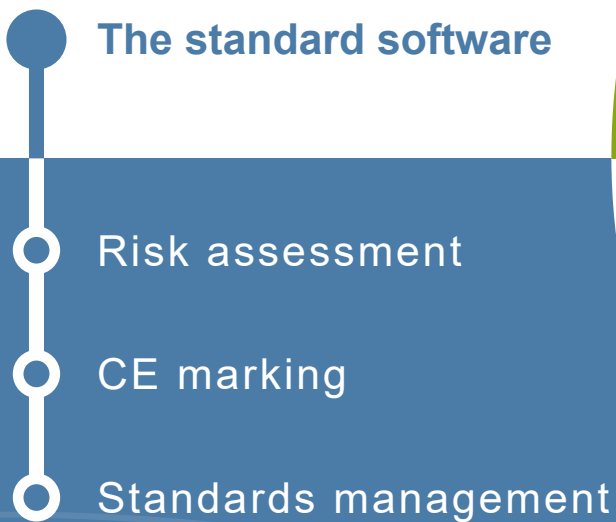


# Safexpert

## THE STANDARD SOFTWARE FOR CE MARKING

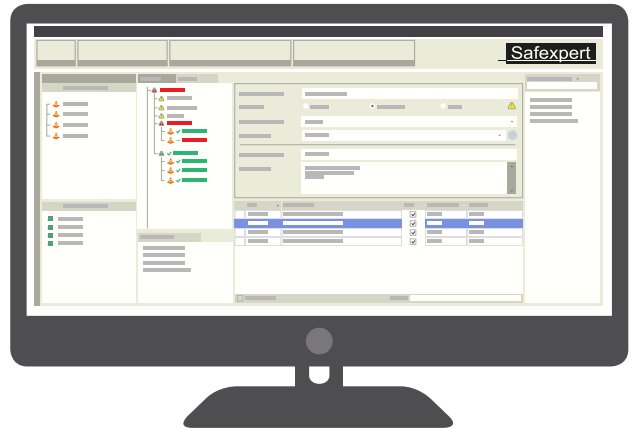
- > Mechanical engineering
- > Plant engineering
- > Electrical equipment



# What is Safexpert?

Safexpert is the TÜV-certified, modular standard software for CE marking and risk assessment in accordance with the Machinery Directive, Machinery Regulation and Low Voltage Directive.

Safexpert was the first software available on the market for CE marking and has been a market leader in this area ever since. Today, thousands of design engineers and planners worldwide use the advantages of Safexpert.



Thanks to continuous further development, Safexpert now features several specialized modules which provide you and your team with substantial support and relief in safety-related project management and in working with standards and EU directives/regulations. As an added benefit, it will also reduce your product liability risk.

## Your Benefits with Safexpert



Order and clarity  
in risk assessment  
according to EN ISO 12100



Systematically and step  
by step to CE



Use of existing projects  
as templates



Continuous development



Standards management  
and automatic actuality monitoring  
of projects



Optimal workflows for  
teamwork thanks to full  
network capability



Knowledge management –  
preservation of know-how in case  
of “Leaving Experts”



Modular design - suitable for all  
company sizes

*“We tested several systems. Ultimately, Safexpert prevailed as the most sophisticated one.”*

**HELMUT BACH**

Director Technical Machinery Safety, ZF Friedrichshafen AG

*„A very comprehensive, well-designed software for safety, risk assessment, CE“*

**MEHDI ÖZTÜRK**

Proplant Wolfsburg GmbH

## Who needs Safexpert?



The requirements of directives and standards apply to the entire product creation process of machinery, plants or electrical equipment.

Safexpert is primarily intended for the following persons:

- › Design engineers and planners
- › Project leaders
- › CE coordinators or personnel responsible for CE marking
- › Personnel responsible for product safety
- › Personnel responsible for standards
- › ...

