



Technical Data

DIMENSIONS

Model Number	AQ48	AQ40	AQ32
Nominal Size - ft.	4x12	4x10	4x8
Overall Panel Length - in.	144.0	120.0	96.0
Panel Width - in.	47.0	47.0	47.0
Manifold Length - in.	51.0	51.0	51.0
Manifold OD. - in.	1.9	1.9	1.9
Manifold I.D. - in.	1.5	1.5	1.5
Gross Collector Area - ft ²	47.3	39.3	31.4
Net Collector Area - ft ²	47.3	39.3	31.4

WEIGHTS

Dry - lbs.	21.3	17.1	14.3
Wet - lbs.	48.0	41.6	35.1
Wet - lbs./ft ²	1.01	1.06	1.12
Fluid Capacity - gal.	3.2	2.9	2.5

FLUID FLOW RATES

Maximum - GPM	10.0	10.0	10.0
Minimum - GPM	3.0	2.5	2.5
Recommended - GPM	5.0	4.0	3.25
Max. Panels with Single Feed at Recommended Flow Rate	10	12	12

MATERIALS

Collector
Polypropylene copolymer with synergistic antioxidants and UV screen including carbon

Hold-Down Straps

Polypropylene fabric strap 5/8" wide, 400PSI tensile strength

Connecting Hoses

EDPM (ethylene-propylene-diene-terpolymer)

Clamps: Stainless Steel (Type 302)

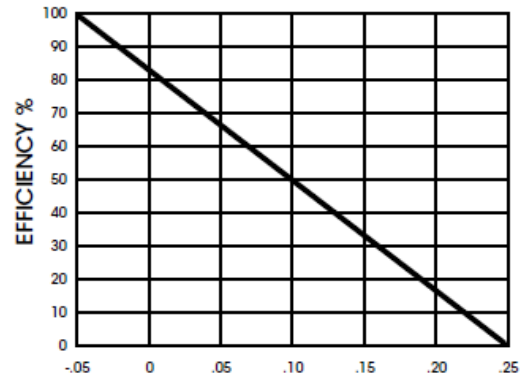
Brackets: Polypropylene

APPROVALS

Florida Solar Energy Center

Contractor to supply and install _____ panels, nominal size (4'x12', 4'x10', 4'x8') with overall frontal area of (47.0, 39.3, 31.4) square feet each. Panels shall be fabricated from a propylene copolymer with stabilizer combination providing long term resistance to heat and light. The weight of collector when filled with water shall be no more than 1.12 pounds per square foot of frontal area. The panels shall be capable of withstanding an internal static pressure of 85PSI at operating temperature and shall be resistant to corrosion, freezing and internal scale accumulation. Panels shall be capable of thermal performances of at least 81% efficiency when inlet fluid temperature equals ambient temperature and be capable of collecting solar energy when the inlet fluid temperature exceeds the ambient temperature by 60°F with 250 BTU per square foot per hour.

Instantaneous Efficiency of AquaSol Series Collectors



Thermal Performance Equation: $n = 86.6 - 3.48x$
Incident Angle Modifier: $K_{qr} = 1.0 - 0.03x$
(Rated in accordance with ASHRE standard 96-80)

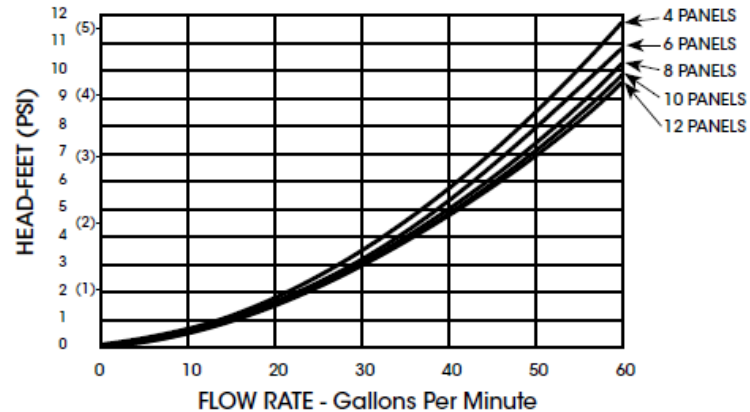
Florida Solar Energy Center Certification

(BTU's per standard day)

4x12 - 47,700 4x10 - 39,800 4x8 - 31,800

1010 BTU/Sq Ft • Day

Head Pressure Loss of Multiple AquaSol Series Collectors



Pressures

Pressure Drop

0.30 ft. head (0.13PSI) pressure loss at recommended flow rate

0.20 ft. head (0.09PSI) pressure loss at minimum flow rate

Max. Fluid Pressure Greater than 85PSI at 80°F

Recommended Max. Operating Pressure 35PSI at 140°F

GUIDE SPECIFICATIONS

Pressure head loss of a single panel must not exceed 0.30 feet water at recommended flow rate. Header length shall be 51 inches.

