

MEGA-SHORETM





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WARNING

EXCAVATION PROCEDURES MAY BE VERY DANGEROUS

- A TRAINED *COMPETENT PERSON* SHALL: SUPERVISE ALL EXCAVATION OPERATIONS, ENSURE THAT ALL PERSONNEL ARE WORKING IN SAFE CONDITIONS, AND HAVE THOROUGH KNOWLEDGE OF THIS TABULATED DATA. THE *COMPETENT PERSON* SHALL HAVE THE AUTHORITY TO STOP WORK WHEN IT IS UNSAFE FOR WORKERS TO ENTER AN EXCAVATION.
- ALL PERSONNEL SHALL BE TRAINED IN CORRECT EXCAVATION PROCEDURES, PROPER USE OF THE PROTECTIVE SYSTEM AND ALL SAFETY PRECAUTIONS.
- EXCAVATIONS AND PROTECTIVE SYSTEMS SHALL BE INSPECTED AT LEAST DAILY AND WHENEVER THERE IS A CHANGE OF SOIL, WATER OR OTHER JOB SITE CONDITIONS.
- ALL LIFTING AND PULLING EQUIPMENT, INCLUDING CABLES, SLINGS, CHAINS, SHACKLES AND SAFETY HOOKS SHALL BE EVALUATED FOR SUITABILITY AND CAPACITY, AND SHALL BE INSPECTED FOR DAMAGE OR DEFECTS PRIOR TO USE.
- ALL INSTALLATION AND REMOVAL OF SHORING AND SHIELDING SHALL BE FROM ABOVE GROUND ONLY.
- DO NOT ALLOW PERSONNEL TO ENTER AN EXCAVATION THAT IS NOT PROPERLY SHORED, SHIELDED OR SLOPED.
- PERSONNEL SHALL ALWAYS WORK WITHIN THE SHORING AND SHIELDING. PERSONNEL SHALL NOT STAND ON THE EDGE OF AN UNSHORED EXCAVATION.
- ALL PERSONNEL SHALL ENTER AND EXIT EXCAVATIONS ONLY WITHIN SHIELDED OR SHORED AREAS.

SPEED SHORE'S "MANUFACTURER'S TABULATED DATA" IS A GENERAL SET OF GUIDELINES AND TABLES TO ASSIST THE *COMPETENT PERSON* IN SELECTING A SAFETY SYSTEM AND THE PROPER SHORING OR SHIELDING EQUIPMENT. THE *COMPETENT PERSON* HAS SOLE RESPONSIBILITY FOR JOB SITE SAFETY AND THE PROPER SELECTION **AND INSTALLATION AND REMOVAL OF THE SHORING OR SHIELDING EQUIPMENT.**

THIS TABULATED DATA IS NOT INTENDED TO BE USED AS A JOB SPECIFIC EXCAVATION SAFETY PLAN, BUT SHALL BE USED BY THE *COMPETENT PERSON* TO SUPPLEMENT HIS TRAINING, HIS EXPERIENCE AND HIS KNOWLEDGE OF THE JOB CONDITIONS AND SOIL TYPE.

SPEED SHORE TABULATED DATA

1.0 SCOPE

- 1.1 Speed Shore's Tabulated Data complies with the O.S.H.A. standards as stated in the Code of Federal Regulations 29, Part 1926, Subpart P Excavations, Section 1926.652(c)(2). One of the functions of this document is to show this compliance and Mega-Shores load tables for the use and benefit of Speed Shore's users. The first and apparent purpose of this "Manufactures' Tabulated Data" (Data) is to help in the selection of Speed Shore equipment for the job. As well, the *competent person* should use it to demonstrate compliance with OSHA regulations at the jobsite and to show others how the equipment will be used. OSHA regulations also require that:
- 1.2 All personnel involved in the installation, removal and use of Mega-Shores shall be trained in their use and advised of appropriate safety procedures.
- 1.3 The *competent person* shall know and understand the requirements of the OSHA regulations before using the Data or the equipment. Table MS-1 is based upon requirements covered in CFR 29, Part 1926 and applicable portions of CFR 29, Part 1910.
- 1.4 If a variance between this Tabulated Data and CFR 29, Part 1926, Subpart P Excavations is encountered, this Tabulated Data shall take precedence. This Data does not cover all subject under OSHA regulations. Therefore it is expected that the *competent person* is already trained in general trench safety requirements and is referred to the full CFR 29, Part 1926, Subpart P to supplement this Data.
- 1.5 In states having their own OSHA regulations, that publication should be used in conjunction with this Data. ONLY the CFR 29, Parts 1910 and 1926 is addressed in this Data.
- 1.6 Table MS-1 depths shall be used only for the soil conditions noted in the table. Soils which fall between classifications shall be downgraded to the next weaker soil classification. For other soil and excavation conditions and depths, site-specific engineered designs may be required. Contact Speed Shore Corporation for assistance.
- 1.7 This Data is applicable to the Mega-Shore as manufactured exclusively by Speed Shore and may only be used with Speed Shore manufactured products. Any modification of the equipment not specifically authorized by Speed Shore Corporation voids this Data.

