Summary of study: Air compressor in a pharmaceutical unit: Unit - 3

Industry : Pharmaceutical

Unit profile : A pharmaceutical unit located in Chennai (Tamil Nadu) engaged in manufacturing of general medicine as well as nutraceuticals and peta lactum.

Technology :

- Oil-free inverter type screw compressor
- Operating practice improvements

Application : Energy savings in compressed air system

Year of investigation : 2016

Key features:

- Adopting inverter type oil free screw compressor (55 kW) in place of reciprocating compressor (45 kW)
- Enhanced ventilation of compressor rooms
- Large capacity receiver to handle fluctuating loads
- Factory energy monitoring system and use of air flow meter

Energy and cost saving:

Details	Existing	Recommended
Compressed air system	Reciprocating compressors: 2.5 kw X 2 + 3.7 kW X 1	Inverter type oil free screw compressor
Power savings (%)		Significant energy saving; proposed system is oil-free and most suitable for pharma units

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.