

CONTACT DETAILS OF THE BODY SUBMITTING THE QUALIFICATION FILE

Name and address of submitting body:

Aerospace & Aviation Sector Skill Council (AASSC)
#11, Dynamatic Park, Peenya, Bengaluru- 560058

Name and contact details of individual dealing with the submission

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Position in the organisation: Manager (Standards, Accreditation & Certification)

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List of documents submitted in support of the Qualifications File

1. Qualification Pack
2. Model Curriculum
3. Training Data
4. Industry Validation
5. Occupational Map
6. Line Ministry Concurrence

NSQF QUALIFICATION FILE

Approved in 18th NSQC Meeting – NCVET – 28th April 2022

SUMMARY

| | |
|----|--|
| 1 | Qualification Title: Aerospace Structural Fitter |
| 2 | Qualification Code, if any: AAS/Q1602 |
| 3 | NCO code and occupation: NCO-2015/2144.0900 |
| 4 | Nature and purpose of the qualification (Please specify whether qualification is short term or long term) Nature of the qualification - a Qualification Pack (QP) Aerospace Structural Fitter is responsible for carrying out structural assembly of aircrafts/ helicopters and perform activities like drilling, reaming, riveting of structures, applying sealing compound etc. |
| 5 | Body/bodies which will award the qualification AASSC (Aerospace and Aviation Sector Skill Council) |
| 6 | Body which will accredit providers to offer courses leading to the qualification: AASSC (Aerospace and Aviation Sector Skill Council) |
| 7 | Whether accreditation/affiliation norms are already in place or not, if applicable (if yes, attach a copy): Yes, the file is attached as Annexure 2 |
| 8 | Occupation(s) to which the qualification gives access: Aircraft Assembling and Testing |
| 9 | Job description of the occupation: Aerospace Structural Fitter is responsible for carrying out structural assembly of aircrafts/ helicopters and perform activities like drilling, reaming, riveting of structures, applying sealing compound etc |
| 10 | Licensing requirements: N/A |
| 11 | Statutory and Regulatory requirement of the relevant sector (documentary evidence to be provided): N/A |
| 12 | Level of the qualification in the NSQF: Level 3 |
| 13 | Anticipated volume of training/learning required to complete the qualification: 660 hours |
| 14 | Indicative list of training tools required to deliver this qualification: Unique Equipment Required: The quantity is as per demonstration purpose/hands on practice requirements in the skill lab. <ul style="list-style-type: none">• Rivet gun (as appropriate)• Rivets• Drill Gun (pneumatic)• PPE• Filing/de-burring tools• Band saw• Drilling Machine• Cutting tools• Screwdriver set• Surface plate• Height Gauge• Grinder tool (combination of static and handheld)• Machine vice• Clamps & Studs |

NSQF QUALIFICATION FILE

Approved in 18th NSQC Meeting – NCVET – 28th April 2022

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| | <ul style="list-style-type: none"> • Cutting pliers • Cutting oils • Lubricants • Centring device • End mills • Tool holders • Touch probes • Plunger Dial (with stand) • Vernier (Digital/Analogue) • Drill bits • Tap Wrench • Hand taps • Torque wrench • Micrometer • Layout marking tools • Vacuum cleaner • Sealant • Sealant application tools • Humidity sensor device • Jigs & fixtures • PC terminal with CAD/CAM software • Reamers | | |
| 15 | Entry requirements and/or recommendations and minimum age: 8th Class Pass + ITI (2 years) OR 10th Class Pass Age - 18 years | | |
| 16 | Progression from the qualification (Please show Professional and academic progression): Aerospace - Aircraft Block Assembly Technician | | |
| 17 | Arrangements for the Recognition of Prior learning (RPL): AASSC recognizes that there may be candidates who have prior learning experience in the Aviation and Aerospace sector and are desirous of being certified. Such candidates can apply to AASSC for assessment of their skills. Certificates will be provided to candidates after successful assessment. | | |
| 18 | International comparability where known (research evidence to be provided): N.A. | | |
| 19 | Date of planned review of the qualification: 28/04/2025 | | |
| 20 | Formal structure of the qualification | | |
| (i) | Mandatory components | | |
| | Title of component and identification code/NOSs/Learning outcomes | Estimated size (learning hours) Including Theory/Practical/VIVA | Level |
| 1 | AAS/N1602 - Perform aircraft | 480 | 3 |

NSQF QUALIFICATION FILE**Approved in 18th NSQC Meeting – NCVET – 28th April 2022**

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| | structural component assembly NOS Version - 1.0 | | |
| 2 | AAS/N1001 - Follow organisation safety and security procedures NOS Version - 1.0 | 60 | 3 |
| 3 | AAS/N0021 - Maintain 5S at the work premises NOS Version No .. 1.0 | 45 | 3 |
| 4 | ELE/N9972 - Communicate and coordinate effectively with others NOS Version No 2.0 | 45 | 3 |
| 5 | SGJ/N1702 - Optimize Resources Utilization at workplace NOS Version No. .. 1.0 | 30 | 3 |
| | Sub Total (A) | 660 | |
| (ii) | Optional components | | |
| 1 | HSS/N9622 - Infection control & sanitization policies at workplace NOS Version No 1.0 | 15 | 3 |
| | Total: 675 Hours | | |

