



National Vocational Qualifications for Shoe Technician

National Vocational Certificate level 4, in (Footwear Manufacturing technology) “Shoe Technician”



National Vocational and Technical Training Commission (NAVTTC)

Government of Pakistan



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1. TITLE OF QUALIFICATION

- i. National Vocational Certificate level 4, in (Footwear Manufacturing Technology)
“Shoe Technician”

2. INTRODUCTION

Some sectors of Pakistan economy have shown a good performance in terms of production and exports. Footwear is one such industry which has increased its exports at large extent. This sector has pivotal importance in terms of providing and creating jobs, earning of foreign exchange with the help of exports and fulfilling the local consumption requirements.

Both in Pakistan and around the globe, the demand for footwear is increasing. Pakistan is one of the most populous countries in the World signalling the growing demand for footwear in Pakistan. The population of Pakistan is about 200 million and having average of 2 pairs per person per year, the total production potential comes to 400 million pairs per year.

It is also estimated that about 60 percent of the World’s total consumption consists of simple footwear made entirely of non-leather materials and that for the remaining 40 percent only the upper part of the shoe is made of leather. In the manufacturing of footwear, most frequently used material consists upon leather, manmade materials, rubber / canvas / synthetic and textile along accessories. Different type of shoes are being produced by the local industry e.g. sportsmen, army, disabled persons and safety shoes for the industrial workers etc.



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The industry is predominantly located in and around Lahore, where almost 80 percent of the documented sector of the country is located. Other regions where shoe making activities are good include Karachi, Faisalabad and Multan. The productivity of Lahore based workers is higher than the rest of the country.

Footwear manufacturing industry lacks technology and skilled labour and even those that have skills have low productivity. The Chinese shoemakers for instance are twice more productive than the Pakistanis.

Foregoing in view, in order to meet the demand of industry there is a need to strengthen and promote productive working relationship between the training provider and the industry in order to enhance quality of training delivery, enterprise competitiveness and access to decent employment.

3. PURPOSE OF THE QUALIFICATION

The competency based NVQ has been developed to train the unskilled men of Pakistan on the technical and entrepreneurial skills to be employed / self-employed and inevitably set sustainable impact on their lives by increase in their livelihood income.

The purpose of these qualifications is to set professional standards for shoe technician, who will serve as key elements enhancing quality of Pakistan's footwear manufacturing industry. The specific objectives of developing these qualifications are as under:

- Improve the professional competence of footwear manufacturing industry
- Capacitate the local community and trainers in modern CBT trainings, methodologies and processes as envisaged under NVQF



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- Provide flexible pathways and progressions in footwear manufacturing industry
- Enable the trainees to perform their duties in efficient manner
- Establish a standardized and sustainable system of training in footwear manufacturing industry in Pakistan

4. DATE OF VALIDATION

This national vocational qualification (NVQ) has been validated by the Qualifications Development Committee (QDC) on 23rd and 24th of November 2017 and will remain in currency until December 2021

5. MEMBERS OF QUALIFICATIONS DEVELOPMENT COMMITTEE

The following members participated in the qualifications development and validation of these qualifications:

Sr. No.	Name	Designation	Organization	Email	Contact No.
1.	Mr. Muhammad Ismail	Team Lead	Deluxe Footwear, Sheikhpura	Ldr.ramazan@deluxefootwear.com	0300-4400380
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9.	Mr. Muazzam Mahmood	Senior Instructor	G.I.L.T Gujranwala	iltgrw@gmail.com	031-6474070



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6. ENTRY REQUIREMENTS

- Matriculation with some working knowledge of Shoe manufacturing industry or
- National vocational Certificate level 2 (Shoe manufacturing technology) Shoe lasting

7. SUMMARY OF COMPETENCY STANDARDS

Code	Competency Standards	Level	Credits	Category
0723FWM02A	Apply Occupational Health & Safety Procedures at Workplace	4	10	Generic
0723FWM02B	Develop Professionalism	4	10	Generic



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Code	Competency Standards	Level	Credits	Category
0723FWM02C	Perform Manipulation / Cutting operations	4	20	Technical
0723FWM02D	Prepare molded outsole	4	13	Technical
0723FWM02E	Perform Insole making	4	13	Technical
0723FWM02F	Prepare leather outsole	4	14	Technical
0723FWM02G	Perform Stitching	4	80	Technical
0723FWM02H	Perform Flat Lasting by Machine	4	20	Technical
0723FWM02I	Perform Mold Lasting	4	20	Technical
0723FWM02J	Perform Flat Lasting by Hand	4	20	Technical
0723FWM02K	Perform shoe finishing and packing	4	20	Technical



Competency Standard A: Apply Occupational Health & Safety Procedures at Workplace 0723FWM02A

Overview: This Competency Standard identifies the competencies required to apply occupational health and safety procedures at workplace by a Shoe Manufacturing Technician in accordance with the organization’s approved guidelines and procedures. You will be expected to identify hazards in work place, comply with health and safety precautions, use of personal protective equipment and practicing safe work habits at workplace at all times. Your underpinning knowledge regarding occupational health and safety procedures will be sufficient to provide you with the basis for your work.

Competency Units	Performance Criteria
A1. Identify hazards in workplace environment	P1. Read and interpret work processes and procedures correctly to identify risk of hazards at workplace. P2. Recognize engineering processes, tools, equipment and consumable materials that have the potential to cause harm. P3. Identify any potential hazards and take appropriate action to minimize the risk.
A2. Comply with Occupational Health and Safety Precautions	P1. Work safely at all times, complying with health and safety precautions, regulations and other relevant guidelines. P2. Identify health and safety hazards in the Workplace so that the potential for personal injury, damage to equipment or the workplace is prevented, and corrective action is taken. P3. Deal with problems which are within your



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	control, and report those that cannot be resolved to safety officer.
A3. Apply Personal Protective and Safety Equipment (PPE)	P1. Select personal protective equipment in terms of type and quantity according to work order. P2. Wear, adjust, and maintain personal protective equipment to ensure correct fit and optimum protection in compliance with company procedures. P3. Ensure personal protective equipment is cleaned and stored in proper place.
A4. Practice safe Work habits to ensure safety in the workplace	P1. Wear required clothing (not lose or torn), confine long hair, and remove jewellery in accordance with company procedures. P2. Apply work procedures and approaches that ensure personal safety as well as others safety. P3. Demonstrate good housekeeping in the workplace by cleaning up spills or leaks. P4. Keep work area clean and clear of obstructions, and storing tools or equipment, so that the potential for accident or injury is prevented. P5. Ensure tools or equipment are in-place and available in proper place as per company procedures.



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Knowledge & Understanding

The candidate must be able to demonstrate underpinning knowledge and understanding required to carry out the tasks covered in this competency standard. This includes the knowledge of:

- Importance of using Personal Protective Equipment (PPE)
- Organizational health and safety procedures
- Protective clothing and equipment to be worn and where it can be obtained.
- Recommended procedure for cleaning and storing of tools and equipment at workplace
- Safely maintaining the PPEs
- Techniques and methods to control risks of identified hazards in the workplace
- Types of PPE
- Work safety procedures and guidelines
- Health and safety

Critical Evidence(s) Required

The candidate needs to produce following critical evidence(s) in order to be competent in this competency standard:

- Explain types and uses of PPEs used in shoe manufacturing
- Demonstrate use of PPEs during finishing process



Competency Standard B: Develop Professionalism 0723 FWM02B

Overview: This competency standard identifies the competencies you need to prepare leather outsole operations using different tools and equipment in accordance with approved procedures. You will be expected to perform Communication with others, up-grade professional skills and work in a team. Your underpinning knowledge will be sufficient to provide you the basis for your work.

