

North® CF7000 Series Combination Continuous Flow Supplied Air Abrasive Blast and Air Purifying Respirator

Product Description:

The North CF7000 Series is a type CE respirator that has been designed to meet the requirements of respiratory protection in abrasive blasting operations.

CF7000 Series is manufactured in the United States and comprised of components manufactured in the United States, meeting Berry Amendment US Code Title 10 Section 2533.

Abrasive blasting is the most common technique for surface preparation in a wide range of applications including shipbuilding, ship repair, industrial paint contractors, structure restoration and many other applications where cleaning, degreasing, remediation and removal of contaminants is required. Workers performing abrasive blasting need a high level of protection from the chemical, physical and biological hazards that they will encounter during abrasive blasting, and where the concentration is below the contaminant's IDLH.

This respirator should **only** be used and maintained by individuals who have completely read and understand the instructions contained within the User Instruction Manual and any other Operating and Maintenance Instruction Manuals included with the other components of a complete respirator.

Assembly Contents:

CF7001SUS

Abrasive blast respirator assembly includes hood with built-in tight fitting facepiece, (1) magazine with (4) lenses, breathing tube with housing assembly, decon belt, and (2) P100 filters and protective filter/exhalation cover, size small

CF7001US

Abrasive blast respirator assembly includes hood with built-in tight fitting facepiece, (1) magazine with (4) lenses, breathing tube with housing assembly, decon belt, and (2) P100 filters and protective filter/exhalation cover, size medium / large

Optional Components: (to be ordered separately)

- Cape with head shroud
- Vortex tube and heat shield
- Spectacle kits



Certification:

The CF7000 Series is tested and certified to NIOSH 42 CFR 84 standard as a combination Type CE continuous flow supplied air abrasive blast respirator (CF-SAR) and air purifying respirator (APR) with P100 filters for entry, exit, to intermittent use to move from one air source to another, and escape.

Refer to the NIOSH Approval Labels provided with the CF7000 Series Continuous Flow Airline respirator for specific NIOSH Approval numbers.

North CF7000 Series Components:

Tight Fitting Facepiece & Hood Assembly

The CF7000 Series head cover consists of a tight fitting full facepiece and a removable hood. The hood has adjustable straps to keep it secure around the worker's chest. The facepiece also includes a filter / exhalation cover to protect the exhalation valve and the P100 filters from the abrasive blast material. Refer to the CF7000 Series Operating and Maintenance Instruction Manual for complete fit testing information and instructions.

Belt & Breathing Tube Assembly

The CF7000 Series includes a polyester belt, a breathing tube assembly with housing to attach the male fitting to connect to the hose. The breathing tube connects to the front of the facepiece by a swivel assembly.

Magazine with Cover Lenses

The lens of the respirator is protected during blasting operations by four (4) layers of polycarbonate cover lenses held in a magazine. As visibility of top lens is reduced due to abrasion, it is removed from the magazine by pulling the integrated tab. When all layers have been removed the spent magazine is removed and a fresh magazine is popped into place. This can be done without leaving the contaminated area while wearing work gloves so there is no work stoppage.

P100 Filters & Filter/Exhalation Cover

The CF7000 Series is approved for use in the air-purifying mode for entry, exit, moving from one air supply to another and for escape when the contaminant concentration is less than 50 times the Permissible Exposure Limit (PEL). This respirator is only approved with North® P100 filters (# 7580P100). Filters are protected from abrasive blast media by the filter/exhalation cover. The filter cover does not need to be removed for wearer to breathe comfortably when using mask in APR mode.

Breathing Air Hose and Coupler Assemblies

The CF7000 Series is approved for use with 25', 50' and 100' breathing air hose, in 1/2" and 3/8" I.D. The use of a hose with the 1/2" I.D. is preferable when greater air flow is needed, such as when an ambient air pump is used. Hoses with 3/8" I.D. weigh less for a comparable length and may be the better choice when greater mobility is needed.

