

# Hynds Telco and Electrical Pit System

Technical Guide D15.1

Hynds Concrete Access Chambers and Lids are designed specifically for the telecommunication and electrical industries.



09.2.1 | DRAINAGE | D15.1 TELCO AND ELECTRICAL PIT SYSTEM

## Applications

- Telecommunication access chambers
- Electrical and general access chambers
- Drainage sumps

## Product Attributes

- Extensive size range
- Three strength class options
- Easily sealed
- Suitable for concrete, cast iron and aluminium lids

## Approvals/Standards

- Manufactured in accordance with NZ Transport wheel loading requirements

## 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.*



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# Hynds Concrete Access Chambers and Lids are designed specifically for the telecommunication and electrical industries.

## Manufacture

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Hynds Telecommunication and Electrical Pits are manufactured using an “*inverted single-pour*” process to ensure consistent quality and watertight sealing. All concrete chambers and lids are steel reinforced and are installed with external lifting anchors for handling onsite.

- All chambers are supplied with four external Swiftlift™ anchors for easy handling on site.
- Pulling pits and jointing chambers: 4 x 1.3 t Swiftlift™ anchors.
- C.B.D. Chamber and SF Tank: 4 x 2.5 t Swiftlift™ anchors.

## Installation

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- Installation of Hynds Concrete Access Chambers is easy and simple.
- Excavate the pit to the required depth (allow some over excavation for a foundation).
- Prepare foundation with compacted hardfill.
- Connect ducting to the chamber as necessary.
- Backfill evenly around the chamber using selected material in well compacted layers, not exceeding 200 mm thickness per layer.
- Install sealant and fit lid
- Complete surrounds to suit requirements.



