

Technical Data Sheet

ViaPlate[®] 200



ViaCon ViaPlate 200

This Technical Data Sheet is valid for ViaCon Polska Sp. z o.o. production plant in Rydzyna/Poland and ViaCon İnşaat A.Ş production plant in Hendek, Türkiye.

CE Certificate of Factory Production Control No. 1023-CPR-0640 F.

Steel Structures and Aluminum Structures according to EN 1090-1. Issued by notified body no. 1023

Description

Flexible cold-formed corrugated steel plates, connected with bolts and nuts, used mainly in civil engineering as soil-steel composite structures for road and rail traffic loads.

Intended use

- Culverts
- Bridges
- Grade separations/viaducts
- Tunnels
- Underpasses
- Ecological crossings
- Relining of existing structures
- Conveyor belt protections
- Hangars
- Silos

Product features

- High structural strength
- Wide range of shapes and sizes
- Low weight
- High corrosion protection
- Short installation time

TECHNICAL PROPERTIES

Steel

The steel used for the production of the ViaPlate 200 structures conforms to the European Standards:

- EN 10025-2 "Hot-rolled products of structural steels – Part 2: Technical delivery conditions for non-alloy structural steels"
- EN 10149-2 "Hot-rolled flat products made of high-yield strength steels for cold forming – Part 2: Delivery conditions for thermomechanically rolled steels"

ViaPlate 200 steel mechanical properties

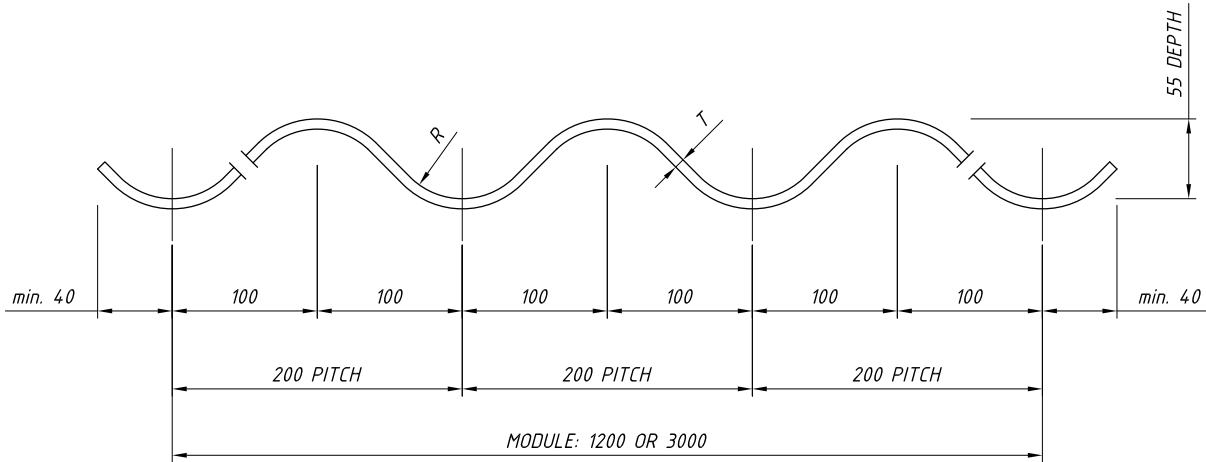
Steel grade	Standard	Minimum yield strength R_e [MPa]	Tensile strength R_m [MPa]
S235JR	EN-10025	235	360-510
S355MC, S355J2	EN-10149	355	430-550
S420MC	EN-10149	420	480-620

Comment: The steel is delivered with certificate 3.1 acc. to EN 10204.



Corrugation

ViaPlate 200 corrugation profile is 200x55 mm.



T – plate thickness [mm]

R – radius [mm] - (depends on the plate thickness)

Material properties

Plate thickness <i>t</i> [mm]	Yield stress [MPa]	Area [mm ² /mm]	Moment of inertia [mm ⁴ /mm]	Section modulus [mm ³ /mm]	Plastic section modulus [mm ³ /mm]
2.50	235 / 355	2.952	1127	39.21	51.86
3.00	235 / 355	3.544	1356	46.77	62.35
3.50	235 / 355	4.136	1587	54.26	72.88
4.00	235 / 355	4.729	1819	61.67	83.45
4.50	235 / 355	5.322	2053	69.01	94.07
5.00	235 / 355	5.915	2289	76.29	104.73
5.50	235 / 355	6.509	2526	83.52	115.44
6.00	235 / 355	7.103	2766	90.68	126.20
7.00	235 / 355	8.293	3251	104.88	147.89
8.00	235 / 355	9.486	3746	118.91	169.79

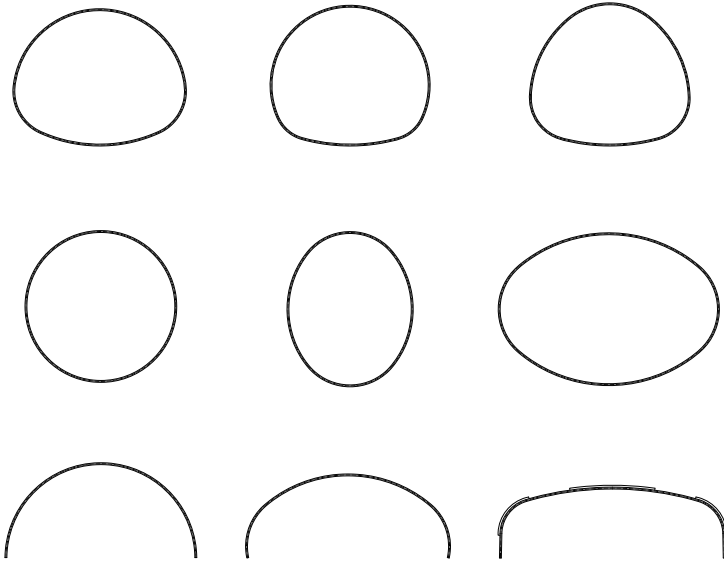
Plates

The ViaPlate 200 structures can be produced from steel plates of thickness: 3.0 mm, 4.0 mm, 5.0 mm, 6.0 mm, 7.0 mm, 8.0 mm. The maximum length of plate and minimum radius are limited by plate thickness and steel grade configuration. Production possibilities have to be agreed with ViaCon.



Profile shapes

ViaPlate 200 structures can be produced in the following profiles (cross sections):



Basic geometrical parameters of individual profiles are presented in TDS Appendix no.1.

Custom shapes are available on request and have to be agreed with the manufacturer.

Bolts, nuts, anchor bolts

Type	Dimension	Length	Standard
Bolts	M20 (class 8.8)	50 mm, 70 mm	EN ISO 898-1
	M20 (class 10.9)	35 mm, 50 mm, 70 mm	EN ISO 898-1
Nuts	M20	N/A	EN ISO 898-2
Anchor bolts	M20	225 mm, 365 mm	EN 10025-2

Bolts and nuts are galvanised in accordance with EN ISO 1461 and EN ISO 10684.

