

Hynds Cesspit Units Flat Top and Back Entry

Technical Guide D5.1

Hynds have a range of precast concrete cesspit units, ideal for draining storm water from roadsides and into drainage pipes.



04.20 | DRAINAGE | D5.1 HYNDS CESSPIT UNITS FLAT TOP AND BACK ENTRY

Applications

Stormwater drainage

Product Attributes

Available as flat top or back entry

Riser units available on request

Durable precast concrete manufacturing

Economical installation

Approvals/Standards

NZS 3109, Concrete Construction

AS3996-2006, Streetware

Quality

ISO 9001:2008 Quality
Management Standard

We are the supply partner of choice for New Zealand's civil construction industry, specialising in water and infrastructure based solutions.

HYNDS
PIPE SYSTEMS

Hynds have a range of precast concrete cesspit units, ideal for draining storm water from roadsides and into drainage pipes.

Installation

- The unit features factory fitted lifting anchors cast into the concrete to allow for safe off-loading and easy economical installation by the contractor.
- Cast iron or ductile iron frames, grates and back inlet kerb blocks are also available through Hynds. Units must be installed on compacted level hardfill.
- The units with the pre-formed soft spots situated in the sidewalls provide easy fitting for outlet pipe work.
- Installation is completed by filling the gap between the holes made for the pipe work with epoxy mortar, backfilling the trench and compacting as required.

Design Specifications

- Soft spots are cast on all four sides (certain models excluded).
- Flat top cesspit has no back inlet.
- Back entry cesspit available in: 675 x 450 mm standard; and 675 x 450 mm syphon cesspit.
- Hydro 675 x 450 Class D is an excellent alternative to standard grates and frames. Please refer to our D4.16 product sheet for further information.

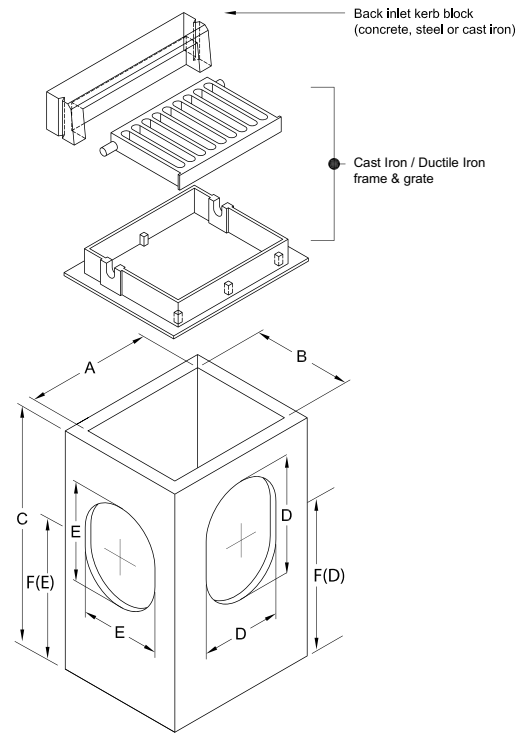


FIG. 1 Flat Top Cesspit (refer to Table 1)

TABLE 1 Flat Top Cesspit Dimensions

Product Code	Nominal Size (mm) (L x W x H)	A (mm)		B (mm)		C (mm)		Soft Spots (mm)		Depth to Centre (mm)		Avg. Thickness (mm)	Mass (kg)
		Int	Ext	Int	Ext	Int	Ext	D (W x H)	E (W x H)	F(D)	F (E)		
Standard Flat Top													
CP300300	300 x 300 x 600	305	420	305	420	610	660	190 x 390	–	305	–	65	130
CP450300	450 x 300 x 700	435	535	295	385	700	750	185 x 330	–	375	–	65	190
CP450450	450 x 450 x 950	460	625	460	625	950	1025	700 x 300	700 x 300	580	580	85	480
CP600600	600 x 600 x 600	595	735	595	735	670	760	130 x 130	130 x 130	245	245	75	450
CP675450FT9	675 x 450 x 900	675	830	430	600	815	900	390 x 590	410 x 510	395	450	85	542
CP675450FT	675 x 450 x 1200	655	820	455	620	1210	1300	390 x 590	410 x 510	795	755	85	820
CP800500FT	800 x 500 x 1800	800	950	500	650	1800	1875	410 x 950	410 x 950	935	935	75	1320
Syphon Flat Top													
CP675450SFT	675 x 450 x 1800	690	820	480	610	1685	1760	410 x 950	410 x 950	775	775	70	840

- CP300300 dimensions may vary depending on manufacturing site.
- Please refer to your local Hynds Branch or contact Hynds Technical Services for further details.
- CP675580FT available within the Central Region only.

