



The finished pond in all its glory!

# pond perfection

For seven years James Sharp of Nippon Nishikigoi has dreamt of the day when he could walk through a door into a dry filter house and flush a bottom drain here and vortex there...

It was around August 2000 when the inadequacy of my existing pond became apparent. It looked nice (sort of), but didn't perform as a koi pond should. It took a year of planning and around

eight subsequent attempts of drawing out the perfect pond of around 6000 gallons plus filters.

Anyway it was late November 2001 when the plans had been finalised. The previous

year I had spent planning the new pond and building a 500-gallon holding pond with gravity fed filters, heater and even a water purifier – even this was bliss in comparison to the pump fed puddle before. The koi were



December 2001



September 2002



October 2002

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April 2004



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**how the build began**

Stakes were driven into the ground to mark out the size of the build and spray paint marked out all of the structures as per 'the plan'. On the left hand side of the area there was no proper fence so we decided to erect new bamboo panels. This was going to be a major project.

It took until summer 2002 to build up enough funds to dig out the pond and filter pit, which took place over several weekends as I had to carry on working to fund the project.

After around 100 tons of soil was removed to the local farm via a dumper the hole was complete. It looked more like a bomb had gone off than a pond excavation! The total depth was 6ft from the ground level; this would allow for the 12-inch concrete base and still afford me 8.5ft of water once complete. The final bottom drain trench had to be dug out with a breaker as we had gone right down to the bedrock level on the site.

The drains were ordered and placed and in

September 2002 the base was cast along with the first of three bases for the filter house, starting at the lowest point which was the sump level. The pond was then blocked up using four-inch solid blocks laid flat – the pond and filter house used around a thousand blocks, all laid by myself. The pond was now internally 12ft x 10ft x 8.5ft deep. The filter house had three levels; the sump, the walkway and the filter plinth.

Following a change in my professional life the pond was put on hold whilst I worked alongside others on revamping and modernising the koi shop where I worked. After this was complete I had a few new ideas that had to be implemented on the pond before it was too late, so a new plan was drawn up for the pipe work – again! I did manage to get the pond rendered and fibreglassed during this time. Things were beginning to come together but finance was a restriction as the original budget was already spent. I decided to forget trying to build it on a budget and just throw everything at it to make it the perfect pond.

**laying the brickwork**

In January 2004 I began laying the 3000 bricks needed to form the outer wall of the pond and the entire filter house, and all the access and doorways etc. This was new territory for me at this time as I had never undertaken anything on this scale before.

I then built the filter house roof which consisted of six-inch by two-inch timbers and one-inch ply, which was then fibreglassed to form a flat roof. The steps on the access route to the filter house were formed too. The capping was placed around the top of the pond using Indian sandstone, which was relatively new at that time.

**now for the fun bit!**

In summer 2004 it was finally time to start installing plumbing, electrics, pumps and air pumps etc. This was the fun part as I had been planning the pipework and airline side of things for years to ensure they worked for me and everything would be a breeze to clean.

The decking was laid on the filter house roof and finishing touches were added such as



January 2004



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April 2005



A very snowy February 2005

the lights and steps up to the decking. The pond finally looked like a pond.

At the end of the summer it was time to clean everything up, fit the domes and start filling up the system. The water meter read 6075 gallons in the pond once full and the filtration system (consisting of a 6ft 6" tall by 4ft diameter vortex and three subsequent matting bays of 1m cubed) contained around 1000 gallons. The pumps were fired up and the pond ran.

Just a short time later Simon Austin and I decided to start our own business – Nippon Nishikigoi Ltd. We met with Mike Snaden of Yume Koi and Simon made our first buying trip to Japan. This was a massive eye opener as he visited Momotaro koi farm and saw Bakki Showers for the first time.

I spent the following winter building a pergola over the pond and enjoying the snow that seemed to fall as soon as I got the posts in! The wood was cut, the ends jigsawed to a Japanese style, then all stained in ebony black and assembled. It was now April 2005 and the pond was essentially complete to the plan.

The small jobs of connecting up the water

main, finishing the electrics and waste pipes were all ticked off one by one. The snow during December 2005 was particularly harsh and the heating was finally added to the pond in the form of a gas boiler and heat exchanger – something we originally could not afford to do.

### adding the bakki shower

In January 2006, following many lengthy discussions, I decided to add a double width Bakki Shower. Ponds with showers have water that seems more alive and my pond, although relatively clear, wasn't perfect if a lot of food was given to the koi. Following a chat with a customer who works in metal, we decided it would be possible to form a box section stainless steel cantilever bracket to suspend the shower over the pond. This would also hold up the now sagging pergola, which was caused by inexperience and the slight self-belief that it would be fine without support.

The pergola was lowered with some apprehension, but was absolutely fine. The shower was loaded with media which now contains around 13 boxes of Bacteria House media.

Inside the filter house the filters were pulled apart and the centre chamber removed to allow for more room on the plinth for the pumps to be repositioned. The pipework was then re-routed to the shower, whereas before the skimmers were unfiltered and circulating dust and debris around the pond. They would now join another pump feeding the shower all in two-inch pressure pipe for minimum friction and head loss. The heated line was entirely replaced to allow flow to the mid returns and with the option to flow over the shower in summer. The total flow including head loss would be in the region of 11000 gallons per hour – nearly 160% per hour. Within 10 days the water was sparkling and it made the extra £2500 seem well worth it.

### the perfect pond

The pond which was originally designed with my own hobby in mind is now used to house our koi for sale and is biologically bomb proof! We can go from having 10 koi to 40 koi without a single glitch in parameters or clarity. The proof surely has to ▶



January 2004



April 2002



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August 2005



January 2006



The fish house

be in the growth of the koi housed in the pond. We have, this year, grown jumbo Tosai from 31cm to 49cm in this system without really trying. This is definitely down to the Bakki Shower as koi before used to grow maybe a few centimetres per year.

**so near yet so far**

After nearly seven years the pond is almost complete! The pergola needs its bamboo finishing and may be lined out with polycarbonate. The pond is also due

to have reverse osmosis fitted this winter. The waste water will eventually be routed to a tank underground and then pumped around the garden to irrigate the plants at night on a timer.

After all this time and effort you may ask would I do it again? Well this year we did, we built a 2000-gallon indoor Streamflow design pond with two single Bakki Showers and an Eazy pod. This pond took a total of 15 days to construct including four days to build the fish house.

The ponds both work well alongside each other. The Streamflow pond is good for growing Tosai and the main pond is good for holding koi and growing on larger koi. One thing that I have noticed recently is that the body of small koi are improved in the main pond – mainly due to the flow and combined depth. The main pond can be flushed daily and sediment removed in five minutes – the original plan worked! The Streamflow pond is equally as quick with its air uplift waste system and Eazy pod.

**don't cut corners**

Pond building can be a long job especially if finance is a restriction. However, don't ever cut corners or leave essential items out as the finished product will be inferior. Simon and I spend our days pond building and this year alone we have built six ponds – two of which have been 10000 gallons plus. They all have the essential items for koi and perform very well. Unfortunately we also spend a lot of time rectifying mistakes by hobbyists.

With the koi world as it is today, with online chat forums and koi magazines, it is well worth researching your project thoroughly before reaching for that marker paint or spade. [www.nipponnishikigoi.com](http://www.nipponnishikigoi.com)

**further info:**

Nippon Nishikigoi  
[nipponnishikigoi.com](http://nipponnishikigoi.com)



Bakki Shower – January 2006



Inside the fish house



Bakki Shower

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