



DESCRIPTIONS

AP is made of 100% Pure Polypropylene depth matrix that offers absolute retention efficiencies from 0.1 to 50 micron with effective filtration area of more than 0.64m².

FDA Code Of Federal Regulation Title 21 listed Pure Polypropylene material ensures wide range of chemical compatibility.

Suitable for food and beverages contact and wide range of process fluid applications including pharmaceutical, micro-electronic, food and beverages and various types of industry applications.

AP with multi graded fiber that yields progressive finer particles retention through the depth and life of media.

Multi graded density depth filtration mechanism combined with optimized pleated configuration and high effective surface area provides superior flow rates, lower pressure drop and superior dirt holding capacity compare with conventional filters.

Superior particles retention capability.

High flow rates and superior throughputs for more filter value.

Extremely low amount of extractable due to stringent manufacturing processes. All components, parts and supporting layers are thermally welded without any surfactants, binder, adhesive, etc. added.

Non-woven melt blown Polypropylene drainage layer protects against fiber shredding.

Fixed pore structure prevents particles unloading.

Available in wide range of absolute pore sizes.

Wide range of end configurations to fit any standard housing.

Manufactured in Class 10K clean room environment.

A guaranteed high quality product (ISO 9001 Certified).

SPECIFICATIONS

ABSOLUTE MICRON RATING

0.1, 0.2, 0.3, 0.45, 0.8, 1, 3, 5, 10, 20 & 50 micron

NOMINAL LENGTH

125, 250, 500, 750, 1000 mm or
127, 254, 508, 762, 1016 mm

NOMINAL INNER/OUTER DIAMETER (ID/OD)

Standard : 28/ 68 mm or BB : 28/ 114 mm
Note: 30mm inner diameter is available upon request.

MEDIA MATERIAL

Finest Multi-layer Micro-Denier Polypropylene Fibers

SUPPORTING MATERIAL

Non Woven Polypropylene Micro-Denier Fibers

INNER CORE, CAGE AND END ADAPTOR MATERIAL

Standard : High Strength Pure Polypropylene
RPG : Reinforced Polypropylene With Glass
HPE : High Density Polyethylene

SEALING TECHNIQUE

Thermal Bonding

FILTRATION AREA

>0.64m²/ 10" Filter Cartridge

END STYLE

- | | |
|----------|-----------------------------------|
| 1) DOE | : Double Opened End |
| 2) SOE | : Single Opened End |
| i) S2C | : SOE, 222 O-Ring With Closed End |
| ii) S2F | : SOE, 222 O-Ring With Finned End |
| iii) S6C | : SOE, 226 O-Ring With Closed End |
| iv) S6F | : SOE, 226 O-Ring With Finned End |

Note: Extended adaptor for SOE filter cartridge is available upon request.

GASKET AND O-RING MATERIAL

- | | | | |
|-------------|-----------------------------|------|----------|
| 1) Standard | : EPDM | 2) V | : Viton |
| 3) S | : Silicone | 4) T | : Teflon |
| 5) FEP | : Teflon Encapsulated Viton | | |

OPERATING CONDITIONS

MAX. FORWARD DIFFERENTIAL PRESSURE

4.1 Bar (60 PSI) at 25°C

MAX. REVERSE DIFFERENTIAL PRESSURE

4.1 Bar (60 PSI) at 25°C

MAX. OPERATING TEMPERATURE

90°C at 2.1 Bar (30 PSI)

