

Power Tools - Explosive Actuated Fastening Tools

Explosive-actuated tools, which use powder or gas charges to fire fasteners into hard materials like concrete, mild steel, and masonry, are commonly used in NCC T&D substation construction and maintenance activities. These tools must be treated with the utmost caution as they can present serious hazards including flying objects, excessive noise, and potential fires.

NCC T&D Project Leaders Key Responsibilities

Project Leaders must ensure:

- Implementation of proper training programs for all tool operators
- Verification of operator certifications and qualifications
- Provision of required personal protective equipment
- Establishment of proper tool storage and maintenance systems
- Regular safety audits of tool usage and storage practices

Operator Requirements and Tool Management

Workers must:

- Complete required training before using explosive-actuated tools
- Carry proof of training during operation
- Wear appropriate PPE, especially eye protection
- Perform thorough pre-use inspections
- Properly store and secure tools when not in use

Tool Safety Features and Requirements

All explosive-actuated tools must have:

- Protective guard at least 75mm in diameter
- Dual-action firing mechanism requiring:
 - Pressure against the work surface
 - Separate trigger action
- Safety mechanisms preventing accidental firing if dropped
- Proper locking mechanisms for dismantlable parts
- Clear identification markings

Additional Considerations for NCC T&D Projects

Given our specialized electrical construction environment:

- Coordinate tool usage with other concurrent activities
- Consider weather conditions and environmental factors
- Assess potential impacts on nearby electrical equipment
- Maintain clear communication with nearby work crews
- Implement proper waste disposal for spent cartridges

Safe Operating Procedures

- Never point the tool at any person, loaded or unloaded
- Load tools only immediately before use
- Store cartridges in separate containers by strength
- Place misfired cartridges in water containers for disposal
- Maintain minimum force of 22 newtons when holding against work surface
- Keep tools in locked storage when not in use

Key Takeaways

- Treat tools with the same respect as firearms
- Proper training and certification are mandatory
- Daily inspection and maintenance are essential

- Secure storage and handling are critical
- Immediate reporting of any defects or incidents

For more information, refer to NCC T&D's relevant IMS procedures or consult our HSE Department for expert guidance and training resources.

