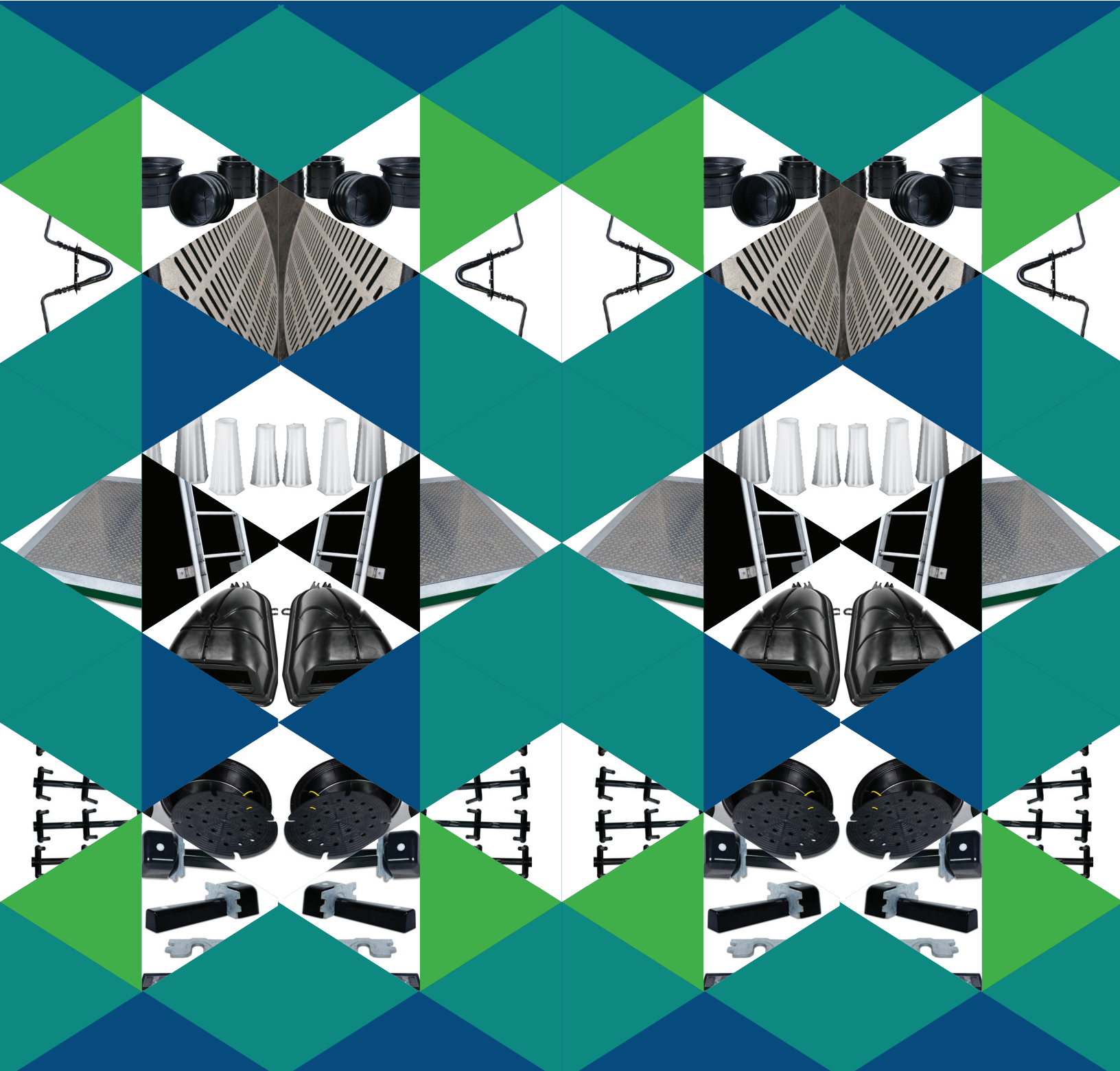


# P | PENNSYLVANIA INSERT



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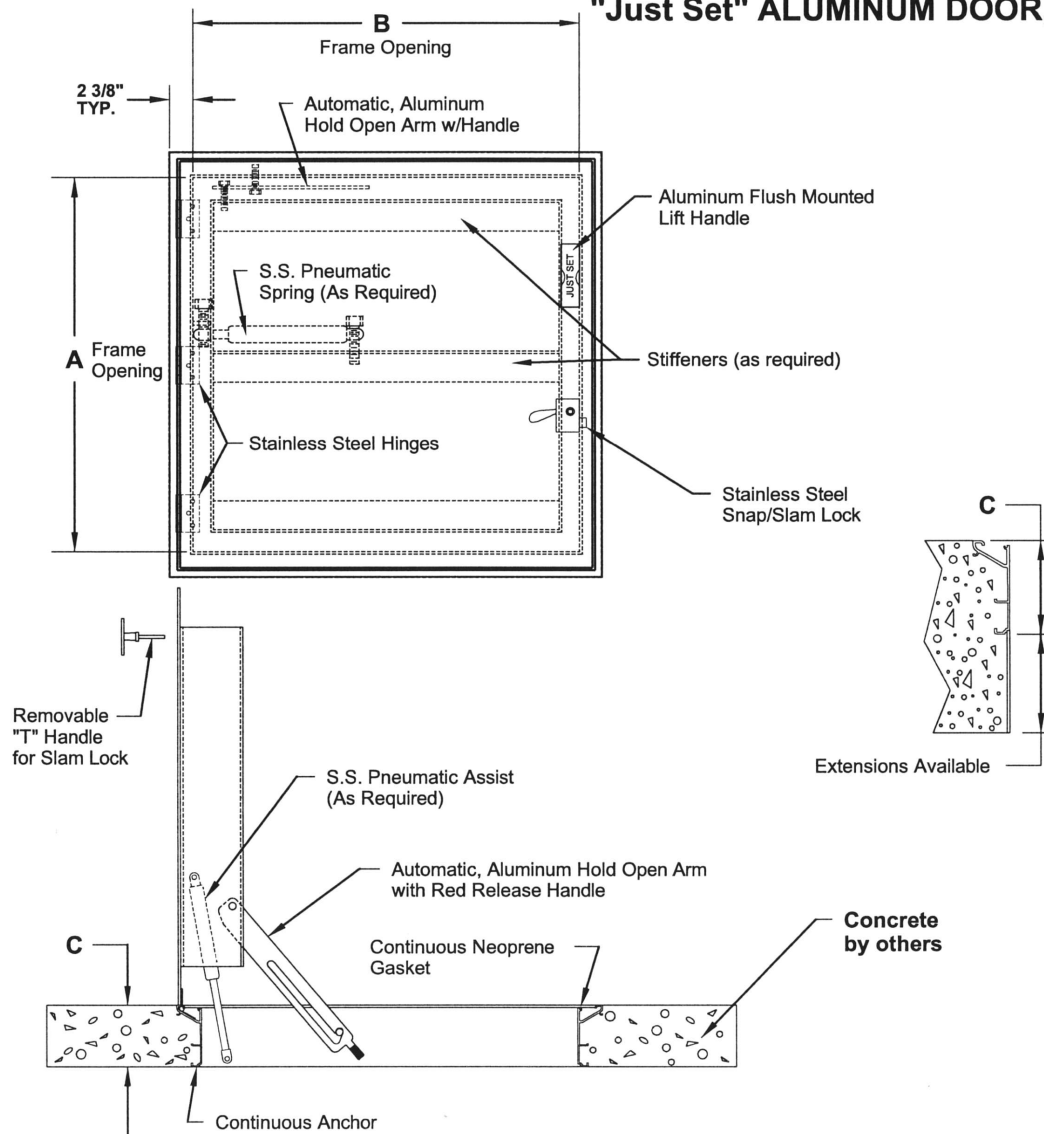
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## "Just Set" ALUMINUM DOOR, STANDARD DUTY, SINGLE LEAF - NON-WATERTIGHT



- 1/4" Diamond Plate Lid Reinforced for 300 lb/ft<sup>2</sup> live load
- 6" Frame (typ) with Gasket
- Protective Barrier where Concrete meets Aluminum
- Continuous Anchor to Lock Frame into Concrete
- Stainless Steel Pneumatic Assist as required
- Stainless Steel Hinges
- Stainless Steel Hardware
- Type 316 Stainless Steel Snap Lock
- Automatic Hold Open Arm with Red Release Handle
- Flush Mounted Lift Handle

### STANDARD DIMENSIONS

QTY	A	B	C	STOCK#
	24"	24"	6.00"	AYS2424S
	30"	24"	6.00"	AYS3024S
	30"	30"	6.00"	AYS3030S
	36"	24"	6.00"	AYS3624S
	36"	30"	6.00"	*AYS3630S
	36"	36"	6.00"	*AYS3636S
	42"	42"	6.00"	*AYS4242S
	48"	48"	6.00"	*AYS4848S

An asterisk (\*) next to stock number = stainless steel compression spring is standard.

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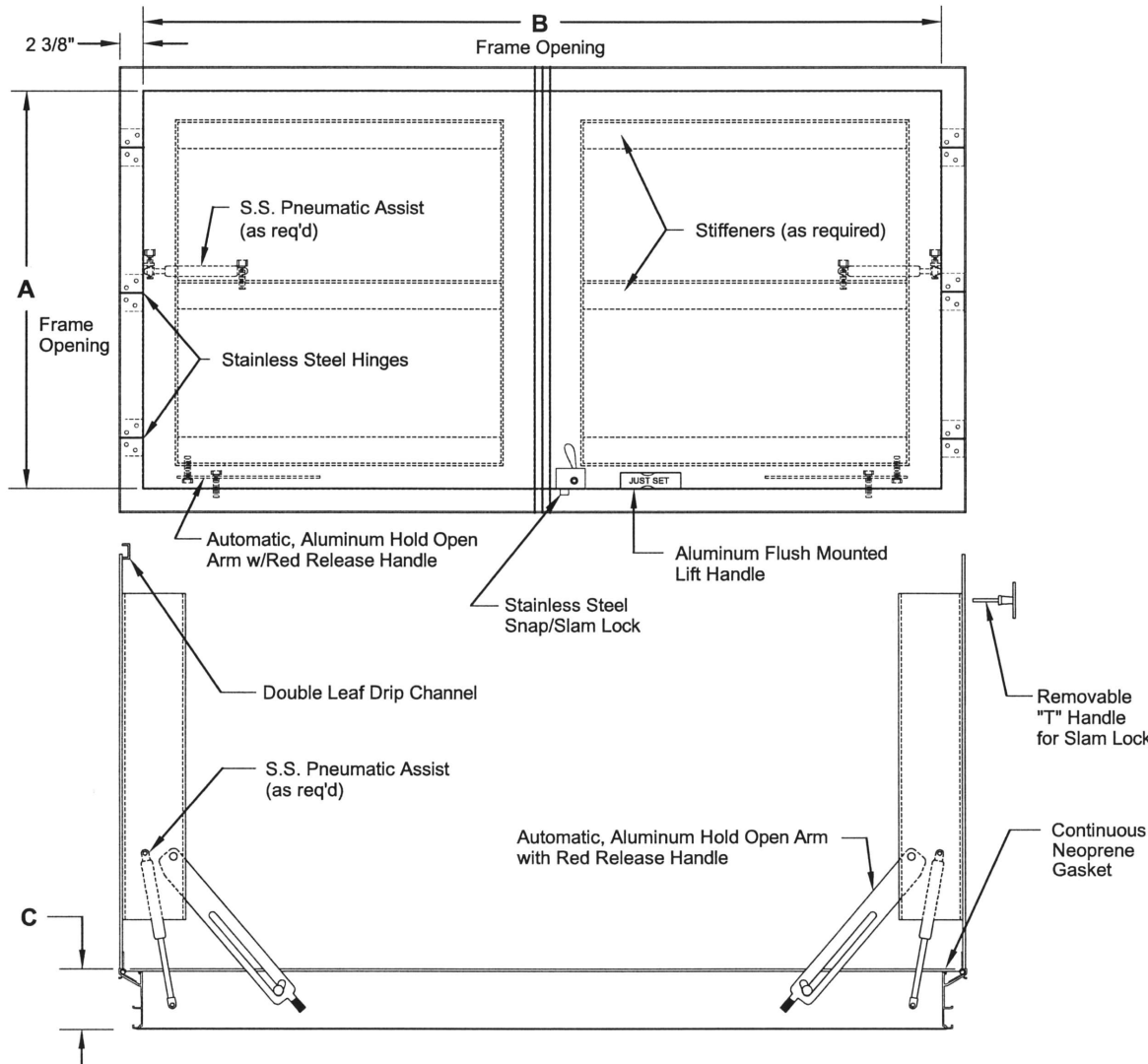
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## "Just Set" ALUMINUM DOOR, STANDARD DUTY, DOUBLE LEAF - NON-WATERTIGHT



- 1/4" Diamond Plate Lid Reinforced for 300 lb/ft<sup>2</sup> live load
- 6" Frame (typ) with Gasket
- Protective Barrier where Concrete meets Aluminum
- Stainless Steel Pneumatic Assist (as req'd)
- Aluminum Hinge with S.S. Hinge Pin
- Stainless Steel Hardware
- Type 316 Stainless Steel Snap Lock
- Automatic Hold Open Arm with Red Release Handle
- Flush Mounted Lift Handle

STANDARD DIMENSIONS				
QTY	A	B	C	STOCK#
	30"	48"	6.00"	AYS3048D
	36"	48"	6.00"	AYS3648D
	48"	48"	6.00"	*AYS4848D
	48"	72"	6.00"	*AYS4872D
	60"	60"	6.00"	*AYS6060D

An asterisk (\*) next to stock number = stainless steel pneumatic assist is standard.

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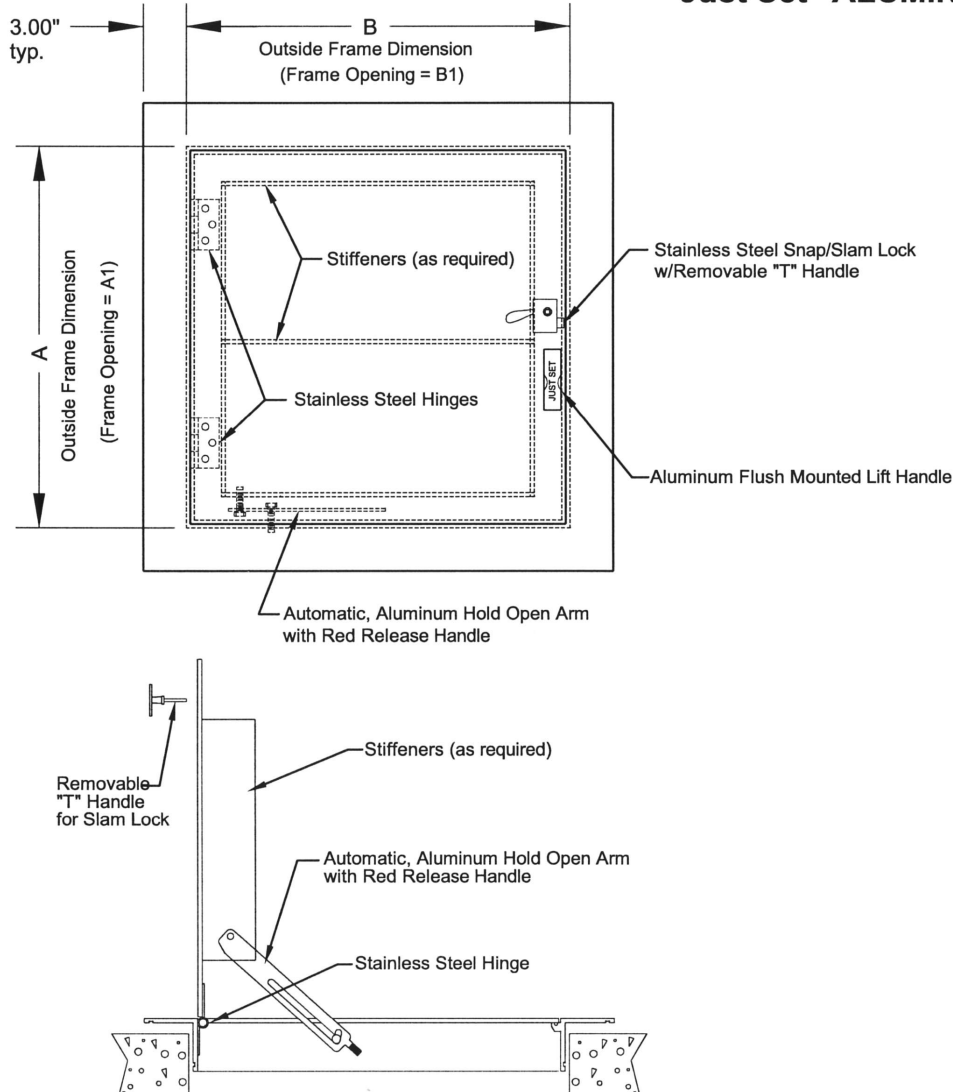
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## "Just Set" ALUMINUM RETROFIT DOOR, STANDARD DUTY, SINGLE LEAF



- 1/4" Diamond Plate Lid Reinforced for 300 lb/ft<sup>2</sup> load
- 3" Frame (typ)
- Custom Sized to Fit Existing Square or Rectangular Opening
- Stainless Steel Hinges
- All Stainless Steel, Aluminum, or Brass Hardware
- Stainless Steel Snap Lock
- Automatic Hold Open Arm
- Aluminum Flush Mounted Lift Handle
- Protective Barrier where Concrete meets Aluminum

	OUTSIDE DIMENSIONS		INSIDE DIMENSIONS	
QTY	A	B	A1	B1

### NOTES:

- 1) Common single leaf sizes include those under 48" x 48"
- 2) Spring Assist can be added. Call factory for details.
- 3) Retrofit doors can be cast into new concrete with the addition of embedment anchors.

NO SCALE

12/08

Attention: \_\_\_\_\_

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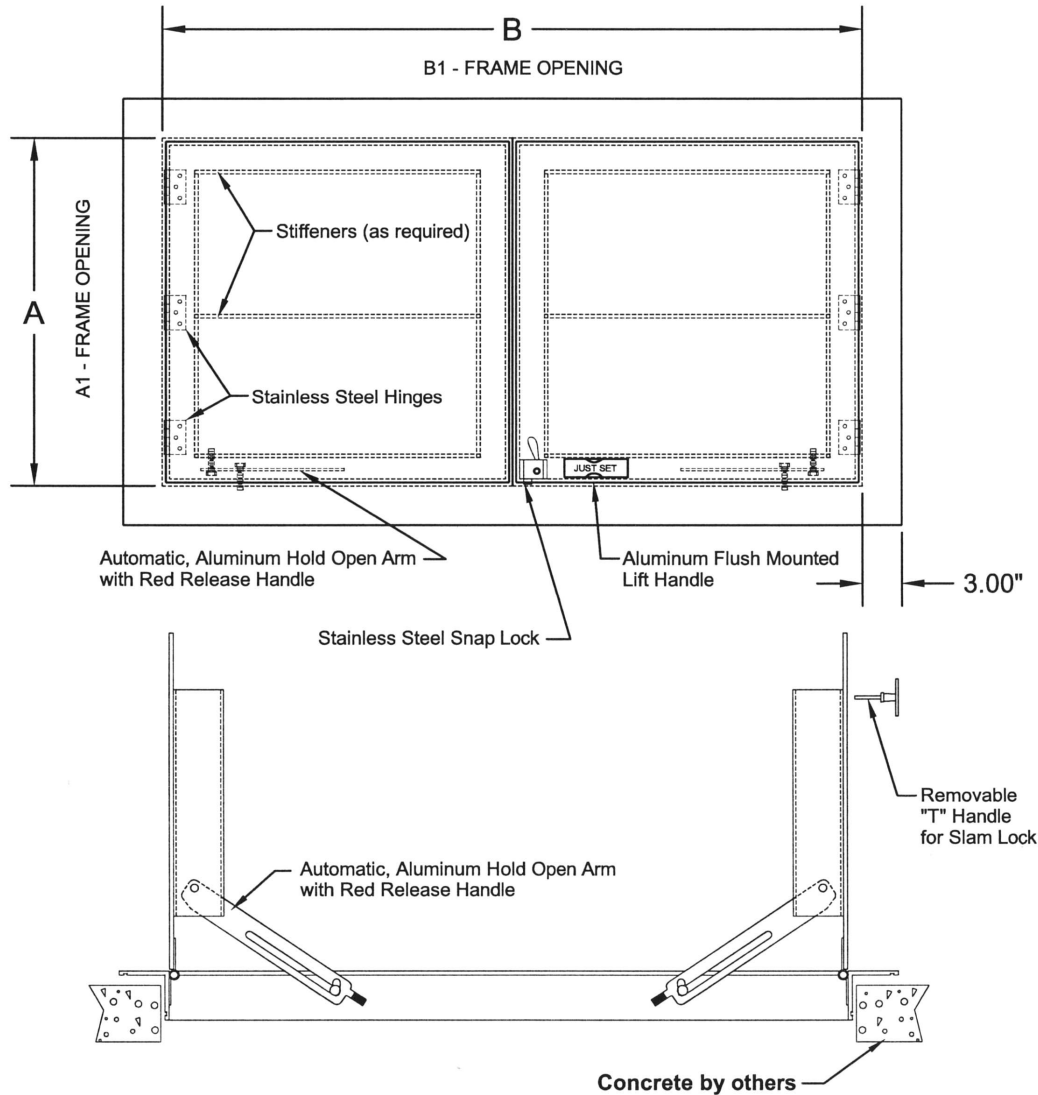
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## "Just Set" ALUMINUM RETROFIT DOOR, STANDARD DUTY, DOUBLE LEAF



- 1/4" Diamond Plate Lid Reinforced for 300 lb/ft<sup>2</sup> load
- 3" Frame (typ)
- Custom Sized to Fit Existing Square or Rectangular Opening
- Stainless Steel Hinges
- All Stainless Steel, Aluminum, or Brass Hardware
- Stainless Steel Snap Lock
- Automatic Hold Open Arm
- Aluminum Flush Mounted Lift Handle
- Protective Barrier where Concrete meets Aluminum

	OUTSIDE DIMENSIONS		INSIDE DIMENSIONS	
QTY	A	B	A1	B1

### NOTES:

- 1) Common double leaf sizes include those under 48" x 72"
- 2) Spring Assist can be added -- Call for details.
- 3) Retrofit doors can be cast into new concrete with the addition of embedment anchors.

NO SCALE

12/08



Attention: \_\_\_\_\_

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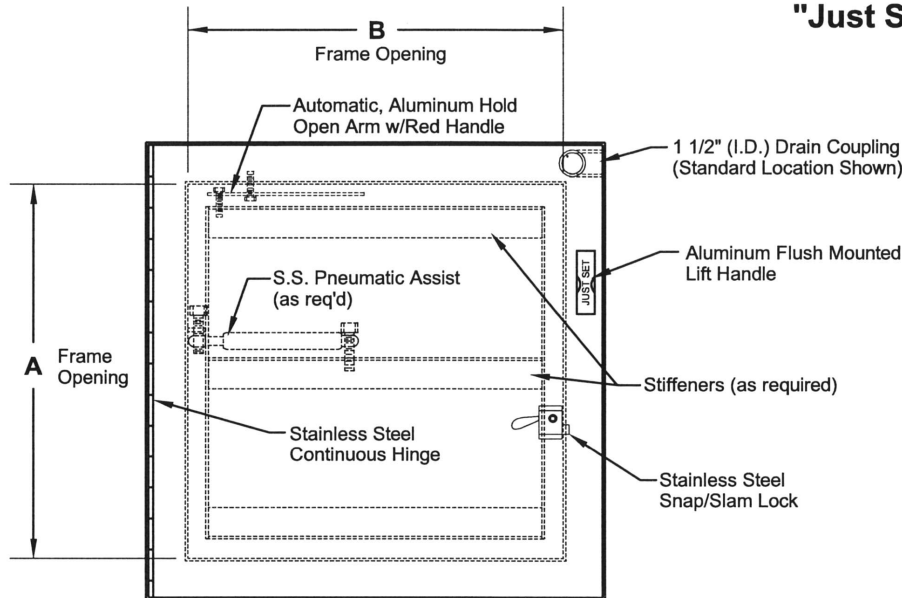
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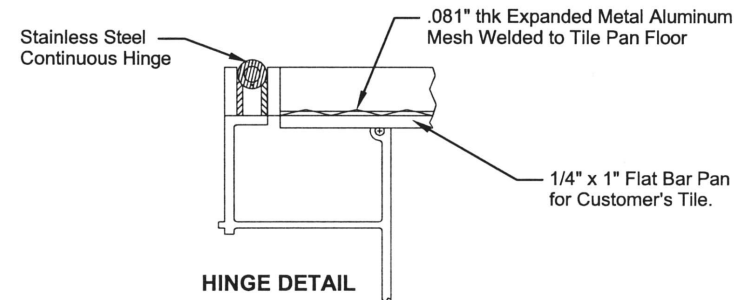
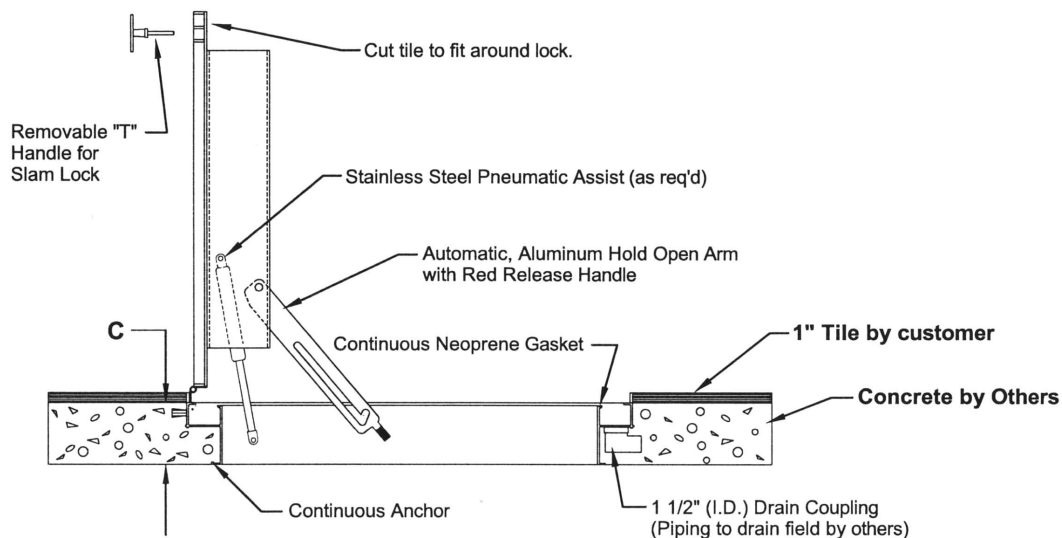
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## "Just Set" ALUMINUM TERRAZZO DOOR, LIGHT DUTY, SINGLE LEAF



- 3/16" Flat Plate Lid Design Reinforced for 150 lb/sq ft live load
- Drain Trough Frame with Gasket for Water Resistance
- Frame is 6" Deep with 1" Recess Pan for Customer's Tiles.
- Protective Barrier where Concrete meets Aluminum
- Continuous Anchor to Lock Frame into Concrete
- Stainless Steel Pneumatic Assist (as req'd)
- Stainless Steel (Butt Style) Hinges & Hinge Pin Anchored in Concrete with Steel Inserts.
- All Type 304 Stainless Steel Hardware
- Type 316 Stainless Steel Snap Lock
- 1-1/2" (I.D.) Drain Coupling
- Automatic, Hold Open Arm w/Red Release Handle
- Aluminum Flush Mounted Lift Handle

