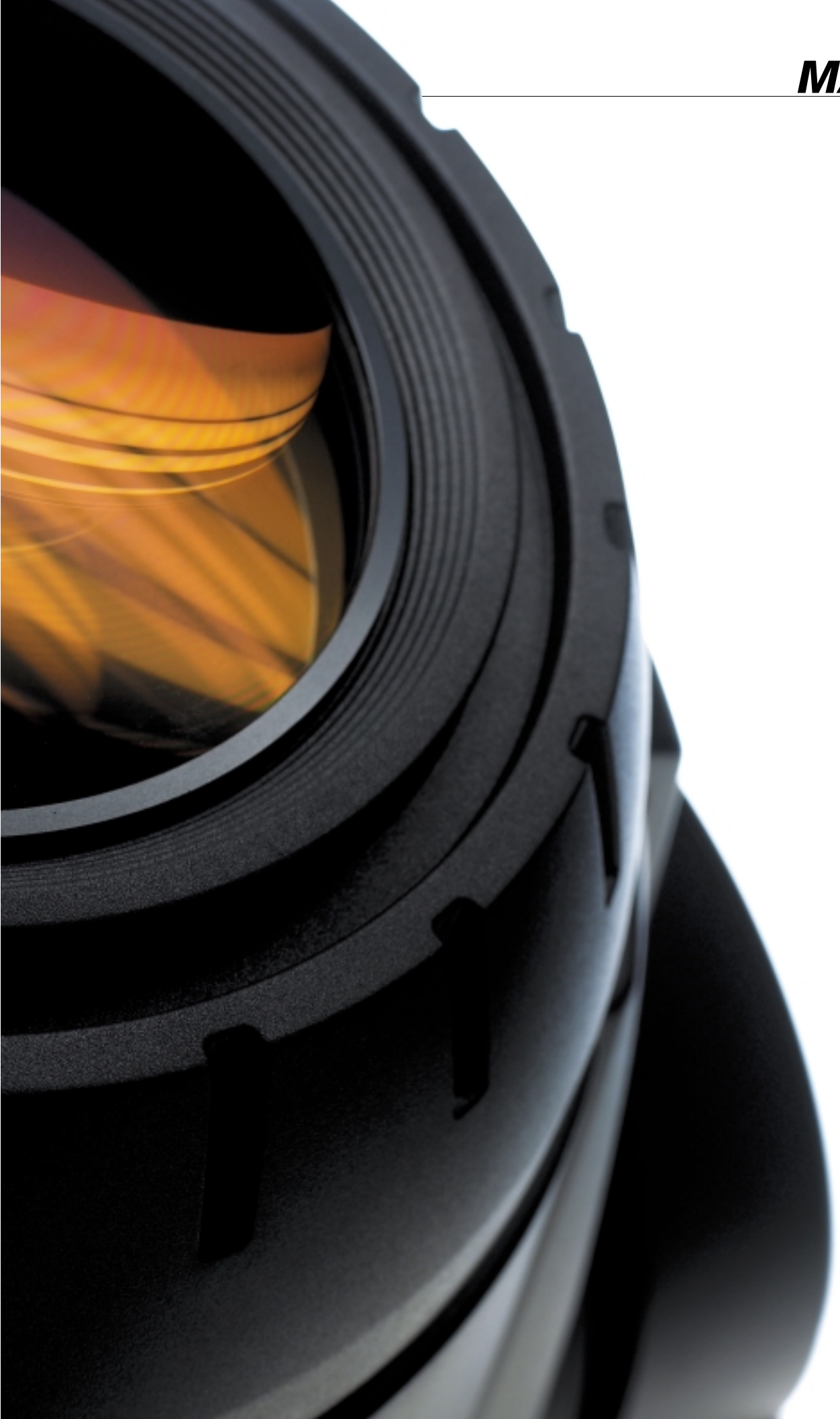
MAC 2000 Series

Profile
Performance
Wash



Martin

Since it launched in 2000 the MAC 2000 Series has won over both designers and technicians en masse. Now widely regarded as the most influential range of luminaires in the industry, the series that consists of the Profile, the Performance and the Wash continues to find favor in an increasing variety of applications. The Series has also won industry recognition for technical excellence.

Entech 2002
- Best Intelligent Lighting Fixture: MAC 2000 Profile

EDDY Award 2002
- Lighting Product of the Year, Moving Light: MAC 2000 Performance

PLSN Award 2002
- Technical Excellence: MAC 2000 Profile and MAC 2000 Wash

PLASA 2002 Commendation
- Product Excellence: MAC 2000 Wash, MAC 2000 Performance

