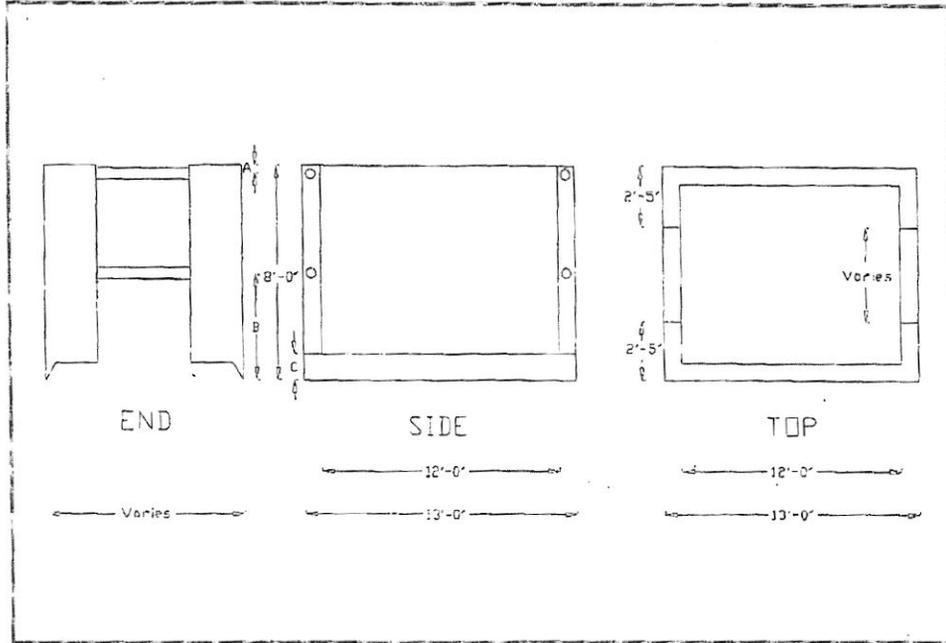




M & R INDUSTRIES, INC.

MANUFACTURER'S "TABULATED DATA"



CERTIFIED DEPTH RATINGS									
MODEL NO.	HGT.	LGT.	TOP CLEAR	F.SPACE	CAPACITY	OSHA SOIL CLASSIFICATIONS			
						TYPE 'A'	TYPE 'B'	TYPE 'C-60'	TYPE 'C-80'
MB812D	8'	13'	(A) 4'	(B) 51" (C) 8"	1926 PSF	52'	42'	32'	24' (H)

* Bottom of the shield must be embedded 12' below the bottom of the excavation.

