

Warning! Buyer/user assumes all responsibility for safety and proper use not in accordance with the directions and safety labels.



Please Start Pump in Water ONLY. DO NOT Run Pump in Air

WARNING AND SAFEGUARDS

Read and follow the guidelines to ensure the proper use and application of this Rio® HyperFlow™ Pump. Failure to follow these guidelines may result in damage to the aquatic environment and serious injury.

Operation and safety Precautions:

The National Code requires that a GFCI (Ground Fault Circuit Interrupter) be utilized in the branch circuit supplying all water pump and aquarium electrical equipment. If you do not have a GFCI, please see your local electrical supplier for this device.

Important Warning and Safeguards

- 1. Do not operate pump with Rio® HyperFlow™ Pump without being fully submerged at all times. Doing so can cause permanent damage to the pump.
- 2. Never operate Rio® HyperFlow™ Pump with an electronic wave maker or timing device. As such devices will cause permanent damage to the pump and/or demagnetize the magnetic impeller.
- 3. Prior to maintenance on any electrical

aquarium appliance or maintenance to the aquarium, you must disconnect all electrical aquarium devices.

- 4. Routine maintenance is required to ensure the maximum performance and the longevity of Rio® HyperFlow™ Pump. See Maintenance Guidelines
- 5. The national code requires all aquarium equipment to be plugged into a GFCI (Ground Fault circuit Interrupter) electrical outlet
- 6. Do not operate if wire is damaged
- 7. Do not plug into an extension cord
- 8. Do not plug into a power strip. Always plug the pump directly to a GFCI outlet using a drip loop
- 9. Rio® HyperFlow™ Pump is designed to run completely submerged in water. Do not operate pump outside of water! This pump should be submerged in water before connecting to a power source.
- 10. Rio® HyperFlow™ Pump may be utilized in either fresh water or salt water but not in foreign fluids, flammable liquids or any chemical

WARNINGS!

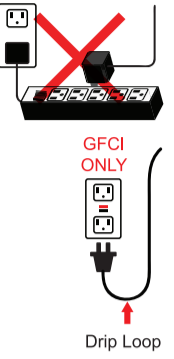
This product may contain chemicals known to the state of California to cause cancer and or birth defects or other reproductive harm. Wash your hand after handling this product.

It is your sole responsibility to verify that the plug and the receptacle are clean and free of moisture and salt build up at all times. The receptacle must be free of water, salt, calcium, magnesium and dust. Failure to do so can cause fire, damage to property, permanent damage to the product and personal injury not limited to loss of life.

Do not plug into extension cord/power strip. A drip loop must be used when plugging all electrical aquarium devices. A drip loop is that part of the cord hanging below the receptacle.

The national code requires that a GFCI (Ground fault circuit interrupter) be used in the branch circuit supplying all power to water pumps and electrical aquarium equipment. If you do not have a GFCI, have an electrician install one prior to operating any aquarium component.

Note: It is important that the right pump and flow rate is being used for the given specific application. Use the flow chart to determine the proper size pump and tubing to be used for given application.



Rio® HyperFlow™

- Vortex Rotor Blade
- High Flow Rate
- Rare-Earth Magnet
- Multi-Purpose
- Ceramic Shaft & Bearings
- Low Heat Emission
- Fully Submersible
- Energy Efficient Design



APPLICATION I: FOUNTAINS & WATERFALLS

Rio® HyperFlow™ Pump is designed to run completely submerged in water. Do not operate pump outside of water! This pump should be submerged in water before connecting to a power source. Rio® HyperFlow™ Pump may be utilized in either fresh water or salt water but not in foreign fluids, flammable liquids or any chemical.

