

Purifying Steam

Steam Purifier Assembly controls contaminants in water vapor and steam

The RASIRC Steam Purification Assembly (SPA) purifies clean steam to Ultra High Purity (UHP) steam by selective removal of dissolved gases, metals, and particulates to below levels of detection. The **RASIRC SPA** is designed to be placed downstream of the RASIRC Steamer to provide UHP steam to the process tool.

Benefits

- First steam purifier commercially available
- All wetted components in the liquid path are quartz or Teflon®
- Proven to deliver less than 10 ppt total metals
- Capable of removing Urea and reducing ammonia in steam

Product Description

The main feature of RASIRC SPA is very thin wall non-porous hydrophilic tubing. This tubing allows the rapid transfer of molecular water vapor with very low pressure drop. Dissolved gas is prevented from transferring across the membrane. **RASIRC SPA** is designed to work with the RASIRC Steamer and can also work with other clean steam sources, providing

consistent process control.

RASIRC materials are manufactured and tested under clean room conditions to ensure that no contaminants are added to the process. Multilumen assemblies are epoxy free, so high flow rates can be delivered without effect on steam purity.

Product Specifications

Operating Pressure Range

- Vacuum to 1200 Torr

Input Requirement

- Steam from DI water

Maximum Operating Temperature

- 80°C in standby; 115°C in operation

Contamination Removal Capability

- Less than 10 ppt total metals; consult factory for other contaminants

Materials of Construction



Purification Performance Results (ppb)			
	DI Water Source	Pre-Purified Steam	Purified Steam
Total Metals	19.8	0.15	0.009
Total Organic Carbon	1200	380	22
Total Silica	28	4.3	0.7
Urea	2200	48	2.6
Ammonium	1.468	1.117	0.116

PTFE/PFA

Footprint

- Consult factory for dimensions based on required flow rate

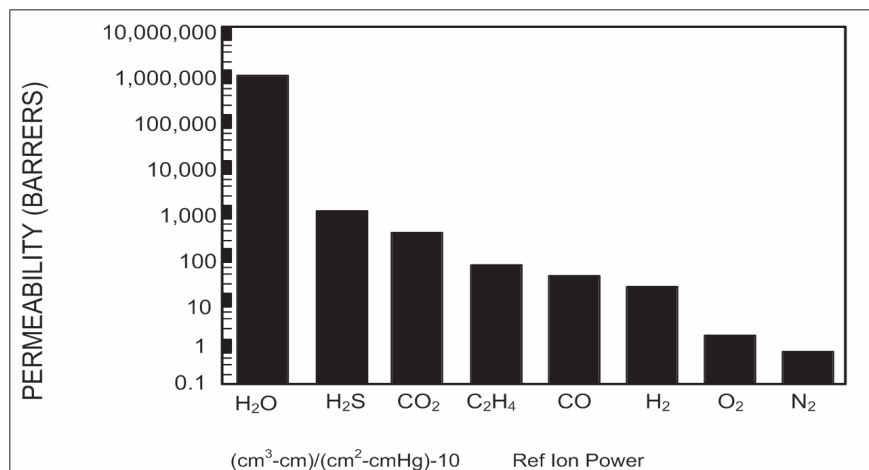
About RASIRC

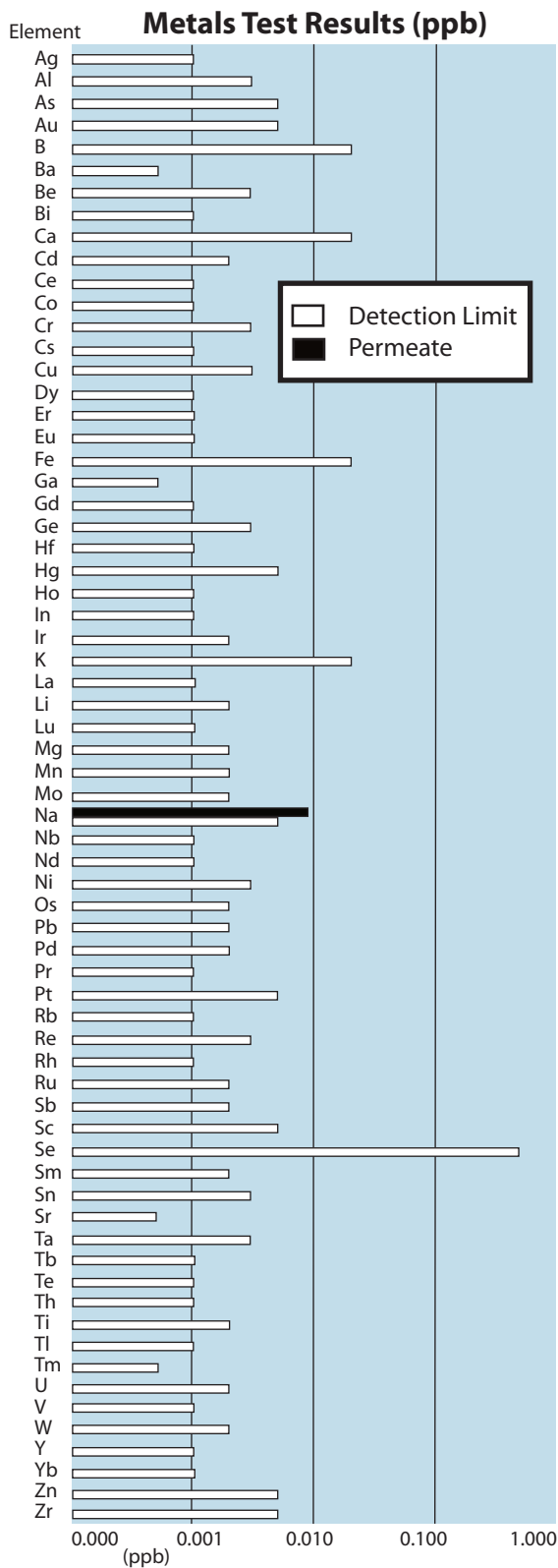
RASIRC develops products that purify and deliver ultra pure liquids and gases, with a primary focus on water vapor. RASIRC dryers, humidifiers and steam generators are of critical importance for many applications in the semiconductor, pharmaceutical, medical, biological, fuel cell, and power industries. Custom systems are available upon request. Call RASIRC to see how they can solve your water vapor challenges.



www.rasirc.com

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How to Order

To place an order for the **RASIRC SPA**, simply identify the model number from the chart below based on your Flow Rate and Length Requirements.

Model #	Min Flow Rate (slm)	Body Length*
SPA30-15	15	7.75"
SPA30-25	25	7.75"
SPA30-35	35	7.75"
SPA30-60	50	12"

* Overall length changes based on fitting selected.

Add a dash and designator from the options below.

Designator	Option
4F	1/4" Flare
6F	3/8" Flare
8F	1/2" Flare

Example: For a unit with a Flow Rate of 25 slm with a 3/8" Flare, specify: SPA30-25-6F.



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