**FIG. 1** Concrete Access Chamber being lifted into position

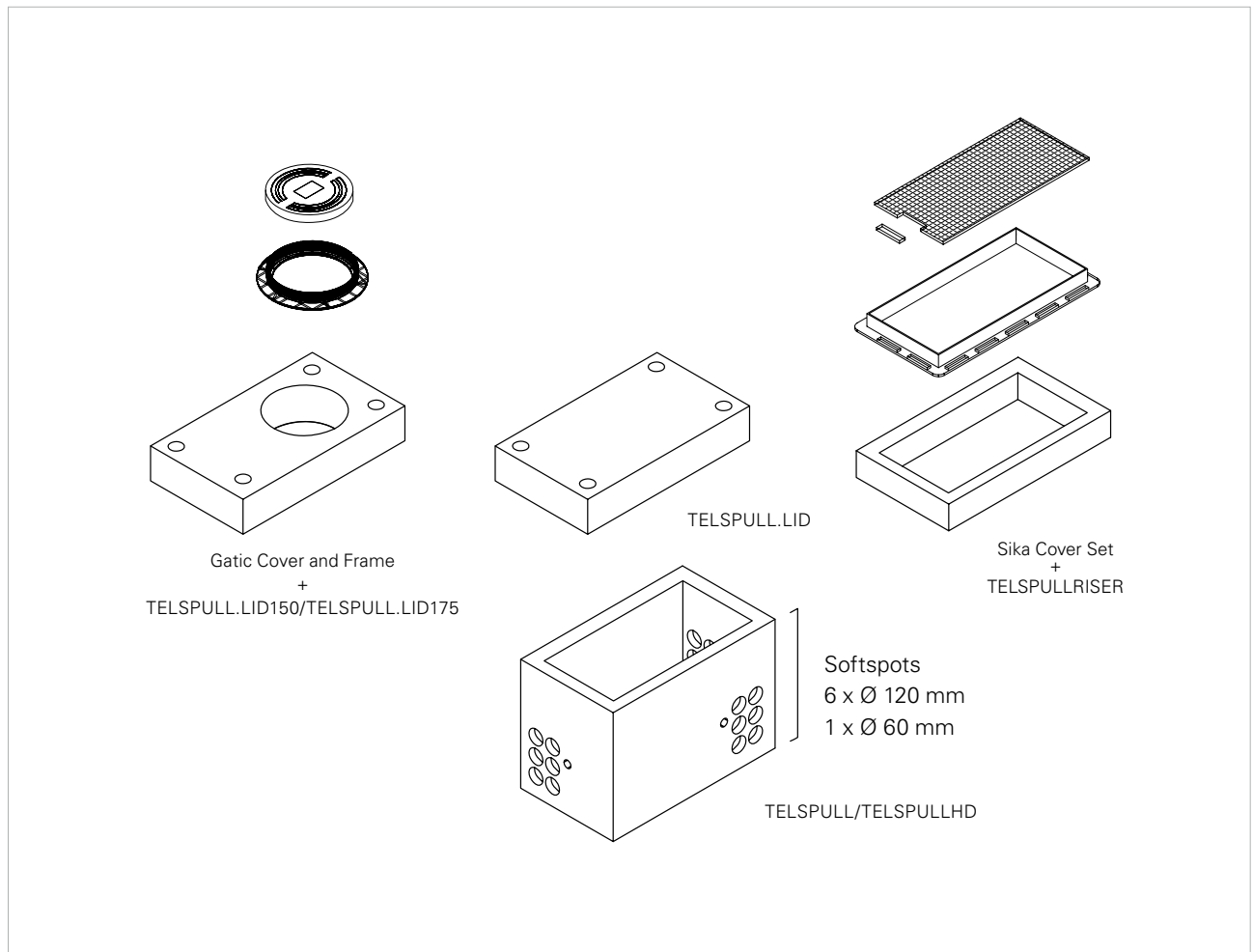
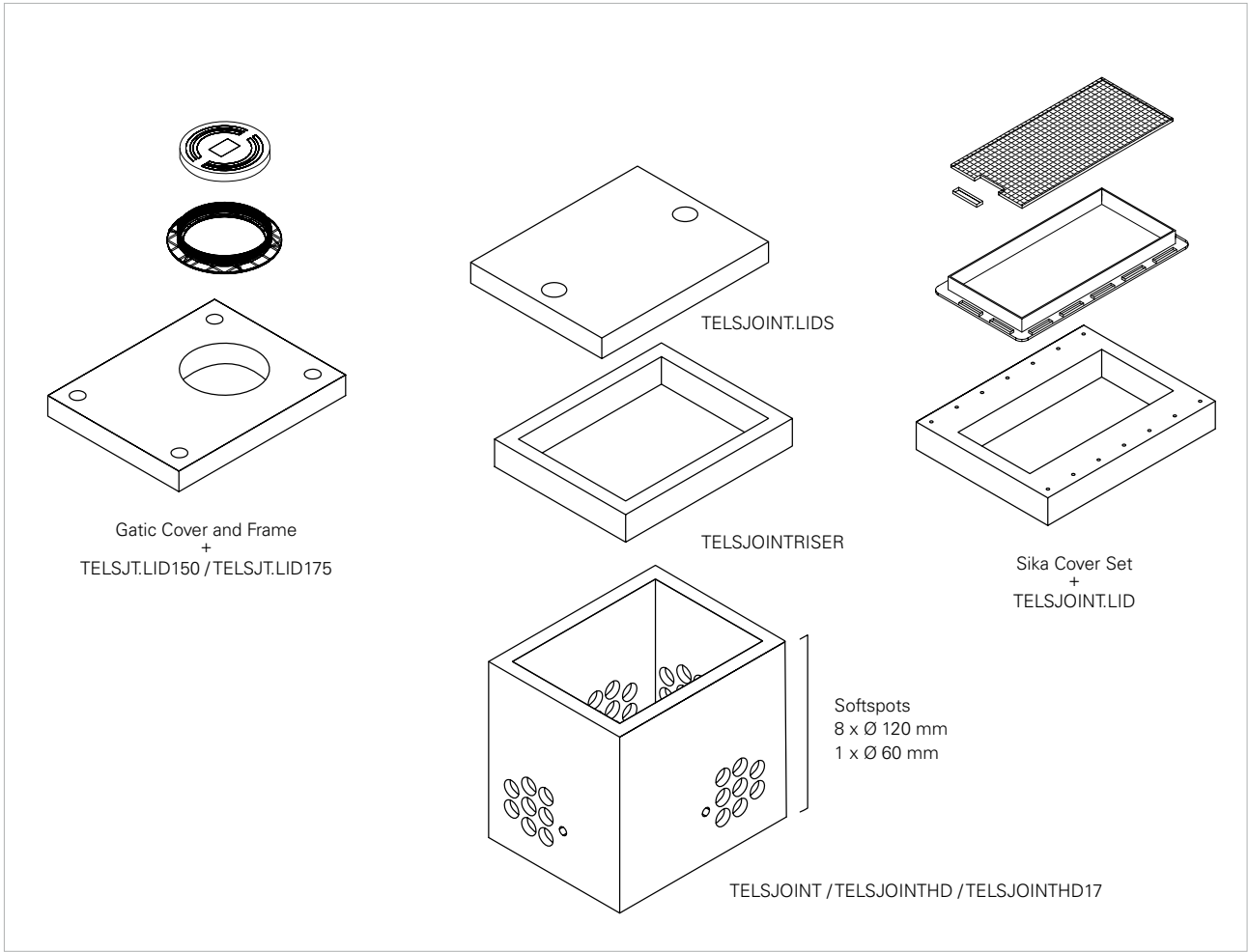