PLASA Award 2000
- Product Excellence: MAC 2000 Profile

LIVE Award 2001
- Best New Lighting Product: MAC 2000 Profile

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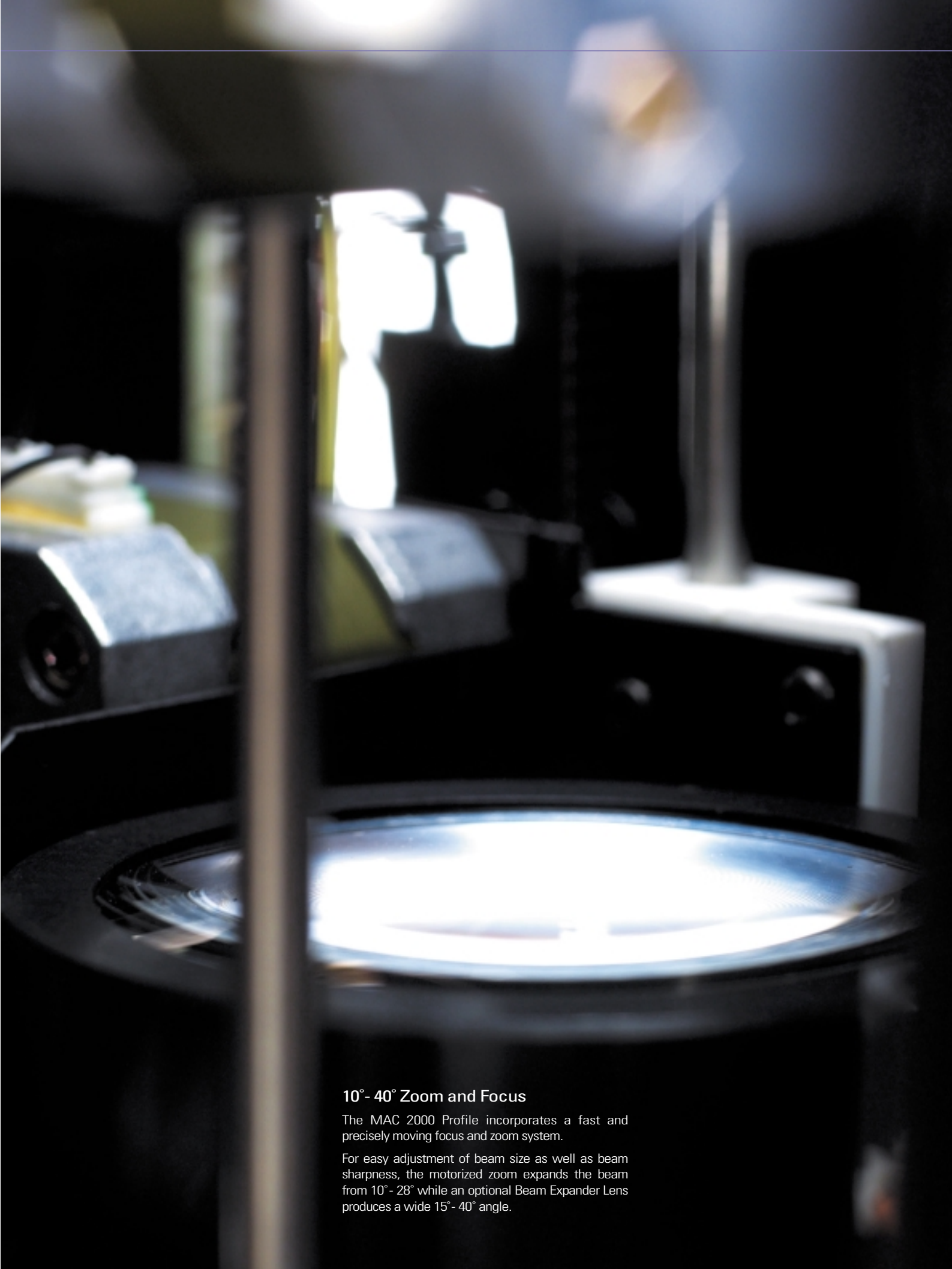


10˚- 40˚ Zoom and Focus

The MAC 2000 Profile incorporates a fast and precisely moving focus and zoom system.

For easy adjustment of beam size as well as beam sharpness, the motorized zoom expands the beam from 10˚- 28˚ while an optional Beam Expander Lens produces a wide 15˚- 40˚ angle.

ATTENTION TO DETAIL

The first in the MAC 2000 series, the MAC 2000 Profile is the high performance lighting tool for larger environments. Based on input from lighting professionals worldwide, the Profile delivers an exceptional combination of power and new projection possibilities.

Optics

The MAC 2000 Profile's advanced 10-lens optical system produces an extremely bright and sharp beam with high definition contrast and consistent beam field characteristics.

The high quality multi-coated lenses eliminate reflection and spill light while maximizing the full potential of the powerful HMI 1200-watt light source.

The special 10-lens system combines with a parabolic glass reflector to provide a bright and highly efficient beam.

Unlimited Graphical Effects

Newly developed Moiré effects along with morphing, iris, strobe and 3D effects combine with a rotating prism to produce unlimited graphical possibilities.

The MAC 2000 Profile houses two dual rotational and indexable gobo wheels, each wheel housing 5 replaceable pattern effect slots. For precision control indexing works with 16-bit accuracy.

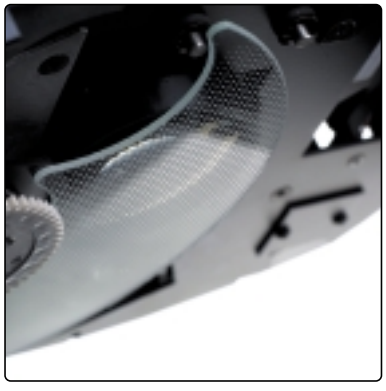
This combination of wheels, along with glass gobos included as standard, makes the MAC 2000 one of the most powerful graphic design tools in the industry.

Easy Gobo Replacements

Gobos can be replaced in seconds without the use of tools. Simply remove the gobo slot's single retaining spring to easily release the gobo. Slots take metal, glass or textured glass gobos.

