

# Solar Thermal Sizing for Heliodyne Gobi™ Collectors

## Gobi Square Footage Per Collector :

Gobi 3366= 26.8 sq.ft. Gobi 408= 32.3 sq.ft. Gobi 410= 40.3 sq.ft.

## Hot Water Only Systems

20 gallons per person per day. 1.5 (colder climate) to 2 (warmer climate) gallons per square foot of Gobi area

EXAMPLE: 4 person household x 20 gal/person/day = 80 gal tank  
80 gal tank / 1.5 gal/sq.ft. Gobi area (cold climate) = 2 Gobi 3366 collectors  
(26.8 x 2= 53.6, 53.6 sq.ft. X 1.5 gals= 80.4 gals.)

## Combined Space and Hot Water Systems

8-12% of heated floor area in Gobi area depending on insulation

EXAMPLE: 1650 sq.ft. radiant floors x .1 (10%)=165 sq.ft. of Gobi  
165 sq.ft.Gobi = 4Gobi 410's (165 / 40.3= 4.09 )

## Pool Systems

To size a system for a pool, you only need the surface sq.ft. area (multiply the length by the width). If you have only the gallons, you can convert to surface sq.ft. area by dividing by 7.48 (to get the cubic ft.,) and then divide by the average depth (usually 4.5 ft.)

EXAMPLE: 15,000 gal. pool/ 7.48=2,005/ 4.5=445 sq.ft.

35-50% of pool area in Gobi for outdoor pools (35% for Sunbelt, 50% for Northern states)  
60-100% of pool area in Gobi for indoor pools

EXAMPLE: 30' x 15' = 450 sq.ft. of pool area  
450 x .5 (50%) = 225 sq.ft. Gobi area  
225 / 40.3 sq.ft. of Gobi 410 = 5.58 Gobi 410's → 6 Gobi 410's for outdoor pool

## Hot Tub

Small – 1-3366                      Med. or Large – 2-3366

## For Helio-Pak 16 Hot Water Systems

<u>Gobi # &amp; size</u>	<u>Avg.Tank size</u>
1 Gobi 3366	50 gallon
2 Gobi 3366	80 gallon
2 Gobi 408	120 gallon
2 Gobi 410	120 gallon
3 Gobi 3366	120 gallon
3 Gobi 408	120 gallon + 50 or 65 gallon

Additional Notes:

- For all Closed-Loop systems: always add Dyn-O-Flo HD heat transfer fluid (usually 1 gal. per collector).
- For DHW systems: always add 1 Cal Code Kit (air vent & tempering valve) per system.
- Gas, propane, or indirect boiler-fed tanks must be used as back-up only. Only electric tanks can be used as solar storage.
- Make sure to add in crating charge (and appropriate weight when doing shipping quotes).
- When adding an Energy Smart Water Heater to a Helio-Pak 16 module system, always add an EE Tank Kit.
- Always encourage the purchase of one of our tanks as they have all the necessary fittings and the Energy Smart Heaters are 30% more efficient than others on the market.
- Always ask if they need a tilt-up rack kit instead of the flush mount kit included in the packaged systems. The rack kits are also used for ground mounting.