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Test Report

AS/NZS 1716 : 2012

Respiratory protective devices

Report no: 1.15.09.65

Client: INSPEC Certification Services
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United Kingdom


(on behalf of): Welding Guns of Australia Pty Ltd.

Client order: TT15/0059

Order(s) received: 24 March to 30 September 2015

Model(s): P1004

Date(s) of tests: 22 April to 30 September 2015

Signed: 
Peter Threlfall, Laboratory Manager

Issued: 6 October 2015

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Summary of assessment***Submission One**

Clause	Requirement	Assessment (see Key)	
		Submission One	Submission Two
2.1.1	GENERAL REQUIREMENTS - assembled respirators	Ltd	
2.1.2	Materials	Ltd	
2.1.3	Filters	Pass	
2.1.4	Shelf life	NAs	
2.1.5	Combined protective equipment		
2.1.6	Noise level	Pass	
2.1.7	Protection against explosion		
2.1.8	Avoidance of frictional sparks		
2.1.9	Protection from flame impingement		
2.2.1	FACIAL FIT - General	Pass	
2.2.2	Assessment	Pass	
2.3	BREATHING AND CONNECTING TUBE	Ltd	
3.1.1	DESIGN REQUIREMENTS - General	Pass	
3.1.2	Exhalation valve assembly	NAP	
3.1.3	Mouthpiece and nose clip		
3.1.4	Nose clip		
3.2.1	PERFORMANCE REQUIREMENTS - Facial fit	Pass	
3.2.2	Accumulated carbon dioxide	Pass	
3.2.3	Positive pressure screening test	Pass	
3.2.4	Exhalation valve	NAP	
3.2.5	Exhalation resistance - Air filtering respirators	Pass	
3.2.6	Security of attachments	Pass	
4.1	PARTICLE FILTERS - DESIGN AND CONSTRUCTION	Pass	
4.3.1	PERFORMANCE REQUIREMENTS - General	Pass	
4.3.2	Simulated rough usage	Pass	
4.3.5	Test of filtering efficiency	Pass	
4.3.6	Filters used in series	NAP	
5.1	GAS FILTERS - DESIGN AND CONSTRUCTION		
5.4.1	PERFORMANCE REQUIREMENTS - General		
5.4.2	Particulate filtration efficiency		

Clause	Requirement	Assessment (See Key)	
		Submission One	Submission Two
5.4.3	Simulated rough usage		
5.4.5	Filter capacity		
5.4.7	Desorption		
6.1	PAPR - DESIGN AND CONSTRUCTION	Fail	
6.3.1	Battery	Pass	
6.3.2	Particulate filters	Pass	
6.3.3	Gas filters	NAp	
6.3.4	Combined filters	NAp	
7	ESCAPE RESPIRATORS - FILTRATION TYPE		
8	AIR-HOSE AND AIR-LINE RESPIRATORS		
9	COMPRESSED AIR SCBA		
10	COMPRESSED OXYGEN SCBA		
11	CHEMICAL OXYGEN SELF-RESCUERS		
12.1	Marking	Fail	Ltd
12.2	Instructions for use	Fail	Pass

Key

	Shading shows the clauses requested. Any other clauses were not requested.
Pass	Requirement satisfied.
Ltd	Testing requested was insufficient completely to verify compliance with the clause. Refer to the "Result details" section for more information.
Fail	Requirement not satisfied. Refer to the "Result details" section for more information.
NAs	Assessment not carried out.
NAp	Requirement not applicable.
NT	Requested but not tested due to early termination following failure.

* Assessment relates only to those specimens which were tested and are the subject of this report.

Product characteristics

Property	Characteristic
Model	P1004
Device type	Powered air-purifying respirator
Rated duration (hours)	Level 1 = 8, Level 2 = 6, Level 3 = 4
Power source	Battery
Recommended minimum flow	165
Recommended cleaning method	Soft cloth

Submission details

Product	Quantity	Date Received	INSPEC specimen no. (1C0155 +)
Submission One			
Helmet	2	14 January 2015	(1C0037+) 101 and 102
Breathing hose	2		(1C0037+) 301 and 302
Charger	2		(1C0037+) 501 and 502
Flow checker	2		(1C0037+) 601 and 602
Particle filter	15		(1C0037+) 701 to 715
Blower	2	23 March 2015	201 and 202
Battery	2		401 and 402
Submission Two⁻¹			
Helmet	1	29 September 2015	103
Breathing hose	1		303
Blower	1		203
Battery	1		403
Charger	1		503
Flow checker	1		603
Particle filter	1		716

⁻¹ Second submission submitted for clause 12 assessment only, no other clauses assessed.

