

BOUNDLESS ENERGY.

CHANGE YOUR ENERGY. CHANGE THE WORLD.

Global warming. Greenhouse gases. Carbon footprint. The world has a whole new vocabulary reflecting a shared environmental awareness. As a result, alternative technologies are more mainstream. And fittingly, the very environment we're trying to preserve is supplying us with many of the resources to do so.

Which brings us to the sun.

Leading the way in clean, sustainable energy, solar offers a broad array of environmental and operational benefits, which include:

- A reduction in the burning of fossil fuels, thus preventing the release of billions of pounds of CO₂ into the atmosphere each year.
- A reduction in our dependence on finite resources like oil and gas.
- A reliable supply of energy at almost no cost, except for the initial investment.
- Low annual operating cost with high return on investment.



THE BREAKDOWN OF TYPICAL RESIDENTIAL ENERGY USAGE



Department of Energy; 2007 Buildings Energy Data Book, Table 4.2.1., 2005 energy cost data.

All energy consumed for heating and cooling the home can be supplied by solar thermal.





IMAGINE THE IMPACT.

Enough solar energy strikes the U.S. in half a day to supply the whole country's power needs for an entire year.

NOT JUST SOLAR, SOLAR THERMAL.

Today's technology has evolved far beyond the early solar thermal collectors and photovoltaic (PV) panels once commonly associated with solar energy. In fact, Evacuated Tube (ET) solar thermal collectors are now three to four times more efficient at collecting solar heat than PV collectors are at converting solar energy to electrons'.

But the advantages don't stop there. As a world leader in solar thermal, NTS collectors outperform PV systems in both residential and commercial applications in a number of important other ways:

- Solar thermal captures the full light spectrum, meaning that it collects thermal energy even on cloudy days.
- The average solar thermal system costs roughly half that of a PV system and pays for itself approximately 2½ times faster.^{*}
- Solar thermal evacuated tube collectors can be installed as much as 30° off due south and still produce acceptable power output as long as the absorber is "aimed" (rotated) due south.



Vacuum tube technology minimizes thermal losses, which makes them more efficient than flat-plate collectors when high fluid temperatures are required.

NTS solar thermal (ST) collectors feature an absorber housed inside a single-walled glass tube making them more efficient than the flat plate collectors historically associated with solar thermal systems. NTS's evacuated tube solar thermal collectors are much more efficient in conditions where the outside temperatures are low and the demands for thermal energy are high. They are particularly well suited for combination systems where hot water, space heating and air conditioning is required.



Direct flow designs can be mounted at any angle or any orientation (except upside down), making them suitable to be installed everywhere from roofs, to balconies, to the sides of buildings. Heat pipe designs must be installed either 20° from horizontal or vertical for the liquid-to-vapor-to-liquid transition to occur.





GERMAN ENGINEERING. GLOBAL ACCLAIM.

Internationally recognized as a leader in environmental policy, Germany has a long history in the design and development of innovative green technologies. And one of the country's pioneers in the solar field is a company called NARVA.

Headquartered in Brand-Erbisdorf, NARVA has built a reputation for excellence over the past 40 years in glass manufacturing, glass-to-metal sealing, vacuum processes and specialty coatings—all the ingredients required to make the most advanced vacuum tubes in the world. And NTS (a sister company of NARVA) was the first to offer solar collectors featuring German-engineered NARVA vacuum tube technology.

NARVA VACUUM TUBES

Produced at the company's own glassworks and assembled at a state-of-the-art, automated facility, NARVA tubes feature a patent-pending glass-to-metal seal that ensures the consistency and integrity of the vacuum. The tubes have also been engineered with numerous other unique features to deliver the highest level of performance of any solar thermal product on the market:

- Low-iron glass of unparalleled clarity allows for the collection of the full spectrum of solar radiation.
- Special nano-particle coating (silicon dioxide) on internal and external glass surfaces reduces light reflection, enhances transparency and increases transmission.
- Silicon dioxide coating baked into the glass allows tubes to resist weathering and seals micro cracks.
- 1.8 mm thick, double-coated glass makes tubes highly resistant to breakage from flying debris or hail.
- Specialized pumping technologies and a unique barium getter create a high vacuum in the tubes of approximately 10⁻⁶ bar.
- Proprietary glass is significantly more impervious to hydrogen and helium than typical borosilicate tubes, ensuring the integrity of the vacuum for 20 years.

