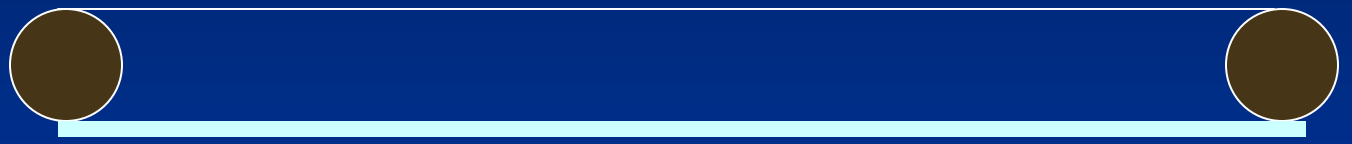
Vacu-Dish Concentrating Technology from A Better Focus Co.

Vacu-Dish Technology

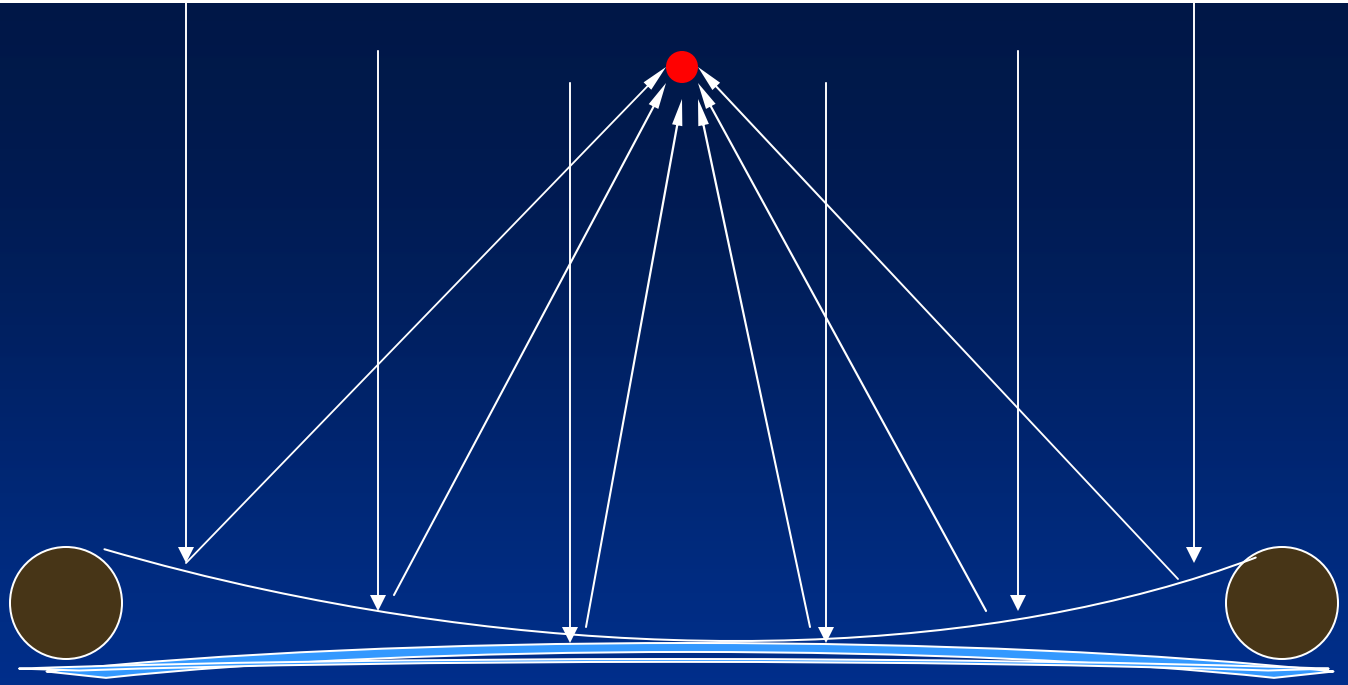
How Does it Work?

