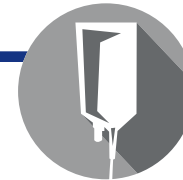


PSG-1000

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

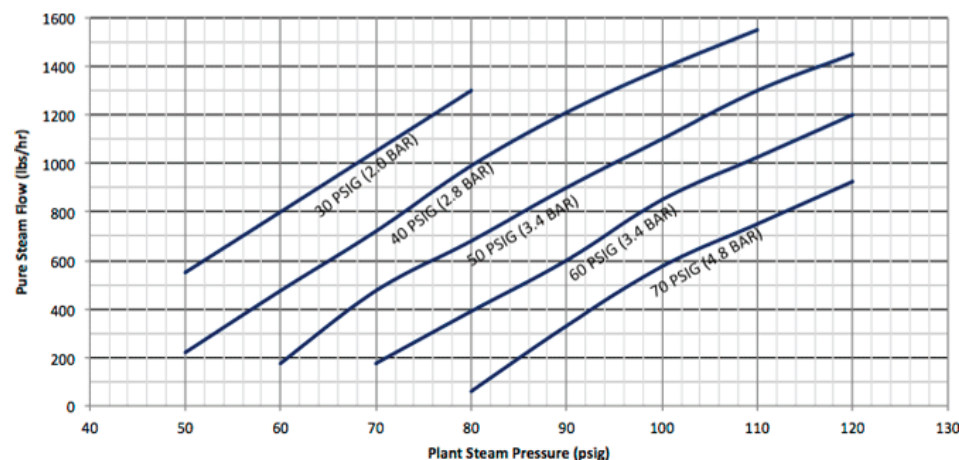
- Thermo-syphon separator section creates max centrifugal force for elimination of remaining water droplets
- PID Level Control for optimal feedwater level control
- Double tubesheet evaporator and heat exchanger(s) for long term reliability
- New evaporator gasket design improves seal integrity and 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-1000				
DESIGN						
Nominal Capacity, lb/hr (kg/hr) ^{1,2}		1,450 (657)				
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)	550	220				
60 (4.0)	800	475	175			
70 (4.8)	1050	720	475	175		
80 (5.5)	1300	990	680	390	60	
90 (6.2)		1210	900	600	330	
100 (6.9)		1390	1100	850	575	
110 (7.6)		1550	1300	1025	750	
120 (8.3)			1450	1200	925	

OUTPUT PRESSURE CURVE



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