

HEAT PROTECTION

#### RADIANTPROTECTOR JACKET JACKET **KNEE-LENGTH COAT KNEE-LENGTH COAT** FOOT-LENGTH COAT FOOT-LENGTH COAT FRONT CLOSURE BACK CLOSURE FRONT CLOSURE BACK CLOSURE FRONT CLOSURE BACK CLOSURE Page 9 Page 9 Page 11 Page 11 Page 12 Page 12 ART. NO. 1022100 1000 ART. NO. 1022000 1000 ART. NO. 1023450 1000 ART. NO. 1023400 1000 ART. NO. 1023050 1000 ART. NO. 1023000 1000 COMPLETE COMPLETE NECK AND HELMET **HOOD FULL** TROUSERS **NECK PROTECTION** APRON GAITERS PROTECTION PROTECTION Page 15 Page 17 Page 18 Page 10 Page 10 Page 15 ART. NO. 1030000 1000 ART. NO. 1023800 1000 ART. NO. 1053000 1000 ART. NO. 1010010 1075 **SAFETY HELMET** VISOR VISOR **VISOR HOLDER** HOOD **NECK AND HELMET** TRANSPARENT GOLD-PLATED **FULL PROTECTION** PROTECTION Page 18 Page 19 Page 19 Page 19 Page 19 Page 17 ART. NO. 1010020 1000 ART. NO. 6010400 6000 ART. NO. 6014000 6250 ART. NO. 6014000 6260 ART. NO. 6012000 1000 ART. NO. 1010040 1000 SPECIAL **ARM PROTECTIONS** MITTENS **FIVE FINGER GLOVE FIVE FINGER GLOVE** WELDING CLOTH WELDING PAD Page 13 Page 13 Page 14 Page 14 Page 20 Page 20 ART. NO. 1002000 1000 ART. NO. 1000400 1000 ART. NO. 1000200 1000 ART. NO. 1000820 ART. NO. 1062020 ART. NO. 1061020

MOLTENPROTECTOR



COAT







**FOOT-LENGTH COAT** 





**NECK PROTECTION** 





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NECK PROTECTION

SAFETY HELMET

AKI. NO. 1001020

## YOU'RE SAFE WITH US

We're on a mission: To make sure that our customers come home safely to their families and loved ones, every day. We are the tough industrial worker's tailors, that improve people's safety and performance in extremely demanding work environments, like steel works, aluminum industries, oil platforms, and other heavy industries.

It's no coincidence that we're the leading company within protective clothing and equipment. Every single product is born out of necessity, developed in close cooperation with our end users. Over the years, we have developed a culture of continuous innovation, where methods, concepts, and products are developed and refined on an ongoing basis. We have evolved into an innovative business partner who, through impeccable service and expertise, makes personal protective equipment smarter and the world a little safer.

Our motto is "Saving Lives". This is not only our duty, but it also makes us feel good. It would be difficult to find anything more meaningful to spend our time doing.

### HEAT-PROTECTIVE CLOTHING MADE IN SWEDEN

We started selling the first collection of our silver colored protective clothing, RadiantProtector, way back in 1990. The red protective clothing, MoltenProtector, saw the light of day a bit into the 2000s, more specifically in 2008. Both product series are certified according to EN ISO 11612.

Then, like now, development has taken place in close consultation with our end users. Ever since the beginning development and manufacturing have taken place in Sweden. Safety and comfort are our guiding stars when we design and develop our products.

#### WHEN SHOULD I CHOOSE WHAT?

#### RADIANTPROTECTOR

When you need protection against radiant heat and molten metal. RadientProtector is primarily used by iron works, steel works, and heating plants.

Classifications: A1, B1, C3, D3, E3, F1

#### **MOLTEN**PROTECTOR

When you need protection against molten metal. MoltenProtector is specially developed for the aluminum industry but is also used in other industries where you want protection against metal splash but do not need protection against radiant heat.

