



Astell are proud to manufacture highly customisable steam generators that are built-to-order. This enables us to meet any challenges that your facility requirements present. Astell steam generators are designed with storage capacity to meet the high-volume, fast-peak, fast-recovery steam requirements of an autoclave's air removal process. This technical data sheet provides you with a range of measurements and specifications from previous STG048 models. Our Sales and Technical teams will provide you with the precise specification of your steam generator after consultation.

## 1. STG048 General Overview

Steam Outlet	1" Gate Valve
Maximum Steam Flow Rate	72 ( kg/hr )
Maximum Steam Pressure	650 ( kPa ) 6.5 ( bar )
Number of Heaters	2 ( x 24kW )

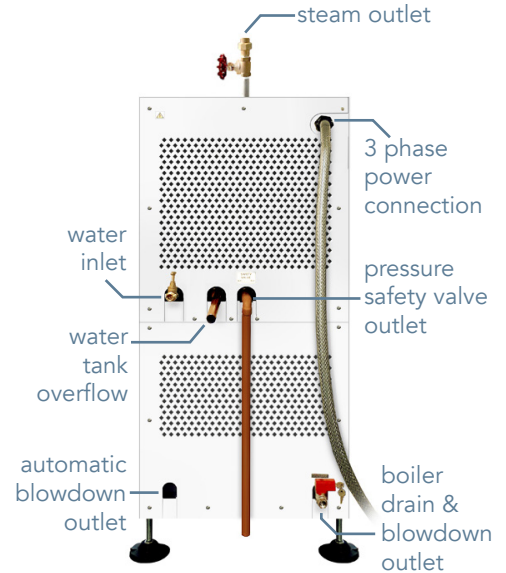
## 2. The Pressure Vessel

The pressure vessel is where the steam is generated.

Internal Volume	89 ( L )
Operational Water Volume	68 ( L )



A typical STG048 with optional blowdown vessel (left) and water softener (right)



A typical STG048 rear view

## You Will Need

The steam generator has a number of requirements that must be catered for prior to installation. These are: an adequate route between the delivery and installation sites, physical space for the installation, the correct connection points for the appropriate quality of water and electricity, and a suitable drainage connection. Read this section carefully and ensure all the requirements can be met prior to ordering your steam generator.

## 3. Space For The Steam Generator...

		Dimensions
	Width	600 ( mm )
	Height	1280 ( mm ) ( ± 50 mm )
	Depth	1060 ( mm )
Footprint / Area		0.636 ( m <sup>2</sup> )
Clearance Space		500 ( mm )
Dry Weight		250 ( kg )

## ...And For Some Options

		Water Softener	Blowdown Vessel
	Width	250 ( mm )	345 ( mm )
	Height	500 ( mm )	1050 ( mm )
	Depth	440 ( mm )	335 ( mm )

It is recommended that a gap of 500mm is left around the steam generator for maintenance and utilities access.

Remember to leave space for any options you select that are physically external to the steam generator, such as a water softener or blowdown vessel.

A route capable of bearing the size and weight of the steam generator must be available between the delivery and installation site. If such a route is unavailable, discuss the construction with Astell.

## 4. Electricity

	Electrical Requirement
Maximum Voltage	415 ( V )
Wattage	48 ( kW )
Frequency	50/60 ( hz )
Standard Amperage	TBC ( A )

	Single	Three
AC Phases	N/A	Available

A three phase steam generator will need to be fitted to an electrical isolator box or commando plug and socket. Plugs and sockets not supplied. Contact Astell or your electrician for more information.

## 5. A Clean Water Supply...

<b>Water Type</b>	Mains Water
<b>Maximum Water Hardness</b>	70 (ppm)
<b>Water pH</b>	pH 7

Is your water quality outside the specification given above? Astell can supply an external water softener kit to reduce the hardness and pH of your mains water to acceptable levels. Please see the table to the right for an overview of the water softener's installation requirements.

<b>Water Enters The Steam generator Via</b>	a washing machine inlet hose with 3/4 inch compression fittings
<b>Minimum Water Flow Rate</b>	5 (L / min)

## ...And Possibly A Water Softener Kit

	<b>Unit Width</b>	250 (mm)
	<b>Unit Height</b>	500 (mm)
	<b>Unit Depth</b>	440 (mm)
<b>Installation Location</b>		Adjacent to drain AND adjacent to steam generator
<b>Water Input Via</b>		Ø 3/4" male isolator valve
<b>Minimum Water Input Pressure</b>		1.5 (bar)
<b>Maximum Water Input Pressure</b>		6 (bar)
<b>Overflow Connection to Drain</b>		Floor drain or standpipe drain capable of receiving Ø35mm AND Ø26mm hoses simultaneously

## 6. Adequate Drainage for Overflow...

<b>Drainpipe Material</b>	Copper
<b>Drainpipe Diameter</b>	Ø 35 (mm)
<b>Maximum Drain Height</b>	0 (mm) above floor
<b>Drainpipe Connections</b>	Between Steam Generator and Main Building Drain Only

Steam generators can eject precipitate left within them using pressurised steam. This process is recommended to keep steam generators functioning optimally. A blowdown vessel captures the pressurised steam and deposits ejected from the steam generator at velocity, decreasing risk.

A water softener has drainage requirements that are additional to those of the steam generator. If you are fitting a water softener, review the water softener drain requirements in section 4.

If your drainpipe is not made of copper, ask Astell if they can build a steam generator designed for the drains you have.

## ...And Possibly For A Blowdown Vessel

	<b>Unit Width</b>	345 (mm)
	<b>Unit Height</b>	1050 (mm)
	<b>Unit Depth</b>	335 (mm)
<b>Installation Location</b>		Adjacent to drain AND adjacent to steam generator
<b>Steam Input Via</b>		Ø 15mm Copper Pipe
<b>Steam Vent Size</b>		Ø 54 (mm)
<b>Drainpipe Diameter</b>		Ø 54 (mm)
<b>Maximum Drain Height</b>		0 (mm) above floor
<b>Drainpipe Connections</b>		Between Steam Generator and Main Building Drain Only

## Services

### 7. Delivery

Astell equipment is sold ex works. For your convenience, Astell will arrange a specialist equipment haulier at cost on your behalf. Alternatively, you may elect to arrange haulage from our headquarters; please instruct our sales team if this is the case.

*For customers in the United Kingdom of Great Britain and Northern Ireland, the following service is also available:*

### 8. Planned Preventative Maintenance

Astell Maintenance ensures that your steam generator is regularly inspected, serviced, and maintained with official parts by a qualified Astell Service Engineer. Speak to your sales representative about building a maintenance contract tailored to your steam generator use.

## Standards

### 9. Applicable Standards

Astell steam generators are manufactured in accordance with the following standards:

- PED 2014/68/EU
- ISO9001:2015
- BS2646

(Manufacturing to other standards is available on request)

All information is accurate on data of issue. In line with continuous advancements in design and manufacturing, Astell reserve the right to modify product specifications. E&OE



# WolfLabs

**Pricing on any accessories shown can be found by keying the part number into the search box on our website.**

The specifications listed in this brochure are subject to change by the manufacturer and therefore cannot be guaranteed to be correct. If there are aspects of the specification that must be guaranteed, please provide these to our sales team so that details can be confirmed.

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Please contact us if this literature doesn't answer all your questions.