# Sample Gas Cooler

## SGC1 & SGC2









#### **FEATURES**

- » High-quality robust design
- » Easy Installation
- » Suitable for Ambient up to 50°C
- » Operating Pressure 1.5 bar
- » Cooling Capacity 320 KJ
- » Flow Rate 550 LPH
- » 19" Rackmount available

#### **ADVANTAGES**

- » Ease of Maintenance
- » Optional Alarm Contacts
- » Single & Dual Coil Heat Exchanger
- » High Dew Point Stability
- » Housing options available
- » Mounting options available in same housing

#### **DESCRIPTION**

The Reliable & Long term operation of an Analyzer depends upon the efficiency of the Sample conditioning system for which a stable dew point of the sample is essential.

Axis Sample Gas Cooler is a compressor cooler equipped with efficient heat exchangers to provide stable dew point to the sample thereby ensuring security with precise performance of the Analyzer.

Cooling performance is ensured by having very tight control of temperature directly (not mechanical control for temp.)

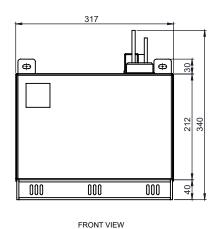
The heat exchanger is either Single Coil or Dual Coil so that two different streams can be catered. A very compact housing design ensures the best placement of other components while saving costs. Insulation at top of the heat exchanger effectively isolates the ambient effect.

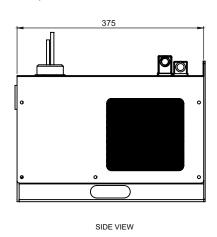


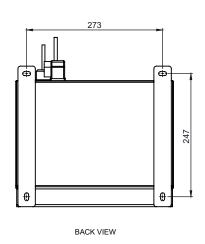


SGC1 (19" Rack Mount)

#### SGC1 WALL / BASE MOUNT (230/115 VAC, 50Hz) DIMENSION DETAILS

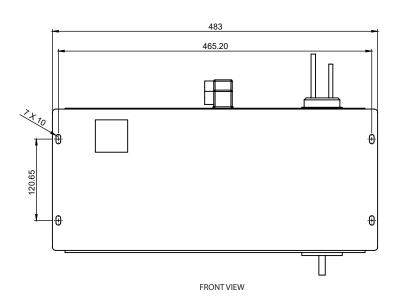


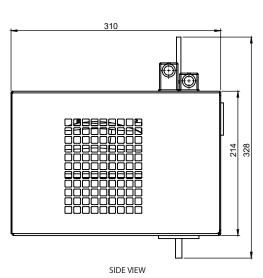




All Dimension are in MM

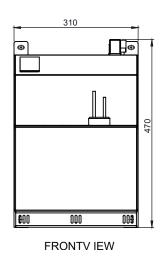
#### SGC1 19" RACK MOUNT DIMENSION DETAILS

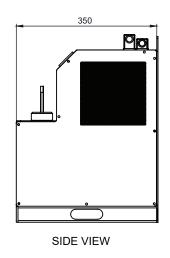


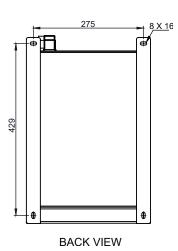


All Dimension are in MM

#### SGC1 WALL / BASE MOUNT (230/115 VAC, 60Hz) DIMENSION DETAILS







All Dimension are in MM

#### **TECHNICAL SPECIFICATION**

| General       | Туре                        | Refrigeration                           |   |  |  |  |
|---------------|-----------------------------|---|---|--|--|--|
|               | Mounting                    | Wall / Base Mounting /<br>19" Rackmount |   |  |  |  |
|               | Sample                      | Gas                                     |   |  |  |  |
|               | Weight                      | Approx. 19Kg                            |   |  |  |  |
| Material      | Housing                     | MS CRCA, SS<br>(on request)             | MS CRCA, SS 304 & SS 316 (on request)                     |  |  |  |
|               | Cooling Coil                | Copper                                  |   |  |  |  |
|               | Heat Exchange               | SS 316 / Glass                          |   |  |  |  |
|               | Finish                      |   | Powder-coated RAL 7035 for MS /<br>Buff finish for SS 304 |  |  |  |
| Connections   | Sample Gas Inlet            | 1/4" Tube                               |   |  |  |  |
|               | Sample Gas Outlet           | 1/4" Tube                               |   |  |  |  |
|               | Condensate Outlet           | 3/8" Tube                               |   |  |  |  |
| Electrical    | Power Supply                | 230 or 115 VAC, 50 Hz or 60 Hz          |   |  |  |  |
|               | Alarm Contact<br>(Optional) | Max. 250 V, 1A<br>(Resistive Load)      |   |  |  |  |
|               | Power Consumption           | Approx. 460V                            | Ά   |  |  |  |
| Functionality | Sample Gas Flow             | 550 LPH (Max                            | 0 LPH (Max.)  |  |  |  |
|               | Sample Outlet Temp.         | Approx. 5°C (+/- 1°C)                   |   |  |  |  |
|               | Operating Pressure          | 1.5 bar for heat exchanger              |   |  |  |  |
|               | Cooling Capacity            | 320 kJ                                  |   |  |  |  |
|               | Warm Up Time                | 10-12min. (Max.)                        |   |  |  |  |
|               | Ambient Temperature         | +5°C to +50°C                           | +5°C to +50°C   |  |  |  |
| Heat          |                             | SC                                      | DC  |  |  |  |
| Exchanger     | Flow Rate (Max.)            | 550LPH                                  | 2 x 225 LPH   |  |  |  |
|               | Max. Cooling Capacity       | 475 kJ/h                                | 475 kJ/h  |  |  |  |
|               | Dead Volume                 | 67 ml 30 ml x 2                         |   |  |  |  |
|               | Pressure drop               | < 0.1 bar                               | < 0.1 bar   |  |  |  |

