

MORGANITE

MORGANITE
CARBONS

FOR

3D

3D

THE 3-D ART IS AS YET YOUNG. In the course of development and progress, changes in technique may occur which call for still greater arc power from projector lanterns yet to be designed.

During the last decade, THE MORGAN CRUCIBLE COMPANY LIMITED has had much experience in the production of arc carbons for very heavy duty—far beyond the needs of cinematograph projection. MORGANITE has therefore a flying start whatever the trend may be and is further helped by the knowledge gained in ninety-seven years as craftsmen in carbon and graphite products.

In its tradition of keeping abreast of development, the MORGANITE Arc Laboratory has studied each system as it has been announced. It has made researches into the higher demands placed on the high intensity carbon arc to maintain an acceptable standard of screen luminance whether it be due to polarisation losses or to the use of larger screens.

Each of the various systems of three-dimensional presentation requires illumination of diverse character from the carbon arc.

Whatever the technique of the future may be, it may show the way ahead to some degree of standardisation of arc carbon requirements.

In the meantime, THE MORGAN CRUCIBLE COMPANY LIMITED is producing several special grades and modifying certain standard patterns in the MORGANITE range from which a choice may be made to suit the particular requirements of any of the 3-D systems now being considered by the industry.

Generally speaking, the new grades are intended for use in Theatres already running at high light values but which may need to go still higher. It will be appreciated, however, that gaining full benefit of such new carbons is dependent on the optical system being sufficiently "fast" and, in some cases, to arrangements being made for selective filtration of the infra-red energy from the light beam.

In many cases increased light output may be of secondary importance to the desire for a flatter screen distribution, advantageous with some three-dimensional systems.

Alternatively, the choice of carbons may be influenced by the need to use longer reels and "duration" becomes the criterion. While the travel permitted by the lamp mechanism itself is often the controlling feature here, there are carbons in the modified MORGANITE ranges to choose from which will give ample light and stability as well.

Those exhibitors who are interested and are within visiting distance of the MORGANITE Arc Laboratory will be most welcome to call to see these new carbons operated in lamps and electrical conditions similar to their own. Where this is not practicable our agents' engineers throughout the world will take pleasure in arranging demonstrations in users' own Theatres.

NEW MORGANITE HIGH DUTY CARBONS

Link H3D—An uncoppered high intensity positive carbon of 13.6mm diameter for use in forward contact rotating positive arcs. Rated at 185-190 amperes, 75-77 arc volts, this carbon gives 50% more light than normal carbons of similar size for operation at 130-140 amperes. The burning rate* is approximately 22 inches per hour. This positive should be used with a Link HDN negative carbon of 12mm diameter.

Link BLG for use at 150 amperes—

Link BMR for use at 220 amperes—

Link BHB for use at 300 amperes—This range of precision finished 16mm diameter positive carbons is designed for ultra-high duty arcs incorporating the patented MORGANITE Water Cooled Positive and Negative Heads, the negative carbon being Link BBN 11mm diameter.

Link DDD—This special 10mm diameter copper coated carbon has been designed for use in high current mirror arcs when a considerable increase of light output is required. Its operating range is between 100 and 110 amperes, at 47 to 51 arc volts in straight arcs, and 52 to 56 arc volts in arcs in which the negative carbon is inclined at an angle of about 15° to the positive axis. At 110 amperes it gives 50% more light than the standard Link HRS 10mm positive at 75 amperes. Its burning rate* at this current is well within the feed motor range of modern arcs being about 16 to 17 inches per hour, according to the type of lamp. Selective filtration of infra-red is necessary when using this carbon and more powerful magnetic control is essential. The positive should be used with a Link HDN negative of 8mm diameter.

Link HDI—A 10mm high efficiency positive carbon for use at 90 to 100 amperes. While eminently suitable for use instead of Link HMS 9mm for large screen illumination, it has been specially designed also for overseas use in Drive-in Theatres.

Although much depends on the speed of the optical system, about 30% more light may be expected at 95 amperes compared with Link HMS 9mm at 75 amperes. In most cases selected infra-red filtration may be desirable and best results are obtained with a somewhat stronger magnetic control than is normally used in standard equipment.

At 95 amperes the burning rate* is about 14½ inches per hour.

***Burning Rate.** There are a number of factors which affect the burning rate of any carbon. The figures quoted above are typical of average conditions and are given as an initial guide to the performance of the new grades. At any given current, burning rate is slightly affected in one direction or the other by the following: rake of projector, angle of negative to positive, strength of magnetic control, lamphouse ventilation, arc voltage.

NEW MORGANITE COLOUR-CORRECT CARBONS

Suggestions for 3-D and Large Screen presentation in Theatres normally using 7mm positives at 50 amperes.

•

To obtain the same light output at progressively lower burning rate at progressively higher side to centre screen ratio:

Link HRS 8mm at $52\frac{1}{2}$ amperes.
Link HMS 8mm at $57\frac{1}{2}$ amperes.
Link HRS 9mm at $62\frac{1}{2}$ amperes.
Link HMS 9mm at 70 amperes.

To obtain greater light at the same burning rate:

Link HRS 8mm at 56 amperes gives 10% more light.
Link HMS 8mm at 65 amperes gives 20% more light.

To obtain more light at lower burning rate:

Link HMS 9mm at $77\frac{1}{2}$ amperes gives 20% more light and 15% lower burning rate.

To obtain highest possible light at a burning rate not exceeding 12 inches per hour, without alteration to the optical system:

Link HMS 9mm at 80 amperes gives over 25% more light with a flatter screen distribution.

To obtain highest ratio between total screen luminance and moderate gate heating:

Link HMS 8mm at 70 amperes gives $33\frac{1}{3}$ % more light at a burning rate of not more than 15 inches per hour.

The technical resources of THE MORGAN CRUCIBLE COMPANY LIMITED are at your disposal to assist you to choose the right grade of MORGANITE carbon to suit your equipment and to get the best out of it.

If we can help you in whatever part of the world your Theatre may be please let our nearest agent know. If necessary he can arrange for your operating conditions to be reproduced exactly in the MORGANITE Arc Laboratory in London.

THE MORGAN CRUCIBLE CO. LTD.
BATTERSEA CHURCH ROAD, LONDON, S.W.11

TEL BATTERSEA 8822 · GRAMS CRUCIBLE, SOUPHON, LONDON