## Safexpert Software Packages

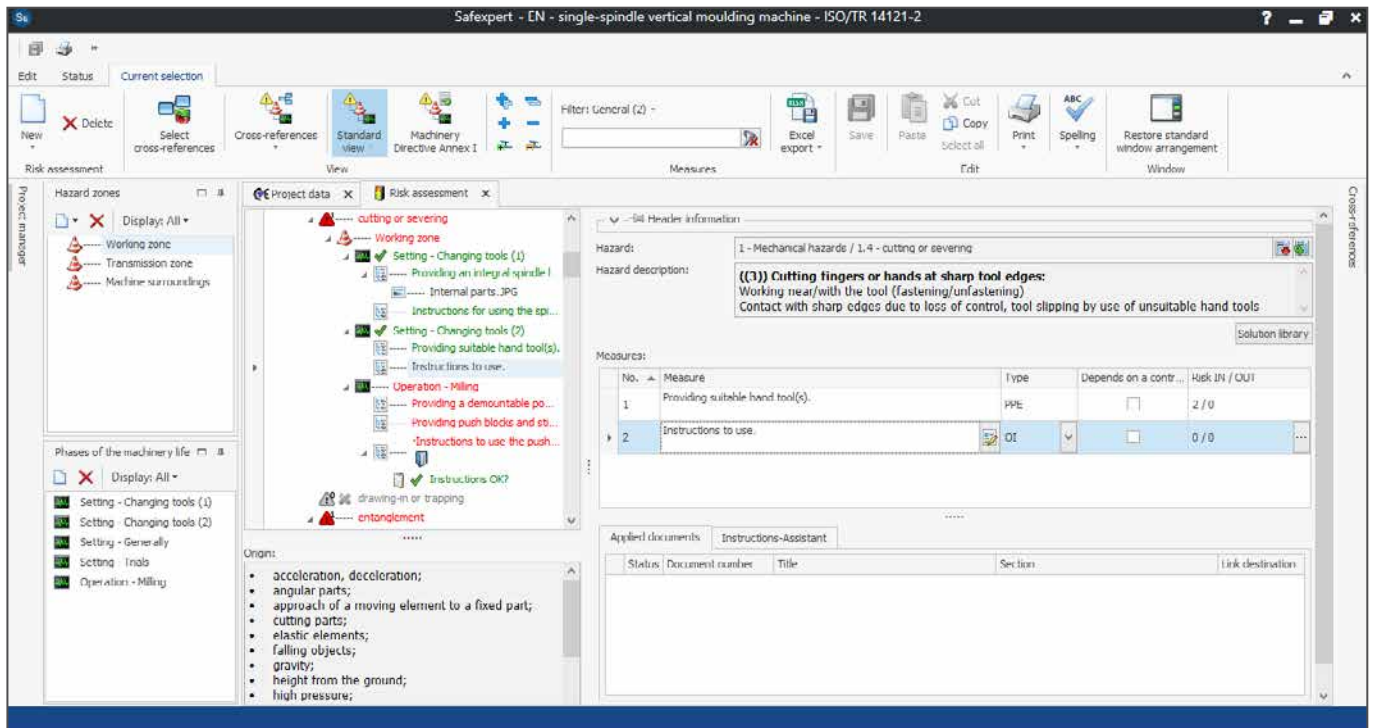
Our packages contain the most-frequently used modules. Of course, the modules can also be combined individually according to your needs. Besides the package modules, the features of the add-on modules also provide expanded benefits in the CE processes.

				
Modules / packages	Risk assessment	Basic	Compact	Professional
Risk assessment according to EN ISO 12100	✓	✓	✓	✓
Manage your own solutions centrally (Solution library)	✓	✓	✓	✓
CE Guide: Machinery Directive + Machinery Regulation and/or Low Voltage Directive		✓	✓	✓
Standards references for risk assessment		✓	✓	✓
Selection of Performance Levels or SILs including an interface to SISTEMA		✓	✓	✓
StandardsManager			✓	✓
Pictograms library			✓	✓
Operating instructions assistant			✓	✓
Operating instructions template according to EN IEC/IEEE 82079-1 (especially for machines)			✓	✓
Change assistant			✓	✓
Standards package „Machine Safety“				✓
			very popular	



## Safexpert Risk assessment

Create the legally required risk assessment efficiently, systematically and with legal certainty according to EN ISO 12100. Safexpert supports you by guiding you parallel to the design phase and helps you not to forget any important points.



Hazards - Phases of the machinery life - Hazard zones - Measures – Everything at a glance!

## Creating risk assessments systematically

### Identifying hazard situations

With predefined lists (hazards list and list of phases of the machinery life) in combination with individually created hazard zones, you can systematically and quickly define WHICH hazards occur at your product WHERE and WHEN.

### Risk reduction

For the previously determined hazard situations, you define the safety-relevant measures. This allows you to create the legally required documentation process-related and without additional effort!

### Risk estimation

With risk estimation in the supplied risk graph, you evaluate which residual risk still exists after the measures taken. This provides you with support in deciding whether additional measures are required for risk reduction.

*“With Safexpert, we have brought order and system to risk assessment. It is particularly useful for us to be able to see immediately which points of the risk assessment are still open.”*

**DANIEL SIEMONS**

Product Safety and CE Compliance Director,  
Andritz AG

With uniform printouts of the risk assessment based on the technical report ISO/TR 14121-2, you bring structure to your risk assessment documentation.

## Additional functions

### Maintaining an overview!

#### Different views

Adapt the workflow to your needs! You decide how risk assessment will be represented. During the design, for example, you sort by hazard zones to view at a glance which hazards occur in which hazard zones.

#### Display solutions in libraries

You can save frequently used solutions (e.g. consisting of descriptions of measures, technical control calculations, pictograms, etc.) in centralised solution libraries. This allows you to benefit from greater efficiency and increased legal certainty in all successor projects!

#### Structuring plant projects

Safexpert is suitable for very small projects as well as complex industrial plants. To maintain an overview of plant projects at all times, you can assemble the plant from modules and interfaces.

