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ICSAS
Integrating Companies in a Sustainable Apprenticeship System

Integrating Companies in a Sustainable Apprenticeship System

PROJECT 2017-1-DE02-KA202-004174

OUTPUT 1

Learning Station Analysis

Portugal

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Date: **March 2018**

This project has been funded with support from the European Commission.
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The information and views set out in this document have been developed within the framework of the "Integrating Companies in a Sustainable Apprenticeship System "project, funded by the ERASMUS+ Programme, KA2 - Cooperation for Innovation and the Exchange of Good Practices Strategic Partnerships.

The European Commission support for the production of this publication does not constitute an endorsement of the contents, which only reflects the views of the authors, and the Commission cannot be held responsible for any use, which may be made of the information contained therein.

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CONTENT

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1. LEARNING STATION ANALYSIS MANUAL

-an instrument to connect occupational Activity Fields (AF) and Work-Based Learning (WBL)

1.1. Introduction

Learning within work processes differs in three important aspects from formal learning in schools or apprentices' workshops:

- *What can or should be learnt does not only depend on decisions of teachers or trainers, but is strongly determined by work processes;*
- *the absence of pedagogically specialised staff;*
- *the number of mentors (skilled workers accompanying the apprentices, supporting the development of their vocational competences).*

This manual 'Learning Station Analysis – an instrument to connect occupational Activity Fields (AF) and Work-Based Learning (WBL)' is an adapted version of a collaborative product of ITB (Universität Bremen) and trainers from Airbus which was developed for two pilot projects in the aeronautic sector 'Move Pro Europe' and 'AERONET'. This method has already been approved in other sectors and other European projects such as 'APPRENTSOD' or DUAL TRAIN. In particular, the form of documentation of the analytical results has been adapted with respect to the specific aims of the 'ICSAS' project. The methods proposed here are supposed to be applied to exemplary work places in shoe production, where 'activity fields' (AF) or units have been identified and selected for their suitability for the implementation of dual structures.

The 'LSA' (Learning Station Analysis) method was developed to support the training organisation at the learning places in an effective way, taking into regard business needs as well as processes requirements. Essentially, it helps users to identify the work places that are important both in terms of the significance of their operating processes and for the learning opportunities they provide. This approach emphasises the value of trainings taking place at work stations where the most significant operations are being carried out: the quality of training to prepare apprentices for the requirements of modern skilled work is considerably increased if the training takes place at the most relevant operational processes.

LSAs should not only enable the development of training processes which focus on the work process, they should also provide support for the positive development of the trainees.

The LSA method serves to examine the quality of individual work stations within a training process, and, moreover, can highlight the value of these being attended in a certain order. A simple example would be the comparison of a single-task operational work place in a workshop and a more complex operational work place in the final assembly line that offers insight into and experience of a

technology and a quality procedure that are characteristic for a professional occupation. However, prior to entering into such a more complex workplace, young people need to possess an understanding of certain production procedures. Without such preceding experience (for example if a trainee arrives at a relatively early apprenticeship stage at a challenging learning station and remains there for only for a short period of time), it is quite impossible to fully impart the actual functioning at that work station. In consequence, learning opportunities are missed. This example illustrates that the overall training organisation and the order of flow through different learning stations has an impact on the learning results and the training quality. An additional important aspect of the LSA method is that skilled work is being regarded from a beginner's perspective: elements that seem self-evident and too trivial for experienced workers to explicitly explain can pose considerable, if not insuperable problems for a trainee and need to be communicated explicitly. LSAs reveal the communication needs and the learning potential of specific workstations within the entire apprenticeship programme, and they can contribute to analyse other work stations so as to provide information on the optimal sequencing of movement through the work stations, which can be depicted in form of a flow chart. The LSA method is also suitable to assess the potential of workstations that have not yet been used for training purposes – not only the learning potential at work stations already being used in trainings.

- *The LSA method was jointly developed by researchers and trainers.*
- *Its primary objective is to evaluate learning potentials of work processes.*
- *It helps to set up training plans according to work processes, and fosters the acquisition of skills and competences by the learners.*

1.2. Procedure - Milestones

The term 'Learning Station Analysis' itself clarifies the aim of the LSA method as a tool. 'Learning stations' are places where learning to acquire skills and competences to perform work central to the occupation takes place. LSAs analyse workplaces, which cover activity fields (AF). AFs describe skilled work tasks in terms of characteristic operations and work contexts that are needed in order to make sense of learning and allow the trainee to "grow" into an occupation. They are typical for the profession and, in total, comprise a complete specification of the learning required in order to become fully skilled. With this definition vocational activity fields can be specified as follows:

No individual activities or performances are analysed, for example closing a backseam or activating an upper. Instead tasks, in the sense of complete actions, following a holistic process structure, are analysed, such as cutting or lasting. The aim is to obtain a general process structure of activity fields; containing specifications of concrete tasks, including their planning and accomplishment as well as quality inspection and assessment of work outcomes. The LSA method is based on the following criteria:

- it has to reflect the super-ordinate coherence of the occupational work process and refer to a distinct vocational profile;
- it always describes a work context and a complete work action, highlighting planning, performing and evaluating the work;
- the formulation of the documentation also emphasises the content and types of skilled work;
- it reflects function and meaning of a work-process in the context of super-ordinate operational business processes;
- particular attention is paid to the creative potential in skilled work.

LSAs assigned to activity fields are divided into the following three phases:

- *preparation of the analysis,*
- *accomplishment of the analysis,*
- *evaluation and documentation of the analysis (the results serve for developing a training schedule respecting a logical sequence of progression through learning stations).*

1.3. Learning Station Analysis – Approach

1.3.1. Preparation of a LSA

Investigation team

The selection of the LSA team is part of the preparatory phase. It is recommended to choose a group of two people, including an expert skilled worker and a researcher or teacher.

Selection of workstations

Although each LSA corresponds to a previously identified activity field, the following procedure is recommended: It is necessary to distinguish an activity field from sub-tasks. It has to be checked whether a workplace fulfils the precondition of being relevant both in terms of competence development and syllabus. The ICSAS project intents to plan a complete apprenticeship: it requires numerous individual analyses in the technical and production departments in order to achieve the desired training results – but the LSA method also reveals what ***cannot*** be learnt within the company and thus should be taught in VET-school or training workshops.

It is necessary to select operational work places as (possible) learning stations in the company and/or a department, where qualified specialists master the tasks, which are representative for the activity field. The operational representative in the LSA team is responsible for the selection of the workstations, since he/she has detailed insight into the business and work processes and can ensure LSA performance on site.

In practice, activity fields are often not completely isolated from each other. At many work places (and therefore at learning stations or in work fields), several closely linked activity fields are mastered together. *For the analysis it is advisable to select work places with the 'core characteristics' of an activity field. Although, only one individual activity field is analysed at a time, the interfaces with other activity fields have to be observed.* Simultaneous analysis of several fields could cloud the view on the most relevant processes in different fields. When – due to work organisation – several AFs are involved in a work process, it might be necessary to perform several LSAs from different angles (for example in the case of function checks, disassembling and malfunction analysis).

An immensely influential factor in LSAs is the cooperation with the skilled workers at the respective work places. It is important to make particularly clear to them that the analysis is not conducted to prepare rationalisation measures, personnel restructuring or an assessment of their performance. The participation of specialists with substantial professional experience is crucial for devising vocational education and training programmes in practice. This central request should be clarified with the production manager who has given agreement for the planned analyses to take place.

The following four steps have to be performed to complete a LSA:

- Discussion schedule (interview);
- Preparation of a record (references);
- Preparation of photos and sketches;
- Materials and samples for visualisation (design sketches, semi-finished products, components).

- *Ideally, a LSA is conducted by a skilled worker and an external colleague.*
- *The manual for analysis should be used as a toolbox, not as a rigid rule.*
- *A LSA takes several (few) hours.*

1.3.2. Manual for the Analysis

Not only (experienced) researchers, but also the skilled staff selected for a LSA should read the LSA manual beforehand and focus on the following questions:

- In which business and working processes is the activity field integrated?
- At which workplace is the task of the activity field executed?
- Which items are being worked on during the actual performance of a task?
- Which tools, methods and organisation forms are used?
- Which requirements in terms of skilled work have to be met?
- Which interfaces to other activity fields exist?
- What are the experiences in regards to training at this workplace?

Based on these preliminary questions, the analysis categories are developed, which can then be complemented in detail by a catalogue of central questions.

Analysis category: business process

The analysis of skilled work cannot refer to the workplace without considering the context. Without consideration of the integration in business and working processes, skilled work in its full complexity cannot be appropriately captured. For this analysis category, material and information flow charts as well as schematic diagrams of the order flow are very useful. This material can be examined by the LSA team in the preparatory phase, i.e. before the 'on-site-analysis' starts.

Analysis category: workplace

When describing a chosen work place, it is of special interest to identify – besides the location (department, production area and section) – the working conditions under which the specialists perform their everyday work. Relevant details are lighting conditions, noise exposure, ambient temperatures but also aspects of ergonomics at the workplace (e.g. sitting positions, work benches).

Analysis category: subject of skilled work

In order to describe the subject of skilled work, the work context and the work process need to be considered. For example, the technical realisation of a machine is very often done in such a way that the machine operator requires only few skills and knowledge. However, the work routine of the machine operator differs substantially from that of the maintenance technician, although both work processes refer to the same machine. The machine operator adjusts the necessary machine settings (e.g. model- and size-dependent), feeds parts to the machine and accomplishes simple maintenance tasks. The operator relies on the trouble-free functioning of the machine, and in general does not know much about the internal design and the technical details. In case of machine breakdown, the maintenance technician has to determine the cause for the defect and therefore, on the contrary, needs detailed knowledge of how the machine is constructed in order to identify all possible causes for malfunction.

Skilled work can contain a surprising degree of creative potential. For example: Even if two maintenance technicians proceed in a completely different way when trying to repair a machine default, their goal is the same: identification of the defect and rapid repair. LSAs identify the methodical approach of skilled workers in performing such professional tasks. Differences can be found not only in the actual work execution but also in planning the work. In many cases, different strategies are viable.

Analysis category: tools and equipment for the skilled work

Concerning the description of the tools and equipment used in the skilled work, the context of the work process is crucial. Beside the tools used, the workshop facilities that are used in the work process at the work place are also of interest.

Analysis category: organisation of the skilled work

The form of work organisation of work is a key feature of skilled work that cannot be neglected. In this respect, the operational structure and sequence organisation are at the centre of attention (e.g. group organisation, division of labour, hierarchy levels, co-operation with other professions). Co-operation with other professions (e.g. in skilled maintenance work; decentralized versus central maintenance) is an important aspect of the analysis. Varying organisational forms can lead to substantial differences in terms of occupational responsibility, task connection and co-operation and communication requirements relating to the work process. Also work time models (e.g. shift work, break times, part-time jobs) may affect the nature of skilled work considerably.

Analysis category: requirements for skilled work and its components

In this phase the demands towards the work process and the work components, made by different stake holders, are identified. For example, the company sets specific quality standards, which are necessary to stay competitive and have to be respected when performing skilled work. This may require, among others, the adherence to time and cost targets. In addition, legal requirements and standards, e.g. technical standards or the health and safety at work regulations, must be respected. The possibilities and requirements of organising and aligning technology and skilled work only become clear when these varying and partially contradictory demands are compiled in the format of a list.

Analytical category	Central questions
Business and work process	- **Which business processes is the learning station part of?** - **Which products are manufactured?** - **Where do pre-products come from?** - **How are orders accepted?** - **Where in the further process are the products used?** - **How are processed orders handed over?** - **Who is client / customer of the service?**
Workplace	- **Where is the analysed workplace located?** - **What are the prevailing lighting conditions?** - **Prevailing climatic conditions (heat, cold, radiation, ventilation, gas, vapours, fog, dust)?** - **What are the postures of the workers when performing their tasks?**
Subjects and methods of skilled work	- **What exactly is being worked on at the respective learning station (e.g. technical products and processes, services, documentations, control programs)?** - **What is the role of the object produced within the working process?** - **What procedures are applied when working on the task (e.g. manufacturing / assembly operation, error tracing, quality assurance procedure)?**

Tools / equipment of skilled work	- **Which tools and equipment are used to perform the task (machines, tools, devices, software)?** - **How is the tool/equipment handled?**
Organisation of skilled work	- **Organisation of the skilled work (e.g. individual work or group work, division of labour)?** - **Which hierarchies affect the skilled work?** - **Which co-operations and boundaries with other occupations or departments exist?** - **Which qualifications come together in multi-skilled workers / teams at the respective learning station?**
Requirements of skilled work	- **Which operational requirements have to be met when performing the task?** - **Which demands are placed by the customer?** - **Which social requirements do play a role?** - **Which standards, laws and quality specifications need to be considered?** - **Which rules and standards does the community of practice require?**
Interfaces	- **What are the links and interfaces with other activity fields?** - **Which comparisons can be made with other analyses in this activity field that have already been accomplished?** - **What are the similarities / differences to other workplaces in the company or in other companies which refer to the same field of activity (perform the same tasks)?** - **How are theory (vocational school) and practical work interlinked, what are the 'vocational basics' and/or 'core competencies'?**
Training experiences	- **Is the analysed workplace actually being used in training programmes?** - **If not, why?** - **In which year of apprenticeship are the trainees at this learning station (or should they be)?** - **How long are (should be) they at the learning station and where were they before / where do they go afterwards (should have been / should go)?** - **Which preliminary conditions should the trainees meet?** - **What should a trainee learn in the opinion of the skilled workers at this respective learning station?** - **What are the experiences of the skilled workers with trainees/young skilled workers at the respective learning station?** - **How are the trainees coached / supported?** - **Do the trainees work on "normal" work orders do they work on separate orders (e. g. simulated work processes)?** - **What level of autonomy expected from a trainee at the end of his internship at this station? (support/under instruction/under surveillance/independently)**

Table 1: guiding questions for the Learning Station Analysis

Analysis category: interfaces

Furthermore, the analysis must be put in a broader context. Especially interfaces and overlaps with other activity fields deserve special attention. As previously mentioned, activity fields occur rarely completely isolated; they are often closely linked to others and cannot be clearly demarcated. In consequence, results of analyses concerning the chosen activity fields, which derive from other workplaces, can also be subject of critical reflection.

Analysis category: experience with training

As already mentioned, LSAs focus on the development of recommendations as to the sequential order, duration and type of training a learner can receive at work stations. The experiences of skilled workers with trainees are therefore of particular importance.

For the purposes of the ICSAS project, entries in the fields “experiences with new colleagues”, “preliminary conditions” and “level of autonomy” are of particular relevance:

Experiences with new colleagues: The answers to this question might reveal relevant weaknesses of the training system, which most likely cannot be solved at the level of single activity fields.

Preliminary conditions: It strongly increases the acceptance of internships if basic skills and knowledge (i. e. health and safety regulations, working under workshop conditions) are trained in advance.

Level of autonomy: This indicates the learning outcomes that can be expected. Sometimes the highest level (autonomy) cannot be attained (legal preconditions, necessity to have of a lot of experience, etc.) – but this does not lower the potential benefit of WBL; it only indicates the possible realistic outcome. In addition, the autonomy level scale is very useful to document the achievements of trainees (cp. Tab in section 1.5): The mentor responsible for the learning station can indicate on a personal assessment sheet which performance level a trainee has attained.

