

# Cinema 180®



## TECHNICAL DATA

### CINEMA 180® FRAME SUPPORTED SCREEN THEATER SYSTEM

#### DESCRIPTION

Cinema 180® is a 70mm film show attraction with strong drawing power. It surrounds an audience with captivating color, action and sound. Memorable minutes of "being there" transports them from one dramatic and electrifying experience to another on a giant quadri-spherically shaped screen. Each viewer's automic nervous system perceives the experience as participatory.

Cinema 180® can play all year to a broad market including adult, family, child, teen, resident and tourist. New programs are as easy as making a selection from the Cinema 180® film library.

Cinema 180® offers high entertainment value and capacity for a low to moderate capital outlay. Sponsor appeal is high, operating and maintenance costs are low, and space requirements are minimal.

#### APPLICATIONS

Cinema 180® is ideally suited for presentation of Cinema 180® 70mm films at theme parks, amusement piers, planetariums, museums, World's Fairs, expositions, marine parks, industrial, commercial or institutional trade shows, sports arenas, stadiums, zoos and other high traffic locations.

#### PRODUCTION INFORMATION

The Frame Supported Screen Cinema 180® Theater System is designed for installation inside existing permanent buildings or newly constructed conventional buildings that have a minimum height of 20 feet (6.1m) and minimum width of 40 feet (12.2m). Frame supported screens with heights up to 28 feet (8.5m) by 60 feet (18.3m) wide can be supplied.

Each Frame Supported Screen, custom designed to fit the available space, consists of 1) arching steel frame, 2) flame resistant vinyl-coated nylon membrane frame cover and projection screen, 3) extraction blower. Located on the floor toward the rear of the membrane frame cover, the blower creates a negative pressure on the back side of the screen, causing it to take its proper quadrispheric shape.



Cinema 180® Frame Supported Screen Theater Systems are modular in design for fast production, reduced shipping volume and quick assembly. All components selected for inclusion in the system have been chosen with quality and dependability in mind.

NOMINAL DIMENSIONS	<u>W x D x H</u>			<u>W x D x H</u>			<u>W x D x H</u>		
	Screen	40'	x 19'	x 19'	50'	x 24'	x 24'	60'	x 28'
Theater	45'	x 51'	x 20'	55'	x 62'	x 25'	65'	x 73'	x 29'
CAPACITY	<u>Show/Hour</u>			<u>Show/Hour</u>			<u>Show/Hour</u>		
	Standing	285	/855	400	/1200	575	/1725		
Seated	100	/300	150	/450	200	/600			

Note: Hourly capacities are based on three 12 minute shows per hour.

**MEASUREMENTS**

Each Frame Supported Screen is custom designed to fit the available space in either an existing or to be built building. The specific sizes of each screen will be determined by the building in which it will be installed.

**DESIGN**

A Frame Supported Screen is built to support the weight of the frame, frame membrane cover, membrane screen and the negative pressure drawn between the screen and the cover. The standard Frame Supported Screen is not designed for environmental loading, i.e. wind, and snow load. It is assumed that the building selected for installation of the Frame Supported Screen has been properly designed and constructed to withstand local environmental loading requirements.

**FOUNDATION DESIGN**

A traditional foundation, i.e. building structure foundation is not required. Instead the Frame Supported Screen can be installed on either a flat concrete floor or a wooden floor. The base of the Frame Supported Screen can be secured to a concrete floor via concrete insert type anchors or to a wooden floor via lag screws.

**SITE PREPARATION**

Prior to arrival on site by the technical representative, buyer must have concrete floor or wood floor free and clear and completely prepared in a manner suitable for erection of the delivered merchandise. The normal steps required to prepare a site completely are as follows:

Have a clean and level floor prepared in the area designated for the screen to be placed.

Make sure wall and ceiling area around screen is free and clear of any obstruction that might interfere with erection and operation.

Run conduit and wire for 1) projection and sound system, 2) screen blower, 3) speakers, 4) house lights, 5) exit lights.

Existing or new doors should be properly sized and located to meet local fire code regulations.

### **INSTALLATION SEQUENCE**

Off load truck or container and sort load. Assemble two (2) sections of the steel frame. Connect membrane frame cover to top of aluminum faced arch (arch nearest audience).

Assemble additional steel sections one at a time followed by connection of the membrane frame cover each time a new steel arch section is added. Use forklift or manually operated portable erection crane with cable hoist to lift the already assembled arch section in preparation for connecting each succeeding arch section.

