

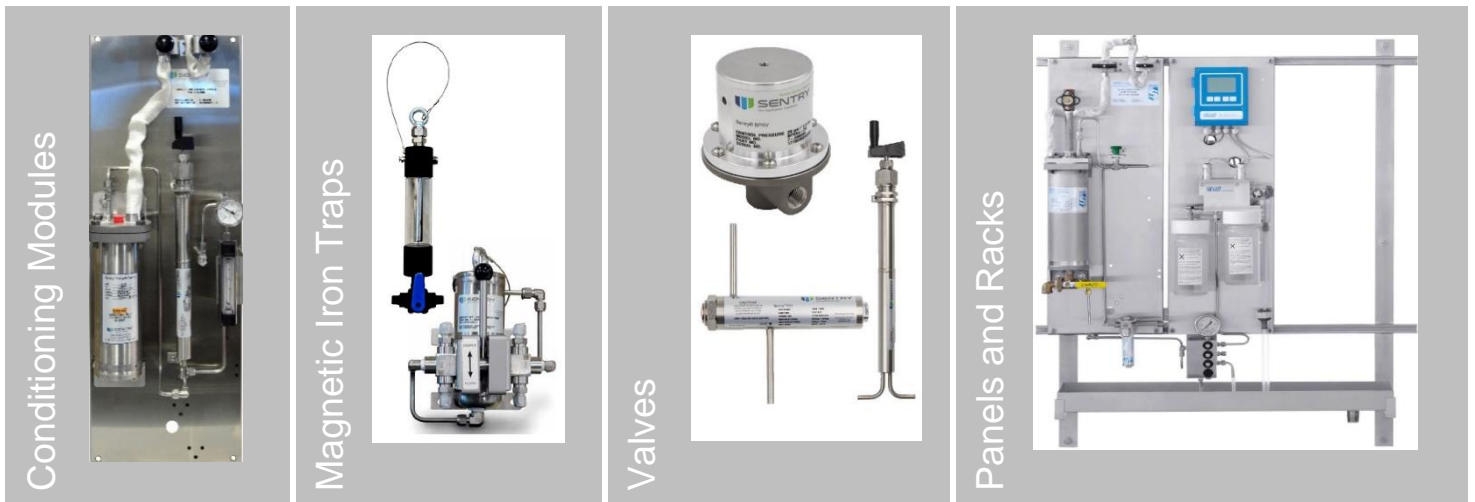
Sample Conditioning for Water Analysis

SAMPLING EQUIPMENT FOR WATER ANALYZERS

- ▶ Sample Coolers, Magnetic Traps, and Valves
- ▶ Custom Racks
- ▶ Complete Analyzer Systems
- ▶ Custom Enclosures



Sample Conditioning



Single Line Conditioning Modules

- Pre-piped assemblies to simplify steam conditioning
- Complete with valves and readouts
- Models for max pressure of 550 or 3030 psig
- Models for temperatures to 450F or 1000F

Magnetic Traps for High, Medium & Low Pressure

- Remove magnetite particles preventing measurement errors and analyzer damage
- High strength neodymium magnets attract and capture magnetite
- Choose low (100 psig) or medium (2500 psig) or high (5000 psig) models

Pressure Reduction & Relief, & Thermal Shutoff Valves

- Prevent sampling problems from pressure and temperature
- Stainless steel components for durability
- BPRV for constant pressure of 20 psig
- VREL for up to 5000 psig
- TSV for standard trip at 120F

Complete custom racks with user selected legs, sinks, analyzers and modules

- Wall mount and free-standing racks available
- Custom built to customer specifications; combine analyzers and sample conditioning as needed
- All fluidics connections configured and connected for user convenience
- All commonly serviceable parts and adjustments accessible from the front of the panel

For years Swan Analytical USA has provided a full range of reliable analyzers for Water Quality applications from Water Treatment Plants to Steam Cycle Analyzers for critical power plant measurements. Now we are offering even more complete solutions with selections of sample conditioning accessories and even complete custom panels. Contact us to discuss your application.



