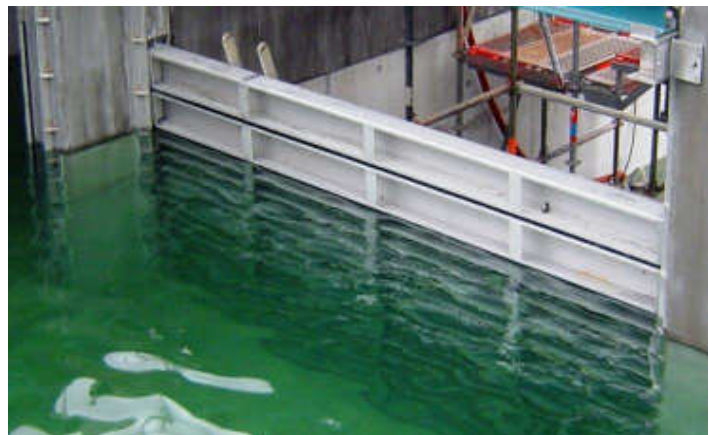


# Product Catalogue

Stop Logs

Stainless Steel SS 304 / SS 316

Aluminium EN AW 6063 T66



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- Measurement Sheet I DBV (Type 1.1, 1.2, 2)
- Measurement Sheet II DBV (Type 3)
- Measurement Sheet III DBV (Type 4.1, 4.2)
- Measurement Sheet IV DBV (Type 5.1, 5.2, 5.3)

## 1 Coverage and Terminology

### 1.1 Design Standards

DIN 19704-1: 2012-05 Hydraulic steel structures Part 1: Design Criteria: Hydrostatic Water Pressure; Safety Factor 1,35 as per Section 1.2 Load Criteria

DIN EN 1990: 2010-12 Eurocode: Basis of structural design

DIN EN 1991-1-1: 2010-12 Eurocode 1: Actions on structures Part 1-1: General actions – Densities, self-weight, imposed loads for buildings

DIN EN 1993-1-1: 2010-12 Eurocode 3: Design of steel structures Part 1-1: General rules and rules for buildings

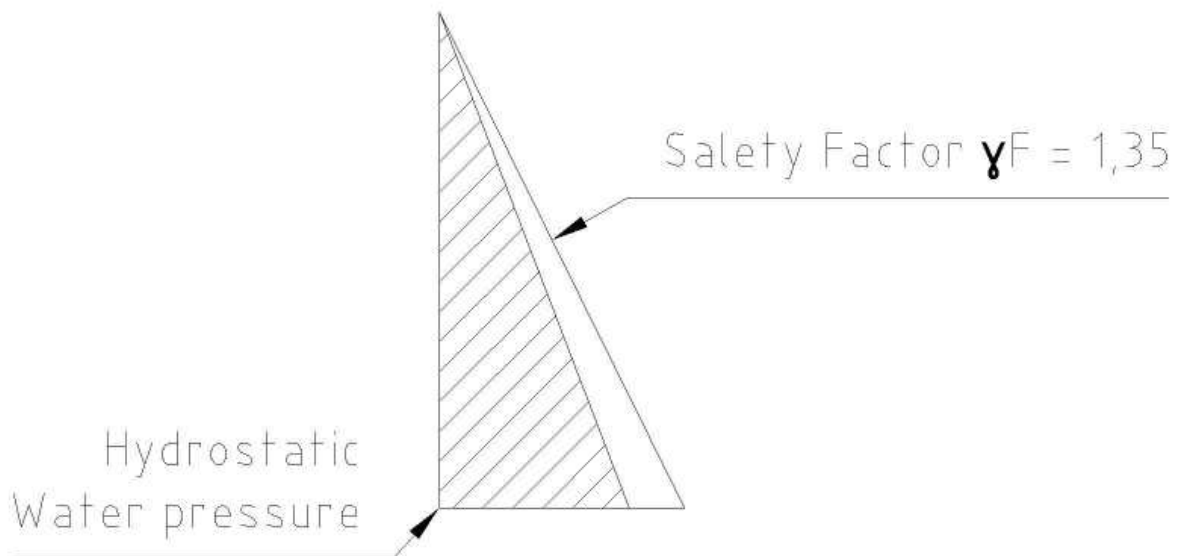
DIN EN1999-1-1: 2010-05: Eurocode 9: Design of aluminium structures Part 1-1: General structural rules

DIN 19569-4: 2000-11: Wastewater treatment plants – Principles for the design of structures and technical equipment

Part 4: Specific principles for shutoff devices as penstocks, sluice gates, stop logs etc.

Table 1 Leakage Rates for Systems out of dam beams / stop logs

1.2 Load Criteria

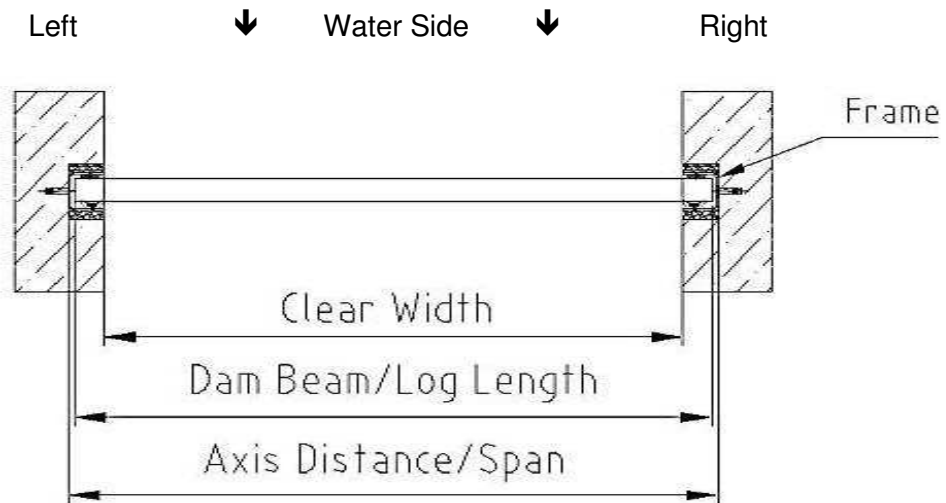
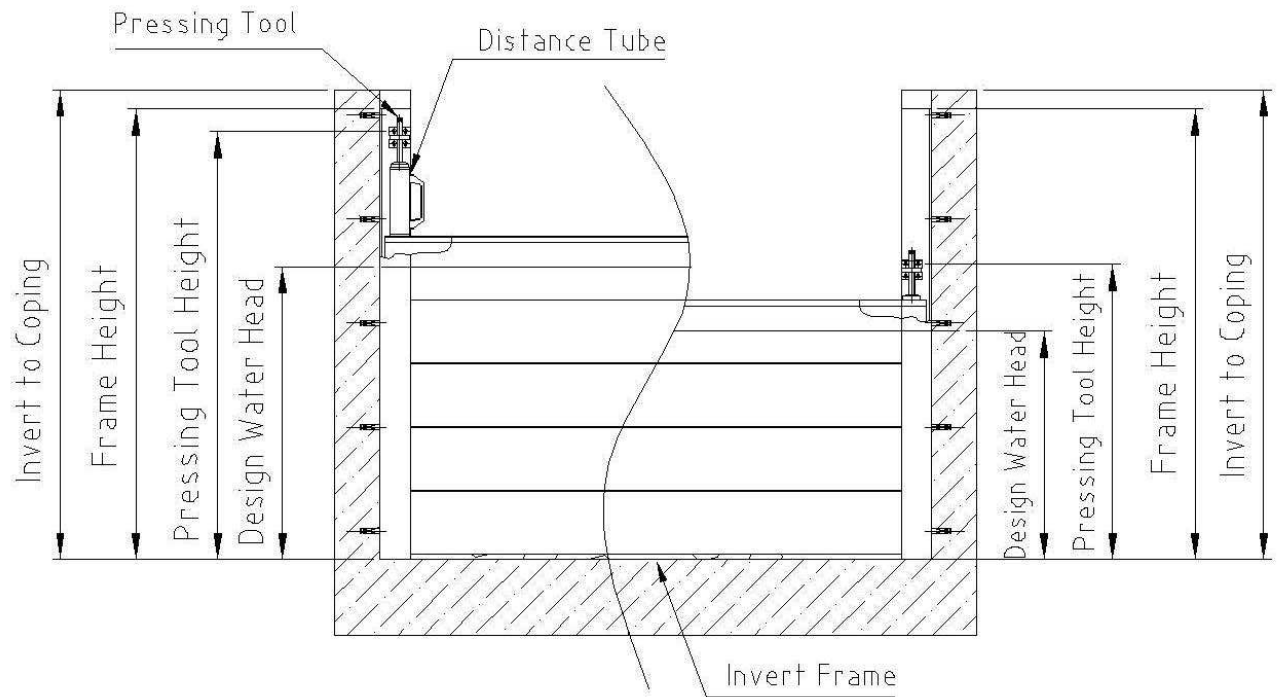


Specific Weight Water: 10 kN/m<sup>3</sup>.



1.3 Definition of Terms

Stop Logs



View from Dry Side specifies Left / Right

1.4 Flood Heights, Pressing Tool Heights, Frame Heights

Aluminium Dam Beams/Logs Height 150mm

<b>DBAL50x150-4.0 / 100x150x-2.5 / 100x150-5.0</b>			
<b>NUMBER OF DAM BEAMS/LOGS</b>	<b>FLOOD HEIGHT [MM]</b>	<b>MIN PRESSING TOOL HEIGHT [MM]</b>	<b>MIN FRAME HEIGHT [MM]</b>
1	150	250	280
2	300	405	435
3	450	560	590
4	600	710	740
5	750	865	895
6	900	1015	1045
7	1050	1170	1200
8	1200	1325	1355
9	1350	1475	1505
10	1500	1630	1660
11	1650	1780	1810
12	1800	1935	1965
13	1950	2090	2120
14	2100	2240	2270
15	2250	2395	2425
16	2400	2545	2575
17	2550	2700	2730
18	2700	2855	2885
19	2850	3005	3035
20	3000	3160	3190
21	3150	3310	3340
22	3300	3465	3495
23	3450	3620	3650
24	3600	3770	3800
25	3750	3925	3955
26	3900	4075	4105
27	4050	4230	4260
28	4200	4385	4415
29	4350	4535	4565
30	4500	4690	4720
31	4650	4840	4870
32	4800	4995	5025
33	4850	5150	5180
34	5100	5300	5330
35	5250	5455	5485
36	5400	5605	5635
37	5550	5760	5790
38	5700	5915	5945
39	5850	6065	6095
40	6000	6220	6250

Aluminium Dam Beams/Logs Height 200mm

<b>DBAL50x200-2.2 / 100x200-2.5 / 100x200-3.7</b>			
<b>NUMBER OF DAM BEAMS/LOGS</b>	<b>FLOOD HEIGHT [MM]</b>	<b>MIN PRESSING TOOL HEIGHT [MM]</b>	<b>MIN FRAME HEIGHT [MM]</b>
1	200	300	330
2	400	505	535
3	600	710	740
4	800	910	940
5	1000	1115	1145
6	1200	1315	1345
7	1400	1520	1550
8	1600	1725	1755
9	1800	1925	1955
10	2000	2130	2160
11	2200	2330	2360
12	2400	2535	2565
13	2600	2740	2770
14	2800	2940	2970
15	3000	3145	3175
16	3200	3345	3375
17	3400	3550	3580
18	3600	3755	3785
19	3800	3955	3985
20	4000	4160	4190
21	4200	4360	4390
22	4400	4565	4595
23	4600	4770	4800
24	4800	4970	5000
25	5000	5175	5205
26	5200	5375	5405
27	5400	5580	5610
28	5600	5785	5815
29	5800	5985	6015
30	6000	6190	6220

Stainless Steel Dam Beams/Logs Height 200mm

<b>DBVA50x200-2.5 / 100x200-2.5 / 150x200-2.5 / 50x200-4.0 / 100x200-4.0 / 150x200-4.0</b>			
<b>NUMBER OF DAM BEAMS/LOGS</b>	<b>FLOOD HEIGHT [MM]</b>	<b>MIN PRESSING TOOL HEIGHT [MM]</b>	<b>MIN FRAME HEIGHT [MM]</b>
1	200	280	310
2	400	480	510
3	600	680	710
4	800	880	910
5	1000	1080	1110
6	1200	1280	1310
7	1400	1480	1510
8	1600	1680	1710
9	1800	1880	1910
10	2000	2080	2110
11	2200	2280	2310
12	2400	2480	2510
13	2600	2680	2710
14	2800	2880	2910
15	3000	3080	3110
16	3200	3280	3310
17	3400	3480	3510
18	3600	3680	3710
19	3800	3880	3910
20	4000	4080	4110
21	4200	4280	4310
22	4400	4480	4510
23	4600	4680	4710
24	4800	4880	4910
25	5000	5080	5110
26	5200	5280	5310
27	5400	5480	5510
28	5600	5680	5710
29	5800	5880	5910
30	6000	6080	6110

Aluminium Dam Beams/Logs Height 225mm

<b>DBAL150x225-5.0</b>			
<b>NUMBER OF DAM BEAMS/LOGS</b>	<b>FLOOD HEIGHT [MM]</b>	<b>MIN PRESSING TOOL HEIGHT [MM]</b>	<b>MIN FRAME HEIGHT [MM]</b>
1	225	305	335
2	450	535	565
3	675	765	795
4	900	990	1020
5	1125	1220	1250
6	1350	1445	1475
7	1575	1675	1705
8	1800	1905	1935
9	2025	2130	2160
10	2250	2360	2390
11	2475	2585	2615
12	2700	2815	2845
13	2925	3045	3075
14	3150	3270	3300
15	3375	3500	3530
16	3600	3725	3755
17	3825	3955	3985
18	4025	4185	4215
19	4275	4410	4440
20	4500	4640	4670
21	4725	4865	4895
22	4950	5095	5125
23	5175	5325	5355
24	5400	5550	5580
25	5625	5780	5810
26	5850	6005	6035
27	6075	6235	6265

Aluminium Dam Beams/Logs Height 300mm

<b>DBAL50x300-4,0</b>			
<b>NUMBER OF DAM BEAMS/LOGS</b>	<b>FLOOD HEIGHT [MM]</b>	<b>MIN PRESSING TOOL HEIGHT [MM]</b>	<b>MIN FRAME HEIGHT [MM]</b>
1	300	400	430
2	600	705	735
3	900	1010	1040
4	1200	1310	1340
5	1500	1615	1645
6	1800	1915	1945
7	2100	2220	2250
8	2400	2525	2555
9	2700	2825	2855
10	3000	3130	3160

## 2 System Components

### 2.1 Frames

The basic frame design consists of 4mm thick, bended stainless steel U-Channels. The U-channel depth is 80mm. The channel width varies depending on dam beam / log width.

The following stainless steel materials are available as standard materials for the frame:

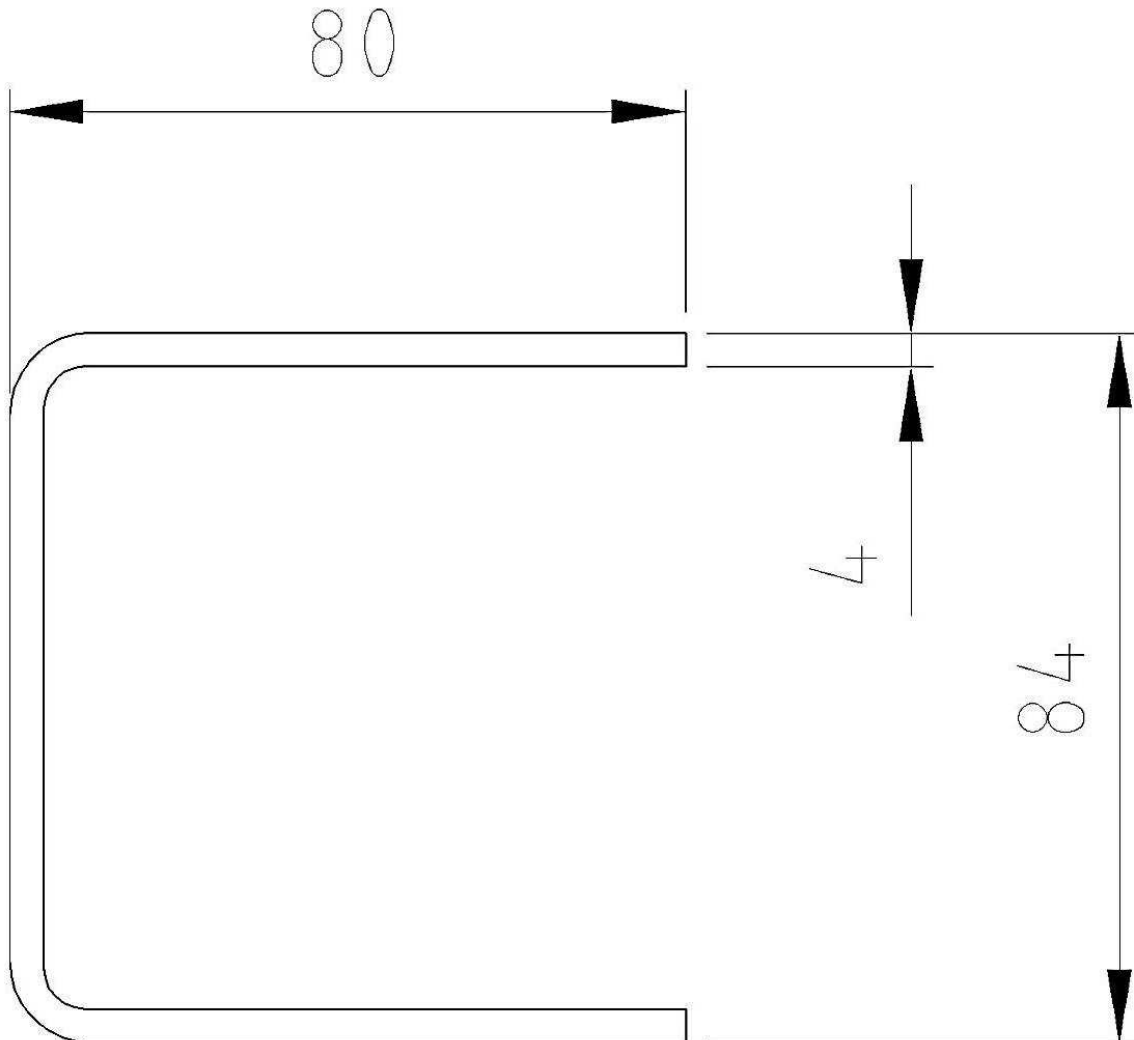
- Stainless steel grade SS304 (1.4301)
- Stainless Steel grade SS316 (1.4404)

Other stainless steel grades are available upon request.

The frames are available in a variety of fittings and finishes for use in various applications (grey water, inland waterways, waste water, sea water, drinking water).

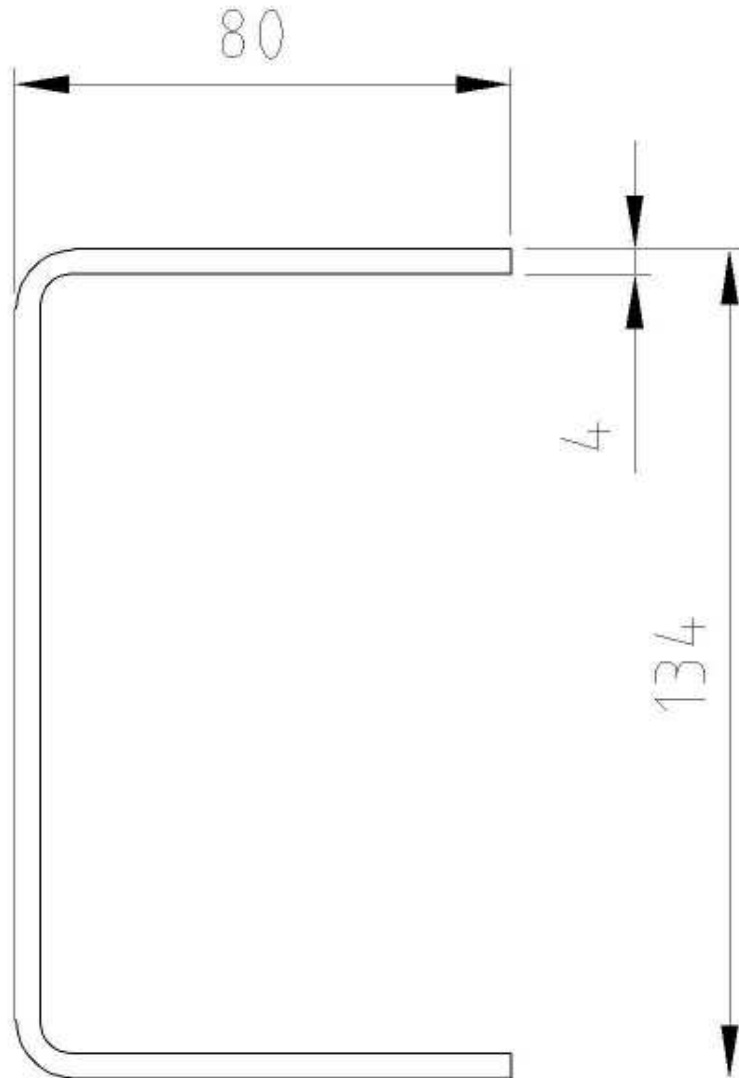
There are two sealing / guiding options available. The seals and guides can either be mounted into the frame or mounted onto the dam beam/log. The frame mounted design (marked FM) is the more common design as the double lip seal is made in one piece, joint free and seamless over the full length. The alternative log mounted design (marked LM) provides easier access for seal and guide replacement, but have a joint at each dam beam/log of the sealing line.

2.1.1 U 50



PROFILE CHARACTERISTICS		
Depth	mm	80
Width	mm	84
Plate thickness	mm	4
Cross-sectional area	cm <sup>2</sup>	9,76
Weight per linear m	kg/m	7,7
Material	-	SS 304 / SS 316

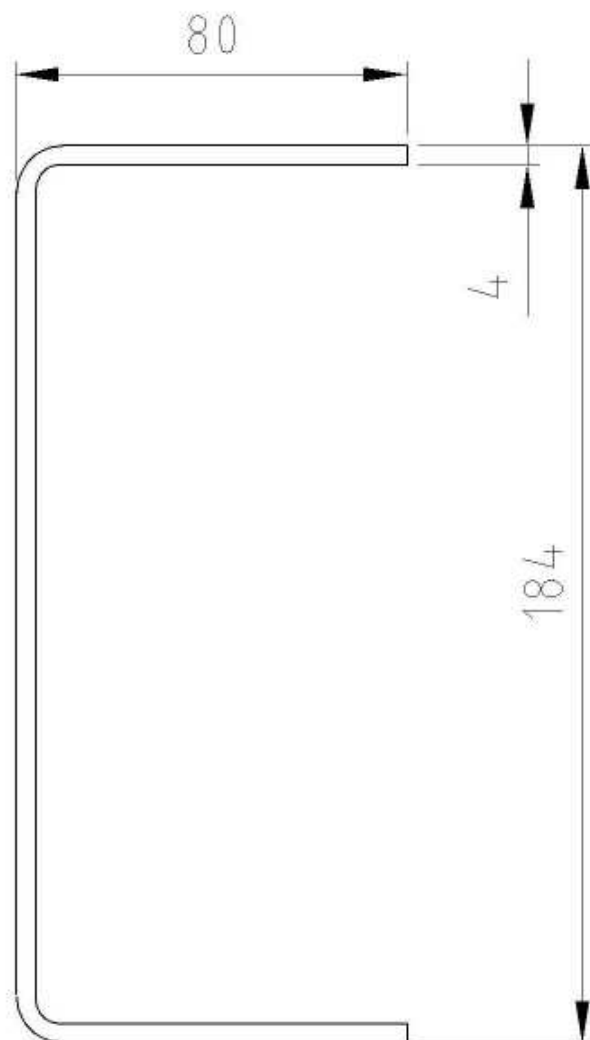
2.1.2 U 100



PROFILE CHARACTERISTICS		
Depth	mm	80
Width	mm	134
Plate thickness	mm	4
Cross-sectional area	cm <sup>2</sup>	11,76
Weight per linear m	kg/m	9,3
Material	-	SS 304 / SS 316



2.1.3 U 150



PROFILE CHARACTERISTICS		
Depth	mm	80
Width	mm	184
Plate thickness	mm	4
Cross-sectional area	cm <sup>2</sup>	13,76
Weight per linear m	kg/m	10,9
Material	-	SS 304 / SS 316

## 2.2 Dam Beams/Logs, Stop Plates

There are three widths available (50mm, 100mm and 150mm) from a portfolio of over a hundred different combinations and designs of dam beams/logs.

The significant difference is the choice of material. The decision between the use of aluminum or stainless steel is dependent on the area of application, potential bearing capacity and various sealing systems.

See the table below for an overview:

Dam Beam/Log material	Stainless steel	Aluminum
Design suitable for grey water usage	yes	yes
Design suitable for inland waterways usage	yes	yes
Design suitable for waste water usage	yes	limited
Design suitable for seawater usage	yes	limited
Design suitable for drinking water usage	yes	no
Design suitable for use with reinforcement pipes	no	yes
With seal and guiding systems on the dam beam	no	yes

For drinking water applications only stainless steel dam beams/logs with frame mounted guides and seals recommended by the German Polymer Drinking Water Commission can be chosen. This design is marked with PW. Please note that the respective, appropriate frame constructions, which also conform to German Polymer Drinking Water Commission recommendations, have been selected (see Chapter 2.3 Seals / Slide Rails).

See below for how the identification code for **stainless steel dam beams** is configured:

Example 1: DBV4A100x200-2.5-25-PW



1) 2) 3) 4) 5) 6) 7)

- 1) Dam beams
- 2) Material stainless steel grade
- 3) Dam beam width in mm
- 4) Nominal dam beam height in mm
- 5) Dam beam wall thickness in mm
- 6) Dam beam flange height in mm
- 7) Possibly appropriate for drinking water sectors (PW) or equipped with floor seal (BD)

See below for how the identification code for **aluminum dam beams** is configured:

Example 2: DBAL100x150-5.0+2x100x50-4.0LM-BD

1) 2) 3) 4) 5) 6) 7) 8) 9) 10) 10a)

- 1) Dam beams
- 2) Dam beams material / reinforcement pipes
- 3) Dam beam width in mm
- 4) Nominal dam beam height in mm
- 5) Dam beam wall thickness in mm
- 6) Where appropriate, reinforcement pipes unilateral/bilateral
- 7) Where appropriate, reinforcement pipe width in mm
- 8) Where appropriate, reinforcement pipe height in mm
- 9) Where appropriate, reinforcement pipe thickness in mm
- 10) Where appropriate, LM = seal and guiding systems screwed onto the dam beam ends
- 10a) Where appropriate, LM-BD = LM with a permanent, built on floor seal

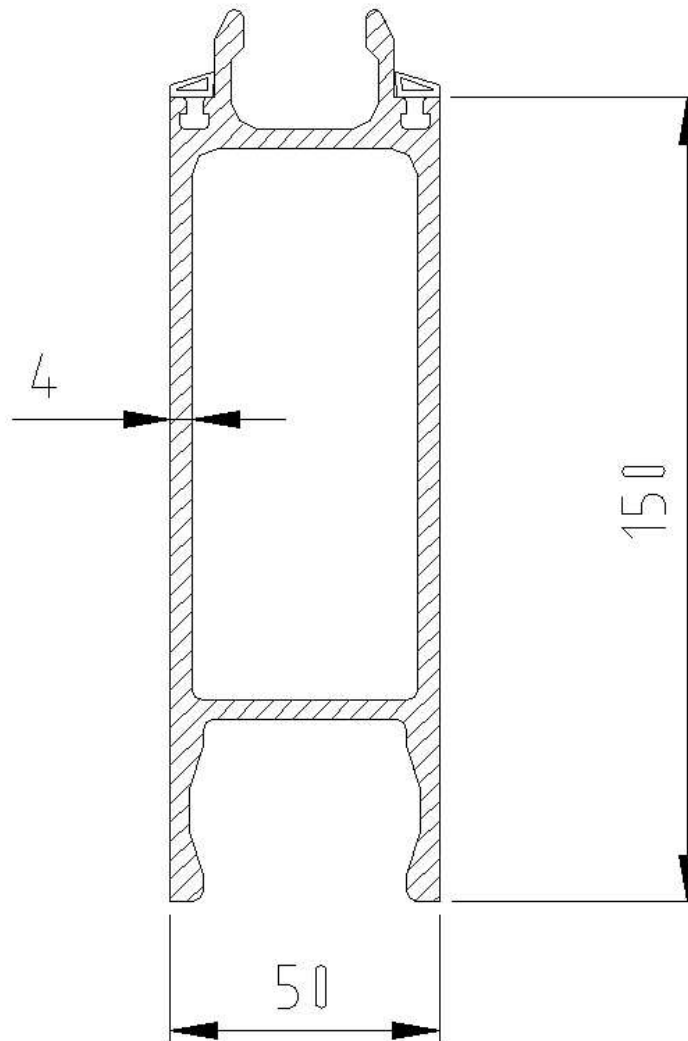
See below for how the identification code for **aluminum dam boards** is configured:

Example 3: DTAL150x225-5.0LM

1) 2) 3) 4) 5) 6)

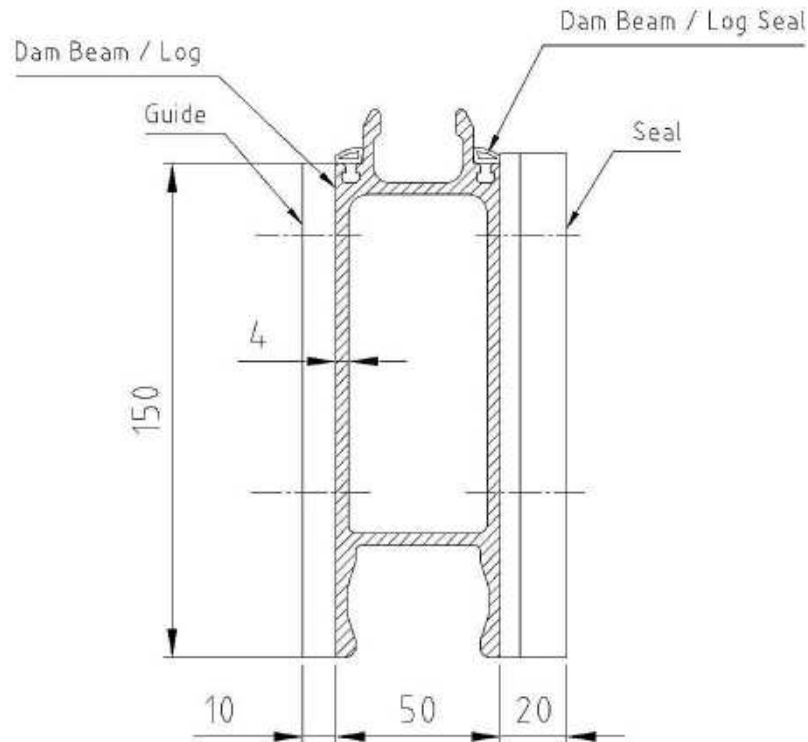
- 1) Dam board
- 2) Dam board material
- 3) Dam board width in mm
- 4) Nominal height of the individual dam beams used in mm
- 5) Dam board thickness in mm
- 6) Standard design as LM