SERIAL NO: 6M0812-611222



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A01-470

Serial Number: 64092-611222
TABULATED DATA NOTES

General Conditions

1. **Design Parameters** - This 8'X12', 6" wide double sidewall Manhole Box has been designed to provide protection to employees when working within a trench excavation. Complete analysis of the excavation design, including construction techniques, site plans and profiles, soil borings, etc. must be conducted by a "Competent Person" before use of this 8'X12', 6" wide double sidewall Manhole Box. Sheffer Engineering Company, Inc. and M&R Industries, Inc. do not assume any responsibility for that information being complete or exact, and all verification shall be made by the User.
2. **Basis of Design** - The design of this 8'X12', 6" wide double sidewall Manhole Box is in accordance with the current OSHA Construction Industry Standards, Subpart P, sections 1926.650-1926.652. Users of this Manhole Box are reminded that this Protective System does not relieve their responsibility to meet all current OSHA Standards, and any state or local regulations that may apply.
3. **Limitations** - This design is for an 8'X12', 6" wide double sidewall Manhole Box to be used as specified in the Depth Chart, with a maximum of a 2.0' soil surcharge applied due to small equipment or material storage. Soils information must be gathered by field examination of existing conditions by the User of the 8'X12', 6" wide double sidewall Manhole Box.
4. **Inspections** - Daily observations by the User of this 8'X12', 6" wide double sidewall Manhole Box shall be made at the jobsite to note any variations in soil conditions that may affect this Protective System. Any variation shall be remedied by a "Competent Person" before employees enter the excavation.
5. **"Competent Persons"** - The User of this 8'X12', 6" wide double sidewall Manhole Box shall have a "Competent Person" on the jobsite on a daily basis. This person must be knowledgeable of the current OSHA Standards, and have specific training in soils analysis, and in the use of protective systems. This person must also have the authority to stop any work if a hazard is noted, and direct any corrective measures.
6. **Unknown Site Conditions** - Site conditions may differ from day to day, and if any condition appears to be outside of the intended use, the User must review the conditions and evaluate if this 8'X12', 6" wide double sidewall Manhole Box can be used. Hazards such as but not limited to boulders, trees and tree roots, existing building foundations, underground utilities or structures, and water are cases which shall require a re-evaluation of the site by a registered professional engineer.
7. **General Construction Requirements**
 - a. **Excavated Material** - Shall be placed no closer than two (2) feet from top edge of excavation, and shall be limited to four (4) feet high. Shall be in a stockpile with a slope no steeper than 1H:1V to prevent any loose rock or soil from rolling into the excavation.
 - b. **Water Accumulation** - Excavations shall be kept free from surface water or groundwater accumulation at all times. Dewatering operations shall be maintained constantly during construction

and monitored by a "Competent Person". Soil berms or such other means shall be constructed around the excavation to prevent water accumulation, and the trench walls shall be inspected for signs of distress due to water.

- c. **Means of Exit from the Protective System** - A ladder shall be used to provide a safe means of exit. Ladders shall be placed within the protected area of the 8'X12', 6" wide double sidewall Manhole Box. Ladders must extend to a height of three (3) feet above the top of the 8'X12', 6" wide double sidewall Manhole Box. If soil ramps are used in any way, they must be sloped so that any employee can walk the slope upright in order to leave the excavation.

B. Protective Systems

1. **Requirement** - A Protective System must be provided for all trenches over 5.0 feet in depth, and may be required for any excavation if evaluation by the "Competent Person" indicates a potential for a cave-in. When any type of Protective System is used, compliance with current OSHA Standards for their use must be maintained.
2. **Sloping** - Soils analysis shall be made to determine the classification as to Type A, B, or C pursuant to Appendix A in Subpart P of the OSHA Standards. The appropriate slope above the Manhole Box shall be selected from Appendix B and maintained at all times. This 8'X12', 6" wide double sidewall Manhole Box may be used in conjunction with the sloping options as detailed in "Appendix B" of "Subpart P" of the OSHA Standards. This Manhole Box must extend 18" above the toe of the sloped portion, or not less than 6" above the top of the excavation.
3. **8'X12', 6" Wide Double Sidewall Manhole Box Installation** - The soil conditions must first be evaluated by a "Competent Person". If the soil can remain vertically, excavate to desired depth and install the shield. No more than 6" of space shall remain between the outside edge of this 8'X12', 6" wide double sidewall Manhole Box and the excavated face of soil. If this condition exists, place loose backfill in this area up to no less than half of the excavated depth. No employees may enter the area protected by this 8'X12', 6" wide double sidewall Manhole Box until all dewatering, ventilation, and stabilization has been completed.
4. **Dewatering** - This 8'X12', 6" wide double sidewall Manhole Box shall be used in excavations that have been adequately dewatered and stabilized. Hydrostatic water pressure has not been included in the design calculations.
5. **Additional Stacking to the 8'X12', 6" Wide Double Sidewall Manhole Box** - The practice of stacking additional shields to this 8'X12', 6" wide double sidewall Manhole Box shall be permitted, and shall only be used with proper connecting attachments. The practice of pounding by a backhoe, and pulling or lifting this Manhole Box by the spreader bars, is NOT recommended.