Frustration, helplessness and resignation are not unusual when accident rates at work are high. If you have already tried everything, what else is there left to do? German drop forge ThyssenKrupp Gerlach (TKG) resisted this conclusion by carrying out a radical overhaul of its safety culture together with DuPont Sustainable Solutions.

At its site in Homburg near Frankfurt, ThyssenKrupp Gerlach GmbH and its 750 employees produce forged crankshafts for the global automotive industry. Together with the international production sites of the ThyssenKrupp Forged and Machined Components business unit, the company is the world leader in this field. The working environment of drop forges is significantly impacted by noise, vibrations, heat and dirt. For years, ThyssenKrupp Gerlach tried to improve its safety performance, but although the company had managed to steadily reduce the frequency of its accidents, a rate in 2010 of 20 accidents at work per million man hours worked, still seemed too high to Dr. Franz Eckl, one of the members of the executive board.

ThyssenKrupp Gerlach success factors
- Visible senior management commitment and interest
- Clear definition of the rules
- Good communication of targets and expectations
- Adherence to the rules is controlled via an escalation model
- Regular safety talks with a new monthly topic

... and results
- 356 days without accident
- Reduction of incidents or recorded accidents by nearly 20%
- Senior management and employee behaviour change
- Productivity gain of 20%
- Improvement of all other noteworthy operational key indicators (quality, supply, costs)
- Employees, labour representatives and senior management are all proud of what they have achieved together
- Experienced that a vision can become reality
PUTTING A STOP TO AN ACCIDENT CULTURE

“At the time, we not only had relatively high accident figures, but also some serious accidents with long-term effects,” he explains. “Our solution approaches were purely focused on technical and organisational aspects. There was no awareness among employees that accidents at work could be prevented. The attitude one frequently heard was ‘There’s just nothing one can do about some accidents. They are the result of behaviour.’

“We realised that we had to change our culture and our behaviour with regard to work safety. But we didn’t know how to go about that in an effective and structured way. Work safety was important to us and we had done a lot for it. Many of us wondered why that wasn’t enough.”

Frustration with the topic, uncertainty and an acceptance of the situation began to become widespread. What was causing particular concern were the accidents whose repetition could not be prevented by technical or meaningful organisational means. If an employee ran in front of a forklift truck, for example, or reached through safety barriers into hazard zones, there were no specific, routine measures that ThyssenKrupp Gerlach could take.

“Employees expected that the company or the supervisor would solve any safety issues,” Dr. Eckl remembers. “The supervisors in turn were generally of the opinion that only the safety department was responsible for safety. And yet, 75% of all accidents were caused by the victim of the accident.”

SELF-CRITICISM IS TOUGH

After discussing the topic with various specialists, ThyssenKrupp Gerlach recognised that the company would have to invest more time in looking at work safety. It decided to call in external support in the initial phase of the project. In February 2011 DuPont was therefore invited to evaluate the situation and asked to identify focal points based on their analysis, as well as define strategic goals together with TKG and help them in implementing the corresponding measures.

Dr. Gerhart Arnold, senior consultant at DuPont recalls the kick-off event with senior managers at ThyssenKrupp Gerlach in March 2011. “It was quite interesting. I gave feedback on how we saw TKG and we discussed how TKG saw itself. The discrepancies became apparent as we talked. With regard to its safety culture, TKG saw itself one step further on the Bradley Curve than we did.”
That was an eye-opener for TKG. The company immediately wanted to do something to change the situation. Dr. Arnold had noticed some typical unsafe behaviours and situations, but also observed many good practices. Based on the outcome of the evaluation, DuPont therefore proposed to begin immediately with implementing so-called Quick Wins. These are steps that rapidly lead to success. Take for instance a list of safety rules for senior managers, which the business put together and then had them sign as a symbol of their commitment. This 'affirmation' was then published and displayed.

This action sent a clear and important signal. Management commitment is the first step in achieving a sustainable improvement in work safety. It is the core element of safety management.

**APPRAISING AND PROGRESSING WORK SAFETY**

Dr Eckl says: “The significance of the Quick Wins soon became apparent. It was also very helpful to understand the interplay of the different elements of safety management when it came to gaining an overall view of the task that lay ahead. Today, these elements also help us with many other key operational tasks such as quality, maintenance and cost control. If an organisation is able to internalise these elements and to live by them, that will not only improve work safety, but also increase its competitiveness.”

