**Installation manual** 

# Gyptone<sup>®</sup> BIG<sup>™</sup> CURVE



### **Design and technique**

### **Product description**

Gyptone BIG Curve is a unique solution for combining design and acoustic performance. Gyptone BIG Curve is a curved ceiling built on a metal grid system and doesn't have any visible joints. The curved ceiling can be used in many different segments, like malls, office buildings, hallways, airports and so on. The 6.5 mm Curve gypsum board is fully recyclable.

### **Surfaces**

After installation of the boards the board surface need to be painted. The painting should be done by using a short haired roller. Don't spray paint the boards as the paint will spray on the acoustic tissue underneath the perforations which will decrease the acoustic absorption for the product. For a nice, smooth joint between the boards, use filler, sandpaper and paint.

### Grid system

Gyptone BIG Curve is built on GK system in 2 levels. The construction must be done according to this manual, the project description and drawings.

### **Fire resistance**

B-s1, d0.

### Loading

Maximum load is 1 kg. If an item is heavier than 1 kg, the item needs it's own hanger.

### Stability

Gyptone BIG Curve should be put up and used in areas where the relative humidity does not exceed 70% and temperature does not exceed 45 degrees for a longer period of time. Gyptone BIG Curve can be curved down to a radius of 2.2 meters in dry conditions and 1.2 meters in wet conditions. The board can be curve convex and concave, but only in the length of the board.

### Weight

Gyptone BIG Curve Base = 6.5 kg/m<sup>2</sup> Perforated Curve products = approx 5.5 kg/m<sup>2</sup>

### Cleaning

Depends on the surface treatment.

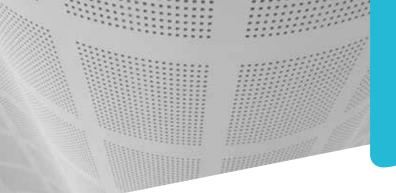
#### Maintenance

Damage to the edges or surfaces can be repaired with filler and paint.

#### **Dimensions**

Gyptone BIG Curve comes in modules of 1200 x 2400 mm. Thickness 6.5 mm.

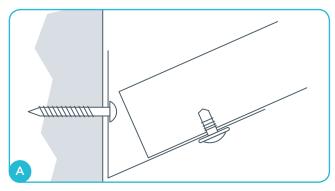




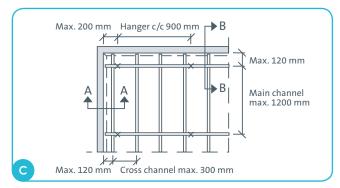
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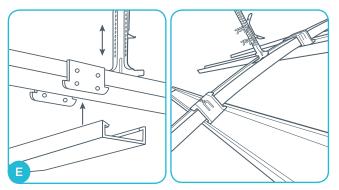
### Installation GK-system in 2 levels and Gyptone BIG Curve boards. We recommend that the entire installation manual is read before commencing work.



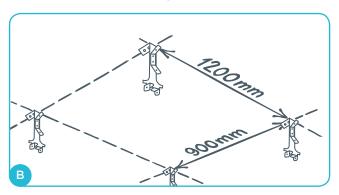
Fix twisted steel sheet VPB 50/50 to a wall. Use screws with a pan head and fix them to the wall with a center distance of 400 mm. See detail drawing on page 4, section A-A and B-B.



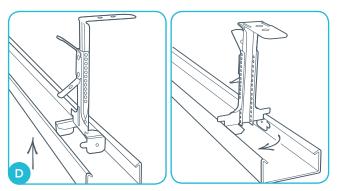
The first hanger should be place with a maximum distance of no more than 200 mm from the wall. The center distance for the main channels (GK1) is 1200 mm. The first main channel (GK1) should be placed no more that 120 mm from the wall. See detail drawing on page 4, for description of section A-A and B-B.



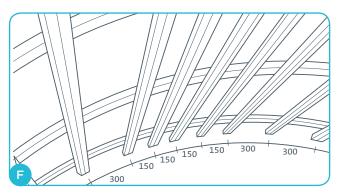
Place the jointing plate GK 22 on top of the main channels. Then push the cross channels (GK 1) up into the jointing plate. Cross channels are installed with a centerdistance of 300 mm.



