



GOLDEN SCAN HPE



PROFESSIONAL SHOW LIGHTING





GOLDEN SCAN HPE

Golden Scan High Performance stands at the top of the Golden Scan range, the most highly regarded line of Clay Paky luminaires world-wide, which has brought moving mirror projector technology to unprecedented levels of quality and perfection.

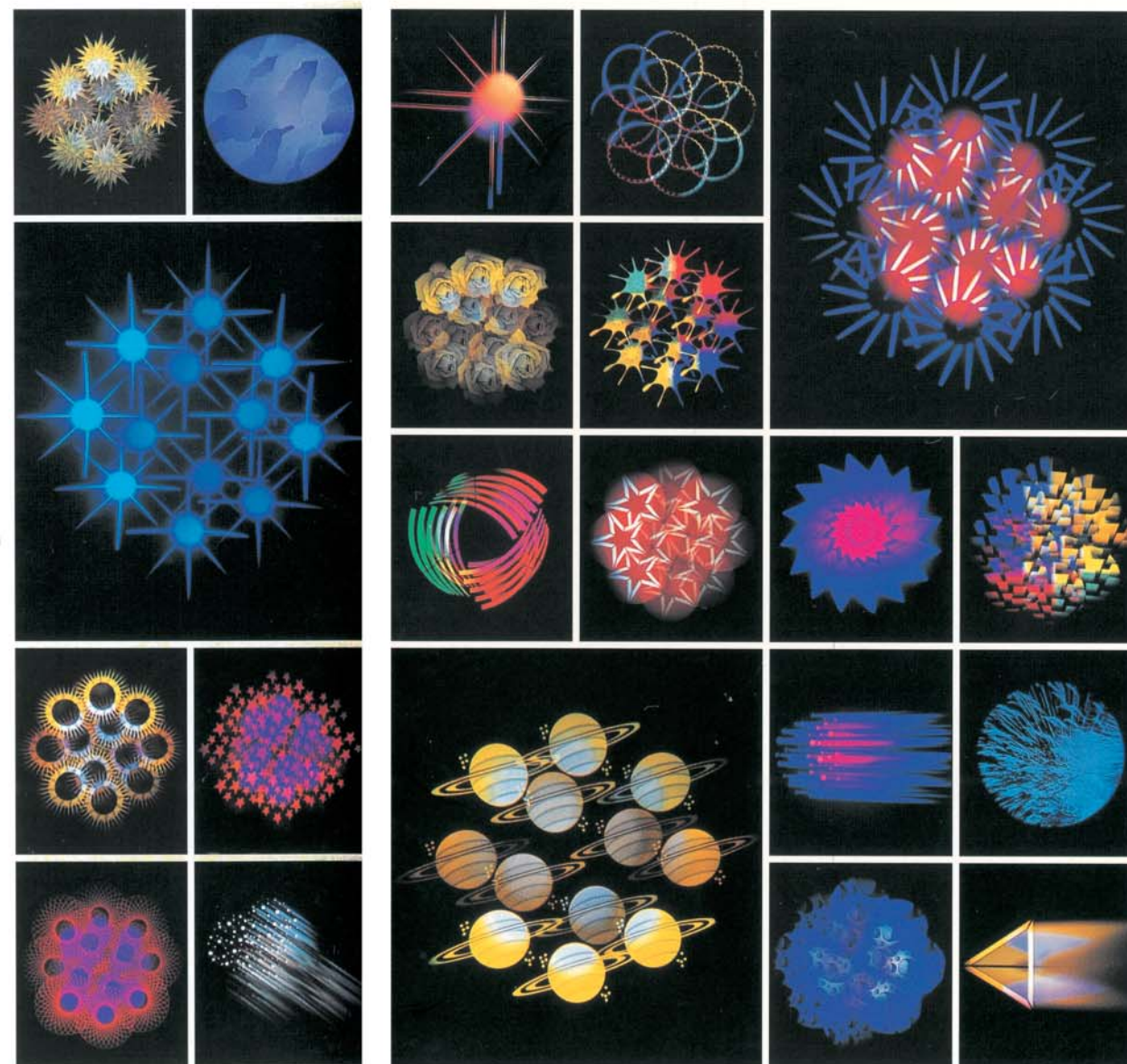
The many strengths



and innovations exclusive to **Golden Scan HPE** include outstanding enhancement of wide angle effects and exceptional versatility of graphic features, achieved through the design and construction of new and sophisticated solutions for the gobo and prism systems.

