ConSpan®

ENGINEERING STRUCTURES MADE OF REINFORCED CONCRETE PREFABRICATED ARCHES

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Engineering structures made of ConSpan® reinforced concrete prefabricated elements are used for the construction of bridge structures and for passing over or under terrain obstacles such as:

- Road lines
- Railway lines
- Pedestrian or pedestrian-bicycle paths
- Wildlife migration routes
- Agricultural or industrial communication

ConSpan® primarily consists of prefabricated reinforced concrete arch elements, which serve as the load-bearing structure of a bridge. The arch elements are usually placed on reinforced concrete foundations constructed on-site. However, it is also possible to use prefabricated 'express' foundation strip, which is a part of the ConSpan® system, as shown in Figure 2 below.

Figure 1:

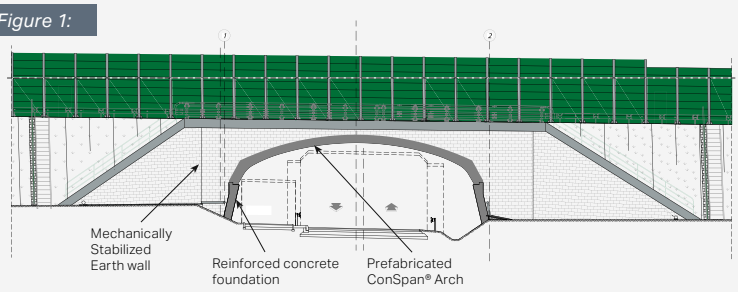
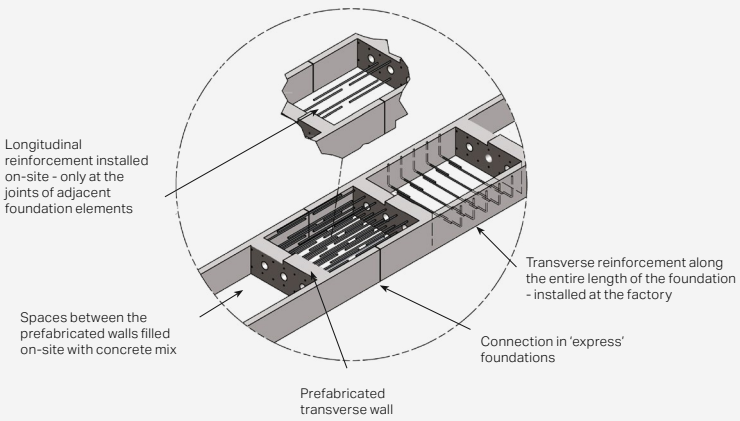


Figure 2: *"Express foundations"*



The front walls of the bridge and the wing walls can be constructed using various methods, such as walls made of concrete blocks stabilized in backfill with HDPE grids, or as monolithic walls constructed on-site.

Both the walls and the wing walls can be prefabricated. The prefabricated arches of the load-bearing structure, the foundation trips, as well as the prefabricated front walls and wing walls, form the ConSpan® system, which significantly shortens the construction time of the bridge on-site.

The ConSpan® prefabricated arches are backfilled with engineered soil, which is placed in layers and compacted similarly to how it is done for corrugated soil-steel bridge structures.

Features and advantages of ConSpan® system:

- Production in controlled factory conditions ensuring consistent high quality
- CE, EPD and ISO certifications
- A wide range of cross-sections (profiles)
- Arch spans ranging from 4m to 20m
- Ability to handle all classes of road, rail, industrial, and military loads
- Quick and simple on-site assembly
- No need for formwork and scaffolding
- Minimal on-site work required

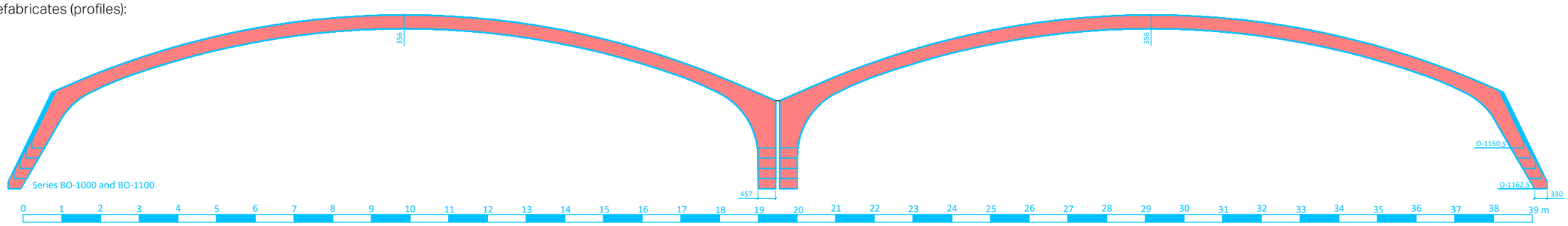
TECHNICAL SUPPORT

ViaCon provides support in the design and construction of bridges using the ConSpan® system.

