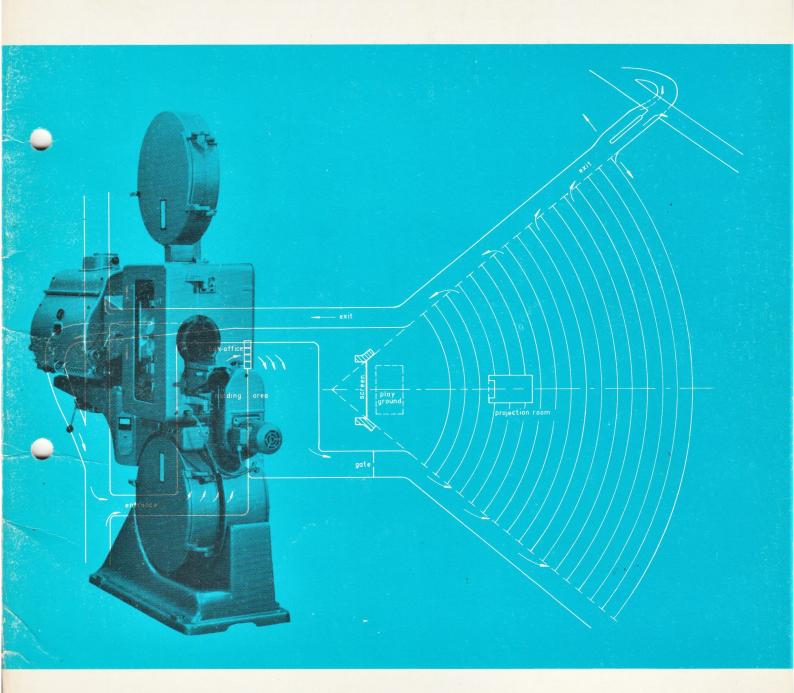
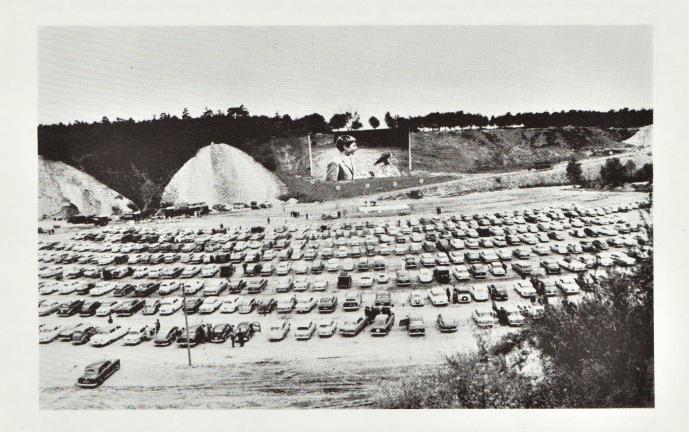
DRIVE-IN CINEMAS









The brochure is intended as a preliminary guide to those who may wish to set up Drive-in Cinemas in Southern Africa.

It has been an experience that mistakes in choice of site and preliminary moves can often prejudice the success of such enterprises.

Philips Cinema Projection Equipment is unquestionably the finest available for this type of project and consequently it is marginally more expensive in terms of original investment. This is outweighed however by trouble free operation, the quality of the projected picture, and the long life of the equipment.

Philips have had an extensive and varied experience of equipping Drive-in Cinemas and are in a unique position to know how to plan and equip such projects most successfully.

This brochure has been prepared to meet the needs of those making preliminary investigations into the profitability and method of setting up Drive-in Cinemas in Southern Africa.

THE LOCATION

The first step must be the finding of suitable sites close to populations capable of supporting an economically viable Drive-in Cinema.

Any area which supports a population with a good proportion of private cars is essential to success, and therefore the prime factor to be considered is the number of private cars

registered within a fifteen mile radius of any tentative side. Experience has shown that regular Drive-in patrons are found in industrial and mining areas, and only irregular support comes from those in surrounding agricultural districts. A purely agricultural area can very seldom support a Drive-in Cinema.

