



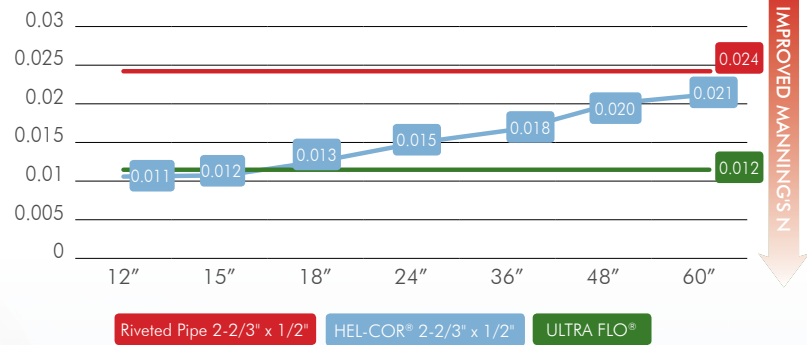
# Advantages of HEL-COR<sup>®</sup> vs. Riveted Pipe

Partnering with Contech, you get more than a product; you get a team of dedicated and knowledgeable experts to assist you in every stage of your project.

How does HEL-COR exceed the established Riveted Pipe? With 100+ years of corrugated metal pipe (CMP) manufacturing under its belt, Contech Engineered Solutions has the experience necessary to help you distinguish when and why HEL-COR provides a distinct advantage from Riveted Pipe.

- **Improved Hydraulics** » Results in smaller diameters and smaller construction footprint.
- **Greater Strength & Performance** » HEL-COR provides **2X Maximum Height of Cover (HOC)** when compared to Riveted Pipe.
- Shorter Lead Times » HEL-COR pipe is **quickly and efficiently manufactured**.
- **Increased durability** at a comparable cost with **ALT2 HEL-COR** vs galvanized Riveted Pipe.
- Longer Lengths » Result in **faster installation**. Custom lengths also available upon request.

Values of Coefficient of Roughness (n)



Maximum Height of Cover (ft)													
Riveted Annular (RP) vs. HEL-COR (HP)													
2-2/3" x 1/2"													
Diameter (in)	Min. Coverage (in)	16 Gage		DIFF	14 Gage		DIFF	12 Gage		DIFF	10 Gage		DIFF
		RP	HP		RP	HP		RP	HP		RP	HP	
12	12	92	248	2.7x	101	310	3.1x						
15	12	74	198	2.7x	80	248	3.1x						
18	12	61	165	2.7x	67	206	3.1x						
21	12	53	141	2.7x	57	171	3.0x	74	248	3.4x			
24	12	46	124	2.7x	50	155	3.1x	64	217	3.4x			
30	12	37	99	2.7x	40	124	3.1x	51	173	3.0x			
36	12	30	83	2.7x	33	103	3.1x	43	145	3.4x	45	186	4.1x
42	12	34	71	2.1x	47	88	1.9x	74	124	1.7x	77	159	2.0x
48	12	27	62	2.3x	41	77	1.9x	64	108	1.7x	68	139	2.0x
54	12				36	67	1.9x	57	94	1.7x	60	122	2.0x
60	12							51	80	1.6x	54	104	2.0x
66	12										49	88	1.8x
72	12										45	75	1.7x



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- Stormwater Conveyance and Treatment
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- Roads and Bridges

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## **SPECIFICATION FOR CORRUGATED METAL PIPE – ALUMINIZED STEEL TYPE 2 (ALT2)**

### **1.0 GENERAL**

- 1.1 This specification covers the manufacture and installation of the Aluminized Steel Type 2 corrugated steel pipe or pipe-arch (CSP) detailed in the project plans.

### **2.0 DESIGN STANDARDS**

- 2.1 The CSP meets the design parameters of the American Association of State Highway and Transportation Officials (AASHTO) Standard Specification for Highway Bridges, AASHTO LRFD Bridge Design, and/or the American Iron and Steel Institute (AISI).

### **3.0 MATERIAL**

- 3.1 The Aluminized Steel Type 2 coils shall conform to the applicable requirements of AASHTO M 274 or ASTM A929.

### **4.0 PIPE**

- 4.1 The CSP shall be manufactured in accordance with the applicable requirements of AASHTO M 36 or ASTM A760. The pipe sizes, gauges and corrugations shall be as shown on the project plans.
- 4.2 All fabrication of the product shall occur within the United States.

### **5.0 COUPLING BANDS**

- 5.1 Coupling bands for the CSP shall be made of the same base metal and coatings as the CSP to a minimum of 18 gage.
- 5.2 Ends of the CSP are rerolled with annular corrugations for proper indexing.
- 5.3 Connection fasteners will be provided.

### **6.0 HANDLING & ASSEMBLY**

- 6.1 Refer to the recommendations of the National Corrugated Steel Pipe Association's (NCSPA).

### **7.0 INSTALLATION**

- 7.1 The installation shall be in accordance with AASHTO Standard Specifications for Highway Bridges, LRFD Section 26, Division II, NCSPA, or ASTM A798 and in conformance with the project plans and specifications. If there are any inconsistencies or conflicts, the contractor must bring them to the attention of the project engineer.
- 7.2 It is always the contractor's responsibility to follow OSHA guidelines for safe practices.

### **8.0 CONSTRUCTION LOADS**

- 8.1 Construction loads may be greater than design loads. The contractor shall follow the recommendations for additional compacted material per manufacturer's or NCSPA guidelines.

For additional specifications, please go to [www.conteches.com/start-a-project/specifications](http://www.conteches.com/start-a-project/specifications).