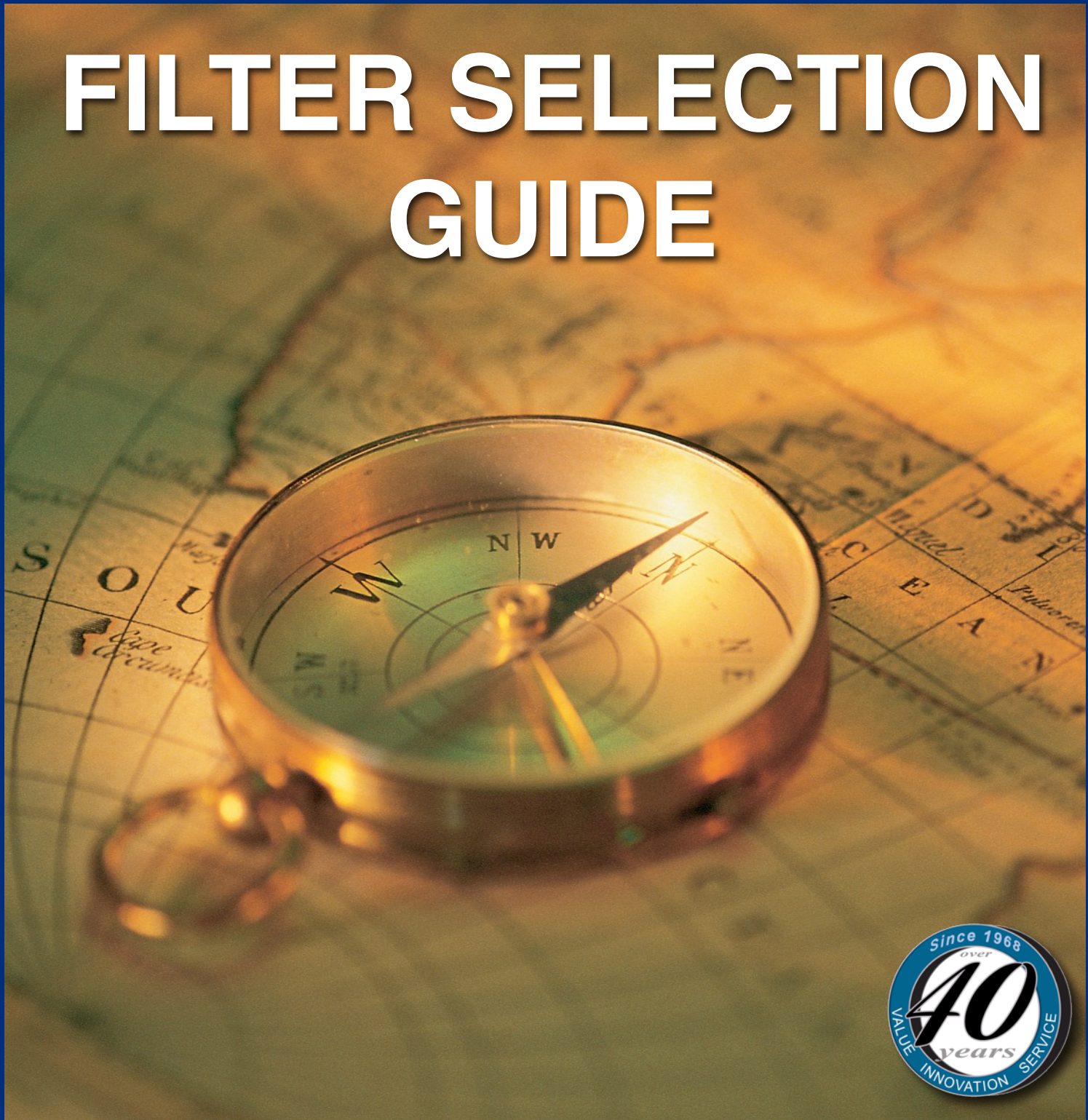




FILTER SELECTION GUIDE



FILTER SELECTION GUIDE

Modified Table E-1 from ASHRAE 52.2-2007 APPLICATION GUIDELINES

Standard 52.2 Minimum Efficiency Reporting Value (MERV)	Approx Std 52.1 Results		Application Guidelines		Tri-Dim Filter Corporation Product Selection
	Dust Spot Efficiency	Arrestance	Typical Controlled Containment	Typical Applications and Limitations	
	n/a	n/a	≤0.30 µm Particle Size Virus (unattached) Carbon Dust Sea salt All Combustion Smoke Radon progeny	Cleanrooms Radioactive Materials Pharmaceutical manufacturing Carcinogenic materials Orthopedic surgery	A
16	n/a	n/a	0.30-1.0 µm Particle Size All bacteria Most tobacco smoke Droplet nuclei (sneeze) Cooking Oil Most Smoke Insecticide Dust Copier Toner Most face powder Most paint pigments	Hospital inpatient care General surgery Smoking lounges Superior commercial buildings	B
15	>95%	n/a			
14	90-95%	>98%			
13	80-90%	>98%			
12	70-75%	>95%	1.0-3.0 µm Particle Size Legionella Humidifier dust Lead dust Milled flour Coal dust Auto emissions Nebulizer drops Welding fumes	Superior residential Better commercial buildings Hospital laboratories	C
11	60-65%	>95%			
10	50-55%	>95%			
9	40-45%	>90%			
