

USE THIS THRUST RESTRAINT TABLE FOR THESE TRENCH CONDITIONS:

- MIN. 50% SOIL RETAINED ON No. 200 SIEVE.
- MIN. 95% COMPACTION, AASHTO T-180.
- MIN. 3' OF COVER.

NUMBER OF FULL LENGTH RESTRAINED PIPE SECTIONS REQUIRED AT ALL FITTINGS AND VALVE JOINTS

| SIZE IN. | BENDS | | | | | | | | | | TEE | | | | | | | | |
|-------------|------------|------------|------------|------------|------------|------------|------------|------------|-------------------|------------|------------|------------|-------------------|------------|------------|------------|------------|------------|---|
| | 90° | | 45° | | 22-1/2° | | 11-1/4° | | VERTICAL BENDS | | DEAD END | | CROSS OR VALVE | | RUN | | BRANCH | | |
| | 100 psi | 150 psi | 100 psi | 150 psi | 100 psi | 150 psi | 100 psi | 150 psi | 100 psi | 150 psi | 100 psi | 150 psi | 100 psi | 150 psi | 100 psi | 150 psi | 100 psi | 150 psi | |
| 4 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 1 | 1 | 1 | 1 | 2 | 2 |
| 6 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 3 | 1 | 1 | 1 | 1 | 2 | 2 |
| 8 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 4 | 1 | 1 | 1 | 1 | 2 | 2 |
| 10 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 3 | 4 | 1 | 1 | 1 | 1 | 2 | 2 |
| 12 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 3 | 3 | 5 | 1 | 1 | 1 | 1 | 2 | 2 |
| 14 | 2 | 3 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 3 | 4 | 6 | 1 | 1 | 1 | 1 | 2 | 2 |
| 16 | 2 | 3 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 3 | 4 | 6 | 1 | 1 | 1 | 2 | 2 | 3 |
| 18 | 2 | 3 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 3 | 4 | 5 | 7 | 1 | 1 | 1 | 2 | 2 | 3 |
| 20 | 2 | 3 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 3 | 4 | 5 | 8 | 1 | 1 | 1 | 3 | 2 | 4 |
| 24 | 3 | 4 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 3 | 4 | 6 | 9 | 1 | 1 | 1 | 4 | 2 | 5 |
| 30 | 3 | 4 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 4 | 5 | 7 | 10 | 1 | 1 | 2 | 6 | 3 | 7 |

WHERE CONDITIONS VARY FROM THOSE STATED ABOVE, HAVE A FLORIDA REGISTERED PROFESSIONAL ENGINEER DETERMINE THE REQUIRED RESTRAINED LENGTH OF PIPING.

1. WATER MAIN AND REUSE MAIN TEST PRESSURE 150 psi MINIMUM
2. SANITARY FORCE MAIN PRESSURE PIPE 100 psi MINIMUM.
3. RESTRAIN THROUGH VALVING.
4. ALL FITTINGS AND VALVES SHALL BE RESTRAINED WITH TYLER MJR, MEGALUGS OR EQUAL, AT LEAST ONE (1) FULL LENGTH OF PIPE IN ALL DIRECTIONS.

NOTE: THIS TABLE INCLUDES A 1.5 SAFETY FACTOR ABOVE THE LISTED TEST PRESSURES.

RESTRAINED JOINT TABLE