

## Overview

This standard identifies the competences you need to lead an installation or commissioning team, including agreeing and monitoring departmental budgets, developing and updating installation/commissioning schedules and plans in accordance with approved procedures and policies, to ensure that the products installed or commissioned are fit for purpose and meet the required quality specification on time and to budget. You will also be required to ensure that the team have the appropriate skills knowledge and understanding required to install or commission the equipment or components in the area you have responsibility for.

You will also be required to identify and implement a systematic approach to improving the installation or commissioning activities undertaken.

Your responsibilities will require you to comply with organisational policy and procedures for the installation or commissioning activities undertaken, and to report any problems with the activities that you cannot personally resolve or that are outside your permitted authority, to the relevant people. You must ensure that that all necessary data, documentation is completed accurately and legibly and stored in the correct location and format. You will be expected to work with minimal supervision, taking personal responsibility for your own actions, and for the quality and accuracy of the work carried out by the installation or commissioning team.

Your underpinning knowledge will provide an in depth understanding of your work, and will provide an informed approach to applying a range of leadership methods and techniques to ensure that the products installed and commissioned are fit for purpose and meet the quality specification on time and to budget. You will know about the tools and equipment and consumables required in an adequate depth to provide a sound basis for leading the installation or commissioning activities. In addition, you will have sufficient knowledge on how to develop the installation or commissioning team and how to identify and implement a systematic approach to improving the installation or commissioning activities undertaken.

You will understand the safety precautions required when carrying out the installation or commissioning activities. You will also understand your responsibilities for safety and the importance of taking the necessary safeguards to protect yourself and others in the workplace.

## Performance criteria

### *You must be able to:*

1. work safely at all times, complying with health and safety and other relevant regulations, directives and guidelines
2. develop, gain agreement and review installation/commissioning departmental budgets
3. produce, agree and update departmental installation/commissioning schedules and plans
4. ensure that schedules and plans are capable of meeting all relevant outputs required
5. lead installation/commissioning activities within the department
6. complete and save relevant installation/commissioning data and documentation accurately
7. identify and lead on making improvements to processes and procedures
8. ensure installation/commissioning activities are carried out correctly in line with agreed company processes and procedures
9. create and update visual management documentation and systems to support the activities of the department
10. report and evaluate the impact of improvement activities
11. produce and maintain departmental competency skills matrix of team members

## Knowledge and understanding

### *You need to know and understand:*

1. the health and safety requirements of the area in which the installation/commissioning activity is to take place, and the responsibility these requirements place on you
2. the information systems that are in use within your organisation and how to record data to the system
3. how to obtain and interpret legislative and regulatory documentation
4. how to obtain and interpret company policies and procedures
5. how to prioritise your own and your team's workload to ensure that targets are met
6. the process to be followed to develop and gain agreement on departmental budgets
7. the importance of regularly monitoring departmental budgets and the implications for the business if this is not carried out
8. how to communicate effectively, listen, question, support and coach others to work towards the departmental targets
9. the importance of ensuring that teams have the required skills, knowledge and understanding in order to install/commission equipment or components to the required standards
10. how to access training and development programmes once a training need has been identified
11. the specific health and safety precautions to be applied during the installation or commissioning activity and their effects on others
12. how to complete and review risk assessments
13. hazards associated with carrying out installation or commissioning activities in the department (such as handling oils, greases, misuse of tools, using damaged or badly maintained tools and equipment, not following laid-down procedures) and how to minimise these and reduce any risks
14. the importance of ensuring employees wear protective clothing and other appropriate safety equipment during installation or commissioning process
15. the importance of having access to up to date data and information such as drawings, specifications, manufacturers' manuals and other documents needed in the installation or commissioning process
16. how to interpret drawings, charts, specifications, information, data, reports,

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manuals and other documents needed to understand the requirements of the installation or commissioning activity

17. how interpret changes to the requirements for the installation or commissioning activities

18. who to contact for clarification of the installation or commissioning requirements

19. who should be involved in authorising any changes required to installation or commissioning activities

20. the operating principles and processes of the installed or commissioned equipment or components in your area of responsibility

21. the installation or commissioning methods used for different types of equipment or components

22. the different types of tools and equipment used in the installation or commissioning activity and how they should be used

23. how to determine the resources that are required for the installation or commissioning activity

24. the methods used to calculate how long it should take to complete specific work outputs

25. the procedure for purchasing/obtaining materials and other consumables necessary for the installation or commissioning activities

26. the company policy on repair/replacement of equipment required to support the installation or commissioning activity efficiently and effectively

27. the importance of keeping up to date with new technologies and tools and equipment used to install or commission equipment or components

28. the common problems associated with the installation or commissioning activity

29. the quality criteria that must be used for the different products or processes

30. the quality assurance and control methods that are used in the department

31. the personnel involved to ensure that the quality of equipment or product installations are fit for purpose and their responsibilities to ensure this is achieved

32. the process and procedures to be followed when defective products are identified both during and on completion of the installation or commissioning process

33. the organisational procedure(s) to be adopted for the safe disposal of all types of waste materials

34. how to conduct a systematic plan, do, check, act (PDCA) approach to problem-solving and business improvement

35. how to use "root cause" problem solving analysis using the 5 whys/how technique

36. how to evaluate improvement ideas in order to select those that are to be pursued
37. how improvements to the process are achieved by engaging the knowledge and experience of the people working on the process
38. how to create, review and modify Standard Operating Procedures (SOP's) and correlate work activities into them
39. the techniques required to communicate information using visual control systems (such as card systems, colour coding, floor footprints, graphs and charts, team boards, tool/equipment shadow boards)
40. the extent of your own authority and to whom you should report if you have a problem that you cannot resolve

## Scope/range related to performance criteria

1.

