

Rosemount™ Model 700 Breather Drain

Optional Breather Drain



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Failure to follow this warning will result in death or serious injury to personnel.

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Failure to follow this warning may result in serious injury to personnel.

⚠ CAUTION

MAY CAUSE DAMAGE TO EQUIPMENT

Failure to follow this warning may result in damage to the equipment.

NOTICE

Important messages will appear in this format.

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1 Certifications

1.1 Certifications for the Rosemount Model 700 Breather Drain

These instructions provide guidance for the safe installation of the optional Ex D Breather Drain accessory for the Rosemount Model 700 Gas Chromatograph.

The breather drain plug is the following type:

Table 1-1: Breather/Drain

Specification	Description
Manufacturer: Emerson P/N:	Hoffman Enclosures Inc. 2-3-0700-739 (ATEX and IEC configurations only) ATEX Certificate: ITS13ATEX17900X <ul style="list-style-type: none"> • Ex d IIC Gb T6 • (Ta = -20 °C to 60 °C) IECEx Certificate: IECEx ITS 13.0049X <ul style="list-style-type: none"> • Ex d IIC Gb T6 • (Ta = -20 °C to 60 °C)
Manufacturer: Emerson P/N:	Killark 2-3-0700-740 (US and Canada configurations only) CSA/US: <ul style="list-style-type: none"> • Class I, Zone 1, AEx d IIC, Enclosure Type 4. Class I, Division 1, Groups B, C, and D, IP66 CSA/CANADA: <ul style="list-style-type: none"> • Class I, Zone 1, Ex d IIC, Enclosure Type 4. Class I, Division 1, Groups B, C, and D, IP66
NEMA	Type 4, 4X
IEC 60529	IP66

2 Specifications

2.1 Rosemount Model 700 O-ring specifications

Table 2-1: O-ring Materials and Temperature Limits

O-ring Material ⁽¹⁾	Limiting Temperature
Nitrile	-20 °C to 80 °C
EPDM	-30 °C to 125 °C
Neoprene	-20 °C to 100 °C
Silicone	-30 °C to 150 °C
Fluorosilicone	-50 °C to 150 °C

(1) It is the responsibility of the Emerson GC Service Team to ensure that the appropriate O-ring material is selected according to the type of application.

3 Installation

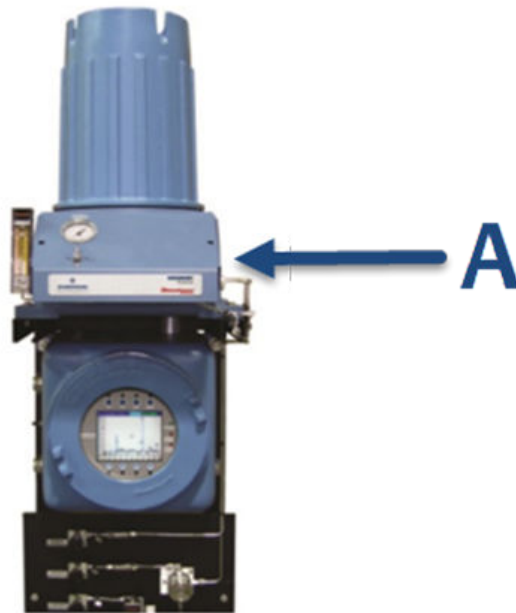
3.1 Install the breather drain

This installation procedures give general instructions for the safe installation of the optional Ex d breather drain.

Important

The breather drain accessory option is available for GCs without the optional LSIV only.

Figure 3-1: Rosemount Model 700 Breather Drain Installation Location

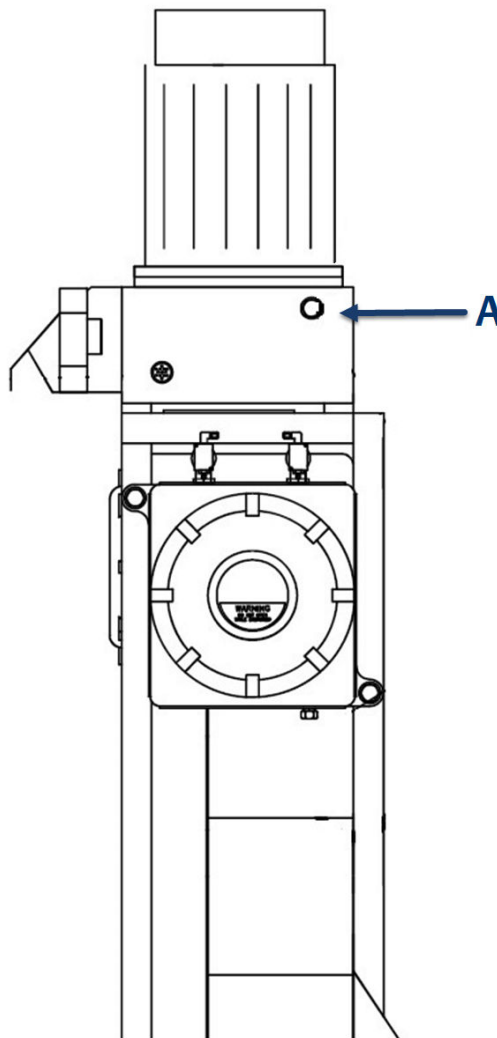


A. Breather drain installation location

Procedure

1. Install the breather drain in accordance with relevant local code and standards in the location as shown in [Figure 3-2](#).

