

Clique Solar's ARUN® at Mahanand Dairy, Latur Saving furnace oil since 2006



Summary of the case

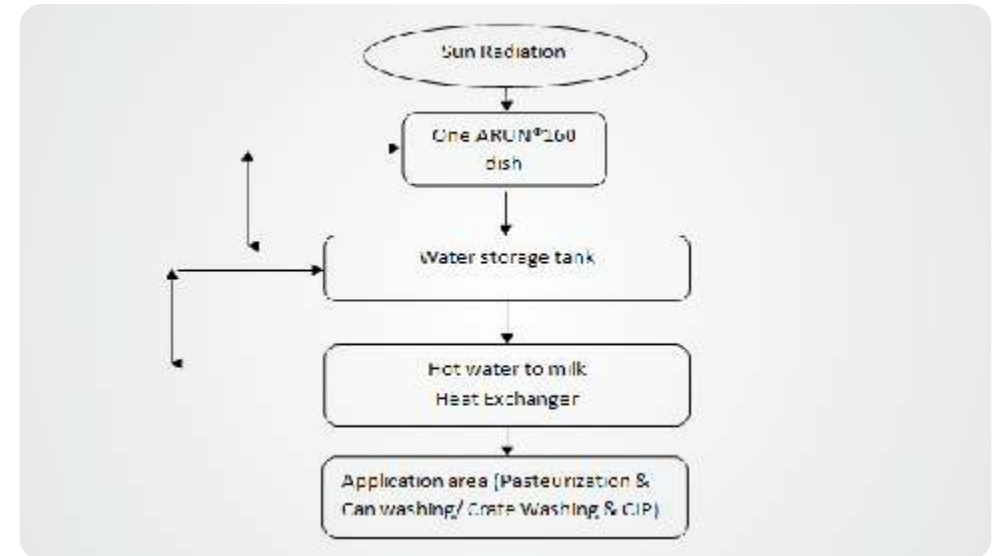
The ARUN® dish system helps Mahanand Dairy to run its milk pasteurization process 100 % on solar energy. The ingenious storage system takes care of non-solar operations.

Highlights

- A single ARUN® dish delivers energy sufficient for pasteurization of ~30,000 liters of milk
- It saves about 20,000 liters of Furnace oil per annum
- Ingenious storage system installed for operation in non-solar hours

Technical Specifications

- The system pressure and temperature is 18 bar and 180° C respectively
- The 4.5m³ pressurized hot water storage tank stores the hot water and supplies the same whenever required to milk heat exchanger.
- The hot water supplied to heat exchanger returns back to the storage tank and gets heated again by solar energy
- Capacity of ARUN® 160 is 80 – 100 kWth per dish



Conclusion

Mahanand Dairy is an excellent example of successful installation of a solar concentrator for satisfying its thermal energy needs in milk pasteurization, CIP & other dairy applications. Not only has the system been operating successfully for over 6 years now, but the economics have also been very attractive. The MNRE subsidy coupled with accelerated depreciation makes this an extremely attractive alternative to the rising fuel costs.