SOLARTRON
ENERGY SYSTEMS INC.

SolarBeam Concentrator

Solar Thermal System

About SolarTron Energy?

- SolarTron Energy Systems was created by EG Energy Controls. A successful energy saving company with over 15 years experience in manufacturing energy saving systems for commercial & industrial applications.

- SolarTron Energy is the first company in the world to offer affordable solar thermal heat generation using a parabolic solar concentrator

- SolarTron continues to lead the way with cutting-edge technology in the solar energy sector

SolarBeam Details

- SolarBeam provides peak 13 kW per hour (44,000 BTUs / hour) of continuous thermal energy
- SolarBeam has very high efficiency due to its dual-axis solar sun tracking.
- Design has been engineered to reflect 85% of light into the focal point
- Emergency Safety features detect pressure loss, low light level, abnormal temperature readings – initiates safety stow mode

SolarBeam Specifications

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- **Collector Area:** 15.9m2 (171 sq. ft)
- **Reflector diameter:** 4.5m (15 ft)
- **Mounting Post:** 2.4 m (8’ ft)
- **Maximum Fluid Pressure:** 172 kPa (25PSI)
- **Heat Transfer Fluid:** Propylene Glycol/Water solution (40%/60% to -18 deg. C) or (50%/50% to -30 deg. C)
- **AC Power Interruption Protection:** Automatic Solar Concentrator shut-down to Survival Position

Why Is SolarBeam Unique?