Figure 3-2: Rosemount Model 700 Right Side View

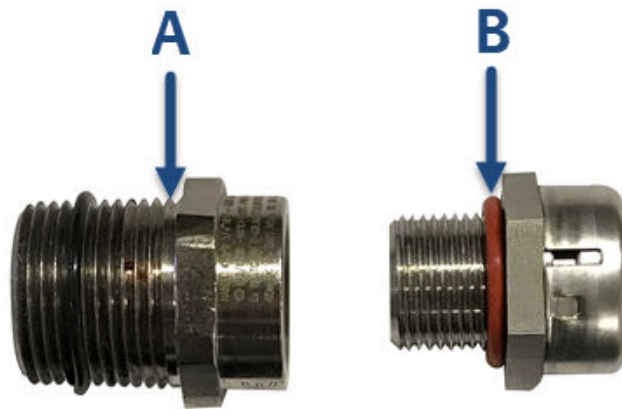


A. Breather drain plug installation location

2. De-energize the GC before commencing installation or maintenance procedures.
3. Installation of the breather drain is carried out by a recognized Emerson Service Technician, familiar with hazardous area classifications and trained in GC maintenance practices.
4. Remove dust, moisture, or debris from the area around the breather drain $\frac{3}{4}$ in. NPT opening (see [Figure 3-2](#)) to maintain the correct IP rating of the Rosemount Model 700 Gas Chromatograph.

5. Select the correct O-ring and fit it to the breather drain. Refer to [Rosemount Model 700 O-ring specifications](#).
6. Ensure the O-ring is properly seated in the groove in the breather plug.

Figure 3-3: Breather Drain O-rings for ATEX and IEC Applications

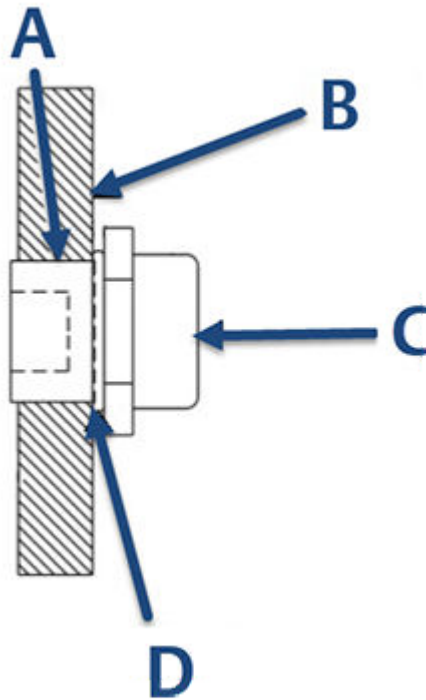


- A. Adapter with O-ring*
B. Breather drain with O-ring
-

7. Thread the breather drain into the $\frac{3}{4}$ in. NPT opening in the GC enclosure.

8. Hand-tighten using a $\frac{7}{8}$ in. combination wrench or spanner and ensure the drain is properly seated and securely tightened.

Figure 3-4: Breather Drain Assembly



- A. Tapped hole
B. External wall of GC enclosure
C. Breather drain
D. O-ring seal

9. The recommended installation torque for the breather drain is as follows:

Thread Size	Recommended Installation Torque
$\frac{3}{4}$ in. NPT	Wrench tighten

4 Maintenance

4.1 Maintaining the breather drain

This section provides general maintenance for the Rosemount Model 700 breather drain.

Procedure

1. Check the breather drain during routine maintenance of the enclosure.
2. Remove surface debris that may accumulate on the internal O-ring dust seal using compressed air.
3. Clean the exterior drainage holes, if blocked, using compressed air.
4. During maintenance or routine inspection, replace the breather drain if it is damaged or broken.
5. Remove dust, moisture, or debris from the area around the breather drain $\frac{3}{4}$ in. NPT opening (see [Figure 3-2](#)) to maintain the correct IP rating of the Rosemount Model 700 Gas Chromatograph.
6. Follow the procedure, [Install the breather drain](#), to replace the breather drain.




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