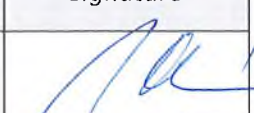
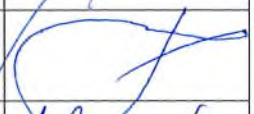







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**Entry of persons and materials in Clean Rooms and their behaviour
in Clean Rooms**

| | Position | Name, Surname | Date | Signature |
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Content

| | |
|--|----|
| 1. Document purpose | 4 |
| 2. Scope area | 4 |
| 3. Terms and abbreviations | 4 |
| 4. Related / Reference and applied documents | 5 |
| 5. Roles, positions and responsibilities | 6 |
| 6. Principles of correct behaviour in the CR | 8 |
| 7. Changing clothes in the CR | 9 |
| 7.1. Prescribed CR clothing for entry into the CR of class ISO 6, ISO 7 and ISO 8..... | 9 |
| 7.2. Prescribed clothing for entry into the CR for cleanliness class ISO 5 | 9 |
| 7.3. Entry of persons into CR of ISO 6 – ISO 8 class of cleanliness | 10 |
| 7.3.1. Special conditions for the use of the personnel airlock LB. 02. 15 | 10 |
| 7.3.1.1. Using the LB personnel airlock LB. 02. 15 and clothes changing | 10 |
| 7.4. Entry of persons to CR via material airlocks LB.02.27, LB.01.14 a LB.00.38 | 11 |
| 7.5. Entry of persons into CR of ISO 5 cleanliness class..... | 11 |
| 7.6. Exit of persons from CR..... | 12 |
| 7.6.1. Exit of persons from CR of ISO 5 cleanliness class | 12 |
| 8. Movement of material/equipment in CR | 12 |
| 8.1. Entry of material/equipment into CR | 12 |
| 8.2. Transport laptops, mobile phones and other phones into CR..... | 13 |
| 8.3. Output of material/equipment from CR..... | 13 |
| 9. Emergency entry into CR | 13 |
| 9.1. Procedure of behaviour in CR in case of a fire alarm | 13 |
| 10. Attachments/List of attachments | 14 |

1. Document purpose

The purpose of this document is the determination of entry rules, movement and exit of persons and materials into and outside of the CR in ELI Beamlines.

2. Scope area

This Directive is valid and binding for personnel entry into the CR of ELI Beamlines.

3. Terms and abbreviations

| | |
|-----------------------------------|--|
| Clean Rooms (CR) | A clean room is an area, in which the concentration of airborne particles is controlled. This space is constructed and used in a way, that particle entry, creation and settling inside CR are minimized. Also according to need other significant parameters for example temperature, humidity and pressure must be controlled. The CR operation is under the guidance of Czech/European Standard ČSN EN ISO 14644. |
| Contamination | Refers to biological, chemical or physical pollution, pollution of the environment and room pollution. |
| Monitoring | All necessary measures are necessary for quality control of clean rooms to guarantee their full functionality. |
| Cleanliness class | Classification of clean rooms according to the maximal acceptable number of particles of respective size in compliance with ČSN EN ISO 14644 standard. |
| Maintenance | A combination of all technical, administrative and managerial actions during the life cycle of an item intended to retain it in, or restore it to, a state in which it can perform the required function. |
| Validation | The validation according to Good Manufacturing Practise (GMP) principles that a procedure, device, activity, or system consistently provides the expected results under predefined acceptance criteria. It is used in processes, purification and analytical methods. |
| Personnel airlock (Changing room) | A type of room that is intended for the entry and exit of people to and from the CR. The personnel airlock is blocked by a crossing bench in two parts. For the part for entering in normal clothes - "dirty part" and for the part for entering in prescribed CR clothes - "clean part". |
| Material Airlock | A type of room that is intended for transferring materials into CR and taking out materials from the CR. The movement of personnel through the material airlock is prohibited. The airlock is divided by a line into two parts. For the part for entering in normal clothes - "dirty part" and for the part for entering in prescribed CR clothes - "clean part". |
| Adhesive/sticky mats | Mats that remove particles from shoe soles or cartwheels. To guarantee the effect, a person should step on the mat at least 2 times with each foot and the wheels of the cart should pass over the mat along its entire perimeter. |

| | |
|---------------------|---|
| Air showers | Air showers are used to enter CR of high cleanliness classes. In an air shower, the air passes through HEPA filters and is transferred into the shower area through holes in the walls (jets) arranged in such a way that a rotating air vortex is created in the shower area. Thanks to this, the particles are effectively separated from the clothes and removed from the shower. The cleaning process starts automatically when a person enters the shower and continues for a defined time, after which the door lock is released, and the person can exit the shower. |
| PPE | Personal Protective Work Equipment |
| Significant defects | Defects that can seriously disrupt or for a long time affect the quality of the CR. |
| Emergency situation | Any abnormal situation, that endangers property, health or life, such as fire, equipment accident or personal injury, etc. If these situations occur, the Emergency Response Directive is followed. |
| EH | Experimental hall |
| LH | Laser hall |
| LB | Laboratory building |
| BIOlab | Biological laboratory |
| VZT | Air Conditioning System |
| MaR | Measurement and regulation system - air conditioning control |
| Pressure cascade | Protective pressure barrier between zones of the CR with different cleanliness classes and between the CR and the surroundings |
| HEPA filter | High-Efficiency Particulate Air - minimum particle capture efficiency is 99.97 % for 0.3 μm particles |
| ULPA filter | Ultra Low Penetration Air - minimum particle capture efficiency is 99.997 % |

4. Related / Reference and applied documents

- | | | |
|-----|--|-------------|
| [1] | ČSN EN ISO 14644 – Cleanrooms and associated controlled environments | |
| [2] | Directive Clean Room Sanitation | ID 00216016 |
| [3] | Metrological order of the BSL2 laboratory | ID 00216603 |
| [4] | Operating rules of the BSL2 laboratory | ID 00329781 |
| [5] | Room cards | |
| [6] | Waste Management | ID 00142895 |
| [7] | CR Monitoring Directive | ID 00255683 |

5. Roles, positions and responsibilities

Area Manager (role)

is responsible for the operation of the hall/laboratory (hereafter owner of the hall). This responsibility is confirmed in the handover protocol. He/she designates the contact person for the hall in writing, requests in writing to change the changing concept, has a determining role in the case of various requirements that may affect the state of the hall and makes requests in writing to change the cleanliness classification. The Area Manager is informed about accidents, long-term bad monitoring results and significant defects.