When one half of the arch is assembled, begin connecting the screen to the bottom of the aluminum faced arch (arch nearest audience).

Continue connecting arch sections, membrane frame cover and screen until complete. Square supporting frame and anchor via concrete, insert type or lag bolts. Install extraction blower between screen and membrane frame cover. Bolt pre-rolled screen radius anchor angle together.

Place screen anchor angle on floor near bottom edge of screen.

Turn extraction blower on to create a negative pressure between screen and membrane frame cover.

Once screen has been drawn into position by blower, secure screen to radius anchor angle.

Secure radius anchor angle to floor via concrete insert type anchors or lag bolts.

Install Projection and Sound systems.

Set Speakers and connect to Sound Rack.

## **MANPOWER AND EQUIPMENT REQUIREMENTS**

One (1) Supervisor  
Two (2) Laborers  
One (1) Electrician  
Two (2) Projectionists  
One (1) Forklift or manually operated portable erection crane with cable hoist with minimum 12 foot lift and 4000 lbs. capacity  
Assorted Wrenches 7/16" to 3/4"  
Two (2) Work Lights  
One (1) 3/8" Electric Drill with assorted bits and 100 foot extension cord  
Assorted Hand Tools to include hammer, drift pins, vicegrips, pliers, hacksaw, screwdrivers (flat and phillips), etc.

## **APPROXIMATE INSTALLATION & TRAINING TIME**

Based on past experience, installation of a Frame Supported Screen Cinema 180® Theater System is expected to be in the range of the time indicated below:

One (1) Supervisor	- 5 days
Two (2) Laborers	- 2 days
One (1) Electrician	- 1 day
Two (2) Projectionists	- 3 days
One (1) Fork Lift or Manual Crane	- 1 day
All Other Tools	- 2 days

The information presented above is provided as a helpful guide. It does not take into account any delays such as bad weather, strikes, equipment breakdown, etc. Approximate times above do not include site preparation; or installation of electric, air conditioning, facade, or queue rails. Omni Films International, Inc. assumes no obligation or liability whatsoever in connection with the information presented above.

## **ELECTRIC REQUIREMENTS**

50 Hertz - 6 KW; 230/380 Volt; 3-Phase  
60 Hertz - 6 KW; 110/220 Volt; 3-Phase

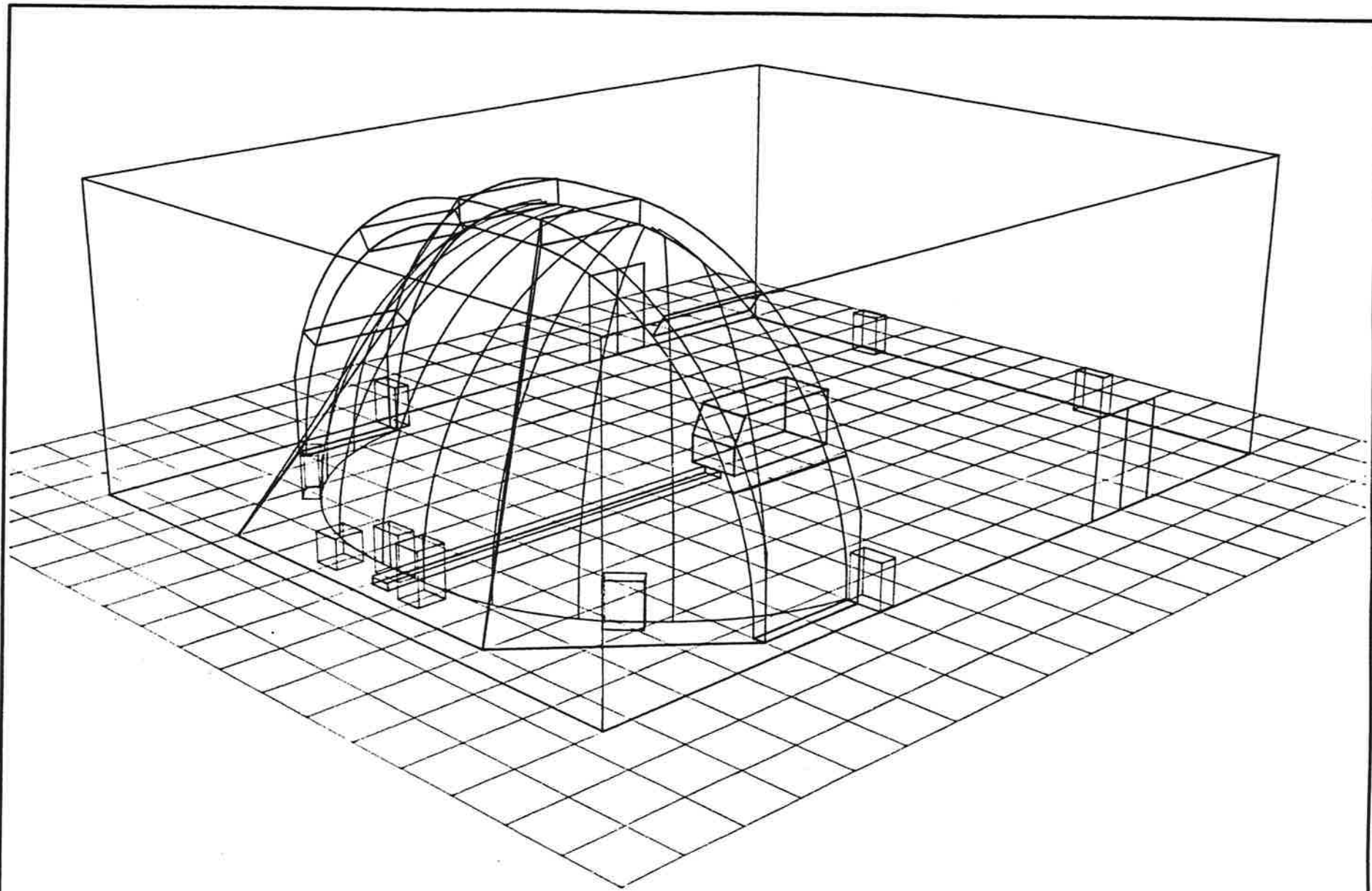
Note: Additional power will be required if Theater has lighted decorative facade and/or air conditioning.

