



Knelsen | PRECAST

—
YOUR CONSTRUCTION
SOLUTIONS SUPPLIER

STANDARD PRECAST PRODUCT GUIDE / 2019 / PRAIRIE REGION

PRECAST ELECTRICAL & COMMUNICATIONS UTILITY

ENGINEERING UTILITY, MUNICIPAL AND
TRANSPORTATION SOLUTIONS



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13 Guard Posts



14 Sleepers (Cable & Pipe)



15 Duct Banks



Knelsen | PRECAST

CONTACT INFORMATION

Central Sales Desk
403-279-8161

Tender Email Address
Precast.Tenders@Knelsen.com

PRAIRIE REGION PRECAST PLANTS

CALGARY
8916 - 48th Street SE
Calgary, Alberta T2C 2P9C

EDMONTON
11211 Winterburn Road NW
Edmonton, Alberta T5S 2B2

KNELSEN PRECAST BUSINESS UNITS

SP STANDARD PRECAST

UNDERGROUND ELECTRICAL & COMMUNICATION UTILITY

- Manholes / Vaults, Pull Boxes/Pits
- Risers & Adapter Rings
- Cabinet & Switching Cubicle Bases
- Transformer Bases
- Light Pole, Traffic & Signal Bases
- Pedestals, Bollards & Guard Posts
- Duct Banks & Trenches
- Cable Trays & Sleepers (Conduit)
- Solar Panel Bases

MECHANICAL MATERIALS

- Sump Tanks & Sump Pump Pits
- Manholes / Vaults & Chambers
- Pipe Trays & Sleepers (Pipe)

RAIL & LRT MATERIALS

- Crossing Planks
- Signal & Communication Bases
- Manhole / Vaults & Pull Boxes
- Duck Banks & Trenches

CONSTRUCTION MATERIALS

- Jersey Barriers & TL3 Barriers
- Low Profile Barriers & Stack Blocks
- Pedestals, Bollards & Guard Posts
- Parking Curbs & Splash Pads

NATURAL RESOURCES / ENERGY & INFRASTRUCTURE

- Compressor Pads
- Pipeline Protection Slabs
- Pipeline Weights & Pipe Anchors
- Pipe Racks & Trenches
- Sleepers (Pipe & Conduit)
- Utility Markers

RESIDENTIAL BUILDINGS

- Custom Steps & Decks
- Stairwells & Window Wells
- Standard Steps
- Garage Beams
- Concrete & Steel Brackets

LANDSCAPE & PARK MATERIALS

- Benches, Tables & Tree Planters
- Splash Pads & Boat Ramps

CUSTOM SOLUTIONS

- Architectural & Structural
- Stair Pads & Ladder Pads
- Foundation Blocks
- Headwalls

EP ENGINEERED PRECAST

PRECAST CONCRETE BUILDINGS AND VENUES

- Architectural Precast Elements
- Insulated and Solid Wall Panels
- Solid Precast Slabs
- Stadium/Arena – Pre-stressed Bleachers

BRIDGE MATERIAL

- Concrete Arches
- Box Culverts
- Pedestrian Bridges
- Precast Deck Panels
- Bridge Piers and Abutment Caps
- Pipe Line Crossing Structures
- Railway Structural Elements

NATURAL RESOURCES / ENERGY & INFRASTRUCTURE

- Trenches & Sumps
- Containment Walls
- Dike Walls
- Secondary Containment Structures
- Pile Caps and Pipe Racks
- Compressor Slabs
- Retaining Walls
- Blast Resistant Structures

CUSTOM SOLUTIONS

- Architectural & Structural

KEY UTILITY PRODUCTS

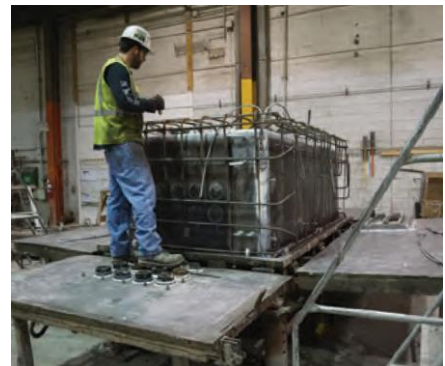
Power Utility

ATCO
ENMAX
Fortis, AB
Fortis, BC
EPCOR
SaskPower
Manitoba Hydro
BC Hydro
Yukon Electric



Communication Utility

TELUS
SHAW
Bell
SaskTel



Municipalities

City of Calgary
City of Edmonton
City of Lethbridge
City of Red Deer
City of Medicine Hat
City of Saskatoon
City of Regina

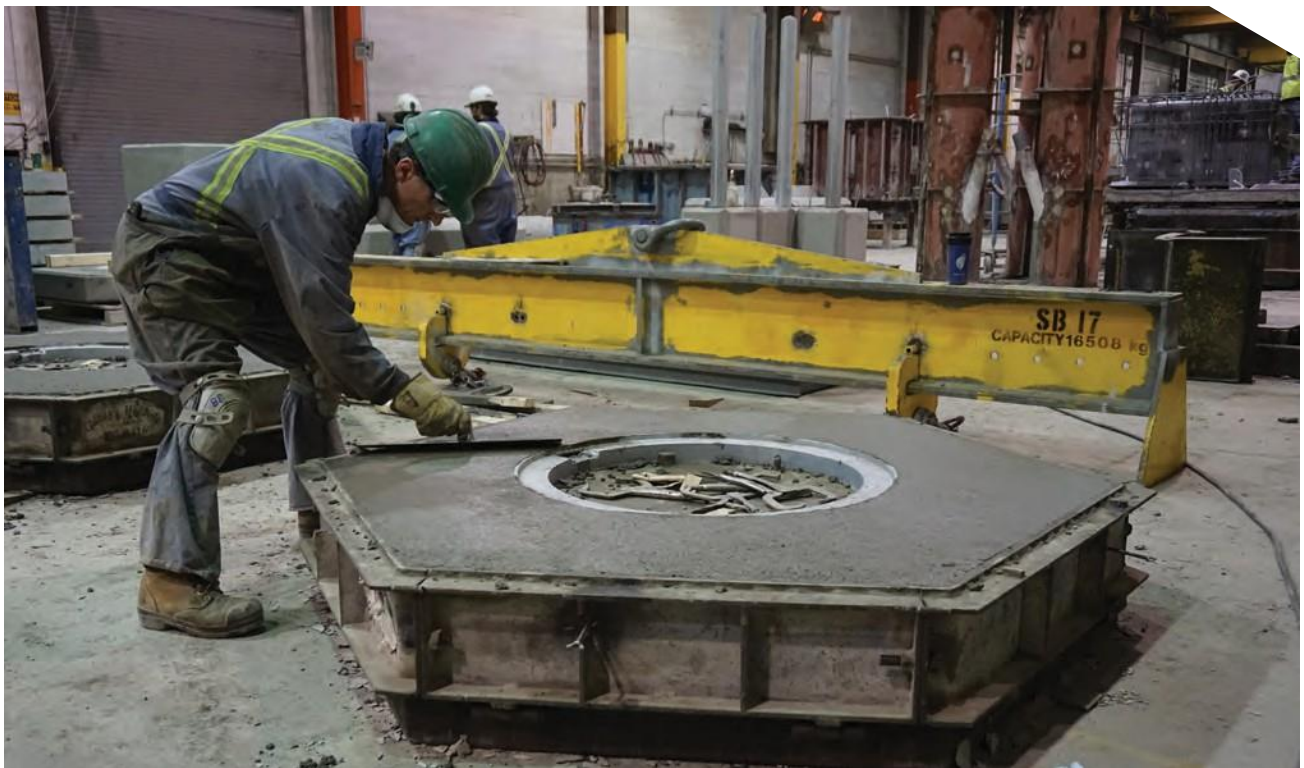
Transportation

Alberta Transportation

KNELSEN SYSTEMS, PROCESSES, AND PEOPLE

Internal quality audits take place on a quarterly basis. The audit is conducted by the Quality Control Manager and it could be announced or unannounced. The audit reviews, calibrations, conforming & non-conforming product, plans to prevent recurrence, test reports from pre-post to concrete test reports and production practices. A review of what we do ensuring we are following all the guidelines set forth in **CSA**, **PCI**, **CPCI** and project specific requirements. Each facilities has a QC department in place to monitor quality and conduct applicable inspections and tests on products, pre/post pour inspections, concrete testing, product ID verification and quality project documentation. All products are marked and dated, which provides traceability of our products. Production control is in place at each of the facilities, which resides with the Plant Manager to ensure proper work procedures are in place. In addition, all Quality Control manuals are reviewed and updated annually by the QC Manager and Engineering Director.

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PRECAST
LOCATIONS
CALGARY
EDMONTON



KNELSEN PRECAST CUSTOM SOLUTIONS

All Knelsen plants within the Prairie region operate full carpentry and welding shops to support customization of existing products and small scale custom applications. All work is done in accordance to **CPCI standards and specifications**. The department includes journeymen trade staff, modern carpentry and welding equipment, as well as extensive form design experience - if it can be drawn, Knelsen can create the form.

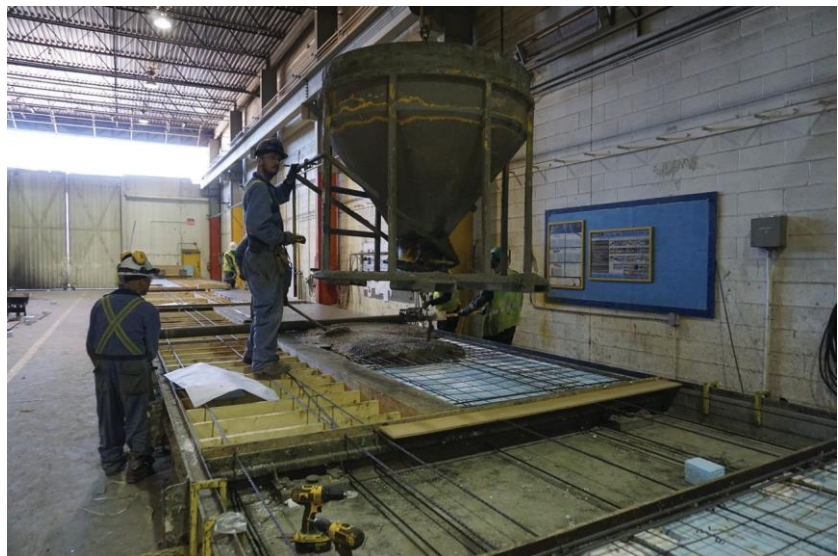
KNELSEN PRECAST ENGINEERING

The Knelsen Precast Engineering Department provides engineering support for the designed use and handling considerations of all precast concrete. In addition to this role, the Engineering Department provides assessment and design of plant hardware, including spreader beams, X-braces, etc. The Engineering Department also provides a similar role for the field erection crews. The designs produced may be for any stage of a job (estimation, preliminary project work, post install review, repair, etc). accelerated installation schedules.



As it applies to STANDARD PRODUCTS, the Engineering Department will provide support in the determination of:

- Modifying products
- Creating new products
- Assessing changes in the use of a product
- Assessing structural integrity
- Advising on repair procedures
- Providing designs for plant equipment
- Providing installation instructions



In terms of SPECIFIC SUPPORTIVE functions, Knelsen Engineers may provide the following:

- Assist with coordinating drawing changes
- Assess design requirements and change reinforcing to suite changes in use or design requirements, or to alter product dimensions to fit these needs
- Review field issues
- Review forces applied by the precast (soil bearing pressure for transformer bases)
- Help identify ways of addressing clients' issues
- Design lift-hooks and lifting mechanics
- Design prestressing equipment, if needed
- Design engineered lifting hardware
- Check the capacity of existing designs for new or alternative loading situations

KNELSEN QUALITY CONTROL

Quality control plays an important role at all Knelsen precast concrete operations and is supported by both external (CPCI) and internal standards, which have contributed to key tender awards requiring high levels of quality control management.

KNELSEN PLANT CPCI CERTIFICATION

CALGARY

since August 12, 2010

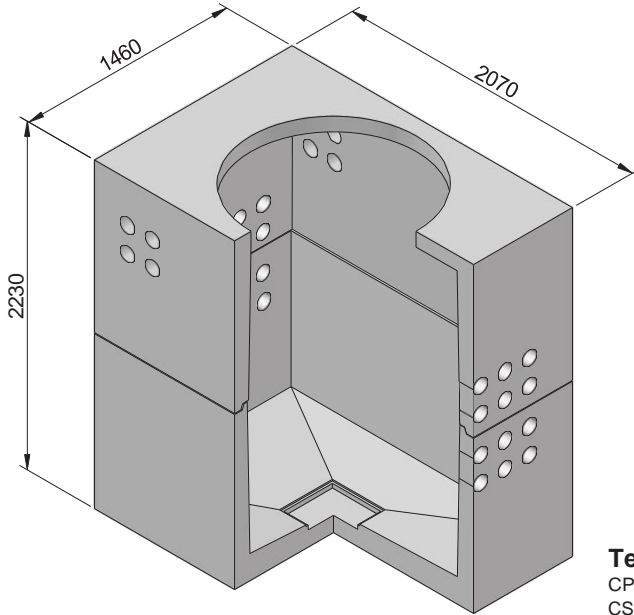


Associations



CANADIAN PRECAST/PRESTRESSED CONCRETE INSTITUTE (CPCI)

The **CPCI certification program** is the only program in Canada designed to qualify manufacturers who fabricate architectural, structural and specialty precast concrete products to meet the requirements of both **CSA Standard A23.4-09, including Annexes A and B**, together with (United States – Precast/Prestressed Concrete Institute) **PCI MNL-116 and 117** and **CPCI certification** requirements. Manufacturers are evaluated on their quality system, documentation, production procedures, engineering, personnel, equipment, and finished products. Plants are audited twice annually, on the more stringent requirements of either program, on a clause-by-clause basis. All CPCI audits are two days, regardless of the size of the plant and regardless of the type of product. The other certification program's enhancements only consider some prestressed bridge and commercial products as "advanced" to warrant two annual two-day audits. CPCI considers all product categories and precast facilities unique to warrant two-day audits for all.



Notes

Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight (Vault only)	6,060 kg (13,333 lbs)
Load Rating	Pedestrian
Min Cover Depth	
Max Cover Depth	Call

Product Detail

Outside Dimension	1460 x 2070 x 2231
Inside Dimension	1220 x 1830 x 1955
Standard Duct Size	102 mm or 4" ID (DBII)
Racking Kit No.	1174
Wall Inserts	PD: 1/2" & LF: 3/4"
Pulling Irons	25 mm
Ground Rod	18 mm x 280 mm
Sump Cover	380 mm Steel Grate
Lift Mechanism	Aircraft Cable

Accessories (Extra)

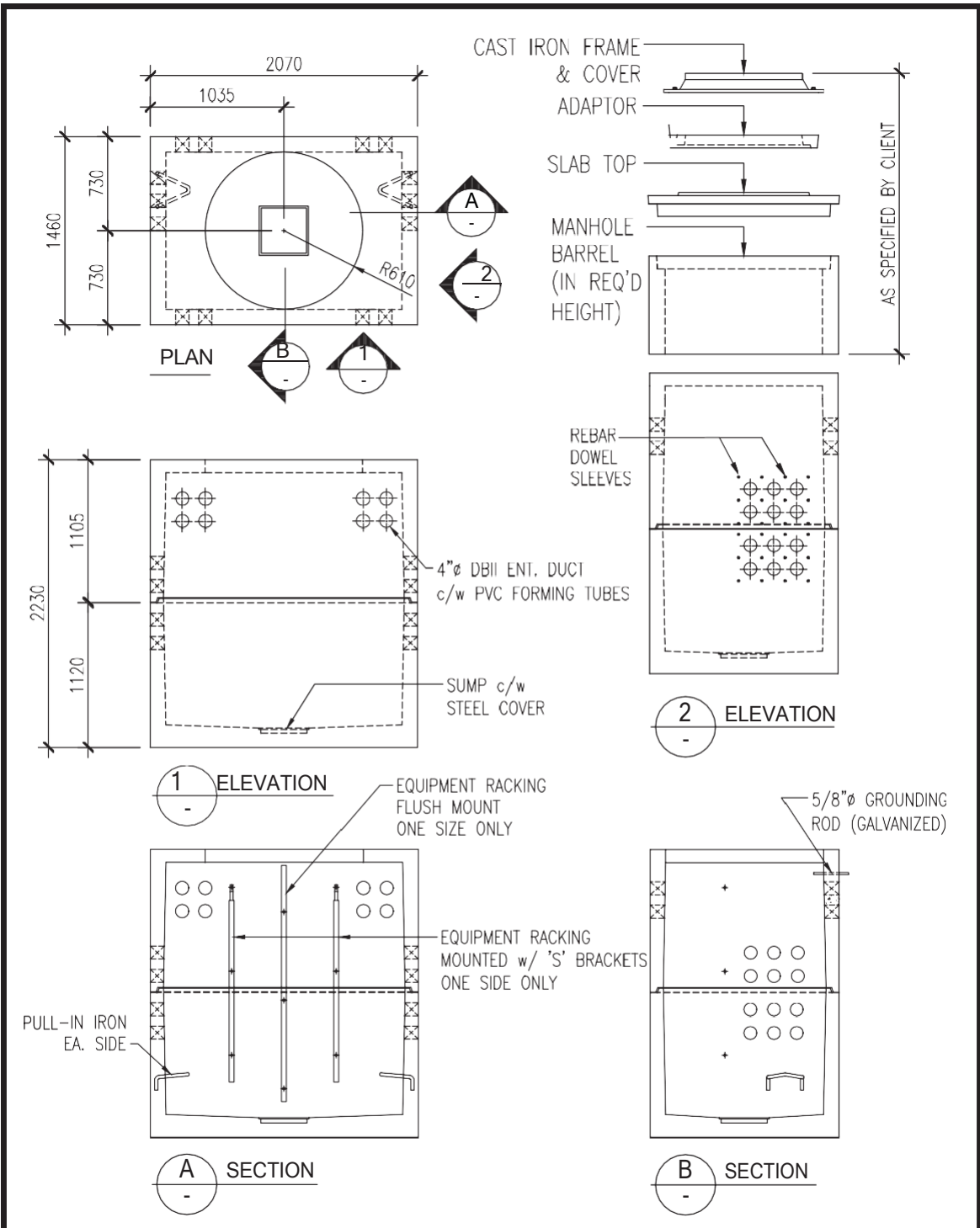
Neck Extension Kits	610mm, 710mm, 885mm
Lid & Frame	Cast Iron Frame & Cover
Lid Reference	POW, TEL or Blank
Seal	RAM-NEK Gasket

Options (Extra)

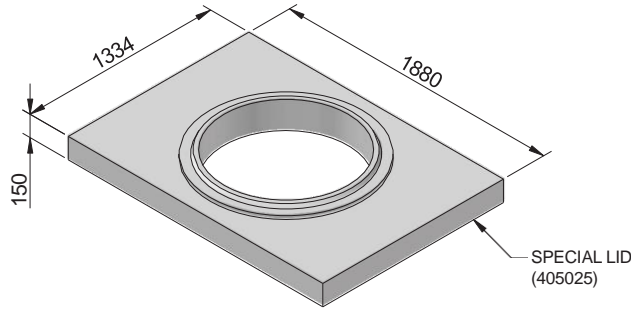
Duct Sizes	5" or 6" ID (DBII)
Duct Location	As requested

Revision Date **April. 01 2019**

	<p>TYPE 'A' VAULT</p>	<p>Dwg. No. 1-0002</p>
	<p>KNELSEN PRECAST - Western Canada (Calgary, Edmonton)</p> <p>www.knelsen.com</p> <p>Tel: (403) 279-8161 Fax: (403) 279-6027</p>	<p>SAP No. 405015</p>

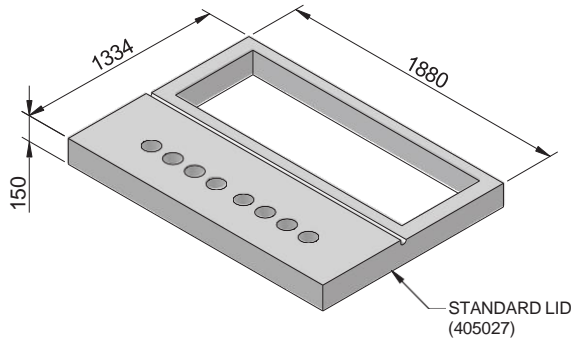


	<h3>TYPE 'A' VAULT</h3>	Dwg. No. 1-0002
	KNELSEN PRECAST - Western Canada (Calgary, Edmonton)	SAP No. 405015
	www.knelsen.com	Tel: (403) 279-8161 Fax: (403) 279-6027



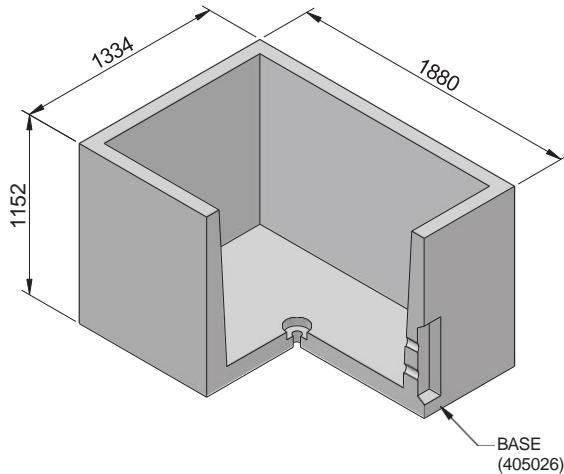
Notes

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Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight - Base	2,550 kg (5,621 lbs)
Weight - Standard Lid	450 kg (989 lbs)
Weight - Special Lid	864 kg (1,900 lbs)
Load Rating	Pedestrian
Min Cover Depth	Call
Max Cover Depth	Call



Product Detail - Base

Outside Dimension	1334 x1880 x1152
Inside Dimension	1150 x1700 x1050
Standard Duct Size	102 mm or 4" ID (DBII)
Special Lid Inserts	LF: 3/4"
Sump Cover	152 mm x 52 mm
Lift Mechanism	ABS Threaded Plug Aircraft Cable

Product Detail - Lid

Standard Lid	1334 x1880 x150
Checker Plated	
Special Lid	1334 x1880 x150
Concrete Type 'A'	

Accessories For Special Lid (Extra)

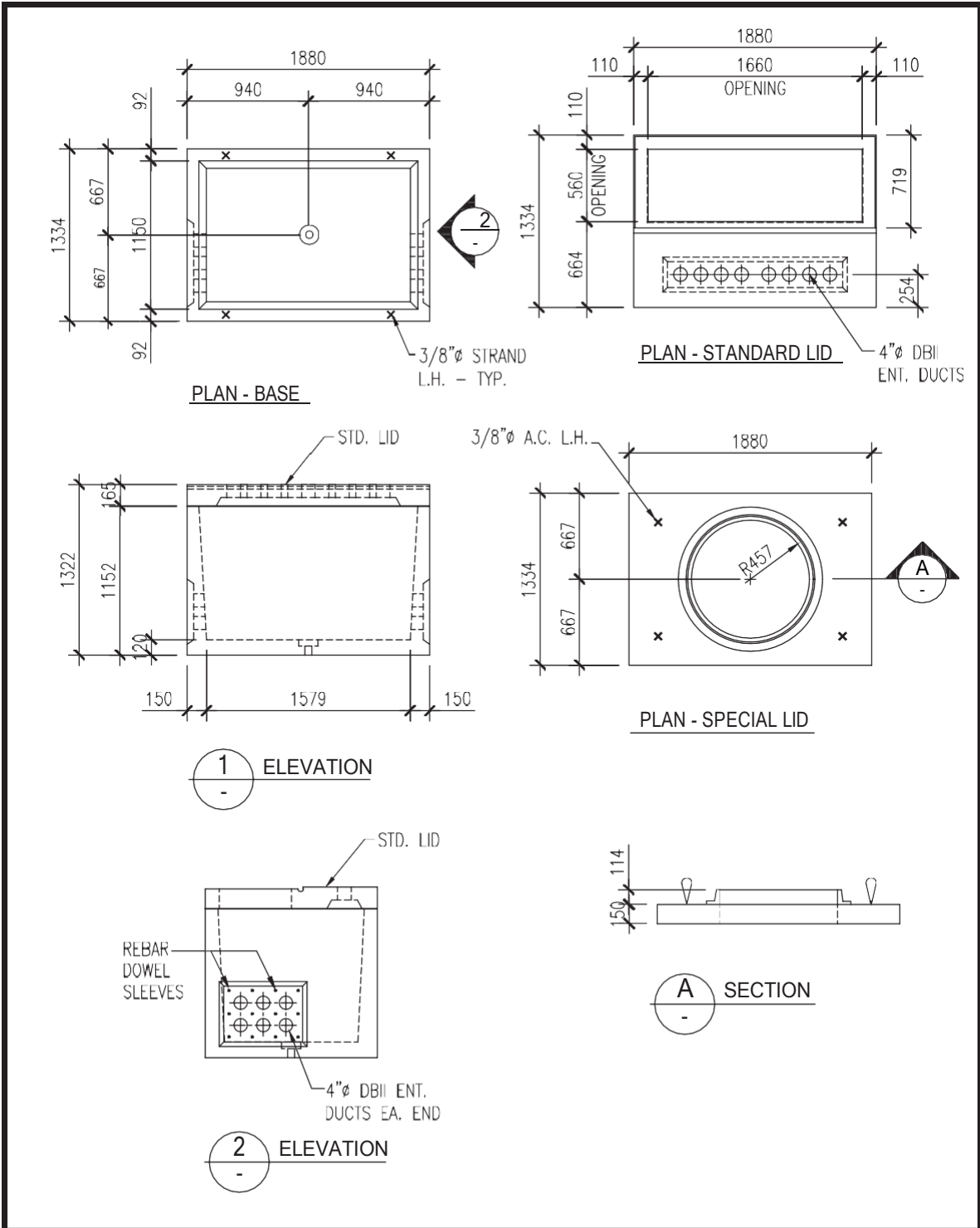
Neck Extension Kits	Please Call
Lid & Frame	Cast Iron
Lid Reference	POW, TEL, Blank
Gasket (Std. Lid)	5 mm x 50 mm Neoprene
Seal	RAM-NEK Gasket

Options (Extra)

Duct Sizes	5" or 6" ID (DBII)
Duct Location	As requested

Revision Date **April. 01 2018**

	TYPE 'A' VAULT	Dwg. No.	1-0003
	KNELSEN PRECAST - Western Canada (Calgary, Edmonton) www.knelsen.com	Tel: (403) 279-8161 Fax: (403) 279-6027	SAP No.



	TYPE 'A' VAULT	Dwg. No. 1-0003
	KNELSEN PRECAST - Western Canada (Calgary, Edmonton) www.knelsen.com Tel: (403) 279-8161 Fax: (403) 279-6027	SAP No. 405026

Notes
 Site installation, backfilling and suitability for use are to be determined by others.
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Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight (Vault only)	10,023 kg (22,050 lbs)
Load Rating	Pedestrian
Min Cover Depth	Call
Max Cover Depth	Call

Product Detail

Outside Dimension	1720 x 3130 x 2276
Inside Dimension	1370 x 2890 x 1975
Standard Duct Size	102 mm or 4" ID (DBII)
Racking Kit No.	1176
Wall Inserts	PD: 1/2" & LF: 3/4"
Pulling Irons	25 mm
Ground Rod	19 mm x 325 mm
Sump Cover	380 mm Steel Grate
Lift Mechanism	Aircraft Cable


Accessories (Extra)

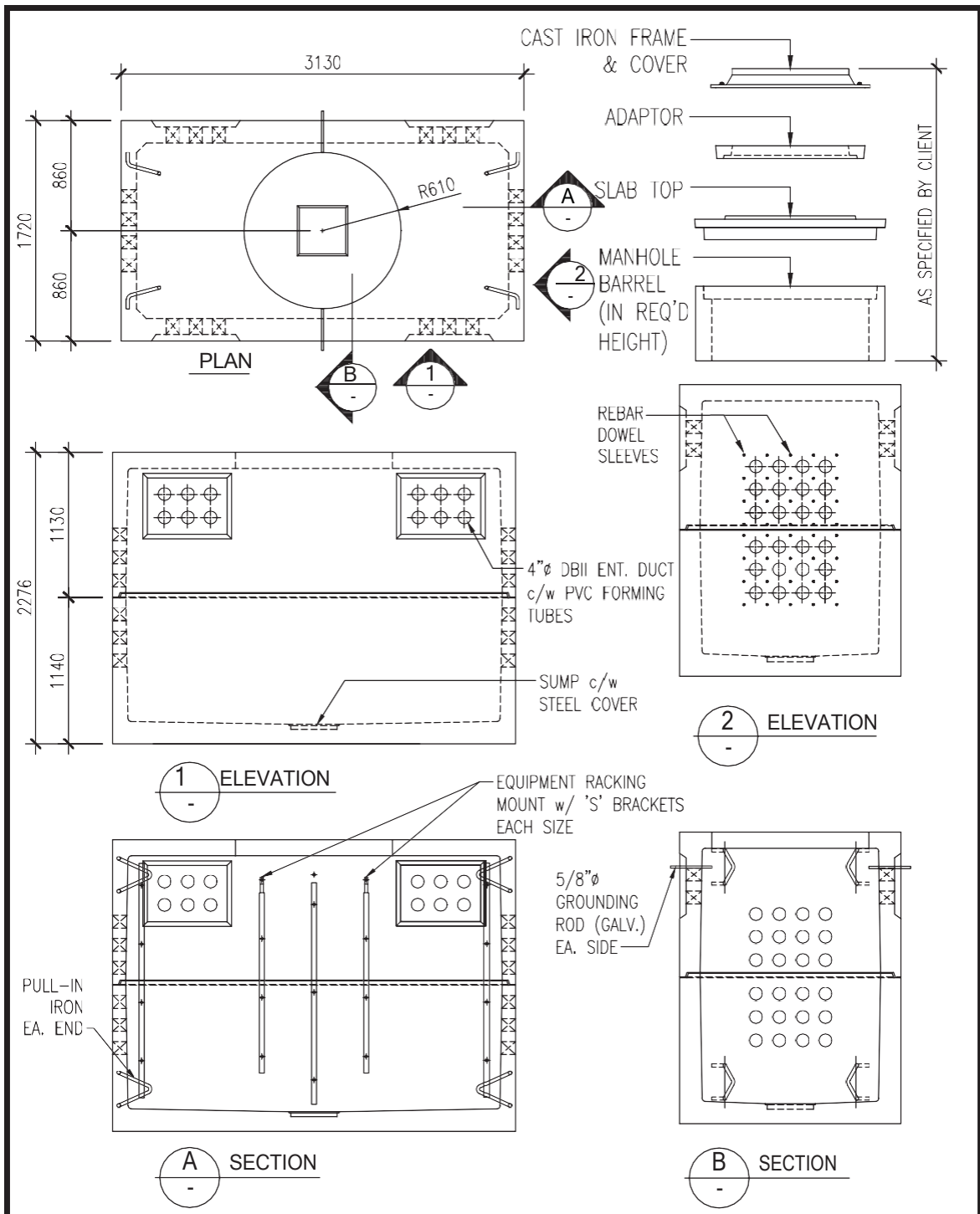
Neck Extension Kits	610mm, 710mm, 885mm
Lid & Frame	Cast Iron
Lid Reference	POW, TEL, Blank
Seal	RAM-NEK Gasket

Options (Extra)

Duct Sizes	5" or 6" ID (DBII)
Duct Location	As requested
Load Rating	CL-625

Revision Date **April. 01 2019**

	TYPE 'A' VAULT	Dwg. No. 1-0004
	KNELSEN PRECAST - Western Canada (Calgary, Edmonton) www.knelsen.com	SAP No. 405016 Tel: (403) 279-8161 Fax: (403) 279-6027



TYPE 'A' VAULT

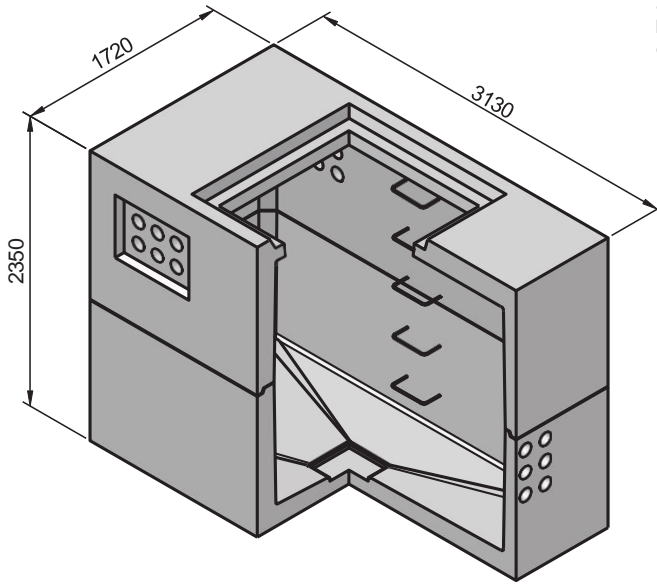
KNELSEN PRECAST - Western Canada (Calgary, Edmonton)

www.knelsen.com

Tel: (403) 279-8161
Fax: (403) 279-6027

Dwg. No. **1-0004**

SAP No. **405016**



Notes

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Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight (Vault only)	10,967 kg (24,127 lbs)
Load Rating	Pedestrian
Min Cover Depth	Call
Max Cover Depth	Call

Product Detail

Outside Dimension	1720 x 3130 x 2350
Inside Dimension	1370 x 2890 x 1970
Standard Duct Size	102 mm or 4" ID (DBII)
Wall Inserts	PD: 1/2" & LF: 3/4"
Pulling Irons	25 mm
Ground Rod	19 mm x 325 mm
Sump Cover	380 mm Steel Grate
Lift Mechanism	Aircraft Cable

Accessories (Extra)

Neck Extension Kits	Custom
Lid	Custom
Seal	RAM-NEK Gasket

Options (Extra)

Duct Sizes	5" or 6" ID (DBII)
Duct Location	As requested
Load Rating	CL-625

Revision Date **April. 01 2019**



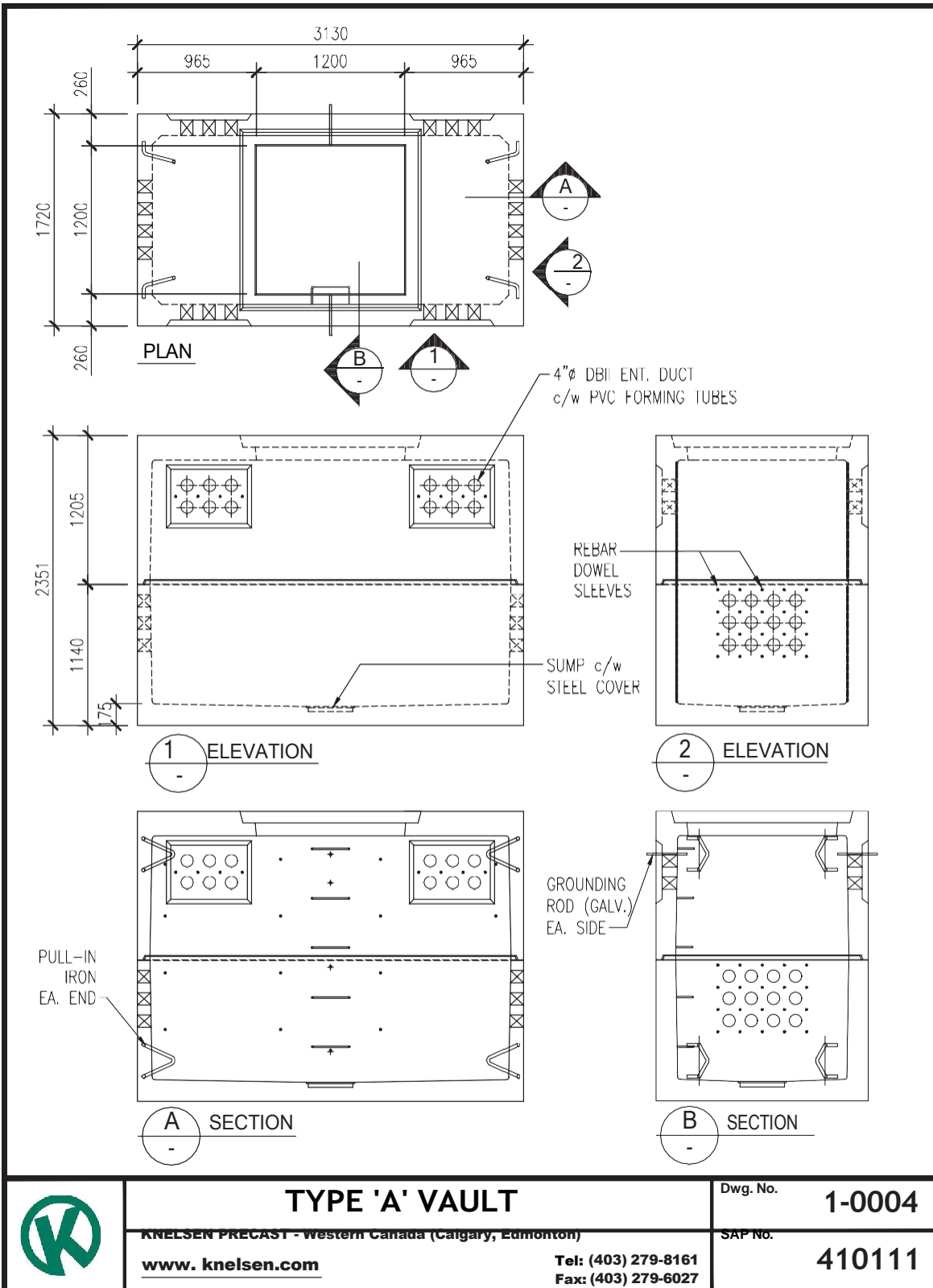
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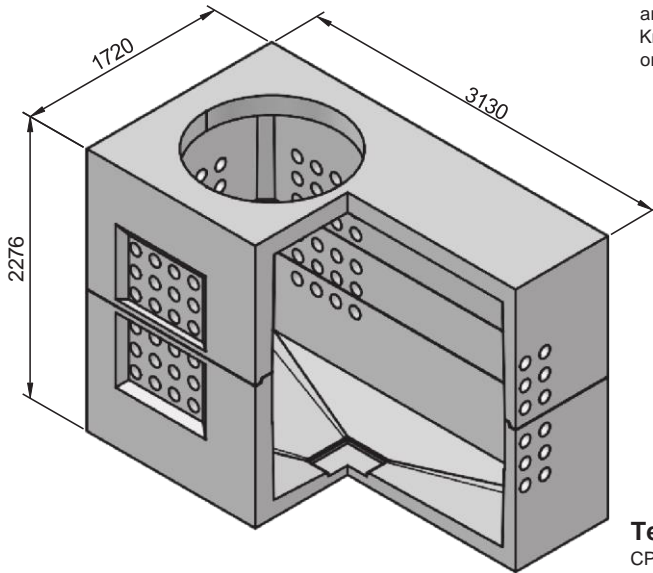
Dwg. No. **1-0004**

KNELSEN PRECAST - Western Canada (Calgary, Edmonton)
www.knelsen.com

Tel: (403) 279-8161
Fax: (403) 279-6027

SAP No. **410111**





Notes

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Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight (Vault only)	10,967 kg (24,127 lbs)
Load Rating	Pedestrian
Min Cover Depth	Call
Max Cover Depth	Call

Product Detail

Outside Dimension	1720 x 3130 x 2276
Inside Dimension	1400 x 2900 x 2000
Standard Duct Size	102 mm or 4" ID (DBII)
Racking Kit No.	1177
Wall Inserts	PD: 1/2" & LF: 3/4"
Pulling Irons	25 mm
Ground Rod	19 mm x 325 mm
Sump Cover	380 mm Steel Grate
Lift Mechanism	Aircraft Cable

Accessories (Extra)

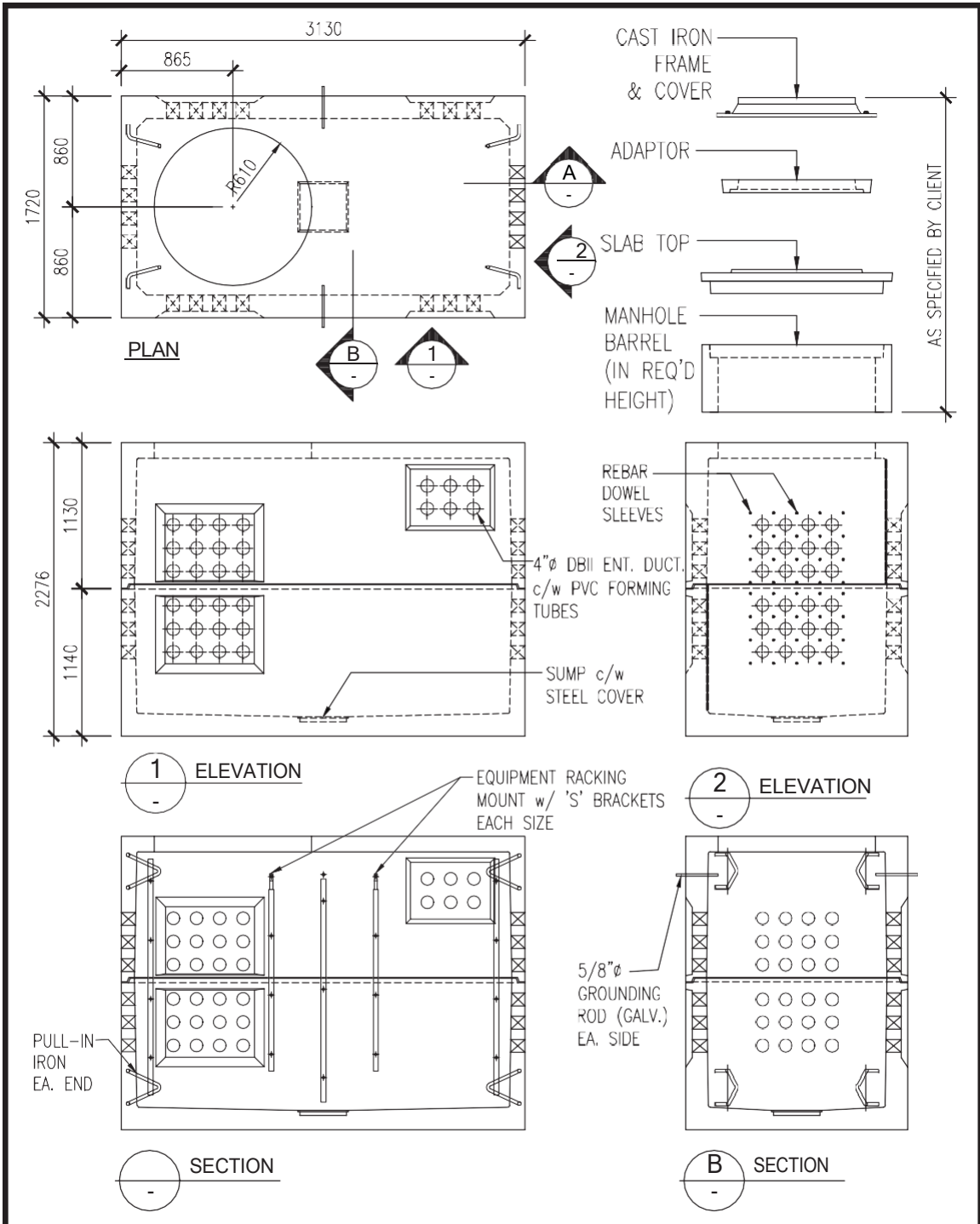
Neck Extension Kits	610mm, 710mm, 885mm
Lid & Frame	Cast Iron
Lid Reference	POW, TEL, Blank
Seal	RAM-NEK Gasket

Options (Extra)

Duct Sizes	5" or 6" ID (DBII)
Duct Location	As requested
Load Rating	CL-625

Revision Date **April. 01 2019**

	TYPE 'T' VAULT	Dwg. No. 1-0005
	KNELSEN PRECAST - Western Canada (Calgary, Edmonton) www.knelsen.com	SAP No. 405017 Tel: (403) 279-8161 Fax: (403) 279-6027



	<h3>TYPE 'T' VAULT</h3>	Dwg. No. 1-0005
	KNELSEN PRECAST - Western Canada (Calgary, Edmonton) www.knelsen.com	SAP No. 405017
	Tel: (403) 279-8161 Fax: (403) 279-6027	

Notes
 Site installation, backfilling and suitability for use are to be determined by others.
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Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight (Vault only)	10,967 kg (24,127 lbs)
Load Rating	Traffic CL-625
Min Cover Depth	0.6 Meter
Max Cover Depth	Call

Product Detail

Outside Dimension	1720 x 3130 x 2275
Inside Dimension	1400 x 2900 x 2000
Standard Duct Size	152 mm or 6" ID (DBII)
Pulling Irons	25 mm
Ground Rod	19 mm x 325 mm
Sump Cover	380 mm Steel Grate
Lift Mechanism	Aircraft Cable

Accessories (Extra)


Neck Extension Kits	610mm, 710mm, 885mm
Lid & Frame	Cast Iron
Lid Reference	POW, TEL, Blank
Seal	RAM-NEK Gasket

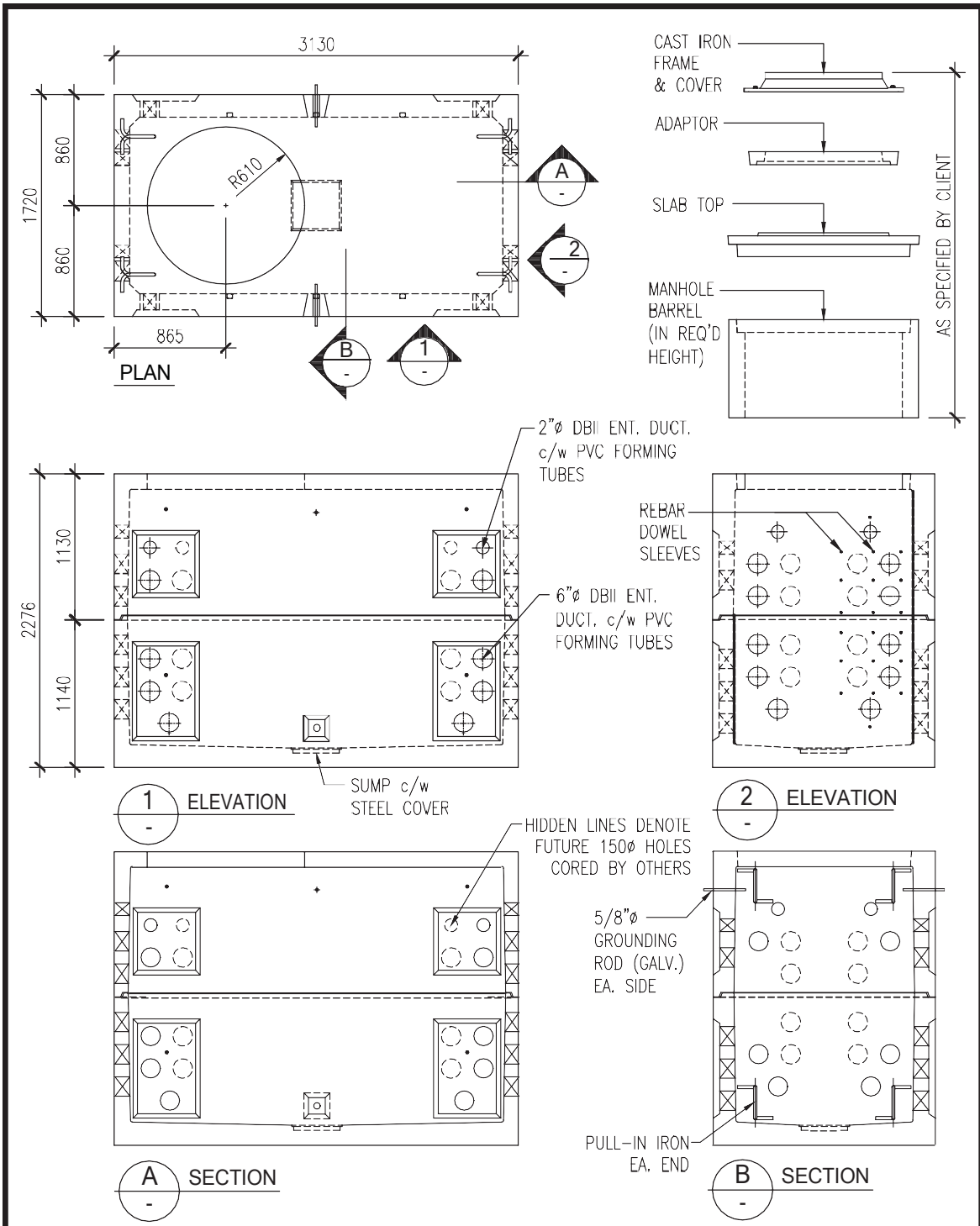
Options (Extra)

Duct Sizes	4" or 5" ID (DBII)
Duct Location	As requested
Load Rated	Pedestrian

Revision Date **April. 01 2019**

Denotes future 1500Ø holes created by others

	TYPE 'T' MANHOLE	Dwg. No. 1-0005
	KNELSEN PRECAST - Western Canada (Calgary, Edmonton)	SAP No.
	www.knelsen.com Tel: (403) 279-8161 Fax: (403) 279-6027	405018



TYPE 'T' MANHOLE

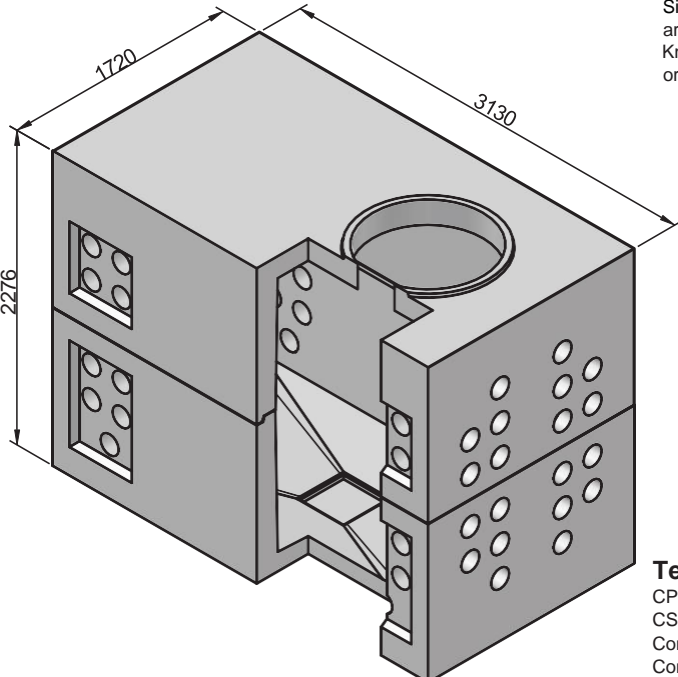
KNELSEN PRECAST - Western Canada (Calgary, Edmonton)

www.knelsen.com

Tel: (403) 279-8161
Fax: (403) 279-6027

Dwg. No. **1-0005**

SAP No. **405018**



Notes
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Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight (Vault only)	10,967 kg (24,127 lbs)
Load Rating	Pedestrian
Min. Cover Depth	
Max. Cover Depth	Call

Product Detail

Outside Dimension	1720 x 3130 x 2276
Inside Dimension	1400 x 2900 x 2000
Standard Duct Size	152 mm or 6" ID (DBII)
Wall Inserts	PD: 1/2" & LF: 3/4"
Pulling Irons	25 mm
Ground Rod	19 mm x 325 mm
Sump Cover	380 mm Steel Grate
Lift Mechanism	Aircraft Cable


Accessories (Extra)

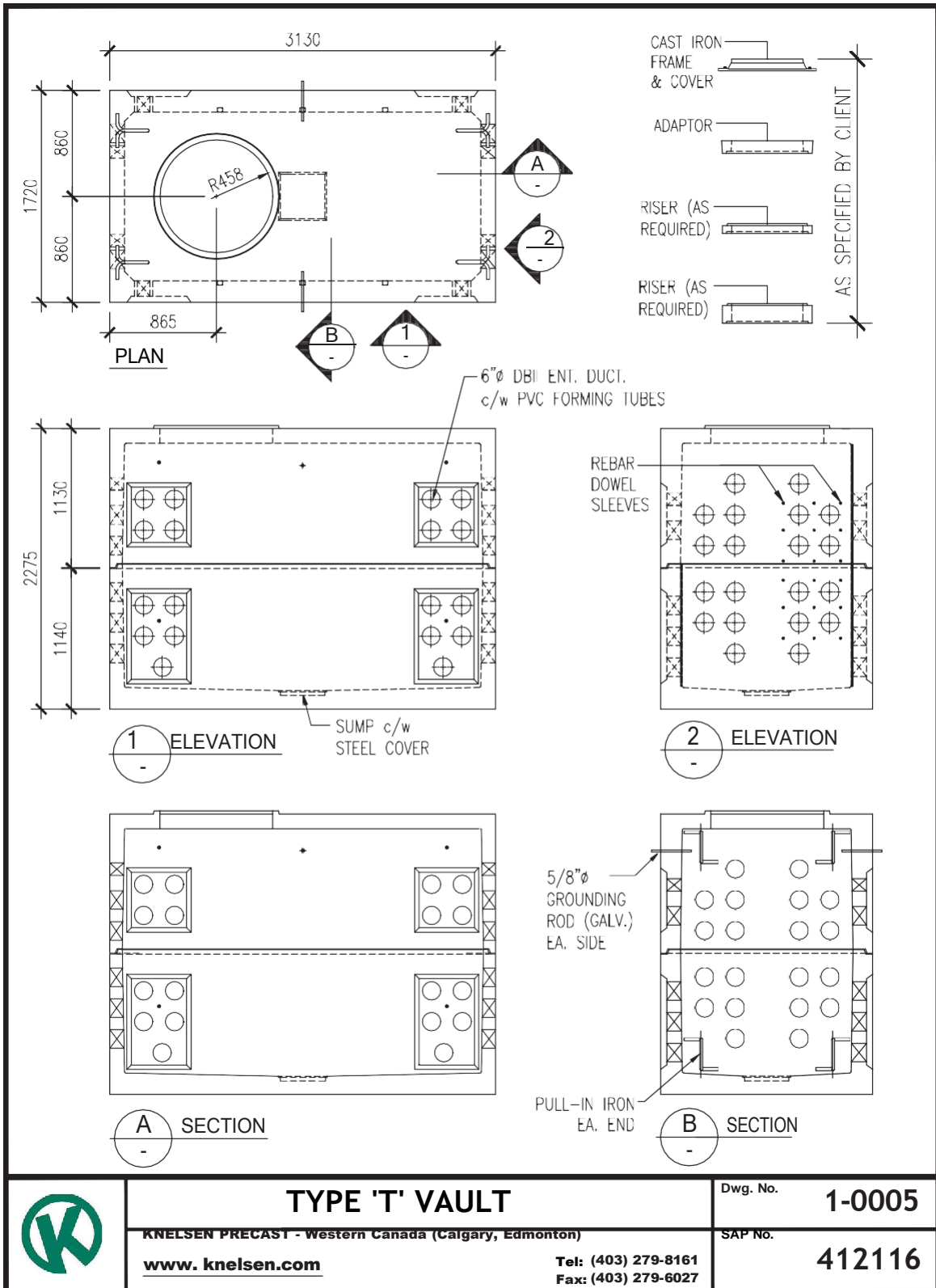
Neck Extension Kits	Please Call
Lid & Frame	Cast Iron
Lid Reference	POW, TEL, Blank
Seal	RAM-NEK Gasket