These new features, together with all the high-level features which you would expect of a Clay Paky projector, are readily accessible on the lighting designer's control desk, providing ever better tools for the expression of professionalism and creativity.

It's no coincidence that the Golden Scan family has been awarded first prize by the top international experts of professional show lighting no less than 12 times in seven years: **Golden Scan HPE** embodies all the qualities and features necessary to continue blazing the trail to success.



AWARDS



1. USER INTERFACE

This panel represents **Golden Scan HPE's** user-friendly interface. It accommodates all the accessories for control signals, the switches for addressing digital signals, and the controls for selecting channel function options to change operating modes and obtain special gobo and colour effects.

And we have also included a lamp hourmeter as a further confirmation of the professional level of **Golden Scan HPE**.



3. OPTICAL SYSTEM

The optical system, based on a twin-lens condenser, ensures a perfectly uniform and sharp-edged beam, even at the maximum angle of aperture.

The system also means that the effective light output of the luminaire amounts to approximately six times the rated value of the lamp.

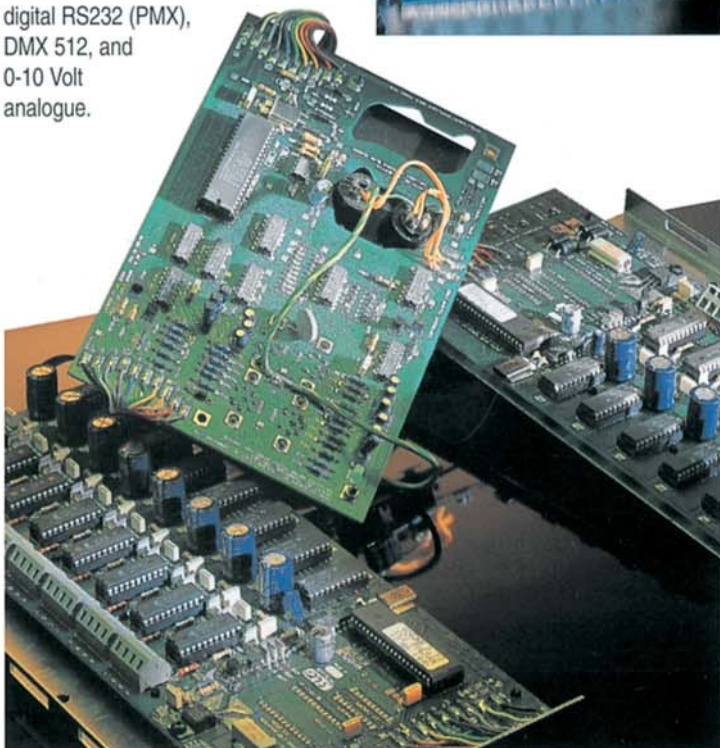
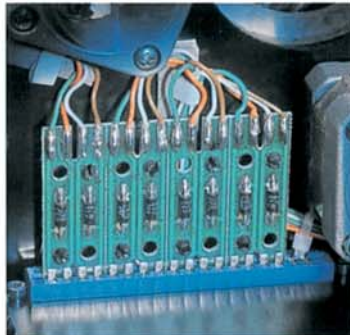


2. ELECTRONICS

Developed and produced expressly for **Golden Scan HPE** by Pulsar Light of Cambridge UK, the electronic systems are sophisticated and reliable, providing a real time interface for all the functions of the projector.

The signals adopted are those available on the most widely used and best-known professional control desks:

digital RS232 (PMX),
DMX 512, and
0-10 Volt analogue.