Contact Person for the hall (role)

must be determined in writing by the Area Manager. The contact person communicates with the CR department in case of extraordinary requirements for cleaning, monitoring, change of dressing concept, or loan of a particle measuring device. The contact person for the hall can authorize another employee in writing as his representative. The contact person is also responsible for information transfer between the ELI departments, the CR department and other users of the room. He/she cooperates in case of unsatisfactory measurement results. The contact person participates in the investigation of reasons and corrective measures and in iAudit.

Clean Room Team Leader (position)

is responsible for the operation of the entire CR Department. He/she coordinates cleaning and monitoring activities. Within the competence of the CR, the CR Team leader coordinates the way of entry, movement and clothing of service, construction and installation companies in the premises of the CR. The CR Team Leader is also responsible for information transfer between the CR Dept. and other users of the rooms. CR Team Leader handles changes in the CR area according to the management's requirements. The CR Team leader can entrust another employee with this responsibility. In addition, the CR Team Leader creates a sanitation plan and plans extraordinary sanitation and cleaning. CR Team Leader is responsible for compliance with the scope and sanitation frequency and manages and controls sanitation workers.

The CR Team Leader is also responsible for monitoring the environment and observing the frequency of measurements from the point of view of the CR quality including verification of the measurement results. In case of unsatisfactory measurement results the CR Team Leader approves corrective measures.

Clean Room Specialist (position)

represents the CR Team Leader. He/she is the contact person, especially for the leaders of individual teams, in case of emergency sanitation, cleaning or accidents in the CR area as specified in this Directive. The CR specialist ensures the training plan and conducts training. Also, he/she performs CR control activities including Audits.

Quality Control (QC) Area Technologist (role)

Performs monitoring of the CR environment according to Standard ČSN EN ISO 14644, processes and evaluates measurement data. The QC Area Technologist is responsible for preparing the CR monitoring plan, evaluating the measurement results and sending the measurement results to the Contact person of the respective hall. In case of unsatisfactory measurement results, he/she proposes corrective measures and cooperates in their implementation. The QC Area Technologist performs preventive maintenance and checks measuring devices. He/she ensures calibration and servicing of measuring devices according to the Metrological Order [3]. The QC Area Technologist is the contact person, especially for the Contact persons of the halls, in case of extraordinary cleanliness measurements. Also, The QC Area Technologist conducts particle counter training.

Sanitary workers (position)

They are responsible for the general implementation of cleaning and disinfection work, and for compliance with the frequency of cleaning according to the Sanitation Plan. They are also responsible for standard cleaning and disinfection work in individual halls, according to the instructions of the Area Manager or Contact Persons for individual halls. The frequency of cleaning is described in the Sanitation Plan and the Activity Record must be documented electronically by Sanitation workers in the Shift Report table. Sanitation workers are also responsible for waste disposal according to the directive of the Department of Safety Waste Management [6]. Sanitation workers are responsible for the re-equipment of operating personnel with clothing and PPE for CRs.

Maintenance (Building and Equipment) Group Leader (position)

is responsible for the operation of air ventilation systems, preventive maintenance and servicing of equipment. In case of unsatisfactory results or service work, he/she cooperates with the CR Department.

Other room users (role)

They are responsible for maintaining cleanliness, order and waste sorting at their workplace (see Waste Management [6]). They can not bring inappropriate material, food and drinks into the CR and must comply with all the provisions of this Directive. They must not manipulate the particle counters in any way. In rooms with technical equipment in the sense of operational safety, the operating staff is responsible for the exact (verbal or written) specification of the section to be cleaned or monitored and must ensure that sanitary workers are not endangered (in the sense of fire protection and work safety).

Other room users are divided into two categories:

1. Employees of ELI Beamlines in Dolní Břežany must comply with:

- enter the CR only within the scope of the identification card input settings;
- undergo training for Entry of persons and materials into Clean Areas and Clean Area Behavior at ELI BL;
- dress in the CR according to the valid changing concept, including a cap of the appropriate colour (in this case, a white cap applies);
- behave in the CR according to the rules of behaviour in the CR;
- in the case of planned activities that could affect the operation of the CR and their quality, it is necessary to inform the CR Team Leader or the CR Specialist in advance in writing by e-mail (names of persons, date, room, reason, time requirement);
- without proper training, they can only move into the CR accompanied by a person who has completed the B (extended) training prescribed for entering the CR.

2. External employees

These are personnel who enter the CR for the purpose of long-term work and other activities, mainly related to research or technology installation. These are, for example, external users, part-timers, students on internships or suppliers, and construction or installation companies that come to CR repeatedly, for example for services, repairs and installations.

Must comply with:

- enter the CR only within the scope of the identification card input settings;
- undergo training for Entry of persons and materials into Clean Areas and Clean Area behaviour at ELI BL;
- dress for the CR according to the valid changing concept including caps of the appropriate colour such as a blue cap for external suppliers, a yellow cap for external users and a green cap for students;
- behave in the CR according to the rules of behaviour in the CR;
- entry must be agreed in advance with the Area Manager of the space and the Head of the CR team;
- in the case of planned activities that could affect the operation of the CR and their quality, the CR team leader or the CR Specialist must be informed in advance in writing by e-mail (names of persons, date, room, reason and time requirement);
- without proper training, they can only move into the CR accompanied by a person who has completed the B (extended) training prescribed for entering the CR.

3. Visits

These are persons who enter the CR for the purpose of short-term service work and other activities related to the operation of the centre, as well as one-time groups, e.g. control authorities, etc.

Must comply with:

- entry must be agreed in advance with the Area Manager where the visit is planned;
- inform the Head of the CR team or the CR Specialist in advance (names of persons, date, room, reason

and time requirement), for example by Help Desk or e-mail;

- dress for the CR according to the valid changing concept including caps of the appropriate colour, in this case, visitors wear an orange cap;
- behave in the CR according to the rules of behaviour in the CR;
- must always move into the CR only accompanied by a person who has completed training B (extended), prescribed for entering the CR.

4. Mass groups – excursions

Mass group means a visit of 8 or more people who visit the CR during one working day.

Must comply with:

- inform the CR Team Leader or CR Specialist (names of persons, date, room, reason and time requirement) at least 5 working days in advance, for example by Help Desk or e-mail;
- entry must be agreed in advance with the Area Manager where the visit is planned;
- dress for the CR according to the pre-agreed changing concept including caps of the appropriate colour (in this case visitors wear an orange cap);
- behave according to the principles of behaviour in the CR;
- visitor must always move into the CR only accompanied by a person who has completed the B (extended) training prescribed for entering the CR.