Classifications: A1, B1, C1, D3, E3, F1







#### CERTIFIED PROTECTION FROM TOP TO BOTTOM

No matter what kind of heat protection you need we can offer a wide collection of certified protective clothing that covers all your needs for protection against radiant heat and molten metal. From hood and coat to gloves and foot protection. You can also combine the products from our two collections of heat protection.











## PROTECTION FOR RADIA



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## NT HEAT AND MOLTEN METAL



#### PROTECTION FOR RADIANT HEAT AND MOLTEN METAL

RadiantProtector reflects up to 95 % of radiant heat and has a high certification against radiant heat and the highest certification against molten aluminum and molten iron. Certified according to EN ISO 11612

Classification: A1, B1, C3, D3, E3, F1. *Read more on page 27.* 



PROTECTION FOR MOLTEN METAL

#### THREE DIFFERENT MATERIALS

To offer the best possible protection and at the same time make the clothes practical and comfortable we use three different materials.

#### ALUMINUM COATED CARBON-ARAMID

Protects against high radiant heat and molten metal while being light and flexible.

#### SILICON-COATED E-GLASS FIBER

A material that provides extra protection against contact heat. Withstands approx. 250°C. Used in our Five finger glove Special, as well as in our Welding cloth and Welding pad.

#### HEAT RESISTANT LEATHER

Withstands approx. 250°C. Used in the palm of our Five finger glove and Mitten.







## FRONT CLOSURE JACKET

- Protected hooks & loops fastening at the front.
- **C€** Regulation (EU) 2016/425
- Clothing for protection against heat and flame: EN ISO 11612:2015

## BACK CLOSURE **JACKET**

- Protected hooks & loops fastening at the back.
- Prepared for comfort-enhancing distance cushions (art. no. 1029000 1000) on the chest.
- **C** Regulation (EU) 2016/425
- Clothing for protection against heat and flame: EN ISO 11612:2015

SIZES	WEIGHT	ART. NO.	SIZES	WEIGHT	ART. NO.
S-3XL	1,1 kg	1022100 1000	S-3XL	1 kg	1022000 1000









#### TROUSERS

- Trousers with openable legs, making them easy to put on over other clothes and remove in the event of an accident.
- Hooks & loops fastening
- Some size adjustment at the waist with elastic.
- **C€** Regulation (EU) 2016/425
- Clothing for protection against heat and flame: EN ISO 11612:2015

### APRON

- The apron is easy to put on and take off.
- Adjustable neck and waist band.
- Length approx. 125 cm.
- **C€** Regulation (EU) 2016/425
- Clothing for protection against heat and flame: EN ISO 11612:2015

SIZES	WEIGHT	ART. NO.	SIZES	WEIGHT	ART. NO.
S-3XL	1 kg	1030000 1000	ONE SIZE	0,5 kg	1023800 1000





#### FRONT CLOSURE KNEE-LENGTH COAT

- Protected hooks & loops fastening at the front.
- **C€** Regulation (EU) 2016/425
- Clothing for protection against heat and flame: EN ISO 11612:2015

#### BACK CLOSURE KNEE-LENGTH COAT

- Protected hooks & loops fastening at the back.
- Prepared for comfort-enhancing distance cushions (art. no. 1029000 1000) on the chest.
- **C€** Regulation (EU) 2016/425
- Clothing for protection against heat and flame: EN ISO 11612:2015

SIZES	WEIGHT	ART. NO.	SIZES	WEIGHT	ART. NO.
S-3XL	1,3 kg	1023450 1000	S-3XL	1,2 kg	1023400 1000



#### FRONT CLOSURE FOOT-LENGTH COAT

- Protected hooks & loops fastening at the front.
- **C€** Regulation (EU) 2016/425
- Clothing for protection against heat and flame: EN ISO 11612:2015



#### BACK CLOSURE FOOT-LENGTH COAT

- Protected hooks & loops fastening at the back.
- Prepared for comfort-enhancing distance cushions (art. no. 1029000 1000) on the chest.
- **C€** Regulation (EU) 2016/425
- Clothing for protection against heat and flame: EN ISO 11612:2015