The classification scheme with guiding questions for the LSA is merged in table 1 and designed as a master template to guide the analysis. The guiding questions offer suggestions for the analysis. They do not need to be strictly followed in each analysis and are not to be considered as a checklist. Their purpose is rather to provide suggestions in order to be able to produce meaningful LSA results.

1.3.3. Execution of Analysis and Documentation

At the beginning of each LSA, the specialists, i.e. the personnel working at the selected workplaces whose work will be analysed, must imperatively be informed of the aims of the LSA. They should follow their work routine as usual: the analysis does not focus on performance, but on how a skilled worker organises and carries out his/her tasks. It can happen that no ‘highlights’ occur on the day of the LSA, just unspectacular ‘standard work’. This is not a problem for the analysis; it just reflects normality. The workplaces are visited and analysed according to the guiding questions which were conceived to get answers making the «invisible» visible. All LSA interviews must be audio-taped in order to handle the information abundance. Of course the recordings must be previously

authorised. The amount of time required for the LSA interviews depends on the complexity of the tasks at each workplace. Experience shows that a LSA usually takes a couple of hours.

- The core of a LSA is to analyse daily work of a skilled worker from the perspective of an apprentice.
- LSAs are not an attempt to evaluate the individual performance of skilled workers.
- The skilled workers involved in the interviews should proofread and give their ok for publication of the documentation of a LSA before further circulation.

1.4. Evaluation

The LSA tool pursues two targets: Firstly to compare the organisation of work at the learning stations with activity fields (AF) respectively units of the curriculum, and secondly to document the learning potential of learning stations. The interviews should cover all necessary aspects to unveil the learning potential of each workplace and to describe it with the necessary clarity. However, the LSA team should give the question of what learning potential can be realistically expected at each specific learning station some initial thoughts, taking into regard the individual progress of each trainee and the requirements of vocational training.

For sure 'potential' is not a guarantee of 'learning'. The term 'potential' rather highlights that a situation or context offers (good) possibilities for substantive learning. In qualification research and professional education 'learning potential' not only has connotations of positive influences at a personal level, it also means the increase of competences in the special subject or task – in the sense that someone is enabled through the learning process to do something that he or she was not able to do before. This also means that someone who is not capable of doing something which he will be required to do later in her/his career is not behaving wrongly. He/she is just not yet able to perform the required tasks. The trainee is expected to reach the required performance level not through threats or exhortation, but by learning to do something thanks to appropriate learning opportunities. The learner has to take advantage of these opportunities in order to gain experience and expertise. Vocational training helps trainees to achieve these goals, but in order to enable them to do so, the responsible staff for organising work-based learning in companies have to be knowledgeable about where within the work process the relevant learning possibilities are located.

The goal of work-based learning is that trainees reach the level of skilled workers in the chosen activity fields. A precondition is that the AF are correctly described and learning stations are selected correspondingly. However, the skilled work observed during LSAs is actually based on long-term experience. Hence, even under ideal conditions at a learning station, it is practically impossible for a trainee to reach the level of an experienced skilled worker within the scope of a limited training period.

Another pedagogical argument has to be considered: it is virtually impossible for an apprentice to catch up with the routine and experience that a skilled worker has acquired during 5 to 15 years of

career – even if the training is organised with utmost efficiency. But this is exactly why job beginners should get in contact with skilled workers, with 'masters of their profession', and should be coached by them during the entire practical training. Even if it is not possible to become even nearly as professional as the experts within a training of several weeks at the learning station, the contents that are important for the profession can be most effectively learned from the experts in the field. A knowledge and skill gap between an expert skilled worker and even the most talented beginner will, of course, always persist. It will only diminish over time.

It is not the primary objective of a process-orientated training to turn beginners as quickly as possible into 'experts'. As we have seen, LSAs aim to identify the core features of skilled work that are present at the relevant learning stations according to the AF. A further aim of LSAs is to bring the learning stations into an appropriate order for learning purposes. Hence it is necessary to be aware of the learning potential of all learning stations. For example, consider the core work associated with cutting of upper parts from leather hides. It can be analysed how the necessary skills and competences can be acquired in an effective way. It can also be identified what prior skills, knowledge and attitudes the trainee should have for effective learning in that workplace. Having a cooperative attitude may greatly aid the learning process in cutting, as well as having theoretical knowledge about leather and being able to create a cutting layout or hold a hand cutting knife. A trainee can learn all the practical skills from involvement in the work process. In order to organise an effective progression through the different learning stations, LSAs can also serve to create a reliable assessment tool, led by two key questions:

- What skills can be acquired at the particular learning station and which elements of this skill spectrum will be required for which subsequent learning station?

- What skills and competences must the trainee already possess in order to increase the chances to achieve a substantial learning gain?

These two questions have to be answered for each LSA. It is key to identify the initial entry level requirements for each learning station a trainee must meet, as well as to identify the expected learning outcome (skills and knowledge the trainee should have acquired after the training at a particular learning station). The learning outcome of one learning station is the pre-requisite to enter into the subsequent learning station.

A comprehensively accomplished LSA in a plant will result in a logical organisation of the necessary learning steps that can be achieved by a particular progression through different organisational work processes. The evaluation should therefore take "the internal linkage of all working processes" into account. The development steps of trainees have to be aligned with how trainees can move through the organisational work processes.

The training quality will also depend on the time a trainee can spend at each learning station. Evidently, short trainings (few days/weeks) can only quickly touch on each process step will impart very little about the process itself. Short-time trainees will be able to report what he/she has heard and seen but cannot develop a deep understanding or know-how because of the lack of substantial experience. A rapid progression through work processes can only produce superficial knowledge.

The flow through learning stations is guided by a pedagogic rationale. We should be aware that the core competences may require hierarchical structuring because of increasing levels of difficulty and

increasing amounts of time to learn. Therefore it makes sense if less complex component elements of a major task are learned at an earlier stage. LSAs investigate the potential of concrete work processes to provide support for competence development of apprentices.

LSAs answer the following questions:

- What can be learnt at a specific learning station?
- Which skills and knowledge should a trainee already have acquired before entering a new learning station in order to achieve optimal learning outcomes?
- Findings are recommendations; concrete implementation might be affected by frame conditions (e. g. number of placements at a time).

Abbreviations:
AF: Activity Field
LSA: Learning Station Analysis
WBL: Work-Based Learning

1.5 Template

The template below is based on table 1. It is half open, meaning that it offers at any time the possibility to make additional entries.

Description	**Learning station** **Date**	
Location / site	**Vocational profile**	
Allocation	**To curriculum**	
Process environment	**Type of product/service**	
	Internal supplier	
	Order- / material acceptance	
	Direct user of product/service	
	Client of product/service	
	Production steps already performed	
	Interfaces with other process steps	
	Specifics of work process related to the duration of execution, work process organisation, quality assurance etc.	
Process steps (detailed description)		

Workplace	**Shop floor**	
	Lighting conditions / environment	
	Posture	
	Specifics	
Organisation	**Employees at workplace per shift**	
	Employees in department	
	Hierarchy	
	Cycle time	
	Shifts	
	Similar work stations	
	Cooperation	
	Specifics	
Interfaces	**… to other activity fields?**	
	… to other learning places?	
	Separate trainee workshops / theoretical knowledge?	
	Miscellaneous	
Vocational training	**Vocational year / duration**	

	Preconditions / previous stations			
	What should they learn?			
	Specifics of training (individualisation, duration, timing)			
	Experience with trainees & young skilled workers			
	Assistance / working tasks			
	Is the existing potential used?			
	Possibilities for improvement			
	Number of trainees per learning station			
	Comments			
Highest level of autonomy reachable	**Support**	**With instruction and guidance**	**Under surve illance**	**Independently**

2. LEARNING STATION ANALYSIS

2.1. Core spheres

2.1.1. Automatic cutting

Description	**Learning station**	Footwear Automatic Cutting
	Date	03/2018

Workplace	**Vocational Profile**	Footwear Automatic Cutting Operator
Allocation	**Curriculum**	Footwear Manufacturing Operator
Process environment	**Product /Service**	- Production models - Sample models of own brands. - Sample models of confirmation to customers/clients - Men' s footwear models Materials: mainly leather and synthetics.
	Internal supplier	- Planning sector: prepares and supplies the weekly production plans and the production orders for the footwear models manufacturing. - Stockage: prepares and supplies the suitable materials for the respective production orders and models.
	Production Order/ Manufacturing Order / Material acceptance	- Production Plan/Weekly Production Chart delivered by the planning sector. - Production orders that follow the materials to cut. - Respective materials to each production order and model delivered by Stockage.
	Direct user of product/ Direct Internal Customer / Service	Quality control
	Client of product / Final Customer / Service	Several customers of the company Trade department – in the case of the samples.

	Production steps already performed	- Design: only own brand samples - Pattern making: study of several models from samples and customers' specifications.
	Interfaces with other process steps	
	Specifics of work process related to the duration of execution, work process organisation, quality assurance etc.	The operator is autonomous in his worplace, he is responsible for his organization, considering the inherent safety measures. He is also responsible for verifying the documentation, the materials he receives, the operating conditions of the equipment and the work performed (quality and quantity). He is subject to production time control: He receives the time sheets with production times and he removes the ticket from operations performed to control his daily efficiency.
Process Steps (detailed description)	1. Interpretation of the data of the Production Plan / weekly chart of the activity, identifying priorities, models and materials. Establish relationship with Manufacturing Orders and material notes. 2. Reception of the materials according to the manufacturing orders delivered by the warehouse and quality and quantity control. 3. Scan the material through appropriate equipment (scanning table), identifying and indicating any defects. Study of the layout of the footwear model pieces to cut corresponding to the Manufacture Order, considering the technical characteristics and quality requirements of the model, as well as, the optimization of the material. He should proceed with its codification.	

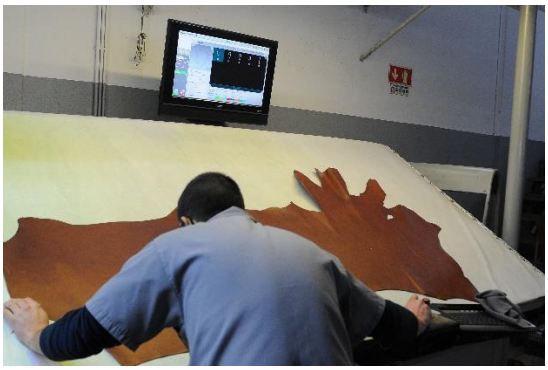
	4. Cut in the respective automatic cutting machine using the programming code and taking into account the coordinates defined on the scanning table. 5. After cutting the pieces of the model - remove, organize and control the cut pieces in terms of quality and quantity and according to the Manufacture Order. 6. Carry out the cutting material for quality control.	
Workplace	**Space**	Suitable.
	Lighting conditions / Environment	Sufficient but needs improvement in the scanning process to better visualize the position of the pieces.
	Posture	Suitable - Standing.
	Specificities	- Places defined for the storage of materials, equipment and cut pieces. - Support tables to facilitate the organization and execution of the operations. - Support equipments to materials to cut – leather.
Organization/ *organization of the skilled work*	**Nr of employees in the Workplace per shift**	3
	Nr of de employees in the department	13
	Hierarchy	Coordinator of the footwear cutting sector
	Cycle time	8 hours/day
	Shifts	1
	Similar Workplaces	1 – Footwear Automatic Cutting.

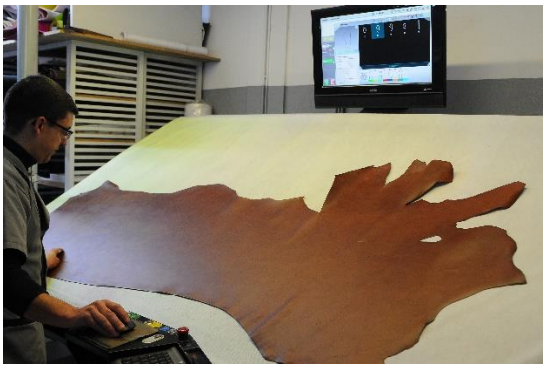
	Cooperation	The operator has the cooperation of the Coordinator of the footwear cutting sector.
	Specificities	Diversity of models and materials used.
Interfaces	**With other activity fields**	- Quality management; - Safety and the work environment; - Equipment maintenance.
	With other workplaces	- Pattern making and model development - Quality control.
	Training Workshops / Theoretical Knowledge	- Material technology - Footwear model technology. - Optimization of the materials consumption.
	Others	- Equipment: technology and maintenance - Quality control - Production management and control of the operating times.
Vocational Training	**Vocational Learning / duration**	The training occurs in the workplace under the guidance of the Coordinator of the shoe cutting sector. The duration is variable and depends on the workplace requirements and the potential of the trainee - posture, motivation, learning ability and professional performance.
	Preconditions / previous stations	
	What to learn	Objective: To perform the automatic cutting of different models and different materials according to manufacturing

	orders and optimizing the available resources. - Technology of the footwear models and materials. - Quality, Environment and Safety in shoe cutting - Planning concepts, methods and times. - Applied ICT (footwear engineering and cutting). - Equipment technology (operation and basic maintenance). - Operations Technology: • Execution of the operations: scanning and automatic cutting. - Quality control of the material to cut and the cut pieces. - Organization of the workplace, applying basic principles of ergonomics, safety, environment and hygiene at work. - Basic principles application of the equipment maintenance. - Practice of the professional performance.
Training specificities	- Consider the practical and contextualized application of concepts. - Learning evolution of the gradual complexity, enhancing responsibility and autonomy. - Promote the motivation, participation and individual autonomy.

Experience with the Trainees / Young skilled workers	The importance of follow-up / mentoring.
Assistance / working tasks	Support provided by the Coordinator of the footwear cutting sector.
Is the learning potential being explored?	Yes.
Improvement opportunities / Possibilities for improvement	To formalize (reduce informalism) the training practices in a more structured way, introducing evaluation tools for both the tutor / trainer and the trainee, to reflect for the decision makers the results obtained and to enhance the improvement of the process used.
Nr of Trainees per learning station	1
Comments	In the national context there is a Certified Training System for Footwear Manufacturing Operator, where training for this apprenticeship is integrated into two modalities: A. AET Course (Adult Education Training): Qualification course - level 2 Duration: 1 year Training Components: • Basic training - 900 hours • Technological - 850 hours • Practice in work context - 120 hours B. Modular Training: Short-term Training Units: Footwear cutting (the various types of cutting: automatic, mechanical and

			manual) - 175 hours + Practice in the context of work (company).	
Highest level of autonomy reachable	**Support**	**With instruction and guidance**	**Under surveillance**	**Independent**
	3 months	3-6 months	6 – 12 months	12 months

	1. Materials to each production order
	2. Scan the material, identify and indicate any defects

	3. Study of the layout of the footwear model pieces
	4. Study of the layout of the footwear model pieces
	5. Positioning the material in the cutting table considering the coordinates defined on the scanning table

	6. Lay-out of the pieces to cut
	7. Automatic cutting
	8. Removing cut pieces

	9. Organize and control the cut pieces in terms of quality and quantity and according to the Manufacture Order.

2.1.2. **Press cutting**

Description	**Learning station**	Footwear Mechanical Cutting
	Date	03/2018
Workplace	**Vocational Profile**	Footwear Mechanical Cutting Operator
Allocation	**Curriculum**	Footwear Manufacturing Operator
Process environment	**Product /Service**	- Production models - Sample models of own brands. - Sample models of confirmation to customers/clients - Men' s footwear models Materials: mainly leather and synthetics.
	Internal supplier	- Planning sector: prepares and supplies the weekly production plans and the production orders for the footwear models manufacturing. - Stockage: prepares and supplies the suitable materials for the respective production orders and models.
	Production Order/ Manufacturing Order / Material acceptance	- Production Plan/Weekly Production Chart delivered by the planning sector. - Production orders that follow the materials to cut. - Respective materials to each production order and model delivered by Stockage.
	Direct user of product/ Direct Internal Customer / Service	Quality control
	Client of product / Final Customer / Service	Several customers of the company Trade department – in the case of the samples.
	Production steps already performed	- Design: only own brand samples - Pattern making: study of several models from samples and customers' specifications.

