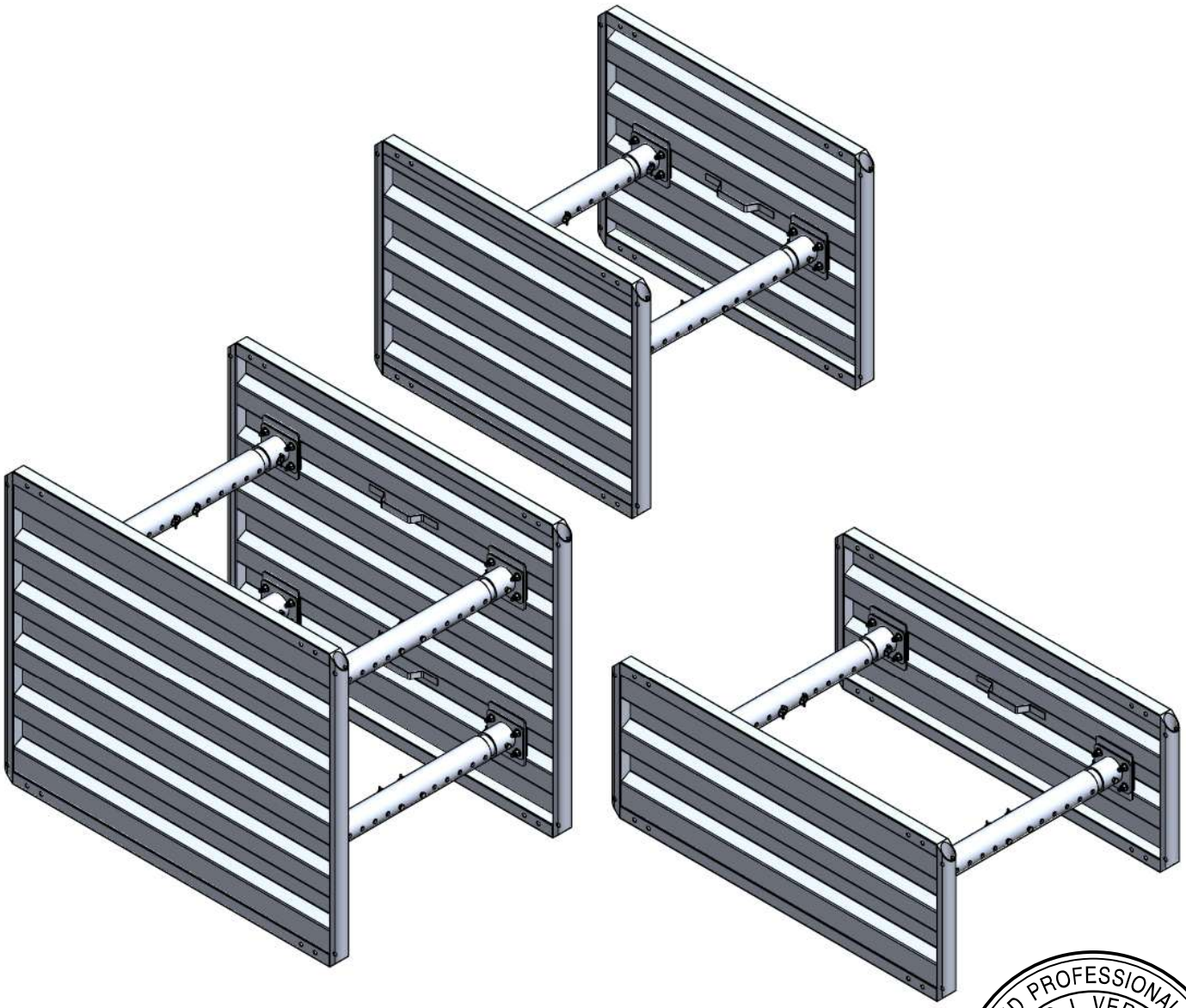
UTILITY MAX SHORING SYSTEM

TABULATED DATA
Effective July 18th, 2025



Pacific SHORING
Quality Driven, Lead Time Focused

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Description

The Utility Max Shoring System (UMS) by Pacific Shoring Products is the ultimate solution for efficient and safe trench work. Designed with a focus on lightweight performance, this shield is easy to transport and set up without compromising on robustness and durability. Built to withstand tough conditions, the Utility Max Shoring System provides superior protection while being versatile enough for various utility and maintenance applications. Engineered for reliability and efficiency, the Utility Max Shields are the perfect choice for crews seeking a dependable trench safety solution.