SECTION 1

ASSESSMENT

| | |
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| <p>21</p> | <p>Body/Bodies which will carry out assessment: From the list of empanelled assessment bodies reviewed over a period of time.</p> <ol style="list-style-type: none"> 1. India Skills Pvt Ltd 2. Aspiring Minds Assessments Pt.Ltd/SHL 3. Mettl India Pvt Ltd 4. Formac Software Services Pvt. Ltd |
| <p>22</p> | <p>How will RPL assessment be managed and who will carry it out? AASSC recognizes that there may be candidates who have prior learning experience in the Aviation and Aerospace sector and are desirous of being certified. Such candidates can apply to AASSC for testing and certification of their skills, and they will be allotted a training provider/TC for being tested. Documentation for such candidates will be done by the Training provider / TC. Certificates of successful candidates will be dispatched to the TP/TC for distribution to them.</p> |
| <p>23</p> | <p>Describe the overall assessment strategy and specific arrangements which have been put in place to ensure that assessment is always valid, reliable and fair and show that these are in line with the requirements of the NSQF.</p> <p>Assessment will be based on the concept of Independent Assessors empaneled with Assessment Agencies, identified, selected, trained and certified on Assessment techniques. The assessors would be aligned to assess as per the laid down criteria.</p> <p>Assessment Agency would conduct assessment only at the training center’s of the Training Partner or designated testing centers authorized by AASSC.</p> <p>Ideally, the assessment will be a continuous process comprising of two assessments:</p> <ol style="list-style-type: none"> 1. A Mid- term assessment 2. Final / Term assessment. <p>Each National Occupational Standard (NOS) in the respective QPs will be assigned weightage. Therein each Performance Criteria in the NOS will be assigned marks for theory and / or practical based on relative importance and criticality of function.</p> <p>This will facilitate preparation of question bank / paper sets for each of the QPs. Each of these papers sets / question bank so created by the Assessment Agency will be validated by the industry subject matter experts through FICSI, especially with regard to the practical test and the defined tolerances, finish, accuracy etc.</p> <p>The following tools are proposed to be used for final assessment:</p> <p>i. Written Test: This will comprise of (i) True / False Statements (ii) Multiple Choice</p> |

Questions (iii) Matching Type Questions. Online system for this will be preferred.

ii. Practical Test: This will comprise a test job to be prepared as per project briefing following

appropriate working steps, using necessary tools, equipment and instruments. Through observation it will be possible to ascertain candidate's aptitude, attention to details, quality consciousness etc. The end product will be measured against the pre-decided MCQ filled by the Assessor to gauge the level of his skill achievements.

iii. Structured Interview: This tool will be used to assess the conceptual understanding and the behavioural aspects as regards the job role and the specific task at hand.

- The emphasis is on 'learning-by-doing' and practical demonstration of skills and knowledge based on the performance criteria.
 - The assessment papers are developed by Subject Matter Experts (SME) available with the Assessment Agency as per the performance and assessment criteria mentioned in the Qualification Pack. The assessments papers are also checked for the various outcome-based parameters such as quality, time taken, precision, tools & equipment requirement etc. The assessment sets will be then reviewed by AASSC official for consistency.
 - The assessments are designed so as to assess maximum parts during the practical hands-on work. The technical limitations at the training centers are taken care in theory and viva.
 - The assessment agencies are instructed to hire assessors with integrity, reliability, and fairness. Each assessor shall sign a document with its assessment agency by which they commit themselves to comply with the rules of confidentiality and conflict of interest, independence from commercial and other interests that would compromise impartiality of the assessments. The assessment agencies are instructed to ideally have assessor with minimum 15 years industry experience as an ITI graduate / minimum 10 years' industry experience as diploma engineer and minimum 5 years' industry experience as graduate engineer.
 - The assessors selected by Assessment Agencies are scrutinized and made to undergo training and introduction to AASSC Assessment Framework, competency-based assessments, assessors guide etc.
 - The assessors are provided with assessor's guide developed by the Subject Matter Expert of the assessment agency as per the assessment framework. The assessment guides are developed to ensure the maximum possible consistency in the assessment by different assessors and elaborate on the following
1. Qualification Pack Structure
 2. Guidance for the assessor to conduct theory, practical and viva assessments
 3. Guidance for trainees to be given by assessor before the start of the assessments.

NSQF QUALIFICATION FILE

Approved in 18th NSQF Meeting – NCVET – 28th April 2022

4. Guidance on assessments process, practical brief with steps of operations practical observation checklist and mark sheet
5. Viva guidance for uniformity and consistency across the batch.

•The assessment-by-assessment agency will be completely based on the assessment criteria as mentioned in the Qualification Pack. Each NOS in the Qualification Pack (QP) will be assigned a relative weightage for assessment based on the criticality of the NOS. Therein each Performance Criteria in the NOS will be assigned marks for or practical based on relative importance, criticality of function and training infrastructure.

Please attach most relevant and recent documents giving further information about assessment and/or RPL.

Give the titles and other relevant details of the document(s) here. Include page references showing where to find the relevant information.

ASSESSMENT EVIDENCE

Complete a grid for each component as listed in “Formal structure of the qualification” in the Summary.

