

# JUMBO GYPSUM BLOCK BLOCK WALL SYSTEM



Sole Distributor:





## Company Introduction

Fujian Jumbo New Material Corporation Limited located in Fujian China , with an area 220,000m<sup>2</sup>, produces 5 million m<sup>2</sup> of high-strength gypsum blocks per year. Currently ranking first in China , it also produces special dry-mixed mortar products 550,000 tons every year . 'Jumbo Gypsum Blocks' are applied maturely in Mainland China, and company **Marshal Enviro Tech Materials** is the pioneering supplier in Hong Kong, Macau, Taiwan, Indonesia, Cambodia, Singapore and Malaysia which has established an outstanding reputation.

## Jumbo's superiority

- 12 patents ( including 4 invention patents ).
- 20 research personnel, strong scientific research team.
- ISO9001 Quality management system certificate.
- ISO14001 Environmental management system certificate.
- CE certificate.
- Green label certificate in Hong Kong.
- Produces gypsum blocks according to BS EN 12859:2011.
- Passed all kinds of tests in accordance with international standards.
- Key enterprise in China, and ranking first in Gypsum Block Industry.
- Excellent enterprise award in gypsum industry from 2014 to 2015.
- Director unit of China Construction Association.
- Hundreds of successful projects in Mainland China, Hong Kong, Macau, Taiwan.



# Introduction of JUMBO Gypsum Block

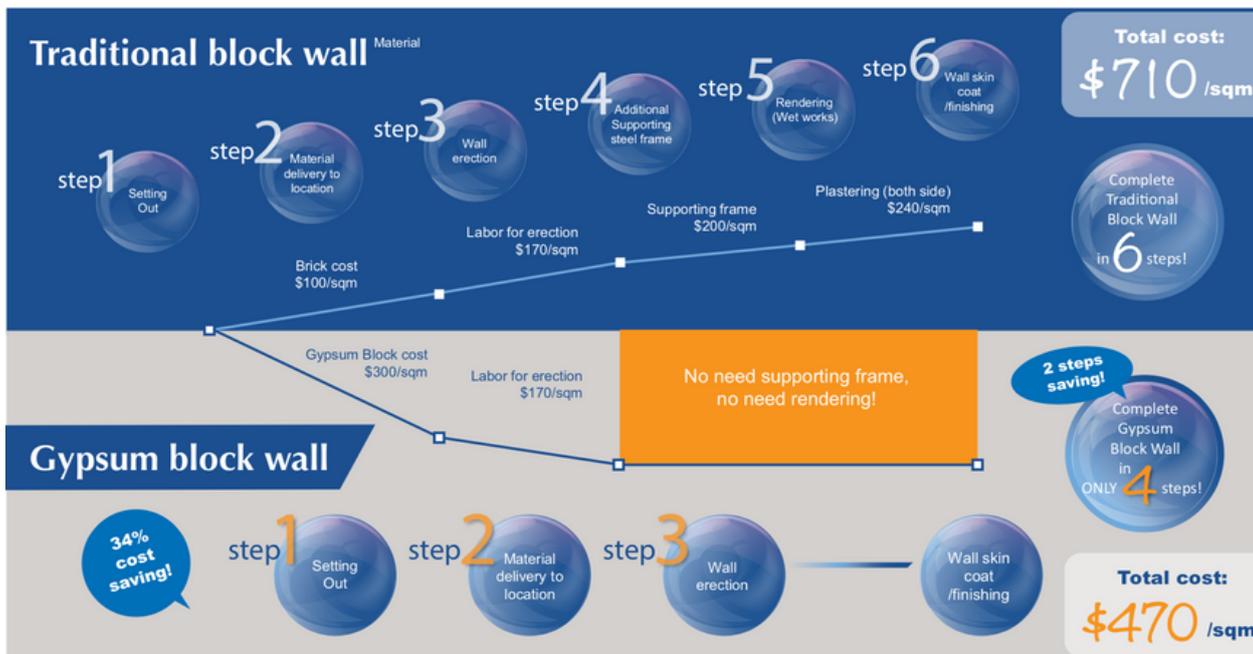
"JUMBO Gypsum Block" is a "tongue" and "groove" gypsum block wall system manufactured in China, incorporating the advantages of: Lightweight, Fire Resistant, Thermal Resistant, Sound Insulation, Easy Installation and Competitive Pricing. 'JUMBO Gypsum Block' is also an environmental friendly building product, 100% recyclable. Wall partitioning system formed by 'JUMBO Gypsum Block' is a continuous walling system, will behave as one complete seamless wall panel. Unlike the traditional block wall jointing, 'JUMBO Gypsum Block' jointing has utilized the characteristic of chemical adhesion and physical crystallization of gypsum adhesive, which avoid cracks due to thermal expansion and contraction..

