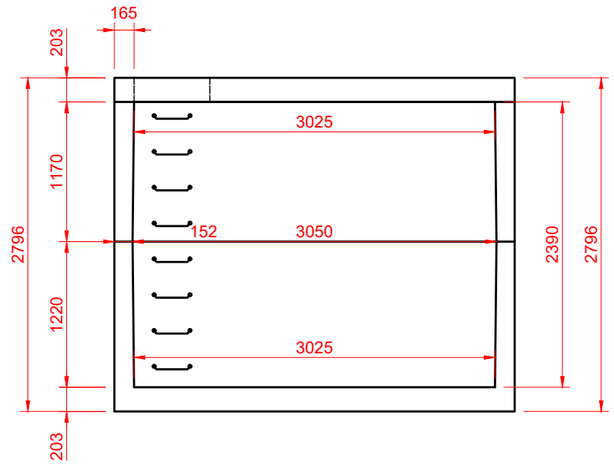
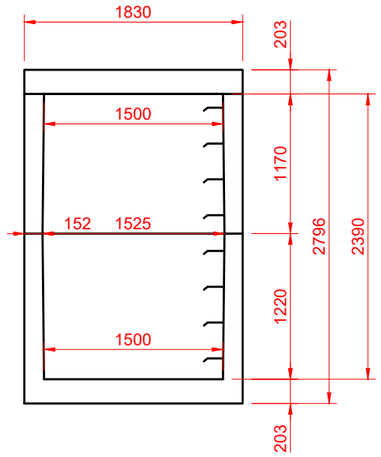
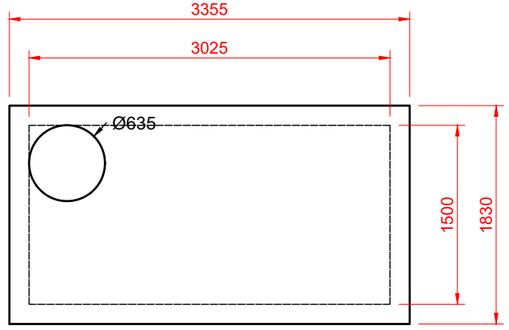


Front View



End Section



Top View

General

All construction shall conform to ASTM C1433M standards and subsequent revisions.
All concrete work shall be in accordance with specifications and CSA standard CAN/CSA-A23.1-14/CAN/CSA-A23.2-14.
For precast concrete work refer to CSA-A23.4-16.

Tri-Kon Precast Products Ltd.
601 Patterson Street West
Cranbrook BC V1C 6T3
250-426-8162
info@trikonprecast.com
trikonprecast.com

PRODUCT
Vault & Oil Separator

DRAWING
3152 Vault

WEIGHT

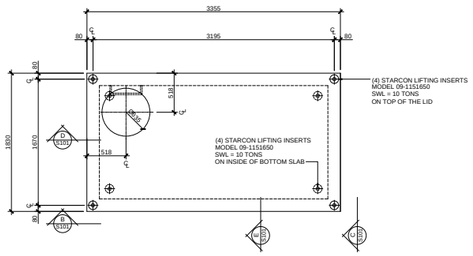
DRAWING NO.

DATE

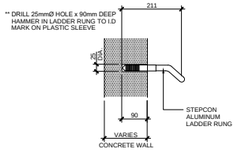
SHEET
01 of 12

UNITS / SCALE
mm / 1:50

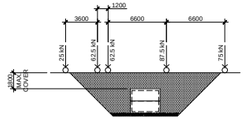
Request A Quote



A S101 PRECAST 3152 VAULT - TOP VIEW
SCALE: 1:30



1 S101 LADDER RUNG DETAIL
SCALE: 1:8



2 S101 CL625 WHEEL LOADS
SCALE: NTS

STRUCTURAL SPECIFICATION

GENERAL

1) ALL CONSTRUCTION SHALL CONFORM TO ASTM C1433M STANDARDS AND SUBSEQUENT REVISIONS.

2) ALL REFERENCES TO STANDARDS SHALL REFER TO THE LATEST REVISED ISSUE

3) THE STRUCTURAL ENGINEER ASSUMES NO RESPONSIBILITY FOR INSPECTION OF CONSTRUCTION OR VERIFICATION OF CONSTRUCTION UNLESS EXPRESSLY RETAINED TO DO SO.

