

# STIEBEL ELTRON

Simply the Best

## Radiant Heating

Electric Micro-Boilers | Modular Panel System



# Hydro Shark®

800.805.5384

Comprehensive technology, energy-saving performance, plus compact professional design make HydroShark's modular panel system and electric boilers an easy install and a great value for homes, garages, or post frame structures.

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# Hydro Shark®

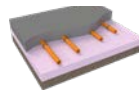
## Modular Panel System for Radiant Floor Heating

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## Panel & Boiler Options by Zone

	System Panel		Boiler		Zoning Panel
1-Zone Electric	Pro Panel Single Zone				None needed
1-Zone Gas	Master Panel Single Zone	+	Gas		None needed
2-Zone Electric	Pro Panel Pump			+	2-Zone Panel Pump
	Pro Panel Actuator			+	Manifold with Actuators
2-Zone Gas	Master Panel Pump				2-Zone Panel Pump
	Master Panel Actuator	+	Gas	+	Manifold with Actuators
3-Zone Electric	Pro Panel Pump				3-Zone Panel Pump
	Pro Panel Actuator			+	Manifold with Actuators
3-Zone Gas	Master Panel Pump				3-Zone Panel Pump
	Master Panel Actuator	+	Gas	+	Manifold with Actuators
4-Zone Electric	Pro Panel Pump				4-Zone Panel Pump
	Pro Panel Actuator			+	Manifold with Actuators
4-Zone Gas	Master Panel Pump				4-Zone Panel Pump
	Master Panel Actuator	+	Gas	+	Manifold with Actuators

## Emitter Options

**Embedded Concrete**

**Pour Over**

**Staple Up**

**Radiator**

**Baseboard**


Electric	HydroShark 7 – 10	✓	✓			
	HydroShark 12 – 36	✓	✓			
Gas	HydroShark 115	✓	✓			
	HydroShark 120	✓	✓			
	HydroShark 199	✓	✓	✓	✓	✓

**Hydro Shark**® radiant floor panels are a professional, modular system designed to make radiant floor installation simple, reliable, and easy. Everything you need to install is already mounted to the HydroShark® panel.

### Quality Components

HydroShark® Radiant Floor Heating Systems use only premium components and quality assembly. They use only the best pumps, controls, and components. All plumbing joints are precision soldered and pressure tested. The steel mounting plate is powder coated and the piping is polished and clear coated.

### Quality Design and Hydraulic Separation

HydroShark® panel systems feature a closely spaced tee to create hydraulic separation between the boiler loop and the emitter heating loop. The loops are independent and each uses its own pump. This allows the flow rate for each loop to be separately adjusted for optimum performance. This is far superior than systems that use a single loop for both the boiler and the heat tubing.

### Modularity for Maximum System Versatility

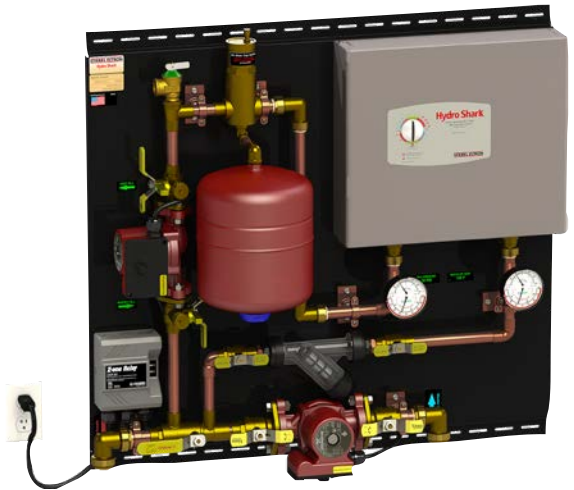
HydroShark® panels offer maximum compatibility with radiant floor heating installations. Panels are available with or without the boiler integrated on the panel, allowing boilers to be installed separately from the heating panel. This increases both boiler choice and boiler installation location. HydroShark® components can be tailored for multiple systems and still provide an easy and professional installation no matter the system or where it is installed.

At the heart of the HydroShark® system are Master and Pro Panels. Pro Panels include an electric boiler on the panel for simple and incredibly easy installation. Master Panels connect to a separately mounted boiler, either electric or gas, for maximum boiler installation flexibility.

### Single Zone & Multi-Zone Systems

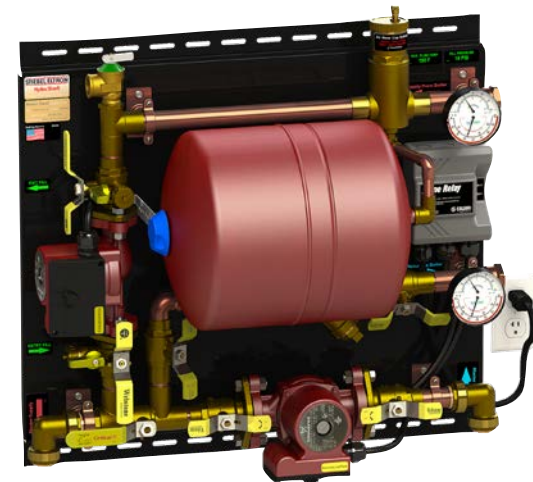
For single zone systems, a Pro Panel or Master Panel (with separate boiler) is all that is needed. For multi-zone systems, a Pro Panel or Master Panel is combined with a Zoning Panel. HydroShark® has panels for multi-zone systems up to 4 zones that use pump zoning, valve zoning, or zoning with actuators. Zoning Panels are available with a single fluid delivery temperature, and up to four thermostat zones.

The modular design & pre-assembled panels of the HydroShark® system remove engineering guesswork, and save installation time and expense.



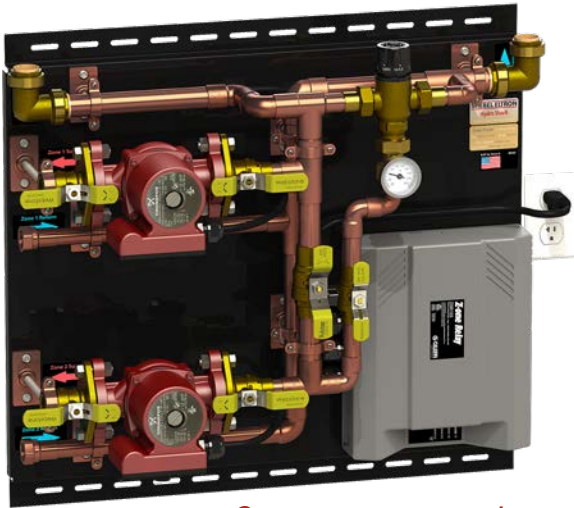
### Pro Panels incorporate electric boilers on the panel

Single zone Pro Panel (shown) needs no additional Zoning Panel. Pro Panels for 2-, 3-, or 4-zones mate with the appropriate Zone Panel.

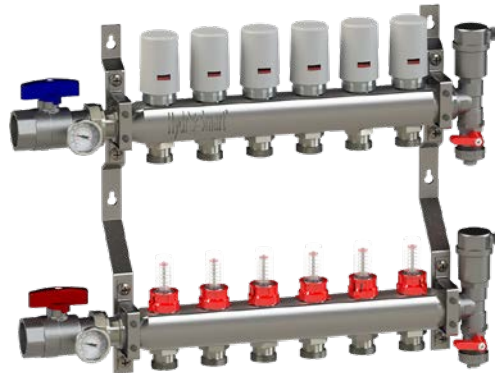


### Master Panels can be mated with a separately mounted gas boiler.

Master Panels for more than a single zone mate with the appropriate Zone Panel.



2-Zone Pump Panel



Manifold with actuators

Zone Panels are available for 2-, 3-, or 4-zones, with zoning by pump or actuators.

## Hydro Shark® Radiant Floor Panels

### Features

- › Powder coated panel
- › Quick-mount rails
- › Heavy duty copper pipe and fittings are cleaned, brushed, & clear-coated
- › Precision solder joints
- › Pre-plumbed
- › Pressure tested & pre-wired

### Quality Components Include

- › Primary/secondary plumbing
- › Expansion tank
- › Y-strainer to catch debris
- › Pump isolator flanges
- › Air separator
- › Separate gauges for supply & return pressure/temperature
- › Purge tee
- › Pre-wired control
- › Pressure relief valve

**Call HydroShark® with any sizing or installation question.**

**We're here to help.**

**All systems come with 1-year warranty & lifetime technical support.**



### ECM Energy Efficient Pumps

In addition to standard models, most HydroShark® panels are also available with electronically commutated motor (ECM) pumps for even greater energy efficiency.

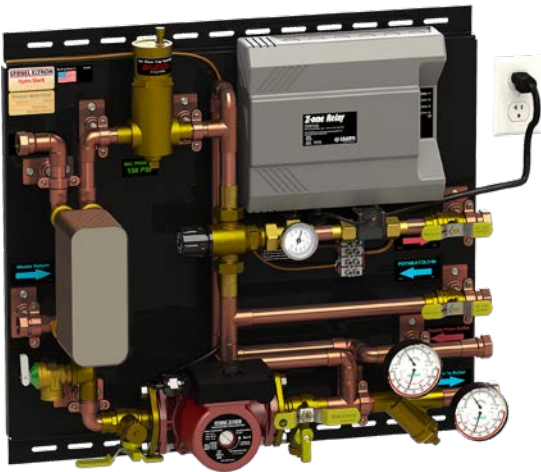
ECM pump-equipped panels will reduce energy consumption by a minimum of 50%. If set to their automatic mode, they will analyze the heating system, find the optimum pump setting, and continuously adjust operation to changes in demand. This will reduce power consumption by up to 85%, ensuring the lowest possible energy consumption without sacrificing comfort.

DHW Integrator

The DHW Integrator Panel can be added to a Master Panel to create a system that will supply on-demand domestic hot water with no storage tank in addition to supplying heat to the radiant system.

Conventional boiler loop systems that also provide domestic hot water with tanks run the boiler at full capacity even if radiant heating is not called for or DHW demand is low. All HydroShark® systems modulate, adapting power to the load. Because the DHW Integrator Panel provides on demand domestic hot water with no tank, the system works at maximum efficiency even if demand for hot water is low.

The DHW Integrator Panel uses a stainless steel plate heat exchanger to isolate the potable water from the rest of the system to prevent any possibility of cross-contamination.



DHW Integrator 180

As easy as possible

HydroShark® has made it easy to configure radiant heating systems with our pre-assembled modular panel system. Use Btu heat losses to get accurate boiler sizing. Then choose the appropriate pump panel depending on your zoning system: single zone, zone by pump, zone by valve, or zone by actuator (telestat).

Or just call us for advice on system sizing and configuration.

HydroShark® strongly recommends professional installation by a licensed plumber and electrician.

Remove engineering guesswork, and save valuable installation labor expenses and time with HydroShark®.

Call HydroShark® with any sizing or installation question.

We're here to help.

All systems come with lifetime technical support.

Emitter Options

	Embedded Concrete	Pour Over	Staple Up	Radiator	Baseboard
HydroShark 7 – 10	✓	✓			
HydroShark 12 – 36	✓	✓			
HydroShark 115	✓	✓			
HydroShark 120	✓	✓			
HydroShark 199	✓	✓	✓	✓	✓

## Quality boilers

HydroShark® electric boilers range from 7 to 36 kW. They are an integral part of Pro Panels, offering simple and incredibly easy installation. They can also be installed separately and used in a Master Panel system.

HydroShark® gas boilers mount separately and are mated to Master Panels. There are 3 models of HydroShark® gas boilers: 199,000 Btu condensing, 120,000 Btu condensing, and 115,000 Btu condensing. Gas boilers are available for both liquid propane or natural gas.