The UMS panels are available in three height options 2 feet, 3 feet, and 4 feet with various lengths up to 12 feet. This versatile system is primarily designed for two-sided excavations but can also be adapted for projects that require the ends to be closed.

The UMS System can be configured with either fixed or adjustable spreaders, offering flexibility to suit varying trench widths. Additionally, the system supports stacking for deeper excavations and can be used with leg sets to accommodate crossing utilities or provide clearance as needed.

General Information for the use of the Utility Max Shoring Systems

1. The Utility Max Shoring System tabulated here is based on requirements of Federal OSHA 29CFR, Part 1926, Subpart P-Excavations, and Trenches.

   1926.652(c)(2)-Option (2) - Designs Using Manufacturer's Tabulated Data.
   1926.652(c)(2)(i) - Design of support systems, shield systems, or other protective systems that are drawn from manufacturer's tabulated data shall be in accordance with all specifications, recommendations, and limitations issued or made by the manufacturer.

   All provisions of Subpart P apply when utilizing this tabulated data. The contractor's competent person shall use this data to select the appropriate Utility Max Shoring System and allowable end loading configurations. The competent person utilizing this tabulated data shall be experienced and knowledgeable of all requirements of Subpart P, and trained in the use and safety procedures for trench and shoring applications

2. Use of this tabulated data is dependent on first classifying the soil in accordance with OSHA Appendix A, Soil Classification. Classification shall be just prior to installing the shoring system(s). The soil conditions may change at a later date and require revaluation of the strength of the system and allowable depth.

4. The Utility Max Shoring System is tabulated based on the effect of a 72 PSF surcharge. The pressure rating is a triangular pressure distribution based on C-60 soil at bottom of the excavation.

5. Utility Max Shoring Systems may be used in "C-80" soil provided they are dug into the excavation and not driven into the soil.

6. Utility Max Shields can be stacked, provided that both units are securely pinned together using the appropriate connection points to prevent any lateral shift or hazardous movement.

7. Utility Max Shoring Systems can be end-loaded on one or both ends using the appropriate end panels designed for this system. However, end-loading configurations are not designed to support vertical loads and must not be used as a means of access or egress into the trench. Workers must always enter, exit, and operate within the properly shored area of the trench.

8. Utility Max Shoring Systems may be used with wheel kits, please reference the "*Utility Max Shoring System - Wheel Kit Tab Data*"

9. The competent person shall continually monitor the shored excavation for changed conditions such as water seepage, soil movement cracks at the surface, sloughing or raveling, proper surcharge load weight setback a minimum of 2 ft. from the excavation.

10. Sloped soils must extend to no less than 18" below the top of the shield. the shield need not extend above soil when soils are flat and level with top of shield. All OSHA sloping and benching regulations must be followed in strict compliance.

11. Utility Max Shoring Systems shall be installed in a manner to restrict lateral or other hazardous movement of the shield in the event of the application of sudden lateral loads.

12. The allowable depth ratings given in **Tables 2-1 & 2-2** govern the use of Pacific Shoring Products UMS System and not tabulations given by other manufacturers. This tabulated data applies to the UMS Systems manufactured by Pacific Shoring Products, LLC; Any alterations to the units or variance from this tabulated data shall be indicated in a site-specific plan prepared and approved by a registered professional engineer.

13. Workers shall always enter, exit, and work inside the shored area of the trench.

14. Utility Max Shoring Systems can be used with leg kits and may be positioned up to a maximum of 2 ft. above the bottom of the excavation, provided there is no sloughing or raveling. For all applications, the excavation depth is measured from the top of the excavation to its lowest point.

15. An adequate separately designed shoring system shall be used leading up to within 2 ft. of the Utility Max Shield in a linear application. Systems such as Hydraulic Vertical Shores, End Shores, Modular Aluminum Panel Systems, and designs by a registered engineer may be used in conjunction with Utility Max Shoring Systems.