4. LAMP

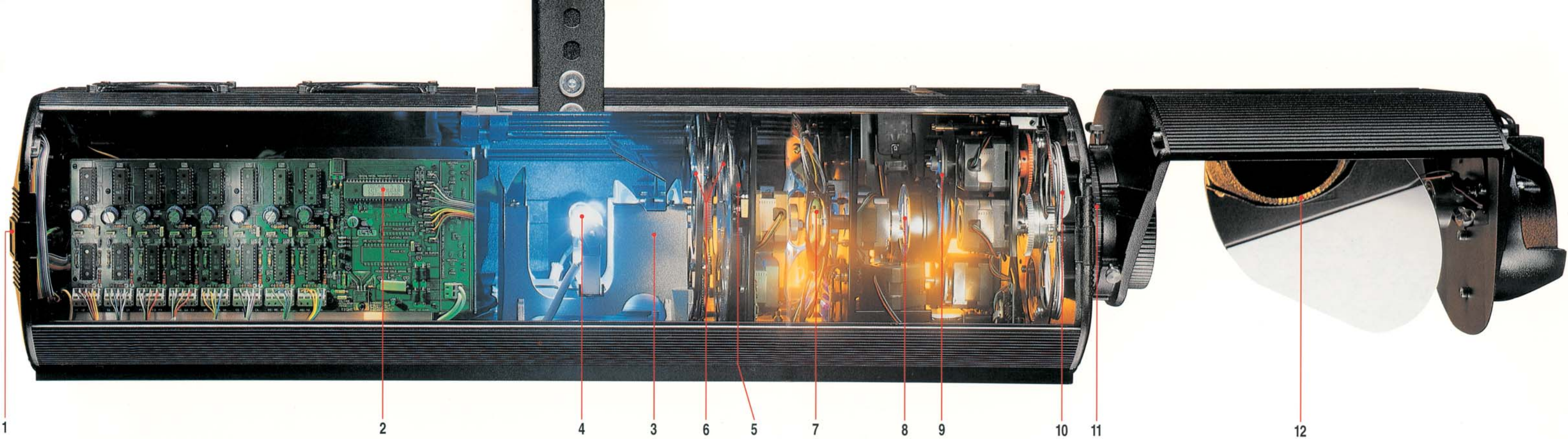
The Osram HMI 1200 discharge lamp, with its 110,000 lumen output and guaranteed average life of 750 hours, is the most reliable on the market for professional applications.



5. IRIS

The iris opens and closes at user-adjustable speeds, and thanks to a Clay Paky patented system, the fastest opening and closing times have been reduced by 1/3 with respect to conventional systems.





6. GOBOS

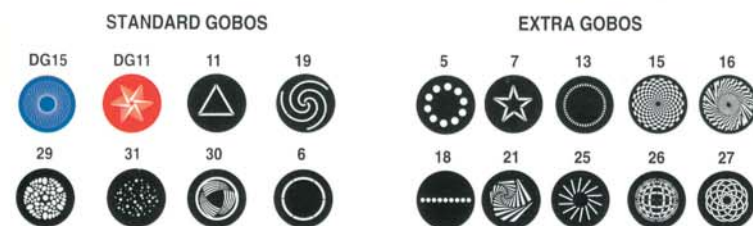
The Gobo system provides an extraordinary range of graphic effects.

The system comprises two separate wheels designed to work independently or together so that the patterns can be combined.

The rotary gobos are indexed and can spin in either direction at speeds that are continuously variable from an almost imperceptible minimum up to the top speed of 150 revs per minute, far faster than other gobo systems.

In addition to the 10 extra gobos that come with the standard projector, we also offer a vast range of metal gobos.

The transparent gobos, made of high temperature thermal glass to create the sharpest of images, formed the object of a Clay Paky research project to create a range of absolutely original patterns that are more spectacular than ever (see table)