Competency Units	Performance Criteria
<p>B1. Perform Communication with others</p>	<p>P1. Communicate with supervisor following communication procedure</p> <p>P2. Communicate with colleagues following communication procedure</p> <p>P3. Use media to communicate effectively (e.g: email, telephone, computer etc.)</p>
<p>B2. Up-grade Professional skills</p>	<p>P1. Participate in Skill test for professional development</p> <p>P2. Attend seminars / training / skill up-gradation workshops for professional development</p> <p>P3. Adopt upcoming market trends in respective trade</p> <p>P4. Follow organizational policies (SOPs) for professional development</p>
<p>B3. Work in a team</p>	<p>P1. Demonstrate good team work skills including</p> <ul style="list-style-type: none"> • Cooperation/coordination • Work ethics • Etiquettes/manners <p>P2. Adopt dress code as per SOPs</p> <p>P3. Show comfort and tolerance.</p>



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Knowledge & Understanding

The candidate must be able to demonstrate underpinning knowledge and understanding required to carry out the tasks covered in this competency standard. This includes the knowledge of:

- Describe the benefits of latest machining techniques and developments
- Describe the importance of being a good team player
- Identify factors required to communicate effectively and precisely within organization
- Identify the need of skillsets by getting involved in seminars, workshops and competitions.
- Justify the appropriate use of electronic and relative media as per need
- Knowledge of technical English

Critical Evidence(s) Required

The candidate needs to produce following critical evidence(s) in order to be competent in this competency standard:

- Perform communication in a given environment



Competency Standard C: Perform Manipulation / Cutting Operations
0723FWM02C

Overview: This competency standard identifies the competencies you need to perform manipulation / Cutting operations using different tools and equipment in accordance with approved procedures. You will be expected to perform hand cutting as per approved sample, perform Machine cutting as per approved sample, perform skiving as per specifications, perform splitting as per specifications, perform stamping / embossing, perform screen printing, perform marking, perform edge coloring, perform crimping operation, perform quality assurance and finalize plan quantity as per work ticket. Your underpinning knowledge will be sufficient to provide you the basis for your work.

Competency Units	Performance Criteria
C1. Perform hand cutting as per approved sample	P1. Collect work ticket P2. Check Material as per approved sample P3. Check cutting pads P4. Check sharpness of hand cutters P5. Check cleanliness P6. Check hand cutting templates P7. Carry out single layer cutting P8. Set layers P9. Carry out multilayer cutting
C2. Perform Machine cutting as per approved sample	P1. Collect work ticket P2. Check Material as per approved sample P3. Check knives as per pattern P4. Check punch P5. Check cleanliness



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	<p>P6. Check clicking press</p> <p>P7. Adjust clickers</p> <p>P8. Adjust strokes</p> <p>P9. Adjust laser machine</p> <p>P10. Carry out single layer cutting</p> <p>P11. Set layers</p> <p>P12. Carry out multilayer cutting</p>
C3. Perform skiving as per specifications	<p>P1. Adjust skiving machine</p> <p>P2. Adjust angle of skiving machine</p> <p>P3. Skive as per skiving chart</p>
C4. Perform splitting as per specifications	<p>P1. Adjust split machine</p> <p>P2. Carry out splitting as per specification</p>
C5. Perform stamping / embossing	<p>P1. Arrange stamping / embossing material as per requirement</p> <p>P2. Adjust stamping / embossing machine</p> <p>P3. Perform stamping / embossing as per sample</p>
C6. Perform screen printing	<p>P1. Arrange printing material as per requirement</p> <p>P2. Arrange screen</p> <p>P3. Adjust screen pattern as per requirement</p> <p>P4. Carry out screen printing</p>
C7. Perform marking	<p>P1. Arrange marking material as per requirement</p> <p>P2. Arrange marking templates</p> <p>P3. Adjust marking machine</p> <p>P4. Carry out marking</p>
C8. Perform edge coloring	<p>P1. Arrange edge color as per requirement</p> <p>P2. Carry out edge coloring by hand</p> <ul style="list-style-type: none"> • By Brush • By foam • By dipping



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	P3. Carry out edge coloring by spray gun
C9. Perform crimping operation	P1. Arrange crimping material as per specification P2. Paste crimping cloth as per requirement P3. Adjust crimping machine P4. Carry out crimping as per requirement P5. Carry out cooling process P6. Re-cut as per requirement
C10. Perform quality assurance	P1. Verify compliance of sample <ul style="list-style-type: none"> • Thickness of material • Color • Embossing • Stamping • Printing • Cutting edges • Short cutting • Material defects • Material directions P2. Identify faults P3. Report to concerned person
C11. Finalize plan quantity as per work ticket	P1. Collect work ticket P2. Carry out pair wise counting P3. Group pairs as per requirement

Knowledge & Understanding

The candidate must be able to demonstrate underpinning knowledge and understanding required to carry out the tasks covered in this competency standard. This includes the knowledge of:



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- Basic numeracy
- Color dyes
- Color matching techniques
- Colors combination
- Crimping materials
- Cutting materials / components
- Different sizes and sizing system
- Handling of materials
- Laser cutting
- Layers preparation
- Marking patterns
- Marking techniques (skin and chalk)
- Material directions
- Methods of cutting
- Methods of stamping / embossing
- Parts of shoes
- Press beam height
- Process of cutting
- Skiving chart
- Specification / standards / approved sample
- Splitting specification chart
- Types and parts of shoes
- Types and uses of cutting boards
- Types and uses of cutting dies
- Types and uses of cutting machines
- Types and uses of cutting pads
- Types and uses of knives
- Types and uses of lubricants



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- Types and uses of skiving machines
- Types and uses of splitting machines
- Types and uses of Stamping / embossing machine
- Types and uses Plotter
- Types of coloring materials
- Types of cutting
- Types of cutting faults and parts
- Types of defects
- Types of material
- Types of screen printing
- Types of screen printing materials
- Types of Stamping / embossing materials
- Use of marking machine
- Uses of crimping machine
- Uses of marking riffles
- Uses of spray guns
- Work ticket

Critical Evidence(s) Required

The candidate needs to produce following critical evidence(s) in order to be competent in this competency standard:

- Perform interlocking of upper components on leather / printed skin as per design
- Cut vamp and quarter components by hand as per design
- Cut vamp and quarter components by using cutting machine as per design
- Perform skiving of at least two upper components as per instruction
- Explain importance of marking on upper components



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- Explain at least five leather defects
- Explain sizing system





Competency Standard D: Prepare Molded Outsole 0723FWM02D

Overview: This competency standard identifies the competencies you need to prepare molded outsole operations using different tools and equipment in accordance with approved procedures. You will be expected to prepare Thermo Plastic Rubber (TPR) / Poly Vinyl Chloride (PVC) outsole of shoe, prepare Polyurethane (PU) outsole of shoe and prepare rubber outsole of shoe. Your underpinning knowledge will be sufficient to provide you the basis for your work.

Competency Units	Performance Criteria
D1. Prepare Thermo Plastic Rubber (TPR) / Poly Vinyl Chloride (PVC) outsole of shoe	P1. Arrange outsole material as per requirements P2. Adjust TPR / PVC machine as per requirements P3. Adjust molds on machine as per requirement P4. Feed soling material into the machine hopper P5. Inject material into the mold P6. Pull out the outsole from the mold P7. Remove excess material / Spew from outsole
D2. Prepare Polyurethane (PU) outsole of shoe	P1. Arrange outsole material as per requirements P2. Adjust PU machine as per requirements P3. Adjust molds on machine as per requirement P4. Feed soling material into the machine tanks P5. Spray the releasing agent and clean P6. Pour / inject material into the mold P7. Pull out the outsole from the mold P8. Remove excess material / Spew from outsole
D3. Prepare rubber outsole of shoe	P1. Arrange rubber material as per requirements P2. Weigh materials as per recipe



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	<p>P3. Mix materials as per recipe</p> <p>P4. Pull out rubber sheets as required</p> <p>P5. Cut material blanks as required</p> <p>P6. Adjust rubber machine as per requirements</p> <p>P7. Adjust molds on machine as per requirement</p> <p>P8. Put blanks in the molds</p> <p>P9. Carry out sole pressing</p> <p>P10. Pull out the outsole from the machine</p> <p>P11. Remove excess material / Spew from outsole</p>
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Knowledge & Understanding

