

## TECHNICAL SPECIFICATION - FPC

1.0	FLAT PLATE COLLECTOR	
1.1	Collector size	2080 x1070 x 100 mm Approx.2.13 Sq.Mtr area, Weight: 43 Kgs
1.2	Absorber area of the collector	2.0 Sq.Mtr
1.3	No.of Collectors for each 2000LPD	16
1.4	Water Output	Rated LPD at 50<60°C (Avg.)
1.5	Absorber Material	Copper
1.6	Coating	Selective<Black chrome
1.7	Construction of Absorber	Fin and Tube ladder type
1.8	Header & Riser pipe material	Copper
1.9	Header & Riser pipe size	Φ25.4mm and Φ12.5mm respectively.
1.10	Bonding: Riser pipe to Fins	Ultrasonic welding / Laser welding
1.11	Bonding: Riser pipe to Header	Simple brazing
1.12	No. of Fins	9
1.13	Absorbitivity of the Collector	>95%
1.14	Collector frame	Aluminum with Pure polyester powder coating.
1.15	Glass	4 mm Toughened, low iron, Transmittivity>=85%
1.16	Back Sheet	Aluminum
1.17	Glass Beading and sealing	EPDM
1.18	Grommets	EPDM
1.19	End connection	Brass flanges with EPDM gaskets
1.20	Collector –Mounting structure	Mild Steel with pure polyester powder coating
1.21	Frame corners sealing	Brass flanges with EPDM gaskets
1.22	Collectors Structures	MS Angles of 35 x 35 x 3mm thick, Electrostatic Powder coated – PP, Fixed / demountable as per site

<b>TANK</b>	
Tank Capacity	2000 LPD
Type	Vertical
Tank Material	SS<304
End Fittings	1" BSP
Operating / Withstanding Pressure	Atmospheric Pressure If the tank inlet pressure goes beyond the atmospheric pressure and gets damaged, company will not be responsible.
Material	Rockwool
Thickness	100mm
Outer Cladding	Aluminium
<b>System internal piping : Hot &amp; Cold</b>	
Material	GI (OSWAL Make) – ISI Marked
Size	1" / 1¼"
Length	As required for the respective capacities
Insulation	50mm Rockwool
Outer Cladding	Aluminium
<b>Other accessories for tanks</b>	
Sacrificial Anode	1 No. Provided for each
Electrical Heater	6kW x 2No's Provided for each 2000LPD
Air Release	Air Vent – 1 No.
Pressure Release	NA
<p>Note: Accessories other than those mentioned in the quote shall be provided at extra cost. Cost shall increase with changes in material or increase in accessories / pipe length or any other.</p>	

## TECHNICAL SPECIFICATIONS - ETC

Type of Coating	Three Layer Selective Coating Black chrome – on outer surface of inner tube
Absorptance	>93%
Emmittance	<8%
Tubes	<b>For 2000 LPD</b>
Outer Dia of the tube	58 mm OD
Outer Dia of the tube	47 mm OD
Tube length	1800 mm
Thickness of Glass Tube	1.6mm
Design / Operating pressure	Atmospheric Pressure
Level of Vaccum	$P < 5 \times 10^{-2}$ Pa
Weight of Single Tube	1.8kg
Number of Tubes	160 tubes
Manifolds / Plug<in type	Manifold Type – 4 No's
Manifold Inner Material	SS<304
Manifold Insulation and cladding	50mm – PUF Insulation; GI Pre coated outer cladding
Inner Tank	2000LPD < SS304
Tank Insulation ; Outer Cladding	Rockwool Insulation – 100mm; Outer Cladding – Aluminium
Design / Operating / Withstanding pressure	Atmospheric Pressure
Supporting Structures	Mild Steel with Powder Coating
Electrical heater Backup	6kW x 2 No Provided
Interconnecting piping	Kitec Piping with necessary fittings
Length	As required for the above respective capacities
Air Release	Air vent
Sacrificial Anode	1 No. in each tank Provided
<p>Note: Accessories other than those mentioned in the quote shall be provided at extra cost. Cost shall increase with changes in material or increase in accessories / pipe length or any other.</p>	