
Overview

What is this standard about?

This standard states the skills, knowledge and understanding required to demonstrate competence in drilling in rock or ground to the drilling specification. This includes determining the drilling position, the orientation of the drilling equipment and the monitoring of the operation during drilling of the holes. It also addresses the conclusion to the operation including stopping and emergency shut-down procedures.

Who is this standard for?

The standard applies to anyone using powered drilling plant or machinery to drill in rock or ground.

Drill to drilling specification

Performance criteria

You must be able to:

- 1 agree with **relevant persons** the work to be carried out
- 2 check and confirm the drilling specification is correct and complete for the working area and work activity
- 3 check the availability and suitability of the resources required for the work activity
- 4 check the drilling site conditions are safe and suitable for the positioning, orientation and stabilising of the drill rig and drilling the specified holes
- 5 confirm the position of the drill holes are to specification and conform to operational requirements
- 6 set up the drill at the specified positions, inclinations and orientations
- 7 drill hole depths, direction and angles to drilling specification
- 8 monitor the drilling operation
- 9 carry out the work to avoid health, safety and environmental risks to yourself, others, plant and machinery and the work environment
- 10 make adjustments to the work plan as required to complete the work within the limits of your responsibilities
- 11 identify changes in ground conditions and strata
- 12 record changes in hole conditions and strata, and all variations from drilling specification
- 13 follow shut down procedures according to organisational and safety requirements
- 14 report according to organisational requirements
- 15 carry out the work activity in accordance with **approved policies, procedures and practices**

Drill to drilling specification

Knowledge and understanding

You need to know and understand:

- 1 the organisational **approved policies, procedures and practices** as appropriate to the work activity
- 2 the roles and responsibilities of the **relevant persons** associated with the work activity
- 3 the organisational information, communications and reporting arrangements relating to the work activity
- 4 drilling specifications and logs, plans, sketches, symbols and terminology used in relation to the work activity
- 5 the different types of drilling action
- 6 how to check and confirm that the area for the drilling activity is as specified and in a safe and suitable condition for the specified work activity
- 7 the **resources** required to support the work activity, their uses, how to check them, and how to secure, store or dispose of after use
- 8 how to measure, set out and mark the positions of drill holes
- 9 the acceptable tolerances for measuring, setting out, marking and drilling holes in the context of the work activity
- 10 how to position, set up, stabilise, start up, drill, monitor, adjust and shut down (in routine and emergency situations)
- 11 the methods of monitoring drilling activity
- 12 the wear, tolerances and clearance requirements for in-hole drilling equipment
- 13 when and why drilling action or feed variations may be required
- 14 the hazards and risks associated with the work activity, how they affect yourself, others and the work environment, and how they are controlled
- 15 problems that can occur when drilling, and how to respond to them
- 16 how to verify that holes are drilled to specification
- 17 the possible consequences of drilling holes that are not to specification
- 18 actions to be taken if unable to drill to specification, or the specification is incorrect
- 19 the techniques for removal of cuttings
- 20 the tools, equipment, techniques and procedures for the retrieval of tools and equipment (damaged or undamaged) from drilled holes
- 21 why and how to suppress drilling dust
- 22 the possible effects of adverse environmental or site conditions on positioning or stabilising drill rigs, and the drilled holes
- 23 the site environmental and waste disposal arrangements
- 24 methods to identify underground or hidden services or obstructions
- 25 the limits of your own role and responsibilities

Drill to drilling specification

- 26 the actions to be taken in the event of damage, breakdown or unsatisfactory performance of plant, machinery, equipment or resources
- 27 the actions to be taken on conclusion of the work activity
- 28 the recording and reporting arrangements for the work activity

Drill to drilling specification

Scope/range

- 1 **approved policies, procedures and practices:** legislative, organisational, operational, accident or emergency, health and safety, first aid, and environmental as appropriate to the mine, plant or machinery, and work activity
- 2 **resources:** tools; equipment; utilities and services; consumables; attachments; replaceable parts; other resources as appropriate to the work activity
- 3 **relevant persons:** supervision, work colleagues, maintenance engineers, designated persons and/or those affected by the work activity, as appropriate to the work activity

Drill to drilling specification

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