	Interfaces with other process steps	
	Specifics of work process related to the duration of execution, work process organisation, quality assurance etc.	The operator is autonomous in his workplace, he is responsible for his organization, considering the inherent safety measures. He is also responsible for verifying the documentation, the materials he receives, the operating conditions of the equipment and the work performed (quality and quantity). He is subject to production time control: He receives the time sheets with production times and he removes the ticket from operations performed to control his daily efficiency.
Process Steps (detailed description)	7. Interpretation of the data of the *Production Plan / weekly chart* of the activity, identifying priorities, models and materials. Establish relationship with *Manufacturing Orders* and material notes. 8. Reception of the materials according to the manufacturing orders delivered by the warehouse and quality and quantity control. 9. Organize the workplace, prepare the equipment and resources inherent to the mechanical cut. 10. Prepare the cut of the pieces: distend the material on the table of the pressing knife machine and identify any defects and areas of the material to be prevented, considering the technical characteristics and quality requirements of the model, as well as, the material optimization. 11. Carry out the cut in the respective the pressing knife machine, considering the requirements of the material and the model pieces. 12. After cutting the model pieces - remove, organize and control the cut pieces according to the *Manufacturing Order*. 13. Carry out the cut material for quality control.	

Workplace	**Space**	Suitable
	Lighting conditions / Environment	Suitable
	Posture	Suitable - standing.
	Specificities	- Places defined for the storage of materials, equipment and cut pieces. - Support equipments to materials to cut, cutting dies and others.
Organização	**Nr of employees in the Workplace per shift**	1
	Nr of de employees in the department	13
	Hierarchy	Coordinator of the footwear cutting sector.
	Cycle time	8 hours/day
	Shifts	1
	Similar Workplaces	8 – Footwear mechanical cutting
	Cooperation	The operator has the cooperation of the Coordinator of the footwear cutting sector.
	Specificities	Diversity of models and materials used.
Interfaces	**With other activity fields**	- Quality management; - Safety and the work environment - Equipment maintenance
	With other workplaces	- Pattern making and model development - Quality control.
	Training Workshops / Theoretical Knowledge	- Material technology - Footwear model technology. -Optimization of the materials consumption.

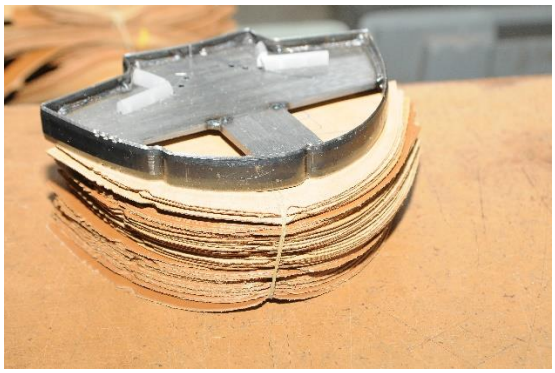
	Others	- Equipment: technology and maintenance - Quality control - Production management and control of the operating times.
Vocational Training	**Vocational Learning / duration**	The training occurs in the workplace under the guidance of the Coordinator of the footwear cutting sector. The duration is variable and depends on the workplace requirements and the potential of the trainee - posture, motivation, learning ability and professional performance.
	Preconditions / previous stations	
	What to learn	Objective: To perform the mechanical cutting of different models and different materials according to manufacturing orders and optimizing the available resources. - Technology of the footwear models and materials. - Quality, Environment and Safety in shoe cutting. - Planning concepts, methods and times. - Equipment technology (operation and basic maintenance). - Operations Technology: • Execution of the mechanical cutting of the different models and materials.

		- Quality control of the material to cut and the cut pieces. - Organization of the workplace, applying basic principles of ergonomics, safety, environment and hygiene at work. - Basic principles application of the equipment maintenance. - Practice of the professional performance.
	Training specificities	- Consider the practical and contextualized application of concepts. - Learning evolution of the gradual complexity, enhancing responsibility and autonomy. - Promote the motivation, participation and individual autonomy.
	Experience with the Trainees / Young skilled workers	The importance of follow-up / mentoring
	Assistance / working tasks	Support provided by the Coordinator of the footwear cutting sector.
	Is the learning potential being explored?	Yes.
	Improvement opportunities / Possibilities for improvement	To formalize (reduce informalism) the training practices in a more structured way, introducing evaluation tools for both the tutor / trainer and the trainee, to reflect for the decision makers the results obtained and to enhance the improvement of the process used.
	Nr of Trainees per learning station	1
	Comments	In the national context there is a Certified Training System for Footwear Manufacturing Operator, where training

			for this apprenticeship is integrated into two modalities: A. AET Course (Adult Education Training): Qualification course - level 2 Duration: 1 year Training Components: • Basic training - 900 hours • Technological - 850 hours • Practice in work context - 120 hours B. Modular Training: Short-term Training Units: Footwear cutting (the various types of cutting: automatic, mechanical and manual) - 175 hours + Practice in the context of work (company).	
Highest level of autonomy reachable	**Support**	**With instruction and guidance**	**Under surveillance**	**Independent**
	3 months	3-6 months	6 – 12 months	12 months

1. Interpretation of the data of the Production Plan

	2. Positioning the cutting die in the material
	**3.** Carry out the cut pressing the knife machine, considering the requirements of the material and the model pieces
	**4.** Cut pieces

	5. Organize and control the cut pieces according to the Manufacturing Order.

2.1.3. **Pre-stitching / Stitching Preparation**

Description	**Learning station**	Footwear stitching preparation
	Date	03/2018
Workplace	**Vocational Profile**	Footwear stitching preparation operator
Allocation	**Curriculum**	Footwear Manufacturing Operator
Process environment	**Product /Service**	- Production models - Sample models of own brands. - Sample models of confirmation to customers/clients - Men' s footwear models Materials: mainly leather and synthetics.
	Internal supplier	- Planning sector: prepares and supplies the weekly production plans and the production orders for the footwear models manufacturing. - Stockage: prepares and supplies the suitable materials for the respective manufacturing orders and models - interlacings, cement, stamping tapes,… - Quality control: it provides the cut pieces of the diverse models.
	Production Order/ Manufacturing Order / Material acceptance	- *Production Plan/Weekly Production Chart* delivered by the planning sector. - *Manufacturing orders / Production orders* that follow the cut models. Respective materials to each *Manufacturing order* and model delivered by Stockage.
	Direct user of product/ Direct Internal Customer / Service	Stitching

	Client of product / Final Customer / Service	Several customers of the company Trade department – in the case of the samples.
	Production steps already performed	- Design: only own brand samples - Pattern making: study of several models from samples and customers' specifications. - Cutting: execution of the cut of the footwear different pieces.
	Interfaces with other process steps	
	Specifics of work process related to the duration of execution, work process organisation, quality assurance etc.	The operator is autonomous in her workplace, she is responsible for his organization, considering the inherent safety measures. She is also responsible for verifying the documentation, the materials he receives, the operating conditions of the equipment and the work performed (quality and quantity). She is subject to production time control: She receives the time sheets with production times and he removes the ticket from operations performed to control his daily efficiency.
Process Steps (detailed description)	14. Interpretation of the data of the *Production Plan* / weekly chart of the activity, identifying priorities, models and materials. Establish relationship with *Manufacturing Orders*. 15. Reception of the materials according to the *Manufacturing Orders* delivered by the warehouse and quality and quantity control.	

	16. Reception of the cut materials / pieces in the cutting sector and after the quality control according to the pre-established indexes and the *Manufacturing Orders*. 17. Organize the workplace, prepare the equipment and resources inherent to the stitching preparation operations: skiving, stamping, applying interlacing and marking (if it's not possible to do it with the cutting dies). 18. Skiving of the pieces according to the skiving chart of each model 19. Stamping of the model pieces, taking into account specific technical model guidelines. 20. Application of the reinforcement interlacings on model pieces, considering the model technical specifications. 21. Carry out the material prepared for the stitching.	
Workplace	**Space**	Suitable
	Lighting conditions / Environment	Suitable
	Posture	Adequate - sitting.
	Specificities	- Places defined for workstations and the materials and equipments storage. - The pieces of the models with the respective manufacturing orders are conditioned in adequate boxes for the automatic conveyor. - There are workplaces that present information about safety measures to be applied.
Organization	**Nr of employees in the Workplace per shift**	1
	Nr of de employees in the department	9
	Hierarchy	Coordinator of the footwear cutting sector
	Cycle time	8 hours/day

	Shifts	1
	Similar Workplaces	2 similar positions / operation
	Cooperation	The operator has the cooperation of the Coordinator of the footwear cutting sector.
	Specificities	Diversity of models, materials and operations used.
Interfaces	**With other activity fields**	- Quality management; - Safety and the work environment ; - Equipment maintenance.
	With other workplaces	- Quality control - Footwear stitching
	Training Workshops / Theoretical Knowledge	- Material technology; - Footwear model technology.
	Others	- Equipment: technology and maintenance - Production management and control of the operating times.
Vocational Training	**Vocational Learning / duration**	The training occurs in the workplace under the guidance of the Coordinator of the footwear stitching preparation sector. The duration is variable and depends on the workplace requirements and the potential of the trainee - posture, motivation, learning ability and professional performance.
	Preconditions / previous stations	
	What to learn	Objective: To perform the stitching preparation (skiving, stamping and applying interlacing) of the different models and in different materials

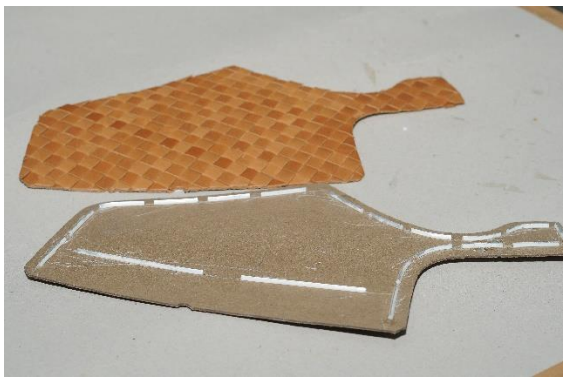
	according to manufacturing orders and optimizing the available resources. - Technology of the footwear models and materials. - Quality, Environment and Safety in footwear stitching preparation. - Planning concepts, methods and times. - Equipment technology (operation and basic maintenance). - Operations Technology: • Execution of the different skiving types in the pieces of different models according to the respective skiving chart. • Stamping the pieces of the footwear models. • Applying interlacings in pieces, considering specific technical elements to the models. - Quality control of pieces after stitching preparation operations. - Organization of the workplace, applying basic principles of ergonomics, safety, environment and hygiene at work. - Basic principles application of the equipment maintenance - Practice of the professional performance.
Training specificities	- Consider the practical and contextualized application of concepts.

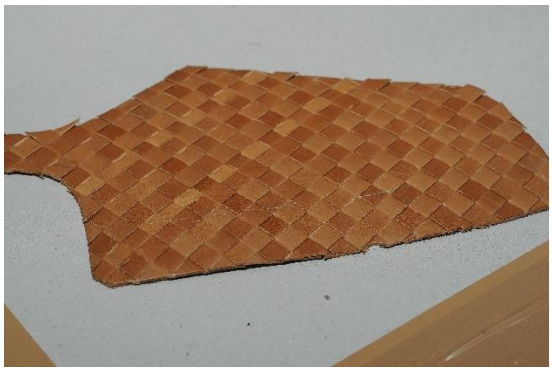
		- Learning evolution of the gradual complexity, enhancing responsibility and autonomy. - Promote the motivation, participation and individual autonomy.
	Experience with the Trainees / Young skilled workers	The importance of follow-up / mentoring
	Assistance / working tasks	Support provided by the Coordinator of the footwear stitching sector.
	Is the learning potential being explored?	Yes.
	Improvement opportunities / Possibilities for improvement	To formalize (reduce informalism) the training practices in a more structured way, introducing evaluation tools for both the tutor / trainer and the trainee, to reflect for the decision makers the results obtained and to enhance the improvement of the process used.
	Nr of Trainees per learning station	1
	Comments	In the national context there is a Certified Training System for Footwear Manufacturing Operator, where training for this apprenticeship is integrated into two modalities: A. AET Course (Adult Education Training): Qualification course - level 2 Duration: 1 year Training Components: • Basic training - 900 hours • Technological - 850 hours • Practice in work context - 120 hours

			B. Modular Training: Short-term Training Units: Footwear stitching preparation: 150 hours + Practice in the context of work (company).	
Highest level of autonomy reachable	**Support**	**With instruction and guidance**	**Under surveillance**	**Independent**
	3 months	3-6 months	6 – 12 months	12 months

	1. Skiving standard for each model
	2. Skiving operation

	**3.** Skiving operation
	**4.** Stamping operation
	5. Stamping operation

	6. Application of reinforcement
	7. Application of reinforcement
	8. Marking die and piece

	9. Marking operation
	10. Marked piece
	11. Pieces ready for stitching

2.1.4. **Stitching**

Description	**Learning station**	Footwear Stitching
	Date	03/2018
Workplace	**Vocational Profile**	Footwear Stitching Operator
Allocation	**Curriculum**	Footwear Manufacturing Operator
Process environment	**Product /Service**	- Production models - Sample models of own brands. - Sample models of confirmation to customers/clients - Men' s footwear models Materials: mainly leather and synthetics.
	Internal supplier	- Planning sector: prepares and supplies the weekly production plans and the production orders for the footwear models manufacturing. - Stockage: prepares and supplies the suitable materials for the respective manufacturing orders and models - threads, reinforcements… • Footwear stitching preparation: it provides the prepared pieces of the diverse models.
	Production Order/ Manufacturing Order / Material acceptance	- *Production Plan/Weekly Production Chart* delivered by the planning sector. - *Production Orders/Manufacturing Orders* that follow the pieces and materials of the models. - Respective materials to each manufacturing order and model delivered by Stockage.
	Direct user of product/ Direct Internal Customer / Service	Quality Control

	Client of product / Final Customer / Service	Several customers of the company Trade department – in the case of the samples.
	Production steps already performed	- Design: only own brand samples - Pattern making: study of several models from samples and customers' specifications. - Cutting: execution of the cut of the footwear different pieces. - Stitching preparation of several footwear models.
	Interfaces with other process steps	
	Specifics of work process related to the duration of execution, work process organisation, quality assurance etc.	The operator is autonomous in his workplace, she is responsible for her organization, considering the inherent safety measures. She is also responsible for verifying the documentation, the materials he receives, the operating conditions of the equipment and the work performed (quality and quantity). She is subject to production time control: She receives the time sheets with production times and he removes the ticket from operations performed to control his daily efficiency.
Process Steps (detailed description	22. Interpretation of the data of the Production Plan / weekly chart of the activity, identifying priorities, models and materials. Establish relationship with Manufacturing Orders. 23. Reception of the materials according to the manufacturing orders delivered by the warehouse and quality and quantity control.	

