

**Clean
Clothes
Campaign**

International Secretariat

Summary

Deadly Denim

Sandblasting in the Bangladesh Garment Industry

“The research found that monitoring and audits of the factories surveyed were woefully inadequate in properly assessing working conditions and any alleged ‘ban’ on sandblasting”

Executive Summary¹

Sandblasting has become the key method for finishing most modern jeans requiring that ‘worn-out’ look. Under the sandblasting process the denim is smoothed, shaped and cleaned by forcing abrasive particles across it at high speeds. The process is fast and cheap and demand for pre-worn denim has led to a massive rise in its use. But this fashion comes at a price: the health and even the lives of sandblasting workers.

There are two types of sandblasting process: **manual sandblasting** and **mechanical sandblasting**. Both can be deadly. In manual sandblasting, compressors are used to blow out sand under pressure through a gun in order to bleach and batter the denim. This process is done in the absence of sealed blasting cabinets and ventilation, exposing the operators directly to silica particles (tiny particles of blasted sand) that are released from the guns. This silica dust, if inhaled, can cause severe respiratory problems in workers. In cases of intense or long-term exposure, it may even lead to the contraction of fatal diseases such as silicosis and lung cancer.

Although the most common form of sandblasting is manual blasting, sandblasting can also be performed mechanically in blasting cabinets where the process is supposed to be more controlled. However this report shows that mechanical sandblasting as done in Bangladesh actually continues to **expose workers to silica dust**. Our research found that mechanical sandblasting is largely carried out in unsealed environments with little protection for workers, using inadequate safety equipment. As a result the use of this technique continues to expose workers to potentially fatal risk.

After the imposition of strict regulations on sandblasting in many European countries, the clothing industry largely outsourced production to as yet **unregulated regions** such as Turkey, Bangladesh, and China. It was in Turkey that the negative health effects of this process in the garment industry were recognised, with Turkish doctors being the first to sound the alarm over silicosis amongst garment

¹ This executive summary summarises the findings of a fuller report issued by the Clean Clothes Campaign entitled *Deadly Denim: Sandblasting in the Bangladesh Garment Industry*, released on 29 March 2012.

sandblasters. In 2005 the first major study to link sandblasting jeans with silicosis was published.

Since Turkey implemented a ban on sandblasting in 2009, pressure on brands to stop using manual sandblasting has increased. In Autumn 2010 the **Killer Jeans campaign** was launched adding to the public call for the abolition of the practice from the industry and many brands announced a voluntary ban on sandblasting. Yet few if any brands have provided clear information on how these bans are being implemented and no brand has yet agreed to take responsibility for identifying and treating affected workers in their supply chain.

Our study interviewed 73 workers in seven factories and conducted numerous qualitative interviews with experts in the industry. Just under half interviewees recognized the logos of brands shown to them as being manufactured in the factories in which they worked. These brands included H&M, Levi's, C&A, D&G, Esprit, Lee, Zara and Diesel, all of whom, except D&G, claim to have banned sandblasting. However, in general, the impact of the ban has been patchy, poorly monitored and widely circumvented, at least in the majority of factories we investigated.

Denim production for major brands continues to be done using both manual and mechanical sandblasting. Both of these techniques are deadly for the workers.

For example, we discovered that regardless of whether a brand has 'banned' sandblasting or not, **manual sandblasting still takes place**, often at night to avoid detection. It is clear that sandblasting units are still open in most factories used by brands and retailers. In addition smaller workshops reportedly still either only or predominately use manual sandblasting methods. Although it is possible to test for sandblasting this is not covered in buyer/audit visits. Indeed one manager interviewed believed buyers purposely do not test for sandblasting.

The failure of brands to change their designs or to increase production time to allow for suppliers to shift to the more labour intensive and slower finishing techniques also helps perpetuate the use – sometimes clandestine and sometimes overt – of sandblasting.

The report also uncovered a pressing need to **increase awareness of the health risks** of sandblasting among workers. This should be carried out as part of a wider effort to improve safety in the Bangladesh garment industry, whose occupational health and safety record is appalling, with scores of deaths and injuries in the sector every year.

