

PremAire® Supplied-Air Respirator System



Escape-cylinder option used in confined space application.

Features

- Unprecedented versatility and cost efficiency from a supplied-air respirator.
- Thousands of respirator configurations possible from one unit.
- Lightweight, mask-mounted regulator provides high air flows; responds quickly to changing breathing requirements.
- Escape cylinder option makes system suitable for use in Immediately Dangerous to Life and Health (IDLH) environments.
- Dual-Supply option improves worker mobility.
- Vortex Tube option provides body temperature control when working in protective clothing, for either hot or cold environments.
- Duo-Twin option provides combination air-line/air-purifying capability. Can be used with entire family of filters, chemical cartridges and combination cartridges for protection against particulates, toxic gases and vapors.

Description

The PremAire Supplied-Air Respirator System is one of the most advanced air-line respirators available. Designed to provide the utmost in versatility, the modular system allows users to “create” literally thousands of different respirator configurations from one unit. As a result, workers can use the PremAire System to match specific respiratory protection needs to the task at hand.

First and foremost, the PremAire Respirator is a Type C, pressure-demand, supplied-air respirator as defined by the 42 CFR Part 84 Standard by NIOSH.

The basic Premaire Supplied-Air Respirator is recommended for users not requiring emergency-escape capability or, for that matter, any of the PremAire System options. However, the advantage of this unit over conventional air-supplied devices is that it enables users to add those options easily should they be needed for future applications.

The basic PremAire Respirator can be upgraded with any of four options. These include:

- an Escape Cylinder option (in either a five- or ten-minute-rated air supply) that permits emergency escape from Immediately Dangerous to Life or Health (IDLH) atmospheres.
- a Dual-Supply option that lets workers connect from one pressurized continuous air source to another without losing continuity of air flow.
- a Duo-Twin option that converts the respirator into a combination supplied-air/air-purifying device. This allows workers in non-IDLH atmospheres to move freely from station-to-station without being tethered to an air-supply hose, yet still be protected by the device's air-purifying capability.
- a Vortex Tube option that delivers whole-body temperature control for added worker comfort.

Most options can be combined or used individually, giving users thousands of respirator configurations from which to choose. Because of its modularity and versatility, the system is well suited for use in a broad range of applications, including hazardous materials handling, confined spaces work, chemical and petrochemical processing, shipbuilding, utilities work, asbestos and lead paint abatement, nuclear applications, general industry, and fire service.

In operation, the PremAire Supplied-Air Respirator provides respirable air to the user on demand - not constantly, as in a constant-flow type device. As such, it can be used with a large, compressed air cylinder of breathable air or a bank of cylinders set up in cascade fashion. Alternatively, the PremAire System can be used with a compressor system designed and configured to supply respirable breathing air to the respirator, within the NIOSH/MSHA-approved pressure range.

The PremAire System is designed to maintain a slight positive pressure of air inside the facepiece - whether the wearer is inhaling or exhaling - to prevent contaminants from entering the facepiece, should there be slight face-to-facepiece seal leakage.

Mask-Mounted Regulator (MMR)

The PremAire System features a state-of-the-art, pressure-demand regulator mounted at the facepiece. This MMR maintains a slight positive pressure within the facepiece while regulating and reducing the air supply from the NIOSH/MSHA-approved range of 60-100 psig to a breathable pressure.

This is accomplished by using a pilot diaphragm that continuously senses the breathing demands of the user in a closely controlled manner. When the user inhales, the movement of the pilot diaphragm opens an internal port which is pneumatically linked to the power stage diaphragm. The power stage diaphragm senses the inhalation demand and moves from its seated position, thus supplying a controlled flow of air to the user. When the demand lessens, the pilot diaphragm detects this and closes the internal port to the cavity behind the power stage diaphragm. The power stage diaphragm then moves back to its seated position and closes the air flow to the user to conserve air until demand begins again.

The result is a low-profile, high-performance unit that quickly responds to a user's changing breathing requirements. The unit also features a second-stage regulator bypass system, as well as a shutoff button that makes it easy for a user to "deactivate" the second-stage regulator.

The PremAire features two different MMRs. The new FireHawk™ MMR offers a sleek, user-friendly regulator. Offered as both push- and slide-to-connect versions, the FireHawk's design keeps the facepiece profile to a minimum while offering almost 100% field-of-vision. The 1/4-turn regulator is offered for wearers needing the Duo-Twin option.

