



Solar Flat Panel Collector

JOB NAME:

LOCATION:

ARCH. / ENGR.:

WHOLESALER:

MECH. CONTRACTOR:

MODEL NUMBER:

TYPE OF SYSTEM:

NUMBER OF COLLECTORS:

NOTES:

Collector Frame

- Constructed of 6063-T6 extruded Aluminum and battens per ANSI H35.1
- Architectural grade medium bronze polyester finish

Back-Sheet

- Type 3105-H14, 0.019" thick stucco embossed Aluminum, painted

Insulation

- Foil faced, glass fiber reinforced, polyisocyanurate rigid foam board manufactured using a free rise process
- 1" R6.5 in back and 3/4" R5.0 in sidewalls
- Insulation complies with ASTM C1289, Type 1, Class 2 codes

Absorber

- 3/8" type M Copper riser tubes per ASTM B 88 specification with NSF-61 certification
- Aluminum absorber plate with a Microtherm® selective absorptive layer laser welded to the Copper riser tubes

Glazing

- Low-Iron (<100 ppm), "High T" Tempered Glass (ASTM C-1948 & ANSI Z97.1 with a CPSC 16 CFR 1201 Category II break pattern)
- Total solar transmission (NREL 290-2600 nm) of 89% and maximum transmission of 91.57% at 565 nm

Gaskets / Grommets

- UV durable EPDM, continuous U-channel gasket with over-molded corners to prohibit water penetration and ensure long life
- Grommets made from extruded Silicone

Fasteners

- 1/8" 5056 Aluminum rivets with shear strength of 930 N and tensile strength of 1450 N typical secure the back-sheet
- Corners are made using 1/4" Aluminum structural rivets with retained mandrels (BS 1473 standards)
- Shear strength is 6.0 kN with a tensile strength of 4.2 kN typical
- All screws are 18-8 Stainless Steel with black oxide coating for aesthetics

Additional Features

- Pressure Tested to 350 PSI
- Tested to 400°F without significant stagnation temperature degradation
- Flow rate of 0.5 to 2.0 GPM recommended
- Ten (10) Year Limited Warranty
- Lead Free Compliant as required by the Safe Drinking Water Act, Section 1417
- Designed, Constructed, and Certified to meet ICC - SRCC *OG-100 Operating Guidelines and Minimum Standards for Certifying Solar Collectors*
- IAPMO - *Uniform Solar Energy Code (USEC) File No. S-5038*
- Miami Testing Laboratory - *Wind Load Test (ASTM E 3300) Certification No. 94-1028.01*

Optional

- Tilt Mount Kit (Part # 8600P-002)
- Flush Mount Kit (8600P-012)
- Rack Mount Kit (8600P-014)
- Variable Speed Solar Pump Controller (8600P-047)
- Tilt Mount Kit (8600P-002)
- Flush Mount Kit (8600P-012)
- Rack Mount Kit (8600P-014)