We assist designers in selecting the optimal cross-section of the ConSpan® load-bearing structure and the appropriate amount of reinforcement for the given terrain situation, load, and depending on the function of the structure. We also help in the design and optimization of other bridge elements such as foundations, front walls, sealing and insulation, backfill, and finishing elements.

We also perform the assembly of ConSpan® system elements on-site, including leveling, stabilization, and sealing.

Cross-sections of ConSpan® reinforced concrete load-bearing structure prefabricates (profiles):

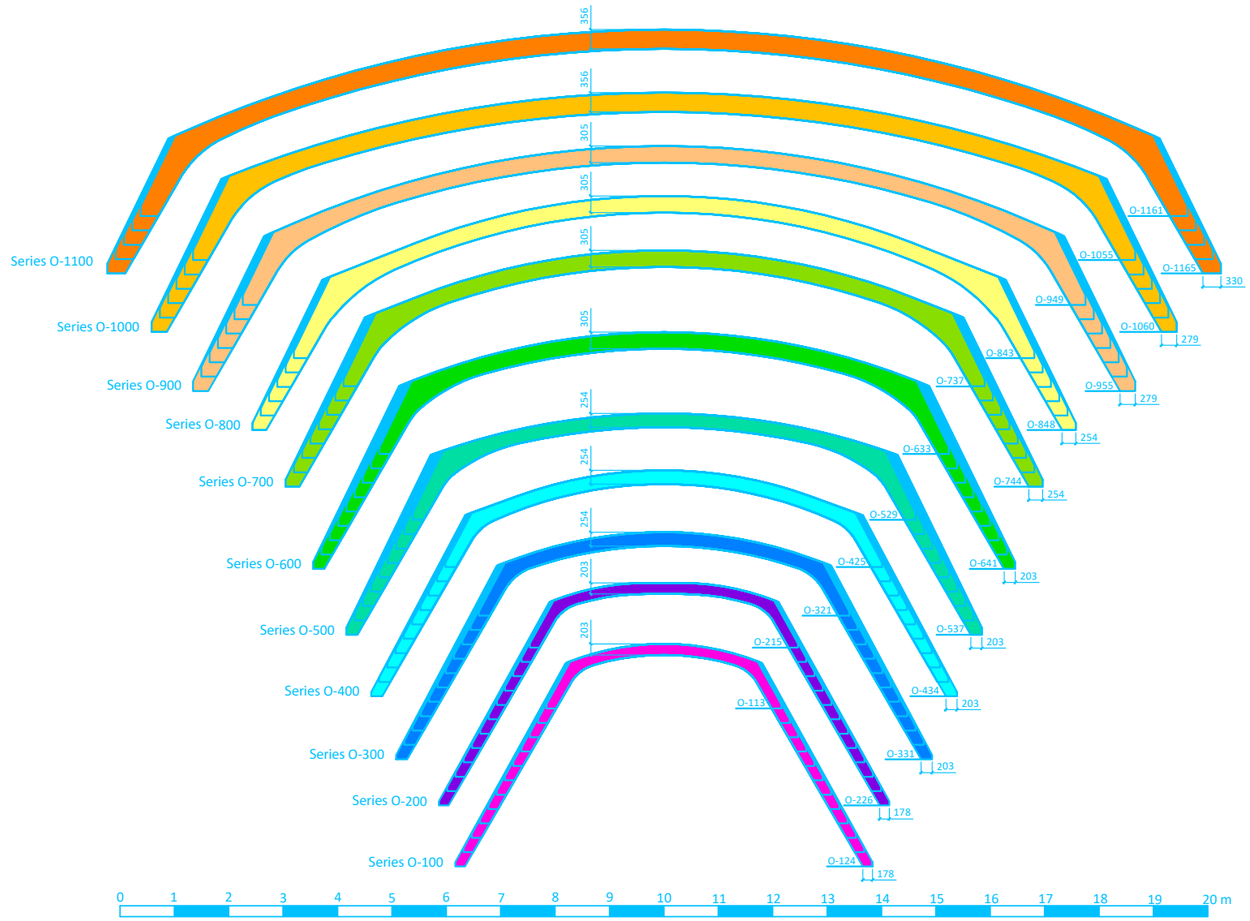


Series O-100		
Profile	Dimensions	
	span [mm]	height [mm]
O-113	3 962	985
O-114	4 267	1 250
O-115	4 572	1 513
O-116	4 877	1 777
O-117	5 182	2 041
O-118	5 486	2 305
O-119	5 791	2 569
O-120	6 096	2 833
O-121	6 401	3 097
O-122	6 706	3 361
O-123	7 010	3 625
O-124	7 315	3 889

Series O-200		
Profile	Dimensions	
	span [mm]	height [mm]
O-215	4 572	986
O-216	4 877	1 249
O-217	5 182	1 513
O-218	5 486	1 777
O-219	5 791	2 041
O-220	6 096	2 305
O-221	6 401	2 569
O-222	6 706	2 833
O-223	7 010	3 097
O-224	7 315	3 361
O-225	7 620	3 625
O-226	7 925	3 889

Series O-300		
Profile	Dimensions	
	span [mm]	height [mm]
O-321	6 401	1 280
O-322	6 706	1 544
O-323	7 010	1 808
O-324	7 315	2 072
O-325	7 620	2 336
O-326	7 925	2 600
O-327	8 230	2 864
O-328	8 534	3 128
O-329	8 839	3 392
O-330	9 144	3 656
O-331	9 449	3 920

Series O-400		
Profile	Dimensions	
	span [mm]	height [mm]
O-425	7 620	1 523
