R1-A2. Awareness of needs surveys to identify specific learning difficulties.

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Consortium members: Deutscher Naturwerkstein-Verband e.V. (DNV), Asociación Empresarial de Investigación Centro Tecnológico del Mármol, Piedra y Materiales (CTM), Federación de Asociaciones Murcianas de Personas con Discapacidad Física y Orgánica (FAMDIF), Institute of Entrepreneurship Development (iED), Klesarska skola (KSK).

Content

INTRODUCTION

This report is included in the task "R1-A2 Awareness of needs surveys to identify specific learning difficulties", corresponding to the Intellectual Output 1 "Educational approach for people with different abilities focused on transversal skills in the stone sector" of the InclusiveStone project.

The objective of this task is to identify the main transversal competencies and skills developed during the performance of tasks related to the stone industry, as well as the specific adaptation needs of each of them for people with disabilities.

To this end, all partners have conducted opinion surveys of professionals in the field of disability.

More specifically, this task consists of the identification and analysis of activities that may be likely to incorporate personnel with disabilities, and the subsequent evaluation of the jobs related to these activities, guaranteeing the labor inclusion of people with disabilities and promoting a diverse and respectful work environment.

The specific requirements of each job related to these activities will be analyzed, taking into account the skills and competencies needed to perform the job effectively.

In order to obtain this list of tasks in which to make curricular adaptations, a series of data tables have been developed to be filled in by participants in the sector and natural stone companies.

This report and all the information about the project are also available at the following url:

- InclusiveStone project website: https://inclusivestone.eu/

MOST COMMON ACTIVITIES AND JOBS

1. Block cutter and header.

The cutting process in the block cutter takes place automatically, and the functions of the equipment operator consist of: operating the equipment, trimming, entering the desired

measures, monitoring and control of the cutting process, removal of the cut strips that are transferred to the header.

The transfer of the belts to the roller table is carried out approximately every 2 to 3 minutes, which is the time it takes for the block cutter to cut the belt, in one pass along the block.

Once the belt has been transferred to the roller table, it is cut with the header machine, by means of the movement of a disc, which, having a limit switch, returns to its starting position once finished. After making the cuts, the operator empties the leftovers into a container located in the vicinity of the workstation. The cut tiles are deposited manually by the operators on the pallets.

The functions of the header machine operator are therefore web cutting and pallet shaping.

2. Calibration, reinforcement, surface finishes and sorting line.

The equipment used by the operator for calibration, reinforcement, surface finishes and sorting is usually assembled on a production line or separately in smaller factories or marble works. Within this production line, equipment can be mainly classified into the following types:

- Calibration equipment: machines or tools intended to calibrate the thicknesses of different pieces of natural stone, in order to match them normally by polishing these pieces. These machines are usually found inside production lines.
- Reinforcement equipment: in the reinforcement line, we find machines or tools for the reinforcement of natural stone pieces automatically, but on other occasions this task is carried out manually using a trowel to spread the resin as work equipment, to later cure that resin by supplying temperature within the production line with curing ovens. The reinforcement for natural stone pieces is usually made by means of a fiberglass mesh and different resins in order to increase their resistance.
- Surface finishing equipment: machines or tools intended to give a different finishing texture to natural stone: polishing, honing, sandblasting, flaming, scarring, aging, or other textures.
- Sorting equipment: a machine or tool intended to classify the different pieces of natural stone according to their size, colour or properties. There is automatic robotic equipment and it is also done manually, using cranes to transport these parts.

3. Disc bridge, cutting table and other cutting equipment.

The bridge disc is the basic bridge cutter that allows you to make any type of cutting to plates and other parts of reduced thickness. It stands out for having great versatility, agility and ease of use, so that it guarantees a high production rate.

It allows you to optionally incorporate cutting programs to facilitate the most complex and frequent jobs (kitchen program, 0 and 90º cutting program).

As examples of some applications we find cutting boards for bathrooms and kitchens, tiles, baseboards, special pieces.

Optionally, the machine can be equipped with some add-ons that may be necessary for specific cases. Among them, it is worth mentioning the profile copier, which is very useful for stonemasonry work, as it brings the machine closer to a numerical control.

The cutting table is a less sophisticated piece of equipment than the bridge disc, which, although it allows, for example, tilting the disc or laser guide, is intended for cutting pieces of stone or compact quartz intended for specific orders.

4. Terminations.

The equipment used by the finishing operator can be very varied depending on the type of finish required by the material, but they could be classified mainly into the following types:

- Cutting equipment: machines or tools intended for cutting natural stone in order to divide or separate the masses or boards into pieces to achieve the required dimensions. They can also be used for framing parts as well as recesses. Examples: automatic or manual discs.
- Polishing equipment: machines or tools intended for polishing natural stone for the purpose of smoothing or perfecting them. Examples: automatic or manual polishing machines,
- Other finishing equipment: machines or tools designed to give a different finishing texture to natural stone (bush-hammered, honed, flamed, etc.). Example: bush-hammerer, bush-hammerer, flamer,...
- Drilling equipment or other anchoring equipment: a machine or tool intended for drilling or other manipulation for anchoring or necessary openings of natural stone parts. Example: Drills

5. Forklift.

The forklift is a self-contained piece of equipment suitable for carrying cantilever loads. It is based on two axles: drive, the front, and steer, the rear. They can be electric or with an internal combustion engine. There are several types of forklifts, such as cantilever trucks, non-counterbalance, reach trucks, stackers, as well as gantry forklifts.

There are many attachments for forklifts, but the most commonly used for handling ornamental rock are tongs for handling boards, as well as other hook-shaped or single-fingernail attachments for handling bundles of boards.

6. Mechanical and/or electrical maintenance operators.

Among other equipment, it usually uses welding equipment, lathes, vertical drills, overhead cranes to lift loads, grinders, portable compressors and various electric or pneumatic hand tools such as screwdrivers, drills, radial and all kinds of hand tools including pliers, hammers, screwdrivers, fixed wrenches, socket wrenches.

As it also performs electrical maintenance tasks, it usually uses polymer meters and clamp meters. In order to consign – leave the machinery without electrical, pneumatic, potential power – it usually carries, among other devices, padlocks, signs, alligator clips to ground electrical installations and bolts to block untimely falls of elevated equipment.

7. Loom.

The most frequently used loom in the sector is the slat cutting loom, although there are others with diamond wire with little or very little implantation. They are classified according to the material to be cut, the number of cutting slats or the technology used to place the block in relation to the cutting slats; By means of a fixed carriage with descending cutting slats or an ascending mobile carriage with cutting slats at a fixed height.

8. Overhead crane.

A crane is a machine of discontinuous operation intended for lifting and distributing loads suspended from a hook or any other gripping attachment (NTP 736). There are several types of cranes, among which we will mainly find ornamental rock plants, gantry type, overhead crane, semiotic crane and swivel boom crane.

In addition to the crane as the main equipment, several accessories can be used with it for handling loads, such as slings, clamps, hooks, rocker arms, C-type hooks, suction cups, octopuses, among others.

9. Truck driver.

Drivers use trailer trucks to transport boards and blocks, these trailers are attached to a platform on which blocks and boards are loaded, the latter with the help of standardized trestles with safety bars. In another transport variant, intended for shipping over long distances, sea containers are used. Accessory, but not used by the driver, are overhead cranes and forklifts with their corresponding couplings.

QUESTIONNAIRES TO ESTIMATE THE LEVEL OF ACCESSIBILITY AND INCLUSION IN COMPANIES. InclusiveStone: A2-A Questionnaire.

Consortium members: Deutscher Naturwerkstein-Verband e.V. (DNV), Asociación Empresarial de Investigación Centro Tecnológico del Mármol, Piedra y Materiales (CTM), Federación de Asociaciones Murcianas de Personas con Discapacidad Física y Orgánica (FAMDIF), Institute of Entrepreneurship Development (iED), Klesarska skola (KSK).

JOB ANALYSIS.

Consortium members: Deutscher Naturwerkstein-Verband e.V. (DNV), Asociación Empresarial de Investigación Centro Tecnológico del Mármol, Piedra y Materiales (CTM), Federación de Asociaciones Murcianas de Personas con Discapacidad Física y Orgánica (FAMDIF), Institute of Entrepreneurship Development (iED), Klesarska skola (KSK).

InclusiveStone: A2-a Questionnaire

InclusiveStone is a project driven by funding from the Erasmus+ programme and aims to create a framework that facilitates access to employment for people with disabilities in the natural stone sector.

The consortium that makes up InclusiveStone has considered it necessary to carry out a survey to assess the degree of compliance with the different dimensions in the companies with which it has contacted. With this information, the consortium will be able to work more effectively with participating companies to improve their accessibility and make their work environments more inclusive for people with disabilities.

The questionnaire is addressed to managers, human resources managers, health and safety officers and other decision-makers within the natural stone sector, and focuses on current and planned competency issues related to inclusion training.

We are very grateful for your contribution in filling in this questionnaire, which will enable us to develop new training content, accessible through e-tools and innovative training platforms.

It should not take more than 5 minutes to complete the questionnaire. All answers will be treated in the strictest confidence.

More information about the project will be available at the following url: https://inclusivestone.eu/

Where:

H	HIGH degree of compliance. The criterion is fully / largely met.
M	MEDIUM degree of compliance. The criterion is not met, but could easily be met.
L	LOW degree of compliance / non-compliance. The criterion is not met / cannot be met.

	Compliance		
PHYSICAL SPACE AND TRANSPORT	**H**	**M**	**L**
The company has transport for its staff, or there are accessible means of transport nearby.			
The urban environment near the company is accessible (pavements with curbs, audible traffic lights, etc.).			
There are accessible parking spaces or spaces reserved for people with reduced mobility.			
Access to the workplace is accessible: no steps and/or ramp, door, lifts, turnstiles...			
The interior spaces of the workplace are accessible: wide passageways, corridors, access to rooms, interior layout, brightness...			
Toilets are accesible.			
Emergency doors and other safety measures are accessible and signposted.			
Accessible furniture is available: tables, chairs, filing cabinets, cupboards, shelves, shelving, etc.			
Counters and customer service counters, if any, are accessible to both those providing and receiving care.			
Universal design criteria and standards are taken into account in all planning of works and/or refurbishment of company infrastructures.			
Remarks:			

	Compliance		
TECHNICAL RESOURCES AND TOOLS	**H**	**M**	**L**
Machinery, equipment, systems or work tools (including software) are accessible and/or adaptable to persons with disabilities.			
In all planning for the acquisition of tools, equipment or other resources, universal design criteria and standards are taken into account.			
Remarks:			

	Compliance		
INFORMATION AND COMMUNICATION	**H**	**M**	**L**
The mechanisms, methods and procedures used to communicate and provide information (internal and external) of the company contemplate universal design: telephony, electronic messaging, audiovisual, etc.			
The signage located in the company's premises facilitates the circulation of people and the location of the departments and services offered.			

There are alternative communication systems, staff trained in Sign Language, magnetic loop or other communication measures for All.			
In the advertising and marketing of the products and services offered by the company, universal design criteria are taken into account.			
Remarks:			

	Compliance		
ATTITUDES	**H**	**M**	**L**
The values promoted in the company's culture are based on the principles of non-discrimination, equal opportunities and inclusion in all its dimensions.			
The company's staff has basic knowledge on how to interact with people with disabilities (hearing, visual, intellectual, physical and psychosocial or mental), legislation on the subject, or customer service, among others.			
People with disabilities already exist in the company and are fully integrated.			
Remarks:			

	Compliance		
POLICIES, STANDARDS AND PROCEDURES	**H**	**M**	**L**
The company has a Corporate Social Responsibility Committee			
The company has clear and well-publicised policies for the selection and recruitment of personnel in general.			
The company has some kind of positive action policy on gender, disability, youth, or other groups at risk of exclusion.			
The company has designed an organisational policy that promotes equal opportunities, non-discrimination, inclusion and participation of people with disabilities in all dimensions (physical space, information and communication, attitudes, etc.).			
The company has a mechanism in place to disseminate and monitor its disability-inclusive policy, including sanctions for any type of discrimination.			
The company includes in its Strategic Plan an action plan that directs the organisation towards the inclusion of people with disabilities in all dimensions, with the participation of the different administrative and operational units, resources, responsibilities and deadlines.			
The company has a personnel selection policy that does not discriminate against people with disabilities, and/or those who acquire a disability while working in the company, or in its promotion processes.			
The company's rules and codes of conduct take into account the needs of stakeholders with disabilities.			
The company's production standards take into consideration the criteria and standards of universal design (equitable use, flexible use, intuitive and simple use, perceptible information, error tolerance, low physical effort, size and space).			
The company's business objectives, mission and vision are aligned with the inclusion of people with disabilities in all dimensions of the company.			
The needs of customers, consumers and other stakeholders with disabilities are considered in the company's products and services.			
The company's suppliers and companies that provide raw materials and services to the company comply with non-discrimination.			
Remarks:			

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InclusiveStone: A2-b Questionnaire. Analysis of the job for its adaptation: Block cutter and header.

Once the jobs that can be occupied by people with disabilities have been identified, the possible adaptations that must be made to ensure accessibility and equal opportunities in the workplace will be evaluated. These adaptations can be both in the physical infrastructure and in the processes and tools used at work.

During the following points, the different factors that must be taken into account in each job, the skills required and the adaptations necessary to guarantee the labor inclusion of people with disabilities in the company are raised. This scheme will serve as a reference tool for personnel selection processes and as a guide for the adaptation of jobs to the specific needs of each employee.

1. General data

POSITION (C.N.O.): Ornamental rock plant operator: Block cutter and header	**PROFESSIONAL LEVEL:**
TYPE OF CONTRACT MOST USED: (Indefinite, Eventual, Training, Work and Service ...) Indefinite	**DURATION OF THE MOST COMMON CONTRACT:** Usually, permanent contracts.

Full-time	X	**Part-time**		**Shifts:**	YES	X	**Mobility:** YES	
Schedule (continuous, match, morning, afternoon..) Morning, afternoon		**Nº of Hours:**	8		NO			NO X

REMARKS:

The block cutter operator is a person who performs his work with the aim of obtaining stone slabs cut in different dimensions and thicknesses from a block.

The performance of the activity is carried out as follows. The blocks deposited in the storage area are transferred one by one by the bridge crane to the block wagons, which move on rails towards the block cutter. Once the block reaches the block cutter, first, the operator takes measures to make the tip of this, in order to square said block, preparing it to make clean cuts. Secondly, it programs the machine with the measurements for cutting depending on the measurements to be obtained. Long strips of stone are extracted from the block cutter that are deposited automatically or semi-automatically on a conveyor belt that feeds a header. The operator will use this machine to cut the strip cut by the block cutter into commercial-sized slabs.

https://www.youtube.com/watch?v=XUUM37jmKpg&ab_channel=CTM-CentroTec.delM%C3%A1rmol%2CPiedrayMateriales

2. Task analysis

Task No.	**Description**	**% of time**
1	Storage and handling of blocks with overhead crane.	
2	Take block measurements.	
3	Programming of the block cutter with the measurements to be obtained.	
4	Use the header to separate the slabs by the band generated by the block cutter.	
5	Change, adjust and repair disks.	
6	Controls and interventions in the work team.	
7	Start-up of the work team.	
8	General rules of circulation through the plant.	
9	Periodicity of general revisions and maintenance of the machine.	

3. Job requirements profile

CAPABILITIES	***Levels:***			**Specific comments:**
	To	**B**	**C**	
Manual dexterity: Ability to perform activities that require coordinated actions, with precision and manual speed	X			The operator must have some skill with the handling of this type of equipment, to avoid accidents or errors in cutting blocks.

Displacement: Ability to walk, and or move, using or not some type of equipment.	X			
Access to transport: Ability to access (physical access) public transport or use a private vehicle		X		It is advisable to have your own vehicle since both quarry and factory are usually displaced from residential areas. Although there may be public or private transport hired by the company.
Position: Ability to adopt and maintain a certain posture; SITTING, STANDING, OTHERS.	X			There is a risk of forced postures in the loading of cut material.
Strength: Ability to perform physical efforts (physical exercise/loading-handling of weights and/or large objects)	X			Tiles and cut pieces, empty drums or pallets are usually handled.
Tolerance: Ability to withstand situations that may generate stress, tension and / or mental fatigue	X			Mental fatigue: - Contradictory orders issued by different commanders. - Control of several machines that work simultaneously (block cutter and header). - Time pressure. - Personal reasons.
Personal Autonomy: Cap. Act independently, without supervision in activities related to self-care and risk perception.	X			
Interpersonal relationships: Ability to initiate and maintain relationships with other people		X		
Orientation in the environment: Cap. to orient yourself in the environment where you live (neighborhood, city) and use (know and use) public transport (metro, bus)	X			
Money Management: Ability to engage in basic economic transactions			X	
Learning: Ability to acquire knowledge, to perform new tasks		X		
Vision: Capability to recognize and/or distinguish objects and colors.	X			
Hearing: Ability to hear, recognize and/or discriminate sounds	X			
Verbal comprehension: Ability to understand oral messages		X		

Oral Expression: Ability to express oral messages		X		

A: Required
B: Occasionally required
C: Not required

4. Working conditions

FURNITURE AND/OR TECHNOLOGY USED

1.- Furniture

2.- Technology

3.- Tools / Machinery / vehicles

The block cutter is a powerful equipment that allows you to cut blocks in the form of bands or strips that, later, will be cut with the header. Its use can lead to serious accidents that must be known and avoided.

By means of the bridge crane, located in the block yard, blocks are transferred to a block wagon whose mission is to introduce the block to the interior of the block cutter.

The cutting process takes place automatically, but the operator will be in charge of supervising the automatic unloading, unloading with mechanical means or even in more extreme and inadvisable situations, unloading the belts manually. In all the cases indicated, as a general rule, the cut product is deposited on a roller belt that feeds a header. This equipment makes cuts perpendicular to pre-established measures, and the operator must classify and deposit the cut slabs or platelets on pallets and discard the cuttings to a rubble wagon.

There are several types of machines, depending on the type, more interaction with the machine will be required by the operator or only control that the process is correct.

COND. ENVIRONMENTAL AND RISK FACTORS

1.- Accessibility and Barriers

Barriers:	Brief description of barriers:
Yes: X No:	Lack of cleanliness and order. Presence of small slopes (30-50cm) Uneven terrain.

