

# FastCast™

Storage

## Comprehensive Stormwater Solutions

Bio  Clean  
A Forterra Company



# OVERVIEW

The Bio Clean FastCast™ detention box is a precast modular stormwater detention, retention, and infiltration system comprised of engineered, reinforced, and pregasketed dry cast modular concrete systems joined together in near limitless configurations.

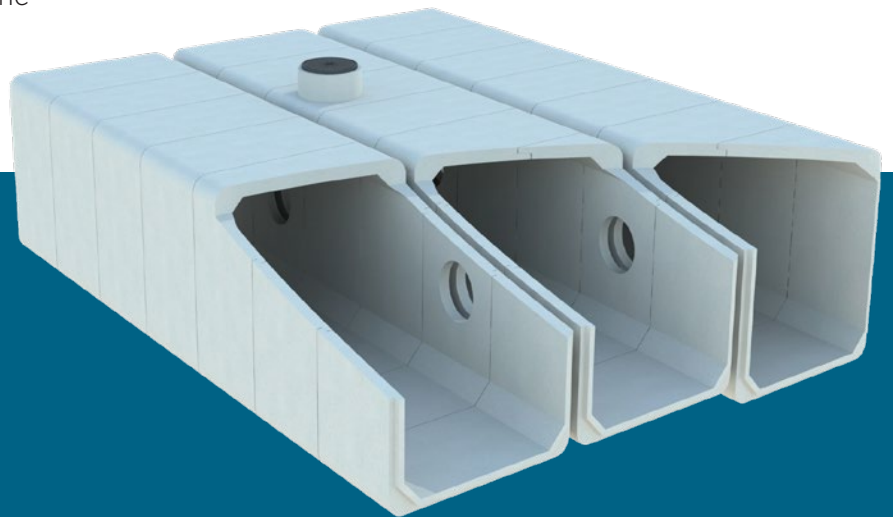
The proprietary dry casting technique allows for rapid manufacturing to standard specifications ASTM C1433/ASTM C1577/ASTM C1677, which allows for decreased lead times and increased installation efficiency including a butyl-free and leak-resistant joint.

With our experienced engineering staff and nationwide manufacturing plants, we have the flexibility to quickly meet any design criteria and deliver nationally for just-in-time requirements.

Our stormwater detention, retention, and infiltration systems are designed to support site-specific loading requirements, stormwater volume, flow rate, and discharge goals. Our precast modules install easily and quickly below grade and are engineered into modular systems suitable for immediate traffic and heavy loading.

By combining the efficiency of dry cast manufacturing and the durability of concrete, not only can projects be finished in less time, at a lower cost, and with minimal downtime, but they're also built to withstand the demands of time and pressure.

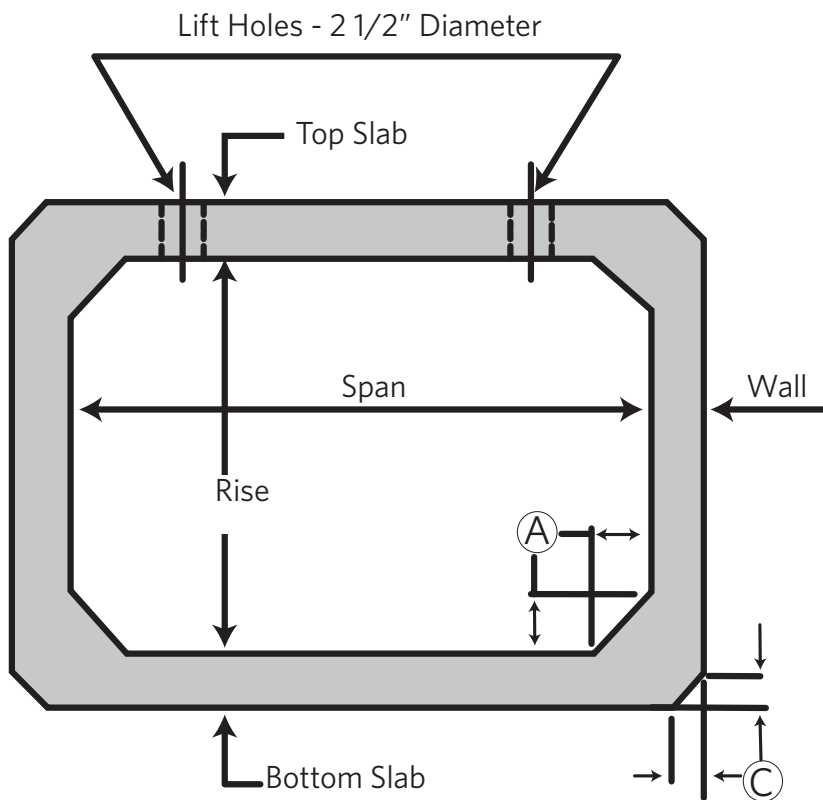
FastCast. Detention Done Faster.