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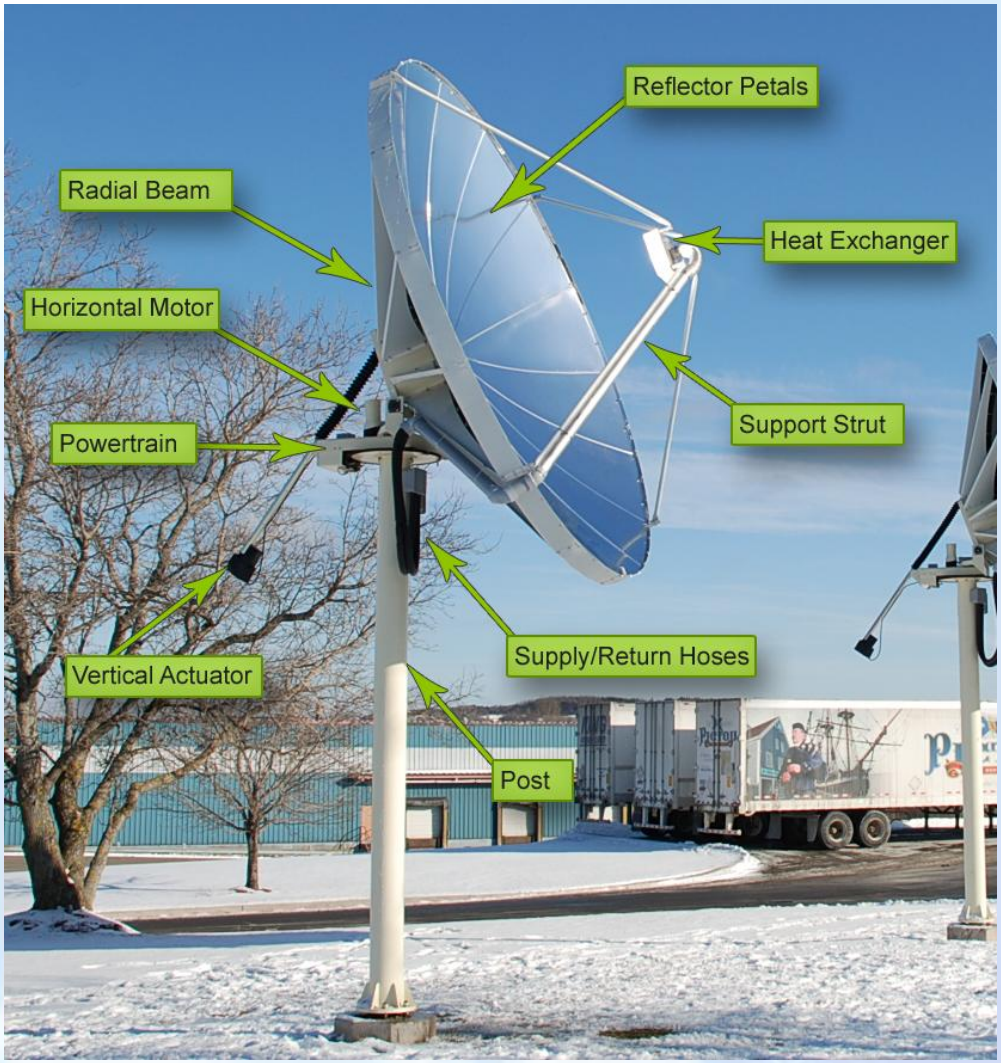
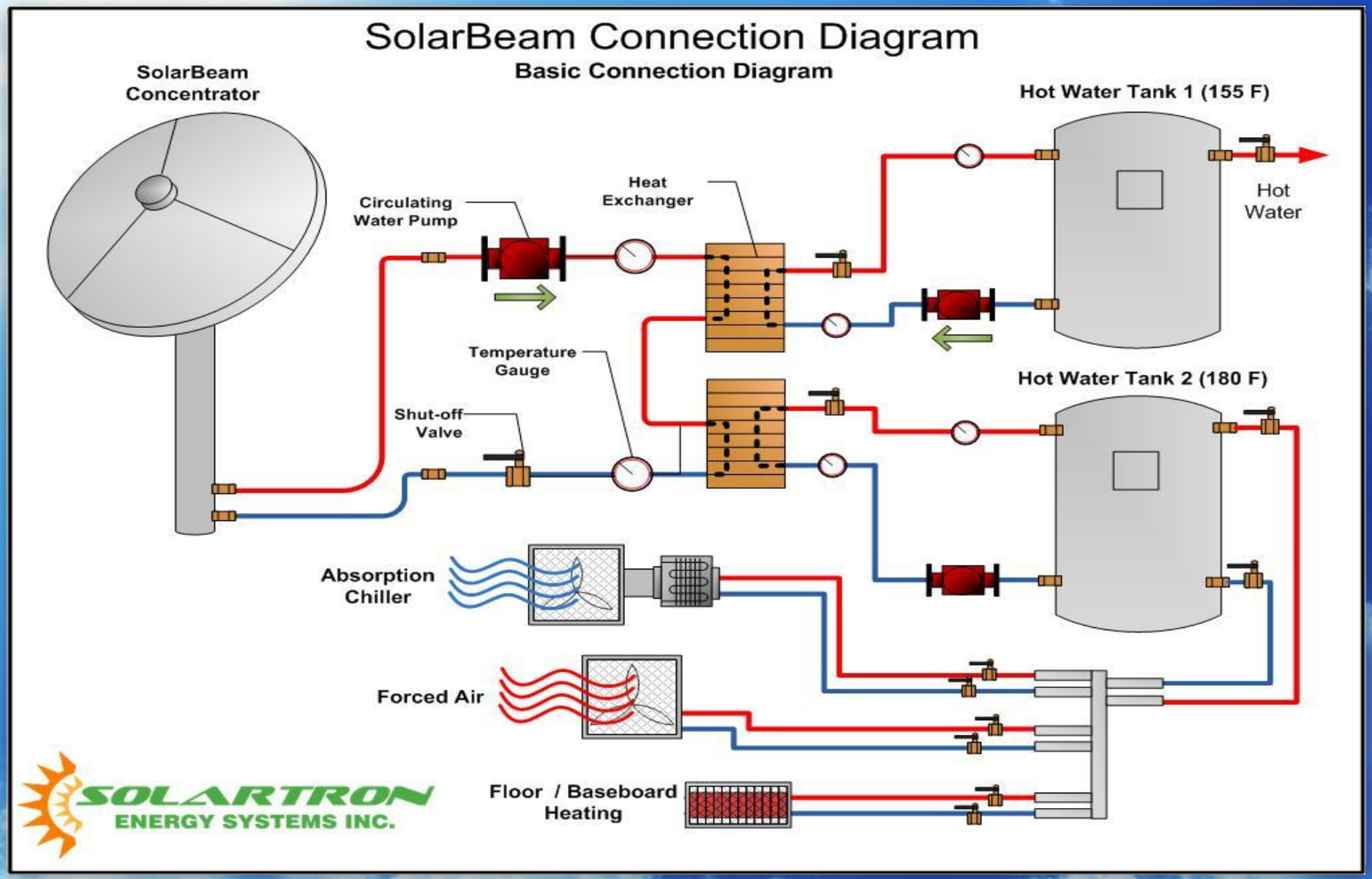