2.2.1 DBAL50x150-4.0

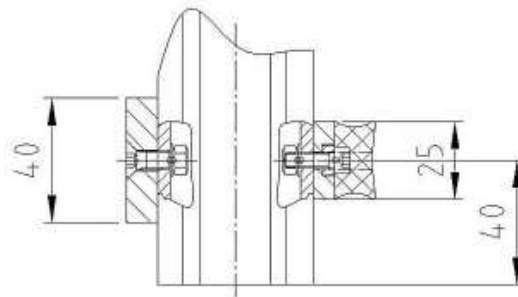


| PROFILE CHARACTERISTICS |                   |                |
|-------------------------|-------------------|----------------|
| Height                  | mm                | 150            |
| Width                   | mm                | 50             |
| Thickness               | mm                | 4              |
| Cross-sectional area    | cm <sup>2</sup>   | 17,3           |
| Weight per linear m     | kg/m              | 4,7            |
| Material Dam Beam/Log   | -                 | EN AW-6063-T66 |
| Material Seal           | -                 | EPDM           |
| Moment of inertia       | cm <sup>4</sup>   | 73,8           |
| Modulus of elasticity E | N/mm <sup>2</sup> | 70.000         |

DBAL50x150-4.0LM

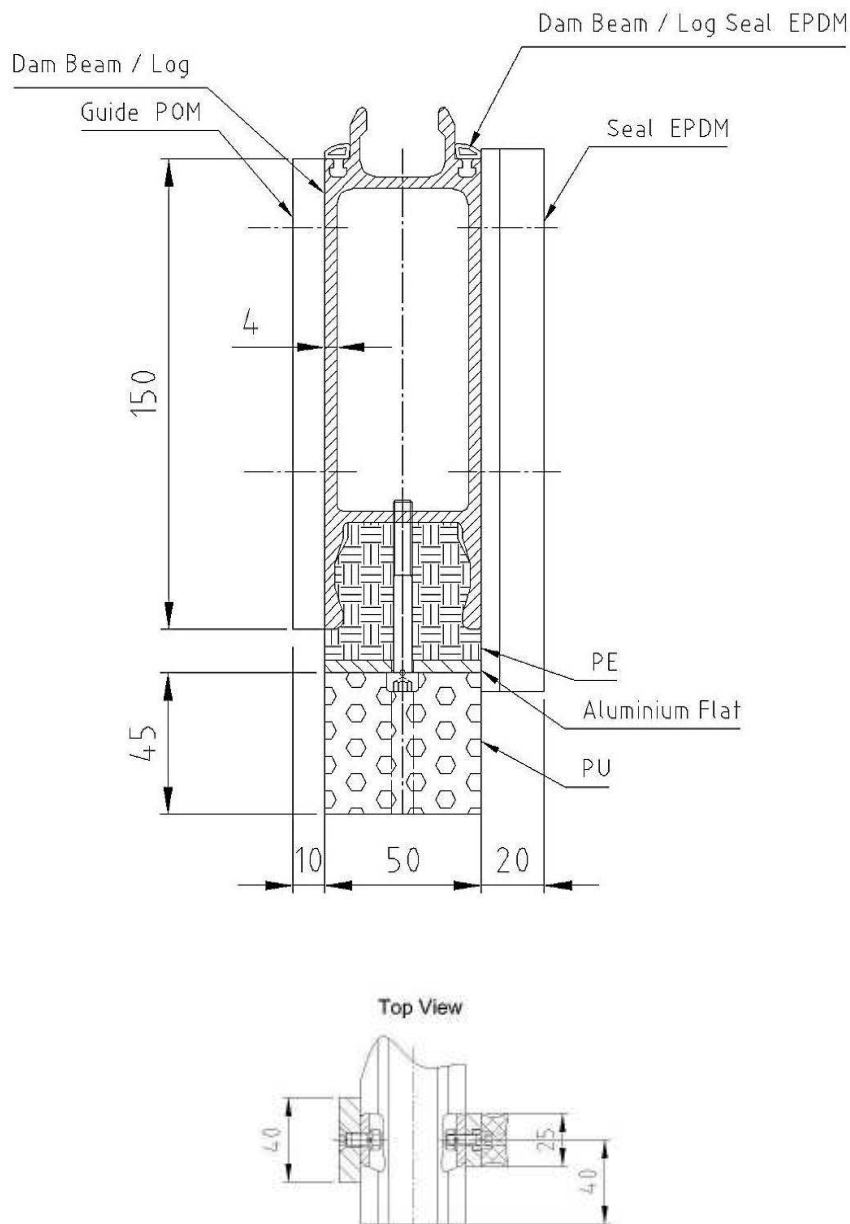


Top View



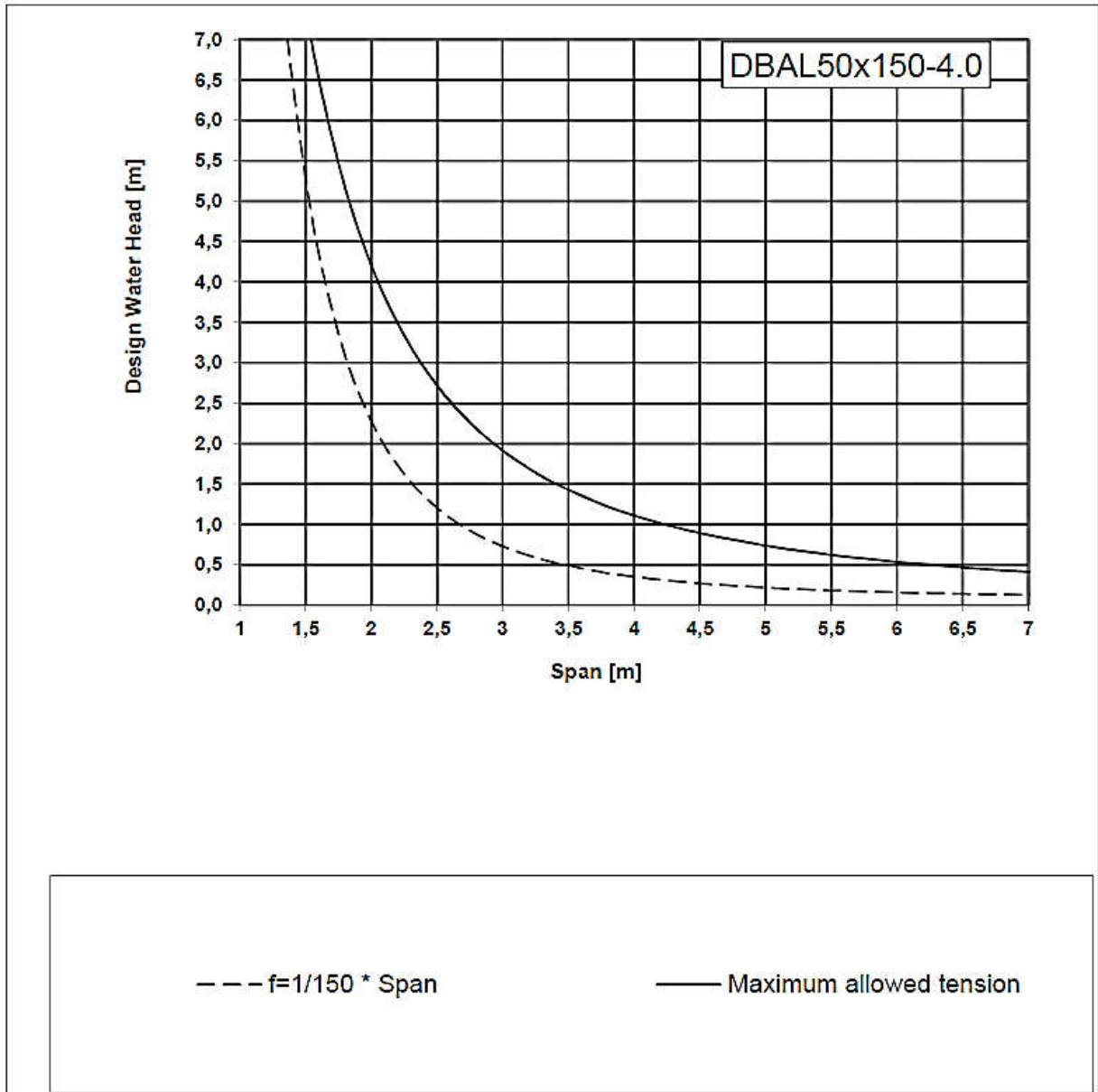
| PROFILE CHARACTERISTICS |                   |                |
|-------------------------|-------------------|----------------|
| Height                  | mm                | 150            |
| Width                   | mm                | 50             |
| Thickness               | mm                | 4              |
| Cross-sectional area    | cm <sup>2</sup>   | 17,3           |
| Weight per linear m     | kg/m              | 4,7            |
| Material Dam Beam/Log   | -                 | EN AW-6063-T66 |
| Material Seal           | -                 | EPDM           |
| Moment of inertia       | cm <sup>4</sup>   | 73,8           |
| Modulus of elasticity E | N/mm <sup>2</sup> | 70.000         |

DBAL50x150-4.0LM-BD

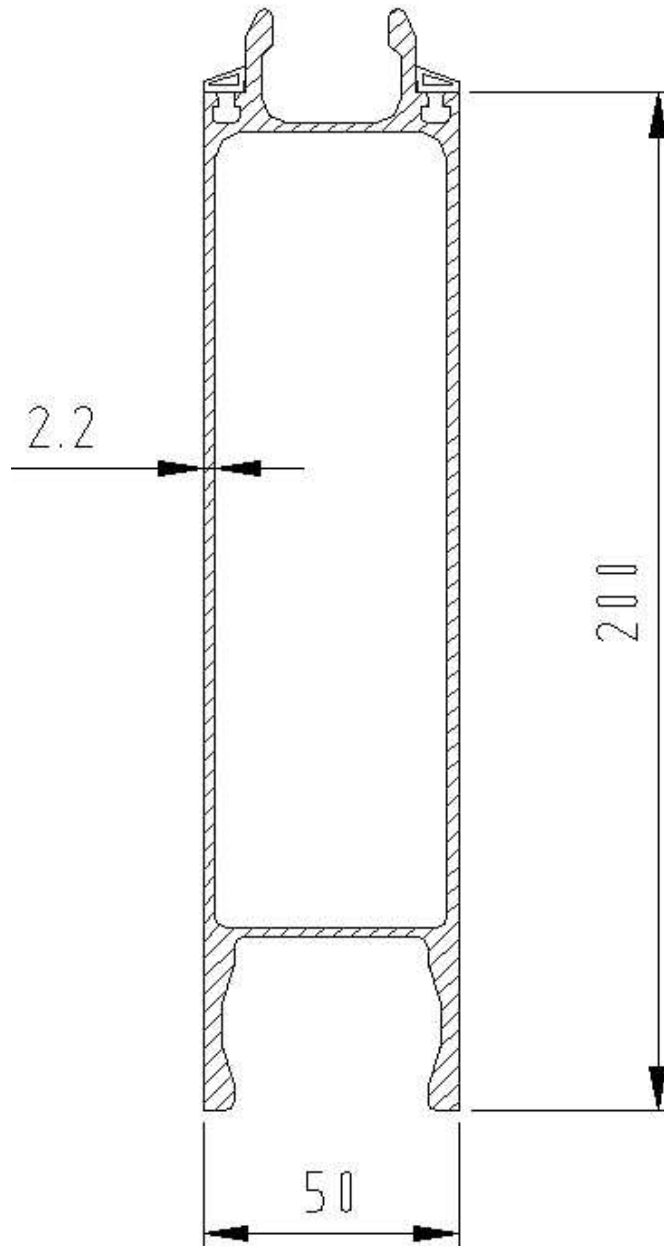


| PROFILE CHARACTERISTICS |                   |                |
|-------------------------|-------------------|----------------|
| Height                  | mm                | 150            |
| Width                   | mm                | 50             |
| Thickness               | mm                | 4              |
| Cross-sectional area    | cm <sup>2</sup>   | 17,3           |
| Weight per linear m     | kg/m              | 5,7            |
| Material Dam Beam/Log   | -                 | EN AW-6063-T66 |
| Material Seal           | -                 | EPDM           |
| Moment of inertia       | cm <sup>4</sup>   | 73,8           |
| Modulus of elasticity E | N/mm <sup>2</sup> | 70.000         |

Deflection Graph DBAL50x150-4.0



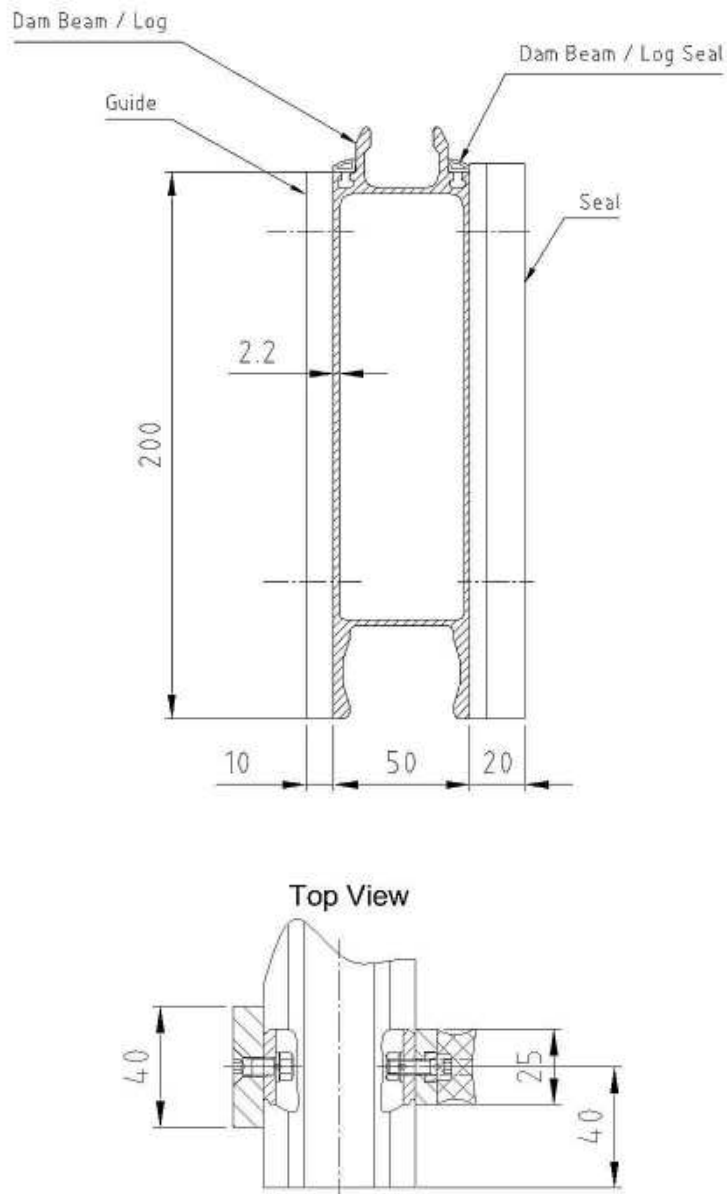
2.2.2 DBAL50x200-2.2



| PROFILE CHARACTERISTICS |                   |                |
|-------------------------|-------------------|----------------|
| Height                  | mm                | 200            |
| Width                   | mm                | 50             |
| Thickness               | mm                | 2,2            |
| Cross-sectional area    | cm <sup>2</sup>   | 14,4           |
| Weight per linear m     | kg/m              | 3,9            |
| Material Dam Beam/Log   | -                 | EN AW-6063-T66 |
| Material Seal           | -                 | EPDM           |
| Moment of inertia       | cm <sup>4</sup>   | 66,3           |
| Modulus of elasticity E | N/mm <sup>2</sup> | 70.000         |

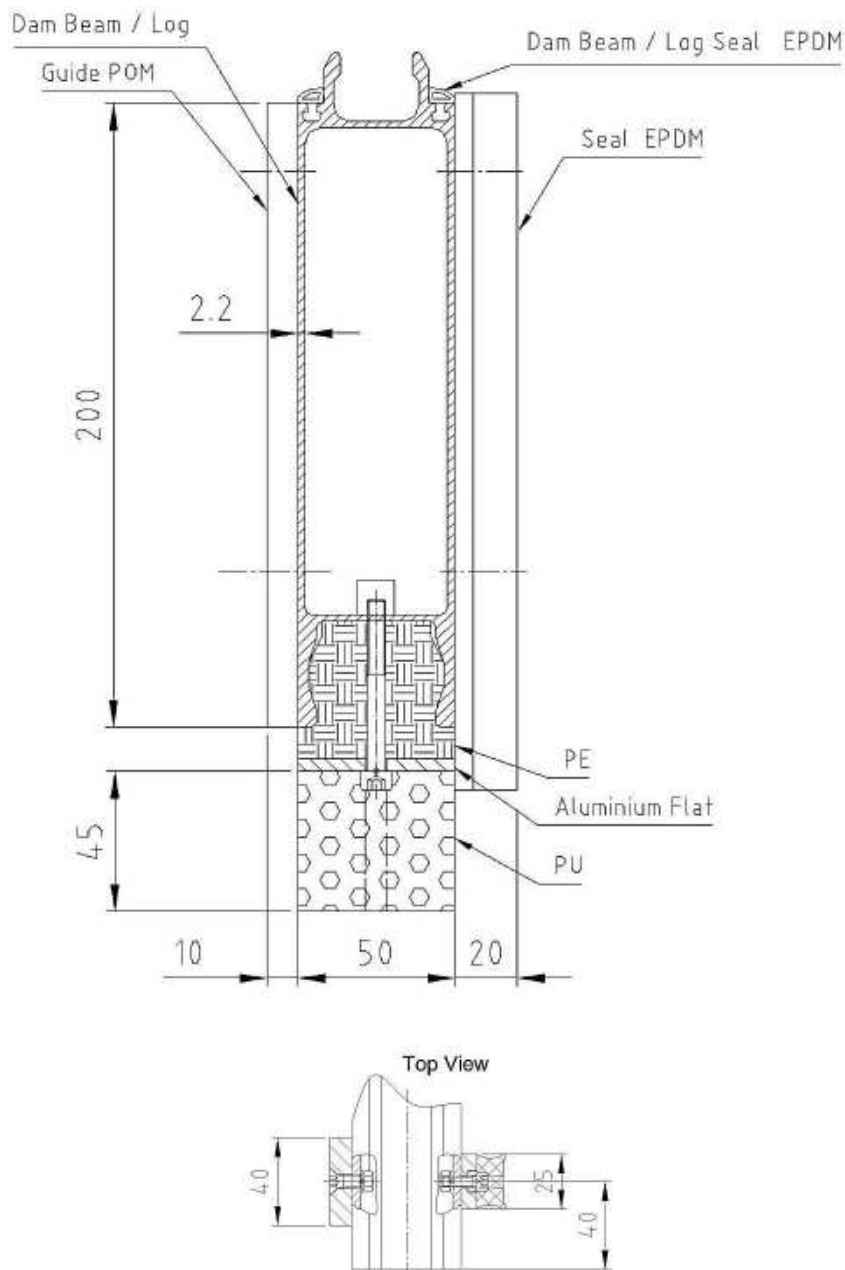


DBAL50x200-2.2LM



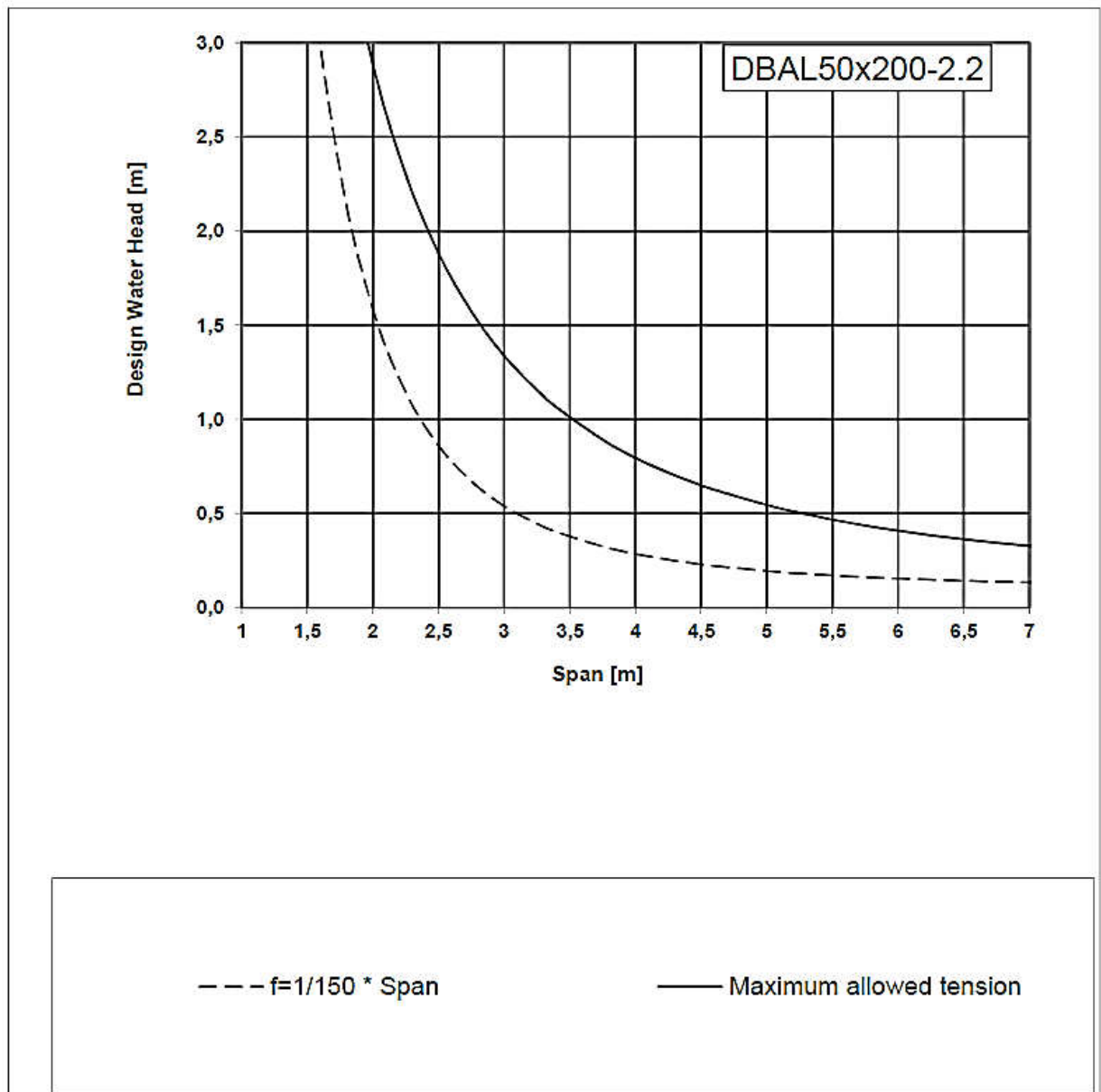
| PROFILE CHARACTERISTICS |                   |                |
|-------------------------|-------------------|----------------|
| Height                  | mm                | 200            |
| Width                   | mm                | 50             |
| Thickness               | mm                | 2,2            |
| Cross-sectional area    | cm <sup>2</sup>   | 14,4           |
| Weight per linear m     | kg/m              | 3,9            |
| Material Dam Beam/Log   | -                 | EN AW-6063-T66 |
| Material Seal           | -                 | EPDM           |
| Moment of inertia       | cm <sup>4</sup>   | 66,3           |
| Modulus of elasticity E | N/mm <sup>2</sup> | 70.000         |

DBAL50x200-2.2LM-BD

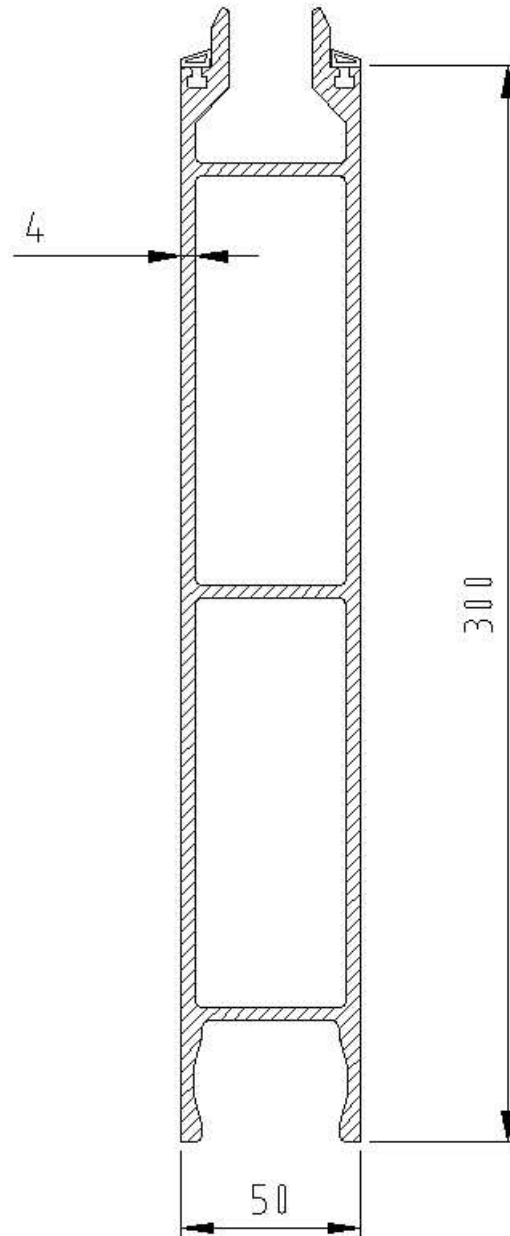


| PROFILE CHARACTERISTICS |                   |                |
|-------------------------|-------------------|----------------|
| Height                  | mm                | 200            |
| Width                   | mm                | 50             |
| Thickness               | mm                | 2,2            |
| Cross-sectional area    | cm <sup>2</sup>   | 14,4           |
| Weight per linear m     | kg/m              | 4,9            |
| Material Dam Beam/Log   | -                 | EN AW-6063-T66 |
| Material Seal           | -                 | EPDM           |
| Moment of inertia       | cm <sup>4</sup>   | 66,3           |
| Modulus of elasticity E | N/mm <sup>2</sup> | 70.000         |

Deflection Graph DBAL50x200-2.2

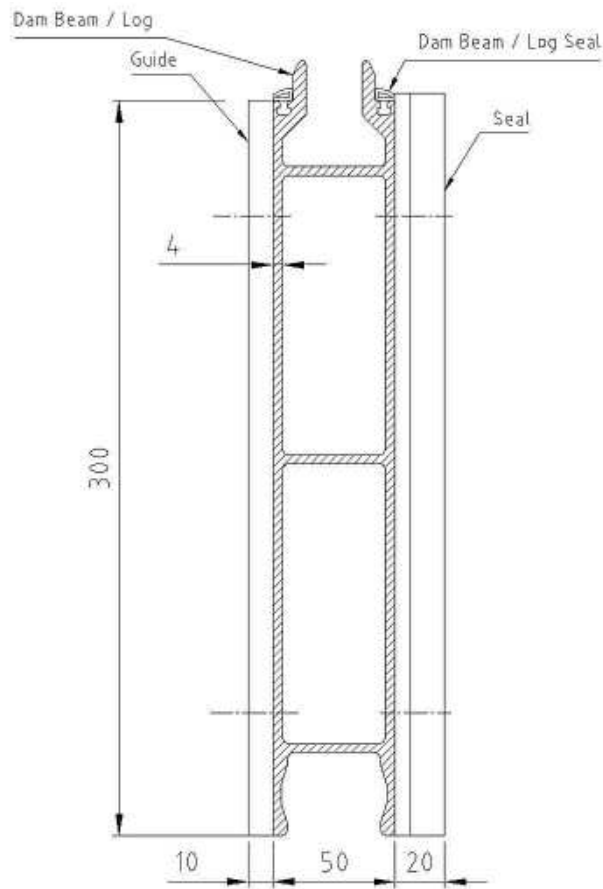


2.2.3 DBAL50x300-4.0

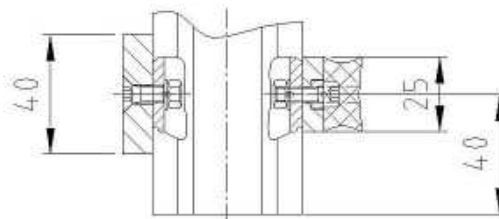


| PROFILE CHARACTERISTICS |                   |                |
|-------------------------|-------------------|----------------|
| Height                  | mm                | 300            |
| Width                   | mm                | 50             |
| Thickness               | mm                | 4              |
| Cross-sectional area    | cm <sup>2</sup>   | 32,1           |
| Weight per linear m     | kg/m              | 8,7            |
| Material Dam Beam/Log   | -                 | EN AW-6063-T66 |
| Material Seal           | -                 | EPDM           |
| Moment of inertia       | cm <sup>4</sup>   | 143,2          |
| Modulus of elasticity E | N/mm <sup>2</sup> | 70.000         |

