Protector

TORNADO T1/SM, T1/ML + T2
Respiratory Protective Systems

TORNADO 1/SM and 1/ML

Operating and Maintenance Instructions ........................................ 1
Betriebs- und Wartungsanleitung .................................................... 3
Gebruiks- en onderhoudsaanwijzingen........................................... 6
Instructions d’utilisation et d’entretien ......................................... 8
Instrucciones de Funcionamiento y Mantenimiento ...................... 10
Instruções Operacionais e de Manutenção .................................. 12
Instrucciones de Funcionamiento y Mantenimiento ...................... 14
Operations og vedligeholdelses instruktioner ............................... 16
Bruksanvisning och skötselinstruktioner ...................................... 18
Bruks- og vedlikeholdsveiledning ................................................. 20
Käyttö- ja huolto-ohjeet ................................................................ 22
WARNINGS

- TORNADO system users must be familiar with workplace hazards prior to using the equipment and must be fully trained in the use of the apparatus.
- TORNADO head tops must be used with a T/POWER blower or T/A/LINE. Read this leaflet and the T/A/LINE or T/POWER and T/FILTER leaflets, prior to using the equipment.
- T/POWER must be fitted with filters selected from the TORNADO range of filters which are appropriate for the workplace hazard.
- TORNADO filters conform to prEN 12941/2 and must be obtained from a Protector distributor. Using another manufacturer’s product may reduce the level of protection and invalidate approvals. Protector can also advise on the suitability of filter types.
- DO NOT confuse the prEN 12941/2 TORNADO filter markings with filter markings relating to other EN standard.
- DO NOT use T1 or T2 in confined spaces, oxygen deficient atmospheres (<19%), oxygen enriched atmospheres (>23%) or where there is an immediate hazard to life or health.
- DO NOT use if the headtop or air hose is damaged. Check prior to use that there are no cracks splits or tears which will cause leakage.
- Protection will only be obtained if the unit is fitted correctly.
- Protection levels may be reduced if wind speed exceeds 2 metres per second.
- In the abnormal event that T/POWER or the T/A/LINE fails while in a hazardous area a depletion of oxygen within the headtop. DO NOT remove the headtop, LEAVE THE AREA IMMEDIATELY.
- TORNADO headtops can be used in explosive and flammable atmospheres when used with T/POWER which marked as intrinsically safe.
- At very high workrates pressure in the device may become negative at peak inhalation flow.
- It is unlikely that the requirements for leakage will be achieved if hair, spectacle side arms or clothing intrude into the faceseal.
- Filters must not be fitted directly to the helmet/hood.

<table>
<thead>
<tr>
<th>Facepiece Description</th>
<th>T1/SM &amp; /ML</th>
<th>T2</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Description</strong></td>
<td>Half Hood</td>
<td>Full Hood and Cape</td>
</tr>
<tr>
<td><strong>Classification when used with:</strong></td>
<td>T/POWER</td>
<td>T/A/LINE</td>
</tr>
<tr>
<td>prEN 12941 TH2</td>
<td>EN 1835 LDH2</td>
<td></td>
</tr>
<tr>
<td>prEN 12941 TM3</td>
<td>EN 1835 LDH3</td>
<td></td>
</tr>
<tr>
<td><strong>Minimum design flow rate</strong></td>
<td>140 L/min</td>
<td>140 L/min</td>
</tr>
<tr>
<td><em><em>Nominal (Assigned</em>) protection factor when used with:</em>*</td>
<td>T/POWER</td>
<td>T/A/LINE</td>
</tr>
<tr>
<td>50(20)</td>
<td>50(20)</td>
<td></td>
</tr>
<tr>
<td>500(40)</td>
<td>200(40)</td>
<td></td>
</tr>
<tr>
<td><strong>Operating temperature limits</strong></td>
<td>-10°C to 50°C</td>
<td>-10°C to 50°C</td>
</tr>
<tr>
<td><strong>Material</strong></td>
<td>Hood Polyurethane coated nylon</td>
<td>Visor Acetate</td>
</tr>
<tr>
<td><strong>Weight</strong></td>
<td>210 grams</td>
<td>290 grams</td>
</tr>
</tbody>
</table>

*According to BS4275 : 1997

WEARING

**T1/SM AND T1/ML**

Pull the facepiece over the head so that the visor is in front of the face and arrange the elastic faceseal under the chin. If necessary adjust the Velcro over head strap for a comfortable fit with no gap between the chin and the faceseal.

**T2**

Don the facepiece as for T1 then adjust the drawstring for a comfortably tight fit around the neck. Check that hair and clothing is NOT trapped in the seal.

**T1 AND T2**

Arrange the breathing hose so that it trails freely down the back and is not kinked or looped. Refer to the T/POWER or T/A/LINE leaflet for further user information.

AFTER USE

DO NOT remove facepiece until safely clear of the hazardous area. Remove the hood, disconnect the hose and (If required) use a sponge moistened in warm water to clean and sanitise the facepiece and outer hose. Care should be taken not to scratch the visor. If the head cover or faceseal is damaged in any way it should be replaced.

DO NOT use solvent or detergent cleaners as they may cause damage.

SPARES

<table>
<thead>
<tr>
<th>Description</th>
<th>T1 Part No.</th>
<th>T2 Part No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPARE HOSE (Pack of 3)</td>
<td>T1/HOSE</td>
<td>T2/HOSE</td>
</tr>
<tr>
<td>REPLACEMENT HOOD (Pack of 3)</td>
<td>T1/HOODSM</td>
<td>T2/HOOD</td>
</tr>
<tr>
<td>T1/HOODML</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EXHALATION VALVE (Pack of 2)</td>
<td>TOR/VALVE</td>
<td>TOR/VALVE</td>
</tr>
<tr>
<td>TEAR OFF VISOR COVERS (Pack of 10)</td>
<td>KIT 96VP</td>
<td>KIT 96VP</td>
</tr>
</tbody>
</table>
FITTING SPARES

To replace the hose: Undo the nut on the rear inner hood and withdraw the hose (On T2 remove the plastic washer from the end of the hose before removing the hose from the hood). Insert the new hose into the hood (On T2 fit the plastic washer supplied over the hose, this is not required for T1) and secure with the nut. Ensure that both layers of hood fabric are trapped under the nut.

To replace the exhale valve: Pull the valve cover from the valve, then pull the exhale valve flap from its housing. Fit the replacement valve and check that the valve flap lies flat on the frame. Align the valve cover with the slots in the valve and snap it onto the valve.

STORAGE

When not in use the equipment should be stored in a clean, dry environment, away from direct heat sources between 10°C and 30°C, at a humidity of less than 65% RH.

CAUTION

 Whilst the materials which may come into contact with the wearer's skin are not known to be likely to cause skin irritation or other adverse effect to health, they may cause allergic reactions in particularly susceptible individuals.

NOTIFIED BODY

Inspec Certification Ltd (Number 0194),
Upper Wingbury Courtyard, Wingrave, Aylesbury, Buckinghamshire, HP22 SLO, UK