The candidate must be able to demonstrate underpinning knowledge and understanding required to carry out the tasks covered in this competency standard. This includes the knowledge of:

- Types and uses of head cleaner
- Types and uses of mold cleaner
- Types and uses of molding machine
- Types and uses of molding materials
- Types and uses of molding press
- Types and uses of PU materials
- Types and uses of PU molding machine
- Types and uses of rubber materials
- Types and uses of rubber mixing machine
- Types and uses of trimming machine
- Types and uses release agents'
- Uses of cutting press
- Uses of pulling tools



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Critical Evidence(s) Required

The candidate needs to produce following critical evidence(s) in order to be competent in this competency standard:

- Prepare complete sole as per simple design
- Finish the leather sole as per design
- Explain process of measuring thickness of sole



Competency Standard E: Perform Insole Making 0723FWM02E

Overview: This competency standard identifies the competencies you need to perform insole making operations using different tools and equipment in accordance with approved procedures. You will be expected to prepare Insole by hand, perform cutting of insole by machine, perform stamping, perform shank board skiving, perform grooving, attach shank with back part, perform insole joining, perform beveling on feather line of insole, perform Insole molding / shaping and perform insole covering. Your underpinning knowledge will be sufficient to provide you the basis for your work.

Competency Units	Performance Criteria
E1. Prepare Insole by hand	P1. Arrange hand tools and equipment as per requirement P2. Clean hand tools and equipment properly P3. Draw the insole pattern pair wise with cutting direction P4. Draw the half insole pattern pair wise with cutting direction P5. Cut the insole as per design P6. Cut the half insole/shank board P7. Attach the shank at half insole / shank board with rivets accurately P8. Apply adhesive on insole and shank board P9. Put the shank between insole and shank board P10. Make bundles size wise
E2. Perform cutting of insole by machine	P1. Collect work ticket P2. Check Material as per approved sample P3. Check cutting board



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	<p>P4. Check sharpness of dies</p> <p>P5. Check cleanliness for workplace</p> <p>P6. Adjust cutting press</p> <p>P7. Carry out cutting in correct direction</p>
E3. Perform Stamping	<p>P1. Arrange stamping material as per requirement</p> <p>P2. Adjust stamping machine</p> <p>P3. Carry out stamping as per sample</p> <p>P4. Carry out pair wise counting</p> <p>P5. Group pairs as per requirement</p>
E4. Perform Shank Board Skiving	<p>P1. Adjust skiving machine</p> <p>P2. Adjust angle of skiving machine</p> <p>P3. Carry out skiving as per skiving chart</p>
E5. Perform grooving	<p>P1. Adjust grooving machine</p> <p>P2. Carry out grooving as required</p>
E6. Attach shank with back part	<p>P1. Apply adhesives on back part of insole as required</p> <p>P2. Apply riveting on hole of shank as per design</p>
E7. Perform insole joining	<p>P1. Apply adhesives on back part and fore part of insole as required</p> <p>P2. Attach fore and back part of insole as per design</p> <p>P3. Press the joint of insole as required</p>
E8. Perform beveling on feather line of insole	<p>P1. Adjust beveling machine</p> <p>P2. Carry out beveling as required</p> <p>P3. Carry out beveling on machine</p>
E9. Perform Insole Molding / shaping	<p>P1. Adjust the mold as required</p> <p>P2. Adjust pressure as per materials requirement</p> <p>P3. Adjust time as required</p> <p>P4. Carry out insole molding /shaping</p>
E10. Perform insole covering	<p>P1. Arrange cut insole as required</p>



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	<p>P2. Apply adhesives on insole, covering and comfort components</p> <p>P3. Join components</p> <p>P4. Fold covering by hand</p> <p>P5. Fold covering by machine</p>
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Knowledge & Understanding

The candidate must be able to demonstrate underpinning knowledge and understanding required to carry out the tasks covered in this competency standard. This includes the knowledge of:

- Area of shank attachment
- Controlling the waste of material
- Cutting materials / components
- Different sizes and sizing system
- Direction of cutting from Tight to Toe
- Functioning of tools and equipment
- Functions of covering and drying conveyer machines
- Handling of materials
- Insole material
- Insole pattern
- Material directions
- Methods of cutting
- Pair wise cutting
- Proper use of hand tools and equipment
- Quality of insole material
- Safety rules
- Sizing assortment



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- Skiving chart
- Techniques of beveling
- Techniques of insole making by hand
- Techniques of insole making by machine
- Techniques of joining fore and back part of insole
- Thickness of material
- Types and parts of shoes
- Types and uses of adhesives
- Types and uses of cutting pads
- Types and uses of insole material
- Types and uses of knives
- Types and uses of materials
- Types and uses of molding press
- Types and uses of molds
- Types and uses of shank materials
- Types and uses of skiving machine
- Types of cutting
- Types of defects
- Uses of adhesives
- Uses of beveling machine
- Uses of grooving machine
- Uses of riveting
- Uses of stamping machine
- Uses of stamping material
- Work ticket



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Critical Evidence(s) Required

The candidate needs to produce following critical evidence(s) in order to be competent in this competency standard:

- Prepare complete insole with shank as per design
- Explain types and uses of insole materials



Competency Standard F: Prepare Leather Outsole 0723FWM02F

Overview: This competency standard identifies the competencies you need to prepare leather outsole operations using different tools and equipment in accordance with approved procedures. You will be expected to perform cutting of outsole material, perform sole splitting, perform sole buffing / snuffing as required, perform roughing of heel part of outsole, perform grooving / channel making of outsole, join welt on sole, perform embossing of outsole, perform pre-finishing of outsole, prepare heel, perform heel shaping, perform pre-finishing of heel, perform assembly of heel and sole and perform sole finishing. Your underpinning knowledge will be sufficient to provide you the basis for your work.

Competency Units	Performance Criteria
F1. Perform cutting of outsole material	P1. Collect work ticket P2. Arrange sole materials as per requirement P3. Check Material as per approved sample P4. Check cutting board P5. Check sharpness of cutting knives P6. Check cleanliness of workplace and tools P7. Adjust cutting press P8. Cut leather, heel top and heel lifts as per design P9. Cut welt as per design
F2. Perform sole splitting	P1. Adjust splitting machine P2. Split the sole as per requirement
F3. Perform sole buffing / snuffing as required	P1. Adjust buffing machine (emery paper / belt) P2. Buff the grain area of outsole
F4. Perform roughing of heel part of outsole	P1. Adjust the roughing machine P2. Mark the heel area with patterns on sole



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	P3. Rough the heel area with machine
F5. Perform grooving / channel making of outsole	P1. Adjust grooving machine P2. Groove outsole
F6. Join welt on sole	P1. Apply primer on welt as required P2. Apply adhesives on sole and welt P3. Join welt on sole after reactivation of sole P4. Press welt on sole P5. Put pressed sole in to the chiller
F7. Perform embossing of outsole	P1. Adjust the embossing machine P2. Emboss logo, size and design as per requirement
F8. Perform pre-finishing of outsole	P1. Arrange finishing dyes P2. Adjust pressure of spray guns P3. Apply the finishing spray on the sole P4. Adjust the speed of buffing machine P5. Finish the sole with the help of waxes P6. Apply finishing cream as per requirement P7. Finish the sole with the help of waxes
F9. Prepare heel	P1. Apply adhesives on both sides of heel lifts P2. Join the heel lifts after reactivation of adhesives P3. Press heel P4. Apply primer on heel top piece P5. Apply adhesive on heel top and heel P6. Join the heel top with heel after reactivation of adhesive P7. Press heel
F10. Perform heel shaping	P1. Adjust the inclination machine P2. Make inclination of heel P3. Adjust the arc machine



