# 4. MODULE
# ErgoCheck [ISO 12295]

- Introduction
- Data
- Report

# INTRODUCTION

**Scope of application**. The *ErgoCheck [ISO 12295]* module allows you to initially identify, in a qualitative and simple way, the ergonomic and psychosocial risk factors of a company, workplace or task.

The purpose of applying this module is, on the one hand, to provide a map of the potential ergonomic risks factors and obtain initial recommendations to improve them and, on the other hand, to offer information about which risk assessment modules included in ErgoIBV can be used to (quantitatively) assess the risks identified using ErgoCheck [ISO 12295].

**Content**. The module is based on a checklist and is structured in two levels:

- The initial level (Level I: Initial identification) includes 11 basic questions to identify situations that may imply ergonomic and psychosocial risks.
- The intermediate level (Level II: Detailed check) includes up to 104 questions grouped into 11 sections: Manual material handling, Push/pull, Repetitive tasks, Awkward postures, Force, Sensitive workers, Psychosocial aspects, Environmental conditions, Display screens, Design of the spaces and Design of the elements/equipment. At this level, only those sections and questions where any item was marked at Level I are activated. For example, if the item "tasks that imply using display screens for more 2 hours" was marked at Level I, then at Level II the Display Screens subtab will be activated.

Once the workplace or task has been analyzed, the module provides the following results:

- Summary of the items marked, which can be considered as a potential ergonomic or psychosocial risk.
- General recommendations to help to correct the ergonomic problem detected.
- Quantitative methods, included in ErgoIBV, that are recommended to assess the situation, depending on the results obtained.

**Source**. The module is based on the review of reference documentation and normative and on the experience of the IBV research staff in the area of ergonomics and occupational health. The IBV has extensive experience

identifying ergonomic risk factors in many areas and companies. Additionally, we are aware of the importance of making a good identification and data collection of the ergonomic risk factors, which is essential to subsequently perform a rigorous assessment of the ergonomic risks. The data of the different checklist elements were adapted, among others, from the following sources:

- Manual materials handling: ISO/TR 12295:2014 standard.
- Pushing and pulling: ISO/TR 12295:2014 standard.
- Repetitive tasks: ISO/TR 12295:2014 standard.
- Postures: ISO/TR 12295:2014 standard.
- Force: *Manual para la evaluación y prevención de riesgos ergonómicos y psicosociales en PYME (*Manual for the assessment and prevention of ergonomic and psychosocial risks in SMEs.) UNE-EN 1005-3 standard.
- Sensitive workers: In-house development.
- Psychosocial aspects: *Manual para la evaluación y prevención de riesgos ergonómicos y psicosociales en PYME, CoPsoQ-istas21 method* (Manual for the assessment and prevention of ergonomic and psychosocial risks in SMEs, CoPsoQ-istas21 method [Spanish version of the *Copenhagen psychosocial questionnaire].*)
- Environmental conditions: In-house development. *Manual para la evaluación y prevención de riesgos ergonómicos y psicosociales en PYME* (Manual for the assessment and prevention of ergonomic and psychosocial risks in SMEs)
- Display screens: In-house development. *NTP 602* (technical note for prevention by the INSHT).
- Design of spaces and design of elements/equipment: In-house development. *Manual para la evaluación y prevención de riesgos ergonómicos y psicosociales en PYME (*Manual for the assessment and prevention of ergonomic and psychosocial risks in SMEs.).

# DATA

In order to start, select the *ErgoCheck [ISO 12295]* module in the *New Task* window (Figure 1).

This way, you access the main window of this module (Figure 2), where the data are entered.