FIG. 2 Pulling Pits, concrete lids and covers

TABLE 1 TELSPULL Product Range

Product Code	Traffic Type	Design Load	External Dimensions			Internal Dimensions			Weight (kg)	Shipped from
			Length (mm)	Width (mm)	Depth (mm)	Length (mm)	Width (mm)	Depth (mm)		
<b>Pulling Pit</b>										
TELSPELL	Footpath/ Pedestrian	3.5 kN/m <sup>2</sup>	1330	730	965	1200	600	900	741	Hamilton
TELSPELLHD	Roadway	51 kN Wheel Load or 0.85 HN	1400	800	965	1200	600	900	1100	Hamilton / Palmerston N.
<b>Lids</b>										
TELSPELL.LID	Footpath	40 kN Dual Wheel Load	1400	800	150	No Opening			420	Auckland / Hamilton
TELSPELL.LID150	Footpath	40 kN Dual Wheel Load	1400	1000	150	Ø 610 mm Clear Opening			450	Hamilton
TELSPELL.LID175	Footpath	60 kN Dual Wheel Load	1400	1000	175	Ø 610 mm Clear Opening			560	Hamilton
<b>Risers/Reducers</b>										
TELSPELLRISER	Footpath	40 kN Dual Wheel Load	1400	800	200	1200	600	200	207	Hamilton
<b>Gatic / Sika Cover and Frame Sets</b>										
GATIC-02301135	Roadway	D210	1482	812	100	1270	600	73	230	Auckland
LD.AL.B31206	Roadway	80 kN	1379	707	57	1227	556	45	46	Auckland