DBAL50x300-4.0LM

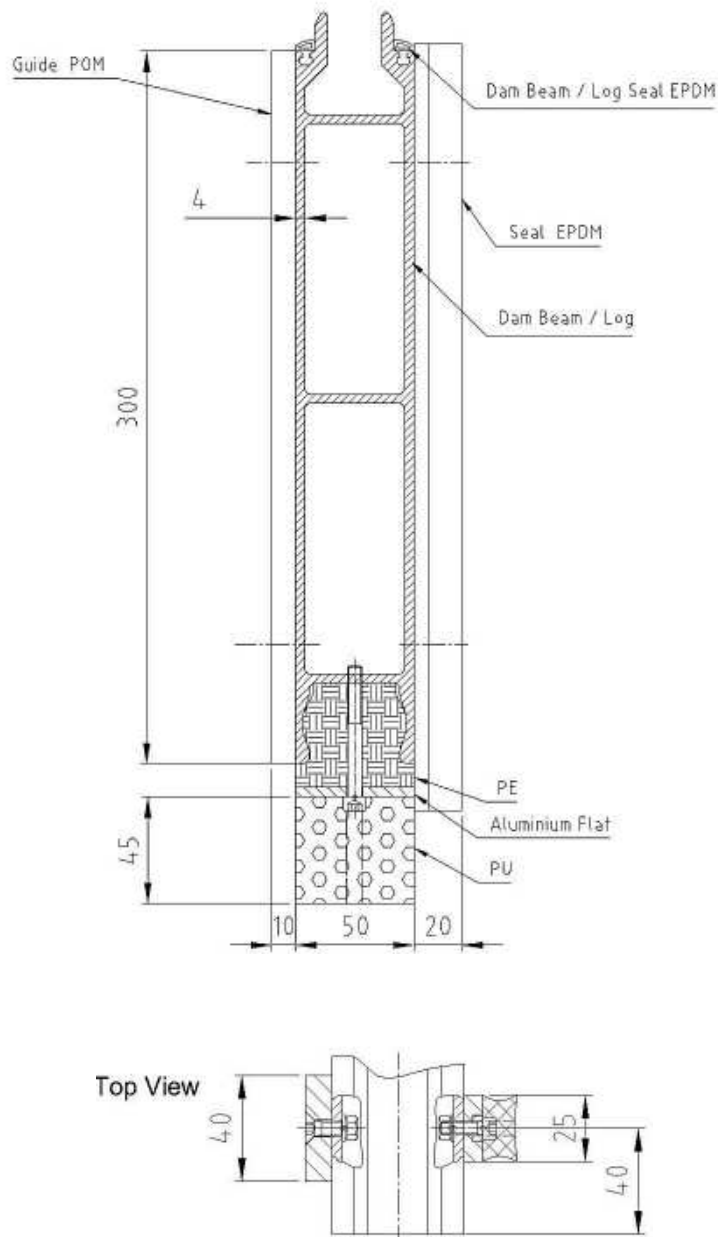


Top View



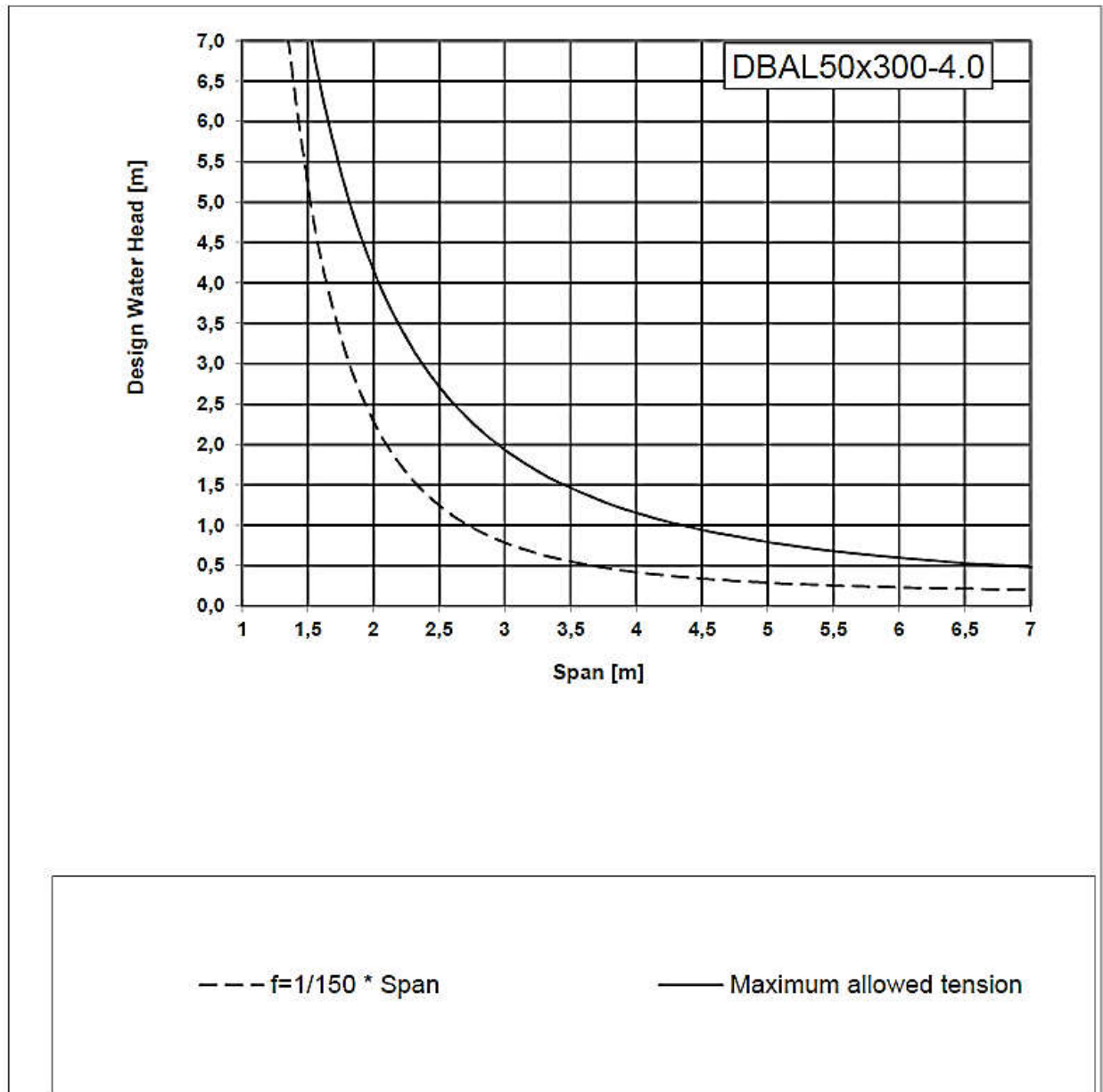
| PROFILE CHARACTERISTICS |                   |                |
|-------------------------|-------------------|----------------|
| Height                  | mm                | 300            |
| Width                   | mm                | 50             |
| Thickness               | mm                | 4              |
| Cross-sectional area    | cm <sup>2</sup>   | 32,1           |
| Weight per linear m     | kg/m              | 8,7            |
| Material Dam Beam/Log   | -                 | EN AW-6063-T66 |
| Material Seal           | -                 | EPDM           |
| Moment of inertia       | cm <sup>4</sup>   | 143,2          |
| Modulus of elasticity E | N/mm <sup>2</sup> | 70.000         |

DBAL50x300-4.0LM-BD

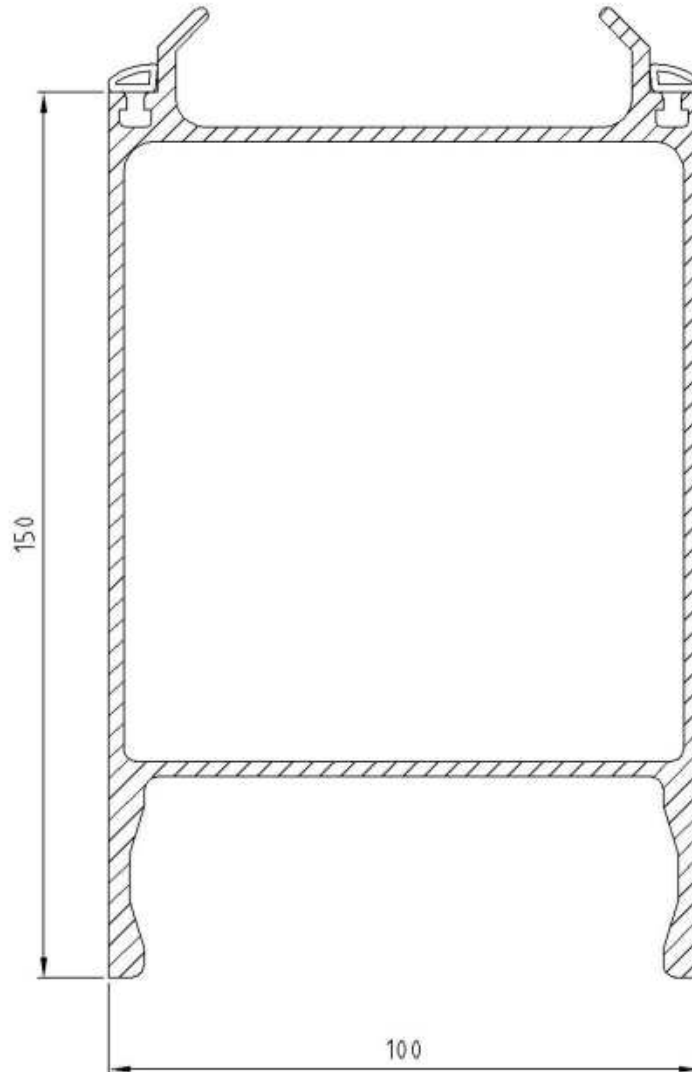


| PROFILE CHARACTERISTICS |                   |                |
|-------------------------|-------------------|----------------|
| Height                  | mm                | 300            |
| Width                   | mm                | 50             |
| Thickness               | mm                | 4              |
| Cross-sectional area    | cm <sup>2</sup>   | 32,1           |
| Weight per linear m     | kg/m              | 9,7            |
| Material Dam Beam/Log   | -                 | EN AW-6063-T66 |
| Material Seal           | -                 | EPDM           |
| Moment of inertia       | cm <sup>4</sup>   | 143,2          |
| Modulus of elasticity E | N/mm <sup>2</sup> | 70.000         |

Deflection Graph DBAL50x300-4.0



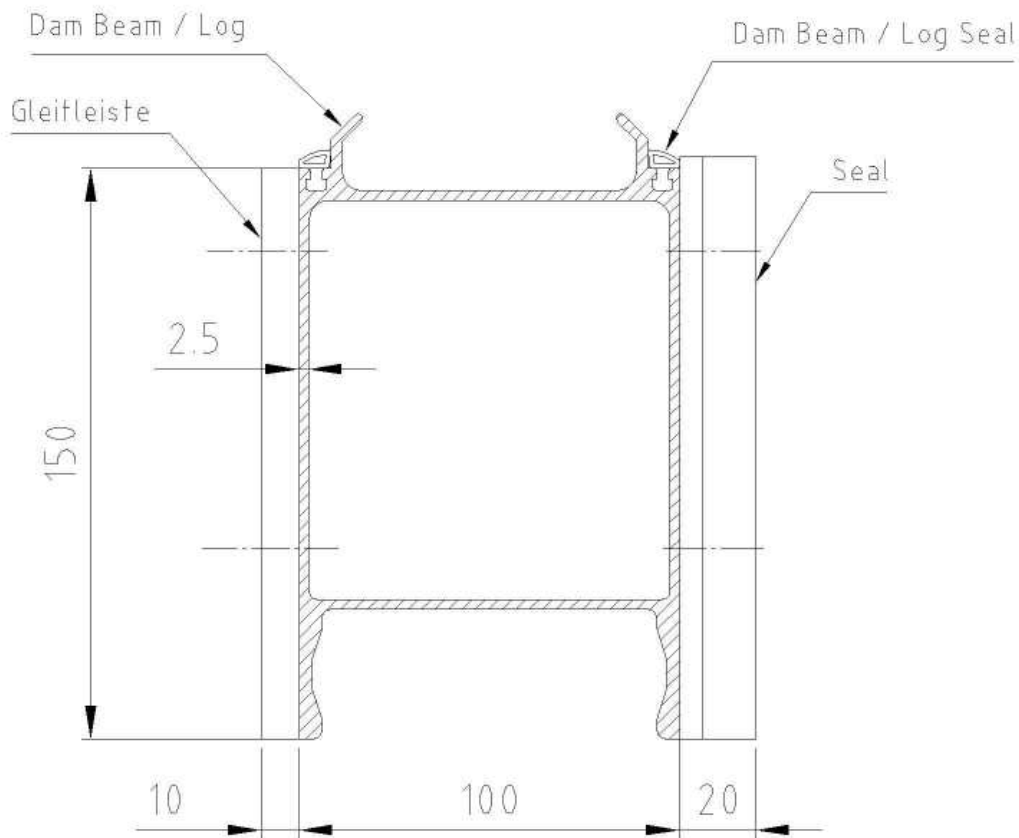
2.2.4 DBAL100x150-2.5



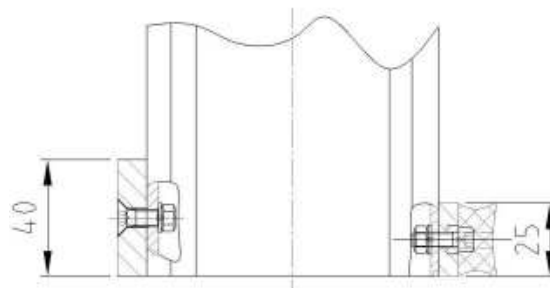
| PROFILE CHARACTERISTICS |                   |                |
|-------------------------|-------------------|----------------|
| Height                  | mm                | 150            |
| Width                   | mm                | 100            |
| Thickness               | mm                | 2,5            |
| Cross-sectional area    | cm <sup>2</sup>   | 15,5           |
| Weight per linear m     | kg/m              | 4,2            |
| Material Dam Beam/Log   | -                 | EN AW-6063-T66 |
| Material Seal           | -                 | EPDM           |
| Moment of inertia       | cm <sup>4</sup>   | 274            |
| Modulus of elasticity E | N/mm <sup>2</sup> | 70.000         |



DBAL100x150-2.5LM

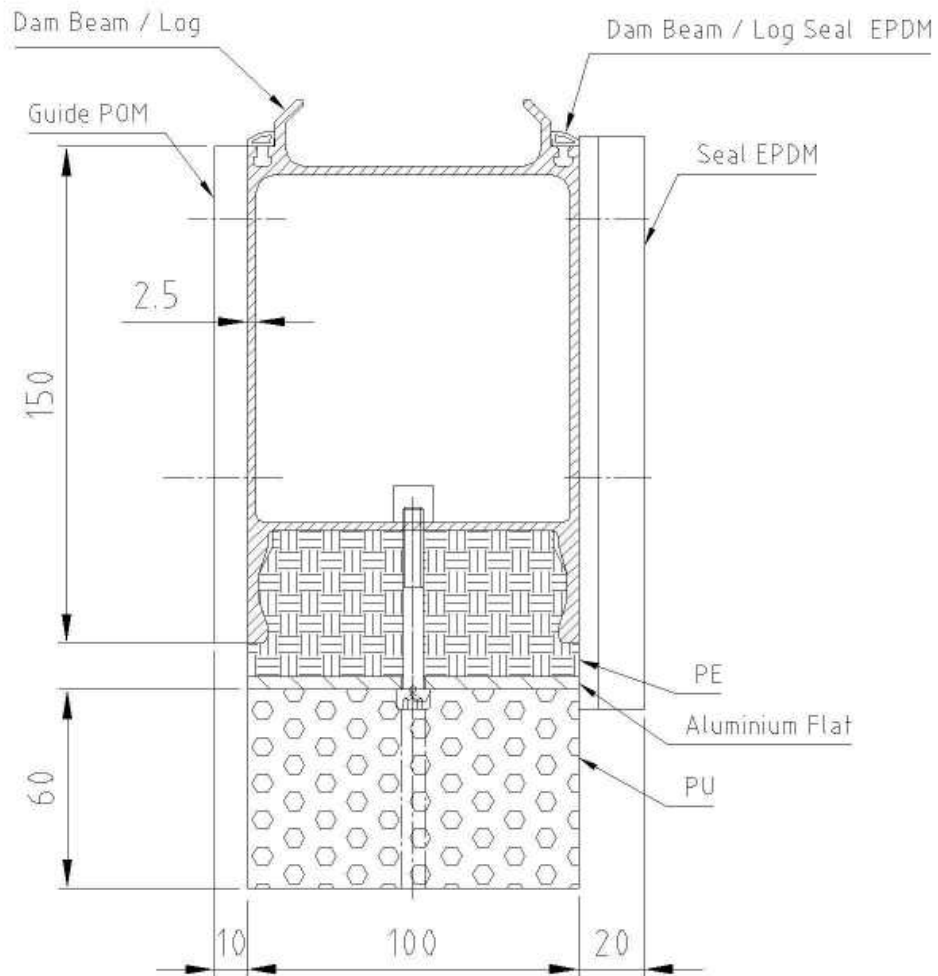


Top View

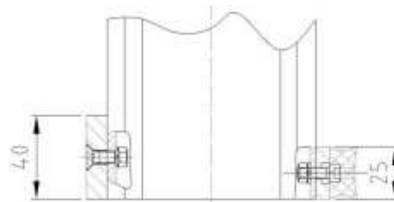


| PROFILE CHARACTERISTICS |                   |                |
|-------------------------|-------------------|----------------|
| Height                  | mm                | 150            |
| Width                   | mm                | 100            |
| Thickness               | mm                | 2,5            |
| Cross-sectional area    | cm <sup>2</sup>   | 15,5           |
| Weight per linear m     | kg/m              | 4,2            |
| Material Dam Beam/Log   | -                 | EN AW-6063-T66 |
| Material Seal           | -                 | EPDM           |
| Moment of inertia       | cm <sup>4</sup>   | 274            |
| Modulus of elasticity E | N/mm <sup>2</sup> | 70.000         |

DBAL100x150-2.5LM-BD

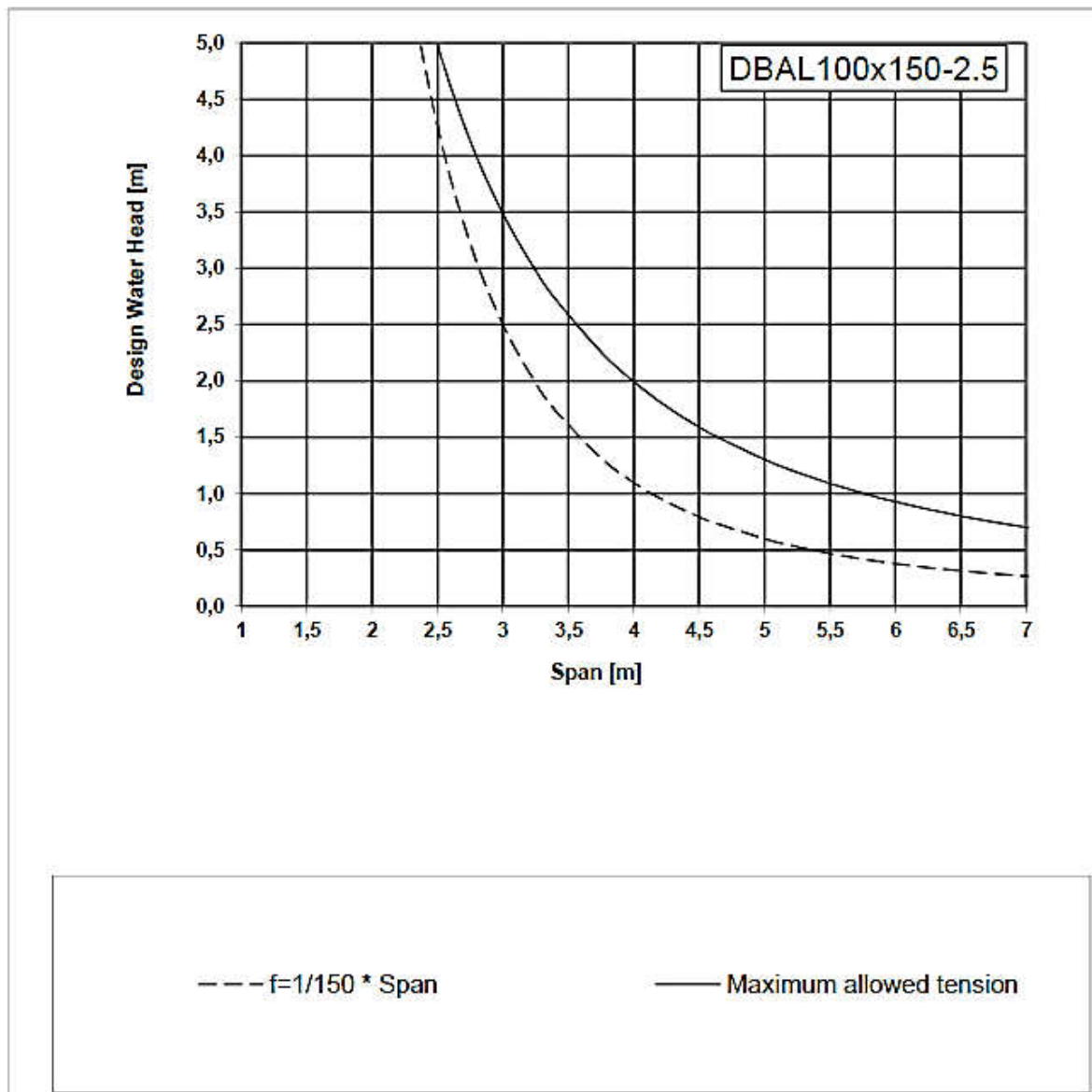


Top View

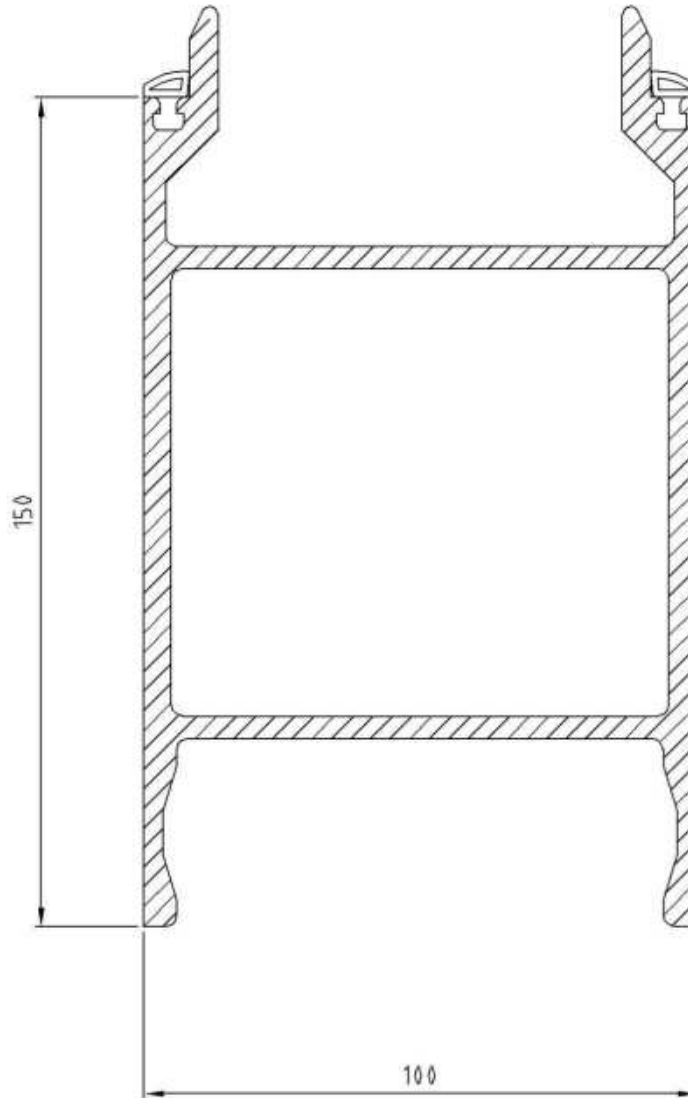


| PROFILE CHARACTERISTICS |                   |                |
|-------------------------|-------------------|----------------|
| Height                  | mm                | 150            |
| Width                   | mm                | 100            |
| Thickness               | mm                | 2,5            |
| Cross-sectional area    | cm <sup>2</sup>   | 15,5           |
| Weight per linear m     | kg/m              | 6,3            |
| Material Dam Beam/Log   | -                 | EN AW-6063-T66 |
| Material Seal           | -                 | EPDM           |
| Moment of inertia       | cm <sup>4</sup>   | 274            |
| Modulus of elasticity E | N/mm <sup>2</sup> | 70.000         |

Deflection Graph DBAL100x150-2.5

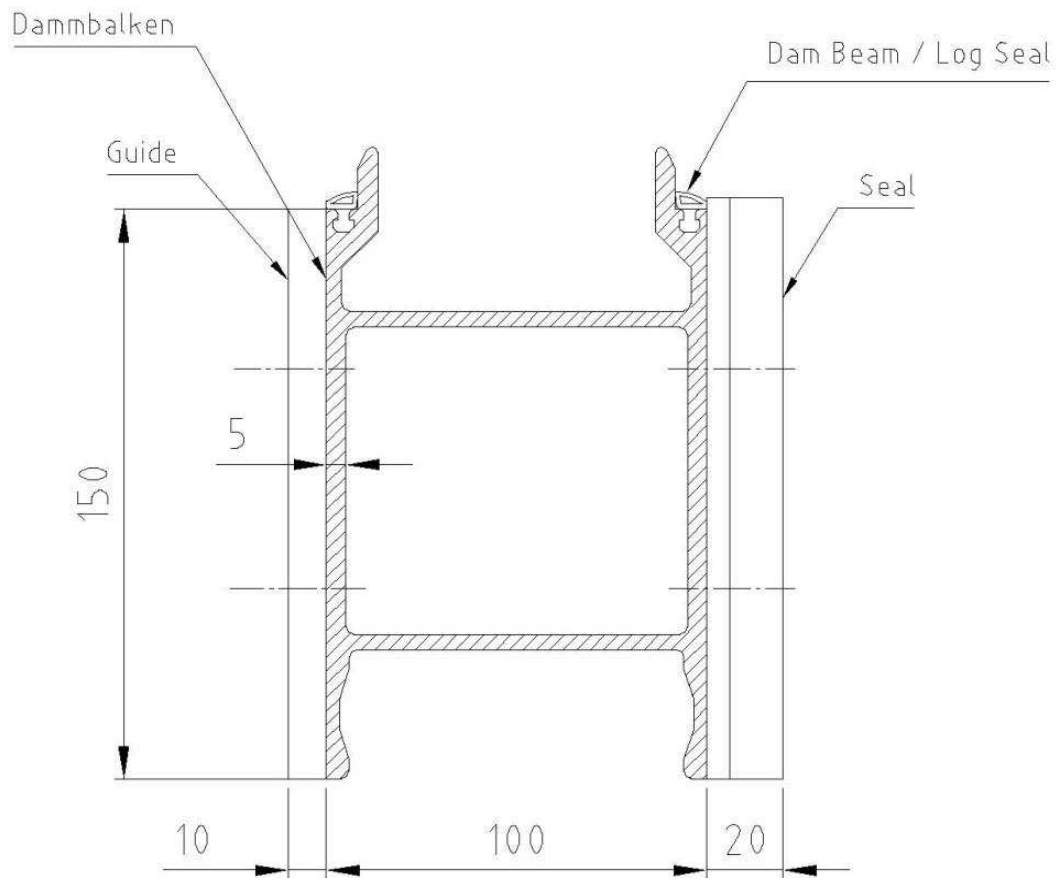


2.2.5 DBAL100x150-5.0

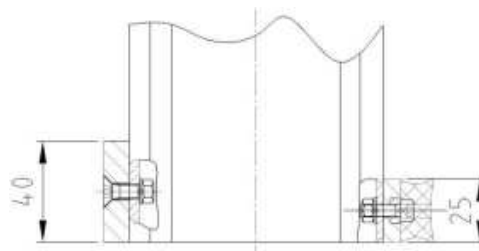


| PROFILE CHARACTERISTICS |                   |                |
|-------------------------|-------------------|----------------|
| Height                  | mm                | 150            |
| Width                   | mm                | 100            |
| Thickness               | mm                | 5              |
| Cross-sectional area    | cm <sup>2</sup>   | 24,7           |
| Weight per linear m     | kg/m              | 6,7            |
| Material Dam Beam/Log   | -                 | EN AW-6063-T66 |
| Material Seal           | -                 | EPDM           |
| Moment of inertia       | cm <sup>4</sup>   | 423,5          |
| Modulus of elasticity E | N/mm <sup>2</sup> | 70.000         |

DBAL100x150-5.0LM

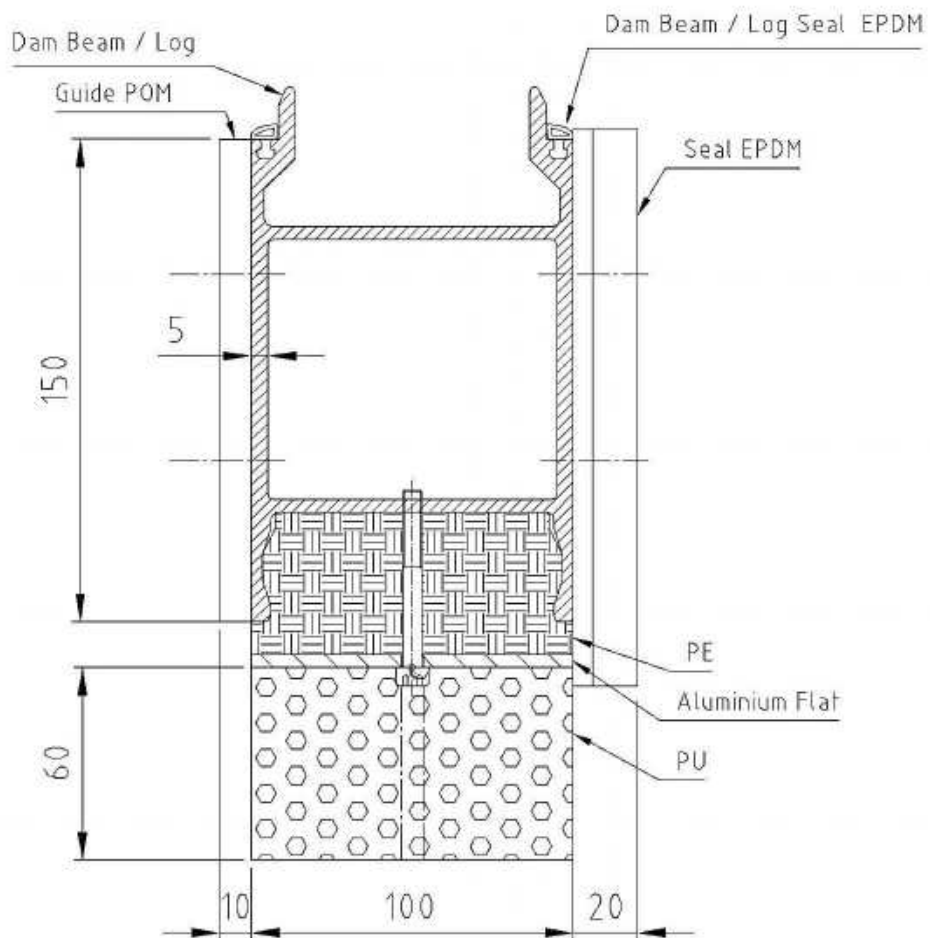


Top View

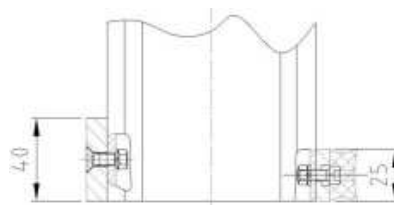


| PROFILE CHARACTERISTICS |                   |                |
|-------------------------|-------------------|----------------|
| Height                  | mm                | 150            |
| Width                   | mm                | 100            |
| Thickness               | mm                | 5              |
| Cross-sectional area    | cm <sup>2</sup>   | 24,7           |
| Weight per linear m     | kg/m              | 6,7            |
| Material Dam Beam/Log   | -                 | EN AW-6063-T66 |
| Material Seal           | -                 | EPDM           |
| Moment of inertia       | cm <sup>4</sup>   | 423,5          |
| Modulus of elasticity E | N/mm <sup>2</sup> | 70.000         |

