



**THRUST BLOCK SIZE CALCULATION**

STEP 1: ADD 50 PSI FOR PRESSURE TESTING TO THE MAXIMUM RATING OF THE PIPE. MULTIPLY THIS FIGURE BY THE APPROPRIATE VALUE SHOWN IN THE FOLLOWING TABLE.

THRUST PER PSI OF WATER PRESSURE AT VARIOUS FITTINGS

PIPE SIZE	DEAD END OR TEE	90° ELBOW	45° ELBOW	22 1/2° ELBOW
2	5	11	7	7
4	20	40	27	20
6	39	60	34	19
8	68	100	56	31
10	110	160	89	48
12	155	220	120	62
14	210	300	168	87
16	270	400	225	121

STEP 2: DETERMINE BEARING STRENGTH OF THE SOIL FROM THE FOLLOWING TABLE.

BEARING STRENGTH OF SOILS

*SOILS AND SAFE BEARING LOADS	LBS/SQ. FT.
SOUND SHALE	10,000
CEMENTED GRAVEL AND SAND	4,000
DIFFICULT TO PICK	3,000
COARSE AND FINE COMPACT SAND	2,000
MEDIUM CLAY—CAN BE SPADED	1,000
SOFT CLAY	0
MUCK	0

\*SEE ENGINEER FOR CLASSIFICATION OF SOILS

STEP 3: DIVIDE THE TOTAL THRUST OBTAINED IN STEP 1 BY THE BEARING STRENGTH OF THE SOIL (STEP 2) TO DETERMINE THE MINIMUM BEARING AREA (SQ. FT.) OF THRUST BLOCKING REQUIRED.

NOTE:

THRUST BLOCKING SHALL BE MADE OF AT LEAST TWO (2) CUBIC FEET OF 3000# PLAIN CONCRETE, AND SHALL BEAR DIRECTLY AGAINST THE UNDISTURBED TRENCH WALL.

*THRUST BLOCK DETAILS*

COMMON PANEL 3