**FIG. 3** Jointing Chambers, concrete lids and covers

**TABLE 2** TELSJOINT Product Range

Product Code	Traffic Type	Design Load	External Dimensions			Internal Dimensions			Weight (kg)	Shipped from
			Length (mm)	Width (mm)	Depth (mm)	Length (mm)	Width (mm)	Depth (mm)		
<b>Jointing Chamber</b>										
TELSJOINT	Footpath/ Pedestrian	3.5 kN/m <sup>2</sup>	1350	1050	1280	1200	900	1200	1184	Hamilton
TELSJOINTHD	Roadway	60 kN Wheel Load	1400	1100	1280	1200	900	1200	1734	Hamilton
TELSJOINTHD17	Roadway	60 kN Wheel Load	1400	1100	1780	1200	900	1700	2410	Hamilton/ Oamaru
<b>Lids</b>										
TELSJOINT.LIDS	Roadway	60 kN Wheel Load	1410	1120	150	No Opening			580	Auckland/ Hamilton/ Oamaru
TELSJT.LID150	Roadway	40 kN Wheel Load	1400	1100	150	Ø 610 mm Clear Opening			580	Hamilton
TELSJT.LID175	Roadway	60 kN Wheel Load	1400	1100	175	Ø 610 mm Clear Opening			680	Hamilton
<b>Risers/Reducers</b>										
TELSJOINTRISER	Roadway	40 kN Wheel Load	1400	1100	200	1200	900	200	237	Hamilton
TELSJOINT.LID	Roadway	40 kN Wheel Load	1400	1100	100	1200	600	100	209	Auckland/ Hamilton
<b>Gatic / Sika Cover and Frame Sets</b>										
GATIC-02301135	Roadway	D210	1482	812	100	1270	600	73	230	Auckland
LD.AL.B31206	Roadway	80 kN	1379	707	57	1227	556	45	46	Auckland