In addition to their superior glass composition and uncompromising vacuum seal, NARVA tubes also use the latest, most efficient, highly conductive copper absorber plates. Attached to the absorber pipe by ultrasonic welding, the plates feature a multi-layer titanium oxy-nitride (TiNOX^{*}) coating for exceptional absorption efficiency (up to 96%).









At the 18th Solar Thermal Energy Symposium, NARVA's unique solar vacuum tubes received the coveted innovation award.



AN UNRIVALED COLLECTION OF COLLECTORS.

NTS offers the most efficient, broadest range of solar collectors currently available. Ideal for a wide variety of industrial, commercial and residential applications, the collectors are available in multiple lengths, configurations and styles to simplify architectural integration and maximize efficiency.

PERFORMANCE SERIES

Offered in both Direct Flow (DF) or Heat Pipe (HP) models, Performance Series collectors are perfectly suited to applications requiring high hot water usage as well as those applications with low or intermittent demands.

Performance Series Direct Flow (PS-DF)

Engineered for use in applications where hot water is in constant, high demand reducing the likelihood of collector overheating—typically commercial/industrial/institutional.

Performance Series Heat Pipe (PS-HP)

Designed for use in applications where water use is moderate and intermittent—typically domestic/residential. The heat pipe tube will limit its output temperature to 320°F (160°C).

ARCHITECTURE SERIES

With a sleek, high-tech appearance and modular design, Architecture Series collectors can be easily integrated into virtually any building. The Architecture Series offers the ideal combination of visual appeal, installation flexibility and efficient performance demanded by today's environmentally conscious architects, contractors and homeowners. Available in direct flow (DF) only.

IDEAL APPLICATIONS

Capable of heating water to very high temperatures (stagnation temperature of 300°C), NTS Solar collectors are ideally suited to multiple installations and applications, including:

- Commercial, industrial and institutional water-heating systems:
 - -Greenhouses
 - -Breweries
 - -Laundromats
 - -Dry Cleaners
 - -Supermarkets
 - -Universities & Colleges
- · Residential water-heating systems
- Space heating systems
- Swimming pool heating
- Thermal-powered air-conditioning systems
- Radiant floor heating



PUMPS AND ACCESSORIES

In order to provide a fully integrated system, NTS Solar offers a pump station and tubing accessories for use with our full line of collectors.

For more information on a particular collector line or model, please see our detailed specification sheets, call us at 1-888-781-4545 or visit our web site (www.nts-solar.com).

ARCHITECTURE SERIES (AS) 10 OVERVIEW

- 10-tube configuration.
 (15-tube model—AS 15—also available.)
- Pre-assembled by manufacturer.
- Tamper-proof-tubes cannot be removed.
- Sleek, high-tech design encourages architectural integration.
- Collectors available in three sizes: 0.8m, 1.5m, and 2.0m.
- Roof kit sold separately.
- Pumping station and tubing accessories available to create a fully integrated system.



PROPRIETARY NARVA VACUUM TUBE TECHNOLOGY

Architecture Series collectors from NTS Solar use vacuum tubes manufactured by NARVA in Brand-Erbisdorf, Germany. Constructed of specially formulated glass, these unique tubes feature:

- An anti-reflective coating (inside and out) that increases the transmission of solar energy by up to 96% and seals micro-cracks.
- A patented glass-to-metal seal that maintains the integrity of the vacuum for superior thermal retention. (Integrity of the vacuum is guaranteed for a full 10 years.)
- Impact-resistant glass to protect against damage from hail and other elements.
- Special order lengths for architectural integration.
- Copper tubing and absorber for unsurpassed heat conduction.
- Tinox[®]-coated absorber (95% efficient).
- Lead-free, single-wall, soda-lime glass.