	24. Reception of the materials / pieces prepared by the stitching preparation according to the Manufacturing Orders. 25. Organize the workplace, prepare the equipment and resources inherent to the stitching operations: stitching, stitching and trimming, piping, folding, punching and applying toe puff and the counter. 26. Execution of the specific stitching operations of each model and in different equipments – flat-bed machine, post-bed machine with and without programming, stitching and trimming machines, zig-zag stitching machine, double-needle stitching machine, 27. Application of toe puff and counter by cement. 28. Laying and cement of linings manually, considering the specificities of the models and the Manufacturing Orders 29. Perform the piping the pieces of the different models, considering specific technical guidelines. 30. Perform the folding of the pieces considering specific technical guidelines. 31. Punching the pieces according to the specific technical guidelines – punching for laces, others…. 32. Carry out the stitched material for the quality control.	
Workplace	**Space**	Suitable
	Lighting conditions / Environment	Suitable
	Posture	Adequate - sitting.
	Specificities	- Places defined for workstations and the materials and equipments storage. - The pieces of the models with the respective manufacturing orders are conditioned in adequate boxes for the automatic conveyor. - There are workplaces that present information about safety measures to be applied.

Organization	**Nr of employees in the Workplace per shift**	1
	Nr of de employees in the department	30
	Hierarchy	Coordinator of the footwear stitching sector
	Cycle time	8 hours/day
	Shifts	1
	Similar Workplaces	Stitching: 20 Stitching and trimming: 2 zig-zag stitching: 2 Folding: 2 Punching: 1 Applying toe puff and counter: 2
	Cooperation	The operator has the cooperation of the Coordinator of the footwear stitching sector.
	Specificities	Diversity of models, materials and operations used.
Interfaces	**With other activity fields**	- Quality management; - Safety and the work environment - Equipment maintenance
	With other workplaces	- Footwear stitching preparation - Quality control
	Training Workshops / Theoretical Knowledge	- Material technology - Footwear model technology.
	Others	- Equipment: technology and maintenance - Production management and control of the operating times.
Vocational Training	**Vocational Learning / duration**	The training occurs in the workplace under the guidance of the Coordinator of

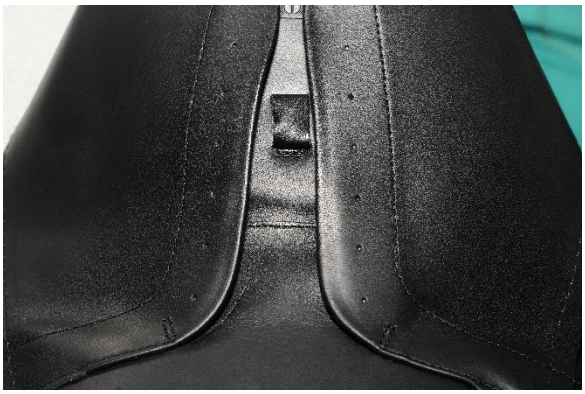
		the footwear stitching sector. The duration is variable and depends on the workplace requirements and the potential of the trainee - posture, motivation, learning ability and professional performance.
	Preconditions / previous stations	
	What to learn	Objective: To perform the stitching of the different models and in different materials according to manufacturing orders and optimizing the available resources. - Technology of the footwear models and materials. - Quality, Environment and Safety in footwear stitching. - Planning concepts, methods and times. - Equipment technology (operation and basic maintenance). - Operations Technology: • Execution of the different stitching types in the pieces of different models according to the technical specifications and Manufacturing orders. • Piping the pieces considering technical specifications of the footwear models. • Folding the pieces considering technical specifications of the footwear models.

		• Applying toe puff and counter through cement. - Control of the uppers after stitching operations with the respective manufacturing orders. - Organization of the workplace, applying basic principles of ergonomics, safety, environment and hygiene at work. - Basic principles application of the equipment maintenance - Practice of the professional performance
	Training specificities	Consider the practical and contextualized application of concepts. - Learning evolution of the gradual complexity, enhancing responsibility and autonomy. - Promote the motivation, participation and individual autonomy.
	Experience with the Trainees / Young skilled workers	The importance of follow-up / mentoring
	Assistance / working tasks	Support provided by the Coordinator of the footwear stitching sector.
	Is the learning potential being explored?	Yes
	Improvement opportunities / Possibilities for improvement	To formalize (reduce informalism) the training practices in a more structured way, introducing evaluation tools for both the tutor / trainer and the trainee, to reflect for the decision makers the results obtained and to enhance the improvement of the process used.
	Nr of Trainees per learning station	1

	Comments		In the national context there is a Certified Training System for Footwear Manufacturing Operator, where training for this apprenticeship is integrated into two modalities: A. AET Course (Adult Education Training): Qualification course - level 2 Duration: 1 year Training Components: • Basic training - 900 hours • Technological - 850 hours • Practice in work context - 120 hours B. Modular Training: Short-term Training Units: Footwear stitching: 250 hours + Practice in the context of work (company).	
Highest level of autonomy reachable	**Support**	**With instruction and guidance**	**Under surveillance**	**Independent**
	3 months	3-6 months	6 – 12 months	12 months

	1. Stitching – post-bed machine

	2. Stitching – post-bed machine with trimming
	**3.** Stitching – piping machine
	**4.** Manual operation – application of counter
	5. Manual operation – hit seams

	6. Punching operation
	7. Stitched material

2.1.5. **Pre-assembling / Lasting preparation**

Description	**Learning station**	Footwear lasting preparation
	Date	03/2018
Workplace	**Vocational Profile**	Footwear lasting preparation operator
Allocation	**Curriculum**	Footwear Manufacturing Operator
Process environment	**Product /Service**	- Production models - Sample models of own brands. - Sample models of confirmation to customers/clients. - Men' s footwear models. Materials: mainly leather and synthetics.
	Internal supplier	- Planning sector: prepares and supplies the weekly production plans and the *Manufacturing Orders* / production orders for the footwear models manufacturing. - Stockage: prepares and supplies the suitable materials for the respective manufacturing orders and models - eyelets, threads… • Quality Control: it provides the uppers of the diverse models.
	Production Order/ Manufacturing Order / Material acceptance	- *Production Plan/Weekly Production Chart* delivered by the planning sector. - *Manufacturing Orders / Production Orders* that follow the stitched models. - Respective materials to each manufacturing order and model delivered by Stockage.
	Direct user of product/ Direct Internal Customer / Service	Footwear Lasting

	Client of product / Final Customer / Service	Several customers of the company Trade department – in the case of the samples.
	Production steps already performed	- Design: only own brand samples - Pattern making: study of several models from samples and customers' specifications. - Cutting: execution of the cut of the footwear different pieces. - Stitching preparation of several footwear models. - Stitching of several footwear models.
	Interfaces with other process steps	
	Specifics of work process related to the duration of execution, work process organisation, quality assurance etc.	The operator is autonomous in his/her workplace, he/she is responsible for his organization, considering the inherent safety measures. He/she is also responsible for verifying the documentation, the materials he receives, the operating conditions of the equipment and the work performed (quality and quantity). He/she is subject to production time control: He/she receives the time sheets with production times and he removes the ticket from operations performed to control his daily efficiency.
Process Steps (detailed description	33. Interpretation of the data of the *Production Plan* / weekly chart of the activity, identifying priorities, models and materials. Establish relationship with *Manufacturing Orders*.	

	34. Reception of the materials according to the *Manufacturing Orders* delivered by the warehouse and quality and quantity control. *35.* Reception of the stitched models according to the *Manufacturing Orders.* 36. Organize the workplace, prepare the equipment and resources inherent to the lasting preparation operations: applying eyelets, closing uppers, molding toe puff and the counter. 37. Applying the eyelets according to the model specific technical guidelines. 38. Closing uppers in the opening of the quarters, closing the models for the correct positioning on the last and a correct lasting of the models. 39. Perform the operations – molding toe puff and counter according to the model specific technical guidelines. 40. Carry out the models to the Lasting / Assembly section.	
Workplace	**Space**	Suitable
	Lighting conditions / Environment	Suitable
	Posture	Adequate - sitting.
	Specificities	- Places defined for workstations and the materials and equipments storage. - The uppers of the models with the respective manufacturing orders are conditioned in adequate boxes for the automatic conveyor. - There are workplaces that present information about safety measures to be applied.
Organization	**Nr of employees in the Workplace per shift**	5
	Nr of de employees in the department	Assembly department: 18 Lasting preparation: 5
	Hierarchy	Coordinator of the footwear lasting / assembly sector

	Cycle time	8 hours / day
	Shifts	1
	Similar Workplaces	Eyelets application: 2 Closing uppers in the opening of the quarters: 2 Molding toe puff and counter : 1
	Cooperation	The operator has the cooperation of the Coordinator of the footwear assembly sector.
	Specificities	Diversity of models, materials and operations used.
Interfaces	**With other activity fields**	- Quality management; - Safety and the work environment - Equipments maintenance
	With other workplaces	- Quality control - Footwear lasting
	Training Workshops / Theoretical Knowledge	- Material technology. - Footwear model technology.
	Others	- Equipment: technology and maintenance. - Production management and control of the operating times.
Vocational Training	**Vocational Learning / duration**	The training occurs in the workplace under the guidance of the Coordinator of the footwear assembly sector. The duration is variable and depends on the workplace requirements and the potential of the trainee - posture, motivation, learning ability and professional performance.

	Preconditions / previous stations	
	What to learn	Objective: To perform the lasting preparation of the different models according to manufacturing orders and optimizing the available resources. - Technology of the footwear models and materials. - Quality, Environment and Safety in footwear lasting preparation. - Planning concepts, methods and times. - Equipment technology (operation and basic maintenance). - Operations Technology: • Applying the eyelets on different models according to the technical specifications and Manufacturing orders. • Closing uppers of the different models, preparing them for the lasting. • Execution of the molding toe puff and counter according to the model specific technical guidelines. - Quality Control of the uppers after lasting preparation operations. - Organization of the workplace, applying basic principles of ergonomics, safety, environment and hygiene at work. - Basic principles application of the equipment maintenance.

		- Practice of the professional performance.
	Training specificities	- Consider the practical and contextualized application of concepts. - Learning evolution of the gradual complexity, enhancing responsibility and autonomy. - Promote the motivation, participation and individual autonomy.
	Experience with the Trainees / Young skilled workers	The importance of follow-up / mentoring
	Assistance / working tasks	Support provided by the Coordinator of the footwear assembly sector.
	Is the learning potential being explored?	Yes.
	Improvement opportunities / Possibilities for improvement	To formalize (reduce informalism) the training practices in a more structured way, introducing evaluation tools for both the tutor / trainer and the trainee, to reflect for the decision makers the results obtained and to enhance the improvement of the process used.
	Nr of Trainees per learning station	1
	Comments	In the national context there is a Certified Training System for Footwear Manufacturing Operator, where training for this apprenticeship is integrated into two modalities: A. AET Course (Adult Education Training): Qualification course - level 2 Duration: 1 year Training Components:

			• Basic training - 900 hours • Technological - 850 hours • Practice in work context - 120 hours B. Modular Training: Short-term Training Units: Footwear Lasting preparation: 50 hours + Practice in the context of work (company).	
Highest level of autonomy reachable	**Support**	**With instruction and guidance**	**Under surveillance**	**Independent**
	1 month	1-3 months	3 – 6 months	6 months

	1. Applying eyelets
	2. Applying eyelets

	**3.** Closing uppers
	**4.** Closing uppers
	5. Moulding counters

2.1.6. **Lasting**

Description	**Learning station**	Footwear lasting
	Date	03/2018
Workplace	**Vocational Profile**	Footwear Lasting Operator
Allocation	**Curriculum**	Footwear Manufacturing Operator
Process environment	**Product /Service**	- Production models - Sample models of own brands. - Sample models of confirmation to customers/clients. - Men' s footwear models. Materials: mainly leather and synthetics.
	Internal supplier	1. Planning sector: prepares and supplies the weekly production plans and the *Manufacturing Orders* / production orders for the footwear models manufacturing. 2. Stockage: prepares and supplies the suitable materials for the respective manufacturing orders and models – insoles, cement… • Footwear lasting preparation: it provides the uppers of the diverse models.

	Production Order/ Manufacturing Order / Material acceptance	3. *Production Plan/Weekly Production Chart* delivered by the planning sector. 4. *Manufacturing Orders / Production Orders* that follow the prepared models for the lasting. 5. Respective materials to each production order and model delivered by Stockage.
	Direct user of product/ Direct Internal Customer / Service	Applying the sole to the upper.
	Client of product / Final Customer / Service	Several customers of the company Trade department – in the case of the samples.
	Production steps already performed	- Design: only own brand samples - Pattern making: study of several models from samples and customers' specifications. - Cutting: execution of the cut of the footwear different pieces. - Stitching preparation of several footwear models. - Stitching of several footwear models. - Lasting preparation of several footwear models
	Interfaces with other process steps	
	Specifics of work process related to the duration of execution, work process organisation, quality assurance etc.	The operator is autonomous in his workplace, he is responsible for his organization, considering the inherent

		safety measures. He is also responsible for verifying the documentation, the materials he receives, the operating conditions of the equipment and the work performed (quality and quantity). He is subject to production time control: He receives the time sheets with production times and he removes the ticket from operations performed to control his daily efficiency.
Process Steps (detailed description	• Interpretation of the data of the Production Plan / weekly chart of the activity, identifying priorities, models and materials. Establish relationship with Manufacturing Orders. • Reception of the materials according to the manufacturing orders delivered by the warehouse and quality and quantity control. • Reception of the prepared models for the lasting according to the Manufacturing Orders. • Organize the workplace prepare the equipment and resources inherent to the lasting operations: insert the last in the upper, forepart lasting and side and seat lasting. • Applying the insole on the last, according to the Manufacturing Orders and specific technical guidelines. • Insert the suitable last in the upper and according to manufacturing orders. • Forepart lasting of diverse models, considering the type of lasting and the models and materials characteristics according to manufacturing orders. Carry out to side and seat lasting through the heat setting machine. • Side and seat lasting of diverse models considering the specific technical guidelines of the models and materials and the upper height in the back. • Carry out the models to the applying the sole.	
Workplace	**Space**	Suitable

	Lighting conditions / Environment	Suitable
	Posture	Adequate - Standing
	Specificities	6. Places defined for workstations and the materials and equipments storage. 7. Conveyor and heat setting machine that provide the circuit from the workplace to workplace.
Organization	**Nr of employees in the Workplace per shift**	3
	Nr of de employees in the department	Assembly / Lasting department: 18
	Hierarchy	Coordinator of the footwear lasting / assembly sector
	Cycle time	8 hours/day
	Shifts	1
	Similar Workplaces	Applying the insole on the last and insert the suitable last in the upper:1 Forepart lasting : 1 Side and seat lasting:1
	Cooperation	The operator has the cooperation of the Coordinator of the footwear assembly sector.
	Specificities	Diversity of models, materials and operations used.
Interfaces	**With other activity fields**	- Quality management; - Safety and the work environment - Equipments maintenance
	With other workplaces	- Quality control - Footwear lasting

