

TGF11

Tracer Gas Filler



**CONTROLLED FILLING AND
EVACUATING OF TRACER GAS
FOR LEAK TESTING**

Controlled hydrogen and helium tracer gas filling

For reliable leak testing it is absolutely crucial to have the entire test object filled with tracer gas, at the right time and with the right pressure. The new stand-alone INFICON TGF11 Tracer Gas Filler provides a proven quick-start solution. It lowers process costs by optimizing and accelerating the entire gas filling process.

The instrument independently fills tracer gas into the test parts and controls the filling pressure. Dual ports for filling and evacuation allow for short cycle times. After the leak test, it also evacuates the tracer gas to avoid false leak

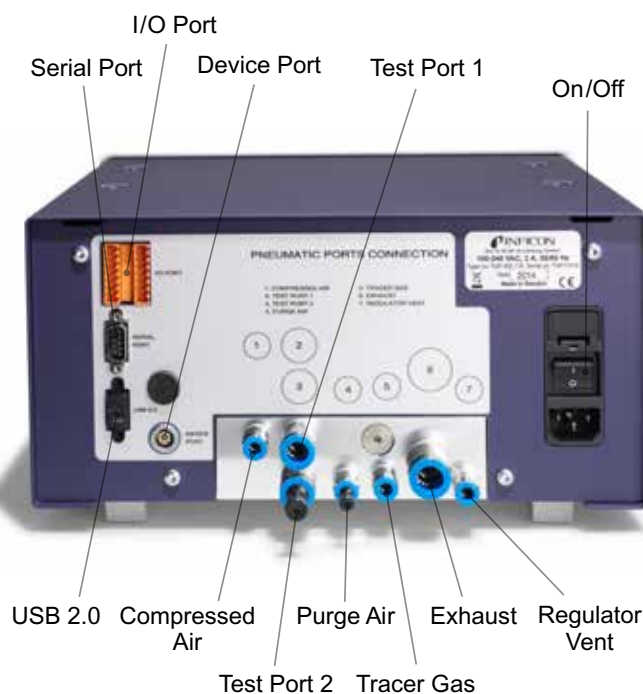
indications due to tracer gas contamination in the work area. To optimize filling, the INFICON TGF11 utilizes a proportional valve, and for evacuation a cost-effective Venturi pump with no moving parts, reducing maintenance costs.

The TGF11 Tracer Gas Filler is well suited for use in industrial serial production. The new user interface allows easy, intuitive control of the instrument, facilitates setup, and minimizes operator errors.

The TGF11 Tracer Gas Filler can fill both helium and forming gas (hydrogen-nitrogen mixture) as tracer gases. In combination with the INFICON leak detectors, such as the Sensistor Sentrac® Hydrogen Leak Detector, or the Protec® and T-Guard Helium Leak Detectors, it provides a high-performance system for demanding leak testing applications.

FEATURES AT A GLANCE

- Stand-alone tracer gas filler operates together with any leak detector
- Helium and hydrogen (forming gas, 5% hydrogen in nitrogen) tracer gas handling and control
- Available in low pressure version and standard version
- Pre-evacuation of the test object
- Gross leak abort function prior to tracer gas filling
- High filling speed
- Controls test pressure during the entire test
- Fills small fragile objects at low pressures
- Avoids tracer gas contamination at the workplace
- Compact and robust
- Gets the process started faster with all functions proved and tested
- Alarms user before tracer gas supply is too low



HOW IT WORKS

1 PRE-EVACUATE

With the TGF11 Tracer Gas Filler connected to the test object, the test procedure starts by a pre-evacuation, in order to facilitate the tracer gas filling. Pre-evacuation is in many cases necessary to ensure that tracer gas reaches all parts of the test object. If a gross leak occurs, the unit will abort the pre-evacuation.