STANDARD DIMENSIONS				
QTY	A	B	C	STOCK#
	24"	24"	6.00"	AEL2424S
	30"	30"	6.00"	AEL3030S
	36"	36"	6.00"	AEL3636S



NO SCALE

12/08



Attention: \_\_\_\_\_

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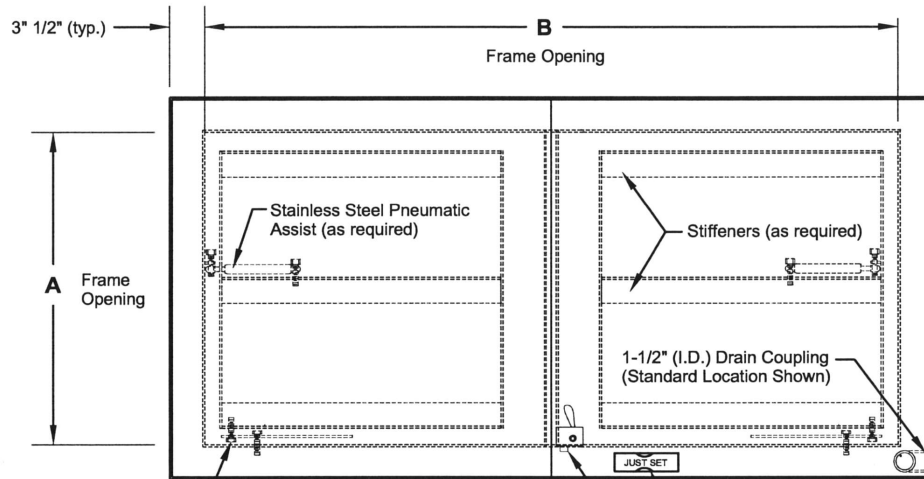
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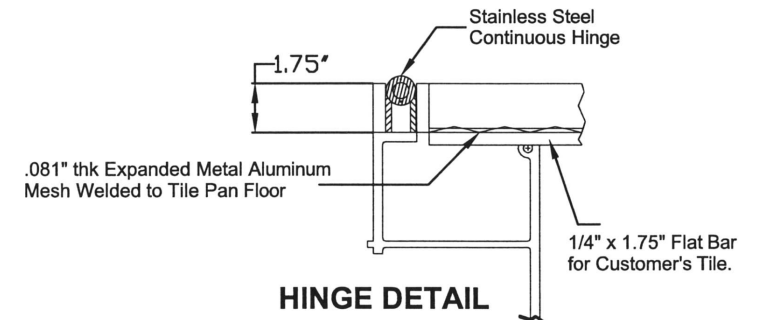
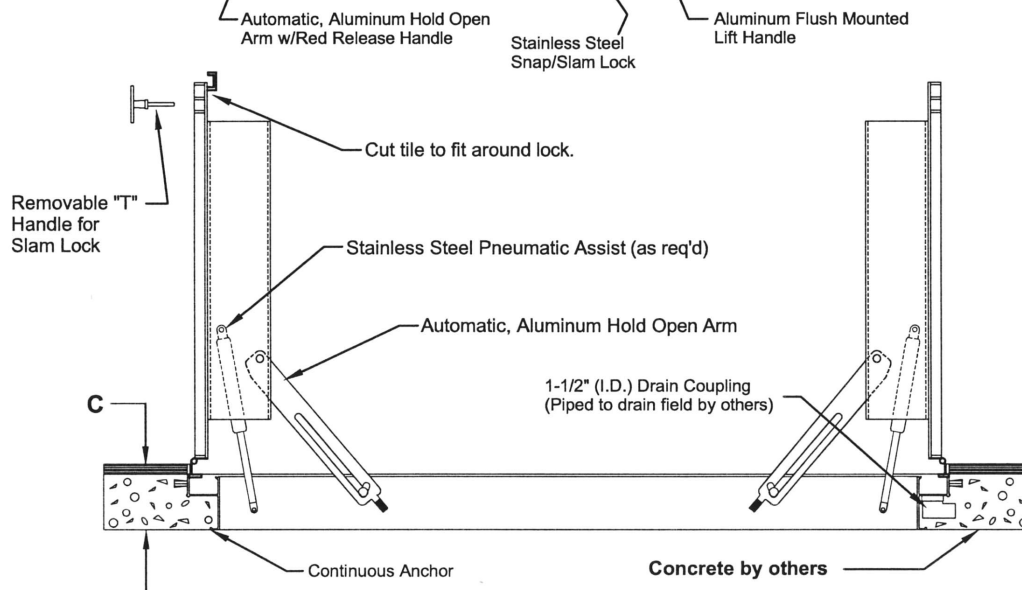
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## "Just Set" ALUMINUM TERRAZZO DOOR, LIGHT DUTY, DOUBLE LEAF



- 1/4" Diamond Plate Lid Design Reinforced for 300 lb/sq ft live load
- Drain Trough Frame with Gasket for Water Resistance
- Frame is 6" Deep with Recess Pan for Customer's Tiles.
- Protective Barrier where Concrete meets Aluminum
- Continuous Anchor to Lock Frame into Concrete
- Stainless Steel Pneumatic AssistS (as req'd)
- Continuous Piano Hinge with Stainless Steel Pin
- All Type 304 Stainless Steel Hardware
- Type 316 Stainless Steel Snap Lock
- 1-1/2" (I.D.) Drain Coupling
- Automatic, Hold Open Arm w/Red Release Handle
- Aluminum Flush Mounted Lift Handle



HINGE DETAIL

DIMENSIONS				
QTY	A	B	C	STOCK#

NO SCALE

12/08

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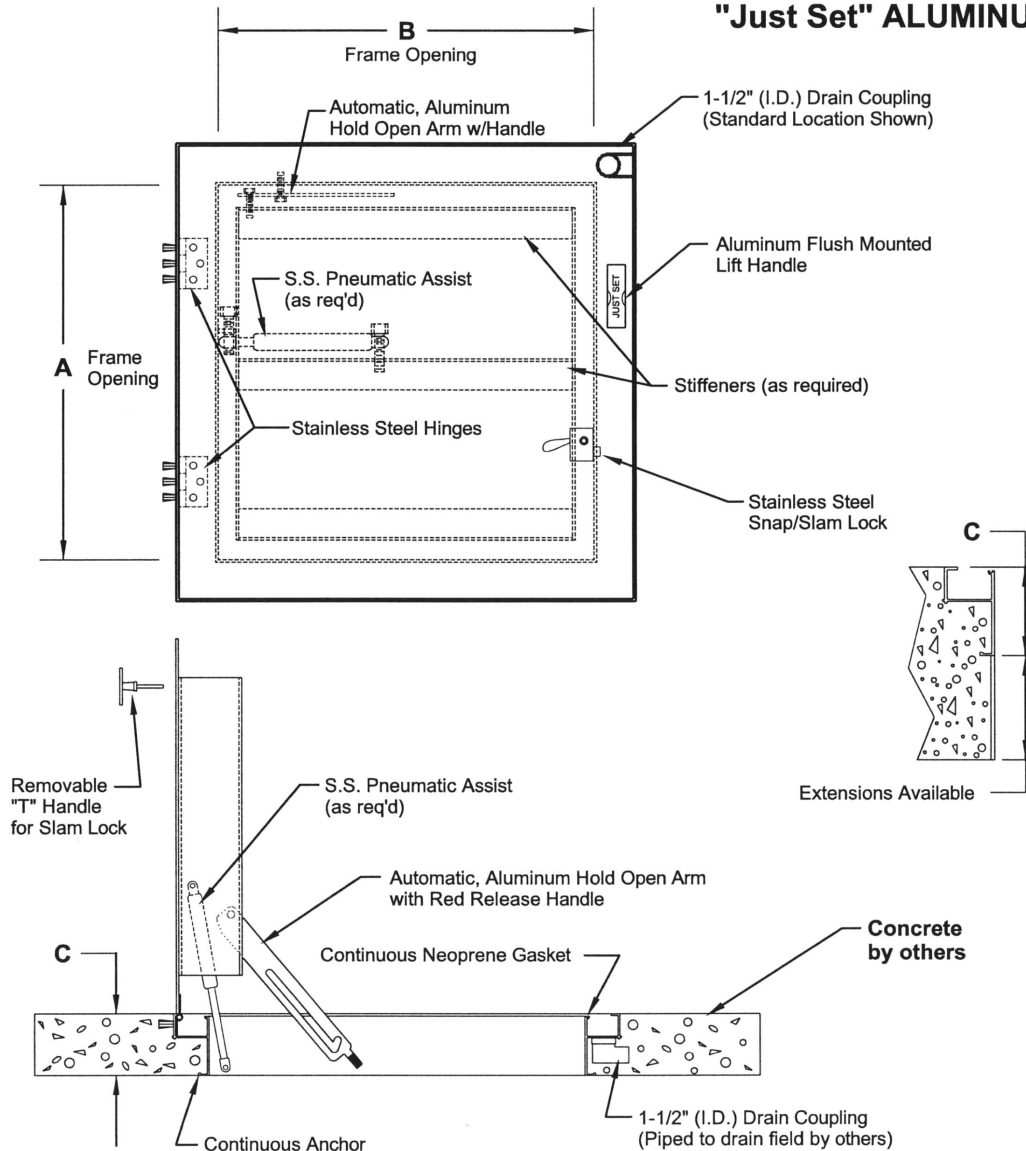
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## "Just Set" ALUMINUM DOOR, HEAVY DUTY, SINGLE LEAF - TROUGH FRAME



- 1/4" Diamond Plate Lid Reinforced for HS-20 Wheel Loading **(without Impact - for incidental traffic only)**
- 6" Drain Trough Frame with Gasket
- Protective Barrier where Concrete meets Aluminum
- Continuous Anchor to Lock Frame into Concrete
- Stainless Steel Pneumatic Assist ( as req'd)
- Stainless Steel (Butt Style) Hinges & Hinge Pin
- Stainless Steel Hardware
- Type 316 Stainless Steel Snap Lock
- 1-1/2" (I.D.) Drain Coupling
- Automatic Hold Open Arm with Red Release Handle
- Aluminum Flush Mounted Lift Handle

### STANDARD DIMENSIONS

QTY	A	B	C	STOCK#
	24"	24"	6.00"	ATH2424S
	30"	30"	6.00"	*ATH3030S
	36"	30"	6.00"	*ATH3630S
	36"	36"	6.00"	*ATH3636S
	42"	42"	6.00"	*ATH4242S
	48"	36"	6.00"	*ATH4836S
	48"	48"	6.75"	*ATH4848S

An asterisk (\*) next to stock number = stainless steel  
pneumatic assist is standard.

Installation shall be in accordance with manufacturer's instructions

NO SCALE

12/08

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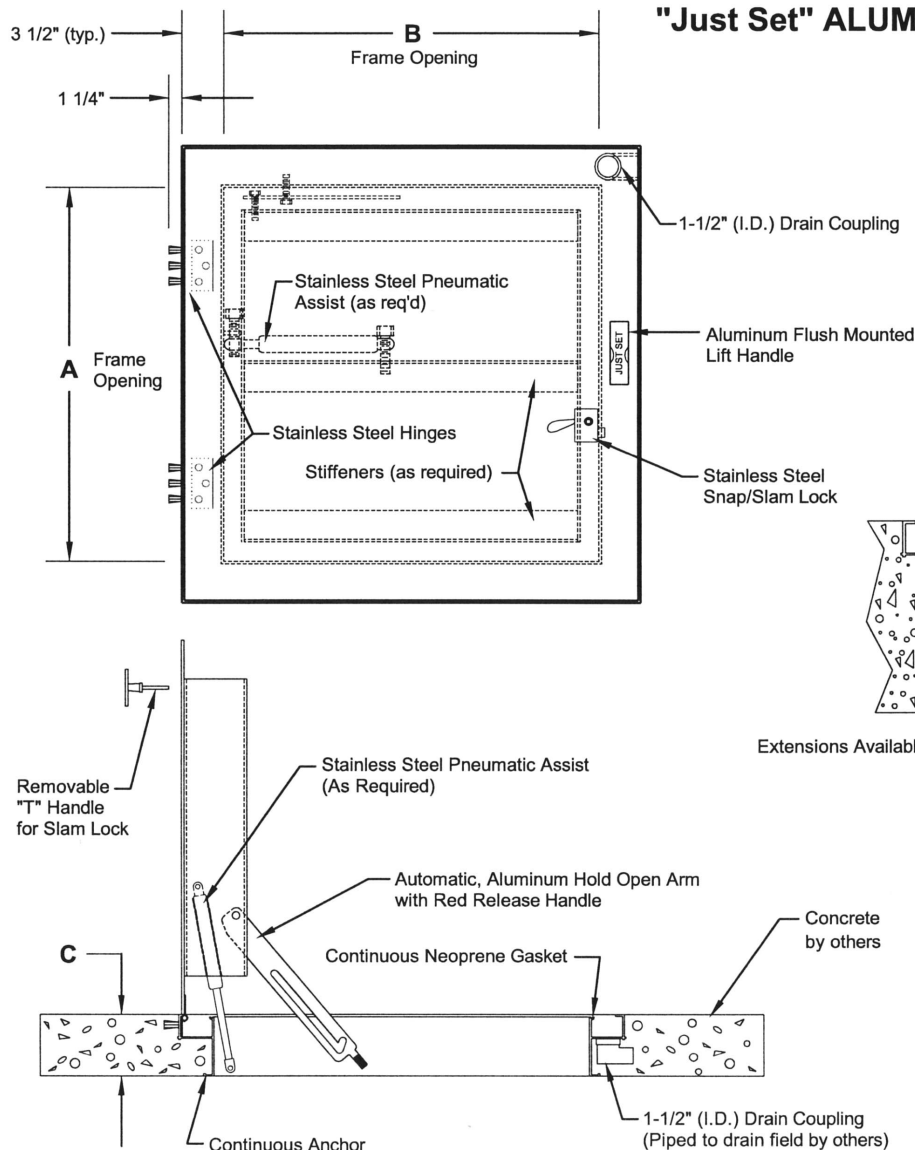
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## **"Just Set" ALUMINUM DOOR, STANDARD DUTY, SINGLE LEAF - TROUGH FRAME**

- 1/4" Diamond Plate Lid Reinforced for 300 lb/ft<sup>2</sup> live load
- 6" Drain Trough Frame with Gasket
- Protective Barrier where Concrete meets Aluminum
- Continuous Anchor to Lock Frame into Concrete
- Stainless Steel Pneumatic Spring as required
- Stainless Steel Hinges
- Stainless Steel Hardware
- Type 316 Stainless Steel Snap Lock
- 1-1/2" (I.D.) Drain Coupling
- Automatic Hold Open Arm with Red Release Handle
- Flush Mounted Lift Handle

### **STANDARD DIMENSIONS**

QTY	A	B	C	STOCK#
	24"	24"	6.00"	ATS2424S
	30"	30"	6.00"	ATS3030S
	36"	24"	6.00"	ATS3624S
	36"	30"	6.00"	*ATS3630S
	36"	36"	6.00"	*ATS3636S
	42"	42"	6.00"	*ATS4242S
	48"	36"	6.00"	*ATS4836S
	48"	48"	6.00"	*ATS4848S

An asterisk (\*) next to stock number = stainless steel pneumatic spring is standard.

\*\*Installation shall be in accordance with manufacturer's instructions

NO SCALE

12/08

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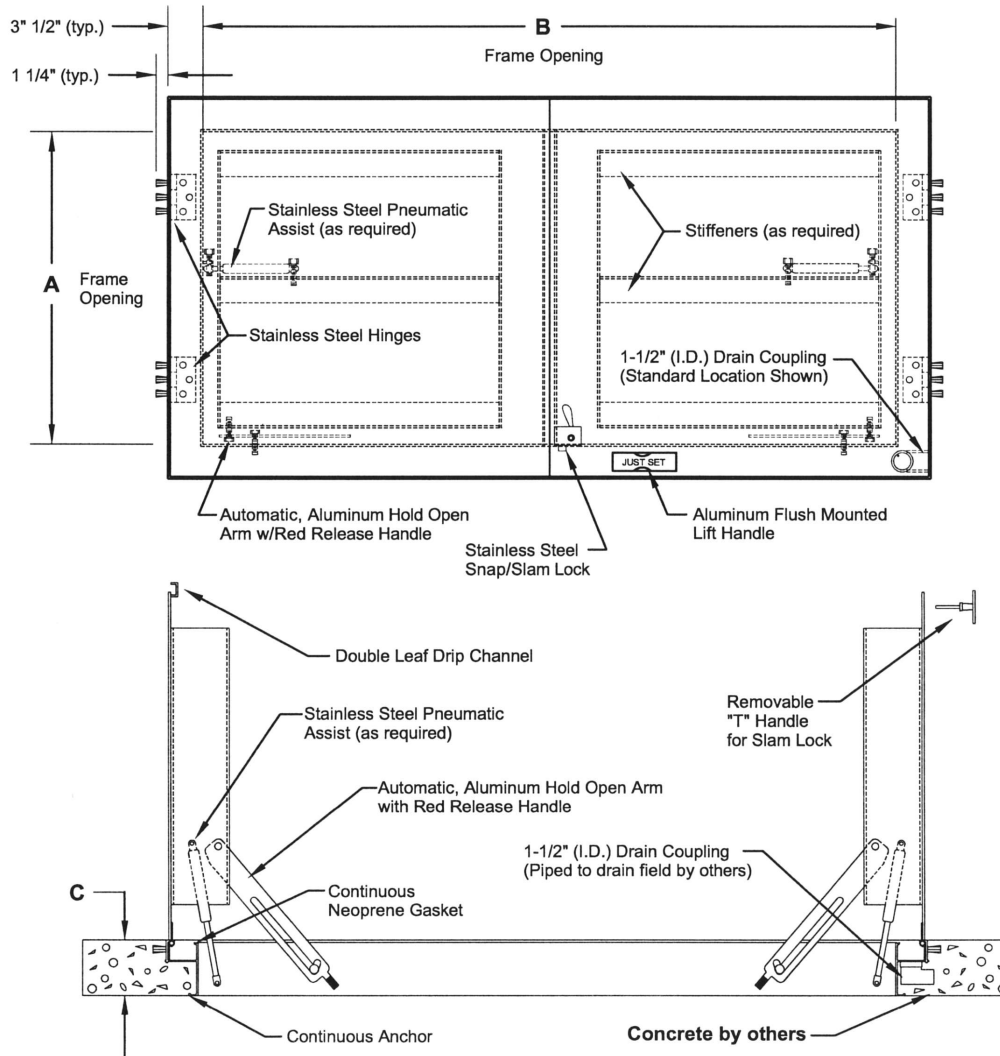
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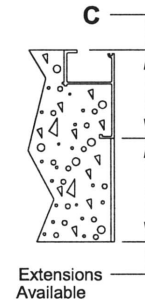
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## "Just Set" ALUMINUM DOOR, STANDARD DUTY, DOUBLE LEAF - TROUGH FRAME



- 1/4" Diamond Plate Lid Reinforced for 300 lb/ft<sup>2</sup> load
- 6" Drain Trough Frame with Gasket
- Protective Barrier where Concrete meets Aluminum
- Continuous Anchor to Lock Frame into Concrete
- Stainless Steel Pneumatic Assist (as req'd)
- Stainless Steel Hinges
- Stainless Steel Hardware
- Type 316 Stainless Steel Snap Lock
- 1-1/2" (I.D.) Drain Coupling
- Automatic Hold Open Arm with Red Release Handle
- Flush Mounted Lift Handle



STANDARD DIMENSIONS				
QTY	A	B	C	STOCK#
	30"	48"	6.00"	ATS3048D
	36	48"	6.00"	ATS3648D
	48	48"	6.00"	*ATS4848D
	48"	72"	6.00"	*ATS4872D
	60"	60"	6.00"	*ATS6060D

An asterisk (\*) next to stock number = stainless steel pneumatic assist is standard.



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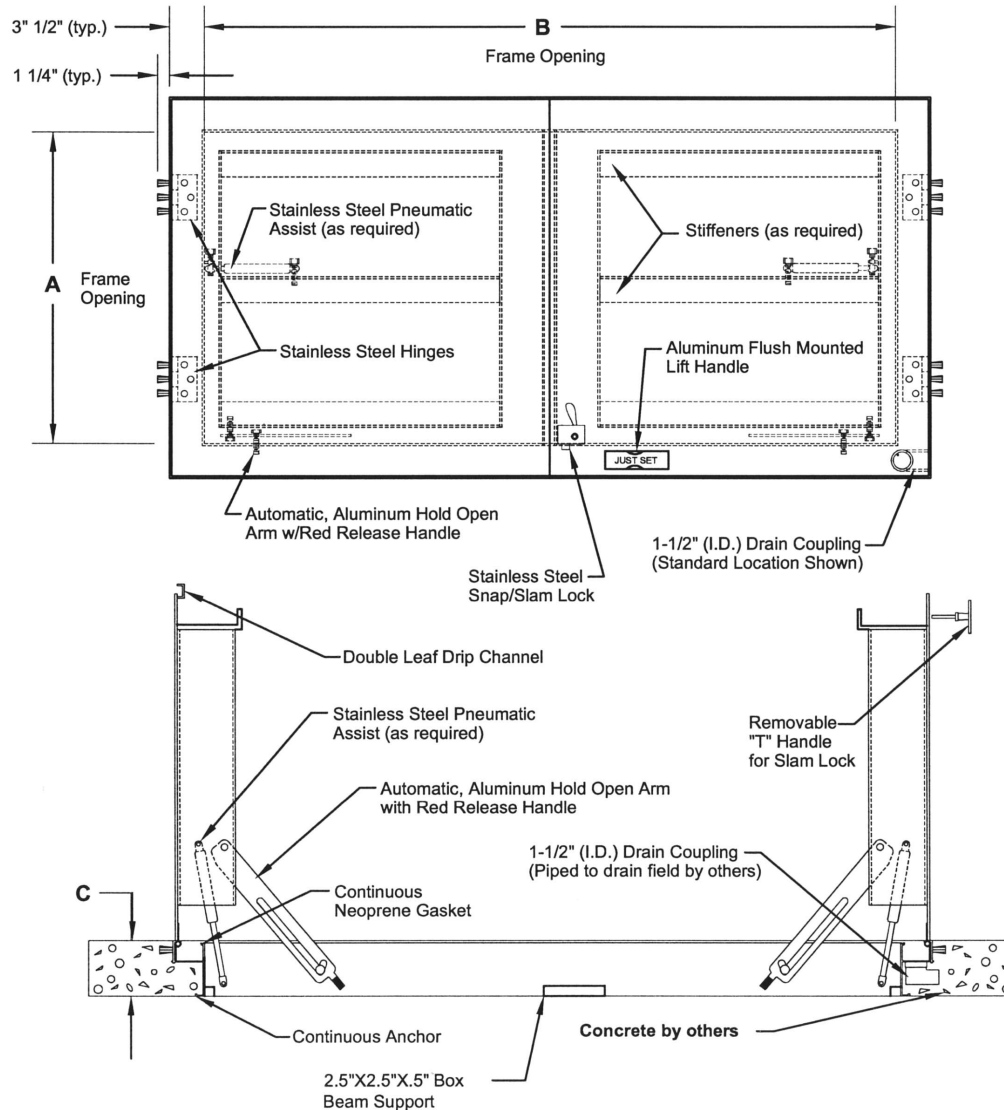
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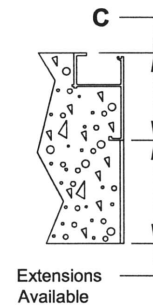
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## "Just Set" ALUMINUM DOOR, HEAVY DUTY, DOUBLE LEAF - TROUGH FRAME



- 1/4" Diamond Plate Lid Reinforced for HS-20 Wheel Load (w/out Impact for Incidental Traffic Only)
- 6.75" Drain Trough Frame with Gasket
- Protective Barrier where Concrete meets Aluminum
- Continuous Anchor to Lock Frame into Concrete
- Stainless Steel Spring or Pneumatic Assist (as required)
- Stainless Steel Hinges
- Stainless Steel Hardware
- Type 316 Stainless Steel Snap Lock
- 1-1/2" (I.D.) Drain Coupling
- Automatic Hold Open Arm with Red Release Handle
- Flush Mounted Lift Handle



STANDARD DIMENSIONS				
QTY	A	B	C	STOCK#
	30"	48"	6.75"	*ATH3048D
	36"	48"	6.75"	*ATH3648D
	48"	48"	6.75"	*ATH4848D
	48"	72"	6.75"	*ATH4872D
	60"	60"	8.75"	*ATH6060D

An asterisk (\*) next to stock number = stainless steel compression spring or pneumatic assist is standard.

(custom door sizes available upon request)

\*\*Installation shall be in accordance with manufacturer's instructions

NO SCALE

12/08

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Customer: \_\_\_\_\_

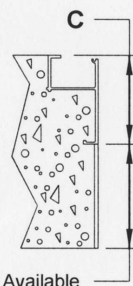
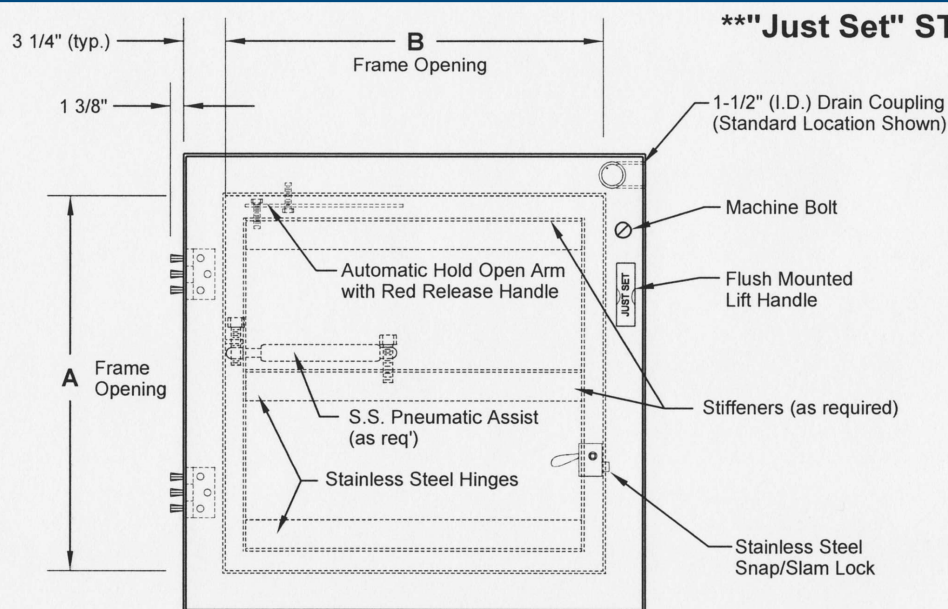
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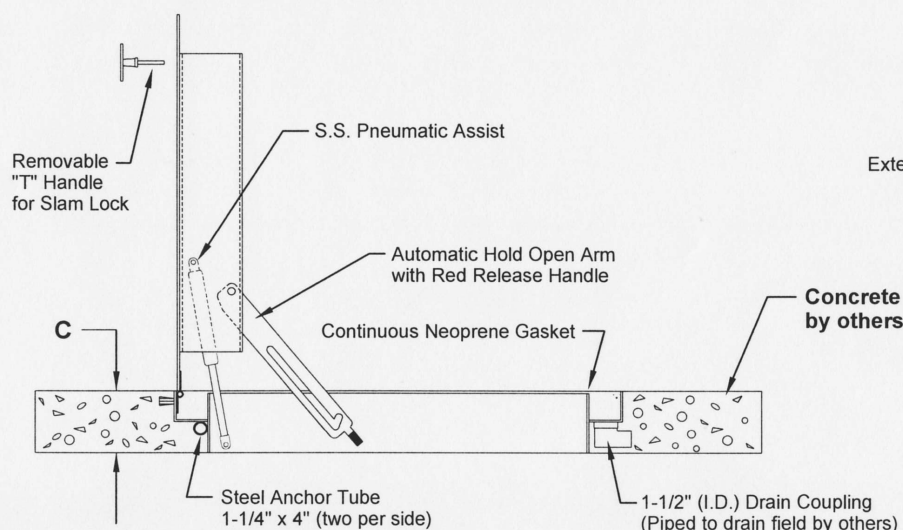
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- 3/8" Diamond Plate Lid Reinforced for HS-20 Wheel Loading plus an Additional 30% Live Load Impact
- Drain Trough Frame with Gasket
- Welded Anchors Lock Frame into Concrete
- Stainless Steel Pneumatic Assist (as req'd)
- Stainless Steel Hinges
- Stainless Steel Hardware
- 316 Stainless Steel Snap Lock, Machine Bolt Lock
- 1-1/2" (I.D.) Drain Coupling
- Automatic Hold Open Arm with Red Release Handle
- Flush Mounted Lift Handle
- Red Primer Finish Standard

