

Operating Instructions

Disposable Filter Units (DFU) and Adsorbent Units (DAU)

Filtration Efficiency

The Balston® Microfibre® Disposable Filter Unit (DFU) may be used to filter liquids or gases; therefore, each DFU has two retention ratings. Liquid ratings are defined as 98% retention of the stated particle size; gas ratings are defined as percentage retention of 0.01 micron particles.

Retention Efficiency Grade	Gas Efficiency (at 0.01 µm)	Liquid Efficiency (98% retention)
DQ,DX	93%	25 µm
CQ	98%	8 µm
BQ,BK,BX	99,99%	2 µm
AQ	99,9999+%	0.9 µm
AAQ	99,9999+%	0.3 µm

DAU Media Adsorbent
000 Carbon
101 Silica Gel
102 Molecular Sieve 4A
103 Molecular Sieve 13X
105 Calgon HGR
107 Sodium/Calcium Hydroxide

Principal Specifications	Models 8822-11, 9922-05, 9922-11	Models 9900-05, 8833-11 9933-05, 9933-11, 4433-05	Model 8800-12
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Material, Filter Cartridge	Borosilicate Glass with Resin Binder	Borosilicate Glass with Resin Binder	Borosilicate Glass with Resin Binder
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Material, Housing	PVDF	Nylon	Nylon
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Max Press at 110°F (43°C)	125 psig (8.6 bar)	125 psig (8.6 bar)	Gas: 50 psig (3.4 bar) Liquid: 70 psig (4.8bar)
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Max Temp at 0 psig (0 bar)	275°F (135°C)	230°F (110°C)	150°F (66°C)
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Max ΔP, Filter Cartridge:			
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Gases			
• Flow per arrow	80 psid (5.5 bar)	80 psid (5.5 bar)	50 psid (3.5 bar)
• Flow opposite arrow	20 psid (1.4 bar)	20 psid (1.4 bar)	20 psid (1.4 bar)

Liquids			
• Flow per arrow	50 psid (3.5 bar)	50 psid (3.5 bar)	50 psid (3.5 bar)
• Flow opposite arrow	20 psid (1.4 bar)	20 psid (1.4 bar)	20 psid (1.4 bar)

Model	Weight (g) when new	Weight (g) when spent
9933-05-101	18.5	20.3
9933-11-101	63.4	71.9
9922-11-101	78.2	85.8

Notes: 1 Actual weight may vary by ± 3%.

2 Orange silica gel will turn translucent after adsorbing 6% by weight of water vapor; however it will continue to adsorb up to 28% of its weight in water vapor.

Housing and Filter Chemical Compatibility,
Models 8822-11, 9922-05, 9922-11 - Polyvinylidene fluoride (PVDF), opaque

Suitable: Water (to 275°F/135°C); concentrated nitric, sulfuric, and hydrochloric acids; chlorine (gas or liquid); sodium hypochlorite; ethylene oxide (gas or liquid); Freons; hydrogen peroxide (all concentrations); bromine (dry and aqueous solutions); all chlorinated solvents except methylene chloride; all aromatic and aliphatic solvents; all alcohols and glycols; aniline; phenol; ammonia (gas, liquid, or aqueous).

Limited Use: Acetone, MEK, Dioxane, furfural, methylene chloride.

Unsuitable: THF, DMF, ethylene diamine, chlorosulfonic acid, ethanalamine, pyridine, sulfur trioxide.



Housing and Filter Chemical Compatibility,
Models 9900-05, 8833-11, 9933-05, 9933-11, 4433-05, 8800-12 - Nylon, clear

Suitable: Water (to 158°F/70°C); benzene, toluene, other aromatic hydrocarbons; hydrocarbon solvents and fuels; perchloroethylene; trichloroethylene; nitric acid (to 10%); sulfuric acid (to 40%); hydrochloric acid (to 10%); most salt solutions; sodium and potassium hydroxide (to 50%).

Limited Use: Water at 176°F (80°C); acetone; MEK; acetaldehyde; ammonia (to 25%).

Unsuitable: Water (above 194°F/90°C), alcohols, glycols, phenol, aniline, DMF, concentrated acids, chlorine.



Choice of DFU Grade		Liquid Filtration (select particle and size retention)	
Gas Filtration			
Grade DQ,DX	General Purpose	Grade DQ,DX	General Purpose
Grade BQ,BK, or BX	Complete oil and water droplet removal Note: Grade BK contains a visual oil indicator which turns a portion of the surface of the cartridge pink when saturated with oil.	Grade CQ	Removes almost all visible particles
		Grade BQ,BX	Removes all visible particles and most colloidal haze
Grade AQ (1)	Commercially sterile		

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Installation Instructions

Notes:

Primary flow should be in the direction of the arrow (inside-to-outside of the filter cartridge). Moderate reverse flow can be tolerated without damage, as in a vent or breather application. Slip-on tubing (1/4" ID) may be used for low pressure applications. For high pressure applications, compression tubing fittings recommended by the manufacturers for use with 1/4" OD plastic tubing are satisfactory to 125 psig (8.6 barg). Obtain detailed recommendations from our Technical Support staff at 800-343-4048.

1 DFU 9933-05-AQ (or others with Nylon housings) may be sterilized with ethylene oxide or by autoclaving to 230°F (110°C). For autoclaving to 275°F (135°C), use DFU 9922-05-AQ (or others with PVDF housings).

2 If you have any questions or concerns, please call the Technical Services Department at 800-343-4048, 8AM to 5PM Eastern Time or email at: balstontechsupport@parker.com. For locations outside North America, please contact your local representative or email at: pgdservicesupport@parker.com.