

HTOL SYSTEMS

OPEN LOOP
SYSTEM

FOR 1-2
COLLECTORS



HELIODYNE OPEN LOOP SOLAR TANK SYSTEM

The Heliodyne Open Loop Solar Tank System (HTOL) series is a highly innovative addition to the hot water station lineup, offering exceptional performance, durability, and installation simplicity for professional installers.

This comprehensive solution for open loop systems features a pre-assembled tank equipped with advanced components, including thermistor sensors, plumbing elements such as check valves, a mixing valve, pump, and expansion tank, all seamlessly integrated with a controller. With its inclusive design, the HTOL is an ideal choice for installations with limited equipment space, ensuring effortless installation.

Features

- Simple “Plug & Play” installation
- Comes fully assembled and factory tested
- Efficient direct water circulation
- Ideal for installations with limited equipment space
- Available in three sizes.

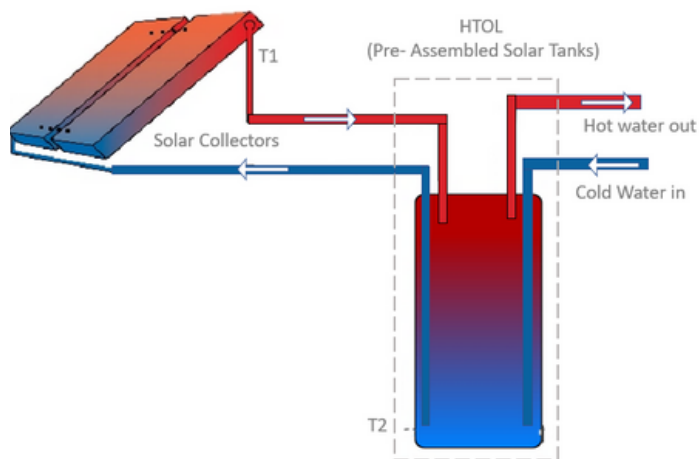


Figure 1.1: Schematic of Solar water heating open loop system

heliodyne
SOLAR HOT WATER



Figure 1.0 : Heliodyne open loop solar tank system

The HTOL can be used in areas where :

- Ambient temp. never falls below 42°F
- Water hardness measures less than 100 ppm

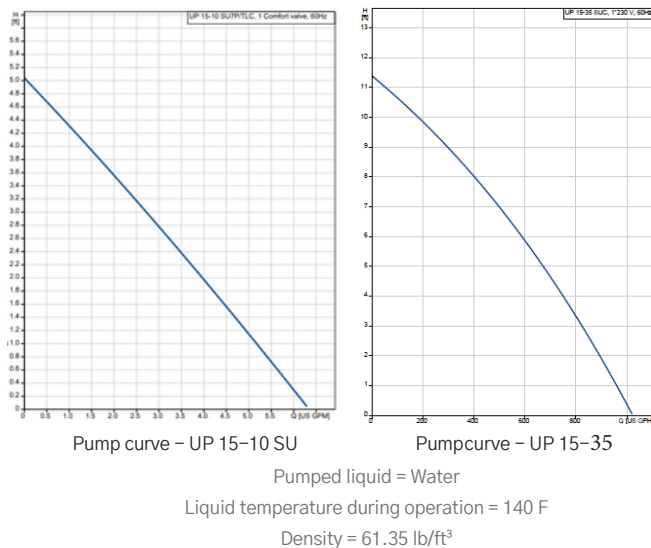


Figure 2.0 : Pump curve

EXCELLENCE
BY DESIGN™

TECHNICAL SPECIFICATION

1.Solar Water Storage Tank

Glass-lined Steel Tank with a R16 insulation. Includes an electrical heating back-up of 4.5KW.

2.Pump

Wet-rotor type with a stainless-steel volute with a maximum system operating pressure of 145 psi. See fig 2.0 for the pump curve.

3.Delta T Standard Controller

Controls the pump using the differential temperature method. For operation, the controller requires two 10K Ohms thermistor sensors which are located at two distinct locations; T1 at the collector outlet and T2 at the bottom of the storage tank. The sensor at T2 is pre-installed.

