



HotBox



"THE ENGINEERED ENCLOSURE"





Hot Box® Enclosures have been trusted since 1986, and requested by name. Leading the industry with innovative designs, Hot Box enclosures are built to speed the installation and maintenance of backflow prevention, pump and sprinkler assemblies, pressure vacuum breakers, and air release valves. The enclosures facilitate an installation in the most economical, safe, and accessible location - outside and above ground. More and more designers, utilities, and contractors are putting the backflow preventer at the curb to eliminate costly problems encountered in equipment rooms.

Features such as heater sizing, drain-sizing, service access, and rigid construction make Hot Box enclosures the ultimate solution for protecting outdoor infrastructure and piping systems.





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Hot Box® Enclosures

Hot Box offers the broadest range of enclosures in the industry with multiple material types, styles, and sizes. All are built with the same attention to quality and performance that you know and expect from Hot Box. Our comprehensive product offering is designed to ensure that your application requirements are met, and your expectations are exceeded.



Aluminum Enclosures

Manufactured from corrosion and UV resistant stucco embossed aluminum, these enclosures have a highly durable, industrial style, riveted construction (optional Mill Finish and Marine Grade aluminum available). Commonly used for larger projects due to its ability to be easily customized, aluminum provides both versatility and strength. Bonded foam insulation will not sag or delaminate from the walls, unlike glued or tacked board insulation.



Fiberglass Enclosures

Reinforced fiberglass revolutionized the Hot Box industry by reducing both installation time and cost. With five different fiberglass models to protect your backflow, pump, air release valve, or anything that needs to be protected from the elements, fiberglass is often chosen for smaller devices (up to 4") due to its lightweight nature. For smaller applications, typically one person can easily install a Hot Box on their project, thus reducing your labor costs.



Poly EZ Box® (Plastic) Enclosures

Polyethylene enclosures can efficiently provide protection for up to a 2" device. Commonly specified by irrigation suppliers and landscape architects, the PEZ enclosures are available in green or brown. Combining easily recycled materials with a lightweight, cost effective design, our PEZ product line has both attractive designs and the high quality the industry expects.



Fiberglass Hot Rok® & Plastic PolyRok® Enclosures

Hot Rok and PolyRok are camouflaging enclosures. They are commonly used by irrigation contractors and landscape architects to blend in with the natural environment.



ASSE Performance Requirements

ASSE Standard # 1060

In 1996, The American Society of Sanitary Engineering (ASSE) developed the ASSE 1060 industry standard for outdoor enclosures to cover fluid conveying components. Born from the organization's philosophy of "prevention rather than cure," the ASSE 1060 seeks to protect public health and safety by providing performance requirements to safeguard equipment from freezing, tampering, and vandalism. As a result, the ASSE 1060 standard has been adopted by utilities and Water Authority departments across the nation. To this day, the ASSE 1060 remains the water industry's gold standard.

Hot Box®-ASSE 1060 Certified

All Hot Box standard enclosures meet or exceed the test provisions of the ASSE 1060 standard and proudly bear the ASSE 1060 seal. To achieve the certification, Hot Box enclosures must pass numerous independent material and product performance tests.

Laboratory Test Requirements for ASSE 1060 2006:

- Section 3.1 Air Inlet Test (Class I-V, II-V and II-V)
- Section 3.2 Structural Test (All Classes)
- Section 3.3 Access for Testing and Maintenance (All Classes)
- Section 3.4 Hinged Access Panel Restraints Test
- Section 3.5 Drainage Performance Test (All Classes)
- Section 3.6 Freeze Protection Capability Test (Class I and I-V)
- Section 3.7 Security/Locking Mechanism Test



ASSE Standard # 1060 Classes-Which One Do You Need?

Class I - Freeze Protection Enclosures (Heated): Designed and constructed to maintain a minimum internal temperature of 40°F with external temperatures as low as -30°F.

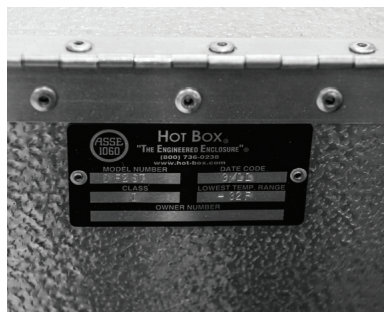
Class II - Freeze Retardant Enclosures (Insulated Non-Heated): Designed and constructed to be installed in locations with minimum external temperatures of 33°F.

Class III - Non-Freeze Protection Enclosures (Uninsulated Non-Heated): Designed and constructed to provide system security for components when freezing temperatures are not a consideration.

Hot Box®- Reduced Liability...Increased Credibility

Hot Box is the #1 trusted outdoor protection enclosure manufacturer in the industry. Our enclosures undergo rigorous physical, environmental, and internal equipment testing. When an engineer, architect, or contractor specifies or installs an ASSE certified Hot Box enclosure, they know the safety and quality of the enclosure will bring peace of mind and integrity to the entire project.

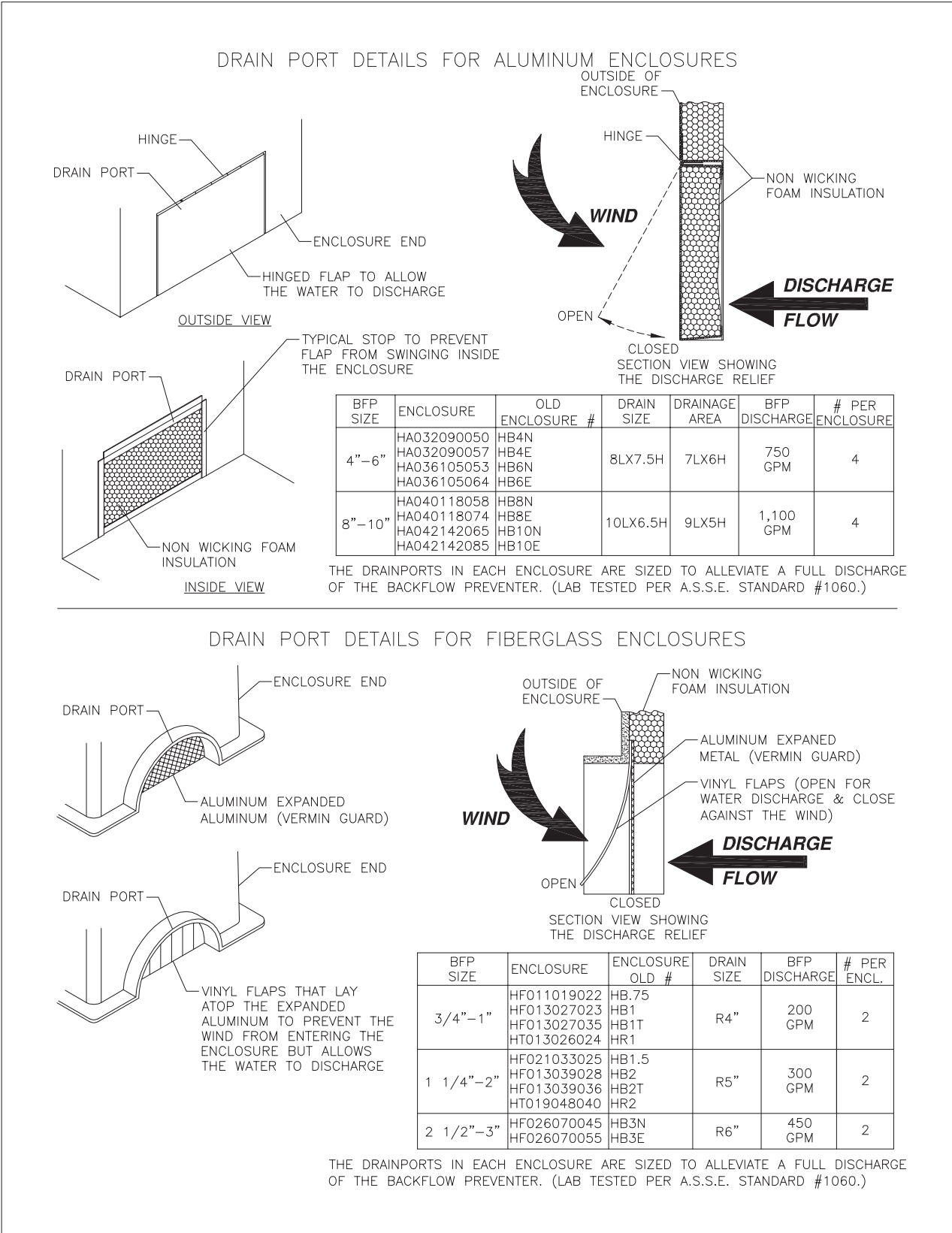
Look for the Seal



to Know it's Real!



ASSE Performance Requirements



Code & Specification Requirements

The following are samples of building codes and manufacturer's specifications that demonstrate the need for an enclosure to protect infrastructure from freezing temperatures:

ASSE STANDARD #1060 Outdoor Enclosures for Fluid Conveying Components



Section 3.2.1: Enclosure is capable of supporting a minimum vertical load of 100 lb./sf.

Section 3.3.1: Enclosure has been designed to be accessed and provide sufficient room for monitoring, testing, maintenance, repair or replacement of the component located inside the enclosure.

Section 3.5.1: Depth of water within the enclosure does not exceed 8 inches during full flow of the backflow prevention assembly relief discharge, and that the depth of the water does not exceed 1/4" after full flow has ceased.

Section 3.6.1: Enclosures shall contain a heat source capable of maintaining the temperature of the component and associated piping at 40°F (4.4°C) inside the enclosure when subjected to -30°F (-34.4°C) outside air temperature.



AMERICAN SOCIETY OF PLUMBING ENGINEERS-ASPE

Data Book:

Reduced pressure principle devices, double check valves and vacuum breakers installed in regions subject to freezing must be protected by the insulation of the units in above-ground, heated structures.



INTERNATIONAL PLUMBING CODE® 2015

Section 608.14.1: Outdoor enclosures for backflow prevention devices shall comply with ASSE 1060.

AWWA M-14



A reduced pressure backflow assembly must be protected from freezing temperatures, and a double check (backflow) valve assembly must be protected from freezing temperatures.



FEBCO

The backflow prevention assembly must be protected from freezing.



WATTS

In an area where freezing conditions can occur, the backflow prevention assembly should be installed in a properly insulated utility building or shelter.



NFPA 13

8.16.4.1.3: Where aboveground water-filled supply pipes, risers, system risers, or feed mains pass through open areas, cold rooms, passageways, or other areas exposed to temperatures below 40°F (4°C), the pipe shall be permitted to be protected against freezing by insulated coverings, frost proof casings, or other means capable of maintaining a minimum temperature between 40-120°F (4-49°C).



PLUMBING-HEATING-COOLING CONTRACTORS ASSOCIATION (PHCC) National Standard Plumbing Code

Freezing: The plumbing system shall be protected from freezing or overheating. The following conditions shall be met:

In areas with seasonal freezing temperatures, all waste, vent and water supply piping in exterior walls and other areas shall be protected from freezing.

THE COUNCIL OF AMERICAN BUILDING OFFICIALS (C.A.B.O.) One and Two Family Dwelling Code

Freezing: Water, soil, or waste pipe shall not be installed or permitted outside of a building or in an exterior wall unless adequate provision is made to protect such pipe from freezing where necessary.

THE SOUTHERN BUILDING CODE CONGRESS International (S.B.C.C.I) Standard Plumbing Code

Freezing: A water, soil, or waste pipe shall not be installed or permitted outside of a building or concealed in outside walls or on any place where they may be subject to freezing temperature, unless adequate provision is made to protect them from freezing.



THE BUILDING OFFICIALS & CODE ADMINISTRATORS International, In. (B.O.A.C.) National Plumbing Code

In climates with freezing temperatures, plumbing piping in exterior walls or areas subject to freezing temperatures shall be protected against freezing by insulation or heat or both.



NATIONAL BUILDING CODE OF CANADA

Where piping may be exposed to freezing conditions it shall be protected from frost.





Enclosure Selection

With hundreds of Hot Box® Enclosures available, you may be asking yourself, which enclosure should I choose? Below is a guide to help you choose from our many different options:

HOT BOX® SELECT SIX (See pages 12-13)

Hot Box® would like to introduce our new “Select Six” aluminum enclosures. It’s just another way we’re creating innovative products that make it easy for you to protect your equipment:

- Six nominal sizes accommodate standard and N-pattern pipe sizes from 2 ½” to 10” dia.
- Reduced lead times.
- Protects against freezing conditions with optional, wall-mounted heaters that offer better performance and safety with the heater raised above the discharge point.
- Available in Mill Finish aluminum or Federal Brown.

STANDARD SIZE ENCLOSURES (See pages 14-21 & 24-43)

Hot Box® has a wide variety of standard enclosure sizes available in different styles and material types to meet your needs:

- Better fit with standard sizes ranging from 6”W x 20”L x 22”H to 87”W x 172”L x 85”H.
- Dura Fold® and Designer Series™ Enclosures are the industry benchmarks. These models provide both ease of installation and accessibility.
- Other traditional enclosure styles include: flip-top fiberglass, sectional aluminum, and drop over.
- Material types: aluminum, fiberglass, and polyethylene.
- Various options, such as vents, fans, lights, and alarms are available to modify any standard enclosure. See pages 45-49 for details.

CUSTOM SIZE ENCLOSURES (See pages 22-23)

Hot Box® offers custom sized sectional and Dura Fold® aluminum enclosures which can be manufactured to an engineer’s exact specifications depending on the application:

- Best fit with dimensions manufactured to engineer’s specifications .
- Peace of mind with ASSE 1060 certified enclosures up to 172”L x 87”W x 85”H (larger enclosures built with same design and quality).
- Special configurations, like wall-mounted enclosures, available upon request.
- Various material thicknesses available depending on specification requirements.
- Various options, such as vents, fans, lights, and alarms are available to modify any custom sized enclosure. See pages 45-49 for details.



Enclosure Selection-By Pipe Size

If you only know your pipe size because the valve manufacturer and type has yet to be determined, the chart below can help you select a Hot Box® Enclosure. Please note that the Hot Box Select-A-Box tool can potentially provide a better fit, and one of the Hot Box Select Six can cover a wider range of pipe sizes and valves types.

Backflow Preventer (Straight) Sizing Guide by pipe size								
		Standard HotBox Enclosure 12" bottom clearance		Standard HotBox Enclosure 18" bottom clearance		Standard HotBox Enclosure 30" centerline		
Pipe Size		Quarter Turn		Quarter Turn		Quarter Turn		Excluded bfp's
0.75	Part No. Model No.	HD/HF013027023 DF1/HB1		HD/HF013027035 DF1T/HB1T		HD/HF013027035 DF1T/HB1T		
1	Part No. Model No.	HD/HF013027023 DF1/HB1		HD/HF013027035 DF1T/HB1T		HD/HF013039036 DF2T/HB1T		
1.25-1.50	Part No. Model No.	HD/HF013039028 DF2/HB2		HD/HF013039036 DF2T/HB2T		HD/HF013039036 DF2T/HB2T		
2	Part No. Model No.	HD/HF013039028 DF2/HB2		HD/HF013039036 DF2T/HB2T		HD/HF013039036 DF2T/HB2T		
Pipe Size		NRS		OS&Y		NRS		Excluded bfp's
2.5	Part No. Model No.	HD/HE/HF026070045 DF3N/EZ3/HB3N	HD/HE/HF026070045 DF3N/EZ3/HB3N	HD/HE/HF026070045 DF3N/EZ3/HB3N	HA/HD/HF026070055 HB3E-AL/DF3E/HB3E	HD/HE/HF026070045 DF3N/EZ3/HB3N	HA/HD/HF026070055 HB3E-AL/DF3E/HB3E	909RPDA (LA045072052)
3	Part No. Model No.	HD/HE/HF026070045 DF3N/EZ3/HB3N	HD/HE/HF026070045 DF3N/EZ3/HB3N	HD/HE/HF026070045 DF3N/EZ3/HB3N	HA/HD/HF026070055 HB3E-AL/DF3E/HB3E	HD/HE/HF026070045 DF3N/EZ3/HB3N	HA/HD/HF026070055 HB3E-AL/DF3E/HB3E	909RPDA (LA045072052)
4	Part No. Model No.	HA/HD032090050 HB4N/DF4N	HA/HD032090057 HB4E/DF4E	HA/HD032090050 HB4N/DF4N	HA/HD032090057 HB4E/DF4E	HA/HD032090057 HB4E/DF4E	HA/HD032090057 HB4E/DF4E	909RPDA (HA051096067) 350AST OSY (HA045072060)
6	Part No. Model No.	HA036105053 HB6N	HA036105053 HB6N	HA036105053 HB6N	HA036105064 HB6E	HA036105053 HB6N	HA036105064 HB6E	
8	Part No. Model No.	HA040118058 HB8N	HA040118074 HB8E	HA040118058 HB8N	HA040118074 HB8E	HA040118058 HB8N	HA040118074 HB8E	909RPDA (HA054153075)
10	Part No. Model No.	HA042142065 HB10N	HA042142085 HB10E	HA042142085 HB10E	HA042142085 HB10E	HA042142085 HB10E	HA042142085 HB10E	

Backflow Preventer (N pattern) Sizing Guide by pipe size								
		Standard HotBox Enclosure 12" bottom clearance		Standard HotBox Enclosure 18" bottom clearance		Standard HotBox Enclosure 30" centerline		
Pipe Size		NRS	OS&Y	NRS	OS&Y	NRS	OS&Y	Excluded bfp's
2.5	Part No. Model No.	HD/HM041041045 DF4FE/HB4FEM	HD/HM041041045 DF4FE/HB4FEM	HD/HM041041045 DF4FE/HB4FEM	HD/HM041041045 DF4FE/HB4FEM	n/a	n/a	
3	Part No. Model No.	HD/HM041041045 DF4FE/HB4FEM	HD/HM041041045 DF4FE/HB4FEM	HD/HM041041045 DF4FE/HB4FEM	HD/HM041041045 DF4FE/HB4FEM	n/a	n/a	
4	Part No. Model No.	HD/HM041041045 DF4FE/HB4FEM	HD/HM041041045 DF4FE/HB4FEM	HA/HD/HM047047049 DF6FE/HB6FEM	HA/HD/HM047047049 DF6FE/HB6FEM	n/a	n/a	
6	Part No. Model No.	HD/HM053053056 DF8FE/HB8FEM	HD/HM053053056 DF8FE/HB8FEM	HD/HM053053056 DF8FE/HB8FEM	HD/HM053053056 DF8FE/HB8FEM	n/a	n/a	
8	Part No. Model No.	HA045072060 HB8000ANT	HA065072060 HB8000AET	HA051096067 HB8FN-DT	HA051096067 HB8FN-DT	n/a	n/a	
10	Part No. Model No.	HA045082062 HB6FN-DT	HA071105064 HB6E-D	HA071105064 HB6E-D	HA071105064 HB6E-D	n/a	n/a	450OSY (HA083123074) 475OSY (HA083123074)

The above enclosures are based from the largest backflow device for each pipe size unless listed in the "Excluded bfp's" column. Sizing verification is ultimately the responsibility of the customer
For the unheated version replace the Hotbox part number prefix "H" with an "L".

Part numbering system: Prefix x Width x Length x Height

Prefix Definition: (digits 1 & 2)
HA Heated Sectional Aluminum
HD Heated DuraFold Aluminum
HE Heated Drop Over Fiberglass
HF Heated Fliptop Fiberglass
HM Heated Designer Series
HP Heated Polyethylene drop over

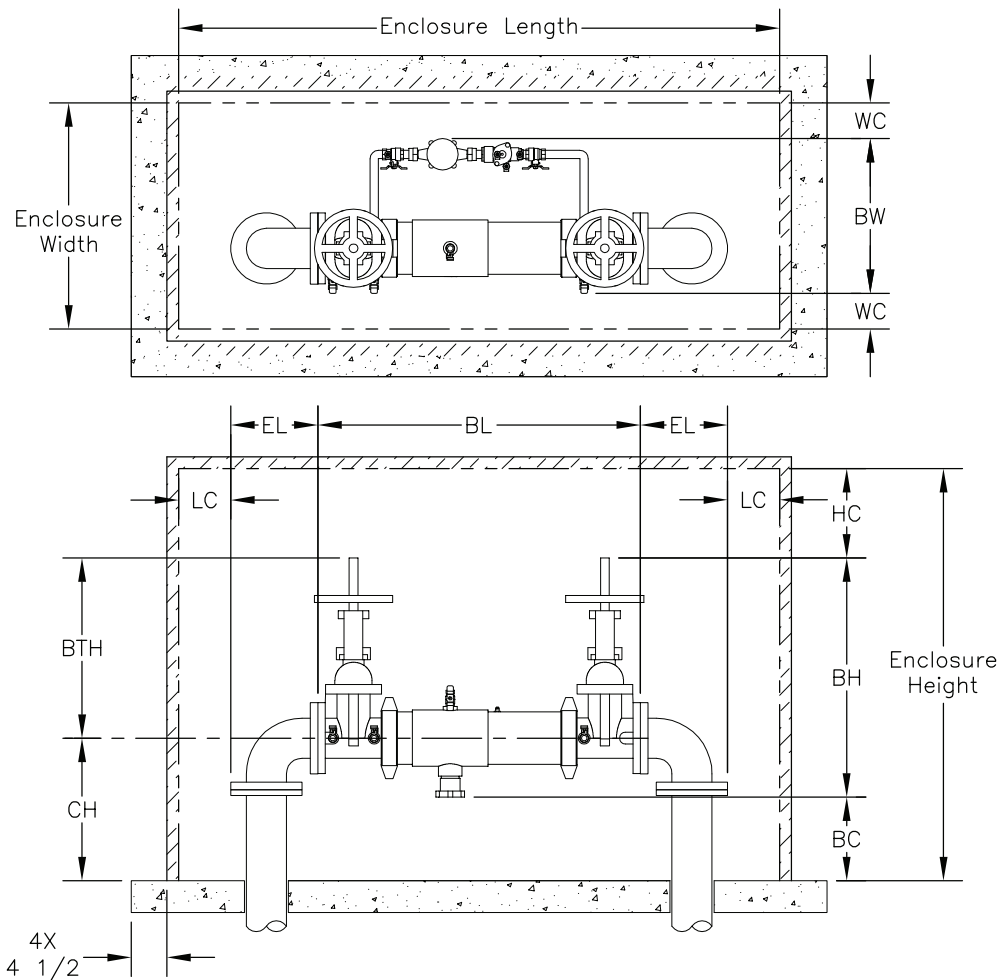
LA Unheated Sectional Aluminum
LD Unheated DuraFold Aluminum
LE Unheated Drop Over Fiberglass
LF Unheated Fliptop Fiberglass
LM Unheated Designer Series
LP Unheated Polyethylene drop over

Note: The enclosure recommendations are based on the largest backflow device for each pipe size unless listed in the "Excluded bfp's" column. Sizing verification is ultimately the responsibility of the customer. Customers are also responsible for verifying the clearances meet all local code requirements.



Enclosure Selection-Manual Sizing

HOW TO SIZE A HOT BOX ENCLOSURE



Formulas:

$$\begin{aligned} & BW \quad \text{Backflow Width} \\ & WC \quad \text{Width Clearance} \\ & + \quad \underline{WC \quad \text{Width Clearance}} \\ & \quad = \text{Enclosure Width} \end{aligned}$$

$$\begin{aligned} & BL \quad \text{Backflow Length} \\ & EL \quad \text{Elbow Length} \\ & EL \quad \text{Elbow Length} \\ & LC \quad \text{Length Clearance} \\ & + \quad \underline{LC \quad \text{Length Clearance}} \\ & \quad = \text{Enclosure Length} \end{aligned}$$

$$\begin{aligned} & BH \quad \text{Backflow Height} \\ & BC \quad \text{Backflow Clearance} \\ & + \quad \underline{HC \quad \text{Height Clearance}} \\ & \quad = \text{Enclosure Height} \\ & \quad \quad \text{w/ bottom clearance} \end{aligned}$$

$$\begin{aligned} & \text{OR} \quad BTH \quad \text{Backflow Top Height} \\ & \quad \quad CH \quad \text{Centerline Height} \\ & + \quad \underline{HC \quad \text{Height Clearance}} \\ & \quad = \text{Enclosure Height} \\ & \quad \quad \text{w/ centerline} \end{aligned}$$

Size	Elbow Length	Elbow Style
0.50	3.25	Threaded
0.75	3.75	Threaded
1.00	4.06	Threaded
1.50	5.13	Threaded
2.00	5.75	Threaded
2.50	8.50	Flanged
3.00	9.25	Flanged
4.00	11.00	Flanged
6.00	13.50	Flanged
8.00	15.75	Flanged
10.00	19.00	Flanged
12.00	21.50	Flanged

The elbow length on threaded elbows include a 2" pipe nipple for ease of attachment.

See the backflow manufacturers website for the backflow dimensions.

Hot Box suggests a minimum 3" clearance (each side) for 2" pipe and smaller and 6" clearance (each side) for 2 1/2" pipe and larger. These clearances can be adjusted to better fit a particular Hot Box enclosure.



Hot Box® Select Six

SPECS MADE SIMPLE

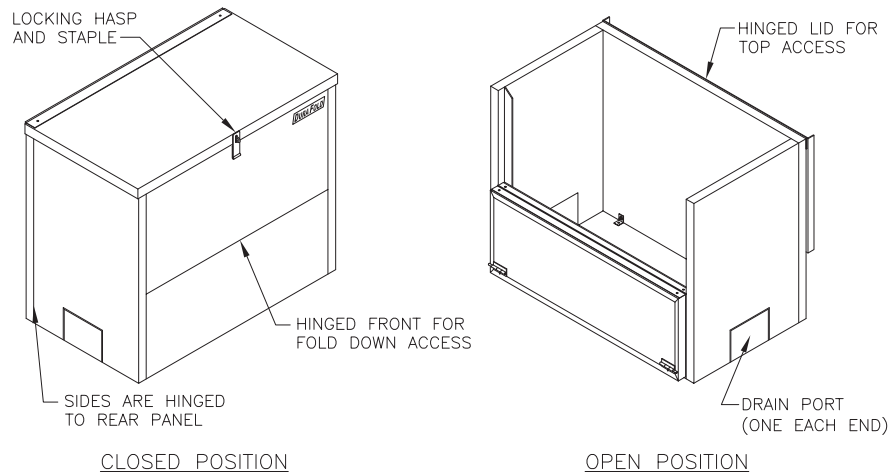
Hot Box® Select Six Enclosures are six enclosure sizes designed to accommodate standard and N-pattern pipe sizes from 2 ½" to 10" diameter.

- **Reduced Lead Times** - A few enclosure sizes fit a variety of backflows.
- **Durable and strong** - The aluminum enclosure is corrosion and UV resistant.
- **Fast Access** - Dura Fold® design allows fast access via hinged and removable sections.
- **Reliable Insulation** - will not sag or delaminate from the walls dues to its strong chemical bond to the aluminum.
- **Safe Freeze Protection** - Wall-mounted heaters above the discharge point provide better performance and safety.
- **Peace of Mind** - ASSE 1060 certification ensures that requirements for structural strength, drainage capacity, material construction, equipment access, and functional design are met.
- **Finish Options** - Available in a smooth mill finish aluminum or federal brown.





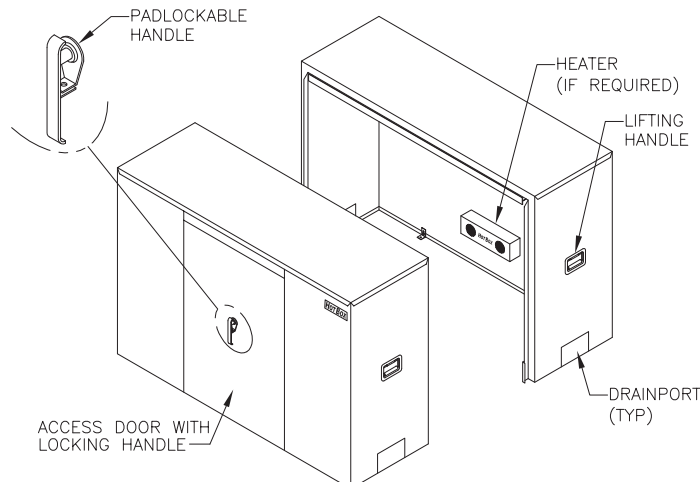
Hot Box® Select Six



Hot Box® - Dura Fold®

		Inside Clearance (inches)						
Backflow Type	Pipe Dia.	Width	Length	Height	Weight (lbs)	Pad Size (in)	Heater(s)	Part Number
Standard	2 ½" - 3"	26	70	45	144	38 X 82	(1) 1000W	HD026070045L
Standard	4" - 6"	32	90	57	201	44 X 102	(1) 2000W	HD032090057L
N-Pattern	2 ½" - 4"	38	38	45	109	50 X 50	(1) 1000W	HD038038045L
N-Pattern	6" - 8"	53	53	53	185	65 X 65	(1) 1500W	HD053053053L
N-Pattern	10"	62	68	58	248	74 X 80	(1) 1000W (1) 1500W	HD062068058L

For unheated units, replace the "H" in the part# with an "L". For federal brown color, change the L in part number to M.



Hot Box® Sectional

		Inside Clearance (inches)						
Backflow Type	Pipe Dia.	Width	Length	Height	Weight (lbs)	Pad Size (in)	Heater (s)	Part Number
Standard	8" - 10"	36	118	80	333	48 X 130	(2) 1500W	HA036118080L

For unheated units, replace the "H" in the part# with an "L". For federal brown color, change the L in part number to M.



Hot Box® Aluminum Enclosures

Aluminum Hot Box® Enclosures are crafted from industrial stucco embossed aluminum (smooth mill finish optional). Aluminum is highly durable, and has a riveted construction for added strength. Commonly used for larger projects due to easy customization, aluminum provides both versatility and strength. You can be confident that your insulation will not sag or delaminate from the walls because of the bonded foam insulation. Optional wall-mounted heaters provide the safest and most effective prevention against freezing conditions. All standard models are ASSE 1060 certified, so you can specify and install a product that has been tested by 3rd party engineers. Benefits include:

- **Superior Strength** - Riveted construction provides superior strength and durability.
- **Reliable Insulation** - Spray up foam insulation provides 100% contact with box walls.
- **Wall-Mounted Heaters** - Ensures economical performance and safety by keeping the heater off the ground and above discharge point.
- **Customizable Options** - Built to fit your needs. Custom sizes and components such as vents, fans, and alarms are available.





Hot Box® Aluminum Enclosures

Hot Box® offers the broadest range of aluminum enclosures in the industry with many different styles and standard sizes. All are built with the same attention to quality and performance that you know and expect from a Hot Box Enclosure. Our comprehensive product offering is designed to ensure that your application requirements are met, and your expectations are exceeded.



Dura Fold® Enclosures

Save time and money with quick installation and easy access via hinged access panels and a hinged lid for future testing and maintenance. Dura Fold Enclosures also include all the inherent benefits of our aluminum enclosures, like corrosion and UV resistance, bonded foam insulation, and wall mounted heaters.



Single Aluminum Enclosures

Save time and money during installation as you effortlessly connect two or four sections to assemble your Hot Box Enclosure on-site.