NOTE: this grid can be replaced by any part of the qualification documentation which shows the same information – i.e., Learning Outcomes to be assessed, assessment criteria and the means of assessment.

Job Role: Aerospace Structural Fitter

Qualification Pack: AAS/Q1602

Sector Skill Council: Aerospace and Aviation Sector Skill Council

Guidelines for Assessment

1. Criteria for assessment for each Qualification Pack will be created by the Sector Skill Council. Each Performance Criteria (PC) will be assigned marks proportional to its importance in NOS. SSC will also lay down proportion of marks for Theory and Skills Practical for each PC
2. The assessment for the theory part will be based on knowledge bank of questions created by the SSC
3. Individual assessment agencies will create unique question papers for theory part for each candidate at each examination/training center (as per assessment criteria below)
4. Individual assessment agencies will create unique evaluations for skill practical for every student at each examination/training center based on this criterion
5. To pass the Qualification Pack, every trainee should score a minimum of 60% in aggregate
6. The marks are allocated PC wise, however, every NOS will carry a weightage in the total marks allocated to the specific QP

NSQF QUALIFICATION FILE

Approved in 18th NSQC Meeting – NCVET – 28th April 2022

24. Assessment evidence

Title of Component: AAS/N1001: Follow organisation safety and security procedures

| Outcomes to be assessed/NOSs to be assessed | Assessment criteria for the outcome |
|--|---|
| Element Performance Criteria Comprehending the safety and security procedures for conduct of operations, data security, approvals, health, safety and security | PC 1. comply with the organisation's safety and security policies and procedures |
| | PC 2. comply with the regulatory guidelines on safe conduct of operations and maintenance of conditions to thwart any acts of unlawful interference |
| | PC 3. report any identified breaches of safety and security policies and procedures to the designated person |
| | PC 4. report any theft of organisation property according to the organisation policy |
| | PC 5. coordinate with other resources at the workplace (within and outside the organisation) to achieve a safe and secure environment |
| | PC 6. identify and mitigate any safety and security hazards like illness, accidents, fires or acts of unlawful interference if it falls within the limits of the individual's authority |
| | PC 7. report any hazards outside the individual's authority to the relevant person in line with organisational procedures and regulatory guidelines |
| | PC 8. follow the organisation's emergency procedures for accidents, fires or acts of unlawful interference |
| | PC 9. identify and recommend opportunities for improving health, safety, and security to the designated person |
| | PC 10. ensure that all health and safety records are updated, and procedures are well defined |
| Means of assessment 1 Written/ Viva Exam | |

NSQF QUALIFICATION FILE

Approved in 18th NSQC Meeting – NCVET – 28th April 2022

Means of assessment 2

On the Job Observation/ work deliverables/ record sheets for practicals

Pass/Fail

Practical: 60%

Theory: 60%

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NSQF QUALIFICATION FILE

Approved in 18th NSQC Meeting – NCVET – 28th April 2022

Title of Component: AAS/N1602: Perform aircraft structural component assembly

| Outcomes to be assessed/NOSs to be assessed | Assessment criteria for the outcome |
|--|---|
| Inspect structural components before assembly | PC1. visually inspect the structural components received from workshop for final assembly to identify any damages to the component |
| | PC2. review the assembly drawings and procedures for the structural components and ascertain that all required tools and consumables are available as per the drawings and material requirement sheet |
| | PC3. inspect the documentation received with structural components and ascertain that all documentation is in line with productions standards and/or organisation standard operating procedures |
| | PC4. record any findings or discrepancies and report the same through appropriate channels as per organization procedures |
| Handling structural components | PC5. check for the clamp position and lifting instructions given to the structural components |
| | PC6. select appropriate material handling equipment suitable to the size of component and ensure the component is lifted as per designed centre of gravity and appropriate accessories |
| | PC7. handle structural components with due care as given in the process sheet |
| | PC8. avail required tools, jigs and fixtures as instructed in assembly drawings |
| Assembly of structural components (metal, non-metal) | PC9. mark the mating parts as per assembly drawings and ensure availability of components and tools to assemble the components |
| | PC10. arrange the mating parts in sequence for ease of handling during assembly |
| | PC11. avail required tools and fastners for assembly |
| | PC12. pre-assemble the mating parts using appropriate jigs and fixtures |
| | PC13. carryout filing, grinding etc incase of burr on machined surface or to match the components |
| | PC14. assemble the components as stated in the drawings and as per the sequence provided in the |

