

ÉVALUATION SPÉCIFIQUE POUR L'ATTRIBUTION DE LA MENTION « SECTION EUROPÉENNE »

Baccalauréat professionnel TECHNICIEN D'USINAGE

Session 2021

Épreuve orale

Durée de l'épreuve A et B : 20 minutes

Préparation : 20 minutes

A. Première partie : durée 10 min, préparation : 20 min

SUJET N°1 Document candidat

On-site verification Audit: Airbus subcontractor

Context:

You are a workshop team leader in an aeronautics machine shop.

You are in charge of manufacturing an armrest support in series, machined on a CNC lathe machine for an Airbus subcontractor. The production is stabilised.

Today, customers are visiting the workshop and want to see the production line as part of an "on-site verification audit".

Role play:

You must wear specific protective equipments and quickly describe them to the customers.

You will explain to them the different steps of the manufacture of the armrest support (describe the machine and the tools, material, dimensions, the programming methods etc...).

You will also tell him about the safety requirements on this particular machine.

You can use your work environment available in order to better explain all the machining process steps.

You are expected to:

- Introduce yourself to the visitors and tell the customers about the PPEs.
- Present them the CNC lathe machine: general use, advantages, technical datas, tools, its safety rules and the working area.
- Explain to them how the part is machined, detailing the different steps of the process.

Enclosure(s):

Document 1: Technical data and front view DMG Ecoline CTX 310 Eco

Document 2: PPE Requirements and technical drawing

Document 3: Manufacturing process

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Document 1: Technical data and front view DMG Ecoline CTX 310 Eco

Machine technical data



DMG ECOLINE CTX 310 ECO:

- CNC 3 axes lathe machine:
 - o X axis travel: 350 mm
 - o Z axis travel: 620 mm
 - o C axis rotate: 360°
 - o Spindle's running speed: 5000 rpm
- SIEMENS calculator
- Machine length 3600mm, width 1900mm, height 1700mm

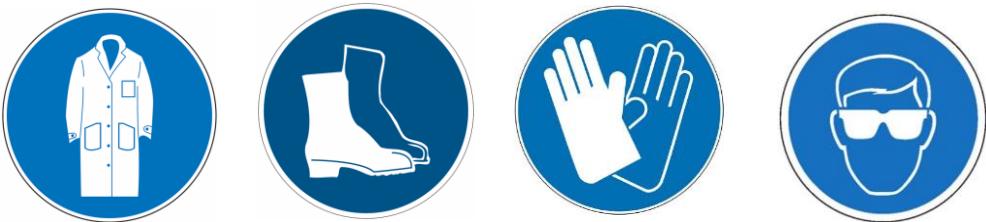
TOOLS:

- Turret with 12 stations
- Tool drive (any 2nd driven): 4500 rpm

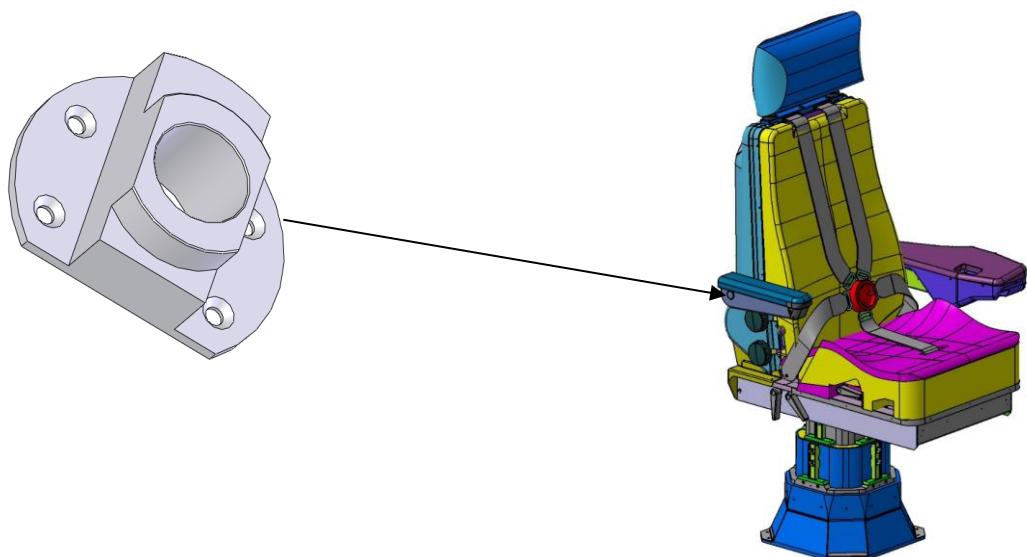
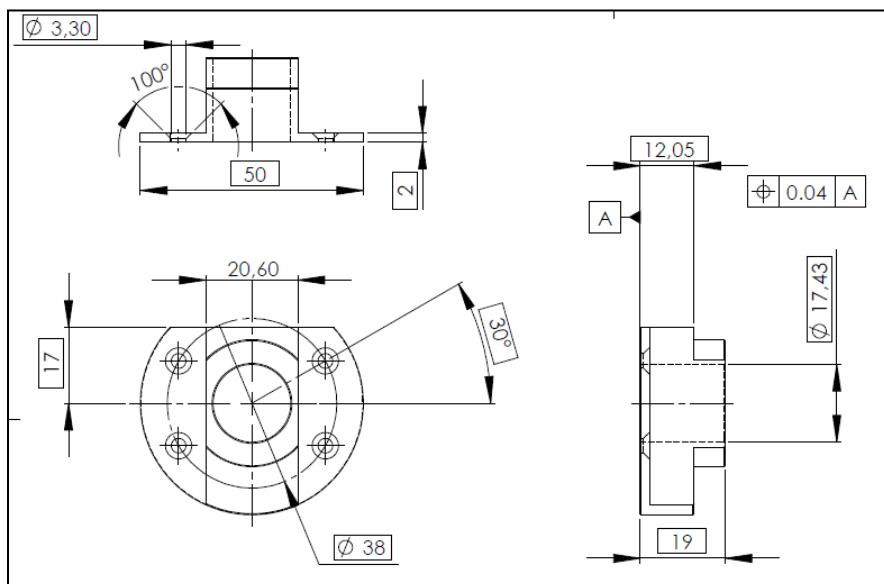
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Document 2: PPE Requirements and technical drawing

PPE Requirements



Technical drawing: Armrest support

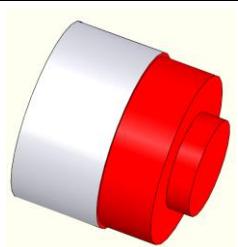
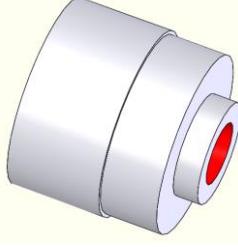
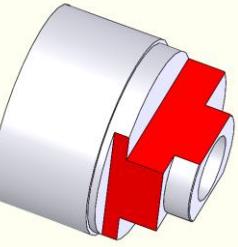
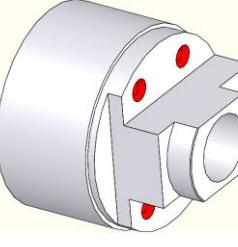
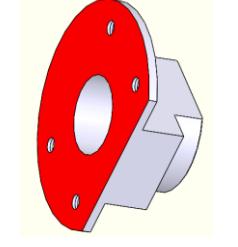


Part material: Aluminium alloy

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Document 3: Manufacturing process

Armrest support machining process

	Machining operation	Diagram	Tool Required
<i>Start of Work sequence</i> A	Contouring machining		Contouring tool 
B	Drilling and boring		Drill and boring tool 
C	Milling flat surfaces		End mill cutter 
D	Drilling and chamfering holes		Drill and Pointer drill 
<i>End of Work sequence</i> E	Cutting		Cutting tool 

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