Dual Aluminum Enclosures

Wider design to accommodate dual and tandem installations, with all the same benefits of our sectional aluminum enclosures.



Custom Aluminum Enclosures

Innovative custom enclosures by Hot Box are built to fit your specific project. If your project requires pumps, meter bypasses, FDC hookup, custom sizing or custom colors, Hot Box has a full staff of design engineers ready to assist.



Dura Fold® Aluminum Enclosures

Dura Fold® Enclosures feature an innovative design that helps you save time and money. Unique design features facilitate quick installation and easy access for future testing and maintenance. Key benefits include:

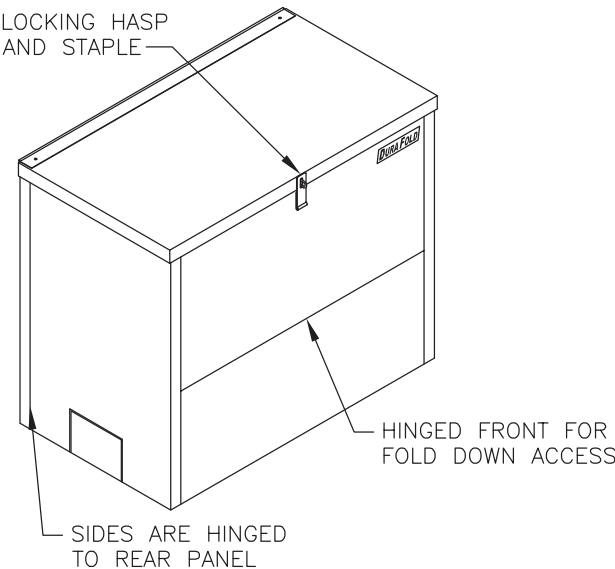
- **Quick Installation & Easy Access** - Dura Fold® Enclosures ship assembled to allow quick installation. The design includes hinged walls, as well as front and top lids, to provide easy access. Also the front wall is easily removed to provide unobstructed access for equipment testing and maintenance after installation.
- **Corrosion & Scratch Resistant** - Stucco embossed aluminum sheeting provides a corrosion proof and scratch resistant finish that looks good and stands up to the elements.
- **Peace of Mind** - ASSE 1060 certification ensures that requirements for structural strength, drainage capacity, material construction, equipment access, and functional design are met.
- **Superior Protection** - Insulation will not sag or delaminate from the walls due to the strong chemical bond between the aluminum and the insulation. Heaters and/or heat trace tape can provide proven freeze protection.
- **Bottom-line, when time and money matter, install a Dura Fold® Enclosure every time!**



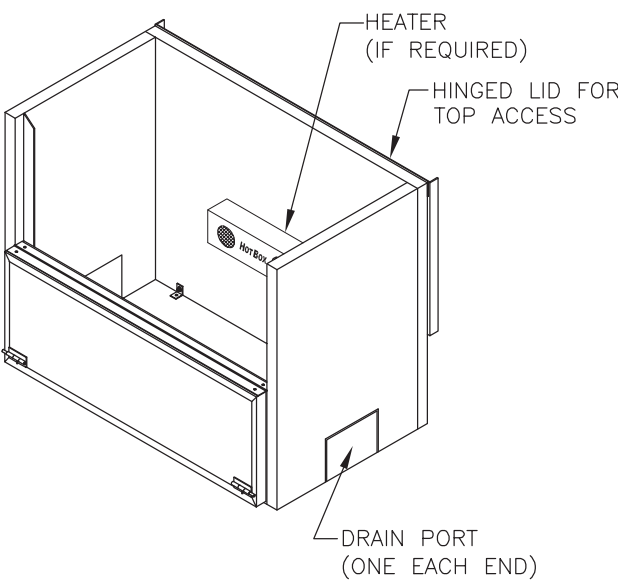
For unheated units, replace the “H” in the part# with an “L”. Pad size=inside Dimensions + 12”.

Catalog Part Number	Model Number	Inside Width (in)	Inside Length (in)	Inside Height (in)	Heater(s)	Weight #
HD011019022	DF.75H	11	19	22	30W	27
HD013027023	DF1H	13	27	23	60W	35
HD013027035	DF1TH	13	27	35	60W	44
HD013039028	DF2H	13	39	28	90W	48
HD013039036	DF2TH	13	39	36	90W	56
HD013047028	DF2SH	13	47	28	90W	54
HD013047036	DF2STH	13	47	36	90W	64
HD021033024	DF1.5H	21	33	24	60W	46
HD022060030	DF2.5H	22	60	30	(2)-90W	78
HD022060042	DF2.75H	22	60	42	(2)-90W	96
HD024039032	DF2000H	24	39	32	90W	65
HD025053032	DF2100H	25	53	32	1000W	77
HD026070045	DF3NH	26	70	45	1000W	118
HD026070055	DF3EH	26	70	55	1500W	135
HD026083045	DF3NSH	26	83	45	1500W	133
HD026083055	DF3ESH	26	83	55	1500W	154
HD029060037	DF3000H	29	60	37	1000W	85
HD032037035	DFS4FOH	32	37	35	1000W	93
HD032090050	DF4NH	32	90	50	1900W	163
HD032090057	DF4EH	32	90	57	1900W	201
HD033053044	DF4000H	33	53	44	1000W	107
HD037043040	DFS6FOH	37	43	40	1000W	108
HD041041045	DF4FEH	41	41	45	1000W	104
HD042052044	DFS8FOH	42	52	44	1500W	138
HD043053036	DF2200H	43	53	36	1000W	127
HD047047049	DF6FEH	47	47	49	1500W	128
HD048063050	DFS10FOH	48	63	50	1900W	175
HD053053056	DF8FEH	53	53	56	1500W	179
HD053062042	DF3100H	53	62	42	1500W	164
HD054062056	DF10FEH	54	62	56	1900W	194

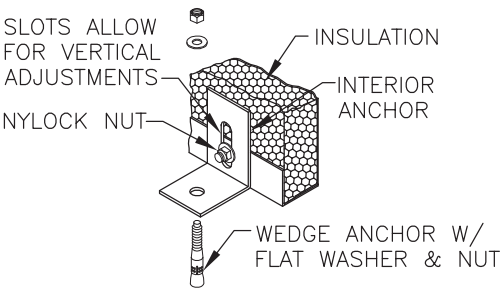
Dura Fold® Aluminum Enclosures



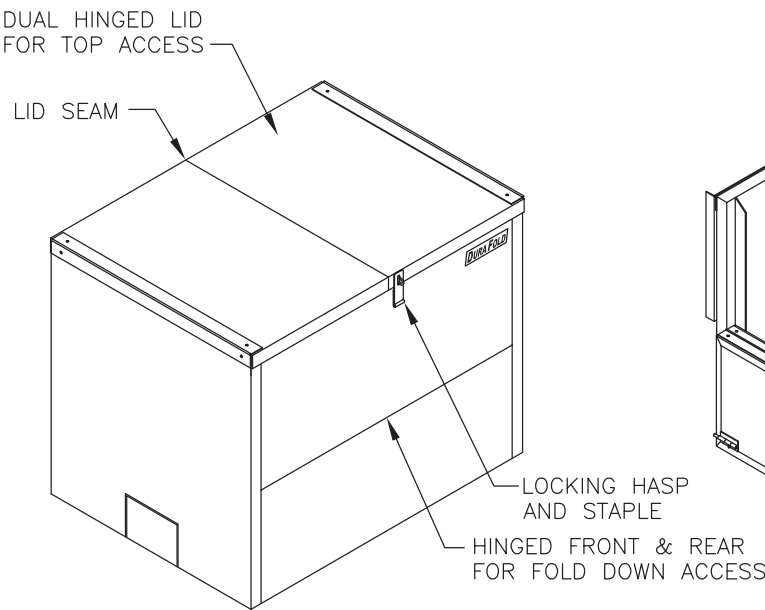
CLOSED POSITION



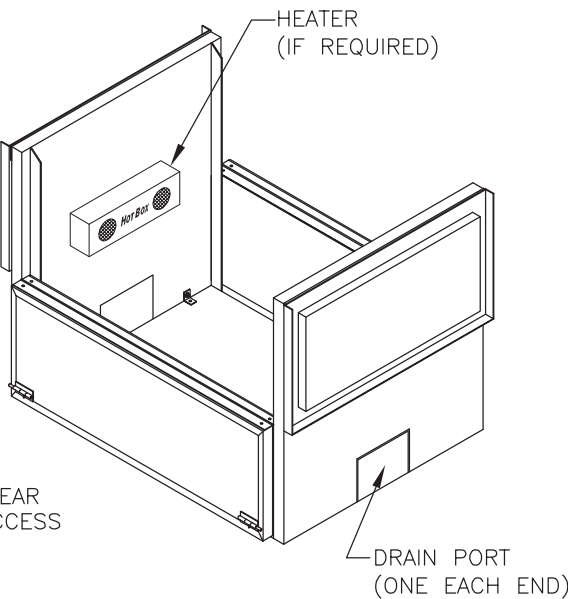
OPEN POSITION



SINGLE ANCHOR DETAIL



CLOSED POSITION



OPEN POSITION



Single Aluminum

- **Quick & Easy Installation** - Modular design with a maximum of 4 tongue and groove sections.
- **Easy Access** - Lightweight removable doors can easily be removed by one person.
- **Peace of Mind** - ASSE 1060 certification ensures that requirements for structural strength, drainage capacity, material construction, equipment access, and functional design are met.
- **Superior Freeze Protection** - Insulation will not sag or delaminate from the walls due to the strong chemical bond between the aluminum and insulation. Wall-mounted heaters are installed above the discharge point to provide better long-term performance and safety.
- **Finish Options** - Stucco embossed aluminum is standard. Also available in a smooth mill finish aluminum or optional colors (see page 49 for details).



For unheated units, replace the “H” in the part# with an “L”. Pad size=inside Dimensions + 12”.

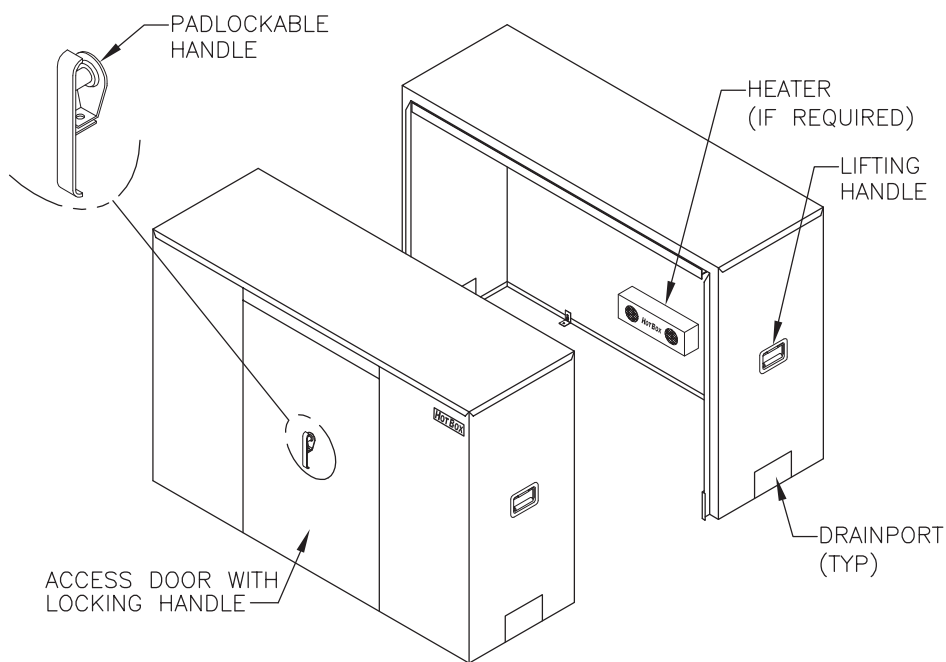
Catalog Part Number	Model Number	Inside Width (in)	Inside Length (in)	Inside Height (in)	Heater(s)	Sections	Weight #
HA026070055	HB3E-AL	26	70	55	(1) 1500W	2	152
HA026083055	HB3ES-AL	26	83	55	(1) 1500W	2	168
HA032090050	HB4N	32	90	50	(1) 1900W	2	178
HA032090057	HB4E	32	90	57	(1) 1900W	2	192
HA032102050	HB4NS	32	102	50	(1) 1900W	2	192
HA032102057	HB4ES	32	102	57	(1) 1900W	2	209
HA033053044	HB4000AN	33	53	44	(1) 1000W	2	121
HA036105053	HB6N	36	105	53	(1) 1900W	2	209
HA036105064	HB6E	36	105	64	(2) 1500W	2	238
HA036105080	HB6ET	36	105	80	(2) 1500W	2	278
HA036125053	HB6NS	36	125	53	(2) 1500W	4	266
HA036125064	HB6ES	36	125	64	(2) 1500W	4	299
HA039062046	HB6000AN	39	62	46	(1) 1500W	2	155
HA040118058	HB8N	40	118	58	(2) 1500W	2	266
HA040118074	HB8E	40	118	74	(2) 1500W	2	312
HA040142058	HB8NS	40	142	58	(2) 1500W	4	311
HA040142074	HB8ES	40	142	74	(2) 1900W	4	363
HA042142065	HB10N	42	142	65	(2) 1500W	4	342
HA042142085	HB10E	42	142	85	(2) 1900W	4	404
HA042172065	HB10NS	42	172	65	(2) 1900W	4	392
HA042172085	HB10ES	42	172	85	(2) 1900W	4	469
HA044053044	HB4000AE	44	53	44	(1) 1000W	2	147
HA045072052	HB8000AN	45	72	52	(2) 1000W	2	197
HA045072060	HB8000ANT	45	72	60	(2) 1000W	2	235
HA047047049	HB6FE-AL	47	47	49	(1) 1500W	2	149
HA053053056	HB8FE-AL	53	53	56	(1) 1500W	2	183
HA053062046	HB6000AE	53	62	46	(1) 1500W	2	175
HA054062056	HB10FE-AL	54	62	56	(1) 1900W	2	197
HA065072052	HB8000AE	65	72	52	(2) 1000W	2	224
HA065072060	HB8000AET	65	72	60	(2) 1000W	2	244

For unheated units, replace the “H” in the part# with an “L”. Pad size=inside Dimensions + 12”.

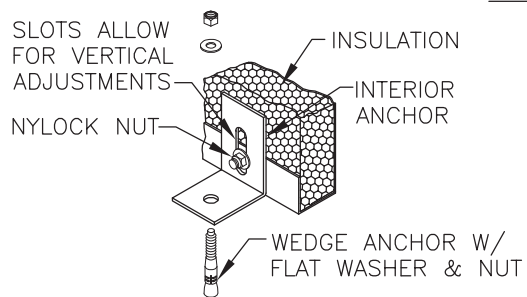




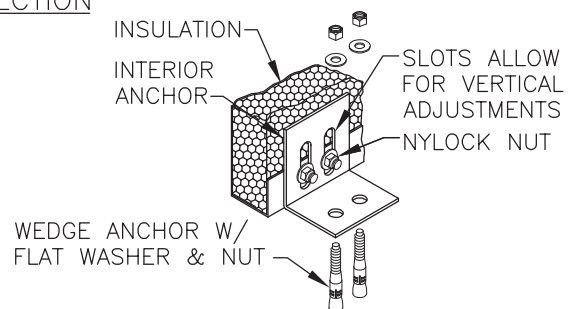
Single Aluminum



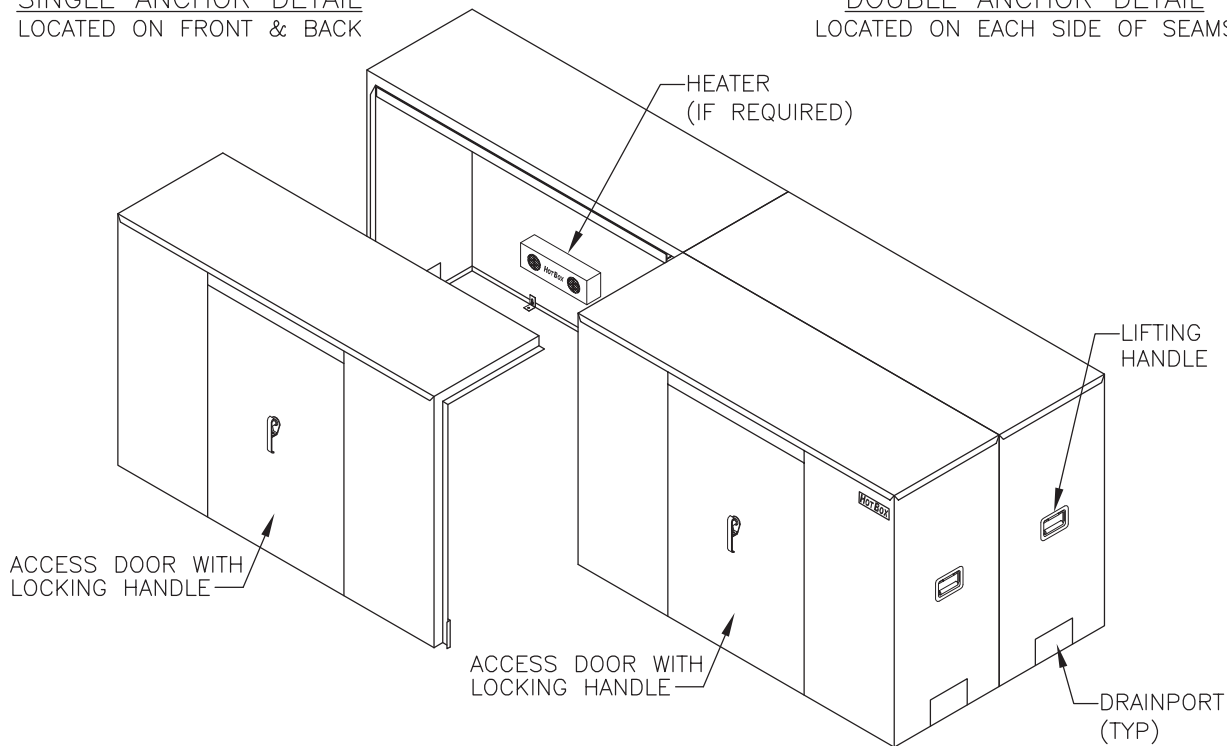
ALUMINUM TWO SECTION



SINGLE ANCHOR DETAIL
LOCATED ON FRONT & BACK



DOUBLE ANCHOR DETAIL
LOCATED ON EACH SIDE OF SEAMS



ALUMINUM FOUR SECTION



Dual Aluminum

Wider design for dual or tandem installations. Doors on both sides of the enclosure improve access. Key benefits include (see page 49 for finish and color options):

- **Quick & Easy Installation** - Modular design with a maximum of 4 tongue and groove sections.
- **Easy Access** - Lightweight removable doors can easily be removed by one person.
- **Peace of Mind** - ASSE 1060 certification ensures that requirements for structural strength, drainage capacity, material construction, equipment access, and functional design are met.
- **Superior Freeze Protection** - Insulation will not sag or delaminate from the walls due to the strong chemical bond between the aluminum and insulation. Wall-mounted heaters are installed above the discharge point to provide better long-term performance and safety.



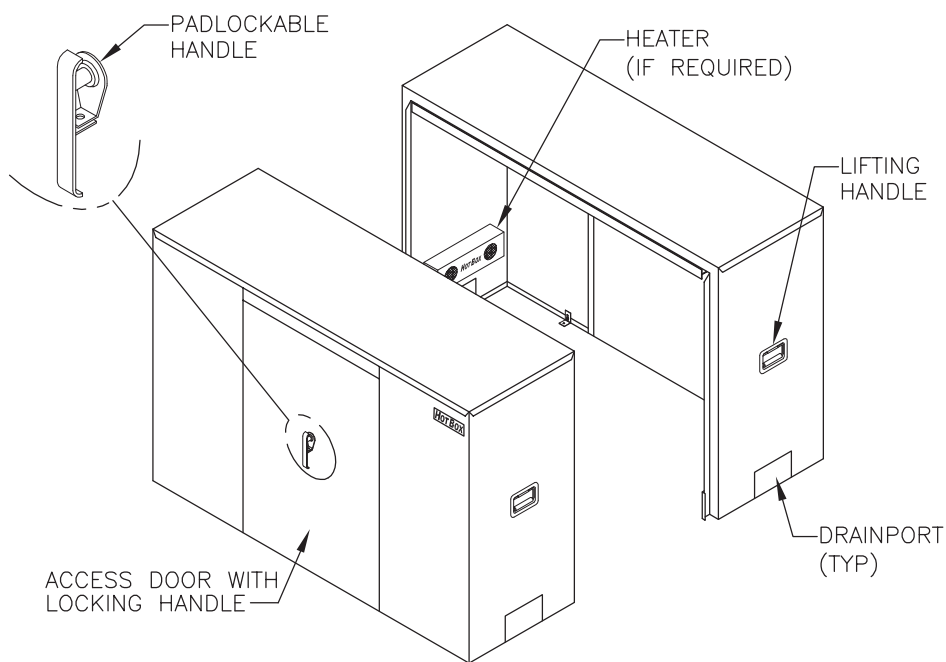
For unheated units, replace the “H” in the part# with an “L”. Pad size=inside Dimensions + 12”.

Catalog Part Number	Model Number	Inside Width (in)	Inside Length (in)	Inside Height (in)	Heater(s)	Sections	Weight #
HA055074057	HB3E-D	55	74	57	(2) 1000W	2	223
HA055085057	HB3E-DS	55	85	57	(2) 1000W	2	239
HA067090050	HB4N-D	67	90	50	(2) 1500W	2	251
HA067090057	HB4E-D	67	90	57	(2) 1500W	2	270
HA067102050	HB4N-DS	67	102	50	(2) 1500W	2	275
HA067102057	HB4E-DS	67	102	57	(2) 1500W	2	291
HA071105053	HB6N-D	71	105	53	(2) 1500W	4	338
HA071105064	HB6E-D	71	105	64	(2) 1500W	4	375
HA071125053	HB6N-DS	71	125	53	(2) 1500W	4	373
HA071125064	HB6E-DS	71	125	64	(2) 1500W	4	415
HA083123058	HB8N-D	83	123	58	(2) 1900W	4	452
HA083123074	HB8E-D	83	123	74	(2) 1900W	4	519
HA083145058	HB8N-DS	83	145	58	(2) 1900W	4	491
HA083145074	HB8E-DS	83	145	74	(2) 1000W (2) 1500W	4	564
HA087144065	HB10N-D	87	144	65	(2) 1500W (2) 1900W	4	571
HA087144085	HB10E-D	87	144	85	(4) 1500W	4	674
HA087172065	HB10N-DS	87	172	65	(2) 1500W (2) 1900W	4	651
HA087172085	HB10E-DS	87	172	85	(4) 1500W	4	766
HA038060043	HB3FN-D	38	60	43	(1) 1500W	2	145
HA038060048	HB3FN-DT	38	60	48	(1) 1500W	2	155
HA038080043	HB3FE-D	38	80	43	(1) 1500W	2	194
HA038080048	HB3FE-DT	38	80	48	(1) 1500W	2	200
HA040066045	HB4FN-D	40	66	45	(1) 1500W	2	159
HA040066051	HB4FN-DT	40	66	51	(1) 1500W	2	171
HA040085045	HB4FE-D	40	85	45	(1) 1900W	2	207
HA040085051	HB4FE-DT	40	85	51	(1) 1900W	2	222
HA045082051	HB6FN-D	45	82	51	(2) 1000W	2	229
HA045082062	HB6FN-DT	45	82	62	(2) 1000W	2	256
HA045106051	HB6FE-D	45	106	51	(2) 1000W	2	260
HA045106062	HB6FE-DT	45	106	62	(1) 1000W (1) 1500W	2	296
HA051096054	HB8FN-D	51	96	54	(1) 1000W (1) 1500W	2	269
HA051096067	HB8FN-DT	51	96	67	(2) 1500W	2	307
HA051124054	HB8FE-D	51	124	54	(2) 1500W	4	325
HA051124067	HB8FE-DT	51	124	67	(1) 1500W (1) 1900W	4	366
HA054112059	HB10FN-D	54	112	59	(2) 1500W	2	317
HA054112075	HB10FN-DT	54	112	75	(1) 1500W (1) 1900W	2	365
HA054153059	HB10FE-D	54	153	59	(2) 1900W	4	394
HA054153075	HB10FE-DT	54	153	75	(2) 1900W	4	453

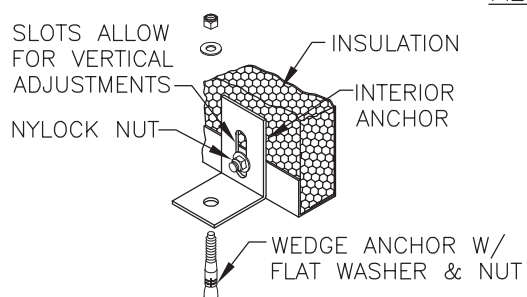




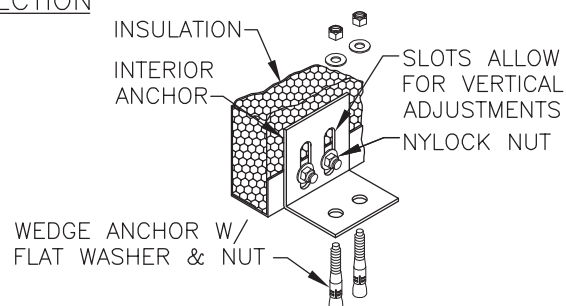
Dual Aluminum



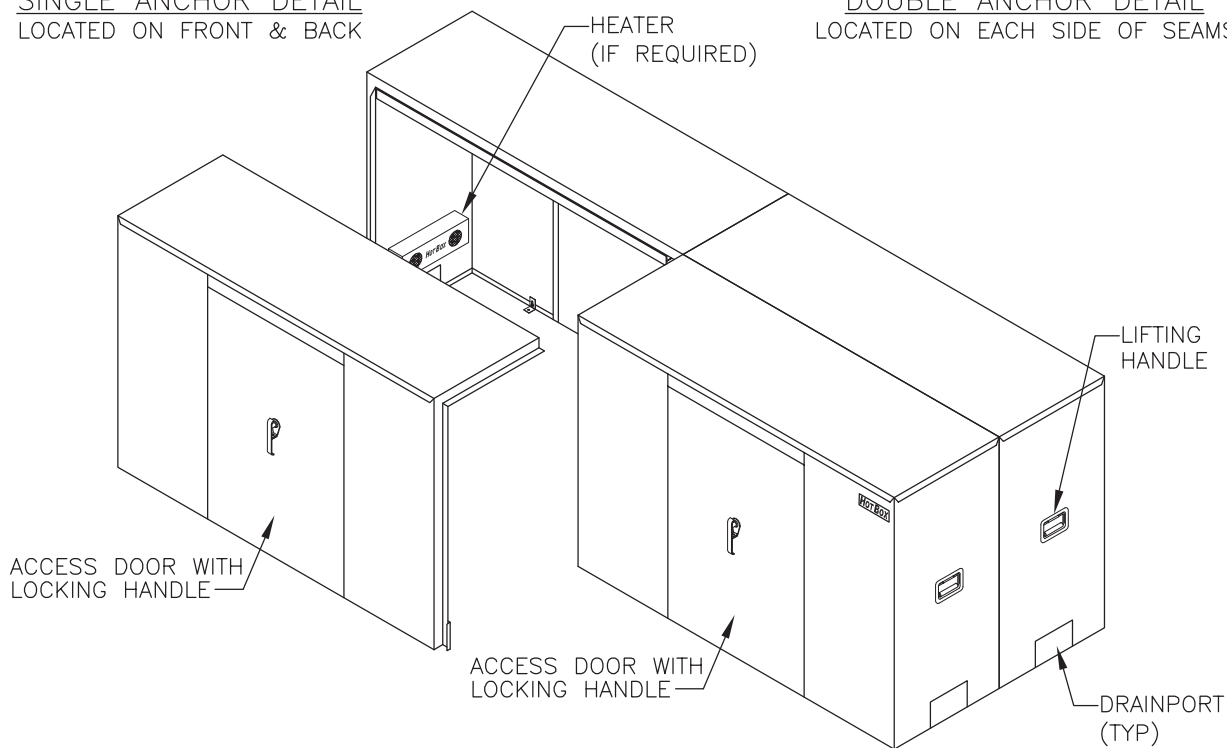
ALUMINUM TWO SECTION



SINGLE ANCHOR DETAIL
LOCATED ON FRONT & BACK



DOUBLE ANCHOR DETAIL
LOCATED ON EACH SIDE OF SEAMS



ALUMINUM FOUR SECTION



Hot Box® Custom Enclosures

Do you have a unique project or application? Hot Box® Enclosures have you covered!

Innovative custom Hot Box® Enclosures can be built to fit your specific project. If your project requires pumps, meter bypasses, FDC hookup, custom sizing, options, or custom colors, a full staff of design engineers are available to assist.

For a quote on a custom enclosure, please fill out the checklist on the opposite page and forward it to your area sales representative. The **minimum** information needed to quote a custom enclosure is: 1) Size of the enclosure 2) Heat required 3) Ventilation required.

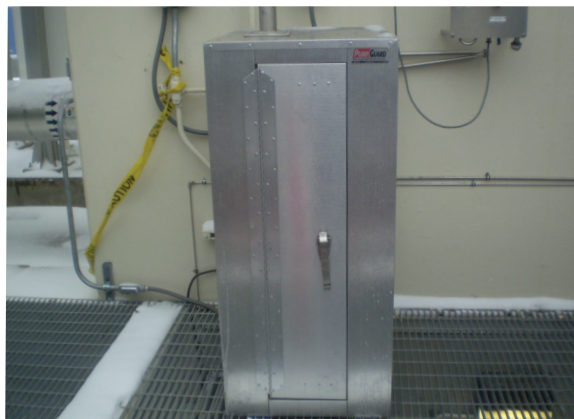
- **Standard options include:** vents, exhaust fans, alarm and lighting packages, and special colors (see pages 45-49 for details).
- **Specialized options include:** penetrations, FDC boots, stainless steel anchors, hinged doors, acrylic windows, extra insulation, sound insulation, special voltage heaters, explosion proof heaters/equipment, and different material types like 3003 Mill Finish (.05") or 5052 Marine Grade aluminum (.050" or .125"). Contact your representative for details or any other special requirements.

Please Note:

Orders for custom enclosures cannot be cancelled once production has begun. In addition, custom enclosures are non-returnable.



