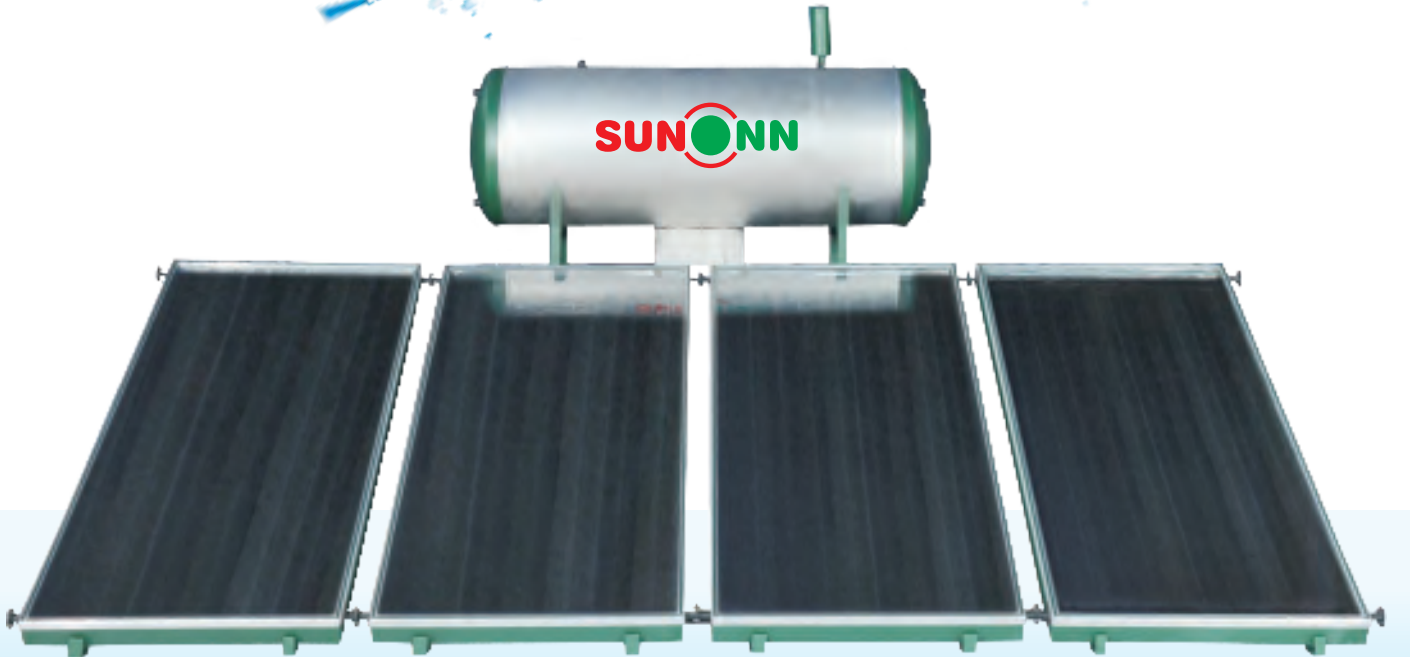


आदित्यात् जायते वृष्टिः वृष्टे अन्नं ततः प्रजाः
सूर्यथी वृष्टि, वृष्टिथी अन्न अने ते पछी जिवन उद्भववे छे.

SUNNN

SOLAR WATER HEATER



The Advanced Closed Loop Pressurised Solar Water Heater



Solar Energy Services

**A Hot Concept, An Outcome of 20 Years
in the Business of Hot Water**

Solar Energy Services is a leading manufacturer of various types of water heating systems with a track record of 20 years. Customer satisfaction is the operative principle at Solar Energy Services. Our products - Sunline Solar Water Heater, Sunline Automatic Gas-fired Storage Water Heater, Sunline wood-fired Storage Water Heater, and Eazy Solar water Heater, and our customers profile speak about our track record.

Solar Energy Services now introduces a new product that will harness the sun's energy more effectively and efficiently, a state-of-the art new technology, **SUN ONN**, a closed loop pressurised Solar Water Heating System that provides the answer to harsh conditions.

Extra Effective and Efficient

The new **SUN ONN** is designed to transfer the sun's heat to the water more efficiently. A heat transfer liquid runs between the solar collector plates and a jacket type heat exchanger that surrounds the pressurised hot water tank thereby transferring the collected solar energy to the water more efficiently.

Choose **SUN ONN** When Water and Winter are Harsh

The new **SUN ONN** is specifically designed for tough challenges such as hard water, water with high chlorine content and harsh winters.

The anti-freezer which is added inside the heat transfer liquid enables the system to work efficiently for years. The system is more resistant to corrosion and therefore

has a higher life.

The hot water storage tank is specially treated to further enhance its resistance to corrosion, salt and dilute acids that are damaging in hard water areas.

