FieldSmart® Fiber Distribution Hub (FDH)

144, 288, 432, 576 and 864-Port PON Cabinet

Application

Clearfield's FieldSmart Fiber Distribution Hub (FDH) PON Cabinet family provides an interconnect environment from the feeder network through the optical passive splitter to the distribution network. Designed for the outside plant environment, these cabinets provide a single distribution point to deploy FTTH in urban or dense neighborhoods. Providing distribution scalability from 12 to 864 ports, network architecture can be maximized for both existing subscribers as well as future growth opportunities.

Description

The FieldSmart FDH PON Cabinet line is the complete solution for managing 12 to 864 port distribution fibers for an outside plant FTTx PON application. Integrated into the cabinet design is the 12 port Clearview® Cassette, providing multiple cabinet configurations and allowing the service provider to align the investment in capital equipment to the turn-up of revenue-generating circuits.

The FieldSmart FDH PON Cabinet family incorporates a new pyramid shaped roof/solar shield and a reusable/replacable venting feature, providing additional protection for deployed fiber. Mounting options include pad, pole or vault mounted with either a 4" or 12" riser. An optional exterior ground box is also available.

Features and Benefits

Integrity

- Terminations are designed, tested and certified to Telcordia GR-326
- Clearfield® FiberDeep® Guarantee: 0.2 dB insertion loss or less, exceeding industry standards
- Fiber cable certified to Telcordia GR-20 and GR-409. Designed, tested and certified to Telcordia GR-3125
- Constructed with 0.090 aluminum
- Powder coated for additional protection
- 300 series stainless steel fasteners used on all cabinets
- Optional 4" and 12" risers, can be stacked to raise cabinet if required

Protection

- 12-fiber Clearview Cassette protects fiber from environmental and human factors
- Rugged cable clamps protect the OSP cable breakouts from twisting and pistoning
- Patch only buffer tubes are fully protected with ruggedized, bend-limiting tubing
- Snake skin sleeving provides additional buffer tube slack storage protection and manageability for patch and splice (Clearfield's in-cassette splicing solution) configurations
- WaveSmart Ruggedized Splitters are built with ruggedized jacketing and bend-insensitive fiber for all input and output legs
- Pyramid roof and venting provide additional protection in all environments

Access

- Clearview Cassette allows for quick visual troubleshooting without opening cassette
- Front access to pre-terminated assemblies with Clearview removable adapter plate
- Two captive fasteners for quick removal of individual cassettes for trouble shooting, splicing or replacing
- Front and rear access doors
- Bottom exit/entrance for fiber cables

Investment

- Fiber is deployed in increments of 12, providing the users the ability to scale from 12 ports to full capacity, aligning capital investment with network layout or subscriber revenue
- Express ports allow for extensions or parallel networks through the cabinet
- Patch and splice configurations eliminate costs associated with additional hand-holes and splice cases

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Technical Specifications

FieldSmart FDH	144 Port	288 Port	432 Port	576 Port	864 Port
Cabinet Dimensions *(Without Riser)*	22.29" H x 16.96" W x 18.51" D (566.16 mm x 430.78mm x 470.15mm)	35.11" H x 18.5" W x 16.98" D (891.79 mm x 469.90 mm x 431.29 mm)	37.83" H x 21.25" W x 18.44" D (960.88 mm x 539.75 mm x 468.38 mm)	35.11" H x 33.20" W x 18.47" D (891.79 mm x 891.79 mm x 469.14 mm)	37.83" H x 42.05" W x 18.47" D (960.88 mm x 1068.07 mm x 469.14 mm)
Weight *(Without Riser)*	40 lbs. (18.14 kg)	54 lbs (24.49 kg)	66 lbs (29.94 kg)	86 lbs (39.01 kg)	95 lbs (43.09 kg)
Port Density	144	288	432	576	864
Max. Feeder/Express Ports	24	48	48	96	96
Cables Entrances	6	6	6	12	12
Mounting Options *(Hoist kits included with each cabinet)*	Vault mount; pole mount; pad mount	Vault mount; pole mount; pad mount	Vault mount; pole mount; pad mount	Vault mount; pad mount	Vault mount; pad mount
Standard Riser Base	4"; 6 lbs (101.60 mm; 2.72 kg)	4"; 6 lbs (101.60 mm; 2.72 kg)	4"; 6 lbs (101.60 mm; 2.72 kg)	4"; 8 lbs (101.60 mm; 3.63 kg)	4"; 8 lbs (101.60 mm; 3.63 kg)
Optional Riser Base	12"; 12 lbs (304.80 mm; 5.44 kg)	12"; 12 lbs (304.80 mm; 5.44 kg)	12"; 16 lbs (304.80 mm; 7.26 kg)	12"; 20 lbs (304.80 mm; 9.07 kg)	12"; 20 lbs (304.80 mm; 9.07 kg)
Splitters Slots	4	9	14	18	28
Splitter Staging Capacity	72			144	
Cassette Types Supported	Clearview® Blue				
Connector Types	SC/UPC, SC/APC, LC/UPC, LC/APC				
Cable Types	Indoor/Outdoor, Outdoor, Outdoor Armored, Ribbon and Loose Tube				
Door Locks	2 per door				
Venting	Built-in Replaceable Roof Vent				
Splice Capacity	12 splices in each Clearview Cassette				
Material	0.125 (3.175 mm) aluminum with almond powder coating	0.90 (2.286 mm) aluminum with almond powder coating			

Accessories

- Risers: 4" and 12" (101.60 mm or 304.80 mm)
- Exterior Ground Box - Available with 12" Riser Only, Located in Riser
- WaveSmart Ruggedized Splitter
- Mid-Span/Feed-Through Plate Kit
- Pole Mount Kits
- GoreTex Filter Replacement - 020800

GoreTex Filter - 020800

FieldSmart® Fiber Distribution Hub (FDH)

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Configured Part Numbers - 144 Port

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R - C R ___ ___ - ___ ___ ___ - ___ ___ ___ - 0 ___ ___ ___ - ___ XXXM or XXXF

1 2 3 4 5 6 7 8 9 10

1 Select Cabinet Riser/Mounting

A = 4" (101.60 mm)
B = 12" (304.80 mm)
C = No Riser With Pole Mount Kit
D = 4" (101.60 mm) Riser with Pole Mount Kit

2 Select Feeder

1 = 12
2 = 24
Z = No Feeder

3 Select Distribution Port Count

XXX = Port Count in Increments of 12 (Max. 144)
ZZZ = No Distribution

4 Select Connector

A = SC/UPC
C = SC/APC
F = LC/UPC DX
H = LC/APC DX

5 Select Mode / Type

1 = Singlemode – non-ribbon
2 = Singlemode – ribbon

6 Select Jacket Construction

B = OSP Riser
E = OSP, Non-rated
F = Patch and Splice
M = OSP Armored

7 Select Qty. of 144 Fiber OSP Cables

0 = 0
1 = 1

8 Select Qty. of 96 Fiber OSP Cables

0 = 0
1 = 1

9 Select Qty. of 72 Fiber OSP Cables

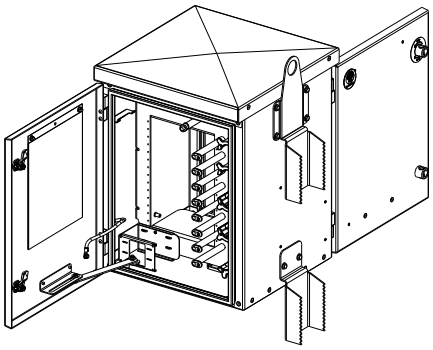
0 = 0
1 = 1
2 = 2

10 Select Ground Box/Extras

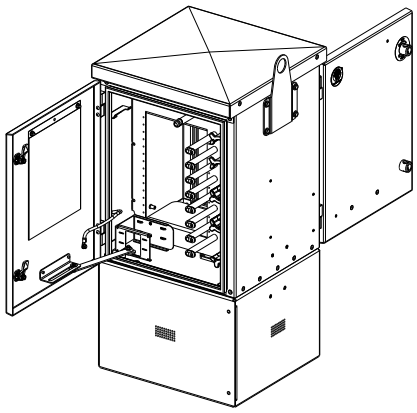
B = Clearview Blue Cassettes
M = Ground Box with 12" Riser; Clearview Blue Cassettes

XXXM or XXXF

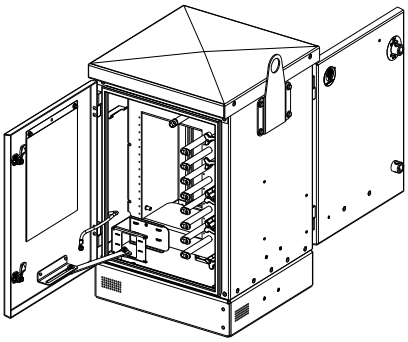
XXXM = Length in meters
XXXF = Length in feet



144 with Pole Mount Brackets



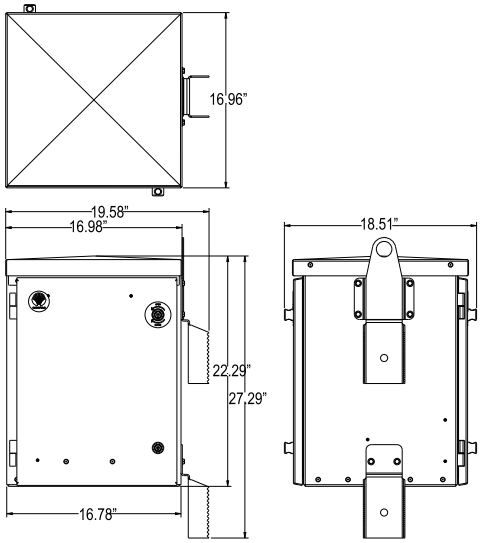
144 with 12" (304.80 mm) Riser



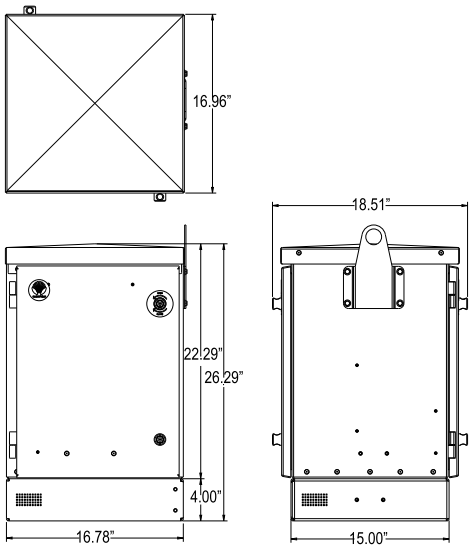
144 with 4" (101.60 mm) Riser

FieldSmart® Fiber Distribution Hub (FDH)

144, 288, 432, 576 and 864-Port PON Cabinet



144 with Pole Mount Kit - Dimensions



144 with 4" (101.60 mm) Riser - Dimensions

Pre-Configured Part Numbers

Vault Options

Part Number	Description
VC7B-CZP	Vault, Clearfield, 36" x 48" x 36", HDPE, Split Lid, with Cut Out for FieldSmart Cabinets, with Bolt Kit
FMA-H3Z-BC-SUB	Pole Mount Kit, for FieldSmart FDH cabinets, 144

FieldSmart® Fiber Distribution Hub (FDH)

144, 288, 432, 576 and 864-Port PON Cabinet

Configured Part Numbers - 288 Port

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R - D ___ ___ - ___ ___ ___ - ___ ___ ___ - ___ ___ ___ ___ - ___ XXXM or XXXF

1 2 3 4 5 6 7 8 9 10 11

1 Select Cabinet Riser/Mounting

A = 4" (101.60 mm)
B = 12" (304.80 mm)
D = Pole Mount with 4" Riser

2 Select Feeder

1 = 12
2 = 24
3 = 36
4 = 48
Z = No Feeder

3 Select Distribution Port Count

XXX = Port Counts in Increments of 12 (Max. 288)
ZZZ = No Distribution

4 Select Connector

A = SC/UPC
C = SC/APC
F = LC/UPC DX
H = LC/APC DX

5 Select Mode / Type

1 = Singlemode – non-ribbon
2 = Singlemode – ribbon

6 Select Jacket Construction

B = OSP Riser
E = OSP, Non-Rated
F = Patch and Splice
M = OSP Armored

7 Select Qty. of 288/216 Fiber OSP Cables

0 = 0
1 = 1-288
A = 1-216

8 Select Qty. of 144 Fiber OSP Cables

0 = 0
1 = 1
2 = 2

9 Select Qty. of 96 Fiber OSP Cables

0 = 0
1 = 1
2 = 2
3 = 3

10 Select Qty. of 72 Fiber OSP Cables

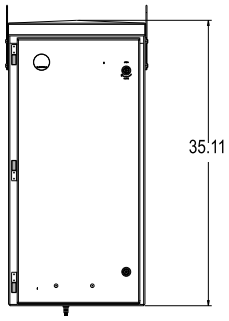
0 = 0
1 = 1
2 = 2
3 = 3
4 = 4

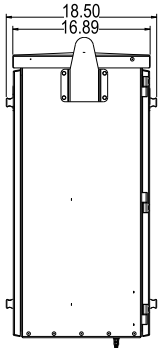
11 Select Ground Box/Extras

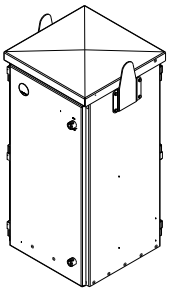
B = Clearview Blue Cassettes
M = Ground Box With 12" Riser Clearview Blue Cassettes

XXXM or XXXF

XXXM = Length in meters
XXXF = Length in feet







Vault Options

288 Port Cabinet

Part Number	Description
VC7B-CZP	Vault, Clearfield, 36” x 48” x 36”, HDPE, Split Lid, with Cut Out for FieldSmart Cabinets, with Bolt Kit
FMA-H3Z-SUB	Pole Mount Kit for FieldSmart cabinet

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144, 288, 432, 576 and 864-Port PON Cabinet

Configured Part Numbers - 432 Port

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R - F ___ ___ - ___ ___ ___ - ___ ___ ___ - ___ ___ ___ ___ - ___ XXXM or XXXF

1 2 3 4 5 6 7 8 9 10 11

1 Select Cabinet Riser/Mounting

A = 4" (101.60 mm)
B = 12" (304.80 mm)
D = Pole Mount with 4" Riser

2 Select Feeder

1 = 12
2 = 24
3 = 36
4 = 48
Z = No Feeder

3 Select Distribution Port Count

XXX = Port Count in Increments of 12 (Max. 432)
ZZZ = No Distribution

4 Select Connector

A = SC/UPC
C = SC/APC
F = LC/UPC DX
H = LC/APC DX

5 Select Mode / Type

1 = Singlemode – non-ribbon
2 = Singlemode – ribbon

6 Select Jacket Construction

B = OSP Riser
E = OSP, Non-rated
F = Patch and Splice
M = OSP Armored

7 Select Qty. of 288/216 Fiber OSP Cables

0 = 0
1 = 1-288
A = 1-216
B = 2-216

8 Select Qty. of 144 Fiber OSP Cables

0 = 0 2 = 2
1 = 1 3 = 3

9 Select Qty. of 96 Fiber OSP Cables

0 = 0 3 = 3
1 = 1 4 = 4
2 = 2

10 Select Qty. of 72 Fiber OSP Cables

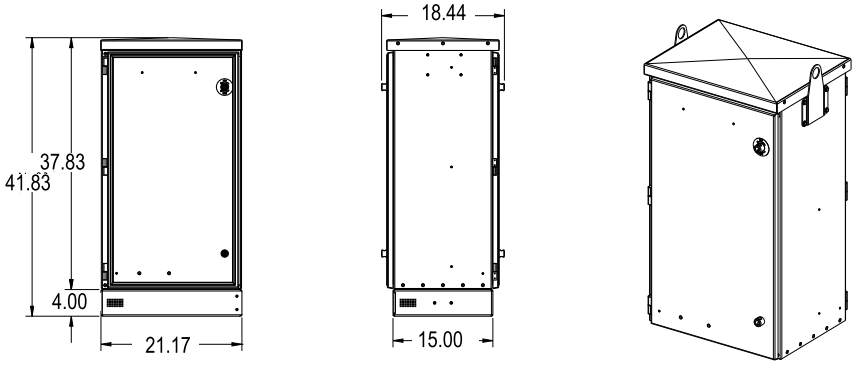
0 = 0 3 = 3
1 = 1 4 = 4
2 = 2 5 = 5

11 Select Ground Box/Extras

B = Clearview Blue Cassettes
M = Ground Box With 12" Riser Clearview Blue Cassettes

XXXM or XXXF

XXXM = Length in meters
XXXF = Length in feet



Vault Options

432 Port Cabinet

Part Number	Description
VC7B-CZP	Vault, Clearfield, 36” x 48” x 36”, HDPE, Split Lid, with Cut Out for FieldSmart Cabinets, with Bolt Kit
FMA-H3Z-SUB	Pole Mount Kit for FieldSmart cabinet

FieldSmart® Fiber Distribution Hub (FDH)

144, 288, 432, 576 and 864-Port PON Cabinet

Configured Part Numbers - 576 Port

Disclaimer/Note: Paper configurator shown is for reference only and should not be used to configure a saleable product configuration. All options shown on paper configurators may not be available or compatible with other options listed. Please contact your Clearfield representative for assistance in product configurations.

R - G ___ ___ - ___ ___ ___ - ___ ___ ___ - ___ ___ ___ ___ - ___ XXXM or XXXF

1 2 3 4 5 6 7 8 9 10 11

1 Select Cabinet Riser/Mounting

A = 4" (101.60 mm)
B = 12" (304.80 mm)

2 Select Feeder

1 = 12
2 = 24
3 = 36
4 = 48
5 = 60
6 = 72
7 = 84
8 = 96
Z = No Feeder

3 Select Distribution Port Count

XXX = Port Count in Increments of 12 (Max. 576)
ZZZ = No Distribution

4 Select Connector

A = SC/UPC
C = SC/APC
F = LC/UPC DX
H = LC/APC DX

5 Select Mode / Type

1 = Singlemode – non-ribbon
2 = Singlemode – ribbon

6 Select Jacket Construction

B = OSP Riser
E = OSP, Non-rated
F = Patch and Splice
M = OSP Armored

7 Select Qty. of 288/216 Fiber OSP Cables

0 = 0
1 = 1-288
2 = 2-288
A = 1-216
B = 2-216
E = 1-288; 1-216
F = 1-288; 2-216
G = 2-288; 1-216

8 Select Qty. of 144 Fiber OSP Cables

0 = 0
1 = 1
2 = 2
3 = 3
4 = 4

9 Select Qty. of 96 Fiber OSP Cables

0 = 0
1 = 1
2 = 2
3 = 3
4 = 4
5 = 5
6 = 6

10 Select Qty. of 72 Fiber OSP Cables

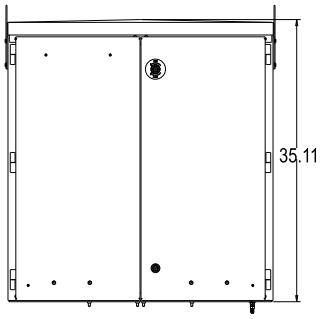
0 = 0
1 = 1
2 = 2
3 = 3
4 = 4
5 = 5
6 = 6
7 = 7
8 = 8

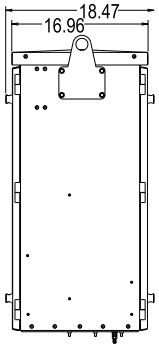
11 Select Ground Box/Extras

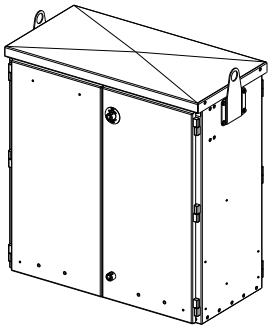
B = Clearview Blue Cassettes
M = Ground Box With 12" Riser Clearview Blue Cassettes

XXXM or XXXF

XXXM = Length in meters
XXXF = Length in feet







Vault Options

576 Port Cabinet

Part Number	Description
VC7B-CZP	Vault, Clearfield, 36” x 48” x 36”, HDPE, Split Lid, with Cut Out for FieldSmart Cabinets, with Bolt Kit
V9B-HZP-PC	Vault, Pencell 48 x 48 x 36” (1219.20 mm x 1219.20 mm x 914.40 mm), complete split polymer concrete lid, cut out for 864 cabinets, polymer concrete straight wall

FieldSmart® Fiber Distribution Hub (FDH)

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Configured Part Numbers - 864 Port

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R - H ___ ___ - ___ ___ ___ - ___ ___ ___ - ___ ___ ___ ___ - ___ XXXM or XXXF

1 2 3 4 5 6 7 8 9 10 11

1 Select Cabinet Riser/Mounting

A = 4" (101.60 mm)
B = 12" (304.80 mm)

2 Select Feeder

1 = 12
2 = 24
3 = 36
4 = 48
5 = 60
6 = 72
7 = 84
8 = 96
Z = No Feeder

3 Select Distribution Port Count

XXX = Port Count in Increments of 12 (Max. 864)
ZZZ = No Distribution

4 Select Connector

A = SC/UPC
C = SC/APC
F = LC/UPC DX
H = LC/APC DX

5 Select Mode / Type

1 = Singlemode – non-ribbon
2 = Singlemode – ribbon

6 Select Jacket Construction

B = OSP Riser
E = OSP, Non-rated
F = Patch and Splice
M = OSP Armored

7 Select Qty. of 288/216 Fiber OSP Cables

0 = 0
1 = 1-288
2 = 2-288
3 = 3-288
A = 1-216
B = 2-216
C = 3-216
D = 4-216
E = 1-288; 1-216
F = 1-288; 2-216
G = 2-288; 1-216

8 Select Qty. of 144 Fiber OSP Cables

0 = 0
1 = 1
2 = 2
3 = 3
4 = 4
5 = 5
6 = 6

9 Select Qty. of 96 Fiber OSP Cables

0 = 0
1 = 1
2 = 2
3 = 3
4 = 4
5 = 5
6 = 6
7 = 7
8 = 8
9 = 9

10 Select Qty. of 72 Fiber OSP Cables

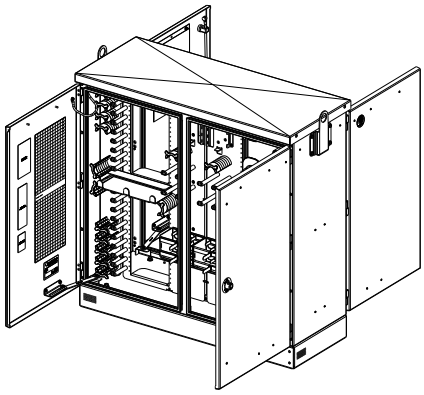
0 = 0
1 = 1
2 = 2
3 = 3
4 = 4
5 = 5
6 = 6
7 = 7
8 = 8
9 = 9

11 Select Ground Box/Extras

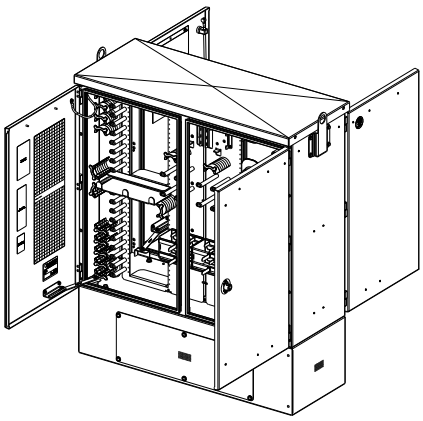
B = Clearview Blue Cassettes
M = Ground Box With 12" Riser Clearview Blue Cassettes

XXXM or XXXF

XXXM = Length in meters
XXXF = Length in feet



864 Interior View with 4" Riser



864 Interior View with 12" Riser

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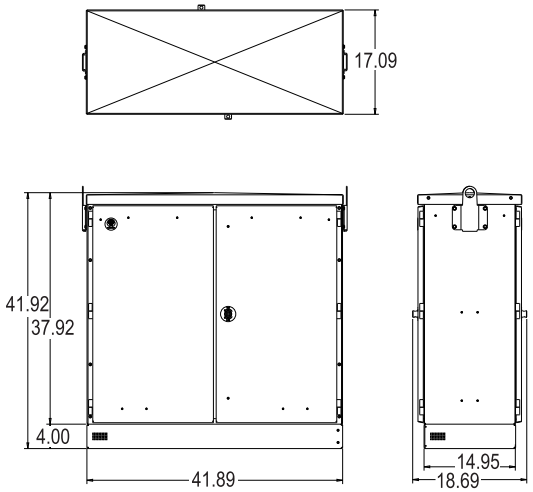
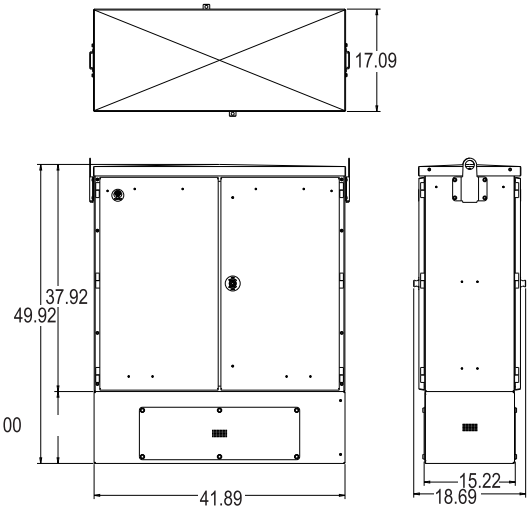


864 with 4" (101.60 mm) Riser - Dimensions



864 with 4" (101.60 mm) Riser - Dimensions

Pre-Configured Part Numbers

Vault Options

Part Number	Description
V9B-HZP-PC	Vault, Pencell 48 x 48 x 36" (1219.20 mm x 1219.20 mm x 914.40 mm), complete split polymer concrete lid, cut out for 864 cabinets, polymer concrete straight wall