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### Institut für Qualitäts- und Zuverlässigkeitsmanagement GmbH

We cut your corporate risks















Your customer demands an extended warranty period? You are facing challenges with respect to functional safety or warranty management? You need safety and reliability analyses? If so, IQZ is your competent partner.

The IQZ is one of the leading consultancy companies when it comes to the integrated implementation of safety and reliability beyond a product's life-cycle. Our experts not only come up with the necessary processes with your help but also fill these with the latest state-of-the-art methods. Our spectrum of clients ranges from SMEs in mechanical engineering through to DAX-30 companies from the aerospace industry.



Ihr Qualitäts-Zulieferer.

Institut für Qualitäts- und Zuverlässigkeitsmanagement GmbH

www.iqz-wuppertal.de

### Our services / your benefits

- » Process advice and organisation
- » State-of-the-art portfolio of methods
- » Experience in interdisciplinary and international projects
- Close cooperation with universities (e.g. Bergische Universität Wuppertal, HAW Hamburg, HWR Berlin)
- » Broad-based network and involvement in numerous committees (VDI, VDA, COG Deutschland, Maschinenbaunetzwerk Bergisch Land)

### Priority fields

- » Quality management
- » Reliability management
- >> Functional safety
- >> Warranty management
- » Risk management
- » Risk simulation
- » Spare parts management
- » Site-Specific risk assessment
- » Machine reliability



## 51/2015 107 GmbH

### MACHINE SAFETY

Which safety-related requirements have to be satisfied before a product is placed on the market or put into operation? How is machine reliability linked to functional safety?





Risk assessment Performance level Instruction manual

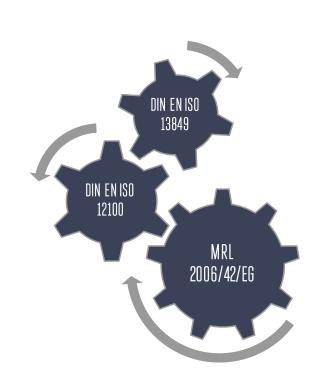




The safety of machinery, incomplete machines or even a set of machines is becoming increasingly important these days so as to minimise the health risks for everyone concerned. The higher statutory requirements on safety can mean much more work during the development and operation of machinery for both manufacturers and operators of machines or sub-systems.

At the same time, a high level of safety can also lead to a competitive advantage, helping to set a company apart from and ahead of its rivals and to reduce potential recourse claims. Moreover, increased safety often also means an increased availability and reliability of the machinery and plants. We will be pleased to help you answer safety-related questions along the product life-cycle of both new and existing

machines and can offer assistance on the following topics.



#### Our services

- > Organisation of workshops and training sessions
- Support with CE certification / EC declaration of conformity acc. to MRL 2006/42/EC
- » Risk assessment acc. to MRL 2006/42/ EC and DIN EN ISO 12100
- » Assessment of safety-related control systems acc. to DIN EN ISO 13849
- » Drafting of instruction manuals

#### Portfolio of methods

- » Hazard analysis and risk assessment
- » PAAG/HAZOP
- >> Fault tree analysis
- >> Event tree analysis
- » Reliability block diagrams
- » FMEA / FMEDA
- » Markov models