CONCRETE

1) ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH SPECIFICATIONS AND CSA STANDARD CAN/CSA-A23.1-14/CAN/CSA-A23.2-14 FOR PRECAST CONCRETE WORK REFER TO CSA-A23.4-16.

2) CONCRETE PROPERTIES:

ITEM	AGG. SIZE	28 DAY STRENGTH	W/C RATIO	AIR	TYPE
ALL	20mm	45 MPa.	0.40	4%-7%	HS

3) BEFORE PLACING CONCRETE, THE CONTRACTOR SHALL CHECK ALL APPLICABLE DRAWINGS FOR ANCHOR BOLTS, INSERTS, EMBEDS, RECESSES AND BLOCKOUTS. THEIR LOCATIONS SHALL BE CONFIRMED BY THE VARIOUS SUBTRADES.

4) CONCRETE COVER OVER REINFORCEMENT IS TO BE:
   a. FORMED SURFACE EXPOSED TO GROUND OR WEATHER = 50+/-5mm

REINFORCING STEEL

1) STEEL REINFORCEMENT SHALL BE MINIMUM GRADE 400 MPa. DEFORMED BARS CONFORMING TO CAN/CSA G30.18M92 9R2002)

2) REINFORCING STEEL IS TO BE PLACED AS DETAILED TO 10mm TOLERANCE AND IS TO BE SUPPORTED BY METAL OR PLASTIC SUPPORTS AND/OR HANGERS IN ACCORDANCE WITH CAN/CSA A23.1

3) LAP ALL REINFORCING BAR SPLICES 32 BAR DIAMETERS MINIMUM UNLESS INDICATED OTHERWISE ON THE DRAWINGS.

4) REINFORCING STEEL IS TO BE CLEAN, FREE OF CORROSION AND UNDAMAGED.

5) DO NOT WELD BARS OR USE HEAT TO BEND REINFORCING STEEL.

JOINT SEALANT

1) USE CONSEAL CS-102 BUTYL RUBBER SEALANT FOR ALL JOINTS BETWEEN ALL SECTIONS. INSTALL DOUBLE BEAD AROUND ENTIRE PERIMETER AS PER MANUFACTURERS INSTRUCTIONS. CONSEAL CS-102 MEETS THE HYDROSTATIC PERFORMANCE REQUIREMENT AS PER ASTM C-990.

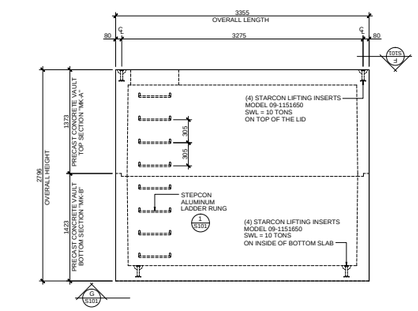
2) USE CONSEAL CS-212 POLYOLEFIN BACKED EXTERIOR JOINT WRAP FOR ALL EXTERNAL JOINTS. CONSEAL CS-212 MEETS ASTM E-1745, C-877 AND C-990 SPECIFICATIONS.

PRECAST COMPONENT LIFTING AND RIGGING

1) THE GENERAL CONTRACTOR IS RESPONSIBLE FOR ALL RIGGING AND LIFTING PROCEDURES REQUIRED TO ENSURE SAFE LIFTING AND PLACEMENT OF PRECAST CONCRETE COMPONENTS IN ACCORDANCE WITH INDUSTRY STANDARDS AND WORKSAFE BC REQUIREMENTS.

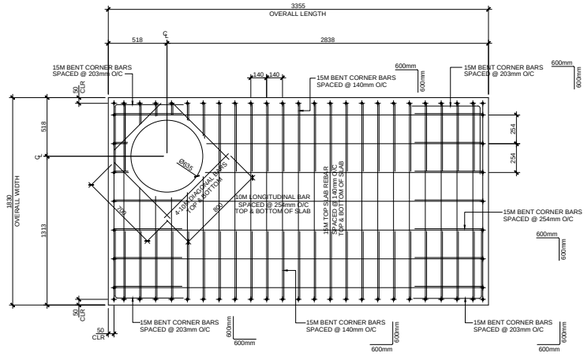
2) THE GENERAL CONTRACTOR IS TO ENSURE THAT THE HOISTING DEVICES INCLUDING ALL ASSOCIATED ACCESSORIES (SHACKLES, SLINGS, PINS ETC.) ARE RATED TO THE APPLICABLE LOAD AND ARE IN GOOD WORKING CONDITION.

