



L = LENGTH TO BE RESTRAINED  
ON BOTH SIDES OF FITTING

BEND ANGLE 11.25°	
PIPE SIZE (INCH)	RESTRAINED LENGTH IN FEET, WHEN TEST PRESSURE = 200 PSI
6	2
8	3
12	4
BEND ANGLE 22.5°	
PIPE SIZE (INCH)	RESTRAINED LENGTH IN FEET, WHEN TEST PRESSURE = 200 PSI
6	5
8	6
12	8
BEND ANGLE 45°	
PIPE SIZE (INCH)	RESTRAINED LENGTH IN FEET, WHEN TEST PRESSURE = 200 PSI
6	9
8	12
12	18
BEND ANGLE 90°	
PIPE SIZE (INCH)	RESTRAINED LENGTH IN FEET, WHEN TEST PRESSURE = 200 PSI
6	23
8	30
12	43

**NOTES:**

1. RESTRAINED LENGTH CALCULATIONS ARE FOR PVC PIPE BEDDED IN COMPACTED GRANULAR MATERIAL EXTENDING TO THE TOP OF THE PIPE.
2. THE NATIVE SOIL MATERIAL IS ASSUMED TO BE INORGANIC CLAY OF HIGH PLASTICITY.
3. DEPTH OF BURY IS ASSUMED TO BE 4 FEET
4. THESE CALCULATIONS ARE PROVIDED FOR REFERENCE USING THE EBBA IRON RESTRAINT LENGTH CALCULATOR. THE RESTRAINED LENGTH SHALL BE DESIGNED BASED UPON THE CONDITIONS ENCOUNTERED DURING THE INSTALLATION.

NO REVISION OR MODIFICATION OF THIS DETAIL SHALL BE MADE WITHOUT PRIOR WRITTEN APPROVAL FROM AUGUSTA UTILITIES DEPARTMENT.

REVISED: JANUARY 2018

**RESTRAINED LENGTHS  
FOR HORIZONTAL BENDS**

**AUD DETAIL 3.2.1**

**AUGUSTA UTILITIES DEPARTMENT  
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AUGUSTA, GA 30901**

