## Cylindrical elevated water tank

Supply and erect 12 m 3 cylindrical elevated water tank, 3 m dia., and 3.5 m height according to following specifications:

|  | Descriptions | unit | QTY | Price |
| :---: | :---: | :---: | :---: | :---: |
| 1 | Tank body <br> The tank should be manufactured from welded mild steel plates, bottom plates 6 mm thick, wall plates 4 mm thick and cover plates 3 mm thick. <br> The tank should be braced internally and externally with $50 \times 50 \times 5 \mathrm{~mm}$ mild steel angles. <br> The manhole at the top of the tank should be $600 \times 600 \mathrm{~mm}$ complete with a lockable cover <br> The cowl ventilator should be of 100 mm diameter and covered with a mild steel bonnet with mosquito wire <br> The internal and external ladders should be manufactured from $50 \times 6 \mathrm{~mm}$ mild steel flat and mild steel round bars 16 mm diameter, spanning 400 mm with steps 300 mm apart The water level indicator should be made with a mild steel pulley, float, nylon string and weight. Two angles $40 \times 40 \times 5 \mathrm{~mm}$ should be welded at the face of the tank with graduations between them to indicate the water level inside the tank The connection for water openings should be of galvanized iron pipes as follows: Inlet $(80 \mathrm{~mm}$ ) $)$, Outlet $(100 \mathrm{~mm}$ ) THREE OPENNINGS, Washout $(80 \mathrm{~mm}$ ) and Overflow ( 100 mm ) . The control valve is $\varnothing 80 \mathrm{~mm}$ made of cast iron to be fixed at 600 mm above ground. | PCS | 1 |  |
| 2 | Supporting tower <br> The tower height should be 3.5 m to support 25 m 3 of water plus the weight of the tank. <br> The branch beam should be of IPE1 $60 \times 80 \mathrm{~mm}$, main beams (architrave) of IPE 180x90mm <br> The stanchions should be one bay with a total height of 6.0 m manufactured from IPE $200 \times 100 \times 22 \mathrm{~kg} / \mathrm{m}$. All wind bracings should be Manufactured from $65 \times 65 \times 6 \mathrm{~mm}$ mild steel angles whilst the horizontal brace at the middle of the tower is from $80 \times 80 \times 65 \mathrm{~mm}$ mild steel angles, all braces connected with $\varnothing$ $16 \times 50 \mathrm{~mm}$ bolts and washers. <br> The thickness of the foot plate and top plates should not be less than 12 mm , whilst that of the gusset plates should not be less than 6 mm . Holding down bolts, nuts and washers should be supplied in adequate sizes but not less than $22 \mathrm{~mm} \varnothing$ and 500 mm length, 4 anchor bolts are to be used per footing | PCS | 1 |  |
| 3 | Paints |  |  |  |


| The tank and tower should be painted with an anti rust prime coat, followed by another coat applied as follows: <br> a) Tank: Internal coating-bituminous non-toxic paint, and External coating with grey oil paint <br> b) Tower: bituminous black paint. <br> c) The water level indicator should be painted white with black graduations |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| 4 | Foundation <br> 4 isolated reinforced concrete footings $1 \times 1 \times 0.5 \mathrm{~m}, 2.2 \mathrm{~m} \mathrm{c} / \mathrm{c}$ with 0.1 m plain concrete under the footing. <br> Short columns $0.6 \times 0.6 \times 1.1 \mathrm{~m}$ (subject to site conditions) <br> Tie beams $0.3 \times 0.3 \mathrm{~m}$ <br> Excavation depths shown on the drawings are not final and may be subject to increase or decrease according to site condition. <br> Concrete mix proportion is ( $1: 2: 4$ ) for plain concrete and ( $1: 1 \frac{1}{2}: 3$ ) for reinforced concrete <br> All reinforcement size and number are as shown on the drawings by any case the number of stirrups and links should not be less than seven per one meter. | Job | 1 |  |
|  | Total in SDG |  |  |  |
|  | VAT 17\% |  |  |  |
|  | Total including 17\% |  |  |  |
|  | Total cost for Supply and installation of 6 elevated tank |  |  |  |
|  | Total cost in USD (1USD= 565SDG) |  |  |  |




Top plan



