

# TRENCH SHIELD CERTIFICATION

A COPY OF THIS SHEET MUST ACCOMPANY EACH CORRESPONDING TRENCH SHIELD AT EVERY JOB SITE



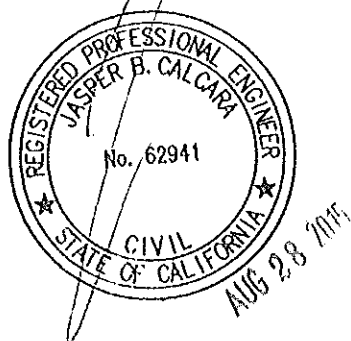
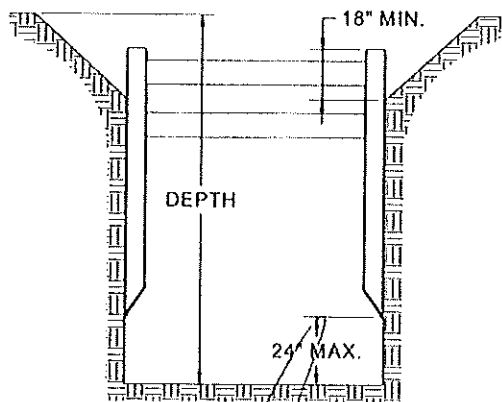
MODEL NUMBER	WEIGHT	SERIAL NUMBERS	SIZE
PRO4-812DNKE	6,531	31606	8' x 12'

\*Shield capacity is based on a triangular pressure distribution with the maximum pressure at the bottom of the excavation.

## LIMITATIONS

SOIL	MAX DEPTH (FT)	CAPACITY (PSF)
TYPE A	40	2040*
TYPE B	40	
TYPE C-60	34	
TYPE C-80	20	

- 1.) This tabulated data has been prepared by a registered professional engineer as required to comply with OSHA standard 29 CFR part 1926, subpart P.
- 2.) Shield may be suspended no more than 2 feet above bottom of the trench and only if there is no possible loss of soil from behind or below bottom of shield.
- 3.) Surcharge loads have not been included in the above depth ratings. The allowable working depth of the shield must be reduced to account for any surcharge loading which occurs within the influence line of the shield. Otherwise, site specific engineering is required.
- 4.) Shoring shields shall be installed in a manner that will prevent lateral or otherwise hazardous movement of soils. Shoring shields are not intended to provide stability to adjacent buildings or other structures.
- 5.) Shield to be used with pipe 8 x-Strong spreaders with a minimum yield strength of 35 ksi, and limited to a maximum length of 20'.
- 6.) Soil above shield must be sloped according to OSHA Subpart P, & must begin no less than 18" below top of panel. Excavations over 20'-deep with slopes require site specific approval.
- 7.) Shields may be stacked as long as each panel is rated to the depth it is used and manufacturer approved stack connections are utilized to prevent lateral movement of the shields.
- 8.) No steel plates, sheet piles, or sheathing of any kind may be leaned against, or otherwise supported by pipe spreaders at any time. Do not suspend load from pipe spreaders.
- 9.) Contractors' competent person is fully responsible for classifying soils in accordance with OSHA guidelines, prior to use of system.
- 10.) Any modifications to panels will void tabulated data unless otherwise specified or allowed in writing by Pro-Tec Equipment.
- 11.) Shields must be inspected prior to each use for any damage or deterioration. If any assembly has sustained damage or permanent deformation, the tabulated data is void until repairs are made as specified by a registered professional engineer.
- 12.) Pro-Tec shoring systems are to be used in accordance with Federal, state and local laws. Refer to Occupational Safety and Health Administration (OSHA) rules and regulations Vol. 54, No. 209, 10/31/89. Subpart P.
- 13.) Contractor is fully responsible for ensuring groundwater level on all sides of shoring is maintained below base of excavation at all times, otherwise certification is invalid.
- 14.) Tab data is only valid for trench shield model and serial number shown above with framing shown on Pro-Tec fabrication drawings dated 08/21/2015 for trench shield model number PRO4-812DNKE/SP.



2" DIAM. PINS SHALL HAVE MIN Fu = 92 KSI. CONTRACTOR RESPONSIBLE FOR ENSURING PROPER GRADE PINS ARE IN PLACE PRIOR TO SHIELD USE.

Capacity and depth ratings account for 33% overstress for short-term loading condition

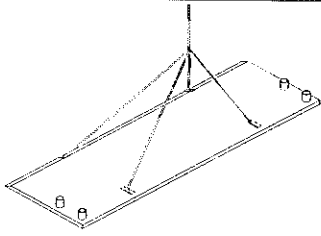
Usage of shields other than specified could cause failure or cave-ins resulting in serious injury or death.