TECHNICAL DETAILS

	AS 10
Number of Tubes	10
Max. Op. Pressure	87 psi
Inspection Pressure	145 psi
Max. Stagnation Temp.	570°F
Fluid Volume	50 oz
Weight (empty)	59 lbs
Length	83.5 in.
Width	30.5 in.
Depth	4 in.
Aperature Area	10.9 ft ²
Gross Area	17.7 ft ²
Power Output ^{**}	0.78 - 1.0 kW

*Data from TÜV report # 21208197 **Assumes 1000 W/m² Solar Insulation

SOLAR HOT WATER (SHW)—KEY FACTS

- Three to six times more efficient than photovoltaic (PV).
- Saves 50% 85% of electricity used by electric water heaters.
- Typical payback is 4 8 years.
- A SHW system can reduce CO₂ emissions by more than 50 tons over its 20-year life.

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PRODUCT SPEC SHEET

- Available in 10-tube (PS 10), 20-tube (PS 20) & 30-tube (PS 30) Dual Flow or Heat Pipe collector models.
- Double-sided coating on absorbers.
- Replaceable, aimable tubes.
- Simple on-site assembly (by installer).
- Collectors available in three lengths.
- Angled roof kit included.
- Pumping station and tubing accessories available to create a fully integrated system.



PROPRIETARY NARVA VACUUM TUBE TECHNOLOGY

Performance Series collectors from NTS Solar use vacuum tubes manufactured by NARVA in Brand-Erbisdorf, Germany. Constructed of specially formulated glass, these unique tubes feature:

- An anti-reflective coating (inside and out) that increases the transmission of solar energy by up to 96% and seals micro-cracks.
- A patented glass-to-metal seal that maintains the integrity of the vacuum for superior thermal retention. (Integrity of the vacuum is guaranteed for a full 10 years.)
- Impact-resistant glass to protect against damage from hail and other elements.
- Special order lengths for architectural integration.
- Copper tubing and absorber for unsurpassed heat conduction.
- Tinox[®]-coated absorber (95% efficient).
- Lead-free, single-wall, soda-lime glass.

SOLAR HOT WATER (SHW)-KEY FACTS

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- Saves 50% 85% of electricity used by electric water heaters.
- Typical payback is 4 8 years.
- A SHW system can reduce CO₂ emissions by more than 50 tons over its 20-year life.



TECHNICAL DETAILS

Offered in both Direct Flow (DF) or Heat Pipe (HP) models, Performance Series collectors are perfectly suited to applications requiring large amounts of constant hot water as well as those where the water is regularly turned on and off.

PERFORMANCE SERIES DIRECT FLOW (PS-DF)

Engineered for use in applications where hot water is in constant, high demand so stagnation cannot occur typically commercial/industrial/institutional.

	PS-DF 10	PS-DF 20	PS-DF 30
Number of Tubes	10	20	30
Max. Op. Pressure	145 psi	145 psi	145 psi
nspection Pressure	220 psi	220 psi	220 psi
Max. Stagnation Temp.	570°F	570°F	570°F
-luid Volume	46 oz	92 oz	138 oz
Weight (empty)	59 lbs	117 lbs	177 lbs
_ength	84 in.	84 in.	84 in.
Width	28 in.	59 in.	84 in.
Depth	3.25 in.	3.25 in.	3.25 in.
Aperature Area	15.8 ft ²	31.7 ft ²	47.4 ft ²
Gross Area	17.2 ft ²	34.4 ft ²	52.4 ft ²
Power Output	0.8 - 1.0 kW	1.6 - 2.0 kW	3.2 - 3.0 kW

PERFORMANCE SERIES HEAT PIPE (PS-HP)

Designed for use in applications where water use is limited and intermittent—typically domestic/residential.

