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**ANSI Technical Report for Machines –**

***Risk assessment and risk reduction –  
A guide to estimate, evaluate and reduce  
risks associated with machine tools***

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## **ABSTRACT**

This technical report is part of the ANSI B11 series of technical reports and standards pertaining to the design, construction, care and use of machine tools. This technical report defines a method for conducting a risk assessment and risk reduction for machine tools, provides some guidance in the selection of appropriate protective measures (safeguarding) to achieve tolerable risk, and describes the risk assessment and risk reduction responsibilities of both the machine tool supplier and user. This method requires gathering the appropriate information, determining the limits of the machine, identifying tasks and hazards over the lifecycle of the machine using a task-based approach, estimating risk associated with the task-hazard combinations, reducing risk according to a prioritized procedure, and documenting the results. The risk reduction process is not completed until tolerable risk is achieved. Flowcharts illustrate the process. Examples of tasks and hazards are included in the document. This technical report explicitly recognizes that zero risk is virtually unattainable. It is intended for use on all new or modified machines and equipment designs and processes. The user may also utilize it to assist with risk assessment and risk reduction for existing tasks and hazards.

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