## Advantages of JUMBO Gypsum Block

### 1. Cost Saving



In comparison with traditional concrete block wall system, 'JUMBO Gypsum Block' walling system weighs only 50% of the concrete block wall; and because of the smooth surface of the gypsum base material, no cement plastering work is required before the application of paint and other finishing materials. Thus a significant cost saving in terms of material and labor could be contributed when using 'JUMBO Gypsum Block' walling system.



## 2. Regulate Relative Humidity



The nature of gypsum can absorb the moisture content in the air when the humidity is relatively high, thus the problem occurred due to high humid will be eliminated.

## 3. Energy Efficient



'JUMBO Gypsum Block' is an energy efficient construction material. It's thermal conductivity is only 1/4 of red brick. Thus contributing to excellent thermal insulation effect.

## 4. Fire Resistance



All "JUMBO Gypsum Blocks" are certified with a FRP rating of 240 minutes. If traditional concrete block is used to achieve the same performance, a 225mm thickness or even larger concrete block wall system must be used. Thus the owner of can achieve more GFA than traditional concrete block wall system.

## 5. Light Weight



With the light weight characteristic advantage of gypsum, "JUMBO Gypsum Block" provides a system that reduces time and cost for transportation. It also allows the Engineer to reduce structural loading when designing the building.

## 6. Saving of Construction Time



Construction of 'JUMBO Gypsum Block' walling system is easy and fast. With the advantage of smooth surface attributed by 'JUMBO Gypsum Block' technology, plastering work shall be eliminated.



## 7. Recyclable



"JUMBO Gypsum Block" can be demolished by cutting the wall panel into block size by top down method. These cut blocks can then be re-used for building a new wall with JUMBO Adhesive. The level of maintenance is very low due to the elimination of metal mesh, plastering, steel stiffener and lintel.

## 8. No Wet Trade Works



Unlike of using traditional concrete blocks, walling system formed by 'JUMBO Gypsum Block' does not require plastering, thus no wet trade works is required on site; the possibility of de-bonding plaster is also eliminated. Not necessary to say, it will cause less debris as well.

## 9. Excellent Sound Insulation



'JUMBO Gypsum Block' walling system provides a very significant sound insulation in comparison of other block wall system. All "JUMBO Gypsum Block" has STC ratings.

## 10. Water Repellent



'When JUMBO Gypsum Block' soaked in the water for 2 hours , the average of water absorption is around 2.5% or < 5%, which is up to the EU standards of H1 or H2. All our products are Water-repellent.



# Production Flow Chart



# JUMBO Gypsum Block Specification

| Jumbo Hydro (Water-repellent) high density Gypsum Block Wall System |           |  |               |                                   |                            |               |                                   |
|---|-----------|--|---------------|-----------------------------------|----------------------------|---------------|-----------------------------------|
| Series  |           | 1,100kg/m <sup>3</sup>                           |               |                                   | 1,200kg/m <sup>3</sup>     |               |                                   |
| Model no.   |           | B80  | B100          | B150                              | B80(H)                     | B100(H)       | B150(H)                           |
| Physical Size   | Width     | 600mm  | 600mm         | 600mm                             | 600mm                      | 600mm         | 600mm                             |
|   | Height    | 500mm  | 500mm         | 247mm                             | 500mm                      | 500mm         | 247mm                             |
|   | Thickness | 80mm   | 100mm         | 150mm                             | 80mm                       | 100mm         | 150mm                             |
| Dimensions Tolerance  |           | Width: ±2.5mm, Height: ±1.5mm, Thickness: ±0.5mm |               |                                   |                            |               |                                   |
| Weight  |           | 26.5kg   | 33kg          | 24.5kg                            | 29kg                       | 36kg          | 26.5kg                            |
| Density Tolerance   |           | ±5%  |               |                                   |                            |               |                                   |
| Color   |           | Reddish / Off White                              |               |                                   |                            |               |                                   |
| Fire Rating   |           | 4 Hours  |               |                                   |                            |               |                                   |
| Sound Insulation  |           | 40dB   | 45dB          | 50dB                              | 42dB                       | 46dB          | 51dB                              |
| Thermal Insulation  |           | 0.36 W/(m·k)                                     |               |                                   | 0.40 W/(m·k)               |               |                                   |
| Water Absorption  |           | 5.0% or 2.5%                                     |               |                                   |                            |               |                                   |
| Flexural Strength   |           | 4.0MPa   |               |                                   | 4.5MPa                     |               |                                   |
| Compressive Strength  |           | 10.0MPa  |               |                                   | 14.0MPa                    |               |                                   |
| Max.Wall Height without Stiffening                                  |           | 7m   | 9m            | 10m                               | 7m                         | 9m            | 10m                               |
| Surface Appearance  |           | Smooth (Plastering not required)                 |               |                                   |                            |               |                                   |
| Physical Appearance   |           | Tongue and Groove profiles on all sides          |               |                                   |                            |               |                                   |
| Bonding Agent   |           | Gypsum Adhesive                                  |               |                                   |                            |               |                                   |
| Recommend Application   |           | Bathroom  <br>Kitchen wall                       | Interior wall | Common wall<br> <br>Exterior wall | Bathroom  <br>Kitchen wall | Interior wall | Common wall<br> <br>Exterior wall |