SIZES	WEIGHT	ART. NO.	SIZES	WEIGHT	ART. NO.
S-3XL	1,5 kg	1023050 1000	S-3XL	1,4 kg	1023000 1000







### ARM PROTECTIONS

- Arm protections that stay securely in place thanks to flexible cuffs at the top and bottom.
- Approx. 40 cm long.
- Sold in pairs.
- **C€** Regulation (EU) 2016/425
- Clothing for protection against heat and flame: EN ISO 11612:2015

#### **MITTENS**

- Curved mittens with heat-resistant leather in the palm which withstands about 250° C contact heat.
- Cotton lining.
- Approx. 30 cm long.
- Sold in pairs.
- **C€** Regulation (EU) 2016/425

SIZES	WEIGHT	ART. NO.	SIZES	WEIGHT	ART. NO.
ONE SIZE	0,2 kg	1002000 1000	ONE SIZE	0,3 kg	1000400 1000





### FIVE FINGER GLOVES

- Gloves with heat-resistant leather in the palm withstand about 250°C contact heat.
- Cotton lining.
- Approx. 30 cm long.
- Sold in pairs.
- **CE** Regulation (EU) 2016/425

#### SPECIAL FIVE FINGER GLOVE

- Glove with silicone-coated e-glass fiber on the whole hand and a bit up the arm.
- The material provides extra protection against contact heat, approx. 250°C.
- Kevlar lining.
- Approx. 75 cm long.
- Sold individually.
- **C** Regulation (EU) 2016/425

				SIZES	WEIGHT	ART. NO.
SIZES	WEIGHT	ART. NO.	LEFT	ONE SIZE	0,4 kg	1000820 1001
8, 12	0,3 kg	1000200 1000	RIGHT	ONE SIZE	0,4 kg	1000820 1002





#### GAITERS

#### 4411411411411411411411411

- Used on top of ordinary footwear.
- Adjusted and closed with hooks & loops at the back.
- Held in place with adjustable strap under the arch of the foot.
- **C€** Regulation (EU) 2016/425
- Clothing for protection against heat and flame: EN ISO 11612:2015

#### **NECK PROTECTION**

- Neck protection that attaches to a helmet.
- Prepared to fit many types of helmets.
- **C€** Regulation (EU) 2016/425
- Clothing for protection against heat and flame: EN ISO 11612:2015

SIZES	WEIGHT	ART. NO.	SIZES	WEIGHT	ART. NO.
36-41, 42-48	0,4 kg	1053000 1000	ONE SIZE	0,1 kg	1010010 1075







#### COMPLETE HOOD FULL PROTECTION

- NECK & HELMET PROTECTION
- SAFETY HELMET
- VISOR HOLDER
- TRANSPARENT VISOR or GOLD-PLATED VISOR 3 DIN
- The full protection hood is made in one piece, providing good protection around.
- Cannot be opened at the front.
- Available with two different visors, for different needs of radiant heat protection.
- **C**€ Regulation (EU) 2016/425
- Complete Hood full protection: Clothing for protection against heat and flame: EN ISO 11612:2015

### HOOD FULL PROTECTION

- Made in one piece, providing good protection around.
- **C€** Regulation (EU) 2016/425
- Clothing for protection against heat and flame: EN ISO 11612:2015

VERSION	WEIGHT	ART. NO.			
Hood Full Protection complete w. transparent visor	1,1 kg	1010P10 6250	SIZES	WEIGHT	ART. NO.
Hood Full Protection complete w. goldplated visor	1,1 kg	1010P15 6260	ONE SIZE	0,4 kg	1010040 1000





#### COMPLETE NECK AND HELMET PROTECTION

- NECK & HELMET PROTECTION
- SAFETY HELMET
- VISOR HOLDER
- TRANSPARENT VISOR or GOLD-PLATED VISOR 3 DIN
- Covers neck and helmet, with fold-up visor.
- Available with two different visors, for different needs of radiant heat protection.
- **C€** Regulation (EU) 2016/425
- Complete Neck and helmet protection: Clothing for protection against heat and flame: EN ISO 11612:2015