MSA now offers a new version of the Firehawk MMR. Introducing the Solid-Cover Firehawk MMR. For those users that do not need a purge button, MSA now offers the Solid-Cover Firehawk, which operates the same as the original Firehawk MMR.

PremAire System Manifold



The heart of the PremAire System is its unique, patented manifold. The manifold serves as the air distribution center for the entire system. It is also the component that permits use of all PremAire System options.

Positioned near the wearer's waist, the manifold has five individual ports that permit connection of various PremAire air-supply hoses and system options. These ports include an inlet for connecting the emergency-escape cylinder's high-pressure hose; an outlet for the vortex tube connection hose; an inlet for the main air-supply hose; an inlet for the dual-supply option; and an outlet used to connect the PremAire manifold to the mask-mounted regulator.

Facepieces

With the exception of PremAire Respirators equipped with the duo-twin option (see page 10), all PremAire System configurations can be used with either the Ultra Elite or Ultravue Facepiece. With three sizes to choose from, both the Ultra Elite and Ultravue Facepieces have scratch-resistant polycarbonate lenses and are available in silicone and Hycar rubber. The Ultra Elite Facepiece, which features face-hugging comfort and a wide-vision lens, is also available with two nose cup sizes. The Ultravue Facepiece is available with three nose cup sizes. Optional lens covers provide even greater scratch resistance for both facepieces (page 10).

The Ultra Elite and Ultravue Facepieces feature an inhalation check valve and exhalation valve that work together to help prevent exhaled air from entering the mask-mounted regulator and contaminating the internal regulator components. The result is improved regulator reliability and durability, and reduced frequency maintenance. The facepieces' speaking diaphragms help provide intelligible short-range voice communications, while the optional ClearCommand™ Communications System (see page 6) provides voice amplification and/or interface with two-way radios (available only with UltraElite facepiece).

As an option, the Ultra Elite and Ultravue Facepieces are available with the EZ-Don® Facepiece Harness. It offers the same fit and comfort as the standard rubber harness, but provides a simplified method of adjustment. The new Speed-On® head harness is also available with the Ultra Elite facepiece. The Speed-On provides a larger head harness, which covers more of the user's head than other available head-harnesses.



Waist Belts

PremAire Respirator users can also choose from three different waist belts. The soft, polyurethane-coated nylon web belt is designed for easy decontamination. The Nomex belt assembly provides added flame and heat resistance for the user. If decontamination is not a factor, users may opt for the standard uncoated nylon web belt. All three belts accommodate waists up to 48 inches (121.9 cm).

PremAire System with Escape-Cylinder Option

The PremAire escape-cylinder option allows users to work in an IDLH (Immediately Dangerous to Life or Health) atmosphere by providing an emergency-escape capability. The National Institute for Occupational Safety and Health (NIOSH) requires this capability for any supplied-air respirator used in an IDLH atmosphere.

IDLH means conditions that pose immediate threat to life or health, or conditions that pose an immediate threat of severe exposure to contaminants, such as radioactive materials, which are likely to have adverse cumulative or delayed effects on health.

PremAire Respirators equipped with this option feature a belt-mounted, carbon fiber or aluminum air cylinder. In normal use, the apparatus operates on the same principle as the PremAire pressure-demand supplied-air respirator. When connected to an air source, it provides continuous respiratory protection until the user disconnects from the air-supply hose. In an emergency-escape situation, the cylinder portion of the apparatus is activated by opening the cylinder valve. Should the primary air supply fail or be interrupted, the cylinder provides an emergency source of air for escape from the dangerous atmosphere.

Depending on user needs, escape cylinders are available in either a five- or ten-minute-rated air supply. Depending on user preference, wearers also have a choice of cylinder placement - positioned on either the left or right hip.

Note: The emergency-escape air cylinder is the only PremAire Respirator configuration approved for use in IDLH conditions.

CAUTION: The emergency-escape air cylinder must not be used to provide respiratory protection while entering the working area. Entry must be made only when connected to the primary air source through the air-supply hose.

PremAire System with Dual-Supply Option

A major advantage of the PremAire dual-supply option is improved mobility, because workers need not remain tethered to a single air-supply hose throughout the work period. To accommodate this option, the PremAire manifold features two air-inlet ports: a MAIN inlet and a DUAL-SUPPLY inlet. Both are used to deliver respirable air to the user whenever connected to a pressurized air source.

With the dual-supply capability, users can connect from one pressurized continuous air source to another without losing continuity of air flow. When the first length of air-supply hose has reached its limit, the wearer simply plugs into a second approved air source and disconnects from

the first. This technique is known as “leap-frogging” because it gives workers the ability to move from station to station without disrupting the supply of air.

