

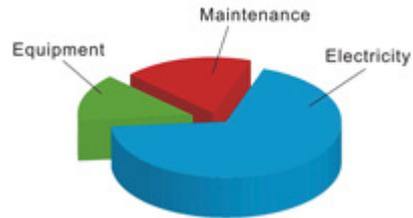
## Why is flow measurement important?

Energy conservation and environmental safeguards are of great interest to most progressive corporations.

To assure the efficiency and effectiveness of compressed air systems, the measurement of flow is crucial.

When looking at the overall costs of a typical compressed air system, the biggest costs are caused by the electrical power consumption but not by the investment or maintenance of the system.

COST DISTRIBUTION IN COMPRESSED AIR SYSTEMS:



A modern compressor converts 90% of the electrical power into heat and only 10% into compressed air. This makes compressed air 10 times more expensive than electricity. It's common to measure the consumption of electricity, but only a few corporations measure the compressed air consumption. Not measuring means not knowing about the efficiency of the system. Statistics show that 30% of the compressed air is lost through leakage, which could be detected and fixed.

There is another important issue: The industry accounts for 40% of the total CO<sub>2</sub> emission. This CO<sub>2</sub> emission comes from the combustion of fossil fuel (coal, oil, gas) in order to produce electrical power. As we all know, CO<sub>2</sub> is responsible for the global warming. In times when energy is a scarce resource and environmental protection is an issue for all of us, flow measurement helps to analyse your systems in terms of consumption and leak detection and enables to reduce the energy consumption and cost.



Instrumentation manufacturers have developed various flow measurement systems. Not all of them are suitable for the application in compressed air. CS is using the thermal mass flow principle, which measures standard volumetric flow independent of pressure and temperature over a wide measuring range. For most commercial applications in gas - thermal mass flow is the proper choice as it provides the best price to performance ratio.