

TRENCH SHIELD TABULATED DATA

3810 MAGNOLIA PARKWAY,
PEARLAND, TX 77584

MODEL NUMBER:	01.TS-4M820SKE-SSE	WALL THICKNESS:	4"	SPREADER PIN DIAMETER:	2"
SERIAL NUMBER:	PS24439	SPREADER SIZE:	8" SCH. 80 PIPE	PIN YIELD STRENGTH:	90 KSI
TRENCH SHIELD HEIGHT:	8'	SPREADER YIELD:	42 KSI	MAX PRESSURE RATING:	1,026 PSF
TRENCH SHIELD LENGTH:	20'	MAX SPREADER LENGTH:	20'	MANUFACTURE DATE:	8/2/2024

SEE NOTE#5

HORIZONTAL PIPE CLEARANCE

WIDTH

18" MIN.

VERTICAL PIPE CLEARANCE

DEPTH

SHIELD HEIGHT

OPTIONAL BOTTOM SPREADER

33% SHORING USE FACTOR:	YES
SURCHARGE PRESSURE INCLUDED:	72 PSF
SOIL TYPE	MAXIMUM DEPTH
A-25	40'
B-45	27'
C-60	21'
C-80	17'

Joe M. Turner

SIGNED ON: 8/2/2024

NOTES & LIMITATIONS:

- 1) SOILS MUST BE CLASSIFIED BY A COMPETENT PERSON AS TYPE A, B, OR C IN ACCORDANCE WITH OSHA STANDARD 29 CFR, PART 1926, SUPART P.
- 2) SLOPED SOILS MUST EXTEND TO NO LESS THAN 18" BELOW THE TOP OF THE TRENCH SHIELD, AS SHOWN IN THE DIAGRAM ABOVE. TRENCH SHIELD NEED NOT EXTEND ABOVE THE SOIL WHEN SOILS ARE FLAT AND LEVEL WITH THE TOP OP OF THE SHIELD.
- 3) TRENCH SHIELD SHALL BE USED UNDER THE DIRECT SUPERVISION AND DIRECTION OF A COMPETENT PERSON AS DEFINED BY OSHA STANDARD 29 CFR, PART 1926, SUPART P. AND ALL MANUFACTURER'S RECOMMENDATIONS. AMONG OTHER QUALIFICATIONS, THE COMPETENT PERSON SHALL BE TRAINED IN THE USE OF TRENCH SHIELDS AND HAVE PRACTICAL FIELD EXPERIENCE WITH THE USE OF THE SHIELDS, SOIL CLASSIFICATIONS, AND RECOGNIZING HAZARDOUS CONDITIONS.
- 4) PRIOR TO TRENCH SHIELD USE ALL SPREADERS SHALL BE SECURED TO SOCKETS WITH PINS, OR OTHER MECHANICAL CONNECTIONS THAT ARE APPROVED BY THE MANUFACTURER. (DO NOT APPLY SIDE LOAD TO THE SPREADERS AT ANY TIME INCLUDING LEANING PLATES OR SHEETING FOR SOIL SUPPORT) UNLESS APPROVED IN WRITING BY A REGISTERED P.E.
- 5) THE TABULATED PRESSURE RATING AND MAXIMUM DEPTH RATINGS ARE BASED OFF LATERAL EARTH PRESSURES ONLY. AN ADDITIONAL LATERAL SURCHARGE PRESSURE UP TO 72 PSF IS ALLOWED.
- 6) TRENCH SHIELDS SHALL BE INSTALLED IN A MANNER THAT WILL PREVENT LATERAL OR OTHERWISE HAZARDOUS MOVEMENT OF SOILS. SHIELDS ARE NOT INTENDED TO PROVIDE STABILITY TO ADJACENT BUILDINGS OR OTHER STRUCTURES.
- 7) THE CONTRACTOR MUST ENSURE THAT THE GROUNDWATER LEVEL ON ALL SIDES OF THE SHORING IS MAINTAINED BELOW THE BASE OF THE EXCAVATION AT ALL TIMES, OTHERWISE, THIS CERTIFICATION IS INVALID.
- 8) THE EXTERIOR WALLS OF THE TRENCH SHIELD SHALL BE IN DIRECT CONTACT WITH SOILS.
- 9) TRENCH SHIELDS MUST BE INSPECTED PRIOR TO EACH USE FOR ANY DAMAGE OR DETERIORATION. IF THE ASSEMBLY HAS SUSTAINED DAMAGE, THE TABULATED DATA IS VOID UNTIL REPAIRS ARE MADE AND APPROVED IN WRITING BY A LICENSED ENGINEER.
- 10) ANY MODIFICATIONS TO THE TRENCH SHIELD USING PARTS THAT ARE NOT MANUFACTURED BY PACIFIC SHORING PRODUCTS, EXTENDING THE HEIGHT OR LENGTH OF SHORING IN ANY WAY, OR CHANGING THE LOADING CONDITION, WILL VOID THIS TABULATED DATA AND THE SHIELD SHALL NOT BE USED WITHOUT APPROVAL IN WRITING BY A LICENSED PROFESSIONAL ENGINEER.
- 11) THE TRENCH SHIELD MAY BE STACKED, PROVIDED THAT APPROPRIATE CONNECTIONS ARE MADE BETWEEN THE STACKED SHIELDS TO PREVENT LATERAL MOVEMENT.
- 12) THIS DOCUMENT HAS BEEN PREPARED BY A REGISTERED P.E., AS REQUIRED BY OSHA STANDARD 29 CFR, PART 1926, SUPART P.
- 13) TRENCH SHIELDS MUST BE USED IN STRICT COMPLIANCE WITH ALL APPLICABLE OSHA GUIDELINES, AND LIMITATIONS OUTLINED IN THIS DOCUMENT. (FAILURE TO DO SO CAN RESULT IN SERIOUS INJURY OR DEATH.)



