



## Sciometric 3300 Leak Test System Payback Calculator

Sciometric's 3300 Leak Test System has a **very short payback period**.

Some of the quantifiable benefits include:

- Improve throughput**
- Reduce scrap costs**
- Reduce destructive testing**
- Reduce warranty costs**

Qualitative benefits, such as improved customer satisfaction, while important, can not be quantified and are therefore not included in the payback calculation. However, the quantifiable benefits are usually compelling enough to make the business case for implementing a Sciometric 3300 Leak Test System.

This simple payback calculator will help you to quantify the savings you can expect by implementing a Sciometric leak test and analysis solution.

Areas marked in grey need to be completed by the customer  
 Areas marked in green need to be completed by your Sciometric sales representative  
 Areas marked in blue are calculated formulas and should not be changed

Payback Model For:

Assembly Company International

### Operating Assumptions - Production

|   |                |
|---|----------------|
| Number of Parts Made per Hour                 | 500            |
| Number of Work Hours per Day                  | 8              |
| Number of Work Days per Year                  | 220            |
| <b>Parts Made per Year</b>                    | <b>880,000</b> |
| Manufacturing Cost per Part (Including Labor) | \$ 2.25        |
| Selling Price per Part                        | \$ 15.50       |
| Current Known Defect Rate (%)                 | 5.00%          |
| Hours/Day Doing Destructive Testing           | 2.0            |
| Tester's Fully-Loaded Rate (\$/hr)            | \$26           |
| % of Total Parts Subjected to Destructive     | 1.50%          |

### Annual Defect Expenses (Prior to Sciometric Test and Analysis)

|  |                   |
|--|-------------------|
| Scrap Costs                              | \$ 99,000         |
| Warranty Repair Costs                    | \$ 75,000         |
| <b>Destructive Testing Expense:</b>      |                   |
| Testing Personnel Expense                | \$ 11,440         |
| Opportunity Cost of Destroyed Parts      | \$204,600         |
| <b>Total Cost of Destructive Testing</b> | <b>\$ 216,040</b> |

### Sciometric 3300 Leak Test System

|  |                 |
|--|-----------------|
| Budgetary cost per test station <sup>1</sup> | \$15,000        |
| Number of test stations required             | 4               |
| <b>TOTAL COST (YEAR 1)</b>                   | <b>\$60,000</b> |

### Annual Savings (With Sciometric Test and Analysis)

|   |      |                   |
|---|------|-------------------|
| <b>Reduction in Defective Parts Rate (80% typical)</b>  | 75%  | \$ 74,250         |
| <b>Reduction in Warranty Repair Costs (40% typical)</b> | 40%  | \$30,000          |
| <b>Reduction in Destructive Testing (90% typical)</b>   | 100% | \$ 216,040        |
| <b>TOTAL ANNUAL SAVINGS</b>                             |      | <b>\$ 320,290</b> |

**PAYBACK PERIOD (Months)** 2

#### Notes:

1. This is the adverse multiplier effect that defects have on customer satisfaction such as the loss of a repeat customer, bad word of mouth etc...
2. This cost should be provided by your Sciometric sales representative.
3. By installing the 3510 System at the Engine Plant more defects will be discovered and dealt with at the engine plant before they get shipped to the VO plant, dealers or worst case to end customers. Engine repairs are far less expensive when done at the engine plant.

To Download and use the Leak test system Payback Calculator, please visit our website at:

[WWW.Sciometric.com/leak](http://WWW.Sciometric.com/leak)