Note: The changing concept must be agreed in advance between the CR Team Leader and the Area Manager of the relevant hall to which the visit is planned.

6. Principles of correct behaviour in the CR

- only the absolutely necessary number of workers moves in the CR;
- persons moving in the CR must be dressed in the prescribed clothing. It is not allowed to put down or unbutton parts of clothing or sleeves;
- eating, drinking, smoking and chewing is not allowed in the CR;
- personal items such as briefcases, jewelry, wristwatches, keys, etc. must remain in the locker rooms. Keys that are related to the work of workers entering the CR (e.g. to cranes, platforms, etc.) are allowed to be brought in, but must be treated with a disinfectant solution before entering the CR;
- all doors must remain after entry or leaving closed premises;
- any oral negotiations with persons outside the CR must be conducted by telephone or communicator, not through airlocks;
- rapid movements during critical work steps should be avoided;
- in the case of soiling or tearing of clothing, it is necessary to change the clothing immediately - at the latest after the end of the work step;
- in individual cleanliness classes, it is advisable to use your own transport carts and your own cleaning equipment, tools and utensils;
- after finishing the work step, the worker is obliged to clean the workplace;
- workers do not lean against walls or other equipment;
- workers do not manipulate equipment and technology for which they have not been authorized to handle (e.g. opening service holes, folding ceiling boards);
- ban on bringing in and storing unsuitable materials (e.g. wood, cardboard).

7. Changing clothes in the CR

7.1. Prescribed CR clothing for entry into the CR of class ISO 6, ISO 7 and ISO 8

Consists of:

- one-piece overall made of fibres/lint-free materials;
- alternatively, two-piece set made of fibres/lint-free materials (the clothing pattern is in Appendix No. 7.a), normally used in the Experimental Hall E1 and for short visits with external guests.
- disposable caps (appropriate colours);
- disposable beard cover;
- disposable gloves;
- prescribed footwear or shoe covers;

Everything is intended only for CR. The clothing pattern is in Appendix No. 7 of this Directive.

Prescribed clothing for entering the CR for cleanliness class ISO 6, ISO 7 and ISO 8 is replaced by workers after 7 days, in case of damage or contamination immediately.

Persons enter the CR exclusively through the personnel airlock. The personnel airlock is divided by a crossing bench into a "dirty part" intended for entry in normal clothing and a "clean part" intended for entry in prescribed clothing to ISO 6 - ISO 8.

In the case of assembly, construction or other work, during which suits could become heavily soiled, lockers with suits intended for "construction and installation work" are marked in the personnel airlocks.

If the entry in a coat, cap, shoe covers and gloves is discussed with the Head of the CR team at the entrance of the Mass group, it is necessary to supplement the changing concept with long trousers.

The dressing-up concept is given in Room Cards [5].

7.2. Prescribed clothing for entry into the CR for cleanliness class ISO 5

Consists of:

- underwear – blouse, trousers;
- prescribed footwear or shoe covers;
- 2 pairs of disposable gloves;
- disposable cap (appropriate colour);
- beard cover;
- face mask
- one-piece coverall with hood made of fibres/lint-free materials;
- washable high shoe covers

Everything is intended only for CR ISO 5. The clothing pattern is in Appendix No. 8 of this Directive.

The prescribed clothing for entry into the ISO 5 CR is replaced by workers with new or washed ones. Overalls and washable covers are changed with each entry, and underwear after 7 days, in case of damage or contamination immediately.

Persons enter the CR exclusively through the personnel airlock. The personnel airlock is divided by a crossing line into a part intended for entry in underwear and a part intended for entry in prescribed clothing to ISO 5.

In exceptional cases, it is also possible through a material airlock, see chapter 7.4.

7.3. Entry of persons into CR of ISO 6 – ISO 8 class of cleanliness

Persons entering the CR are obliged to follow the following instructions:

- before entering the personnel airlock LB.02.15, use sleeves or a shoe cover machine, Appendix No. 11;
- before entering, it is necessary to first make sure that the personnel airlock is free and that all doors are closed, i.e. the green light is on;
- enter the personnel airlock. The airlock is divided by a bench and a line into a "dirty" zone and a "clean" zone - ISO 8;
- put away personal belongings, including jewelry and clothes that are not worn under work clothes, in one of the staff lockers on the "dirty" part of the airlock in front of the bench;
- store the mobile phone in a zip resealable plastic bag;
- fasten long hair;
- wash your hands with soap, see Attachment No. 10, and dry them with a paper towel on your hands;
- put on a protective cap of the appropriate colour;
- from the "dirty" zone, prepare white shoes for the CR behind the bench;
- men will use a beard cover;
- sit on the bench, take off your own shoes, put them on the shelf under the bench, and turn your feet over to the space behind the bench, where the other shoes for the CR are prepared. Workers who do not have dedicated CR shoes in their personnel airlock will wear shoe covers over their own shoes;
- put on the overalls; when putting them on, the sleeves and trousers must be held so that they do not touch the floor;
- keep the entrance card around the neck under the overalls, or take it out of the case and store it in the sleeve pocket of the overalls;
- put on gloves;
- check clothes, protruding hair or beard in the mirror before entering;
- enter the CR;
- check the closed door - it is necessary to make sure that the door fits into the lock after leaving the airlock

7.3.1. Special conditions for the use of the personnel airlock LB. 02. 15

Personnel airlock LB. 02. 15 is intended for the passage of persons from the unclean area to the CR of cleanliness class ISO 8. This personnel airlock serves for the entrance to part LB (access corridor to ISO 5 laboratories), but also to part LH (access corridor to experimental halls). The rules for entering LH premises are the same as in chapter 7.1. and 7.3. A specific dressing concept is set for entering LB spaces, which includes the requirements for dressing for entering an ISO 5 area. This procedure is described below in chapter 7.3.1.1.

