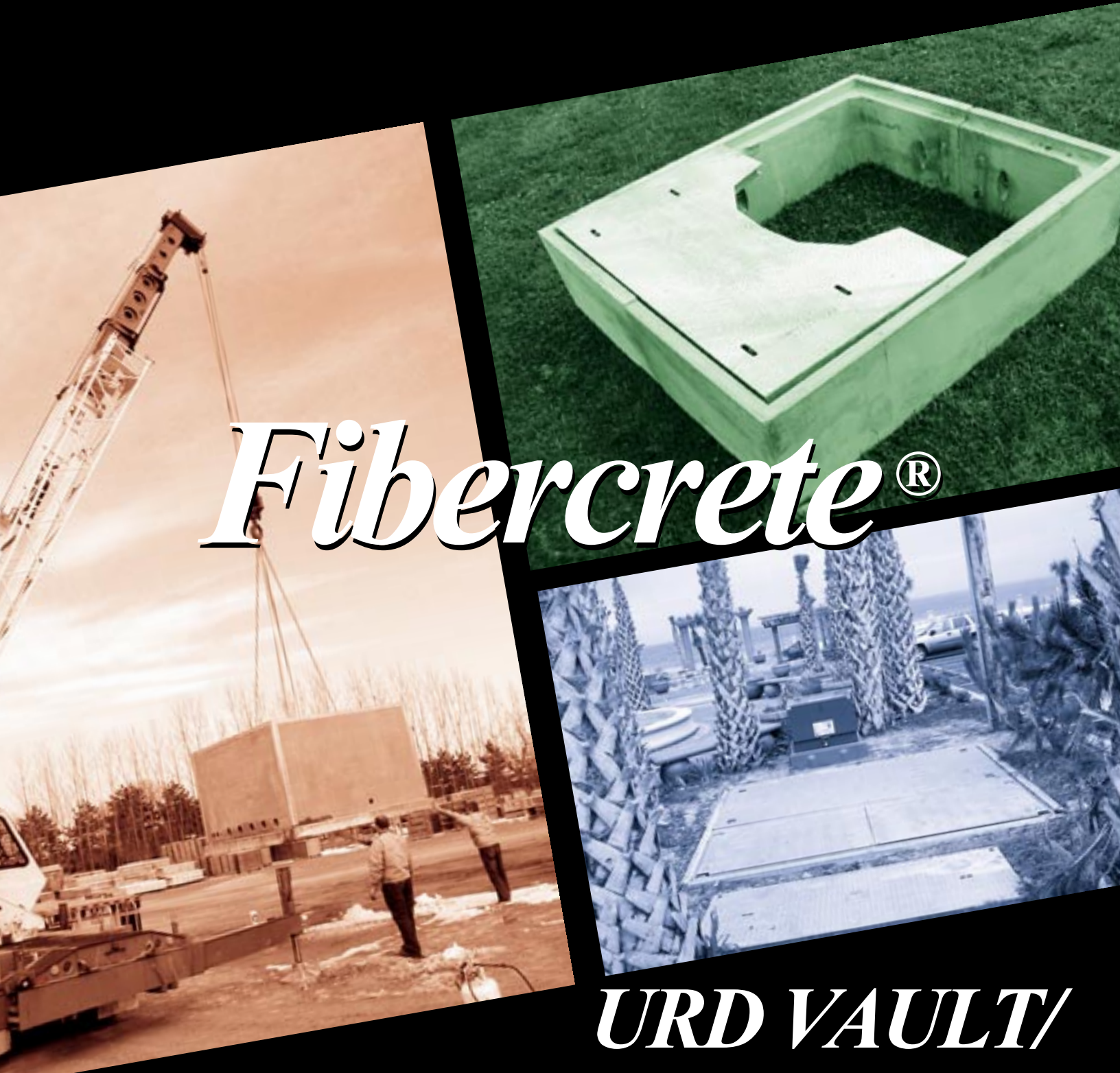


GONCAST INC.

-PRECISELY ENGINEERED HIGH STRENGTH CONCRETE-



Fibercrete®

**URD VAULT/
UTILITY BOXES**



Concast Vaults provide an enclosure for underground electrical equipment with traffic ratings from pedestrian to AASHTO H-20.

Our concrete boxes are precisely engineered with high strength concrete. It's proven durability will outlast most conventional poured in place concrete.



Concast is a leader in providing specialty concrete products to meet individual customer requirements and specifications.



Concast, Inc. was founded in 1969 by Mr. Ben Tilsen, past owner and president. Ben is a concrete technologist known for his work in light weight aggregates and fiber reinforced concrete. He and Concast, Inc. hold patents on material and design in these fields. Concast is a member of the American Concrete Institute and the National Precast Concrete Association.

Concast Inc. has specialized in concrete products for the electrical industry since 1969.

Overview 4

Pull Boxes 6

Stackable Boxes 7

Manholes/Handholes 8

URD Equipment Vault 9

Specialty Boxes 10

Accessories 10

Specifications 11



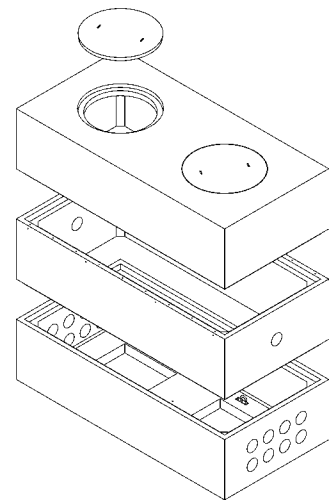
REDUCE INSTALLATION COST WITH CONCAST VAULT/UTILITY BOXES

IN-PLACE COST IS LESS than site cast concrete, conventional precast concrete, plastic mortars, or fiberglass plastics.



BENEFITS:

- **HANDLING IS EASY.** All Concast Vaults are supplied with cast-in lifting devices, preventing the need for unsafe slinging.
- **HIGH STRENGTH MATERIAL.** A strong durable mix design allows for a thinner wall than poured in place concretes. Providing a safe, reliable electrical enclosure suitable for numerous applications.
- **LONG LIFE.** Concrete construction means long life plus fire and corrosion resistance. Inert mineral composition resists temperature extremes, rain, and UV degradation from the sun.
- **WIDE RANGE OF SIZES.** Concast offers many different size boxes to fit your needs. Everything from small light weight Modular Hand Holes to large stackable heavy traffic rated concrete enclosures are available.
- **TAMPER-PROOF.** All Vaults and Utility Boxes can be provided with Penta-head bolt down covers to prevent tampering of equipment or cables.
- **MANY USES.** Concast has a wide range of sizes and a reputation for meeting customers special requirements. Examples include: Handholes, Splice Boxes, Pull Boxes, Manholes, and Vaults.
- **NATURAL APPEARANCE.** Smooth stone-like surfaces blend with natural environment.



Stackable Box configuration.

FEATURES:

STACKABILITY. Many Concast boxes can be stacked to meet your desired depth. Interlocking joints or steel hardware make stacked boxes very durable.

COVERS. Concast can provide a wide range of cover materials and traffic ratings to fit many job applications.



IDEAL USES:



URD EQUIPMENT



PULL BOX



SPECIALTY

DETAIL DRAWINGS PROVIDED.

Concast will provide detail drawings for engineering approval, and to assist construction supervisor in installation. Drawings will show overall product size, opening size, weight, and any accessories required (ie. inserts, knockouts).

FROM ADVANCED CONCRETE TECHNOLOGY.

Advanced technology makes possible light, thin shell, precast concrete products which can replace more massive units in ordinary steel reinforced concrete. Drawing from more than 30 years of research and experience, Concast Inc. developed Fibercrete®, a proprietary blend of high strength concrete reinforcing with special fibers, using steel reinforcing where required.

QUALITY ASSURANCE AND RESEARCH.

Concast designs Fibercrete® products for specific applications, then tests them thoroughly for performance. The company molds and cures these products under precise controls at its Zumbrota, MN factory. Research continues at Concast to develop and test new and improved specialized products for the electrical distribution industry.

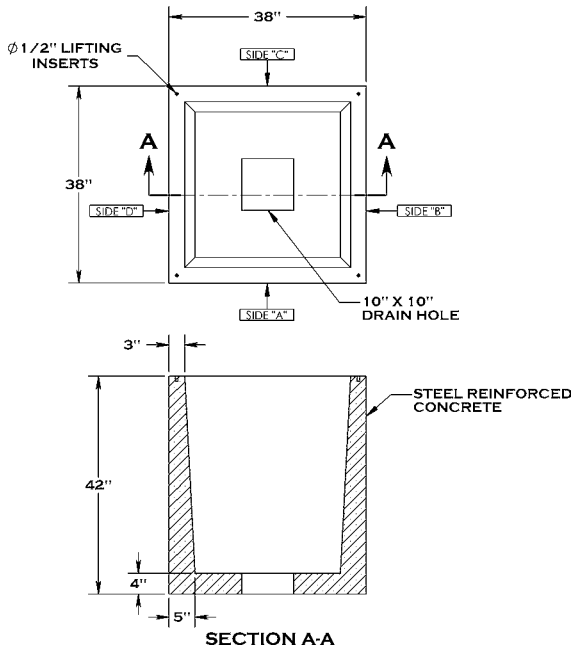
GUIDE SPECIFICATIONS.

(Complete recommended specifications can be found at the end of the Vault/Boxes Catalog)

Vault/Boxes shall be Concast high strength concrete or approved equal. It shall be composed of cement mortar, with steel reinforcing throughout.

CONCAST'S ROLE: TO SERVE YOU.

*For any special needs, contact your Concast Manufacturing representative, or call the factory direct.
Concast can make special sizes to meet your requirements.*



COMMON PULL BOX CONFIGURATIONS

- ONE BOX TO FIT ALL YOUR NEEDS -

PULL BOX PART #	SIDE "A" CONFIG.	SIDE "B" CONFIG.	SIDE "C" CONFIG.	SIDE "D" CONFIG.
PB-38-38-42	X	X	X	X
PB-38-38-42-A	KO1	KO1	KO1	KO1
PB-38-38-42-B	KO1	X	KO1	X
PB-38-38-42-C	KO1	KO1	X	X
PB-38-38-42-D	KO2	KO2	KO2	KO2
PB-38-38-42-E	KO2	X	KO2	X
PB-38-38-42-F	KO2	KO2	X	X

X = No openings or knockouts.

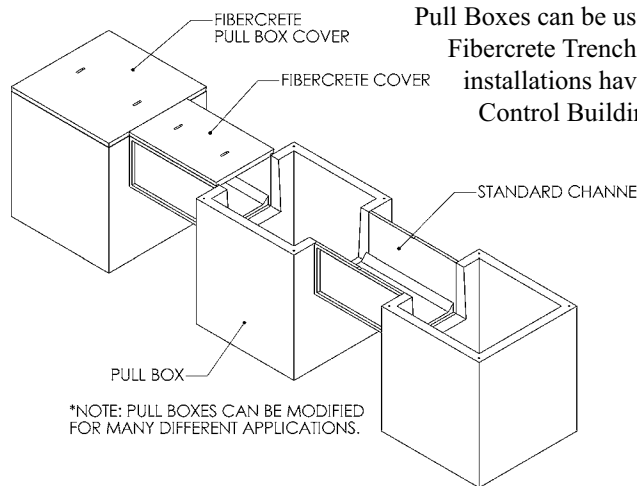
KO1 = 12"h. x 18"w. knockout centered horizontally and vertically.

KO2 = 12"h. x 24"w. knockout centered horizontally and vertically.

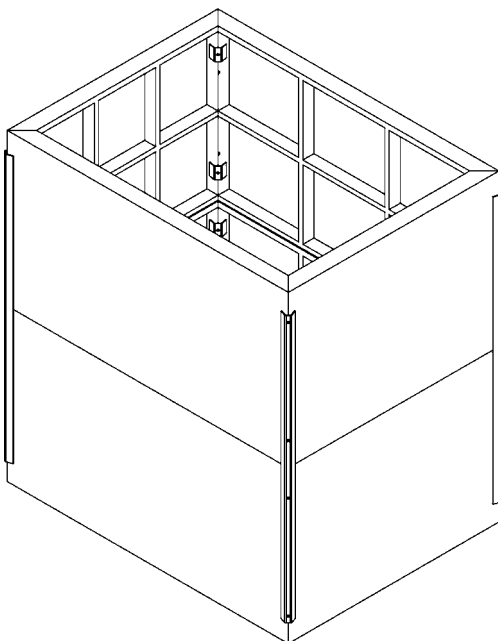
TRENCH SYSTEM APPLICATIONS

Pull Boxes can be made to order. If your requirements are not included in the Common Pull Box Configurations chart, please contact Concast or your local Concast Representative with your design needs.

COVERS: All Pull Boxes come with a Fibercrete® (fiber and steel reinforced) cover. Other cover options are available.



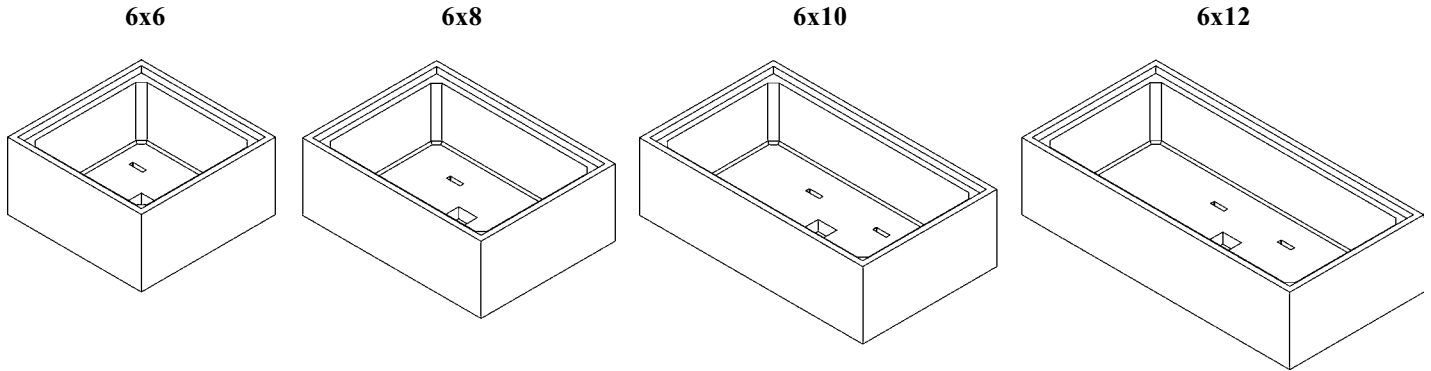
Pull Boxes can be used with the Concast Fibercrete Trench System. Typical installations have the Pull Box near the Control Building or at the end of a trench run. Pull Boxes can also stand alone in other substation applications. Please refer to the Concast Trench System catalog for more information.



MODULAR PULL BOXES

Concast offers a Modular Pull Box with great flexibility. The Modular Pull Box can be configured to many different sizes. The standard one tier height of our Modular Pull Box is 26", but multiple boxes can be stacked to your desired depth. Specially designed pulling eyes can also be purchased. Please refer to page 6 of the Concast Modular Ground Sleeve catalog for details.

STACKABLE BOXES



Ideal Uses: Pull Boxes - Manholes - Junction Boxes - Vaults - URD Equipment

COMMON STACKABLE BOX SIZES

STACKABLE BOX PART #	OUTSIDE DIM.	INSIDE DIM.	OUTSIDE DEPTH	INSIDE DEPTH
PB-72-72-42	72" X 72"	60" X 60"	42"	37"
PB-72-96-42	72" X 96"	60" X 84"	42"	37"
PB-72-120-42	72" X 120"	60" X 108"	42"	37"
PB-72-144-42	72" X 144"	60" X 132"	42"	37"
PB-72-72-53	72" X 72"	60" X 60"	53"	48"
PB-72-96-53	72" X 96"	60" X 84"	53"	48"
PB-72-120-53	72" X 120"	60" X 108"	53"	48"
PB-72-144-53	72" X 144"	60" X 132"	53"	48"
PB-72-72-77	72" X 72"	60" X 60"	77"	72"
PB-72-96-77	72" X 96"	60" X 84"	77"	72"
PB-72-120-77	72" X 120"	60" X 108"	77"	72"
PB-72-144-77	72" X 144"	60" X 132"	77"	72"

All of our Stackable Boxes are produced in rigid steel molds to ensure that tolerances are maintained. 6" thick steel reinforced walls with high strength concrete make Concast boxes extremely rigid.

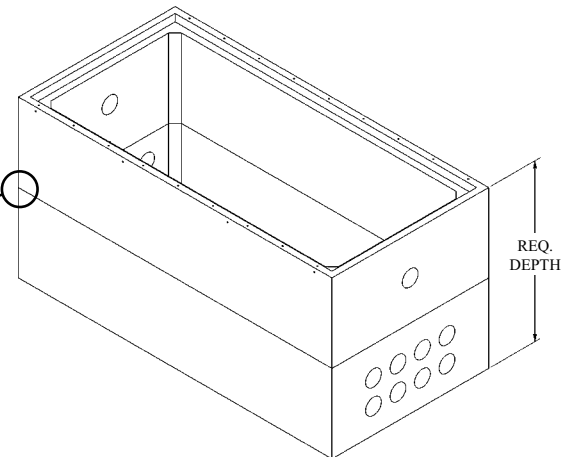
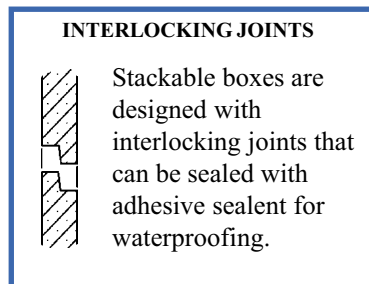
Box bases are cast with four recessed lifting points and drain holes.

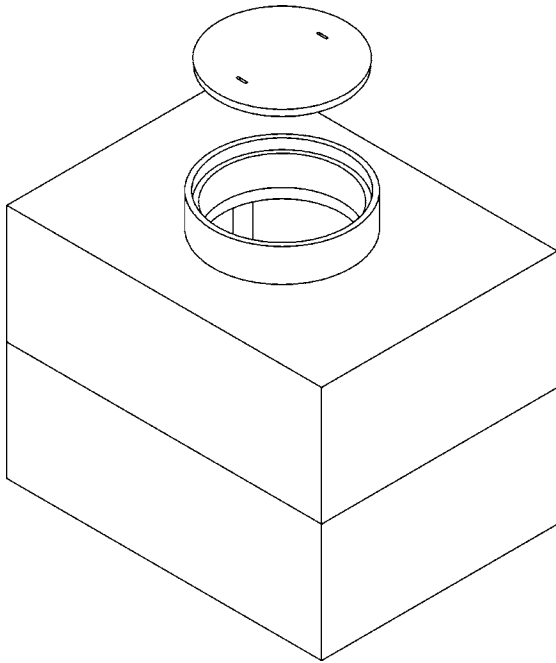
All Stackable Box side walls are AASHTO H-20. Overall traffic rating dependent on cover choice.

Cover Options:	Pedestrian	H-20
Fibercrete®	X	
Concrete	X	X
Steel Galvanized	X	X
Aluminum	X	X

All boxes with an outside depth of 42" or less will be made as a one piece. Boxes greater than 42" deep will have interlocking extension rings to reach desired depth.

Optional Bottom: With Concast's Stackable Boxes, the 5" thick base is optional. Our standard box comes with a bottom equipped with a large drain hole. In some cases a floor may not be required, no base is ordered and only extension rings are furnished.





STACKABLE MANHOLES

Concast also offers Manholes, which are a continuation of the stackable line of boxes. Manholes can be provided with outside dimensions of 6x6, 6x8, 6x10, or 6x12 with any desired depth. These box variations will have a solid concrete top with a small port hole for access into the Manhole.

Cover options include: Fibercrete®, Concrete, Steel Galvanized, Aluminum, and Cast Iron.

Notes:

1. Box can be completely buried.
2. Box meets AASHTO H-20 Design Requirements.
3. Manhole covers can be labeled with your desired marking.
4. Part #'s for Manholes are given: MH-(Length)-(Width)-(Depth)
Example: MH-72-72-72

MODULAR HAND HOLES (MHH)

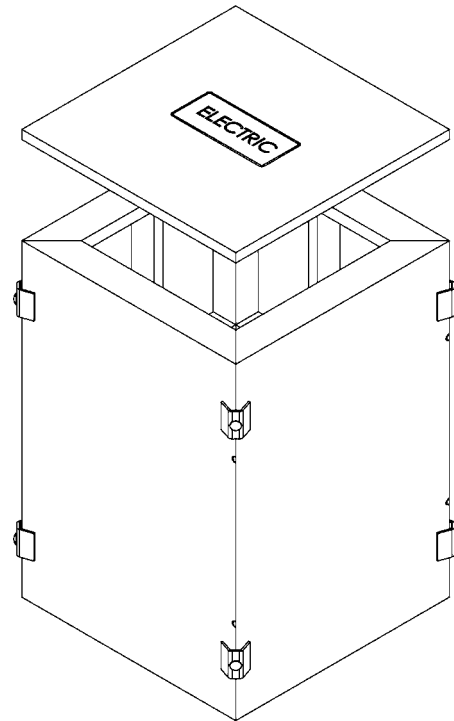
For a small light weight utility box that can be assembled on site Concast offers a Modular Hand Hole. All hand holes come standard with covers, which can be labeled with desired marking.

HAND HOLE
MHH-15-15
MHH-15-30
MHH-18-18
MHH-18-36
MHH-22-22
MHH-22-42
MHH-26-26
MHH-26-48

HAND HOLE COVERS

To order a specific marking choose from the list below.