Custom Enclosure-Boeing



Custom Enclosure-NASA



**Custom Enclosure-Gainesville
Speedway**

Custom Enclosure Backflow Prevention Equipment Checklist

Please fill out completely and send to your local manufacturer representative or customer service representative:

Installation Type: ☐ Single Line ☐ Dual (Manifold) ☐ Tandem (2 Separate) ☐ Pump (see below)* Other:	Installation Height: ☐ 12" Bottom Clearance ☐ 18" Bottom Clearance ☐ 30" Center line Other:	Pipe Size: ☐ 1/4" ☐ 1/2" ☐ 3/8" ☐ 5/8" ☐ 3/4" ☐ 1" ☐ 1-1/4" ☐ 1-1/2" ☐ 2" ☐ 2-1/2" ☐ 3" ☐ 4" ☐ 6" ☐ 8" ☐ 10" ☐ 12" ☐ 14" ☐ 16" ☐ 18" ☐ 20" ☐ 24" ☐ Varies (please explain) Other:	Valve Type: ☐ QT ☐ OS&Y ☐ NRS ☐ Butterfly Valves Other:	Backflow Manufacturer: ☐ Ames ☐ Apollo/Conbraco ☐ Febco ☐ Watts ☐ Wilkins Model #: Other:
--	--	--	--	--

Please continue for meters or additional backflow device:

Valve Type: ☐ QT ☐ OS&Y ☐ NRS ☐ Butterfly Valves Other:	Backflow Manufacturer: ☐ Ames ☐ Apollo/Conbraco ☐ Febco ☐ Watts ☐ Wilkins Model #: Other:	Meter Manufacturer: ☐ Badger ☐ Metron Farnier ☐ Elster ☐ Neptune ☐ Hersey ☐ Sensus/Omni ☐ Master Meter Model #: Other:	Meter Type: ☐ Compound ☐ Fire Line ☐ Turbine	Strainer Type: ☐ Wye ☐ Plate ☐ Basket ☐ None
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Additional Equipment: ☐ Altitude Valve ☐ Check Valve ☐ FDC (Siamese) ☐ Meter Bypass ☐ PRV ☐ Solenoid ☐ Test Tee ☐ Wafer Check Valve Other: Model #:	Additional Requirements (Please be specific): Pump Enclosures: *Note: If quoting to enclose a pump or pumps, please include pump dimensions or attach specifications to this form. Also, please include clearances.
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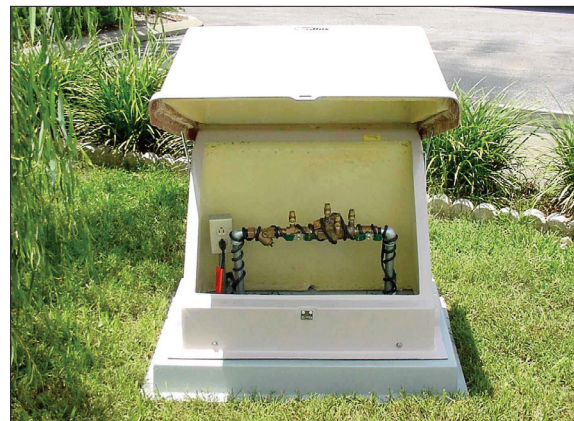
Job Name:	Job Location:
Engineer/Contractor:	Phone: Fax: e-mail:
Distributor:	Phone: Fax: e-mail:
Representative:	Phone: Fax: e-mail:



Hot Box® Fiberglass Enclosures

Hot Box® Fiberglass Enclosures are hand crafted to a yacht quality finish to ensure they remain both aesthetically pleasing and meet the needs of your project. The enclosures are built from only the highest quality fiberglass and gelcoat material. The design incorporates bonded foam insulation, and is built to enclose most backflows available on the market (up to a 4" device). Offering the most comprehensive line of heated and unheated sizes in the market, all standard fiberglass enclosures meet the latest ASSE 1060 performance standards—ensuring that you are purchasing from a dependable source. Benefits include:

- **Enduring Quality** - Yacht quality finish with a UV stabilized marine grade gelcoat provides years of protection for your equipment.
- **Reliable Insulation** - All Hot Box models come with spray foam insulation. Spray foam promotes 100% bonding with the interior wall of the enclosure, preventing deformation in freeze/thaw conditions. Unlike board foam insulation, spray foam insulation will not delaminate and remains firmly affixed to the enclosure's walls.
- **Better Choices** - Many different styles and sizes of fiberglass models are available to quickly meet your needs.
- **Optional Accessories**- Add a vent, fan, or alarm to your fiberglass enclosure to make it suitable for a pump or other equipment that needs to be kept cool.



**Installation photos of model HB1
with Glass Pad™ mounting base**



Hot Box® Fiberglass Enclosures

Hot Box® offers the broadest range of fiberglass enclosures in the industry with many different styles and standard sizes. All are built with the same attention to quality and performance that you know and expect from Hot Box. Our comprehensive product offering is designed to ensure that your application requirements are met, and your expectations are exceeded.



Designer Series™ Enclosures

Save time and money with quick installation and easy access via hinged access panels, and an opening lid which makes future testing and maintenance easy. Designer Series Enclosures also come with all the other inherent benefits of our fiberglass enclosures, like corrosion and UV resistance, bonded foam insulation, and wall-mounted heaters.



Flip-Top Fiberglass Enclosures

A convenient flip-top lid provides fast and easy backflow access. Weatherproof and vandal resistance is built in with its overlapping lid design.



EZ Box® Enclosures

This economical one piece drop-over design allows quick and easy installation. Ideal for landscape and irrigation applications where future access needs are limited.



Vent Guard® & Valve Cover™ Enclosures

Vent Guard is a protective enclosure designed specifically for the air release valves found in many public water supply systems. Valve Cover hinged enclosures are a good choice for landscape and irrigation applications where ease of access for future maintenance is desired.



Designer Series™ Enclosures

Designer Series™ Enclosures are innovative fiberglass enclosures that are perfect when ease of installation and full equipment access are top priorities. Unique design features facilitate quick installation and easy access for future testing and maintenance. Key benefits include:

- **Quick Installation & Easy Access** - Designer Series™ Enclosures require minimal installation time. They incorporate easily removable hinged front and rear doors, as well as top lid with gas shock supports. This design provides instant, unobstructed access for equipment testing and maintenance.
- **Corrosion & UV Resistant** - Yacht quality fiberglass with a smooth, UV resistant gelcoat provides a corrosion proof finish that both looks good and stands up to the elements.
- **High Security** - Lockable top lid and internal locks are on both the front and rear doors. Interior steel anchors secure the enclosure to the concrete slab.
- **Peace of Mind** - ASSE 1060 certification ensures that requirements for structural strength, drainage capacity, material construction, equipment access, and functional design are met.
- **Superior Freeze Protection** - Insulation will not sag or delaminate from the walls due to the strong chemical bond between the fiberglass and the insulation. Wall-mounted heaters are installed above the discharge point to provide better long-term performance and safety.



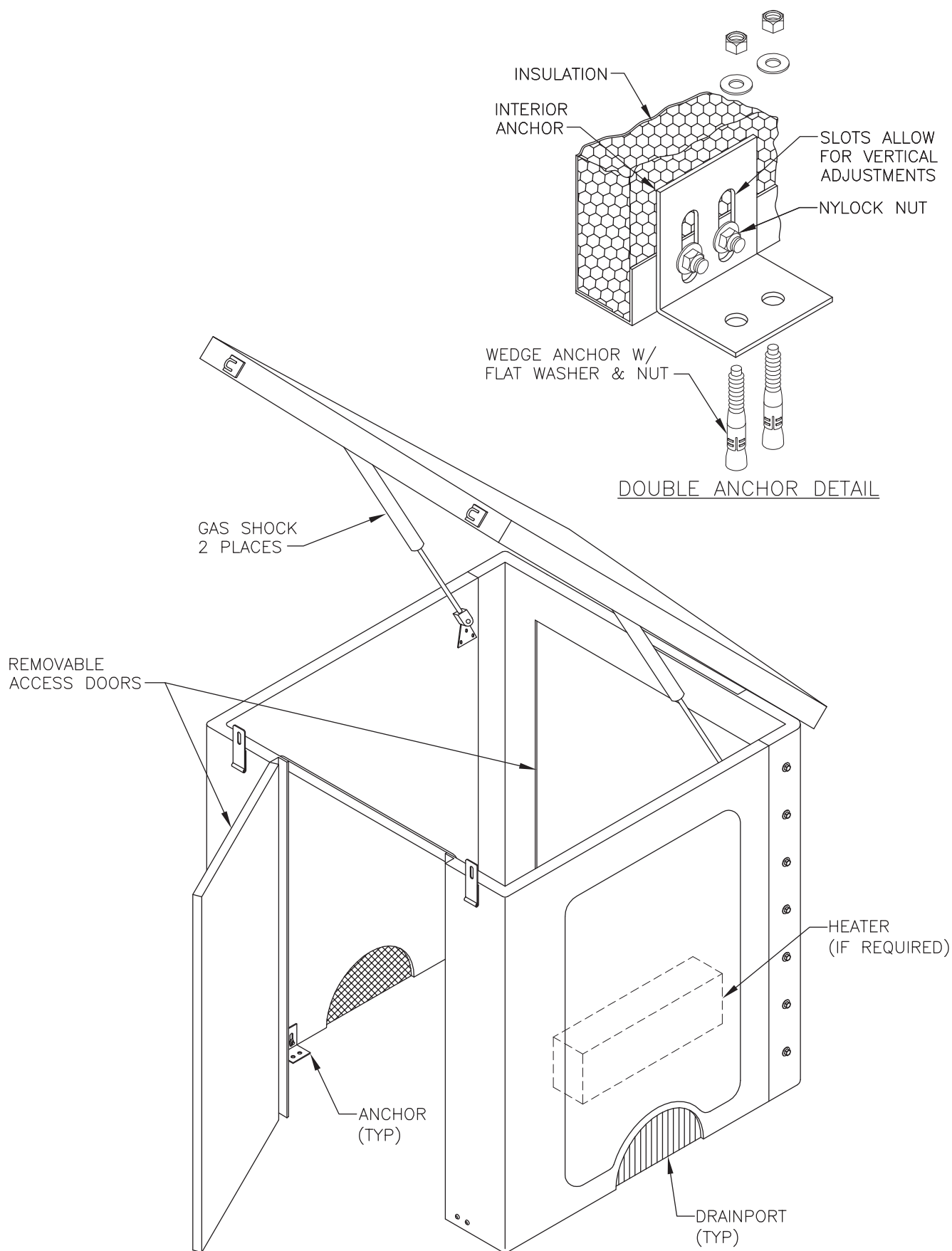
Note: Standard fiberglass color is beige (optional colors are available-see page 49 for details).

Pad size=inside Dimensions + 12".

Catalog Part Number	Model Number	Inside Width (in)	Inside Length (in)	Inside Height (in)	Heater (if required)	Weight #
LM041041045	LB4FEM	41	41	44	Unheated	241
LM047047049	LB6FEM	47	47	48	Unheated	287
LM053053056	LB8FEM	52	52	55	Unheated	352
LM054062056	LB10FEM	52	63	55	Unheated	389
HM041041045	HB4FEM	41	41	44	1000W	253
HM047047049	HB6FEM	47	47	48	1500W	299
HM053053056	HB8FEM	52	52	55	1500W	364
HM054062056	HB10FEM	52	63	55	1900W	401

Pad size=inside Dimensions + 12".

Designer Series™ Enclosures



Flip-Top Fiberglass Enclosures

- **Easy Maintenance Access** - Flip top lid design provides quick access.
- **Weatherproof & Vandal Resistance** - Overlapping lid seam design helps keep vandals and mother nature out. Also includes a lockable top and steel anchors (padlocks are not included).
- **Durable & Corrosion Resistant** - Reinforced fiberglass with a smooth, UV resistant gelcoat provides a corrosion proof finish that both looks good and stands up to the elements.
- **Superior Freeze Protection** - Wall-mounted heater or self-regulating heat trace tape provides freeze protection.
- **Peace of Mind** - ASSE 1060 certification ensures that requirements for structural strength, drainage capacity, material construction, equipment access, and functional design are met.



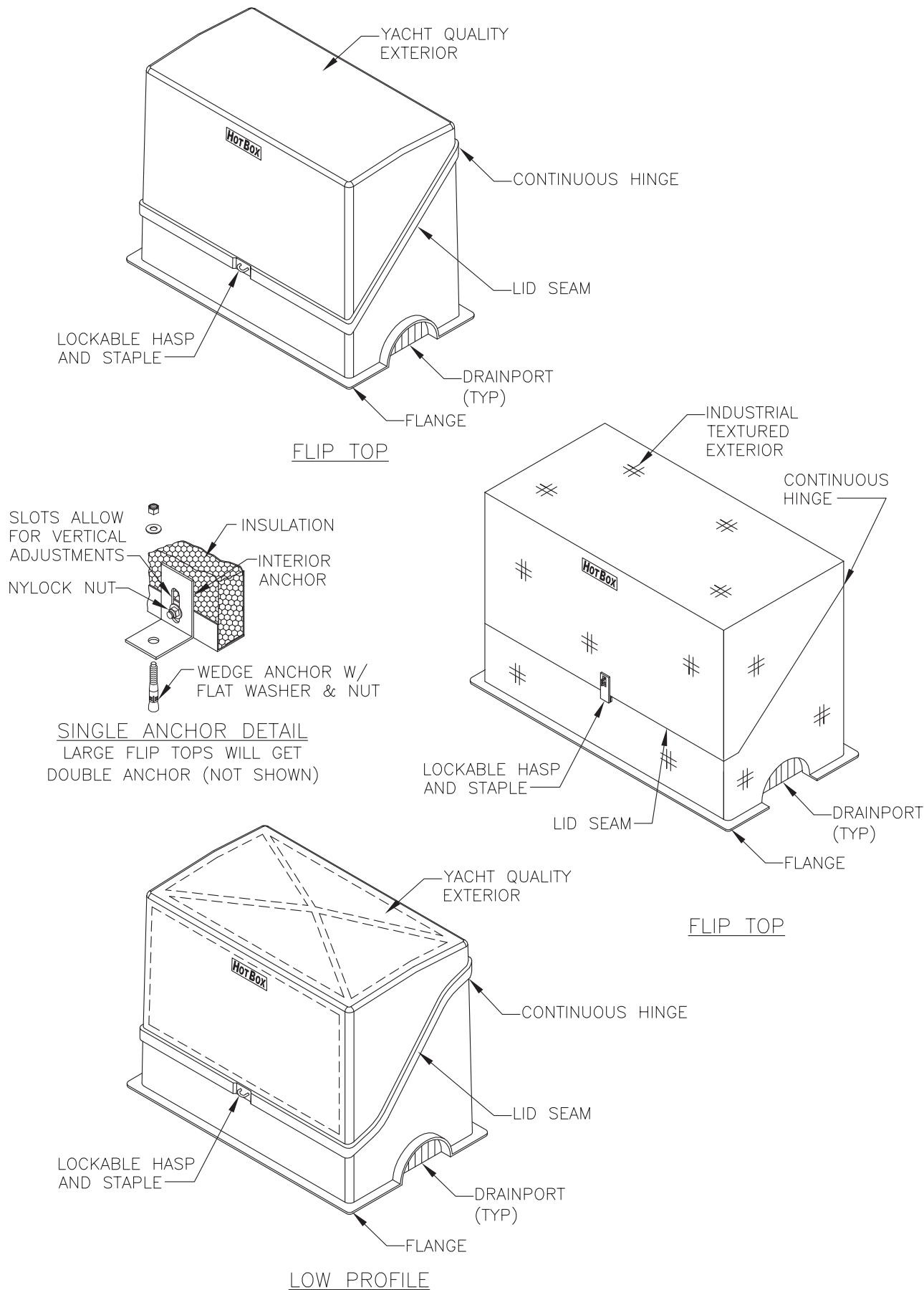
Note: Standard fiberglass color is beige (optional colors are available-see page 49 for details). Also available as uninsulated enclosures (see page 35).

For unheated units, replace the “H” in the part# with an “L”. Pad size=inside Dimensions + 12”.

Catalog Part Number	Model Number	Inside Width (in)	Inside Length (in)	Inside Height (in)	Heater(s)	Glass Pad	Weight #
HF011019022	HB.75	10	18	23	30W	GG019027005	28
HF013027023	HB1	13	26	23	60W	GG021035005	32
HF013027035	HB1T	13	26	36	60W	GG021035005	57
HF013039028	HB2	13	38	29	90W	GG021047005	54
HF013039036	HB2T	12	38	36	90W	GG021047005	65
HF013047028	HB2S	10	44	28	90W	N/A	64
HF013047036	HB2ST	13	47	36	90W	N/A	98
HF021033025	HB1.5	21	33	25	60W	GG029042005	55
HF025039028	HB2-D	25	39	28	(2) 90W	N/A	124
HF025039036	HB2-DT	25	39	36	(2) 90W	N/A	148
HF025047028	HB2-DS	25	47	28	(2) 90W	N/A	139
HF025047036	HB2-DST	25	47	36	(2) 90W	N/A	168
HF026070045	HB3N	27	70	46	1000W	N/A	241
HF026070055	HB3E	26	70	55	1500W	N/A	322
HF026083045	HB3NS	26	83	45	1500W	N/A	308
HF026083055	HB3ES	26	83	55	1500W	N/A	374
HLO35045035	HB3000	35	44	35	1000W	N/A	170
HLO44053044	HB4000	44	53	45	1000W	N/A	251
HLO52061052	HB5000	52	61	51	1500W	N/A	320

For unheated units, replace the “H” in the part# with an “L”. Pad size=inside Dimensions + 12”.

Flip-Top Fiberglass Enclosures



EZ Box® Enclosures

- **Quick & Easy Installation** - Drop-over design is quick and easy to install.
- **Affordable** - Cost effective design is ideal for applications requiring limited access.
- **Durable & Corrosion Resistant** - Reinforced fiberglass with a smooth, UV resistant gelcoat provides a corrosion proof finish that both looks good and stands up to the elements.
- **Superior Freeze Protection** - Wall-mounted heater or self-regulating heat trace tape provides freeze protection.
- **Peace of Mind** - ASSE 1060 certification ensures that requirements for structural strength, drainage capacity, material construction, equipment access, and functional design are met.



Note: Standard fiberglass color is beige (optional colors are available-see page 49 for details). Also available as uninsulated enclosures (see page 35).

For unheated units, replace the “H” in the part# with an “L”. Pad size=inside Dimensions + 12”.

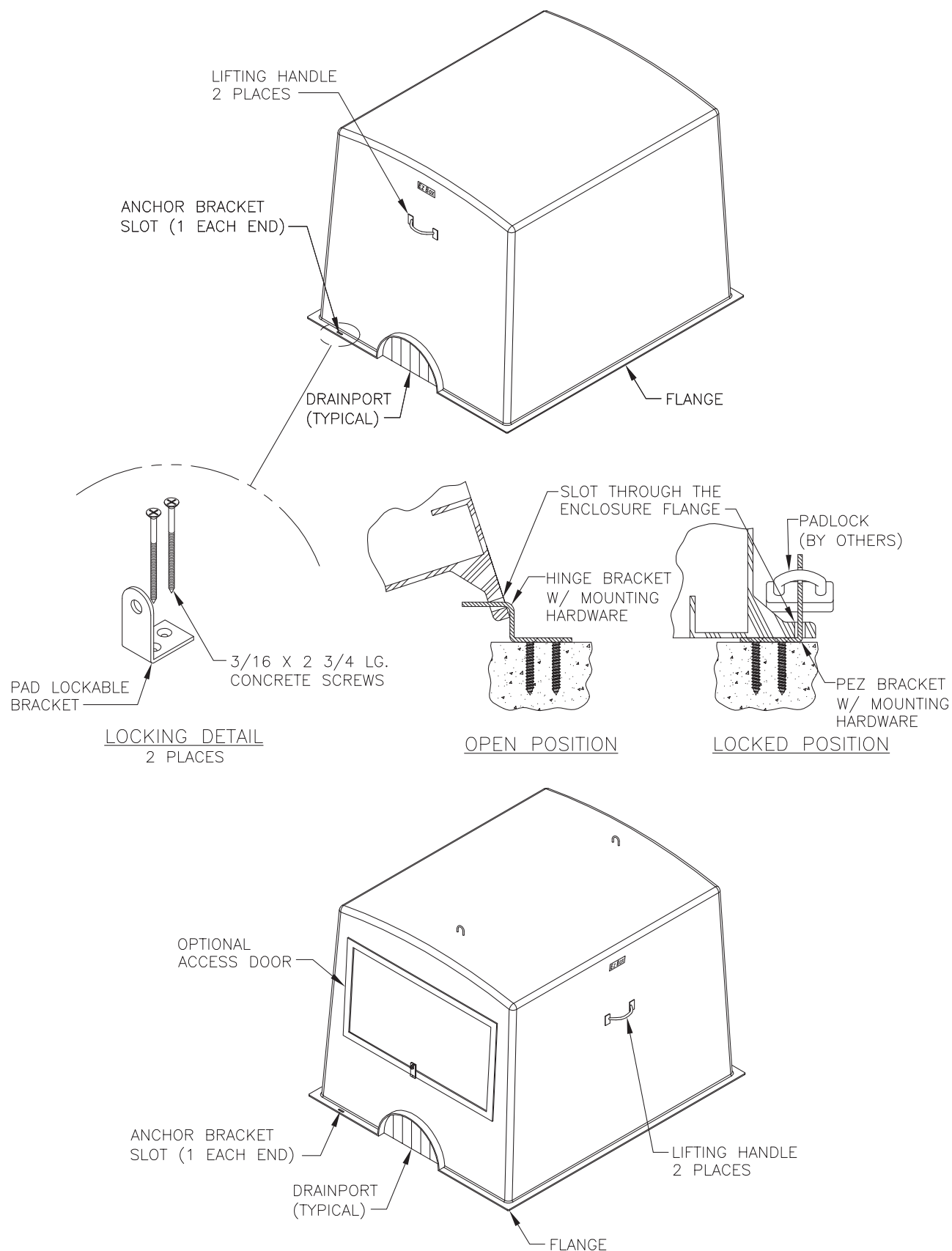
Catalog Part Number	Model Number	Inside Width (in)	Inside Length (in)	Inside Height (in)	Heater(s)	Glass Pad	Weight #
HE006020022	HEZ.75	7	22	22	30W	N/A	18
HE012017021	HEZLVX.75	13	18	21	30W	N/A	29
HE012017021500	HEZLV.75	13	18	21	30W	N/A	26
HE014027026	HEZ1	14	28	26	60W	GG026040005	67
HE014021027	HEZLVX1	15	22	27	30W	N/A	107
HE014021027500	HEZLV1	15	22	27	30W	N/A	43
HE012038028	HEZ2	16	41	29	90W	GG022056005	33
HE013047028	HEZ2S	13	47	28	90W	N/A	44
**HE026070045	HEZ3	27	70	46	(2) 90W	N/A	183
**HE026083045	HEZ3S	26	83	45	1500W	N/A	310
**HE035045035	HEZ3000	35	44	35	1000W	N/A	122
**HE044053044	HEZ4000	44	53	44	1000W	N/A	173
**HE052061050	HEZ5000	52	61	51	1500W	N/A	238
HN026070045	NCHEZ3	26	70	45	(2) 90W	N/A	183
HN035045035	NCHEZ3000	35	44	35	1000W	N/A	122
HN044053044	NCHEZ4000	44	53	44	1000W	N/A	173
HN052061050	NCHEZ5000	52	61	51	1500W	N/A	238

For unheated units, replace the “H” in the part# with an “L”. Pad size=inside Dimensions + 12”.

****Catalog Part# LE026070045 through LE052061050 without doors are not ASSE Certified.**



EZ Box® Enclosures



Vent Guard® Enclosures

- **Durable & Fast Installation** - Lightweight enclosure and reinforced exterior mounting flange make installation a breeze (optional interior mounting plates available).
- **Easy Maintenance** - Quick access without removal of entire unit via hinged and removable lid.
- **Maximum Air Flow** - 4" round or 12" square vents are designed to provide proper air flow for air release valves.
- **Durable & Corrosion Resistant** - Reinforced fiberglass with a smooth, UV resistant gelcoat provides a corrosion proof finish that both looks good and stands up to the elements.



- **Peace of Mind** - ASSE 1060 certification ensures that requirements for structural strength, material construction, equipment access, and functional design are met.

Note: Standard fiberglass color is beige (optional colors are available-see page 49 for details).

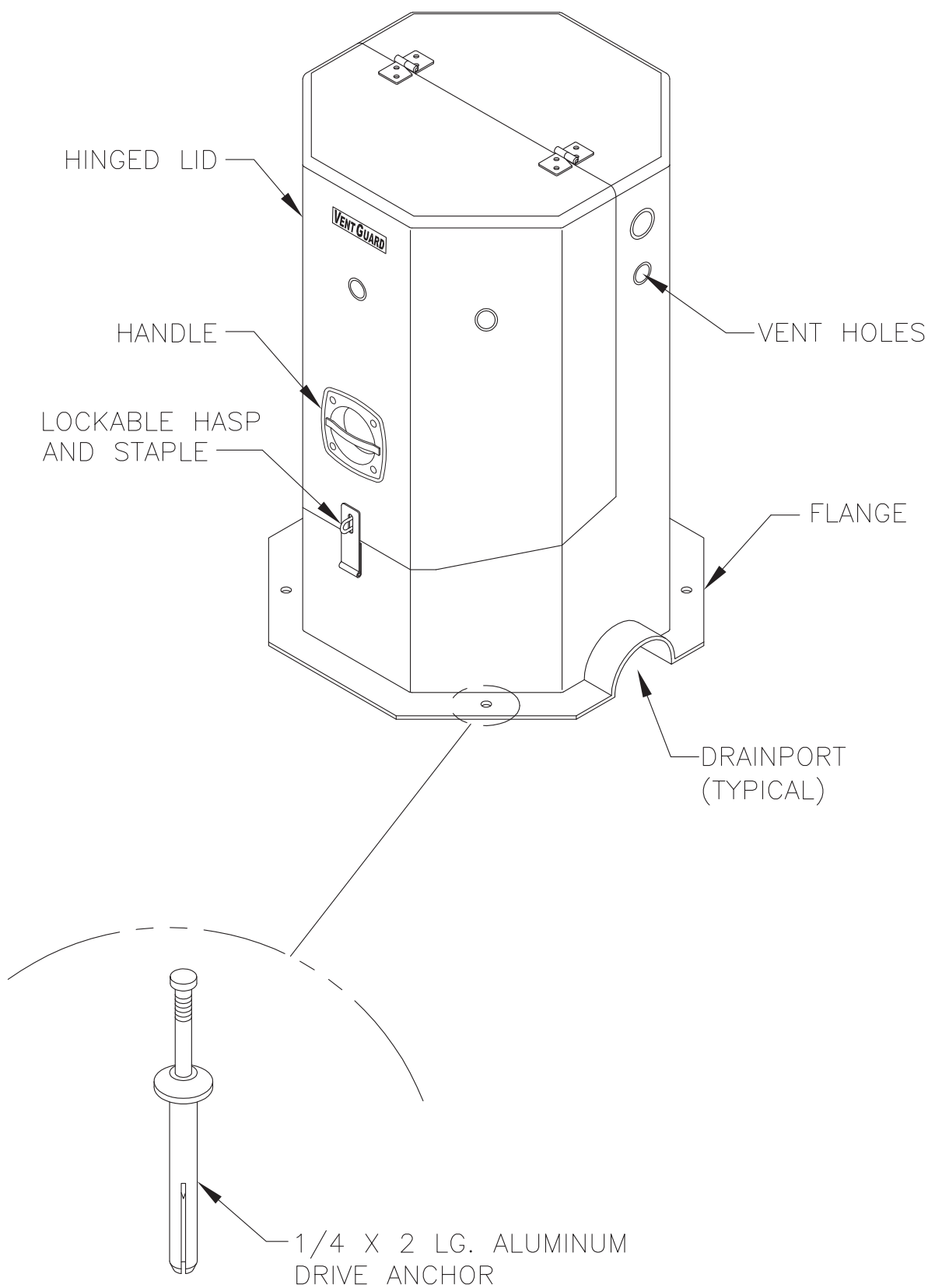
Pad size=inside Dimensions + 12".

Catalog Part Number	Model Number	Inside Width (in)	Inside Length (in)	Inside Height (in)	Glass Pad	Weight #
LV018018024	AVG1824	18	18	24	GG028028005	43
LV020020036	AVG2036	20	20	36	N/A	71
LV020020041	AVG2041	20	20	41	N/A	77
LV022022040	AVG2240	22	22	40	N/A	90
LV024024048	AVG2448	24	24	48	N/A	108
LV036036048	AVG3648	36	36	48	N/A	180
LV048048048	AVG4848	48	48	48	N/A	210

Pad size=inside Dimensions + 12".



Vent Guard® Enclosures



LOCKING DETAIL
4 PLACES



Valve Cover™ Enclosures

- **Durable & Fast Installation** - Lightweight enclosure and reinforced exterior mounting flange make installation a breeze.
- **Easy Maintenance** - Quick access without removal of entire unit via hinged lid.
- **Durable & Corrosion Resistant** - Reinforced fiberglass with a smooth, UV resistant gelcoat provides a corrosion proof finish that both looks good and stands up to the elements.
- **Peace of Mind** - ASSE 1060 certification ensures that requirements for structural strength, drainage capacity, material construction, equipment access, and functional design are met.

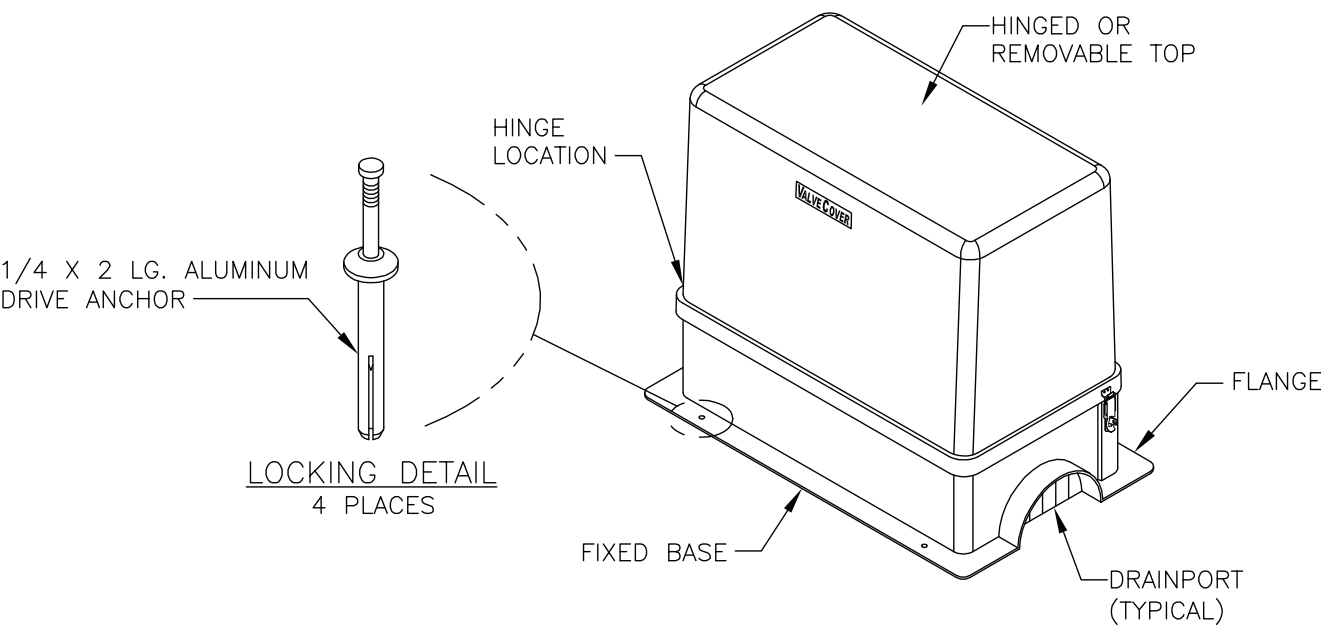


Note: Standard fiberglass color is beige (optional colors are available-see page 49 for details). Also available as uninsulated enclosures (see page 35).