7.3.1.1. Using the LB personnel airlock LB. 02. 15 and clothes changing

Persons entering the CR of cleanliness class ISO 5 are obliged to follow the following instructions:

- before entering the personnel airlock LB.02.15, use shoe covers or a shoe cover machine, Appendix No. 11;
- before entering, it is necessary to first make sure that the airlock is free, i.e. whether the indicator lights up green;
- enter the personnel airlock;

- choose an empty cupboard and place personal belongings, jewelry and clothes on the bottom shelf;
- store the mobile phone in a zip resealable plastic bag;
- wash your hands with soap, see Attachment No. 10, and dry them with a paper towel on your hands;
- put on a cap of the appropriate colour and a beard cover for men;
- prepare blue clothing (blouse and trousers) on the bench;
- sit on the bench, take off your own shoes and put them on the shelf under the bench, turn your legs over to the space behind the bench and put on your shoes for the CR. Workers who do not have dedicated CR shoes in their personnel airlock will wear shoe covers over their own shoes;
- put on blue clothes (blouse and trousers);
- keep the entrance card around the neck under the blue blouse;
- put on gloves;
- check clothes, protruding hair or beard in the mirror before entering;
- enter the area of corridor LB.02.12 through material airlock LB.02.27;
- check closed doors - it is necessary to make sure that the door fits into the lock after leaving the personnel airlock.

7.4. Entry of persons to CR via material airlocks LB.02.27, LB.01.14 a LB.00.38

Persons may enter the CR through the material airlock only if entry through the personnel airlock is not possible.

Persons entering the CR through the material airlock are obliged to follow the following instructions:

- follow the procedure for the entry of persons into the CR according to Chapter 7.
- observe the entry rules when crossing the dividing line;
- when people enter, the material airlock replaces the personnel airlock. It is therefore forbidden for the process of weighing, unpacking, or cleaning the material to take place at the same time as the person entering.

7.5. Entry of persons into CR of ISO 5 cleanliness class

To enter the area of cleanliness class ISO 5 on the 2nd underground floor of the laboratory building, the personnel airlock is used LB. 02. 08. The worker enters this personnel airlock dressed in blue clothing, shoes for CR, a cap of the appropriate colour, gloves and possibly a beard cover.

Persons entering the CR of cleanliness class ISO 5 are obliged to follow the following instructions:

- before entering, make sure that the personnel airlock is free;
- enter the personnel airlock, the airlock is divided by a bench and a line into ISO class 7 and ISO class 5;
- put on a mask;
- put on overalls up to ISO 5 and put the sleeve loops on the thumbs of the hands. Fasten the zip and secure the hood firmly on the head with the laces. The overalls must not touch the floor when being put on;
- prepare shoe covers up to ISO 5, sit on the bench, and while turning behind the bench, put the shoe cover on one leg and then on the other leg. Take a step behind the other side of the bench only in boots and then tie the boot laces.

- put on gloves so that the other gloves cover the braids on the sleeves of the overalls (the sleeve should not be pulled up during work and expose the skin);
- check your clothes in the mirror before entering the air shower;
- enter the air shower area if the green light is on. A maximum of two workers can enter the air shower to ensure sufficient blowing of the entire body;
- turn slowly when starting the shower;
- after leaving the air shower, check that the shower door is closed (the green light must be on).

7.6. Exit of persons from CR

Persons may leave the CR only through the personnel airlock. Upon departure, persons are obliged to:

- make sure that there is no person entering the CR in the area of the personnel airlock; simultaneous entry and exit through the personnel airlock is not permitted;
- make sure that the green light indicator of the door allowing entry to the personnel airlock is on;
- after entering the part of the personnel airlock and closing the door, take off the prescribed clothing for entering the CR, which will be stored in a plastic bag in the wardrobe in this part of the personnel airlock, or put it into the dirty laundry basket;
- when crossing the bench, take off shoes intended for CR;
- store shoes on one of the shelves in the crossing bench in the personnel airlock;
- take off disposable protective equipment;
- throw disposable items (caps, beard cover, gloves) into the mixed waste bin; keep shoes covered in personnel airlock LB.02.15;
- in the "dirty" part of the personnel airlock, to dress into the clothes and shoes put aside before entering the CR;
- leave the personnel airlock;
- check the door is closed;
- in the corridor, throw shoe covers into the mixed waste bin (refers to personnel airlock LB.02.15).

7.6.1. Exit of persons from CR of ISO 5 cleanliness class

- leave CR ISO 5 through an air shower;
- leave through the personnel airlock LB. 02. 36 to personnel airlock LB. 02. 15;
- follow the procedure for the exit of persons from the CR according to paragraph 7.6.

8. Movement of material/equipment in CR

8.1. Entry of material/equipment into CR

The entry of material into the CR is possible only through the material airlock. Employees must keep the following guidelines:

- before placing the material into the material airlock, it is necessary to remove unnecessary outer packaging from the material and remove dirt and dust from the primary packaging. The material is then put into the material airlock;

- packaging must be placed in the appropriate containers for sorted waste, see Waste Management Directive [6];
- the material airlock is divided by a line into two parts; this line must not be crossed, workers must leave the airlock through the same door as when entering and they must not meet in the area;
- in the first part, the material must be cleaned with an IPA solution and transferred to a transport cart or crate intended for use in the CR, which is located immediately behind the line separating these two parts;
- material in cardboard and wooden packaging must not be transported to CR;
- if a visitor or an external company goes to the CR, the accompanying worker is obliged to ensure sufficient treatment of the material brought in as soon as it enters the material airlock;
- placed material must be picked up as soon as possible to avoid overfilling the material airlock;
- for highly sensitive measuring devices, technically demanding devices, etc., the cleaning must be carried out in agreement with the user or the head of the relevant department.

8.2. Transport laptops, mobile phones and other phones into CR

- The upper part of the laptop is wiped in the material airlock with a towel moistened with IPA solution, and the keyboard is blown with compressed air or vacuumed with a vacuum cleaner with a HEPA or ULPA filter. It is then stored on the "clean" side, where the worker picks it up from the other side after entry through the personnel airlock;
- the portable DECT Phone S5, used internally in ELI Beamlines, is wiped in the personnel airlock with a towel moistened with IPA solution;
- the mobile phone is wiped with a towel moistened with IPA solution in the personnel airlock, or stored in a plastic bag with a quick-closing zipper in the changing room. The plastic bag is waterproof when properly sealed.

8.3. Output of material/equipment from CR

The output of the material is possible only through the material airlock. The material is inserted into the material airlock by the person operating in the CR. It is forbidden to leave the CR area or enter it through the material airlock. The material is removed by a person from the corridor after opening the corridor door of the material airlock (the other door must be closed at the same time).

9. Emergency entry into CR

Emergency entry is possible only in the event of an emergency described in Chapter 3 Terms and abbreviations. An emergency entry is an entry when the principles for entering the CR cannot be followed (entry in civilian clothes, entry in normal work clothes, entry through a material airlock, entry with contaminated material, etc.). It can occur in case of major equipment service repairs, power supply failures, fire, etc.

