

# APPRENTICESHIP CURRICULUM

## FOR

# LASTING OPERATOR

## Program

**SECTOR:** Leather

**BLOCK I (Basic Training):**

**COURSE NAME:** Lasting Operator

**QP Name, QP Code and Version No., and NSQF Level:** Lasting Operator, LSS/Q2701 V1.0, NSQF Level 4

**Training Duration:** 200 Hrs (3 months)

**BLOCK II (Training at Employer Location):**

**COURSE NAME:** Lasting Operator

**QP Name, QP Code and Version No., and NSQF Level:** Lasting Operator, LSS/Q2701 V1.0, NSQF Level 4

**Training Duration:** 960 Hrs (6 months)

**TOTAL PROGRAM DURATION:** 1160 Hrs (9 months)

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## PROGRAM CURRICULUM

<b>Program Name</b>	<b>Lasting Operator</b>		
<b>Program Duration</b>	<b>1160 Hrs (9 months)</b>		
<b>Version No.</b>	1.0	<b>Version Update Date</b>	17/10/18
<b>Entry Qualification</b>  <b>Educational and/or Technical Qualification Required</b>	Class V		
<b>Block 1 Training Outcomes for Lasting Operator</b>	<p><b>After completing this programme, participants will be able to:</b></p> <ul style="list-style-type: none"> <li>• <b>Gain knowledge on overview of Leather Industry and generic skills:</b> General instructions to importance of Leather industry, general hazards in leather industry, basic health and safety and hygiene precautions, generic skills to be followed in leather industry.</li> <li>• <b>Perform pre-operational activities such as:</b> Carrying out pre-operational checks required for lasting and follow standard procedure for the operations.</li> <li>• <b>Perform lasting operations:</b> Carry out lasting operations appropriately.</li> <li>• <b>Handle work area, tools and machines appropriately:</b> Ensure correct handling of materials, tools and machines, maintain clean and hazard free work area, proper usage of cleaning equipment, maintain correct usage of workplace tools and equipment.</li> <li>• <b>Contribute to achieve quality product in lasting process:</b> Ensure that lasting is done properly to go for next process, ensure quality checks and fault identification in lasting and maintain records and documents.</li> <li>• <b>Become well versed with environment, health, safety and security at work:</b> Well versed with health and safety measures in terms of personal safety and equipment relevant to lasting occupation.</li> <li>• <b>Follow Industrial regularity and organizational requirements:</b> Carry out work in accordance with organizational guidelines and procedures, identify and report any possible deviation.</li> </ul>		
<b>Block II Training Outcomes for Lasting Operator</b>	<p><b>After completing this programme, participants will be able to:</b></p> <ul style="list-style-type: none"> <li>• Carry out Pre-operational checks required for lasting and follow standards procedures for the operations.</li> <li>• Demonstrate different styles/ construction methods that go into the manufacturing of footwear to achieve correct quality and productivity.</li> <li>• Spot difficulties with respect to the practicality of designs to achieve the correct quality for specific styles as per the sample and specifications.</li> <li>• Operate the machine with correct temperature, pressure and dwell time for producing good results of the finished lasted footwear.</li> <li>• Choose the working method of lasting for different styles/ constructions.</li> <li>• Follow the working method of sole pressing machine.</li> </ul>		

	<ul style="list-style-type: none"> <li>• Carry out different sole pressing technics and finishing operations.</li> <li>• Use tools/ machines such as last, pincher, hammer etc.</li> <li>• Maintain tools and machines used, so that they are available whenever required without any problems.</li> <li>• Use new technology such as computer for visual aid and efficient working.</li> <li>• Work in a safe environment and without injuries.</li> <li>• Read a job card to identify raw materials required for job work.</li> <li>• Detect product/ manufacturing defects and control manufacturing loss.</li> <li>• Create reports of lasting operations for the day (documentations).</li> <li>• Control the machine temperature, pressure, dwell time etc. while lasting the footwear.</li> </ul>
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**Note:** 1 week has 40 hours of learning (8 hrs a day x 5 days a week). For example:

S. No.	QP2 Durations (in hrs)	Weeks	Months
1	1440	36	9
2	960	24	6
3	2080	52	13

**Block I:** This is a training block done in the Instructor-Led training approach, with theory and practical sessions. The training sessions may be held at training provider's premises.

**Block II:** This is a training block done at the Employer location. This is largely hands-on with inputs/ guidance provided by the on-site mentors and supervisors. The employer may conduct instructor-led sessions in classrooms/ workshops and may also look at new age – technology-based performance support tools for additional support.

## Basic Training (Block I)

### General Information

1. **Course Name:** Lasting Operator
2. **QP Code with Version No. and QP Name:** LSS/Q2701 V1.0, Lasting Operator
3. **NSQF Level:** 4
4. **Theory hours:** 33 Hrs
5. **Practical hours:** 167 Hrs
6. **Batch Size:** 30
7. **Power Norms:** 6 KW for Workshop
8. **Space Norms:** 10 (x20=200sq) feet
9. **Assessment:** QP based assessment is conducted by an Assessment Agency as deputed by the respective Sector Skill Council.
10. **Tools, Equipment, and Machinery required:** As per Annexure I
11. **Trainer Qualification:** Trainer Prerequisites for Course: Lasting Operator