NSQF QUALIFICATION FILE

Approved in 18th NSQC Meeting – NCVET – 28th April 2022

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| | process sheet |
| Loading of parts on jigs and fixture | PC15. lift the structural components as per load and defined in the drawing |
| | PC16. pre-book the material handling equipment for lifting the components and to avoid delay during the assembly |
| | PC17. mark the position on components to be faced on jigs & fixtures |
| | PC18. lift the components using appropriate material handling equipment |
| | PC19. clamp the component to the jigs and fixture as defined in drawing and as per sequence provided in the process sheet |
| | PC20. inform supervisor and quality inspector once the component is mounted on the jigs |
| Perform drilling operation | PC21. mark the structural part according to drawing / technology/ reference tool |
| | PC22. check whether the component having proper edge distance and other dimensions prior to carrying out drilling operation. |
| | PC23. check the machinability of structural part and accordingly select drilling tool |
| | PC24. estimate the number of stages in which drilling a hole needs to be carried out |
| | PC25. select the tools as per number of stages in which drilling is to be carried out. |
| | PC26. mark the centre of the hole by punch or perform drilling on pilot holes. |
| | PC27. check the dimension of the drilled hole using appropriate measuring instruments |
| Perform reaming operation | PC28. select proper tool and reamers as per work instruction/ process sheet |
| | PC29. Select appropriate coolant as per work instruction/ process sheet |
| | PC30. set the speed of rotation and feed rate for reaming operation |
| | PC31. select proper sequence of reamers as per dimension, tolerance and surface finish mentioned in the work instruction/ process sheet |
| | PC32. ream the holes as per sequence of reamers selected |

NSQF QUALIFICATION FILE

Approved in 18th NSQC Meeting – NCVET – 28th April 2022

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| | PC33. apply coolant in between the reaming operation |
| | PC34. after reaming of holes, clean the reamers and reamed hole with cotton napkin |
| | PC35. check the final dimension, surface finish according to drawing |
| | PC36. apply the non-corrosive chemical, if required |
| Perform different riveting operation | PC37. select the rivet as per work instruction/ process sheet |
| | PC38. clean all the parts and rivets with naphtha before riveting |
| | PC39. align the holes and insert the rivet in each hole |
| | PC40. apply appropriate sealing compound along with the rivet |
| | PC41. perform riveting on metal or composite parts with the rivet gun on one side and bucking bar on another side |
| | PC42. measure the bucking head and bucking length by rivet gauge. |
| | PC43. apply the non-corrosive chemical (primer) as per the work instruction/ process sheet |
| | PC44. offer the riveted parts to supervisor or inspection team |
| Perform fastening operation | PC45. select the fasteners as per work instruction/ process sheet |
| | PC46. clean all the parts and select appropriate screw, bolts and nuts |
| | PC47. align the holes and insert the appropriate fastener in each hole |
| | PC48. apply appropriate sealing compound along with the fasteners |
| | PC49. tighten the fasteners on the parts using tightening tool |
| | PC50. apply the non-corrosive chemical (primer) as per the work instruction/ process sheet |
| | PC51. offer the fastened parts to supervisor or inspection team |
| mixing sealing compound and perform sealing | PC52. ensure that correct tag of sealant is been picked up from stores |

NSQF QUALIFICATION FILE

Approved in 18th NSQC Meeting – NCVET – 28th April 2022

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| operation | |
| | PC53. visually check for any leakage of sealant can/ bin |
| | PC54. mix the sealants as per composition defined in the work instruction/ process sheet |
| | PC55. check the temperature and humidity before mixing the sealant composition |
| | PC56. apply the sealant onto the riveted or fastened structural parts to ensure appropriate bonding of the surface |
| | PC57. perform removal of sealant as per work instruction in case of any discrepancy observed during inspection |
| | PC58. inspect the assembly to identify any areas of deviation/ discrepancy in the desired output of the assembly and take appropriate action as per approved procedures |
| Perform Aircraft/ Helicopter assembly | PC62. carry out filing in the assemblies to suit the assembly as required. |
| | PC63. fasten the subassemblies by ensuring the usage of right fasteners as per per work instruction/ process sheet |
| | PC64. complete the final assembly of the aircraft/ helicopter assembly |
| | PC59. load and position the aircraft subassemblies on the assembly jigs with the help of crane operator as required. |
| | PC60. align the subassemblies as required as per work instruction/ process sheet |
| | PC61. carry out drilling in the subassembly as per work instruction/ process sheet |
| Means of assessment 1 Written/ Viva Exam | |
| Means of assessment 2 On the Job Observation/ work deliverables/record sheets for practical | |
| Pass/Fail Practical: 60% Theory: 60% | |

NSQF QUALIFICATION FILE

Approved in 18th NSQC Meeting – NCVET – 28th April 2022

Title of Component: AAS/N0021: Maintain 5S at the work premises

| Outcomes to be assessed/NOSs to be assessed | Assessment criteria for the outcome |
|--|---|
| Ensure sorting | PC 1. follow the sorting process and check that the tools, fixtures & jigs that are lying on workstations are the ones in use and unnecessary items are not cluttering the workbenches or work surfaces |
| | PC 2. ensure segregation of waste into hazardous/ non-hazardous waste as per the sorting work instructions |
| | PC 3. follow the technique of waste disposal and waste storage in the proper bins as per sop |
| | PC 4. segregate the items which are labeled as red tag items for the process area and keep them in the correct places |
| | PC 5. sort the tools/ equipment/ fasteners/ spare parts as per specifications/ utility into proper trays, cabinets, lockers as mentioned in the 5S guidelines/ work instructions |
| | PC 6. ensure that material storage areas are not overflowing |
| | PC 7. properly stack the various types of boxes and containers as per the size/ utility to avoid any fall of items/ breakage and also enable easy sorting when required |
| | PC 8. return extra material and tools to the designated sections and make sure that no additional material/ tool is lying near the work area |
| | PC 9. follow the floor markings/ area markings used for demarcating the various sections in the plant as per the prescribed instructions and standards |
| | PC.10 follow the proper labeling mechanism of instruments/ boxes/ containers and maintain reference files/ documents with the codes and the lists |
| Ensure proper documentation and storage (organizing, streamlining) | PC 11. check that the items in the respective areas have been identified as broken or damaged |
| | PC 12. follow the given instructions and check for labeling of fluids, oils. lubricants, solvents, chemicals etc. and proper storage of the same to avoid spillage, leakage, fire etc. |
| | PC 13. make sure that all material and tools are stored in the designated places and in the manner indicated in the 5S instructions |
| Ensure cleaning of self and the workplace | PC 14. check whether safety glasses are clean and in good |