This situation requires the termination of all ongoing activities in the shortest possible time and the shutdown of the CR. Sanitation must be carried out before putting the CR into operation again. The scope of sanitation is managed by the Head of the CR.

9.1. Procedure of behaviour in CR in case of a fire alarm

When a fire alarm is announced, all persons are required to leave the premises of the CR in the shortest possible time, through the given escape exits and without changing clothes in the personnel airlocks.

After the end of the fire alarm, it is always necessary to return to the personnel airlocks, put the prescribed clothing in the CR into the laundry basket, throw away the cap and gloves and leave the CR shoes in

personnel airlocks for cleaning.

If it is necessary to return to the CR immediately after the termination of the fire alarm, it is necessary to clean the shoes separately in the material airlocks with wipes and IPA disinfection (or use shoe covers and after leaving the CR, leave the shoes in the personnel airlock on the unclean side for cleaning) and take new clean prescribed clothes, shoe covers, cap, beard cover and gloves.

10. Attachments/List of attachments

Attachment No. 1 – Personnel airlock's card – VISUALIZATION – PROCEDURE-LB.00.19

Attachment No. 2 – Personnel airlock's card – VISUALIZATION – PROCEDURE-LB.00.28

Attachment No. 3 – Personnel airlock's card – VISUALIZATION – PROCEDURE-LB.01.13

Attachment No. 4 – Personnel airlock's card – VISUALIZATION – PROCEDURE- LB.02.15 – TO LB (ISO 5)

Attachment No. 5 – Personnel airlock's card – VISUALIZATION – PROCEDURE-LB.02.08

Attachment No. 6 – Personnel airlock's card – VISUALIZATION – PROCEDURE- LB.02.15 – TO LH (ISO 7)

Attachment No. 7 – Pattern of ELI Beamlines clothes used for entry to ISO 6 - ISO 8

Attachment No. 7a) – Pattern of ELI Beamlines alternative clothes normally used for entry to ISO 6 - ISO 8 in E1 or short visits with external guests

Attachment No. 8 – Pattern of ELI Beamlines clothes used for entry to ISO 5

Attachment No. 9 – Coloured caps

Attachment No. 10 – Proper hand washing technique (ČSN EN 1499 a ČSN EN 1500)

Attachment No. 11 – Shoe cover machine

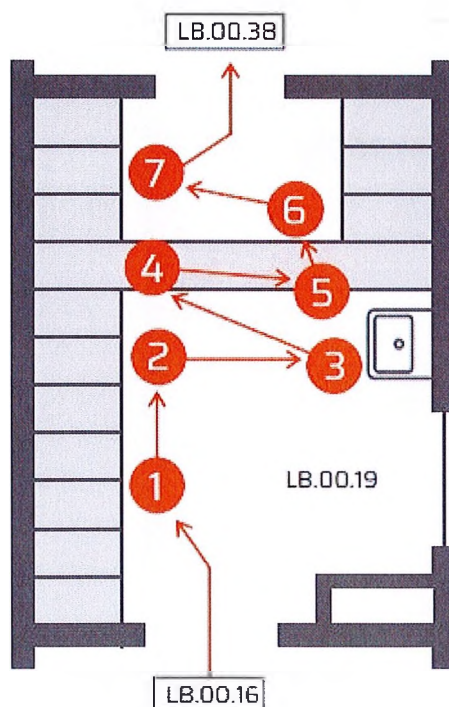
Attachment No. 12 –Table of CR clothes sizes

VIZUALIZACE PŘEVLEKACÍHO KONCEPTU

VISUALIZATION OF DRESS CHANGING CONCEPT

- 1 Vstoupit do šatny a odložit si osobní věci do skříňky
- 2 Telefon uložit do plastového sáčku
- 3 Umýt si ruce
- 4 Obléct si čepičku, vousenku
- 5 Při překročení lavičky obléct boty do ČP/návleky
- 6 Obléct overal do čistých prostor. ID kartu vložit do kapsy rukávu overalu, nebo ponechat na krku pod overalem
- 7 Navléknout si rukavice a provést kontrolu v zrcadle

- 1 Enter the changing room and put your personal belongings into the locker
- 2 Put your mobile phone into a plastic bag
- 3 Wash your hands
- 4 Put on the cap, beard cover
- 5 Put on shoes/shoe covers when crossing the bench
- 6 Put the overal for cleanrooms. Insert the ID card into the pocket on the overall sleeve, or leave it on the neck under your overall
- 7 Put on the gloves and check yourself in the mirror

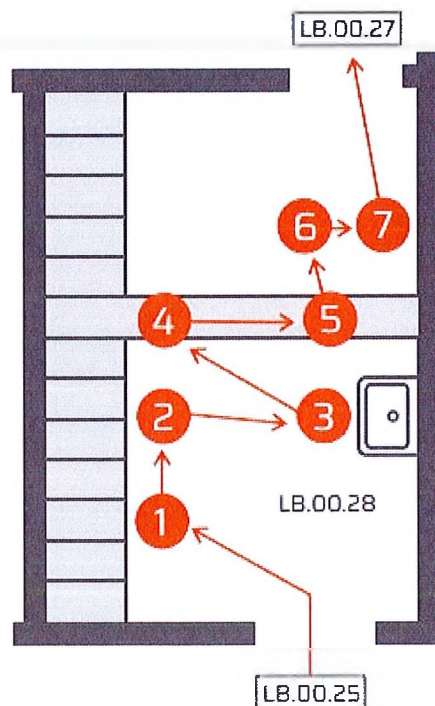


Attachment No. 1 – Personnel airlock's card – VISUALIZATION – PROCEDURE-LB.00.19

**VIZUALIZACE
PŘEVLEKACÍHO KONCEPTU**

**VISUALIZATION OF DRESS
CHANGING CONCEPT**

- | | |
|--|--|
| <ol style="list-style-type: none"> 1 Vstoupit do šatny a odložit si osobní věci do skříňky 2 Telefon uložit do plastového sáčku 3 Umýt si ruce 4 Obléct si čepičku, vousenku 5 Při překročení lavičky obléct boty do ČP/návleky 6 Obléct overal do čistých prostor. ID kartu vložit do kapsy rukávu overalu, nebo ponechat na krku pod overalem 7 Navléknout si rukavice a provést kontrolu v zrcadle | <ol style="list-style-type: none"> 1 Enter the changing room and put your personal belongings into the locker 2 Put your mobile phone into a plastic bag 3 Wash your hands 4 Put on the cap, beard cover 5 Put on shoes/shoe covers when crossing the bench 6 Wear the overal for cleanroom. Insert the ID card into the pocket on the overall sleeve, or leave the neck under overall 7 Put on the gloves and make the control in the mirror |
|--|--|

