Concrete BioSand Water Filter Construction Manual

Book 2: Steel Mold Construction Details

June 2007

Dr. David H. Manz, P. Eng., P. Ag.





Manz Engineering Ltd. 2703 Cannon Rd. NW Calgary, Alberta, Canada T2L 1C5

www.manzwaterinfo.ca

Copyright claimed by Dr. David H. Manz, P. Eng., P. Ag., June 1, 2007

1. Front panel laying on its back.

2-3 .Details of 'nose' outside the front panel.

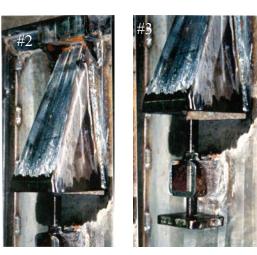
- 4. Inside of front panel. (Note opening for nose.)5. Hole for pin location of standpipe not used.
- 6. Details of 'nose' inside the front panel.

- 7. Top of 'nose'.
- 8. Looking into bottom of 'nose'.

(Note that the bottom of the front panel is identical to the bottom of the back panel.)











9. Location of 'nose' plate.



10-11. Details of 'nose' plate.





#11

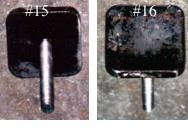
12-13. Use of 'nose' plate to locate and hold outlet pipe





14-16. Details of nose plate locating bolt.





- 17 -21. Details of left side panel.
- 17. Outside of left panel.
- 18. Bottom of outside of left panel (looking down).
- 19. Bottom of outside of left panel (looking up).
- 20. Bottom of outside of left panel (looking from side).
- 21. Inside of left panel.











- 22 -27. Details of back panel.
- 22. Outside of back panel. (Note angle iron Support up the sides.)
- 23. Bottom of the outside of back panel.
- 24. Bottom of the outside of back panel.
- 25. Top of the outside of back panel.
- 26. Inside of back panel.
- 27 Bottom of the outside of back panel.













28 - 31. Details of right panel.

28. Outside of left panel.

29. Bottom of outside of left panel.



#28

30. Bottom of outside of left panel.



31. Inside of the left panel.

32. Interior of mold. Note taper and polished surface. Mold is sitting on its base.



33. Base of mold. Note change in width.





- 347. Details of foot at bottom of interior mold.
- 35. Close-up of foot on interior mold looking down.
- 36. Close-up of foot on interior mold looking up from below.

#35



#36

- 37. Foot on the bottom of the interior mold.
- 38. Details of bolt welded to centre of foot.





#37

39. Side view of foot on bottom of interior mold.

- 40 42. Details of interior mold puller. 40 42. Details of interior mold puller.
- 43 44. Details of puller bolt.
- 45. Assembled puller bolt and puller.



46. Handles for side of mold.





47. Wood wedge.

48 – 54. Note use of puller and the puller bolt to remove the interior mold.