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	<p>P4. Make the arc of the heel</p> <p>P5. Adjust the coupling machine</p> <p>P6. Make the coupling of heel</p> <p>P7. Adjust the heel rounding machine as per requirement</p> <p>P8. Round the heel as per requirement</p>
F11. Perform pre-finishing of heel	<p>P1. Apply dyes on arc area of the heel</p> <p>P2. Finish the arc area of heel</p>
F12. Perform assembly of heel and sole	<p>P1. Apply adhesives on heel part of sole</p> <p>P2. Apply primer on heel as per requirement</p> <p>P3. Apply adhesive on heel</p> <p>P4. Adjust the temperature of heat chamber</p> <p>P5. Join heel with sole after reactivating the adhesives</p> <p>P6. Adjust pressure and time of press</p> <p>P7. Press heel with the sole</p> <p>P8. Apply nailing / stapling</p> <p>P9. Adjust the side wall roughing machine</p> <p>P10. Carry out side wall roughing on heel</p>
F13. Perform sole finishing	<p>P1. Finalize the welt finish with sole</p> <p>P2. Apply dyes on edge and heel area on the sole</p> <p>P3. Finish the sole with waxes / creams</p>

Knowledge & Understanding

The candidate must be able to demonstrate underpinning knowledge and understanding required to carry out the tasks covered in this competency standard. This includes the knowledge of:

- Cutting presses
- Cutting tools



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- Types and uses of embossing machine
- Types and uses of adhesives and primer
- Types and uses of arc machine
- Types and uses of buffing machines
- Types and uses of chiller
- Types and uses of coupling machine
- Types and uses of dies
- Types and uses of emery paper / belt
- Types and uses of finishing material
- Types and uses of grooving knives
- Types and uses of grooving machines
- Types and uses of heating chamber
- Types and uses of heel materials
- Types and uses of inclination machine
- Types and uses of nailing machine
- Types and uses of nails
- Types and uses of press
- Types and uses of roughing machines
- Types and uses of rounding machine
- Types and uses of sole leather, heel top, heel lifts and welt materials
- Types and uses of soling materials
- Types and uses of splitting machine
- Types and uses of spray guns
- Types and uses of welt materials
- Uses of thickness gauge meter



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Critical Evidence(s) Required

The candidate needs to produce following critical evidence(s) in order to be competent in this competency standard:

- Perform Toe lasting by hand as per design
- Attach sole with lasted upper as per design
- Explain the importance of Back Height



Competency Standard G: Perform Stitching 0723FWM02G

Overview: This competency standard identifies the competencies you need to perform stitching operations using different tools and equipment in accordance with approved procedures. You will be expected to check approved sample for stitching, arrange material for upper stitching, perform interlining with fusing press on upper components, prepare components for fitting and folding, perform folding components as per requirement, perform fitting and punching of components as per article requirements, perform stitching with machine, perform hand stitching, perform binding stitching, perform String Stitching, perform Insole sock strobel with Upper, perform zigzag stitching, perform cording stitching, perform eyeleting / hooking, perform upper sealing as per requirement, perform upper trimming, apply toe puff material, perform toe shaping, place stiffener on back counter, perform final edge coloring, perform thread cleaning and perform quality assurance. Your underpinning knowledge will be sufficient to provide you the basis for your work.

Competency Units	Performance Criteria
G1. Check approved sample for stitching	P1. Arrange approved sample P2. Arrange show board P3. Check compliance of work ticket as per approved sample
G2. Arrange material for upper stitching	P1. Arrange upper, lining and interlining cutting components P2. Arrange threads, adhesives, reinforcement tapes etc. as per requirement
G3. Perform interlining with fusing press on upper components	P1. Adjust temperature P2. Adjust pressure P3. Adjust time



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	P4. Attach interlining on upper components as per requirement
G4. Prepare components for fitting and folding	P1. Apply adhesives by hand P2. Apply adhesives by machine P3. Attach reinforcement tape by hand P4. Attach reinforcement tape by machine
G5. Perform folding components as per requirement	P1. Fold components by hand P2. Fold components by machine
G6. Perform fitting and punching of components as per article requirements	P1. Fit vamp and toe piece P2. Fit quarters with back counter P3. Attach foam with components as per design P4. Fit decorative material by hand P5. Fit decorative material by machine P6. Make punches by hand as required P7. Fit quarters with vamp P8. Fit tongue piece with lining P9. Fit lining quarters with heel grip P10. Fit quarters and vamp lining P11. Fit lining with the upper P12. Fit tongue piece with upper
G7. Perform stitching with machine	P1. Adjust stitching machine as per requirement P2. Oil the machine as per requirement P3. Clean the stitching machine P4. Check functioning of machine on rough material P5. Stitch components with close seam P6. Stitch components with lapped seam P7. Stitch components with brooklyn seam P8. Stitch components with decorative seam



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	<p>P9. Stitch components with lock stitch</p> <p>P10. Stitch components with chain stitch</p> <p>P11. Stitch the sock</p> <p>P12. Stitch the brand label</p>
G8. Perform hand stitching	<p>P1. Arrange hand stitching material</p> <p>P2. Arrange hand stitching needle</p> <p>P3. Hand stitch upper as per sample requirement</p> <p>P4. Carry out decoration stitch on upper</p> <p>P5. Attach mudguard and apron with hand stitch</p>
G9. Perform binding stitching	<p>P1. Arrange binding material</p> <p>P2. Adjust binding stitching machine as per requirement</p> <p>P3. Oil the machine as per requirement</p> <p>P4. Clean the stitching machine</p> <p>P5. Check functioning of machine on rough material</p> <p>P6. Carry out binding stitching as per requirement</p> <p>P7. Carry out French binding as per design</p> <p>P8. Carry out U binding as per design</p> <p>P9. Carry out piped seam</p>
G10. Perform String Stitching	<p>P1. Count the quantity of upper pair wise</p> <p>P2. Prepare machine with thread and string</p> <p>P3. Start the string stitch for lasting</p> <p>P4. Start stitching from inside of edge upper towards the toe for lasting</p> <p>P5. Carry out round stitching from heel and go through the toe point for double stitch</p> <p>P6. Complete the edge stitching of upper at outside point, parallel of inside stitching point</p> <p>P7. Cut the stitching thread after required extra</p>



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	thread
G11. Perform Insole Sock Strobel with Upper	<p>P1. Keep size wise upper and insole for joining</p> <p>P2. Threading the thread for stitching</p> <p>P3. Place upper and insole at machine table for stitching</p> <p>P4. Align the upper and insole edges according to marking points for stitching</p> <p>P5. Start stitching from inside of edge upper and insole towards the toe for joining</p> <p>P6. Stitch the notch of upper and insole edge properly one by one</p> <p>P7. Complete the edge stitching of upper & insole around the outside of upper at start point</p> <p>P8. Remove the extra stitching thread from upper</p> <p>P9. Pack the Strobel upper in polythene bag size wise</p>
G12. Perform zigzag stitching	<p>P1. Adjust zigzag stitching machine as per requirement</p> <p>P2. Oil zigzag machine as per requirement</p> <p>P3. Clean the zigzag stitching machine</p> <p>P4. Check functioning of zigzag machine on rough material</p> <p>P5. Carry out zigzag stitching as per requirement</p>
G13. Perform cording stitching	<p>P1. Adjust cording stitching machine as per requirement</p> <p>P2. Oil cording machine as per requirement</p> <p>P3. Clean the cording stitching machine</p> <p>P4. Check functioning of cording machine on rough material</p>



