

EFFICIENCY PRODUCTION

 AMERICA'S TRENCH BOX BUILDER™

Hydraulic Shoring Product Guide

VERTICAL SHORES ■ HORIZONTAL WALERS ■ END SHORES ■ ALUM-A-SHIELD

↑
559
CYLINDER SPACING (mm)
1219
↓



↑
46
61
107
152
SHORE RAILS (cm)
213
274
366
488
↓

← 5.2 ————— CYLINDER PRESSURE (PSF) ————— 10.4 →

EFFICIENCY PRODUCTION
Hydraulic Shoring Product Guide


EFFICIENCY
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America's Trench Box Builder™

800-552-8800

www.encyproduction.com



Hydraulic Vertical Shores

Superior versatility in trenches up to 7.62 m deep & 3.66 m wide

Uses: Where trench shields are used to protect workers against cave-ins, hydraulic shores are used to actually apply pressure to trench walls to prevent cave-ins.

Efficiency's aluminum hydraulic shores and shields are an excellent lightweight resource for working around existing utilities, supporting trench walls near structures, curbs, or sidewalks; and for pipe installations where a larger backhoe cannot be used.

Hydraulic shores are installed and removed from the surface, thus avoiding the risk of working in an unshored trench.

Hydraulic shores offer superior versatility in trenches up to 7.62 m deep and 3.66 m wide.

A cylinder extension system adds to the shores range which improves on-site adaptability when encountering excavations of varying widths.

These high strength aluminum shores are available in standard or heavy duty models and can be used to meet OSHA regulations in A, B, or C soils.

Features:

- Two 203 mm wide rails ranging in size from 46 cm to 488 cm tall
- 50 mm diameter hydraulic cylinders
- Oversleeve to protect cylinder
- Fittings and hose
- Cylinder pads and socket pads
- Swivel fitting protector

Options & Accessories:

- Standard or Heavy Duty tails
- Cylinder extension system
- 5 gal. pump can (plastic or steel)
- Biodegradable shoring fluid
- Release tool & removal hook
- Chudoform (120 cm x 244 cm sheets)
- Finger guards
- Repair kit



Installation & Removal

Safe, easy shoring installation & removal process



Installation 1

Connect hydraulic hose line from pump to shore. Hook release tool through handle and lower shore into trench.



Installation 2

Place shores in accordance with the Tabulated Data and begin pressurizing the shore. Normal operating pressure is 5.2 to 10.4 MPa.



Installation 3

When shore is in place and pressurized to a safe working range, disconnect the hose fitting with the release tool.



Removal 1

Release shoring fluid at hose fitting with the release tool and allow shore to depressurize. The released fluid is biodegradable.



Removal 2

Pull the shore from the trench with the removal hook and release tool. The shore will scissor back toward a folded position.



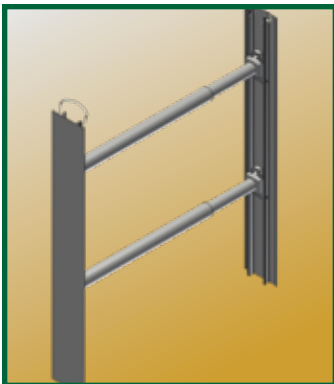
Removal 3

Continue pulling the shore away from the trench until it folds flat. Finger guards help protect from pinch points.

