

## Unfired Steam Generator Series "ASTEG"



### Process Steam



### Clean Steam

#### Standard Features & Equipment

- 316 L Stainless Steel Tube Bundle
- Liquid Level Control
- Asme Safety Valve
- Steam & Drip Traps
- Feedwater Valve
- Blowdown Valve
- Surface Blowdown Connection
- Steam Control Valve
- Outlet Steam Separator
- Steel Jacket With Fibreglass Insulation

#### Optional Features & Equipment

- Blowdown Heat Recovery System
- Feedwater System
- Alarms

APPLICATIONS	TYPICAL LOCATIONS	HEAT SOURCE
HUMIDIFICATION	HOSPITALS	HIGH PRESSURE STEAM
FOOD PREPARATION	FOOD PROCESSING PLANTS	HIGH TEMPERATURE WATER
STERILIZATION	COMMERCIAL KITCHENS	HEAT TRANSFER FLUID
CLEAN STEAM	RESEARCH LABS	PROCESS LIQUIDS & GASES
HEAT RECOVERY	INDUSTRIAL PROCESSING	
ALTERNATIVE HEAT SOURCE	MULTI-UNIT COMPLEX HEATED BY CENTRAL HOT FLUID SYSTEM	

#### Clean Steam

Clean steam unfired steam generators utilizes feed water that is free from boiler water treatment chemicals. Use of clean steam is commonly associated with hospitals, food processing plants, commercial kitchens and research labs for cooking, cleaning, sterilization and humidification. Usually clean steam generators are made of stainless steel pressure vessel and accessories. When city water is used for make-up, continuous blowdown is required. The Alstrom patented blowdown heat recovery system reduces consumption of the heating media.

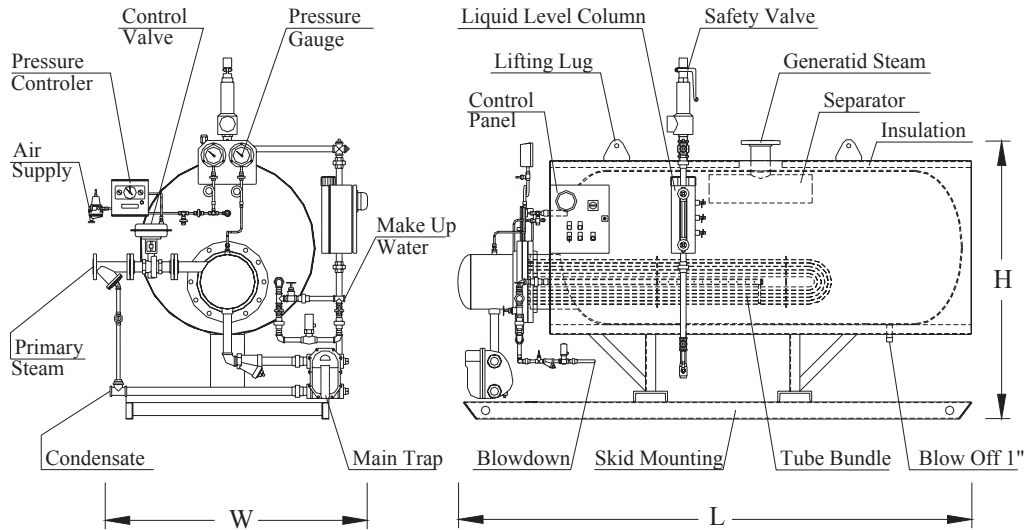
#### Process Steam

Unfired steam generators are used to protect fired steam boilers from harmful chemicals contained in the return condensate, such as in pulp and paper processing. Heating section and storage section are fabricated using materials that will be cost effective for the process steam condition. Tube bundles can be manufactured from stainless steel, cupro-nickel or titanium. Pressure vessels are offered in quality carbon steel or high grade stainless steel.

**Lifetime Warranty on Titanium Tube Bundles**

**When heat transfer fluid of high temperature water is available as a heat source, the Alstrom unfired steam generator provides low pressure steam to intended user. Ask for Alstrom's self-operating unfired steam generator**

# Unfired Steam Generator Series "ASTEG"



MODEL NUMBER	VESSEL SIZE OD x OAL	VESSEL CAPACITY IN GALLONS	MAX BUNDLE DIAMETER	MAX STEAM OUTPUT LBS/HR	LENGTH L	WIDTH W	HEIGHT H	APPROX. SHIPPING WEIGHT	APPROX. OPERATING WEIGHT
AST60	20 x 48	60	8	500	53	25	32	1350	1940
AST120	24 x 60	120	8	600	65	29	36	1600	2300
AST160	24 x 88	160	8	720	93	29	36	1800	2600
AST260	30 x 91	260	10	2500	96	35	42	2200	3600
AST395	36 x 93	395	12	4100	98	41	48	3100	5300
AST480	36 x 117	480	12	4600	122	41	48	3500	6000
AST670	42 x 120	670	14	5500	125	47	54	4200	8000
AST860	48 x 120	860	16	7800	125	53	60	5200	10000
AS1140	54 x 127	1140	18	10600	132	59	66	5900	12000
AST1430	60 x 132	1430	20	13900	137	65	72	6500	14000
AST1770	66 x 132	1770	24	15300	137	71	78	7600	16000
CUSTOM									

- Actual performance depends on the thermodynamic properties of the heating fluid
- Operating capacity is approximately 2/3 of the vessel capacity
- Sizing of steam outlet, heating fluid, feedwater and blowdown nozzles depends on operating conditions
- Other dimensions available upon request

### Model Number Legend:

AST - 260 - H - SS - 50 - F  
(1) (2) (3) (4) (5) (6)

- (1) - ALSTROM UNFIRED STEAM GENERATOR
- (2) - TANK CAPACITY IN GALLONS
- (3) - "H" - HORIZONTAL  
"V" - VERTICAL

- (4) - "SS" - STAINLESS STEEL VESSEL  
"CS" - CARBON STEEL VESSEL
- (5) - "50" - PSIG GENERATED STEAM OPERATING PRESSURE
- (6) - "F" - HEAT TRANSFER FLUID  
"W" - HIGH TEMPERATURE WATER  
"S" - STEAM

### For Optimal Selection, Please Provide The Following Data:

To Generate \_\_\_\_\_ lb/hr Of  Clean  Process Steam @ \_\_\_\_\_ psig From :

\_\_\_\_\_ gpm Of High Temperature Water Entering @ \_\_\_\_\_ deg.f.  \_\_\_\_\_ gpm Of Heat Transfer Fluid \_\_\_\_\_ entering @ \_\_\_\_\_ deg.f.

High Pressure Saturated \_\_\_/superheated \_\_\_ Steam @ \_\_\_\_\_ psig  Other Source \_\_\_\_\_