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	P5. Carry out cording stitching as per requirement
G14. Perform eyeleting / hooking	P1. Adjust machine as per requirement P2. Oil machine as per requirement P3. Clean the machine P4. Check functioning of machine on rough material P5. Carry out eyeleting / hooking by machine P6. Punch components by hand as required P7. Carry out eyeleting / hooking by hand
G15. Perform upper sealing as per requirement	P1. Arrange sealing material P2. Arrange components for sealing P3. Adjust machine temperature P4. Adjust machine pressure P5. Apply the sealing tape on components
G16. Perform upper trimming	P1. Trim excess material by hand P2. Trim excess material by machine
G17. Apply toe puff material	P1. Arrange material as required P2. Apply toe puff by hand P3. Apply toe puff by machine
G18. Perform toe shaping	P1. Arrange upper for toe shaping P2. Adjust shaping machine as required P3. Adjust temperature (hot and cold) P4. Adjust pressure P5. Adjust time P6. Carry out toe shaping
G19. Place stiffener on back counter	P1. Arrange material as required P2. Insert stiffener between upper and lining
G20. Perform final edge coloring	P1. Arrange edge color as per requirement P2. Carry out edge coloring by hand By Brush



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	By foam
G21. Perform thread cleaning	P1. Pull extra thread on back side of upper P2. Cut extra thread as required P3. Burn thread as required P4. Clean upper as required
G22. Perform quality assurance	P1. Verify compliance of sample <ul style="list-style-type: none">• Thickness of material• Color• Embossing• Stamping• Printing• Cutting edges• Short cutting• Material defects• Material directions P2. Identify faults P3. Report to concerned person

Knowledge & Understanding

The candidate must be able to demonstrate underpinning knowledge and understanding required to carry out the tasks covered in this competency standard. This includes the knowledge of:

- Basic numeracy
- Decorative materials
- Fitting techniques
- functions of fusing press machine
- Importance of oiling the machine



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- Inside & outside of upper
- Inside and outside of upper
- Materials of thread
- Methods of edge coloring
- Oiling the machine
- Process of cutting
- Punching techniques
- Shoe components
- Shoe material
- Shoe Sizes
- Sizing notches
- Sizing system
- SOPs for trimming
- Specification / standards / approved sample
- Techniques of fitting and folding of components
- Techniques of trimming
- Thread pulling
- Threading
- Threading techniques
- Types and parts of shoe
- Types and uses of adhesives
- Types and uses of adhesives machine
- Types and uses of binding machines
- Types and uses of eyeleting machines
- Types and uses of eyelets / hooks
- Types and uses of folding machine
- Types and uses of lubricants
- Types and uses of reinforcement materials



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- Types and uses of reinforcement tape
- Types and uses of sealing machine
- Types and uses of sealing materials
- Types and uses of stiffener materials
- Types and uses of stitching machines
- Types and uses of threads and needles
- Types and uses of toe puff machines
- Types and uses of toe puff materials
- Types and uses of toe shaping machines
- Types and uses of toe shaping materials
- Types of binding
- Types of binding materials
- Types of cutting faults and parts
- Types of lubricants
- Types of needles and threads
- Types of seams
- Types of stitches
- Types of stitching materials
- Upper, lining and interlining material
- Uses of show board
- Uses of spray guns
- Work ticket

Critical Evidence(s) Required

The candidate needs to produce following critical evidence(s) in order to be competent in this competency standard:



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- Explain types of needle and threads for stitching upper
- Stitch upper as per design
- Perform oiling of flat-bed stitching machine and explain the importance of oiling
- Explain sizing system



Competency Standard H: Perform Flat Lasting by Machine 0723FWM02A

Overview: This competency standard identifies the competencies you need to perform flat lasting with machine operations using different tools and equipment in accordance with approved procedures. You will be expected to attach Insole with Last, perform Back Counter Molding as per requirement, perform Upper blocking, perform toe activation, perform toe/forepart lasting, perform side lasting, perform Heel lasting, perform heel edge rounding, perform nail pulling as per requirement, perform Wrinkle Chasing, perform bottom roughing, perform sole roughing/ priming, perform sole attaching, perform De-lasting and perform sole stitching. Your underpinning knowledge will be sufficient to provide you the basis for your work.

Competency Units	Performance Criteria
H1. Attach Insole with Last	<p>P1. Collect work ticket</p> <p>P2. Arrange material for insole attaching</p> <p>P3. Check the profile of last and insole</p> <p>P4. Put insole on last for insole attaching</p> <p>P5. Apply Nail / staple pins / adhesive at the proper place of last hole</p> <p>P6. Place on lasting conveyer for next operation</p>
H2. Perform Back Counter Molding as per requirement	<p>P1. Match the shape of back mold and last as per specification</p> <p>P2. Adjust the selected back mold at machine for back shaping</p> <p>P3. Insert stiffener on back counter between upper and lining as per requirement</p> <p>P4. Adjust the required temperature, pressure and time of machine</p>



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	<p>P5. Adjust the flash light on mold</p> <p>P6. Adjust the upper on hot mold</p> <p>P7. Start back counter molding</p> <p>P8. Remove upper from hot mold</p> <p>P9. Place upper on cold Mold as per required size and side</p> <p>P10. Remove the upper from cold Mold</p> <p>P11. Check the quality of upper lining counter for burnt material</p> <p>P12. Check the upper surface from back part for mold mark / finishing</p>
H3. Perform Upper Blocking	<p>P1. Adjust temperature, pressure and time of blocking machine</p> <p>P2. Check the upper condition and design for shaping</p> <p>P3. Check the blocking mold for proper shaping</p> <p>P4. Adjust the upper as per requirement</p> <p>P5. Remove upper from machine after blocking</p>
H4. Perform Toe Activation	<p>P1. Insert the toe puff into upper and lining at fore part as required</p> <p>P2. Adjust the machine heat, steam and time for toe puff activation</p> <p>P3. Apply softener on fore part of upper as required</p> <p>P4. Put the upper into toe activation machine</p> <p>P5. Remove the upper from machine</p>
H5. Perform Toe/Forepart Lasting	<p>P1. Adjust temperature, time and pressure of toe lasting machine</p> <p>P2. Adjust pincers and plate of machine as required</p> <p>P3. Adjust adhesive quantity as required</p> <p>P4. Insert the temporary lace in upper as per</p>



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	<p>requirement</p> <p>P5. Adjust the upper on last as per requirement</p> <p>P6. Operate the pincers for catching the upper</p> <p>P7. Operate the pincers for proper upper pulling</p> <p>P8. Operate the toe lasting machine for adhesive application</p> <p>P9. Remove the upper from machine after toe lasting</p>
H6. Perform Side Lasting	<p>P1. Apply adhesive at side lasting allowance of upper and insole</p> <p>P2. Adjust the upper at last back height mark</p> <p>P3. Fix the back height with nail as per requirement</p> <p>P4. Complete side lasting by lasting pincer pulling sides of upper on insole and fixing</p> <p>P5. Complete side lasting with machine as per requirement</p>
H7. Perform Heel Lasting	<p>P1. Adjust machine as per upper material requirement</p> <p>P2. Adjust lasted upper in heel lasting machine</p> <p>P3. Operate the machine for heel lasting</p> <p>P4. Remove lasted upper from heel lasting machine</p> <p>P5. Check the wrinkle at heel seat</p> <p>P6. Hammer the feather line for accuracy of back counter area as per requirement</p>
H8. Perform Heel Edge Rounding	<p>P1. Adjust the temperature and pressure of machine as per upper material</p> <p>P2. Adjust the working tools of machine as per last requirement</p> <p>P3. Operate the machine for heel edge rounding</p> <p>P4. Place the lasted upper at lasting conveyor properly</p>
H9. Perform nail pulling as	<p>P1. Remove nail from heel and insole</p>