3) THE GENERAL CONTRACTOR IS TO ENSURE THAT ALL PERSONNEL OPERATING OR WORKING WITH THE HOISTING DEVICES ARE PROPERLY TRAINED , EXPERIENCED AND CERTIFIED ON THE HOISTING DEVICE.

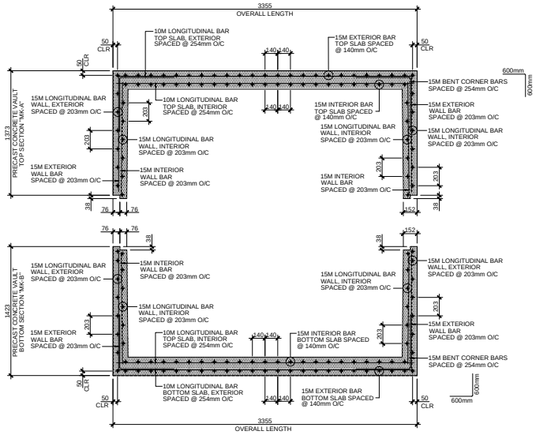


B S101 PRECAST 3152 VAULT - FRONT VIEW
SCALE: 1:30

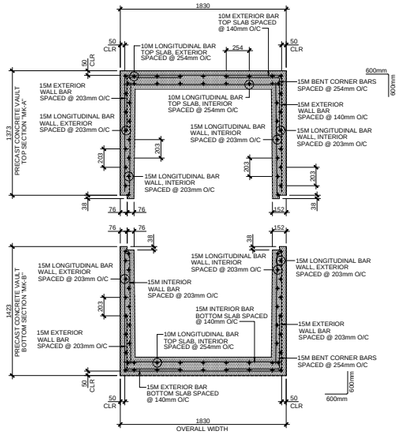
C S101 PRECAST 3152 VAULT - SIDE VIEW
SCALE: 1:30



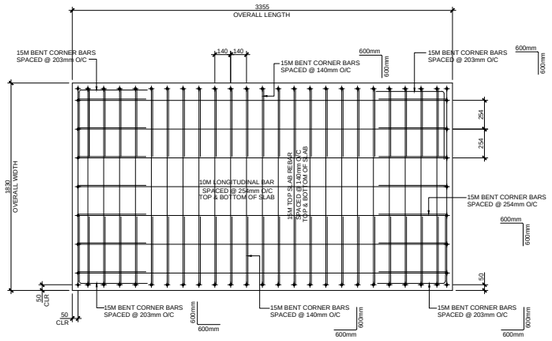
F S101 TOP SLAB REINFORCING STEEL
SCALE: 1:20



D S101 SECTION
SCALE: 1:25



E S101 SECTION
SCALE: 1:30



G S101 BOTTOM SLAB REINFORCING STEEL
SCALE: 1:20

DESIGN PARAMETERS

1) DESIGN METHODOLOGY - LSD
2) DESIGN ASSUMES 1800mm GRANULAR COVER
3) DESIGN ASSUMES CL625 AXLE LOADING AS PER CSA-S6
4) PRECAST VAULT DESIGN MEETS CSA-S6 SPECIFICATIONS
5) PRECAST VAULT DESIGN MEETS OPSS 422 SPECIFICATIONS
6) PRECAST VAULT HAS BEEN DESIGNED AND MANUFACTURED TO ASTM C1433M SPECIFICATIONS
7) JOINTS MEET ASTM C990M SPECIFICATIONS

Rev	Date	Description	Drawn	Design	Appd
0	Nov. 30, 2018	ISSUED FOR "CONSTRUCTION"	brn	brn	lc

ORIGINAL DWG SIZE: ARCH D (24" x 36")

PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
S. B. KIMSON
November 30, 2017

