



Australian Government

Assessment Requirements for MSL963002

Repair glass apparatus using simple glassblowing equipment

Release: 1

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Modification History

Release 1. Supersedes and is equivalent to MSL963002A Repair glass apparatus using simple glassblowing equipment

Performance Evidence

Evidence of competence in this unit must satisfy all of the requirements of the elements and performance criteria, and include demonstration of:

- safely performing basic repairs to at least three (3) different items of glass apparatus using simple glassblowing equipment
- assessing the economics of salvage
- following a procedure of disassembly/assembly of the apparatus in accordance with specifications
- determining types of contaminants present on or in apparatus and applying appropriate contamination and/or cleaning techniques before repair operations are undertaken
- reading and following blueprints, drawings, sketches and designs relevant to repair work
- selecting appropriate grades of glass and preparing for use
- preparing apparatus for repair
- optimising and using appropriate glassblowing and annealing equipment
- using appropriate treatment processes, with particular attention to risks associated with blowing used and possibly contaminated glass
- identifying atypical or out of normal repair problems
- reporting problems to either supervisor or outside service technician according to workplace procedures
- completing workplace documentation accurately and communicating work results.

Knowledge Evidence

Must provide evidence that demonstrates knowledge of:

- use and function of the broken apparatus to be repaired
- pre-repair apparatus preparation procedures
- repair materials and reason for their choice
- risks associated with blowing used and contaminated glass
- contamination and cleaning techniques to be performed before repair operations
- glassblowing techniques used for repairs
- selection and use of appropriate tools and equipment
- basic chemical and physical concepts related to behaviour of glass under heat and stress
- critical material properties and appropriate glassworking parameters
- annealing procedures
- methods of minimising potential quality problems
- relevant hazards, work health and safety (WHS) and environment requirements.

Assessment Conditions

- Judgement of competence must be based on holistic assessment of the evidence. Assessment methods must confirm consistency of performance over time, rather than a single assessment event. The timeframe must allow for adequate assessment of operation under all normal and a range of abnormal conditions.
- This unit of competency is to be assessed in the workplace or a simulated workplace environment. A simulated workplace environment must reflect realistic operational workplace conditions that cover all aspects of workplace performance, including the environment, task skills, task management skills, contingency management skills and job role environment skills.
- Foundation skills are integral to competent performance of the unit and should not be assessed separately.
- Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.
- Knowledge evidence may be collected concurrently with performance evidence or through an independent process, such as workbooks, written assessments or interviews (provided a record is kept in each case).
- This unit of competency may be assessed with:
 - MSL963001 Operate basic handblowing equipment
- Holistic assessment methods include:
 - inspection of glasswork and workplace documentation completed by the candidate
 - review of candidate's work outputs over a period of time to assess accuracy, consistency and timeliness
 - feedback from supervisors and/or customers
 - oral or written questioning about properties of glass, repair techniques, quality problems and safe work procedures.
- Access is required to instruments, equipment, materials, workplace documentation, procedures and specifications associated with this unit, including, but not limited to:
 - a scientific glassblowing facility, appropriate safety equipment, materials and safe work procedures, and repair methods
 - bench burner, hand torch, micro torch and ribbon burner, gas supplies and gas economiser
 - hand tools, such as carbon paddles and mandrels, range of forceps, glass tubing gauges, angle setting jigs, calipers, glass support rollers, brass shapers, carbon rods, glass knife, stainless steel gauze, vernier calipers and other measuring tools, and strain viewer, dydinium glasses and polariscope
 - glassworking lathe, mechanical glass cutters and saws, and mechanical glass grinding equipment
 - annealing oven
 - measuring and recording equipment
 - various glass types, including soda-lime, borosilicate, quartz, silica and special formula glasses; and glass to metal seals.
- Assessors must satisfy the assessor competency requirements that are in place at the time of the assessment as set by the VET regulator.
- The assessor must demonstrate both technical competence and currency.
- Technical competence can be demonstrated through:

- relevant VET or other qualification/Statement of Attainment AND/OR
- relevant workplace experience.
- Currency can be demonstrated through:
 - performing the competency being assessed as part of current employment OR
 - having consulted with a laboratory about performing the competency being assessed within the last twelve months.

Links

MSA Training Package Implementation Guides - <http://mskills.org.au/training-packages/info/>