NSQF QUALIFICATION FILE

Approved in 18th NSQC Meeting – NCVET – 28th April 2022

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| | condition |
| | PC 15. keep all outside surfaces of recycling containers clean |
| | PC 16. ensure that the area has clean floors, clean machinery and is generally clean. While cleaning is in progress, ensure that proper displays are maintained on the floor which indicate potential safety hazards |
| | PC 17. check whether all hoses, cabling & wires are clean, in good condition and clamped to avoid any mishap or mix up |
| | PC 18. ensure that workbenches and work surfaces are clean and in good condition |
| | PC 19. follow the cleaning schedule for the lighting system to ensure proper illumination |
| | PC 20. store cleaning material and equipment in the correct location and in good condition |
| | PC 21. ensure self-cleanliness - clean uniform, clean shoes, clean gloves, clean helmets, and personal hygiene |
| Ensure sustenance | PC 22. follow the daily cleaning standards and schedule to create a clean working environment |
| | PC 23. attend all training programs for employees on 5S |
| | PC 24. support the team during |
| | PC 25. participate actively in employee work groups on 5S and encourage team members for active participation |
| | PC 26. Follow the guidelines for What to do and What not to do to build sustainability in 5S as mentioned in the 5S check lists/work instructions |
| Means of assessment 1 Written/ Viva Exam | |
| Means of assessment 2 On the Job Observation/ work deliverables/ record sheets for practicals | |
| Pass/Fail Practical: 60% Theory: 60% | |

NSQF QUALIFICATION FILE

Approved in 18th NSQC Meeting – NCVET – 28th April 2022

Title of Component: ELE/N9905: Work effectively at the workplace

| Outcomes to be assessed/NOSs to be assessed | Assessment criteria for the outcome | |
|--|---|--|
| Communicate effectively at the workplace | PC1. exchange information and instruction with colleagues, and seek clarifications and feedback as necessary | |
| | PC2. assist colleagues where required | |
| | PC3. follow business communication etiquette in all interactions and communicative formats (online, digital, and in-person) | |
| | PC4. document and share all relevant information with stakeholders in agreed formats and as per agreed timelines | |
| Work effectively | PC5. identify and obtain clarity regarding organisational, team and own goals and targets | |
| | PC6. prioritise and plan work in order to achieve goals and targets | |
| | PC7. monitor own and team performance as per agreed plan | |
| | PC8. complete duties accurately, systematically and within required timeframes | |
| | PC9. express emotions appropriately at the workplace and manage own response to heightened emotions | |
| | PC10. maintain orderliness and cleanliness in the work area | |
| | Maintain and enhance professional competence | PC11. identify own strengths and weaknesses in relation to goals and targets |
| | | PC12. adapt self, service, or product to meet success criteria |
| | | PC13. seek and select opportunities for continuous professional development |
| | | PC14. formulate a professional development plan to enhance capabilities |
| PC15. build or contribute to the organizational knowledge base of cases, clients, issues, solutions, and innovations | | |
| PC16. examine developments and trends in field of work and their potential impact on work | | |
| PC17. take feedback from peers, supervisors and clients to improve own performance and practices | | |

NSQF QUALIFICATION FILE

Approved in 18th NSQC Meeting – NCVET – 28th April 2022

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| Work in a disciplined and ethical manner | PC18. perform tasks as per workplace standards, organisational policies and legislative requirements |
| | PC19. display appropriate professional appearance at the workplace and adhere to the organisational dress code |
| | PC20. demonstrate responsible and disciplined behaviour at the workplace such as punctuality; completing tasks as per given time and standards; demonstrating professional behaviour at all times, adopting environment- friendly practices, etc. |
| | PC21. identify the cause of conflict and options for resolution with peers or escalate grievances and problems to appropriate authority as per procedure for conflict resolution |
| | PC22. protect the rights of the client and organisation when delivering services |
| | PC23. ensure services are delivered equally to all clients regardless of personal and cultural beliefs |
| | PC24. operate within an agreed ethical code of practice and report unethical conduct to the appropriate authorities |
| | PC25. follow organisational guidelines and legal requirements on disclosure and confidentiality |
| Uphold social diversity at the workplace | PC26. recognize and evaluate biased practices against underrepresented groups like women and persons with disabilities, in workplace systems and processes |
| | PC27. identify and report discrimination and harassment based on gender, disability, or cultural difference at the workplace |
| | PC28. use inclusive or neutral language and gestures in all interactions |
| | PC29. respect the personal and professional space of others |
| | PC30. access grievance redressal mechanisms as per legislations |
| Means of assessment 1 Written/ Viva Exam | |
| Means of assessment 2 On the Job Observation/ work deliverables/ record sheets for practicals | |
| Pass/Fail Practical: 60% Theory: 60% | |