Our research showed that although some workers were aware of the potential dangers of sandblasting they were prepared to work for the **higher wages** offered despite knowing that their working life as a sandblaster may be short due to ill health. It also showed that the medical diagnosis and treatment available to workers is woefully inadequate and that awareness of the link between garment sandblasting and silicosis among the medical profession was almost non-existent.

We also found a problem of **overlapping commercial interests** with garment factories, media and health companies all held under the same umbrella group.

Given the obvious hazards of both manual and mechanical processes, brands must end not only manual but also mechanical sandblasting. In addition they should ensure that they cease production in any unit which carries out either manual or mechanical sandblasting production.

Transparency in the supply chain is essential in ensuring proper monitoring of suppliers, and brands should publicly disclose locations of suppliers and sub-contracting where denim production and finishing is carried out.

This report shows that a **voluntary company ban** is simply not enough to stop workers from falling sick and dying from silicosis. Governments worldwide should therefore enforce a **national ban** on the process as well as, where relevant, enforcing import bans on garments which have been subjected to sandblasting. ✂

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Conclusions

An end to sandblasting?

Observations from the study, based on expert and worker interviews, suggest that the manual sandblasting method is being gradually replaced by the mechanical method. Several factories appear to be in the process of shifting from using sandblasting to other techniques such as laser or hand-sanding. Several washing plants have closed down their sandblasting units entirely. However the majority surveyed continue working at full capacity: in fact many smaller workshops focus solely on manual sandblasting.

Other factories are simply outsourcing their sandblasted denim orders to subcontractors or are shifting to mechanical sandblasting or other finishing techniques. While it is difficult to assess how much of a shift is really taking place given the size of the garment industry in Bangladesh it is clear that a sizeable sandblasting industry, both manual and mechanical, exists in Bangladesh for both the export and domestic markets.

Brands' "ban" – easy to say but hard to do?

Denim production for major brands continues to be done using both manual and mechanical sandblasting. Both of these techniques are deadly for the workers. While there has been some impact on the use of manual sandblasting from brands' announcements of a ban on the process, the

impact of this has been patchy, poorly monitored and widely circumvented.

Workers in factories that continue to use both manual and mechanical sandblasting methods have clearly shown that production for brands which have "banned" manual sandblasting continues to take place, often at night and sometimes allegedly with the tacit knowledge of the buyers. Audits are rare and special equipment designed to keep workers "safe" are simply there for show leaving most workers wide open to acute exposure to silica at dangerously high levels. It is also clear from the research that even the simplest of safety requirements such as using imported sand with lower silica levels is ignored in the majority of factories.

Despite brands being completely aware of the hazards of sandblasting and the fact that the process has been outlawed in Turkey and heavily regulated in the EU for many years, they have not undertaken sufficient due diligence to ensure such knowledge is passed onto workers. The only company that has worked with local trade union representatives and NGOs to examine the issue of sandblasting in their supply chain is Gucci, whose production takes place wholly in Italy. Workers are only sometimes told that the process is dangerous and in many cases they only become aware of the dangers after watching their colleagues fall sick.

Some companies, when announcing a ban on sandblasting, said that they would monitor sandblasting in supplier factories. In 2010 H&M said: “Even with our ban, we have decided to continue monitoring sandblasting conditions in supplier factories even though the process is no longer allowed for H&M production. In this way, we are continuing to minimise the health and safety risks to suppliers’ workers from sandblasting, and overall to better practices in the industry.”²

However, given the appalling conditions that sandblasters work in, it is pretty clear that monitoring in the Bangladesh context is extremely difficult and unlikely to be done properly. Workers interviewed stated that ongoing and effective brand monitoring was practically non-existent in their factories.

Increasing awareness

The issue of awareness was a major point of focus for this study. Doctors were almost completely unaware that sandblasting is a problem in the garment sector. This raised the likelihood that workers were at risk of being mis-diagnosed and thus unlikely to benefit from early intervention and treatment, increasing their chances of death from silicosis if contracted. Awareness of the connection between sandblasting and silicosis amongst medical specialists needs to be raised so that in the future patients from the sandblasting sector will receive the treatment they need instead of getting misdiagnoses. The situation that is currently observed in Bangladesh is a reflection of the early stages that were also seen in Turkey before doctors became aware that silicosis was affecting sandblasters.

