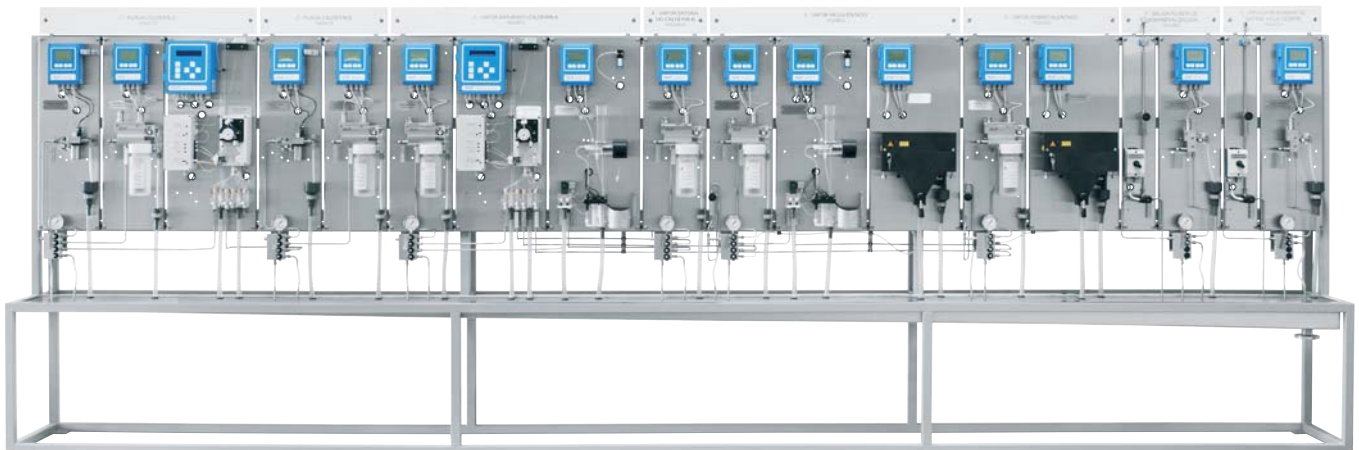


# ANDASOL 1&2, Spain Thermal Solar Power Plant



**Analyzer Rack**

## Engineering Highlight

*SWAN Systeme AG developed a tailor-made sampling system with a fully automatic low-pressure blow down system in close cooperation with Sener. This blow down prevents the measuring equipment from being contaminated during daily start-up of the unit.*

*The heat exchange takes place between the solar heated thermo-oil and the water steam cycle. In order to detect possible leakage and thus oil contamination in time, SWAN employed the turbidity monitor AMI Turbiwell.*

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# ANDASOL 1&2, Spain Water Steam Cycle Monitoring



**Sampling Rack**



**Vacuum Hotwell Monitoring**

## SWAN's Scope of Supply:

<b>Design</b>	<i>Analytical instruments and sampling components mounted on three racks and one vacuum hotwell monitoring cabinet.</i>
<b>Lines</b>	<i>In total 15 sampling lines for each power plant.</i>
<b>Analyzers</b>	<i>31 analytical instruments for each power plant.</i>
<b>Signals</b>	<i>4-20 mA signals with digital alarm contacts, remote control for rinsing or measuring.</i>

## Andasol Power Plants:

<b>General</b>	<i>Europe's first parabolic reflector power plants with a collector surface area of 510'000 m<sup>2</sup> each.</i>
<b>Location</b>	<i>Near Guadix in Andalusia, in the province of Granada (Spain).</i>
<b>Contractor</b>	<i>UTE COBRA &amp; SENER</i>
<b>Operator</b>	<i>Andasol 1&amp;2 S.A., owned by the Spanish ACS/Cobra Group and the Solar Millennium Group. ACS/Cobra is the first turn key contractor with experiences in constructing parabolic reflector power plants which combine solar fields with molten salt storage tanks.</i>
<b>Start-up Date</b>	<i>Andasol 1 mid 2008 Andasol 2 end of 2008</i>

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