#### Managing projects in a clear arrangement

The central project management supports you

- › in maintaining an overview for open projects
- › in quickly finding template projects
- › in keeping all safety-relevant valuations and solutions centrally available for any subsequent conversions
- › in quickly compiling documented risk assessments for authorities or insurance companies if things should get tight

	<b>Standard view</b> Hazards - Hazard zones - Phases of the machinery life
	<b>Hazard zones</b> Hazard zones - Hazards - Phases of the machinery life
	<b>Phases of the machinery life 1</b> Phases of the machinery life - Hazards - Hazard zones
	<b>Phases of the machinery life 2</b> Phases of the machinery life - Hazard zones - Hazards

## Advantages compared to Word, Excel and other tools

- + The overview in risk assessment is maintained, even in case of longer project durations or more complex projects.
- + You avoid typical error sources: Lines or columns overwritten by accident are a thing of the past!
- + Solution library: Store proven solutions and save yourself lots of time in the future!
- + Optimal teamwork: You can see which hazards have already been identified, which are still open or completed.
- + The quality of your risk assessment reflects the quality of your products.

### Video tip



[www.ibf-solutions.com/en/software-rb](http://www.ibf-solutions.com/en/software-rb)

### Your quick start

Do you want to perform a standards-compliant risk assessment according to EN ISO 12100, as quickly as possible and without prior software training, and document it in a uniform way? Then the **“Safexpert Risk Assessment”** module is exactly the right choice for you!



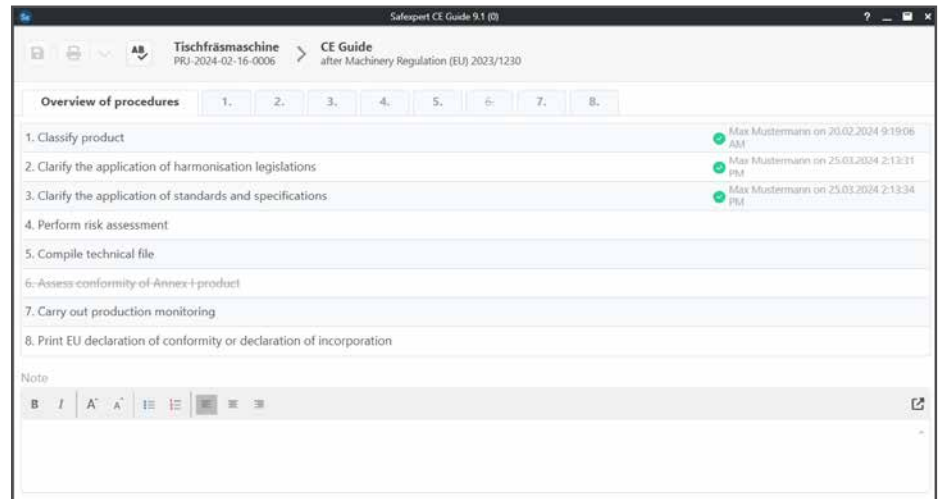


## Support during the entire CE process: CE guide and additional functions for risk assessment.

In the Basic package, the risk assessment acc. to EN ISO 12100 is supplemented with the **CE Guide**.

It guides you step by step through the “conformity assessment procedure” (Machinery Directive / Regulation and Low Voltage Directive) that is to be applied to your product.

With helpful **additional functions** for the risk assessment, you can optimize your processes and further increase the quality of the risk assessments.



Overview in the CE process: Which process steps are completed, which are still open?

## CE Guide – Step by step to CE and the declaration of conformity

Depending on the product (machine, partly completed machine, electrical equipment), the user is guided through the necessary process steps in a structured way:



**2006/42/EC  
(EU) 2023/1230**

1. Classify product
2. Clarify the application of harmonisation legislation
3. Clarify application of standards and specifications
4. Carry out a risk assessment
5. Compile technical documentation
6. Clarify conformity assessment procedures according to Annex IV or I Products
7. Carry out production monitoring
8. Print declaration of conformity or declaration of incorporation



**2014/35/EU**

1. Clarify the application of guidelines
2. Clarify the application of standards and specifications
3. Carry out a risk assessment
4. Compile technical documentation
5. Carry out internal production control
6. Print declaration of conformity

### Tip

Besides the predefined process steps of the directive to be applied, you have, starting with the Basic package, the option of managing **project-related tasks** in a clearly arranged way.



### Legal basis for CE marking:

- Machinery Directive 2006/42/EC, Art. 5
- Machinery Regulation (EU) 2023/1230, Art. 10 and 11
- Low Voltage Directive 2014/35/EU, Annex III

## Additional functions for risk assessment in the Basic package

### Control design and interface to other systems

#### Selection of performance level or SIL incl. interface to Sistema and TIA Selection Tool

For measures that depend on a control system, the required performance level according to EN ISO 13849-1 or the required SIL according to EN IEC 62061 can be determined directly in the risk assessment.

Interfaces to the „Sistema“ software and the „TIA Selection Tool“ are available for calculating the achieved performance level or SIL. In addition, the applied safety components can be managed in the „Component“ tab.

#### Standard references

Measures for the risk reduction can be supplemented with standard references. This allows you to document how you arrived at specific safety-relevant solutions.

#### Cross-references

Context-based link destinations help you to find the relevant legal and standards-based requirements as quickly as possible – for example, for specific hazards.