Additionally, the dual-supply option can be used in conjunction with the Duo-Twin option for increased versatility and respiratory protection in non-IDLH atmospheres.

Operating Principle

The dual-supply option works on the same principle as the PremAire Supplied-Air Respirator. Whether a worker is using the “MAIN” inlet of the manifold, the “DUAL-SUPPLY” inlet or both inlets simultaneously, the respirator will provide supplied-air respiratory protection as long as the user remains connected to one of the two air sources.

A Portable Air Supply

For even greater versatility, the dual-supply option is compatible with the TransportAire™ Portable Air Supply. The TransportAire system is available in two versions, one for high-pressure cylinders and one for low-pressure cylinders. Both versions consist of an impact-resistant handle with urethane-coated nylon straps that fit around standard self-contained breathing apparatus air cylinders. An Audi-Larm warning device is standard on the high-pressure system and available as an option for the low-pressure system.



With the TransportAire system connected to the Dual-Supply inlet of the PremAire manifold, a worker can carry the portable air supply to a location where a second air source is available for longer-term use. After connecting the second air source into the MAIN inlet of the manifold, the user can disconnect the TransportAire system and keep it available until it's time to exit the area.

Applications where this feature can be used include hazardous material disposal and remediation sites where heavy equipment operators work. For additional information on the TransportAire system and MSA auxiliary cylinders, contact MSA customer service or an MSA authorized distributor.

When combined with the emergency-escape cylinder option, the dual-supply option is suitable for use in IDLH environments. The dual-supply option can also be used in conjunction with the PremAire vortex tube option, providing that a continuous air-supply source (such as an air compressor) is used.

Note: The TransportAire Portable Air Supply must not be used with vortex tubes, as the cooling system would exhaust the cylinder air supply at a higher than normal rate.

PremAire System with Duo-Twin Option

The Duo-Twin option converts the PremAire Supplied-Air Respirator into a combination supplied-air/air-purifying device. In short, this option increases worker mobility because it allows users to temporarily break from the air-supply hose by switching to the air-purification mode.



Featuring a Duo-Twin Facepiece, the respirator is equipped with two air-purifying cartridges mounted on the facepiece. The device also has a “switchable” demand/pressure-demand exhalation valve that controls exhalation resistance. The valve permits users to switch from the supplied-air mode to the air-purifying mode with little change in exhalation resistance. As a result, wearers can move from station to station in a contaminated atmosphere without the restriction of an air-supply hose, yet still be protected by the device's air-purifying capability.

In the air-purifying mode, inhaled air is drawn into the facepiece through the filters or cartridges. The inhaled air passes over the inside surface of the lens, helping to keep it free from fog, before it is taken into the lungs. Exhaled air leaves the facepiece through the exhalation valve and consequently is not rebreathed. An inhalation flapper valve prevents the exhaled air from passing through the filters or cartridges.

Note: The Duo-Twin option is only available with the 1/4-turn regulator. Both Ultra Elite and Ultravue facepieces may be used with this option.

Filter Options

For the Duo-Twin option, MSA offers up to 21 filters, chemical cartridges and combination cartridges that protect against a wide variety of contaminants. The combination cartridges provide an added degree of versatility because they provide simultaneous protection against particulates and vapors and/or gases. (See Filter/Cartridge Selection Guide on page 11 for specific filter approvals and applications).

PremAire System with Vortex Tube Option

When protective suits are worn in conjunction with the PremAire System, the vortex tube option helps improve worker comfort and productivity by providing temperature control. For example, when workers must wear chemical splash suits, they get a cooling capability with this option.

Two vortex tube models are available: a “cool-only” version reduces the temperature of air flowing into the protective garment by as much as 60°F; and a “warm/cool” model provides the same cooling capability, but also provides the option of increasing the temperature of air flowing into the garment by as much as 60°F. As such, the “warm/cool” model is well-suited for personnel who must work in cold climates or refrigerated rooms.



Operating Principle:

In operation, a single air-supply hose feeds the “MAIN” inlet of the PremAire manifold, where the air path is then split in two: one portion flows to the mask-mounted regulator attached to the facepiece while a second portion is directed into the belt-mounted vortex tube. Inside the vortex tube, rapid expansion of air produces both cool and warm air. With the “cool-only” version, hot air is vented through the vortex tube’s exhaust port while cool air is directed into the suit. With the “warm/cool” version, the worker can direct either the cool or warm air into the suit for temperature control.

