



**The ideal complement:
Safexpert WEB-Training
„Risk Assessment compact“
in just 2 hours**

Your fast entry into risk assessment

Efficient safety of machinery
and plant with Safexpert

Your fast entry into risk assessment

This brief guide explains how you can directly enter into the risk assessment in a few minutes without initial training. A risk assessment can be performed easily; you do not need a lot of effort. We show you how!

1. Installation of Safexpert

You can install Safexpert with the set up file, which you can download from our website:

www.ibf.at/en/download. With the license code that you receive per Email after your purchased Safexpert, you can unlock the modules. Find details for the set up at our Safexpert User Guide. This guide is located at the Safexpert Setup Folder or you press F1 key in Safexpert.

Login into Safexpert

The first time you start Safexpert you need to create a user account with corresponding data.

Click OK after you typed in your data.

Practical advice: Your user data will be automatically transferred to the relevant points in Safexpert. This avoids repeating a manual entry in the future. Based on your e-mail address Safexpert informs you about important standard changes (depending on the purchased modules).

A window to set up your **Company favourites** will be displayed. Please click on **Cancel** in order to proceed to risk assessment quickly.

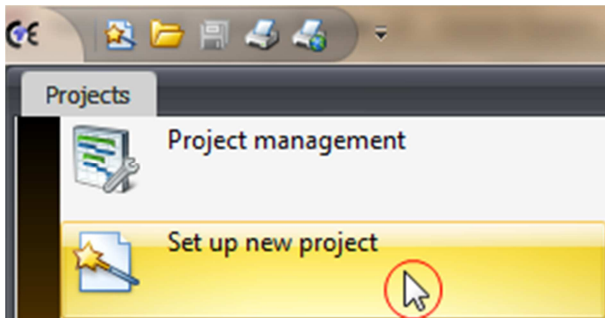
Practical advice: The function "Company Favourites" offers the possibility to set up a company specific standard database in order to ensure that frequently needed standards in your company are found fast. For more information please refer to Safexpert User Guide chapter 11.

WEB-Training „Risk assessment compact with Safexpert“

Our WEB-training `Risk assessment compact with Safexpert` informs you about the methods of risk assessment according to ISO 12100 based on an example from the Technical Report ISO/TR 14121-2.

For more information please visit: www.ibf.at/en/web-training-risk-assessment-with-safexpert