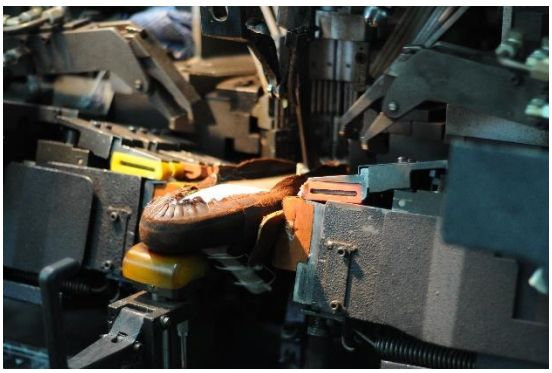
		- Applying the sole on the upper / shoe
	Training Workshops / Theoretical Knowledge	- Material technology. - Footwear model technology. - Types of footwear lasting
	Others	8. Equipment: technology and maintenance. 9. Production management and control of the operating times.
Vocational Training	**Vocational Learning / duration**	The training occurs in the workplace under the guidance of the Coordinator of the footwear assembly sector. The duration is variable and depends on the workplace requirements and the potential of the trainee - posture, motivation, learning ability and professional performance.
	Preconditions / previous stations	
	What to learn	Objective: To perform the lasting of the different models according to manufacturing orders and optimizing the available resources. - Technology of the footwear models and materials. - Quality, Environment and Safety in footwear lasting. - Planning concepts, methods and times. - Equipment technology (operation and basic maintenance). - Operations Technology: 1. Applying the insole on the last, according to the Manufacturing

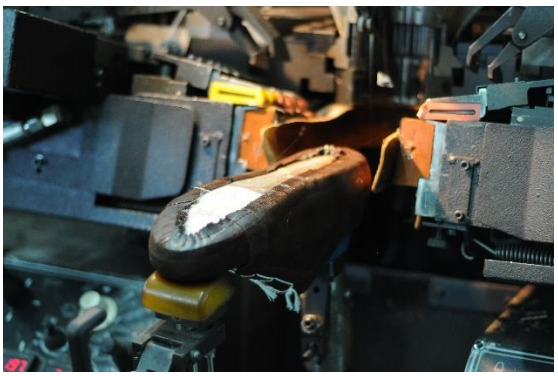
	Orders and specific technical guidelines. 2. Insert the suitable last in the upper, considering the technical elements of the footwear models. 3. Forepart lasting of diverse models, considering the type of lasting and the technical specificities of the models and materials. 4. Side and seat lasting of diverse models, considering the technical specificities of the models and materials. - Quality Control of the lasting operations. - Organization of the workplace, applying basic principles of ergonomics, safety, environment and hygiene at work. - Basic principles application of the equipment maintenance. - Practice of the professional performance.
Training specificities	- Consider the practical and contextualized application of concepts. - Learning evolution of the gradual complexity, enhancing responsibility and autonomy. - Promote the motivation, participation and individual autonomy.

	Experience with the Trainees / Young skilled workers	The importance of follow-up / mentoring
	Assistance / working tasks	Support provided by the Coordinator of the footwear assembly sector.
	Is the learning potential being explored?	Yes.
	Improvement opportunities / Possibilities for improvement	To formalize (reduce informalism) the training practices in a more structured way, introducing evaluation tools for both the tutor / trainer and the trainee, to reflect for the decision makers the results obtained and to enhance the improvement of the process used.
	Nr of Trainees per learning station	1
	Comments	In the national context there is a Certified Training System for Footwear Manufacturing Operator, where training for this apprenticeship is integrated into two modalities: A. AET Course (Adult Education Training): Qualification course - level 2 Duration: 1 year Training Components: 1. Basic training - 900 hours 2. Technological - 850 hours 3. Practice in work context - 120 hours B. Modular Training: Short-term Training Units: <u>Footwear Lasting:</u> 75 hours + Practice in the context of work (company).

Highest level of autonomy reachable	Support	With instruction and guidance	Under surveillance	Independent
	3 months	3-6 months	**6 – 12 months**	12 months

	1. Applying the insole on the last
	2. Positioning upper in the last
	3. Forepart lasting

	**4.** Forepart lasting
	5. Heat setting machine
	6. Side and seat lasting

	7. Side and seat lasting
	8. Side and seat lasting

2.1.7. Applying the sole to the footwear upper

Description	**Learning station**	Applying the sole to the footwear upper
	Date	03/2018
Workplace	**Vocational Profile**	Footwear Lasting Operator – Applying the sole

Allocation	**Curriculum**	Footwear Manufacturing Operator
Process environment	**Product /Service**	Production models - Sample models of own brands. - Sample models of confirmation to customers/clients. - Men' s footwear models. Materials: mainly leather and synthetics.
	Internal supplier	- Planning sector: prepares and supplies the weekly production plans and the *Manufacturing Orders* / production orders for the footwear models manufacturing. - Stockage: prepares and supplies the suitable materials for the respective manufacturing orders and models – soles, cement, stitching threads… - Footwear lasting: it provides the diverse footwear models, after the lasting on the last - Side and seat lasting. •
	Production Order/ Manufacturing Order / Material acceptance	- *Production Plan/Weekly Production Chart* delivered by the planning sector. - *Manufacturing Orders / Production Orders* that follow the prepared models for the lasting. - Respective materials to each production order and model delivered by Stockage.
	Direct user of product/ Direct Internal Customer / Service	Footwear finishing
	Client of product / Final Customer / Service	Several customers of the company

		Trade department – in the case of the samples.
	Production steps already performed	- Design: only own brand samples - Pattern making: study of several models from samples and customers' specifications. - Cutting: execution of the cut of the footwear different pieces. - Stitching preparation of several footwear models. - Stitching of several footwear models. - Lasting preparation of several footwear models - Lasting of several footwear models
	Interfaces with other process steps	
	Specifics of work process related to the duration of execution, work process organisation, quality assurance etc.	The operator is autonomous in his/her workplace, he/she is responsible for his organization, considering the inherent safety measures. He/she is also responsible for verifying the documentation, the materials he receives, the operating conditions of the equipment and the work performed (quality and quantity). He/she is subject to production time control: He/she receives the time sheets with production times and he removes the ticket from operations performed to control his daily efficiency.

Process Steps (detailed description	41. Interpretation of the data of the Production Plan / weekly chart of the activity, identifying priorities, models and materials. Establish relationship with Manufacturing Orders. 42. Reception of the materials according to the manufacturing orders delivered by the warehouse and quality and quantity control 43. Reception of the models after the lasting according to the Manufacturing Orders 44. Organize the workplace, prepare the equipment and resources inherent to the applying sole operations: scratching the shoe by the sole, roughing the sole, roughing the base of the shoe, cleaning the base of the shoe and the sole, applying the primer, applying the cement, reactivation of the cement, bonding and pressing the sole, taking out the last and stitching the sole. 45. Roughing the sole through chemical process or through rough machine, according to the Manufacturing Orders and materials characteristics. 46. Scratching the base of the shoe throughout the sole. 47. Roughing the base of the shoe for applying the sole, through the rough machine according to the Manufacturing Orders and materials characteristics. 48. Cleaning the surfaces for gluing, through the compressed air pistol. 49. Applying the primer manually, as preparation of a more effective bonding, in accordance to the Manufacturing Orders and characteristics of the materials. 50. Manual application of cement, considering the characteristics of the materials and in accordance to the Manufacturing Orders. 51. Carry out the product to the next workplace through a cement reactivation tunnel. 52. Applying manually the sole to the shoe and press on the respective equipment, being subjected to certain pressure according to the type and material of the sole. 53. Taking out the last of the different shoes, cutting laces, to carry out them to the stitching of the sole and / or directly to the quality control

	54. Stitching the sole of the diverse models, considering the type of the sole and the Stitching, characteristics of the models and the respective materials, according to the Manufacturing Orders. Carry out to the Quality control.	
Workplace	**Space**	Suitable
	Lighting conditions / Environment	Suitable
	Posture	Adequate - Standing Adequate – sitting at the stitching workplace.
	Specificities	- Places defined for workstations and the materials and equipments storage. - Conveyor and heat setting machine that provide the circuit from the workplace to workplace.
Organization	**Nr of employees in the Workplace per shift**	13
	Nr of de employees in the department	Assembly / Lasting department: 18 Applying the sole: 13
	Hierarchy	Coordinator of the footwear lasting / assembly sector
	Cycle time	8 hours/day
	Shifts	1
	Similar Workplaces	Scratching the base of the shoe throughout the sole and roughing the sole: 2 Roughing and cleaning of the upper/shoe: 1 Applying the primer: 1 Applying the cement: 2

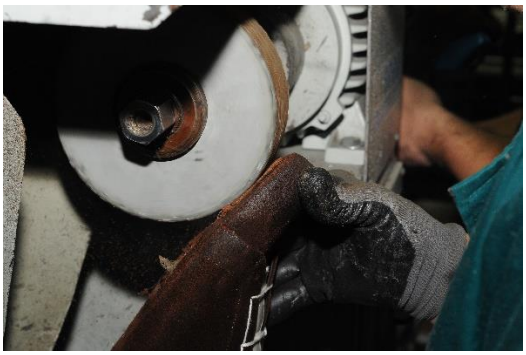
		Bonding and pressing the sole: 1 Taking out the last, cutting laces and controlling: 1 Stitching the sole: 1
	Cooperation	The operator has the cooperation of the Coordinator of the footwear assembly sector.
	Specificities	Diversity of models, materials, soles and the operations used.
Interfaces	**With other activity fields**	- Quality management; - Safety and the work environment - Equipments maintenance
	With other workplaces	- Footwear lasting
	Training Workshops / Theoretical Knowledge	- Material technology. - Footwear model technology. - Soles types
	Others	- Equipment: technology and maintenance. - Production management and control of the operating times.
Vocational Training	**Vocational Learning / duration**	The training occurs in the workplace under the guidance of the Coordinator of the footwear assembly sector. The duration is variable and depends on the workplace requirements and the potential of the trainee - posture, motivation, learning ability and professional performance.
	Preconditions / previous stations	

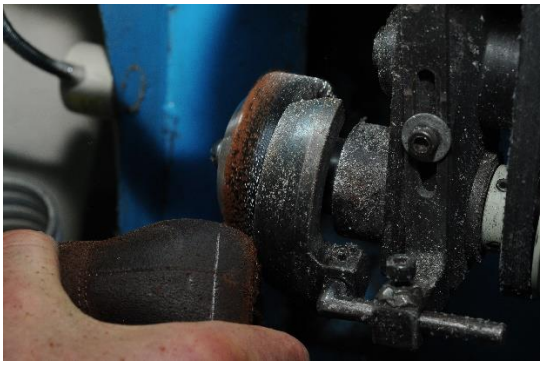
What to learn	Objective: To perform the operations of the applying the sole in the different models according to manufacturing orders and optimizing the available resources. - Technology of the footwear models and materials. - Quality, Environment and Safety in footwear lasting. - Planning concepts, methods and times. - Equipment technology (operation and basic maintenance). - Operations Technology: • Roughing the sole for an effective bonding of the sole to the shoe of different models according to their technical specifications and Manufacturing Orders. • Scratching the base of the shoe throughout the sole. • Roughing the base of the shoe considering the sole type, materials and technical specifications of the footwear models.. • Applying the primer in the different models' soles, considering an effective cement application of and technical specifications of the models and materials.

	• Application of cement on the base of the upper/shoe and on the different models' soles, considering the technical specifications of the models and materials. • Bonding and pressing the soles to the uppers/shoes of the diverse models, considering the suitable pressure. • Taking out the last of the diverse models and cutting laces. - Quality Control of the applying soles operations. - Organization of the workplace, applying basic principles of ergonomics, safety, environment and hygiene at work. - Basic principles application of the equipment maintenance. - Practice of the professional performance.
Training specificities	- Consider the practical and contextualized application of concepts. - Learning evolution of the gradual complexity, enhancing responsibility and autonomy. - Promote the motivation, participation and individual autonomy.
Experience with the Trainees / Young skilled workers	The importance of the follow-up / mentoring

	Assistance / working tasks		Support provided by the Coordinator of the footwear assembly sector.	
	Is the learning potential being explored?		Yes.	
	Improvement opportunities / Possibilities for improvement		To formalize (reduce informalism) the training practices in a more structured way, introducing evaluation tools for both the tutor / trainer and the trainee, to reflect for the decision makers the results obtained and to enhance the improvement of the process used.	
	Nr of Trainees per learning station		1	
	Comments		In the national context there is a Certified Training System for Footwear Manufacturing Operator, where training for this apprenticeship is integrated into two modalities: A. AET Course (Adult Education Training): Qualification course - level 2 Duration: 1 year Training Components: • Basic training - 900 hours • Technological - 850 hours • Practice in work context - 120 hours B. Modular Training: Short-term Training Units: Applying the sole: 75 hours + Practice in the context of work (company).	
	Support	**With instruction and guidance**	**Under surveillance**	**Independent**

Highest level of autonomy reachable	3 months	3-6 months	6 – 12 months	12 onths

	1. Roughing the base of the shoe
	2. Scratching the shoe by the sole
	**3.** Shoe after being scratched by the sole

	**4.** Lateral roughing
	5. Applying glue in the base of shoe
	6. Applying glue in the base of shoe

	7. Applying glue in the sole
	8. Drying and reactivation tunnel
	9. Drying and reactivation tunnel – pick up shoe and sole after reactivation

	10. Applying manually the sole to the shoe
	11. Pressing sole to the shoe
	12. Taking out the last

	13. Stitching the sole
	14. Stitching the sole

Description	**Learning station**	Footwear finishing
	Date	03/2018
Workplace	**Vocational Profile**	Footwear finishing Operator
Allocation	**Curriculum**	Footwear Manufacturing Operator
Process environment	**Product /Service**	Production models - Sample models of own brands. - Sample models of confirmation to customers/clients. - Men' s footwear models. Materials: mainly leather and synthetics.
	Internal supplier	- Planning sector: prepares and supplies the weekly production plans and the *Manufacturing Orders* / production orders for the footwear models manufacturing. - Stockage: prepares and supplies the suitable materials for the respective manufacturing orders and models – socks, finishing cleaning, painting and polishing products, laces, packages/boxes, paper, labels, … - Quality control
	Production Order/ Manufacturing Order / Material acceptance	- *Production Plan/Weekly Production Chart* delivered by the planning sector. - *Manufacturing Orders / Production Orders* that follow the prepared models for the lasting. - Respective materials to each production order and model delivered by Stockage.
	Direct user of product/ Direct Internal Customer / Service	Final Quality Control

	Client of product / Final Customer / Service	Several customers of the company Trade department – in the case of the samples.
	Production steps already performed	Design: only own brand samples - Pattern making: study of several models from samples and customers' specifications. - Cutting: execution of the cut of the footwear different pieces. - Stitching preparation of several footwear models. - Stitching of several footwear models. - Lasting preparation of several footwear models - Lasting of several footwear models - Applying soles to the shoes
	Interfaces with other process steps	
	Specifics of work process related to the duration of execution, work process organisation, quality assurance etc.	The operator is autonomous in his/her workplace, he/she is responsible for his organization, considering the inherent safety measures. He/she is also responsible for verifying the documentation, the materials he receives, the operating conditions of the equipment and the work performed (quality and quantity). He/she is subject to production time control: He/she receives the time sheets with production times and he removes the ticket from operations performed to control his daily efficiency.
Process Steps (detailed description	55. Interpretation of the data of the Production Plan / weekly chart of the activity, identifying priorities, models and materials. Establish relationship with Manufacturing Orders.	