Pad size=inside Dimensions + 12".

Catalog Part Number	Model Number	Inside Width (in)	Inside Length (in)	Inside Height (in)	Heater	Weight #
LC009018018	VC1	9	18	19	Unheated	32
LC009018024	VC1T	9	18	26	Unheated	41
LC012026020	VC2	12	27	21	Unheated	47
LC012026028	VC2T	12	27	27	Unheated	55
HC009018018	VCH1	9	18	19	30W	33
HC009018024	VCH1T	9	18	26	30W	42
HC012026020	VCH2	12	27	21	60W	48
HC012026028	VCH2T	12	27	27	60W	56

Pad size=inside Dimensions + 12".



Valve Guard® Uninsulated Enclosures

Valve Guard® Enclosures are constructed with the same quality and attention to detail as our standard enclosures, only they are uninsulated and provide no resistance to freezing temperatures. They are intended for improved aesthetics and security purposes only, **not for freeze protection (ASSE Class III). Order insulated and heated enclosures for colder climates (see page 5 for details):**

Class III - Non-Freeze Protection Enclosures (Uninsulated Non-Heated): Designed and constructed to provide system security for components when freezing temperatures are not a consideration.

EZ (Note 1)	Old EZ No.	Enclosure Size (Inside - in)	Mounting Pad	Glass Pad	Shipping Weight
VE012017021500	VGEZLV.75	14W x 19L x 22.5H	29 x 24	N/A	25#
VE014021024500	VGEZLV1	16W x 19L x 25H	33 x 26	N/A	28#
VE006020022	VGEZ.75	8.5W x 22L x 23H	32 x 16	N/A	16#
VE014027026	VGEZ1	16W x 29L x 27H	38 x 25	GG026040005	31#
VE012038028	VGEZ2	14W x 40.5L x 29H	48 x 22	GG022056005	44#
VE013047027	VGEZ2S	15W x 49L x 28H	59 x 22	N/A	49#
VE026070045	VGEZ3	29W x 73L x 46H	82 x 38	N/A	215#
VE035045035	VGEZ3000	38W x 48L x 36H	57 x 47	N/A	175#
VE044053044	VGEZ4000	47W x 56L x 45H	65 x 56	N/A	240#
VE052061050	VGEZ5000	55W x 64L x 51H	74 x 64	N/A	400#
POLY EZ (Note 2)	Old Poly EZ No	Enclosure Size (Inside)	Mounting Pad	Glass Pad	Shipping Weight
VPO09024023G or T	VGPEZ1	11W x 26L x 24H	34 x 17	GG021035005	22#
VPO11036026G or T	VGPEZ1	13W x 38L x 27H	45 x 19	GG021047005	35#
Valve Guard (Note 1)	Old Valve Guard	Enclosure Size (Inside)	Mounting Pad	Glass Pad	Shipping Weight
VF011019022	VG.75	13W x 21L x 23H	28 x 20	GG019027005	21#
VF013027023	VG1	15W x 29L x 24H	36 x 22	GG021035005	31#
VF013027023	VG1T	15W x 29L x 36H	36 x 22	GG021035005	41#
VF021033025	VG1.5	23W x 35L x 26H	44 x 32	GG029042005	46#
VF013039028	VG2	15W x 41L x 29	50 x 24	GG021047005	45#
VF013039036	VG2T	15W x 41L 37H	50 x 24	GG021047005	56#
VF013047028	VG2S	15W x 49L x 29H	58 x 24	N/A	51#
VF013047028	VG3N	29W x 73L x 46H	82 x 38	N/A	270#
VLO35045035	VG3000	38W x 48L x 36H	57 x 47	N/A	220#
VLO44053044	VG4000	47W x 56L x 45H	65 x 56	N/A	270#
VLO52061052	VG5000	55W x 64L x 53H	74 x 64	N/A	410#
Glass Roks (Note 1)	Old Glass Roks	Enclosure Size (Inside)	Mounting Pad	Glass Pad	Shipping Weight
VR006015019	VGGLR.75	09W x 18L x 20H	27 x 21	N/A	20#
VR010026022	VGGLR1	13W x 29L x 22H	40 x 30	N/A	41#
VR015040030	VGGLR2	18W x 43L x 31H	51 x 26	N/A	75#
VR021067043	VGGLR3	24W x 70L x 44H	90 x 40	N/A	310#
Poly Roks (Note 2)	Old Poly Roks	Enclosure Size (Inside)	Mounting Pad	Glass Pad	Shipping Weight
VQ010026022	VGPLR1	13W x 29L x 23H	40 x 27	GG027036005	25#
VQ012043027	VGPLR2	15W x 46L x 28H	56 x 22	GG022056005	50#
Valve Cover (Note 1)	Old Valve Cover	Enclosure Size (Inside)	Mounting Pad Size	Glass Pad	Shipping Weight
VC009018018	VGVC1	11W x 20L x 19H	27 x 19	GG019027005	25#
VC009018024	VGVC1T	11W x 20L x 25H	27 x 19	GG019027005	28#
VC012026020	VGVC2	14W x 28L x 21H	35 x 21	GG021035005	30#
VC012026028	VGVC2T	12W x 26L x 28	35 x 21	GG021035005	35#

- **Note 1: Fiberglass enclosures are constructed of polyester resin with chopped glass.**
- **Note 2: Polyethylene enclosures consist of 1/8" thick UV stabilized LMDPE (Linear Medium Density Polyethylene).**
- **Mounting and access hardware is rust resistant and all enclosures are lockable.**



Poly EZ Box[®] (Plastic) Enclosures

- **Quick & Easy Installation** - Drop-over design is quick and easy to install.
- **Affordable** - Cost effective plastic enclosures ideal for landscape and irrigation applications.
- **Weed Eater Resistant** - Anti-chipping plastic construction.
- **UV & Corrosion Resistant** - UV stabilized plastic provides a corrosion proof enclosure that looks good and stands up to the elements.
- **Freeze Protection** - Self-regulating heat trace tape provides proven freeze protection.
- **Peace of Mind** - ASSE 1060 certification ensures that requirements for structural strength, drainage capacity, material construction, equipment access, and functional design are met.



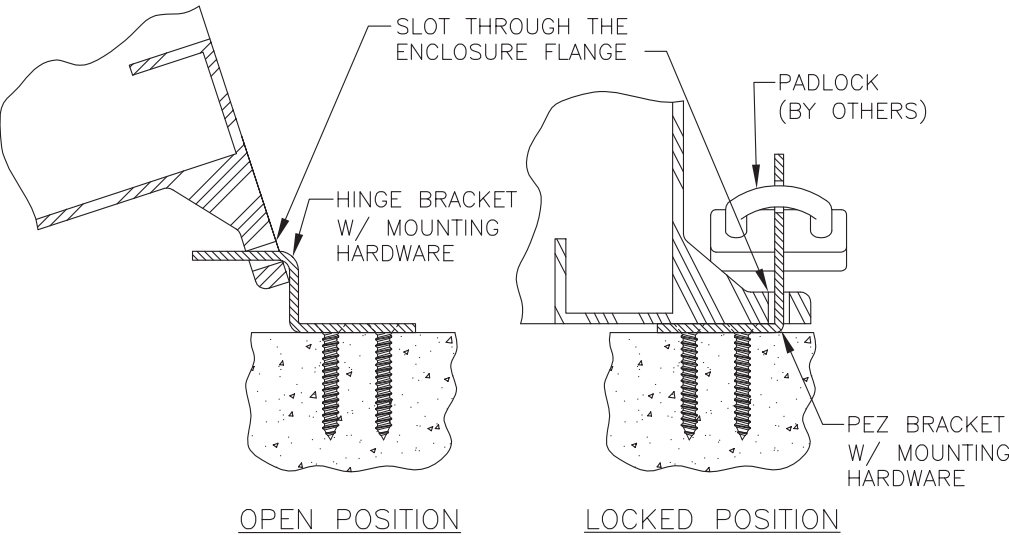
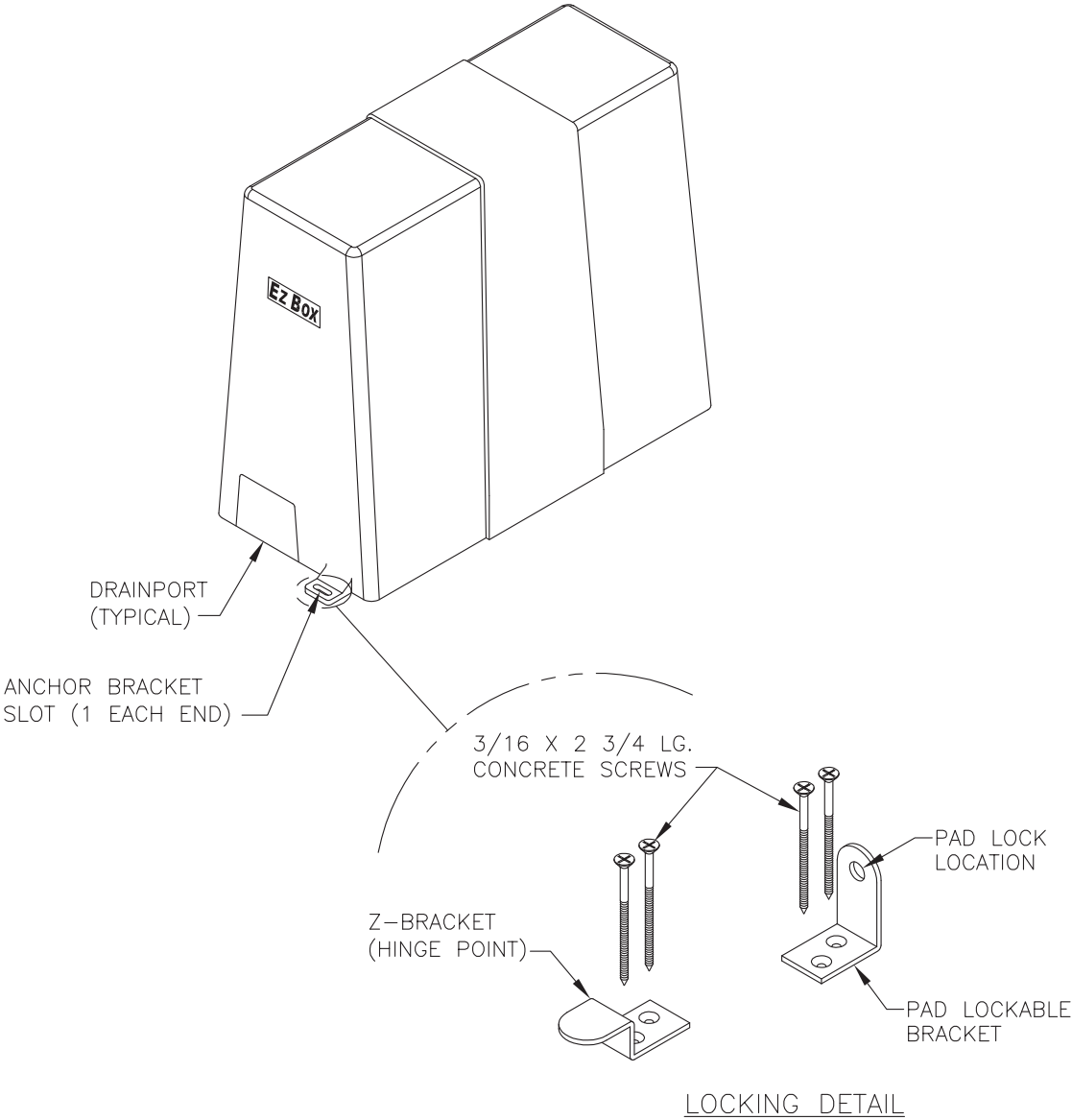
Note: Two standard colors available: beige or dark green. Also available as uninsulated enclosures (see page 35).

Pad size=inside Dimensions + 12".

Catalog Part Number	Model Number	Inside Width (in)	Inside Length (in)	Inside Height (in)	Heater	Glass Pad	Weight #
LP009024023G	PEZ1-Green	9	24	23	Unheated	GG021035005	14
LP009024023T	PEZ1-Beige	9	24	23	Unheated	GG021035005	14
LP011036026G	PEZ2-Green	11	36	26	Unheated	GG021047005	20
LP011036026T	PEZ2-Beige	11	36	26	Unheated	GG021047005	20
HP009024023G	HPEZ1-Green	9	24	23	60W	GG021035005	15
HP009024023T	HPEZ1-Beige	9	24	23	60W	GG021035005	15
HP011036026G	HPEZ2-Green	11	36	26	90W	GG021047005	22
HP011036026T	HPEZ2-Beige	11	36	26	90W	GG021047005	22

Pad size=inside Dimensions + 12".

Poly EZ Box® (Plastic) Enclosures



Fiberglass Hot Rok® Enclosures

- **Enhances Landscape** - Natural rocklike texture and colors are visually appealing.
- **Quick & Easy Installation** - Drop-over design with optional hinge for ease of maintenance on larger Roks.
- **Durable & Corrosion Resistant** - Reinforced fiberglass with UV stable gelcoat exterior provides a corrosion proof finish that both looks good and stands up to the elements.
- **Superior Freeze Protection** - Self-regulating heat trace tape provides proven freeze protection.
- **Peace of Mind** - ASSE 1060 certification ensures that requirements for structural strength, drainage capacity, material construction, equipment access, and functional design are met.



Note: Also available as uninsulated enclosures (see page 35).

For unheated units, replace the “H” in the part# with an “L”.

Catalog Part Number	Model Number	Style	Color	Inside Width A (in)	Inside Length B (in)	Inside Height C (in)	Heater	Weight #
HR006015019E	GHR.75	Lift Off	Brown	8	16	19	30W	25
HR006015019N	GHR.75	Lift Off	Granite	8	16	19	30W	25
HR006015019S	GHR.75	Lift Off	Desert Rose	8	16	19	30W	25
HR010026022E	GHR1	Lift Off	Brown	10	24	19.5	60W	50
HR010026022N	GHR1	Lift Off	Granite	10	24	19.5	60W	50
HR010026022S	GHR1	Lift Off	Desert Rose	10	24	19.5	60W	50
HR010026022500	GHR1	Lift Off	Brown	10	24	19.5	60W	50
HR010026022501	GHR1	Lift Off	Granite	10	24	19.5	60W	50
HR010026022502	GHR1	Lift Off	Desert Rose	10	24	19.5	60W	50
HR015040030E	GHR2	Lift Off	Brown	15	40	30	90W	80
HR015040030N	GHR2	Lift Off	Granite	15	40	30	90W	80
HR015040030S	GHR2	Lift Off	Desert Rose	15	40	30	90W	80
HR015040030500	GHR2	Lift Off	Brown	15	40	30	90W	80
HR015040030501	GHR2	Lift Off	Granite	15	40	30	90W	80
HR015040030502	GHR2	Lift Off	Desert Rose	15	40	30	90W	80
HR021067043E	GHR3	Hinged	Brown	21	73	43	2-90W	365
HR021067043N	GHR3	Hinged	Granite	21	73	43	2-90W	365
HR021067043S	GHR3	Hinged	Desert Rose	21	73	43	2-90W	365

For unheated units, replace the “H” in the part# with an “L”.

Available Colors:



Brown
Color code = E

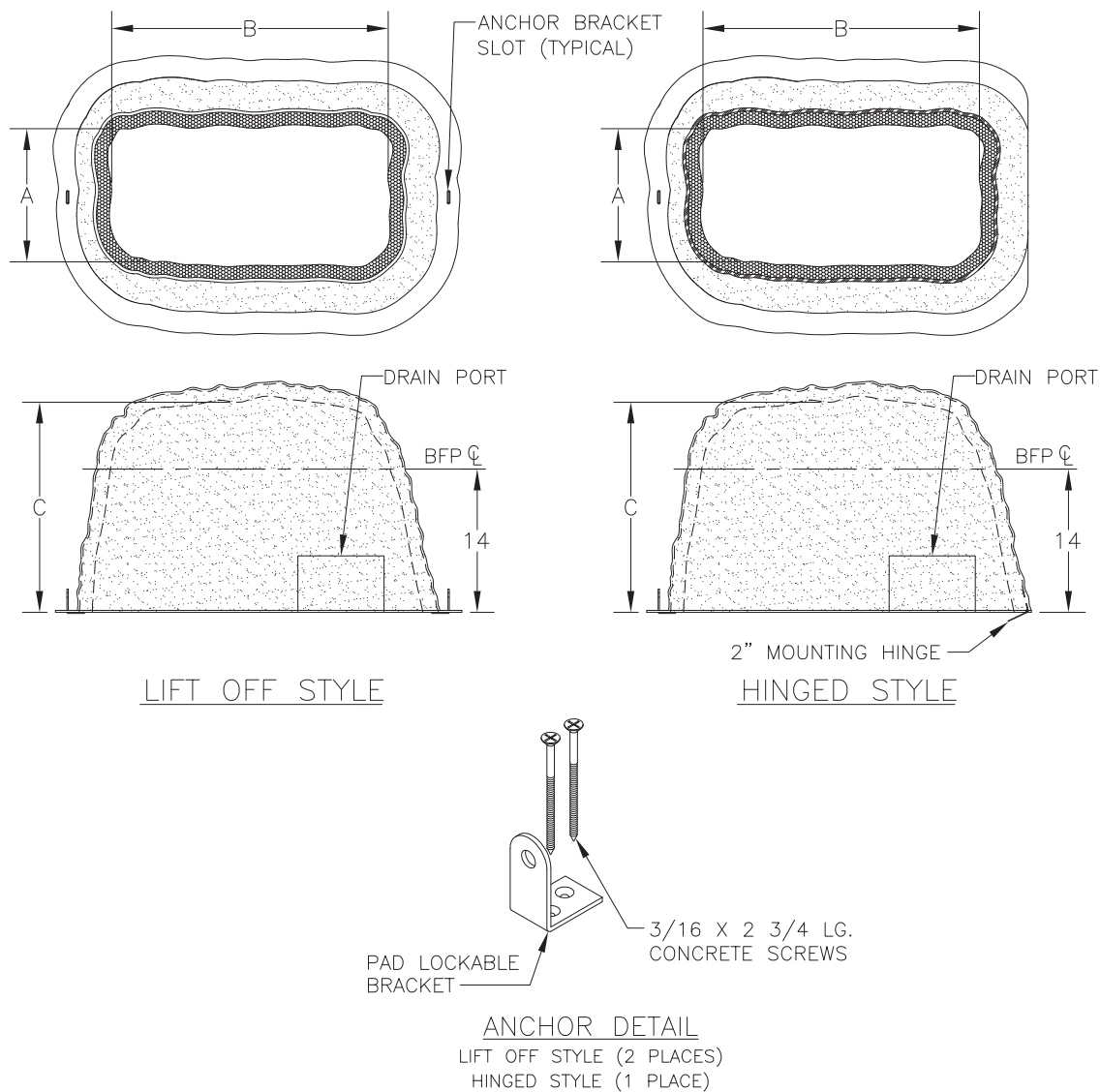


Granite
Color code = N



Desert Rose
Color code = S

Fiberglass Hot Rok® Enclosures



Installation:

1. Provide applicable GFI protected power, UL STND. 943-NEMA 3R, inside enclosures requiring heat. Mount at least 8" above any discharge point and near the pipe riser on the enclosure access side or install per local code.
2. Pour a full concrete pad 4" thick around valve, allowing a minimum 1" radial space between riser and pad or install on a "Glass Pad™".
3. Place Hot Rok® Enclosure over the valve onto the pad or footer.
4. Use a masonry bit to drill through anchor hinge. Insert concrete screws and bolt firmly to concrete.
5. Mark and mount locking hasp.
6. Mark and mount support rod anchor.
7. For heated enclosures using a self regulating heat trace tape, secure tape to valve with pipe ties or fiberglass/electrician's tape. No pipe insulation is necessary. The Hot Rok® Enclosure provides the necessary insulation.
8. Plug the heat source into the specified circuit/receptacle, after verifying proper voltage.
9. Lower and secure hasp to staple via pad lock (padlock not included).



PolyRok® (Plastic) Enclosures

- **Enhances Landscape** - Natural rocklike texture and colors are visually appealing.
- **Quick & Easy Installation** - Drop-over design is quick and easy to install.
- **Affordable** - Cost effective plastic enclosures ideal for landscape and irrigation applications.
- **Weed Eater Resistant** - Anti-chipping plastic construction.
- **UV & Corrosion Resistant** - UV stabilized plastic provides a corrosion proof enclosure that looks good and stands up to the elements.
- **Freeze Protection** - Self-regulating heat trace tape provides proven freeze protection.
- **Peace of Mind** - ASSE 1060 certification ensures that requirements for structural strength, drainage capacity, material construction, equipment access, and functional design are met.



Note: Also available as uninsulated enclosures (see page 35).

Catalog Part Number	Model Number	Color	Inside Width A (in)	Inside Length B (in)	Inside Height C (in)	Heater	Glass Pad	Weight #
LQ010026022E	PLR1	Brown	10	26	22	Unheated	GG027036005	17
LQ010026022N	PLR1	Granite	10	26	22	Unheated	GG027036005	17
LQ012043027E	PLR2	Brown	12	43	27	Unheated	GG022056005	24
LQ012043027N	PLR2	Granite	12	43	27	Unheated	GG022056005	24
HQ010026022E	PHR1	Brown	10	26	22	60W	GG027036005	18
HQ010026022N	PHR1	Granite	10	26	22	60W	GG027036005	18
HQ012043027E	PHR2	Brown	12	43	27	90W	GG022056005	26
HQ012043027N	PHR2	Granite	12	43	27	90W	GG022056005	26

Available Colors:

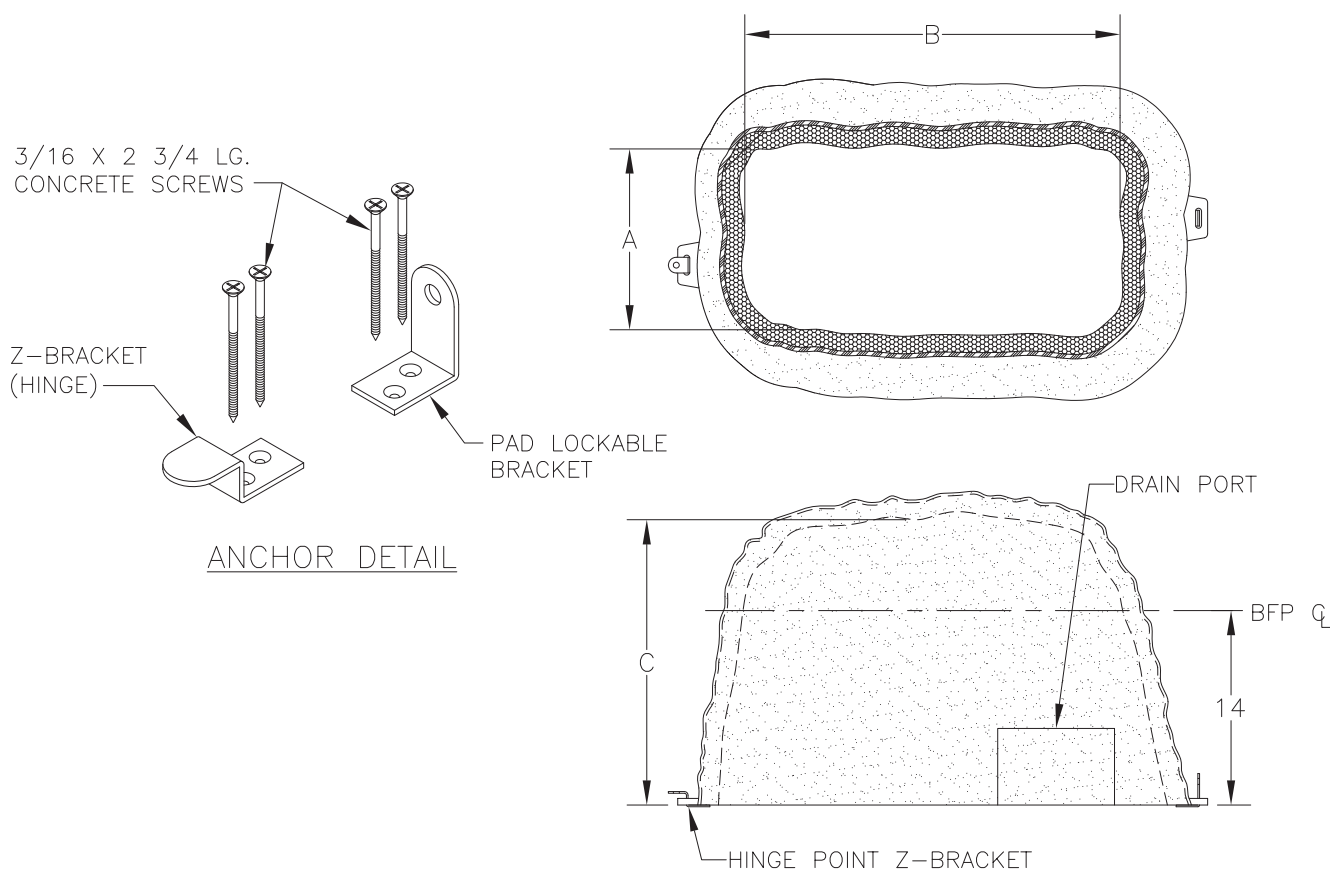


Brown
Color code = E



Granite
Color code = N

PolyRok® (Plastic) Enclosures



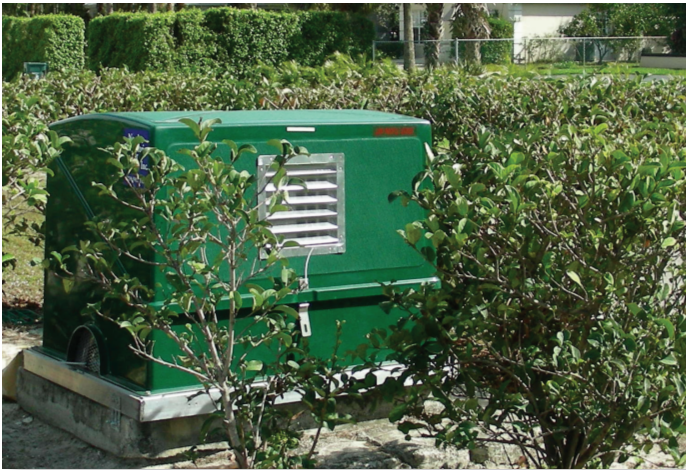
Installation:

1. Provide applicable GFI protected power, UL STND. 943-NEMA 3R, inside enclosures requiring heat. Mount at least 6" above any discharge point and near the pipe riser on the enclosure access side or install per local code.
2. Pour a full concrete pad 4" thick around valve, allowing a minimum 1" radial space between riser and pad or install on a "Glass Pad™".
3. Place PolyRok® Enclosure over valve and onto the pad or footer.
4. Mark locking staple. Position on concrete.
5. Use a masonry bit to drill through anchor hinge. Insert concrete screws and bolt firmly to concrete.
6. For heated enclosures using a self regulating heat trace tape, secure tape to valve with pipe ties or fiberglass/electrician's tape. No pipe insulation is necessary. The PolyRok® Enclosure provides the necessary insulation.
7. Plug the heat source into the specified circuit/receptacle, after verifying proper voltage.
8. Lower and secure staple via pad lock (padlock not included).



Pump Guard Enclosures

- **Extended Pump Life** - Vented enclosures are designed to keep pumps cool and protected from the elements.
- **Reduce Noise** - Keep neighbors happy by dampening the sound with standard insulated models (optional soundproof insulation available).
- **Vandalism & Theft Deterrent** - Secure lockable enclosures can reduce unwanted access.
- **Peace of Mind** - ASSE 1060 certification ensures that requirements for structural strength, drainage capacity, material construction, equipment access, and functional design are met.
- **Increased Cooling Performance** - Optional fans and thermostatically controlled louvers can improve cooling performance (see page 46 for details).



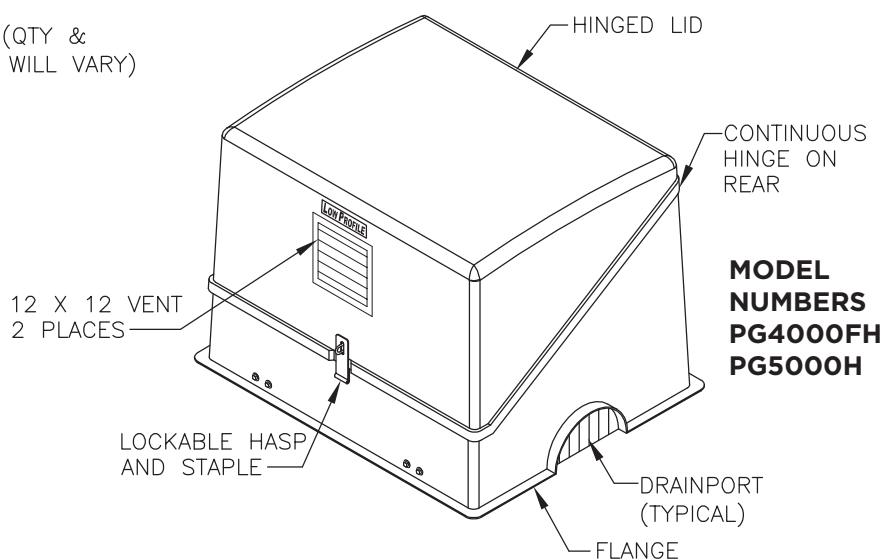
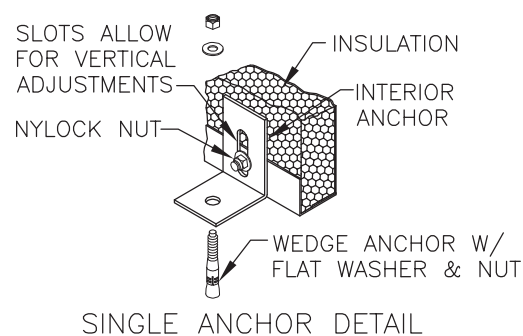
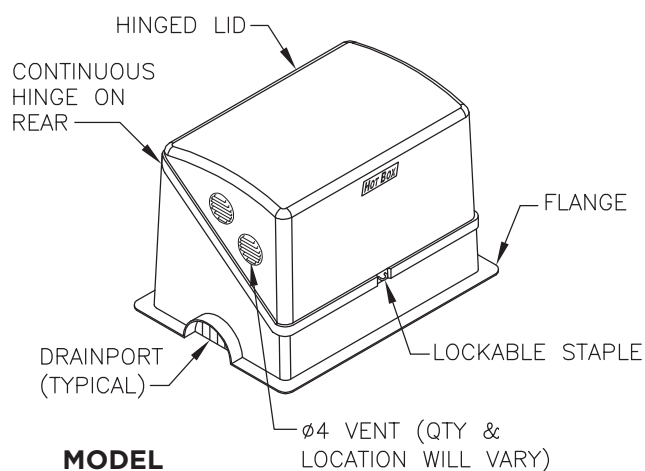
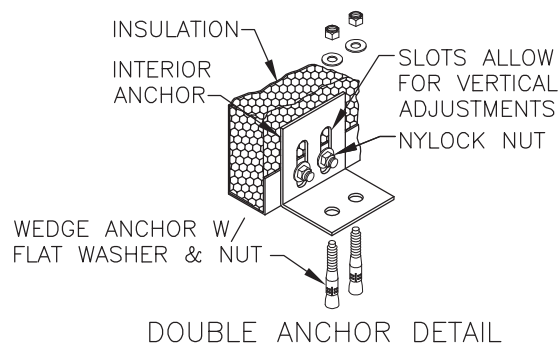
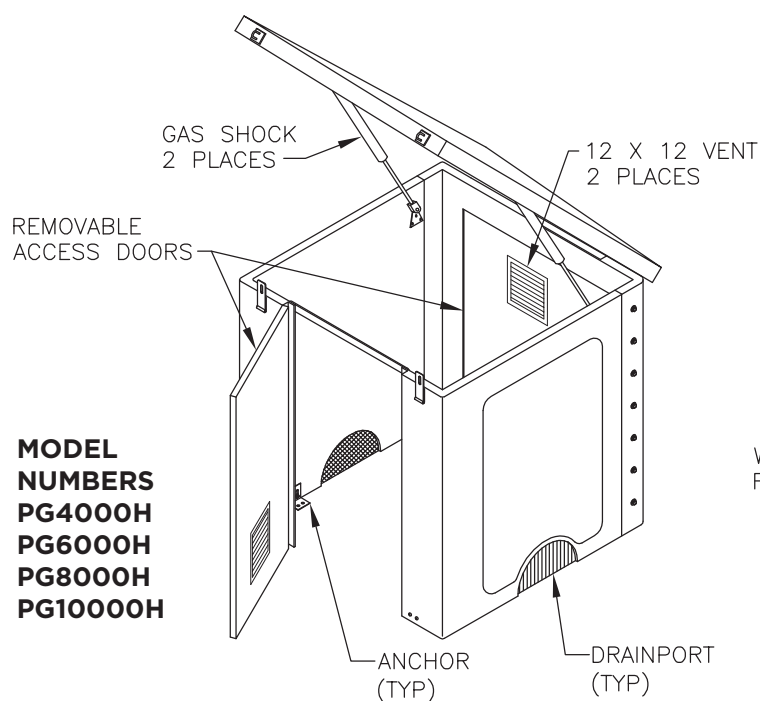
Note: Available in all Designer Series, Flip-Top, and aluminum enclosures (popular models below). Standard fiberglass color is beige (optional colors are available-see page 49 for details).