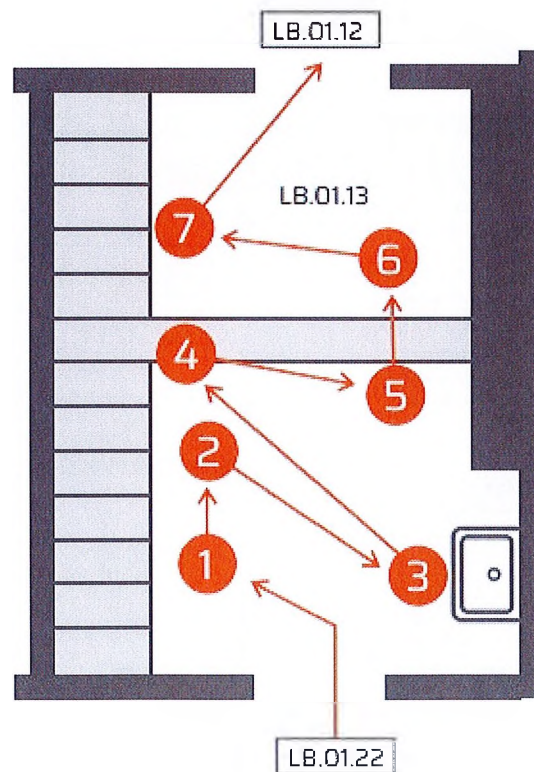


Attachment No. 2 – Personnel airlock's card – VISUALIZATION – PROCEDURE-LB.00.28

VIZUALIZACE PŘEVLEKACÍHO KONCEPTU

VISUALIZATION OF DRESS CHANGING CONCEPT

- | | |
|--|--|
| <ol style="list-style-type: none"> 1 Vstoupit do šatny a odložit si osobní věci do skříňky 2 Telefon uložit do plastového sáčku 3 Umýt si ruce 4 Obléct si čepičku, vousenku 5 Při překročení lavičky obléct boty do ČP/návleky 6 Obléct overal do čistých prostor. ID kartu vložit do kapsy rukávu overalu, nebo ponechat na krku pod overalem 7 Navléknout si rukavice a provést kontrolu v zrcadle | <ol style="list-style-type: none"> 1 Enter the changing room and put your personal belongings into the locker 2 Put your mobile phone into a plastic bag 3 Wash your hands 4 Put on the cap, beard cover 5 Put on shoes/shoe covers when crossing the bench 6 Wear the overal for cleanroom. Insert the ID card into the pocket on the overall sleeve, or leave it on the neck under overalls. 7 Put the gloves on and check yourself in the mirror |
|--|--|

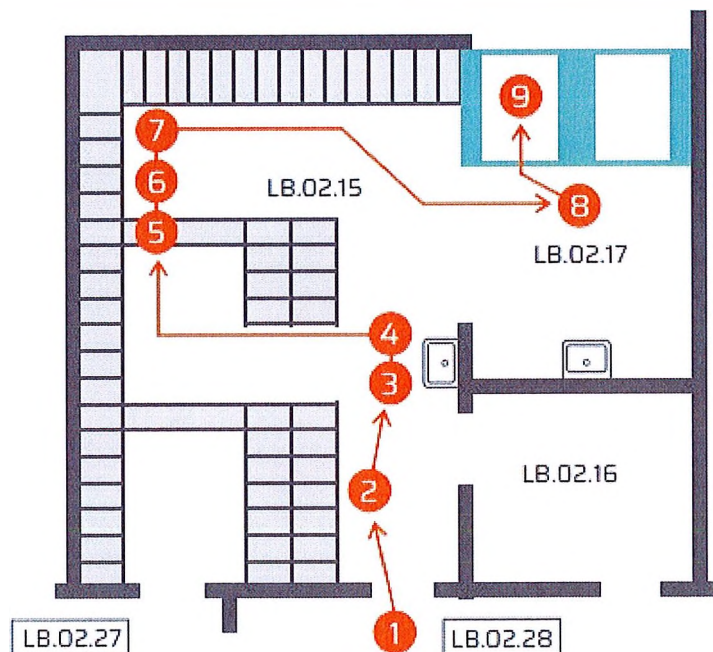


Attachment No. 3 – Personnel airlock's card – VISUALIZATION – PROCEDURE-LB.01.13

VIZUALIZACE PŘEVLEKACÍHO KONCEPTU

VISUALIZATION OF DRESS CHANGING CONCEPT

- | | |
|---|--|
| <ol style="list-style-type: none"> 1 Před šatnou si navléct návleky 2 Vstoupit do šatny a odložit si osobní věci do skříňek 3 Telefon uložit do plastového sáčku a umýt si ruce 4 Obléct si čepičku, vousenku 5 Při překročení lavičky si obléct boty do ČP/návleky 6 Obléct overal do čistých prostor. ID kartu vložit do kapsy na rukávu overalu, nebo nechat na krku pod overalem 7 Navléct rukavice 8 Provést kontrolu v zrcadle 9 Vstup do AIR sprchy | <ol style="list-style-type: none"> 1 In front of the changing room put shoe covers on your shoes 2 Enter the changing room, put your personal belongings into the locker 3 Put mobile phone into a plastic bag, wash the hands 4 Put the cap and beard cover on 5 Put on shoes/shoe covers when crossing the bench 6 Put the overall for cleanroom. Insert ID card into the pocket on the overall sleeve, or leave the neck under the overalls 7 Put gloves on 8 Check yourself in the mirror 9 Entry to the Air shower |
|---|--|



Attachment No. 4 – Personnel airlock's card – VISUALIZATION – PROCEDURE- LB.02.15 – TO LB (ISO 5)

VIZUALIZACE PŘEVLEKACÍHO KONCEPTU

VISUALIZATION OF DRESS CHANGING CONCEPT

VSTUP

- 1 Nasadit roušku
- 2 Na modré kalhoty a halenu obléct overal do ISO 5
- 3 Na obuv nasadit návleky do ISO 5
- 4 Obléct druhý pár rukavic
- 5 Provést kontrolu v zrcadle
- 6 Vstup do AIR sprchy