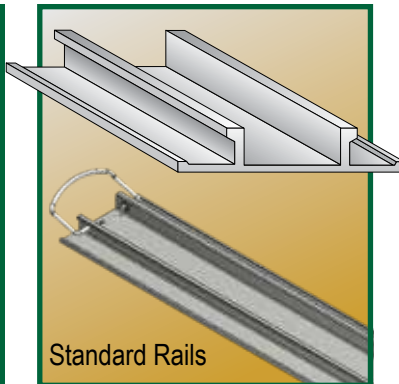


Shoring Specifications

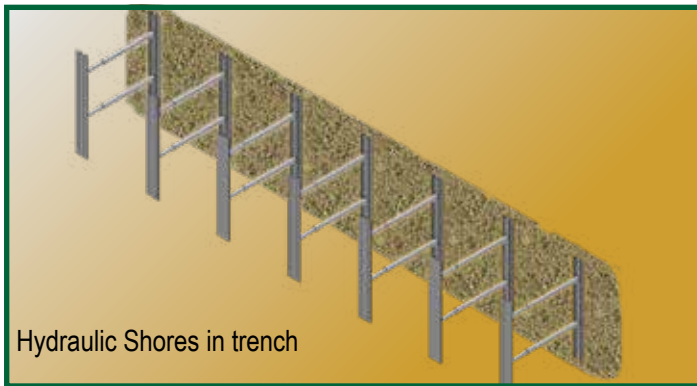
Six sizes of STANDARD vertical shores



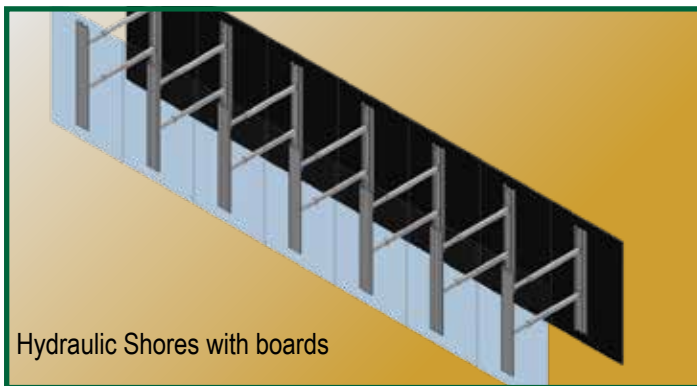
Hydraulic Vertical Shore with two cylinders



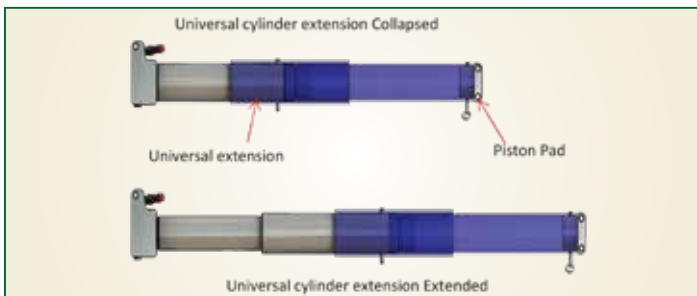
Standard Rails



Hydraulic Shores in trench



Hydraulic Shores with boards



Universal cylinder extension Collapsed

Universal extension

Piston Pad

Universal cylinder extension Extended

Vertical Shore Rails - Standard

STANDARD Rail Lg. x Cr. Br. (In.)	Cross Brace Width (mm)	Cylinders	Weight (kg)
S-1.5X1727	432 - 686	1	9
S-1.5X2236	559 - 914	1	10
S-1.5X2846	711 - 1168	1	11
S-1.5X3455	864 - 1397	1	13
S-1.5X4064	1016 - 1626	1	15
S-1.5X5288	1321 - 2235	1	16
S-2X1727	432 - 686	1	10
S-2X2236	559 - 914	1	11
S-2X2846	711 - 1168	1	13
S-2X3455	864 - 1397	1	14
S-2X4064	1016 - 1626	1	15
S-2X5288	1321 - 2235	1	17
S-3.5X1727	432 - 686	2	19
S-3.5X2236	559 - 914	2	23
S-3.5X2846	711 - 1168	2	25
S-3.5X3455	864 - 1397	2	27
S-3.5X4064	1016 - 1626	2	31
S-3.5X5288	1321 - 2235	2	35
S-5X1727	432 - 686	2	25
S-5X2236	559 - 914	2	27
S-5X2846	711 - 1168	2	30
S-5X3455	864 - 1397	2	32
S-5X4064	1016 - 1626	2	35
S-5X5288	1321 - 2235	2	39
S-7X1727	432 - 686	2	30
S-7X2236	559 - 914	2	32
S-7X2846	711 - 1168	2	34
S-7X3455	864 - 1397	2	36
S-7X4064	1016 - 1626	2	40
S-7X5288	1321 - 2235	2	44
S-9X1727	432 - 686	3	38
S-9X2236	559 - 914	3	41
S-9X2846	711 - 1168	3	46
S-9X3455	864 - 1397	3	49
S-9X4064	1016 - 1626	3	54
S-9X5288	1321 - 2235	3	60