STANDARD DIMENSIONS				
QTY	A	B	C	STOCK#
	24"	24"	6-5/8"	STH2424S
	30"	24"	6-5/8"	STH3024S
	30"	30"	6-5/8"	STH3030S
	36"	30"	6-5/8"	STH3630S
	36"	36"	6-5/8"	STH3636S
	42"	42"	6-5/8"	STH4242S
	48"	30"	6-5/8"	STH4830S
	48"	36"	6-5/8"	STH4836S



\*\*Installation shall be in accordance with manufacturer's instructions

NO SCALE

10/25/06



Attention: \_\_\_\_\_

From: \_\_\_\_\_

Fax #: \_\_\_\_\_

PA Insert Quote or Job Number: \_\_\_\_\_

Customer: \_\_\_\_\_

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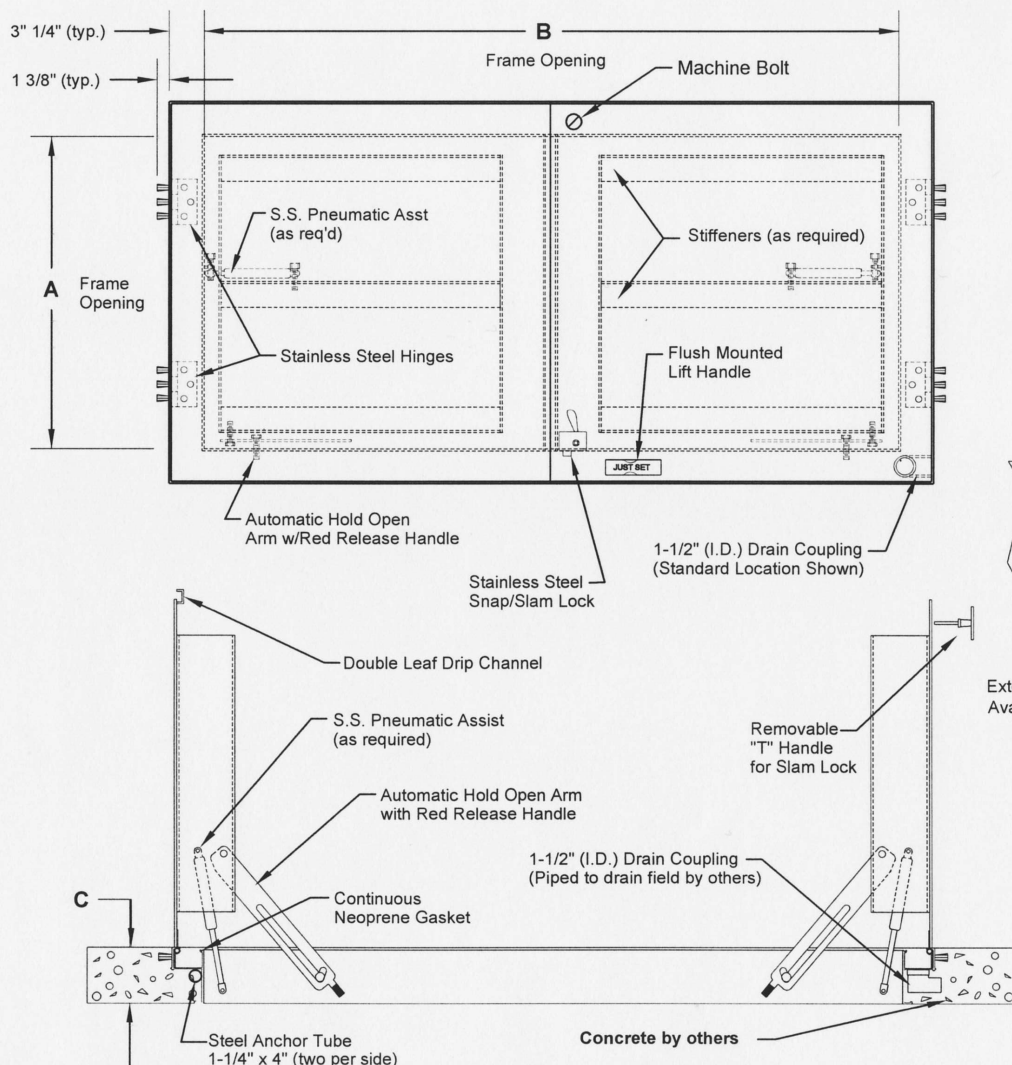
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## "Just Set" STEEL DOOR, HEAVY DUTY, DOUBLE LEAF - TROUGH FRAME



- 3/8" Diamond Plate Lid Reinforced for HS-20 Wheel Loading plus an Additional 30% Live Load Impact
- Drain Trough Frame with Gasket
- Welded Anchors Lock Frame into Concrete
- Stainless Steel Pneumatic Assist (as req'd)
- Stainless Steel Hinges
- Stainless Steel Hardware
- 316 Stainless Steel Snap Lock, Machine Bolt Lock
- 1-1/2" (I.D.) Drain Coupling
- Automatic Hold Open Arm with Red Release Handle
- Flush Mounted Lift Handle
- Red Primer Finish Standard

### STANDARD DIMENSIONS

QTY	A	B	C	STOCK#
	30"	48"	7-5/8"	*STH3048D
	36"	48"	7-5/8"	*STH3648D
	42"	42"	9-5/8"	*STH4242D
	48"	48"	9-5/8"	*STH4848D
	48"	72"	9-5/8"	*STH4872D
	60"	60"	9-5/8"	*STH6060D

An asterisk (\*) next to stock number = stainless steel pneumatic assists standard.

Attention: \_\_\_\_\_

From: \_\_\_\_\_

Fax #: \_\_\_\_\_

PA Insert Quote or Job Number: \_\_\_\_\_

Customer: \_\_\_\_\_

Project: \_\_\_\_\_

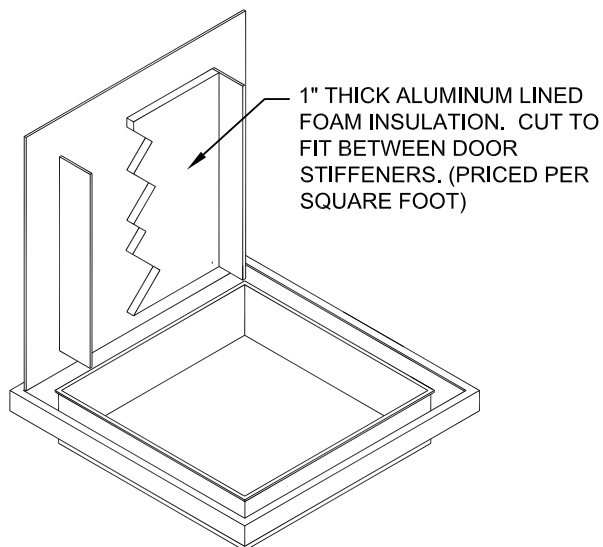
Job Number: \_\_\_\_\_

Ship Date: \_\_\_\_ / \_\_\_\_ / \_\_\_\_

Date: \_\_\_\_ / \_\_\_\_ / \_\_\_\_

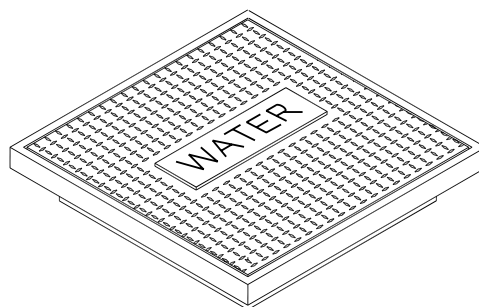
Page \_\_\_\_ of \_\_\_\_

## FOAM INSULATION



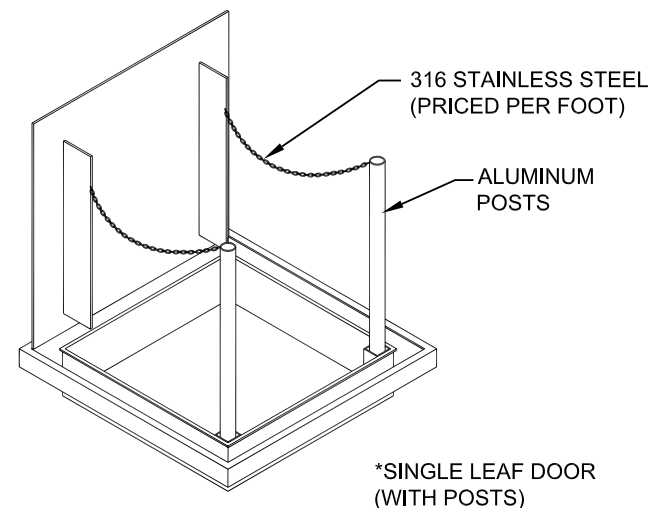
## DOOR OPTIONS

### WORDING

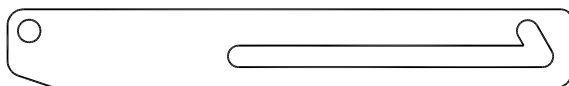


1.5" LETTERS ARE ENGRAVED ON A PLATE, AND WELDED TO DOOR

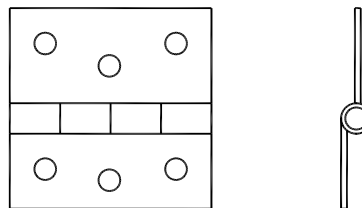
## STAINLESS STEEL SAFETY CHAIN - SL\*



## STAINLESS STEEL HOLD OPEN ARM



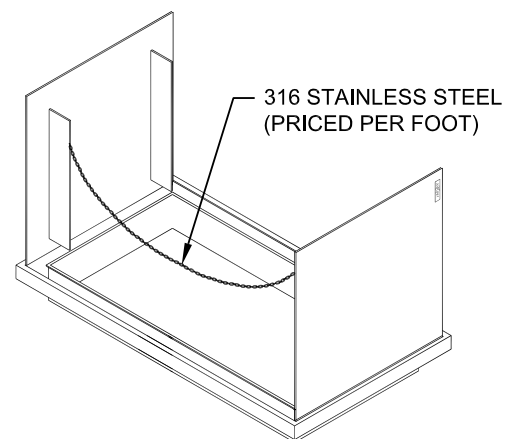
## BRASS HINGES



(STAINLESS STEEL IS STANDARD)

NO SCALE

## STAINLESS STEEL SAFETY CHAIN - DL\*



\*DOUBLE LEAF DOOR

Attention: \_\_\_\_\_

From: \_\_\_\_\_

Fax #: \_\_\_\_\_

PA Insert Quote or Job Number: \_\_\_\_\_

Customer: \_\_\_\_\_

Project: \_\_\_\_\_

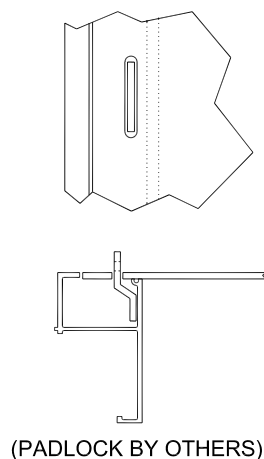
Job Number: \_\_\_\_\_

Ship Date: \_\_\_\_ / \_\_\_\_ / \_\_\_\_

Date: \_\_\_\_ / \_\_\_\_ / \_\_\_\_

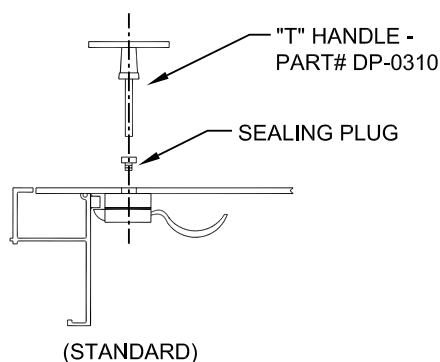
Page \_\_\_\_ of \_\_\_\_

## PADLOCK STAPLE

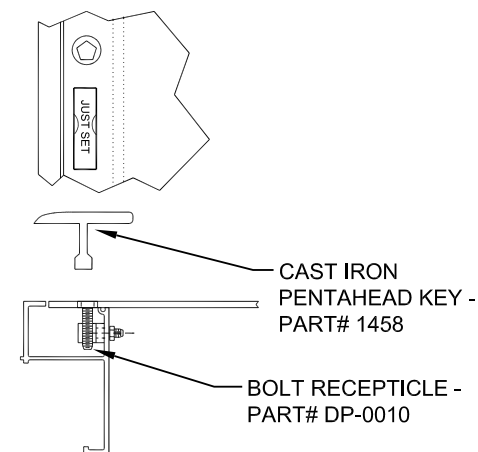


## LOCK OPTIONS

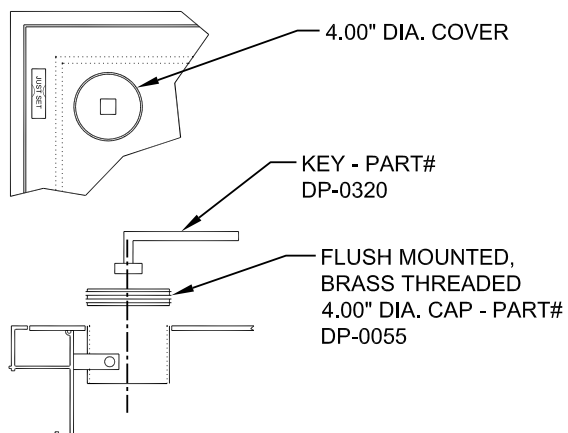
### STAINLESS STEEL SNAP/SLAM LOCK



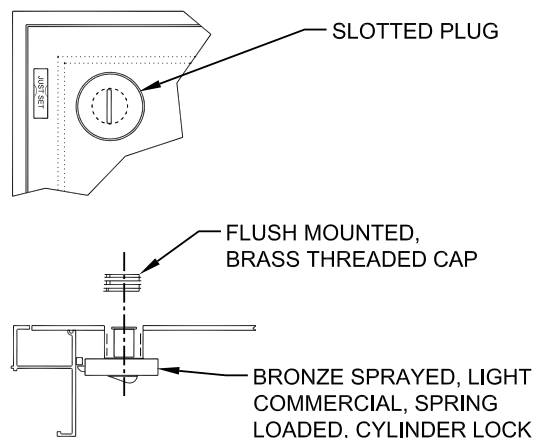
## PENTAHEAD LOCK



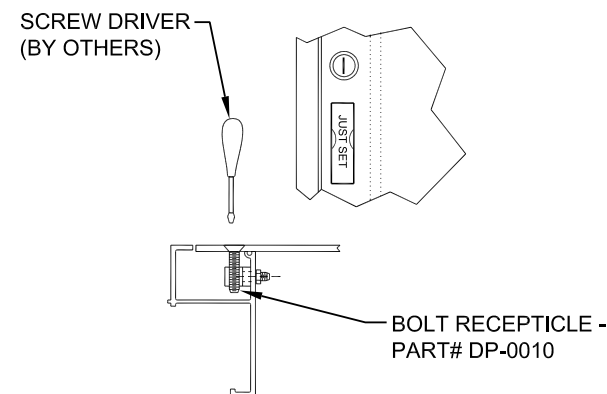
## RECESSED PADLOCK (padlock by others)



## RECESSED CYLINDER LOCK



## SCREW LOCK

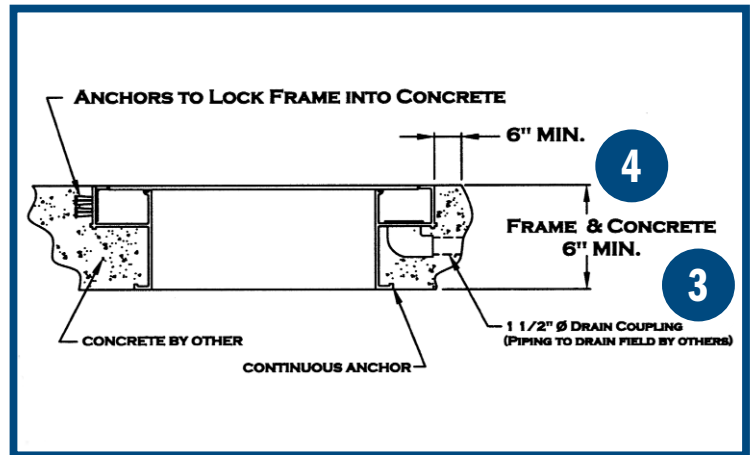
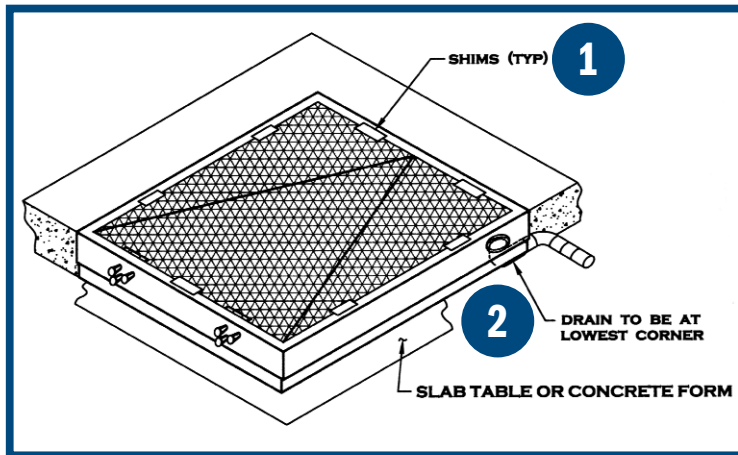


06/24/04

# Access Doors

## Installation Instructions

Instructions apply to most steel and aluminum watertight and non-watertight door models. Please contact us to verify that these instructions apply to the door(s) you have ordered, or if you require more detailed installation instructions.



- 1** Make sure door is still shimmed as shipped from factory. Shims must remain in place until concrete has cured.
- 2** Set door so that drain is positioned in lowest corner.
- 3** Attach ridged or flexible pipe to extend drain to outside of manhole structure. *Make sure door lays flat on form.*
- 4** Pour concrete around door with minimum coverage of 6" from outermost extremity.

### PLEASE NOTE:

- Door must be locked in concrete suitable for application
- Concrete must extend the entire thickness of door frame and be sufficiently vibrated to ensure against the presence of air pockets
- All re-bar and concrete load designs are the sole responsibility of the customer
- It is recommended that a minimum of 6 inches of concrete be poured around door to prevent spalling of concrete
- Failure to cast in appropriate concrete slab or structure will hinder door performance and void all warranties

Attention: \_\_\_\_\_

From: \_\_\_\_\_

Fax #: \_\_\_\_\_

PA Insert Quote or Job Number: \_\_\_\_\_

Customer: \_\_\_\_\_

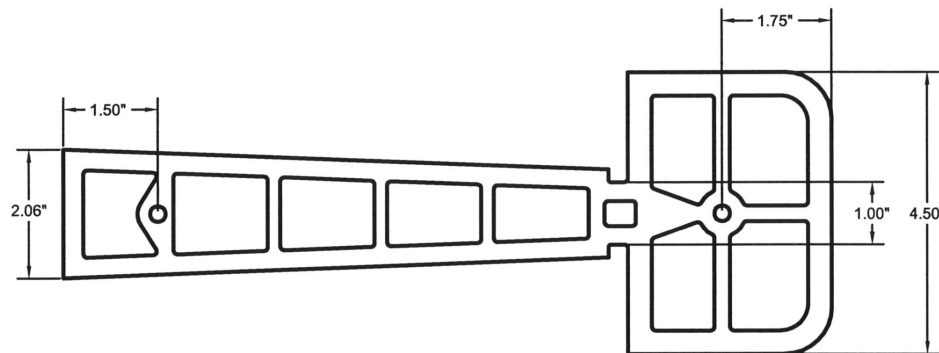
Project: \_\_\_\_\_

Job Number: \_\_\_\_\_

Ship Date: \_\_\_\_ / \_\_\_\_ / \_\_\_\_

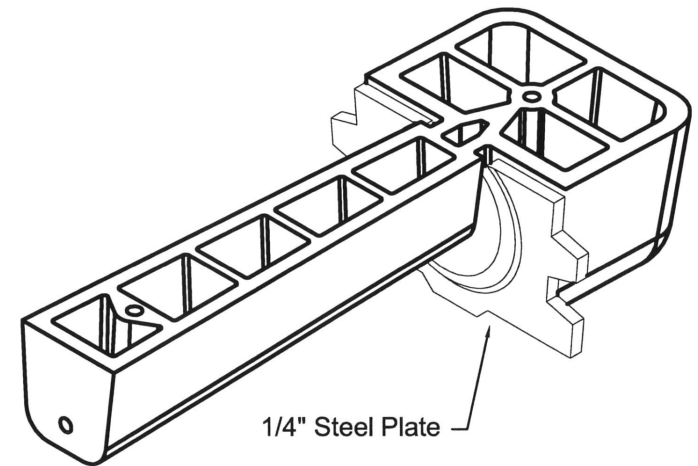
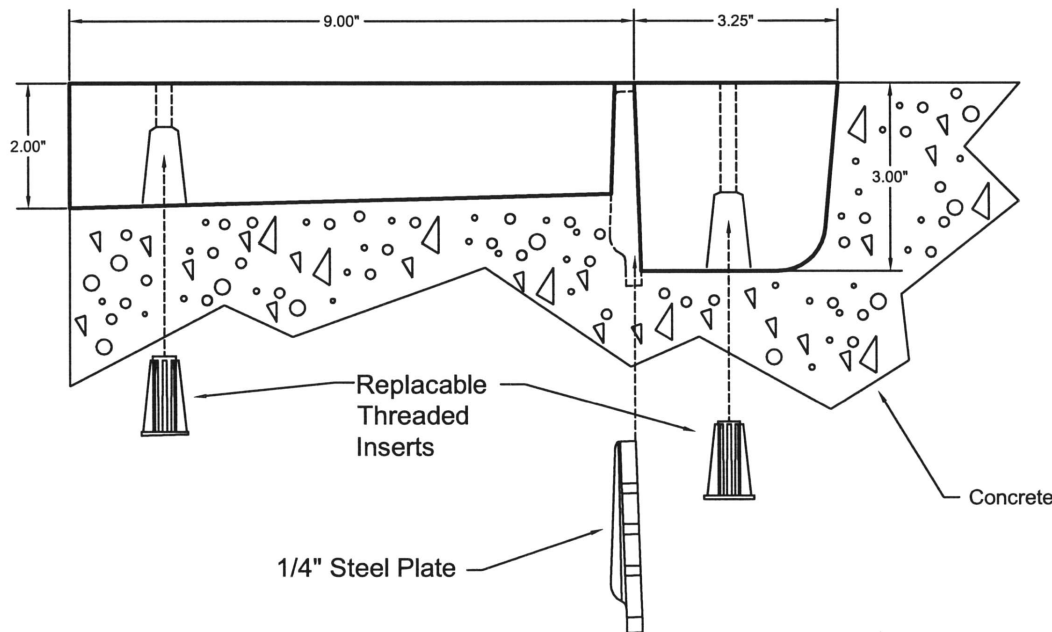
Date: \_\_\_\_ / \_\_\_\_ / \_\_\_\_

Page \_\_\_\_ of \_\_\_\_



## BOLT POCKET FORMER (for up to 1" bolt)

- Made from durable Urethane for reusability
- Ribbed construction increases strength
- \*Replacable 1/4" Threaded Inserts
- \*\*1/4" Galvanized Steel Plate Standard
- Available with magnets to attach to form



\*Threaded Inserts sold separately (Part Number 1200)

\*\*Steel Plate stays in concrete, sold separately (Part Number 4024)

06/03/04



Attention: \_\_\_\_\_

From: \_\_\_\_\_

Fax #: \_\_\_\_\_

PA Insert Quote or Job Number: \_\_\_\_\_

Customer: \_\_\_\_\_

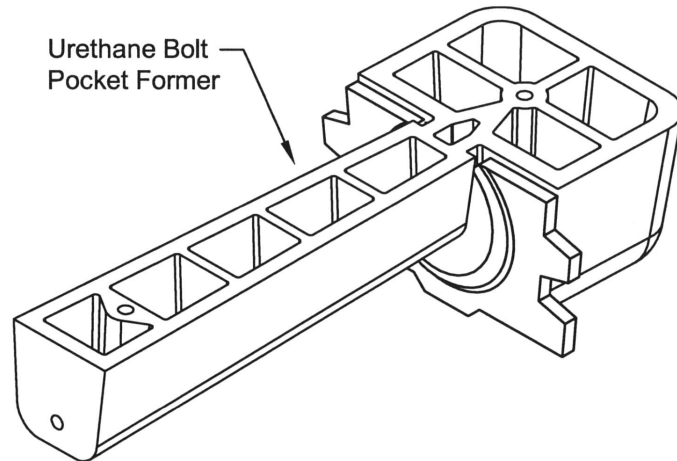
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Job Number: \_\_\_\_\_

Ship Date: \_\_\_\_ / \_\_\_\_ / \_\_\_\_

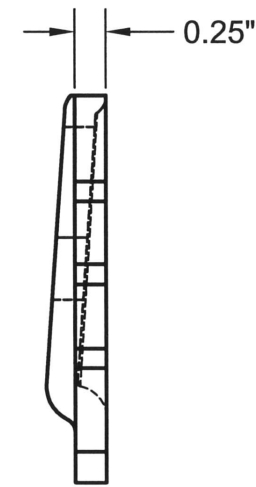
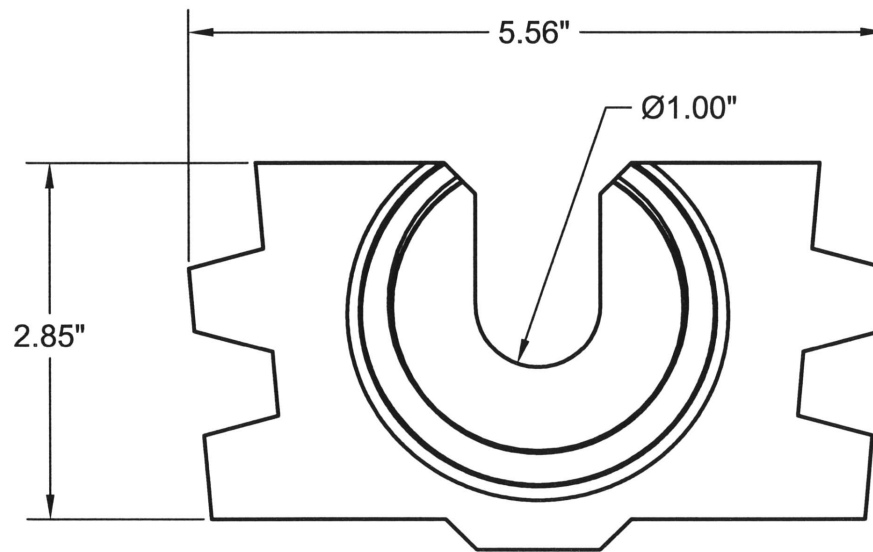
Date: \_\_\_\_ / \_\_\_\_ / \_\_\_\_

Page \_\_\_\_ of \_\_\_\_



## BOLT POCKET PLATE (use with bolt pocket former)

- \*1/4" Galvanized Steel Plate Standard, distributes bolt load
- Teeth anchor plate securely in concrete
- Pressed center keeps bolt in position
- \*\*Fits securely into reusable bolt pocket former



\*Plain Steel or Stainless Steel Optional

\*\*Urethane Bolt Pocket Former sold separately (part number 4023)

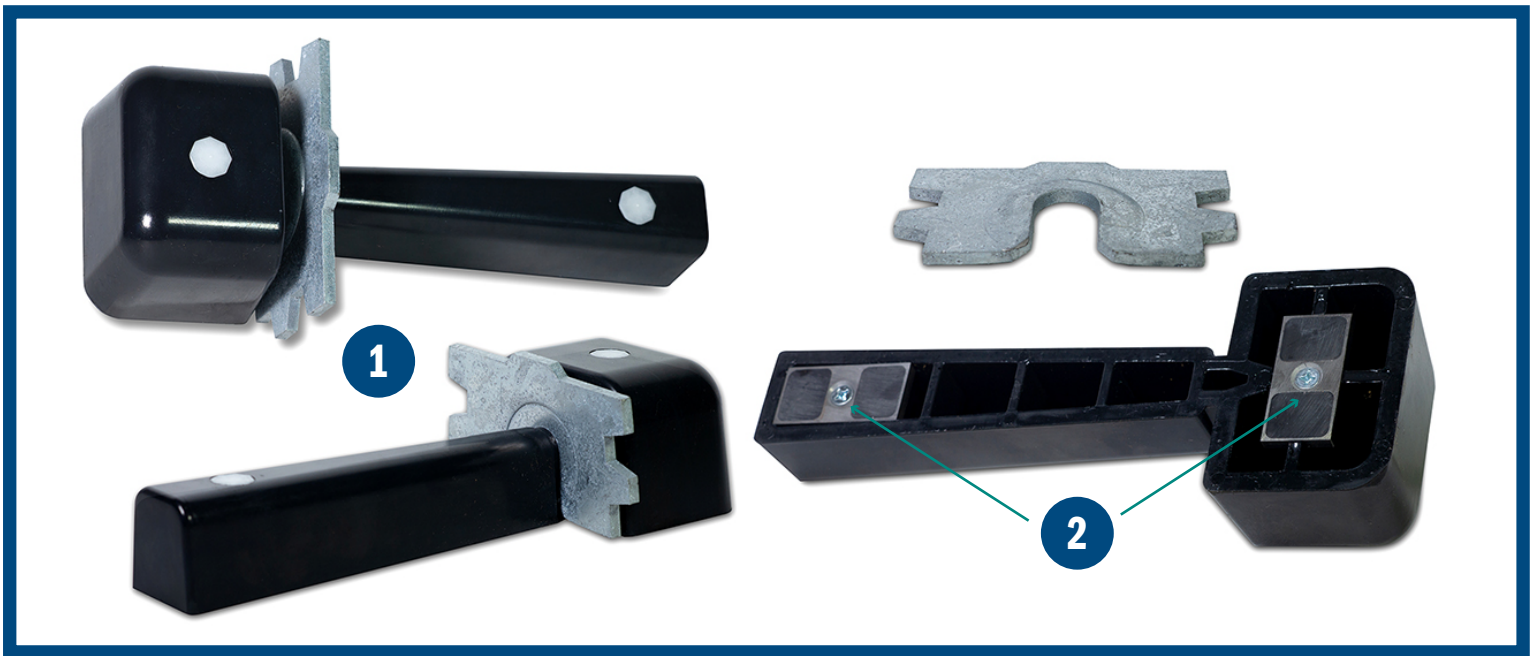
06/03/04



# Bolt Pocket Former

## Installation Instructions

The simple forming solution for tying together sections of box culvert or precast walls.