Application for: 4HF – 10HF

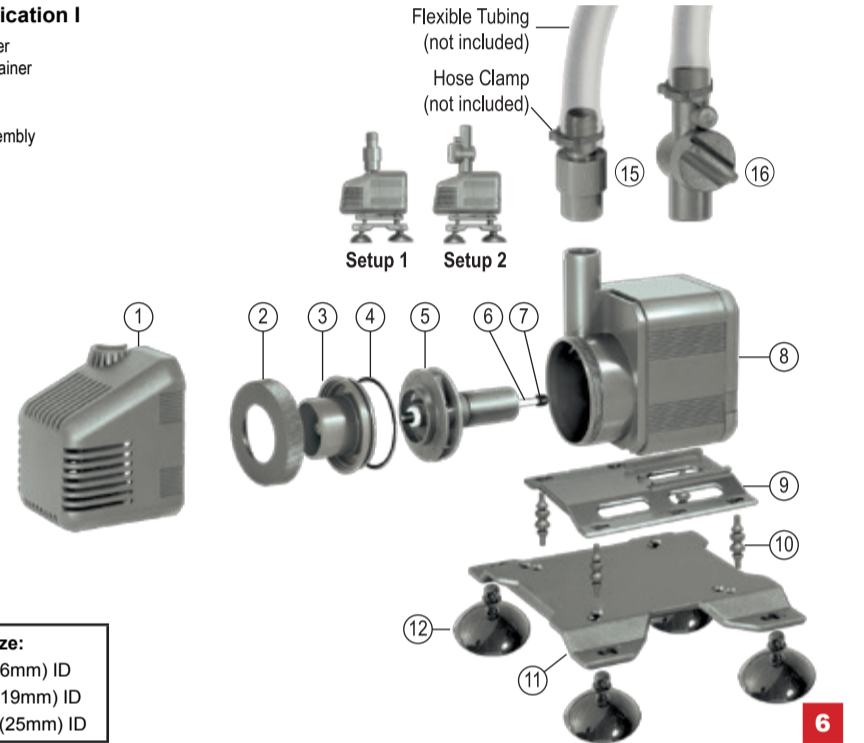
1. Follow all warning and safeguards.
2. Remove main housing strainer.
3. Attach suction cup bracket, bushings, vibration plate and suction cups together.
4. Slide on suction cup bracket set (part 10 to part 13) onto motor housing.
5. **Output:** Connect either outlet pipe adapter or flow control directly to flexible tubing and secure with a hose clamp.
6. **Input:** Connect main housing strainer.
7. Submerge pump in water and plug directly to a GFCI outlet.

Application for: 12HF – 32 HF

1. Follow all warning and safeguards.
2. Remove main housing strainer.
3. Attach suction cup bracket, bushing, vibration plate and suction cups together.
4. Slide on suction cup bracket set (part 10 to part 13) onto motor housing.
5. **Output:** Connect outlet pipe adapter directly to flexible tubing and secure with a hose clamp.
6. **Input:** Connect main housing strainer.
7. Submerge pump in water and plug directly to a GFCI outlet.

Part List for Application I

1. Main housing strainer
2. Housing endcap retainer
3. Housing endcap
4. O-ring
5. Vortex impeller assembly
6. Ceramic shaft
7. Shaft endcap
8. Motor housing
9. Suction cup bracket
10. Bushings
11. Vibration plate
12. Suction cup
15. Outlet pipe adapter
16. Flow control



Flexible Tubing Size:
 4HF – 6HF: 5/8 in (16mm) ID
 8HF – 14HF: 3/4 in (19mm) ID
 17HF – 32HF: 1 in (25mm) ID

APPLICATION II: IN-TANK CIRCULATION

Do not run on wavemakers or timers!

Rio® HyperFlow™ Pump is designed to run completely submerged in water. Do not operate pump outside of water! This pump should be submerged in water before connecting to a power source. Rio® HyperFlow™ Pump may be utilized in either fresh water or salt water but not in foreign fluids, flammable liquids or any chemical. Do not run Rio® HyperFlow™ Pump without main housing strainer.