#### NECK AND HELMET PROTECTION

- Covers neck and helmet.
- **C€** Regulation (EU) 2016/425
- Clothing for protection against heat and flame: EN ISO 11612:2015

VERSION	WEIGHT	ART. NO.			
Neck and Helmet Protection complete w. transparent visor	0,9 kg	1010P20 6250	SIZES	WEIGHT	ART. NO.
Neck and Helmet Protection complete w. goldplated visor	0,9 kg	1010P25 6260	ONE SIZE	0,2 kg	1010020 100







## SAFETY HELMET

- Helmet for high heat, compatible with Visor Holder + visor, Hood, Neck & Helmet Protection, and MoltenProtector Neck Protection
- Approved for use in temperatures between -30°C and +150°C
- Leather sweatband for extra comfort.
- Size: 53-62 cm.
- **C€** Regulation (EU) 2016/425
- Industrial safety helmets EN 397:2012+A1:2012

## **VISOR / VISOR HOLDER**

- Spare parts to Safety Helmet.
- **C€** Regulation (EU) 2016/425

			VERSION	ART. NO.
			Transparent visor	6014000 6250
SIZES	WEIGHT	ART. NO.	Gold-plated visor 3 DIN	6014000 6260
ONE SIZE (53-62 cm)	0,4 kg	6010400 6000	Visor holder	6012000 1000





### WELDING CLOTH

- With hemmed edge, protection in the corners, and eyelets for hanging.
- Made in silicone-coated e-glass fiber.
- Available in two sizes.
- Can also be made to measure. Contact info@tst-sweden.se.

#### WELDING PAD

- Protects knees and other exposed parts of the body when welding in uncomfortable positions.
- Made in silicone-coated e-glass fiber.
- Available in three sizes.

		SIZES	ART. NO.
SIZES	ART. NO.	Welding pad – $320 \times 450 \times 20$ mm	1061020 1815
approx. 900 × 900 mm	1062020 1805	Welding pad – $500 \times 450 \times 20$ mm	1061020 1816
approx. 1500 × 900 mm	1062020 1810	Welding pad – $1000 \times 450 \times 20$ mm	1061020 1820

# MOLTENP



A1, B1, C1



FOR MOLTEN MET

, D3, E



#### MOLTEN METAL DOES NOT STICK

Marlan<sup>®</sup> is a permanent fire-resistant fabric developed especially for protection against big aluminum splashes (750°C) and cryolite (1,100°C) as well as splashes of iron, steel, and other molten metals, like copper, magnesium, lead, or nickel. These properties come from the mixture of wool and fire-resistant fibers that provide great thermal insulation. This also prevents the molten metal from sticking to the fabric, which is the main problem with fabrics made from synthetic fibers.



#### COMFORTABLE AND ANTISTATIC

MoltenProtector is made in Marlan<sup>®</sup> which gives amazing comfort since the fabric is so soft and has a good ability to absorb moisture. Marlan<sup>®</sup> also has great antistatic properties as the fabric is naturally antistatic.

#### MAINTAINED LEVEL OF PROTECTION

The protection MoltenProtector offers is inherent in the fabric, which means that the protection level does not decrease with use. Even after the fabric has been exposed to many industrial washing cycles, its properties remain unchanged throughout its lifespan.

#### HIGHEST CLASSIFICATION AGAINST MOLTEN METAL

MoltenProtector is both heat and flame resistant according to classification EN ISO 11612. The protective clothing has the highest classification against melted aluminum and melted iron.

Classification: A1, B1, C1, D3, E3, F1. *Read more on page 27.* 







#### COAT

- Hooks & loops fastening and push buttons in front.
- Special pocket for gloves in the back. The pocket has evacuation in the bottom.
- The arm cuffs can be adjusted with hooks & loops.
- Adjustable waist with drawstring.
- Felt-lined collar for increased stability and safety.
- **C** Regulation (EU) 2016/425
- Clothing for protection against heat and flame: EN ISO 11612:2015

### KNEE-LENGTH COAT

- Side hooks & loops fastening at the front.
- Special pocket for gloves in the back. The pocket has evacuation in the bottom.
- The arm cuffs can be adjusted with hooks & loops.
- Felt-lined collar for increased stability and safety.
- **C€** Regulation (EU) 2016/425
- Clothing for protection against heat and flame: EN ISO 11612:2015

SIZES	WEIGHT	ART. NO.	SIZES	WEIGHT	ART. NO.
S-3XL	1,4 kg	1123550 1320	S-3XL	1,4 kg	1123450 1000





В.



