# WINKO

### PRESSED STEEL SECITONAL PANEL WATER STORAGE TANK





STAYS & CLEATS



**HDPE LINING** 



CAT LADDER & LEVEL INDICATOR



**BOLTS, NUTS & WASHERS** 







### INTRODUCTION

Pressed Steel Sectional Rectangular tanks provide a convenient means for the bulk storage of liquids. And over the years, one name has earned a reputation that's strong as steel for being the reliable choice: **WINKO**. That's because **WINKO** Pressed Steel Tanks are manufactured to the highest level of quality, and conform to the British Standards BS 1564:1975 and Amendments and BS 729: 1971(for hot-dip galvanizing service).

WINKO Tanks' strong points include:

- The tanks are bolted together, complete rigidity is ensured by angle stays fixed to cleats which are bolted onto the tank plates.
- Its seams are sealed with a jointing compound which is non-toxic and does not impart any taste to the water.
- The internal and external surfaces of tank plates, stays and cleats are painted with a non-toxic and non-contaminating block bituminous paint.
- They can be built in awkward locations unsuitable for other forms of construction. They can be built in "L" or "U" shape and can be portioned into two or more compartments as required.

### SPECIFCATIONS AND TECHNICAL DATA

**WINKO** Pressed Steel Tanks comprise plates that are 4 feet (1.22m) square with combined double flanges at an angle of 45° and 90° to the face of the plate. Thickness of plates: 5mm and 6mm. the combination of plate thickness is determined by the depth of the tank.

The components are subject to unit multiples of 4 feet (1.22m) in length, breadth and height. Provision for future capacity expansion can be arranged at the time of enquiry/order, (Maximum depth: 16 feet).

### **ACCESSORIES**

#### Tank Cover

There is an option of a flat or cambered weatherproof tank cover, constructed from a flat mild steel plate. The former is preferable for indoor use and the latter for outdoor locations. The tank cover includes a manhole and sufficient air-vents to match the size. Thickness of cover 1.5mm or 3.0mm

#### • Internal and External Ladders

Mild Steel, galvanized or aluminum ladders in 8, 12 and 16 feet are available.

### **HDG PRESS STEEL TANK**



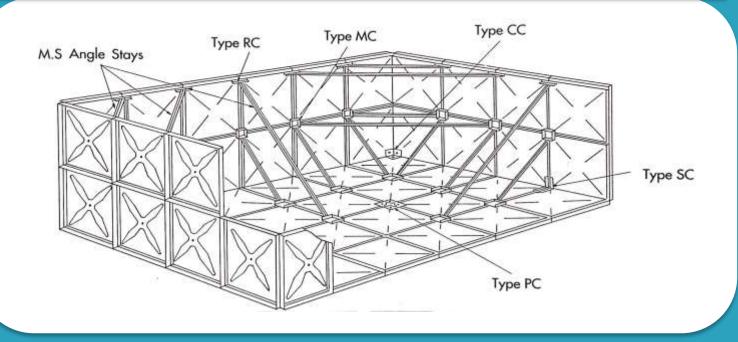
### INFORMATION TO BE SUPPLIED WITH ENQUIRY/ORDER

- Capacity required in gallon with any limitation of tank size, dimensions in feet in multiples of 4 feet (1. 22m), and any provision for future expansion.
- Location of proposed installation, site conditions and accessibility.
- Whether there is provision of lifting appliances for installation in high areas like rooftops and towers. For the latter, please inform of any restriction by other structures or buildings, and whether there is any form of insurance to cover these properties
- Whether water is provided for testing after erection of tank.
- Whether tank is to be galvanized.
- Accessories, of required:
  - -Number of partitions
  - -Type of cover and position of manholes
  - -Level indicator and height
  - -Internal/external ladder and height

### **OUR FACTORY**



### TYPICAL PRESSESD STEEL SECTIONAL RECTANGULAR TANK WITH EXTERNAL FLANGES

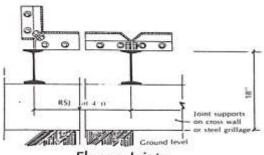


NOTE 1: For tanks of limited length and breadth the stays may be horizontal from end to end and/ or side to side. NOTE 2: This figure is diagrammatic and illustrative only and does not purport to represent any particular design.

