

Hynds Hypond® Effluent Storage

Technical Guide R3.3

The Hypond® is a site assembled, precast effluent tank with a robust polygon structure available in four standard sizes.



Applications

Dairy effluent storage

Product Attributes

Precast panel construction ensures consistency and quality

Standard panel height used for all sizes

Keys together providing excellent strength

Easily transported, lifted and assembled

Leach free result

Environmentally compliant

Sustainability

Available in Hynds LC® low carbon concrete

Verifiable carbon footprint data available

Quality/Environment/Health & Safety

Hynds management systems are certified to ISO 9001:2015, 45001:2015, and 14001:2018 standards

The Hypond® is a site assembled, precast effluent tank with a robust polygon structure available in four standard sizes.

Design Specifications

- 50 years design life.
- Hypond® panel weight is approximately 1600 kgs.
- Each panel is 2400 mm high with a finished depth of approx 2135 mm to floor level.
- The panels are easily lifted into place with a suitable excavator.
- Flanged base resists uplift of structure.

Installation

- Check with your Council regarding compliance requirements for installation of your Hypond.
- Please advise if any compliance information is needed from Hynds prior to placing your order so allowances can be made for this.

The Hypond® installation must be carried out by an experienced contractor executing the following key steps:

- Excavate the tank area to a minimum depth of 150 mm below the underside of the floor slab (deeper if in poor material).
- Shape the floor to slope to the centre.
- Place and compact a minimum of 150 mm GAP 40 material to form the floor base and tank flange.
- Install precast concrete panels and bolt together around the perimeter to form a large polygon.
- Place steel reinforcement and mesh in the floor and flange.
- Place Concrete for the Floor and Flange, flood floor to complete curing of the concrete floor.
- Place backfill and compact in layers evenly around the perimeter of the tank to ground level.
- Grout joints between panels to form a watertight structure.

1. The standard floor design is appropriate for sites where the water table is expected to remain more than 1800 mm below ground level. (Fig.1)
2. Where the water table is likely to be less than 1800 mm below the ground level, the anti-flotation floor slab must be constructed. Consult with Hynds for specific reinforcing details. (Fig.2)

Note: For full installation information refer to Hynds installation guide.

Fencing

- Hypond® is designed to be fitted with pool fencing panels (that comply with the NZ Pool Fencing Safety Act) fixed to the top of the concrete panels.

Hypond Type	Nominal Volume (Litres)	Diameter (Metres)	No. of panels
HYPOND 40	40600	4.8	8
HYPOND 65	64800	6.0	10
HYPOND 100	100200	7.3	12
HYPOND 140	141000	8.5	14

Hypond Type	Item Codes	
	Concrete Items Kit codes	Fittings Kit codes
HYPOND 40	1x HYPOND40CONKIT	1x HYPOND40FITKIT
HYPOND 65	1x HYPOND65CONKIT	1x HYPOND65FITKIT
HYPOND 100	1x HYPOND100CONKIT	1x HYPOND100FITKIT
HYPOND 140	1x HYPOND140CONKIT	1x HYPOND140FITKIT

Concrete Kit allows for: Hypond Panels and Leveling Blocks

Fittings Kit allows for: Spacers, M20 Connection Rod Set, Adhesives, Sealants and Grout

Additional items required for Standard Floor Slab installation

Hypond Type	Datum Block - Qty Code: LDHYPOND	Panel Starter Bars - Qty Code: BARH16.1135
HYPOND 40	1	32
HYPOND 65	1	40
HYPOND 100	1	48
HYPOND 140	1	58