## HydroShark® Electric Boilers

- › No venting required
- › Auto-modulating heating element with modulation status LED
- › .264 – .77 gpm flow activation
- › Copper heating vessel
- › 86° – 140 °F temperature range
- › 12 – 36 kW models equipped with hinged cover
- › Wall hung

## HydroShark® Gas Boilers

- › Wall hung
- › .5 – .75 gpm flow activation
- › Copper heat exchanger
- › No pilot light
- › Power-vented

**HydroShark® 7 – 10**  
**HydroShark® 12 – 36**  
7 – 10 & 12 – 36 kW  
electric boilers



HydroShark® 7 & 10: UL 499  
HydroShark® 12-36: UL 834

**HydroShark® 115 Plus**  
115,000 Btu  
non-condensing gas boiler



**HydroShark® 120**  
120,000 Btu  
condensing gas boiler



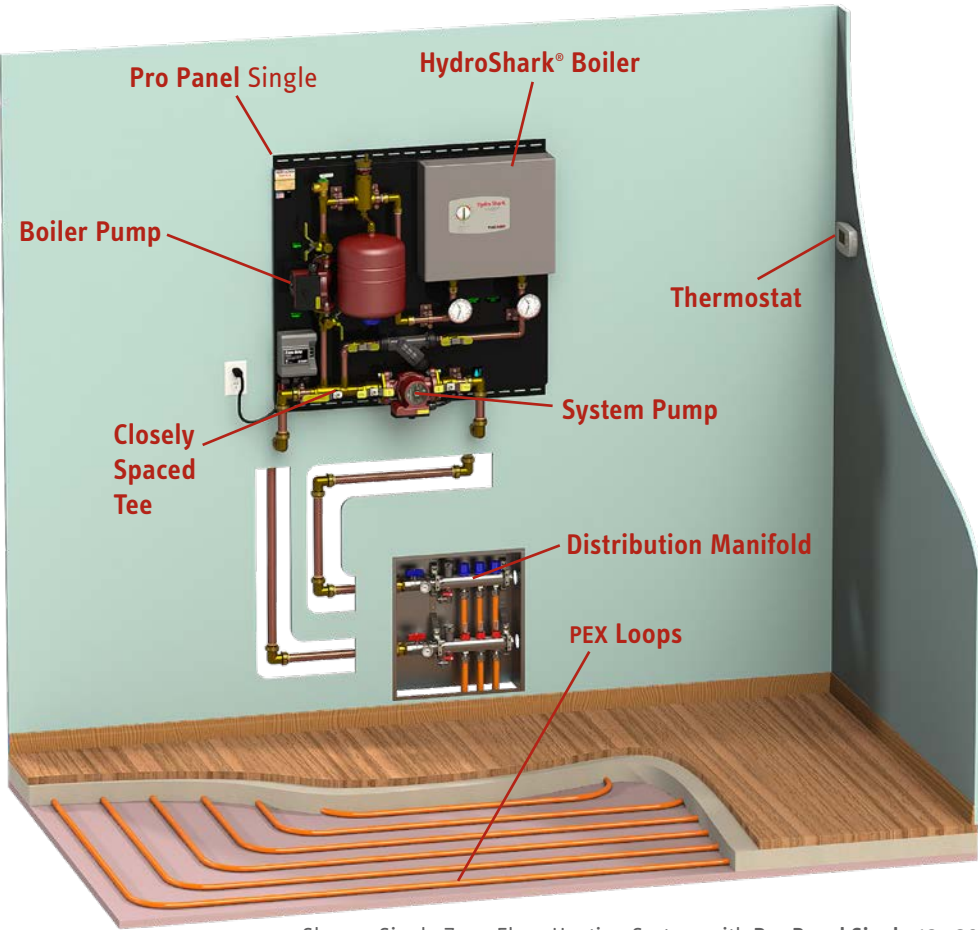
**HydroShark® 199**  
199,000 Btu  
condensing gas boiler



	HydroShark® 7 & 10 plus 12 – 36		HydroShark® 115 Plus	HydroShark® 120	HydroShark® 199
<b>Fuel</b>	Electric	<b>Fuel</b>	LP or Nat. Gas	LP or Nat. Gas	LP or Nat. Gas
<b>Energy Factor</b>	.99	<b>Energy Factor</b>	.82 NG   .83 LP	.93	.95
<b>Temp. range</b>	86–140 °F	<b>Temp. range</b>	99–140 °F	99–140 °F	80–160 °F*
<b>Minimum modulation</b>	1,700 Btu	<b>Modulation range</b>	15,000–115,000 Btu	13,950–111,600 Btu	12,350–189,050 Btu
<b>Venting</b>	None required	<b>Venting</b>	3" Cat.III Stainless	3" Sch. 40 PVC	3" Sch. 40 PVC

\*up to 185 °F with additional control

Hydro Shark Pro Panel Single Zone



Shown: Single Zone Floor Heating System with Pro Panel Single 12 – 36

Single Zone System with Pro Panel

When the **Thermostat** calls for heat, the **HydroShark® Boiler** fires (if necessary), and the **Boiler Pump** moves the heated fluid around the primary loop. Heat transfers to the secondary circuit via the **Closely Spaced Tee**, and is delivered throughout the secondary circuit through the **System Pump**.

The **PEX Loops** in the secondary emitter circuit can be adjusted individually with the **Distribution Manifold**, which should have flow meters and on/off valves for filling, purging, and adjusting flow individually for each **PEX Loop**.

The **Closely Spaced Tee** allows the primary boiler loop and the secondary emitter loop (PEX loop) to be hydraulically separated from each other. This allows the flow rates of each circuit to be set independently for optimum performance.

Pro Panel Single Zone

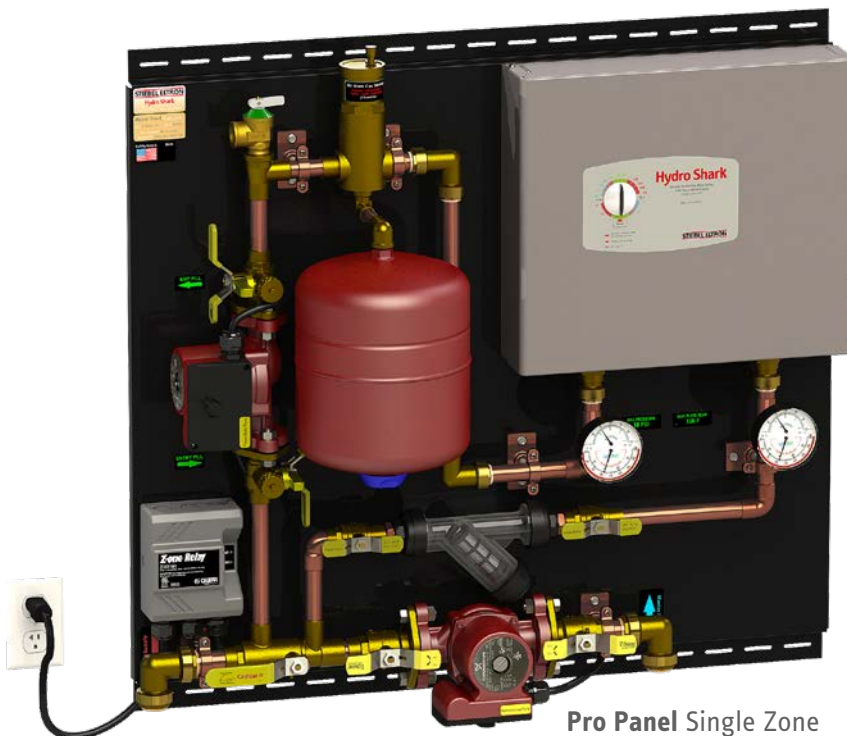
	Item No.	Description
STANDARD MODELS	Pro Panel 7 Single	HSPS007 Pro Panel 7 kW Single Zone
	Pro Panel 10 Single	HSPS010 Pro Panel 10 kW Single Zone
	Pro Panel 12 Single	HSPS012 Pro Panel 12 kW Single Zone
	Pro Panel 14 Single	HSPS014 Pro Panel 14 kW Single Zone
	Pro Panel 19 Single	HSPS019 Pro Panel 19 kW Single Zone
	Pro Panel 24 Single	HSPS024 Pro Panel 24 kW Single Zone
	Pro Panel 29 Single	HSPS029 Pro Panel 29 kW Single Zone
	Pro Panel 36 Single	HSPS036 Pro Panel 36 kW Single Zone
ECM MODELS*	ECM Pro Panel 7 Single	HSPSE07 ECM Pro Panel 7 kW Single Zone
	ECM Pro Panel 10 Single	HSPSE10 ECM Pro Panel 10 kW Single Zone
	ECM Pro Panel 12 Single	HSPSE12 ECM Pro Panel 12 kW Single Zone
	ECM Pro Panel 14 Single	HSPSE14 ECM Pro Panel 14 kW Single Zone
	ECM Pro Panel 19 Single	HSPSE19 ECM Pro Panel 19 kW Single Zone
	ECM Pro Panel 24 Single	HSPSE24 ECM Pro Panel 24 kW Single Zone
	ECM Pro Panel 29 Single	HSPSE29 ECM Pro Panel 29 kW Single Zone
	ECM Pro Panel 36 Single	HSPSE36 ECM Pro Panel 36 kW Single Zone

\*ECM Pro Panel Singles are equipped with an ECM system pump, which is up to 85% more efficient than a standard pump.

**Hydro Shark® Pro Panel Single Zone****Tech Specs**

	Pro Panel 7-36 Single Zone
Emitter Supply-Return Connections	1" Quick Connect (PEX or Copper)
Btu Piping Capacity of Panel	120,000 Btu
Weight	Pro Panel 7 - 10 (51 lb.) Pro Panel 12 - 24 (80 lb.) Pro Panel 29 - 36 (85 lb.)
Panel Size	Pro Panel 7 - 10 (32½" H x 26" W x 12" D) Pro Panel 12 - 36 (34½" H x 32½" W x 12" D)
Boiler Pump	UPS15-58FC, 0-19 FT HD, 0-17 gpm
System Pump	UPS15-58FC, 0-19 FT HD, 0-17 gpm
ECM Panel System Pump*	ALPHA2 15-55, 0-19 FT HD, 0-21 gpm
Panel Clearances	1" Left, 1" Right, 1" Top, 1" Bottom
Max. Temperature	155°F
Fill Pressure (Cold)	18 psi
Max. Tested Pressure	75 psi
Panel Material	Powder Coated Steel - Black
Pressure Relief Valve	30 psi
Expansion Tank	2.1 gal, Pre-charged 12 psi
Thermostat Capacity	Max. 1 thermostat (24 Vac)
Controller Power Supply	120 V, 60 Hz, 6 Amp
Boiler Power Supply	See HydroShark® Boiler Specs

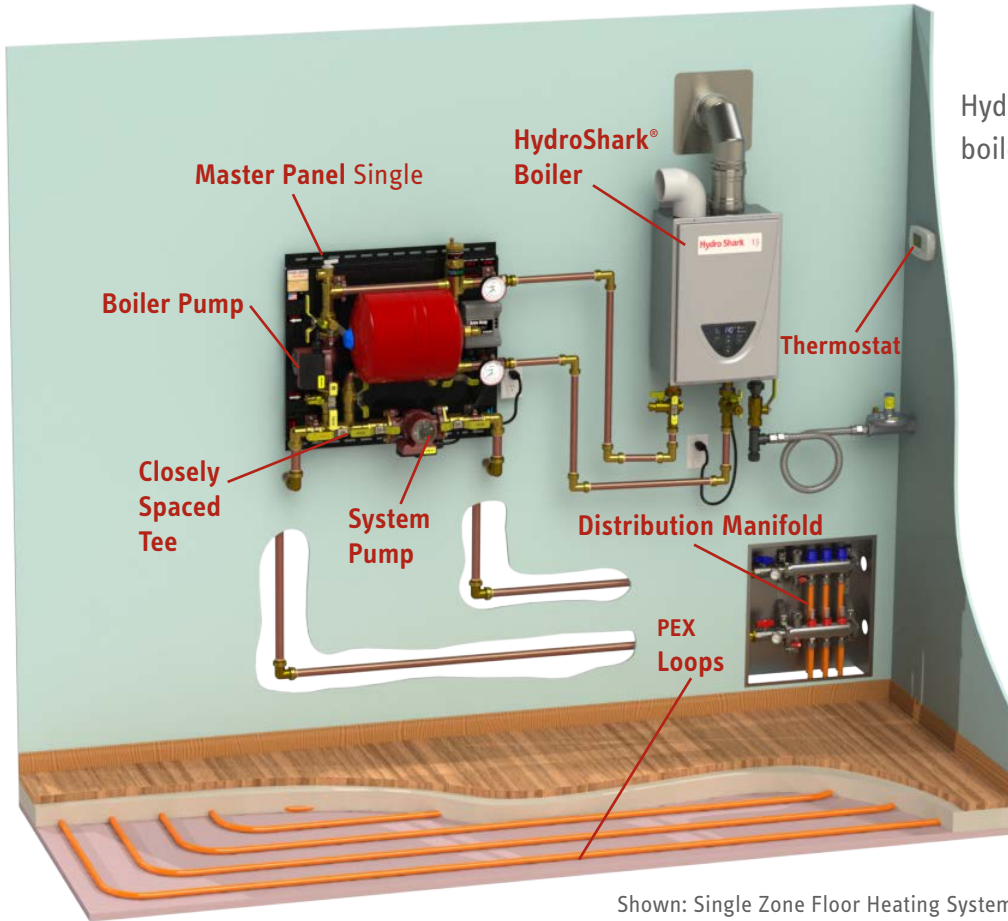
\*ECM Pro Panel Singles are equipped with an ECM system pump. ECM pumps are up to 85% more efficient than standard pumps.



**Pro Panel Single Zone**  
with HydroShark® 12 - 36



**Pro Panel Single Zone**  
with HydroShark® 7 - 10

**Hydro Shark Master Panel** Single Zone

HydroShark® 115 Plus shown. All gas boilers are options if sufficient for system.



Shown: Single Zone Floor Heating System  
with Master Panel Single

**Single Zone System with Master Panel**

When the **Thermostat** calls for heat, the **HydroShark® Boiler** fires (if necessary), and the **Boiler Pump** moves the heated fluid around the primary loop. Heat transfers to the secondary circuit via the **Closely Spaced Tee**, and is delivered throughout the secondary circuit through the **System Pump**.

