

## Compressed air cost 5 to 7 times higher than electricity

JR Engineering helps you to identify opportunities for reducing energy consumption and overall business cost. If your business deals with compressed air, compressed air audit are step to reduce your production cost and increase to your plant efficiency.

The large compressed air network have large energy saving.

### Why compressed air audit is necessary?

Compressed air audit services are process to identify areas of losses or inefficiencies within a compressed air network. We provide detailed report on compressed air losses along with recommendations. Primary objective as below:

- o System optimization
- o Risk assessment
- o Energy saving plan

### Compressed air audit helps you to:

- o Identify leakages in compressed air network
- o Identify compressors efficiencies
- o Identify compressed air network losses
- o Design proper compressed air network
- o Save energy and save the money

### Air Leaks:

The majority of leakage is hard to find out. Air Leakage of 1.9mm and lower in diameter is not audible to human ear. Only one leakage waste energy cost up to 3.5kWh or 30,240kW per year. Often there may occur hundreds of leakages in a plant and management is no aware of it.

### FAD:

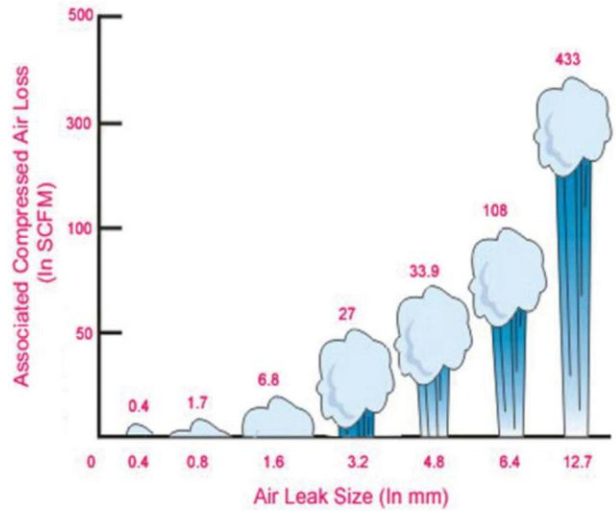
Normally the actual flow of compressors goes 70% to 80% of total flow. There are many number of causes and need to find out.

### Corrosion:

Corrosion is one of the major causes for degrading performance of steel pipes in compressed air system. Corrosion is the gradual loss of metal surface and cause of poor quality of production.

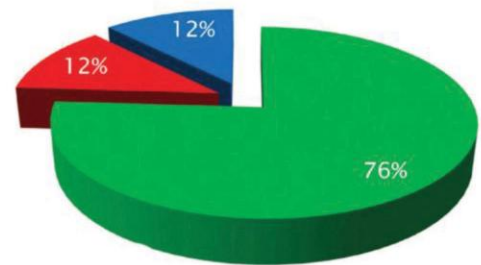
### Compressed air audit pays for itself:

Not only compressed air audit expenses are recovered by the compressed air network automatically but overall profit is increased as it will save energy for the years.



### Compressed Air Cost in Perspective

#### Costs over 10 Years



■ Electricity ■ Equipment ■ Maintenance





# Compressed Air Audit Services

## Save on Electricity Cost Instead of Buying New Compressor

Compressed air audit helps to reduce air demand and power consumption from 25 to 30 percent almost immediately. Below are some frequently asked questions and issues about what drives energy costs in compressed air system found during an audit?

- o Are there leaks in compressed air system?
- o Running pressure is excessive?
- o Producing high-pressure air only to use it at low pressure?
- o Wrong selection of primary air supply system (Compressors, Dryer etc)?
- o Wrong selection or application of filters, connectors and regulators?
- o Wrong selection and placement of air receiver?
- o Incorrect piping network cause of corrosion and pressure drop?
- o Wrong selection of compressed air to do wrong job (Cleaning purpose)?
- o How can you compare relative costs if you don't know the cost of compressed air?
- o Or, all of the above?

**Air Leakage  
is like  
Cash Leakage**

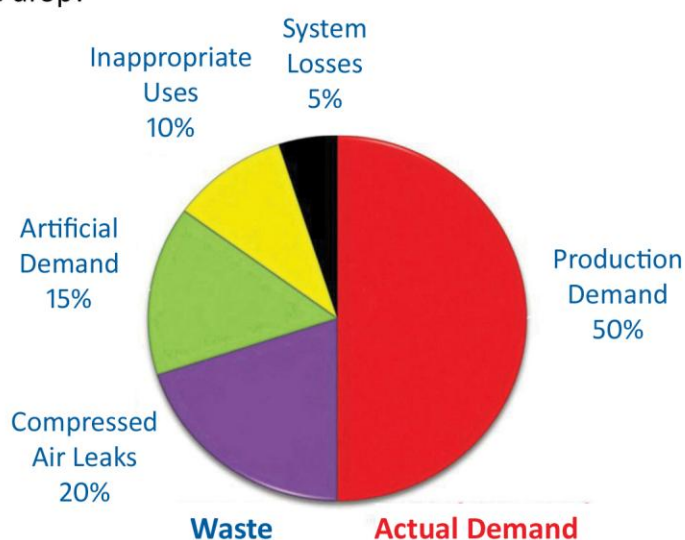
### Basic Compressed Air Audit Scope:

- o Overall system design / drawing
- o Compressor room observations with recommendations
- o Piping network observations with recommendations
- o Production floor observations with recommendations
- o Compressed air leakage detection with tagging
- o FAD monitoring with power consumption

### Compressed Air Audit Methods:

There are two different compressed air audit methods are

1. **Walk the Line** (Compressed air audit without instruments) – a simple visual inspection that requires no hardware, the procedure involves looking over some major points both inside and outside the compressor room, Piping floor and production floor these points include total generation of compressed air, pipe work, Machine consumption.
2. **Air Scan** (Compressed air audit with instruments) – This procedure can range from a full audit through instruments. These areas can include air measurement, air leak detection and control, air quality audit, maintenance review and monitoring and control program.



## Our References

### Textile

- o Sapphire Group
- o Mahmood Group
- o Fazal Cloth
- o Ishaq Group
- o Kohinoor Textile
- o Crescent Bahuman
- o AA Spinning

- o Faisal Fabrics
- o Sadaqat Limited
- Cement**
- o Bestway Group
- o Maple Leaf Cement
- o DG Cement
- Home Appliances**
- o Super Asia

### Sports

- o Anwar Khawaja
- o Hansa Leather
- o Leatherware
- Surgical**
- o Technimen Agha
- o Techno Instrument
- o Long Life Surgical

### Pharma

- o Vision Pharma
- Chemical**
- o Ittehad Chemical
- Beverages**
- o King Beverages
- and many more...