VÝSTUP

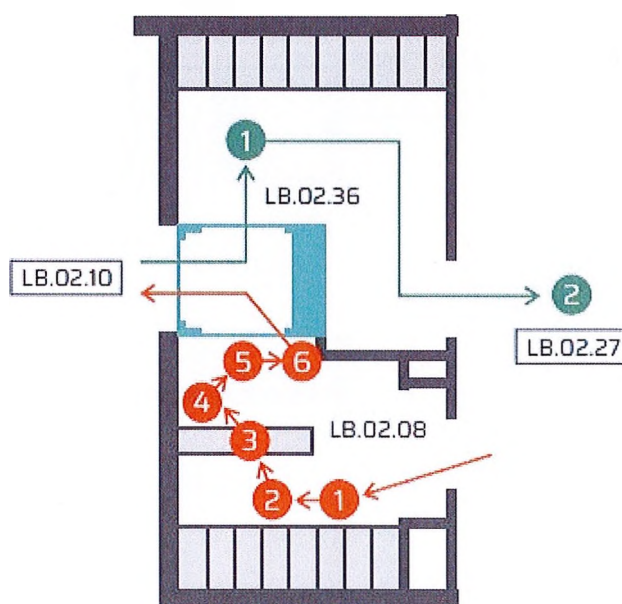
- 1 Přes AIR sprchu vstoupit do šatny. Odejít do prostoru ISO 7
- 2 Návleky, overal, roušku a rukavice sundat a rozřídit do jednotlivých nádob

ENTRY

- 1 Put on the face mask
- 2 Put the overal to ISO 5 on the blue trousers and tunic
- 3 Put shoe covers for ISO 5 on shoes
- 4 Put the second pair of gloves on
- 5 Make the control in the mirror
- 6 Entry to the Air shower

EXIT

- 1 Entry to the changing room over the Air shower. Entry to the ISO 7 area
- 2 Undress and sort the shoe covers, overal, face mask and the gloves to the individually containers



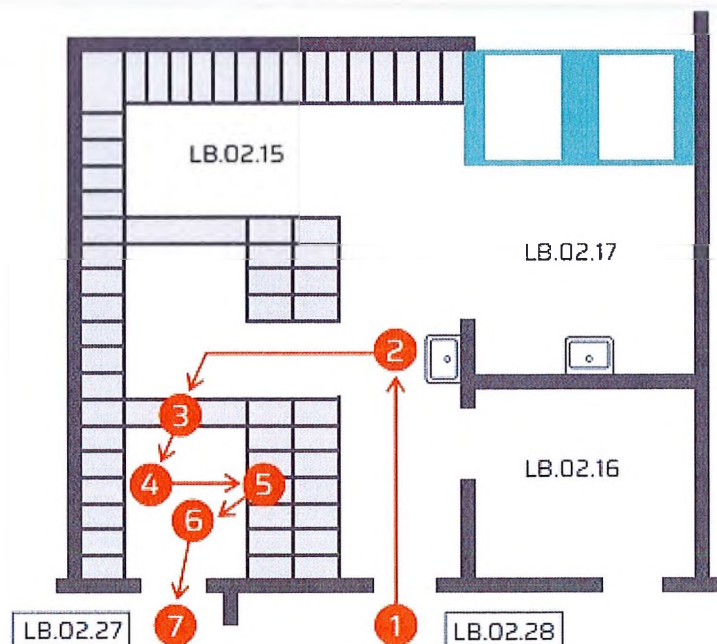
Attachment No. 5 – Personnel airlock's card – VISUALIZATION – PROCEDURE-LB.02.08

VIZUALIZACE PŘEVLEKACÍHO KONCEPTU

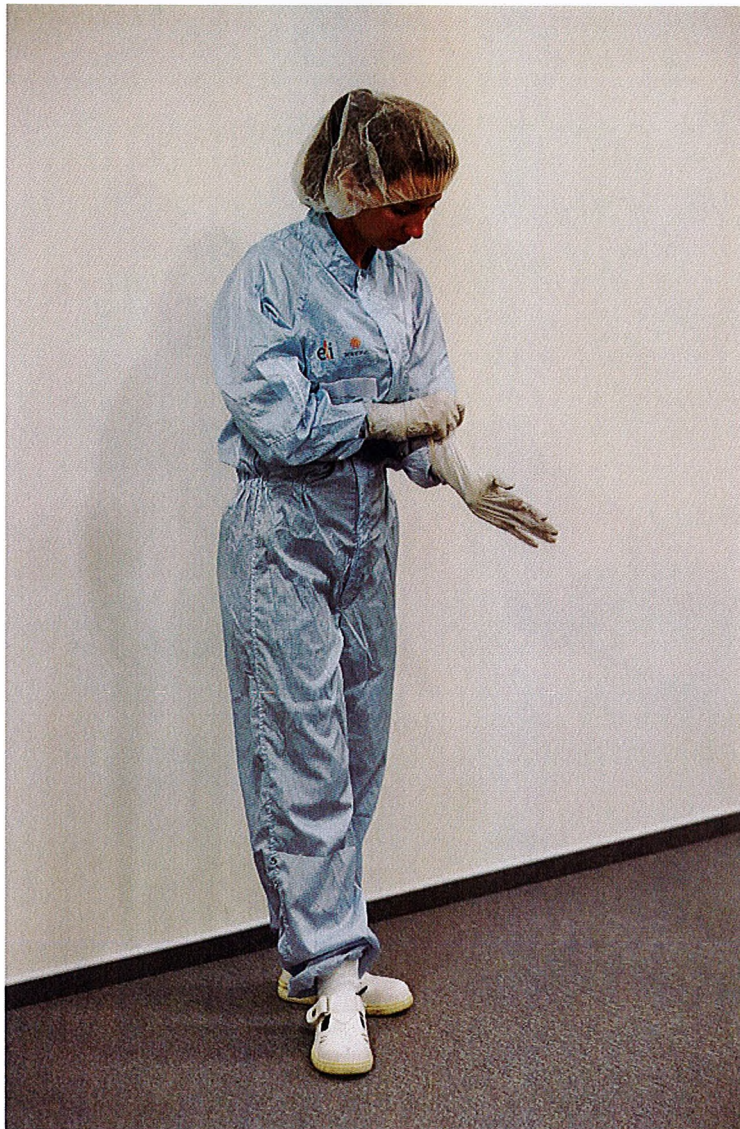
VISUALIZATION OF DRESS CHANGING CONCEPT

- 1 Před šatnou si na boty navléct návleky
- 2 Vstoupit do šatny, vložit telefon do sáčku a umýt si ruce, nasadit čepičku
- 3 Při překročení lavičky si obléct boty do ČP/návleky
- 4 Obléct si modrou halenu a kalhoty, vousenku a první pár rukavic
- 5 Vstupní kartu nechat pod halenou
- 6 Provést kontrolu v zrcadle
- 7 Odchod do prostoru ISO6

