



OUTLET REINFORCING

RATIO OF OUTLET ID TO PIPE ID	PIPE CLASS	ANGLE BETWEEN OUTLET AXIS AND MAINLINE AXIS	TYPE OF REINFORCING
0.2 AND LESS	ALL ALL	0° to 75° 75° to 90°	WRAPPER COLLAR
0.2 TO 0.6	UNDER 150 UNDER 150 150 AND OVER	0° to 75° 75° to 90° 0° to 90°	WRAPPER COLLAR WRAPPER
0.6 TO 1.0	UNDER 150 150 AND OVER	0° to 90° 0° to 90°	WRAPPER 1 PL CROTCH
1.0	UNDER 150 150 AND OVER	0° to 90° 0° to 90°	WRAPPER 2 PL CROTCH

NOTES

- COLLAR OD OR WRAPPER WIDTH SHALL BE EQUAL TO TWICE THE LENGTH OF THE OPENING IN THE MAINLINE PIPE MEASURED ALONG THE PIPE AXIS. THICKNESS SHALL BE EQUAL TO THAT SPECIFIED FOR PIPE SPECIALS.
- IF A CROTCH PLATE IS REQUIRED, THE OUTLET LENGTH SHALL BE ADJUSTED TO CLEAR THE MAXIMUM LENGTH OF BOLT USED FOR FLANGE.
- OUTLETS LESS THAN 3" IN DIA. MAY BE INSTALLED WITHOUT COLLARS PROVIDING THAT ROD REINFORCING IS NOT CUT AND OUTLETS ARE WELDED TO RODS.
- REINFORCING FOR OUTLETS ON PIPE, OTHER THAN SCRW PIPE OR STEEL PIPE, SHALL BE AS SHOWN ON PLANS OR SUBMITTED FOR APPROVAL.
- NOZZLE FABRICATION DETAILS ARE TYPICAL FOR ALL SIZES OF OUTLETS.
- REPEAT NOTE 1 FOR SDW-103
- FLANGES SHALL CONFORM TO AWWA C207 AND DRILLING SHALL MATCH THE ABOVE FLANGE DRILLING.
- MINIMUM LINING THICKNESS FOR OUTLETS SHALL BE:
 1/4" FOR 8" ID AND LESS
 1/2" FOR 10" ID 16" ID
 3/4" FOR 18" ID AND GREATER
- COATING THICKNESS FOR OUTLETS SHALL BE:
 3/4" FOR 16" ID AND LESS
 1 1/4" FOR 18" ID AND GREATER
 SPECIFIED COATING THICKNESS SHALL BE REDUCED BY 50% FOR THE DISTANCE OF ONE BOLT LENGTH BACK FROM THE FLANGE FACE.
- REINFORCEMENT OF FITTINGS, COLLARS, WRAPPER AND CROTCH PLATE DESIGN SHALL CONFORM TO M-11, LATEST STEEL PIPE-GUIDE FOR DESIGN AND INSTALLATION EDITION.

REVISION	BY	APPROVED	DATE
ORIGINAL		H. HORN	5-6-80
		J. CASEY	6-3-83
		J. CASEY	8-23-86
UPDATED	KA	J. NAGELVOORT	01/12

CITY OF SAN DIEGO - STANDARD DRAWING

**TYPICAL OUTLET FOR SCRW PIPE
STEEL PIPE AND PIPE SPECIALS**

RECOMMENDED BY THE CITY OF SAN DIEGO
STANDARDS COMMITTEE

H. Hadli 1/31/2012
COORDINATOR R.C.E. 65271 DATE

DRAWING NUMBER **SDW-101**