



**PROTECTION FOR WATERJETTING  
AND HIGH PRESSURE CLEANING**



00 BAR / 40 000 PSI

PRO OPERATOR - UP TO 500 BAR / 7 500 PSI

DELTA KIT



Page 36

ART. NO. 51K1047 5000

ALFA KIT



Page 36

ART. NO. 51K4047 5000

JACKET



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ART. NO. 5622025 5000

TROUSERS



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ART. NO. 5632025 5000

OVERALL



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ART. NO. 5640025 5000

APRON



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ART. NO. 5623025 5000

APRON



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ART. NO. 5123047 5000

VEST WITH APRON



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ART. NO. 5123547 5000

JACKET HI VIS



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ART. NO. 5622025 5690

TROUSERS HI VIS



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ART. NO. 5632025 5690

OVERALL HI VIS



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ART. NO. 5640025 5690

VEST HI VIS



Page 53

ART. NO. 5620025 5690

HAND PROTECTIONS



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ART. NO. 5100047 5000

GLOVES 500 BAR



Page 61

ART. NO. 5600025 5000

ARM PROTECTIONS



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ART. NO. 5602025 5000

BOOTS 500 BAR



Page 64

ART. NO. 5652025 5000

HOSE PROTECTION



Page 64

00 BAR / 40 000 PSI

WORKPLACE SAFETY SOLUTIONS

HOSE PROTECTION



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HOSE CONNECTION COVER



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WHIP STOP



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ART. NO. 5072000 5000

SAFETY FUNNEL



Page 70

PROTECTIVE CURTAIN



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ART. NO. 5800010 5885

SCUFF GUARD



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## YOU'RE SAFE WITH US

We're on a mission: To make sure that our customers come home to their family and loved ones, every day. This is our reason for being and what drives us to go to work each morning. We do it by improving people's safety and performance in extremely demanding work environments, like oil platforms, alongside roads, in ports and heavy industries.

It's no coincidence that we're the leading company in 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.

We are Smooth, Ambitious, Futuristic, Energetic.  
In short: We are S.A.F.E. So are you.





PPE FOR HIGH

# PROOP



200 BAR / 3 000 PSI



500 BAR

We develop and manufacture our clothing in Borås, the capital of textiles as well as the rainiest city in Sweden. The location is absolutely perfect when designing waterproof workwear for demanding

workplaces. Our ProOperator range protects the operator during high pressure cleaning up to 500 bar/ 7 500 psi. Due to the light, but strong materials, our clothes are comfortable to wear all day long.



PRESSURE CLEANING

# ERATOR

/ 7 500 PSI



500 BAR / 7 500 PSI

PROOPERATOR



## IT'S ALL IN THE DETAILS

Thoughtful details are often the difference between good and excellent. We know that from working closely with the end users.



Reinforcements on the knees / pockets for knee pads.



Openable ventilation in the armpits.



Pocket for ID card on the right sleeve.



Detachable hood with three adjustment possibilities and room for head protection.



Waterproof zippers with overlapping flaps.

## THE WORLD'S STRONGEST FIBER PROTECTS YOU

We use an ultra strong and ultra light fiber – Dyneema®. The fiber is 15 times stronger than steel and up to 40 % stronger than aramids. This enables us to develop protective clothing which are lighter and more comfortable, without compromising on safety and durability.



DYNEEMA®

## THREE DIFFERENT LAYERS WORKING TOGETHER

### POLYAMIDE

Dirt and water repellent.  
Durability: 300 000 Martindale.

### DYNEEMA®

The world's strongest fiber in protective areas.

### MESH AND POLYESTER LINING

Ventilating and stretchy.



## AREAS WITH PROTECTION

It is essential that the operator knows where and for what the clothes protect. Striped fabric clearly identifies protective areas, and the label tells the level of protection. *See test tables on page 75.*



## BE WATERPROOF

The outer material has a DWR (Durable Water Repellent) treatment. This keeps the operator dryer and lighter, and makes the clothes easy to clean. All ProOperator clothes have waterproof zippers and/or overlapping flaps.



## DON'T BLEND IN. STAND OUT.

Did you know that most of our ProOperator products also comes in a high visibility version? The functionality and comfort are exactly the same as the standard ProOperator (protection during high pressure cleaning up to 500 bar / 7 500 psi). Instead of our gray fabric, we use a Hi-Vis orange fabric with added reflective material. It provides extra safety in workplaces where it is important or required to be highly visible.





**HEAD PROTECTION 3000 BAR**

*See p. 60*

**JACKET**

*See p. 49*

**GLOVES 500 BAR**

*See p. 61*

**TROUSERS**

*See p. 49*

**HOSE PROTECTION**

*See p. 64*

**BOOTS 500 BAR**

*See p. 64*







**WE KEEP EVERY  
PART OF THE BODY  
SAFE AND SOUND**



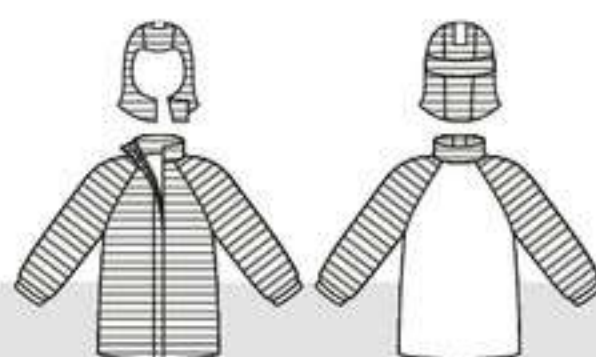


## JACKET

- Protection on the entire front, arms and hood.
- Very smooth and flexible to wear. Lined for high comfort. Waist adjustable with drawstrings.
- Thoughtful details such as openable ventilation in the armpits, comfortable cuffs, and adjustable spacious hood.
- Waterproof zipper with overlapping flap.
- Two outer pockets with waterproof zippers. Pocket for ID card on right sleeve. Two inner pockets with zippers.
- **CE** Regulation (EU) 2016/425