CHANGE OUT DIFFERENTIAL PRESSURE

2.4 Bar (35 PSID)

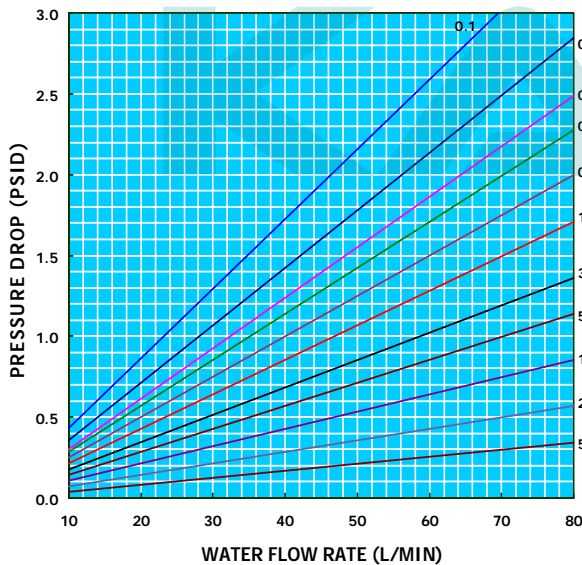
STERILIZATION AND SANITIZATION METHODS

10 times cycles, 30 minutes at 90°C by hot water. Peracetic Acid, Chlorinated Alkaline Products, Bleach, SO₂ and Hydrogen Peroxide at typical sanitizing temperature and concentration. Alternatively, 10 times, 20 minutes cycles at 121°C by autoclave, 10 times, 60 minutes cycles at 121°C at 0.14 Bar (2PSID) maximum differential pressure by steam.

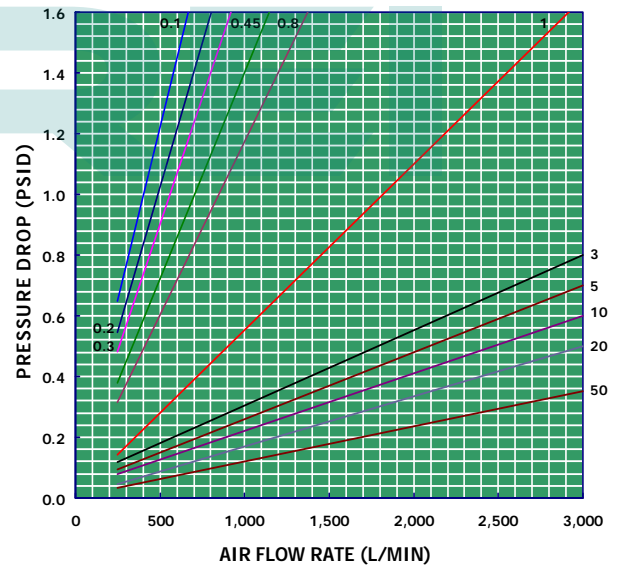
APPLICATIONS

Cosmetics	Toiletries, Perfumes and colognes, Lotions, Ointments, Shampoos, Body Rinses, Mouthwashes, Toothpaste, Creams, After shaves, etc.
Food And Beverages	Wine, Corn syrup, Edible oils, Bottled water, Beer, Soft drinks, Distilled spirits, Storage tanks & air vent, etc.
Hard Disc And Electronic	Photo-resists, Pre & post-filtration for RO & DI water system, Gases filtration, Acids, Bases, Etchants, Coolants, Solvents, etc.
Veterinary	Parenterals, Therapeutic Area, etc.
Biological	Vaccine preparation, Serum & serum fraction, Tissue culture media, Media make-up water, Diagnostic area, Microbiological growth area, etc.
Film And Fiber	Monomers, Slurry additives, Delusterants, Slip agents, Spin finishes, Aqueous salt solution, Quench water, etc.
Pharmaceutical	Ophthalmic, Oral medications, Small & large volume parenterals, Oral and topical medicines, etc.
Chemical & Petrochemical	Polymers, Glycols, Photo-resists, Deep disposal well fluids, Mono-ethanol-amine and Di-ethanol-amine for gas scrubbing, Acids, Bases, Polishing products, Inks, Paints, Electroplating solution, Can, Coil, Tape, Disc, Fabric & Paper coating, Metal etching solution, Liquid detergents, Dyestuffs, etc.
Power Generation Industries	Steam generator blow-down pre-filter, Waste water, Make-up water.
Fermentation Bio-processing	Additives, Exhaust gas filtration, Liquid growth media, Intermediates, Downstream processing, Pre & Final liquid filtration, etc.
General	Pre-filtration for RO and DI system, Pre and final water demineralization, Pesticides & Herbicides, Catalysts, Rinse water, etc.