Universal One-Piece Extension

Part No.	Length (mm)	Weight (kg)
HS-UNIVEX-12	305	6
HS-UNIVEX-18	457	7
HS-UNIVEX-24	610	8
HS-UNIVEX-30	762	9
HS-UNIVEX-36	914	11
HS-UNIVEX-42	1067	12
HS-UNIVEX-48	1219	13
HS-UNIVEX-56	1422	15

Shoring Specifications

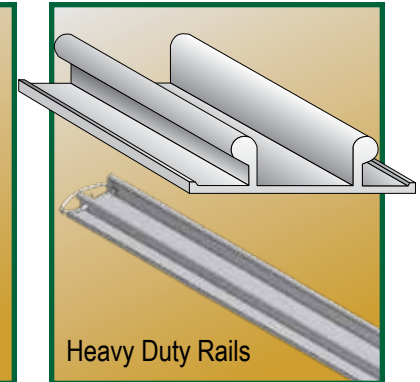
Eight sizes of HEAVY DUTY vertical shores



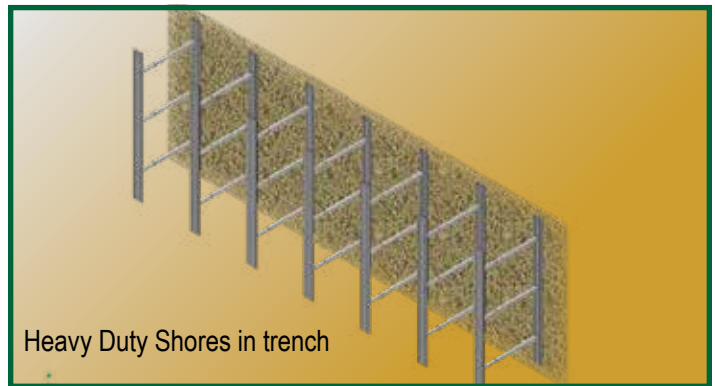
Vertical Shore Rails - Heavy Duty			
HEAVY DUTY Rail Lg. x Cr. Br. (In.)	Cross Brace Width (mm)	Cylinders	Weight (kg)
H-1.5X1727	432 - 686	1	12
H-1.5X2236	559 - 914	1	13
H-1.5X2846	711 - 1168	1	11
H-1.5X3455	864 - 1397	1	16
H-1.5X4064	1016 - 1626	1	18
H-1.5X5288	1321 - 2235	1	19
H-2X1727	432 - 686	1	12
H-2X2236	559 - 914	1	13
H-2X2846	711 - 1168	1	15
H-2X3455	864 - 1397	1	16
H-2X4064	1016 - 1626	1	18
H-2X5288	1321 - 2235	1	20
H-3.5X1727	432 - 686	2	23
H-3.5X2236	559 - 914	2	25
H-3.5X2846	711 - 1168	2	28
H-3.5X3455	864 - 1397	2	30
H-3.5X4064	1016 - 1626	2	34
H-3.5X5288	1321 - 2235	2	37
H-5X1727	432 - 686	2	28
H-5X2236	559 - 914	2	30
H-5X2846	711 - 1168	2	33
H-5X3455	864 - 1397	2	35
H-5X4064	1016 - 1626	2	39
H-5X5288	1321 - 2235	2	42
H-7X1727	432 - 686	2	35
H-7X2236	559 - 914	2	37
H-7X2846	711 - 1168	2	40
H-7X3455	864 - 1397	2	43
H-7X4064	1016 - 1626	2	46
H-7X5288	1321 - 2235	2	50
H-9X1727	432 - 686	3	47
H-9X2236	559 - 914	3	50
H-9X2846	711 - 1168	3	54
H-9X3455	864 - 1397	3	58
H-9X4064	1016 - 1626	3	64
H-9X5288	1321 - 2235	3	69
H-12X1727	432 - 686	3	58
H-12X2236	559 - 914	3	61
H-12X2846	711 - 1168	3	66
H-12X3455	864 - 1397	3	69
H-12X4064	1016 - 1626	3	74
H-12X5288	1321 - 2235	3	80
H-16X1727	432 - 686	4	77
H-16X2236	559 - 914	4	80
H-16X2846	711 - 1168	4	86
H-16X3455	864 - 1397	4	92
H-16X4064	1016 - 1626	4	99
H-16X5288	1320 - 2235	4	106