Bolts and nuts are delivered with certificate 3.1 according to EN 10204.

Loads

ViaPlate 200 structures can be used for every common class of road and rail traffic. The bearing capacity for other loads e.g. airplanes, industrial or any other special loads can also be evaluated.

Tolerances

Geometric parameters of the structure after assembly should not differ from the designed values by more than:

- Span: +2% for open shape structures, $\pm 2\%$ for closed shape structures
- Rise: +2% /-4% for open shape structures, $\pm 2\%$ for other type structures
- Length: + 0.5%

The vertical displacement of the structure's crown point during the backfilling process should not exceed 2% of its span measured before backfilling, if it's not stated differently in the design.

Individual design

Each application with use of a ViaPlate® 200 structure requires individual design.

The design should follow the guidelines issued by ViaCon as well as respective country specific requirements.

Production time

Production time for each structure is calculated individually.

DURABILITY

Durability of ViaPlate 200 structures is ensured by:

- Zinc coating
- Paint coating – ViaCoat
- Sacrificial thickness of the steel plate (increase of the plate thickness)
- HDPE coating – ViaCover (for the structure bottom part)

Depending on environmental conditions (aggressivity), calculated durability may be longer than 100 years.

Zinc coating

The structural plates are galvanized in accordance to EN ISO 1461. Table no.1 presents a feasible range of coating thicknesses. The bolts and nuts are galvanized in accordance with EN ISO 1461 and/or 10684. The zinc coat thickness is verified by means of a magnetic method in accordance to EN ISO 2178. Each structure is delivered with the Certificate of Galvanizing.

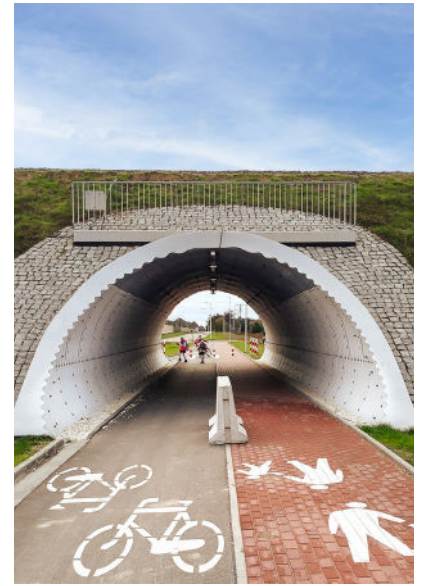


Plate thickness [mm]	Thickness of zinc coating acc. to EN ISO 1461:2022 [μm]		Extra thicknesses of zinc coating													Extra thickness of zinc coating available on customer's demand by special conditions [μm]												
			Extra thickness of zinc coating available on customer's demand as a standard [μm]																									
	55	70	85	60	65	70	75	80	85	90	95	100	105	110	115	90	95	100	105	110	115	120	125	130	135	140	145	150
3.00	X	-	-	X	X	X	X	X	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4.00	-	X	-	-	-	X	X	X	X	X	X	X	-	-	-	-	-	-	X	X	X	-	-	-	-	-	-	-
5.00	-	X	-	-	-	X	X	X	X	X	X	X	-	-	-	-	-	-	X	X	X	-	-	-	-	-	-	-
6.00	-	X	-	-	-	X	X	X	X	X	X	X	X	X	X	-	-	-	-	-	-	-	-	-	-	-	-	-
7.00	-	-	X	-	-	-	-	-	X	X	X	X	X	X	X	-	-	-	-	-	-	X	X	X	X	X	X	-
8.00	-	-	X	-	-	-	-	-	X	X	X	X	X	X	X	-	-	-	-	-	-	X	X	X	X	X	X	-

X = Available thickness of zinc coating

ViaCoat

In order to achieve the required durability in aggressive environments, paint coatings over the zinc coating are applied. Doubled protection of a structure (zinc coating and paint system) is called ViaCoat system. The minimum adhesion of the paint to the zinc base measured by pull-off method is 4 MPa. In order to obtain proper protection effect, paint coatings are applied in controlled conditions (closed area with defined temperature and humidity), keeping the technological regime.

The color of the ViaCon standard painting system is RAL 1013 or RAL 7035. Each painted structure is always delivered with Certificate of Painting.

ViaCover

In case of the structures where high speed flowing water carrying rock, gravel or sand material that causes abrasion, additional protection is recommended.

ViaCover is a 2 mm thick HDPE sheet thermally formed to fit the corrugation of the plate. HDPE coating ensures abrasion resistance, significantly increases the durability of a culvert and provides resistance to multiple types of corrosive environments and UV (due to the content of carbon black). It has high mechanical resistance to stretching, tearing and puncturing.

LIST OF STANDARDS

EN ISO 898-1 – “Mechanical properties of fasteners made of carbon steel and alloy steel. Bolts, screws and studs with specified property classes. Coarse thread and fine pitch thread”.

EN ISO 1090-1 – “Execution of steel structures and aluminum structures. Requirements for conformity assessment of structural components”.

EN ISO 1461 – “Hot-dip galvanised coatings on fabricated iron and steel articles. Specifications and test methods”.

EN ISO 2178 – “Non-magnetic coatings on magnetic substrates. Measurement of coating thickness. Magnetic method”.

EN 10025-2 - “Hot-rolled products of structural steels – Part 2: Technical delivery conditions for non-alloy structural steels”.

EN 10149-2 - “Designation hot-rolled flat products made of high yield strength steels for cold forming – Delivery conditions for thermo-mechanically rolled steels”.

EN 10204 – “Metallic products. Types of inspection documents”.

EN ISO 10684 – “Fasteners. Hot-dip galvanised coatings”.

TRANSPORT AND STORAGE

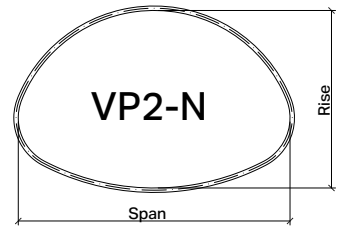
Unloading and placement of the structure's elements should be performed with the use of light mechanical crane devices and textile belts. The structure's elements should not be dropped from the transportation unit.

Plates can be stored in stacks with wooden or carton spacers.

Any damages to the corrosion protection caused during transportation, unloading or assembly must be repaired in accordance to the “Assembly and Backfilling Guide”.