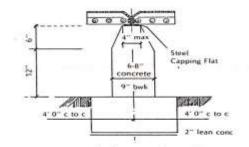
### **TYPES OF MILD STEEL CLAEATS**

|   | TYPE RC    | TYPE MC    | TYPE SC    | TYPE CC      | TYPE PC     | TYPE PTC        |
|---|------------|------------|------------|--------------|-------------|-----------------|
|   | 0 0        |            |            | 000          |             | 000             |
| - | ROOF CLEAT | MAIN CLEAT | STAR CLEAT | CORNER CLEAT | PLAIN CLEAT | PARTITION CLEAT |

### SUPPORT AT GROUND OR FLAT ROOF LEVEL



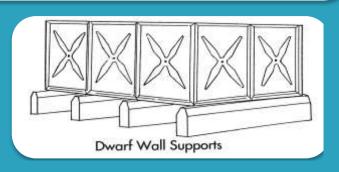
Flange Joints



Detail of Dwarf Wall

### **TABLE OF MAXIMUM LOADS FORWATER STORAGE**

| Depth of tank | Loads on walls per foot run |
|---------------|-----------------------------|
| 1.22m (4 ft)  | 0.5 tons                    |
| 2.44m (8 ft)  | 1.0 tons                    |
| 3.66m (16 ft) | 1.5 tons                    |
| 4.88m (16 ft) | 2.0 tons                    |



### WINKO PRESSED STEEL TANKS WITH EXTERNAL FLANGES

| TANKS 4 FEET(1.22 METRES) DEEP PLATES 5MM THICK |      |         |                     |        | NOMINAL TANK SIZE |           | TANKS 8 FEETS(2.44 METRES) DEEP PLATES 5MM THICK |                     |        |                              |      |  |
|---|------|---------|---------------------|--------|-------------------|-----------|--|---------------------|--------|------------------------------|------|--|
| APPROX.TOTAL WEIGHT EMPTY                       |      |         | NOMINAL<br>CAPACITY |        | LENGTH BY BREADTH |           | PLATES<br>IN TANK                                | NOMINAL<br>CAPACITY |        | APPROX.TOTAL<br>WEIGHT EMPTY |      |  |
| CWT   | KG   | GALLONS | LITRES              | NUMBER | FEET              | METRES    | NUMBER   | GALLONS             | LITRES | CWT                          | KG   |  |
| 8   | 406  | 400     | 1818                | 5      | 4x4               | 1.22x1.22 | 9  | 800                 | 3637   | 14                           | 711  |  |
| 13  | 660  | 800     | 3637                | 8      | 8x4               | 2.44x1.22 | 14   | 1600                | 7273   | 23                           | 1168 |  |
| 17  | 863  | 1200    | 5455                | 11     | 12x4              | 3.66x1.22 | 19   | 2400                | 10910  | 32                           | 1626 |  |
| 22  | 1117 | 1600    | 7273                | 14     | 16x4              | 4.88x1.22 | 24   | 3200                | 14547  | 41                           | 2083 |  |
| 19  | 965  | 1600    | 7273                | 12     | 8x8               | 2.44x2.44 | 20   | 3200                | 14547  | 33                           | 1676 |  |
| 25  | 1270 | 2400    | 10910               | 16     | 12x8              | 3.66x2.44 | 26   | 4800                | 21821  | 43                           | 2184 |  |