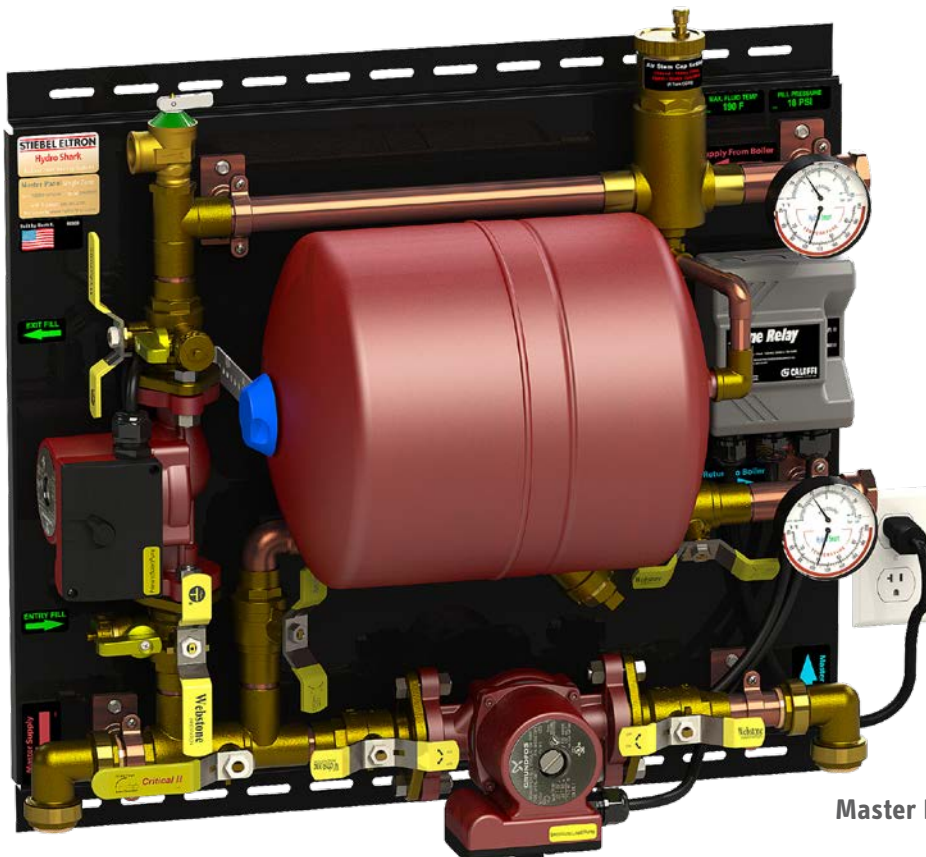
The **PEX Loops** in the secondary emitter circuit can be adjusted individually with the **Distribution Manifold**, which should have flow meters and on/off valves for filling, purging, and adjusting flow individually for each **PEX Loop**.

The **Closely Spaced Tee** allows the primary boiler loop and the secondary emitter loop (PEX loop) to be hydraulically separated from each other. This allows the flow rates of each circuit to be set independently for optimum performance .

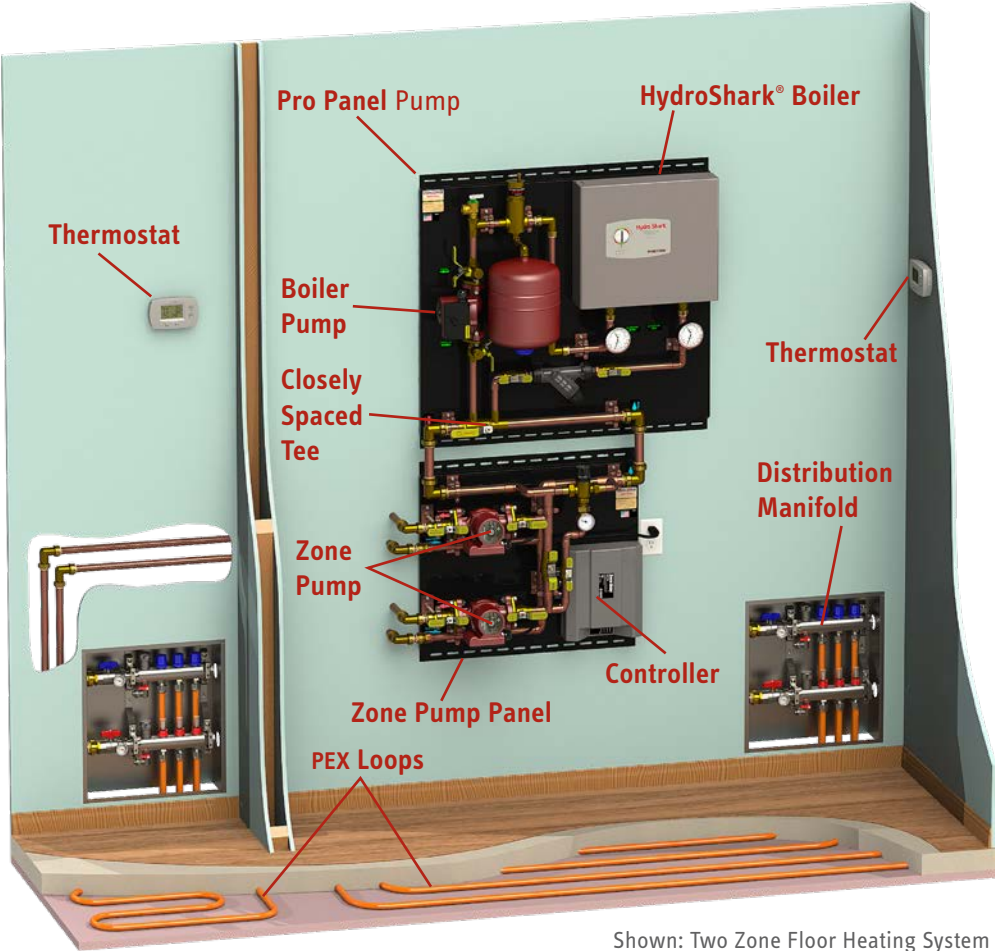
**Hydro Shark® Master Panel** Single Zone**Tech Specs**

	Master Panel Single
Standard Item No.	HSMSIN0
ECM Item No.*	HSMSINE
Boiler Supply - Return Connections	3/4" FPT
System Supply-Return Connections	1" Quick Connect (PEX or Copper)
Btu Capacity	190,000 Btu
Weight	58 lb.
Panel Size	26 1/4" H x 26" W x 10" D
Boiler Pump	UPS15-58FC, 0-19 FT HD, 0-17 gpm
System Pump	UPS15-58FC, 0-19 FT HD, 0-17 gpm
ECM System Pump*	ALPHA 15-55FC/LC
Panel Clearances	1" Left, 1" Right, 1" Top, 1" Bottom
Maximum Temperature	155 °F
Fill Pressure (Cold)	18 psi
Maximum Tested Pressure	75 psi
Panel Material	Powder Coated Steel - Black
Pressure Relief Valve	30 psi
Expansion Tank	2.1 gal, Pre-charged 12 psi
Thermostat Capacity	Max. 1 Thermostat (24 Vac)
Controller Power Supply	120 V, 60 Hz, 6 A

\*ECM Master Panel Single is equipped with an ECM system pump. ECM pumps are up to 85% more efficient than standard pumps.

**Master Panel Single Zone**

Hydro Shark Pro Panel Pump



Shown: Two Zone Floor Heating System with Pro Panel Pump 12 – 36 and 2-Zone Pump Panel

Multi-zone systems with Pro Panel and zoning by pump

When a **Thermostat** calls for heat, the **HydroShark® Boiler** fires (if necessary), and the **Boiler Pump** moves the heated fluid around the primary loop. Heat transfers to the **Zone Pump Panel** and the secondary emitter circuit via the **Closely Spaced Tee**.

Each **Zone Pump** on the Zone Pump Panel is paired with an associated **Thermostat**. Once a **Zone Pump** is energized, the heated fluid is delivered to the **Distribution Manifold**. The **Zone Pumps** have built in check valves to prevent back flow.

The **PEX Loops** in each emitter circuit can be adjusted individually with their **Distribution Manifold**, which should have flow meters and on/off valves for filling, purging, and adjusting flow individually for each **PEX Loop**.

The **Closely Spaced Tee** allows the primary boiler loop and the secondary emitter loop (PEX loop) to be hydraulically separated from each other. This allows the flow rates of each circuit to be set independently for optimum performance.

Pro Panel Pump

	Item No.	Description
Pro Panel 7 Pump	HSPP007	Pro Panel 7 kW Pump Zoning
Pro Panel 10 Pump	HSPP010	Pro Panel 10 kW Pump Zoning
Pro Panel 12 Pump	HSPP012	Pro Panel 12 kW Pump Zoning
Pro Panel 14 Pump	HSPP014	Pro Panel 14 kW Pump Zoning
Pro Panel 19 Pump	HSPP019	Pro Panel 19 kW Pump Zoning
Pro Panel 24 Pump	HSPP024	Pro Panel 24 kW Pump Zoning
Pro Panel 29 Pump	HSPP029	Pro Panel 29 kW Pump Zoning
Pro Panel 36 Pump	HSPP036	Pro Panel 36 kW Pump Zoning



Pro Panel Pump with HydroShark® 7 – 10

**Hydro Shark® Pro Panel Pump****Tech Specs**

	Pro Panel 7 – 36 Pump
Zone Panel S/R Connections	1" Quick Connect (PEX or Copper)
Btu Capacity of Panel Piping	120,000 Btu
Weight	Pro Panel 7 – 10 (81 lb.) Pro Panel 12 – 36 (102 lb.)
Panel Size	Pro Panel 7 – 10 (32½"H x 26"W x 12"D) Pro Panel 12 – 36 (34½"H x 32½"W x 12"D)
Boiler Pump	UPS15-58FC, 0-19 FT HD, 0-17 gpm
Panel Clearances	1" Left, 1" Right, 1" Top, 1" Bottom
Maximum Temperature	155 °F
Fill Pressure (Cold)	18 psi
Maximum Tested Pressure	75 psi
Panel Material	Powder Coated Steel – Black
Pressure Relief Valve	30 psi
Expansion Tank	2.1 gal, Pre-charged 12 psi
Boiler Power Supply	See HydroShark® Specs

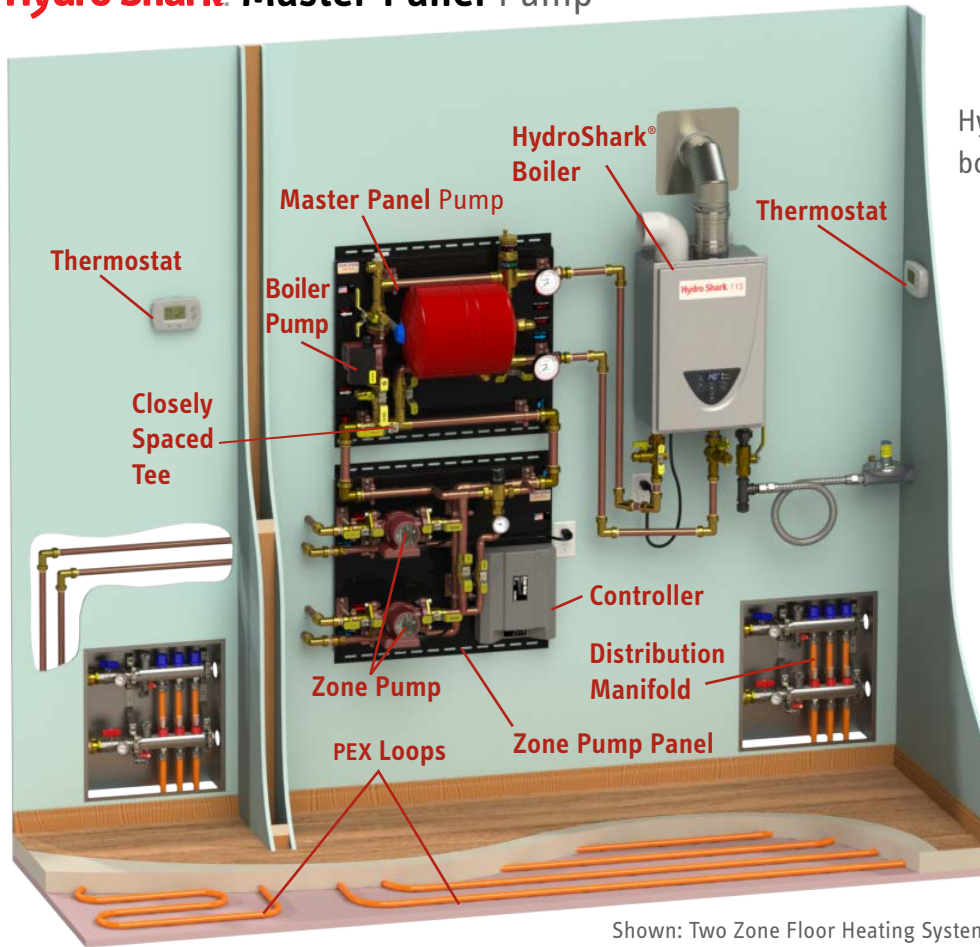


Pro Panel Pump with HydroShark® 12 – 36

**Hydro Shark® Zoning Panels Pump****Tech Specs for Zoning Panels that mate with Pro Panel Pump (4 thermostats maximum)**

	2-Zone Pump Panel	3-Zone Pump Panel	4-Zone Pump Panel
Standard Item No.	HSZP002	HSZP003	HSZP004
ECM Item No.*	HSZPE02	HSZPE03	HSZPE04
Master S/R Connections	1" Quick Connect	1" Quick Connect	1" Quick Connect
Emitter S/R Connections	¾" Quick Connect (PEX or Copper)	¾" Quick Connect (PEX or Copper)	¾" Quick Connect (PEX or Copper)
BTU Capacity	190,000 Btu	190,000 Btu	190,000 Btu
Weight	42 lb.	53 lb.	69 lb.
Panel Size	26¼"H x 26"W x 10"D	26¼"H x 26"W x 10"D	32½"H x 26"W x 10"D
Zone Pumps	UPS15-58FC (2), 0-19 FT HD, 0-17 gpm	UPS15-58FC (3), 0-19 FT HD, 0-17 gpm	UPS15-58FC (4), 0-19 FT HD, 0-17 gpm
ECM Zone Pumps*	ALPHA2 15-55 (2), 0-19 FT HD, 0-21 gpm	ALPHA2 15-55 (3), 0-19 FT HD, 0-21 gpm	ALPHA2 15-55 (4), 0-19 FT HD, 0-21 gpm
Panel Clearances	1" Left, 1" Right, 1" Top, 1" Bottom	1" Left, 1" Right, 1" Top, 1" Bottom	1" Left, 1" Right, 1" Top, 1" Bottom
Maximum Temperature	155 °F	155 °F	155 °F
Fill Pressure (Cold)	18 psi	18 psi	18 psi
Max. Tested Pressure	75 psi	75 psi	75 psi
Panel Material	Powder Coated Steel – Black	Powder Coated Steel – Black	Powder Coated Steel – Black
Thermostat Capacity	2 Thermostats (24 Vac)	3 Thermostats (24 Vac)	4 Thermostats (24 Vac)
Controller	ZSR103	ZSR103	ZSR104
Controller Power Supply	120 V, 60 Hz, 6 A	120 V, 60 Hz, 6 A	120 V, 60 Hz, 6 A

\*ECM Zoning Pump Panels are equipped with ECM system pumps. ECM pumps are up to 85% more efficient than a standard pump.

