



GAS APPLIANCES
TECHNICAL GUIDANCE BULLETIN

Bulletin Number:	13
Bulletin Date:	1 March 2018
Product Type:	Portable appliances incorporating overpressure protection
Relevant Standard(s):	AS 2658-2008 (Incorporating Amendment Nos. 1, 2 & 3)
Relevant Clause(s)	2.10 Gas Leakage
Subject:	Safety requirements for portable appliances incorporating overpressure protection

Guidance to be provided:

This bulletin, when read in conjunction with AS 2658, specifies the minimum safety requirements for portable appliances incorporating overpressure protection. This includes cookers, barbecues and heaters.

The following supersedes the method of test in AS 2658. for gas leakage for unregulated parts of portable appliances that incorporate over pressure protection.

The procedure shall be as follows:

Test 1 - Leakage at operating pressure

- (a) Connect a means to measure the supply pressure.
- (b) Close all control valves on the appliance and supply air to the test cartridge nozzle
- (c) Immerse the appliance in a water bath
- (d) Starting from 0kPa increase the test pressure progressively at a rate of approximately 5 to 7kPa per second until the overpressure protection mechanism operates and ejects the cartridge. As the pressure is being increased, monitor for gas leakage especially at the actuating pin of the overpressure protection device and the coupling between the cartridge and the control valve. If leakage is observed, note the leakage rate and the test pressure at which the leakage occurs. Note: a momentary leak occurring as the cartridge ejects shall be disregarded.

Test 2 - Leakage at overpressure

- (a) Re-engage the cartridge and ensure that the cartridge ejection mechanism cannot eject the cartridge.
 - i. Keep all appliance control valves closed and supply air to the test cartridge nozzle, at a pressure of 1 000 kPa for appliances designed for use with butane only.
- (b) Allow approximately 1 minute for pressure to stabilize and then check for gas leakage at the coupling between the cartridge and the over pressure protection device.
- (c) Seal the injector orifice and open the control valve. For appliances with a secondary over pressure shut off device in the gas control supply air downstream of the overpressure device.
- (d) Allow approximately 1 minute for pressure to stabilize and then check for gas leakage up to the injector.

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Reason:	Safety concerns have been identified with some appliances where the over pressure protection device is leaking at pressures approaching the over pressure activation pressure.
Action(s):	Conformity Assessment Bodies are to ensure that the methods of laboratory tests are conducted in accordance with the procedures set out above when assessing this product type for certification.
Transition:	<ol style="list-style-type: none">1. For all new applications for certification made after the date of this bulletin, this bulletin must be adhered to immediately.2. For existing certifications and applications received prior to the date of this bulletin, a maximum 3-month period has been granted to allow suppliers and manufacturers time to modify the products and amend their certifications. Existing certifications and applications must comply within 3-months of the date of this bulletin.
Result:	<ol style="list-style-type: none">1. Ensure that appliances with an over pressure protection device are designed so that the leakage rate does not exceed 1mL/min up to the point where the gas cartridge is disengaged. Note: A momentary leak occurring as the cartridge ejects shall be disregarded.2. To check for the integrity of the appliance gas train at 1000kPa and ensure that the leakage rate does not exceed 1mL/min
Proposed Revision(s) to Standard(s):	Please refer to the technical guidance above.

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