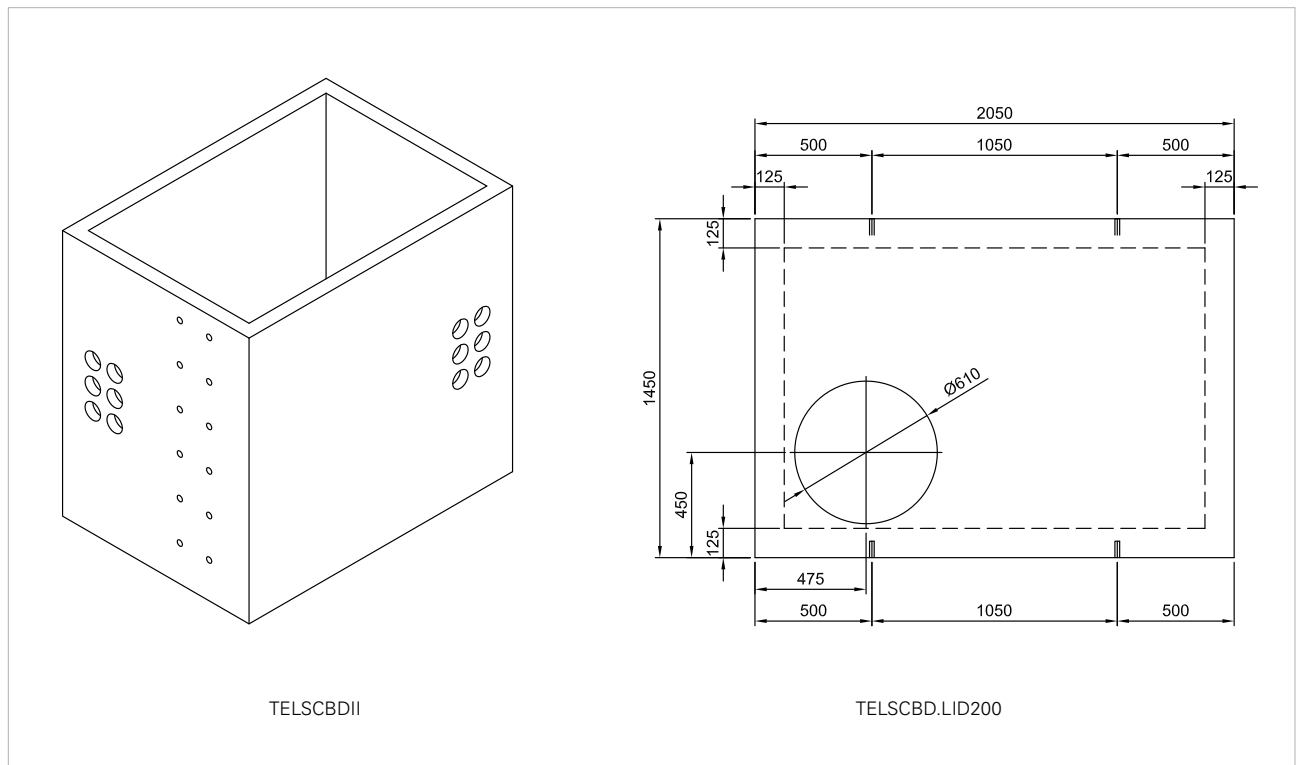


FIG. 4 CBD Chamber and concrete lid – 600 mm Ø opening

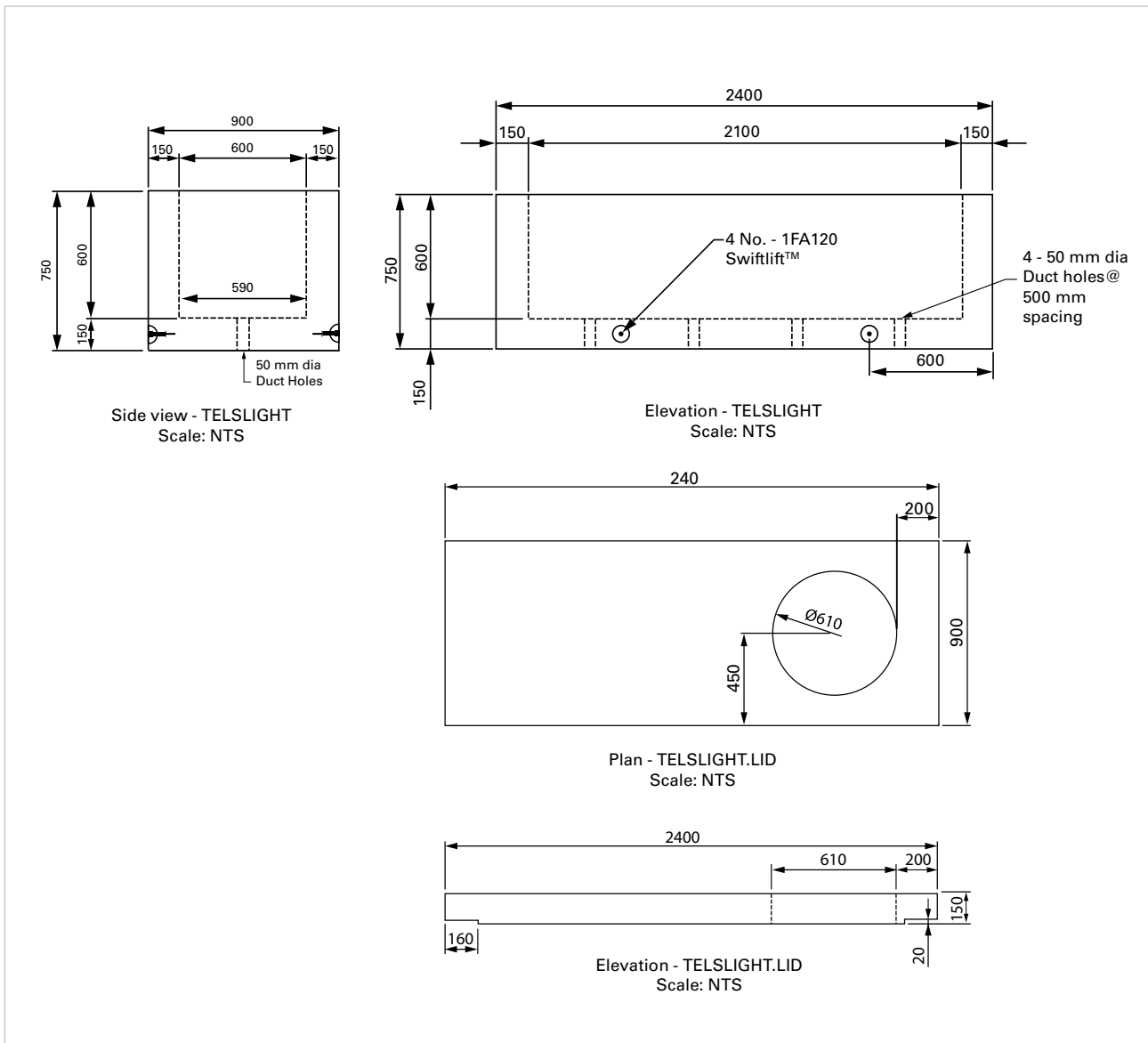
TABLE 3 TELSCBD Product Range

Product Code	Traffic Type	Design Load	External Dimensions			Internal Dimensions			Weight (kg)	Shipped from
			Length (mm)	Width (mm)	Depth (mm)	Length (mm)	Width (mm)	Depth (mm)		
<b>CBD Chamber</b>										
TELSCBDII	Roadway	0.85 HN	2050	1450	1925	1850	1250	1800	4300	Hamilton
<b>Lids</b>										
TELSCBD.LID200H	Roadway	0.85 HN	2050	1450	200	Ø 610 mm Clear Opening			1340	Hamilton
<b>Risers/Reducers</b>										
TELSJOINTRISER	Roadway	40 kN Wheel Load	1400	1100	200	1200	900	200	237	Hamilton
TELSJOINT.LID	Roadway	40 kN Wheel Load	1400	1100	100	1200	600	100	209	Auckland/ Christchurch

TABLE 4 Covers and Frames

Product Code	Product Description	Design Load	Weight (kg)
DIMHMCFHS	Maestro DI Cover & Frame - Ø600 mm Opening	D400	73
DIMHTCFHS	Twino DI Cover & Frame - Ø600 mm Opening	D400	54