	PS-HP 10	PS-HP 20	PS-HP 30
Number of Tubes	10	20	30
Max. Op. Pressure	145 psi	145 psi	145 psi
Inspection Pressure	220 psi	220 psi	220 psi
Max. Stagnation Temp.	570°F	570°F	570°F
Fluid Volume	16 oz	32 oz	48 oz
Weight (empty)	53 lbs	106 lbs	159 lbs
Length	85.2 in.	85.2 in.	85.2 in.
Width	28 in.	59 in.	84 in.
Depth	3.25 in.	3.25 in.	3.25 in.
Aperature Area	15.8 ft ²	31.7 ft ²	47.4 ft ²
Gross Area	17.2 ft²	34.4 ft²	52.4 ft²
Power Output ^{**}	0.84 - 1.01 kW	1.69 - 2.01 kW	2.53 - 3.01 kW

*Data from TÜV reports #21209370-5 and 21209370-30 **Assumes 1000 W/m² Solar Insulation

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PERFORMANCE SERI

PUMP STATION OVERVIEW

- Circulates fluid throughout a closed-loop solar circuit-between NTS collector(s) and a water storage tank.
- Regulates flow rate, temperature and pressure for added system security.
- All-inclusive system ensures component compatibility and reliability.
- Pump and collector packages reduce costs.
- Mounting bracket allows fast, simple installation.
- Quality materials ensure long life and consistent performance.
- Pre-wired with Resol® DeltaSol® BS Plus Controller.



Pump Station

COMPLETING YOUR SYSTEM WITH AN NTS SOLAR **PUMP STATION.**

With a technologically advanced Pump Station to complement our full family of high-performance collectors, NTS Solar is your single source for complete solar hot water systems. Rugged and reliable, our Pump Station has been integrated and tested with our collectors to ensure optimum component compatibility and system performance. By combining German-made Aeroline® tube systems and all the necessary fittings/ accessories (available from NTS), you can create a solar thermal system that delivers:

- · Unrivaled efficiency in both residential and commercial applications.
- · Lower installation costs and a faster return on investment.
- · Long-term reliability with quality materials and fully integrated components.



TECHNICAL DETAILS

	PUMP STATION
Height (with safety equip.)	21 in.
Width (with safety equip.)	13 in.
Depth (with insulator)	8 in.
Center Distance Supply-Return	4 in.
Pipe Connections	¾ in. internal thread
Expansion Tank Connection	¾ in. (external thread, flat-seating)
Outlet Pressure Relief Valve	¾ in. thread
Max. Admissible Pressure	90 psi
Max. Operating Temperature	248° F
Max. Short-Time Temperature	320° F, <15 minutes
Max. Propylene Glycol Conc.	50%
Pressure Relief Valve	87 psi
Pressure Gauge	0-90 psi
Check Valves	2 x 200 mm (wc, can be opened)
Valves & Fittings	Brass
Seals	EPDM
Check Valves	Modified PPS
Insulation	EPP

SOLAR HOT WATER (SHW)-KEY FACTS

- Three to six times more efficient than photovoltaic (PV).
- Saves 50% 85% of electricity used by electric water heaters.
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- A SHW system can reduce CO₂ emissions by more than 50 tons over its 20-year life.

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PUMP STATION

SPACE HEATING & DOMESTIC HOT WATER

The calculations below and on the reverse side were carried out by NTS Solar using a Simulation Program for Solar Thermal Heating Systems. The results were determined by a mathematical model calculation with variable time steps of up to six minutes. These guidelines were calculated for the greater Boston area. For more information or performance specs for other markets, please visit our Web site (www.nts-solar.com) or call 1-888-781-4545.