Besides the predefined link destinations, this function also allows the software to be adapted industry-specific to type-C standards or company-internal documents (e.g. design manuals).

## Using standards efficiently

The screenshot displays the Safexpert software interface for risk assessment. The main window shows a hazard description: "((3)) Cutting fingers or hands at sharp tool edges: Working near/with the tool (fastening/unfastening). Contact with sharp edges due to loss of control, tool slipping by use of". Below this, a table lists measures for risk reduction:

Measure	Type	Depends on a c	Risk IN / OUT
1. Providing suitable hand tool(s).	PPF	<input type="checkbox"/>	2 / 0
2. Instructions to use.	OT	<input type="checkbox"/>	0 / 0

The 'Applied documents' section in the cross-references panel is highlighted with a red box, showing a table of standards:

ST...	Document number	Title	Section	U...
EN ISO 12100:2010	Safety of machinery - General principles for design - Risk assessment	2.2.2		

Document-based traceability through the use of standards references and cross-references

### Tip

In conjunction with StandardsManager, Safexpert automatically checks which safety-relevant measures no longer meet the state of the standards.



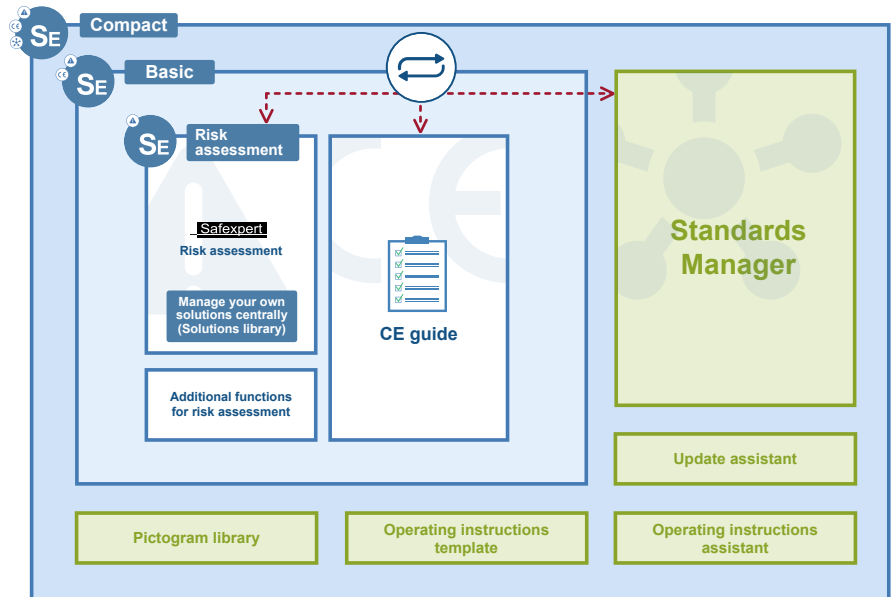
## Safexpert Compact

### Added value through Safexpert Compact

Safexpert Compact contains all the functions of the packages Safexpert Risk Assessment and Basic.

Additional support is provided by the following modules:

- › StandardsManager
- › Pictograms library
- › Operating instructions template according to EN IEC/IEEE 82079-1



Modules in the Compact package - With the StandardsManager, solutions in risk assessments and relevant documents in the CE guide are automatically monitored for relevance.

### StandardsManager – So much more than a conventional standards database

At a first glance, one could assume that the StandardsManager is a conventional standards database. But in reality, the support goes far beyond it:

#### Automatic update monitoring

##### Copying solutions

When copying solutions from earlier projects, the StandardsManager automatically checks whether they still meet the current state of the standards.

##### Monitoring projects

At defined intervals, Safexpert checks whether changes to standards affect your ongoing projects and which persons are affected by it. When opening a project, Safexpert automatically checks which safety-relevant measures must be checked as a result of changes to standards.

##### Personalized analyses

If “personal favourites” have changed, then all persons affected are automatically notified via e-mail.

Favourites	Document number	Title	Document type	Status	Additional products
★	EN ISO 13854:2019	Safety of machinery - Minimum gaps to avoid crushing of parts of the human body (ISO 13854:2017)	type-B standard	✓	4
★	ONORM EN ISO 13854:2020-01-01	Safety of machinery - Minimum gaps to avoid crushing of parts of the human body (ISO 13854:2017)	Standard	✓	4
★	EN 349:1993+A1:2008	Safety of machinery - Minimum gaps to avoid crushing of parts of the human body	type-B standard	⚠	5
★	ONORM EN ISO 12012-3:2001+A1:2008	Rubber and plastics machines - Size reduction machines - Part 3: Safety requirements for shredders	type-C standard	✗	0
★	EN 12012-3:2001-03	Rubber and plastics machines - Size reduction machines - Part 3: Safety requirements for shredders	Standard	✗	0
★	EN 16486:2014+A1:2020	Machines for compacting waste materials or recyclable fractions - Compactors - Safety requirements	type-C standard	✓	2

As with Internet search engines, you enter your search terms. In addition, the search in subject areas (advanced search settings) allows you to quickly find out which standards are available in the subject area that applies to you.

