

## DST-1000 Ordering Information

Part Number	Description
525-1000-100	100 Volt DST-1000 system
525-1000-115	115 Volt DST-1000 system
525-1000-230	230 Volt DST-1000 system

**Note: DST-1000 systems include:**

- 1000 ml Savillex PFA collection bottle (Part Number 150-01-1000)
- 1/4" GL-45 transfer closure (Part Number 600-045-46)
- Bottle bracket (Part Number 730-0660)



## Additional Products Available For Use With The DST-1000

Part Number	Description
730-0525	Polypropylene spill tray, 10"x20"x 1-5/8"
600-045-46	1/4" GL-45 transfer closure (included with DST-1000 purchase)
450-09-3	Replacement vent membranes, 10/pack



### Savillex PFA Bottles

150-01-0100	100 ml PFA Bottle
150-01-0250	250 ml PFA Bottle
150-01-0500	500 ml PFA Bottle
150-01-1000	1000 ml PFA Bottle (included with DST-1000 purchase)



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# DST-1000 Sub-boiling Distillation System



**Savillex**  
Your Fluoropolymer Solutions Partner

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## DST-1000 Sub-boiling Distillation System

The Savillex DST-1000 sub-boiling still is the ultimate system for laboratory production of ultra-pure acids or water for your most demanding analytical applications. The high purity fluoropolymer construction of the DST-1000 allows for the distillation of all the acids most commonly used in sample preparation and analysis via ICP-OES and ICP-MS, including HF. The DST-1000 system includes a built-in heating source, separate heating control unit, solid stand, all necessary fittings, safety bottle bracket, a GL-45 transfer closure, and a 1000 ml Savillex PFA collection bottle.

The DST-1000 is safe, easy to use and ready to operate right out of the box. The compact unit will fit neatly and efficiently within most existing laboratory fume hoods. The heating mantle, which surrounds the reservoir, gently heats the contents without the use of lamps or other external heating devices, which can corrode in harsh acidic environments. The unique design of the DST-1000 requires no cooling water which not only allows greater flexibility in operation, but also promotes conservation efforts within the laboratory. The convenient, built-in waste drain removes waste acid easily and efficiently and does not require the use of a pump. The temperature control unit is housed in a sturdy plastic case, and is available in three popular voltage ratings. The variable temperature settings allow you to control the distillation rate that best fits your specific schedule and purity demands.

Proudly manufactured by Savillex Corporation, the most trusted name in PFA lab products, you can be assured of the quality, reliability and performance of your sub-boiling distillation system.



Visit [www.savillex.com](http://www.savillex.com) to see a video of the DST-1000!



### Features and Benefits

- Wetted Parts of Molded PFA
- Compact Design
- Easy to Use
- No Cooling Water Required
- Built-in Heater
- Maximum Heating Temperature of 90° C
- Large Volume Capacity
- Waste Drain for Easy Cleaning
- Designed for use with HF, HCL, HN03 and H2O

### Specifications

#### Power Source (three-wire earth grounded only)

(525-1000-100)	100 VAC +/- 5%, 50/60 Hz
(525-1000-115)	115 VAC +/- 5%, 50/60 Hz
(525-1000-230)	230 VAC +/- 5%, 50/60 Hz

#### Power

70 Watts (resistance heater)

#### Shipping Weight

7.25 kilograms

#### Dimensions

Still with bottle bracket	36.5 cm x 20 cm (L x W)
Height w/ funnel & stopper	59.0 cm
Power cord	3 meters (still to control unit)

#### Installed Location

Distillation unit within chemical fume hood

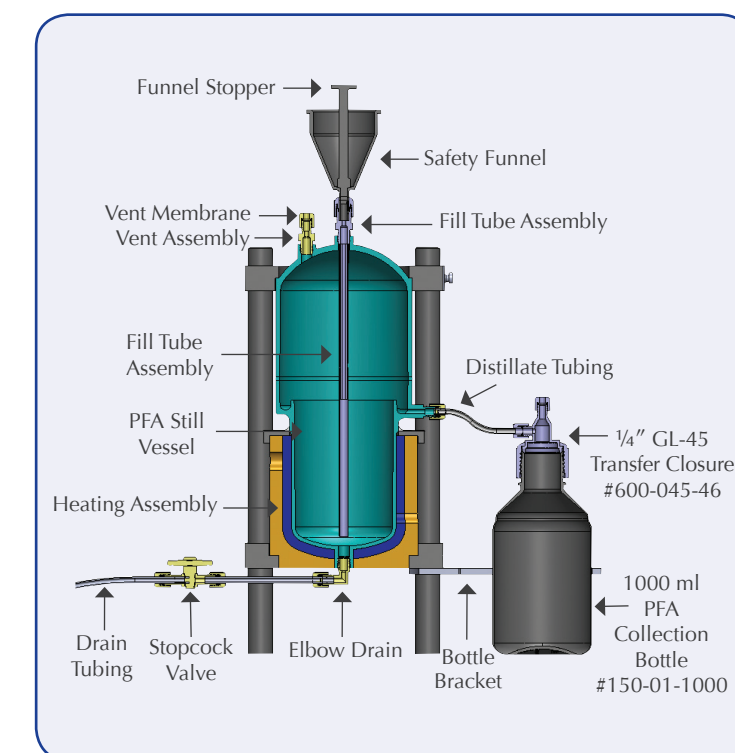
#### Evaporator Capacity

1000 ml

### Distillation Rates

Analyte	Hi	Mid	Low
HNO3	40 ml/hr	25 ml/hr	5 ml/hr
HCL	40 ml/hr	25 ml/hr	10 ml/hr
HF	40 ml/hr	25 ml/hr	10 ml/hr
H2O	50 ml/hr	35 ml/hr	10 ml/hr

Analyte	Detection Limit (ppt)	Commerical High Purity Acid Comparison	Starting Acid	1st Distilled Batch	5th Distilled Batch	15th Distilled Batch
Li	1	<1	<1	<1	<1	<1
Na	1	<1	205	49	14	6
Mg	1	2	27	5	1	<1
Al	1	8	113	205	15	6
K	1	3	35	45	5	3
Ca	1	9	39	78	7	2
Cr	1	1	41	10	1	3
Fe	1	1	120	312	7	9
Ni	1	<1	65	7	<1	1
Cu	1	<1	43	9	<1	2
Zn	1	2	19	5	1	3
W	1	<1	21	7	5	2
Mo	1	1	2	6	4	1
Ti	1	3	67	16	6	6
Co	1	<1	21	1	<1	<1
Mn	1	<1	6	1	<1	<1
Zr	1	<1	2	3	<1	<1
Ag	1	<1	<1	<1	<1	<1
Cd	1	<1	<1	<1	<1	<1
Sn	1	<1	2	1	1	<1
Cs	1	<1	<1	<1	<1	<1
Ba	1	<1	4	<1	<1	<1
Pb	1	<1	1	<1	<1	<1



- 15 separate distillations were performed on an analytical grade HF acid (ppb level), and distilled acid was tested after the 1st, 5th and 15th batches.
- The distilled acid was analyzed for trace metals and compared against a commercially available ultra high purity acid.
- Each batch represents a full 1 liter of acid which was distilled on the highest temperature setting of the DST-1000.

*Full test report is available from Savillex upon request.*