



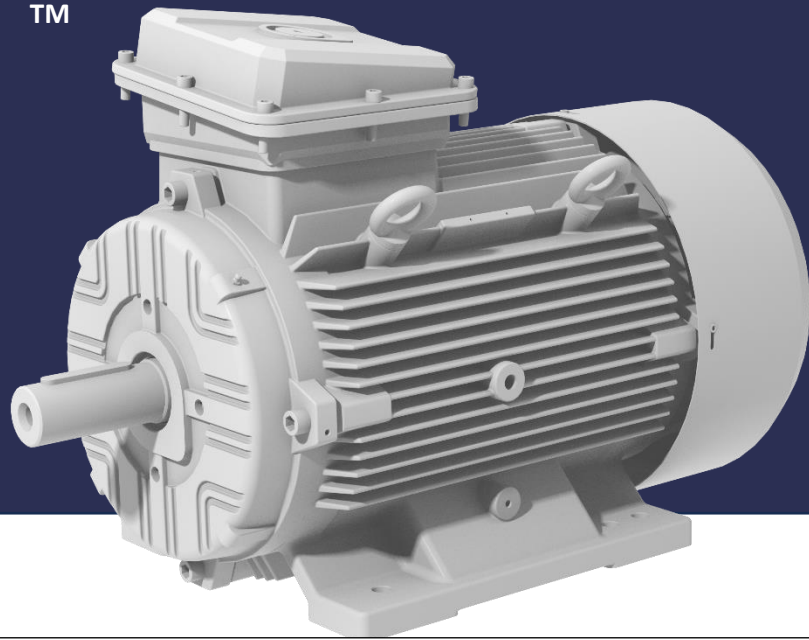
## CASE STUDY

User: Not Disclosed

Location: Nagpur

Pumping 7.5KW 4 Pole

Project Credits: SEETECH SOLUTIONS PVT. LTD



### Statement of a problem

Hydraulic Powerpack is an ancillary equipment in the Machine tool used for supply of hydraulic fluid at desired pressure. Based on the pressure and flow requirement the Motor Speed is modulated exposing Motor to Variable Speed and Load conditions.

### BEFORE IMPLEMENTATION

Flange Mount 7.5KW 4 Pole Induction Motor running with VFD for variable speed operation of Hydraulic Powerpack Pump

Motor Input Power: 1.6KW to 12.67KW

Motor Speed: 1112 RPM to 1516 RPM



### AFTER IMPLEMENTATION

Powerpack was retrofitted with 7.5KW 1500 RPM ULTRAMATE™ Series IE5 Permanent magnet Synchronous Motor

Motor Input Power: 1.18KW to 8.67KW

Motor Speed: 1010 RPM to 1530 RPM



### Key Takeaways

Achieved **17.04%** total energy savings by replacing outdated IE1/IE2 induction motors with the advanced ULTRAMATE™ Series IE5 motor.