Application for: 4HF – 14 HF

1. Follow all warning and safeguards
2. Remove main housing strainer.
3. Options to secure to the aquarium:
Suction cups: Attach suction cups to suction cup bracket and slide onto motor housing.
Pump Hanger: Attach suction cups to pump hanger and slide pump hanger onto motor housing.
Magnet Mount: Slide Magnet Mount onto motor housing. *Note: Magnet Mount is not included. Rio® Magnet mounts are available for Rio® HyperFlow™ Pump (See other side for Magnet Mount list). These can be used instead of suction cups or pump hanger to secure the pump to the aquarium.*

4. **Output:** Connect duck-bill directly to the pump
5. **Input:** Connect main housing strainer.
6. Submerge pump in water and plug directly to a GFCI outlet.

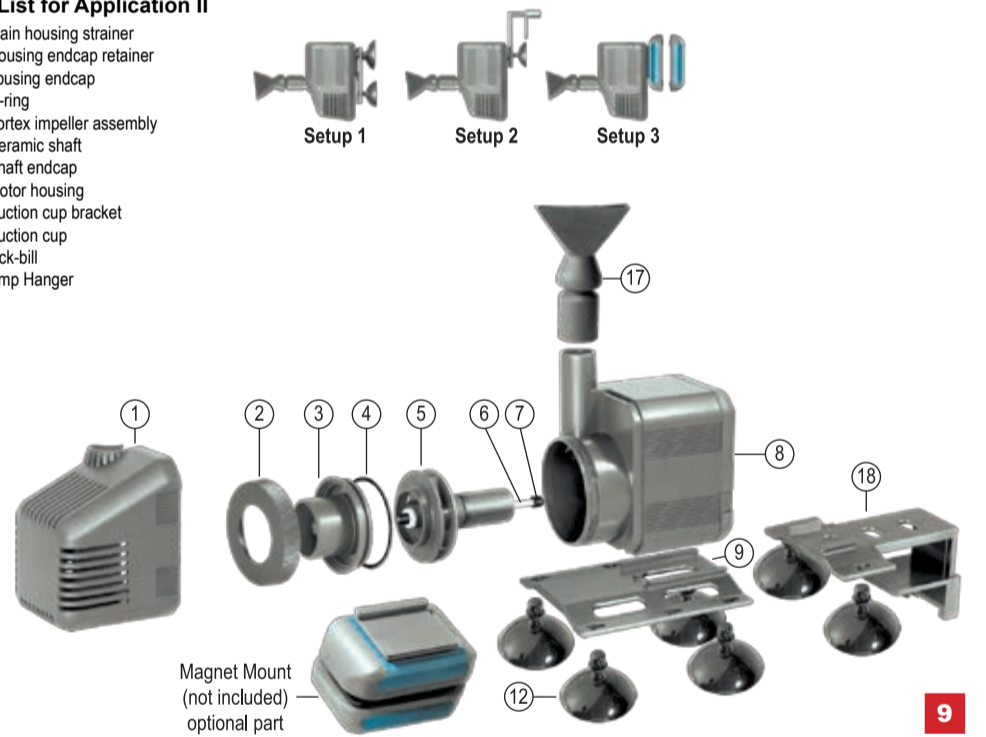
Application for: 17HF – 32HF

1. Follow all warning and safeguards
2. Remove main housing strainer and sponge pre-filter.
3. Attach suction cups to suction cup bracket and slide onto motor housing.
4. **Output:** Connect duck-bill directly to the pump
5. **Input:** Connect main housing strainer .
6. Submerge pump in water and plug directly to a GFCI outlet.

Note: Careful attention must be taken in regards to overwhelming your fish and environment, avoid excess turbulent water currents!

Part List for Application II

1. Main housing strainer
2. Housing endcap retainer
3. housing endcap
4. O-ring
5. Vortex impeller assembly
6. Ceramic shaft
7. Shaft endcap
8. Motor housing
9. Suction cup bracket
12. Suction cup
17. Duck-bill
18. Pump Hanger



APPLICATION III: WET/DRY FILTRATION SYSTEMS, PROTEIN SKIMMER & SUMPS

Rio® HyperFlow™ Pump is designed to run completely submerged in water. Do not operate pump outside of water! This pump should be submerged in water before connecting to a power source. Rio® HyperFlow™ Pump may be utilized in either fresh water or salt water but not in foreign fluids, flammable liquids or any chemical.

