

Compressed Air Systems Maintenance Course

Day 1 0900-1300hrs, 1400-1700hrs

Location - Classroom

Topics Covered:-

- Legal requirements & regulations
- Operator Instructions
- Air facts and pumping rates
- Single stage compression – disadvantages
- Multi stage compression
- Compressor Efficiency
- Determining Compressor size requirements
- 3 stage High Pressure compressor – essential system parts.
- Water separator & filtration system
- Filter composition – chemicals used
- Air Quality Measurements – EN12021
- Air Quality test Methods
- Lubrication methods and oil types
- Explosion hazards,
- Compressor use – essential operator tasks
- Compressor use – essential maintenance tasks
- Air bank usage
- V-belt adjustment
- Pulley wheel alignment
- 3 phase electricity supply fundamentals
- 3-phase Star-Delta Starter fundamentals
- 3-phase motor protection systems
- Advanced EN12021 Breathing Air Filtration System Design & PMV Dependency
- Water content of air at different temperatures
- Predicting Molecular sieve lifetime
- Predicting Activated Carbon lifetime
- Hopcalite requirements for carbon monoxide filtering
- Compressor and air storage systems horror stories, photo examples.
- Compressor Servicing Manuals usage
- Spare parts ordering
- Manufacturers product reviews

Compressed Air Systems Maintenance Course

Day 2 0900-1300hrs, 1400-1700hrs

Location - Workshop

Workshop Practice Covered

Using the following compressors:-

Bauer Varius/Junior, Capitano, Mariner, K14, Coltrisub MCH6, MCH16, LW160

- Hazards & Safety
- Oil level checks
- Oil type checks by UV fluorescence
- Input filter checks
- Output filter checks
- Fan belt checks
- Hose checks
- Filter tower checks
- Log Book usage
- Condensate drainage. Drain valve positions at startup
- Gauges – expected indications
- Strange sounds at startup
- PMV set point checking
- Safety valve set point checking
- RPM checking – comparison with published specs
- Pumping rate checking
- Noise level measurements and legal implications
- Thermal measurements and hazards
- Petrol Engine startup/shutdown procedure
- User Air checks – using inline Carbon Monoxide/Moisture monitors
- Introduction to EN12021 Air testing equipment.