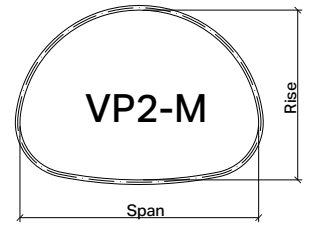
Appendix



ViaCon ViaPlate 200 structure - N, standard profiles			
Name	Span - inner [m]	Rise - inner [m]	Area [m ²]
VP2-N1	2.14	1.64	2.70
VP2-N2	2.24	1.68	2.91
VP2-N3	2.35	1.73	3.12
VP2-N4	2.97	2.00	4.53
VP2-N5	3.35	2.19	5.61
VP2-N6	3.67	2.61	7.44
VP2-N7	3.76	2.65	7.78
VP2-N8	3.97	2.73	8.45
VP2-N9	4.14	2.82	9.15
VP2-N10	4.60	2.98	10.62
VP2-N11	5.24	3.23	13.02
VP2-N12	5.41	3.32	13.87
VP2-N13	5.62	3.40	14.73
VP2-N14	5.84	3.48	15.63
VP2-N15	5.99	3.57	16.56
VP2-N16	6.18	3.60	17.01
VP2-N17	6.34	3.69	17.98
VP2-N18	6.55	3.77	18.96
VP2-N19	6.63	3.82	19.47
VP2-N20	6.90	3.89	20.46
VP2-N21	7.18	4.19	23.09
VP2-N22	7.39	4.27	24.20
VP2-N23	7.60	4.35	25.34
VP2-N24	7.89	4.48	27.08
VP2-N25	8.11	4.56	28.28
VP2-N26	8.32	4.65	29.51
VP2-N27	8.54	4.73	30.75
VP2-N28	8.83	4.86	32.66
VP2-N29	9.04	4.94	33.96
VP2-N30	9.25	5.02	35.30
VP2-N31	9.47	5.10	36.66
VP2-N32	9.68	5.19	38.03
VP2-N33	9.97	5.31	40.15
VP2-N34	10.18	5.40	41.58
VP2-N35	10.40	5.48	43.06

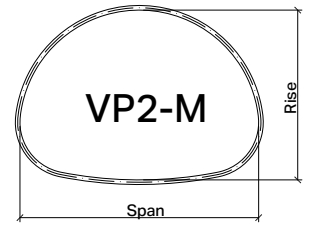
Comment: The DWG file containing all profile cross-sections is available on our website or upon request.

Appendix



ViaCon ViaPlate 200 structure - M, standard profiles

Name	Span - inner [m]	Rise - inner [m]	Area [m ²]
VP2-M1	1.80	1.50	2.12
VP2-M2	1.89	1.55	2.31
VP2-M3	2.23	1.68	2.91
VP2-M4	2.49	1.83	3.57
VP2-M5	2.84	2.02	4.54
VP2-M6	3.23	2.15	5.33
VP2-M7	3.38	2.25	5.91
VP2-M8	3.65	2.39	6.81
VP2-M9	3.72	2.44	7.13
VP2-M10	4.05	2.52	7.75
VP2-M11	4.13	2.57	8.09
VP2-M12	4.34	2.72	9.14
VP2-M13	4.41	3.62	12.62
VP2-M14	4.49	3.67	13.07
VP2-M15	4.84	3.82	14.46
VP2-M16	4.92	3.87	14.94
VP2-M17	5.14	4.04	16.43
VP2-M18	5.21	4.09	16.95
VP2-M19	5.43	4.13	17.44
VP2-M20	5.58	4.24	18.50
VP2-M21	5.79	4.40	20.16
VP2-M22	6.06	4.56	21.86
VP2-M23	6.25	4.67	23.04
VP2-M24	6.44	4.70	23.61
VP2-M25	6.71	4.93	26.10
VP2-M26	6.78	4.98	26.73
VP2-M27	6.97	5.09	28.02
VP2-M28	7.11	5.07	27.99
VP2-M29	7.24	5.18	29.33
VP2-M30	7.43	5.35	31.38

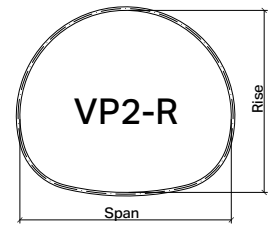


ViaCon ViaPlate 200 structure - M, standard profiles

Name	Span - inner [m]	Rise - inner [m]	Area [m ²]
VP2-M31	7.63	5.45	32.78
VP2-M32	7.89	5.61	34.92
VP2-M33	8.09	5.71	36.39
VP2-M34	8.35	5.87	38.64
VP2-M35	8.55	5.98	40.19
VP2-M36	8.81	6.13	42.55
VP2-M37	9.01	6.24	44.17
VP2-M38	9.27	6.40	46.64
VP2-M39	9.48	6.50	48.33
VP2-M40	9.73	6.66	50.92
VP2-M41	9.96	7.32	57.16
VP2-M42	10.22	7.49	60.02
VP2-M43	10.42	7.60	61.97
VP2-M44	10.67	7.76	64.95
VP2-M45	10.87	7.87	66.98
VP2-M46	11.13	8.04	70.06
VP2-M47	11.33	8.15	72.17
VP2-M48	11.58	8.31	75.37
VP2-M49	11.78	8.42	77.55
VP2-M50	12.03	8.59	80.87

Comment: The DWG file containing all profile cross-sections is available on our website or upon request.

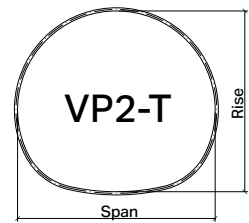




ViaCon ViaPlate 200 structure - R, standard profiles

Name	Span - inner [m]	Rise - inner [m]	Area [m ²]
VP2-R1	2.84	2.50	5.68
VP2-R2	3.17	2.73	6.96
VP2-R3	3.24	2.79	7.30
VP2-R4	3.64	3.01	8.74
VP2-R5	3.78	3.13	9.51
VP2-R6	4.03	3.30	10.72
VP2-R7	4.17	3.43	11.58
VP2-R8	4.58	3.64	13.35
VP2-R9	4.78	3.83	14.79
VP2-R10	4.91	3.95	15.78
VP2-R11	5.27	4.10	17.30
VP2-R12	5.52	4.27	18.91
VP2-R13	5.77	4.45	20.59
VP2-R14	5.96	4.64	22.37
VP2-R15	6.17	5.16	25.56
VP2-R16	6.39	5.34	27.54
VP2-R17	6.64	5.52	29.58
VP2-R18	6.89	5.69	31.69
VP2-R19	7.17	5.94	34.64
VP2-R20	7.32	5.98	35.37
VP2-R21	7.57	6.15	37.67
VP2-R22	7.85	6.40	40.87
VP2-R23	8.07	6.50	42.48
VP2-R24	8.26	6.61	44.13
VP2-R25	8.51	6.79	46.69

Comment: The DWG file containing all profile cross-sections is available on our website or upon request.

