

## **AI/AS 3000 Series II**

### **CONTENTS**

<b>3000 Series II Liquid Sampling System For TRACE / Focus GC</b>	page 2
• AI 3000 II Auto-injector for liquids	page 2
• AS 3000 II Auto-sampler for liquids	page 3
• AS 3000 II Auto-sampler Upgrade for AI 3000 II	page 4
• Accessories for AI/AS 3000 II	page 4
• Spare parts for AI/AS 3000 II	page 5

*Part number/Option*

*Description*

**3000 Series II Liquid Sampling Systems for TRACE GC Ultra / Focus GC**

The 3000 Series II liquid autosamplers are the next evolution of the 3000 Series, conceived to be compliant with the latest RoHs requirements, and to provide the Gemini configuration for more productivity.

On top, the motor control has been achieved incorporating the most advanced technology available on the market, in order to deliver smoother movements and finer precision of the sampling turret.

**251 17552**

**AI 3000 II Auto-injector for liquids for TRACE GC Ultra**

The AI 3000 II for TRACE GC Ultra is compatible with vaporizing injectors (SSL, PKD, PPKD and PTV) ONLY.

Method set-up may be accomplished either through the GC user interface or the dedicated data system set-up page (Chrom-Card, ChromQuest, Xcalibur).

On the TRACE GC Ultra the same AI 3000 II can be installed on both sides (left or right) just by swapping the position of the sample holder from one side to the other of the turret. This option includes all parts allowing installation of the auto-injector on the RIGHT hand side.

To mount the AI 3000 II on the left hand side, the appropriate mounting bracket for Left hand side (p/n 36812740) MUST be purchased separately.

The auto-injector is installed on top of the GC and permits manual injections without removing or disconnecting the unit from the GC.

Up to 2 AI 3000 II units can be installed on each instrument (see Kit 3000 II Gemini below).

AI 3000 II technical specifications:

- Sample capacity: 8 x 2 ml vials
- Solvent vials: 4 x 4ml vials
- 50 ml waste bottle
- Single solvent rinsing: Solvent A, B, C, D
- Combined solvent rinsing: solvent A+B, solvent C+D
- Solvent Rinsing: Pre and/or Post injection
- Max. injectable volume: 5 uL
- injectable volume selection in 0.1 ul steps
- Bubble elimination strokes: 0-15 with pre-set and optimised speed
- Sampler rinsing: 0-15
- Syringes: 10 uL (standard) and 5 uL (optional micro-volume sampling)
- Sampling depth in vial: bottom/centre
- Needle depth in injector: “Standard” (Hot Empty Needle) / “Minimum” (Cold Needle)
- Dwell time (Only when “Standard” Needle Depth is selected):
  - Pre-injection: 0-63 secs
  - Post-injection: 0-63 secs
- Viscosity delay: yes/No

Additional important features are:

- Automatic selection of sample withdrawal speed (viscosity delay): yes/no
- Automatic injection speed selection
- Automatic filling speed
- Automatic addition of 1uL of air gap
- Safety switches: activated with front door opening

*Part number/Option*

*Description*

- Removable 8 position sample tray with label
- Fixed guides for quick auto-injector positioning
- Self alignment over injector and vials
- Automatic recognition of vacant vial

The autoinjector is supplied with:

- 8 positions sample tray
- 2 ml screw top vials, complete with plastic caps and septa (set of 10)
- 4 ml solvent vials with caps and septa (set of 5)
- 50 ml waste bottle
- 1 x Centering guide for SSL, PKD and PPKD injectors
- 1 x Centering guide for PTV injector
- GC mounting bracket for TRACE GC Ultra, Right hand side
- Cables and connections
- 1 x 10 uL micro-syringe with 50 mm needle syringe
- Instruction manual

**251 17562**

**AS 3000 II Auto-sampler for liquids for TRACE GC Ultra**

The AS 3000 II for TRACE GC Ultra is compatible with vaporizing injectors (SSL, PKD, PPKD and PTV) ONLY.

Method set-up is performed through the GC user interface or the dedicated data system set-up page (Chrom-Card, ChromQuest, Xcalibur).

On the TRACE GC Ultra the same AS 3000 II can be installed on both sides (left or right) just by swapping the position of the sample tray from one side to the other of the turret. This option includes all parts allowing installation of the auto-sampler on the RIGHT hand side.

To mount the AS 3000 II on the left hand side, the appropriate mounting bracket for Left hand side (p/n 36812740) MUST be purchased separately.

The auto-sampler is installed on top of the GC and permits manual injections without removing or disconnecting the unit from the GC.

Up to 2 AS 3000 II units can be installed on each instrument (see Kit 3000 II Gemini below).

AS 3000 II technical specifications:

- Sample capacity: 105 x 2 ml vials
- Solvent vials: 4 x 4ml vials
- 50 ml waste bottle
- Single solvent rinsing: Solvent A, B, C, D
- Combined solvent rinsing: solvent A+B, solvent C+D
- Solvent Rinsing: Pre and/or Post injection
- Max. injectable volume: 5 uL
- injectable volume selection in 0.1 ul steps
- Bubble elimination strokes: 0-15 with pre-set and optimised speed
- Sampler rinsing: 0-15
- Syringes: 10 uL (standard) and 5 uL (microvolume sampling)
- Sampling depth in vial: bottom/centre
- Needle depth in injector: "Standard"/"Minimum"
- Dwell time (Only when "Standard" Needle Depth is selected):
  - Pre-injection: 0-63 secs
  - Post-injection: 0-63 secs
- Viscosity delay: yes/No

*Part number/Option*

*Description*

Additional important features are:

- Automatic selection of sample withdrawal speed (viscosity delay): yes/no
- Automatic injection speed selection
- Automatic filling speed
- Automatic addition of 1uL of air gap
- Safety switches: activated with front door opening
- Removable 8 and 105 position sample trays
- Fixed guides for quick auto-sampler positioning
- Self alignment over injector and vials
- Automatic recognition of vacant vial

The autoinjector is supplied with:

- 105 positions sample tray
- 2 ml screw top vials, complete with plastic screw caps and septa (set of 110)
- 4 ml solvent vials (set of 5) with caps and septa
- 50 ml waste bottle
- 1 x Centering guide for SSL PKD and PPKD injectors
- 1 x Centering guide for PTV injector
- GC mounting bracket for TRACE GC Ultra, Right hand side
- Cables and connections
- 1 x 10 uL microsyringe with 50 mm needle syringe
- Instruction manual

**251 17551**

**AI 3000 II Auto-injector for liquids for Focus GC**

Same as p/n 25117552, but includes Mounting Brackets for Focus GC (p/n 36812732).

**251 17561**

**AS 3000 II Auto-sampler for liquids for Focus GC**

Same as p/n 25117562, but includes Mounting Brackets for Focus GC (p/n 36812732).

**190 50294**

**AS 3000 II Auto-sampler Upgrade Option for AI 3000 II Auto-injector**

This option allows to upgrade an existing AI 3000 II Autoinjector from 8 position system to the 105 capacity AS 3000 II Autosampler.

Includes the support for the rotating carousel with motor, integrated electronics for AS 3000 II and cables, the 105 sample tray, set of 100 vials complete of caps and septa, and instruction manual for AS 3000 II Autosampler.

**ACCESSORIES FOR AI/AS 3000 SERIES II AUTOMATIC SAMPLERS**

**190 50637**

**Kit 3000 II Gemini**

This kit allows synchronised control of 2 autosamplers AI/AS3000 II units for simultaneous injections on 2 TRACE GC Ultra channels (Left and Right). The two autosamplers must be purchased separately: Right AS3000 p/n 251 17562; Left AS3000 p/n 251 17562 + mounting bracket for Left hand side p/n 36812740.

This kit includes therefore special link cables suitable for synchronisation of the ready-signal of the two autosamplers.

**190 50225**

**Kit for Merlin Septumless device**

This kit allows automation and use of the Merlin septum-less micro-seal device on both the TRACE GC Ultra and the Focus GC with the AI/AS 3000 II series samplers.

<i>Part number/Option</i>	<i>Description</i>
	It includes the AI/AS 3000 centering guide for SSL injector and 1 x 10 uL 23 gauge, 50mm needle syringe (p/n 36520060). The Merlin micro-seal kit (p/n 19050205) MUST be purchased separately.
<b>190 50275</b>	<b>Kit for Nano-volumes injections</b> The kit includes a 0.5 µl syringe (p/n 36504045) and one double gooseneck liner to allow nano-volume automated injections with the use of the 3000 II Series liquid sampling system.
<b>453 22080</b>	Double gooseneck liner for nano-volume split injections automated through AI/AS3000 II (set of 2)
<b>368 12740</b>	Mounting Bracket for TRACE GC Ultra Left hand side for AI and AS 3000 II.
<b><i>Spare parts for AI/AS 3000 and AI/AS 3000 II</i></b>	
<b>365 00525</b>	10 uL, 50mm needle syringe for split/splitless injections
<b>365 00505</b>	5 uL, 50mm needle syringe for micro-volume split/splitless injections
<b>365 04045</b>	0.5 µl syringe SGE type, 50mm needle syringe for nano-volumes split injections (for AI/AS3000 only)
<b>365 20060</b>	10 uL capacity syringe with 50mm long, gauge 23-cone shaped fixed needle. This syringe must be used when performing injections through the Merlin septumless microseal device installed on the BEST PTV injector (split or splitless modes) or on the SSL injector (ONLY split mode).
<b>240 14021</b>	2 ml screw top vials, set of 100 (require screw top cap with septa p/n 38606092)
<b>240 14019</b>	2 ml Screw-top vials plus screw-top caps with septa, (Thermo brand combination of vials 24014021 and caps/septa 38606092).
<b>240 14031</b>	4 ml Solvent vials, set of 100 (require screw top cap with septa p/n 38606092)
<b>240 74003</b>	2 ml Crimp-top vials, 11 mm finish (set of 100); require 11 mm aluminum caps and seals 38606040.
<b>240 14026</b>	300uL micro-volume sampling vials, set of 100 (require screw top cap with septa p/n 38606092)
<b>386 06092</b>	Screw-top caps for 2 ml, 4 ml and 300 uL vials complete with septa, set of 100
<b>386 06040</b>	11 mm aluminum caps, with teflon faced septa (set of 100).
<b>190 04646</b>	Set of 5 Waste bottle complete with septa and caps.
<b>313 03217</b>	Septa for waste bottle set of 100
<b>386 06074</b>	Screw caps for waste bottle, set of 100
<b>240 10140</b>	8 position sample tray with label
<b>240 10145</b>	105 position tray for AS 3000
<b>302 06703</b>	Deactivated glass Wool, 10g. To be used for liner packing when working with the AI/AS 3000 in "Minimum" needle depth mode (Cold Needle type injection)
<b>230 43610</b>	Flat Cable H-Flex 26F/16F+10F (FC1389) for AI/AS 3000
<b>230 45617</b>	Flat Cable H-Flex 26F/16F+10F (FC1526) for AI/AS 3000 II
<b>230 45612</b>	Round Cable H-Flex 34-pin (FC1377) for AI/AS 3000
<b>230 45615</b>	Round Cable H-Flex 34-pin (FC1524) for AI/AS 3000 II