Honeywell offers several brands (Cejn, Snap-Tite, Hansen, Foster and Schrader) of quick connect couplers so you can select one that is **incompatible with any couplers used at your site for non-breathing air and other gases**. A coupler assembly includes one male and one female to be used at the connection of hose to the muffler assembly. Individual male and female couplers are also available for the optional connection of hose to air source.

Vortex Tube

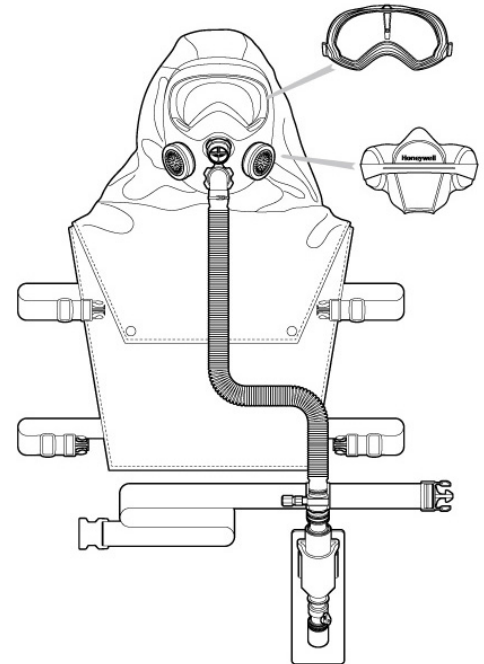
An optional vortex tube is available to either heat or cool the air flowing to the headgear by plus or minus 30°F (approx 20°C) of the ambient temperature. The vortex tube includes a metal valve and muffler assembly, and a leather sheath to shield the worker from the expelled hot air.

Cape with Head Shroud

The CF7000 Series includes an optional cape with head shroud for further protection of the worker's upper body from abrasive blast particles. The cape is made of the same high resistance material as the hood.

Air Supply

The air supply may be a compressor and filter panel, or an ambient air pump, and must supply sufficient air flow to meet the minimum PSI noted on the respirator's pressure schedule. Air must be Grade D or better according to CGA G-7.1 "Commodity Specification for Air" in the USA or CSA Z180.1 in Canada.



CF7000 Series - Material Composition:

Hood Assembly		Facepiece Assembly		Breathing Tube and Belt Assembly	
Hood	Mesathane	Full Facepiece	Silicone	Breathing tube	EPDM
Facepiece Mask	Thermoplastic polyurethane (TPU)	Facepiece Lens	Polycarbonate	Swivel	PETG
		Lens Magazine	Polycarbonate	Filter/Exhalation Cover	Nylon-6, 20% fiberglass
				Decon Belt	Nylon / Urethane / Polyester

CF7000 Series – Protection Type:

The CF7000 Series is for use in atmospheres NOT Immediately Dangerous to Life or health (non-IDLH), and where there is oxygen content of at least 19.50%.

The CF7000 is NIOSH approved as part of a combination Type CE continuous flow supplied air (CF-SAR) abrasive blast respirator and air purifying respirator (APR).

When used as a supplied air respirator the CF7000 Series is for protection from hazardous gases, vapors and/or particulates, including contaminants during abrasive blast when the concentration does not exceed 1000 times the Permissible Exposure Limit (PEL), is below the contaminant's Immediately Dangerous to Life or Health (IDLH), and there is sufficient oxygen according to the OSHA or CSA requirements.

Note: Because of the positive pressure created by the flow of air, full facepiece supplied air respirators have the higher protection factor of 1,000.

When used as an air-purifying respirator the CF7000 Series is for protection for entry, exit, intermittent use to move from one air source to another, and for escape from hazardous particulates where the concentration does not exceed 50 times the PEL (quantitative fit testing) or 10 times PEL (qualitative method), is below the contaminant's IDLH, and there is sufficient oxygen according to OSHA and CSA requirements. PEL is defined as the maximum permissible 8-hour time weighted average (TWA) concentration established by applicable OSHA or other government regulations, or by NIOSH, ACGIH or CSA*.