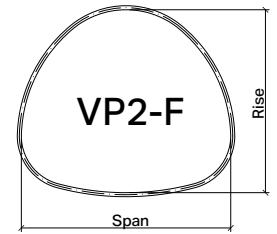


ViaCon ViaPlate 200 structure - T, standard profiles

Name	Span - inner [m]	Rise - inner [m]	Area [m ²]
VP2-T1	2.83	2.68	6.05
VP2-T2	3.25	2.98	7.76
VP2-T3	3.32	3.05	8.13
VP2-T4	3.40	3.11	8.51
VP2-T5	3.56	3.23	9.27
VP2-T6	3.71	3.36	10.09
VP2-T7	3.86	3.49	10.93
VP2-T8	4.22	3.72	12.70
VP2-T9	4.29	3.79	13.16
VP2-T10	4.44	3.92	14.13
VP2-T11	4.53	3.97	14.61
VP2-T12	4.75	4.17	16.13
VP2-T13	5.04	4.75	19.17
VP2-T14	5.19	4.88	30.22
VP2-T15	5.45	5.06	22.13
VP2-T16	5.68	5.25	24.01
VP2-T17	5.92	5.43	25.96
VP2-T18	6.22	5.69	28.69
VP2-T19	6.42	5.80	30.07
VP2-T20	6.50	5.86	30.80
VP2-T21	6.72	6.06	33.00
VP2-T22	7.02	6.32	36.04
VP2-T23	7.15	6.36	36.81
VP2-T24	7.40	6.54	39.19
VP2-T25	7.52	6.68	40.84
VP2-T26	7.64	6.72	41.65
VP2-T27	7.76	6.87	43.37
VP2-T28	8.07	7.12	46.83
VP2-T29	8.27	7.23	48.59
VP2-T30	8.44	7.35	50.41
VP2-T31	8.56	7.49	52.29
VP2-T32	8.66	7.54	53.20
VP2-T33	8.87	7.74	56.08
VP2-T34	9.00	7.95	58.30
VP2-T35	9.24	8.14	61.28

Comment: The DWG file containing all profile cross-sections is available on our website or upon request.



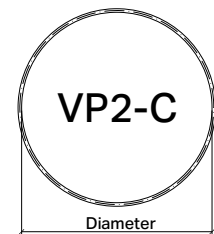


ViaCon ViaPlate 200 structure - F, standard profiles

Name	Span - inner [m]	Rise - inner [m]	Area [m ²]
VP2-F1	1.96	1.92	2.97
VP2-F2	2.62	2.26	4.71
VP2-F3	2.85	2.49	5.56
VP2-F4	3.39	3.18	8.49
VP2-F5	3.54	3.07	8.56
VP2-F6	3.77	3.24	9.72
VP2-F7	4.32	3.81	13.08
VP2-F8	4.55	4.04	14.48

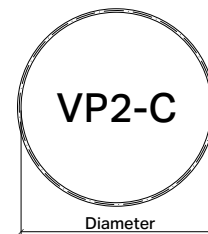
Comment: The DWG file containing all profile cross-sections is available on our website or upon request.





ViaCon ViaPlate 200 structure - C, standard profiles

Name	Diameter - inner [m]	Area [m ²]
VP2-C0.2	1.22	1.16
VP2-C0.3	1.29	1.31
VP2-C0.4	1.37	1.47
VP2-C0.5	1.44	1.63
VP2-C1	1.52	1.79
VP2-C2	1.59	1.97
VP2-C3	1.67	2.16
VP2-C4	1.74	2.36
VP2-C5	1.82	2.57
VP2-C6	1.89	2.79
VP2-C7	1.97	3.01
VP2-C8	2.04	3.25
VP2-C9	2.12	3.49
VP2-C10	2.19	3.75
VP2-C11	2.27	4.00
VP2-C12	2.34	4.27
VP2-C13	2.42	4.55
VP2-C14	2.49	4.84
VP2-C15	2.57	5.14
VP2-C16	2.64	5.44
VP2-C17	2.72	5.75
VP2-C18	2.79	6.08
VP2-C19	2.87	6.41
VP2-C20	2.94	6.75
VP2-C21	3.02	7.10
VP2-C22	3.09	7.45
VP2-C23	3.17	7.82
VP2-C24	3.24	8.19
VP2-C25	3.32	8.59
VP2-C26	3.39	8.97
VP2-C27	3.46	9.37
VP2-C28	3.54	9.79
VP2-C29	3.61	10.20
VP2-C30	3.69	10.64
VP2-C31	3.76	11.07
VP2-C32	3.84	11.51
VP2-C33	3.90	11.97
VP2-C34	3.99	12.43
VP2-C35	4.06	12.91
VP2-C36	4.14	13.38
VP2-C37	4.21	13.87
VP2-C38	4.29	14.37
VP2-C39	4.36	14.88
VP2-C40	4.44	15.40
VP2-C41	4.51	15.92
VP2-C42	4.59	16.45

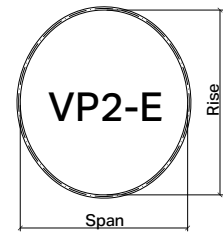


ViaCon ViaPlate 200 structure - C, standard profiles

Name	Diameter - inner [m]	Area [m ²]
VP2-C43	4.66	17.00
VP2-C44	4.74	17.54
VP2-C45	4.81	18.11
VP2-C46	4.89	18.67
VP2-C47	4.96	19.24
VP2-C48	5.04	19.84
VP2-C49	5.11	20.43
VP2-C50	5.19	21.04
VP2-C51	5.26	21.65
VP2-C52	5.33	22.26
VP2-C53	5.41	22.90
VP2-C54	5.48	23.53
VP2-C55	5.56	24.19
VP2-C56	5.63	24.84
VP2-C57	5.71	25.50
VP2-C58	5.78	26.18
VP2-C59	5.86	26.86
VP2-C60	5.93	27.56
VP2-C61	6.01	28.26
VP2-C62	6.08	28.96
VP2-C63	6.16	29.69
VP2-C64	6.23	30.41
VP2-C65	6.31	31.15
VP2-C66	6.38	31.89
VP2-C67	6.46	32.63
VP2-C68	6.53	33.41
VP2-C69	6.61	34.17
VP2-C70	6.68	34.96
VP2-C71	6.76	35.74
VP2-C72	6.83	36.53
VP2-C73	6.91	37.35
VP2-C74	6.98	38.16
VP2-C75	7.06	38.99
VP2-C76	7.13	39.82
VP2-C77	7.20	40.65
VP2-C78	7.28	41.51
VP2-C79	7.35	42.36
VP2-C80	7.43	43.24

Comment: The DWG file containing all profile cross-sections is available on our website or upon request.

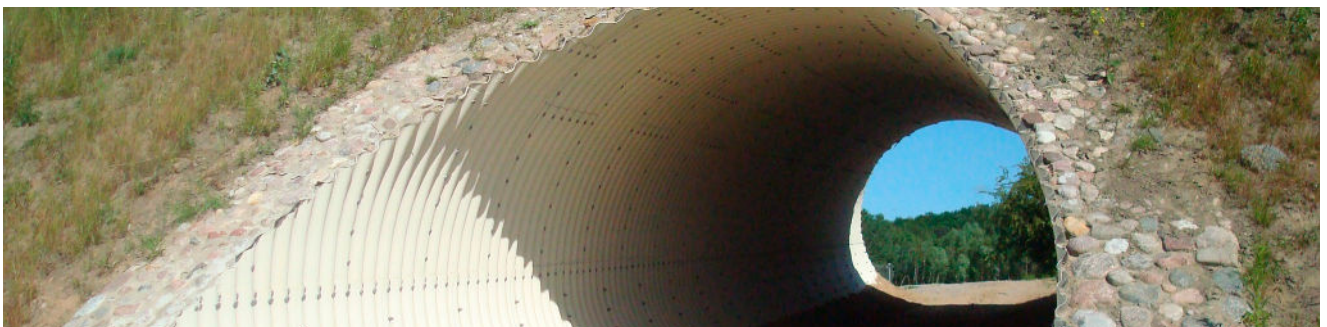


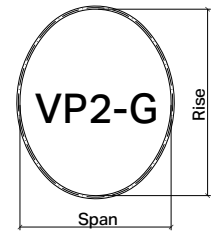


ViaCon ViaPlate 200 structure - E, standard profiles

Name	Span - inner [m]	Rise - inner [m]	Area [m ²]
VP2-E1	1.52	1.68	1.96
VP2-E2	1.66	1.83	2.35
VP2-E3	1.93	2.15	3.23
VP2-E4	2.08	2.31	3.73
VP2-E5	2.21	2.46	4.25
VP2-E6	2.51	2.78	5.42
VP2-E7	2.65	2.93	6.05
VP2-E8	2.80	3.09	6.72
VP2-E9	3.09	3.41	8.17
VP2-E10	3.23	3.56	8.94
VP2-E11	3.34	3.72	9.74
VP2-E12	3.53	3.88	10.60
VP2-E13	3.65	4.03	11.47
VP2-E14	3.78	4.19	12.38
VP2-E15	3.96	4.35	13.34
VP2-E16	4.08	4.50	14.32
VP2-E17	4.19	4.66	15.33
VP2-E18	4.36	4.82	16.39
VP2-E19	4.51	4.98	17.48
VP2-E20	4.63	5.13	18.60
VP2-E21	4.78	5.29	19.76
VP2-E22	4.93	5.45	20.95
VP2-E23	5.04	5.61	22.17
VP2-E24	5.19	5.76	23.44
VP2-E25	5.33	5.92	24.74
VP2-E26	5.47	6.08	26.07
VP2-E27	5.61	6.24	27.44
VP2-E28	5.76	6.39	28.85
VP2-E29	5.90	6.55	30.28
VP2-E30	6.05	6.71	31.76
VP2-E31	6.17	6.86	33.26
VP2-E32	6.33	7.02	34.81
VP2-E33	6.46	7.18	36.38
VP2-E34	6.61	7.34	38.01
VP2-E35	6.75	7.49	39.65

Comment: The DWG file containing all profile cross-sections is available on our website or upon request.



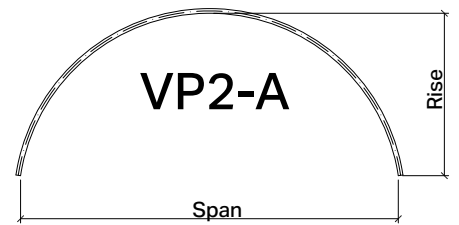


ViaCon ViaPlate 200 structure - G, standard profiles

Name	Span - inner [m]	Rise - inner [m]	Area [m ²]
VP2-G1	1.43	1.68	1.96
VP2-G2	1.57	1.83	2.35
VP2-G3	1.80	2.15	3.23
VP2-G4	1.94	2.31	3.73
VP2-G5	2.07	2.46	4.25
VP2-G6	2.37	2.78	5.42
VP2-G7	2.49	2.93	6.05
VP2-G8	2.63	3.09	6.72
VP2-G9	2.93	3.41	8.17
VP2-G10	3.06	3.56	8.94
VP2-G11	3.12	3.72	9.74
VP2-G12	3.35	3.88	10.60
VP2-G13	3.43	4.03	11.47
VP2-G14	3.55	4.19	12.38
VP2-G15	3.76	4.35	13.34
VP2-G16	3.85	4.50	14.32
VP2-G17	3.92	4.66	15.33
VP2-G18	4.12	4.82	16.39
VP2-G19	4.26	4.98	17.48
VP2-G20	4.35	5.13	18.60
VP2-G21	4.49	5.29	19.76
VP2-G22	4.64	5.45	20.95
VP2-G23	4.71	5.61	22.17
VP2-G24	4.86	5.76	23.44
VP2-G25	4.98	5.92	24.74
VP2-G26	5.12	6.08	26.07
VP2-G27	5.24	6.24	27.44
VP2-G28	5.40	6.39	28.85
VP2-G29	5.53	6.55	30.28
VP2-G30	5.67	6.71	31.76
VP2-G31	5.77	6.86	33.26
VP2-G32	5.91	7.02	34.81
VP2-G33	6.03	7.18	36.38
VP2-G34	6.20	7.34	38.01
VP2-G35	6.32	7.49	39.65

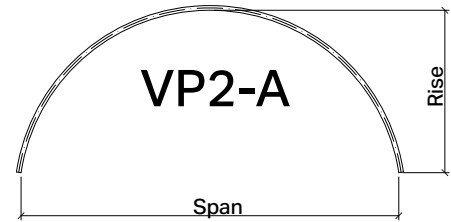
Comment: The DWG file containing all profile cross-sections is available on our website or upon request.





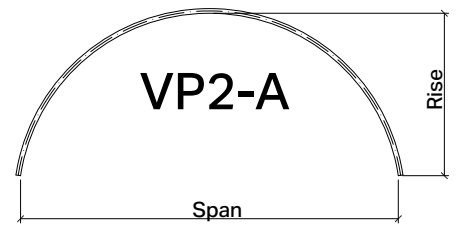
ViaCon ViaPlate 200 structure - A, standard profiles