8	30-35%	>90%	3.0-10.0 µm Particle Size Mold Spores Hair spray Fabric protector Dusting aids Cement dust Pudding mix Snuff Powdered milk	Commercial buildings Better residential Industrial workplaces Paint booth inlet air	D
7	25-30%	>90%			
6	<20%	85-90%			
5	<20%	80-85%			

Note: The above table, columns 1 through 5, are taken from ASHRAE Standard 52.2-2007

How to use this guide - identify which filter category (A, B, C or D) fills the needs for your application - then look on page 3 for the corresponding letter that will show the filter options within that category. Please consult with your sales representative for specific performance details of selected filter(s).

TECHNICAL INFORMATION SERIES

TRI-DIM Category Filters

A 



TRI-PURE™ TERMINAL MODULE

TRI-PURE™ PANEL

ULTRA™ XV
16/99 PLUS



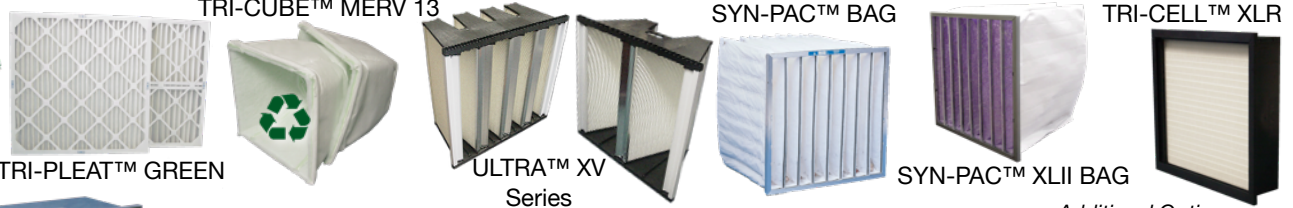
TRI-PURE™ 2000

TRI-PURE™ MP/MPX

TRI-PURE™ HT

TRI-PURE™ HEPA/HEPAMAX

B 



TRI-CUBE™ MERV 13

TRI-PLEAT™ GREEN

ULTRA™ XV
Series

SYN-PAC™ BAG

SYN-PAC™ XLII BAG

TRI-CELL™ XLR



TRI-CELL™ ASHRAE

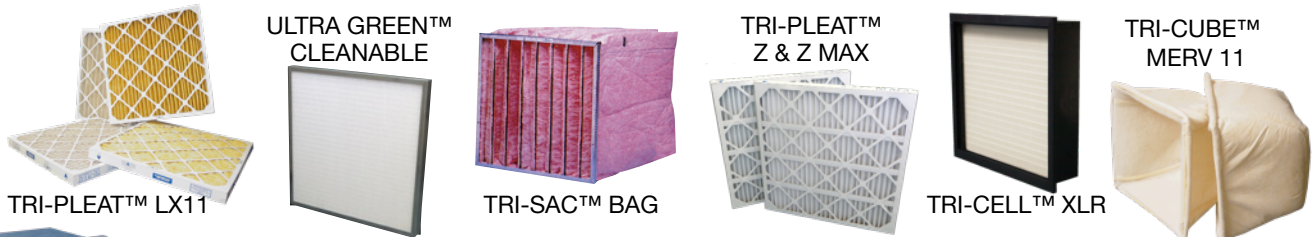
ULTRA™ XPT™

PREDATOR SERIES

ULTRA™ X2

Additional Options:
 TRI-CELL™ R
 SYN-PAC™ R
 TRI-CELL™ VRC
 MICRO-PAC™ 99
 TRI-CELL™ MV
 MICRO-CELL™
 TRI-SAC™ BAG
 TRI-CELL THIN LINE