**OPERATING PERSONNEL**

One (1) Projectionist  
One (1) Usher (on high traffic days)

**MAINTENANCE**

Annual maintenance expense will average from \$2,900 per year for the 4500 Watt projection system to \$3,300 per year for the 7000 Watt projection system. Approximate annual expense includes one replacement Xenon projection bulb, miscellaneous spare parts, and prorated expense for some long life components such as the sound head and projector intermittent assembly.



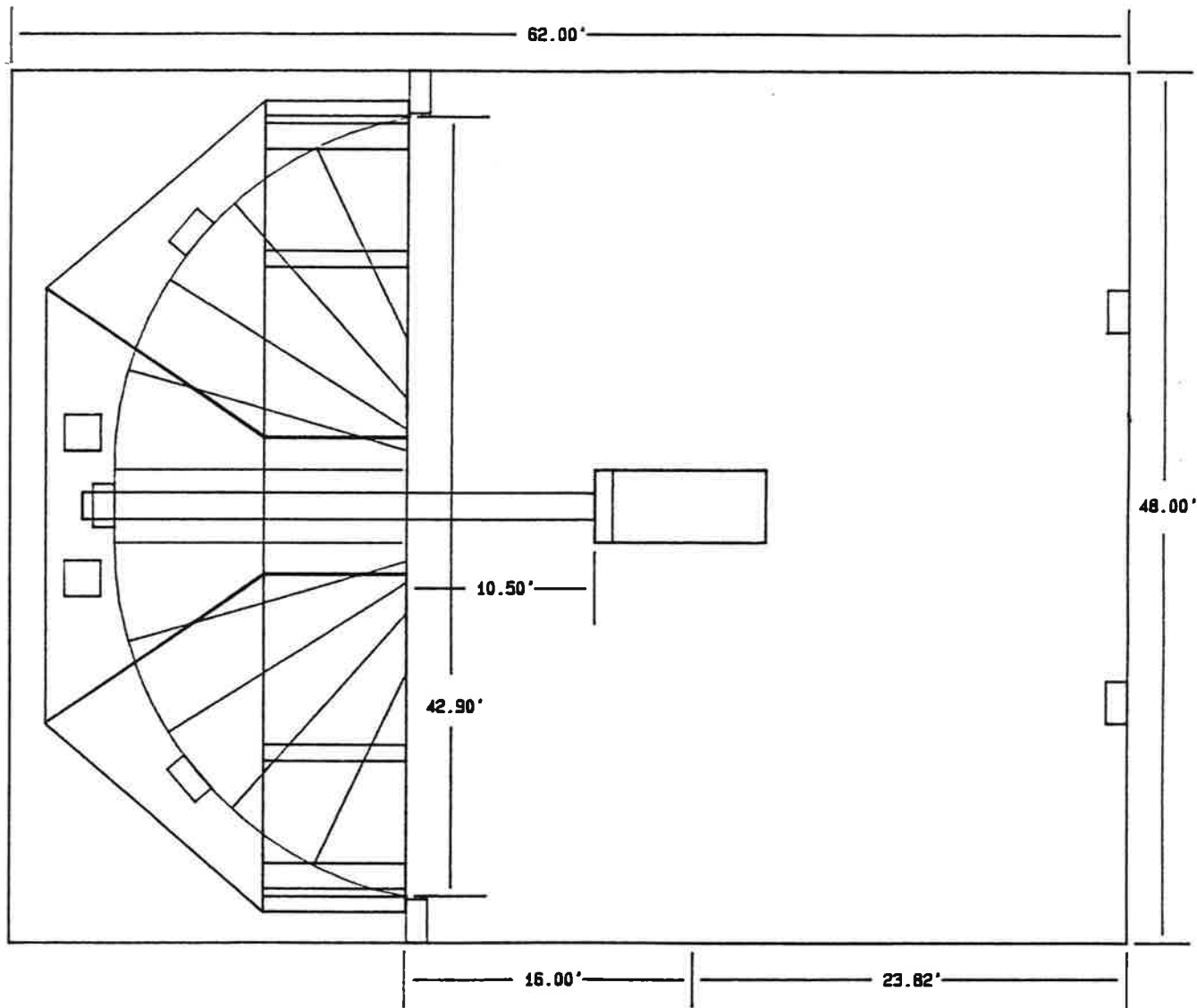
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FRAME-SUPPORTED CINEMA 180  
THEATER SYSTEM