## TROUSERS

- Protection on the whole front.
- Detachable braces (included) and adjustable elastic waist for perfect fit. Dual loops for belt.
- Two outer pockets with waterproof zippers. Pocket for knife and pocket with waterproof zipper on leg.
- Waterproof zippers at the bottom of the legs allow the trousers to widen to facilitate donning the boots. Waterproof zipper in fly with overlapping flap.
- Reinforcements on the knees and pockets for knee pads.
- **CE** Regulation (EU) 2016/425



STRIPED AREAS ARE PROTECTED

SINGLE 200 BAR / 3 000 PSI
 ROTOR 500 BAR / 7 500 PSI
 FLAT 500 BAR / 7 500 PSI

SIZES	WEIGHT	ART. NO.
XS-3XL	1.6 kg (SIZE L)	5622025 5000



STRIPED AREAS ARE PROTECTED

SINGLE 200 BAR / 3 000 PSI
 ROTOR 500 BAR / 7 500 PSI
 FLAT 500 BAR / 7 500 PSI

SIZES	WEIGHT	ART. NO.
XS-3XL	1.3 kg (SIZE L)	5632025 5000





PROOPERATOR

*ProOperator is available in both grey and Hi Vis.*







EN ISO 20471

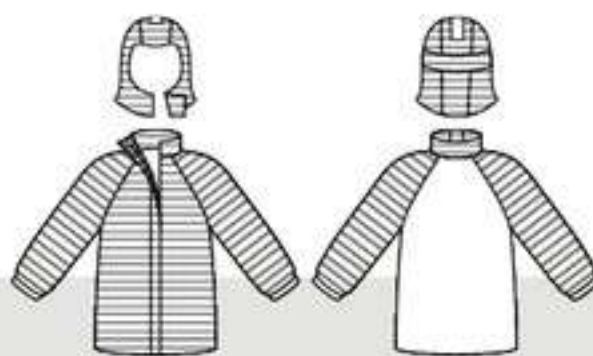


EN ISO 20471



## JACKET

- Protection on the entire front, arms and hood.
- Very smooth and flexible to wear. Lined for high comfort. Waist adjustable with drawstrings.
- Thoughtful details such as openable ventilation in the armpits, comfortable cuffs, and adjustable spacious hood.
- Waterproof zipper with overlapping flap.
- Two outer pockets with waterproof zippers. Pocket for ID card on right sleeve. Two inner pockets with zippers.
- **CE** Regulation (EU) 2016/425
- High visibility clothing: EN ISO 20471



STRIPED AREAS ARE PROTECTED

SINGLE 200 BAR / 3000 PSI
 ROTOR 500 BAR / 7500 PSI
 FLAT 500 BAR / 7500 PSI

SIZES	WEIGHT	ART. NO.
XS-3XL	1.6 kg (SIZE L)	5622025 5690

## TROUSERS

- Protection on the whole front.
- Detachable braces (included) and an adjustable elastic waist for perfect fit. Dual loops for belt.
- Two outer pockets with waterproof zippers. Pocket for knife and pocket with waterproof zipper on leg.
- Waterproof zippers at the bottom of the legs allow the trousers to widen to facilitate donning the boots. Waterproof zipper in fly with overlapping flap.
- Reinforcements on the knees and pockets for knee pads.
- **CE** Regulation (EU) 2016/425
- High visibility clothing: EN ISO 20471. Worn together with jacket; class 3 high visibility.



STRIPED AREAS ARE PROTECTED

SINGLE 200 BAR / 3000 PSI
 ROTOR 500 BAR / 7500 PSI
 FLAT 500 BAR / 7500 PSI

SIZES	WEIGHT	ART. NO.
XS-3XL	1.3 kg (SIZE L)	5632025 5690

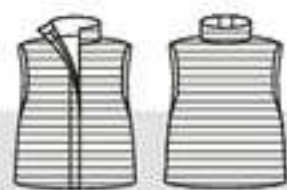


EN ISO 20471



## VEST

- Comfortable vest with protection on both the front and the back.
- Good for warm environments.
- Waterproof zipper with overlapping flap.
- Two pockets with waterproof zippers. Pocket for ID card.
- Worn together with trousers; class 3 high visibility.
- CE Regulation (EU) 2016/425
- High visibility clothing: EN ISO 20471



STRIPED AREAS ARE PROTECTED

 SINGLE 200 BAR / 3 000 PSI
  ROTOR 500 BAR / 7 500 PSI
  FLAT 500 BAR / 7 500 PSI

SIZES	WEIGHT	ART. NO.
S-3XL	1 kg (SIZE L)	5620025 5690





PROOPERATOR



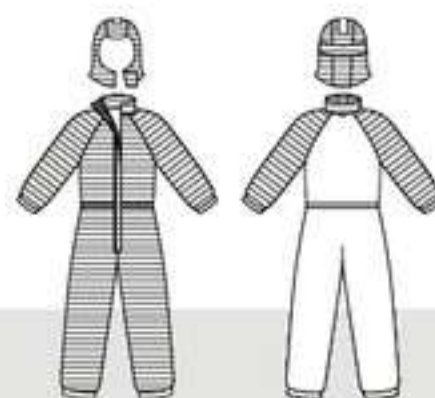


EN ISO 20471



## OVERALL

- Protection on the entire front, arms and hood.
- Lined for high comfort. Elastic back waist, openable ventilation in the armpits, waterproof cuffs, adjustable hood.
- Outer pockets w. waterproof zippers. ID card pocket on right sleeve. Knife pocket, pocket w. waterproof zipper on leg etc.
- Waterproof zipper with overlapping flap. Waterproof zippers at the bottom of the legs.
- Reinforcements on the knees and pockets for knee pads.
- **CE** Regulation (EU) 2016/425