Name	Span - inner [m]	Rise - inner [m]	Area [m ²]
VP2-A1	1.70	0.82	1.10
VP2-A2	1.95	0.86	1.30
VP2-A3	2.45	1.07	2.01
VP2-A4	2.95	1.28	2.88
VP2-A5	2.95	1.40	3.23
VP2-A6	3.20	1.32	3.18
VP2-A7	3.20	1.45	3.56
VP2-A8	3.45	1.36	3.49
VP2-A9	3.45	1.61	4.31
VP2-A10	3.70	1.53	4.25
VP2-A11	3.70	1.65	4.69
VP2-A12	3.70	1.78	5.13
VP2-A13	3.95	1.56	4.61
VP2-A14	3.95	1.82	5.55
VP2-A15	3.95	1.94	6.02
VP2-A16	4.20	1.73	5.48
VP2-A17	4.20	1.86	5.99
VP2-A18	4.20	1.99	6.43
VP2-A19	4.45	1.77	5.88
VP2-A20	4.45	1.90	6.42
VP2-A21	4.45	2.03	6.95
VP2-A22	4.45	2.15	7.48
VP2-A23	4.70	1.81	6.30
VP2-A24	4.70	1.94	6.87
VP2-A25	4.70	2.07	7.43
VP2-A26	4.70	2.20	7.99
VP2-A27	4.70	2.32	8.54
VP2-A28	4.95	1.98	7.32
VP2-A29	4.95	2.11	7.91
VP2-A30	4.95	2.24	8.50
VP2-A31	4.95	2.36	9.09
VP2-A32	4.95	2.48	9.68
VP2-A33	5.20	2.02	7.78
VP2-A34	5.20	2.15	8.41
VP2-A35	5.20	2.28	9.03
VP2-A36	5.20	2.40	9.65
VP2-A37	5.20	2.53	10.26
VP2-A38	5.45	2.19	8.91
VP2-A39	5.45	2.32	9.56
VP2-A40	5.45	2.45	10.22
VP2-A41	5.45	2.57	10.86
VP2-A42	5.45	2.69	11.50
VP2-A43	5.70	2.22	9.42
VP2-A44	5.70	2.36	10.10
VP2-A45	5.70	2.49	10.79
VP2-A46	5.70	2.61	11.47



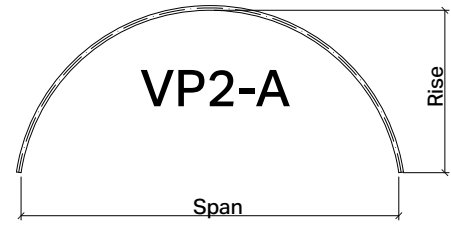
ViaCon ViaPlate 200 structure - A, standard profiles

Name	Span - inner [m]	Rise - inner [m]	Area [m ²]
VP2-A47	5.70	2.73	12.14
VP2-A48	5.95	2.40	10.66
VP2-A49	5.95	2.53	11.37
VP2-A50	5.95	2.65	12.08
VP2-A51	5.95	2.78	12.78
VP2-A52	5.95	2.90	13.48
VP2-A53	6.20	2.43	11.21
VP2-A54	6.20	2.57	11.96
VP2-A55	6.20	2.69	12.70
VP2-A56	6.20	2.82	13.44
VP2-A57	6.20	2.94	14.17
VP2-A58	6.20	3.06	14.90
VP2-A59	6.45	2.47	11.77
VP2-A60	6.45	2.60	12.56
VP2-A61	6.45	2.73	13.33
VP2-A62	6.45	2.86	14.10
VP2-A63	6.45	2.99	14.87
VP2-A64	6.45	3.11	15.63
VP2-A65	6.70	2.64	13.16
VP2-A66	6.70	2.77	13.97
VP2-A67	6.70	2.90	14.77
VP2-A68	6.70	3.03	15.57
VP2-A69	6.70	3.15	16.35
VP2-A70	6.70	3.27	17.15
VP2-A71	6.95	2.67	13.76
VP2-A72	6.95	2.81	14.61
VP2-A73	6.95	2.94	15.44
VP2-A74	6.95	3.07	16.27
VP2-A75	6.95	3.19	17.10
VP2-A76	6.95	3.32	17.92
VP2-A77	6.95	3.44	18.74
VP2-A78	7.20	2.85	15.27
VP2-A79	7.20	2.98	16.13
VP2-A80	7.20	3.11	16.99
VP2-A81	7.20	3.24	17.85
VP2-A82	7.20	3.36	18.71
VP2-A83	7.20	3.48	19.55
VP2-A84	7.45	2.88	15.93
VP2-A85	7.45	3.02	16.82
VP2-A86	7.45	3.16	17.72
VP2-A87	7.45	3.28	18.61
VP2-A88	7.45	3.40	19.49
VP2-A89	7.45	3.53	20.37
VP2-A90	7.45	3.64	21.25
VP2-A91	7.70	3.05	17.53
VP2-A92	7.70	3.19	18.46



ViaCon ViaPlate 200 structure - A, standard profiles

Name	Span - inner [m]	Rise - inner [m]	Area [m ²]
VP2-A93	7.70	3.32	19.37
VP2-A94	7.70	3.46	20.29
VP2-A95	7.70	3.57	21.20
VP2-A96	7.70	3.69	22.11
VP2-A97	7.70	3.81	23.02
VP2-A98	7.95	3.09	18.23
VP2-A99	7.95	3.22	19.19
VP2-A100	7.95	3.36	20.15
VP2-A101	7.95	3.49	21.10
VP2-A102	7.95	3.61	22.04
VP2-A103	7.95	3.73	22.98
VP2-A104	7.95	3.85	23.91
VP2-A105	8.20	3.26	19.94
VP2-A106	8.20	3.40	20.93
VP2-A107	8.20	3.53	21.91
VP2-A108	8.20	3.66	22.89
VP2-A109	8.20	3.78	23.86
VP2-A110	8.20	3.90	24.82
VP2-A111	8.20	4.02	25.78
VP2-A112	8.45	3.30	20.69
VP2-A113	8.45	3.43	21.72
VP2-A114	8.45	3.56	22.73
VP2-A115	8.45	3.69	23.74
VP2-A116	8.45	3.82	24.74
VP2-A117	8.45	3.94	25.74
VP2-A118	8.45	4.06	26.74
VP2-A119	8.45	4.18	27.74
VP2-A120	8.70	3.33	21.45
VP2-A121	8.70	3.47	22.52
VP2-A122	8.70	3.60	23.50
VP2-A123	8.70	3.67	24.60
VP2-A124	8.70	3.86	25.64
VP2-A125	8.70	3.99	26.67
VP2-A126	8.70	4.11	27.69
VP2-A127	8.70	4.23	28.72
VP2-A128	8.95	3.51	23.32
VP2-A129	8.95	3.64	24.40
VP2-A130	8.95	3.77	25.47
VP2-A131	8.95	3.90	26.55
VP2-A132	8.95	4.03	27.61
VP2-A133	8.95	4.16	28.66
VP2-A134	8.95	4.27	29.72
VP2-A135	8.95	4.39	30.77
VP2-A136	9.20	3.54	24.13
VP2-A137	9.20	3.68	25.25
VP2-A138	9.20	3.81	26.35