16. Always work from a position of safety. Avoid, working above on an unsupported edge, an unprotected edge or under a suspended load. Do not allow personnel within the trench whilst the excavator is digging. Ensure all personnel are well clear of its operation.

17. The faces of excavations shall be vertical and the shoring walls shall be within 6" of the excavation walls.

Classification of Soil Types

1. Soil classification shall be in accordance with OSHA Appendix A and classified just prior to installing Utility Max Shoring Systems. Soil conditions may change at a later date and require the competent person to check soil conditions periodically and adjust accordingly.

2. The equivalent weight of OSHA soil types* is assumed to be as follows:

   - OSHA Type "A" Soil — 25 PSF per ft of depth
   - OSHA Type "B" Soil — 45 PSF per ft of depth
   - Type "C-60" Soil — 60 PSF per ft of depth**
   - OSHA Type "C" Soil — 80 PSF per ft of depth

   * These equivalent weights were adapted from OSHA 1926 Subpart P App C, Timber Shoring for Trenches, Tables C-1.1, C-1.2, and C-1.3

   ** Type C-60 soil is not identified or classified in OSHA Appendix A.

3. Type C-60 soil is soil that does not qualify as OSHA Type A, or Type B, can be cut with vertical walls and will stand up long enough to safely insert the Utility Max Shoring Systems.

4. Utility Max Shoring Systems may be used in "C-80" soil provided they are dug into the excavation and not driven into the soil.

5. In "C-80" soil it is recommended that this equipment be utilized with site-specific plans designed by a registered civil engineer.

Utility Max Shoring System Components and Sizing (Panels)

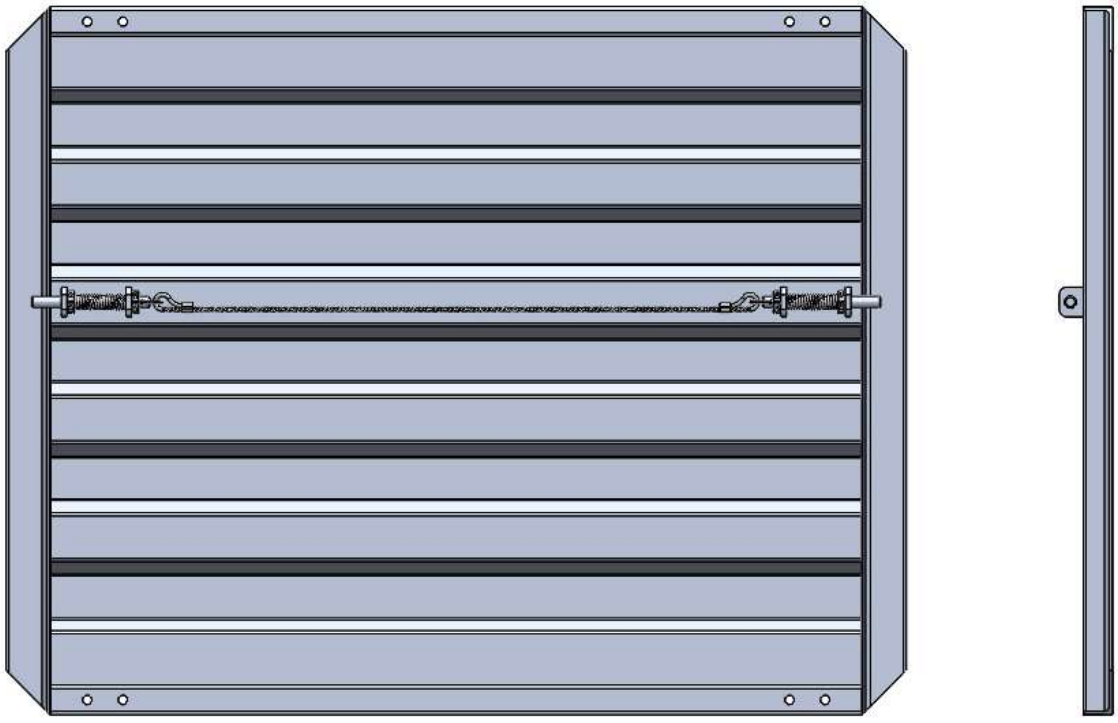
Utility Max Shoring System components are manufactured in several different sizes that can be pinned together to make a wide variety of configurations. The sizes available are as follows:

Table 1-1. UMS Panels				
Model Number	Height (ft.)	Length (ft.)	Thickness (in.)	Weight (lbs., Qty. 2)
26.0 PS-UMS-24-PANELS	2’	4’	2”	63
26.0 PS-UMS-25-PANELS	2’	5’	2”	74
26.0 PS-UMS-27-PANELS	2’	7’	2”	96
26.0 PS-UMS-210-PANELS	2’	10’	2”	138
26.0 PS-UMS-212-PANELS	2’	12’	2”	165
26.0 PS-UMS-34-PANELS	3’	4’	2”	85
26.0 PS-UMS-35-PANELS	3’	5’	2”	106
26.0 PS-UMS-44-PANELS	4’	4’	2”	117
26.0 PS-UMS-45-PANELS	4’	5’	2”	137
26.0 PS-UMS-47-PANELS	4’	7’	2”	176
26.0 PS-UMS-410-PANELS	4’	10’	2”	236
26.0 PS-UMS-412-PANELS	4’	12’	2”	294

- 2’ and 3’ tall panels require 2 spreaders for operation.
- 4’ tall panels require 4 spreaders for operation.

Utility Max Shoring System Components and Sizing (End Panels)

Table 1-2. UMS End Panels (Each)			
Model Number	Height (ft.)	Length (ft.)	Weight (lbs.)
26.1 PS-UMS-33-ENDPANEL	3’	3’	30
26.1 PS-UMS-34-ENDPANEL	3’	4’	37
26.1 PS-UMS-44-ENDPANEL	4’	4’	48
26.1 PS-UMS-45-ENDPANEL	4’	5’	57
26.1 PS-UMS-46-ENDPANEL	4’	6’	69
26.1 PS-UMS-47-ENDPANEL	4’	7’	80
26.1 PS-UMS-48-ENDPANEL	4’	8’	91



Utility Max Shoring System Components and Sizing (Spreaders)

Table 1-3. UMS Adjustable Spreaders (Each)			
Model Number	Collapsed (in.)	Expanded (in.)	Weight (lbs.)
26.2 PS-UMS-ADJ-SPR-20-26	20”	26”	6
26.2 PS-UMS-ADJ-SPR-24-36	24”	36”	9
26.2 PS-UMS-ADJ-SPR-30-42	30”	42”	10
26.2 PS-UMS-ADJ-SPR-36-60	36”	60”	13
26.2 PS-UMS-ADJ-SPR-40-54	40”	54”	13
26.2 PS-UMS-ADJ-SPR-54-96	54”	96”	20

Table 1-4. UMS Fixed Spreaders (Each)		
Model Number	Length (in.)	Weight (lbs.)
26.3 PS-UMS-FXD-SPR-20	20”	4
26.3 PS-UMS-FXD-SPR-24	24”	5
26.3 PS-UMS-FXD-SPR-30	30”	6
26.3 PS-UMS-FXD-SPR-42	42”	9
26.3 PS-UMS-FXD-SPR-54	54”	11
26.3 PS-UMS-FXD-SPR-60	60”	13
26.3 PS-UMS-FXD-SPR-72	72”	15
26.3 PS-UMS-FXD-SPR-96	96”	20

Utility Max Shoring System Components and Sizing (Wheel Kit)

Table 1-5. UMS Wheel Kit Assembly Components			
Model Number	Collapsed (in.)	Expanded (in.)	Weight (lbs.)
26.5 PS-UMS-WHEEL-KIT-ASSY	N/A	N/A	113
26.5 PS-UMS-WK-CB-20-30	20”	30”	24
26.5 PS-UMS-WK-CB-36-54	36”	54”	32
26.5 PS-UMS-WK-CB-54-72	54”	72”	38
26.5 PS-UMS-WK-CB-72-96	72’	96”	46