DBAL100x150-5.0LM-BD

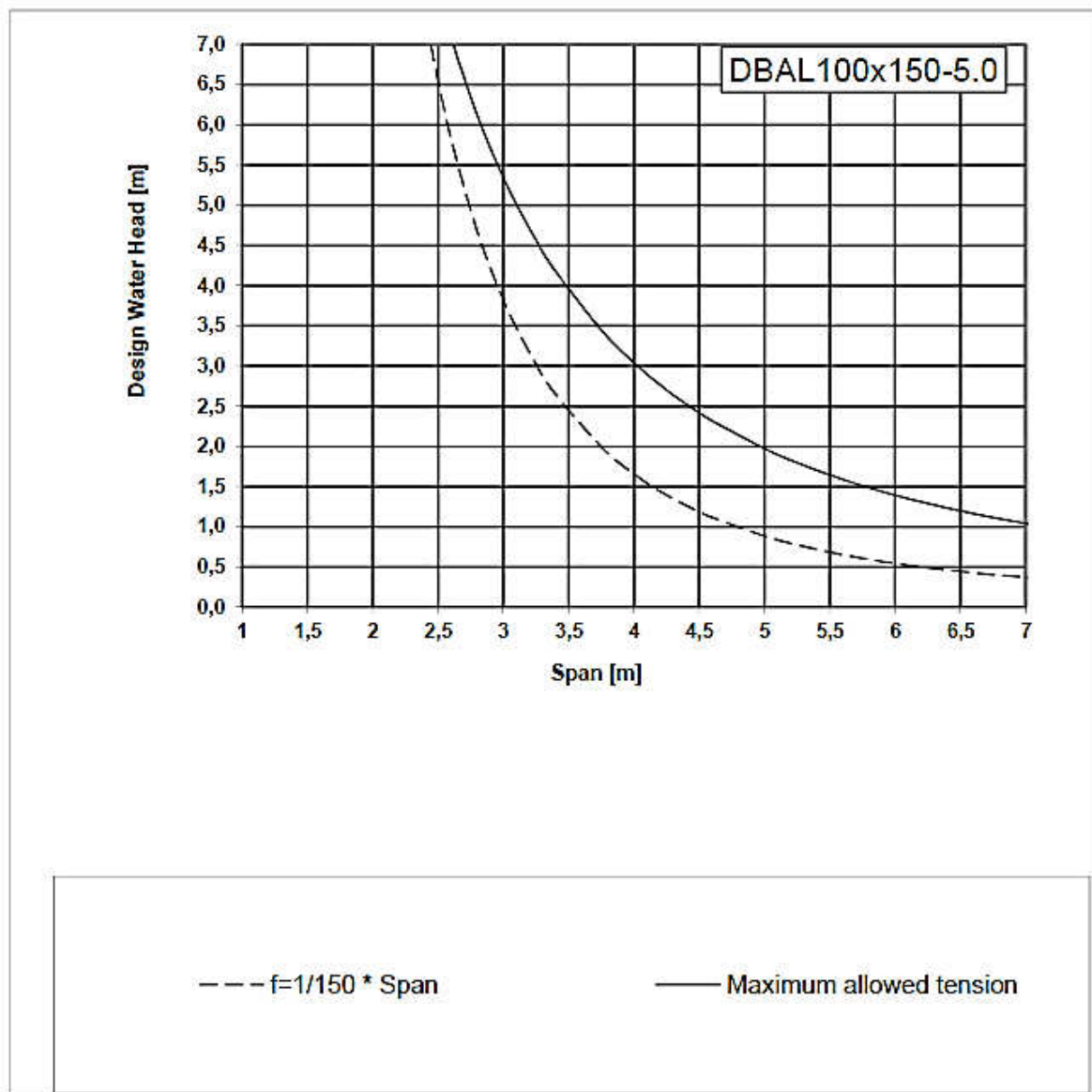


Top View

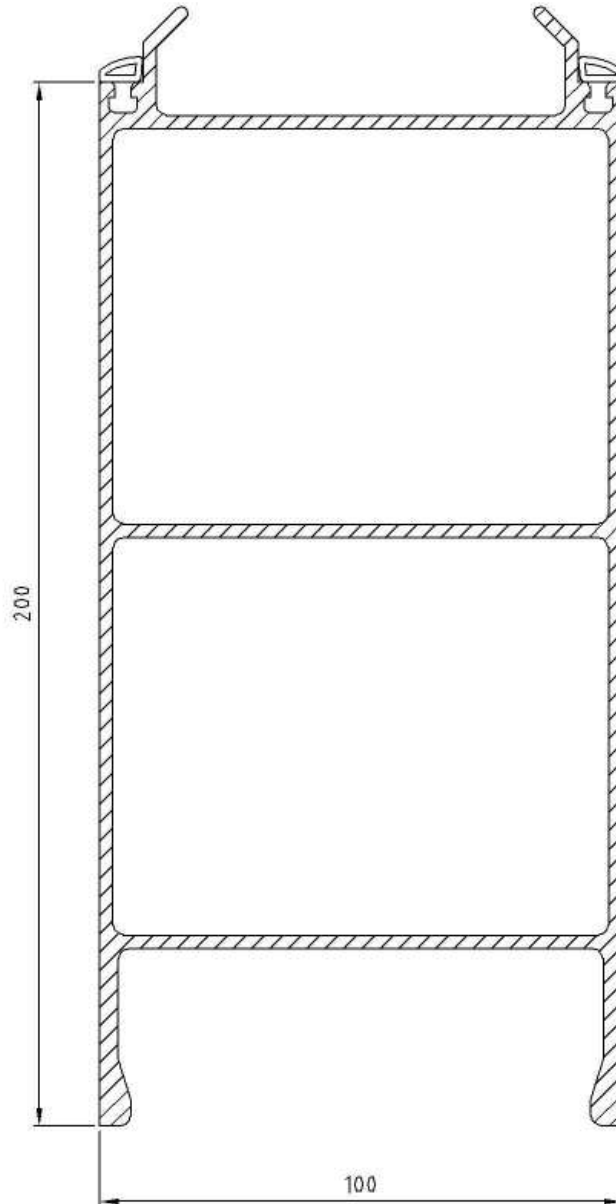


| PROFILE CHARACTERISTICS |                   |                |
|-------------------------|-------------------|----------------|
| Height                  | mm                | 150            |
| Width                   | mm                | 100            |
| Thickness               | mm                | 5              |
| Cross-sectional area    | cm <sup>2</sup>   | 24,7           |
| Weight per linear m     | kg/m              | 8,8            |
| Material Dam Beam/Log   | -                 | EN AW-6063-T66 |
| Material Seal           | -                 | EPDM           |
| Moment of inertia       | cm <sup>4</sup>   | 423,5          |
| Modulus of elasticity E | N/mm <sup>2</sup> | 70.000         |

Deflection Graph DBAL100x150-5.0



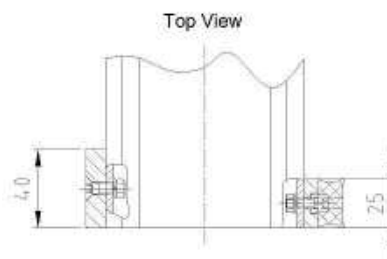
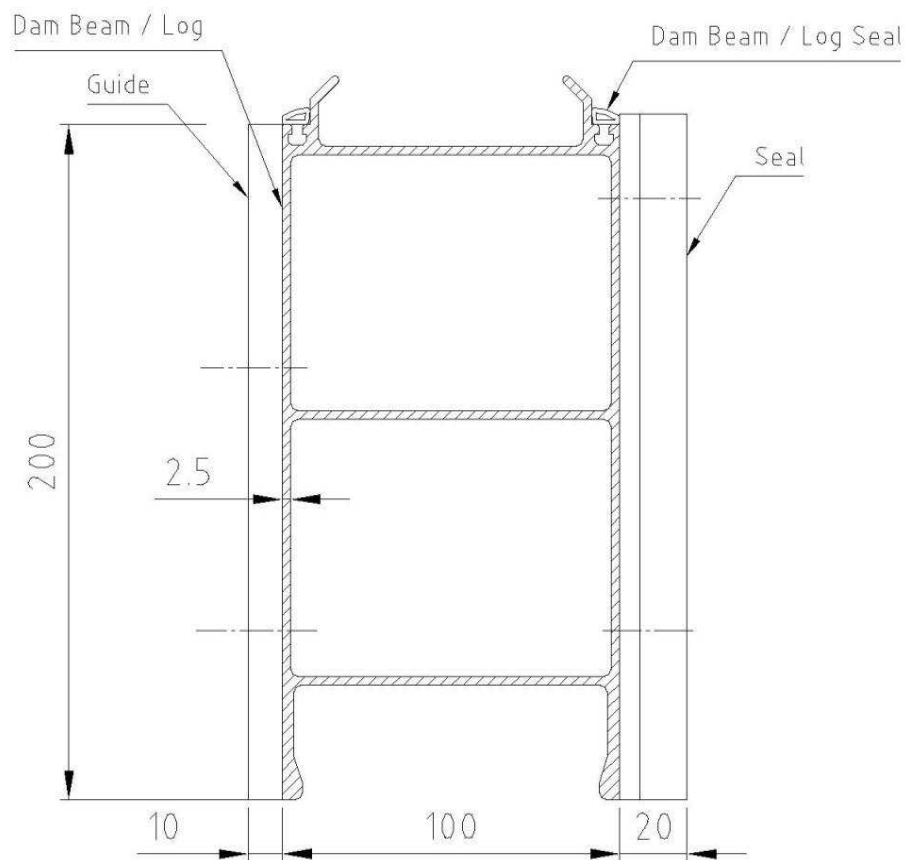
2.2.6 DBAL100x200-2.5



| PROFILE CHARACTERISTICS |                   |                |
|-------------------------|-------------------|----------------|
| Height                  | mm                | 200            |
| Width                   | mm                | 100            |
| Thickness               | mm                | 2,5            |
| Cross-sectional area    | cm <sup>2</sup>   | 19,7           |
| Weight per linear m     | kg/m              | 5,3            |
| Material Dam Beam/Log   | -                 | EN AW-6063-T66 |
| Material Seal           | -                 | EPDM           |
| Moment of inertia       | cm <sup>4</sup>   | 339,5          |
| Modulus of elasticity E | N/mm <sup>2</sup> | 70.000         |

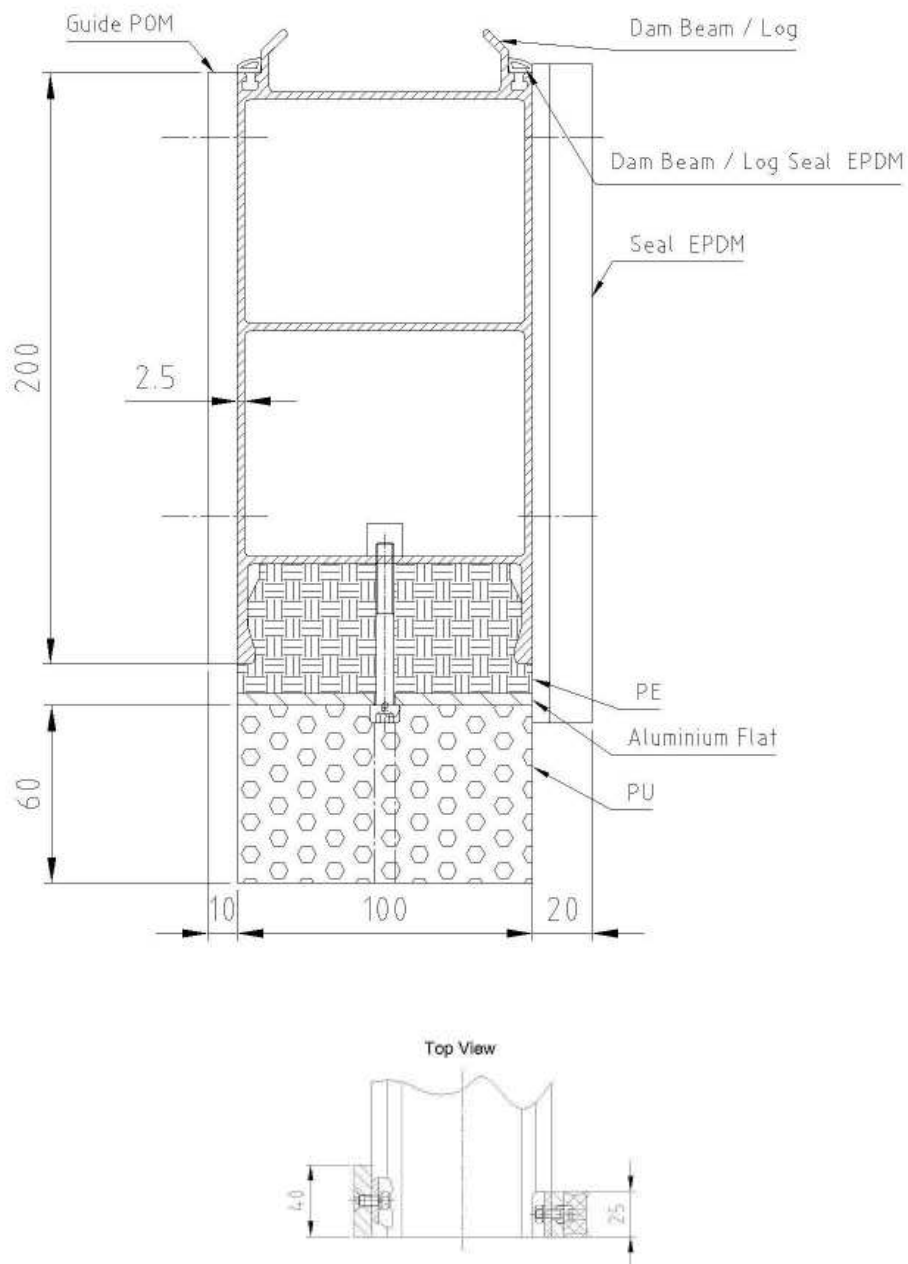


DBAL100x200-2.5LM



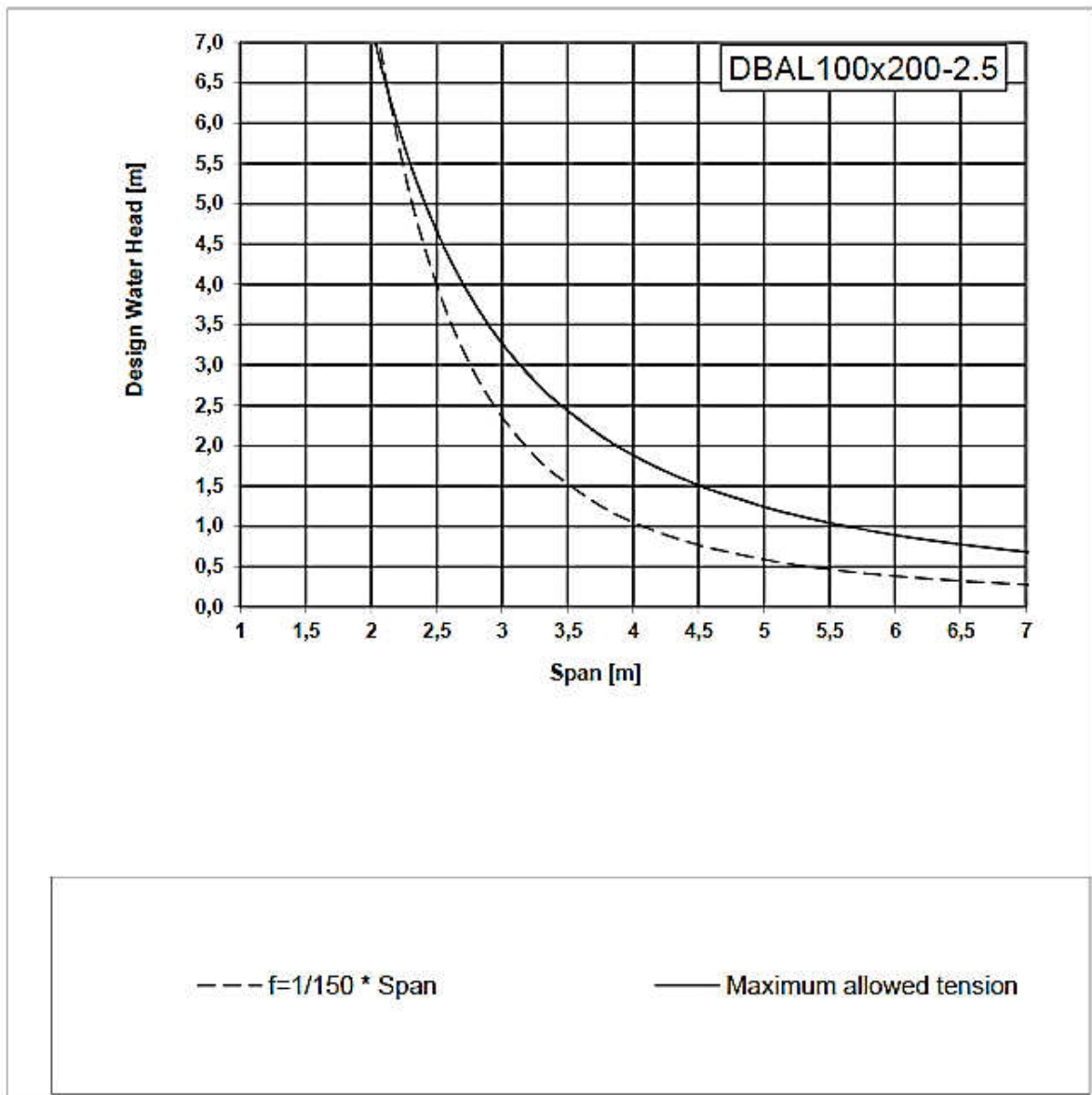
| PROFILE CHARACTERISTICS |                   |                |
|-------------------------|-------------------|----------------|
| Height                  | mm                | 200            |
| Width                   | mm                | 100            |
| Thickness               | mm                | 2,5            |
| Cross-sectional area    | cm <sup>2</sup>   | 19,7           |
| Weight per linear m     | kg/m              | 5,3            |
| Material Dam Beam/Log   | -                 | EN AW-6063-T66 |
| Material Seal           | -                 | EPDM           |
| Moment of inertia       | cm <sup>4</sup>   | 339,5          |
| Modulus of elasticity E | N/mm <sup>2</sup> | 70.000         |

DBAL100x200-2.5LM-BD

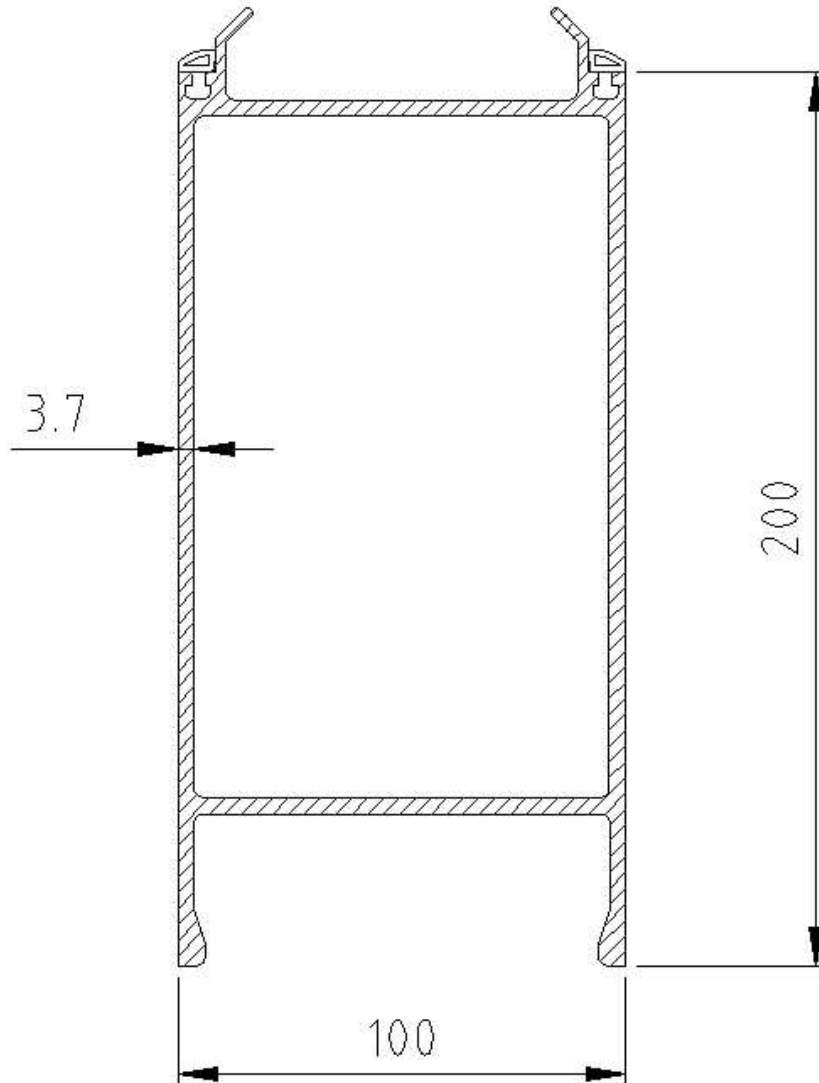


| PROFILE CHARACTERISTICS |                   |                |
|-------------------------|-------------------|----------------|
| Height                  | mm                | 200            |
| Width                   | mm                | 100            |
| Thickness               | mm                | 2,5            |
| Cross-sectional area    | cm <sup>2</sup>   | 19,7           |
| Weight per linear m     | kg/m              | 7,4            |
| Material Dam Beam/Log   | -                 | EN AW-6063-T66 |
| Material Seal           | -                 | EPDM           |
| Moment of inertia       | cm <sup>4</sup>   | 339,5          |
| Modulus of elasticity E | N/mm <sup>2</sup> | 70.000         |

Deflection Graph DBAL100x200-2.5

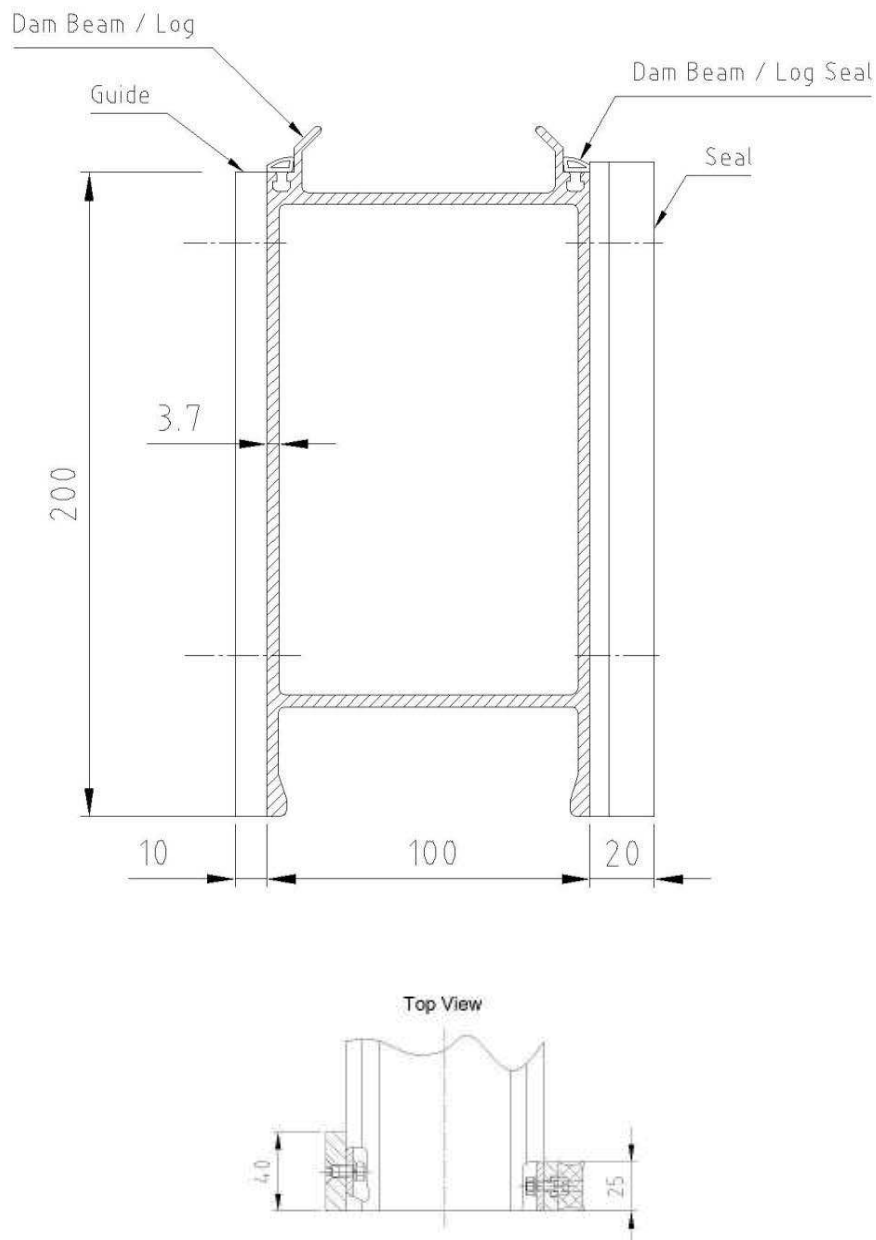


2.2.7 DBAL100x200-3.7



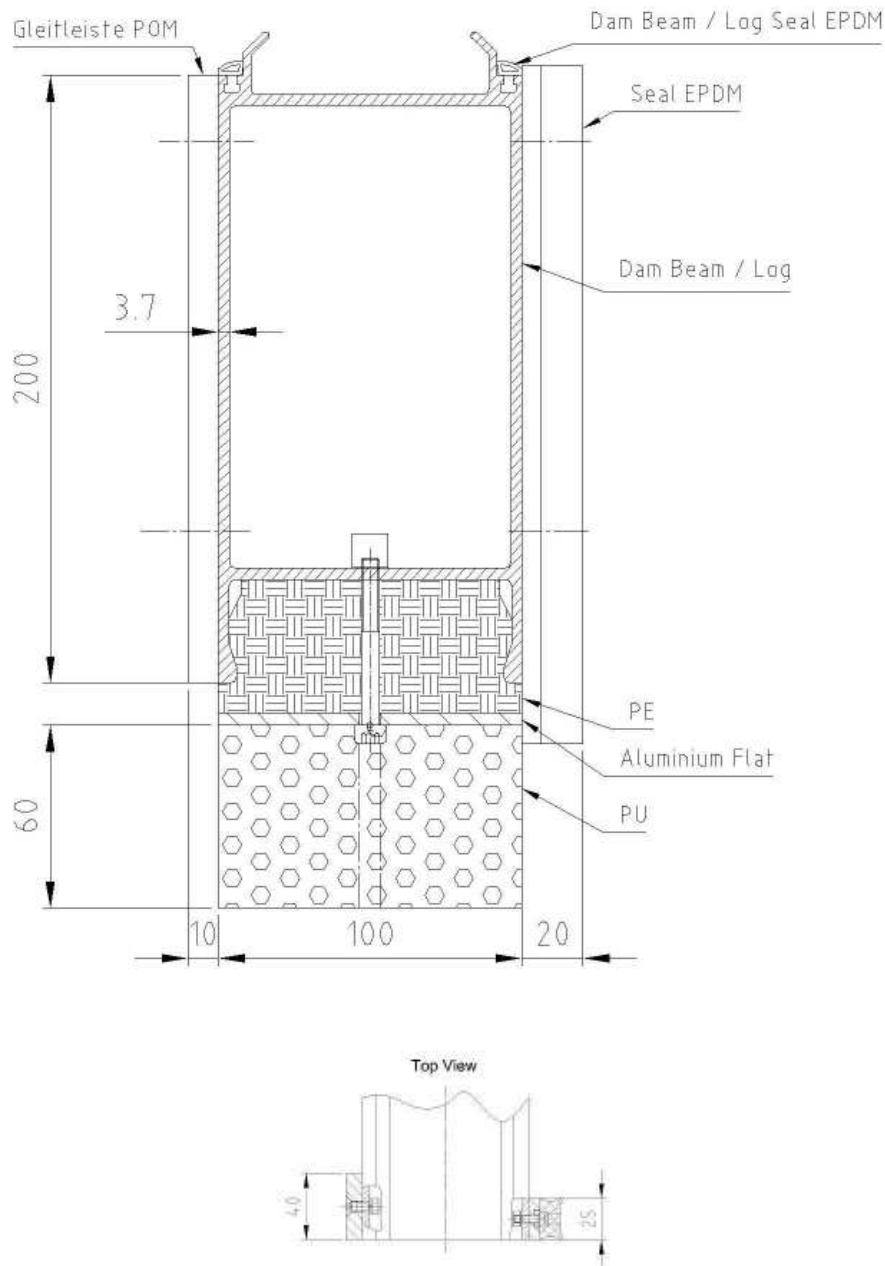
| PROFILE CHARACTERISTICS |                   |                |
|-------------------------|-------------------|----------------|
| Height                  | mm                | 200            |
| Width                   | mm                | 100            |
| Thickness               | mm                | 3,7            |
| Cross-sectional area    | cm <sup>2</sup>   | 23,1           |
| Weight per linear m     | kg/m              | 6,2            |
| Material Dam Beam/Log   | -                 | EN AW-6063-T66 |
| Material Seal           | -                 | EPDM           |
| Moment of inertia       | cm <sup>4</sup>   | 417            |
| Modulus of elasticity E | N/mm <sup>2</sup> | 70.000         |

DBAL100x200-3.7LM



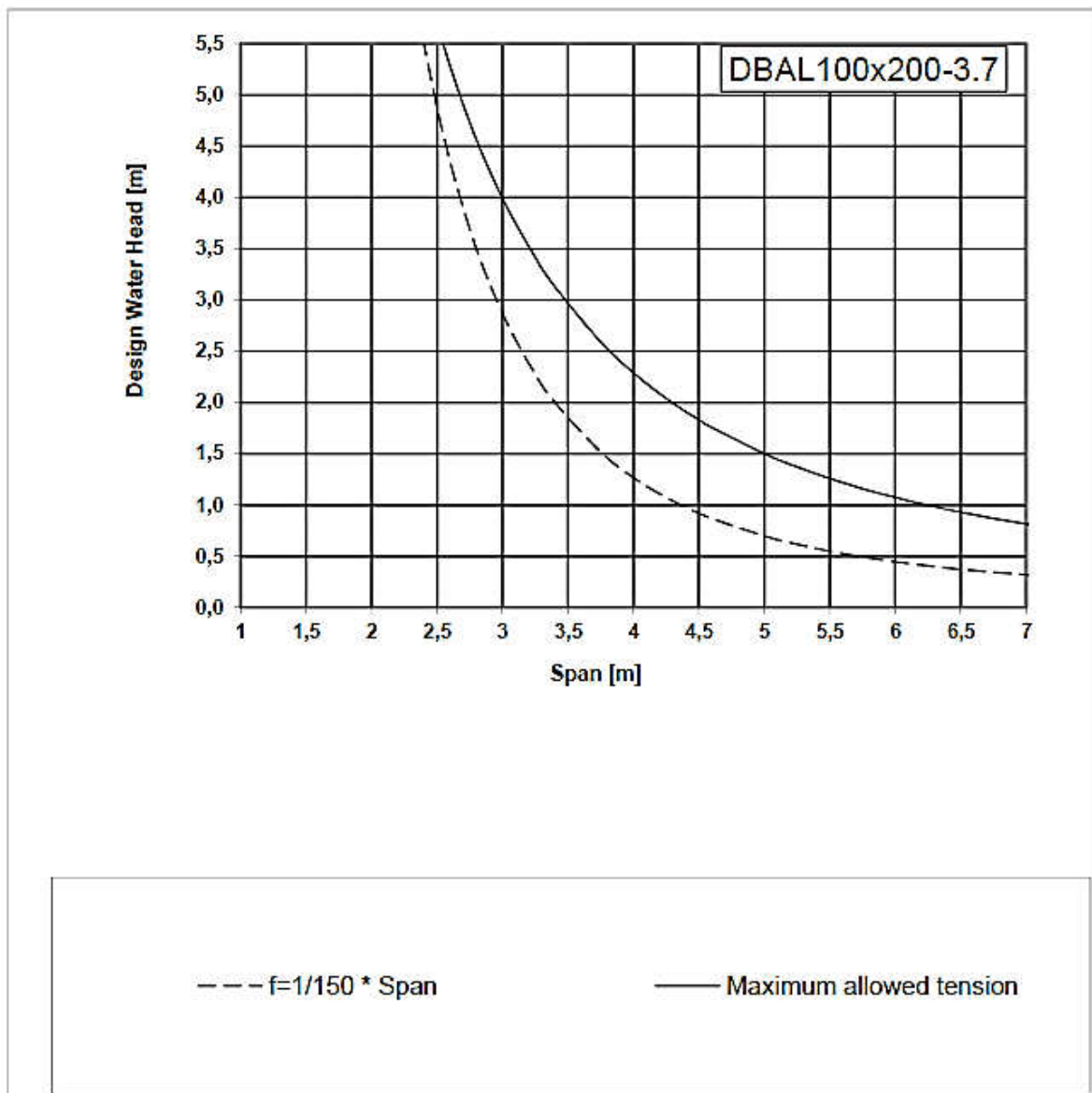
| PROFILE CHARACTERISTICS |                   |                |
|-------------------------|-------------------|----------------|
| Height                  | mm                | 200            |
| Width                   | mm                | 100            |
| Thickness               | mm                | 3,7            |
| Cross-sectional area    | cm <sup>2</sup>   | 23,1           |
| Weight per linear m     | kg/m              | 6,2            |
| Material Dam Beam/Log   | -                 | EN AW-6063-T66 |
| Material Seal           | -                 | EPDM           |
| Moment of inertia       | cm <sup>4</sup>   | 417            |
| Modulus of elasticity E | N/mm <sup>2</sup> | 70.000         |