NSQF QUALIFICATION FILE

Approved in 18th NSQC Meeting – NCVET – 28th April 2022

Component: HSS/N9624: Maintain a safe and secure working environment

| Outcomes to be assessed/NOSs to be assessed | Assessment criteria for the outcome |
|---|---|
| Workplace safety and security | PC1. identify potential hazards of safe work practices |
| | PC2. use various hospital codes for emergency situations |
| | PC3. comply with safety, and security procedures within the defined scope of competence and authority |
| | PC4. provide Basic Life Support (BLS) and first aid whenever applicable under defined scope of work |
| | PC5. follow organizations' procedures related to any emergency efficiently |
| | PC6. report any identified breaches in health, safety, and security procedures to the designated person |
| | PC7. complete any health and safety records accurately |
| Means of assessment 1 Written/ Viva Exam | |
| Means of assessment 2 On the Job Observation/ work deliverables/ record sheets for practicals | |
| Pass/Fail Practical: 60% Theory: 60% | |

NSQF QUALIFICATION FILE

Approved in 18th NSQC Meeting – NCVET – 28th April 2022

Component: THC/N9916: Follow and Maintain Green Practices

| Outcomes to be assessed/NOSs to be assessed | Assessment criteria for the outcome |
|---|--|
| Following material conservation practices | PC1. identify ways to optimize usage of material including water in various tasks/activities |
| | PC2. check for spills/leakages, plug them and escalate to appropriate authority if unable to rectify |
| | PC3. ensure electrical equipment and appliances are switched off when not in use |
| Ensuring effective waste management/recycling practices | PC4. identify recyclable and non-recyclable, and hazardous waste generated |
| | PC5. dispose non-recyclable waste appropriately |
| | PC6. follow processes specified for disposal of hazardous waste |
| | PC7. ensure reuse and recycling of waste wherever applicable |
| Ensuring use of eco-friendly practices | PC8. identify materials which can be replaced by environment friendly substitutes |
| | PC9. follow SOPs to conserve and re-use water |
| Means of assessment 1 Written/ Viva Exam | |
| Means of assessment 2 On the Job Observation/ work deliverables/ record sheets for practicals | |
| Pass/Fail Practical: 60% Theory: 60% | |

SECTION 2

25. EVIDENCE OF LEVEL

OPTION A

| | | |
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| <p>Process</p> | <p>The Aerospace Structural Fitter is responsible for carrying out structural assembly of aircrafts/ helicopters and perform activities like drilling, reaming, riveting of structures, applying sealing compound etc</p> | <p>The job holder is responsible for carrying out activities in involving in structural assembly of aircrafts/ helicopters and perform activities like drilling, reaming, riveting of structures, applying sealing compound etc. Since it does not involve working in a familiar, predictable routine situation of clear choice, role does not qualify for Level 4</p> <p>For ex: visually inspect the structural components received from workshop for final assembly to identify any damages to the component, review the assembly drawings and procedures for the structural components and ascertain that all required tools and consumables are available as per the drawings and material requirement sheet, inspect the documentation received with structural components and ascertain that all documentation is in line with productions standards and/or organisation standard operating procedures , record any findings or discrepancies and report the same through appropriate channels as per organization procedures etc.,</p> <p>As the job role holder is not expected to carry out process that are repetitive on regular basis with little application for ex : inspect the documentation received with</p> |
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NSQF QUALIFICATION FILE

Approved in 18th NSQC Meeting – NCVET – 28th April 2022

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| | | <p>structural components and ascertain that all documentation is in line with productions standards and/or organisation standard operating procedures etc., hence the job role cannot be pegged at level 2</p> |
| <p>Professional knowledge</p> | <p>The Aerospace Structural Fitter on the job needs to know and understand how to: comprehend the organisation’s safety and security policies and procedures, comprehend the regulatory guidelines on safe conduct of operations and maintenance of conditions to thwart any acts of unlawful interference, report any identified breaches of safety, and security policies and procedures to the designated person, coordinate with other resources at the workplace (within and outside the organisation) to achieve safe and secure environment, identify and mitigate any safety and security hazards like illness, accidents, fires or acts of unlawful interference if it falls within the limits of individual’s authority, report any hazards outside the individual’s authority to the relevant person in line with organisational procedures and regulatory guidelines, Inspect structural components before assembly, Handling structural components, Assembly of structural components (metal, non-metal), Loading of components on jigs and fixture, Perform drilling operation, Perform reaming operation, Perform different riveting operation, Perform fastening operation, mixing sealing compound and perform sealing operation, Perform</p> | <p>The Aerospace Structural Fitter on the job needs to know and understand how to: For Ex : mark the mating parts as per assembly drawings and ensure availability of components and tools to assemble the components, arrange the mating parts in sequence for ease of handling during assembly , avail required tools and fasteners for assembly, pre-assemble the mating parts using appropriate jigs and fixtures etc., Since all the above-mentioned areas are related to know basic facts, process and principle applied in trade of employment, the role qualifies for Level 3. As the job holder does not require material, tools and application in a limited context, understand context of work and quality. For ex; For fastening operations of the structural components select the fasteners as per work instruction/ process sheet, clean all the parts and select appropriate screw, bolts and nuts , align the holes and insert the appropriate fastener in each hole, apply appropriate sealing compound along with the fasteners, tighten the fasteners on metal or composite parts using tightening tool, apply the non-corrosive chemical (primer) as per the work instruction/ process sheet, offer the fastened parts to supervisor or inspection team etc., Hence it cannot be pegged at level 2</p> |