DuPont views safety management like a jigsaw puzzle. All the elements slot together and depend on each other. Every step that has to be taken influences the other elements in different ways depending on its characteristics and implementation. No element can be viewed in isolation. A sustainable result can only be achieved by involving all employees and working continuously on all elements.

In order to keep these components constantly in mind for the new safety culture at ThyssenKrupp Gerlach, a steering committee was set up to meet on a monthly basis and whenever required. This steering committee is made up of members of the executive board, the heads of all the business units, a production line manager, the chair of the works committee, the safety manager and the project manager. This committee develops concepts jointly with sub-committees who are responsible for different areas such as training, incident investigation, audits and safety talks, contractor management, motivation and communication etc. The business units and divisions are responsible for implementation.
Senior management commitment to the new safety culture is clearly communicated on site through posters, on noticeboards, via a DVD about work safety for all employees, through a brochure which lists the 10 safety principles, but above all through regular on-the-spot safety talks. These days, around 65 TKG senior managers conduct monthly safety talks with employees. The aim is to recognise and eliminate hazards, to increase safety awareness, to raise safety standards, to motivate employees, to demonstrate appreciation and commitment, to assess the effectiveness of training and to constantly re-evaluate one’s own effectiveness. Work safety has become daily business.

WHAT HAS CHANGED?

For ThyssenKrupp Gerlach employees a lot has changed over the last three years. In the past, the majority thought the number of units produced had precedence. Frank Nissen, team leader of press line 14, explains what things are like now: “Today, it’s clear that work safety and staying healthy are top priority. But work safety isn’t a sure-fire success that happens of its own accord. It requires constant vigilance. Superiors continually have to lead by example, otherwise the subject just loses credibility.”

As far as Dr. Eckl is concerned, the time and effort invested have been worth it. “Work safety has its price,” he says. “But our Homburg site has not had a single accident to record for nearly a whole year now. And what is even more important is that the safety behaviour of our senior managers and employees has really improved. That has also benefited other change processes. Compared to the period before the work safety project, we increased productivity by 20% in our last financial year despite a lower production level.”

Frank Weis, head of the work safety projects, explains: “In 2011 we began with a target of 0 work accidents. We have nearly reached that. Zero injuries are no longer a vision of the future, but our new goal at ThyssenKrupp Gerlach. Before I took over the project in May 2014, I spent years working in operations as a line manager. I have also had to learn to change my attitude to and behaviour with regard to work safety. For this reason it is now my job to achieve a similarly positive attitude among all employees.”
For 2015 ThyssenKrupp Gerlach has decided to put a so-called “Head of the Household Principle” on the agenda. This deals with the question of who is responsible for safety, but also for many other things. If rain is coming in through the roof of the production hall, is only the works maintenance department responsible? Over the next six months, TKG wants to make plain that everyone should take on responsibility for their surroundings, just like they do at home. That should make Gerlach even safer and more competitive.

But although TKG has so far been very successful with its safety project, Dr. Eckl by no means regards it as completed. "Culture change requires time. It’s not achieved at the snap of your fingers. If we didn’t do anything for a year now, it is likely that everything would disappear. Our credibility would also suffer. That is the difference to before: today, we will continue on the path we started. All employees should be aware of the fact that this is a general, lasting development for the company."

That this is the case also becomes obvious on the first page of the work safety brochure that ThyssenKrupp Gerlach produced for its employees. There it says: ‘Do it right! Everyone and every time!’ Why that is so important is summarised on the last page of the brochure: ‘Gerlach safe = Gerlach strong!’ For TKG the link between safety and performance is quite clear.

A ThyssenKrupp Gerlach employee during the process-related control of a forged crankshaft.

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**ABOUT DUPONT**

DuPont Sustainable Solutions (DSS) is one of 12 DuPont businesses. Bringing customers the benefits of an integrated global consulting services and process technology enterprise, DSS applies DuPont’s real-world experience, history of innovation, problem-solving success, and strong brands to help organisations transform their workplaces and work cultures to become safer, more operationally efficient and more environmentally sustainable.

For more information, visit our website at: www.sustainablesolutions.dupont.co.uk  

DuPont (NYSE: DD) has been bringing world-class science and engineering to the global marketplace in the form of innovative products, materials, and services since 1802. The company believes that by collaborating with customers, governments, NGOs, and thought leaders we can help find solutions to such global challenges as providing enough healthy food for people everywhere, decreasing dependence on fossil fuels, and protecting life and the environment.

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