

# Medical Sterile Oxygen Filters

Models | O20015MS to O21500MS

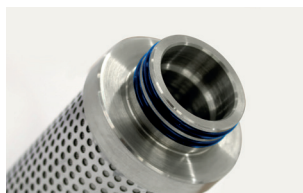
Flow Rates 5.7 SCFM (9.5 Nm<sup>3</sup>/hr) to 1536.0 SCFM (2422.5 Nm<sup>3</sup>/hr)

**When it comes to patient care, quality and reliability is paramount. Walker Filtration's New Medical Sterile Oxygen Filters are cleaned for oxygen service in accordance with ASTM G93/G93M, providing outstanding purity for applications where oxygen rated medical filtration is required.**

Our Oxygen Filters provide high quality inlet air prior to entering an oxygen generator, as well as the required filtration after the generation process, to ensure the gas meets purity standards and does not carry particulate or other contaminants.

100% integrity tested, Alpha Medical Sterile elements are guaranteed for a minimum of 100 sterilizations at 248°F (120°C), ensuring that your oxygen pipeline is free from live bacteria and other sub-micron particles.

Walker Filtration's Oxygen Filters are manufactured on a dedicated line with strict cleaning methods to ensure the removal of all unwanted contaminants.



#### Stainless Steel End Caps

Specially designed for autoclave sterilization compatibility



#### Contaminant Free Manufacturing

All components and materials are thoroughly cleaned and certified for use in oxygen rich environments



#### Modular Filter

Low cost connecting kits and new filter head design enables easy close coupling assembly

- **International Validation** Designed to exceed the requirements of HTM 02-01 medical gas pipeline systems
- **Simplified Serviceability** Externally accessible drain, profiled bowl design, and unique push fit elements ensure quick and reliable maintenance
- **Flow-Optimised Design** Advanced filter head design for optimized flow performance
- **Corrosion Protection** Internal and external electrophoretic paint finish followed by a tough exterior polyester powder coating
- **Suitable for Oxygen Service** Oxygen Filters are specially designed, cleaned, and packaged, to ensure all combustible components are removed from the filter to prevent risk of ignition
- **Product Safety in Mind** Guaranteed safe housing closure with rotational safety stop



Cleaned in  
accordance with  
ASTM G93/G93M





# Technical Specification

Coalescing and Particulate Filter Model	Pipe size inches	Inlet flow rate*		Dimensions inches (mm)				Weight		Element model
		SCFM	Nm <sup>3</sup> /hr	A	B	C	D	lbs	Kg	
O20006MS	1/8	5.7	9.5	1.97 (50)	0.67 (17)	6.18 (157)	2.36 (60)	0.6	0.3	EO20306SR
O20015MS	1/4	14.3	23.8	1.97 (50)	0.67 (17)	6.18 (157)	2.36 (60)	0.6	0.3	EO20306SR
O20025MS	1/4	23.8	39.9	2.76 (70)	0.91 (23)	9.09 (231)	2.76 (70)	1.3	0.6	EO20408SR
O20032MS	3/8	30.4	51.3	2.76 (70)	0.91 (23)	9.09 (231)	2.76 (70)	1.3	0.6	EO20408SR
O20050MS	1/2	47.5	80.8	2.76 (70)	0.91 (23)	9.09 (231)	2.76 (70)	1.3	0.6	EO20412SR
O20070MS	1/2	66.5	113.1	5.00 (127)	1.26 (32)	11.22 (285)	3.15 (80)	3.7	1.7	EO20612SR
O20085MS	3/4	80.8	136.8	5.00 (127)	1.26 (32)	11.22 (285)	3.15 (80)	3.7	1.7	EO20612SR
O20105MS	1	99.8	169.1	5.00 (127)	1.26 (32)	11.22 (285)	3.15 (80)	3.7	1.7	EO20612SR
O20125MS	3/4	118.8	201.4	5.00 (127)	1.26 (32)	14.57 (370)	3.15 (80)	4.4	2.0	EO20621SR
O20175MS	1	166.3	282.2	5.00 (127)	1.26 (32)	14.57 (370)	3.15 (80)	4.4	2.0	EO20621SR
O20280MS	1 1/4	266.0	452.2	5.51 (140)	1.61 (41)	18.74 (476)	3.35 (85)	6.6	3.0	EO20731SR
O20320MS	1 1/2	304.0	516.8	5.51 (140)	1.61 (41)	18.74 (476)	3.35 (85)	6.6	3.0	EO20731SR
O20400MS	1 1/2	380.0	646.0	6.69 (170)	2.08 (53)	20.00 (508)	3.94 (100)	10.8	4.9	EO20831SR
O20450MS	2	427.5	726.8	6.69 (170)	2.08 (53)	20.00 (508)	3.94 (100)	10.8	4.9	EO20831SR
O20700MS	2	665.0	1129.6	6.69 (170)	2.08 (53)	27.87 (708)	3.94 (100)	12.1	5.5	EO20850SR
O20850MS	2 1/2	807.5	1371.8	8.66 (220)	2.75 (70)	28.97 (736)	3.94 (100)	23.1	10.5	EO21140SR
O20900MS	3	855.0	1452.6	8.66 (220)	2.75 (70)	28.97 (736)	3.94 (100)	23.1	10.5	EO21140SR
O21250MS	3	1187.5	2018.8	8.66 (220)	2.75 (70)	33.74 (857)	3.94 (100)	25.4	11.5	EO21160SR
O21500MS	3	1536.0	2422.5	8.66 (220)	2.75 (70)	39.56 (1005)	3.94 (100)	27.6	12.5	EO21175SR

