

AERCO AM SERIES – POTABLE APPLICATIONS Primary Loop Design Guidelines

MININUM AND MAXIMUM FLOW RATES

	AM 399	AM 500	AM 750	AM 1000
Minimum Water Flow at Min. Fire (GPM)	11	12	12	12
Minimum Water Flow at Full Fire (GPM)	22	24	36	48
Maximum Water Flow (GPM)	40	40	60	80

The following primary/secondary piping design guidelines should be used for AERCO AM Series potable water applications. A 20 mesh strainer (or finer) is required at each inlet. Water flow rates and pressure drops shown below are for the primary loop. Flow rates vary with system design parameters. **The primary loop**

	AM 399	AM 500	AM 750	AM 1000			
MAXIMUM Potable water hardness = 10 grains per gallon							
MAXIMUM Total dissolved solids = 200 ppm							
Water Flow (GPM)	22	24	36	48			
Water Press. Drop (Ft. of Hd.) across AM Series	10	14	14	17			
Strainer ΔP (Ft. of Hd.) – ('Y' Strainer, 20 mesh) plus							
ΔP (Ft. of Hd.) – (20' SCH.40, 4 x 90°, 2 x reducing							
couplings, 2 x Ball Valve)	2.15	2.15	1.65	2.25			
Total Primary Loop △P (Ft. of Hd.)	12.15	16.15	15.65	19.25			
Recommended AERCO Pump+Circuit Setter Kit for	99237-1	99237-2	99237-2	99237-5			
piping configurations not exceeding the above example							
Kit includes: Pump Flange Size	1-1/4"	1-1/4"	1-1/2"	1-1/2"			
Kit includes: Circuit Setter Size (NPT)	1-1/2"	1-1/2"	2"	2"			
Recommended AERCO AM DHW Installation Kit							
(Installation Kit already includes above Pump/Circuit	58135-1	58135-2	58135-2	58135-3			
setter kit, plus Strainer, Isolation Valve, and pipe fittings).							
Installation Kit designed for inlet/outlet piping diameter:	1-1/2"	2"	2"	2"			
Strainer and Isolation valves sizes (NPT):							

MAXIMUM Potable water hardness = 18 grains per gallon							
MAXIMUM Total dissolved solids = 200 ppm							
Water Flow (GPM)	37	37	60	75			
Water Press. Drop (Ft. of Hd.) across AM Series	27	32	38	41			
Strainer ΔP (Ft. of Hd.) – ('Y' Strainer, 20 mesh) plus							
ΔP (Ft. of Hd.) – (20' SCH.40, 4 x 90°, 2 x reducing							
couplings, 2 x Ball Valve)	1.88	1.88	2.20	3.05			
Total Primary Loop ∆P (Ft. of Hd.)	28.88	33.88	40.20	44.05			
Recommended AERCO Pump+Circuit Setter Kit for	99237-5	99237-5	99227-5	99227-5			
piping configurations not exceeding the above example							
Kit includes: Pump Flange Size	1-1/2"	1-1/2"	2"	2"			
Kit includes: Circuit Setter Size (NPT)	2"	2"	2-1/2"	2-1/2"			
Recommended AERCO AM DHW Installation Kit							
(Installation Kit already includes above Pump/Circuit	58135-3	58135-3	58135-4	58135-4			
setter kit, plus Strainer, Isolation Valve, and pipe fittings).							
Installation Kit designed for inlet/outlet piping diameter:	2"	2"	2-1/2"	2-1/2"			
Strainer and Isolation valves sizes (NPT):	۷_		∠-1/∠	∠-1/∠			

fittings and strainer pressure drops shown below are <u>examples only</u> – actual pressure drops will vary depending on actual piping layout and strainer size/type used.

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NOTE: Units with outlet connections matching pipe size do not include reducer.

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