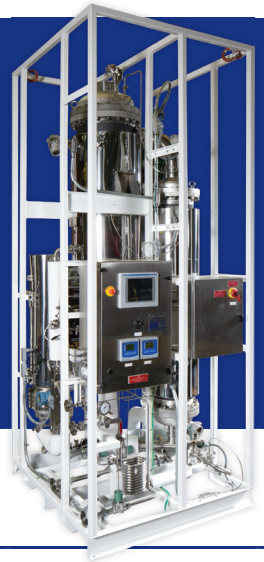
PSG-10000

PURE STEAM GENERATOR

The new Aqua-Chem Pure Steam Generator design incorporates the quality, performance and reliability that have made us an industry leader, into a more economically competitive package. Our design incorporates double tubesheet evaporators with a new baffled, tangential steam entry centrifugal separator (i.e. thermos syphon) design to provide pure, dry steam for your Life Science applications per USP 23 requirements for water-for-injection.

Simple. Effective. Reliable. Aqua-Chem.



STANDARD FEATURES

- Thermo-syphon separator section creates max centrifugal force for elimination of remaining water droplets
- PID Level Control for optimal feedwater level control
- Double tubesheet evaporator and heat exchanger(s) for long term reliability
- New evaporator gasket design improves seal integrity and life
- Shell-side evaporation design ensures heat transfer surface will resist the formation of scale
- Submerged-tube, rising-film design eliminates dry tube “hot spots”
- 304 SST Frame and Supports
- Fully automated control, with central control system integration capability

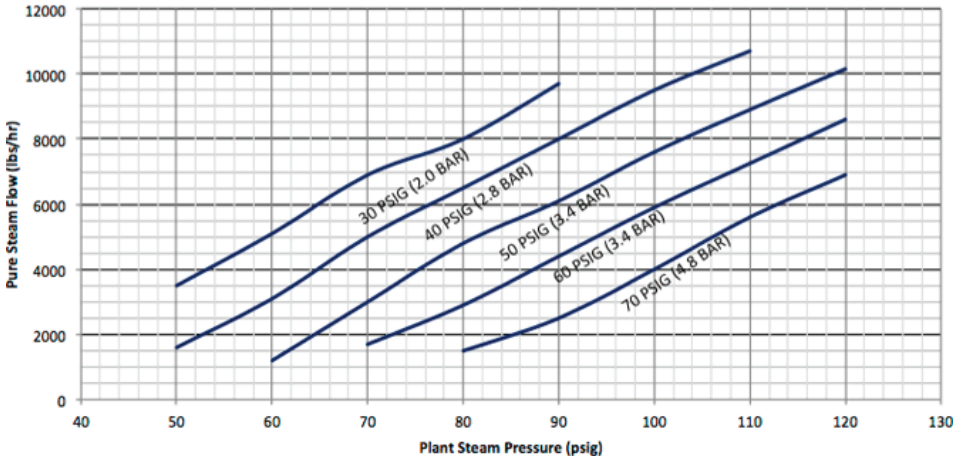
OPTIONS & UPGRADES

- Feedwater pump
- Feedwater conductivity monitoring
- Pure steam sample cooler
- Plant Steam control valve
- Electropolished feedwater and pure steam product contact surfaces
- Epoxy-coated carbon steel frame
- Insulation of all hot surfaces
- Validation (IQ/OQ) Package

MODELS	PSG-10000
DESIGN	
Nominal Capacity, lb/hr (kg/hr)[1,2]	10,150 (4,604)
Design Type	Straight Tube (Double-Tube Sheet) Vertical Thermosiphon Reboiler, TEMA BEM Shell with Single-Segmental Baffles
Feedwater Quality	No Hardness, Chlorine, or Amines Silica: < 1ppm Conductivity: < 10 µS/cm
Feedwater Flow	110% of Pure Steam Output
Feedwater Pressure	P

PLANT STEAM PRESSURE	PURE STEAM PRESSURE				
PSIG (BAR)	30 (2.0)	40 (2.8)	50 (3.4)	60 (4.0)	70 (4.8)
50 (3.4)	3500	1600			
60 (4.0)	5100	3100	1200		
70 (4.8)	6900	5000	3000	1700	
80 (5.5)	8000	6500	4800	2900	1500
90 (6.2)	9700	8000	6100	4400	2500
100 (6.9)		9500	7600	5900	4000
110 (7.6)		10700	8900	7250	5600
120 (8.3)			10150	8600	6900

OUTPUT PRESSURE CURVE



[1]Capacity based upon max plant steam pressure at 50psig pure steam outlet pressure
[2]Based upon 70°F (21°C) feedwater temperature