NAXSA

North American
Excavation Shoring Association

STEEL TRENCH SHIELD ASSEMBLY & USAGE

A guide to key steps for steel trench shield assembly and usage.

1. ANY USE OF A TRENCH SHIELD WITHOUT MANUFACTURER'S SPREADERS AND PINS OR EQUAL WILL VOID THE TABULATED DATA AND WARRANTY.
2. TRENCH SHIELDS ARE DESIGNED TO BE USED WITHOUT PLATES EXTENDING BELOW, ABOVE, OR NEXT TO IT. ANY USE OF SUCH PLATES OR PANELS MAY VOID THE TABULATED DATA AND MAY REQUIRE SITE SPECIFIC ENGINEERING.
3. TRENCH SHIELDS ARE DESIGNED TO BE PUSHED TO GRADE IF NECESSARY. AS NOTED BELOW, ANY UNNECESSARY ABUSE BY THE EXCAVATOR AND OR OPERATOR (SUCH AS POUNDING WITH THE BUCKET) WILL VOID THE TABULATED DATA AS WELL AS THE WARRANTY.
4. CONDITION OF SHIELD, SPREADER PIPES, AND SPREADER PINS MUST BE CHECKED/ INSPECTED FOR SERVICEABILITY BY THE COMPETENT PERSON PRIOR TO EACH USE. PSF RATING IS NOT VALID IF THERE IS ANY VISIBLE DAMAGE TO, OR REPAIRS MADE TO THE SHIELD THAT HAS NOT BEEN DOCUMENTED AND CERTIFIED BY A REGISTERED PROFESSIONAL ENGINEER.
5. A MINIMUM OF 4 SPREADERS OR A MANUFACTURER-APPROVED ALTERNATIVE, MUST BE INSTALLED ON THE TRENCH SHIELD PRIOR TO USE.
6. WARNING: LIFTING EYES ARE DESIGNED AND INTENDED FOR ASSEMBLY/DISASSEMBLY AND LIFTING ONLY. DO NOT PULL OR LIFT BY EYES WHEN SHIELD IS STUCK OR HAS PRESSURE AGAINST IT. LOOSEN SHIELD BY PULLING ON PULLING EYES OR DIGGING ALONG SIDES.