2. Create your first project

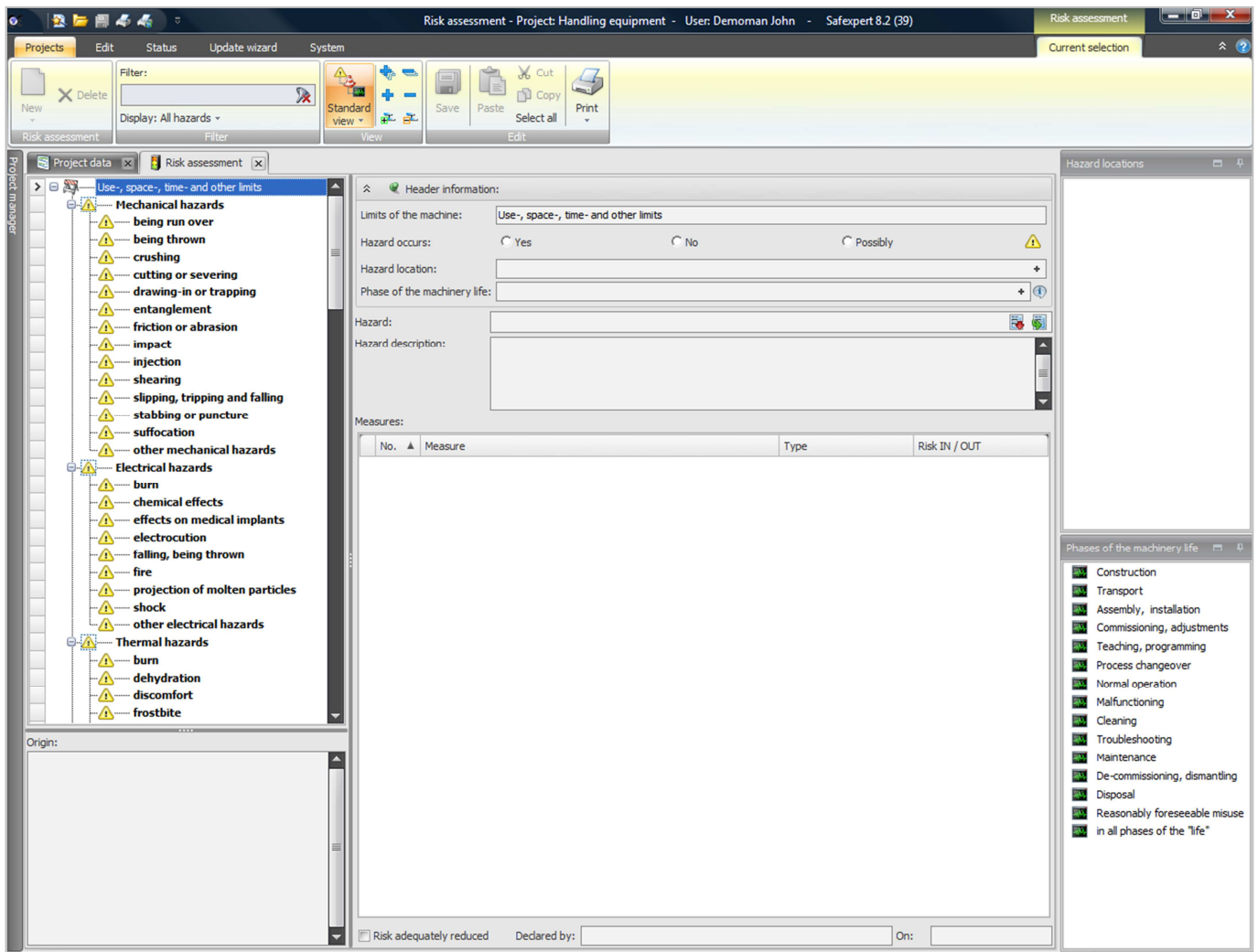


Click the button **Projects** in the main menu and then the command **Set up new Project!**

The wizard creates a new project. This is already the first significant step for risk assessment: Defining the **Limits of the machine**. Please enter all necessary data and proceed to **Next!**

When you click **Complete** in the window of **Defining special properties** Safexpert creates your project and immediately opens the **Risk assessment** window in the default view.

3. Perform risk assessment



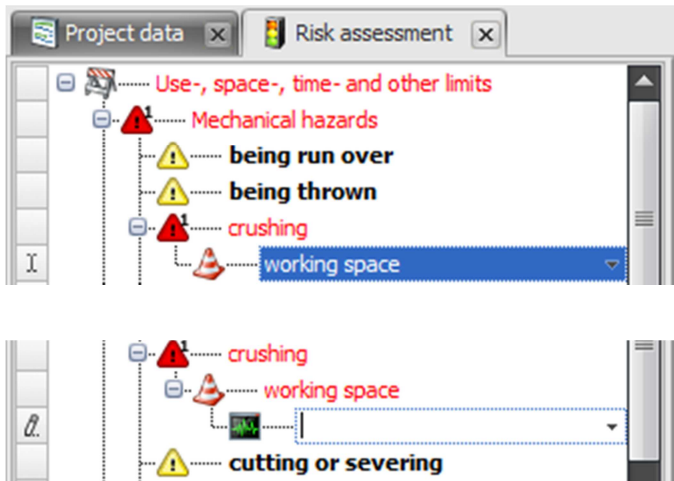
3.1. Identify hazards

In the first process step, you identify all reasonably foreseeable hazards which may occur at various hazard locations and in all life phases, based on the list of hazards from ISO 12100.

Practical example with Safexpert

To illustrate, we will demonstrate the steps of the risk assessment on the following practical example.

