

PRODSO9

CNC and stone lathe operations



Overview

Achievement of this standard demonstrates your competence in using computer numerically controlled (CNC) or manually controlled machines for operations such as turning, milling or drilling dimension stone; you will understand the safety precautions required when working with the machine, and its associated tools and equipment. You will ensure that the operation can be carried out in a safe and stable manner, the stone produced to specification and deal with any problems that arise during the process. You will safely remove the stone once it is cut and complete the relevant documentation for company records.

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Performance criteria

You must be able to:

- P1 ensure work activities are carried out safely to avoid creating hazardous situations that may endanger operators of the work and other personnel
- P2 follow correct lines of communication as laid down in local and organisational procedures
- P3 carry out prestart checks relevant to the machinery and associated tools and report any problems or defects to the appropriate responsible person(s)
- P4 check that the stone is marked out from the design drawings/pattern
- P5 position and secure the stone in place for the operation to be carried out
- P6 position the cutting tools to work the block to specification
- P7 operate the machinery in accordance with organisational and manufacturers procedures
- P8 monitor the quality and condition of the machinery and work piece throughout the cutting/drilling operation
- P9 deal with any mechanical problems in accordance with organisational and manufacturers procedures
- P10 close down, isolate and secure the machinery and tools post cutting in accordance with organisational and manufacturers procedures
- P11 remove the cut stone from the work area and store safely
- P12 update the relevant records and documents for the work carried out and associated checks
- P13 maintain a clean and clear work area

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Knowledge and understanding

You need to know and understand:

- K1 approved procedures and practices in the context of the operations, the work activity and the workplace environment
- K2 responsibilities under the health and safety statutory requirements.
- K3 reporting lines and responsible persons in your area of work
- K4 the prestart checks that must be carried out on the machinery before cutting/drilling can commence
- K5 the methods of securing and positioning the block stone prior to cutting
- K6 where to obtain component drawings, specifications and/or job instructions for the components being machined
- K7 how to interpret the specification and documentation required for the cutting/drilling operations
- K8 the correct settings for the control instrumentation
- K9 the methods used to mark the stone out for cutting
- K10 the methods for monitoring the cutting operation and actions taken in the event of faults
- K11 the quality control procedures used, inspection checks that need to be carried out, and the equipment that is used
- K12 how the saw is shut down and secured in accordance with procedures
- K13 the methods of removing the worked stone and storing safely
- K14 the methods of removal and safe storage for the tools and equipment associated with the turning machinery
- K15 the documentation and records that must be completed for the operation
- K16 the methods of, and reasons for maintenance of a clean and clear work area

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Additional Information

Scope/range related to knowledge and understanding

- S1 Procedures and Practices: organisational; environmental; regulatory; emergency; operational.

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Developed by	Proskills
Version number	1
Date approved	January 2013
Indicative review date	January 2018
Validity	Current
Status	Original
Originating organisation	Proskills
Original URN	PRODSO9
Relevant occupations	Coal Mining Operatives; Manager in Mining; Quarry workers and related operatives;
Suite	Dimension Stone
Key words	Extraction; extractives ;dimension stone; hydraulics; splitting; mineral; sawing; lathe; turning; drilling