Sr. No.	Area	Details
1	<b>Job Description</b>	To deliver accredited training service, mapping to the curriculum detailed above, in accordance with the Qualification Pack " <u>LSS/Q2701</u> ", Version 1.0.
2	<b>Personal Attributes</b>	Aptitude for conducting training, and pre/post work to ensure competent, employable candidates at the end of the training. Strong communication skills, interpersonal skills, ability to work as part of a team; a passion for quality and for developing others; well-organised and focused, eager to learn and keep oneself updated with the latest in the mentioned field.
3	<b>Minimum Educational Qualifications</b>	10 <sup>th</sup> with 18 months certificate course in Footwear (any) and above
4a	<b>Domain Certification</b>	Certified for Job Role: " <u>Lasting Operator</u> " mapped to QP: " <u>LSS/Q2701, v1.0</u> ". Minimum accepted score as per SSC guidelines is 80% on the SSC prescribed online theory assessment test based on an industry validated question bank.
4b	<b>Platform Certification</b>	Recommended that the Trainer is certified for the Job Role: "Trainer", mapped to the Qualification Pack: " <u>MEP/Q0102</u> ". Minimum accepted score for the trainer is 80% as per SSC guidelines.
5	<b>Experience</b>	Minimum 6 years site experience with Lasting (Footwear) Level-4 qualified

## Curriculum

Block I is aimed at training candidates for the course of a “Lasting Operator”, in the “Leather” Sector/Industry and aims at building the following key competencies amongst the learner.

S. No.	Module	Key Learning Outcomes	Equipment Required
1.	<p>Overview on Leather Industry and Generic Skills</p> <p>Theory Duration: (hh:mm) 12:00</p> <p>Practical Duration: (hh:mm) 10:00</p> <p>Corresponding NOS Code Bridge Module</p>	<ul style="list-style-type: none"> <li>• Explain the importance of leather industry</li> <li>• Describe leather manufacturing process</li> <li>• Explain general hazards or risk that can lead to accidents</li> <li>• Follow basic safety, health and hygiene measures</li> <li>• Wear and use PPE for safety</li> <li>• Carry out communication effectively with co-workers in writing as well as orally</li> <li>• Read the documents that are necessary for them to read to carry out operator's task</li> </ul>	<p>Computer, Projector, White projector screen, White board, Safety Hazard Signs, Stationery, PPE set</p>
2	<p>Carry out Lasting Operations using Machine</p> <p>Theory Duration: (hh:mm) 04:00</p> <p>Practical Duration: (hh:mm) 80:00</p> <p>Corresponding NOS Code LSS/N2701</p>	<ul style="list-style-type: none"> <li>• Describe tools and materials used in lasting operations</li> <li>• Identify hand tools and machines used in lasting operations</li> <li>• Prepare work area for lasting operations</li> <li>• Describe counter tightening, toe moulding, forepart lasting, seat lasting, side lasting, roughing, sole pressing, de-lasting operations</li> <li>• Perform counter tightening, toe moulding, forepart lasting, side lasting, seat lasting, roughing, sole pressing, de-lasting operations</li> </ul>	<p>Last, Upper, Tack hammer, PPE, Screwdriver, Lasting plier, Shoemaking pincher, Cutting nipper, Tack puller, Thickness measuring gauge, Leather shear, Scratch awl, Hex key, Spanner set, Knife, Last working mallet, Nails, Brush, PU adhesive, Toe cap, Foam, Counter tightening machine, Toe moulding machine, Forepart lasting machine, Seat and side lasting machine, Roughing m/c, Sole pressing machine, De-lasting machine, Blower, Cotton cloth, Iron, Shoe brush, Tape, Thread, Shank, Cork, Heel pad</p>

3	<p>Contribute to Achieving Product Quality in Lasting Operations</p> <p>Theory Duration: (hh:mm) 02:00</p> <p>Practical Duration: (hh:mm) 30:00</p> <p>Corresponding NOS Code LSS/N2702</p>	<ul style="list-style-type: none"> <li>Operate machine in accordance with machine and workplace standards</li> <li>Identify faults in materials and products</li> <li>Maintain product quality</li> <li>Explain ISO and 5S</li> <li>Maintain equipment's</li> <li>Document and report faulty materials and component parts to the supervisor</li> </ul>	<p>Sample footwear with defects after lasting operations, Inspection report documents, Gloves, Safety shoe, Ear plug, Apron</p>
4	<p>Maintain the Work area, Tools and Machines</p> <p>Theory Duration: (hh:mm) 04:00</p> <p>Practical Duration: (hh:mm) 20:00</p> <p>Corresponding NOS Code LSS/N8501</p>	<ul style="list-style-type: none"> <li>Ensure housekeeping and safety</li> <li>Maintain workplace, tools and equipment</li> </ul>	<p>One set of tools and facility for arranging tools, Lasting machines, Gloves, Safety shoe, Ear plug, Apron, Cleaning cloth, Water bucket, Cleaning materials, Mop, Dust bin, Broom, Grease, Lubricate oil</p>
5	<p>Maintain Health, Safety and Security at Workplace</p> <p>Theory Duration: (hh:mm) 10:00</p> <p>Practical Duration: (hh:mm) 25:00</p> <p>Corresponding NOS Code LSS/N8601</p>	<ul style="list-style-type: none"> <li>Identify and correct malfunctions in machinery and equipment</li> <li>Minimize health and safety risks to self and others due to own actions</li> <li>Monitor the workplace and work processes for potential risks and threats</li> <li>Carry out periodic walk- through to keep work area free from hazards and obstructions, if assigned</li> <li>Undertake first aid, fire-fighting and emergency response training, if asked to do so</li> <li>Take action based on instructions in the event of a fire, emergencies or accidents</li> <li>Follow organisation procedures for shutdown and evacuation when required</li> </ul>	<p>First aid kit, Fire extinguisher, PPE set</p>
6	<p>Comply with Industry Regulatory and Organizational Requirements</p>	<ul style="list-style-type: none"> <li>Carry out work functions in accordance with legislation and regulations, organizational guidelines and procedures</li> <li>Apply and follow policies and procedures within the work</li> </ul>	<p>Sample legal documents</p>