**Per OSHA's Assigned Protection Factors(APF) outlined in 29 CFR 1910.134 air-purifying full facepieces have an APF of 50 if the user has been Quantitatively Fit Tested and an APF of 10 if the user has been Qualitatively Fit Tested in that mask.*

Optional Components:

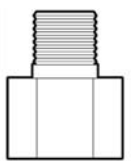
CF70060	Vortex assembly, includes vortex, leather sheath, brass adapter and muffler assembly for CF7000
CF70050US	Cape assembly with head shroud for CF7000 Series
760024	Spectacle insert for full facepiece, metal frame with wire spring
80100	Spectacle insert for full facepiece, plastic frame with suction cup

Quick Connect Couplers:

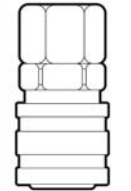
A choice of five (5) quick connect coupler assemblies are available as either a complete assembly (one male and one female) or the male and female coupler may be ordered separately. Add the suffixes noted below for the desired brand

- Cejn: C
- Foster: F
- Hansen: H
- Schrader: S
- Snap-Tite: ST

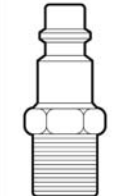
Bushing for female (88800 only)



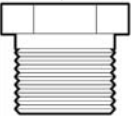
Female



Male



Bushing for Male



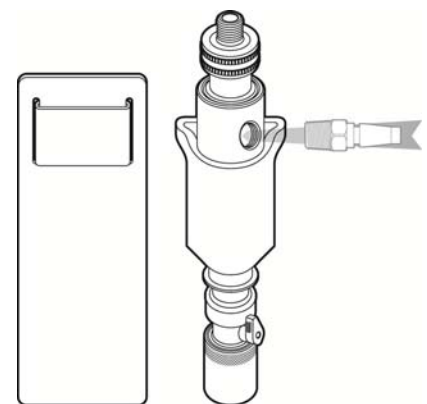
Quick Connect Couplers To Connect Air Supply Hose to Muffler	
880161	Male coupler and bushing to connect breathing tube to female coupler, or to connect 1/2" to I.D. hose to air source
880040	Female coupler for 3/8" I.D. hose; with female thread for air source with 1/4" NPT male thread
880060	Female coupler for 1/2" I.D. breathing air hose connecting to male plug on breathing tube; with female thread for air source with 3/8" NPT male thread
88600	Assembly with one male and one female coupler, to connect breathing tube to 3/8" I.D. hose (includes 880161 & 880040)
88800	Assembly with one male and one female coupler, to connect breathing tube to 1/2" I.D. hose (includes 880161 & 880060)
Quick Connect Couplers To Connect Air Supply Hose to Air Source (optional)	
880141	Male coupler to connect 3/8" I.D. hose to air source
880161	Male coupler and bushing to connect breathing tube to female coupler; or to connect 1/2" I.D. hose to air source
Couplers For Air Source If Not Already Included With Air Source	
880040	Female coupler for 3/8" I.D. hose; with female thread for air source with 1/4" NPT male thread
880041	Female coupler with male thread for air source with 1/4" NPT female thread
880060	Female coupler for 1/2" I.D. breathing air hose connecting to male plug on breathing tube; with female thread for air source with 3/8" NPT male thread
880061	Female coupler with male thread for air source with 3/8" NPT female thread

Vortex Tube and Couplers

The vortex tube is complete with a leather sheath and a brass adapter to connect the vortex to the breathing tube assembly. A choice of five (5) quick connect coupler assemblies are available. For ordering purposes add the suffixes of the desired brand noted below to the part number. Refer to Section 13.0 QUICK CONNECT COUPLERS or couplers to connect breathing air hose to the air supply.