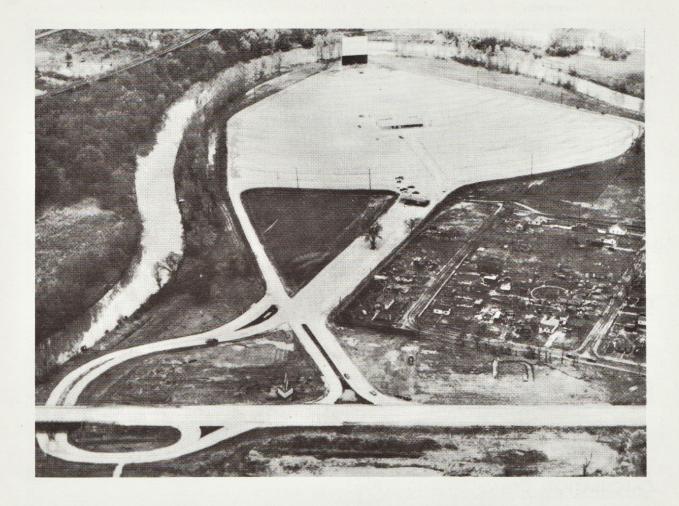
Few forms of entertainment are as flexible as the Drive-in Cinema in basic financial investment, lay-out of buildings roads and entrances, supplementary attractions, combinations with other entertainment, size and appearance of buildings and screen towers, and the use of lighting effects. The capacity of the Cinema itself and its restaurant and cafetaria services are infinitely variable.

THE COST

A fair estimate of cost can be based on approximately Rand 120 to 140 per car. This is not necessarily the lowest total investment, and it excludes the cost of the land. This preliminary figure can be seriously affected by the nature of the entrance and exit roads; the foundation work on the ground itself; nature of restaurant buildings, and whether these are large enough to serve as road houses or luxurious enough to be regarded as a first class restaurants in their own right.

A self-service restaurant requires heavier capital investment in the self-service equipment but this offset against the saving on running costs. Another factor which can increase initial cost is some special condition laid down by local authorities for fly-overs or underpasses to main roads.

Generally, any area unable to support at least a two hundred and fifty car Drive-in must not be considered. Capital investment remains fairly constant below three hundred cars without any assurance of a reasonable return on capital.



The following factors must be considered:

- 1. The Capital Investment increases nearly proportionally to the capacity of the cinema (in terms of cars).
- 2. The average car-owning patron normally goes once in two weeks.
- 3. Statistics show that one in every two car-owning families patronise Drive-in Cinemas, but it must be remembered that conventional cinemas still attract many patrons.
- 4. The distance of the Drive-in from the community it serves must be carefully considered, although this is of no consequence if no other Drive-in exists in that area.
- 5. The capacity of any proposed Drive-in can be calculated as follows. Obtain the total number of vehicles registered in the area from the Local Licencing Department, then:
 - A. Subtract 20 % for commercial vehicles.
 - B. Subtract 50 % of the remainder.
 - C. Subtract 50 % of that remainder.
 - D. Add 25 % of this final remainder for increases within the next five years due to population growth, more new cars, and extensions of the urban areas.
 - E. Divide by the number of performances each week.

 (one daily performance, divide by 6)

 (two daily performances, divide by 12)

 (one daily performance and two on Saturdays, divide by 7)

- F. Multiply this product by 1.25 if two different performances are shown per day or per week, to account for patrons who see both performances each week.
- G. Multiply this product by 1.3 to give a Drive-in capacity occupation of 70 % throughout the week.
 In this way we arrive at the calculation to ascertain the number of cars per

In this way we arrive at the calculation to ascertain the number of cars p week to be expected.

