### Technical Specifications

#### 3M™ Versaflo™ TR-300 Powered Air Purifying Respirator (PAPR) Assemblies

### Specifications

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Technical Specification</th>
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</thead>
<tbody>
<tr>
<td><strong>Airflow</strong></td>
<td>Greater than 6 CFM (170 Lpm) (Nominal 6.7 CFM, 190 Lpm)</td>
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<tr>
<td><strong>Alarms – Motor/Blower</strong></td>
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<tr>
<td>Low airflow (fan icon)</td>
<td>Audible and Visual.</td>
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<tr>
<td></td>
<td>• Activates when airflow falls below 6 CFM (170 Lpm) for greater than approximately 30 seconds.</td>
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<td></td>
<td>• If alarm condition continues for approximately 15 minutes, the TR-300 system will automatically shut down.</td>
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<tr>
<td>Low battery voltage (battery icon)</td>
<td>Audible and Visual.</td>
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<td></td>
<td>• Activates when approximately 10 - 15 minutes of power left.</td>
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<td></td>
<td>• Activates when internal battery pack temperature reaches 130º F (55º C).</td>
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<td></td>
<td>• Activates when battery is not recognized by the turbo.</td>
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<tr>
<td>System alarm (all icons)</td>
<td>Audible and Visual.</td>
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<tr>
<td></td>
<td>• Activates when system software malfunctions.</td>
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<tr>
<td></td>
<td>• Activates when motor/fan is not turning.</td>
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<tr>
<td>Alarm decibel level</td>
<td>85 dBA at 4 inches (10 cm)</td>
</tr>
<tr>
<td><strong>Operating Altitude Range</strong></td>
<td>Approximately sea level to 2600 feet (800 meters). For use in elevations above 2600 feet contact 3M Technical Service.</td>
</tr>
<tr>
<td><strong>Assigned Protection Factors (APF)</strong></td>
<td>Depends on headgear selected. Consult selected headgear User Instructions or contact 3M Technical Service.</td>
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<tr>
<td><strong>Belts</strong></td>
<td>• TR-325 - Standard - Polyester ~62 in (157 cm)</td>
</tr>
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<td></td>
<td>• TR-326 - High Durability - Leather ~52 in (132 cm)</td>
</tr>
<tr>
<td></td>
<td>• TR-327 - Easy Clean - Polyurethane Coated Polyethylene Webbing ~62 in (157 cm)</td>
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<tr>
<td></td>
<td>• All belts can be interconnected for expanded size range.</td>
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<tr>
<td></td>
<td>• Belt extender (15-0099-06 Leather belt extender ~36 in (91 cm)) available for the TR-326 belt.</td>
</tr>
<tr>
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<td>Technical Specification</td>
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<tr>
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<td>------------------------</td>
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</tbody>
</table>
| Breathing Tubes – Length | • BT-20S  
• BT-20L  
• BT-30  
• BT-40  
• ~28 in (71 cm)  
• ~38 in (96 cm)  
• ~26 in (66 cm) "relaxed length"; ~33.5 in (85 cm) "fully extended"  
• ~33 in (84 cm) |
| Decontamination | • Do not submerge motor/blower or battery pack.  
• Ingress Protection (IP) rating of IP-53 (EN 60529). Suitable for use in a decontamination shower with a spray angle of up to 60 degrees from vertical. |
| Dimensions – Motor/blower | ~7 7/8 X 8 ¼ X 3 3/8 in (197 X 210 X 185 mm) |
| Weight (includes TR301N blower unit, TR-370 cover, TR-3710 filter, TR-325 belt, and specified battery) | • ~2.0 lbs (918 g) with TR-330 economy battery  
• ~2.4 lbs (1077 g) with TR-332 high capacity battery |
| Filter Options | • High Efficiency (HE) filter  
• Prefilter$^1$  
• Prefilter/Spark Arrestor$^1$ |
| Intrinsic Safety | TR-300+ Assemblies and chargers are not intrinsically safe |
| Latex | TR-300+ Assemblies do not contain latex |
| Materials | • PAPR main body  
• Filter Cover  
• ABS plastic  
• ABS plastic; thermal plastic (window) |
| Noise Levels | Less than 80 dBA excluding external noise |
| Temperature Limits - TR-300+ Assembly | • Operating  
• Storage  
• 23°F to 129°F (-5°C to 54°C)  
• -22°F to 122°F (-30°C to 50°C); Optimal 40°F to 95°F (4°C to 35°C) |
| Service Life - Motor/blower | Approximately 5000 hours (estimated depending on use conditions). If motor blower will not be used on a regular basis, the motor must be run for 5 minutes annually to ensure proper lubrication and operation. |
| Shelf Life – Stored in original 3M packaging | • Motor/blower  
• Battery packs  
• High Efficiency (HE) filters  
• From date of manufacturer: approximately  
• 5 years  
• 9 months  
• 5 years |
## Battery Pack
- Chemistry
- Service Life
- Storage temperature
- Continuous time on charger
- Weight - TR-330 Economy
- Weight - TR-332 High Capacity
- Run time - TR-330 Economy
- Run time - TR-332 High Capacity

### Technical Specification
- Lithium ion
- 250 charge cycles. Consider replacing battery pack when capacity diminishes to 80% or less.
- Optimal 59°F (15°C).
- Battery pack may be stored on the charger between uses. For storage longer than 1 month, to maximize battery pack life, 3M recommends storing the battery pack off the charger at approximately 40% charge.
- 0.5 lbs. (220 grams)
- 0.84 lbs. (380 grams)
- Approximately 4-6 hours
- Approximately 8-12 hours
- Consult with a transportation specialist regarding transport of lithium ion battery packs

## Chargers
- **TR-340 Cradle**
  - Input
  - Output
- **TR-944N**
  - Input
  - Output
  - Fuse rating

### Technical Specification
- 100-240 VAC; 50-60 Hz; 1.5A
- 19 VDC; 2.37A
- 100-240 VAC; 50-60 Hz; 2A
- 19 VDC; 7.89A
- 250 V; 15 A

Time to battery pack 100% capacity:
- TR-330 < 3 hours; TR-332 < 3.5 hours

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1) Check NIOSH approval label to determine if the prefilter or spark arrester is approved for use with your particular system or contact 3M Technical Service at 800-243-4630 (USA) or 800-267-4414 (Canada) for assistance.

2) Estimated system run time based on testing with a new battery and filter at 68°F (20°C). Actual system run time may be extended or shortened depending on system configuration and environment.

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**WARNING:** This product is part of a system that helps protect against certain airborne contaminants. **Misuse may result in sickness or death.** For correct use, see supervisor and User Instructions, or call 3M PSD Technical Service in U.S.A., 1-800-243-4630. In Canada, call Technical Service at 1-800-267-4414.