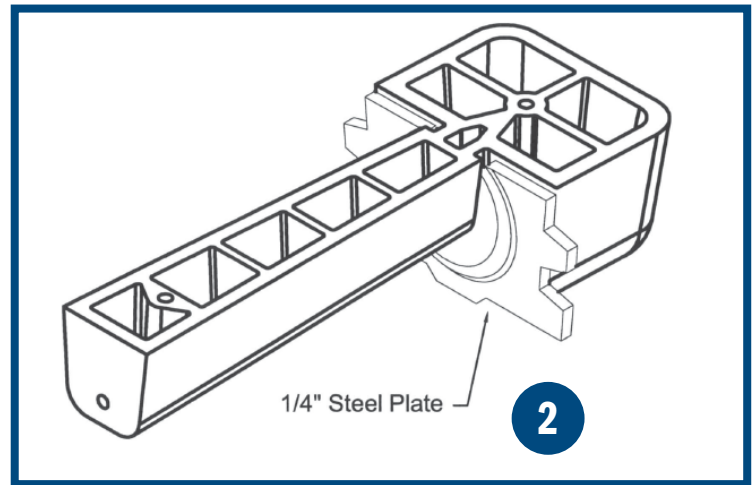
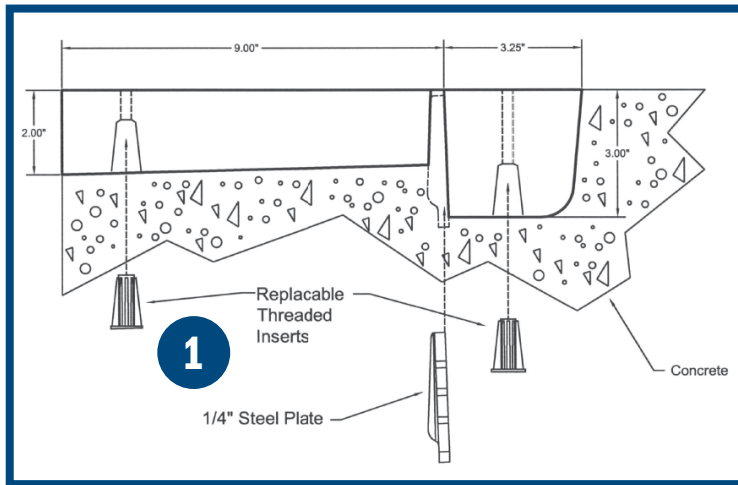
- 1 Steel Plate remains embedded in concrete to hold nut.
- 2 Attach to form using either 1/4" bolts or plastic screws. Version with magnets available.

**Bolt Pocket Former** - the ideal solution for tying together sections of box culvert or precast walls. This dual purpose forming device creates both a groove through the joint and a pocket for the bolt. The steel plate that remains embedded in the concrete accepts up to 1" rod. Molded out of a specially formulated urethane, our bolt pocket former will last for at least 50 pours when properly maintained.

# Bolt Pocket Former

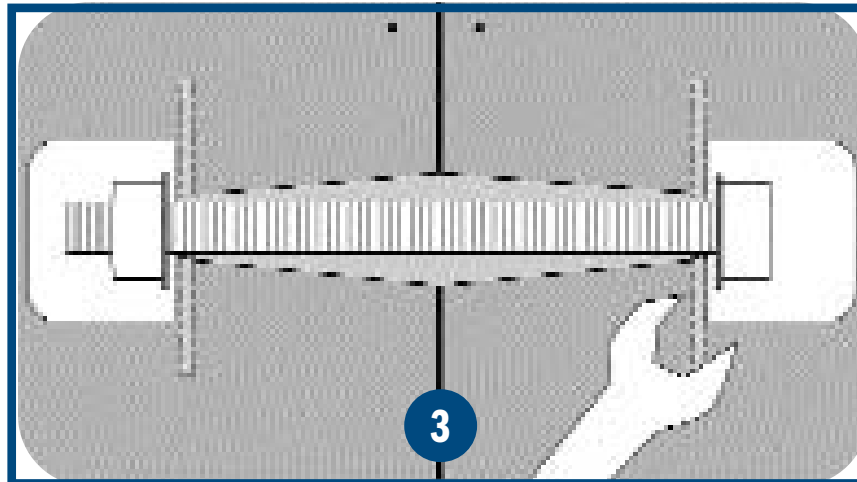
## Installation Instructions

The simple forming solution for tying together sections of box culvert or precast walls.



**1** Attach Bolt Pocket Former to form using either 1/4" bolts or plastic screws for non collapsing forms. The inserts are replaceable should the threads show signs of wear after numerous uses.

**2** Slide steel plate onto Bolt Pocket Former. Pour.



**3** After stripping form, slide Bolt Pocket Former out using pliers. Steel plate remains embedded in concrete. A groove through the joint and bolt pocket are formed. For field installation\*, the steel plate accepts up to 1" rod. \*We provide a field installation kit consisting of rod, 2 nuts, and 2 washers for an additional charge.

Attention: \_\_\_\_\_

From: \_\_\_\_\_

Fax #: \_\_\_\_\_

PA Insert Quote or Job Number: \_\_\_\_\_

Customer: \_\_\_\_\_

Project: \_\_\_\_\_

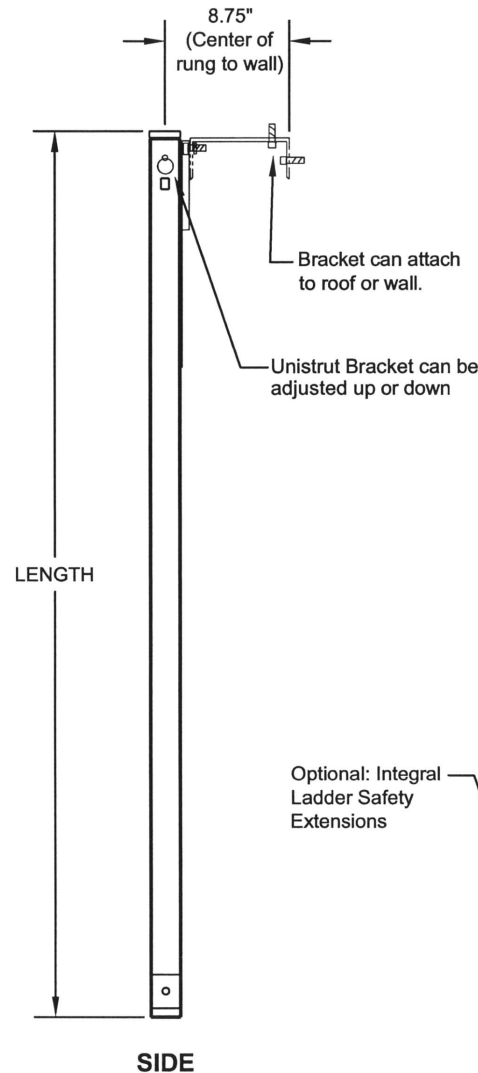
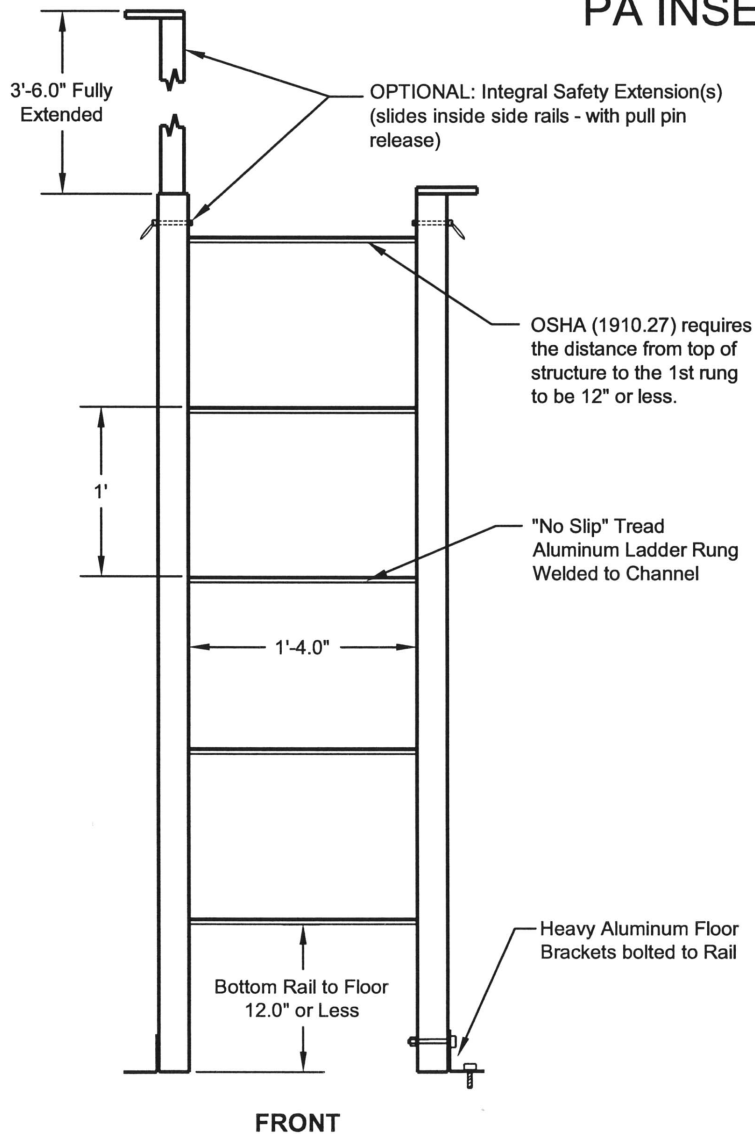
Job Number: \_\_\_\_\_

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Date: \_\_\_\_ / \_\_\_\_ / \_\_\_\_

Page \_\_\_\_ of \_\_\_\_

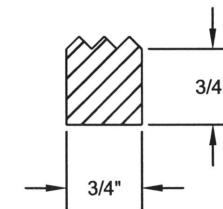
## PA INSERT ALUMINUM LADDER DETAIL



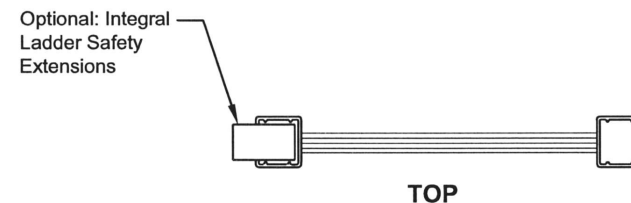
- OSHA 1910.27 Compliant
- All Materials are Mill Finish
- Aluminum Alloy = 6061-T6

LADDER LENGTH = \_\_\_\_\_

QUANTITY = \_\_\_\_\_



SECTION THROUGH RUNG



NO SCALE

12/08

Attention: \_\_\_\_\_

From: \_\_\_\_\_

Fax #: \_\_\_\_\_

PA Insert Quote or Job Number: \_\_\_\_\_

Customer: \_\_\_\_\_

Project: \_\_\_\_\_

Job Number: \_\_\_\_\_

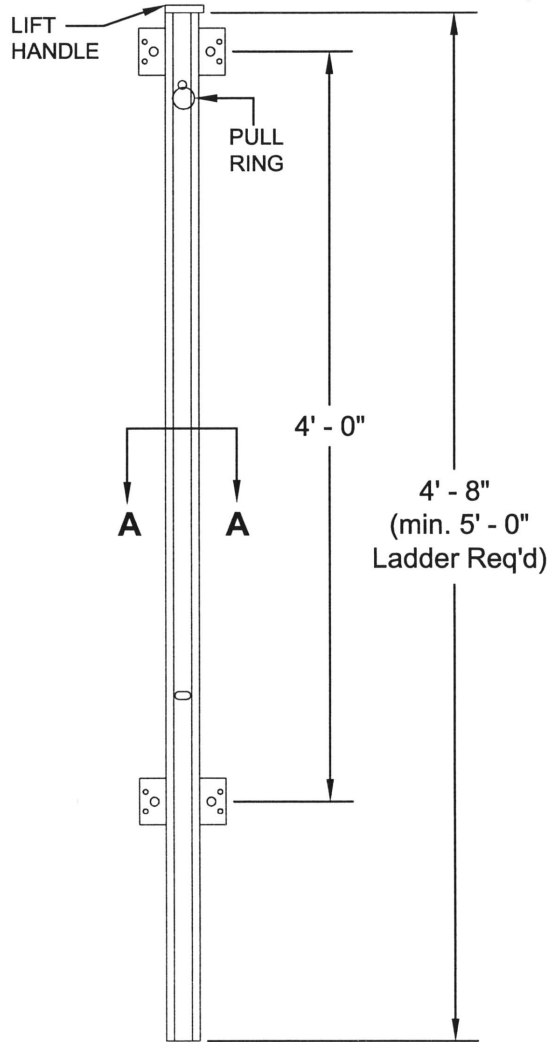
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Date: \_\_\_\_ / \_\_\_\_ / \_\_\_\_

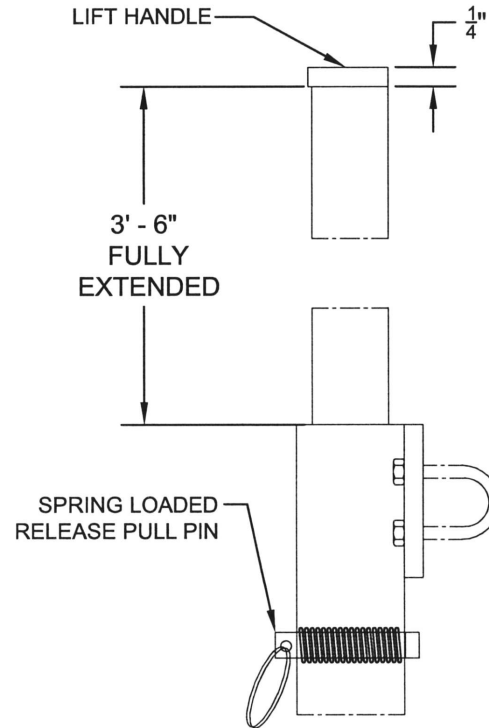
Page \_\_\_\_ of \_\_\_\_

## ALUMINUM -BOLT ON- LADDER EXTENSION

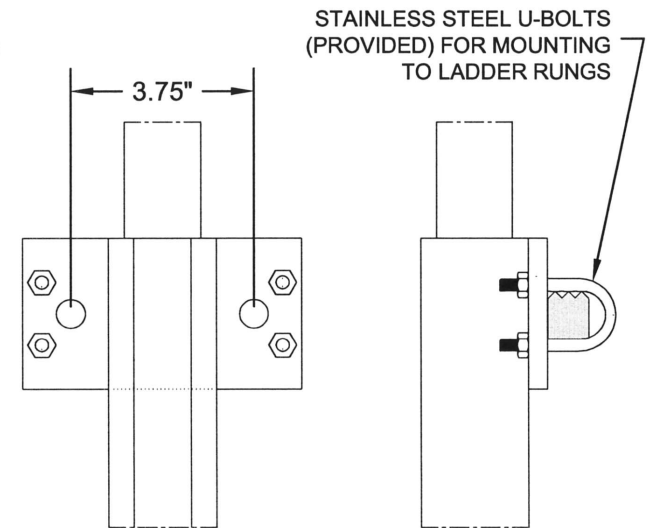
- ALL ALUMINUM CONSTRUCTION
- STAINLESS STEEL HARDWARE
- MINIMUM 5' - 0" LADDER REQUIRED



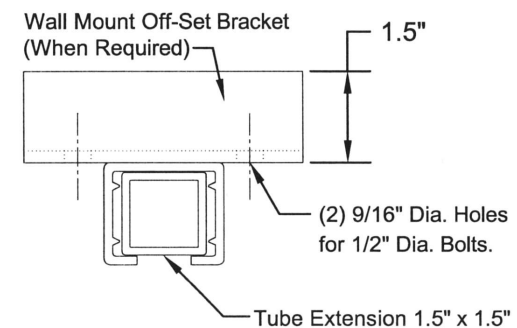
ELEVATION



LOCK & EXTENSION DETAIL



MOUNTING BRACKET DETAILS



SECTION A - A

Attention: \_\_\_\_\_

From: \_\_\_\_\_

Fax #: \_\_\_\_\_

PA Insert Quote or Job Number: \_\_\_\_\_

Customer: \_\_\_\_\_

Project: \_\_\_\_\_

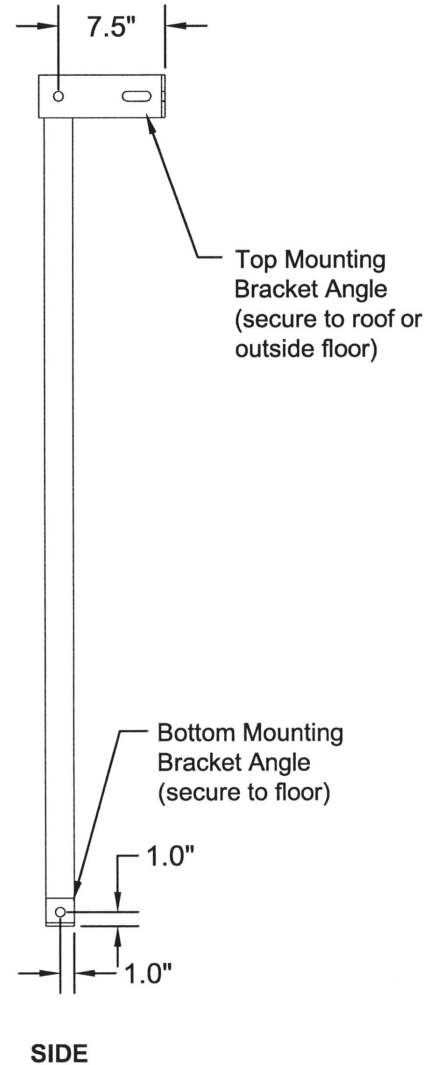
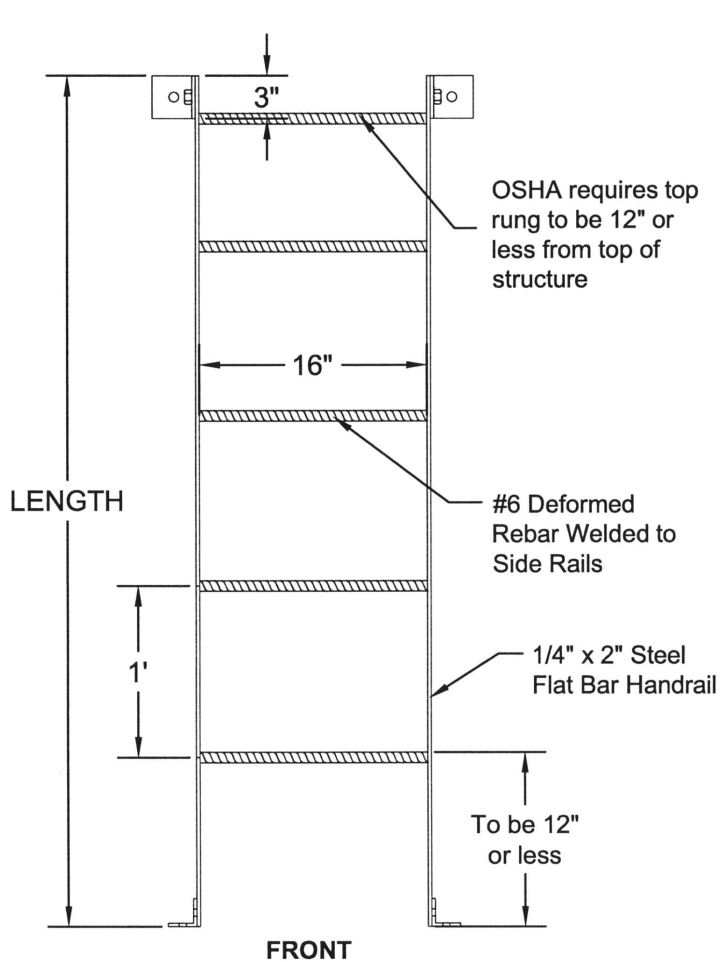
Job Number: \_\_\_\_\_

Ship Date: \_\_\_\_ / \_\_\_\_ / \_\_\_\_

Date: \_\_\_\_ / \_\_\_\_ / \_\_\_\_

Page \_\_\_\_ of \_\_\_\_

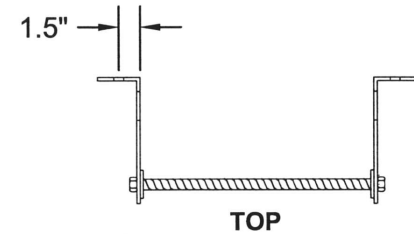
## PENNSYLVANIA INSERT STEEL LADDER DETAIL



- OSHA 1910.27 Compliant
- Red Oxide Painted (Standard)
- Hot Dipped Galvanized (Optional)
- Flat Bar and Brackets are ASTM A36 Steel

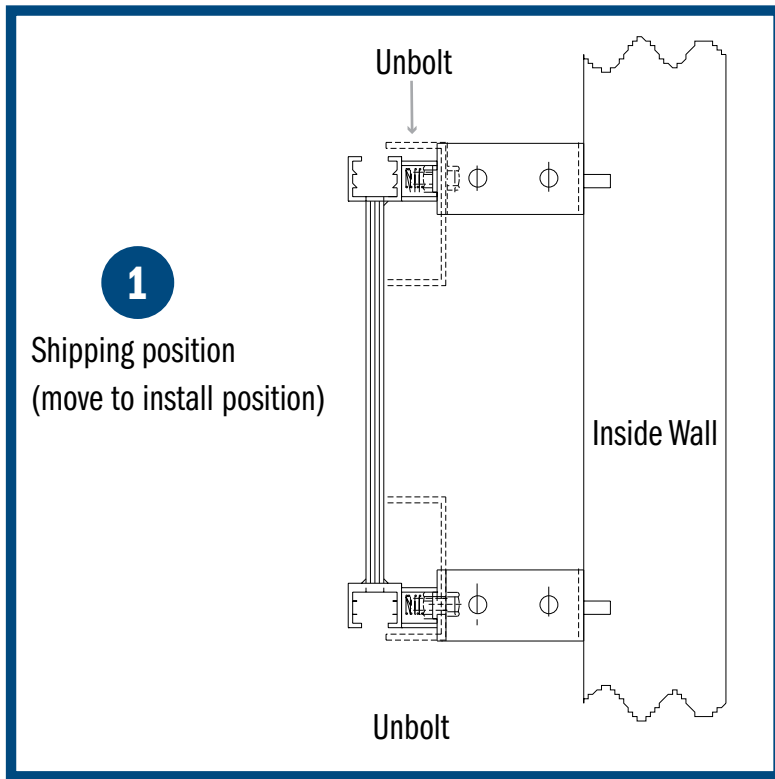
LADDER LENGTH = \_\_\_\_\_

QUANTITY = \_\_\_\_\_



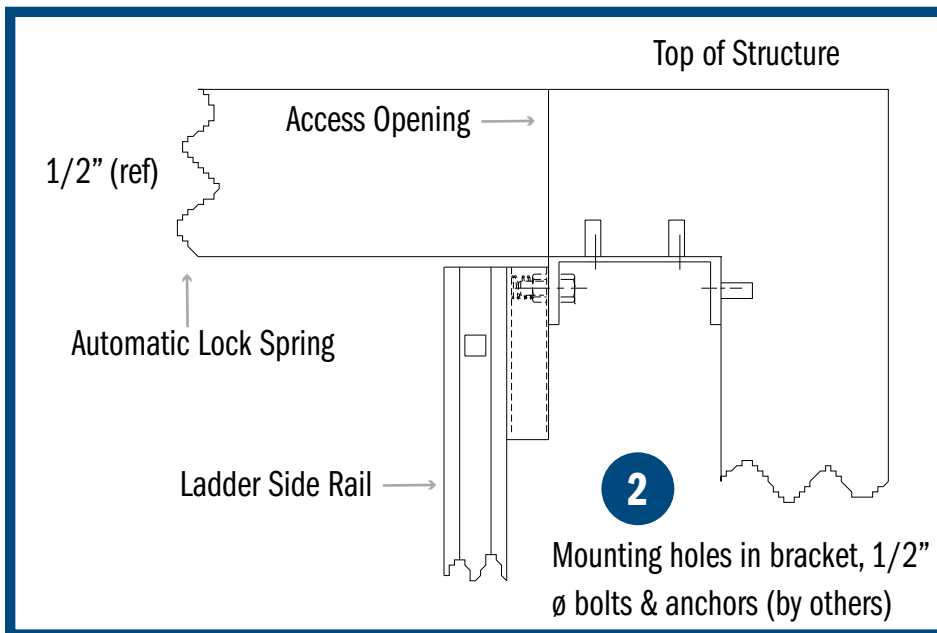
# Ladders

## Installation Instructions



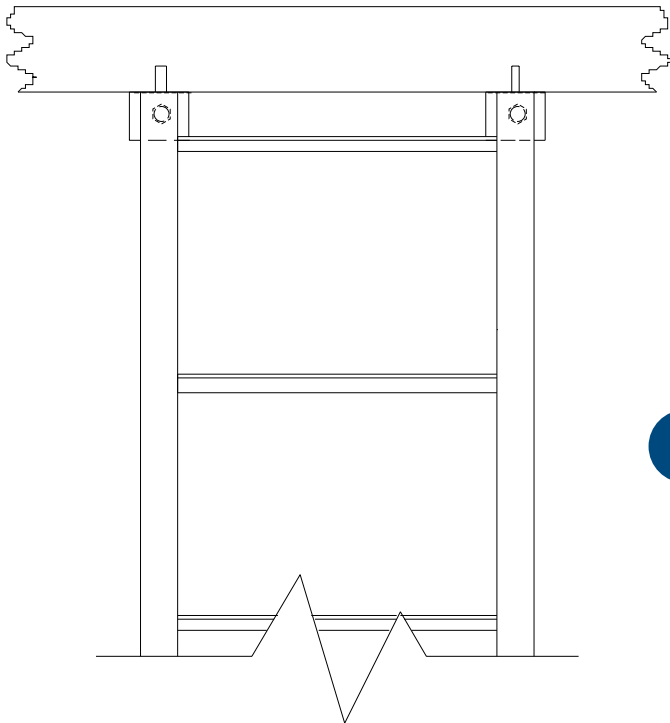
Note: OSHA requires the distance from top of structure to the first rung to be 12" or less.

