

# KK TANK adopted the best *Quality* and most advance *Technology* from Japan

by using Sheet Moulding Compounds (SMC) Hot Pressed Moulding Method.

The panels are designed by using Computer Aided Design (CAD) and Finite Element Analysis (FEA).

## Advantages of KK Tank

**BEST HYGINIC** - In cold pressed or hand lay up methods, un-reacted styrene monomer is remained in GRP and will extracted out in water gradually. In KK Tank SMC hot pressed method, un-reacted styrene monomer content is less than 0.01% which is very safe to keep drinking water.

**RELIABILITY** - KK GRP Panels are produced by compression moulding method at high pressure under high closely control temperature. Tolerance of the nominal dimension is +/-0.3%.

**STRENGTH** - SMC process give high material modulus to prevent the tank deform or leak compared to other production methods and able to withstand 6 times hydrostatic pressure.

**FLEXIBILITY CAPACITY** - KK Tank is flexible in various sizes and shapes to maximize the limited space.

**SUPERIOR THERMAL EFFECT** - KK GPR panels surface are covered and reinforced by glass cloth or mat which prevent from Sun-shine damage and help to withstand the water pressure. With sandwich insulated panels, the thermal conductivity is low.

**EASY PIPE CONNECTION** - Special design flat surface panel that has enough strength for large pipe connections to the panels without additional nozzles.

**WATER TIGHTNESS** - Sealing materials are non-toxic and able to withstand the temperature and stress variation during service.

## Panel Material Characteristics

Physical Properties	Acceptance Criteria SS245:1995	KK Tank
Tensile Strength (kg/cm ) <sup>2</sup>	700 (min)	> 1000 kg/cm <sup>2</sup>
Bending Strength (kg/cm ) <sup>2</sup>	1000 (min)	> 1800 kg/cm <sup>2</sup>
Elastic Modulus in bend (MN/m ) <sup>2</sup>	6000 (min)	>10,000 kg/cm <sup>2</sup>
Glass Content (%)	25 (min)	> 30%
Barcol hardness	30% or 90% of the resin manufacturer's specification whichever is higher	> 40%
Water Abdorption (%)	1.0 (max)	< 0.1%
Luminous Transmittance	Not exceed 0.1%	< 0%
Specify Gravity		< 1.8%
Young's Modulus		1.40 x 10 <sup>5</sup> kg/cm <sup>2</sup>
Impact Strength		80kg/cm <sup>2</sup>
Compressive Strength		3000 kg/cm <sup>2</sup>
Shear Strength		1000 kg/cm <sup>2</sup>
Thermal Expansion		2.0 x 10 <sup>-4</sup> °C
Thermal Conductivity		0.15 Kcal/m <sup>2</sup> hr °C
Coef. Of Overall heat transmission		5.0 Kcal/m <sup>2</sup> hr °C

