

# 3M™ 740B30 Series

## High Throughput Filter Cartridges

3M™ 740B30 series high throughput filter cartridges which incorporate our radial pleat design, have an extraordinary amount of surface area. This results in the following:

### Features Advantages & Benefits

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

### 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 in accordance with CFR Title 21.

#### O-rings:

Model	7010
Material	FDA Buna N (standard)
Other O-rings available; please consult factory	

### Performance Data

#### Loading Capacity

Model	742B30	743B30	744B30	745B30	746B30	747B30	748B30	749B30
Pounds at 30 gpm	8.9	13.4	13.3	13.3	13.7	16.1	17.3	17.5
Kilograms at 7 cu m/hr	4.0	6.1	6.0	6.0	6.2	7.3	7.8	7.9

#### Particle Removal Efficiency (microns)

Model	742B30	743B30	744B30	745B30	746B30	747B30	748B30	749B30
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 @75%	<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

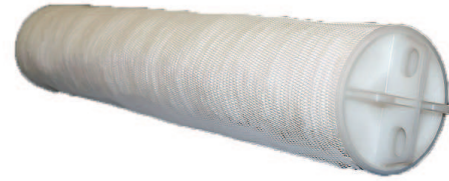


Figure 1. - 3M™ 740B30 Series High Throughput Filter Cartridge

### Applications

• Acids and bases	• Machine Coolants
• Amines	• Process Water
• Desalination	• Plating solutions
• DI resins	• Wastewater
• Glycol	• Waterflood

**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); 742B30 is terminated at 35 psid (2.4 bar). The loading

capacity reported is the dry weight gain of the cartridge.

**Efficiency:** 3M 740B30 high throughput filter cartridges are rated using a silica test challenge in water at 30 gpm (6.8 cu m/hr). The results reported are typical initial efficiencies taken within ten minutes of the start of the test.

3M Purification Inc. offers a complete line of support baskets to retrofit the 3M™ 740 series high throughput filter cartridges into existing bag filter housings. The basket ordering guide (below) cross references the competitive filter bag housing manufacturer and model to the correct 3M 740 series support basket needed to upgrade to the 3M 740 series filter cartridge.

## 3M™ 740 Series Element Support Basket Ordering Guide

### Operating Conditions

Maximum Operating Temperature:	180° F (82° C)
Recommended Flow (in water):	25 gpm (5.7 cu m/hr)
Suggested Maximum Flow (in water):	50 gpm (11 cu m/hr)

### Disposal

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

Existing Bag Filter Housing			740 Basket Information	
MFG	Model	Inlet Entry	Size	Basket Part Number
FSI	FSP & Up	Multi Element	#2	6044101
GAF	RB__C2L	Multi Element	#2	6044103
Hayward	Maxiline	Multi Element	#2	6044101
Hayward FLT	4202	Multi Element	#2	6044106
Rosedale	16 & Up	Multi Element	#2	6044105
Plenty	BF	Multi Element	#2	6044102

### Clean Pressure Drop Versus Flow Rate (psid)

Model	742B30	743B30	744B30	745B30	746B30	747B30	748B30	749B30
$\Delta p$ @ 10 gpm	0.30	0.20	0.10	0.10	0.10	0.50	0.05	0.04
$\Delta p$ @ 20 gpm	0.70	0.50	0.20	0.20	0.10	0.11	0.10	0.08
$\Delta p$ @ 30 gpm	1.00	0.90	0.40	0.30	0.20	0.21	0.18	0.15
$\Delta p$ @ 40 gpm	1.30	1.10	0.60	0.40	0.40	0.30	0.25	0.20

**Pressure Drop:** Series 740B30 High Throughput Filter Cartridges have low initial pressure drop ( $\Delta p$ ) in water as the table indicates. The table does not include the pressure drop of the vessel.

### Product Specifications

Model Number	Micron Rating Initial Efficiency	Part Number	NSF/ANSI Standard 61	Length	Outer Diameter	Cartridges per Case
742B30	1 micron @ 99%	70-0708-1618-9	See NSF Note below*	28.75 in (73 cm)	6.5 in (16.5 cm)	1
743B30	2 micron @ 99%	70-0708-1619-7				
744B30	5 micron @ 99%	70-0708-1620-5				
745B30	10 micron @ 99%	70-0708-1621-3				
746B30	15 micron @ 99%	70-0708-1622-1				
747B30	25 micron @ 99%	70-0202-5939-9	No			
748B30	40 micron @ 99%	70-0202-5940-7				
749B30	70 micron @ 99%	70-0202-5941-5				

\*740B30 Series Filter Models 742B30, 743B30, 744B30, 745B30, and 746B30 are tested and certified by NSF International against NSF/ANSI Standard 61 for material requirements only.

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Component

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