2.0 DEFINITIONS (RE: CFR 29, Part 1926.32 Definitions) - RESTATED FOR EMPHASIS

- 2.1 1926.32 (f) "competent person" means one who is capable of identifying existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous or dangerous to employees; and who has authorization to take prompt corrective measures to eliminate them.
- 2.2 1926.32 (p) "Shall" means mandatory.

3.0 SOIL CLASSIFICATIONS

- 3.1 In order to use the data presented in Tables MS-1 the soil type, or types, in which the excavation is cut, shall first be determined by the *competent person* according to the OSHA soil classifications as set forth in CFR 29, Part 1926, Subpart P, Appendix A.
- 3.2 Table M-2 is also in Type C-60 soil (see 3.3 for definition).
- 3.3 Type C-60 soil is a moist, cohesive soil or a moist dense granular soil, which does not fit into Type A or Type B classifications, and is not flowing or submerged. This material can be cut with near vertical sidewalls and will stand unsupported long enough to allow the shores to be properly installed. The *competent person* must monitor the excavation for signs of deterioration of the soil as indicated by, but not limited to, freely seeping water or flowing soil entering the excavation around or below the Mega-Shore. An alternate design for less stable Type C soil may be required where there is evidence of deterioration.
- 3.4 Water flowing into an excavation, from either above or below ground, will cause a decrease in the stability of the soil. Therefore, the *competent person* shall take action to prevent water from entering the excavation and remove any water that accumulates in the excavation. Closer monitoring of the soil is required under wet conditions, particularly in less cohesive (weaker) soil conditions. A small amount of water, or flowing conditions, may downgrade the soil classification to a less stable classification. A large amount of water, or flowing conditions, may downgrade all soils to O.S.H.A.

Type C. Speed Shore shoring and shielding systems may be used safely in wet conditions, however the conditions shall be monitored by the *competent person*.

4.0 PRESENTATION OF INFORMATION

- 4.1 Information is presented in tabular form in Tables MS-1 for use in O.S.H.A. Type A, B and C soils, including soil Type C-60 soil (see 3.3 for definition).
- 4.2 The 72 psf lateral pressure allowed for surcharge loads is for spoil piled three (3) feet high next to the trench. If the surcharge load is expected to exceed this allowance, an engineered Trench Safety Plan should be obtained.
- 4.3 Table MS-1 gives allowable depths for each soil classification with the side panel at the bottom of the excavation. For this placement the Table is extended to include OSHA soil Type C (80). The Table also gives allowable depths for two (2) feet more clear height (CH). The additional clearance is from placing the shore sidewall above the bottom (2 feet maximum).

5.0 PRE-ASSEMBLY REQUIREMENTS

- 5.1 Shores shall be inspected by a competent person before assembly.
- 5.2 All damage shall be evaluated and repairs made under the direction of a registered professional engineer. All missing or damaged components shall be replaced with genuine Speed Shore parts.
- 5.3 All lifting and pulling equipment, (including cables, slings, chains, shackles and safety hooks) used to handle shores or components shall be evaluated for lifting capacity, and inspected for damage or defects, prior to use by experienced operators and shall meet OSHA requirements.
- 5.4 Tag lines or other approved safety devices shall be used to keep employees away from loads handled by lifting equipment.
- 5.5 Struts, pins with keepers and accessories shall be in place before using the shore.