#### **SPARES**

| Description             | Part No. | Quantity |
|-------------------------|----------|----------|
| SC – Single Coil HE SS  | ASPL3101 | 1 No.    |
| DC — Dual Coil SS HE SS | ASPL3403 | 1 No.    |

#### ORDERING INFORMATION

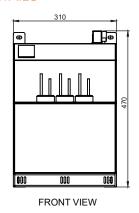
| SGC1 |     | <u> </u>    | VI O           |       | 0    | 0    |     |      |                       |
|------|-----|-------------|----------------|-------|------|------|-----|------|-----------------------|
| 3001 | Pow | ower Supply |                |       |      |      |     |      |                       |
|      | 0   |             | .i outhil      |       |      |      |     |      | 115 VAC, 50 Hz        |
|      | 1   |             |                |       |      |      |     |      | 230 VAC, 50 Hz        |
|      | 2   |             |                |       |      |      |     |      | 115 VAC, 60 Hz        |
|      | 3   |             |                |       |      |      |     |      | 230 VAC, 60 Hz        |
|      | J   | Ноп         | ısing l        | Mater | ial  |      |     |      | 230 VAC, 00 112       |
|      |     | 0           | J              | Mater | iui  |      |     |      | MS CRCA Powder Coated |
|      |     | 1           |                |       |      |      |     |      | SS 304                |
|      |     | 2           |                |       |      |      |     |      | SS 316                |
|      |     |             | Heat Exchanger |       |      |      |     |      |                       |
|      |     |             | 0              |       |      |      |     |      | Without               |
|      |     |             | 1              |       |      |      |     |      | SC, Single Coil, SS   |
|      |     |             | 2              |       |      |      |     |      | DC, Dual Coil, SS     |
|      |     |             | 3              |       |      |      |     |      | TG, Single Coil       |
|      |     |             | 4              |       |      |      |     |      | DTG, Dual Coil        |
|      |     |             |                | Alar  | т Ор | tion |     |      |                       |
|      |     |             |                | 0     |      |      |     |      | Without               |
|      |     |             |                | 1     |      |      |     |      | With                  |
|      |     |             |                |       |      |      | Тур | e of | Model                 |
|      |     |             |                |       |      |      | 0   |      | Standard Cooler       |
|      |     |             |                |       |      |      | 1   |      | CE Certified Cooler   |
|      |     |             |                |       |      |      |     | Тур  | e of Mounting         |
|      |     |             |                |       |      |      |     | 0    | Wall / Base Mount     |
|      |     |             |                |       |      |      |     | 1    | 19" Rack Mount*       |

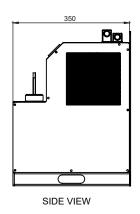
Note: (\*) This option is not available with 230 VAC, 60Hz