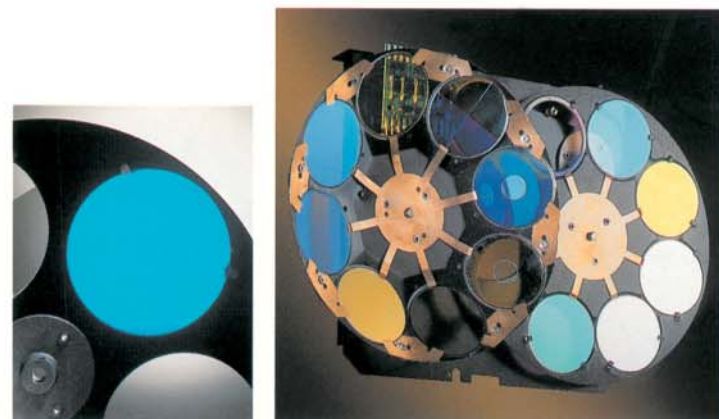
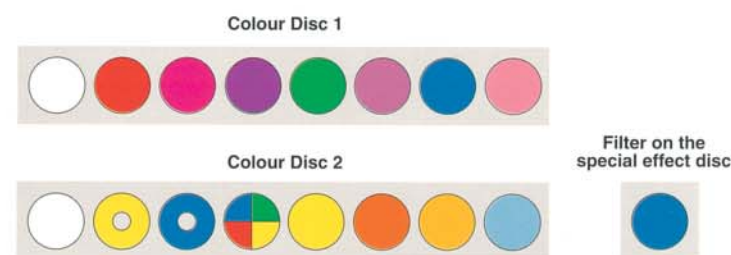


7. COLOURS

The 113 colour combinations available with **Golden Scan HPE** are achieved by means of a series of high purity dichroic filters and special effects filters, mounted in three fully independent colour disks.

The colour filters allow you to project bi-colour beams from two adjacent colours on the colour wheel, bi-colour

concentric beams and four colour beams; the effects wheels also carry a further two filters for colour temperature conversion, ultra violet and another pale blue filter. Lighting designers need only open our catalogue to find the widest range of interchangeable dichroic filters with a virtually limitless choice of colours.



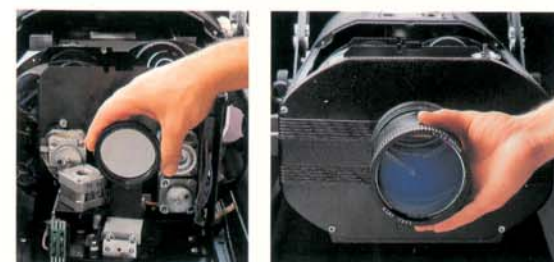
8. LENS

One of the most interesting new features of **Golden Scan HPE** is its high-quality wide-angle projection capacity.

The lens covers a full 24°, and can be combined with the exclusive focal length change device which switches the projection angle from 24° to 15°.

Another new development is the optional lens modification kit: a group of lenses that provides an angle of 13°, which, when combined with the focal length change device, gives the narrow angle of 9°.

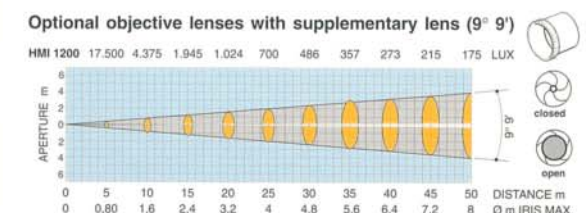
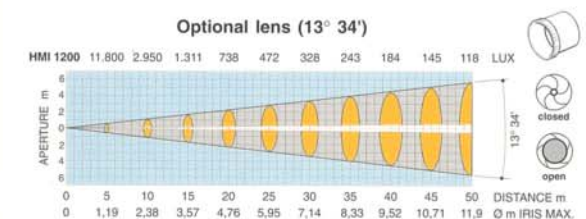
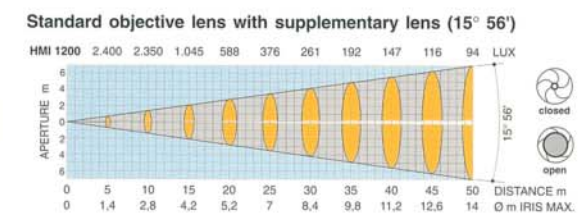
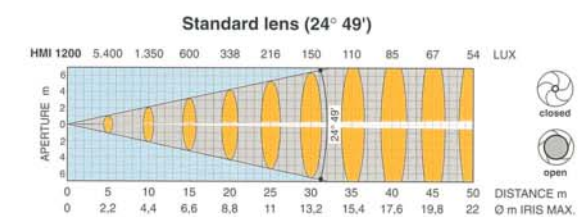
The focal length is changed from the control desk, as is the focus, which assures perfectly sharp images irrespective of distance and aperture.