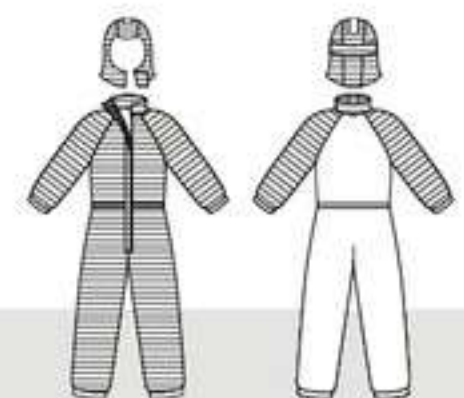
STRIPED AREAS ARE PROTECTED

SINGLE 200 BAR / 3 000 PSI    
 ROTOR 500 BAR / 7 500 PSI    
 FLAT 500 BAR / 7 500 PSI

SIZES	WEIGHT	ART. NO.
XS-3XL	2.5 kg (SIZE L)	5640025 5000

## OVERALL

- Protection on the entire front, arms and hood.
- Lined for high comfort. Elastic back waist, openable ventilation in the armpits, waterproof cuffs, adjustable hood.
- Outer pockets w. waterproof zippers. ID card pocket on right sleeve. Knife pocket, pocket w. waterproof zipper on leg etc.
- Waterproof zipper with overlapping flap. Waterproof zippers at the bottom of the legs.
- Reinforcements on the knees and pockets for knee pads.
- **CE** Regulation (EU) 2016/425
- High visibility clothing: EN ISO 20471



STRIPED AREAS ARE PROTECTED

SINGLE 200 BAR / 3 000 PSI    
 ROTOR 500 BAR / 7 500 PSI    
 FLAT 500 BAR / 7 500 PSI

SIZES	WEIGHT	ART. NO.
XS-3XL	2.6 kg (SIZE L)	5640025 5690





PROOPERATOR





*Did you know that Borås receives about one meter of rain each year? That's more than in any other city in Sweden. A perfect place for creating protective clothing for high pressure cleaning!*





## APRON

- Protection on the entire area of the Apron.
- Great in warm environments.
- Adjustable shoulder bands for added comfort and easy donning.
- Easy to put on and take off.
- **CE** Regulation (EU) 2016/425



STRIPED AREAS ARE PROTECTED

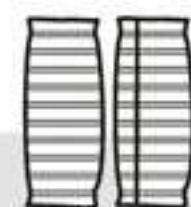
 SINGLE 200 BAR / 3 000 PSI
  ROTOR 500 BAR / 7 500 PSI
  FLAT 500 BAR / 7 500 PSI

SIZES	WEIGHT	ART. NO.
ONE SIZE	0.8 kg	5623025 5000



## ARM PROTECTIONS

- Built-in protection all the way round the arm, from the wrist to the upper arm.
- Elastic cuffs in both ends for easy donning and good fit.
- Developed and recommended for personnel working at test rigs for hydraulics. *See test tables on page 77.*
- Sold in pairs.
- **CE** Regulation (EU) 2016/425



STRIPED AREAS ARE PROTECTED

 SINGLE 200 BAR / 3 000 PSI
  ROTOR 500 BAR / 7 500 PSI
  FLAT 500 BAR / 7 500 PSI

SIZES	LENGTH	WEIGHT	ART. NO.
XS/M, L/2XL	XS/M: 40 cm L/2XL 50 cm	0.35 kg	5602025 5000









## HEAD PROTECTION 3000 BAR

- A comfortable Helmet with a Visor and Hearing Protectors.
- All parts are tested and certified up to 3 000 bar/43 500 psi. The only Head Protection on the market that is tested and certified.
- Hook strap that prevents the helmet from falling off in the event of an accident.
- Hearing Protectors reduce the noise level by up to 33 dB (SNR 32 dB classified).
- Adjustable for optimal protection and fit. 3-point chin strap is included.

CE-marking, approved according to:

- CE Regulation (EU) 2016/425
- Industrial safety helmets: EN397:2012
- Eye protection: EN166:2001
- Hearing Protection: EN 352-3:2002



STRIPED AREAS ARE PROTECTED

 SINGLE 2 000 BAR / 30 000 PSI
  ROTOR 3 000 BAR / 43 500 PSI

SIZES	ART. NO.
ONE SIZE (53-62 cm)	5102068 5000

PARTS THAT CAN BE ORDERED SEPARATELY

### HELMET



ART. NO.

5102168 5000

### HEARING PROTECTORS



ART. NO.

5105168 5000

### VISOR HOLDER

NOTE! CAN ONLY BE ATTACHED TO TST'S HEARING PROTECTORS



ART. NO.

5103168 5000

### VISOR - PACK OF 10



ART. NO.

5104168 5000

### CHIN STRAP



ART. NO.