**Hydro Shark Master Panel Pump**

Shown: Two Zone Floor Heating System  
with Master Panel Pump and 2-Zone Pump Panel

HydroShark® 115 Plus shown. All gas boilers are options if sufficient for system.

**Multi-zone systems with Master Panel and zoning by pump**

When a **Thermostat** calls for heat, the **HydroShark® Boiler** fires (if necessary), and the **Boiler Pump** moves the heated fluid around the primary loop. Heat transfers to the **Zone Pump Panel** and the secondary emitter circuit via the **Closely Spaced Tee**.

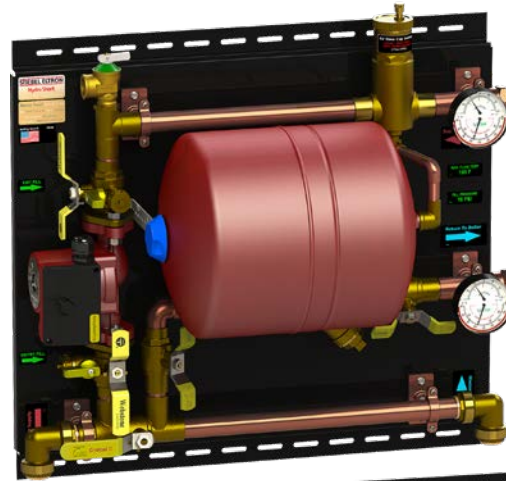
Each **Zone Pump** on the Zone Pump Panel is paired with an associated **Thermostat**. Once a **Zone Pump** is energized, the heated fluid is delivered to the **Distribution Manifold**. The **Zone Pumps** have built in check valves to prevent back flow.

The **PEX Loops** in each emitter circuit can be adjusted individually with their **Distribution Manifold**, which should have flow meters and on/off valves for filling, purging, and adjusting flow individually for each **PEX Loop**.

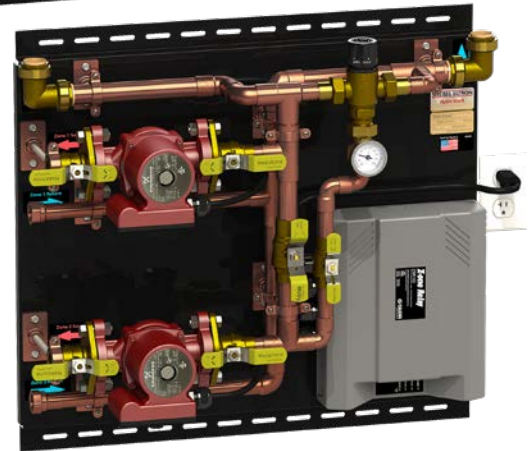
The **Closely Spaced Tee** allows the primary boiler loop and the secondary emitter loop (PEX loop) to be hydraulically separated from each other. This allows the flow rates of each circuit to be set independently for optimum performance.

**Hydro Shark Master Panel Pump****Tech Specs**

	Master Panel Pump
Item No.	HSMPMP0
Boiler S/R Connections	3/4" FPT
Zone Panel S/R Connections	1" Quick Connect (PEX or Copper)
Btu Capacity	190,000 Btu
Weight	44 lb.
Panel Size	26 1/4" H x 26" W x 10" D
Boiler Pump	UPS15-58FC, 0-19 FT HD, 0-17 gpm
Panel Clearances	1" Left, 1" Right, 1" Top, 1" Bottom
Maximum Temperature	155 °F
Fill Pressure (Cold)	18 psi
Maximum Tested Pressure	75 psi
Panel Material	Powder Coated Steel – Black
Pressure Relief Valve	30 psi
Expansion Tank	2.1 gal, Pre-charged 12 psi



Master Panel Pump



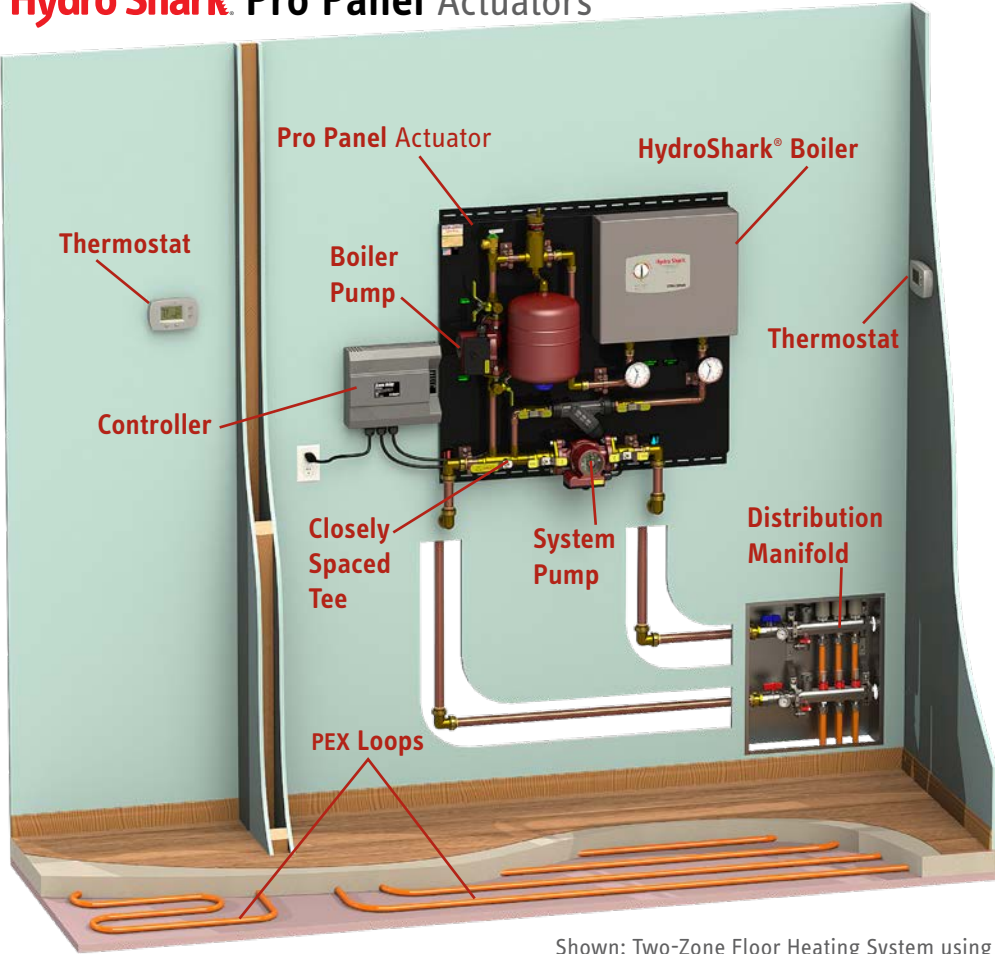
2-Zone Pump Panel

**Hydro Shark Zoning Panels Pump****Tech Specs for Zoning Panels that mate with Master Panel Pump (4 thermostats maximum)**

	2-Zone Pump Panel	3-Zone Pump Panel	4-Zone Pump Panel
Standard Item No.	HSZP002	HSZP003	HSZP004
Item No. ECM*	HSZPE02	HSZPE03	HSZPE04
Master S/R Connections	1" Quick Connect	1" Quick Connect	1" Quick Connect
Emitter S/R Connections	3/4" Quick Connect (PEX or Copper)	3/4" Quick Connect (PEX or Copper)	3/4" Quick Connect (PEX or Copper)
BTU Capacity	190,000 Btu	190,000 Btu	190,000 Btu
Weight	42 lb.	53 lb.	69 lb.
Panel Size	26 1/4" H x 26" W x 10" D	26 1/4" H x 26" W x 10" D	32 1/2" H x 26" W x 10" D
Zone Pumps	UPS15-58FC (2), 0-19 FT HD, 0-17 gpm	UPS15-58FC (3), 0-19 FT HD, 0-17 gpm	UPS15-58FC (4), 0-19 FT HD, 0-17 gpm
ECM Zone Pumps*	ALPHA2 15-55 (2), 0-19 FT HD, 0-21 gpm	ALPHA2 15-55 (3), 0-19 FT HD, 0-21 gpm	ALPHA2 15-55 (4), 0-19 FT HD, 0-21 gpm
Panel Clearances	1" Left, 1" Right, 1" Top, 1" Bottom	1" Left, 1" Right, 1" Top, 1" Bottom	1" Left, 1" Right, 1" Top, 1" Bottom
Maximum Temperature	155 °F	155 °F	155 °F
Fill Pressure (Cold)	18 psi	18 psi	18 psi
Max. Tested Pressure	75 psi	75 psi	75 psi
Panel Material	Powder Coated Steel – Black	Powder Coated Steel – Black	Powder Coated Steel – Black
Thermostat Capacity	2 Thermostats (24 Vac)	3 Thermostats (24 Vac)	4 Thermostats (24 Vac)
Controller	ZSR103	ZSR103	ZSR104
Controller Power Supply	120 V, 60 Hz, 6 A	120 V, 60 Hz, 6 A	120 V, 60 Hz, 6 A

\*ECM Zoning Pump Panels are equipped with ECM system pumps. ECM pumps are up to 85% more efficient than a standard pump.

Hydro Shark Pro Panel Actuators



Shown: Two-Zone Floor Heating System using Pro Panel Actuator 12 – 36 and Manifold with Actuators

Multi-zone systems with Pro Panel and zoning by actuator

When a **Thermostat** calls for heat, the **HydroShark® Boiler** fires (if necessary), and the **Boiler Pump** moves the heated fluid around the primary loop. Heat transfers to the secondary emitter circuit via the **Closely Spaced Tee**.

The **System Pump** circulates the heat to the **Distribution Manifold**, where **Actuators**, grouped to form each zone, open and close the ports, which may have more than one **PEX Loop**. **Actuator** operation is controlled by the **Zone Valve Controller**. Primary circuit flow activates the **HydroShark® Boiler**.

The **PEX Loops** can be adjusted individually with a proper **Distribution Manifold**, which should have flow meters and on/off valves for filling, purging, and adjusting flow for each PEX loop. This system may require a **Pressure Bypass** valve on the **Distribution Manifold**.

Pro Panel Actuator

	Item No.	Description
STANDARD MODELS	Pro Panel 7 Actuator	HSPA007 Pro Panel 7 kW Actuator Zoning
	Pro Panel 10 Actuator	HSPA010 Pro Panel 10 kW Actuator Zoning
	Pro Panel 12 Actuator	HSPA012 Pro Panel 12 kW Actuator Zoning
	Pro Panel 14 Actuator	HSPA014 Pro Panel 14 kW Actuator Zoning
	Pro Panel 19 Actuator	HSPA019 Pro Panel 19 kW Actuator Zoning
	Pro Panel 24 Actuator	HSPA024 Pro Panel 24 kW Actuator Zoning
	Pro Panel 29 Actuator	HSPA029 Pro Panel 29 kW Actuator Zoning
ECM MODELS*	Pro Panel 36 Actuator	HSPA036 Pro Panel 36 kW Actuator Zoning
	ECM Pro Panel 7 Actuator	HSPAE07 ECM Pro Panel 7 kW Actuator Zoning
	ECM Pro Panel 10 Actuator	HSPAE10 ECM Pro Panel 10 kW Actuator Zoning
	ECM Pro Panel 12 Actuator	HSPAE12 ECM Pro Panel 12 kW Actuator Zoning
	ECM Pro Panel 14 Actuator	HSPAE14 ECM Pro Panel 14 kW Actuator Zoning
	ECM Pro Panel 19 Actuator	HSPAE19 ECM Pro Panel 19 kW Actuator Zoning
	ECM Pro Panel 24 Actuator	HSPAE24 ECM Pro Panel 24 kW Actuator Zoning
	ECM Pro Panel 29 Actuator	HSPAE29 ECM Pro Panel 29 kW Actuator Zoning
	ECM Pro Panel 36 Actuator	HSPAE36 ECM Pro Panel 36 kW Actuator Zoning

The **Closely Spaced Tee** allows the primary boiler loop and the secondary emitter loop (PEX loop) to be hydraulically separated from each other. This allows the flow rates of each circuit to be set independently for optimum performance.

\*ECM Pro Panel Actuators are equipped with an ECM system pump. ECM pumps are up to 85% more efficient than standard pumps.

