

# FDH Single and Multiple Gang Cast Device Boxes

## Blank Bodies for Brazed Hubs

UNILETS® for Use with Threaded Rigid Metal Conduit and IMC. Available with Hub Sizes from 1/2" through 1-1/2" (Union 1/2" through 1-1/4").  
Furnished with Internal Ground Screw.

### Applications

- Accommodate wiring devices such as switches and receptacles.
- Provide excellent service in areas where boxes are subject to rough usage.
- Serve as pull boxes for conductors.
- Permit access to conductors for maintenance.
- Provide openings for making splices.
- Allow connections for branch conduit runs.
- Blank bodies for special conduit entrance arrangements.

### Features

- Corrosion-resistant — ideal for indoor and outdoor installations.
- Weatherproof, raintight and dust-tight when used with cast gasketed covers.
- FS and FD boxes take standard flush wiring devices.
- FD boxes take devices exceeding 1-5/8" in depth under fastening ears.
- Malleable iron for high tensile strength and ductility — provides greater resistance to impact and shock.
- Both malleable iron and aluminum boxes have ridge top construction for positive cover/gasket/box fit.
- Accurately tapped, tapered threads for tight, rigid joints, ground continuity.
- Complete selection of covers, receptacles, plugs, gaskets and accessories.
- Covers have captive screws to speed installation, prevents loss of screws.
- Internal grounding screws standard.
- Available in single, two, three and four gang boxes.
- Brazed threaded hubs for threaded conduit from 1/2" thru 1-1/2" and brazed union hubs from 1/2" thru 1-1/4".
- Smooth, rounded integral bushing in each hub protects conductor insulation.

### Standard Materials

- Brazed hub device boxes: malleable iron
- Brazed hubs: malleable iron
- Covers: malleable iron or steel
- Cover screws: stainless steel, 6—32 thread

### Standard Finishes

- Malleable iron boxes and covers: triple-coat — (1) zinc electroplate, (2) chromate, and (3) epoxy powder coat
- Steel covers: zinc electroplate

### NEC Certifications and Compliances

- UL Standard: 514A
- UL Listed: E2527
- NEMA Standard: FB-1

### Reference Data

- When ordering drilled and tapped openings or brazed hubs for blank bodies, refer to *FDH Cast Device Boxes Drilling and Tapping Information* pages.



Blank Bodies for Drilling and tapping. FD-3L shown.



Blank Bodies for Brazed Hubs. FS-3G shown.

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	Description	Depth (2.69" Deep with Lugs)	Catalog Number Malleable Iron Ridge Top
<b>Single-Gang Box</b>			
	Use with single-gang covers	Deep	<b>FD-1L</b>
<b>Two-Gang Box, Multiple Cover</b>			
	Use with single-gang covers	Deep	<b>FD-2L</b>
<b>Three-Gang Box, Multiple Cover</b>			
	Use with single-gang covers	Deep	<b>FD-3L</b>
<b>Four-Gang Box, Multiple Cover</b>			
	Use with single-gang covers	Deep	<b>FD-4L</b>

NEC/CEC CAST DEVICE BOXES

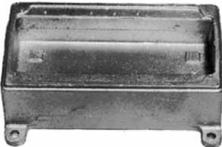
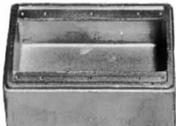
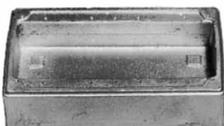
Fittings

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Furnished with Internal Ground Screw.

FS Box (Shallow) 2.00", FD Box (Deep) 2.69"

	Brazed Hubs Description	Depth	Catalog Number Malleable Iron Ridge Top
<b>FS and FD with Lugs</b>			
	Single-Gang Box	Shallow	<b>FS-1GL</b>
	Two-Gang Box	Shallow	<b>FS-2GL</b>
	Single Cover	Deep	<b>FD-2GL</b>
	Three-Gang Box	Shallow	<b>FS-3GL</b>
	Single Cover	Deep	<b>FD-3GL</b>
	Four-Gang Box	Shallow	<b>FS-4GL</b> ①
	Single Cover	Deep	<b>FD-4GL</b>
<b>FS and FD without Lugs</b>			
	Two-Gang Box	Shallow	<b>FS-2G</b> ①
	Single Cover	Deep	<b>FD-2G</b>
	Three-Gang Box	Shallow	<b>FS-3G</b> ①
	Single Cover	Deep	<b>FD-3G</b>
	Four-Gang Box	Shallow	<b>FS-4G</b> ①
	Single Cover	Deep	<b>FD-4G</b>

① Not furnished with internal ground screw.