Registered vehicles X 0.8 (A) X 1.25 (D) X 1.3 (G)

$$2 (B) \times 2 (C)$$

or, in short

The actual Drive-in cinema car capacity is then calculated by:

$$\frac{\text{Capacity per week}}{6 \text{ (E)}} = \underline{\text{car capacity }} \text{ required for one daily performance}$$

or

CALCULATION EXAMPLE

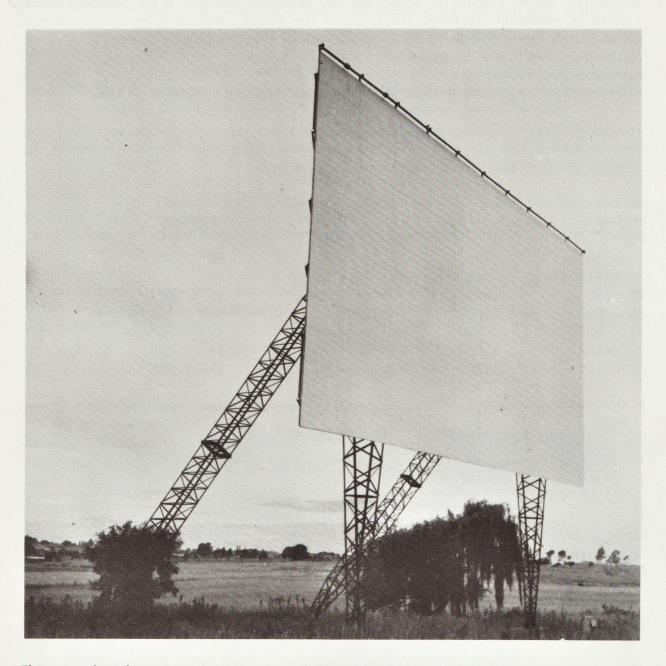
Let us assume that a town has 4,000 registered vehicles and the surrounding area an estimated population of 2,700.

Now proceed as follows. Divide the surrounding population figure of 2700 by 3 which gives you 900; add this 900 to the 4000 registered vehicles in the town, and you arrive at a total of 4900 cars. Therefore the recommended car capacity per week is $\frac{4900}{3}$ = 1640 cars.

Then:

- 1. With one performance per day, Saturdays two performances, we get: $\frac{1640}{7} = 230$ cars.
- 2. With one performance per day, and two on Saturdays, but two different programmes every week, we get: $\frac{1640 \times 1.25 \text{ (F)}}{7 \text{ (E)}} = 310 \text{ cars.}$

In all enterprise there is a trading risk and several factors cannot be estimated or predicted in advance. The prospective owner of a Drive-in cinema must therefore realise that although these calculations apply generally there is no guarantee that they will apply in any specific case.



This must be chosen in accordance with the final car capacity selected. To obtain a reasonably large screen impression even at the back ramps, the total car capacity and screen size have to be related one to the other. The following table indicates the recommended maximum capacities for various screen sizes:

		CAR CAPACITY WITH	
SCREEN SIZE	INITIALLY	EXPANSION TO A MAX. OF	
0/ /0.6	100		
26×60 ft.	100	280	
32×75 ft.	250	320	
35×82 ft.	300	430	
39×92 ft.	350	500	
43×100 ft.	400	600	
52×120 ft.	500	800	
64 x 144 ft.	700	1600	

The screen must be supplied by a reputable maker. Designs and drawings are their responsibility. Before placing the order, ask your insurance company if the proposed screen supplier is acceptable to them. The price of the screen, depending on size, is always net of foundations and slipping costs. The selection of an inadequate screen, and the indiscriminate addition of speakers will only result in a poor, small picture impression for patrons on the rear ramps.

A larger screen requires a stronger light source for a reasonably bright picture.

Too low a screen brightness causes bad definition, particularly in the darker film scenes, and patrons are then liable to suffer from headaches. The following table indicates the relation of screen size to arc lamp current or capacity.