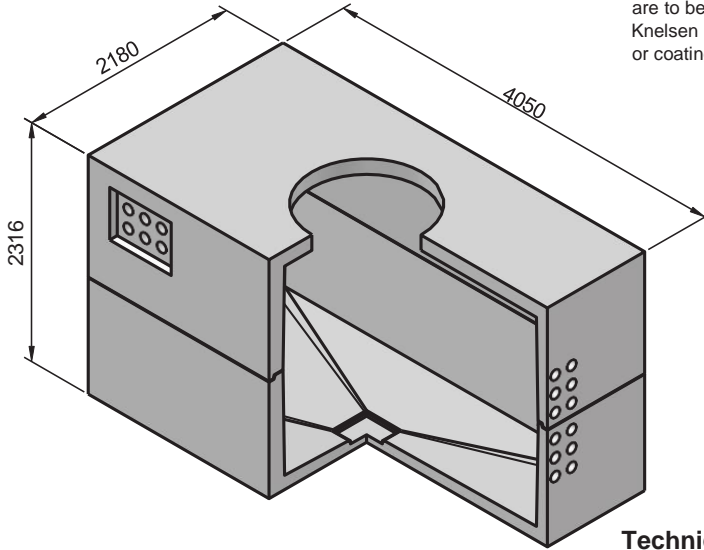
Options (Extra)

Duct Sizes	4" or 5" ID (DBII)
Duct Location	As requested
Load Rating	CL-625

Revision Date **April. 01 2019**

	TYPE 'T' VAULT	Dwg. No. 1-0005
	KNELSEN PRECAST - Western Canada (Calgary, Edmonton) www.knelsen.com Tel: (403) 279-8161 Fax: (403) 279-6027	SAP No. 412116





Notes

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Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight (Vault only)	15,753 kg (34,656 lbs)
Load Rating	Pedestrian
Min Cover Depth	Call
Max Cover Depth	Call

Product Detail

Outside Dimension	2180 x 4050 x 2316
Inside Dimension	1800 x 3800 x 2000
Standard Duct Size	102 mm or 4" ID (DBII)
Racking Kit No.	1178
Wall Inserts	PD: 1/2" & LF: 3/4"
Pulling Irons	25 mm
Ground Rod	19 mm x 325 mm
Sump Cover	380 mm Steel Grate
Lift Mechanism	Aircraft Cable


Accessories (Extra)

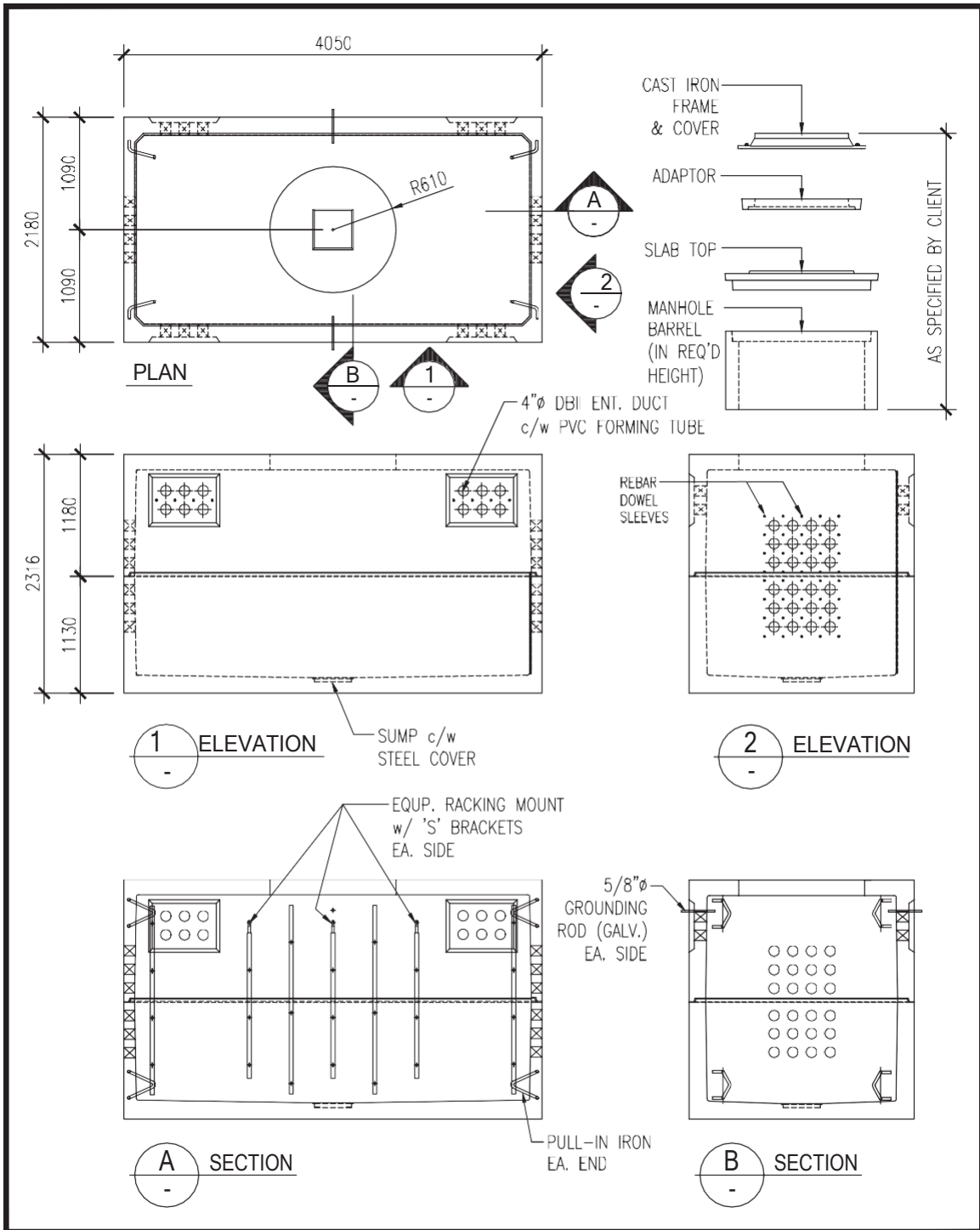
Neck Extension Kits	610mm, 710mm, 885mm
Lid & Frame	Cast Iron
Lid Reference	POW, TEL, Blank
Seal	RAM-NEK Gasket

Options (Extra)

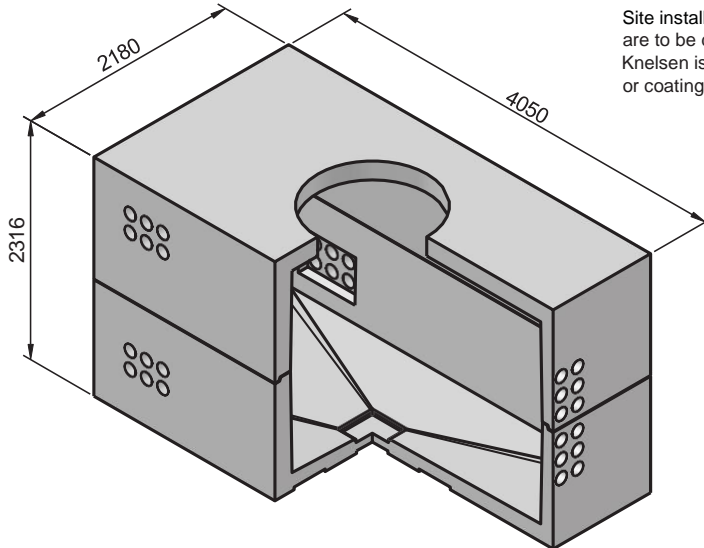
Duct Sizes	5" or 6" ID (DBII)
Duct Location	As requested
Load Rating	CL-625

Revision Date **April. 01 2019**

	TYPE 'A' VAULT	Dwg. No. 1-0006
	KNELSEN PRECAST - Western Canada (Calgary, Edmonton) www.knelsen.com	SAP No. 405019 Tel: (403) 279-8161 Fax: (403) 279-6027



	<h3>TYPE 'A' VAULT</h3>	Dwg. No. 1-0006
	KNELSEN PRECAST - Western Canada (Calgary, Edmonton) www.knelsen.com	SAP No. 405019
	Tel: (403) 279-8161 Fax: (403) 279-6027	



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Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight (Vault only)	15,753 kg (34,656 lbs)
Load Rating	Pedestrian
Min Cover Depth	Call
Max Cover Depth	Call

Product Detail

Outside Dimension	2180 x 4050 x 2316
Inside Dimension	1800 x 3800 x 2000
Standard Duct Size	102 mm or 4" ID (DBII)
Racking Kit No.	1178
Wall Inserts	PD: 1/2" & LF: 3/4"
Pulling Irons	25 mm
Ground Rod	19 mm x 325 mm
Sump Cover	380 mm Steel Grate
Lift Mechanism	Aircraft Cable


Accessories (Extra)

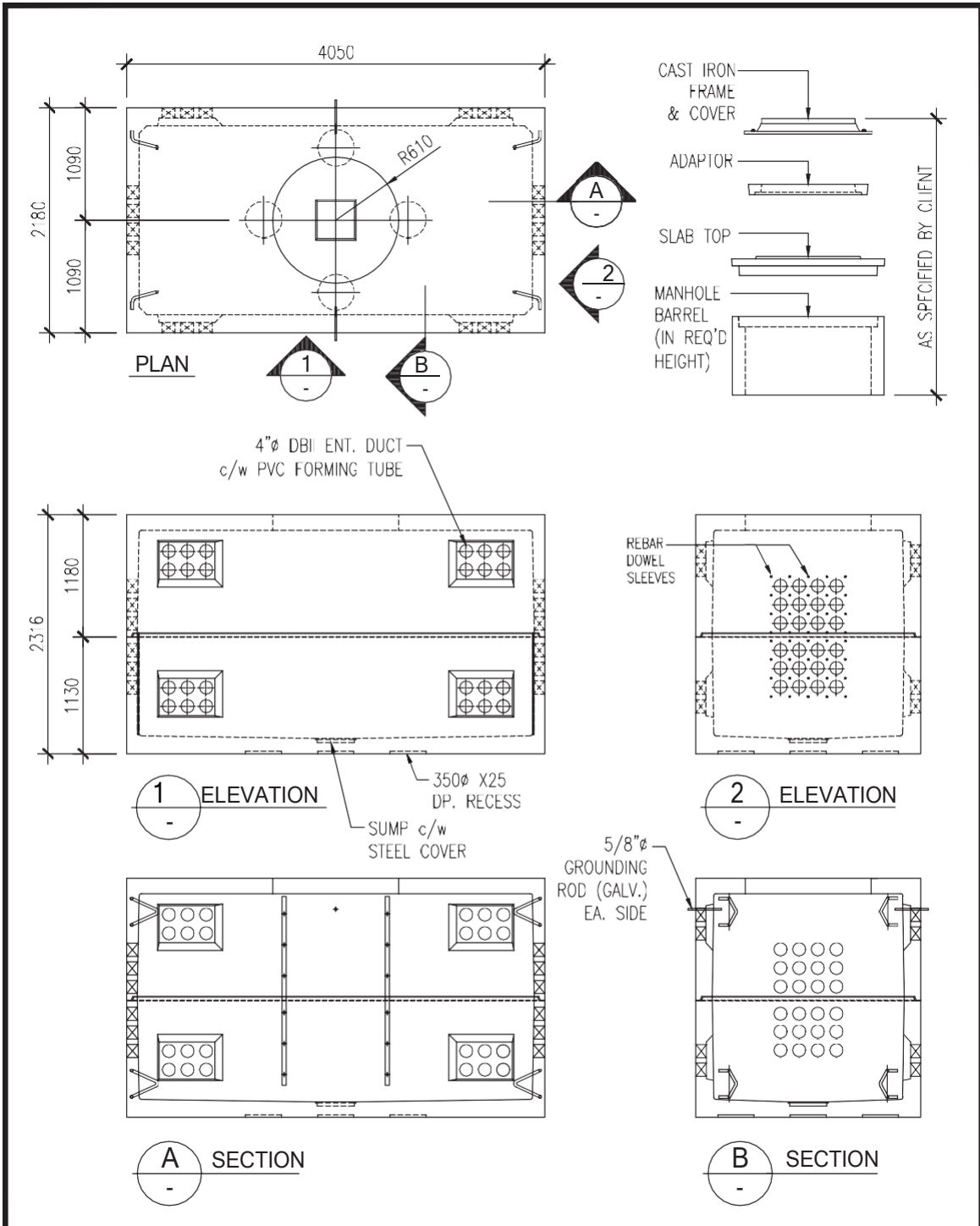
Neck Extension Kits	610mm, 710mm, 885mm
Lid & Frame	Cast Iron
Lid Reference	POW, TEL, Blank
Seal	RAM-NEK Gasket


Options (Extra)

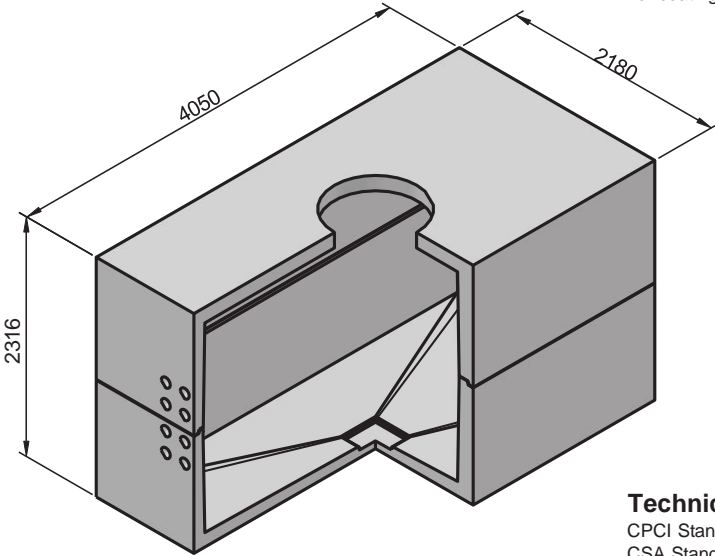
Duct Sizes	5" or 6" ID (DBII)
Duct Location	As requested
Load Rating	CL-625

Revision Date **April. 01 2019**

	TYPE 'A' VAULT	Dwg. No. 1-0006
	KNELSEN PRECAST - Western Canada (Calgary, Edmonton) www.knelsen.com	SAP No. 409545 Tel: (403) 279-8161 Fax: (403) 279-6027



	<h3>TYPE 'A' VAULT</h3>	Dwg. No.	1-0006	
	KNELSEN PRECAST - Western Canada (Calgary, Edmonton)		SAP No.	409545
	www.knelsen.com		Tel: (403) 279-8161 Fax: (403) 279-6027	



Notes

Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight (Vault only)	15,753 kg (34,656 lbs)
Load Rating	Pedestrian
Min. Cover Depth	Call
Max. Cover Depth	Call

Product Detail

Outside Dimension	2180 x 4050 x 2316
Inside Dimension	1800 x 3800 x 2000
Standard Duct Size	102 mm or 4" ID (DBII)
Wall Inserts	PD: 1/2" & LF: 3/4"
Pulling Irons	25 mm
Ground Rod	19 mm x 325 mm
Sump Cover	380 mm Steel Grate
Lift Mechanism	Aircraft Cable


Accessories(Extra)

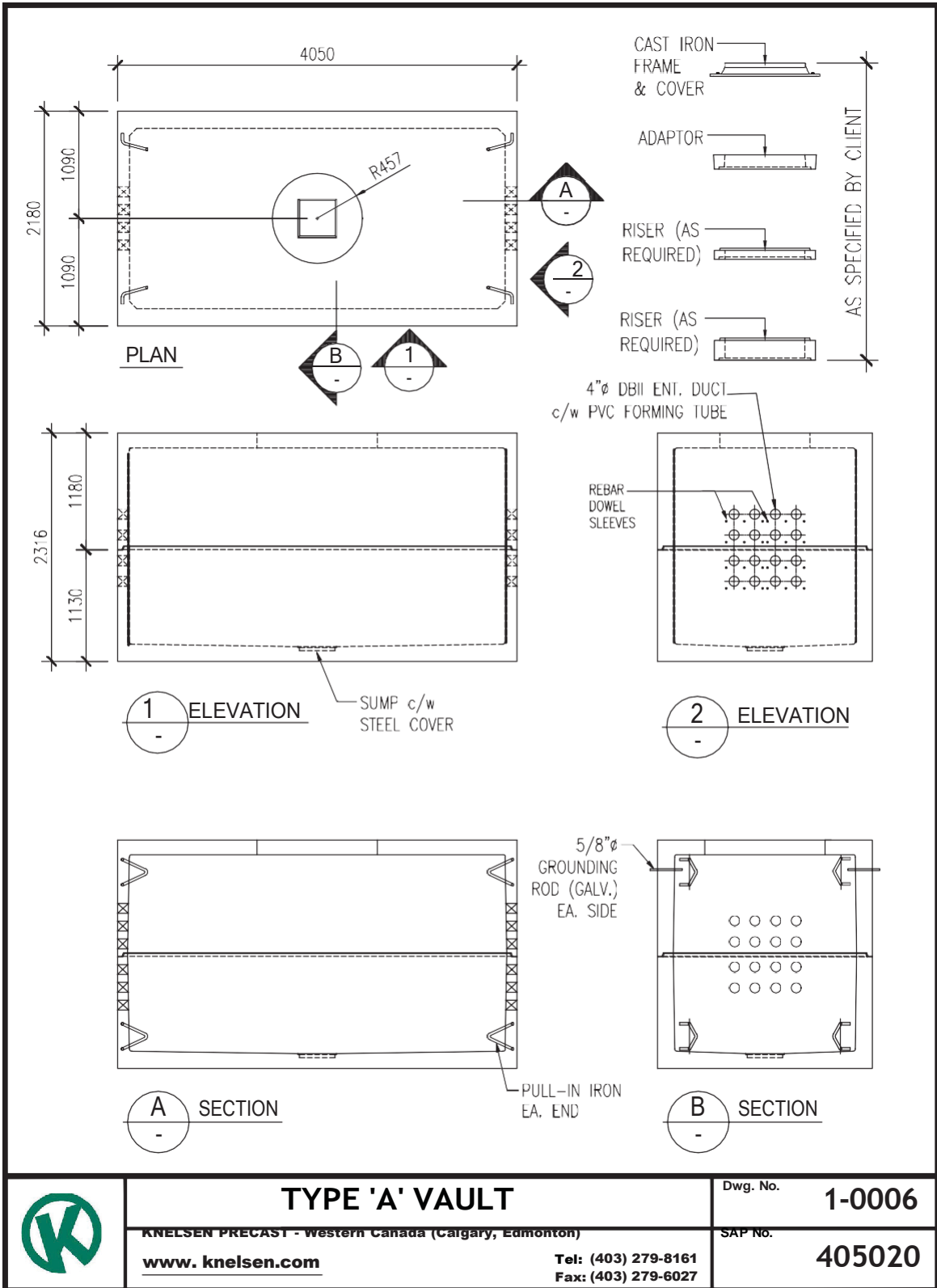
Neck Extension Kits	Please Call
Lid & Frame	Cast Iron
Lid Reference	POW, TEL, Blank
Seal	RAM-NEK Gasket

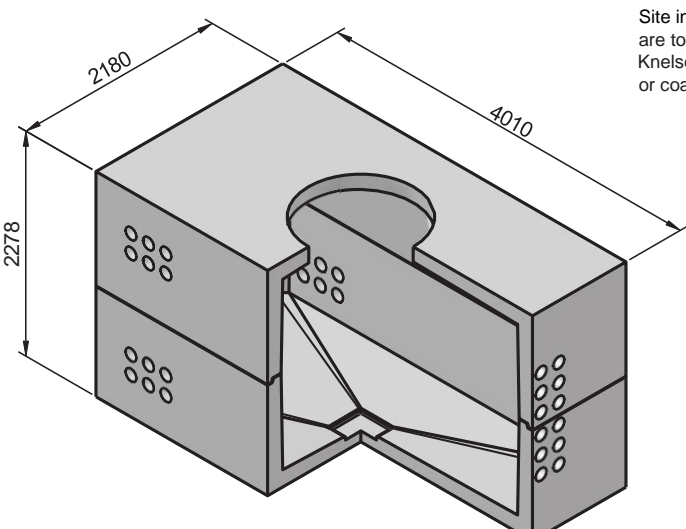
Options (Extra)

Duct Sizes	5" or 6" ID (DBII)
Duct Location	As requested
Load Rating	CL-625

Revision Date **April. 01 2019**

	TYPE 'A' VAULT	Dwg. No. 1-0006
	KNELSEN PRECAST - Western Canada (Calgary, Edmonton) www.knelsen.com	SAP No. 405020 Tel: (403) 279-8161 Fax: (403) 279-6027





Notes
 Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	GFRP
Weight (Vault only)	15,753 kg (34,656 lbs)
Load Rating	Traffic: CL-625
Min Cover Depth	0.6 Meter
Max Cover Depth	Call

Product Detail

Outside Dimension	2180 x 4010 x 2278
Inside Dimension	1800 x 3800 x 2000
Standard Duct Size	127 mm or 5" ID (DBII)
Racking Kit No.	105385
Wall Inserts	PD: 1/2" & LF: 3/4"
Pulling Irons	25 mm
Ground Rod	19 mm x 325 mm
Sump Cover	380 mm Steel Grate
Lift Mechanism	Aircraft Cable


Accessories (Extra)

Neck Extension Kits	610mm, 710mm, 885mm
Lid & Frame	Cast Iron
Lid Reference	POW, TEL, Blank
Seal	RAM-NEK Gasket

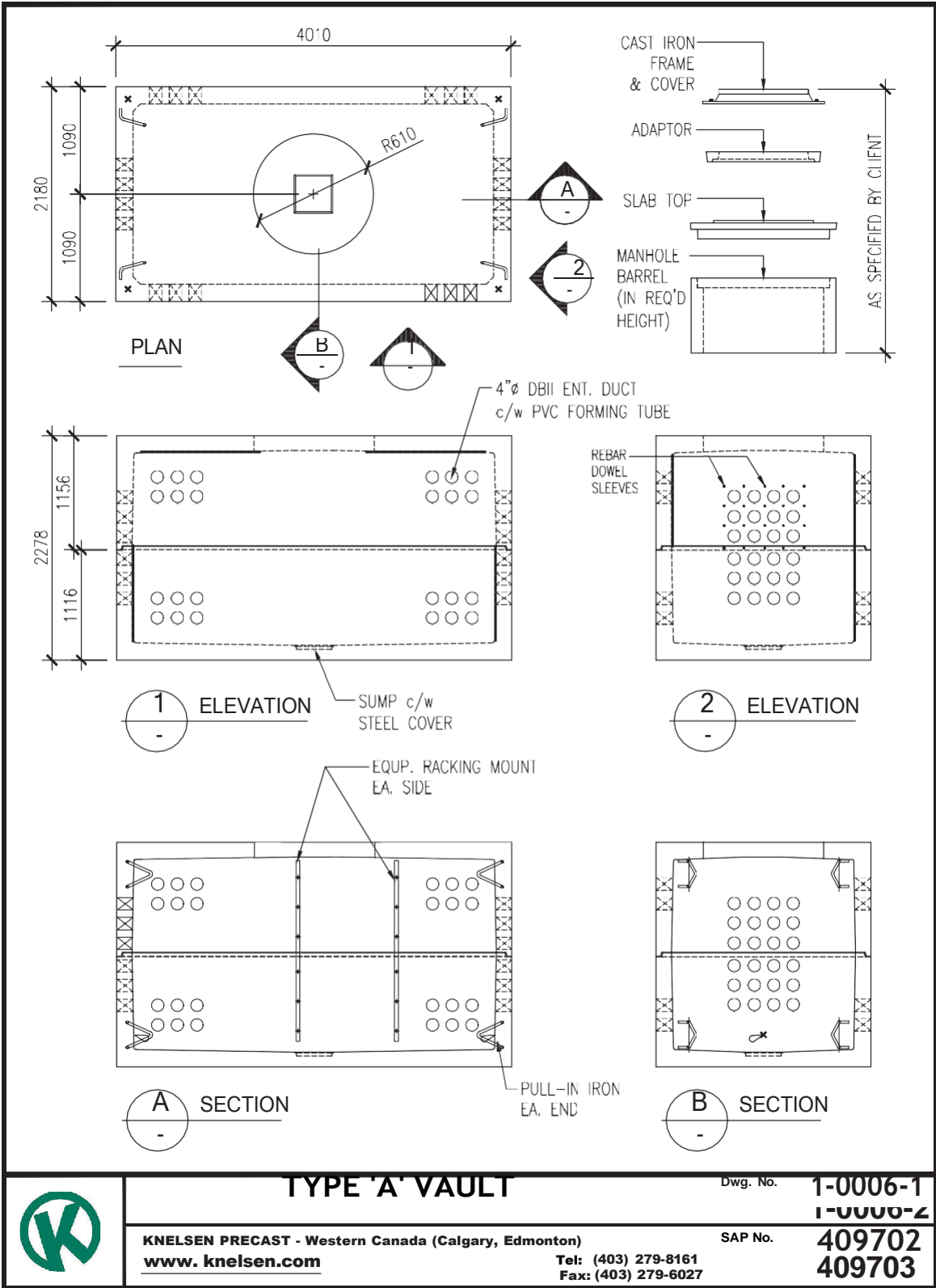
Options (Extra)

Duct Sizes	4" or 6" ID (DBII)
Duct Location	As requested
Load Rated	Pedestrian

Revision Date **April. 01 2019**

	TYPE 'A' VAULT	Dwg. No. 1-0006-1
	KNELSEN PRECAST - Western Canada (Calgary, Edmonton) www.knelsen.com	SAP No. 409702 409703

Tel: (403) 279-8161
 Fax: (403) 279-6027



Notes
 Site installation, backfilling and suitability for use are to be determined by others.
 Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail	
CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight (Vault only)	15,753 kg (34,656 lbs)
Load Rating	Pedestrian
Min Cover Depth	Call
Max Cover Depth	Call
Product Detail	
Outside Dimension	2180 x 4050 x 2316
Inside Dimension	1800 x 3800 x 2000
Standard Duct Size	102 mm or 4" ID (DBII)
Racking Kit No.	1179
Wall Inserts	PD: 1/2" & LF: 3/4"
Pulling Irons	25 mm
Ground Rod	19 mm x 325 mm
Sump Cover	380 mm Steel Grate
Lift Mechanism	Aircraft Cable
Accessories (Extra)	
Neck Extension Kits	610mm, 710mm, 885mm
Lid & Frame	Cast Iron
Lid Reference	POW, TEL, Blank
Seal	RAM-NEK Gasket
Options (Extra)	
Duct Sizes	5" or 6" ID (DBII)
Duct Location	As requested
Load Rating	CL-625
Revision Date	April. 01 2019

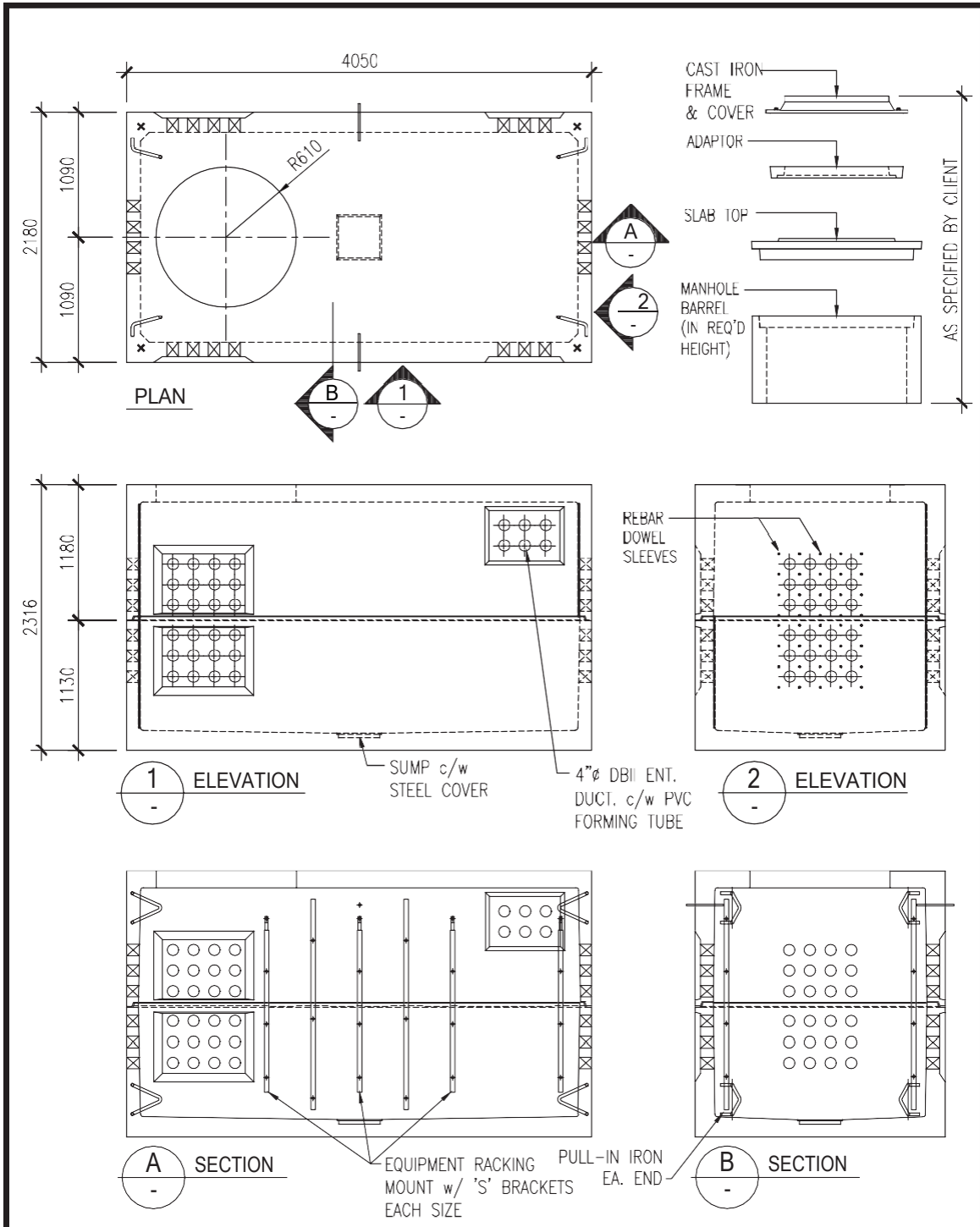
TYPE 'T' VAULT

KNELSEN PRECAST - Western Canada (Calgary, Edmonton)
www.knelsen.com

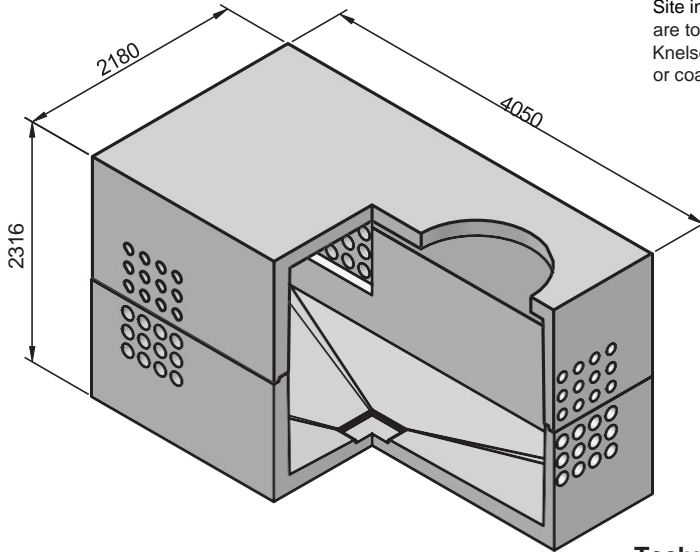
Tel: (403) 279-8161
 Fax: (403) 279-6027

Dwg. No. **1-0007**

SAP No. **405021**



	<h3>TYPE 'T' VAULT</h3>	Dwg. No. 1-0007
	KNELSEN PRECAST - Western Canada (Calgary, Edmonton)	SAP No. 405021
	www.knelsen.com	Tel: (403) 279-8161 Fax: (403) 279-6027



Notes

Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight (Vault only)	15,753 kg (34,656 lbs)
Load Rating	Traffic CL-625
Min Cover Depth	0.6 Meter
Max Cover Depth	Call

Product Detail

Outside Dimension	2180 x 4050 x 2316
Inside Dimension	1800 x 3800 x 2000
Standard Duct Size	Top: 102 mm or 4" ID (DBII) Bot: 127 mm or 5" ID (DBII)
Wall Inserts	PD: 1/2" & LF: 3/4"
Pulling Irons	25 mm
Ground Rod	19 mm x 325 mm
Sump Cover	380 mm Steel Grate
Lift Mechanism	Aircraft Cable

Accessories (Extra)

Neck Extension Kits	610mm, 710mm, 885mm
Lid & Frame	Cast Iron
Lid Reference	POW, TEL, Blank
Seal	RAM-NEK Gasket

Options (Extra)

Duct Sizes	4", 5" or 6" ID (DBII)
Duct Location	As requested
Load Rated	Pedestrian

Revision Date

April. 01 2019



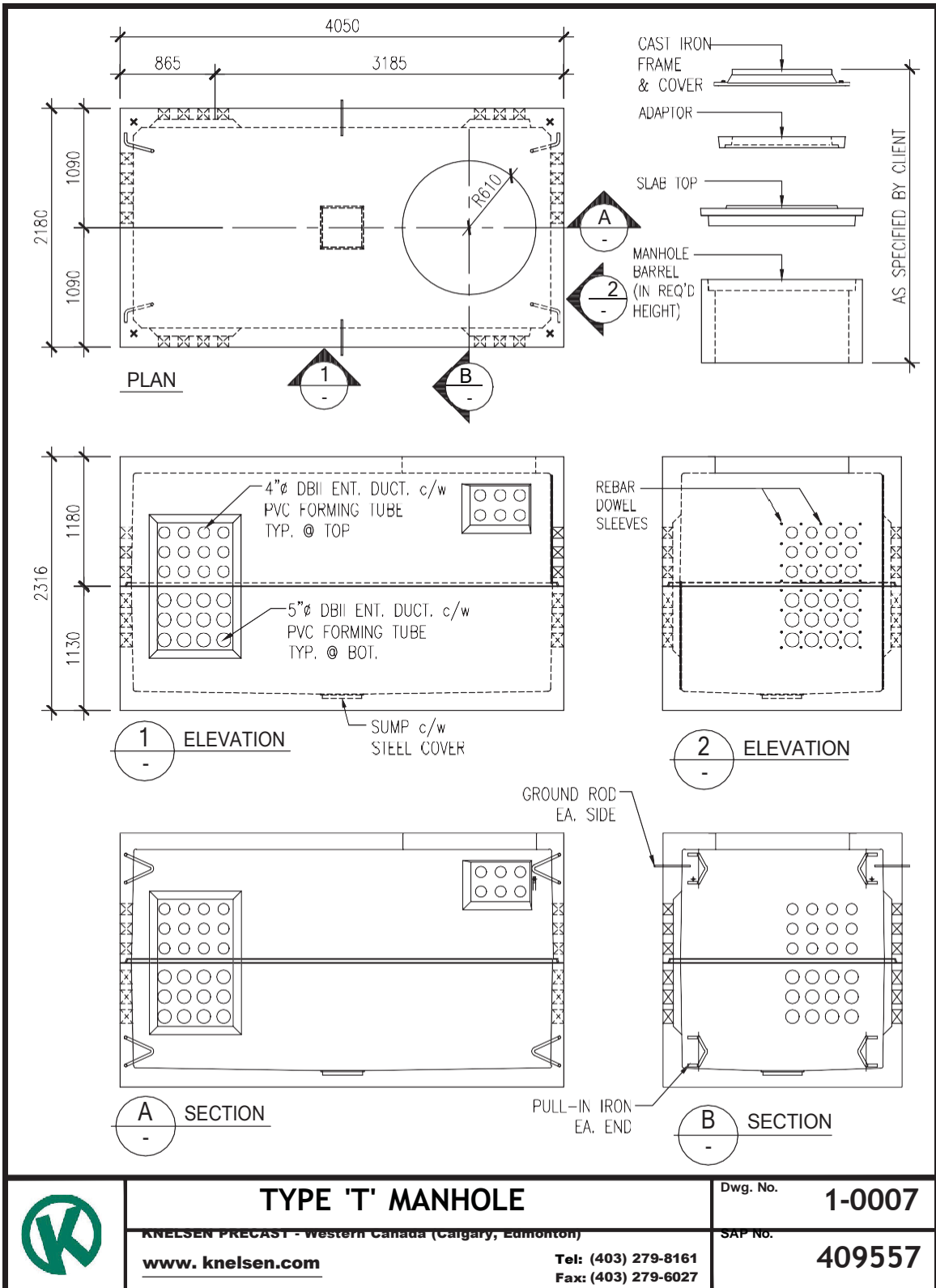
TYPE 'T' MANHOLE

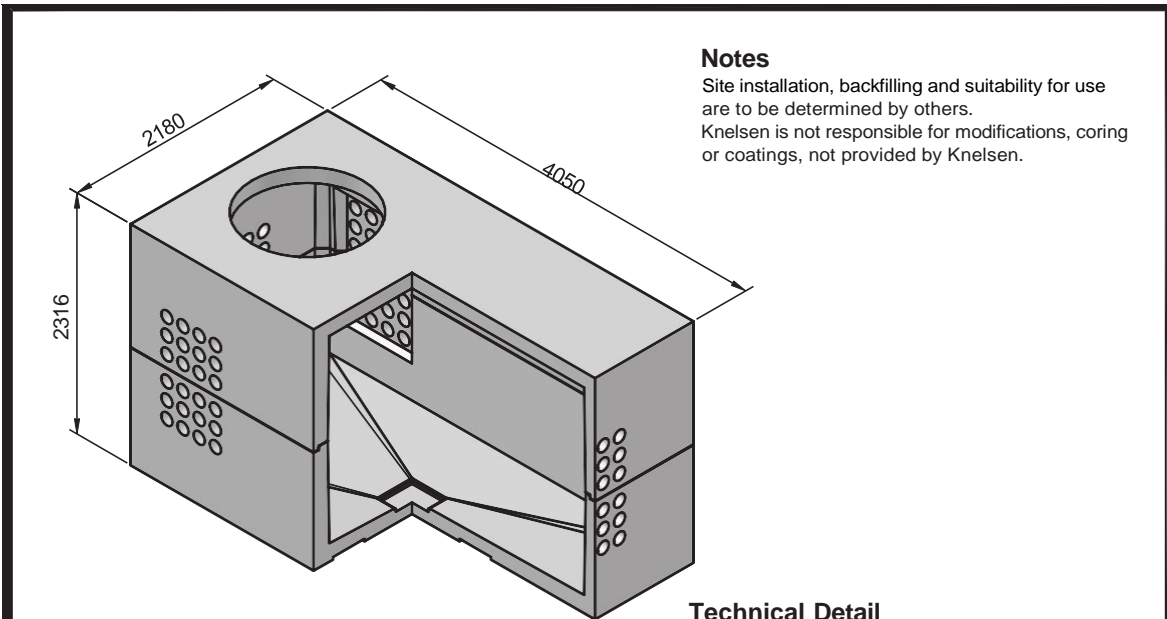
Dwg. No. **1-0007**

KNELSEN PRECAST - Western Canada (Calgary, Edmonton)
www.knelsen.com

SAP No. **409557**

Tel: (403) 279-8161
Fax: (403) 279-6027





Notes

Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	GFRP
Weight (Vault only)	15,753 kg (34,656 lbs)
Load Rating	Traffic CL-625
Min Cover Depth	0.6 Meter
Max Cover Depth	Call

Product Detail

Outside Dimension	2180 x 4050 x 2316
Inside Dimension	1800 x 3800 x 2000
Standard Duct Size	127 mm or 5" ID (DBII)
Racking Kit No.	105385
Wall Inserts	PD: 1/2" & LF: 3/4"
Pulling Irons	25 mm
Ground Rod	19 mm x 325 mm
Sump Cover	380 mm Steel Grate
Lift Mechanism	Aircraft Cable


Accessories (Extra)

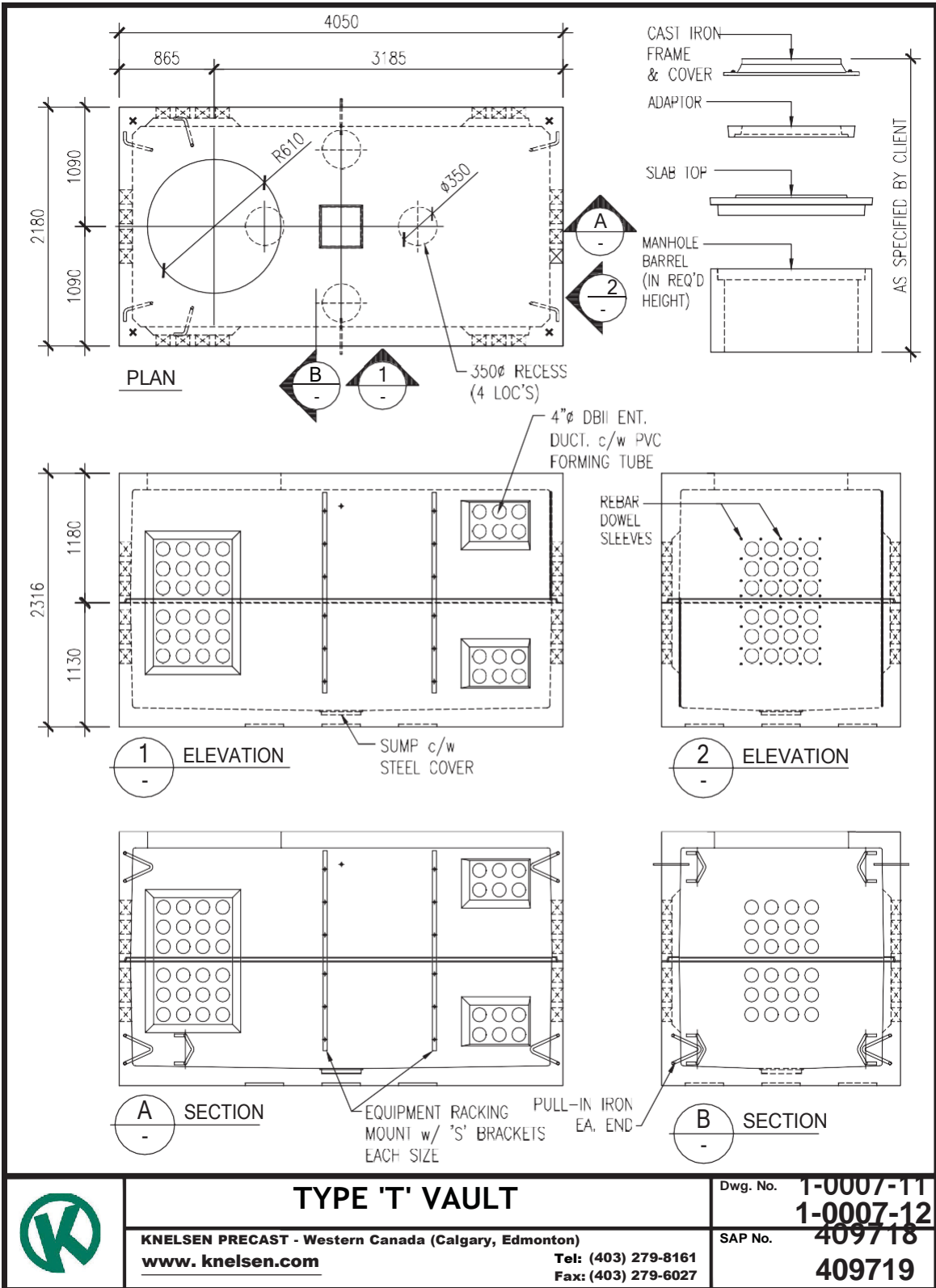
Neck Extension Kits	610mm, 710mm, 885mm
Lid & Frame	Cast Iron
Lid Reference	POW, TEL, Blank
Seal	RAM-NEK Gasket

Options (Extra)

Duct Sizes	4" or 6" ID (DBII)
Duct Location	As requested
Load Rated	Pedestrian

Revision Date **April. 01 2019**

	TYPE 'T' VAULT	Dwg. No. 1-0007-11
	KNELSEN PRECAST - Western Canada (Calgary, Edmonton) www.knelsen.com	SAP No. 409719 Tel: (403) 279-8161 Fax: (403) 279-6027



Notes
 Site installation, backfilling and suitability for use are to be determined by others.
 Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight (Vault only)	18,980 kg (41,756 lbs)
Load Rating	Traffic CL-625
Min. Cover Depth	0.6 Meter
Max. Cover Depth	Call

Product Detail

Outside Dimension	2800 x 4040 x 2374
Inside Dimension	2450 x 3800 x 2000
Standard Duct Size	152 mm or 6" ID (DBII)
Pulling Irons	25 mm
Ground Rod	19mm x 325mm
Sump Cover	380 mm Steel Grate
Lift Mechanism	Aircraft Cable

Accessories (Extra)

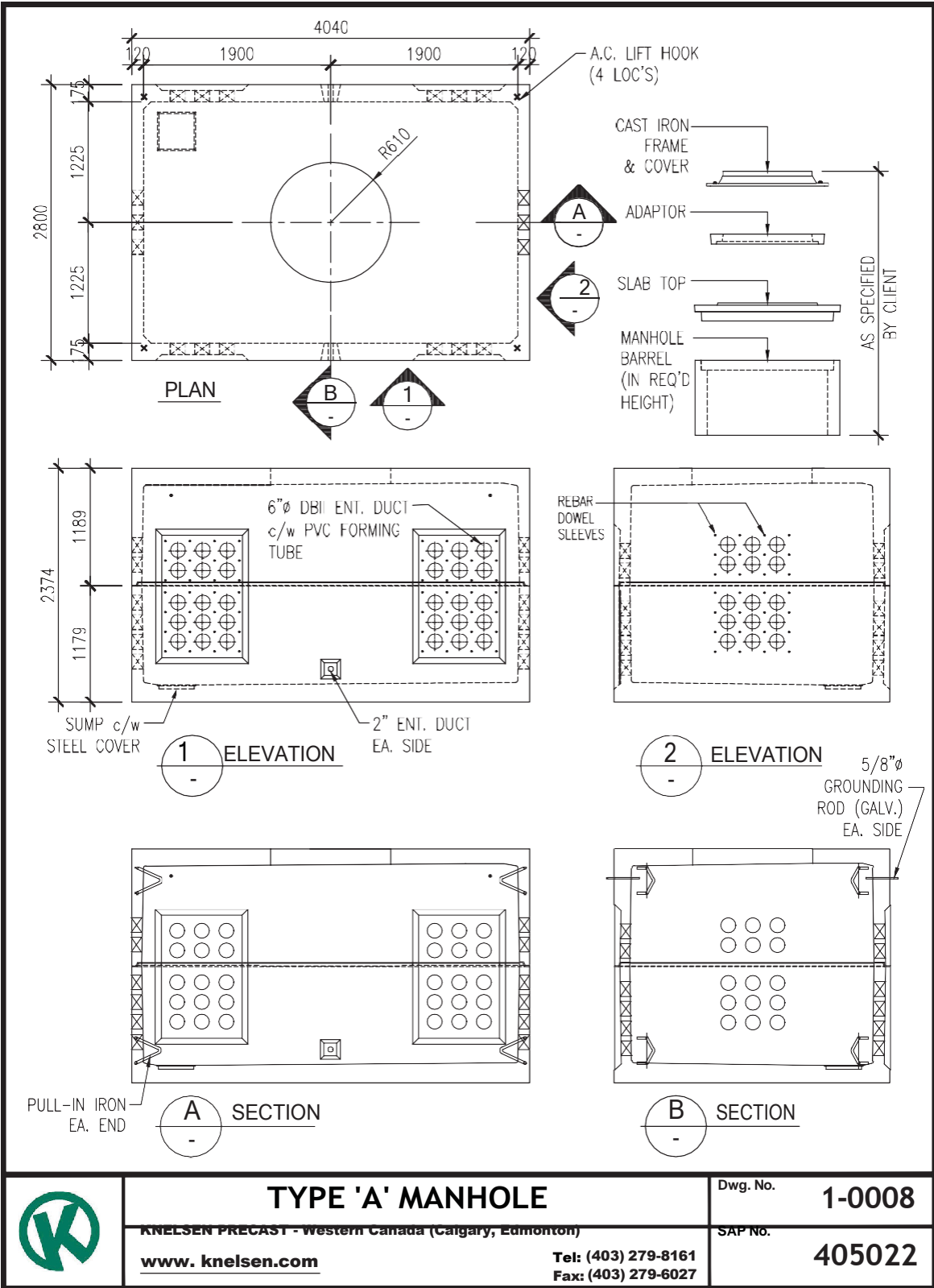
Neck Extension Kits	610mm, 710mm, 885mm
Lid & Frame	Cast Iron
Lid Reference	POW, TEL, Blank
Seal	RAM-NEK Gasket

Options (Extra)

Duct Sizes	4" or 5" ID (DBII)
Duct Location	As requested
Load Rated	Pedestrian

Revision Date **April. 01 2019**

	TYPE 'A' MANHOLE	Dwg. No. 1-0008
	KNELSEN PRECAST - Western Canada (Calgary, Edmonton) www.knelsen.com	SAP No. 405022 Tel: (403) 279-8161 Fax: (403) 279-6027



	<h3>TYPE 'A' MANHOLE</h3>	Dwg. No. 1-0008
	KNELSEN PRECAST - Western Canada (Calgary, Edmonton) www.knelsen.com	SAP No. 405022 Tel: (403) 279-8161 Fax: (403) 279-6027

Notes
 Site installation, backfilling and suitability for use are to be determined by others.
 Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant
	S2 Exposure
Reinforcement	Grade 400
Weight (Vault only)	18,980 kg (41,756 lbs)
Load Rating	Traffic CL-625
Min. Cover Depth	0.6 Meter
Max. Cover Depth	Call

Product Detail

Outside Dimension	2800 x 4040 x 2374
Inside Dimension	2450 x 3800 x 2000
Standard Duct Size	152 mm or 6" ID (DBII)
Pulling Irons	25 mm
Ground Rod	19mm x 325mm
Sump Cover	380 mm Steel Grate
Lift Mechanism	Aircraft Cable


Accessories (Extra)

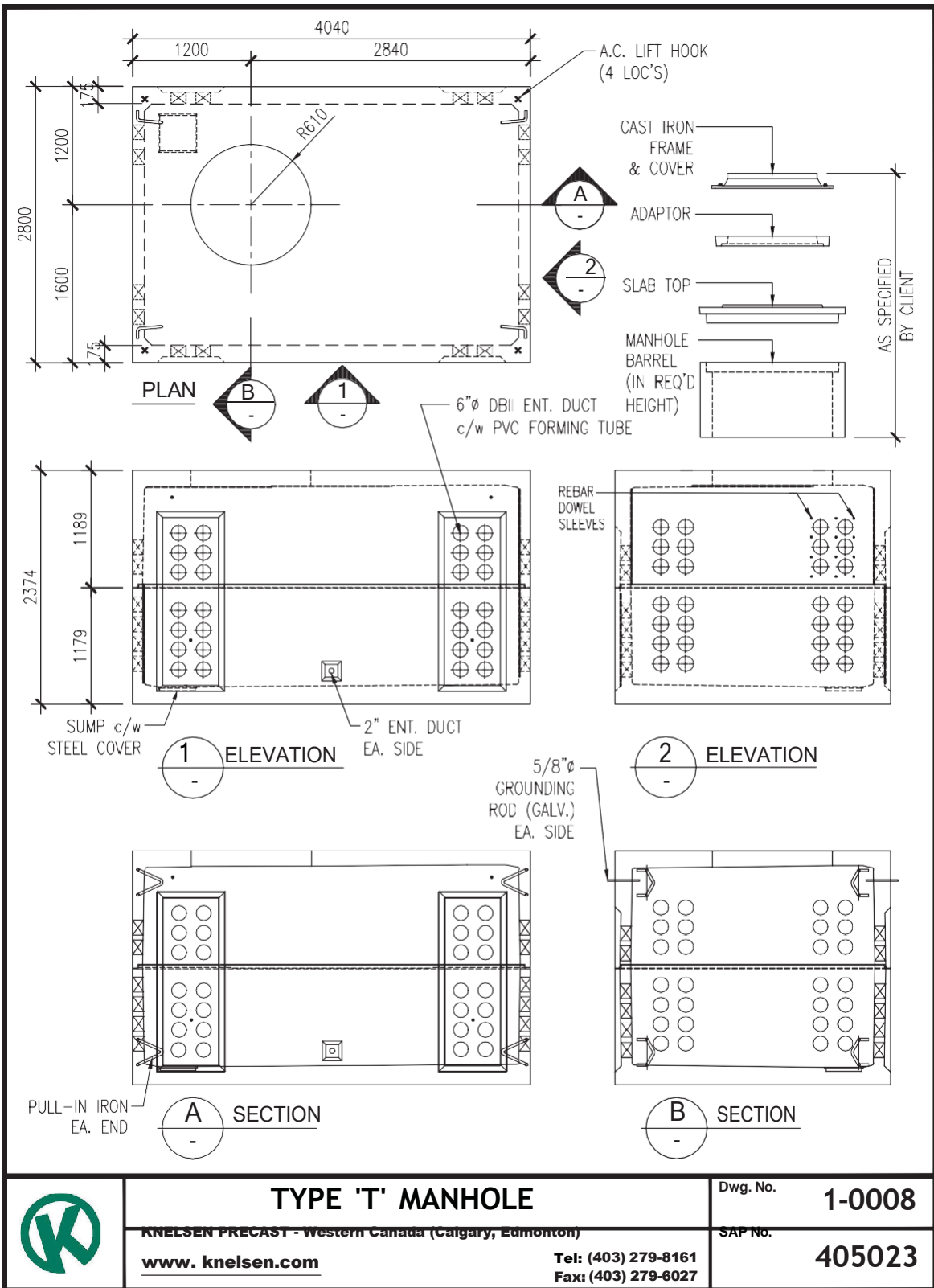
Neck Extension Kits	610mm, 710mm, 885mm
Lid & Frame	Cast Iron
Lid Reference	POW, TEL, Blank
Seal	RAM-NEK Gasket

Options (Extra)