Allowable Depth Ratings for Utility Max Shoring Panels

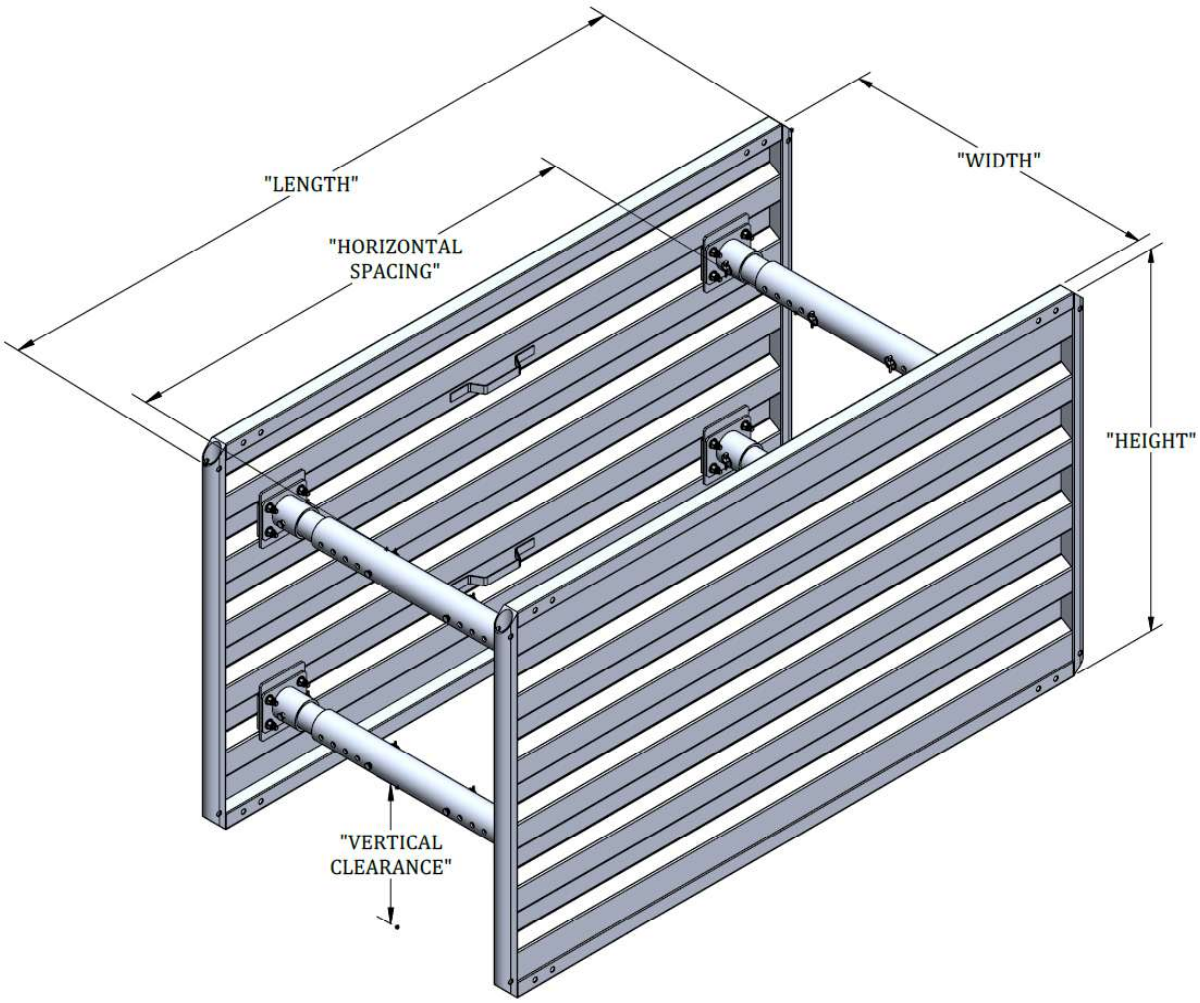
Refer to Tables **2-1** through **2-2** to determine the allowable depth ratings of the UMS Panels.