## Hands-On at Employer Location (Block II)

### General Information

1. **Name of the Course:** Lasting Operator
2. **QP Code with Version No. and QP Name:** LSS/Q2701 V1.0, Lasting Operator
3. **NSQF Level:** 4
4. **Training Duration:** 960 Hrs
5. **Batch Size:** 30
6. **Assessment:** The Leather Sector Skill Council (LSSC) will conduct the assessment at the end of Block II.
7. **Tools, Equipment, and Machinery required:** As per Annexure I
8. **Trainer Qualification:** Trainer Prerequisites for Course: Lasting Operator

Sr. No.	Area	Details
1	<b>Job Description</b>	To deliver accredited training service, mapping to the curriculum detailed above, in accordance with the Qualification Pack " <u>LSS/Q2701</u> ", Version 1.0.
2	<b>Personal Attributes</b>	Aptitude for conducting training, and pre/post work to ensure competent, employable candidates at the end of the training. Strong communication skills, interpersonal skills, ability to work as part of a team; a passion for quality and for developing others; well organised and focused, eager to learn and keep oneself updated with the latest in the mentioned field.
3	<b>Minimum Educational Qualifications</b>	Diploma or B. Tech in Leather footwear technology
4a	<b>Domain Certification</b>	Certified for Job Role: " <u>Lasting Operator</u> ", mapped to QP: " <u>LSS/Q2701, v1.0</u> ". The minimum accepted score should be as per the decision of the respective SSC guidelines.
4b	<b>Platform Certification</b>	Recommended that the Trainer is certified for the Job Role: "Trainer", mapped to the Qualification Pack: "MEP/Q0102". Minimum accepted score for the trainer is 80% as per SSC guidelines.
5	<b>Experience</b>	Minimum 6 years site experience with Lasting (Footwear) Level-4 qualified

## Curriculum

Block II is aimed at training candidates for the course of a “Lasting Operator”, in the “Leather” Sector/Industry and aims at building the following key competencies amongst the learner.

Sr. No.	Module Name	Key Learning Outcomes	Equipment Required
Week 1	<p>Lasting tools and machines</p> <p>Theory Duration (hh:mm) 02:00</p> <p>Practical Duration (hh:mm) 38:00</p> <p>Corresponding NOS Code LSS/N2701</p>	<ul style="list-style-type: none"> <li>Explain the different types of operations involved in lasting process</li> <li>Describe the tools and machines used in lasting operation</li> <li>Identify the hand tools and machines used in lasting operations</li> <li>Demonstrate the procedure of using the tools and machines used in lasting operation</li> </ul>	<p>Last, Upper, Tack hammer, PPE, Screwdriver, Lasting plier, Shoemaking pincher, Cutting nipper, Tack puller, Thickness measuring gauge, Leather shear, Scratch awl, Hex key, Spanner set, Knife, Last working mallet, Nails, Brush, PU adhesive, Toe cap, Foam, Counter tightening machine, Toe moulding machine, Forepart lasting machine, Seat and side lasting machine, Roughing m/c, Sole pressing machine, De-lasting machine, Blower, Cotton cloth, Iron, Shoe brush, Tape, Thread, Shank, Cork, Heel pad</p>
Week 2	<p>Preparatory Work for Lasting</p> <p>Theory Duration (hh:mm) 00:00</p> <p>Practical Duration (hh:mm) 40:00</p> <p>Corresponding NOS Code LSS/N2701</p>	<ul style="list-style-type: none"> <li>Prepare the hazard free working area for lasting operation</li> <li>Check the data on the work ticket or job card</li> <li>Sort the tools and materials for the work</li> <li>Check the tools are safe to use on the material</li> <li>Set up the equipment and machineries for lasting operation</li> </ul>	<p>Last, Upper, Tack hammer, PPE, Screwdriver, Lasting plier, Shoemaking pincher, Cutting nipper, Tack puller, Thickness measuring gauge, Leather shear, Scratch awl, Hex key, Spanner set, Knife, Last working mallet, Nails, Brush, PU adhesive, Toe cap, Foam, Counter tightening machine, Toe moulding machine, Forepart lasting machine, Seat and side lasting machine, Roughing m/c, Sole pressing machine, De-lasting machine, Blower, Cotton cloth, Iron, Shoe brush, Tape, Thread, Shank, Cork,</p>