5102190 5000

### HELMET SUSPENSION



ART. NO.

5102490 5000





## GLOVES 500 BAR

Approximately 90 % of the injuries in the industry occur on hands and feet. TST is the only company on the market offering protective gloves that are tested and approved. Our Gloves 500 bar in Dyneema<sup>®</sup>, the world's strongest fiber, are specially made for waterjetting and environments where oil, water and dirt are common. The material and the rough, sand patterned surface dipped in nitrile rubber, make the gloves waterproof and provide the best possible grip. The large cuffs make the glove easy to take off which is important in the event of an accident.

Separate inner gloves in nylon increase comfort and useability. We recommend always using the inner glove as it will provide a better grip and be much more comfortable. Without it, the glove can be experienced as stiff and hard. The inner gloves are washable and are also sold separately so operators can have their personal inner gloves.

The gloves have been tested and classified with the highest test values. The level of performance is 4 out of 4 in abrasion, tear and puncture resistance, and level 5 out of 5 in blade cut resistance.

- Waterproof Gloves with protection up to 500 bar/7 500 psi.
- Available in two sizes: 9 (about S-M) and 11 (about L-XL).
- Separate inner gloves in nylon for optimal comfort and washability.
- Does not withstand high pressure hydraulic fluid.
- Supplied in 12-pack, including inner gloves. Shelf life up to 3 years.
- **CE** Regulation (EU) 2016/425
- Protective gloves from mechanical risks: EN ISO 388:2016

*See test results on p. 75.*



STRIPED AREAS ARE PROTECTED

 SINGLE  
200 BAR / 3 000 PSI

 ROTOR  
500 BAR / 7 500 PSI

 FLAT  
500 BAR / 7 500 PSI

**SIZES**

9, 11

**ART. NO.**

5600025 5000





PROOPERATOR









## BOOTS 500 BAR

- Protective and waterproof.
- Made entirely of vulcanized rubber, the black parts of the boots are reinforced to withstand high pressure water jets.
- Designed for hours and hours of hard work. Textile inner lining for good comfort.
- Steel toecap and steel inserts to withstand sharp objects from underneath. The sole is designed for good grip.
- The boot shaft can be tightened with an adjustable strap.

CE-marking, approved according to:

- **CE** Regulation (EU) 2016/425
- Safety footwear: EN ISO 20345:2011



STRIPED AREAS ARE PROTECTED

SINGLE 300 BAR / 4350 PSI    
 ROTOR 500 BAR / 7500 PSI    
 FLAT 500 BAR / 7500 PSI

SIZES	ART. NO.
EUR 36-48	5652025 5000

See shoe size conversion table on page 79



## HOSE PROTECTION

- The lance is held near vital parts of the body, to protect from hose breaks which often occur near couplings and connections.
- Provides effective protection for the operator.
- Tested for 500 bar/7 500 psi. *See test results on p. 75.*
- An adjustable strap holds the Hose Protection securely in place.
- Very smooth and flexible.

HOSE PROTECTION Ø 41 MM/1.6 IN.		
LENGTH		ART. NO.
750 mm	2.5 ft	5660045 5920
1 400 mm	4.6 ft	5660045 5940

HOSE PROTECTION Ø 65 MM/2.6 IN.		
LENGTH		ART. NO.
750 mm	2.5 ft	5660063 5920





# SAFETY AND TE





# CHNICAL INFO



# SAFETY FIRST

Is it really necessary to always use PPE (Personal Protective Equipment) when working with high pressure cleaning or waterjetting? Before you answer, read this.

Your eyes are at risk of damage already at a pressure of 7 bar/100 psi and above. Skin penetration may occur from 80 bar/1 160 psi. High pressure cleaning uses approximately 200 bar/2 900 psi. In waterjetting the pressure is 1 200 bar/17 400 psi or more, that's enough to cut through concrete! What it could do to the human body isn't hard to imagine. Unfortunately we have seen these effects. That is why our motto is "Saving Lives".

Waterjetting can be dangerous even if you do everything right. Accidents happen when you least expect them to. Hoses burst

and couplings break. Even the most experienced worker may slip. That's why you should never allow exemptions from wearing PPE even for jobs that "will only take a few minutes". If you are within an area of about 25 meters radius from high water pressure activities – regardless of it being performed by a colleague, a robot, or an automated solution – we highly recommend that you use PPE.

Employers have obligations concerning the provision and use of PPE at work. By using our products, you will contribute to a safer workplace where the workers safety and welfare is highly valued. Make sure that your employees get to go home to their loved ones, every day – and are fit for work again the next day.



All of our personal protective equipment is CE certified. TST Sweden are also certified in accordance with ISO 9001:2015 and ISO 14001:2015 – important tools for ensuring the quality of our products and our work to lay the foundation for positive environmental development.



Eyes risk damage  
at **7 bar / 100 psi**

Skin penetration  
may occur from  
**80 bar / 1 160 psi**

TST Swedens PPE  
withstands up to  
**3 000 bar / 43 500 psi**





## TEST RESULTS - PROTECTION LEVELS

**How to read the test results:** There is no international standard for the testing of protection levels. Therefore the testing can differ significantly between companies. For this reason it is crucial to be aware of the differences and how and what to properly compare. A protection level of eg. 3 000 bar can mean different things, depending on the pressure, flow, nozzle, distance or speed used while testing. To verify the protective

qualities we have chosen the most common working conditions when performing our tests of notified body. Most nozzles perform at their best between 50 and 100 mm, therefore we have chosen the distance of 75 mm. Rotating tests have been performed with two nozzles (adding more nozzles result in a lower overall impact). On this and the next spread, you can read how our products are tested.