Table 2-1. Allowable Depth Ratings For UMS Panels (72 PSF Surcharge Included)

Model Number	Panel Capacity (PSF)	Vertical Clearance (in.)	Horizontal Clearance (in.)	Max Width (in.)	Allowable Depth Ratings (ft.) OSHA Soil Type			
					A-25	B-45	C-60	C-80
26.0 PS-UMS-24-PANELS	2,565	10”	24.5”	96”	12’	12’	12’	12’
26.0 PS-UMS-25-PANELS	2,052	10”	36.5”	96”	12’	12’	12’	12’
26.0 PS-UMS-27-PANELS	1,072	10”	60.5”	96”	12’	12’	12’	12’
26.0 PS-UMS-210-PANELS	726	10”	80.5”	96”	12’	12’	12’	9’
26.0 PS-UMS-212-PANELS	720	10”	86.5”	96”	12’	12’	12’	9’
26.0 PS-UMS-34-PANELS	1,710	16”	24.5”	96”	12’	12’	12’	12’
26.0 PS-UMS-35-PANELS	1,368	16”	36.5”	96”	12’	12’	12’	12’
26.0 PS-UMS-44-PANELS	2,565	10”	24.5”	96”	12’	12’	12’	12’
26.0 PS-UMS-45-PANELS	2,052	10”	36.5”	96”	12’	12’	12’	12’
26.0 PS-UMS-47-PANELS	927	10”	60.5”	96”	12’	12’	12’	12’
26.0 PS-UMS-410-PANELS	630	10”	80.5”	96”	12’	12’	11’	9’
26.0 PS-UMS-412-PANELS	584	10”	86.5”	96”	12’	12’	11’	8’

Table 2-2. Allowable Depth Ratings For UMS Panels (No Surcharge Included)

Model Number	Panel Capacity (PSF)	Vertical Clearance (in.)	Horizontal Clearance (in.)	Max Width (in.)	Allowable Depth Ratings (ft.) OSHA Soil Type			
					A-25	B-45	C-60	C-80
26.0 PS-UMS-24-PANELS	2,565	10”	24.5”	96”	12’	12’	12’	12’
26.0 PS-UMS-25-PANELS	2,052	10”	36.5”	96”	12’	12’	12’	12’
26.0 PS-UMS-27-PANELS	1,072	10”	60.5”	96”	12’	12’	12’	12’
26.0 PS-UMS-210-PANELS	726	10”	80.5”	96”	12’	12’	12’	10’
26.0 PS-UMS-212-PANELS	720	10”	86.5”	96”	12’	12’	12’	10’
26.0 PS-UMS-34-PANELS	1,710	16”	24.5”	96”	12’	12’	12’	12’
26.0 PS-UMS-35-PANELS	1,368	16”	36.5”	96”	12’	12’	12’	12’
26.0 PS-UMS-44-PANELS	2,565	10”	24.5”	96”	12’	12’	12’	12’
26.0 PS-UMS-45-PANELS	2,052	10”	36.5”	96”	12’	12’	12’	12’
26.0 PS-UMS-47-PANELS	927	10”	60.5”	96”	12’	12’	12’	12’
26.0 PS-UMS-410-PANELS	630	10”	80.5”	96”	12’	12’	12’	10’
26.0 PS-UMS-412-PANELS	584	10”	86.5”	96”	12’	12’	12’	9’



Tables 2-1 & 2-2 Notes

1. The Utility Max Shoring panel assemblies are Pacific Shoring Products as detailed in this tabulated data.
2. Different height UMS shields can be stacked provided they are pinned securely using the appropriate connection pins.
3. When UMS shields are set in excavations that are sloped above, extend the box 18 in. above the hinge point. The slopes shall be in accordance with OSHA Appendix B sloping and benching.
4. The width of UMS shields is determined by their internal working dimensions.
5. End Panels can only be used if the shield is fully confined by:
   a. Backfilling the area between the shield outer walls and excavation walls with soil.
   b. **The component with the lower depth rating determines the application's limits.**
6. Tabulated depths are limited to 12 ft. in depth. Additional depth may be achieved if approved in writing by a registered civil engineering a site-specific plan.
7. Utility Max Shoring Systems can be used with leg kits and may be positioned up to a maximum of 2 ft. above the bottom of the excavation, provided there is no sloughing or raveling. For all applications, the excavation depth is measured from the top of the excavation to its lowest point.