1. First, click in the hazards-list on the hazard **Crushing**



2. **Add a hazard location**

Choose from the context menu (right mouse button) the menu item **New > Hazard location** and enter a description, for example: **Working space**.

The new hazard location **Working space** is created under the hazard **Crushing**.

3. **Add a life phase**

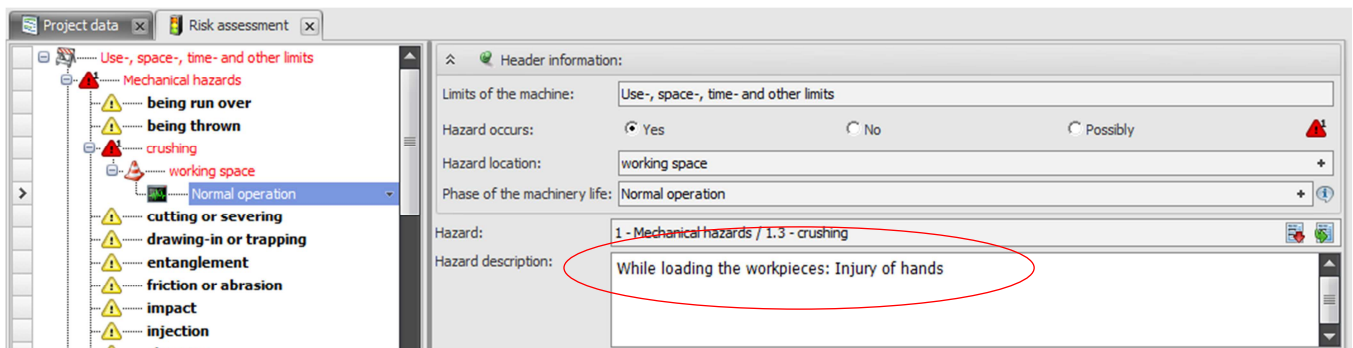
Click now on **Working space** and choose from the context menu the menu item **New > Phase of the machinery life**.

Phase of the machinery life is created under hazard location **Work space**. When you proceed to the drop down menu located on the right, a list of predefined life phases, which are offered by Safexpert, will open automatically. Select from the pull-down menu a life phase for your machinery, for example: **Normal operation**.

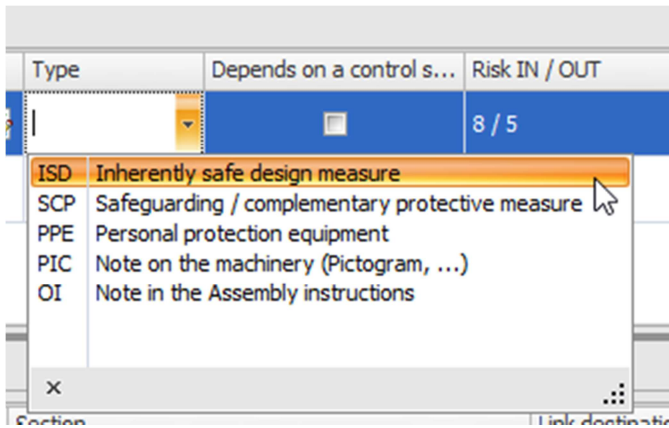
Normal operation is created as a new life phase under the hazard location **Work space**.

4. Hazard description

Describe now the hazard in the input field **Hazard description**:



This defines clearly which hazards occur at which machine position and in which life phase. Repeat this process for all hazards!



