

# ADVANTAGE<sup>®</sup> 4000

## Single-Port Respirator

### *Bid Specifications*

<b>General Product Characteristics</b>	
<b>Type</b>	Full-facepiece single-port facepiece shall be available with three types of adapters enabling the facepiece to be used with pressure-demand respirators, a variety of air purifying and supplied-air respirators and as a twin-cartridge air purifying respirator. The complete respirator assembly shall be certified by NIOSH.
<b>Component Parts</b>	The facepiece shall consist of a single, replaceable lens facepiece with a cover lens and instructions for use and maintenance of the respirator.

<b>Facepiece</b>	
<b>Sizes</b>	The facepiece shall be available in three sizes. The standard (medium-sized), will fit a wide range of face sizes. Small and large facepiece sizes shall be available to fit those few individuals who will not achieve the correct fit with the standard medium size. A specific size indication shall be marked on the facepiece.
<b>Mounting locations</b>	The facepiece shall have a single mounting location for attaching various facepiece adapters to the facepiece. Three adapters shall be available: <ul style="list-style-type: none"><li>▪ Push-to-Connect Adapter</li><li>▪ RD40 Adapter</li><li>▪ Twin-Cartridge</li></ul>
<b>Suspension</b>	An adjustable silicone rubber head harness with four points of suspension shall be used. An optional polyester net type harness with four points of suspension shall be available.
<b>Lens</b>	The facepiece lens shall be located on the unit to provide a satisfactory field of vision for persons of widely varying facial shapes and sizes. The lens shall be an easily field-replaceable polycarbonate lens with a scratch-preventative hard coating applied. The lens shall be of a non-shatter type design.
<b>Exhalation valve</b>	The facepiece will have a demand exhalation valve. The valve design will be of the umbrella type to limit the amount of back leakage. The valve assembly shall be designed for easy cleaning.
<b>Nose cups</b>	Nose cups shall be available for use in reducing facepiece fogging in cold conditions. The nose cups shall fit a variety of face sizes and shapes. The nose cups shall be designed to be installed without special tools.
<b>Cover Lens</b>	A clear flexible cover lens shall be packaged with each facepiece. Optional cover lenses shall be available in at least two types: clear and smoke-tinted.
<b>Spectacle kit</b>	A removable spectacle kit shall be available for mounting corrective lenses inside the facepiece.
<b>Facepiece Blank</b>	The facepiece shall be available in black silicone or Hycar rubber.

<b>Facepiece Adapters</b>	
<b>Push-To-Connect Adapter</b>	<ul style="list-style-type: none"> <li>▪ This facepiece shall be compatible with the following MSA Respirators: <ul style="list-style-type: none"> <li>○ AirHawk<sup>®</sup> MMR Air Mask SCBA</li> <li>○ PremAire<sup>®</sup> Supplied-Air Respirator System</li> <li>○ PremAire Cadet Escape Respirator</li> <li>○ PremAire Cadet Pressure-Demand Supplied-Air Respirator</li> </ul> </li> <li>▪ The Push-To-Connect Adapter shall fasten to the facepiece without special tools.</li> <li>▪ The adapter shall have an inhalation check valve and exhalation valve to prevent exhaled air from entering and contaminating the mask-mounted regulator.</li> </ul>
<b>RD 40 Adapter</b>	<ul style="list-style-type: none"> <li>▪ This facepiece shall be compatible with the following MSA Respirators: <ul style="list-style-type: none"> <li>○ OptimAir<sup>®</sup> TL Powered Air Purifying Respirator</li> <li>○ OptimAir<sup>®</sup> MM2K Powered Air Purifying Respirator</li> <li>○ Chin-Type Gas Masks</li> <li>○ Constant-Flow Air Line Respirators</li> <li>○ Constant-Flow Duo-Flo<sup>™</sup> Respirators</li> </ul> </li> <li>▪ The RD40 Adapter shall fasten to the facepiece without special tools.</li> <li>▪ The adapter shall have an inhalation check valve and exhalation valve to prevent exhaled air from entering and contaminating the respirator.</li> </ul>
<b>Twin-Cartridge Adapter</b>	<ul style="list-style-type: none"> <li>▪ This facepiece shall be compatible with the full range of MSA Advantage Cartridges.</li> <li>▪ The Twin-Cartridge Adapter shall fasten to the facepiece without special tools.</li> <li>▪ The adapter shall have an inhalation check valve and exhalation valve to prevent exhaled air from entering and contaminating the chemical cartridges or particulate filters.</li> <li>▪ Cartridges and filters: <ul style="list-style-type: none"> <li>○ The chemical cartridges shall be constructed as follows: <ul style="list-style-type: none"> <li>▪ The chemical and combination cartridges shall be contained in a one-piece plastic permanent assembly with protection for the particulate filter from punctures.</li> <li>▪ The cartridge shall attach to the facepiece by hand (no tools), and use a bayonet-type means of attachment.</li> <li>▪ The canister shall have a low profile that minimizes interference with the overall facepiece vision.</li> <li>▪ Associated labels are to be located on the cartridge in such a manner to easily identify the cartridge type.</li> </ul> </li> <li>○ Particulate filters shall be constructed as follows: <ul style="list-style-type: none"> <li>▪ Particulate filters shall be contained in a one-piece plastic permanent assembly with protection for the particulate filter from punctures. The cartridge shall attach to the facepiece by hand (no tools), and use a bayonet-type means of attachment. The cartridge shall have a low profile that minimizes interference with the overall facepiece vision.</li> <li>▪ Particulate filters not contained in a one-piece plastic permanent assembly shall be retained on the respirator by use of a reusable plastic filter retainer. The cartridge shall attach to the facepiece by hand (no tools), and use a snap-on method of attachment. The cartridge shall have a low profile that minimizes interference with the overall facepiece vision.</li> </ul> </li> </ul> </li> </ul>
<b>Manual</b>	
<b>Instruction manual</b>	An instruction manual shall be available for each respirator. NIOSH approval information shall be available.

<b>Accessories</b>	
<b>Spectacle Kit</b>	A removable spectacle kit shall be available for mounting corrective lenses inside the facepiece.
<b>Cover lens</b>	Optional cover lens shall be available in at least two types: clear and smoke-tinted
<b>Welder's Adapter</b>	A detachable, polycarbonate welder's adapter shall be available

<b>Certifications</b>	
<b>Approvals</b>	The complete respirator assembly shall be certified by the National Institute for Occupational Safety and Health (NIOSH) under Title 42, Code of Federal Regulations, Part 84.