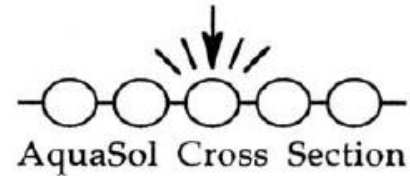
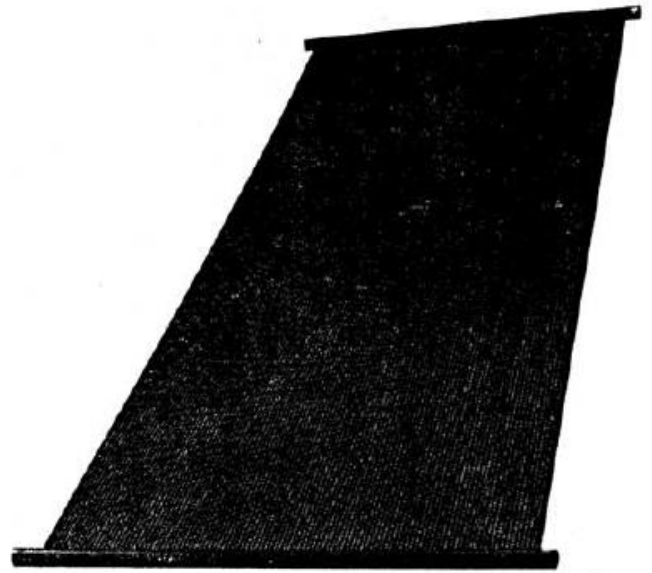
Panel mounting shall consist of header straps positioned at ends of headers and three continuous transverse straps. All straps shall be made of black polypropylene fabric of 400psi tensile strength and they shall be fastened to the roof by polypropylene butterfly brackets, lag-bolted to the roof in between collectors and at the end of each collector array.

Water connections shall be made with hose sections extruded from EDPM (ethylene-propylene-diene-terpolymer) 70 durometer minimum hardness. Hose clamps shall be all stainless worm gear type with 18-8 chromium-nickel stainless band. The panels shall be manufactured in the USA.

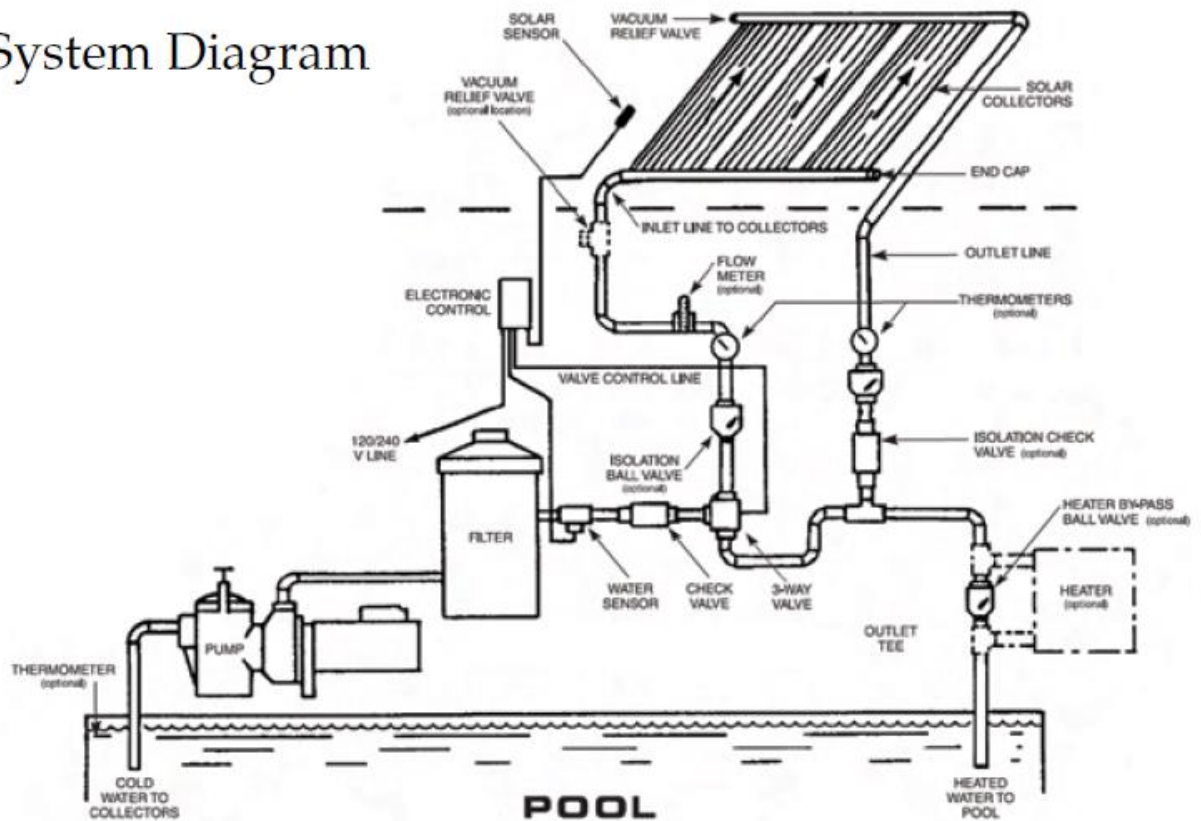


SOLAR COLLECTOR

- Proven Performance in all Climates
- Efficient Tube and Web Design
- Stainless Steel & Polypropylene Mounting Hardware
- Made in the USA
- Ten Year Warranty



AquaSol System Diagram



(Some components shown above may or may not be required. Consult your dealer)