Vortex tubes designed for the PremAire System are compatible with a wide range of chemical-resistant clothing.

PremAire System Upgrade Kits

Escape Cylinder Kits

Part No.	Description
800696	Kit with fully-wound carbon-fiber 5-minute cylinder, for right hip
800694	Kit with fully-wound carbon-fiber 5-minute cylinder, for left hip
800697	Kit with fully-wound carbon-fiber 10-minute cylinder, for right hip
800695	Kit with fully-wound carbon-fiber 10-minute cylinder, for left hip

Vortex Tube Kits

Part No.	Description
800706	Kit with 6-inch hose, cool-only version
800710	Kit with 6-inch hose, warm/cool version
801012	Kit with 12-inch hose, cool-only version
801014	Kit with 12-inch hose, warm/cool version

Duo-Twin* Kits

Part No.	Description
800978	Kit with Hycar rubber facepiece
800980	Kit with black silicone facepiece

Dual-Supply Kit

Part No.	Description
800044	Includes 8-inch extension hose, less quick-disconnect assembly

PremAire Air-Line Kit

Part No.	Description
811940	PremAire Air-line Filter Kit
811984	Replacement Filter Element and Gasket

The two options for ordering the PremAire with FireHawk are as follows

Complete PremAire System Assemblies

Part No.	Description
810609	PremAire with 1/4-Turn MMR, less case with medium Hycar Ultra Elite Facepiece
812099	PremAire with 1/4-Turn MMR, with 5-minute aluminum cylinder, right-hip model, less case (Ultra Elite Facepiece)
805798	PremAire with 1/4-Turn MMR, with 10-minute aluminum cylinder, right-hip model, less case (Ultra Elite Facepiece)
10045160	PremAire with FireHawk Slide-To-Connect MMR, with 5 minute aluminum cylinder, right-hip model, less case
10045161	PremAire with FireHawk STC MMR, with 10 minute aluminum cylinder, right-hip model, less case
10045162	PremAire with FireHawk Push-To-Connect MMR, with 5 minute aluminum cylinder, right-hip model, less case
10045163	PremAire with FireHawk PTC MMR, with 10 minute aluminum cylinder, right-hip model, less case
10045164	PremAire with FireHawk STC MMR, with 5 minute aluminum cylinder, right-hip model, with case
10045165	PremAire with FireHawk STC MMR, with 10 minute aluminum cylinder, right-hip model, with case
10045166	PremAire with FireHawk PTC MMR, with 5 minute aluminum cylinder, right-hip model, with case
10045167	PremAire with FireHawk PTC MMR, with 10 minute aluminum cylinder, right-hip model, with case
10028600	FireHawk STC upgrade kit for UltraElite facepiece (includes cover w/ slide)
10038664	FireHawk PTC upgrade kit for UltraElite facepiece

Note: When ordering via traditional MSA part numbers, please be sure to order the male quick-disconnect when constructing your airline system

Two Ways to Order: Traditional MSA Part Numbers

For users who require faster delivery, the most commonly used PremAire System combinations are stocked and can still be ordered with a traditional MSA part number. All assemblies are sold less quick-disconnects. See page 7 of this bulletin for quick-disconnect ordering information. For air-supply hoses, see page 9.



Ultra Elite facepiece with Firehawk Push-To-Connect (PTC) MMR

The ATO System

MSA is offering more PremAire System Respirator choices than ever before. All totalled, there are thousands of possible combinations so that workers can select just the right PremAire System for the job. MSA's Assemble-To-Order (ATO) System makes ordering the right unit easier and faster. Instead of choosing from a number of complete PremAire assemblies, the ATO system (see page 8) works by allowing users to create their own part numbers. Each digit of an ATO part number will represent a specific component, so that the entire part number represents a finished respirator built exactly to the desired specifications.



Ultra Elite facepiece with Firehawk Slide-To-Connect (STC) MMR

Note: Vortex Tube Kits with a 6-inch connection hose are compatible with all PremAire Respirator configurations *except those with an emergency-escape air cylinder positioned on the LEFT HIP*. Vortex Tube Kits with 12-inch hose must be used when combined with the "left hip" emergency-escape cylinder option. This option must be ordered *in addition* to the PremAire System ordered. The new ATO matrix does not feature a Vortex Tube column.

* Duo-Twin Kits are stocked with medium size facepieces. Small and large size facepieces are available as special order items.