For unheated units, replace the “H” in the part# with an “L”. Pad size=inside Dimensions + 12”.

Catalog Part Number	Model Number	Access Type	Inside Width (in)	Inside Length (in)	Inside Height (in)	Heater	Weight #
HF013027023AAV	PG1000H	Flip-Top	13	27	23	60W	40
HF021033025AAV	PG1500H	Flip-Top	21	33	25	60W	60
HLO35045035AAV	PG3000H	Flip-Top	35	45	35	1000W	250
HLO44053044AAV	PG4000FH	Flip-Top	44	53	44	1000W	300
HLO52061052AAV	PG5000H	Flip-Top	52	61	52	1500W	440
HM041041045AAV	PG4000H	Top, Front & Back	41	41	45	1000W	280
HM047047049AAV	PG6000H	Top, Front & Back	47	47	49	1500W	300
HM053053056AAV	PG8000H	Top, Front & Back	53	53	56	1500W	335
HM054062056AAV	PG10000H	Top, Front & Back	54	62	56	1900W	485

For unheated units, replace the “H” in the part# with an “L”. Pad size=inside Dimensions + 12”.

Pump Guard Enclosures

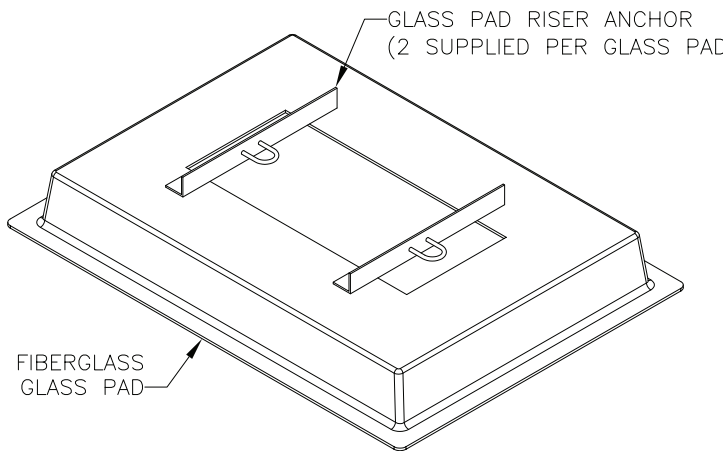


Glass Pad™ Mounting Bases



Fiberglass Mounting Pads for Backflow Enclosures

- **Save Time & Money** - No forms to build or concrete to pour.
- **Quick Installation** - One trip to install Glass Pad and enclosure with no waiting for concrete to cure.
- **Aesthetically Pleasing** - Professional looking installation with matching enclosure and pad.



Catalog Part Number	Model Number	Inside Width (in)	Inside Length (in)	Inside Height (in)	Weight #	For Enclosure Model Number
GG019027005	GP.75	19	27	4	16	(HB, LB, VG) .75 + (VC, VGVC) 1 & 1T
GG021035005	GP1	22	36	4	20	(HB, LB, VG, PEZ) 1 & 1T + (VC, VGVC) 2 & 2T + PG1000
GG021047005	GP2	21	47	4	25	(HB, LB, VG, PEZ) 2 & 2T
GG022056005	GPPR2	23	57	4	27	(PHR, PLR, VGPLR) 2 + (EZ, VGEZ) 2
GG026040005	GPEZ1	26	40	4	26	(EZ, VGEZ) 1
GG027036005	GPPR1	27	36	5	22	(PHR, PLR, VGPLR) 1
GG028028005	GP1824	28	28	5	18	AVG1824
GG028038005	GPFS1	28	38	5	20	(FS, FSL, VGFS) 1
GG029042005	GP1.5	30	42	4	30	(HB, LB, VG) 1.5 + PG1500

Options: General & Vents

Hot Box® Enclosures can be modified to meet your specific project requirements. Below are many of the options that are available:

- **Standard options include:** vents, exhaust fans, alarm and lighting packages, and special colors (see pages 45-49 for details).
- **Specialized options include:** penetrations, FDC boots, stainless steel anchors, hinged doors, acrylic windows, extra insulation, sound insulation, special voltage heaters, explosion proof heaters/equipment, and different material types like 3003 Mill Finish (.05") or 5052 Marine Grade aluminum (.050" or .125"). Contact your representative for details or other special requirements.

Vent Features:

- 4" diameter aluminum fixed blade wall vent with foam rubber winter cover that is sized to be pushed inside the vent itself. It is pliable and soft, molding into the opening without resistance.
- 12" x 12" aluminum fixed blade wall vent with integrated insect screen.
- Winter covers are included to help prevent heat loss in the winter. They slide against the back side of the vent and are constructed of the same stucco embossed aluminum as the enclosure (non-insulated).
- Vent location and quantities vary depending on the size of the enclosure.
- Vents come fully installed.

Vent Maintenance:

- Install the winter covers when temperatures hold at 40°F or less for any prolonged period of time.
- When temperatures rise above 40°F, remove winter covers. **Winter covers must be removed when a fan is in use.**



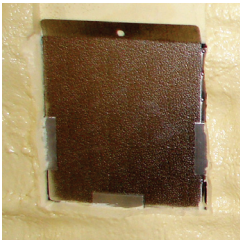
4" Diameter Round Vent



12" x 12" Square Vent (Outside)



12" x 12" Square Vent-Inside
without Winter Cover



12" x 12" Square Vent-Inside with
Winter Cover



Options: Exhaust Fan

Features:

- 10" diameter 5 blade exhaust fan
- Adjustable thermostat
- Automatic gravity shutter
- Wire fan guard
- Totally enclosed motor
- UL listed for US and Canada
- Fixed blade wall vent(s) & winter cover(s) to prevent heat loss in cold weather

Technical Specs:

- 120 volt single phase
- 60 Hz
- 1/30 hp motor
- 1550 rpm
- 585cfm @ .00-In. SP
- Maximum 1.5 amps
- Maximum Ambient Temp. 104 degrees F
- Fan location, vent size, and quantity of fan(s) can vary, based on the size of the enclosure

Installation:

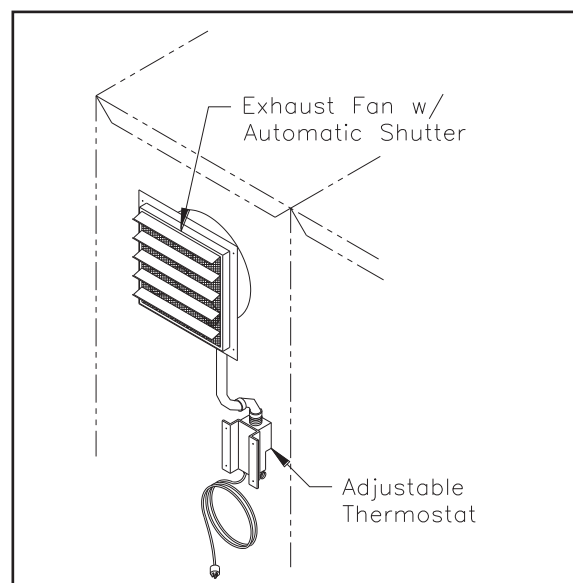
- Contractors other than Hot Box® are responsible for the installation of the G.F.I. protected 15 amp, 120v, single phase service and receptacle. All installations to be in accordance with local and national codes.
- Plug the fan into the receptacle.
- Adjust the thermostat to the desired temperature.

Maintenance:

- Install the winter covers into the vents when temperatures hold at 40°F or less for any prolonged period of time. **When the weather warms again, and the temperatures consistently reaches 40°F at night, winter covers must be removed.**
- Keep the area around the automatic shutter free of objects that could impede air flow.
- Lubricate the motor sleeve bearings annually using S.A.E. 20 (non detergent) oil.

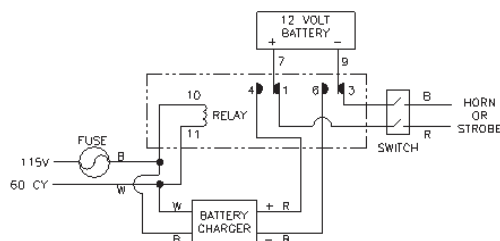


**Complete Exhaust Fan
(Interior View)**

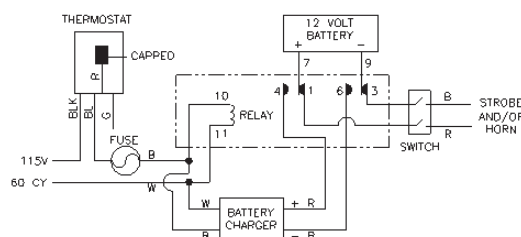


Options: Alarm Packages

Power Loss Alarm



Power Loss & Low Temperature Alarm



PLAHBO Audible Power Loss Alarm - The alarm consists of the cabinet, battery, battery charger, relays, 95-decibel horn, six foot power cord and plug. The alarm is designed to activate the horn if the enclosure loses electrical power.

PLAHBOS Visual Power Loss Alarm - The alarm consists of the cabinet, battery, battery charger, relays, amber strobe light, six foot power cord and plug. The alarm is designed to activate the strobe light if the enclosure loses electrical power.

PLAHBO-T Audible Power Loss and Low Temperature Alarm - The alarm consists of the cabinet, battery, battery charger, relays, 95-decibel horn, temperature sensor, six foot power cord and plug. The alarm is designed to activate the horn if the enclosure loses electrical power or if the temperature falls below the set “adjustable” temperature.

PLAHBOS-T Visual Power Loss and Low Temperature Alarm - The alarm consists of the cabinet, battery, battery charger, relays, amber strobe light, temperature sensor, six foot power cord and plug. The alarm is designed to activate the strobe light if the enclosure loses electrical power or if the temperature falls below the set “adjustable” temperature.

PLAHBOT-S Audible and Visual Power Loss and Low Temperature Alarm - The alarm consists of the cabinet, battery, battery charger, relays, 95-decibel horn, amber strobe light, temperature sensor, six foot power cord and plug. The alarm is designed to activate both audible and visual notifications if the enclosure loses electrical power or if the temperature falls below the set “adjustable” temperature.

Note: With a fully charged battery the alarm should activate for a minimum of six hours or until deactivated. Alarms operate on 120V, single phase service and plugs into a G.F.I. receptacle.

Installation:

- Contractors other than Hot Box® are responsible for the installation of the G.F.I. protected 20 amp, 120-240V, single phase service and receptacle. Alarm and Heater must be supplied by the same electrical service. All installations to be in accordance with the local and national codes.
- Simply plug the alarm into the receptacle and turn the switch to the on position.
- For low temperature alarms, adjust the thermostat to desired temperature (34°-38°F recommended).



Options: Lighting Packages

- **Increased Visibility** - Lighting illuminates equipment for easier maintenance.
- **Peace of Mind** - UL listing for wet & damp locations ensures safety.

Packages:

Single Light Package - One 24" fluorescent light fixture in a water tight enclosure and hardwired to a single electrical switch.

Double Light Package - Two 24" fluorescent light fixtures in water tight enclosures and hardwired to a single electrical switch.

Quad Light Package - Four 24" fluorescent light fixtures in water tight enclosures and hardwired to a single electrical switch.

Note: The light package required will vary depending on the size of the enclosure.



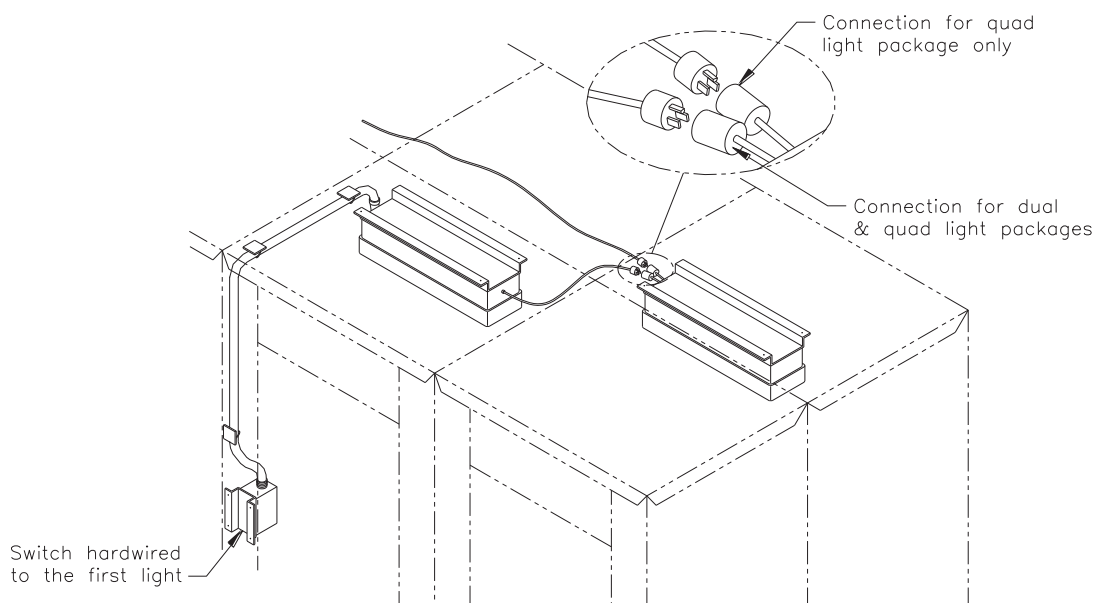
**Single Light Package
(Installed)**

Technical Specs:

- 24" fluorescent T8 bulb
- 17 watts (each)
- 120 volt single phase

Installation:

- Contractors other than Hot Box are responsible for the installation of the G.F.I. protected 120v, single phase service to the switch. All installations to be in accordance with the local and national codes.
- After enclosure installation is complete, plug in each light in tandem to the next light (if multiple lights are supplied).





Options: Colors

Standard Colors:

- All standard Aluminum Sectionalized and Dura Fold® Enclosures come with a stucco embossed aluminum finish, except the Select Six enclosures (which are a smooth mill finished aluminum). No color code is required for the stucco embossed aluminum finish.
- All fiberglass enclosures come standard with a beige gelcoat (color code not required).
- All plastic Poly EZ Box® Enclosures are available in beige (T) or dark green (G) only. Please add color code suffix.
- All fiberglass Hot Rok® Enclosures are available in brown (E), granite (N), or desert rose (S) only. Please add color code suffix.
- All plastic PolyRok® Enclosures are available in brown (E) or granite (N). Please add color code suffix.

Optional Colors:



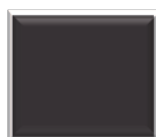
Beige
Color code = T



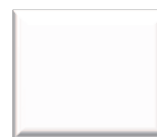
Federal Brown
Color code = M



Dark Green
Color code = G



Black
Color code = B



White (Sail)
Color code = W



Grey
Color code = C



Brown
Color code = E



Granite
Color code = N



Desert Rose
Color code = S

Notes:

- If non-standard color is required, please specify the color code in the 12th digit of the part number.
- The above shown colors may not be an accurate representation of the actual color. If needed, please request a sample from your local Hot Box representative before ordering. Customer approval is required prior to processing the order.
- Custom colors not shown above will require a color sample, Federal Standard color, Munsell color or Sherwin Williams color number.

Aluminum/Prep Procedure:

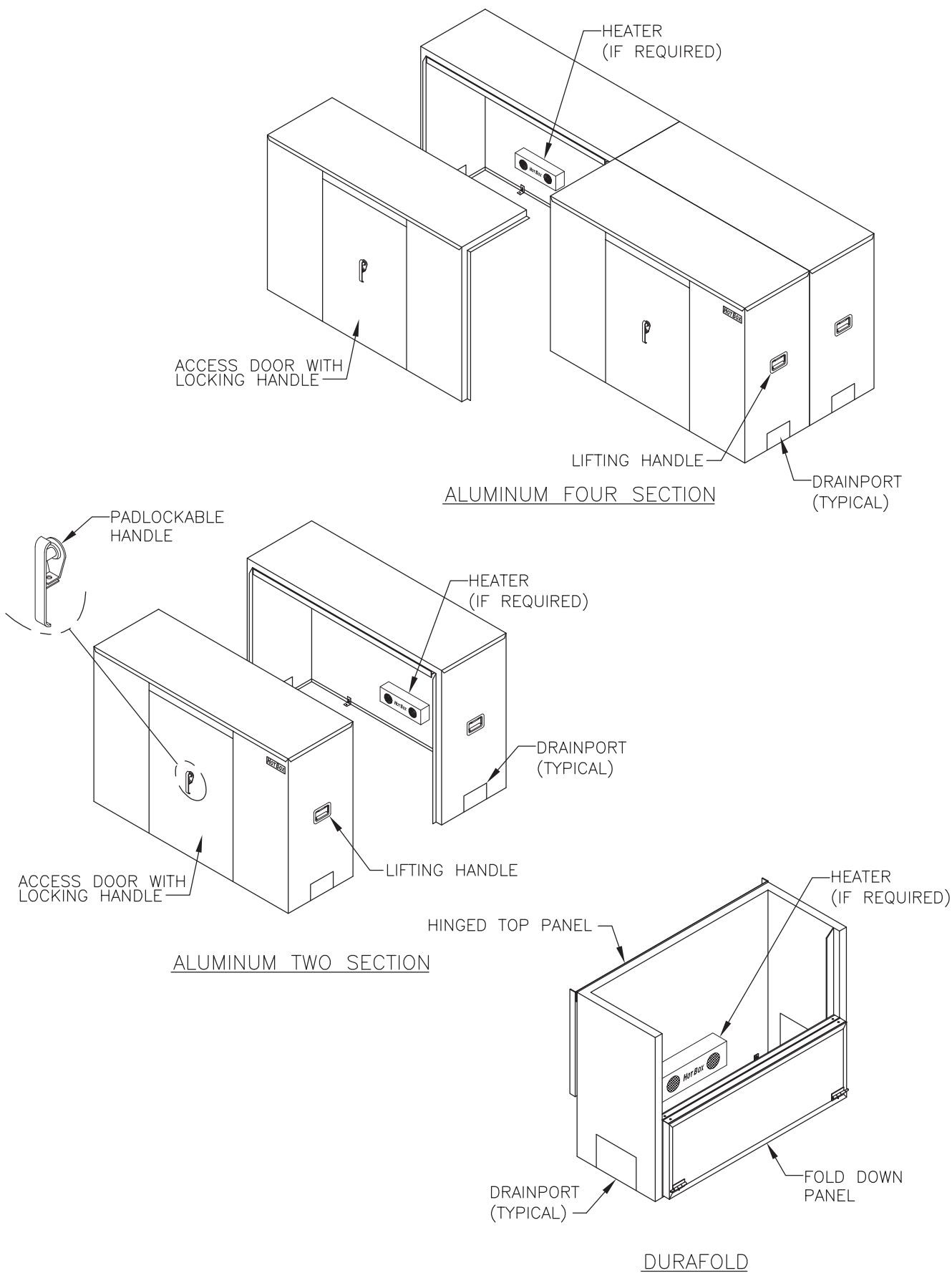
Preparation of the exterior of the enclosure to accept paint involves sanding the aluminum and applying a solvent to remove dust and aluminum filings. A Mopoxy high build epoxy primer (Lead and Chromate free) is then applied to allow a Mothane Polyurethane enamel paint (Lead and Chromate free) to adhere properly. Prefinished aluminum sheets are used for the beige and federal brown colors.

Fiberglass Gelcoat:

Any special gelcoat color will be applied at a thickness of 18 mils.

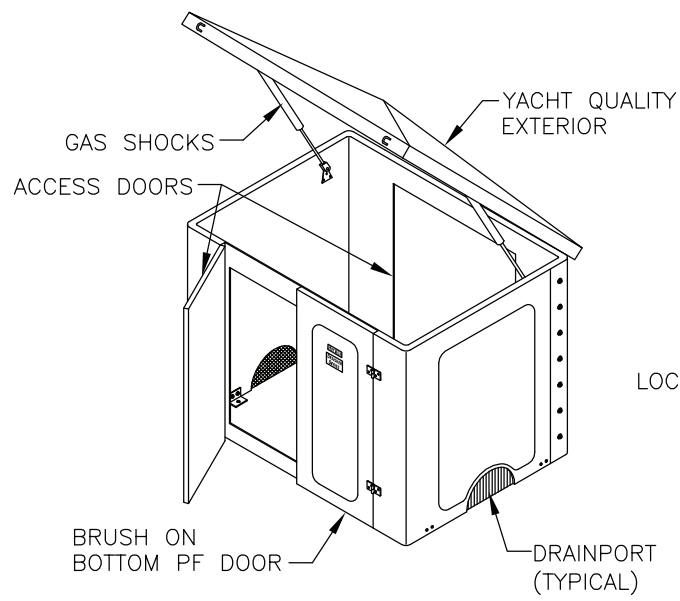


Standard Drawings

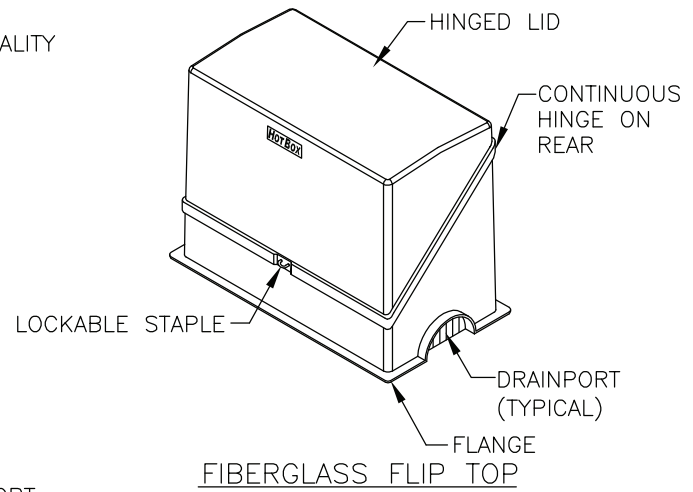




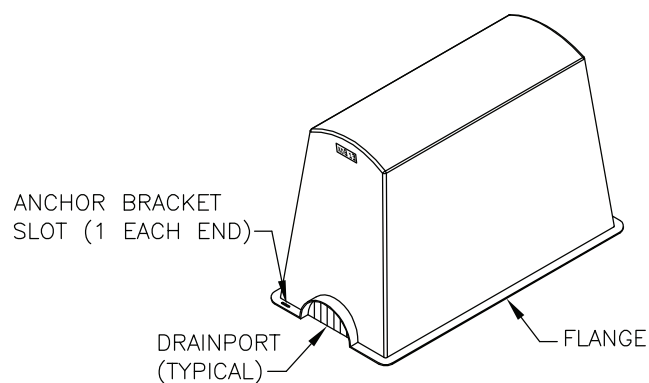
Standard Drawings



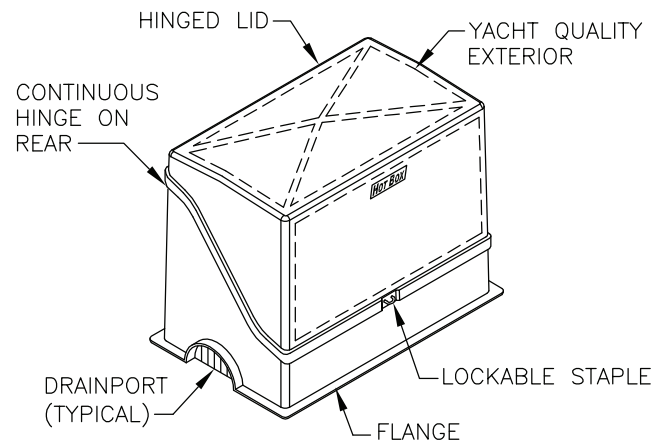
DESIGNER Series™



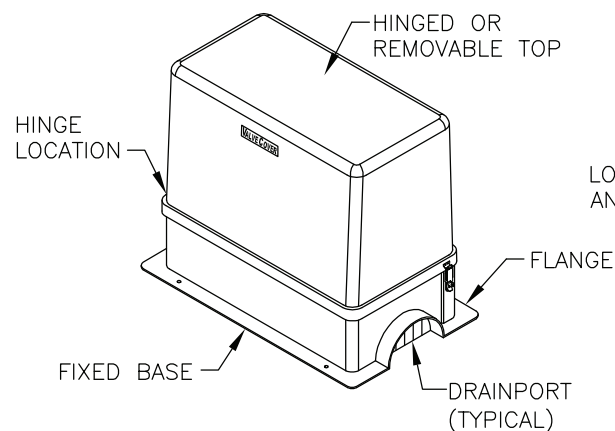
FIBERGLASS FLIP TOP



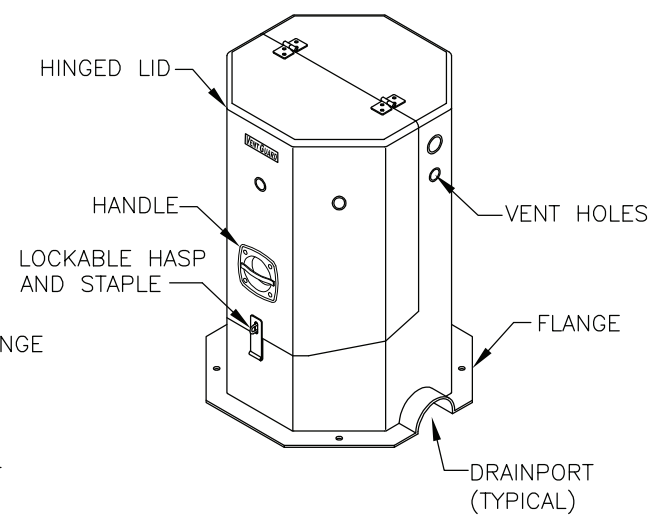
EZBOX DROP OVER



LOW PROFILE Series™



VALVE COVER



VENT GUARD





Frequently Asked Questions

Are Hot Box® Enclosures ASSE 1060 certified?

- Yes, standard Hot Box® Enclosures have been lab tested and ASSE 1060 certified for vertical roof load (100 lbs/ft²) capacities, freeze protection, drainage aptitude and material construction.
- Custom enclosures up to 87" W X 172" L x 85" H in size are certified. Larger enclosures are not certified by ASSE, but they are engineered in the same manner as certified enclosures.

Do I need a heated or unheated enclosure, or what ASSE class enclosure do I need?

This question is best answered by comparing the lowest average winter temperature at your location to the definition of the ASSE Class ratings. See below:

- **Class I - Freeze Protection Enclosures (Heated):** Designed and constructed to maintain a minimum internal temperature of 40°F with external temperatures as low as -30°F.
- **Class II - Freeze Retardant Enclosures (Insulated Non-Heated):** Designed and constructed to be installed in locations with minimum temperature of 33°F.
- **Class III - Non-Freeze Protection Enclosures (Uninsulated Non-Heated):** Designed and constructed to provide system security for components when freezing temperatures are not a consideration.

Can you manufacture custom size enclosures? If so, what are the maximum dimensions?

- We can create custom sizes with our aluminum sectional and Dura Fold® Enclosures. Please speak with your area sales representative for dimensions.
- Custom sectional aluminum enclosures are limited to a maximum interior width of 117" and a maximum interior height of 106.5" with the length being unlimited.
- Custom Dura Fold® Enclosures are limited to a maximum top surface area of 22 sq ft (3168 sq in) or less and a maximum interior length of 90" and height of 66".
- If project quantities are large enough to warrant new tooling, we can customize the sizes of our fiberglass or plastic enclosures.

What is the largest removable access panel?

- Due to weight constraints set by ASSE 1060 3.3.3 specification, 44" W x 77 ½" H is the largest removable access panel.
- When a wider opening is required two 36" W x 72 ½" H dual hinged access doors will give you a 72" W x 72 ½" H opening.



Frequently Asked Questions

Will field penetrations affect the structural integrity or freeze protection of the enclosure?

- The structural integrity will not be affected when putting holes in an enclosure (maximum size of 12" diameter). However, it is important to not modify any of the corners or seams of a Hot Box (where two different surfaces meet), since this will reduce the structural integrity of a Hot Box® Enclosure. When in doubt or for special requirements, please contact our Customer Service Team.
- To minimize heat loss it is recommended you make the hole ½" larger than the pipe diameter. Then after installation apply expanding foam (found at any hardware store) around the perimeter of the penetration.

Is it necessary to have 3" insulation (R19) in the roof or the walls?

- Hot Box® Heaters and 1 ½" (R10) insulation are more than sufficient to maintain an interior temperature of 40°F (4.4°C) and protect equipment from external temperatures as low as -30°F (-34.4°C) in accordance with ASSE 1060 3.6.1-3.
- Some competitors require 3" of insulation due to the use of less efficient slab mounted heaters.
- If desired, 3" (R19) insulation is available for an additional fee.

What is the recommended slab size for Hot Box® Enclosures?

- The slab should be 12" larger than the interior dimensions of the enclosure. The minimum recommended slab thickness is 4".