Device details

Device	001	002
Components	Specimen Number	
Helmet	(1C0037+) 101	(1C0037+) 102
Blower	201	202
Blower unit cover	(1C0037+) 211	(1C0037+) 212
Spark arrestor	(1C0037+) 221	(1C0037+) 222
Pre-filter	(1C0037+) 231	(1C0037+) 232
Belt and harness	(1C0037+) 241	(1C0037+) 242
Breathing hose	(1C0037+) 301	(1C0037+) 302
Breathing hose cover	(1C0037+) 311	(1C0037+) 312
Battery	401	402
Charger	(1C0037+) 501	(1C0037+) 502
Flow checker	(1C0037+) 601	(1C0037+) 602
Particle filter	(1C0037+) 701	(1C0037+) 702

Procedures

The specimens detailed within the submissions above were used for the tests covered by this report.

Testing was performed in accordance with AS/NZS 1716 : 2012 unless otherwise specified below. Reference should be made to the standard when reading this report.

Unless stated otherwise, specimens were tested in the condition as received by INSPEC.

- 2.1.6 Testing was undertaken to the method given in Appendix A.
- 2.2.1 Test subjects were selected according to the requirements of Appendix B, as detailed in section 2.2.2.
- 2.2.2 Testing was conducted to the method given in Appendix D, using sodium chloride aerosol.
- 3.2.2 Testing was conducted to the method given in Appendix E, paragraph E5.3.
- 3.2.3 Testing was conducted to the method given in Appendix E, paragraph E5.5.
- 3.2.5 Testing was conducted to the method given in Appendix G.
- 4.3.2 Pre-conditioning was conducted to the method given in Appendix H4.
- 6.3.1 Testing was conducted in accordance with Appendix Q and in conjunction with 3.2.3.
- 6.3.2 Testing was conducted in accordance with Appendix I and in conjunction with 4.3.5.
- 6.3.3 Testing was conducted in accordance with Appendix Q and in conjunction with 5.4.5.

Result details
Submission One

2 DESIGN AND CONSTRUCTION OF ASSEMBLED RESPIRATORS

2.1 GENERAL REQUIREMENTS

2.1.1 Assembled respirators

The apparatus was constructed from components which proved durable during the laboratory tests undertaken.

Pass

The conditions under normal use which might cause damage or excessive wear to the apparatus could not be determined in laboratory tests. Manufacturer to certify regarding normal use conditions.

NAs

The specimens were free of sharp edges and irregularities which may cause a potential hazard to a wearer.

Pass

2.1.2 Materials

The devices were able to withstand the laboratory testing for the tests undertaken.

Pass

The conditions and environments likely to be encountered during storage and use could not be determined in laboratory tests. Manufacturer to certify regarding these conditions and environments.

NAs

No materials in contact with the skin of wearers during inward leakage testing showed evidence of staining, were soft and pliable and did not cause skin irritation.

Pass

The effects of material released by the filter medium could not be assessed. Manufacturer to certify regarding material release.

NAs

2.1.3 Filters

The filters could be readily replaced without the use of special tools.

Pass

The filters were designed and marked to prevent incorrect assembly.

Pass

The filters cannot be attached to a facepiece, fitting of twin filters is not applicable.

NAp

The filter was a particulate filter only, assessment of its position with a gas filter is not required.

NAp

The filters were not fitted directly to the facepiece; assessment of mass is not required.

NAp

2.1.4 Shelf life

No information regarding shelf life was provided.

NAs

2.1.6 Noise level

Device	Test subject	Noise level dB(A)
001	TF	75.4
Maximum permitted		80

Pass

2.2 FACIAL FIT**2.2.1 General**

None of the test subjects reported undue discomfort during inward leakage testing.