DBAL100x200-3.7LM-BD

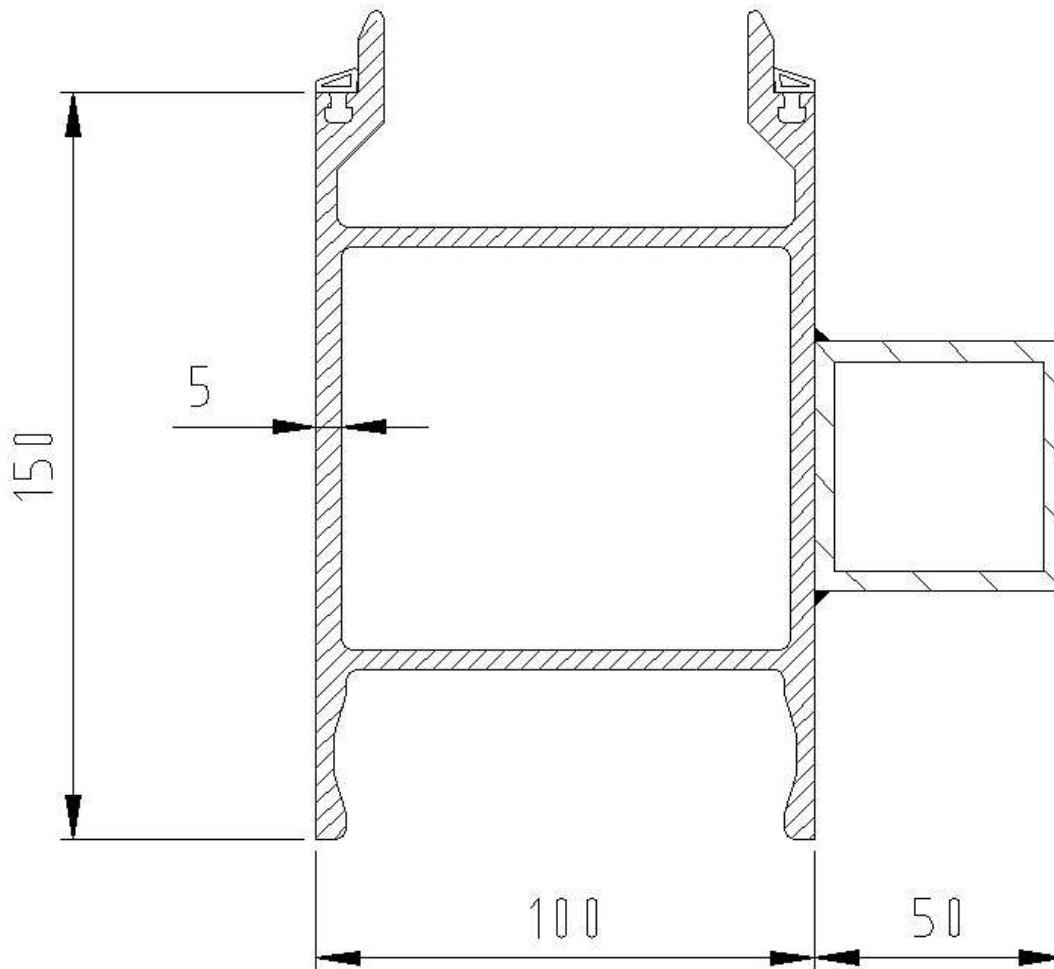


| PROFILE CHARACTERISTICS |                   |                |
|-------------------------|-------------------|----------------|
| Height                  | mm                | 200            |
| Width                   | mm                | 100            |
| Thickness               | mm                | 3,7            |
| Cross-sectional area    | cm <sup>2</sup>   | 23,1           |
| Weight per linear m     | kg/m              | 8,3            |
| Material Dam Beam/Log   | -                 | EN AW-6063-T66 |
| Material Seal           | -                 | EPDM           |
| Moment of inertia       | cm <sup>4</sup>   | 417            |
| Modulus of elasticity E | N/mm <sup>2</sup> | 70.000         |

Deflection Graph DBAL100x200-3.7



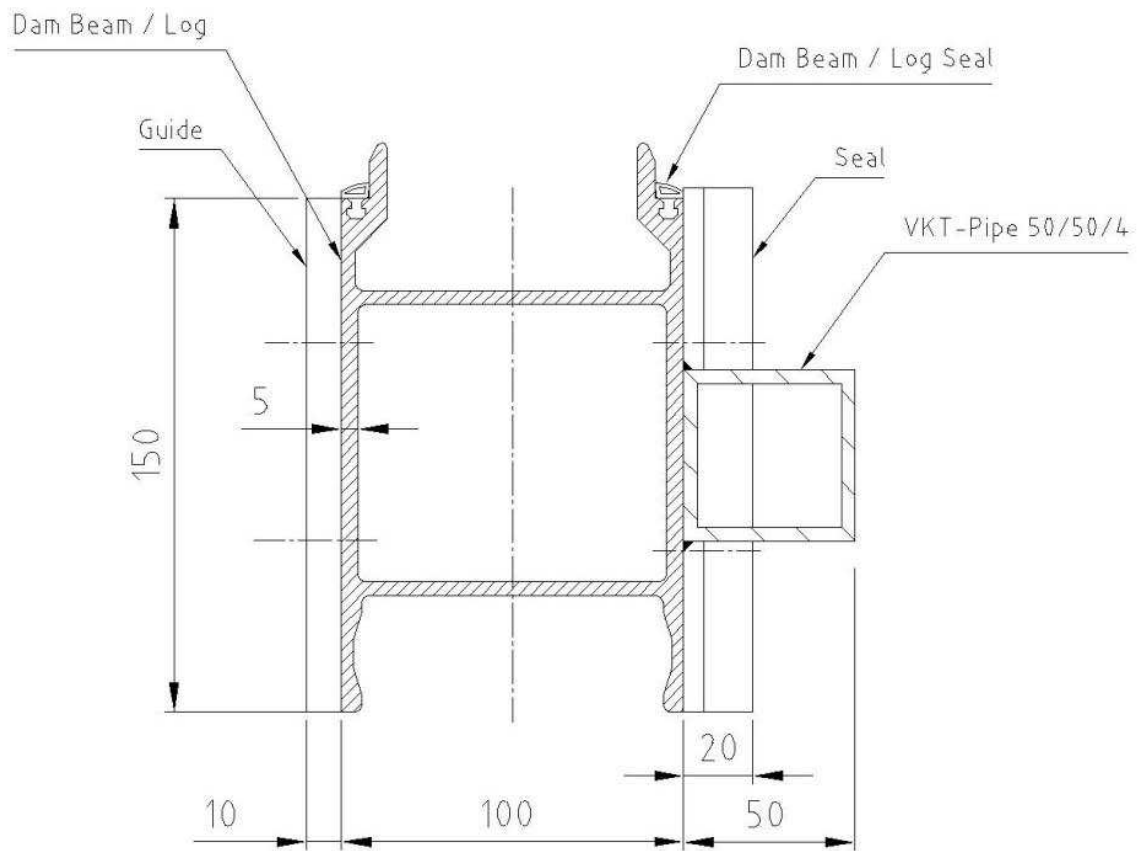
2.2.8 DBAL100x150-5.0+1x50x50-4.0



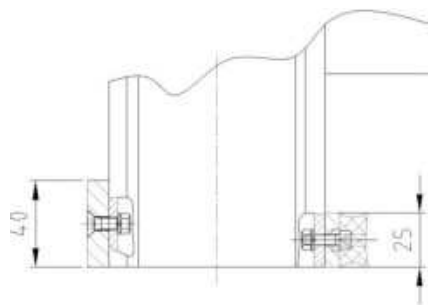
| PROFILE CHARACTERISTICS          |                   |                |
|----------------------------------|-------------------|----------------|
| Height                           | mm                | 150            |
| Width                            | mm                | 100 (+ 50)     |
| Thickness                        | mm                | 5 (+ 4)        |
| Cross-sectional area             | cm <sup>2</sup>   | 32,3           |
| Weight per linear m              | kg/m              | 8,8            |
| Material Dam Beam/Log / VKT-Pipe | -                 | EN AW-6063-T66 |
| Material Seal                    | -                 | EPDM           |
| Moment of inertia                | cm <sup>4</sup>   | 768,19         |
| Modulus of elasticity E          | N/mm <sup>2</sup> | 70.000         |



DBAL100x150-5.0+1x50x50-4.0LM

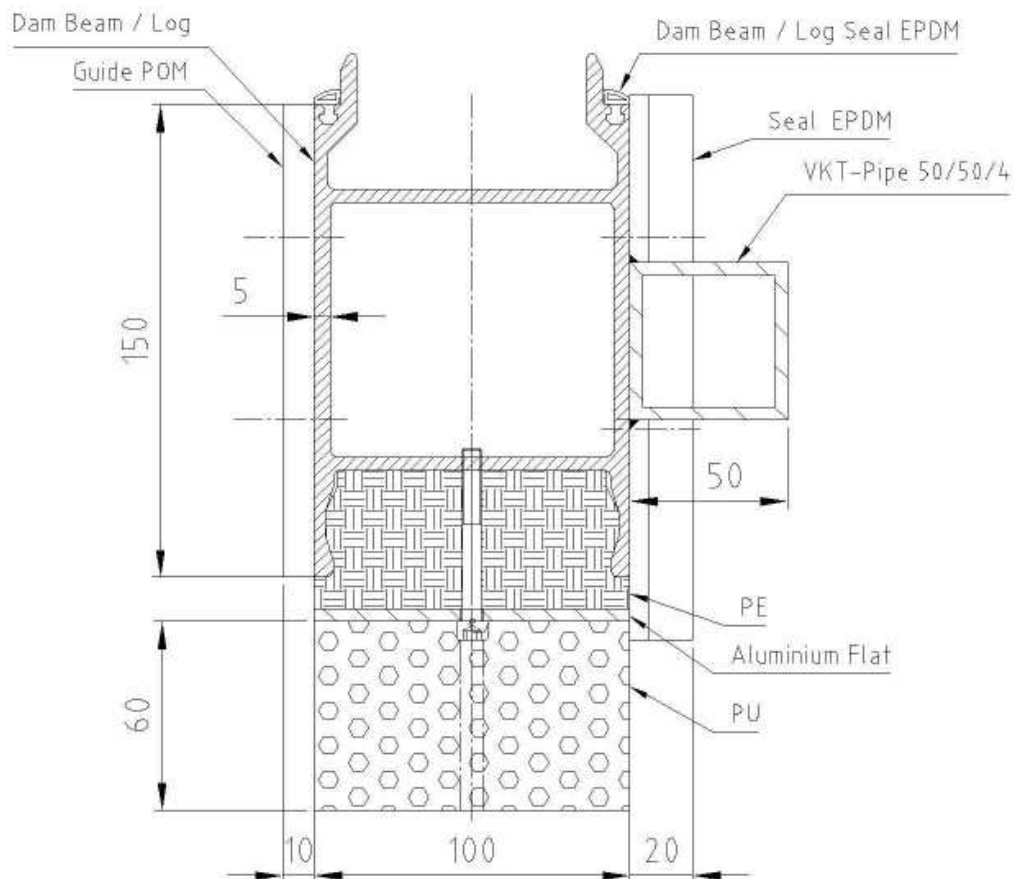


Top View

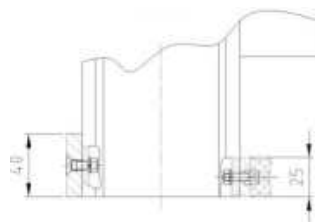


| PROFILE CHARACTERISTICS          |                   |                |
|----------------------------------|-------------------|----------------|
| Height                           | mm                | 150            |
| Width                            | mm                | 100 (+ 50)     |
| Thickness                        | mm                | 5 (+ 4)        |
| Cross-sectional area             | cm <sup>2</sup>   | 32,3           |
| Weight per linear m              | kg/m              | 8,8            |
| Material Dam Beam/Log / VKT-Pipe | -                 | EN AW-6063-T66 |
| Material Seal                    | -                 | EPDM           |
| Moment of inertia                | cm <sup>4</sup>   | 768,19         |
| Modulus of elasticity E          | N/mm <sup>2</sup> | 70.000         |

DBAL100x150-5.0+1x50x50-4.0LM-BD

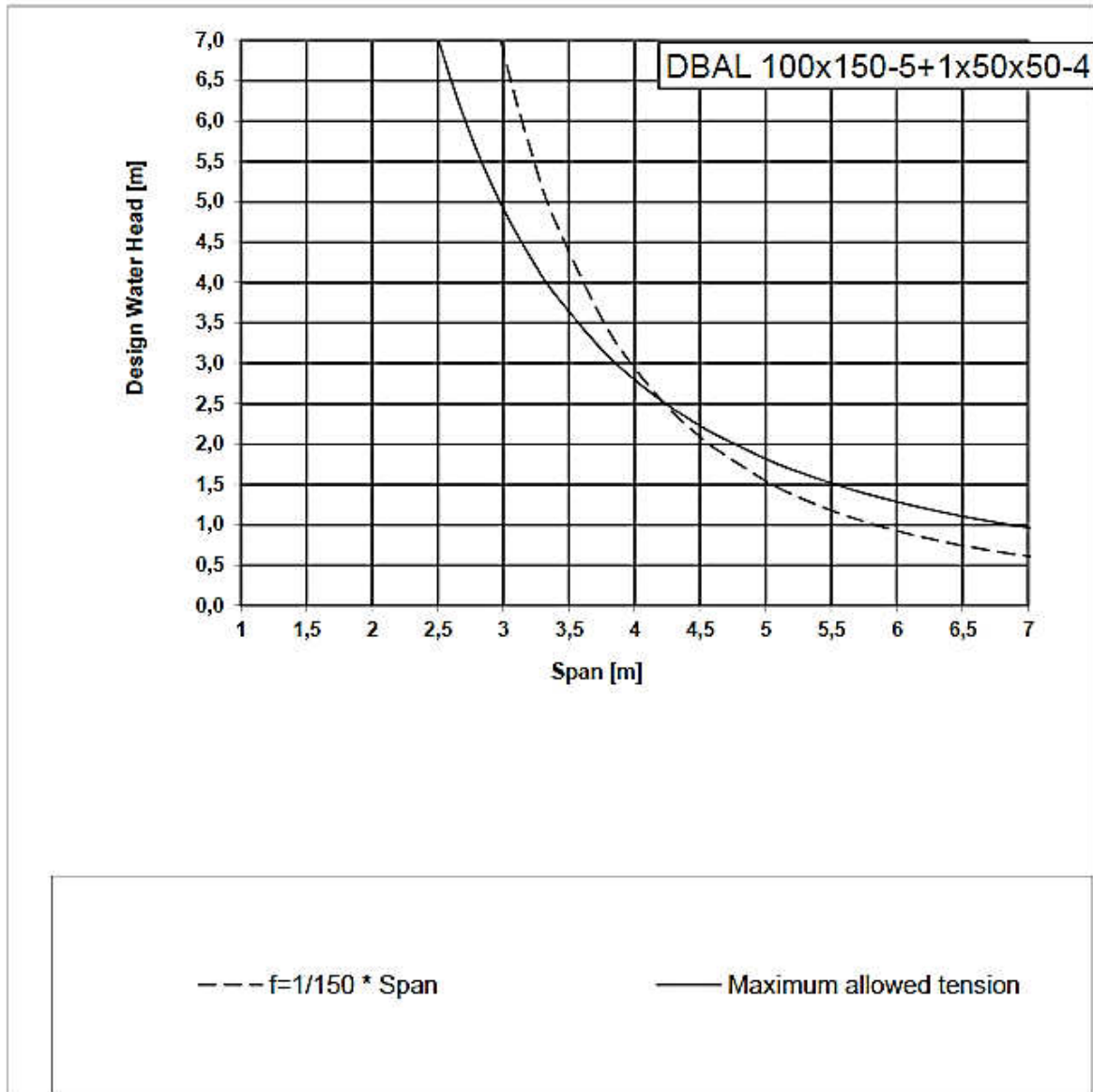


Top View

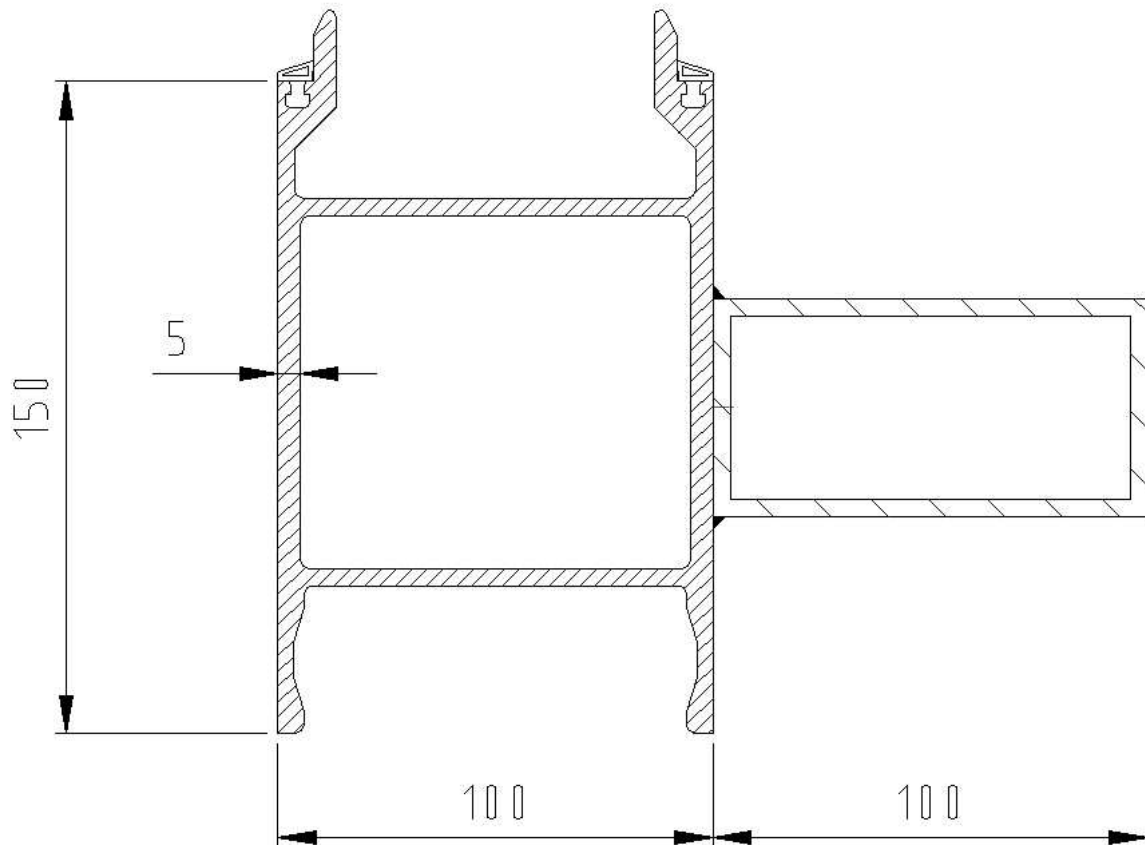


| PROFILE CHARACTERISTICS          |                   |                |
|----------------------------------|-------------------|----------------|
| Height                           | mm                | 150            |
| Width                            | mm                | 100 (+ 50)     |
| Thickness                        | mm                | 5 (+ 4)        |
| Cross-sectional area             | cm <sup>2</sup>   | 32,3           |
| Weight per linear m              | kg/m              | 10,9           |
| Material Dam Beam/Log / VKT-Pipe | -                 | EN AW-6063-T66 |
| Material Seal                    | -                 | EPDM           |
| Moment of inertia                | cm <sup>4</sup>   | 768,19         |
| Modulus of elasticity E          | N/mm <sup>2</sup> | 70.000         |

Deflection Graph DBAL100x150-5.0+1x50x50-4.0

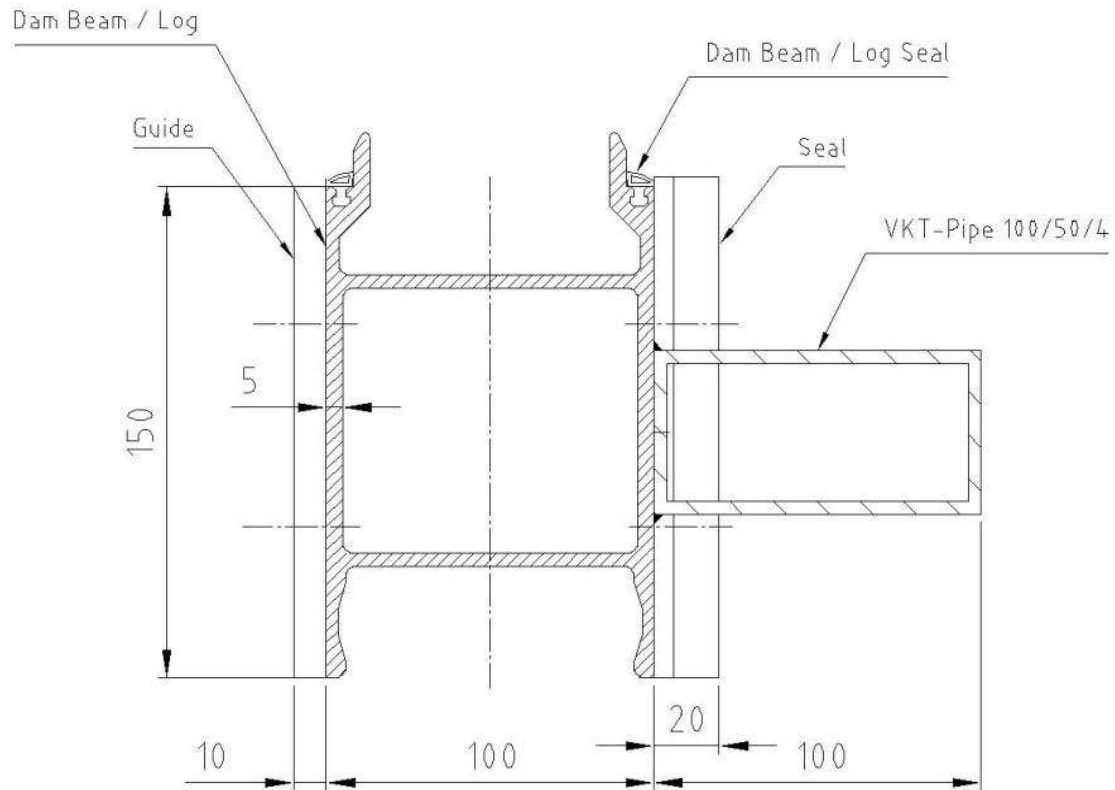


2.2.9 DBAL100x150-5.0+1x100x50-4.0

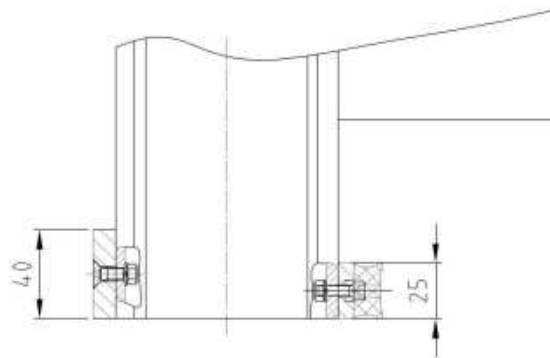


| PROFILE CHARACTERISTICS          |                   |                |
|----------------------------------|-------------------|----------------|
| Height                           | mm                | 150            |
| Width                            | mm                | 100 (+ 100)    |
| Thickness                        | mm                | 5 (+ 4)        |
| Cross-sectional area             | cm <sup>2</sup>   | 36,3           |
| Weight per linear m              | kg/m              | 9,8            |
| Material Dam Beam/Log / VKT-Pipe | -                 | EN AW-6063-T66 |
| Material Seal                    | -                 | EPDM           |
| Moment of inertia                | cm <sup>4</sup>   | 1347,05        |
| Modulus of elasticity E          | N/mm <sup>2</sup> | 70.000         |

DBAL100x150-5.0+1x100x50-4.0LM

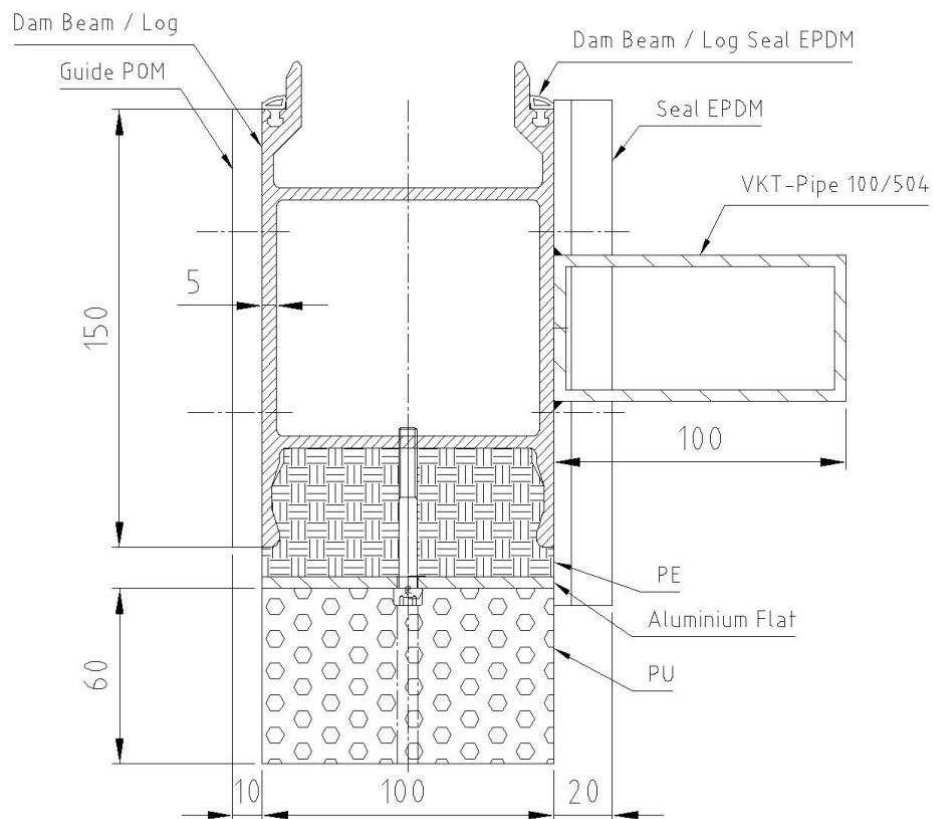


Top View

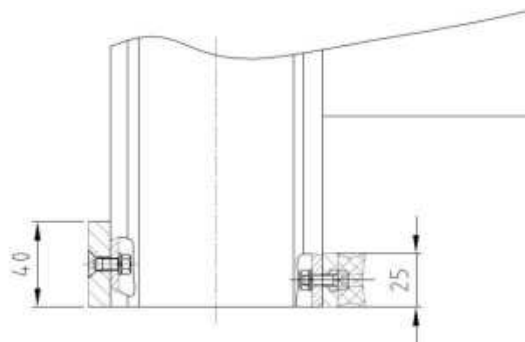


| PROFILE CHARACTERISTICS          |                   |                |
|----------------------------------|-------------------|----------------|
| Height                           | mm                | 150            |
| Width                            | mm                | 100 (+ 100)    |
| Thickness                        | mm                | 5 (+ 4)        |
| Cross-sectional area             | cm <sup>2</sup>   | 36,3           |
| Weight per linear m              | kg/m              | 9,8            |
| Material Dam Beam/Log / VKT-Pipe | -                 | EN AW-6063-T66 |
| Material Seal                    | -                 | EPDM           |
| Moment of inertia                | cm <sup>4</sup>   | 1347,05        |
| Modulus of elasticity E          | N/mm <sup>2</sup> | 70.000         |

DBAL100x150-5.0+1x100x50-4.0LM-BD

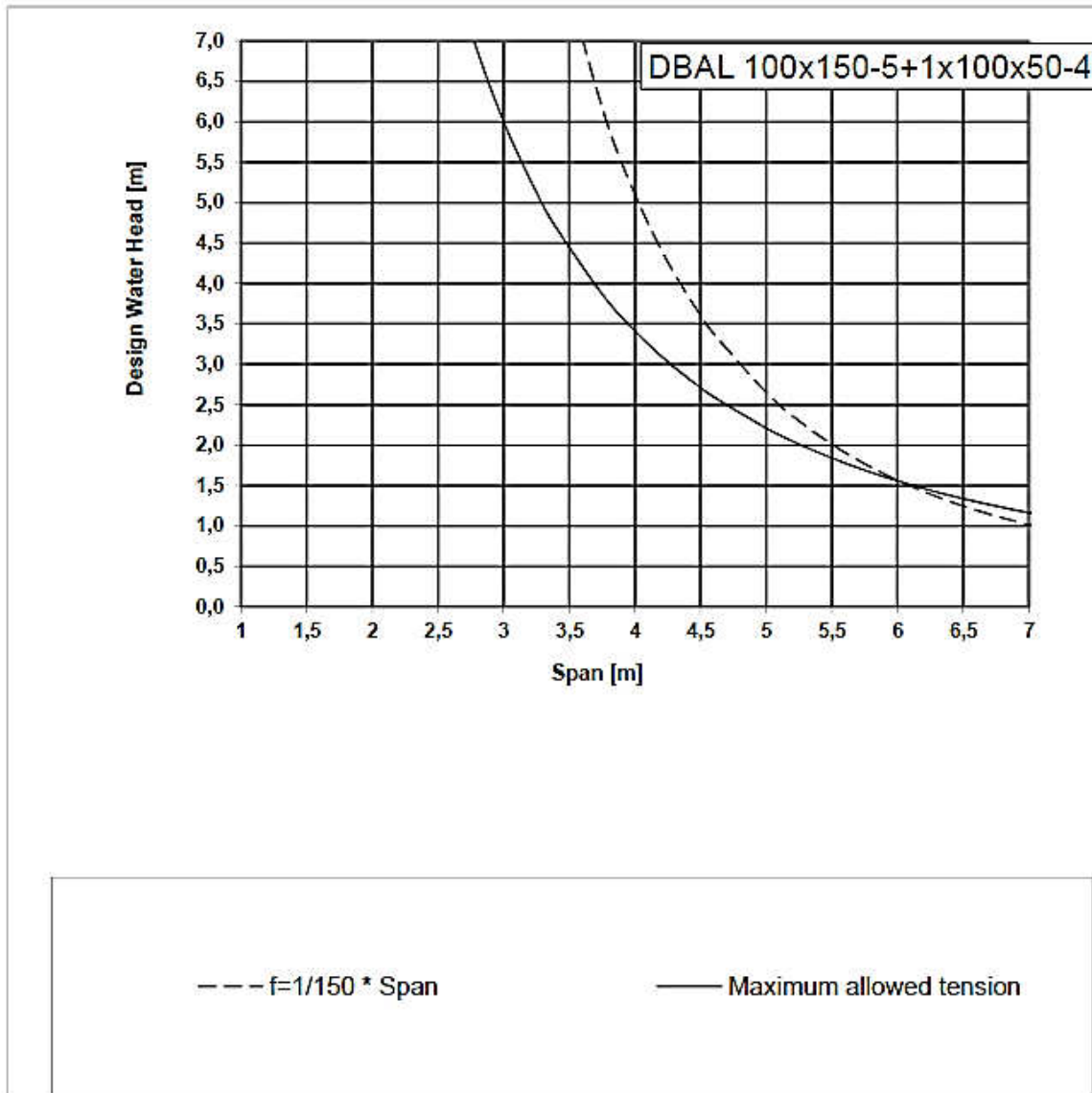


Top View

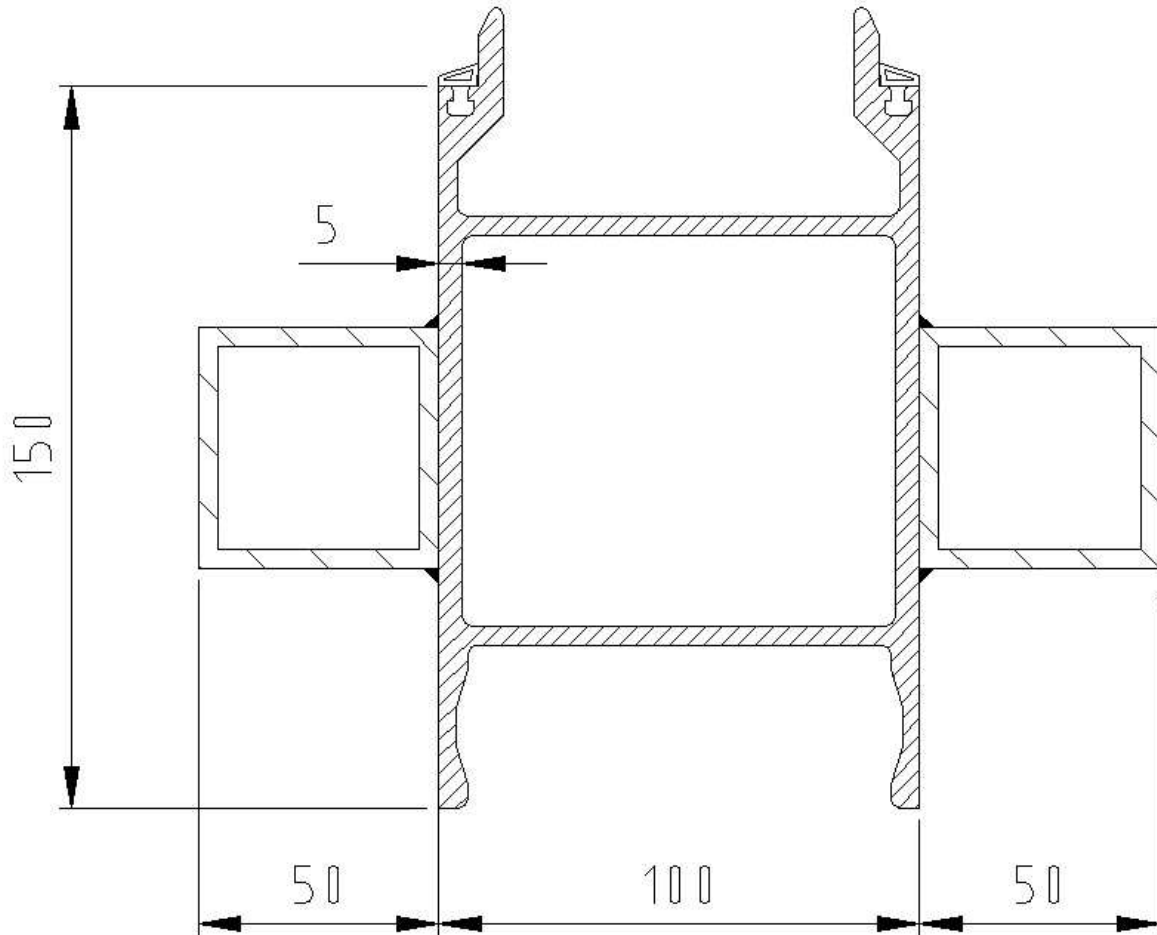


| PROFILE CHARACTERISTICS          |                   |                |
|----------------------------------|-------------------|----------------|
| Height                           | mm                | 150            |
| Width                            | mm                | 100 (+ 100)    |
| Thickness                        | mm                | 5 (+ 4)        |
| Cross-sectional area             | cm <sup>2</sup>   | 36,3           |
| Weight per linear m              | kg/m              | 11,9           |
| Material Dam Beam/Log / VKT-Pipe | -                 | EN AW-6063-T66 |
| Material Seal                    | -                 | EPDM           |
| Moment of inertia                | cm <sup>4</sup>   | 1347,05        |
| Modulus of elasticity E          | N/mm <sup>2</sup> | 70.000         |