**FIG. 5** Light Chamber and lid

**TABLE 5** TELSLIGHT Product Range

Product Code	Traffic Type	Design Load	External Dimensions			Internal Dimensions			Weight (kg)	Shipped from
			Length (mm)	Width (mm)	Depth (mm)	Length (mm)	Width (mm)	Depth (mm)		
<b>Transformer Chamber</b>										
TELSLIGHT	Roadway	0.85 HN	2400	900	750	2100	600	600	2180	Auckland
<b>Lids</b>										
TELSLIGHT.LID	Roadway	0.85 HN	2400	900	150	Ø 610 mm Clear Opening			825	Auckland
TELSLIGHT.LIDHD	Roadway	0.85 HN	2400	900	200	Ø 610 mm Clear Opening			1086	Auckland

**TABLE 6** Covers and Frames

Product Code	Product Description	Design Load	Weight (kg)
DIMHMCFHS	Maestro DI Cover & Frame - Ø600 mm Opening	D400	73
DIMHTCFHS	Twino DI Cover & Frame - Ø600 mm Opening	D400	54

## TELSPIT Kit

Hynds TELSPIT kit is a versatile range of self-assembly telecom cable pulling pits. Every kit comes with the required galvanised nuts and washers, allowing a fast on-site assembly. Hynds Hybond Epoxy is the best option to get a good quality and durable bond between joints (*Hybond is not included in the kit*).