Allowable Depth Ratings for Utility Max Shoring End Panels

Table 3-1. Allowable Depth Ratings For UMS End Panels (72 PSF Surcharge Included)					
Model Number	Panel Capacity (PSF)	Allowable Depth Ratings (ft.)			
		OSHA Soil Type			
		A-25	B-45	C-60	C-80
26.1 PS-UMS-33-ENDPANEL	4,451	12’	12’	12’	12’
26.1 PS-UMS-34-ENDPANEL	2,271	12’	12’	12’	12’
26.1 PS-UMS-44-ENDPANEL	2,152	12’	12’	12’	12’
26.1 PS-UMS-45-ENDPANEL	1,302	12’	12’	12’	12’
26.1 PS-UMS-46-ENDPANEL	871	12’	12’	12’	12’
26.1 PS-UMS-47-ENDPANEL	624	12’	12’	11’	9’
26.1 PS-UMS-48-ENDPANEL	469	12’	11’	9’	7’

Table 3-1. Allowable Depth Ratings For UMS End Panels (NO Surcharge Included)					
Model Number	Panel Capacity (PSF)	Allowable Depth Ratings (ft.)			
		OSHA Soil Type			
		A-25	B-45	C-60	C-80
26.1 PS-UMS-33-ENDPANEL	4,451	12’	12’	12’	12’
26.1 PS-UMS-34-ENDPANEL	2,271	12’	12’	12’	12’
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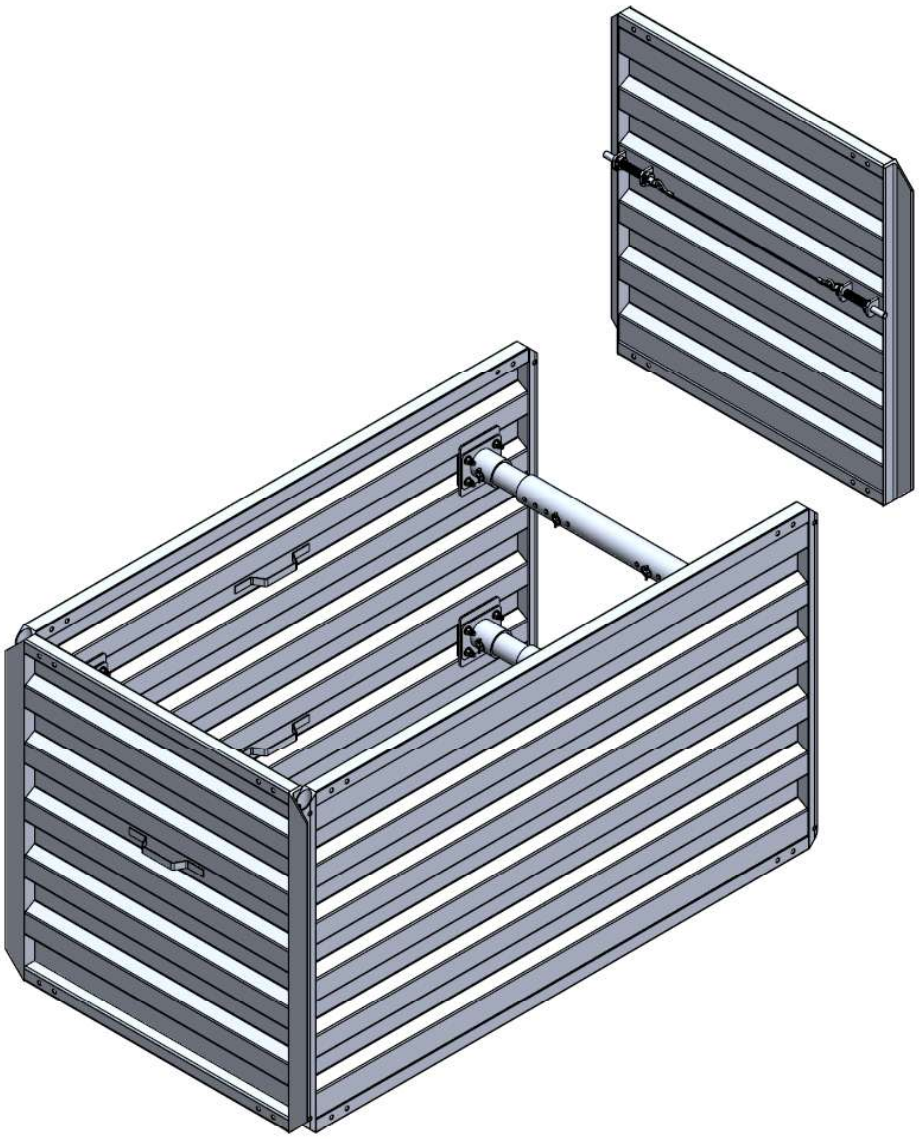