# FDH Four Gang Cast Device Box Single Covers for Use with Ridge Top Boxes

	Description	Catalog Number	
		Malleable Iron	Steel
	<b>Stamped Steel Covers</b>  Furnished with stainless steel screws, less gasket For square handle tumbler or toggle flush switches	—	<b>FSK-4TS</b>
	<b>Malleable Iron Cast Covers - Weatherproof</b>  Furnished with gasket and stainless steel screws Blank Cast	<b>FSK-4B-CM</b>	—
	<b>Gasket — Replacement</b>  Neoprene — for use with 4-gang cast covers above	<b>FS-GKR-4N</b>	<b>FS-GKR-4N</b>

# FDH Cast Device Boxes Drilling and Tapping Information

Single-, Two-, Three-, and Four-Gang Boxes. Brazed Threaded Hubs for Rigid Conduit, 1/2" through 1-1/2"; Brazed Union Hubs, 1/2" through 1-1/4".

## Determine catalog number as follows:

- (1) Select FDH device box catalog number;
- (2) Select "Standard Hub Arrangement Diagram" number;
- (3) Determine if your desired number and trade size of conduit entries will fit in the FDH box chosen, by reviewing the "Maximum Number and Size..." table on page B-25. Select a larger box if you experience a fit problem; and
- (4) Select symbols that represent hub sizes from "Symbol Table." (Use "0" where no hub is required, and separate the various divisions of the complete catalog number by dashes.)

### Example:

The blank body device box selected is FS-3GL and the hub arrangement is diagram #8. Hub "a" is to be 1/2" BRAZED THREADED; hub "b", 1" BRAZED THREADED; hub "c", 3/4" BRAZED THREADED; hub "d", no hub is required; and hub "e", 1-1/4" BRAZED UNION.

The complete catalog number will be: **FS-3GL-8-1320U**

If a "Standard Hub Arrangement" is not suitable for the application, or when hubs are to be more accurately spaced, submit sketch locating hubs (1) from centerlines of walls and (2) from outside back of box (or from mounting lug surface if lugs are supplied).

**All hubs will be located in centerlines of walls and evenly spaced unless otherwise specified.**

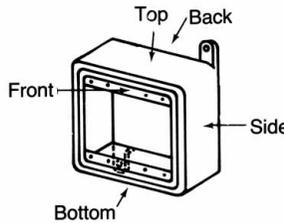
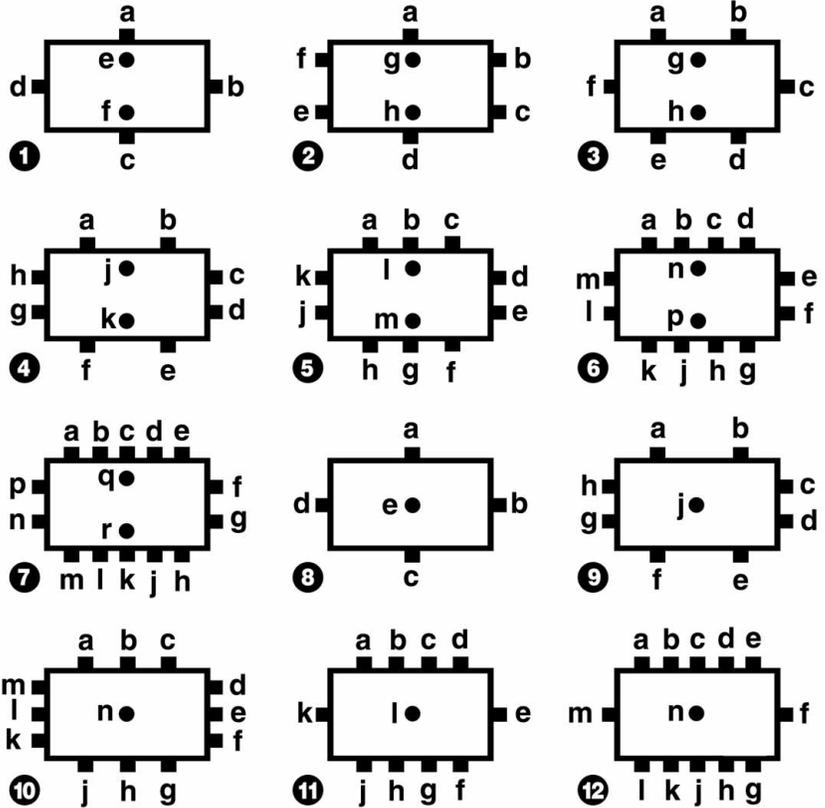
### Symbol Table