Deflection Graph DBAL100x150-5.0+1x100x50-4.0



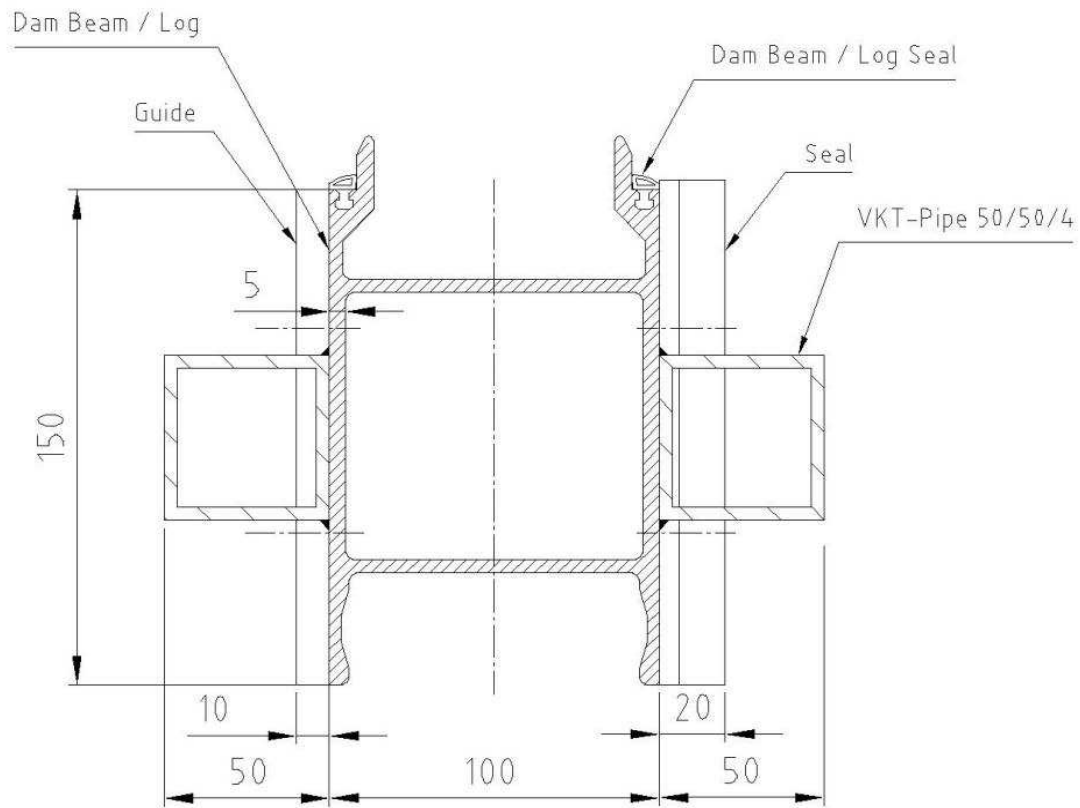
2.2.10 DBAL100x150-5.0+2x50x50-4.0



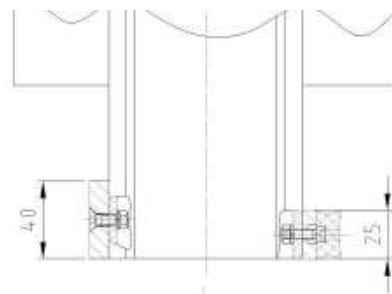
| PROFILE CHARACTERISTICS          |                   |                   |
|----------------------------------|-------------------|-------------------|
| Height                           | mm                | 150               |
| Width                            | mm                | (50 +) 100 (+ 50) |
| Thickness                        | mm                | (4 +) 5 (+ 4)     |
| Cross-sectional area             | cm <sup>2</sup>   | 39,9              |
| Weight per linear m              | kg/m              | 10,9              |
| Material Dam Beam/Log / VKT-Pipe | -                 | EN AW-6063-T66    |
| Material Seal                    | -                 | EPDM              |
| Moment of inertia                | cm <sup>4</sup>   | 1304,51           |
| Modulus of elasticity E          | N/mm <sup>2</sup> | 70.000            |



DBAL100x150-5.0+2x50x50-4.0LM

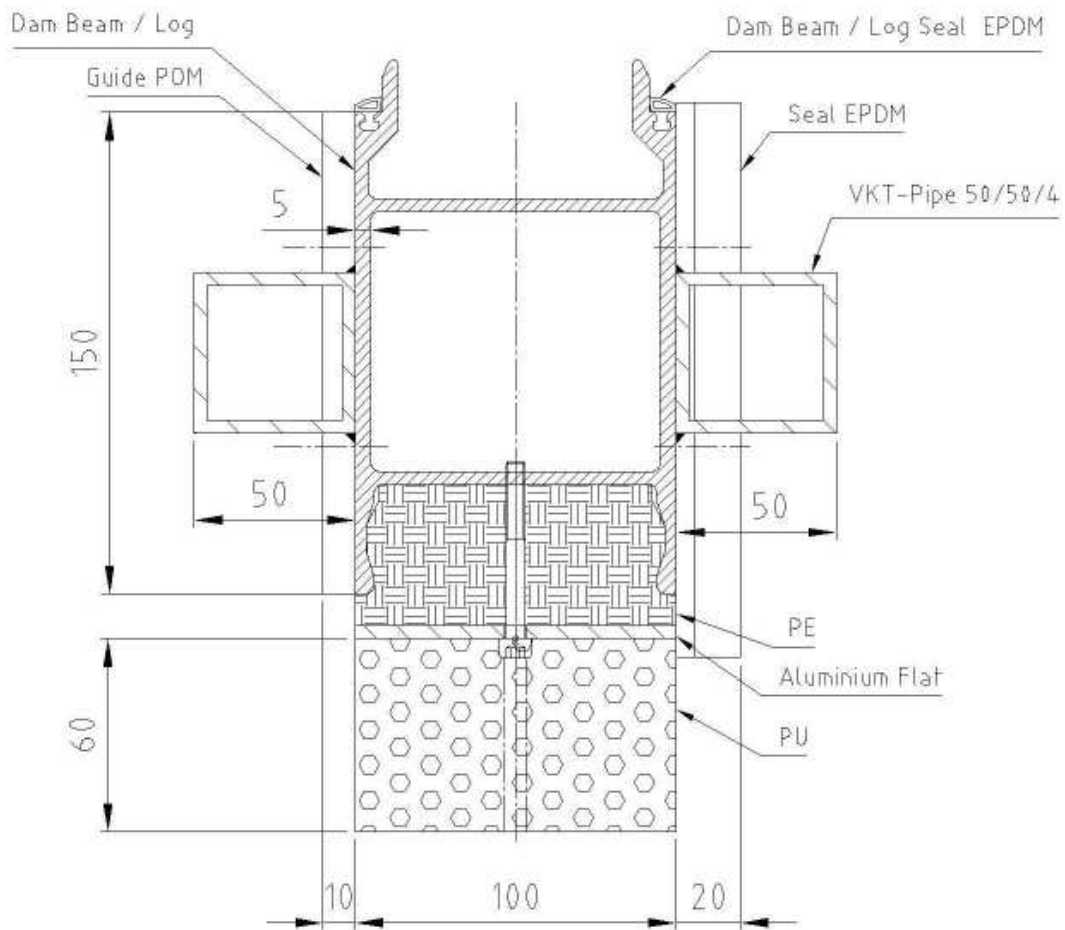


Top View

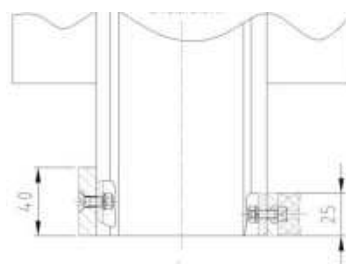


| PROFILE CHARACTERISTICS          |                   |                   |
|----------------------------------|-------------------|-------------------|
| Height                           | mm                | 150               |
| Width                            | mm                | (50 +) 100 (+ 50) |
| Thickness                        | mm                | (4 +) 5 (+ 4)     |
| Cross-sectional area             | cm <sup>2</sup>   | 39,9              |
| Weight per linear m              | kg/m              | 10,9              |
| Material Dam Beam/Log / VKT-Pipe | -                 | EN AW-6063-T66    |
| Material Seal                    | -                 | EPDM              |
| Moment of inertia                | cm <sup>4</sup>   | 1304,51           |
| Modulus of elasticity E          | N/mm <sup>2</sup> | 70.000            |

DBAL100x150-5.0+2x50x50-4.0LM-BD

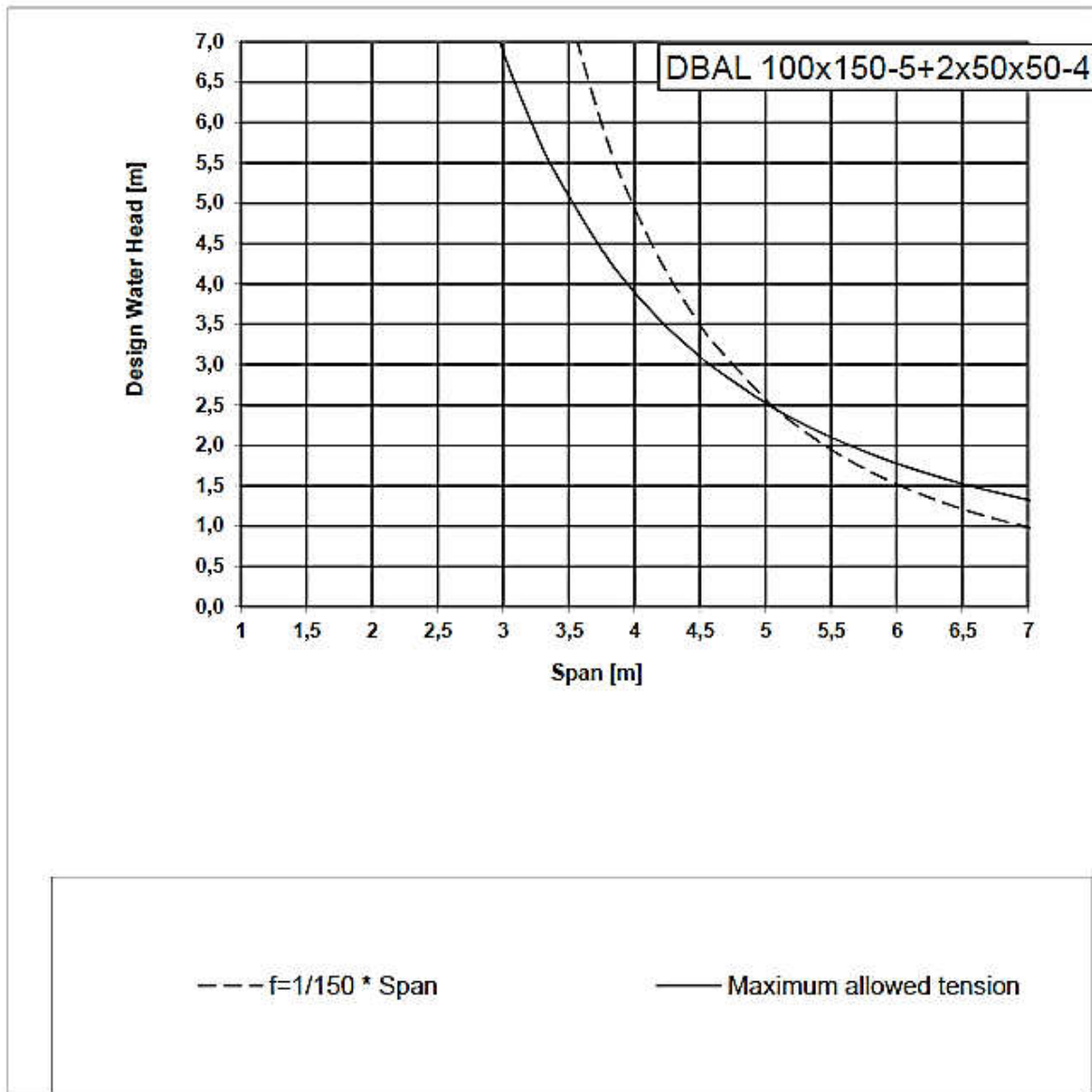


Top View

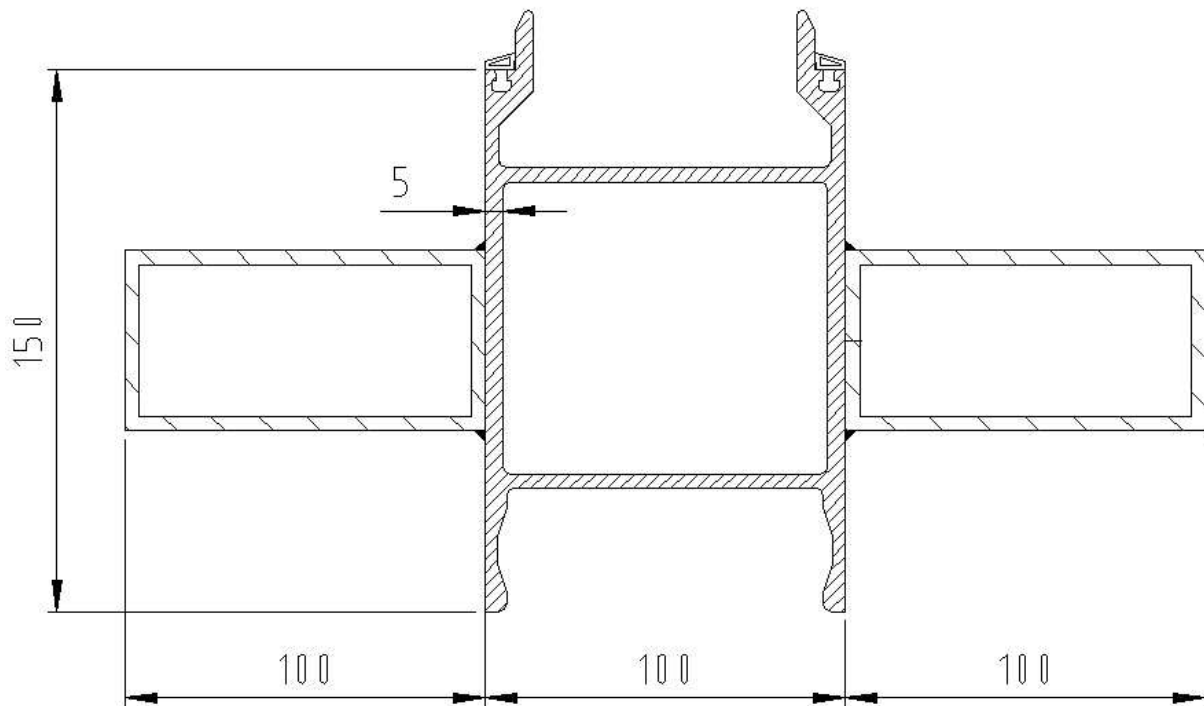


| PROFILE CHARACTERISTICS          |                   |                   |
|----------------------------------|-------------------|-------------------|
| Height                           | mm                | 150               |
| Width                            | mm                | (50 +) 100 (+ 50) |
| Thickness                        | mm                | (4 +) 5 (+ 4)     |
| Cross-sectional area             | cm <sup>2</sup>   | 39,9              |
| Weight per linear m              | kg/m              | 13,0              |
| Material Dam Beam/Log / VKT-Pipe | -                 | EN AW-6063-T66    |
| Material Seal                    | -                 | EPDM              |
| Moment of inertia                | cm <sup>4</sup>   | 1304,51           |
| Modulus of elasticity E          | N/mm <sup>2</sup> | 70.000            |

Deflection Graph DBAL 100x150-5.0+2x50x50-4.0

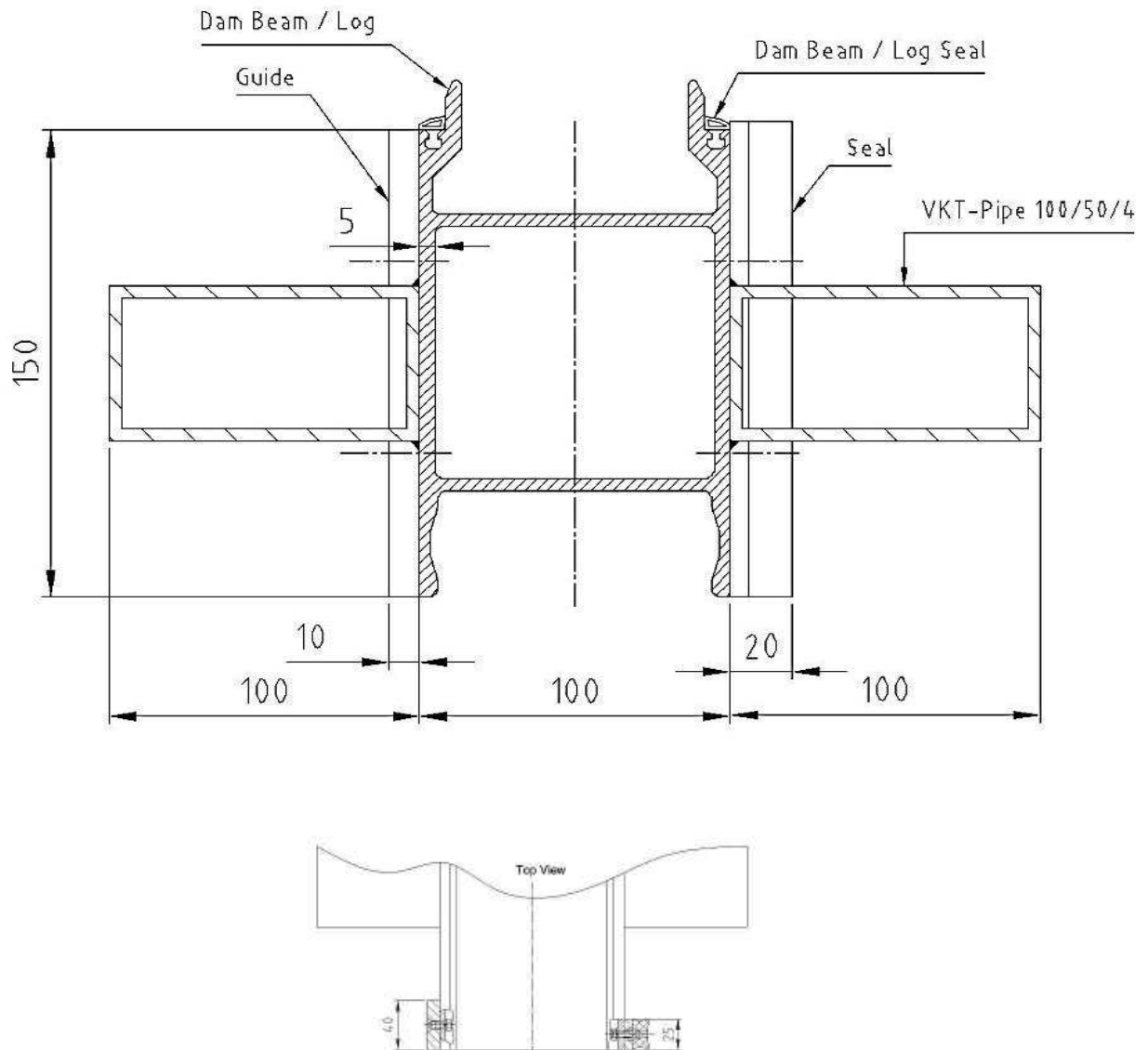


2.2.11 DBAL100x150-5.0+2x100x50-4.0



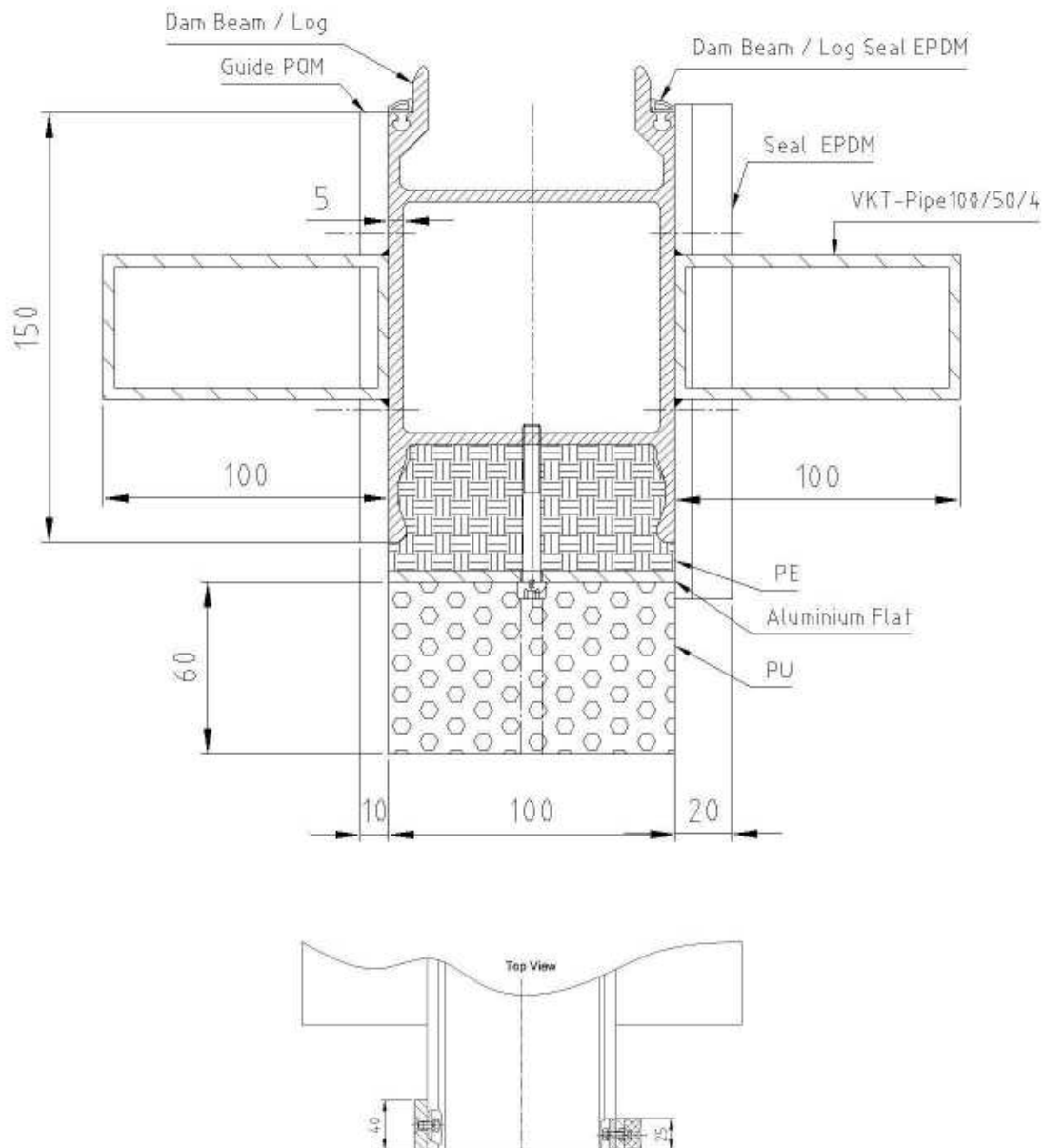
| PROFILE CHARACTERISTICS          |                   |                     |
|----------------------------------|-------------------|---------------------|
| Height                           | mm                | 150                 |
| Width                            | mm                | (100 +) 100 (+ 100) |
| Thickness                        | mm                | (4 +) 5 (+ 4)       |
| Cross-sectional area             | cm <sup>2</sup>   | 47,9                |
| Weight per linear m              | kg/m              | 12,9                |
| Material Dam Beam/Log / VKT-Pipe | -                 | EN AW-6063-T66      |
| Material Seal                    | -                 | EPDM                |
| Moment of inertia                | cm <sup>4</sup>   | 2986,45             |
| Modulus of elasticity E          | N/mm <sup>2</sup> | 70.000              |

DBAL100x150-5.0+2x100x50-4.0LM



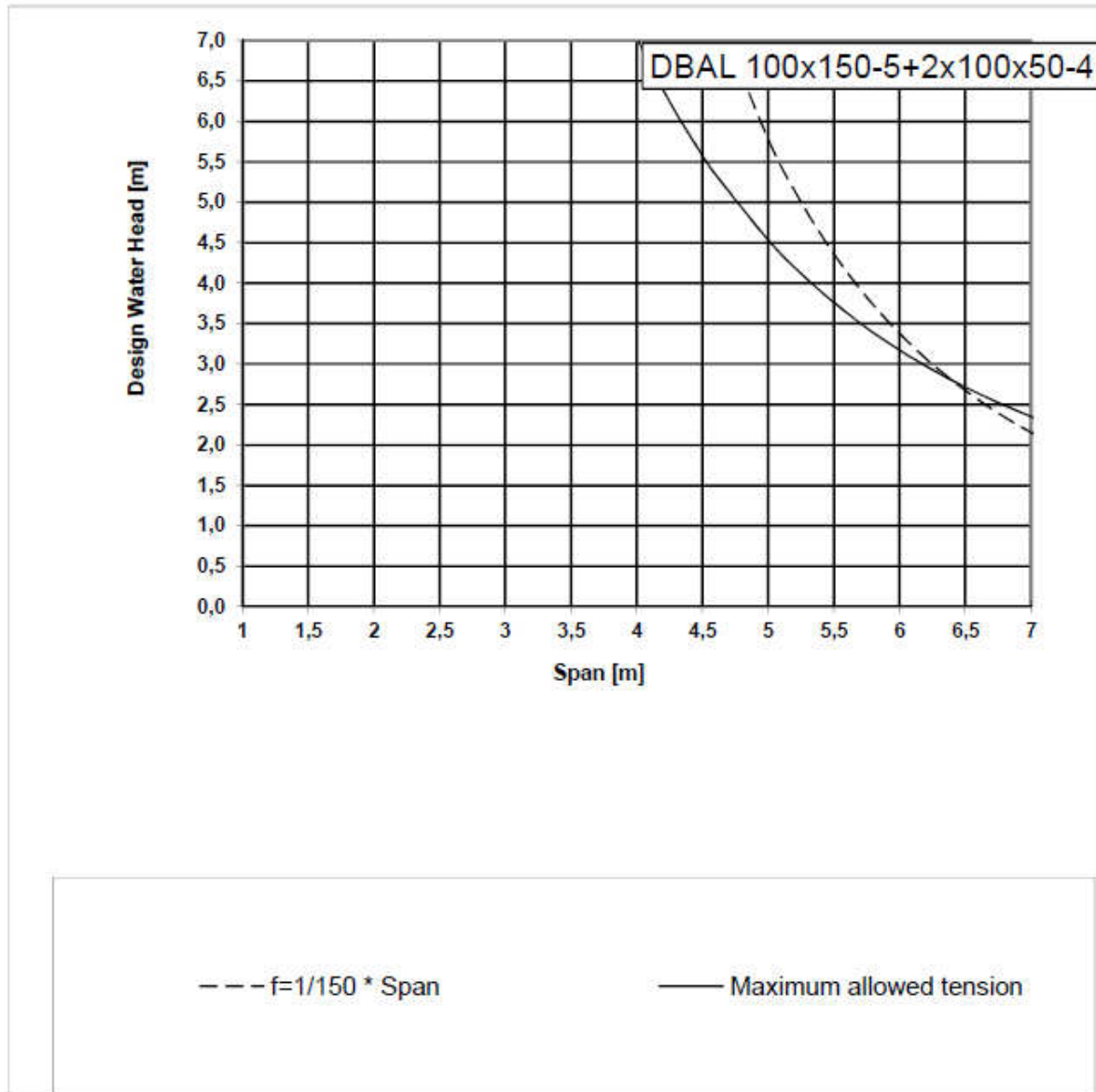
| PROFILE CHARACTERISTICS          |                   |                     |
|----------------------------------|-------------------|---------------------|
| Height                           | mm                | 150                 |
| Width                            | mm                | (100 +) 100 (+ 100) |
| Thickness                        | mm                | (4 +) 5 (+ 4)       |
| Cross-sectional area             | cm <sup>2</sup>   | 47,9                |
| Weight per linear m              | kg/m              | 12,9                |
| Material Dam Beam/Log / VKT-Pipe | -                 | EN AW-6063-T66      |
| Material Seal                    | -                 | EPDM                |
| Moment of inertia                | cm <sup>4</sup>   | 2986,45             |
| Modulus of elasticity E          | N/mm <sup>2</sup> | 70.000              |

