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 **Carl Stuart Limited**

ADVANCED APPLIED TECHNOLOGIES

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**PHYSICAL SPECIFICATIONS:**

- \* **Construction:** Metal and glass ind. traps part N° 1000-series; Kit models part N° 2000-series
- \* **Max. inlet pressure:** 160 psi (11 bar).
- \* **Maximum flow:** 1/4" 25 L / min. 1/8" 12 L/min.
- \* **Operating Temperature:** -40° C to 65° C.
- \* **Dimensions:** 270 (L) x 32 mm (OD).
- \* **Gas Outlet Purity:** > 6.0 grade (purity level > 99.9999 %); rest impurities < 0.1 ppm at Flow of 2 L/min

**Ordering Information**  
**CLICK-ON Inline Super Clean™ Purifier**

**CLICK-ON Inline Super Clean™ Purifier**

- CO 1001** Moisture Trap
- CO 1002** Oxygen Trap
- CO 1003** Hydrocarbon Trap
- CO 1004** Combi Oxygen/Moisture Trap
- CO 1005** Triple Oxygen/Moisture/Hydrocarbon Trap
- CO 1006** Gas-Specific (He) Triple Oxygen/Moisture/Hydrocarbon Trap

**CO 1051** Indicating Triple Oxygen/Moisture/Hydrocarbon Trap

**CLICK-ON Inline Super Clean™ Purifier parts**

- CO 2001** CLICK-ON connector 1/4" Brass (2x)
- CO 2002** CLICK-ON connector 1/8" Brass (2x)
- CO 2010** CLICK-ON conn. 1/4" SS (2x)
- CO 2011** CLICK-ON conn. 1/8" SS (2x)
- CO 2020** CLICK-ON double connector SS

- CO 3001** Repl. O-ring set (10/pk)
- CO 3002** Wallmounting clamp (4/pk)
- CO 3003** Adapter 1/4" gasoline

Release date: June 2004

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**SGT**

**CLICK-ON Inline Super Clean™ Purifier**



Patent pending  
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SGT CLICK-ON Inline Super Clean™ Purifiers are suited for the purification of non-corrosive gases with low contamination concentrations to a better as 6.0 grade (99,99990%) purity. SGT CLICK-ON Inline Super Clean™ Purifiers are connected to an appropriate genuine CLICK-ON Connector which is only one time connected to the gas line.

## CAUTION

- The maximum concentration of **Oxygen** allowed in the gas before entering the indicating trap is 0,5%.
- Maximum Gas- maximum System pressure must **not exceed 11 Bar** (160 psi).
- Install outlet connector first, than inlet connector.
- Do not install** a purifier system near or in a **hot area** (i.e. the hot-air exhaust at the rear of the GC).
- Never re-condition** ever any trap: for evt. recycling, please contact your local supplier.
- Always install traps in the appropriate position with the **label at the front**.
- Installation of the connector to the gas line should be done by **experienced and/or certified personnel**.
- Please do not forget to perform a reliable **leak test**, especially when installing an indicating trap.
- During installation of a new CLICK-ON Inline Super Clean indicating purifier, torsion on the plastic outer protection tube should be **avoided** at any time; **watch out for cracks** in the inside glass tube after installation (valid only for GLASS CLICK-ON types of traps).
- The **screws** on the outside trap-housing on both sides should **never be removed**; in case these screws should be missing, the cartridge may not be installed, but should be returned to the supplier.
- CLICK-ON Connectors are available as spare parts – **do NOT repair damaged connectors** but replace by new ones.
- Only **use original SGT parts** to avoid mal-performance and loss of warranty.

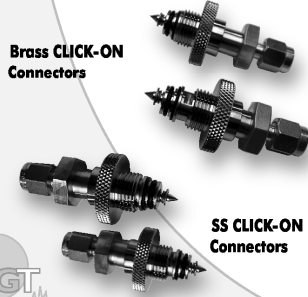
**NEVER INSTALL AN OXYGEN PURIFIER IN A GAS LINE FOR AIR: It will result in instant saturation!**

## 1. Installation of a CLICK-ON Connector

A CLICK-ON Connector is available for gas line tubing with OD of 1/4" and 1/8". These instructions are valid for each dimension of tubing; SGT advises to use for gas lines SS- or copper tubing preferably.