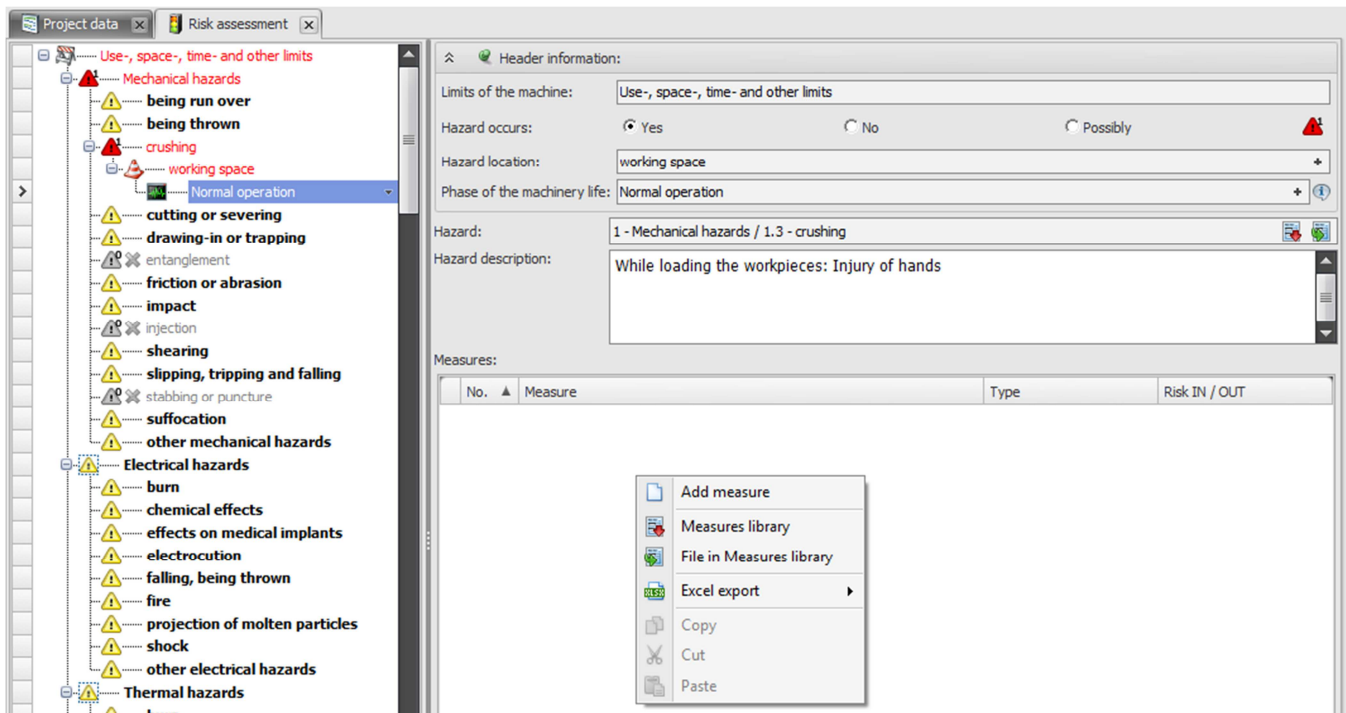
5. Identify non occurring hazards

In order to identify all hazards which definitely do **not** occur on your machine, select this hazards and choose from the context menu **Hazard occurs: No**.

The selected hazards will be highlighted in grey in the hazard tree and therefore are marked as not applicable.