## Hydro Shark Pro Panel Actuators

### Tech Specs

Pro Panel 7 – 36 Actuator	
Zone Panel S/R Connections	1" Quick Connect (PEX or Copper)
Btu Piping Capacity of Panel	120,000 Btu
Weight	7 – 10 kW (51 lb.)
	12 – 24 kW (85 lb.)
	29 – 36 kW (80 lb.)
Panel Size	Pro Panel 7 – 10 (32½"H x 26"W x 12"D) Pro Panel 12 – 36 (34½"H x 32½"W x 12"D)
Boiler Pump	UPS15-58FC, 0-19 FT HD, 0-17 gpm
System Pump	UPS15-58FC, 0-19 FT HD, 0-17 gpm
ECM System Pump*	ALPHA2 15-55, 0-19 FT HD, 0-21 gpm
Panel Clearances	1" Left, 1" Right, 1" Top, 1" Bottom
Maximum Temperature	155 °F
Fill Pressure (Cold)	18 psi
Maximum Tested Pressure	75 psi
Panel Material	Powder Coated Steel – Black
Pressure Relief Valve	30 psi
Expansion Tank	2.1 gal, Pre-charged 12 psi
Boiler Power Supply	See HydroShark® Specs



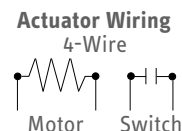
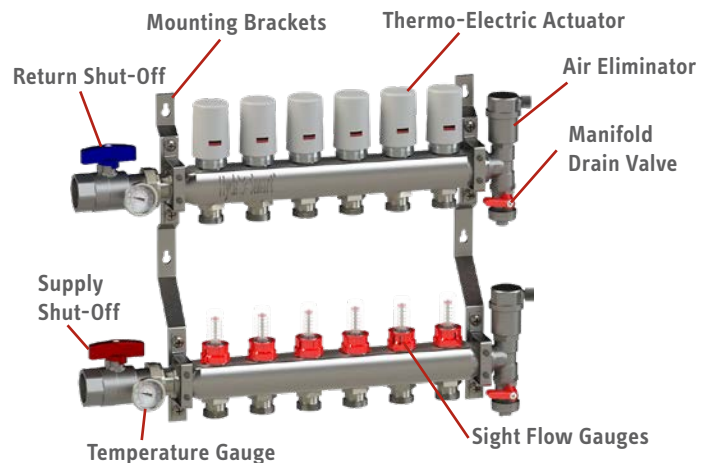
Pro Panel Actuator

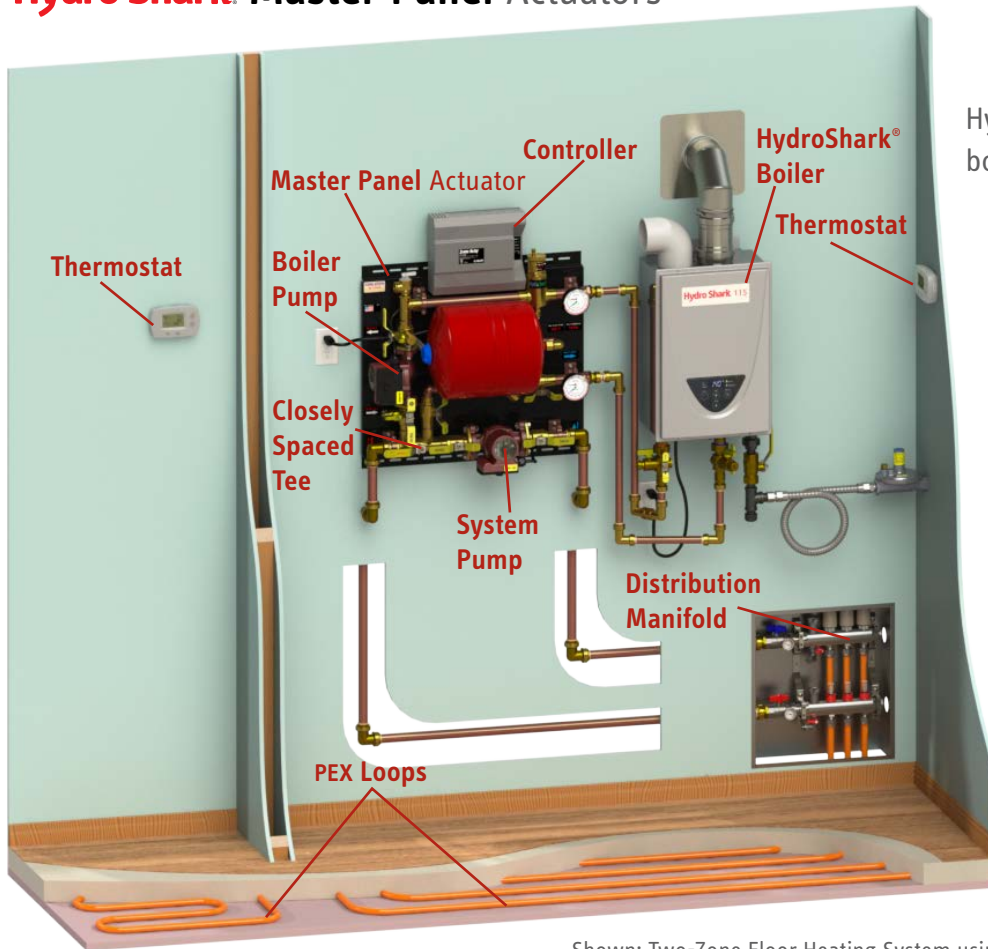
\*ECM Pro Panel Actuators are equipped with an ECM system pump. ECM pumps are up to 85% more efficient than standard pumps.

### Manifolds with Actuators

	Item No.	Description
Manifold 4	HSMA004	4 Actuator Manifold
Manifold 5	HSMA005	5 Actuator Manifold
Manifold 6	HSMA006	6 Actuator Manifold
Manifold 7	HSMA007	7 Actuator Manifold
Manifold 8	HSMA008	8 Actuator Manifold
Manifold 9	HSMA009	9 Actuator Manifold
Manifold 10	HSMA010	10 Actuator Manifold
Manifold 11	HSMA011	11 Actuator Manifold
Manifold 12	HSMA012	12 Actuator Manifold

Note: Please enquire about manifolds without actuators, caps, compression fittings, or actuators only.



**Hydro Shark Master Panel Actuators**

HydroShark® 115 Plus shown. All gas boilers are options if sufficient for system.



Shown: Two-Zone Floor Heating System using Master Panel Actuator with Actuator Manifold

**Multi-zone systems with Master Panel and zoning by actuator**

When a **Thermostat** calls for heat, the **HydroShark® Boiler** fires (if necessary), and the **Boiler Pump** moves the heated fluid around the primary loop. Heat transfers to the secondary emitter circuit via the **Closely Spaced Tee**.

The **System Pump** circulates the heat to the **Distribution Manifold**, where **Actuators**, grouped to form each zone, open and close the ports, which may have more than one **PEX Loop**. **Actuator** operation is controlled by the **Zone Valve Controller**. Primary circuit flow activates the **HydroShark® Boiler**.

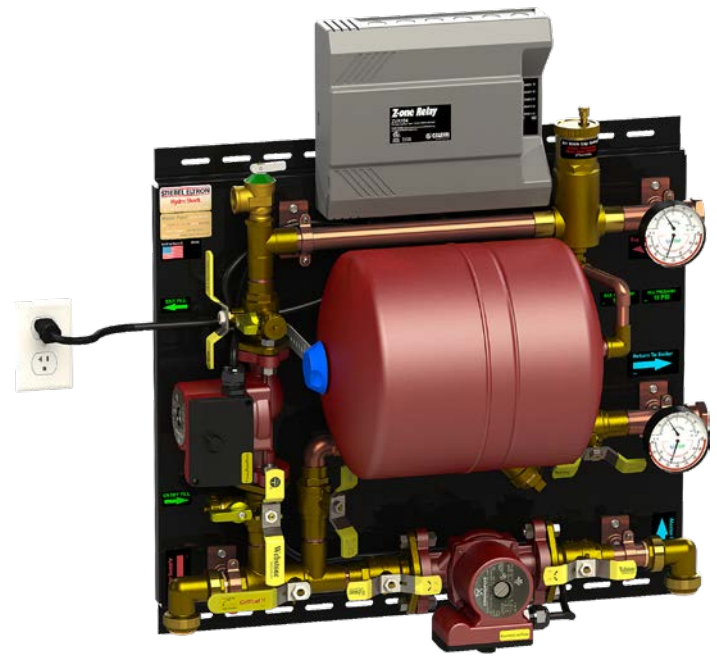
The **PEX Loops** can be adjusted individually with a proper **Distribution Manifold**, which should have flow meters and on/off valves for filling, purging, and adjusting flow for each PEX loop. This system may require a **Pressure Bypass** valve on the **Distribution Manifold**.

The **Closely Spaced Tee** allows the primary boiler loop and the secondary emitter loop (PEX loop) to be hydraulically separated from each other. This allows the flow rates of each circuit to be set independently for optimum performance.

## Hydro Shark Master Panel Actuator

### Tech Specs

	Master Panel Actuator
Standard Item No.	HSMACT0
ECM Item No.*	HSMACTE
Boiler Panel S/R Connections	3/4" FPT
Zone Panel S/R Connections	1" Quick Connect (PEX or Copper)
Btu Capacity	190,000 Btu
Weight	77 lb.
Panel Size	26 1/4" H x 26" W x 10" D
Boiler Pump	UPS15-58FC, 0-19 FT HD, 0-17 gpm
System Pump	UPS15-58FC, 0-19 FT HD, 0-17 gpm
ECM System Pump*	ALPHA2 15-55, 0-19 FT HD, 0-21 gpm
Panel Clearances	1" Left, 1" Right, 1" Top, 1" Bottom
Maximum Temperature	155 °F
Fill Pressure (Cold)	18 psi
Maximum Tested Pressure	75 psi
Panel Material	Powder Coated Steel – Black
Pressure Relief Valve	30 psi
Expansion Tank	2.1 gal, Pre-charged 12 psi
Thermostat Capacity	4 Thermostats (24 Vac)
Controller	ZVR104
Controller Power Supply	120 V, 60 Hz, 6 Amp



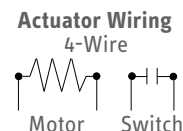
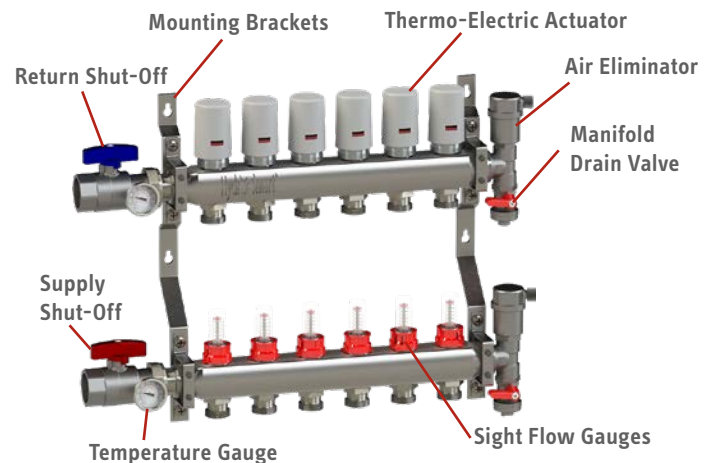
**Master Panel Actuator**

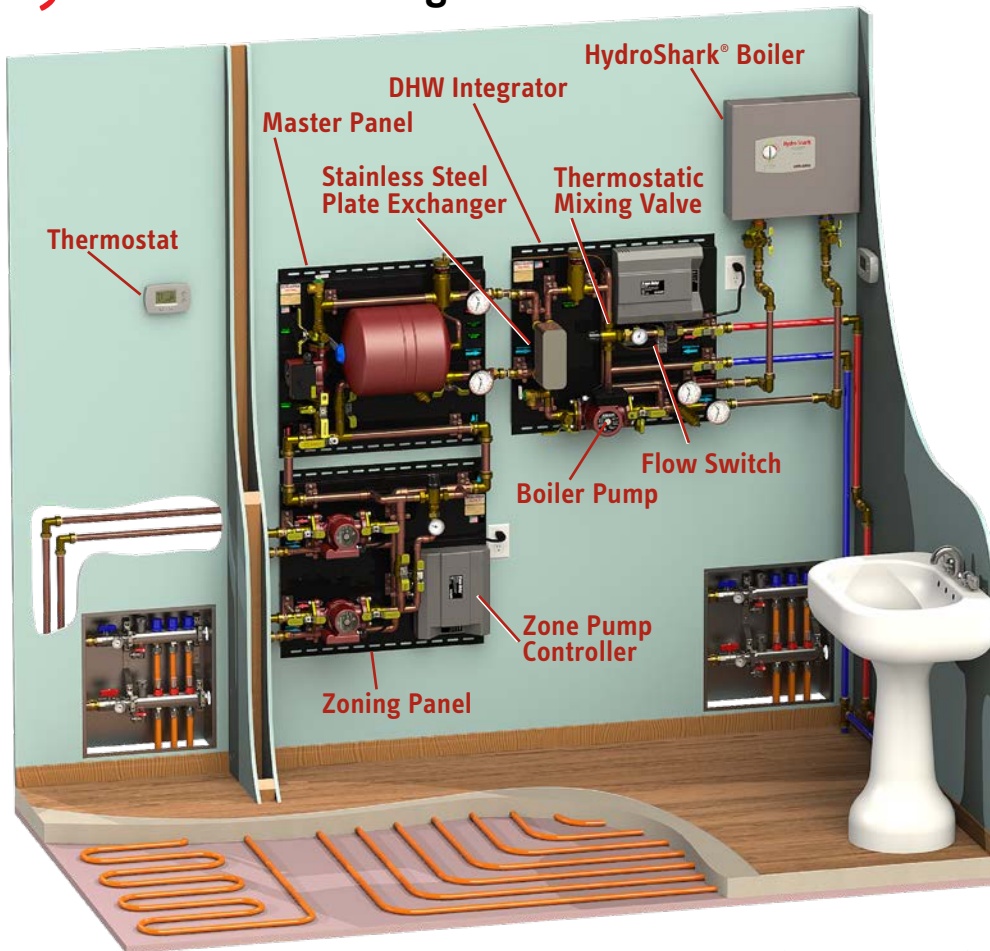
\* ECM Master Panel Actuator is equipped with an ECM system pump. ECM pumps are up to 85% more efficient than standard pumps.

