Concrete Ring Beam Notes and Guidelines

1. This document contains the minimum required dimensions and guidelines and is not to be used for construction unless officially issued by an approved engineer or company representative.

2. SBS is not responsible for any loss or damage caused by an incorrectly designed or built ring beam.

3. Ring beam sizes shown are suitable for geographic areas which do not experience wind speeds exceeding 40 m/s (144 km/h). Should wind speeds in excess of this be expected, then special designs must be prepared.

4. It is very important for the client to ensure that foundation conditions comply to the following minimums.
   - Safe bearing capacity should equal or exceed 100 kPa
   - The founding material must be stable

5. Most sands and gravels that have been compacted to 100 kPa or more will be adequate, provided that there is stable soil underneath.

6. Should there be any doubt about the stability or strength of the foundation, site specific professional engineering advice must be sought.

7. In areas with corrosive soil conditions, special protective measures should be used.

8. Ring beam dimensions are typical and provided for costing purposes only. Final ring beam dimensions may vary depending on soil conditions, climatic conditions, etc.

9. Ring beam width and depth are tank model dependant and allow for specialised jacking when required. Ring beam dimensions must not be altered for any unapproved reason and without any consultation from the supplier.

10. Not to scale

Construction Tolerances

| Outside Diameter Ø | + 20 mm  
|                    | - 0 mm   |
| Inside Diameter Ø  | + 0 mm   
|                    | + 20 mm  |
| Level of top surface | +/- 2 mm over any 2 m sector of circumference measured/surveyed at tank wall final position.  
|                     | +/- 4 mm over entire ring beam |

Concrete Ring Beam Material Quantities

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Stirrup R-10 (SANS 282: 2011, Shape Code 72)</td>
</tr>
<tr>
<td>2</td>
<td>Reinforcing Bar Y-12 (6.5 m lengths)</td>
</tr>
<tr>
<td>3</td>
<td>Concrete Volume</td>
</tr>
<tr>
<td>4</td>
<td>Internal Sand Bed Volume</td>
</tr>
<tr>
<td>5</td>
<td>Aggregate Volume</td>
</tr>
</tbody>
</table>

Concrete Ring Beam & Stirrup Dimensions

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Ring Beam Outer Diameter Ø</td>
<td>500 mm</td>
</tr>
<tr>
<td>Ring Beam Inner Diameter Ø</td>
<td>300 mm</td>
</tr>
<tr>
<td>Ring Beam Width</td>
<td>400 mm</td>
</tr>
<tr>
<td>Ring Beam Depth</td>
<td>200 mm</td>
</tr>
</tbody>
</table>

Approved for Construction

<table>
<thead>
<tr>
<th>Name</th>
<th>Sign</th>
<th>Date</th>
<th>Designation</th>
</tr>
</thead>
</table>

Drawn: BEW
Date: 2014/04/22
Approved: BMGp

Title: Concrete Ring Beam, Reinforced - General
Dwg No: Concrete Ring Beam, Reinforced - General
Rev: 00
Description: Standard
Sheet: 1/2

The information contained herein is property of SBS Water Systems (Pty) Ltd. It is not to be reproduced, altered or used in any form without the prior written consent of SBS Water Systems (Pty) Ltd.
Concrete Ring Beam - Not to Scale

Internal lightly compacted sand bed (100 mm deep)

Sectional Front View on A-A

Outer Diameter
Inner Diameter
25 MPa min

R-10 Stirrups @ 300 mm centres
5 x Y-12 Rebars

Exposed view for drawing and clarity purposes only

Plan View

Detail C

Concrete Ring Beam Width & Depth
Surveyed Steel forms or similar shuttering

Formed Surfaces
Inside Tank
Tank Wall
Chamfer internal edge
100 mm Sand bed (Clean fill, free of debris such as rocks, sticks, etc.)

Outside Tank
Position of Jack when required
Concrete ring beam (25 MPa min) must be level and smooth to construction tolerances
Aggregate to arrest possible erosion

R-10 Stirrups (Shape Code 72) @ 300 mm centres

5 x Y-12 Reinforcing bars

Finished Ring Beam Detail

Approved for Construction

Name | Sign | Date | Designation
--- | --- | --- | ---

Drawn: BEW
Date: 2014/04/22
Approved: BMcP

Title: Concrete Ring Beam, Reinforced - General

Rev: 00
Description: Standard
Sheet: 2/2