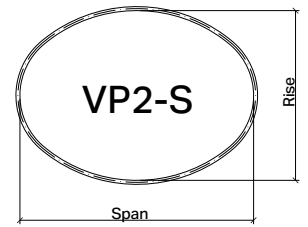


ViaCon ViaPlate 200 structure - A, standard profiles

Name	Span - inner [m]	Rise - inner [m]	Area [m ²]
VP2-A139	9.20	3.94	27.45
VP2-A140	9.20	4.07	28.54
VP2-A141	9.20	4.19	29.63
VP2-A142	9.20	4.32	30.73
VP2-A143	9.20	4.44	31.80
VP2-A144	9.20	4.56	32.89
VP2-A145	9.45	3.71	26.09
VP2-A146	9.45	3.85	27.23
VP2-A147	9.45	3.98	28.37
VP2-A148	9.45	4.11	29.50
VP2-A149	9.45	4.23	30.62
VP2-A150	9.45	4.36	31.73
VP2-A151	9.45	4.48	32.86
VP2-A152	9.45	4.60	33.96
VP2-A153	9.45	4.72	35.08
VP2-A154	9.70	3.75	26.95
VP2-A155	9.70	3.88	28.13
VP2-A156	9.70	4.02	29.29
VP2-A157	9.70	4.15	30.45
VP2-A158	9.70	4.28	31.61
VP2-A159	9.70	4.40	32.76
VP2-A160	9.70	4.52	33.91
VP2-A161	9.70	4.65	35.06
VP2-A162	9.70	4.77	36.19
VP2-A163	9.95	3.92	29.02
VP2-A164	9.95	4.06	30.23
VP2-A165	9.95	4.19	31.42
VP2-A166	9.95	4.32	32.61
VP2-A167	9.95	4.44	33.79
VP2-A168	9.95	4.57	34.97
VP2-A169	9.95	4.69	36.14
VP2-A170	9.95	4.81	37.32

Comment: The DWG file containing all profile cross-sections is available on our website or upon request.



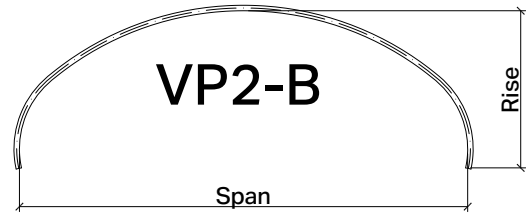


ViaCon ViaPlate 200 structure - S, standard profiles

Name	Span - inner [m]	Rise - inner [m]	Area [m ²]
VP2-S1	3.22	2.34	5.83
VP2-S2	3.87	2.57	7.67
VP2-S3	4.61	3.02	10.72
VP2-S4	4.83	3.10	11.49
VP2-S5	5.05	3.17	12.29
VP2-S6	5.55	3.87	16.67
VP2-S7	5.77	3.95	17.64
VP2-S8	5.98	4.03	18.65
VP2-S9	6.20	4.11	19.67
VP2-S10	6.42	4.19	20.72
VP2-S11	6.73	4.47	23.25
VP2-S12	6.94	4.55	24.39
VP2-S13	7.16	4.63	25.55
VP2-S14	7.38	4.71	26.74
VP2-S15	7.88	5.41	33.04
VP2-S16	8.10	5.48	34.40
VP2-S17	8.31	5.56	35.79
VP2-S18	8.53	5.64	37.21
VP2-S19	8.75	5.72	38.64
VP2-S20	8.96	5.80	40.10
VP2-S21	9.18	5.88	41.58
VP2-S22	9.69	6.58	49.37
VP2-S23	9.90	6.65	51.03
VP2-S24	10.12	6.73	52.72
VP2-S25	10.33	6.81	54.43
VP2-S26	10.65	7.10	58.49
VP2-S27	10.86	7.18	60.29
VP2-S28	11.08	7.25	62.12
VP2-S29	11.39	7.54	66.44
VP2-S30	11.61	7.62	68.36

Comment: The DWG file containing all profile cross-sections is available on our website or upon request.



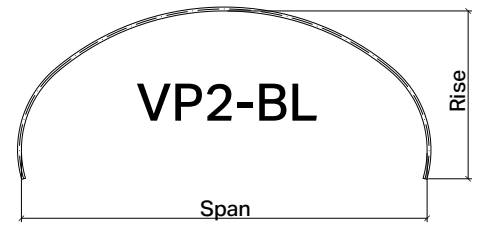


ViaCon ViaPlate 200 structure - B, standard profiles

Name	Span - inner [m]	Rise - inner [m]	Area [m ²]
VP2-B1	3.20	1.34	3.48
VP2-B2	3.85	1.46	4.52
VP2-B3	4.50	1.58	5.66
VP2-B4	4.72	1.62	6.06
VP2-B5	5.40	2.29	10.03
VP2-B6	5.62	2.33	10.59
VP2-B7	5.83	2.37	11.17
VP2-B8	6.05	2.41	11.76
VP2-B9	6.27	2.45	12.36
VP2-B10	6.48	2.49	12.97
VP2-B11	6.70	2.53	13.59
VP2-B12	7.07	2.78	15.83
VP2-B13	7.29	2.82	16.52
VP2-B14	7.50	2.86	17.22
VP2-B15	7.72	2.90	17.94
VP2-B16	7.94	2.94	18.66
VP2-B17	8.15	2.97	19.40
VP2-B18	8.37	3.01	20.15
VP2-B19	9.05	3.69	26.99
VP2-B20	9.27	3.73	27.90
VP2-B21	9.48	3.77	28.82
VP2-B22	9.70	3.81	29.76
VP2-B23	9.92	3.85	30.70
VP2-B24	10.13	3.88	31.66
VP2-B25	10.35	3.92	32.63
VP2-B26	10.72	4.18	36.05
VP2-B27	10.94	4.21	37.09
VP2-B28	11.15	4.25	38.14
VP2-B29	11.37	4.29	39.20
VP2-B30	11.59	4.33	40.57

Comment: The DWG file containing all profile cross-sections is available on our website or upon request.