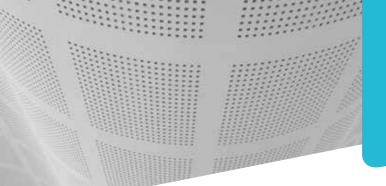
Plan out where to place the adjustable hangers GK 26-01/GK 27. Fix the adjustable hangers using apppriate fasteners. Hanger center distance = 900 mm. Main channel center distance = 1200 mm.



Lift the main channels (GK1) up and attach the GK26-01 hanger to it, by twisting the hanger into the main channel.



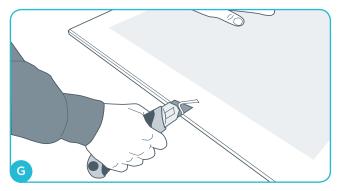
Where there is a connection between the short edges of the BIG Curve, it is important to place the cross channels with a centerdistance of 150 mm. To secure a smooth curved transition between the BIG Curve boards. See also illustration I.



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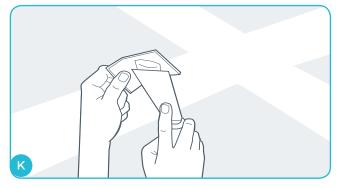
### Installation GK-system in 2 levels and Gyptone BIG Curve boards. We recommend that the entire installation manual is read before commencing work.



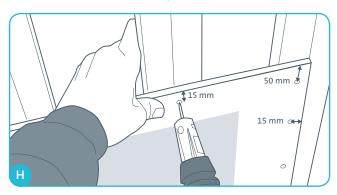
BIG Curve has only taped edges on the long sides. On the short sides, it is important to make a bevelled edge with a knife so more filler can be applied in the connections between the boards.



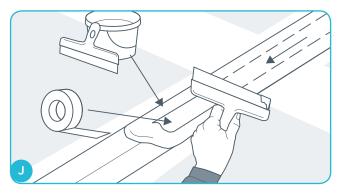
Installation of the boards on the grid system, must be done with an even amount of pressure applied to the boards (push very slowly). Place the screws according to the fixing template on page 5. The board must be curved along its length.



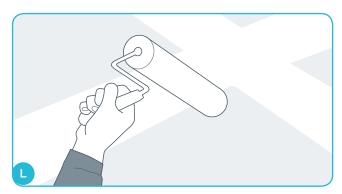
Filling the screws, use appropriate filler. Keep using filler and sandpaper until surface of the board is smooth.



The board must be fixed to the steel system with special Gyptone QSC25. All short edges must be supported by the steel system.



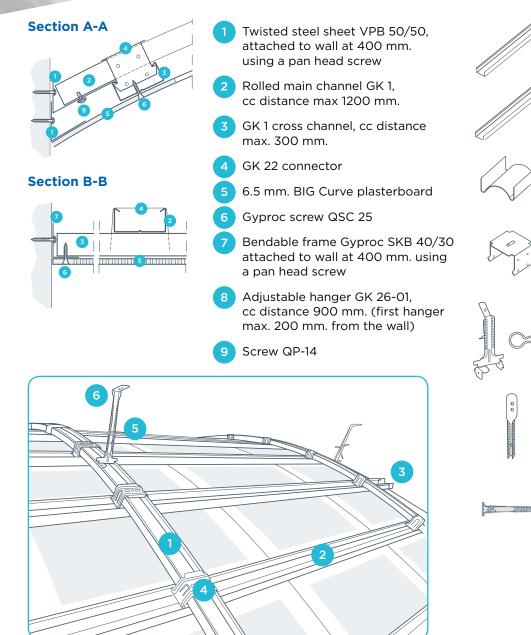
Fill all joints with an appropriate filler along with a paper strip. When the filler is dry, use sandpaper and make a smooth surface between the boards. Do not overlap the paper strips.