1. The SolarBeam uses a parabolic curve which is the most efficient way to collect solar energy
2. 270 degree rotation tracks the sun from sunrise to sunset
3. The parabolic curve works like a magnifying glass & concentrates the suns energy onto the focal point
4. **SolarBeam is 262% more efficient than existing thermal flat plated panels**

Connection Diagram



Thermal Comparison Chart

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Technology	SolarBeam	Flat Panel	Evacuated Tube
Collecting Solar Area:	16 mt2 (172 sq.ft)	58 mt2 (624 sq.ft)	31 mt2 (333 sq.ft)
# Systems	1	15 panels	7 panels
Heat Stagnation (excess heat damages panels)	No	Yes	Yes
Copper Piping (increase cost for installation & labor)	No (Uses PEX) Does not exceed 94 degree C	Yes	Yes
Heat Loss in Winter (larger the surface area, the lower the efficiency due to cold & wind)	No (small surface area. ONLY 10"X10") used for thermal heat transfer	YES	YES
Payback	**3.5 - 6 Years**	20-25 Years	12-15 Years

Data based on 10kW of heat. Average 6.0 hours of sunlight per year, $0.13/kw electricity

Emission Reductions

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Equivalent Environmental Benefits		
Acid Rain Emission Reduction	153	lbs of SOx
Smog Emission Reductions	74	lbs of NOx
Barrels of Oil Not Consumed	30	Barrels
Cars off the Road	2.7	Cars
Gallons of Gas not Consumed	1,448	Gallons
Acres of pine trees reducing carbon	10.6	Acres

Calculation based on ONE YEAR: 20,440kWh/year of saving @ 5.6 avg hours of sunlight / 10kW per hour thermal energy

Commercial Applications

- Net metering credit for PV generation
- SolarBeam can be used for companies that thermal energy.
- With the use of absorption chillers, A/C can be achieved

Bottling plants	Desalination Plants
Beverage companies	Laundromats
Hotels	Breweries
Apartments	Hospitals
Paper Mills	Aquatic Centers
Greenhouses	Pharmaceuticals

Residential Applications

- SolarBeam works with your existing hot water heating system

Infloor Heating

Hot Water Radiators

Swimming Pools

Snow Melting

Disaster Relief & Water Purification

- Quick deployment for water purification in disaster zones or remote areas
- Desalination capabilities for coastal regions
- Portable system for easy setup

Roof Installation Example

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SolarBeam Roof Install

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SolarBeam Parts & Warranty

- Reflective Surface: Anodized Aluminum
- Structure: Heavy-duty steel construction
- Drive Train: Chain & Motor
- Electronics: Industrial grade
- Maintenance: Yearly lubrication of chain & spray-wash reflector petals