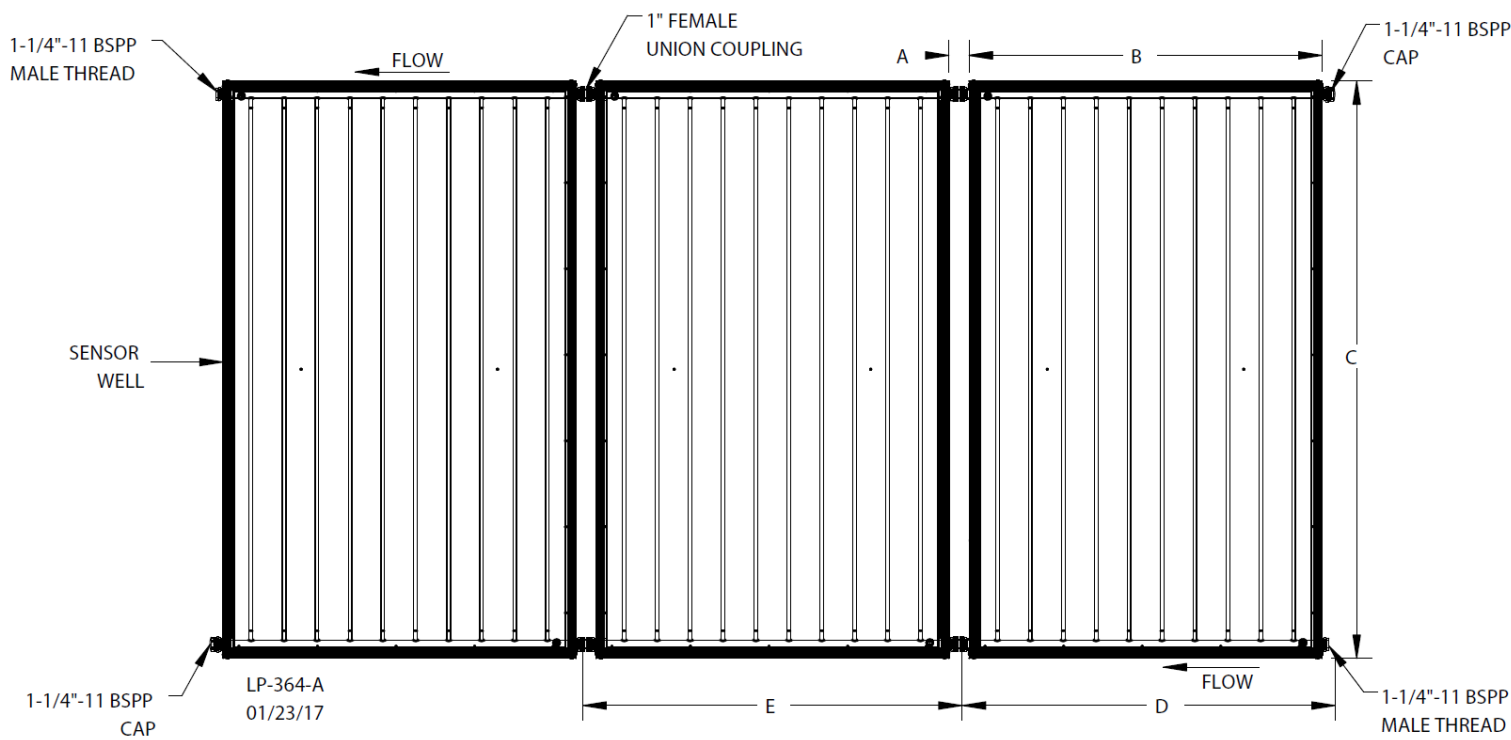


Figure 1 – Collector Dimensions - Right to left flow shown. Specify right to left flow or left to right flow.

Specifications	SS-26-FP	SS-32-FP	SS-40-FP
Dim. A (in.)	2.87"		
Dim. B (in.)	47.188"		
Dim. C (in.)	77.188"	97.188"	121.188"
Dim. D (in.)	49"		
Dim. E (in.)	49.5"		
Weight (lbs.)	90	104	153
Gross Frontal Area (ft ²)	25.4	31.9	39.8
Transparent Frontal Area (ft ²)	23.6	29.9	37.4
Absorber Plate Area (ft ²)	22.9	29	36.4
Fluid Capacity (Gallons)	.7	0.9	1.2
Thermal Performance Rating (Clear Day Performance)*	25,000 BTU/day	32,000 BTU/day	40,000 BTU/day
Nominal Flow Rate (Gal/Min)	0.8 - 1.5 gallons per collector		

Table 1 – Collector and Array Specifications Dimensions - *Nominal Design Dimension – As documented by ICC-SRCC-OG-100 Certification Data. NOTE: No more than 8 collectors may be installed in an array.

