THE COMPACT CONTROLLABLE SPOT

Now, from Rank Strand, a powerful lightweight spotlight for display lighting, in a range of colours, offering instant beam adjustment from spot to flood. No need to change fixed spread PAR lamps to suit the beam to the need;



Simple adjustment from spot to flood.

a simple focusing control varies the circular beam between 12° and 50°. A fourleaf barndoor can be added to shape the beam edges.

'Minim' can be ceiling, wall or track mounted and is easily adjustable both vertically and horizontally for accurate positioning of its closely controllable variable beam.

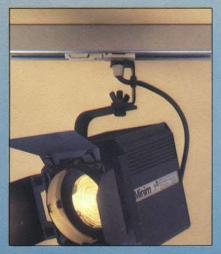
'Minim' is supplied complete with a 300 watt 2000 hour, long life TH lamp. 'Minim' excels in any

'Minim' excels in any indoor application: Shops, showrooms, salons, museums, studios, theatres, galleries, exhibitions etc., in fact any situation where there is a need



for creative display lighting. Rank Strand, the world's

leading specialists in stage lighting, now bring the technology that the Theatre and Television industries take for granted to a wider audience.



Minim fitted with conversion bracket for track adaptor.

Minim F

500/250W Halogen Fresnel Spot



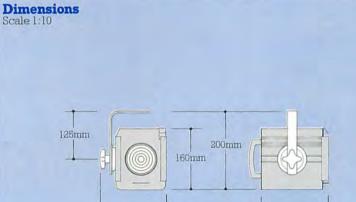
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The new, compact 500W maximum Fresnel Spot, similar but not identical to the original Minim, providing an adjustable, soft-edged beam which can be contained and roughly shaped by the addition of a four door rotatable barndoor attachment. The useful working range is from as little as 2m throw at flood focus, up to a maximum of 10m.

The compact size is especially useful for display and simple presentation lighting with a theatrical flair, as well as being ideal for school and amateur performances where an adequate number of small, lowcost spotlights give the opportunity for creative lighting.

Minim F has finned, extruded aluminium sides, shaped end-plates and is fitted with a heat-insulated rear handle and tilt clamp handwheel. The slide focusing knob is fully recessed so that it does not protrude beyond the housing outline. The captive, louvred top cover over the lamphouse slides back to provide full length internal access.

Minim F is supplied packed two to a carton and is complete with RSE/18 500W 240v or 220v lamps.



165mm

Item Numbers

Minim F Fresnel Spots, carton of 2, including 2×RSE/18 500W lamps (state 240v or 220v). Additional RSE/18 500W 240v lamp Additional RSE/18 500W 220v lamp Additional M/40 500W 240v lamp Additional CP/82 500W 240v lamp Additional CP/82 500W 240v lamp Additional M/38 300W 240v lamp Additional M/38 300W 240v lamp Additional CP/81 300W 240v lamp Additional CP/81 300W 240v lamp

Weight 2.25 kg

Carton Size 35×23×28cm, 0.022m³

Packed weight, carton of 2, 5.25 kg including lamps

Environment 45°C max ambient, interior use Tilt 45° above horizontal to 90° below

(vertical)

175mm

22 300 10

Performance

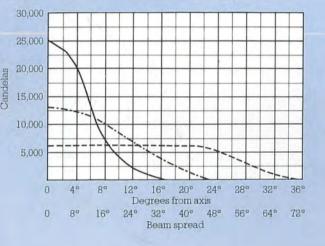
Typical performance, based upon 500W 240v RSE/18 calibrated lamp, C13 filament, 500 hour, 3000°K, 11,000 lm

 $\frac{1}{2}$ peak angle 12.5° spot to 55° flood $\frac{1}{10}$ peak angle 24° spot to 65° flood 25,000 peak candelas at spot, variable to 6,000 peak candelas at flood An intermediate

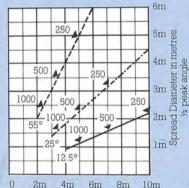
500W 240v RSE/18 LAMP

1/2 peak angle 25°, 13,000 peak candelas With long-life M/40 500W lamp

With long-life M/38 300W lamp multiply candela above figures by 0.77 With long-life M/38 300W lamp multiply candela above figures by 0.45



Spot Intermediate Flood



2m 4m 6m 8m Throw Distance in metres

The figures on the diagonal lines indicate the illumination value at beam centre.