	56. Reception of the materials according to the manufacturing orders delivered by the warehouse and quality and quantity control 57. Reception of the models for the finishing according to the Manufacturing Orders 58. Organize the workplace, prepare the equipment and resources inherent to the finishing operation of the diverse footwear models: applying padded pieces and socks, cleaning the shoe, painting, polishing, and applying the laces. 59. Applying padded pieces and socks in diverse models, according to the Manufacturing Orders. 60. Cleaning diverse models, manually and mechanically, applying suitable products to the materials. 61. Painting and repairing small quality defects in the models, manually or mechanically in a painting booth. 62. Polishing manually and/or through the spraying tool. 63. Applying the laces, according to the Manufacturing Orders and footwear models. 64. Carry out the Product to its final Quality control.	
Workplace	**Space**	Suitable
	Lighting conditions / Environment	Suitable
	Posture	Adequate - Standing
	Specificities	- Places defined for workstations and the materials and equipments storage. - Conveyor that provides the circuit from the workplace to workplace
Organization	**Nr of employees in the Workplace per shift**	13
	Nr of de employees in the department	13
	Hierarchy	Coordinator of the footwear finishing sector

	Cycle time	8 hours/day
	Shifts	1
	Similar Workplaces	
	Cooperation	The operator has the cooperation of the Coordinator of the footwear finishing sector.
	Specificities	Diversity of models and materials. High quality standards.
Interfaces	**With other activity fields**	- Quality management; - Safety and the work environment - Equipments maintenance
	With other workplaces	
	Training Workshops / Theoretical Knowledge	- Material technology. - Footwear model technology.
	Others	- Equipment: technology and maintenance. - Quality control - Production management and control of the operating times.
Vocational Training	**Vocational Learning / duration**	The training occurs in the workplace under the guidance of the Coordinator of the footwear assembly sector. The duration is variable and depends on the workplace requirements and the potential of the trainee - posture, motivation, learning ability and professional performance.
	Preconditions / previous stations	
	What to learn	Objective: To perform the finishing operations of the different models

		according to manufacturing orders and optimizing the available resources. - Technology of the footwear models and materials. - Quality, Environment and Safety in footwear finishing. - Planning concepts, methods and times. - Equipment technology (operation and basic maintenance). - Operations Technology: • Applying padded pieces and socks of the different models according to their technical specifications and Manufacturing Orders. • Cleaning the shoe, selection of products to apply according to the materials' characteristics and Manufacturing Orders. • Painting, repairing and polishing different models, according to the materials' characteristics and Manufacturing Orders. • Applying laces, according to the Manufacturing Orders and footwear models. - Product quality control according to the Manufacturing Orders. - Organization of the workplace, applying basic principles of ergonomics, safety, environment and hygiene at work. - Basic principles application of the equipment maintenance.

		- Practice of the professional performance.
	Training specificities	Consider the practical and contextualized application of concepts. - Learning evolution of the gradual complexity, enhancing responsibility and autonomy. - Promote the motivation, participation and individual autonomy.
	Experience with the Trainees / Young skilled workers	The importance of the follow-up / mentoring
	Assistance / working tasks	Support provided by the Coordinator of the footwear finishing sector.
	Is the learning potential being explored?	Yes.
	Improvement opportunities / Possibilities for improvement	To formalize (reduce informalism) the training practices in a more structured way, introducing evaluation tools for both the tutor / trainer and the trainee, to reflect for the decision makers the results obtained and to enhance the improvement of the process used.
	Nr of Trainees per learning station	1
	Comments	In the national context there is a Certified Training System for Footwear Manufacturing Operator, where training for this apprenticeship is integrated into two modalities: A. AET Course (Adult Education Training): Qualification course - level 2 Duration: 1 year Training Components: • Basic training - 900 hours

			• Technological - 850 hours • Practice in work context - 120 hours B. Modular Training: Short-term Training Units: Footwear finishing: 50 hours + Practice in the context of work (company).	
Highest level of autonomy reachable	**Support**	**With instruction and guidance**	**Under surveillance**	**Independent**
	3 months	3-6 months	6 – 12 months	12 onths

	1. Cut excess lines and put finishing insole
	2. Polishing manually

	3. Polishing through the spraying tool
	4. Applying laces
	5. Applying laces

2.1.8. **Finishing**

2.1.9. **Quality Control**

Description	**Learning station**	Quality control
	Date	03/2018
Workplace	**Vocational Profile**	Quality control operator
Allocation	**Curriculum**	Footwear Manufacturing Operator
Process environment	**Product /Service**	Cutting final control - cut pieces ready to follow for pre-sewing Stitching final control - finished uppers in terms of sewing operations Finishing final control - finished footwear ready to control and pack
	Internal supplier	Cutting - cut pieces ready to follow for pre-sewing Stitching - finished uppers in terms of sewing operations Finishing - finished footwear ready to control and pack
	Production Order/ Manufacturing Order / Material acceptance	Production order Confirmation sample
	Direct user of product/ Direct Internal Customer / Service	Pre-stitching Pre-assembly Packing station

	Client of product / Final Customer / Service	Finished product warehouse that prepares shipping to final customer
	Production steps already performed	Cutting final control – cutting of pieces Stitching final control – cutting, pre-stitching and stitching Finishing final control – all productive operations
	Interfaces with other process steps	None
	Specifics of work process related to the duration of execution, work process organisation, quality assurance etc.	The operator organizes his work station taking into account the existence of the confirmation sample to validate the production to control and the respective production order. To perform quality control, must follow the established procedure, separating the nonconforming product detected.
Process Steps (detailed description)	1. The operator checks each foot individually and in the set of pair 2. Compares with the confirmation sample and with the information in the production order, namely in terms of defects in skin, color, interior and exterior cleaning, labeling, symmetry, positioning of the seams, etc. 3. Identify defects detected that prevent the pair from proceeding to the next section or station 4. Place the defective pair at a location identified as nonconforming product	
Workplace	**Space**	Suitable

	Lighting conditions / Environment	Suitable – artificial light
	Posture	Standing
	Specificities	Place set for placement of confirmation sample e for placement of nonconforming product
Organization	**Nr of employees in the Workplace per shift**	Cutting – 1 Stitching – 2 Finishing - 1
	Nr of de employees in the department	Cutting - 13 Stitching - 30 Finishing - 13
	Hierarchy	Coordinator of the footwear finishing sector
	Cycle time	8 hours
	Shifts	1
	Similar Workplaces	3
	Cooperation	Hierarchical superior

	Specificities	Diversity of models and materials
Interfaces	**With other activity fields**	- Quality management; - Safety and the work environment
	With other workplaces	Assembly
	Training Workshops / Theoretical Knowledge	Footwear production Quality control procedures Characteristics of the main materials
	Others	None
Vocational Training	**Vocational Learning / duration**	The training occurs in the workplace under the guidance of the Coordinator of the footwear assembly sector. The duration is variable and depends on the workplace requirements and the potential of the trainee - posture, motivation, learning ability and professional performance.
	Preconditions / previous stations	None
	What to learn	Interpret the specified requirements in the production orders Quality control procedures

	Training specificities	Consider the practical and contextualized application of concepts. - Learning evolution of the gradual complexity, enhancing responsibility and autonomy. - Promote the motivation, participation and individual autonomy.
	Experience with the Trainees / Young skilled workers	Good articulation between theory and practice to promote motivation and individual involvement individual
	Assistance / working tasks	Support provided by the Coordinator of the footwear finishing sector.
	Is the learning potential being explored?	Yes
	Improvement opportunities / Possibilities for improvement	To formalize (reduce informalism) the training practices in a more structured way, introducing evaluation tools for both the tutor / trainer and the trainee, to reflect for the decision makers the results obtained and to enhance the improvement of the process used.
	Nr of Trainees per learning station	1
	Comments	In the national context there is a Certified Training System for Footwear Manufacturing Operator, where training for this apprenticeship is integrated into two modalities: A. AET Course (Adult Education Training): Qualification course - level 2

			Duration: 1 year Training Components: • Basic training - 900 hours • Technological - 850 hours • Practice in work context - 120 hours B. Modular Training: Short-term Training Units: • Footwear quality control and packing – 25 hours	
Highest level of autonomy reachable	**Support**	**With instruction and guidance**	**Under surveillance**	**Independent**
	3 months	3-6 months	6 – 12 months	12 months

	**1. Confirmation sample**
	**2. Cutting final control**

	**3. Stitching final control**
	**4. Stitching final control**
	**5. Stitching final control**
	**6. Finishing final control - Control of each foot individually**

	**7. Control of each foot individually**
	**8. Control of two feet at the same time**
	**9. Control of two feet at the same time**

	**10. Control of two feet at the same time**
	**11. Structure for placing the nonconforming product**

2.1.10. Packing

Description	**Learning station**	Packing
	Date	03/2018
Workplace	**Vocational Profile**	Packing operator
Allocation	**Curriculum**	Footwear Manufacturing Operator
Process environment	**Product /Service**	Finished footwear ready to packing

	Internal supplier	Last station of finish department
	Production Order/ Manufacturing Order / Material acceptance	Production order Labelling
	Direct user of product/ Direct Internal Customer / Service	Finish product warehouse
	Client of product / Final Customer / Service	Finished product warehouse that prepares the product for shipment to the final customer.
	Production steps already performed	All production phases
	Interfaces with other process steps	None
	Specifics of work process related to the duration of execution, work process organisation, quality assurance etc.	The operator organizes his work station taking into account the existence of the respective production order and any material to be added to the packaging along with the footwear. Check the identification of the packaging with the product being placed.

Process Steps (detailed description	5. The operator checks the size of the pair to be packed and whether the two feet constitute a pair. 6. Place the pair inside the box following the procedure established for packing in the order of production and / or instructions of the finish coordinator. 7. Identify the box externally by placing the appropriate information (labels available). 8. Place the box in the proper location (structure) that will serve to transport to the finished product warehouse.	
Workplace	**Space**	Suitable
	Lighting conditions / Environment	Suitable – artificial light
	Posture	Standing
	Specificities	Place set for placement of boxes with packed product
Organization	**Nr of employees in the Workplace per shift**	1
	Nr of de employees in the department	13
	Hierarchy	Coordinator of the footwear finishing sector
	Cycle time	8 hours

	Shifts	1
	Similar Workplaces	0
	Cooperation	Hierarchical superior
	Specificities	Diversity of models and materials and packing procedures
Interfaces	**With other activity fields**	- Quality management; - Safety and the work environment
	With other workplaces	Finished product warehouse
	Training Workshops / Theoretical Knowledge	Footwear production Quality control procedures Packing procedures
	Others	None
Vocational Training	**Vocational Learning / duration**	The training occurs in the workplace under the guidance of the Coordinator of the footwear assembly sector. The duration is variable and depends on the workplace requirements and the

		potential of the trainee - posture, motivation, learning ability and professional performance.
	Preconditions / previous stations	None
	What to learn	Interpreting Production Orders Packing procedures
	Training specificities	Consider the practical and contextualized application of concepts. - Learning evolution of the gradual complexity, enhancing responsibility and autonomy. - Promote the motivation, participation and individual autonomy.
	Experience with the Trainees / Young skilled workers	Good articulation between theory and practice to promote motivation and individual involvement
	Assistance / working tasks	Support provided by the Coordinator of the footwear finishing sector.
	Is the learning potential being explored?	Yes
	Improvement opportunities / Possibilities for improvement	To formalize (reduce informalism) the training practices in a more structured way, introducing evaluation tools for both the tutor / trainer and the trainee, to reflect for the decision makers the results obtained and to enhance the improvement of the process used.

<table>
<tr><td></td><td colspan="2">Nr of Trainees per learning station</td><td colspan="2">1</td></tr>
<tr><td></td><td colspan="2">Observations</td><td colspan="2">In the national context there is a Certified Training System for Footwear Manufacturing Operator, where training for this apprenticeship is integrated into two modalities:
A. AET Course (Adult Education Training):
Qualification course - level 2
Duration: 1 year
Training Components:
• Basic training - 900 hours
• Technological - 850 hours
• Practice in work context - 120 hours
B. Modular Training: Short-term Training Units:
• Footwear quality control and packing – 25 hours</td></tr>
<tr><td rowspan="2">Highest level of autonomy reachable</td><td>Support</td><td>With instruction and guidance</td><td>Under surveillance</td><td>Independent</td></tr>
<tr><td>3 months</td><td>3-6 months</td><td>6 – 12 months</td><td>12 months</td></tr>
</table>

	1. Preparation of the box to pack the footwear by placing sulphite paper in the base
	2. Placing the first foot in the box
	3. Placing the second foot in the box
	4. Wrap the pair with the sulphite paper

	5. Close the box by attaching the cover
	6. Put identification label on the box
	7. Place the box with product in the proprer location (structure) to follow to finished product warehouse

2.2. Business orientated spheres

2.2.1. Product design

Description	**Learning station**	Own marks design
	Date	03/2018
Workplace	**Vocational Profile**	Designer
Allocation	**Curriculum**	Technical Specialist in Footwear Design
Process environment	**Product /Service**	Prototypes and samples
	Internal supplier	Trends search / Fairs / Own ideas
	Production Order/ Manufacturing Order / Material acceptance	Requests for prototypes and samples Materials purchased directly from suppliers
	Direct user of product/ Direct Internal Customer / Service	Own marks development sector
	Client of product / Final Customer / Service	Commercial brands that present samples directly to customers or at trade shows / footwear shows
	Production steps already performed	None

	Interfaces with other process steps	Own marks development sector Samples production
	Specifics of work process related to the duration of execution, work process organisation, quality assurance etc.	It is an activity with a very creative character so it does not have a completely defined duration and the organization of work and its control is dependent on the criteria of the collaborator. However given the timings of the fairs and the presentations to the clients / agents is made a planning of the creation and development of collections for the own brands
Process Steps (detailed description)	9. Gathering trends. 10. Definition of themes. 11. Meeting to begin development. 12. Analysis of drawings by lines / lasts 13. First prototyping modeling activities 14. Production of first prototypes 15. Meeting for analysis of first prototypes 16. Modeling Activities - Rectifications 17. Production second prototypes 18. Meeting for second prototype analysis 19. Production of sales samples 20. Elaboration of the sales catalog 21. Elaboration of promotional material and final catalog	
Workplace	**Space**	Suitable - own cabinet, close to development and production
	Lighting conditions / Environment	Suitable – natural and artificial light
	Posture	Seated

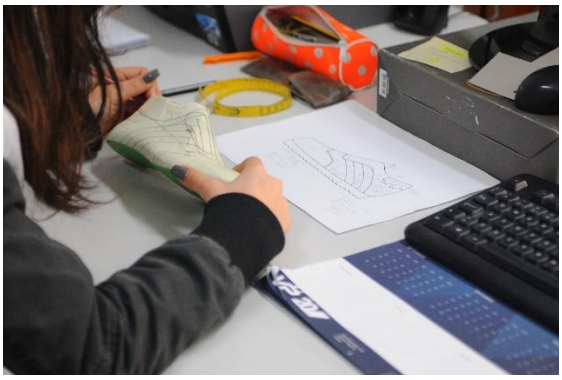
	Specificities	Stations with CAD system
Organization	**Nr of employees in the Workplace per shift**	1
	Nr of de employees in the department	3
	Hierarchy	Management
	Cycle time	8 hours
	Shifts	1
	Similar Workplaces	0
	Cooperation	Management Own marks commercial Development of own brands
	Specificities	None
Interfaces	**With other activity fields**	Quality management; Safety and the work environment

	With other workplaces	Development Production
	Training Workshops / Theoretical Knowledge	Footwear design Footwear modeling Anatomy of the foot Manufacture of footwear Materials
	Others	None
Vocational Training	**Vocational Learning / duration**	The training occurs in the workplace under the guidance of the Responsible. The duration is variable and depends on the workplace requirements and the potential of the trainee - posture, motivation, learning ability and professional performance.
	Preconditions / previous stations	None
	What to learn	Trend search Material Search Design first drawings Develop prototypes
	Training specificities	Consider the practical and contextualized application of concepts. - Learning evolution of the gradual complexity, enhancing responsibility and autonomy. - Promote the motivation, participation and individual autonomy.