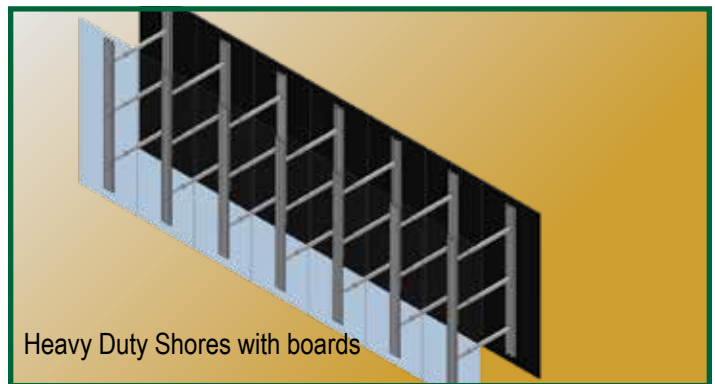
Heavy Duty Vertical Shore with three cylinders



Heavy Duty Rails



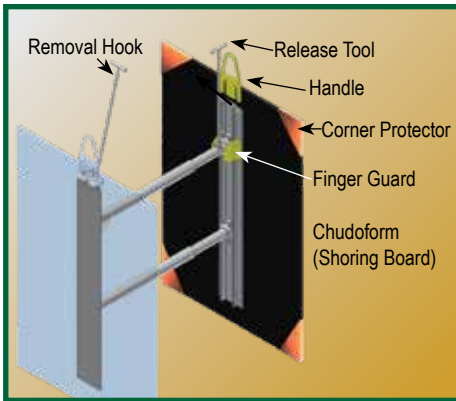
Heavy Duty Shores in trench



Heavy Duty Shores with boards

Shoring Accessories

Hydraulic shoring options and accessories



Installation & Removal Tools

Installation Tools

Part #	Description	Length
HVS-30-RT	Shoring Release Tool	760 mm
HVS-48-RT	Shoring Release Tool	1220 mm
HVS-72-RT	Shoring Release Tool	1830 mm
HVS-96-RT	Shoring Release Tool	2440 mm
AS5100137	Waler Release Tool	1220 mm

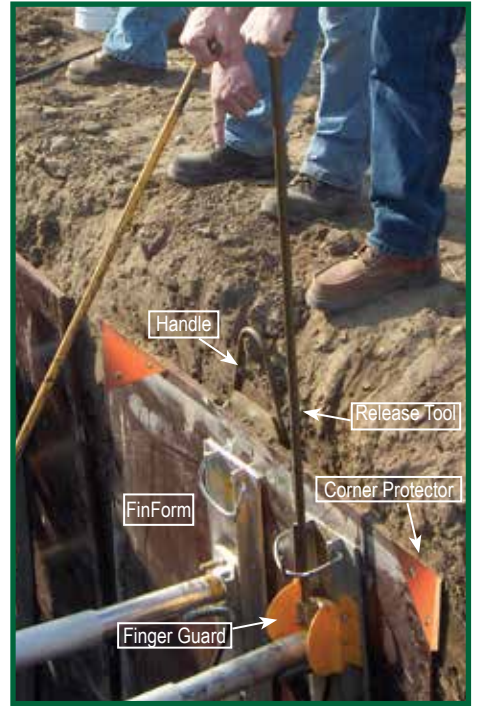
Removal Tools

Part #	Description	Length
HVS-30-RH	Shoring Removal Hook	760 mm
HVS-48-RH	Shoring Removal Hook	1220 mm
HVS-72-RH	Shoring Removal Hook	1830 mm
HVS-96-RH	Shoring Removal Hook	2440 mm