Lead the installation or commissioning team by carrying out **all** the following:

- 1.1 obtain accurate details of the products to be installed or commissioned
- 1.2 review and interpret the product specification and documentation to assess their characteristics and requirements
- 1.3 clarify any aspects of the product specification or timescales that are unclear
- 1.4 communicate the installation or commissioning activities to be undertaken with the team
- 1.5 involve the team in planning how the installation or commissioning activities will be achieved
- 1.6 provide clear and accurate instructions to all the relevant people
- 1.7 secure, monitor and control the use of resources to achieve the most effective results
- 1.8 confirm and communicate any changes to the product specification and/or timescales required by the customer
- 1.9 allocate specific jobs/tasks to each team member
- 1.10 motivate the team to present their own ideas on improvements that could be made to the installation or commissioning processes and procedures
- 1.11 encourage the team and/or individuals to take the lead where appropriate
- 1.12 deal efficiently and effectively with problems affecting installation or commissioning activity
- 1.13 produce and agree contingency plans when required
- 1.14 ensure that the work area will be accessible, free from obstructions or hazards, and suitably prepared for the installation/commissioning to take place
- 1.15 ensure that appropriate utilities will be available (such as gas, water, air, electricity)
- 1.16 obtain clearance to carry out the installation or commissioning activities
- 1.17 confirm that everyone involved accepts the equipment or components are in a satisfactory condition for handover to take place with the customer
- 1.18 confirm the handover date with the customer and the precise moment of transfer of responsibility

2.

Lead the installation or commissioning activities for **one** of the following:

- 2.1 mechanical equipment
- 2.2 electrical/electronic equipment
- 2.3 equipment to produce an engineered system
- 2.4 instrumentation and control equipment
- 2.5 fluid power equipment
- 2.6 fabricated and welded components/assemblies
- 2.7 process controller equipment
- 2.8 production lines and equipment

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- 2.9 emergency electrical power generation equipment
- 2.10 environmental pollution control equipment
- 2.11 workplace environmental control equipment
- 2.12 workplace access control equipment
- 2.13 heating and ventilation equipment
- 2.14 air conditioning and ventilation equipment
- 2.15 compressed air equipment
- 2.16 waste/foul water distribution equipment
- 2.17 fresh water distribution equipment
- 2.18 refrigeration equipment
- 2.19 composite components and assemblies
- 2.20 lift/escalator components and assemblies
- 2.21 aircraft components and assemblies
- 2.22 marine components and assemblies
- 2.23 automotive components and assemblies
- 2.24 other specific equipment/components

3.

Obtain operational information from **three** of the following:

- 3.1 design office
- 3.2 industrial engineering
- 3.3 quality engineering
- 3.4 process engineering
- 3.5 production engineering
- 3.6 company information systems
- 3.7 customer
- 3.8 sales department
- 3.9 component/product manufacturers
- 3.10 material/component supplier
- 3.11 other specific source

4.

Create and maintain management data and information to include the following:

- 4.1 installation or commissioning plans/delivery schedules

plus supporting documentation associated with **three** of the following

- 2. quality records/defects
- 3. problem history/resolution
- 4. resources/materials requisitions
- 5. budgets
- 6. equipment performance
- 7. equipment maintenance
- 8. equipment downtime/failure
- 9. equipment utilisation
- 10. health and safety

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11. staff development and training
12. department procedures/work instructions
13. tests and trials
14. regulatory compliance

1.

Identify and implement improvements in the installation or commissioning activity to achieve **four** of the following:

- 1.1 reduced costs
- 1.2 reduced lead times
- 1.3 improved quality
- 1.4 improved equipment/tooling efficiency
- 1.5 improved staff utilisation
- 1.6 improved working practices
- 1.7 improved equipment downtime
- 1.8 improved equipment utilisation
- 1.9 improved use of new installation/commissioning technologies
- 1.10 improved use of information technology
- 1.11 improved health and safety
- 1.12 improved visual management systems/documentation
- 1.13 improved resource planning
- 1.14 improved staff development and training
- 1.15 reduction in waste
- 1.16 reduction in energy usage
- 1.17 improved environmental impact
- 1.18 improved customer service
- 1.19 other specific improvement

2.

Ensure manufactured products complies with **three\*\*** of the following:

- 2.1 organisational guidelines and procedures
- 2.2 equipment manufacturer's operating specification/range
- 2.3 British, European or International standards or directives
- 2.4 recognised compliance agency/body standards or directives
- 2.5 health, safety and environmental requirements
- 2.6 customer standards and requirements

3.

Complete the relevant documentation to include **one** from the following:

- 3.1 job cards
- 3.2 company-specific production recording system

## Behaviours

# Additional Information

You will be able to apply the appropriate behaviours required in the workplace to meet the job profile and overall company objectives, such as:

- strong work ethic
- positive attitude
- team player
- dependability
- responsibility
- honesty
- integrity
- motivation
- commitment

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