

Chemical Protection



UNIQUE PROTECTION EQUIPMENT



Advanced protective equipment for Chemical Protection

Ever since we developed our first products for Chemical Protection in 1992, we have consulted end users across the world. Today we offer a broad range of protective equipment with technically advanced features, high level of comfort and high quality.



Ammonia Kit 1

AMMONIA KIT 1

A complete kit that provides a high level of splash protection for particles, dust and moisture when working in risk environments involving for example ammonia. The kit consists of a protective overall, a chemical escape hood with carrying bag, insulating gloves and protective boots with steel toe caps and steel mid-soles. Everything is packed in a practical case.

(See more facts about the overall below and on page 6. Parts can be bought separately.)

Size Overall S–2XL, Boots 36–48 (Conversion table on last page.)

Art. No. 70K47000



- Escape Hood with carrying bag
- Protective Overall
- Boots
- Insulating Gloves
- Case

Resistance Table for overall, according to EN 465

| Chemical substance | Concentration (weight %) | Classification |
|--------------------------------------------------|--------------------------|----------------|
| Sulphuric acid (H ₂ SO ₄) | 30 | 4 |
| Sodium hydroxide (NaOH) | 50 | 3 |
| n-Heptane (C ₇ H ₁₆) | 100 | 3 |
| Isopropanol (C ₃ H ₈ O) | 100 | 4 |
| Hydrochloric acid (HCl) | 10 | 4 |
| Ammonia (NH ₃) | 25 | 4 |
| Benzene (C ₆ H ₆) | 100 | 4 |

Chemical Escape Hoods

ESCAPE HOOD

The unique design makes the hood comfortable to wear and easy to put on. It is, without any adjustments, ready to put on and use. The half-mask inside is made of silicone. The neck cuff is designed for the closest possible fit and maximum elasticity. Twin exhaust valves ensure low respiratory resistance. The hood is available with three different types of filter (additional filter alternatives are available on request.)

The hood comes with a practical and compact carrying bag with belt which makes it easy to bring. The bag is soft and has a zipper for easy opening.

CE approved according to EN 403 (not fire).

One size.

Art. No. 7012P10022 (Hood with combination filter A2B2E2K2P3)
7012P10024 (Hood with ammonia filter K2)
7012P10025 (Hood with combination filter A2B2E2K2)

(See right side for explanation of filter codes.)



ESCAPE HOOD XTREME

This particular escape hood is manufactured to meet extra high demands. It fulfills British Standard, which requires very low leakage. 0,005% in the breathing zone and 0,6% in the ocular zone. The design makes the hood comfortable to wear and easy to put on and off. No adjustments has to be done. The half-mask is made of silicone and the outside is made in a high visibility material. The seal around the neck is made of a special silicone which gives a very effective seal, but the hood is yet comfortable to wear. Twin exhaust valves ensure low respiratory resistance. The hood is available with one high level filter type. The hood is supplied with a practical and compact carrying bag with belt, which makes it easy to bring. The bag is soft and has a zipper for easy opening.

CE approved according to EN 403 (not fire), and
BS 403 Annex III (British Standard).

One size.

Art. No. 7012P50022 (Hood with combination filter A2B2E2K2P3)
(See right side for explanation of filter codes.)



CARRYING BAG - IMPORTANT FOR SAFETY

The chemical escape hood comes with a soft carrying bag in a water resistant, strong and durable material. The format is very compact, only approx. 21x12x11 cm / 8.3x4.7x4.3 in. It has a zipper, which is water proof, for easy opening. In the rear, there is a pocket for filter date, name or a safety card. The bag can be worn on a belt, carried over the shoulder or round the waist. It also has brackets for wall mount. The bag is very important as it makes the hood easy to bring, when working in risk environments.







Filter information



HIGHER PROTECTION LEVEL

TST Sweden's escape hoods meets the requirements for escape hoods with great margin. Therefore we use class 2 filters and give the user a higher level of protection, or longer action time. See the table below for break through times for filters, in concentrations as high as 5000 ppm.

| Explanation filter coding | | | |
|---------------------------|-------------|-----------------------------------------------------------------------------------|------------------------------------------|
| Filter type | Colour code | | Protects from |
| A | Brown |  | Organic gases w boilingpoint >65°C/150°F |
| B | Grey |  | Inorganic gases and vapours |
| E | Yellow |  | Sulphuric dioxide (SO ₂) |
| K | Green |  | Ammonia (NH ₃) |
| P | White | | Particles |

| Break-through times for filters, according to EN 14387:2002 | | | |
|-------------------------------------------------------------|-----------------------------------------------|---------------------|----------------|
| Filter type | Chemical substance | Concentration (ppm) | Time (minutes) |
| A2 | Cyclohexane (C ₆ H ₁₂) | 5000 | 35 |
| B2 | Chlorine (Cl ₂) | 5000 | 20 |
| | Hydrogen sulfide (H ₂ S) | 5000 | 40 |
| | Hydrogen cyanide (HCN) | 5000 | 25 |
| E2 | Sulfur dioxide (SO ₂) | 5000 | 20 |
| K2 | Ammonia (NH ₃) | 5000 | 40 |



