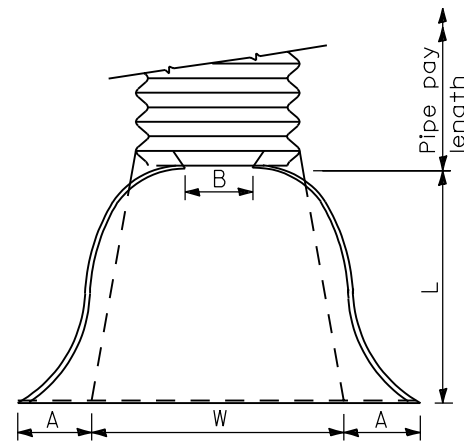
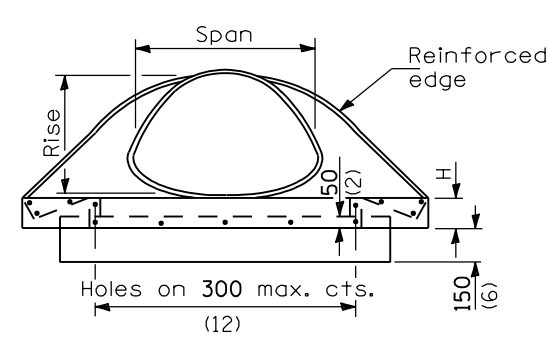


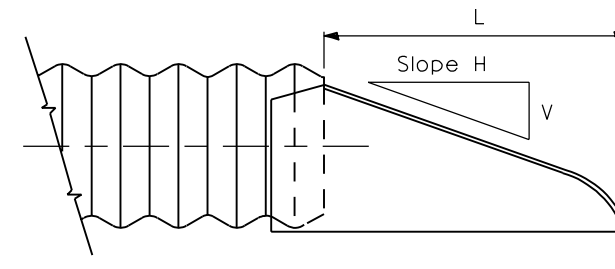
PIPE ARCH DIMENSIONS		THICKNESS	DIMENSIONS					SLOPE (Approx.) (V:H)	BODY
SPAN	RISE		A	B	H	L	W		
432 (17)	330 (13)	1.63 (0.064)	180 (7)	230 (9)	150 (6)	485 (19)	760 (30)	1:2 1/2	1 Pc.
533 (21)	381 (15)	1.63 (0.064)	180 (7)	255 (10)	150 (6)	585 (23)	915 (36)	1:2 1/2	1 Pc.
610 (24)	457 (18)	1.63 (0.064)	205 (8)	305 (12)	150 (6)	710 (28)	1.065 m (42")	1:2 1/2	1 Pc.
711 (28)	508 (20)	1.63 (0.064)	230 (9)	355 (14)	150 (6)	815 (32)	1.220 m (48")	1:2 1/2	1 Pc.
889 (35)	610 (24)	2.01 (0.079)	255 (10)	405 (16)	150 (6)	990 (39)	1.525 m (60")	1:2 1/2	1 Pc.
1067 (42)	737 (29)	2.01 (0.079)	305 (12)	460 (18)	205 (8)	1.170 m (53")	1.905 m (75")	1:2 1/2	1 Pc.
1245 (49)	838 (33)	2.77 (0.109)	330 (13)	535 (21)	230 (9)	1.345 m (46")	2.160 m (85")	1:2 1/2	2 Pc.
1448 (57)	965 (38)	2.77 (0.109)	460 (18)	660 (26)	305 (12)	1.600 m (63")	2.285 m (90")	1:2 1/2	2 Pc.
1626 (64)	1092 (43)	2.77 (0.109)	460 (18)	760 (30)	305 (12)	1.780 m (70")	2.590 m (102")	1:2 1/4	2 Pc.
1803 (71)	1194 (47)	2.77 (0.109)	460 (18)	840 (33)	305 (12)	1.955 m (77")	2.895 m (114")	1:2 1/4	3 Pc.
1956 (77)	1321 (52)	2.77 (0.109)	460 (18)	915 (36)	305 (12)	1.955 m (77")	3.200 m (126")	1:2	3 Pc.
2108 (83)	1448 (57)	2.77 (0.109)	460 (18)	990 (39)	305 (12)	1.955 m (77")	3.505 m (138")	1:2	3 Pc.



PLAN



END VIEW



SIDE VIEW

END SECTION

NOTES

For the 1956 mm x 1321 mm (77"x52") and 2108 mm x 1448 mm (83"x57") sizes, reinforced edges shall be supplemented with 51x51x6.4 (2x2 1/2 x 1/4) stiffener angles. The angles shall be attached by M10 (3/8) rivets or bolts.

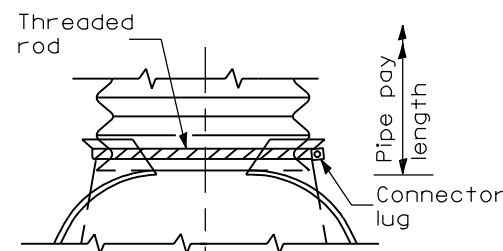
Angle reinforcement shall be placed under the center panel seams on the 1956 mm x 1321 mm (77"x52") and 2108 mm x 1448 mm (83"x57") sizes.

All slope ratios are expressed as units of vertical displacement to units of horizontal displacement (V:H).

NOTES

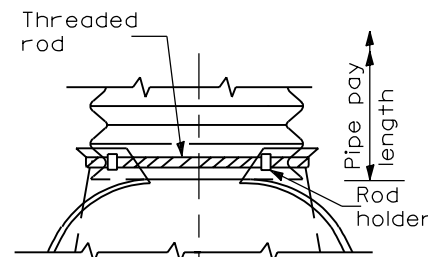
- Type 1 and 2 connection shall be used only with pipes with annular ends.
- Type 3 connection can be used with all pipe arch sizes and includes 300 mm (12") of the pipe length. The annular connector section shall be attached to the end section by rivets or bolts and shall be the same metal thickness as the end section. When coupling the type 3 end section to a pipe with helical ends, only the dimple type coupling band shall be used.
- Type 4 connection can be used with all pipe arch sizes. The end section band shall be either a dimple, hugger, or annular band and can be used with pipes having annular ends. For pipes having helical ends, only the dimple end section band will be allowed.

All dimensions are in millimeters (inches) unless otherwise shown.



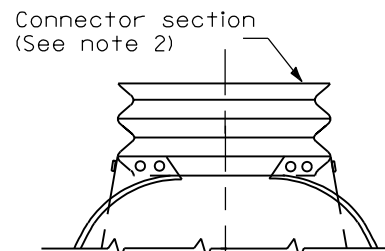
TYPE 1

For 432x330 (17x13) thru 711x508 (28x20) only (See Note 1)



TYPE 2

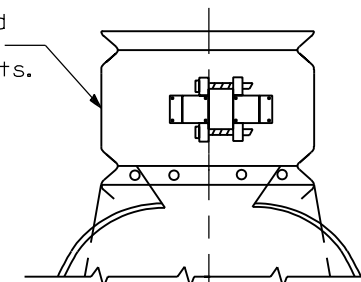
For 432x330 (17x13) thru 1448x965 (57x38) only (See Note 1)



TYPE 3

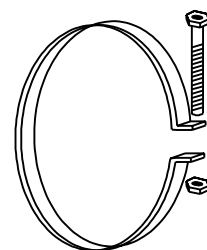
(See Note 2)

Band shop bolted to end section with M10 (3/8) bolts.



TYPE 4

(See Note 3)



25 (1) Wide, 2.77 (0.109) thick strap with standard M12x150 (1/2x6) band bolt and nut.

ALTERNATE STRAP CONNECTOR

(For Type 1 only)

CONNECTIONS OF END SECTIONS

DATE	REVISIONS
1-1-97	Renum. Standard 2229-6.
6-15-94	Moved 3 notes to Specs. Added Metric.

METAL END SECTIONS FOR PIPE ARCHES

STANDARD 542406

Illinois Department of Transportation

PASSED January 1, 1997

ENGINEER OF POLICY AND PROCEDURES

APPROVED January 1, 1997

ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-97