

# 300 Series

## Fast Gas Chromatograph



# A New Type of GC

The 300 Series Fast GC from ACS/CSI is a new type of gas chromatograph using directly heated columns for rapid heating and cool down. It is truly a "FAST" GC with cycle times that are measured in seconds rather than minutes. The system does not have an oven as in conventional GC products because direct heating of the column eliminates the need for one.

The 300 Series Fast GC is equipped with a split/splitless injector, EFC (Electronic Flow Control), 4-channel EPPC (Electronic Programmable Pressure Control), a flame ionisation detector and boasts a small footprint of just 320mm x 370mm that makes it a valuable space saver.

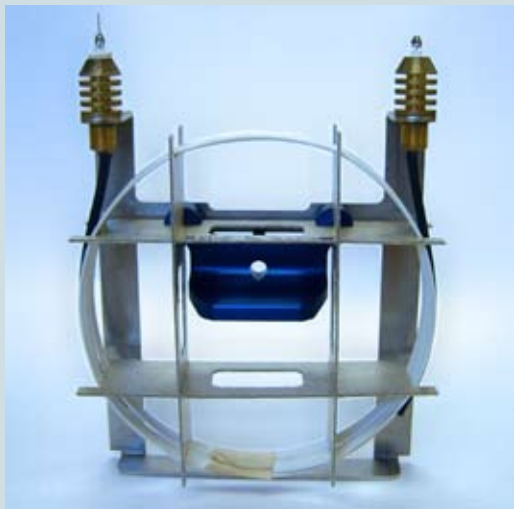
Another of the 300 Series GC's unique features is ACI (Automatic Column Installation). This feature de-skills the column installation procedure meaning now anybody can correctly install a column. Simply place the column cartridge in position, press the column install button and let the install mechanism align and seal the column.

The 300 Series GC can be controlled either from the control panel on the instrument or by USB or RS232 from a PC with the method download software that comes with it as standard.



## ACI makes column installation as simple as 1,2,3





## Latest Column Technology

The 300 Series Fast GC use the MXT range of inert stainless steel capillary columns from Restek. This means there is a wide range of phases, lengths and i.d's so you can find the perfect column to suit your application.

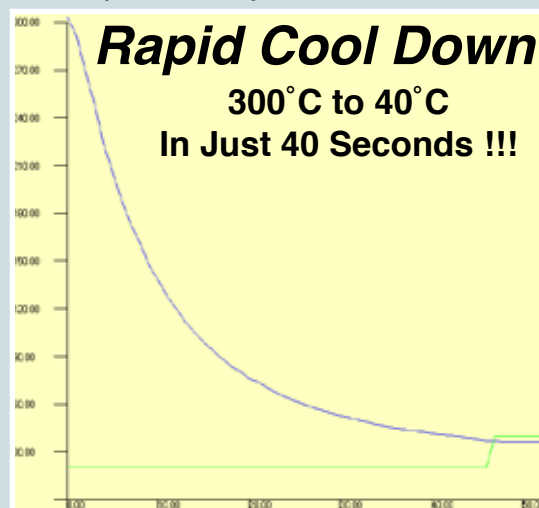
The 300 Series Fast GC directly heats the column by passing an electrical current through to resistively heat it. This allows for much faster heating and cooling whilst using considerably less power than a conventional air blown over GC, making it considerably more energy efficient.

## Really Fast Chromatography

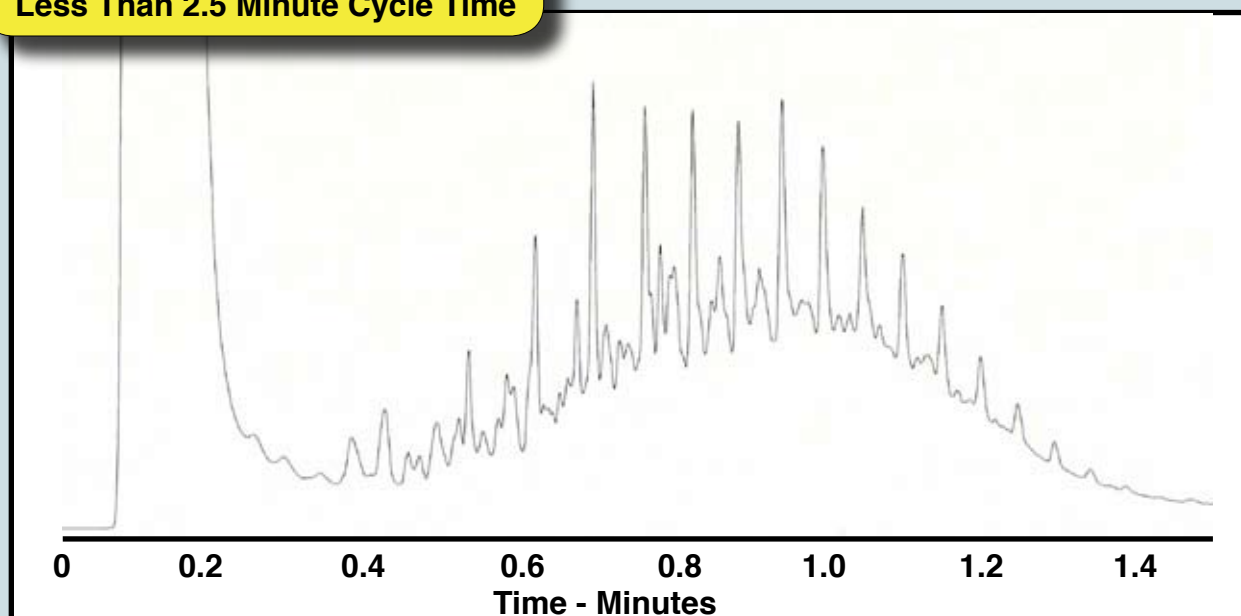
The unique oven-less design of the 300 Series means that only the column itself is heated. This means unlike a conventional GC there is very little mass making it much more efficient to heat up and cool down, there for temperature ramp rates and cool down times are considerably faster that what you would see in conventional chromatography. All of this means that analysis cycle times can be significantly reduced giving increased sample throughput and productivity.

### All this means

- Ultra Fast Heat Up and Cool Down
- Reduced Sample Cycle Times
- Higher Sample Throughput
- Increased Productivity
- Rapid Method Development
- Faster Results for Time Critical Applications



**Diesel Sample**  
Less Than 2.5 Minute Cycle Time



# Technical Specification

## Injectors

- Split/splitless injector supplied as standard with all instruments
- Maximum injection volume 3 microliter
- Maximum injector temperature 400°C

## Gas Controls

Full electronic control of:

- Detector fuel line flow 0-50ml/min
- Detector air line flow 0-500ml/min
- Column pressure 0-50psi
- Split flow 0-120ml/min (for N<sub>2</sub> 0-80ml/min)

## Columns/Column Heating

- Can accept any Restek MXT column from 3-15m in length, 0.18-0.53mm ID, and in any available phase
- Temperature range is from 5°C above ambient to 420°C
- Maximum column ramp rate 400°C/min
- Maximum isothermal temperature is 120°C

## Detectors

- Flame ionisation detector (FID)
- Temperature range is from 100°C to 400°C

## Control

- Built-in keypad, incorporating 2x16 character LCD display
- PC control via method download software

## Size / Weight

- Size 34cm (H) x 37cm (W) x 32cm (D)
- Weight 7.5kg, 15lbs

## Power

115V/230V, 50/60Hz 850VA internally switchable

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