WATER PRESSURE DROP (10 INCHES CARTRIDGE)-AP



AIR PRESSURE DROP (10 INCHES CARTRIDGE)-AP



Air Temperature: 24 °C, Inlet Pressure: 15 PSID (1 Bar)

PARTICLES REMOVAL RATING

MICRON	$\beta=5,000$ (99.98%)	$\beta=1,000$ (99.9%)	$\beta=10$ (90.0%)
0.1	0.25	0.11	0.04
0.2	0.35	0.22	0.08
0.3	0.50	0.29	0.15
0.45	0.65	0.45	0.21
0.8	0.82	0.78	0.60
1.0	1.00	0.86	0.80
3.0	3.00	2.50	2.00
5.0	5.10	4.00	3.50
10	10.20	9.80	7.80
20	18.70	17.40	14.40

The removal efficiency was obtained using specific testing ISO standard dusts.

CHEMICAL COMPATIBILITY GUIDE

Acids	Acetic Acid, Glacial	LR	Halogenated Hydrocarbons	Carbon Tetrachloride	NR
	Acetic Acid, 10%	R		Freon TF	NR
	Hydrochloric Acid, Conc.	R		Methylene Chlorine	NR
	Hydrochloric Acid, 50%	R		Tetrachloroethylene (Perchloroethylene)	NR
	Hydrochloric Acid, Dilute	R		Trichloroethane	NR
	Hydrogen Peroxide, 30%	LR		Trichloroethylene	NR
	Nitric Acid, Conc.	NR			
	Phosphoric Acid, Conc.	LR			
	Sulfuric Acid, Conc.	LR			
Bases	Ammonium Fluoride, 40%	LR	Hydrocarbons	Cyclohexane	LR
	Ammonium Hydroxide, Conc.	R		Hexane	LR
	Potassium Hydroxide, Conc.	R		Pentane	NR
	Sodium Hydroxide, Conc.	R		Petroleum Ether	LR
	Tetra-Methyl Ammonium Hydroxide (TMAH) 5%	R		Toluene	NR
Alcohols	Butanol	R	Brines & Salt Solutions	Xylene	NR
	Ethanol	R		Sodium Chloride	R
	Ethylene Glycol	R		Potassium Chloride	R
	Glycerol	R		Sodium Bromide	R
	Isobutanol	R		Calcium Chloride	R
	Isopropanol (IPA)	R		Aluminum Chloride	R
	Methanol	R		Sodium Sulfate	R
	Propylene Glycol	R	Sodium Nitrate	R	
Esters	Butyl Acetate	LR	Gases	Helium	R
	Cellusolve Acetate	LR		Hydrogen	NR
	Ethyl Acetate	LR		Nitrogen	R
	Isopropyl Acetate	LR			
Ethers	Without Oxidants	R	Ozone	NR	
	With Oxidants	NR			

R – RECOMMENDED LR – LIMITED RECOMMENDED NR – NOT RECOMMENDED

This chemical compatibility table is intended for use as a guide only.

Recommendations are based upon static condition of 48 hours at 25°C and 1.0 atmosphere pressure.

ORDERING GUIDE

KAREI – AP – { A } – { B } – { C } – { D } – { E } – { F }

{ A }	{ B }	{ C }	{ D }	{ E }	{ F }
MICRON	LENGTH	END STYLE	GASKET/ O-RING MATERIAL	PARTS MATERIAL	TYPE
01 : 0.1	125, 250,	None : DOE	None : EPDM	None : PP	None:
02 : 0.2	500, 750,	S2C : 222 & Closed End	V : Viton		Standard
03 : 0.3	1000 mm	S2F : 222 & Finned End	S : Silicone	RPG :	
04 : 0.45		S6C : 226 & Closed End	T : Teflon	Reinforced PP With Glass	BB:
05 : 0.5	127, 254,	S6F : 226 & Finned End	FEP :		28/114mm
1 : 1	508, 762,		Teflon Encapsulated Viton	HPE :	
3 : 3	1016 mm	NOTE : For SOE with extended adaptor, please include the code of 'EX'		High Density PE	
5 : 5					
10 : 10					
20 : 20					
50 : 50					

EXAMPLE:

1) KAREI-AP-01-250-DOE (AP, 0.1 um, 250mm, DOE, EPDM Gasket, PP Parts Material)

2) KAREI-AP-01-250-S2F-EX-V-RPG (AP, 0.1 um, 250mm, SOE, 222 Viton O-Ring With Extended Adaptor, Finned End, Reinforced PP With Glass Parts Material)