What are the standard heater electrical connection recommendations?

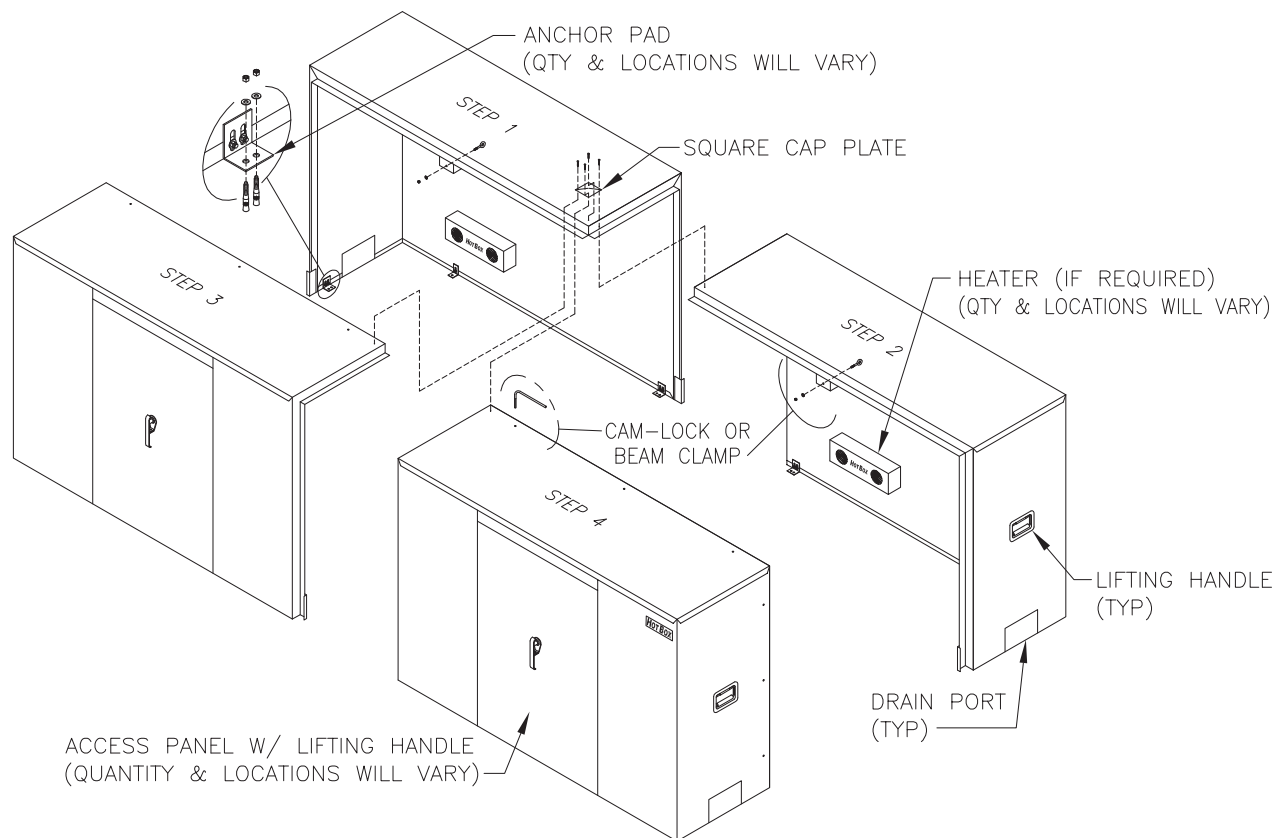
- Contractors other than Hot Box® are responsible for the installation of the G.F.I. protected service and receptacles (mounted a min. of 9" above the slab).
- We recommend that each heater be on separate 20 amp circuits. Separate circuits help provide redundancy in the event that one circuit fails.
- All installations must be in accordance with local and national codes.

What is the wind load rating for Hot Box enclosures?

- All standard fiberglass enclosures are suitable for wind speeds up to 120 mph.
- All standard Sectional Aluminum and Dura Fold® Enclosure sizes up to 36"W x 105"L x 64"H inside dimensions (i.e., LA036105064) and smaller are suitable for speeds up to 120 mph. Standard sizes larger than 36"W x 105"L x 64"H are suitable for use in areas where the design wind speed is 80 mph or less.
- Hot Box® Enclosures have not been certified to meet the wind-borne debris impact requirements in areas within a few miles of the coast (e.g. Florida Building Code).



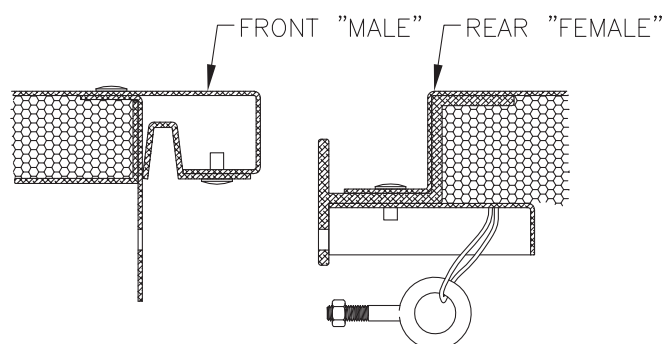
Installation Guide for Sectional Enclosures



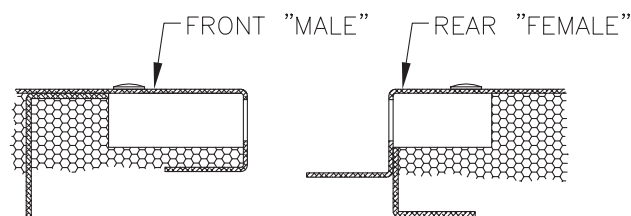
1. Remove the access panels from the sections and place aside. This will lighten the sections for an easier installation.
2. Place the sections as close to their final positions as possible. The order of installation is always "Rear" left to right and then "Front" left to right regardless of the number of sections your enclosure has (4 section shown).
3. Each section has a male and a female edge. Lift each section (10"-12") and position over the mating edge and carefully lower the section into position keeping it flush against the opposing section's edge until it seats properly.
4. Place the enclosure in its final position. **Do not tear the gasket on the enclosure base or around the male/female edges while sliding the sections together or positioning the enclosure.**
5. **The enclosures must be squared and leveled to assure proper fit of the sections.** The anchor pads within the enclosure double as levelers. If needed, loosen the bolts attaching the anchor pads to the enclosure. Each pad is slotted for vertical movement. When level, tighten the pad bolts to the enclosure wall.
6. Once the enclosure is level and square, set the access panels in place. If the fit is not right or if light may be seen through any seam, the square of the enclosure is incorrect and must be reassessed.
7. After all is in place, remove the access panels once more. Install the anchors to secure the enclosure. Anchors and drill bit are included.



Installation Guide for Sectional Enclosures



"BEAM CLAMP" STYLE CONNECTION



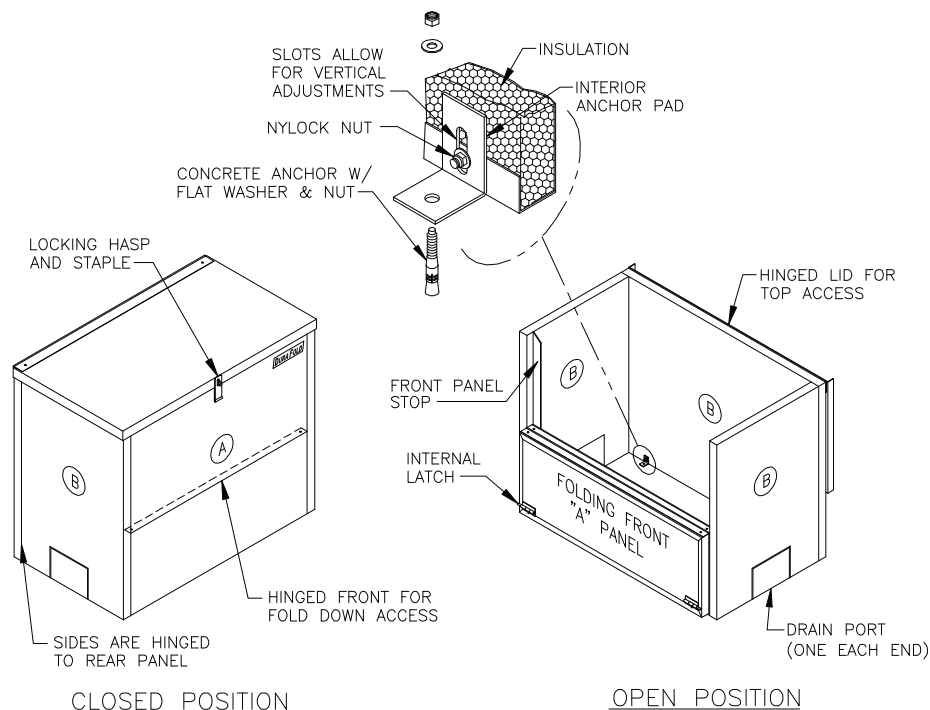
"CAM-LOCK" STYLE CONNECTION

8. Determine if your enclosure has Beam clamp or Cam-locks (see diagram above). Only one type should exist per enclosure.
9. For Beam clamp style enclosures: tighten the Beam clamp eyebolts and wing nuts (located at the top seam inside the enclosure).
10. For Cam-lock style enclosures: fully engage the Cam-locks (located on the exterior walls along the seams) using the supplied allen wrench tool. Place the plastic plugs in the keyholes for protection.
11. Enclosures larger than 72" wide (inside) will be supplied with 2 x 1 support channels. They are attached with the supplied hardware to the underside of the horizontal roof bracing. Use a ratchet and a 1/2" deep socket to attach.
12. In some cases the size of the enclosure (typically 4 sections and larger) may cause a slight leaking during inclement weather. To prevent this, Aluminum tape has been provided (for 4 sections and larger). We recommend that the contractor lay a bead of silicon caulking in all seams and tape over the entire seam on the top of the enclosure. This is for situations where the enclosure is to be a "permanent" structure.
13. For enclosures with four or more sections, square cap plates have been supplied to cover the areas where the four corners of the sections come together on the top of the enclosure. Place the caps over the intersection and screw into place.
14. Hang the heater(s) on the heater plate(s) and plug into the receptacle(s).
15. Place the access panels in their respective openings and insert padlocks (not included) through the handles.

Warning! A ground fault circuit interrupting device shall be installed in the electrical supply circuit to the heater(s). Failure to do so may result in injury or death. The interior of this enclosure can be a damp location. Contractors other than Hot Box® are responsible for the installation of the G.F.I. protected service and receptacles (ref. UL 943, NEMA 3R). When multiple heaters are required it is recommended that each heater be on a separate 20 amp circuit. Separate circuits help provide redundancy in the event that one circuit fails. Consult local and national codes for electrical connections.



Installation Guide for Standard Dura Fold® Enclosures



In most cases, Dura Fold® Enclosures are shipped assembled. If so, please skip to step 3.

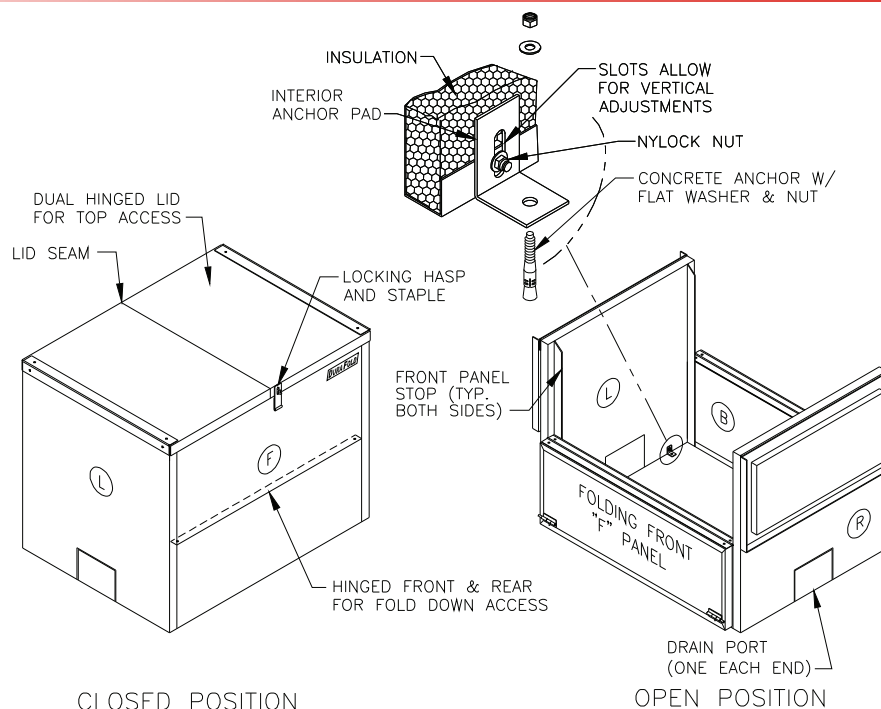
***Note: The receptacles and the concrete slab should be prepared and fully cured before the enclosure is uncrated.**

1. Position the "B" Panels around the installed valve maintaining clearance between the enclosure and the installed valve. **Do not tear the gasket on the enclosure base while positioning or joining the enclosure panels.**
2. Secure Panel "A" to Panel "B" using 5/16" wing nuts.
3. **The enclosure must be squared and leveled.** The L-shaped anchor pad brackets supplied with the enclosure double as levelers. If needed, loosen the bolts attaching the anchor pads to the enclosure. Each pad is slotted for vertical movement. When level, tighten the pad bolts to the enclosure wall. **If the enclosure is not properly squared and leveled, then the lids may not close properly. Do not force lids closed as this may cause damage.**
4. To install the concrete anchors in the slab, drill through the anchor pads and drive each concrete anchor into each drilled hole. Place the washer and nut on the top of the anchor and tighten. Concrete anchors and a drill bit are included.
5. If applicable, mount the heater to the heater plate using the supplied screws.
6. When vents are present, install the winter cover (according to the season).
7. Raise hinged front and back panels into place, and latch the internal latches inside.
8. Close the lid and hang a padlock on each hasp and staple to secure (padlock not included).

Warning! A ground fault circuit interrupting device shall be installed in the electrical supply circuit to the heater(s). Failure to do so may result in injury or death. The interior of this enclosure can be a damp location. Contractors other than Hot Box® are responsible for the installation of the G.F.I. protected service and receptacles (ref. UL 943, NEMA 3R). When multiple heaters are required it is recommended that each heater be on a separate 20 amp circuit. Separate circuits help provide redundancy in the event that one circuit fails. Consult local and national codes for electrical connections.



Installation Guide for Double Dura Fold® Enclosures



In most cases, Dura Fold® Enclosures are shipped assembled. If so, please skip to step 4.

***Note: The receptacles and the concrete slab should be prepared and fully cured before the enclosure is uncrated.**

1. Position "L" and "R" panels against the installed valve. **Do not tear the gasket on the enclosure base while positioning or joining the enclosure panels.**
2. Secure Panel "F" to Panel "L" and "R" using 5/16" wing nuts.
3. 3. Secure Panel "B" to Panel "L" and "R" using 5/16" wing nuts.
4. **The enclosure must be squared and leveled.** The L-shaped anchor pad brackets supplied with the enclosure double as levelers. If needed, loosen the bolts attaching the anchor pads to the enclosure. Each pad is slotted for vertical movement. When level, tighten the pad bolts to the enclosure wall. **If the enclosure is not properly squared and leveled, then the lids may not close properly. Do not force lids closed as this may cause damage.**
5. To install the concrete anchors in the slab, drill through the anchor pads and drive each concrete anchor into each drilled hole. Place the washer and nut on the top of the anchor and tighten. Concrete anchors and a drill bit are included.
6. If applicable, mount the heater to the heater plate using the supplied screws.
7. When vents are present, install the winter cover (according to the season).
8. Raise hinged front and back panels into place, and latch the internal latches inside.
9. Close the lid and hang a padlock on each hasp and staple to secure (padlock not included).

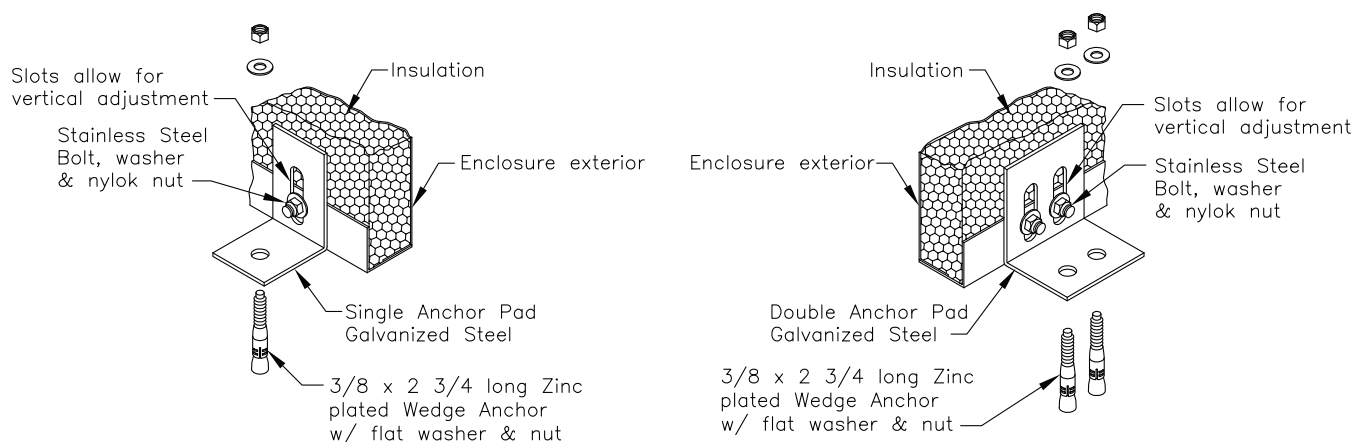
Warning! A ground fault circuit interrupting device shall be installed in the electrical supply circuit to the heater(s). Failure to do so may result in injury or death. The interior of this enclosure can be a damp location. Contractors other than Hot Box® are responsible for the installation of the G.F.I. protected service and receptacles (ref. UL 943, NEMA 3R). When multiple heaters are required it is recommended that each heater be on a separate 20 amp circuit. Separate circuits help provide redundancy in the event that one circuit fails. Consult local and national codes for electrical connections.



Anchor Installation & Specification

Single and Double Anchor Kit:

- Used on Sectionalized Aluminum, Dura Fold®, Designer Series™ and F/G Flip-Top Enclosures.



Note: Anchor type and quantity will vary depending on the type of the enclosure.

Technical information:

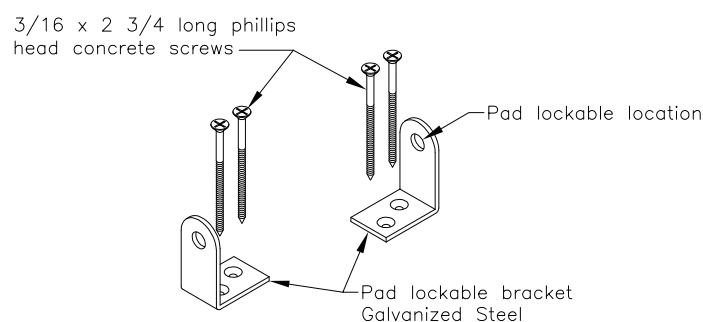
- Ultimate strength of wedge anchor: Pull out: 2,300lbs - Shear: 2,400lbs.

Installation:

1. Locate the Anchors. Mark and drill 3/8" diameter holes x 1 3/4" - 2" deep with the supplied bit.
2. Drive the anchor into the hole, place the anchor pad over the anchor and tighten the washer and nut.

EZ Anchor Kit:

- Used on fiberglass EZ Box® & fiberglass Hot Rok® Enclosures.



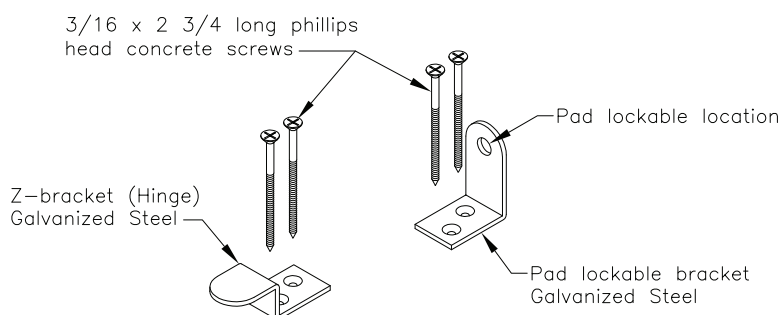
Installation:

1. Locate the brackets. Mark and drill 5/32" diameter holes x 3" deep with the supplied bit.
2. Attach the brackets with the supplied concrete screws. Screws will be hidden under the flange of the enclosure.

Anchor Installation & Specification

PEZ Anchor Kit:

- Used on Poly EZ Box® and PolyRok® Enclosures.

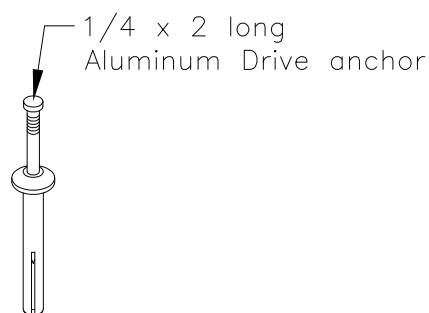


Installation:

1. Locate the brackets. Mark and drill 5/32" diameter holes x 3" deep with the supplied bit.
2. Attach the brackets with the supplied concrete screws. Screws will be hidden under the flange of the enclosure.

Drive Anchor Kit:

- Used on Vent Guard® and Valve Cover™ Enclosures.



Note: Anchor quantity is typically four per enclosure.

Installation:

1. Locate the holes in the flange. Mark and drill 1/4" diameter holes x 2 1/2" deep with the supplied bit.
2. Place the anchor through the enclosure flange and into the drilled hole, then hit with a hammer.

Warning! A ground fault circuit interrupting device shall be installed in the electrical supply circuit to the heater(s). Failure to do so may result in injury or death. The interior of this enclosure can be a damp location. Contractors other than Hot Box® are responsible for the installation of the G.F.I. protected service and receptacles (ref. UL 943, NEMA 3R). When multiple heaters are required it is recommended that each heater be on a separate 20 amp circuit. Separate circuits help provide redundancy in the event that one circuit fails. Consult local and national codes for electrical connections.



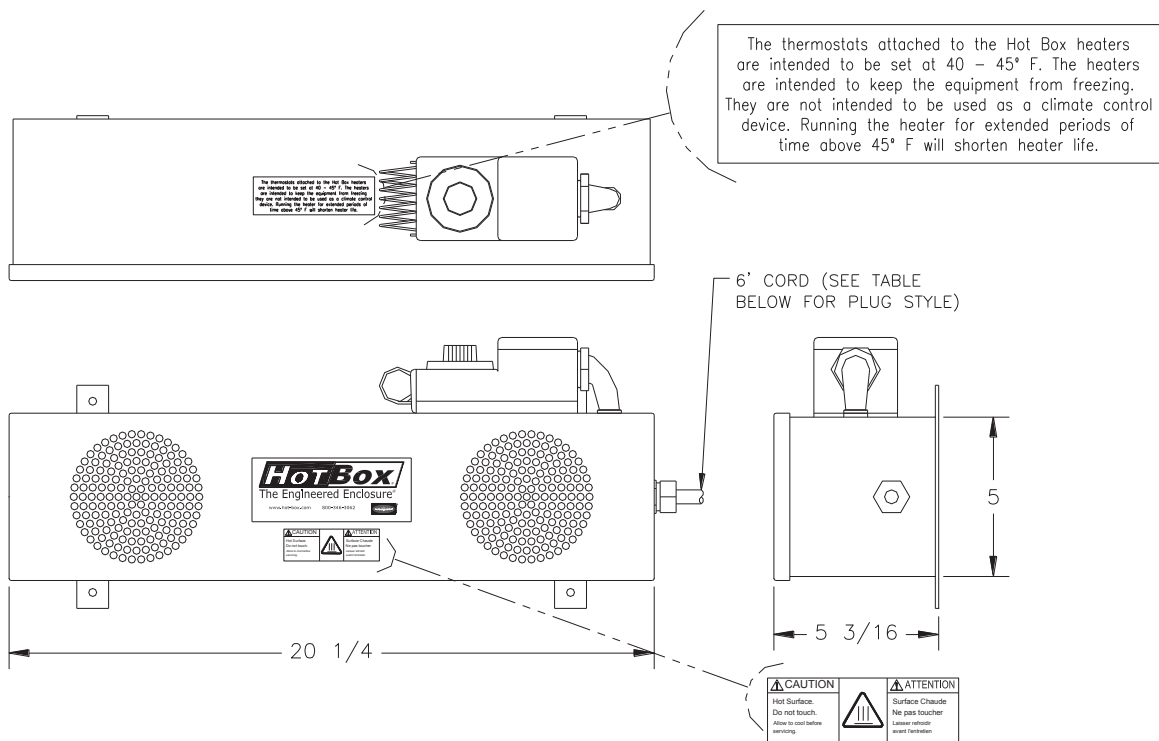
Standard Convection Heaters

Benefits and Features:

- **Better Freeze Protection** - Heater is thermostatically controlled to maintain an interior temperature of 40°F (4.4°C) to protect equipment from external temperatures as low as -30°F (-34.4°C) in accordance with ASSE 1060 1.2.2.1.
- **Better Performance and Safety** - Wall-mounted design elevates heater above discharge point.
- **Fast and Easy Installation** - 6' power cord and plug.
- **Quiet Operation** - Factory lubricated 100 cfm fan.

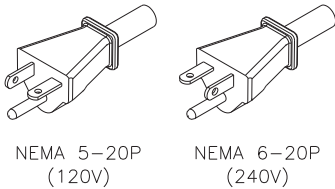
Meets or Exceeds Standards:

- ETL listed (tested for wet/damp locations).
- Dielectric Voltage Withstand Test (Section 44.0 of the UL 499 Standard & Section 6.4 of the CAN/CSA C22.2, No. 88 standard).
- Grounding Continuity Test (Section 45.1 of the UL 499 Standard & Section 6.5 of the CAN/CSA C22.2, No. 88 standard).



MODEL	WATTAGE	VOLTAGE	PHASE	BTU/hr	WEIGHT lb.	RECOMMENDED CIRCUITS	PLUG
ACI1000-120	1000	120	1	3412	12	20 AMP	NEMA 5-20P
ACI1500-120	1500	120	1	5118	12	20 AMP	NEMA 5-20P
ACI2000-120	1900	120	1	6824	12	20 AMP	NEMA 5-20P
ACI1000-208/240	867/1000	208-240	1	2957/3412	12	20 AMP	NEMA 6-20P
ACI1500-208/240	1300/1500	208-240	1	4436/5118	12	20 AMP	NEMA 6-20P
ACI2000-208/240	1733/2000	208-240	1	5914/6824	12	20 AMP	NEMA 6-20P

Contractors other than Hot Box are responsible for the installation of the G.F.I. protected service and receptacles. We recommend that each heater be on separate 20 amp circuits so in the event a circuit fails, all other circuits will remain powered. We recommend that all installations be in accordance with the local and national codes.

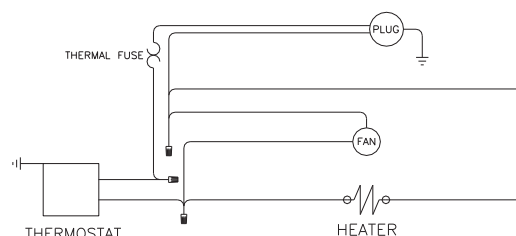
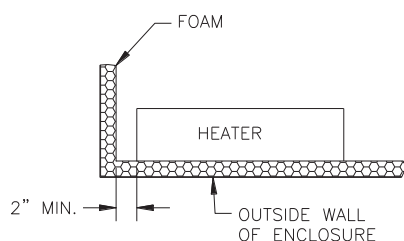


Standard Convection Heaters

Installation:

1. Contractors other than Hot Box® are responsible for the installation of the G.F.I. protected service and receptacles (ref. UL 943, NEMA 3R). When multiple heaters are required it is recommended that each heater be on a separate 20 amp circuit. Separate circuits help provide redundancy in the event that one circuit fails. All installations to be in accordance with local and national codes.
2. Locate the aluminum heater plate(s) inside the enclosure and hang the heater(s) on the provided hangers.
3. Plug the heater into the ground fault circuit protected outlet.

Note: The heater assembly may be installed on any vertical wall no closer than 2 inches from the adjacent box wall or seam.



Maintenance:

Perform the following maintenance prior to installation and at least once per season, preferably before energizing the system, or immediately after any work has taken place on the piping system:

- Check to be sure heater power cord is free from mechanical or thermal damage (cuts or nicks in the cable insulation from utility knife, use of metal clamps, solder or overheating).
- To test heaters with adjustable thermostats, the thermostat should be turned clockwise until the heater activates and then reset to the minimum setting (40-45°F) by turning the knob counter-clockwise, after testing is completed.
- To test heaters with older pre-set thermostats, spray CO2 on the thermostat bulb to simulate cold temperature until the heater activates.
- Vacuum occasionally using standard vacuum attachments.

Note: The heaters are intended to keep the equipment from freezing and are not to be used as a climate control device. Running the heaters for extended periods of time above 45°F will shorten heater life.

Warning! - A ground fault circuit interrupting device shall be installed in the electrical supply circuit to the heater(s). Failure to do so may result in injury or death. The interior of this enclosure can a damp location.

Warning! - Hazard of severe shock, disconnect all power before servicing.

Warning! - Do not block air flow in any way.

Warning! - Avoid contact. The heater surface is HOT.

For replacement heaters please contact your local Hot Box Representative.



Heat Trace Tape

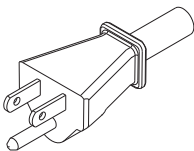
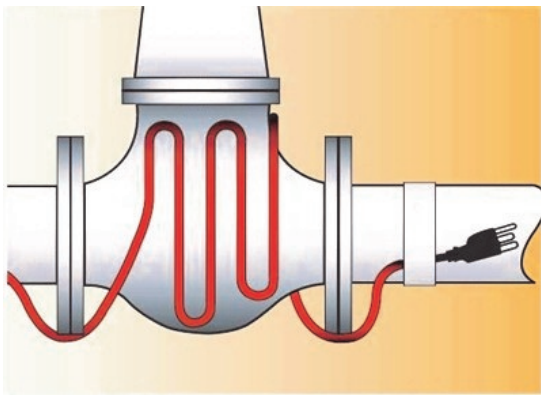
Benefits and Features:

- **Energy Efficient & Self-Regulating** - The electrical resistance of the heat trace tape varies with temperature. As the process temperature drops the heat output increases; as the process temperature rises the heat output decreases.
- **Fast and Easy Installation** - Single overlap cable and 3' power cord and plug.
- **Freeze Protection** - Protects equipment from external temperatures as low as -30°F (-34.4°C).
- **Durable** - Commercial grade design suitable for wet environments.

Note: Heat trace tape does not respond to a drop in ambient temperature. It responds to abject cooling of surfaces such as the piping risers and backflow prevention device. It does not heat along the entire cable at one time. The tape uses a sensory bulb and is self regulating, heating only those sections of tape that are required to warm the cooled portions of the piping risers and backflow prevention device.