3.2. Risk estimation, risk evaluation, risk reduction

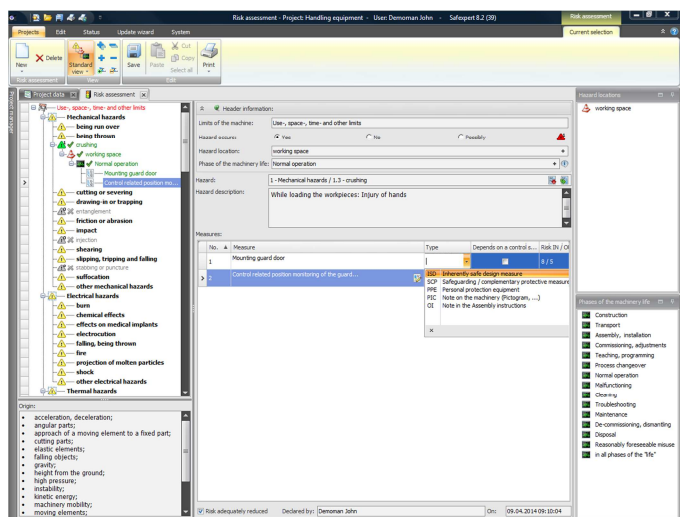
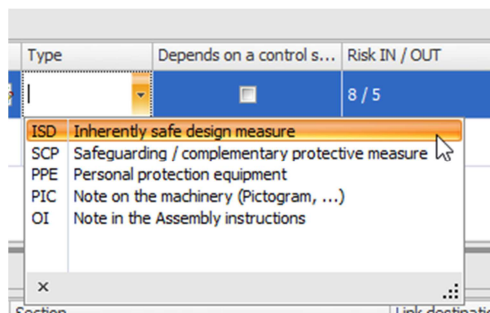
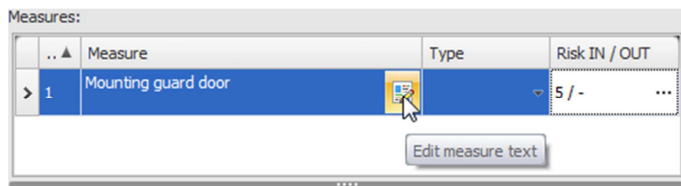
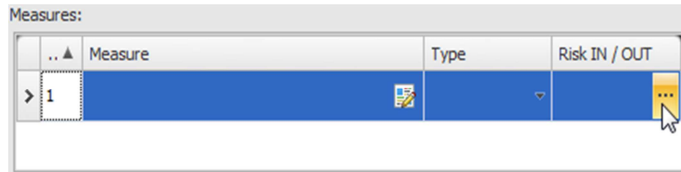
The next step is to estimate the risk for each identified hazard that people are exposed to. Based on this risk, you evaluate which measures are required to reduce the risk.



Please proceed as followed:

1. Add measures:

Now add a measurement to reduce the risk. In the Actions pane **Measures**, select the menu item **Add Measure** from the right-click context menu.



2. Risk estimation

Afterwards define in the **Risk estimation** window the **Risk IN**, which is the risk before you take any measurements into account.

Just click **Risk IN / OUT**!

3. Edit measure text

Click now **Edit measure text** and describe your measurement to reduce, for example: **Mounting guard door**.

4. Edit type of measurement

Next, describe the measurement type in the drop-down menu.

Practical advice: This feature provides more clarity about protective measures. For example, you are able to print all information on residual risk on a separate list. The chance that technical writers will forget important information on residual risk will be reduced.

5. Risk reduction

Is the risk adequately reduced through the measurements? This is an important question that arises.

In order to decide this you need to rate **Risk OUT**, the risk that remains after you took measurements into account.

Click again the field **Risk IN / OUT**!

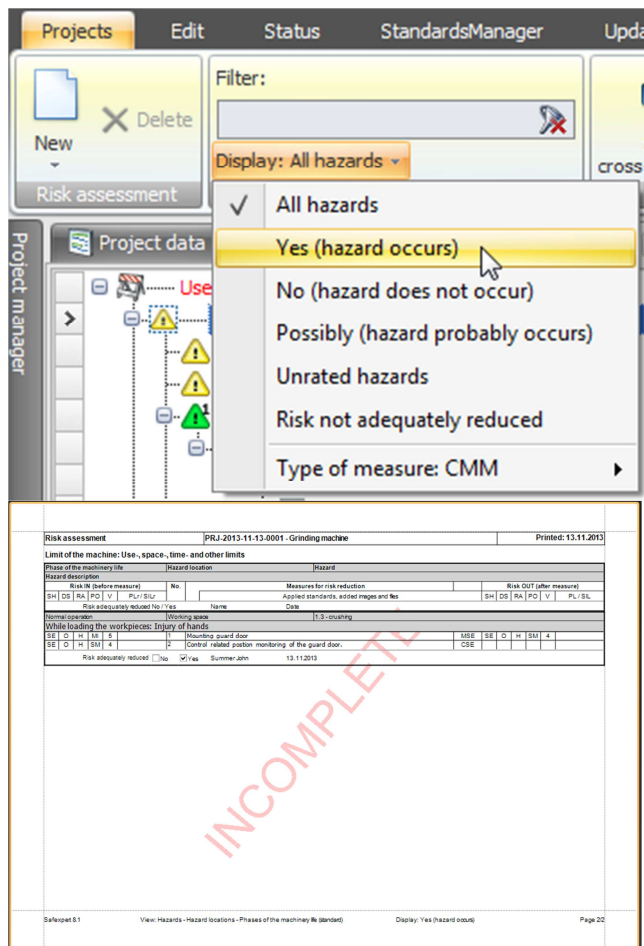
If you think that the risk reduction is sufficient then you do not need to apply any further protective measurements.