Combined Color/Gobo Wheel

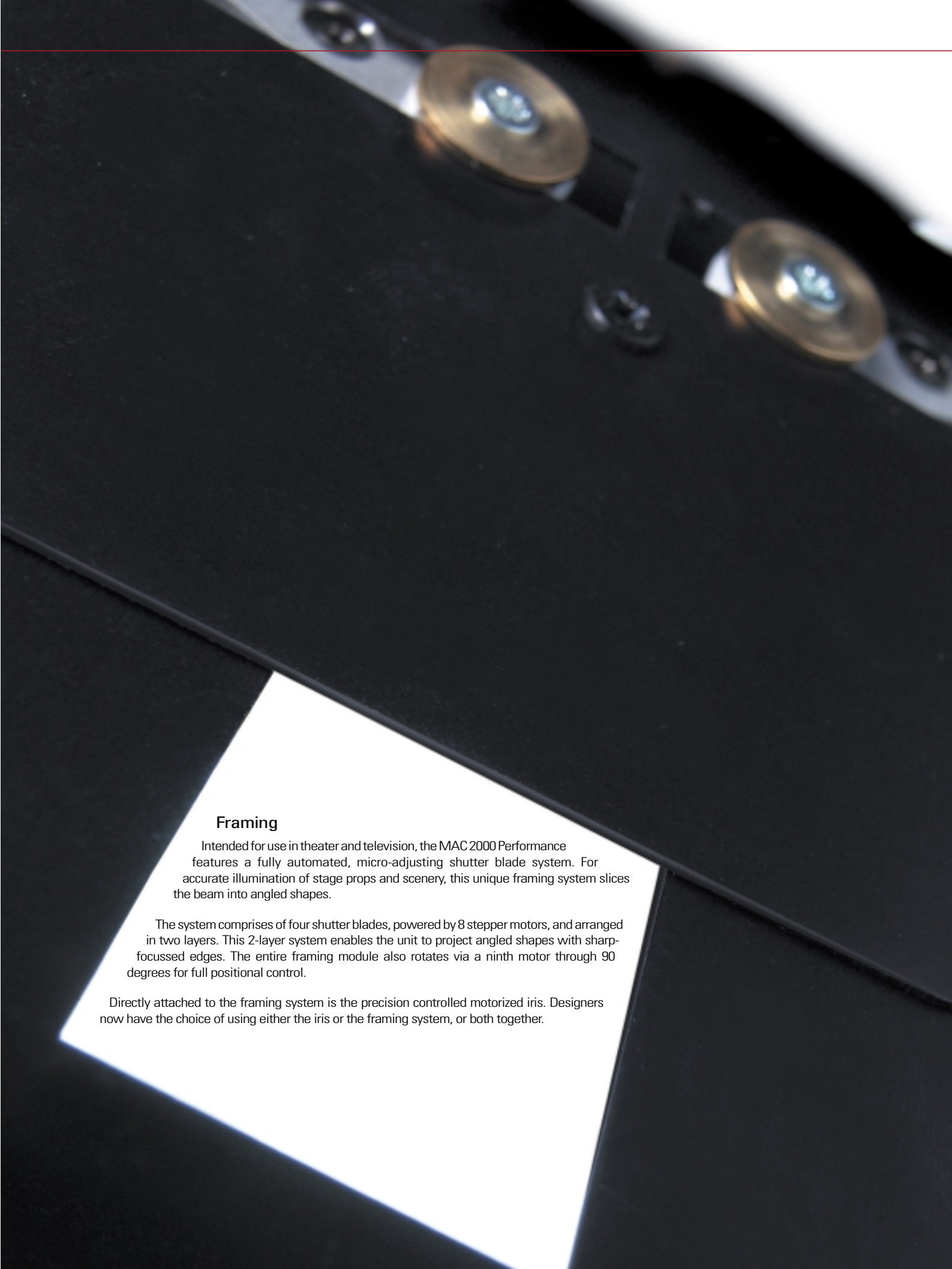
A combined color/gobo wheel houses 7 slot positions plus open (4 colors, 3 gobos standard). As with the two gobo wheels, all slots are easily replaceable allowing lighting professionals to incorporate their own original patterns or colors.



Effect Wheel

An additional effect wheel with two extra rotating and indexable effect positions also houses a variable frost capable of smooth fade in/out possibilities. The effect positions house a 3-facet prism and beam shaper for creating elliptical beams.

A motorized iris allows you to resize the beam quickly and accurately for fast effects with smaller beam sizes.



Framing

Intended for use in theater and television, the MAC 2000 Performance features a fully automated, micro-adjusting shutter blade system. For accurate illumination of stage props and scenery, this unique framing system slices the beam into angled shapes.

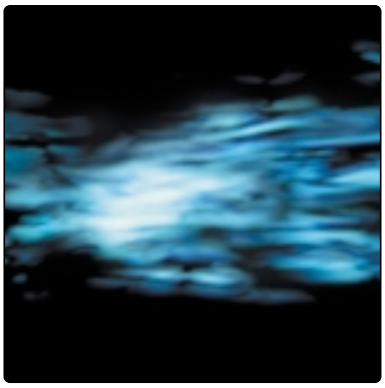
The system comprises of four shutter blades, powered by 8 stepper motors, and arranged in two layers. This 2-layer system enables the unit to project angled shapes with sharp-focussed edges. The entire framing module also rotates via a ninth motor through 90 degrees for full positional control.

Directly attached to the framing system is the precision controlled motorized iris. Designers now have the choice of using either the iris or the framing system, or both together.

LUMINOUS DRAMA

The artistic member of the family, the MAC 2000 Performance has earned accolades for both its theatrical framing system and its ground-breaking animation unit.

'Damn bright, bulletproof, and the pattern animation is stupid simple.'
EDDY 2002 judging panel



Animation

The MAC 2000 Performance features a unique gobo animation system, especially engineered to create dramatic animated effects such as waves, ripples, flames, sky, clouds, rain, snow, heat haze, and foliage.

For flexibility, the entire animation wheel pivots to allow designers to align their animations at any angle. Effects such as rising flames, windswept clouds or driving rain can be made to move in any direction.

The MAC 2000 Performance comes with 5 replaceable animation wheels, which are magnetically attached to the motor shaft, and easily replaced.

The first is fitted as standard with the others supplied as spares.

Gobo wheel

Besides its animation wheel, the MAC 2000 Performance is also equipped with a standard gobo wheel, which has 5 indexable, easy-to-replace rotating slots with 16-bit control for extreme accuracy.

Optics

A 10-lens optical system produces an extremely bright and sharp beam. Image projection remains consistent and sharp, from the center of the image to the edge.

The high quality multi-coated lenses eliminate reflection and spill light while maximizing the full potential of the HMI 1200W light source. The lens system combines with an elliptical glass reflector to provide a total luminous flux of 21000 lm.

Effect Wheel

The Performance is equipped with an extra effect wheel. This offers 3 useful options: variable frost, a special Beam Expander lens that increases the zoom range from 15° to 40°, and a non-rotating 9-facet prism that expands the beam still further to create an amazing wash effect with a 65° angle.

Barndoor

One of the most exciting developments for the MAC 2000 Wash is the availability of an optional motorized barndoor module. The module fits directly onto the front of the fixture and consists of four individually controllable blades. Each blade is fully closable and combines with 100 degree rotation of the entire module for full control.