9. DIMMER-STROBE

The mechanical linear dimmer varies the luminous intensity from zero to 100%, with adjustable speed, totally uniform transition between the different levels, and the facility for blacking out the light beam instantly.

The strobe function, with variable frequency from 1 to 7 flashes per second, is created using a mechanical device with two blades which enhances the effect and provides a black-out time of only 70 milliseconds.



10. PRISMS AND DIFFUSION

PRISMS

Golden Scan HPE has a total of five high optical quality prisms.

One static prism mounted on the special effects wheel multiplies the pattern by five.

On another wheel there are four rotating prisms with different effects, which can revolve in either direction at variable speed.

The first doubles the pattern, and when it rotates, produces an intriguing oscillating effect.

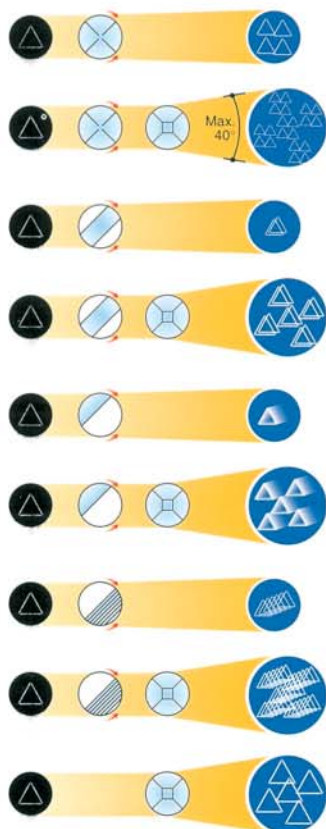
The second produces four identical and separate images.

The third simulates a 3-D effect by multiplying the image to infinity.

The fourth projects an effect like a comet with its characteristic tail.

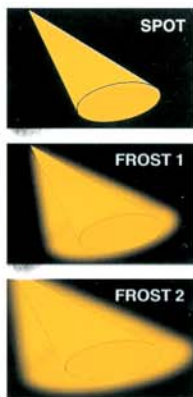
The 3-D effect and comet-effect prisms are exclusive Clay Paky features.

The four rotary prisms can be combined with the 5-face static prism to produce multiple combinations of different effects.



DIFFUSION

The Frost effect, obtained with two special filters with different diffusion, makes it possible to change gradually from a concentrated beam to an increasingly soft edged light, until total diffusion is reached, with a very wide angle.



11. SPECIAL AND SAFETY DEVICES

For professional use, **Golden Scan HPE** is fitted with side handles for ease of transport, graduation of the mounting bracket and mirror adapter, and a built-in power factor correction system. A silenced version of the projector is also available on request, for use in theatres and television studios.

The construction features facilitate the work of operators and maintenance personnel, who are fully protected thanks to the safety retaining chain, the retaining cords on the lamp change cover and the safety switches for automatic disconnection from the power supply. What's more, the electronics and effects plates are easily changed thanks to the quick connect, slot-in system.



12. MIRROR UNIT

The mirror unit can rotate through 360 degrees on the projector body, which can therefore be used in any position required by the lighting designer.

Beam movement is achieved by a high reflectivity mirror, large enough to capture even a full aperture beam.

The high resolution microstepping motors provide smooth and continuous movement, also at the lower speeds, plus very high precision and repeatable positioning.



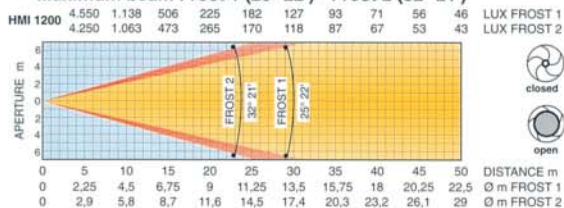
13. CONTROL CHANNEL

The table shows all the functions controlled by the **Golden Scan HPE's** 12 channels.

