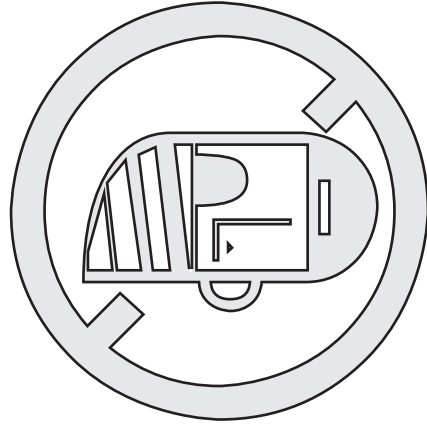


This is a Dodgy Enterprises Project
No guarantee of Engineering or Municipal Standards
conformance is provided.



Dodgy



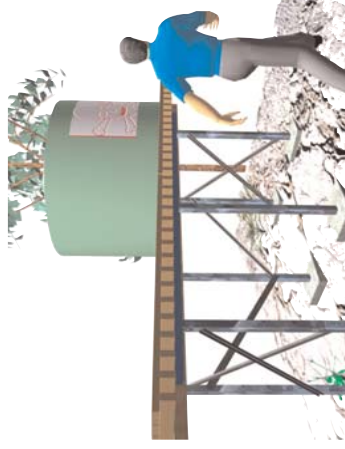
<http://blitzgafx.tripod.com>



Build your own Tank Stand



Tank Stand for 2x 4,500L Poly Tanks
Raised 1.5M on Sloping Land



Water Store Poly Tanks



www.waterstore.com.au



This project was brought about by the need to capture roof run-off water for storage so that this water could be used for garden watering etc.

The tank is a Polyethylene WaterStore[®] product.

The weight of a poly tank of 4,500L capacity is 90KG and the supporting structure must withstand the very large weight of a corresponding volume of water (approx 4.5tonne)

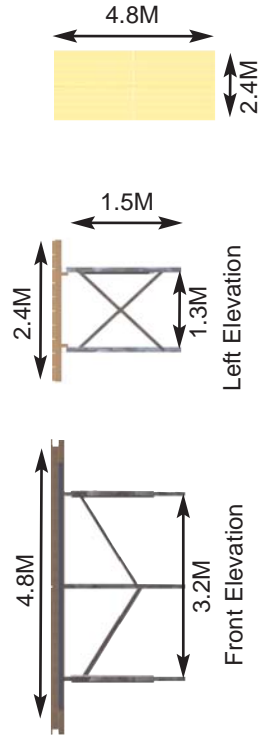
Raised Tank Stand

(Bill of Materials)

Item	Description	Cost/Item	Qty	Cost
Steel Columns	75mm x 75mm (3mm)	\$15/m	6 @ 2.0m	\$ 180.00
Steel Beams	75mm x 75mm (3mm)	\$15/m	2 @ 4m	\$ 120.00
Steel Angle	100mm x 100mm (3mm)	\$5/ea	6	\$ 30.00
Steel Bolts (10mm)	10mm Metric Fine x 75	\$0.50	40	\$ 20.00
Wet Treated Pine (Sleepers)	200mm x 50mm	\$5.00/m	5 @ 2.4m	\$ 240.00
Wet Treated Pine (Beams)	100mm x 50mm	\$3.00/m	2 @ 4.8m	\$ 28.80
Hardwood (Joists)	100mm x 50mm	\$4.00/m	34 @ 2.4m	\$ 326.40
Sundries				\$ 50.00
Total				\$ 995.20



TP Sleepers Angle Bracket Steel Channel 75x75x3 RHS HW Joists



Left Elevation

Front Elevation

Not to Scale

Construction:

Steel Frame with Hardwood and Treated Pine Decking.
 All steel fixing by 10mm tapped threads in 3mm thickness steel and secured with 10mm Metric Fine bolts.
 All timber is secured by nail and glue.
 Concrete footings for the steel columns.

Site Location:

Sloping or flat surface..soil of stable composition and preferably clay or similar.
 Ensure levels are correct for your rainwater take-off point.
 Ensure a suitable storm water pick-up is available for the tank overflow.

Tools Required:

Post hole digger or preferably a trenching spade.
 Socket wrench and socket to suit the 10mm metric fine bolts.
 Hammer and 100mm galv nails.
 Power drill and suitable drill bits for 10mm clearance and tapping holes.

Materials:

Steel
 6@ 2M 75x75x3 steel RHS columns.
 2@ 4M 75x75x3 steel RHS beams.
 10@ 1.8M 50x25x3 steel channel.
 Timber
 20@ 2.4M TP 200x50 Sleepers.
 2@ 4.8M TP 50x100 Wet Treated Pine
 34@ 2.4M HW 50x100 structural grade.
 200@ 100mm galv nails.
 40@ 75x10mm Metric Fine Bolts(threaded all the way)
 10mm Metric Fine Tap
 Drill Bits for above Tap
 Large and intermediate size washers for above bolts.

Procedure:

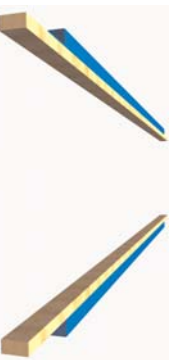
Dig post holes for the steel columns to a minimum depth of 500mm.
 If surface is sloping then considerably more depth will be required for several holes.
 Mix concrete and fit the steel columns .. this is a very critical procedure and care must be taken to align the poles. It may take several days if you don't have assistance.



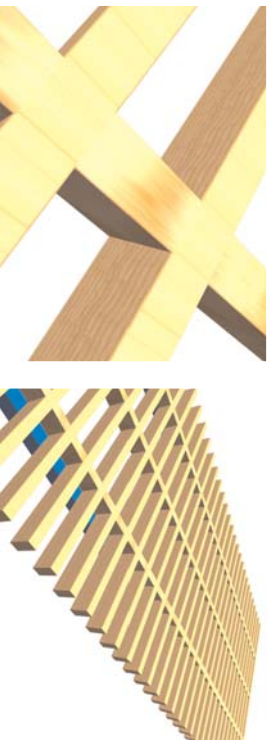
The 4M beams are placed atop the columns and secured with L brackets using 10mm bolts



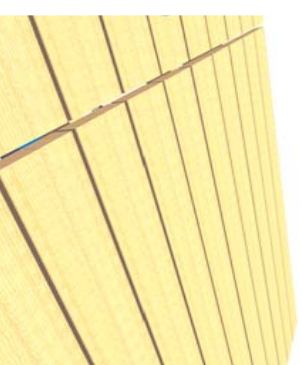
Then the 4.8M TP beams are fitted to the steel beams using 75x10mm metric fine bolts. Use large washers on these bolts.



Method for assembling HW Joists:
On level ground assemble 2x HW joists adjacent and separated by 150mm.
Fit 3 @ 150mm length nogginns between the joists so that they together form a strong structural member.



This assembly is then placed on the steel frame and diagonal nailed to the TP beams.
Repeat this procedure for the entire length of the deck.
Then fit the TP Sleepers to the joists.



Lastly fit the diagonal steel bracing and secure using 10mm bolts.

