

Multiple Effect Still

Overview:

- Built to the exacting standards of the pharmaceutical industry and cGMP requirements.
- Wide range of sizes and options available to fit your unique requirements.
- All components manufactured by MECO in the U.S. using the most advanced methods for design and fabrication.
- Supported by MECO 24-hour U.S. based customer service.
- Backed by warranty.

Product Highlights:

• Superior Design

- Vertical natural circulation evaporators
- Scale effects reduced
- Uniform wetting and heat transfer
- Straight annealed tubes in evaporator
- Individual tubes can be replaced as opposed to replacing the entire tube bundle.
- No residual stresses or surface finish problems commonly found with U-tubes.
- Hot Stand-by option
- Improved response to distillate demand
- No pumps running during hot stand-by
- Elimination of bio-growth
- Meets/exceeds cGMP/USP standards
- Sanitary construction and connections
- Double tubesheet heat exchangers
- Sloped piping and low point drains
- Minimum deadlegs
- 240° F Condenser Operation
- 10 PSIG WFI output with no pump
- Reduced overall height
- Improved accessibility

• Superior Control

- PLC based control system
- PID loop control of feedwater level
- PID loop control of condenser level
- PID loop control of WFI temperature
- PID loop control of first effect pressure

• Design Details

- 25 Ra standard process contact surfaces
- Galvanized rigid steel conduit
- Stainless Steel Airlines
- Mirror finish stainless steel cladding



TECHNICAL DATA							
Model	Capacity distillate ¹ U.S. GPH 100/125 ⁴	Capacity clean steam ² LB/HR 100/125	Water feed GPH 100/125	Water Cooling ³ GPM 100/125	Steam plant steam LB/HR 100/125	Electrical Power ⁵ KW	Dimension LxWxH inches
3MEF5	79/81	200/300	83/85	6/6	280/301		91x38x78
4MEF5	83/98	200/300	87/103	5/6	235/290		106x38x78
5MEF5	81/98	200/300	85/103	3/4	194/244		120x38x78
3MEF10	143/147	200/300	150/154	11/11	508/546	2.4	78X32X90
4MEF10	151/182	200/300	159/192	8/10	425/531	2.4	82X32X90
5MEF10	147/178	200/300	154/187	6/7	351/442	2.4	94X32X90
3MEF25	258/256	650/1000	271/269	19/19	919/954	2.8	96X54X100
4MEF25	273/321	650/1000	287/337	14/17	768/937	2.8	108X54X100
5MEF25	266/322	650/1000	279/338	10/13	634/799	2.8	120X54X100
3MEF40	429/508	1000/1500	450/533	31/37	1516/1850	3.2	98X56X130
4MEF40	422/501	1000/1500	443/526	22/26	1187/1462	3.2	110X56X130
5MEF40	419/498	1000/1500	440/523	16/20	999/1237	3.2	125X56X130
5MEF80	881/1068	2100/3100	925/1121	32/43	2101/2654	3.8	170X64X140
6MEF80	870/1050	2100/3100	913/1103	26/33	1827/2311	3.8	186X64X140
5MEF120	1242/1494	3100/4800	1304/1569	47/60	2965/3717	4.5	170X66X144
6MEF120	1222/1494	3100/4800	1283/1588	36/47	2567/3288	4.5	190X66X144

1) capacity is based on 240 F condenser temperature. 2) 1st effect used as a clean steam generator with no distillate and clean steam pressure at 60 psig. 3) cooling water rates based on 70 F feed, 180 F distillate, 5% blowdown rates at 130 F, and 60 F cooling water temperature rise (70 F in and 130 F out). Multiply the cooling water flow rates by 5 to get the cooling water rates for 12 F cooling water temperature rise. 4) capacities are with 100 psig and 125 psig. 5) with feed and distillate pump.

