

## SAFER AND HEALTHIER WORK AT ANY AGE: THE CASE OF A POLISH SEWING PLANT – POLAND

### 1. Organisations involved

- Dartex (company)
- External assistance services (laboratory, safety and health advisor)

### 2. Description of the case

#### 2.1. Introduction

Dartex is a small enterprise (founded in 1992), involved in the coproduction and packaging of swimwear. The company has 14 permanent sewers, all of them women, three of whom remain in employment despite being entitled to an early pension.

The company operates a single shift, 08.00–16.00, Monday to Friday, to prevent additional strains and help the women achieve a better work–life balance. When the workload increases significantly, the employer hires new or temporary staff rather than introduce a two- or three-shift pattern of work.

Efforts have been made to make the physical work environment pleasant, with free access to a wireless network, changing rooms with individual lockers, a fully equipped kitchen, toilets (separate for males and females) and a comfortable room that the employees can use whenever they wish to take a break.

In compliance with labour law, Dartex has a contract with an occupational medicine service unit, which provides medical examinations for all employees. These check-ups cover, in particular, the risks faced by sewers, including exposure to noise, vibration and eye fatigue. New employees are screened to ensure that occupational risks will not pose a threat to the health and life of the candidate.

Since the number of tasks performed is limited, employees have to spend most of their day in a seated position. Execution of their tasks often requires manual handling of loads or repetitive movements, for example when reaching for individual pieces of knitwear, while transferring the products from one workstation to another or during quality assurance and packaging. This repetition puts extra strain on the workers themselves and affects productivity levels. In the long term, it can also lead to an increased incidence of musculoskeletal disorders (MSDs). This issue is further compounded by a loss of precision, leading to customer complaints and, potentially, financial losses. The high degree of concentration required increases the risk of visual stress and fatigue. Finally, there is the continual exposure to noise and vibration. Over time, these factors may make it difficult for employees to keep up with the demands of the job. As a consequence, they are more likely to be absent from work or even retire early.

Efforts to offset these problem areas were focused on three key questions:

- 1) How might the organisation of work at / between individual workstations be improved?
- 2) How could the number of complaints be reduced?
- 3) How could occupational exposures be reduced?

Dartex was already aware of the need to address these health issues, irrespective of employees' ages. Although the measures described here did not form part of any defined occupational safety and health (OSH) strategy, their aims of retaining workers and reducing sickness absence are typical of many OSH interventions.

#### 2.2. Aims

Dartex aimed to improve work processes and reduce sickness absence through the implementation of measures to prevent MSDs and other occupational diseases.

## 2.3. What was done, and how?

Existing problems had been identified by the employer, who then consulted with employees on the implementation of the solutions proposed.

### 2.3.1. Initial assessment

Each individual workstation was assessed. It was found to be difficult (in terms of both time and postures) for the sewers to pick up the knitwear from near the ground and transfer it from one workstation to another, as this required them to constantly lean towards one side, turn back and forth or handle many loads at one time. Additional observations showed that the sewers spent a significant proportion of their time walking around the premises moving product from one place to another, which over time led to decreased productivity, as well as increasing the risk of slips, trips and falls.

### 2.3.2. Adoption of specific measures

The employer introduced the following measures to improve the organisation of work:

- Tables were mounted between individual workstations, so that the sewers now push and pull most of the knitwear between the stations, reducing the need to lean down.
- A 'basket system' together with internal weight limits (3 kg) was introduced for storing the products and carrying them around the premises, so that the sewers now carry much lighter loads at any one time.
- Baskets were stacked next to each workstation so that the sewers now reach for parts of the knitwear at arm level instead of having to lean towards the ground (the other parts are pushed and pulled on the tables).
- Two trolleys were bought to transport multiple baskets at one time without overstraining workers.
- One multipurpose cloth cart was designed by the employer and produced by an ironworker so that bulk deliveries can be loaded and unloaded more easily.
- Hydraulic chairs (adjustable between five positions) were installed at all workstations so that the sewers now sit at ergonomically correct heights.
- Brushes and dustpans were replaced with a pistol-driven compressed air cleaning system so that the sewers can now clean their work stations more easily. Production scraps are blown away from the floor so the sewers are also less likely to slip, trip or fall.
- Employees agreed to the appointment of a forewoman to organise and supervise the work. In some cases she acts as an intermediary between the employer and other members of staff.

