

Successful Case 1: Reduction of compressed air leaks for all plants

Ultrasonic Test enabled to address all leaks around the plant which helped reduce the compressor air setting from 9 bars to 6.8 bars.

Considering an average working pressure of 7 bar, 6570 hours per year of operation and a cost of US\$ 0.14 per KWH.

For conservative calculations, consider:

Leak with \varnothing 0.5 mm = 0.35 kwh

The SEMEQ client had an average potential savings of around **\$ 62,000** per year during the 4 years working with SEMEQ.

That's a total of **\$ 248,000** for 4 years!



Successful Case 2: NH3 Compressor

With the integration of the Predictive techniques (Oil analysis and vibration analysis) we were able to diagnose the failure in the initial phase, thus, avoiding greater damage and minimizing the cost for maintenance.

- Maintenance Value: **\$ 23,000** (with Predictive Program)
- Value of a new NH3 compressor = **\$ 92,000**, amount budgeted by the manufacturing company
- Cost saved: $\$ 92,000 - \$ 23,000 =$
\$ 69,000

Note: This value includes only the compressor cost, there is more installation costs.



Successful Case 3: Main Bearing

The SEMEQ client has a schedule preventive maintenance of replacing the main bearing on one of its critical machines for every 6 years.

Upon implementation of PdM techniques, the main bearing replacement has been avoided since no potential failure was observed.

- Value of a new main bearing = **USD 12,000**, cost forecast from a major manufacturer
- Cost saved: **USD 12,000**

Note: This value includes only the Bearing cost, still need to factor-in the installation costs.



Successful Case 4: NH3 Compressor

Before we used the PM Plan for Yearly Ammonia Compressor Oil replacement with PdM Oil Analysis, we fully utilized the Lifespan of the Lubricant based on the oil condition and properties from the test result. We have saved at least **\$27,000 per year** of Vilter Compressor Oil.

