

LIVEWIRE – THE AC/DC SHOW

USE OF PYROTECHNICS

During the performance (venue permitting) we will use a number of Pyrotechnic effects. These effects will be secured on scaffolding to create a 'flash bang' effect during the entrance of the performer appearing as Brian Johnson and secured inside four prop cannons to simulate them being fired during the shows finale.

Where it is deemed not suitable to use Pyrotechnics we can substitute them for smoke machines. Please note however that the use of Pyrotechnics is a preferred and much more successful method of creating the desired effects.

Please find enclosed CE certification, Safe Use and Material Data sheets from the manufacturer of the effects as well as our own Risk Assessments.

If you have further questions please don't hesitate in contacting me on tim@giantexpression.com

Tim Parsons
Stage Manager

QUALITY POLICY

We are committed to providing our customers with pyrotechnics that are safe to use, meet regulatory requirements, delivered on time and provide enjoyment.

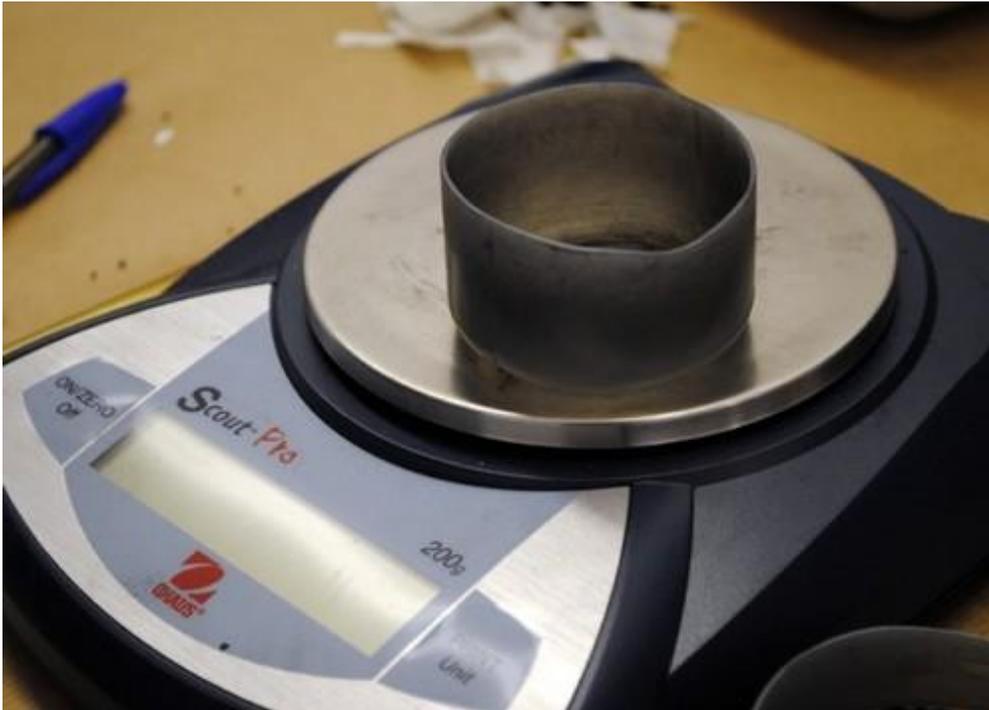
To achieve this, the company has fully implemented a Quality Management System that meets the requirements of the current ISO9001 and EU Directive 2007/23/EG. The quality management system is monitored and reviewed to seek continual improvement.



About Us

Wells Fireworks sell to the trade only, and all products are handmade and inspected here in the UK to the highest quality, Wells use the best raw materials on the market from all corners of the globe to produce a safe, clean effect that can be safely used metres away from any artist or members of the public.

Our Products



Our state of the art press allows us to manufacture exact timing and height Gerb effects with little smoke or fallout. Wells have world recognition for Tape Match, Port fires, Lances, waterfalls and Blinker Bengals. We export to many Pyrotechnicians and countries worldwide. Wells Fireworks also produce ground maroons, petrol lifters, cannon charges and small scale proximity special effects to the Theatre, TV and Film industries. The R&D department are constantly producing new and exciting effects whilst keeping the finest quality possible.

Our Dedication

The Wells team are all dedicated and thorough, they pay close attention to detail and quality. All the team have a firework background and understand the challenges of our customers out in the field. Our factory manager also has a background in the licensing of explosives for the firearms department of the police force.

Wells has a like for like trade in policy, if any product is found to be faulty in any way, Wells will replace the product without question and free of charge. Wells keep strict records and lot numbers for each product so we can track the raw materials each product is made from. This allows Wells to control and inspect and product in the event of an issue. We have the facilities to call back a batch of produce with the same lot number as we keep records of who we sell each lot to.



