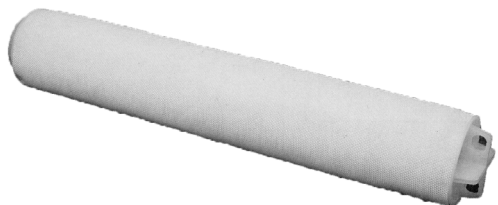


3M™ 740B Series

High Throughput Filter Cartridges

3M™ 740B Series High Throughput Filter Cartridge



Features, Advantages & Benefits

3M™ 740B series high throughput filter cartridge, which incorporates the radial pleat, puts an extraordinary amount of surface area into a single cartridge. This results in the following:

- High loading capacity for long life and lower cost filtration.
- Fewer cartridges for fewer change-outs and lower labor cost.
- Fewer seals, reduced risk of by pass resulting in high quality filtration.
- Extremely low disposal costs, less than a tenth of some cartridges.

Double O-ring seals in a variety of material options means:

- Extremely low risk of by pass for high quality fluids.
- No loose parts to assemble for easy installation, thus less labor cost.
- No springs and caps to lose reduces the risk of by pass.
- Broad chemical compatibility for many applications.
- Convenient handle for easy manual or mechanical removal.

Applications

Prefilters or Final Filters for:	Acids and bases	Machine coolants
	Amines	Makeup water
	Carbon beds	Organic solvents
	Completion fluids	Photo chemicals
	Deep wells	Plating solutions
	Desalination	RO membranes
	DI resins	Storm Water
	EDM Fluids	UF membranes
	Glycol	Wastewater
	Groundwater clean-up	Waterflood
	Laundry water	Workover fluids

Materials Of Construction

Filter Media:

Melt blown polypropylene microfiber filter media provides high particle removal efficiency for high quality filtration with broad chemical compatibility.

No silicone is intentionally used in materials of construction or in manufacturing.

The raw materials composing these filters are FDA compliant according to CFR Title 21.

O-rings:

Model Number	Material	Material
7010		FDA Buna N (standard)

Other O-rings are available, please consult factory

Performance Data

Loading Capacity

Model Number	742B	743B	744B	745B	746B	747B	748B	749B
Pounds at 40 gpm	16.1	21	23.5	23.8	23.5	24	24	24
Kilograms at 9 cu m/hr	7.3	9.5	10.7	10.8	10.7	11	11	11

Loading:

The data above shows typical loading capacities of the different micron rated filters. Loading capacity is determined by challenging a filter with a dispersion of silica test dust in water at the recommended flow rate. Pressure drop is monitored and testing is terminated at 50 psid (3.4 bar). 3M 742B series is terminated at 35 psid (2.4 bar). The loading capacity reported is the dry weight gain of the bag.

Particle Removal Efficiency (microns)

Model Number	742B	743B	744B	745B	746B	747B	748B	749B
Efficiency @ 99%	1	2	5	10	15	25	40	70
Efficiency @ 95%	0.9	1.1	2.5	8	9	13	24	43
Efficiency @ 90%	0.8	0.9	1.7	6	8	10	19	35
Efficiency @ 70%	<0.7	0.7	1.5	3.5	6	8	13	24
Efficiency @ 50%	<0.7	<0.7	1.1	1.5	4.0	4.5	8	14

Efficiency:

3M 740B series high throughput filter cartridges are rated using a silica test challenge in water at 40 gpm (9 cu m/hr). The results reported are typical initial efficiencies taken within ten minutes of the start of the test.

Clean Pressure Drop Versus Flow Rate (psid)

Model Number	742B	743B	744B	745B	746B	747B	748B	749B
Δp Dp @ 20 gpm	0.6	0.4	0.2	0.1	0.1	0.1	0.08	0.06
Δp Dp @ 40 gpm	1.1	0.8	0.4	0.3	0.2	0.2	0.16	0.13
Δp Dp @ 60 gpm	2.2	1.1	0.5	0.4	0.3	0.3	0.25	0.20
Δp Dp @ 80 gpm	2.9	1.5	0.7	0.6	0.4	0.4	0.33	0.27

Pressure Drop:

The 3M™ 740B series high throughput filter cartridges have low initial pressure drop (Δp) in water, as the table indicates. The table does not include the pressure drop of the vessel.

Operating Conditions

Maximum Operating Temperature	160° F (70° C)
Recommended Flow (in water)	40 gpm (9 cu m/hr)
Maximum Flow (in water):	
742B & 743B	60 gpm (14 cu m/hr)
744B - 749B	80 gpm (18 cu m/hr)
Maximum Differential Pressure:	
742B	35 psid (2.4 bar)
743B - 749B	50 psid (3.4 bar)

Disposal:

Disposal of used filter bags must comply with applicable federal, state and local laws and regulations.

Clean Pressure Drop Versus Flow Rate (psid)

Model Number	Micron Rating Initial Efficiency	Part Number	NSF/ANSI Standard 61	Length	Outer Diameter	Cartridges per Case
742B	1 micron @ 99%	70-0708-1552-0	See NSF note below	39 in (100 cm)	6.5 in (16.5 cm)	1
743B	2 micron @ 99%	70-0702-3124-9				
744B	5 micron @ 99%	70-0702-3125-6				
745B	10 micron @ 99%	70-0702-3126-4				
746B	15 micron @ 99%	70-0702-3127-2				
747B	25 micron @ 99%	70-0706-2356-9	No			
748B	40 micron @ 99%	70-0706-2357-7				
749B	70 micron @ 99%	70-0706-2358-5				

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Component

3M™ 740B Series 742B, 743B, 744B, 745B, and 746B are tested and certified by NSF International against NSF/ANSI Standard 61 for material requirements only.

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70-0708-1290-7 REV 1111b