NSQF QUALIFICATION FILE

Approved in 18th NSQC Meeting – NCVET – 28th April 2022

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| | Aircraft/ Helicopter assembly etc., | |
| Professional skill | The user/individual on the job needs to know and understand how to: make decisions on a suitable course of action or response if permitted by the authority matrix, monitor efficient functioning of all activities, plan and organize work to achieve targets and deadlines, communicate with customers and other stakeholders in a courteous manner, maintain cordial work relationship, identify trends/common causes for errors and suggest possible solutions to the supervisor / management, identify and correct errors, analyse best possible solutions (cost, time, effort, etc.) suited for operations, concentrate on task at hand and complete it without errors, apply balanced judgments to different situations etc., | The job holder is expected to recall and demonstrate practical skill, routine and repetitive activities in a narrow range of application. For instance, the job holder has to respond if permitted by the authority matrix, monitor efficient functioning of all activities, plan and organise work to achieve targets and deadlines, maintain effective work relationship, identify trends/common causes for errors and suggest possible solutions to the supervisor / management, identify and correct errors, analyse best possible solutions (cost, time, effort, etc.) suited for operations, concentrate on task at hand and complete it without errors , apply balanced judgments to different situations, record the assembly process and materials used for assembly in the documentation as per organisation standards, record the details of the operations carried out as per organisation standards and procedures etc All these activities are mostly repetitive and have a narrow range of application, hence qualifying the role for a Level 3 |
| Core skill | The person on the job needs to know and understand how to: write basic level notes and observations, draw basic level drawings and charts, read & comprehend | The person on the job needs to know and understand how to: record the assembly process and materials used for assembly in the documentation as per organisation standards, , discuss task lists and job |

NSQF QUALIFICATION FILE

Approved in 18th NSQC Meeting – NCVET – 28th April 2022

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| | documents and notes, process documentation & Control Plan, interpret/ comprehend the information given in the documents and notes, read and interpret symbols given on equipment and work area, read electrical drawings/ engineering drawings, sketches etc., | requirements with co-workers, effectively communicate information to team members, question supervisor in order to understand the nature of the problem attentively listen with full attention and comprehend the information given by the speaker etc., Hence, the job qualifies for level 3. |
| Responsibility | <p>The Aerospace Structural Fitter is responsible for</p> <p>Compulsory:</p> <ol style="list-style-type: none"> 1. AAS/N1001: Follow organisation safety and security procedures 2. AAS/N1602: Perform aircraft structural component assembly 3. ASC/N0021: Maintain 5S at the work premises 4. ELE/N9972: Communicate and coordinate effectively with others 5. SGJ/N1702: Optimize Resources Utilization at workplace <p>Optional:</p> <ol style="list-style-type: none"> 1. HSS/N9622: Infection control & sanitization policies at workplace | <p>The job holder will be responsible for a limited range of jobs under supervision involving :</p> <p>Perform structural component assembly, Follow safety and security procedures, Maintain 5S at the work premises and work effectively in a team Hence, this role qualifies for Level 3. It does not comprise of any supervisory activities and being supervised by supervisor at level 4.</p> |

NSQF QUALIFICATION FILE

Approved in 18th NSQC Meeting – NCVET – 28th April 2022

SECTION 3

EVIDENCE OF NEED

| 26 | What evidence is there that the qualification is needed? What is the estimated uptake of this qualification and what is the basis of this estimate? | | |
|----|---|--|---|
| | Basis | In case of SSC | In case of other Awarding Bodies (Institutes under Central Ministries and states departments) |
| | Need of qualification | <ul style="list-style-type: none"> • Feedback from the industry was collected with respect to the past and projected industry growth, projected employee growth and Industry requirement. • During the industry interactions carried out while creating occupational maps and prioritisation of job roles for QP development, the mentioned qualification was indicated as a key requirement by the industry. The expert group / Subcommittee of QP-NOS shared the final approval for the development of the role. The Qualification has been validated by leading associations and companies like such as Hindustan Aeronautics Limited, Airbus, Boeing, Rolls Royce, Dynamics Technologies, Mahindra Aerospace etc. • In addition, various skill reports project the demand of the skilled workforce and the projected industry growth of the Aviation industry in India. • Demand assessed through Industry - Stakeholder interaction. • Evidence of the qualification is supported by validations. The complete list of validating companies has been enclosed as an annexure to the Q- File. | |
| | Industry Relevance | The Qualification has been validated by leading associations and companies like such as Hindustan Aeronautics Limited, Airbus, Boeing, Rolls Royce, | |

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Approved in 18th NSQC Meeting – NCVET – 28th April 2022