The module comes complete with a fourth 65° lens, but can also be used with any of the other supplied lenses for the MAC 2000 Wash.

Commonplace on most generic washlight fixtures in theaters and television studios, barndoors could traditionally only be adjusted manually. Where Martin Professional breaks new ground is to place the barndoors under motorized control, operable via a DMX console.

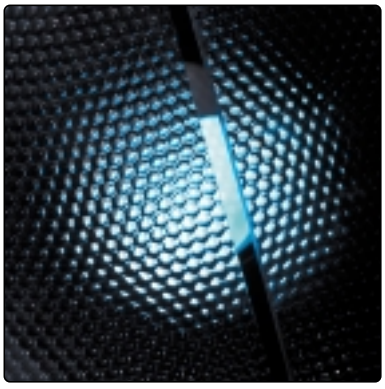
PURE BRILLIANCE

With the Profile and Performance fixtures achieving worldwide success, it wasn't long before a similarly effective washlight was demanded. Our goal was to satisfy that demand with a fixture that now ranks as the brightest we've ever produced.

Color wheel

The MAC 2000 Wash features two color wheels each with four replaceable color options plus open.

In order to aid lighting designers in achieving the largest variety of colors, the second wheel is replaceable to allow a number of further color possibilities.



Optical

To make the fixture as flexible as possible, the MAC 2000 Wash features a fully motorized zoom system. The zoom and optical system operate in conjunction with 3 interchangeable front lenses to provide a wider choice of beam angles.

Flexible lens system

For added flexibility, the MAC 2000 Wash comes supplied with 3 different front lens options. In conjunction with the zoom they provide a choice of spread angles for both long-throw projection and flat, even projection over short distances.

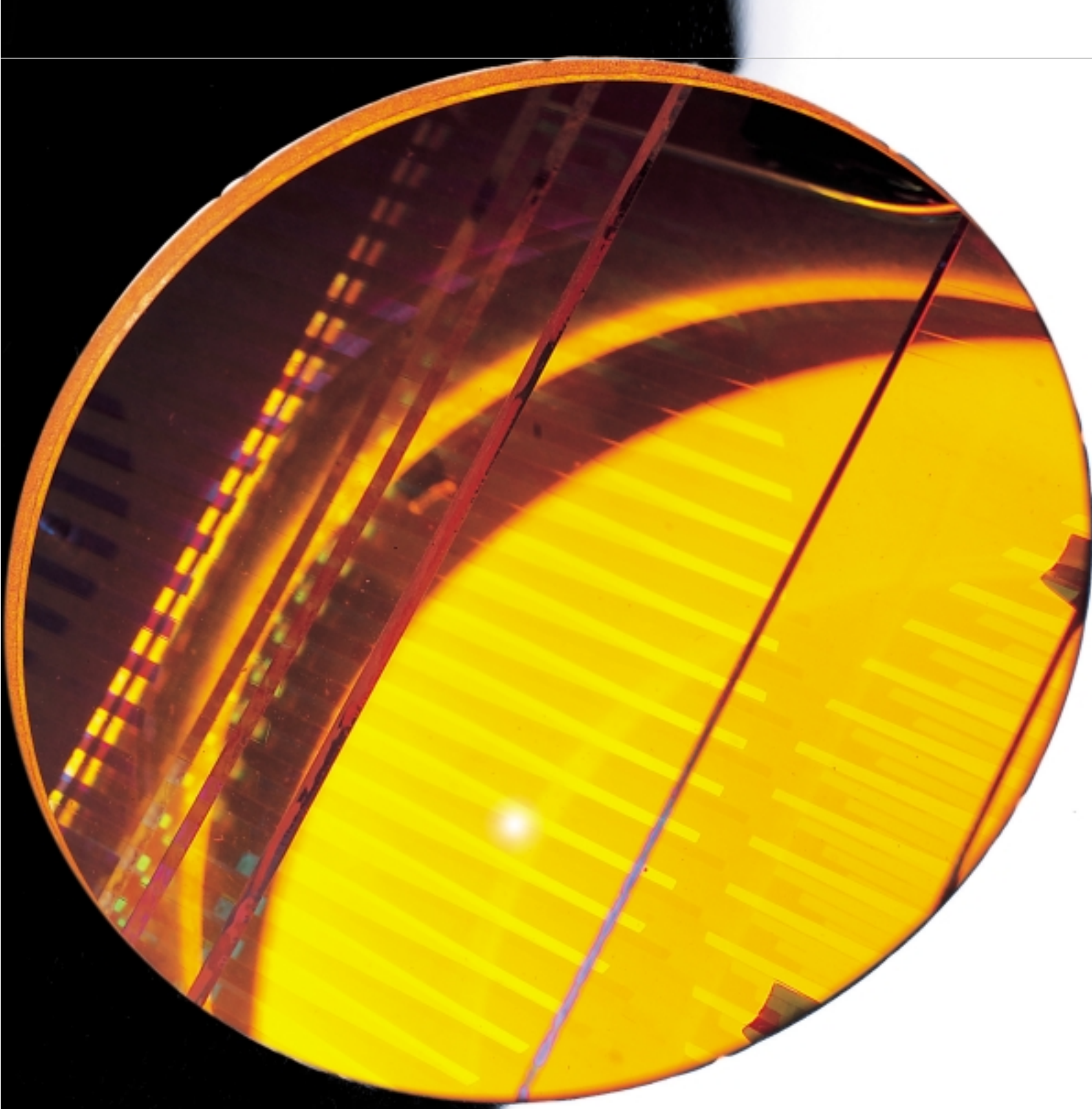
Fresnel lens: 12°- 44°.

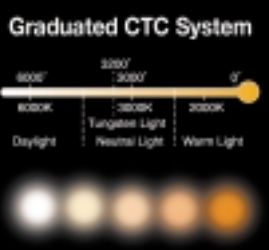
PC lens: 13°- 35°.

Super-wide lens: 85°- 105°.

