

Thermo Scientific Online Accessories

Wide range from sample conditioning to verification and validation

We offer expert support and service to help you find the right product accessories for your water quality application. From sample conditioning to verification and validation — we've got it covered.

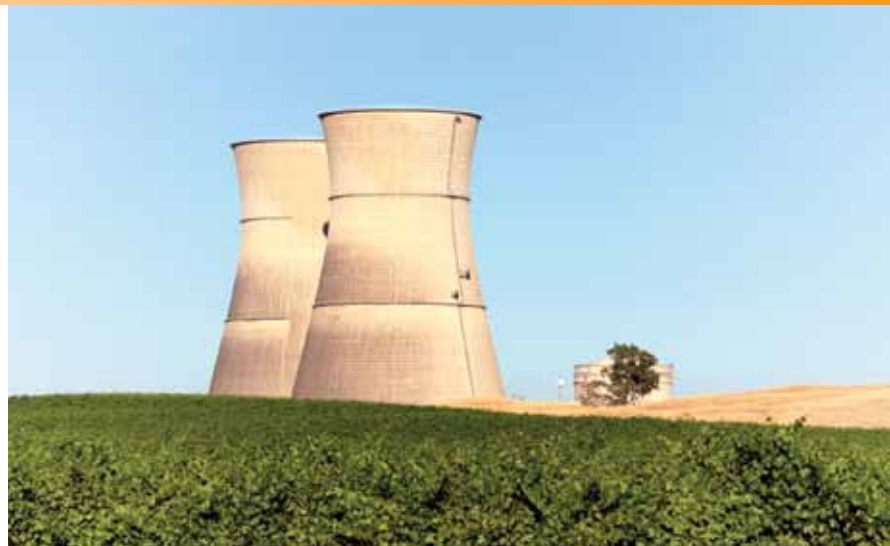


Markets:

- Power
- Pulp and Paper
- Chemical/Petrochemical

Applications:

- Reduce Temperature and Pressure of Steam Samples for Analysis
- Calibration
- Quality Control
- Quality Assurance



Low Level Verification System with Dynamic Calibrator

The low level verification system uses online dynamic dilution. The key component of this system is the dynamic syringe pump, which can deliver a steady flow rate of solution or standard down to 0.1 mL per minute. The low level verification kit includes an injection port that is installed into the downstream of flow regulation.

Many analyzers claim to measure in the low ppb range, but it can be difficult to verify that an online instrument is accurately reading at this low level. Part per billion standards are difficult to make and maintain, and transporting grab samples for laboratory analysis is difficult.

Calculations for the Expected Concentration of Standard

$$\frac{\text{Injected Standard} \times \text{Injected Standard}}{(\text{Sample} + \text{Injected Standard})} = \text{Expected Standard Concentration}$$

1803 Steam Conditioner

The Thermo Scientific™ 1803 steam conditioner is designed to take a high pressure steam sample (such as the process steam used in power plants, paper mills and oil refineries) and reduce the temperature and pressure down to the levels required by our online analyzers. Process steam is used in many industries; it is the analysis of this steam that has made online analyzers so important in the power, paper, petrochemical and other industries.

1803 Steam Conditioner Features

- Handles pressure up to 20,897 K Pa (3030 psi), the average process steam pressure is 6,896 K Pa (1000 psi)
- Able to reduce the temperature of the sample from 538 °C (1000 °F) to under 38 °C (100 °F)
- Purely mechanical and requires no electrical hook up, so it can be used in multiple countries regardless of the voltage requirements. It can also be used in hazardous locations without any danger of explosion



Product Specifications

Sample Requirement	Temperatures up to 538 °C (1000 °F)
Maximum Pressure	20,897 K Pa (3030 psi)
Panel Dimensions	30.5 cm x 91.5 cm x 17 cm (12 inch x 36 inch x 6.5 inch)
Material	Stainless steel

Ordering Information

Cat. No.	Description
180300	1803 steam conditioner
15DC15	Dynamic calibrator with syringe pump, syringe kits (150096 and 180096) and mounting bracket, 115 V
15DC20	Dynamic calibrator with syringe pump, syringe kits (150096 and 180096) and mounting bracket, 220 V
216970-A01	Low level verification kit, includes T-fitting and tubing
21GRFK	Fittings kit for 2100 series grab sampler

For more information or to contact your local Thermo Scientific water quality specialist, call 1-800-225-1480 or visit our website at www.thermoscientific.com/processwater



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