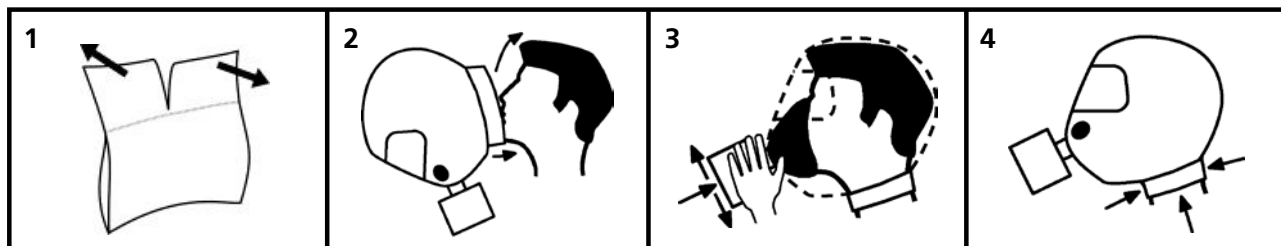
EXAMPLE

A filter coded A2B2E2K2P3 protects the user from Cyclohexane for 35 min., Chlorine for 20 min., Hydrogen sulfide for 40 min., Hydrogen cyanide for 25 min., Sulphurous dioxide for 20 min. and Ammonia for 40 min. at a concentration of 5000 ppm in the air.

SHELF LIFE

The filter may be stored for five years in an unopened foil package. The packing date, and the "best before date" are stated on a label outside the foil packaging. When the date has expired, or the foil package has been opened, the hood must be inspected and the filter replaced. Contact an authorized TST Sweden Distributor for help and guidance.

EASY TO USE



BOOTS

Protective boots of high quality, equipped with steel toe caps and steel mid-soles. Certified according to EN 345 and EN 347.

Size 36–48. (See conversion table on last page.)

Art. No. 6050200 6000



INSULATING GLOVES

The gloves provide excellent insulation when working with condensed gases. Ideal to wear over chemical protection gloves in order to protect from frostbite down to -80°C/-112°F. Made of very soft leather, and have a membrane which makes them waterproof.

Size 9, 11.

Art. No. 7000400 7000



PROTECTIVE OVERALL

Durable splash protection overall for wet and dry conditions.

Designed to meet tough industrial demands concerning function and safety. Effective seals and taped seams ensure a high degree of impenetrability against particles, dust and moisture, whilst the material is breathable. Two chest pockets and one leg pocket.

Hood with strings for closing. Braces for increased comfort. The overall is made of polyamide with a polyurethane coating.

Weight approx. 1100 g / 2,4 lb in size XL.

CE approved according to EN 465.

Size S–2XL.

Art. No. 7040210 7000



Smarthose – chemical- and fire fighting

TST SMARTHOSE

World patented hose which is developed to create water barriers, to be flexible and to minimize the need of personal. One Smarthose of 20 m/65 ft can produce a 12-15 m/40-50 ft high wall of water – that is about 300 m²/2500 ft² – and it can quickly be placed even in difficult terrain. Excellent for shielding off fires or gas clouds where you can't or don't want to have humans present. The Smarthose is also highly efficient for cooling big objects like buildings, gas tanks and containers. The nozzles that spread the water can easily be exchanged and they come in different versions to accommodate different needs and availability of water. Smarthose comes with one set of nozzles and without couplings. The base hose is a B-75 Duraflex hose, diameter 75 mm/ 3 in. On request there are 110 and 150 mm/4.3 and 6 in hoses. Alternative placing of nozzles is possible.

Smarthose 20 m/65 ft, Ø 75 mm/3 in, complete with nozzles.