Wet/Dry filtration and sumps: Verify that the pump size is proper for the application. Use the flow chart to determine the proper water flow and tubing size. Do not reduce water flow of the pump by more than 15% using a control valve

Application for: 4HF–32HF

1. Follow all warning and safeguards
2. Remove main housing strainer.
3. Attach suction cup bracket, bushings, vibration plate and suction cups together.
4. Slide on suction cup bracket set (part 10 to part 13) onto motor housing.
5. **Output:** Connect either outlet pipe adapter or flow control directly to the flexible tubing and secure with a hose clamp.

Note: Flow control is only an option for 4HF-10HF

6. **Input:** Connect either main housing strainer or remove main housing strainer and replace with either the intake elbow or the intake pipe adapter.
7. Submerge pump in water and plug directly to a GFCI outlet.

Helpful Hints:

1. The use of a float valve will help ensure a consistent water level and ensure the pump will operate fully submerged at all times.
2. If the pump is making excess noise verify that the pump is free standing and is not vibrating against the wall of the sump.
3. Excess noise can be caused using too small of tubing or restricting flow by more than 15%

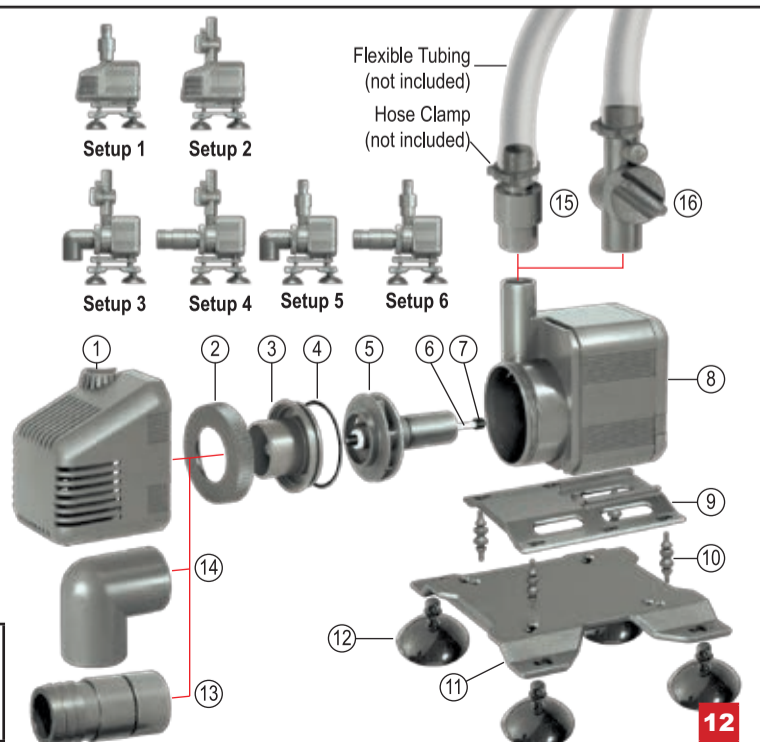
IMPORTANT: Due to the design of Wet/Dry Filtration and Sumps, there is a high amount of evaporation. Failure to maintain a consistent water level or the daily addition of top off water will cause the pump to operate without being fully submerged. If the pump is not operated fully submerged imminent malfunction to the pump will occur, thus resulting in loss of live stock and/or injury or loss of life. If the pump is not operated fully submerged at all times the warranty is void.

Protein Skimmers: Refer to the protein skimmer manufacture guidelines for applying the pump to the specific skimmer.