Zoom

To the zoom system has been added a very special feature, a 'hyper mode' which allows you to remove the zoom lens entirely from the light path to give a fixed but intensely powerful beam - over 33,000 lumens. The fact that this can be automated and controlled by DMX is unique to the MAC 2000 Wash.





CTC

An innovative color temperature correction (CTC) system adds a whole new capability that makes the MAC 2000 Series extremely useful in televisual and theatrical applications. MAC 2000 CTC flexibility makes it possible to gradually and smoothly increase or decrease color temperature between 6000K and 2900K. When dimming, color shades remain constant over the entire beam projection.

HMI 1200 Lamp

The MAC 2000 Series employs a double-ended HMI 1200 short arc discharge lamp, the preferred light source for television and theater applications because of its stable color temperature and proven reliability. Color rendering is impressive as well with an index greater than 90.

Electronic ballast versions of the MAC 2000 feature a hot lamp restrike function, which eliminates the need for any cool-down time.

Color Mixing

All MAC 2000s feature the same CMY (Cyan Magenta Yellow) color-mixing system capable of mixing extremely even colors in a snap. The system employs six coated dichroic flags providing a full spectrum of fantastic rich colors. Mechanically short distances make for extremely fast color bumps.

Combined Dimmer/Shutter

Variable and smooth dimming, as well as extremely fast strobe effects are possible via a combined dimmer/shutter. Two user selectable dimmer curves are available, linear or simulated tungsten.

Electrical

Electronic ballast versions offer the added advantages of flicker free operation, hot lamp restrike, extended lamp life, reduced weight, increased light output and a power-saving mode.

Switch mode power supply

Switch mode power supply detects the local voltage and frequency supplied to the fixture and adjusts the power settings automatically without the need for rewiring by technicians. This is a useful feature when traveling to countries with different electrical supplies or when running equipment from generators. The switch mode power supply operates at 50 or 60 Hz at voltages from 100-130 and 200-260.

Transportation

The MAC 2000 Series flight case is the most advanced flight case ever developed for an intelligent moving head luminaire. Made of durable ply and covered in a tough, water-repellent black grained finish, the MAC 2000 flight case has been designed with user friendly features including a handy pullout drawer which makes fixture access fast and simple.

Fast and foolproof rigging

Omega clamps, half-couplers, G-clamps and TV spigots can all be utilized. Multiple rigging points, Martin's own 1/4 turn fastening system, dedicated anchoring points and a mid-pan range locator help to make rigging fast and foolproof.

The art of Modularity

Two convenient access lids provide for trouble-free access to internal components. Built-in modules make for easy de-assembling, repair and assembling, and dust filters protect internal components including lenses from dirt and dust.

Convenient reinforced molded plastic shell

The MAC 2000 Series' reinforced molded plastic shell is constructed around a durable metal frame to which all modular components are fixed. The shell is ultra-tough and easily opens via convenient 1/2 turn fasteners.

Silence

The MAC 2000 Series is extremely quiet. Through sophisticated electronics, Martin engineers have succeeded in reducing noise to the low levels required by theaters and television studios. Temperature sensors in the base and head ensure that fan speed is kept to the absolute minimum required for effective cooling.

Pan/Tilt

MAC 2000 fixtures have a pan range of 540° and a tilt range of 267°. Pan/Tilt movement is fast and instant, and all fixtures are equipped with an intelligent position correction system that automatically returns the luminaire to its original position if accidentally knocked out of place.

A pan/tilt lock mechanism has been added to make maintenance and handling even easier.

Power saving mode

Available in electronic ballast versions is an automatic Reduced Power Function, which reduces consumption to 700W. This not only saves on energy, but also helps to prolong lamp life and further decrease the overall noise emission of the fixture.

The power saving mode activates automatically when the shutter is employed for more than 10 seconds. The power reverts to 1200 Watts instantly when the shutter is reopened.

Communication

A user-friendly 4-digit LED display for easy fixture programming is standard while customized settings allow each user to cater the fixture to their liking. The display provides easy-to-use maintenance menus and concise error messages should a failure occur.

Easy Upload

Software can be easily uploaded via a serial link using the Martin MP2 Uploader, a fixture software uploader and maintenance device capable of storing up to 14 fixture personality files.

3 and 5 pin sockets

The MAC 2000 Series is industry standard DMX512 controllable. It is equipped with both 3-pin and 5-pin XLR IN/OUT sockets, and prepared for future new standards such as ACN, or any other kind of future Ethernet based control protocol.

Description

The MAC 2000 Profile II is a 1200 W moving head spotlight that provides CMY color mixing, continuous color correction, a color/gobo wheel with 4 color filters and 3 static gobos, 10 indexable gobos on 2 wheels, rotating 3-facet prism, rotating beam shaper, variable frost, combined dimmer/shutter, iris, focus, zoom, 540° of pan, and 267° of tilt.

The MAC 2000 Profile II has an auto-sensing, auto-ranging, Switch Mode Power Supply (SMPS), and is available in both magnetic and electronic ballast versions (desiginated as 'E').

Physical

- Length: 408 mm (16.0 in)
- Width: 490 mm (19.3 in)
- Height: 743 mm (29.3 in)

Weight:

- Profile II (magnetic ballast): 45 kg (99 lbs)
- Profile II E (electronic ballast): 38 kg (84 lbs)

Design standards

- EU EMC: EN 50 081-1, EN 50 082-1
- EU safety: EN 60598-1, EN 60598-2-17
- Canadian safety: CSA C22.2 No. 166
- US safety: ANSI/UL 157

Construction

- Housing:UV-resistant fiber-reinforced composite
- Colors: black, white
- Protection factor: IP 20

Electrical

- AC input: 3 m trailing cable w/o cord cap
- Power supply: Auto-sensing, auto ranging, switch-mode power supply
- Operating ranges (electronic ballast): 100-130/200-260 V, 50/60 Hz
- Operating ranges (magnetic ballast): 200- 260 V, 50/60 Hz
- Main fuses (x 2 - when local AC supply is 200 - 250 V): 15 A
- Main fuses (x 2 - when local AC supply is 100 - 120 V): T 20 A
- Fuse F101 (on printed circuit board): T 6.3 A
- Fuse F102 (on PCB): T 10 A
- Fuse F103 (on PCB): T 3.15 A
- Fuse F104 (on PCB): T 3.15 A

