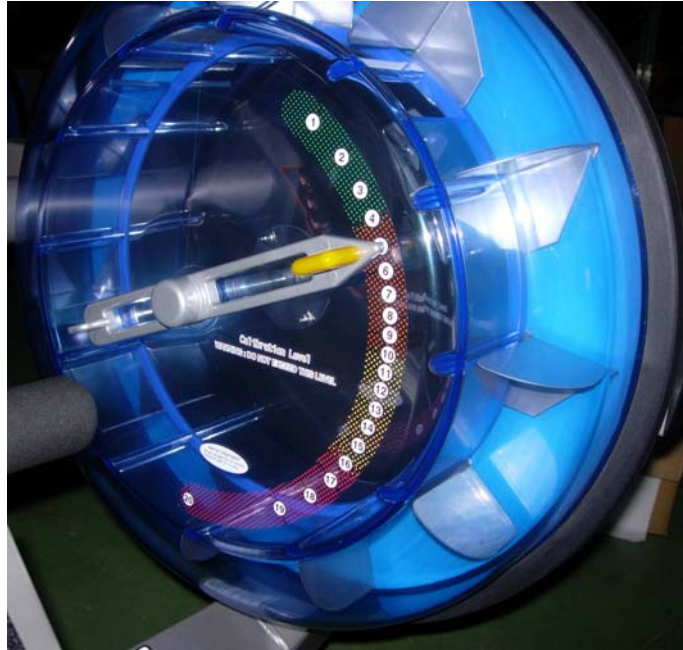
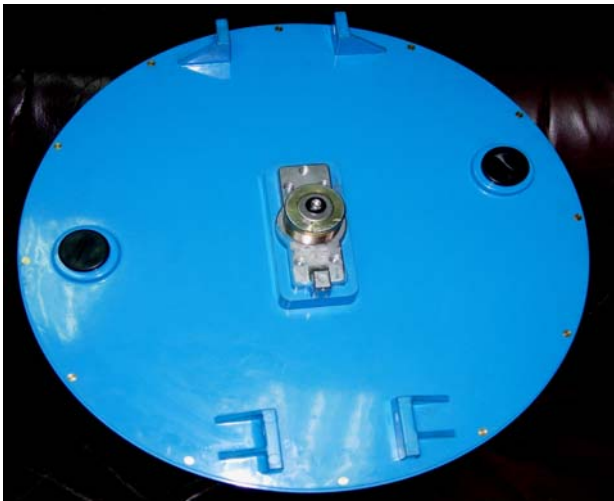


THE FLUID TANK

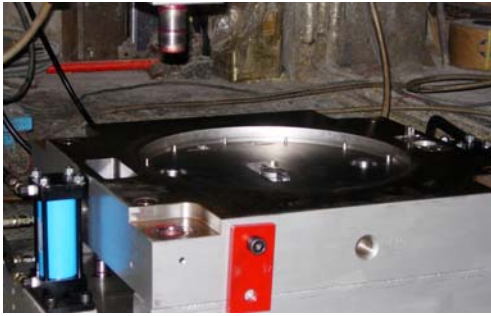


At the heart of the Fluid drive system, the fluid tank offers multilevel resistance while maintaining the feel and sound of water.

As of March, 2006, the Fluid tank has gone through several upgrades. First and foremost was the tank back change from Aluminum to SMC. This material offers advantages in both weight and tank longevity.



- This is a SMC tank back prior to assembly. Note the changes in the design, including the upgraded aluminum insert, reduction of 24 tank bolt screws to 12, the brass inserts for the tank screws, etc...
- The overall thickness of the tank back has increased from 10mm to 12mm for increased strength.



- Preheating the tooling mold prior to heat-pressing the SMC. Once the SMC is pressed into its desired shape, the brass inserts are installed.
- Finally, the tank back is taken to a separate facility for CNC machining (tank mounting bolts, tank plug holes and threads).



Aluminum insert: Side view

- Cast Aluminum insert for SMC tank. The redesign offers several benefits, including increased strength, improved water-tight integrity, and weight reduction.
- Upper right in photo shows the new tank bolt adjustment threads, which makes tightening the belt a much easier process for the customer.



Aluminum insert: Top view



Close up view of insert and bearing housing.



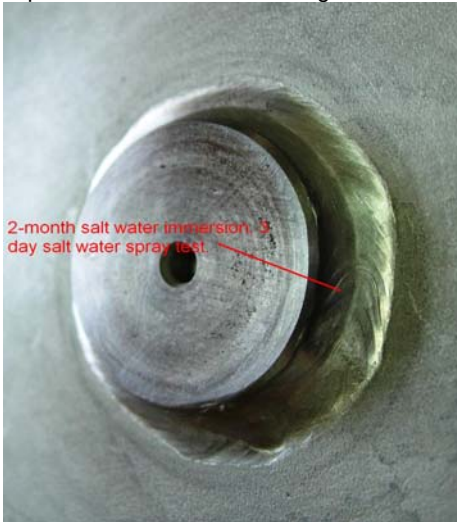
A complete main shaft, flywheel and impeller assembly:

- The Fluid drive system incorporates a 10mm 304 stainless steel flywheel and eleven 316 stainless steel impeller blades.



Japanese NSK 6005ZZ bearings

- Note: All First Degree Fitness products use only Japanese or German bearings throughout.
- This greatly increases production cost, but ensures the longevity/smooth operation of moving parts.



Flywheel / main shaft weld

- As in all Stainless steel welds, the probability for rust is high unless the welds are properly treated.
- Here, a flywheel mainshaft weld test results in a clean bill of health after a 60 day submersion in salt water followed by a high pressure 48 hour salt water fog test.



- We've also spruced up the "look of the tank as well.
- This is the new tank adjuster handle upgrade effective March, 2006.



New handle, cover and tank level sticker

- The new tank adjuster handle eliminates the red arrow inside the tank, and along with the new, easy-to-read tank level sticker makes the Fluid tank much more user-friendly.