Tables 3-1 & 3-2 Notes

1. The end panels can only be used if the shield is fully confined by:
    a. Backfilling the area between the shield outer walls and excavation walls with soil.
    b. **The component with the lower depth rating determines the application's limits.**
2. The end panels shall never exceed the maximum trench width specified in **Table 2-1 & 2-2.**
3. When end panels are used, they must extend to the top of the excavation.
4. When the end panels are placed directly above a crossing utility, the panel must be secured.
5. If the soil face is greater than 6" backfill the void at least 2/3 of its height with excavated soil or crushed rock securing the sheeting in place.
6. **Do not allow the end panels or any form of sheeting to rest against the spreaders.**

Utility Max Shoring System Installation and Removal

Installation Procedure

1. **Lifting Equipment:**
   Use cables and slings with a minimum safety factor of 5:1. A competent person must calculate the total lift weight before lifting.
2. **Shield Preparation:**
   Assemble shields and rig them properly before lifting. Ensure all rigging is secure and inspected prior to placement in the excavation.
3. **Shield Placement:**
   Carefully lower the shield into the trench. At no time should workers be beneath suspended loads.
4. **Backfilling Gaps:**
   If the trench wall is more than 6 inches from the side of the shield, fill the void with crushed rock or excavated soil. The backfill must cover at least 2/3 of the shield wall area.
5. **Elevated Shield Support:**
   If the shield is suspended up to 2 feet above the trench bottom, it must rest on a stable bench or be otherwise securely supported to prevent accidental fall.

Removal Procedure

1. **Stacked Shield Removal:**
   When removing stacked shields, always attach the lifting equipment to the bottom shield first before removing the top shield.
2. **Stuck Shields:**
   If the shield is wedged by soil, excessive pulling force may exceed the rated capacity of the lifting harness or lifting eyes. Use extreme caution and assess the situation thoroughly before applying force.

Safe Handling and use of the Utility Max Shoring System

A competent person must inspect the Utility Max Shoring System daily while it is in use. The following safety checks and precautions should be performed and observed:

Daily Inspection and Safety Guidelines

1. **Lift Hooks:**
   Ensure all lift hooks are properly connected and that holes are not rounded, bent, or damaged.
2. **Weld Integrity:**
   Inspect all welded joints for cracks or signs of failure. All welds must be intact and free from defects.
3. **Lifting Engagement:**
   Verify that hooks are fully and securely engaged in the lifting points before any lifting begins.
4. **Safe Lifting Practices:**
   Never allow workers to be under or near the shield while it is being lifted or set into place.
5. **Fall Protection:**
   Always work from a stable and safe area to prevent falls from height.
6. **Pinch Point Awareness:**
   Use caution to avoid pinching or trapping fingers, hands, or other body parts in moving components.
7. **Access and Egress:**
   Provide safe access points, such as ladders, for workers entering or exiting the shoring system.
8. **Lifting Equipment Requirements:**
   Use only cables and slings with a minimum 5:1 safety factor. A competent person must determine the total weight of the lift.
9. **Safe Distance During Extraction:**
   Maintain a minimum distance of 10 feet from a shield being forced out of an excavation. Depending on the situation, greater distance may be necessary to protect workers from the potential failure of lifting components under load.
10. **Repairs and Certification:**
    If a shield is found to be damaged or in need of repair, it must be taken out of service immediately. The shield may only be returned to use once it has been re-certified by a Registered Civil Engineer.