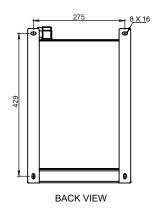


### Sample Gas Cooler SGC2

#### **DIMENSION DETAILS**







All Dimension are in MM

#### **TECHNICAL SPECIFICATION**

| General       | Туре                     | Refrigeration   |                       |  |  |  |
|---------------|--------------------------|---|-----------------------|--|--|--|
|               | Mounting                 | Wall / Base M   | ounting               |  |  |  |
|               | Sample                   | Gas   | Gas                   |  |  |  |
|               | Weight                   | Approx. 19Kg  |                       |  |  |  |
| Material      | Housing                  | MSCRCA, SS 304 & SS 316 (on request)                      |                       |  |  |  |
|               | Cooling Coil             | Copper  |                       |  |  |  |
|               | Heat Exchange            | SS 316 / Glass  | 5                     |  |  |  |
|               | Finish                   | Powder coated RAL 7035 for<br>MS / Buff finish for SS 304 |                       |  |  |  |
| Connections   | Sample Gas Inlet         | 1/4" Tube   |                       |  |  |  |
|               | Sample Gas Outlet        | 1/4" Tube   |                       |  |  |  |
|               | Condensate Outlet        | 3/8" Tube   |                       |  |  |  |
| Electrical    | Power Supply             | 230 or 115 VA   | 230 or 115 VAC, 50 Hz |  |  |  |
|               | Alarm Contact (Optional) | Max. 250 V, 1A<br>(Resistive Load)                        |                       |  |  |  |
|               | Power Consumption        | Approx. 460VA   |                       |  |  |  |
| Functionality | Sample Gas Flow          | 550 LPH   |                       |  |  |  |
|               | Sample Outlet Temp.      | Approx. 5°C (+/- 1°C)                                     |                       |  |  |  |
|               | Operating Pressure       | 1.5 bar for heat exchanger                                |                       |  |  |  |
|               | Cooling Capacity         | 320 kJ  |                       |  |  |  |
|               | Warm Up Time             | 10-12min. (Ma   | x.)                   |  |  |  |
|               | Ambient Temperature      | +5°C to +50°C   | ,                     |  |  |  |
| Heat          |                          | SC  | DC                    |  |  |  |
| Exchanger     | Flow Rate (Max.)         | 550LPH  | 2 x 225 LPH           |  |  |  |
|               | Dead Volume              | 67ml  | 30 ml x 2             |  |  |  |
|               | Pressure drop.           | < 0.1 bar   | < 0.1 bar             |  |  |  |

#### **SPARES**

| Description            | Part No. | Quantity |  |
|------------------------|----------|----------|--|
| SC – Single Coil HE SS | ASPL3101 | 1 No.    |  |
| DC – Dual Coil HE SS   | ASPL3403 | 1 No.    |  |

#### ORDERING INFORMATION

| SGC2    |              |       |            |               |        |        |           |       |                             |  |  |
|---------|--------------|-------|------------|---------------|--------|--------|-----------|-------|-----------------------------|--|--|
|         | Power Supply |       |            |               |        |        |           |       |                             |  |  |
|         | 0            |       |            |               |        |        |           |       | 115 VAC, 50 Hz              |  |  |
|         | 1            |       |            |               |        |        |           |       | 230 VAC, 50 Hz              |  |  |
|         |              | Hou   | sing M     | ing Material  |        |        |           |       |                             |  |  |
|         |              | 0     |            |               |        |        |           |       | MSCRCA Painted RAL7035      |  |  |
|         |              | 1     |            |               |        |        |           |       | SS304                       |  |  |
|         |              | 2     |            |               |        |        |           |       | SS316                       |  |  |
|         |              |       | Coo        | ler wit       | h No.  | of He  | at Ex     | chang | er                          |  |  |
|         |              |       | 0          |               |        |        |           |       | Without Heat Exchanger      |  |  |
|         |              |       | 1          |               |        |        |           |       | Cooler with Three Heat      |  |  |
|         |              |       |            |               |        |        |           |       | Exchanger                   |  |  |
|         |              |       | 2          |               |        |        |           |       | Cooler with Four Heat       |  |  |
|         |              |       |            |               | -      |        | Exchanger |       |                             |  |  |
|         |              |       | Gas Paths* |               |        |        |           |       |                             |  |  |
|         |              |       |            | 0             |        |        |           |       | Without Heat Exchanger      |  |  |
|         |              |       |            | 1             |        |        |           |       | 1 Gas Path                  |  |  |
|         |              |       |            | 2             |        |        |           |       | 2 Gas Path                  |  |  |
|         |              |       |            | 3             |        |        |           |       | 3 Gas Path                  |  |  |
|         |              |       |            | 4             |        |        |           |       | 4 Gas Path                  |  |  |
|         |              |       |            |               | Heat   | t Excl | nange     | r     |                             |  |  |
|         |              |       |            |               | 0      |        |           |       | Without Heat Exchanger      |  |  |
|         |              |       |            |               | 1      |        |           |       | Single Stainless Steel Heat |  |  |
|         |              |       |            |               |        |        |           |       | Exchanger                   |  |  |
|         |              |       |            |               | 2      |        |           |       | Single Glass Heat Exchanger |  |  |
|         |              |       |            |               |        | Ala    | rm Op     | tion  |                             |  |  |
|         |              |       |            |               |        | 0      |           |       | Without                     |  |  |
|         |              |       |            |               |        | 1      |           |       | With                        |  |  |
|         |              |       |            |               |        |        | Туре      | of M  | odel                        |  |  |
|         |              |       |            |               |        |        | 0         |       | Standard Model              |  |  |
|         |              |       |            |               |        |        | 1         |       | CE Certified                |  |  |
|         |              |       |            | Type of Mount |        |        |           |       | of Mounting                 |  |  |
|         |              |       |            |               |        |        |           | 0     | Base Mount                  |  |  |
|         |              |       |            |               |        |        |           | 1     | Wall Mount                  |  |  |
| Note:(* | ) up to      | 8 gas | s paths    | upon          | reaues | st     |           |       |                             |  |  |

Note:(\*) up to 8 gas paths upon request