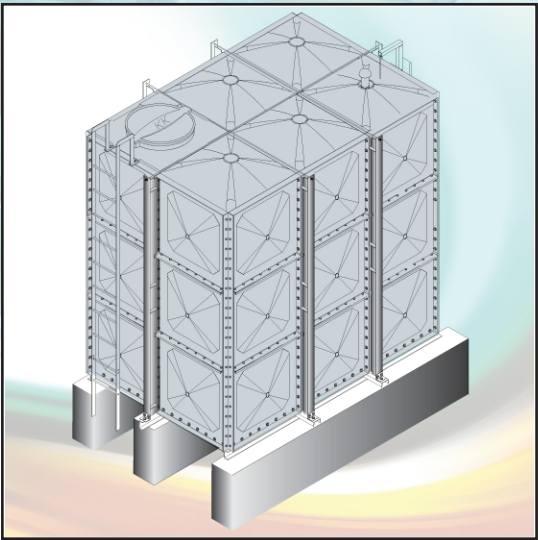
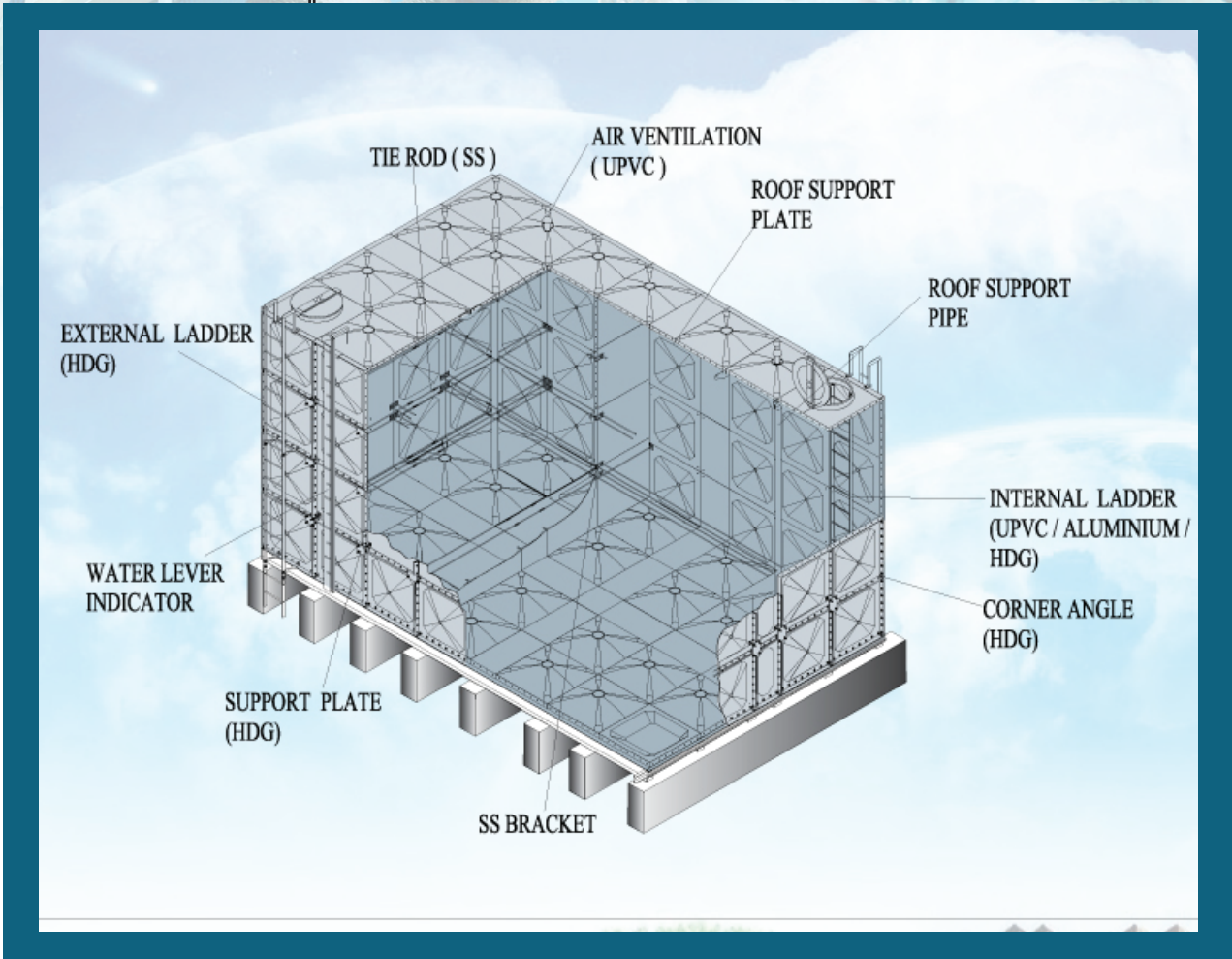
Tank Height	Main Beam "A"	Sub Beam "B"	RC Plinth C/C
1.0m	CH 76 x 38 x 5.1	EA 60 x 60 x 6mm	1.0m C/C
1.5m	CH 76 x 38 x 5.0	EA 70 x 70 x 6mm	1.0m C/C
2.0m	CH 102 x 51 x 6.1	EA 75 x 75 x 6mm	1.0m C/C
2.5m	CH 102 x 51 x 6.1	EA 90 x 90 x 6mm	1.0m C/C
3.0m	CH 102 x 51 x 6.1	EA 90 x 90 x 6mm	1.0m C/C
3.5m	CH 127 x 64 x 6.4	EA 90 x 90 x 8mm	1.0m C/C
4.0m	CH 127 x 64 x 6.4	EA 90 x 90 x 10mm	1.0m C/C

### CERTIFICATION & STANDARD:

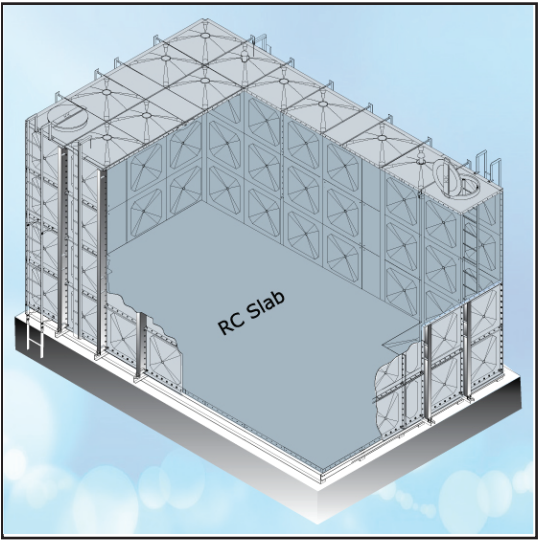
- PSB - SS245:1995
- SIRIM - SS245:1995
- BS EN - 13280:2001
- WRAS, UK - BS6290

The specifications may be changed without prior notice.

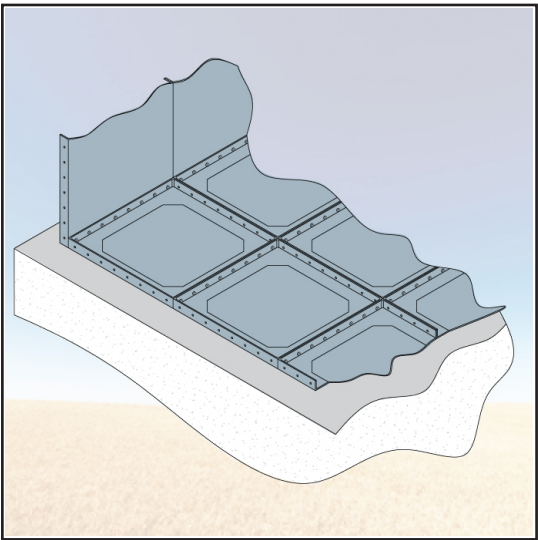
## Internal Reinforcement System



## External Reinforcement System



## Concrete Base System



## Internal Flanged System

## Insulated Panel