² <http://about.hm.com/content/hm/AboutSection/en/About/Sustainability/Commitments/Responsible-Partners/Beyond-Monitoring/Partnership-and-Public-Policy/Sand-Blasting.html>

This report shows that a voluntary company ban is simply not enough to stop workers from falling sick and dying from silicosis. Governments worldwide should therefore enforce a national ban on the process as well as, where relevant, enforcing import bans on garments which have been subjected to sandblasting.

In addition workers are also not aware of the health risks they face in their work and are forced to work 12 hour shifts in excessively dusty working conditions. Workers need both awareness raising and support and empowerment to enable them to ensure a ban is properly and effectively carried out. There were no unions in the majority of factories reviewed and throughout Bangladesh harassment and threats against union members and officials is high. Workers need to be empowered to speak out against poor and illegal working conditions. They also need to be able to take paid sick leave and be given adequate access to proper levels of medical care and intervention.

Currently this is impossible given the appalling working conditions and the lack of paid sick leave in most factories. Not only this but the brands and their suppliers must take full responsibility for providing proper diagnosis and treatment of all workers who may have been exposed to silica in the production of denim garments. Given the apparent inability

We call upon brands to work with their suppliers to provide medical check ups and proper diagnostic procedures for the early diagnosis, treatment and compensation for silicosis in all workers who may have been affected by silica exposure, regardless of their job function.

or failure of brands to ensure a self imposed ban on sandblasting has been implemented, brands must take responsibility for all workers who work in sandblasting, regardless of whether or not they have announced a ban.

Banning all types of sandblasting

Given the obvious hazards of both processes, brands must end not only manual but also mechanical sandblasting. In addition they should ensure that they cease production in any unit which carries out either manual or mechanical sandblasting production. Transparency in the supply chain is essential in ensuring proper monitoring of suppliers, including the publication of supplier /sub-contracting supplier lists.

Given the difficulties clearly exposed by this report a voluntary company ban is simply not enough to stop workers from falling sick and dying from silicosis.

Governments worldwide should therefore enforce a national ban on the process as well as, where relevant, enforcing import bans on garments which have been subjected to sandblasting. Such bans should be supported by brands. Despite the obvious problems in enforcing a ban on sandblasting and the possibility that smaller or illegal workshops will continue to clandestinely carry out sandblasting there must be urgent action towards a longer term solution. Currently many factories are in a difficult situation: while they still have sandblasting units operating it is hard for them to implement a ban that has only been imposed by some of their customers. However, as long as sandblasting units stay open there is always the danger that the factories will continue to use sandblasting for brands that have banned the process in order to save money or to fulfil their targets. The time and price pressure on the factories makes it beneficial for them to continue to use the technique as long as it is not completely banned.

Local researchers undertaking this report have suggested that an outright ban will be difficult due to the general disregard for health and safety laws and a comprehensive lack of knowledge within the supply chain among workers and among medical staff. They recommend that attention be focused on raising awareness among doctors, factory authorities and workers regarding the use of proper safety equipment and the health hazards of doing sandblasting. This can be done alongside a complete ban on all forms of sandblasting in the garment industry. This also requires brands and designers to stop asking suppliers to produce jeans which look sandblasted or which can only be made from sandblasting unless increased time and money is allowed for the supplier to introduce other methods to achieve the required look. >✂

Recommendations

We call for the following action:

Brands

Brands should immediately stop the use of sandblasting throughout their supply chains. To that end, we demand that companies continue to publicly support a complete ban on sandblasting in their supply chain and ensure that this ban is enforced by using adequate monitoring processes in cooperation with local/factory-based trade unions and NGOs in Bangladesh and wherever they may buy from.

Brands must also ensure that the design and time-line of denim garment orders are adapted to ensure that sandblasting is neither needed nor encouraged in the manufacture of denim garments and that suppliers are not forced to produce products that look sandblasted in a overly short time-frame.