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per requirement	<p>P2. Hammer nailing area</p> <p>P3. Put upper in heat setting chamber</p>
H10. Perform Wrinkle Chasing	<p>P1. Adjust the temperature of wrinkle chasing machine for upper wrinkle removing</p> <p>P2. Apply softener by spray / shower at upper as required</p> <p>P3. Keep the lasted upper under wrinkle chasing machine for removing the wrinkle</p>
H11. Perform Bottom Roughing	<p>P1. Mark the area of upper for roughing as per requirement</p> <p>P2. Rough upper using roughing machine</p> <p>P3. Scour upper using wire brush</p> <p>P4. Clean the dust from the upper</p> <p>P5. Clean the upper with identified primer as per requirement</p>
H12. Perform Sole Roughing / Priming	<p>P1. Check the sole material for roughing if required</p> <p>P2. Carry out scouring the sole as per requirement</p> <p>P3. Remove dust from sole as per requirement</p> <p>P4. Select the primer according to sole material for activation as per requirement</p> <p>P5. Prepare the primer according to the formulation as per requirement</p> <p>P6. Apply the primer on sole as per requirement</p>
H13. Perform Sole Attaching	<p>P1. Select adhesive for identified lasted upper and sole</p> <p>P2. Measure the adhesive and hardener as per standards</p> <p>P3. Mix the hardener in required adhesive properly</p> <p>P4. Apply the adhesive on sole</p> <p>P5. Apply the adhesive on bottom side upto marked</p>



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	<p>area of lasted upper</p> <p>P6. Put filler on insole / lasted upper</p> <p>P7. Adjust temperature and time for the drying chamber</p> <p>P8. Put lasted upper and sole in forced drying chamber</p> <p>P9. Adjust temperature and time for the re-activation</p> <p>P10. Re-activate the sole and lasted upper in heat activator</p> <p>P11. Adjust press pressure and time as required</p> <p>P12. Attach the sole with lasted upper</p> <p>P13. Place the attached sole upper in sole press machine properly</p> <p>P14. Operate sole pressing machine for proper attaching</p> <p>P15. Place the attached sole shoe in cooling chamber for plasticity</p> <p>P16. Clean the over adhesive on the upper</p>
H14. Perform De-Lasting	<p>P1. Cut temporary laces as required</p> <p>P2. Put the shoe on de-lasting stand (Machine)</p> <p>P3. De-last the shoe from last by pulling</p> <p>P4. Check the inside of shoe for nails</p>
H15. Perform Sole Stitching	<p>P1. Adjust the machine</p> <p>P2. Apply the oil on thread for smooth stitching as required</p> <p>P3. Stitch the sole as per requirement</p> <p>P4. Pull and trim the extra thread correctly</p>



Knowledge & Understanding

The candidate must be able to demonstrate underpinning knowledge and understanding required to carry out the tasks covered in this competency standard. This includes the knowledge of:

- Back height size wise
- Bottom plugs of last
- Feather line of last
- Leveling of feather line
- Nail removing
- Quality Standards
- Safety rules
- Techniques of bottom roughing
- Techniques of insole fixing
- Techniques of nail pulling
- Types and use of edge rounding machine
- Types and uses of adhesives
- Types and uses of blocking machine
- Types and uses of bottom roughing machine
- Types and uses of de lasting machine
- Types and uses of heel lasting machine
- Types and uses of hot melt adhesives
- Types and uses of marking material
- Types and uses of related primer
- Types and uses of side lasting machine
- Types and uses of sizing system
- Types and uses of sole materials



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- Types and uses of sole pressing machine
- Types and uses of sole roughing machine
- Types and uses of sole stitching machine
- Types and uses of stiffener materials
- Types and uses of toe activator
- Types and uses of toe lasting machine
- Types and uses of toe puff materials
- Types and uses of upper materials
- Types and uses of wrinkle chasing machine
- Types of needles
- Types of stitch
- Uses of Inverted staple machine

Critical Evidence(s) Required

The candidate needs to produce following critical evidence(s) in order to be competent in this competency standard:

- Perform Toe lasting by machine as per design
- Attach sole with lasted upper as per design
- Explain the importance of Back Height
- Explain types of lasting adhesives



Competency Standard I: Perform Mold Lasting

Overview: This competency standard identifies the competencies you need to perform mold lasting operations using different tools and equipment in accordance with approved procedures. You will be expected to perform back counter molding, perform pre-forming, insert The last/mold as required, perform toe/forepart lasting as required, perform side lasting as required, perform heel lasting as required, perform bottom roughing, perform sole direct molding, perform de-lasting and perform sole stitching. Your underpinning knowledge will be sufficient to provide you the basis for your work.

Competency Units	Performance Criteria
I1. Perform Back Counter Molding	<p>P1. Match the shape of back mold and last as per specification</p> <p>P2. Adjust the selected back mold at machine for back shaping</p> <p>P3. Insert stiffener on back counter between upper and lining as per requirement</p> <p>P4. Adjust the required temperature, pressure and time of machine</p> <p>P5. Adjust the flash light on mold</p> <p>P6. Adjust the upper on hot mold</p> <p>P7. Start back counter molding</p> <p>P8. Remove upper from hot mold</p> <p>P9. Place upper on cold Mold as per required size and side</p> <p>P10. Remove the upper from cold Mold</p> <p>P11. Check the quality of upper lining counter for burnt material</p>



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	<p>P12. Check the upper surface from back part for mold mark / finishing</p>
<p>I2. Perform Pre-forming</p>	<p>P1. Arrange the upper size wise according to the Mold at pre-forming machine</p> <p>P2. Adjust mold lengths size wise</p> <p>P3. Spray the softener at stitched upper for mulling as per requirement</p> <p>P4. Place the upper on steam station for mulling as per requirement</p> <p>P5. Hold the upper from steam station</p> <p>P6. Adjust temperature of pre-forming machine as per requirement</p> <p>P7. Push the button of pre-forming machine for reducing the size of Mold as per requirement</p> <p>P8. Set the upper at hot mold according to size for shaping / pre-forming</p> <p>P9. Hammer on wrinkles for shaping of upper</p> <p>P10. Push the button of pre-forming machine for reducing the size of Mold for removing the upper from mold</p> <p>P11. Use lever for 45° angle for apron shaping as per requirement</p> <p>P12. Remove the upper from Mold</p> <p>P13. Check the quality of pre-formed upper about wrinkle</p>
<p>I3. Insert The Last/Mold as required</p>	<p>P1. Measure size of pre-formed upper</p> <p>P2. Cover last/mold with polythene bag/talcum powder</p> <p>P3. Insert forepart of last/mold into preformed upper</p> <p>P4. Pull down upper from back side by shoe-horn</p>



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	<p>P5. Fix the back height with nail as per requirement</p> <p>P6. Insert last by machine as required</p> <p>P7. Hammer upper feather line as required</p> <p>P8. Check the quality of inserted last</p>
<p>14. Perform Toe/Forepart Lasting as required</p>	<p>P1. Adjust temperature, time and pressure of toe lasting machine</p> <p>P2. Adjust pincers and plate of machine as required</p> <p>P3. Adjust adhesive quantity as required</p> <p>P4. Insert the temporary lace in upper as per requirement</p> <p>P5. Adjust the upper on last as per requirement</p> <p>P6. Operate the pincers for catching the upper</p> <p>P7. Operate the pincers for proper upper pulling</p> <p>P8. Operate the toe lasting machine for adhesive application</p> <p>P9. Remove the upper from machine after toe lasting</p>
<p>15. Perform Side Lasting as required</p>	<p>P1. Apply adhesive at side lasting allowance of upper and insole</p> <p>P2. Adjust the upper at last back height mark</p> <p>P3. Fix the back height with nail as per requirement</p> <p>P4. Complete side lasting by lasting pincer pulling sides of upper on insole and fixing</p> <p>P5. Complete side lasting with machine as per requirement</p>
<p>16. Perform Heel Lasting as required</p>	<p>P1. Adjust machine as per upper material requirement</p> <p>P2. Adjust lasted upper in heel lasting machine</p> <p>P3. Operate the machine for heel lasting</p> <p>P4. Remove lasted upper from heel lasting machine</p> <p>P5. Check the wrinkle at heel seat</p>