Screen size in feet	Screen area in square feet	Arc Voltage in DC	Arc. surrent in Amperes
26×60	1560	38 - 42	70
32×75	2400	40 - 44	85
35 x 82	2900	44 - 52	* 85 - 100
39 x 92	3600	52 - 58	* 100 - 120
43 × 100	4300	64 - 74	* 120 - 150
52 x 120	6250	68 - 76	* 150 - 160
64 × 144	9200	76 - 80	* 160 - 180

^{*} The first figure only with the accelerated intermittent mechanism supplied by S.A. Philips.

XENON Lamphouses, offered by some suppliers, do not give a higher light output per watt than Carbon arc lamps.

If the voltage of the rectifiers supplied does not correspond to the recommended D.C. Current, carbons do not burn properly, and the result is a poor light output. Screens should have a forward tilt of three to seven degrees depending on the natural incline of the ground.

PROJECTION ROOM AND RESTAURANT

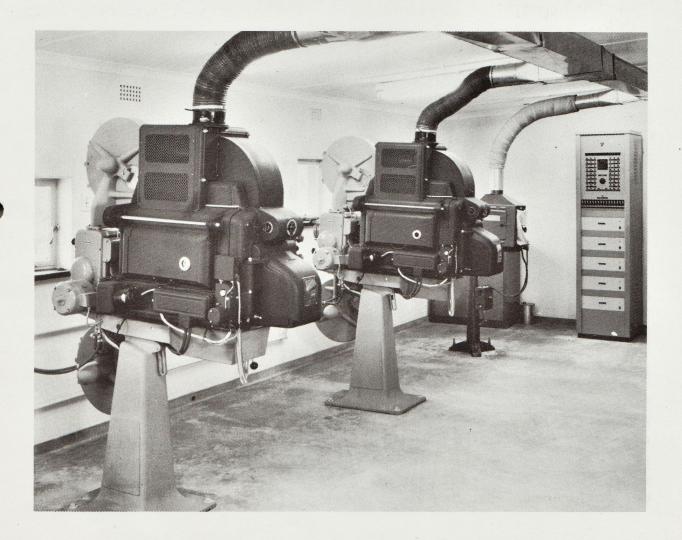
These may be separate buildings but it should be remembered that turn over in the cafetaria is usually higher if it is situated near the centre of the ground.

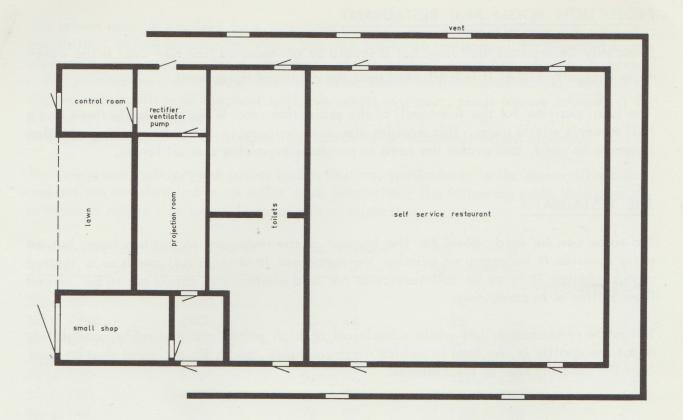
The ideal position for the front wall of the projection room is approximately three and a half screen's widths away. This enables the most favourable focal length of projection lenses to be used, and avoids the need to purchase expensive special lenses.

THE RESTAURANT

No rules can be laid down for the lay-out of the restaurant in this brochure, but an early decision is necessary on whether the restaurant is to serve full meals or a limited menu; whether it is to be self-service or not and whether soft drinks are to be served from bottles or in containers.

It must be remembered that while complaints of high prices are endurable, complaints about the quality of the food or service are intolerable, and a rigid control must be kept over the catering side of the business.





THE PROJECTIONIST

The projectionists must achieve and maintain a constant, high quality projection. This depends on their being given, initially, equipment made to the highest standards. Light must be steady and good, undistorted clear sound must be a minimum objective.

Advertising slides should not exceed twenty five at any performance. Focus must be maintained steadily throughout the performance. In this respect the film gates of some projectors without water-cooling expand under heat from the light beam thus widening the film path and causing flutter. This requires constant re-focusing on the part of the projection room staff and is extremely annoying to patrons.