DBAL100x150-5.0+2x100x50-4.0LM-BD

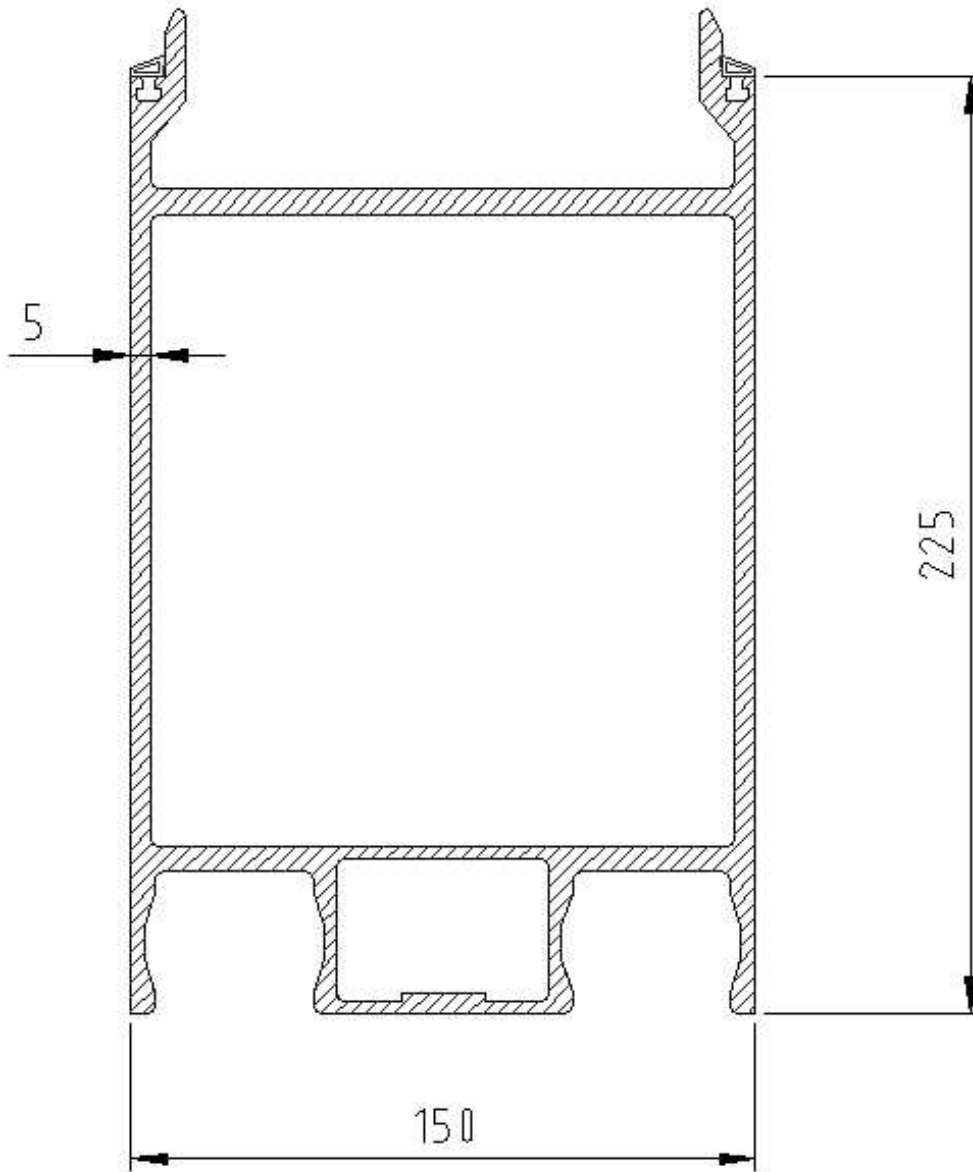


| PROFILE CHARACTERISTICS          |                   |                     |
|----------------------------------|-------------------|---------------------|
| Height                           | mm                | 150                 |
| Width                            | mm                | (100 +) 100 (+ 100) |
| Thickness                        | mm                | (4 +) 5 (+ 4)       |
| Cross-sectional area             | cm <sup>2</sup>   | 47,9                |
| Weight per linear m              | kg/m              | 15,0                |
| Material Dam Beam/Log / VKT-Pipe | -                 | EN AW-6063-T66      |
| Material Seal                    | -                 | EPDM                |
| Moment of inertia                | cm <sup>4</sup>   | 2986,45             |
| Modulus of elasticity E          | N/mm <sup>2</sup> | 70.000              |

Deflection Graph DBAL 100x150-5.0+2x100x50-4.0



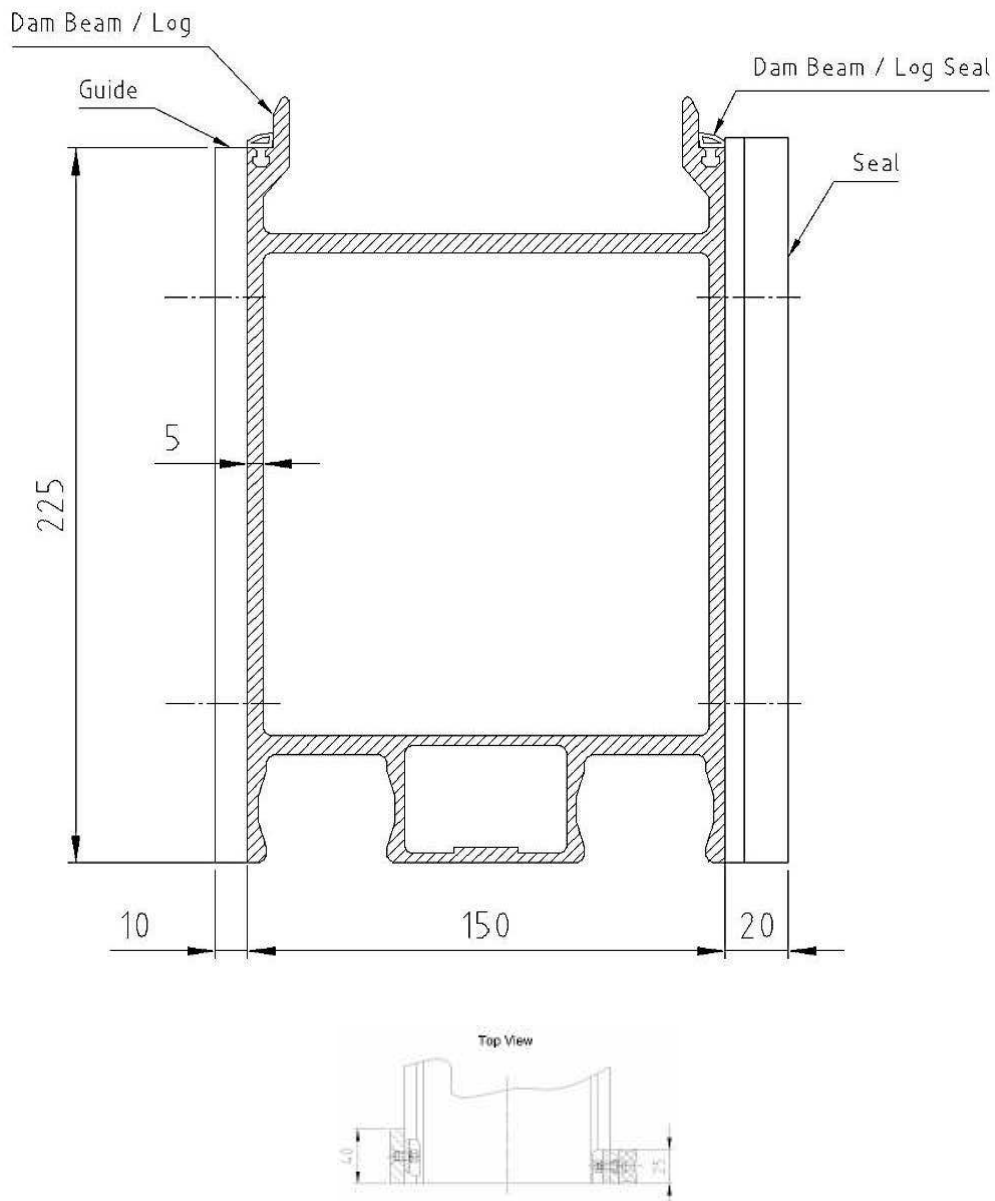
2.2.12 DBAL150x225-5.0



| PROFILE CHARACTERISTICS |                   |                |
|-------------------------|-------------------|----------------|
| Height                  | mm                | 225            |
| Width                   | mm                | 150            |
| Thickness               | mm                | 5              |
| Cross-sectional area    | cm <sup>2</sup>   | 45,4           |
| Weight per linear m     | kg/m              | 12,3           |
| Material Dam Beam/Log   | -                 | EN AW-6063-T66 |
| Material Seal           | -                 | EPDM           |
| Moment of inertia       | cm <sup>4</sup>   | 1592           |
| Modulus of elasticity E | N/mm <sup>2</sup> | 70.000         |

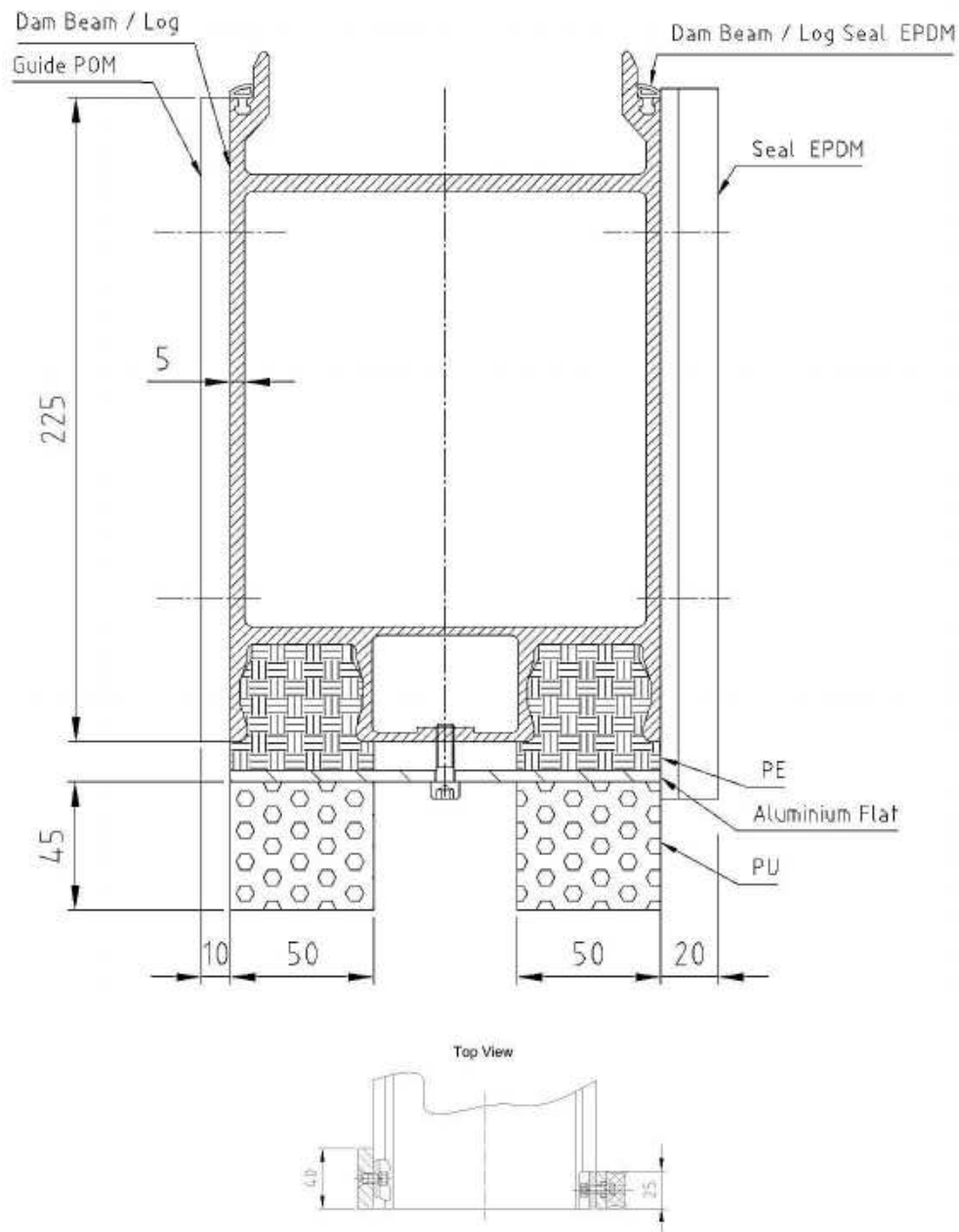


DBAL150x225-5.0LM



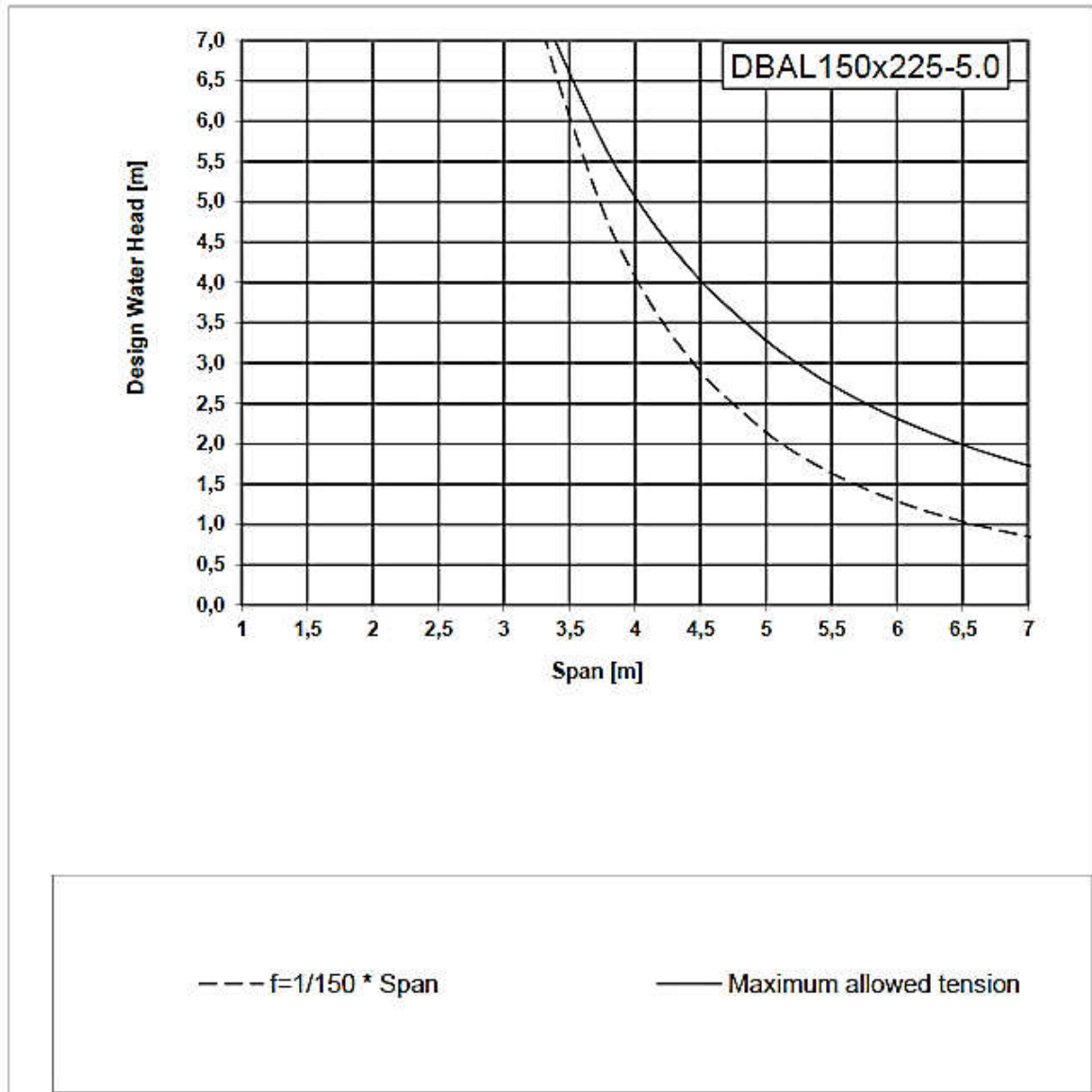
| PROFILE CHARACTERISTICS |                   |                |
|-------------------------|-------------------|----------------|
| Height                  | mm                | 225            |
| Width                   | mm                | 150            |
| Thickness               | mm                | 5              |
| Cross-sectional area    | cm <sup>2</sup>   | 45,4           |
| Weight per linear m     | kg/m              | 12,3           |
| Material Dam Beam/Log   | -                 | EN AW-6063-T66 |
| Material Seal           | -                 | EPDM           |
| Moment of inertia       | cm <sup>4</sup>   | 1592           |
| Modulus of elasticity E | N/mm <sup>2</sup> | 70.000         |

DBAL150x225-5.0LM-BD

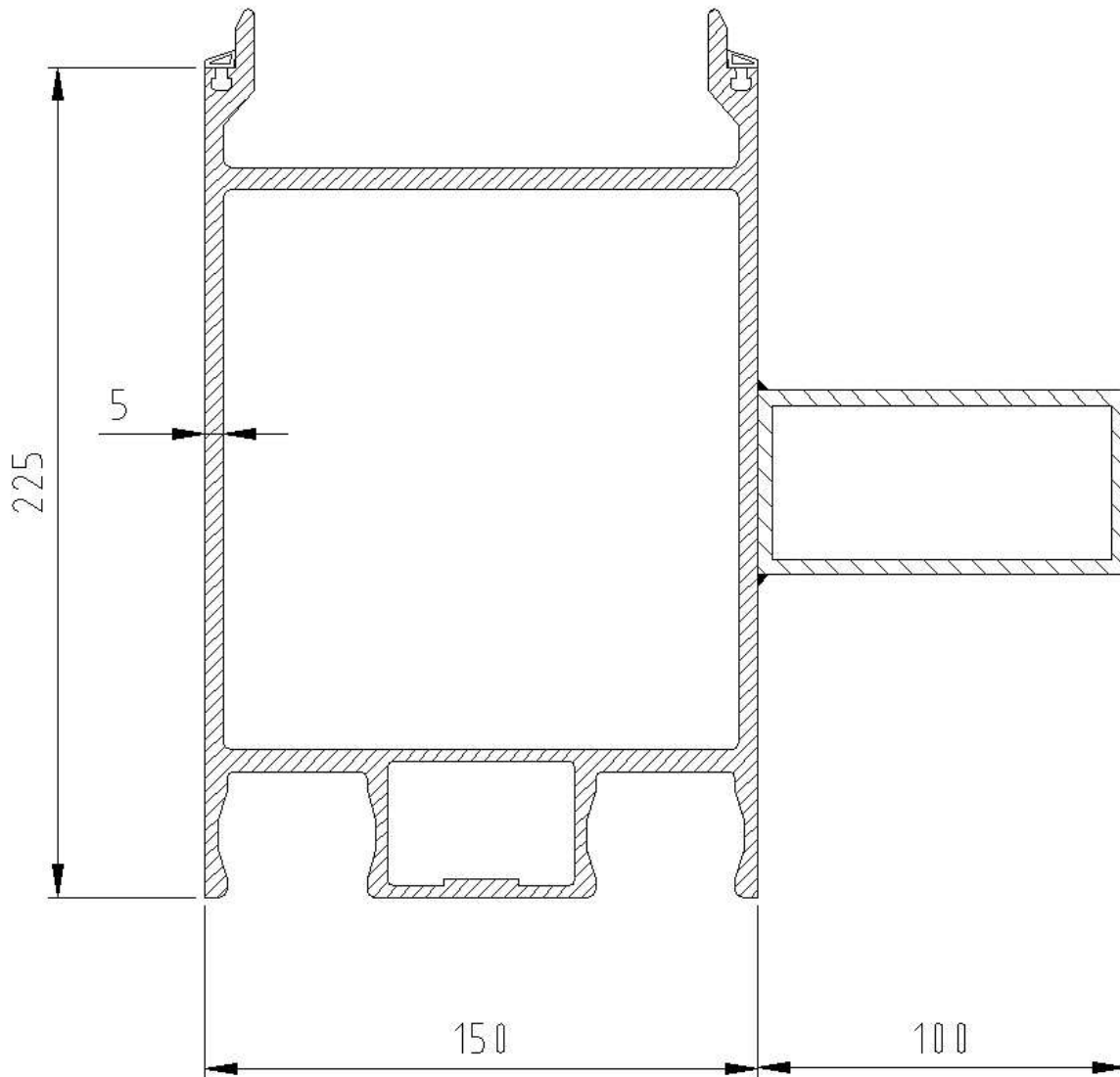


| PROFILE CHARACTERISTICS |                   |                |
|-------------------------|-------------------|----------------|
| Height                  | mm                | 225            |
| Width                   | mm                | 150            |
| Thickness               | mm                | 5              |
| Cross-sectional area    | cm <sup>2</sup>   | 45,4           |
| Weight per linear m     | kg/m              | 14,7           |
| Material Dam Beam/Log   | -                 | EN AW-6063-T66 |
| Material Seal           | -                 | EPDM           |
| Moment of inertia       | cm <sup>4</sup>   | 1592           |
| Modulus of elasticity E | N/mm <sup>2</sup> | 70.000         |

Deflection Graph DBAL 150x225-5.0

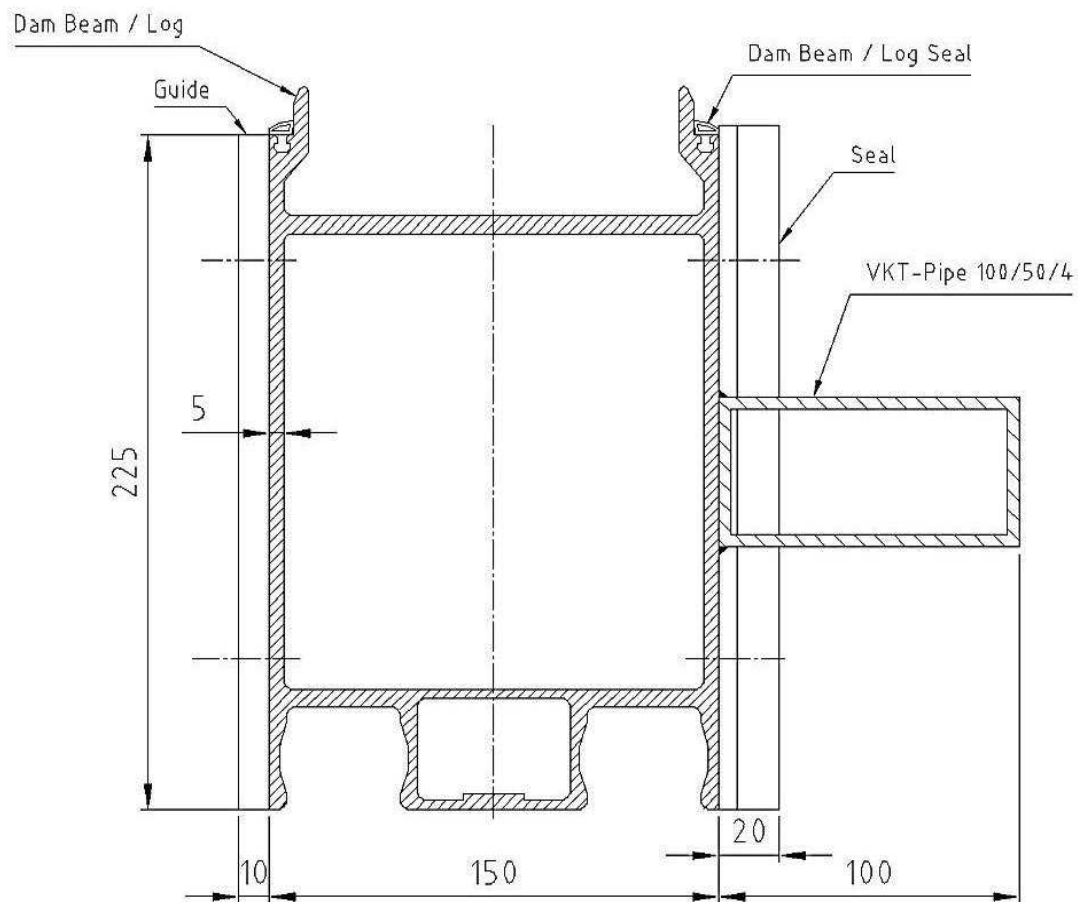


2.2.13 DBAL150x225-5.0+1x100x50-4.0

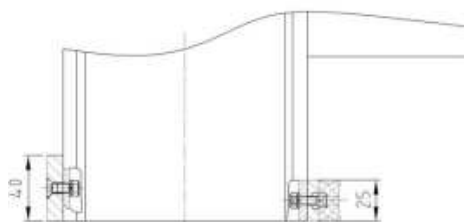


| PROFILE CHARACTERISTICS          |                   |                |
|----------------------------------|-------------------|----------------|
| Height                           | mm                | 225            |
| Width                            | mm                | 150 (+ 100)    |
| Thickness                        | mm                | 5 (+ 4)        |
| Cross-sectional area             | cm <sup>2</sup>   | 57,0           |
| Weight per linear m              | kg/m              | 17,8           |
| Material Dam Beam/Log / VKT-Pipe | -                 | EN AW-6063-T66 |
| Material Seal                    | -                 | EPDM           |
| Moment of inertia                | cm <sup>4</sup>   | 3155,75        |
| Modulus of elasticity E          | N/mm <sup>2</sup> | 70.000         |

DBAL150x225-5.0+1x100x50-4.0LM

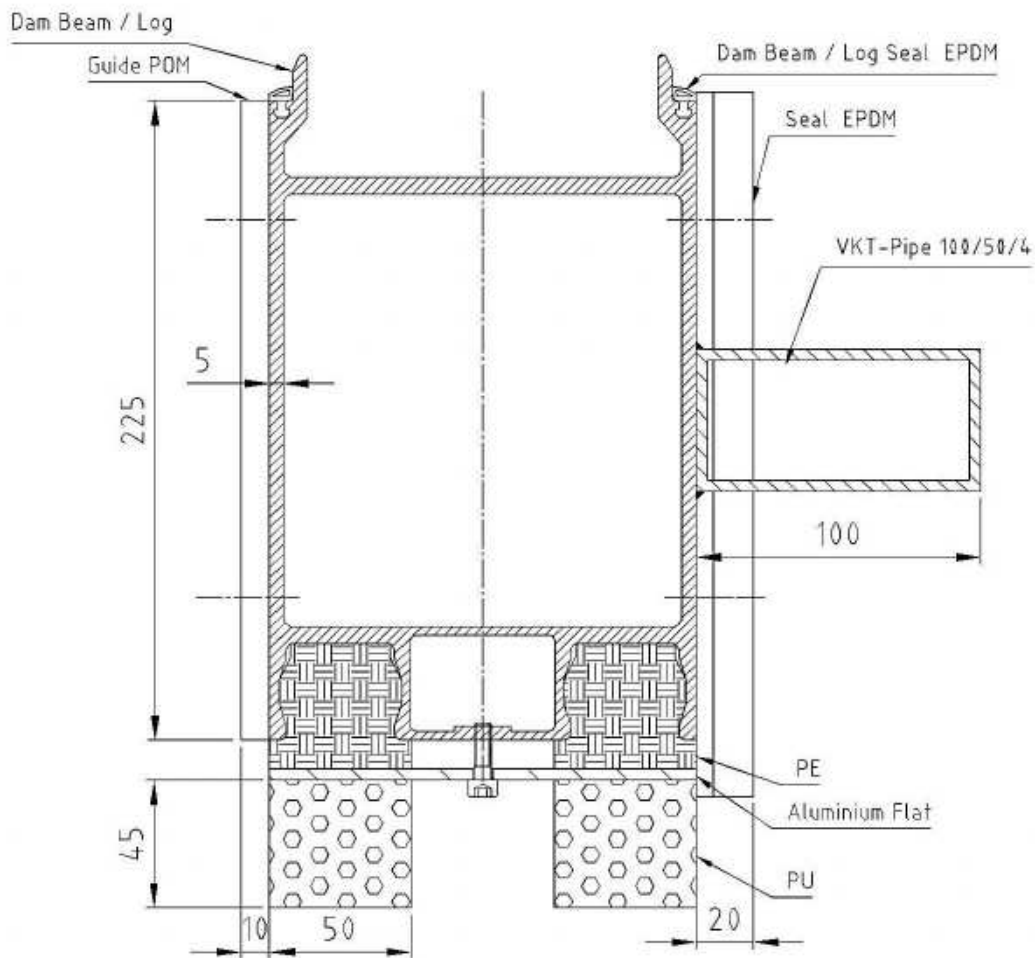


Top View

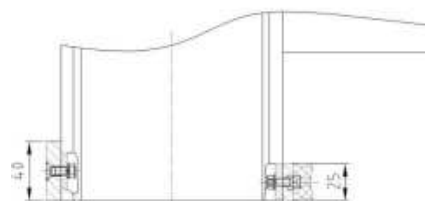


| PROFILE CHARACTERISTICS          |                   |                |
|----------------------------------|-------------------|----------------|
| Height                           | mm                | 225            |
| Width                            | mm                | 150 (+ 100)    |
| Thickness                        | mm                | 5 (+ 4)        |
| Cross-sectional area             | cm <sup>2</sup>   | 57,0           |
| Weight per linear m              | kg/m              | 17,8           |
| Material Dam Beam/Log / VKT-Pipe | -                 | EN AW-6063-T66 |
| Material Seal                    | -                 | EPDM           |
| Moment of inertia                | cm <sup>4</sup>   | 3155,75        |
| Modulus of elasticity E          | N/mm <sup>2</sup> | 70.000         |