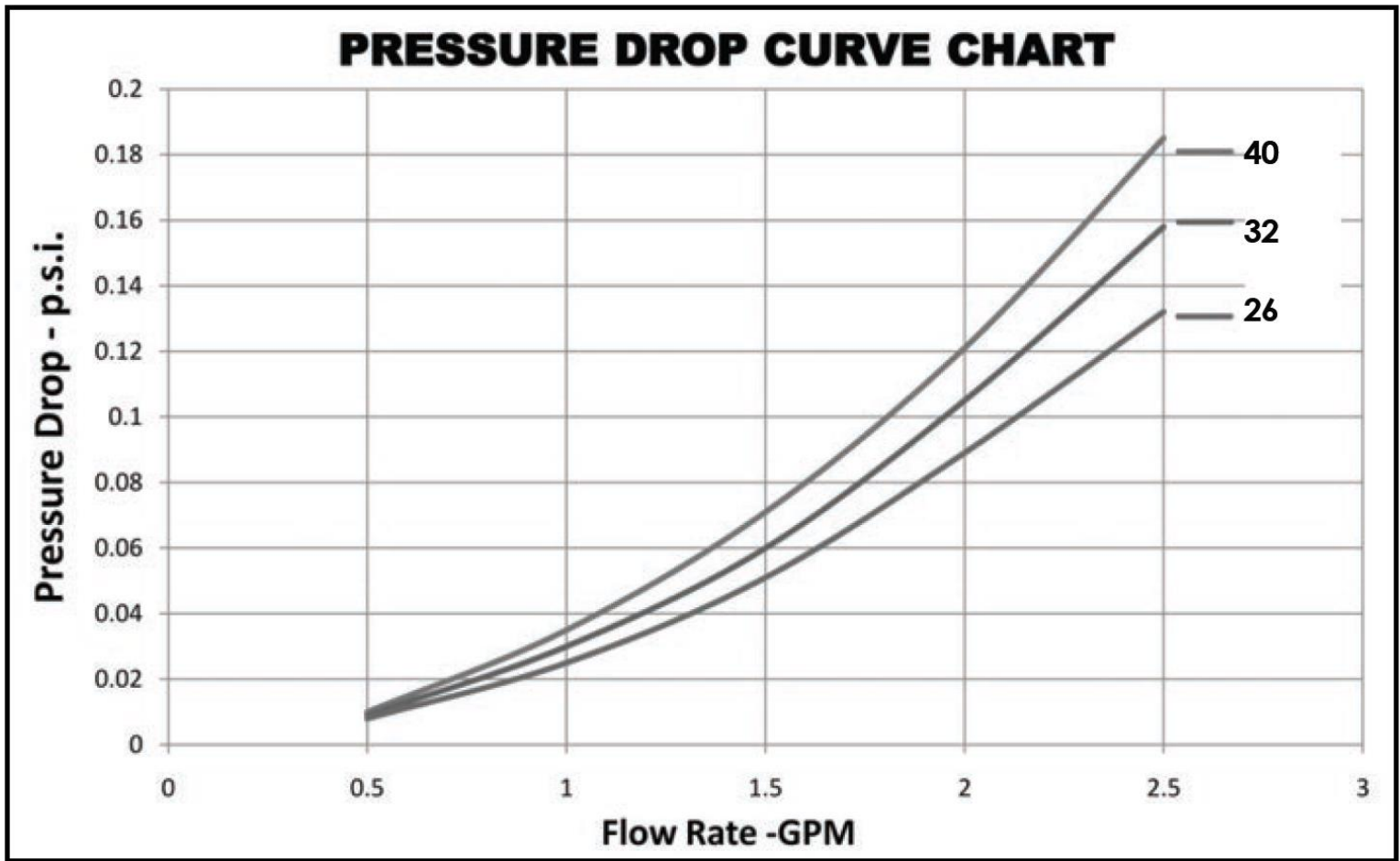


Table 2 - Pressure Drop Chart - Applies to 1 to 8 Collectors. Do Not Multiply for Multiple Collectors

NOTE ON PRESSURE DROP CHART: To determine feet of head, multiply pressure drop by 2.31.

For example:

SS-40-FP at 3 gpm = 1.5 per panel and .071 psi = .071 for 2 panels at 3 gpm.

SS-40-FP at 12 gpm = 1.5 per panel and .071 psi = .071 for 8 panels at 12 gpm.

After determining gpm flow rate and total system head loss, a properly sized pump can be chosen. See recommendation from pump supplier to determine the proper pump for your job. Incorrect pump size will reduce or fail to deliver solar contribution.