2 FILL TRACER GAS

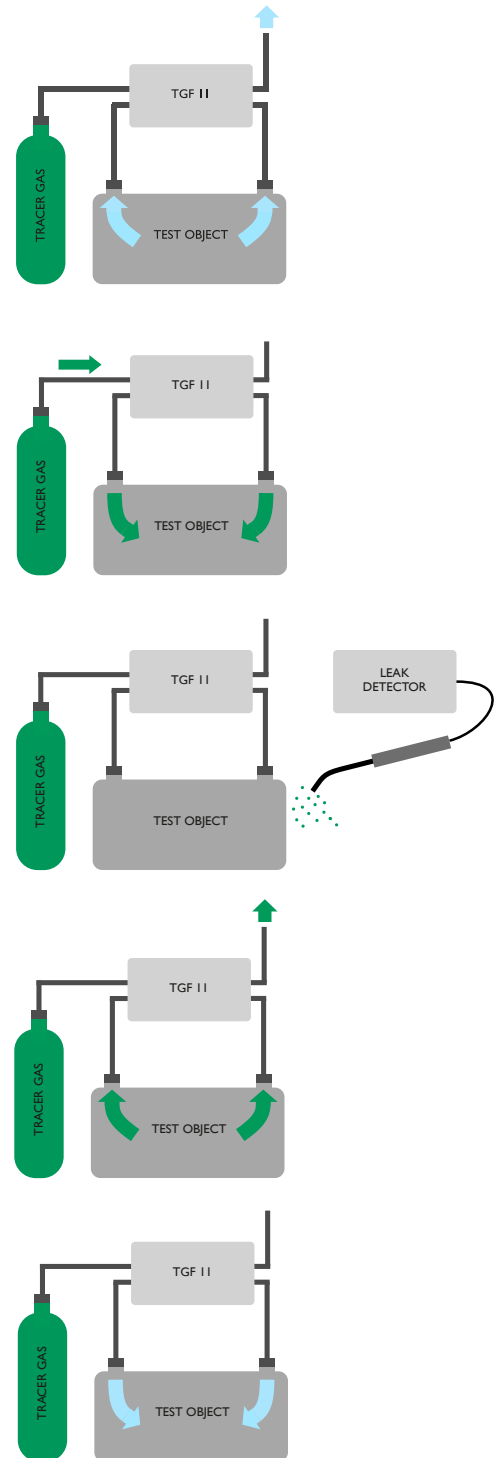
The test object is filled with tracer gas to a specified pressure and maintains this pressure. If pressure is too low indicating a gross leak, the unit aborts the tracer gas filling.

3 LEAK DETECTION

Once tracer gas filling is complete, the TGF11 waits for leak test to be performed. Meanwhile, it monitors the gas pressure and adjusts it to the specified value.

4 EVACUATE TRACER GAS AND REFILL AIR

When the leak testing is complete, the tracer gas is evacuated via the exhaust port and the test object is refilled with air to atmospheric pressure.



SPECIFICATIONS*

Pressure	
Standard version	0.3 - 10 barg (4.4 - 145 PSIG)
Low pressure version	0.05 - 2 barg (0.7 - 29 PSIG)
Supplies	
Connections	Push in fittings, OD 6, 10, 12 mm
Tracer gas pressure supply	Standard version 100 - 1100 kPa** (1 - 11 barg, 14.5 - 159.5 PSIG) Low pressure version 100 - 400 kPa** (1 - 4 barg, 14.5 - 58 PSIG)
Power supply	100 - 240 VAC, 50/60 Hz, 2 A
Compressed air	300 - 1000 kPa (3 - 10 barg, 43.5 - 145 PSIG)
Capacity***	
Evacuation time	0.8 s/l to -0.5 barg (-7.2 PSIG); 1.6 s/l to -0.7 barg (-10.1 PSIG); 2.5 s/l to -0.8 barg (-11.6 PSIG)
Maximum vacuum	-0.85 barg (-12.3 PSIG) (85% vacuum)
Communication Interface	
	USB device RS232 PLC Input/Output Operator interface
Ambient temperature range	5°-45°C (41°-113°F)
Dimensions (W x H x D)	305 x 160 x 284 mm (12 x 6.2 x 11.1 in.)
Weight	9.5 kg (19.8 lb.)

* All pressure specifications given relative to atmosphere (denoted by "g" for gauge)

** At least 100 kPa (1 barg) above tracer gas test pressure

*** The capacity depends on the connection to the test object

ORDERING INFORMATION

	Part no.
TGF11 versions	
TGF11 Tracer Gas Filler, standard version (incl. 3m C21 probe cable, mains cord and USB cable)	590-558
TGF11 Tracer Gas Filler, low pressure version (incl. 3m C21 probe cable, mains cord and USB cable)	590-559
Spare Parts	
Fuse 2A (minimum quantity 10 pcs)	591-578
Blanking plug 6 mm (minimum quantity 10 pcs)	591-961
Blanking plug 10 mm (minimum quantity 10 pcs)	591-962



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Due to our continuing program of product improvements, specifications are subject to change without notice.
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