

COLLECTIVE NBC FILTRATION SYSTEMS



SHALON 
CHEMICAL INDUSTRIES LTD.

THE HOME FOR HOMELAND SECURITY

COLLECTIVE NBC FILTRATION SYSTEMS

Shalon has designed and developed a versatile range of collective NBC filtration systems providing complete protection to occupants of communal shelters from all known NBC agents. All systems are produced to meet Israeli civil defense specifications.

The complete purification system is comprised of the following major components:

- **Pre-filter:** A washable and easily replaced synthetic foam for removing coarse dust particles.
- **Blast valve:** Protects against shock waves from nuclear or conventional detonations.
- **NBC gas-particulate filter:** Filters out all NBC agents in the form of vapours and aerosols.
- **Fan Unit:** Draws in air, and delivers it through the system and into the shelter. The fan has an electric motor but is also adapted for manual operation by one person.
- **Flowmeter:** Measures the air flow and permits its adjustment to the required level.
- **Overpressure valve:** Regulates the overpressure in the shelter to maintain a clean atmosphere.

Technical Specifications

Air purifying system	FA-75	FA-150	FA-5	FA-10
Shelter occupancy	up to 12 people	up to 25 people	up to 50 people	up to 100 people
Air flow (m ³ /hr)				
Ventilation mode	150	300	600	1200
NBC protection mode	75	150	300	600
Filter model	SF-75	SF-150	SF-5	SF-10
Pressure drop (mm H ₂ O) at nominal flow	<60	<50	<55	<180
Aerosol penetration (%)	<0.01	<0.01	<0.01	<0.01
Fan unit model	VA-75/150	VA-75/150	VA-75/300	RD-64
Static pressure (mm H ₂ O)	110	110	110	320
Operating voltage	220	220	220	380
Motor (phase)	single	single	single	triple
Current consumption (ampere)	<1.5	<1.5	<1.5	<3.8
Power (kilowatts)	0.3	0.3	0.3	1.5
Blast valve & Pre-filter	ESV/VF-75	ESV/VF-150	ESV/VF-300	ESV/VF-3
Intensity of shock wave	3 atm.	3 atm.	3 atm.	3 atm.
Minimum vacuum for closing valve	0.1 atm.	0.1 atm.	0.1 atm.	0.1 atm.
Dust filtration efficiency - AFI spec.	85%	85%	85%	85%
Overpressure valve	UEV/ESV 75/150	UEV/ESV 75/150	UEV/ESV 75/300	UEV/ESV 3
Overpressure at nominal flow (mm H ₂ O)	12-14	12-14	12-14	12-14



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