### Manifolds with Actuators

	Item No.	Description
Manifold 4	HSMA004	4 Actuator Manifold
Manifold 5	HSMA005	5 Actuator Manifold
Manifold 6	HSMA006	6 Actuator Manifold
Manifold 7	HSMA007	7 Actuator Manifold
Manifold 8	HSMA008	8 Actuator Manifold
Manifold 9	HSMA009	9 Actuator Manifold
Manifold 10	HSMA010	10 Actuator Manifold
Manifold 11	HSMA011	11 Actuator Manifold
Manifold 12	HSMA012	12 Actuator Manifold

Note: Please enquire about manifolds without actuators, caps, compression fittings, or actuators only.



**Hydro Shark® DHW Integrator**

Shown: **DHW Integrator 120** with **HydroShark® Boiler** and two zone floor heating system with **Master Panel Pump** and **2-Zone Pump Panel**

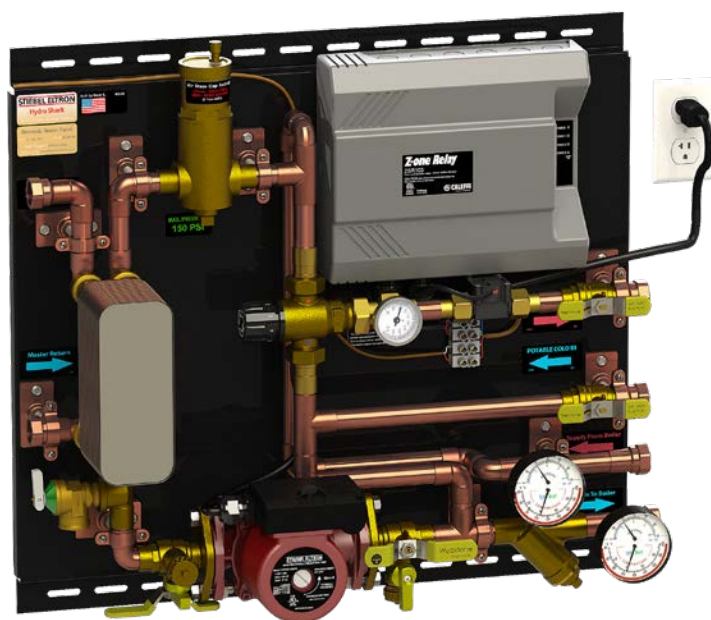
The **DHW Integrator Panel** added to a **HydroShark® Boiler** and **Space Heating Panel** system provides both on-demand potable water and radiant heating with no storage tank.

When there is demand domestic hot water, the potable water **Flow Switch** deactivates the **Boiler Pump**, temporarily preventing flow through the primary side of the **Stainless Steel Plate Exchanger**. When there is no demand for domestic hot water, the **Boiler Pump** will satisfy space heating, if the **Thermostat** is calling for heat. A **Stainless Steel Plate Exchanger** isolates potable water and space heating circuits to prevent fluid cross-contamination. A **Thermostatic Mixing Valve** controls the set temperature for the domestic hot water.

Choose the correct size of the HydroShark® boiler for a DHW (Domestic Hot Water) Integrator by determining the larger demand, space heating or potable water. A BTU heat loss should be calculated for space heating. For potable water, determine the total flow rate or peak system demand, then size the boiler with curves for flow rate vs temperature rise. HydroShark® boilers modulate power to adapt to load requirements.

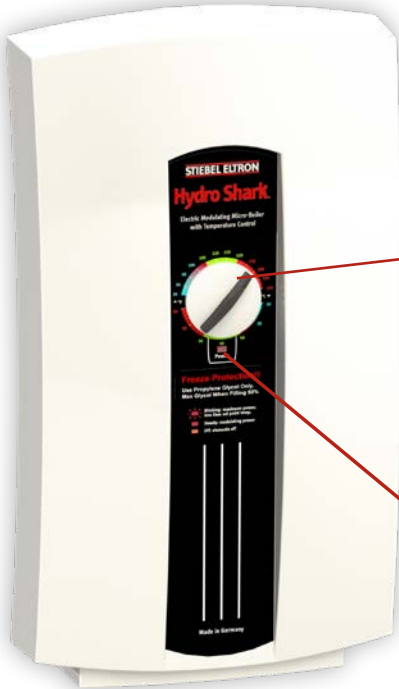
**Hydro Shark® DHW Integrator****Tech Specs**

	DHW Integrator 120	DHW Integrator 180
Item No.	HSDW120	HSDW199
Master Panel S/R Connections	3/4" FPT	1" FPT
Heat Source S/R Connections	3/4" FPT	
Domestic Water Connections	3/4" FPT	
Btu Piping Capacity of Panel	120,000 Btu	180,000 Btu
Weight	43 lbs.	
Panel Size	26 1/4" H x 26" W x 10" D	
Boiler Pump	CP3S26-110BFC	
Panel Clearances	1" Left, 1" Right, 1" Top, 1" Bottom	
Max. Space Heating Temperature	See Boiler Spec	
Fill Pressure (Cold)	50 – 75 psi (Household Tank Pressure)	
Maximum Tested Pressure	150 psi	
Panel Material	Powder Coated Steel – Black	
Pressure Relief Valve	150 psi	
Plate Exchanger-Stainless	30 Plate - 130 kBtu @ 4.2 gpm	40 Plate - 180 kBtu @ 4.2 gpm
Boiler Power Supply	See Boiler Specs	
Boiler Options	HydroShark® 24, 29, 36, 120	HydroShark® 199
Space Heating Panel Options	All 120 kBtu Panels	All 190 kBtu Units
Mixing Valve Temp. Range	85 – 150 °F	85 – 150 °F

**DHW Integrator 180**

**Hydro Shark® Electric Boilers**

HydroShark® 7 – 10

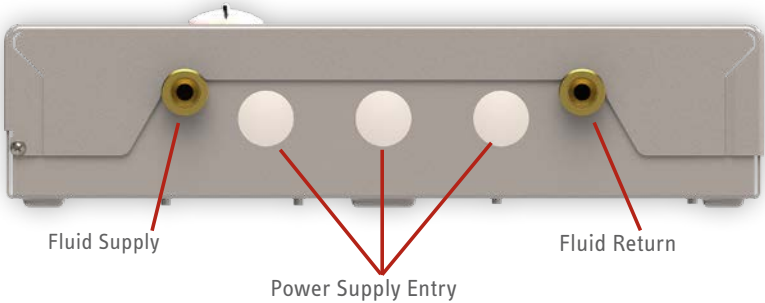
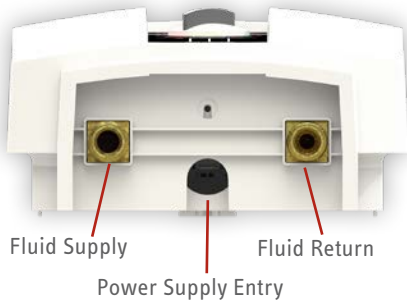


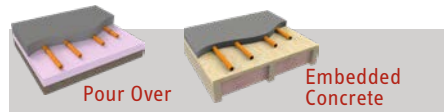
HydroShark® 12 – 36



Boiler Controller  
86–140 °F / 30–60 °C

Modulation  
Status LED



**Hydro Shark® Electric Boilers****Compatible with these panels & accessories**

	HydroShark® 7 – 19	HydroShark® 24 – 36
Master Panels	All Master Panels, All Master ECM Panels, All Pro Panels, All ECM Pro Panels	
Zoning Panels	All HydroShark® Zoning Panels, All HydroShark® ECM Zoning Panels	
DHW Integrator Panels	N/A	DHW Integrator-120
Thermostat Options	Aube Thermostat, Lyric WiFi Thermostat	

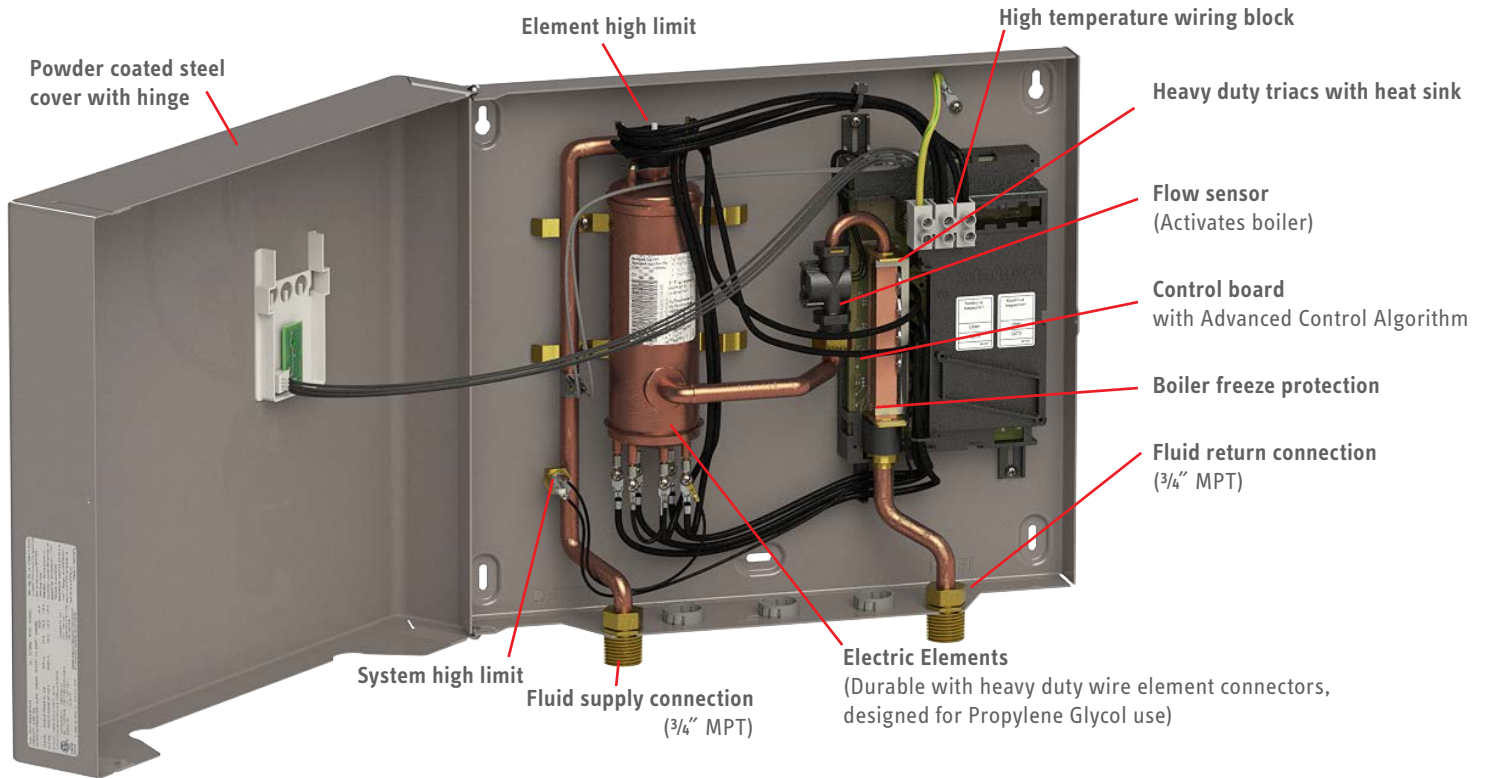
**Tech Specs**

HydroShark® Model	7	10	12	14	19	24	29	36
Item No.	HSEB007	HSEB010	HSEB012	HSEB014	HSEB019	HSEB024	HSEB029	HSEB036
Voltage	240 Vac							
Phase	Single, 60 Hz							
Wattage	7.2 kW	9.6 kW	12.0 kW	14.4 kW	19.2 kW	24.0 kW	28.8 kW	36.0 kW
Total Amperage	30 A	40 A	50 A	60 A	80 A	100 A	120 A	150 A
Breaker Size	1 x 40 A	1 x 50 A	1 x 70 A	2 x 40 A	2 x 50 A	2 x 70 A	3 x 50 A	3 x 70 A
Recommended Wire Size, AWG Copper	1 x 8	1 x 6	1 x 4	2 x 8	2 x 6	2 x 4	3 x 6	3 x 4
Minimum Flow Rate	0.264 gpm		0.37 gpm	0.50 gpm			0.77 gpm	
Weight	7.0 lb.		12.2 lb.	14.4 lb.			15.9 lb.	
Tank(s) Volume	0.13 gal			0.26 gal			0.39 gal	
Width	7.88"		16.62"					
Height	14.25"		14.50"					
Depth	4.25"		4.00"					
Working Pressure	18 psi							
Tested Pressure	300 psi							
Connections S/R	½" MPT		¾" MPT					
Fluid Delivery Temperature Range	Adjustable, 86 – 140 °F							
Maximum Inlet Temperature	105 °F							
Minimum Operating Temperature	32 °F		N/A					
Compliance Listings	UL 499		UL 834					
System Fluid Type	Up to 50% Propylene Glycol Mixed with Distilled Water							

