



4

## Mobility Pass



### Lifelong Learning Programme

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## Mobility Pass

<b>Learner</b>																							
<b>First Name</b>								<b>Family Name</b>															
<b>Training Programme</b>	Aeronautical engineering level 3; aircraft manufacture electrical pathway Units in this programme:																						
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	
												✓	✓	✓									

<b>Mobility</b>	
<b>Unit 12</b>	
<b>Unit 14</b>	

<b>Home Institution</b> (name, address)	
<b>Contact Person</b> (name, phone number, e-mail)	
<b>Host institution</b> (name, address)	
<b>Contact Person</b> (name, phone number, e-mail)	

In the first column of the following sheets short descriptions of the Mobility Units (MU) which are part of the unit (Typical Professional Task TPT) are listed. Although these descriptions are rather skill-oriented, please consider the underlying knowledge, skills and key competences that can be displayed. These underlying rows show that the respective Learning Outcome (LO) is not a simple operation but a complete and complex action including cognitive and key competence aspects.

Unit 12:							
<i>Production of bunched circuits</i>							
Remarks:							
Mobility unit	Assessment				Place	Date	Signature
	observed/ supported	under instruction	under surveillance	independen tly			
Production of copper bunched circuits							
Production of fibre glass bunched circuits							
Reading & understanding work order							
Work resource-saving							
Providing & preparing the material							
Knowledge about material property							
Cutting cables, crimping							
Cooperating with the colleagues, asking for advice when needed							
Testing and preparing the circuit for transport to the next workplace							
Production of aluminium bunched circuits							
Production of bunched circuits							

Unit 14:							
<i>Passing bunched circuits in aircraft systems</i>							
Remarks:							
Mobility unit	Assessment				Place	Date	Signature
	observed/ supported	under instruction	under surveillance	independen tly			
Mounting brackets and splitters							
Setting ground points							
Mounting raceways							
Passing bunched circuits							
Setting of connectors							
Reading & understanding work order							
Work resource-saving							
Knowledge of different characteristics of the connectors							
Providing & preparing the material							
Crimping, connecting							
Cooperating with the colleagues, asking for advice when needed							
Approving work order							

Applying test equipment and voltage							
Testing of connectivity & grounding							
Passing bunched circuits by performing the MU above in context							

## **Attachment: Description of the units**

### **12. Production of bunched circuits for aircraft systems**

The production of wires and bunched circuits (for energy, signals and data) for aircraft systems is one of the principal tasks of the profession. The basics of the production of bunched circuits are engineering drawings, technical regulations and dimensional sketches. Examples for activities are to crimp and to plug contacts and connectors and to seal connectors. The requirements concerning functionality and quality of wires or bunched circuits have to be considered and checked during production. After finishing the production of a certain circuit, it has to be checked carefully. Two examples of these checks are isolation and continuity tests. The rigorous rules (by VDE, Electrical engineers syndicate) concerning "health protection" and "safety at work" have to be considered during the checks, especially when working with high voltages.

### **14. Passing bunched circuits in aircraft systems**

When producing new aircraft systems mainly bunched circuits are passed. When modifying an aircraft single wires are passed too. Basics for passing bunched circuits or wires are valid manufacturing instructions concerning the respective aircraft. First of all the bunched circuit has to be checked separately. While passing the circuit the technical and structural conditions (e. g. bending radii, joints, cable clips, protection of edges) have to be taken into account. Not only the bunched circuits but also the cable clips, decal information and danger notices have to be mounted. The skilled worker inspects the passed bunched circuit again and marks it according to the valid instructions. The documentation of the accomplished work is an integrated element of this professional task. Depending on the respective manufacturing order final inspection of the passed wires or bunched circuits is either done by the skilled worker or through another quality assurance process.