Atlas Installations Worldwide

Solar Simulation Systems by Atlas

Custom-designed Solar Simulation Systems for Environmental Testing in the Automotive, Military, Photovoltaic and other Industries

Our Clients – here is a list of companies that we have had the opportunity to work with:

3M China · ACTS · Aciols · Argonne National Laboratory · Arsenal Wien · Audi AG · Balzers AG · BASF · Behr · BIA · BMW AG · Bodycote Materials Testing Canada · Boeing · CAEL · Canadian National Defense · CEAGA · Changjing Changan · Chrysler Corporation · Clemson University · Columbia University · Continental Safety Engineering Int. · CTS · Daewoo · Daimler AG · Denso International · Deutsche Fibrat/Johnson Controls · Dow Chemical · EDF · Elicoys · Envirotronics · ESPEC · Fiat · Ford Motors · Forschungszentrum Jülich · Four Square · Fraunhofer Institute · GE Deutschland · General Motors · Halla · Happich GmbH · Harley Davidson · Honda · Hyundai Motor · IAV · IPT · Intech · InSyne · J.H. Bermecke AG · Ja Solar · Jaguar · Karman · Katri · KIA Motors · KUMUT · Krauss Maffei · Kunshan Ning System · LNE · Mando · METU · Middle East Technical University · Modine · Nissens · Novace · NREL · Oinashi Netsumoku · Opel AG · PATAC · Peguform · Peugeot · Phoenix · Porsche AG · PSE · Q Corporation · Renault · Rover · Röckier GmbH · SAGA · SASE · Sataké · SBB · SEAT · Selby-Biolog · Skoda · Soltech · Solvendra · Ssang Yong · SunPower · Sverdrup Technology · Synentec · Tongji University · Toyota · TÜV Rheinland · UL · United States Army Test Command · Universität Kassel · University Gießen · University Heidelberg · University of Arizona · University of Ontario · University Stuttgart · University Wisconsin · US EPA · VETC/Flanders’ Drive · Visteon · Volkswagen · Vötsch Industrietechnik GmbH · Webasto · Weiss Umwelttechnik GmbH · WestPak · York/Johnson Controls

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40 Years of Expertise in Custom-designed Solar Simulation Solutions
The Effects of Sunlight

The Effects of Sunlight

Solar Simulation and Natural Sunlight

A key to the success of solar environmental test equipment is the quality of the solar simulation itself. A close spectral match to natural sunlight is critical for accurate reproduction of test conditions.

Superior Solar Simulation with SolarConstant
The Atlas SolarConstant solar radiation unit offers high irradiance efficiency and superior spatial uniformity on the test area.

Designed with special Metal Halide Global (MHG) lamps and optical filters, the SolarConstant luminaire creates a spectral distribution that accurately matches natural sunlight. The proven design makes this unit ideal for custom-designed solar simulators or standard test equipment provided by Atlas.

Test methods and standards
Atlas SolarConstant technology conforms to a large number of national and international standard test methods. The following table lists the most commonly used industry standards for SolarConstant technology:

<table>
<thead>
<tr>
<th>Automotive</th>
<th>Defense</th>
<th>PV Solar</th>
<th>General</th>
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<tr>
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<td>MIL-STD-883</td>
<td>IEC 61787-2</td>
<td>IEC 891-6</td>
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Project Partners and Applications
Atlas is a global leader specializing in custom-designed solar simulation systems. With a global reach, we specialize in partnering with producers of standard testing chambers and custom-designed solar systems for environmental simulation, stability and emissions testing.

Test Chamber Examples
Atlas has vast experience in the field of combining climatic test chambers with solar simulation systems. The most common systems and applications include:

- Automotive, defense and transportation: Solar environmental test chambers
- Photovoltaic:
  - UV Preconditioning of PV modules
  - Light soak test
  - Steady-state simulators for I/V curve tracing
  - Thermal collector testing under clear or cold sky simulation
- Climate test chambers with wind tunnel and solar simulation
- Climate test chambers with dynamometer and solar simulation
- Solar Heat Load test chambers (Day Cycling)
- Climatic chamber with 4-poster / dynamic road simulation with solar simulation