- Cejn: CV
- Foster: FV
- Hansen: HV
- Schrader: SV
- Snap-Tite: STV

- 88600 Vortex for 3/8" I.D. breathing air hose (includes one 880161 & one 88040)
- 88800 Vortex for 1/2" I.D. breathing air hose (includes one 880161 & one 88060)



Pressure Schedules for the CF7000 Series

Without Vortex Tube			
3/8" I.D. Hose		1/2" I.D. Hose	
Hose Length (ft)	Air Pressure Range (psig)	Hose Length (ft)	Air Pressure Range (psig)
25-50	14-19	25-50	11-16
75-100	16-21	75-100	12-17
125-150	18-23	125-200	13-18
175-200	20-25	228-300	14-19
225-250	22-27		
275-300	24-29		

With Vortex Tube Set to Cool			
3/8" I.D. Hose		1/2" I.D. Hose	
Hose Length (ft)	Air Pressure Range (psig)	Hose Length (ft)	Air Pressure Range (psig)
25-50	51-56	25-50	47-52
75-100	54-59	75-100	48-53
125-150	59-64	125-200	50-55
175-200	61-66	228-300	52-57
225-250	65-70		
275-300	68-73		

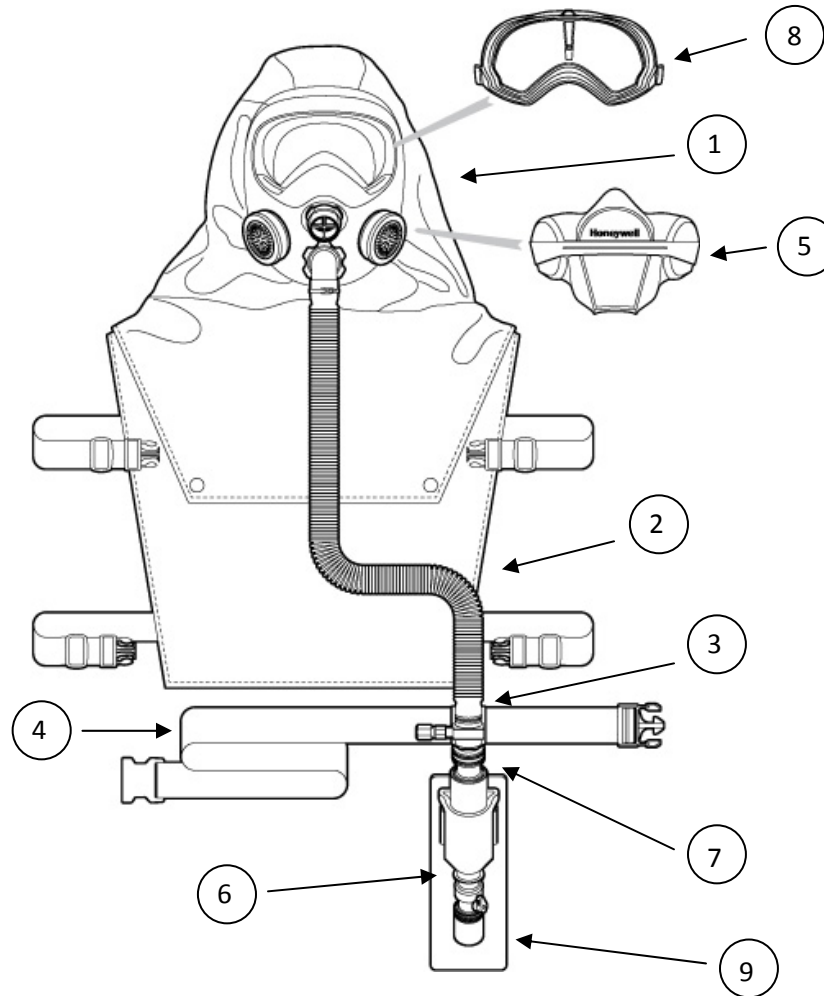
With Vortex Tube Set to Warm			
3/8" I.D. Hose		1/2" I.D. Hose	
Hose Length (ft)	Air Pressure Range (psig)	Hose Length (ft)	Air Pressure Range (psig)
25-50	52-57	25-50	48-53
75-100	56-61	75-100	49-54
125-150	59-64	125-200	50-55
175-200	62-67	228-300	53-58
225-250	65-70		
275-300	68-73		

