

OptimAir® TL Powered Respirator

Bid Specifications



GENERAL PRODUCT CHARACTERISTICS	
VISUAL ALARMS	Visible alarms shall consist of flashing LEDs and indicate low flow and low battery condition.
AUDIBLE ALARMS	Audible alarms for low flow and low battery condition should have separate and distinct tones.
PRESSURE SENSOR	The blower should incorporate a pressure sensor and adjust flow to compensate for change in altitude >10,000 feet.
BLOWER ON/OFF SWITCH	Hold-down delayed on/off switch for protection against accidental shut off.
PAPR DESIGN	PAPR shall include battery, cartridges, and blower all contained within a single housing. IP54 Dust and Water Ingress Protection on the housing.
ELECTRONICS	Unit's "Smart" features shall set flow rates automatically through built-in sensors in cartridge receptacle and hose connection port.
DECON BELT	A belt capable of easy decontamination shall be offered.
FLOW CHECK	A handheld or mounted flow check device is not required since the system continually monitors flow and the above alarms activate automatically. The user, therefore, is not required to leave the work area to check airflow. A handheld flow device is available as a user option.
KITS	Standard kits shall include blower, extended or standard battery, charger, and hose configuration for hood or facepiece use. Response kits shall include blower, long life battery, charger, standard or low-profile hood, and hood hose.
ACCESSORIES	Accessories available shall include: <ul style="list-style-type: none"> • Comfort belt • Spark/Splash guard for cartridges • Flow check device • Protective cover for cartridge receptacles • Decon cover for blower and hose (clear and yellow) • Cover lenses for hoods

POWER SOURCE / OPERATING TIME	
BATTERY	There should be a choice of batteries as follows: <ul style="list-style-type: none"> • "Standard" - NiMH, 12 volt nominal, 2.7 ah • "Extended-Life" - Lilon, 14.4 volt nominal 4.4 ah
CHARGER	Smart – rapid charger must fully charge depleted standard battery pack in under 4 hours, Extended-Life battery pack in 6 hours. Charger shall have LED state-of-charge indicator lights.
RUN TIME	The PAPR shall operate a minimum of 5 hours on a fully charged battery with particulate filters and standard battery. A minimum of 12 hours with the Extended-Life battery.
SIZE	The overall nominal dimensions of the Extended-Life battery shall be 209.8 L X 62.2 W X 44 H (mm).
DESIGN	The battery must be designed so that it can be inserted into the housing in only one orientation.

BLOWER FEATURES	
SIZE	The overall dimensions shall not exceed 10.5" W x 7.5" H x 3" D.
WEIGHT	The blower housing with battery shall not be more than 1.3 lbs.
BREATHING HOSE	Hose shall be crush-proof. Different hoses for facepiece and hooded use required.
FLOW RATE	The flow rate automatically set based on type of RIC breathing tube used. <ul style="list-style-type: none"> • Tight-fitting facepiece—160 lpm • Loose-fitting facepiece—205 lpm
RECEPTACLES	There shall be two cartridge receptacles: <ul style="list-style-type: none"> • Cartridge receptacles shall be 4.5" in diameter • Combination cartridge switch shall be mounted within one of the cartridge receptacles

TIGHT-FITTING FACEPIECE FEATURES

MATERIAL	Facepiece shall be made from: <ul style="list-style-type: none"> • Silicone <ul style="list-style-type: none"> – Advantage 3100, Advantage 4100, Ultra Elite • Hycar rubber <ul style="list-style-type: none"> – Advantage 4100, Ultra Elite , G1 Facepiece
ACCESSORIES	The blower housing with battery shall not be more than 1.3 lbs.

HOOD FEATURES — FULL AND LOW-PROFILE HOODS

MATERIAL	Full Hood shall be made of Tychem QC or Tychem SL material.
BIB	Full Hood shall be available in single or double bib.
CONNECTIONS	Full Hood shall be available with threaded hose-to-hood connections.
COLORS	Tychem QC hood shall be available in either white or yellow.
SUSPENSION	The Full Hood suspension shall be adjustable with replaceable sweatband.
LOW-PROFILE HOOD	Low-Profile Hoods shall be made of Tychem QC and available in Yellow or White.

CARTRIDGE FEATURES

MATERIAL	Cartridge shall have a plastic body.
TYPE	Cartridge shall be available with HE (high-efficiency) filter and combination type.
OPTIONS	Cartridge options shall include: <ul style="list-style-type: none"> • HE • Acid gas/organic vapor + HE • Acid gas/ammonia/formaldehyde + HE

CERTIFICATIONS

CERTIFICATION	Manufacturer must certify an APF of 1,000 for use with full size hoods. Low Profile hoods will be 25 APF.
APPROVALS	All hood materials, styles, and configurations shall be NIOSH-approved.

WARRANTIES

APPROVALS	One-year standard warranty on all components.
------------------	---

Note: This Bulletin contains only a general description of the products shown. While product uses and performance capabilities are generally described, the products shall not, under any circumstances, be used by untrained or unqualified individuals. The products shall not be used until the product instructions/user manual, which contains detailed information concerning the proper use and care of the products, including any warnings or cautions, have been thoroughly read and understood. Specifications are subject to change without prior notice.

MSA operates in over 40 countries worldwide. To find an MSA office near you, please visit [MSAsafety.com/offices](https://www.MSA.com/offices).