

PROPERATOR

High Pressure Cleaning Protection



UNIQUE PROTECTION EQUIPMENT

Comfort, Function and Safety - ProOperator

Until now there has been no adequate protection for High Pressure Cleaning. Nothing that has been adapted to the power of today's equipment or the users demands for comfort and functionality. Our experience from waterjetting with very high pressures (up to 3000 bar), and other personal protective equipment, has been the basis for our new line of clothing. ProOperator - High Pressure Cleaning Protection.

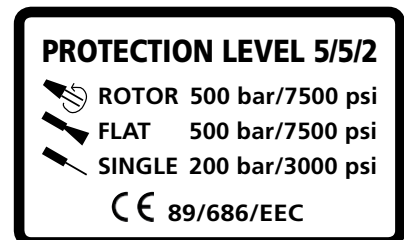
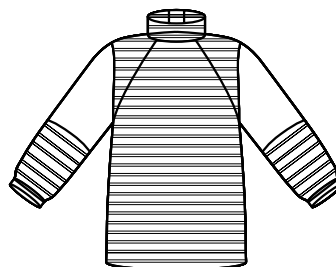
The strongest fiber in the world!



Dyneema® is the world's strongest fiber (15 times stronger than steel on a weight for weight basis). This makes it possible to offer high levels of protection against waterjetting hazards even with lightweight fabric. Being much thinner and more flexible than traditional materials, such as leather, cotton and metals, products made with Dyneema® fiber will be very comfortable. Employees will appreciate this comfort, combined with higher protection, and consequently are more likely to wear them at all times.

AREAS WITH PROTECTION

Striped fabric clearly identifies protected areas and the labels tell the level of protection. As high pressure cleaning is very dangerous, it is essential that the operator knows where and what he is protected for.



OVERALL WITH HOOD

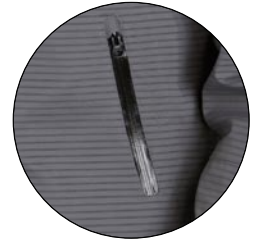
3-layer functional overall which is CE certified for protection against High Pressure Cleaning. Excellent for the toughest conditions! Lined for high comfort. Waterproof and dirt repellant outside. Openable ventilation in the armpit, waterproof cuffs, adjustable hood. (See more details right.) Weight 2,5 kg / 5.5 lbs. (Overall size L).

Sizes XS–3XL (see table on page 7)

Art. No. 5640025



Detachable hood with 3 adjustment possibilities and room for hearing protection.



2 pockets with waterproof zippers.



Comfortable inside arm cuffs prevent leakage.



Elastical back waist.



Zippers at the bottom of the legs.



Waterproof zippers with overlapping flap.



Knife pocket on right leg.



Pockets for knee pads.

- Lined for high comfort.
- Inside pocket with zipper.
- Special pocket for phone (waterproof).
- Protection on the entire front and head.
- Protected areas identified by stripes.
- Label indicates protection.
- Leg pocket with waterproof zipper on left leg.



Pocket for ID card on the right sleeve.



Reinforcements on the knees.



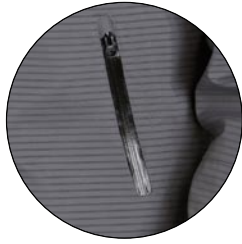
Cuffs adjustable with Velcro.



Openable ventilation in the armpits.



Openable ventilation in the armpits.



2 pockets with waterproof zippers.



Detachable hood with 3 adjustment possibilities and room for hearing protection.



Waterproof zippers with overlapping flap.



Pocket for ID card on the right sleeve.



Comfortable inside arm cuffs prevent leakage.



Cuffs adjustable with Velcro.

- *Lined for highest comfort.*
- *Waist adjustable with drawstrings.*
- *Inside pocket with zipper.*
- *Special pocket for phone (waterproof).*
- *Protection on the entire front and head.*
- *Protected areas identified by stripes.*
- *Label indicates protection.*

JACKET WITH HOOD

3-layer functional jacket which is CE certified for protection against High Pressure Cleaning. Very smooth and flexible to wear. Lined for high comfort. Waterproof and dirt repellant outside. Thoughtful details such as openable ventilation in the armpit, comfortable cuffs and adjustable hood. (See more details left.)

Weight 1.6 kg / 3.5 lbs. (Jacket size L).

Sizes XS–3XL (see table on page 7)

Art. No. 5622025



TROUSERS

3-layer functional trousers which are CE certified for protection against High Pressure Cleaning. Very easy to put on and off. Adjustable elastical waist for perfect fit. Waterproof and dirt repellent outside. Practical details such as knife pocket, leg pocket and dual loops for belt. Zippers down on the legs allows them to widen to facilitate donning the boots. (See more details right.)