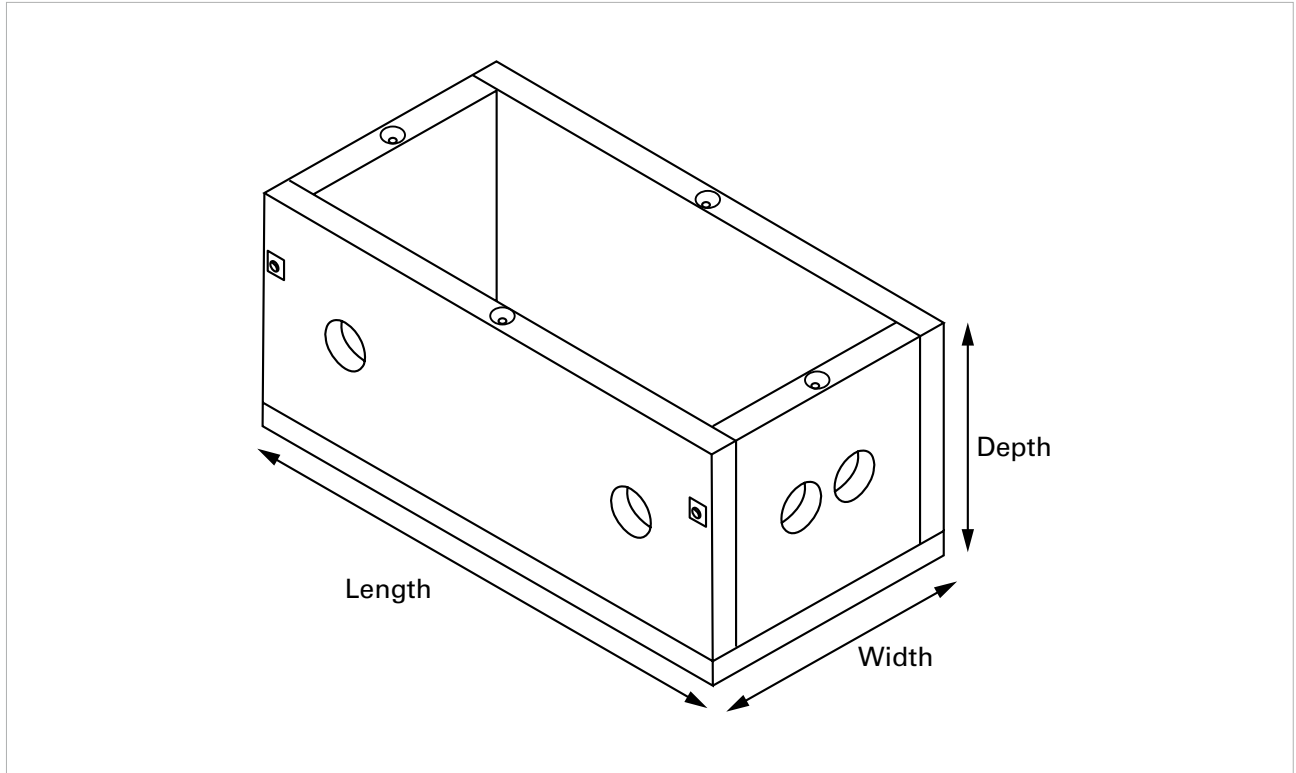


FIG. 6 TELSPIT – Self Assembly Kits dimensions

TABLE 7 TELSPIT – Cable Pulling Pits Product Range

Product Code	Traffic Type	Design Load	External Dimensions			Internal Dimensions			Weight <sup>(1)</sup> (kg)	Soft spots (mm)	Kit accessories	Shipped from
			Length (mm)	Width (mm)	Depth (mm)	Length (mm)	Width (mm)	Depth (mm)				
<b>Self assembly kits</b>												
TELSPIT.A-KIT	Footpath		1370	700	615	1220	550	550	596	115	Kit 1	Auckland
TELSPIT.B-KIT	Footpath		1370	700	1065	1220	550	1000	928	115	Kit 1	Auckland
TELSPIT.B.HD-KIT	Roadway		1420	750	1090	1220	550	1000	1296	115	Kit 2	Auckland
TELSPIT.C-KIT	Footpath		2310	1480	915	2060	1230	800	3530	No softspots	Kit 3	Auckland
TELSPIT.D-KIT	Footpath		1420	1360	965	1270	1210	900	1293	No softspots	Kit 4	Auckland
<b>Precast option</b>												
TELSPIT			740	740	680	580	580	600	480	130	-	Auckland