Heavy-duty **SUN ONN** Value for money

SUN ONN does not require an additional cold water tank. Water is supplied to the Solar Water Heating System straight from the main pressure booster pump.

The Solar Collector and the Solar Tank are manufactured to resist the pressure. Since the hot water tank and solar collector are manufactured from heavy material, it costs more as compared to atmospheric systems.

SUN ONN's Larger 100% Copper Collector Makes the Most of Sunshine Hours, Absorbs More Heat

The larger and 100% copper solar flat plate collector absorbs more heat. It is designed that you get hot water even when the winters are harsh.

When you consider that India receives solar energy equivalent to more than 5000 trillion Kwh per year, a quantum that is far more than our total annual energy consumption, you realize how significant this is. The daily average global radiation is around 5 kwh/sq. metre/day during sunshine hours.

Hot or Cold, It's Steady Flow **SUN ONN**, Ensures a Pleasurable Bathing Experience

Since the water stored inside the hot water tank is always under booster pump pressure, the cold and hot water flow at the same even pressure from the taps and ensures a more pleasurable bath.



TECHNICAL SPECIFICATIONS

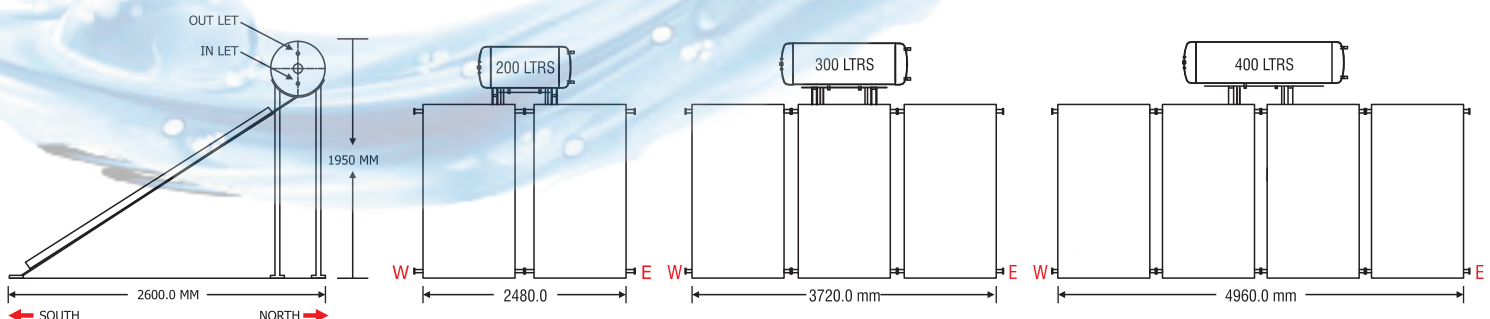
SOLAR FLAT PLATE COLLECTOR

Over all dimensions	: 2120 x 1125 x 100mm
Collector Area	: 2.38 sq.mtr. / 25.67 sq.feet.
Collector Box	: Aluminium extruded section profile 1.7mm and aluminium back sheet 0.7mm thick.
Glazing Material	: Clear Toughened glass - 4mm thick - Transmittivity - 88%
Absorber	: 100 % Copper (Copper to copper)
Absorber Surface	: Copper Sheet - Nickel under coat and black Chrome (selective coating)
Absorbivity of absorber	: 93 %
Solar Emmittance	: (12 ± 2) %
No. of Copper Riser Pipe (12.7mm Ø)	: 10 Nos. x 2000mm = 20 R.Mt. / 65.62 R.Ft.
No. of copper Header pipe (25.4mm Ø)	: 2 Nos. x 1230mm = 2.46 R.Mt. / 8.07 R.Ft.
Reflective foil	: Aluminium - 0.05mm thick
Flanges	: Brass
Insulation	: Rockwool RB Slabe - 48 kg. Density. 50mm thick bottom and 25mm thick side insulation.
Weight	: 49.9 kg.
Water tightness	: EPDM Rubber / Transparent silicon.
Hydraulic test pressure	: 8kg. cm ²