Items also available

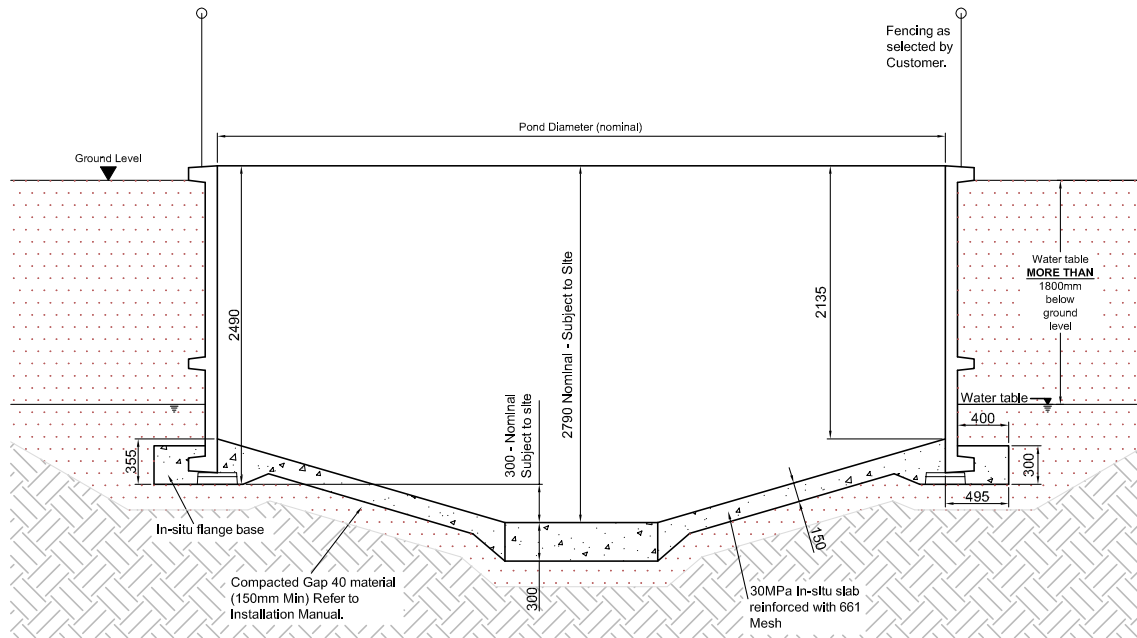
Hypond Safety Fencing Kit Product Code

HYPOND40F
HYPOND65F
HYPOND100F
HYPOND140F

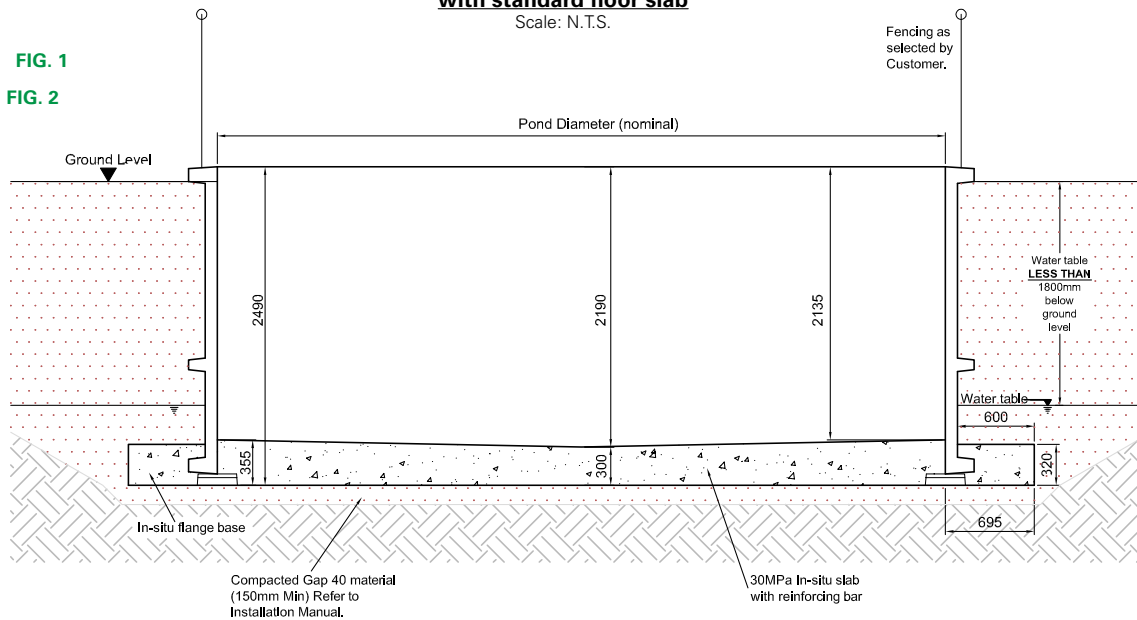
Hypond Ladder Product Code

HYPONDLADDER





**Sectional View
with standard floor slab**
Scale: N.T.S.



**Sectional View
with anti floatational floor slab**
Scale: N.T.S.

FIG. 1
FIG. 2

Lifting and Handling

All Hynds Hypond® Effluent Storage feature certified concrete lifting anchor systems, designed and tested to guarantee safe and secure handling.

Hynds Pipe Systems has designed and manufactured Hypond® Effluent Storage with a minimum dynamic factor of 1.2. This dynamic factor requires that all the following conditions are observed when lifting, moving or placing the units:

1. Lifting with mobile plant (*such as an excavator or similar*) where equipment is specifically exempt from the requirements of the PECPR Regulations 1999, subject to the conditions outlined in the New Zealand Gazette, No. 104, September 2015 and
2. Lifting, travelling and placing over rough or uneven ground where anchor failure is not anticipated to cause harm or injury, by adopting procedures such as:
 - a. Transporting the element as close as practical to ground level (300mm recommended)
 - b. Establishing and maintaining exclusion zones
 - c. Transporting only precast concrete elements that are unlikely to topple if they were to hit the ground
 - d. Inspecting lifting anchors both after transportation and before final lifting into place
3. All Hynds concrete lifting anchor systems are engineered in accordance with Haeussler specifications, ensuring full compatibility with Reid, Deha, CLS, and Ancon lifting clutches, as well as recess formers, across corresponding load ranges.

Refer to "Safe work with precast concrete - Handling, transportation and erection of precast concrete elements" published by Worksafe New Zealand (October 2018).

Shock loads resulting from travelling with suspended Hypond® Effluent Storage over rough terrain and uneven ground may exceed design, dynamic and safety factors of the lifting systems. It is essential that care is taken during lifting and transporting as additional stresses could result in anchor failure.



FIG. 3 Hypond ready for placement of back fill

Branches Nationwide Support Office & Technical Services 09 274 0316

Disclaimer: While every effort has been made to ensure that the information in this document is correct and accurate, users of Hynds product or information within this document must make their own assessment of suitability for their particular application. Product dimensions are nominal only, and should be verified if critical to a particular installation. No warranty is either expressed, implied, or statutory made by Hynds unless expressly stated in any sale and purchase agreement entered into between Hynds and the user.