Part List for Application III

1. Main housing strainer
2. Housing endcap retainer
3. Housing endcap
4. O-ring
5. Vortex impeller assembly
6. Ceramic shaft
7. Shaft endcap
8. Motor housing
9. Suction cup bracket
10. Bushings
11. Vibration plate
12. Suction cup
13. Intake pipe adapter
14. Intake elbow
15. Outlet pipe adapter
16. Flow control

Flexible Tubing Size:
 4HF – 6HF: 5/8 in (16mm) ID
 8HF – 14HF: 3/4 in (19mm) ID
 17HF – 32HF: 1 in (25mm) ID



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Rio® HyperFlow™

PROFESSIONAL GRADE WATER PUMP

AVAILABLE MODELS

Item No.	Description	UPC No.
Rio 4HF	320 GPH / 1230 LPH Water Pump	R27234
Rio 6HF	440 GPH / 1680 LPH Water Pump	R27001
Rio 8HF	640 GPH / 2460 LPH Water Pump	R27002
Rio 10HF	750 GPH / 2870 LPH Water Pump	R27003
Rio 12HF	840 GPH / 3210 LPH Water Pump	R27004
Rio 14HF	960 GPH / 3660 LPH Water Pump	R27005
Rio 17HF	1230 GPH / 4680 LPH Water Pump	R27006
Rio 20HF	1370 GPH / 5210 LPH Water Pump	R27007
Rio 26HF	1760 GPH / 6720 LPH Water Pump	R27008
Rio 32HF	2110 GPH / 8030 LPH Water Pump	R27009

MAINTENANCE:

Preventing debris and free floating material from entering your Rio® HyperFlow™ Pump is of utmost importance to the longevity of your pump. Your pump requires regular cleaning to maintain a steady water flow. Note: Gravel, sand and calcium deposits will also diminish/damage the longevity of Rio® HyperFlow™ Pump and impeller.

- IMPORTANT:** You must disconnect all electrical power to the aquarium and water pump before beginning the maintenance on any electrical equipment including Rio® HyperFlow™ Pump.
- Do not use any type of soap or detergent to clean the Rio® HyperFlow™ Pump and parts. Remove main housing strainer and pre-filter sponge. Clean and rinse of all dirt and debris. Carefully turn housing endcap retainer counter-clockwise to disconnect. Housing endcap, ceramic shaft and impeller may now be removed from motor housing. Rinse all dirt and grime off the impeller before reassembling. In environments that have a high amount of calcium it may be necessary to clean impeller in 1 part vinegar 3 parts water solution. This will breakdown calcium. Let soak for a minimum of 15 minutes. Clean well then verify that the impeller spins freely on the shaft. Note: Replace impeller or ceramic shaft if any signs of excess wear occur on impeller, ceramic shaft and/or shaft endcap. After cleaning, reassemble impeller into the pump

and fasten by turning housing endcap and housing endcap retainer until snug to assure a proper seal. Shaft endcap must be on each end of shaft. Your Rio® HyperFlow™ Pump will not restart if impeller is not positioned or assembled correctly.

- Impeller may need to be replaced periodically to maintain a steady output flow. Rio® HyperFlow™ Pump replacement parts, are sold at your local pet dealer or call us, for more information or purchasing Rio® HyperFlow™ Pump replacement parts.
- Do not tamper with or replace the power cord of this appliance. If the cord is damaged, the appliance should be discarded.

Impeller Part:

- Housing endcap retainer
- Vortex impeller assembly
- Housing endcap
- Ceramic shaft
- O-ring
- Shaft endcap



Scan to visit our website.

REPLACEMENT IMPELLER

Item No.	Description
IM 4HF	4 impeller assembly kit
IM 6HF	6 impeller assembly kit
IM 8HF	8 impeller assembly kit
IM 10HF	10 impeller assembly kit
IM 12HF	12 impeller assembly kit
IM 14HF	14 impeller assembly kit
IM 17HF	17 impeller assembly kit
IM 20HF	20 impeller assembly kit
IM 26HF	26 impeller assembly kit
IM 32HF	32 impeller assembly kit

TROUBLESHOOTING

Problem: Pump is too noisy.