## PROTECTIVE CLOTHING

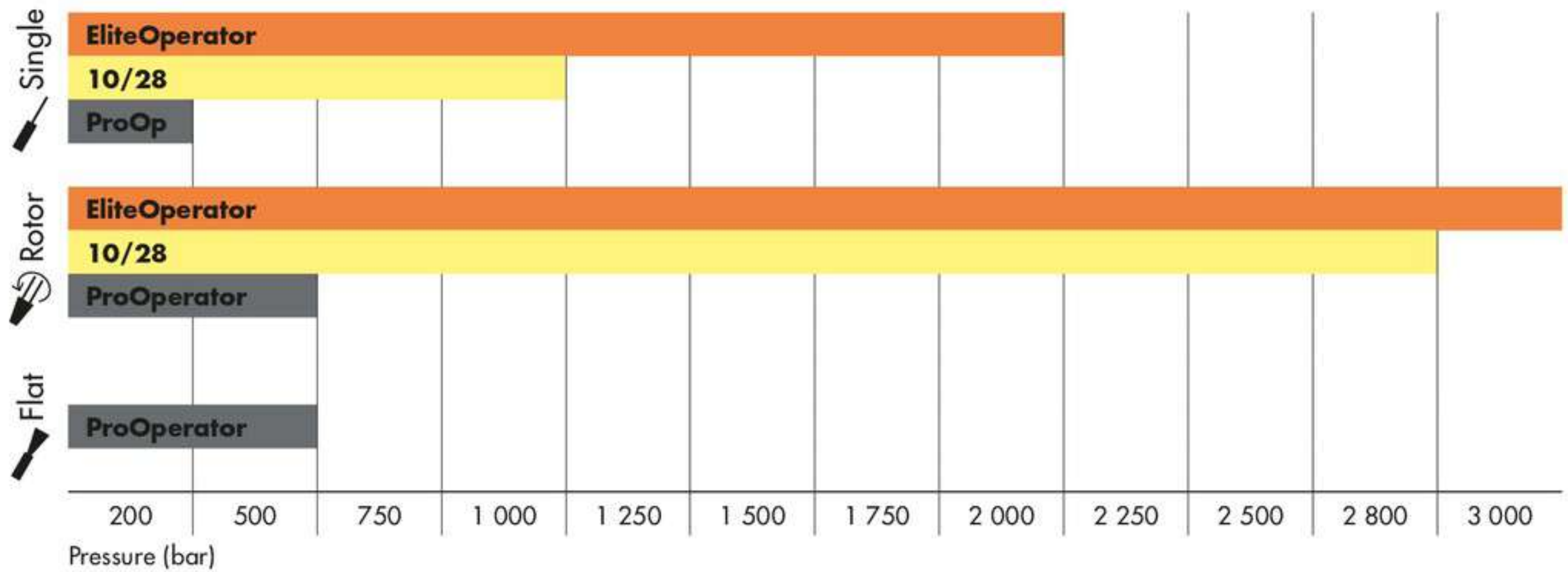
Product category	Pressure		Flow		Nozzle	
	Bar	Psi	Litre/minute	Gallon/minute	Type	Quantity
<b>EliteOperator</b>	2 000	30 000	17.9	4.7	 Single	1
<b>EliteOperator</b>	3 000	43 500	19.5	5.2	 Rotor	2
<b>10/28</b>	1 000	15 000	19.8	5.2	 Single	1
<b>10/28</b>	2 800	40 000	18.8	5.0	 Rotor	2
<b>ProOperator</b>	200	3 000	10.7	2.8	 Single	1
<b>ProOperator</b>	500	7 500	16.9	4.5	 Rotor	1
<b>ProOperator</b>	500	7 500	16.9	4.5	 Flat	1

**Note!** Different values, eg. pressure, flow, nozzle, distance or speed, can give significantly different results!



# RESULTS

## GUIDE - PROTECTION LEVELS PPE



Diameter mm	Diameter in	RPM Revolutions per minute	Distance		Linear speed		Result
			mm	in	m/s	in/sec	
0.8	0.031	-	75	3	0.5	20	No penetration
0.6	0.024	3 000	75	3	0.5	20	No penetration
1.0	0.039	-	75	3	0.5	20	No penetration
0.6	0.024	3 000	75	3	0.5	20	No penetration
1.1	0.04	-	75	3	0.5	20	No penetration
1.1	0.04	N/A	75	3	0.5	20	No penetration
1.1	0.04	-	75	3	0.5	20	No penetration



## OVERVIEW – PROTECTION LEVELS CLOTHING

Product category	Single		Rotor		Flat	
	Bar	Psi	Bar	Psi	Bar	Psi
EliteOperator	2 000	30 000	3 000	43 500	-	-
10/28	1 000	15 000	2 800	40 000	-	-
ProOperator	200	3 000	500	7 500	500	7 500

## HEAD PROTECTION 3000 BAR

Pressure		Flow		Nozzle				RPM	Distance		Linear speed		Result
Bar	Psi	Litre/minute	Gallon/minute	Type	Quantity	Diameter mm	Diameter in		mm	in	m/s	in/sec	
2 000	30 000	17.9	4.7	Single	1	0.8	0.031	-	75	3	0.5	20	No penetration
3 000	43 500	19.5	5.2	Rotor	2	0.6	0.024	3 000	75	3	0.5	20	No penetration