If you feel that further measures are necessary, repeat the above procedure for all protective measures. It may be useful in our example to add an additional control-system position monitor. You rate this measure the same way. However, rate it based on the already reached risk value of the guard door.

If you have reduced the risk as far as you consider it necessary, click **Risk adequately reduced!** Now your hazards and your risk reduction measures are described as it is required according to ISO 12100.

3.3. Printout the risk assessment

You can now print out the risk assessment. Safexpert automatically creates a document based on the previous entered information.



1. In filter ribbon click on **Display** and then choose the sub-item **Yes (hazard occurs)**!
This will reduce the printout to the relevant hazards.
2. Then go to **Print**.
3. Select the report template **Risk assessment (based on ISO/TR 14121-2:2012)**!
4. If you click on **Print preview**, a preview of the document will be opened.

The Watermark **INCOMPLETE** points out that the Risk assessment is not yet complete.

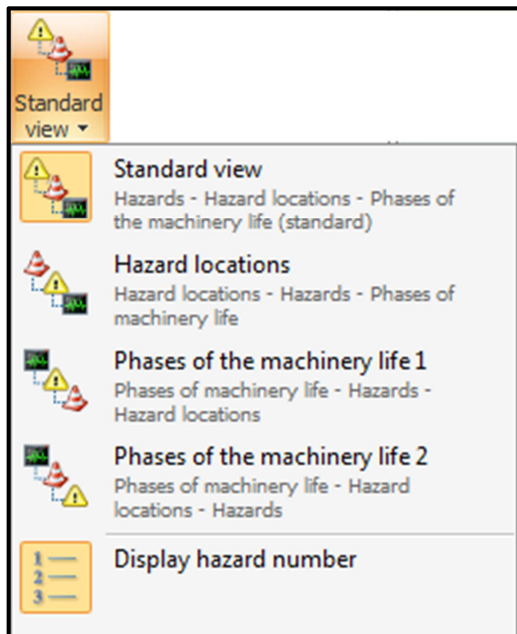
Of course you can customize the template for the printout of the Risk assessment and personalize it with your logo.

You are now familiar with the process of risk assessment. Finally, we would like to introduce to you two possibilities to increase the overview of your risk assessment with the help of Safexpert. This facilities an easy overview of progress. These functions are very useful, if the risk assessment is performed within a team parallel to the design- and planning processes!

Benefits of safety integration into the design process

Your risk assessment meets the requirements of the Machinery Directive only when it is organized as an "iterative" process. The "iterative" process needs to be implemented by all involved designers parallel to their daily planning activities. This is the best way to integrate the risk assessment into your work and also to avoid subsequently expensive adjustments!

3.4. Maximum overview of risk assessment



Different views for risk assessment

View by Hazard location:

During the design phase you eliminate hazards by displaying the risk assessment by hazard locations, not by hazards alone. This allows you to detect all hazards and protective measures at certain hazard locations as well as to eliminate systematically all of the remaining risks.

View by Phases of the Machinery life:

When the risk assessment is displayed by phases of the machinery life, you are able to detect at a glance which hazards occur at a certain life phase. You can immediately see which hazards occur at a certain life phase for example when machinery is cleaned or during retrofitting. This eases the migration of residual risk into the operating instruction.