The highest professional standards must be maintained by the operators, and smooth perfect change-overs from one machine to the other should be the norm. It is also essential that the sound intensity of the two machines should be matched. It is desirable to have three or four low-power amplifiers rather than two high-power units, because in case of sudden failure of one unit of a pair, half the theatre would be without sound. There must be a stand-by amplifier to cover any sudden break down.

DRIVE-IN COMBINATIONS

A Drive-in Cinema can be run in combination with other attractions:

- * a road house,
- * a recreation centre, with tennis courts and swimming pool,
- * a pleasure resort,
- * Go-kart track,
- * a motel
- * a Fairyland, or children's play area, (never situated below the screen).

ADDITIONAL ATTRACTIONS

A great deal of attention should be given to coloured lighting to make the approach and and theatre area attractive.

Car heater systems are available for use where the nights sometimes turn cold. The use of these by patrons would involve an additional fee of 25 cents per heater. Half the area should be fitted with heaters, and then partitioned through the centre line with nylon rope with separate entrances to left and right of the ticket box.



Car loudspeakers, to be hooked into the car through an open window.

FLOODLIGHTS

Floodlights may be fitted on top of the screen; this being the highest point offering a good light; but if this is done, floodlights tend to shine into the cars and cause annoyance.

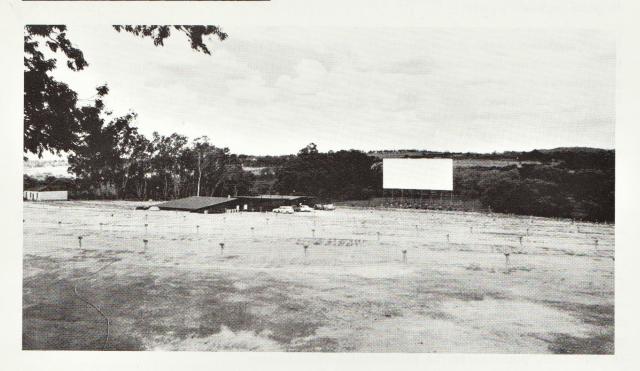
The placing of various floodlights at the sides and rear is more expensive, and the light-spread limited by the lower height of the fittings.

In either case never use sodium and mercury lamps. Patrons'faceslook pale and sickly, and women in particular will be reluctant to suffer this. Use only incandescent lamps or iodine lamps. In the restaurant mix fluorescent with incandescant lamps or use warm fluorescent lamps.

MULTI-PURPOSE THEATRE

This is a combination between a Drive-in Cinema and an indoor theatre with a projection room from which projectors are able to turn through one hundred and eighty degrees to serve alternatively the Indoor Cinema in the day-time or in bad weather, and the Drive-in Cinema on good nights. Alternatively four projectors can be installed, each pair operating independently into the Drive-in on the one side, and the Indoor Cinema on the other. They can either show the same film at different times, or two different films on a cross exchange system. The advantage is that this frees the proprietors from anxiety about weather; and, although the system has not yet been employed in South Africa, it is in use quite frequently in the U.S.A.

TO BUILD A DRIVE-IN CINEMA



The Cinema Department of S.A. Philips is able and willing to advise clients on every aspect of cinema construction and lay-out. Though it may be an advantage to have experience in the cinema, success can be achieved without either, if our advice is followed.

The various preparation stages are set out below.

Select suitable ground, taking care in coastal areas to avoid places where fog frequently lies. Investigate the water supply and electricity. High tension and transformer needs will depend on the capacity of the cinema and are:

$$200 - 430 \text{ cars} = 20 - 40 \text{ kW}$$

 $400 - 600 \text{ cars} = 50 - 80 \text{ kW}$) depending on restaurant consumption $600 + \text{cars} = 80 - 200 \text{ kW}$)

The capital cost of 250 heaters with 120 kW capacity and their installation is about R 8000.

