



Ultrasonic Leak Detection Audit

A typical plant can have a leak rate equal to 10-30 percent of the total compressed air production capacity. Just because a leak can't be seen or heard doesn't mean it doesn't exist.

Plant shutdown not required

Ultrasonic leak detection is the best way to find leaks in your air system. An acoustic detector can recognize high frequency air turbulence associated with leaks.

The most common problem areas are:

- Quick Disconnects
- Filter/Reg/Lubricators
- Pipe Joints
- Condensate Traps
- Valves
- Flanges
- Packings
- Thread Sealants



You have a 1/16" leak in your compressed air system.

No big deal?

EACH one could cost you.....

\$594.00*

How many are in your plant?

* Based on 100 PSIG, \$0.22 per 1000 CFM, 8,760 Hours/Year

A 1/16" diameter leak, at 100 PSI, could flow as much as 6.5 cfm



Air Leak Cost

Dia. Of Leak	CFM	CFM/Day	Loss/Day Dollars	Loss/MonthDollars	Loss/YearDollars
1/64"	.45	576	\$0.10	\$3.00	\$36.00
1/32"	1.60	2,304	\$0.40	\$12.00	\$144.00
3/64"	3.66	5,270	\$0.95	\$28.50	\$342.00
1/16"	6.45	9,288	\$4.65	\$49.50	\$594.00
3/32"	14.50	20,880	\$3.75	\$112.50	\$1,500.00
1/8"	25.80	37,152	\$6.70	\$201.00	\$2,412.00
3/16"	58.30	83,952	\$15.10	\$453.00	\$5,436.00
1/4"	103.00	148,320	\$26.70	\$801.00	\$9,612.00
5/16"	162.00	233,280	\$42.00	\$1,260.00	\$15,120.00
3/8"	234.00	336,960	\$60.65	\$1,819.50	\$21,834.00

Based on 100 PSIG, \$0.22 per 1000 CFM, 8,760 Hours/Year

This is a typical audit report.

Locate and tag leak points

In addition to compressed air, the sensor can detect; Argon, Helium, Hydrogen, and Nitrogen leaks.

Sound intensity levels based on turbulence created by the air leak are measured at 40kHz.

Cost associated with leak based on \$/kWh

Energy consumed due to air leak

Extensive testing has produced CFM flow rates based on dB readings.

June 2009							
Air Leaks Identified					Cost Avoidance		
					Identified		
					\$19,618.56		
Record Number	Location Name	Type of Gas	Pressure at Leak	dB Reading	Identified leaks Cost Avoidance	Size of Leak CFM	Energy Avoidance (kWh)
1	FEB Compressor room red bushing	Air	100	13	\$48.34	0.5	879
2	Maintenance shop NLM relief valve	Air	100	56	\$373.68	3.9	6794
3	FEB Accumulator Room right tank ball valve nipple	Air	100	35	\$193.49	2.0	3518
4	Compressor room right tank ball valve nipple	Air	100	50	\$248.04	2.1	5707