Sr. No.	Module Name	Key Learning Outcomes	Equipment Required
	(hh:mm)  38:00  Corresponding NOS Code LSS/N2701	production	PU adhesive, Toe cap, Foam, Counter tightening machine, Toe moulding machine, Forepart lasting machine, Seat and side lasting machine, Roughing m/c, Sole pressing machine, De-lasting machine, Blower, Cotton cloth, Iron, Shoe brush, Tape, Thread, Shank, Cork, Heel pad
Week 8	Roughing Operation  Theory Duration (hh:mm)  02:00  Practical Duration (hh:mm)  38:00  Corresponding NOS Code LSS/N2701	<ul style="list-style-type: none"> <li>Describe the procedure of roughing operation</li> <li>Explain the functions of tools and machine used in roughing process</li> <li>Describe the operating procedure of grinding machine</li> <li>Check the condition of grinding wheel/ emery paper as per specification</li> <li>Operate the machine to roughen the finished part of the bottom portion of the lasted upper</li> <li>Check for the thin layer of the finished portion is roughed only</li> <li>Check the edges of the lasted upper are roughed carefully</li> <li>Pass the lasted upper to the next stage of production</li> </ul>	Last, Upper, Tack hammer, PPE, Screwdriver, Lasting plier, Shoemaking pincher, Cutting nipper, Tack puller, Thickness measuring gauge, Leather shear, Scratch awl, Hex key, Spanner set, Knife, Last working mallet, Nails, Brush, PU adhesive, Toe cap, Foam, Counter tightening machine, Toe moulding machine, Forepart lasting machine, Seat and side lasting machine, Roughing m/c, Sole pressing machine, De-lasting machine, Blower, Cotton cloth, Iron, Shoe brush, Tape, Thread, Shank, Cork, Heel pad
Week 9	Sole pressing Operation  Theory Duration (hh:mm)  02:00  Practical Duration (hh:mm)  38:00  Corresponding NOS	<ul style="list-style-type: none"> <li>Describe the procedure of sole pressing operation</li> <li>Explain the functions of tools and machine used in sole pressing process</li> <li>Collect the lasted upper and sole as per specification</li> <li>Attach the sole on the lasted upper temporarily</li> <li>Check for the sole and lasted upper is attached appropriately along the edges</li> <li>Place the temporary attached lasted upper and the sole into the pressing machine</li> <li>Operate the machine to attach the</li> </ul>	Last, Upper, Tack hammer, PPE, Screwdriver, Lasting plier, Shoemaking pincher, Cutting nipper, Tack puller, Thickness measuring gauge, Leather shear, Scratch awl, Hex key, Spanner set, Knife, Last working mallet, Nails, Brush, PU adhesive, Toe cap, Foam, Counter tightening machine, Toe moulding machine, Forepart lasting machine, Seat

Sr. No.	Module Name	Key Learning Outcomes	Equipment Required
	Code LSS/N2701	<ul style="list-style-type: none"> <li>sole and the upper by pressing the start button on the machine</li> <li>Remove the sole attached lasted upper</li> <li>Pass the sole attached lasted upper to the next stage of production</li> </ul>	and side lasting machine, Roughing m/c, Sole pressing machine, De-lasting machine, Blower, Cotton cloth, Iron, Shoe brush, Tape, Thread, Shank, Cork, Heel pad
Week 10	Delasting Operation  Theory Duration (hh:mm)  02:00  Practical Duration (hh:mm)  38:00  Corresponding NOS Code LSS/N2701	<ul style="list-style-type: none"> <li>Describe the procedure of delasting operation</li> <li>Explain the functions of tools and machine used in delasting process</li> <li>Fix the shoe onto the delasting machine with required tools</li> <li>Carry out delasting operation by applying pressure on the toe portion of the shoe with hand</li> <li>Remove the shoe from the last</li> </ul>	Last, Upper, Tack hammer, PPE, Screwdriver, Lasting plier, Shoemaking pincher, Cutting nipper, Tack puller, Thickness measuring gauge, Leather shear, Scratch awl, Hex key, Spanner set, Knife, Last working mallet, Nails, Brush, PU adhesive, Toe cap, Foam, Counter tightening machine, Toe moulding machine, Forepart lasting machine, Seat and side lasting machine, Roughing m/c, Sole pressing machine, De-lasting machine, Blower, Cotton cloth, Iron, Shoe brush, Tape, Thread, Shank, Cork, Heel pad
Week 11	Reporting, Documentation, Sorting, and Placing  Theory Duration (hh:mm)  02:00  Practical Duration (hh:mm)  38:00  Corresponding NOS Code LSS/N2701	<ul style="list-style-type: none"> <li>Describe the reporting and documentation procedure followed at workplace</li> <li>Report risks/ problems likely to affect services to the relevant person</li> <li>Report defects in the tools and equipment that one does not have the authority to repair</li> <li>Carry out closedown procedures on completion of work</li> <li>Sort the work area to assist the next stage of production</li> <li>Minimize the risk of damage</li> </ul>	Last, Upper, Tack hammer, PPE, Screwdriver, Lasting plier, Shoemaking pincher, Cutting nipper, Tack puller, Thickness measuring gauge, Leather shear, Scratch awl, Hex key, Spanner set, Knife, Last working mallet, Nails, Brush, PU adhesive, Toe cap, Foam, Counter tightening machine, Toe moulding machine, Forepart lasting machine, Seat and side lasting machine, Roughing m/c, Sole pressing machine, De-lasting machine, Blower, Cotton cloth, Iron,