6.0 **INSPECTION**

- 6.1 The *competent person* must evaluate the soils to assure the rated capacity of the Mega-Shore is not exceeded by the lateral pressure of the soil. Soils shall be evaluated in accordance with Part 3.0.
- 6.2 The *competent person* shall monitor all phases of the assembly, installation and use of this product to evaluate and eliminate methods, which could endanger employees utilizing this product.
- 6.3 Daily inspections of the Mega-Shore and accessories must be performed by the *competent person* and deficiencies corrected.
- 6.4 Inspections shall be conducted as necessary for hazards associated with: water accumulation, changing soil conditions, or changing site weather conditions.

7.0 SAFETY SPECIFICATIONS

- 7.1 Personnel shall be protected from loose or fallen material. Mega-Shore must always be used in a manner that loose or falling soil cannot enter over the top or through the end of the Mega-Shore. End plates may be required. Spoil piles must be kept back from the edge of the excavation at least 2 feet.
- 7.2 Employees shall not enter or exit shores through unprotected areas and shall remain in shores at all times while working.
- 7.3 Employees shall not be in or under a shore while it is being lifted or moved.
- 7.4 Bottom of shore walls may be maximum of 2 feet above the bottom of the trench if there are no signs of deterioration of the trench face below or at the end of the shores.
- 7.5 Use of spreader systems for any purpose other than support for the side walls panels, or for pulling them forward is prohibited without written permission from the manufacturer.
- 7.6 The sides of the excavation should be cut vertically to stay within the rotation allowed in the strut pin.
- 7.7 Water shall be prevented from entering the excavation and any water that does accumulate in the excavation shall be pumped out.
- 7.8 Contact Speed Shore for any non-typical use of the Mega-Shore.

MEGA-SHORE WITH HYDRAULIC STRUTS

Table MS-1

Excavation Depth Rating (ft)						
Model	Clear Height	Strut	Type A Soil	Type B Soil	Type C-60 Soil	Type C Soil
Number	CH (ft)	Position	25 PSF/ft	45 PSF/ft	60 PSF/ft	80 PSF/ft
MS-0804	3'-0"	А	205	114	86	65
	4'-0"	В	120	67	51	39
MS-0806	3'-0"	А	154	86	65	49
	4'-0"	В	90	51	39	30
MS-0808	3'-0"	А	126	72	54	40
	4'-0"	В	75	42	32	25
MS-1204	5'-0"	А	80	68	58	44
MS-1604*	6'-0"	В	66	56	48	36
	7'-0"	C	56	46	40	30
	8'-0"	D	48	38	32	24
	9'-0"	E	40	30	26	20
	10'-0"	F	34	26	22	16
MS-1206	5'-0"	А	60	52	46	36
MS-1606*	6'-0"	В	50	42	36	28
	7'-0"	C	44	36	30	24
	8'-0"	D	38	30	24	20
	9'-0"	E	34	26	20	16
	10'-0"	F	30	22	16	15
MS-1208	5'-0"	А	48	40	34	26
MS-1608*	6'-0"	В	44	36	30	23
	7'-0"	С	40	32	26	20
	8'-0"	D	36	28	24	18
	9'-0"	E	32	24	20	16
	10'-0"	F	28	20	17	15

*NOTE: Strut positions E and F are applicable to this model only.

Notes to the Tables:

- When the depth rating exceeds the height of the wall panel or stacked panels, the excavation shall be sloped above the panel starting at a point at least 18" inches below the panel top edge in accordance with OSHA requirements.
- The maximum permissible horizontal clear spacing between Mega-Shore units is: Type A Soil, 8'0"; Type B Soil, 6'0"; Type C Soil, 4'0". The distance is measured between the vertical edges of adjacent units.
- Soil presumed weight (PSF/ft) means pounds per square foot for each vertical foot of depth below grade.
- Tabulated rating allow for the OSHA required surcharge of 72 psf of lateral pressure.
- Mega-Shores may be stacked utilizing sockets providing the allowable depth ranges of the tables are not exceeded.
- Four (4) foot high stacking Mega-Shores shall not be used as the bottom shore.
- Stacked Mega-Shores shall be monitored to assure that each shore is secured to the one being



EXAMPLE OF TYPICAL INSTALLATION