Phone (517) 541-0303 ~ 1-800-292-1225 ~ Fax (517) 541-0329  
Address: 4837 West Grand River Ave. ~ Lansing, MI 48906

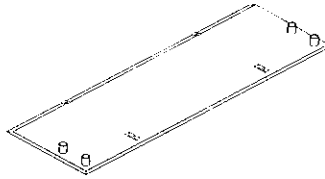


TRINITY SHORING PRODUCTS, INC.  
A TRINITY MINING & CONSTRUCTION EQUIPMENT, INC. COMPANY

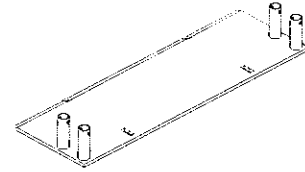
**How to ASSEMBLE a trench shield:**



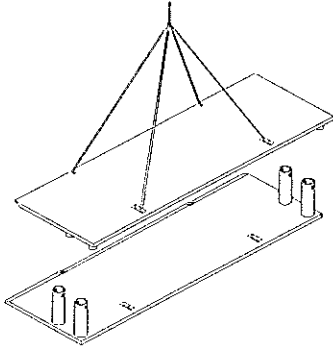
1. Remove from truck by lifting panels with 4 point lift tugs. Always use OSHA approved slings.



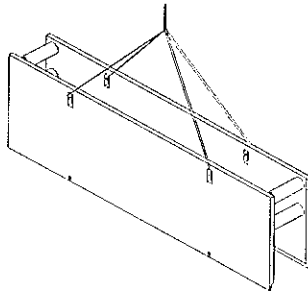
2. Place one sidewall flat on the ground with collars pointing up.



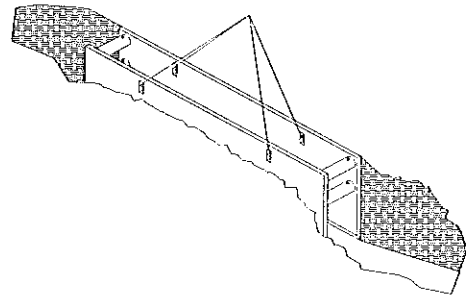
3. Set the spreader pipes over the collars and insert pins and keepers.



4. Set matching panel over bottom panel. Install Spreader pipes in collars and insert pins and keepers.

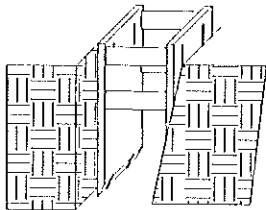


5. Place sling in top 4 lift lugs. Stand shield and install into trench.

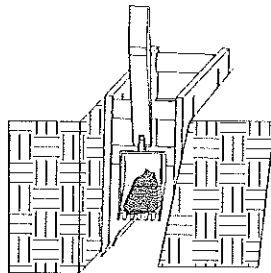


6. **WARNING:** Lift eyes are designed and intended for assembly and lifting only. Do not pull or lift by eyes when shield is stuck or has pressure against it. Loosen shield by pulling on spreader or digging along sides before using lift eyes.

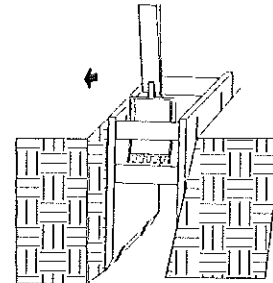
**How to use a trench shield in STABLE soils:**



1. Excavate trench to grade, slightly wider than shield. Lift and lower shield into trench.

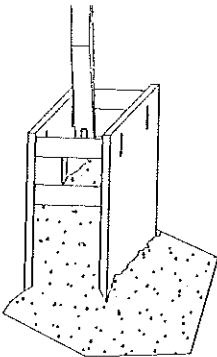


2. Perform desired work, then excavate in front of shield.

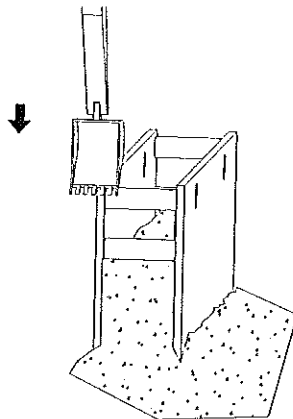


3. Pull shield forward by front spreaders or pulling eyes. Continue excavating and pull shield forward. Back fill as work progresses.

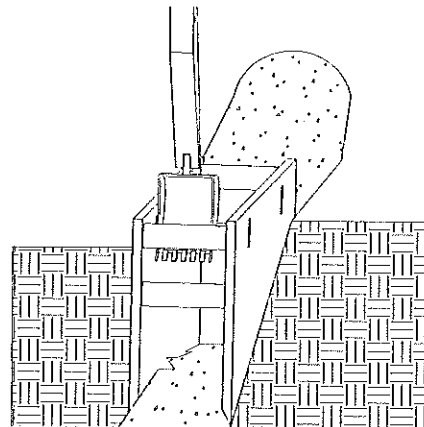
**How to use a trench shield in UNSTABLE soils:**



1. Excavate until soil begins to crumble beyond desired trench width. Place shield on line of excavation and excavate from within.



2. Continue excavating with in shield while alternately pushing down on shield corners, until proper grade is reached.



3. Perform desired work, then pull shield forward and up at appropriate angle and repeat steps (2) and (3) as necessary.