2.- Environmental environment: Indicate, when necessary, special characteristics in relation to the following factors:

		Remarks:
Temperature		Exposure to extreme ambient temperatures: Work in wet conditions Thermal contacts: Contact with motor and areas subject to friction such as pulleys or cutting discs.
Humidity		Cutting machinery often uses water to reduce dust generation, which can generate some local, rather than ambient, humidity. Workers often wear clothing with insulating materials.
Lighting		- Lack of lighting in the work area.
Noise		- Exposure to a noise level higher than that legally permitted according to Royal Decree 286/2006 in cutting tasks. - Work together with other cutting equipment such as looms, bridge disc ...
Vibrations		

Environment (cond. Extreme climates, dust, smoke, A. Conditioned).		Exposure to harmful or toxic substances: The presence of dust, such as particulate matter, in the workplace that can be breathed in. Exposure to chemical contaminants: - Presence of dust in the workplace. - Poor water injection in the cutting area. - Do not clean the area by washing and let puddles dry. In the scope of this job, the following action protocols and the risks indicated in the previous sections must be taken into consideration for the determination of the medical fitness of people: - Dermatosis. - Manual handling of loads. - Repetitive movements. - Forced postures. - Noise. - Silicosis.

3.- Risk Factors: Identify possible risk situations related to the following factors:

Remarks:

Machinery		Falling objects in handling: - Failures in the mooring of the blocks or boards to be manipulated with the bridge crane. - Easles or block wagons without safety sidebars to prevent boards from falling Footprints on objects: - Presence of material and rock rubble in passage and work areas. - Lack of lighting. - Presence of water pipes, extension cords, tools, plaster bags, pallets... in the workplace. - Distribution of pallets in the work and/or passage area. Collisions with moving objects: - Access to the interior of the cutting area circumventing the protections and safety distances with the device running. - Debris removal with the device running. - Poor handling of equipment due to lack of sufficient operator training. - Existence of nearby work equipment in motion such as the block carrier or automatic unloader. - Deficiency / absence of signage or other elements necessary for the delimitation of the work area. Bumps/cuts by objects or tools: - Handling of tools in maintenance work and adjustment of the machine. - Cut with the cutting discs. - Selection of tools, tools and auxiliary means not suitable for the work to be done. - Deteriorated steel slings with steel wires accessible in the handling of blocks. Projection of fragments or particles: Projection of particles in the process of cutting. Entrapment by or between objects: - Perform maintenance work on moving parts of the machine itself while running. - Start the machine without checking that there are no people inside it. - Absence and/or deficiency of guards and side and frontal protection devices.

		- Transmissions, gears and moving parts when improperly approaching, or when cleaning, greasing or regulating machine elements when in motion. Overturning entrapment of machines or vehicles: Breakage of the block wagon due to limitation of its useful life. Fires: Overheating of machinery. Run over or hit with vehicles: - Failure to respect safety distances of at least 5 meters between pedestrians and equipment such as trucks and forklifts. - Poor lighting in the working environment. - Lack of delimitation of the work area. - Poor communication between pedestrians and drivers. - Circulation in areas not intended for pedestrians.
Heights		
Efforts		Overexertion: - Management of stone bands and slabs. - Handling of grease cans / drums. - Handling and location of empty pallets. Physical fatigue: - Long working days. - Poor conditioning and maintenance of machinery. - Imposed work rhythm and load of cut material.

Mobility		Falling people to the same level: - Presence of mud and sludge cutting that make the passage unstable and slippery. - Grooves and irregularities in the work area. - Small unevenness in the entrance or exit of blocks through which the block wagon circulates. - Insufficient space in workplaces or transit areas. - Poor order and cleanliness. - No delimitation between work or transit areas and storage areas or failure to respect established areas.
Position		Overexertion: - Management of stone bands and slabs. - Handling of grease cans / drums. - Handling and location of empty pallets. Physical fatigue: - Long working days. - Poor conditioning and maintenance of machinery. - Imposed work rhythm and load of cut material.
Tension / Anxiety / Stress		Mental fatigue: - Contradictory orders issued by different commanders. - Control of several machines operating simultaneously. - Time pressure. - Personal reasons

Manipulation		Contacts with caustic and/or corrosive substances: Contact with greases and lubricants. Thermal contacts: Contact with motor and areas subject to friction such as pulleys or cutting discs. Electrical contacts: - Contact with parts of machinery accidentally put into tension. - Failures in the installation of electrical protection of the equipment itself (differential, grounding, magnetothermic, motor guard...). - Electrical conduits and panel in poor condition. Bumps/cuts by objects or tools: - Handling of tools in maintenance work and adjustment of the machine. ▪ Cut with the cutting discs. - Selection of tools, tools and auxiliary means not suitable for the work to be done. - Deteriorated steel slings with steel wires accessible in the handling of blocks.
Schedules / Conferences		Physical fatigue: - Long working days.
Inner Work		
Exterior Work		
Continued Oral Expression		

5. Competences

FORMATION

Titration:	Languages:	Other knowledge:

The operator must have training in risk prevention, as established in Law 31/1995 on the Prevention of Occupational Risks and Royal Decree 39/1997, which approves the Regulation of Prevention Services, as well as the specific regulations of application. As mandatory, the training that the operator must receive must contemplate the following points: - Specific training of the position in accordance with article 19 of the LPRL (job position and risks existing in the workplace in which the activity is to be developed). - Preventive training for the performance of the position of operator of ornamental rock plants. This training includes an initial training of 20h and a subsequent recycling every 2 years with a duration of 5h. - Training in dust control at your workplace. The training must be repeated at least once a year and, in particular, when the worker changes functions, position or place of work. Other training actions, in the field of OHS, necessary for the position can be developed under the following themes: noise, maintenance, action in case of emergencies (fires, evacuation and first aid), handling of loads and work at height if necessary.		Health and Safety in general and specifications in the company. (Spain, Croatia, Germany and Greece)

WORK EXPERIENCE

Determine if previous experience is necessary for the performance of the position:	YES	X	NO	

OTHER REQUIREMENTS

Driving license:	YES		NO	X	Type	
Age:	>	18	<	65		
Own vehicle:	YES		NO	X		
Time Availability	YES		NO			

Workplace:	Factory	Day:	8	Timetable:	Morning or afternoon

REMARKS

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InclusiveStone: A2-b Questionnaire. Analysis of the job for its adaptation: Calibration line, reinforcement.

Once the jobs that can be occupied by people with disabilities have been identified, the possible adaptations that must be made to ensure accessibility and equal opportunities in the workplace will be evaluated. These adaptations can be both in the physical infrastructure and in the processes and tools used at work.

During the following points, the different factors that must be taken into account in each job, the skills required and the adaptations necessary to guarantee the labor inclusion of people with disabilities in the company are raised. This scheme will serve as a reference tool for personnel selection processes and as a guide for the adaptation of jobs to the specific needs of each employee.

1. General data

POST (C.N.O.): Operators of ornamental rock plants: Calibration line, reinforcement, surface finishes and classification	**PROFESSIONAL LEVEL:**
TYPE OF CONTRACT MOST USED: (Indefinite, Eventual, Training, Work and Service ...) Indefinite	**DURATION OF THE MOST COMMON CONTRACT:** Usually, permanent contracts.

Full-time	X	**Part-time**		**Shifts:**	YES	**Mobility:**	YES
Schedule (continuous, match, morning, afternoon..)							
Morning, afternoon		**Nº of Hours:**	8		NO X		NO X

REMARKS:

These operators are responsible for the use and supervision of the equipment that performs the calibration, reinforcement, surface finishes and classification of ornamental rock or compact quartz pieces according to the requirements demanded by customers. In a non-exhaustive way, the tasks to be developed by these operators are listed below:

- Use and supervision of automatic calibration, reinforcement, surface finishing and sorting equipment, such as suction cup or manual sorting line, fiberglass mesh reinforcement line and resins, surface finishing line (polishing, honing, sandblasting, flamed, frosting, aging or other textures) and sorting line equipment, such as robotic arms, cranes or manuals.
- Placement of reinforcing mesh, as well as resins and other products for the reinforcement of boards and blocks of natural stone.
- Handling of loads for feeding and unloading lines, or the handling of pieces of natural stone.
- Other maintenance and cleaning tasks of your work area.

On many occasions and depending on the type of production lines, there may be several operators on this same line, separated by each of the production phases described.

The task of reinforcement is usually done by chemicals and is a common job in children who begin to enter the industry.

https://www.youtube.com/watch?v=kQFXzebKdN0&ab_channel=CTM-CentroTec.delM%C3%A1rmol%2CPiedrayMateriales

2. Task analysis

Task No.	Description	% of time
1	Use of calibration, reinforcement, surface finishes and classified equipment.	
2	Manual and mechanical handling of loads.	
3	Order and cleanliness of the workplace	
4	General rules of circulation and signaling.	
5	Periodicity of general revisions.	
6	Prevention and control of dust.	
7	Other rules or procedures according to the development of the position or positions of calibration, reinforcement, surface finishes and classified.	

3. Job requirements profile

CAPABILITIES	***Levels:***			**Specific comments:**
	To	**B**	**C**	

Manual dexterity: Ability to perform activities that require coordinated actions, with precision and manual speed	X			The operator must have some skill with the handling of this type of equipment, to avoid accidents.
Displacement: Ability to walk, and or move, using or not some type of equipment.	X			Most machines need to be able to move and load.
Access to transport: Ability to access (physical access) public transport or use a private vehicle		X		It is advisable to have your own vehicle since both quarry and factory are usually displaced from residential areas. Although there may be public or private transport hired by the company.
Position: Ability to adopt and maintain a certain posture; SITTING, STANDING, OTHERS.	X			There is a risk of forced postures in the use of this type of equipment in the handling of loads and in incorrect positions.
Strength: Ability to perform physical efforts (physical exercise/loading-handling of weights and/or large objects)	X			Manual handling of loads. Do not use lifting equipment or lack thereof. Poor ergonomic design of the workplace. No mechanization or automation of loading/unloading operations. Poor storage, packaging, palletizing, stacking, etc. Forced postures or unstable positions and bad habits or lack of training in safe techniques of handling loads or postures in the driving position of the team.

Tolerance: Ability to withstand situations that may generate stress, tension and / or mental fatigue	X			Mental fatigue: - Contradictory orders issued by different commanders. - Time pressure. - Personal reasons. - Monotonous or routine work, without measures to avoid its harmful effect
Personal Autonomy: Cap. Act independently, without supervision in activities related to self-care and risk perception.	X			
Interpersonal relationships: Ability to initiate and maintain relationships with other people		X		
Orientation in the environment: Cap. to orient yourself in the environment where you live (neighborhood, city) and use (know and use) public transport (metro, bus)	X			
Money Management: Ability to engage in basic economic transactions			X	
Learning: Ability to acquire knowledge, to perform new tasks		X		
Vision: Cability to recognize and/or distinguish objects and colors.	X			
Hearing: Ability to hear, recognize and/or discriminate sounds	X			
Verbal comprehension: Ability to understand oral messages		X		
Oral Expression: Ability to express oral messages		X		

A: Required
B: Occasionally required
C: Not required

4. Working conditions

FURNITURE AND/OR TECHNOLOGY USED

1.- Furniture Not applicable
2.- Technology

3.- Tools / Machinery / vehicles

The equipment used by the operator for calibration, reinforcement, surface finishes and sorting is usually mounted on a production line or separately in smaller factories or marble factories. Within this production line the equipment can be classified mainly into the following types:

- Calibration equipment: machines or tools designed to calibrate the thicknesses of the different pieces of natural stone, in order to match them normally by polishing these pieces. These machines are usually located within production lines.
- Reinforcement equipment: in the reinforcement line, we find machines or tools for the reinforcement of the pieces of natural stone automatically, but on other occasions this task is carried out manually using a paddle to extend the resin as work equipment, to later cure that resin by supplying temperature within the production line with curing ovens. The reinforcement for natural stone pieces is usually done by a fiberglass mesh and different resins in order to increase their resistance.
- Surface finishing equipment: machines or tools intended to give a different finishing texture to natural stone: polished, honed, sandblasted, flamed, scavenging, aged or other textures.

Sorting equipment: machine or tool intended to classify the different pieces of natural stone according to their size, color or properties. There is automatic robotic equipment and it is also done manually, using cranes to transport these parts.

COND. ENVIRONMENTAL AND RISK FACTORS

1.- Accessibility and Barriers

Barriers: Yes: [X] No: [ ]	Brief description of barriers: Lack of cleanliness and order. Presence of small slopes (30-50cm) Uneven terrain.

2.- Environmental environment: Indicate, when necessary, special characteristics in relation to the following factors:

Remarks:

Temperature		Exposure to extreme ambient temperatures: - Outdoor work. - Work in humid environments Thermal contacts: - Accidental contact with unprotected hot areas. - Contact with hydraulic fluids or fuel. - Contact with heat sources. - Handling of machine parts at high temperatures. Thermal stress: Work outside without protection.
Humidity		Cutting machinery often uses water to reduce dust generation, which can generate some local, rather than ambient, humidity. Workers often wear clothing with insulating materials.
Lighting		Lack of lighting in the work area.
Noise		- Exposure to a noise level higher than that legally permitted according to Royal Decree 286/2006. - Cutting and machining in general of rocks and compact quartz
Vibrations		- Use of manual equipment, such as radials or drills, to name a few. - Lack of equipment maintenance.

Environment (cond. Extreme climates, dust, smoke, A. Conditioned).		Exposure to harmful or toxic substances: Acute inhalation of harmful or toxic chemicals (substances or preparations) present in the workplace: dust, silica, resins, peroxides... Exposure to chemical contaminants: - Generation and presence of dust in work areas. - Management of resins and catalysts, as well as acetone in work processes. - Poor control in focus, medium or worker. - Do not use dust collection systems, by water injection or aspiration, at the source or ineffective systems. - Do not use dilution ventilation systems in the work area renewing the air or ineffective systems. - Not using personal protective equipment or using equipment with insufficient or inadequate protection In the scope of this job, the following action protocols and the risks indicated in the previous sections must be taken into consideration for the determination of the medical fitness of people: - Forced postures. - Noise. - Silicosis.

3.- Risk Factors: Identify possible risk situations related to the following factors:

Remarks:

Machinery		Falling objects in handling: - Failures in the mooring of the objects to be manipulated. - Breakage of high loads and falling parts. Falling detached objects: - Poor order and cleanliness. Footprints on objects: - Presence of objects in passage areas. - Poor lighting. - Poor order and cleanliness. Collisions with moving objects: - Simultaneous and uncoordinated work of several work teams in areas close to each other. - Existence of work teams in motion. - Objects located or stored near work areas. - Deficiency/absence of signage or other elements necessary for the delimitation of the work area Bumps/cuts by objects or tools: - Sharp edges of machined parts. - Contact with tools. - Poor order and cleanliness. - Dangerous accessible parts of equipment (cuts). - Selection of tools, tools and auxiliary means not suitable for the work to be done. - Use of the machine in a manner not foreseen by the manufacturer. - Failure to check the condition of machines, tools, equipment or auxiliary means before use. - Improper use of materials, tools or work tools, made available by the company. - Absence of tool protection elements (handle guards, etc.) Projection of fragments or particles: - Splashes, fragments that are projected in cutting operations, polishing, etc. - Breakage of compressed air or water hoses. - Projection of foreign bodies in work of use of compressed air, cleaning, etc. due to deficiency/absence of control and preventive measures.

		- Projection of particles of any type or fluids of the machine due to deficiency/absence of control and preventive measures. - Lack of housings or particle projection limiters in work equipment. Entrapment by or between objects: - Perform maintenance work on moving parts of the machine itself while running. - Unprotected accessible moving elements such as cutting discs. - Absence and/or deficiency of guards and protective devices. - Transmissions, gears and moving parts when approaching excessively or inadvertently, or when cleaning, greasing or regulating machine elements when in motion. - Dangerous (catching) accessible parts of equipment. - Accessibility to dangerous machine organs (Trapping). - Absence of organizational means or procedures for the consignment of machines, installations and workplaces. - Wear loose-fitting clothing Overturning entrapment of machines or vehicles: - Poor or inadequate pavement. - Absence of marking of overload limit of use of work surfaces. - Stability defects in equipment, machines or their components. - Overloading the machine or equipment Explosions: - Non-existence, insufficiency or ineffectiveness of sectorization or isolation of risk areas, such as zoning of explosive atmospheres, confined spaces, extremely hot or cold areas, etc. - Inflammation of released gases. - Failures in compressed air circuits Fire: - Overheating of machinery. - Flammable chemicals whose control and/or elimination is not guaranteed (combustible). - Incorrect handling or absence/deficiency of safety and prevention measures in the handling of fuels. - Non-existent, insufficient or ineffective fire detection-alarm transmission systems. - Means of fire-fighting not marked or incorrectly marked (alarm buttons, extinguishers, equipped fire hydrants, etc.).

		Run over or hit with vehicles: - Lack of luminous and/or acoustic warning devices that warn of the presence of vehicles. - Presence of workers in the vicinity of the team's work area. - Poor lighting in the working environment. - Not respecting the signs. - Defects or absence in the steering system of the automotive machine, in the clutch mechanism, in the gear shift system or in the brake system. - Run over by any other vehicle or mobile machinery that moves in its environment without control or preventive measures.
Heights		Fall of people at different levels: - Going up or down unforeseen places. - Absence / deficiency of collective protections against falls of people in the work area: railings, lines and / or anchor points. - Unprotected openings and gaps. - Unsafe stairs or steps due to lack of width, uneven step, insufficient footprint or in poor condition. - Deficiency/absence of marking of gaps, steps or other objects that may cause a fall at different levels - No use of personal protective equipment made available by the company and mandatory use. - Removal or removal of safety guards or devices

Efforts		Overexertion: - Manual handling of loads. - Do not use lifting equipment or lack thereof. - Poor ergonomic design of the workplace. - No mechanization or automation of loading/unloading operations. - Poor storage, packaging, palletizing, stacking, etc. - Forced postures or unstable positions and bad habits or lack of training in safe techniques of handling loads or postures in the driving position of the team. Physical fatigue: - Long working days. - Poor conditioning and maintenance of equipment. - Worker overload (physical fatigue). - Improper design of the work or task. - Monotonous or routine work, without measures to avoid its harmful effect. - Inadequate or non-existent working method.
Mobility		Falling people to the same level: - Presence of mud and mud that make the passage unstable. - Difficulty/deficiency in access to the job. - Commonly unstable work surfaces - Insufficient space in workplaces or transit areas. - Poor order and cleanliness. - No delimitation between work or transit areas and storage areas or failure to respect established areas. - Deficient or inadequate pavement (discontinuous, slippery, unstable, with excessive slope, etc.).