Reflective film is precisely stretched across a perfectly round frame



A tight seal is required so that a vacuum can be pulled inside the frame

Patent pending



With Application of vacuum,
The film deforms into a concave shape,
focusing light to a single hot spot.
The backboard also becomes slightly concave,
Increasing the total strength of the assembly

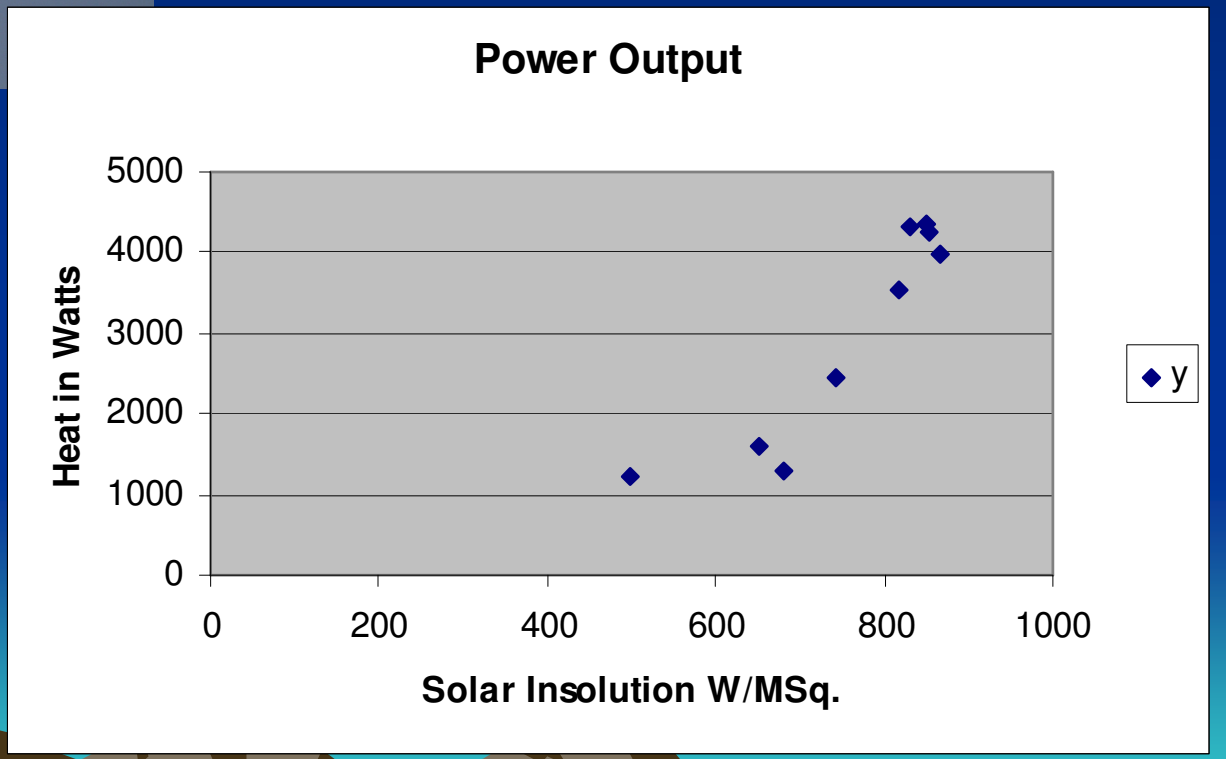
Patent pending

Vacu-Dish Technology

- 900C (1250 F) maximum temperature
  @ 850 W/M^2 Solar Insolution

Reciver test rig for heating water to measure power(1650F)

Power Output



Outdoor Weathering Test Stand

- Exposed to the elements since 12/06

¼ Scale Model of a 4-Dish Sun-Tracking System

¼ Scale Model of a 4-Dish Sun-Tracking System

4 dishes focused
on a single 5” dia. spot

Development Progression

- ✓ Fall 04 — Development and manufacture of 4’ cooking dish
- ✓ Summer 06 — Design and test 8’ prototype
- ✓ Dec. 06 — Begin weathering tests
- ✓ Summer 07 without — Improve vacuum seal to hold for days repumping
- ✓ Winter 07 — Design 4-dish sun-tracking system
- ✓ Spring 08 — Design and build a ¼ scale sun-tracking system to verify
  - ✓ 4-dish focusing to a single point
  - ✓ 2-axis tracking geometries
  - ✓ Weathervane stowage for high wind events

Development Progression

- Summer 08 Find a user-partner for the construction of a 15 Kw low pressure steam dish-thermal system.
  - Must have a year-round need for steam or hot water
  - Must have good solar resource
  - Must be willing to share performance data
  - Must be willing to share in the construction costs