A pavillion can be erected adjacent to the projection room with seating accommodation for between forty and eighty people. This is advisable in areas close to universities or army training centres, or if the cinema is within walking distance of a residential area.

It caters for patrons on foot, bicycle and motor cycle. One extension of this could be that the cinema would collect patrons from a central point in the near-by town by its own transport.

It is most important to plant as many trees as possible especially below and to either side of the screen. Natural greenery improves the atmosphere of a Drive-in, and splitpole fences or hedges are preferable to wire fencing on the boundaries.

Ensure that the site is big enough for the number of cars, and that it is near a highway or good secondary road.

Ensure that the screen is set up on the west-side of the site facing east so that late sunsets do not delay the start of programmes. This is particularly important where two programmes are being run on Saturday night, because the second programme must end before 11.59 p.m. which means that in some cases the first programme will start close on summer time sunset.

The ground should slope down towards the screen.

Having obtained an option on the ground, get a survey of the ground made and boundaries pegged out. Fix elevations, and north-south line. Natural obstructions like trees, rivers and brooks, roads, and hollows, should be fixed on the plan. Test borings must be made to find out about the sub-soil and drainage problems investigated at this stage.

Choose the supplier of projection and sound equipment. S.A. Philips Cinema Department will produce, free of charge for its customers, a complete Drive-in lay-out with exit and entrance roads, screen and building positions required to support the application for a licence. If the property is situated within a Municipal Area, application has to made to them first, and then to the Provincial Administration.

Strict regulations and country-wide by-laws are enforced in respect of Drive-in Cinemas. These govern the "hold-up area", the width and position of exit and entrance roads, and the distance of buildings from the nearest highway.

Contact film distributors about film supply and hold preliminary discussions with them. The existing or older established cinema in the area will always get preference on films and has the right to first releases. This problem does not arise where there is no competitive cinema in the area.

When the licence has been granted orders must be placed for the screen, earthmoving and ramp and road building, and for tarmac surfacing. In conjunction with S.A. Philips Cinema Department the projection room, cafetaria, ticket office and other buildings must then be designed; arrangements made for building and electrical contractors.

Normally the Electricity Supply Commission provides a transformer house and transformer on the property boundary. The cost of this depends on negotiation with local authorities, and it is necessary to contact the Electric Supply Commissioners or the Municipal Electrical Engineer.

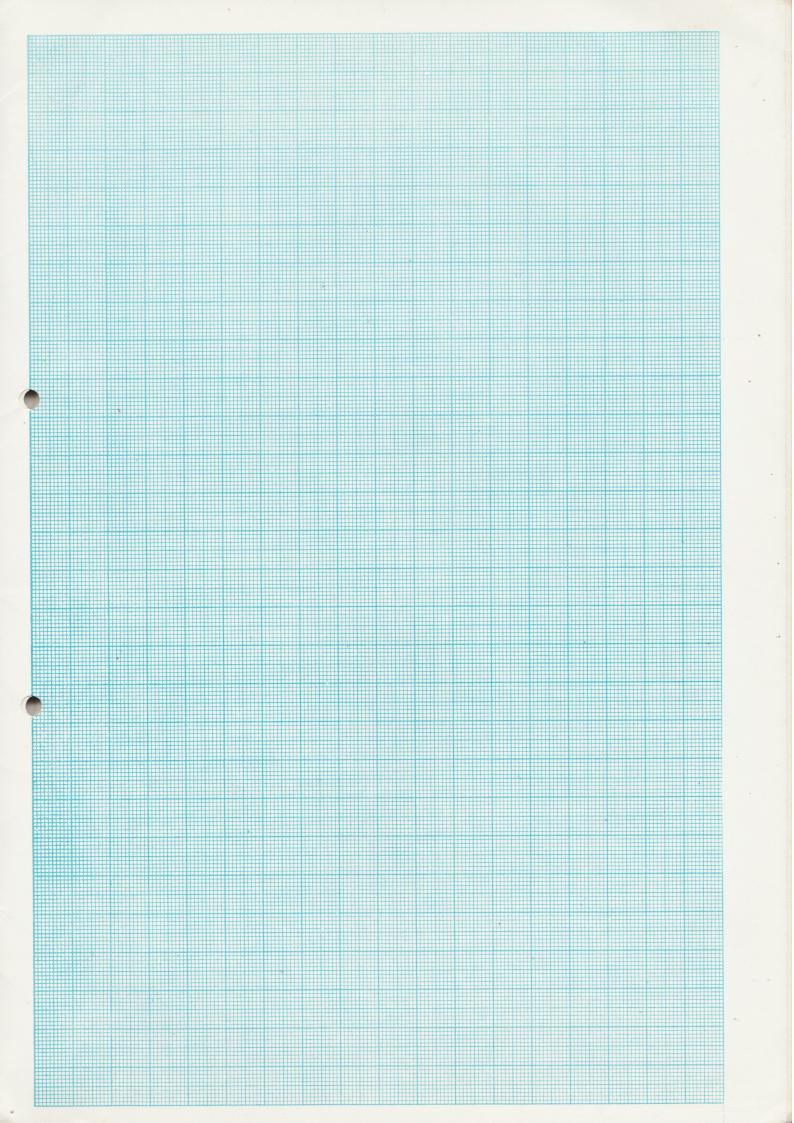
Then a licence must be obtained for the restaurant and the purchase of the ground finally taken in hand.