## ADVANTAGES

- EXTREMELY DURABLE
- 100-YEAR DESIGN LIFE
- FITTINGS (BENDS, TEES, BULKHEADS, TAPERED END SECTIONS, MANHOLE RISERS, ETC.) CAN BE ADJUSTED TO ANY SITE LAYOUT
- FLOTATION RISK ELIMINATED WITH PRECAST SYSTEM
- CAN MEET SITE-SPECIFIC REQUIREMENTS: AASHTO
  - HS20 - "OLD CODE" - STANDARD CODE (ASTM C1433)
  - HL93 - "CURRENT CODE" - LRFD CODE (ASTM C1577)
  - ASTM C857
- WORKS WITH SHALLOW COVERS, EXCEEDS HS20 LOADINGS
- MINIMUM STRUCTURAL DESIGN LOADING FOR UNDERGROUND PRECAST:
  - HS20 / HS15 / HS10 & PEDESTRIAN
  - AREMA (RAILROAD E80)
  - FAA (AIRPORT)
- SPAN SIZES FROM 3 FT. TO 20 FT. (OR LONGER) AND UP TO A 15 FT. RISE

# OPERATION



## PRECAST BOX CULVERTS

- Ⓐ = WALL THICKNESS
- Ⓒ = 2" FOR 4", 5" AND 6" WALL
- Ⓒ = 4" FOR 7" AND GREATER WALL

CONTACT US FOR STANDARD JOINT LENGTHS

# PREGASKETED FASTCAST BOXES... READY, SET, FLOW



- Eliminates infiltration/exfiltration problems and are applicable for submerged or hydrostatic pressure applications.
- Clear "Go. No Go" field fit to ensure proper alignment.
- All boxes are delivered to the job-site with the gaskets installed and pre-lubed — increasing installation speed while eliminating mastic/butyl filler.

## LEAD TIMES

- Our dry casting method means large volume projects can be manufactured in a fraction of the time of typical systems.

## NATIONAL PRESENCE

- Our production facilities stretch from coast to coast across the U.S. and into Canada giving us the flexibility to quickly respond to meet any design criteria and deliver nationally to just-in-time requirements.

# SPECIFICATIONS

SPAN (ft)	RISE (ft)	TOP SLAB (in)	BOTTOM SLAB (in)	WALL (in)	WEIGHT (lbs/ft)
3	2	7	6	4	848
3	3	7	6	4	952
4	2	7½	6	5	1146
4	3	7½	6	5	1276
4	4	7½	6	5	1405
5	2	8	7	6	1541
5	3	8	7	6	1696
5	4	8	7	6	1851
5	5	8	7	6	2006
6	2	8	7	7	1821
6	3	8	7	7	2002
6	4	8	7	7	2183
6	5	8	7	7	2364
6	6	8	7	7	2545
7	2	8	8	8	2238
7	3	8	8	8	2446
7	4	8	8	8	2652
7	5	8	8	8	2859
7	6	8	8	8	3066
7	7	8	8	8	3272
8	3	8	8	8	2652
8	4	8	8	8	2859
8	5	8	8	8	3066
8	6	8	8	8	3272
8	7	8	8	8	3479
8	8	8	8	8	3686

# SPECIFICATIONS

SPAN (ft)	RISE (ft)	TOP SLAB (in)	BOTTOM SLAB (in)	WALL (in)	WEIGHT (lbs/ft)
9	4	9	9	9	3511
9	5	9	9	9	3744
9	6	9	9	9	3976
9	7	9	9	9	4209
9	8	9	9	9	4441
9	9	9	9	9	4674
10	4	10	10	10	4228
10	5	10	10	10	4486
10	6	10	10	10	4745
10	7	10	10	10	5003
10	8	10	10	10	5261
10	9	10	10	10	5520
10	10	10	10	10	5778
11	4	11	11	11	5010
11	5	11	11	11	5294
11	6	11	11	11	5578
11	7	11	11	11	5862
11	8	11	11	11	6146
11	9	11	11	11	6430
11	10	11	11	11	6715
11	11	11	11	11	6999
12	4	12	12	12	5856
12	5	12	12	12	6166
12	6	12	12	12	6476
12	7	12	12	12	6786
12	8	12	12	12	7096
12	9	12	12	12	7406
12	10	12	12	12	7716
12	11	12	12	12	8026
12	12	12	12	12	8336

# APPLICATION



## DETENTION

A FastCast system is a cost-effective solution for sites where stormwater needs to be detained and allowed to discharge at a controlled rate. Inflow/outflow lines, equalization manifolds, and interbox ports are engineered into the system.

## RETENTION

Retaining stormwater for harvest and reuse is an ideal application for a FastCast system. The gasketed connections alleviate the issues of leaking and/or site contamination of stored water.

## INFILTRATION

Using a FastCast system to infiltrate stormwater into the soil for natural treatment and groundwater recharge can prevent flooding and erosion problems caused by unregulated flows of torrential downpours. Infiltration voids are cast per site specifications.

# INSTALLATION



## EASE OF INSTALLATION

FastCast boxes can be easily positioned in shallow or deep fill installations. No special backfill requirements means installation is simplified. FastCast boxes are dry cast and pre-gasketed which means projects can be made quickly and delivered ready to set with a leak-resistant joint exceeding ASTM standards.





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