CHANNEL												
	1	2	3	4	5	6	8	9	10	11	12	
%	IRIS	Color Disc 1	Color Disc 2	Dimmer Strobe Strobe	PAN	TILT	Frost and Effect	Prism Rotation	FOCUS	Fixed Gobo Select	Rotating Gobo Select	Gobo Rotation
100%												
75%												
50%												
25%												
0%												

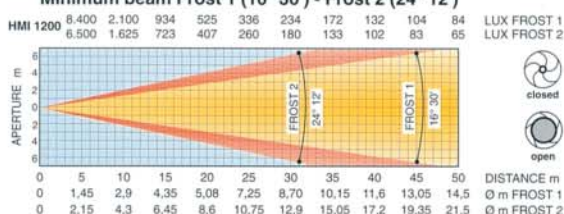
Standard lens

Maximum beam Frost 1 (25° 22') - Frost 2 (32° 21')



Standard objective lens with supplementary lens

Minimum beam Frost 1 (16° 30') - Frost 2 (24° 12')



TECHNICAL SPECIFICATIONS

POWER SUPPLY

- Standard version: 200-240 V / 50-60 Hz. • A special version is available for 208 V / 60 Hz.

POWER CONSUMPTION

- The luminaire is supplied with power factor correction as standard; the total absorbed power is 1500 VA.

MOTORS

- The Golden Scan HPE uses a total of 15 stepper motors in microstepping operation with full micro-processor control.

OPTICAL SYSTEM

- Main optical system in die-cast aluminium comprising a twin-lens condenser and special high-luminous-efficiency parabolic mirror.

MIRROR MOVEMENT

	Pan	Tilt
Angles of mirror movement	150°	110°
Maximum viable speed	0.4 s/150°	0.3 s/110°
Positional accuracy	± 0.3°	± 0.2°

ELECTRONICS

- Developed specifically and exclusively for Clay Paky by Pulsar Light of Cambridge • Three microprocessors receive the signals and simultaneously control all the functions in real time.

INPUTS

- DMX 512 serial digital input • RS 232/423 (PMX) serial digital input • 0-10 V analogue input control channels.

SAFETY STANDARDS

- Complies with all the relevant safety standards in force • Protection level IP 20 • Power supply cable complies with CEI standard 20/22 III.

SAFETY DEVICES

- Microswitch for cutting out power supply when cover opened • Thermal cut-out • All the signal inputs are protected against accidental connection to the power supply and static discharge.

COOLING SYSTEM

- Forced ventilation system using an axial-flow fan and internal ducting for optimised air flow.

LAMP HOUR COUNTER

- Non-resettable progressive counter powered by the lamp circuit.

BODY

- In die-cast and extruded aluminium • Epoxy powder painted finish • Four aluminium side handles.

MIRROR HEAD

- Can be rotated through 360° on the luminaire body • Graduated for precise, repeatable positioning • Safety chain attachment point.

MOUNTING BRACKET

- In aluminium with an epoxy powder painted finish • Six installation positions in 25 mm steps • Bracket adjustable through 110° with graduated scale for precise, repeatable positioning • Safety chain attachment point.

WORKING POSITIONS

- Operates in any position within the quadrants ± 90° from the horizontal plane.

WEIGHT (Kg)

	Net	With packaging
Golden Scan HPE w/o mirror head	39	42
Mirror head	3.2	4.7
Golden Scan HPE with mirror head	42.2	46.7

PACKAGING

- It can be supplied in a top quality custom flight case with or without wheels to order.

ORDERING REFERENCES

C 11150

Golden Scan HPE - HMI 1200 (without mirror head).

C 21061

Mirror head for Golden Scan HPE.