Low-Pressure TransportAire Portable Air Supply System

Part No.	Description
816693	TransportAire Assembly with cylinder carrier, regulator and regulator-to-hose adapter

Option

Part No.	Description
85078	Low-pressure Audi-Larm Assembly

Low-Pressure (2216 psig) Cylinders

Part No.	Description
807586	Stealth L-30, 30-minute
469619	30-minute hoop-wrapped
809872	30-minute 3AL (aluminum)

Low-Pressure (3000 psig) Cylinder

Part No.	Description
816115	Stealth L-30+, 30-minute

ClearCommand™ Communications System

MSA's ClearCommand Communications System is designed specifically to meet the modern communications needs of today's industrial environment. Because it's available in two versions, amplifier and amplifier with radio interface, employees can be properly fitted for the job at hand. Also, the systems are designed for "shared-use" of the amplifier with a unique "bus-bar" arrangement, so individual issue is not required.



The ClearCommand systems feature an internally mounted microphone coupled with a large-diameter (50mm) amplifier speaker for optimal clarity and volume. Using a patented circuit design, the system delivers more than twice the volume of a facepiece alone. Mounted in an "out-of-the-way" position, the ClearCommand System doesn't block vision or mechanical communication. The Ultra Elite's mechanical voicemitter still fully functions, even with the system installed.

The radio interface version features the same amplifier as the amp-only version, combined with an ear-speaker for incoming radio messages and a lapel mic assembly for interface with over 100 radios. The lapel mic can be used as a component of the ClearCommand system or as a stand-alone hand mic.

Both the amplifier and radio interface models are intrinsically safe, and meet the applicable requirements of NIOSH and NFPA 1981, 1997 edition.

Part No.	Description
10024074	Amplifier Kit, complete with microphone
10024073	Amplifier Radio Interface Kit, w/ microphone, less PTT
10023055	Microphone Kit, with mounting bracket

Instruction Manuals and PremAire System User's Guide

With the PremAire System, individual instruction manuals are included with each complete assembly and kit. Written in a user-friendly, easy-to-understand format, the manuals cover everything users need to know about system operation and maintenance. Further, they are designed to integrate with one another. Thus, as the capabilities of the user's PremAire System expand, so does the PremAire instruction manual.

For Instruction Manual, go to our website at www.MSAnet.com, or contact the MSA Customer Service Center at 1-800-MSA-2222.

High-Pressure TransportAire Portable Air Supply System

Part No.	Description
812217	TransportAire Assembly with cylinder carrier, regulator, regulator-to-hose adapter and high-pressure Audi-Larm

High-Pressure (4500 psig) Cylinders

Part No.	Description
807588	Stealth H-60, 60-minute
807570	Stealth H-45, 45-minute
807587	Stealth H-30, 30-minute

PremAire System Cases

For easy storage and transport, you can choose from either a hard-or-soft-sided PremAire System carrying case. MSA's hard-sided case offers rugged buckles and interior foam padding for extra protection. The soft-sided, yet durable duffel bag-style case, features reinforced strapping and a heavy-duty zipper. Plus, it's large enough to hold the PremAire System, respirator accessories and other work gear.

Part No.	Description
813805	Hard Side
816725	Soft Side

For more information regarding air-line systems, please consult the Pocket Guide to Air-Line Systems (0114-14-MC) or call MSA Customer Service Center at 1-800-MSA-2222. Visit us online at www.MSAnet.com

Quick-Disconnects for use with the PremAire System:

Shown below are various quick-disconnect assemblies that can be used with the PremAire System. Quick-disconnects are required to connect air-supply hoses to the PremAire manifold and to the air source. Additionally, locking-type quick-disconnects must be used to interconnect lengths of MSA air-supply hose when quick-disconnects are used. Otherwise, lengths of MSA air-supply hoses may be

threaded together directly. Air-supply hoses can be interconnected up to a maximum length of 300 feet. Up to 12 sections of hose can be used to make up the maximum working length of hose. Locking quick-disconnects easily connect by pushing the plug and socket together. To separate, the plug and socket must first be pushed together, and then the sleeve retracted from the plug.