- shut off the incoming gas.
- if no trap previously in use: cut the gas line, using an appropriate metal tubing cutter.
- disconnect the gas line from the analytical instrument.
- turn the carrier gas on and **flush the gas line for 10 min.** with pure carrier gas, advised pressure: 90 psi.
- connect the CLICK-ON Connectors tight to both ends of the gas line.
- for SS-tubing: always use SS CLICK-ON Connectors; for copper tubing, you must use brass CLICK-ON Connectors.
- flush the incoming gas line + Connectors for 10 min.** with pure carrier gas, by pushing back the needle valve on the CLICK-ON Connector; **NOTE: SHARP EDGE!!** Advised pressure: 90 psi.
- attach CLICK-ON Trap to both CLICK-ON Connectors, by punching the white Teflon seals and tightening the knurled ring clockwise.
- Install outlet connector first, than inlet connector.
- flush the trap/whole system for at least 15 min.** with pure carrier gas, advised pressure: 90 psi. (except He-specific traps, they are already conditioned and need NO FLUSH); **do NOT CONNECT YET** the gas line to the analytical instrument!
- now mount the outgoing carrier gas line to the analytical system and you are „ready-to-go“: normally the user should not see any notable Argon or Nitrogen peaks in the chromatogram.
- Check whole system for leaks after installation!

**Brass CLICK-ON Connectors**



**SS CLICK-ON Connectors**

## NOTE:

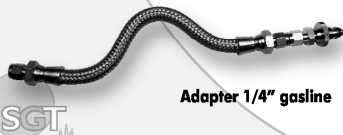
- Once the purifier is positioned to the CLICK-ON Connector the Teflon seals inside the purifier will be punctured and it is necessary to keep the trap in position by hand to prevent air entering the system.
- After installing the trap to the CLICK-ON Connector, highly pure gas will automatically stream from the purifier into the analytical system.
- Regularly check both the big and small Viton O-rings on the CLICK-ON Connector for hair cracks. The slightest leak may allow moisture, oxygen and hydrocarbons to enter the system and contaminate the system. Also check the GLASS indicating purifier cartridge for cracks with a leak detector.
- Indicator colour change with moisture adsorbents devices acc. EC Directive December 1998.
- All SGT purifiers are packed under Argon, except for the special, He-specific GC-MS filter
- As long as there is no trap connected, the special CLICK-ON Connector will automatically block the gas stream.

**NO GAS WILL PASS THROUGH THE GAS LINE!**

## 3. Replacement of a saturated CLICK-ON Purifier

- A purifier cartridge needs to be exchanged when the visual indicators (if applicable) start changing color. **The original indicator color and the color after saturation are printed on the front of the purifier.**
- For metal traps WHITOUT indicator it is strongly recommended to replace the trap ONCE A YEAR. Before installation of a new replacement trap:** make sure that the temperature of the replacement trap is more or less identical to the temperature of the (already installed) CLICK-ON Connectors on your gas line to avoid any leakage in connections. If temperature is not identical, use at least one hour stabilisation time in the same room as the connectors.

**Adapter 1/4" gasline**



## Specific Capacities of

### SGT CLICK-ON Inline Super Clean™ Purifier types

Purifier-Type	Gas Quality at outlet	Max. Pressure	Max. Flow	Usable for:	Indicator Color change
GC-Moisture	> 6.0	11 bar	1/4" : 25 l/min. 1/8" : 12 l/min.	Inert carrier gas: He *Air *H2	From yellow into transparent
GC-Oxygen	> 6.0	11 bar	1/4" : 25 l/min. 1/8" : 12 l/min.	Inert carrier gas	From green into gray
GC-Hydrocarbons	> 6.0	11 bar	1/4" : 25 l/min. 1/8" : 12 l/min.	Inert carrier gas: He *Air *H2	n.a.
GC-Combi (moist. + oxygen)	> 6.0	11 bar	1/4" : 25 l/min. 1/8" : 12 l/min.	Inert carrier gas: He *Air *H2	see under: Moisture & oxygen
GC-Triple (moist. + oxygen + hydrocarbons)	> 6.0	11 bar	1/4" : 25 l/min. 1/8" : 12 l/min.	Inert carrier gas	see under: Moisture & Oxygen

Purifier-Type	H2O (gr.)	Capacity O2 (ml.)	Hydro-Carbons (gr.)	Estimate life time
GC-Moisture	15	n.a.	n.a.	> 3 years
GC-Oxygen	n.a.	2000	n.a.	> 3 years
GC-Hydrocarbons	n.a.	n.a.	24 (as n-butane)	> 3 years
GC-Combi (moist. + oxygen)	7	n.a.	12 (as n-butane)	> 2 years
GC-Triple (moist. + oxygen + hydrocarbons)	4	1000	8 (as n-butane)	> 2 year

**NOTE:** the data given in the table strongly depend on the level of gas purity prior to entering the purifier. Replacement of the metal purifier cartridge without indicator is recommended anyway once a year.