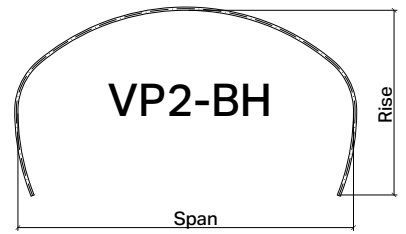




ViaCon ViaPlate 200 structure - BL, standard profiles

Name	Span - inner [m]	Rise - inner [m]	Area [m ²]
VP2-BL1	5.70	2.00	9.30
VP2-BL2	5.77	2.38	11.41
VP2-BL3	5.99	2.42	12.00
VP2-BL4	6.08	2.41	12.03
VP2-BL5	6.30	2.45	12.63
VP2-BL6	6.52	2.49	13.25
VP2-BL7	6.61	2.70	14.77
VP2-BL8	6.83	2.74	15.45
VP2-BL9	7.04	2.78	16.13
VP2-BL10	7.23	2.99	17.81
VP2-BL11	7.40	2.48	14.80
VP2-BL12	7.67	3.07	19.31
VP2-BL13	7.72	2.73	17.19
VP2-BL14	7.88	3.11	20.08
VP2-BL15	8.10	3.15	20.85
VP2-BL16	8.20	3.11	22.73
VP2-BL17	8.21	3.41	23.58
VP2-BL18	8.46	2.84	19.32
VP2-BL19	8.63	3.44	24.42
VP2-BL20	8.89	2.92	20.80
VP2-BL21	8.99	3.14	22.84
VP2-BL22	9.21	3.18	23.65
VP2-BL23	9.26	3.73	28.31
VP2-BL24	9.47	3.77	29.23
VP2-BL25	9.69	3.81	30.17
VP2-BL26	9.78	4.03	32.42
VP2-BL27	10.00	4.07	33.42
VP2-BL28	10.17	3.55	29.28
VP2-BL29	10.22	4.11	34.43
VP2-BL30	10.31	4.10	34.47
VP2-BL31	10.48	3.58	30.19
VP2-BL32	10.53	4.13	35.48
VP2-BL33	10.63	4.35	37.93
VP2-BL34	10.75	4.17	36.52
VP2-BL35	10.91	3.66	32.04
VP2-BL36	10.96	4.21	37.56
VP2-BL37	11.15	4.65	42.66
VP2-BL38	11.27	4.47	41.20
VP2-BL39	11.49	4.51	42.32
VP2-BL40	11.80	4.77	46.15
VP2-BL41	11.90	4.76	46.20
VP2-BL42	12.09	4.96	49.00

Comment: The DWG file containing all profile cross-sections is available on our website or upon request.

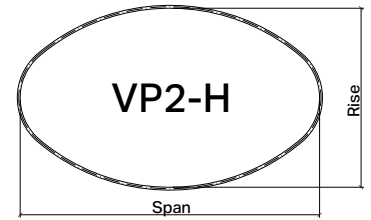


ViaCon ViaPlate 200 structure - BH, standard profiles

Name	Span - inner [m]	Rise - inner [m]	Area [m ²]
VP2-BH1	5.70	3.14	15.61
VP2-BH2	6.08	3.55	18.77
VP2-BH3	6.30	3.59	19.65
VP2-BH4	6.51	3.63	20.55
VP2-BH5	7.40	4.08	26.27
VP2-BH6	8.20	4.74	33.62
VP2-BH7	8.41	4.78	34.79
VP2-BH8	8.46	4.67	34.33
VP2-BH9	8.63	5.04	37.70
VP2-BH10	8.89	4.75	36.69
VP2-BH11	9.26	5.33	42.66
VP2-BH12	9.47	5.37	43.98
VP2-BH13	9.69	5.63	47.25
VP2-BH14	10.17	5.61	49.48
VP2-BH15	10.31	5.93	52.77
VP2-BH16	10.53	5.97	54.23
VP2-BH17	10.75	6.23	57.87
VP2-BH18	10.96	6.27	59.41
VP2-BH19	11.15	6.48	62.35
VP2-BH20	11.80	6.82	69.55

Comment: The DWG file containing all profile cross-sections is available on our website or upon request.

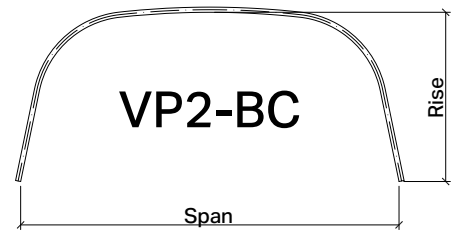




ViaCon ViaPlate 200 structure - H, standard profiles

Name	Span - inner [m]	Rise - inner [m]	Area [m ²]
VP2-H1	5.70	3.41	15.26
VP2-H2	5.77	3.95	18.11
VP2-H3	5.98	4.03	19.13
VP2-H4	6.08	4.24	20.47
VP2-H5	6.30	4.32	21.55
VP2-H6	6.51	4.39	22.66
VP2-H7	6.61	4.60	24.40
VP2-H8	6.83	4.68	25.79
VP2-H9	7.04	4.76	27.18
VP2-H10	7.23	5.17	28.57
VP2-H11	7.40	4.38	29.96
VP2-H12	7.67	5.33	31.35
VP2-H13	7.72	4.66	32.74
VP2-H14	7.88	5.41	34.13
VP2-H15	8.10	5.49	35.52
VP2-H16	8.20	5.69	36.91
VP2-H17	8.91	5.77	38.30
VP2-H18	8.46	5.10	39.69
VP2-H19	8.63	5.85	41.08
VP2-H20	8.89	5.26	42.47
VP2-H21	8.89	5.47	43.86
VP2-H22	9.21	5.55	45.25
VP2-H23	9.25	6.42	46.64
VP2-H24	9.47	6.50	48.03
VP2-H25	9.69	6.58	49.42
VP2-H26	9.78	6.78	50.81
VP2-H27	10.00	6.86	52.20
VP2-H28	10.17	6.07	53.59
VP2-H29	10.22	6.94	54.98
VP2-H30	10.31	7.15	56.37
VP2-H31	10.48	6.35	57.76
VP2-H32	10.53	7.23	59.15
VP2-H33	10.62	7.43	60.54
VP2-H34	10.75	7.30	61.93
VP2-H35	10.91	6.51	63.32
VP2-H36	10.96	7.38	64.71
VP2-H37	11.15	7.80	66.10
VP2-H38	11.27	7.67	67.49
VP2-H39	11.49	7.75	68.89
VP2-H40	11.80	8.03	70.28
VP2-H41	11.90	8.24	71.67
VP2-H42	12.09	8.65	73.06

Comment: The DWG file containing all profile cross-sections is available on our website or upon request.



ViaCon ViaPlate 200 structure - BC, standard profiles

Name	Span - inner [m]	Rise - inner [m]	Area [m ²]
VP2-BC1	3.14	1.20	3.13
VP2-BC2	3.49	1.39	4.17
VP2-BC3	3.79	1.47	4.89
VP2-BC4	3.81	1.22	4.00
VP2-BC5	4.04	1.81	6.27
VP2-BC6	4.16	1.30	4.69
VP2-BC7	4.51	1.38	5.44
VP2-BC8	4.69	1.97	8.13
VP2-BC9	4.84	1.60	6.82
VP2-BC10	5.17	1.69	7.73
VP2-BC11	5.27	1.42	6.45
VP2-BC12	5.30	2.04	9.59
VP2-BC13	5.61	1.52	7.34
VP2-BC14	6.07	1.42	7.33
VP2-BC15	6.11	1.89	10.20
VP2-BC16	6.26	1.60	8.58
VP2-BC17	6.43	2.00	11.33
VP2-BC18	6.44	2.35	13.60
VP2-BC19	6.59	1.71	9.64
VP2-BC20	6.92	1.82	10.76
VP2-BC21	6.95	2.17	13.20

Comment: ViaPlate Box structures need to be individually designed due to the requirement for additional reinforcing rib plates. Extent and location of ribs depend on parameters of the structure and live loads, and are determined based on static.

The DWG file containing all profile cross-sections is available on our website or upon request.





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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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