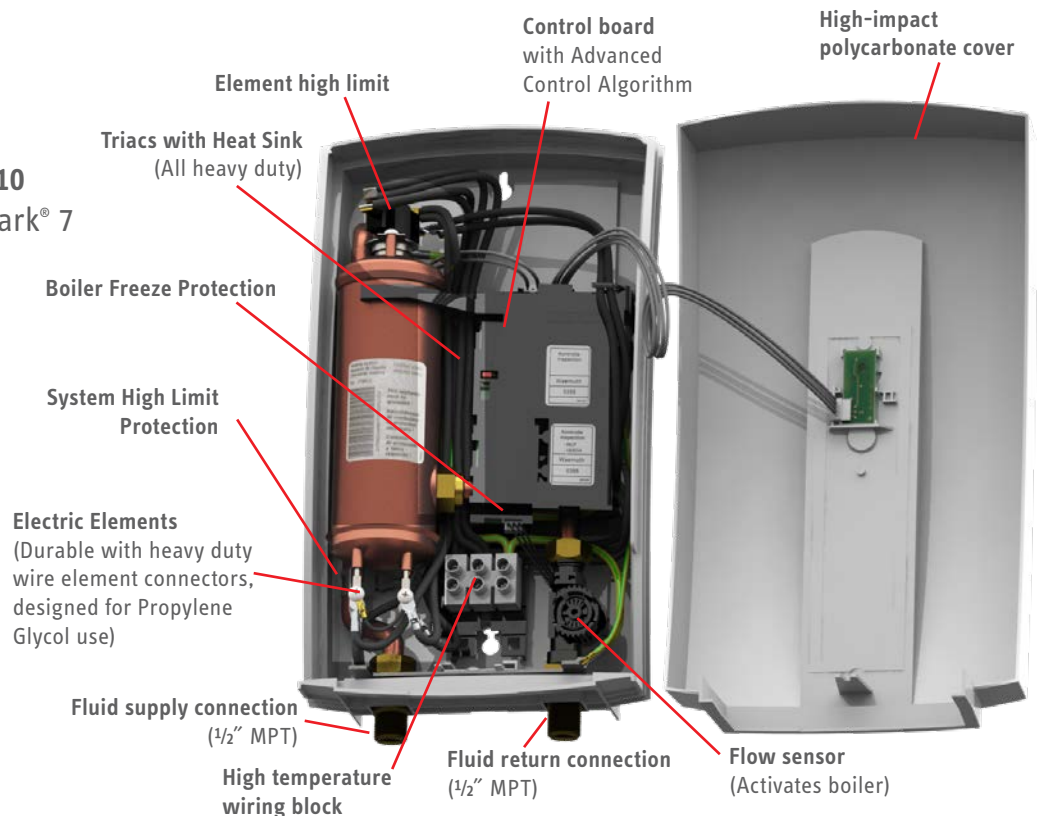


## Hydro Shark Electric Boilers

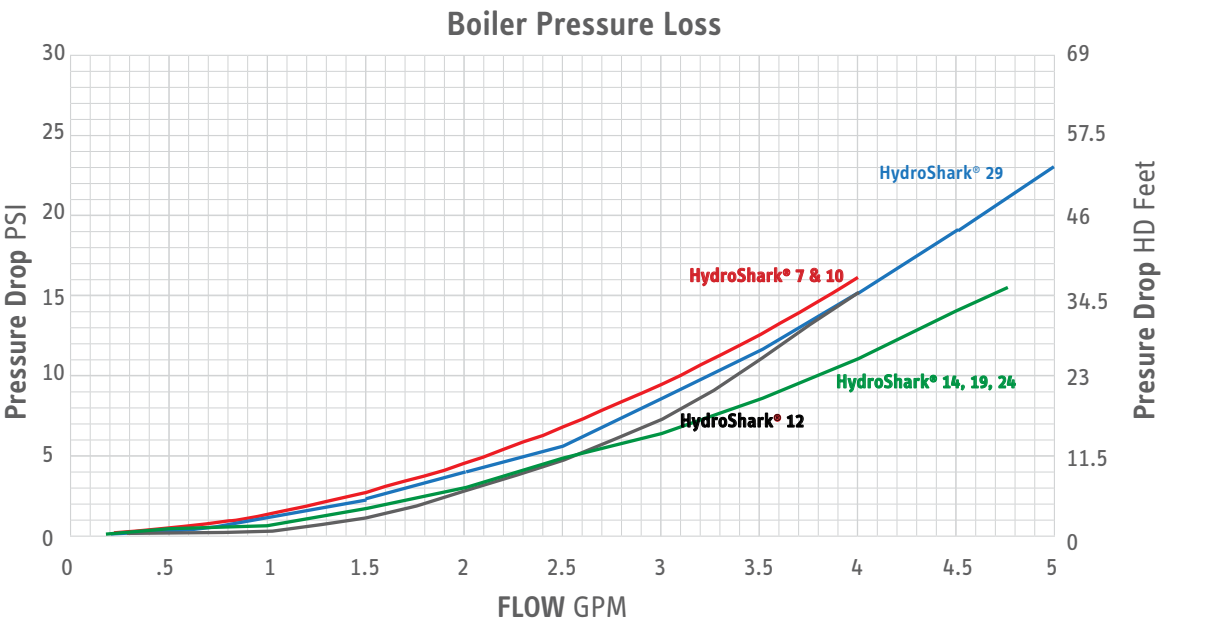
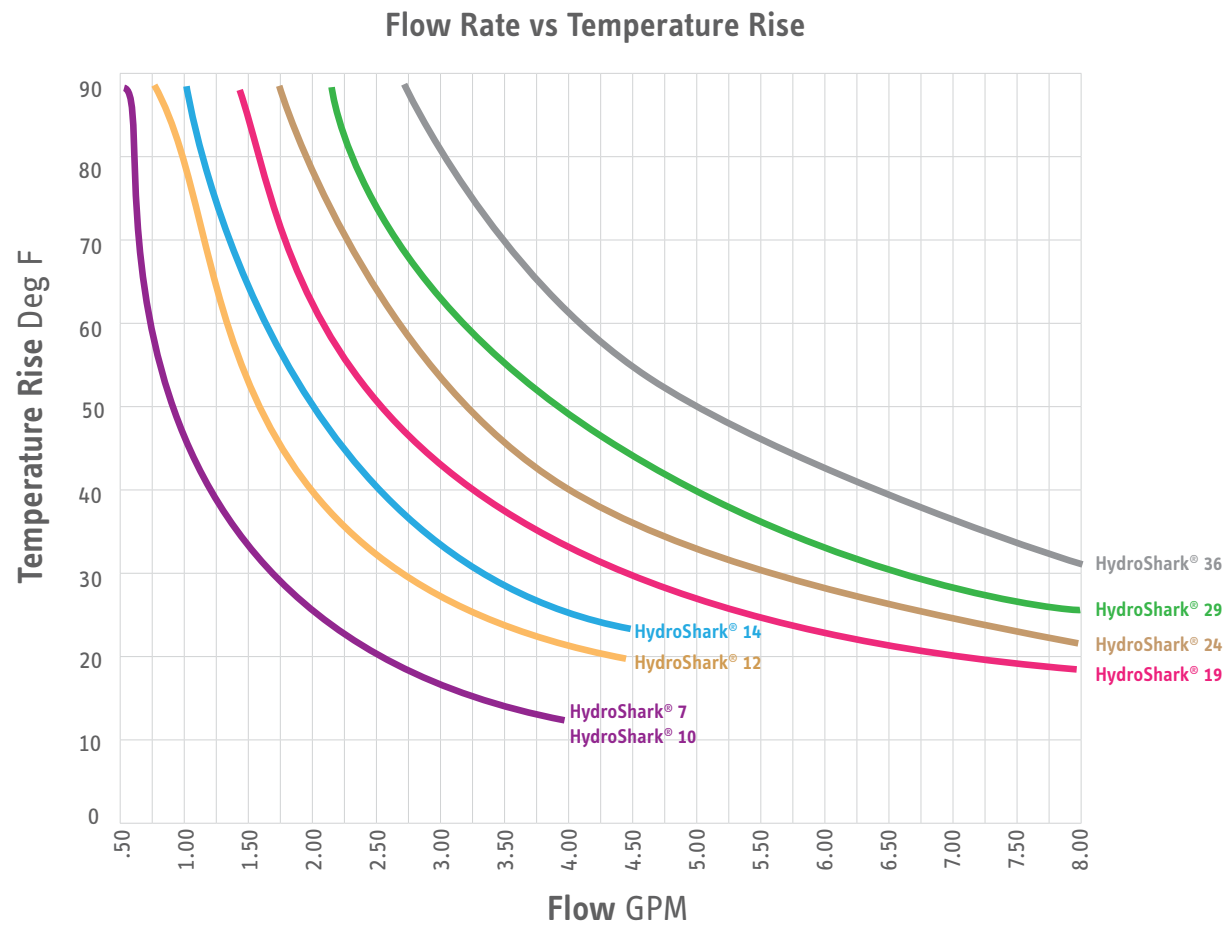
HydroShark® 12 – 36 Shown: HydroShark® 12. Other sizes have additional heating elements inside same case.



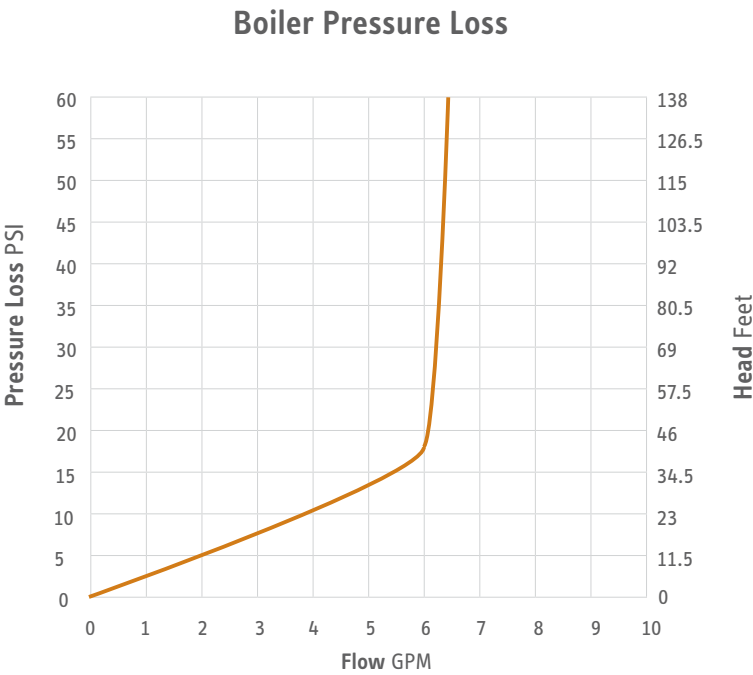
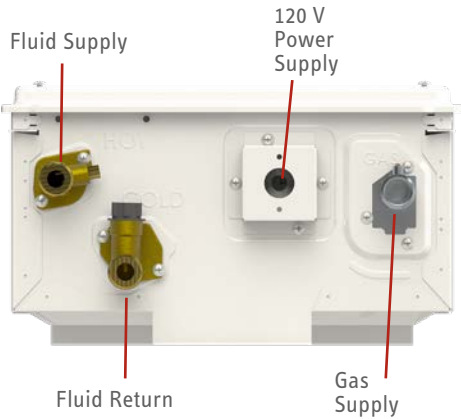
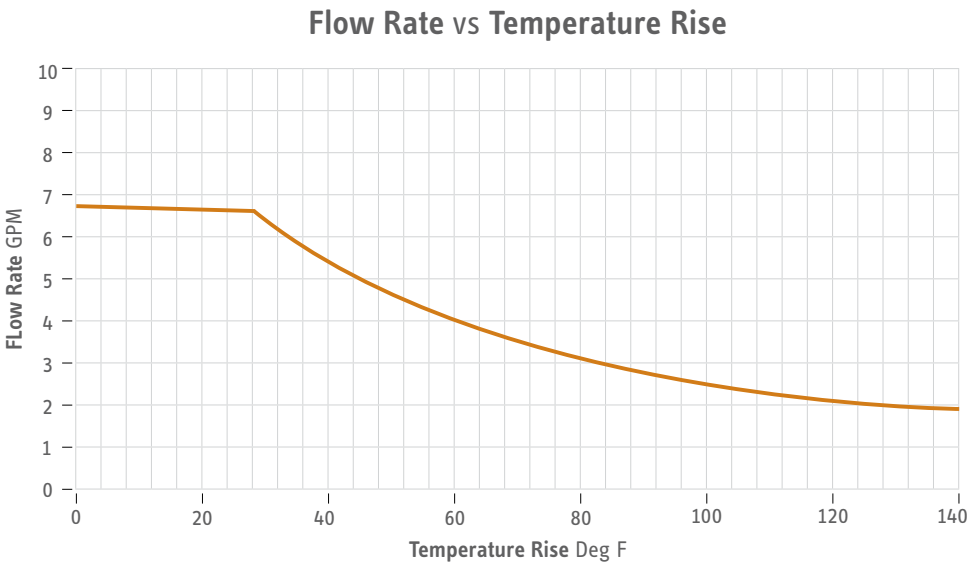
### HydroShark® 7 – 10 Shown: HydroShark® 7