Weight 1.3 kg / 2.9 lbs. (Trousers size L).

Sizes XS–3XL (see table on page 7)

Art. No. 5632025



- Detachable braces (included).
- Leg pocket with waterproof zipper on left leg.
- Protection on the whole front.



Double belt loops.



Zippers down on the legs.



Adjustable elastical back waist.



Pockets for knee pads.



2 pockets with waterproof zippers.



Reinforcements on the knees.



Knife pocket on right leg.

BOOTS 3000

Boots 3000 withstands "everything" within high pressure cleaning and waterjetting on account of its fixed aluminium gaiters. The gaiters are moulded and jointed, which gives both excellent comfort and mobility. The Boots conform to the requirements set out in BGR 191 and EN 345-1 99A5 S5. Weight 1.9 kg / 4.2 lbs. each (Boot 3000 size 9).

Size Eur 42-48 / US 8.5, 9, 10, 11, 12, 13.5

Art. No. 5052080 5000

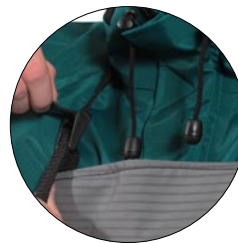


APRON

The full area of the Apron has built-in protection. Good alternative protection in warm environments. The position of the Apron can be changed with the adjustable neckband. There is also an adjustable band in the waist, which is an important comfort detail as it takes weight off the neck. Very easy to put on and take off. Recommended for work on flat surfaces. Often used in combination with Boots 3000. The Apron comes in one size. Weight 0,7 kg / 1.5 lbs.

One size.

Art. No. 5623025



Adjustable neckband.



Adjustable waistband.

TST SPECIAL GREASE REMOVER

Mix the TST Grease Remover 1:10 with warm water 40°C/105°F. Apply to the dirty garment surfaces with a brush. Leave for about 20 minutes. If the garments are extremely dirty, use the brush together with lukewarm water on the dirty areas. Rinse with lukewarm water. Let the garment dry in a drying room and reach a temperature of max 60°C/140°F (to reactivate the water and grease protection). DO NOT TUMBLE DRY.

- Nonionic surfactants >30%
- Solubilising agents (alkane diol)
- Greying inhibitors <5%
- PH 7.3
- Avoid contact with skin and eyes
- Product temperature of less than 15°C/60°F may impair proper function
- Do not store below 15°C/60°F

Size 0,5 litre.

Art. No. 5092000 5010



Protection up to 500 bar/7500 psi

TECHNICAL DESCRIPTION

Outer material: Laminated Polyamide. Inner material: Polyester mesh. Protective material: Special fabric containing Dyneema® fiber. Seams: Taped. Washing instructions: TST Special Grease Remover and machine wash 40° C/104° F. (No tumble drying.)

CE-marking: Approved according to the directive 89/686/EEC and BGR 191.



TEST RESULTS - PROTECTION LEVELS

The different levels of protection have been determined by testing according to the table below. In High Pressure Cleaning mainly three types of nozzles/jets are used – rotor, flat and single. Our safety levels have been adjusted to cover the most common work situations and to verify the quality of clothing and protective qualities

Note! Different values (pressure, water flow, nozzle, distance, speed) can give significantly different results!

Prot. level	Pressure bar (psi)	Flow (l/min)	Nozzle type	Dist. (mm)	Speed (m/s)	Result
5/5/2	500 (7500)	16,9	Rotor - Rotary jet	75	0,5	No penetration
5/5/2	500 (7500)	16,9	Flat - Single fan jet 15°	75	0,5	No penetration
5/5/2	200 (3000)	10,7	Single - Single round jet	75	0,5	No penetration

Sizes		
Jacket, Trousers and Overall	Height cm (ft. in.)	Chest cm (in.)
XS	160-167 (5'3"-5'6")	84 (33")
S	168-175 (5'6"-5'9")	92 (36")
M	176-180 (5'9"-5'11")	100 (39")
L	181-186 (5'11"-6'1")	108 (43")
XL	187-192 (6'2"-6'4")	116 (46")
2XL	193-200 (6'4"-6'7")	124 (49")
3XL	201-206 (6'7"-6'9")	132 (52")



CE-certified products

Our ProOperator products are CE-marked – this means that they satisfy the essential requirements in the European directive 89/656/EEC, "Directive for use of personal protective equipment". We are also certified according to ISO 9001:2008 and ISO 14001:2004 – important tools for verifying the quality of our work with products and for creation of conditions for a positive environmental impact.