Painting the BIG Curve is done with a shorthair mohairroller. Avoid paint in the perforation. It is not allowed to spray paint BIG Curve, because of the risk of getting paint on the acoustic tissue. If paint is applied to the acoustic tissue, this will strongly reduce the BIG Curves acoustic performance. The BIG Curve is primed and then painted twice.

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### Material usage for GK system in 2 levels

	Item	Term	Dimension mm	Lenght mm	CC mm	Usage/m <sup>2</sup>
1	Main channel (rolled)	GK1	27 x 60	4000	1200	1.0 m
2	Cross Tee	GK 1	27 x 60	4000	300	3.4 m
3	Connector	GK 20	-	-	-	1.0 pcs.
4	Jointing plate	GK 22	-	-	300	2.8 pcs.
5	Bottom hanger	GK 26 - 01	-	-	900	1.0 pcs.
6	Top Hanger	GK 27 - 190 etc.	-	-	900	1.0 pcs.

Main channel GK 1

Cross channel GK 1 L: 4000 mm

**Connector GK 20** 

Jointing plate

Bottom hanger

incl. clips 2 pcs.

GK 26-01 - bottom

Top hanger GK 27

490/990 mm

Lenght: 150/190/290/

Screw type QSC 25 installation of Gyptone BIG Curve on steel grid

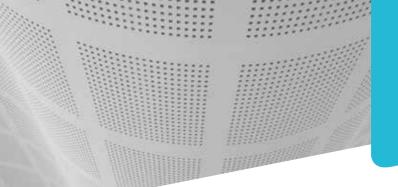
GK 22

- top

6

(rolled)

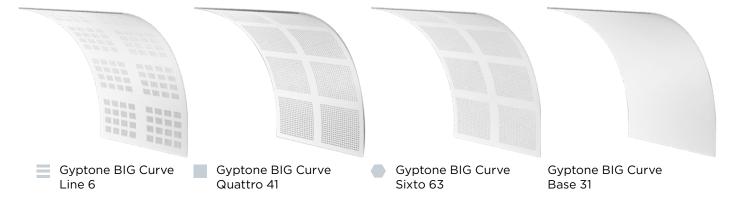
L: 4000 mm



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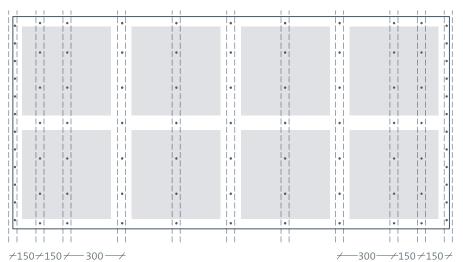
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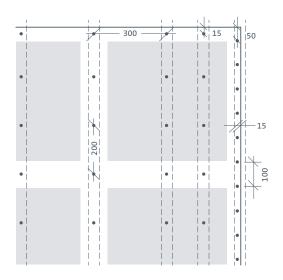
### **Gyptone BIG Curve boards**

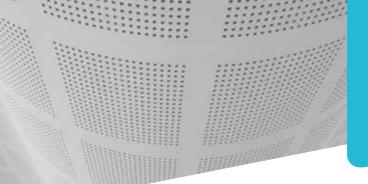


### **Fixing template**

GK-system in 2 levels. Main channels cc. 1200 mm and cross channels cc. 300 mm (cross channels cc. 150 mm at the short edges).



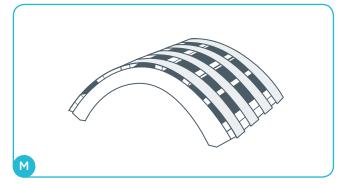




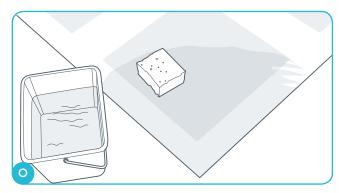
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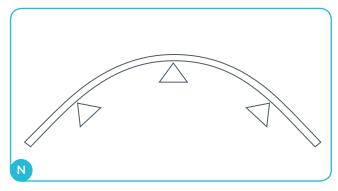
### Gyptone BIG Curve boards, wet curving



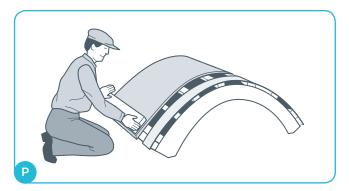
Build a template so it will be possible to curve the wet plasterboard around the template, in the specific curved radius. Radius from 2.2 meters to 1.2 meters use wet bending.



