

## How To Choose A Screen

### STEP 1

Choose the screen type: Electric Screen, Wall Screen, Tripod Screen, Stand Floor Screen, Vertical Floor Screen, Mobile Floor Screen, Table Screen, Swing Screen, Rear Projection Screen.

### STEP 2

Choose the AV format: there are many AV formats, such as 1:1, 4:3, 16:9 etc. You can choose as your special specifications.

### STEP 3

Choose the screen size: Three essential factors for choosing suitable screen size:

#### 1. Choose the width of screen

- The suitable watching distance is equal to the diagonal of screen.
- The width of screen can be calculated by the diagonal of screen:  
4:3 format: Diagonal  $\times$  0.80 = Width  
16:9 format: Diagonal  $\times$  0.872 = Width

#### 2. Choose the height of screen

- 4:3 format:  $H + W$   
16:9 format:  $H + W$

#### 3. Leave space margin

When installation, leave some space margin, the suitable distance from the bottom of screen to the ground is 0.7-1.25m.

#### For example:

You want to buy a 100" electric screen, 4:3 format,

##### 1. the screen size:

$$W = \text{Diagonal} \times 0.8 = 100'' \times 0.8 = 80'' \times 2.54 = 2030\text{mm}$$

$$H = W \div 4 \times 3 = 80'' \div 4 \times 3 = 60'' \times 2.54 = 1530\text{mm}$$

##### 2. the space needed:

$$H > 2.5\text{m} \quad W > 2 - 3\text{m}$$

- A = Full width of screen fabric
- B = Size of black side borders
- C = Size of black bottom borders
- D = Top section black out (masking)
- E = Viewing drop
- F = Viewing width
- G = Full screen drop
- H = Diagonal

**NOTE:** All masking sizes can be customized to clients requirements

## How to Caculate a Custom Size Screen

PCM manufactures custom size screens to meet your specification. Virtually any size within the maximum shown for a given model is available. Please call for pricing on special sizes. If you need to calculate a custom size, the following formulas my be useful

(D=exact diagonal: H = viewing area height)

#### 4:3 NTSC Video

$$H = D \times .6$$

$$W = D \times .8$$

$$D = H \times 1.667$$

$$D = W \times 1.25$$

#### 16:9 HDTV

$$H = D \times .49$$

$$W = D \times .87146$$

$$D = H \times 2.04$$

$$D = W \times 1.1475$$

#### 1.85:1 WideScreen (Letterbox)

$$H = D \times .4762$$

$$W = D \times .881$$

$$D = H \times 2.1$$

$$D = W \times 1.135$$

#### 2.35:1 CinemaScope

$$H = D \times .3915$$

$$W = D \times .92$$

$$D = H \times 2.554$$

$$D = W \times 1.0868$$

#### 5:4 Data Graphics

$$H = D \times .625$$

$$W = D \times .781$$

$$D = H \times 1.601$$

$$D = W \times 1.281$$