Art. no. 7590P17930 – with 3 mm/.12 in nozzles
 7590P17960 – with 6 mm/.24 in nozzles
 7590P17902 – with 2-holes nozzles
 7590P17905 – with 5-holes nozzles
 7590P27905 – with 3 mm, 6 mm, 2- and 5-holes nozzles

| Water consumption l (max working press. 15 bar) | | | | |
|-------------------------------------------------|-------|-------|-------|--------|
| Nozzle | 4 bar | 6 bar | 8 bar | 10 bar |
| 1x3 mm | 210 | 250 | 300 | 330 |
| 1x6 mm | 1050 | 1130 | 1230 | 1300 |
| 2-holes | 940 | 960 | 980 | 1110 |
| 5-holes | 970 | 1000 | 1020 | 1150 |

| Water consumption gal (max working press. 220 psi) | | | | |
|----------------------------------------------------|--------|--------|---------|---------|
| Nozzle | 58 psi | 87 psi | 116 psi | 145 psi |
| 1x.12 in | 55 | 66 | 79 | 87 |
| 1x.24 in | 277 | 300 | 325 | 343 |
| 2-holes | 248 | 254 | 259 | 293 |
| 5-holes | 256 | 264 | 269 | 304 |

NOZZLE-SET

Complete set with 25 nozzles in one of the dimensions 3 mm/.12 in, 6 mm/.24 in, 2-holes or 5-holes.

3- and 6 mm nozzles are best suited for shielding off, cooling off and fighting fires. 2- and 5-holes nozzles are best suited for shielding off condensing gases and for cooling heat sensitive objects.

Art. no. 7590090 7930 – 3 mm/.12 in nozzles
 7590090 7960 – 6 mm/.24 in nozzles
 7590090 7902 – 2-holes nozzles
 7590090 7905 – 5-holes nozzles



World patented



5-holes nozzle



3 mm/.12 in nozzle

Leakage and Collection – Acids and Bases



FUNNEL WITH MAGNETS

A superior solution for when you want to catch a leak quickly, but are not equipped for exposure to the chemical. The handle allows you to bring the funnel up to the leak and position it against the leaking area. Super magnets mean that the funnel's sealing surface attaches to the base. The funnel is fitted with a connection which makes it possible to attach a fire hose or collection cushion to collect the leakage. Connections available: TA63 and Storz. The funnel comes packed in a case, making it easy to store, for example in a rescue vehicle.

Art. No. 7084000 7852 with TA63
7084000 7854 with Storz



COLLECTION CUSHION – 100 LITRES

Practical collection cushion that is easily attached to the funnel. Connections available: TA63 and Storz. Holds 100 l/26 gal.

Art. No. 7080600 7852 with TA63
7080600 7854 with Storz

CHEMICAL PROTECTION SUIT DRÄGER CPS 7900

Tailor-made for use under extreme conditions. The gas-tight CPS 7900 suit provides excellent protection against industrial chemicals, biological agents, and other toxic substances. Its innovative material qualifies the CPS 7900 equally well for work in explosive areas and for handling cryogenic substances at temperatures down to -80°C / -112°F.

The CPS 7900 meets and exceeds the requirements of international standards of fire departments, search and rescue organizations, and industry, for reusable protection suits. Among these standards are the EN 943 part 2 (ET) and the SOLAS convention.

Accessories are available to customize the CPS 7900 to meet your specific needs and requirements, thereby expanding your range of application options.

Comes with Dräger or Interspiro connections.

Size S–2XL (see size table on last page)

Art. No. 70460007000



Dräger or Interspiro connections.



RE-CONDENSING SET

Complete equipment for treating discharges of condensed gases such as ammonia, chlorine and sulphur dioxide. These chemicals are transported in large quantities, and a leak would present serious problems for both people and the environment. This equipment makes it possible to cover over or catch a leak – either in liquid or gas form – highly effectively. The re-condensing set includes two tarpaulins (3x3 m/10x10 ft and 5x5 m/16x16 ft), a re-condensing funnel, a basin (700 l/185 gal) and a submersible pump with a 5 m/16 ft hose.

Everything is practically packed in a steady plywood trunk with handles on the sides.

(LxWxH) 1,2x0,5x0,6 m / 4x1,6x2 ft. Weight 75 kg/165 lb.

| Product | Art. No. |
|----------------------------------------|--------------|
| Re-condensing set (complete kit) | 70K824000 |
| Tarpaulin 3x3 m / 10x10 ft | 7084200 7802 |
| Tarpaulin 5x5 m / 16x16 ft | 7084200 7806 |
| Re-condensing funnel 10 m / 33 ft | 7082400 7000 |
| Self-erecting basin 700 l / 185 gal | 7080200 7832 |
| Submersible pump with hose 5 m / 16 ft | 7090400 7000 |
| Trunk made of plywood | 7090490 7000 |

Basins – Acids and Bases (also available for petro chemicals)



1 COLLECTING BASIN WITH STAND, 1000 LITRES

A robust basin made of acid-resistant material and special compound PVC which can withstand acids and bases and temperatures down to -80°C/-112°F. The basin is foldable for easy storing and transportation. Can easily be managed by one person, even in the dark.

The fabric is replaceable. 1000 l/264 gal.

Art. No. 7080P7836

2 SELF-ERECTING BASIN 400 LITRES

This basin has low, soft edges. It is easy to position where a leak occurs, also in small spaces. It is ideal for use as a collecting basin during decontamination of e.g. chemical divers. The basin can be folded or rolled for easy transportation and storing. 400 l/106 gal.

