

Rainman Reverse Osmosis – Or how we were saved

In my last few posts before we left Isla Mujeres to make our run down to the beautiful island of La Providencia, some of you may recall that I mentioned a final thread holding us to shore. And some of you may recall that I mentioned not to have stuff shipped to Mexico. Well, we did have something shipped. A reverse osmosis water maker.

Water makers are a significant expense and I had long debated about getting one but didn't like them because there wasn't really any good place on board Sundowner for me to mount all the parts and plumbing and I didn't want to have it in the bilge or the engine room. Tough. We figured that we'd jerry jug it. But as we got closer and closer to time to head to San Blas, that niggling fear in the back of my mind was catching up with me.

Enter the scene, *Rainman* [<http://www.rainmandesal.com/index.html>], a water maker that doesn't have to be "installed", instead, you can just use the component parts on deck and stow away when under way or not in use. It was exactly what I'd been looking for. Something high capacity and something stow-able and easily service-able. So we called up Rainman, got the prices and ordered the unit.

Enter Mexican Authorities... Dani went to GREAT lengths, being the research ferret that she is, to prepare all the paper work for the water maker to be tax free and parts for a yacht in transit. The rub came in when the package was addressed to a marina that agreed to let us ship to them as a land address instead of Dani's name on the package. At first they wanted us to pay taxes. We filed papers saying we didn't have to. Then they said the names were wrong and we'd have to do this or that. Then they said they'd abandon the package in customs. Then we tried to pay the taxes and they said we couldn't even do that! Dani was practically in tears and I was pulling my hair out.

We called up our Rainman rep, Ron Schroeder, and he called in his DHL shipping people who called the Mexican DHL people and it started this massive chain of work to get this sorted out. This guy was on the phone with us at weird hours being from Australia and he really worked hard to get the package through and eventually the DHL people did get it through, but without him, I don't know that we would have EVER gotten the package. So score one for Rainman, they have incredible customer service. Thanks Ron!

Anyway, on to the good stuff. The unit itself. Behold!



Can you see it? The RO filter lives under a blanket beside the life raft.



The hoses are all standard with the exception that they have high pressure quick connectors on them so you can put them on and take them off.



You can see that the pressure gauge is on a quick connect that we attach and monitor as we increase the pressure up to "operational level". The pressure must be brought up slowly over a few minutes to 800psi. This is accomplished by shutting the valve on the connector slowly until the needle is at the correct pressure.



Generally we route the brine into the head sink though sometimes I'll just put it out the window and over the side. Don't forget to tie it onto something or it will come back through the portlight and fling saltwater around like crazy. Don't ask how I know.



The motor sits up outside the boat while running and we just route the hoses up through the companionway to it.



Who likes fresh water? Dani likes fresh water.



You can see the pick up hose over the starboard side. It sinks into the water and lifts it up to the unit.



Once I have a bucket of water filled with the “flush” water, we generally do a salinity test and then transfer the output to our tanks.