TRI-KON PRECAST CONCRETE PRODUCTS Ltd.
601 PATTERSON STREET WEST, CRANBROOK, BC

STANDARD PRECAST CONCRETE
3152 VAULT
VIEWS, STRUCTURAL SPECIFICATION AND WHEEL LOADS

Drawing No. S101

Project Number 2441-00818-00

Rev. 0

COPYRIGHT ALL RIGHTS RESERVED / DROITS RÉSERVÉS

Tri-Kon Precast Products Ltd.
601 Patterson Street West
Cranbrook BC V1C 6T3
250-426-8162
info@trikonprecast.com
trikonprecast.com

PRODUCT
Vault & Oil Separator
DRAWING
3152 Vault: Structural Specification and Wheel Loads

WEIGHT

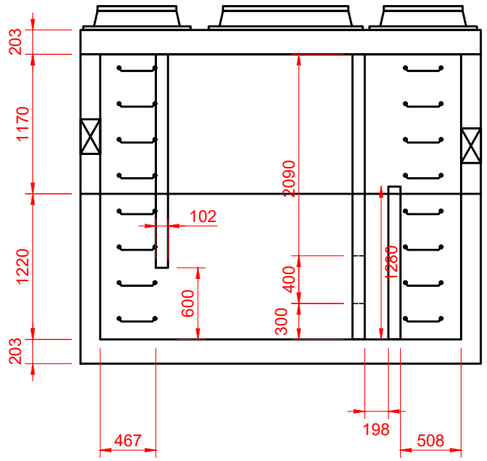
DRAWING NO. **S101**

DATE As per drawing

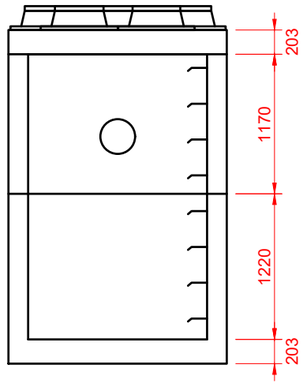
SHEET **02 of 12**

UNITS / SCALE As per drawing

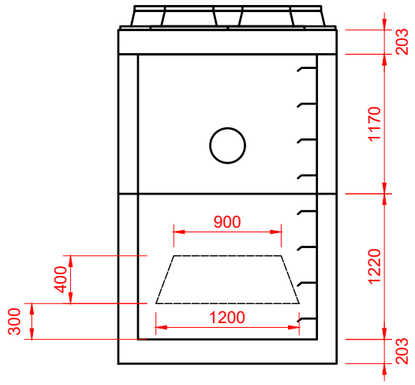
Request A Quote



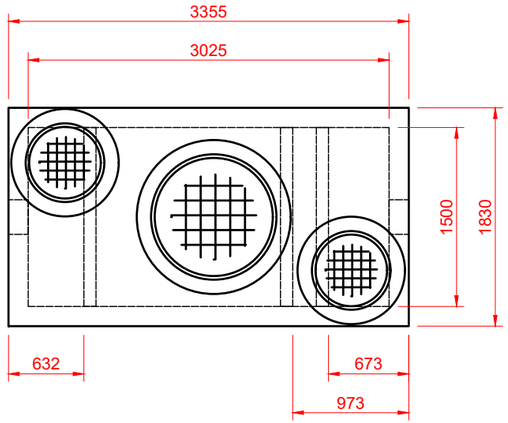
Front View



End View A



End View B



Top View

Notes

1. Manufactured to meet AASHTO HS20/BCL-625 live loading.
2. Concrete vault designed for minimum 0m to maximum 2.5m cover.
3. Unit supplied with rough cores for inlet/outlet.
4. Unit supplied with required opening(s) in lid.
5. Unit supplied with ladder rungs if required.
6. Oil interceptor includes 102mm thick concrete baffles.
7. Minimum rebar yield strength: 414 MPa.
8. Minimum concrete strength: 35 MPa.
9. PVC T supplied & installed by contractor.
10. Unit has a maximum 5,580 litre [5.58 m³] capacity.
11. All dimensions are in millimetres.

Top Section - 14,991 lbs
Bottom Section - 16,314 lbs

Tri-Kon Precast Products Ltd.
601 Patterson Street West
Cranbrook BC V1C 6T3
250-426-8162
info@trikonprecast.com
trikonprecast.com

PRODUCT
Vault & Oil Separator

DRAWING
3152 Oil Interceptor, API

WEIGHT

DRAWING NO.

DATE

SHEET
03 of 12

UNITS / SCALE
mm / 1:50

Request A Quote