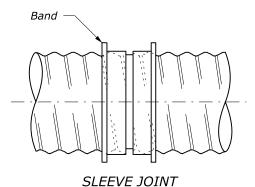
| COUPLING BANDS FOR METAL PIPE CULVERT [1] | | | | | |
|---|---------------------------|---------------------|-----------------------------|-------------------------|---------------------|
| | ROUND PIPE | PIPE ARCH | MINIMUM BAND WIDTH (INCHES) | | |
| CORRUGATION SIZE [2] | DIAMETER | SPAN × RISE | | HELICALLY CORRUGATED | SEMI- CORRUGATED |
| INCHES | INCHES | INCHES | BANDS [3] | BANDS [4] | BANDS [5] |
| $1\frac{1}{2} \times \frac{1}{4}$ | underdrain ^[6] | - | 10.5 | 7 | 10.5 |
| 2 ² / ₃ × ¹ / ₂ | 12 to 36 | 17 × 13 to 42 × 29 | 7 | 12 | |
| | 42 to 72 | 49 × 33 to 83 × 57 | 10.5 | 12 | |
| | 78 to 84 | - | 10.5 | 12 | 10.5 |
| 3 × 1 | 36 to 72 | 60 × 46 to 81 × 59 | 12 | 14 | 10.5 |
| | 78 to 144 | 87 × 64 to 142 × 91 | 12 | 14 | 10.5 |
| 5 × 1 | 36 to 72 | 60 × 46 to 81 × 59 | 20 | 22 | |
| | 78 to 144 | 87 × 64 to 142 × 91 | 20 | 22 | |

[1] Fabricate annular, helical and semi-corrugated type coupling bands from the same metal as the connecting pipe. Provide coupling bands not more than 3 nominal sheet thicknesses thinner than the thickness of the pipe to be connected, and no thinner than 0.052 inch for steel or 0.048 inch for aluminum. Fasten coupling bands with the following diameter of bolt: $\frac{3}{8}$ " for 18" round culvert (21" × 15" pipe arch) or less $\frac{1}{2}$ " for 21" round culvert (24" × 18" pipe arch) or more

- [2] For helically corrugated pipe with rerolled ends, the nominal corrugations size refers to the dimension of the end corrugation in the pipe.
- [3] Use annular corrugated bands with pipes having annular corrugations or with helical pipe having rerolled end to form annular corrugations. A 10.5 inch band is acceptable on pipe ends rerolled with $2\frac{2}{3}$ " $\times \frac{1}{2}$ " corrugations. A 12 inch band is acceptable on pipe ends rerolled with $3" \times 1"$ pipe corrugations.
- [4] Use helical corrugated bands with pipes having helically corrugated ends.
- [5] The minimum band widths shown for 3" \times 1" and 5" \times 1" corrugated sizes apply to $2\frac{1}{2}$ " \times $\frac{1}{2}$ " corrugations on rerolled pipe ends.
- [6] Smooth sleeve-type couplers and flat bands may be used for pipe diameters of 12" or less. Use a matching metal having a nominal thickness of not less than 0.040 inch for steel, or 0.036 inch for aluminum, or a plastic with an equivalent strength to metal.



Smoother sleeve with center stop. Stab type joint

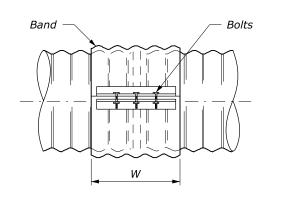
Band W

NOTE:

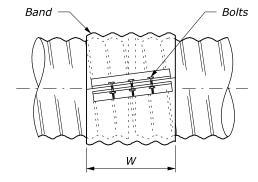
- 1. Watertight pipe joints are not required unless specified in the Special Contract Requirements.
- 2. Other types of coupling bands or fastening devices that comply with the joint performance criteria of AASHTO Standard specifications for Highway Bridges, Division II Section 26 may be used.

SMOOTH SLEEVE BAND

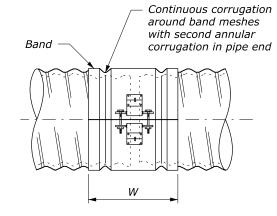
FLAT BAND



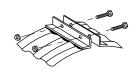
SIDE VIEW



SIDE VIEW

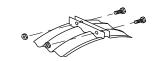


SIDE VIEW

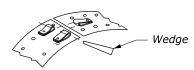




Bar & Strap



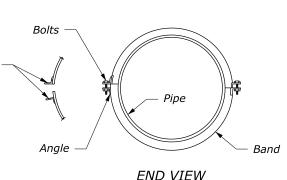
Integral Flange



Rivet, spot weld, or

fillet weld at crest of corrugation at heel and toe of angle

Wedge and Strap



Second angle connection optional to 42" diameter, required above 42" diameter

of corrugation at heel and toe of angle Bolts Angle Band

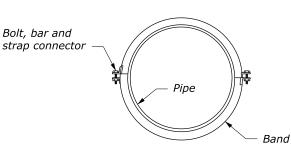
Rivet, spot weld, or fillet weld at crest

END VIEW

Second angle connection optional to 42" diameter, required above 42" diameter

ANNULAR BAND

HELICAL BAND



END VIEW

SEMI-CORRUGATED BAND

U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION FEDERAL LANDS HIGHWAY

U.S. CUSTOMARY STANDARD

METAL PIPE CULVERT COUPLING BAND

STANDARD APPROVED FOR USE 12/1993 REVISED: 4/1994 6/2005

STANDARD 602-2

STANDARD BAND CONNECTIONS

NO SCALE

Bolt, bar and