Breathing Air Hose:

996025	25 foot hose, 3/8" I.D.
996050	50 foot hose, 3/8" I.D.
996100	100 foot hose, 3/8" I.D.
998025	25 foot hose, 1/2" I.D.
998050	50 foot hose, 1/2" I.D.
998100	100 foot hose, 1/2" I.D.

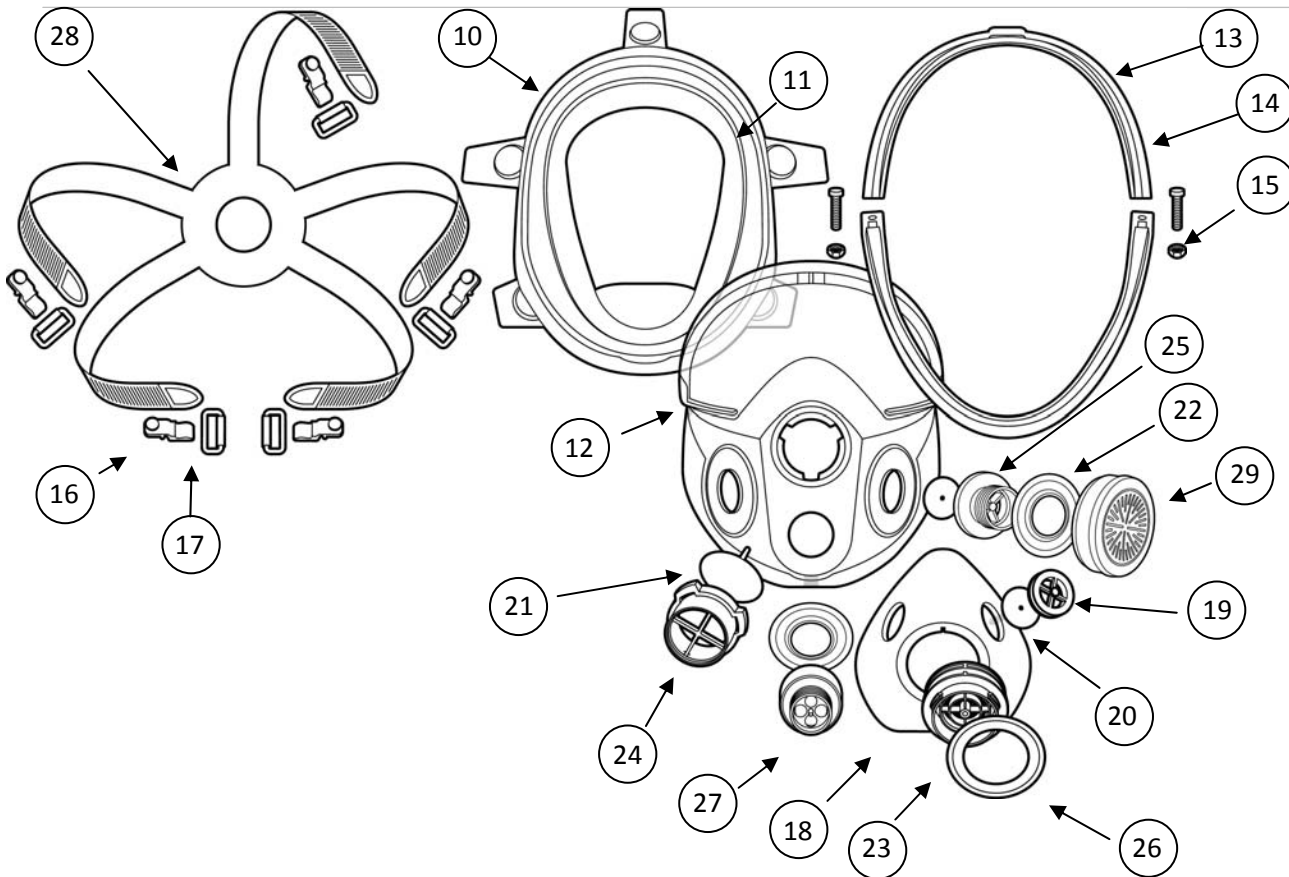


Replacement Parts:



1	CF70040US	Hood assembly, includes hood with protective mask, CF7000 Series
2	CF70010US	Breathing tube assembly, CF7000
3	CF70011US	Breathing tube assembly with belt, CF7000 Series
4	CF160	Belt, nylon
5	CF70080US	Filter/exhalation cover, CF7000 Series
6	CF70062	Vortex assembly, CF7000 Series
7	CF70063US	Brass adapter for vortex, CF7000 Series
8	CF70035US	Polycarbonate cover lenses magazine with (4) lenses, box with (48) sets, CF7000 Series
9	88604	Leather sheath for vortex tube

RESPIRATORY PROTECTION
 Technical Data Sheet



10	76601SUS	Facepiece assembly, CF7000 Series, size small (76601US size medium/large)
11	80801US	Facepiece seal, CF7000 Series, size small (80840US size medium/large)
12	54010US	Base lens CF7000 Series
13	80799US	Set of lens clamps, upper and lower CF7000 Series
14	80843AUS	Screw for lens clamp, CF7000 Series
15	80844AUS	Nut for lens clamp, CF7000 Series
16	80846AUS	Latch for headstrap, CF7000 Series
17	80847AUS	Bail for headstrap, CF7000 Series
18	902051US	Oral / nasal cup, CF7000 Series
19	80814AUS	Valve seat for oral / nasal cup, CF7000 Series