F 21120

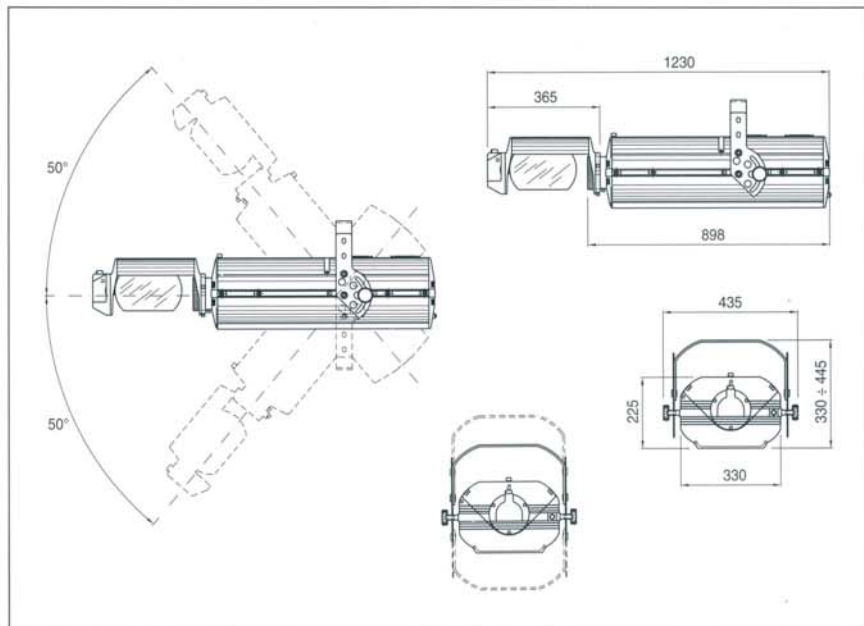
Flight-case for Golden Scan HPE (with wheels).

F 21121

Flight-case for Golden Scan HPE (without wheels).

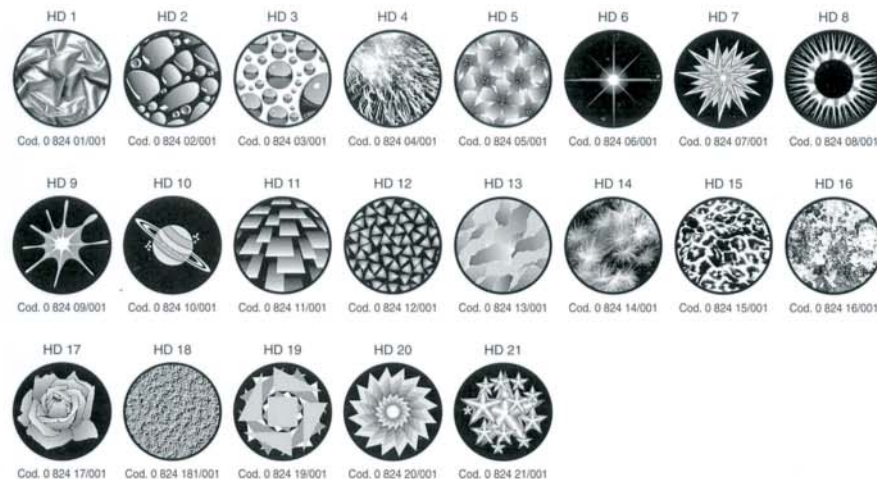
C 31139

Optional lens modification kit.

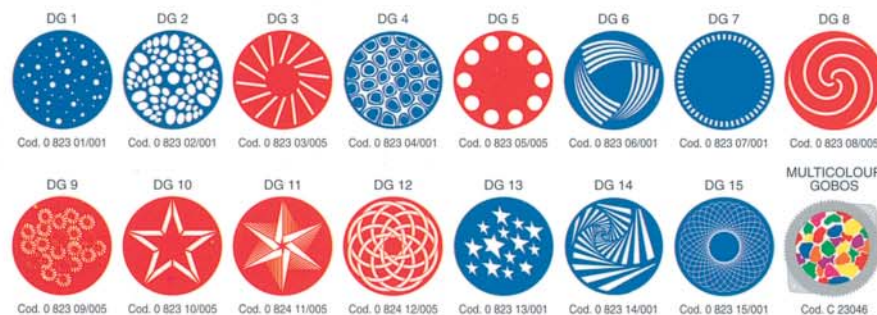


GOBOS

HD PHOTOGRAPHIC GOBOS (ext. ø 51,8 mm - image ø 48,8 mm)



DICHROIC GOBOS (ext. ø 51,8 mm - image ø 48,8 mm)



M-SIZE GOBOS (ext. ø 66 mm)