Standards:

- UL Listed
- CSA Certified for commercial/residential pipe freeze protection applications



NEMA 5-15P
(120V)

MODEL	WATTAGE	VOLTAGE	PHASE	CABLE LENGTH (ft)	WEIGHT (lbs)	RECOMMENDED CIRCUITS	PLUG
C001266	30	120	1	6	.50	15 AMP	NEMA 5-15P
C001267	60	120	1	12	1.00	15 AMP	NEMA 5-15P
C001269	90	120	1	18	1.50	15 AMP	NEMA 5-15P

Contact Hot Box if you do not see the heat trace tape you are looking for.





Heat Trace Tape

Installation:

1. Contractors other than Hot Box® are responsible for the installation of the G.F.I. protected service and receptacles (ref. UL 943, NEMA 3R). When multiple heaters are required it is recommended that each heater be on a separate 15 amp circuit. Separate circuits help provide redundancy in the event that one circuit fails. All installations to be in accordance with the local and national codes.
2. Wrap heat trace tape in a spiral or straight line (depending on length of the heat tape) about the pipe risers and backflow device. Avoid overlapping the heat tape.
3. Secure heat trace tape on 12" centers using only glass cloth tape or plastic cable ties. Restrain the plug end of the cord to provide proper strain relief.
4. Pipe insulation is not a requirement. If insulating the pipe, use only a fire resistant thermal insulation, such as fiberglass pipe wrap.
5. Plug cable into 120V ground fault circuit protected outlet.

Maintenance:

Perform the following maintenance prior to installation and at least once per season, preferably before energizing the system, or immediately after any work has taken place on the piping system:

- Check to be sure heating cable is free from mechanical or thermal damage (cuts or nicks in the cable insulation from utility knife, use of metal clamps, solder or overheating).
- Use Megohmmeter to test each circuit (see below).

Megohmmeter Testing Procedure (Use only 2500VDC megohmmeter for this test):

- Check insulation resistance between each lead of the heating cable and the round ground lug on the power cord plug.
- Perform the test by placing one lead of the megohmmeter on the round ground lug and the other on one of the rectangular power lugs. You should read 1000 megohms minimum.
- Perform the test again by checking the opposite rectangular power lug. Again the reading should be 1000 megohms minimum.

Note: If you read less than 1000 megohms on either lead, the cable needs to be replaced. Do not attempt to repair the unit. Replace with new product. The megohm readings along with the test date should be recorded.

Warning! - A ground fault circuit interrupting device shall be installed in the electrical supply circuit to the heater(s). Failure to do so may result in injury or death. The interior of this enclosure can be a damp location.

Warning! - Hazard of severe shock, disconnect all power before servicing.

Warning! - Avoid contact. The heater surface is HOT.

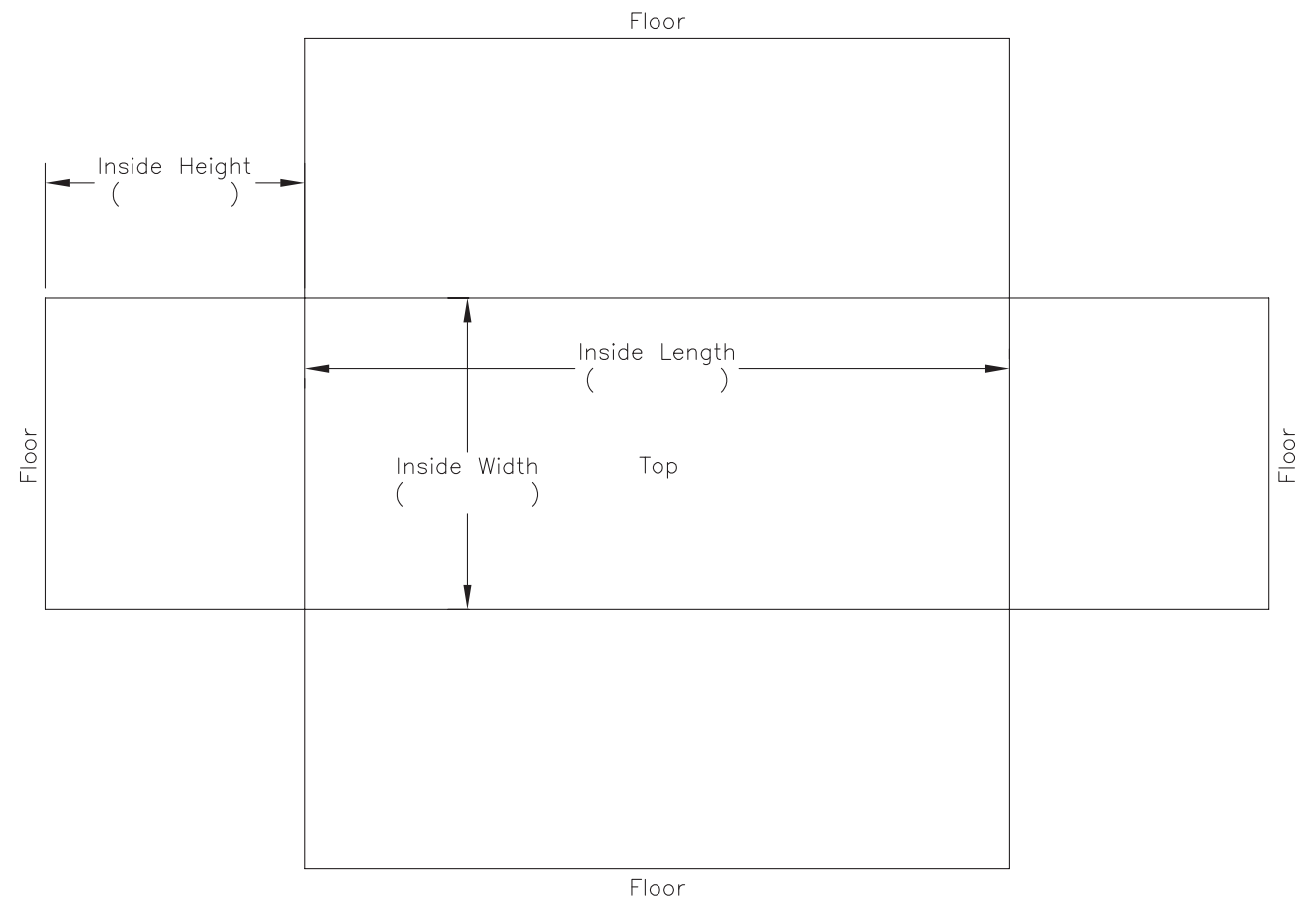
For replacement heaters please contact your local Hot Box Representative.



Hot Box Order Form

HOT BOX ORDER FORM

Catalog # _____ . Size _____ .



Locate penetrations by giving dimensions from the centerline to the floor.

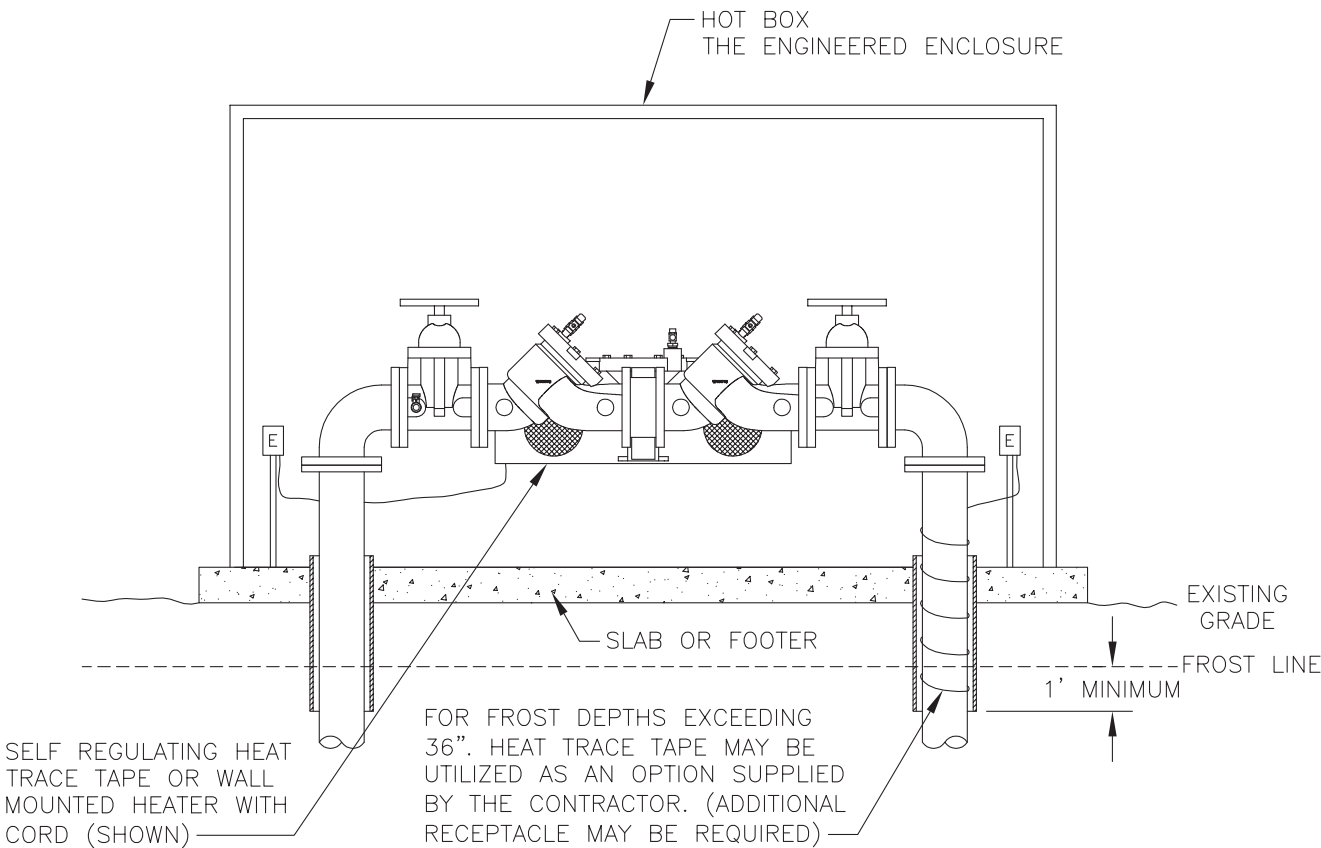
_____	Enclosure Style	_____		FDC boot
_____	 Heat (yes/no)	_____		Penetrations/Size
_____	 Vented	_____		Special Door/location
_____	 Exhaust Fan	_____	_____	Color
_____	 Alarm/Style	_____	_____	BFP Model/optional
_____	 Lights			



Typical Winterization

TYPICAL WINTERIZATION FOR 3"–10" BFP RISERS

(RECOMMENDED COLD WEATHER INSTALLATION)

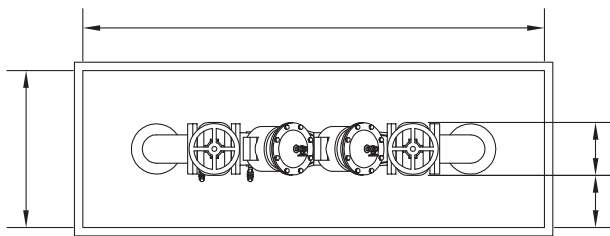


NOTE: UTILIZATION OF THIS RECOMMENDATION LIES WITH THE PROJECT ENGINEER AND/OR UTILITY. HOW IT IS INSTALLED SHALL BE IN STRICT ACCORDANCE WITH THE ENGINEERING AND/OR UTILITY SPECIFICATION.



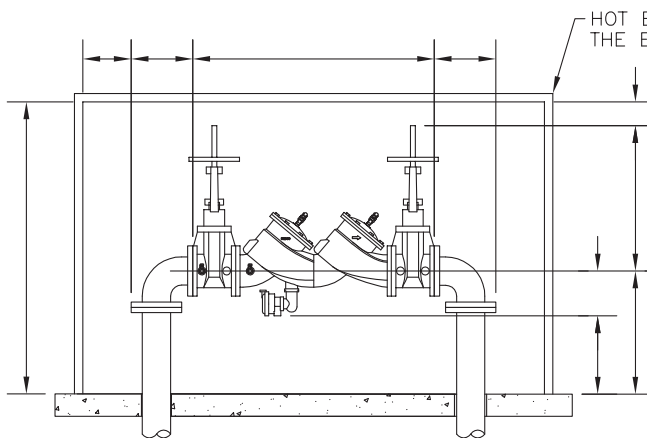
Typical Installation-Single

SINGLE INSTALLATION



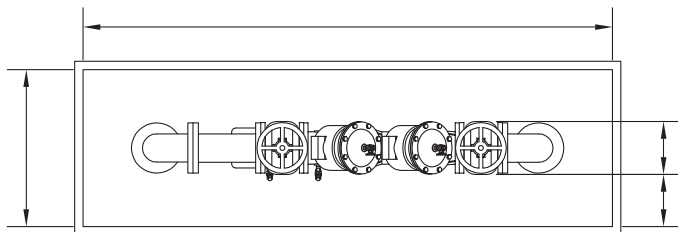
PIPE SIZE: _____
BACKFLOW: _____
VALVE TYPE: _____

HOTBOX P/N: _____



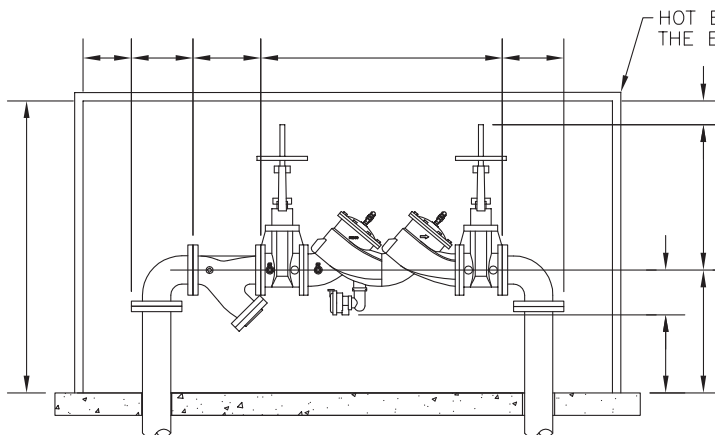
- RECOMMENDED SLAB SIZE IS 12" LARGER THAN THE INTERIOR DIMENSIONS OF THE SPECIFIED ENCLOSURE AND 4" THICK.
- INSULATED ENCLOSURES ARE INTERNALLY LINED WITH POLYISOCYANATE FOAM FOR A MINIMUM R8 VALUE.
- MANUFACTURER RECOMMENDS ENCLOSURES HAVE A UL OR ETL LISTED HEAT SOURCE WHEN IT IS DETERMINED THAT FREEZE PROTECTION IS NEEDED. HEATED ENCLOSURES HAVE A "H" PREFIX AND UNHEATED ENCLOSURES HAVE A "L" PREFIX.
- IF A STRAINER IS REQUIRED IT IS LOCATED BEFORE THE BFP.

SINGLE W/ STRAINER INSTALLATION



PIPE SIZE: _____
BACKFLOW: _____
VALVE TYPE: _____
STRAINER: _____

HOTBOX P/N: _____

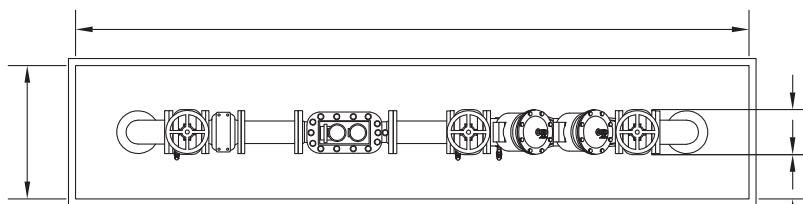


- RECOMMENDED SLAB SIZE IS 12" LARGER THAN THE INTERIOR DIMENSIONS OF THE SPECIFIED ENCLOSURE AND 4" THICK.
- INSULATED ENCLOSURES ARE INTERNALLY LINED WITH POLYISOCYANATE FOAM FOR A MINIMUM R8 VALUE.
- MANUFACTURER RECOMMENDS ENCLOSURES HAVE A UL OR ETL LISTED HEAT SOURCE WHEN IT IS DETERMINED THAT FREEZE PROTECTION IS NEEDED. HEATED ENCLOSURES HAVE A "H" PREFIX AND UNHEATED ENCLOSURES HAVE A "L" PREFIX.
- IF A STRAINER IS REQUIRED IT IS LOCATED BEFORE THE BFP.



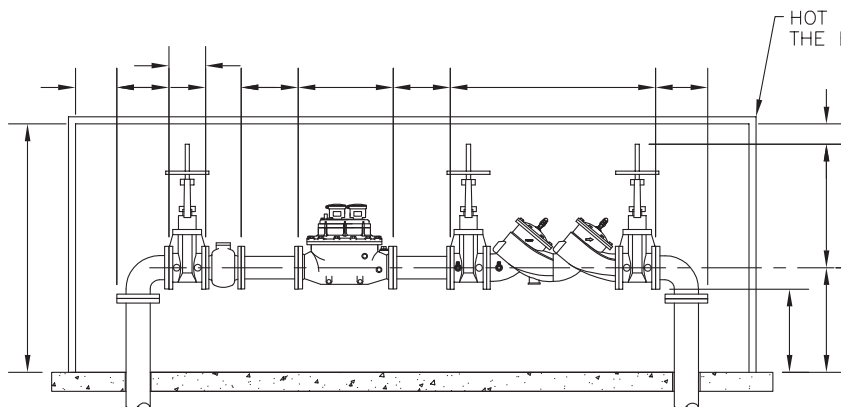
Typical Installation-Single w/ Meter

SINGLE W/ METER INSTALLATION



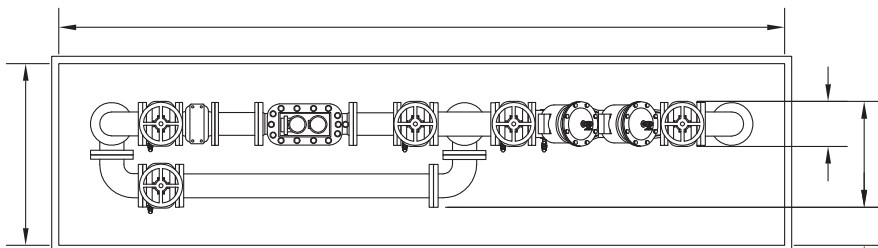
PIPE SIZE: _____
BACKFLOW: _____
METER: _____
STRAINER: _____
VALVE: _____

HOTBOX P/N: _____



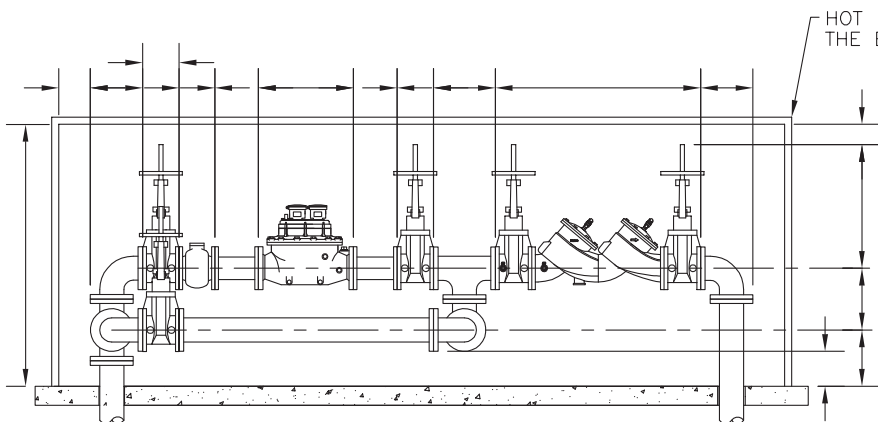
- RECOMMENDED SLAB SIZE IS 12" LARGER THAN THE INTERIOR DIMENSIONS OF THE SPECIFIED ENCLOSURE AND 4" THICK.
- INSULATED ENCLOSURES ARE INTERNALLY LINED WITH POLYISOCYANATE FOAM FOR A MINIMUM R8 VALUE.
- MANUFACTURER RECOMMENDS ENCLOSURES HAVE A UL OR ETL LISTED HEAT SOURCE WHEN IT IS DETERMINED THAT FREEZE PROTECTION IS NEEDED. HEATED ENCLOSURES HAVE A "H" PREFIX AND UNHEATED ENCLOSURES HAVE A "L" PREFIX.
- IF A STRAINER IS REQUIRED IT IS LOCATED BEFORE THE BFP.

SINGLE W/ METER & BYPASS INSTALLATION



PIPE SIZE: _____
BACKFLOW: _____
METER: _____
STRAINER: _____
VALVE: _____

HOTBOX P/N: _____

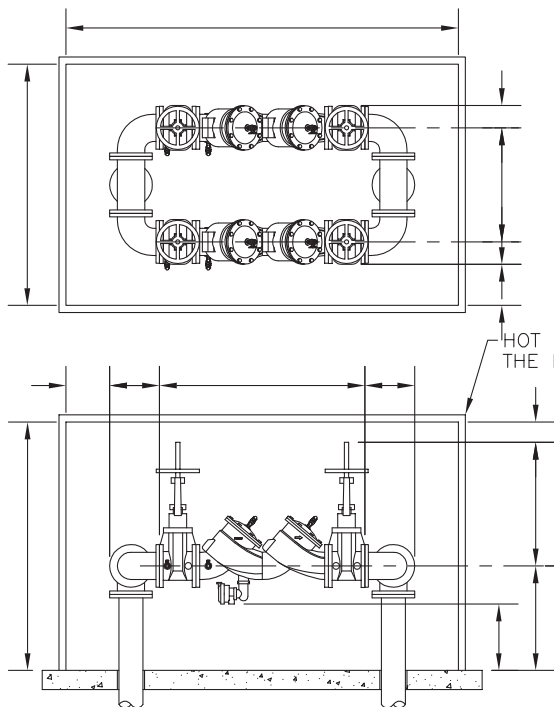


- RECOMMENDED SLAB SIZE IS 12" LARGER THAN THE INTERIOR DIMENSIONS OF THE SPECIFIED ENCLOSURE AND 4" THICK.
- INSULATED ENCLOSURES ARE INTERNALLY LINED WITH POLYISOCYANATE FOAM FOR A MINIMUM R8 VALUE.
- MANUFACTURER RECOMMENDS ENCLOSURES HAVE A UL OR ETL LISTED HEAT SOURCE WHEN IT IS DETERMINED THAT FREEZE PROTECTION IS NEEDED. HEATED ENCLOSURES HAVE A "H" PREFIX AND UNHEATED ENCLOSURES HAVE A "L" PREFIX.
- IF A STRAINER IS REQUIRED IT IS LOCATED BEFORE THE BFP.



Typical Installation-Dual

DUAL INSTALLATION



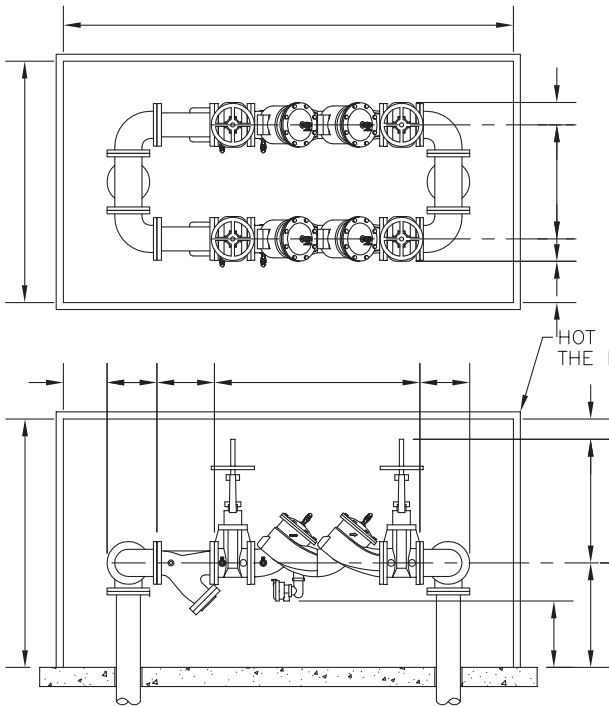
PIPE SIZE "A": _____
BACKFLOW "A": _____

PIPE SIZE "B": _____
BACKFLOW "B": _____

HOTBOX P/N: _____

- RECOMMENDED SLAB SIZE IS 12" LARGER THAN THE INTERIOR DIMENSIONS OF THE SPECIFIED ENCLOSURE AND 4" THICK.
- INSULATED ENCLOSURES ARE INTERNALLY LINED WITH POLYISOCYANATE FOAM FOR A MINIMUM R8 VALUE.
- MANUFACTURER RECOMMENDS ENCLOSURES HAVE A UL OR ETL LISTED HEAT SOURCE WHEN IT IS DETERMINED THAT FREEZE PROTECTION IS NEEDED. HEATED ENCLOSURES HAVE A "H" PREFIX AND UNHEATED ENCLOSURES HAVE A "L" PREFIX.
- IF A STRAINER IS REQUIRED IT IS LOCATED BEFORE THE BFP.

DUAL W/ STRAINER INSTALLATION



PIPE SIZE "A": _____
BACKFLOW "A": _____
STRAINER "A": _____

PIPE SIZE "B": _____
BACKFLOW "B": _____
STRAINER "B": _____

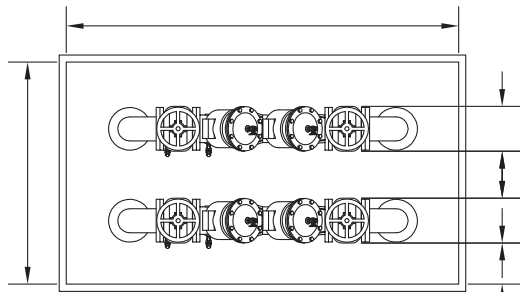
HOTBOX P/N: _____

- RECOMMENDED SLAB SIZE IS 12" LARGER THAN THE INTERIOR DIMENSIONS OF THE SPECIFIED ENCLOSURE AND 4" THICK.
- INSULATED ENCLOSURES ARE INTERNALLY LINED WITH POLYISOCYANATE FOAM FOR A MINIMUM R8 VALUE.
- MANUFACTURER RECOMMENDS ENCLOSURES HAVE A UL OR ETL LISTED HEAT SOURCE WHEN IT IS DETERMINED THAT FREEZE PROTECTION IS NEEDED. HEATED ENCLOSURES HAVE A "H" PREFIX AND UNHEATED ENCLOSURES HAVE A "L" PREFIX.
- IF A STRAINER IS REQUIRED IT IS LOCATED BEFORE THE BFP.



Typical Installation-Tandem

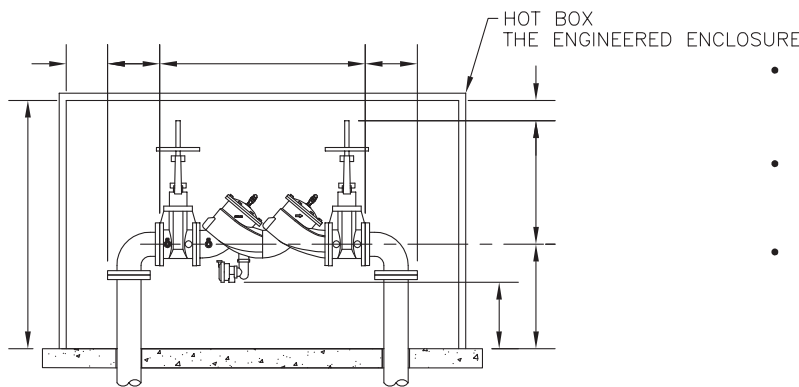
TANDEM INSTALLATION



PIPE SIZE "A": _____
BACKFLOW "A": _____

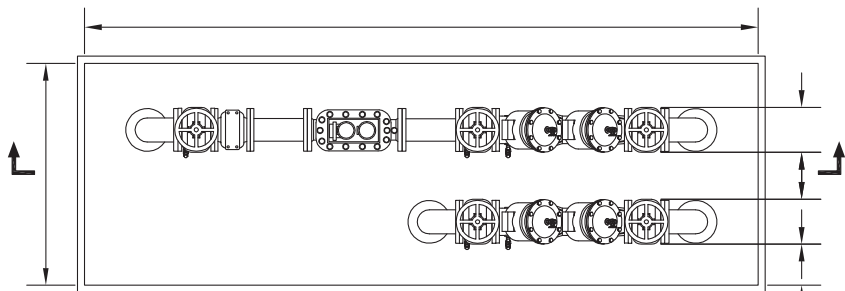
PIPE SIZE "B": _____
BACKFLOW "B": _____

HOTBOX P/N: _____



- RECOMMENDED SLAB SIZE IS 12" LARGER THAN THE INTERIOR DIMENSIONS OF THE SPECIFIED ENCLOSURE AND 4" THICK.
- INSULATED ENCLOSURES ARE INTERNALLY LINED WITH POLYISOCYANATE FOAM FOR A MINIMUM R8 VALUE.
- MANUFACTURER RECOMMENDS ENCLOSURES HAVE A UL OR ETL LISTED HEAT SOURCE WHEN IT IS DETERMINED THAT FREEZE PROTECTION IS NEEDED. HEATED ENCLOSURES HAVE A "H" PREFIX AND UNHEATED ENCLOSURES HAVE A "L" PREFIX.
- IF A STRAINER IS REQUIRED IT IS LOCATED BEFORE THE BFP.

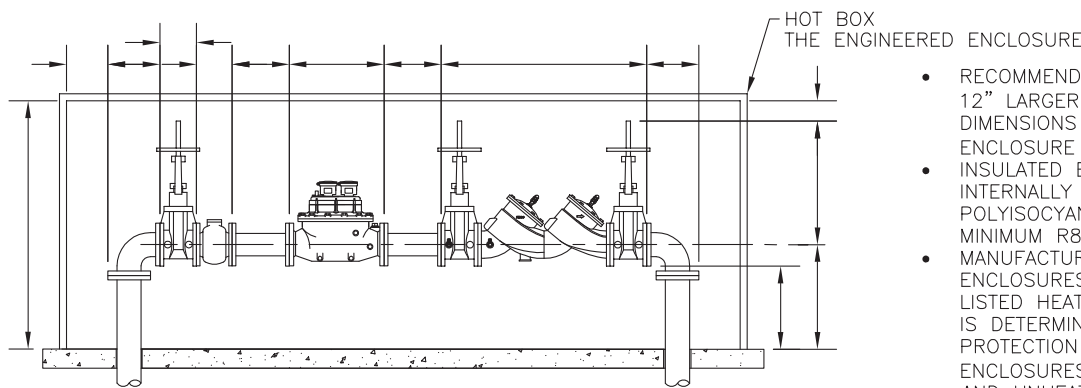
TANDEM W/ METER INSTALLATION



PIPE SIZE "A": _____
BACKFLOW "A": _____
METER "A": _____
STRAINER "A": _____
VALVE "A": _____

PIPE SIZE "B": _____
BACKFLOW "B": _____

HOTBOX P/N: _____



- RECOMMENDED SLAB SIZE IS 12" LARGER THAN THE INTERIOR DIMENSIONS OF THE SPECIFIED ENCLOSURE AND 4" THICK.
- INSULATED ENCLOSURES ARE INTERNALLY LINED WITH POLYISOCYANATE FOAM FOR A MINIMUM R8 VALUE.
- MANUFACTURER RECOMMENDS ENCLOSURES HAVE A UL OR ETL LISTED HEAT SOURCE WHEN IT IS DETERMINED THAT FREEZE PROTECTION IS NEEDED. HEATED ENCLOSURES HAVE A "H" PREFIX AND UNHEATED ENCLOSURES HAVE A "L" PREFIX.
- IF A STRAINER IS REQUIRED IT IS LOCATED BEFORE THE BFP.



