



providing world-class leak test and assembly verification solutions

SOLAR POWERED STERLING ENGINE LEAK TESTING

Market driver:

The need for renewable energy. The system uses solar radiation to power a sealed sterling engine that uses temperature differential to drive a reciprocating piston engine which in turn produces electricity.

Test requirement:

Since the engine operates in a hermetically sealed system to contain the working gas, a rigorous test is required to assure minimal pressure loss over the expected life of the system. In addition, it is critical to insure that the systems is free of oxygen which can damage internal components

CTS Solution:

CTS developed a custom test stand which incorporated both leak test and integrity test protocols. By performing a gross leak test, followed by a series of charge and evacuations under high pressure, the integrity of the engine enclosure and the purity of the working gas is assured. A Sentinel I-24 leak test instrument and a mass spec is employed in this custom test stand..

