



Australian Government

Department of Education, Employment and Workplace Relations

MSACMT423A Monitor a manufacturing levelled pull system

Revision Number: 1

MSACMT423A Monitor a manufacturing levelled pull system

Modification History

Not applicable.

Unit Descriptor

Unit descriptor	This unit covers the knowledge and skills required to monitor the operation of a pull system in a competitive manufacturing environment and recommend improvements.
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Application of the Unit

Application of the unit	<p>This unit covers the skills needed by a team leader working in a manufacturing enterprise using a pull manufacturing system. The unit covers the skills needed to monitor daily working of the system, identify problems and take appropriate action on problems. The manufacturing system may be a total pull system or it may be a mixed push/pull system.</p> <p>If additional problem solving skills are required then the following units should be selected:</p> <p>This unit primarily requires the application of skills associated with using information and problem solving skills to monitor pull system and analyse discrepancies. It also requires skill in initiative and enterprise, and planning and organising to determine and act on opportunities for improvement. Aspects of self management and learning are required to ensure own ability to improve systems.</p>
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite units	<i>MSACMT280A</i>	<i>Undertake root cause analysis</i>
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Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Monitor the pull system.	1.1. Identify the <i>pacemaker</i> process 1.2. Identify rate of production set by the pull system 1.3. Determine actual rate of production at key parts of the process 1.4. Identify <i>types of inventories</i> within process 1.5. Compare actual inventories with planned inventories 1.6. Note discrepancies between actual and planned rates and inventories
2. Take corrective action.	2.1. Determine cause(s) of discrepancies 2.2. Determining action required to rectify causes of discrepancies 2.3. Take appropriate action in conjunction with relevant stakeholders
3. Test/improve the pull system.	3.1. Identify recurrent discrepancies 3.2. Determine cause(s) of discrepancies 3.3. Determine action required to rectify cause 3.4. Identify unnecessary levels of inventories 3.5. Discuss impacts of reduced inventories with relevant stakeholders 3.6. Take/initiate appropriate action to rectify recurrent discrepancies/reduce levels of unnecessary inventory 3.7. Monitor the system to determine the effects of the change(s)

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills:

- analysis
- problem solving
- planning and organising
- communication
- documenting

Required knowledge:

- processing requirements of products
- capabilities of equipment
- abilities and skills of personnel

Evidence Guide

EVIDENCE GUIDE

The Evidence Guide describes the underpinning knowledge and skills that must be demonstrated to prove competence. It is essential for assessment and must be read conjunction with the performance criteria, the range statement and the assessment guidelines of the relevant Training Package

Overview of assessment requirements	The assessment should confirm the ability to understand and monitor a levelled demand pull system of manufacturing..
What critical aspects of evidence is required to demonstrate competency in this unit?	Evidence of pull system improvement undertaken should be available
In what context should assessment occur?	Assessment will need to occur in an organisation using a pull system or by project.
Are there any other units which could or should be assessed with this unit or which relate directly to this unit?	This unit could be assessed concurrently with other relevant units.
What method of assessment should apply?	<p>Assessors must be satisfied that the person can consistently perform the unit as a whole, as defined by the elements, performance criteria, skills and knowledge. A holistic approach should be taken to the assessment.</p> <p>Assessors should gather sufficient, fair, valid, reliable, authentic and current evidence from a range of sources. Sources of evidence may include direct observation, reports from supervisors, peers and colleagues, project work, samples, organisation records and questioning. Assessment should not require language, literacy or numeracy skills beyond those required for the unit.</p> <p>The assessee will have access to all techniques, procedures, information, resources and aids which would normally be available in the workplace.</p> <p>The method of assessment should be discussed and agreed with the assessee prior to the commencement of the assessment</p>
What evidence is required for	Generally a number of continuous

EVIDENCE GUIDE	
demonstration of consistent performance?	improvements will be required to generate sufficient evidence
What are the specific resource requirements for this unit?	Access to an organisation using a pull system.

Range Statement

RANGE STATEMENT	
<p>The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.</p>	
Pull system	<p>A pull system is a manufacturing system is one where:</p> <ul style="list-style-type: none"> • manufacturing is done to order and not for holding large inventories of parts and completed stock • work flow along the production line is done according to demand pull from the next work stage • manufacturing is in response to customer demand <p>The pull system must therefore be flexible and have cycle times set by parameters calculated from customer demand indicators</p>
Pacemaker	<p>Pacemaker processes is that process which sets the pace for the flow of manufacturing work through the enterprise</p>
Types of inventories	<p>Inventories within process may include:</p> <ul style="list-style-type: none"> • cycle stock which reflects the replenishment quantity and frequency, • buffer stock to meet demand variability and forecast errors • safety stock required to guard against quality and delivery failures upstream.
Determine cause	<p>Determine cause may include the individual/team leader:</p> <ul style="list-style-type: none"> • analysing cause themselves • identifying that expert analysis is required and requesting this • setting up an improvement team to analyse cause
Action required	<p>Action required include actions to align actual and planned rates of production and inventories. The actions will vary but can include changes to:</p> <ul style="list-style-type: none"> • production processes • cycle times • equipment

RANGE STATEMENT	
	<ul style="list-style-type: none"> • work organisation • training and skill development of employees • The authority of the team leader may influence the actions required for example • actions which can be sanctioned by the individual team member • actions which can be sanctioned by the team leader • actions requiring management sanction • actions requiring expert intervention
Stakeholders	Stakeholders include: <ul style="list-style-type: none"> • managers • supervisors • employees • shareholders • OHS mechanisms/representatives • IR mechanisms/representatives • suppliers • customers • service providers

Unit Sector(s)

Unit Sector	CM Tools
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corequisite units

Corequisite units	
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Functional area

Functional Area	
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