QUICK-DISCONNECTS AND ADAPTERS AL-Aluminum; S-Steel; SST-Stainless Steel; BR-Brass

QUICK-DISCONNECT TYPE	Interchangeability†	1	2	3	4	5*
		Female Socket 1/4" NPT	Male Plug w/Female 1/4" NPT	Union Adapter 1/4" NPT x 3/4" UNF	Male Plug w/Male 1/4" NPT (used when connecting Inlet Pressure Gauge)	Female Socket Ass. (used to connect Air-Supply Hose to Male Plug on Respirator)
Snap-Tite (AL)	C	66272	66274	69542	66273	455019
Snap-Tite (SST)	C	629673	629672	808358	629671	471778
Snap-Tite (BR)	C	630305	630307	69542	630306	471777
Duff-Norton (BR)	—	630308	630310	69542	630309	471780
Hansen (SST)	A	628768	628208	808358	473502	471779
Hansen (BR)	D	630311	630313	69542	630312	471501
Foster (S)	B	628770	55716	69542	56549	467044
Foster (SST)	B	636459	636460	808358	—	801016
Foster (BR)	A	629980	629981	69542	473501	470194
Schrader (S)	B	See Foster(S)	See Foster(S)	See Foster(S)	See Foster(S)	See Foster(S)
CEJN Locking (Chrome-Plated—BR)	E	631870	479026	69542	479020	479001
CEJN Locking (Chrome)	E		479026	69542	479020	476956
Snap-Tite Locking (AL)	F	—	479027	69542	—	479032
Snap-Tite Locking (SST)	F	—	479028	808358	479022	479033
Snap-Tite Locking (BR)	F	—	479029	69542	479023	479034
Foster Locking (SST)	D	636473	637851	808358	—	800805

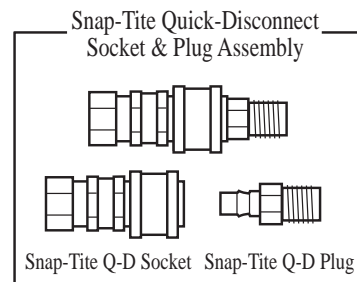
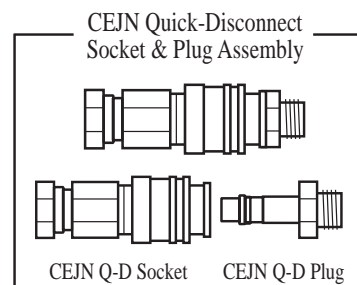
† Fittings with the same letter code are interchangeable.

* Socket assy consists of socket from column 1 and brass union adapter P/N 69541 (3/4" female x 1/4" npt male). Exception: All SST fittings have SST Union P/N 808360.

Locking Quick-Disconnects:

Locking quick-disconnects can be used to interconnect lengths of MSA Air-Supply Hose. For most systems, you can use up to 12 sections of hose to make up the maximum length.

Part No.	Description
479009	CEJN Locking Quick-Disconnect Assembly, Socket and Plug (Chrome)
476956	CEJN Locking Female Quick-Disconnect Socket (Chrome)
476955	CEJN Locking Male (w/Male 3/4" NPT) Quick-Disconnect Plug (Chrome)
479010	Snap-Tite Locking Quick-Disconnect Assembly, Socket and Plug (AL)
479032	Snap-Tite Locking Female Quick-Disconnect Socket (AL)
479015	Snap-Tite Locking Male (w/Male 3/4" NPT) Quick-Disconnect Plug (AL)
479011	Snap-Tite Locking Quick-Disconnect Assembly, Socket and Plug (SST)
479033	Snap-Tite Locking Female Quick-Disconnect Socket (SST)
479016	Snap-Tite Locking Male (w/Male 3/4" NPT) Quick-Disconnect Plug (SST)



Accessories

Approved Air-Supply Hose

The MSA 3/8-inch ID Air Supply Hose is available in smooth, reinforced, lightweight polyvinylchloride (PVC); chemical-resistant black neoprene; or smooth, coiled nylon. An MSA hose must be used to maintain NIOSH/MSHA approvals of the PremAire System.

Neoprene

Part No.	Length	Hose Coupling Material
455022	50 ft.	Brass
481080	50 ft.	Stainless Steel
455021	25 ft.	Brass
481079	25 ft.	Stainless Steel
455020	15 ft.	Brass
481078	15 ft.	Stainless Steel
481071	8 ft.	Brass
481077	8 ft.	Stainless Steel

PVC

Part No.	Length	Hose Coupling Material
484225	100 ft.	Brass
471513	50 ft.	Brass
481060	50 ft.	Stainless Steel
471512	25 ft.	Brass
481059	25 ft.	Stainless Steel
471511	15 ft.	Brass
481058	15 ft.	Stainless Steel
481051	8 ft.	Brass
481057	8 ft.	Stainless Steel

Coiled Nylon

Part No.	Length	Hose Coupling Material
474043	50 ft.	Brass
491515	25 ft.	Brass
491514	15 ft.	Brass
491513	8 ft.	Brass



Aire-Supply Hose Temperature Ranges

Neoprene	-25° to 212° Fahrenheit
PVC	32° to 120° Fahrenheit
Nylon	0° to 160° Fahrenheit

Pressure Regulator

When the PremAire System is used with a plant air compressor system, the MSA Pressure regulator reduces compressor pressure to the desired operating pressure. The regulator maintains pressure on the outlet side until readjusted for use with inlet pressure of up to 125 psig.

