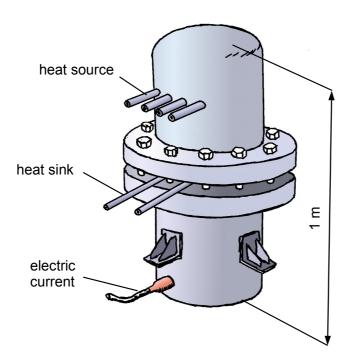




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Higly Confidential pease do not disclose to any one.

# The <u>Thermo-Oscillation-Power-Plant</u> (T-O-P<sup>2</sup>)



The Thermo-Oszillations-Power-Plant (T-O-P<sup>2</sup>) is a thermal engine with integrated electrical power generator.

To convert heat to mechanical hence electrical energy, the TOP<sup>2</sup> uses the effect of thermooscillation.

Inside the TOP<sup>2</sup>, heat is converted to electrical current via thermo-oscillation and induction. exact adjustment of all parts allows a wide variety of possible applications with a quite simple construction.

Constructing the TOP<sup>2</sup>, the use of rare Materials was avoided, industrial grade material no expensive rocket sience material is used to be independent of increasing commodity prices and facilitate production worldwide.

Based on this advantages there will be a faster and higher return on investment





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- ... cogeneration for efficient decentralized generation of heat and power.
- ... the use in solar-thermal power plants with a concentrating dish.
- ... to generate power from high level waste heat.
- ... generating power from solid, liquid and gaseous fuels.
- ... power supply were there is no grid connection, e.g. for electric vehicles or radio stations.
- ... power supply in hybrid cars transferring exhausts waste heat in to electrical power. Ore using fuels to produce directly electricity.

## Doing so the TOP<sup>2</sup> has many advantages. The TOP<sup>2</sup> ...

- ... is producible by middle-sized companies.
- ... is especially suited for decentralized use for cogeneration of heat and power.
- ... helps to balance the grid and therefore decreases the risk for power breakdowns.
- ... needs very few maintenance, so it is possible to connect many TOKs to big power plants.
- ... has very few wearing parts, so it promises a long operating live.
- ... allows the concurrent use of solid, liquid and gaseous fuels.
- ... allows the use of solar heat.
- ... doesn't need any lubricants for connecting rods, crankshafts or pistons.
- ... causes only low noise emissions.
- ... allows a clean, continuous combustion.

#### **Project status**

There is already a working test construction, that confirmed the functional capability of the TOP<sup>2</sup>. A prototype with 1kW and close-to-production design, is at the end of construction and beginning of production.

#### **Serious Scientific Approach**

A self programmed software model of the TOP<sup>2</sup> allows the calculated design of all parts. A detailed documentation of the experiments and the software model give a profound scientific based experience, allowing fast re-dimension of the TOP<sup>2</sup> for a wide range of power classes and sizes.

Through the use of a planned, self designed controller, many TOP<sup>2</sup>s can be easily connected to clusters. This way it's possible to provide power in a application range from a detached house to megawatt power plants.





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## Licencing

Exclusive licencing for production for and in certain countries will be negotiated up on the basis of PPP. Non exclusives licencing is also possible as long no exclusive licence is granted.

## **Partnering**

has to be negotiated we open to suggestions and proposals.

### **Purchasing**

based up on description of project and use cases as well as of scale of economics. We can produce an offer up on your demand.

#### **Additional Documents**

SolarThermie für dezentrale Stromerzeugung Reiner Buck, Doerte Laing, Wolfgang Schiel th1996\_02\_13.pdf