Chudoform, Handle, Finger Guards & Corner Protectors

Part #	Description
59425	4x8 Sheet of Chudoform
8345187	Std. Universal Handle
59246	Finger Guards
AS510035	Corner Protector



Shoring Hand Pump

Metal or plastic hand pump for hydraulic shores

Efficiency Production's hydraulic shoring pump and container were developed especially for hydraulic shoring systems. The patented, corrosion-resistant pump assembly and five-gallon plastic container give a more reliable pumping system for your hydraulic shores.

Features

- Five gallon, rust-proof container
- Stainless steel plunger rod
- Only two internal working parts
- Adjustable handle with rubber grip
- Front lifting handle
- Internal check valve
- UV stabilized, high-impact polymer
- Foot hold
- Dent resistant
- Protected recessed fitting guard

Hydraulic Pump Can

Part #	Description
AS512039	5 Gallon Hand Pump-Plastic
AS512001	5 Gallon Hand Pump-Steel

Shoring Fluid

Part #	Description	Quantity
AS510028	All-Season	1 Gal Bottle
AS510032	All-Season	6 Gal/Case
AS510036	All-Season	4 Gal/Case

*All shoring fluid is environmentally safe

FLUID TO WATER RATIOS

Mix one (1) part **All-Season SF** to one (1) part clean water for protection to -25° F

Mix one (1) part **All-Season SF** to two (2) part clean water for protection to 0° F

Mix one (1) part **All-Season SF** to three (3) part clean water for protection to 30° F

Mix one (1) part **All-Season SF** to four (4) parts clean water for protection over 30° F



5 Gallon Plastic Pump Can

Part # AS512039



5 Gallon Steel Pump Can

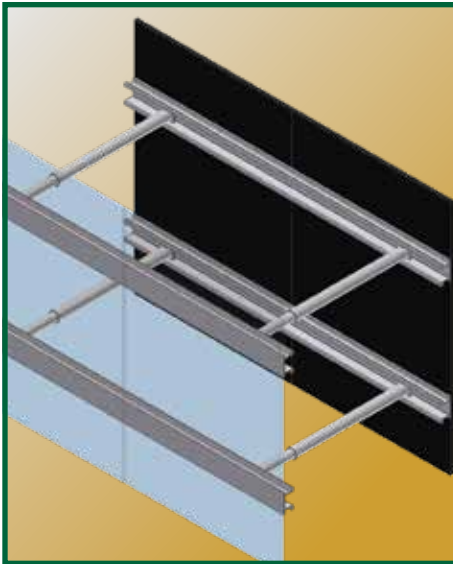
Part # AS512001



Custom colors and logos available with quantity purchase, plastic pump can only

Horizontal Walers

Hydraulic horizontal walers provide increased depth rating



Horizontal Hydraulic Walers



Walers - Standard Rails

STANDARD Rail Lg. x Cr. Br. (Ft. x In.)	Cross Brace Width (mm)	Cylinders	Weight (kg)
WS-6X36	559 - 914	2	44
WS-6X46	711 - 1168	2	48
WS-6X55	864 - 1397	2	49
WS-6X69	1067 - 1753	2	53
WS-6X88	1321 - 2235	2	57
WS-8X36	559 - 914	2	55
WS-8X46	711 - 1168	2	59
WS-8X55	864 - 1397	2	60
WS-8X69	1067 - 1753	2	64
WS-8X88	1321 - 2235	2	68
WS-12X36	559 - 914	3	82
WS-12X46	711 - 1168	3	85
WS-12X55	864 - 1397	3	90
WS-12X69	1067 - 1753	3	95
WS-12X88	1321 - 2235	3	99