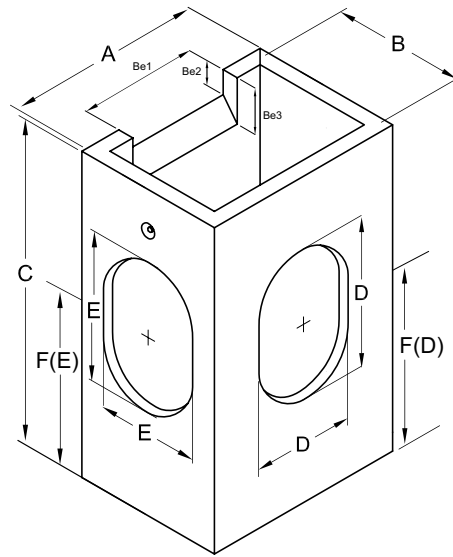


FIG. 2 Back Entry Cesspit

TABLE 2 Back Entry Cesspit Dimensions

Product Code	Nominal Size (mm) (L x W x H)	A (mm)		B (mm)		C (mm)		Back Entry Dim (mm)			Soft Spots (mm)		Depth to Centre (mm)		Avg. Thickness (mm)	Mass (kg)
		Int	Ext	Int	Ext	Int	Ext	Be 1	Be 2	Be 3	D (W x H)	E (W x H)	F (D)	F (E)		
Standard Back Entry																
CP675450BE	675 x 450 x 1200	655	820	455	620	1210	1300	480	100	185	390 x 590	410 x 510	795	755	85	820
Syphon Back Entry																
CP675450SBE	675 x 450 x 1800	690	820	480	610	1685	1760	480	100	185	410 x 950	410 x 950	775	775	70	840

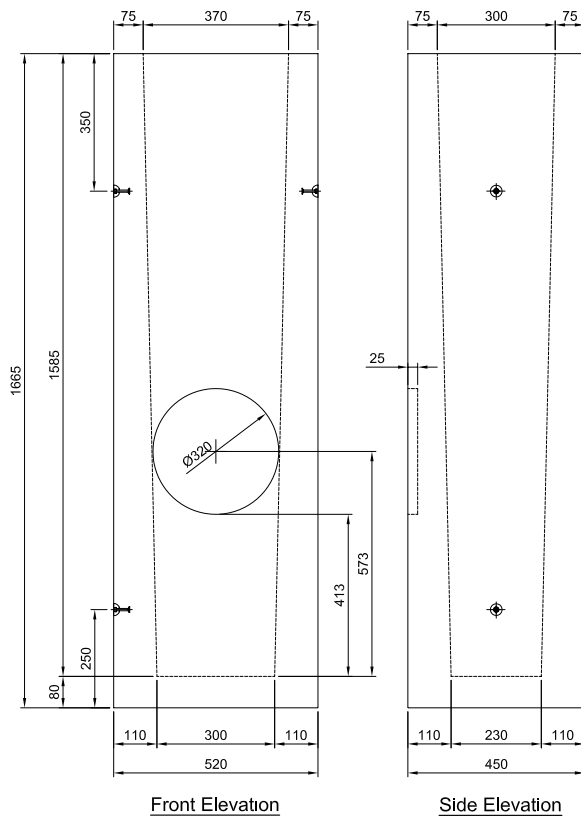


FIG. 3 Mano Pit

TABLE 3 Manopit Dimensions

Product Code	Nominal Size (mm) (L x W x H)
CP370300FT	300 x 370 x 1585

Note: Refer to figure for Mano Pit dimensions

TABLE 4 Cast Iron Grates and Frames Available

Product code	Dimensions (mm)	Mass (kg)
CIC300300GF	300 x 300	15
CIC300450GF	300 x 450	36
CIC450450GF	450 x 450	69
CIC675450GF	675 x 450	118

TABLE 5 Galvanized Mild Steel Heel Proof Grates and Frames Available

Product code	Class	Dimensions (mm)	Mass (kg)
GGHS300300AGF	A	300 x 300	14
GGHS300300DGF	D	300 x 300	17
GGHS450450AGF	A	450 x 450	17
GGHS450450DGF	D	450 x 450	40
GGHS610610AGF	A	610 x 610	21
GGHS610610DGF	D	610 x 610	87
GGHS675450AGF	A	675 x 450	23
GGHS675450DGF	D	675 x 450	61

TABLE 7 Ductile Iron Hydro Grates and Frames Available

Product code	Dimensions (mm)	Mass (kg)
DIHSTGFD450450	450 x 450	55
DIHSTGFD	675 x 450	84
DIHSTGFD800450	800 x 450	73

TABLE 8 Standard Concrete Kerb Block

Product code	Mass (kg)
CP900	56

Also refer to:

D4.16 Hydro Stormwater Grate and Frame
Hynds Streetware Catalogue

Lifting and Handling

Hynds Pipe Systems has designed and manufactured Hynds Cesspit Units Flat Top and Back Entry 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 cesspits:

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

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 Cesspit Units 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.

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.