	Experience with the Trainees / Young skilled workers	Good articulation between theory and practice to promote motivation and individual involvement
	Assistance / working tasks	Support provided by the designated tutor starting with the simplest tasks and gradually performing the most complex tasks
	Is the learning potential being explored?	Yes
	Improvement opportunities / Possibilities for improvement	To formalize (reduce informalism) the training practices in a more structured way, introducing evaluation tools for both the tutor / trainer and the trainee, to reflect for the decision makers the results obtained and to enhance the improvement of the process used.
	Nr of Trainees per learning station	2
	Comments	In the national context there is a Certified Training System for Technical Specialist in Footwear Design , where training for this apprenticeship is integrated: A. Technological Specialization Course: Qualification course - level 5 Training Components: • General and Scientific - 150 hours • Technological - 850 hours • Practice in work context - 120 hours

Highest level of autonomy reachable	Support	With instruction and guidance	Under surveillance	Independent
	3 months	3-6 months	6 – 12 months	12 months

	1. First sketches / drawings
	2. First sketches / drawings and color study
	3. First sketches / drawings and color study

	4. Last planning
	5. Last planning

2.2.2. Technical Development

Description	**Learning station**	Technical Development
	Date	03/2018
Workplace	**Vocational Profile**	Technical Development Technician
Allocation	**Curriculum**	Technical Specialist in Footwear Development

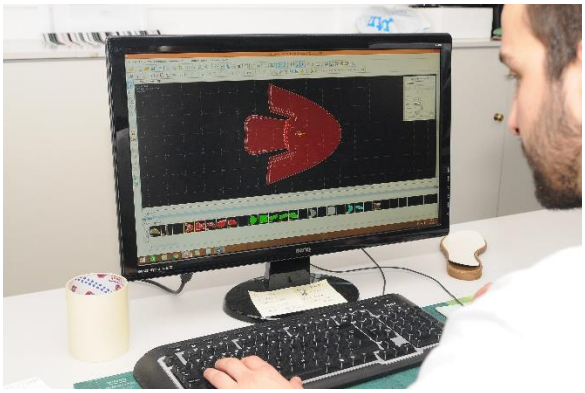
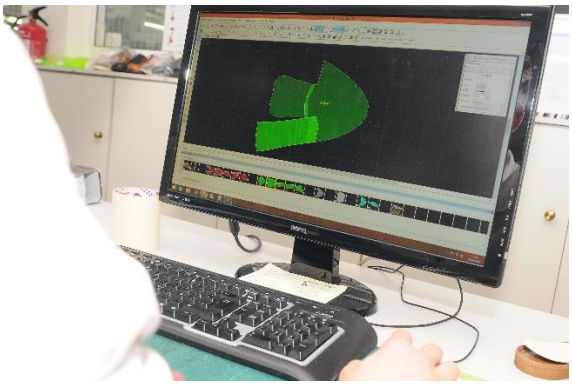
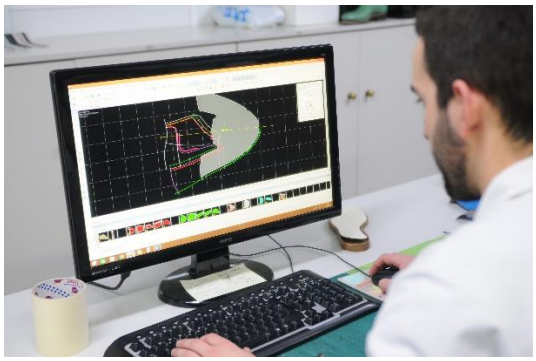
Process environment	**Product /Service**	Prototypes Samples Sales Samples Confirmation Samples Pair in number
	Internal supplier	Commercial Planning
	Production Order/ Manufacturing Order / Material acceptance	Requests for prototypes and samples Materials purchased directly from suppliers Materials supplied by the warehouse raw materials
	Direct user of product/ Direct Internal Customer / Service	Samples production Commercial - sending samples to customers
	Client of product / Final Customer / Service	Commercial and Commercial own brands that present the samples directly to customers or at trade shows / footwear shows Clients in the case of sales samples and confirmation samples
	Production steps already performed	Design
	Interfaces with other process steps	Design Samples production

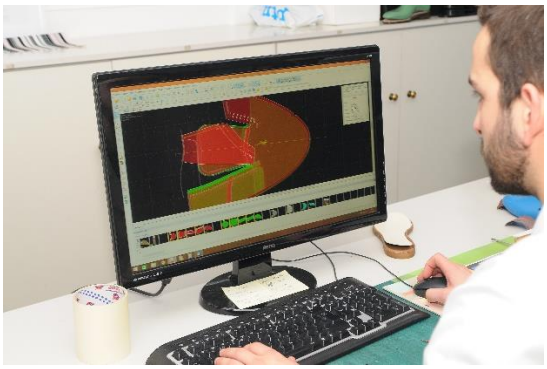
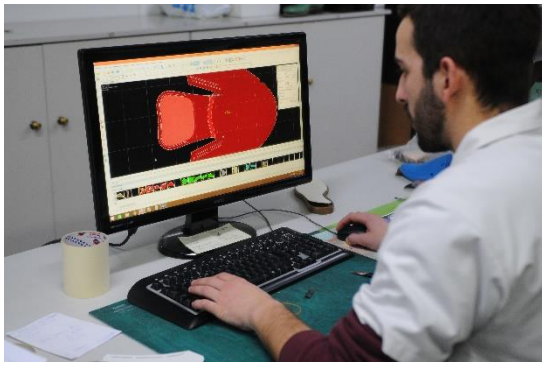
	Specifics of work process related to the duration of execution, work process organisation, quality assurance etc.	Development of the models taking into account the technical and functional specifications of the footwear and the requirements of the clients. Control by monitoring the samples production and introducing necessary corrections.
Process Steps (detailed description)	22. Development of the models using the CAD system, and taking into account the technical and functional specifications of the footwear and the requirements of the customers, which includes the development of the last with the supplier 23. Extraction of parts / preparation of molds / preparation of model for automatic cutting 24. Placing the prototype or sample in production and monitoring its execution 25. Introduction of rectifications, if necessary 26. Scaling the model if order exists 27. Execution of the pair in number, its analysis and introduction of the necessary rectifications 28. Acquisition of necessary tools - cuttings and lasts - their reception and control 29. Definition of all the technical specifications of the model with indications for the different productive operations	
Workplace	**Space**	Suitable - own cabinet, close to production
	Lighting conditions / Environment	Suitable – artificial light
	Posture	Seated

	Specificities	Stations with CAD system Cardboard cutting table Locations set to archive envelopes with model parts
Organization	**Nr of employees in the Workplace per shift**	1
	Nr of employees in the department	6
	Hierarchy	Management Commercial Planning
	Cycle time	8 hours
	Shifts	1
	Similar Workplaces	5
	Cooperation	Management Commercial Samples production
	Specificities	None
Interfaces	**With other activity fields**	Quality management; Safety and the work environment
	With other workplaces	Samples production Production

	Training Workshops / Theoretical Knowledge	Footwear modeling CAD Anatomy of the foot Footwear production Materials
	Others	None
Vocational Training	**Vocational Learning / duration**	The training occurs in the workplace under the guidance of the Responsible. The duration is variable and depends on the workplace requirements and the potential of the trainee - posture, motivation, learning ability and professional performance.
	Preconditions / previous stations	None
	What to learn	Last development Models development Industrialization CAD/CAM
	Training specificities	Consider the practical and contextualized application of concepts. - Learning evolution of the gradual complexity, enhancing responsibility and autonomy. - Promote the motivation, participation and individual autonomy.
	Experience with the Trainees / Young skilled workers	Good articulation between theory and practice to promote motivation and individual involvement

	Assistance / working tasks		Support provided by the designated tutor starting with the simplest tasks and gradually performing the most complex tasks	
	Is the learning potential being explored?		Yes	
	Improvement opportunities / Possibilities for improvement		To formalize (reduce informalism) the training practices in a more structured way, introducing evaluation tools for both the tutor / trainer and the trainee, to reflect for the decision makers the results obtained and to enhance the improvement of the process used.	
	Nr of Trainees per learning station		1	
	Comments		In the national context there is a Certified Training System for Technical Specialist in Footwear Development, where training for this apprenticeship is integrated: A. Technological Specialization Course: Qualification course - level 2 (3 years) Training Components: • General and Scientific - 775 hours • Technological - 1200 hours • Practice in work context - 1500 hours	
Highest level of autonomy reachable	**Support**	**With instruction and guidance**	**Under surveillance**	**Independent**
	3 months	3-6 months	6 – 12 months	12 months

	1. Model parts development with CAD system
	2. Model parts development with CAD system
	3. Model parts development with CAD system

	4. Model parts scalling
	5. Definition of lines for automatic cutting
	6. Cardboard molds

	7. Envelopes file with parts and technical information of each model

2.2.3. Planning management

Description	**Learning station**	Planning management
	Date	03/2018
Workplace	**Vocational Profile**	Planning responsible
Allocation	**Curriculum**	Production Management Technician of Footwear and Leather goods
Process environment	**Product /Service**	Reception of private label orders and own brands orders Production Planning Confirmation of delivery times to customers
	Internal supplier	Commercials Development
	Production Order/ Manufacturing Order / Material acceptance	Production orders Weekly planning map

	Direct user of product/ Direct Internal Customer / Service	Purchasing All productive sectors
	Client of product / Final Customer / Service	Final customers
	Production steps already performed	Development Technical sheets
	Interfaces with other process steps	With all the steps of the process
	Specifics of work process related to the duration of execution, work process organisation, quality assurance etc.	Planning management is a dynamic activity in terms of orders received, delivery times, availability of materials, performance of the productive sections.
Process Steps (detailed description)	30. Receive the orders coming from commercials either private label or own brands 31. It informs the manager of the supply of the new orders planned so that it can arrange the respective acquisition of materials and provides delivery dates of the suppliers 32. Depending on the availability of materials, confirms delivery deadline to the customer or proposes another deadline depending on the capacity of the company 33. Report Development of priorities for industrialization 34. Prepare weekly planning for the different productive sections 35. Accompany the performance of the sections by daily monitoring the actual productions 36. Updates weekly planning whenever necessary, after joint analysis with Purchasement Manager and Production Manager	

	37. Receives customer complaints, registers them and provides the company's timely response as well as taking corrective action 38. Collaborates in the preparation and follow-up of external audits and client audits	
Workplace	**Space**	Suitable – own area in the raw materials warehouse
	Lighting conditions / Environment	Suitable – natural and artificial light
	Posture	Seated
	Specificities	Table and computer station
Organization	**Nr of employees in the Workplace per shift**	1
	Nr of de employees in the department	1
	Hierarchy	Management
	Cycle time	8 hours

	Shifts	1
	Similar Workplaces	0
	Cooperation	Management Purchasing Production
	Specificities	None
Interfaces	**With other activity fields**	Quality management; Safety and the work environment
	With other workplaces	----
	Training Workshops / Theoretical Knowledge	Footwear production knowledge Knowledge of materials Knowledge of languages (mainly English) Knowledge of planning techniques Knowledge of related international standards and applicable legislation Safety, Health and Environment
	Others	None
Vocational Training	**Vocational Learning / duration**	The training occurs in the workplace under the guidance of the external tutor. The duration is variable and depends on the workplace requirements and the potential of the trainee - posture,

		motivation, learning ability and professional performance.
	Preconditions / previous stations	None
	What to learn	Footwear production knowledge Knowledge of materials Knowledge of planning techniques Safety, Health and Environment
	Training specificities	Consider the practical and contextualized application of concepts. - Learning evolution of the gradual complexity, enhancing responsibility and autonomy. - Promote the motivation, participation and individual autonomy.
	Experience with the Trainees / Young skilled workers	Good articulation between theory and practice to promote motivation and individual involvement
	Assistance / working tasks	Support provided by the designated tutor starting with the simplest tasks and gradually performing the most complex tasks
	Is the learning potential being explored?	Yes
	Improvement opportunities / Possibilities for improvement	To formalize (reduce informalism) the training practices in a more structured way, introducing evaluation tools for both the tutor / trainer and the trainee, to reflect for the decision makers the results obtained and to enhance the improvement of the process used.