Sr. No.	Module Name	Key Learning Outcomes	Equipment Required
			Shoe brush, Tape, Thread, Shank, Cork, Heel pad
Week 12	<p>Inspection-I</p> <p>Theory Duration (hh:mm) 02:00</p> <p>Practical Duration (hh:mm) 38:00</p> <p>Corresponding NOS Code LSS/N2702</p>	<ul style="list-style-type: none"> <li>Describe the methods to rectify the faults found in lasting process</li> <li>Describe the importance of product checks</li> <li>Set up the machine for the specified job</li> <li>Test the machines to ensure correct operation</li> <li>Operate the machine in accordance with the machine and workplace standards</li> <li>Check if the last and upper is placed properly in the machines</li> <li>Check if the shape of the shoe is retained during the toe moulding operation</li> <li>Check the seat portion of the lasted upper as there is no appearance of pleats</li> </ul>	Sample footwear with defects after lasting operations, Inspection report documents, Gloves, Safety shoe, Ear plug, Apron
Week 13	<p>Inspection-II</p> <p>Theory Duration (hh:mm) 02:00</p> <p>Practical Duration (hh:mm) 38:00</p> <p>Corresponding NOS Code LSS/N2702</p>	<ul style="list-style-type: none"> <li>Describe the consequences of not rectifying the problem</li> <li>Explain the difference between correctable and non-correctable faults</li> <li>Check the quality of lasting as per the specification and standards</li> <li>Check the performance of the machine for signs of faulty operations</li> <li>Follow instruction in accordance with workplace procedures for faulty operations</li> <li>Maintain the required productivity and quality levels</li> <li>Carry out quality checks at agreed intervals and in the approved way</li> </ul>	Sample footwear with defects after lasting operations, Inspection report documents, Gloves, Safety shoe, Ear plug, Apron
Week 14	<p>Reporting and Documentation</p> <p>Theory Duration (hh:mm) 00:00</p> <p>Practical Duration (hh:mm) 40:00</p> <p>Corresponding NOS</p>	<ul style="list-style-type: none"> <li>Identify faults in finished products and trace the causes of these faults</li> <li>Demonstrate the action to rectify the faults in order to maintain product quality</li> <li>Report the faulty materials and component parts that do not meet specification</li> <li>Replace faulty materials and components</li> <li>Follow reporting procedures where the cause of faults cannot be identified</li> </ul>	Sample footwear with defects after lasting operations, Inspection report documents, Gloves, Safety shoe, Ear plug, Apron





Sr. No.	Module Name	Key Learning Outcomes	Equipment Required
	38:00  Corresponding NOS Code LSS/N8501		
Week 18	Reporting and Documentation  Theory Duration (hh:mm) 00:00  Practical Duration (hh:mm) 40:00  Corresponding NOS Code LSS/N8501	<ul style="list-style-type: none"> <li>• Store accurate records and documents</li> <li>• Assist in completing documentation procedure by providing inputs</li> <li>• Report the need for maintenance and/or cleaning outside your area of responsibility</li> <li>• Maintain appropriate environment to protect stock from pilfering, theft, damage and deterioration</li> </ul>	One set of tools and facility for arranging tools, Lasting machines, Gloves, Safety shoe, Ear plug, Apron, Cleaning cloth, Water bucket, Cleaning materials, Mop, Dust bin, Broom, Grease, Lubricant oil
Week 19	Compliance with health and safety-I  Theory Duration (hh:mm) 02:00  Practical Duration (hh:mm) 38:00  Corresponding NOS Code LSS/N8601	<ul style="list-style-type: none"> <li>• Explain occupational health and safety risk</li> <li>• List the different Personal Protective equipment used</li> <li>• Comply with health and safety related instructions applicable to the workplace</li> <li>• Demonstrate the method of wearing the different Personal Protective equipment as per protocol</li> <li>• Carry out activities in line with approved guidelines and procedures</li> <li>• Check for any malfunction in machinery and equipment</li> <li>• Repair the possible malfunction in machinery and equipment</li> <li>• Report any service malfunctions that cannot be rectified with documentation</li> </ul>	First aid kit, Fire extinguisher, Gloves, Safety shoe, Ear plug, Apron
Week 20	Compliance with health and safety-II  Theory Duration (hh:mm) 02:00  Practical Duration (hh:mm)	<ul style="list-style-type: none"> <li>• Describe the proper disposal system for waste and by-products</li> <li>• Explain the different signage related to health and safety</li> <li>• Store materials and equipment in line with manufacturer's and organizational requirements</li> <li>• Safely handle and move waste and debris</li> <li>• Demonstrate the methods to minimize health and safety risk to self and others due to own action</li> </ul>	First aid kit, Fire extinguisher, Gloves, Safety shoe, Ear plug, Apron

Sr. No.	Module Name	Key Learning Outcomes	Equipment Required
	38:00  Corresponding NOS Code LSS/N8601		
Week 21	Compliance with security-I  Theory Duration (hh:mm) 02:00  Practical Duration (hh:mm) 38:00  Corresponding NOS Code LSS/N8601	<ul style="list-style-type: none"> <li>Describe the method of handling and storing hazardous substance</li> <li>Explain the importance of Environmental Management system</li> <li>Check if the appropriate PPE's are worn and their usage condition</li> <li>Prepare a checklist to monitor the workplace and work processes for potential risks and threats</li> <li>Demonstrate the procedure the check the workplace and work processes as per the checklist</li> </ul>	First aid kit, Fire extinguisher, Gloves, Safety shoe, Ear plug, Apron
Week 22	Compliance with security-II  Theory Duration (hh:mm) 00:00  Practical Duration (hh:mm) 40:00  Corresponding NOS Code LSS/N8601	<ul style="list-style-type: none"> <li>Carry out periodic walk-through to keep work area free from hazards and obstructions</li> <li>Report hazards and potential risks/ threats to supervisors or other authorized personnel</li> <li>Carry out mock drills/ evacuation procedure at the workplace</li> <li>Demonstrate procedures pertaining to first aid and fire fighting in the event of workplace emergencies</li> <li>Follow organization procedures for shutdown and evacuation when required</li> </ul>	First aid kit, Fire extinguisher, Gloves, Safety shoe, Ear plug, Apron
Week 23	Comply with industry, regulatory and organizational requirement  Theory Duration (hh:mm) 00:00  Practical Duration	<ul style="list-style-type: none"> <li>Carry out work functions in accordance with legislation and regulations, organizational guidelines and procedures</li> <li>Obtain clarifications on policies and procedures from the supervisor</li> <li>Follow the policies and procedures within the work practices</li> <li>Identify any possible deviation to ethical requirements</li> <li>Report any possible deviation to ethical requirements</li> </ul>	Sample legal documents