SPACE HEATING AND HOT WATER	1500 SQUARE FEET 2 PEOPLE	2000 SQUARE FEET 2-3 PEOPLE	2500 SQUARE FEET 3-4 PEOPLE	3000 SQUARE FEET 5 PEOPLE
ARCHITECTURE SERIES	4 Collectors	4 Collectors	4 Collectors	4 Collectors
AS 10/2	Solar Fraction:	Solar Fraction:	Solar Fraction:	Solar Fraction:
	Hot Water = 87%	Hot Water = 80%	Hot Water = 82%	Hot Water = 90%
\$80000000	Space Heating = 20%	Space Heating = 20%	Space Heating = 20%	Space Heating = 20%
///////////////////////////////////////	8 Collectors	8 Collectors	8 Collectors	8 Collectors
	Solar Fraction:	Solar Fraction:	Solar Fraction:	Solar Fraction:
	Hot Water = 94%	Hot Water = 94%	Hot Water = 94%	Hot Water = 94%
	Space Heating = 30%	Space Heating = 32%	Space Heating = 30%	Space Heating = 30%
	(40 Gal. DHW & 80 Gal. Space Heating Tank)	(60 Gal. DHW & 80 Gal. Space Heating Tank)	(115 Gal. DHW & 80 Gal. Space Heating Tank)	(115 Gal. DHW & 115 Gal. Space Heating Tank)
PERFORMANCE SERIES	4 Collectors	4 Collectors	4 Collectors	4 Collectors
(Reflective Backing)	Solar Fraction:	Solar Fraction:	Solar Fraction:	Solar Fraction:
PS-DF 10	Hot Water = 90%	Hot Water = 85%	Hot Water = 85%	Hot Water = 95%
PS-HP 10	Space Heating = 25%	Space Heating = 25%	Space Heating = 25%	Space Heating = 25%
and the second second second				
	8 Collectors	8 Collectors	8 Collectors	8 Collectors
	Solar Fraction:	Solar Fraction:	Solar Fraction:	Solar Fraction:
	Hot Water = 95%	Hot Water = 95%	Hot Water = 90%	Hot Water = 95%
	Space Heating = 35%	Space Heating = 36%	Space Heating = 36%	Space Heating = 35%
	(40 Gal. DHW & 80 Gal. Space Heating Tank)	(60 Gal. DHW & 80 Gal. Space Heating Tank)	(115 Gal. DHW & 80 Gal. Space Heating Tank)	(115 Gal. DHW & 115 Gal. Space Heating Tank)
PERFORMANCE SERIES	4 Collectors	4 Collectors	4 Collectors	4 Collectors
(Reflective Backing)	Solar Fraction:	Solar Fraction:	Solar Fraction:	Solar Fraction:
PS-DF 20	Hot Water = 90%	Hot Water = 90%	Hot Water = 80%	Hot Water = 95%
PS-HP 20	Space Heating = 25%	Space Heating = 30%	Space Heating = 25%	Space Heating = 25%
and the second s				
	8 Collectors	8 Collectors	8 Collectors	8 Collectors
	Solar Fraction:	Solar Fraction:	Solar Fraction:	Solar Fraction:
	Hot Water = 95%	Hot Water = 90%	Hot Water = 90%	Hot Water = 95%
	Space Heating = 35%	Space Heating = 37%	Space Heating = 30%	Space Heating = 35%
	(40 Gal. DHW & 80 Gal. Space Heating Tank)	(60 Gal. DHW & 80 Gal. Space Heating Tank)	(115 Gal. DHW & 80 Gal. Space Heating Tank)	(115 Gal. DHW & 115 Gal. Space Heating Tank)
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NORTHEASTERN REGION

DOMESTIC HOT WATER







WHAT IS SOLAR FRACTION?

Solar fraction is the amount of energy that a solar system will provide relative to the total energy required. For example: A 60% solar fraction means you can expect your energy costs to be reduced by 60% with the installation of a solar system.



