



LOAD LIMITING METHODS

TABLE 1 HANGER RODS

PIPE SIZES	MINIMUM ROD SIZE
2" and smaller	3/8"
3" and 4"	1/2"
6"	5/8"
8" and larger	3/4"

INSTALLING PLASTIC PIPESUSPENDED FROM ON-GRADE SLABS

PLASTIC PIPE SHOULD ALWAYS BE BURIED IN STRICT ACCORDANCE WITH THE ASTM STANDARD RELEVANT TO THE TYPE OF PLASTIC PIPING SYSTEM BEING INSTALLED. THOSE STANDARDS ARE:

- ASTM F 2536 STANDARD PRACTICE FOR INSTALLING PLASTIC PIPING SUSPENDED FROM ON-GRADE SLABS
- ASTM D 2321 STANDARD PRACTICE FOR UNDERGROUND INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY-FLOW APPLICATIONS.

**NOTE: IN ADDITION TO THESE STANDARDS, PIPE SHOULD ALWAYS BE INSTALLED IN ACCORDANCE WITH ALL LOCAL CODE REQUIREMENTS.**

RECOMMENDATIONS FOR UNDERGROUND INSTALLATION OF PLASTIC PIPE SUSPENDED FROM SLAB:

MATERIALS:

1. THE PLASTIC PIPING USED IN THESE SYSTEMS IS LISTED IN THE PLUMBING CODES AS ASTM D 2665. CELLULAR CORE PVC ASTM F 891 IS NOT RECOMMENDED FOR THIS APPLICATION DUE TO LESSER WALL STRENGTH.
2. THE HANGERS TO BE USED SHALL BE CLAMP-ON TYPE, SHALL MATCH THE PIPE SIZE AND SHALL BE MADE OF HOT DIPPED GALVANIZED STEEL, OR STAINLESS STEEL. THE HANGER SHALL BE FASTENED TO THE ROD SO THAT THE ROD IS HELD IN A VERTICAL POSITION.
3. RODS SHALL BE STAINLESS STEEL AND SHALL CONFORM WITH THE SIZES SHOWN ON TABLE 1. RODS SHALL EXTEND UP THROUGH THE FILL AND SHALL TERMINATE AS SHOWN, OR WITH A BEND OR HOOK THAT WILL BE EMBEDDED INTO THE SLAB.

INSTALLATION:

1. PIPING SHALL BE INSTALLED AT THE PRESCRIBED ELEVATION AS TH FILL IS BEING PLACED WITHIN THE GRADE BEAM AREA, OR THE PIPING SHALL BE INSTALLED IN TRENCHES CUT INTO THE FILL.
2. CLAMPING PIPE HANGERS WITH RODS EXTENDING UPWARD SHALL BE INSTALLED AS WORK PROGRESSES. THE CLAMPING HANGERS SHALL BE FASTENED SECURELY TO THE PIPE OR FITTING, AND SHALL HOLD THE ROD VERTICAL.

LIMITING LOAD ON PIPING:

1. IN ORDER TO MINIMIZE LOAD ON PIPING, IT SHALL BE INSTALLED AS CLOSE AS POSSIBLE TO THE UNDERSIDE OF THE SLAB. IT SHALL BE CARRIED AT THIS ELEVATION OUT TO AND THROUGH THE EXTERIOR GRADE BEAM (FOUNDATION WALL) BEFORE DROPPING TO MEET THE SEWER ELEVATION. PIPE SHALL BE INSTALLED AT THE APPROPRIATE GRADE.
2. WHEREVER THE TOP OF THE SUSPENDED PIPEING IS MORE THAN 6" BELOW THE BOTTOM OF THE CONCRETE SLAB, THE LOADING ON THE PIPING SHALL BE LIMITED BY ONE OF THE FOLLOWING TWO METHODS.

**PEA GRAVEL OR CLEAN SAND FILL** - THIS SELECTED FILL SHALL BE PLACED AROUND AND ABOVE THE PIPE LINE ALL THE WAY UP TO THE SLAB GRADE, IN ADDITION THE SAME FILL SHALL BE PROVIDED FOR A DISTANCE OF 12" MORE ON BOTH SIDES OF THE PIPE LINE. DURING THE PLACEMENT OF THIS FILL THE HANGER RODS SHALL BE KEPT VERTICAL AND THEY SHALL BE IN ALIGNMENT DIRECTLY ABOVE THE PIPES.

**FOAM INSULATION SHEAR PLANE** - SHEETS OF 1" THICK FOAM INSULATION SHALL BE PLACED ON BOTH SIDES OF THE OF THE RODS AND SHALL EXTEND DOWN TO, AND OVER THE PIPE TO THE CENTERLINE. FASTEN THE TWO SHEETS TOGETHER AT EACH HANGER WITH WIRE TIES. THE MAXIMUM FOAM SHEET WIDTH REQUIRED IS 48". BACKFILL SHALL BE PLACED ON BOTH SIDES OF THE INSULATION SO THAT THE RODS AND INSULATION REMAIN VERTICAL.

INSPECTION:

1. FOR THE SAND FILL METHOD A PROPER INSTALLATION SHALL BE VERIFIED BEFORE CONCRETE SLAB IS POURED BY OBSERVING AND VERIFYING QUALITY OF FILL MATERIAL AROUND THE HANGER RODS AND ALONG THE LENGTH OF THE PIPE LINE.
2. FOR THE FOAM INSULATION METHOD A PROPER INSTALLATION SHALL BE VERIFIED BEFORE CONCRETE SLAB IS POURED BY CHECKING FOR THE PRESENCE OF THE TWO LAYER FOAM SANDWICH ENCLOSING THE HANGER RODS.

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**NOTICE:** THE INFORMATION ON THIS PAGE PROVIDES GENERAL GUIDELINES. IT SHOULD BE USED ONLY AS A REFERENCE AND NOT AS A GAURANTTEE OF PERFORMANCE. SPECIFIC INSTALLATION INSTRUCTIONS AND TECHNIQUES MAY BE REQUIRED AS A RESULT OF LOCAL PLUMBING AND BUILDING CODES, ENGINEERING SPECIFICATIONS AND INSTRUCTIONS.

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UNDERGROUND PVC PIPE  
SUSPENDED FROM SLAB  
INSTALLATION

**CHARLOTTE**  
PIPE AND FOUNDRY COMPANY