



## Tassal hatchery expansion

One of Tasmania's most successful brands, Tassal, is expanding, and precast concrete is playing a big part. The salmon producer is doubling its world-best hatchery at Ranelagh, in Tasmania's Huon Valley. The company's state of the art hatchery has been replicated ahead of a doubling in production of young salmon.

### PRECAST SOLUTION REQUIRED

Local precaster and National Precast member Duggans Precast has been part of several projects with Tassal, according to General Manager Brent Hardy.

"They came to us to help with a potential solution with a site and space issue," Mr Hardy said. "We worked with them, and an engineering firm, to shore up a solution". "The timeline was an important factor to the client. Tassal had deadlines to get the fish in, so we worked really hard to meet the target for completion".

### CURVED PRECAST ELEMENTS FOR TANKS

Mr Hardy says the work was commissioned in several stages and began with a trial water inlet tank. "This was basically a water tank, and we needed to make sure the stitch joints and insitu concrete base played their part in holding it together and keeping it water proof".

The two curved moulds manufactured by the precaster were unique for the project. One mould was cast horizontally for the 12 metre diameter tanks, which were made up of five panel segments. The second mould for the seven metre diameter tanks was vertically cast due to the tight 3.5 metre radius and the challenge of concrete placement. These tanks were cast in three panel sections.

#### Precast manufacturer

Duggans Precast

#### Client

Tassal Operations

#### Engineer

Gandy and Roberts

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In all, there were 100 panels for the 12 metre tanks and 24 for the seven metre tanks.

### **EASE OF TRANSPORT**

The precast elements had to be transported from the factory in the Huon Valley to the Tassal site, 22 kilometres away. This was a straightforward operation. Mr Hardy says the panels were fairly self-supporting and using a purpose-made rack and chains, the panels were transported vertically with each load comprising two sections.

### **ON-SITE TANK CONSTRUCTION**

Once on site, Duggans used a premium sub-contractor to ensure the stitch joints were formed and poured insitu concrete to join the panels. As well, the base needed to be poured insitu to ensure integrity of the tank structure. "We needed a tight tolerance and smoothness on the inside of the tanks, for the benefit and well-being of the fish. That was one of the things that was really important," explained Mr Hardy.

The inside walls were finished with a smooth off-form finish, the stitch joints were patched and the entire internals of the tanks were coated with an epoxy finished. The high technology nature of the tanks required earthworks and complicated hydraulic plumbing. By using precast concrete, the space and time required on site was reduced, allowing quick access by other trades.

### **SUCCESSFUL EXPANSION**

The completion of the tanks and hatchery expansion will allow Tassal to increase the number of premium quality smolt (young salmon) that are able to be produced at the site, and allow a subsequent on-growing in the company's marine farm leases, from four million a year, to 8.2 million.

Mr Hardy says his company is proud to be involved. "We've worked closely with Tassal on a number of its key infrastructure projects. The company is significant and influential in the Huon Valley and it's satisfying to be a part of its growth".

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