

MINI-SPAN BRIDGES



Fast, Economical Short Span Bridges

Armtec Mini-Span Bridges

Armtec Mini-Span is a product developed in response to customers need for an economical and rapid solution for crossings of environmentally sensitive streams.

The features that differentiate Mini-Span from conventional culvert structures are:

- **100% OPEN BOTTOM STRUCTURE** – this means a clear span across the creek, and thus a "fish friendly" bridge that preserves the aquatic habitat.
- **PRE-ASSEMBLED AT THE FACTORY** – by skilled Armtec Professionals which means reduced installation costs and reduced installation time.
- **PRE-ENGINEERED STRUCTURE** – designed with a combination of spans and load-carrying capabilities.

- **LIGHTWEIGHT and SIMPLE TO INSTALL** – leading to economical transportation and installation without the need for specialized or heavy equipment.
- **VERSATILE** – making Mini-Spans ideal for use in logging roads, secondary highways, municipal creek crossings, utility crossings, hiking trails and park access roads.
- **DURABLE** – Mini-Spans I and II are manufactured using hot-dip galvanized components. Additional paint finish is available on Mini-Spans III and IV.
- **RUGGED** – originally developed for the logging industry, Mini-Span structures are designed to meet the most demanding requirements.
- **REUSABLE** – the rugged design of Mini-Spans III and IV means that the structures can be recovered and reused many times.



Quick Facts

- Mini-Spans are available in 4 models for optimum suitability

	Standard Lengths:	Material
• Mini-Span I	Up to 20 m	68 x 13 mm corrugated galvanized steel
• Mini-Span II	Up to 20 m	152 x 51 mm corrugated galvanized steel
• Mini-Span III	7.45 m	152 x 51 mm corrugated painted steel in heavy duty 7.0 mm plate
• Mini-Span IV	7.31 m	19 mm Plate steel painted

- On-site technical support available from Armtec
- Factory-installed headwalls are standard on Mini-Span III and IV and optional on Mini-Span II



From plant to site... in the shortest time imaginable!

5 easy steps



1 Working with the customer, Armtec selects and designs the structure best suited to the customer's needs.

2 The preassembled Mini-Span is loaded onto a truck and conveniently packaged with other Armtec products and delivered right to the site.
Mini-Span III with factory installed headwalls.



3 On-site equipment is used to off load the structure and place in-situ.
Mini-Span III with optional hinged wing walls.

4 Once in place the structure is backfilled with granular compacted fill for a secure well-engineered solution.
Mini-Span III.



5 The finished installation can be finished with a variety of end treatments, including rip-rap slope protection, as shown.

Mini-Span Summary

Mini-Span I - 68 mm x 13 mm corrugations

Mini-Span I Design Table: Loading and Cover Requirements

Inside Span (mm)	Inside Rise (mm)	End Area (M ²)	Minimum Steel Thickness (mm)	CS-600 Cover (m)		L-75 Cover (m)		L-100 Cover (m)		L-165 Cover (m)	
				Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
800	400	0.25	2.8	0.3	7.4	0.3	7.4	0.4	7.4	0.4	7.3
1000	500	0.39	2.8	0.3	5.9	0.3	5.9	0.4	5.8	0.5	5.7
1200	600	0.57	3.5	0.4	4.8	0.4	4.8	0.4	4.8	0.6	4.6
1400	700	0.77	3.5	0.4	4.1	0.4	4.1	0.5	4.0	0.7	3.8
1600	800	1.01	3.5	0.5	3.5	0.5	3.5	0.5	3.4	0.8	3.2
1800	900	1.27	3.5	0.5	3.0	0.5	3.0	0.6	2.9	0.9	2.6

Span 800 - 1800 mm



Mini-Span II - 152 mm x 51 mm corrugations

Mini-Span II Design Table: Loading and Cover Requirements

Inside Span (mm)	Inside Rise (mm)	End Area (M ²)	Minimum Steel Thickness (mm)	CS-600 Cover (m)		L-75 Cover (m)		L-100 Cover (m)		L-165 Cover (m)	
				Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
2130	1120	1.86	3.0	0.4	4.8	0.4	5.1	0.5	4.7	0.6	4.5
2440	1270	2.42	3.0	0.4	4.1	0.5	4.4	0.5	4.0	0.7	3.8
2740	1440	3.07	3.0	0.6	3.6	0.6	3.9	0.6	3.5	0.7	3.3
3050	1600	3.81	3.0	0.6	3.2	0.6	3.4	0.6	3.1	0.8	2.8
3350	1750	4.65	3.0	0.6	2.9	0.6	3.0	0.7	2.8	0.9	2.4
3660	1910	5.48	3.0	0.6	2.6	0.6	2.7	0.7	2.5	0.9	2.0

Span 2130 - 3660 mm



Note: Minimum soil bearing capacity = 250 kPa. Footing Plate = 400 mm x 12.7 mm (plate to A36 min.)

Mini-Span III- 152 mm x 51 mm corrugations, 7mm plate thickness

Mini-Span III Design Table: Loading and Cover Requirements

Inside Span (mm)	Inside Rise (mm)	End Area (M ²)	Minimum Steel Thickness (mm)	CS-600 Cover (m)		L-75 Cover (m)		L-100 Cover (m)		L-165 Cover (m)	
				Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
2130	1120	1.86	7.0	0.4	4.8	0.4	4.8	0.4	4.7	0.5	4.5
2740	1440	3.07	7.0	0.4	3.6	0.4	3.6	0.6	3.5	0.7	3.3
3660	1910	5.48	7.0	0.6	2.6	0.6	2.6	0.7	2.5	0.9	2.0

Span 2130 - 3660 mm



Note: Minimum soil bearing capacity = 250 kPa. Footing Plate = 400 mm x 12.7 mm (plate to A36 min.)

Mini-Span IV- Curved Steel Plate 19 mm thickness

Mini-Span IV Design Table: Loading and Cover Requirements

Inside Span (mm)	Inside Rise (mm)	End Area (M ²)	Minimum Steel Thickness (mm)	CS-600 Cover (m)		L-75 Cover (m)		L-100 Cover (m)		L-165 Cover (m)	
				Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
1570	540	0.74	19.0	0.15	*	0.15	*	0.20	*	0.25	*
2100	700	1.44	19.0	0.15	*	0.15	*	0.20	*	0.25	*
2530	1400	2.96	19.0	0.15	*	0.15	*	0.20	*	0.25	*

Span 1570 - 2530 mm



* For maximum cover please consult your local Armtec Sales Office.

Note: Mini-Span III Standard lengths 7.45 m. Mini-Span IV standard lengths 7.31 m. Custom lengths available.



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Sales Offices: Nanaimo, Prince George, Vancouver, Edmonton, Calgary, Lethbridge, Grande Prairie, Saskatoon, Winnipeg, Thunder Bay, Sudbury, London, Guelph, Toronto, Peterborough, Ottawa, Chesterville, Forest, Orangeville, Comber, Montreal, Quebec City, St. Clet, Sackville, Halifax, Bishop's Falls, and St. John's.

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