WARRANTY

- Reflector Petals: 10 Years
- Powertrain System: 3 Years
- Structure: 10 Years

Installation

Foundation

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Safety Mode / Tracking Mode

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Tracking The Sun

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Control System

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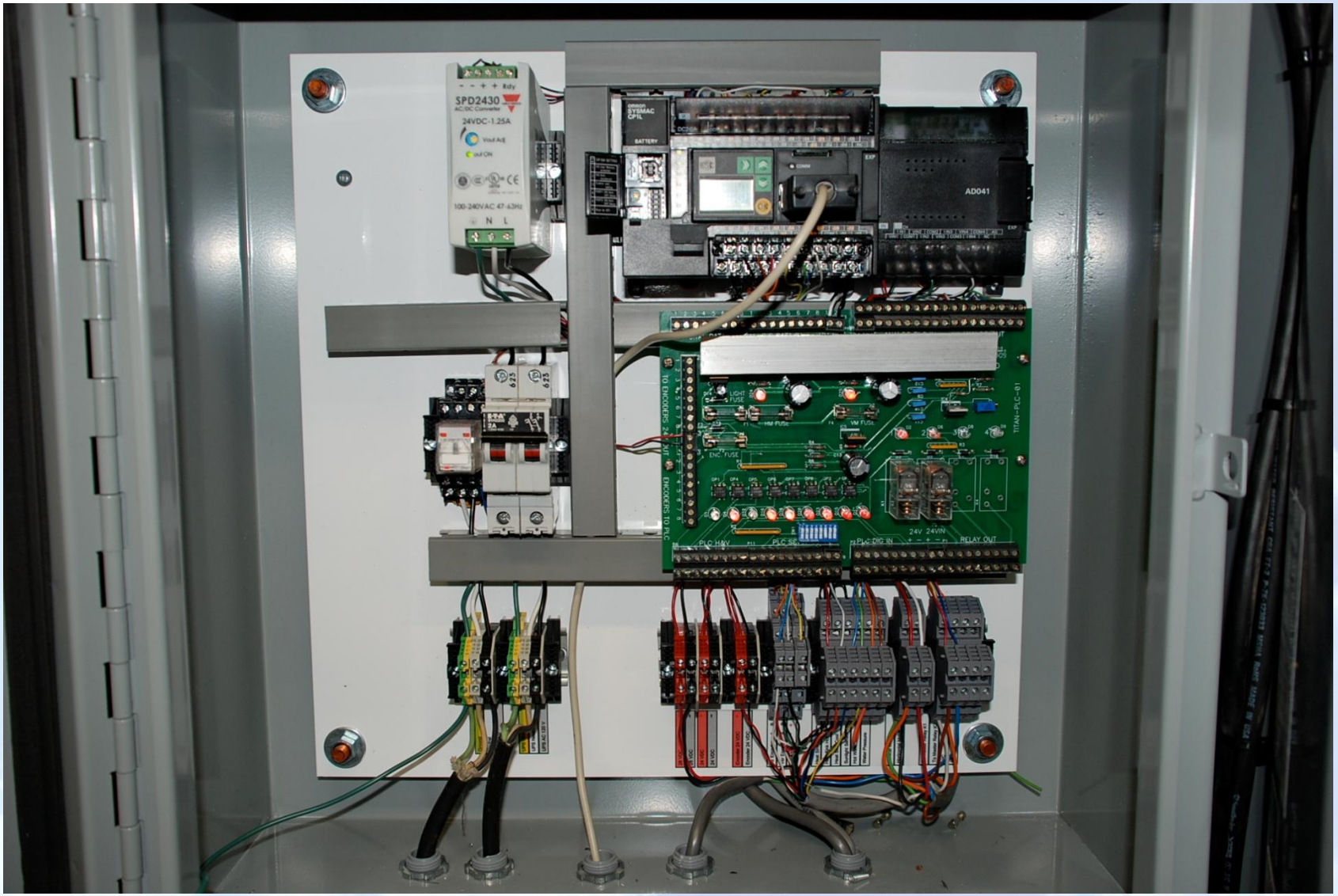