Pass**2.2.2 Assessment****Leakage (%)**

Subject	Device	Walk	Head side/side	Head up/down	Talk	Walk	Mean
KDS	101	0.019	0.018	0.016	0.015	0.014	0.016
BH	102	0.005	0.007	0.004	0.027	0.004	0.009
INH	101	0.010	0.010	0.010	0.173	0.010	0.042
ED	102	0.003	0.003	0.003	0.006	0.002	0.004
PBU	101	0.007	0.007	0.007	0.007	0.007	0.007
JAD	102	0.002	0.002	0.002	0.062	0.001	0.014
RAR	101	0.006	0.006	0.009	0.334	0.116	0.094
KRB	102	0.002	0.002	0.001	0.002	0.001	0.001
AG	101	0.006	0.011	0.018	0.293	0.038	0.073
NRA	102	0.001	0.001	0.001	0.029	0.001	0.007
Maximum permitted		1.0					

All 50 individual exercise results were not greater than 1%.

Pass

All 10 mean results were not greater than 1%.

Pass**Subject facial dimensions**

Subject	Group	Face width	Face length
KDS	A	128	102
BH	B	139	120
INH	C	153	125
ED	B	138	114
PBU	B	141	116
JAD	B	136	113
RAR	B	138	116
KRB	A	130	108
AG	C	148	133
NRA	B	138	114

2.3 BREATHING AND CONNECTING TUBE

The breathing tube fitted was assessed as given below.

- | | | |
|-----|--|-------------|
| (a) | Was flexible and permitted free head movement without interference to the facial seal. | Pass |
| (b) | Did not restrict or close off the air supply as a result of bodily movement. | Pass |
| (c) | Assessment of temperature effects was not carried out. | NAs |

3. FACEPIECES HEAD COVERINGS AND HARNESSSES**3.1 DESIGN REQUIREMENTS****3.1.1 General**

The following assessments against this clause were made.

- | | | |
|-----|---|-------------|
| (a) | Assessment of fit on a range of facial contours is detailed in 2.2.2. | Pass |
| (b) | The device was held on the wearer's head using an adjustable ratchet. | Pass |
| (c) | Component parts requiring service were readily detached but secured against accidental disconnection. | Pass |
| (d) | The device was not designated as suitable for abrasive blasting. | NAP |
| (e) | The device did not incorporate a bib or hood. | NAP |

No adverse comments were made by test subjects regarding interference with speech or vision during inward leakage testing.

Pass

The device was not a full facemask, assessment of visor misting and the fitting of spectacles is not applicable.

NAP

The device was not a full face mask; assessment of use with special spectacles was not required.

NAP

The device was not a full face mask; assessment of speech transmission was not required.

NAP

The device was not intended for use solely for escape, the requirements regarding a mouthpiece do not apply.

NAP**3.1.2 Exhalation valve assembly**

The device was not fitted with an exhalation valve.

NAP

3.2 PERFORMANCE REQUIREMENTS**3.2.1 Facial fit**

Assessment of facial fit was determined as given in 2.2.2.

Pass**3.2.2 Accumulated carbon dioxide**

Testing was conducted at the manufacturer's minimum specified flow, as given below.

Pass

Device	Accumulated carbon dioxide (%)
001	0.70
002	0.73
Maximum permitted	1.0

3.2.3 Positive pressure screening test

See clause 6.3.1.

Pass**3.2.4 Exhalation valve****3.2.4.1 General**

The device did not incorporate an exhalation valve.

NAP**3.2.5 Exhalation resistance - Air filtering respirators****Pass**

Device	Level	Exhalation resistance (Pa)
001	1	17
	2	20
	3	24
002	1	22
	2	25
	3	32
Maximum permitted		200

3.2.6 Security of attachments

Devices 001 and 001 were tested.

The fittings directly attached to the apparatus withstood an axial tensile force of 50N for 10s.

Pass

Simulated work tests were not required; assessment of attachments was not needed.

NAP

All of the attachments and components remained intact during facial fit tests.

Pass

4. PARTICULATE FILTER RESPIRATORS

4.1 DESIGN AND CONSTRUCTION

The apparatus offered protection against particulates as defined in this section.

Assessment of the efficiency of the design to pass inhaled air through the filter is given in section 2.2.2.

The additional requirements of appropriate clauses are given in 6.1.

4.2 CLASSIFICATION AND COMPONENTS

4.2.1 Classes

The filters were designated as class P2, as defined in section (b).

4.2.2 Components

In addition to the filters listed in 4.2.1, the component parts of the apparatus are listed in 6.2.

4.3 PERFORMANCE REQUIREMENTS

4.3.1 General

Evaluation of the performance requirements is as detailed below. Testing was conducted in the listed sequence.

4.3.2 Simulated rough usage

Specimens (1C0037+) 711 to 715 were tested subjected to the conditioning given in Appendix H4.

