

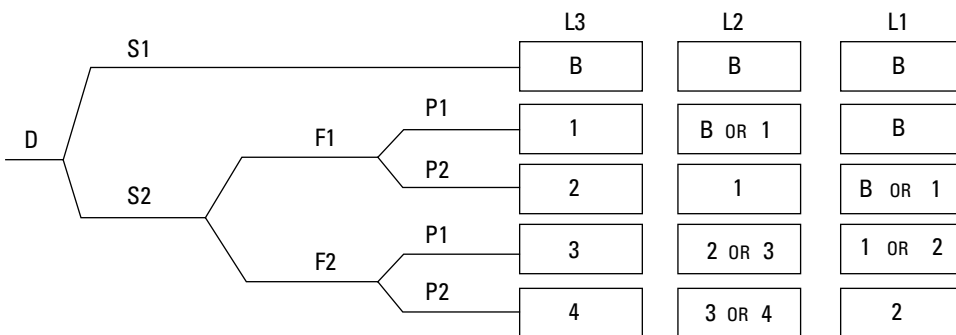
Risk Assessment

The primary purpose of risk assessment is to reduce the level of risk associated with a particular piece of machinery. The end result is to increase worker safety. Though risk assessment does rely on judgmental decisions, quantitative models have proven useful in assessing alternative safety measures and to determine which gives better protection.

Structured risk assessment involves evaluating:

- Severity of the potential risk,
- Frequency of exposure to the potential hazard,
- Possibility of avoiding the hazard if it occurs, and
- Likelihood of occurrence if a safety interlock fails.

To assist industries with evaluating potential risk, the European Machinery Directive provides quantitative guidelines based upon five defined levels of risk. These levels range from the lowest risk category in which the severity of injury is slight and/or there is relatively little likelihood of occurrence, to the highest risk category in which the likelihood of a severe injury is relatively high.



B, 1, 2, 3, 4: Risk Category

S: Severity of potential injury

S1: Slight injury (bruise)

S2: Severe injury (amputation or death)

F: Frequency of exposure to potential hazard

F1: Infrequent exposure

F2: Frequent to continuous exposure

P: Possibility of avoiding the hazard if it occurs (generally related to the speed/frequency of movement of hazard point and distance to hazard point)

P1: Possible

P2: Less possible

L: Likelihood of occurrence (if an interlock fails)

L1: Very unlikely

L2: Unlikely

L3: Highly likely