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	<p>P6. Hammer the feather line for accuracy of back counter area as per requirement</p>
<p>17. Perform Bottom Roughing</p>	<p>P1. Mark the area of upper for roughing as per requirement</p> <p>P2. Check the upper material for roughing as per requirement</p> <p>P3. Rough upper using roughing machine</p> <p>P4. Scour upper using wire brush</p> <p>P5. Clean the dust from the upper</p> <p>P6. Clean the upper with identified primer as per requirement</p>
<p>18. Perform Sole Direct Molding</p>	<p>P7. Select adhesive for identified lasted upper</p> <p>P8. Apply the adhesive on upper marked area</p> <p>P9. Spray the releasing agent chemical for sole releasing</p> <p>P10. Inject sole material as required</p> <p>P11. Attach the lasted upper with bottom mold for soling</p> <p>P12. Place the attached sole with lasted upper in chiller for curing</p>
<p>19. Perform De-Lasting</p>	<p>P1. Cut temporary laces as required</p> <p>P2. Put the shoe on de-lasting stand (Machine)</p> <p>P3. De-last the shoe from last by pulling</p> <p>P4. Check the inside of shoe for nails</p>
<p>110. Perform Sole Stitching</p>	<p>P1. Adjust the machine</p> <p>P2. Apply the oil on thread for smooth stitching as required</p> <p>P3. Stitch the sole as per requirement</p> <p>P4. Pull and trim the extra thread correctly</p>



Knowledge & Understanding

The candidate must be able to demonstrate underpinning knowledge and understanding required to carry out the tasks covered in this competency standard. This includes the knowledge of:

- Back height
- Back height size wise
- Feather line of last
- Quality Standards
- Safety rules
- Techniques of nail removing
- Types and uses of upper material
- Types and uses of adhesives
- Types and uses of de lasting machine
- Types and uses of direct molding machine
- Types and uses of heel lasting machine
- Types and uses of hot melt adhesives
- Types and uses of last inserting machine
- Types and uses of pre forming machines
- Types and uses of roughing machine K2.
- Types and uses of side lasting machine
- Types and uses of sizing system
- Types and uses of sole stitching machine
- Types and uses of stiffener materials
- Types and uses of toe lasting machine
- Types and uses of upper and sole materials
- Types of needles



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- Types of stitch

Critical Evidence(s) Required

The candidate needs to produce following critical evidence(s) in order to be competent in this competency standard:

- Perform Heel lasting by machine as per design
- Perform preforming of upper for mold lasting as per design
- Perform upper roughing as per design
- Explain types and uses of soling material



Competency Standard J: Perform Flat Lasting by Hand

Overview: This competency standard identifies the competencies you need to perform flat lasting with hand operations using different tools and equipment in accordance with approved procedures. You will be expected to attach Insole with Last, apply Adhesive to Insole and Upper, perform toe puff & Stiffener, perform toe/forepart lasting, perform Side Lasting as per design, perform heel /back part lasting, perform Wrinkle Chasing as per requirement, perform Upper Bottom & sole roughing and priming, perform Sole attaching, perform De-lasting and perform sole stitching. Your underpinning knowledge will be sufficient to provide you the basis for your work.

Competency Units	Performance Criteria
J1. Attach Insole with Last	P1. Arrange hand lasting materials as required P2. Arrange the proper size of insole and last P3. Set the last on lasting jack for insole attaching P4. Hold insole with last by hand for nailing / adhesive / tape etc. P5. Apply Nail at the proper place of last hole P6. Hammer the insole at last for proper shaping
J2. Apply Adhesive to Insole and Upper	P1. Skive / rough the upper at inside P2. Clean the upper inside P3. Apply the primer on upper as required P4. Paste the contact adhesive on insole P5. Apply the adhesive upper inner side at lasting allowance P6. Place upper and insole to dry
J3. Perform Toe puff & Stiffener	P1. Dip toe puff & stiffener in the solvent as per requirement



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	<p>P2. Insert toe puff & stiffener in upper</p>
<p>J4. Perform Toe/Forepart lasting</p>	<p>P1. Insert the temporary lace in upper</p> <p>P2. Fasten the temporary lace as required</p> <p>P3. Place the upper on last properly</p> <p>P4. Fix upper at back height mark</p> <p>P5. Check balance / center of upper</p> <p>P6. Put the last peg hole at lasting stand</p> <p>P7. Fix upper for temporary nailing at heel side, side portion and fore part toe point</p> <p>P8. Re-check alignment and hammer the nail at forepart (vamp) area or instep point as required</p> <p>P9. Remove the temporary nail from fore part</p> <p>P10. Tight the forepart area with Lasting Pincer</p> <p>P11. Remove the extra upper material from toe part</p> <p>P12. Hammer the upper with insole</p>
<p>J5. Perform Side Lasting as per design</p>	<p>P1. Remove the nail from side area of last</p> <p>P2. Attach the upper to insole/bottom</p> <p>P3. Hammer the upper for proper fixing</p> <p>P4. Check ankle height / top line as per requirement</p>
<p>J6. Perform Heel / Back Part Lasting</p>	<p>P1. Remove the temporary nails from heel area</p> <p>P2. Remove the extra upper from bottom side</p> <p>P3. Measure the back height for proper balancing of shoe</p> <p>P4. Pull the upper material from heel portion</p> <p>P5. Attach the back-part upper on insole</p>
<p>J7. Perform Wrinkle Chasing as per requirement</p>	<p>P1. Apply softener to upper for wrinkle chasing</p> <p>P2. Heat the shoe upper by iron</p> <p>P3. Remove the wrinkle by iron</p> <p>P4. Heat upper on heater</p>



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	P5. Apply the iron at wrinkle area for wrinkle chasing
J8. Perform Upper Bottom & Sole Roughing and priming	<p>P1. Attach the filler according to design</p> <p>P2. Carry out roughing on bottom side as per requirement</p> <p>P3. Apply primer at upper and sole materials as per requirement</p> <p>P4. Carry out scouring according to the marked area of upper and sole as per requirement</p>
J9. Perform Sole Attaching	<p>P1. Remove dust / dirt / thread from lasted upper and sole as per requirement</p> <p>P2. Apply the adhesive at the surface of upper bottom and sole cavity</p> <p>P3. Adjust the temperature for lasted upper and sole as per requirement</p> <p>P4. Activate the sole and lasted upper bottom for attachment</p> <p>P5. Attach the sole with lasted upper</p> <p>P6. Press the sole by hand hammer / machine</p> <p>P7. Remove extra adhesive from sole edge</p>
J10. Perform De-Lasting	<p>P1. Remove the temporary lace from the shoe</p> <p>P2. Fix the shoe on peg stand</p> <p>P3. Fold the last for shoe d-last</p> <p>P4. Remove last from the shoe</p> <p>P5. Check the shoe inner side for any wastage</p> <p>P6. Remove wastage from inner side of shoe as per requirement</p>
J11. Perform Sole Stitching	<p>P7. Apply the wax on thread</p> <p>P8. Carry out the sanding awl</p> <p>P9. Set the thread in awl</p>



	P10. Stitch the chain stitch with hand
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Knowledge & Understanding

The candidate must be able to demonstrate underpinning knowledge and understanding required to carry out the tasks covered in this competency standard. This includes the knowledge of:

- Adhesive time adjustment
- Ankle height
- Back height
- Back height measurement
- Cutting tools and its uses
- Describe the upper Hammering
- Direction wise cutting
- Drying time period
- Feather line of last
- Handling tools
- Identification of area for application of adhesives
- Identification of materials
- Identification of right and left side insole
- Identification of Sole material
- Importance of leveling of feather line
- Importance of nail attaching
- Importance of proper nailing
- Importance of proper placing toe puff and stiffener
- Knowledge of materials
- Last and its types
- Last bottom holes for nailing