PRODUCT DATA SHEET

(To be used in conjunction with the Wells Fireworks Safe Use Sheet)

STAGE FLASH with REPORT

EFFECT

Creates a bright, normally white, flash with a loud report. If a Sparkle effect has been added or the flash is coloured then this will be given on the label.

HSE Reference: XI/5015/195/6

Serial No 108811/12

CAD Title: Flash Pot/Flash Pot-Large

Strictly for Professional Use ONLY

(Wells products must not be supplied to or used by a member of the general public or any person under 18)

Product NEC not exceeding 25g

SAFETY FIRST

- ◆ **Report Flashes** produce a bright flash with a great deal of localised heat. There is a loud report and rising smoke on discharge.
- ◆ Allow an absolute **MINIMUM** Safety Distance of **3m** to the side from any persons, scenery or flammable objects*.
- ◆ Monitor noise volumes during tests and issue ear protection as necessary*. Wear hearing protection when testing.
- ◆ **Report Flashes** should only be fired straight up*. If you wish to fire at any other angle than this please phone Wells Fireworks for further advice.
- ◆ Ensure an adequate height clearance. Typically **Report Flashes** require at least **6m**. However lower heights may be possible with the smaller flashes. Do not fire underneath any persons, scenery or flammable objects. * ◆ These are designed for indoor use - if used outdoors **ONLY** fire in still or near still air conditions.
- ◆ Never use **Report Flashes** in a confined space or in an area with poor ventilation. *
- ◆ Always test a sample of the **Report Flash** to be used to confirm suitability to the job and the venue. * ◆ Ensure the **Report Flashes** are secured firmly. (However avoid undue force as this may damage it).
- ◆ Only use a professional firing system which can be isolated whilst rigging the **Report Flashes**.
- ◆ **Report Flashes** have an easily damaged paper top - minor damage can be repaired with **MINIMUM** use of a sticky tape (e.g. sellotape). Do NOT remove OR stick any other form of covering or restriction over the top.

STORAGE

- ◆ **Report Flashes** should be stored in a Secure, Cool, Dry place. Ensure you have a licence if appropriate.
- ◆ Access to the store should only be available to the operator or other approved persons.
- ◆ For Storage purposes these products are **UN:0431 1:4G** (If still packed as when received).

DISPOSAL

- ◆ In the unlikely event of a misfire always check the firing system first and try to fire again when safe to do so.
- ◆ If after this it is felt the effect is at fault it should be left until safe before removal. Repack and clearly label failed product.
- ◆ Any failed product should be returned to Wells - (After arranging to do so with the Factory).

TRANSPORT

- ◆ The Proper Shipping name for these products is '**ARTICLES PYROTECHNIC for technical purposes**' ◆ For Transport purposes these products are **UN:0431 1:4G** (If packed as when received).
- ◆ Purchasers are reminded of their duties to comply with the *Carriage Of Explosives Regulations (1991)* and the *Packaging of Explosives for Carriage Regulations (1991)*.
- ◆ If you repack these pyrotechnics for transport or storage then any new packing scheme must comply with *CLER 1983* and it is your responsibility to have had this classification approved.

GENERAL ADVICE

- ◆ Keep away from direct sources of ignition or intense heat sources.
- ◆ The igniters used can be sensitive to stray currents - keep this in mind when laying firing cables and avoid high power emf's, stray currents, radio waves and Mobile phones.
- ◆ Avoid rough handling, excessive vibration and dropping - pyrotechnics are easily damaged.
- ◆ If you have any further questions, please call us on 01903 882366 during normal weekday hours. * *Wells Fireworks assumes no liability for the misuse of this product.*
It is up to the purchaser to ensure the safe use and suitability by Test Firings prior to the performance or public admittance.




www.wellsfireworks.co.uk

Home Farm, Wepham, Arundel, West Sussex, BN18 9RA

Tel: +44 (0)1903 882366 Fax: +44 (0)1903 882387 Email: info@wellsfireworks.co.uk



PRODUCT USE DATA SHEET

Stage Flash

Stage Flash - Small with Report

A bright, normally white, flash with some smoke. If a Sparkle or Audible effect has been added or the product is coloured it will be labelled as such.