Specification above follows BS EN 12859:2011, BS EN 13279-2:2004, BS EN 1364-1.

| Jumbo Gypsum Adhesive (Gypsum Plaster) |                                  |
|--|----------------------------------|
| Model no.                              | MB100                            |
| Packing                                | 25 kg / bag                      |
| Coverage                               | Approx.2.5 ~ 6 kg/m <sup>2</sup> |
|  | 80mm (T) to 150mm (T)            |
| Thickness                              | 3 mm                             |
| Color                                  | Light Grey                       |
| Bond Strength                          | 0.5 Mpa                          |
| Flexural Strength                      | 5.0 MPa                          |
| Compressive Strength                   | 10.0 MPa                         |
| Pot Life                               | Approx. 1 hour                   |
| Surface Appearance                     | Smooth (Plastering not required) |



# Installation Procedure

1. Mark the position of the wall



2. Lay the first layer gypsum block



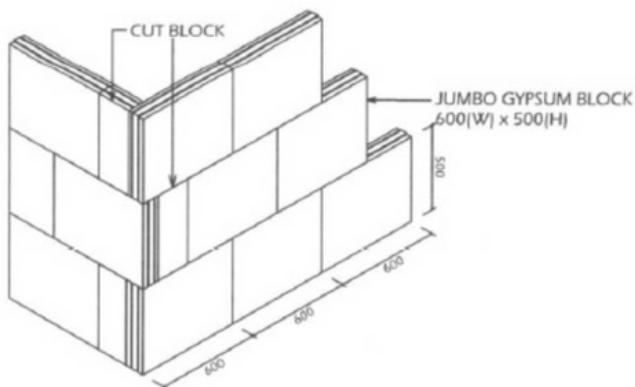
3. Door Lintel



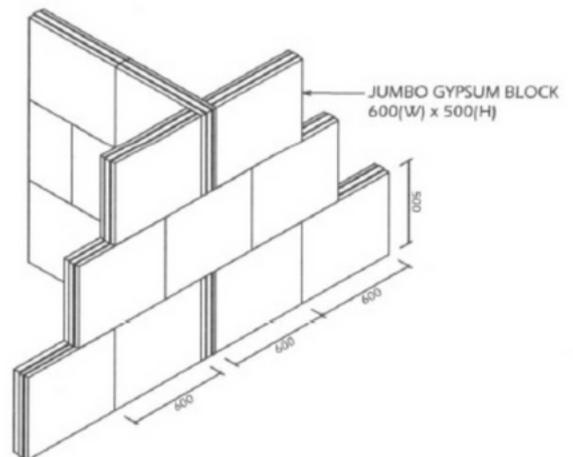
4. Girder Treatment



## Typical Drawings



ARRANGEMENT AT CORNER JUNCTION  
(N.T.S.)



ARRANGEMENT AT T-JUNCTION  
(N.T.S.)

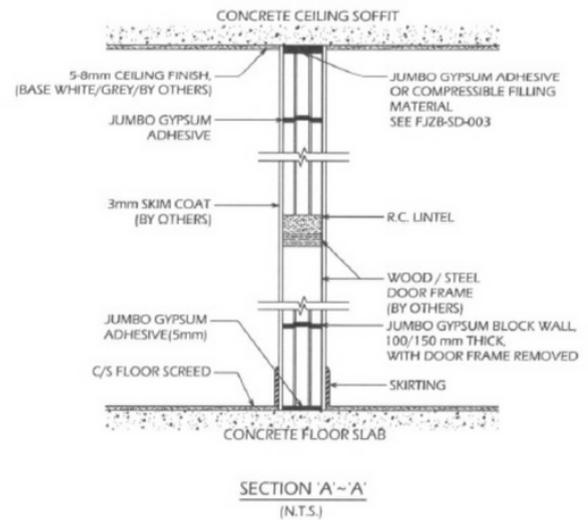
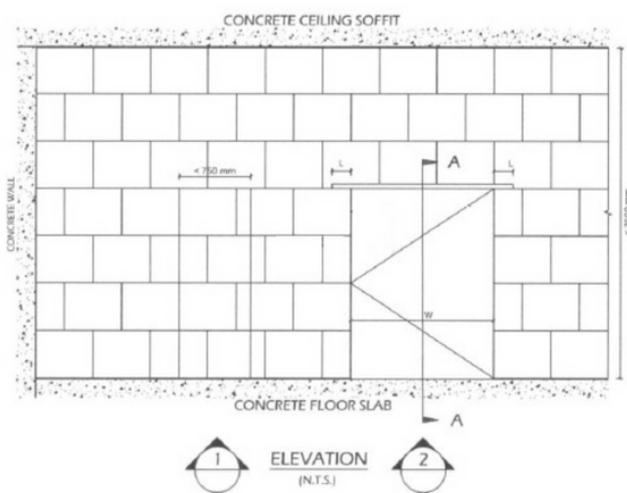
## 5.Finish Wall