- 1** Unbolt, reposition and re-bolt, adjustable channel brackets as shown (do not tighten all the way so it can be slid up and down).



- 2** Position ladder in structure and secure adjustable bracket, to wall or roof; tighten bracket, adjusting nut.

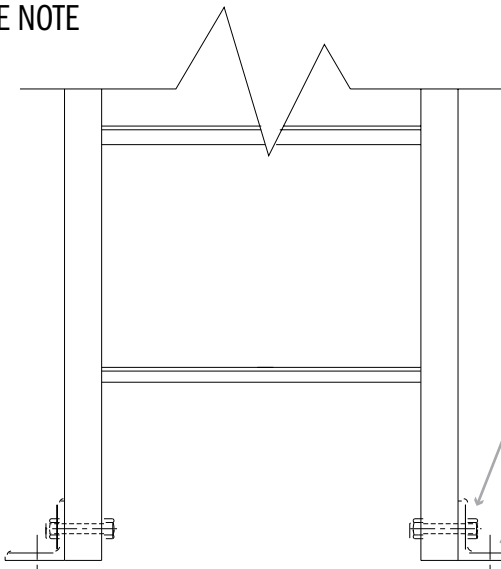




Note: OSHA requires the distance from top of structure to the first rung to be 12" or less.

- 3 Secure foot angles & any mid-brackets (if any), tighten all bolts.

SEE NOTE



(2) Foot angles are pre-bolted to rail.

- 3 5/8"  $\emptyset$  Holes provided for 1/2"  $\emptyset$  Bolts & Anchors (by others)

Min. 6 ft. Ladder required.

Attention: \_\_\_\_\_

From: \_\_\_\_\_

Fax #: \_\_\_\_\_

PA Insert Quote or Job Number: \_\_\_\_\_

Customer: \_\_\_\_\_

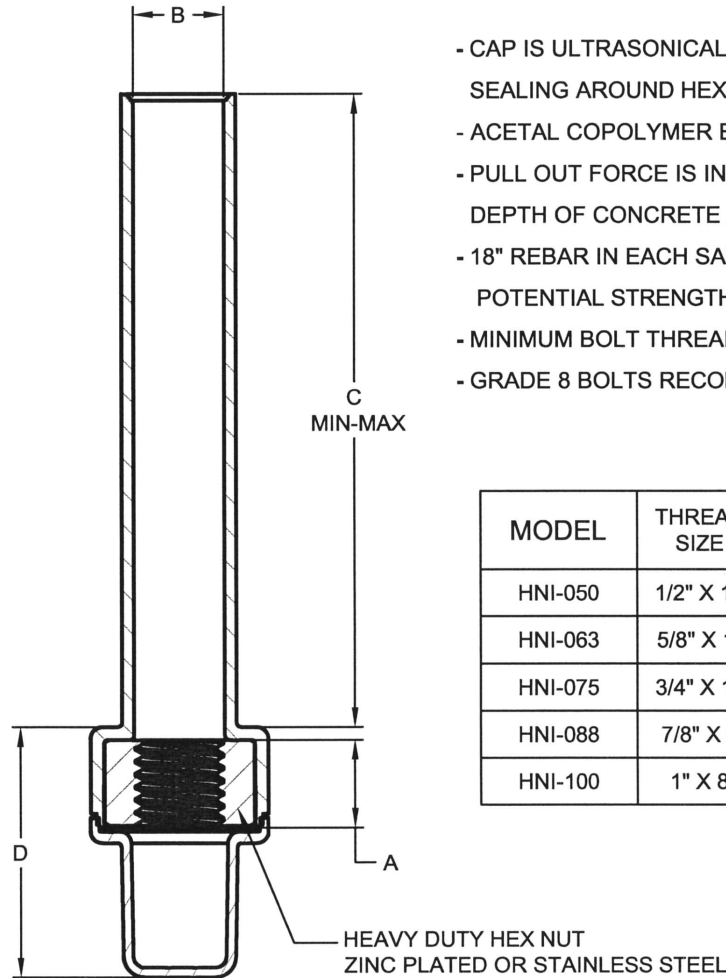
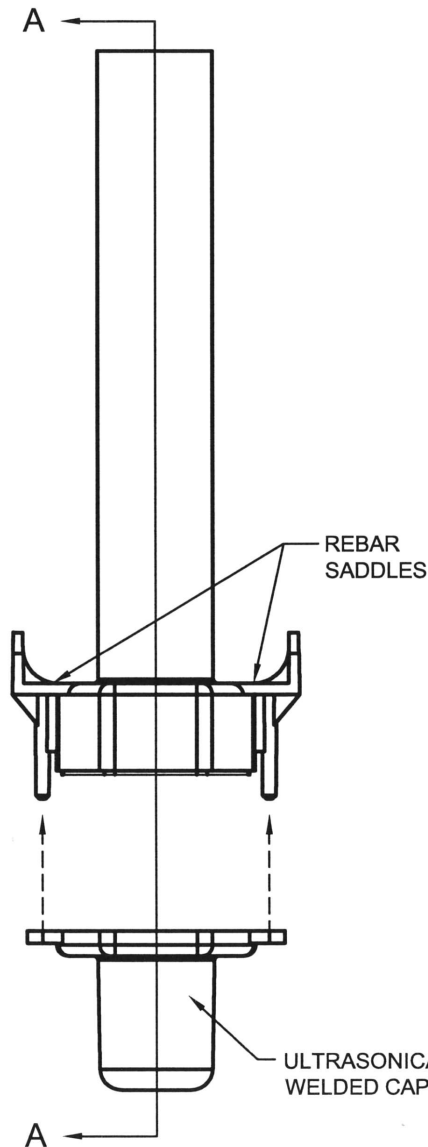
Project: \_\_\_\_\_

Job Number: \_\_\_\_\_

Ship Date: \_\_\_\_ / \_\_\_\_ / \_\_\_\_

Date: \_\_\_\_ / \_\_\_\_ / \_\_\_\_

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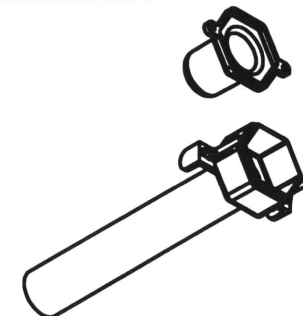


SECTION A - A

## HEX NUT INSERT

- CAP IS ULTRASONICALLY WELDED TO MAIN PIECE PROVIDING HERMETIC SEALING AROUND HEX NUT
- ACETAL COPOLYMER BODY SERVES AS A LOCATOR FOR THE NUT
- PULL OUT FORCE IS IN LINE WITH THE BOLT HOLE, AND DEPENDENT ON DEPTH OF CONCRETE AND REBAR
- 18" REBAR IN EACH SADDLE IS RECOMMENDED TO ACHIEVE FULL POTENTIAL STRENGTH
- MINIMUM BOLT THREAD ENGAGEMENT - 6 FULL REVOLUTIONS
- GRADE 8 BOLTS RECOMMENDED

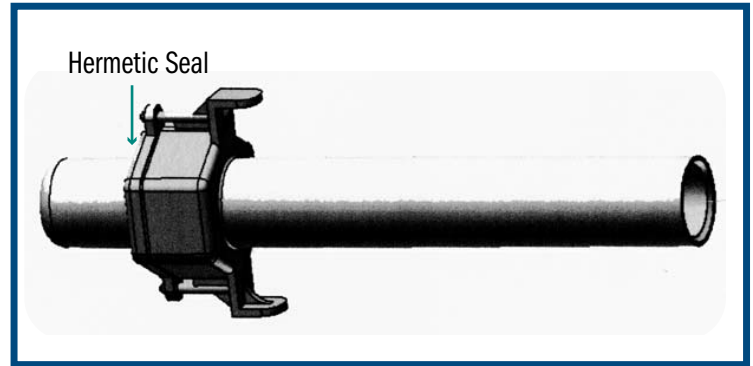
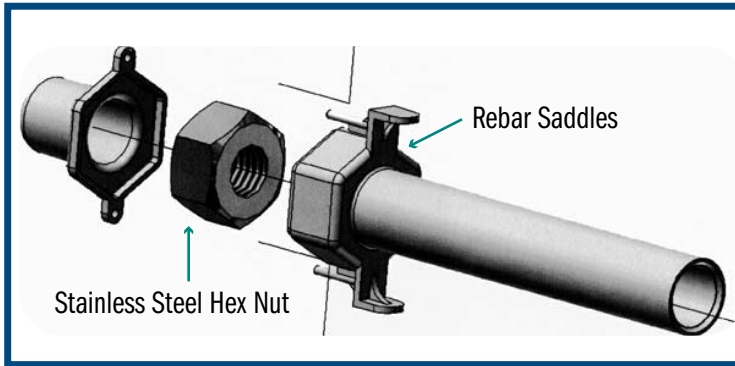
MODEL	THREAD SIZE	A (THREAD DEPTH)	B (I.D.)	C (SHEAR CONE DEPTH)	D (BOLT THREAD ENGAGEMENT)
HNI-050	1/2" X 13	31/64"	.515"	1-3/4" - 4-1/2"	1.505"
HNI-063	5/8" X 11	39/64"	.642"	1-3/4" - 4-1/2"	1.760"
HNI-075	3/4" X 10	47/64"	.770"	1-3/4" - 4-1/2"	1.995"
HNI-088	7/8" X 9	55/64"	.893"	1-3/4" - 4-1/2"	2.245"
HNI-100	1" X 8	63/64"	1.04"	1-3/4" - 4-1/2"	2.510"



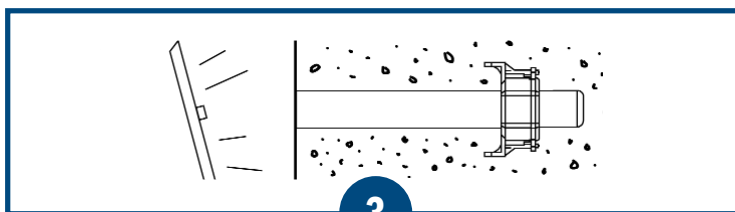
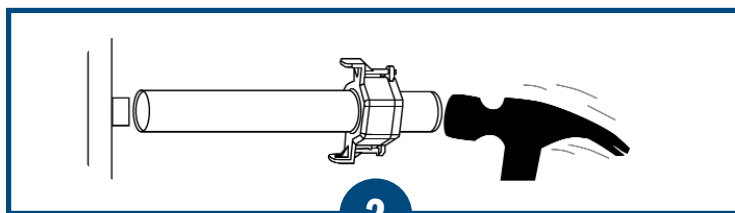
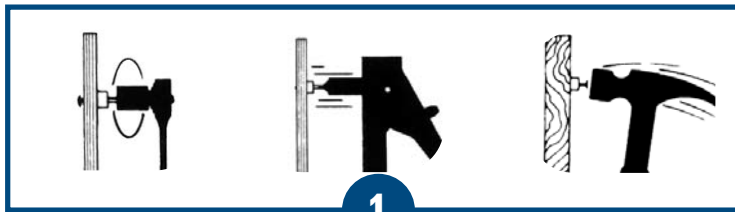
# Hex Nut Metal Insert

## Installation Instructions

The economical alternative to the stainless steel insert: Our **Hex Nut Insert**. Features a stainless steel hex nut encased in a hermetically sealed plastic shell. Available in the following sizes: 1/2", 5/8", 3/4", 7/8", and 1". Installs easily using our tap ons or stick ons. Suitable for a variety of applications from bolting guard rails to aligning precast walls.



### Install with Tap-Ons:



**1** For installing a Hex Nut Insert with a Tap-On, it will be necessary to drill small holes in the form at the locations where inserts are desired. Measure and mark the form wherever an insert is needed and drill a 3/16" hole. Then, simply bolt, rivet, or nail the tap-on to the form.

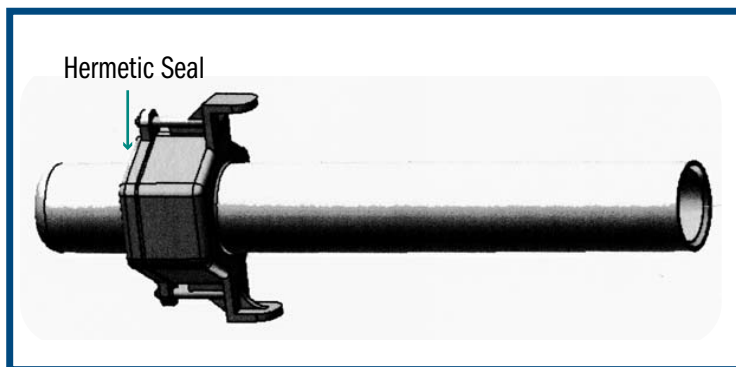
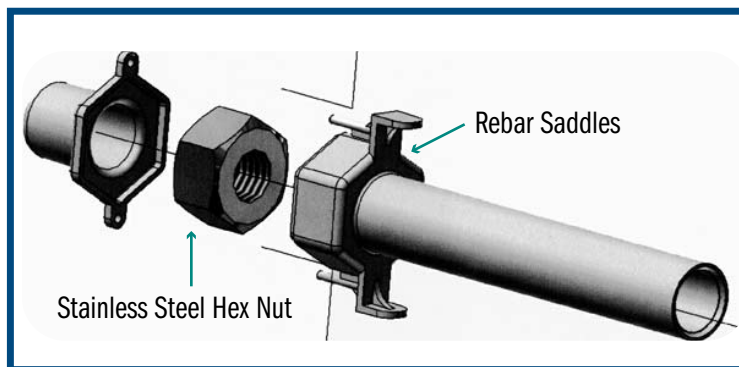
**2** Tap Hex Nut Insert gently on to the tap-on. (Never hit the Insert hard and always wear safety glasses.)

**3** Tap-on will release when the form is stripped.

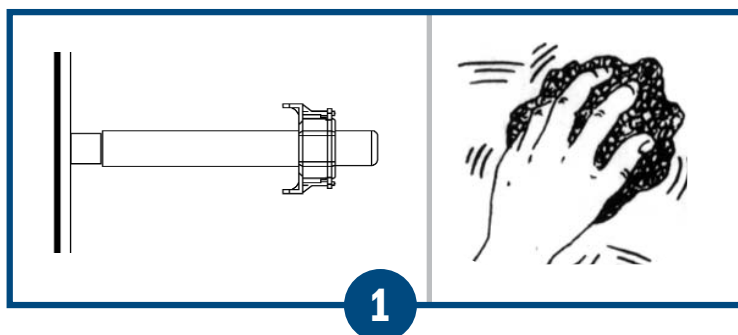
# Hex Nut Metal Insert

## Installation Instructions

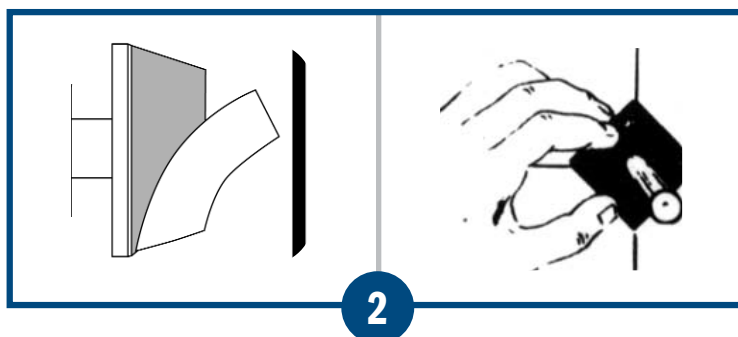
The economical alternative to the stainless steel insert: Our **Hex Nut Insert**. Features a stainless steel hex nut encased in a hermetically sealed plastic shell. Available in the following sizes: 1/2", 5/8", 3/4", 7/8", and 1". Installs easily using our tap ons or stick ons. Suitable for a variety of applications from bolting guard rails to aligning precast walls.



### Install with Stick-Ons:



- 1 For installing a Hex Nut Insert with a Stick-On, simply attach the appropriately sized Tap-On to the Hex Nut Insert. Clean the mounting surface with steel wool and alcohol.



- 2 Peel the white backing off then press the Stick-On firmly in place using the corners of the Stick-On to align for critical placement.

Attention: \_\_\_\_\_

From: \_\_\_\_\_

Fax #: \_\_\_\_\_

PA Insert Quote or Job Number: \_\_\_\_\_

Customer: \_\_\_\_\_

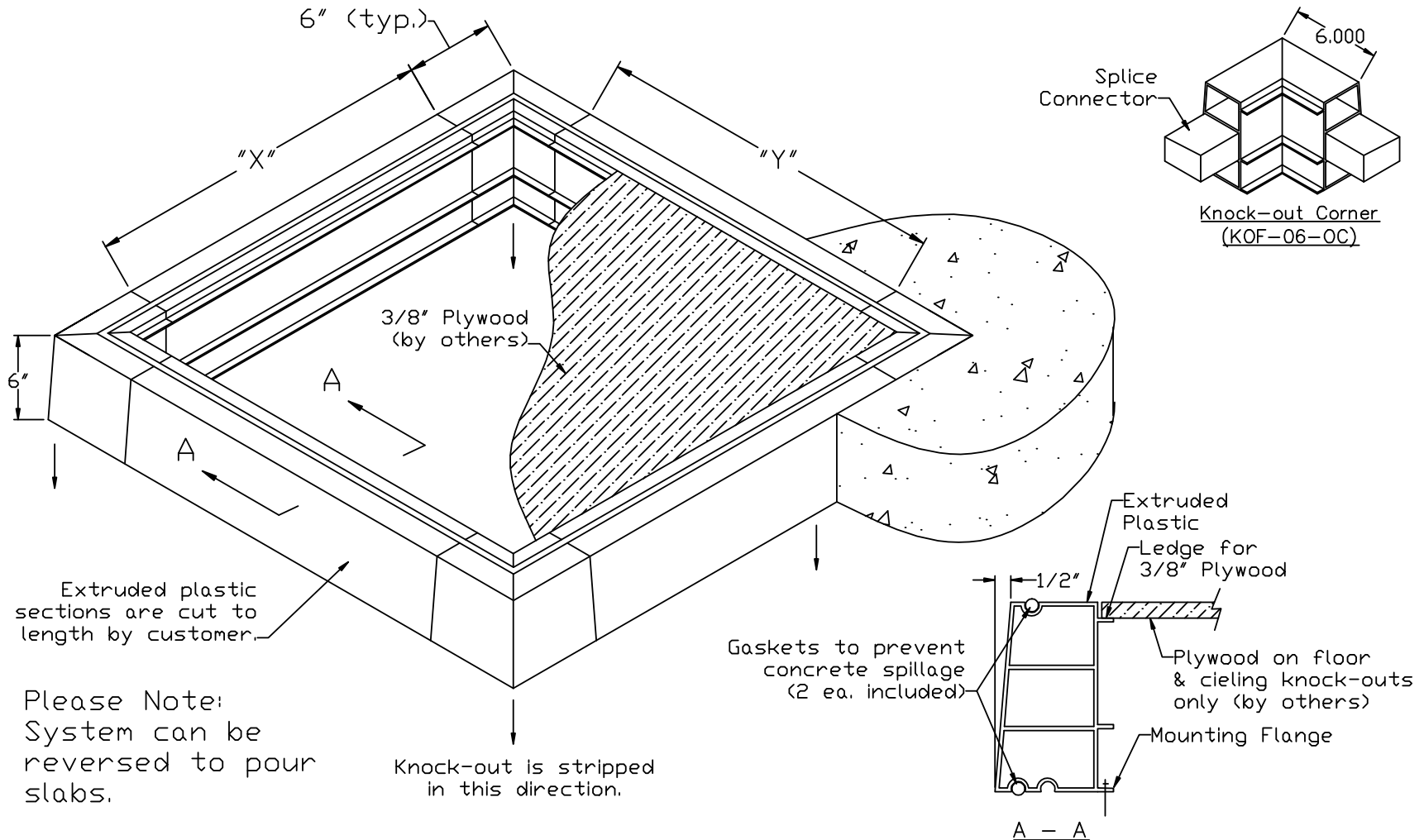
Project: \_\_\_\_\_

Job Number: \_\_\_\_\_

Ship Date: \_\_\_\_ / \_\_\_\_ / \_\_\_\_

Date: \_\_\_\_ / \_\_\_\_ / \_\_\_\_

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#### SPECIFICATIONS:

Opening shall be formed in concrete slab (wall) using an Adjustable Knock-out system as manufactured by Pennsylvania Insert Corp., Spring City, PA. Knock-out shall be manufactured from high strength plastic extrusion with a tapered surface for easy removal after casting. Knock-out shall have an integral ledge for mounting a 3/8" plywood panel when the Knock-out is used in the horizontal position for floor or ceiling penetrations. It shall also have a flange at the bottom to be used as a nailer to immobilize the member. It shall also have removable gaskets on both the top and bottom to prevent concrete spillage. Corners shall be prefabricated.



Attention: \_\_\_\_\_

From: \_\_\_\_\_

Fax #: \_\_\_\_\_

PA Insert Quote or Job Number: \_\_\_\_\_

Customer: \_\_\_\_\_

Project: \_\_\_\_\_

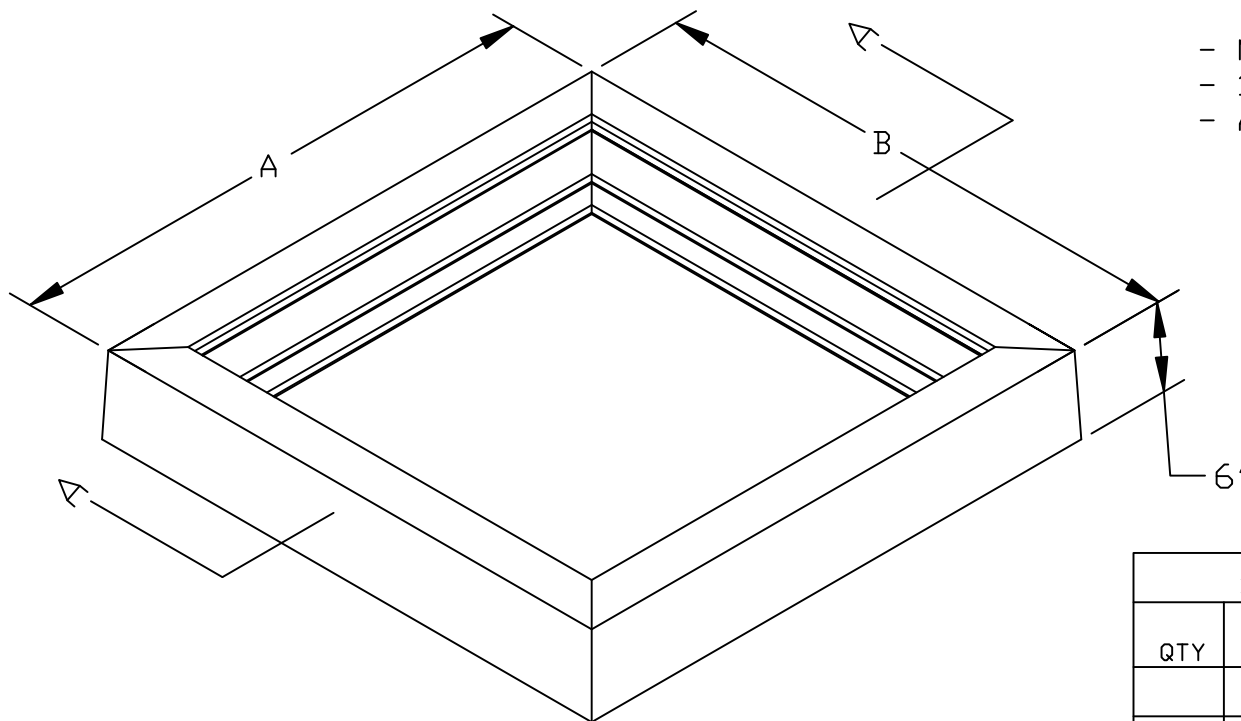
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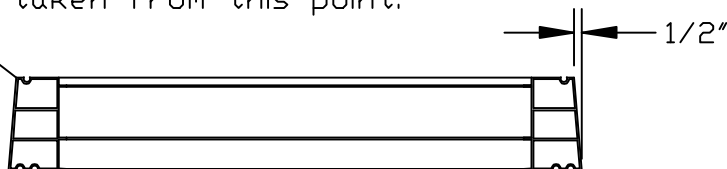
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## One-Piece Knockout Former



- Made from High Strength Plastic
- 1/2" Taper for QUICK, EASY Removal
- Available for slabs too.

Standard Dimensions  
are taken from this point.



SECTION A - A

STANDARD DIMENSIONS*				
QTY	A*	B*	KNOCKOUT STOCK#	PRICE
	24"	24"	MK02424	
	30"	30"	MK03030	
	36"	36"	MK03636	

\* Measured at Top. (Base, is 1" larger overall)

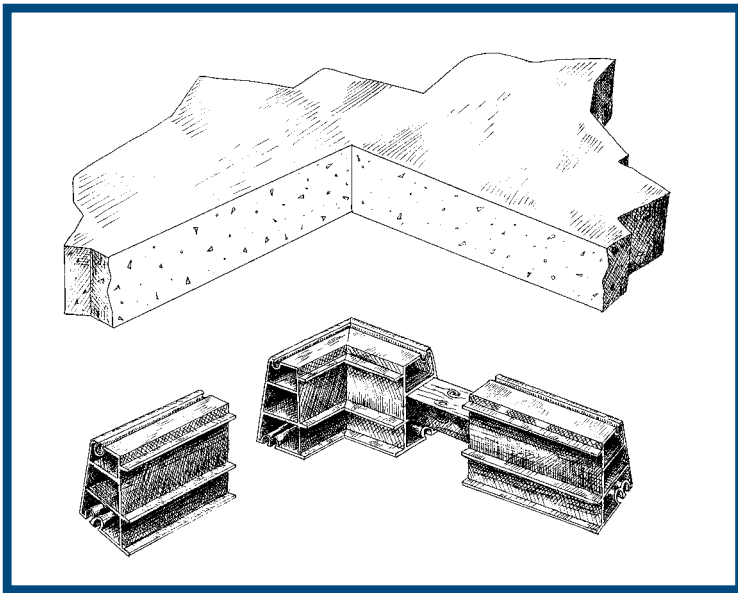
# Modular Formers

## Installation Instructions

Create knockouts & custom slab forms in minutes! PA Insert's forming system is inexpensive, versatile, and incredibly easy to use. It was designed with several advantages making it a great alternative to wood and polystyrene.

### INSTALLATION INSTRUCTIONS:

The material is shipped in 8' lengths that can be cut as desired and assembled to form windows, knockouts, or slabs. Pre-made corners can also be purchased and fitted with straight pieces of whatever length is required. For specific installation instructions contact PA Insert Corporation. Patent Pending.



**NO WOODWORKING** This sturdy plastic extrusion is 6" high. Unlike a standard 2x6 board it does not need to be built up to form a 6" slab or hole. The material will probably pay for itself just from the time saved in woodworking.

**FAST & EASY** Set up is fast and easy. Simply fit the pieces together in the dimensions required, set the custom knockout on your form, and give it a light coat of oil. The material can be dis-assembled after pouring and reused repeatedly. More time will be saved because the usual steps of forming out wooden or polystyrene knockouts that only last two or three pours will be eliminated.

**SAVES TIME** Another great feature is that the plastic is smooth and tapered. It strips so easily that the knockout can be pushed out by hand. This saves time spent stripping. No more banging on wood forms for ten or more minutes to remove a wood knockout which, at this point is damaged and has to be remade or fixed. No more pushing out polystyrene knockouts that break and have to be duct taped back together. Because of this feature the material will last for many pours. This saves even more money in material.