Walers - Heavy Duty Rails

HEAVY DUTY Rail Lg. x Cr. Br. (Ft. x In.)	Cross Brace Width (mm)	Cylinders	Weight (kg)
WH-6X36	559 - 914	2	76
WH-6X46	711 - 1168	2	79
WH-6X55	864 - 1397	2	81
WH-6X69	1067 - 1753	2	85
WH-6X88	1321 - 2235	2	89
WH-8X36	559 - 914	2	98
WH-8X46	711 - 1168	2	101
WH-8X55	864 - 1397	2	103
WH-8X69	1067 - 1753	2	107
WH-8X88	1321 - 2235	2	110
WH-10X36	559 - 914	2	119
WH-10X46	711 - 1168	2	123
WH-10X55	864 - 1397	2	124
WH-10X69	1067 - 1753	2	128
WH-10X88	1321 - 2235	2	132
WH-12X36	559 - 914	2	140
WH-12X46	711 - 1168	2	144
WH-12X55	864 - 1397	2	146
WH-12X69	1067 - 1753	2	149
WH-12X88	1321 - 2235	2	153

Alum-A-Shield™

Corrugated aluminum trench shield with hydraulic spreaders

Alum-A-Shield is a single wall corrugated aluminum trench shield that is designed to be light and strong. Available with static or hydraulic spreader sets, Alum-A-Shield is designed specifically for municipalities, utility workers, and contractors who use rubber-tired backhoe/loaders and small excavators for trenching.

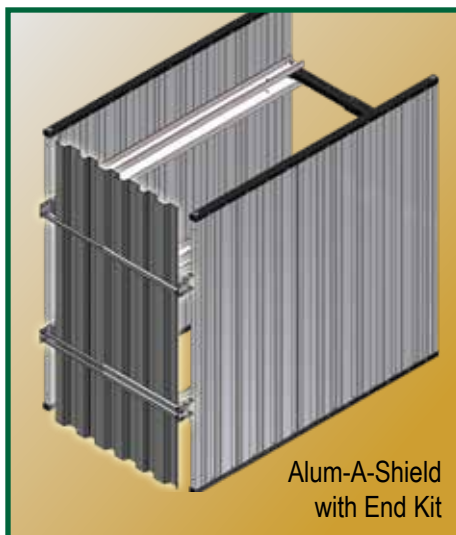
Side cut-out doors can be added for crossing utilities, and end kits allow for three or four-sided protection.

Features:

- Interchangeable static or hydraulic telescoping QuickBraces as spreaders
- Horizontal waler along sidewall for maximum depth rating
- Reinforced steel caps on top and bottom for added durability
- Molded tubular end members for additional strength and durability
- Recessed stacking pockets
- Leg kit (Optional)

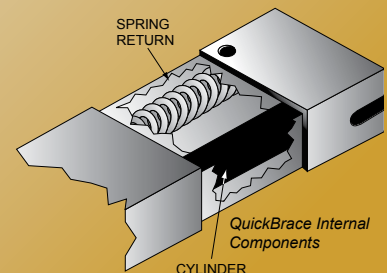
Alum-A-Shield - Hydraulic QuickBraces

Model - Height x Length (Ft.)	Height x Length (m)	Depth of Cut (m)		Weight (kg)
		C-60	C-80	
AH46	1.22 x 1.83	6.40	4.88	277
AH48	1.22 x 2.44	6.40	4.88	363
AH410	1.22 x 3.05	5.49	4.27	454
AH412	1.22 x 3.66	3.66	2.74	545
AH66	1.83 x 1.83	6.40	4.88	325
AH68	1.83 x 2.44	6.40	4.88	427
AH610	1.83 x 3.05	5.49	4.27	529
AH612	1.83 x 3.66	3.66	2.74	631
AH86	2.44 x 1.83	6.40	4.88	370
AH88	2.44 x 2.44	6.40	4.88	486
AH810	2.44 x 3.05	5.49	4.27	604
AH812	2.44 x 3.66	3.66	2.74	745
AH106	3.05 x 1.83	6.40	4.88	481
AH108	3.05 x 2.44	6.40	4.88	545
AH1010	3.05 x 3.05	5.49	4.27	679
AH1012	3.05 x 3.66	3.66	2.74	808



Hydraulic QuickBraces

- Rectangular steel tubing fully protects enclosed cylinder system and spring return
- Single-pin connection to waler allows for easy assembly
- Adjustable sizes to accommodate various shielding widths
- Telescoping oversleeves that pin every 50 mm for extra protection
- Quick-connect hydraulic fittings and pins allow for easy assembly, disassembly, or change out
- Custom needle valves give bi-directional sealing capabilities for independent pressure control
- Manifold has bleed-off valve to relieve hydraulic pressure
- No special tools needed for disassembly or maintenance



End Shores

Corrugated aluminum rails & end panels

Efficiency Production's corrugated aluminum hydraulic end shores are ideal for adding third-sided protection to a trench when working closely to buildings or existing structures.

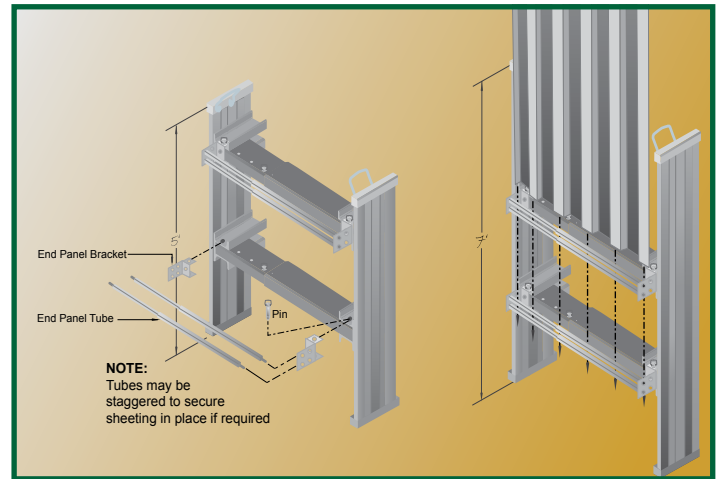
End Shores are equipped with end panel tubes and brackets to secure corrugated aluminum sheeting to the enclosed hydraulic cylinders. The end panel tubes can secure sheeting up to 1.22 m off the bottom of the trench to accommodate utility installation under the end panel.

End Shores are designed to work in combination with vertical hydraulic shores.

Features:

- Designed to work in combination with Vertical Hydraulic Shores
- 203 mm Corrugated Aluminum Rails
- Two 203 mm. wide horizontal walers attach rail for maximum depth rating
- Reinforced steel caps on rail's top and bottom for added durability
- Utilizes hydraulic telescoping Quick-Braces

Vertical Corrugated Alum. Rails - Standard			
Corrugated Rail Lg. x Cr. Br. (Ft. x In.)	Cross Brace Width (mm)	Cyl.	Weight (kg)
S-3.5X1727-E	432 - 686	2	215
S-3.5X2236-E	559 - 914	2	230
S-3.5X2846-E	711-1168	2	235
S-3.5X3455-E	864 - 1397	2	240
S-3.5X4269-E	1067 - 1753	2	255
S-3.5X5288-E	1321 - 2235	2	270
S-5X1727-E	432 - 686	2	240
S-5X2236-E	559 - 914	2	250
S-5X2846-E	711-1168	2	260
S-5X3455-E	864 - 1397	2	280
S-5X4269-E	1067 - 1753	2	310
S-5X5288-E	1321 - 2235	2	350
S-7X1727-E	432 - 686	2	240
S-7X2236-E	559 - 914	2	270
S-7X2846-E	711-1168	2	315
S-7X3455-E	864 - 1397	2	320
S-7X4269-E	1067 - 1753	2	410
S-7X5288-E	1321 - 2235	2	480



Shoring Trailer

FullStock Aluminum Shoring Trailer (FAST)

Efficiency's **FullStock Aluminum Shoring Trailer (FAST)** is equipped with a variety of custom-built options for stocking shoring equipment for fast, resourceful use in the field.

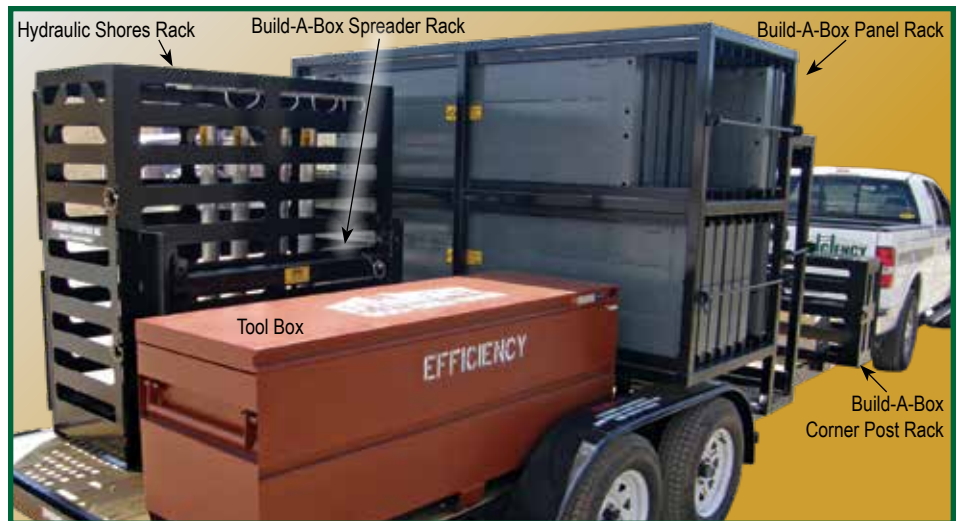
Shoring trailers are ideal for Public Works crews encountering a variety of trench projects each day, since all of the necessary tools are available... no return trips to the yard for missing equipment.

The FullStock trailer can also save storage space in the equipment garage since all of the pieces can remain loaded and locked on the trailer.

All racks and other options can be re-sized, repositioned, and re-configured to fit your specific needs.

Features:

- High strength steel construction
- Dual axle
- Racks can be fitted to your trailer
- Aluminum shield racks that fit a XLAP, Alum-A-Shield or Corru-Lite
- Modular Build-A-Box™ panel and corner post racks
- Spreader racks
- Workbench and toolbox for Build-A-Box pins and keepers, slings, or other tools



TRENCH-RESCUE TRAILER

Time is critical in a trench rescue operation and it is important to have all rescue equipment available at a moments notice. Efficiency's new Trench-Rescue Trailer contains the most common equipment and tools for rescue operations.

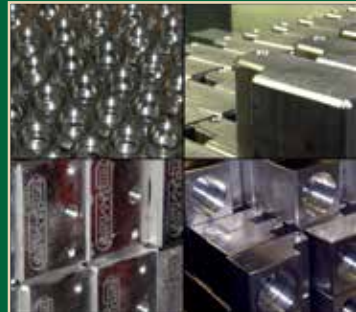


EFFICIENCY PRODUCTION

 AMERICA'S TRENCH BOX BUILDER™

CNC/Fabrication: Efficiency Production features the latest in CNC technology and equipment. Efficiency's CNC abilities include designing and developing prototype models, special machinery bases, fully integrated CAD-designed fabrication components, and the ability to fabricate any competitor's parts and components.

← CNC/FABRICATION →



← TECHNOLOGY →

EFFICIENCY PRODUCTION
Hydraulic Shoring Product Guide

CAD DESIGN

ENGINEERING

Catalog - Hyd Shoring 2017-METRIC.indd



America's Trench Box Builder™

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