ASSEMBLY



1) REMOVE FROM TRUCK BY LIFTING PANELS WITH 4 POINT LIFT LUGS. ALWAYS USE OSHA APPROVED SLINGS. PLACE ONE SIDEWALL FLAT ON THE GROUND WITH COLLARS FACING UP.



2) PLACE SPREADER PIPE ON TO COLLARS OR BRACKETS AND PIN IN PLACE. SECURE PINS WITH KEEPERS.



3A) LOWER SECOND SIDEWALL ONTO SPREADERS AND PIN IN PLACE.
3B) FOR SPREADERS LONGER THAN 72" LIFT SIDEWALL WITH SPREADERS OVER MATCHING SIDEWALL PRIOR TO PINNING IN PLACE.



4) PLACE SLING IN TOP 4 LIFT LUGS. STAND SHIELD IN UPRIGHT POSITION AND PREPARE FOR INSTALLATION.

DISASSEMBLY



1) PLACE OSHA APPROVED SLING IN TOP 4 LIFT LUGS. STAND SHIELD IN UPRIGHT POSITION AND LIFT BOX FROM EXCAVATION. WARNING: LIFT LUGS ARE INTENDED FOR LIFTING ONLY.



2) PLACE SHIELD ON EITHER SIDEWALL.



3) CONNECT SLING TO 4 LIFTING EYES OF TOP SIDEWALL. REMOVE SPREADER PINS FROM THE UPPER PORTION OF THE SPREADERS. LIFT THE TOP SIDEWALL FROM THE SPREADERS.



4) UNPIN SPREADERS FROM THE LOWER SIDEWALL AND REMOVE SPREADERS.

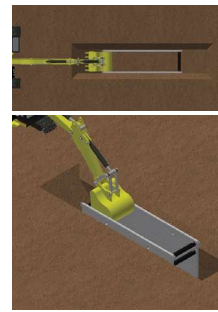
USING A TRENCH SHIELD IN STABLE SOIL



1) EXCAVATED TO GRADE JUST SLIGHTLY WIDER THAN THE TRENCH SHIELD. DIG WALLS VERTICAL TO MINIMUM OF 18" BELOW THE TOP OF THE SHIELD. SLOPE SOILS ABOVE SHIELD ACCORDING TO MANUFACTURER'S TABULATED DATA. INSTALL SHIELD IN TRENCH.



2) PERFORM DESIRED WORK, THEN EXCAVATE IN FRONT OF THE TRENCH SHIELD.



3) PULL SHIELD FORWARD BY FRONT TOP SPREADER PIPE OR PULLING EYES. PULLING EYES SHALL BE USED WITH SPREADERS WIDER THAN 72" OR WHEN SOIL PRESSURE IS SEVERE ENOUGH TO CAUSE SPREADER TO DEFLECT. CONTINUE EXCAVATING AND PULL SHIELD FORWARD, BACKFILL AS WORK PROGRESSES.

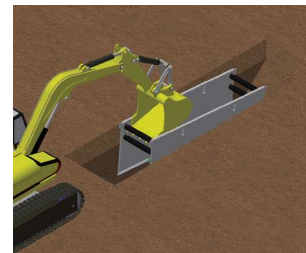
USING A TRENCH SHIELD IN UNSTABLE SOIL



1) EXCAVATE UNTIL SOIL BEGINS TO CRUMBLE BEYOND DESIRED TRENCH WIDTH. PLACE SHIELD IN LINE OF EXCAVATION AND EXCAVATE FROM WITHIN.



2) CONTINUE EXCAVATING WITHIN SHIELD WHILE 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 PREVIOUS STEPS AS NECESSARY.

WARNING: ANY USE OF THIS PRODUCT NOT SPECIFICALLY DESCRIBED ON THIS CERTIFICATE COULD CAUSE CAVE-IN, COLLAPSE, OR STRUCTURAL FAILURE, AND MAY RESULT IN INJURY OR DEATH