit*

## Designed for Peaceful, Quiet Operation

- Ultra-quiet low speed fan.
- Lower RPMs use less energy and make for quieter operation.
- Ultra-quiet scroll compressor.
- Sound dampening heat exchanger.
- As low as 56 Decibels at full operation.



# Model Specifications and Performance Data

## HR 5-RA UNIT ONLY AVAILABLE IN FLORIDA

80/80/80: BTU: 110,000. COP: 6.4  
OUTSIDE ARI STANDARD

MIN AMPS /MAX BREAKER: 37/40 DIMENSIONS" (SHIPPING): 31 x 31 x 38 (33 x 31 x 43)  
WEIGHT (SHIPPING): 218-253 LBS

## AHRI CERTIFIED TEST RESULTS

80/63/80: BTU: 99,000 - COP: 6.0

50/63/80: BTU: 66,000 - COP: 4.1

## HR 90-RA

80/80/80: BTU: 90,000. COP: 6.3  
OUTSIDE ARI STANDARD

MIN AMPS /MAX BREAKER: 36/40 DIMENSIONS" (SHIPPING): 31 x 31 x 34 (33 x 31 x 39)  
WEIGHT (SHIPPING): 210-245 LBS

## AHRI CERTIFIED TEST RESULTS

80/63/80: BTU: 84,000 - COP: 5.8

50/63/80: BTU: 56,000 - COP: 4.0

## HR 110-RA

80/80/80: BTU: 110,000. COP: 6.4  
OUTSIDE ARI STANDARD

MIN AMPS /MAX BREAKER: 37/40 DIMENSIONS" (SHIPPING): 31 x 31 x 38 (33 x 31 x 43)  
WEIGHT (SHIPPING): 218-253 LBS

## AHRI CERTIFIED TEST RESULTS

80/63/80: BTU: 99,000 - COP: 6.0

50/63/80: BTU: 66,000 - COP: 4.1

## HR 125-RA AVL: in 3-Phase and Heat & Cool

80/80/80: BTU: 120,000. COP: 6.3  
OUTSIDE ARI STANDARD

MIN AMPS /MAX BREAKER: 37/50 DIMENSIONS" (SHIPPING): 31 x 31 x 38 (33 x 31 x 43)  
WEIGHT (SHIPPING): 218-253 LBS

## AHRI CERTIFIED TEST RESULTS

80/63/80: BTU: 109,000 - COP: 5.9

50/63/80: BTU: 74,000 - COP: 4.1

## HR 150-RA AVL: in 3-Phase

80/80/80: BTU: 136,000. COP: 6.0  
OUTSIDE ARI STANDARD

MIN AMPS /MAX BREAKER: 37/50 DIMENSIONS" (SHIPPING): 32 x 32 x 40 (34 x 32 x 45)  
WEIGHT (SHIPPING): 222-257 LBS

## AHRI CERTIFIED TEST RESULTS

80/63/80: BTU: 124,000 - COP: 5.4

50/63/80: BTU: 85,000 - COP: 4.0

**HEAT EXCHANGER:** 100% Titanium  
**COMPRESSOR:** Scroll  
**MIN /MAX FLOW:** 20/70 Gallons  
**PLUMBING SIZE:** 2"  
**RECOMMENDED FLOW:** 45 Gallons  
**ADDITIONAL SPECS:** See Individual Units

ALL UNITS AVAILABLE IN 50 HZ



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Proudly Built In  
the USA