SWAN Analytical USA Inc.
225 Larkin Drive Unit 4
Phone +1 847 229 1290
Wheeling, IL 60090
info@swan-analytical-usa.com
www.swan-analytical-usa.com

Single Line Panel

For the local indoor installation of online analytics for a single water or steam sample. The system provides 40-50l/h of cooled sample at a constant pressure of (20 psi). See "Requirements" for technical constraints.

Base frame:

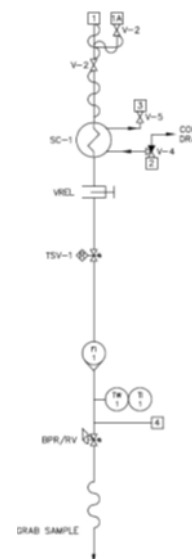
- Standard 304 SS backplate.
- Custom. Contact SWAN USA Sales.
- For indoor or outdoor installations
- Equipped with profiles for easy mounting of the sampling and instrument panels

Sample conditioning:

Conditioning panel for water or steam samples

up to 540°C and 150bar including:

- Cooling water valves (3, 4)
- Shut-off (1) and blow-down valves (1a)
- Sample cooler (SC-1)
- Flow regulation valve (VREL or Low Pressure needle)
- Temperature safety valve TSV Sentry (8)
- Sample flow indicator (FL-1)
- Back-pressure regulator



Requirements:

Environment:	Indoor or Outdoor, 5-45°C, non condensing
Cooling water:	Demin Water or Soft Water with chloride level <25ppm. Supply pressure 3-16 bar, differential pressure min. 1bar Temperature max 40°C Flow 1-1.5m ³ /h (water samples), 2-2.5m ³ /h (steam samples).
Sample:	Water or Steam T<540°C, 3<P<150bar from water-steam cycles. No corrosive contaminants or coarse particles allowed.
Sample blow-down:	Connection to a closed collector at atmospheric or low pressure is recommended, especially for samples with periodic solid content. Consult SWAN USA sales department if in doubt about any of the above conditions. Safe and reliable system operation can only be guaranteed if all conditions are fully met.

Mechanical Interfaces:

Interface	Connection type
Cooling Water Inlet / Outlet	1/2" ISO female pipe thread
Sample Inlet	1/4" compression fitting (F-301107: 3/8" compression fitting)
Sample blow-down	1/4" compression fitting with plug
Sample to instruments	1/4" tube for connection to instruments
Cold Drain	ISO pipe thread 1"R

- F-301106** Sample Cond Module Int Press
(Includes TLR4225 cooler, SS-1VS4 isolation valves, SS-4L Pressure reducer, Cooling water valves, Total flow indicator, BPRV, Temperature indicator, Thermal shut off valve)
Design pressure 50Bar, Temperature 538C, Flow 1000cc
- F-301107** Sample Cond Module Low Press
(Includes FLR6225 cooler, SS-3NBS4-G isolation valves, SS4L Pressure reducer, Cooling water valves, Total flow indicator, BPRV, Temperature indicator, Thermal shut off valve)
Design pressure 34 Bar, Temperature 232C, Flow 10001000cc
- F-301108** Sample Cond Module High Pres
(Includes TLR4225 cooler, SS-3NBS4-G isolation valves, VREL Pressure reducer, Cooling water valves, Total flow indicator, BPRV, Temperature indicator, Thermal shut off valve)
Design pressure 209Bar, Temperature 538C, Flow 1000cc
- F-301109** Sample Cond Hi Press/VH Temp
(Includes TLR42B5 cooler, SS-3NBS4-G isolation valves, VREL Pressure reducer, Cooling water valves, Total flow indicator, BPRV, Temperature indicator, Thermal shut off valve)
Design pressure 184Bar, Temperature 593C, Flow 1000cc
- F-301110** Sample Cond Low Press/Low Temp
(Includes no cooler, SS-1VS4 Pressure reducer, SS-4L pressure reducer, Total flow indicator, BPRV, Temperature indicator)
Design pressure 15Bar, Temperature 40C, Flow 1000cc

Additional pressure and flow rates may be available. (Contact Swan USA for information or consultation.)