None of the specimens tested suffered visible deterioration.

Pass

4.3.5 Test of filter efficiency

See 6.3.2 for additional information

Pass

4.3.6 Filters used in series

The filter is a particle filter only.

NAP

6 POWERED AIR-PURIFYING REPIRATORS**6.1 DESIGN AND CONSTRUCTION**

The respirator provided protection as given in this report.

The appropriate requirements of section 2 were met for the limited tests undertaken.

Ltd

The appropriate requirements of section 3 were met.

Pass

The appropriate requirements of section 4 were met.

Pass

The filter did not incorporate a gas filter element; conformance to section 5 was not required.

NAP

The appropriate requirements of section 12 were not met.

Fail

(a) The respirator provided filtered air for not less than the defined period.

Pass

(b) The respirator provided a positive air pressure in the wearer's breathing zone so as to minimise the entry of unfiltered air.

Pass

(c) The respirator was not fitted with a facepiece, assessment of the seal was not appropriate.

NAP

(d) The component parts of the respirator could be readily detached for maintenance and cleaning but were secure against accidental disconnection.

Pass

The respirator incorporated an integral power supply which was easily portable on the wearer's person.

Pass

The power supply included a separate battery pack.

6.2 COMPONENTS**6.2.1 Facepiece type**

The apparatus was of the hood or helmet type, see 6.2.2 for component details.

NAP**6.2.2 Hood or helmet type**

The apparatus consisted of the following components.

(a) A head covering in the form of a helmet.

(b) A means of diffusing the air entering the head covering.

(c) A powered filtering unit, which in turn comprised of:

(i) a filter;

(ii) a filter holder;

(iii) a blower unit;

(iv) a battery pack;

(e) A flexible breathing tube.

(g) A waist belt and body harness.

6.3 PERFORMANCE REQUIREMENTS

6.3.1 Battery

The battery provided was of the non-spillable type.

Pass

The battery was sealed; a venting device was not required.

NAP

Device	Level	Determined initial flow (l/min)	Flow at design duration (l/min)	Pressure in head covering (Pa)
001	1	190	192	2.5
	2	216	220	7.0
	3	261	257	5.5
002	1	199	205	4.0
	2	225	230	4.5
	3	262	265	9.5
Minimum requirement		165		2.5

Pass

Pass

Pass

Pass

Pass

Pass

Manufacturer's stated design duration:

Level 1= 8 hours

Level 2= 6 hours

Level 3= 4 hours

A means was provided to enable the wearer to determine if air flow was sufficient to maintain positive pressure, as detailed below.

Pass

A flow check device was provided.

6.3.2 Particulate filters

Pass

Specimen	Pre-conditioning	Penetration (%)
(1C0037+) 711	4.3.2	0.70
(1C0037+) 712		0.44
(1C0037+) 713		0.40
Maximum permitted		6.0

Filter efficiency was measured using air flow of 260 l/min.

12 MARKING AND INSTRUCTIONS**12.1 MARKING****12.1.1 General**

Assessment of the product and packaging marking is given below.

12.1.2 Marking of face pieces and head coverings**12.1.2.1 Marking of equipment**

The marking of the head covering was assessed as follows.

The marking on the head covering was clear. **Pass**

The marking on the head covering was indelible. **Pass**

(a) The manufacturer's name or trademark was not marked. **Fail**

(b) Size marking was not required as only a single size was offered. **NAP**

12.1.2.2 Additional marking

The packaging or label was not marked. **Fail**

12.1.3 Particulate filters**12.1.3.1 Marking of equipment**

Each filter was clearly marked with the information detailed below. **Pass**

(a) The manufacturer's name or trade mark was given. **Pass**

(b) The filter classification was given. **Pass**

The white colour code was present. **Pass**

(c) The filters were marked with "PAPR" but this was not as a prefix to the classification. **NAs**

12.1.3.2 Additional marking

No additional marking was provided. **NAs**

12.2 INSTRUCTIONS FOR USE

The information supplied by the manufacturer has been assessed as detailed below, with reference only to the relevant requirements of the Standard.

INSPEC Testing Services has not assessed these instructions with respect to claims made by the manufacturer outside of the requirements of the Standard, and therefore accepts no responsibility for the legitimacy of any such claims.