Duct Sizes	4" or 5" ID (DBII)
Duct Location	As requested
Load Rated	Pedestrian

Revision Date **April. 01 2019**

	TYPE 'T' MANHOLE	Dwg. No. 1-0008
	KNELSEN PRECAST - Western Canada (Calgary, Edmonton) www.knelsen.com	Tel: (403) 279-8161 Fax: (403) 279-6027



TYPE 'T' MANHOLE

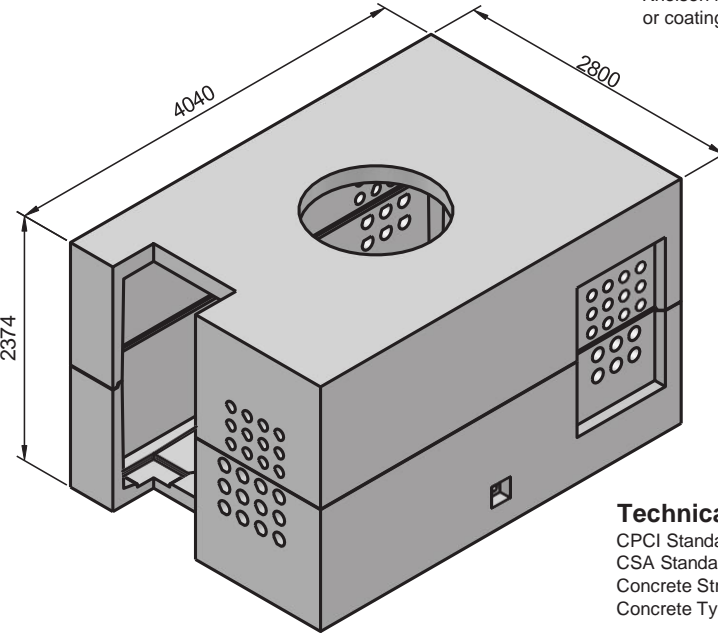
KNELSEN PRECAST - Western Canada (Calgary, Edmonton)

www.knelsen.com

Tel: (403) 279-8161
Fax: (403) 279-6027

Dwg. No. **1-0008**

SAP No. **405023**



Notes
 Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight (Vault only)	19,680 kg (43,296 lbs)
Load Rating	Traffic CL-625
Min Cover Depth	0.6 Meter
Max Cover Depth	Call

Product Detail

Outside Dimension	2800 x 4040 x 2374
Inside Dimension	2450 x 3800 x 2000
Standard Duct Size	Top: 102 mm or 4" ID (DBII) Bot: 127 mm or 5" ID (DBII)
Pulling Irons	25 mm
Ground Rod	19 mm x 325 mm
Sump Cover	380 mm Steel Grate
Lift Mechanism	Aircraft Cable


Accessories (Extra)

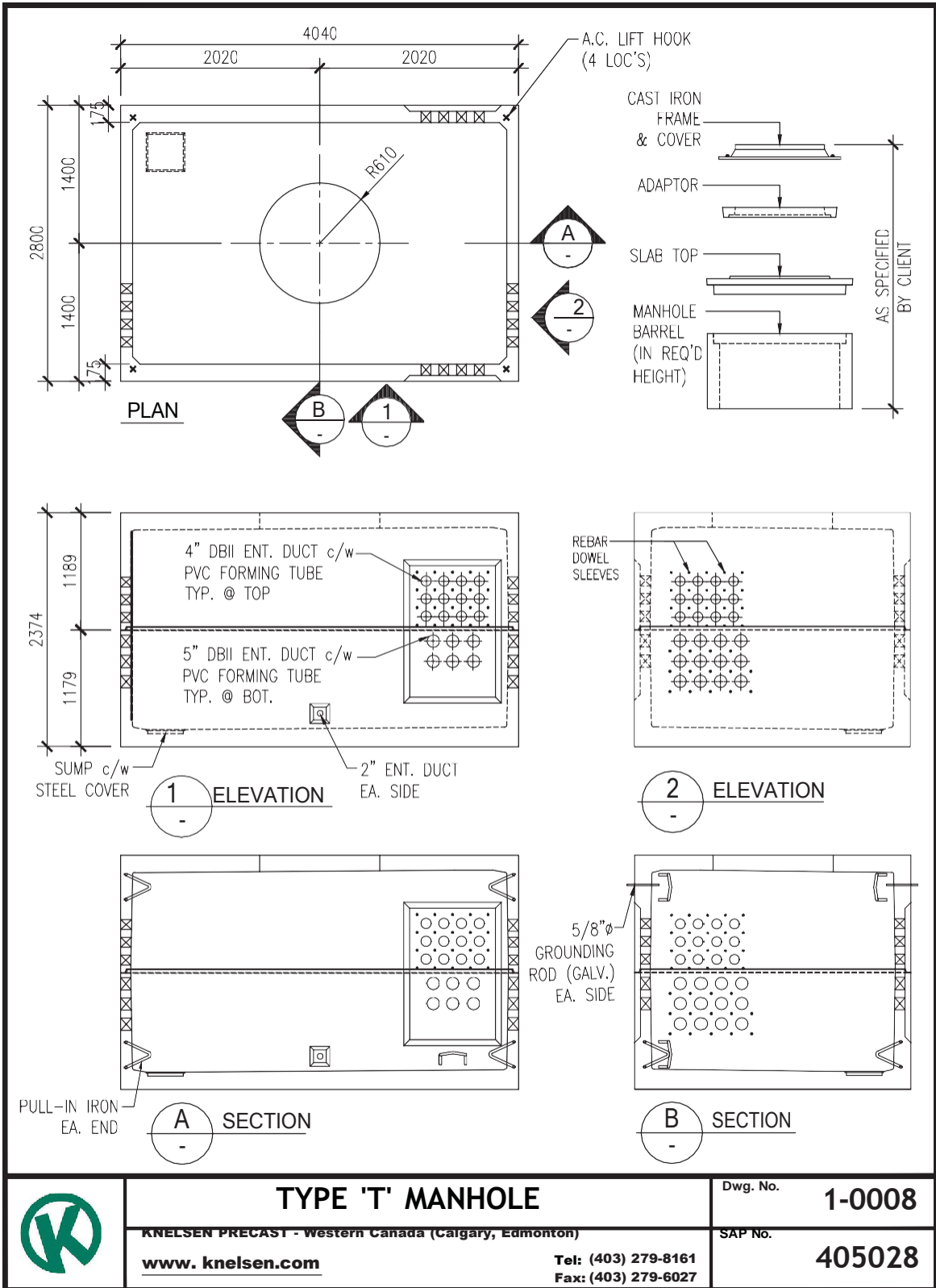
Neck Extension Kits	610mm, 710mm, 885mm
Lid & Frame	Cast Iron
Lid Reference	POW, TEL, Blank
Seal	RAM-NEK Gasket

Options (Extra)

Duct Sizes	4", 5" or 6" ID (DBII)
Duct Location	As requested
Load Rated	Pedestrian

Revision Date **April. 01 2019**

	TYPE 'T' MANHOLE	Dwg. No. 1-0008
	KNELSEN PRECAST - Western Canada (Calgary, Edmonton) www.knelsen.com	SAP No. 405028 Tel: (403) 279-8161 Fax: (403) 279-6027



Notes
 Site installation, backfilling and suitability for use are to be determined by others.
 Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight (Vault only)	19,680 kg (43,296 lbs)
Load Rating	Traffic CL-625
Min Cover Depth	0.6 Meter
Max Cover Depth	Call

Product Detail

Outside Dimension	2800 x 4040 x 2374
Inside Dimension	2450 x 3800 x 2000
Standard Duct Size	Top: 102 mm or 4" ID (DBII) Bot: 127 mm or 5" ID (DBII)
Pulling Irons	25 mm
Ground Rod	19 mm x 325 mm
Sump Cover	380 mm Steel Grate
Lift Mechanism	Aircraft Cable


Accessories (Extra)

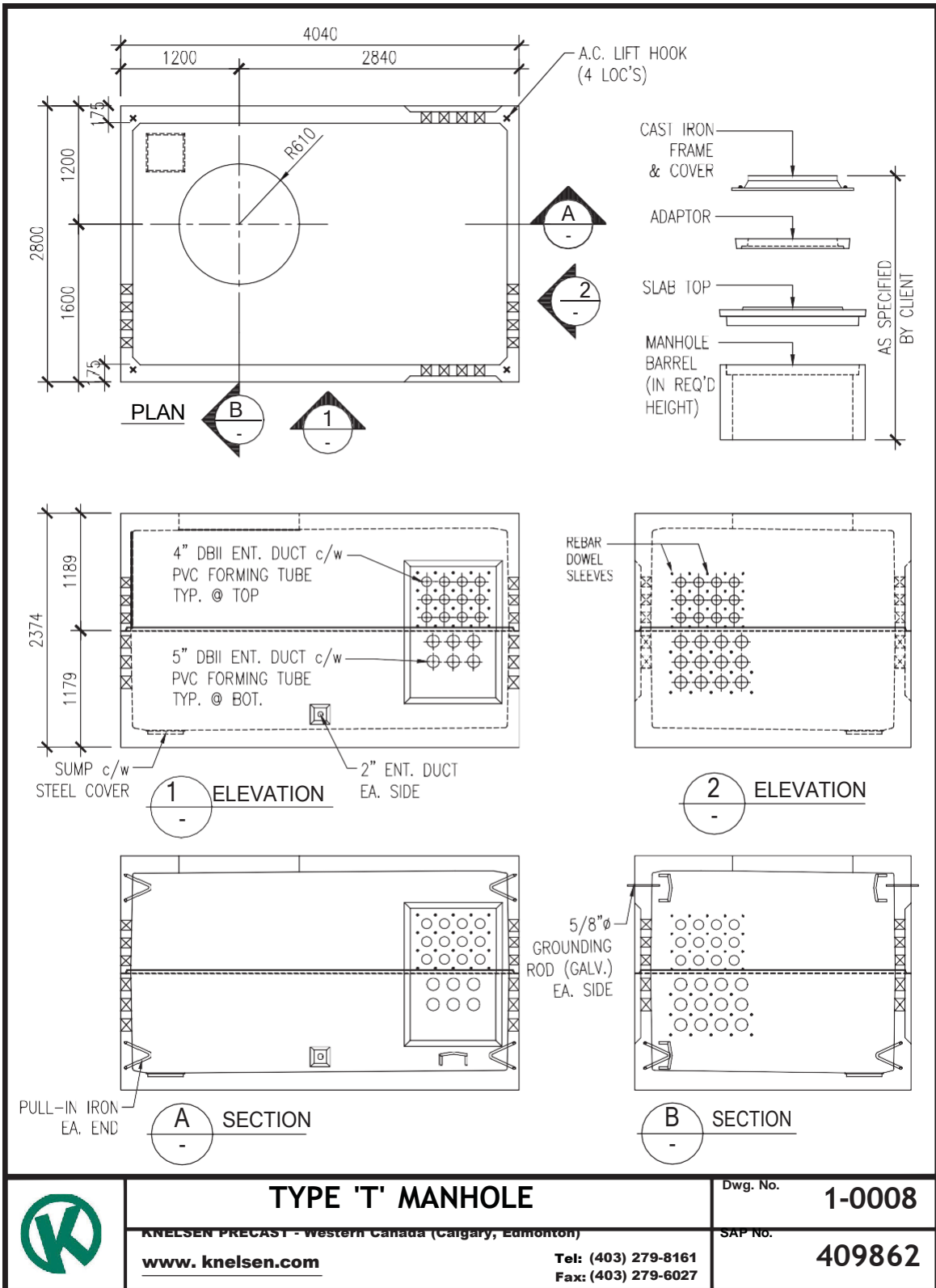
Neck Extension Kits	610mm, 710mm, 885mm
Lid & Frame	Cast Iron
Lid Reference	POW, TEL, Blank
Seal	RAM-NEK Gasket

Options (Extra)

Duct Sizes	4", 5" or 6" ID (DBII)
Duct Location	As requested
Load Rated	Pedestrian

Revision Date **April. 01 2019**

	TYPE 'T' MANHOLE	Dwg. No. 1-0008
	KNELSEN PRECAST - Western Canada (Calgary, Edmonton) www.knelsen.com	SAP No. 409862 Tel: (403) 279-8161 Fax: (403) 279-6027



Notes
 Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen .

Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight (Vault only)	19,680 kg (43,296 lbs)
Load Rating	Traffic CL-625
Min. Cover Depth	0.6 Meter
Max. Cover Depth	Call

Product Detail

Outside Dimension	2800 x 4040 x 2374
Inside Dimension	2450 x 3800 x 2000
Standard Duct Size	102 mm or 4" ID (DBII)
Pulling Iron	25 mm
Sump Cover	380 mm Steel Grate
Lift Mechanism	Aircraft Cable

Accessories (Extra)

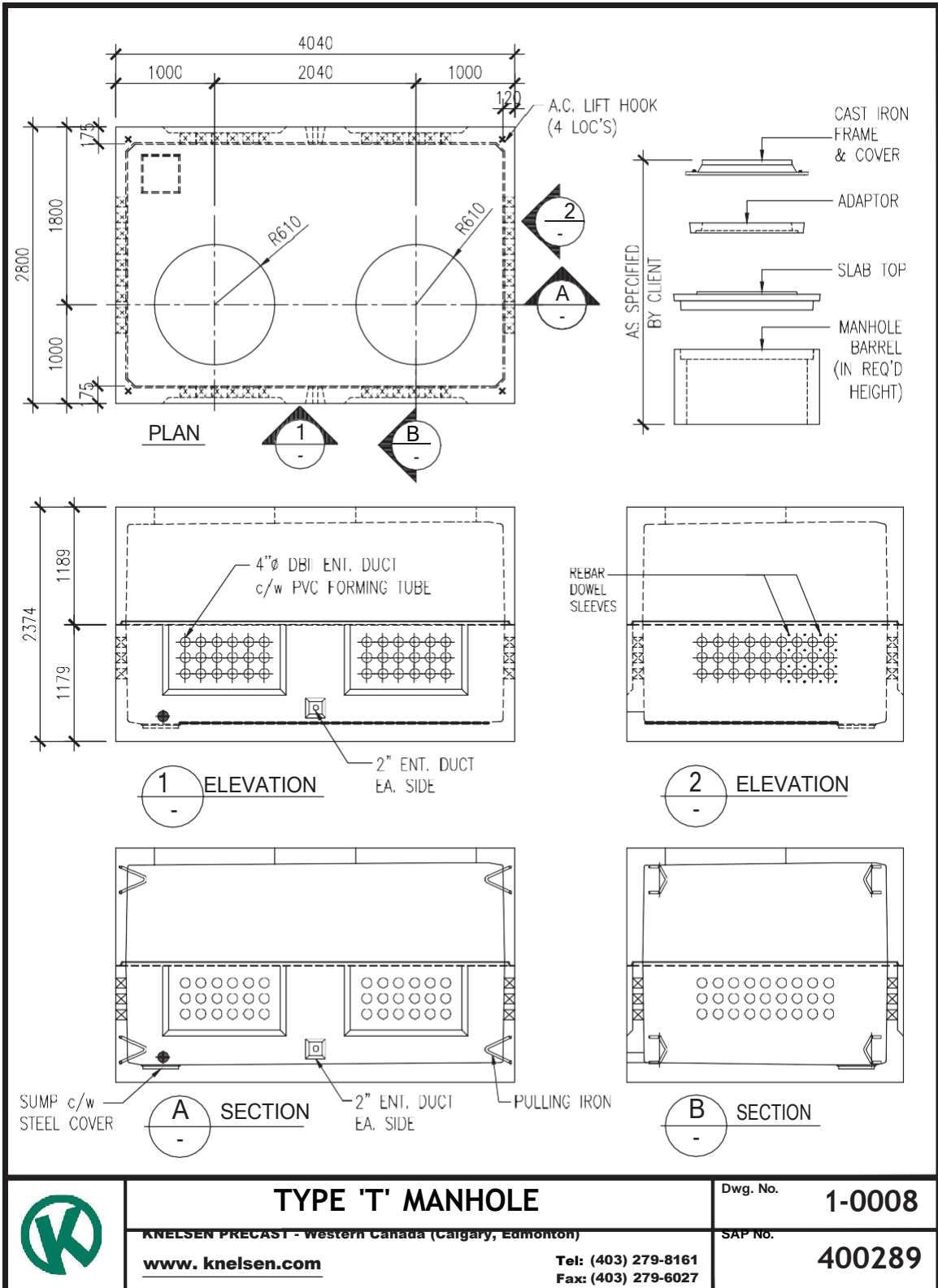
Neck Extension Kits	610mm, 710mm, 885mm
Lid & Frame	Cast Iron
Lid Reference	POW, TEL, Blank
Seal	RAM-NEK Gasket

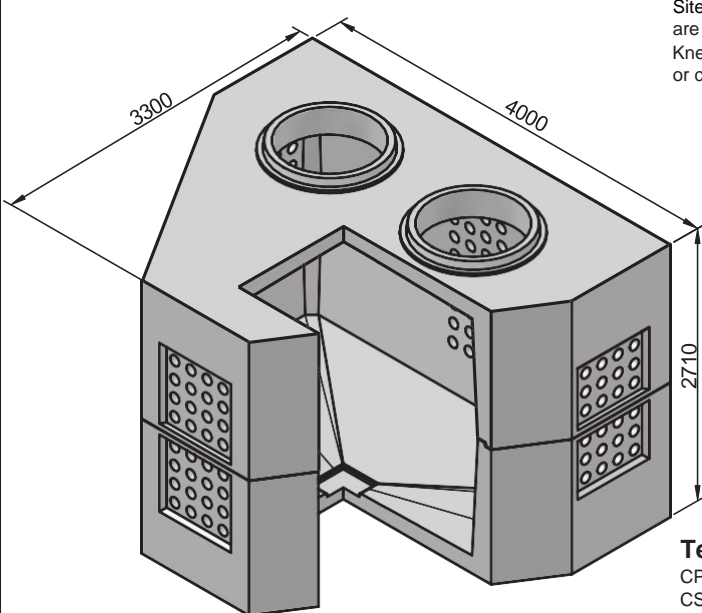
Options (Extra)

Duct Sizes	5" or 6" ID (DBII)
Duct Location	As requested
Load Rated	Pedestrian

Revision Date **April. 01 2019**

	TYPE 'T' MANHOLE	Dwg. No. 1-0008
	KNELSEN PRECAST - Western Canada (Calgary, Edmonton) www.knelsen.com	SAP No. 400289 Tel: (403) 279-8161 Fax: (403) 279-6027





Notes
 Site installation, backfilling and suitability for use are to be determined by others.
 Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight (Vault only)	17,818 kg (39,199 lbs)
Load Rating	Pedestrian
Min Cover Depth	
Max Cover Depth	Call

Product Detail

Outside Dimension	3300 x 4000 x 2710
Inside Dimension	2940 x 3640 x 2290
Standard Duct Size	102 mm or 4" ID (DBII)
Racking Kit No.	1180
Wall Inserts	PD: 1/2" & LF: 3/4"
Pulling Irons	25 mm
Ground Rod	19 mm x 325 mm
Sump Cover	380 Steel Grate
Lift Mechanism	Aircraft Cable


Accessories (Extra)

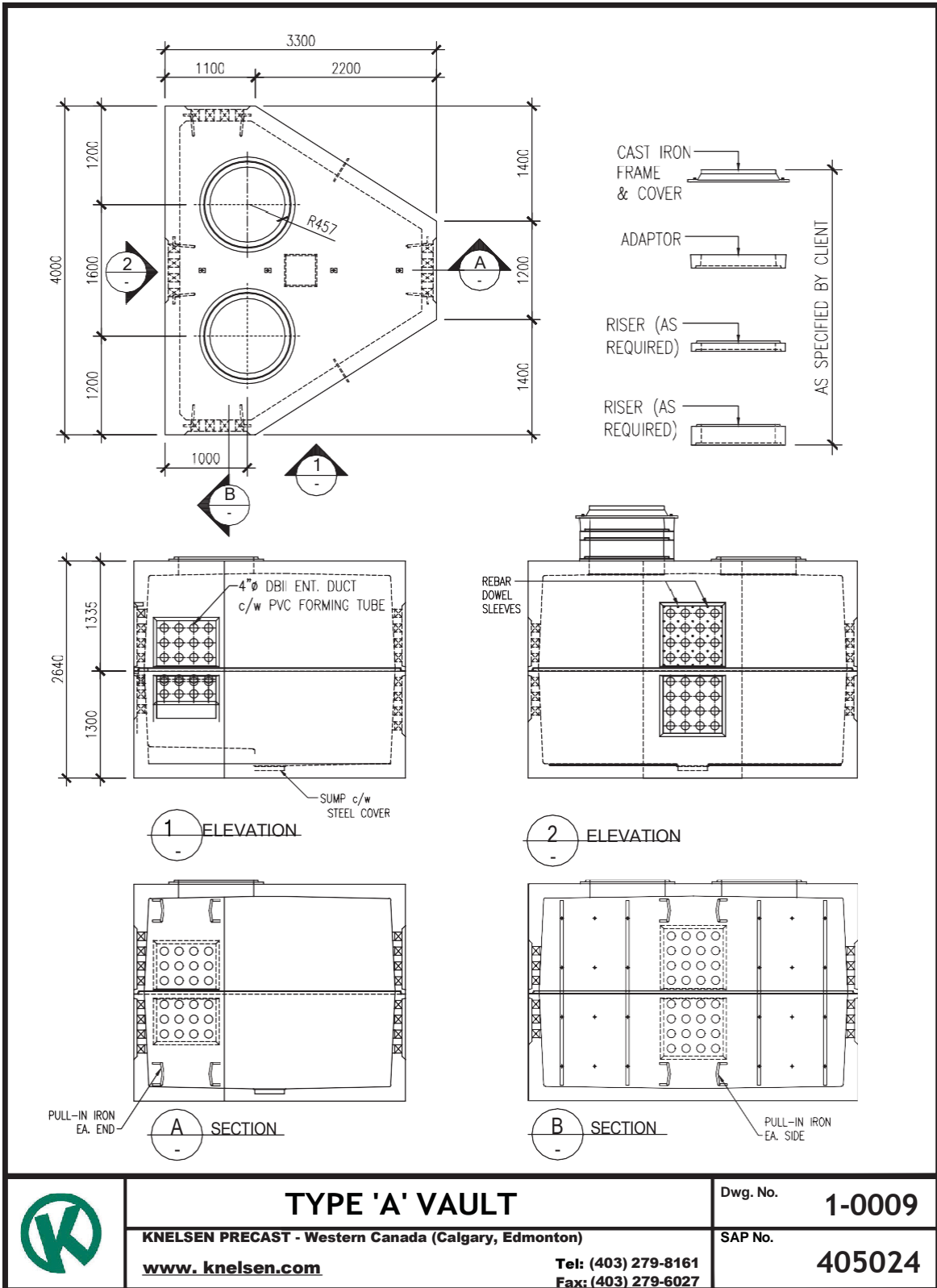
Neck Extension Kits	Please Call
Lid & Frame	Cast Iron
Lid Reference	POW, TEL, Blank
Seal	RAM-NEK Gasket

Options (Extra)

Duct Sizes	5" or 6" ID (DBII)
Duct Location	As requested
Load Rating	CL-625

Revision Date **April. 01 2019**

	TYPE 'V' VAULT	Dwg. No. 1-0009
	KNELSEN PRECAST - Western Canada (Calgary, Edmonton) www.knelsen.com	SAP No. 405024 Tel: (403) 279-8161 Fax: (403) 279-6027



TYPE 'A' VAULT

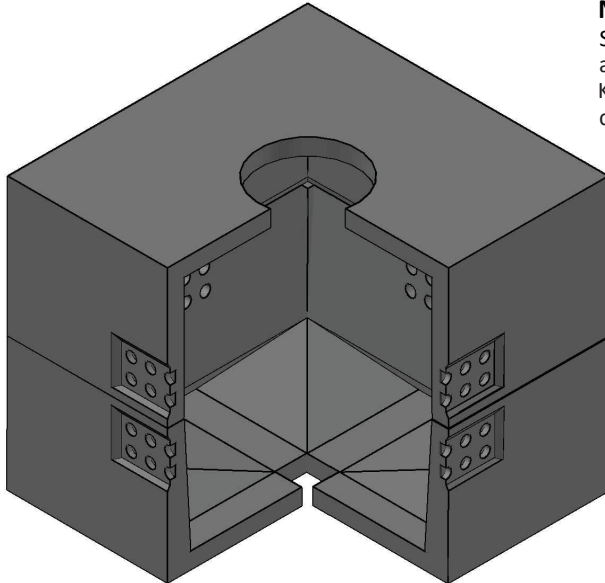
KNELSEN PRECAST - Western Canada (Calgary, Edmonton)

www.knelsen.com

Tel: (403) 279-8161
Fax: (403) 279-6027

Dwg. No. **1-0009**

SAP No. **405024**



Notes

Site Installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring, or coatings not provided by Knelsen.

Technical Detail

CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPA @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight (Vault Only)	15,184 kg (33,405 lbs.)
Load Rating	Traffic: CL-625
Min. Cover	Depth 0.6 meters
Max. Cover	Depth Call

Product Detail

Outside Dimension	2800 x 2800 x 2548
Inside Dimension	2380 x 2380 x 2000
Standard Duct Size	100mm or 4" ID (DBII)
Racking Kit No.	N/A
Wall Inserts	N/A
Pulling Eye	32mm or 1/2"
Ground Rod	N/A
Sump Cover	380mm Steel Grate
Lift Mechanism	Dayton P-52 Swift Lift

Accessories

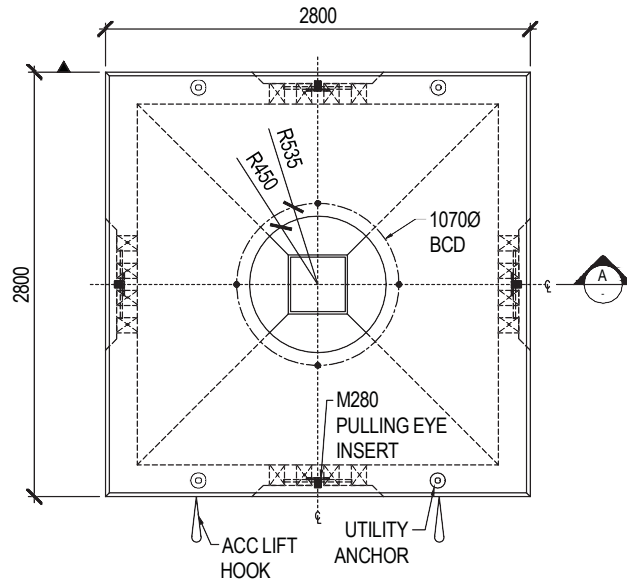
Neck Extension Kits	Call
Lid & Frame	Cast Iron
Lid Reference	POW, TEL, Blank
Sealant	RAM-NEK Gasket

Optional (Extra)

Duct Sizes	4" or 5" ID (DBII)
Duct Location	As requested
Load Rated	Pedestrian

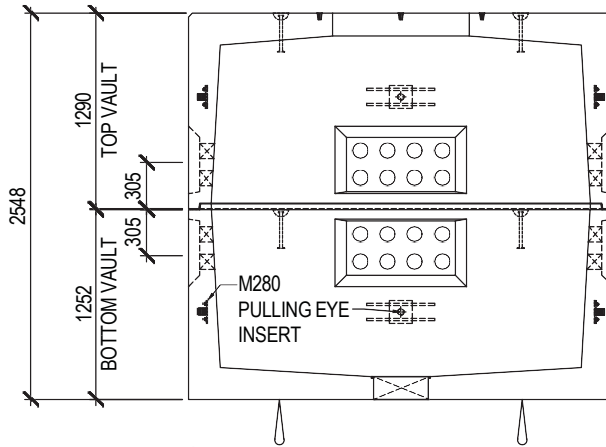
Revision Date April. 01 2019

	<h2>TYPE 'A' VAULT</h2>	Dwg. No. FND-PC-08
	KNELSEN PRECAST - Western Canada (Calgary, Edmonton) www.knelsen.com	Tel: (403) 279-8161 Fax: (403) 279-6027



PLAN

SCALE: -



A SECTION



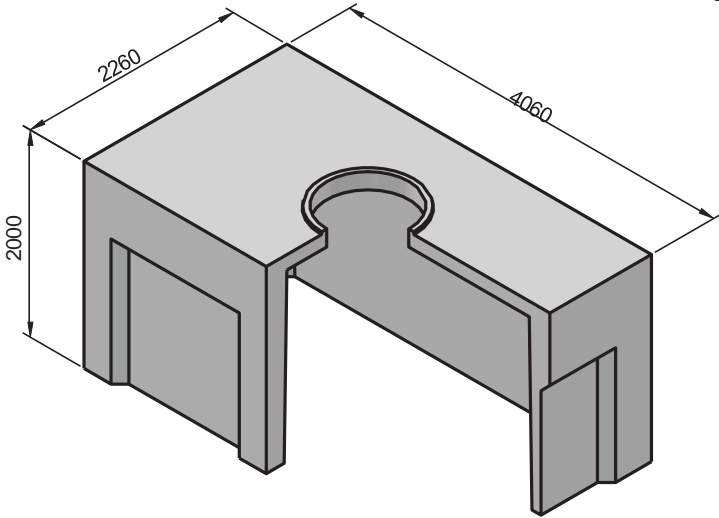
TYPE 'A' VAULT

KNELSEN PRECAST - Western Canada (Calgary, Edmonton)
www.knelsen.com

Tel: (403) 279-8161
 Fax: (403) 279-6027

Dwg. No. **FND-PC-08**

SAP No. **413639**
413640



Notes
 Site installation, backfilling and suitability for use are to be determined by others.
 Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight (Vault only)	11,977 kg (26,349 lbs)
Load Rating	Pedestrian
Min Cover Depth	Call
Max Cover Depth	Call

Product Detail

Outside Dimension	2260 x 4060 x 2000
Inside Dimension	1800 x 3600 x 1850
Wall Inserts	PD: 1/2" & LF: 3/4"
Pulling Irons	25 mm
Ground Rod	n/a
Lift Mechanism	Aircraft Cable


Accessories (Extra)

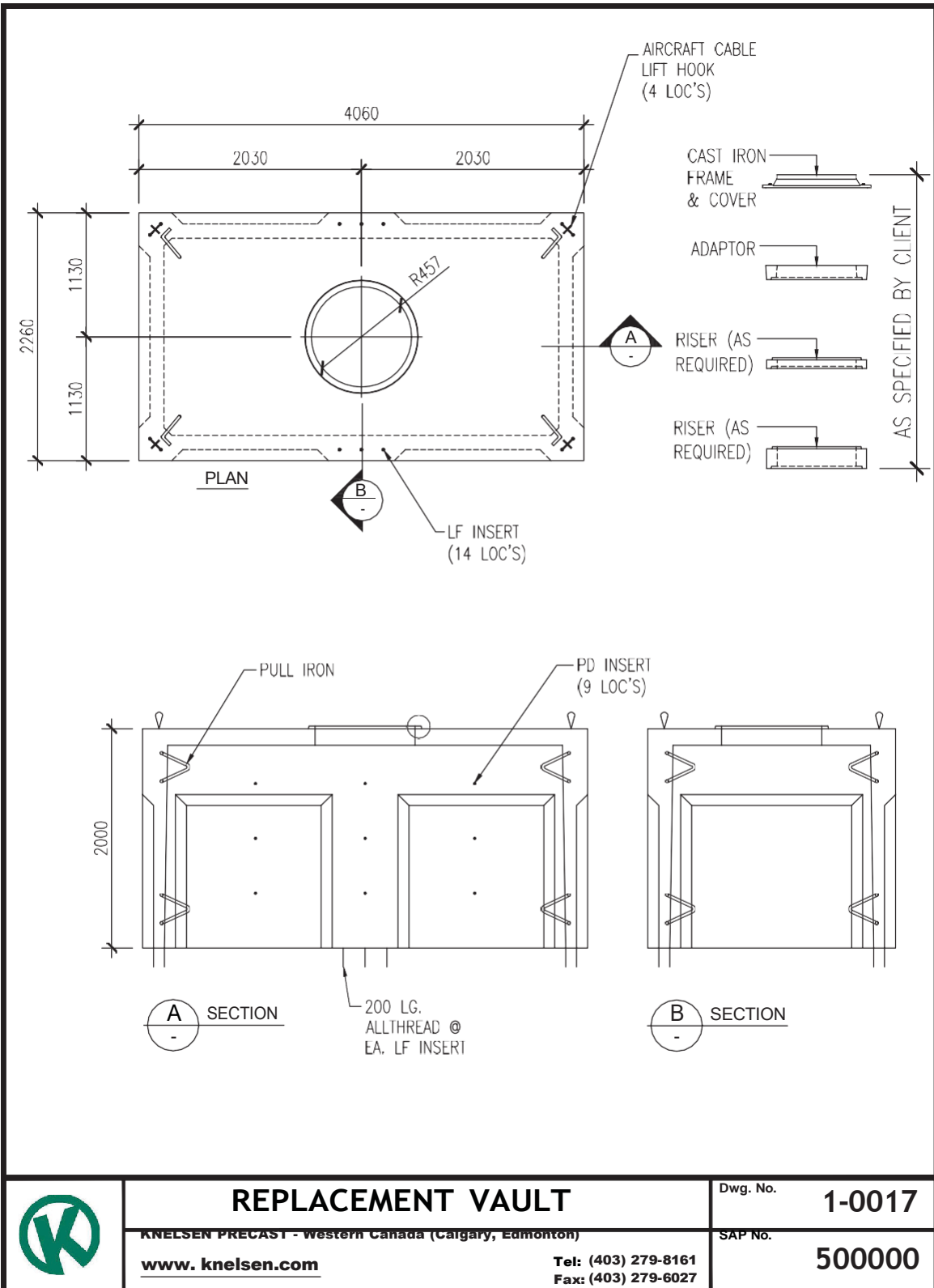
Neck Extension Kits	Please Call
Lid & Frame	Cast Iron
Lid Reference	POW, TEL, Blank
Seal	RAM-NEK Gasket

Options (Extra)

Duct Location	As requested
Load Rating	CL-625

Revision Date **April. 01 2019**

	REPLACEMENT VAULT	Dwg. No. 1-0017
	KNELSEN PRECAST - Western Canada (Calgary, Edmonton) www.knelsen.com	SAP No. 500000 Tel: (403) 279-8161 Fax: (403) 279-6027



REPLACEMENT VAULT

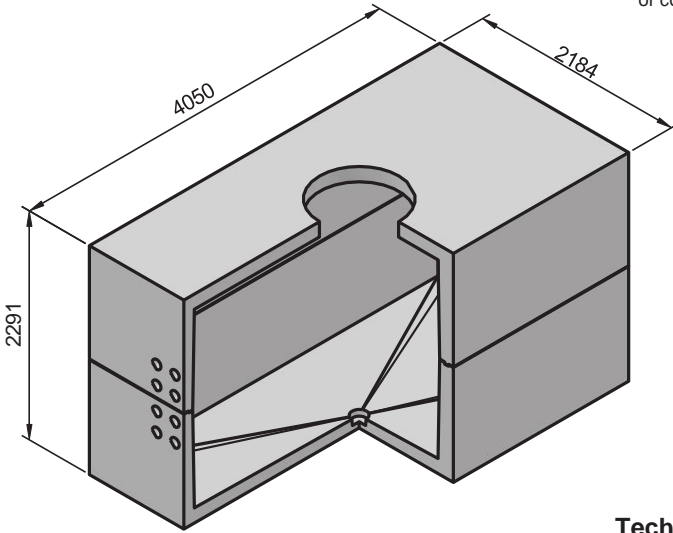
KNELSEN PRECAST - Western Canada (Calgary, Edmonton)

www.knelsen.com

Tel: (403) 279-8161
Fax: (403) 279-6027

Dwg. No. **1-0017**

SAP No. **500000**



Notes

Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight (Vault only)	13,880 kg (30,535 lbs)
Load Rating	Pedestrian
Min Cover Depth	Call
Max Cover Depth	Call

Product Detail

Outside Dimension	2184 x 4050 x 2291
Inside Dimension	1830 x 3810 x 2050
Standard Duct Size	102 mm or 4" ID (DBII)
Racking Kit No.	n/a
Wall Inserts	PD: 1/2"
Pulling Eye	32"Ø
Lift Mechanism	Aircraft Cable


Accessories (Extra)

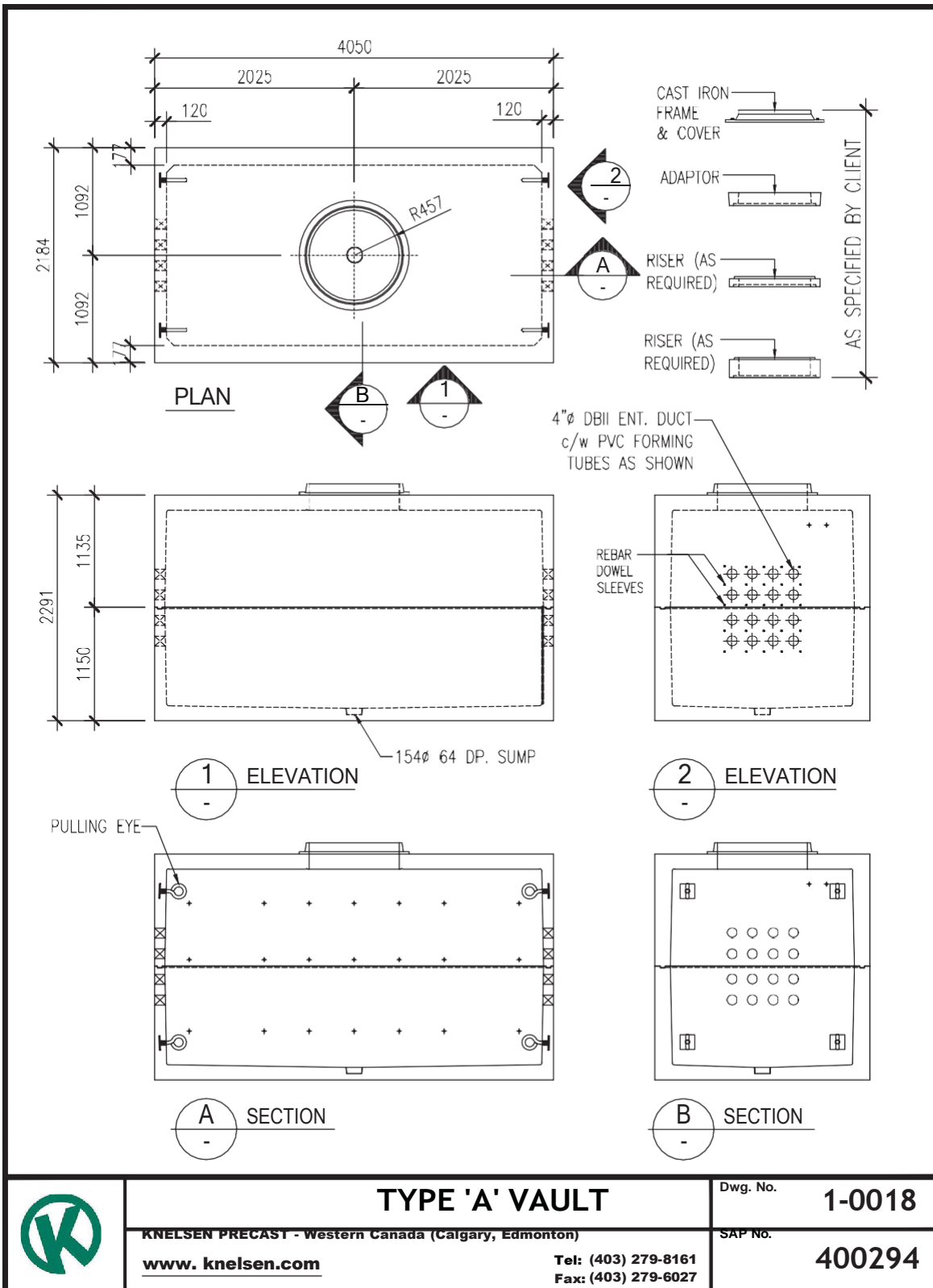
Neck Extension Kits	Please Call
Lid & Frame	Cast Iron
Lid Reference	POW, TEL, Blank
Seal	RAM-NEK Gasket

Options (Extra)

Duct Sizes	5" or 6" ID (DBII)
Duct Location	As requested
Load Rating	CL-625

Revision Date **April. 01 2019**

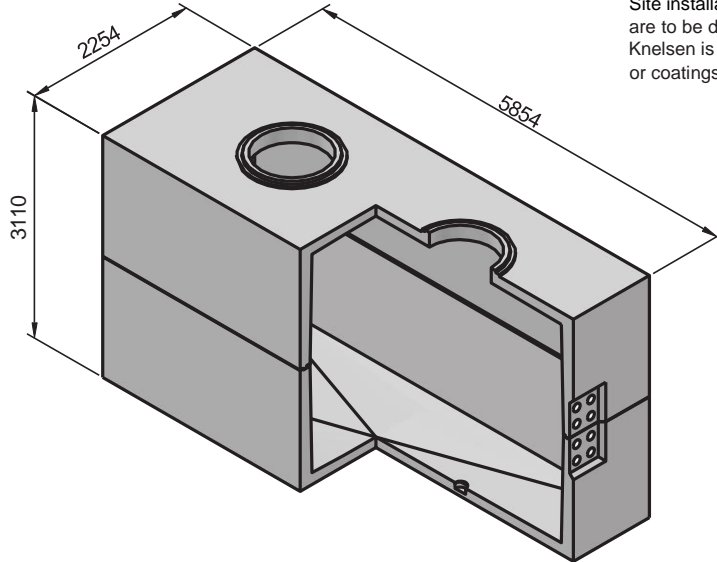
	TYPE 'A' VAULT	Dwg. No. 1-0018
	KNELSEN PRECAST - Western Canada (Calgary, Edmonton) www.knelsen.com	SAP No. 400294 Tel: (403) 279-8161 Fax: (403) 279-6027



TYPE 'A' VAULT

KNELSEN PRECAST - Western Canada (Calgary, Edmonton)
www.knelsen.com
 Tel: (403) 279-8161
 Fax: (403) 279-6027

Dwg. No. **1-0018**
 SAP No. **400294**



Notes

Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight (Vault only)	27,922 kg (61,429 lbs)
Load Rating	Pedestrian
Min Cover Depth	
Max Cover Depth	Call

Product Detail

Outside Dimension	2254 x 5854 x 3110
Inside Dimension	1900 x 5500 x 2800
Standard Duct Size	102 mm or 4" ID (DBII)
Wall Inserts	PD: 1/2" & LF: 3/4"
Pulling Eyes	32Ø
Ground Rod	n/a
Lift Mechanism	Aircraft Cable


Accessories (Extra)

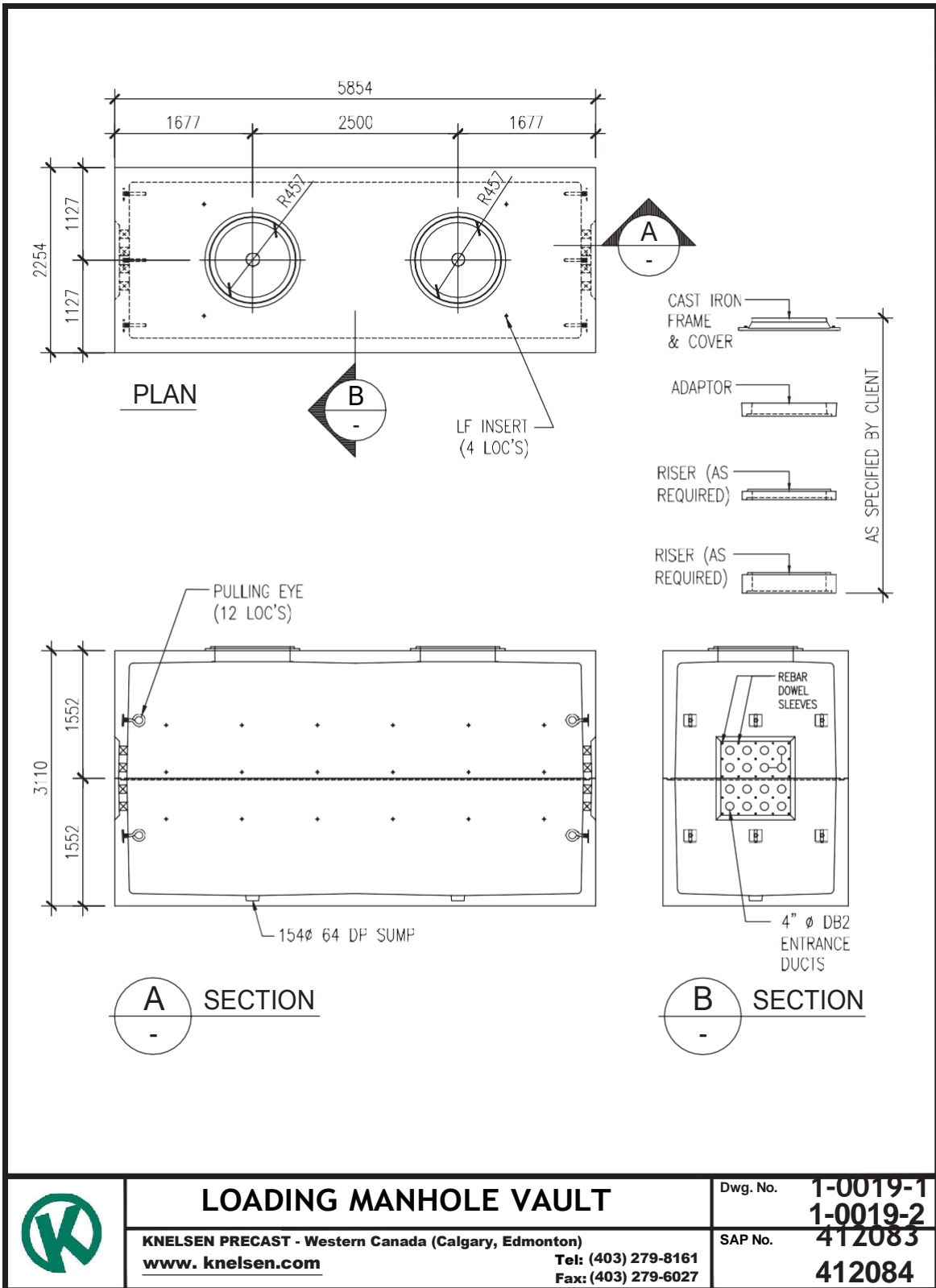
Neck Extension Kits	Please Call
Lid & Frame	Cast Iron
Lid Reference	POW, TEL, Blank
Seal	RAM-NEK Gasket

Options (Extra)

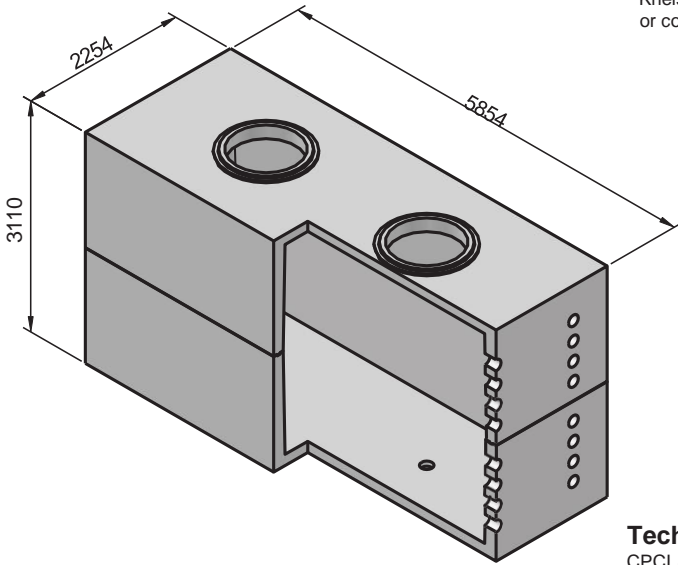
Duct Sizes	5" or 6" ID (DBII)
Duct Location	As requested
Load Rating	CL-625

Revision Date **April. 01 2019**

	LOADING MANHOLE VAULT	Dwg. No. 1-0019-1
	KNELSEN PRECAST - Western Canada (Calgary, Edmonton) www.knelsen.com	SAP No. 412083 412084
Tel: (403) 279-8161 Fax: (403) 279-6027		



	LOADING MANHOLE VAULT	Dwg. No. 1-0019-1
	KNELSEN PRECAST - Western Canada (Calgary, Edmonton)	Dwg. No. 1-0019-2
	www.knelsen.com Tel: (403) 279-8161 Fax: (403) 279-6027	SAP No. 412083
		SAP No. 412084



Notes

Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight (Vault only)	28,267 kg (62,188 lbs)
Load Rating	Traffic CL-625
Min Cover Depth	0.6 Meter
Max Cover Depth	Call

Product Detail

Outside Dimension	2254 x 5854 x 3310
Inside Dimension	1900 x 5500 x 2805
Standard Duct Size	154 mm or 6" ID (DBII)
Wall Inserts	PD: 1/2" & LF: 3/4"
Pulling Irons	25 mm
Ground Rod	19 mm x 325 mm
Lift Mechanism	Aircraft Cable


Accessories (Extra)

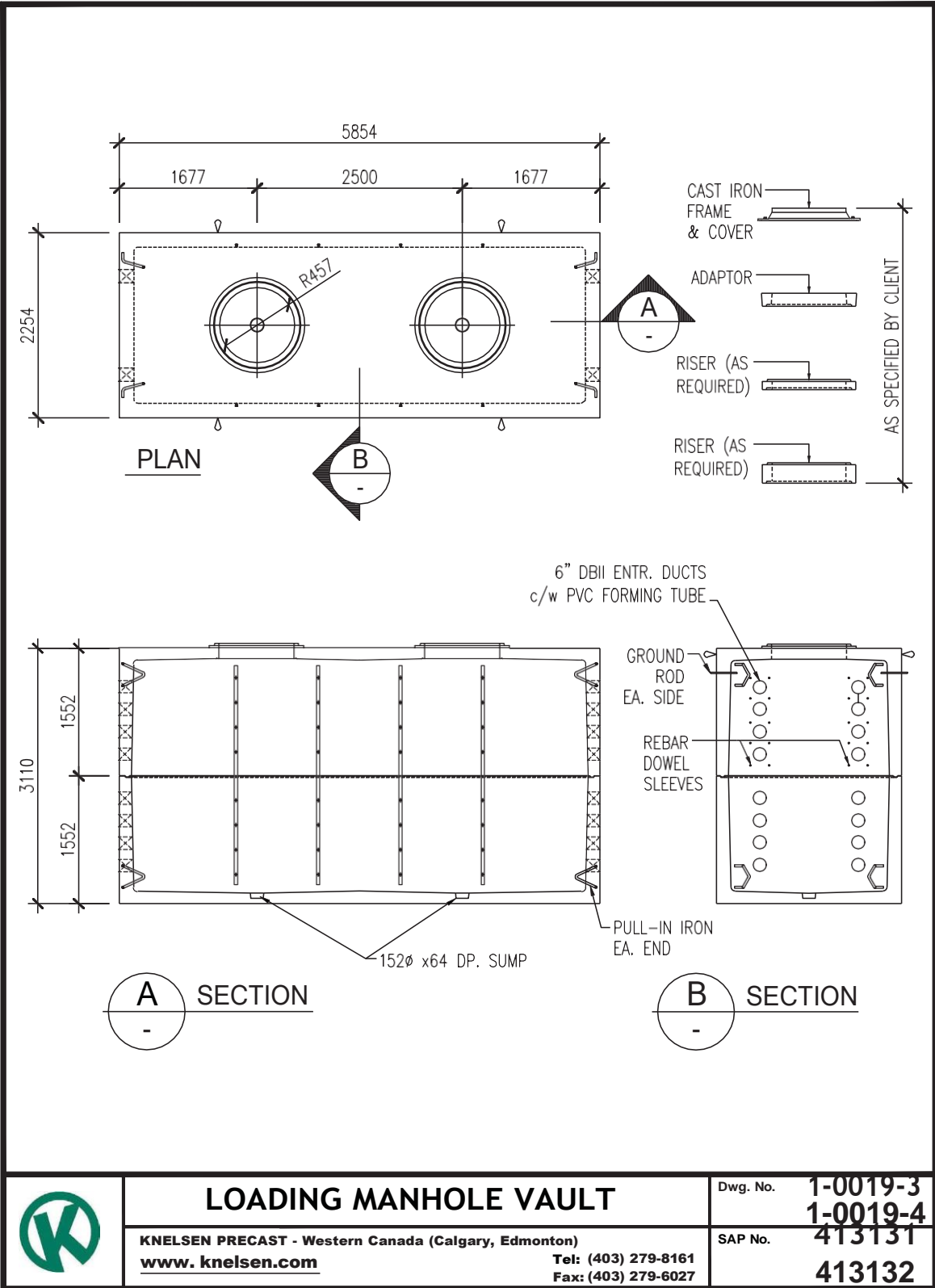
Neck Extension Kits	Please Call
Lid & Frame	Cast Iron
Lid Reference	POW, TEL, Blank
Seal	RAM-NEK Gasket

Options (Extra)

Duct Sizes	4" or 5" ID (DBII)
Duct Location	As requested
Load Rated	Pedestrian

Revision Date **April. 01 2019**

	LOADING MANHOLE VAULT	Dwg. No. 1-0019-3 1-0019-4
	KNELSEN PRECAST - Western Canada (Calgary, Edmonton) www.knelsen.com	SAP No. 413131 413132



Notes
 Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight (Vault only)	- kg (- lbs)
Load Rating	Pedestrian
Min Cover Depth	
Max Cover Depth	

Product Detail


Outside Dimension	2560 x 7662 x 3050
Standard Duct Size	102mm or 4" ID (DBII)
Lift Mechanism	Aircraft Cable
Concrete Lid	Cast by other
Cast In Place Beam	Cast by others

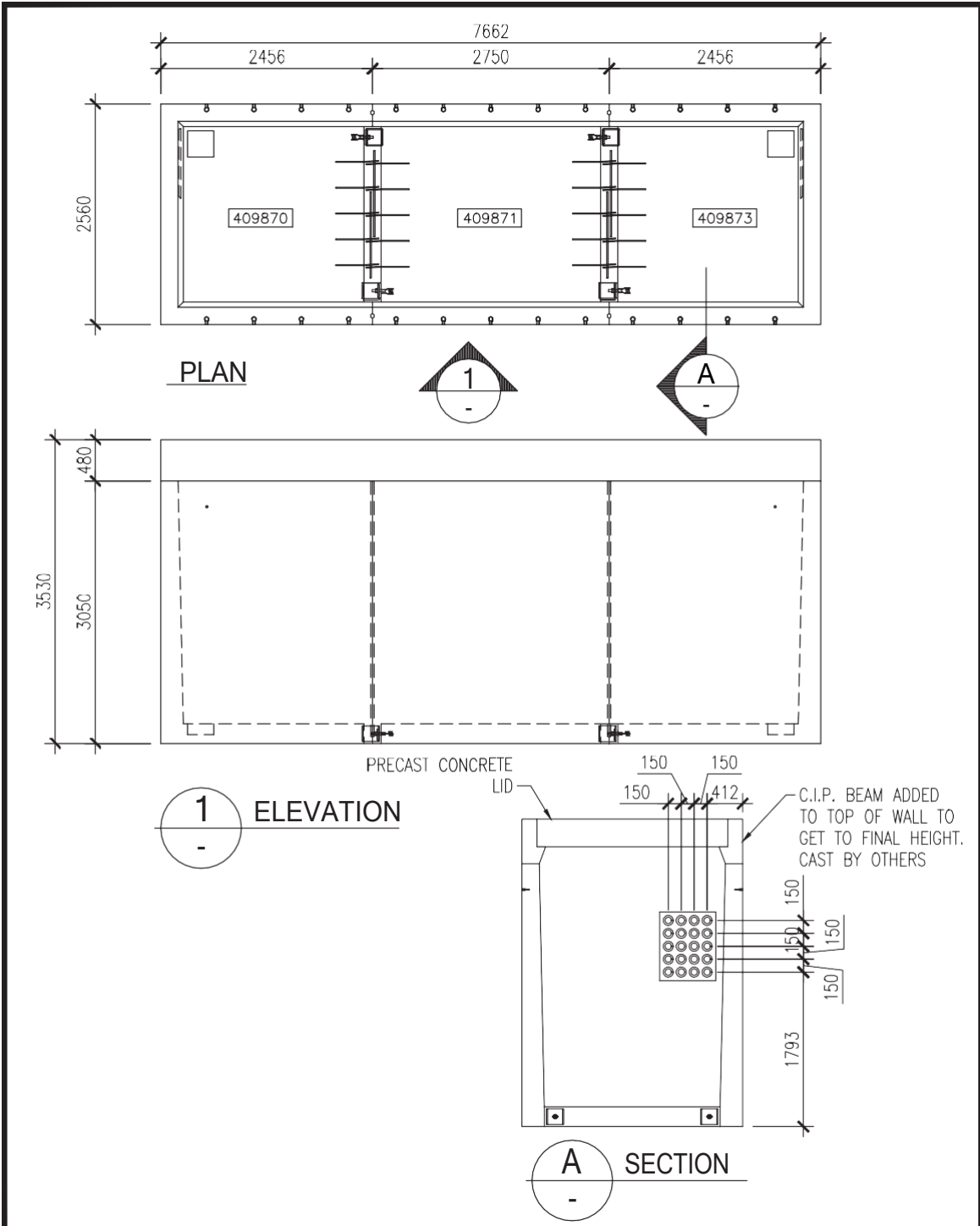
Options (Extra)


Duct Sizes	5" or 6" ID (DBII)
Duct Location	As requested
Load Rating	CL-625

Revision Date **April. 01 2019**

MARK V VAULT Dwg. No. -

	KNELSEN PRECAST - Western Canada (Calgary, Edmonton)	SAP No.
www.knelsen.com	Tel: (403) 279-8161 Fax: (403) 279-6027	409870-71-73



	<h3>MARK V VAULT</h3>	Dwg. No.	-
	KNELSEN PRECAST - Western Canada (Calgary, Edmonton) www.knelsen.com	Tel: (403) 279-8161 Fax: (403) 279-6027	SAP No.