## Assessment Criteria

<b>Job Role</b>	<b>Lasting Operator (Footwear)</b>
<b>Qualification Pack</b>	<b>LSS/Q2701, V1.0</b>
<b>Sector Skill Council</b>	<b>Leather Sector Skill Council</b>

<b>Sr. No.</b>	<b>Guidelines for Assessment</b>
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 centre (as per assessment criteria below)
4.	Individual assessment agencies will create unique evaluations for skill practical for every student at each examination/training centre based on these criteria
5.	To pass the Qualification Pack, every candidate should score a minimum of 50% aggregate
6.	In case of successfully passing only certain number of NOS's, the trainee is eligible to take subsequent assessment on the balance NOS's to pass the Qualification Pack

<b>NOS</b>	<b>Assessment Criteria for Outcomes</b>	<b>Total Mark</b>	<b>Out Of</b>	<b>Marks Allocation</b>	
				<b>Theory</b>	<b>Skills Practical</b>
<b>1. LSS/N2701: Carry out lasting operations using machine</b>	PC1. Make sure the work area is free from hazards	<b>100</b>	1	0	1
	PC2. Obtain and check the data on the work ticket or job card and carry out functions in line with the responsibilities of job role		2	0	2
	PC3. Ask questions to obtain more information on tasks when the instructions have been unclear		1	0	1
	PC4. Select and sort the tools and materials for the work		1	0	1
	PC5. Setup the equipment and machineries for lasting as per the job requirement		1	0	1
	PC6. Make sure that tools are safe and clean to use on the material		1	0	1
	PC7. Agree and review agreed upon work targets with supervisor		1	0	1
	PC8. Seek feedback from supervisor on work related performance		1	0	1
	PC9. Update and develop knowledge of the products		1	0	1

NOS	Assessment Criteria for Outcomes	Total Mark	Out Of	Marks Allocation	
				Theory	Skills Practical
	PC10. Minimize wastage		1	0	1
	PC11. Produce the required batch of components to match the job card and the company's production targets		2	0	2
	PC12. Dispose of waste materials safely and return re-useable materials		1	0	1
	PC13. Work in conformance to legal requirements, organizational policies and procedures		1	0	1
	PC14. Carry out visual inspection to ensure the products are free from handling defects		1	0	1
	PC15. Hammer the back portion of the upper and place the counter inside the back portion of the upper		2	0	2
	PC16. Clamp the Upper onto the machine tightly		1	0	1
	PC17. Carry out Counter tightening operation by pressing the star button on the machine		1	0	1
	PC18. Ensure no creases are formed on the inside of the upper while performing counter tightening		2	0	2
	PC19. Remove the upper from the counter tightening machine		7	5	2
	PC20. Place the toe cap inside of the upper in between vamp and vamp lining		2	0	2
	PC21. Fix the vamp of the upper into the toe moulding machine		1	0	1
	PC22. Carryout the toe moulding operation by pressing the start button on the toe moulding machine		2	0	2
	PC23. Remove the upper from the toe moulding machine		1	0	1
	PC24. Select appropriate last according to the size of the upper		2	0	2
	PC25. Fix the upper on to the last		2	0	2
	PC26. Adjust the back height of the upper based on the mark on the last by pulling with pincher		1	0	1
	PC27. Fix the last in the machine for toe lasting operation		1	0	1
	PC28. Carryout toe lasting operation by pressing the start buttons of the machine with both hand and at the same time pressing the bottom start button of the machine with knee		12	10	2

NOS	Assessment Criteria for Outcomes	Total Mark	Out Of	Marks Allocation	
				Theory	Skills Practical
	PC29. Remove the lasted upper from the machine		1	0	1
	PC30. Fix the toe lasted upper in the machine for seat lasting operation		1	0	1
	PC31. Carryout seat lasting operation by using the machine		2	0	2
	PC32. Remove the finished part from the machine		2	0	2
	PC33. Apply the adhesive on the insole and the inside of the upper		1	0	1
	PC34. Pull the sides of the upper and adjust it appropriately with pincher		2	0	2
	PC35. Hammer the sides of the upper to perform side lasting		1	0	1
	PC36. Ensure the condition of the grinding wheel or emery paper as per specification		1	0	1
	PC37. Operate the machine to roughen the finished part of the bottom portion of the lasted upper		1	0	1
	PC38. Ensure only a thin layer of the finished portion is roughed		1	0	1
	PC39. Ensure the edges of the lasted upper are roughed carefully		2	0	2
	PC40. Place the sole on the lasted upper to attach it temporarily		7	5	2
	PC41. Ensure the sole and the lasted upper is attached appropriately along the edges		2	0	2
	PC42. Place the temporary attached lasted upper and the sole into the pressing machine		1	0	1
	PC43. Operate the machine to attach the sole and the upper by pressing the start button on the machine		2	0	2
	PC44. Remove the sole attached lasted upper		7	5	2
	PC45. Fix the shoe onto the de-lasting machine		1	0	1
	PC46. Carry out de-lasting operation by operating the de-lasting machine and applying pressure on the toe portion of the shoe with hand simultaneously		2	0	2
	PC47. Remove the shoe from the last		1	0	1
	PC48. Report risks/ problems likely to affect services to the relevant person promptly and accurately		1	0	1

