



## Why use solar thermal process heat?

The use of heat by solar thermal collectors has many advantages

### Environmentally friendly

Solar heat is CO2 neutral and converts about 60% of the freely available solar energy into heat. The technology is mature and proven in practice.

### Uncomplicated

Solar thermal can be easily combined with other heat sources, such as heat pump, oil-fired boiler or pellet stove. Thus, the collectors can pave the way from fossil to renewable energy system step by step.

### Competitive advantage

After a one-time investment a solar thermal system provides solar generated heat for at least 20 years at a fixed heat price with low maintenance and operating cost. In contrast, fossil fuel and electricity prices are volatile and highly dependent on the international commodity market.

### Positive Image

The solar system is visibly installed on the roof, facade or parking lot of the company and directly reflects environmental commitment of the company to the outside.

## Technology

A solar thermal system essentially consists of collectors and a storage tank, the specifications of which are largely determined by the purpose for which the solar heat is used.



**Air-collectors** use the radiated solar energy to heat the air. They are typically used for drying processes.



**Flat plate collectors** are robust and inexpensive and can deliver heat up to 80°C. Evacuated flat plate collectors can deliver temperatures even up to 160°C.



**Vacuum tube collectors** suffer less heat loss to the environment than in conventional flat plate collectors. Therefore, they are also suitable for temperatures up to about 100°C.

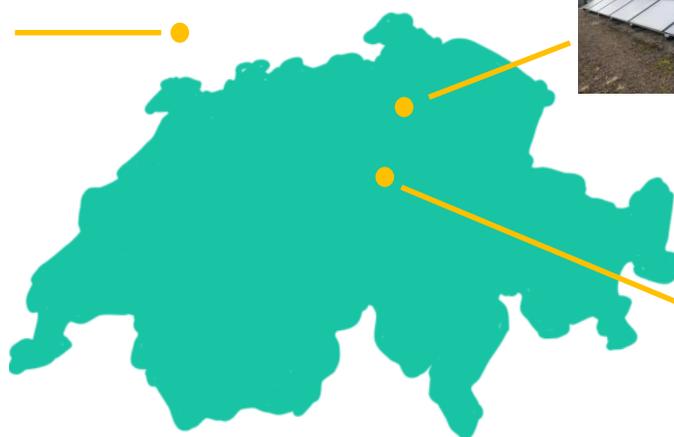


**Concentrating collectors** track the sun and can achieve temperatures up to 200°C. These are suited for regions with high direct irradiation.

## Best practice examples



Thermal Bad,  
196m<sup>2</sup>, 90°C  
Bad Krozingen (DE)



Stadion Letzigrund,  
90m<sup>2</sup>, 30°C-90°C  
Zürich



Hotel,  
30m<sup>2</sup>, 60°C-100°C  
Engelberg

### Contact:

SPF Institut für Solartechnik OST, Mercedes Rittmann-Frank, +41 56 257 4823 [mercedes.rittmann@ost.ch](mailto:mercedes.rittmann@ost.ch)  
Lesbat, Heig-VD, Martin Guillaume, +41 24 557 63 50, [martin.guillaume@heig-vd.ch](mailto:martin.guillaume@heig-vd.ch)



The Project Solind2Service support solar thermal deployment and is funded by:

