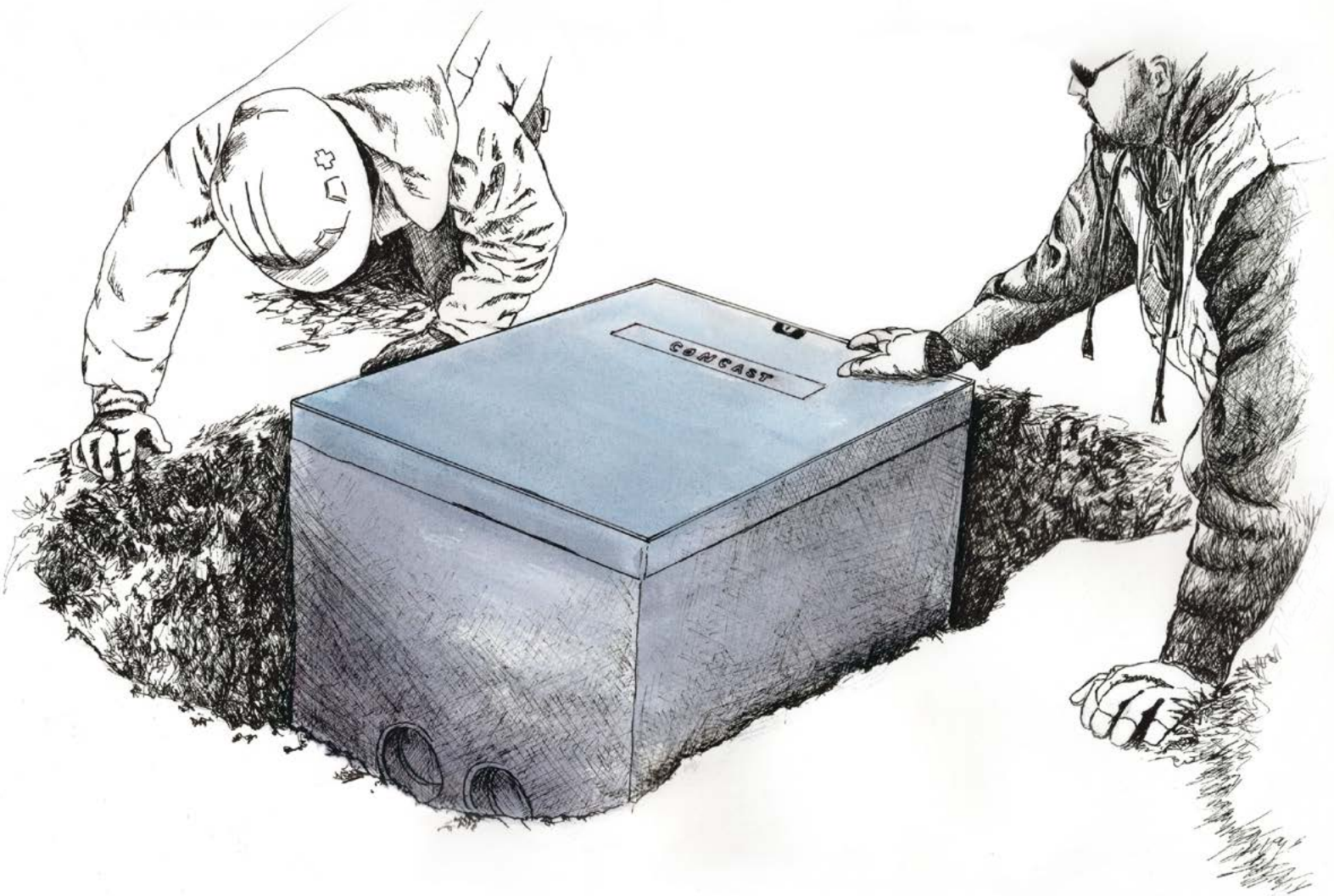




# CONCAST

*Fibercrete®*

PRECISELY ENGINEERED HIGH STRENGTH CONCRETE



## HANDHOLES



## TYPES OF CONCAST HANDHOLE UNITS



**TRAFFIC RATED FHR  
CONCRETE HANDHOLE**



**TIER 22 RATED PH  
POLYMER CONCRETE**

- Polymer Concrete PH series pedestrian rated handholes have a very high strength to weight ratio; yielding a relatively lightweight though extremely tough unit that saves on handling and shipping costs.
- Concrete FHR series handholes are designed for heavy traffic applications such as driveways & parking lots.
- Standard FHR covers are bolted down via PentaHead bolts for a tamper-proof unit.
- Optional SureLock bolts which can only be removed using the Concast-supplied tool - 8000SL.
- The FHRSLP offers an additional layer of security; a SureLock bolt is used to secure an access cover to a padlock cavity within the box. The padlock is supplied by others.
- All Concast FHR handhole covers have a textured surface and an aluminum letter ID plate that says "Concast". This plate can be changed out with special plates that have identifying lettering such as "ELECTRIC".
- The polymer handhole covers have the ID3 Plate recess.
- All handholes are open bottom. Extension rings are available to increase the overall depth of the unit.

### Guide Specifications

Complete recommended specifications can be found in this catalog and online at [www.concastinc.com/product\\_specs](http://www.concastinc.com/product_specs)

### Detail Drawings Provided

Concast will provide detail drawings for engineering approval, and to assist the construction crew with installation. Drawings will show overall handholes size, opening size, weight, and any accessories required.

You can access the installation guidelines online at [www.concastinc.com](http://www.concastinc.com); keyword "guidelines"



# Handhole Overview

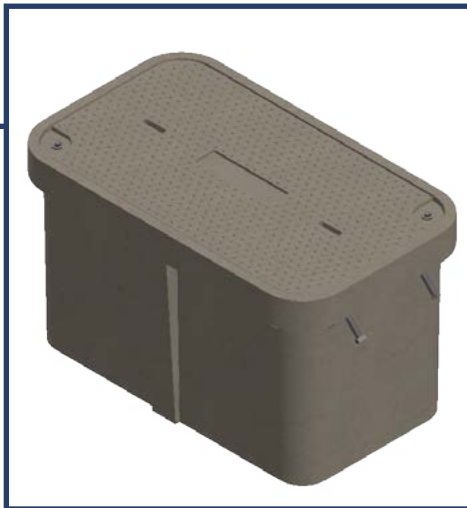
## REDUCE INSTALLATION COSTS WITH CONCAST'S POLYMER CONCRETE OR CONCRETE HANDHOLES

IN-PLACE COST IS LESS than  
site-cast concrete



### Benefits:

- **HANDLING IS EASY.** A crew of 2 or 3 can install a Polymer Concrete PH series handhole without using hoisting equipment. The lightweight construction saves on shipping costs.
- **HIGH STRENGTH** Polymer Concrete (PH22) Polymer Concrete construction makes possible a thin walled, high strength enclosure for electrical or telecommunication applications.
- **LONG LIFE.** Concrete construction (FHR Series) means long life, plus fire and corrosion resistance. Inert mineral composition resists temperature extremes, rain, and UV degradation.
- **IMPACT RESISTANT.** Concast handholes are designed with a reinforced top flange. The result is superior resistance to damage or abrasion from mowers, snow plows, and vandals.
- **RODENT PROOF.** Concrete or Polymer Concrete is resistant to gnawing animals.
- **FLAT & RIGID.** Handholes will not warp, providing a safe and secure installation.
- **NATURAL APPEARANCE.** Smooth, stone-like surfaces blend with natural environment.



Concast's new polymer concrete handholes are a strong, yet lightweight option

### Features:

- **FLUSH DESIGN.** Inset bolt-down hardware and handles allow the handhole unit to be buried up to the top edge of the cover.
- **MANY AVAILABLE SIZES.** Both the FHR & PH handhole series offer a wide variety of sizes to choose from.



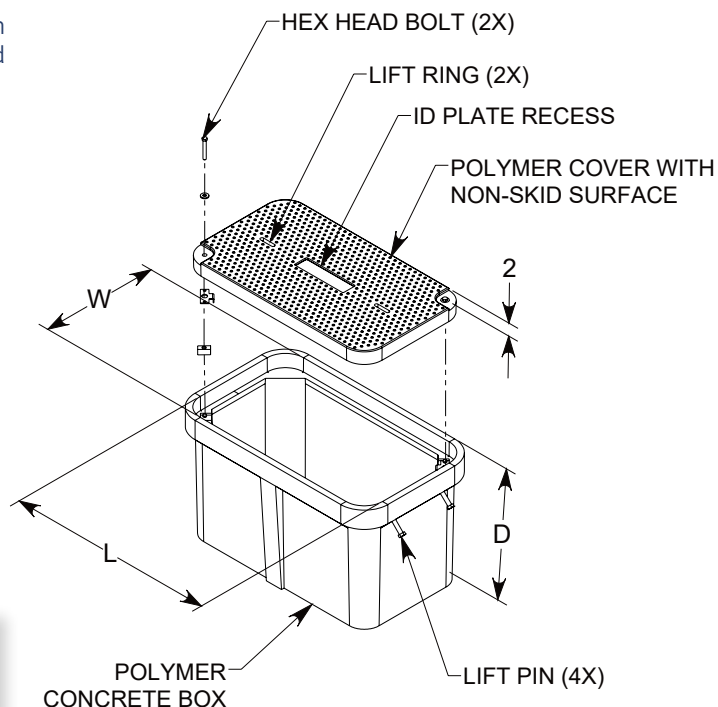
# Tier 22 Rated Polymer Handholes

## TIER 22 RATED POLYMER HANDHOLE UNITS

PH22 HANDHOLE ASSEMBLY	WIDTH "W"	LENGTH "L"	DEPTH "D"	COVER OPENING	APPROX. WEIGHT
PH22-17-30-18	18.75"	31.75"	18"	17" X 30"	168 LBS.
PH22-17-30-24	18.75"	31.75"	24"	17" X 30"	189 LBS.
PH22-24-36-24	25.75"	37.75"	24"	24" X 36"	275 LBS.
PH22-30-48-36	31.75"	49.75"	36"	30" X 48"	486 LBS.

- **LIGHTWEIGHT ACCESS BOX:** Concast's line of polymer concrete handhole units are a great alternative when you need a small access box with no bottom.
- **USER-FRIENDLY DESIGN:** All handhole covers feature an anti-slip surface, lettered ID3 plates & flush lifting rings. Aluminum floating nuts can be changed out easily in case of damage.
- **SECURE:** All handhole units can be supplied with penta-head bolt to make the units tamper-proof. If even greater security is required, SureLock bolts are available for maximum protection.
- **CUSTOMIZABLE:** Custom utility identification plates can be ordered that can be swapped out with the standard plates.

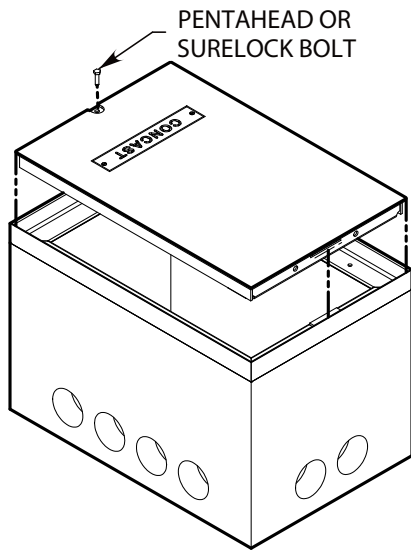
REPLACEMENT COVERS	WIDTH "W"	LENGTH "L"	APPROX. WEIGHT
17-30-PH22	16.88"	29.88"	68 LBS.
24-36-PH22	23.88"	35.88"	117 LBS.
30-24-FPH22	29.88"	23.88"	99 LBS.
30-24-MPH22	29.88"	23.88"	100 LBS.



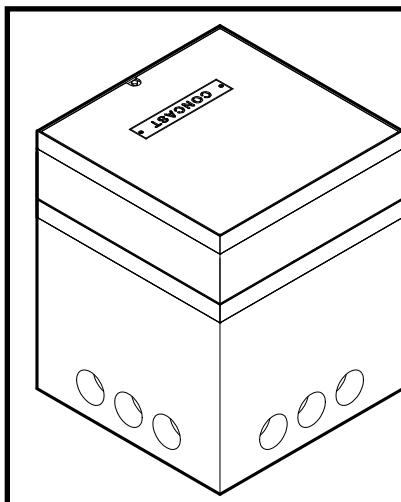
Fibercrete® Handholes

Handholes

# Traffic Rated FHR Series Handholes



- **TRAFFIC RATED ACCESS BOX:** Concast's line of customizable Fibercrete handhole units are a great alternative when you need a small access box with no bottom, that can stand up to traffic. These boxes meet AASHTO-H-20 heavy equipment of 32,000 LB. axle load when installed properly.
- **USER-FRIENDLY DESIGN:** All handhole covers come standard with an anti-slip galvanized steel surface and an aluminum lettering plate. All bases have 4" diameter Con-Duct terminators cast into the sidewalls for cable entry.
- **SECURE:** All handhole units incorporate either PentaHead or SureLock bolt locking capabilities in the cover to make the units tamper-proof. Each FHR handhole shipment comes with the appropriate bolt tool (8000P) for easy cover removal.
- **METER LIDS:** Certain FHR style covers can be purchased with small access covers in the center for easy access by industry personnel.
- **PDF DRAWINGS:** Drawings of each of the listed handhole units are available in PDF format online
- **CUSTOMIZABLE:** Units can have knockouts and/or extra holes included in the sidewalls. Other options include pulling eyes, threaded inserts, and unistrut. Like the FHR units, all boxes come with a standard aluminum ID plate that can be swapped out with custom utility ID plates.



## FHR EXTENSION SLEEVES

- **CUSTOM HEIGHTS ARE POSSIBLE:** Concast's traffic rated Handhole units can be stacked for additional depth via the use of these extension sleeves.
- **PART NUMBERING EXAMPLE:** A 12 inch extension for a 24" x 36" FHR series could be FHREX-24-36-12,
- **DRAWINGS ARE ONLINE:** PDF drawings of these extended FHR unit options are available online

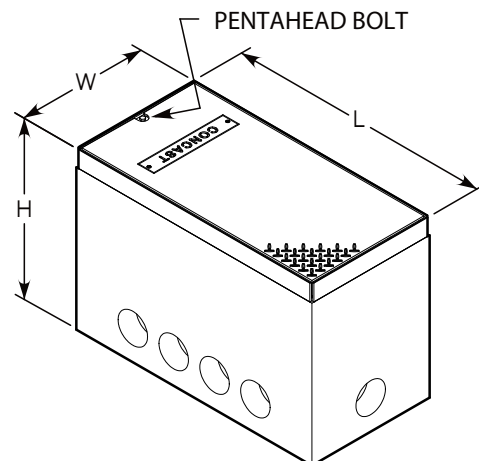
# Traffic Rated FHR Handholes



Handholes

STANDARD FHR WITH PENTAHEAD BOLTS					
FHR SERIES H-20 RATED HANDHOLE	OUTSIDE WIDTH "W"	OUTSIDE LENGTH "L"	OVERALL HEIGHT "H"	OPENING WIDTH	OPENING LENGTH
FHR-18-18-12	18"	18"	12"	12"	12"
FHR-18-18-18	18"	18"	18"	12"	12"
FHR-18-18-24	18"	18"	24"	12"	12"
FHR-18-18-30	18"	18"	30"	12"	12"
FHR-18-18-36	18"	18"	36"	12"	12"
FHR-18-24-12	18"	24"	12"	12"	18"
FHR-18-24-18	18"	24"	12"	12"	18"
FHR-18-24-24	18"	24"	24"	12"	18"
FHR-18-24-30	18"	24"	30"	12"	18"
FHR-18-24-36	18"	24"	36"	12"	18"
FHR-18-30-12	18"	30"	12"	12"	24"
FHR-18-30-18	18"	30"	18"	12"	24"
FHR-18-30-24	18"	30"	24"	12"	24"
FHR-18-30-30	18"	30"	30"	12"	24"
FHR-18-30-36	18"	30"	36"	12"	24"
FHR-18-36-12	18"	36"	12"	12"	30"
FHR-18-36-18	18"	36"	18"	12"	30"
FHR-18-36-24	18"	36"	24"	12"	30"
FHR-18-36-30	18"	36"	30"	12"	30"
FHR-18-36-36	18"	36"	36"	12"	30"
FHR-24-24-12	24"	24"	12"	18"	18"
FHR-24-24-18	24"	24"	18"	18"	18"
FHR-24-24-24	24"	24"	24"	18"	18"
FHR-24-24-30	24"	24"	30"	18"	18"
FHR-24-24-36	24"	24"	36"	18"	18"
FHR-24-30-12	24"	30"	12"	18"	24"
FHR-24-30-18	24"	30"	18"	18"	24"
FHR-24-30-24	24"	30"	24"	18"	24"
FHR-24-30-30	24"	30"	30"	18"	24"
FHR-24-30-36	24"	30"	36"	18"	24"

STANDARD FHR WITH PENTAHEAD BOLTS					
FHR SERIES H-20 RATED HANDHOLE	OUTSIDE WIDTH "W"	OUTSIDE LENGTH "L"	OVERALL HEIGHT "H"	OPENING WIDTH	OPENING LENGTH
FHR-24-36-12	24"	36"	12"	18"	30"
FHR-24-36-18	24"	36"	18"	18"	30"
FHR-24-36-24	24"	36"	24"	18"	30"
FHR-24-36-30	24"	36"	30"	18"	30"
FHR-24-36-36	24"	36"	36"	18"	30"
FHR-30-30-12	30"	30"	12"	24"	24"
FHR-30-30-18	30"	30"	18"	24"	24"
FHR-30-30-24	30"	30"	24"	24"	24"
FHR-30-30-30	30"	30"	30"	24"	24"
FHR-30-30-36	30"	30"	36"	24"	24"
FHR-30-36-12	30"	36"	12"	24"	30"
FHR-30-36-18	30"	36"	18"	24"	30"
FHR-30-36-24	30"	36"	24"	24"	30"
FHR-30-36-30	30"	36"	30"	24"	30"
FHR-30-36-36	30"	36"	36"	24"	30"
FHR-30-48-12	30"	36"	12"	24"	42"
FHR-30-48-18	30"	36"	18"	24"	42"
FHR-30-48-24	30"	36"	24"	24"	42"
FHR-30-48-30	30"	36"	30"	24"	42"
FHR-30-48-36	30"	36"	36"	24"	42"



The part numbers listed on this page are for the standard handholes with pentahead bolts.

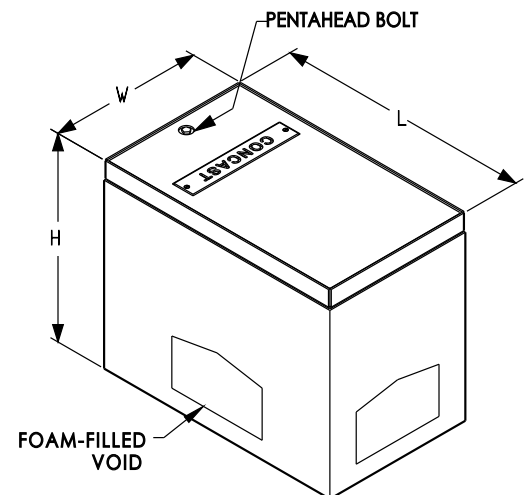
Drawings can be viewed online

# Traffic Rated FHRFV Handholes



CUTOM ENTRY FHR WITH PENTAHEAD BOLTS					
FHRFV SERIES H-20 RATED HANDHOLE	OUTSIDE WIDTH "W"	OUTSIDE LENGTH "L"	OVERALL HEIGHT "H"	OPENING WIDTH	OPENING LENGTH
FHRFV-18-18-12	18"	18"	12"	12"	12"
FHRFV-18-18-18	18"	18"	18"	12"	12"
FHRFV-18-18-24	18"	18"	24"	12"	12"
FHRFV-18-18-30	18"	18"	30"	12"	12"
FHRFV-18-18-36	18"	18"	36"	12"	12"
FHRFV-18-24-12	18"	24"	12"	12"	18"
FHRFV-18-24-18	18"	24"	12"	12"	18"
FHRFV-18-24-24	18"	24"	24"	12"	18"
FHRFV-18-24-30	18"	24"	30"	12"	18"
FHRFV-18-24-36	18"	24"	36"	12"	18"
FHRFV-18-30-12	18"	30"	12"	12"	24"
FHRFV-18-30-18	18"	30"	18"	12"	24"
FHRFV-18-30-24	18"	30"	24"	12"	24"
FHRFV-18-30-30	18"	30"	30"	12"	24"
FHRFV-18-30-36	18"	30"	36"	12"	24"
FHRFV-18-36-12	18"	36"	12"	12"	30"
FHRFV-18-36-18	18"	36"	18"	12"	30"
FHRFV-18-36-24	18"	36"	24"	12"	30"
FHRFV-18-36-30	18"	36"	30"	12"	30"
FHRFV-18-36-36	18"	36"	36"	12"	30"
FHRFV-24-24-12	24"	24"	12"	18"	18"
FHRFV-24-24-18	24"	24"	18"	18"	18"
FHRFV-24-24-24	24"	24"	24"	18"	18"
FHRFV-24-24-30	24"	24"	30"	18"	18"
FHRFV-24-24-36	24"	24"	36"	18"	18"
FHRFV-24-30-12	24"	30"	12"	18"	24"
FHRFV-24-30-18	24"	30"	18"	18"	24"
FHRFV-24-30-24	24"	30"	24"	18"	24"
FHRFV-24-30-30	24"	30"	30"	18"	24"
FHRFV-24-30-36	24"	30"	36"	18"	24"

CUTOM ENTRY FHR WITH PENTAHEAD BOLTS					
FHRFV SERIES H-20 RATED HANDHOLE	OUTSIDE WIDTH "W"	OUTSIDE LENGTH "L"	OVERALL HEIGHT "H"	OPENING WIDTH	OPENING LENGTH
FHRFV-24-36-12	24"	36"	12"	18"	30"
FHRFV-24-36-18	24"	36"	18"	18"	30"
FHRFV-24-36-24	24"	36"	24"	18"	30"
FHRFV-24-36-30	24"	36"	30"	18"	30"
FHRFV-24-36-36	24"	36"	36"	18"	30"
FHRFV-30-30-12	30"	30"	12"	24"	24"
FHRFV-30-30-18	30"	30"	18"	24"	24"
FHRFV-30-30-24	30"	30"	24"	24"	24"
FHRFV-30-30-30	30"	30"	30"	24"	24"
FHRFV-30-30-36	30"	30"	36"	24"	24"
FHRFV-30-36-12	30"	36"	12"	24"	30"
FHRFV-30-36-18	30"	36"	18"	24"	30"
FHRFV-30-36-24	30"	36"	24"	24"	30"
FHRFV-30-36-30	30"	36"	30"	24"	30"
FHRFV-30-36-36	30"	36"	36"	24"	30"
FHRFV-30-48-12	30"	36"	12"	24"	42"
FHRFV-30-48-18	30"	36"	18"	24"	42"
FHRFV-30-48-24	30"	36"	24"	24"	42"
FHRFV-30-48-30	30"	36"	30"	24"	42"
FHRFV-30-48-36	30"	36"	36"	24"	42"



The FHRFV box sidewalls offer an easy-to-field-cut foamed out area for other custom entry solutions. These also use pentahead bolts.

Drawings can be viewed online

**Fibercrete®** Handholes

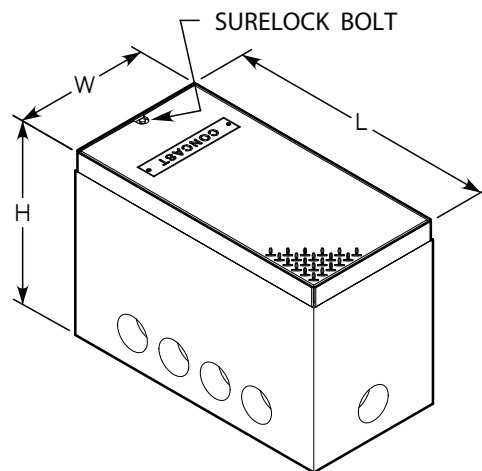


# Traffic Rated FHRSL Handholes

Handholes

STANDARD FHR WITH SURELOCK BOLTS					
FHRSL SERIES H-20 RATED HIGH SECURITY HANDHOLE	OUTSIDE WIDTH "W"	OUTSIDE LENGTH "L"	OVERALL HEIGHT "H"	OPENING WIDTH	OPENING LENGTH
FHRSL-18-18-12	18"	18"	12"	12"	12"
FHRSL-18-18-18	18"	18"	18"	12"	12"
FHRSL-18-18-24	18"	18"	24"	12"	12"
FHRSL-18-18-30	18"	18"	30"	12"	12"
FHRSL-18-18-36	18"	18"	36"	12"	12"
FHRSL-18-24-12	18"	24"	12"	12"	18"
FHRSL-18-24-18	18"	24"	12"	12"	18"
FHRSL-18-24-24	18"	24"	24"	12"	18"
FHRSL-18-24-30	18"	24"	30"	12"	18"
FHRSL-18-24-36	18"	24"	36"	12"	18"
FHRSL-18-30-12	18"	30"	12"	12"	24"
FHRSL-18-30-18	18"	30"	18"	12"	24"
FHRSL-18-30-24	18"	30"	24"	12"	24"
FHRSL-18-30-30	18"	30"	30"	12"	24"
FHRSL-18-30-36	18"	30"	36"	12"	24"
FHRSL-18-36-12	18"	36"	12"	12"	30"
FHRSL-18-36-18	18"	36"	18"	12"	30"
FHRSL-18-36-24	18"	36"	24"	12"	30"
FHRSL-18-36-30	18"	36"	30"	12"	30"
FHRSL-18-36-36	18"	36"	36"	12"	30"
FHRSL-24-24-12	24"	24"	12"	18"	18"
FHRSL-24-24-18	24"	24"	18"	18"	18"
FHRSL-24-24-24	24"	24"	24"	18"	18"
FHRSL-24-24-30	24"	24"	30"	18"	18"
FHRSL-24-24-36	24"	24"	36"	18"	18"
FHRSL-24-30-12	24"	30"	12"	18"	24"
FHRSL-24-30-18	24"	30"	18"	18"	24"
FHRSL-24-30-24	24"	30"	24"	18"	24"
FHRSL-24-30-30	24"	30"	30"	18"	24"
FHRSL-24-30-36	24"	30"	36"	18"	24"

STANDARD FHR WITH SURELOCK BOLTS					
FHRSL SERIES H-20 RATED HIGH SECURITY HANDHOLE	OUTSIDE WIDTH "W"	OUTSIDE LENGTH "L"	OVERALL HEIGHT "H"	OPENING WIDTH	OPENING LENGTH
FHRSL-24-36-12	24"	36"	12"	18"	30"
FHRSL-24-36-18	24"	36"	18"	18"	30"
FHRSL-24-36-24	24"	36"	24"	18"	30"
FHRSL-24-36-30	24"	36"	30"	18"	30"
FHRSL-24-36-36	24"	36"	36"	18"	30"
FHRSL-30-30-12	30"	30"	12"	24"	24"
FHRSL-30-30-18	30"	30"	18"	24"	24"
FHRSL-30-30-24	30"	30"	24"	24"	24"
FHRSL-30-30-30	30"	30"	30"	24"	24"
FHRSL-30-30-36	30"	30"	36"	24"	24"
FHRSL-30-36-12	30"	36"	12"	24"	30"
FHRSL-30-36-18	30"	36"	18"	24"	30"
FHRSL-30-36-24	30"	36"	24"	24"	30"
FHRSL-30-36-30	30"	36"	30"	24"	30"
FHRSL-30-36-36	30"	36"	36"	24"	30"
FHRSL-30-48-12	30"	36"	12"	24"	42"
FHRSL-30-48-18	30"	36"	18"	24"	42"
FHRSL-30-48-24	30"	36"	24"	24"	42"
FHRSL-30-48-30	30"	36"	30"	24"	42"
FHRSL-30-48-36	30"	36"	36"	24"	42"



The part numbers listed on this page are for the standard handholes with SureLock bolts.

Drawings can be viewed online

Fibercrete® Handholes





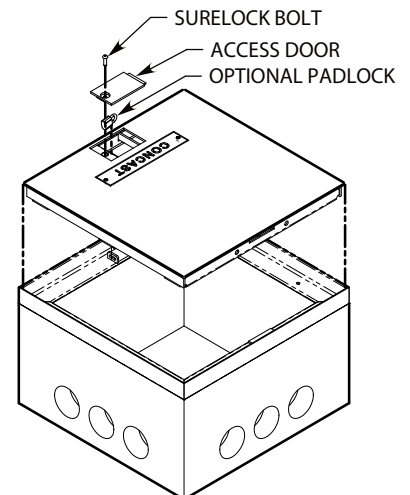
# Traffic Rated FHRSLP Handholes

DOUBLE SECURITY PADLOCKING W/SURELOCK BOLTS					
FHRSLP SERIES H-20 RATED HANDHOLE	OUTSIDE WIDTH "W"	OUTSIDE LENGTH "L"	OVERALL HEIGHT "H"	OPENING WIDTH	OPENING LENGTH
FHRSLP-18-18-12	18"	18"	12"	12"	12"
FHRSLP-18-18-18	18"	18"	18"	12"	12"
FHRSLP-18-18-24	18"	18"	24"	12"	12"
FHRSLP-18-18-30	18"	18"	30"	12"	12"
FHRSLP-18-18-36	18"	18"	36"	12"	12"
FHRSLP-18-24-12	18"	24"	12"	12"	18"
FHRSLP-18-24-18	18"	24"	12"	12"	18"
FHRSLP-18-24-24	18"	24"	24"	12"	18"
FHRSLP-18-24-30	18"	24"	30"	12"	18"
FHRSLP-18-24-36	18"	24"	36"	12"	18"
FHRSLP-18-30-12	18"	30"	12"	12"	24"
FHRSLP-18-30-18	18"	30"	18"	12"	24"
FHRSLP-18-30-24	18"	30"	24"	12"	24"
FHRSLP-18-30-30	18"	30"	30"	12"	24"
FHRSLP-18-30-36	18"	30"	36"	12"	24"
FHRSLP-18-36-12	18"	36"	12"	12"	30"
FHRSLP-18-36-18	18"	36"	18"	12"	30"
FHRSLP-18-36-24	18"	36"	24"	12"	30"
FHRSLP-18-36-30	18"	36"	30"	12"	30"
FHRSLP-18-36-36	18"	36"	36"	12"	30"
FHRSLP-24-24-12	24"	24"	12"	18"	18"
FHRSLP-24-24-18	24"	24"	18"	18"	18"
FHRSLP-24-24-24	24"	24"	24"	18"	18"
FHRSLP-24-24-30	24"	24"	30"	18"	18"
FHRSLP-24-24-36	24"	24"	36"	18"	18"
FHRSLP-24-30-12	24"	30"	12"	18"	24"
FHRSLP-24-30-18	24"	30"	18"	18"	24"
FHRSLP-24-30-24	24"	30"	24"	18"	24"
FHRSLP-24-30-30	24"	30"	30"	18"	24"
FHRSLP-24-30-36	24"	30"	36"	18"	24"

DOUBLE SECURITY PADLOCKING W/SURELOCK BOLTS					
FHRSLP SERIES H-20 RATED HANDHOLE	OUTSIDE WIDTH "W"	OUTSIDE LENGTH "L"	OVERALL HEIGHT "H"	OPENING WIDTH	OPENING LENGTH
FHRSLP-24-36-12	24"	36"	12"	18"	30"
FHRSLP-24-36-18	24"	36"	18"	18"	30"
FHRSLP-24-36-24	24"	36"	24"	18"	30"
FHRSLP-24-36-30	24"	36"	30"	18"	30"
FHRSLP-24-36-36	24"	36"	36"	18"	30"
FHRSLP-30-30-12	30"	30"	12"	24"	24"
FHRSLP-30-30-18	30"	30"	18"	24"	24"
FHRSLP-30-30-24	30"	30"	24"	24"	24"
FHRSLP-30-30-30	30"	30"	30"	24"	24"
FHRSLP-30-30-36	30"	30"	36"	24"	24"
FHRSLP-30-36-12	30"	36"	12"	24"	30"
FHRSLP-30-36-18	30"	36"	18"	24"	30"
FHRSLP-30-36-24	30"	36"	24"	24"	30"
FHRSLP-30-36-30	30"	36"	30"	24"	30"
FHRSLP-30-36-36	30"	36"	36"	24"	30"
FHRSLP-30-48-12	30"	36"	12"	24"	42"
FHRSLP-30-48-18	30"	36"	18"	24"	42"
FHRSLP-30-48-24	30"	36"	24"	24"	42"
FHRSLP-30-48-30	30"	36"	30"	24"	42"
FHRSLP-30-48-36	30"	36"	36"	24"	42"

The exterior access door uses a custom keyed "SureLock" security bolt. Tabs in the frame interlock with the cover for even more security. The padlock compartment measures 4" x 3.75" x 2" deep

Drawings can be viewed online



Handholes

# Traffic Rated FHRPP Handholes

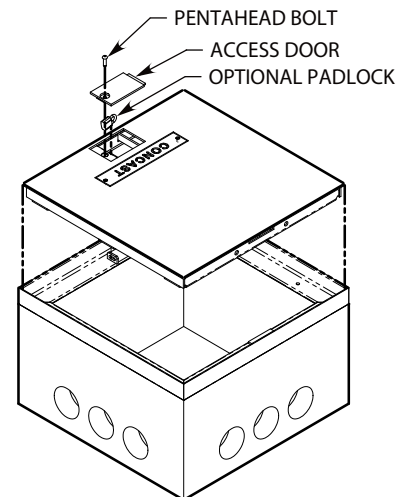


Handholes

DOUBLE SECURITY PADLOCKING W/PENTAHEAD BOLTS					
FHRPP SERIES H-20 RATED HANDHOLE	OUTSIDE WIDTH "W"	OUTSIDE LENGTH "L"	OVERALL HEIGHT "H"	OPENING WIDTH	OPENING LENGTH
FHRPP-18-18-12	18"	18"	12"	12"	12"
FHRPP-18-18-18	18"	18"	18"	12"	12"
FHRPP-18-18-24	18"	18"	24"	12"	12"
FHRPP-18-18-30	18"	18"	30"	12"	12"
FHRPP-18-18-36	18"	18"	36"	12"	12"
FHRPP-18-24-12	18"	24"	12"	12"	18"
FHRPP-18-24-18	18"	24"	12"	12"	18"
FHRPP-18-24-24	18"	24"	24"	12"	18"
FHRPP-18-24-30	18"	24"	30"	12"	18"
FHRPP-18-24-36	18"	24"	36"	12"	18"
FHRPP-18-30-12	18"	30"	12"	12"	24"
FHRPP-18-30-18	18"	30"	18"	12"	24"
FHRPP-18-30-24	18"	30"	24"	12"	24"
FHRPP-18-30-30	18"	30"	30"	12"	24"
FHRPP-18-30-36	18"	30"	36"	12"	24"
FHRPP-18-36-12	18"	36"	12"	12"	30"
FHRPP-18-36-18	18"	36"	18"	12"	30"
FHRPP-18-36-24	18"	36"	24"	12"	30"
FHRPP-18-36-30	18"	36"	30"	12"	30"
FHRPP-18-36-36	18"	36"	36"	12"	30"
FHRPP-24-24-12	24"	24"	12"	18"	18"
FHRPP-24-24-18	24"	24"	18"	18"	18"
FHRPP-24-24-24	24"	24"	24"	18"	18"
FHRPP-24-24-30	24"	24"	30"	18"	18"
FHRPP-24-24-36	24"	24"	36"	18"	18"
FHRPP-24-30-12	24"	30"	12"	18"	24"
FHRPP-24-30-18	24"	30"	18"	18"	24"
FHRPP-24-30-24	24"	30"	24"	18"	24"
FHRPP-24-30-30	24"	30"	30"	18"	24"
FHRPP-24-30-36	24"	30"	36"	18"	24"

DOUBLE SECURITY PADLOCKING W/PENTAHEAD BOLTS					
FHRPP SERIES H-20 RATED HANDHOLE	OUTSIDE WIDTH "W"	OUTSIDE LENGTH "L"	OVERALL HEIGHT "H"	OPENING WIDTH	OPENING LENGTH
FHRPP-24-36-12	24"	36"	12"	18"	30"
FHRPP-24-36-18	24"	36"	18"	18"	30"
FHRPP-24-36-24	24"	36"	24"	18"	30"
FHRPP-24-36-30	24"	36"	30"	18"	30"
FHRPP-24-36-36	24"	36"	36"	18"	30"
FHRPP-30-30-12	30"	30"	12"	24"	24"
FHRPP-30-30-18	30"	30"	18"	24"	24"
FHRPP-30-30-24	30"	30"	24"	24"	24"
FHRPP-30-30-30	30"	30"	30"	24"	24"
FHRPP-30-30-36	30"	30"	36"	24"	24"
FHRPP-30-36-12	30"	36"	12"	24"	30"
FHRPP-30-36-18	30"	36"	18"	24"	30"
FHRPP-30-36-24	30"	36"	24"	24"	30"
FHRPP-30-36-30	30"	36"	30"	24"	30"
FHRPP-30-36-36	30"	36"	36"	24"	30"
FHRPP-30-48-12	30"	36"	12"	24"	42"
FHRPP-30-48-18	30"	36"	18"	24"	42"
FHRPP-30-48-24	30"	36"	24"	24"	42"
FHRPP-30-48-30	30"	36"	30"	24"	42"
FHRPP-30-48-36	30"	36"	36"	24"	42"

The exterior access door uses a Pentahead security bolt. Tabs in the frame interlock with the cover for even more security. The padlock compartment measures 4" x 3.75" x 2" deep



Drawings can be viewed online

Fibercrete® Handholes



# Handhole Accessories

## CON-DUCT TERMINATORS



Concast offers plastic cable conduit terminators called Con-Duct. Each piece is cast into the concrete side wall and provides a smooth edge for pulling cables. The center plastic membrane can be knocked out when you are ready to use the opening.

Standard Con-Duct terminators are sized for 4 inch PVC, they are 6-3/8" apart on center, and they are Concast part number CD-464. Other sizes and spacings are available upon request.

For more information such as sizes and part numbers, see our website at [www.concastinc.com/accessories/Con-Duct](http://www.concastinc.com/accessories/Con-Duct) or contact your local Concast sale representative.

## REDUCING COUPLERS

- The perfect solution for transitions from multiple sizes of PVC pipe into the standard Con-Duct terminators cast into Concast boxes.
- They can be cut to fit the following PVC pipe sizes: 1 inch, 1.5 inch, 2 inch, 2.5 inch, 3 inch, and 3.5 inch.
- Reducing Couplers are to be ordered under part number RC41.





### VULKEM SEALANT

Vulkem polyurethane sealant is colored concrete gray and can be ordered under Concast P/N: 8004. It is delivered in tubes and is designed for use on poured and precast concrete surfaces. Vulkem 116 has demonstrated superior primerless adhesion to porous substrates for over 30 years and is the sealant of choice for commercial industrial expansion joints.

### NEO PADS & JOINT SEALANT

Self-Adhesive Neoprene strips can be installed into the handholes to cushion the covers. They are colored gray and can be ordered under Concast P/N: NEO.

C-56 Butyl Mastic Joint Sealant comes in a coil of rope & can be used to form a permanent bond base unit and an extension ring. Order under part number 8004B.

Handholes

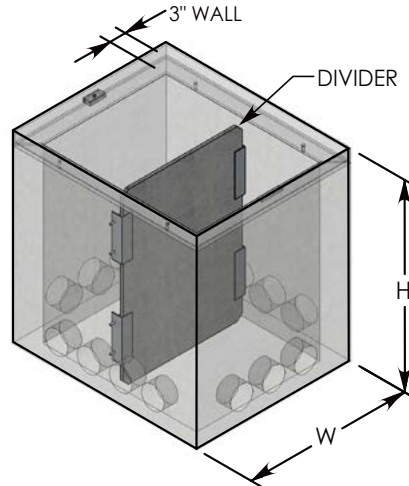
Straight pull is required to achieve listed load rating

**Fibercrete®** Handholes



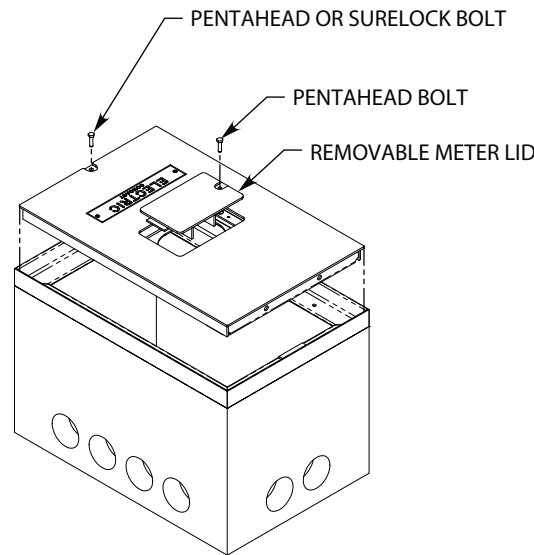
## FHR DIVIDER PANELS

DIVIDER PANEL	WIDTH "W"	HEIGHT "H"
FHR-18-12-DIV	18"	12"
FHR-18-18-DIV	18"	18"
FHR-18-24-DIV	18"	24"
FHR-18-30-DIV	18"	30"
FHR-18-36-DIV	18"	36"
FHR-24-12-DIV	24"	12"
FHR-24-18-DIV	24"	18"
FHR-24-24-DIV	24"	24"
FHR-24-30-DIV	24"	30"
FHR-24-36-DIV	24"	36"
FHR-30-12-DIV	30"	12"
FHR-30-18-DIV	30"	18"
FHR-30-24-DIV	30"	24"
FHR-30-30-DIV	30"	30"
FHR-30-36-DIV	30"	36"
FHR-36-12-DIV	36"	12"
FHR-36-18-DIV	36"	18"
FHR-36-24-DIV	36"	24"
FHR-36-30-DIV	36"	30"
FHR-36-36-DIV	36"	36"
FHR-48-12-DIV	48"	12"
FHR-48-18-DIV	48"	18"
FHR-48-24-DIV	48"	24"
FHR-48-30-DIV	48"	30"
FHR-48-36-DIV	48"	36"



## METER LID OPTION

FHR's WITH METER LIDS		
FHRML SERIES H-20 RATED METER LID	OUTSIDE WIDTH "W"	OUTSIDE LENGTH "L"
FHRML-18-30-12	18"	30"
FHRML-18-30-18	18"	30"
FHRML-18-30-24	18"	30"
FHRML-18-30-30	18"	30"
FHRML-18-30-36	18"	30"
FHRML-24-36-12	24"	36"
FHRML-24-36-18	24"	36"
FHRML-24-36-24	24"	36"
FHRML-24-36-30	24"	36"
FHRML-24-36-36	24"	36"
FHRML-30-48-12	30"	36"
FHRML-30-48-18	30"	36"
FHRML-30-48-24	30"	36"
FHRML-30-48-30	30"	36"
FHRML-30-48-36	30"	36"



- A PentaHead bolt secures the removable meter lid.
- Galvanized steel meter lid is approximately 8 pounds, so it is very easy to remove in the field.



# Handhole Lifting Tools

## PENTA-HEAD, SOCKET EQUIPPED FHR COVER REMOVAL TOOL



- Lifting tools are available for the traffic rated FHR-style handholes.
- Designed to secure the locking penta head bolts.
- Ensures an easy manual lift via the bolt clearance hole.
- Tool is intended to lift parts under 120 pounds.
- PentaHead Lift/lock tool is part number 8000P.
- SureLock bolt removal tool is part number 8000SL
- Removal tool can be viewed online.



### SWIVEL HOIST RING

The forged swivel hoist ring is designed to thread into the cast-in inserts located in Concast's heavier products. Hoist rings are designed for lifting at any angle because they can swivel 360° and pivot. We recommend using our 4-way lifting chain (or equivalent) in conjunction with the hoist ring.

HOIST RING	THREADED ROD DIA.	THREADED ROD LENGTH	MAX RATED LOAD
9002.38	3/8-16 UNC	1 inch	1000 Lbs.
9002	1/2-13 UNC	1.25 inch	2500 Lbs.
9002.75	3/4-10 UNC	1.5 inch	5000 Lbs.
9002L	1/2-13 UNC	2 inch	2500 Lbs.



### REPLACEMENT BOLT

The swivel hoist replacement bolt is part number 9002RB & can only be used with 2" or deeper threaded inserts as it is a 2" long threaded rod.

## 4-WAY LIFT CHAIN



- Concast Part Number: 9003
- Can be used in conjunction with the Swivel Hoist Rings for lifting pull boxes
- The 9100 pound maximum rated load is contingent on maintaining a horizontal lift angle that is less than 60 degrees

EYE BOLT	THREADED ROD DIAMETER	THREADED ROD LENGTH	STRAIGHT PULL RATED LOAD	BOLT MATERIAL
9000	1/2-13 UNC	1.5 inch	2,600 Lbs.	Carbon Steel
9001	3/8-16 UNC	1.25 inch	1,400 Lbs.	Carbon Steel
9001G	3/8-16 UNC	1.25 inch	1,400 Lbs.	Galvanized Steel
9001SS	3/8-16 UNC	1.25 inch	1,000 Lbs.	Stainless Steel
9001Z	3/8-16 UNC	1.25 inch	1,400 Lbs.	Zinc Plated Steel

## PULLING EYES





## LETTER ID PLATES

STANDARD ID PLATES	TEXT LINE 1	TEXT LINE 2
LTR-ID	CONCAST	
LTR-ID-AUXV2	AUXILIARY	TWO SOURCE FEEDERS
LTR-ID-AV	AV	
LTR-ID-BLANK	BLANK - NO TEXT	
LTR-ID-C	COMMUNICATION	CONCAST
LTR-ID-C2	COMMUNICATION	
LTR-ID-CO	CONTROL	CONCAST
LTR-ID-D	DATA	CONCAST
LTR-ID-DE	DATA/ELECTRIC	CONCAST
LTR-ID-DHV	DANGER-HIGH VOLTAGE KEEP OUT	
LTR-ID-DHV2	DANGER-HIGH VOLTAGE	TWO SOURCE FEEDERS
LTR-ID-E	ELECTRIC	CONCAST
LTR-ID-E2	ELECTRICITE	CONCAST
LTR-ID-E3	ELECTRICAL	
LTR-ID-E4	ELECTRIC	

STANDARD ID PLATES	TEXT LINE 1	TEXT LINE 2
LTR-ID-EC	ELECTRIC/COMM	
LTR-ID-E-480V	480V ELECTRICAL	
LTR-ID-F	FIBER OPTIC	CONCAST
LTR-ID-FA	FIRE ALARM	CONCAST
LTR-ID-G	GAS	CONCAST
LTR-ID-GR	GROUND	CONCAST
LTR-ID-HV	HIGH VOLTAGE	CONCAST
LTR-ID-I	IRRIGATION	CONCAST
LTR-ID-L	LIGHTING	CONCAST
LTR-ID-LPUB	LIGHT POLE UTILITY BOX	
LTR-ID-LV	LOW VOLTAGE	CONCAST
LTR-ID-P	POWER	CONCAST
LTR-ID-PRIMARY	PRIMARY	
LTR-ID-SECONDARY	SECONDARY	
LTR-ID-T	TELECOM	CONCAST
LTR-ID-TR	TRAFFIC	CONCAST
LTR-ID-W	WATER	CONCAST

POLYMER HANDHOLE ID3 PLATES	TEXT LINE 1
LTR-ID3	CONCAST
LTR-ID3-BLANK	BLANK - NO TEXT
LTR-ID3-C	COMMUNICATION
LTR-ID3-CO	CONTROL
LTR-ID3-D	DATA
LTR-ID3-DE	DATA/ELECTRIC
LTR-ID3-E	ELECTRIC
LTR-ID3-E2	ELECTRICITE
LTR-ID3-F	FIBER OPTIC
LTR-ID3-G	GAS
LTR-ID3-L	LIGHTING
LTR-ID3-P	POWER
LTR-ID3-T	TELECOM
LTR-ID3-W	WATER

- LTR-ID is the plate that is used by default in all concrete handhole covers. It is 14" long.
- LTR-ID3 series plate is used in polymer concrete handhole covers. It is 8" long.



# Handhole Accessories

## PK-1 Patch Kit:

- Used for cosmetic repairs.
- Kit is complete with everything you need for small concrete repairs, including patching compound, bucket, and a trowel.

## PK-2 Patch Kit:

- Ideal for patching holes in non-structural concrete sections.
- Kit consists of a large Fibercrete® patch sheet (1/2" thick by 12" sq.) which is cut to size, and then a construction adhesive or concrete screws are used to attach the patch over the hole.

## PK-36, PK-69, & PK-912 PatchKwik Kits

- Easy to apply, self-adhesive fiberglass patch that is UV light activated. Available in 3 sizes.
- Spray paint can be ordered from Concast in gray or green. Part numbers are PK-Gray & PK-Green respectively.
- More detail online.
- PatchKwik Installation Video



## GUIDE POSTS & SAFETY CHAIN

Guide posts and chain provide protection for your pre-cast boxes by blocking off vehicular traffic or defining a road way. A hard, yellow plastic exterior ensures that the color will withstand years of environmental exposure like UV rays and heat. The posts are available either hollow, or concrete filled with steel rebar reinforcement. A 3/8-16 UNC threaded insert is located at the top of each post for securing optional safety chain. See more at [https://www.concastinc.com/pull\\_boxes/accessories/guide\\_post/](https://www.concastinc.com/pull_boxes/accessories/guide_post/)



Post, Rope & Chain Part Numbers	Connection Hardware Part Numbers
8005Y-4F	9001G
8005Y-4H	9001SS
8005Y-7F	9001Z
8005Y-7H	9001G-J
8007	9001SS-J
8007Y-3	9001ACC
8007SG	HHB.38-1.5
ROPE-5-BK	WSR.38-1
ROPE-5-YW	8007SG-CL
	ROPE-CLAMP-625
	SHSS
	SHPY-3

Handholes

Fibercrete® Handholes



## GENERAL SPECIFICATIONS FOR HANDHOLES

### 1. TECHNICAL SCOPE

- 1-A.** These specifications cover precast Fibercrete® (G.F.R.C.) & Concrete handholes manufactured by Concast Incorporated in Zumbrota, Minnesota. The manufacturer must have experience in design and fabrication of these products and also the facilities for fabricating them with the quality specified herein and without delay to the agreed upon schedule.
- 1-B.** The handholes shall be designed and constructed to provide a serviceable life and warranty of 35 years when installed outdoors in full sunlight and without any protection from the weather at any location in the continental United States or Canada.
- 1-C.** The Supplier shall design, construct, perform dimensional and quality control tests, and prepare the pads for truck shipment. Shipping and delivery responsibilities will be defined in the project specific purchase documents. The supplier shall provide all necessary documentation as stated in this specification.

### 2. DIMENSIONS AND DESIGN

- 2-A.** Drawings shall be made available for engineering approval, field installation, and field identification; in PDF, SolidWorks, or AutoCAD format. Standard PDF format component drawings shall also be available online.
- 2-B.** The tolerances of the dimensions of each handhole unit shall not exceed  $\pm 1/4"$ . These tolerances apply to the components when ready for shipping, when set on a flat and level surface with no loads applied to it.
- 2-C.** Handhole shall be of sleeve design and easily assembled by two people. It shall be composed of a bottomless box, bolt-down accommodations, and a hardware kit. FHR units shall also include a penta-head lifting tool and cast-in Con-Duct terminations.
- 2-D.** The handhole bases shall have a rigid, flat, and stable top surface.
- 2-E.** Pedestrian rated FH cover bolt down assemblies shall have silicon bronze floating nut capable of being easily replaced if damaged.
- 2-F.** Provisions, such as cast-in threaded inserts, must be offered for lifting traffic rated handholes. Mounting holes must be adequately reinforced to avoid damaging the handhole, and to provide an ultimate strength of at least 5 times the part weight when the unit is lifted in accordance with the manufacturer's instructions.
- 2-G.** The handhole color shall be a natural concrete gray unless otherwise required and agreed upon.
- 2-H.** The handhole shall be designed and constructed so that it and any related hardware will not trap or hold water when required, and so that it will be able to withstand repeated freeze and thaw cycles.
- 2-I.** The precast components are designed to conform to requirements stated in ASTM C857-07 "Practice for Minimum Structural Design Loading for Underground Precast Concrete Utility Structures, ASTM C858-07 "Specifications for Underground Precast Concrete Utility Structures".
- 2-J.** Units must have been tested/evaluated to verify performance under ASTM designation A-16 (AASHTO HS20-44) loads. Testing performed in accordance with ANSI/SCTE 77 using the loads specified in ASTM C857.

### 3. PERFORMANCE AND MATERIALS

- 3-A.** Cement shall conform to the requirement of ASTM C150 - Type I, II or ASTM C595 - Type IL.
- 3-B.** Course and fine aggregates shall conform to ASTM C33 "Specification for Concrete Aggregates".

*Fibercrete*®





# Handhole Specifications

- 3-C.** Preparation of concrete shall conform to ASTM A94 "Specification for Ready-Mix Concrete" & ACI 304 "Guide for Mixing, Transporting and Placing Concrete".
- 3-D. LAY-UP GFRC - (PART NUMBERS WITH FH PREFIX)**
- 3-D.1** Composed of cement mortar reinforced by alkali resistant glass fiber, and deformed high tensile welded wire. It is fabricated via the Concast spray lay-up method which incorporates a minimum of 4 percent volume A.R. glass fibers.
- 3-D.2** Conforms to AIA Masterspec Section 03491 for Glass Fiber Reinforced Concrete and quality control procedures per PCI# MNL-130-91.
- 3-E. PREMIX GFRC - (PART NUMBERS WITH FH PREFIX)**
- 3-E.1** Composed of cement mortar reinforced by alkali resistant glass fiber, and a deformed prefabricated high tensile welded wire. It is fabricated via casting into steel forms.
- 3-E.2** Shall obtain a minimum compressive strength of 6000 PSI at 28 days of age.
- 3-F. MICRO-CONCRETE (PART NUMBERS WITH FHR PREFIX)**
- 3-F.1** Precast concrete handholes shall be cast into steel forms.
- 3-F.2** Concrete shall contain 6% entrained air (plus or minus 1%)
- 3-F.3** Shall obtain a minimum compressive strength of 7500 PSI at 28 days of age.
- 3-G. REINFORCEMENT**
- 3-G.1** Steel reinforcing bars shall conform to ASTM A615 "Specification for Deformed and Plain Billet Steel Bars for Concrete Reinforcement".
- 3-G.2** Steel reinforcing wires shall conform to ASTM A496 "Specification for Steel Wire, Deformed for Concrete Reinforcement".
- 3-G.3** Steel reinforcing weld wire cages shall conform to ASTM A497 "Specification for Steel Welded Wire Fabric, Deformed for Concrete Reinforcement".
- 3-H.** The handholes must not be affected by asphalt, transformer oil, other common chemicals, weather, or other normal service conditions that it might be exposed to.
- 3-I.** The handholes must not warp, rust, be UV degradable, or sustain combustion.
- 3-J.** With equipment installed; the handholes shall be capable of withstanding temperature variations of -40° Fahrenheit to 149° Fahrenheit without cracking, splitting, or otherwise deforming. Material shall have been tested and conform to ASTM C666/C666M-03.



# Handhole Specifications

**3-K.** When required, site-specific, PE stamped, seismic calculations shall be provided.

**3-L.** Concrete properties will vary depending upon the particular formulation of the concrete mix design. Customized properties can be achieved by using nonstandard ingredients, by changing or adding reinforcements, and by tailoring the overall mix design.

## **3-M. METAL COMPONENT PERFORMANCE**

**3-M.1** All galvanized steel covers, hardware, and embedments shall meet the following requirements:

- Steel Deck Plating - ASTM A786 | Steel Sheet - A1011 HSLAS Gr 50
- Steel Angles & Flats - ASTM A-36 | Galvanized Covers - ASTM 123
- Galvanized Hardware - ASTM 153

**3-M.2** All stainless steel hardware and embedments shall meet the following requirements:

- Stainless Steel Angles & Flats Type 304 - ASTM A276
- Stainless Steel Sheet Type 304 - ASTM A-240

**3-M.3** All aluminum covers, hardware, and embedments shall meet the following requirements:

- Aluminum Flats 6061-T6511 - ASTM B221 | Aluminum Sheet Smooth 5052-H32 - ASTM B209
  - Aluminum Deck Plating 3003 - ASTM B209 or 6061 - ASTM B632
- Aluminum Angles 6061-T6 - ASTM B308 | Aluminum Channels 6061-T6 - ASTM B308

## **3-N. POLYMER CONCRETE**

**3-N.1** All polymer concrete shall meet the following requirements:

• Compressive Strength	ASTM C39	Min: 11,000 psi
• Tension Strength	ASTM C307	Min: 2000 psi
• Flexural Strength	ASTM C580	Min: 3,700 psi
• Absorption	ASTM C97	Max: .09%
• Rate of burning	ASTM D635	Classified HB
• Freeze/thaw resistance 1000 cycles	ASTM C580	Durability factor at 300 cycles (%) - 100
• Chemical & Stain Resistance	ASTM D1308	
Sodium Chloride 5%	ASTM D1308	No visual effect
Sulfuric Acid 0.1N	ASTM D1308	No visual effect
Ammonium Hydroxide 28%	ASTM D1308	No visual effect
Potassium Hydroxide 20%	ASTM D1308	No visual effect
Calcium Chloride 5%	ASTM D1308	No visual effect
Sodium Hydroxide 0.1N	ASTM D1308	No visual effect
Ethyl Alcohol 100%	ASTM D1308	No visual effect
Acetic Acid 5%	ASTM D1308	No visual effect
Nitric Acid 30%	ASTM D1308	No visual effect
Hydrochloric 0.2N	ASTM D1308	No visual effect



# Handhole Specifications

## 4. INSTALLATION REQUIREMENTS

- 4-A.** When the bottom of the excavation is soft, or where in the opinion of the soils engineer unsatisfactory foundation conditions exist, the contractor shall over excavate to a depth to ensure a proper foundation as directed by the soils engineer. The excavation can then be brought back up to the prescribed grade with a thoroughly compacted granular material.
- 4-B.** All handhole excavations shall be backfilled to restore pre-existing conditions or to the final grade as specified by the owner.
- 4-C.** All backfill material shall be a granular material as required by the soils engineer. Handhole unit shall be designed to have no limitations of backfill height.
- 4-D.** Installation guidelines shall be made available online.

The logo for CONCAST features a stylized 'C' and 'C' symbol on the left, followed by the word 'CONCAST' in a bold, blue, blocky font with a metallic sheen.

P.O. Box 69  
1010 North Star Drive  
Zumbrota, MN 55992-0069

Revised 08/08/2023