**HUGE SAVINGS** Huge savings are going to be generated by eliminating wood and polystyrene clean up and disposal costs.

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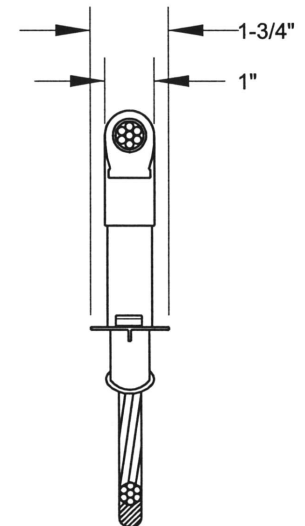
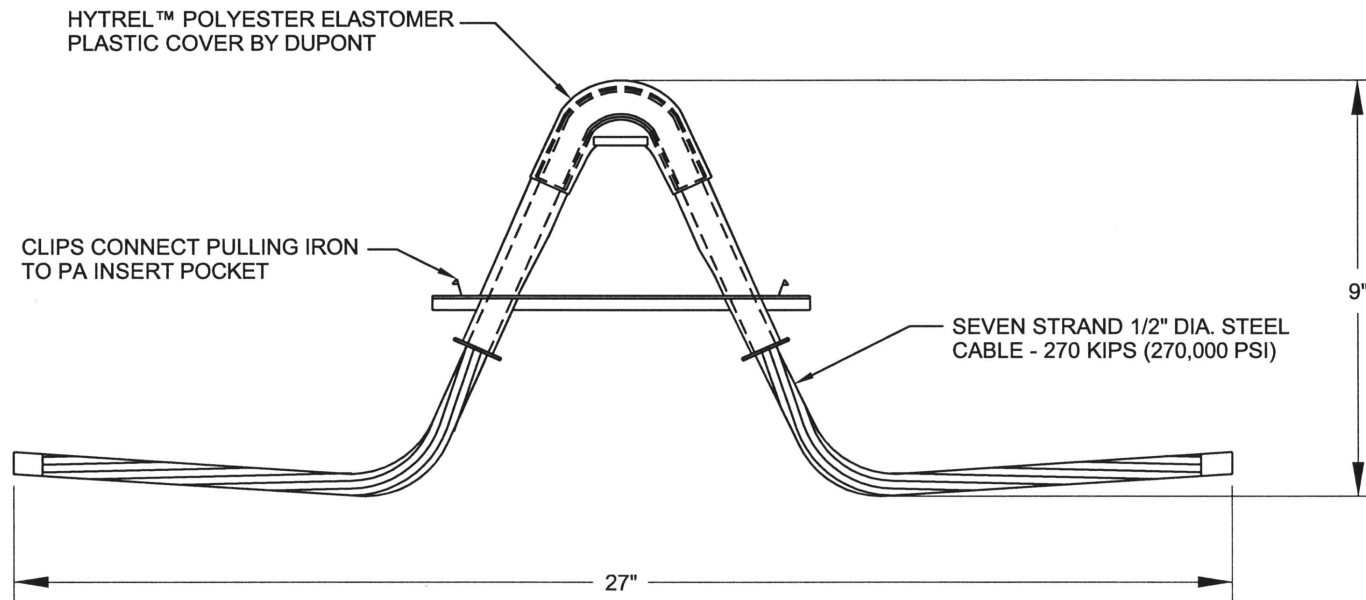
## NEW PI-1 (HYTREL™) PULLING IRON

### FEATURES:

- 1/2" CARBON STEEL PRESTRESSED CABLE - 270 KIPS
- TREMENDOUS STRENGTH
- POLYESTER ELASTOMER PLASTIC ENCAPSULATION TO PROTECT AGAINST CORROSION
- 1/2" CABLE IS FLEXIBLE
- LARGER HOOK AREA
- SNAPS SECURELY INTO PA INSERT POCKET (ORDER SEPARATELY)

### WHY HYTREL™ ?

- APPROVED BY BELL LABORATORIES
- VIRTUALLY INDESTRUCTABLE (UP TO 40,000 LBS)
- **(SAFE WORKING LOAD FOR PULLING CABLES = 11,000 LBS)**
- VERY RESISTANT TO CHEMICALS, OILS, AND SOLVENTS
- HIGHLY RESILIENT
- RETAINS FLEXIBILITY AT LOW TEMPERATURES
- RETAINS PROPERTIES AT ELEVATED TEMPERATURES



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## NEW PI-2 (POLYPROPYLENE) PULLING IRON

### FEATURES:

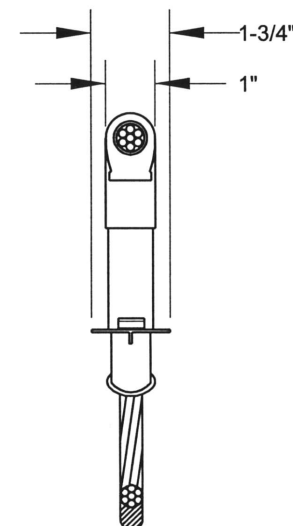
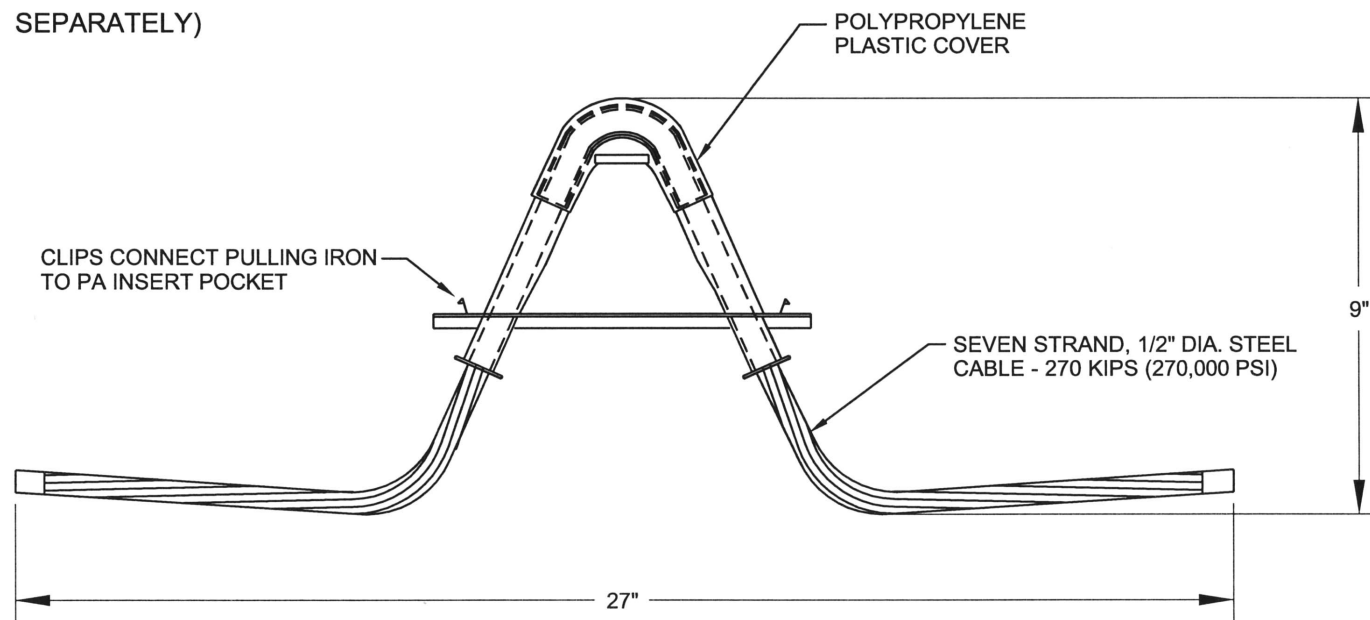
- 1/2" CARBON STEEL PRESTRESSED CABLE - 270 KIPS
- TREMENDOUS STRENGTH
- LOW COST PROPYLENE IS PERFECT FOR LIGHT PULLING APPLICATIONS

### APPLICATIONS

- 1/2" CABLE IS FLEXIBLE
- LARGER HOOK AREA
- SNAPS SECURELY INTO PA INSERT POCKET (ORDER SEPARATELY)

### WHY POLYPROPYLENE?

- LOW COST
- GOOD STRENGTH (UP TO 30,000 LBS)
- SAFE WORKING LOAD FOR PULLING CABLES = 11,000 LBS
- VERY RESISTANT TO CHEMICALS, OILS, AND SOLVENTS
- PERFECT FOR LIGHT PULLING APPLICATIONS



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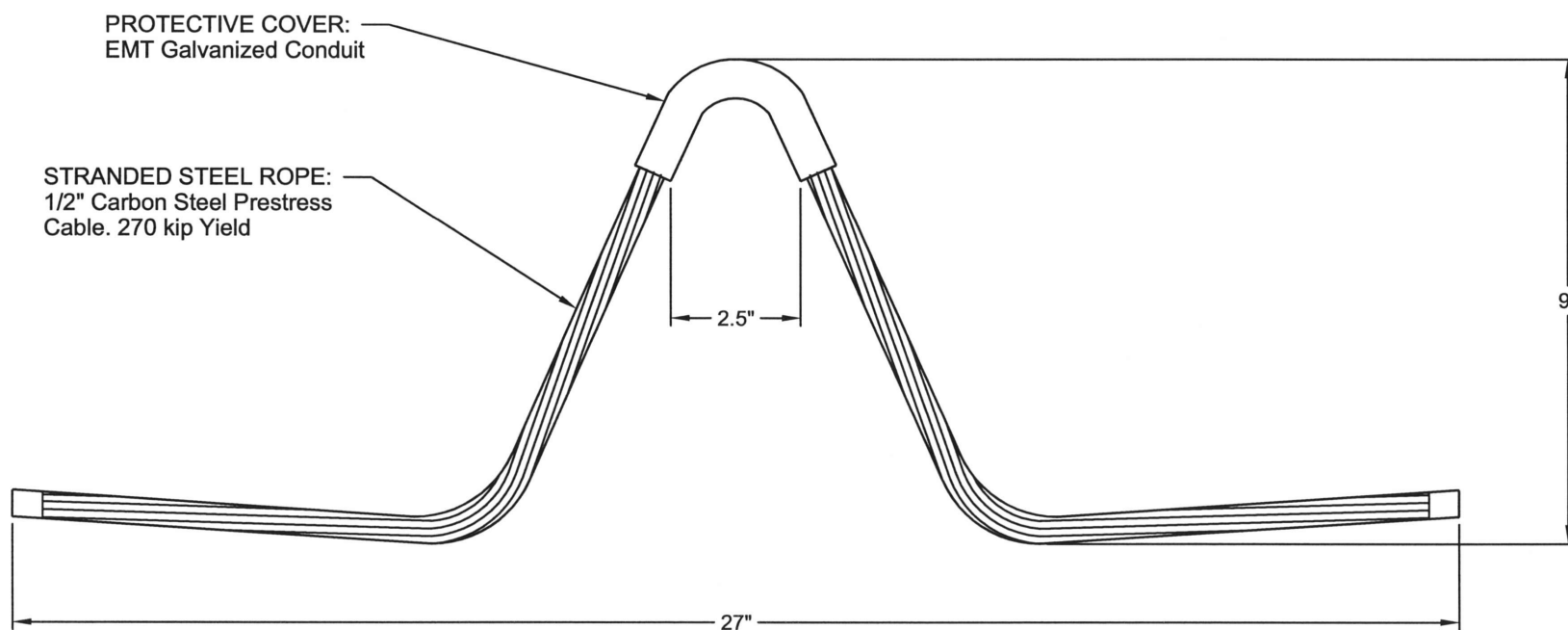
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## SINGLE STRAND, UPI CABLE: MODEL# PI-U1 (#1003)

SWL = 11,000 lbs



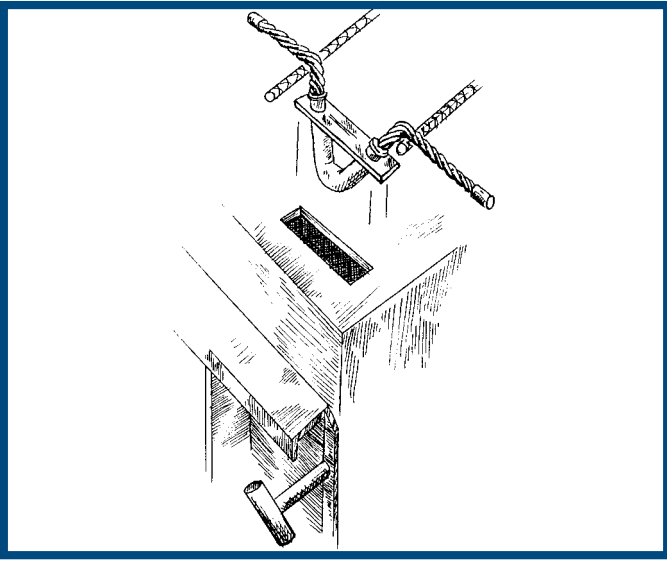
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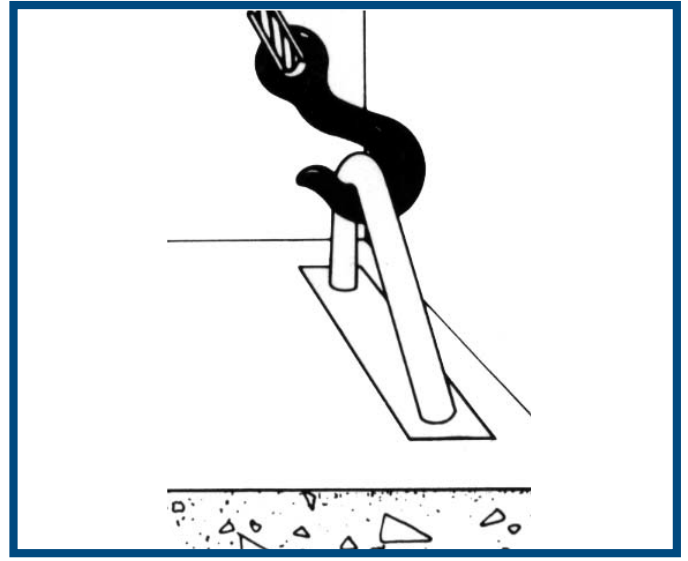
# Pulling Iron

## Installation Instructions



1

Measure and mark the form where Pulling Irons are needed and cut a 1.5" x 7" slot. Set up and oil form before installing Pulling Irons. This keeps the part free of oil and grease. Insert Pulling Iron into slot in form so that the shielding plate on the Pulling Iron covers the slot. This prevents slurry from leaking through the slot.



2

The pulling iron must be properly reinforced during installation for maximum strength. For complete instructions and safety guidelines consult PA Insert's supplementary installation guide.

**STRONG, DURABLE & FLEXIBLE** The original PI-1, the "superman" of pulling tools, is manufactured using Dupont's Hytel - a thermoplastic elastomer having remarkable properties of flexibility and strength. The PI-1 is designed for extremely demanding applications where strength and flexibility are of great importance. It has been tested to \*40,000 pounds and bent to a 45 degree angle without cracking the plastic or causing permanent deformation. Utilities have been using this part for over twenty years with unparalleled success. The PI-2 has great strength capabilities - tested to \*30,000 lbs, and can handle repeated pulls without "cracking under the pressure". The carbon steel strand is encased in high impact polypropylene creating a durable, strong, and affordable pulling tool. \*These figures represent ultimate strength values, not safe working loads. Consult factory for installation and usage.

**CUSTOM ORDERS** CUSTOM ORDERS Whatever your requirements, we have the part. We stock both molded and unmolded parts for prompt shipment. In addition, we can manufacture special parts. If you need a pulling tool with special features or dimensions we can custom manufacture it for you.

### USEFUL TIPS

1. Use pulling irons in conjunction with our Pocket accessory to save cutting slots in expensive steel forms.
2. Oil form before installing to keep P.I. free of oil and grease.



\*The purchaser acknowledges that PA Insert Corp. has no control over the installation or use of its products. Accordingly, PA Insert cannot assume responsibility for any damage to any property arising out of the improper use or installation of its products. PA Insert products are intended for use by trained, qualified, and experienced workers only. Misuse or lack of supervision & inspection can result in serious injury or death. All applications should be carefully field tested, safe working loads determined based on conditions, and all safety regulations followed.

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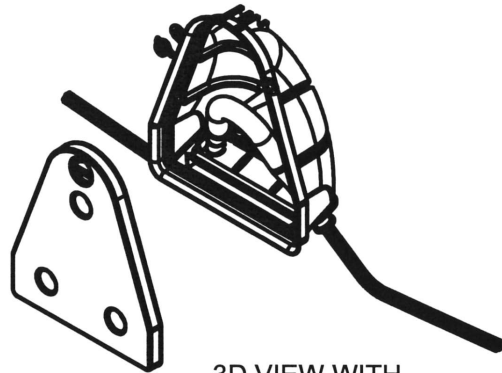
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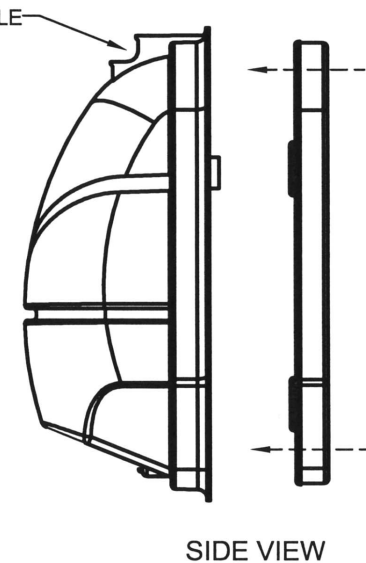
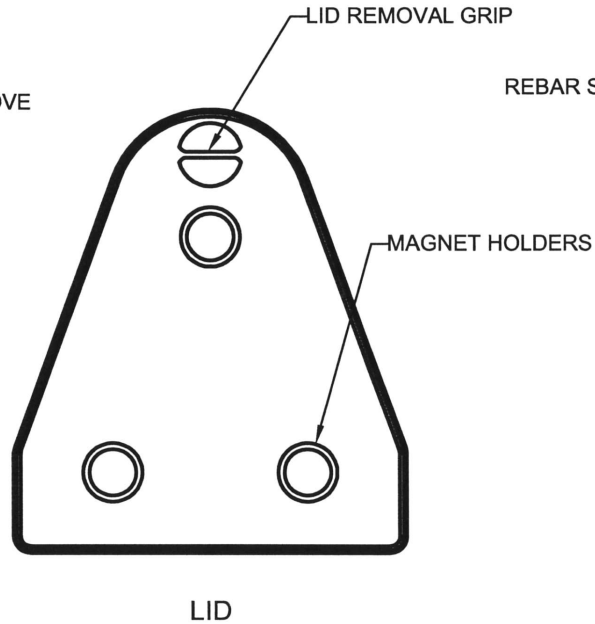
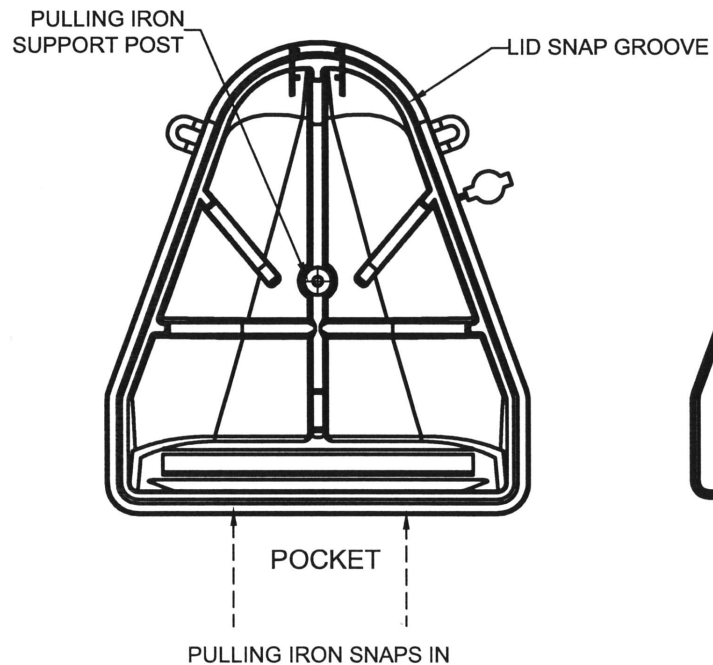
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## NEW PULLING IRON POCKET AND LID

- PULLING IRON SNAPS SECURELY INTO POCKET
- SUPPORT POST KEEPS PULLING IRON IN POSITION
- LID SNAPS SECURELY INTO POCKET
- LID HOLDS MAGNETS



3D VIEW WITH  
PULLING IRON IN  
POCKET



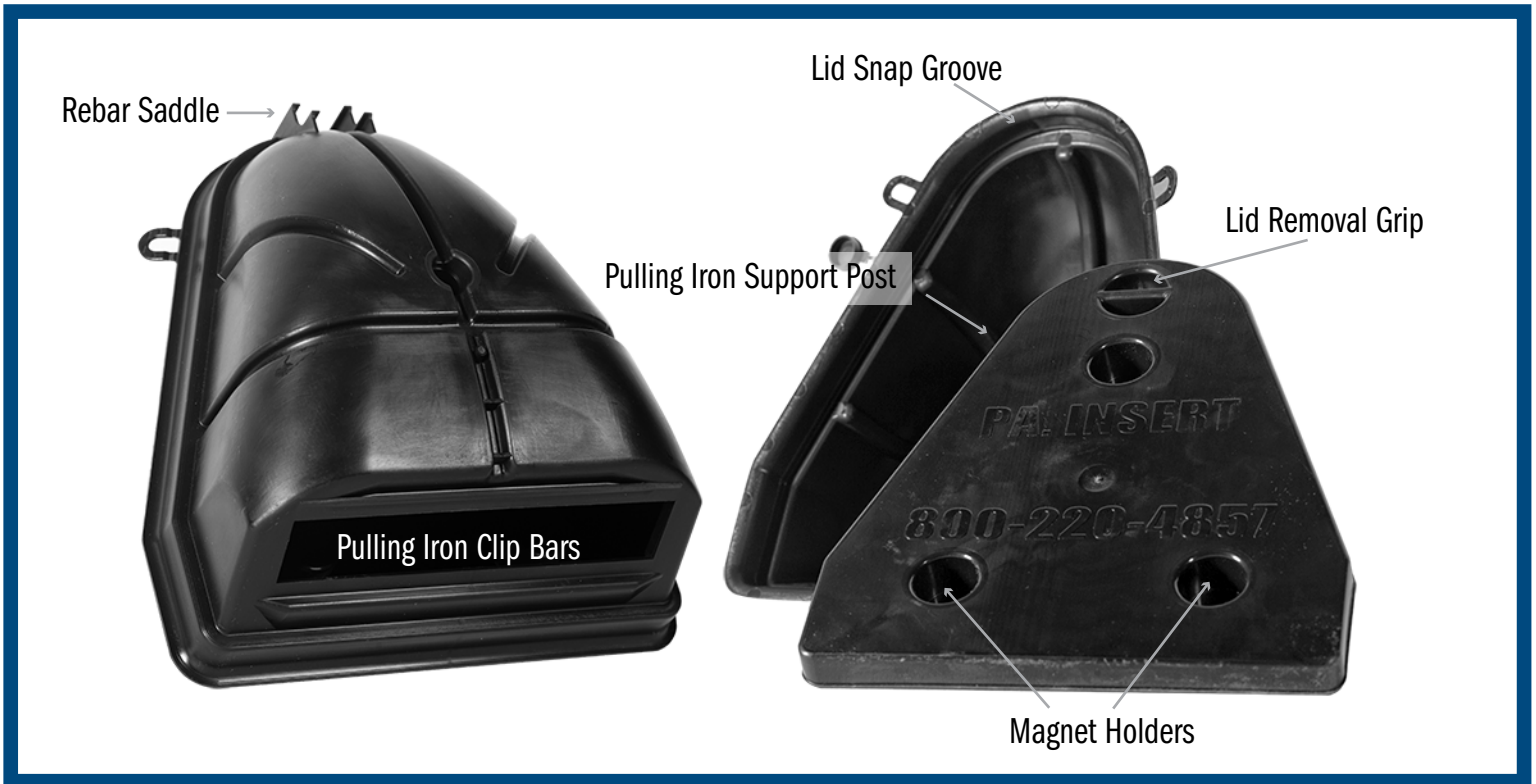
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# Pulling Iron Pocket & Lid

## Installation Instructions

We've redesigned our pulling iron pocket and lid to meld form, function, and utility.

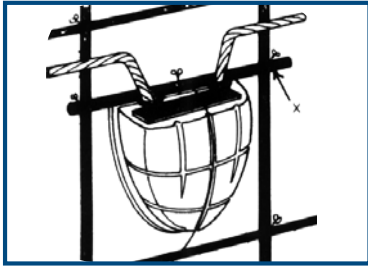


### Pulling Iron Pocket & Lid:

- **Pulling Iron Support Post:** Eliminates the use of styrofoam to support the iron.
- **Pulling Iron Clip Bars:** Snap pulling iron securely into mpocket
- Used to recess pulling irons in wall or floor of vault
- Eliminates the need for slots in expensive forms
- Lids are removable and reusable saving you money

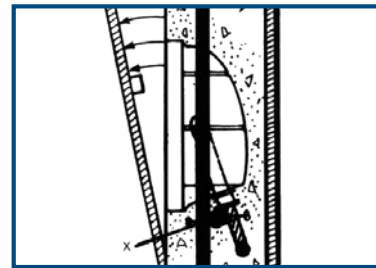
# Pulling Iron Pocket

## Installation Instructions



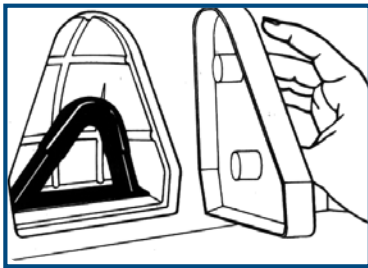
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Assemble the Pocket and Pocket Lid, then slide the Pulling Iron through the slot at the bottom of the Pocket. Wire the Pulling Iron to the cage.



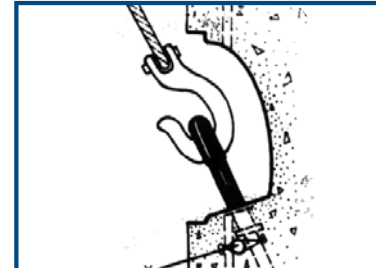
2

Make sure the Pulling Iron is wired in such a way that it angles toward the Pocket Lid and cannot slide back.



3

Wire the Pocket and Lid assembly flush against the form wall. Lid pops off for reuse.



4

Leaving you with a nice and tidy recessed hook.

### USEFUL TIPS

1. To ensure maximum hook area, have 2.5" between back of pocket & pulling iron.
2. Pocket is not recommended for walls thinner than 6".
3. Contact PA Insert with any questions.

**SAVE SPACE & MONEY** The Pocket is an accessory to the Pulling Iron. It allows the pulling iron to be installed within the wall without having to cut big holes in expensive steel forms. Utilities will like it too because it saves space in the manhole and eliminates any trip hazard.

**SAVINGS ADD UP** A unique advantage of PA Insert's Pocket accessory is that the Pocket Lid is removable and reusable. Use the lid twice and you have cut the price in half.