## FOOT-LENGTH COAT

- Side hooks & loops fastening at the front.
- Special pocket for gloves in the back. The pocket has evacuation in the bottom.
- The arm cuffs can be adjusted with hooks & loops.
- Felt-lined collar for increased stability and safety.
- **C€** Regulation (EU) 2016/425
- Clothing for protection against heat and flame: EN ISO 11612:2015

### NECK PROTECTION

• Neck protection in two different variations, both which are attached to the helmet.

#### A. Standard:

- Protects neck.
- Prepared to fit many different types of helmets.

#### **B. Full protection:**

- Protects throat and neck.
- Fits Safety helmet art.no. 6010400 6000 (not included)
- Fastening at the front with the possibility of being buttoned to the back when the Throat protection is not actively used.
- **C** Regulation (EU) 2016/425
- Clothing for protection against heat and flame: EN ISO 11612:2015

SIZES	WEIGHT	ART. NO.
S-3XL	1,5 kg	1123050 1000

VERSION	SIZES	WEIGHT	ART. NO.
A. Neck protection Standard	ONE SIZE	0,1 kg	1110010 1075
B. Neck protection Full protection	ONE SIZE	0,1 kg	1110010 1076

# SAFETY, TECHNIC

#### **CLASSIFICATION - WHAT DOES THE LABELING MEAN?**

Our protective clothing against heat is certified according to EN ISO 11612 and protects the user when in contact with heat and flame.

#### A: Limited flame spread

The garment should stop burning within two seconds and no hole should form when exposed to an open flame for 10 seconds. A1 – Surface ignition A2 – Edge ignition

#### **B:** Protection against convection heat

Duration of time the garment can stop heat from passing through when exposed to an open flame. B1: 4-10 sec B2: 10-20 sec B3: 20 sec or more

#### C: Protection against radiant heat

Duration of time the garment can stop heat from passing through when exposed to radiant heat. C1:  $7-20 \sec C2$ :  $20-50 \sec C3$ :  $50-95 \sec C4$ :  $95 \sec or$  more

#### D: Protection against splashes of melted aluminum

The amount of melted aluminum the garment can withstand without a hole forming. D1: 100-200 g D2: 200-350 g D3: 350 g or more

#### E: Protection against splashes of melted iron

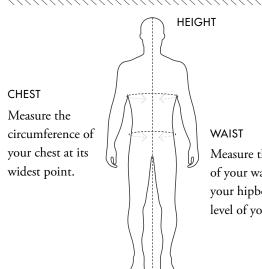
The amount of melted iron the garment can withstand without a hole forming. E1: 60-120 g E2: 120-200 g E3: 200 g or more

#### F: Protection against contact heat

Duration of time the garment can block heat when in direct contact with hot substances and objects. F1: 5-10 sec F2: 10-15 sec F3: 15 sec or more

#### How is testing D and E (melted aluminum and iron) performed?

The test is performed by pouring liquid metal over the fabric at a specific angle, and the rating indicates how much the fabric can withstand before a hole forms.



Measure the circumference of your waist at the top of your hipbone, usually at the level of your belly button.

Size	Height (cm)	Chest (cm)	Waist (cm)
S	168 - 184	92 - 96	80 - 84
м	168 – 184	98 – 104	88 - 92
L	176 – 192	108 – 112	97 – 102
XL	176 – 192	116 – 120	108 - 114
2XL	187 – 206	124 – 128	120 – 126
3XL	187 – 206	132 – 136	132 – 138

## **AL INFO & CARE**

### RADIANTPROTECTOR

The reflective surface should regularly be cleaned with a soap solution and water. Do not clean with high pressure. A defect or dirty garment may result in insufficient protection and must be remedied immediately or discarded. Handle with care for the longest possible lifespan.