Reason & Solution:

- Wrong size flexible tubing is being used.
- Pump is touching the wall of the filtration.
- Flow has been reduced by more than 15% using a ball valve.
- Vibration plate has not been installed.
- Main housing strainer is clogged.
- Impeller and ceramic shaft needs to be cleaned.
- Broken ceramic shaft.
- Impeller was not reinstalled properly. Verify that ceramic shaft and shaft endcap is in place.
- Wrong size pump for the given application.
- If rigid PVC is used, connect a 1in piece of flexible tubing in between the pump and the rigid tubing. This will take tension off the pump and help reduce noise.

Problem: Pump will not start.

Reason & Solution:

- Impeller needs to be cleaned.
- Impeller will not rotate freely on ceramic shaft.
- Main housing strainer is clogged.
- GFCI has gone off and needs to be reset.
- When using a check valve and the intake elbow, air is trapped in impeller well and intake elbow. Rotate the intake elbow 180 degrees to release air then reinstall properly.
- Impeller and/or ceramic shaft are damaged and needs to be replaced.



If the pump is too noisy verify that the suction cup bracket (9), bushings (10), vibration plate (11) and suction cups (12) are installed properly.

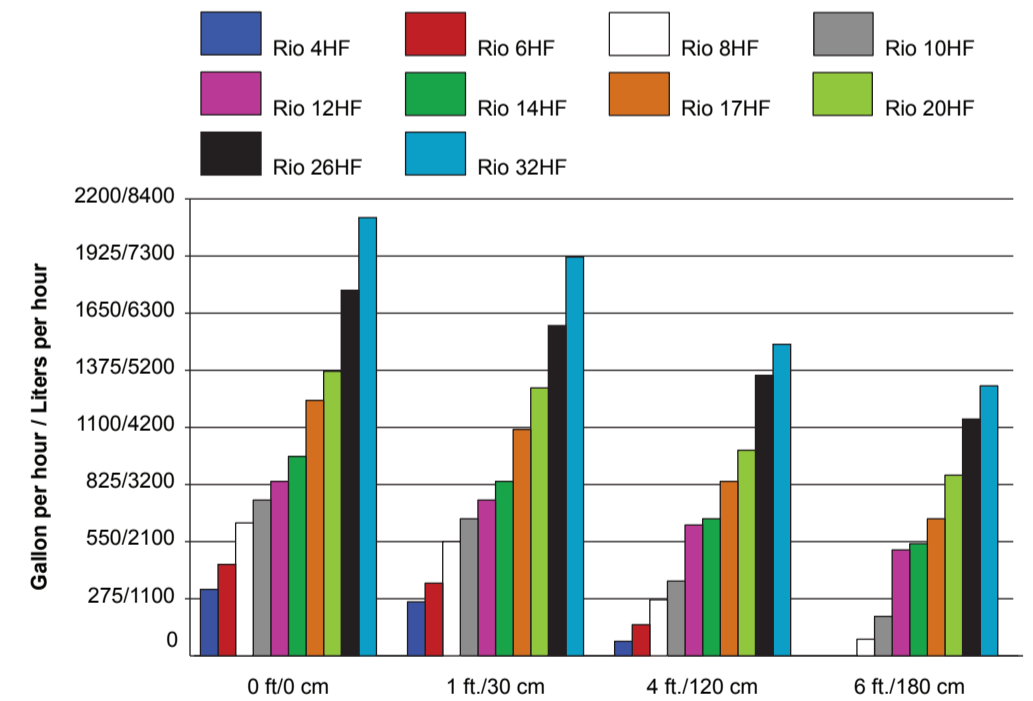
LIMITED WARRANTY

Warrants that Rio® HyperFlow™ Pump is free from defects for a period of 6 months from the initial date of purchase shown on the original cash register receipt. Disclaims all other warranties of merchantability and/or fitness for a particular purpose. Although this limited warranty may give you specific rights, you may have other rights that may vary from state to state. This warranty is void if the failure of the pump or any part, sealant or component there of is due to (i) misuse, (ii) tampering, (iii) negligence, (iv) misapplication, (v) abuse, (vi) accident and/or (vii) failure to properly (a) maintain, (b) clean, (c) keep pump fully submersed and/or use the pump with a Ground Fault Circuit Interrupter (GFCI).