Hub Size (Inches)	Brazed Threaded Hub Symbol	Brazed Union Hub Symbol
Blank	0	0
1/2	1	R
3/4	2	S
1	3	T
1-1/4	4	U
1-1/2	5	—

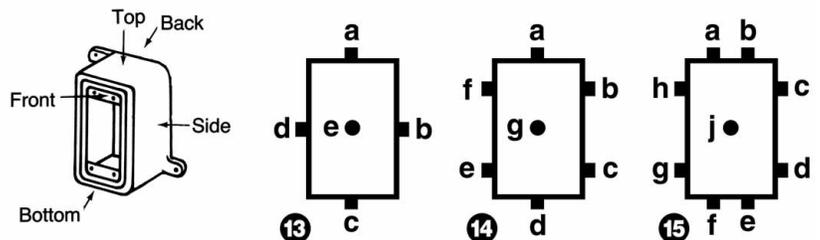
## Standard Conduit Opening Arrangement Diagrams

Hub "a" is always TOP of box

### Two, Three and Four Gang (Front View)



### One Gang (Front View)



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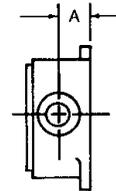
## Minimum Centerline Spacing Between Brazed Threaded Hubs ①

Table shows minimum distances between hub centerlines in various size combinations. For example, if 1-1/4" and 1/2" openings are to be brazed on one side of box, the minimum spacing between centerlines would be 1.75". If union hubs are used, additional space must be allowed.

### Minimum Centerline Spacing in Inches

Hub Size (inches)	1/2	3/4	1	1-1/4	1-1/2
1/2	31.8 (1.25)				
3/4	35.1 (1.38)	38.1 (1.50)			
1	39.6 (1.56)	42.9 (1.69)	46.0 (1.81)		
1-1/4	44.5 (1.75)	47.8 (1.88)	50.8 (2.00)	55.6 (2.19)	
1-1/2	49.3 (1.94)	52.3 (2.06)	55.6 (2.19)	60.5 (2.38)	65.0 (2.56)
Hub Dia.	28.7 (1.13)	35.0 (1.38)	41.4 (1.63)	50.8 (2.00)	60.5 (2.38)
Conduit Dia.	22.4 (0.88)	26.9 (1.06)	33.3 (1.31)	42.9 (1.69)	49.3 (1.94)
UNY/UNF Union Dia.	38.1 (1.50)	44.5 (1.75)	50.8 (2.00)	71.4 (2.81)	—

## Distance from Mounting Surface to Centerline of Brazed Threaded Hubs



Hub Size (inches)	Dimensions "A" Millimeters (Inches)
1/2	16.0 (0.63)
3/4	19.1 (0.75)
1	22.4 (0.88)
1-1/4	27.7 (1.09)
1-1/2	31.0 (1.22)

## Maximum Number and Sizes of Drilled and Tapped Conduit Openings Per Top, Bottom, Side and Back ①

Allowance made for clearance over Appleton BBU Series bushings.