| 31  | 1575 | 3200    | 14547               | 20     | 16x8              | 4.88x2.44 | 32   | 6400                | 29094  | 53                           | 2692 |  |
| 38  | 1930 | 4000    | 18184               | 24     | 20x8              | 6.10x2.44 | 38   | 8000                | 36368  | 62                           | 3150 |  |
| 33  | 1676 | 3600    | 16366               | 21     | 12x12             | 3.66x3.66 | 33   | 7200                | 32731  | 54                           | 2743 |  |
| 41  | 2083 | 4800    | 21821               | 26     | 16x12             | 4.88x3.66 | 40   | 9600                | 43641  | 65                           | 3302 |  |
| 49  | 2489 | 6000    | 27276               | 31     | 20x12             | 6.10x3.66 | 47   | 12000               | 54552  | 77                           | 3912 |  |
| 57  | 2896 | 7200    | 32731               | 36     | 24x12             | 7.32x3.66 | 54   | 14400               | 65462  | 88                           | 4470 |  |
| 66  | 3353 | 8400    | 38186               | 41     | 28x12             | 8.54x3.66 | 61   | 16800               | 76373  | 100                          | 5080 |  |
| 51  | 2591 | 6400    | 29094               | 32     | 16x16             | 4.88x4.88 | 48   | 12800               | 58198  | 79                           | 4013 |  |
| 60  | 3048 | 8000    | 36368               | 38     | 20x16             | 6.10x4.88 | 56   | 16000               | 72736  | 92                           | 4674 |  |
| 69  | 3505 | 9600    | 43641               | 38     | 24x16             | 7.32x4.88 | 64   | 19200               | 87283  | 106                          | 5385 |  |
| 80  | 4064 | 11200   | 50915               | 38     | 28x16             | 8.54x4.88 | 72   | 22400               | 101830 | 120                          | 6096 |  |
| 92  | 4674 | 12800   | 58189               | 38     | 32x16             | 9.76x4.88 | 80   | 25600               | 116378 | 134                          | 6807 |  |
| 71  | 3607 | 10000   | 45460               | 38     | 20x20             | 6.10x6.10 | 65   | 20000               | 90920  | 109                          | 5537 |  |
| 82  | 4166 | 12000   | 54552               | 38     | 24x20             | 7.32x6.10 | 74   | 24000               | 109104 | 121                          | 6147 |  |
| 93  | 4724 | 14400   | 65462               | 38     | 24x24             | 7.32x7.32 | 84   | 28800               | 130925 | 139                          | 7061 |  |
| 121   | 6147 | 19600   | 89102               | 38     | 28x28             | 8.54x8.54 | 105  | 39200               | 178203 | 172                          | 8738 |  |