20	770017US	Inhalation valve, CF7000 Series
21	770018US	Exhalation valve, CF7000 Series
22	80871AUS	Cartridge grommet, CF7000 Series
23	54013US	Exhalation housing, CF7000 Series
24	54012US	Exhalation valve cover, CF7000 Series
25	770016US	Cartridge connector, CF7000 Series
26	54009US	Exhalation housing gasket, CF7000 Series
27	76602US	Inhalation valve assembly, CF7000 Series
28	80845	Headstrap set, no hardware, CF7000 Series
29	7580P100	Particulate filter, P100

Additional:

7003	Refresher wipes, with alcohol
7003A	Refresher wipes, alcohol free
7003L	Refresher wipes, large, with alcohol
7003AL	Refresher wipes, large, alcohol free
80995	Cleaner/Sanitizer, 10 ounce bottle (not available in Canada)

Hearing Protection Recommended for Use with the CF7000 Series Abrasive Blast Respirator

Ear Muff

1013460	Leightning L0N Neckband NRR 22
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Ear Plugs

MAX-1	NRR 33, Uncorded
MAX-30	NRR 33, Corded
MAX-1S	NRR 30, Uncorded
MAX-30S	NRR 30, Corded
LPF-1	NRR 30, Uncorded
LPF-30	NRR 30, Corded
LL-1	NRR 32, Uncorded
LL-30	NRR 32, Corded

Country of Origin for CF7000 and replacement parts used for CF7000:

United States (Berry Amendment US Code, Title 10, Section 2533 compliant)

For more information or any technical data not included with this Tech Data Sheet, please email us at hsptechsupport@honeywell.com or call 800.873.5242