Type Box	Hub Size (inches)	Max. No. Of Openings			Type Box	Hub Size (inches)	Max. No. Of Openings		
		Top or Bottom	Per Side	Back			Top or Bottom	Per Side	Back
FD-1L One Single-Gang Cover	1/2	2	2	1	FS-3G and FS-3GL One Three-Gang Cover	1/2	4	2	6
	3/4	1	2	1		3/4	3	2	6
	1	1	2	1		1	3	2	6
	1-1/4	1	1	1		1-1/4	None	None	3
FD-2L Two Single Gang Covers	1-1/2	1	1	1	FS-4G and FS-4GL One Four Gang Cover	1-1/2	None	None	3
	1/2	4	2	4		1/2	5	2	8
	3/4	2	2	4		3/4	4	2	8
	1	2	2	4		1	4	2	8
FD-3L Three Single Gang Covers	1-1/4	2	1	2	FD-2G and FD-2GL One Two Gang Cover	1-1/4	None	None	4
	1-1/2	2	1	2		1-1/2	None	None	4
	1/2	6	2	6		1/2	3	24	
	3/4	3	2	6		3/4	2	2	4
FD-4L Four Single Gang Covers	1	3	2	6	FD-3G and FD-3GL One Three Gang Cover	1	2	2	4
	1-1/4	3	1	3		1-1/4	1	1	2
	1-1/2	3	1	3		1-1/2	1	1	2
	1/2	8	2	8		1/2	4	26	
FS-1GL One Single Gang Cover	3/4	4	2	8	FD-4G and FD-4GL One Four Gang Cover	3/4	3	2	6
	1	4	2	8		1	3	2	6
	1-1/4	4	1	4		1-1/4	2	1	3
	1-1/2	4	1	4		1-1/2	2	1	3
FS-2G and FS-2GL One Two Gang Cover	1/2	2	2	1	FD-4G and FD-4GL One Four Gang Cover	1/2	5	28	
	3/4	1	2	1		3/4	4	2	8
	1	1	2	1		1	4	2	8
	1-1/4	None	None	1		1-1/4	3	1	4
FS-2G and FS-2GL One Two Gang Cover	1-1/2	None	None	1	1-1/2	3	1	4	
	1/2	3	2	4					
	3/4	2	2	4					
	1	2	2	4					

① Hubs will be located in center of walls and evenly spaced unless otherwise specified. Where spacings are critical, submit sketch showing exact spacing requirements.

# FDH Single and Multiple Gang Cast Device Box Wiring Capacity and Dimensions

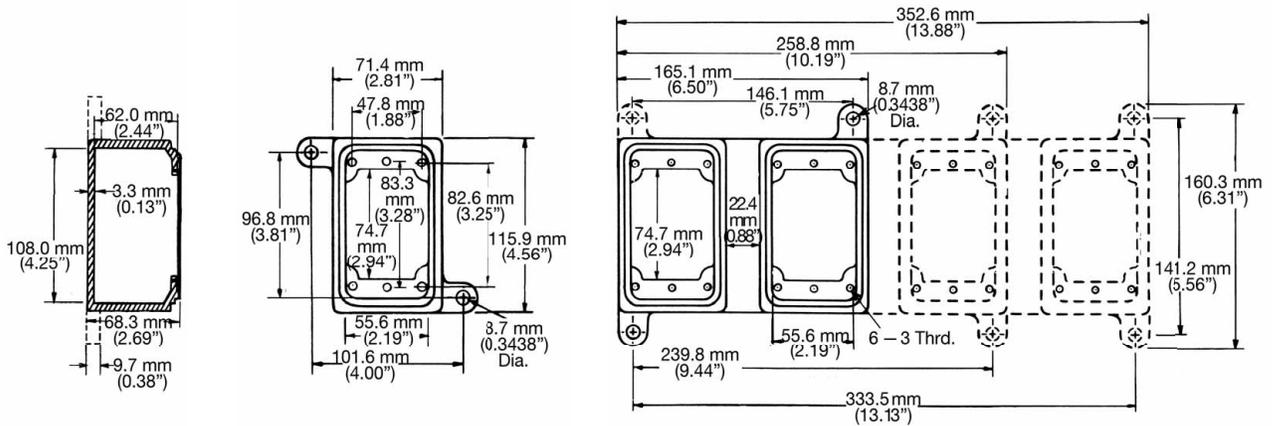
Blank Bodies for Brazed Hubs.

## Wiring Capacity

Gangs	Catalog Number	Capacity — dm <sup>3</sup> (in <sup>3</sup> )		Volume
		Volume	Catalog Number	
Single	FS-1GL	0.29 (18.00)	FD-1L	0.43 (26.00)
Two	FS-2G	0.52 (32.00)	FD-2G, FD-2GL	0.74 (45.00)
Two	FS-2GL	0.52 (32.00)	FD-2L	1.07 (65.00)
Three	FS-3G	0.75 (46.00)	FD-3G, FD-3GL	1.02 (62.00)
Three	FS-3GL	0.75 (46.00)	FD-3L	1.61 (98.00)
Four	FS-4G	0.95 (58.00)	FD-4G, FD-4GL	1.28 (78.00)
Four	FS-4GL	0.95 (58.00)	FD-4L	2.13 (130.00)

## Dimensions in Millimeters (Inches)

### Single, Multiple Gang Boxes with Multiple Covers



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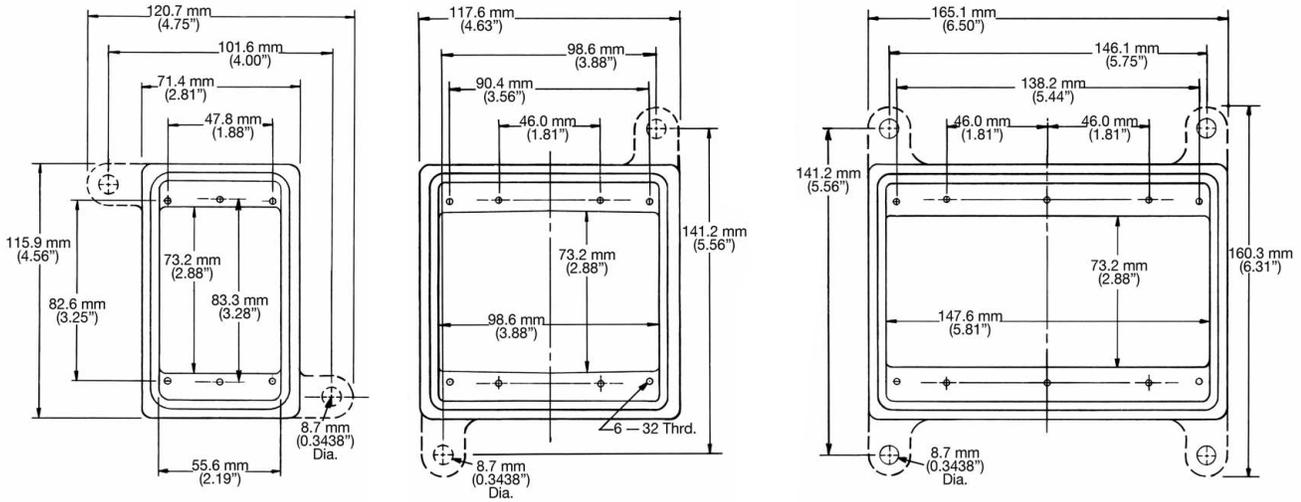
Fittings

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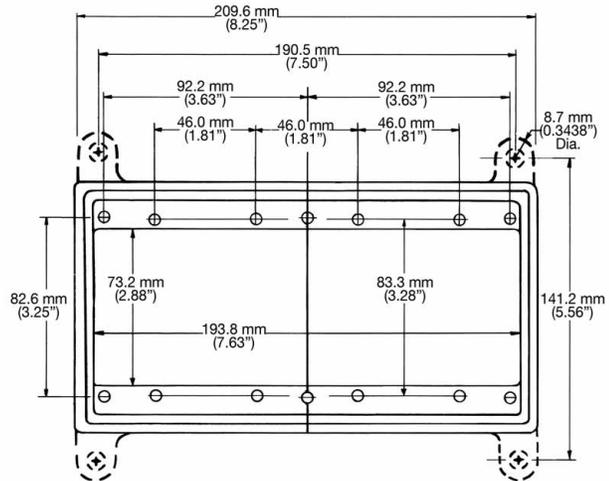
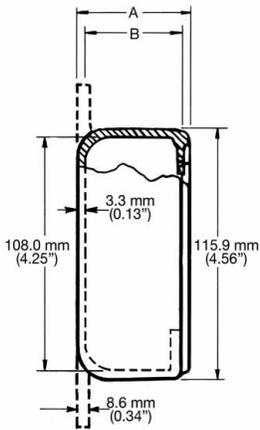
Blank Bodies for Brazed Hubs.

## Dimensions in Millimeters (Inches)

### Two and Three Gang Single Cover Boxes



### FS and FD Four Gang Single Cover Boxes



NEC/CEC CAST DEVICE BOXES

Fittings

A		B	
"FS"	"FD"	"FS"	"FD"
50.8 (2.00)	68.3 (2.69)	45.2 (1.78)	62.0 (2.44)