#### Special data packages for CE marking

The data packages contain the references of the standards. Based on these data packages, the StandardsManager monitors the relevance of your projects and safety-relevant solutions.

**Details:** [www.ibf-solutions.com/en/ce-software-safexpert/standards-and-data-packages](http://www.ibf-solutions.com/en/ce-software-safexpert/standards-and-data-packages)





*“Each one of our sub-assemblies is subjected to its own risk assessment, which also takes the interfaces to adjacent modules into account. It enables us to derive the risk assessment of a plant, no matter how complex it is, from the sum of individual evaluations of the participating sub-assemblies, as it were. With continuous relevance checks by Safexpert, we know which safety-relevant measures we have to scrutinize based on changes to standards. This greatly facilitates our safety-relevant quality management.”*

**ANDREAS HENSEL**

Safexpert Administrator, Homag Wood Processing Systems

## Video tip (only in German)

### Was Sie brauchen?

1. Einfache Normensuche
2. Kontinuierliche Aktualisierung
3. Rascher Zugriff auf Originaltexte



[www.ibf-solutions.com/norm-manager](http://www.ibf-solutions.com/norm-manager)

## Managing your own standards

With the Safexpert StandardsManager, you can also manage your own standards, plant standards, design manuals or other documents. These documents are also automatically included in the actuality checks. It allows you to ensure that your employees in the design team do not work with obsolete specifications!

## Pictograms library

Safexpert includes an individually expandable database of standardized pictograms. This allows you to select the correct pictograms as early as during the risk assessment and allows you to point to any residual hazards.

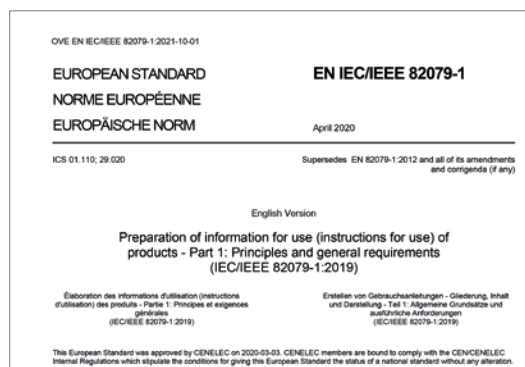
After the construction, the installers use the list of pictograms to check whether all pictograms have been properly affixed and confirm it in Safexpert.



## Operating instructions template according to EN IEC/IEEE 82079-1

With the operating instructions template (especially for machinery) according to EN IEC/IEEE 82079-1, authoring the instruction handbook does not start from scratch:

- › approx. 35 pages with predefined structure from EN IEC/IEEE 82079-1
- › predefined bookmarks for incorporating residual hazards from risk assessment
- › general requirements from EN IEC/IEEE 82079-1 already incorporated



## Tip

In conjunction with the Operating instructions assistant add-on module (described on page 10), relevant information (product limits, notes for residual hazards, etc.) can automatically be transferred to the correct places in the Word document.

## The optimal interface between design and technical editorial staff.

### From risk assessment to operating instructions

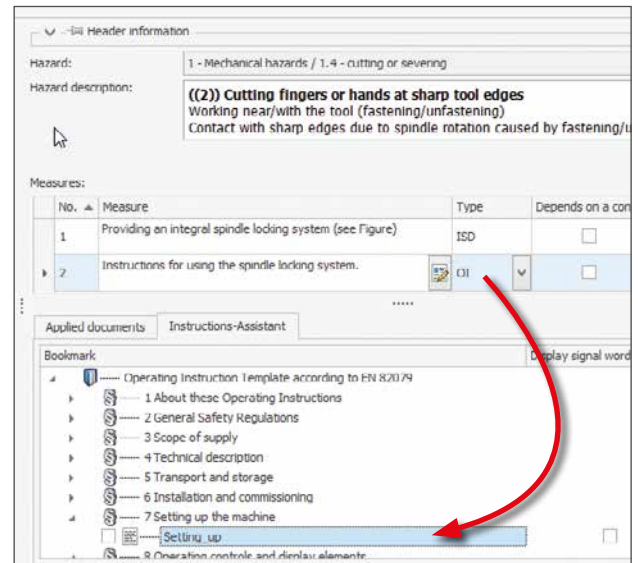
This module serves as optional supplement for the modules Safexpert Basic, Compact or Professional. It supports you in automatically transferring notes about residual hazards directly from risk assessment into an operating instructions template in Word format.

### Printing or exporting notes regarding residual risks

Of course, Safexpert also offers the possibility of printing all the notes about residual risks or exporting them into the formats Word, Excel or PDF.

### Interface to the authoring system Schema ST4

Authoring systems for the management and production of technical documentation are becoming more and more widespread. For this reason, Safexpert, in combination with the operating instructions assistant, provides the option of importing the notes for residual hazards from risk assessment in Schema ST 4.



During risk assessment, it is already determined at which place of the operating instructions a note about residual risks should be placed. Safexpert then automatically inserts them in the document.