CAD: ID No: XI/5015/195/6 Serial No: 108811 Title: Flash Pot
 CE: Reg: 0589-T1-0378 Category: T1 Type: THEATRICAL FLASH
 Class/UN No: 1.4G/0431 Batch No: 01-Nov-16 Max NEC: 8 (grammes per Unit)

(Wells products must not be supplied to or used by a member of the general public or any person under 18)

FS4 SAFETY FIRST

- SC001 T1 users may only use these articles for theatrical purposes within Stage, film and television productions, as well as within music or show productions.
- sc002 All T1 users must abide by the stated Minimum Safety Distance on the product and given below.*
- sc004 Always test a sample of the product to be used to confirm suitability to the job and the venue.*
- sc018 Do not fire these products in a confined space or an area with poor ventilation.*
- sc005 Typically T2 users should allow at least 1.5 times the Stated Directional Effect (or calculated Sound distance) as a safety margin when firing towards (or near) persons, scenery or flammable objects in the effects designed orientation.*
- SC006 These products produce a bright flash and localised heat. They can project hot sparks to a considerable distance. There will also be some smoke on discharge and, if so designed, a loud report or concussion.
- sc019 These products are designed to be fired straight upwards. If you wish to fire at any other angle, please contact Wells Fireworks for further advice.*
- sc041 These products are primarily designed for indoor use and only function correctly in still or near still air conditions - If used outdoors expect a loss of performance especially if fired in moving air.
- sc015 Do not fire directly underneath any persons, scenery or flammable objects.*
- SC036 Do not stick any form of covering over this product. To do so may dramatically change its performance or cause it to explode.
- SC031 This product has an easily damaged covering/lid. It is easily cut or torn and may be ignited by large sparks. Handle all pyrotechnics carefully and if damaged, do NOT use.
- SC033 Ensure the products are secured firmly, using suitable holders/containers as necessary. Always avoid undue force when rigging products as this may damage the units.
- SC029 Bridge Wire Resistance - 1.0Ω (Std. Deviation ± 0.09Ω). Max Test Current 40mA. Max No-Fire Current 300mA. Min Firing Current 1.0A. Recommended Nominal Firing Current 1.25A.
- SC046 * Please Call or Email Wells Fireworks for further details if you intend to use these effects in a way other than intended by the manufacturer.

FS24 Product Specific T2 Data for use by Persons With Specialist Knowledge

Effect Code	CE Variant	A (m)	B		C (m)	D (m)	T (m)	T1 Safety Distances	
			dB	@m				Effect	Radial
STVSWR00WHSMLL	Small (Report)	1.8	114.4	10	0	0	1	6	6

Key - A: Effect distance. B: Sound Pressure level including the measuring distance. C: Hazardous debris distance. D: Information on incandescent particles returning to the level from which the device was fired. T: Radial effect distance.

T1 Safety Distances: These are the recommended minimum safe use distances for amateur use.

* Wells Fireworks assumes no liability for the misuse of this product. It is up to the purchaser to ensure the safe use and suitability by Test Firings prior to the performance or public admittance.

WELLS FIREWORKS - GENERAL SAFE USE GUIDE

(Wells products must not be supplied to or used by a member of the general public or any person under 18)

FS1

FS2

FS5

Safety Distances

FS6

T1 users Should only use T1 products and should abide by the minimum Safety Distance specified on each product. Always consider increasing this to allow for noise, airflow or unforeseen incidents, (Units falling over, performers moving, etc).

FS7

T2 users (Persons with Specialist Knowledge) This distance is for the Operator to calculate using experience and the applicable data given overleaf. This Distance should also take into account the products possible effect on the audience, performers, other staff, scenery, flammable objects, etc and reasonable variations within batches.

FS8

Test Firings and Noise Levels

FS9

Always test samples to confirm suitability to the job and the venue. Test any 'new' products outdoors first from a safe distance before trying inside. For T2 users, use of appropriate witness screens may help to determine a products effect on surfaces within the venue. Always monitor noise levels, especially if using a product designed to have a report or concussive effect. These tests will allow an accurate Risk Assessment to be undertaken PRIOR to the event.

FS10

Smoke, Light and Fumes

FS11

Pyrotechnics produce varying amounts of all or some of the following:- Heat, Smoke, Fumes, Dust, Sparks, Flashes of Light, Noise and Concussion. Do not use in small or poorly ventilated venues as excessive inhalation may cause medical side effects and should always be avoided. If used in large well ventilated areas the smoke and fumes should not pose any problems. However should anyone complain of side effects from inhalation or suffer directly from excessive inhalation, remove them to a fresh air source and seek medical assistance.

FS12

Spillage, Contamination and Disposal

FS13

If a product bursts or leaks, warn others of the hazard and keep them clear. Remove all sources of ignition. Put on protective gloves and a dust mask, and gently sweep up the loose powder, composition and packing. Secure the waste in a well labelled plastic bag or container. Dispose of in accordance with local regulations.

FS14

Physical Contact with Pyrotechnic composition

FS15

If powder or composition from a Pyrotechnic contacts skin or eyes, wash the area freely with cold running water. In the case of inhalation remove the victim to fresh air. If composition is swallowed and the victim is still conscious then drink plenty of clean cold water (do NOT induce vomiting). In ALL cases seek medical assistance.