O-426	7 925	1 787
O-427	8 230	2 050
O-428	8 534	2 315
O-429	8 839	2 579
O-430	9 144	2 842
O-431	9 449	3 106
O-432	9 754	3 370
O-433	10 058	3 634
O-434	10 363	3 899



Series O-500		
Profile	Dimensions	
	span [mm]	height [mm]
O-529	8 839	1 701
O-530	9 144	1 964
O-531	9 449	2 229
O-532	9 754	2 492
O-533	10 059	2 756
O-534	10 636	3 021
O-535	10 668	3 284
O-536	10 973	3 549
O-537	11 278	3 812

Series O-600		
Profile	Dimensions	
	span [mm]	height [mm]
O-633	10 058	1 935
O-634	10 363	2 199
O-635	10 668	2 463
O-636	10 973	2 727
O-637	11 278	2 990
O-638	11 582	3 254
O-639	11 887	3 518
O-640	12 192	3 782
O-641	12 497	4 047

Series O-700		
Profile	Dimensions	
	span [mm]	height [mm]
O-737	11 278	2 192
O-738	11 582	2 456
O-739	11 887	2 720
O-740	12 192	2 984
O-741	12 497	3 247
O-742	12 802	3 512
O-743	13 106	3 775
O-744	13 411	4 039

Series O-800		
Profile	Dimensions	
	span [mm]	height [mm]
O-843	13 106	2 676
O-844	13 411	2 940
O-845	13 716	3 204
O-846	14 021	3 468
O-847	14 326	3 732
O-848	14 630	3 996

Series BO-1100		
Profile	Dimensions	
	span [mm]	height [mm]
BO-1160.5	18 428	3 069
BO-1161	18 593	3 335
BO-1161.5	18 745	3 600
BO-1162	18 898	3 865
BO-1162.5	19 050	4 130

Series BO-1000		
Profile	Dimensions	
	span [mm]	height [mm]
BO-1054.5	16 599	2 722
BO-1055	16 764	2 984
BO-1055.5	16 916	3 249
BO-1056	17 069	3 514
BO-1056.5	17 221	3 780
BO-1057	17 374	4 042

Series O-1100		
Profile	Dimensions	
	span [mm]	height [mm]
O-1161	18 593	3 072
O-1162	18 898	3 335
O-1163	19 202	3 599
O-1164	19 507	3 863
O-1165	19 812	4 127