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| | | Dynamics Technologies, Mahindra Aerospace etc. | |
| | Usage of Qualification | The trainings have begun for these presented qualifications | |
| | Estimated Uptake | Occupation Map and Industry feedback for the skill gap between the industry demand and institutional supply provide the basis for estimated uptake. This is the basis for planning training with the industry and training providers | |

| | |
|----|---|
| 27 | Recommendation from the concerned Line Ministry of the Government/Regulatory Body. To be supported by documentary evidence Yes, the mail communication is attached as Annexure 1 |
| 28 | What steps were taken to ensure that the qualification(s) does (do) not duplicate already existing or planned qualifications in the NSQF? Give justification for presenting a duplicate qualification <ul style="list-style-type: none"> The qualification discussed above is checked for any duplication across sectors. Given the qualification is niche to Aerospace manufacturing & Assembly sub-sector, there is no duplication or pre-existing qualifications. The QP has been compiled keeping in mind the industry requirements and review existing QP-NOS |
| 29 | What arrangements are in place to monitor and review the qualification(s)? What data will be used and at what point will the qualification(s) be revised or updated? Specify the review process here <ul style="list-style-type: none"> The skill council has the following stakeholders: The Training Partners, Trainees, The industry and the Assessment bodies and the government agencies. The council will collect data from the stakeholders on the Qualifications on a periodic basis for review. A review/revision of the qualification will take place on a date not later than 5 years of the approval of qualification. This process will also assess the outcome of the training, placement and self-employment data. The council has two well defined sub-committees namely QP-NOS subcommittee and Training & industry engagement subcommittee. These committees monitor and review the progress of all qualifications under its purview on a regular basis. |

Please attach most relevant and recent documents giving further information about any of the topics above.

Give the titles and other relevant details of the document(s) here. Include page references showing where to find the relevant information.

SECTION 4

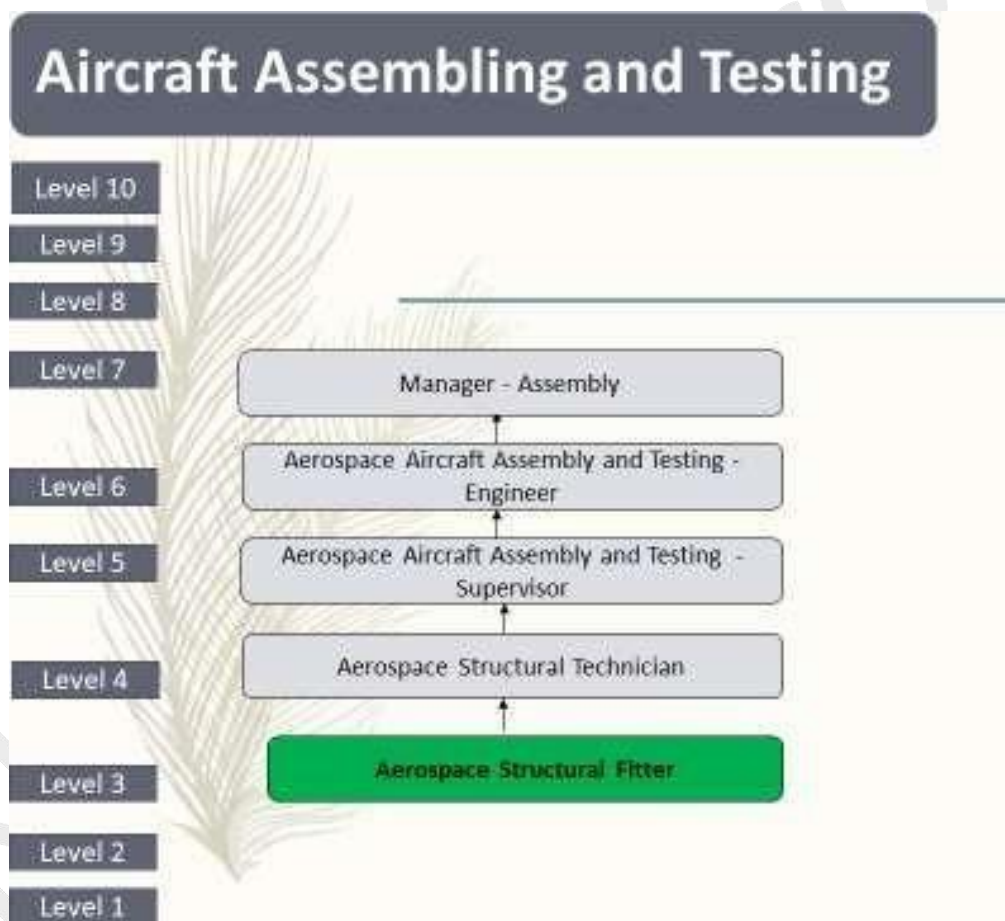
EVIDENCE OF PROGRESSION

30

What steps have been taken in the design of this or other qualifications to ensure that there is a clear path to other qualifications in this sector?

Show the career map here to reflect the clear progression

While designing the National Occupational Standards, occupational mapping was done on a large sample size and validated across the country. The career progression for roles in each occupation was also analysed and decided, based on industry validation across the country. The current challenges faced by the industry, at large was also kept in mind.



Please attach most relevant and recent documents giving further information about any of the topics above.

Give the titles and other relevant details of the document(s) here. Include page references showing where to find the relevant information.