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- Material analysis
- Method of hand stitching
- Nail removing
- Parts of last
- Parts of shoe
- Position of left/right
- Proper force at upper
- Proper method of de-lasting
- Proper place of upper
- Proper use of primer
- Quality of Pull over
- Quality Standards
- Safety precautions
- Safety rules
- Sizing of insole and last
- Sizing systems
- Techniques used for pulling force
- Thimble of last
- Types and uses of adhesives
- Types and uses of heel lasting materials
- Types and uses of press machine
- Types and uses of side lasting machines
- Types and uses of Softener
- Types and uses of sole attaching
- Types and uses of upper materials
- Types of stitch
- Upper alignment
- Upper attaching



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- Upper material strength
- Uses of roughing tools
- Uses of Softeners
- Using the Sand and awl
- Wax material
- Wrinkle controlling
- Wrinkle removing

Critical Evidence(s) Required

The candidate needs to produce following critical evidence(s) in order to be competent in this competency standard:

- Perform Toe lasting by hand as per design
- Attach sole with lasted upper as per design
- Explain the importance of Back Height



Competency Standard K: Perform Shoe Finishing and Packing

Overview: This competency standard identifies the competencies you need to perform shoe finishing and packing operations using different tools and equipment in accordance with approved procedures. You will be expected to perform leather aniline / two tone finishing, perform suede / nubuck / synthetic finishing, insert socks, perform lacing, perform stuffing, perform brand tagging / stickers and perform shoe packing. Your underpinning knowledge will be sufficient to provide you the basis for your work.

Competency Units	Performance Criteria
K1. Perform leather aniline / two tone finishing	<p>P1. Arrange finishing materials</p> <p>P2. Insert shoe-tree as per size</p> <p>P3. Clean upper with crape / cleaner / cloth gently</p> <p>P4. Apply dye and allow to dry if required</p> <p>P5. Apply shoe cream and allow to dry as required</p> <p>P6. Clean upper gently with soft cloth</p> <p>P7. Buff upper on cotton brush with the help of cutting wax as required</p> <p>P8. Buff upper on wool brush with the help of polishing wax</p>
K2. Perform suede / nubuck / synthetic finishing	<p>P1. Arrange finishing materials</p> <p>P2. Insert shoe-tree as per size</p> <p>P3. Clean upper with crape / cleaner / cloth gently</p> <p>P4. Apply finishing spray with gun and allow to dry as required</p>
K3. Insert socks	<p>P1. Arrange material</p> <p>P2. Apply adhesive on socks and inside of shoe</p> <p>P3. Insert heel pads as required</p>



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	<p>P4. Insert socks</p> <p>P5. Press socks</p>
K4. Perform lacing	<p>P1. Arrange lacing material</p> <p>P2. Insert lace by hand</p> <p>P3. Complete lacing as per sample</p>
K5. Perform stuffing	<p>P1. Arrange stuffing material</p> <p>P2. Make stuffing shape</p> <p>P3. Insert stuffing / shell in the shoe</p>
K6. Perform brand tagging / stickers	<p>P1. Arrange tagging material</p> <p>P2. Fix tag as per sample</p> <p>P3. Attach stickers as per sample</p>
K7. Perform shoe packing	<p>P1. Arrange the box packing material</p> <p>P2. Wrap the shoe in packing sheet as required</p> <p>P3. Put the shoe in to the box as required</p> <p>P4. Insert silica gel / paste micro pack sticker in the box as required</p> <p>P5. Close shoe box</p> <p>P6. Put bar code / size sticker on shoe box as required</p> <p>P7. Put shoe box to the carton as required</p> <p>P8. Put bar code / size sticker on carton as required</p> <p>P9. Close carton using tape as required</p> <p>P10. Store carton for delivery / shipment</p>

Knowledge & Understanding

The candidate must be able to demonstrate underpinning knowledge and understanding required to carry out the tasks covered in this competency standard. This includes the knowledge of:



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- Types and uses of adhesives
- Types and uses of branding tags / stickers / label
- Types and uses of laces
- Types and uses of packing materials
- Types and uses of stuffing materials
- Types and uses of upper materials

Critical Evidence(s) Required

The candidate needs to produce following critical evidence(s) in order to be competent in this competency standard:

- Perform finishing of a shoe with cream as per design
- Explain type of finishes for three different leathers
- Pack one pair of shoe as per instructions



COMPLETE LIST OF TOOLS AND EQUIPMENT

- 45° lever
- Adhesive
- Adhesive applicator
- Adhesive applicator machine
- Adhesive container
- Adhesives machine
- Adjustment tools
- Alky set
- Apron
- Arc machine
- Awl
- Back forming machine
- Basket
- Beveling machine
- Binding machine
- Blocking machine
- Books
- Bottom roughing machine
- Brush for adhesive
- Buffing machine
- Card board / rubber sheets
- Casting die
- Casting pattern
- Chiller
- Chiller box
- Clipper
- Computer
- Cording stitching machine
- Coupling machine
- Covering machine
- Crape sheet
- Crimping machine
- Cut insole
- Cutting and marking templates
- Cutting boards
- Cutting dies
- Cutting knives
- Cutting pads
- Cutting pattern
- Cutting press
- De-lasting machine/stand
- De-lasting stand
- Density meter
- Different types of hot and cold molds
- Dipping pot
- Direct molding machine
- Drying conveyer machine
- Electric Heater
- Electric roughing machine
- Embossing die
- Embossing machine
- Eyelet presser
- Eyeleting dies
- Eyeleting machine
- Flat-bed stitching machine double needle



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- Flat-bed stitching machine single needle
- Folding machine
- Frame with screen
- Fusing press machine
- Gloves
- Goggles
- Grooving machine
- Hammer
- Hammering machine
- Hand pincers
- Hand punch
- Hand scoring machine
- Hardness gauge
- Heat setting machine
- Heating chamber
- Heel
- Heel Edge rounding machine
- Heel lasting machine
- Hood
- Inclination machine
- Insole sample
- Inverted stapler machine
- Iron
- Knives
- Last
- Last inserting machine
- Last length standard
- Lasting jack stand
- Lasting Pincer
- Lasting stand
- Lasting Teflon hammer
- Lubricants
- Machine for string
- Magazines books
- Magnifier glass
- Magnifying glass
- Marble sheet
- Marble stone
- Marking machine
- Marking patterns
- Marking template of heel
- Marking tools
- Masks
- Measuring instruments
- Measuring tools
- Molding machine
- Molding press
- Molds
- Nail remover
- Nail removing lever
- Nailing machine
- Oil can
- Oil cane
- Panches
- Peg stand
- Per-forming machine
- Plastic basket / bag
- Plier
- Portable grinding machine
- Post bed stitching machine double needle



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- Post bed stitching machine single needle
- Pot
- PPEs
- Press
- Press machine
- Prickle punch
- Printing pads
- PU molding machine
- Pulling tools
- Punch
- Rack
- Riveting machine
- Roughing machine
- Round hammer
- Rounding machine
- Rubber hammer
- Rubber mixing machine
- Rubber molding press
- Safety Shoes
- Sand paper
- Scale
- Scissors
- Sealing machine
- Sharpening tools
- Shoe horn
- Shoe sample
- Shoe tree last
- Show board
- Shower
- Side lasting machine
- Skiver
- Skiving and marking charts
- Skiving chart
- Skiving machine
- Sole
- Sole activator
- Sole pressing machine
- Sole roughing machine
- SOPs
- Splitting machine
- Spray booth
- Spray gun
- Spray guns
- Stamping and embossing machine
- Stamping dies
- Stamping machine
- Stamping pads
- Stapler Gun & pins
- Steam chamber
- Steel wire brush
- Stitching machine
- Strapping machine
- Strobel machine
- Tagging machine
- Tape attaching machine
- Tape dispenser
- Teflon sheet
- Telephone
- Temperature gun
- Template pattern



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- Templates
- Thickness gauge
- Thickness gauge meter
- Thread burning equipment
- Thread clipper
- Thread pole
- Toe activation machine
- Toe lasting machine
- Toe puff machine
- Toe shaping machine
- Tools kit
- Trimming machine
- Trolley
- Weighing balance
- Wooden hammer
- Wrinkle chasing machine
- Zigzag stitching machine