Part No.	Description
66716	Pressure Regulator

Inlet Pressure Gauge:

MSA offers an inlet pressure gauge that enables a user to check pressure at the inlet of the MSA air-supply hose, thereby assuring that air pressure is within the certified range.

The gauge is supplied with quick-disconnect fittings to accommodate your PremAire System.

Part No.	Description
476734	With Snap-tite fitting
476735	With Foster or Schrader fitting
476736	With Duff-Norton fitting
476737	With Hansen fitting
492586	Inlet pressure gauge less Quick-Disconnect plug and less union adapter

Breathing Air Distribution System

This system purifies, regulates and distributes plant air to as many as four air-line respirator users. A sealed, rugged, stainless steel case prevents contamination of interior components. Using external controls, water condensation can be drained directly from the filter bowl and manifold pressure can be adjusted without opening the system.

CAUTION: The Breathing Air Distribution System is not effective for removing carbon monoxide.

Part No.	Description
488113	Breathing Air Distribution System, less quick-disconnects (must be ordered separately)
488118	"Toolbox" Carrying Handle Bar

Manifolds

Manifolds are required whenever two to four PremAire Respirators are connected to a single air source. MSA manifolds have quick-disconnect assemblies with automatic shut-off outlets.

Part No.	Description
47370	Four-outlet Manifold Assembly with Foster Quick-Disconnects
84416	Two-outlet Manifold Assembly with Foster Quick-Disconnects
93931	Four-outlet Manifold Assembly with Snap-tite Quick-Disconnects
486053	Two-outlet Manifold Assembly with Snap-tite Quick-Disconnects
478601	Four-outlet Manifold Assembly less Quick-Disconnects
84418	Two-outlet Manifold Assembly less Quick-Disconnects

Air-line Filter

The MSA air-line filter provides high-efficiency filtration of compressed air-lines. In operation, it removes a minimum of 99 percent of 0.3 micron and larger particulates, including dusts, mists, fumes, smokes and petroleum vapors. It does not remove carbon monoxide. The air-line filter can be used at inlet pressure up to 125 psig. The pressure drop is one psig at a maximum rated air flow of 25 cubic feet per minute (CFM).



Part No.	Description
81857	Air-line Filter
484923	Replacement Filter Kit

Air-Cylinder Pressure Regulator

An air-cylinder pressure regulator is a required accessory when air-line respirators operate from a cylinder. This dual-gauge regulator receives the varying outlet pressure from the cylinder, reduces it, and regulates it to a constant pressure of approximately 80 psig, the optimum pressure for operation of the regulator.



Part No.	Description
68858	Air-Cylinder Pressure Regulator, dual-gauge, 0-3000 psig
633352	High-Pressure Air-Cylinder Regulator, dual-gauge, 0-500 psig

Nosecups

Molded from a soft rubber compound that is resistant to facial oils, the nosecup helps reduce the possibility of lens fogging. The nosecup is particularly effective under conditions of high humidity and/or low temperatures by inhibiting contact of the moist exhalation with the facepiece lens. A nosecup can be easily affixed to the facepiece without tools, and any size nosecup may be installed in any size Ultra Elite, Ultravue or Duo-Twin Facepiece resulting in a customized facepiece for more comfortable use.



Part No.	Description
495188	Medium black nosecup for Ultra Elite Facepiece
495189	Large black nosecup for Ultra Elite Facepiece
813138	Small nosecup for Ultravue Facepiece
813139	Medium nosecup for Ultravue Facepiece
813140	Large nosecup for Ultravue Facepiece

Optional Spectacle Kit

For use by workers who must wear corrective lenses, the spectacle kit can be easily inserted into an Ultra Elite or Ultravue Facepiece. The kit includes a wire support, rubber guide and one pair of metal frame spectacles. Desired adjustment is obtained by moving the spectacles in and out of the rubber guide and by moving the rubber guide up and down the wire support. One size of spectacle frame is used with Universal Bridge Corrective lenses that can be obtained from local sources. The spectacle kit may be worn in conjunction with a nosecup. The Ultravue frame requires S-7 shape, 44mm lens and the Ultra Elite frame requires S-7 shape, 46mm lens.