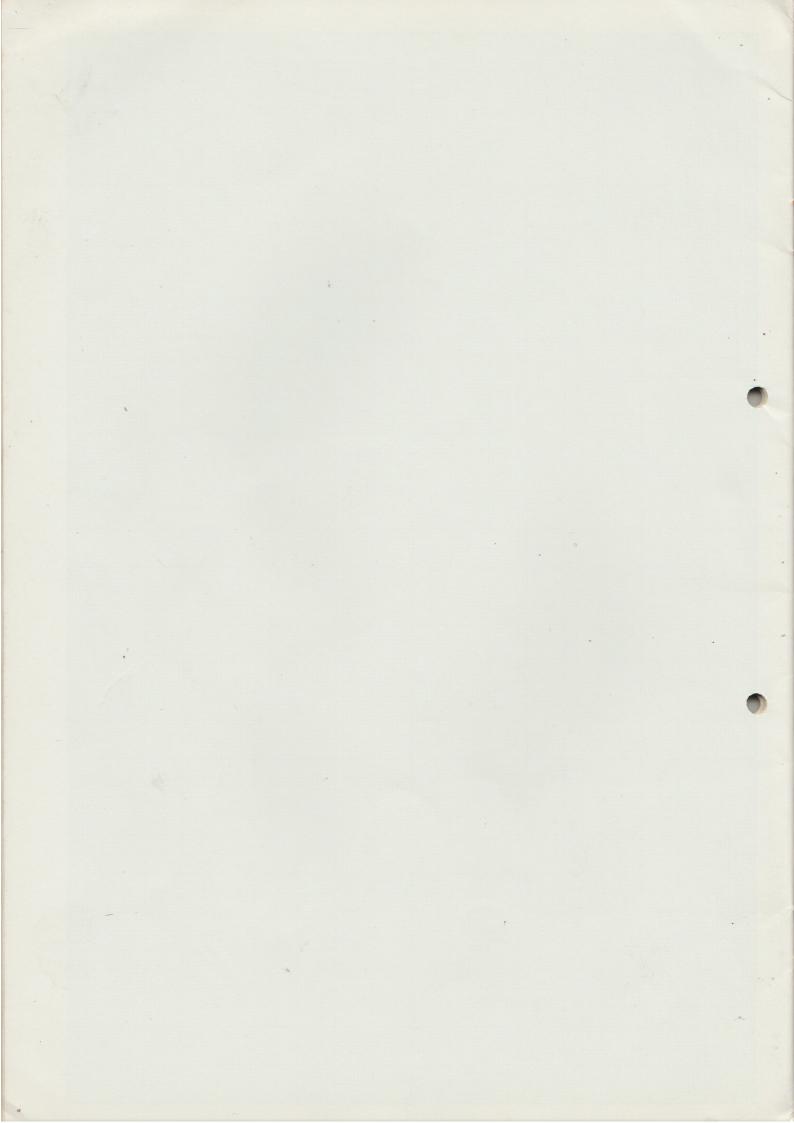
Where several quotations or tenders for projection and sound equipment are sought, it is advisable not to be guided by price alone but to scrutinise the specifications and quality of the equipment offered. Although equipment cost represents about 16 to 20 % of the gross capital investment for a Drive-in Cinema, the whole project can easily be jeopardised for a mere three to four percent difference in the price of equipment.