| ĽΙ   | 647   | 19600               | 09 102 | 30                | 20X20             | 0.0480.04   | 105                              | 39200               | 1/6203  | 17.2                         | 0/30  |
|--|-------|---------------------|--------|-------------------|-------------------|-------------|----------------------------------|---------------------|---------|------------------------------|-------|
| TANKS 12 FEET(3.66 METRES) DEEP PLATES 5MM THICK |       |                     |        |                   |                   |             | TANKS 16 FEETS(4.88 METRES) DEEP |                     |         |                              |       |
|  |       |                     |        |                   | NOMINAL TANK SIZE |             | PLATES 5MM AND 6MM THICK         |                     |         |                              |       |
| APPROX.TOTAL<br>WEIGHT EMPTY                     |       | NOMINAL<br>CAPACITY |        | PLATES<br>IN TANK | LENGTH BY BREADTH |             | PLATES<br>IN TANK                | NOMINAL<br>CAPACITY |         | APPROX.TOTAL<br>WEIGHT EMPTY |       |
| CWT  | KG    | GALLONS             | LITRES | NUMBER            | FEET              | METRES      | NUMBER                           | GALLONS             | LITRES  | CWT                          | KG    |
| 90   | 4572  | 10800               | 40097  | 45                | 12x12             | 3.66x3.66   | 57                               | 14400               | 65462   | 125                          | 6350  |
| 109  | 5537  | 14400               | 65462  | 54                | 16x12             | 4.88x3.66   | 68                               | 19200               | 87283   | 152                          | 7722  |
| 129  | 6553  | 19200               | 87283  | 64                | 16x16             | 4.88x4.88   | 80                               | 25600               | 116378  | 175                          | 8890  |
| 150  | 7620  | 24000               | 109104 | 74                | 20x16             | 6.10x4.88   | 92                               | 32000               | 145472  | 201                          | 10211 |
| 171  | 8687  | 30000               | 136380 | 85                | 20x20             | 6.10x6.10   | 105                              | 40000               | 181840  | 230                          | 11684 |
| 196  | 9957  | 36000               | 163656 | 96                | 24x20             | 7.32x6.10   | 118                              | 48000               | 218208  | 260                          | 13208 |
| 219  | 11125 | 43200               | 196387 | 108               | 24x24             | 7.32x7.32   | 132                              | 57600               | 261850  | 292                          | 14834 |
| 246  | 12495 | 50400               | 229118 | 120               | 28x24             | 8.54x7.32   | 146                              | 67200               | 305491  | 322                          | 16358 |
| 273  | 13868 | 58800               | 267305 | 133               | 28x28             | 8.54x8.54   | 161                              | 78400               | 356406  | 355                          | 18034 |
| 300  | 15240 | 67200               | 305491 | 146               | 32x28             | 9.76x8.54   | 176                              | 89600               | 407322  | 390                          | 19812 |
| 327  | 16612 | 75600               | 343678 | 159               | 36x28             | 10.98x8.54  | 191                              | 100800              | 458237  | 422                          | 21438 |
| 329  | 16713 | 76800               | 349133 | 160               | 32x32             | 9.76x9.76   | 192                              | 102400              | 465510  | 426                          | 21641 |
| 359  | 18237 | 86400               | 392774 | 174               | 36x32             | 10.98x9.76  | 208                              | 115200              | 523699  | 464                          | 23571 |
| 388  | 19710 | 96000               | 436416 | 188               | 40x32             | 12.20x9.76  | 224                              | 128000              | 581888  | 498                          | 25298 |
| 390  | 19812 | 97200               | 441871 | 189               | 36x36             | 10.98x10.98 | 225                              | 129600              | 589162  | 506                          | 25705 |
| 421  | 21387 | 108000              | 490968 | 204               | 40x36             | 12.20x10.98 | 242                              | 144000              | 654624  | 539                          | 27381 |
| 456  | 23165 | 120000              | 545520 | 220               | 40x40             | 12.20x12.20 | 260                              | 160000              | 727360  | 580                          | 29464 |
| 489  | 24841 | 132000              | 600072 | 236               | 44x40             | 13.42x12.20 | 278                              | 176000              | 800096  | 620                          | 31496 |
| 527  | 26772 | 145200              | 660079 | 253               | 44x44             | 13.42x13.42 | 297                              | 193600              | 880106  | 665                          | 33782 |
| 562  | 28550 | 158000              | 720086 | 270               | 48x44             | 14.64x13.42 | 316                              | 211200              | 960115  | 707                          | 35916 |
| 601  | 30531 | 172800              | 785549 | 288               | 48x48             | 14.64x14.64 | 336                              | 230400              | 1047398 | 752                          | 38202 |
| 638  | 32410 | 187200              | 851011 | 306               | 52x48             | 15.86x14.64 | 356                              | 249600              | 1134682 | 798                          | 40538 |
| 679  | 34493 | 202800              | 921929 | 325               | 52x52             | 15.86x15.86 | 377                              | 270400              | 1229238 | 846                          | 42977 |

NOTE 1: APPROXIMATE TOTAL WEIGHTS INCLUDE PLATES, STAYS, CLEATS, NUTS, WASHERS AND JOINTING MATERIAL
NOTE 2: NOMINAL CAPACITIES ARE WITHOUT ALLOWANCE FOR FREE BOARD AND ARE BASED ON 4.0° CUBE CONTAINING 400 GALLONS. WHEN ESTIMATING NETT CAPACITIES A
REDUCTION FROM 11% ON THE SMALLER TO 3% ON THE LARGER TANKS SHOULD BE ALLOWED..

## CUBEMAX RESOURCES (001891281-X) CUBEMAX RESOURCES (M) SDN BHD (1373408-X)

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