

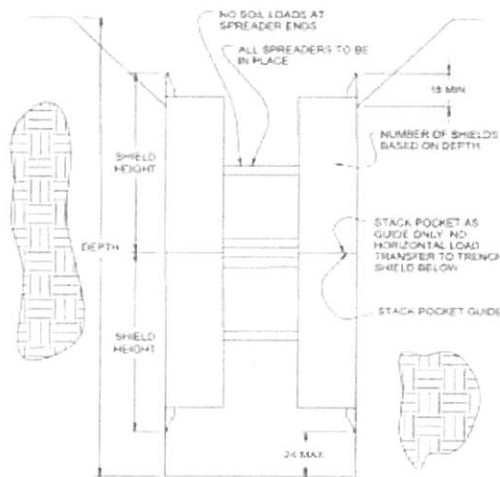


MANHOLE TRENCH SHIELD CERTIFICATION
A COPY OF THIS SHEET MUST ACCOMPANY EACH CORRESPONDING
TRENCH SHIELD AT EVERY JOB SITE

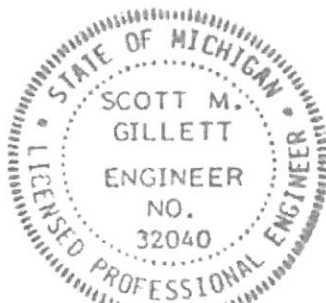
MODEL NUMBER	WEIGHT	SERIAL NUMBER	SIZE
MAN4 - 88D	5214	31392	8' HIGH X 8' LONG

SOIL	MAX DEPTH	PSF	SOIL DESCRIPTION
TYPE A	96 Feet	2400	Stiff Cohesive Soil, 25 PSF per foot, clay, silty clay, clay loam with unconfined compressive strength of 1.5 ton per square foot or greater. See note 7.
TYPE B	53 Feet	2400	Medium Cohesive to granular soil, 45 PSF per foot of depth. Clay with unconfined compressive strength greater than 0.5 TSF but less than 1.5 TSF. Cohesionless gravel, silt, silt loam or sandy loam. See note 8.
TYPE C	40 Feet	2400	Soft Cohesive to Saturated Soil, 60 PSF per foot of depth. Clay with unconfined compressive strength less than 0.5 TSF, saturated sand, clay or fractured rock that is not stable. See note 9.

LIMITATIONS



- 1) Soil above shield must be sloped according to OSHA Subpart P. Slope must begin no less than 18" below the top of shield.
- 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) The sides of the excavation shall be cut vertical and narrow to prevent lateral movement of the Manhole Shield. If necessary, backfill around the Manhole Shield to a height sufficient to prevent lateral movement.
- 4) Repairs and modifications must first be approved by manufacturer or registered professional engineer.
- 5) Shields may be stacked as long as each is rated to the depth it is used and manufacturer approved stack connections are utilized.
- 6) 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.
- 7) Not Type A if fissured. Subject to vibration, previously disturbed or part of a sloped layered system where layers dip into excavation on a slope less steep than four horizontal to one vertical (4H:1V) are Type B if material would otherwise be classified as Type B.
- 8) Previously disturbed soils may be Type B unless they would be classed as Type C. Soil that meets requirements of Type A but is subject to vibration or fissured may be Type B. Dry rock that is not stable or soil that is part of a sloped layered system where layers dip into the excavation on a slope less steep than four horizontal to one vertical (4H:1V) are Type B if material would otherwise be classified as type B.
- 9) Soil in a sloped layered system where layers dip into the excavation on a slope of four horizontal to one vertical (4H:1V) or steeper may be Type C. Saturated soil or soils from which water is freely seeping but is not standing in the trench. Conditions more severe would require dewatering or the sealing of the sides of the excavation and pumping the trench. Such severe conditions would require the services of a soils engineer to establish the design pressure. Consult the manufacturer for pressures exceeding tabulated values.
- 10) PRO-TEC shields 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.
- 11) Shields are for occupational safety use only. Dependent on specific site conditions, soil movement could occur. Affects on adjacent areas from potential soil movement shall be the responsibility of others.

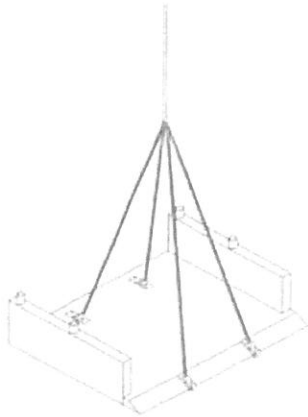


Scott M. Gillett
2/18/05

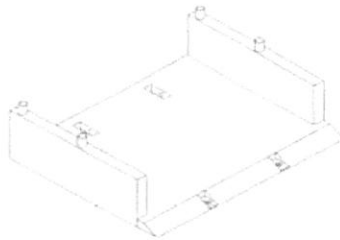
Usage of shields other than specified could cause failure or cave-ins resulting in serious injury or death.

Phone (517) 541-0303 - 1-800-292-1225 - Fax (517) 541-0329
Mailing Address: P.O. Box 130 ~ Charlotte, MI 48813 ~ Shipping Address: 1298 Lipsey Drive ~ Charlotte, MI 48813

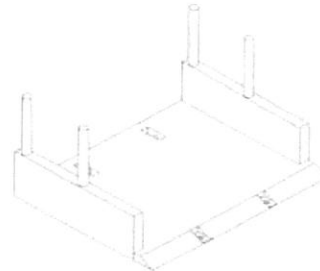
How to Assemble a Manhole Trench Shield



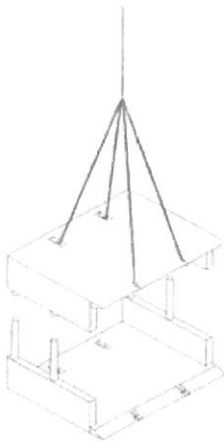
1 Remove from truck by lifting shield with 4 point lift lugs. Always use OSHA approved slings



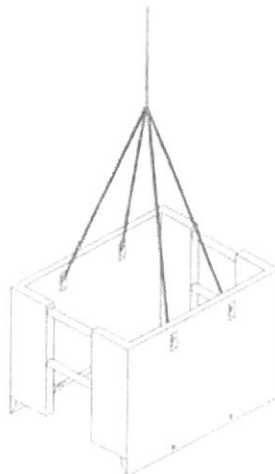
2 Place one sidewall flat on the ground with collars pointing up



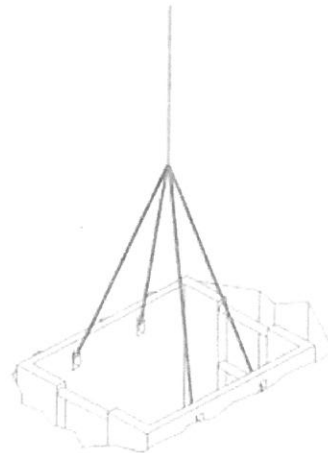
3 Set the spreader pipes over the collars and insert pins and keepers



4 Set matching panel over bottom panel. Install spreader pipes over 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

NOTE:

Refer to Certification shown on other side of this page and Manufacturer's Tabulated data for proper usage of Manhole Trench Shields.