\* Rated flow at 100 psig (7 barg), reference conditions 14.7 psi (1 bar) (a) 68°F (20°C), calculated using 0.95 Gas Density Factor based on 93% oxygen saturation

Grade	SR	
DOP efficiency**	>99.9999%	
Particle removal	0.01 micron	
Maximum operating temperature	248°F	120°C
Recommended operating temperature	122°F	50°C
Maximum autoclave temperature	273°F	134°C
Pressure Loss - clean & dry	1.5 psi	100 mbar
Maximum working pressure	300 psig	20.7 barg
Element end cap material	Stainless steel	

\*\* As specified in HTM 02-01 medical gas pipeline systems

Pressure correction factors	for maximum flow rate, multiply model flow rate by the correction factor corresponding to the minimum operating pressure									
Operating pressure psig (barg)	58 (4)	72 (5)	87 (6)	100 (7)	115 (8)	145 (10)	174 (12)	203 (14)	232 (16)	300 (20.7)
100 psig - correction factor	0.76	0.84	0.92	1.00	1.07	1.19	1.31	1.41	1.51	1.73

## Technical Notes

- Direction of air flow is inside to out through the filter element. Filter element end caps are stainless steel.
- All Oxygen Filters are fitted as standard with Manual Drain Valves, VMDV25 on models O20006 to O20050, VMDVE25B on models O20070 to O20700, and VMDVE25M on models O20850 to O21500. Standard filters can operate at 20.7 barg (300 psig) range at 120°C (248°F).
- Alpha Oxygen Filters are manufactured from cast aluminium alloy and are PED 2014/68/EU compliant for group 1 and group 2 gases.
- Threaded connections are Rp (BSP Parallel) to ISO 7-1 or NPT to ANSI/ASME B1.20.1 if supplied within North America. Rc (BSP Taper) to ISO 7-1 also available.
- Pre-filtration should be used in conjunction with 0.01 micron sterile filters.
- Medical Sterile Filter elements must not operate in water or oil saturated conditions and should be changed at least every 6 months.
- Maximum steam sterilising autoclave temperature refers to the filter element ONLY. Oxygen grade SR filter elements can be steam sterilised 100 times. Each element must be autoclaved before commencement of duty.
- Each element is supplied with an Air Sterilisation Certificate to guarantee the highest quality to our customers.
- Oxygen SR grade filters are suitable for use in dry air conditions only, as any liquids passing through the filter could carry bacteria and compromise sterility.
- Walker Filtration genuine spare and aftermarket parts must be used, failure to do so will void product warranty. Walker Filtration shall not be held liable for damages suffered by the customer if Walker Filtration genuine oxygen rated spare and aftermarket parts are not used.
- All Walker Filtration Alpha Oxygen Filters are produced from high quality, non-toxic, naturally inert raw materials and constituents, in accordance with FDA requirements for food contact as per Code of Federal Regulation (CFR), Title 21.