FS16

Firing Pyrotechnics

FS17

Always use an 1 issue hearing protection as necessary. Always use a professional, isolated firing system. Ensure it can't be fired or left live whilst rigging. Avoid placing cables in locations where they may pick up stray EMF'S. The igniters used in Wells products have a resistance of 1.0 Ω and require 1.25 A to fire. When calculating the necessary fire voltage always allow a generous margin to cover possible electrical losses in the firing circuit.

FS18

Mis-fires and Failures

FS19

In the unlikely event of a misfire or product failure always check the complete firing system and re-fire when safe to do so. If after this it is still felt the product is at fault it should be left alone for a minimum of 1 hour. Failed product should be repacked as it was delivered and returned to Wells Fireworks - (After arranging to do so with Wells).

FS20

Storage and Transport

FS21

The user must comply with the Countries Explosives Regulations. As a rule Pyrotechnics should be stored in a secure, cool, (not cold), dry place with an appropriate licence. No other hazardous material should be stored with them. Access to the Store should only be available to the operator and other approved persons. The products Hazard/UN Code is given overleaf. Pyrotechnics should be stored in their original packaging. If you repack pyrotechnics for transport or storage then they may no longer comply with EU packing and transportation regulations.

FS22

Handling and Rigging

FS23

Always handle Pyrotechnics carefully - They are not designed to withstand dropping, rough handling or violent vibrations. Avoid sharp edges or rough surfaces which may damage the outer case. Ensure the product is secured firmly. However avoid undue pressure or force as this will damage the product and may cause a malfunction. If damaged, do NOT use. The igniters used are sensitive to stray currents. Keep effects and cables away from high power emfs, stray currents, radio waves and Mobile phones. Avoid direct sources of ignition or intense heat sources. Do not modify these products in any way or use them other than intended. Protect from wet or humid conditions.

If you have any further questions, please call us on 01903 882366 during normal weekday hours.


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Risk assessment

Production name: **Live/Wire - The AC/DC Show**

Date of risk assessment: **10/1/2018**

USE OF SMOKE CHARGES IN CANNONS

What are the hazards?	Who might be harmed and how?	Control Measure	Action by Who?	Likelihood (with Controls)	Severity of Risk
Fire resulting from faulty charge or Poor Positioning of Cannons/Charges	Performers, Touring Crew, Venue Staff and Audience	<p>Charges to be stored in accordance to manufacturer guidelines (Product Use Data Sheet)</p> <p>Each Charge to be visually checked for damage prior to loading</p> <p>Interior parts of the Cannons to be regularly maintained and treated with fire retardant substance</p> <p>Where multiple Charges are used they are to be separated in the Cannons by fire retardant dividers</p> <p>Loading and Operation of charges to be done by designated experienced person</p> <p>Cannons to be placed away from drapes and backdrops and aimed into roof space</p> <p>Charges not to be used on stages with restricted ceiling or depth</p> <p>Appropriate Fire Extinguisher to be located in reach of operator</p>	Touring Stage Manager	3	9

What are the hazards?	Who might be harmed and how?	Control Measure	Action by Who?	Likelihood (with Controls)	Severity of Risk
Shock or Distress Caused by Loud Bang	Stage Crew (touring and in house) and Performers	All those who could be effected will be advised of when the charges will be activated Stage Manager to retain key to activation controls when not in use	Touring Stage Manager	1	4

CERTIFICATE OF TRAINING



This certificate is awarded to



Jim Parsons



In recognition and completion of the Just FX course

PRACTICAL PYROTECHNICS - SAFETY AWARENESS
hosted by the Backstage Academy
at Production Park - Wakefield

Lincoln Parkhouse

30th November 2016



ENTERTAINMENT ELITE INSURANCE POLICY SCHEDULE

Policy Number	GBT000144170/W1002538
Schedule Number	002
Reason for Issue	Increase limit of indemnity to £5,000,000. Amend Business Description.

The Insured	Timothy Parsons
Postal Address	298 Uttoxeter Road, Blythe Bridge, Stoke-On-Trent, Staffordshire, ST11 9LY
Effective Date	30 November 2017
Expiry Date	9 June 2018 at 12:00hrs
Business Description	Backline Technician/ Stage Pyrotechnics

Applicable Policy Clauses	None Applicable
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PROPERTY DAMAGE ALL RISKS SECTION NOT INSURED

BUSINESS INTERRUPTION ALL RISKS SECTION NOT INSURED

MONEY SECTION NOT INSURED

PUBLIC & PRODUCTS LIABILITY SECTION INSURED

		Limit of Indemnity
Public Liability	Any one occurrence as stated in the Policy	£5,000,000
Products Liability	Total payable during any one Period of Insurance as stated in the Policy	£5,000,000
Public & Products Liability Section Excess		
Third Party Property Damage, each Claim		£250