- C - COMMUNICATION
- E - ELECTRIC
- F - FIBER OPTIC
- G - GAS
- L - LIGHTING
- T - TELEPHONE



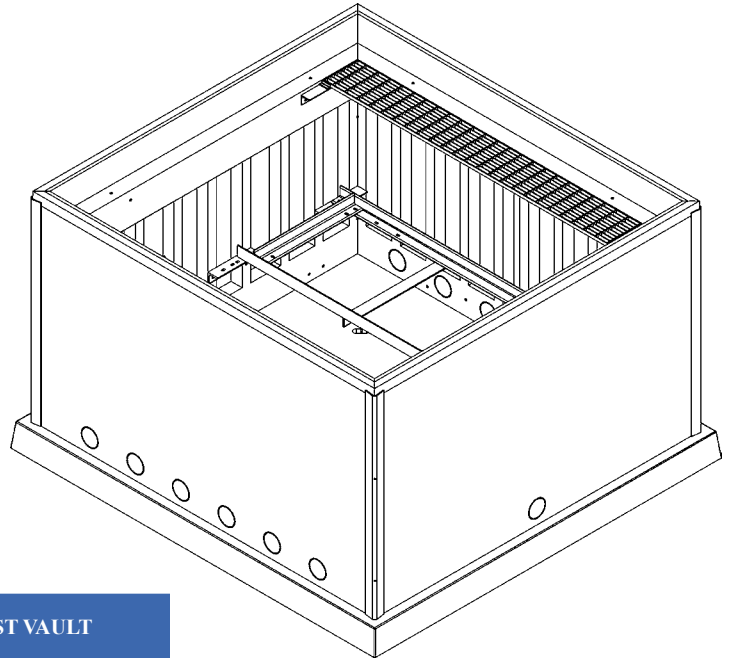
FOR A COMPLETE LIST OF SIZES REFER TO CONCAST MODULAR GROUND SLEEVE CATALOG.

Example of an MHH-18-18 with cover stamped
ELECTRIC: MHH-18-18-E
(As shown on detail at right)

Our URD Equipment line of Vaults are ideal for use with submersible equipment. Switchgear supports can be installed, as well as platforms and internal ladder systems for easy access.

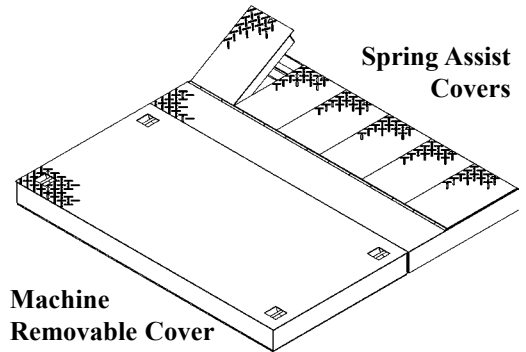
A key feature of this vault is it's large flanged base which serves as an anti-floatation bottom.

This product has also been labeled a Vista Vault, because it was designed with the S&C Vista Switchgear in mind. Below you will find a chart which shows all the S&C model numbers with their corresponding Concast Vault part number.



S&C VISTA SWITCHGEAR

S&C MODEL	RATINGS		CONCAST VAULT
	kV	kA	
201, 210, 211	15.5	12.5 R1	FCV-90-114-76-H
		12.5 R0 or 25	FCV-90-114-76-H
	29	12.5 or 25	FCV-90-114-76-H
	38	12.5 or 25	FCV-90-114-76-H
320, 321, 330	15.5	12.5 R1	FCV-90-114-76-H
		12.5 R0 or 25	FCV-90-114-76-H
	29	12.5 or 25	FCV-90-114-76-H
	38	12.5 or 25	FCV-90-114-76-H
413, 422, 431, 440	15.5	12.5 R1	FCV-90-114-76-H
		12.5 R0 or 25	FCV-90-114-76-H
	29	12.5	FCV-90-114-76-H
		25	FCV-120-114-76-H
38	12.5 or 25	FCV-120-114-76-H	
514, 523	15.5	12.5 R1	FCV-120-114-76-H
		12.5 R0 or 25	FCV-120-114-76-H
	29	12.5 or 25	FCV-120-114-76-H
	38	12.5 or 25	FCV-120-114-76-H
624, 633	15.5	12.5 R1	FCV-120-114-76-H
		12.5 R0 or 25	FCV-120-114-76-H
	29	12.5	FCV-120-114-76-H
		25	Call for availability
38	12.5 or 25	Call for availability	



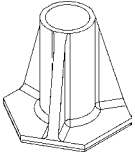
Each Vault includes a set of steel galvanized covers with traffic ratings from Pedestrian to AASHTO H-20. Spring assist covers will have stainless steel mechanisms and penta-head bolt down.