Based on the research in this report it is not enough for brands to simply announce a ban. Brands need to ensure that they produce denim only in factories and plants which do not use any form of sandblasting – manual or mechanical – and which have the highest standards of occupational health and safety. We further ask that brands work with suppliers who wish to phase out sandblasting from the rest of their supply chain in order to support this process. Given the range of brands uncovered in the research we ask that brands named and others which have also committed to a ban ensure that the technique is completely abolished.

Should a single brand lack that leverage, it should increase it, as suggested in the UN Guiding Principles and Framework, “by, for example, offering capacity-building or other incentives to the related entity, or collaborating with other actors”.

In addition, we ask that brands take the responsibility to ensure that workers in their supply chains that have already been affected by silicosis receive adequate compensation, and to also ensure compensation for workers and their families for the financial extra burden that has been caused due to the illness (e.g. inability to work) as well as to provide them with the necessary financial support for medical treatment.

We also call upon brands to work with their suppliers to provide medical check ups and proper diagnostic procedures for the early diagnosis, treatment and compensation

We ask that the International Labour Organization and World Health Organization include denim-production chains as part of their global programmes to eradicate silicosis.

for silicosis in all workers who may have been affected by silica exposure, regardless of their job function.

We also ask that brands perform risk assessments when new production methods are introduced. As a basic step brands must, according to the UN Guiding Principles and Framework, undertake extensive due diligence prior to embarking on new or revised techniques for finishing denim.

Governments

National governments should not allow sandblasting in denim production. We demand they make sure that a ban on manual and mechanical sandblasting and occupational health and safety rules to improve the working conditions are being enforced.

In addition, we ask that the workers already affected by silicosis get support, social and medical assistance and disability pensions from the State, regardless of whether they worked in the formal or informal sector.

We also call upon the EU to implement an import ban on sandblasted jeans and for companies to support the establishment of such a ban.

International bodies

We ask that the International Labour Organization and World Health Organization include denim-production chains as part of their global programmes to eradicate silicosis. We ask that a specific country programme for the elimination of silicosis is established in Bangladesh. We ask in particular that extensive efforts be given to increasing awareness of the risks of sandblasting and silica in Bangladesh among both workers and the medical profession.

We further ask that the extensive reports of sandblasting being undertaken within the EU itself – notably in Portugal and Italy – be investigated and the process ended.

We ask that multi-stakeholder initiatives and business initiatives dealing with labour standards in the garment industry use their influence to move their members to implement a complete ban on sandblasting throughout their supply chains. ✂

Colophon

This executive summary summarises the findings of a fuller report issued by the Clean Clothes Campaign entitled *Deadly Denim: Sandblasting in the Bangladesh Garment Industry*, released on 29 March 2012.

This document has been produced with the financial assistance of the European Union. The contents of this document are the sole responsibility of the Clean Clothes Campaign and can under no circumstances be regarded as reflecting the position of the European Union.



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The Clean Clothes Campaign (CCC) is dedicated to improving working conditions and supporting the empowerment of workers in the global garment and sportswear industries. Since 1989, the CCC has worked with trade unions, NGOs, and workers around the world to help ensure that the fundamental rights of workers are respected. CCC educates and mobilises consumers, lobbies companies and governments, and offers direct solidarity support to workers as they fight for their rights and demands better working conditions.

Deadly Denim

Sandblasting in the Bangladesh Garment Industry

Jeans with the faded or worn out look achieved by blasting sand at high velocities at denim often retail for as much as 180% of the price of a normal denim. Yet the hidden cost is paid by sandblasting operators working today in countries such as Bangladesh and China, many of whom will contract an acute form of the fatal lung disease silicosis due to fine silica particles gathering in the lung.

The first cases of silicosis in the garment industry were identified in 2005 by doctors in Turkey, who were investigating the reason for a high incidence of lung and respiratory problems among the young men employed in the industry. By 2010, over 1000 affected workers had been identified in Turkey.

52 workers, mostly young men, have officially died of the disease and doctors suspect 5,000 other unreported cases.

The CCC also calls on the governments of jeans-producing countries to outlaw denim sandblasting, ensure that occupational health and safety rules are enforced, and provide disability pensions to sandblasters who contracted silicosis.

Take Action here: <http://www.cleanclothes.org/news/killer-jeans>