FAMILY SIZE DOMESTIC HOT WATER	1-2 PEOPLE	3 PEOPLE	4 PEOPLE	5 PEOPLE
ARCHITECTURE SERIES AS 10/2	1 Collector 60% Solar Fraction 2 Collectors 80% Solar Fraction	2 Collectors 60% Solar Fraction 4 Collectors 90% Solar Fraction	3 Collectors 65% Solar Fraction 4 Collectors 80% Solar Fraction	 4 Collectors 60% Solar Fraction 6 Collectors 78% Solar Fraction
PERFORMANCE SERIES (Reflective Backing) PS-DF 10 PS-HP 10	1 Collector 70% Solar Fraction 2 Collectors 90% Solar Fraction	 2 Collectors 70% Solar Fraction 4 Collectors 90% Solar Fraction 	3 Collectors 75% Solar Fraction 4 Collectors 90% Solar Fraction	 4 Collectors 70% Solar Fraction 6 Collectors 90% Solar Fraction
PERFORMANCE SERIES (Reflective Backing) PS-DF 20 PS-HP 20	1 Collector 90% Solar Fraction	1 Collector 80% Solar Fraction 2 Collectors 90% Solar Fraction	1 Collector 70% Solar Fraction 2 Collectors 90% Solar Fraction	2 Collectors 70% Solar Fraction 3 Collectors 90% Solar Fraction

Actual yields can deviate from these values due to fluctuations in climate, consumption and other factors. The system schematic diagram above does not represent and cannot replace a full technical drawing of the solar hot water system.

FEDERAL TAX CREDIT REQUIREMENTS

To obtain the 30% Federal Tax Credit for a Domestic Hot Water (DHW) system, you are required to install a system with at least a 50% solar fraction. This system cannot be connected to a pool.

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SPACE HEATING & DOMESTIC HOT WATER

The calculations below and on the reverse side were carried out by NTS Solar using a Simulation Program for Solar Thermal Heating Systems. The results were determined by a mathematical model calculation with variable time steps of up to six minutes. These guidelines were calculated for the Southeastern US. For more information or performance specs for other markets, please visit our Web site (www.nts-solar.com) or call 1-888-781-4545.