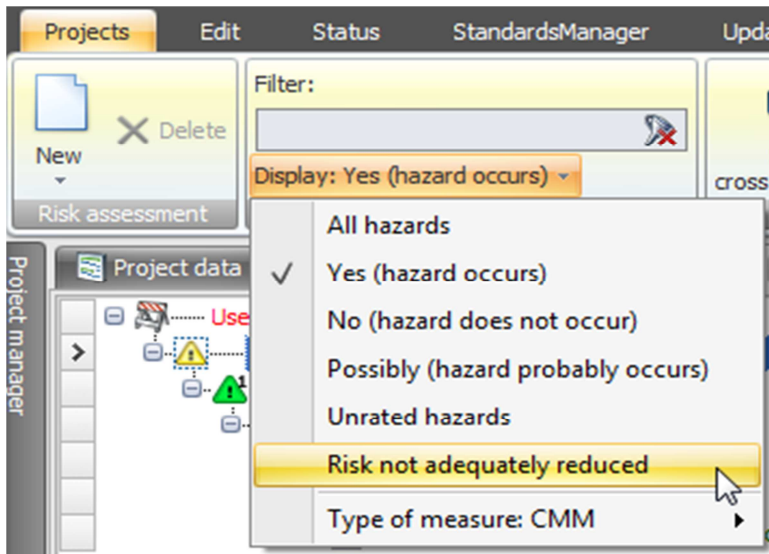
Safexpert offers you the opportunity to display the risk assessment adapted to your specific needs.

You can choose between these views:

- Hazards (Standard view),
- Hazard locations,
- Phases of the machinery life (two variations)

Of course, you can always switch between the views.

3.5. Is the risk assessment completed?



Safexpert offers convenient filter functions, so you can see the progress of the risk assessment or if it is completed.

With a mouse click you are immediately informed about all completed or unfinished items.

Experience shows that usually that the effort for documenting risk assessment pays off with the first project. Above all, huge benefits of structured documentation with Safexpert are demonstrated for future projects.

Now you finished the introduction of risk assessment. In this guide, you learned how to perform the risk assessment with Safexpert in accordance to EN ISO 12100. You should be able to perform this task in the future without any additional training.

4. Are you producing within or for the European Economic Area: this software functions will support you for efficient CE marking

The functions shown in the previous examples are part of the module "Safexpert Risk Assessment". We only showed a small amount of all features of Safexpert in this document. If you are producing within or exporting into the European Economic Area then you might be interested in further functions which assist you in the CE marking process.

Safexpert, the proven CE Software system

With Safexpert you perform the CE marking according to Machinery Directive 2006/42/EC systematic and efficient.

The following modules and functions effectively support the individual tasks:

- CE-Guide: Step-by-step through the CE marking process
- Methodical Risk assessment according to EN ISO 12100
- Standards Manager with Internet Standards database on the Safexpert Live Server
- Smart Copy functions to implement previous projects efficiently
- Functions to create data libraries for hazard locations, hazards and protective measures
- Status reports on the project status
- Reports for CE marking proof documentation, including risk assessment
- etc.

The right information at the right time

Safexpert supports you especially effective in the application of European standards and directives. You will be directly guided to important points in directives and standards through cross-references. For further information please refer to the Safexpert User Guide, chapter 8.2.

The Safexpert Standards Manager also provides convenient search and filter functions in order to find relevant standards fast. Specific update checks ensure your legal safety. For example checking if applied standards in your projects are still up to date.

5. Further assistance and additional information on Safexpert

If you are interested in a Safexpert training to get a brief overview on the important features, we offer this web training:

- Safexpert **WEB-Training „Risk assessment compact“** – In about 2 hours you will learn how to perform a risk assessment with Safexpert according to EN ISO 12100. Each participant will receive a certificate of participation. For further information, please visit:

www.ibf.at/en/web-training-risk-assessment-with-safexpert

We wish you a successfully implementation of risk assessment in your company.

If you have further questions or need more information, we gladly assist you. Do not hesitate to contact us.

Your Safexpert-Team



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