



// XPREP-A6 & // TUSCAN

Fully automated AOF/AOX/TOX column preparation and introduction.

TE Instruments has developed a total solution for the AOF/AOX/TOX column method. Due to fully automated column preparation and introduction, the analysis runs practically unattended. Combining the Xprep-A6 (preparation) together with the Tuscan (introduction), makes up a high throughput system at an attractive price/performance ratio.

While the analysis is running, empty columns can be removed and fresh pretreated columns may be placed again. Simply add new samples to the sample list. The data, generated by TEIS software, is reliable and accurate.

Running the analysis, practically unattended, has become the new reality. Up to 42 columns can be loaded into the Tuscan column autosampler. A full AOX run will take approximately 6-7 hours. While the Xplorer/Xprep C-IC is analyzing, fresh columns can be prepared with the Xprep-A6 again. This takes only 45 minutes for 12 columns, and provides the user enough time to refill the column autosampler before the next run. Another 42 columns will be analyzed!

The fastest column sample preparation system available in today's market!

// XPREP-A6

The Next Generation High Throughput Sample Preparation System

TE Instruments has developed a fully automated, stand-alone AOF/AOX/TOX column sample preparation system, which easily keeps up with your demand. Now, 12 columns are ready for analysis on the Xplorer/Xprep C-IC within 45 minutes. Just place them into the Tuscan column autosampler or the quartz cups of the Newton autosampler and press start.

It is that easy!

Simple & Robust



The new Xprep-A6 has the ability to automatically run 100 mL samples over the AOF/AOX/TOX columns at controlled sample flow of 3 mL/min. Once the water sample has passed through the columns a wash cycle automatically starts, which removes the inorganic load from the surface of the activated carbon. The surplus water and wash solution are collected in a central reservoir, which can be connected to a continuous drainage system or simply emptied when it is full. The Xprep-A6 version has 1 peristaltic pump. The pump is equipped with 6 channels and they are individually controllable in speed.

Principle of Operation

100 mL Sample is drawn from the sample bottle using a 100 mL syringe. The syringe is placed on the Xprep-A6 at the assigned position. After starting the instrument, the peristaltic pump draws the sample liquid by vacuum from the syringe and pulls it across the AOF/AOX columns at a rate of 3 mL/min. Once all samples have passed the columns, the pump pulls 25 mL wash solution over each of the columns. This removes the inorganic load from the activated carbon. The process is fully controlled by the sample preparation system.

Basic Model Configurable

The Xprep-A6 comes as a single pump configuration, it supports 6 sample containers and column positions. It runs 6 paired columns in full automatic mode, simultaneously. Adapters are available for different column sizes which makes the Xprep compatible with all sorts of AOF/AOX columns.

A true stand-alone!

Fast, Faster, Fastest how productive do you want to be?

Since all channels operate simultaneously, the system has some advantages. There is no other AOF/AOX column preparation system able to beat these numbers. For most AOF/AOX coulometric instruments, the Xprep-A6 keeps the analyzer busy for the next 12 hours.



Software Controlled

Embedded software controls the Xprep-A6. Each individual pump can be set differently. TEIS software makes it possible to create a sample list, to memorize which sample in the Tuscan is allocated to which position in the sample preparation system. Smooth interaction between the embedded software of the sample preparation system and the Xplorer/Xprep C-IC.

// TUSCAN

Autosampler for Direct Introduction of AOF/AOX Column Content

The Tuscan autosampler delivers the content of an AOF/AOX column into the Xplorer/Xprep C-IC sample boat.

Installation takes only 10 seconds!

Installation and repositioning of the sampler takes about 10 seconds, removing about 3 seconds. No calibration requirements at all. Mechanical fixture and power/control connections are fully integrated.

42 Columns for direct injection!



How Does it Work?



Once the columns are placed in the Tuscan, TEIS software controls the introduction of the samples. Assisted by boat introduction, there is full control over the combustion speed of sample and carbon. The Tuscan is capable of introducing all 42 columns without intervention, no need for cups anymore!

After a complete tray of samples is introduced, little remains are left in the boat. Because of the horizontal position of the furnace tube, there is absolutely no need for removing the combustion tube from the hot furnace. Removing ash and ceramic wool remains by emptying the boat only takes about 1 minute!

Integrates with TEIS Software!

TEIS software fully controls all sampler parameters, such as: priority of the sample, one or two columns in one combustion run, auto recognition, initialization procedure, auto adjustment and empty position alert. TEIS software provides methods compliant with ISO, EPA and DIN methods (e.g. ISO 9562, EPA 9020). Customization of desirable methods is possible.



Features Xprep-A6

- Fastest sample preparation
- Fully automated
- Small footprint
- Stand-alone
- Automatic rinse
- Compatible with all sorts of AOX columns
- Up to 6 channels
- Controlled sample flow
- Columns run simultaneously
- Default methods & norms
- Software controlled

Features Tuscan

- Easy and fast installation
- Fully automated
- Small footprint
- No need for removing furnace tube
- No need for cups
- Direct injection
- Default & customized methods
- Software controlled
- Integrates with TEIS software

Features Xprep-A6 along with the Tuscan

- Total solution
- Fully automated
- Reliable and accurate data
- Smooth interaction
- Ability to feed 2 analyzers
- Runs practically unattended
- Round the clock operation

Specifications Xprep-A6

Dimensions (W x H x D)	22 x 28 x 50 cm (8.7 x 11.0 x 19.7 inch)
Weight	10 kg (22 lbs)
Filtration	Automatic
Channels	6
Filtration Speed	3 mL/min default, 1 - 6 mL/min custom
Methods	Column method or custom defined methods
Sample volume	1 - 100 mL
Wash volume	25 mL default, 1 - 999 mL custom
Waste collection	Central waste collection with drain capability
Software	Independent

Specifications Tuscan

Dimensions (W x H x D)	17 x 25 x 16.3 cm (6.3 x 9.8 x 6.4 inch)
Weight	1.6 kg (3.5 lbs)
Injection	Automatic
Column Positions	42
Power Requirements	Supplied by Xplorer/Xprep C-IC, 24 V.
Max. Piston Power	200 Newton
Compatibility	Xplorer/Xprep C-IC
Sample Matrix	AOX/AOF methods

* Used images are examples of configurations which may deviate from ordered configurations.