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CORPORATION™

# Test Labs & Certification The US Experience

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# Challenges



- Changing Standards
- Unique Data Requirements
- Small Industry
- Fewer Labs
- Few tests per lab



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# Cooperation



- True separation of duties
  - Unbiased Independent Testing
  - Unbiased Independent Evaluation
- 17065 Requires direct cooperation
  - Certification Body can identify data needed
  - Lab can identify processes required



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# SRCC's Lab Selection



1. Lab Expresses Interest in SRCC Program
2. 17025 Accreditation is verified
3. SRCC Agreement & Invoice are sent
  - A. Administration Fee
  - B. Inspection Fee with travel costs
4. Lab Inspection Conducted
  - A. Mutual Requirements detailed
  - B. Checklist Completed



# SRCC's Lab Selection



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## SRCC Laboratory Test Program Accreditation Visit

Laboratory name: \_\_\_\_\_ Date of visit: \_\_\_\_\_  
 Address: \_\_\_\_\_ SRCC representative: \_\_\_\_\_  
 Contact: \_\_\_\_\_  
 Phone: \_\_\_\_\_ E-mail: \_\_\_\_\_  
 Application items still to be submitted: \_\_\_\_\_

SRCC Test Procedures lab is to be approved for:  
 Standard 100 – glazed liquid     Standard 100 – glazed air     Standard 100 – unglazed  
 Standard 100 – qualification     Standard 600     TM-1

**ISO 17025 scope:**                      **Limits:**  
 ISO 9806-1                      \_\_\_\_\_  
 ISO 9806-2                      \_\_\_\_\_  
 ISO 9806-3                      \_\_\_\_\_  
 Standard 100                      \_\_\_\_\_  
 ASHRAE 93                      \_\_\_\_\_  
 SRCC TM-1                      \_\_\_\_\_  
 Standard 600                      \_\_\_\_\_  
 EN 12975                      \_\_\_\_\_  
 EN 12976                      \_\_\_\_\_  
 EN-12977-3                      \_\_\_\_\_

Key Personnel	Name	Phone	E-mail
Lab manager:	_____	_____	_____
Quality manager:	_____	_____	_____
Test engineer:	_____	_____	_____
Technicians:	_____	_____	_____
_____	_____	_____	_____

Invoices to be sent to: \_\_\_\_\_  
 Others: \_\_\_\_\_  
 \_\_\_\_\_

**Lab assignments:**  
 Qualifies technicians                      \_\_\_\_\_                      Writes report  
 Analyzes data                      \_\_\_\_\_                      Approves report

Instrument information:	Instrument	Calibration frequency	Cal location	Cal lab
	Pyranometer	_____	<input type="checkbox"/> internal <input type="checkbox"/> external	_____
	Normal incidence	_____	<input type="checkbox"/> internal <input type="checkbox"/> external	_____
	Pyrgometer	_____	<input type="checkbox"/> internal <input type="checkbox"/> external	_____
	Temperature	_____	<input type="checkbox"/> internal <input type="checkbox"/> external	_____
	Flow	_____	<input type="checkbox"/> internal <input type="checkbox"/> external	_____
	Anemometer	_____	<input type="checkbox"/> internal <input type="checkbox"/> external	_____
	Data acquisition	_____	<input type="checkbox"/> internal <input type="checkbox"/> external	_____

How is data gathered, stored, verified:  
 \_\_\_\_\_  
 \_\_\_\_\_

How is random selection accomplished?     visit manufacturer     photographs  
 other: \_\_\_\_\_

Test equipment / areas viewed:	Location (city / main site / secondary site) of test:
<input type="checkbox"/> Collector receiving area	_____
<input type="checkbox"/> Pressure test	_____
<input type="checkbox"/> Pressure drop test	_____
<input type="checkbox"/> Exposure test	_____
<input type="checkbox"/> Internal shock test	_____
<input type="checkbox"/> External shock test	_____
<input type="checkbox"/> Time Constant - shade	_____
<input type="checkbox"/> Efficiency test – <input type="checkbox"/> indoors <input type="checkbox"/> outdoors	_____
<input type="checkbox"/> Liquid-heating test rig	_____
<input type="checkbox"/> Unglazed backing	_____
<input type="checkbox"/> Air-heating test rig	_____
<input type="checkbox"/> TM-1 test – indoors	_____
<input type="checkbox"/> TM-1 test – outdoors	_____
<input type="checkbox"/> Std 600 test – outdoors	_____
<input type="checkbox"/> Impact test (list method)	_____
<input type="checkbox"/> Disassembly inspection	_____
<input type="checkbox"/>	_____

**Discussion Topics:**  
 Test report contents  
 Data file format and content  
 Random selection  
 Verified web site listing:  
 Company  
 Address  
 City  
 Phone  
 Fax  
 Contact  
 Web  
 email

Notes:

SRCC Signature \_\_\_\_\_  
 Date \_\_\_\_\_



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# SRCC's Annual Lab Program

- Verify Accreditation to 17025
- Renew SRCC Agreement
- Verify Liability Insurance
- Collect Program Fee
- Send Lab new certificate
- Update our website



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# Participant Chooses the Lab

## **ISFH**

**Institut für Solarenergieforschung GmbH, Hameln/Emmerthal**

Am Ohrberg 1

Hameln/Emmerthal

Germany 31860

Telephone: +49-5151-999-100

Contact: Carsten Lampe

Web: <http://www.isfh.de>

E-mail: [pruefstelle@isfh.de](mailto:pruefstelle@isfh.de)

Approval Date: July 6, 2009

**EPA-Recognized for Water Heaters - Solar Electric and Solar Gas**

**SRCC Test Program Approved to Perform:**

Qualification Tests (Standard 100)

Glazed Liquid-heating Collector Efficiency (Standard 100)

Unglazed Liquid-heating Collector Efficiency (Standard 100)

## **ITW**

**Forschungs- und Testzentrum für Solaranlagen (TZS) am Institute für Thermodynamik und Wärmetechnik der Universität Stuttgart**

**Research and Testing Centre for Thermal Solar Systems (TZS) at the Institute for Thermodynamics and Thermal Engineering (ITW), University of Stuttgart, Germany**

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Contact: Stephan Fischer

Web: <http://www.itw.uni-stuttgart.de>

E-mail: [fischer@itw.uni-stuttgart.de](mailto:fischer@itw.uni-stuttgart.de)

Approval Date: June 12, 2009

**SRCC Test Program Approved to Perform:**

Qualification Tests (Standard 100)

Glazed Liquid-heating Collector Efficiency (Standard 100)

Unglazed Liquid-heating Collector Efficiency (Standard 100) ICS

Non-Separable Thermosiphon Components (SRCC TM-1)

Concentrating Solar Collectors (SRCC Standard 600)