

Summary of study: Air compressor in a textile unit: Unit - 1

Industry : Textiles

Unit profile : A textile unit located in Pune (Maharashtra) engaged in spinning and weaving of yarn for production of home furnishings like bed sheets etc.



Technology :

- Efficient use of existing compressor
- Inverter type screw compressor
- Operating practices improvements e.g. reduction of discharge pressure, reduction of leakages and changes in piping

Application : Energy savings in compressed air system

Year of investigation : 2014

Key features:

- Adopting inverter type screw compressor in place of centrifugal compressors
- Reduction of discharge pressure
- Reduction of leakages
- Ventilation of the compressor room
- Reducing pressure losses in piping
- Use of blow gun

Energy and cost saving:

Details	Existing	Recommended
Compressed air system	75 kW X 2 units	150 kW X 1 unit
Input power (kW)	31.7	23.8
Energy saving (kWh/year)		60,830
CO ₂ reduction (t/year)		56

Note:

This report is an example for investigating the potential of application of Japanese low carbon technology (LCT) in Indian industries. Adoption of energy efficient technologies and practices can generate greater benefits in compressed air applications in industries.