## Change assistant

The Safexpert risk assessment's update monitoring tells you when measures are affected by changes to standards. The change assistant makes your work even easier.

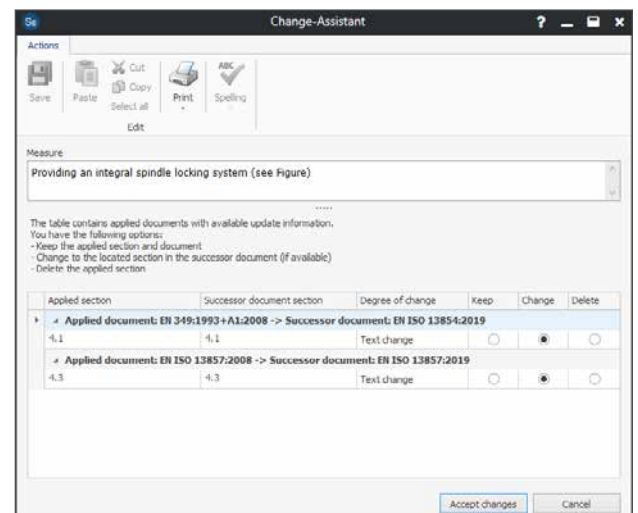
Based on standards document structures, Safexpert shows you at section level (!) which changes have occurred in standards. This means that the responsible persons no longer have to check in each individual case whether the documented risk reduction measures still correspond to the status of the standardisation, because this is done by Safexpert an mouse click.

In the change assistant you can see at a glance:

- › the standard sections that were used in the development the solution,
- › the section in the subsequent standard,
- › the degree of change.

In conjunction with the full texts of the standards, you can open the old and the new standard directly next to each other at the appropriate points with a single mouse click. You can find both parts of the standard in a flash. Now you can compare the two parts of the standard and check most efficiently whether the safety measure still fits. If not, you can adapt the solution to the new standard directly in the „Change assistant“ window.

You need a data product of the type „Document structure“ for the change wizard.



Overview of the amended sections.



The presentation of the standards side by side simplifies the comparison considerably.



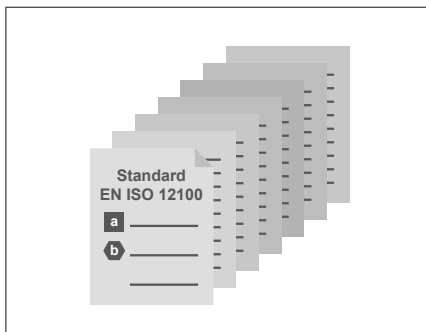
## Safexpert Professional

### Full text of important standards are always at hand with the standards package “Machine Safety”.

Safexpert Professional contains all the functions of the packages Safexpert Risk Assessment, Basic and Compact. On top of that, you have access to the standards package “Machine Safety” with the following harmonized European standards:

- › EN ISO 12100: Risk assessment
- › EN ISO 13849-1: Controls
- › EN ISO 13850: Emergency Stop
- › EN ISO 13854: Minimum distances
- › EN ISO 13855: Safeguards
- › EN ISO 13857: Safety distances
- › EN 60204-1: Electrical equipment

The standards are delivered in electronic form by activation on the Safexpert Live Server.



#### Multiple simultaneous accesses

If a large number of persons in your company works with standards, it is very easy for overlaps to occur in the application. In this case, simply order a license for multiple simultaneous accesses at extremely favourable conditions.

#### You already own standards and do not want to purchase them twice?

In Safexpert, you can link your own standards. To do so, clarify the licensing conditions with your standards supplier.

But please note that the standards delivered with Safexpert have been supplemented with additional data by the Safexpert development team. This facilitates the full text search across standards and quick access to the required locations.



### Add-on module

## Standards package “Machine Safety Plus”

With the “Machine Safety Plus” add-on module, design engineers gain access to more than 55 additional European standards from the area “safety of machinery”.

#### The optimal expansion for Safexpert Professional

As a very special highlight, this optionally available module contains the full text of more than 55 additional harmonized European standards.

#### Quantity discount of 70%

Supplementary to Safexpert Professional, you receive a **quantity discount of 70%** on this standards package! Compared with the individual prices, **it will save you more than 3,400 Euro** – more than the price for the complete Safexpert Professional package!

#### Worldwide access in the network

In cooperation with our partner, the Austrian Standards Plus GmbH, we offer access to harmonized European standards in a fair floating license model. You pay only for what you really need!

#### Special standards for your industry

Supplementary to the standards packages, you can also receive the full text of all available type-C standards or other harmonized European product standards in German and English.

#### Note about the copyrights of full-text standards

All European original texts of the standards offered were produced and checked as ÖNORM by Austrian Standards International. IBF owns the worldwide distribution rights in the language versions for all standards offered. The detailed terms and conditions of use can be found on our homepage.

#### Details:

<https://www.ibf-solutions.com/en/safexpert-additional-products>



## Add-on module CheckManager

This module provides support for the uniform check or acceptance of machinery and partly completed machinery.