Position		Overexertion: - Manual handling of loads. - Do not use lifting equipment or lack thereof. - Poor ergonomic design of the workplace. - No mechanization or automation of loading/unloading operations. - Poor storage, packaging, palletizing, stacking, etc. - Forced postures or unstable positions and bad habits or lack of training in safe techniques of handling loads or postures in the driving position of the team. Physical fatigue: - Long working days. - Poor conditioning and maintenance of equipment. - Worker overload (physical fatigue). - Improper design of the work or task. - Monotonous or routine work, without measures to avoid its harmful effect. - Inadequate or non-existent working method.
Tension / Anxiety / Stress		Mental fatigue: - Contradictory orders issued by different commanders. - Time pressure. - Personal reasons.

Manipulation		Contacts with caustic and/or corrosive substances: - Absence or deficiency in the procedures for handling or storage of chemical products (substances or preparations). - Presence of dust and SCR in the environment whose control or elimination is not guaranteed. - Chemical products (substances or preparations) capable of producing dangerous reactions (exothermic, toxic, etc.) whose control or elimination is not guaranteed - Flammable or explosive chemical products (substances or preparations), in any physical state, the control or elimination of which is not guaranteed. - Leaks or spills of harmful or toxic chemicals. - Poor packaging and labelling of harmful or toxic chemicals (substances or preparations) used in the event of transfer within the company itself - Absence/deficiency of protections to prevent the generation and spread of harmful or toxic chemical agents (this will include the absence/deficiency of encapsulation devices at the source and in general those that prevent or minimize the release of agents). - Possibility of contact or mixture of incompatible chemical products (substances or preparations) or that can generate a reaction with release of toxic, corrosive products and / or heat. Thermal contacts: - Accidental contact with unprotected hot areas. - Contact with hydraulic fluids or fuel. - Contact with heat sources. - Handling of machine parts at high temperatures. Electrical contacts: - Accidental contact with overhead or underground power lines in tension. - Failures in the installation of electrical protection of the equipment itself. - Handling of elements with electrical voltage and wet floors. - Absence/deficiency of means to avoid direct electrical contacts (defects in the insulation of the active parts, non-existent or ineffective barriers or enclosures, absence or deficiency in the means to hinder the passage or non-compliance with the distances that make up the volume of accessibility). - Accessibility to dangerous machine organs (electrical contact). - Absence or non-functioning of constituent elements of the prevention system against indirect contacts (differential switches

		due to being inadequate or having been "bridged", grounding, etc.). Bumps/cuts by objects or tools: - Sharp edges of machined parts. - Contact with tools. - Poor order and cleanliness. - Dangerous accessible parts of equipment (cuts). - Selection of tools, tools and auxiliary means not suitable for the work to be done. - Use of the machine in a manner not foreseen by the manufacturer. - Failure to check the condition of machines, tools, equipment or auxiliary means before use. - Improper use of materials, tools or work tools, made available by the company. - Absence of tool protection elements (handle guards, etc.).
Schedules / Conferences		Physical fatigue: - Long working days.
Inner Work		
Exterior Work		Falling objects due to collapse or collapse: - Unstable or poorly palletized loads. - Handling of defective material or fractures without preventive and safety control. - Breakage of containers and fall of pieces from the shelves. - Poorly stacked material on easels. Accidents caused by living beings: Contact or presence of animals.
Continued Oral Expression		

5. Competences

FORMATION

Titration:	Languages:	Other knowledge:
The operator must have training in risk prevention, as established in Law 31/1995 on the Prevention of Occupational Risks and Royal Decree 39/1997, which approves the Regulation of Prevention Services, as well as the specific regulations of application. As mandatory, the training that the operator must receive must contemplate the following points: - Specific training of the position in accordance with article 19 of the LPRL (job position and risks existing in the workplace in which the activity is to be developed). - Preventive training for the performance of the position of ornamental rock plant operator in benefit establishments. This training includes an initial training of 20h and a subsequent recycling every 2 years with a duration of 5h. This training will be mandatory when the workplace is under the scope of the RGNBSM, in all other cases it will be recommended. - Training in dust control at your workplace. The training must be repeated at least once a year and, in particular, when the worker changes functions, position or place of work. Other training actions, in the field of OHS, necessary for the position can be developed under the following themes: handling of chemical products, work equipment, noise, maintenance, handling of loads and action in case of emergencies (fire, evacuation and first aid)		Health and Safety in general and specifications in the company. (Spain, Croatia, Germany and Greece)

WORK EXPERIENCE

Determine if previous experience is necessary for the performance of the position:	YES		NO	X

OTHER REQUIREMENTS

Driving license:	YES		NO	X	Type	
Age:	>	18	<	65		
Own vehicle:	YES		NO	X		
Time Availability	YES		NO			

Workplace:	Factory	Day:	8	Timetable:	Morning or Afternoon

REMARKS

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

Erasmus+

InclusiveStone: A2-b Questionnaire. Analysis of the job for its adaptation: Disc bridge, cutting table and other equipment.

Once the jobs that can be occupied by people with disabilities have been identified, the possible adaptations that must be made to ensure accessibility and equal opportunities in the workplace will be evaluated. These adaptations can be both in the physical infrastructure and in the processes and tools used at work.

During the following points, the different factors that must be taken into account in each job, the skills required and the adaptations necessary to guarantee the labor inclusion of people with disabilities in the company are raised. This scheme will serve as a reference tool for personnel selection processes and as a guide for the adaptation of jobs to the specific needs of each employee.

1. General data

POSITION (C.N.O.): Ornamental rock plant operator: Disc bridge, cutting table and other cutting equipment	**PROFESSIONAL LEVEL:**
TYPE OF CONTRACT MOST USED: (Indefinite, Eventual, Training, Work and Service ...) Indefinite	**DURATION OF THE MOST COMMON CONTRACT:** Usually, permanent contracts.

Full-time	X	**Part-time**		**Shifts:**	YES X	**Mobility:**	YES
Schedule (continuous, match, morning, afternoon..) Morning, afternoon		**Nº of Hours:**	8		NO		NO X

REMARKS:

Workstation that is responsible for obtaining custom parts mainly for kitchen countertops, tombstones, stairs, skirting boards, as well as any type of order that fits inside the base of the machine.

In the case of the disc bridge it is necessary to load the boards to be cut by means of a lifting equipment type boom or bridge crane, since each board can have an approximate weight of about 200 kg, depending on the specific weight and the dimensions and thickness of the board to be cut. The cutting process takes place automatically, consisting of the operator's functions in programming the equipment, entering the desired measures, activating the operation, monitoring and control of the process and removing the cut pieces manually if their size is small or with the help of lifting equipment.

In the case of the cutting table, also called "gomez" or "torpedo", the pieces are loaded with lifting equipment or between two operators if they are smaller pieces. The operator manually advances the cutting table, after taking measurements and tying the piece with jacks and it is he who controls the entire process.

https://www.youtube.com/watch?v=bxdC3wKcC9A&ab_channel=CTM-CentroTec.delM%C3%A1rmol%2CPiedrayMateriales

2. Task analysis

Task No.	**Description**	**% of time**
1	Storage and handling of blocks with overhead crane.	
2	Take block measurements.	
3	Programming the equipment to obtain the correct measurements.	
4	Change, adjust and repair disks.	
5	Controls and interventions in the work team.	
6	Start-up of the work team.	
7	General rules of circulation through the plant.	
8	Periodicity of general revisions and maintenance of the machine.	
9	Prevention and control of dust.	

3. Job requirements profile

CAPABILITIES	***Levels:***			**Specific comments:**
	To	**B**	**C**	

Manual dexterity: Ability to perform activities that require coordinated actions, with precision and manual speed	X			The operator must have some skill with the handling of this type of equipment, to avoid accidents or errors in cutting blocks.
Displacement: Ability to walk, and or move, using or not some type of equipment.	X			
Access to transport: Ability to access (physical access) public transport or use a private vehicle		X		It is advisable to have your own vehicle since both quarry and factory are usually displaced from residential areas. Although there may be public or private transport hired by the company.
Position: Ability to adopt and maintain a certain posture; SITTING, STANDING, OTHERS.	X			There is a risk of forced postures in the loading of cut material.
Strength: Ability to perform physical efforts (physical exercise/loading-handling of weights and/or large objects)	X			Tiles and cut pieces, empty drums or pallets are usually handled.
Tolerance: Ability to withstand situations that may generate stress, tension and / or mental fatigue	X			Mental fatigue: - Contradictory orders issued by different commanders. - Control of several machines that work simultaneously (block cutter and header). - Time pressure. - Personal reasons.
Personal Autonomy: Cap. Act independently, without supervision in activities related to self-care and risk perception.	X			
Interpersonal relationships: Ability to initiate and maintain relationships with other people		X		
Orientation in the environment: Cap. to orient yourself in the environment where you live (neighborhood, city) and use (know and use) public transport (metro, bus)	X			
Money Management: Ability to engage in basic economic transactions			X	
Learning: Ability to acquire knowledge, to perform new tasks		X		

Vision: Cability to recognize and/or distinguish objects and colors.	X			
Hearing: Ability to hear, recognize and/or discriminate sounds	X			
Verbal comprehension: Ability to understand oral messages		X		
Oral Expression: Ability to express oral messages		X		

A: Required
B: Occasionally required
C: Not required

4. Working conditions

FURNITURE AND/OR TECHNOLOGY USED

1.- Furniture
2.- Technology
3.- Tools / Machinery / vehicles

The disc bridge is the basic bridge cutter that allows any type of cutting to plates and other pieces of reduced thickness. It stands out for great versatility, agility and ease of use, so that it guarantees a high production rate.

It allows to optionally incorporate cutting programs to facilitate those more complex and frequent jobs (kitchen program, cutting program at 0 and 90º).

As examples of some applications we find cutting boards by bathrooms and kitchens, tiles, baseboards, special pieces.

Although there are several models, below, we indicate one of the most used models of the CANIGÓ brand. The machine consists of the bridge, the bench that supports the material and the rails. The bridge is birail, very solid and mounted on two concrete walls (which can optionally be metallic), arranged on both sides of the bank. Along this bridge slides a carriage carrying the head, with flat type motor has an axis, specially prepared to accommodate the disc. The lanes where this cart travels, trolley are lubricated and protected in oil to ensure smooth movement. The vertical displacement is carried out on two chrome columns, rectified and protected by bellows in its lower part.

The head can be tilted and locked at any angle between 0 and 90 degrees for miter cutting. The disc protector is covered, internally, with an acoustic insulator to favor the reduction of the noise of the cut.

The rectangular bench is sufficiently sized to receive the materials for cutting. This bench is manually rotated or motorized depending on the model and can be locked automatically from the control panel. It has 5 fixed positions with light indicator that ensure high precision in cuts at 45 and 90 degrees.

In addition, it can be locked in any intermediate position for cuts to false square.

The control pad is rotatable, easy to access and manipulate. All the control of the machine is carried out by means of a graphic screen of very easy operation and with all the necessary functions to use the machine both manually and following programmed cutting sequences. The transition from one working mode to another is guided by icons that make it easier to understand the steps being performed.

The cooling water of the disc is automatically activated when the cutting starts and deactivated when the cutting is finished.

Optionally, the machine can be equipped with some accessories that may be necessary for specific cases. Among them, it is worth mentioning the copier for profiles that is very useful for stonework, since it brings the machine closer to a numerical control.

The cutting table is a less sophisticated equipment than the bridge disc, which, although it allows for example tilting of the disc or laser guide, is intended for cutting pieces of stone or compact quartz intended for specific orders.

COND. ENVIRONMENTAL AND RISK FACTORS

1.- Accessibility and Barriers

Barriers:				Brief description of barriers:
Yes:	X	No:		Lack of cleanliness and order. Presence of small slopes (30-50cm) Uneven terrain.

2.- Environmental environment: Indicate, when necessary, special characteristics in relation to the following factors:

		Remarks:
Temperature		Exposure to extreme ambient temperatures: Work in wet conditions Thermal contacts: Contact with motor and areas subject to friction such as pulleys or cutting discs.
Humidity		Cutting machinery often uses water to reduce dust generation, which can generate some local, rather than ambient, humidity. Workers often wear clothing with insulating materials.
Lighting		- Lack of lighting in the work area.
Noise		- Exposure to a noise level higher than that legally permitted according to Royal Decree 286/2006 in cutting tasks. - Work together with other cutting equipment such as looms, block cutters ...
Vibrations		

Environment (cond. Extreme climates, dust, smoke, A. Conditioned).		Exposure to harmful or toxic substances: The presence of dust, such as particulate matter, in the workplace that can be breathed in. Exposure to chemical contaminants: - Presence of dust in the workplace. - Poor water injection in the cutting area. - Do not clean the area by washing and let puddles dry. In the scope of this job, the following action protocols and the risks indicated in the previous sections must be taken into consideration for the determination of the medical fitness of people: - Dermatosis. - Manual handling of loads. - Repetitive movements. - Forced postures. - Noise. - Silicosis.

3.- Risk Factors: Identify possible risk situations related to the following factors:

Remarks:

Machinery		Falling objects in handling: - Failures in the mooring of the boards or tables of the discbridges to be manipulated with the bridge crane. - Improper mooring of pieces to be cut or cut with the cutting table by means of lifting equipment. - Easels without safety bars to prevent the boards from falling. - Fall of boards or pieces of stone due to breakage or cracking of these. - Handling of unsuitable or poorly maintained lifting equipment and/or auxiliary lifting equipment. Footprints on objects: - Presence of material and rock rubble in passage and work areas. - Lack of lighting. - Presence of water pipes, extension cords, tools, pallets... in the workplace. - Distribution of pallets in the work and/or passage area. - Easels in passage areas. Collisions with moving objects: - Access to the interior of the cutting area circumventing the protections and safety distances with the device running. - Debris removal with the device running. - Poor handling of equipment due to lack of sufficient operator training. - Existence of nearby work equipment in motion such as the block carrier or automatic unloader. - Movement of the cutting table. - Automatic or manual movement of the cutting disc. - Deficiency / absence of signage or other elements necessary for the delimitation of the work area. Bumps/cuts by objects or tools: - Handling of tools in maintenance work and adjustment of the machine. - Cut with the cutting discs. - Selection of tools, tools and auxiliary means not suitable for the work to be done. - Deteriorated steel slings with steel wires accessible in the handling of boards.

		Projection of fragments or particles: Projection of particles in the process of cutting. Entrapment by or between objects: - Perform maintenance work on moving parts of the machine itself while running. - Start the machine without checking that there are no people nearby. - Absence and/or deficiency of guards and side and frontal protection devices. - Transmissions, gears and moving parts when improperly approaching, or when cleaning, greasing or regulating machine elements when in motion. - Lack of safety housings. - Entrapment between boards stored on easels. - Overturning of poorly stored tables. Overturning entrapment of machines or vehicles: - Overloading of the machine structure when exceeding the maximum load recommended by the manufacturer. - Overturning entrapment of loaded trestles Fire: - Overheating of machinery. - Handling of resins and catalysts Run over or hit with vehicles: - Failure to respect safety distances of at least 5 meters between pedestrians and equipment such as trucks and forklifts. - Poor lighting in the working environment. - Lack of delimitation of the work area. - Poor communication between pedestrians and drivers. - Traffic in areas not intended for pedestrians
Heights		

Efforts		Overexertion: - Handling of cut or cut pieces. - Handling and location of empty pallets. - Manipulation of easels and bars. - Push boards. - Manual cutting table push for rotation Physical fatigue: - Long working days. - Poor conditioning and maintenance of machinery. - Rhythm of work imposed on the loading and unloading of the equipment.
Mobility		Falling people to the same level: - Presence of mud and sludge cutting that make the passage unstable and slippery. - Grooves and irregularities in the work area. - Small unevenness in the entrance or exit of blocks through which the block wagon circulates. - Insufficient space in workplaces or transit areas. - Poor order and cleanliness. - No delimitation between work or transit areas and storage areas or failure to respect established areas.
Position		Overexertion: - Management of stone bands and slabs. - Handling of grease cans / drums. - Handling and location of empty pallets. Physical fatigue: - Long working days. - Poor conditioning and maintenance of machinery. - Imposed work rhythm and load of cut material.

Tension / Anxiety / Stress		Mental fatigue: - Contradictory orders issued by different commanders. - Time pressure. - Personal reasons
Manipulation		Contacts with caustic and/or corrosive substances: Contact with greases and lubricants. Thermal contacts: Contact with motor and areas subject to friction such as pulleys or cutting discs. Electrical contacts: - Contact with parts of machinery accidentally put into tension. - Failures in the installation of electrical protection of the equipment itself (differential, grounding, magnetothermic, motor guard...). - Electrical conduits and panel in poor condition. Bumps/cuts by objects or tools: - Handling of tools in maintenance work and adjustment of the machine. - Cut with the cutting discs. - Selection of tools, tools and auxiliary means not suitable for the work to be done. - Deteriorated steel slings with accessible steel wires in the handling of boards
Schedules / Conferences		Physical fatigue: - Long working days.
Inner Work		
Exterior Work		
Continued Oral Expression		

5. Competences

FORMATION

Titration:	Languages:	Other knowledge:
The operator must have training in risk prevention, as established in Law 31/1995 on the Prevention of Occupational Risks and Royal Decree 39/1997, which approves the Regulation of Prevention Services, as well as the specific regulations of application. As mandatory, the training that the operator must receive must contemplate the following points: - Specific training of the position in accordance with article 19 of the LPRL (job position and risks existing in the workplace in which the activity is to be developed). - Preventive training for the performance of the position of operator of ornamental rock plants. This training includes an initial training of 20h and a subsequent recycling every 2 years with a duration of 5h. - Training in dust control at your workplace. The training must be repeated at least once a year and, in particular, when the worker changes functions, position or place of work. - Other training actions, in the field of OHS, necessary for the position can be developed under the following themes: noise, maintenance, action in case of emergencies (fires, evacuation and first aid) and load handling.		Health and Safety in general and specifications in the company. (Spain, Croatia, Germany and Greece)

WORK EXPERIENCE

Determine if previous experience is necessary for the performance of the position:	YES	X	NO	

OTHER REQUIREMENTS

Driving license:	YES		NO	X	Type	
Age:	>	18	<	65		
Own vehicle:	YES		NO	X		
Time Availability	YES		NO			

Workplace:	Factory	Day:	8	Timetable:	Morning or Afternoon

REMARKS

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Erasmus+

InclusiveStone: A2-b Questionnaire. Analysis of the job for its adaptation: Finishings.

