CleanAIR® Chemical 2F plus
Powered air purifying respirator

*the picture is illustrational only and may vary depending on additional equipment

Description

The battery-powered air purifying respirator (PAPR), the breathing protective device for increasing comfort and safety when combined with approved headtops.

Application

In default Chemical 2F Plus provides protection against particulates, but is also capable to provide protection against wide range of contaminants when used with combined filters.

Revision.: 2025_10_24
Output.: 2025_12_12

Malina Safety®

TECHNICAL DATASHEET

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Technical specification

Product code	510000FCA		
Flow rate	Airflow [lpm]	Mode	Filter category
	80 / 120 / 160	Mask EN 12942	Particle
	80 / 120 / 160		Light combined (class 1)
	80 / 120 / 160		Heavy combined (class 2)
	80 / 120 / 160		Heavy combined (class 3)
	160 / 185 / 210 / 235	Hood EN 12941	Particle
	160 / 185 / 210		Light combined (class 1)
	160		Heavy combined (class 2)
	160		Heavy combined (class 3)

Battery
  Voltage
  Capacity
  Charging time
  Operation time*
  Battery lifespan
	Standard battery
	14,4 V
	3,2 Ah
	< 3 hours
	< 10 hour*
	up to 500 charging cycles
		Heavy Duty battery
		14,4 V
		4,9 Ah
		< 6 hours
		< 20 hours*
		up to 500 charging cycles	

Battery charger	Microprocessor controlled, fully automatic Input: 100 - 240 V (50/60 Hz) Output: 18 V (max. 1 500 mA) Available plugs: EUR, UK and AUS		
Weight	1 000 g (incl. standard battery, excl. filters)		
Dimensions	235 mm / 126 mm / 65 mm (with standard battery)		
Noisiness	< 70 dB		
Materials	Unit: high performance polyamide Comfort Belt/Harness: textile part - polyester/nylon/rubber foam plastic part - polyamide		
Motor	Ball-beared brushless motor		
Input / Output (threads)	Filter thread - RD40x1/7" - 2x Airflow output thread - CA40x1/7" - 1x		
Belt - waist size:	Comfort padded belt - up to 1 500 mm		
Standard Protection class / NPF**	EN 12941 TH3 / 500	EN 12942 TM3 / 2000	

Ingress protection   IP64:
                              IP65:
                              IP68:
	When switched ON (without any further requirements)
	When switched ON (set of spark arresters and pre-filter holders - 50 01 12)
	When switched OFF (with plugged inputs and output - 51 00 46)		

Display	TFT display (262k colours, 160x160 px) (showing actual working mode, airflow, filter condition and battery status)		
Storage conditions Operating conditions	– 10°C to + 55°C, humidity 20 - 95 % Rh 0°C to + 60°C, humidity 20 - 95 % Rh		

* with new P3 filters and fully charged battery / ** depends on used headtop

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Technical features

Warning system - visual and audible warning for low airflow and low battery charge..

Flow control system - maintains level of airflow constant regardless filter clogging or battery charge.

Automatic closing system - reduces the risk of unwanted contamination of the unit while the filters are being changed

Allows immersion disinfection - with input and output threads plugs on (Sodium hypochloride or Persteril).

Built-in barometric sensor – automatic airflow compensation depending on altitude. Works from -500m up to 4500m.

LED display - LED display visualises airflow, filter clogging and battery charge.

Product sets / variations

51 00 00FCA*	Powered air purifying respirator CA Chemical 2F, standard battery, charger (EURO - plug), comfort padded belt, flow indicator
51 00 00FDA*	Powered air purifying respirator CA Chemical 2F, standard battery, charger (EURO - plug), decontaminable belt, flow indicator
51 00 00LA*	Powered air purifying respirator CA Chemical 2F, standard battery, charger (EURO - plug), comfort leather belt, flow indicator

* for ordering variation with UK plug please add „U" at the end of the product code; for AUS plug please add „-AUS" at the end of the product code

Spare parts and accessories

51 00 10	Battery CA Chemical 2F, Li-Ion (14,4V / 3,2Ah)
51 00 20	Battery CA Chemical 2F Heavy Duty, Li-Ion (14,4V / 4,9Ah)
71 00 92	Comfort padded belt
72 00 92	Comfort leather belt
51 00 11	Primary Li-Ion battery, non-rechargeable
51 00 15.1	Power adaptor 230 V / 24 V for the main socket
51 00 15.2	Power adaptor 12 V -24 V – car power socket
51 00 51	Decontaminable belt PVC - 2F/3F
51 00 52	Decontaminable harness PVC - 2F
52 00 44.1	Comfort padded harness
71 00 60	Light flexi hose QuickLOCK™ - CA40x1/7"
71 00 86	Rubber hose QuickLOCK™ – CA40×1/7"
71 00 62F	Hose cover flameproof
70 00 62C	Hose cover chemical resistant
700060	Light flexi hose CA40x1/7" - CA40x1/7" - mask compatible only
700086CA	Rubber hose CA40x1/7" - CA40x1/7" - mask compatible only
700086L	Rubber hose CA40x1/7" - CA40x1/7" straight - 900mm - mask compatible only
700086R	Rubber hose CA40x1/7" - CA40x1/7" 90° - mask compatible only
700086RL	Rubber hose CA40x1/7" - CA40x1/7" 90° - longer - mask compatible only
710060L	QuickLOCK Light flexi hose, extended