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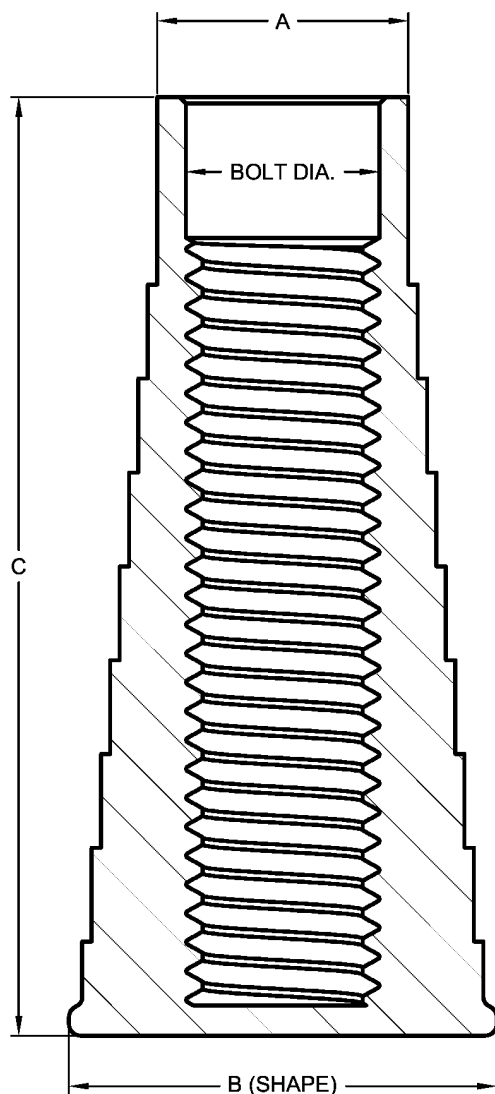
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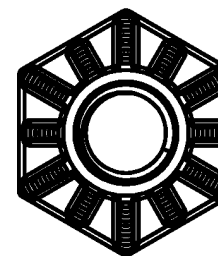
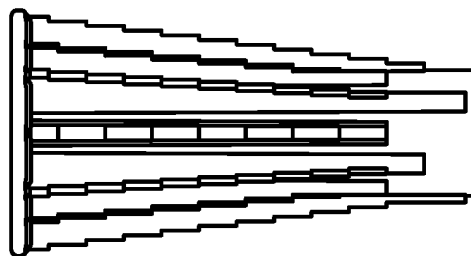


## PLASTIC THREADED INSERT

- FOR USE WITH PA INSERT TAP-ONS AND STICK-ONS
- STEPS IN RIBS INCREASE INSERT SURFACE CONTACT

MODEL	BOLT DIA.	A	B	C	WORKING LOAD (LBS.)	ULTIMATE STRENGTH (LBS.)	CONCRETE PSI
IN-025	1/4"	0.35"	0.75" (OCT)	1-1/4"	200	770	4000
IN-038	3/8"	0.50"	0.86" (OCT)	1-1/2"	770	3076	5000
IN-050S	1/2"	0.67"	1.00" (HEX)	1-3/4"	1392	5567	6600
IN-050	1/2"	0.67"	1.14" (HEX)	2-1/2"	1763	7050	4100
IN-063	5/8"	0.81"	1.30" (HEX)	3"	2916	11664	6065
IN-075	3/4"	0.94"	1.38" (HEX)	3-1/4"	2545	10180	4751
IN-100	1"	1.20"	1.83" (CIRC)	3-3/4"	3740	18700	3076

NOTE: - USE NATIONAL COARSE GRADE 8 HIGH STRENGTH THREADED BOLTS  
 - THREADS MUST BE FULLY ENGAGED TO ACHIEVE LOADS LISTED ABOVE  
 - INSERT MUST NOT BE USED IN CONDITIONS THAT EXCEED 185 °F  
 - CONCRETE PSI WILL ALTER RESULTS SHOWN



EXAMPLE OF HEXAGONAL BASE

NO SCALE

06/09/04



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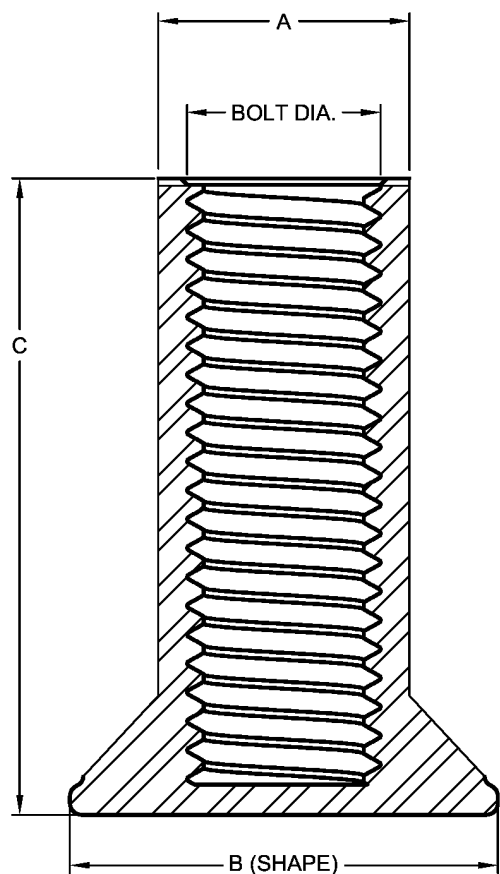
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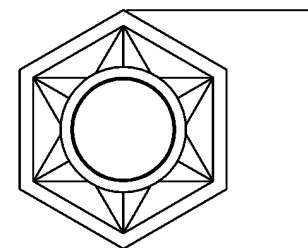
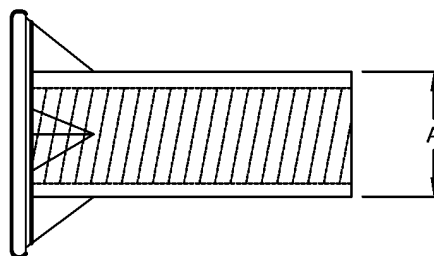
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## ZINC THREADED INSERT



MODEL	BOLT DIA.	A	B	C	WORKING LOAD (LBS.)	ULTIMATE STRENGTH (LBS.)	PSI OF CONCRETE TESTED
MI-025	1/4"	0.38"	0.88" (HEX)	1-1/2"	811	3245	3500
MI-038	3/8"	0.56"	0.96" (HEX)	1-3/8"	832	3328	3500
MI-050S	1/2"	0.63"	1.13" (HEX)	1-7/16"	1355	5422	5000
MI-050L	1/2"	0.75"	1.44" (HEX)	2-3/4"	1829	7318	5000
MI-063S	5/8"	0.88"	1.38" (HEX)	1-5/8"	1377	5508	5000
MI-063L	5/8"	0.88"	1.63" (HEX)	2-7/8"	2739	10956	5000
MI-075S	3/4"	0.94"	1.38" (HEX)	1-5/8"	1398	5595	5000
MI-075L	3/4"	1.00"	1.88" (HEX)	3"	2232	8929	5000

NOTE: - USE NATIONAL COARSE THREAD BOLTS  
 - THREADS MUST BE FULLY ENGAGED TO ACHIEVE LOADS LISTED ABOVE  
 - GRADE 8 BOLTS ARE TO BE USED FOR MAXIMUM PERFORMANCE



EXAMPLE OF HEXAGONAL BASE

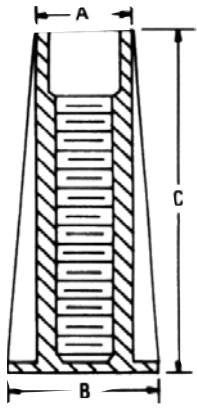
# Plastic Inserts

## Installation Instructions

Plastic inserts are amazingly strong, easy to use, and very inexpensive. Precasters have been using them for over thirty years during which they have built a reputation for durability, reliability, and effectiveness. Plastic inserts won't corrode or leave unsightly marks on concrete.

### TEST RESULTS & DIMENSIONS

Part No.	Bolt Dia.	Thread N.C.	A	B	C	Working Load (lbs.)	Ultimate Strength
IN-025	1/4"	20	.35"	.75"	1 1/4"	140	700
IN-038	3/8"	16	5/8"	7/8"	1 1/2"	220	1100
*IN-050	1/2"	13	.70"	1"	2 1/2"	1640	8,200
*IN-050 S	1/2"	13	.70"	1"	1 3/4"	1640	8,200
IN-063	5/8"	11	13/16"	1 5/16"	3"	3360	16,800
IN-075	3/4"	10	15/16"	1 3/8"	3 1/4"	3500	17,600
IN-100	1"	8	1 3/16"	1 13/16"	3 3/4"	3740	18,700
IN-150	1 1/2"	Coil	1 7/8"	2 1/4"	5 1/4"	4560	22,800



The following tests were made using a 4000 psi mix. Inserts have been tested both in tension and in shear.

*\* Also available in reinforced grades for greater torque strength.*

**EASY TO USE** Pennsylvania Insert's thermoplastic inserts install quickly and easily, especially when used in conjunction with Tap-Ons. Additionally, PA Inserts are made from a self lubricating plastic which makes threading easy.

**RELIABLE** They have high mechanical strength properties and great chemical resistance. Corrosion is not going to compromise the effectiveness of these inserts.

**DURABLE** Plastic inserts are fatigue resistant and will not be effected by vibration.

**MANY SIZES** Inserts are available in thread sizes from 1/4" to 1-1/2" and all sizes are stocked for quick shipment.

### USEFUL TIPS:

- Bolt must be fully threaded into insert.
- Use high strength bolts for best results.
- Use Tap-Ons or Stick-Ons for installing inserts to save drilling holes in expensive steel forms.



PA Insert Corp. Makes no warranty that the thermoplastic insert described herein is merchantable or fit for any particular purpose, and there are no warranties, express or implied, which extend beyond the description of the thermoplastic insert set forth herein. Please contact PA Insert for information and uses. Not recommended where temperatures exceed 185 degrees F. (this does not apply to steam curing) The purchaser acknowledges that PA Insert Corp. has no control over the installation or use of its products. Accordingly, PA Insert cannot assume responsibility for any damage to any property arising out of the improper use or installation of its products. PA Insert products are intended for use by trained, qualified, and experienced workers only. Misuse or lack of supervision & inspection can result in serious injury or death. All applications should be carefully field tested, safe working loads determined based on conditions, and all safety regulations followed.

# PENNSYLVANIA INSERT

400 FIRST AVENUE · ROYERSFORD, PA 19468

800-220-4857 · WWW.PAINsert.COM

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From: \_\_\_\_\_

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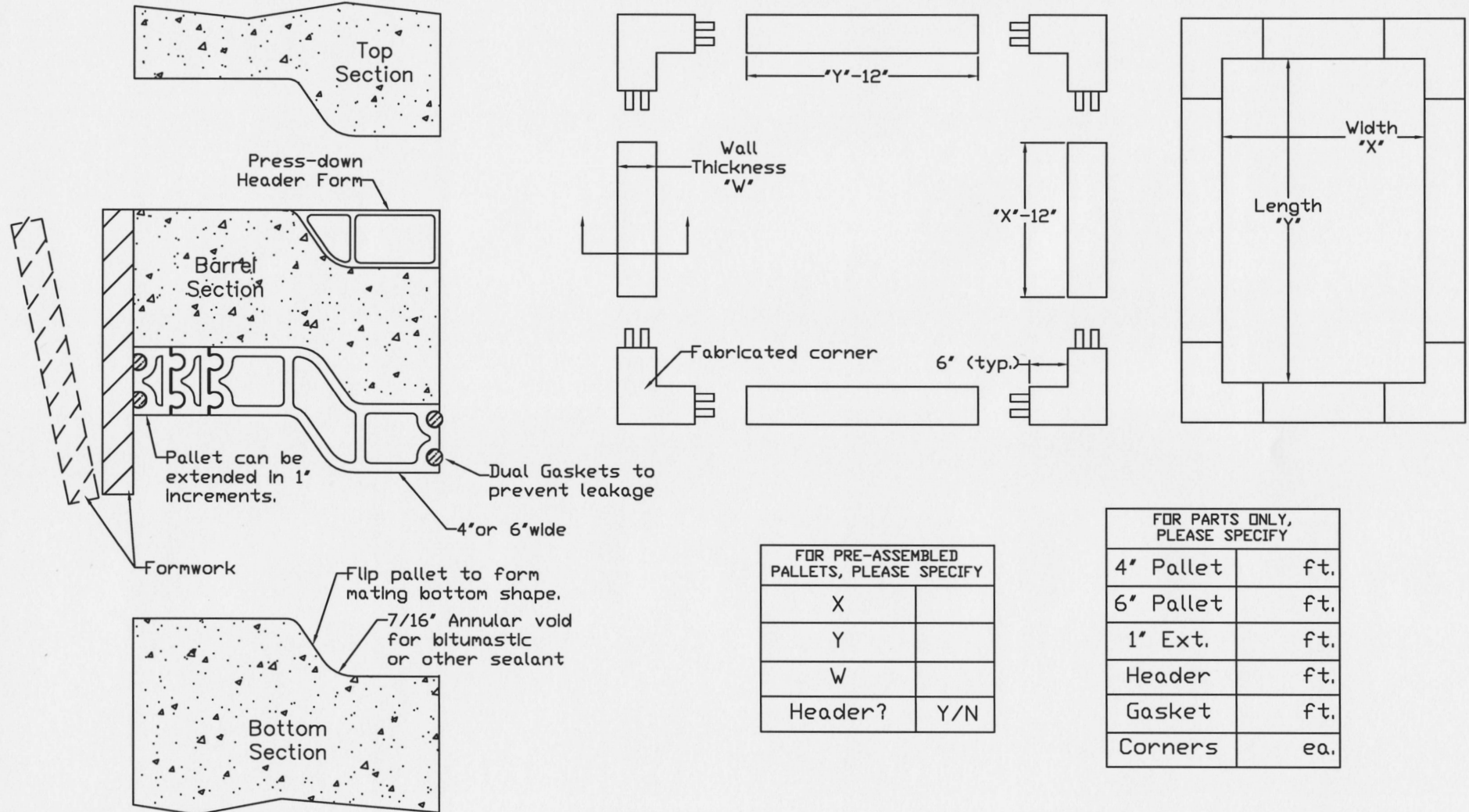
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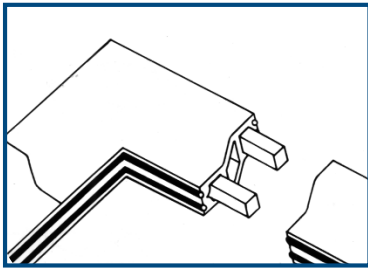


## SPECIFICATIONS:

Watertight concrete manhole joint shall be formed by an aluminum shlap pallet as manufactured by Pennsylvania Insert Corp., Spring City, PA. Pallet shall be extruded with dual integral gaskets to prevent concrete from leaking between the pallet and the core or wall of the formwork. Pallet shall be easily disassembled and stored and shall break down into straight lengths and connectable corners. The pallet shall be reversible to pour both tops and bottoms of monolithic precast concrete structures. The formed concrete joint shall feature an 7/16" annular void for bitumastic or other water stopping gasket. Pallets can be supplied with matching "push-down" header form for manufacturing barrel sections.

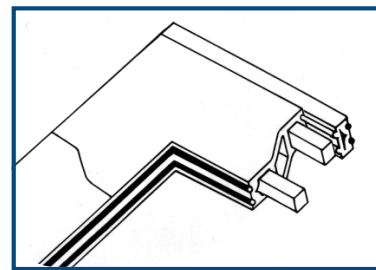
# Shiplap Pallet

## Installation Instructions



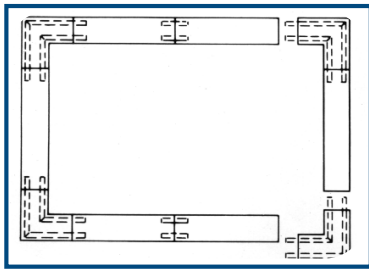
1

Aluminum Shiplap Pallet material can be assembled by joining four corners with straight lengths to form the desired size pallet.



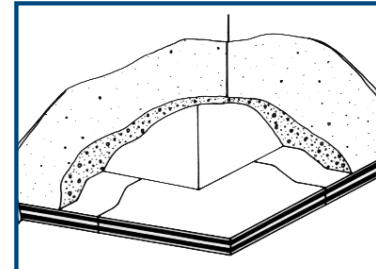
2

One inch extension pieces can be added for walls thicker than six inches.



3

Slide the straight lengths over the steel pins that form part of each corner, then press in the gasket material to fill any gaps.



4

Once the first half is poured, simply flip the pallet over to make the joining piece.

**SAVE MONEY** Pennsylvania Insert's patented expandable shiplap pallet system is a modular, light weight, shiplap joint former with unprecedented versatility. It makes a perfect joint eliminating leakage and field repairs which saves money. Best of all, your customers are going to be happy because the product is going to look great.

**EASY TO USE** Because it is aluminum it weighs less than a steel pallet. It can be set up manually which eliminates the time spent waiting for a crane.

**VERSATILE** Modular, it can be used on lots of different forms. The Expansion Mate accessory allows the same pallet to be used for wall thicknesses from 4" to 12". Because it can be used in so many ways and many times, it will generate amazing savings in lumber.



### USEFUL TIP

The pallet should be shimmed every several feet to keep it from twisting.

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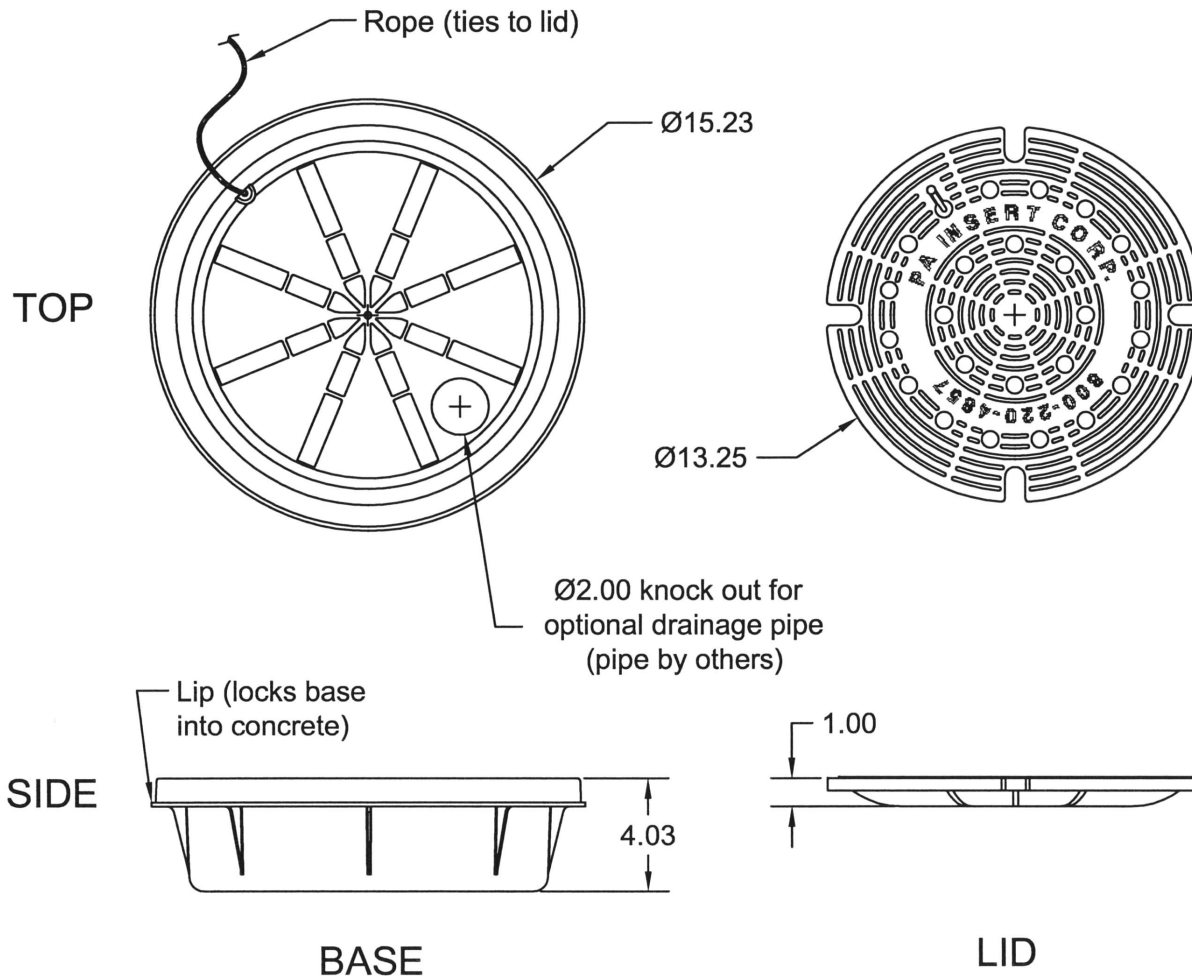
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Ship Date: \_\_\_\_ / \_\_\_\_ / \_\_\_\_

Date: \_\_\_\_ / \_\_\_\_ / \_\_\_\_

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## NEW PLASTIC SUMP

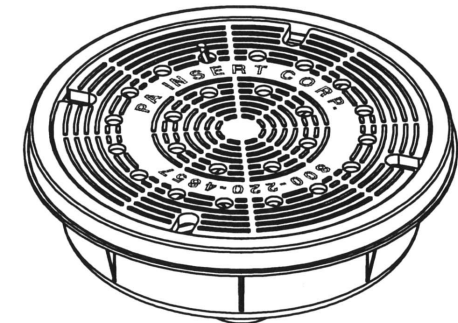


### BASE:

- Material - Propylene
- Rope connects to lid
- Lip positively locks base into concrete
- 2" knock out hole in base for optional drain pipe (drain pipe by others)

### LID:

- Material - 30% Glass filled Propylene
- Top surface has raised areas to provide traction
- Ribbed construction provides increased strength and rigidity

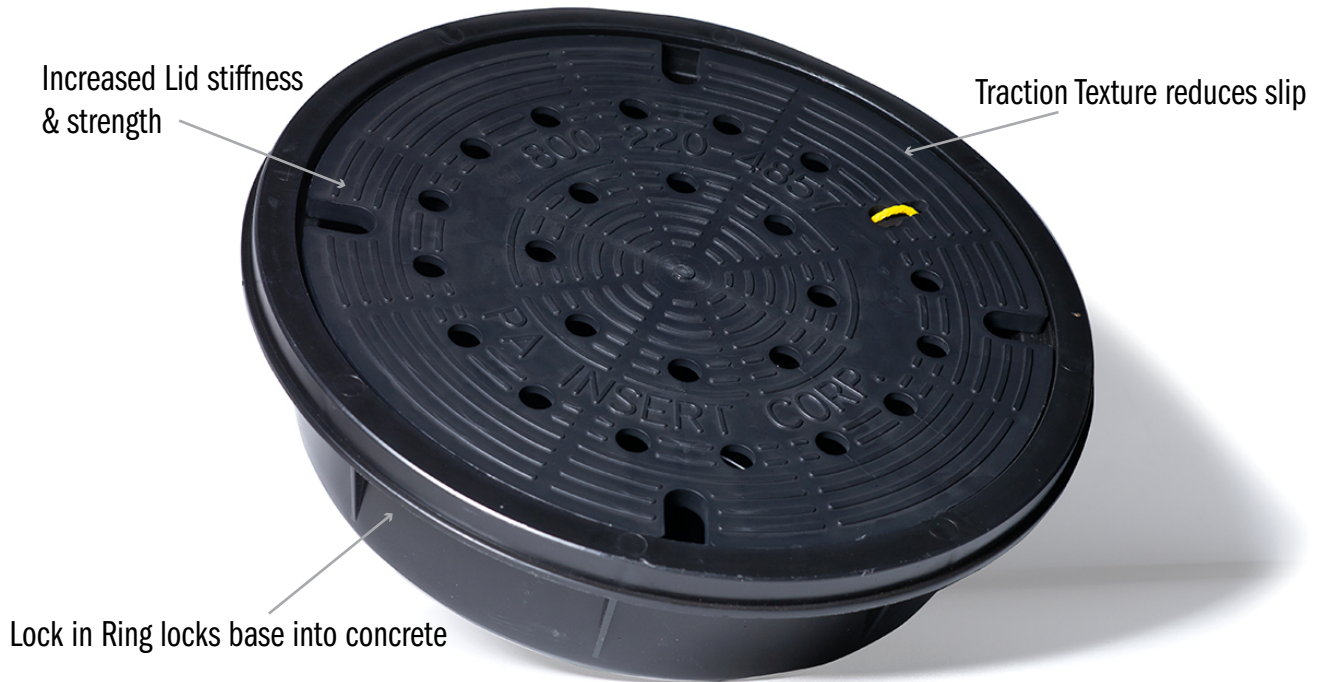


3D VIEW



# Sump Base & Lid

## Installation Instructions

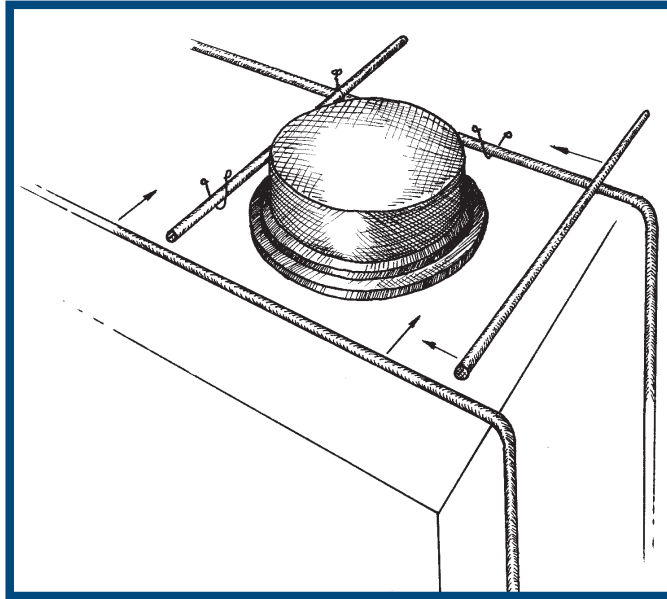


**Sump Base & Lid** - We've redesigned our sump base and lid to meld form, function, and utility while maintaining the same dimensions as the old sump set.

### Features include;

- Traction Texture that reduces slip
- Lock in Ring that locks the base into concrete
- Increased Lid Stiffness and Strength

Pennsylvania Insert's thermoplastic sump is a great way to provide a sump in any precast structure. It is strong, durable, corrosion resistant, and inexpensive. It is also lightweight, which makes it inexpensive to ship and easy to handle.



Put on the form and wire or caulk in place. Dimensions:  
12.5" diameter x 4" deep. (o.d. = 15" diameter x 4.5" deep).

**ADDITIONAL FEATURES** The lid is manufactured so that it's specific gravity is heavier than water so that it won't float. It has a tether holding the lid to the sump. The advantage of a tether is that it ensures that the lid does not get accidentally thrown away or lost.

### USEFUL TIPS

1. Wire or caulk the sump securely to form so it does not move during pouring.
2. Contact PA Insert for detailed installation instructions.