## BOOTS 3000 BAR

Pressure		Flow		Nozzle				Distance		Linear speed		Thrust		Result
Bar	Psi	Litre/minute	Gallon/minute	Type	Quantity	Diameter mm	Diameter in	mm	in	m/s	in/sec	N	lbs	
1 700	25 000	20.0	5.3	Single	1	1.0	0.039	75	3	0.2	7.9	250	56	No penetration
2 500	36 000	19.0	5.0	Monro-Jet	1	0.8	0.031	75	3	0.2	7.9	227	51	No penetration
3 000	43 500	19.0	5.0	Rotor	3	0.5	0.020	75	3	0.2	7.9	243	55	No penetration
3 000	43 500	16.2	4.3	Single	1	0.8	0.031	75	3	0.2	7.9	207	47	No penetration

## PROOPERATOR – HYDRAULIC FLUID

ProOperator is tested for high pressure hydraulic fluid according to the table below. The smallest Sapphire nozzle, only 0.15 mm, has been used to simulate a so called pin burst. Please note that *Gloves 500 bar* and *ProOperator Boots* are not tested for hydraulic fluid. **Note! Different values, eg. pressure, flow, burst size, distance or speed, can give significantly different results!**

Pressure		Nozzle				Distance		Linear speed		Break through time
Bar	Psi	Type	Quantity	Diameter mm	Diameter in.	mm	in	m/s	in/sec	
250	3 750	Single	1	0.15	0.006	5	0.2	0	0	> 60 s
350	5 100	Single	1	0.15	0.006	5	0.2	0	0	35 s
500	7 500	Single	1	0.15	0.006	5	0.2	0	0	4 s



# HOSE PROTECTION

Product	Diameter		Burst test			Pinhole leak test	
	mm	inch	Bar	Psi	Result	Tested	Result
Hose Protection 3000	36, 47, 59	1.42, 1.85, 2.32	3 000	43 500	No penetration	Yes	No penetration
Hose Connection Cover	61	2.40	3 000	43 500	No penetration	No	-
Hose Protection ProOperator	41	1.61	1 800	26 100	No penetration	No	-
Whip Stop	-	-	-	-	30 kN	-	-

# WORKPLACE SAFETY SOLUTIONS

## HIGH PRESSURE WATER JET TEST

Test is relevant for	Pressure		Flow		Nozzle	Newton	Distance		Result
	Bar	Psi	Litre/minute	Gallon/minute					
Curtain	1 100	16 000	100	26.4	Single	740	2.3 m	7.5 ft	No penetration
Curtain	3 000	43 500	43	11.4	Single	550	1.5 m	5 ft	No penetration
Funnel	1 400	20 300	40	10.5	Tube nozzle	350	75 mm	3 in.	No penetration

## PROJECTILE TEST

Projectile	Linear speed		Number of textile layers	Result	ISO Standard
	m/s	ft/sec			
Steel bullet, 6 mm	120	393.7	1	No penetration	EN ISO 168
Stone shot, 360 g	13	42.7	1	No penetration	EN ISO 1794-1

# TECHNICAL DESCRIPTION

## ELITEOPERATOR

**Outer material:** DWR (Durable Water Repellent) treated Techsteel™. **Inner material:** Polyester mesh. **Protective material:** Special fabric containing Dyneema® fiber. Seams are taped. **CE-marking:** Approved according to the Regulation (EU) 2016/425.

## HEAD PROTECTION 3000 BAR

Helmet is made of fiberglass reinforced polyamide. Temperature range -30° to +150°. Recommended life span 3–5 years.

**CE-marking:** Approved according to Industrial safety helmets: EN397:2012. Eye protection: EN166:2001.

Hearing Protection: EN 352-3:2002 and Regulation (EU) 2016/425.

## 10/28

**Outer material:** DWR (Durable Water Repellent) treated polyamide. **Inner material:** Polyester mesh. **Protective material:** Special fabric containing Dyneema® fiber. Seams are taped. **CE-marking:** Approved according to the Regulation (EU) 2016/425.

## PROOPERATOR

**Outer material:** DWR (Durable Water Repellent) treated polyamide. **Inner material:** Polyester mesh. **Protective material:** Special fabric containing Dyneema® fiber. Seams are taped. **CE-marking:** Approved according to the directive Regulation (EU) 2016/425.