Notes
 Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail
 CPCI Standard Group S
 CSA Standard A23.3-14, A23.4-09
 Concrete Strength 35 MPa @ 28 Days
 Concrete Type Sulphate Resistant
 S2 Exposure
 Reinforcement Grade 400
 Weight (Vault only) 771 kg (1,696 lbs)
Load Rating **Traffic CL-625**

Product Detail
 Kit Height 610 mm
 Outside Dimension 1160 mm
 Inside Dimension 900 mm
 Lift Mechanism Aircraft Cable
 Lid & Frame Cast Iron
 Lid Reference POW, TEL, Blank
 Seal RAM-NEK Gasket

Individual Items

Cast Iron Lid (Blank)	405142 (802 OD x 35 DP)
Cast Iron Frame	405143 (762 ID x 144 DP)
Bolts & Washers	105389
Gasket (RAM-NEK)*	405145
Straight Adaptor	405030 (900 ID x 100 DP)
Gasket (RAM-NEK)*	405145
Slab Top	405014 (900 ID x 65 DP)
Gasket (RAM-NEK)*	405145
Manhole Barrel	405051
Gasket (RAM-NEK)*	405145

***Notes**
 RAM-NEK gasket could add an additional 10-20mm in height

Revision Date **April. 01 2019**

610mm Neck Extension Kit*

KNELSEN PRECAST - Western Canada (Calgary, Edmonton)
www.knelsen.com

Tel: (403) 279-8161
Fax: (403) 279-6027

Dwg. No. -

SAP No. **1739**

Notes
 Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail
 CPCI Standard Group S
 CSA Standard A23.3-14, A23.4-09
 Concrete Strength 35 MPa @ 28 Days
 Concrete Type Sulphate Resistant
 S2 Exposure
 Reinforcement Grade 400
 Weight (Vault only) 1251 kg (2,753 lbs)
Load Rating **Traffic CL-625**

Product Detail
 Kit Height 710 mm
 Outside Dimension 1160 mm
 Inside Dimension 900 mm
 Lift Mechanism Aircraft Cable
 Lid & Frame Cast Iron
 Lid Reference POW, TEL, Blank
 Seal RAM-NEK Gasket

Individual Items

Cast Iron Lid (Power)	405144 (802 OD x35 DP)
Cast Iron Frame	405143 (762 ID x144 DP)
Bolts & Washers	105389
Gasket (RAM-NEK)*	405145
Straight Adaptor	405030 (900 ID x100 DP)
Gasket (RAM-NEK)*	405145
Riser 100 mm	405033 (900 ID)
Gasket (RAM-NEK)*	405145
Slab Top	405014 (900 ID x 65 DP)
Gasket (RAM-NEK)*	405145
Manhole Barrel	405051 (1220 ID x300 DP)
Gasket (RAM-NEK)*	405145

***Notes**
 RAM-NEK gasket could add an additional 10-20mm in height

Revision Date **April. 01 2019**

	710mm Neck Extension Kit*	Dwg. No. -
	KNELSEN PRECAST - Western Canada (Calgary, Edmonton) www.knelsen.com Tel: (403) 279-8161 Fax: (403) 279-6027	SAP No. 405139

Notes
Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail
 CPCI Standard Group S
 CSA Standard A23.3-14, A23.4-09
 Concrete Strength 35 MPa @ 28 Days
 Concrete Type Sulphate Resistant
 S2 Exposure
 Reinforcement Grade 400
 Weight (Vault only) 1412 kg (3,106 lbs)
Load Rating **Traffic CL-625**


Product Detail
 Kit Height 885 mm
 Outside Dimension 1160 mm
 Inside Dimension 900 mm
 Lift Mechanism Aircraft Cable
 Lid & Frame Cast Iron
 Lid Reference POW, TEL, Blank
 Seal RAM-NEK Gasket

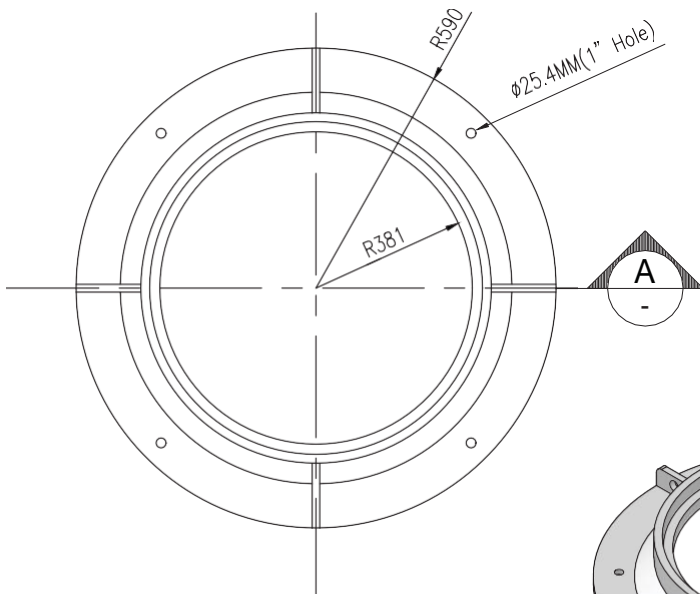
Individual Items

Cast Iron Lid (Tel.)	405146 (802 OD x 35 DP)
Cast Iron Frame	405143 (762 ID x 144 DP)
Bolts & Washers	105389
Gasket (RAM-NEK)*	405145
Straight Adaptor	405030 (900 ID x 100 DP)
Gasket (RAM-NEK)*	405145
Riser 125 mm	405034 (900 ID)
Gasket (RAM-NEK)*	405145
Riser 150 mm	405035 (900 ID)
Gasket (RAM-NEK)*	405145
Slab Top	405014 (900 ID x 65 DP)
Gasket (RAM-NEK)*	405145
Manhole Barrel	405051 (1220 ID x 300 DP)
Gasket (RAM-NEK)*	405145

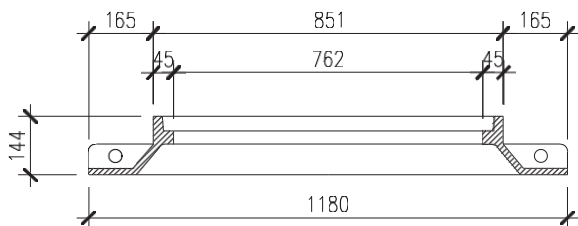
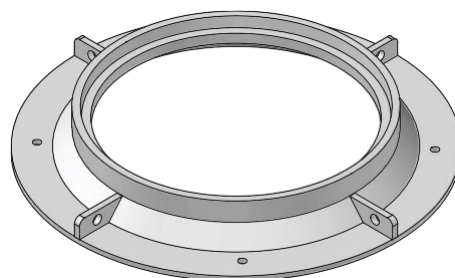
***Notes**
RAM-NEK gasket could add an additional 10-20mm in height

Revision Date **April. 01 2019**

	<h3>885mm Neck Extension Kit*</h3> <p>KNELSEN PRECAST - Western Canada (Calgary, Edmonton)</p> <p>www.knelsen.com</p> <p>Tel: (403) 279-8161 Fax: (403) 279-6027</p>	Dwg. No. - SAP No. 405133
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PLAN



A SECTION

FRAME

Height	144 mm
Outside Diameter	1180 mm
Inside Diameter	762 mm
Material	Cast Iron

Hardware

Bolts & Washers	105389
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Options (Extra)

Seal	RAM-NEK Gasket
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Revision Date Mar. 14 2019



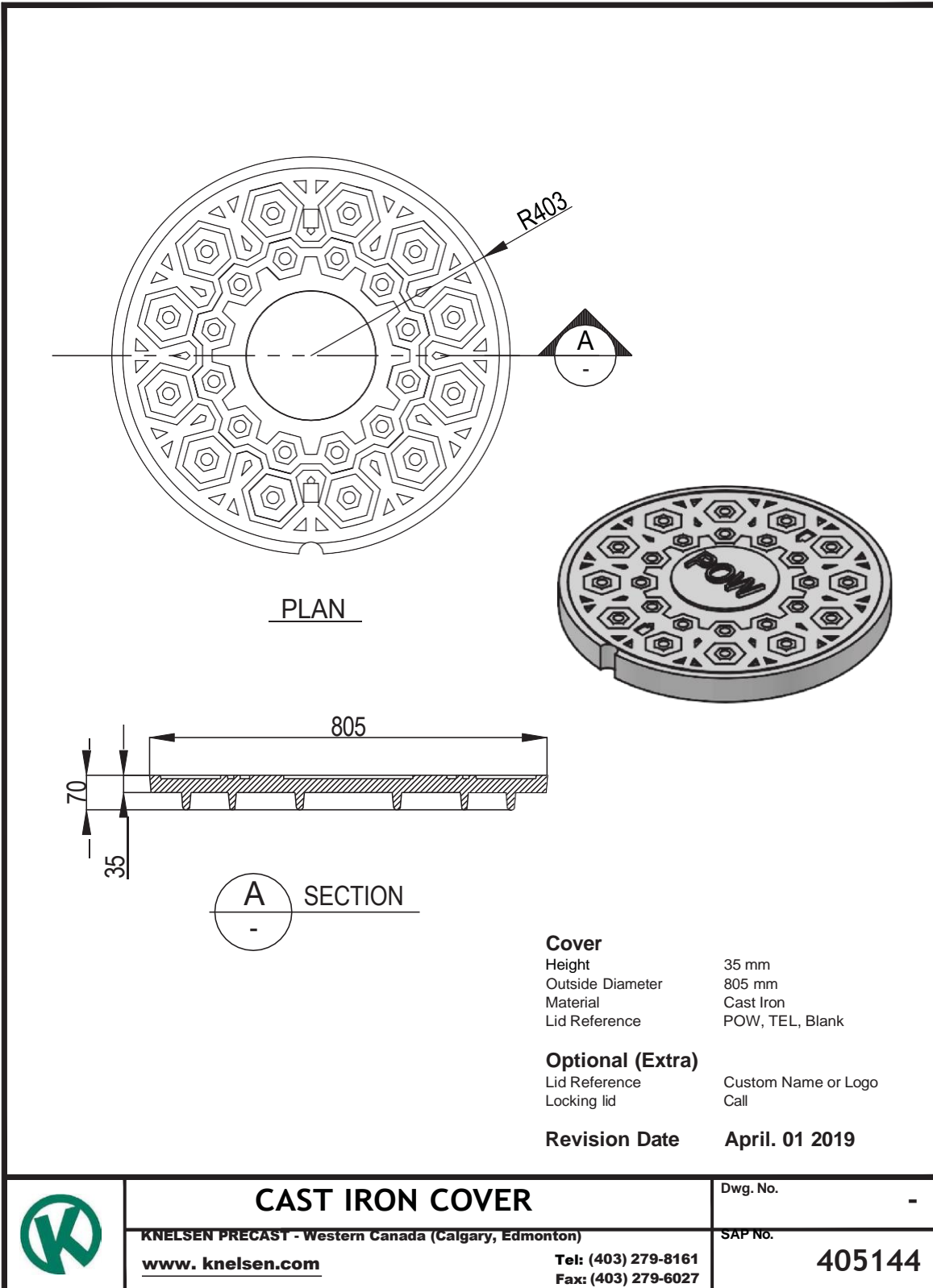
CAST IRON FRAME

Dwg. No. -

KNELSEN PRECAST - Western Canada (Calgary, Edmonton)
www.knelsen.com

Tel: (403) 279-8161
 Fax: (403) 279-6027

SAP No. **405143**




PLAN

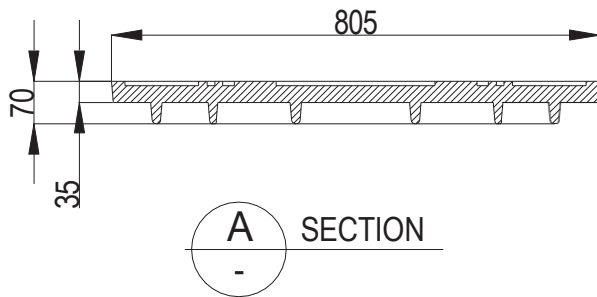
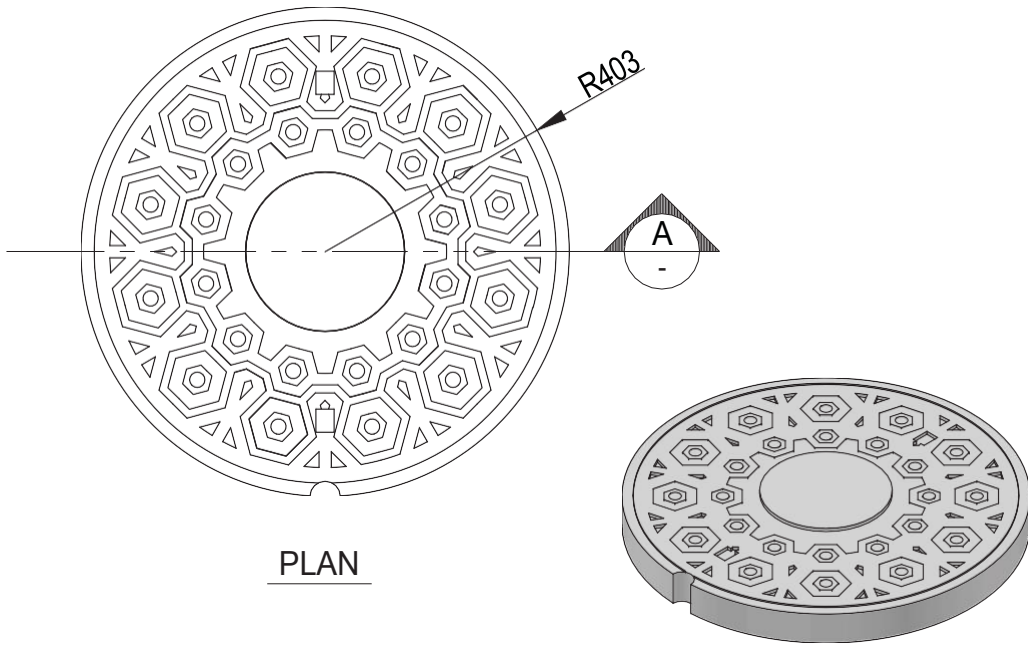
A SECTION

Cover
 Height 35 mm
 Outside Diameter 805 mm
 Material Cast Iron
 Lid Reference POW, TEL, Blank

Optional (Extra)
 Lid Reference Custom Name or Logo
 Locking lid Call

Revision Date April. 01 2019

	CAST IRON COVER	Dwg. No.	-
	KNELSEN PRECAST - Western Canada (Calgary, Edmonton) www.knelsen.com Tel: (403) 279-8161 Fax: (403) 279-6027	SAP No.	405146



Cover

Height 35 mm
 Outside Diameter 805 mm
 Material Cast Iron
 Lid Reference POW, TEL, Blank

Optional (Extra)

Lid Reference Custom Name or Logo
 Locking Lid Call

Revision Date April. 01 2019

	<h3>CAST IRON COVER</h3>	Dwg. No. -
	KNELSEN PRECAST - Western Canada (Calgary, Edmonton) www.knelsen.com Tel: (403) 279-8161 Fax: (403) 279-6027	SAP No. <h2>405142</h2>



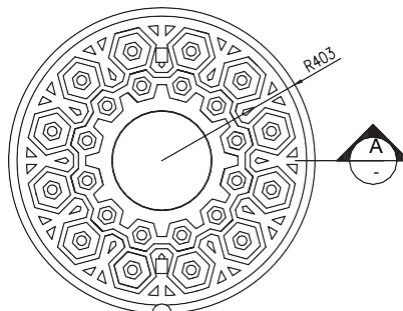
405144



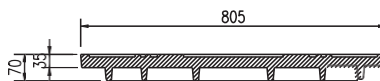
405146



405142



PLAN



A SECTION

Cover

Height	35 mm
Outside Diameter	805 mm
Material	Cast Iron
Lid Reference	POW, TEL, Blank

Optional (Extra)

Lid Reference	Custom Name or Logo
Locking lid	Call

Revision Date **April. 01 2019**



CAST IRON COVERS

Dwg. No. -

KNELSEN PRECAST - Western Canada (Calgary, Edmonton)
www.knelsen.com

Tel: (403) 279-8161
Fax: (403) 279-6027

SAP No.
405144,46,41,42

PLAN

O.D.
I.D.

STANDARD LADDER RUNGS
(INCLUDE UPON REQUEST ONLY)

BURKE L.H.
2 LOCATIONS

SECTION

60 65 I.D. 65 60

100 125 125

H

Notes

Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure Grade 400
Reinforcement	
Load Rating	Traffic CL-625

Product Detail

Lift Mechanism	2 Flat Foot Anchors
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Optional (Extra)

Ladder Rungs	Standard Type
Seal	RAM-NEK Gasket

Revision Date **April. 01 2019**

SAP No.	Dwg No.	Height (H)	Inside Dim.	Outside Dim.	Weight Kg	Weight Lbs
405050	210-01	1200 mm	1220 mm	1470 mm	1,520	3,333
405051	210-02	300 mm	1220 mm	1470 mm	385	847

1220mm I.D. MANHOLE BARREL

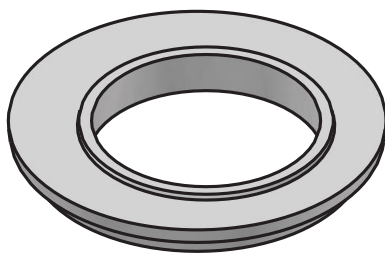
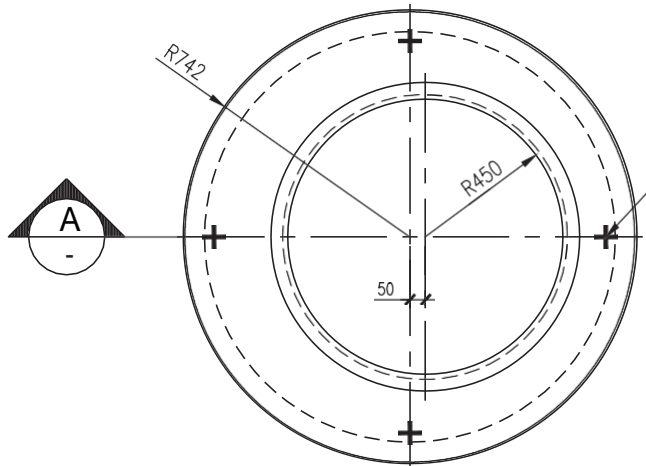
KNELSEN PRECAST - Western Canada (Calgary, Edmonton)
www.knelsen.com

Tel: (403) 279-8161
Fax: (403) 279-6027

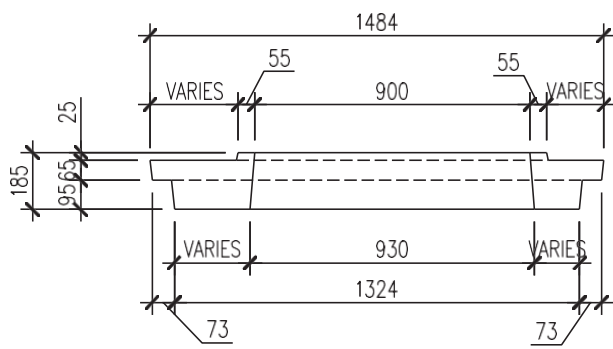
Dwg. No. **2-0060**

SAP No. **See Chart**

Notes
 Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.



PLAN



A SECTION

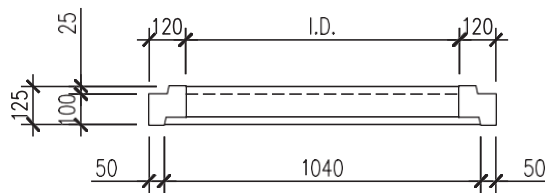
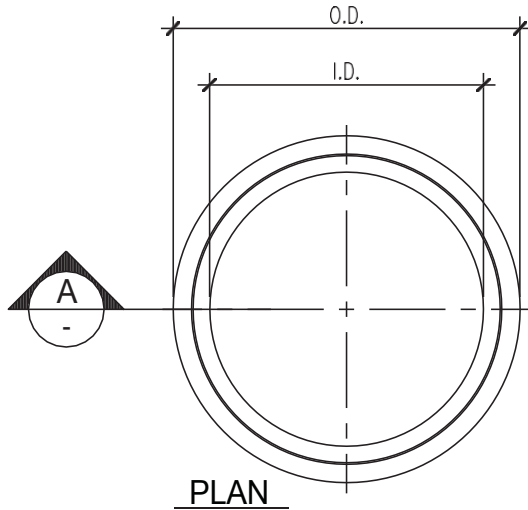
Technical Detail
 CPCI Standard Group S
 CSA Standard A23.3-14, A23.4-09
 Concrete Strength 35 MPa @ 28 Days
 Concrete Type Sulphate Resistant S2 Exposure
 Reinforcement Grade 400
 Weight 361 kg (794 lbs)
Load Rating Traffic CL-625

Product Detail
 Height 65 mm
 Inside Dimension 900 mm
 Outside Dimension 1484 mm
 Lift Mechanism Pencil Rod

Optional (Extra)
 Seal RAM-NEK Gasket

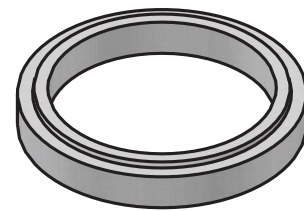
Revision Date April. 01 2019

	<h2>SLAB TOP (REDUCER)</h2>	Dwg. No. 2-0059
	KNELSEN PRECAST - Western Canada (Calgary, Edmonton) www.knelsen.com	SAP No. 405014
	Tel: (403) 279-8161 Fax: (403) 279-6027	



Notes

Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.



Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant
	S2 Exposure
Reinforcement	Grade 400
Load Rating	Traffic CL-625

Product Detail

Dimension & Weight	See charts
Lift Mechanism	Varies

Optional (Extra)

Seal	RAM-NEK Gasket
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Revision Date **April. 01 2019**

SAP No.	Dwg No.	Height (H)	Inside Dia.	Outside Dia.	Weight Kg	Weight Lbs
405042	210-30	50 mm	900 mm	1140 mm	48	105
405033	210-20	100 mm	900 mm	1140 mm	95	210
405034	210-21	125 mm	900 mm	1140 mm	115	254
405035	210-22	150 mm	900 mm	1140 mm	140	309
405036	210-23	225 mm	900 mm	1140 mm	211	465
405037	210-24	305 mm	900 mm	1140 mm	270	595
405038	210-25	450 mm	900 mm	1140 mm	401	882
400314	210-26	600 mm	900 mm	1140 mm	532	1,170



900mm I.D. RISER

Dwg. No. **2-0010**

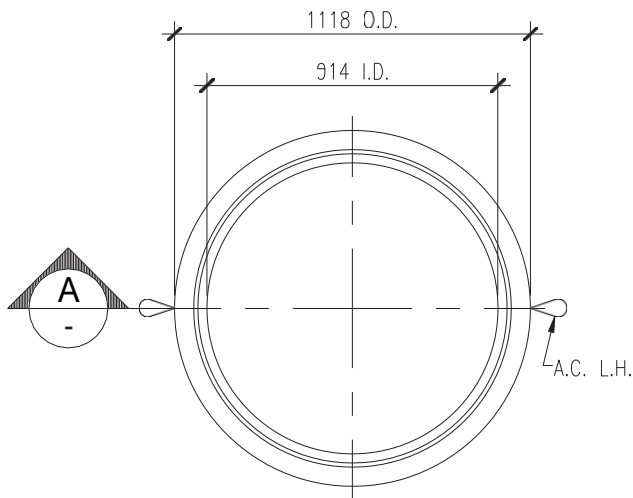
KNELSEN PRECAST - Western Canada (Calgary, Edmonton)
www.knelsen.com

Tel: (403) 279-8161
Fax: (403) 279-6027

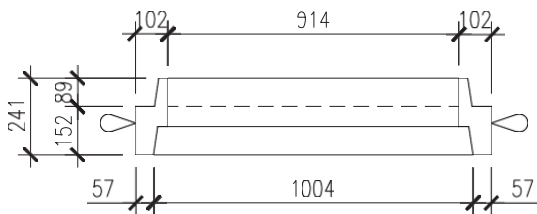
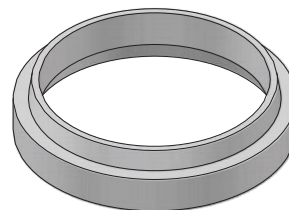
SAP No. **See Chart**

Notes

Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.



PLAN



A SECTION

Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant
	S2 Exposure
Reinforcement	Grade 400
Load Rating	Traffic CL-625

Product Detail

Lift Mechanism Aircraft Cable

Optional (Extra)

Seal RAM-NEK Gasket

Revision Date April. 01 2019

SAP No.	Dwg No.	Height (H)	Inside Dia.	Outside Dia.	Weight Kg	Weight Lbs
405039	210-27	152 mm	914 mm	1118 mm	120	265
405040	210-28	305 mm	914 mm	1118 mm	240	530
405041	210-29	457 mm	914 mm	1118 mm	360	794



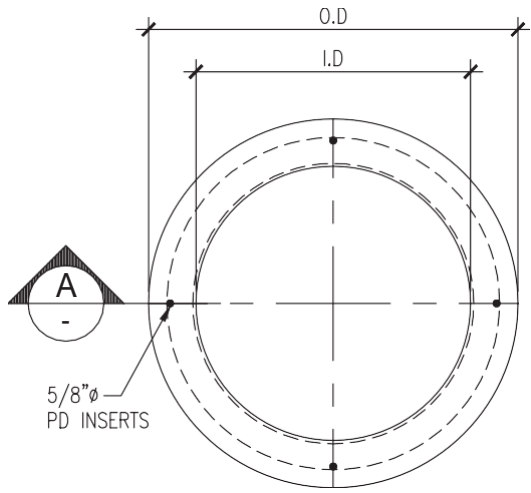
914mm I.D. RISER

Dwg. No. **2-0010**

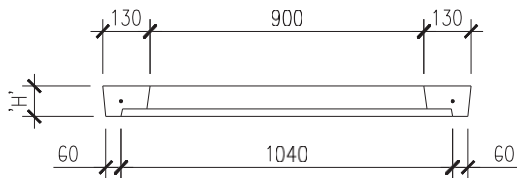
KNELSEN PRECAST - Western Canada (Calgary, Edmonton)
www.knelsen.com

Tel: (403) 279-8161
Fax: (403) 279-6027

SAP No. **See Chart**



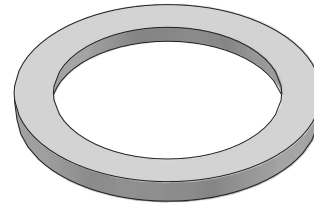
PLAN



SECTION A

Notes

Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.



Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Load Rating	Traffic CL-625

Product Detail

Dimension & Weight	See chart
Inserts	PD: 5/8" or 3/4"

Optional (Extra)

Seal	RAM-NEK Gasket
------	----------------

Revision Date **April. 01 2019**

SAP No.	Dwg No.	Height (H)	Inside Dim.	Outside Dim.	Weight Kg	Weight Lbs
405030	210-01	100 mm	900 mm	1160 mm	100	220
405031	210-02	160 mm	900 mm	1160 mm	150	330
405032	210-03	100 mm	800 mm	1160 mm	120	265
400302	210-04	150 mm	800 mm	1160 mm	190	420
405043	210-05	229 mm	762 mm	1118 mm	220	485



900mm I.D. STRAIGHT ADAPTOR

Dwg. No. **2-0010**

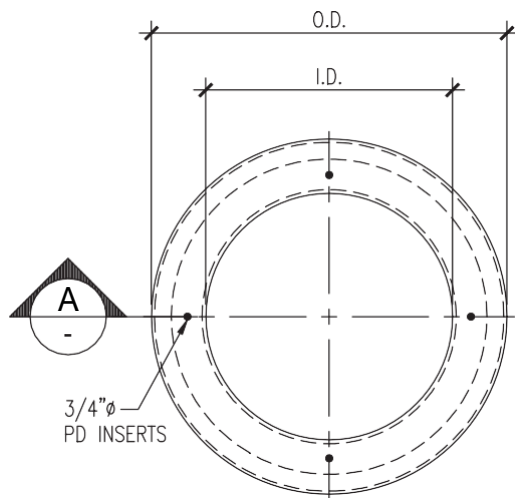
KNELSEN PRECAST - Western Canada (Calgary, Edmonton)
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 Fax: (403) 279-6027

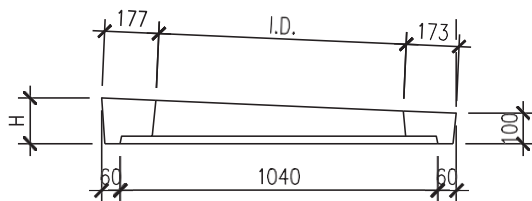
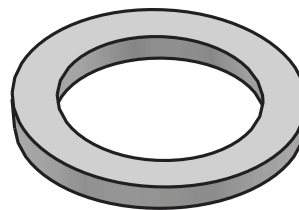
SAP No. **See Chart**

Notes

Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.



PLAN



SECTION A

Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant
	S2 Exposure
Reinforcement	Grade 400
Load Rating	Traffic CL-625

Product Detail

Dimension & Weight	See chart
Inserts	PD: 5/8" or 3/4"

Optional (Extra)

Seal	RAM-NEK Gasket
------	----------------

Revision Date **April. 01 2019**

SAP No.	Dwg No.	Angle (°)	Height (H)	Inside Dim.	Outside Dim.	Weight Kg	Weight Lbs
405044	210-10	2.5°	150 mm	811 mm	1160 mm	144	317
405045	210-11	5°	200 mm	883 mm	1165 mm	144	317
405046	210-12	10°	305 mm	888 mm	1170 mm	192	423
405047	210-13	15°	415 mm	896 mm	1180 mm	265	582



SLOPE ADAPTOR

Dwg. No. **2-0010**

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SAP No. **See Chart**

PLAN

A SECTION

Notes
 Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

A.C. L.H.

Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight (Vault only)	120 kg (265 lbs)
Load Rating	Traffic CL-625

Product Detail

Outside Dimension	1118 Ø x 152 mm DP
Inside Dimension	914 Ø x 152 mm DP
Lift Mechanism	Aircraft Cable

Optional (Extra)

Seal	RAM-NEK Gasket
------	----------------

Revision Date **April. 01 2019**

914mm I.D. RISER

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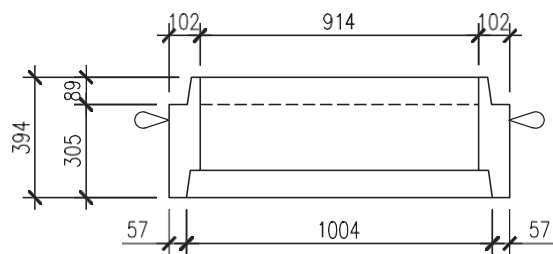
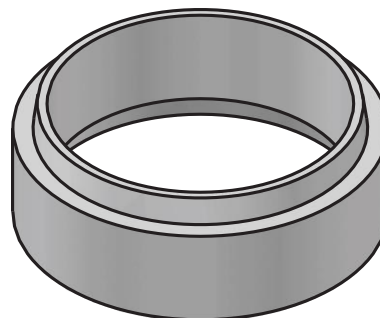
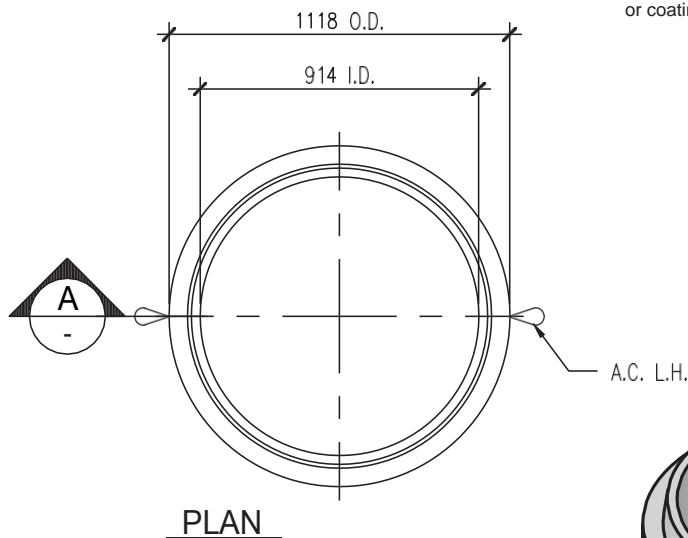
Tel: (403) 279-8161
 Fax: (403) 279-6027

Dwg. No. **2-0010**

SAP No. **405039**

Notes

Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.



Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant
Reinforcement	S2 Exposure
Weight (Vault only)	Grade 400
Load Rating	241 kg (530 lbs)
	Traffic CL-625

Product Detail

Outside Dimension	1118 Ø x 305 mm DP
Inside Dimension	914 Ø x 305 mm DP
Lift Mechanism	Aircraft Cable

Optional (Extra)

Seal	RAM-NEK Gasket
------	----------------

Revision Date **April. 01 2019**



914mm I.D. RISER

Dwg. No. **2-0010**

KNELSEN PRECAST - Western Canada (Calgary, Edmonton)
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SAP No. **405040**

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PLAN

SECTION

Notes
 Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight (Vault only)	361 kg (794 lbs)
Load Rating	Traffic CL-625

Product Detail

Outside Dimension	1118 Ø x 457 mm DP
Inside Dimension	914 Ø x 457 mm DP
Lift Mechanism	Aircraft Cable

Optional (Extra)
 Seal RAM-NEK Gasket

Revision Date **April. 01 2019**

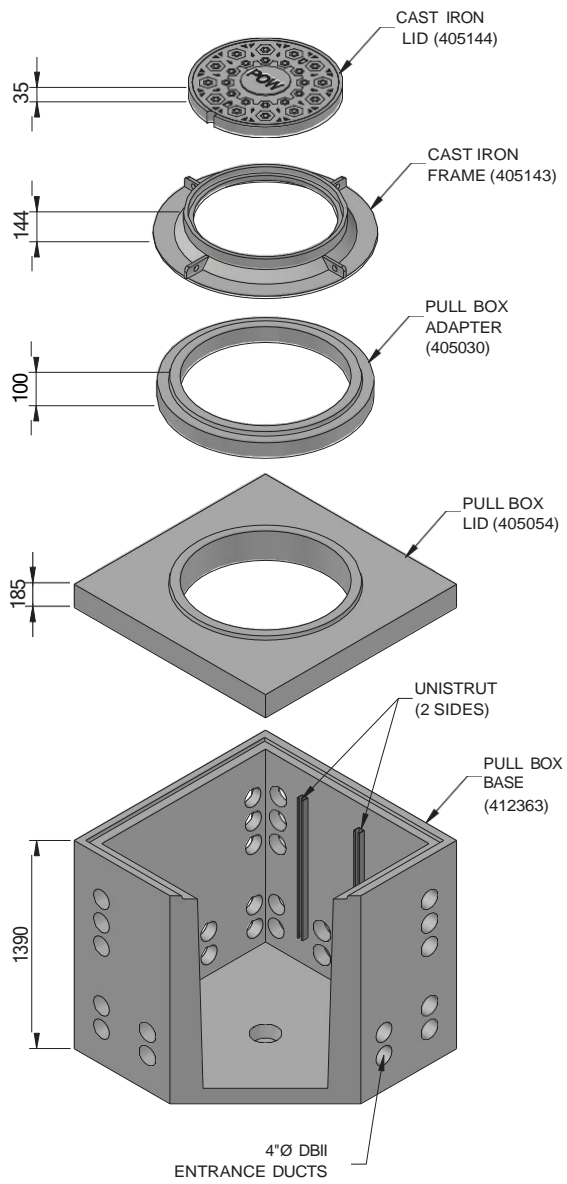
914mm I.D. RISER

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Dwg. No. **2-0010**

SAP No. **405041**



Notes

Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight (Kit)	2,853 kg (6,277 lbs)
Load Rating	Traffic CL-625

Product Detail

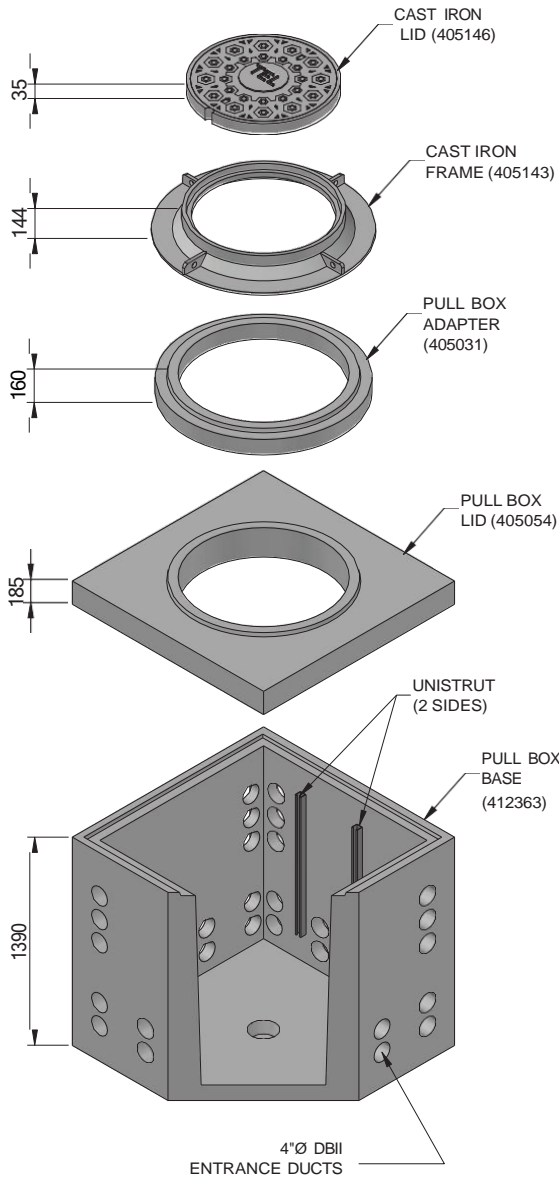
Pull Box Base	412363 (1420 x 1420 x 1390)
Pull Box Lid	405054 (1420 x 1420 x 185)
Straight Adapter	405031 (900 ID x 100 DP)
Cast Iron Frame	405143 (762 ID x 144 DP)
Cast Iron Lid (Power)	405144 (805 OD x 35 DP)
Bolts and Washers	105389
RAM-NEK Gasket	405145

Optional (Extra)

Cast Iron Lid	TEL, or Blank
Load Rated	Pedestrian

Revision Date **April. 01 2019**

	PULL BOX KIT (Fortis 755-0558)	KIT. No. 1790
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Notes

Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant
	S2 Exposure
Reinforcement	Grade 400
Weight (Kit)	2,853 kg (6,277 lbs)
Load Rating	Traffic CL-625

Product Detail

Pull Box Base	412363 (1420 x 1420 x 1390)
Pull Box Lid	405054 (1420 x 1420 x 185)
Straight Adapter	405031 (900 ID x 160 DP)
Cast Iron Frame	405143 (762 ID x 144 DP)
Cast Iron Lid (Tel)	405146 (805 OD x 35 DP)
Bolts and Washers	105389
RAM-NEK Gasket	405145

Optional (Extra)

Cast Iron Lid	TEL or Blank
Load Rated	Pedestrian

Revision Date **April. 01 2019**



PULL BOX KIT (Telus 2385575)

Kit. No. **1849**

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Sap No.

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Fax: (403) 279-6027

Notes
 Site installation, backfilling and suitability for use are to be determined by others.
 Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail
 CPCI Standard Group S
 CSA Standard A23.3-14, A23.4-09
 Concrete Strength 35 MPa @ 28 Days
 Concrete Type Sulphate Resistant S2 Exposure
 Reinforcement Grade 400
 Weight (Kit) 2,701 kg (5,942 lbs)
Load Rating Pedestrian

Product Detail
 Pull Box Base 405052 (1420 x 1420 x 1340)
 Pull Box Lid 405053 (1420 x 1420 x 150)
 Cast Iron Frame 405143
 Cast Iron Lid (Power) 405144
 Bolts and Washers 105389
 RAM-NEK Gasket 405145

Optional (Extra)
 Cast Iron Lid TEL, or Blank
 Load Rated

Revision Date April. 01 2019

	<p>PULL BOX KIT (Epcor 80011)</p>	Kit. No. 1791
	<p>KNELSEN PRECAST - Western Canada (Calgary, Edmonton)</p>	SAP No.
	<p>www.knelsen.com</p>	-
	<p>Tel: (403) 279-8161 Fax: (403) 279-6027</p>	-

Notes
 Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant
	S2 Exposure
Reinforcement	Grade 400
Weight (Kit)	2,701 kg (5,942 lbs)
Load Rating	Pedestrian


Product Detail

Pull Box Base	405052 (1420 x 1420 x 1340)
Pull Box Lid	405053 (1420 x 1420 x 150)
Cast Iron Frame	405143 (762 ID x 144 DP)
Cast Iron Lid (Tel)	405146 (805 OD x 35 DP)
Bolts and Washer	105389
RAM-NEK Gasket	405145

Optional (Extra)

Cast Iron Lid	TEL, POW, or Blank
Load Rated	

Revision Date **April. 01 2019**

	PULL BOX KIT (Telus 1017755)	Dwg. No. 405134
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Notes
 Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight (Kit)	2,853 kg (6,277 lbs)
Load Rating	Pedestrian

Product Detail

Pull Box Base	405052 (1420 x 1420 x 1340)
Pull Box Lid	405054 (1420 x 1420 x 185)
Straight Adapter	405031 (900 ID x 100 DP)
Cast Iron Frame	405143 (762 ID x 144 DP)
Cast Iron Lid (Power)	405144 (805 OD x 35 DP)
RAM-NEK Gasket	405145

Optional (Extra)

Cast Iron Lid	TEL, POW or Blank
Load Rated	Pedestrian

Revision Date **April. 01 2019**

PULL BOX KIT (CN RAIL)

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Dwg. No. -

SAP No. **1828**

Notes
 Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail
 CPCI Standard
 CSA Standard
 Concrete Strength
 Concrete Type
 Reinforcement
 Weight (Kit)
Load Rating

Group S
 A23.3-14, A23.4-09
 35 MPa @ 28 Days
 Sulphate Resistant
 S2 Exposure
 Grade 400
 4,152 kg (9,134 lbs)
CL-625

Product Detail

Pull Box Base	405061 (1520 X1520 X1380)
Pull Box Lid	405062 (1530 X1530 X 200)
Pull Box Riser	405035 (900 ID X150 DP)
Straight Adapter	405031 (900 ID X160 DP)
Cast Iron Frame	405143 (762 ID X144 DP)
Cast Iron Lid (IEL)	405146 (805 OD X35 DP)
Boils and Washer	105389
RAM-NEK Gasket	405145

Optional (Extra)
 Cast Iron Lid IEL, POW, or Blank
 Load Rated

Revision Date **April. 01 2019**

	PULL BOX KIT (BELL) KNELSEN PRECAST - Western Canada (Calgary, Edmonton) www.knelsen.com	Kit. No. 405135 SAP No. -
	Tel: (403) 279-8161 Fax: (403) 279-6027	

Notes
 Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight (Kit)	6,750 kg (14,850 lbs)
Load Rating	Pedestrian

Product Detail

Pull Box Base	405063 (1436 x 2400 x 1100 DP)
Pull Box Riser	405064 (1436 x 2400 x 600 DP)
Pull Box Riser	405065 (1436 x 2400 x 300 DP)
Pull Box Standard Lid	405066 (1436 x 2400 x 19 DP)
RAM-NEK Gasket	405145

Revision Date

April. 01 2019

PULL BOX KIT

Kit. No. **405136**

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-

Notes
 Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail
 CPCI Standard Group S
 CSA Standard A23.3-14, A23.4-09
 Concrete Strength 35 MPa @ 28 Days
 Concrete Type Sulphate Resistant
 S2 Exposure
 Reinforcement Grade 400
 Weight (Kit) 7,060 kg (15,871 lbs)
Load Rating **Pedestrian**
Min Cover Depth
Max Cover Depth

Product Detail
 Pull Box Base 405063 (1436 x 2400 x 1100 DP)
 Pull Box Riser 405064 (1436 x 2400 x 600 DP)
 Pull Box Riser 405065 (1436 x 2400 x 300 DP)
 Pull Box Concrete Lid 411707 (1436 x 2400 x 250 DP)
 RAM-NEK Gasket 405145

Optional (Extra)
 Load Rated CL-625

Revision Date **April. 01 2019**

PULL BOX KIT

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Kit. No. **1852**

SAP No. -

Notes
 Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

***Note**
 RAM-NEK gasket could add an additional 10-20mm in height

Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight (Kit)	4,222 kg (9,288 lbs)
Load Rating	Pedestrian

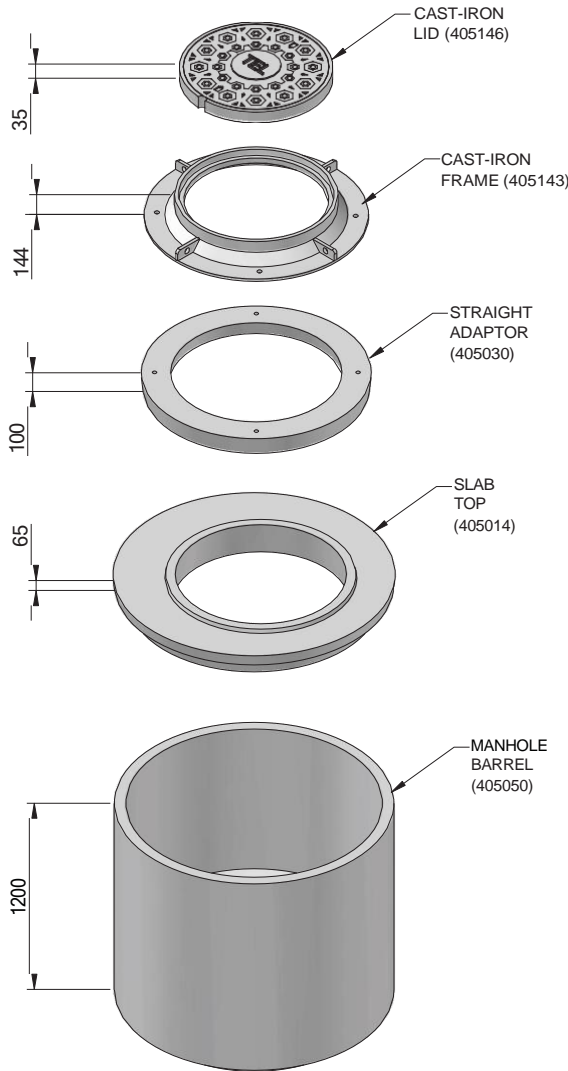
Product Detail

Pull Box Base	405067 (1474 x1474 x 965)
Manhole Barrel	405050 (900 ID x1200 DP)
Slab Top	405014 (900 ID x 65 DP)
Straight Adaptor	405031 (900 ID x 160 DP)
Cast Iron Frame	405143 (762 ID x 144 DP)
Cast Iron Lid (TEL)	405146 (805 OD x 35 DP)
Bolts and Washers	105389
RAM-NEK Gasket*	405145

Optional (Extra)
 Load Rated CL-625

Revision Date **April. 01 2019**

	PULL BOX KIT (TELUS 1018094)	Dwg. No. 3-0057-A1
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***Note**
RAM-NEK Gasket could add an additional
10-20mm in height

Notes

Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight (Vault only)	1,156 kg (2,543 lbs)
Load Rating	Traffic CL-625

Product Detail

Kit Height	1510 mm
Outside Dimension	1160 mm
Inside Dimension	900 mm
Lift Mechanism	Aircraft Cable
Lid & Frame	Cast Iron
Lid Reference	POW, TEL, Blank
Seal	RAM-NEK Gasket

Individual Items

Cast Iron Lid	405146 (802 OD x35 DP)
Cast Iron Frame	405143 (762 ID x144 DP)
Bolts & Washers	105389
Gasket (RAM-NEK)*	405145
Straight Adaptor	405030 (900 ID x100 DP)
Gasket (RAM-NEK)*	405145
Slab Top	405014 (900 ID x 65 DP)
Gasket (RAM-NEK)*	405145
Manhole Barrel	405050 (1220 ID x 1200 DP)
Gasket (RAM-NEK)*	405145

Revision Date **April. 01 2019**



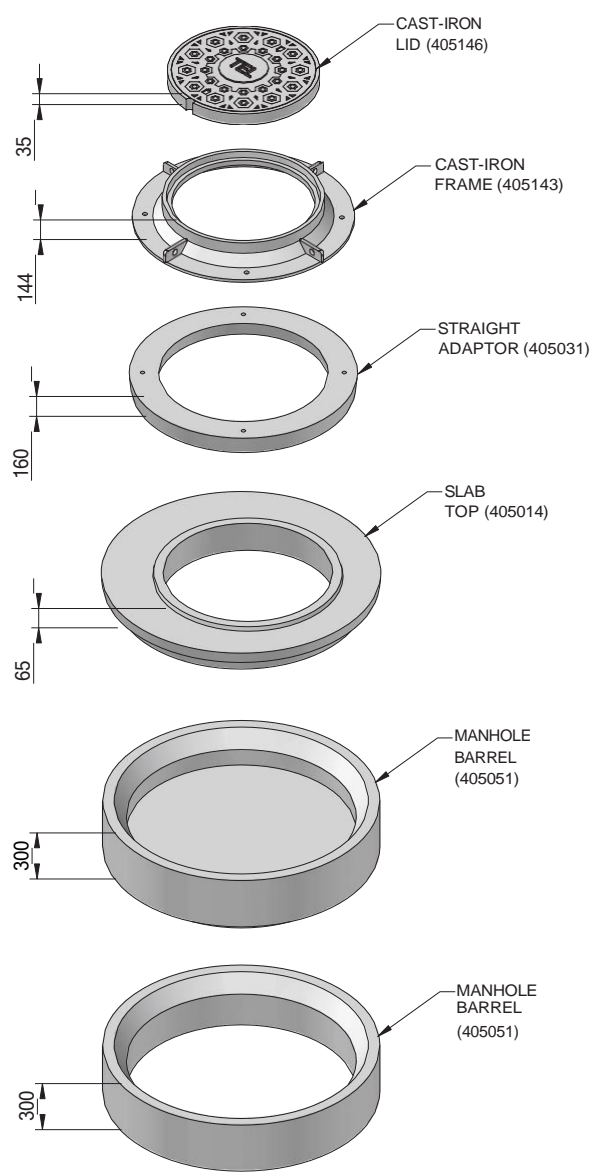
1510mm Neck Extension Kit*

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Dwg. No. **3-0057-A2**

SAP No. **500000**



Notes

Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight (Vault only)	1,156 kg (2,543 lbs)
Load Rating	Traffic CL-625

Product Detail

Kit Height	970 mm
Outside Dimension	1160 mm
Inside Dimension	900 mm
Lift Mechanism	Aircraft Cable
Lid & Frame	Cast Iron
Lid Reference	POW, TEL, Blank
Seal	RAM-NEK Gasket

Individual Items

Cast Iron Lid	405146 (802 OD x35 DP)
Cast Iron Frame	405143 (762 ID x144 DP)
Bolts & Washers	105389
Gasket (RAM-NEK)*	405145
Straight Adaptor	405031 (900 ID x160 DP)
Gasket (RAM-NEK)*	405145
Slab Top	405014 (900 ID x 65 DP)
Gasket (RAM-NEK)*	405145
Manhole Barrel	405051 (1220 ID x 300 DP)
Gasket (RAM-NEK)*	405145

***Note**
RAM-NEK gasket could add an additional 10-20mm in height

Revision Date **April. 01 2019**



970mm Neck Extension Kit*

Dwg. No. **3-0057-A3**

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SAP No. **405138**

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PLAN

ELEVATION A

ELEVATION B

Notes

Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight (Base)	1,680 kg (3,704 lbs)

Load Rating **Pedestrian**

Product Detail

Dimension	1420 x 1420 x 1340
Knockouts	120 mm or 5" ID
Wall Racking	n/a
Wall Inserts	PD: 1/2" & SLF: 3/4"
Sump Hole	180 mm
Lift Mechanism	Aircraft Cable

Accessories (Extra)

Seal	RAM-NEK Gasket
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Options (Extra)

Load Rated

Revision Date **April. 01 2019**

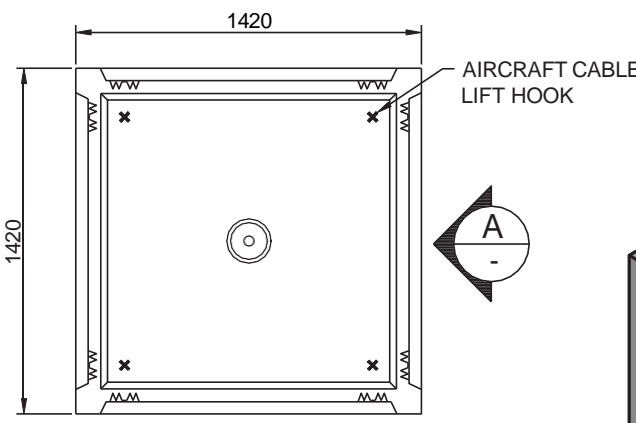
1420 x 1420 x 1340 PULL BOX

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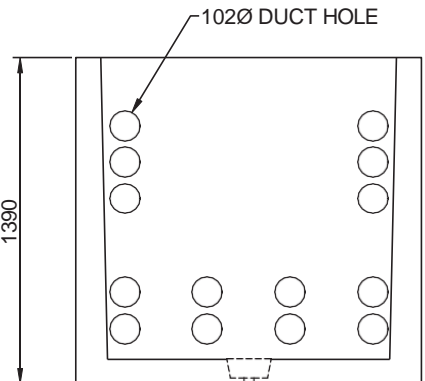
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 Fax: (403) 279-6027

Dwg. No. **3-0011**

SAP No. **405052**

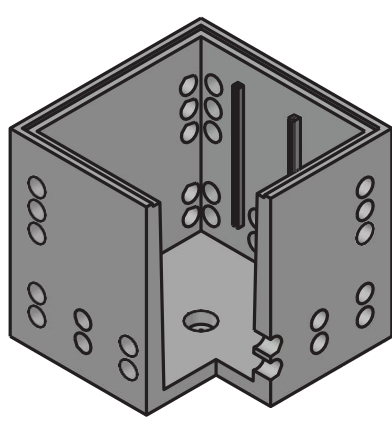


PLAN



ELEVATION

Notes
 Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.



Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	1,640 kg (3,598 lbs)
Load Rating	Traffic Rated CL-625


Product Detail

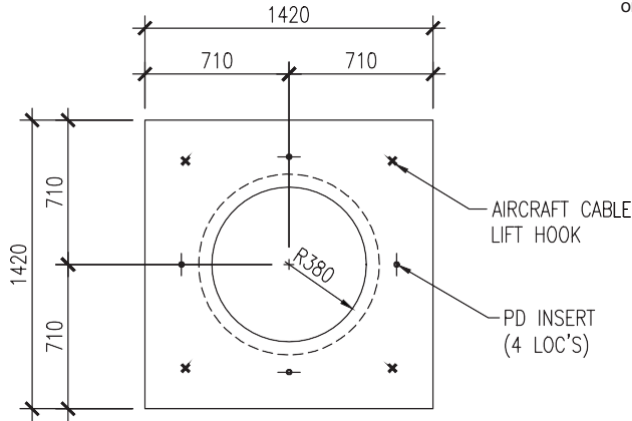
Dimension	1420 x 1420 x 1340
Duct Holes	102 mm or 4" ID
Wall Racking	n/a
Wall Inserts	PD: 1/2" & SLF: 3/4"
Sump Hole	180 mm
Lift Mechanism	Aircraft Cable

Accessories (Extra)
 Seal RAM-NEK Gasket

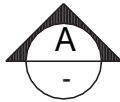
Options (Extra)
 Load Rated

Revision Date **April. 01 2019**

	<p>1420 x 1420 x 1390 PULL BOX</p> <p>KNELSEN PRECAST - Western Canada (Calgary, Edmonton)</p> <p>www.knelsen.com</p>	<p>Dwg. No. 3-0011</p> <p>SAP No. 412363</p>
	<p>Tel: (403) 279-8161 Fax: (403) 279-6027</p>	

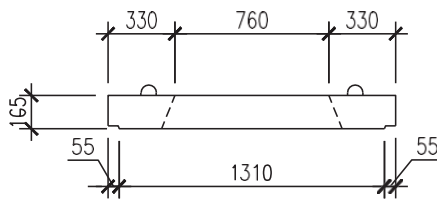
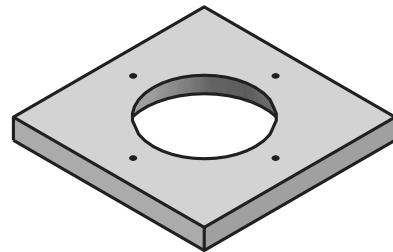


PLAN



Notes

Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.



A ELEVATION

Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	590 kg (1,300 lbs)
Load Rating	Pedestrian

Product Detail

Dimension	1420 x 1420 x 165
Inserts	PD: 5/8"
Lift Mechanism	Aircraft Cable

Accessories (Extra)

Seal	RAM-NEK Gasket
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Options (Extra)

Load Rated	CL-625
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Revision Date April. 01 2019



LID WITHOUT RING

Dwg. No. **3-0011-2**

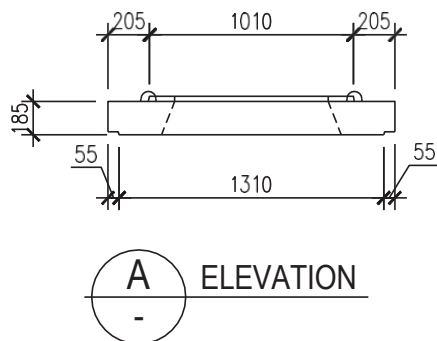
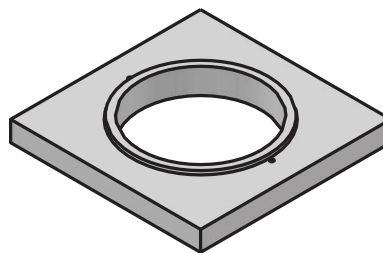
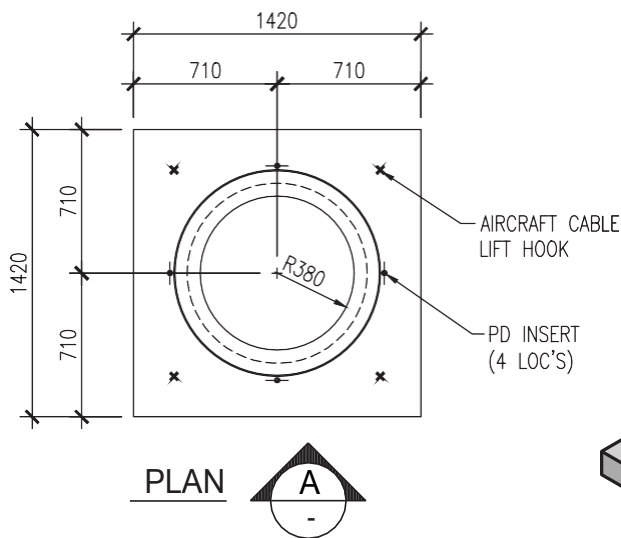
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405053

Notes

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Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	590 kg (1,300 lbs)
Load Rating	Traffic Rated CL-625

Product Detail

Dimension	1420 x 1420 x 165
Inserts	PD: 5/8"
Lift Mechanism	Aircraft Cable

Accessories (Extra)

Seal	RAM-NEK Gasket
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Options (Extra)

Load Rated	Pedestrian
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Revision Date **April. 01 2019**



LID WITH RING

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Dwg. No. **3-0011-3**

SAP No. **405054**

PLAN

BURKE ANCHOR (4 LOC'S)

A SECTION

B SECTION

(5)-"PD" INSERTS EA. SIDE

(3)-"PD" INSERTS EA. SIDE

Notes

Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

LID 405057

BASE 405055

Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight (Base)	1,350 kg (2,970 lbs)
Load Rating	Pedestrian

Product Detail - Base

Dimension	1220 x 1550 x 1220
Wall Inserts	PD: 1/2"
Lift Mechanism	Burke Anchors

Accessories (Extra)

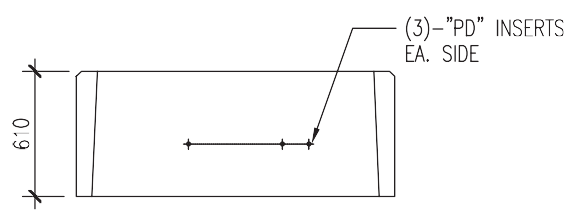
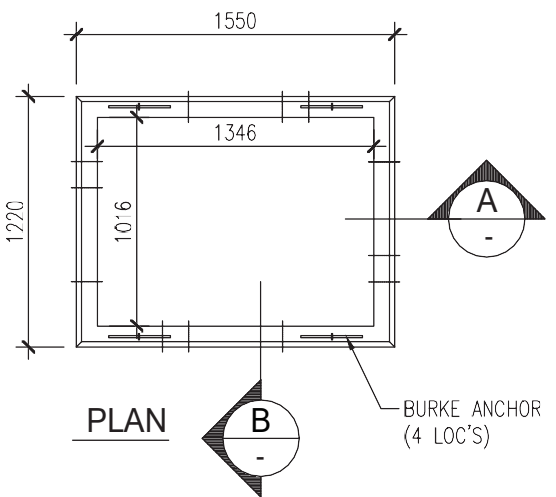
Standard Lid	1220 x 1550x 170
Seal	RAM-NEK Gasket

Options (Extra)

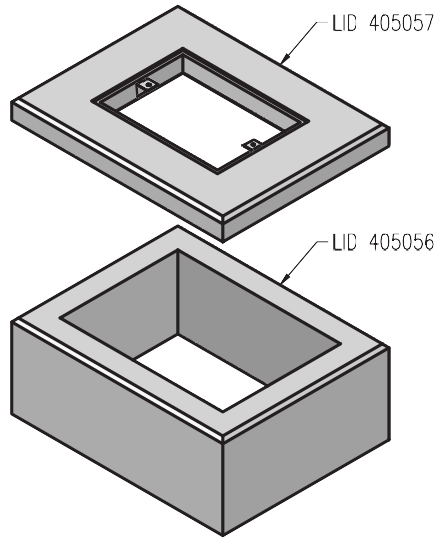
Load Rated	CL-625
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Revision Date **April. 01 2019**

	1220 x 1550 x 1220 PULL BOX	Dwg. No. 3-0012
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Notes
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Technical Detail

CPCI Standard	Group S
CSA Standard Concrete Strength	A23.3-14, A23.4-09 35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight (Base)	680 kg (1,495 lbs)
Load Rating	Pedestrian

Product Detail - Base

Dimension	1220 x 1550 x 610
Wall Inserts	PD: 1/2"
Lift Mechanism	Burke Anchors

Accessories (Extra)

Standard Lid	1220 x 1550 x 170
Seal	RAM-NEK Gasket

Options (Extra)

Load Rated	CL-625
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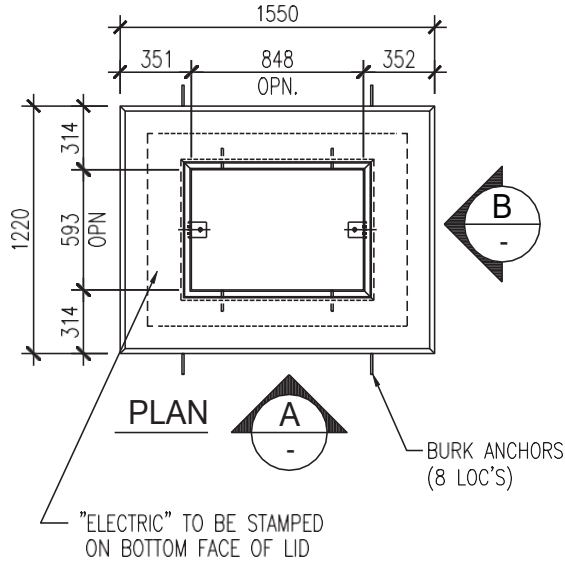
Revision Date April. 01 2019



1220 x 1550 x 610 PULL BOX Dwg. No. **3-0012**

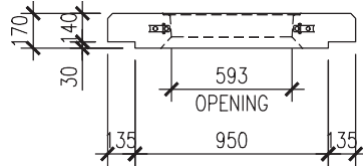
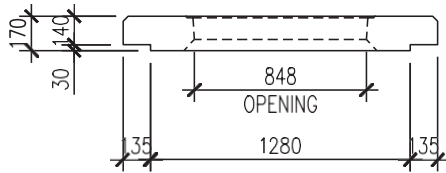
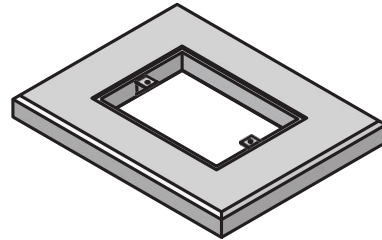
KNELSEN PRECAST - Western Canada (Calgary, Edmonton) SAP No. **405056**

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Notes

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Technical Detail

CPCI Standard	Group S
CSA Standard Concrete Strength	A23.3-14, A23.4-09 35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	481 kg (1,058 lbs)
Load Rating	Pedestrian

Product Detail

Dimension	1550 x 1220 x 1220
Opening	848 mm x 593 mm
Lid Type	Steel Checker Plate
Lift Mechanism	Burke Anchors

Accessories (Extra)

Seal	RAM-NEK Gasket
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Options (Extra)

Load Rated	CL-625
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Revision Date April. 01 2019



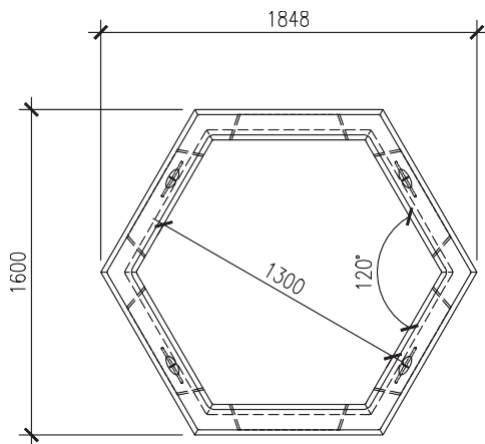
1220 x 1550 STANDARD LID

Dwg. No. **3-0012**

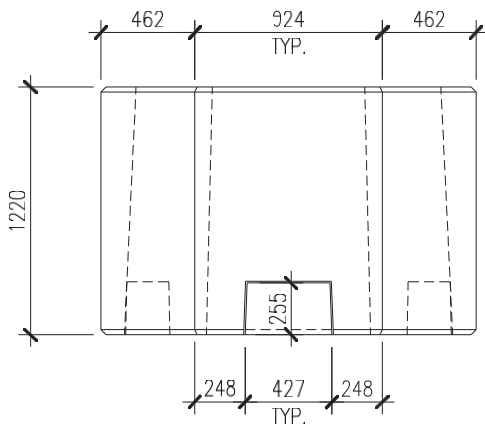
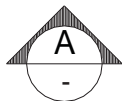
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SAP No. **405057**



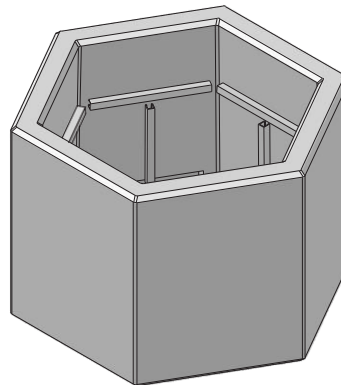
PLAN



A ELEVATION
TYP. EA. SIDE

Notes

Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.



Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight (Base)	1,755 kg (3,862 lbs)
Load Rating	Pedestrian

Product Detail - Base

Dimension	1600 x 1848 x 1220
Blockouts	415 mm x 260 mm
Wall Racking	Strut
Wall Inserts	SLF: 1/2"
Lift Mechanism	Burke Anchors

Accessories (Extra)

Seal	RAM-NEK Gasket
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Options (Extra)

Load Rated	CL-625
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Revision Date **April. 01 2019**



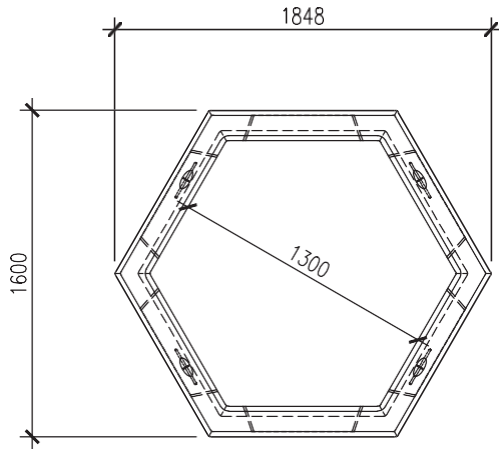
HEXAGONAL PULL BOX

Dwg. No. **3-0013**

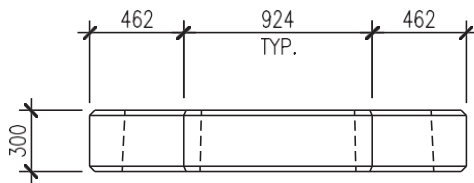
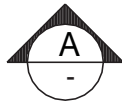
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SAP No. **405058**



PLAN

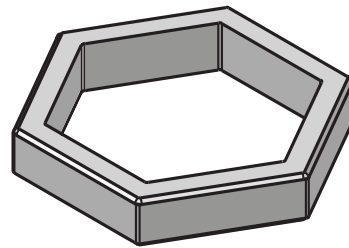


A

ELEVATION

Notes

Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.



Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	527 kg (1,160 lbs)
Load Rating	Pedestrian

Product Detail

Dimension	1600 x 1848 x 300
Lift Mechanism	Burke Anchors

Accessories (Extra)

Seal	RAM-NEK Gasket
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Options (Extra)

Load Rated	CL-625
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Revision Date April. 01 2019



HEXAGONAL RISER

Dwg. No. **3-0013**

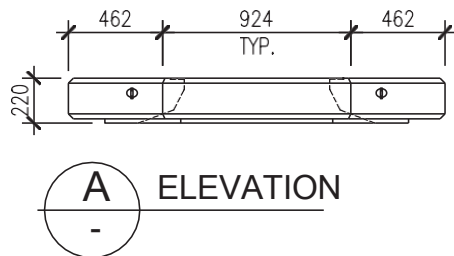
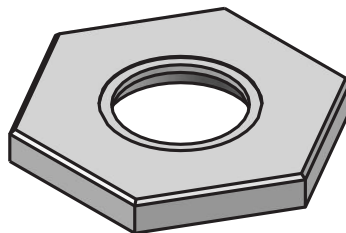
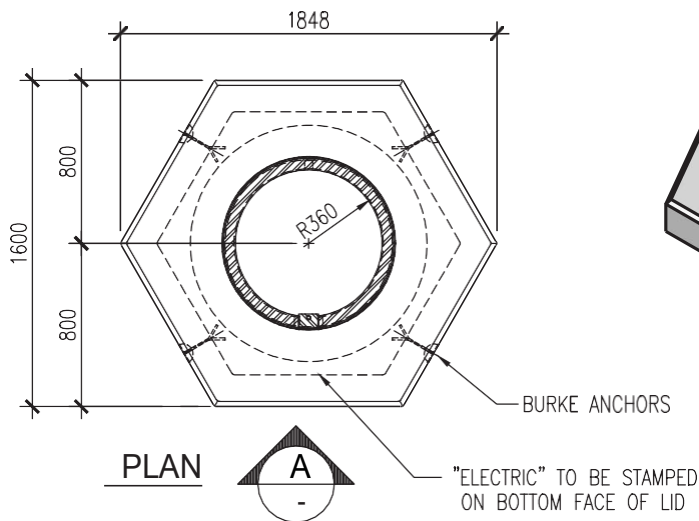
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SAP No. **405060**

Notes

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Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant
	S2 Exposure
Reinforcement	Grade 400
Weight	1,082 kg (2,381 lbs)
Load Rating	Pedestrian

Product Detail

Dimension	1600 x 1848 x 220
Lift Mechanism	Burke Anchors

Accessories (Extra)

Seal	RAM-NEK Gasket
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Options (Extra)

Load Rated	CL-625
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Revision Date **April. 01 2019**

	HEXAGONAL LID	Dwg. No. 3-0013
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PLAN

1520, 177, 320, 1166, 1076, DAYTON INSERT, 220, 177, 177, 1520

SECTION A

1380, 105, 1310, 105, 2" Ø ENT. DUCT EA. END, 1" Ø HOLE (2 LOC'S), 150, 102, 1166, 102, 4" Ø ENT. DUCT EA. END

SECTION B

UNISTRUIT BACK, SUMP HOLE

Notes

Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

LID 405062

BASE 405061

Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight (Base)	2,580 kg (5,688 lbs)

Load Rating **Traffic Rated CL625**

Product Detail - Base

Dimension	1520 x 1520 x 1380
Ducts (upper)	51 mm or 2" ID (DBII)
Ducts (lower)	102 mm or 4" ID (DBII)
Wall Racking	Strut
Floor Inserts	1" F-52 Dayton
Sump Hole	320 mm x 220 mm
Lift Mechanism	Aircraft Cable

Accessories (Extra)

Seal	RAM-NEK Gasket
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Options (Extra)

Load Rated	Pedestrian
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Revision Date **April. 01 2019**

1520 x 1520 x 1380 PULL BOX

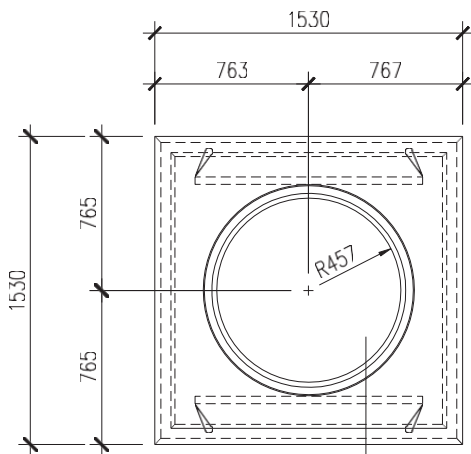
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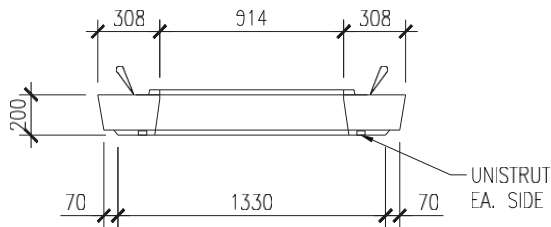
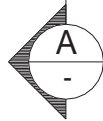
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Dwg. No. **3-0015**

SAP No. **405061**



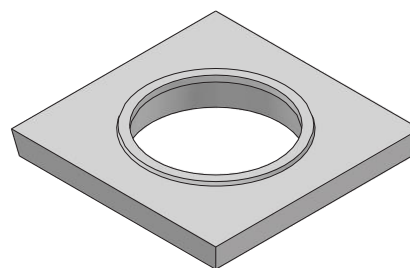
PLAN



A SECTION

Notes

Site installation, backfilling and suitability for use are to be determined by others.
 Amrtec is not responsible for modifications, coring or coatings not provided by Amrtec others.



Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	810 kg (1,786 lbs)

Load Rating Traffic Rated CL-625

Product Detail

Dimension	1530 x 1530 x 200
Lift Mechanism	Aircraft Cable

Accessories (Extra)

Seal	RAM-NEK Gasket
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Options (Extra)

Load Rated	Pedestrian
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Revision Date April. 01 2019



PULL BOX LID

Dwg. No. **3-0015**

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SAP No. **405062**

PLAN

A ELEVATION

B ELEVATION

Notes
 Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight (Base)	3,350 kg (7,385 lbs)
Load Rating	Pedestrian

Product Detail

Dimension	1436 x 2400 x 1100
Standard Duct Size	102 mm or 4" ID (DBII)
Wall Racking	n/a
Wall Inserts	PD: 1/2"
Pull Iron	25 mm
Lift Mechanism	Aircraft Cable

Accessories (Extra)

Lid	1436 x 2400 x 250
Riser (600 mm)	1436 x 2400 x 600
Riser (300 mm)	1436 x 2400 x 300
Seal	RAM-NEK Gasket

Options (Extra)

Duct Sizes	5" or 6" ID (DBII)
Duct Location	As requested
Load Rated	CL-625

Revision Date **April. 01 2019**

1436 x 2400 x 1100 PULL BOX

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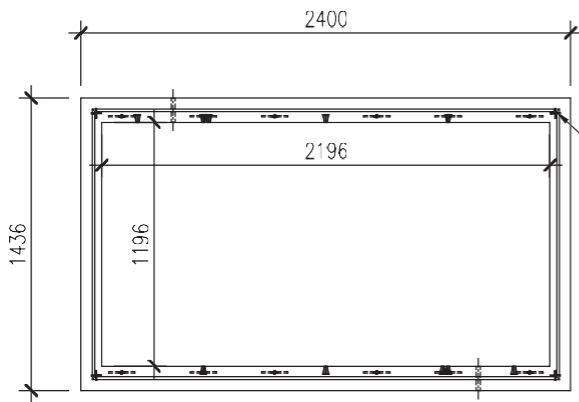
Tel: (403) 279-8161
 Fax: (403) 279-6027

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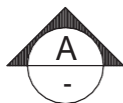
SAP No. **405063**

Notes

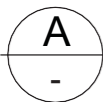
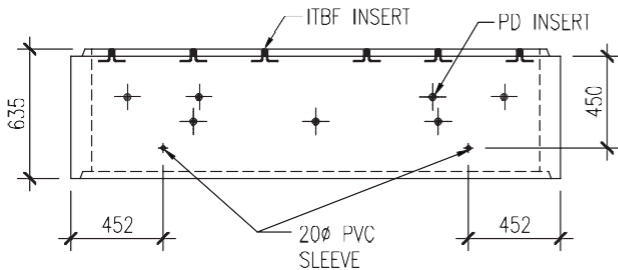
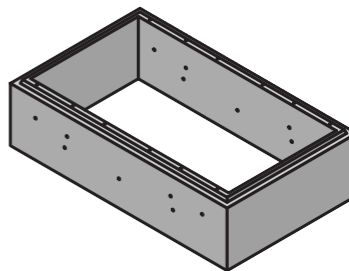
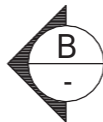
Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.



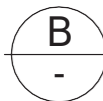
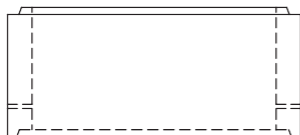
PLAN



AIRCRAFT CABLE LIFT HOOK



ELEVATION



ELEVATION

Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	1,175 kg (2,590 lbs)
Load Rating	Pedestrian

Product Detail

Dimension	1436 x 2400 x 635
Wall Inserts	PD: 3/8" & 1/2" & ITBF: 3/8"
Lift Mechanism	Aircraft Cable

Accessories (Extra)

Seal	RAM-NEK Gasket
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Options (Extra)

Load Rated	CL-625
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Revision Date **April. 01 2019**



PULL BOX RISER

Dwg. No. **3-0016**

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SAP No. **405064**

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PLAN

A ELEVATION

B ELEVATION

Notes

Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	655 kg (1,444 lbs)
Load Rating	Pedestrian

Product Detail

Dimension	1436 x 2400 x 335
Wall Inserts	ITBF: 3/8"
Lift Mechanism	Aircraft Cable

Accessories (Extra)

Seal	RAM-NEK Gasket
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Options (Extra)

Load Rated	CL-625
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Revision Date **April. 01 2019**

PULL BOX RISER

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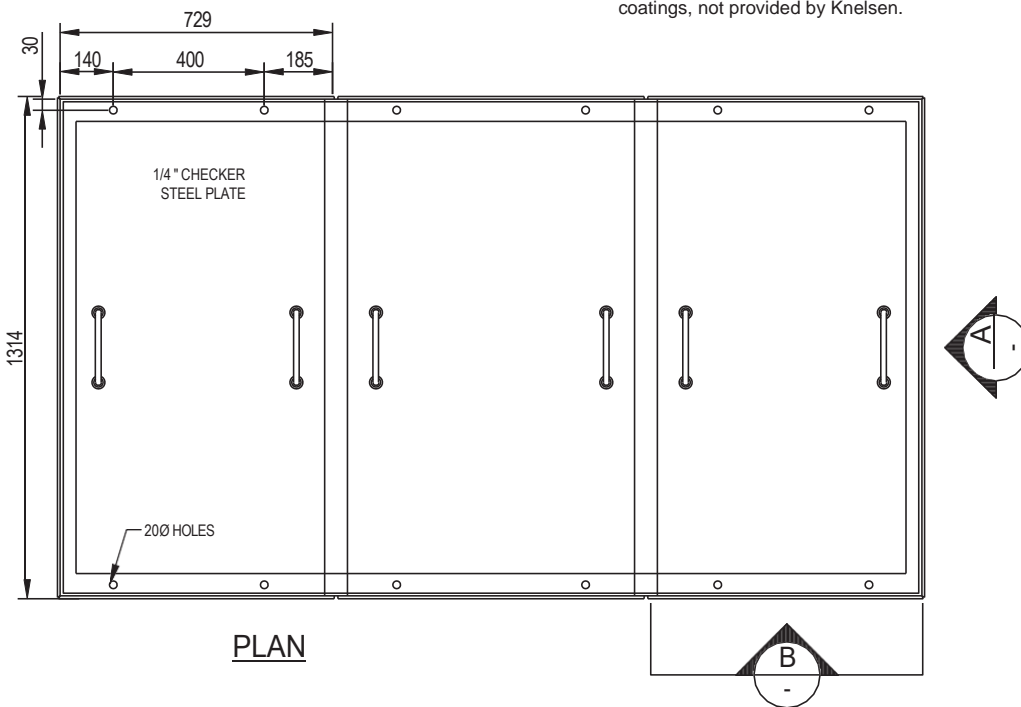
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Dwg. No. **3-0016**

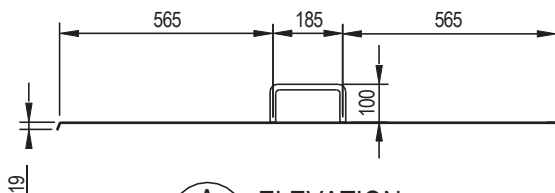
SAP No. **405065**

Notes

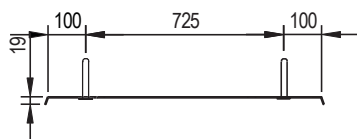
Site installation, backfilling and suitability for use are to be determined by others.
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PLAN



A ELEVATION
SCALE:



B ELEVATION
SCALE:

Technical Detail

CPCI Standards	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant
	S2 Exposure
Reinforcement	Grade 400
Weight	58 kg (128 lbs.)
Load Rating	Pedestrian

Product Details

Outer Cover	1314mm x 725mm
Inner Cover	1314mm x 810mm
Handle Dimension	100mm x 200mm
Handle Thickness	15mm
Bolt Holes	2 x 20mm

Revision Date **April. 01 2019**

	<p>Pull Box - 3 Piece Checker Plated Lid</p>	<p>Dwg. No. -</p>
	<p>KNELSEN PRECAST - Western Canada (Calgary, Edmonton)</p> <p>www.knelsen.com</p> <p>Tel: (403) 279-8161 Fax: (403) 279-6027</p>	<p>SAP No. 405066</p>

Notes
 Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

PLAN

A ELEVATION

B SECTION

Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight (Base)	1,559 kg (3,430 lbs)
Load Rating	Traffic Rated CL-625

Product Detail

Dimension	1436 x 2400 x 250
Lift Mechanism	1/4" Ø Strand

Revision Date **April. 01 2019**

	PULL BOX LID	Dwg. No. 3-0016
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Notes
 Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight (Base)	1,730 kg (3,814 lbs)
Load Rating	Pedestrian

Product Detail

Dimension	1474 x 1474 x 965
Standard Duct Size (DBII)	102 mm or 4" ID
Wall Racking	n/a
Lift Mechanism	Burke Anchors

Accessories (Extra)

Seal	RAM-NEK Gasket
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Options (Extra)

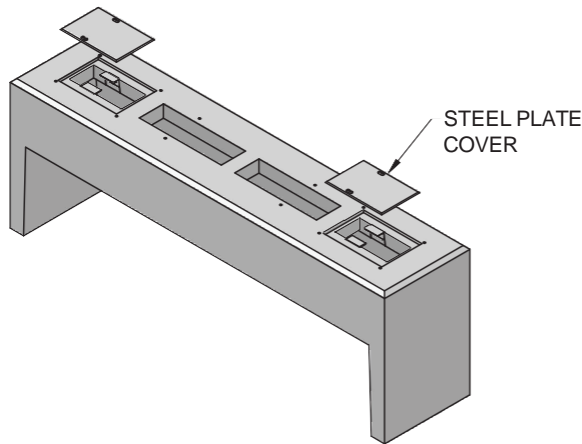
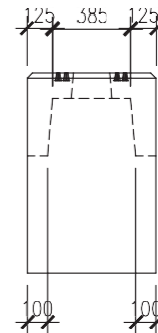
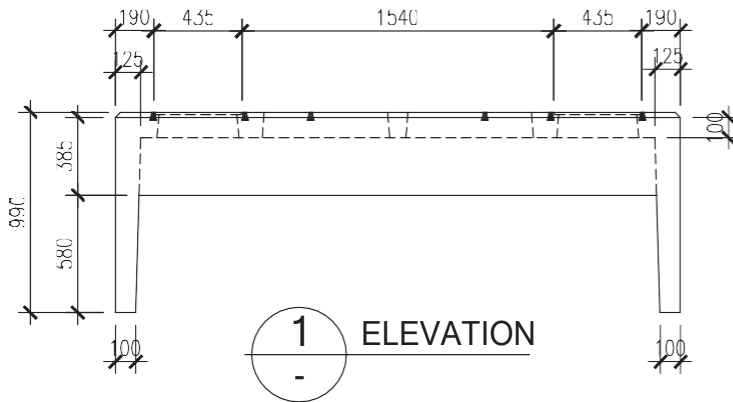
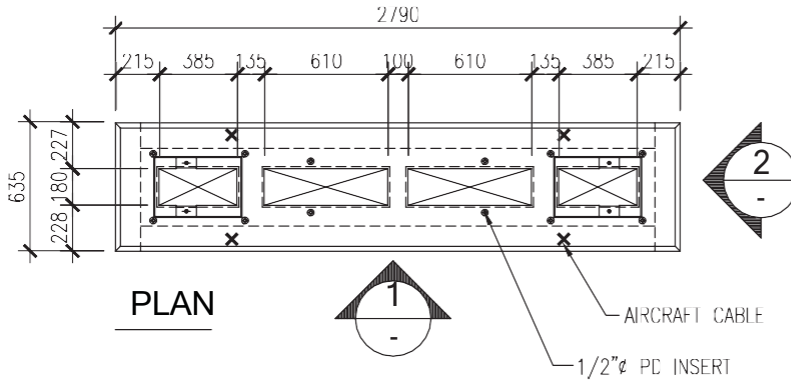
Duct Sizes	5" or 6" ID (DBII)
Duct Location	As requested
Load Rated	CL-625

Revision Date **April. 01 2019**

	OCTAGONAL PULL BOX	Dwg. No. 3-0057
	KNELSEN PRECAST - Western Canada (Calgary, Edmonton) www.knelsen.com	SAP No. 405067
	Tel: (403) 279-8161 Fax: (403) 279-6027	

Notes

Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.



Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight (Vault only)	1,111 kg (2,444 lbs)
Load Rating	Pedestrian

Product Detail

Outside Dimension	635 x 2790 x 990
Inserts	PD: 1/2"
Lift Mechanism	Aircraft Cable

Revision Date **April. 01 2019**



CABINET BASE

Dwg. No. **4-0024**

KNELSEN PRECAST - Western Canada (Calgary, Edmonton)
www.knelsen.com

Tel: (403) 279-8161
 Fax: (403) 279-6027

SAP No. **405068**

PLAN

1 ELEVATION

2 ELEVATION

Notes
 Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

AIRCRAFT CABLE LIFT HOOK

LF INSERTS (8 LOC'S)

Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight (Vault only)	1,655 kg (3,640 lbs)
Load Rating	Pedestrian

Product Detail

Outside Dimension	1346 x 2030 x 1065
Inserts	SLF: 1/2"
Lift Mechanism	Aircraft Cable

Revision Date **April. 01 2019**

	CABINET BASE	Dwg. No. 4-0041
	KNELSEN PRECAST - Western Canada (Calgary, Edmonton) www.knelsen.com	SAP No. 405069 Tel: (403) 279-8161 Fax: (403) 279-6027

PLAN

1

1 ELEVATION

2 ELEVATION

Notes

Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight (Vault only)	827 kg (1,820 lbs)
Load Rating	Pedestrian

Product Detail

Outside Dimension	1016 x 1168 x 991
Inserts	PD: 1/2"
Lift Mechanism	Aircraft Cable

Revision Date **April. 01 2019**

	CABINET BASE	Dwg. No. 4-0043
	KNELSEN PRECAST - Western Canada (Calgary, Edmonton) www.knelsen.com	SAP No. 405070
	Tel: (403) 279-8161 Fax: (403) 279-6027	

PLAN

1/2" PD INSERT

AIRCRAFT CABLE

1 ELEVATION

2 ELEVATION

Notes

Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight (Vault only)	962 kg (2,116 lbs)
Load Rating	Pedestrian

Product Detail

Outside Dimension	635 x 2286 x 990
Inserts	PD: 1/2"
Lift Mechanism	Aircraft Cable

Revision Date **April. 01 2019**

CABINET BASE

KNELSEN PRECAST - Western Canada (Calgary, Edmonton)

www.knelsen.com

Tel: (403) 279-8161
Fax: (403) 279-6027

Dwg. No. **4-0044**

SAP No. **405071**

PLAN

1 ELEVATION

2 ELEVATION

Notes
 Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight (Vault only)	505 kg (1,111 lbs)
Load Rating	Pedestrian

Product Detail

Outside Dimension	830 x 1230 x 925
Inserts	PD: 1/2"
Lift Mechanism	Aircraft Cable

Revision Date **April. 01 2019**

CABINET BASE

KNELSEN PRECAST - Western Canada (Calgary, Edmonton)

www.knelsen.com

Dwg. No. **4-0045**

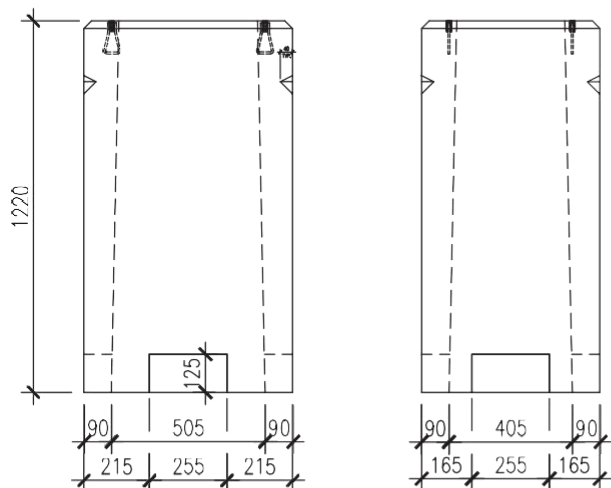
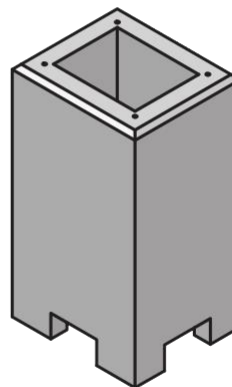
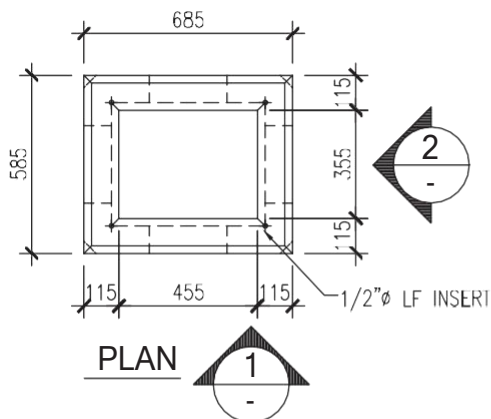
SAP No. **405072**

Tel: (403) 279-8161

Fax: (403) 279-6027

Notes

Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.



1 ELEVATION

2 ELEVATION

Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant
Reinforcement	S2 Exposure
Weight (Vault only)	Grade 400
Load Rating	635 kg (1,396 lbs)
	Pedestrian

Product Detail

Outside Dimension	585 x 685 x 1220
Inserts	LF: 1/2"
Lift Mechanism	Aircraft Cable

Revision Date **April. 01 2019**



CABINET BASE

Dwg. No. **4-0046**

KNELSEN PRECAST - Western Canada (Calgary, Edmonton)
www.knelsen.com

SAP No. **405073**

Tel: (403) 279-8161
Fax: (403) 279-6027

PLAN

1 ELEVATION

2 ELEVATION

Notes
 Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant
	S2 Exposure
Reinforcement	Grade 400
Weight (Vault only)	695 kg (1,530 lbs)
Load Rating	Pedestrian

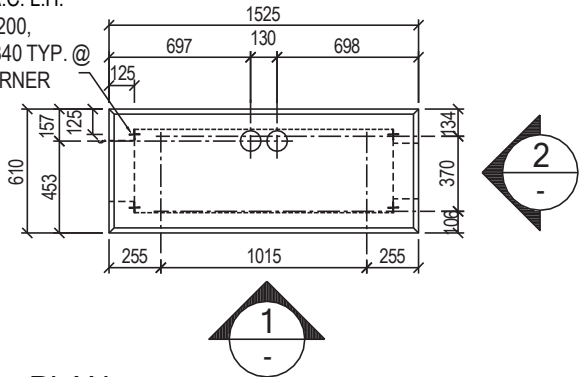
Product Detail

Outside Dimension	610 x 1525 x 990
6 Knockouts	105 mm
Inserts	PD: 1/2"
Lift Mechanism	Aircraft Cable

Revision Date **April. 01 2019**

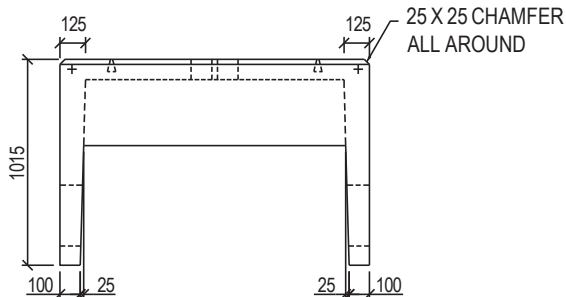
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	KNELSEN PRECAST - Western Canada (Calgary, Edmonton)	SAP No.
	www.knelsen.com	405074
	Tel: (403) 279-8161 Fax: (403) 279-6027	

3/8"Ø A.C. L.H.
 PROJ. 200,
 C.L.=2840 TYP.
 EA. CORNER



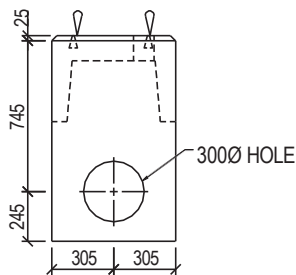
PLAN

SCALE:



1 ELEVATION

SCALE:

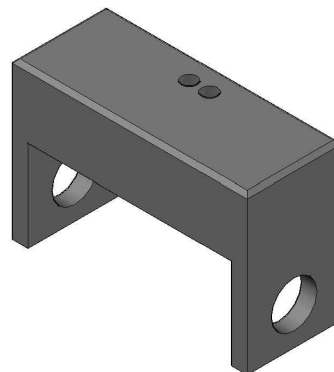


2 ELEVATION

SCALE:

Notes

Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.



Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	1,640 kg (3,615 lbs)
Load Rating	Pedestrian

Product Detail

Outside Dimension	610 x 1525 x 990
Inserts	PD: 1/2"
Lift Mechanism	Aircraft Cable

Revision Date April. 01 2019



CABINET BASE - MOD (TELUS 2381687)

KNELSEN PRECAST - Western Canada (Calgary, Edmonton)
www.knelsen.com

Tel: (403) 279-8161
 Fax: (403) 279-6027

Dwg. No. **4-0041-02**

SAP No. **413536**

PLAN

1 ELEVATION

2 ELEVATION

Notes
 Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	577 kg (1,270 lbs)
Load Rating	Pedestrian

Product Detail

Outside Dimension	965 x 915 x 1000
Inserts	ITSF: 3/8"
Lift Mechanism	Aircraft Cable

Revision Date **April. 01 2019**

CABINET BASE

KNELSEN PRECAST - Western Canada (Calgary, Edmonton)

www.knelsen.com

Dwg. No. **4-0049**

SAP No. **405076**

Tel: (403) 279-8161

Fax: (403) 279-6027

PLAN

1

1 ELEVATION

2 ELEVATION

Notes

Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	1,702 kg (3,744 lbs)
Load Rating	Pedestrian

Product Detail

Outside Dimension	762 x 1220 x 1702
Inserts	LF 3/4" & 5/8"
Lift Mechanism	Aircraft Cable

Revision Date **April. 01 2019**

CABINET BASE

KNELSEN PRECAST - Western Canada (Calgary, Edmonton)

www.knelsen.com

Tel: (403) 279-8161
Fax: (403) 279-6027

Dwg. No. **SP10045**

SAP No. **406171**

PLAN

1220 (total width), 920 (inner width), 150 (side offsets)

736 (total height), 590 (inner height), 73 (top offsets)

AIRCRAFT CABLE LIFT HOOK

LF INSERT (6 LOC'S)

1 ELEVATION

1690 (total height), 915 (lower section height), 775 (upper section height)

920 (top width), 600 (base width), 350 (base offset)

310 (side offsets), 150 (top offsets)

2 ELEVATION

436 (top width), 150 (side offsets)

168 (base offsets), 400 (base width)

Notes

Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	1,687 kg (3,712 lbs)
Load Rating	Pedestrian

Product Detail

Outside Dimension	736 x 1220 x 1690
Inserts	LF: 5/8"
Lift Mechanism	Aircraft Cable

Revision Date **April. 01 2019**

CABINET BASE

KNELSEN PRECAST - Western Canada (Calgary, Edmonton)

www.knelsen.com

Tel: (403) 279-8161
Fax: (403) 279-6027

Dwg. No. **SP10050**

SAP No. **406172**

PLAN

1 ELEVATION

2 ELEVATION

Notes
 Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	1,710 kg (3,770 lbs)
Load Rating	Pedestrian

Product Detail

Outside Dimension	1746 x 2030 x 1065
Inserts	PD: 1/2"
Lift Mechanism	Aircraft Cable

Revision Date **April. 01 2019**

	CABINET BASE - 52 EU	Dwg. No. -
	KNELSEN PRECAST - Western Canada (Calgary, Edmonton) www.knelsen.com	SAP No. 411033 Tel: (403) 279-8161 Fax: (403) 279-6027

PLAN

1 ELEVATION

2 ELEVATION

Notes
 Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

PD INSERTS (10 LOC'S)
 AIRCRAFT CABLE LIFT HOOK

Technical Detail
 CPCI Standard Group S
 CSA Standard A23.3-14, A23.4-09
 Concrete Strength 35 MPa @ 28 Days
 Concrete Type Sulphate Resistant
 S2 Exposure
 Reinforcement Grade 400
 Weight 1,640 kg (3,615 lbs)
Load Rating **Pedestrian**

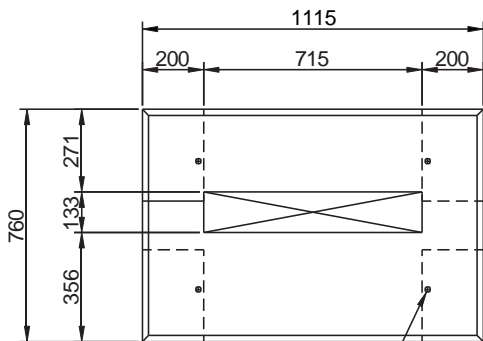
Product Detail
 Outside Dimension 1346 x 2030 x 1065
 Inserts PD: 1/2"
 Lift Mechanism Aircraft Cable

Revision Date **April. 01 2019**

	CABINET BASE - 52 BU	Dwg. No. 4-0041
	KNELSEN PRECAST - Western Canada (Calgary, Edmonton) www.knelsen.com Tel: (403) 279-8161 Fax: (403) 279-6027	SAP No. 411037

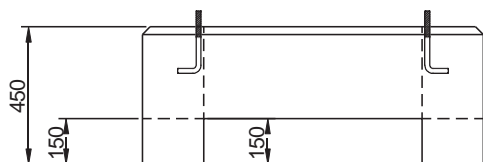
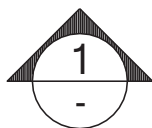
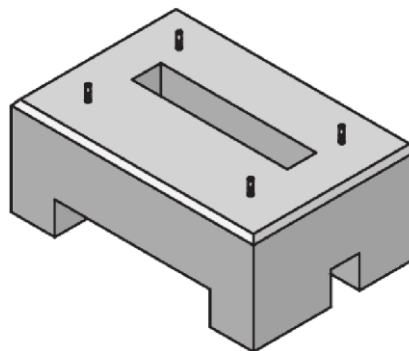
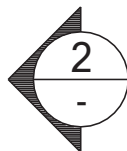
Notes

Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

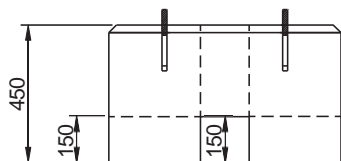


PLAN

'J' BOLT
(4 LOC'S)



1 ELEVATION



2 ELEVATION

Technical Detail

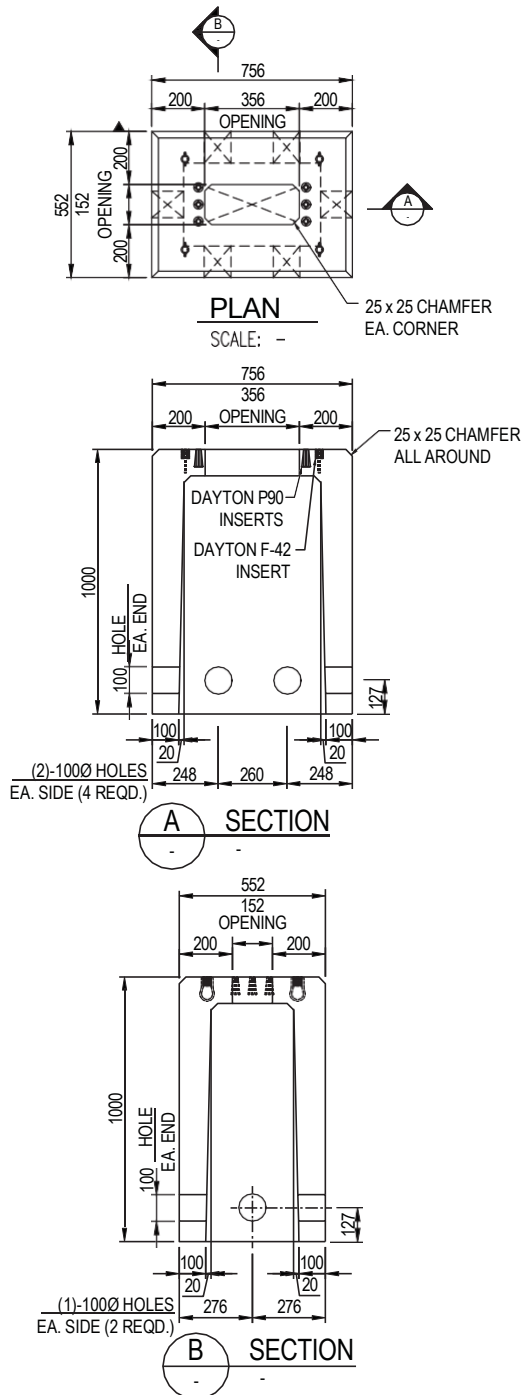
CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight (Vault only)	630 kg (1,389 lbs)
Load Rating	Pedestrian

Product Detail

Outside Dimension	760 x 1115 x 450
Bolt	(4)-3/8" Ø x 200
Lift Mechanism	Aircraft Cable

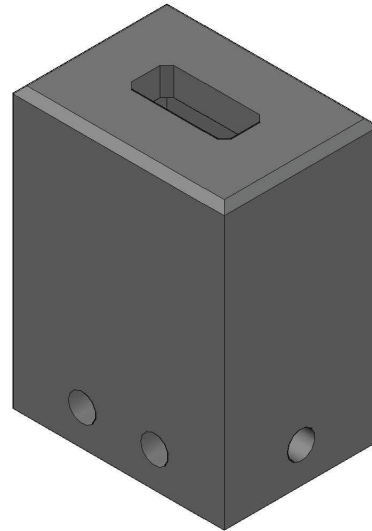
Revision Date **April. 01 2019**

	<p>CABINET BASE (City of Calgary)</p> <p>KNELSEN PRECAST - Western Canada (Calgary, Edmonton)</p> <p>www.knelsen.com</p> <p>Tel: (403) 279-8161 Fax: (403) 279-6027</p>	<p>Dwg. No. 454-0F74-004</p> <p>SAP No. 411825</p>
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Notes

Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.



Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant
	S2 Exposure
Reinforcement	Grade 400
Weight	601 kg (1,322 lbs)
Load Rating	Pedestrian

Product Detail

Outside Dimension	552 x 756 x 1000
Inserts	PD: 1/2"
Lift Mechanism	Aircraft Cable

Revision Date April. 01 2019



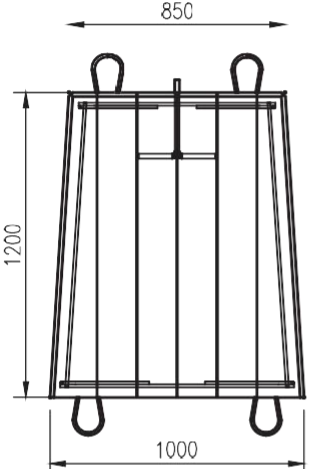
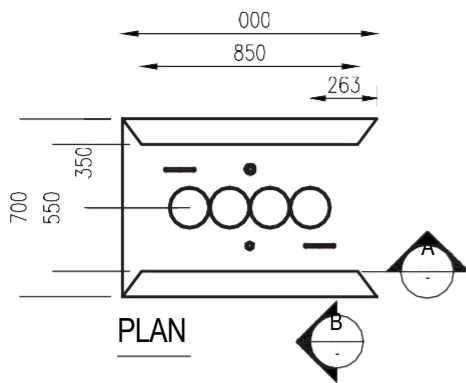
CABINET BASE

KNELSEN PRECAST - Western Canada (Calgary, Edmonton)
www.knelsen.com

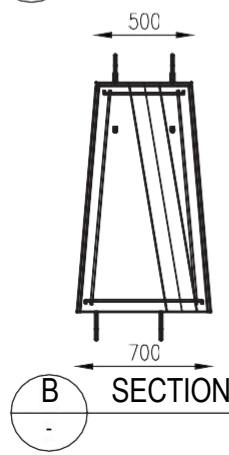
Tel: (403) 279-8161
Fax: (403) 279-6027

Dwg. No. **FND-PC-9**

SAP No. **413575**



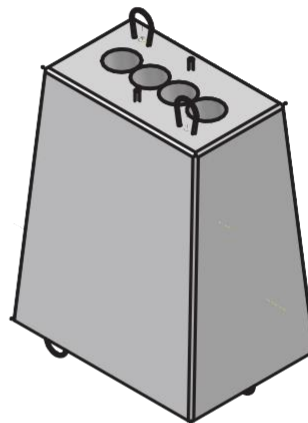
A SECTION



B SECTION

Notes

Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.



Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	1,368 kg (3,010 lbs.)
Load Rating	Pedestrian

Product Detail

Outside Dimension	500 x 850 x 1200
Access Hole	152mm or 6"
Anchor Bolt	19mm (3/4")
Lift Mechanism	Aircraft Cable

Revision Date **April. 01 2019**



SIGNAL CONTROL BASE (TYPE M)

Dwg. No. -

KNELSEN PRECAST - Western Canada (Calgary, Edmonton)

www.knelsen.com

Tel: (403) 279-8161
Fax: (403) 279-6027

SAP No. **413552**

PLAN

1 ELEVATION

2 ELEVATION

Notes
 Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight (Vault only)	690 kg (1,520 lbs)
Load Rating	Pedestrian

Product Detail

Outside Dimension	610 x 1525 x 1015
Inserts	PD: 1/2"
Lift Mechanism	Aircraft Cable

Revision Date **April. 01 2019**

CABINET BASE

KNELSEN PRECAST - Western Canada (Calgary, Edmonton)
www.knelsen.com

Dwg. No. **4-0048-3**

SAP No. **500000**

Tel: (403) 279-8161
 Fax: (403) 279-6027

PLAN

1 ELEVATION

2 ELEVATION

Notes
 Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

AIRCRAFT CABLE LIFT HOOK

LF INSERT (4 LOC'S)

Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	2,675 kg (5,885 lbs)
Load Rating	Pedestrian

Product Detail

Outside Dimension	2135 x 2185 x 1000
Opening Dimension	1825 x 1881
Inserts	LF: 5/8"
Lift Mechanism	Aircraft Cable

Revision Date **April. 01 2019**

	Switching Cubicle Base	Dwg. No. 5-0027
	KNELSEN PRECAST - Western Canada (Calgary, Edmonton) www.knelsen.com	SAP No. 405077
	Tel: (403) 279-8161 Fax: (403) 279-6027	

PLAN

2030
1593
1690
1253
AIRCRAFT LIFT HOOK
LF INSERT (4 LOC'S)

SECTION A

920
560 910 560

SECTION B

560 473 560

Notes

Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	1,804 kg (3,968 lbs)
Load Rating	Pedestrian

Product Detail

Outside Dimension	1593 x 2030 x 920
Opening Dimension	1085 x 1542
Inserts	LF: 5/8"
Lift Mechanism	Aircraft Cable

Revision Date **April. 01 2019**

	Switching Cubicle Base	Dwg. No. 5-0032
	KNELSEN PRECAST - Western Canada (Calgary, Edmonton) www.knelsen.com	SAP No. 405078 Tel: (403) 279-8161 Fax: (403) 279-6027

Notes
 Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	1,179 kg (2,593 lbs)
Load Rating	Pedestrian

Product Detail

Outside Dimension	1080 x 1390 x 920
Opening Dimension	780 x 1074
Inserts	LF: 5/8"
Lift Mechanism	Aircraft Cable

Revision Date **April. 01 2019**

Switching Cubicle Base

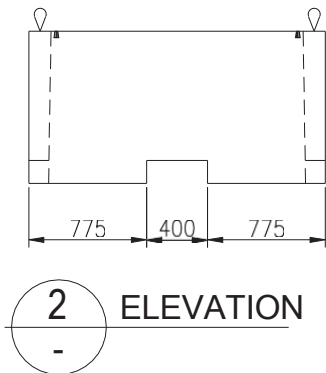
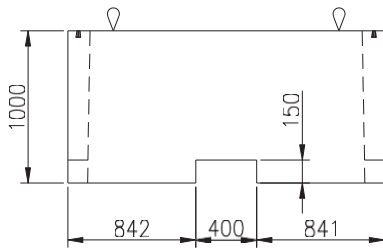
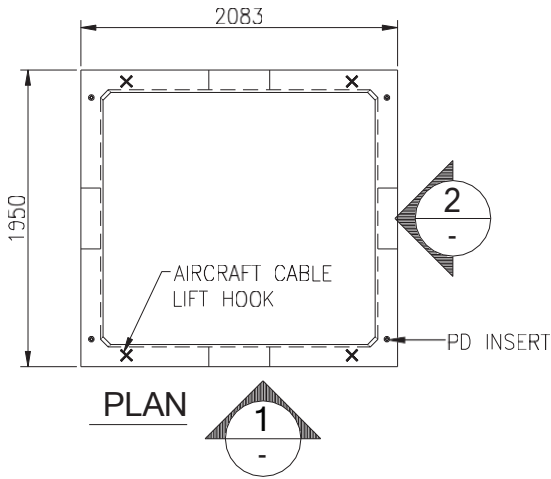
KNELSEN PRECAST - Western Canada (Calgary, Edmonton)

www.knelsen.com

Tel: (403) 279-8161
 Fax: (403) 279-6027

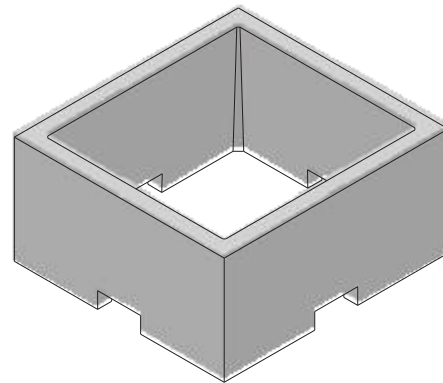
Dwg. No. **5-0033**

SAP No. **405079**



Notes

Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.



Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	2,429 kg (5,344 lbs)
Load Rating	Pedestrian

Product Detail

Outside Dimension	2083 x 1950 x 1000
Inserts	FD: 1/2"
Lift Mechanism	Aircraft Cable

Revision Date **April. 01 2019**



Switching Cubicle Base

Dwg. No. **5-0053**

KNELSEN PRECAST - Western Canada (Calgary, Edmonton)
www.knelsen.com

SAP No. **405080**

Tel: (403) 279-8161
 Fax: (403) 279-6027

PLAN

1 ELEVATION

2 ELEVATION

Notes
 Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	2,958 kg (6,508 lbs)
Load Rating	Pedestrian

Product Detail

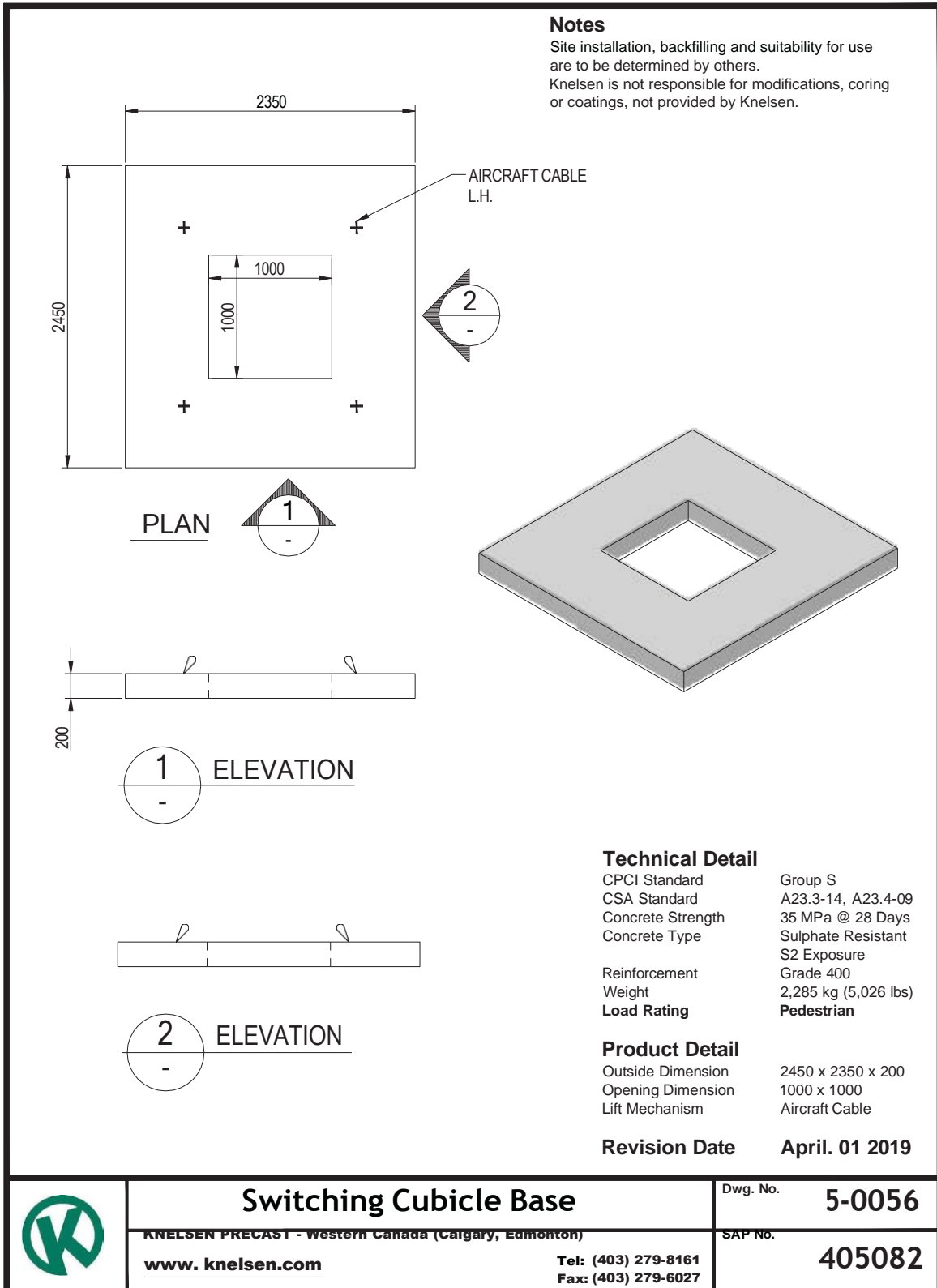
Outside Dimension	2159 x 2045 x 1000
Opening Dimension	1825 x 1711
Inserts	LF: 5/8"
Lift Mechanism	Aircraft Cable

Revision Date **April. 01 2019**

	Switching Cubicle Base	Dwg. No. 5-0055
	KNELSEN PRECAST - Western Canada (Calgary, Edmonton)	SAP No. 405081
www.knelsen.com	Tel: (403) 279-8161 Fax: (403) 279-6027	

Notes

Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.



Technical Detail

CPCI Standard Group S
 CSA Standard A23.3-14, A23.4-09
 Concrete Strength 35 MPa @ 28 Days
 Concrete Type Sulphate Resistant S2 Exposure

Reinforcement Grade 400
 Weight 2,285 kg (5,026 lbs)
 Load Rating Pedestrian

Product Detail

Outside Dimension 2450 x 2350 x 200
 Opening Dimension 1000 x 1000
 Lift Mechanism Aircraft Cable

Revision Date April. 01 2019



Switching Cubicle Base

KNELSEN PRECAST - Western Canada (Calgary, Edmonton)

www.knelsen.com

Tel: (403) 279-8161
 Fax: (403) 279-6027

Dwg. No. **5-0056**

SAP No. **405082**

PLAN

2185 (Overall Width)
1885 (Inner Width)
2135 (Overall Height)
1835 (Inner Height)

AIRCRAFT CABLE LIFT HOOK

LF INSERT (4 LOC'S)

1 ELEVATION

1000 (Overall Height)
893 (Left Base Width)
400 (Center Base Width)
892 (Right Base Width)

150 (Top Flange Height)

LIFTING HOLE EA. SIDE

868 (Left Base Width)
400 (Center Base Width)
867 (Right Base Width)

2 ELEVATION

Notes

Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	3,123 kg (6,870 lbs)
Load Rating	Pedestrian

Product Detail

Outside Dimension	2135 x 2185 x 1000
Inserts	LF: 5/8"
Lift Mechanism	Aircraft Cable

Revision Date **April. 01 2019**

	Switching Cubicle Base	Dwg. No. 5-0058
	KNELSEN PRECAST - Western Canada (Calgary, Edmonton)	SAP No. 400024
www.knelsen.com	Tel: (403) 279-8161 Fax: (403) 279-6027	

PLAN

Dimensions: 2005 (width), 1795 (height), 1705 (inner width), 1495 (inner height).

Callouts: ARICRAFT CABLE LIFT HOOK, LF INSERTS (4 LOC'S).

1 ELEVATION

Dimension: 870 (height).

2 ELEVATION

Notes

Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail

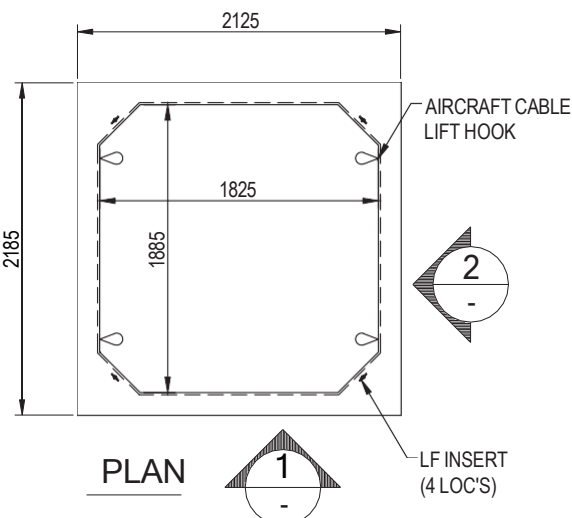
CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	2,501 kg (5,503 lbs)
Load Rating	Pedestrian

Product Detail

Outside Dimension	1795 x 2005 x 870
Opening Dimension	1495 x 1705
Inserts	LF: 5/8"
Lift Mechanism	Aircraft Cable

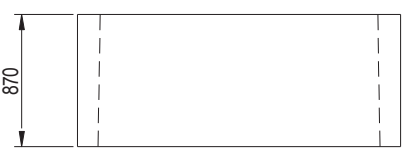
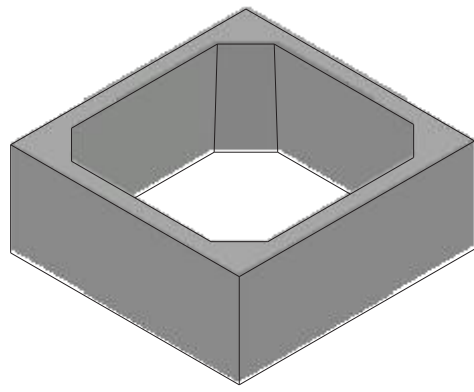
Revision Date **April. 01 2019**

	Switching Cubicle Base	Dwg. No. 5-0063
	KNELSEN PRECAST - Western Canada (Calgary, Edmonton) www.knelsen.com	SAP No. 405083 Tel: (403) 279-8161 Fax: (403) 279-6027

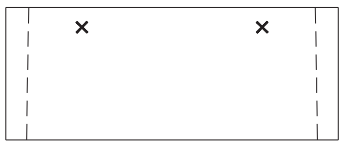


PLAN

Notes
 Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.



1 ELEVATION



2 ELEVATION

Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	2,814 kg (6,190 lbs)
Load Rating	Pedestrian

Product Detail

Outside Dimension	2185 x 2125 x 870
Opening Dimension	1885 x 1825
Inserts	LF: 5/8"
Lift Mechanism	Aircraft Cable

Revision Date **April. 01 2019**

	<h2>Switching Cubicle Base</h2>	Dwg. No. 5-0071
	KNELSEN PRECAST - Western Canada (Calgary, Edmonton) www.knelsen.com	SAP No. 405084

PLAN

A SECTION

B SECTION

Notes

Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail

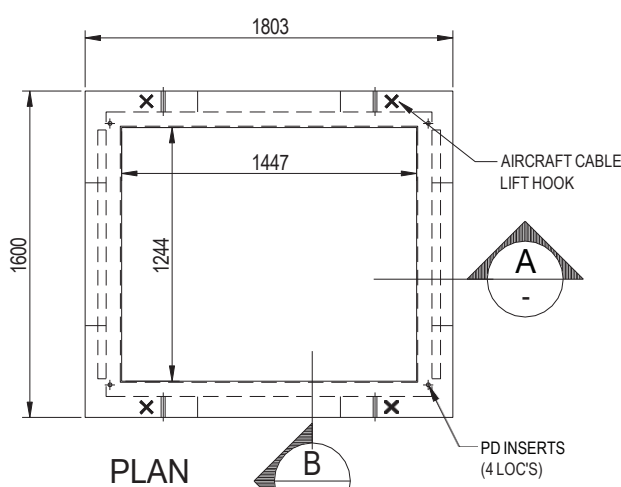
CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	1,732 kg (3,810 lbs)
Load Rating	Pedestrian

Product Detail

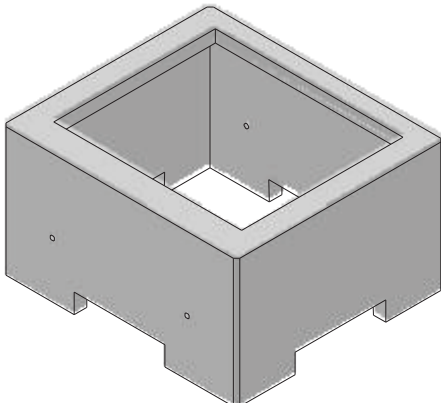
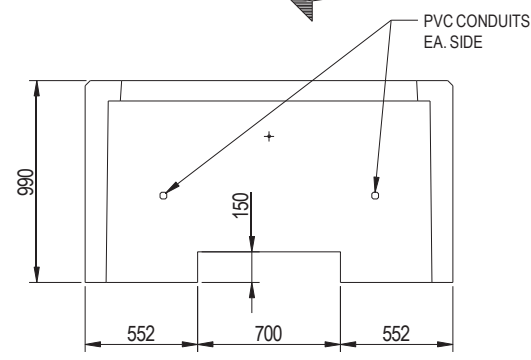
Outside Dimension	1600 x 1803 x 990
Opening Dimension	1244 x 1447
Inserts	PD: 1/2" & 5/8"
Lift Mechanism	Burke Anchor

Revision Date **April. 01 2019**

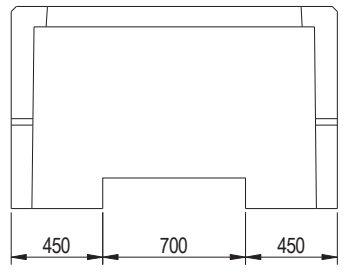
	Switching Cubicle Base	Dwg. No. 5-0085-1
	KNELSEN PRECAST - Western Canada (Calgary, Edmonton) www.knelsen.com	SAP No. 405085 Tel: (403) 279-8161 Fax: (403) 279-6027



Notes
 Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.



A SECTION



B SECTION


Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	1,732 kg (3,810 lbs)
Load Rating	Pedestrian

Product Detail

Outside Dimension	1600 x 1803 x 990
Opening Dimension	1244 x 1447
Blockouts	150 x 700
Inserts	PD: 5/8"
Lift Mechanism	Aircraft Cable

Revision Date **April. 01 2019**

	<h2>Switching Cubicle Base</h2>	Dwg. No. 5-0085-2
	KNELSEN PRECAST - Western Canada (Calgary, Edmonton)	
www.knelsen.com		Tel: (403) 279-8161 Fax: (403) 279-6027

Notes
 Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	2,573 kg (5,661 lbs)
Load Rating	Pedestrian

Product Detail

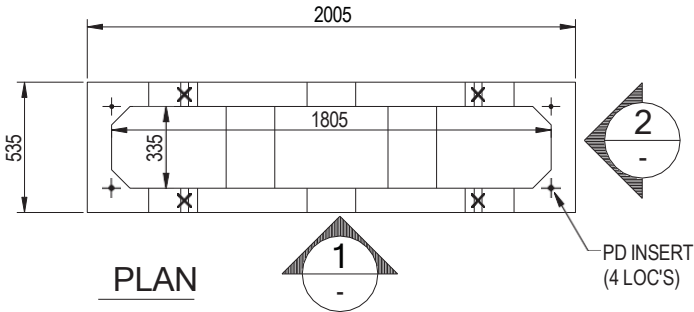
Outside Dimension	2000 x 2110 x 1200
Opening Dimension	1740 x 1850
Wall Racking	P3260 Unistrut
Inserts	PD: 1/2" & 5/8"
PVC Conduits	19 mm
Lift Mechanism	Burke Anchor

Revision Date **April. 01 2019**

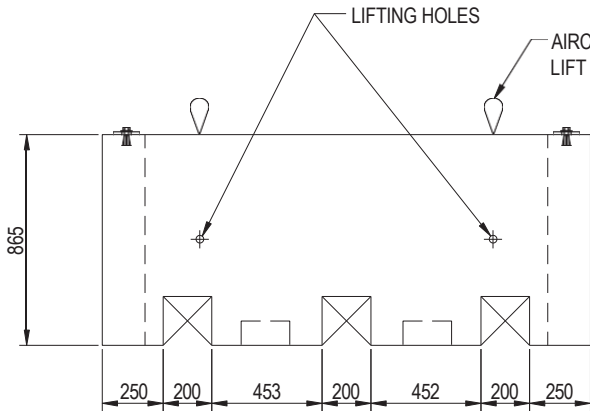
	Switching Cubicle Base	Dwg. No. 5-0086
	KNELSEN PRECAST - Western Canada (Calgary, Edmonton)	SAP No.
	www.knelsen.com Tel: (403) 279-8161 Fax: (403) 279-6027	405087

Notes

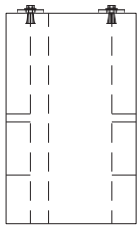
Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.



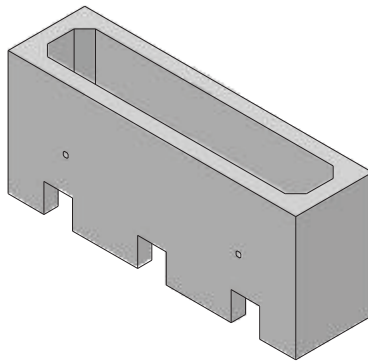
PLAN



1 ELEVATION



B ELEVATION




Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	1,041 kg (2,290 lbs)
Load Rating	Pedestrian

Product Detail

Outside Dimension	535 x 2005 x 865
Opening Dimension	335 x 1805
Inserts	PD: 5/8" & Bolt
Lift Mechanism	Aircraft Cable

Revision Date **April. 01 2019**

	<h2>Switching Cubicle Base</h2>	Dwg. No. 5-0088-2
	KNELSEN PRECAST - Western Canada (Calgary, Edmonton) www.knelsen.com	SAP No. 405088

PLAN

1 ELEVATION

2 ELEVATION

Notes
 Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail

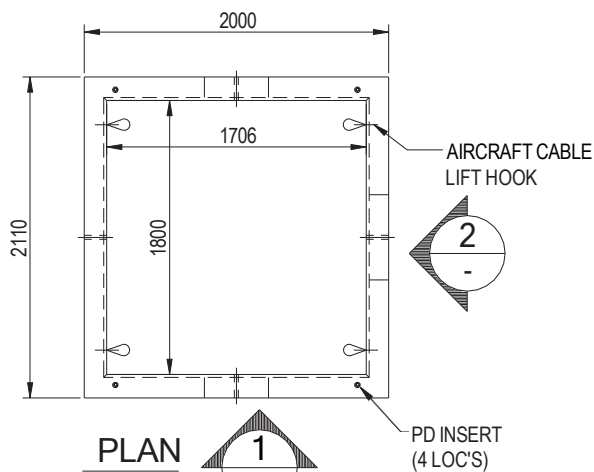
CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	1677 kg (3690 lbs)
Load Rating	Pedestrian

Product Detail

Outside Dimension	1940 x 2135 x 610
Bolts	(4) - 5/8"Ø x 10"
Lift Mechanism	Aircraft Cable

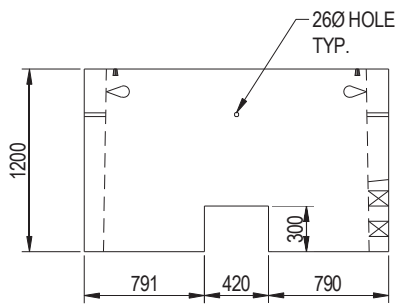
Revision Date **April. 01 2019**

	Switching Cubicle Base	Dwg. No. 5-0090
	KNELSEN PRECAST - Western Canada (Calgary, Edmonton) www.knelsen.com	SAP No. 400376
	Tel: (403) 279-8161 Fax: (403) 279-6027	

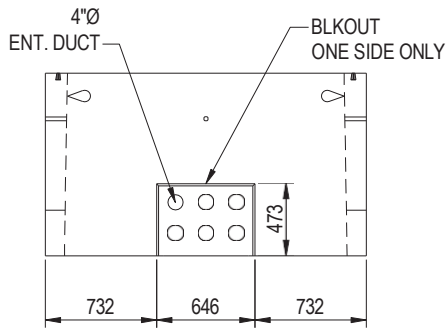


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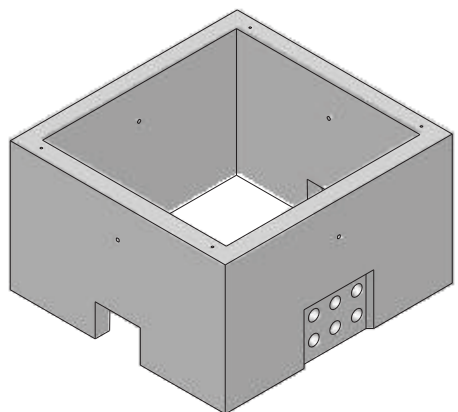
Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.



1 ELEVATION



2 ELEVATION



Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	2,652 kg (5,835 lbs)
Load Rating	Pedestrian

Product Detail

Outside Dimension	2000 x 2110 x 1200
Standard Duct Size	102 mm or 4" ID (DBII)
Inserts	PD: 5/8"
Lift Mechanism	Aircraft Cable

Revision Date **April. 01 2019**

	<h2>Switching Cubicle Base</h2>	Dwg. No. 5-0091
	KNELSEN PRECAST - Western Canada (Calgary, Edmonton) www.knelsen.com	SAP No. 405090

PLAN

2185

2135

1885

1865

AIRCRAFT CABLE LIFT HOOK

LF INSERT (8 LOC'S)

1

865

1 ELEVATION

2 ELEVATION

Notes

Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail

GPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	3123 kg (6,870 lbs)
Load Rating	Pedestrian

Product Detail

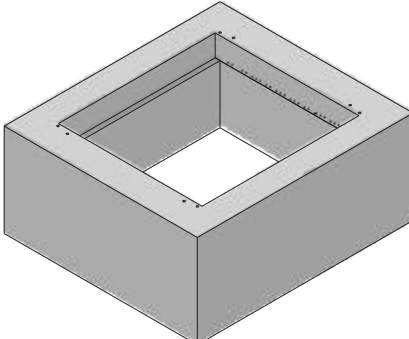
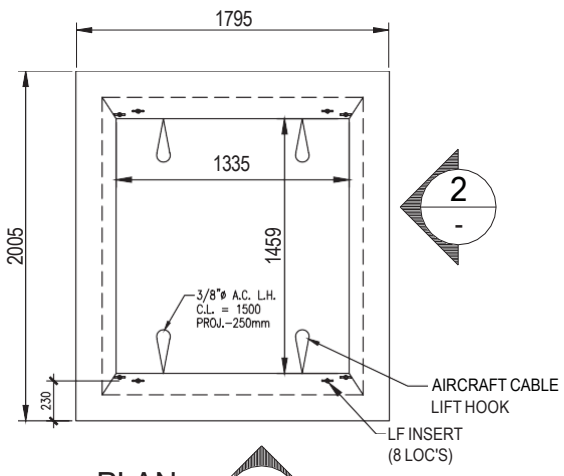
Outside Dimension	2185 x 2135 x 865
Opening Dimension	1715 x 1665
Inserts	LF: 5/8"
Lift Mechanism	Aircraft Cable

Revision Date **April. 01 2019**

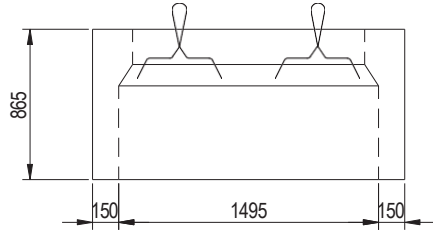
	Switching Cubicle Base	Dwg. No. 5-0092
	KNELSEN PRECAST - Western Canada (Calgary, Edmonton) www.knelsen.com	SAP No. 411830 Tel: (403) 279-8161 Fax: (403) 279-6027

Notes

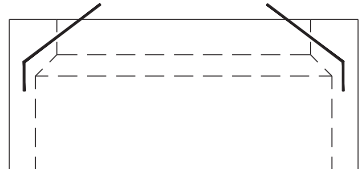
Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.



PLAN
1



1 ELEVATION
-



2 ELEVATION
-

Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	2,680 kg (5,895 lbs)
Load Rating	Pedestrian

Product Detail

Outside Dimension	2005 x 1795 x 865
Opening Dimension	1335 x 1460
Duct Size	102 mm or 4"
Inserts	LF: 5/8"
Lift Mechanism	Aircraft Cable

Revision Date **April. 01 2019**

	<p>Switching Cubicle Base</p> <p>KNELSEN PRECAST - Western Canada (Calgary, Edmonton)</p> <p>www.knelsen.com</p> <p>Tel: (403) 279-8161 Fax: (403) 279-6027</p>	<p>Dwg. No. 5-0093</p> <p>SAP No. 412094</p>
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PLAN

1 ELEVATION

2 ELEVATION

Notes

Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail

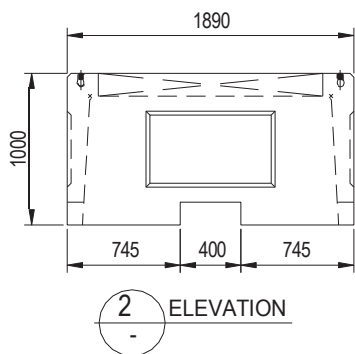
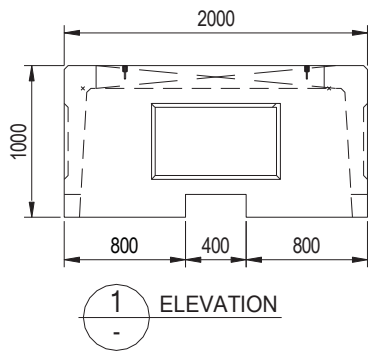
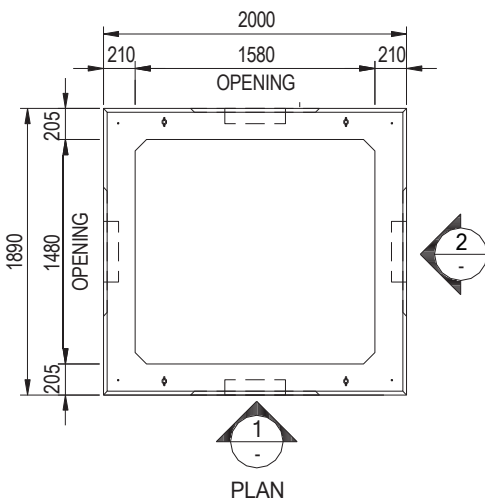
CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	1,682 kg (3,700 lbs.)
Load Rating	Pedestrian

Product Detail

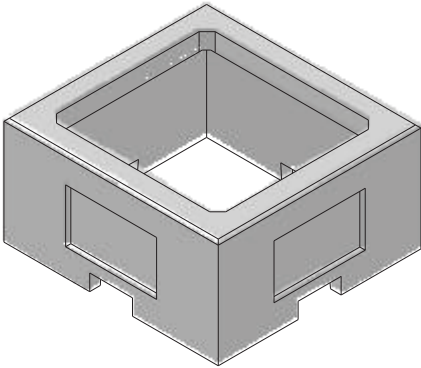
Outside Dimension	1190 x 1850 x 1000
Opening Dimension	790 x 1450
Lift Mechanism	19mm or 3/4" Loop Ferrule Insert

Revision Date **April. 01 2019**

	Switching Cubicle Base	Dwg. No. FND-PC-04
	KNELSEN PRECAST - Western Canada (Calgary, Edmonton) www.knelsen.com	SAP No. 413563
	Tel: (403) 279-8161 Fax: (403) 279-6027	

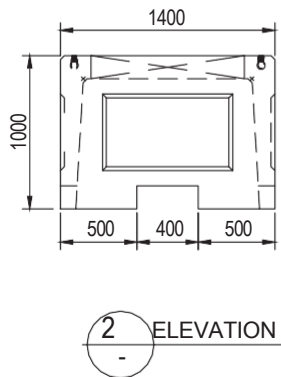
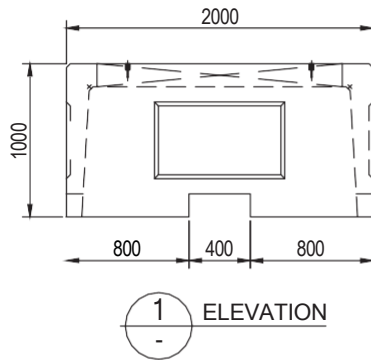
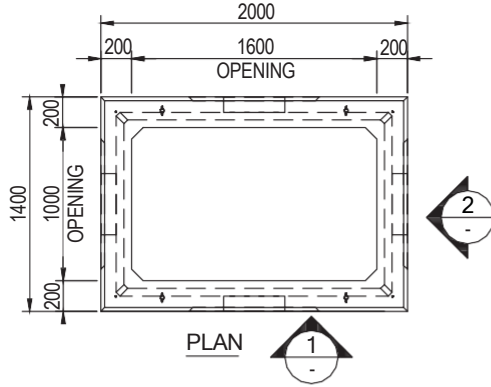


Notes
 Site installation, backfilling and suitability for use are to be determined by others.
 Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.



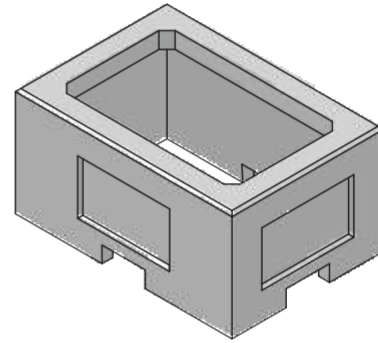
Technical Detail	
CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant
	S2 Exposure
Reinforcement	Grade 400
Weight	2,210 kg (4,863 lbs.)
Load Rating	Pedestrian
Product Detail	
Outside Dimension	1890 x 2000 x 1000
Opening Dimension	1480 x 1580
Lift Mechanism	19mm or 3/4" Loop Ferrule Insert
Revision Date	April. 01 2019

	<h2>Switching Cubicle Base</h2>	Dwg. No. FND-PC-05
	KNELSEN PRECAST - Western Canada (Calgary, Edmonton) www.knelsen.com Tel: (403) 279-8161 Fax: (403) 279-6027	SAP No. 413564



Notes

Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.



Technical Detail

CPCI Standard Group S
 CSA Standard A23.3-14, A23.4-09
 Concrete Strength 35 MPa @ 28 Days
 Concrete Type Sulphate Resistant S2 Exposure

Reinforcement Grade 400
 Weight 1,900 kg (4,810 lbs.)
Load Rating Pedestrian

Product Detail

Outside Dimension 1400 x 2000 x 1000
 Opening Dimension 1000 x 1600
 Lift Mechanism 19mm or 3/4" Loop Ferrule Insert

Revision Date April. 01 2019



Primary Metering Unit Base (SMALL)

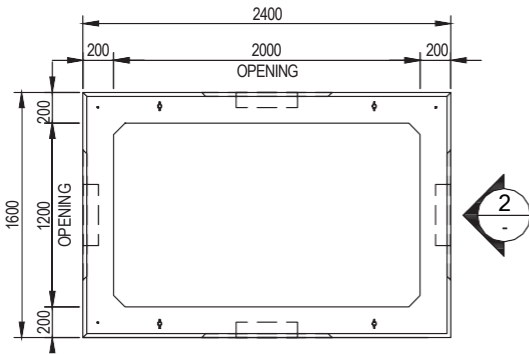
KNELSEN PRECAST - Western Canada (Calgary, Edmonton)

www.knelsen.com

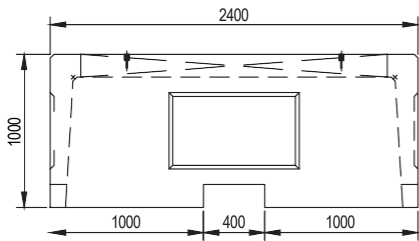
Tel: (403) 279-8161
 Fax: (403) 279-6027

Dwg. No. **FND-PC-06**

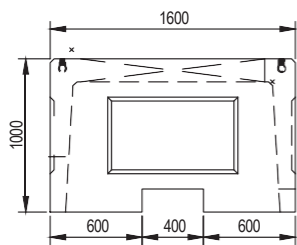
SAP No. **413565**



1
-
PLAN



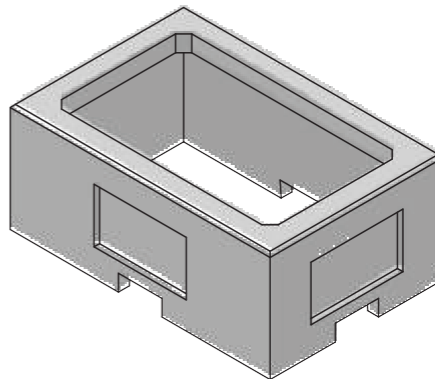
1
-
ELEVATION



2
-
ELEVATION

Notes

Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.



Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	2,280 kg (5,015 lbs.)
Load Rating	Pedestrian

Product Detail

Outside Dimension	1600 x 2400 x 1000
Opening Dimension	1200 x 2000
Lift Mechanism	19mm or 3/4" Loop Ferrule Insert

Revision Date **April. 01 2019**



Primary Metering Unit Base (LARGE)

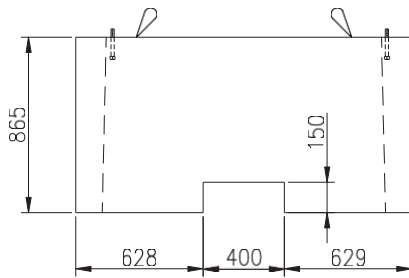
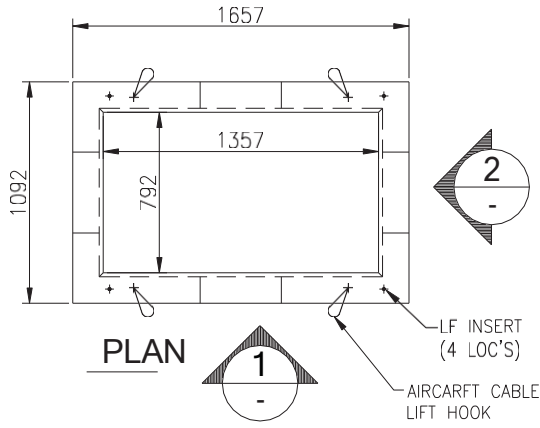
KNELSEN PRECAST - Western Canada (Calgary, Edmonton)

www.knelsen.com

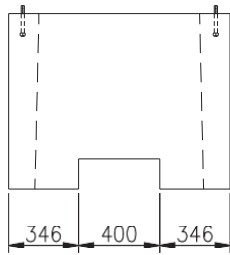
Tel: (403) 279-8161
Fax: (403) 279-6027

Dwg. No. **FND-PC-07**

SAP No. **413566**



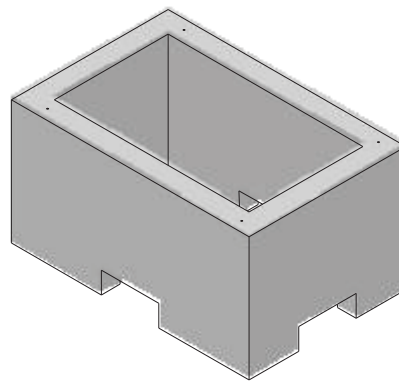
1 ELEVATION



2 ELEVATION

Notes

Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.



Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	1,350 kg (2,976 lbs)
Load Rating	Pedestrian

Product Detail

Outside Dimension	1695 x 1092 x 865
Bolt	5/8" x 150
Lift Mechanism	Aircraft Cable

Revision Date **April. 01 2019**



Switching Cubicle Base

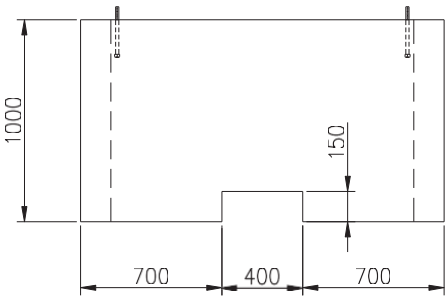
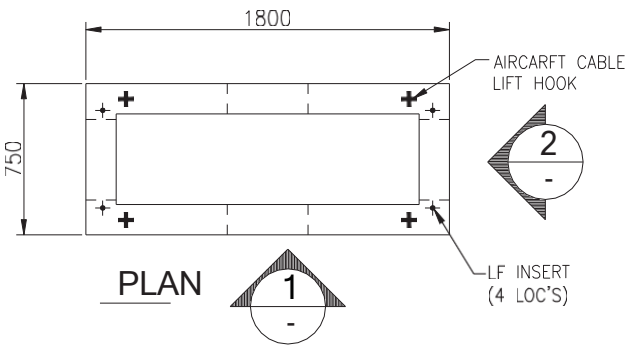
KNELSEN PRECAST - Western Canada (Calgary, Edmonton)
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 Fax: (403) 279-6027

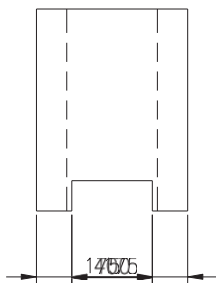
Dwg. No. **5-0054-1**

SAP No. **500000**

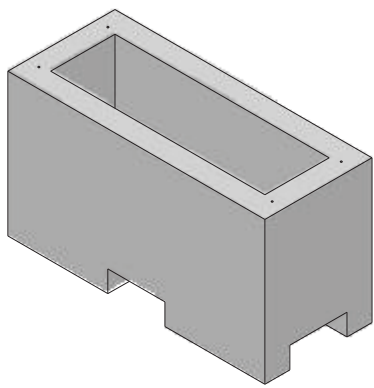
Notes
 Site installation, backfilling and suitability for use are to be determined by others.
 Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.



1 ELEVATION



2 ELEVATION



Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	1,550 kg (3,417 lbs)
Load Rating	Pedestrian

Product Detail

Outside Dimension	750 x 1800 x 1000
Bolt	5/8" x 250
Lift Mechanism	Aircraft Cable

Revision Date April. 01 2019



Switching Cubicle Base

Dwg. No. **5-0064-1**

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SAP No. **500000**

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PLAN

1950

1600

AIRCRAFT CABLE LIFT HOOK

2

LF INSERT (4 LOC'S)

1

1000

150

600 400 600

1 ELEVATION

150

775 400 775

2 ELEVATION

Notes

Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	2,120 kg (4,674 lbs)
Load Rating	Pedestrian

Product Detail

Outside Dimension	1950 x 1600 x 1000
Bolts	4-5/8" x 250
Lift Mechanism	Aircraft Cable

Revision Date **April. 01 2019**

Switching Cubicle Base

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Dwg. No. **5-0068-1**

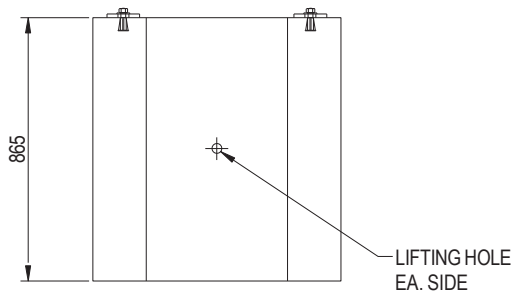
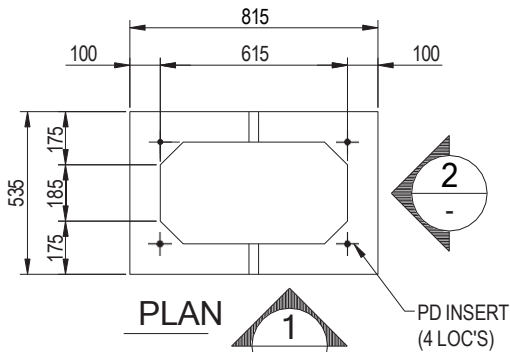
SAP No. **500000**

Tel: (403) 279-8161

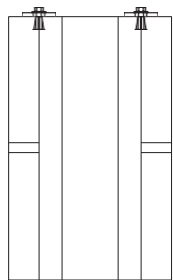
Fax: (403) 279-6027

Notes

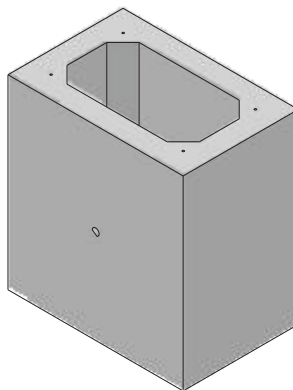
Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.



1 ELEVATION



2 ELEVATION



Technical Detail

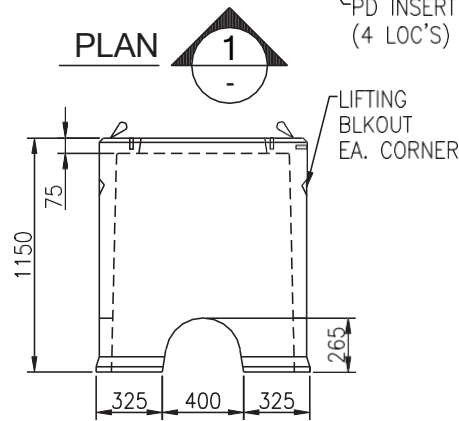
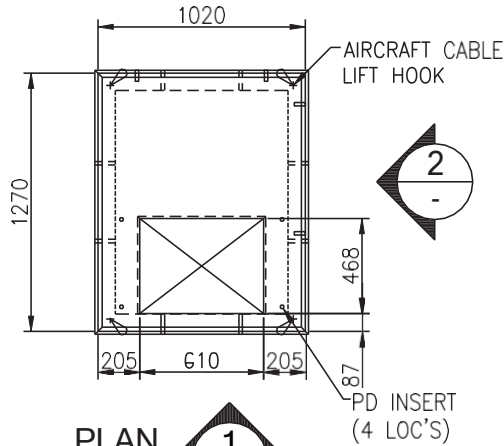
CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	510 kg (1,125 lbs)
Load Rating	Pedestrian

Product Detail

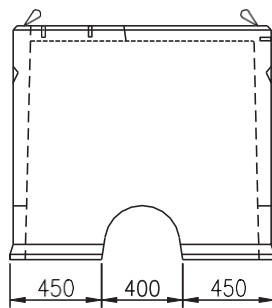
Outside Dimension	535 x 815 x 865
Bolts	(4) - 5/8" x 250
Lift Mechanism	Aircraft Cable

Revision Date **April. 01 2019**

	<h2>Switching Cubicle Base</h2>	Dwg. No. 5-0087-1
	KNELSEN PRECAST - Western Canada (Calgary, Edmonton) www.knelsen.com	SAP No. 500000
Tel: (403) 279-8161 Fax: (403) 279-6027		



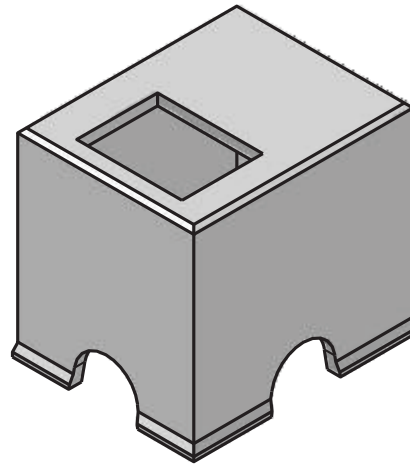
1 ELEVATION



2 ELEVATION

Notes

Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.



Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant
	S2 Exposure
Reinforcement	Grade 400
Weight	941 kg (2070 lbs)
Load Rating	Pedestrian

Product Detail

Outside Dimension	1270 x 1020 x 1150
Opening Dimension	468 x 610
Blockouts	265 x 400
Inserts	PD: 5/8"
Lift Mechanism	Aircraft Cable

Revision Date April. 01 2019



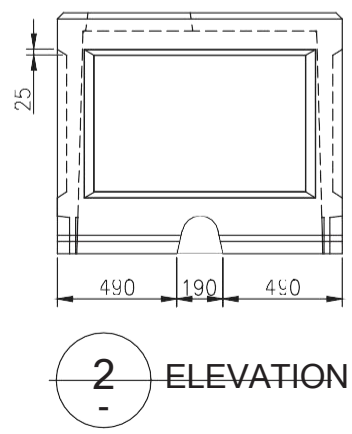
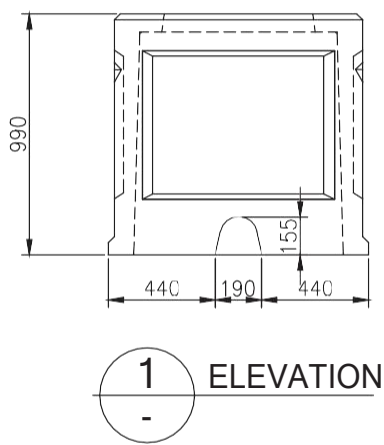
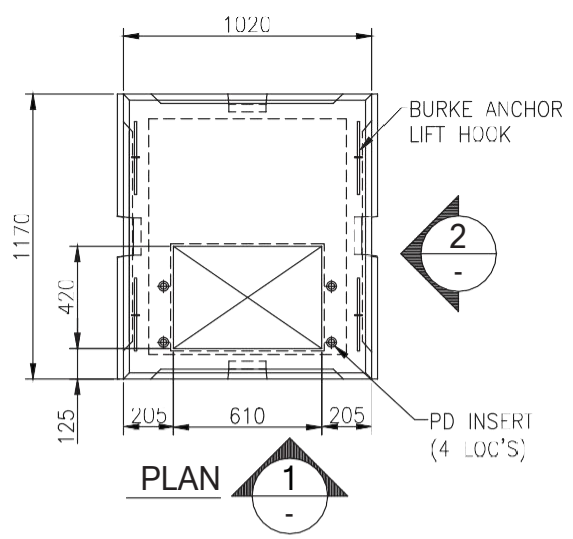
Transformer Base

KNELSEN PRECAST - Western Canada (Calgary, Edmonton)
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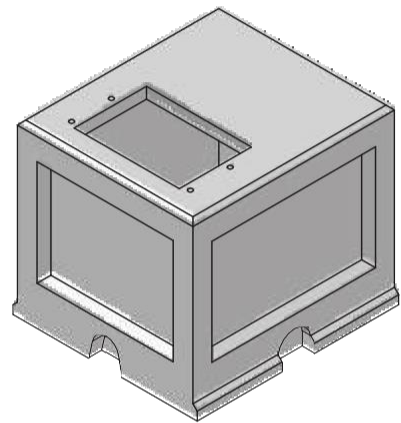
Tel: (403) 279-8161
Fax: (403) 279-6027

Dwg. No. 6-0050-1

SAP No. 405091



Notes
 Site installation, backfilling and suitability for use are to be determined by others.
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Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	794 kg (1146 lbs)
Load Rating	Pedestrian

Product Detail

Outside Dimension	1170 x 1020 x 990
Opening Dimension	420 x 610
Blockouts	155 x 190
Inserts	PD: 5/8"

Lift Mechanism Aircraft Cable

Revision Date April. 01 2019



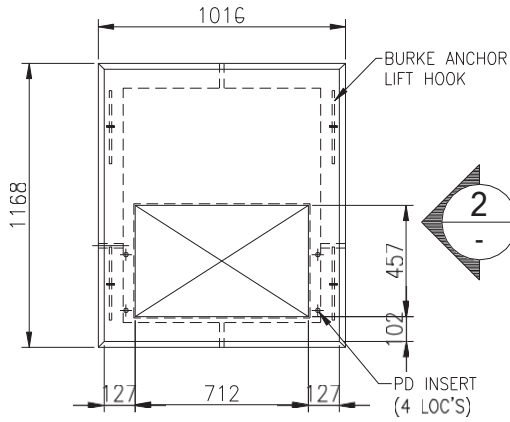
Transformer Base

Dwg. No. **6-0092-1**

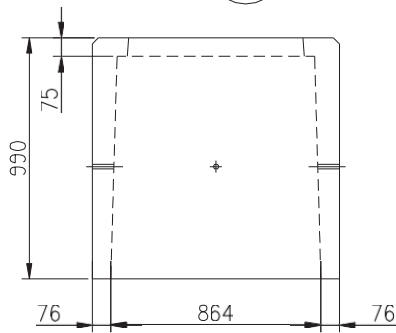
KNELSEN PRECAST - Western Canada (Calgary, Edmonton)
www.knelsen.com

Tel: (403) 279-8161
 Fax: (403) 279-6027

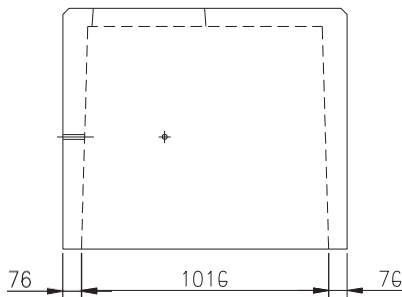
SAP No. **405092**



PLAN 1



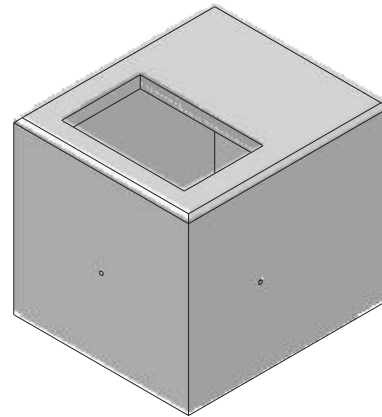
1 ELEVATION



2 ELEVATION

Notes

Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.



Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35MPa @ 28 days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	940 kg (2,067 lbs)
Load Rating	Pedestrian

Product Detail

Outside Dimension	1168 x 1016 x 990
Opening Dimension	457 x 712
Inserts	PD: 5/8 "
Lift Mechanism	Burke Anchor

Revision Date April. 01 2019



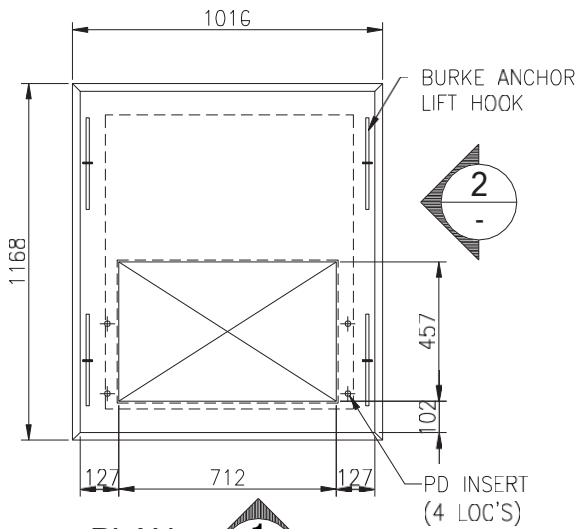
Transformer Base

Dwg. No. **6-0092-2**

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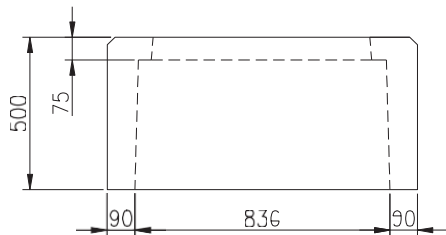
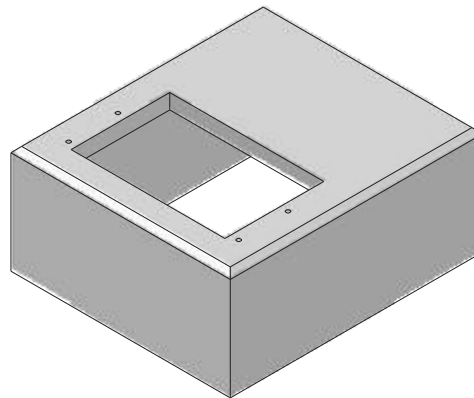
SAP No. **405093**



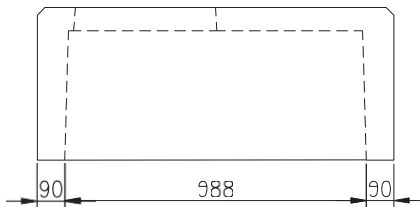
PLAN

Notes

Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.



1 ELEVATION



2 ELEVATION

Technical Detail

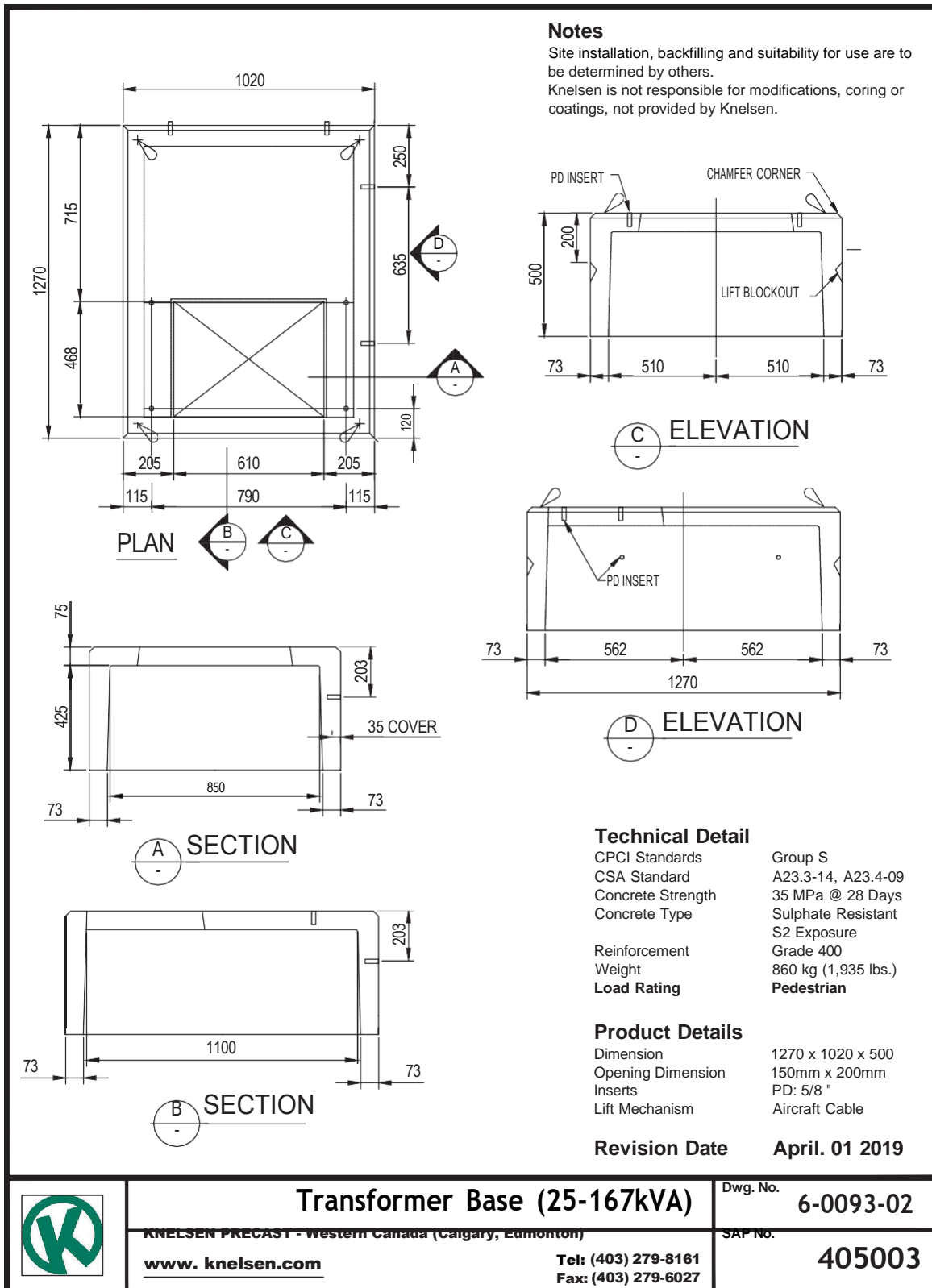
CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	553 kg (1,217 lbs)
Load Rating	Pedestrian

Product Detail

Outside Dimension	1168 x 1016 x 500
Opening Dimension	457 x 712
Blockouts	265 x 400
Inserts	PD: 5/8"
Lift Mechanism	Aircraft Cable

Revision Date **April. 01 2019**

	<h2>Transformer Base</h2>	Dwg. No. 6-0092-3
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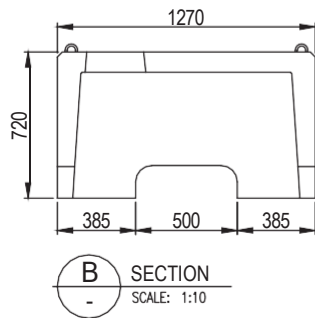
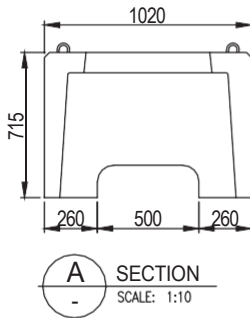
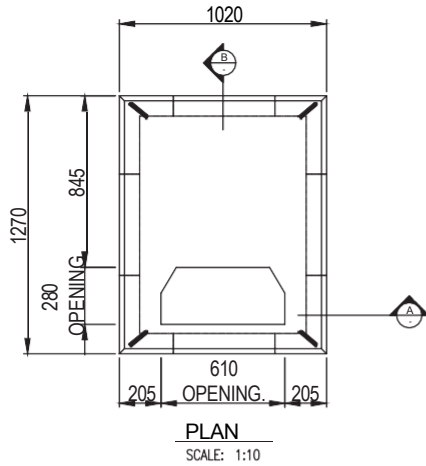
Notes
 Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail
 CPCI Standard Group S
 CSA Standard A23.3-14, A23.4-09
 Concrete Strength 35 MPa @ 28 Days
 Concrete Type Sulphate Resistant
 S2 Exposure
 Reinforcement Grade 400
 Weight 866 kg (1,905 lbs)
 Load Rating Pedestrian

Product Detail
 Outside Dimension 1270 x 1020 x 990
 Opening Dimension 468 x 610
 Blockouts 155 x 195
 Inserts PD: 5/8"

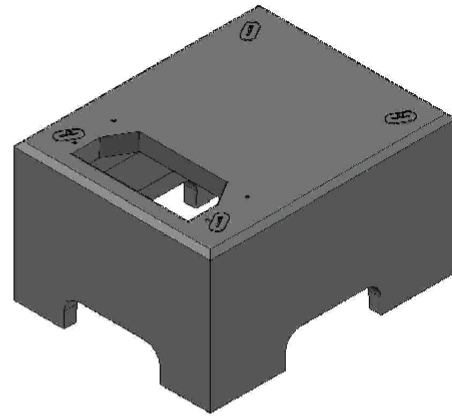
Lift Mechanism Aircraft Cable
Revision Date April. 01 2019

	<h2>Transformer Base</h2>	Dwg. No. 6-0093-1
	KNELSEN PRECAST - Western Canada (Calgary, Edmonton) www.knelsen.com Tel: (403) 279-8161 Fax: (403) 279-6027	SAP No. 405095



Notes

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Technical Detail

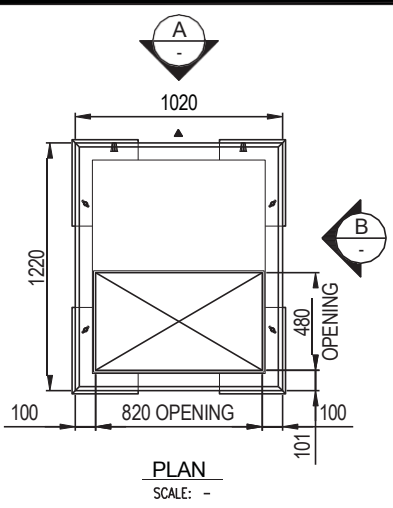
CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	591 kg (1,301 lbs)
Load Rating	Pedestrian

Product Detail

Outside Dimension	1020 x 1270 x 720
Opening Dimensions	280 x 610
Blockouts	160 x 500
Inserts	PD: 5/8"
Lift Mechanism	Trans-B Lifter

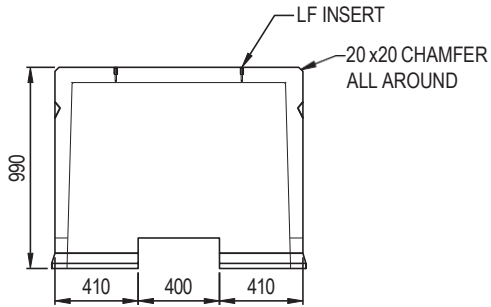
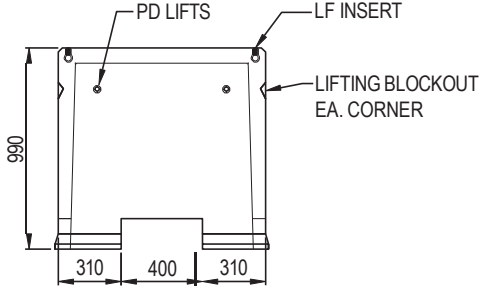
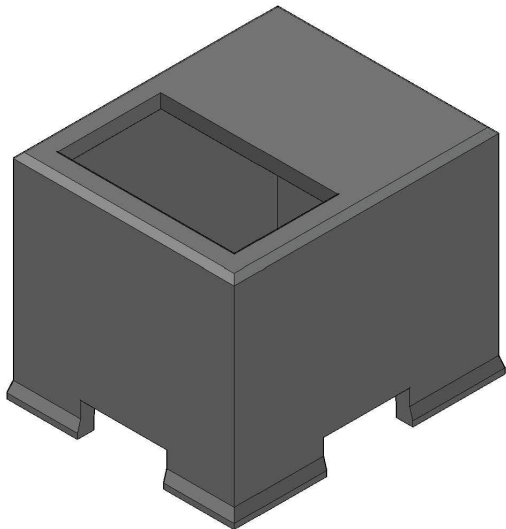
Revision Date **April. 01 2019**

	<p>TRANSFORMER BASE</p> <p>KNELSEN PRECAST - Western Canada (Calgary, Edmonton)</p> <p>www.knelsen.com</p>	<p>Dwg. No. 153242</p> <p>SAP No. 413017</p>
	<p>Tel: (403) 279-8161 Fax: (403) 279-6027</p>	



Notes

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Technical Detail

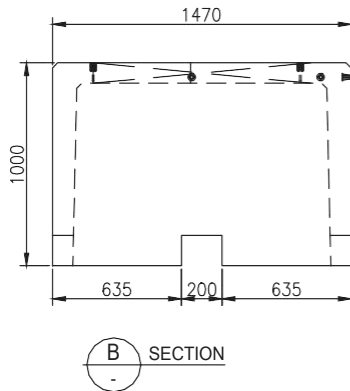
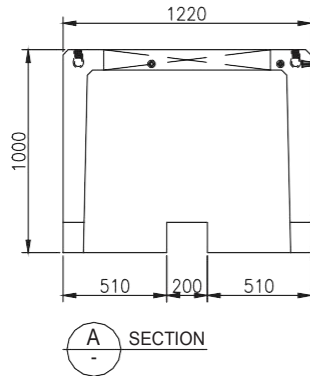
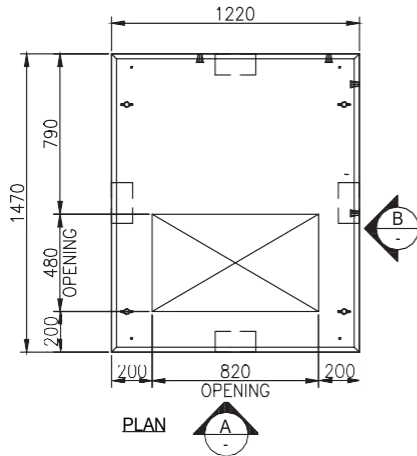
CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	770 kg (1,700 lbs)
Load Rating	Pedestrian

Product Detail

Outside Dimension	1020 x 1220 x 990
Opening Dimension	820 x 480
Inserts	PD: 5/8"
Lift Mechanism	LF 1/2"

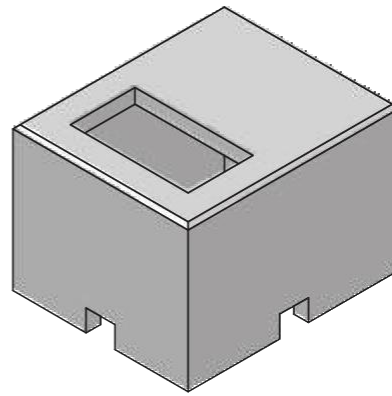
Revision Date **April. 01 2019**

	TRANSFORMER BASE - 25 - 167 KVA	Dwg. No. FND-PC-01A
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Notes

Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.



Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35MPa @ 28 days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	1,380 kg (3,036 lbs.)
Load Rating	Pedestrian

Product Detail

Outside Dimension	1470 x 1220 x 1000
Opening Dimension	480 x 820
Blockouts	150 x 200
Inserts	PD: 5/8"
Lift Mechanism	19mm or 3/4" Loop Ferrule Insert

Revision Date **April. 01 2019**



Transformer Base

Dwg. No. **FND-PC-01**

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SAP No.

413485

PLAN

1 ELEVATION

2 ELEVATION

Notes
 Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail

CPCI Standard	Group S
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	1450 kg (3,190 lbs)
Load Rating	Pedestrian

Product Detail

Outside Dimension	1420 x 1630 x 990
Opening Dimension	830 x 1118
Inserts	PD: 5/8"
Lift Mechanism	Aircraft Cable

Revision Date **April. 01 2019**

	Transformer Base	Dwg. No. 6-0094
	KNELSEN PRECAST - Western Canada (Calgary, Edmonton) www.knelsen.com	SAP No. 405096 Tel: (403) 279-8161 Fax: (403) 279-6027

Notes
 Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	3,295 kg (7,249 lbs)
Load Rating	Pedestrian

Product Detail

Outside Dimension	1635 x 1895 x 1250
Opening Dimension	450 x 1270
Inserts	PD: 5/8"
Lift Mechanism	Burke Anchor

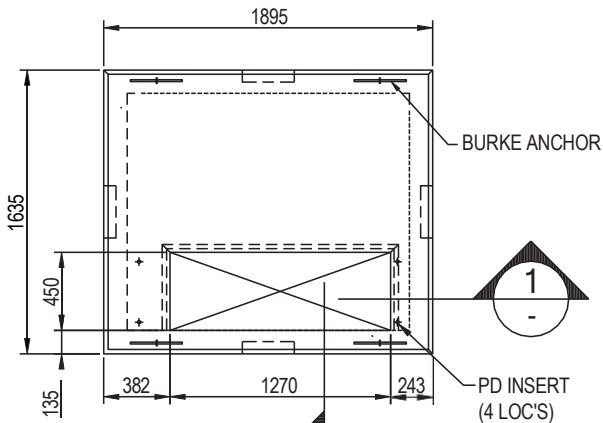
Revision Date **April. 01 2019**

	Transformer Base	Dwg. No. 6-0095-1
	KNELSEN PRECAST - Western Canada (Calgary, Edmonton) www.knelsen.com	SAP No. 405097

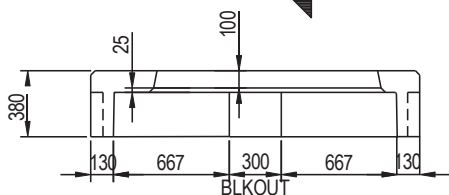
Tel: (403) 279-8161
 Fax: (403) 279-6027

Notes

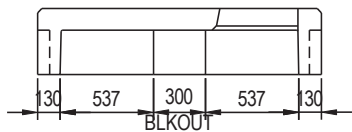
Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.



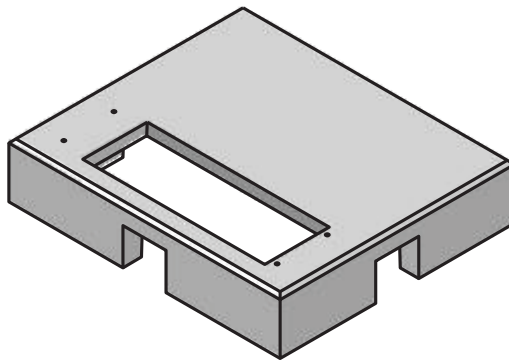
PLAN



A SECTION



B SECTION



Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	1,353 kg (2,976 lbs)
Load Rating	Pedestrian

Product Detail

Outside Dimension	1635 x 1895 x 380
Opening Dimension	450 x 1270
Inserts	PD: 5/8"
Lift Mechanism	Burke Anchor

Revision Date **April. 01 2019**

	<h2>Transformer Base</h2>	Dwg. No. 6-0095-3
	KNELSEN PRECAST - Western Canada (Calgary, Edmonton) www.knelsen.com	SAP No. 405098 Tel: (403) 279-8161 Fax: (403) 279-6027

PLAN

1 ELEVATION

2 ELEVATION

Notes
 Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	1,450 kg (3,197 lbs)
Load Rating	Pedestrian

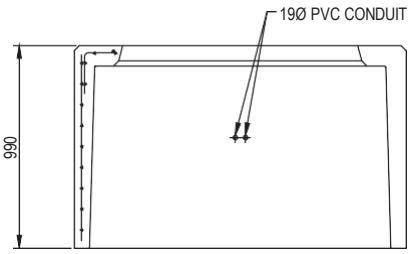
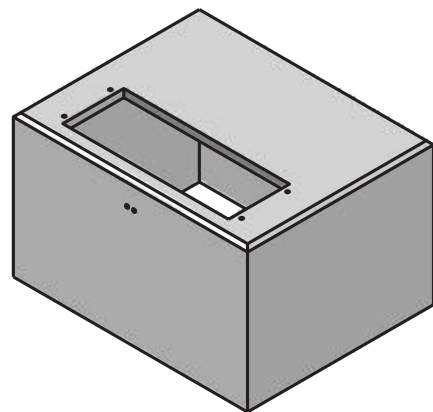
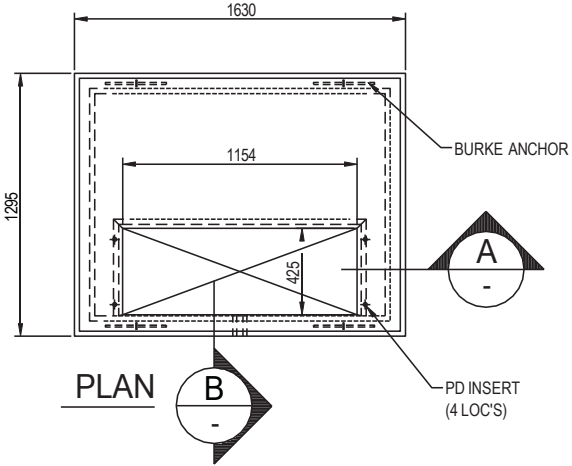
Product Detail

Outside Dimension	1295 x 1630 x 990
Opening Dimension	330 x 1125
Blockouts	150 x 150
Inserts	PD: 5/8"
Lift Mechanism	Aircraft Cable

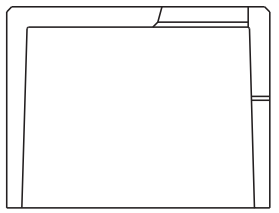
Revision Date **April. 01 2019**

	Transformer Base	Dwg. No. 6-0096-1
	KNELSEN PRECAST - Western Canada (Calgary, Edmonton) www.knelsen.com Tel: (403) 279-8161 Fax: (403) 279-6027	SAP No. 405099

Notes
 Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.



A SECTION



B SECTION

Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	1,420 kg (3,125 lbs)
Load Rating	Pedestrian

Product Detail

Outside Dimension	1295 x 1630 x 990
Opening Dimension	425 x 1154
Blockouts	150 x 150
Inserts	PD: 5/8"
Lift Mechanism	Burke Anchor

Revision Date **April. 01 2019**

	<h2>Transformer Base</h2>	Dwg. No. 6-0096-2
	KNELSEN PRECAST - Western Canada (Calgary, Edmonton) www.knelsen.com	SAP No. 405100 Tel: (403) 279-8161 Fax: (403) 279-6027

PLAN

1

ELEVATION

2

ELEVATION

Notes

Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	1,802 kg (3,965 lbs)
Load Rating	Pedestrian

Product Detail

Outside Dimension	1420 x 1630 x 1000
Opening Dimension	400 x 1100
Blockouts	175 x 400
Inserts	PD: 5/8"
Lift Mechanism	Aircraft Cable

Revision Date **April. 01 2019**

Transformer Base

KNELSEN PRECAST - Western Canada (Calgary, Edmonton)

www.knelsen.com

Tel: (403) 279-8161
Fax: (403) 279-6027

Dwg. No. **6-0097-1**

SAP No. **405101**

PLAN

1 ELEVATION

2 ELEVATION

Notes
 Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	1,802 kg (3,965 lbs)
Load Rating	Pedestrian

Product Detail

Outside Dimension	1420 x 1630 x 1000
Opening Dimension	333 X 1118
Blockouts	175 X 400
Inserts	PD: 5/8"
Lift Mechanism	Aircraft Cable

Revision Date **April. 01 2019**

	Transformer Base	Dwg. No. 6-0097-2
	KNELSEN PRECAST - Western Canada (Calgary, Edmonton) www.knelsen.com	SAP No. 405102 Tel: (403) 279-8161 Fax: (403) 279-6027

PLAN

1 ELEVATION

2 ELEVATION

Notes

Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	1,175 kg (2,590 lbs)
Load Rating	Pedestrian

Product Detail

Outside Dimension	1420 x 1630 x 635
Opening Dimension	400 x 1100
Blockouts	175 x 175
Inserts	PD: 5/8"
Lift Mechanism	Aircraft Cable

Revision Date **April. 01 2019**

Transformer Base

KNELSEN PRECAST - Western Canada (Calgary, Edmonton)

www.knelsen.com

Tel: (403) 279-8161
Fax: (403) 279-6027

Dwg. No. **6-0097-3**

SAP No. **405103**

PLAN

1 ELEVATION

2 ELEVATION

Notes
 Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	1,924 kg (4,233 lbs)
Load Rating	Pedestrian

Product Detail

Outside Dimension	1576 x 1730 x 1000
Opening Dimension	400 X 1345
Blockouts	175 x 400
Lift Mechanism	ITBF 3/4"

Revision Date **April. 01 2019**

	Transformer Base	Dwg. No. 6-0098
	KNELSEN PRECAST - Western Canada (Calgary, Edmonton) www.knelsen.com Tel: (403) 279-8161 Fax: (403) 279-6027	SAP No. 405104

PLAN

SECTION A

SECTION B

Notes

Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35MPa @ 28 days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	2,639 kg (5,806 lbs.)
Load Rating	Pedestrian

Product Detail

Outside Dimension	1730 x 1830 x 1000
Opening Dimension	490 x 1430
Blockouts	200 x 400
Lift Mechanism	19mm or 3/4" Loop Ferrule Insert

Revision Date **April. 01 2019**

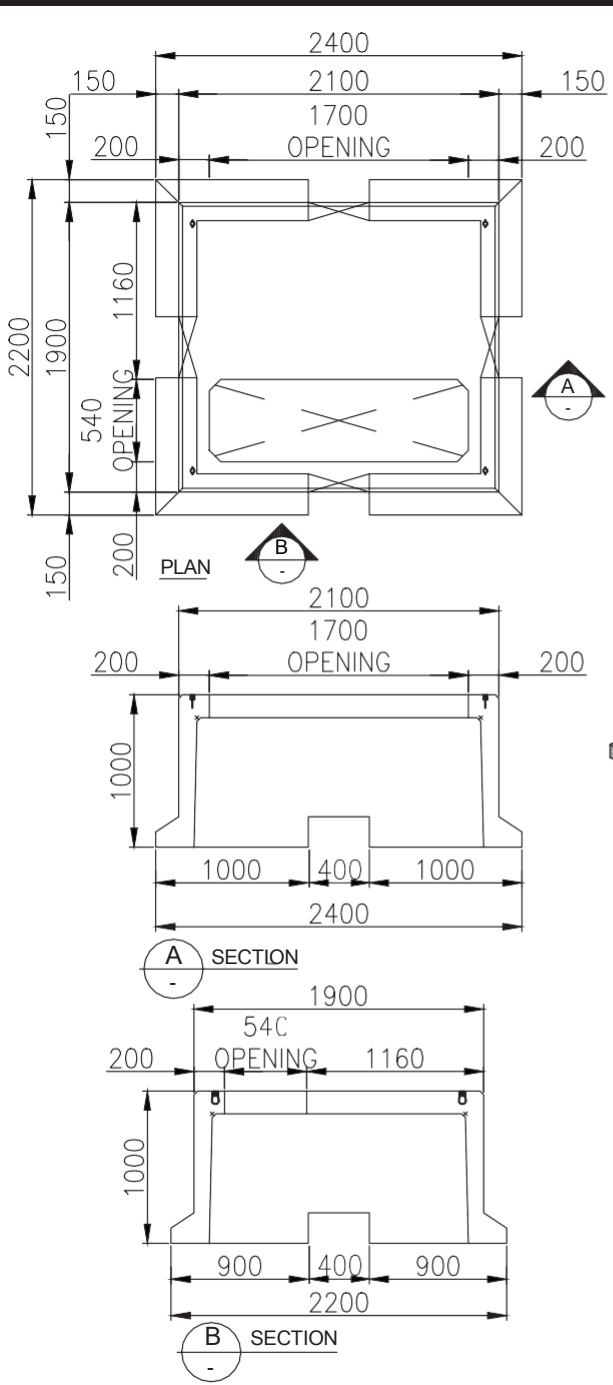
Transformer Base

KNELSEN PRECAST - Western Canada (Calgary, Edmonton)
www.knelsen.com

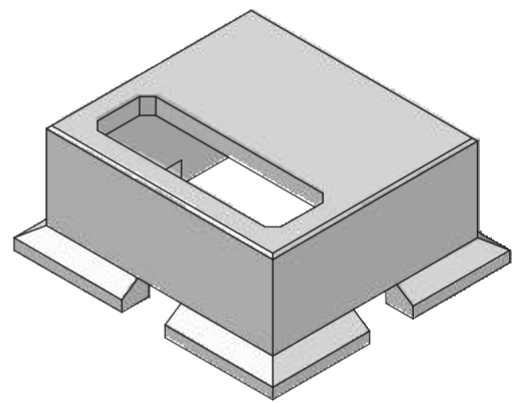
Tel: (403) 279-8161
 Fax: (403) 279-6027

Dwg. No. **FND-PC-02**

SAP No. **413574**



Notes
 Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.



Technical Detail
 CPCI Standard Group S
 CSA Standard A23.3-14, A23.4-09
 Concrete Strength 35MPa @ 28 days
 Concrete Type Sulphate Resistant S2 Exposure
 Reinforcement Grade 400
 Weight 3,096 kg (6,815 lbs.)
Load Rating Pedestrian

Product Detail
 Outside Dimension 1900 x 2100 x 1000
 Opening Dimension 540 x 1700
 Blockouts 200 x 400
 Lift Mechanism 19mm or 3/4" Loop Ferrule

Revision Date April. 01 2019



Transformer Base

Dwg. No. **FND-PC-03**

KNELSEN PRECAST - Western Canada (Calgary, Edmonton)

SAP No. **413576**

www.knelsen.com

Tel: (403) 279-8161
 Fax: (403) 279-6027

Notes
 Site installation, backfilling and suitability for use are to be determined by others.
 Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	2,525 kg (5,556 lbs)
Load Rating	Pedestrian

Product Detail

Outside Dimension	1700 x 1900 x 1000
Opening Dimension	400 x 1100
Blockouts	175 x 175
Inserts	PD: 5/8"
Lift Mechanism	Aircraft Cable

Revision Date **April. 01 2019**

	Transformer Base	Dwg. No. 6-0099
	KNELSEN PRECAST - Western Canada (Calgary, Edmonton) www.knelsen.com Tel: (403) 279-8161 Fax: (403) 279-6027	SAP No. 405105

PLAN

1

ELEVATION 1

2

ELEVATION 2

Notes

Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

AIRCRAFT CABLE LIFT HOOK

PD INSERT (4 LOC'S)

Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant
	S2 Exposure
Reinforcement	Grade 400
Weight	4,209 kg (9,259 lbs)
Load Rating	Pedestrian

Product Detail

Outside Dimension	2200 x 2600 x 1000
Opening Dimension	400 x 1600
Blockouts	175 x 400
Inserts	PD: 5/8"
Lift Mechanism	Aircraft Cable

Revision Date **April. 01 2019**

	Transformer Base	Dwg. No. 6-0100-1
	KNELSEN PRECAST - Western Canada (Calgary, Edmonton) www.knelsen.com Tel: (403) 279-8161 Fax: (403) 279-6027	SAP No. 405106

PLAN

1 ELEVATION

2 ELEVATION

Notes

Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	4,209 kg (9,259 lbs)
Load Rating	Pedestrian

Product Detail

Outside Dimension	2200 x 2600 x 1000
Opening Dimension	360 x 2060
Blockouts	175 x 175
Inserts	LF: 1/2" Ø
Lift Mechanism	Aircraft Cable

Accessories (Extra)

Lid & Frame	Cast Iron
Lid Reference	POW, TEL, Blank
Sealant	RAM-NEK Gasket

Revision Date **April. 01 2019**

Transformer Base

KNELSEN PRECAST - Western Canada (Calgary, Edmonton)

www.knelsen.com

Tel: (403) 279-8161
Fax: (403) 279-6027

Dwg. No. **6-0100-2**

SAP No. **409555**

PLAN

1 ELEVATION

2 ELEVATION

Notes
 Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	4,209 kg (9,259 lbs)
Load Rating	Pedestrian

Product Detail

Outside Dimension	2200 x 2600 x 1000
Opening Dimension	400 x 1000
Blockouts	175 x 175
Lift Mechanism	Aircraft Cable

Revision Date **April. 01 2019**

	Transformer Base	Dwg. No. 6-0100-3
	KNELSEN PRECAST - Western Canada (Calgary, Edmonton) www.knelsen.com	SAP No. 409573 Tel: (403) 279-8161 Fax: (403) 279-6027

TOP VIEW

1 ELEVATION

2 ELEVATION

Notes
 Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail
 CPCI Standard Group S
 CSA Standard A23.3-14, A23.4-09
 Concrete Strength 35 MPa @ 28 Days
 Concrete Type Sulphate Resistant
 S2 Exposure
 Reinforcement Grade 400
 Weight 731 kg (1608 lbs)

Product Detail
 Outside Dimension 508Ø x 1500
 Bolt Circle Dia. 280 mm or 11"
 Access Hole 102 mm or 4"
 Anchor Bolt 25.4 mm or 1" Dia.
 Lift Mechanism n/a

Revision Date April. 01 2019

	Foundation S/L Base	Dwg. No. 8-0061-1
	KNELSEN PRECAST - Western Canada (Calgary, Edmonton) www.knelsen.com	SAP No. 409956 Tel: (403) 279-8161 Fax: (403) 279-6027

TOP VIEW

1 ELEVATION

2 ELEVATION

Notes
 Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail
 CPCI Standard Group S
 CSA Standard A23.3-14, A23.4-09
 Concrete Strength 35 MPa @ 28 Days
 Concrete Type Sulphate Resistant
 S2 Exposure
 Reinforcement Grade 400
 Weight 927 kg (2,040 lbs)

Product Detail
 Outside Dimension 508 Ø x 1900
 Bolt Circle Dia. 280 mm or 11"
 Access Hole 102 mm or 4"
 Anchor Bolt 25.4 mm or 1" Dia.
 Lift Mechanism Aircraft Cable

Revision Date **April. 01 2019**

NOTE: NOT FOR RESALE, SEE 412306

	Street Light Pole Base (Type 'B1')	Dwg. No. 8-0077-1
	KNELSEN PRECAST - Western Canada (Calgary, Edmonton) www.knelsen.com Tel: (403) 279-8161 Fax: (403) 279-6027	SAP No. 405118

TOP VIEW

1 ELEVATION

2 ELEVATION

Notes
 Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	927 kg (2,040 lbs)

Product Detail

Outside Dimension	508 Ø x 1900
Bolt Circle Dia.	280 mm or 11"
Access Hole	102 mm or 4"
Anchor Bolt	25.4mm (1" Dia.)
Lift Mechanism	Aircraft Cable

Optional Sizes

508mm x 1500mm	731kg (1608 lbs.)
508mm x 1900mm	930kg (2045 lbs.)
508mm x 2400mm	1170kg (2575 lbs.)
508mm x 2800mm	1362kg (2994 lbs.)

Revision Date **April. 01 2019**

	Street Light Pole Base (Type 'AB1')	Dwg. No. 8-0077-1
	KNELSEN PRECAST - Western Canada (Calgary, Edmonton) www.knelsen.com	SAP No. 412306
	Tel: (403) 279-8161 Fax: (403) 279-6027	

TOP VIEW

1 ELEVATION

2 ELEVATION

Notes
 Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail
 CPCI Standard Group S
 CSA Standard A23.3-14, A23.4-09
 Concrete Strength 35 MPa @ 28 Days
 Concrete Type Sulphate Resistant
 S2 Exposure
 Reinforcement Grade 400
 Weight 1371 kg (3,016 lbs)

Product Detail
 Outside Dimension 550 Ø x 2400
 Bolt Circl Dia. 330 mm or 13"
 Access Hole 102 mm or 4"
 Anchor Bolt 25.4 mm or 1" Dia.
 Lift Mechanism Aircraft Cable

Revision Date **April. 01 2019**

NOTE: NOT FOR RESALE, SEE 412305

	Street Light Pole Base (Type 'C')	Dwg. No. 8-0075-1
	KNELSEN PRECAST - Western Canada (Calgary, Edmonton) www.knelsen.com	SAP No. 405117

Tel: (403) 279-8161
 Fax: (403) 279-6027

Notes
Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail
 CPCI Standard Group S
 CSA Standard A23.3-14, A23.4-09
 Concrete Strength 35 MPa @ 28 Days
 Concrete Type Sulphate Resistant
 S2 Exposure
 Reinforcement Grade 400
 Weight 1371 kg (3,016 lbs)

Product Detail
 Outside Dimension 550 Ø x 2400
 Bolt Circle Dia. 330 mm or 13"
 Access Hole 102 mm or 4"
 Anchor Bolt 25.4 mm or 1" Dia.
 Lift Mechanism Aircraft Cable

Revision Date **April. 01 2019**

Dwg. No. **8-0075-1**

SAP No. **412305**

Street Light Pole Base (Type 'AC')

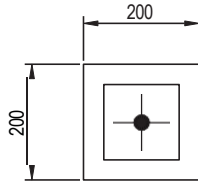
KNELSEN PRECAST - Western Canada (Calgary, Edmonton)

www.knelsen.com

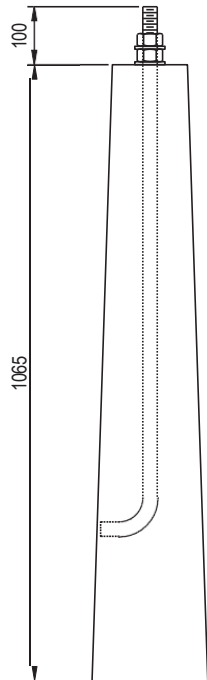
Tel: (403) 279-8161
Fax: (403) 279-6027

Notes

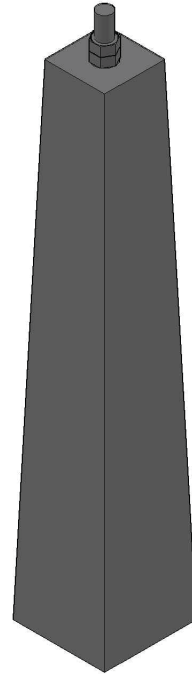
Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.



TOP VIEW



ELEVATION



Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	76 kg (168 lbs)

Product Detail

Outside Dimension	200 x 200 x 1065
Lift Mechanism	Aircraft Cable

Revision Date **April. 01 2019**



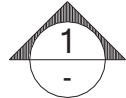
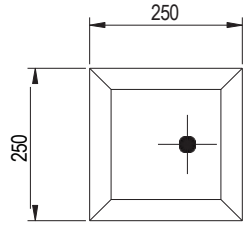
TYPE 2 SIGNAL BASE

KNELSEN PRECAST - Western Canada (Calgary, Edmonton)
www.knelsen.com

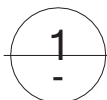
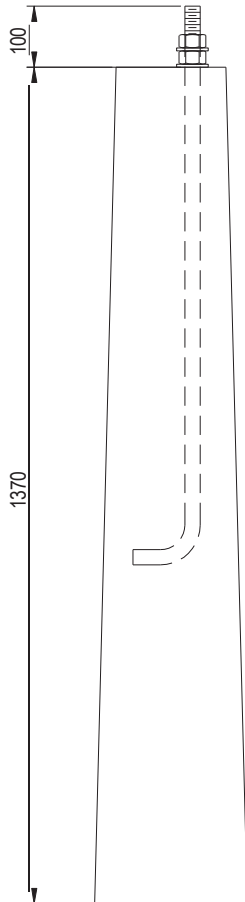
Tel: (403) 279-8161
Fax: (403) 279-6027

Dwg. No. **886-01**

SAP No. **405113**



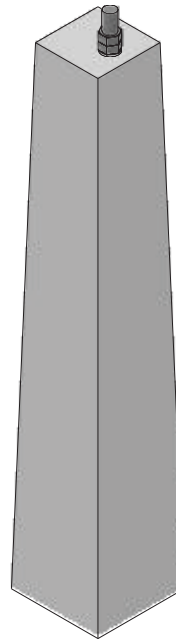
TOP VIEW



ELEVATION

Notes

Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.



Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant
	S2 Exposure
Reinforcement	Grade 400
Weight	170 kg (375 lbs)

Product Detail

Outside Dimension	250 x 250 x 1370
Anchor Bolt	25.4mm or 1" Dia.
Lift Mechanism	n/a

Revision Date April. 01 2019



Signal Base Type '1'

Dwg. No. **8-0065-1**

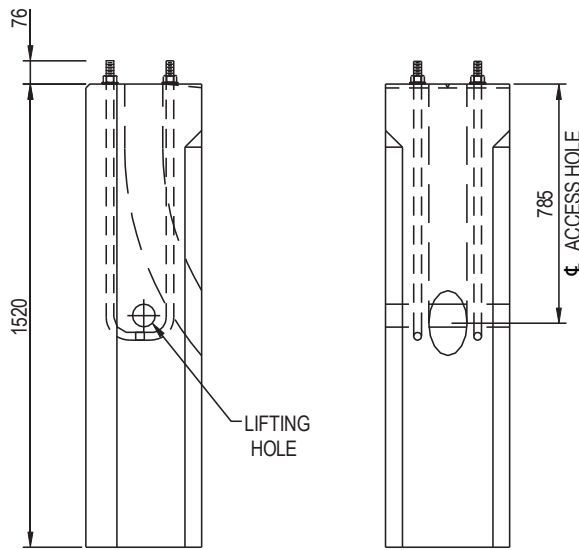
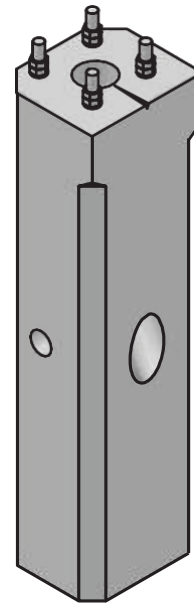
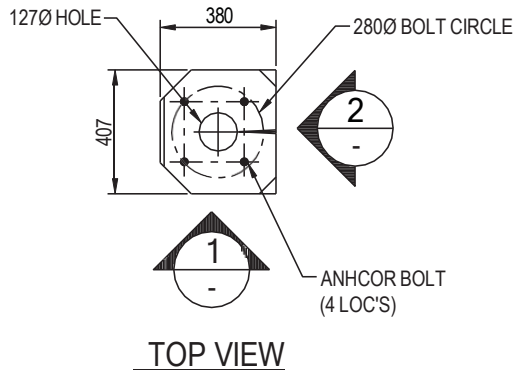
KNELSEN PRECAST - Western Canada (Calgary, Edmonton)
www.knelsen.com

Tel: (403) 279-8161
 Fax: (403) 279-6027

SAP No. **400418**

Notes

Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.



Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	518 kg (1,140 lbs)

Product Detail

Outside Dimension	407 x 380 x 1520
Bolt Circle Dia.	280 mm or 11"
Access Hole	127 mm or 5"
Anchor Bolt	25.4 mm or 1" Dia.
Lift Hole	50 mm

Revision Date **April. 01 2019**

	<p>Street Light Pole Base</p>	<p>Dwg. No. 8-0082-1</p>
	<p>KNELSEN PRECAST - Western Canada (Calgary, Edmonton)</p> <p>www.knelsen.com</p> <p>Tel: (403) 279-8161 Fax: (403) 279-6027</p>	<p>SAP No. 405124</p>

TOP VIEW

1 ELEVATION

2 ELEVATION

Notes
 Site installation, backfilling and suitability for use are to be determined by others.
 Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	795 kg (1,753 lbs)

Product Detail

Outside Dimension	380 x 407 x 2150
Bolt Circle Dia.	280 mm or 11"
Access Hole	127 mm or 5"
Anchor Bolt	25.4 mm or 1" Dia.
Lift Hole	50 mm

Revision Date **April. 01 2019**

	Street Light Pole Base	Dwg. No. 8-0082-1
	KNELSEN PRECAST - Western Canada (Calgary, Edmonton) www.knelsen.com	SAP No. 412112
	Tel: (403) 279-8161 Fax: (403) 279-6027	

PLAN

152mm Ø ACCESS HOLE

400

200 200

280Ø BOLT CIRCLE

ANCHOR BOLT (4 LOC'S)

ELEVATION A

1500

750

150

650

50Ø LIFTING HOLE

200 200

ELEVATION B

ANCHOR BOLT

CHAMFER

25

Notes

Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail

CPCI Standards	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	877 kg (1,930 lbs.)

Product Details

Dimensions	400 x 400 x 1500
Bolt Circle Diameter	280mm (11")
Bolt Projection	150mm (5.90")
Anchor Bolt	25.4 mm or (1")
Access Hole	1 x 150 mm or (6")
Lift Hole	50mm (2")

Revision Date **April. 01 2019**

	Traffic Pole Base	Dwg. No. -
	<small>KNELSEN PRECAST - Western Canada (Calgary, Edmonton)</small> www.knelsen.com	<small>SAP No.</small> 413308
	<small>Tel: (403) 279-8161</small> <small>Fax: (403) 279-6027</small>	

Notes
 Site installation, backfilling and suitability for use are to be determined by others.
 Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	877 kg (1,930 lbs)

Product Detail

Outside Dimension	407 x 407 x 2200
Bolt Circle Dia.	330 mm or 13"
Access Hole	127 mm or 5"
Anchor Bolt	25.4 mm or 1" Dia.
Lift Hole	50 mm

Revision Date **April. 01 2019**

	Street Light Pole Base	Dwg. No. 8-0083-3
	KNELSEN PRECAST - Western Canada (Calgary, Edmonton) www.knelsen.com	SAP No. 405125 Tel: (403) 279-8161 Fax: (403) 279-6027

TOP VIEW

127Ø HOLE

407

330Ø BOLT CIRCLE

407

ANCHOR BOLT (4 LOC'S)

1

2

76

2200

LIFT HOLE

700

5" Ø ACCESS HOLE

1 ELEVATION

2 ELEVATION

Notes

Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail

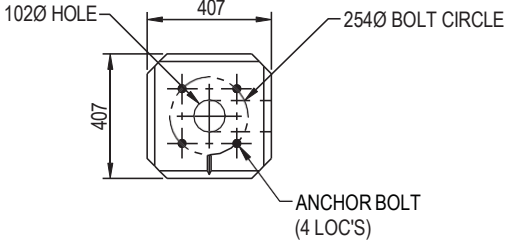
CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	877 kg (1,930 lbs)

Product Detail

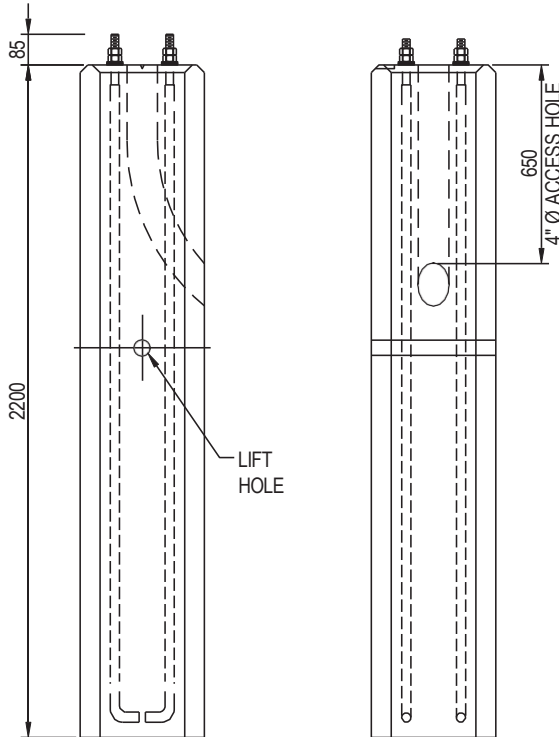
Outside Dimension	407 x 407 x 2200
Bolt Circle Dia.	330 mm or 13"
Access Hole	127 mm or 5"
Anchor Bolt	25.4 mm or 1" Dia.
Anchor Bolt	High strength
Lift Hole	50 mm

Revision Date **April. 01 2019**

	Street Light Pole Base	Dwg. No. 8-0083-4
	KNELSEN PRECAST - Western Canada (Calgary, Edmonton) www.knelsen.com	SAP No. 405126 Tel: (403) 279-8161 Fax: (403) 279-6027



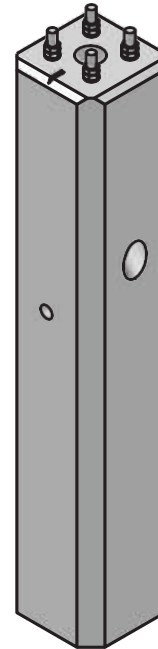
TOP VIEW



1 ELEVATION 2 ELEVATION

Notes

Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.



Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	877 kg (1,930 lbs)

Product Detail

Outside Dimension	407 x 407 x 2200
Bolt Circle Dia.	245 mm or 10"
Access Hole	102 mm or 4"
Anchor Bolt	25.4 mm or 1" Dia.
Lift Hole	50 mm

Revision Date **April. 01 2019**

	<p>Street Light Pole Base</p> <p>KNELSEN PRECAST - Western Canada (Calgary, Edmonton)</p> <p>www.knelsen.com</p>	<p>Dwg. No. 8-0083-5</p> <p>SAP No. 405127</p>
	<p>Tel: (403) 279-8161</p> <p>Fax: (403) 279-6027</p>	

Notes
 Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail

CPCI Standard	Group S
CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	877 kg (1,930 lbs)

Product Detail

Outside Dimension	407 x 407 x 2200
Bolt Circle Dia.	280 mm or 11"
Access Hole	102 mm or 4"
Anchor Bolt	25.4 mm or 1" Dia.
Lift Hole	50 mm

Revision Date **April. 01 2019**

1 ELEVATION

2 ELEVATION

	Street Light Pole Base	Dwg. No. 8-0083-6
	KNELSEN PRECAST - Western Canada (Calgary, Edmonton) www.knelsen.com	SAP No. 405128 Tel: (403) 279-8161 Fax: (403) 279-6027

TOP VIEW

1 ELEVATION

2 ELEVATION

Notes
 Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	1,300 kg (2,860 lbs)

Product Detail

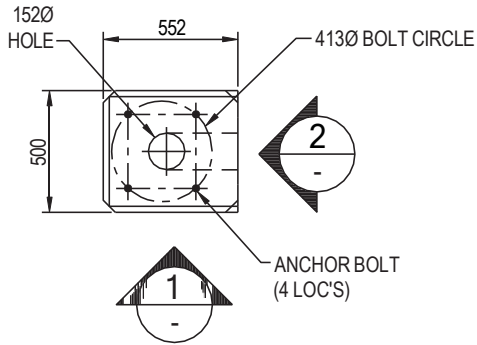
Outside Dimension	500 x 552 x 2000
Bolt Circle Dia.	413 mm or 16.25"
Access Hole	152 mm or 6"
Anchor Bolt	25.4 mm or 1" Dia.
Lift Hole	50 mm

Revision Date **April. 01 2019**

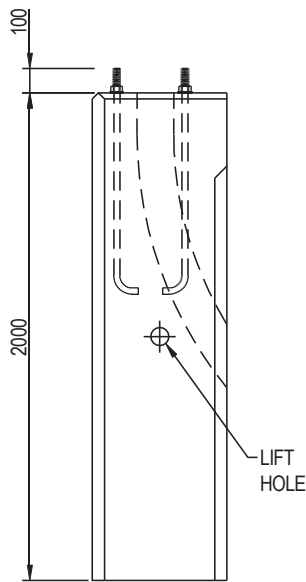
	Street Light Pole Base	Dwg. No. 8-0080-1
	KNELSEN PRECAST - Western Canada (Calgary, Edmonton) www.knelsen.com Tel: (403) 279-8161 Fax: (403) 279-6027	SAP No. 405122

Notes

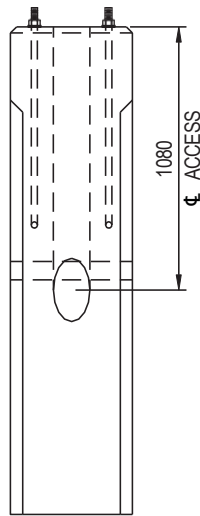
Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.



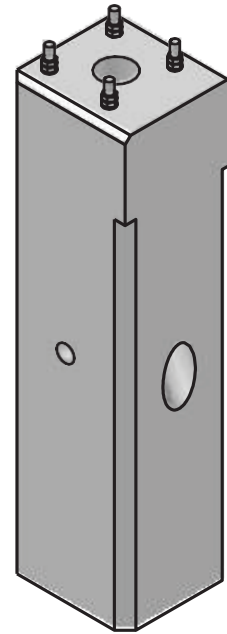
TOP VIEW



1 ELEVATION



2 ELEVATION



Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	1,300 kg (2,860 lbs)

Product Detail

Outside Dimension	500 x 552 x 2000
Bolt Circle Dia.	413 mm or 16.25"
Access Hole	152 mm or 6"
Anchor Bolt	25.4 mm or 1" Dia.
Lift Hole	50 mm

Revision Date Jan. 01 2018

	<p>Street Light Pole Base</p> <p>KNELSEN PRECAST - Western Canada (Calgary, Edmonton)</p> <p>www.knelsen.com</p> <p>Tel: (403) 279-8161 Fax: (403) 279-6027</p>	<p>Dwg. No. 8-0080-2</p> <p>SAP No. 405123</p>
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TOP VIEW

1 ELEVATION

2 ELEVATION

Notes
 Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	1,325 kg (2,915 lbs)

Product Detail

Outside Dimension	540 x 540 x 1950
Bolt Circle Dia.	254 mm or 10"
Access Hole	50 mm or 2"
Anchor Bolt	25.4 mm or 1" Dia.
Lift Hole	50 mm

Revision Date **April. 01 2019**

	Traffic Signal Base	Dwg. No. 8-0078-1
	KNELSEN PRECAST - Western Canada (Calgary, Edmonton) www.knelsen.com	SAP No. 405120 Tel: (403) 279-8161 Fax: (403) 279-6027

PLAN

600
300 300
400mm B.C.D.
152mm Ø ACCESS HOLE
ANCHOR BOLTS

A ELEVATION

150
1200
2400
1200
850
100Ø LIFTING HOLE
305 305

B ELEVATION

ANCHOR BOLTS
CHAMFER CORNERS
25
150

Notes

Site installation, backfilling and suitability for use are to be determined by others.
Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail

CPCI Standards	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	2,140 kg (4,815 lbs.)