The Company reserves the right to make any variation in design or construction to the equipment described.

Rank Strand **Minim F**

Specification

Housing

Extruded, finned, aluminium sides for strength with minimum weight but maximum heat dissipation. Top, bottom and end pieces in steel, incorporating multiple ventilation slots with light baffles. Heat insulated grab handle fitted at rear.

Fork

Aluminium alloy, with 70mm dia. friction disc and heat-insulated handwheel for tilt lock. Fork threaded and supplied with M.10 bolt, washer and wingnut for compact suspension and swivel lock.

Lampholder

GY9.5 unequal pin, porcelain body, wired to porcelain terminal block housed in separate compartment below lamphouse. Fitted with 1m length of $3 \times 0.75 \text{mm}^2$ conductor cable with high temperature insulation secured by a re-usable strain-relief gland.

Lens

80mm diameter short-focus Fresnel lens, of borosilicate glass, recessed mounted from within housing.

Reflector

80mm dia, spherical reflector of anodised aluminium. **Focusing Adjustment**

Fully baffled and recessed lampholder and reflector assembly moved by an insulated thumbscrew.

Internal Access

Rearward sliding top panel secured by single screw on rear panel gives easy access for lamp change and cleaning reflector and lens.

Accessory Runners

Aluminium extrusions with 125mm separation to accept colour filter frames or barndoors.

Finish

High temperature stoved, black epoxy powder coated. Lamps

500W max. GY9.5 base, 46.5mm l.c.1. with 25mm max.

dia. quartz envelope. Supplied with RSE/18 240v or 220v lamp. For special applications different, but interchangeable lamps can be purchased.

Accessories

100 2 51 1 5	07 000 000
125mm ² fibre colour frame	27 806 OT
Four-door rotatable barndoor, 125mm	
flange, complete with 125mm ² colour	
frame (as above)	23 200 04
Universal mounting bracket for both wall	
and ceiling mounting	26 866 07
	20 000 01
%-in (16mm) female, stand mounting	
socket	26 865 01

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Minim F Minim PC

Do not discard packaging before locating the 2 LAMPS which are packed with 2 MINIM SPOTLIGHTS within the one outer carton.

MOUNTING

These spotlights are supplied with M.10 (coarse) Bolt, Washer and Wingnut for compact mounting from a variety of suitable brackets, or for suspension from horizontal 48mm outside diameter pipe by a Hook Clamp (order code 26 493 07). Whichever method of suspension is used the access to the colour frame, and accessory runners with the spring safety clip, must remain at the top — this will ensure that the lamp filament is above the lamp base.

Do not mount on, or near, a combustible surface. In the most onerous conditions of use parts of the housing can reach up to 180°C after prolonged use (all operator controls are heat-insulated).

When mounted the suspension bolt must always be vertical — this will allow the full range of tilt and swivel and will prevent edge-on burning of the projector lamp filament and the consequent danger of premature lamp failure by the filament coils short-circuiting.

In premises requiring a licence for public entertainment the requirements of the local Authority will often require a secondary means of suspension even for such a compact, lightweight luminaire with a captive suspension fork. In these circumstances a Safety Chain (order code 26 064 18), with a clip hook both ends, can be looped through the rear handle of the spotlights.

If mounting singly on a Telescopic Stand is required then the fork must be reversed so that the safety clip remains above the lens. In addition a Spigot Adaptor with an M.10 thread (code 26 873 08) will be required to screw over what was the suspension bolt. If a Crossbar (code 26 857 07) is mounted on a Stand the M.10 bolt, washer and wingnut can be used directly through the holes provided in Crossbar.

Another method of mounting, developed especially for the compact size of the Minim F and Minim PC, is the Universal Bracket (code 26 866 07) which can be used as a wall bracket with the suspension axis offset 125mm from the vertical mounting surface (and 160mm below any horizontal surface), or reversed to mount 160mm below a horizontal fixing surface.

CONNECTION

The 1m long length of 0.75mm² 3-conductor high temperature insulated flexible cable should be connected to the supply through a separable connector so that the spotlight can be disconnected for safety when relamping. The earth (safety) conductor has green/yellow insulation.