12.2.1 General

Instructions were supplied for evaluation as a draft copy. Manufacturer to confirm regarding supply of instructions to users. **NAs**

Instructions supplied were in English. **Pass**

The supplied instructions referenced the required information as listed below.

- (a) Limited storage life of unopened filters was not given. **Fail**
- (b) Limited storage life of installed filters was not given. **Fail**

12.2.2 Instructions for use, maintenance and storage

Instructions were not supplied with the smallest package. **Fail**

The instructions supplied were assessed as follows.

- (b) Limitations on use were defined. **Pass**
- (c) Information on compatible filter types was given. **Pass**
- (d) Instructions on correct assembly of parts were given. **Pass**
- (e) Instructions of fitting were given, but no instructions regarding checking the correct facial fit were provided. **Fail**
- (f) Instructions for decontamination were given. **Pass**
- Instructions for washing were given. **Pass**
- Instructions for maintenance were given. **Pass**
- Instructions for storage were given. **Pass**
- Instructions for periodic testing were given. **Pass**
- (g) Information on air pressure was not required. **NAP**
- (h) No information on additional or operational characteristics was given. **NAP**

12.2.3 Additional requirements for powered air-purifying respirators

The additional information did not accompany each device; an example copy only was supplied for assessment. **Fail**

- (a) A procedure for charging the battery was included. **Pass**
- (b) A procedure for checking the air flow was included. **Pass**
- (c) A procedure for changing the filters was included. **Pass**
- (d) The range of temperatures under which the equipment was tested was not given. **Fail**
- (e) The operating range of temperatures was given. **Pass**

12.3 ADDITIONAL MARKING

The device was a rigid or semi-rigid head covering; was not marked in accordance with AS/NZS 1801 but the required warning was not given. **Fail**

Result details
Submission Two

12 MARKING AND INSTRUCTIONS

12.1 MARKING

12.1.1 General

Assessment of the product and packaging marking is given below.

12.1.2 Marking of face pieces and head coverings

12.1.2.1 Marking of equipment

The marking of the head covering was assessed as follows.

The marking on the head covering was clear.

Pass

The marking on the head covering was indelible.

Pass

- (a) The manufacturer's name or trademark was marked as 'unimiG', not as described in the documentation. Manufacturer to certify.

NAs

- (b) Size marking was not required as only a single size was offered.

NAP

12.1.2.2 Additional marking

The marking of the packaging or label was assessed as follows.

The marking on the packaging or label was clear.

Pass

- (a) The year of manufacture, date code or other means of traceability was marked.

Pass

- (b) No information was given that the respirator was designed to cater for a particular physical characteristic. Manufacturer to certify regarding physical characteristics.

NAs

- (c) The operational temperature range was given.

Pass

12.1.3 Particulate filters

12.1.3.1 Marking of equipment

Each filter was clearly marked with the information detailed below.

- (a) The manufacturer's name or trademark was marked as 'unimiG', not as described in the documentation. Manufacturer to certify.

NAs

- (b) The filter classification was given.

Pass

The white colour code was present.

Pass

- (c) The filters were marked with the class, preceded by the abbreviation "PAPR"

Pass

12.1.3.2 Additional marking

No additional marking was provided.

NAs

12.2 INSTRUCTIONS FOR USE

The information supplied by the manufacturer has been assessed as detailed below, with reference only to the relevant requirements of the Standard.

INSPEC Testing Services has not assessed these instructions with respect to claims made by the manufacturer outside of the requirements of the Standard, and therefore accepts no responsibility for the legitimacy of any such claims.

12.2.1 General

Each respirator was supplied with clear instructions. **Pass**

Instructions supplied were in English. **Pass**

The supplied instructions referenced the required information as listed below.

(a) Limited storage life of unopened filters was given. **Pass**

(b) Limited storage life of installed filters was given. **Pass**

12.2.2 Instructions for use, maintenance and storage

Instructions were supplied with each smallest package. **Pass**

(b) Limitations on use were defined. **Pass**

(c) Information on compatible filter types was given. **Pass**

(d) Instructions on correct assembly of parts were given. **Pass**

(e) Instructions of fitting and testing the correct facial fit were given. **Pass**

(f) Instructions for decontamination were given. **Pass**

Instructions for washing were given. **Pass**

Instructions for maintenance were given. **Pass**

Instructions for storage were given. **Pass**

Instructions for periodic testing were given. **Pass**

(h) No information on additional or operational characteristics was given. **NAP**

