

## Summary of study: Air compressor in a textile unit: Unit - 5

**Industry** : Textiles

**Unit profile** : A textile industry located in Ahmedabad (Gujarat) engaged in manufacturing of a variety of textiles like yarn dyed shirtings, suitings, voiles, linens, beached white fabrics, fashion denims, and readymade textiles



**Technology** :

- Inverter type screw compressor
- Operating practice improvements

**Application** : Energy savings in compressed air system

**Year of investigation** : 2015

**Key features:**

- Adopting a two stage compressor (150 kW) in place of two single stage compressors (75 kW each)
- Use combination of centrifugal compressor (base load) and screw compressor (capacity adjustment)
- Reduction of leakages
- Better environment for compressor
- Use of energy saving coupler
- Automated monitoring system

**Energy and cost saving:**

Details	Existing	Recommended
Compressed air system	75 kW X 2 units	150 kW X 1 unit
Energy consumption (kWh/yr)	683,076	505,477
Power savings (%)		26

**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.