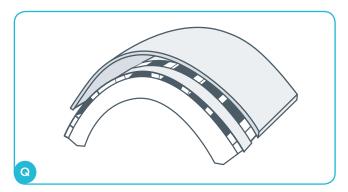
Place the plasterboard on an even floor or a table. Applied water with a sponge on the plasterboard. Only a small amount of water the first time. Apply more water after 2-5 minutes (continue to apply water for 15-20 minutes in total). Avoided water inside of the perforation.



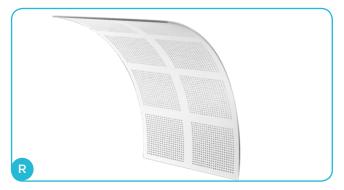
Use clean water – if possible (use also a little part of rinse aid (surfaceactive agent for a dishwasher)) – this will help the water to go into the gypsum core more quickly. Water must be applied on the side of the plasterboard closed to the centre of the radius.



Carefully lift the wet plasterboard and place it on top of the template. Apply pressure on the edges with a flat, wooden plank or steel stud and fix the stud with a clamp until the gypsum board is 100 % dry.



Carefully lift up the plasterboard when it is 100 % dry. The curved plasterboard must be installed maximum 2 hour after it is removed from the form. If not – it will assume its original shape.



Note: The board must be curved in the length.

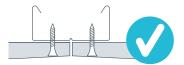


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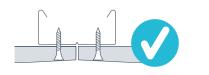
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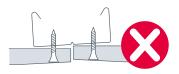
### **Good advice**

### **GK System**



### A 100 % smooth surface

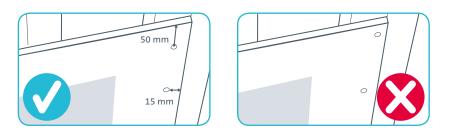




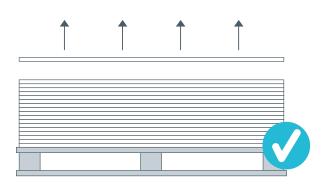
### Full contact between board and grid



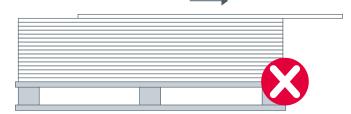
### Screw positioning

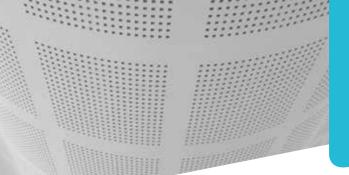


### **BIG Curve must be lifted from the stack**



If the board is pulled off the stack, the acoustic tissue on the backside might get rolled of the board. This might give some issues with the level between boards during the installation.





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### Checklist for installing Gyptone BIG Curve on GK-system in 2 levels

- Humidity in the room must not exceed 70% during installation or usage.
- GK-system or similar system
- Attach twisted steel sheet to wall with screws, fixed with a centre distance of 400 mm.
- Always measure up the room and place the hangers after the guidance of the project material as drawings and descriptions.
- Always use GK 22, for connection between the main and cross channels.
- Place an extra cross channel with a centre distance of 150 mm on each side of a board connection. This is for making a smoother curve.
- Make a small, beveled edge on the short edge of the board to obtain a smoother joint when applying filler.

- Never place a screw in a corner of a board.
- Place screws with a centre distance of 100 mm, on the short sides of the board.
- Never dry bend a BIG Curve, to less than a radius of 2.2 meters.
- Always prime the surface of the boards, before painting it twice.
- Read this guidance before commencing the work.



### Saint-Gobain Denmark A/S

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