Once the jobs that can be occupied by people with disabilities have been identified, the possible adaptations that must be made to ensure accessibility and equal opportunities in the workplace will be evaluated. These adaptations can be both in the physical infrastructure and in the processes and tools used at work.

During the following points, the different factors that must be taken into account in each job, the skills required and the adaptations necessary to guarantee the labor inclusion of people with disabilities in the company are raised. This scheme will serve as a reference tool for personnel selection processes and as a guide for the adaptation of jobs to the specific needs of each employee.

1. General data

POSITION (C.N.O.): Ornamental rock plant operators: Finishings	**PROFESSIONAL LEVEL:**
TYPE OF CONTRACT MOST USED: (Indefinite, Eventual, Training, Work and Service ...) Indefinite	**DURATION OF THE MOST COMMON CONTRACT:** Usually, permanent contracts.

Full-time	X	**Part-time**		**Shifts:**	YES	**Mobility:**	YES
Schedule (continuous, match, morning, afternoon..) Morning, afternoon		**Nº of Hours:**	8		NO X		NO X

REMARKS:

The finishing operators are responsible for the use and supervision of the equipment that performs the different finishes of the pieces of ornamental rock or compact quartz according to the requirements demanded by the customers. In a non-exhaustive way, the tasks to be developed by these operators are listed below:

- Use of automatic finishing equipment: cutting, polishing, bush hammering, beveling, drilling and other finishing equipment of natural stone.
- Use of manual equipment for cutting, polishing, sanding, drilling and other manual equipment for finishing natural stone pieces.
- Supervision of such equipment.
- Handling of loads for feeding and unloading of lines that perform the different finishings, or the manipulation of pieces in the area of finishings.

Other maintenance and cleaning tasks of your work area.

2. Task analysis

Task No.	**Description**	**% of time**
1	Use of cutting, polishing and other finishing equipment.	
2	Personal protective equipment	
3	Manual and mechanical handling of loads.	
4	General traffic rules.	
5	Signage	
6	Prevention and control of dust.	
7	Order and cleanliness of the workplace	
8	Other rules or procedures according to the development of the position of finishings or finishes.	

3. Job requirements profile

CAPABILITIES	***Levels:***			**Specific comments:**
	To	**B**	**C**	
Manual dexterity: Ability to perform activities that require coordinated actions, with precision and manual speed	X			The operator must have some skill with the handling of this type of equipment, to avoid accidents.

Displacement: Ability to walk, and or move, using or not some type of equipment.	X			On most machines you need to be able to move.
Access to transport: Ability to access (physical access) public transport or use a private vehicle		X		It is advisable to have your own vehicle since both quarry and factory are usually displaced from residential areas. Although there may be public or private transport hired by the company.
Position: Ability to adopt and maintain a certain posture; SITTING, STANDING, OTHERS.	X			There is a risk of forced postures in the use of this type of equipment in the handling of loads and in incorrect positions.
Strength: Ability to perform physical efforts (physical exercise/loading-handling of weights and/or large objects)	X			Manual handling of loads. Do not use lifting equipment or lack thereof. Poor ergonomic design of the workplace. No mechanization or automation of loading/unloading operations. Poor storage, packaging, palletizing, stacking, etc. Forced postures or unstable positions and bad habits or lack of training in safe techniques of handling loads or postures in the driving position of the team.
Tolerance: Ability to withstand situations that may generate stress, tension and / or mental fatigue	X			Mental fatigue: - Contradictory orders issued by different commanders. - Time pressure. - Personal reasons. - Monotonous or routine work, without measures to avoid its harmful effect
Personal Autonomy: Cap. Act independently, without supervision in activities related to self-care and risk perception.	X			

Interpersonal relationships: Ability to initiate and maintain relationships with other people		X		
Orientation in the environment: Cap. to orient yourself in the environment where you live (neighborhood, city) and use (know and use) public transport (metro, bus)	X			
Money Management: Ability to engage in basic economic transactions			X	
Learning: Ability to acquire knowledge, to perform new tasks		X		
Vision: Cability to recognize and/or distinguish objects and colors.	X			
Hearing: Ability to hear, recognize and/or discriminate sounds	X			
Verbal comprehension: Ability to understand oral messages		X		
Oral Expression: Ability to express oral messages		X		

A: Required
B: Occasionally required
C: Not required

4. Working conditions

FURNITURE AND/OR TECHNOLOGY USED

1.- Furniture Not applicable
2.- Technology
3.- Tools / Machinery / vehicles

The equipment used by the finishing operator can be very varied depending on the type of finish required by the material, but could be classified mainly into the following types:

- **Cutting equipment: machines or** tools intended for cutting natural stone in order to divide or separate the massifs or boards into pieces to achieve the required dimensions. They can also be used for framing parts as well as gaps. Examples: automatic or manual discs.
- **Polishing equipment: machines or** tools intended for polishing natural stone in order to smooth or perfect it. Examples: automatic or manual polishers,
- **Other finishing equipment:** machines or tools designed to give a different finishing texture to natural stone (bush-hammered, honed, flamed, etc.). Example: hammering, honing, flaming,...
- **Drilling equipment or other anchor processing equipment:** machine or tool designed to carry out drilling or other manipulation for anchoring or necessary openings of natural stone pieces. Example: drills.

COND. ENVIRONMENTAL AND RISK FACTORS

1.- Accessibility and Barriers

Barriers:	Brief description of barriers:
Yes: ☐ No: ☐	Lack of cleanliness and order. Presence of small slopes (30-50cm) Uneven terrain.

2.- Environmental environment: Indicate, when necessary, special characteristics in relation to the following factors:

		Remarks:
Temperature	☐	Exposure to extreme ambient temperatures: - Outdoor work. - Work in humid environments Thermal contacts: - Accidental contact with unprotected hot areas. - Contact with hydraulic fluids or fuel. - Contact with heat sources. - Handling of machine parts at high temperatures. Thermal stress: Work outside without protection.

Humidity		Cutting machinery often uses water to reduce dust generation, which can generate some local, rather than ambient, humidity. Workers often wear clothing with insulating materials.
Lighting		Lack of lighting in the work area.
Noise		- Exposure to a noise level higher than that legally permitted according to Royal Decree 286/2006. - Cutting and machining in general of rocks and compact quartz
Vibrations		- Use of manual equipment, such as radials or drills, to name a few. - Lack of equipment maintenance.
Environment (cond. Extreme climates, dust, smoke, A. Conditioned).		Exposure to harmful or toxic substances: Acute inhalation of harmful or toxic chemicals (substances or preparations) present in the workplace: dust, silica, resins, peroxides... Exposure to chemical contaminants: - Generation and presence of dust in work areas. - Management of resins and catalysts, as well as acetone in work processes. - Poor control in focus, medium or worker. - Do not use dust collection systems, by water injection or aspiration, at the source or ineffective systems. - Do not use dilution ventilation systems in the work area renewing the air or ineffective systems. - Not using personal protective equipment or using equipment with insufficient or inadequate protection In the scope of this job, the following action protocols and the risks indicated in the previous sections must be taken into consideration for the determination of the medical fitness of people: - Forced postures. - Noise. - Silicosis.

3.- Risk Factors: Identify possible risk situations related to the following factors:

Remarks:

Machinery		Falling objects in handling: - Failures in the mooring of the objects to be manipulated. - Breakage of high loads and falling parts. Falling detached objects: - Poor order and cleanliness. Footprints on objects: - Presence of objects in passage areas. - Poor lighting. - Poor order and cleanliness. Collisions with moving objects: - Simultaneous and uncoordinated work of several work teams in areas close to each other. - Existence of work teams in motion. - Objects located or stored near work areas. - Deficiency/absence of signage or other elements necessary for the delimitation of the work area Bumps/cuts by objects or tools: - Sharp edges of machined parts. - Contact with tools. - Poor order and cleanliness. - Dangerous accessible parts of equipment (cuts). - Selection of tools, tools and auxiliary means not suitable for the work to be done. - Use of the machine in a manner not foreseen by the manufacturer. - Failure to check the condition of machines, tools, equipment or auxiliary means before use. - Improper use of materials, tools or work tools, made available by the company. - Absence of tool protection elements (handle guards, etc.) Projection of fragments or particles: - Splashes, fragments that are projected in cutting operations, polishing, etc. - Breakage of compressed air or water hoses. - Projection of foreign bodies in work of use of compressed air, cleaning, etc. due to deficiency/absence of control and preventive measures.

		- Projection of particles of any type or fluids of the machine due to deficiency/absence of control and preventive measures. - Lack of housings or particle projection limiters in work equipment. Entrapment by or between objects: - Perform maintenance work on moving parts of the machine itself while running. - Unprotected accessible moving elements such as cutting discs. - Absence and/or deficiency of guards and protective devices. - Transmissions, gears and moving parts when approaching excessively or inadvertently, or when cleaning, greasing or regulating machine elements when in motion. - Dangerous (catching) accessible parts of equipment. - Accessibility to dangerous machine organs (Trapping). - Absence of organizational means or procedures for the consignment of machines, installations and workplaces. - Wear loose-fitting clothing Overturning entrapment of machines or vehicles: - Poor or inadequate pavement. - Absence of marking of overload limit of use of work surfaces. - Stability defects in equipment, machines or their components. - Overloading the machine or equipment Explosions: - Non-existence, insufficiency or ineffectiveness of sectorization or isolation of risk areas, such as zoning of explosive atmospheres, confined spaces, extremely hot or cold areas, etc. - Inflammation of released gases. - Failures in compressed air circuits Fire: - Overheating of machinery. - Flammable chemicals whose control and/or elimination is not guaranteed (combustible). - Incorrect handling or absence/deficiency of safety and prevention measures in the handling of fuels. - Non-existent, insufficient or ineffective fire detection-alarm transmission systems. - Means of fire-fighting not marked or incorrectly marked (alarm buttons, extinguishers, equipped fire hydrants, etc.).

		Run over or hit with vehicles: - Lack of luminous and/or acoustic warning devices that warn of the presence of vehicles. - Presence of workers in the vicinity of the team's work area. - Poor lighting in the working environment. - Not respecting the signs. - Defects or absence in the steering system of the automotive machine, in the clutch mechanism, in the gear shift system or in the brake system. - Run over by any other vehicle or mobile machinery that moves in its environment without control or preventive measures.
Heights		Fall of people at different levels: - Going up or down unforeseen places. - Absence / deficiency of collective protections against falls of people in the work area: railings, lines and / or anchor points. - Unprotected openings and gaps. - Unsafe stairs or steps due to lack of width, uneven step, insufficient footprint or in poor condition. - Deficiency/absence of marking of gaps, steps or other objects that may cause a fall at different levels - No use of personal protective equipment made available by the company and mandatory use. - Removal or removal of safety guards or devices

Efforts		Overexertion: - Manual handling of loads. - Do not use lifting equipment or lack thereof. - Poor ergonomic design of the workplace. - No mechanization or automation of loading/unloading operations. - Poor storage, packaging, palletizing, stacking, etc. - Forced postures or unstable positions and bad habits or lack of training in safe techniques of handling loads or postures in the driving position of the team. Physical fatigue: - Long working days. - Poor conditioning and maintenance of equipment. - Worker overload (physical fatigue). - Improper design of the work or task. - Monotonous or routine work, without measures to avoid its harmful effect. - Inadequate or non-existent working method.
Mobility		Falling people to the same level: - Presence of mud and mud that make the passage unstable. - Difficulty/deficiency in access to the job. - Commonly unstable work surfaces - Insufficient space in workplaces or transit areas. - Poor order and cleanliness. - No delimitation between work or transit areas and storage areas or failure to respect established areas. - Deficient or inadequate pavement (discontinuous, slippery, unstable, with excessive slope, etc.).

Position		Overexertion: - Manual handling of loads. - Do not use lifting equipment or lack thereof. - Poor ergonomic design of the workplace. - No mechanization or automation of loading/unloading operations. - Poor storage, packaging, palletizing, stacking, etc. - Forced postures or unstable positions and bad habits or lack of training in safe techniques of handling loads or postures in the driving position of the team. Physical fatigue: - Long working days. - Poor conditioning and maintenance of equipment. - Worker overload (physical fatigue). - Improper design of the work or task. - Monotonous or routine work, without measures to avoid its harmful effect. - Inadequate or non-existent working method.
Tension / Anxiety / Stress		Mental fatigue: - Contradictory orders issued by different commanders. - Time pressure. - Personal reasons.

Manipulation		Contacts with caustic and/or corrosive substances: - Absence or deficiency in the procedures for handling or storage of chemical products (substances or preparations). - Presence of dust and SCR in the environment whose control or elimination is not guaranteed. - Chemical products (substances or preparations) capable of producing dangerous reactions (exothermic, toxic, etc.) whose control or elimination is not guaranteed - Flammable or explosive chemical products (substances or preparations), in any physical state, the control or elimination of which is not guaranteed. - Leaks or spills of harmful or toxic chemicals. - Poor packaging and labelling of harmful or toxic chemicals (substances or preparations) used in the event of transfer within the company itself - Absence/deficiency of protections to prevent the generation and spread of harmful or toxic chemical agents (this will include the absence/deficiency of encapsulation devices at the source and in general those that prevent or minimize the release of agents). - Possibility of contact or mixture of incompatible chemical products (substances or preparations) or that can generate a reaction with release of toxic, corrosive products and / or heat. Thermal contacts: - Accidental contact with unprotected hot areas. - Contact with hydraulic fluids or fuel. - Contact with heat sources. - Handling of machine parts at high temperatures. Electrical contacts: - Accidental contact with overhead or underground power lines in tension. - Failures in the installation of electrical protection of the equipment itself. - Handling of elements with electrical voltage and wet floors. - Absence/deficiency of means to avoid direct electrical contacts (defects in the insulation of the active parts, non-existent or ineffective barriers or enclosures, absence or deficiency in the means to hinder the passage or non-compliance with the distances that make up the volume of accessibility). - Accessibility to dangerous machine organs (electrical contact). - Absence or non-functioning of constituent elements of the prevention system against indirect contacts (differential switches

		due to being inadequate or having been "bridged", grounding, etc.). Bumps/cuts by objects or tools: - Sharp edges of machined parts. - Contact with tools. - Poor order and cleanliness. - Dangerous accessible parts of equipment (cuts). - Selection of tools, tools and auxiliary means not suitable for the work to be done. - Use of the machine in a manner not foreseen by the manufacturer. - Failure to check the condition of machines, tools, equipment or auxiliary means before use. - Improper use of materials, tools or work tools, made available by the company. - Absence of tool protection elements (handle guards, etc.).
Schedules / Conferences		Physical fatigue: - Long working days.
Inner Work		
Exterior Work		Falling objects due to collapse or collapse: - Unstable or poorly palletized loads. - Handling of defective material or fractures without preventive and safety control. - Breakage of containers and fall of pieces from the shelves. - Poorly stacked material on easels. Accidents caused by living beings: Contact or presence of animals.
Continued Oral Expression		

5. Competences

FORMATION

Titration:	Languages:	Other knowledge:
The operator must have training in risk prevention, as established in Law 31/1995 on the Prevention of Occupational Risks and Royal Decree 39/1997, which approves the Regulation of Prevention Services, as well as the specific regulations of application. As mandatory, the training that the operator must receive must contemplate the following points: - Specific training of the position in accordance with article 19 of the LPRL (job position and risks existing in the workplace in which the activity is to be developed). - Preventive training for the performance of the position of ornamental rock plant operator in benefit establishments. This training includes an initial training of 20h and a subsequent recycling every 2 years with a duration of 5h. This training will be mandatory when the workplace is under the scope of the RGNBSM, in all other cases it will be recommended. - Training in dust control at your workplace. The training must be repeated at least once a year and, in particular, when the worker changes functions, position or place of work. Other training actions, in the field of OHS, necessary for the position can be developed under the following themes: handling of chemical products, work equipment, noise, maintenance, handling of loads and action in case of emergencies (fire, evacuation and first aid)		Health and Safety in general and specifications in the company. (Spain, Croatia, Germany and Greece)

WORK EXPERIENCE

Determine if previous experience is necessary for the performance of the position:	YES	X	NO	

OTHER REQUIREMENTS

Driving license:	YES		NO	X	Type	
Age:	>	18	<	65		
Own vehicle:	YES		NO	X		
Time Availability	YES		NO			

Workplace:	Factory	Day:	8	Timetable:	Morning or afternoon

REMARKS

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

Erasmus+

InclusiveStone: A2-b Questionnaire. Analysis of the job for its adaptation: Forklift.

Once the jobs that can be occupied by people with disabilities have been identified, the possible adaptations that must be made to ensure accessibility and equal opportunities in the workplace will be evaluated. These adaptations can be both in the physical infrastructure and in the processes and tools used at work.

During the following points, the different factors that must be taken into account in each job, the skills required and the adaptations necessary to guarantee the labor inclusion of people with disabilities in the company are raised. This scheme will serve as a reference tool for personnel selection processes and as a guide for the adaptation of jobs to the specific needs of each employee.

1. General data

POSITION (C.N.O.): Forklift	**PROFESSIONAL LEVEL: According to** the collective agreement of the construction, a level of training equivalent to Compulsory Secondary Education or similar knowledge acquired through experience is recommended.
TYPE OF CONTRACT MOST USED: (Indefinite, Eventual, Training, Work and Service ...) Indefinite	**DURATION OF THE MOST COMMON CONTRACT:** Usually, permanent contracts.

Full-time	X	**Part-time**		**Shifts:**	YES X	**Mobility:**	YES
Schedule (continuous, match, morning, afternoon..) Morning, afternoon		**Nº of Hours:**	8		NO		NO X

REMARKS:

Forklift operators are responsible for using the equipment to transport loads from one plant site to another. The loads to be transported can be pallets, crates or other types of ornamental rock containers, transport of boards with the appropriate accessories, as well as any other load that is correctly palletized for the purpose of handling or transport in the plant.

https://www.youtube.com/watch?v=UPXaHgAacEY&t=63s&ab_channel=CTM-CentroTec.delM%C3%A1rmol%2CPiedrayMateriales

2. Task analysis

Task No.	Description	% of time
1	Handling of load handling equipment: forklift.	
2	Material handling using the forklift.	
3	Loading of trucks, containers and other platforms.	
4	Work on loading docks.	
5	Periodicity of general revisions. - Cleaning of cabin windows. - Oil tank filling / gas recharging / battery charging.	
6	Parking.	

3. Job requirements profile

CAPABILITIES	*Levels:*			Specific comments:
	To	B	C	
Manual dexterity: Ability to perform activities that require coordinated actions, with precision and manual speed	X			The operator must have some skill with the handling of this type of equipment, to avoid accidents.
Displacement: Ability to walk, and or move, using or not some type of equipment.	X			The work of the forklift operator consists directly in the transport and movement of loads by means of the forklift.
Access to transport: Ability to access (physical access) public transport or use a private vehicle		X		It is advisable to have your own vehicle since both quarry and factory are usually displaced from residential areas. Although there may be public or private transport hired by the company.

Position: Ability to adopt and maintain a certain posture; SITTING, STANDING, OTHERS.	X			There is a risk of forced postures in the use of the truck, since you spend a lot of time sitting and tend to use a bad position.
Strength: Ability to perform physical efforts (physical exercise/loading-handling of weights and/or large objects)	X			No mechanization or automation of loading/unloading operations. Poor storage, packaging, palletizing, stacking, etc.
Tolerance: Ability to withstand situations that may generate stress, tension and / or mental fatigue	X			Mental fatigue: - Contradictory orders issued by different commanders. - Time pressure. - Personal reasons. - Monotonous or routine work, without measures to avoid its harmful effect
Personal Autonomy: Cap. Act independently, without supervision in activities related to self-care and risk perception.	X			
Interpersonal relationships: Ability to initiate and maintain relationships with other people	X			The forklift operator needs to be able to communicate as he interacts with various jobs and workplaces.
Orientation in the environment: Cap. to orient yourself in the environment where you live (neighborhood, city) and use (know and use) public transport (metro, bus)	X			
Money Management: Ability to engage in basic economic transactions	X			Management of delivery notes in collaboration with the person in charge
Learning: Ability to acquire knowledge, to perform new tasks		X		Skill in handling the equipment.
Vision: Cability to recognize and/or distinguish objects and colors.	X			
Hearing: Ability to hear, recognize and/or discriminate sounds	X			
Verbal comprehension: Ability to understand oral messages		X		
Oral Expression: Ability to express oral messages		X		Gesture pressure is required for communication in noise contexts.

A: Required
B: Occasionally required
C: Not required

4. Working conditions

FURNITURE AND/OR TECHNOLOGY USED

1.- Furniture
2.- Technology
3.- Tools / Machinery / vehicles The forklift is an autonomous equipment suitable for carrying cantilever loads. It sits on two axles: drive, the front and steering, the rear. They can be electric or with internal combustion engine. There are several types of forklifts, such as cantilever trucks, non-counterbalanced, retractable, stackers, as well as gantry stackers. There are many accessories for forklifts, but the most commonly used for ornamental rock handling are forks for handling boards, as well as other hook-shaped or single-nail accessories for handling board packages.

COND. ENVIRONMENTAL AND RISK FACTORS

1.- Accessibility and Barriers

Barriers:	Brief description of barriers:
Yes: X No:	Access to the forklift cab. Lack of cleanliness and order. Presence of small slopes (30-50cm) Uneven terrain.

2.- Environmental environment: Indicate, when necessary, special characteristics in relation to the following factors:

Remarks:

Temperature		Exposure to extreme ambient temperatures: Outdoor work. Thermal contacts: - Accidental contact with unprotected hot areas. - Contact with hydraulic fluids or engine. - Contact with heat sources of the machine. - Handling of machine parts at high temperatures.
Humidity		Cutting machinery often uses water to reduce dust generation, which can generate some local, rather than ambient, humidity. Workers often wear clothing with insulating materials.
Lighting		Lack of lighting in the work area.
Noise		Exposure to a noise level higher than that legally permitted according to Royal Decree 286/2006.
Vibrations		They generate full-body vibrations. (Hernia)

Environment (cond. Extreme climates, dust, smoke, A. Conditioned).		Exposure to harmful or toxic substances: - Inhalation, ingestion or contact with harmful or toxic chemicals (substances or preparations) present in the workplace: battery acids, oils, hydraulic fluids, greases, etc. - Exposure to fumes produced by combustion Exposure to chemical contaminants: - Lack of proper maintenance of the combustion fume evacuation system. - Work with combustion trucks in enclosed or insufficiently ventilated rooms In the scope of this job, the following action protocols and the risks indicated in the previous sections must be taken into consideration for the determination of the medical fitness of people: - Forced postures. - Noise. - Silicosis.

3.- Risk Factors: Identify possible risk situations related to the following factors:

Remarks:

Machinery		Falling objects: Absence/deficiency of material fall protection structure (FOPS) of the equipment. Footprints on objects: - Presence of objects in passage areas. - Poor lighting. - Poor order and cleanliness. Collisions with moving objects: - Simultaneous and uncoordinated work of several work teams in areas close to each other. - Work in adverse weather conditions (heavy rain, fog, etc.) that affect your visibility. - Poor equipment handling due to lack of sufficient operator training. - Failures of the control organs, brakes, etc., due to lack of maintenance and / or periodic revisions. - Existence of other work equipment in motion. - Objects located or stored near work areas. - Deficiency / absence of signaling or other elements necessary for the delimitation of the work area. Bumps/cuts by objects or tools: - Poor order and cleanliness. - Selection of tools, tools and auxiliary means not suitable for the work to be done. - Use of the machine in a manner not foreseen by the manufacturer. - Use of tools, tools and auxiliary means in a manner not foreseen by the manufacturer. - Failure to check the condition of machines, tools, equipment or auxiliary means before use. - Improper use of materials, tools or work tools, made available by the company. - Absence of tool protection elements (handle guards, etc.). - Do not use gloves for specific tasks such as aligning forks, handling pallets or similar. Projection of fragments or particles: - Cargo handling. - Treading of elements by means of the wheels. - Projection of oil or particles from the hydraulic circuit due to breakage of hoses. - Splashes, fragments that are projected in cleaning operations, etc.

		- Projection of foreign bodies in work of use and conditioning of the command post, cleaning, etc. due to deficiency / absence of control and preventive measures. - Projection of foreign bodies in work of use of compressed air, cleaning, etc. due to deficiency/absence of control and preventive measures. - Projection of particles of any type or fluids of the machine due to deficiency/absence of control and preventive measures. Entrapment by or between objects: - Perform maintenance work on moving parts of the machine itself while running. - Unprotected accessible moving elements such as the external parts of the lifting arms. - Absence and/or deficiency of guards and protective devices. - Transmissions, gears and moving parts when approaching excessively or inadvertently, or when cleaning, greasing or regulating machine elements when in motion. - Unexpected displacement of the machine or any of its moving parts (forks, wheel change, etc.) - Accessibility to dangerous machine organs (Trapping). - Absence of technical means for the consignment (impossibility of starting) of the machine or vehicle. - Absence of organisational means or procedures for the consignment of machinery, plant and workplaces Overturning entrapment of machines or vehicles: - Circulate with the load high. - Excessive speed when turning or cornering (load/vacuum). - Presence of potholes. - When circulating, going up or down curbs or unevenness. - Driving with tires or treads in poor condition. - Blowout of tires and / or breakage of treads due to overload or circulate on floors with sharp or lacerating elements. - Circulate along the edge of loading docks or ramps. - Entry/exit of the truck bed. ▪ Circulate on floors of insufficient resistance. - Perform work on surfaces with a slope greater than those allowed by the manufacturer. - Absence/deficiency of rollover protections in automotive machinery (r.o.p.s.). - Absence/deficiency or lack of use of belts. - Poor or inadequate pavement.

		- Absence of marking of overload limit of use of work surfaces. - Stability defects in equipment, machines or their components. - Overload of the machine or equipment: inclinations and handling of loads greater than those indicated by the manufacturer. - Failure to comply with safety distances to slopes and other dangerous areas of equipment fall Explosions: - Non-existence, insufficiency or ineffectiveness of sectorization or isolation of risk areas, such as zoning of explosive atmospheres, confined spaces, extremely hot or cold areas, etc. - Improper handling of batteries. - Inflammation of released gases. - Explosion caused by tire. - Failures in the hydraulic circuits Fire: - Overheating of machinery. - Use of conventional trucks in areas with explosive/flammable gas, vapour or dust atmospheres. - Use of thermal engine trucks (diesel) with poor combustion in areas with flammable or combustible materials. - Smoking or creating a spark or flame in the battery charging area. Run over or hit with vehicles: - Drive at high speed. - Distraction of the operator and/or pedestrians. - Glare at crossings, loading / unloading and / or access / exit of enclosures. - Reduced space for maneuvering. - Lack of visibility when reversing. - Narrow areas for sorting/placing orders. - Circulate with loads that limit the operator's vision. - Circulate on slippery wet floors. - Driving forklifts by personnel not trained and / or not authorized by the company. - Lack of luminous and/or acoustic warnings that warn of the presence of the equipment. - Dirty or broken front and rear window and rearview mirrors affecting operator visibility.

		- Presence of workers in the vicinity of the work area of the team without keeping a safety distance of about 5 meters. - Failures of the control organs, brakes, etc., due to lack of maintenance and / or periodic revisions. - Poor handling of equipment due to lack of operator training. - Work in adverse weather conditions (heavy rain, fog, etc.) that affect visibility. - Poor lighting in the working environment. - Getting on or off moving vehicles. - Not respecting the signs. - Defects or absence in the steering system of the automotive machine, in the clutch mechanism, in the gear shift system or in the brake system. - Run over by any other vehicle or mobile machinery that moves in its environment without control or preventive measures. - Do not give way.
Heights		Fall of people at different levels: - Raising or lowering the work equipment while the steps and access handles dirty with mud or damaged by blows. - Getting on or off the machine in unforeseen places. - Lifting of people on a pallet or on the forks themselves. - Transport of people. - Absence / deficiency of collective protections against falls of people: railings, lines and / or anchor points in work areas. - Unprotected openings and gaps. - Unsafe stairs or steps due to lack of width, uneven step, insufficient footprint or in poor condition. - Absence / deficiency of collective protections against falls of people and objects from work equipment. - Deficiency/absence of marking of holes, steps or other objects that may cause a fall at different levels. - Removal or cancellation of protections or safety devices. - Work next to loading docks. - Works next to pits. - Work on steep slopes. - Work on trucks

Efforts		Overexertion: - No mechanization or automation of loading/unloading operations. - Poor storage, packaging, palletizing, stacking, etc. - Forced postures or unstable positions and bad habits or lack of training in safe techniques of handling loads or postures in the driving position of the team. - Forced and inadequate postures in driving. - Use of forklifts with non-ergonomic seats (without suspension, adjustment, without adaptation to the body, etc.). - Circulation on floors in poor condition. - Handling of overturned loads for various reasons (turning, not strapping, slipping...). Physical fatigue: - Long working days. - Poor conditioning and maintenance of machinery. - Worker overload (physical fatigue). - Improper design of the work or task. - Inadequate or non-existent working method
Mobility		Falling people to the same level: - Presence of sludge that makes the passage unstable. - Difficulty/deficiency in access to the job. - Usually unstable work surfaces. - Insufficient space in workplaces or transit areas. - Poor order and cleanliness. - No delimitation between work or transit areas and storage areas or failure to respect established areas. - Poor or inadequate pavement (discontinuous, slippery, unstable, excessively steep, etc.)

Position		Overexertion: - No mechanization or automation of loading/unloading operations. - Poor storage, packaging, palletizing, stacking, etc. - Forced postures or unstable positions and bad habits or lack of training in safe techniques of handling loads or postures in the driving position of the team. - Forced and inadequate postures in driving. - Use of forklifts with non-ergonomic seats (without suspension, adjustment, without adaptation to the body, etc.). - Circulation on floors in poor condition. - Handling of overturned loads for various reasons (turning, not strapping, slipping...). Physical fatigue: - Long working days. - Poor conditioning and maintenance of machinery. - Worker overload (physical fatigue). - Improper design of the work or task. - Inadequate or non-existent working method
Tension / Anxiety / Stress		Mental fatigue: - Contradictory orders issued by different commanders. - Time pressure. - Personal reasons. - Monotonous or routine work, without measures to avoid its harmful effect

Manipulation		Contacts with caustic and/or corrosive substances: - Contact with fats. - Contact with transported products. - Fuel leaks or spills Thermal contacts: - Accidental contact with unprotected hot areas. - Contact with hydraulic fluids or engine. - Contact with heat sources of the machine. - Handling of machine parts at high temperatures. Electrical contacts: - Accidental contact with overhead or underground power lines in tension. - Failures in the installation of electrical protection of the equipment itself. - Absence/deficiency of means to avoid direct electrical contacts (defects in the insulation of the active parts, non-existent or ineffective barriers or enclosures, absence or deficiency in the means to hinder the passage or non-compliance with the distances that make up the volume of accessibility). - Accessibility to dangerous machine organs (electrical contact). - Absence or non-functioning of constituent elements of the prevention system against indirect contacts (differential switches due to being inadequate or having been "bridged", grounding, etc.). Falling objects in handling: - Rupture of pipes of the hydraulic circuits of the forklift. - Exceed the load capacity of the machine. - Materials and/or objects that are very heavy, bulky, large-surface, unstable or with sharp edges/profiles, in relation to the means used in their handling. - Failures in the mooring of the objects to be manipulated. - Breakage of high loads and fall of parts on the operator. - Circulate with the load high. - Speeding. - Very pronounced turns. - Braking Bumps/cuts by objects or tools: - Poor order and cleanliness.

		- Selection of tools, tools and auxiliary means not suitable for the work to be done. - Use of the machine in a manner not foreseen by the manufacturer. - Use of tools, tools and auxiliary means in a manner not foreseen by the manufacturer. - Failure to check the condition of machines, tools, equipment or auxiliary means before use. - Improper use of materials, tools or work tools, made available by the company. - Absence of tool protection elements (handle guards, etc.). - Do not use gloves for specific tasks such as aligning forks, handling pallets or similar.
Schedules / Conferences		Physical fatigue: - Long working days.
Inner Work		
Exterior Work		Falling objects due to collapse or collapse: - Unstable or poorly palletized loads. - Handling of defective material or fractures without preventive and safety control. - Breakage of containers and fall of parts on the truck. - Insufficient lighting of the stacking area on the shelves. - Stacking maneuvers by untrained personnel.
Continued Oral Expression		

5. Competences

FORMATION

Titration:	Languages:	Other knowledge:

EDUCATION: According to the collective agreement of the construction sector, the forklift operator is in group II according to the professional activity carried out. For the adequate performance of the activities framed in this professional group, a level of training equivalent to Compulsory Secondary Education or similar knowledge acquired through experience is recommended. **SAFETY**: The operator must have training in risk prevention, as established in Law 31/1995 on the Prevention of Occupational Risks and Royal Decree 39/1997, which approves the Regulation of Prevention Services, as well as the specific regulations of application. As mandatory, the training that the operator must receive must contemplate the following points: - Specific training of the position in accordance with article 19 of the LPRL (job position and risks existing in the workplace in which the activity is to be developed). - Specific training for the handling of equipment in accordance with Royal Decree 1215/1997, for the Forklift. Currently, the UNE 58451:2016 standard is in force, which establishes the training of operators of forklifts up to 10,000 kg. - Preventive training for the performance of the position of ornamental rock plant operator in benefit establishments. This training includes an initial training of 20h and a subsequent recycling every 2 years with a duration of 5h. - Training in dust control at your workplace. The training must be repeated at least once a year and, in particular, when the worker changes functions, position or place of work. Other training actions, in the field of OHS, necessary for the position can be developed under the following themes: noise,		Health and Safety in general and specifications in the company. (Spain, Croatia, Germany and Greece)

maintenance, action in case of emergencies (fires, evacuation and first aid).		

WORK EXPERIENCE

Determine if previous experience is necessary for the performance of the position:	YES		NO	X

OTHER REQUIREMENTS

Driving license:	YES		NO	X	Type	
Age:	>	18	<	67		
Own vehicle:	YES		NO	X		
Time Availability	YES	X	NO			

Workplace:	Factory	Day:	8	Timetable:	Afternoon or Morning

REMARKS

SKILLS:

- Speed of perception: Normal

- Manual agility: Normal

- Foot-hand coordination: ALTA

- Spatial understanding: ALTA

- Emotional stability: Normal

- Aggressiveness: LOW

- Responsibility: HIGH

The following is required:

-Vision

-Ear

-Heart

- Lack of hernia

-Field of view

- Knowledge of colors

- Reflex time

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Erasmus+

InclusiveStone: A2-b Questionnaire. Analysis of the job for its adaptation: Maintenance operator.

Once the jobs that can be occupied by people with disabilities have been identified, the possible adaptations that must be made to ensure accessibility and equal opportunities in the workplace will be evaluated. These adaptations can be both in the physical infrastructure and in the processes and tools used at work.

During the following points, the different factors that must be taken into account in each job, the skills required and the adaptations necessary to guarantee the labor inclusion of people with disabilities in the company are raised. This scheme will serve as a reference tool for personnel selection processes and as a guide for the adaptation of jobs to the specific needs of each employee.

1. General data

POSITION (C.N.O.): Mechanical and/or electrical maintenance operators	**PROFESSIONAL LEVEL:**
TYPE OF CONTRACT MOST USED: (Indefinite, Eventual, Training, Work and Service ...) Indefinite	**DURATION OF THE MOST COMMON CONTRACT:** Usually, permanent contracts.

Full-time	X	**Part-time**		**Shifts:**	YES X	**Mobility:**	YES
Schedule (continuous, match, morning, afternoon..) Morning, afternoon		**Nº of Hours:**	8		NO		NO X

REMARKS:

Workstation that groups all the tasks destined to the mechanical and electrical maintenance of the facilities and machinery. Among others, the most relevant tasks of the position are the change of pulleys, repair of hoses, repair of electrical panels, installation of variable speed drives, programming or reprogramming of automata, welding, installation of lighting or repair of this, tasks related to compressed air pipes, electrical installation in general, repair of hydraulics, repair of brakes, wheel changes, Replacement or repair of cutting or drilling elements in poor condition.

The operator carries out its activity in the maintenance workshops, in the exploitation fronts, work platforms, tracks through which infrastructures run, or in general in facilities distributed throughout the work center. The revisions, maintenance and mechanical or electrical assembly are carried out on the mining machinery and equipment (fixed and mobile) used in the production cycle and other auxiliary activities, it also attends to periodic repairs or in case of breakdowns, improvement and distributes the installation and maintenance of the distribution networks of Electricity, water and others, also performs revisions, maintenance or assembly of the equipment used in the general services of the exploitation.

https://www.youtube.com/watch?v=YAhE22zkuuI&ab_channel=CTM-CentroTec.delM%C3%A1rmol%2CPiedrayMateriales

2. Task analysis

Task No.	Description	% of time
1	Change of pulleys	
2	Hose repair	
3	Repair of electrical panels	
4	Installation of variable speed drives	
5	Programming or reprogramming of automata	
6	Welding	
7	Lighting installation	
8	Repair of this	
9	Tasks related to compressed air pipes	
10	Electrical installation in general	
11	Repair of hydraulics	
12	Brake repair	
13	Wheel changes	
14	Replacement or repair of cutting or drilling elements in poor condition	

3. Job requirements profile

CAPABILITIES	***Levels:***			**Specific comments:**
	To	**B**	**C**	
Manual dexterity: Ability to perform activities that require coordinated actions, with precision and manual speed	X			Tasks carried out with the aid of machines entail great responsibilities and should therefore only be entrusted to capable persons, free from physical contraindications (limitation of visual and auditory abilities, tendency to vertigo, other physical handicaps, etc.), who are quick to decide and react and who possess the necessary technical knowledge.
Displacement: Ability to walk, and or move, using or not some type of equipment.	X			Circulation on tracks, accesses and quarry squares (traffic and signaling). Work next to slopes and inclined planes.
Access to transport: Ability to access (physical access) public transport or use a private vehicle		X		It is advisable to have your own vehicle since both quarry and factory are usually displaced from residential areas. Although there may be public or private transport hired by the company.
Position: Ability to adopt and maintain a certain posture; SITTING, STANDING, OTHERS.	X			Handling of various material related to repairs (electrical panels, variable speed drives, oil cans, tool boxes ...). Management of current extensions or compressed air pipes. Tool handling in general Long working days. Lack of work equipment that minimizes manual handling of loads

Strength: Ability to perform physical efforts (physical exercise/loading-handling of weights and/or large objects)	X			Handling of various material related to repairs (electrical panels, variable speed drives, oil cans, tool boxes ...). Management of current extensions or compressed air pipes. Manipulation of tools in general
Tolerance: Ability to withstand situations that may generate stress, tension and / or mental fatigue	X			Mental fatigue: - Contradictory orders issued by different commanders. - Time pressure. - High workload. - Personal reasons.
Personal Autonomy: Cap. Act independently, without supervision in activities related to self-care and risk perception.	X			
Interpersonal relationships: Ability to initiate and maintain relationships with other people		X		
Orientation in the environment: Cap. to orient yourself in the environment where you live (neighborhood, city) and use (know and use) public transport (metro, bus)	X			
Money Management: Ability to engage in basic economic transactions			X	
Learning: Ability to acquire knowledge, to perform new tasks	X			
Vision: Cability to recognize and/or distinguish objects and colors.	X			
Hearing: Ability to hear, recognize and/or discriminate sounds	X			
Verbal comprehension: Ability to understand oral messages		X		
Oral Expression: Ability to express oral messages		X		

A: Required
B: Occasionally required
C: Not required

4. Working conditions

FURNITURE AND/OR TECHNOLOGY USED

1.- Furniture

2.- Technology
3.- Tools / Machinery / vehicles Among other equipment, it usually uses welding equipment, lathes, vertical drill, bridge crane to lift loads, grinder, portable compressor and various hand power or pneumatic tools such as screwdrivers, drills, radial and all kinds of hand tools among which pliers, hammers, screwdrivers, fixed wrenches, tube wrenches stand out. As it also performs electrical maintenance tasks, it usually uses polymer meters and clamp meters. In order to consign – to leave without electrical, pneumatic, potential, machinery – it usually carries among other devices padlocks, signals, crocodile clamps to ground the electrical installations and bolts to block untimely falls of elevated equipment.

COND. ENVIRONMENTAL AND RISK FACTORS

1.- Accessibility and Barriers

Barriers:	Brief description of barriers:
Yes: X No:	Lack of cleanliness and order. Presence of small slopes (30-50cm) Uneven terrain. It is introduced in places with little lighting and space.

2.- Environmental environment: Indicate, when necessary, special characteristics in relation to the following factors:

		Remarks:
Temperature		Exposure to extreme ambient temperatures: Work outdoors or in conditions difficult to control. Thermal contacts: - Contact with motors and areas subject to movement or friction. - Welding tasks. - Cutting tasks. - Electrical contacts Thermal stress: Work in extreme environmental conditions.

Humidity		Cutting machinery often uses water to reduce dust generation, which can generate some local, rather than ambient, humidity. Workers often wear clothing with insulating materials.
Lighting		Lack of lighting in maintenance work. Collisions with stationary objects: - Access to inaccessible areas in the machinery. - Lack of lighting.
Noise		Exposure to a noise level higher than that legally permitted according to Royal Decree 286/2006 in drilling tasks. Radial cutting work. Material drilling work
Vibrations		Handling of hand tools that can lead to vibrations.

Environment (cond. Extreme climates, dust, smoke, A. Conditioned).		Exposure to harmful or toxic substances: - Presence of dust, such as particulate matter, in the workplace that can be breathed. - Welding work. - Cleaning of material with dust or mud. Exposure to chemical contaminants: - Presence of dust in the workplace. - Cleaning of work clothes by means of an air gun. - Painting tasks of facilities in closed areas. - Not wearing the right mask In the scope of this job, the following action protocols and the risks indicated in the previous sections must be taken into consideration for the determination of the medical fitness of people: - Occupational asthma. - Dermatosis. - Manual handling of loads - Forced postures. - Noise. - Silicosis.

3.- Risk Factors: Identify possible risk situations related to the following factors:

Remarks:

Machinery		Falling objects in handling: - Management of lifting equipment such as bridge crane or boom. - Overloading of lifting equipment and/or mooring equipment (chains, steel slings, polyester slings...). Falling detached objects: - Falling rocks or tools from higher planes. - Fall of housings, shafts, drums of conveyor belts disassembled or to be assembled. Footprints on objects: - Presence of materials, objects and tools in transit and work areas. - Lack of lighting. - Presence of water pipes, electrical cables, tool boxes, tools, softnes, ruts, compressed air pipes... in the workplace. Collisions with moving objects: - Simultaneous and uncoordinated work of several work teams in areas close to each other. - Start-up of the machinery lacking protections to verify its operation. - Handling of loads close to the work area. - Lack of sufficient operator training. - Untimely movement of the equipment in the starting maneuver. - Access to danger zone with the machine running. - Existence of nearby work teams in motion. Bumps/cuts by objects or tools: - Handling of manual, electric and pneumatic tools in maintenance work and adjustment of the machine. - Unprotected accessible moving elements such as machinery chassis and protective housings. - Selection of tools, tools and auxiliary means not suitable for the work to be done. - Use of tools, tools and auxiliary means in a manner not foreseen by the manufacturer. - Absence of tool protection elements (handle protectors, etc.). Projection of fragments or particles: - Cutting or reviewing of material. - Welding tasks.

- Lubrication tasks.
- Repair of hoses.
- Breakage of hydraulic and/or pneumatic hoses

Entrapment by or between objects:

- Perform maintenance work on moving parts of the machine itself while running. ▪
- Unprotected accessible moving elements such as pulleys.
- Absence and/or deficiency of guards and protective devices.
- Transmissions, gears and moving parts when approaching excessively or inadvertently, or when cleaning, greasing or regulating machine elements when in motion.
- Unexpected displacement of the machine or any of its moving parts due to instability due to bad location.

Overturning entrapment of machines or vehicles:

- Perform work on surfaces with a slope greater than those allowed by the manufacturer.
- Poor soil or machine stability.
- Work in the vicinity of a clearing or slope of insufficient resistance.
- Bad mooring of the equipment to be repaired.

Explosions:

- Lack of revisions of the compressor used for the operation of various tools or pneumatic devices.
- Tire inflation.
- Repair or installation of pipes through which gas circulates.

Fire:

- Overheating of machinery.
- Handling of fuels and chemicals.
- Shorts.
- Surge.
- Wrong connections.
- Lack of nearby means of extinction.

Run over or hit with vehicles:

- Maintenance tasks in the vicinity of other work equipment due to the impossibility of moving the equipment or installation to be repaired to the workshop.
- Use of forklifts for maintenance tasks.
- Poor lighting in the working environment.

		- Lack of delimitation of the work area. - Poor communication between pedestrians and drivers. - Circulation on tracks or accesses without sufficient safety margins.
Heights		Fall of people at different levels: - Works next to slopes. - Work on ship decks. - Work on lifting platforms. - Maintenance work on mobile mining machinery cabins. - Maintenance work on looms. - Absence / deficiency of collective protections against falls of people: railings, lines and / or anchor points. - Unprotected openings and gaps in work areas. ▪ Difficulty/deficiency in access to the job. - Absence / deficiency of collective protections against falls of people and objects from work equipment. - Deficiency/absence of marking of holes, steps or other objects that may cause a fall at different levels. - No use of personal protective equipment made available by the company and mandatory use. - Removal or removal of safety guards or devices
Efforts		Overexertion: - Handling of various material related to repairs (electrical panels, variable speed drives, oil cans, tool boxes ...). - Management of current extensions or compressed air pipes. - Tool handling in general Physical fatigue: - Long working days. - Lack of work equipment that minimizes the manual handling of loads.

Mobility		Falling people to the same level: - Presence of mud that makes the passage unstable. - Furrows and irregularities in the quarry square. - Insufficient space in workplaces or transit areas. - Poor order and cleanliness. - Fats and other chemicals accidentally spilled into the soil. - No delimitation between work or transit areas and storage areas or failure to respect established areas. - Deficient or inadequate pavement (discontinuous, slippery, unstable, with excessive slope, etc.).
Position		Overexertion: - Handling of various material related to repairs (electrical panels, variable speed drives, oil cans, tool boxes ...). - Management of current extensions or compressed air pipes. - Tool handling in general Physical fatigue: - Long working days. - Lack of work equipment that minimizes the manual handling of loads.
Tension / Anxiety / Stress		Mental fatigue: - Contradictory orders issued by different commanders. - Time pressure. ▪ High workload. - Personal reasons.

Manipulation		Contacts with caustic and/or corrosive substances: Contact with greases and lubricants and other chemical products related to equipment maintenance (e.g. coolant, antifreeze, stripper...) Vibrations: Handling of hand tools. Thermal contacts: - Contact with motors and areas subject to movement or friction. - Welding tasks. - Cutting tasks. Electrical contacts: - Contact with parts of machinery accidentally put into tension. - Failures in the installation of electrical protection of the equipment itself (differential, grounding, magnetothermic, motor guard...). - Electrical conduits and panel in poor condition. - Work in tension. - Do not apply the 5 golden rules. Bumps/cuts by objects or tools: - Handling of manual, electric and pneumatic tools in maintenance work and adjustment of the machine. - Unprotected accessible moving elements such as machinery chassis and protective housings. - Selection of tools, tools and auxiliary means not suitable for the work to be done. - Use of tools, tools and auxiliary means in a manner not foreseen by the manufacturer. - Absence of tool protection elements (handle guards, etc.)
Schedules / Conferences		Physical fatigue: - Long working days.
Inner Work		

Exterior Work		Falling objects due to collapse or collapse: - Untimely fall of elevated parts like the arm of a backhoe. - Instability of slopes, berms... - Fractures in the rock. - Lack of review and cleaning or sanitation of the upper areas. - Inadequate slopes. - Poorly checked fronts and slopes. - Poor execution of slopes or work fronts of excessive heights.
Continued Oral Expression		

5. Competences

FORMATION

Titration:	Languages:	Other knowledge:

The operator must have training in risk prevention, as established in Law 31/1995 on the Prevention of Occupational Risks and Royal Decree 39/1997, which approves the Regulation of Prevention Services, as well as the specific regulations of application. As mandatory, the training that the operator must receive must contemplate the following points: - Specific training of the position in accordance with article 19 of the LPRL (job position and risks existing in the workplace in which the activity is to be developed). - In the case of carrying out regulatory maintenance to lifting equipment, pressure devices, electrical installation ... You must carry out the training aimed at obtaining the professional card for each of the regulatory maintenance to be carried out. - Preventive training for the performance of the position of mechanical and / or electrical maintenance operator. This training includes an initial training of 20h and a subsequent recycling every 2 years with a duration of 5h and is available for activities outdoors, indoors and benefit establishments. - Training in dust control at your workplace. The training must be repeated at least once a year and, in particular, when the worker changes functions, position or place of work. Other training actions, in the field of OHS, necessary for the position can be developed under the following themes: noise, electromechanical maintenance, entrapment, action in case of emergencies (fire, evacuation and first aid), handling of loads and work at height.		Health and Safety in general and specifications in the company. (Spain, Croatia, Germany and Greece)

WORK EXPERIENCE

Determine if previous experience is necessary for the performance of the position:	YES	X	NO	

OTHER REQUIREMENTS

Driving license:	YES		NO	X	Type	
Age:	>	18	<	65		
Own vehicle:	YES		NO	X		
Time Availability	YES		NO			

Workplace:	Factory or Quarry	Day:	8	Timetable:	Morning or Afternoon

REMARKS

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Erasmus+

InclusiveStone: A2-b Questionnaire. Analysis of the job for its adaptation: Multiple saw machine.

Once the jobs that can be occupied by people with disabilities have been identified, the possible adaptations that must be made to ensure accessibility and equal opportunities in the workplace will be evaluated. These adaptations can be both in the physical infrastructure and in the processes and tools used at work.

During the following points, the different factors that must be taken into account in each job, the skills required and the adaptations necessary to guarantee the labor inclusion of people with disabilities in the company are raised. This scheme will serve as a reference tool for personnel selection processes and as a guide for the adaptation of jobs to the specific needs of each employee.

1. General data

POSITION (C.N.O.): Ornamental rock plant operator: Multiple saw machine	**PROFESSIONAL LEVEL:**
TYPE OF CONTRACT MOST USED: (Indefinite, Eventual, Training, Work and Service ...) Indefinite	**DURATION OF THE MOST COMMON CONTRACT:** Usually, permanent contracts.

Full-time	X	**Part-time**		**Shifts:**	YES X	**Mobility:**	YES
Schedule (continuous, match, morning, afternoon..) Morning, afternoon		**Nº of Hours:**	8		NO		NO X

REMARKS:

The multiple saw machine manager is responsible for obtaining surface boards equal to the face of the cut block, generally of approximate size of 1.70 by 2.40.

By means of the bridge crane, located in the block yard, blocks are transferred to a block wagon whose mission is to introduce the block inside the multiple saw machine. The cutting process takes place automatically, consisting of the operator's functions in operating the equipment, introducing the desired measures, monitoring and controlling the process and removing the boards.

https://www.youtube.com/watch?v=XUUM37jmKpg&ab_channel=CTM-CentroTec.delM%C3%A1rmol%2CPiedrayMateriales

https://www.youtube.com/watch?v=6a8_u_WUjrc&ab_channel=CTM-CentroTec.delM%C3%A1rmol%2CPiedrayMateriales

2. Task analysis

Task No.	Description	% of time
1	Change, adjustment and repair of strapping	
2	Controls and interventions in the work team	
3	Start-up of the work team.	
4	Storage and handling of blocks with overhead crane.	
5	Storage and handling of boards with overhead crane.	
6	General rules of circulation through the plant.	
7	Periodicity of general revisions and maintenance of the machine.	
8	Prevention and control of dust.	

3. Job requirements profile

CAPABILITIES	***Levels:***			**Specific comments:**
	To	**B**	**C**	
Manual dexterity: Ability to perform activities that require coordinated actions, with precision and manual speed	X			The operator must have some skill with the handling of this type of equipment, to avoid accidents or errors in cutting blocks.
Displacement: Ability to walk, and or move, using or not some type of equipment.	X			

Access to transport: Ability to access (physical access) public transport or use a private vehicle		X		It is advisable to have your own vehicle since both quarry and factory are usually displaced from residential areas. Although there may be public or private transport hired by the company.
Position: Ability to adopt and maintain a certain posture; SITTING, STANDING, OTHERS.	X			There is a risk of forced postures in the loading of drums or cans of grease.
Strength: Ability to perform physical efforts (physical exercise/loading-handling of weights and/or large objects)	X			
Tolerance: Ability to withstand situations that may generate stress, tension and / or mental fatigue	X			Mental fatigue: - Contradictory orders issued by different commanders. - Control of several machines operating simultaneously - Time pressure. - Personal reasons.
Personal Autonomy: Cap. Act independently, without supervision in activities related to self-care and risk perception.	X			
Interpersonal relationships: Ability to initiate and maintain relationships with other people		X		
Orientation in the environment: Cap. to orient yourself in the environment where you live (neighborhood, city) and use (know and use) public transport (metro, bus)	X			
Money Management: Ability to engage in basic economic transactions			X	
Learning: Ability to acquire knowledge, to perform new tasks		X		
Vision: Cability to recognize and/or distinguish objects and colors.	X			
Hearing: Ability to hear, recognize and/or discriminate sounds	X			
Verbal comprehension: Ability to understand oral messages		X		
Oral Expression: Ability to express oral messages		X		

A: Required

B: Occasionally required
C: Not required

4. Working conditions

FURNITURE AND/OR TECHNOLOGY USED

1.- Furniture
2.- Technology
3.- Tools / Machinery / vehicles The multiple saw machine most frequently used in the sector is the slat cutting, although there are others of diamond wire of little or very reduced implantation. They are classified according to the material to be cut, the number of cutting slats or the technology used to place the block in relation to the cutting slats; by fixed carriage with descending cutting slats or ascending mobile carriage with cutting slats at a fixed height.

COND. ENVIRONMENTAL AND RISK FACTORS

1.- Accessibility and Barriers

Barriers:				Brief description of barriers:
Yes:	X	No:		Lack of cleanliness and order. Presence of small slopes (30-50cm) Uneven terrain. It works on a platform at height.