NOS	Assessment Criteria for Outcomes	Total Mark	Out Of	Marks Allocation	
				Theory	Skills Practical
	PC49. Report defects in the tools and equipment that, one does not have the authority to repair		6	5	1
	PC50. Carry out closedown procedures on completion of work		1	0	1
	PC51. Sort and place work to assist the next stage of production and minimize the risk of damage		1	0	1
			<b>100</b>	<b>30</b>	<b>70</b>
<b>2. LSS/N2702: Contribute to achieving product quality in lasting operation</b>	PC1. Set up test machines to ensure correct operation	<b>50</b>	1	0	1
	PC2. Operate the machine in accordance with machine and workplace standards		1	0	1
	PC3. Ensure the last and upper is placed appropriately in the machines		5.5	5	0.5
	PC4. Ensure creases do not appear on the inside of the back portion of the upper while counter tightening		0.5	0	0.5
	PC5. Ensure the shape of the shoe is retained during toe moulding operation		0.5	0	0.5
	PC6. Ensure pleats do not appear in the seat portion of the lasted upper after seat lasting process		1	0	1
	PC7. Selection of appropriate lasts as per the sizes		0.5	0	0.5
	PC8. Ensuring the quality of the lasting as per the specifications and the standards		6	5	1
	PC9. Roughing as per the specifications and ensure the upper of shoe is free from roughing damages		0.5	0	0.5
	PC10. Check the performance of the machine for signs of faulty operations and take action in accordance with workplace procedures		11	10	1
	PC11. Ensure materials and component parts meet specifications		0.5	0	0.5
	PC12. Maintain the required productivity and quality levels		1	0	1
	PC13. Carry out quality checks at agreed intervals and in the approved way		1	0	1
	PC14. Identify faults in materials and products		0.5	0	0.5
	PC15. Identify causes of faults and take action to rectify the same to maintain		6	5	1

NOS	Assessment Criteria for Outcomes	Total Mark	Out Of	Marks Allocation	
				Theory	Skills Practical
	product quality				
	PC16. Report and replace faulty materials and component parts which do not meet specification		0.5	0	0.5
	PC17. Report faults outside personal responsibility to the appropriate person		1	0	1
	PC18. Follow reporting procedures where the cause of faults cannot be identified		0.5	0	0.5
	PC19. Follow reporting procedures where the cause of faults cannot be identified		0.5	0	0.5
	PC20. Identify process problems that effect product quality and report them promptly to appropriate people		5.5	5	0.5
	PC21. Identify faults in finished products and trace their causes		5.5	5	0.5
		<b>Total</b>	<b>50</b>	<b>35</b>	<b>15</b>
<b>3. LSS/N8501: Maintain the work area, tools and machines</b>	PC1. Handle materials, machinery, equipment and tools safely and correctly	<b>50</b>	2	0	2
	PC2. Use correct lifting and handling procedures		2	0	2
	PC3. Use materials to minimize waste		3	0	3
	PC4. Prepare and organize work		2	0	2
	PC5. Maintain a clean and hazard free working area		3	0	3
	PC6. Deal with work interruptions		2	0	2
	PC7. Move around the workplace with care		3	0	3
	PC8. Maintain tools and equipment		3	0	3
	PC9. Carry out running maintenance within agreed schedules		4	2	2
	PC10. Carry out maintenance and/or cleaning outside responsibility		2	1	1
	PC11. Report unsafe equipment and other dangerous occurrences		3	2	1
	PC12. Ensure that the correct machine guards are in place		1	0	1
	PC13. Work in a comfortable position with the correct posture		2	1	1
	PC14. Use cleaning equipment and methods appropriate for the work to be carried out		3	2	1
	PC15. Dispose of waste safely in the designated location		3	2	1
	PC16. Store cleaning equipment safely		2	1	1





NOS	Assessment Criteria for Outcomes	Total Mark	Out Of	Marks Allocation	
				Theory	Skills Practical
	PC13. Carry out periodic walk-through to keep work area free from hazards and obstructions, if assigned		0.5	0	0.5
	PC14. Report hazards and potential risks/ threats to supervisors or other authorized personnel		6	5	1
	PC15. Participate in mock drills/ evacuation procedures organized at the workplace		0.5	0	0.5
	PC16. Undertake first aid, fire-fighting and emergency response training, if asked to do so		1	0	1
	PC17. Take action based on instructions in the event of fire, emergencies or accidents		0.5	0	0.5
	PC18. Follow organization procedures for shutdown and evacuation when required		1	0	1
		<b>Total</b>	<b>25</b>	<b>10</b>	<b>15</b>
<b>5. LSS/N8701: Comply with industry, regulatory and organizational requirements</b>	PC1. Carry out work functions in accordance with legislation and regulations, organizational guidelines and procedures	<b>25</b>	10	5	5
	PC2. Seek and obtain clarifications on policies and procedures, from the supervisor or other authorized personnel		3	0	3
	PC3. Apply and follow these policies and procedures within the work practices		2	0	2
	PC4. Provide support to the supervisor and team members in enforcing these considerations		8	5	3
	PC5. Identify and report any possible deviation to these requirements		2	0	2
	<b>Total</b>		25	10	15







