Certificate of Verification

This is to certify that the

The Defender 942 Series Crash Barrier
V/7500[N2]/48/90:0/7.9

Supplied by:

Broughton Controls Ltd

33 Stakehill Industrial Estate, Middleton, Manchester M24 2RW

has been assessed by The High Performance Assessment Ltd and for the conditions stated on this certificate complies with:

PSSA Specification PSP001: 2011
and other requirements of the PSSA Product Verification Scheme

Product Registration No.: 00002
This certificate issued: 8 December 2011

HPA Certificate No.: 10005b
Expiry Date: 7 December 2014

Signed on behalf of the HPA Ltd

Director

Signed on behalf of the PSSA

Scheme Manager

HPA carried out the verification based on the evidence provided.
PSSA reviewed this against Scheme requirements to confirm suitability for listing.

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Suppliers Management System

Assessment scope:
The design, manufacture, installation & servicing of automatic security equipment for PSSA validation of the Defender 941 & 942 series crash barriers

UKAS accredited certification body: SGS UK Ltd Certificate No.: GB 92/1390

Management System Verification

Evaluation of objective evidence provided by the supplier has permitted verification that:

- the maturity of the suppliers quality management system has reached a level that meets the requirements of the PSSA Product Verification Scheme
- the management system provides confidence in the capability to control design changes, manufacturing consistency and testing for the product(s) covered by this certificate
- Suppliers published documentation, including operating instructions, installation procedures and marketing materials, make claims that can be substantiated in respect of product compliance with specified standards

Verified Product Performance

Product name and model number: Defender 942 series crash barrier.

Product Description:

The Defender 942 composite beam barrier is a heavy-duty, dual beam rising arm vehicle barrier with two impact stanchions which each incorporate, independent, underground support frameworks. The arm consists of two aluminium tubes, each containing a composite vehicle arrestor system. The barrier utilizes a shallow foundation mounting system and is primarily intended for outdoor use, but is also suitable for indoor use if required.

Hostile Vehicle Impact Rating(s): V/7500[N2]/48/90:0/7.9

Vehicle Information: Vehicle Type: Daf 45 LF curtain sided.
Vehicle weight: 7500kg
Vehicle speed: 48Km/h

Impact Angle: 90 +/- 2 degrees

Vehicle Penetration Distance: 0 m

Dispersion: 7.9 m

Test organisation (ISO 17025) certificate No: MIRA Ltd. UKAS Cert No: 1105

Test reports applicable to current product: MIRA K0065 28th July 2011

Verified Product Compliance

The following regulations and standards have been applied to these products:

Health and safety requirements:

EC Directives

98/37/EC	Machinery Directive Supply of Machinery (Safety) Regulations (SI 1992 No. 3073)
73/23/EC	Low Voltage Directive Electrical Equipment (Safety) Regulations & Amendments (SI 1994 No 3260)
89/336/EC	EMC Directive Electromagnetic Compatibility Regulations & Amendments (SI 1992 No. 2372)
97/23/EC	Pressure Equipment Directive (SI 1999 No. 2001)

Compliance with internal and external regulations, codes of practice and applicable standards:

Safety of Machinery:

BS 6571: 1989 (1997)	Part 4 - Barrier type parking control equipment
BS EN 292: 1991	Safety of machinery - basic concepts, general principles for design: Part 1 - Basic terminology, methodology Part 2 - Technical principles and specifications
BS EN 294: 1992	Safety of machinery - Safety distances to prevent danger zones being reached by upper limbs
BS EN 349: 1993	Safety of machinery - Minimum gaps to avoid crushing of the human body.
BS EN 953: 1997	Safety of machinery - General requirements for the design & construction of fixed & moveable guards
BS EN 954: 1997	Safety of machinery - Safety related parts of control systems: Part 1 - General principles for design
BS EN 982: 1996	Safety of machinery - requirements for Fluid Power systems and their components - Hydraulics: Part 1 - General principles of design Part 2 - Technical principles and specifications
BS EN 1037: 1996	Safety of machinery - prevention of unexpected start up

BS EN 1088: 1995	Safety of machinery - Interlocking devices with and without guard locking: general principles & provisions for design
BS ISO 1219:1995	Graphic symbols and circuit diagrams
BS ISO 4413:1998	Hydraulic Fluid Power - general rules relating to systems

Electrical:

BS 7671: 1994	IEE Wiring Regulations
BS EN 418: 1992	Safety of machinery - Emergency stop equipment, functional aspects, principles for design
BS EN 954: 1997	Safety of machinery - Safety related parts of control systems: Part 1 - General principles for design.
BS EN 60169:1994	Physical wiring connections
BS EN 60204: 1993	Safety of machinery: electrical equipment of machines: Part 1 - General requirements
BS EN 60529:1992	Degrees of protection provided by enclosures

Electromagnetic Compatibility:

BS EN 50081: 1992	Generic Emission Standard Part 1 - residential, commercial and light industry Part 2 - industrial environment
BS EN 50082: 1992	Generic immunity standard Part 1 - residential, commercial and light industry Part 2 - industrial environment

Generic:

PAS 68:2010	Impact test specification for vehicle security barriers
PAS 69:2006	Guidelines for the specification & installation of vehicle security barriers

Exclusion of Liability The Perimeter Security Suppliers Association or HPA Ltd –

1. Has and accepts no liability whatsoever for any failure of any system or systems assessed under this Scheme or for the quality, fitness for purpose, or safety of any product or service which is the subject of such assessment,
2. Does not provide any representation or warranty as to any aspect of any such system, product or service, and
3. Hereby expressly exclude any and all liability or responsibility (however alleged to arise) for or in connection with the provision of any service or product or any use of any product, all and any such liability or responsibility attaching exclusively to the producer or supplier (or user as the case may be) thereof.