## 6.Slot Opening



## 7.Slot Recovery

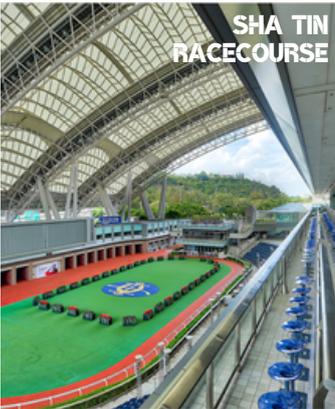
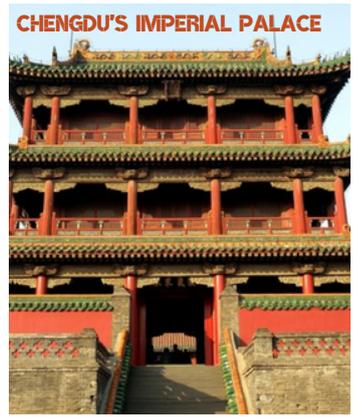


# JUMBO Gypsum Block Projects (partial)

**XIAMEN SOFTWARE PARK PHASE II**



**CHENGDU'S IMPERIAL PALACE**



**SHA TIN RACECOURSE**

**FUJIAN XIAMEN TRAIN TERMINAL**

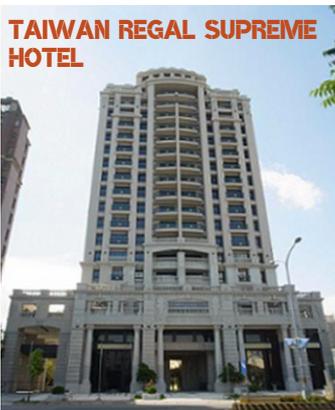


**FUJIAN ZIJIN MOUNTAIN PARK**



**STUDIO CITY MACAU**

**TAIWAN REGAL SUPREME HOTEL**



**HONG KONG - ZHUHAI - MACAO BRIDGE BUILDING**



**GRAND LISBOA HOTEL**



# JUMBO reached below International Standards:

1. BS EN 12859:2011 Gypsum blocks. Definitions, requirements and test methods
2. BS EN 15318:2007 Design and application of gypsum blocks
3. BS EN 12860:2001 Gypsum based adhesives for gypsum blocks  
Definitions, requirements and test methods
4. BS EN 15254-2:2009 Extended application of results from fire resistance tests.

## Test Reports of JUMBO HD Hydro Gypsum Block:

- Fire Resistance Test Report, BS EN 1364-1:1999, 4-hr FRP, 80mm (T) block
- Fire Resistance Assessment Report, BS EN 1364-1 :1999, 4-hr FRP, 100mm (T) block
- Fire Resistance Assessment Report, BS EN 1364-1 :1999, 4-hr FRP, 150mm (T) block
- Fire Resistance Test Report (with concealed conduits and conduit boxes) in accordance with BS EN 1364-1 :1999, 2-hr FRP, 80mm (T) block
- Fire Resistance Test Report, BS 476-Part 20 & 22, 4-hr FRP, 100mm block  
(Tested by Macau University)
- Water Absorption Test Report, BS EN 12859-2011
- Sound Transmission Loss Assessment Report (STC40), ASTM E90-09, 80mm (T) block
- Sound Transmission Loss Assessment Report (Rw45), BS EN ISO 10140-2:2010, 100mm (T)
- Sound Transmission Loss Assessment Report (Rw50), BS EN ISO 10140-2:2010, 150mm (T)
- Determination of Stiffness for Wall Partition, BS 5234-2: 1992 Annex A, Heavy Duty Grade
- Determination of Surface Damage by Small Hard Body Impact for Wall Partition, BS 5234-2:1992 Annex B, Heavy Duty Grade
- Determination of Resistance to Damage by Large Soft Body Impact for Wall Partition, BS 5234-2:1992 Annex C, Heavy Duty Grade
- Determination of Resistance to Perforation by Small Hard Body Impact for Wall Partition, BS 5234-2:1992 Annex D, Heavy Duty Grade

# JUMBO

## **GYP SUM B L O C K**

### B L O C K W A L L S Y S T E M

Sole Distributor:

