

# Protector

## **TORNADO T/A/LINE** *Respiratory Protective Systems*



<b>GB</b>	<i>Operating and Maintenance Instructions</i> .....	1
<b>D</b>	<i>Betriebs- und Wartungsanleitung</i> .....	4
<b>NL</b>	<i>Gebruiks- en onderhoudsaanwijzingen</i> .....	7
<b>F</b>	<i>Instructions d'utilisation et d'entretien</i> .....	10
<b>E</b>	<i>Instrucciones de Funcionamiento y Mantenimiento</i> ..	13
<b>P</b>	<i>Instruções Operacionais e de Manutenção</i> .....	16
<b>I</b>	<i>Instrucciones de Funcionamiento y Mantenimiento</i> ..	19
<b>DK</b>	<i>Operations og vedligeholdelses instruktioner</i> .....	22
<b>S</b>	<i>Bruksanvisning och skötselinstruktioner</i> .....	25
<b>N</b>	<i>Bruks- og vedlikeholdsveiledning</i> .....	28
<b>FIN</b>	<i>Käyttö- ja huolto-ohjeet</i> .....	31



## **Protector Respiratory**

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**WARNING**

-  TORNADO respiratory protection systems are designed for use by personnel who are familiar with workplace hazards.
-  This leaflet must be read together with the user leaflet for the TORNADO headtop used with T/A/LINE.
-  Air supplied by the airline system must conform to prEN 12021 for: composition and permissible upper limit of the following contaminants: oil, carbon dioxide, carbon monoxide and moisture.
-  DO NOT use when ambient oxygen content is less than 19% or greater than 23%. There is an increased fire risk as the oxygen content increases.
-  Air for compressed air line respiratory protection devices must have a dew point sufficiently low to prevent condensing and freezing.
-  Where apparatus is used and stored at a known temperature the pressure dewpoint must be at least 5°C below the likely lowest temperature. Where conditions of use and storage of the compressed air supply is not known the pressure dewpoint must not exceed -11°C.
-  DO NOT use equipment that is damaged or has passed its service due date.
-  DO NOT use if the filter warning panel is discoloured. The filter warning panel must be white.
-  DO NOT use if contaminant levels are likely to be immediately dangerous to life or health.
-  Air line systems used to supply T/A/LINE must be fitted with a pressure relief valve

**DESCRIPTION**

**T/A/LINE** is a waist belt mounted pressure regulator supplied from a medium pressure airline system, that can provide a minimum of 140 litres per minute and a maximum of 300 litres per minute, at between 2.5 bar (35 psi) and 7.0 bar (98 psi). It can be used with **TORNADO** headtops as follows: T1/SM, T1/ML, T2, T3, T4, T5, T6, and T9.

**T/A/LINE** comprises a pressure regulator, a filter to remove particles and oil vapour-and ¼" BSP outlet with a non-return valve to provide power to air driven power tools. A bayonet connector facilitates connection to the **TORNADO** headtop. A low pressure warning whistle sounds when the airline fails to supply the minimum airflow.

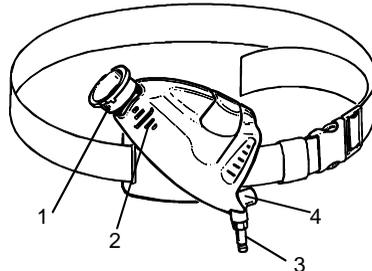
**T/A/LINE** is approved for use with Protector airline supply hoses up to 10m, with a working pressure of 15 bar (see Spares table). Hoses are available in PVC and anti-static material. Anti-static hoses must be used in flammable or explosive atmospheres.

The shelf life of the filter is 5 years.

**T/A/LINE** is CE marked and approved to prEN1835.

**OPERATING**

1. Check that **T/A/LINE** is clean, the filter indicator is not discoloured (indicating that the filter is not contaminated) and that the unit is fully serviceable.

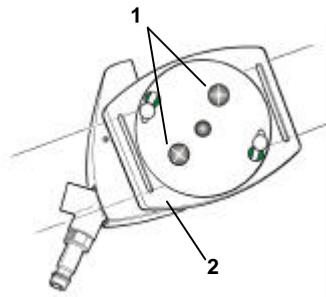


1. Connector for Headtop Hose
2. Warning Panel
3. CEN Airline Hose Coupling
4. ¼ BSP for Power Tool

**Fig. 1**

Connect the airline to the T/A/LINE CEN plug and fit T/FLOWTEST to the T/A/LINE outlet and check that there is sufficient airflow for headtop and filters fitted.

2. Remove T/FLOWTEST and store safely for future use.
3. Don the waist belt so that the T/A/LINE is on the hip and adjust for a comfortable fit.
4. Follow the instructions in the TORNADO headtop leaflet to check and don the headtop.
5. Connect the headtop hose to T/A/LINE and check there is a steady flow of air into the headtop.
6. To adjust the left right wearing position of T/AIRLINE:
  - a) Release screws (Fig. 2 (1)) and rotate disc (Fig 2 (2)) and tighten screws.
  - b) Swap the location of the CEN and 1/4" BSP plug (or other) so that the hoses hang correctly. DO NOT try to alter the position of the inlet/outlet manifold by rotating the manifold as this will cause the manifold to leak.
7. Ensure that airflow required by the wearer, plus any air powered tool used with T/A/LINE does not exceed the capacity of the airline system.
8. Connect air powered tool to 1/4" BSP outlet.



**Fig. 2**

#### **AFTER USE**

1. Disconnect any air powered tools connected to T/A/LINE.
2. When safely clear of the hazard area, remove the headtop in accordance with the headtop user instructions, disconnect T/A/LINE from the headtop hose.
3. Push the airline supply hose CEN connector collar to unlock and pull the connectors apart.
4. Use a lint-free cloth moistened in warm soapy water to clean the waistbelt and outer case, ensure that moisture does not enter the T/A/LINE waistbelt module.
5. Dry thoroughly using a clean lint-free, absorbent cloth and inspect for wear or damage. Replace any worn or damaged parts.
6. Check that the filter indicator is not discoloured. Replace the filter if the panel is discoloured or used for six months, whichever occurs first.
7. When completely dry store in a cool, clean environment, away from direct sunlight and radiant heat.

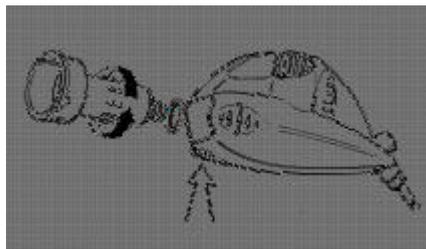
#### **SERVICE INSTRUCTIONS**

Inspect T/A/LINE prior to use and check that the plastic body or connectors are not damaged or excessively worn. Replace worn or damaged parts as necessary.

### Filter Replacement:

1. Press the release tab (arrowed in Fig 3) to unlock the filter.
2. Unscrew the filter plastic body and discard.
3. Screw new filter into the T/A/LINE body and check that filter warning is visible and the release tab is refastened.

**Note:** The filter and bonded seal must be replaced annually.



**Fig. 3**

### Waist Belt Replacement:

Undo the adjustable buckle tag and slip the belt through the slots. Fit new belt through the slots and reattach the adjustable buckle tag.

### Flow Test:

Perform flow test as detailed in the Operating section. If the unit fails the flow test, use medium pressure gauge (Part No. 035.147.02) to check that the pressure at the wearer end of the airline is between 2.5 bar (35 psi) and 7.0 bar (98 psi). There is a flow tester for airlines in the range.

Service and clean the headtop as described in the appropriate User Instruction leaflet.

### SPARES

The following spares are available for **T/A/LINE**. Bracketed numbers show quantity of items.

DESCRIPTION	Part No.
Filter with bonded seal (1 of each)	T/AL/FILTER
Bonded seal, filter (5)	054.010.99
Waist belt (1)	ECWB
Flow tester	T/FLOWTEST

### ACCESSORIES

The following accessories are available for **T/A/LINE**. Bracketed numbers show quantity of items.

DESCRIPTION	Part No.
Adapter, CEN socket to Instantair plug (1)	035.147.00
Medium pressure gauge with CEN couplings (1)	035.147.02
CEN socket, 1/4" BSP male connector (1)	021.041.99
Airline hose, 3 metres, PVC, CEN couplings	HOSE PVC 3M
Airline hose, 10 metres, PVC, CEN couplings	HOSE PVC 10M
Airline hose, 3 metres, anti-static, CEN couplings	HOSE-AS-3M
Airline hose, 10 metres, anti-static, CEN couplings	HOSE-AS-10M

**All hoses are approved to prEN1835**

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