

# FLEXIBLE FIREFIGHTING

Marko de Klein, Executive Sales Manager at MSA Bristol, weighs in on the comfort and design of fire protective clothing



**H**aving joined the youth fire brigade at the age of 10 and been working in the fire industry for his entire professional career, it is safe to say that Marko de Klein, Executive Sales Manager at MSA Bristol is passionate when it comes to protecting the lives of firefighters. With a career which saw his involvement in the field of emergency site hygiene and the preparation and maintenance of protective clothing, de Klein joined MSA in October 2021 and has been

responsible for the development of protective clothing in the fire protection sector and sales of MSA Bristol fire protection clothing in Germany, Austria and Switzerland.

His long career in the fire protective clothing market is, he says, founded on a very basic, very important principal: "Firefighters need protection." The market has evolved over the years as the role of the firefighter has diversified beyond typical scenarios such as house fires. Today, he says, technical rescue situations are becoming more and more prominent due to environmental pressures such as increasing numbers of wildfires and extreme flooding situations which in turn are driving innovation and diversity in what has previously been a one-size-fits-all market.

Until recent years, wildfires were uncommon in Germany, Austria and Switzerland. de Klein says that the fire industry had been forewarned by the weather service of temperatures rising, increasing the risk of wildfire as seen in neighbouring countries and overseas, but the fire industry was slow to catch on with a lack of

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personal protective equipment (PPE) specifically designed for wildfire scenarios.

A stumbling block for development, de Klein tells, was the market demand to have one suit for everything. "This is changing," he says. "They are also heading in the direction that recognises one suit is not suitable for all fires, as structure fires and grass fires are very different physical environments."

Another key driver for change in the market has been the recognition of the occupational exposure of firefighting as carcinogenic. "Fire cancer is a growing concern," says de Klein. "There are rules and standards that are coming and have influences on the PPE. Even if you look at boots the manufacturer is thinking more about decontamination. Firefighters, both male and female, must be protected against everything."

### One-size-fits-all?

For the German market, de Klein says there has long been the idea that there must be one suit for all situations. One obvious problem for this is that a suit which is warm for the winter will also be warm for the summer. Another is that not all firefighters are built the same, and so with the rising temperatures and growing number of wildfires, he says that customers have been calling for change.

"We have one million volunteer firefighters, but not everyone is built the same way with varying levels of fitness. We have firefighters who might not be fit or slim and there have been reports of accidents with heat stress and fitness issues due to PPE," he tells. "The customers are saying it is too warm."

As a result, de Klein says they have moved towards lighter, more flexible material. "People are talking about more comfortable shields," he

says. "This is really important for customers." Whilst less important, aesthetic consideration are also a factor: "It must be a perfect design and look nice. If you have the old block style fire jacket next to something modern and reflective with stripes firefighters are more likely to go for the modern version."

Then there is comfort: "If you have the feeling that something is stopping you or uncomfortable or physically restrictive then that is a problem. Layer combinations are becoming lighter and more flexible and in recent years because of the hygiene aspect we are washing more

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than ever before. Every washing cycle wears down the PPE, so it needs to be stable and durable against water and mechanical washing."

### Regional differences

On the topic of regional considerations, de Klein says that colour is a significant player. He gives the example of high-visibility PPE: "If you are going to the market in central Europe with high vis material they will simply say 'I'm not working for the waste disposal service' or 'I'm not the repair service for cars,'" explaining that specific

colours are regionally recognised for specific jobs. "These are not really big arguments, it is just coming from the traditional market. If you come from outside these countries you can open it a little but sometimes in people simply might think 'this colour is not mine'."

Different countries will have PPE components. de Klein says that in some regions you will see high class, premium layer combinations adapted with details like integrated rescue systems such as a belt-like a harness. "The rescue belt is only something for the German market but all other countries are not using it," he notes.

Another interesting regional difference are the presence of pockets. "If you go into the German market and say this my new suit and we have no pockets because it is easier for hygienic and maintenance aspects, the German firefighters would say 'go away,'" de Klein laughs.

The process of buying new suits also varies across regions, with some making a bulk order in the thousands for firefighters, such as the Munich fire department's recent order of 8000 suits, to others making smaller orders for as few as 40 suits at a time.

As a result, delivery times can be a critical factor: "People who decide to become a firefighter don't want to wait one year to get their suit – they would like the suit now," he says. "If you can't deliver the suit in a few months they might go and do something else." Fortunately, delivery times are improving.

de Klein adds: "MSA Bristol has existed in the market for 20 years with clean and care concepts. Everything we do is to improve the standard of firefighter protective clothing. We are focused on developing a new pattern, style, pockets and knowledge of all the things that will break over the years from washing and cleaning."