BACKFLOW PREVENTION ASSEMBLY ENCLOSURE SPECIFICATION-DURA FOLD®

GENERAL

1.1 WORK INCLUDED

A. Provide and install manufactured backflow prevention assembly enclosure.

1.2 QUALITY ASSURANCE

A. Qualifications: The backflow prevention assembly enclosure manufacturer shall be a company specializing in the manufacture of backflow prevention assembly enclosures with at least 29 years of successful experience designing and selling enclosures to various customers in different climatic regions.

1.3 STORAGE AND HANDLING

A. Store products in shipping containers and maintain in dry place until installation.

1.4 ACCEPTABLE MANUFACTURERS

A. Hot Box® or Engineer approved equal.

1.5 REFERENCES

- A. ASTM B209.
- B. ASTM B221.
- C. ASSE 1060 - Performance Requirements for Outdoor Enclosures for Backflow Prevention assemblies.

PRODUCTS

2.1 DURA FOLD® ENCLOSURES

A. Dura Fold® Enclosures ship assembled to allow quick installation by securing to the concrete pad with the supplied anchor pads and wedge anchors. The design includes hinged walls, as well as front and top lids, to provide easy access. Also the front wall is easily removed to provide unobstructed access for equipment testing and maintenance after installation.

B. Drain ports are sized for full port backflow discharge and are designed for a one way operation allowing backflow discharge but not allowing wind, debris and small animals to enter the enclosure.

C. Standard enclosures shall be designed to support a minimum vertical load of 100 lb/sf.

D. Standard enclosures shall be designed to support wind speeds up to 80 mph.

E. Standard enclosures are ASSE 1060 certified.

F. Custom Dura Fold Enclosures are designed and constructed in the same manner as standard certified enclosures, but have not been lab tested and listed by ASSE.

2.2 MATERIALS OF FABRICATION

A. Aluminum sheeting shall be 3003 aluminum

(.050"/18 gauge), stucco embossed finish and shall meet ASTM B209. Stucco embossed finish reduces the glare and helps hide surface scratches or imperfections received in the field.

B. Bracing shall be 6063-T52 aluminum and shall meet ASTM B221

C. No wood or particle board should be used in the construction of the enclosure.

D. Anchor pads shall be galvanized steel. 3/8-16 unc x 2 ¾ long zinc plated wedge anchors are supplied.

E. Insulation shall be approximately 1.5" unicellular, non-wicking, polyisocyanate foam sprayed in place that forms a monolithic bond between the aluminum bracing and aluminum sheeting.

F. The Insulation shall have the following properties:

- R-Value: 10
- Dimensional Stability: <2% linear change
- Compressive Strength: 51 psi
- Flame point: 325 degrees
- Water absorption: .037 psf
- Porosity: 91%

3.1 HEATING EQUIPMENT (ASSE 1060 Class I-Required; ASSE 1060 Class II-Optional)

A. Heating equipment will protect the piping and equipment from exterior temperatures to -30F. ETL listed thermostatically controlled wall mounted air forced heaters or UL listed self regulating cable(s) shall be furnished and designed by the manufacturer of the enclosure to maintain the equipment at +40F, In accordance with ASSE 1060 1.2.2.1.

B. Heating equipment shall be wall mounted to the supplied heater plates and a minimum 8" above the slab unless it is UL or ETL certified and NEC approved for submersion.

C. Power source shall be protected with a GFI receptacle, U.L. 943, NEMA 3R. Mounted a minimum of 8" from the bottom of the receptacle to the top of the slab.

D. Separate 20 amp circuits are recommended for each heater, so in the event a circuit fails all other circuits will remain powered. Installations must be in accordance with the local and national codes.

E. The heaters shall be ETL listed for wet/damp locations.

4.1 RECOMMENDED SLAB SIZE & INSTALLATION

A. The recommended slab size shall be 12" larger than the interior dimensions of the enclosure and a minimum of 4" thick.

B. The enclosure shall be assembled per the manufacturer's instructions provided with the enclosure.



BACKFLOW PREVENTION ASSEMBLY ENCLOSURE SPECIFICATION-SECTIONAL ALUMINUM

GENERAL

1.1 WORK INCLUDED

A. Provide and install manufactured backflow prevention assembly enclosure.

1.2 QUALITY ASSURANCE

A. Qualifications: The backflow prevention assembly enclosure manufacturer shall be a company specializing in the manufacture of backflow prevention assembly enclosures with at least 29 years of successful experience designing and selling enclosures to various customers in different climatic regions.

1.3 STORAGE AND HANDLING

A. Store products in shipping containers and maintain in dry place until installation.

1.4 ACCEPTABLE MANUFACTURERS

A. Hot Box® or Engineer approved equal.

1.5 REFERENCES

- A. ASTM B209.
- B. ASTM B221.
- C. ASSE 1060 - Performance Requirements for Outdoor Enclosures for Backflow Prevention assemblies.

PRODUCTS

2.1 SECTIONALIZED ALUMINUM ENCLOSURES

A. Sectionalized enclosures are factory assembled with tongue and grooved sections that slide together and are then secured to the concrete pad with the supplied anchor pads and wedge anchors.

B. Access panels have a four point locking system with pad lockable handle and are completely removable.

C. Drain ports are sized for full port backflow discharge and are designed for a one way operation allowing backflow discharge but not allowing wind, debris and small animals to enter the enclosure.

D. Standard enclosures shall be designed to support a minimum vertical load of 100lb/sf.

E. Standard enclosures up to 36"W x 105"L x 64"H shall be designed to support wind speeds up to 120 mph, all larger sizes shall be designed to support wind speeds up to 80 mph.

F. Standard enclosures are ASSE 1060 certified.

G. Custom enclosures are designed and constructed in the same manner as standard certified enclosures, but have not been lab tested and listed by ASSE.

2.2 MATERIALS OF FABRICATION

A. Aluminum sheeting shall be 3003 aluminum (.050/18 gauge), stucco embossed finish and shall

meet ASTM B209. Stucco embossed finish reduces the glare and helps hide any surface scratches or imperfections received in the field.

B. Bracing shall be 6063-T52 aluminum and shall meet ASTM B221.

C. No wood or particle board should be used in the construction of the enclosure.

D. Anchor pads shall be galvanized steel. 3/8-16 unc x 2 ¾ long zinc plated wedge anchors are supplied.

E. Insulation shall be approximately 1.5" unicellular, non-wicking, polyisocyanate foam sprayed in place that forms a monolithic bond between the aluminum bracing and aluminum sheeting.

F. The Insulation shall have the following properties:

- R-Value: 10
- Dimensional Stability: <2% linear change
- Compressive Strength: 51 psi
- Flame point: 325 degrees
- Water absorption: .037 psf
- Porosity: 91%

3.1 HEATING EQUIPMENT (ASSE 1060 Class I-Required; ASSE 1060 Class II-Optional)

A. Heating equipment will protect the piping and equipment from exterior temperatures to -30F. ETL listed thermostatically controlled wall mounted air forced heaters shall be furnished and designed by the manufacturer of the enclosure to maintain the equipment at +40F, In accordance with ASSE 1060 1.2.2.1.

B. Heating equipment shall be wall mounted to the supplied heater plates and a minimum of 8" above the slab unless it is UL or ETL certified and NEC approved for submersion.

C. Power source shall be protected with a GFI receptacle, U.L. 943, NEMA 3R. Mounted a minimum of 8" from the bottom of the receptacle to the top of the slab.

D. Separate 20 amp circuits are recommended for each heater, so in the event a circuit fails all other circuits will remain powered. Installations must be in accordance with the local and national codes.

E. The heaters shall be ETL listed for wet/damp locations.

4.1 RECOMMENDED SLAB SIZE & INSTALLATION

A. The recommended slab size shall be 12" larger than the interior dimensions of the enclosure and a minimum of 4" thick.

B. The enclosure shall be assembled per the manufacturer's instructions provided with the enclosure.



BACKFLOW PREVENTION ASSEMBLY ENCLOSURE SPECIFICATION-DESIGNER SERIES™

GENERAL

1.1 WORK INCLUDED

A. Provide and install manufactured backflow prevention assembly enclosure.

1.2 QUALITY ASSURANCE

A. Qualifications: The backflow prevention assembly enclosure manufacturer shall be a company specializing in the manufacture of backflow prevention assembly enclosures with at least 29 years of successful experience designing and selling enclosures to various customers in different climatic regions.

1.3 STORAGE AND HANDLING

A. Store products in shipping containers and maintain in dry place until installation.

1.4 ACCEPTABLE MANUFACTURERS

A. Hot Box® or Engineer approved equal.

1.5 REFERENCES

A. ASSE 1060 - Performance Requirements for Outdoor Enclosures for Backflow Prevention assemblies.

PRODUCTS

2.1 DESIGNER SERIES™ ENCLOSURES

A. Enclosures shall have front and back hinged doors that are removable for full access to both sides of the equipment for maintenance and testing.

B. Enclosures shall have a removable hinged top with gas shocks to support and secure the lid in an upright position for full access to the top of the equipment for maintenance and testing.

C. Doors shall be secured from the interior of the enclosure and shall have no exterior handles or lock exposed to the elements.

D. The top is lockable to deter unauthorized entry, theft and vandalism.

E. Anchoring is supplied to secure to the concrete pad.

F. Drain ports are sized for full port backflow discharge and are designed for a one way operation allowing backflow discharge but not allowing wind, debris and small animals to enter the enclosure.

G. Standard enclosures shall be designed to support a minimum vertical load of 100 lb/sf.

H. Standard enclosures shall be designed to support wind speeds up to 120 mph.

I. Standard enclosures shall be ASSE 1060 certified.

2.2 MATERIALS OF FABRICATION

A. Fiberglass is minimum of 1/8" thick Thixotropic polyester resin reinforced with fiberglass strand. A smooth yacht quality finish, protected with UV inhibited isophthalic polyester gel coat.

B. No wood or particle board should be used in the construction of the enclosure.

C. Anchor pads shall be galvanized steel. 3/8-16 unc x 2 3/4 long zinc plated wedge anchors and drill bit are supplied.

D. Insulation shall be 1.5" unicellular, non-wicking, polyisocyanate foam frothed applied to form a monolithic bond to the fiberglass and is not affected by heat or cold. No clips or fasteners shall be used.

E. The Insulation shall have the following properties:

• R-Value:	10
• Dimensional Stability:	<2% linear change
• Compressive Strength:	51 psi
• Flame point:	325 degrees
• Water absorption:	.037 psf
• Porosity:	91%

3.1 HEATING EQUIPMENT (ASSE 1060 Class I-Required; ASSE 1060 Class II-Optional)

A. Heating equipment will protect the piping and equipment from exterior temperatures to -30F. ETL listed thermostatically controlled wall mounted air forced heaters shall be furnished and designed by the manufacturer of the enclosure to maintain the equipment at +40F, In accordance with ASSE 1060 1.2.2.1.

B. Heating equipment shall be wall mounted to the supplied heater plates and a minimum 8" above the slab unless it is UL or ETL certified and NEC approved for submersion.

C. Power source shall be protected with a GFI receptacle, U.L. 943, NEMA 3R. Mounted a minimum of 8" from the bottom of the receptacle to the top of the slab.

D. Separate 20 amp circuits are recommended for each heater, so in the event a circuit fails all other circuits will remain powered. Installations must be in accordance with the local and national codes.

E. The heaters shall be ETL listed for wet/damp locations.

4.1 RECOMMENDED SLAB SIZE & INSTALLATION

A. The recommended slab size shall be 12" larger than the interior dimensions of the enclosure and a minimum of 4" thick.

B. The enclosure shall be assembled per the manufacturer's instructions provided with the enclosure.



BACKFLOW PREVENTION ASSEMBLY ENCLOSURE SPECIFICATION-FIBERGLASS

GENERAL

1.1 WORK INCLUDED

A. Provide and install manufactured backflow prevention assembly enclosure.

1.2 QUALITY ASSURANCE

A. Qualifications: The backflow prevention assembly enclosure manufacturer shall be a company specializing in the manufacture of backflow prevention assembly enclosures with at least 29 years of successful experience designing and selling enclosures to various customers in different climatic regions.

1.3 STORAGE AND HANDLING

A. Store products in shipping containers and maintain in dry place until installation.

1.4 ACCEPTABLE MANUFACTURERS

A. Hot Box® or Engineer approved equal.

1.5 REFERENCES

- A. ASTM B209.
- B. ASTM B221.
- C. ASSE 1060 - Performance Requirements for Outdoor Enclosures for Backflow Prevention assemblies.

PRODUCTS

2.1 FIBERGLASS ENCLOSURES

- A. Available in Drop over, Flip top, Vent Guard, Valve Cover & Roks.
- B. All fiberglass enclosures are lockable.
- C. Anchoring is supplied to secure to the concrete pad.
- D. Drain ports are sized for full port backflow discharge and are designed for a one way operation allowing backflow discharge but not allowing wind, debris and small animals to enter the enclosure.
- E. Standard enclosures shall be designed to support a minimum vertical load of 100 lb/sf.
- F. Standard enclosures shall be designed to support wind speeds up to 120 mph.
- G. Standard enclosures are ASSE 1060 certified.

2.2 MATERIALS OF FABRICATION

- A. Fiberglass is minimum of 1/8" thick Thixotropic polyester resin reinforced with fiberglass strand. A smooth yacht quality finish, protected with UV inhibited isophthalic polyester gel coat.
- B. Non molded products will utilize an Industrial exterior texture.

C. No wood or particle board should be used in the construction of the enclosure.

D. Insulation shall be 1"-1.5" unicellular, non-wicking, polyisocyanate foam frothed or sprayed in place.

E. The Insulation shall have the following properties:

- R-Value: 8
- Dimensional Stability: <2% linear change
- Compressive Strength: 51 psi
- Flame point: 325 degrees
- Water absorption: .037 psf
- Porosity: 91%

3.1 HEATING EQUIPMENT (ASSE 1060 Class I-Required; ASSE 1060 Class II-Optional)

A. Heating equipment will protect the piping and equipment from exterior temperatures to -30F. ETL listed thermostatically controlled wall mounted air forced heaters or UL listed self regulating cable(s) shall be furnished and designed by the manufacturer of the enclosure to maintain the equipment at +40F, In accordance with ASSE 1060 1.2.2.1.

B. Heating equipment shall be wall mounted to the supplied heater plates and a minimum 8" above the slab unless it is UL or ETL certified and NEC approved for submersion.

C. Power source shall be protected with a GFI receptacle, U.L. 943, NEMA 3R. Mounted a minimum of 8" from the bottom of the receptacle to the top of the slab.

D. Separate 20 amp circuits are recommended for each heater, so in the event a circuit fails all other circuits will remain powered. Installations must be in accordance with the local and national codes.

E. The heaters shall be ETL listed for wet/damp locations.

4.1 RECOMMENDED SLAB SIZE & INSTALLATION

A. The recommended slab size shall be 12" larger than the interior dimensions of the enclosure and a minimum of 4" thick.

B. The enclosure shall be assembled per the manufacturer's instructions provided with the enclosure.



Hot Box® Catalog Numbering System

1 Type	2 Hot Box Style	3, 4, 5 Width	6, 7, 8 Length	9, 10, 11 Height	12 Color Options***	13 Lights	
H-Heated (Hotbox)	A-Aluminum	(Interior Width)	(Interior Length)	(Interior Height)	A-Standard	A-Standard	
L-Unheated (Lokbox)	C-Valve Cover				B-Black	B-(1) 24" light	
V-Non-Insulated (Valve Guard)	D-Dura Fold				C-Grey	C-(2) 24" light	
G-Glass Pad	E-EZ Box				E-Brown (Roks Only)	E-(4) 24" light	
	F-Flip-Top Fiberglass				G-Dark Green	F-(1) Haz light	
	G-Glass Pad				L-Smooth Mill Finish Aluminum	G-(2) Haz light	
	L-Low Profile				M-Federal Brown		
	M-Designer Series				N-Granite		
	N-EZ Box w/ doors				S-Desert Rose		
	P-Poly EZ Box				T-Beige		
	Q-PolyRock				W-White (Sail)		
	R-Hot Rock Fiberglass				Specials "500#" Digits 12, 13, & 14		
	V-Vent guard						

***Note: When no options are needed, no color code is needed for standard colors. With ordering options, if standard color is acceptable, then use an "A" in the 12th digit. See page 49 for details on color and finish options.



	14 Fans	15 Alarms
	A-Standard	A-Standard
	B-7" Fan	B-PLAHBO audible pwr loss
	C-10" Fan	C-PLAHBOS strobe pwr loss
	D-12" Fan	D-PLAHBO-T audible pwr & temp
	E-12" Expl Proof	E-PLAHBOS-T strobe pwr & temp
	F- FDC (4"-9")	F-PLAHBOT-S aud/ strobe pwr loss & low temp
	G- FDC (9"-16")	
	V-Vents	



Sample Hot Box Catalog Number

HD032090057MAAB

123456789101112131415

Type
(Heated)

Style
(Dura Fold)

Size
(32 x 90 x 57)

Color Option
(Federal Brown)

Alarms (PLAHBO
audible pwr loss)

Fans (None-
Standard)

Lights
(None-Standard)





HUBBELL LENOIR CITY, INC. TERMS & CONDITIONS OF SALES

Hubbell Lenoir City, Inc. (hereinafter called HLC) hereby gives notice of its exception to any different or additional terms and conditions other than as stated herein. All sales are expressly made conditional on Buyer's assent to the following terms and conditions. Buyer's acceptance of the provisions of HLC's terms and conditions as recited herein shall be conclusively presumed upon Buyer's receipt of the goods, or if no written objection is received by HLC within fifteen (15) days from the date on HLC's order acknowledgment, whichever event shall first occur. These terms and conditions constitute the entire agreement between HLC and Buyer, and supersede other communications between the two parties, whether written or oral.

PRICING

Refer to appropriate Price Schedule, unless otherwise quoted.

TERMS

HLC's payment terms are net 30 days. Invoices will be dated the day of shipment. A service charge of 1-1/2% per month or, if such rate exceeds the maximum lawful rate, the maximum lawful rate shall be assessed on all past due accounts and shall be payable on demand.

QUOTATIONS

Unless otherwise stated in writing, HLC's quotations are subject to acceptance by the Buyer within thirty (30) days from the date of issue.

SALES AND SIMILAR TAXES

HLC's prices do not include any sales, use, excise or similar taxes. Consequently, in addition to the price specified herein, the amount of any present or future sales, use, excise or other similar tax applicable to the sale or use of the goods hereunder, shall be paid by the Buyer, or in lieu thereof the Buyer shall provide HLC with a tax exemption certificate acceptable to the taxing authorities.

ACCEPTANCE OF ORDERS

All orders are subject to acceptance by HLC at its main office at 3621 Industrial Park Drive, Lenoir City, TN, USA, and to "HLC Terms and Conditions of Sales". Any other terms proposed by Buyer are rejected unless expressly accepted in writing. Orders shall be deemed to be executed in the State of Tennessee and shall be construed and performed in accordance with the Laws of that State. Acceptance of any order is subject to availability of product and the ability of HLC to deliver. Orders will be billed at prices in effect at time of shipment unless otherwise agreed. Unless, otherwise stated in writing, HLC reserves the right to ship plus or minus 10% of specified quality for special products that are made to order.

SALES BY AGENTS

Sales by agents or through overseas representatives shall be at prices, terms and conditions of sale specified by HLC. All invoices will be issued by and payment remitted to HLC.

DELAY

HLC will use reasonable efforts to meet shipment or delivery dates specified by HLC, but such dates are estimates only. HLC shall in no event be liable for any delay or nondelivery if such delay or nondelivery is caused directly or indirectly by Acts of God, fire, flood, strike or lockout or other labor dispute, accident, civil commotion, riot, war, governmental regulation or order, whether or not it later proves to be invalid, or from any other cause or causes (whether or not similar to any of the foregoing) beyond HLC's control. In no case will HLC be liable for loss of profits or any special or consequential damages on account of any delay in delivery or nondelivery whether or not excused hereunder.

SHIPPING DEFERMENT

Buyer requests for shipping deferment must be approved by HLC and are subject to price negotiation.

LIMITED WARRANTY AND LIMITATION OF LIABILITY

MATERIAL: HLC warrants all products sold by it to be merchantable (as such term is defined in the Uniform Commercial Code) and to be free from defects in material and workmanship for a period of one (1) year (or as otherwise specified) from the date of original shipment by HLC when stored, installed, operated or maintained in accordance with recommendations of HLC and standard industry practice and when used under proper and normal use. Buyer must notify HLC promptly of any claim under this warranty. NO OTHER WARRANTY, WHETHER EXPRESS OR ARISING BY OPERATION OF THE LAW, COURSE OF DEALING, USAGE OF TRADE OR OTHERWISE IMPLIED, SHALL EXIST IN CONNECTION WITH HLC'S PRODUCTS OR ANY SALE OR USE THEREOF. HLC SHALL IN NO EVENT BE LIABLE FOR ANY LOSS OF PROFITS OR CONSEQUENTIAL OR SPECIAL DAMAGES INCURRED BY BUYER. HLC's warranty shall run only to the first Buyer of a product from HLC, from HLC's Buyer, or from an original goods manufacturer reselling HLC's product, and is non-assignable and non-transferable and shall be of no force and effect if asserted by any person other than such first Buyer. This warranty applies only to the use of the product as intended by HLC and does not cover any modification, misapplication, alteration, repair or misuse of said product by Buyer or others, or for damage caused thereto by negligence, accident, or improper use by Buyer or others. This warranty does not include reimbursement for the expenses of labor, transportation, removal or reinstallation of products. Products may contain certain cosmetic imperfections that do not impact the Product's performance;



these cosmetic imperfections are not considered defects in material or workmanship and shall not be covered by any HLC warranty.

APPLICATION: HLC does not warrant the accuracy of and results from product or system performance recommendations resulting from any engineering analysis or study. This applies regardless of whether a charge is made for the recommendation, or if it is provided free of charge. Responsibility for selection of the proper product of application rests solely with the Buyer. In the event of errors or inaccuracies determined to be caused by HLC, its liability will be limited to the reperformance of any such analysis or study.

BUYER INSPECTIONS: Tests, inspections and acceptance of all material must be made at the factory. Buyer's inspectors are welcome at the factories and are provided with the necessary facilities for carrying out their work. Name and phone number of who should be contacted for inspection should be given to HLC no later than two weeks prior to scheduled shipment date.

LIMITATION OF LIABILITY: IN NO EVENT AND UNDER NO CIRCUMSTANCES, WHETHER AS A RESULT OF BREACH OF CONTRACT OR WARRANTY OR ALLEGED NEGLIGENCE, SHALL HLC BE LIABLE TO BUYER OR ANY OTHER PERSON FOR ANY INDIRECT, SPECIAL OR CONSEQUENTIAL, OR INCIDENTAL LOSSES OR DAMAGES INCLUDING, WITHOUT LIMITATION DAMAGE TO OR LOSS OF PROFITS OR REVENUE, LOST SALES, LOSS OF USE OF THE GOODS OR ANY ASSOCIATED GOODS, OR DELAY OR FAILURE TO PERFORM THIS WARRANTY OBLIGATION, LOSS OF CAPITAL, COST OF SUBSTITUTE GOODS, FACILITIES OR SERVICES, DOWNTIME COSTS, OR CLAIMS OF THIRD PARTIES OF THE BUYER FOR SUCH DAMAGES ARISING OUT OF OUR IN CONNECTION WITH THE SALE, INSTALLATION, USE OF, INABILITY TO USE, OR THE REPAIR OR REPLACEMENT OF, HLC's PRODUCTS. Any warranty claim by Buyer shall be deemed waived by Buyer unless submitted to HLC in writing within thirty (30) days from the date Buyer discovered, or by reasonable inspection should have discovered the alleged breach. Any warranty claim shall be brought within one year of discovery of alleged defect or non-conformity. Upon prompt written notice by the Buyer that a product is defective or non-conformity, HLC's liability shall be limited to repairing or replacing the product, at HLC's option.

DISCLAIMER OF WARRANTY: THE FOREGOING WARRANTY IS EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES WHETHER WRITTEN, ORAL, EXPRESSED OR IMPLIED. THERE IS NO WARRANTY OF FITNESS OF ANY PRODUCT FOR A PARTICULAR PURPOSE.

FREIGHT ALLOWANCE and F.O.B. POINT

All shipments are F.O.B. origin. Risk of loss and title of goods shall pass to Buyer upon delivery to the designated carrier. Freight is prepaid and allowed on all shipments of products with a net order value of \$7,500 and above to destinations within the Continental United States and Canada. Shipments to Alaska and Hawaii are F.O.B. Pacific Coast docks, collect beyond. Tool trailers will be F.O.B. HLC's dock – no freight allowed.

HLC reserves the right to route all qualified freight allowed shipments via least expensive surface route within the Continental United States and Canada. Buyer will assume all charges for transportation specified via more expensive means. Acceptance of a specified routing does not constitute a guarantee of ship date, transit time or arrival date. HLC will not be responsible for any cartage or storage charges at destination.

HLC's responsibility for exception-free delivery ceases when the transportation company receives shipment in good condition. Claims for loss or damage must be reported directly to the carrier. HLC's willingness to assist does not indicate liability for claim or replacement.

PARTIAL RELEASE

If an order has multiple releases specified by the Buyer, each release will be treated as individual orders, relative to freight allowance and minimum billing.

BACK ORDERS

Back orders that are the responsibility of HLC will be shipped F.O.B. factory or point of shipment with freight prepaid and allowed via the most cost effective method, providing the original order qualified for freight allowance.

MINIMUM BILLING

Standard Orders -- \$400 net per order. Minimum waived on hardware only orders. \$40 surcharge for below minimum orders.

ORDER ADD-ON POLICY

HLC's "Add-On" policy allows you to add items to an existing unshipped order for up to fifteen (15) days from the entry date of the original order.

DELIVERY SCHEDULE

Shipping dates provided by HLC are estimates only. Based on these estimated shipping dates, HLC makes every reasonable effort to meet Buyer's shipping requirements provided HLC promptly receives all necessary information from Buyer and approved drawings if required by HLC. HLC will not assume liability because of delayed shipment for any reason. HLC's responsibility ceases upon acceptance of shipment by carrier.



CANCELLATIONS

Cancellation of an order for current stock product requires a minimum of five (5) days' notice prior to actual ship date. Stock item orders shipped after cancellation notice is received, but before expiration of the five-day requirement, will be subject to all standard Returned Goods conditions, noted below.

Cancellation on non-stock items may be made only if no work has been performed or material purchased. If cancellation is requested after work is in progress, there will be a cancellation charge as established by HLC.

Orders may not be cancelled unless HLC gives its written consent, and then only upon agreement as to applicable cancellation charges.

RETURNED GOODS CONDITIONS

GENERAL CONDITIONS applying to all transactions in which Buyer seeks to return goods to HLC:

1. Merchandise is not returnable without the written consent of HLC.
2. Request for permission to return merchandise must be made in writing within one year from date of shipment, and Buyer must provide original HLC invoice number with request.
3. Material to be returned must be considered standard material by HLC.
4. HLC reserves the right to refuse returns of any special or made-to-order material, regardless of condition.
5. All returned goods must be in excellent, resaleable condition, and packaged in the original carton. Products will be inspected upon return; and any service or repair needed to place them in first class, saleable condition will be charged and added to the restocking charge.
6. A 30% restocking charge will be deducted from all credits issued on authorized returns.
7. Return Goods Authorization (RGA) Packing List, supplied by the factory, must accompany the return shipment.
8. Return freight must be prepaid. Material must be received by HLC within sixty (60) days of issuance of RGA.
9. Net value of the return must not be less than \$250.
10. HLC reserves the right to deduct for any damage sustained in transit.
11. Unauthorized returns will be refused. Goods returned without proper authorization from HLC will, at the sole option of HLC, be returned to the Buyer freight collect or scrapped immediately with no issuance of credit. Unauthorized material included in a return will not be credited.

BROKEN PACKAGE POLICY

Shipments will be made in standard package quantities or multiples thereof. HLC Customer Service will notify the Buyer of any orders that do not comply. The Buyer must authorize an adjustment to comply with standard package quantities before the order will be entered.

QUOTATION PRICE PROTECTION

All prices shown in the price lists are subject to change without notice.

All quotations on special products or modifications to catalog items are binding only if confirmed in writing by the factory for the period shown on the quotation. Price protection will be provided for a period of thirty (30) days from date of quotation from HLC.

ORDERS

All orders are taken and prices quoted only with the understanding that each order shall be subject to the acceptance of HLC at its principal office upon such terms as we may specify when order is received. Prices to cover amount of any sales or excise tax which now or hereinafter may be imposed by any taxing authority upon this merchandise or the sale or manufacture thereof.

PRODUCT SPECIFICATION

HLC reserves the right to discontinue items, modify designs, and change specifications or prices without incurring obligation.

INVOICING

All invoices are due and payable per the standard terms stated herein. In the case of an apparent discrepancy in a line item charge, Buyer is obligated to advise HLC Customer Service in writing of the nature of the claimed discrepancy within five (5) days of receipt of the invoice. This includes all requests for proof of delivery. A claim of discrepancy does not relieve Buyer of the absolute obligation to pay the remaining balance of the invoice in accordance with the standard terms of payment. HLC, after review, will have sole discretion to resolve the discrepancy; and the Buyer expressly agrees to abide by HLC's decision. HLC will promptly advise Buyer of its decision regarding any disputed items or charges.

OSHA

HLC warrants that at time of shipment, the goods will conform to the applicable occupational safety and health standards promulgated pursuant to the Federal Occupational Safety and Health Act of 1970, which are in effect on the date that HLC enters its acknowledgment of Buyer's order. The Buyer's exclusive remedy and HLC's liability for breach of this warranty is limited to replacement of the nonconforming goods.

FAIR LABOR STANDARDS ACT AS AMENDED

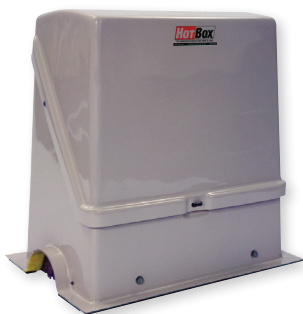
HLC represents that any goods to be delivered hereunder will be produced in compliance with the requirements of the Fair Labor Standards Act of 1938, as amended.

NOTE - These Terms and Conditions supersede all those published and issued previously by Hubbell Lenoir City, Inc., Quazite, CDR Systems, CDR, PenCell, Pen-Cell Plastics, Inc., Polycast, Electrimold, Custom Composites, Western Power Products, Comcore, Hot Box, Windbreaker, and Jandec.





HotBox



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