Heat Exchanger Kit

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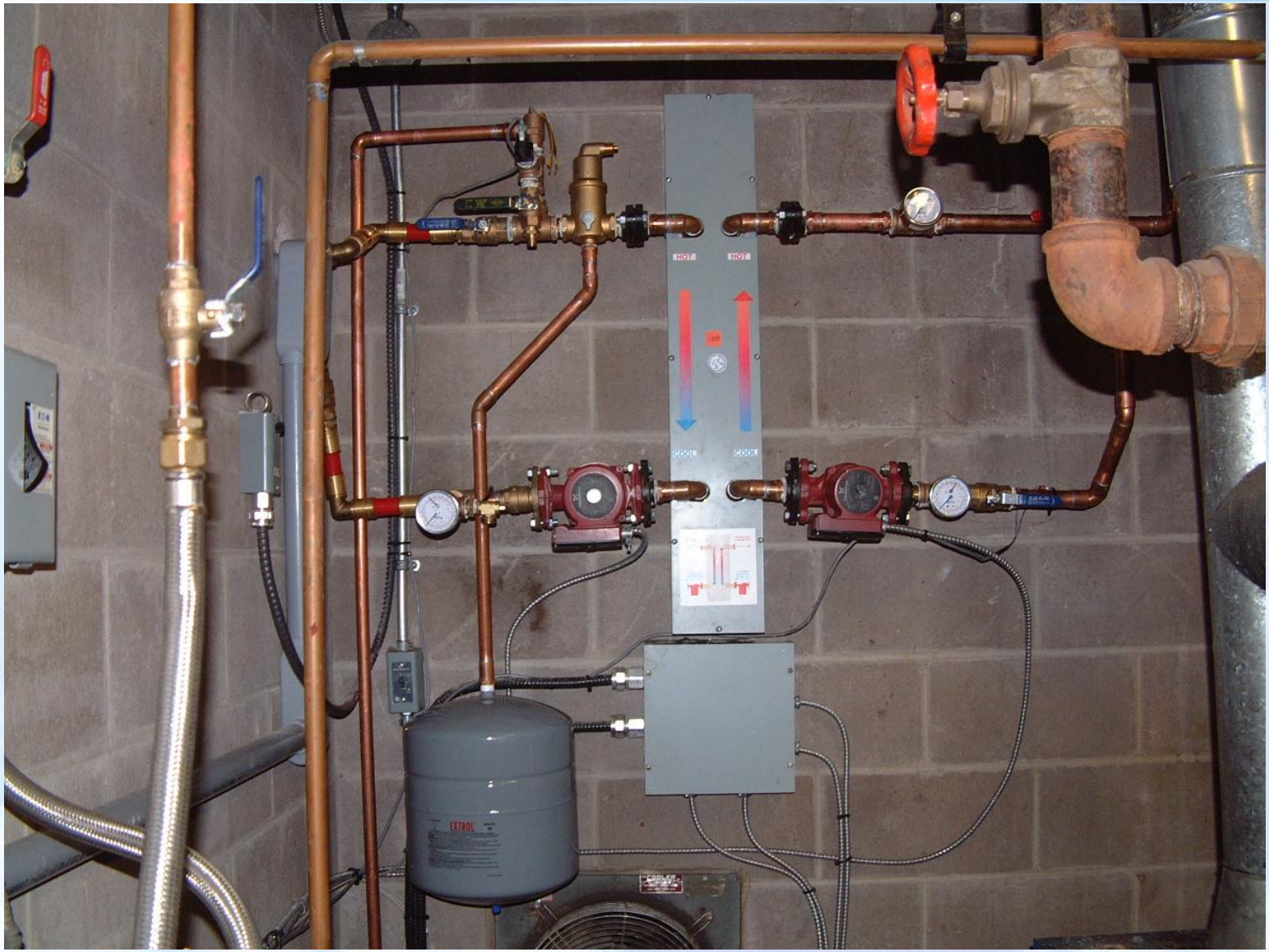

Storage Tanks

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What is Included?

- SolarBeam Kit:
  - Pole
  - Dish
- Solar Tracking System
- Heat Exchanger Kit (Needs to be sized to the heating load)
  - Pump
  - Shut-off Valve
  - Expansion Tank
  - Heat Exchanger

Where To Install SolarBeam?

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Ground Application:

- At least 20 feet away from building
- South facing
- Away from obstructions (trees, tall structures, etc)

Roof Application

- Flat roof required (concrete, reinforced truss)
- South facing
- Verify structural integrity with structural engineer

Where Can I Buy SolarBeam?

SOLARTRON ENERGY SYSTEMS INC.

- Purchase from regional Distributor. Please contact Solartron for further information
- Delivery time: 4-6 weeks from July 2010
- Call: +1-902-661-2007, Press #1 for Sales
- For more information visit: www.solartronenergy.com