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710086L	QuickLOCK Rubber hose, extended
51 00 30EUR	Charger Li-Ion 14,4 V - EURO
51 00 30UK	Charger Li-Ion 14,4 V - UK
51 00 30AUS	Charger Li-Ion 14,4 V - AUS
707051	Multicharger 2F - 5 slots, without power supply
707051P	Multicharger 2F -5 slots, incl. power supply and AC cords
51 00 46	Set of plugs (2x external thread, 1x internal thread) for decontamination of unit 2F
52 01 01	TFT display protective foil

Compatible headtops

70 4441 600	Welding helmet AerTEC™ OptoMAX Air incl. ADF with air distribution, silver	TH3
70 4441 601	Welding helmet AerTEC™ OptoMAX Air incl. ADF with air distribution, black	TH3
70 4441 660	Welding helmet AerTEC™ RangeMAX Air incl. ADF with air distribution	TH3
70 4900 020	Grinding shield AerTEC™ SeeMAX including head gear and air distribution	TH3
72 01 01	Short hood CA-1 Lite	TH3
72 02 01	Long hood CA-1 Lite	TH3
72 01 02B	Short protective hood CA-1, blue	TH3
72 01 02	Short protective hood CA-1, orange	TH3
72 01 12	Short protective hood CA-1+, orange	TH3
72 01 12B	Short protective hood CA-1+, blue	TH3
72 02 02B	Long protective hood CA-2, blue	TH3
72 02 02	Long protective hood CA-2, orange	TH3
72 10 02	Chem-proof protective hood CA-10	TH3
72 10 02G	Chem-proof protective hood CA-10, grey	TH3
72 03 00.01	Protective face shield UniMask, grey	TH3
72 03 00.02	Protective face shield UniMask, blue	TH3
72 03 00.03	Protective face shield UniMask, orange	TH3
72 03 00.04	Protective face shield UniMask, red	TH3
72 03 00.08	Protective face shield UniMask, neoprene	TH3
70 31 00	Protective faceshield Omnira air	TH3
71 03 00	Grinding shield CA-3 (polycarbonate visor)	TH2
71 03 01	Grinding shield CA-3 (acetate visor)	TH2
71 04 01B	Safety helmet CA-4 blue face seal	TH2
71 04 03*	Safety helmet CA-4 additonal flip-up visor, earmuffs	TH2
70 40 01	Safety helmet CA-40 weld. shield, ADF V9-13 DS	TH3
70 41 00	Safety helmet CA-40G grinding shield	TH3
70 42 01	Safety helmet CA-40GW grinding + welding shield, ADF V9-13 DS	TH3
70 30 01	Welding helmet CleanAIR® Verus air, incl. ADF S60+	TH3
70 32 01	Welding helmet CleanAIR Omnira COMBI air, incl. ADF S60F	TH3

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70 20 70	Welding helmet CA-20 ADF V9-13 DS	TH3
70 20 81	Welding helmet CA-20 ADF V6-8/9-13 GDS	TH3
70 29 01	Welding helmet CA-29 Evolve ADF V9-13 DS	TH2
70 05 00	Half mask CA-5 Eurmask DIN	TM2
71 06 00	Full face mask GX02, size (S, M, L)	TM3
72 06 00	Full face mask CF02, size (M, L)	TM3

* for ordering blue face seal please add „B" at the end of the product code

Compatible filters

Product code:	Product name	P-white	A-brown	AX-brown	B-grey	E-yellow	K-green	Hg-red	Ozone (10 ppm)	EN 14387	EN 143	EN 12941	EN 12942	EN 148-1 (RD40x1/7")	Note:
Combined filters, thread RD40*1/7"															
50 03 57	A1P3	✓	✓									✓	✓	✓	-
50 01 57	A2P3	✓	✓							✓		✓	✓	✓	-
50 05 57	A3AXP3	✓	✓	✓								✓	✓		-
50 01 62	B2P3	✓			✓				✓	✓		✓	✓	✓	-
50 01 60	K2P3	✓				✓			✓	✓		✓	✓	✓	-
50 01 67	A2B2P3	✓	✓		✓				✓	✓		✓	✓	✓	-
50 01 64	A2B2E2P3	✓	✓		✓	✓			✓	✓		✓	✓	✓	-
50 03 64	A1B1E1P3	✓	✓		✓	✓						✓	✓	✓	-
50 01 68	A2B2E2K2P3	✓	✓		✓	✓	✓		✓	✓		✓	✓	✓	-
50 01 65X	NBC - A2B2E2K2P3	✓	✓		✓	✓	✓			✓		✓	✓	✓	NBC filter
50 01 66	A2B2E2K2HgP3	✓	✓		✓	✓	✓	✓	✓	✓		✓	✓	✓	max. 50 hours
50 02 57	A2P - ZERO	✓	✓							✓		✓	✓	✓	two-thread filter
50 02 66	A2B2E2K2HgP - ZERO	✓	✓		✓	✓	✓	✓	✓	✓		✓	✓	✓	two-thread filter
50 02 68	A2B2E2K2P - ZERO	✓	✓		✓	✓	✓		✓	✓		✓	✓	✓	two-thread filter
Particle filters, thread RD40*1/7"															
50 00 48	P3	✓									✓	✓	✓	✓	-
50 02 49	ZERO	✓									✓	✓	✓	✓	two-thread filter
50 40 48	P3 lite	✓									✓	✓	✓	✓	-
50 42 49	ZERO lite	✓									✓	✓	✓	✓	two-thread filter