The SOLPOOL Project

SOLPOOL is an international project which aims the increased use of solar thermal systems for heating the water in open air swimming pools.

Based on a detailed status quo analysis two promotion campaigns will be prepared and performed for the main target groups:
- Owners and operators of open air swimming pools
- Installers for solar systems

Promotion materials and elements will be:
- Contact Data Bases
- Flyers
- Brochures
- CD-ROM
- Impact advisor
- Workshops and Information seminars
- Information panels

Materials, tools and dates will be found under www.solpol.info

Good reasons for using solar energy for Heating Open Air Swimming Pools

- Swimming pool heating by solar thermal systems is one of the most suitable applications
- Technical solutions are mostly easy to integrate into the existing system
- Solar installations for swimming pools are less expensive then conventional heating systems
- Costs for maintenance will rise exponential in the near future

Expected Results

It is estimated that 10 % more of the outdoor pools in the participating regions will equip their pools with a solar thermal system, what means a significant improvement of the energy efficiency of the outdoor pool stock by the use of renewable energies.

Join and benefit from the SOLPOOL Project:

- Get information for technical solutions
- Find your installer in the data base
- Use the Impact advisor as planning tool
- Get support by the information panels
- Receive newsletters
- Be part of the stakeholder pool

Stakeholder Pool

To join the project's Stakeholder Pool please register on:
www.solpool.info/1798.0.html

Contact

Deutsche Gesellschaft für Sonnenenergie e.V.
International Solar Energy Society, German Section (DGS)
Contact person: Ms Antje Klauss-Vorreiter
Tel: +49-176-21911830 Fax: +49-3643-779517
vorreiter@dgs.de

Technical help desks

- München: Lotte Glashauser
  e-mail info@dgs.de, Fon 089-524071
- Karlsruhe: Dr. Jan Kai Dobelmann
  e-mail dobelmann@dgs.de, Fon 0178-3623031
- Hamburg: Bernhard Weyres-Borchert
  e-mail dgs-hh-sh@t-online.de, Fon 040-35905823
- Berlin: Markus Metz
  e-mail mm@dgs-berlin.de, Fon 030-29381270

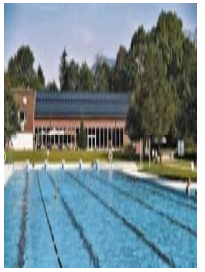
Notice

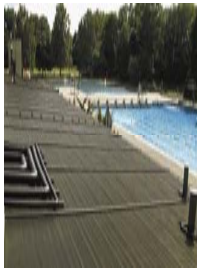
The SOLPOOL project receives funding from the European Commission within the Intelligent Europe programme. The contents of this document are the sole responsibility of the DGS and can under no circumstances be regarded as reflection of the position of the Europe Union.

DGS
Deutsche Gesellschaft für Sonnenenergie e.V.
International Solar Energy Society, German Section

SOLPOOL

Solar Energy Use in Outdoor Swimming Pools





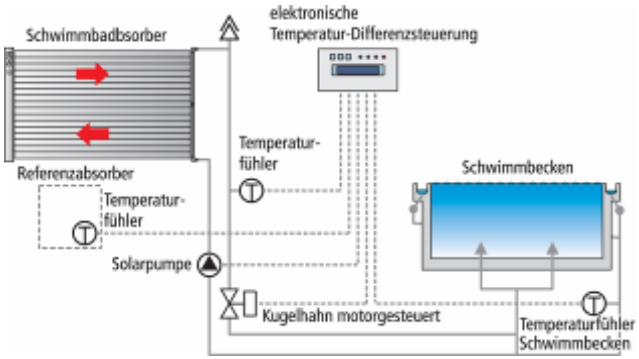
www.solpool.info

Intelligent Energy Europe

Available solar heating systems

Short description of the most common solar thermal system for heating swimming pool water

- System scheme



- Explanation of the functioning principle:
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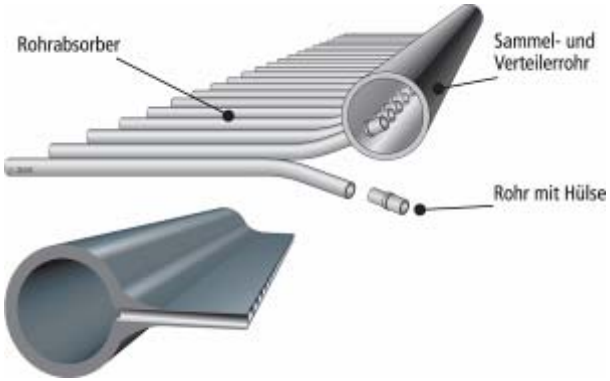
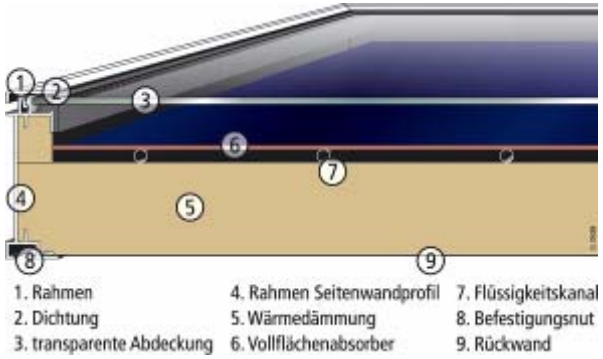
Collector types

Most common in solar systems for heating swimming pool water are unglaced absorbers made of synthetic material. In some cases also glazed flat plate collectors may be installed.

- Unglazed absorbers
Short description…



- Flat plate collectors
Short description …



Energy gains

Dependant on the radiation conditions and used collector type specific energy gains will be reachable (kWh/m²season).

Collector type Region	Unglazed	Flat plate
Northern Germany	150	250
Middle Germany	200	300
South Germany	250	350

Environmental benefits

- Reduction of CO_2-Emission in g per kWh produced by the solar system, depending on the substituted fossil energy

Fossil Energy	Reduction of CO2-Emission
Gas	249
Liquid Gas	263
Oil	303
Electricity	647
District heating	217-408 (depending on KWK)

Costs

- Specific investment costs
- Maintenance costs

	konventionelle Beheizung (Gas)	solar beheizt
Investition	36.000 €	81.800 €
Kapitalkosten	3.708 €/a	8.425 €/a
Nutzenergie	325.000 kWh/a	276.000 kWh/a
Hilfsenergie	1.625 kWh/a	5.520 kWh/a
Brennstoffbedarf	342.000 kWh/a	–
Gas- und Stromkosten	14.196 €/a	705 €/a
Wartung	715 €/a	818 €/a
Jahresgesamtkosten	18.619 €/a	9.948 €/a
Wärmepreis	0,054 €/kWh	0,036 €/kWh