Vault Includes: (Optional Accessories Included with price unless Specified.)

- **Ladder:** For safe access into Vault.
- **Switchgear Support:** To support gear.
- **Upper Platform:** For gear operation.
- **Lower Platform:** For gear installation.
- **Pulling Eyes:** For pulling cables.
- **Cable Openings:** For cable routing into Vault.

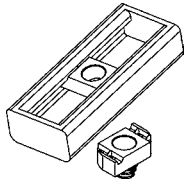
Typically all Hardware/Accessories are Steel Galvanized, but Stainless Steel components are available.

CAST-IN HARDWARE



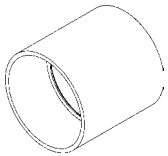
THREADED INSERTS

Threaded inserts can be cast into any location for equipment mounting and/or lifting. Insert sizes range from 1/4" - 1". Standard inserts are lead, but stainless steel and plastic are available. Location to customer specification.



UNISTRUT

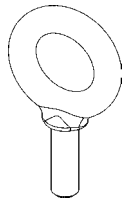
Unistrut with spring nut inserts are typically used for equipment bolt down or cable racks. The spring nut slides within the unistrut for added mounting flexibility. Location to customer specification.



CONDUIT COUPLERS

Conduit Couplers can be cast-in base or walls of utility boxes to mate up with underground pvc pipes or duct banks. Location to customer specification.

THREADED EYE BOLTS



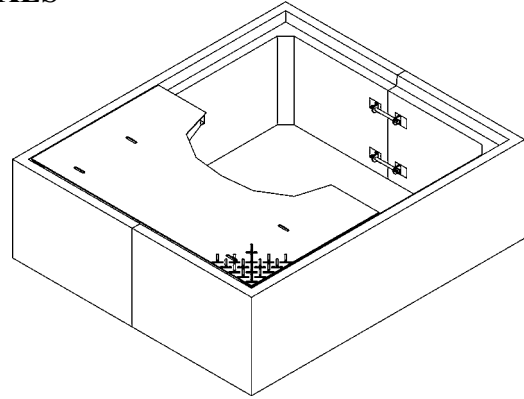
Eye bolts are used in conjunction with threaded inserts for the following.

Lifting: Small utility boxes come with threaded inserts located near top.

Pulling: To customer specification inserts can be located in sidewalls for pulling cables.

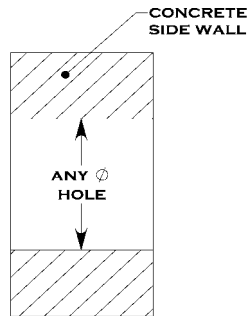
SPECIALTY BOXES

There are many applications when something standard just won't work. That's why Concast offers specialty boxes to fit your job requirements.



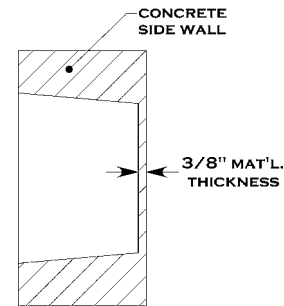
One common custom box is our split box design, which allows a box to be placed where conventional solid boxes can not. This box is split vertically so that it can be placed around an object and then be bolted and sealed to form one rigid unit. An example of where this type of box can be used is around a light or power pole.

HOLES - KNOCKOUTS



HOLES

Any URD Vault/Utility Box that Concast offers can be cast with holes at your desired location. Please specify size, quantity, and locations when ordering. It is recommended to use oversize holes to ensure a proper fit. They can then later be sealed.



KNOCKOUTS

Any URD Vault/Utility Box that Concast offers can be cast with knockouts at your desired location. Knockouts are recommended for openings that will be used at a later date. An approximate 3/8" shell of concrete is left that can be easily knocked out with a hammer, but that will also serve to keep backfill out until used.

