

HELIUM LEAK DETECTORS



Leak detection
workstation

DGC 1001

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Helium Leak Detection Workstation

DGC 1001

DGC 1001: the most appropriate standard solution to leak test small components in a production environment

The DGC 1001 was specifically designed to address high production leak testing needs of small packages, such as open or hermetically sealed components. The unit is equipped with a standard test chamber accommodating a fast leak test and offers a sit or stand user friendly workstation for maximum operator comfort.

Fast cycle and pumpdowns

Equipped with a 20 m³/h (15 cfm) Alcatel roughing pump, the standard test chamber allows a cycle time at less than 4 seconds to detect leaks in the range of 10⁻⁹ atm.cc/s.

Key Points

- Fast cycle
- High sensitivity
- Maximum user friendliness
- Ergonomic design
- High level of adaptability
- Test ticket printer
- Programmable test cycle

High sensitivity equipment

The integration of Alcatel's innovative magnetic deflection analyzer and amplification system with a direct flow test mode ensures the highest sensitivity at full helium pumping speed (detection range between 2.10⁻¹¹ atm.cc/s and 1.10⁻¹ atm.cc/s).

No liquid nitrogen is required. A simple nitrogen supply may be connected for increasing production rates in high sensitivity test.



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Fields of application

The DGC 1001 allows users to leak test a large number of small parts such as :

- hermetically sealed electronic components (IC packages, relays)
- sensors
- current feedthroughs, switches, connectors
- small valves and fittings
- vacuum components
- food or pharmaceutical sealed packages
- heart pacemakers, catheters or other medical devices
- explosive devices for automobile airbags.



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A rugged, reliable and user-friendly workstation

- push button operated or fully automatic test cycle
- clear indication (green or red) of the test result and easy-to-read digital display of the leakage value
- designed for testing in a seated or standing position
- comfortable work table
- rugged design including lockable control panel, full protection against severe accidental air in-rushes and incorrect operation
- exceptional reliability in severe industrial environment (tested resistance against interferences, vibrations, etc...)
- the console arrangement provides easy access to internal components.

Standard features dedicated to specific production needs

- integrated printer for hard copy of test results on command
- the test parameters of up to ten parts can be memorized and recalled when needed.
- integrated calibrated leak for fast and easy calibration

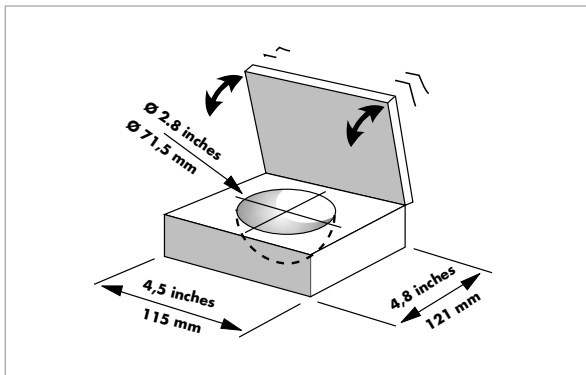


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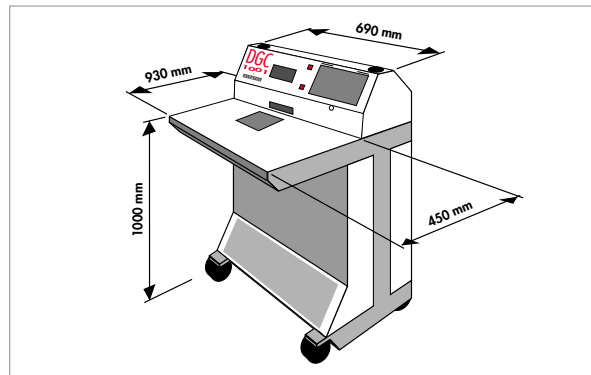
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Technical specifications

Characteristics	
Typical cycle time (test in the 10^9 range)	3 seconds (with nitrogen purge and standard test chamber)
Leak detection range	$2 \cdot 10^{-11}$ to $1 \cdot 10^{-1}$ atm.cc/s (helium)
High vacuum pump	130 l/s hybrid pump
Power consumption	2.3 KVA
Weight	190 kg/418 lbs



Standard auto-test chamber



Leak detector dimensions

High level of adaptability

Different pumping packages and toolings can be installed to fit any type of test method or part to be tested:

- bombing method with hermetically sealed components
- spraying or sniffing method for open components.



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Ordering information

N 0 0 0 0 0 0

	Leak detector
	DGC 1001
Code	N

	Masses		3 Masses (3). This option allows the leak detector to detect masses 2, 3 and 4.
	Helium	3 Masses	
Code	0	3	

	Seals for the vacuum module		The leak detector can be provided with : Elastomer seals (for the high vacuum as well as the inlet bloc) as standard (E) or with metal seals for specific applications (M). The elastomer seal is the standard configuration.
	Elastomer	Metal	
Code	E	M	

	Seals at the spectrometer		This seal ensures that the mass spectrometer is leak tight. It can be made of : Special elastomer and can be re-usable (E) or made of special soft metal (L). The elastomer seal is the standard configuration.
	Reusable	Metal (Lead)	
Code	E	L	

	Chamber option		
	Standard : Automatic test chamber small model	Automatic test chamber medium model	Automatic test chamber large model
Code	T	P	G

Automatic test chamber (integrating the A.D.C.):
 - Hemispherical test chamber Ø 72 mm, depth 31 mm, with start of cycle contact (T)
 - Cylindrical test chamber Ø 85 mm, depth 68 mm, with start of cycle contact (P)
 - Cylindrical test chamber Ø 160 mm, depth 100 mm, with start of cycle contact (G)

	Main power supply					
	115V - 60Hz	220V - 50Hz	240V - 50Hz	220V-50/60Hz	100V-50/60Hz	200V-50/60Hz
Code	1	2	3	4	5	6

	Main power cable type					
	U.S.A.	France	U.K.	Italy	Switzerland	Germany
Code	1	2	3	4	5	6

DGC 1001 N
 3 masses 3
 Elastomer E
 Reusable E
 Standard T
 220 V - 50 Hz 2
 Italy 4

For example
 You need ...

= N 3 E E T 0 0 0 0 2 4 0

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Accessories

Description	PART NUMBER
Long distance sniffer probe with a 5 meter tube (16 ft)	797925
Foot pedal for cycle command (1.5 meters/5 ft cable)	100913
Remote control with a 3.5 meter cable (10 ft)	090092
Bombing chamber 10 bar (Ø 150 - L 200 - Vol 3.5 l)	786396
Bombing chamber 25 bar (Ø 100 - L 800 - Vol 6.4 l)	786397
Maintenance kit for mini-printer includes 5 rolls of paper and 2 ribbons	100807