2.- Environmental environment: Indicate, when necessary, special characteristics in relation to the following factors:

		Remarks:
Temperature		Exposure to extreme ambient temperatures: Work outdoors or in conditions difficult to control. Thermal contacts: Contact with motor and areas subject to friction such as pulleys or strips

Humidity		Cutting machinery often uses water to reduce dust generation, which can generate some local, rather than ambient, humidity. Workers often wear clothing with insulating materials.
Lighting		- Lack of lighting in the work area.
Noise		- Exposure to a noise level higher than that legally permitted according to Royal Decree 286/2006 in cutting tasks. - Work together with other cutting equipment such as block cutters, bridge disc ...
Vibrations		
Environment (cond. Extreme climates, dust, smoke, A. Conditioned).		Exposure to harmful or toxic substances: - Presence of dust, such as particulate matter, in the workplace that can be breathed. - Exposure to organic vapors produced by spray paint used in the marking of blocks and boards Exposure to chemical contaminants: - Presence of dust in the workplace. - Poor water injection in the cutting area. - Do not clean the area by washing and let puddles dry. In the scope of this job, the following action protocols and the risks indicated in the previous sections must be taken into consideration for the determination of the medical fitness of people: - Dermatosis. - Manual handling of loads. - Forced postures. - Noise. - Silicosis.

3.- Risk Factors: Identify possible risk situations related to the following factors:

Remarks:

Machinery		Falling objects in handling: - Failures in the mooring of the blocks or boards to be manipulated with the bridge crane. - Easles or block wagons without safety sidebars to prevent boards from falling Falling detached objects: - Falling tools or other objects located on the top of the work equipment due to vibrations caused by cutting. - Fall of ends (sides of the cut block) due to lack of stability. - Poorly sealed block half-cut with plaster or similar Footprints on objects: - Presence of material and rock rubble in passage and work areas. - Lack of lighting. - Presence of water pipes, extension cords, tools, plaster bags, pallets... in the workplace. Collisions with moving objects: - Access to the interior of the cutting area circumventing the protections and safety distances with the device running. - Debris removal with the device running. - Poor equipment handling due to lack of sufficient operator training. - Existence of nearby work teams in motion as is the case of the block trolley. - Deficiency/absence of signage or other elements necessary for the delimitation of the work area Bumps/cuts by objects or tools: - Handling of tools in maintenance work and adjustment of the machine. - Cut with vidias of the straps. - Selection of tools, tools and auxiliary means not suitable for the work to be done. - Deteriorated steel slings with accessible steel wires Projection of fragments or particles: Projection of particles in the process of cutting. Entrapment by or between objects:

		- Perform maintenance work on moving parts of the machine itself while running. - Access to the top of the multiple saw machine circumventing the security of the doors. - Start the machine without checking that there are no people inside it. - Absence and/or deficiency of guards and side and frontal protection devices. - Transmissions, gears and moving parts when improperly approaching, or when cleaning, greasing or regulating machine elements when in motion. Overturning entrapment of machines or vehicles: Breakage of the block wagon due to limitation of its useful life. Fire: - Overheating of machinery. - Handling of chemical substances. Run over or hit with vehicles: - Failure to respect safety distances of at least 5 meters between pedestrians and equipment such as trucks and forklifts. - Work in adverse weather conditions (heavy rain, fog, etc.) that affect visibility. - Poor lighting in the working environment. - Lack of delimitation of the work area. ▪ Poor communication between pedestrians and drivers. - Circulation in areas not intended for pedestrians.

Heights		Fall of people at different levels: - Maintenance work of the cutting slats. - Fixing the boards with plaster or similar material when the block is half-cut to prevent them from breaking. - Opening of keys and valves in areas with risk of falling. - Absence / deficiency of collective protections against falls of people: railings, lines and / or anchor points. - Unprotected openings and gaps in work areas. - Difficulty in accessing the cutting area. - Absence of interior and/or exterior railings on the upper walkways. - Deficiency/absence of marking of holes, steps or other objects that may cause a fall at different levels. - Removal or cancellation of protections or safety devices that prevent falling to different levels.
Efforts		Overexertion: - Handling of grease cans / drums. - Management of extension cords. - Use of tools not suitable to open the cut blocks like a book. Physical fatigue: - Long working days. - Poor conditioning and maintenance of machinery.
Mobility		Falling people to the same level: - Presence of mud and sludge cutting that make the passage unstable and slippery. - Grooves and irregularities in the work area. - Small unevenness in the entrance or exit of blocks through which the block wagon circulates. - Insufficient space in workplaces or transit areas. - Poor order and cleanliness. - No delimitation between work or transit areas and storage areas or failure to respect established areas.

Position		Overexertion: - Handling of grease cans / drums. - Management of extension cords. - Use of tools not suitable to open the cut blocks like a book. Physical fatigue: - Long working days. - Poor conditioning and maintenance of machinery.
Tension / Anxiety / Stress		Mental fatigue: - Contradictory orders issued by different commanders. - Control of several machines operating simultaneously. - Time pressure. - Personal reasons
Manipulation		Contacts with caustic and/or corrosive substances: - Contact with plasters to fix the tables. - Contact with greases and lubricants. - Contact with spray paint used in the marking of blocks and boards. Thermal contacts: Contact with motor and areas subject to friction such as pulleys or strapping. Electrical contacts: - Contact with parts of machinery accidentally put into tension. - Failures in the installation of electrical protection of the equipment itself (differential, grounding, magnetothermic, motor guard...). - Electrical conduits and panel in poor condition Bumps/cuts by objects or tools: - Handling of tools in maintenance work and adjustment of the machine. - Cut with vidias of the straps. - Selection of tools, tools and auxiliary means not suitable for the work to be done. - Deteriorated steel slings with accessible steel wires

Schedules / Conferences		Physical fatigue: - Long working days.
Inner Work		
Exterior Work		
Continued Oral Expression		

5. Competences

FORMATION

Titration:	Languages:	Other knowledge:

The operator must have training in risk prevention, as established in Law 31/1995 on the Prevention of Occupational Risks and Royal Decree 39/1997, which approves the Regulation of Prevention Services, as well as the specific regulations of application. As mandatory, the training that the operator must receive must contemplate the following points: - Specific training of the position in accordance with article 19 of the LPRL (job position and risks existing in the workplace in which the activity is to be developed). - Preventive training for the performance of the position of operator of ornamental rock plants. This training includes an initial training of 20h and a subsequent recycling every 2 years with a duration of 5h. - Training in dust control at your workplace. The training must be repeated at least once a year and, in particular, when the worker changes functions, position or place of work. Other training actions, in the field of OHS, necessary for the position can be developed under the following themes: noise, maintenance, action in case of emergencies (fire, evacuation and first aid), handling of loads and work at height.		Health and Safety in general and specifications in the company. (Spain, Croatia, Germany and Greece)

WORK EXPERIENCE

Determine if previous experience is necessary for the performance of the position:	YES	X	NO	

OTHER REQUIREMENTS

Driving license:	YES		NO	X	Type	
Age:	>	18	<	65		
Own vehicle:	YES		NO	X		
Time Availability	YES		NO			

Workplace:	Factory	Day:	8	Timetable:	Morning or afternoon

REMARKS

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

Erasmus+

InclusiveStone: A2-b Questionnaire. Analysis of the job for its adaptation: Crane.

Once the jobs that can be occupied by people with disabilities have been identified, the possible adaptations that must be made to ensure accessibility and equal opportunities in the workplace will be evaluated. These adaptations can be both in the physical infrastructure and in the processes and tools used at work.

During the following points, the different factors that must be taken into account in each job, the skills required and the adaptations necessary to guarantee the labor inclusion of people with disabilities in the company are raised. This scheme will serve as a reference tool for personnel selection processes and as a guide for the adaptation of jobs to the specific needs of each employee.

1. General data

POSITION (C.N.O.): Operators of overhead cranes, gantry cranes and other cranes or lifting equipment in rock plants	**PROFESSIONAL LEVEL:**
TYPE OF CONTRACT MOST USED: (Indefinite, Eventual, Training, Work and Service ...) Indefinite	**DURATION OF THE MOST COMMON CONTRACT:** Usually, permanent contracts.

Full-time	X	**Part-time**		**Shifts:**	YES X	**Mobility:**	YES X
Schedule (continuous, match, morning, afternoon..) Morning, afternoon		**Nº of Hours:**	8		NO		NO

REMARKS:

Crane operators are responsible for using the equipment in order to transport loads from one site to another in the plant or production line. The loads to be transported can be blocks, boards, packages of boards, cut pieces or disc bridge tables, as well as other types of cargo that has to be transported or handled in the crane area and can be transported by it. The operating station is the place from which the operator operating the control organs operates the crane.

https://www.youtube.com/watch?v=pYQqYVlW2TE&ab_channel=CTM-CentroTec.delM%C3%A1rmol%2CPiedrayMateriales

https://www.youtube.com/watch?v=4GNCoYD4g5w&ab_channel=CTM-CentroTec.delM%C3%A1rmol%2CPiedrayMateriales

2. Task analysis

Task No.	Description	% of time
1	Handling of cargo handling equipment: cranes	
2	Transport and loading of materials.	
3	Loading of trucks, containers and other platforms.	
4	Work on loading docks.	
5	General rules of circulation and signaling.	
6	Periodicity of general revisions.	
7	Prevention and control of dust.	

3. Job requirements profile

CAPABILITIES	***Levels:***			**Specific comments:**
	To	**B**	**C**	
Manual dexterity: Ability to perform activities that require coordinated actions, with precision and manual speed	X			The operator must have some skill with the handling of this type of equipment, to avoid accidents.
Displacement: Ability to walk, and or move, using or not some type of equipment.	X			In this job, an operator is needed to move to check that the load is moving correctly.

Access to transport: Ability to access (physical access) public transport or use a private vehicle		X		It is advisable to have your own vehicle since both quarry and factory are usually displaced from residential areas. Although there may be public or private transport hired by the company.
Position: Ability to adopt and maintain a certain posture; SITTING, STANDING, OTHERS.	X			There is a risk of forced postures in the use of this type of equipment in the handling of loads and in incorrect positions.
Strength: Ability to perform physical efforts (physical exercise/loading-handling of weights and/or large objects)	X			No mechanization or automation of loading/unloading operations. Poor storage, packaging, palletizing, stacking, etc.
Tolerance: Ability to withstand situations that may generate stress, tension and / or mental fatigue	X			Mental fatigue: - Contradictory orders issued by different commanders. - Time pressure. - Personal reasons. - Monotonous or routine work, without measures to avoid its harmful effect
Personal Autonomy: Cap. Act independently, without supervision in activities related to self-care and risk perception.	X			
Interpersonal relationships: Ability to initiate and maintain relationships with other people		X		
Orientation in the environment: Cap. to orient yourself in the environment where you live (neighborhood, city) and use (know and use) public transport (metro, bus)	X			
Money Management: Ability to engage in basic economic transactions			X	Order Orders
Learning: Ability to acquire knowledge, to perform new tasks		X		
Vision: Cability to recognize and/or distinguish objects and colors.	X			
Hearing: Ability to hear, recognize and/or discriminate sounds	X			

Verbal comprehension: Ability to understand oral messages		X		Gestural communication
Oral Expression: Ability to express oral messages		X		

A: Required
B: Occasionally required
C: Not required

4. Working conditions

FURNITURE AND/OR TECHNOLOGY USED

1.- Furniture

2.- Technology

3.- Tools / Machinery / vehicles

There are three uses of crane.

The crane is a batch machine designed to lift and distribute the suspended loads of a hook or any other grip accessory (NTP 736). There are several types of cranes, among which we will mainly find in ornamental rock plants, gantry type, bridge crane, semiotic crane and rotating arm crane or moth.

In addition to the crane as the main equipment, several accessories can be used with it for handling loads, such as slings, tweezers, hooks, rockers, type C hooks, suction cups, octopuses, among others.

It should be noted the importance that these accessories have

- They must have a "CE" marking.
- Identification plates containing, among other marks, the name of the manufacturer and the maximum load allowed.
- The replacement of accessories will be carried out only with certified elements and identical characteristics to the originals.

Instruction manual.

COND. ENVIRONMENTAL AND RISK FACTORS

1.- Accessibility and Barriers

Barriers:	Brief description of barriers:

Yes: ☐ No: ☐		Lack of cleanliness and order. Presence of small slopes (30-50cm) Uneven terrain.

2.- Environmental environment: Indicate, when necessary, special characteristics in relation to the following factors:

		Remarks:
Temperature	☐	Exposure to extreme ambient temperatures: Outdoor work. Thermal contacts: - Accidental contact with unprotected hot areas. - Contact with heat sources of the equipment. - Manipulation of elements with electrical voltage. - Handling of machine parts at high temperatures.
Humidity	☐	Cutting machinery often uses water to reduce dust generation, which can generate some local, rather than ambient, humidity. Workers often wear clothing with insulating materials.
Lighting	☐	Lack of lighting in the work area.
Noise	☐	Exposure to a noise level higher than that legally permitted according to Royal Decree 286/2006.
Vibrations	☐	

Environment (cond. Extreme climates, dust, smoke, A. Conditioned).		Exposure to harmful or toxic substances: Inhalation, ingestion or contact with harmful or toxic chemicals (substances or preparations) present in the workplace: battery acids, oils, hydraulic fluids, greases, etc. Exposure to chemical contaminants: Failure to comply with prevention and protection measures against possible chemical contaminants that may be present in the crane operator's workplace. Radiation exposure: - Work close to welds with absence or deficiency of radiation control. - Other causes related to ionizing or non-ionizing radiation. In the scope of this job, the following action protocols and the risks indicated in the previous sections must be taken into consideration for the determination of the medical fitness of people: - Forced postures. - Noise. - Silicosis.

3.- Risk Factors: Identify possible risk situations related to the following factors:

Remarks:

Machinery		Falling objects in handling: - Exceed the load capacity of the equipment. - Materials and/or objects that are very heavy, bulky, large-surface, unstable or with sharp edges/profiles, in relation to the means used in their handling. - Failures in the mooring of the objects to be manipulated. - Breakage of high loads and fall of parts on the operator. - Circulate with the load high. - Absence/deficiency of safety elements in the means of lifting loads (safety latches on hooks, etc.). - Lack of signage and information about the maximum load on slings and other lifting accessories. - Lack of planning and/or monitoring in lifting operations Falling detached objects: - Handling of tools in the upper area of the machine. - Poor storage, packaging, palletizing, stacking, etc. - Lack of planning and/or surveillance in cargo lifting operations. - Poor signaling or inadequate equipment maintenance Footprints on objects: - Presence of objects in passage areas. - Poor lighting. - Poor order and cleanliness. Collisions with moving objects: - Simultaneous and uncoordinated work of several work teams in areas close to each other. - Poor equipment handling due to lack of sufficient operator training. - Failures of the control bodies due to lack of maintenance and / or periodic reviews. - Existence of work teams in motion. - Objects located or stored near work areas. - Deficiency / absence of signage or other elements necessary for the delimitation of the work area. Bumps/cuts by objects or tools: - Poor order and cleanliness. - Dangerous accessible parts of equipment (cuts). - Selection of tools, tools and auxiliary means not suitable for the work to be done.

		- Use of the machine in a manner not foreseen by the manufacturer. - Use of tools, tools and auxiliary means in a manner not foreseen by the manufacturer. - Failure to check the condition of machines, tools, equipment or auxiliary means before use. - Improper use of materials, tools or work tools, made available by the company. - No use of personal protective equipment. Projection of fragments or particles: - Projection of foreign bodies in work of use and conditioning of the command post, cleaning, etc. due to deficiency / absence of control and preventive measures. - Projection of foreign bodies in work of use of compressed air, cleaning, etc. due to deficiency/absence of control and preventive measures. - Projection of particles of any type or fluids of the machine due to deficiency/absence of control and preventive measures. Entrapment by or between objects: - Perform maintenance work on moving parts of the machine itself while running. - Do not keep safety distances. - Work between elements that in case of fall can cause entrapment. - Unprotected accessible moving elements. - Absence and/or deficiency of guards and protective devices. - Transmissions, gears and moving parts when approaching excessively or inadvertently, or when cleaning, greasing or regulating machine elements when in motion. - Dangerous (catching) accessible parts of equipment. - Absence of technical means for the consignment (impossibility of starting) of the machine or vehicle. - Absence of organisational means or procedures for the consignment of machinery, plant and workplaces Overturning entrapment of machines or vehicles: - Stability defects in equipment, machines or their components. - Overloading of the machine or equipment, as well as accessories. - Failure to comply with procedures and work instructions in the handling of equipment. - Non-existent or inadequate preventive maintenance of the equipment or failure to carry out mandatory periodic reviews

	Explosions: - Non-existence, insufficiency or ineffectiveness of sectorization or isolation of risk areas, such as zoning of explosive atmospheres, confined spaces, extremely hot or cold areas, etc. - Inflammation of released gases. - Failures in compressed air circuits Fire: - Overheating of machinery. - Flammable chemicals whose control and/or elimination is not guaranteed (combustible). - Means of fire-fighting not marked or incorrectly marked (alarm buttons, extinguishers, equipped fire hydrants, etc.). Run over or hit with vehicles: - Distraction of the operator and/or pedestrians. - Reduced space for maneuvering. - Lack of luminous and/or acoustic warnings that warn of the presence of the equipment. - Presence of the operator in the vicinity of the work area of the equipment. - Poor lighting in the working environment. - Not respecting the signs. - Run over by any other vehicle or mobile machinery that moves in its environment without control or preventive measures.