Installation Details

- Mounting points: 8 pairs of 1/4-turn locks, offset 45°
- Orientation: any

Source

- Lamp: 1200 W short arc discharge
- Base: Double-ended SFc 10-4 with key
- Approved models: Osram HMI 1200 W/S
- Control: automatic and remote on/off

Gobos

- Outside diameter: 37.5 +0/-0.3 mm (1.48 +0/-0.01 in.)
- Image diameter: 30 mm (1.18 in.)
- Thickness: 1.1 mm in static slots, up to 7 mm in rotating slots
- Material: high-temperature Borofloat or better glass
- Coating: dichroic or enhanced aluminum

Thermal

- Maximum ambient temperature (Ta): 40° C (104° F)
- Maximum surface temperature: 140° C (284° F)
- Total heat dissipation: ca. 5120 Btu/hr

Photometrics (Standard)

- Light output: 19,000 lumens
- Illuminance (lux or fc): 713,500 cd/distance2 (m or ft)
- Field angle at full spot (30 mm image on gobo wheel 1): 10°
- Field angle at full flood (30 mm image on gobo wheel 1): 28°
- Measurement conditions: 230 V, 50 Hz; 13° beam
- Measurement source: Osram HMI 1200 W/S
- Ballast - magnetic

Control & Programming

- Protocol: USITT DMX-512
- Control channels: 20 or 24
- Receiver: Opto-isolated RS-485
- Data I/O: locking 3-pin & 5-pin XLR, pin 1 shield, pin 2 cold (-), pin 3 hot (+)
- Setting and addressing: LED control panel, remote w/ MP-2 uploader
- Pan/tilt resolution: 8- or 16-bit
- Gobo indexing: 8- or 16-bit
- Movement control: tracking and vector
- Software installation: serial upload (MUF)

Electromechanical effects

- Cyan: 0 - 100%
- Magenta: 0 - 100%
- Yellow: 0 - 100%
- Color correction: 0 - 178 mireds
- Color/gobo wheel: 4 color filters and 3 gobos
- Gobo wheel 1: 5 rotating slots
- Gobo wheel 2: 5 rotating slots
- Effect wheel: rotating 3-facet prism, rotating beam shaper, variable frost
- Dimmer/shutter: full range dimming and variable speed flash
- Focus: 2 m (6.5 ft.) - infinity
- Zoom: 10° - 28°
- Iris: 15- 100% open
- Pan: 540°
- Tilt: 267°

Ordering information

- MAC 2000 Profile II in 1-unit flight case: P/N 90205610
- 2 MAC 2000 Profile IIs in a 2-unit flight case: P/N 90205600
- MAC 2000 Profile II E in 1-unit flight case: P/N 90205810
- 2 MAC 2000 Profile II Es in a 2-unit flight case: P/N 90205800
- White MAC 2000 Profile II in a 1-unit flight case: P/N 90205620
- White MAC 2000 Profile II E in a 1-unit flight case: P/N 90205820

Included items

- 2 x Omega bracket, 1/4-turn
- User manual
- XLR cable
- Fuses

Accessories

- MP-2 Uploader: P/N 90758420
- G-clamp: P/N 91602003
- Half-coupler clamp: P/N 91602005
- Wide angle kit: P/N 91610020
- "The Wife" DMX Tester: P/N 91611038

Maximum power and current

Magnetic ballast					Electronic ballast				
Volt	Hz	Watt	Amp	power factor	Volt	Hz	Watt	Amp	power factor
					100 V	50 Hz	1590 W	19.8 A	PF 0.8
					100 V	60 Hz	1560 W	19.3 A	PF 0.8
					120 V	50 Hz	1560 W	16.8 A	PF 0.8
					120 V	60 Hz	1540 W	16.3 A	PF 0.8
208 V	50 Hz	1520 W	9.3 A	PF 0.8	208 V	50 Hz	1470 W	10.5 A	PF 0.7
208 V	60 Hz	1410 W	7.5 A	PF 0.9	208 V	60 Hz	1470 W	10.3 A	PF 0.7
230 V	50 Hz	1470 W	7.6 A	PF 0.8	230 V	50 Hz	1480 W	9.6 A	PF 0.7
230 V	60 Hz	1450 W	7.0 A	PF 0.9	230 V	60 Hz	1470 W	9.4 A	PF 0.7
250 V	50 Hz	1480 W	7.4 A	PF 0.8	250 V	50 Hz	1480 W	8.6 A	PF 0.7
230 V	50 Hz	1470 W	7.6 A	PF 0.8	250 V	60 Hz	1480 W	8.5 A	PF 0.7

Description

The MAC 2000 Performance II is a 1200 W moving head spotlight that provides CMY color mixing, continuous color correction (CTC), four-blade framing system, motorized iris, gobo wheel with five indexable rotating gobos, indexable gobo animation wheel, effect wheel with 3 effects (wide-angle converter lens, non-rotating 9-facet prism and variable frost), combined dimmer/shutter, focus, zoom, 540° of pan, and 267° of tilt. The MAC2000 Performance has electronic ballast that provides flicker-free operation and an economic power-saving mode, and has an auto-sensing, auto-ranging, Switch Mode Power Supply (SMPS).

