612-1300 (15-075) Steam Generator

Safety Tips

Not intended for generating gas under pressure.

- **Do not boil dry.**
- **Do not touch boiler when heated.**
- **Do not heat higher than 300°C**

Introduction:

A useful accessory in many experiments involving thermal energy. This steam generator, when used correctly, is durable and safe for all ordinary lab activities. Corrosion is minimal as the steam chamber is a single formed piece of aluminum alloy. Will not break or rupture since there are no seams. However, as with all apparatus involving steam, it is necessary to take the safety precautions listed above. Capacity is 1.8 Liter. The safest usage of this device is to heat on a hot plate.

Replacement Parts List:

Steam Generator	15-075
Instructions	24-1570
Sample Cup Assembly	61-1574

Warranty:

We replace all defective or missing parts free of charge. Additional replacement parts may be ordered toll-free. We accept MasterCard, Visa, checks and School P.O.s. All products warranted to be free from defect for 90 days. Does not apply to accident, misuse or normal wear and tear. Intended for children 13 years of age and up. This item is not a toy. It may contain small parts that can be choking hazards. Adult supervision is required.

Visit us online at www.sciencefirst.com

Additional Materials Needed:

- Hot plate or Bunsen burner
- 0 to 120° C laboratory thermometer
- Rubber tubing

How to Use:

Fill the boiler with water.

Place the boiler (without tripod stand) directly on **an electric hotplate**. Alternatively, place the Steam Generator on the tripod stand over a Bunsen burner.

Place the stopper with a hole in it into the hole in boiler cover. Insert a thermometer into the rubber stopper. Attach one end of rubber tubing to the steam outlet and attach the other end to your apparatus.

Heat, monitoring water level in the boiler, until steam is produced. **Do not boil dry. Add water as needed. Do not allow the bottom of the unit to exceed 300°C.**

Do not allow flame to directly touch the bottom of the boiler. The temperature of a Bunsen burner can easily reach the melting point of the boiler. Intense flame is not needed for the steam generator to function properly.

How To Assemble Tripod:

(Some units have separate tripod instructions)

Assemble using the **6 nuts and screws** supplied. Slide one screw through each hole in t**ripod ring**. Point screw studs toward floor. The boiler will fit securely inside ring. Attach **hex nuts** to hold screws. Bend tripod legs slightly if adjustment is needed.

See diagram, next column.

P/N 24-1570

©**Science First**®, *Morris & Lee Inc.*
Science First *is a registered trademark of Morris & Lee inc. All Rights Reserved*

Caution:

1. **Never close steam exit while heating, the generator will blow off the rubber stopper**
2. **Do not heat boiler higher than 300°C.**
3. **Aluminum melts at 660°C.**
4. **Do not boil dry.**

Attach tripod legs to bottom of tripod ring with screws and nuts provided. Point screws downward. Fit boiler inside ring.

Related Products:

These products require a steam source such as **612-1300 Steam Generator.** They may be ordered from www.sciencefirst.com.

612-1330 Aneroid Calorimeter - 5 times as sensitive as conventional calorimeters, uses no water.

612-0035 Linear Expansion Apparatus-Determine thermal expansion of 4 metal rods. Works with Steam Generator but also with warm tap water.