SCALE: NONE  
DR. BY: HP150

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FLOOR PLAN

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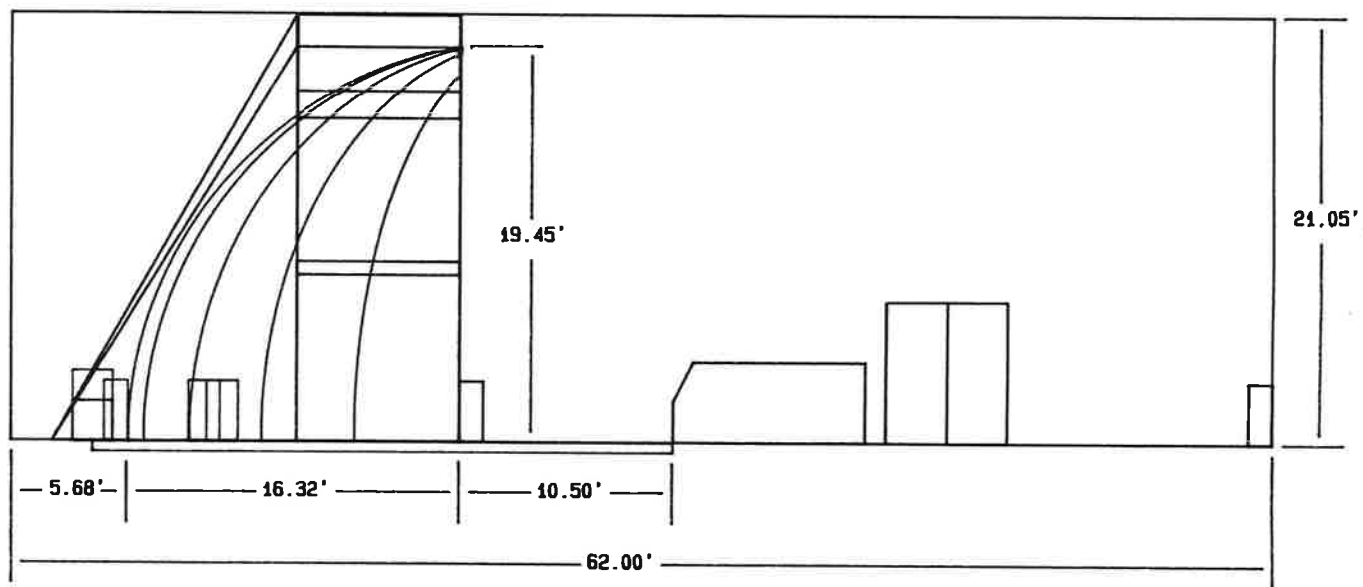
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SIDE ELEVATION

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THEATER SYSTEM

SCALE: NONE

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