12.2.3 Additional requirements for powered air-purifying respirators

The following information was supplied with each device. **Pass**

(a) A procedure for charging the battery was included. **Pass**

(b) A procedure for checking the air flow was included. **Pass**

(c) A procedure for changing the filters was included. **Pass**

(d) The range of temperatures under which the equipment was tested was given. **Pass**

(d) The humidity range under which the equipment was tested was given. **Pass**

(e) The operating range of temperatures was given. **Pass**

(e) The operating humidity range was given. **Pass**

12.3 ADDITIONAL MARKING

The device was a rigid or semi-rigid head covering, was not marked in accordance with AS/NZS 1801 and the required warning was given. **Pass**

Estimates of the uncertainty of measurement

Clause	Test	Uncertainty
2.1.1	GENERAL REQUIREMENTS - assembled respirators	See Note 1
2.1.2	Materials	See Note 1
2.1.3	Filters - mass	± 3.6g
2.1.4	Shelf life	Not applicable
2.1.5	Combined protective equipment	See applicable standard
2.1.6	Noise level	± 2.9 dB
2.1.7	Protection against explosion	See applicable standard
2.1.8	Avoidance of frictional sparks	Not applicable
2.1.9	Protection from flame impingement	See Note 1
2.2.1	FACIAL FIT - General	Not applicable
2.2.2	Assessment	± 4.7%
2.3	Breathing and connecting tube	See Note 1
3.1.1	DESIGN REQUIREMENTS - General	See Note 1
3.1.2	Exhalation valve assembly	Not applicable
3.1.3	Mouthpiece and nose clip	See Note 1
3.1.4	Nose clip	Not applicable
3.2.1	PERFORMANCE REQUIREMENTS - Facial fit	See Note 1
3.2.2	Accumulated carbon dioxide	± 4.0%
3.2.3	Positive pressure screening test	± 2.6%
3.2.4	Exhalation valve	± 2.0 ml/min
3.2.5	Exhalation resistance - Air filtering respirators	± 1.8%
3.2.6	Security of attachments	See Note 1
4.1	PARTICLE FILTERS - Design and construction	See Note 1
4.3.1	PERFORMANCE REQUIREMENTS - General	Not applicable
4.3.2	Simulated rough usage	See Note 1
4.3.5	Test of filtering efficiency	± 4.7%
4.3.6	Filters used in series	Not applicable
5.1	GAS FILTERS - Design and construction	See Note 1
5.4.1	PERFORMANCE REQUIREMENTS - General	See Note 1
5.4.2	Particulate filtration efficiency	± 4.7%
5.4.3	Simulated rough usage	See Note 1
5.4.5	Filter capacity - type A	± 4.2%
	Filter capacity - type B, chlorine	± 5.0%
	Filter capacity - type B, hydrogen sulphide	± 4.4%
	Filter capacity - type B, hydrogen cyanide	± 6.3 %

Clause	Test	Uncertainty
	Filter capacity - type E	$\pm 5.1\%$
	Filter capacity - type K	$\pm 4.3\%$
	Filter capacity - type AX, dimethyl ether	$\pm 4.4\%$
	Filter capacity - type AX, isobutane	$\pm 4.4\%$
	Filter capacity - type Hg	$\pm 6.2\%$
5.4.6	Additional requirements for filters	Not applicable
5.4.7	Desorption	$\pm 5.2\%$
6.1	PAPR - Design and construction	See note 1
6.3.1	Battery - flow	$\pm 2.6\%$
6.3.2	Particulate filters	$\pm 4.7\%$
6.3.3	Gas filters	See 5.4.5
6.3.4	Combined filters	See 6.3.2 and 6.3.3

Note 1 The acceptance criterion for this test is a straightforward "Pass/Fail", rather than a numerical value. Consequently, as there is no value to be reported, uncertainty has not been reported either.

Note 2 The uncertainty value is based on a standard uncertainty multiplied by a coverage factor $k = 2$, which provides for a confidence level of approximately 95%. Values expressed as a percentage (%) are relative.

Note 3 It should be noted that the above values have not been taken into account when making assessment to the pass/fail criteria.

ANNEX

This Annex comprises one section.

1. Photographs of the product tested. (1 page)

Welding Guns of Australia Pty Ltd's model P1004



**INSPEC Testing Services' specimen number 1C0037101,
1C0155201, 1C0037301, 1C0155401**

07 April 2015