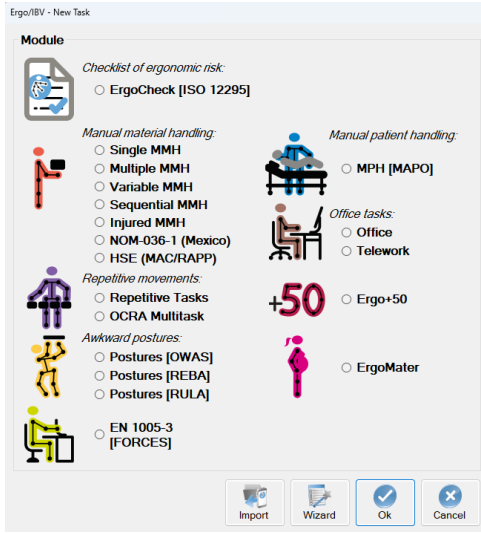



Figure 1. Access to ErgoCheck [ISO 12295] module

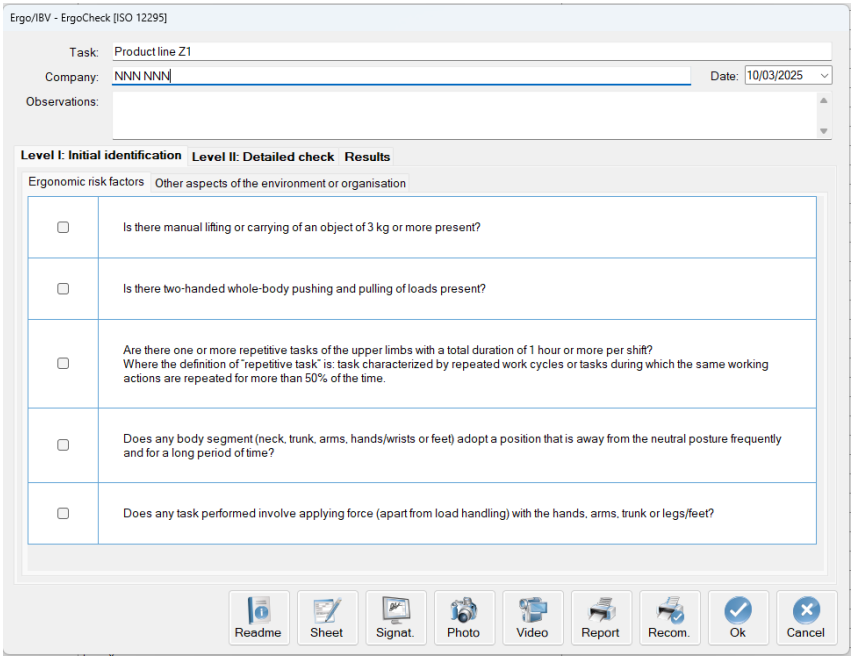



Figure 2. ErgoCheck [ISO 12295] – Main window

**Identification**. The name of the task and the company, the date of the analysis and the appropriate observations are entered in the header.

**Analysis.** The checklist must be completed as follows:

First, the items under the tab **Level I: Initial identification** will be reviewed. There are 11 basic questions to identify situations that may involve ergonomic and psychosocial risks, grouped in two sections:

- Ergonomic risk factors
- Other aspects of the environment or organisation

All the items in the sheet must be reviewed and the relevant box must be checked when this situation exists in the workplace or task under analysis.

Once Level I has been finished, the user can complete the tabs of **Level II: Detailed check** that were activated depending on the items marked in Level I.

The items of Level II are organized in the following sections (see Figure 3):

- Manual materials handling (ISO/TR 12295)
- Pushing and pulling (ISO/TR 12295)
- Repetitive tasks (ISO/TR 12295)
- Postures (ISO/TR 12295)
- Force
- Sensitive workers
- Psychosocial aspects
- Environmental conditions
- Display screens
- Design of spaces
- Design of elements/equipment.

**Notes:**

- The sections and sub-sections of Level II are related to what the analyst has answered in Level I. If Level I is blank, no marked item will appear in Level II and the screen will show the text "No risks detected".

- The following sections involve assessment in accordance with the criteria of ISO/TR 12295:

    - Manual materials handling
    - Pushing and pulling
    - Repetitive tasks
    - Postures

