Ingersoll Rand Air Leak Assessment
Identify. Quantify. Verify.
The Ingersoll Rand advantage

We know air, inside and out.

As an industry leader in compressed air technology and compressed air system auditing, Ingersoll Rand offers an air leak assessment program that will improve the operation of your facility and save you money. Our air leak assessment program was developed by our dedicated compressed air audit team who has been helping our customers improve the efficiency, reliability, and quality of their compressed air systems for more than ten years. Not only do we identify the source of leaks; we capture all our findings in a report and present the results to you in an electronic format that can be easily shared with your team. We also quantify the data, helping you to develop an action plan for repairing the leaks. But our service doesn’t stop there. After the leaks are repaired, we can return at your convenience to validate that they were fixed effectively. When we come back for your optional annual assessment, we’ll begin the entire process over, as well as check the condition of old repairs.

Saving you time and money.

The Ingersoll Rand leak assessment features many competitive advantages. Our cutting-edge equipment and certified technicians work quickly and efficiently — even when your facility is up and running at full production. We help you determine which leaks are the most important and cost-effective to repair — and we follow up to make sure the repairs are in good working condition. And since we keep a record of previously identified air leaks, we know exactly what to look for at each visit.

Extensive experience and expertise.

Every element of the Ingersoll Rand air leak assessment has been examined to ensure that the best practices are followed. Our certified professionals have vast knowledge of compressed air systems, and our state-of-the-art testing equipment provides accurate results. With more locations throughout North America than our competitors, we execute more leak assessments in a week than most leak survey companies will perform in a year. Plus, we use standard testing processes and compare data across our entire network — leading to greater efficiency, consistency, and value for our customers.

Saving green and going green.

Properly repairing air leaks not only saves money — it helps save the environment. A compressed air system with fewer leaks is more energy efficient, resulting in the reduction of CO₂ emissions. Ingersoll Rand is proud to partner with companies that are doing their part to minimize their carbon footprint.

From tagging to tracking

With a process that lets you tailor the solutions to fit your needs, Ingersoll Rand air leak assessment gives you the option of going beyond a one-time check for leaks.

1. Identify and tag leaks

We use the most efficient process, experienced people, and advanced testing equipment in the industry to find and mark the source of each leak.

2. Assess leak values

Based on system details, such as hours of operation, power cost, and types of compressors, we determine the volume of air lost as well as the cost of each unrepai red leak over time. This significantly improves the accuracy of our estimations for potential savings because they’re tailored to a specific system, not an industry average or theoretically perfect system.

3. Prioritize leaks

We rate leaks based on estimated size, then prioritize them according to which ones would provide the greatest financial return when repaired.

4. Record leaks

We record the size and location of each leak for assessment and future reference. Then we present the results to you in an electronic format.

Ingersoll Rand also offers leak repair validation. This optional step meets or exceeds the requirements for most utility incentives.

Things to consider.

Did you know that a 1 cfm leak for a 24/7 operation can cost $100 per year? This is literally a pinhole leak. How many pinholes do you have?

Making decisions about leak repair requires quality information. To help improve the accuracy of our potential savings estimations, we look at the operating strategy of your compressors.

A best-in-class system will reduce power in direct proportion to a reduction in demand. Typical systems reduce power by only 3 to 7 percent for every 10 percent reduction in demand. We take this into consideration so your estimated savings are real, not theoretical.

**These figures are based on a power cost of $0.065/kWh at 8,760 hours per year.**

Leak Assessment Considerations

Your organization is more likely to have a 20% leaks if it uses:

- Large number poly-tube connections
- 20 or more filters/lubricators every 100 hp of air
- Threaded pipe for drop lines (20 or more for every 100 hp of air)
- Robotic assembly calls with pneumatic connections
- Threaded overhead piping
- Pneumatic connections on moving applications, such as cylinders, indexing equipment, hand tools, etc.

Leak savings based on DOE estimates of 10% — 20% of total compressor capacity (low or moderate leak level)

Cost of leaks estimated based on $80/1000 kwh and $8.15/kwh x 6,780 kwh at $0.125/kwh

**Table:**

<table>
<thead>
<tr>
<th>Air Leaks at 6.5¢ /kWh, 10 – 20% of Capacity</th>
<th>Wasted Power $ (Air Leaks)</th>
</tr>
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<tbody>
<tr>
<td>$0</td>
<td>$0</td>
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<tr>
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<tr>
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<tr>
<td>$150</td>
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</tr>
<tr>
<td>$200</td>
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</tbody>
</table>

**Graph:**

- Air Leaks at 13¢ /kWh, 10 – 20% of Capacity
- Total Operating Compressor hp

**Note:**

- These figures are based on a power cost of $0.065/kWh at 8,760 hours per year.
Ingersoll Rand Industrial Technologies provides products, services and solutions that enhance our customers’ energy efficiency, productivity and operations. Our diverse and innovative products range from complete compressed air systems, tools and pumps to material and fluid handling systems and environmentally friendly microturbines. We also enhance productivity through solutions created by Club Car®, the global leader in golf and utility vehicles for businesses and individuals.

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