Physical

- Length: 408 mm (16.0 in)
- Width: 490 mm (19.3 in)
- Height: 743 mm (29.3 in)
- Weight: 39.5 kg (87 lbs)

Source

- Lamp: 1200 W short arc discharge
- Base: Double-ended SFc 10-4 with key
- Approved models: Osram HMI 1200 W/S Short-Arc
- Control: automatic and remote, hot re-strike
- Ballast: electronic
- Low voltage power supply electronic auto-ranging, or manually set

Thermal

- Maximum ambient temperature (Ta): 40° C (104° F)
- Maximum surface temperature: 140° C (284° F)
- Total heat dissipation: ca. 5120 Btu/hr

Photometrics (Standard)

- Light output: 23000 lumens
- Measurement source: Osram HMI 1200 W/S

Gobos

- Outside diameter: 37.5 +0/-0.3 mm (1.48 +0/-0.01 in.)
- Image diameter: 30 mm (1.18 in.)
- Thickness: 1.1 mm in static slots, up to 7 mm in rotating slots
- Material: high-temperature Borofloat or better glass
- Coating: dichroic or enhanced aluminum

Animation Wheel

- Outside diameter: 133 mm +0/-0.25 mm)
- Image outer diameter: 130 mm (5.12 in)
- Image inner diameter: 16 mm (0.63 in)
- Thickness: 0.5 mm (0.02 in)
- Construction: Aluminium

Control & Programming

- Protocol: USITT DMX-512
- Control channels: 28 or 31
- Receiver: Opto-isolated RS-485
- Data I/O: locking 3-pin & 5-pin XLR, pin 1 shield, pin 2 cold (-), pin 3 hot (+)
- Setting and addressing: LED control panel, remote w/ MP-2 uploader
- Pan/tilt resolution: 8- or 16-bit
- Gobo indexing: 8- or 16-bit
- Movement control: tracking and vector
- Software installation: serial upload (MUF)

Design Standards

- EU EMC: EN 50 081-1, EN 50 082-1
- EU safety: EN 60598-1, EN 60598-2-17
- Canadian safety: CSA C22.2 No. 166
- US safety: ANSI/UL 1573

Maximum power and current

Electronic ballast				
Volt	Hz	Watt	Amp	power factor
100 V	50 Hz	1590 W	19.8 A	PF 0.8
100 V	60 Hz	1560 W	19.3 A	PF 0.8
120 V	50 Hz	1560 W	16.8 A	PF 0.8
120 V	60 Hz	1540 W	16.3 A	PF 0.8
208 V	50 Hz	1470 W	10.5 A	PF 0.7
208 V	60 Hz	1470 W	10.3 A	PF 0.7
230 V	50 Hz	1480 W	9.6 A	PF 0.7
230 V	60 Hz	1470 W	9.4 A	PF 0.7
250 V	50 Hz	1480 W	8.6 A	PF 0.7
250 V	60 Hz	1480 W	8.5 A	PF 0.7

Electromechanical Effects

- Cyan: 0 - 100%
- Magenta: 0 - 100%
- Yellow: 0 - 100%
- Color correction: 0 - 178 mireds
- Gobo animation wheel: Animation effects at any angle
- Gobo wheel: 5 rotating and indexable slots
- Four-blade framing system: Blade tilting +/- 31°, frame rotation +/- 45°
- Effect wheel: wide-angle converter lens, non-rotating 9-facet prism, variable frost
- Iris: motorized
- Dimmer/shutter: full range dimming and variable speed flash
- Focus: 2 m (6.5 ft.) - infinity
- Zoom: 10-28° / 15-40°
- Pan: 540°
- Tilt: 267°

Construction

- Housing: UV-resistant fiber-reinforced composite
- Colors: black, white
- Protection factor: IP 20

Installation Details

- Mounting points: 8 pairs of 1/4-turn locks, offset 45°
- Orientation: any

Electrical

- AC input: 3 m trailing cable w/o cord cap
- Power supply: Auto-sensing, auto ranging, switch-mode power supply
- Operating ranges: 100-130/200-260 V, 50/60 Hz
- Main fuses (x 2 - when local AC supply is 208 - 250 V): 15 A
- Main fuses (x 2 - when local AC supply is 100 - 120 V): T 20 A
- Fuse F101 (on printed circuit board): T 6.3 A
- Fuse F102 (on PCB): T 10 A
- Fuse F103 (on PCB): T 3.15 A
- Fuse F104 (on PCB): T 3.15 A

Ordering Information

- MAC 2000 Performance II in a 1-unit flight case: P/N 90205460
- 2 MAC 2000 Performance IIs in a 2-unit flight case: P/N 90205450
- MAC 2000 Performance II, white: P/N 90205470

Included items

- 2 x Omega bracket, 1/4-turn
- User manual: P/N 35000103
- Realistic stars gobo (E size): P/N 43036008
- Cloud gobo (E size): P/N 43036008
- Radial breakup gobo animation wheel (installed): P/N 62400211
- Cloud breakup animation wheel: P/N 62400213
- Dot breakup animation wheel: P/N 62400214
- Tangential breakup animation wheel: P/N 62400215
- Spiral breakup animation wheel: P/N 62400216

Accessories

- Linear breakup gobo animation wheel P/N 62400223
- Triangle break gobo animation wheel P/N 62400225
- Elliptical breakup gobo animation wheel P/N 62400221
- Flicker wheel gobo animation wheel P/N 62400222
- Coarse radial breakup gobo animation wheel P/N 62400224
- Coarse tangential breakup gobo animation wheel P/N 62400226
- MP-2 Uploader: P/N 90758420
- G-clamp: P/N 91602003
- Half-coupler clamp P/N 91602005
- "The Wife" DMX Tester P/N 91611038

Description

The MAC 2000 Wash is a 1200 Watt moving head wash light that provides CMY color mixing, color correction (CTC), two color wheels, each with four removable colors, a combined dimmer/shutter, a zoom with a range of 10° to 73° (subject to the type of lens fitted), 540° of pan, and 267° of tilt.

The MAC2000 Wash is fitted with an electronic ballast that provides flicker-free operation and an economic power-saving mode. It also has a switch mode power supply allowing it to 'auto sense' and automatically adjusts to the local electrical power. The MAC 2000 Wash has a Fresnel lens mounted as standard, and is also supplied with a PC lens and a super-wide-angle lens.

