

CASE STUDY

An international food and beverage manufacturer sought to enhance the safety of their production equipment. Since minimizing downtime and costs for this initiative were critical, the company partnered with Polytron for our unique risk classification services to identify the higher risk machines and prioritize them for detailed risk assessments.



Risk Classification: A Sensible Start to Machine Safety

The Project

An international manufacturer in the food and beverage industry has thousands of machines spread across nearly a dozen manufacturing facilities in the US alone. This world-class manufacturer prioritizes the health and well-being of their many associates, especially during the daily operation and maintenance of mission-critical process, packaging, material handling, and end-of-line equipment.



EXECUTIVE SUMMARY

► Risk Classification: A Sensible Start to Machine Safety

Client: International Food and Beverage Manufacturer

Challenge:

Performing detailed risk assessments on every machine in this vast inventory would impact production demands and put a strain on limited capital funds.

Solution:

Polytron delivered a sensible, phased approach by first applying our risk classification process to categorize each machine as high, medium, low, or negligible risk. Then we advanced only the higher risk machines through our full risk assessment process.

Results:

Polytron's risk classification services require no downtime, and the attractive cost allows for the inclusion of all your machines. After performing full risk assessments on only the higher risk machines, the cost savings become even more clear.

The Challenge

With thousands of machines across multiple US regions, this food and beverage manufacturer faced several significant challenges:

- High production demand, making it impractical to provide extended downtime for a full safety risk assessment on every machine
- Limited capital funding, even though safety is a top priority
- Aging equipment, including machines that were 30+ years old
- Evolving machine safety regulations and industry standards

As a result, it was difficult to know where to start, so this manufacturing giant turned to Polytron's machine safety services group for technical expertise and an innovative approach.

The Approach

The ultimate goal for this manufacturer is to have safe machines. To achieve this goal, new safeguarding measures or administrative controls may be necessary. Industry standards such as ANSI B11.0 and ISO 12100 define the risk assessment and risk reduction process for machinery. Risk assessments that follow this process provide detailed analysis of hazard-task pairs, risk estimation, evaluation of current safeguarding measures, and risk reduction

recommendations, when applicable. This is a valuable process but also has an inherent cost. The risk assessment process, when performed properly, also requires machine downtime. As a result, performing this type of risk assessment is not always practical for manufacturers.

As a valued partner, Polytron's machine safety services group offers a sensible start for manufacturers like this that have a higher machine count, limited funding, and minimal downtime availability. Our risk classification service includes a high-level assessment of hazards and current safeguarding to establish a risk level for each machine. The four risk levels are high, medium, low, and negligible, where high and medium are both indicative of significant risk. This classification informs the client as to which machines should be prioritized for additional machine safety services.

At the same time, our TÜV-certified machine safety resources complete a thorough checklist, which includes functional safety, machine guarding, electrical safety, and administrative controls. This checklist provides the client with additional insight into safety-related areas that may need attention. A team of two Polytron safety resources can perform risk classification services on 70 to 100 machines per week, and even better, no machine downtime is required!

The cost per machine for risk classification services is only a fraction of the cost of a full risk assessment. This cost-effective service enables the client to include more machines in the risk classification scope and then focus additional capital funding on addressing machines that are classified as high and medium risk.

The Valued Result

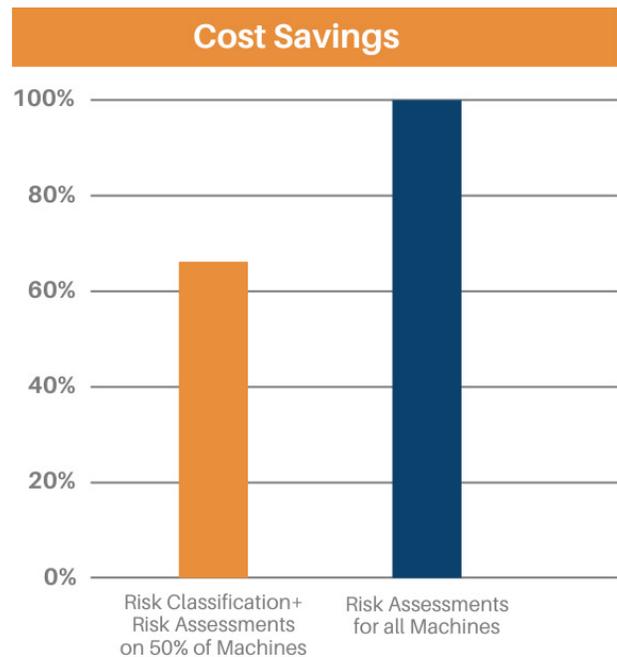
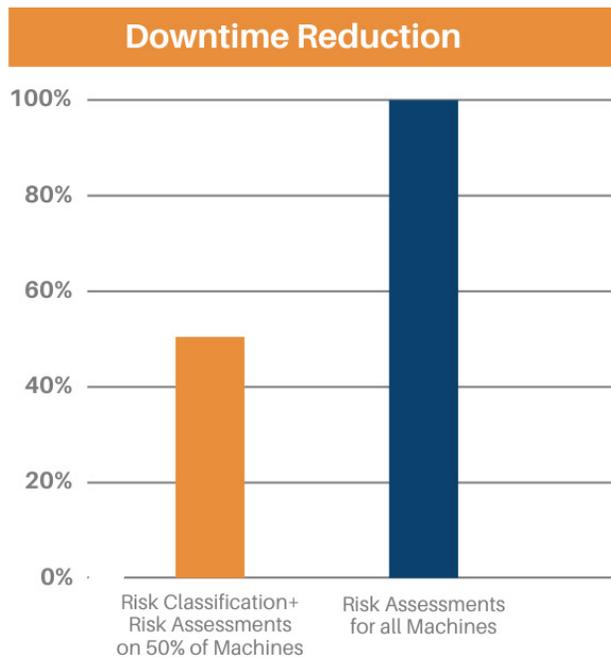
Our client was fully on board with this approach and delighted with the financial and technical value of our risk classification deliverables. For the high- and medium-risk machines at each facility, we subsequently provided full risk assessment and definition services. These deliverables will serve as the technical guide for the design and implementation of new safeguarding measures.

For most of this equipment, implementing new safeguarding measures is the correct path to achieving the goal of safe machines. In a few cases, decommissioning older, high-risk equipment and replacing with new equipment may prove to be the better option. (See our [machine safety webpage](#) for more information on services for new equipment).

For the machines classified as low or negligible risk, full risk assessments may not be necessary, unless for example, a machine has a history of safety incidents. Removing most, or all, of the low- and negligible-risk machines from the risk assessment process results in tremendous cost savings. The example graphs below illustrate how much downtime and costs can be reduced if 50 percent of all machines assessed during a risk classification are identified as high- and medium-risk where a full risk assessment is then performed on those machines.

Polytron’s machine safety services group is ready to serve as a trusted partner throughout the lifecycle of your new and existing equipment.

[Contact us](#) to discuss your machine safety goals, and please ask for more information on our risk classification services for your existing equipment, whether it’s a dozen machines or several thousand.



About Polytron

Polytron partners with manufacturers to address complex business challenges. We first develop a thorough understanding of opportunities and then leverage our expertise and industry best practices to develop and implement a strategy that delivers results.