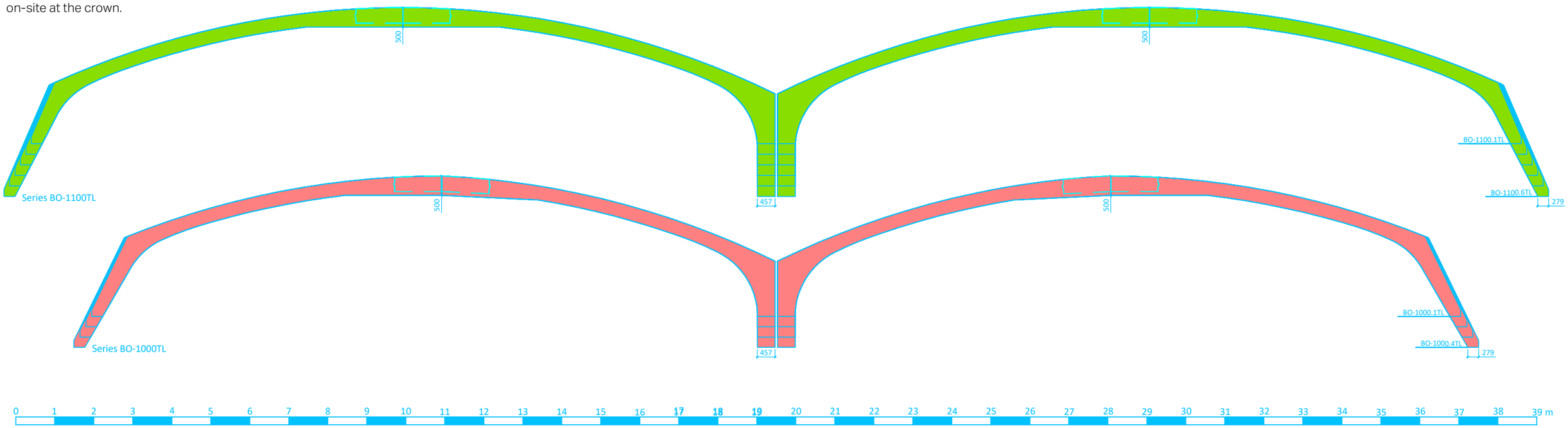
Series O-1000		
Profile	Dimensions	
	span [mm]	height [mm]
O-1055	16 764	2 722
O-1056	17 069	2 985
O-1057	17 374	3 249
O-1058	17 678	3 514
O-1059	17 983	3 778
O-1060	18 288	4 041

Series O-900		
Profile	Dimensions	
	span [mm]	height [mm]
O-949	14 935	2 615
O-950	15 240	2 878
O-951	15 545	3 142
O-952	15 850	3 406
O-953	16 154	3 670
O-954	16 459	3 934
O-955	16 764	4 198

The dimensions in the tables are given as clear dimensions.

Cross-sections of ConSpan reinforced concrete load-bearing structure prefabricates (profiles) of the **Twin Leaf** type:

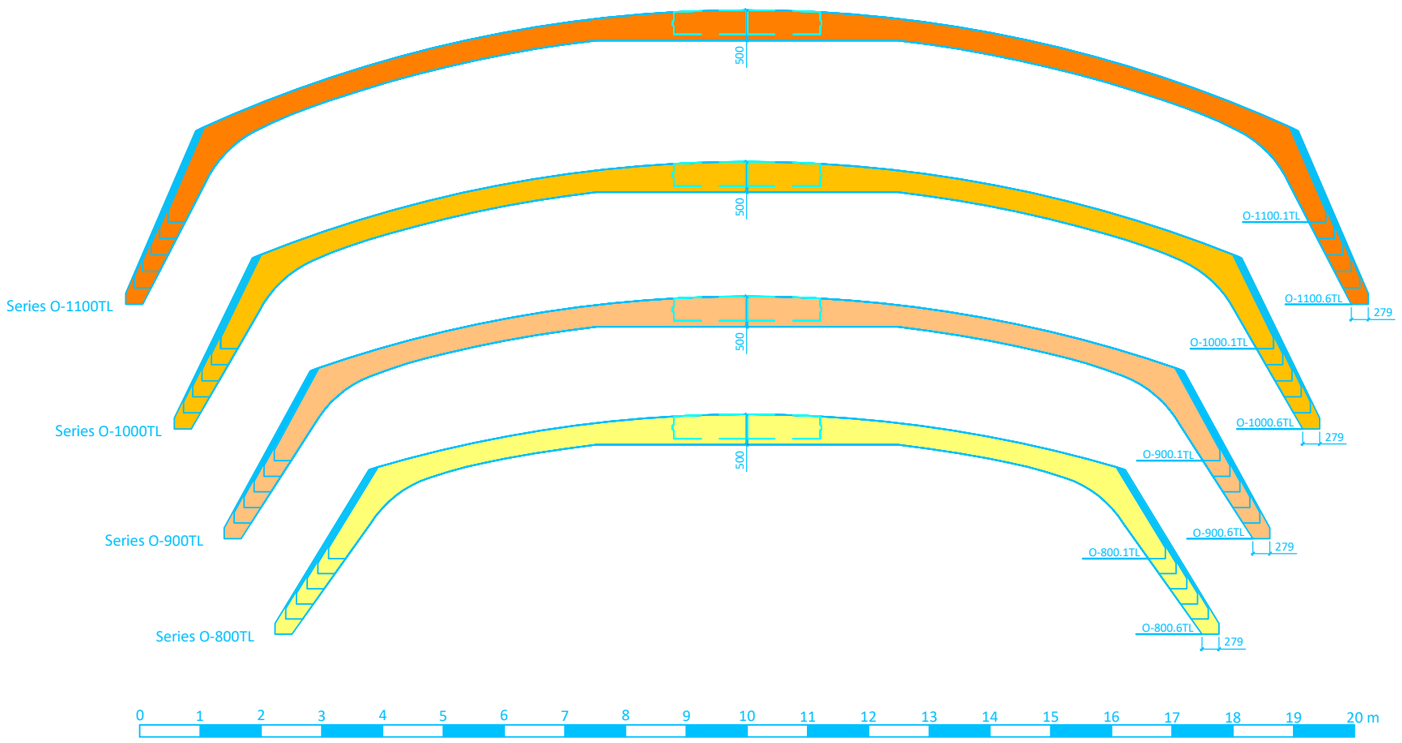
Twin Leaf refers to ConSpan® reinforced concrete load-bearing structure prefabricates, consisting of two arch sections that are connected on-site at the crown.



Series O-800TL		
Profile	Dimensions	
	span [mm]	height [mm]
O-800.1 TL	13 216	1 874
O-800.2 TL	13 569	2 123
O-800.3 TL	13 922	2 372
O-800.4 TL	14 275	2 620
O-800.5 TL	14 628	2 869
O-800.6 TL	14 981	3 118

Series O-900TL		
Profile	Dimensions	
	span [mm]	height [mm]
O-900.1 TL	15 011	2 205
O-900.2 TL	15 341	2 462
O-900.3 TL	15 670	2 718
O-900.4 TL	16 000	2 975
O-900.5 TL	16 329	3 232
O-900.6 TL	16 658	3 488

Series O-1000TL		
Profile	Dimensions	
	span [mm]	height [mm]
O-1000.1 TL	16 774	2 577
O-1000.2 TL	17 079	2 841
O-1000.3 TL	17 384	3 105
O-1000.4 TL	17 689	3 370
O-1000.5 TL	17 994	3 634
O-1000.6 TL	18 299	3 898



Series BO-1100TL		
Profile	Dimensions	
	span [mm]	height [mm]
BO-1100.1 TL	18 335	2 990
BO-1100.2 TL	18 475	3 261
BO-1100.3 TL	18 615	3 532
BO-1100.4 TL	18 755	3 803
BO-1100.5 TL	18 895	4 074
BO-1100.6 TL	19 035	4 345

Series BO-1000TL		
Profile	Dimensions	
	span [mm]	height [mm]
BO-1000.1 TL	16 784	3 105
BO-1000.2 TL	16 936	3 370
BO-1000.3 TL	17 089	3 634
BO-1000.4 TL	17 241	3 898

Series O-1100TL		
Profile	Dimensions	
	span [mm]	height [mm]
O-1100.1 TL	18 500	2 990
O-1100.2 TL	18 780	3 261
O-1100.3 TL	19 060	3 532
O-1100.4 TL	19 340	3 803
O-1100.5 TL	19 620	4 074
O-1100.6 TL	19 899	4 345

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ViaCon is a leader in infrastructure construction solutions. Built on strong Nordic roots, ViaCon embodies a practical, human perspective that brings together technology and verifiable sustainability. The long-term view defines our vision, and by driving smart, future-friendly construction solutions for bridges and culverts, geotechnical and stormwater solutions, we will continue to shape and lead our industry.

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