Part No.	Description
804638	Ultra Elite Spectacle Kit (side wire support)
493581	Ultra Elite Spectacle Kit (center support)
454819	Ultravue Facepiece Spectacle Kit

Lens Covers

Lens covers, available in a variety of types, provide a convenient way to add a layer of protection against scratches. The self-adhesive covers can be easily installed and removed when necessary. The tinted versions are intended for applications in direct sunlight.

Part No.	Description
491500	Ultra Elite clear cover lens (25 per pack)
805456	Ultra Elite smoke-tinted cover lens (25 per pack)
494254	Ultravue smoke-tinted cover lens (6 per pack)
480326	Ultravue smoke-tinted cover lens (25 per pack)
494255	Ultravue mirror-reflective cover lens (6 per pack)
494256	Ultravue yellow-tinted cover lens (6 per pack)
456975	Ultravue clear cover lens (25 per pack)

Welder's Adapter

For eye protection in welding applications where respiratory protection is required, a welder's adapter can be easily installed over an Ultravue Facepiece lens. The clip-on style adapter can be easily removed if needed, whereas the integral adapter model is used in place of the facepiece lens. Both models are made of polycarbonate and feature a flip-up lens with large 4 1/2" x 5 1/4" (11.4 cm x 13.3 cm) vision area.

Part No.	Description
472859	Clip-on Welder's Adapter for Ultravue Facepiece, complete with cover lens, less filter plate
470786	Integral Welder's Adapter for Ultravue Facepiece, complete with cover lens, less filter plate
806482	Clip-on Welder's Adapter for Ultra Elite Facepiece

Heat-Treated Rayfoe™ Filter Plates with Cover Lens

Part No.	Description
38346	Shade 6
38347	Shade 10
38277	Shade 12
38348	Shade 14

Replacement Facepieces

Part No.	Description
	Ultravue with rubber head harness, less nosecup (Non-NFPA)
817314	Black Hycar, Medium
817313	Black Hycar, Small
817315	Black Hycar, Large
817317	Black Silicone, Medium
817316	Black Silicone, Small
817318	Black Silicone, Large

Part No.	Description
	Ultra Elite with EZ-Don head harness, less nosecup (Non-NFPA)
817304	Black Hycar, Medium
817307	Black Hycar, Small
815662	Black Hycar, Large
817305	Black Silicone, Medium
817309	Black Silicone, Small
817311	Black Silicone, Large

Special Probed Facepieces

For quantitative facepiece fit testing, MSA offers Ultravue Facepieces with a probe that can be fitted into a test apparatus.

Part No.	Description
471681	Small Hycar rubber
465425	Medium Hycar rubber
471682	Large Hycar rubber
482009	Small silicone
482008	Medium silicone
482010	Large silicone

Approvals and Standards

The PremAire Supplied-Air Respirator System has received National Institute for Occupational Safety and Health (NIOSH) and Mine Safety and Health Administration (MSHA) Certification for use in atmospheres not immediately dangerous to life or health (Non-IDLH)*. When equipped with the emergency-escape cylinder option and the Ultravue or Ultra Elite pressure-demand facepieces, the PremAire System is also approved for use in IDLH atmospheres. For NIOSH approval matrices, please visit our website at www.MSAnet.com.

WARNING: Duo-Twin Facepiece equipped respirators are not approved for IDLH applications, even if equipped with the emergency-escape cylinder option.

Units are approved for use with an operating inlet pressure of 60-100 psig, and only when used with MSA Air-Supply Hose. The PremAire System requires a source of compressed air conforming to at least Quality Verification Level (Grad) D Compressed Gas Association, Inc., Commodity Specification for Air, G-7.1, which is now ANSI (American National Standards Institute) Z86.1-1973.

*Not immediately dangerous to life or health is defined in 42 CFR Part 84 as any hazardous atmosphere which may produce physical discomfort immediately, chronic poisoning after repeated exposure, or acute adverse physiological symptoms after prolonged exposure.

Note: This Bulletin contains only a general description of the products shown. While uses and performance capabilities are described, under no circumstances shall the products be used by untrained or unqualified individuals and not until the product instructions including any warnings or cautions provided have been thoroughly read and understood. Only they contain the complete and detailed information concerning proper use and care of these products.



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