SPACE HEATING AND HOT WATER	1500 SQUARE FEET 2 PEOPLE	2000 SQUARE FEET 2-3 PEOPLE	2500 SQUARE FEET 3-4 PEOPLE	3000 SQUARE FEET 5 PEOPLE
ARCHITECTURE SERIES	2 Collectors	2 Collectors	2 Collectors	3 Collectors
AS 10/2	Solar Fraction:	Solar Fraction:	Solar Fraction:	Solar Fraction:
	Hot Water = 65%	Hot Water = 65%	Hot Water = 60%	Hot Water = 60%
ANO DANA	Space Heating = 20%	Space Heating = 20%	Space Heating = 22%	Space Heating = 30%
///////////////////////////////////////	4 Collectors	4 Collectors	4 Collectors	6 Collectors
	Solar Fraction:	Solar Fraction:	Solar Fraction:	Solar Fraction:
	Hot Water = 94%	Hot Water = 94%	Hot Water = 80%	Hot Water = 92%
	Space Heating = 30%	Space Heating = 32%	Space Heating = 38%	Space Heating = 50%
	(40 Gal. DHW & 80 Gal. Space Heating Tank)	(60 Gal. DHW & 80 Gal. Space Heating Tank)	(115 Gal. DHW & 80 Gal. Space Heating Tank)	(115 Gal. DHW & 115 Gal. Space Heating Tank)
PERFORMANCE SERIES	2 Collectors	2 Collectors	2 Collectors	4 Collectors
(Reflective Backing)	Solar Fraction:	Solar Fraction:	Solar Fraction:	Solar Fraction:
PS-DF 10	Hot Water = 75%	Hot Water = 70%	Hot Water = 65%	Hot Water = 75%
PS-HP 10	Space Heating = 20%	Space Heating = 22%	Space Heating = 26%	Space Heating = 40%
THE PROPERTY AND	4 Collectors	4 Collectors	4 Collectors	6 Collectors
	4 Collectors	4 Collectors	4 Collectors	Solar Fraction:
	Hot Water = 0.6%	Solar Fraction.	Solar Fraction.	Soldi Fidelion.
	Space Heating = 35%	Space Heating = 37%	Space Heating = 43%	Space Heating = 53%
	Space Heating - 55%	Space fleating - 57%	Space nearing - 43%	Space Heating - 55%
	(40 Gal. DHW & 80 Gal. Space Heating Tank)	(60 Gal. DHW & 80 Gal. Space Heating Tank)	(115 Gal. DHW & 80 Gal. Space Heating Tank)	(115 Gal. DHW & 115 Gal. Space Heating Tank)
PERFORMANCE SERIES	1 Collector	1 Collector	1 Collector	2 Collectors
(Reflective Backing)	Solar Fraction:	Solar Fraction:	Solar Fraction:	Solar Fraction:
PS-DF 20	Hot Water = 75%	Hot Water = 70%	Hot Water = 65%	Hot Water = 75%
PS-HP 20	Space Heating = 20%	Space Heating = 22%	Space Heating = 26%	Space Heating = 40%
	2 Collectors	2 Collectors	2 Collectors	7 Collectors
	Solar Eraction:	Solar Eraction:	Solar Fraction:	Solar Fraction:
	Hot Water = 96%	Hot Water = 95%	Hot Water = 87%	Hot Water = 95%
	Space Heating = 35%	Space Heating = 37%	Space Heating = 42%	Space Heating = 55%
	(40 Gal. DHW & 80 Gal. Space Heating Tank)	(60 Gal. DHW & 80 Gal. Space Heating Tank)	(115 Gal. DHW & 80 Gal. Space Heating Tank)	(115 Gal. DHW & 115 Gal. Space Heating Tank)
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DOMESTIC HOT WATER





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ARCHITECTURE SERIES AS 10/2	1 Collector 60% Solar Fraction 2 Collectors 80% Solar Fraction	2 Collectors 68% Solar Fraction 3 Collectors 88% Solar Fraction	2 Collectors 58% Solar Fraction 3 Collectors 80% Solar Fraction	 4 Collectors 77% Solar Fraction 3 Collectors 63% Solar Fraction
PERFORMANCE SERIES (Reflective Backing) PS-DF 10 PS-HP 10	1 Collector 70% Solar Fraction 2 Collectors 90% Solar Fraction	2 Collectors 80% Solar Fraction 3 Collectors 90% Solar Fraction	2 Collectors 70% Solar Fraction 3 Collectors 83% Solar Fraction	3 Collectors 73% Solar Fraction 4 Collectors 84% Solar Fraction
PERFORMANCE SERIES (Reflective Backing) PS-DF 20 PS-HP 20	1 Collector 90% Solar Fraction	1 Collector 80% Solar Fraction 2 Collectors 93% Solar Fraction	1 Collector 70% Solar Fraction 2 Collectors 93% Solar Fraction	1 Collector 53% Solar Fraction 2 Collectors 84% Solar Fraction

*These guidelines were calculated for the Southeast US. These calculations were carried out by NTS Solar using a Simulation Program for Solar Thermal Heating Systems. The results were determined by a mathematical model calculation with variable time steps of up to 6 minutes. Actual yields can deviate from these values due to fluctuations in climate, consumption and other factors. The system schematic diagram above does not represent and cannot replace a full technical drawing of the solar hot water system.

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THE MOST EFFICIENT TECHNOLOGY UNDER THE SUN.

For more information on any of our thermal solar collectors or to discuss the feasibility of using them in a particular application, give us a call at 1-888-781-4545, email us at sales@nts-solar.com or visit nts-solar.com.

NTS Solar. Come discover a world of technology and a team of people with Boundless Energy.

