

# Enhancing Health and Safety in India's Foundry Industry



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The foundry industry plays a vital role in India's manufacturing sector, making significant contributions to the country's industrial and economic development. From detailed parts like engine blocks and gear housings to larger structural components, foundries produce a wide range of components for various industries, including automotive, aerospace, and construction. However, working in foundries comes with significant health and safety risks, particularly concerning dust production and operator fatigue.

Dust generation in foundries is a critical issue. The grinding of castings produces fine particles that, if inhaled, can lead to severe respiratory diseases. Many foundries in India still use old grinding wheels that produce excessive dust, putting workers' health at high risk. Moreover, working in high-temperature and noisy environments with tasks that require more physical activity adds to the fatigue of operators working in these foundries. Given that the foundry sector employs a significant number of people in India, there is an urgency to address these health hazards as soon as possible.

India has established a regulatory framework to address occupational health and safety through various laws, such as the Factories Act, 1948. However, there is a challenge of compliance, particularly in small and medium-sized

businesses that may lack the resources to adopt the latest safety measures. With regulations in place, it is increasingly important for foundries to upgrade to newer technologies that meet modern safety standards. Additionally, the industry has a pressing need for heightened awareness through training programs focused on safety to make operators aware of risks associated with their work or the safety protocols they need to follow.

Improving health and safety in the foundry industry requires a comprehensive approach. Manufacturers need to invest in advanced grinding solutions that not only offer high performance and durability but also minimize dust production. By choosing grinding wheels with features such as extended lifespan, effortless grinding, and reduced dust generation, foundries can create a healthier and safer workplace for their employees.

Foundries should organize rigorous training programs to educate workers about risk assessment and safety protocols. Regular training will make employees understand the risks involved with their work and equip them to handle risks effectively. Additionally, foundries should invest in machines that are tailor-made for their specific industry needs. For example, in the cast iron and alloy steel foundry segments, they need to recognize the distinct challenges faced by the industry and opt for technologies that address these requirements. This will boost productivity, improve working conditions, and minimize waste.

Health and safety are important in protecting the workforce of any industry, and the foundry sector is not an exception to this. Global companies like Saint-Gobain, under the brand Norton Abrasives, offer a range of products that deliver high-performance solutions while prioritizing the safety of the users. For example, Saint-Gobain's Orient high-performance foundry wheel (Orient OXP Snagging Wheel) offers up to seven times the lifespan of competing products and produces significantly less wheel dust (up to 40 kg less), resulting in significant cost savings and a safer working environment. Similarly, the Norton Foundry+ wheels combine high performance with cost-effectiveness, ensuring efficient material removal and a smooth finish. As India's manufacturing sector continues to grow, foundries must commit to prioritizing their workers' health and safety by adopting these advanced solutions.