## WORKPLACE SAFETY SOLUTIONS

**Material:** DWR (Durable Water Repellent) treated Techsteel™.

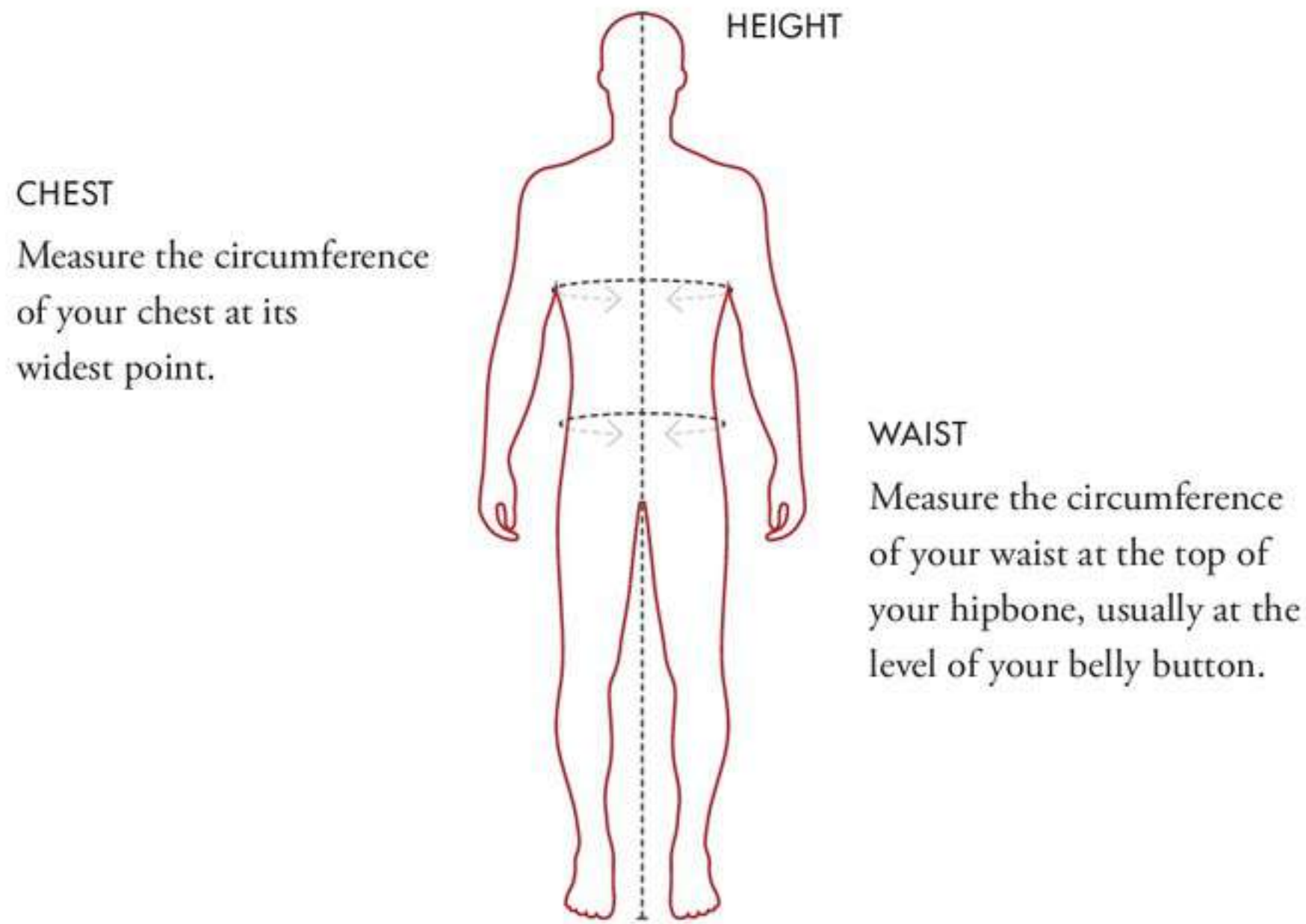
# MARTINDALE ABRASION TEST

The Martindale abrasion test simulates natural wear of a textile, in which the textile sample is rubbed against a standard abrasive surface with a specified force. Domestic cotton fabrics often have a rating of 20 000 rubs and polyester fabrics have 30 000.

The Techsteel™ glossy fabric in EliteOperator and Workplace Safety Solutions has over 500 000. The outer fabric in 10/28 and ProOperator has a rating of 300 000. The method for Martindale test is EN ISO 12947-1:1998.



# SIZING TABLES



SINGLE SIZES

Sizes (Mens)	Height		Chest		Waist	
	cm	ft and inch	cm	inch	cm	inch
<b>XS</b>	168 - 180	5' 6" - 5' 11"	84 - 88	33 - 35	72 - 76	28 - 30
<b>S</b>	168 - 184	5' 6" - 6' ½"	92 - 96	36 - 38	80 - 84	31 - 33
<b>M</b>	168 - 184	5' 6" - 6' ½"	98 - 104	39 - 41	88 - 92	34 - 37
<b>L</b>	176 - 192	5' 9" - 6' 4"	108 - 112	42 - 44	97 - 102	38 - 41
<b>XL</b>	176 - 192	5' 9" - 6' 4"	116 - 120	45 - 48	108 - 114	42 - 45
<b>2XL</b>	187 - 206	6' 2" - 6' 9"	124 - 128	49 - 51	120 - 126	47 - 50
<b>3XL</b>	187 - 206	6' 2" - 6' 9"	132 - 136	52 - 54	132 - 138	52 - 55

DOUBLE SIZES

Sizes (Mens)	Height		Chest		Waist	
	cm	ft and inch	cm	inch	cm	inch
<b>S/M</b>	168 - 184	5' 6" - 6' ½"	92 - 104	36 - 41	80 - 92	31 - 37
<b>L/XL</b>	176 - 192	5' 9" - 6' 4"	108 - 120	42 - 48	97 - 114	38 - 45
<b>2XL/3XL</b>	187 - 206	6' 2" - 6' 9"	124 - 136	49 - 54	120 - 138	47 - 55
<b>4XL/5XL</b>	187 - 206	6' 2" - 6' 9"	140 - 152	55 - 60	144 - 162	56 - 64

## BOOTS 3000 BAR SHOE SIZE GUIDE

EUR	US	UK
42	9	9
43	9 ½	9 ½
44	10	10
45	10 ½	10 ½
46	11	11
47	12	12
48	13	13

## GAITERS SHOE SIZE GUIDE

EUR	US	UK
36 - 41	4 - 8	4 - 8
42 - 48	9 - 13	9 - 13
49 - 52	14 - 16	14 - 16

## BOOTS 500 BAR SHOE SIZE GUIDE

EUR	US	UK
36	4	3
37	5	4
38	5 ½	4 ½
39	6 ½	5 ½
40	7 ½	6 ½
41	8 ½	7 ½
42	9	8
43	10	9 ½
44	10 ½	10
45	11 ½	10 ½
46	12	11
47	13	12
48	14	13







# CLEAN & CARE



SAVING LIVES

## TST GREASE REMOVER

Art. No. 5092000

Specially formulated for  
TST Waterjet Protection  
clothing and equipment.