45	PPE set	2	Nos	Yes	Standard
46	First aid kit	1	Nos	Yes	Standard
47	Fire Extinguisher	1	Nos	Yes	ABC Type
48	Sample legal documents	1	Nos	Yes	Standard

## Annexure II: Tools and Equipment for Hands-On at Employer Location (Block II)

**Sector:** Leather

**Block II QP Code with Version No. or Course Code:** LSS/Q2701, V1.0

**Block II QP Name or Course Name:** Lasting Operator

**Block II NSQF Level:** 4

S. No.	Equipment Name	Minimum number of Equipment required (per batch of 30 trainees)	Unit Type	Is this a mandatory Equipment to be available at the Training Centre (Yes/No)	Dimension/Specification /Description of the Equipment/ ANY OTHER REMARK
1	Last	Each 1 pair	Nos	Yes	Standard 1 pair for each
2	Upper	Each 1 pair	Nos	Yes	Leather uppers
3	Leather shear	5	Nos	Yes	150mm and 300mm
4	Hand clicking knife	5	Nos	Yes	Stainless steel
5	Last working mallet	5	Nos	Yes	Wooden
6	Tack hammer	2	Nos	Yes	100 gms, 200 gms, 300 gms and 500 gms
7	Nails	200 gms	Weight	Yes	Shoe tacking nails
8	PU adhesive	100 gms	Weight	Yes	Standard
10	Toe cap	Each 1 pair	Nos	Yes	Standard
11	Foam	Each 1 pair	Nos	Yes	Standard
12	Counter tightening machine	1	Nos	Yes	Standard
13	Toe moulding machine	1	Nos	Yes	Standard
14	Forepart lasting machine	1	Nos	Yes	Standard
15	Seat and side lasting machine	1	Nos	Yes	Standard
16	Roughing machine	1	Nos	Yes	Standard
17	Sole pressing machine	1	Nos	Yes	Standard
18	De-lasting machine	1	Nos	Yes	Standard
19	Tape	5	Roll	Yes	Masking tape
20	Blower	1	Nos	Yes	Hot air blower
21	Scratch awl	5	Nos	Yes	Tempered sharp steel needle with wooden handle
22	Hex key	5	Set	Yes	Standard
23	Spanner set	5	Set	Yes	Standard
24	Iron	1	Nos	Yes	To heat
25	Shoe brush	2	Nos	Yes	Broad type

26	Thread	½ kg	Weight	Yes	Shoe stitching thread
27	Shank	Each 1	Nos	Yes	Steel shank for shoe
28	Cork	Each 1	Nos	Yes	Shoe bottom filler
29	Heel pad	Each 1	Nos	Yes	For shoe
30	Cutting nipper	5	Nos	Yes	End cutting
31	Screwdriver	5	Nos	Yes	Small size and long size
32	Lasting plier	5	Nos	Yes	8 Inch
33	Shoemaking pincer	5	Nos	Yes	Broad square nose
34	Tack puller	5	Nos	Yes	To pull small nails
35	Leather thickness measuring gauge	1	Nos	Yes	Measuring Range: 0 to 10 mm Least count of dial gauge: 0.01 Diameter of anvil: 50 mm approximately Diameter of indenter: 10 mm Pressure on indenter: 100 gm/cm <sup>2</sup> Throat depth: 50 mm
36	Sample footwear with defects after lasting operations	10	Nos	Yes	Different defects
37	Inspection report documents	1	Nos	Yes	Standard
38	Grease	250 ml	Weight	Yes	Machine grease
39	Lubricant oil	250 ml	Weight	Yes	Machine oil
40	Garbage Bins	3	Nos	Yes	30 ltrs capacity
41	Cotton cloth	5	Nos	Yes	Cleaning type
42	Dust Pan with Handle & Broom	1	Nos	Yes	Long handle
43	Dry and wet mop	5	Nos	Yes	Long handle
44	Water Bucket	1	Nos	Yes	20 ltrs capacity
45	PPE set	2	Nos	Yes	Standard
46	First aid kit	1	Nos	Yes	Standard
47	Fire Extinguisher	1	Nos	Yes	ABC Type
48	Sample legal documents	1	Nos	Yes	Standard



## Further Learning

### Learning Pathways

After completion of the apprenticeship training, the candidates have wide career choices available with them in the Leather industry. A candidate after completing apprenticeship can be skilled horizontally in Finishing Operator (LSS/Q3001) and vertically in Moulding Supervisor (LSS/Q7601), Quality Control Inspector (Non-Leather) (LSS/Q7701), Quality Control Inspector (Footwear) (LSS/Q3101) in Lasting Operations.

### Employment Opportunities

Apart from above mentioned avenues, the apprentice can always aspire to be one of the following:

1. **Footwear manufacturing units in India:** The apprentice may be employed with the biggest player of the trades and be a part of their manufacturing set and deliver quality work.
2. **Footwear manufacturing set up/Retail Unit:** The apprentice may be encouraged to set up their own manufacturing unit, which they may also channelize into owning a retail unit and be able to sell their merchandise directly to the consumers
3. **Education and Training:** They may also take up the role of the instructor in this field where they can impart their manufacturing knowledge to the aspiring students.