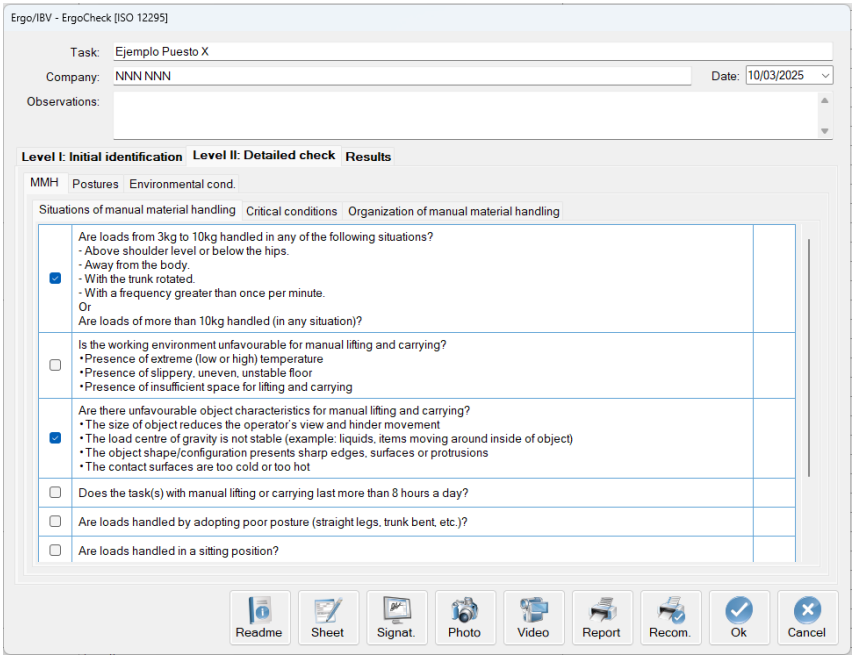



Figure 3. ErgoCheck [ISO 12295] – Sections of Level II

All the items in each section must be reviewed, and the appropriate box must be checked if that factor exists when considering the most usual and/or most unfavorable situation in the workplace or task under analysis.

The data collection can be based on the direct observation of the workers in the workplace or task, on personal interviews with the workers, with the people in charge, with the medical service, with the prevention service of the company (if any), etc. A single item marked in any of the sheets means that the situation may involve an ergonomic risk, which must be further assessed and/or take corrective and/or preventive actions.

**Notes:**

- It is possible to leave the Level II sections blank. This would indicate that no relevant risks have been detected and that the situation is, in principle, acceptable. However, since some potential risk criteria have been ticked in Level I, it is advisable to review the assessment

and, in case of doubt, to carry out an in-depth analysis or a quantitative assessment.

- In the sections where the assessment is made according to ISO/TR 12295 criteria, ticking any of the items considered in the assessment will display additional sub-sections to assess the existence of **critical conditions** and to characterise the **organisation/type of task/activity**. The latter sub-section, if activated, is mandatory.
- In the sections where the assessment is made according to the criteria of ISO/TR 12295, the Level II results may indicate an assessment of the situation in three possibilities:
    - Risk absent / acceptable situation: when no Level II item has been ticked. It is advisable to review the assessment and, in case of doubt, to carry out an in-depth analysis or a quantitative assessment.
    - Risk present: items that may be potential risk factors have been ticked. A detailed analysis of the situation is required.
    - Unacceptable / Critical condition: items have been marked as critical risk conditions. It is necessary to reduce/eliminate the condition immediately. It is recommended to perform a quantitative analysis to see the risk reduction options.
- In all cases, the results, in addition to providing an overview of the potential problems and initial recommendations, they also offer information on the quantitative methods that can be used to assess the ergonomic risks that were detected in the identification phase.

Once Level II has been completed, it is possible to access the **results** tab, which offers the following information:

- **Risk factor**. Aspects marked in Level II that can be considered a potential ergonomic problem.
- **Recommendations** to help to correct the problem detected. General recommendations for each problem are provided by clicking on the  button.
- **Results** (only in the related modules according to ISO/TR 12295 criteria): Assessment of the risk factor:

- RISK: Potential risk factor. Detailed analysis of the situation is required.
- UNACCEPTABLE: Critical condition. The condition needs to be reduced/eliminated immediately. A quantitative analysis is recommended to look at risk reduction options.

- **Recommended modules.** As it is an initial qualitative identification, many of the problems detected (or combinations of them) will require expanding and quantifying the ergonomic risk that the problem identified may imply. In these cases, the software recommends the most adequate ErgoIBV modules to perform an ergonomic assessment of it. By clicking on the button of the recommended module (for example, 

), you can directly access the module and begin the assessment.

**Notes:**

- By pressing the button of the recommended assessment module, an empty task of the module will open, which will take the data used in *ErgoCheck [ISO 12295]* for identification (Task, Company, Observations). The analyst can modify this information if necessary.
- If the changes have not been saved to *ErgoCheck [ISO 12295]*, the system will ask you to save the changes before opening the appropriate assessment module.

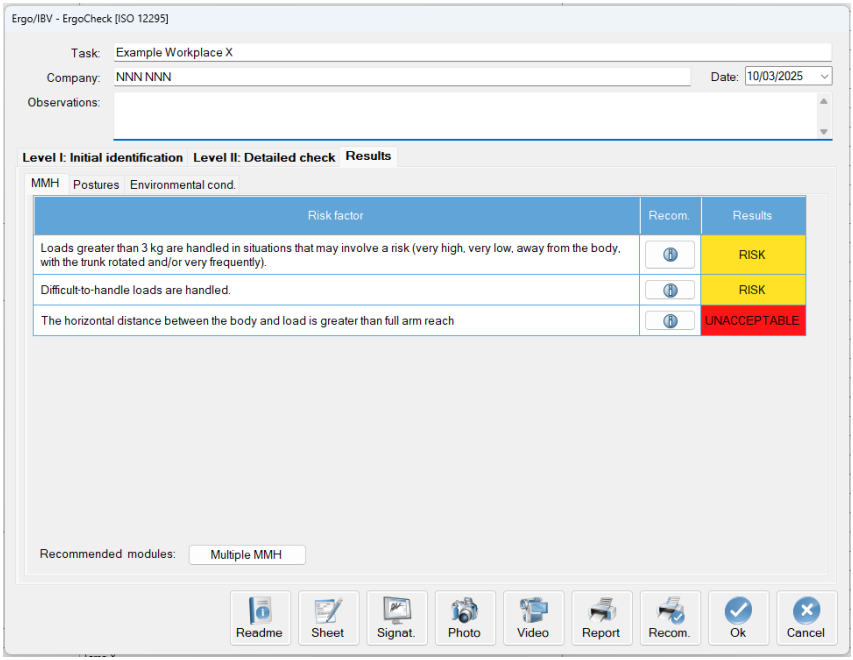



Figure 4. ErgoCheck [ISO 12295] – Results

## Additional features

The lower bar of the main window shows several options that are common to all ErgoIBV modules and other additional and specific features of *ErgoCheck [ISO 12295].*

**Read me**. It opens a pop-up window that shows the simplified instructions for use of the *ErgoCheck [ISO 12295]* module (objectives and how it is applied).

**Sheet.** This feature opens a window where the user can add information to characterize more exhaustively the workplace, task or activity under analysis. The sheet includes the following fields:

- Location of the task being analyzed in the company.
- Task description.
- Number of workers.

- Significant organizational aspects (schedule, shifts, breaks, flexibility, etc.)
- Previous incidents recorded (complaints, accidents, injuries, etc.)
- Previous ergonomic interventions performed (describe).
- Observations on the analysis.

## REPORT

Once the information has been entered, clicking on the *Report* button in the lower part of the main window will open the *task report* window (Figure 5), which contains the following:

- **Identification**. This includes the general data (date, task, company and observations) and an image of the task, if it was previously added. A specific space is included to add the name and signature of the specialist who performed the analysis.
- **Task sheet**. It includes the data of the sheet where the workplace, task or activity under analysis was characterized.
- **Risk factors**. It shows the items that were marked in each section of the checklist organized in sub-sections.

Ergo/IBV
Ergonomic risk assessment

**ErgoCheck [ISO 12295]**

IBV

RISK IDENTIFICATION REPORT

**IDENTIFICATION**

| | |
|---|---|
| Date | 1003/2025 |
| Task | Example WP X |
| Company | NNN NNN |
| Observations | |

Assessment performed by:

**TASK SHEET**

**Location of the task analyzed in the company**

Production Line Z1

**Description of the task**

Tasks at Z1

**RISK FACTORS**

**Manual materials handling**

- Loads greater than 3 kg are handled in situations that may involve a risk (very high, very low, away from the body, with the trunk rotated and/or very frequently). — RISK
- Difficult-to-handle loads are handled. — RISK
- The horizontal distance between the body and load is greater than full arm reach — UNACCEPTABLE

**Static working postures**

- Acceptable situation. No risks related to static postures are detected.
  It is recommended to review the assessment and, in case of doubt, to carry out a quantitative evaluation.