Mix 1:10 with warm water.

[TST-SWEDEN.COM](http://TST-SWEDEN.COM)



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## CLEAN AND CARE INSTRUCTIONS

Our clothes can be hand cleaned with a brush and TST Grease Remover or a soap solution. Rinse with clean water. Allow to dry on a hanger in a well ventilated area.

Store the garments dry and out of direct sunlight. Zippers and hooks & loops are sensitive to dirt and should always be kept clean.

To extend the lifespan of the garments, we recommend rain and/or chemical protection on the outside of the garments in exposed environments. If garments are exposed to chemicals; rinse directly with clean water.



HAND CLEAN



DO NOT BLEACH



DO NOT TUMBLE DRY



DO NOT IRON



DO NOT DRYCLEAN



## TST GREASE REMOVER



- Grease Remover, specially formulated for TST clothing.
- Mixed with warm water 1:10 and applied to the soiled garment with a brush.

SIZES	ART. NO.
0.5 litre	5092000 5010
2.5 litre	5092000 5020



# SAVING LIVES THROUGH

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 most of our products in Sweden and Latvia, 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 certified 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!



# UGH SUSTAINABILITY

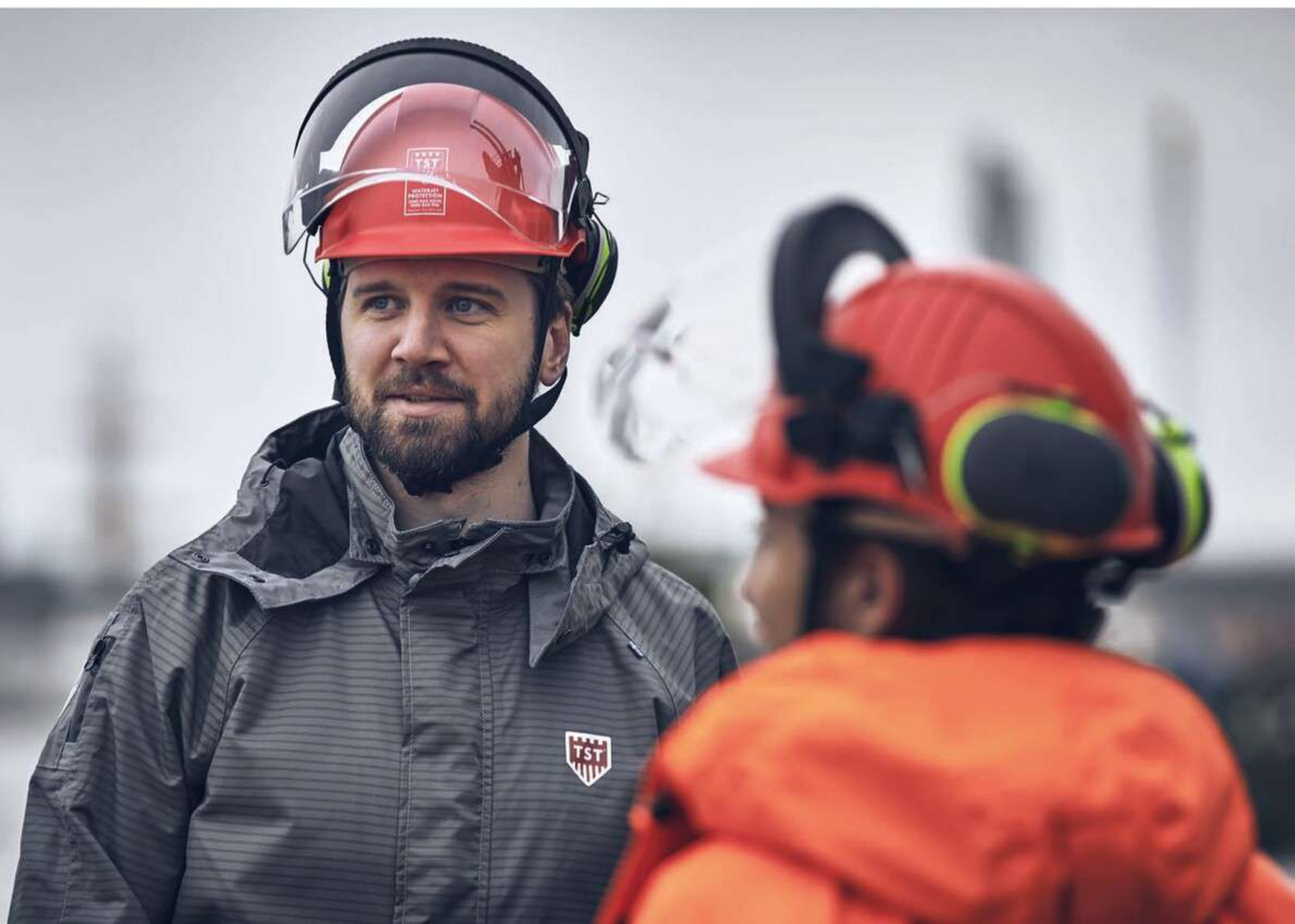




# THE DIFFERENCE

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

