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

Industry : Forging

Unit profile : A forging unit located in Pune (Maharashtra)

Technology :

- Two stage compressor
- Optimum operation of Invertor type screw compressor
- Operating practice improvements

Application : Energy savings in compressed air system

Year of investigation : 2014

Key features:

- Adopting a two stage compressor (150 kW) in place of single stage compressor of same capacity
- Effective utilisation of existing invertor type screw compressor (existing compressor not responding to load variations
- Reduction of discharge pressure
- Adopting booster compressor
- Reduction of leakages

Energy and cost saving:

Details	Existing	Recommended
Compressed air system	75 kW X 2 units	150 kW X 1 unit
Input power (kW)	168	174
Discharge air (M^3/min)	25.9	30
Power consumption kW(m^3/min)	6.49	5.8
Power savings (%)		15

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.