The lamp supplied incorporates an internal fuse but the supply should be protected by a fast-acting HBC fuse-link to BS.88 or IEC.241 if it is to be fed direct from a mains supply. Reputable Thyristor dimmer controlled circuits incorporate fuse-links of equal or better standard.

LAMP

Each Minim Spotlight is supplied with a 240V or 220V tungsten halogen projector lamp with a GY9.5 base and 46.5mm light centre length.

Before lamping, or re-lamping always disconnect from the supply. Quartz envelope tungsten halogen lamps all attain a high temperature very quickly and remain hot for a considerable period after switching off, or failure, and are dangerous to handle in this condition. Allow to cool for at least 5 minutes before attempting to remove a lamp.

DISCONNECT from all poles of the supply and, if relamping, ALLOW TO COOL before releasing the small, central screw at the top of the rear pressing which allows the captive top to be slid back to provide full length internal access. The lamp is easiest to insert when the focus knob underneath has been slackened and the lampholder and reflector tray has been slid backwards to the 'spot' focus. Do not handle the quartz envelope of the lamp directly as finger prints can cause premature lamp failure. This lamp has two unequal size pins — in this spotlight the large pin should be arranged on the right hand side when facing the lens; insert the pins into the sockets of the lampholder and press firmly down so that the bottom of the lamp seats upon the flat top of the lampholder. Resecure the top cover before re-connecting the supply.

Where there are no local or national regulations requiring internal access to require the use of a tool, the screw securing the top cover may be discarded and replaced by the small thumbscrew provided loose with each Minim spotlight; in these circumstances press the spare starwasher over the thread to make the thumbscrew captive.

ADJUSTMENT

First ensure that the mounting bolt is vertical and that the recessed focussing knob (and therefore the lampholder) is below the lamp filament. Light up and direct the spotlight, using the rear handle, towards the area to be lit securing the required swivel by the M.10 wingnut and the tilt by the side handwheel. Do not tilt upwards more than 45° above horizontal or beyond vertically downwards. Adjust, gently, the slide focussing knob to provide the beam spread required — towards the lens for greater spread, away from the lens for higher intensity over a smaller area.

The optional 4-door rotatable Barndoor accessory (order code 23 200 04) slides into the front colour/accessory runners and is secured by the safety clip. The Barndoor allows all but the tightest spot focus to be roughly shaped by containing the edges of the beam.

COLOUR FRAME

This spotlight is supplied complete with a 125mm square Colour Frame (of special heat-resisting fibre) for 'Chromoid' thin-film, high temperature colour filter. The spring clip at the side of the colour/ accessory runners ensures retention and safety even when used nearvertical.

Fully saturated colours from the 'Chromoid' range should be avoided in these compact, high output spotlights, especially at full flood focus which is particularly onerous for extended filter life. The following colours have proved particularly useful, and practical.

86.	Warm Blue	134.	Golden Amber
87.	Nile Blue	136.	Light Lavender
89.	Lavender Tint	140.	Sea Blue
90.	Pink Tint	144.	Azure Blue
95.	Scarlet	149.	Canary
97.	Light Golden Amber	150.	Pale Yellow
98.	Pale Golden Amber	151.	Gold Tint
102.	Light Amber	152.	Pale Gold
103.	Straw	158.	Deep Orange
107.	Rose Pink	161.	Light Sky Blue
117.	Steel Blue	164.	
121.	Pea Green	167.	Steel Tint
		171.	Lilac

Identify 'Chromoid' by order code 36 100 01 and colour(s) by number. Sheet size is $610 \times 510mm$ (24 x 20-in).

SPARE LAMPS

The re-order codes for the lamps supplied originally are:

RSE/18 500W 240V	34 218 10
RSE/18 500W 240V	34 218 20

For special application different, but interchangeable lamps may be purchased:—

Class CP/82 500W 240V (high output)	34 349 65
Class CP/82 500W 220V (high output)	34 349 57
Class M/38 300W 240V (long life)	34 350 71
Class M/38 300W 220V (long life)	34 350 8T
Class CP/81 300W 240V (high output)	34 349 49
Class CP/81 300W 220V (high output)	34 349 30

MAINTENANCE

The lens, when cold, should be cleaned with a damp cloth; and the reflector polished with a soft dry cloth. A full range of packaged spares is available for the Minim F and the Minim PC — an illustrated Spares Sheet to aid positive identification is available on request.



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