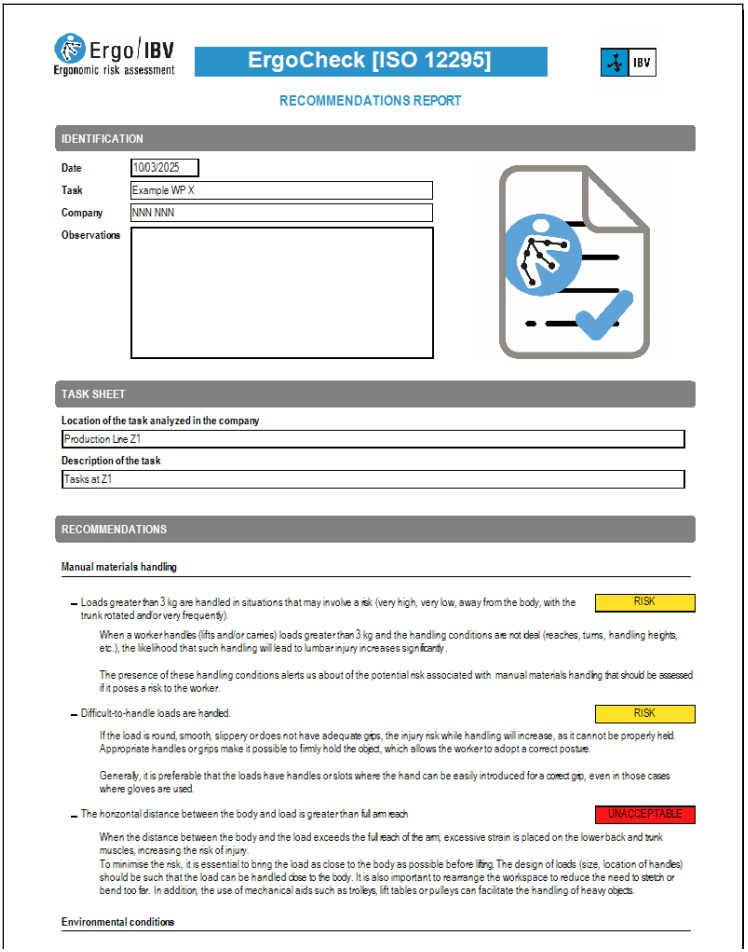
**Environmental conditions**

- There are annoying drafts.

Figure 5. ErgoCheck [ISO 12295] – Identification report

# RECOMMENDATIONS

Clicking on the *Recom* button in the lower part of the main window will generate the *recommendations report* (Figure 6). Together with the **identification** data, **recommendations** to help solve each ergonomic problem detected in the different sections are included here.



Ergo/IBV
Ergonomic risk assessment

ErgoCheck [ISO 12295]

IBV

RECOMMENDATIONS REPORT

IDENTIFICATION

Date 10/03/2025
Task Example WP X
Company NNN NNN
Observations

TASK SHEET

Location of the task analyzed in the company
Production Line Z1
Description of the task
Tasks at Z1

RECOMMENDATIONS

Manual materials handling

– Loads greater than 3 kg are handled in situations that may involve a risk (very high, very low, away from the body, with the trunk rotated and/or very frequently). RISK

When a worker handles (lifts and/or carries) loads greater than 3 kg and the handling conditions are not ideal (reaches, turns, handling heights, etc.), the likelihood that such handling will lead to lumbar injury increases significantly.

The presence of these handling conditions alerts us about of the potential risk associated with manual materials handling that should be assessed if it poses a risk to the worker.

– Difficult-to-handle loads are handled. RISK

If the load is round, smooth, slippery or does not have adequate grips, the injury risk while handling will increase, as it cannot be properly held. Appropriate handles or grips make it possible to firmly hold the object, which allows the worker to adopt a correct posture.

Generally, it is preferable that the loads have handles or slots where the hand can be easily introduced for a correct grip, even in those cases where gloves are used.

– The horizontal distance between the body and load is greater than full arm reach UNACCEPTABLE

When the distance between the body and the load exceeds the full reach of the arm, excessive strain is placed on the lower back and trunk muscles, increasing the risk of injury.
To minimise the risk, it is essential to bring the load as close to the body as possible before lifting. The design of loads (size, location of handles) should be such that the load can be handled close to the body. It is also important to rearrange the workspace to reduce the need to stretch or bend too far. In addition, the use of mechanical aids such as trolleys, lift tables or pulleys can facilitate the handling of heavy objects.

Environmental conditions

Figure 6. ErgoCheck [ISO 12295] – Recommendations report