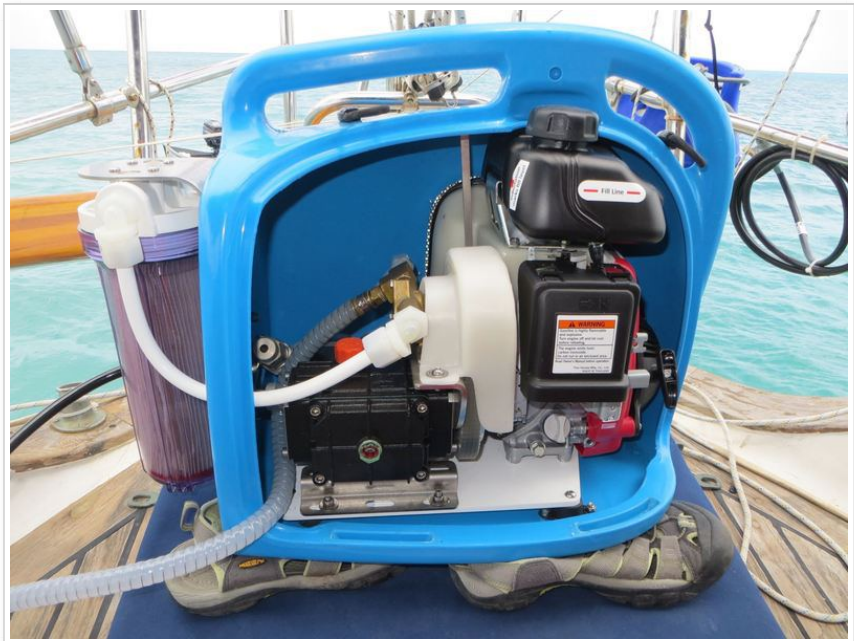


Finally I shut down the unit, pick up the hose overboard and put it in the flush water and then shortly afterwards, shut down again. The RO filter is flushed with 2.5 gallons of fresh water after each use. If you're not going to run it for over 7 days then you must "pickle" the membrane but we haven't gone that long without running it yet. Finally, we put it all away. The setup and put away only takes about 10 minutes.



Amazingly, the engine unit EASILY fit into the engine room through that Bowmar hatch I installed way back when. So the whole unit just sort of “disappears” after use.

Many cruisers that have come and looked on with interest at our setup have been confused about the Rainman because they’re used to electrical units and think the motor is a generator driving an electric pump. This is not so. The motor is a Honda GXH50 that is mounted via a belt directly to a high pressure pump. There is also a filter mounted to the unit itself. It is DEAD simple, which is why I love it.





So far the unit has run like a champ and in the warm tropical waters of La Providencia we are producing around 18.5 gallons/hr using around 0.20 gallons of gasoline. Not a bad trade at all!

At the time of our purchase the Petrol Unit with the “Economy RO” filter with hydrotester and all the other stuff you need costs us \$5,125 plus shipping to Mexico.

I’ve included the pricelist of all their stuff and starred the items that we opted to buy (at the time of our purchase – approx May 2015).

Rainman Price List – US\$
US\$ (ex-duty, ex-tax)
Product RRP

[PSU-E \(230V or 115V\) \[http://www.rainmandesal.com/electric-watermaker-115v-60hz.html\]](http://www.rainmandesal.com/electric-watermaker-115v-60hz.html) US\$3,028

[*PSU-Petrol \[http://www.rainmandesal.com/petrol-watermaker.html\]](http://www.rainmandesal.com/petrol-watermaker.html) US\$4,163

[RO-High Output \[http://www.rainmandesal.com/reverse-osmosis-high-output.html\]](http://www.rainmandesal.com/reverse-osmosis-high-output.html)
US\$1,900

[RO-Compact \[http://www.rainmandesal.com/reverse-osmosis-compact.html\]](http://www.rainmandesal.com/reverse-osmosis-compact.html) US\$1,725

[*RO-Economy \[http://www.rainmandesal.com/reverse-osmosis-economy.html\]](http://www.rainmandesal.com/reverse-osmosis-economy.html) US\$939

Pressure Washer Gun US\$148

*5 Cartridges US\$36

*COM80 Hydrotester US\$55

Jabsco Impeller US\$31

Flow Gauge US\$305

Here is a link to their products page – [Rainman Products Page \[http://www.rainmandesal.com/watermaker-products.html\]](http://www.rainmandesal.com/watermaker-products.html)

And all this in a nick of time because as it turns out, pressure water is a “new” thing here on the island. Most people have roof fed cisterns and there is no “public” water source readily available. Taking it from people would be like stealing their precious water. So we’re thanking our lucky stars that Rainman came out with their product at the right time and we ordered it before heading down here or else it might have been salt water showers for us!

I know you guys are thirsting for gear reviews. I’ve promised I’d do a full gear review of everything at 6 months cruising, but this one was so exciting that I couldn’t wait. Plus it is a good reminder, never ship anything to Mexico!

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Comment from Rainman:

The lesson learned on the Mexican customs issue in this write up is to ensure all names on all paperwork are the same. The confusion was triggered when we put one name on the invoice and customs paperwork, but our shipment had the name of a marina manager as the "deliver to" person. When the names are consistent, it happens more smoothly.