Physical

- Length: 408 mm (16.0 in)
- Width: 490 mm (19.3 in
- Height: 750 mm (29.5 in)
- Weight: 34 kg (74.8 lbs)

Source

- Lamp: 1200 W short arc discharge
- Base: Double-ended SFc 10-4 with key
- Approved models: Osram HMI 1200 W/S short-arc
- Control: automatic and remote on/off, hot re-strike
- Ballast: Electronic

Installation

- Minimum distance to combustible materials: 1 m (39 in)
- Minimum distance to illuminated surfaces: 3 m (10 ft)
- Minimum distance around fans and vents: 0.1 m (4 in)
- Orientation: any

AC Supply

- AC input: 3 m trailing cable w/o cord cap
- Operating ranges: 100-130 / 200-260 V, 50 / 60 Hz
- Power supply: Electronic auto-ranging

Thermal

- Maximum ambient temperature (Ta): 40° C (104° F)
- Maximum surface temperature: 140° C (284° F)
- Total heat dissipation: ca. 5120 Btu/hr

Photometrics (Standard)

- Measurement conditions: Standard Fresnel lens, 50 mm aperture ring (A range of aperture rings are included that enable narrower beam angles - 30 mm (1.2 in), 40 mm (1.6 in), 45 mm (1.8 in), and the standard 50 mm (2 in))
- Hyper mode: beam angle 12° Illuminance (lux or fc): 1,750,000 cd/distance^2 (m or ft)
- Zoom narrow: beam angle 18° Illuminance (lux or fc): 1,000,000 cd/distance^2 (m or ft)
- Zoom wide: beam angle 44° Illuminance (lux or fc): 200,000 cd/distance^2 (m or ft)
- Measurement source: Osram HMI 1200 W/S

Photometrics (Optional)

- Measurement conditions: PC lens, 50 mm aperture ring (A range of aperture rings are included that enable narrower beam angles - 30 mm (1.2 in), 40 mm (1.6 in), 45 mm (1.8 in), and the standard 50 mm (2 in)
- Hyper mode: beam angle 13° Illuminance (lux or fc): 1,900,000 cd/distance^2 (m or ft)
- Zoom narrow: beam angle 14° Illuminance (lux or fc): 1,280,000 cd/distance^2 (m or ft)
- Zoom wide: beam angle 35° Illuminance (lux or fc): 285,000 cd/distance^2 (m or ft)
- Measurement source: Osram HMI 1200 W/S

Photometrics (Optional)

- Measurement conditions: Super-wide-angle lens, 50 mm aperture ring (A range of aperture rings are included that enable narrower beam angles - 30 mm (1.2 in), 40 mm (1.6 in), 45 mm (1.8 in), and the standard 50 mm (2 in))
- Hyper mode: beam angle 85° Illuminance (lux or fc): 51,000 cd/distance^2 (m or ft)
- Zoom narrow: beam angle 85° Illuminance (lux or fc): 35,000 cd/distance^2 (m or ft)
- Zoom wide: beam angle 105° Illuminance (lux or fc): 35,000 cd/distance^2 (m or ft)
- Measurement source: Osram HMI 1200 W/S

Control & Programming

- Protocol: USITT DMX-512
- Control channels: 19 or 21
- Receiver: Opto-isolated RS-485
- Data I/O: locking 3-pin & 5-pin XLR, pin 1 shield, pin 2 cold (-), pin 3 hot (+)
- Setting and addressing: LED control panel, remote w/ MP-2 uploader
- Pan/tilt resolution: 8- or 16-bit
- Movement control: tracking and vector
- Software installation: serial upload (MUF)

Electromechanical effects

- Cyan: 0 - 100%
- Magenta: 0 - 100%
- Yellow: 0 - 100%
- Color correction: 0 - 178 mireds
- Color wheels (x2): Each with 4 removable filter positions and an open position
- Motorized zoom (see photometrics sections for zoom ranges)
- Dimmer/shutter: full range dimming and variable speed flash
- Pan: 540°
- Tilt: 267°

Design standards

- EU EMC: EN 50 081-1, EN 50 082-1
- EU safety: EN 60598-1, EN 60598-2-17
- Canadian safety: CSA C22.2 No. 166
- US safety: ANSI/UL 157

Construction

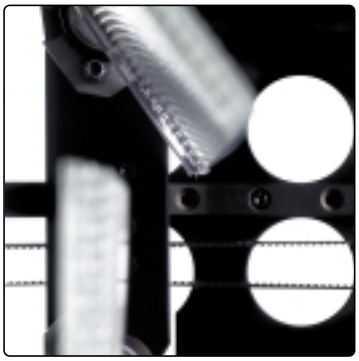
- Housing: UV-resistant fiber-reinforced composite
- Colors: black, white
- Protection factor: IP 20

Installation Details

- Mounting points: 8 pairs of 1/4-turn locks, offset 45°
- Orientation: any

Ordering information

- MAC 2000 Wash in 2-unit flight case: P/N 90203000
- MAC 2000 Wash in single flight case: P/N 90203010
- MAC 2000 Wash, white in single flight case: P/N 90203020



Included items

- 2 x Omega bracket, 1/4-turn
- User manual
- Aperture rings: 30 mm (1.2 in), 40 mm (1.6 in), 45 mm (1.8 in), and 50 mm (2 in - fitted as standard)
- Super-wide-angle lens
- PC lens
- Fresnel lens
- XLR cable

Accessories

- MP-2 Uploader: P/N 90758420
- G-clamp: P/N 91602003
- Half-coupler clamp: P/N 91602005
- The Wife DMX Tester: P/N 91611038
- Barndoor system: P/N 91611059

Maximum power and current

Electronic ballast			
Volt	Hz	Watt	Amp
100 V	50 Hz	1530 W	20.9 A
100 V	60 Hz	1570 W	20.9 A
120 V	50 Hz	1520 W	18.0 A
120 V	60 Hz	1520 W	17.7 A
208 V	50 Hz	1450 W	10.4 A
208 V	60 Hz	1450 W	10.2 A
230 V	50 Hz	1450 W	9.5 A
230 V	60 Hz	1460 W	9.4 A
250 V	50 Hz	1450 W	8.8 A
250 V	60 Hz	1460 W	8.6 A

Martin

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