

# CERDA INDUSTRIES

## ARCH SPREADER MANUFACTURER'S TABULATED DATA

**MODEL NO.**

**ARCH8-120/10-144**

**SERIAL NO.**

**C061393**

**MAX. EXT. LENGTH**

12'

### ARCH SPREADER DEPTH TABLE

(144" MAX. CLEARANCE HEIGHT ON 10' SHIELD)  
(120" MAX. CLEARANCE HEIGHT ON 8' SHIELD)

SOILTYPE	EFP	MAXIMUM DEPTH (FT)	MAX. SHIELD HEIGHT	MAX. SHIELD LENGTH
<b>A</b>	<b>25</b>	<b>24</b>	<b>10'</b>	<b>24'</b>
<b>B</b>	<b>45</b>	<b>24</b>	<b>10'</b>	<b>24'</b>
<b>C</b>	<b>60</b>	<b>24</b>	<b>10'</b>	<b>24'</b>
<b>C</b>	<b>80</b>	<b>19</b>	<b>10'</b>	<b>24'</b>

**IMPORTANT NOTICE: THIS DEPTH CHART DOES NOT SUPERCEED ORIGINAL MANUFACTURERS'S TABULATION DATA OF SHIELD CAPACITY AND DEPTH RATINGS. THIS ARCH SPREADER SYSTEM CAN BE EQUAL TO OR LESS THAN THE MAXIMUM DEPTH RATING OF THE INTENDED TRENCH SHIELD, BUT MUST NEVER EXCEED THE PARAMETERS LISTED ABOVE. ANY MISUSE OF THE SYSTEM OR ITS TABULATED DATA COULD LEAD TO SERIOUS INJURY OR DEATH.**

#### CONDITIONS FOR USE TO TABULATED DATA

1. This Tabulated Data has been prepared by a Registered Professional Engineer as required to comply with the OSHA standard 29 CFR Part 1926, Subpart P.
2. This Arch spreader system must be used in a manner consistent with safe working procedures, Federal, State and Local regulations.
3. A "competent person", who has been trained in the proper use of trench shields, arch spreaders systems, safe excavation practices and soil classification methods, must direct and control the use of this system with trench shields.
4. The "competent person" must be knowledgeable and capable of complying with all federal regulations, state and local laws and ordinances.
5. The Soil Types A - 25, B - 45, and C - 80 are as defined in the OSHA Standard. Soil Type C - 60 is a moist, cohesive soil or a moist dense granular soil, which is not flowing or submerged and has an Equivalent Fluid Pressure (EFP) of 60 PSF per foot of depth.
6. The "competent person" must monitor the excavation for any signs of deterioration or condition change that may alter soil classifications. Such signs are indicated by, but not limited to, freely seeping water or flowing soil entering the excavation around or below the shield.
7. This Arch spreader system shall be used in accordance with the depth chart. The maximum depth is the distance from the surface of the excavation to the bottom of the trench. Depth ratings shown are based upon examples of homogeneous soil conditions. Soil pressures may vary due to non-homogeneous soils, surcharged loads, and slope or embankment (layback). Actual soil pressures should be monitored and verified to be sure that the shield capacity is not exceeded.
8. Surcharge loads are not included in the maximum depth table. Surcharge loads are possible due to heavy equipment, vibrations, or soil piles adjacent to the trench. (Adjacent is defined as within a distance equal to the depth of the trench.)
9. This Arch Spreader system is not intended to provide stability to adjacent buildings or other structures.
10. 2" diameter pins furnished by Cerda Industries must be placed in all collar to arch spreader system connections. 1-1/2" diameter pins furnished by Cerda Industries must be double-pinned in all collar to arch spreader system connections. Pin diameter choice must match the intended shield's pin diameter and location requirements. Any modification of the arch spreaders system or change to its pin diameter requirements will void this tabulated data.
11. When using arch spreader extensions, 1-1/2" diameter A325 bolts provided by Cerda Industries must be used in all flange to flange connections. The bolts must be tightened in accordance with pages 5-302 to 5-307 of the AISC Manual - ninth edition.

#### GENERAL NOTES FOR TRENCH SHIELD USE:

1. Modifications of any kind to this arch spreader not specifically allowed by Cerda Industries, Inc. in writing will void this data.
  2. Maximum depths are based on shields being in structurally sound condition. This arch spreader and the trench shield should be inspected prior to each use for damage or deterioration. If a shield has sustained major structural damage or permanent deformation of a structural member or connection, the Tabulated Data is void until repairs are made as specified by a Registered Professional Engineer.
  3. The use of Cerda Industries, Inc. Arch spreader system shall be in accordance with this tabulated data and all requirements of the OSHA standard. Arch spreader and Trench Shield usage other than specified or required may create unsafe conditions that could cause a cave - in, structural failure, or collapse resulting in a disabling injury or even death. Cerda Industries, Inc. shall not be liable for shield usage other than specified. Use of this trench shield not in accordance with Manufacturer's Tabulation Data could cause injury or death.
- 03.07.01R - Page 1 of 1

**Cerda Industries, Inc.**  
9116 Lambright RD  
Houston, Texas 77061  
Phone: 713-242-7700