Two other significant changes were made to the work environment, the first relating to lighting, and the second to noise and vibration levels. In both cases, an external consultant from the laboratory for vibration and acoustics provided expert advice on workplace changes.

- *Lighting:* In conversation with employees, the employer noted that complaints about quality from customers might be related to poor-quality lighting at the workstations, which affected the sewers' precision when finishing off products. Two additional types of lighting, individual ceiling lamps and spotlights, equipped with appropriate bulbs emitting non-tiring light, were mounted on each workstation.
- *Noise and vibration:* Although exposure to noise and vibration is typical of the industry, it is necessary to conform to the legal safety standards, and to control the exposure to maintain the work ability of the sewers. Most sewing machines were replaced with new ones, fitted with better engines, which produced less noise and fewer vibrations.

### 2.3.3. External audits

Since 2010 the workplace has been audited monthly. This ensures a continued focus on occupational health and safety for both employer and employees. The main purpose of these audits is to ensure that:

- all OSH regulations are being adhered to;

- work conditions are checked systematically;
- the employees are aware of recent changes in OSH legislation and the measures already or soon to be implemented in the company.

### 2.3.4. Barriers for implementation

The most significant challenge experienced related to the relatively poor understanding of the importance and benefits of good OSH management at the start of the programme. Over time, employees became convinced of the value of the changes, which made it easier to effect behaviour change. After a period of time with the new ways of working, the employees found their work less strenuous and they felt supported by the employer.

## 2.4. What was achieved?

- Work organisation is improved, as the sewers now spend less time moving the knitwear.
- Slips, trips and falls, occupational diseases and accidents at work are less common. Since the implementation of these measures not a single accident has taken place at the premises of the company.
- Risk of suffering from MSDs is reduced by lighter loads, limited reaching and ergonomic workstations.
- Risk of suffering from deteriorating eyesight is reduced, as the sewers now work with better lighting.
- Increased precision in work and quality checks led to a 70% reduction in the number of customer complaints.
- Exposure to occupational noise and vibration is reduced.
- Sickness absence is reduced and workers are better able to meet the demands of the job.
- Awareness of the benefits of good OSH management has been raised.
- Worker motivation is increased as a result of the improved work environment.
- Fewer complaints lead to higher profits, which provide better job security.

## 2.5. Success factors

The following factors contributed to the success of the initiative:

- *Good knowledge of work practices:* employer's close observation of the workplace and awareness of existing problems, coupled with the desire to improve the work environment;
- *Taking the time to raise awareness:* time and effort invested in convincing the sewers that the measures were implemented for their own benefit;
- *Employer motivation and commitment:* the drive to succeed, and willingness to make certain investments, for example to replace the machinery or install new lighting;
- *Consultation with workers:* involvement of workers, such as through frequent consultations on OSH measures and other issues;
- *External support:* advice sought from external advisors, for example workplace assessments and equipment adaptations.

## 2.6. Transferability

Although some of the solutions presented here are specific to the sewing industry, or more relevant to older workers, the approach is possible for other enterprises. Employer awareness, employee consultation and the assistance of external experts led to the development of effective solutions that had positive effects for the workers and for the company.

## 2.7. Further information

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### 3. References and resources

- Interview with Dariusz Kozłowski, owner
- Website of Dartex: <http://en.dartex.com.pl/>
- Article on Dartex on the website of the *Fakty* magazine: <http://magazynfakty.pl/wp-content/uploads/2013/01/fakty-1-61-styczen-luty-2013.pdf>, p.23 (in Polish)