Attention: \_\_\_\_\_

From: \_\_\_\_\_

Fax #: \_\_\_\_\_

PA Insert Quote or Job Number: \_\_\_\_\_

Customer: \_\_\_\_\_

Project: \_\_\_\_\_

Job Number: \_\_\_\_\_

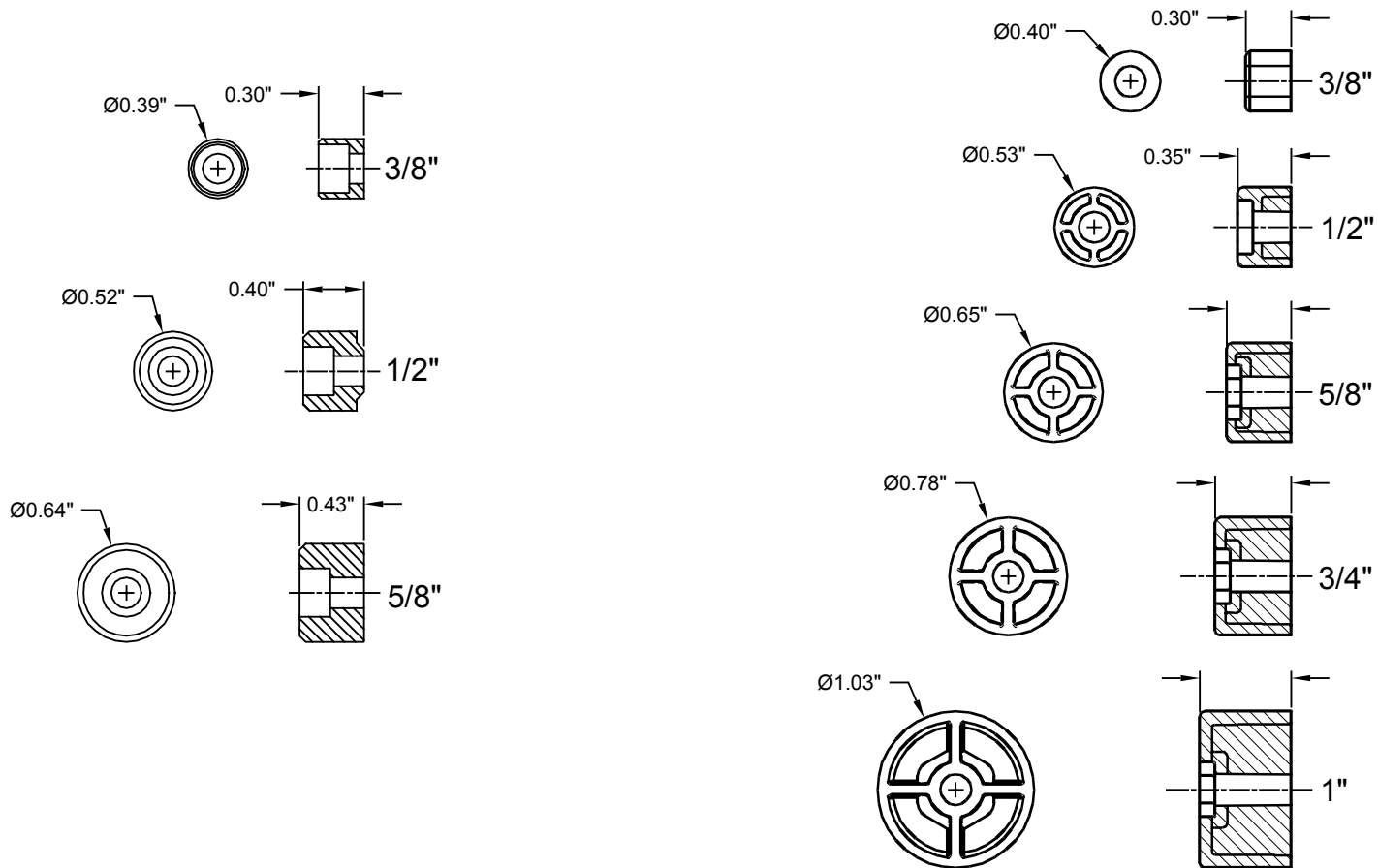
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Date: \_\_\_\_ / \_\_\_\_ / \_\_\_\_

Page \_\_\_\_ of \_\_\_\_

## TAP-ONS - PLASTIC AND STEEL

- FOR USE WITH PA INSERT PLASTIC AND STEEL THREADED INSERTS
- SECURE TO FORM WITH BOLT OR RIVET

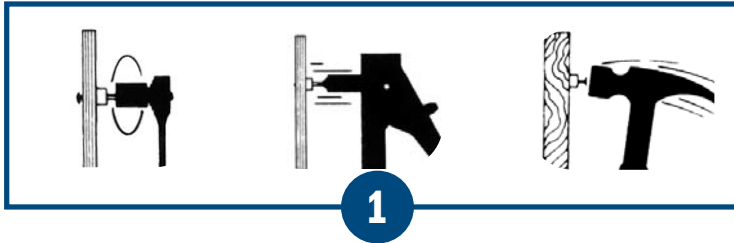


NO SCALE

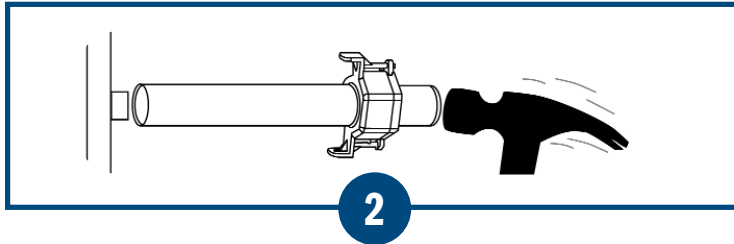
06/09/04

# Tap-Ons

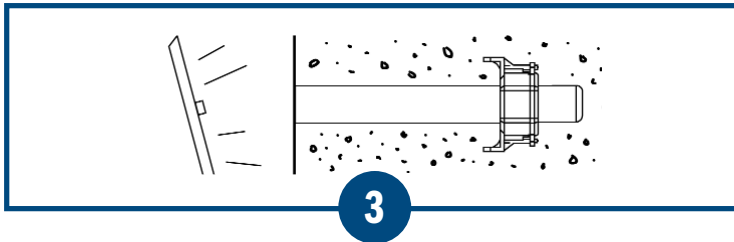
## Installation Instructions



- 1** For installing a Hex Nut Insert with a Tap-On, it will be necessary to drill small holes in the form at the locations where inserts are desired. Measure and mark the form wherever an insert is needed and drill a 3/16" hole. Then, simply bolt, rivet, or nail the tap-on to the form.



- 2** Tap Hex Nut Insert gently on to the tap-on. (Never hit the Insert hard and always wear safety glasses.)



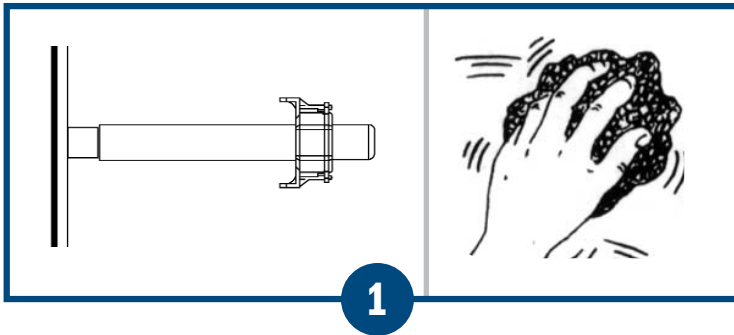
- 3** Tap-on will release when the form is stripped.

**SAVES TIME & MONEY** One of the great advantages of using tap-ons is their practicality and affordability for everyday use. For just a few cents tap-ons can save hours of formwork. Just nail, rivet, or bolt the tap-ons to the form with a 3/16" bolt. This saves drilling large holes in expensive steel forms. Best of all it makes installing the inserts a simple matter of tapping them onto the form. This is much faster and easier than threading and unthreading.

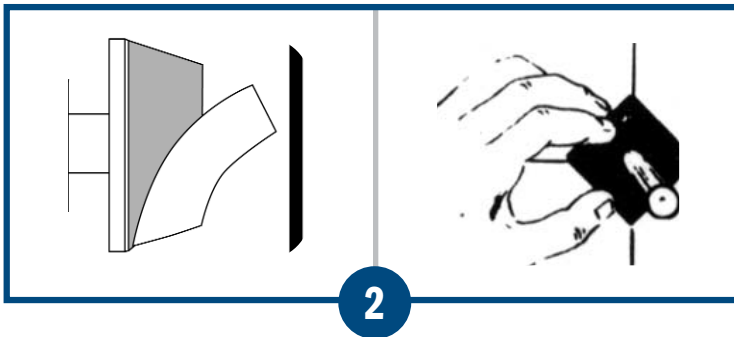
**EASY TO USE** Stick-Ons are perfect for those one time or special pours to avoid drilling holes in forms. Stick-Ons hold inserts to the form with remarkable strength. Because the insert is mounted directly in the center of the square Stick-On, precision placement is as simple as aligning the corners of the Stick-On with cross hair measurements.

### USEFUL TIPS:

- Always wear eye protection when tapping inserts onto Tap-Ons.
- Tap gently.
- Make sure the form is free of oil and dirt before installing Stick-Ons. Cleaning with steel wool works very well.
- Caulk around the edges of Stick-On before oiling form so that oil does not seep behind part and compromise adhesion.



- 1** For installing a Hex Nut Insert with a Stick-On, simply attach the appropriately sized Tap-On to the Hex Nut Insert. Clean the mounting surface with steel wool and alcohol.



- 2** Peel the white backing off then press the Stick-On firmly in place using the corners of the Stick-On to align for critical placement.

**SAVES TIME & MONEY** One of the great advantages of using tap-ons is their practicality and affordability for everyday use. For just a few cents tap-ons can save hours of formwork. Just nail, rivet, or bolt the tapons to the form with a 3/16" bolt. This saves drilling large holes in expensive steel forms. Best of all it makes installing the inserts a simple matter of tapping them onto the form. This is much faster and easier than threading and unthreading.

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Attention: \_\_\_\_\_

From: \_\_\_\_\_

Fax #: \_\_\_\_\_

PA Insert Quote or Job Number: \_\_\_\_\_

Customer: \_\_\_\_\_

Project: \_\_\_\_\_

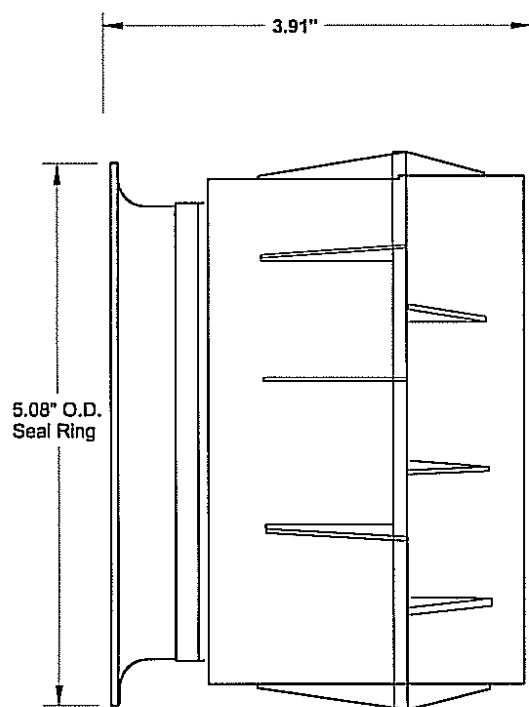
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Ship Date: \_\_\_\_ / \_\_\_\_ / \_\_\_\_

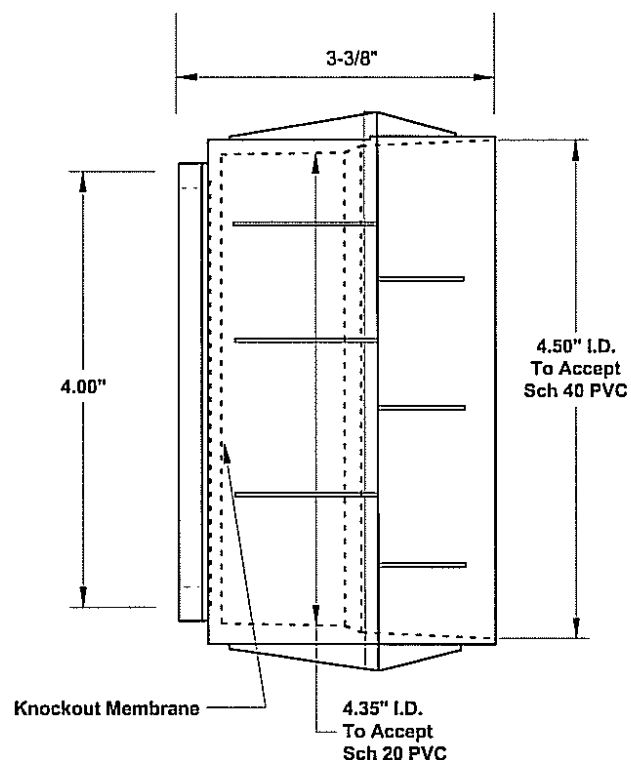
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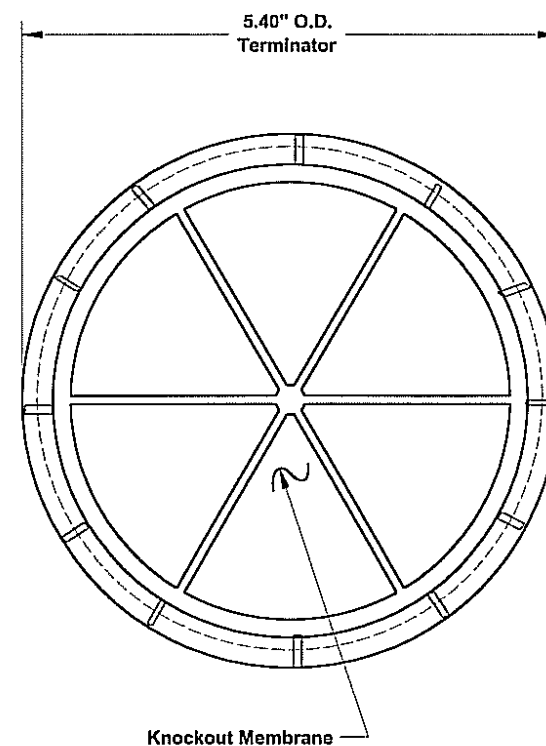
## 4" (SCH 40/20) TERMINATOR DETAIL (PVC)



**EXTERIOR VIEW  
WITH SEAL RING**



**INSIDE VIEW  
WITHOUT SEAL RING**



**END VIEW  
WITH SEAL RING**

DESCRIPTION: 4" PLASTIC TERMINATOR WITH SEAL RING.  
FOR SCHEDULE 20 or 40 PVC (colored black)  
MINIMAL TAPER GIVES 1.50" OF GLUING SURFACE

DATE: 2/27/04

SCALE: NONE

Attention: \_\_\_\_\_

From: \_\_\_\_\_

Fax #: \_\_\_\_\_

PA Insert Quote or Job Number: \_\_\_\_\_

Customer: \_\_\_\_\_

Project: \_\_\_\_\_

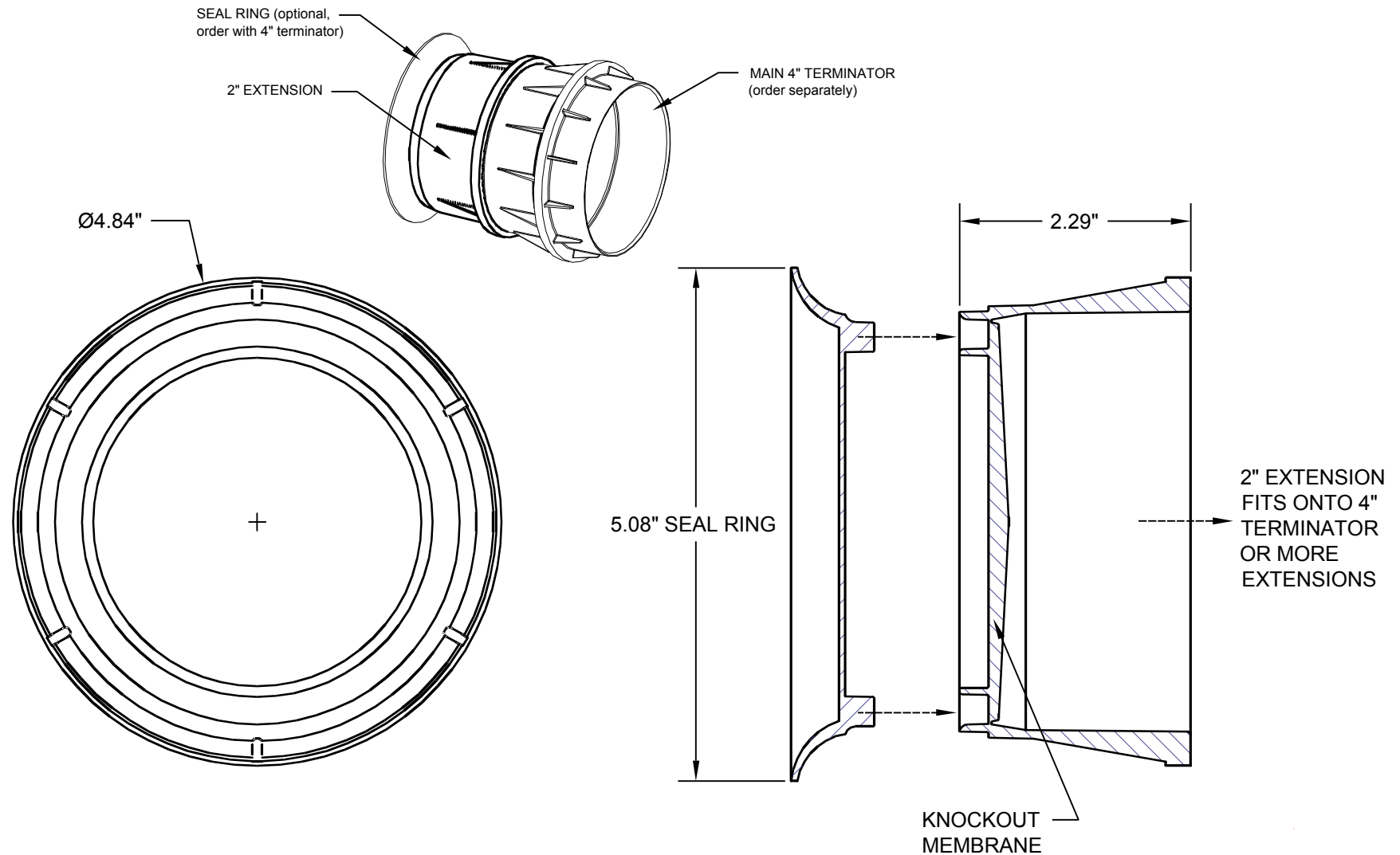
Job Number: \_\_\_\_\_

Ship Date: \_\_\_\_ / \_\_\_\_ / \_\_\_\_

Date: \_\_\_\_ / \_\_\_\_ / \_\_\_\_

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## 2" EXTENSION FOR 4" TERMINATOR (PVC)



NO SCALE

06/08/04

Attention: \_\_\_\_\_

From: \_\_\_\_\_

Fax #: \_\_\_\_\_

PA Insert Quote or Job Number: \_\_\_\_\_

Customer: \_\_\_\_\_

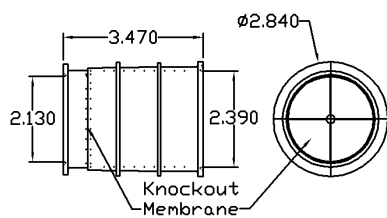
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Job Number: \_\_\_\_\_

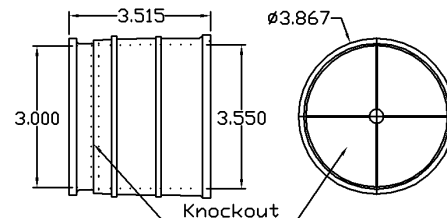
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Date: \_\_\_\_ / \_\_\_\_ / \_\_\_\_

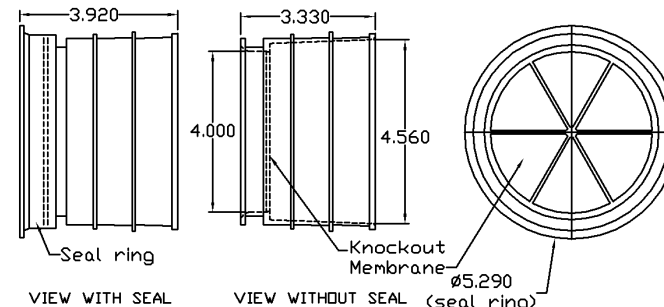
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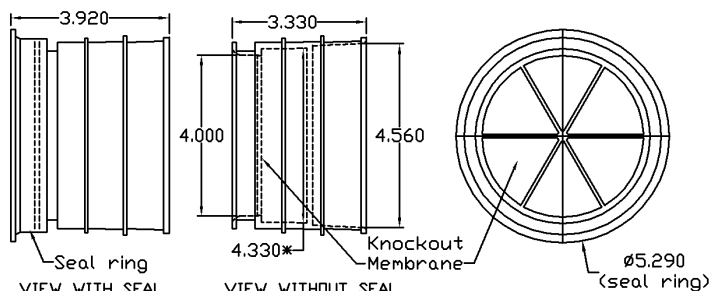
**TE-2 2" TERMINATOR**  
(ACCEPTS SCH 40 ONLY)



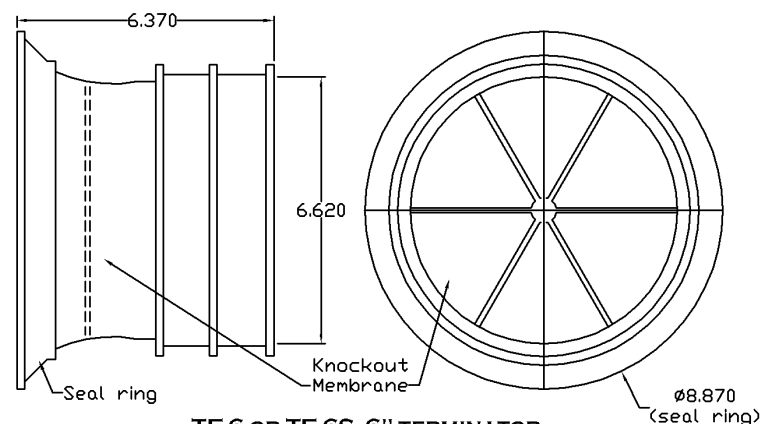
**TE-3 3" TERMINATOR**  
(ACCEPTS SCH 40 ONLY)



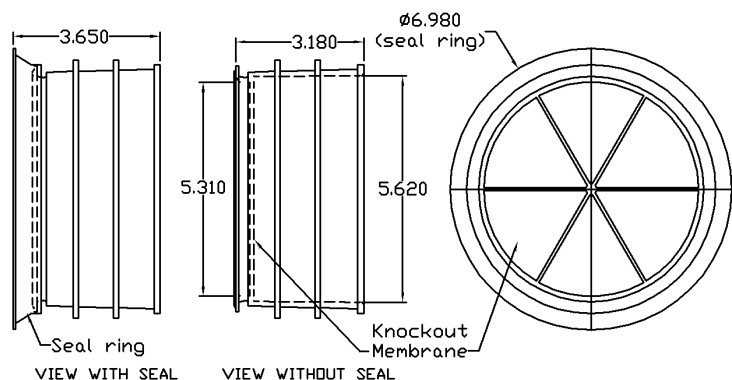
**TE-4G OR TE-4GS 4" TERMINATOR**  
(ACCEPTS SCH 40 ONLY)



**TE-4B OR TE-4BS 4" STEP-DOWN TERMINATOR**  
(ACCEPTS SCH 40 OR SCH 20)



**TE-6 OR TE-6S 6" TERMINATOR**  
(ACCEPTS SCH 40/80)



**TE-5 OR TE-5S 5" STEP-DOWN TERMINATOR**  
(ACCEPTS SCH 40 OR SCH 80)

Model	TE-2	TE-3	TE-4B	TE-4BS	TE-4G	TE-4GS	TE-5	TE-5BS	TE-6	TE-6S
Color	black	black	black	black	black	black	black	black	black	black
Duct Size	2"	3"	4"	4"	4"	4"	5"	5"	6"	6"
Pipe Wall	SCH40	SCH40	SCH20	SCH20	SCH40	SCH40	SCH40	SCH40	SCH40	SCH40
			SCH40	SCH40			SCH80	SCH80	SCH80	SCH80
Seal	n/a	n/a	no	yes	no	yes	no	yes	no	yes
Material	PVC	PVC	PVC	PVC	PVC	PVC	Polystyrene	Polystyrene		

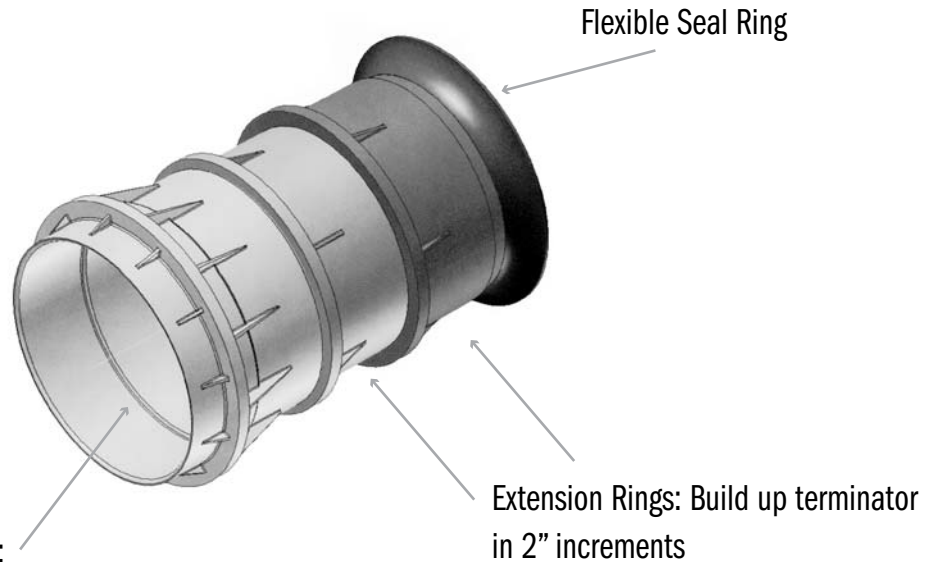
Specifications: Penetrations for cables shall be Electric/Telephone Duct Terminators as manufactured by Pennsylvania Insert Corp., Spring City, PA. Terminators shall be sized to accept 2" (3", 4", 5", 6") Sch 40 (20, 80) pipe and will provide a bonding surface for glueing cable or duct to the terminator, creating a watertight penetration. Terminators shall be manufactured from polystyrene or polyvinylchloride (PVC).

# Terminators

## Installation Instructions

We've redesigned our step-down 4" duct terminator to meld form, function, and utility.

Material: PVC

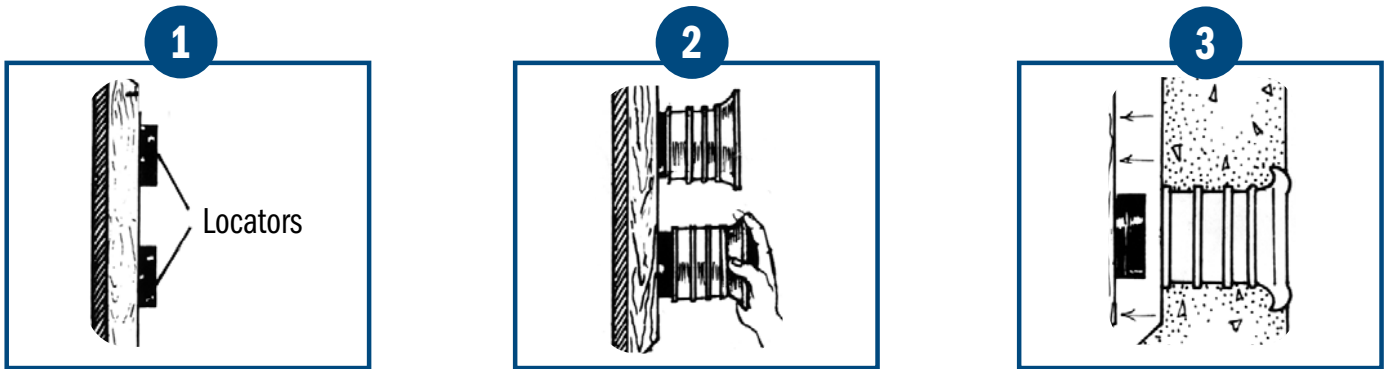


### Features include:

- Flexible Seal Ring
- Almost zero taper and larger gluing area
- Allows for better pipe Material: PVC fit. Fits Schedule 40 and 20 pipe.
- Extension Rings: Build up terminator in 2" increments
- Material: PVC

# Terminators

## Installation Instructions



- 1** Measure and mark the form where terminators are required, then bolt or nail locators or pods to the mounting panel or directly to the form.
- 2** The Terminators push on easily. Mount the panel or locators to the outside wall of the form. This puts the seal ring side of the Terminator (the side closer to the membrane) to the inside wall of the concrete structure.
- 3** When the form is closed the seal ring compresses against the wall and creates a smooth edge on the inside of the concrete structure that protects cables.

**MANY SIZES** PA Insert terminators are available in 2", 4", 5", and 6" sizes. The 4" terminator is available in two models: a schedule 40 only, or in a special "step down" style which can be used with schedule 40 or schedule 20 pipe. All sizes can be supplied with form accessories making installation fast and easy.

**EASY INSTALLATION** Locators - similar to our tap-ons - attach terminators directly to the form or can be used to mount them on a knockout panel that can be reused numerous times. Pods - tall locators - allow the terminator to fit into a 6" wall without a knockout panel. Sizes 4", 5", and 6" come equipped with a flexible seal ring which conforms to the imperfections many older forms develop and keeps concrete slurry from leaking into the terminator cavity.

### USEFUL TIPS:

- Use a knockout panel with locators to mount terminators to the form. This allows for fewer holes in the form and reuse of the knockout panel.
- When knockouts cannot be used, try one of PA Inserts "pods", manufactured to make installation faster.

### PVC Pipes used with PA Insert Terminators

Sizes	PVC I.D.	PVC O.D.	TERM I.D.
2" Terminator SCH 40	2"	2.375"	2.387"
4" Terminator SCH 20	4"	4.25"	4.375"
4" Terminator SCH 40	4"	4.5"	4.5625"
5" Terminator SCH 40	5.017"	5.563"	5.5625"
5" Terminator SCH 80	4.767"	5.563"	5.5625"
6" Terminator SCH 40	6"	6.625"	6.625"





400 FIRST AVENUE • ROYERSFORD, PA 19468

800-220-4857 • [WWW.PAININSERT.COM](http://WWW.PAININSERT.COM)