- Kit 1: 4 x 99B&NM12X100G "M12 x 100 grade 4.6 galv nuts"; 4 x 99SWASHERM12GAL "50 x 50 square washers"
- Kit 2: 4 x 99B&NM12X130G "M12 x 130 grade 4.6 galv nuts"; 4 x 99SWASHERM12GAL "50 x 50 square washers"
- Kit 3: 4 x 99B&NM12X160G "M12 x 160 grade 4.6 galv nuts"; 4 x 99SWASHERM12GAL "50 x 50 square washers"
- Kit 4: 20 x 99B&NM12X100G "M12 x 100 grade 4.6 galv nuts"; 20 x 99SWASHERM12GAL "50 x 50 square washers"; 4 x 99TELSPIT.D.CNR "75 x 50 x 6 Galv Angle Brackets"

<sup>(1)</sup>The weight value represents the total weight of the assembled kit

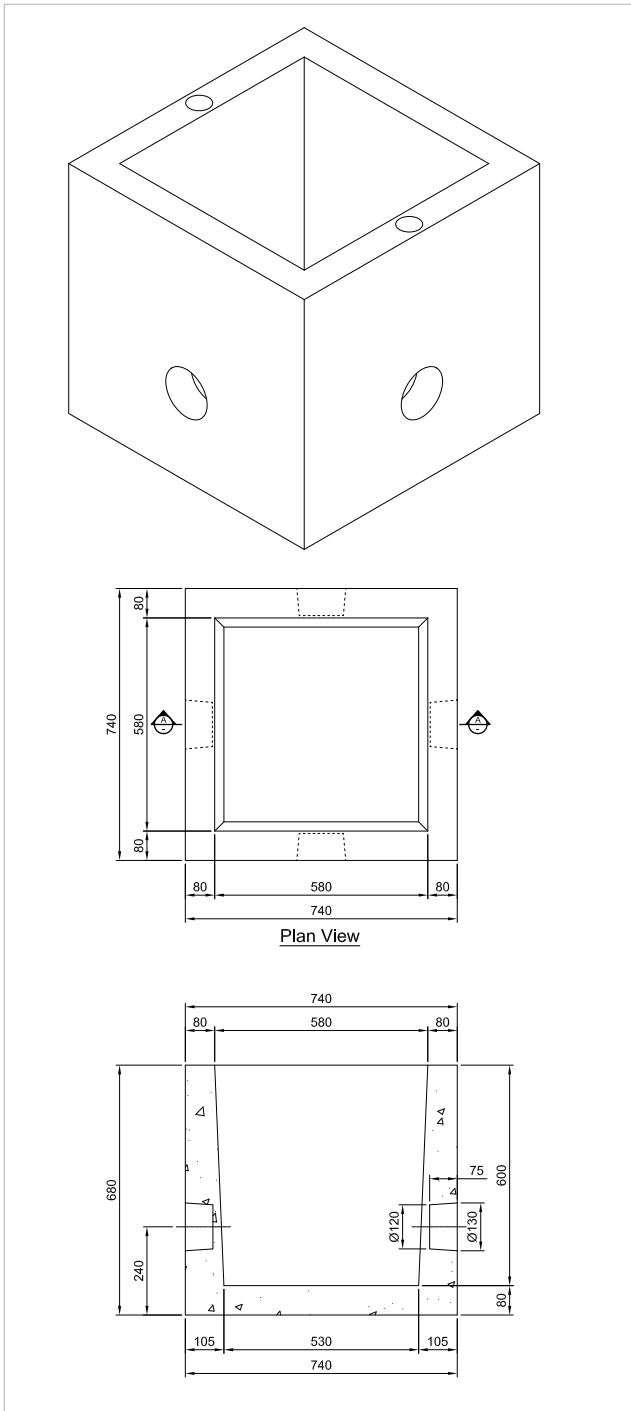


FIG. 7 TELSPIT Chamber

## Lifting and Handling

All Hynds Telco and Electrical Pit Systems incorporate Swiftlift lifting anchors for safe lifting and must be used with the correct lifting clutch.

Hynds Pipe Systems has designed and manufactured Hynds Telco and Electrical Pit Systems 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 pits:

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 Telco and Electrical Pit Systems 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.

Also refer to D1.8 Precast Concrete Channel & Duct System

Branches Nationwide Support Office & Technical Services 0800 93 7473

**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.