

## Coalescing Filter Instruction Sheet Coalescing (.03 or .01 micron) ATD-7835

Bowl	Max. Pressure	Temperature Range		
Metal	250 psi	40°F to 125°F		
w/Sight	250 psi	40°F to 200°F		
w/Auto Drain	30-175 psi	40°F to 160°F		

**WARNING!** For compressed air service only. Do not use on life support systems or breathing air systems. Metal bowl sight is made of ply carbonate, which will craze and or crack if exposed to chemicals incompatible with polycarbonate. For any additional information regarding chemical compatibility, please contact: General Electric Plastics, One Plastic Ave, Pittsfield, MA.

**INSTALLATION:** Install units so the air flow is in the direction indicated by the arrow on the head of the unit. Filter should be installed upstream of regulators. If an air dryer is being used, install the filter downstrean from the dryer. In most cases a particulate pre-filter with a 3 micron absolute element is recommended to greatly extend the life of the coalescer element. When the coalescer element becomes clogged with with dirt, it must be replaced. If it is kept free from dirt, it will coalescer oil indefinitely. A pre-filter will remove water and dirt before it reaches the coalescer, and will reduce maintenance costs. The coalescer filter is then free to remove oil, oil vapors and submicron sized particles without prematurely clogging the large particles of dirt and scale.

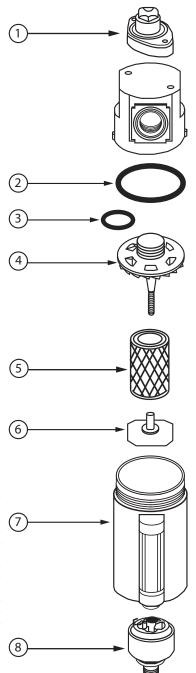
**WARNING!** Units are die cast aluminum, **DO NOT TORQUE WHILE INSTALLING.** Also, pressurize unit slowly after installation of unit or new element to avoid damage to element.

**OPERATION ADJUSTMENTS:** If the filter is installed properly, it should give trouble-free service. The pressure drop across the filter should not exceed 10 psi. If the pressure drop exceeds 10 psi, either the filter element needs to be replaced or the unit is being operated beyond its capacity and a larger one is required. Operating the filter at a pressure drop in excess of 10 psi will greatly reduce the efficiency of the filter.

If oil appears downstream: 1) check downstream air lines to be sure they are free of residual oil; 2) check to see that the filter element and o-ring are in good condition and installed properly.

**DIFFERENTIAL PRESSURE INDICATOR MAINTENANCE (#1 on drawing):** When the filter is depressurized, periodically clean and grease the piston o-ring with a non-silicon ring grease (see item 1 on drawing).

ITEM	DESCRIPTION	KIT NUMBER	CONTENTS
1	INDICATOR SIGHT KIT		SCREWS, SIGHT GLASS, SPRING BRACKET, O-RING, INNER & OUTER CYLINDERS, SIGHT DOME
2,7	BOWL KIT		METAL BOWL, DRAIN COCK, O-RING (NO SIGHT GLASS)
	BOWERI	BKF45W (6 oz)	METAL BOWL, SIGHT GLASS, DRAIN COCK, O-RING
3, 4, 6	REPAIR KIT	RKF45	RETAINER, O-RING, BAFFLE
5	ELEMENT KIT	EK55	.03 MICRON COALESCING ELEMENT
		EK55A	.01 MICRON COALESCING ELEMENT (STD)
NOT SHOWN	SIGHT KIT	WK45	SIGHT TUBE, RETAINER, INDICATOR BALL, O-RING
NOT SHOWN	MOUNTING BRACKET	FBK5	MOUNTING BRACKET, SCREWS
8	AUTO DRAIN (OPTIONAL)	5200	FLOAT DRAIN ASSEMBLY, BOWL INSERT, O-RING,
			RETAINER RING





**Bowl** Metal w/sight Max. Pressure 250 psi **Temperature Range** 40°F to 160°F

**WARNING!** For compressed air service only. Do not use on life support systems or breathing air systems. Metal bowl sight is made of polycarbonate resin that will crack if exposed to solvents or oils containing ethyl acetate, methylene dichlorobenzene or any partially halogenated or aromatic hydrocarbons. For any additional information regarding chemical compatibility, please contact: General Electric Plastics, One Plastic Ave, Pittsfield, MA.

**INSTALLATION:** Remove sight retainer and sight o-ring and fill sight body with new or regenerated desiccant. Install dryer so that air flows in the direction indicated by the arrow on the head of the unit. A prefilter combination is always required upstream of the dryer. First stage filtration with a particulate filter will remove water and solid particles down to 40 microns in size. Second stage filtrations with a coalescing filter will remove oil and water particulates down to 0.03 microns.

**NOTE:** Used desiccant material can be regenerated by spreading the desiccant in a thin layer in a shallow pan and then heating it in a convection oven at 275°F until a complete color change occurs, usually within about 3 hours. Caution - avoid excessive temperatures and do not regenerate your desiccant in an oven that is used for food consumption use.

**MAINTENANCE AND OPERATION:** Care must be taken to change or regenerate the dryer desiccant material once it appears pink in color. The following steps are to be taken when recharging the dryer: 1) Shut off air supply and bleed system. 2) Unscrew bowl ring and remove bowl assembly. 3) Remove used desiccant. 4) Unscrew lead-in bullet from threaded rod. 5) Remove exhaust tube, exhaust element and gasket. 6) Inspect and clean inside of exhaust tube if necessary and then reassemble the main assembly. 7) Remove sight retainer and sight o-ring. 8) Discard used desiccant within the sight body. 9) Fill sight body with new or regenerated desiccant. 10) Secure sight and o-ring by hand-tightening sight dome retainer. 11) Fill bowl with new or regenerated desiccant to 1/2" from top bowl flange. Replace bowl assembly and hand-tighten bowl ring. CAUTION: DO NOT REMOVE SIGHT RETAINER WHILE BOWL IS UNDER PRESSURE.

**STORAGE:** Store replacement desiccant in a dry area making certain that the jar is tightly sealed with a shelf life noted.

ITEM	DESCRIPTION	KIT NUMBER ATD-7761	CONTENTS
1, 2, 3, 4	BOWL KIT	BKD1204	BOWL O-RING, BOWL ASSY W/SIGHT, BOWL ADAPTER, BOWL RING
5, 6, 7, 8, 9, 12, 13, 14	REPAIR KIT	RKD1204	EXT. RETAINING E-RING, LEAD IN O-RING, LEAD IN BULLET, EXHAUST TUBE, THREADED ROD, DRAIN PLUG ADAPTER O-RING
10, 12	ELEMENT KIT	EKD1204	DISPERSION FILTER, EXHAUST ELEMENT GASKET
15	SIGHT KIT	SKD10	SIGHT BODY, O-RINGS, RETAINING NUT, SIGHT DOME, DOME RETAINER

**NOTE:** To prevent excessive pressure drop, it is recommended that the exhaust element be replaced whenever the desiccant is replaced or discharged.

