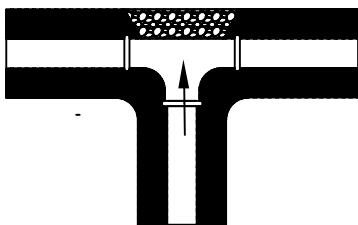
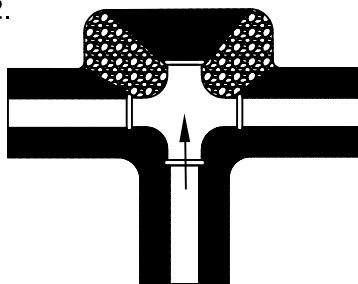


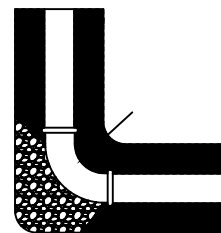
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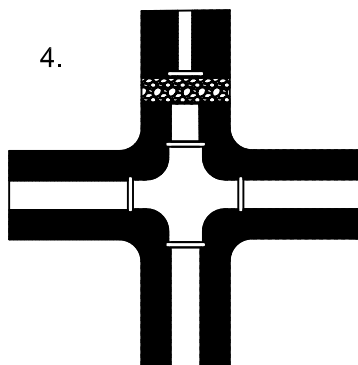
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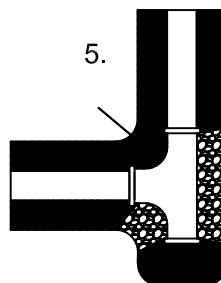
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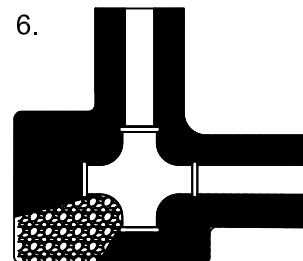
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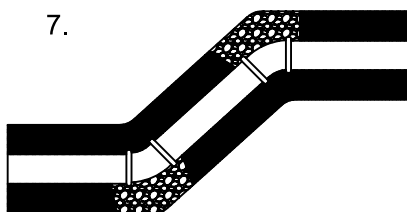
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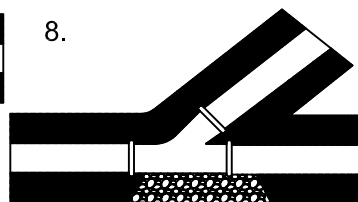
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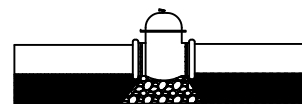
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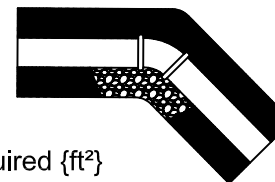
8.



9.



10.



1. Thru line connection
2. Thru line connection, cross used as a tee
3. Direction Change, elbow
4. Change line size
5. Direction change, tee used as elbow
6. Direction change, cross used as elbow
7. Direction Change
8. Thru line connection, wye
9. Valve anchor
10. Direction change vertical, bend anchor

A = area of thrust block required {ft²}
 H = maximum working pressure/head {ft²}
 D = inside diameter of pipe {ft²}
 B = allowable passive pressure of soil {lb/ft²}
 a = deflection angle of pipe bend {degrees}
 98 = Constant

$$A = \frac{98 \times H \times D^2}{B} \times \sin\left(\frac{a}{2}\right)$$

11/11/2025

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

CPF-31**THRUST BLOCKING**

CHARLOTTE
PIPE AND FOUNDRY COMPANY