Art. No. 7080200 7830

3 SELF-ERECTING BASIN 700, 2000, 3000 LITRES

An easy-to-use practical basin made of chemical-resistant material. On filling, the basin self-erects using four floatation devices around the opening of the basin. It has a capacity of 700 l/185 gal, 2000 l/530 gal or 3000 l/790 gal and can be folded or rolled to a small size for storage. Available in other volumes on offer.

Art. No. 7080200 7832 – 700 l

7080200 7842 – 2000 l

7080200 7844 – 3000 l



4 BASIN BAG

The bag is an accessory for the 400 l/106 gal or 700 l/185 gal self-erecting basins.

Size 400 l/106 gal.

Art. No. 7090210 7830

Size 700 l/185 gal

Art. No. 7090210 7832

Spring-lid Seals

In the event of a leak, it is extremely important that the leaking chemical does not get into the sewage system. These two products are developed to seal gratings effectively.

1 SPRING-LID SEAL, CUSHION

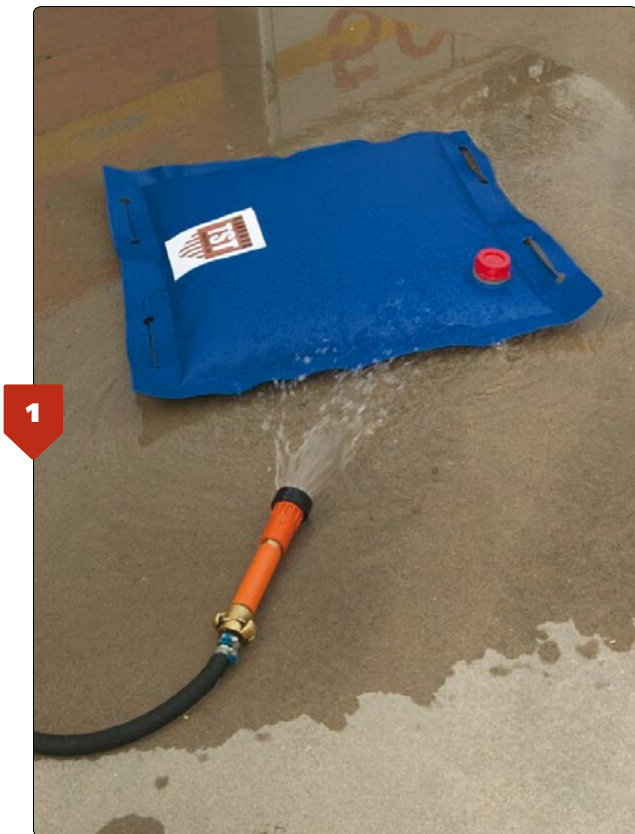
This product is ideally stored filled, enabling it to be placed extremely quickly over a grating or similar as a seal. It weighs 45 kg/100 lb when filled with water. Fitted with carrying handles on both sides for easy handling.

Art. No. 7080400 7822

2 SPRING-LID SEAL, BASIN

Place the basin over the grating and fill it with water, sand or something similar. It has a capacity of 90 l/24 gal and can also be used as a collecting basin. Takes up very little space when empty.

Art. No. 7080400 7824



| Size table for overalls | | |
|-------------------------|------------------------|-------------------|
| Size | Height cm (ft. in.) | Chest cm (in.) |
| S | <175 (<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") |

| Size table for Dräger CPS 7900 | | |
|--------------------------------|------------------------|--------------|
| Size | Height cm (ft. in.) | Boots EUR |
| S | 150-165 (4'11"-5'5") | 42 |
| M | 160-175 (5'3"-5'9") | 43 |
| L | 170-185 (5'7"-6'1") | 44 |
| XL | 180-200 (5'11"-6'7") | 45 |
| 2XL | 195-210 (6'5"-6'11") | 46 |

| Conversion table for shoe sizes | | |
|---------------------------------|--------|--------|
| EUR | US | UK |
| 36 | 4 1/2 | 4 |
| 37 | 5 | 4 1/2 |
| 38 | 6 | 5 1/2 |
| 39 | 6 1/2 | 6 |
| 40 | 7 1/2 | 6 1/2 |
| 41 | 8 | 7 1/2 |
| 42 | 9 | 8 |
| 43 | 9 1/2 | 9 |
| 44 | 10 1/2 | 10 |
| 45 | 11 1/2 | 11 |
| 46 | 12 | 11 1/2 |
| 47 | 13 | 12 1/2 |
| 48 | 13 1/2 | 13 1/2 |



Certified according to ISO 9001:2008 and ISO 14001:2004



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