<table>
<tr><td></td><td colspan="2">Nr of Trainees per learning station</td><td colspan="2">1</td></tr>
<tr><td></td><td colspan="2">Comments</td><td colspan="2">In the national context there is a Certified Training System for Production Management Technician of Footwear and Leather goods, where training for this apprenticeship is integrated, into two modalities:
A. Technological Specialization Course:
Qualification course - level 4
Duration: 3 years
Training Components:
• Sociocultural and scientific - 775 hours
• Technological - 1250 hours
• Practice in work context - 1500 hours
B. Modular Training: Short-term Training Units:
Production planning: 50 hours</td></tr>
<tr><td rowspan="2">Highest level of autonomy reachable</td><td>Support</td><td>With instruction and guidance</td><td>Under surveillance</td><td>Independent</td></tr>
<tr><td>3 months</td><td>3-6 months</td><td>6 – 12 months</td><td>12 months</td></tr>
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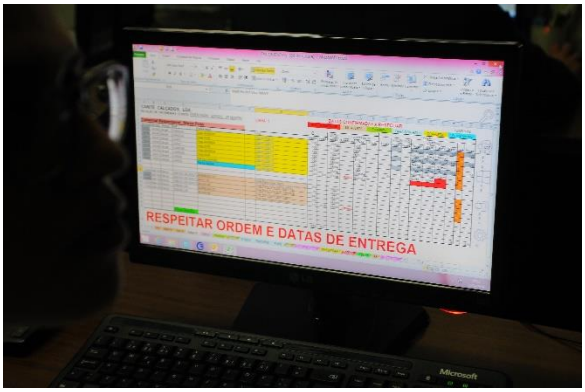
	1. Planning map

2.2.4. Quality management

Description	**Learning station**	Quality Management
	Date	03/2018
Workplace	**Vocational Profile**	Quality Manager
Allocation	**Curriculum**	Production Management Technician of Footwear and Leather goods
Process environment	**Product /Service**	Management of the company's processes, in terms of compliance with ISO 9001: 2015 requirements and customer requirements: - Strategic Process - Business Process - Design and Development Process - Treatment Orders and Planning Process - Purchasing Process and Posting Orders - Production Process - Maintenance Process - Human Resources and Administrative Process

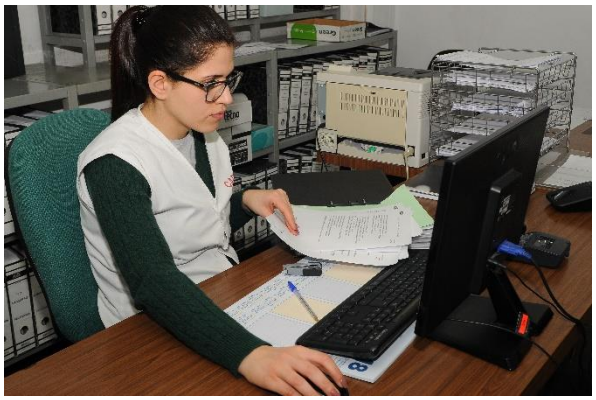
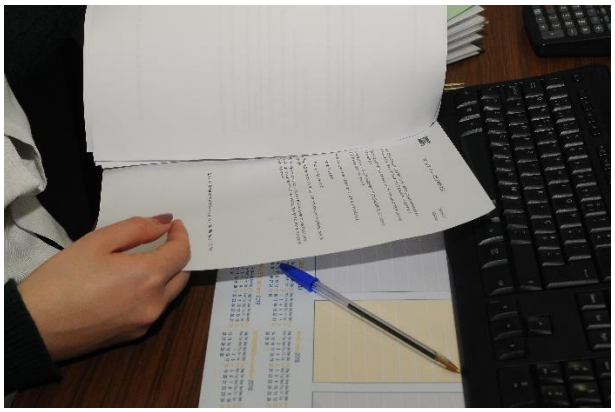
		- Integrated Management System Process
	Internal supplier	All processes
	Production Order/ Manufacturing Order / Material acceptance	-
	Direct user of product/ Direct Internal Customer / Service	All processes
	Client of product / Final Customer / Service	Management Customers Official entities
	Production steps already performed	--
	Interfaces with other process steps	Environmental Process Safety and Health at Work
	Specifics of work process related to the duration of execution, work process organisation, quality assurance etc.	Monthly and four-monthly follow-up and monitoring of the performance of the different processes Attention to the dates of the audits

Process Steps (detailed description)	39. Ensure that each responsible of the different processes, complies with the updated, whenever necessary, established procedures and in particular the monitoring of the performance of their process. 40. Follow closely the quality controllers of the productive sections 41. Statistically treat data collected at quality control stations 42. Ensure the company's response to customer complaints by directing corrective action 43. Provide regular meetings with management and process managers to follow the established objectives, analysis of deviations and definition of measures to implemente 44. Prepare and monitor external audits and client audits	
Workplace	**Space**	Suitable – own office
	Lighting conditions / Environment	Suitable – artificial light
	Posture	Seated
	Specificities	Table and computer station
Organization	**Nr of employees in the Workplace per shift**	1
	Nr of de employees in the department	1
	Hierarchy	Management
	Cycle time	8 hours

	Shifts	1
	Similar Workplaces	0
	Cooperation	Management Commercial Human Resources
	Specificities	None
Interfaces	**With other activity fields**	Quality management; Safety and the work environment
	With other workplaces	----
	Training Workshops / Theoretical Knowledge	Footwear production knowledge Knowledge of languages (mainly English) Knowledge of quality control procedures Knowledge of related international standards and applicable legislation Safety, Health and Environment
	Others	None
Vocational Training	**Vocational Learning / duration**	The training occurs in the workplace under the guidance of the external tutor. The duration is variable and depends on the workplace requirements and the potential of the trainee - posture,

		motivation, learning ability and professional performance.
	Preconditions / previous stations	None
	What to learn	Footwear production knowledge Knowledge of quality control procedures Knowledge of related international standards and applicable legislation (ISSO 9001:2015) Safety, Health and Environment
	Training specificities	Consider the practical and contextualized application of concepts. - Learning evolution of the gradual complexity, enhancing responsibility and autonomy. - Promote the motivation, participation and individual autonomy.
	Experience with the Trainees / Young skilled workers	Good articulation between theory and practice to promote motivation and individual involvement
	Assistance / working tasks	Support provided by the designated tutor starting with the simplest tasks and gradually performing the most complex tasks
	Is the learning potential being explored?	Yes
	Improvement opportunities / **Possibilities for improvement**	To formalize (reduce informalism) the training practices in a more structured way, introducing evaluation tools for both the tutor / trainer and the trainee, to reflect for the decision makers the results obtained and to enhance the improvement of the process used.

<table>
<tr><td></td><td colspan="2">Nr of Trainees per learning station</td><td colspan="2">1</td></tr>
<tr><td></td><td colspan="2">Comments</td><td colspan="2">In the national context there is a Certified Training System for Production Management Technician of Footwear and Leather goods, where training for this apprenticeship is integrated, into two modalities:
A. Technological Specialization Course:
Qualification course - level 4
Duration: 3 years
Training Components:
• Sociocultural and scientific - 775 hours
• Technological - 1250 hours
• Practice in work context - 1500 hours
B. Modular Training: Short-term Training Units:
Implementation of quality management system: 50 hours</td></tr>
<tr><td rowspan="2">Highest level of autonomy reachable</td><td>Support</td><td>With instruction and guidance</td><td>Under surveillance</td><td>Independent</td></tr>
<tr><td>3 months</td><td>3-6 months</td><td>6 – 12 months</td><td>12 months</td></tr>
</table>

	1. Introduction of data from quality control stations for statistical treatment
	2. Analysis of documentation related to customer audits

2.2.5. **Supply management**

Description	**Learning station**	Supply Management
	Date	03/2018
Workplace	**Vocational Profile**	Provisioning Manager
Allocation	**Curriculum**	Production Management Technician of Footwear and Leather goods

Process environment	**Product /Service**	Acquisition of materials and components to supply the various production sections, through production orders, weekly planning and stock consultation. Selection and evaluation of suppliers
	Internal supplier	Planning Development Technical sheets
	Production Order/ Manufacturing Order / Material acceptance	Weekly planning map Production orders Purchasing orders Receiving and controlling materials and components
	Direct user of product/ Direct Internal Customer / Service	All productive sectors
	Client of product / Final Customer / Service	Final customers
	Production steps already performed	Development Technical sheets Production planning
	Interfaces with other process steps	With all the steps of the process
	Specifics of work process related to the duration of execution, work process organisation, quality assurance etc.	Purchasing management is a dynamic activity in terms of orders received, delivery times, requests of materials, performance of suppliers

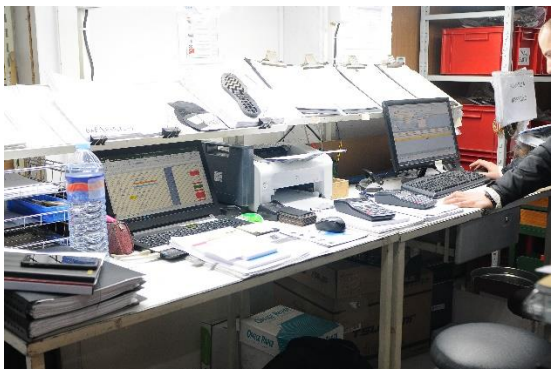
<table>
<tr><td>Process Steps (detailed description)</td><td colspan="2">45. According to production planning (delivery dates and expected dates of production start-up), it analyzes the material requirements for the production orders and after checking the of materials in stock, defines the purchase orders and their deadlines to selected suppliers
46. Provides permanent follow-up of the planned deliveries of each supplier in order to ensure timely availability of materials
47. Communicates to the planning responsible the expected delays that may interfere with the planning for the production
48. It distributes, guides and controls the execution of the work of the sector's employees, ensuring the supply of all productive sections and compliance with quality, environment, safety and health standards, taking into account production planning and proposing alternative measures in function of the detected deviations
49. Supervises the receipt and control of materials, intervening where necessary, and coordinating the communication with those responsible for production, and in particular that of the Cutting, for validation of materials, especially leather, by conducting production tests.
50. Ensures the identification of the materials, their arrangement according to the predefined criteria and the recording of all movements, carrying out periodic inventories for stock control
51. Collaborates in the company's response to customer complaints related to material compliance and in taking corrective actions
52. Collaborates in the preparation and follow-up of external audits and client audits</td></tr>
<tr><td rowspan="3">Workplace</td><td>Space</td><td>Suitable – own area on raw materials warehouse</td></tr>
<tr><td>Lighting conditions / Environment</td><td>Suitable – artificial light</td></tr>
<tr><td>Posture</td><td>Standing</td></tr>
</table>

	Specificities	Table and computer station
Organization	**Nr of employees in the Workplace per shift**	1
	Nr of de employees in the department	11
	Hierarchy	Management
	Cycle time	8 hours
	Shifts	1
	Similar Workplaces	0
	Cooperation	Management Planning Production Quality
	Specificities	None
Interfaces	**With other activity fields**	Quality management; Safety and the work environment

	With other workplaces	----
	Training Workshops / Theoretical Knowledge	Footwear production knowledge Knowledge of materials Knowledge of stocks management Knowledge of quality control procedures Knowledge of related international standards and applicable legislation Safety, Health and Environment
	Others	None
Vocational Training	**Vocational Learning / duration**	The training occurs in the workplace under the guidance of the external tutor. The duration is variable and depends on the workplace requirements and the potential of the trainee - posture, motivation, learning ability and professional performance.
	Preconditions / previous stations	None
	What to learn	Footwear production knowledge Knowledge of materials Knowledge of quality control procedures Safety, Health and Environment
	Training specificities	Consider the practical and contextualized application of concepts. - Learning evolution of the gradual complexity, enhancing responsibility and autonomy. - Promote the motivation, participation and individual autonomy.

	Experience with the Trainees / Young skilled workers	Good articulation between theory and practice to promote motivation and individual involvement
	Assistance / working tasks	Support provided by the designated tutor starting with the simplest tasks and gradually performing the most complex tasks
	Is the learning potential being explored?	Yes
	Improvement opportunities / Possibilities for improvement	To formalize (reduce informalism) the training practices in a more structured way, introducing evaluation tools for both the tutor / trainer and the trainee, to reflect for the decision makers the results obtained and to enhance the improvement of the process used.
	Nr of Trainees per learning station	1
	Comments	In the national context there is a Certified Training System for Production Management Technician of Footwear and Leather goods, where training for this apprenticeship is integrated, into two modalities: A. Technological Specialization Course: Qualification course - level 4 Duration: 3 years Training Components: • Sociocultural and scientific - 775 hours • Technological - 1250 hours • Practice in work context - 1500 hours

			B. Modular Training: Short-term Training Units: Materials management: 50 hours	
Highest level of autonomy reachable	Support	With instruction and guidance	Under surveillance	Independent
	3 months	3-6 months	6 – 12 months	12 months

	1. Working table and computers
	2. Reception and control of leathers / preparation of the supply of the cutting sector
	3. Shelves for storage of leather

2.2.6. Production management

Description	**Learning station**	Production Management
	Date	03/2018
Workplace	**Vocational Profile**	Production responsible
Allocation	**Curriculum**	Production Management Technician of Footwear and Leather goods
Process environment	**Product /Service**	Materials, components, footwear at different stages of production and finished footwear to answer orders
	Internal supplier	Planning Raw materials warehouse Maintenance
	Production Order/ Manufacturing Order / Material acceptance	Weekly planning map Production orders Materials received and controlled by the raw materials warehouse
	Direct user of product/ Direct Internal Customer / Service	All productive sectors
	Client of product / Final Customer / Service	Final customers
	Production steps already performed	Production planning

	Interfaces with other process steps	With all the steps of the process
	Specifics of work process related to the duration of execution, work process organisation, quality assurance etc.	Production management is a dynamic activity in terms of orders received, delivery times, availability of materials, performance of the productive sections.
Process Steps (detailed description)	53. Distribute, orient and control the execution of the cutting, sewing, assembly and finishing works, in terms of quality, production costs, deadlines and compliance with environmental, safety and health standards, taking into account the production schedule and proposing alternative measures depending on the deviations detected 54. Control production in terms of product quality, production costs and compliance with quality, safety and health at work standards 55. Collaborate on the company's response to customer complaints and take corrective actions 56. Collaborate in the preparation and follow-up of external audits and client audits	
Workplace	**Space**	Suitable – own office
	Lighting conditions / Environment	Suitable – artificial light
	Posture	Seated
	Specificities	Table and computer station

Organization	**Nr of employees in the Workplace per shift**	1
	Nr of de employees in the department	1
	Hierarchy	Management
	Cycle time	8 hours
	Shifts	1
	Similar Workplaces	0
	Cooperation	Management Commercial Planning Human Resources
	Specificities	None
Interfaces	**With other activity fields**	Quality management; Safety and the work environment
	With other workplaces	----
	Training Workshops / Theoretical Knowledge	Footwear production knowledge Knowledge of production management Knowledge of quality control procedures Knowledge of related international standards and applicable legislation Safety, Health and Environment
	Others	None

Vocational Training	**Vocational Learning / duration**	The training occurs in the workplace under the guidance of the external tutor. The duration is variable and depends on the workplace requirements and the potential of the trainee - posture, motivation, learning ability and professional performance.
	Preconditions / previous stations	None
	What to learn	Footwear production knowledge Knowledge of production management Knowledge of quality control procedures Safety, Health and Environment
	Training specificities	Consider the practical and contextualized application of concepts. - Learning evolution of the gradual complexity, enhancing responsibility and autonomy. - Promote the motivation, participation and individual autonomy.
	Experience with the Trainees / Young skilled workers	Good articulation between theory and practice to promote motivation and individual involvement
	Assistance / working tasks	Support provided by the designated tutor starting with the simplest tasks and gradually performing the most complex tasks
	Is the learning potential being explored?	Yes
	Improvement opportunities / Possibilities for improvement	To formalize (reduce informalism) the training practices in a more structured way, introducing evaluation tools for both the tutor / trainer and the trainee, to reflect for the decision makers the results obtained and to enhance the improvement of the process used.

<table>
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Qualification course - level 4
Duration: 3 years
Training Components:
• Sociocultural and scientific - 775 hours
• Technological - 1250 hours
• Practice in work context - 1500 hours
B. Modular Training: Short-term Training Units:
Production management: 50 hours</td></tr>
<tr><td rowspan="2">Highest level of autonomy reachable</td><td>Support</td><td>With instruction and guidance</td><td>Under surveillance</td><td>Independent</td></tr>
<tr><td>3 months</td><td>3-6 months</td><td>6 – 12 months</td><td>12 months</td></tr>
</table>