



SECTIONAL DETAIL OF OUTLET

NOMINAL OUTLET DIA (in)	MINIMUM "t _r " (in)	HUB FLANGE	
		"C" (in)	"A" (in)
4	0.237	7 1/2	9
6	0.280	9 1/2	11
8	0.322	11 3/4	13 1/2
10	0.366	14 1/4	16
12	0.375	17	19

NOTES:

- 1.) SEE MAINLINE PIPING DRAWING FOR POSITION AND USE OF OUTLET.
- 2.) STEEL HUB FLANGE CLASS D AS PER AWWA STD. C207.
- 3.) SEE MAINLINE PIPING DRAWING FOR MINIMUM DESIGN THICKNESS "T_r".
- 4.) "w" AND "T", REINFORCEMENT PLATE DIMENSIONS FOR OUTLET JOINTS, TO BE DESIGNED PER AWWA MII, 13.3-13.6, OR EQUAL TO MANUFACTURERS REINFORCING GUIDE.
- 5.) "T_y"= MAINLINE CYLINDER THICKNESS.
- 6.) "T_r"= REQUIRED MAINLINE CYLINDER THICKNESS.
- 7.) "t_y"= BRANCH CYLINDER THICKNESS.
- 8.) "t_r"= REQUIRED BRANCH CYLINDER THICKNESS.
- 9.) "L" = $\frac{\text{NOMINAL DIA}}{2} + 12"$



**WATER DISTRIBUTION & TRANSMISSION
PIPELINE CONSTRUCTION METHODS**

**TYPICAL FLANGED TANGENT OUTLET
4" THROUGH 12" DIAMETER**