- 1 In front of the personal airlock put shoe covers on
- 2 Enter the personal airlock, put your mobile phone to the plastic bag and wash your hands, put on the cap
- 3 Put on shoes/shoe covers when crossing the bench
- 4 Wear on blue tunic and trousers, beard cover and first pair of gloves
- 5 Leave your ID card on the neck
- 6 Check yourself in the mirror
- 7 Exit to the ISO6 area



Attachment No. 6 – Personnel airlock's card – VISUALIZATION – PROCEDURE- LB.02.15 – do LH (ISO 7)









Attachment No. 7 – Pattern of ELI Beamlines clothes used for entry to ISO 6 - ISO 8



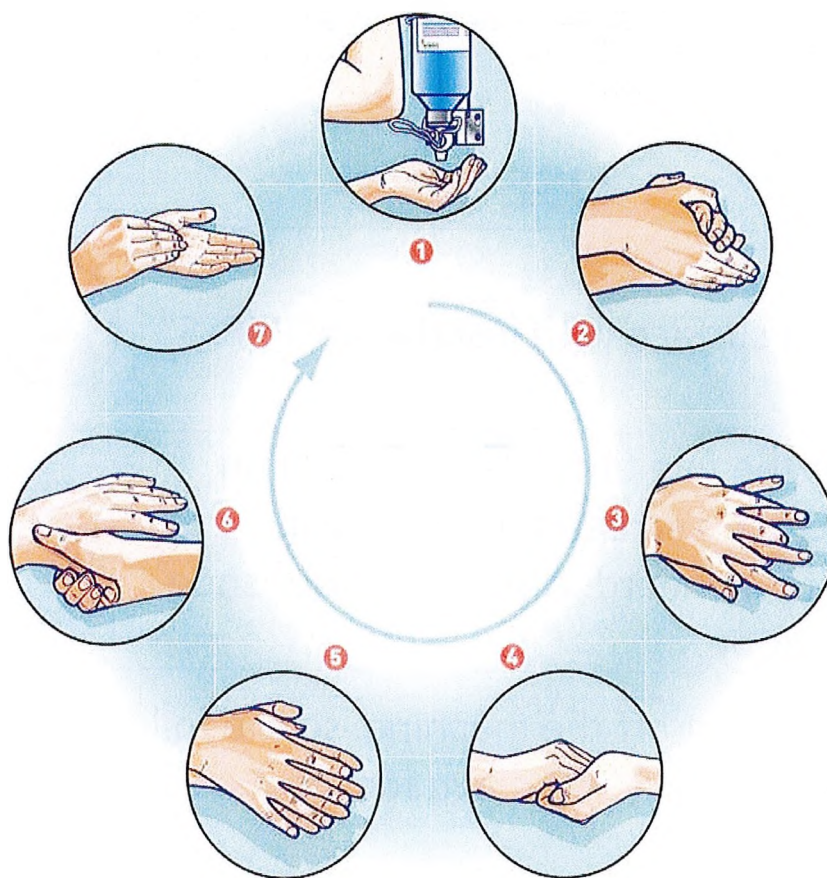
Attachment No. 7a) – Pattern of ELI Beamlines alternative clothes normally used for entry to ISO 6 - ISO 8 IN EXPERIMENTAL HALL E1 AND FOR SHORT VISITS WITH EXTERNAL GUESTS






Attachment No. 8 – Pattern of ELI Beamlines clothes used for entry to ISO 5

| | |
|---|--|
|  | červená vedoucí zaměstnanci ELI Beamlines |
| | red Team Leaders, ELI Beamlines employee |
|  | žlutá uživatel |
| | yellow user |
|  | bílá interní zaměstnanci ELI Beamlines |
| | white internal ELI Beamlines employee |
|  | zelená student |
| | green student |
|  | oranžová návštěva |
| | orange visitor |
|  | modrá dodavatel |
| | blue contractor |

Attachment No. 9 – Coloured caps



Attachment No. 10 – Proper hand washing technique (ČSN EN 1499 a ČSN EN 1500)

| | |
|--|---|
| USE | |
| Stand on surface with inscription "PRESS" |  |
| Wait for the five time fields to fill in on the machine's screen and for a long "beep" to be heard. After that, your shoe cover is done. |  |
| Take your foot off the machine, so the foil can automatically roll down for the next shoe cover. |  |

Attachment No. 11 – Shoe cover machine

| Tabulka velikostí / Table of sizes | | | | | | | | | | |
|---|------------|-----------|----------|---------|---------|---------|----------|-----------|------------|-------------|
| Kombinéza / Overall | | | | | | | | | | |
| Velikosti ELI | T0 XXXS | T1 XXS | T2 XS | T3 S | T4 M | T5 L | T6 XL | T7 XXL | T8 XXXL | T9 XXXXL |
| Max. výška postavy Max. height | 171 | 173 | 176 | 183 | 185 | 190 | 196 | 201 | 205 | 209 |
| Max. obvod hrudníku Max. chest | 102,7 | 108,7 | 114,7 | 120,7 | 126,9 | 132,9 | 138,9 | 144,9 | 150,9 | 157 |
| Max. obvod pasu Max. waist | 90,4 | 96,5 | 101,9 | 107,7 | 112,8 | 118,7 | 124,7 | 130,6 | 136,6 | 142,6 |
| Max. obvod boků Max. hips | 97,7 | 102,8 | 108,4 | 113,9 | 119,5 | 125,2 | 130,7 | 136,4 | 142,1 | 147,8 |

| Návleky na boty ISO 5 / Shoe covers ISO 5 | | | | | | | | | | |
|--|----|---------|---------|---------|---------|---------|---------|---------|----|----|
| Velikost ELI | T0 | T1 | T2 | T3 | T4 | T5 | T6 | T7 | T8 | T9 |
| EU velikosti bot EU shoe sizes | | 36 - 37 | 38 - 39 | 40 - 41 | 42 - 43 | 44 - 45 | 46 - 49 | 50 - 51 | | |

Attachment No. 12 –Table of CR clothes sizes