FLOW CHART

Item No.	Watts		Dimensions L x W x H (approx.)	Gallons per hour / liters per hour				Output	Max. head	Max. Depth from Water Level
	115V/60Hz	220V/50Hz		0ft./0cm	1ft./30cm	4ft./120cm	6ft./180cm			
Rio 4HF	10	10	3.9 x 2 x 2.5 in	320 / 1230	260 / 990	70 / 270		16mm 5/8in	5ft. / 1.6m	10in.-36 in (25 cm - 91.4 cm)
Rio 6HF	15	12		440 / 1680	350 / 1330	150 / 590			6ft. / 1.9m	
Rio 8HF	30	20	4.4 x 2.3 x 2.8 in	640 / 2460	550 / 2090	270 / 1020	80 / 300	19mm 3/4in	6.5ft. / 2.0m	
Rio 10HF	35	25		750 / 2870	660 / 2500	360 / 1360	190 / 720		7.5ft. / 2.3m	
Rio 12HF	40	35	4.9 x 2.5 x 3.2 in	840 / 3210	750 / 2850	630 / 2390	510 / 1930	19mm 3/4in	9.5ft. / 2.9m	
Rio 14HF	45	40		960 / 3660	840 / 3210	660 / 2500	540 / 2050		10ft. / 3.0m	
Rio 17HF	55	45	5.4 x 2.7 x 3.7 in	1230 / 4680	1090 / 4140	840 / 3190	660 / 2500	25mm 1in	10ft. / 3.1m	
Rio 20HF	60	50		1370 / 5210	1290 / 4900	990 / 3760	870 / 3300		10.8ft. / 3.3m	
Rio 26HF	100	100	5.9 x 3.1 x 4.2 in	1760 / 6720	1590 / 6040	1350 / 5130	1140 / 4330		13 ft. / 4.0m	
Rio 32HF	115	120		2110 / 8030	1920 / 7300	1500 / 5700	1300 / 4940		14ft. / 4.3m	

FLOW CHART GRAPH



OPTIONAL PART: MAGNET MOUNT

Item No.	Dimension L x H x W (approx.)	Rio® HyperFlow™	Glass Thickness	UPC No. 0006760
MM150	1.9 x 3.25 x 0.83in (5 x 8.3 x 2.1cm)	4HF/6HF	1/2in (12mm)	1021 1
MM200		8HF/10HF		0846 1
MM300		12HF/14HF		0847 8
MM350		17HF/20HF		0869 0
MM500	2.5 x 4.3in x 1.1in (6.5 x 11x 2.9cm)	26HF/32HF	3/4in (19mm)	0848 5



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Rio® HyperFlow™

PROFESSIONAL GRADE WATER PUMP



Good water circulation is critical to maintaining a healthy environment. Rio® HyperFlow™ Pump delivers high performance at an affordable price. This compact highly efficient pump uses Neopower magnetic vortex rotor blade technology to pump more gallons per watt than any same-size external pump. Rare-earth compounds pack power into a neatly compact pump. Cool and efficient operation keep energy costs low. The ceramic shaft with ceramic bushings offers strength and resists to corrosion. High-impact plastic construction makes Rio® HyperFlow™ Pump durable and reliable. Rio® HyperFlow™ Pump is fully submersible and offers the best-performance water pump on the market. Features include high flow rates, low heat output and are designed to be energy efficient keeping energy bill low, in addition providing tremendous pressure capabilities. Simply put the most compact and energy efficient pump on the market today.