

Ten Tips

For Saving Energy in Air Compressor System

- 1. Turn off compressors when not needed.**

A 100 hp/75 kW compressor can cost Rs. 7.8 million per year in energy costs (based on 8,760 hours/year at Rs. 12 per kWh).
- 2. Identify and fix leaks.**

Leaks waste a lot of money. Even fixing a few major leaks helps the bottom line.
- 3. Eliminate inappropriate use of compressed air.**

Using compressed air for blow off is not only wasteful; it can be dangerous as well. Did you know that using air over 30 psi for blow-off is actually an OSHA violation? It can also hurt workers!
- 4. Apply proper controls to multiple compressor systems.**

Master system controllers maintain a stable system pressure and ensure that only the needed compressor units are brought online and that they are operating at peak efficiency.
- 5. Ensure piping and storage are adequately sized.**

Many systems lack adequate storage. Rastgar Air Compressors recommend both a "wet" and "dry" tank. Undersized piping will increase pressure drop and decrease the flow in the system. Don't use Galvanised Iron water plumbing for transmission of compressed air.
- 6. Change your filters routinely to eliminate pressure drop.**

The pressure drop across the filter should be kept at a minimum (by size and by maintenance) to prevent a throttling effect and a reduction in compressor capacity.
- 7. Use automatic, zero-loss condensate drains.**

Automatic drain traps don't need to be monitored. They discharge only condensate, not valuable compressed air.
- 8. Apply variable speed drive compressors where appropriate.**

Variable speed drive is not a "one size fits all" solution. But if you have varying demand it can save you thousands on electricity costs each year.
- 9. Reduce operating pressure to lowest possible setting.**

For every 3 psi reduction in system operating pressure you save 1% in compressor efficiency.
- 10. Recover waste heat from coolers.**

A 50 hp compressor creates heat at approximately 126,000 Btu per hour use it for boiler feed water heating, air drying, and space heating or wherever your plant needs heat.