C



TRI-PLEAT™ LX11

ULTRA GREEN™
CLEANABLE

TRI-SAC™ BAG

TRI-PLEAT™
Z & Z MAX

TRI-CELL™ XLR

TRI-CUBE™
MERV 11



TRI-CELL™ ASHRAE

TRI-CELL™ R & SYN-PAC™ R

PREDATOR SERIES

TRI-CELL™ THIN LINE

Additional Options:
 SYN-PAC™ BAG
 SYN-PAC™ XLII
 TRI-PLEAT™ ES60
 TRI-PLEAT™ HT60

D



TRI-DEK® PANEL & LINK

TRI-CUBE™ CUBE

TRI-CUBE™ RFX
REVERSE FLOW CUBI

TRI-PLEAT™ ES40



TRI-PLEAT™ ULTRA

TRI-DEK® #8 MEDIA

TRI-DEK® E8

TRI-DEK® E2

Additional Options:
 TRI-DEK® Sleeve
 AUTOROLLS
 TRI-DEK® MEDIA -
 Rolls and Pads



Use Category 'A' or 'B' Filters for MERV 13 or Higher, LEED Compliant



= Post Consumer Recycled Content

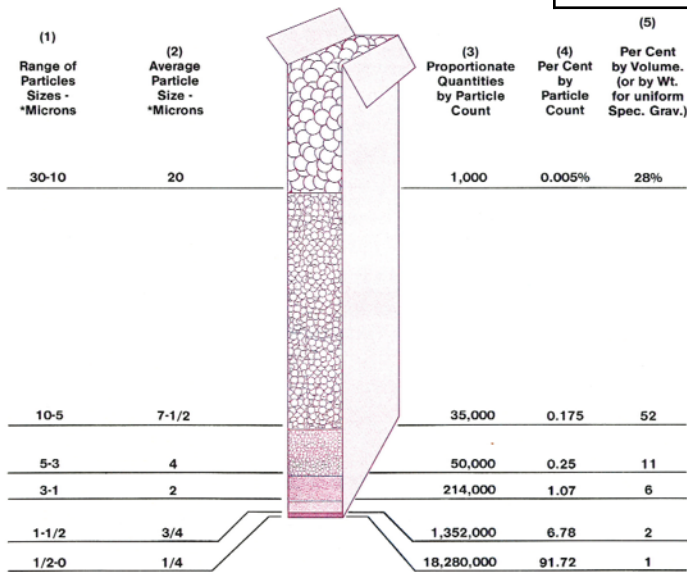
The first step in filter selection is to determine what the objective is for the filtration system. What is the 'target' particle size for the application? As an example the 'target' particle size in most health care facilities is one micron because 99% of all known bacteria are one micron and larger. The figure below might offer some assistance as it shows the typical distribution of particles in ambient air.

Once the objective has been determined Table 12-1 (right) will be useful in determining which MERV efficiency will remove the target size particles. More detailed efficiency numbers can be found in the ASHRAE 52.2 Test Report.

Once the target MERV rating has been established Table E-1 on the first page converts the MERV ratings into the various filter options offered by Tri-Dim.

Modified TABLE 12-1 from ASHRAE 52.2-2007
Minimum Efficiency Reporting Value (MERV) Parameters

Standard 52.2 Minimum Efficiency Reporting Value (MERV)	Composite Average Particle Size Efficiency, % in Size Range, µm		
	E ₁ Range 1 0.30 - 1.0	E ₂ Range 2 1.0 - 3.0	E ₃ Range 3 3.0 - 10.0
16	95% ≤ E	95% ≤ E	95% ≤ E
15	85% ≤ E	90% ≤ E	90% ≤ E
14	75% ≤ E	90% ≤ E	90% ≤ E
13	E ₁	90% ≤ E	90% ≤ E
12	n/a	80% ≤ E	90% ≤ E
11	n/a	65% ≤ E	85% ≤ E
10	n/a	50% ≤ E	85% ≤ E
9	n/a	E ₂	85% ≤ E
8	n/a	n/a	70% ≤ E
7	n/a	n/a	50% ≤ E
6	n/a	n/a	35% ≤ E
5	n/a	n/a	20% ≤ E



Typical Distribution of

Filters with a MERV 13 and higher typically utilize a prefilter to maximize their service life and minimize their life cycle cost.

Tri-Dim can help in the process of filter selection by having one of our factory-trained sales representatives assist in the process of identifying the 'target' particle size and then develop those identified objectives into

Tri-Dim Filter Corporation is committed to continual product development – all descriptions, specifications and performance data are subject to change without notice.

Tri-Dim products are manufactured to exacting criteria - there can be a ±5% variance in filter performance. Tri-Dim® and Tri-Dek® are Registered Trademarks of Tri-Dim Filter Corporation.



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