Material: Read more on page 7 Seams: Double



DO NOT TUMBLE DRY



DO NOT IRON



DO NOT DRYCLEAN

#### **MOLTENPROTECTOR**

A defect or dirty garment may result in insufficient protection and must be repaired, cleaned, or discarded. Handle with care for the longest possible lifespan.

Material: Marlan'; FR-viscose, wool and polyamide Seams: Double

60°

MACHINE WASH AT 60°



DO NOT BLEACH



DO NOT TUMBLE DRY



**IRON MEDIUM** 



DO NOT DRYCLEAN

# SAVING LIVES THROU

Our promise to our customers and their families is to save lives. With this promise, striving for a sustainable future is a priority for us, and we continuously work to make the world a little safer and a little better to live in.

#### UN global goals

In 2015, the United Nations adopted 17 sustainable development goals to be reached by 2030. We are committed to play our part. Some of the goals are particularly relevant to us: Protect labour rights and promote safe working environments, Clean water & sanitation and Responsible consumption & production.

#### Sustainability by being the best

We pride ourselves with being the best in the industry and we work hard to find new techniques and materials to make our products safer, more comfortable to wear and more sustainable to produce. We participate in a variety of networks to share our knowledge of technical textiles.

#### Local manufacturing

We manufacture our products for heat protection in Sweden, and ensure our factories have fair working conditions and a responsible water management. The short distance between us and our manufacturers reduces unnecessary transports.

#### Certifications

All our PPE products are CE-labelled in accordance with the PPE Regulation; the European legislation for Personal Protective Equipment. TST Sweden is certified according to ISO 14001 environmental management and ISO 9001 for quality management. We work systematically to improve our products and reduce our climate impact.

#### Limiting our chemical footprint

We follow the REACH regulation which concerns the registration, evaluation, authorization, and restriction of chemical substances. And also constantly strive to reduce our use of chemicals, always opting for better ones.

#### Safety academy

Through our promise, "Saving Lives", we are committed to ensure that our customers come home to their family and loved ones every day. Therefore educating the world about using correct protection is a task we take very seriously. Our ambition is to spread knowledge to employers and workers all around the world.

#### Every little thing helps

Whether it's drinking organic fairtrade coffee at the office or driving electric company cars, planting trees or supporting children with cancer, each employee at TST do what they can to make the world a little bit better!

# JGH SUSTAINABILITY

## THE DIFFERENCE

We founded our company in the region of Sjuhäradsbygden, in the south-west of Sweden, and we are still working from here today. Sjuhäradsbygden has been the home of textiles production for over a century – and still is today. Several of Sweden's biggest fashion and textiles companies are based in the region. There are many benefits of being here. Invaluable experience and sound knowledge of the textiles industry converge here in a single place. What's more, the collaboration between companies is also excellent. If you work with products that are designed to save lives, you don't want to leave anything to chance. We use local suppliers that we know well, and we work with RISE Research Institutes of Sweden and the Swedish School of Textiles in Borås. We develop our products ourselves and production is local, which allows us to better control the entire chain. All of this helps us to be innovative and at the forefront of development, which in turn ensures that we can uphold the highest of standards and offer the best functionality – down to the smallest detail.



# IS IN THE DETAILS

## **OUR VALUES**

#### TRUSTWORTHY

Through our actions and our products we shall instill a high level of confidence in our customers, suppliers and business partners.

#### DEVELOPMENTAL

By continuously developing our products and working on innovative new solutions, we will bring products to the market that are of the highest class. Collaborations with universities and suppliers at the forefront of textile materials and treatments are a matter of course for us.

#### LONG-TERM

In our internal and external relationships, we shall be considered a long-term partner. Our products shall be developed and marketed with a long-term profile, where we want to see customers and suppliers staying with us year after year.

## WE ARE

SMOOTH AMBITIOUS FUTURISTIC ENERGETIC



SO ARE YOU

NOTES	

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