SPECIFICATIONS FOR URD VAULT/UTILITY BOXES**1. GENERAL**

- 1-A.** Furnish a precast concrete Vault/Box system as manufactured by Concast Incorporated, Zumbrota, Minnesota.
- 1-B.** Precast Vault/Box sections shall be cast in steel molds using high strength concrete with Type 1 Portland cement and steel rebar reinforcing.
- 1-C.** Bases will have optional holes for adequate drainage or for attaching sump.
- 1-D.** Units shall be equipped with adequate lifting points to be used during installation with 4-way chain or sling.
- 1-E.** Conduit entrances will be supplied per job requirements and will be made available in any size and configuration.
- 1-F.** Box/Vault must not be affected by asphalt, road salts, fertilizers, oils, other chemicals, weather, sunlight or other normal service conditions that it might be exposed to.
- 1-G.** All precast units must be made available with traffic rating from pedestrian (200 psf) to heavy traffic (AASHTO H-20 - 32,000 lb. axle load)
- 1-H.** Covers must be made available with traffic rating from pedestrian (200 psf) to heavy traffic (AASHTO H-20 - 32,000 lb. axle load)
- 1-I.** Color - The color used in manufacture of Box/Vault shall be natural concrete gray.

2. STACKABLE BOXES

- 2-A.** The stackable box system shall have 6" thick walls, interlocking extension rings, and removable cover sections assembled to form a completely enclosed unit.
- 2-B.** For depths exceeding 42", extension rings will be stacked vertically on base ring to meet desired depth.

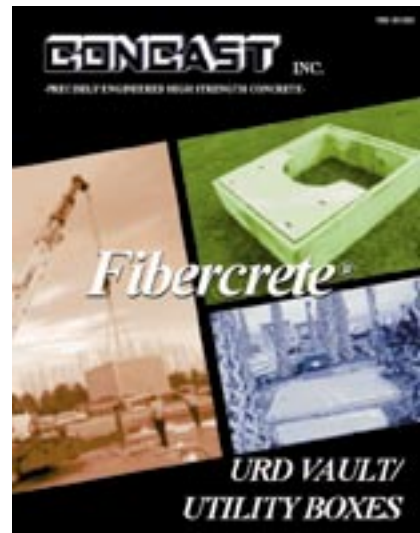
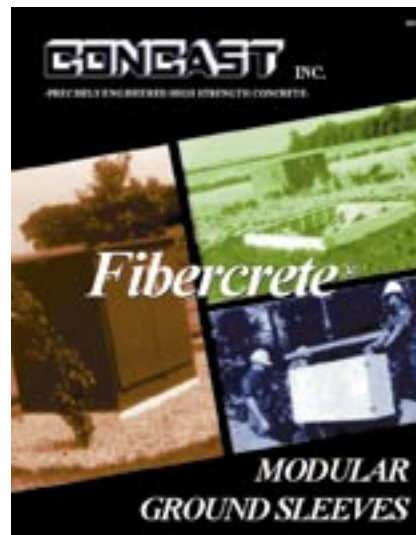
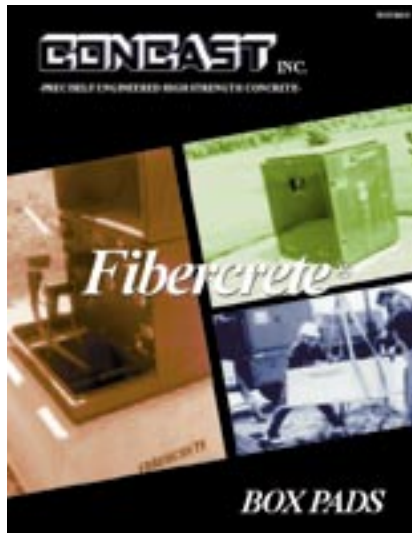
3. URD EQUIPMENT VAULT

- 3-A.** All vaults shall include platforms, supports, access ladder, and any misc. hardware required for operating and maintaining equipment.
- 3-B.** Vaults will have a wide flanged base to help prevent floatation.
- 3-C.** Vaults shall be supplied with spring assist access covers above equipment, which are one man operable.

4. DRAWINGS

- 4-A.** Drawings must be made available upon request for engineering approval and field installation and identification.
- 4-B.** Drawings will be in AutoCad format or equal and can be mailed, faxed, or emailed upon customer's request.

OUR COMPLETE LINE OF CATALOGS



CONCAST, Inc.
1010 North Star Drive
P.O. Box 69 • Zumbrota, MN 55992-0069
Phone: (507) 732-4095 • Fax: (507) 732-4094
email: info@concastinc.com
web: www.concastinc.com