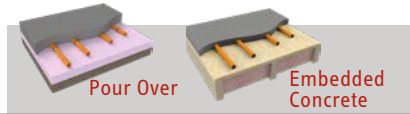


Hydro Shark Electric Boilers



Hydro Shark 115 Plus Non-Condensing Gas Boiler



**Hydro Shark® 115 Plus Non-Condensing Gas Boiler****Compatible with these panels & accessories**

HydroShark® 115 Plus LP / HydroShark® 115 Plus NG	
Master Panels	All Master Panels, All Master ECM Panels
Zoning Panels	All HydroShark® Zoning Panels, All HydroShark® ECM Zoning Panels
DHW Integrator Panels	DHW Integrator-120
Gas Kit	Gas Kit 3/4"
Thermostat Options	Aube Thermostat, Lyric WiFi Thermostat

**Tech Specs**

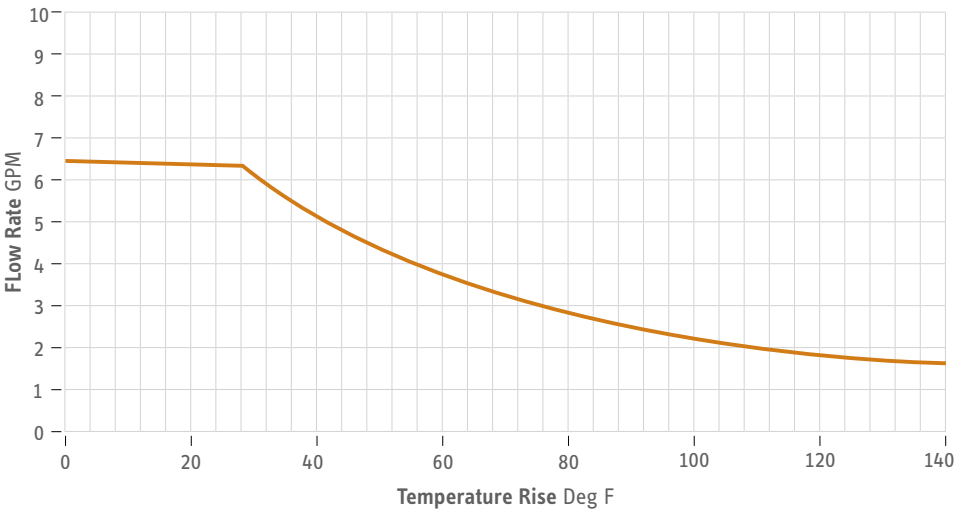
	HydroShark® 115 Plus LP	HydroShark® 115 Plus NG
Item No.	HSPB115	HSNB115
Fuel Type	Liquid propane	Natural gas
Boiler S/R Connections	3/4" NPT	
Gas Supply Connections	3/4" NPT	
Energy Factor	0.83	
Flow Activated	0.75 gpm	
Temperature Range	99 – 140 °F	
Weight	37.5 lb.	
Size	Wall Hung 20.5"H x 13.75"W x 9.125"D	
Ignition	Electronic	
Exchanger Capacity	0.2 gal.	
Modulating Output Range	15,000 – 115,000 Btu	
Gas Pressures	4" Min. – 10.5" Max. W.C.	4" Min. – 10.5" Max. W.C.
Operating Pressure	18 – 25 psi	
Maximum Flow Rate	6.5 gpm	
Decibel Level	55 dB	
Clearance To Combustible Surfaces	Sides 3", Top 12", Bottom 12", Front 4", Back 1"	
Primary Heat Exchanger Material	HRS35 Copper	
Secondary Heat Exchanger Material	316L Stainless Steel	
Control Algorithm	Radiant	
Venting	Category III Stainless Steel – 3"	



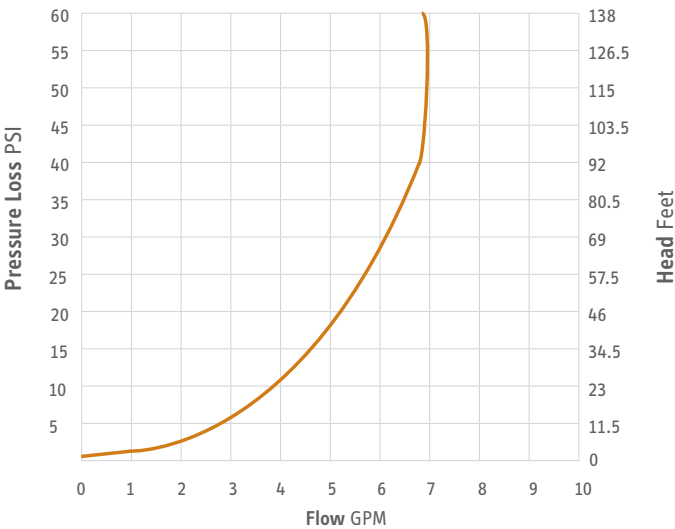
Hydro Shark 120 Condensing Gas Boiler



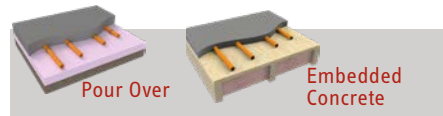
Flow Rate vs Temperature Rise



Boiler Pressure Loss



## Hydro Shark® 120 Condensing Gas Boiler



### Compatible with these panels & accessories

HydroShark® 120 LP / HydroShark® 120 NG	
Master Panels	All Master Panels, All Master ECM Panels
Zoning Panels	All HydroShark® Zoning Panels, All HydroShark® ECM Zoning Panels
DHW Integrator Panels	DHW Integrator 120
Gas Kit	Gas Kit 1/2"
Thermostat Options	Aube Thermostat, Lyric WiFi Thermostat

### Tech Specs

	HydroShark® 120 LP	HydroShark® 120 NG
Item No.	HSPB120	HSNB120
Fuel Type	Liquid propane	Natural gas
Boiler S/R Connections	3/4" MPT	
Gas Supply Connection	1/2" MPT	
Condensate Connection	1/2 MPT	
Energy Factor	0.93	
Minimum Flow Rate	0.75 gpm	
Controller Power Supply	120 Vac, 60 Hz, 2 A	
Temperature Range	100 – 140 °F	
Weight	44 lb.	
Size	Wall Hung 22.88"H x 13.88"W x 10.75.75"D	
Ignition	Electronic	
Exchanger Capacity	0.2 gal.	
Modulating Output Range	13,500 – 111,000 Btu	15,500 – 111,000 Btu
Gas Pressures	8" Min. – 14" Max. W.C.	5" Min. – 10.5" Max. W.C.
Operating Pressure	18 – 25 psi	
Max. Flow Rate	6.6 gpm	6.5 gpm
Decibel Level	55 dB	
Clearance To Combustible Surfaces	Sides 3", Top 12", Bottom 12", Front 4", Back 1"	
Primary Heat Exchanger Material	HRS35 Copper	
Secondary Heat Exchanger Material	316L Stainless Steel	
Control Algorithm	Radiant	
Venting	SCH 40 PVC 3" or 4" Direct Vent	

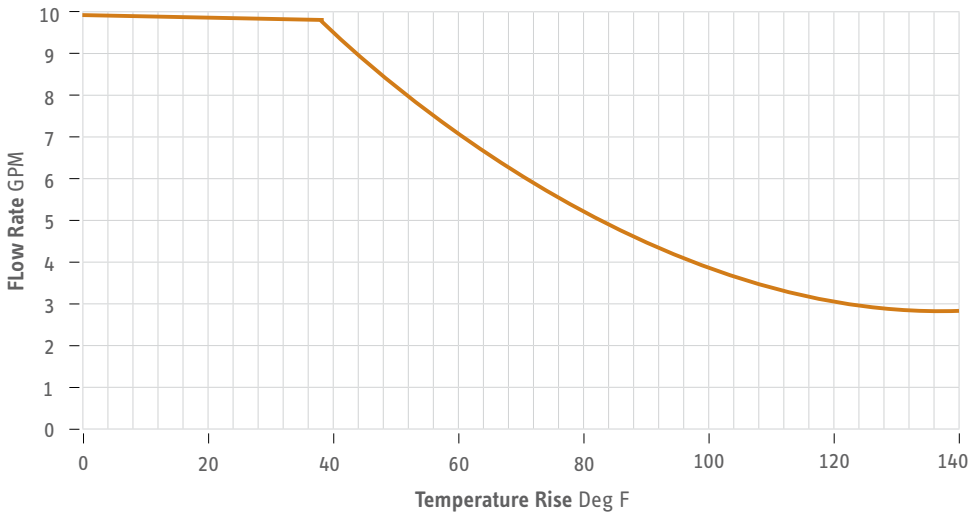


Hydro Shark 199 Condensing Gas Boiler

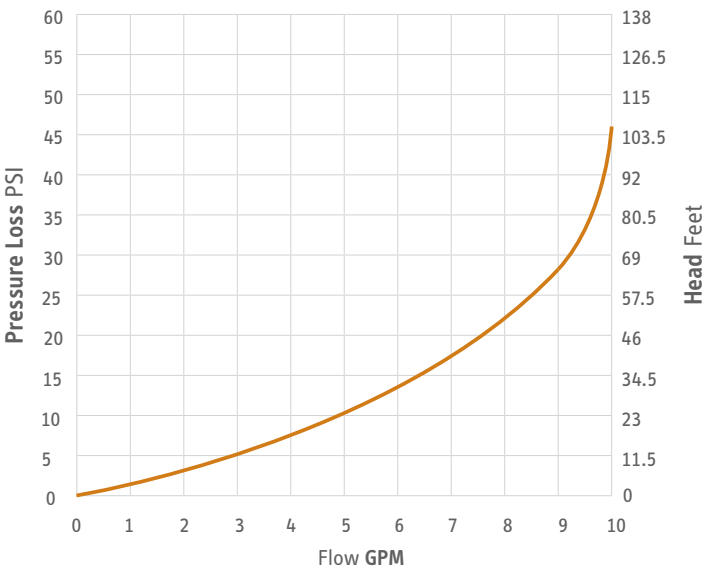


Requires Floor Drain for Condensate Hose

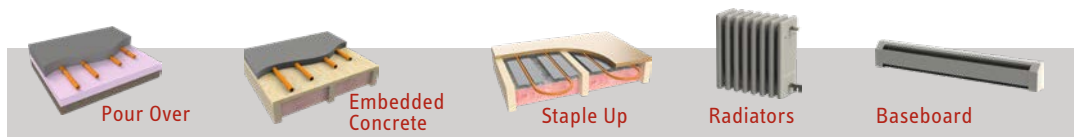
Flow Rate vs Temperature Rise



Boiler Pressure Loss



## Hydro Shark® 199 Condensing Gas Boiler



### Compatible with these panels & accessories

	HydroShark® 199 LP / HydroShark® 199 NG
Master Panels	All Master Panels, All Master ECM Panels
Zoning Panels	All HydroShark® Zoning Panels, All HydroShark® ECM Zoning Panels
DHW Integrator Panel	DHW Integrator 180
Gas Kit	Gas Kit 3/4"
Thermostat Options	Aube Thermostat, Lyric WiFi Thermostat

### Tech Specs

	HydroShark® 199 LP	HydroShark® 199 NG
Item No.	HSPB199	HSNB199
Fuel Type	Liquid propane	Natural gas
Boiler S/R Connections	3/4" MPT	
Gas Supply Connection	3/4" MPT	
Condensate Connection	1/2" MPT	
Energy Factor	0.95	
Minimum Flow Rate	0.75 gpm	
Controller Power Supply	120 Vac, 60 Hz, 2 A	
Temperature Range	100–160 °F (185 °F Req. remote)	
Weight	59 lb.	
Size	Wall Hung 23.63"H x 17.75"W x 11.25"D	
Ignition	Electronic	
Exchanger Capacity	0.2 gal.	
Modulating Output Range	12,000–189,000 Btu	14,000–189,000 Btu
Gas Pressures	8" Min. - 14" Max. W.C.	5" Min. - 10.5" Max. W.C.
Operating Pressure	18–25 psi	
Max. Flow Rate	10 gpm	
Installation Type	Indoor	
Decibel Level	55 dB	
Clearance To Combustible Surfaces	Sides 2", Top 12", Bottom 12", Front 4"	
Primary Heat Exchanger Material	HRS35 Copper	
Secondary Heat Exchanger Material	316L Stainless Steel	
Control Algorithm	Radiant	
Venting	SCH 40 PVC 3" or 4" Direct Vent	



# Stiebel Eltron Energy-Saving Products



Efficient electric wall-mounted heaters

## Electric Heaters



Fan



Convection



Stiebel Eltron's plant in Holzminden, Germany.

**Stiebel Eltron** has been a world leader in the development of advanced water heating technology for more than 100 years. Our pursuit of engineering excellence and high-quality manufacturing results in products fulfilling the highest expectations of performance and reliability. They are...**Simply the Best.**

## Renewables



Solar hot water



Heat Pump Water Heaters



Low carbon, renewable energy domestic hot water systems

1924

Sometimes a “little thing” leads to a whole lot more

Dr. Theodor Stiebel designed the first coil immersion heater and founded “ELTRON Dr. Theodor Stiebel” in 1924 in a small workshop on Reichenberger Strasse in Berlin, Germany.

Since then, Stiebel Eltron has manufactured 20 million tankless electric water heaters, holds hundreds of patents, has won more than fifty design awards, and continues to stay at the forefront of water heating technology.



Due to our continuous process of engineering and technological advancement, specifications may change without notice.

Distributed by:

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