Final inspections of manufacturers, acceptances of customers or checks by experts or authorities are performed based on centrally stored checkpoint libraries.



Software + predefined checklists = quick check results

### Selecting the check level

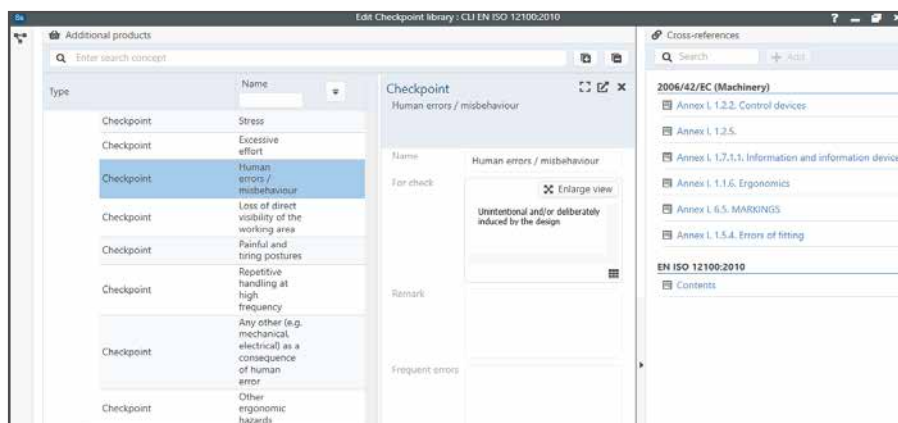
With Safexpert, it is possible to define which checkpoint is to be inspected at which inspection depth when creating the checkpoint library. The inspector can choose between coarse, medium and detailed inspection.

### Maximum overview

Convenient filter conditions inform via mouse-click about all items that have not yet been checked or checked with negative outcome.

### Standards always at hand

The checks are facilitated by cross-references to the standards.



Checks are performed item by item in a systematic and uniform way and the result is documented. Cross-references to relevant standards support the check process.

## Your benefits with the Safexpert Check Manager



Uniform check results



Reduction of the testing effort - through the choice of the check level



Central management of the checkpoint libraries



Update monitoring of checkpoint libraries



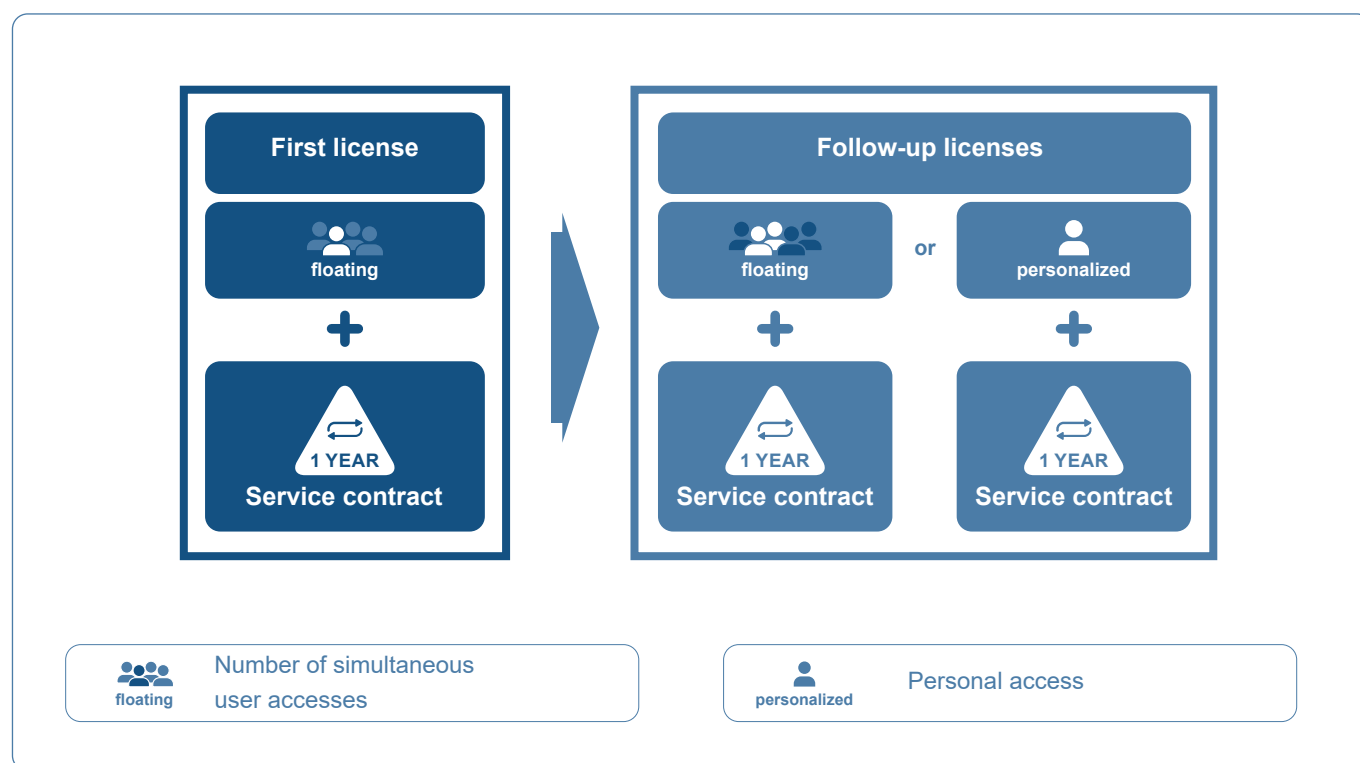
Reduce travel times by dividing the test object into test scopes