4.Thermal Expansion Tank

Pre-Charged Expansion Tank with a capacity of 2 gallons. The tank is pre-charged at 35 psi and has an maximum operating limit of 120 PSI.

5.Mixing Valve

Ensures a constant and safe water outlet temperature. The mixing valve is set to 120°F that allows higher storage temperatures for more energy saving.

6.Service Valve

Allows easy filling, draining and flushing of water in the solar loop.

7.Relief Valve

Constructed from High Temperature Polypropylene with a rating of 105kBtu/hr

8. Check Valve

Installed to prevent backflow in fluid systems, ensuring unidirectional flow, protecting equipment, maintaining pressure, and reducing water hammer effects.

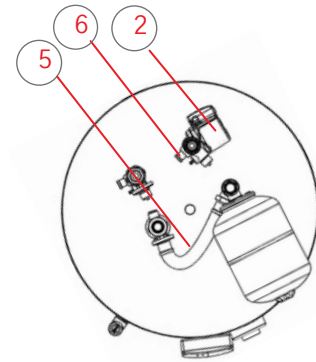


Figure 2.1: HTOL top view

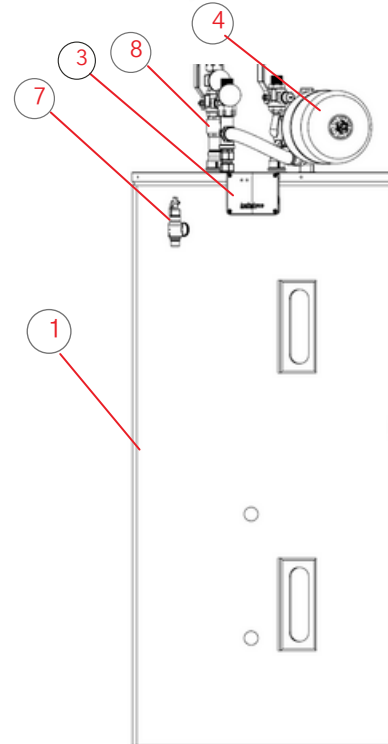


Figure 2.2: HTOL front view

MODEL	HTOL 065 110	HTOL 065 112	HTOL 080 110	HTOL 080 112	HTOL 120 110	HTOL 120 112
Storage Capacity (Gal)	65 (Gal)	65 (Gal)	80 (Gal)	80 (Gal)	120 (Gal)	120 (Gal)
Dimensions (Inches)	71 x 22 (HxD)	71 x 22 (HxD)	71 x 24 (HxD)	71 x 24 (HxD)	71 x 28 (HxD)	71 x 28 (HxD)
Max Collector Surface Area (ft2)	40 sq ft	40 sq ft	64 sq ft	64 sq ft	80 sq ft	80 sq ft
Weight (lbs)	158 lbs	158 lbs	198 lbs	198 lbs	284 lbs	284 lbs
Controller Type	Standard	Standard	Standard	Standard	Standard	Standard
Expansion Tank	2 gal.	2 gal.	2 gal.	2 gal.	2 gal.	2 gal.
Tank back-up heating element	4500 W ,240 VAC	4500 W ,240 VAC	4500 W ,240 VAC	4500 W ,240 VAC	4500 W , 240 VAC	4500 W , 240 VAC
Input Voltage	120 VAC , 60 Hz	120 VAC , 60 Hz	120 VAC , 60 Hz	120 VAC , 60 Hz	120 VAC , 60 Hz	120 VAC , 60 Hz
Pump	UP 15-10 SU 7P	UP 15-35	UP 15-10 SU 7P	UP 15-35	UP 15-10 SU 7P	UP 15-35
Included Sensors	1 x 10K Ohm	1 x 10K Ohm	1 x 10K Ohm	1 x 10K Ohm	1 x 10K Ohmz	1 x 10K Ohm

Limited Warranty of 6 years available on the tank and 3 years warranty available on the controller

Heliodyne, Inc. • 4910 Seaport Avenue • Richmond, CA 94804
T: 510.237.9614 • F: 510.237.7018 • www.heliodyne.com
Information & Support: info@heliodyne.com

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SOLAR HOT WATER