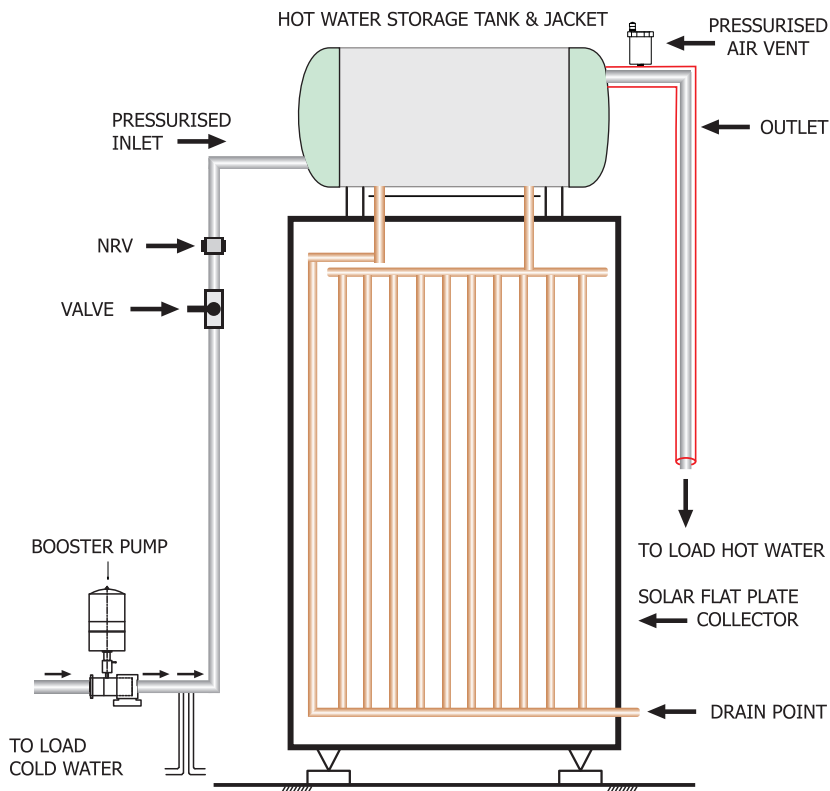
HOT WATER STORAGE TANK

External Casing	: Stuco Aluminium / stainless steel
Tank Material	: Low carbon steel - 5mm thick.
Tank Type	: Horizontal cylinder type
Jacket's Material	: Low carbon steel - 3mm thick.
Insulation	: Rockwool LRB - 100 kg.density - 50mm thick.
Additional Protection	: Magnesium Anode
Auxiliary heating system	: Electric backup with thermostat cut off (Optional)
Hydraulic Test Pressure	: 8kg. cm ²

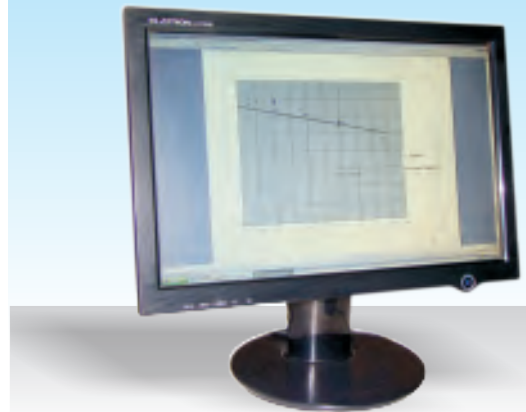
INSTALLATION AREA DIMENSIONS



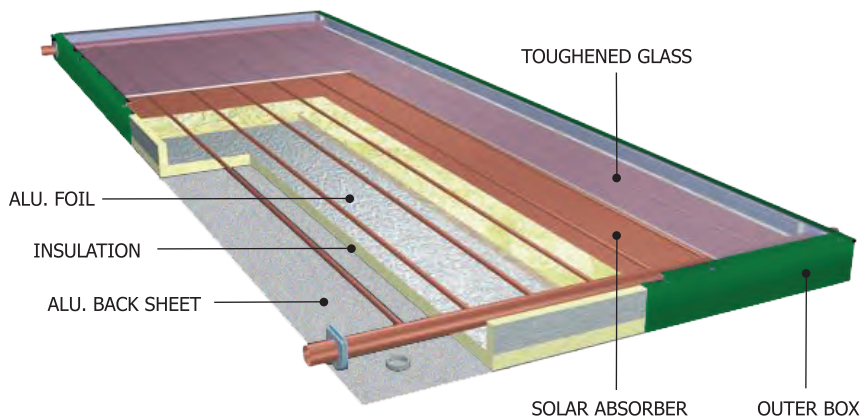
SCHEMATIC DIAGRAM THERMOSYPHON SYSTEM CLOSED LOOP - PRESSURISED



SOLAR THERMAL EFFICIENCY TEST SET-UP AT FACTORY



SUNLINE 'A' TYPE SOLAR FLAT PLATE COLLECTOR



Mfg. by:



SOLAR ENERGY SERVICES

REGD. OFFICE: 21-B, Jalarnagar, Behind Mother's School,
Near Iskcon Temple, Gotri Road, Vadodara-390 021, Gujarat, India.
Phone: +91-265-2337674, 2351703, Fax: +91-265-2340606
E-mail: solarenergyservices@live.com www.solarwaterheatingindia.com

FACTORY: A-4/2, Gorwa Industrial Estate, BIDC, Gorwa, Vadodara-390 016, Gujarat, India.

NOTE: Due to continuous development in the product the company reserves the right to change the Design, Dimension and Pattern without prior notice as and when required.

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