### Tip

In order to obtain high-quality test results as quickly as possible, you can purchase predefined checkpoint libraries directly from IBF. Alternatively, you can create your own checkpoint libraries and make them available centrally to all other Safexpert users in your company.

## Pricing overview

## Safexpert packages and licenses



The Safexpert initial license is available as floating license and allows the use of one access to the database at a time. Starting with follow-up licenses, it is possible to select between floating and personalized licenses.

	First license
 <b>Safexpert Risk assessment</b>	EUR 1,050.-
 <b>Safexpert Basic</b>	EUR 1,760.-
 <b>Safexpert Compact</b>	EUR 3,600.-
 <b>Safexpert Professional</b>	EUR 5,160.-

The prices listed above apply to the respective packages as base prices and contain only the initial license. An overview of the service contracts is located in the Safexpert price list. The follow-up licenses are available at significantly reduced prices compared to initial licenses. These prices are subject to change.

**Safexpert price list:** [www.ibf-solutions.com/en/prices](http://www.ibf-solutions.com/en/prices)





## References



**For more than 30 years, numerous companies have trusted our solutions and services.**

Safexpert was introduced in the German-speaking countries as the first CE software in 1994. Since then, thousands of persons from sole proprietorships, small and medium-sized companies up to international company groups have been using Safexpert. Today, our valued customers are companies from a multitude of different countries throughout the world. The positive feedback drives us to continuously advance the software products and continually adjust them to new requirements.

*“Previously, we used Excel and always faced great efforts when standards had changed. With the Safexpert service contract, we are always up-to-date.”*

**GOTTFRIED ASCHAUER**  
Director Strategic Development,  
Wintersteiger AG

*“We have been documenting our risk assessments with Safexpert since 1997. We especially appreciate the checks implemented in the background of the copying processes in Safexpert, whether the applied standards still meet the current state. With the “Standards-Manager” module, our design engineers have direct access to current standards, which greatly facilitates a standard-compliant preparation of safety-relevant solutions.”*

**WILFRIED FLADL**  
Director Quality Management,  
FILL GmbH

**Thousands of persons and companies are convinced of Safexpert.**



**SIEMENS**

**Miele**

 **Lufthansa Technik**

**LIEBHERR**



**ANDRITZ**

**ABB**

**GEA**

**PLANSEE**



**BOSCH**

  
**THE LINDE GROUP**

  
**TÜV Rheinland**  
Genau. Richtig.

**ZEPPELIN**  
Systems

Many additional references are located at: [www.ibf-solutions.com/en/references-safexpert](http://www.ibf-solutions.com/en/references-safexpert)

# Seminars and training sessions about product safety

Expert knowledge and practical know-how for manufacturers of machinery, plants and electrical equipment.

For more than 30 years, we have relied on two proven principles in knowledge dissemination that guarantee you the highest benefit:

- › **Maximum information in the shortest amount of time**
- › **Support for self-help**

Select the events from our carefully arranged offering that suit your needs the best. We gladly assist you in selecting the most suitable modules for your company. For our complete seminar program, please visit: [www.ibf-solutions.com/en/seminars](http://www.ibf-solutions.com/en/seminars)



## Webinars and in-house seminars

Do you want to train a greater number of employees in your company? Some seminars we offer as in-house event directly at your facility. Other seminars we offer in Germany, Austria and Switzerland (D-A-CH) in Gerge.



### CE practice seminars

- › Designing safe machinery - Risk assessment in practice
- › Efficient CE marking and risk assessment of machinery and plants
- › Changeover to the new Machinery Regulation

### Safexpert training courses

- › Safexpert user training
- › Individual Safexpert Workshop

### Special seminars and workshops in German

- › Training as CE coordinator (machin electrical equipment)
- › Design of safe control systems in accordance with EN ISO 13849-1 and -2
- › Functional safety in software development according to EN ISO 13849
- › Electrical equipment of machines according to EN 60204-1
- › Safe control cabinet construction according to EN 61439
- › Electromagnetic compatibility (EMC) in machine and plant construction
- › Safe conversion and significant modification of machines
- › Creation of operating instructions for machines and systems
- › Cyber-Security requirements for machines and systems
- › Material compliance in equipment and machinery manufacturing
- › Legal requirements for the risk assessment of machines and systems
- › Product monitoring obligation and recall management
- › The new EU General Product Safety Regulation (GPSR)
- › What managing directors and managers should know about CE marking

For our complete seminar program in German, please visit: [www.ibf-solutions.com/seminare](http://www.ibf-solutions.com/seminare)

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