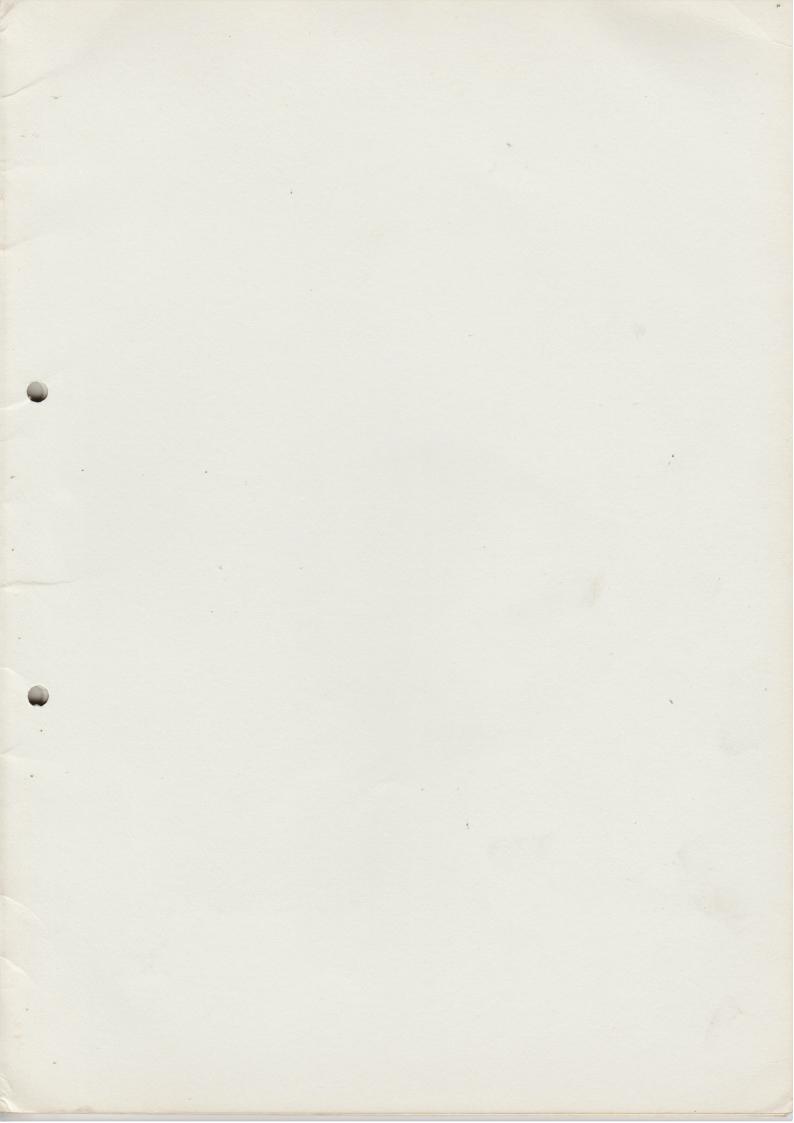
S.A. Philips, as one of the leading projection equipment makers, will help customers in

every way before, during and after the contract has been completed. We think that this is very important, and we are always pleased when a cinema with which we have been associated is successful.

NOTES:







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Printed in the Netherlands.