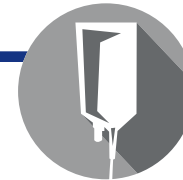


# PSG-3000

## 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

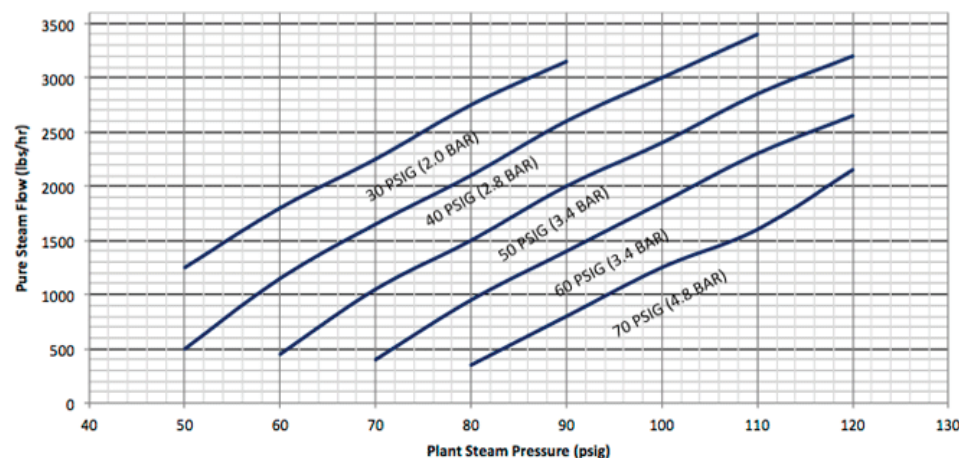
- Thermo-syphon separator section creates max centrifugal force for elimination of remaining water droplets
- PID Level Control for optimal feedwater level control
- Double tubesheet evaporator and heat exchanger(s) for long term reliability
- New evaporator gasket design improves seal integrity and 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-3000				
DESIGN	Straight Tube (Double-Tube Sheet) Vertical Thermosiphon Reboiler, TEMA BEM Shell with Single-Segmental Baffles				
Nominal Capacity, lb/hr (kg/hr) <sup>1,2</sup>	3,200 (1,451)				
Design Type	No Hardness, Chlorine, or Amines Silica: < 1ppm Conductivity: < 10 µS/cm				
Feedwater Quality	110% of Pure Steam Output				
Feedwater Flow	P				
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)	1250	500			
60 (4.0)	1800	1150	450		
70 (4.8)	2250	1650	1050	400	
80 (5.5)	2750	2100	1500	950	350
90 (6.2)	3150	2600	2000	1400	800
100 (6.9)		3000	2400	1850	1250
110 (7.6)		3400	2850	2300	1600
120 (8.3)			3200	2650	2150

OUTPUT PRESSURE CURVE



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