Heights		Fall of people at different levels: - Elevation of people with the equipment. - Absence / deficiency of collective protections against falls of people: railings, lines and / or anchor points. - Unprotected openings and gaps. - Unsafe stairs or steps due to lack of width, uneven step, insufficient footprint or in poor condition. - Absence / deficiency of collective protections against falls of people and objects from work equipment. - Deficiency/absence of marking of gaps, steps or other objects that may cause a fall at different levels - No use of personal protective equipment made available by the company and mandatory use. - Removal or cancellation of protections or safety devices. - Work on trucks.
Efforts		Overexertion: - No mechanization or automation of loading/unloading operations. - Poor storage, packaging, palletizing, stacking, etc. - Forced postures or unstable positions and bad habits or lack of training in safe techniques of handling loads or postures in the driving position of the team. - Forced and inadequate postures in the handling of the equipment. Physical fatigue: - Long working days. - Worker overload (physical fatigue). - Improper design of the work or task. - Monotonous or routine work, without measures to avoid its harmful effect. - Inadequate or non-existent working method

Mobility		Falling people to the same level: - Presence of objects that make the passage unstable. - Difficulty/deficiency in access to the job. - Commonly unstable work surfaces - Insufficient space in workplaces or transit areas. - Poor order and cleanliness. - No delimitation between work or transit areas and storage areas or failure to respect established areas. - Poor or inadequate pavement (discontinuous, slippery, unstable, excessively steep, etc.)
Position		Overexertion: - No mechanization or automation of loading/unloading operations. - Poor storage, packaging, palletizing, stacking, etc. - Forced postures or unstable positions and bad habits or lack of training in safe techniques of handling loads or postures in the driving position of the team. - Forced and inadequate postures in the handling of the equipment. Physical fatigue: - Long working days. - Worker overload (physical fatigue). - Improper design of the work or task. - Monotonous or routine work, without measures to avoid its harmful effect. - Inadequate or non-existent working method
Tension / Anxiety / Stress		Mental fatigue: - Contradictory orders issued by different commanders. - Time pressure. - Personal reasons. - Monotonous or routine work, without measures to avoid its harmful effect

Manipulation		Contacts with caustic and/or corrosive substances: - Absence or deficiency in the procedures for handling or storage of chemical products (substances or preparations). - Presence of dust and SCR in the environment whose control or elimination is not guaranteed. - Chemical products (substances or preparations) capable of producing dangerous reactions (exothermic, toxic, etc.) whose control or elimination is not guaranteed - Flammable or explosive chemical products (substances or preparations), in any physical state, the control or elimination of which is not guaranteed. - Leaks or spills of harmful or toxic chemicals. - Poor packaging and labelling of harmful or toxic chemicals (substances or preparations) used in the event of transfer within the company itself - Absence/deficiency of protections to prevent the generation and spread of harmful or toxic chemical agents (this will include the absence/deficiency of encapsulation devices at the source and in general those that prevent or minimize the release of agents). - Possibility of contact or mixture of incompatible chemical products (substances or preparations) or that can generate a reaction with release of toxic, corrosive products and / or heat. Thermal contacts: - Accidental contact with unprotected hot areas. - Contact with heat sources of the equipment. - Manipulation of elements with electrical voltage. - Handling of machine parts at high temperatures. Electrical contacts: - Failures in the installation of electrical protection of the equipment itself. - Manipulation of elements with electrical voltage. - Absence/deficiency of means to avoid direct electrical contacts (defects in the insulation of the active parts,

		non-existent or ineffective barriers or enclosures, absence or deficiency in the means to hinder the passage or non-compliance with the distances that make up the volume of accessibility). - Accessibility to dangerous machine organs (electrical contact). - Absence or non-functioning of constituent elements of the prevention system against indirect contacts (differential switches due to being inadequate or having been "bridged", grounding, etc.). Bumps/cuts by objects or tools: - Poor order and cleanliness. - Dangerous accessible parts of equipment (cuts). - Selection of tools, tools and auxiliary means not suitable for the work to be done. - Use of the machine in a manner not foreseen by the manufacturer. - Use of tools, tools and auxiliary means in a manner not foreseen by the manufacturer. - Failure to check the condition of machines, tools, equipment or auxiliary means before use. - Improper use of materials, tools or work tools, made available by the company. - No use of personal protective equipment.
Schedules / Conferences		Physical fatigue: - Long working days.
Inner Work		

Exterior Work		Falling objects due to collapse or collapse: - Poor storage, packaging, palletizing, stacking, etc. - Handling of defective material or fractures without preventive and safety control. - Breakage of containers or packages. - Do not keep the safety distance to the load. - Load too high. - Work in adverse weather conditions (heavy rain, fog, etc.). Accidents caused by living beings: Contact or presence of animals.
Continued Oral Expression		

5. Competences

FORMATION

Titration:	Languages:	Other knowledge:

The operator must have training in risk prevention, as established in Law 31/1995 on the Prevention of Occupational Risks and Royal Decree 39/1997, which approves the Regulation of Prevention Services, as well as the specific regulations of application. As mandatory, the training that the operator must receive must contemplate the following points: - Specific training of the position in accordance with article 19 of the LPRL (job position and risks existing in the workplace in which the activity is to be developed). - Specific training for the handling of equipment in accordance with Royal Decree 1215/1997, for the equipment to be used. - Preventive training for the performance of the position of ornamental rock plant operator in benefit establishments. This training includes an initial training of 20h and a subsequent recycling every 2 years with a duration of 5h. - Training in dust control at your workplace. The training must be repeated at least once a year and, in particular, when the worker changes functions, position or place of work. Other training actions, in the field of OHS, necessary for the position can be developed under the following themes: noise, maintenance, action in case of emergencies (fires, evacuation and first aid).		Health and Safety in general and specifications in the company. (Spain, Croatia, Germany and Greece)

WORK EXPERIENCE

Determine if previous experience is necessary for the performance of the position:	YES		NO	X

OTHER REQUIREMENTS

Driving license:	YES		NO	X	Type	
Age:	>	18	<	65		
Own vehicle:	YES		NO	X		
Time Availability	YES		NO			

Workplace:	Factory	Day:	8	Timetable:	Morning or afternoon

REMARKS

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Erasmus+

InclusiveStone: A2-b Questionnaire. Analysis of the job for its adaptation: Truck driver.

Once the jobs that can be occupied by people with disabilities have been identified, the possible adaptations that must be made to ensure accessibility and equal opportunities in the workplace will be evaluated. These adaptations can be both in the physical infrastructure and in the processes and tools used at work.

During the following points, the different factors that must be taken into account in each job, the skills required and the adaptations necessary to guarantee the labor inclusion of people with disabilities in the company are raised. This scheme will serve as a reference tool for personnel selection processes and as a guide for the adaptation of jobs to the specific needs of each employee.

1. General data

POSITION (C.N.O.): Truck driver	**PROFESSIONAL LEVEL:**
TYPE OF CONTRACT MOST USED: (Indefinite, Eventual, Training, Work and Service ...) Indefinite or Autonomous	**DURATION OF THE MOST COMMON CONTRACT:** Usually, permanent contract

Full-time	X	**Part-time**		**Shifts:**	YES X	**Mobility:**	YES
Schedule (continuous, match, morning, afternoon..) Morning, afternoon		**Nº of Hours:**			NO		NO X

REMARKS:

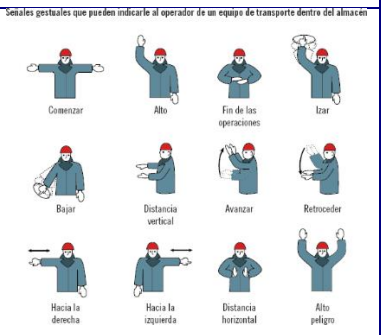
The drivers are responsible for transporting the blocks and boards on the bed of the truck or containers to other production lines, to another part of the mining operation or to maritime loading docks, as well as any place where they are required for their elaboration. The loading of blocks is carried out by the loader operator or with the help of the bridge crane; In the case of boards these are loaded with the help of the bridge crane or even with forklifts.

2. Task analysis

Task No.	Description	% of time
1	Circulation on tracks, accesses and quarry squares (traffic and signaling).	
2	Transport of blocks.	
3	Tire inflation.	
4	Filling of diesel tank.	
5	Cleaning of cabin windows.	
6	Periodicity of general revisions.	
7	Lighting installation	
8	Parking.	

3. Job requirements profile

CAPABILITIES	***Levels:***			**Specific comments:**
	To	**B**	**C**	
Manual dexterity: Ability to perform activities that require coordinated actions, with precision and manual speed	X			Dexterity enough to handle a truck with heavy load.
Displacement: Ability to walk, and or move, using or not some type of equipment.	X			The driver must be able to get in and out of the truck, as well as keep it properly maintained. In addition, you will have to be able and know how to open the doors of the container to be able to enter the load.
Access to transport: Ability to access (physical access) public transport or use a private vehicle		X		It is advisable to have your own vehicle since both quarry and factory are usually displaced from residential areas. Although there may be public or private transport hired by the company. The truck is usually owned or paid for by the company, so it is not necessary to own the vehicle.
Position: Ability to adopt and maintain a certain posture; SITTING, STANDING, OTHERS.	X			The driver has to be able to stay in driving position for many hours, it is important to maintain good posture so as not to be injured.
Strength: Ability to perform physical efforts (physical exercise/loading-handling of weights and/or large objects)	X			It must be possible to open the doors of the container and the effort that this may entail.
Tolerance: Ability to withstand situations that may generate stress, tension and / or mental fatigue	X			Mental fatigue: - Contradictory orders issued by different commanders. - Time pressure. - Personal reasons.
Personal Autonomy: Cap. Act independently, without supervision in activities related to self-care and risk perception.	X			
Interpersonal relationships: Ability to initiate and maintain relationships with other people		X		

Orientation in the environment: Cap. to orient yourself in the environment where you live (neighborhood, city) and use (know and use) public transport (metro, bus)	X			
Money Management: Ability to engage in basic economic transactions			X	Management of delivery notes and loading orders.
Learning: Ability to acquire knowledge, to perform new tasks			X	Skill.
Vision: Cability to recognize and/or distinguish objects and colors.	X			
Hearing: Ability to hear, recognize and/or discriminate sounds	X			
Verbal comprehension: Ability to understand oral messages		X		
Oral Expression: Ability to express oral messages		X		

A: Required
B: Occasionally required
C: Not required

4. Working conditions

FURNITURE AND/OR TECHNOLOGY USED

1.- Furniture
2.- Technology
3.- Tools / Machinery / vehicles Drivers use trailer trucks to transport boards and blocks, these trailers are coupled with a platform on which blocks and boards are loaded, the latter with the help of standardized easels with safety bars. In another variant of transport, intended for shipment over long distances, sea containers are used. Accessory, but not used by the driver, there are overhead cranes and forklifts with their corresponding couplings.

COND. ENVIRONMENTAL AND RISK FACTORS

1.- Accessibility and Barriers

Barriers:	Brief description of barriers:
Yes: X No:	Access to the truck cab. Opening the doors of the truck. Uneven terrain.

2.- Environmental environment: Indicate, when necessary, special characteristics in relation to the following factors:

		Remarks:
Temperature		Exposure to extreme ambient temperatures: Work outdoors or in conditions difficult to control. Thermal contacts: - Accidental contact with hot areas of the engine. - Contact with hydraulic fluids or fuel. - Contact with chemicals that cause burns Thermal stress: Permanence of the operator inside the heated cabin and work outside it.
Humidity		
Lighting		- Lack of lighting in jobs at times of the day when sunlight is reduced or non-existent. - Failures in the vehicle's lighting system.
Noise		- Exposure to a noise level higher than that legally permitted according to Royal Decree 286/2006. - Cabin without sound insulation due to doors in poor condition or broken glass.

Vibrations		- Poor conditions on the ground. - Driver's seat without cushioning capability. - Damping system in poor condition. - Risk of hernias
Environment (cond. Extreme climates, dust, smoke, A. Conditioned).		Exposure to harmful or toxic substances: Contact with battery acids, oils, hydraulic fluids, greases, etc. Exposure to chemical contaminants: - Lack of proper maintenance of the combustion fume evacuation system. - Cab without filtering for fumes and dust particles

3.- Risk Factors: Identify possible risk situations related to the following factors:

Remarks:

Machinery		Falling objects in handling: - Exceeding the load capacity of the truck. - Stands for the transport of unstable loads and/or without safety bars. - Failures in the mooring of the objects to be transported. Falling detached objects: - Falling of materials placed on the truck such as logs, slings, trestles, brushes Footprints on objects: - Presence of objects in passage areas. - Poor lighting. - Objects on the bed of the truck or container (slings, logs, trestles ...). - Poor order and cleanliness Collisions with moving objects: - Simultaneous and uncoordinated work of several work teams in unloading areas. - Do not keep a minimum distance of at least 5 meters. - Work in adverse weather conditions (heavy rain, fog, etc.) that affect your visibility. - Existence of nearby moving work equipment (forklifts, trucks, loaders...). - Objects located or stored near work areas. - Deficiency / absence of signage or other elements necessary for the delimitation of the work area. - Transit through areas not intended for pedestrians. Bumps/cuts by objects or tools: - Poor order and cleanliness. - Contact with sharp edges of the transported boards - Blows or cuts with woods, steel slings or areas with sharp edges such as easels produced by use. - Selection of tools, tools and auxiliary means not suitable for the work to be done. - Improper use of materials, tools or work tools, made available by the company. - Absence of tool protection elements (handle guards, etc.)

Projection of fragments or particles:

- Breakage of small fragments of the loads to be handled with the help of steel or polyester slings, chains...
- Engine hoses breakage.
- Footprint of small stones susceptible to being shot out by the pressure exerted on them.

Entrapment by or between objects:

- Perform maintenance work on moving parts of the running vehicle.
- Entrapment between auxiliary means of lifting equipment and a part or member of the worker.
- Undue permanence in the radius of action of the loading machinery.
- Falling manipulated boards.
- No vertical bars on table stands.
- Poor inclination of the boards to load / unload.
- Falling boards by wind action

Overturning entrapment of machines or vehicles:

- Perform work on surfaces with steep slope.
- Work in the vicinity of a clearing or slope of insufficient resistance.
- Poor or inadequate pavement.
- Overload of the maximum authorized weight.
- Stability defects in equipment, machines or their components.
- Poor distribution of cargo on the trailer or container.

Explosions:

- Improper handling of batteries.
- Explosion caused by tire (overpressure, overload, excessive wear, step of element with sharp edges or sharp edge...)

Fire:

- Engine overheating

Run over or hit with vehicles:

- Lack of luminous and/or acoustic warnings that warn of the presence of the equipment.
- Do not maintain a safety distance of at least 5 meters from other machinery or mobile equipment.

		- Dirty front and rear glass and rearview mirrors affecting operator visibility. - Presence of workers in the vicinity of the team's work area. - Failures of the control organs, brakes, etc., due to lack of maintenance and / or periodic revisions. - Poor handling of equipment due to lack of operator training. - Work in adverse weather conditions (heavy rain, fog, etc.) that affect visibility. - Poor lighting in the working environment. - Getting on or off moving vehicles. - Not respecting the signs. - Insufficient visibility in the driving position of the machine either due to poor design or lack of auxiliary devices that improve visibility when the field of vision is not direct (mirrors, TV cameras). - Unforeseen maneuvers. - Run over by any other vehicle or mobile machinery that moves in its environment without control or preventive measures. - Run over during maneuvers and blows by detached or collapsed objects.
Heights		Fall of people at different levels: - Raising or lowering the truck bed. - Climb stacked blocks. - Access to slopes in quarries. - Going up or down unforeseen places. - Fall from the cabin. - Raise or lower the cabin with your back to it. - Absence / deficiency of collective protections against falls of people: railings, lines and / or anchor points. - Unprotected openings and gaps. - Work next to docks and other slopes. - Transit through areas not intended for drivers.

Efforts		Overexertion: - Incorrect handling of steel slings, chains, wooden planks... - Forced and inadequate postures in driving. Physical fatigue: - Long working days. - Poor conditioning and maintenance of the truck and trailer.
Mobility		Falling people to the same level: - Presence of mud that makes the passage unstable. - Difficulty/deficiency in access to the job. - Usually unstable work surfaces. - Insufficient space in workplaces or transit areas. - Poor order and cleanliness. - No delimitation between work or transit areas and storage areas or failure to respect established areas. - Poor or inadequate pavement (discontinuous, slippery, unstable, excessively steep, etc.)
Position		Overexertion: - Incorrect handling of steel slings, chains, wooden planks... - Forced and inadequate postures in driving. Physical fatigue: - Long working days. - Poor conditioning and maintenance of the truck and trailer.
Tension / Anxiety / Stress		Mental fatigue: - Contradictory orders issued by different commanders. - Time pressure. - Personal reasons.

Manipulation		Contacts with caustic and/or corrosive substances: Contact with battery acids, oils, hydraulic fluids, greases, etc. Vibrations: - Poor conditions on the ground. - Driver's seat without cushioning capability. - Damping system in poor condition. Thermal contacts: - Accidental contact with hot areas of the engine. - Contact with hydraulic fluids or fuel. - Contact with chemicals that cause burns. Electrical contacts: - Accidental contact with overhead or underground power lines in tension. - Manipulation of elements with electrical voltage. - Absence/deficiency of means to avoid direct electrical contacts (defects in the insulation of the active parts, non-existent or ineffective barriers or enclosures, absence or deficiency in the means to hinder the passage or non-compliance with the distances that make up the volume of accessibility). - Contact with low or high voltage power lines with the work equipment due to lack of signaling and organization. - Absence or non-functioning of constituent elements of the prevention system against indirect contacts (differential switches due to being inadequate or having been "bridged", grounding, etc.). Bumps/cuts by objects or tools: - Poor order and cleanliness. - Contact with sharp edges of the transported boards - Blows or cuts with woods, steel slings or areas with sharp edges such as easels produced by use. - Selection of tools, tools and auxiliary means not suitable for the work to be done. - Improper use of materials, tools or work tools, made available by the company. - Absence of tool protection elements (handle guards, etc.).

Schedules / Conferences		Physical fatigue: - Long working days.
Inner Work		
Exterior Work		Falling objects due to collapse or collapse: - Instability of slopes, berms... - Fractures in the rock. - Transported material
Continued Oral Expression		

5. Competences

FORMATION

Titration:	Languages:	Other knowledge:

The operator must have training in risk prevention, as established in Law 31/1995 on the Prevention of Occupational Risks and Royal Decree 39/1997, which approves the Regulation of Prevention Services, as well as the specific regulations of application. As mandatory, the training that the operator must receive must contemplate the following points: - Specific training of the position in accordance with article 19 of the LPRL (job position and risks existing in the workplace in which the activity is to be developed). - Preventive training for the performance of the position of operator of transport machinery, in outdoor extractive activities. This training includes an initial training of 20h and a subsequent recycling every 2 years with a duration of 5h. - Training in dust control at your workplace. The training must be repeated at least once a year and, in particular, when the worker changes functions, position or place of work. Other training actions, in the field of OHS, necessary for the position can be developed under the following themes: noise, maintenance, action in case of emergencies (fires, evacuation and first aid).		Health and Safety in general and specifications in the company. (Spain, Croatia, Germany and Greece)

WORK EXPERIENCE

Determine if previous experience is necessary for the performance of the position:	YES		NO	X

OTHER REQUIREMENTS

Driving license:	YES	X	NO		Type	C
Age:	>	18	<	65		
Own vehicle:	YES		NO	X		
Time Availability	YES		NO			

Workplace:	Factory and Quarry	Day:	8	Timetable:	Afternoon or Morning

REMARKS

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

Erasmus+