Product Details

Dimensions	600 x 600 x 2400
Bolt Circle Diameter	400mm (15.75")
Bolt Projection	150mm (5.90")
Anchor Bolt	35mm (1.38")
Conduit Opening	1 x 150mm (6")
Lift Hole	100 mm

Revision Date **April. 01 2019**

	Traffic Pole Base	Dwg. No. -
	<small>KNELSEN PRECAST - Western Canada (Calgary, Edmonton)</small> www.knelsen.com	<small>SAP No.</small> 413309
	Tel: (403) 279-8161 Fax: (403) 279-6027	

TOP VIEW

1 ELEVATION

2 ELEVATION

Notes
 Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	2,600 kg (5,735 lbs)

Product Detail

Outside Dimension	600 x 600 x 3000
Bolt Circle Dia.	330 mm or 13"
Access Hole	102 mm or 4"
Anchor Bolt	1" Dia.
Lift Hole	50 mm

Revision Date **April. 01 2019**

Road Way Light Pole Base

KNELSEN PRECAST - Western Canada (Calgary, Edmonton)

www.knelsen.com

Tel: (403) 279-8161
 Fax: (403) 279-6027

Dwg. No. -

SAP No. **413407**

TOP VIEW

1 ELEVATION

2 ELEVATION

Notes
 Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	2,045 kg (4,500 lbs)

Product Detail

Outside Dimension	600 x 600 x 3000
Bolt Circle Dia.	330 mm or 13"
Access Hole	102 mm or 4"
Anchor Bolt	1" Dia.
Lift Hole	50 mm

Revision Date **April. 01 2019**

Road Way Light Pole Base

KNELSEN PRECAST - Western Canada (Calgary, Edmonton)

www.knelsen.com

Tel: (403) 279-8161
 Fax: (403) 279-6027

Dwg. No. -

SAP No. **411035**

TOP VIEW

1 ELEVATION

Notes
 Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	1,016 kg (2,235 lbs)

Product Detail

Outside Dimension	610 x 610 x 990
Bolt Circle Dia.	424 mm or 16.5"
Access Hole	145mm or 5" Dia.
Anchor Bolt	25.4 mm or 1" Dia.
Lift Mechanism	N/A

Revision Date **April. 01 2019**

Signal Base Type '3'

KNELSEN PRECAST - Western Canada (Calgary, Edmonton)
www.knelsen.com

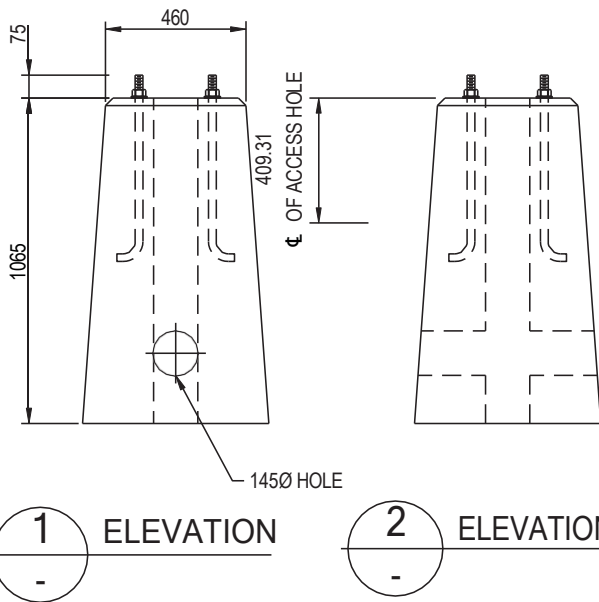
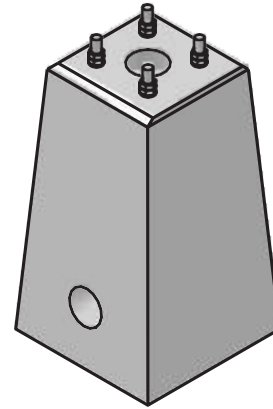
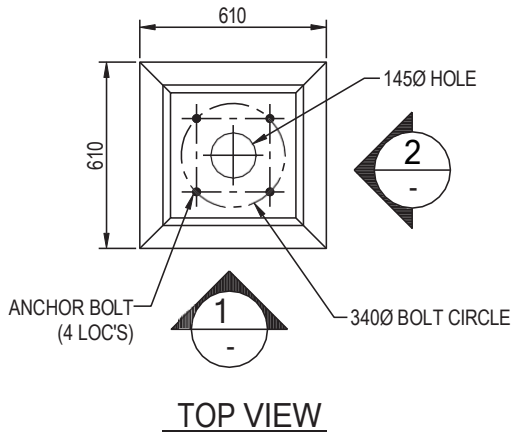
Dwg. No. **8-0067-2**

SAP No. **400421**

Tel: (403) 279-8161
 Fax: (403) 279-6027

Notes

Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.



Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	745 kg (1,640 lbs)

Product Detail

Outside Dimension	610 x 610 x 1065
Bolt Circle Dia.	340 mm or 13.5"
Access Hole	127 mm or 5"
Anchor Bolt	25.4 mm or 1" Dia.
Lift Mechanism	N/A

Revision Date **April. 01 2019**

	<h2>Signal Base (Type '3')</h2>	Dwg. No. 8-0067-1
	KNELSEN PRECAST - Western Canada (Calgary, Edmonton) www.knelsen.com	SAP No. 405114 Tel: (403) 279-8161 Fax: (403) 279-6027

TOP VIEW

1 ELEVATION

2 ELEVATION

Notes

Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	1,927 kg (4,240 lbs)

Product Detail

Outside Dimension	610 x 610 x 2200
Bolt Circle Dia.	330 mm or 13"
Access Hole	102 mm or 4"
Anchor Bolt	25.4 mm or 1" Dia.
Lift Hole	40 mm

Revision Date **April. 01 2019**

Light Pole Base

KNELSEN PRECAST - Western Canada (Calgary, Edmonton)

www.knelsen.com

Tel: (403) 279-8161
Fax: (403) 279-6027

Dwg. No. **8-0051-1**

SAP No. **405115**

TOP VIEW

1 ELEVATION

2 ELEVATION

Notes
 Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	2,141 kg (4,710 lbs)

Product Detail

Outside Dimension	610 x 610 x 2440
Bolt Circle Dia.	395 mm or 15.5"
Access Hole	102 mm or 4"
Anchor Bolt	25.4 mm or 1" Dia.
Lift Hole	40 mm

Revision Date **April. 01 2019**

Light Pole Base

KNELSEN PRECAST - Western Canada (Calgary, Edmonton)

www.knelsen.com

Tel: (403) 279-8161
Fax: (403) 279-6027

Dwg. No. **8-0051-2**

SAP No. **405116**

TOP VIEW

1 ELEVATION 2 ELEVATION

Notes
 Site installation, backfilling and suitability for use are to be determined by others.
 Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant
	S2 Exposure
Reinforcement	Grade 400
Weight	2,050 kg (4,510 lbs)

Product Detail

Outside Dimension	660 x 660 x 1980
Bolt Circle Dia.	457 mm or 18"
Access Hole	50 mm or 2"
Anchor Bolt	25.4 mm or 1" Dia.
Lift Hole	100 mm

Revision Date April. 01 2019

	Street Light Pole Base	Dwg. No. 8-0084-1
	KNELSEN PRECAST - Western Canada (Calgary, Edmonton) www.knelsen.com	SAP No. 405129 Tel: (403) 279-8161 Fax: (403) 279-6027

TOP VIEW

1 ELEVATION

2 ELEVATION

Notes
 Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	2,932 kg (6,450 lbs)

Product Detail

Outside Dimension	660 x 660 x 2850
Bolt Circle Dia.	382 mm or 15"
Access Hole	102 mm or 4" & 50 mm or 2"
Anchor Bolt	25.4 mm or 1" Dia.
Lift Hole	50 mm

Revision Date **April. 01 2019**

Traffic Signal Base (Type 'S')

KNELSEN PRECAST - Western Canada (Calgary, Edmonton)

www.knelsen.com

Tel: (403) 279-8161
 Fax: (403) 279-6027

Dwg. No. **8-0079-1**

SAP No. **405121**

TOP VIEW

660

660

382Ø BOLT CIRCLE

ANCHOR BOLT (4 LOC'S)

2

1

200

3000

1063

100 mm CONDUIT

2

4

2

500 LIFT HOLE

1 ELEVATION

2 ELEVATION

Notes

Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail

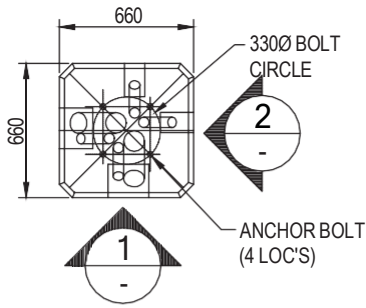
CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	3,077 kg (6,770 lbs)

Product Detail

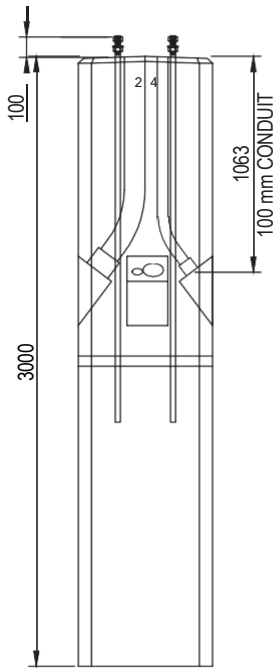
Outside Dimension	660 x 660 x 3000
Bolt Circle Dia.	382 mm or 15"
Access Hole	102 mm or 4" & 50 mm or 2"
Anchor Bolt	25.4 mm or 1" Dia.
Lift Hole	50 mm

Revision Date **April. 01 2019**

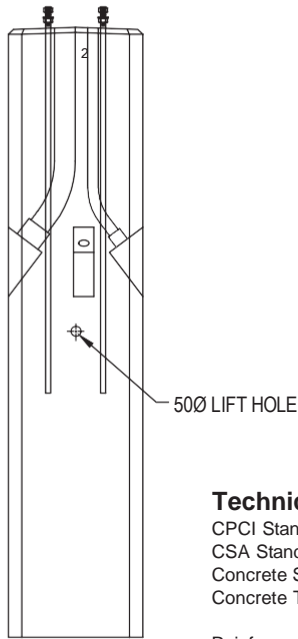
	<h2>Traffic Signal Base (Type 'S')</h2>	Dwg. No. 8-0079-2
	KNELSEN PRECAST - Western Canada (Calgary, Edmonton) www.knelsen.com	SAP No. 400428 Tel: (403) 279-8161 Fax: (403) 279-6027



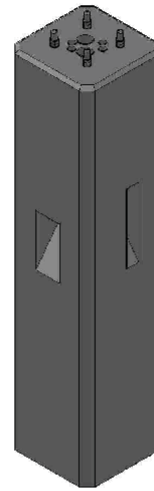
TOP VIEW



1 ELEVATION



2 ELEVATION



Notes

Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	3,077 kg (6,770 lbs)

Product Detail

Outside Dimension	660 x 660 x 3000
Bolt Circle Dia.	330 mm or 13"
Access Hole	102 mm or 4" & 50 mm or 2"
Anchor Bolt	25.4 mm or 1" Dia.
Lift Hole	50 mm

Revision Date April. 01 2019



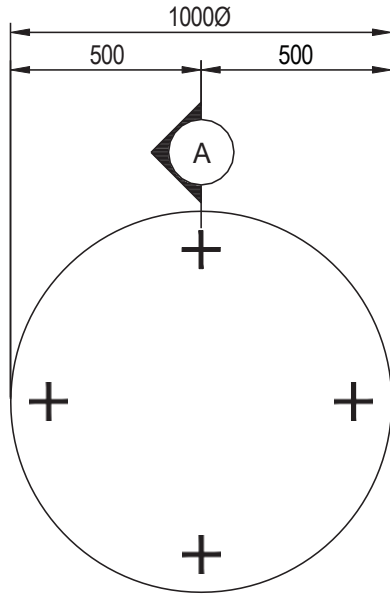
Traffic Signal Base (Type 'S')

KNELSEN PRECAST - Western Canada (Calgary, Edmonton)
www.knelsen.com

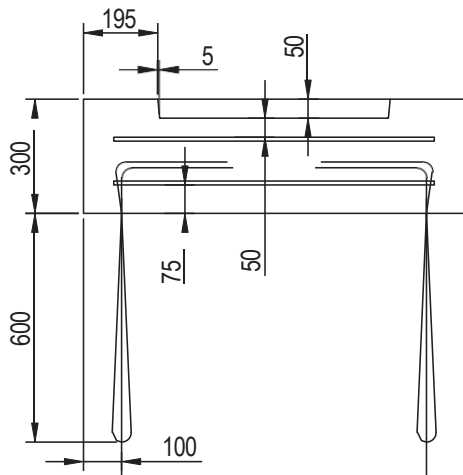
Tel: (403) 279-8161
Fax: (403) 279-6027

Dwg. No. 8-0079-3

SAP No. 400429



PLAN



SECTION A

Notes

Site installation, backfilling and suitability for use are to be determined by others.
Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail

CPCI Standards	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant
	S2 Exposure
Reinforcement	Grade 400
Weight	536 kg (1,180 lbs.)

Product Details

Dimensions	300mm x 1000mm
Lift Mechanism	1/2 " Aircraft Cable

Product Finish

Smooth	Standard
--------	----------

Revision Date **April. 01 2019**

	<p>Base Plate (Wood Pole)</p>	<p>Dwg. No. 934-01</p>
	<p>KNELSEN PRECAST - Western Canada (Calgary, Edmonton)</p> <p>www.knelsen.com</p> <p>Tel: (403) 279-8161 Fax: (403) 279-6027</p>	<p>SAP No. 410916</p>

TOP VIEW

508Ø
50Ø HOLE
280Ø BOLT CIRCLE
ANCHOR BOLT (4 LOC'S)

1 ELEVATION

95
2400
1700 (4) - 2Ø CONDUIT
A

2 ELEVATION

508
AIRCRAFT CABLE LIFT HOOK

Notes
Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	1170 kg (2575 lbs)

Product Detail

Outside Dimension	508 Ø x 2400
Bolt Circle Dia.	228 mm or 9"
Conduit Opening	51 mm or 2"
Lift Mechanism	Aircraft Cable

Revision Date **April. 01 2019**

Light Pole Base (Type 'B1')

KNELSEN PRECAST - Western Canada (Calgary, Edmonton)

www.knelsen.com

Tel: (403) 279-8161
Fax: (403) 279-6027

Dwg. No. **8-0077-4**

SAP No. **410878**

Notes
 Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail

CPCI Standards	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Lift Mechanism	Aircraft Cable

Product Options

Anchor Bolt	Customer Supplied
Conduit	Customer Supplied

Product Finish

Smooth	Standard
Sand Blasted	Extra
Exposed Aggregate	Extra

Available Sizes

300mm x 1200mm	204 kg (449 lbs.)
300mm x 1500mm	225 kg (560 lbs.)
300mm x 2000mm	338 kg (744 lbs.)

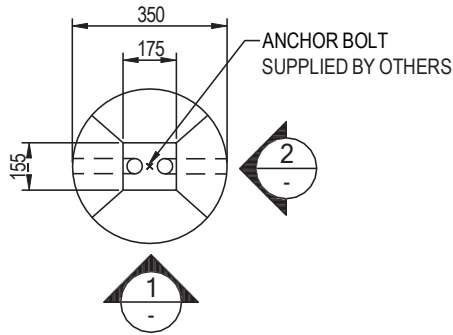
Weight

Revision Date **April. 01 2019**

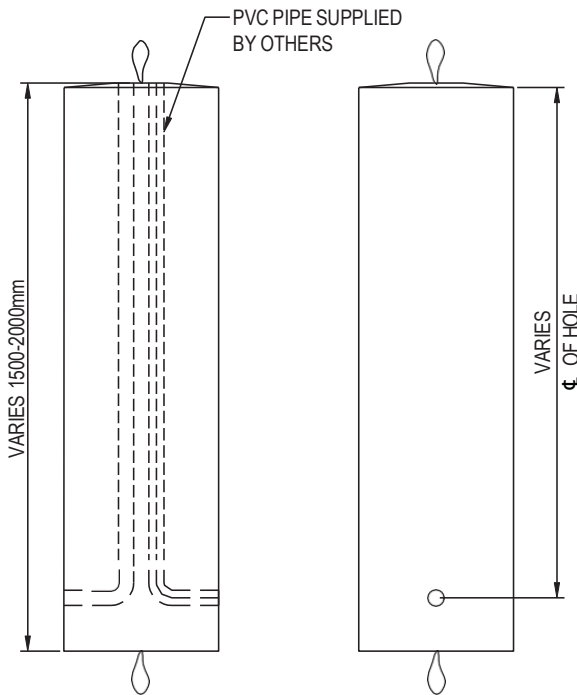
	300mm PEDESTAL BASE	Dwg. No. -
	KNELSEN PRECAST - Western Canada (Calgary, Edmonton) www.knelsen.com	SAP No. 500000
	Tel: (403) 279-8161 Fax: (403) 279-6027	

Notes

Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.



TOP VIEW



1 ELEVATION

2 ELEVATION



Technical Detail

CPCI Standards	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Lift Mechanism	Aircraft Cable

Product Options

Anchor Bolt	Customer Supplied
Conduit	Customer Supplied

Product Finish

Smooth	Standard
Sand Blasted	Extra
Exposed Aggregate	Extra

Available Sizes

- 350mm x 1500mm
- 350mm x 2000mm

Weight

Revision Date **April. 01 2019**

	<p>350mm PEDESTAL BASE</p>	<p>Dwg. No. -</p>
	<p>KNELSEN PRECAST - Western Canada (Calgary, Edmonton)</p> <p>www.knelsen.com</p> <p>Tel: (403) 279-8161 Fax: (403) 279-6027</p>	<p>SAP No.</p> <p>500000</p>

TOP VIEW

1 ELEVATION **2 ELEVATION**

Notes
 Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail
 CPCI Standards Group S
 CSA Standard A23.3-14, A23.4-09
 Concrete Strength 35 MPa @ 28 Days
 Concrete Type Sulphate Resistant
 S2 Exposure
 Reinforcement Grade 400
 Lift Mechanism Aircraft Cable

Product Options
 Anchor Bolt Customer Supplied
 Conduit Customer Supplied

Product Finish
 Smooth Standard
 Sand Blasted Extra
 Exposed Aggregate Extra

Available Sizes **Weight**
 400mm x 1200mm
 400mm x 1500mm

Revision Date **April. 01 2019**

	400mm PEDESTAL BASE	Dwg. No. -
	KNELSEN PRECAST - Western Canada (Calgary, Edmonton) www.knelsen.com	SAP No. 500000
	Tel: (403) 279-8161 Fax: (403) 279-6027	

Notes
 Site installation, backfilling and suitability for use are to be determined by others.
 Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail

CPCI Standards	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Lift Mechanism	Aircraft Cable

Product Options

Anchor Bolt	Customer Supplied
Conduit	Customer Supplied

Product Finish

Smooth	Standard
Sand Blasted	Extra
Exposed Aggregate	Extra

Available Sizes

457mm x 1200mm	Weight
457mm x 1500mm	
457mm x 1700mm	
457mm x 2000mm	

Revision Date **April. 01 2019**

457mm PEDESTAL BASE

KNELSEN PRECAST - Western Canada (Calgary, Edmonton)

www.knelsen.com

Tel: (403) 279-8161
 Fax: (403) 279-6027

Dwg. No. -

SAP No. **500000**

Notes
Site installation, backfilling and suitability for use are to be determined by others.
Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail
 CPCI Standard Group S
 CSA Standard A23.3-14, A23.4-09
 Concrete Strength 35 MPa @ 28 Days
 Concrete Type Sulphate Resistant
 S2 Exposure
 Reinforcement Grade 400
 Weight 880 kg (1,940 lbs)

Product Detail
 Outside Dimension 508 Ø x 1865
 Access Hole 102 mm or 4"
 PVC Pipe 100 Dia.
 Lift Mechanism Aircraft Cable

Revision Date **April. 01 2019**

TOP VIEW

1 ELEVATION **2 ELEVATION**

	508mm PEDESTAL BASE	Dwg. No. -
	KNELSEN PRECAST - Western Canada (Calgary, Edmonton) www.knelsen.com Tel: (403) 279-8161 Fax: (403) 279-6027	SAP No. 413104

TOP VIEW

1 ELEVATION

2 ELEVATION

Notes
 Site installation, backfilling and suitability for use are to be determined by others.
 Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail

CPCI Standards	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Lift Mechanism	Aircraft Cable

Product Options

Anchor Bolt	Customer Supplied
Conduit	Customer Supplied

Product Finish

Smooth	Standard
Sand Blasted	Extra
Exposed Aggregate	Extra

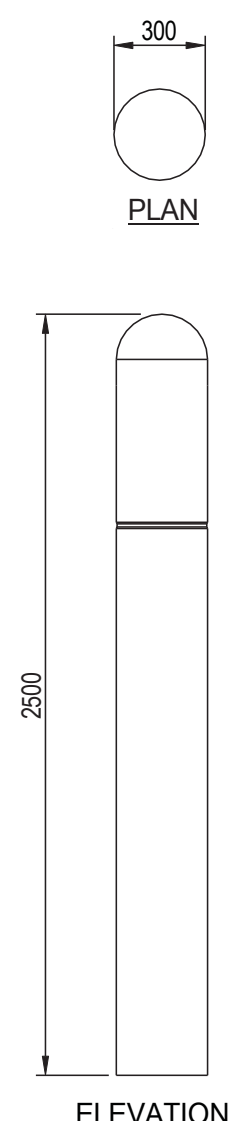
Available Sizes

550mm x 2000mm
 550mm x 2400mm

Weight

Revision Date **April. 01 2019**


	550mm PEDESTAL BASE	Dwg. No. -
	KNELSEN PRECAST - Western Canada (Calgary, Edmonton) www.knelsen.com	SAP No. 500000 Tel: (403) 279-8161 Fax: (403) 279-6027



PLAN

ELEVATION

Notes
 Site installation, backfilling and suitability for use are to be determined by others.
 Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.



Technical Detail

CPCI Standards	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	423 kg (930 lbs.)


Product Detail

Dimension	300mm x 2500mm
Reveal: Upper Band	20mm

Product Finish

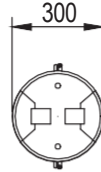
Smooth	Standard
Sand Blasted	Extra
Exposed Aggregate	Extra

Revision Date **April. 01 2019**

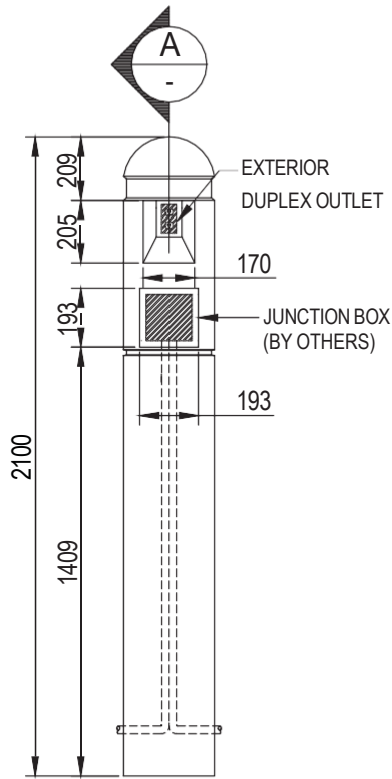
	300mm Bollard	Dwg. No. -
	KNELSEN PRECAST - Western Canada (Calgary, Edmonton) www.knelsen.com	SAP No. 500000
	Tel: (403) 279-8161 Fax: (403) 279-6027	

Notes

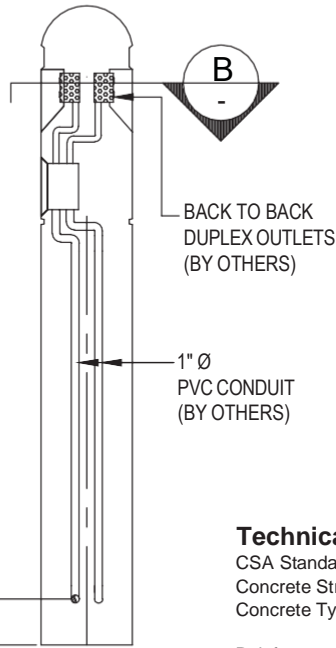
Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.



B SECTION



1 ELEVATION



A SECTION



Technical Detail

CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	340 kg (750 lbs)

Product Detail

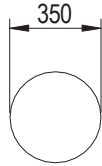
Dimension	300mm Ø x 2100mm
Reveal: Upper Band	80mm
Reveal: Lower Band	20mm

Product Finish

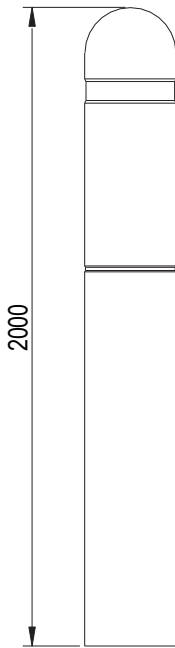
Smooth	Standard
Sand Blasted	Extra
Exposed Aggregate	Extra

Revision Date April. 01 2019

	<h3>350mm Bollard (Car Receptacle)</h3>	Dwg. No.	-
	<p>KNELSEN PRECAST - Western Canada (Calgary, Edmonton)</p> <p>www.knelsen.com</p> <p>Tel: (403) 279-8161 Fax: (403) 279-6027</p>	SAP No.	406243



PLAN



ELEVATION



Notes

Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail

CPCI Standard	Group S
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant
	S2 Exposure
Reinforcement	Grade 400
Weight	340 kg (750 lbs)

Product Detail

Dimension	350mm Ø x 2000mm
Reveal: Upper Band	80mm
Reveal: Lower Band	20mm

Product Finish

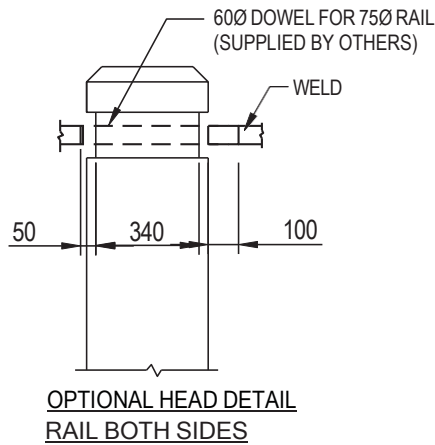
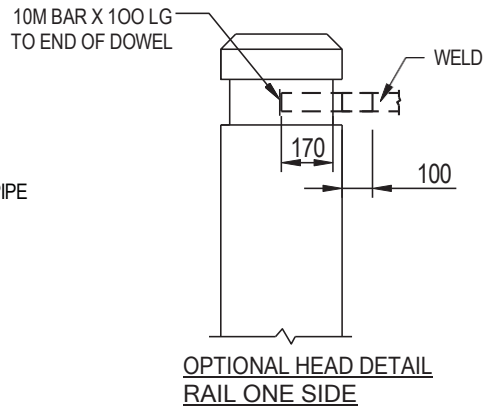
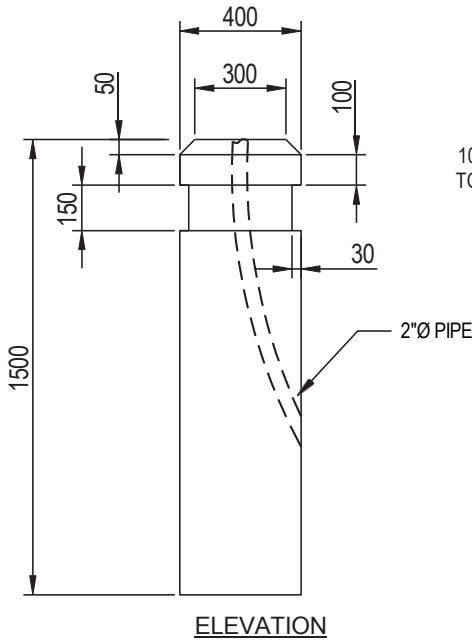
Smooth	Standard
Sand Blasted	Extra
Exposed Aggregate	Extra

Revision Date April. 01 2019

	<h3>350mm Bollard</h3>	Dwg. No. SP97000
	KNELSEN PRECAST - Western Canada (Calgary, Edmonton) www.knelsen.com	SAP No. 406243 Tel: (403) 279-8161 Fax: (403) 279-6027

Notes

Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.



Technical Detail

CPCI Standards	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	402 kg (886 lbs.)

Product Details

Dimensions	400mm x 1500mm
Reval: Upper Band	150mm
Access Hole	52mm PVC
Rail Openings*	60mm

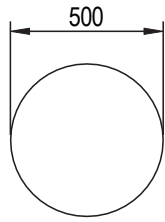
Product Finish

Smooth	Standard
Sand Blasted	Extra
Exposed Aggregate	Extra

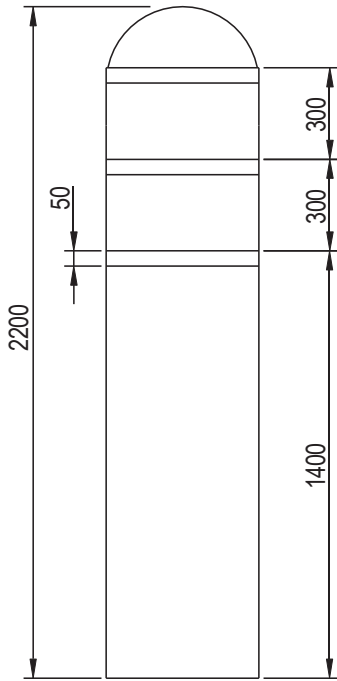
Revision Date **April. 01 2019**

***NOTE**
Customer to Supply Railing Material

	400mm Bollard	Dwg. No. -
	KNELSEN PRECAST - Western Canada (Calgary, Edmonton) www.knelsen.com	SAP No. 500000 Tel: (403) 279-8161 Fax: (403) 279-6027



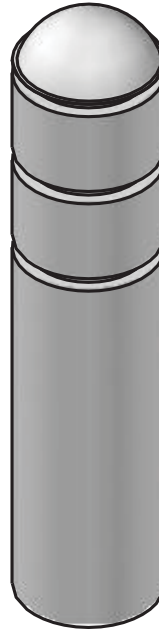
PLAN



ELEVATION

Notes

Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.



Technical Detail

CPCI Standards	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	922 kg (2,029 lbs.)

Product Detail

Dimension	500mm x 2200mm
Reveal: Upper Band	50mm
Reveal: Lower band	50mm
Reveal: Middle band	50mm

Product Finish

Smooth	Standard
Sand Blasted	Extra
Exposed Aggregate	Extra

Revision Date **April. 01 2019**

	<h3>500mm Bollard</h3>	Dwg. No. -
	KNELSEN PRECAST - Western Canada (Calgary, Edmonton) www.knelsen.com	SAP No. 500000 Tel: (403) 279-8161 Fax: (403) 279-6027

TOP VIEW

1 ELEVATION

2 ELEVATION

Notes

Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	311 kg (685 lbs)

Product Detail

Overall Dimension	410 x 410 x 2020
Base Dimension	410 x 410 x 700
Pipe Dimension	102Ø x 1320
Pipe Finish	Galvanized
Pipe Fill	Concrete
Lift Mechanism	Aircraft Cable

Revision Date **April. 01 2019**

	410 x 410 Guard Post	Dwg. No. 9-0081-1
	KNELSEN PRECAST - Western Canada (Calgary, Edmonton) www.knelsen.com	Tel: (403) 279-8161 Fax: (403) 279-6027

TOP VIEW

1000 GALV. PIPE

AIRCRAFT CABLE LIFT HOOK

GROUNDING STUD c/w NUT & WASHER

1 ELEVATION

2 ELEVATION

3 PROTECTIVE SLEEVE

Notes

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YELLOW SLEEVE PVC WITH TWO RED REFLECTIVE STRIPES PART No. 112134

Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	311 kg (685 lbs)

Product Detail

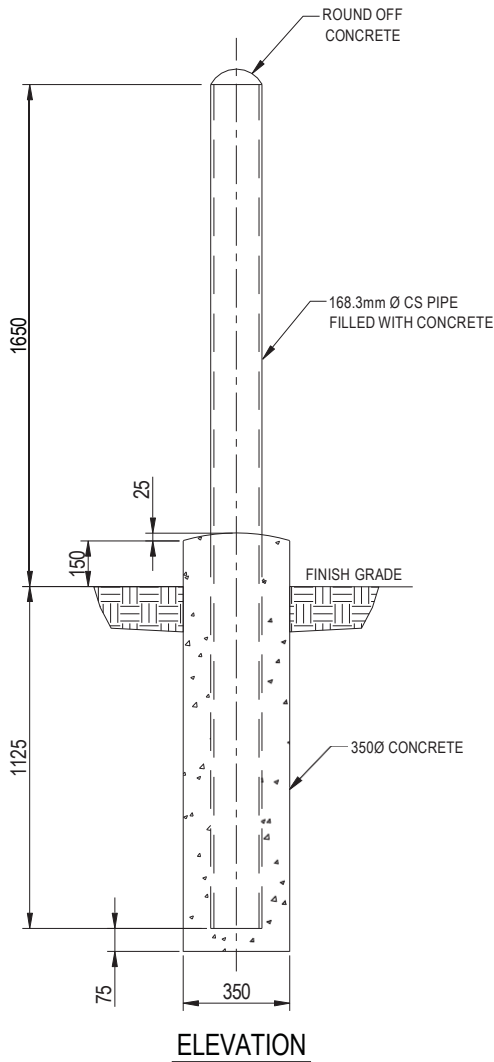
Overall Dimension	410 x 410 x 2020
Base Dimension	410 x 410 x 700
Pipe Dimension	1020 x 1320
Pipe Finish	Galvanized
Pipe Fill	Concrete
Pipe Sleeve	Yellow PVC w/Red stripes
Lift Mechanism	Aircraft Cable

Revision Date **April. 01 2019**

	410 x 410 Guard Post	Dwg. No. 9-0081-1
	KNELSEN PRECAST - Western Canada (Calgary, Edmonton) www.knelsen.com	SAP No. 412114
	Tel: (403) 279-8161 Fax: (403) 279-6027	

Notes

Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.



TOP VIEW

Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant
	S2 Exposure
Reinforcement	Grade 400
Weight	460 kg (1,012 lbs.)

Product Detail

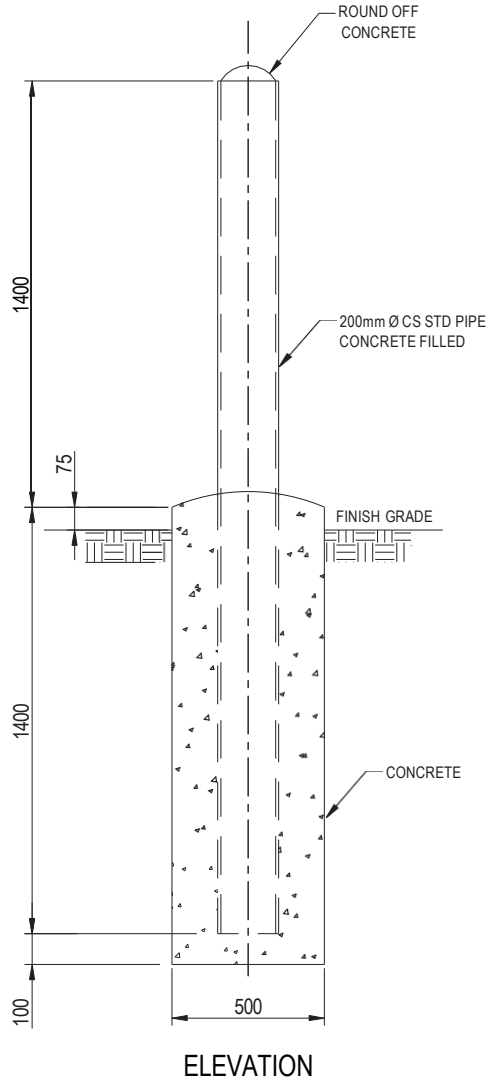
Overall Dimension	350 x 2850
Base Dimension	350 x 1375
Pipe Standard Dia.	168mm x 2400mm
Pipe Finish	Steel Pipe Galvanized
Pipe Fill	Concrete
Lift Mechanism	Aircraft Cable

Optional (Extra)

Pipe Finish	Safety Yellow
Pipe Finish	Flourescent Orange

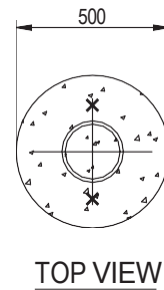
Revision Date **April. 01 2019**

	<h2>350mm Guard Post</h2>	Dwg. No.	-
	<p>KNELSEN PRECAST - Western Canada (Calgary, Edmonton)</p> <p>www.knelsen.com</p> <p>Tel: (403) 279-8161 Fax: (403) 279-6027</p>	SAP No.	500000



Notes

Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.



Technical Detail

CPCI Standard Group S
 CSA Standard A23.3-14, A23.4-09
 Concrete Strength 35 MPa @ 28 Days
 Concrete Type Sulphate Resistant
 S2 Exposure

Reinforcement Weight Grade 400

Product Detail

Overall Dimension 500 x 2900
 Base Dimension 500 x 1525
 Pipe Standard Dia. 200mm x 2700mm
 Pipe Finish Steel Pipe Galvanized
 Pipe Fill Concrete
 Lift Mechanism Aircraft Cable

Optional (Extra)

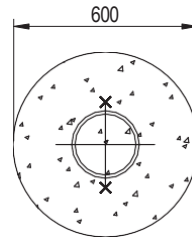
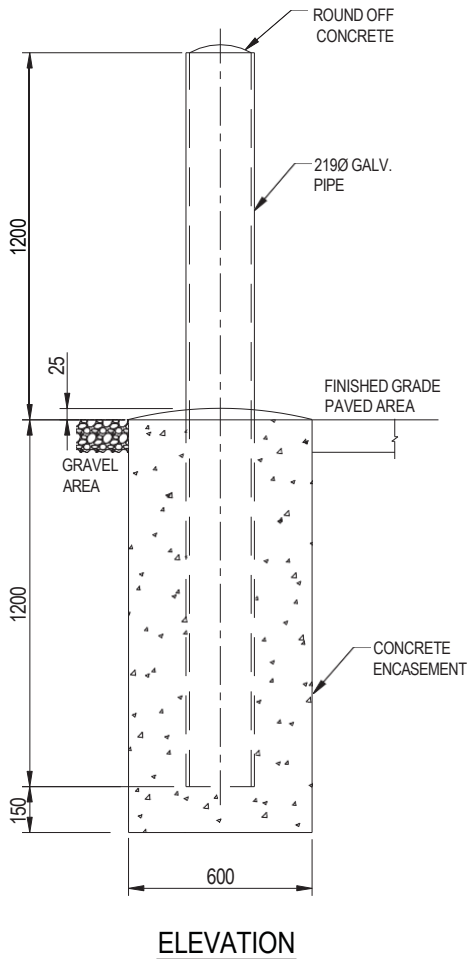
Pipe Finish Safety Yellow
 Pipe Finish Flourescent Orange

Revision Date April. 01 2019

	<h3>500mm Guard Post</h3>	Dwg. No. -
	KNELSEN PRECAST - Western Canada (Calgary, Edmonton) www.knelsen.com	SAP No. 500000
Tel: (403) 279-8161 Fax: (403) 279-6027		

Notes

Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.



TOP VIEW

Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant
	S2 Exposure
Reinforcement	Grade 400
Weight	1,082 kg (2,380 lbs.)

Product Detail

Overall Dimension	600 x 2550
Base Dimension	600 x 1375
Pipe Standard Dia.	219mm x 2400mm
Pipe Alternative Dia.	168mm x 2400mm
Pipe Finish	Steel Pipe Galvanized
Pipe Fill	Concrete
Lift Mechanism	Aircraft Cable

Optional (Extra)

Pipe Finish	Safety Yellow
Pipe Finish	Flourescent Orange

Revision Date **April. 01 2019**

	<h2>600mm Guard Post</h2>	Dwg. No.	-
	<p>KNELSEN PRECAST - Western Canada (Calgary, Edmonton)</p> <p>www.knelsen.com</p> <p>Tel: (403) 279-8161 Fax: (403) 279-6027</p>	SAP No.	500000

ELEVATION

Notes

Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.

TOP VIEW

Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	1,205 kg (2,650 lbs.)

Product Detail

Overall Dimension	610 x 2700
Base Dimension	610 x 1550
Pipe Standard Dia.	200mm x 2600mm
Pipe Finish	Steel Pipe Galvanized
Pipe Fill	Concrete
Lift Mechanism	Aircraft Cable

Optional (Extra)

Pipe Finish	Safety Yellow
Pipe Finish	Flourescent Orange

Revision Date **April. 01 2019**

610mm Guard Post

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Tel: (403) 279-8161
Fax: (403) 279-6027

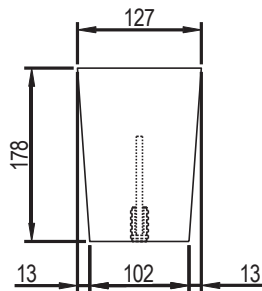
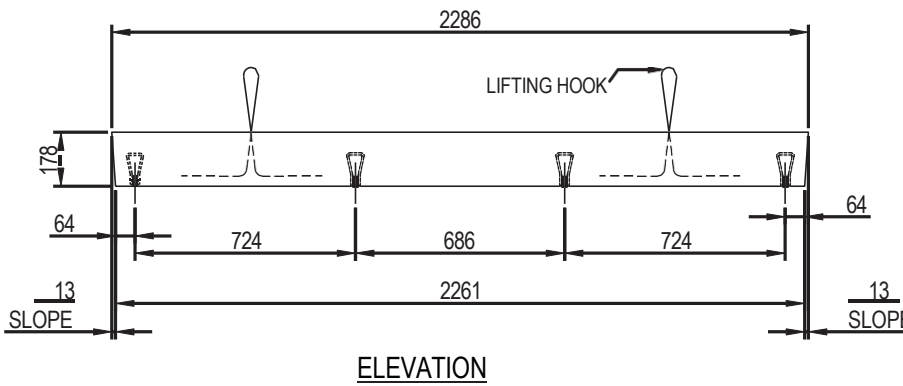
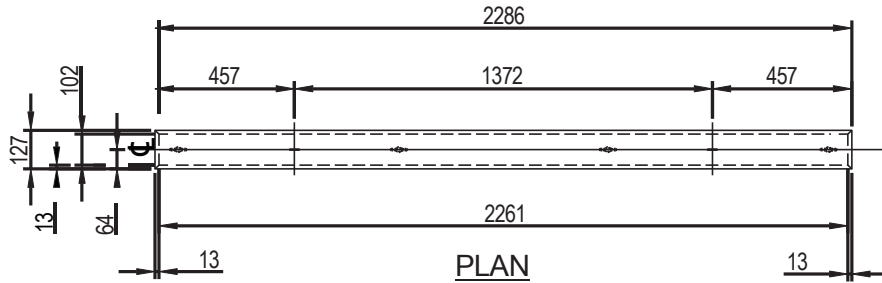
Dwg. No. -

SAP No.

500000

Notes

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Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant
	S2 Exposure
Reinforcement	Grade 400

Product Detail

Insert	LF: 1/2"
Lift Mechanism	Aircraft Cable

Available Sizes

127 x 1143 x 179	55 kg (124 lbs.)
127 x 2286 x 179	110 kg (248 lbs.)
Custom Lengths Available Upon Request	

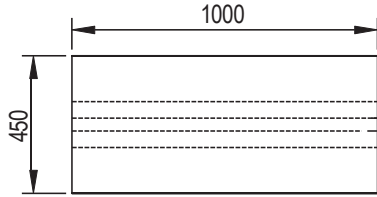
Weight

Revision Date **April. 01 2019**

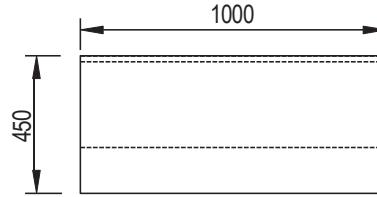
	<h3>Sleeper (Pipe & Conduit)</h3>	Dwg. No.	-
	<p>KNELSEN PRECAST - Western Canada (Calgary, Edmonton)</p> <p>www.knelsen.com</p> <p>Tel: (403) 279-8161 Fax: (403) 279-6027</p>	SAP No.	409650

Notes

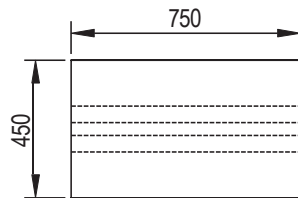
Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.



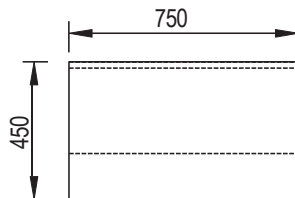
TOP VIEW



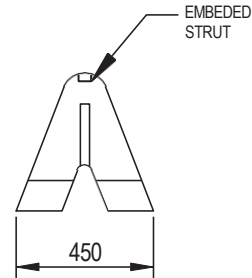
ELEVATION



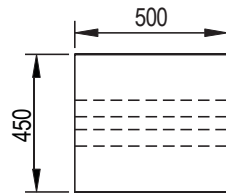
TOP VIEW



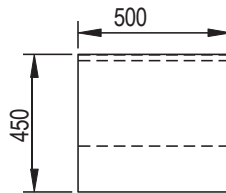
ELEVATION



SIDE VIEW
(TYP.)



TOP VIEW



ELEVATION

Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant
	S2 Exposure
Reinforcement	Grade 400

Product Detail

Strut	1 5/8 x 7/8" Galvanized
Lift Mechanism	Rope or Aircraft Cable

Available Sizes Weight

450 x 450 x 1000
 450 x 450 x 750
 450 x 450 x 500
 Custom Lengths Available Upon Request

Revision Date April. 01 2019



Sleeper (Pipe & Conduit)

KNELSEN PRECAST - Western Canada (Calgary, Edmonton)

www.knelsen.com

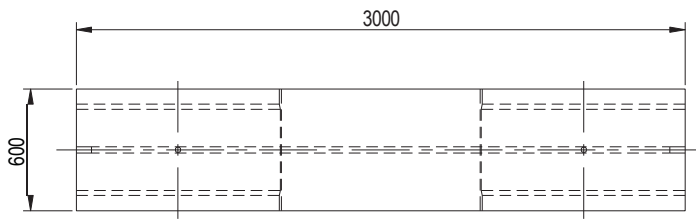
Tel: (403) 279-8161
 Fax: (403) 279-6027

Dwg. No. **SP35410**

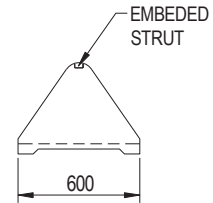
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Notes

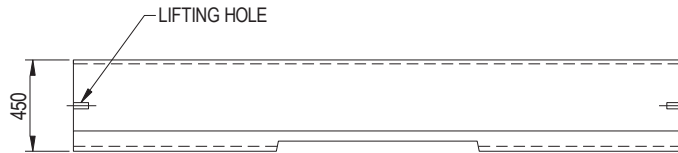
Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.



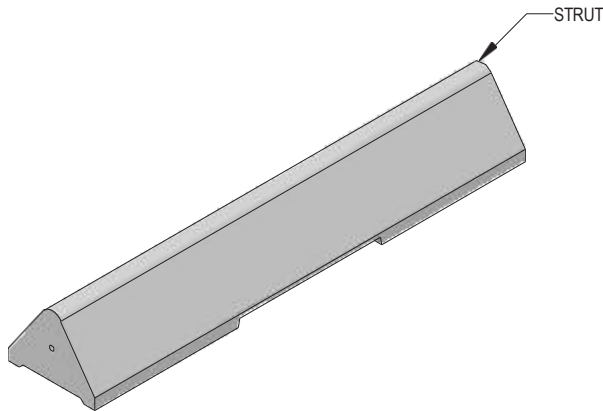
TOP VIEW



SIDE VIEW



ELEVATION



Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400
Weight	1,106 kg (2,434 lbs)

Product Detail

Strut	1 5/8 x 7/8" Galvanized
Dimension	3000 x 600 x 450
Lifting Holes	(2) - 30mm Dia.

Revision Date **April. 01 2019**



Sleeper (Pipe & Conduit)

Dwg. No. -

KNELSEN PRECAST - Western Canada (Calgary, Edmonton)

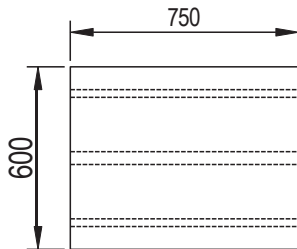
www.knelsen.com

SAP No.

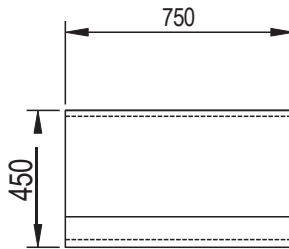
409200

Tel: (403) 279-8161

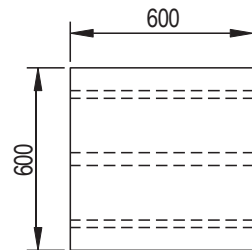
Fax: (403) 279-6027



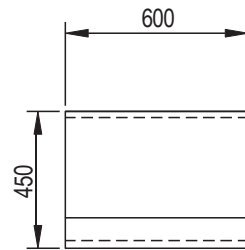
TOP VIEW



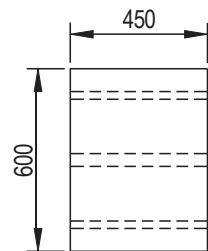
ELEVATION



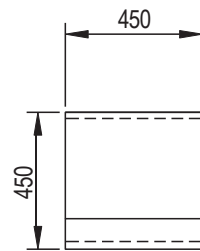
TOP VIEW



ELEVATION



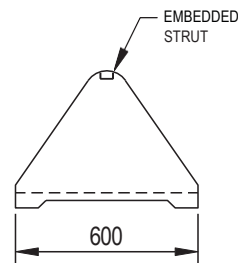
TOP VIEW



ELEVATION

Notes

Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.



SIDE VIEW (TYP.)

Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant
	S2 Exposure
Reinforcement	Grade 400

Product Detail

Strut	1 5/8 x 7/8" Galvanized
Lift Mechanism	Rope or Aircraft Cable

Available Sizes Weight

450 x 600 x 750
 450 x 600 x 600
 450 x 600 x 450
 Custom Lengths Available Upon Request

Revision Date April. 01 2019



Sleeper (Pipe & Conduit)

KNELSEN PRECAST - Western Canada (Calgary, Edmonton)

www.knelsen.com

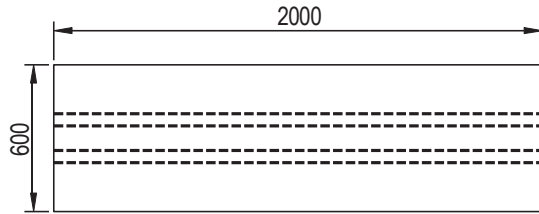
Tel: (403) 279-8161
 Fax: (403) 279-6027

Dwg. No. 7-0076-1

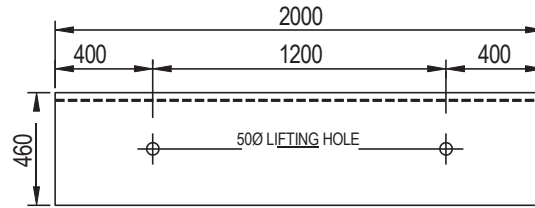
SAP No. 500000

Notes

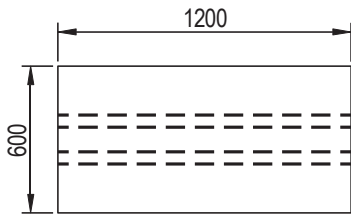
Site installation, backfilling and suitability for use are to be determined by others. Knelsen is not responsible for modifications, coring or coatings, not provided by Knelsen.



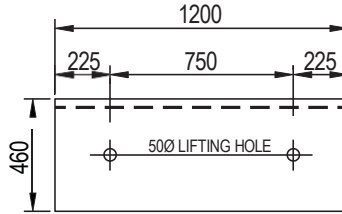
TOP VIEW



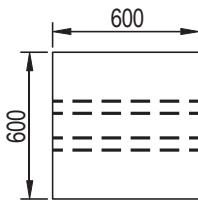
ELEVATION



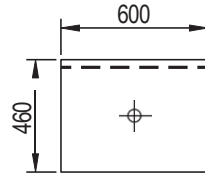
TOP VIEW



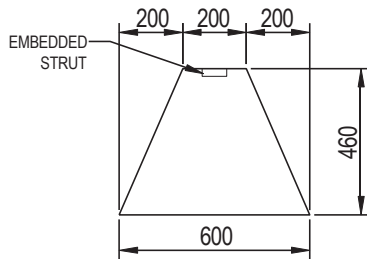
ELEVATION



TOP VIEW



ELEVATION



SIDE VIEW
(TYP.)

Technical Detail

CPCI Standard	Group S
CSA Standard	A23.3-14, A23.4-09
Concrete Strength	35 MPa @ 28 Days
Concrete Type	Sulphate Resistant S2 Exposure
Reinforcement	Grade 400

Product Detail

Strut	2" Galvanized
Lift Mechanism	Rope or Aircraft Cable

Available Sizes Weight

460 x 600 x 600
 460 x 600 x 1200
 460 x 600 x 2000
 460 x 600 x 2400
 *Custom Lengths Available Upon Request

Revision Date April. 01 2019



Sleeper (Pipe & Conduit)

KNELSEN PRECAST - Western Canada (Calgary, Edmonton)

www.knelsen.com

Tel: (403) 279-8161
 Fax: (403) 279-6027

Dwg. No. **928-01**

SAP No. **500000**

PRECAST DUCT BANKS

Duct banks are an integral part of the underground utility market, providing owners protection from future excavation, drilling, traffic loads while giving the ability to replace, upgrade or repair existing infrastructure without excavating. Precast duct banks produced by Armtec provide benefits that exceed that of traditional construction materials. In addition, using a specialized proprietary technique we ensure pieces fit together onsite for a no hassle install.

BENEFITS OF PRECAST DUCT BANKS vs TRADITIONAL MATERIALS

COST SAVINGS

- Heating & hoarding costs eliminated
- Accelerated project schedule due to pre-fabrication
- No wasted raw materials, as product is custom built for size
- Product can be stored on-site, or delivered and installed just in time allowing installation as schedules permit
- Backfill can occur immediately after installation

QUALITY ASSURANCE:

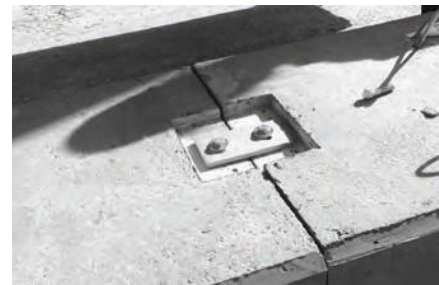
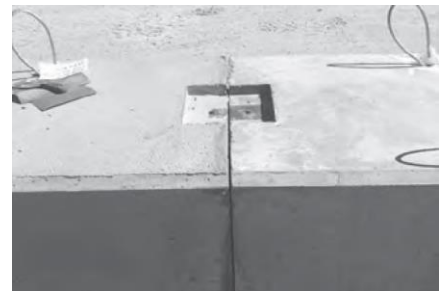
- Material is unaffected by cave-ins
- Engineered to ensure a perfect fit
- Produced in a quality controlled & certified environment

SAFETY:

- Reduced on-site labour for install
- Reduced exposure to workers time spent in open trench

DUCT BANK PRODUCT SPECIFICATIONS:

Configuration	PVC size	Weight kg	Weight lbs
1x4	4"	720	1584
1x4	5"	720	1584
1x4	6"	720	1584
3x3	4"	1368	3009
3x3	5"	1368	3009
3x3	6"	1368	3009
3x4	4"	2112	4646
3x4	5"	2112	4646
3x4	6"	2112	4646
4x4	4"	3432	7550
4x4	5"	3432	7550
4x4	6"	3432	7550





PRECAST 3x4 DUCT BANK



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—
Knelsen is a leading provider of infrastructure solutions that deliver social, environmental and economic benefits for an ever-changing world.

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Drawings and product details are for information and/or illustrative purposes only, and may vary. Please contact your local Knelsen representative for the most current product information.

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UNDERGROUND & UTILITIES / PRECAST ELECTRICAL & COMMUNICATIONS UTILITY 2019
PROD-C09-G08-PG-2019-05-E