DBAL150x225-5.0+1x100x50-4.0LM-BD

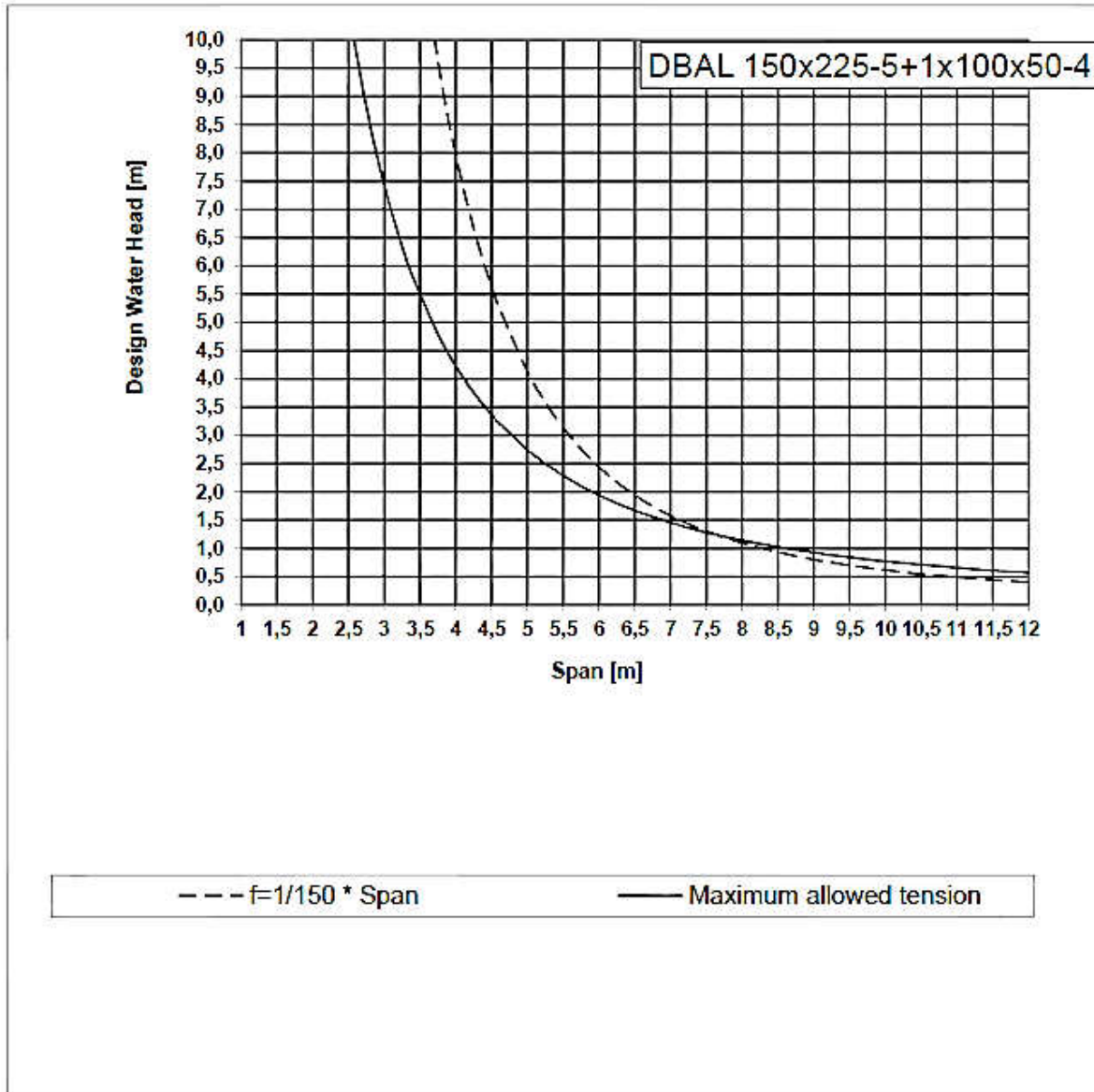


Top View

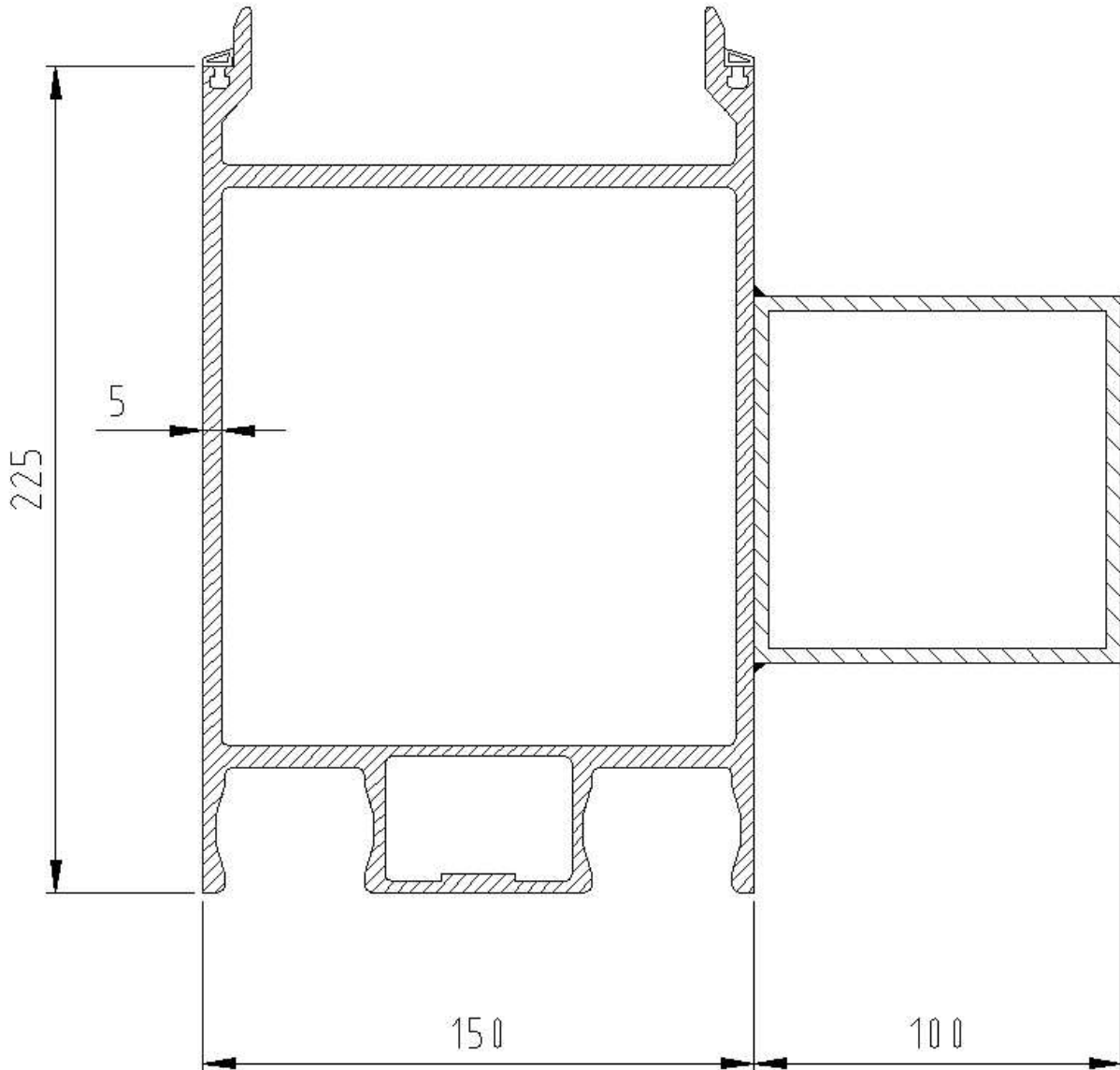


| PROFILE CHARACTERISTICS          |                   |                |
|----------------------------------|-------------------|----------------|
| Height                           | mm                | 225            |
| Width                            | mm                | 150 (+ 100)    |
| Thickness                        | mm                | 5 (+ 4)        |
| Cross-sectional area             | cm <sup>2</sup>   | 57,0           |
| Weight per linear m              | kg/m              | 20,2           |
| Material Dam Beam/Log / VKT-Pipe | -                 | EN AW-6063-T66 |
| Material Seal                    | -                 | EPDM           |
| Moment of inertia                | cm <sup>4</sup>   | 3155,75        |
| Modulus of elasticity E          | N/mm <sup>2</sup> | 70.000         |

Deflection Graph DBAL 150x225-5.0+1x100x50-4.0



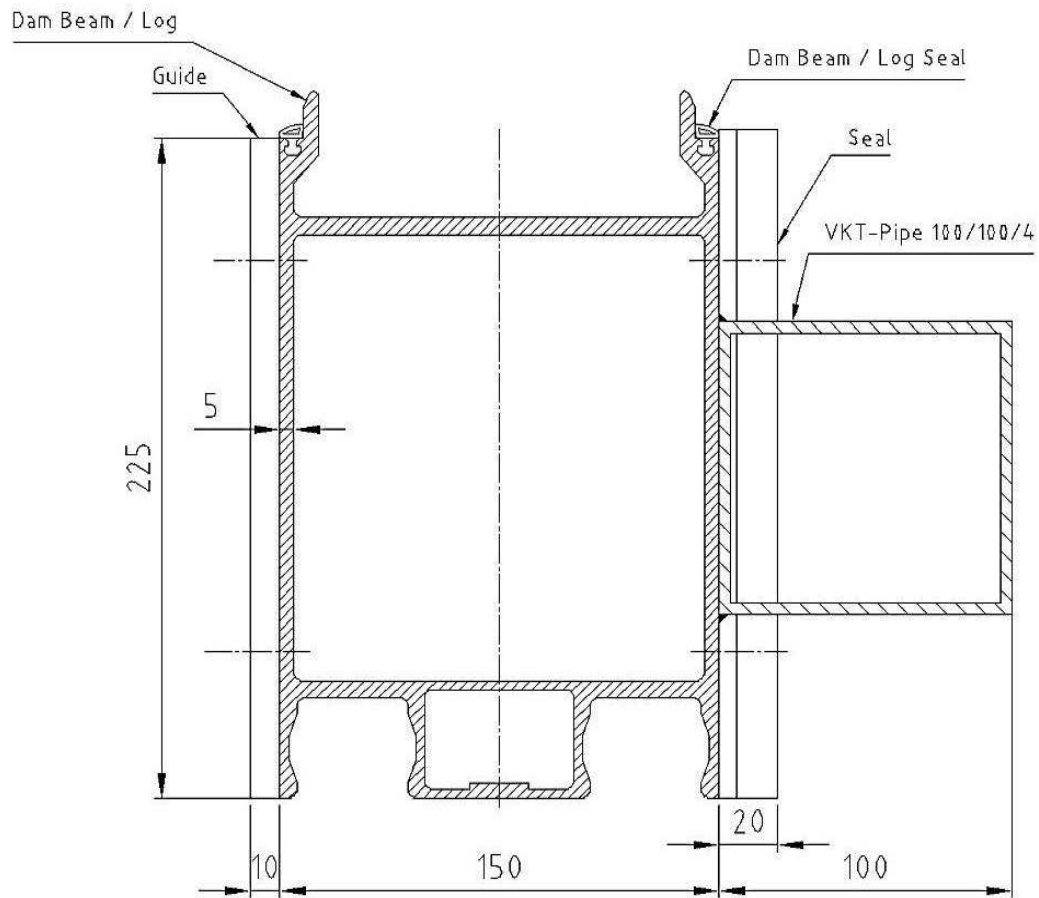
2.2.14 DBAL150x225-5.0+1x100x100-4.0



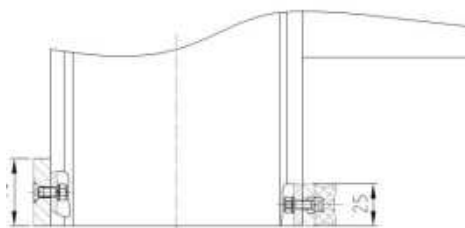
| PROFILE CHARACTERISTICS          |                   |                |
|----------------------------------|-------------------|----------------|
| Height                           | mm                | 225            |
| Width                            | mm                | 150 (+ 100)    |
| Thickness                        | mm                | 5 (+ 4)        |
| Cross-sectional area             | cm <sup>2</sup>   | 61,0           |
| Weight per linear m              | kg/m              | 18,9           |
| Material Dam Beam/Log / VKT-Pipe | -                 | EN AW-6063-T66 |
| Material Seal                    | -                 | EPDM           |
| Moment of inertia                | cm <sup>4</sup>   | 3621,42        |
| Modulus of elasticity E          | N/mm <sup>2</sup> | 70.000         |



DBAL150x225-5.0+1x100x100-4.0LM

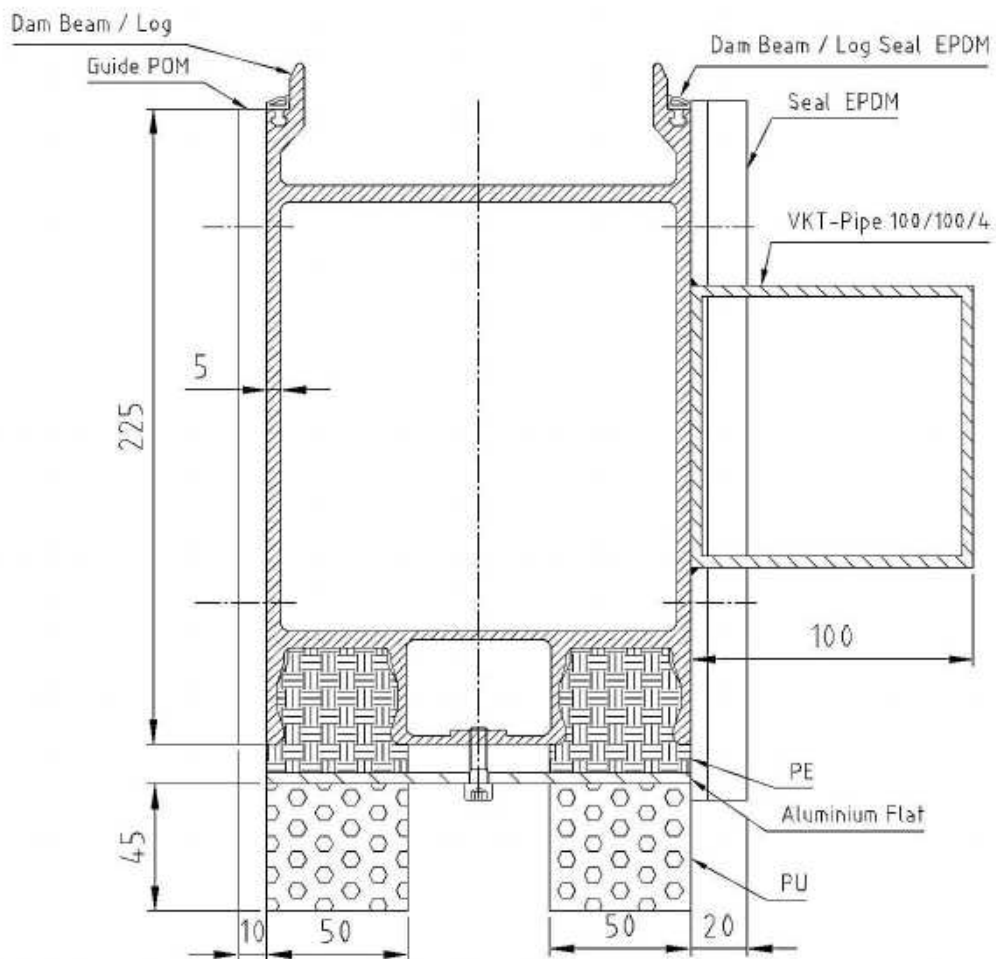


Top View

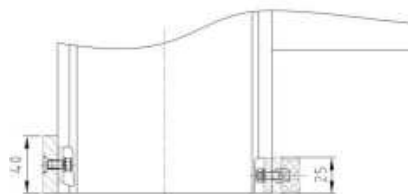


| PROFILE CHARACTERISTICS          |                   |                |
|----------------------------------|-------------------|----------------|
| Height                           | mm                | 225            |
| Width                            | mm                | 150 (+ 100)    |
| Thickness                        | mm                | 5 (+ 4)        |
| Cross-sectional area             | cm <sup>2</sup>   | 61,0           |
| Weight per linear m              | kg/m              | 18,9           |
| Material Dam Beam/Log / VKT-Pipe | -                 | EN AW-6063-T66 |
| Material Seal                    | -                 | EPDM           |
| Moment of inertia                | cm <sup>4</sup>   | 3621,42        |
| Modulus of elasticity E          | N/mm <sup>2</sup> | 70.000         |

DBAL150x225-5.0+1x100x100-4.0LM-BD

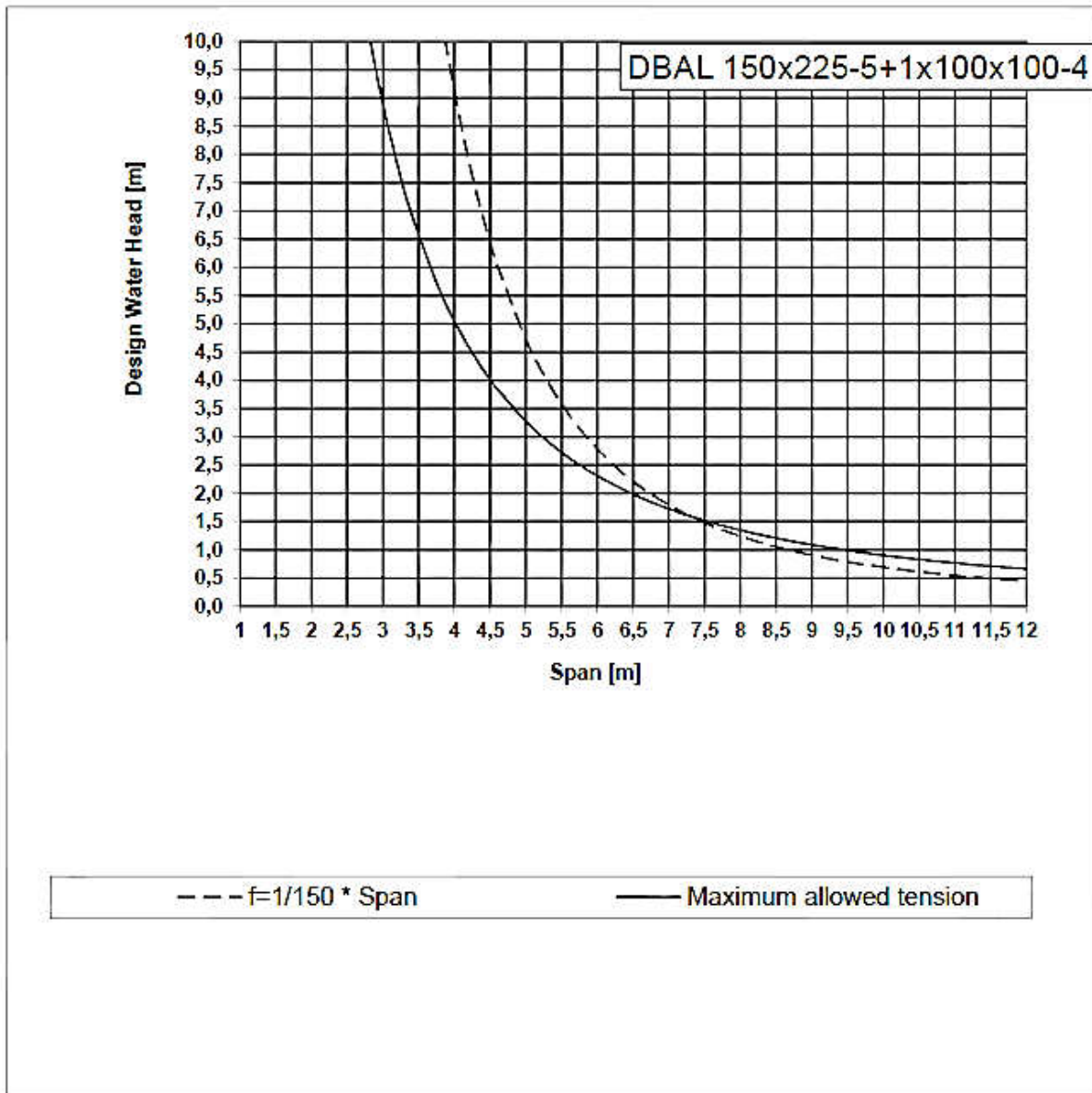


Top View

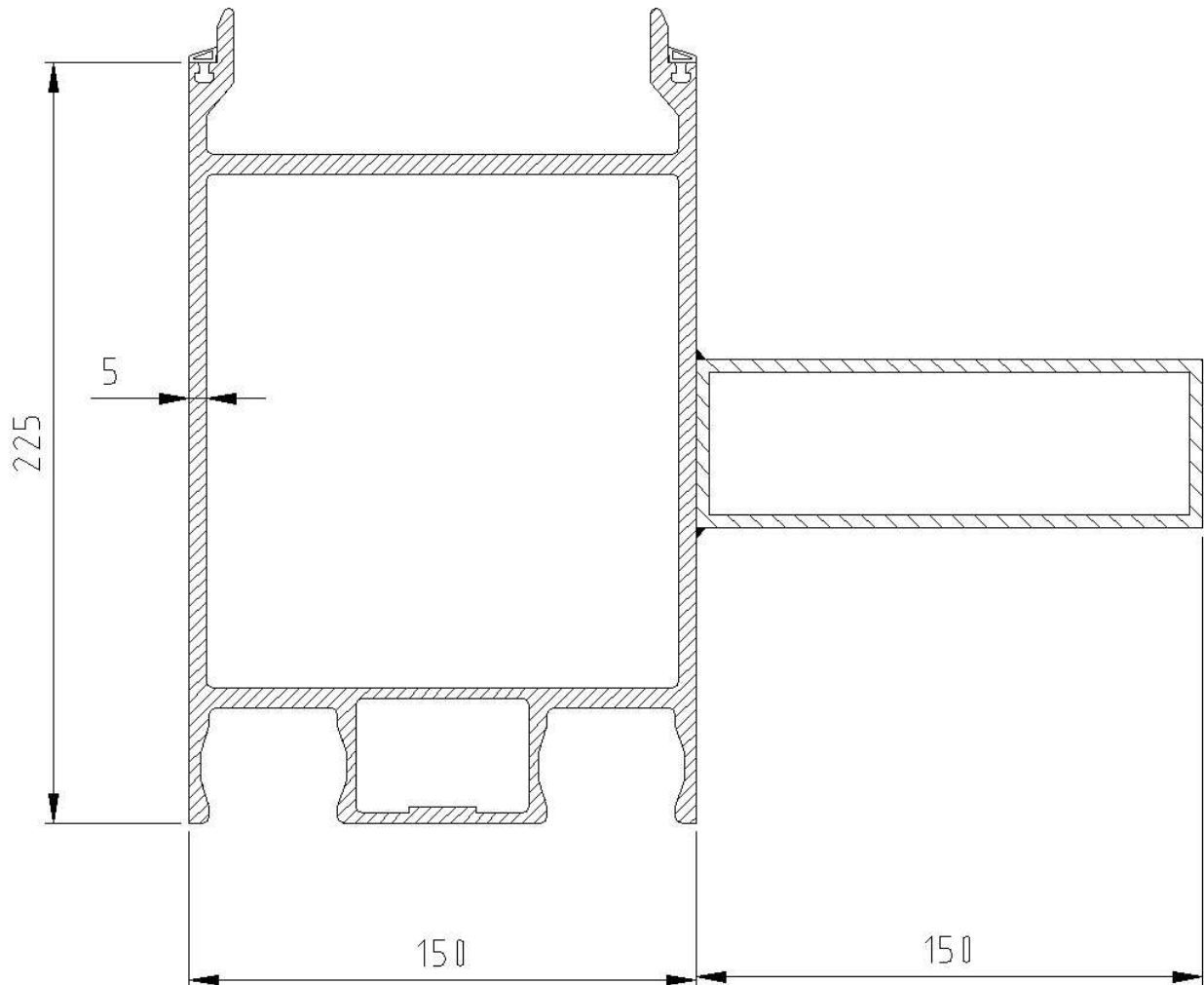


| PROFILE CHARACTERISTICS          |                   |                |
|----------------------------------|-------------------|----------------|
| Height                           | mm                | 225            |
| Width                            | mm                | 150 (+ 100)    |
| Thickness                        | mm                | 5 (+ 4)        |
| Cross-sectional area             | cm <sup>2</sup>   | 61,0           |
| Weight per linear m              | kg/m              | 21,3           |
| Material Dam Beam/Log / VKT-Pipe | -                 | EN AW-6063-T66 |
| Material Seal                    | -                 | EPDM           |
| Moment of inertia                | cm <sup>4</sup>   | 3621,42        |
| Modulus of elasticity E          | N/mm <sup>2</sup> | 70.000         |

Deflection Graph DBAL 150x225-5.0+1x100x100-4.0

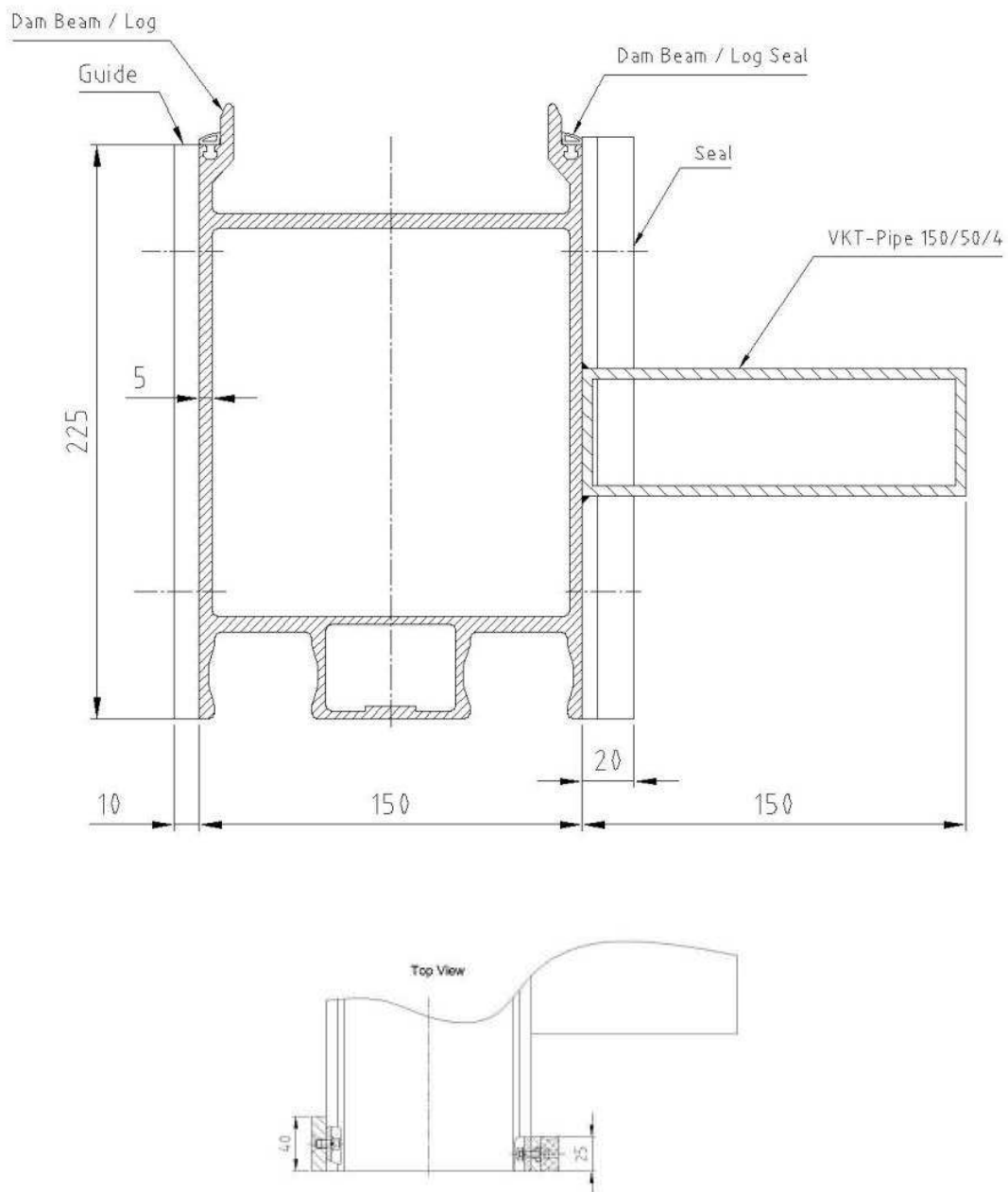


2.2.15 DBAL150x225-5.0+1x150x50-4.0



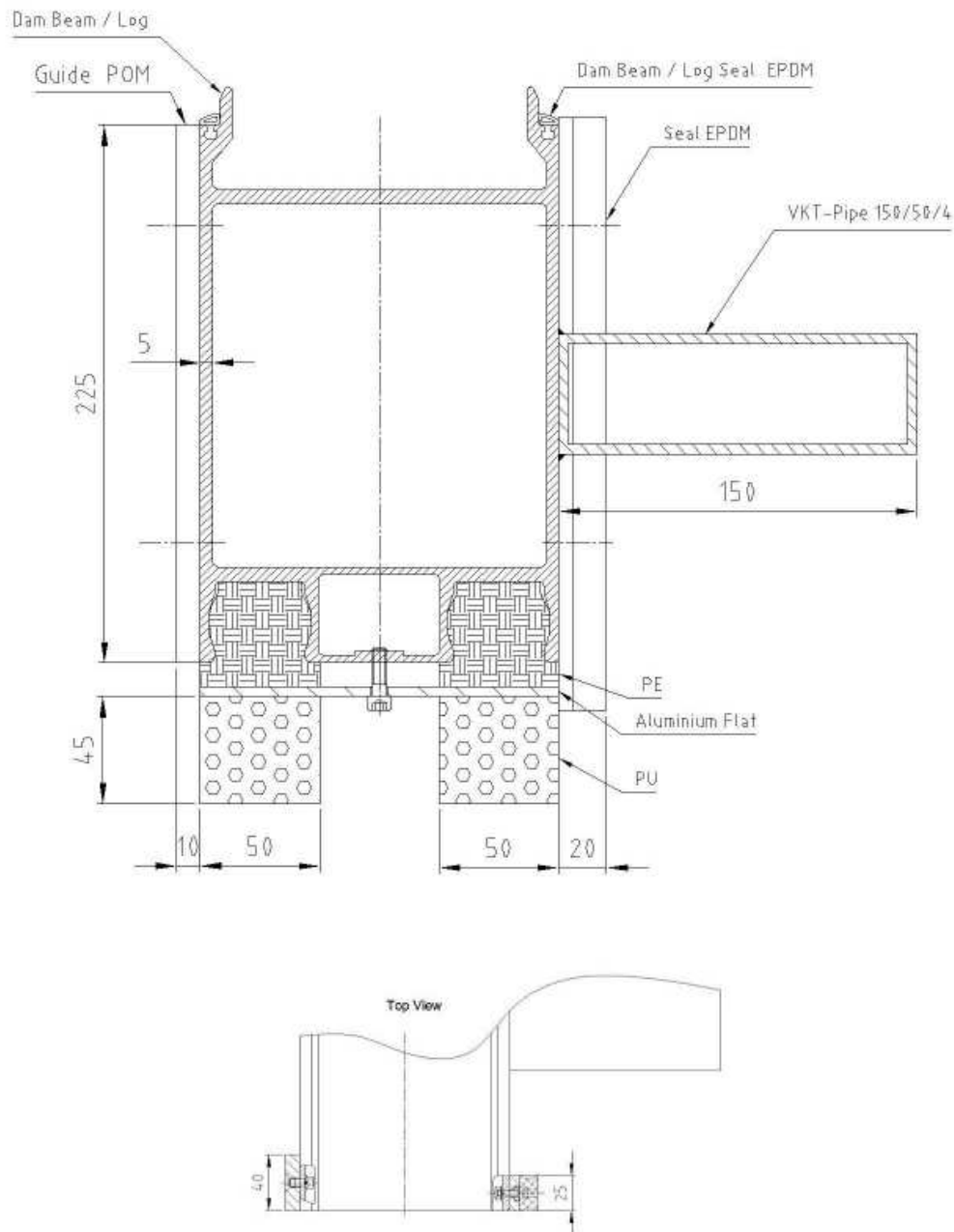
| PROFILE CHARACTERISTICS          |                   |                |
|----------------------------------|-------------------|----------------|
| Height                           | mm                | 225            |
| Width                            | mm                | 150 (+ 150)    |
| Thickness                        | mm                | 5 (+ 4)        |
| Cross-sectional area             | cm <sup>2</sup>   | 61,0           |
| Weight per linear m              | kg/m              | 18,9           |
| Material Dam Beam/Log / VKT-Pipe | -                 | EN AW-6063-T66 |
| Material Seal                    | -                 | EPDM           |
| Moment of inertia                | cm <sup>4</sup>   | 4578,14        |
| Modulus of elasticity E          | N/mm <sup>2</sup> | 70.000         |

DBAL150x225-5.0+1x150x50-4.0LM



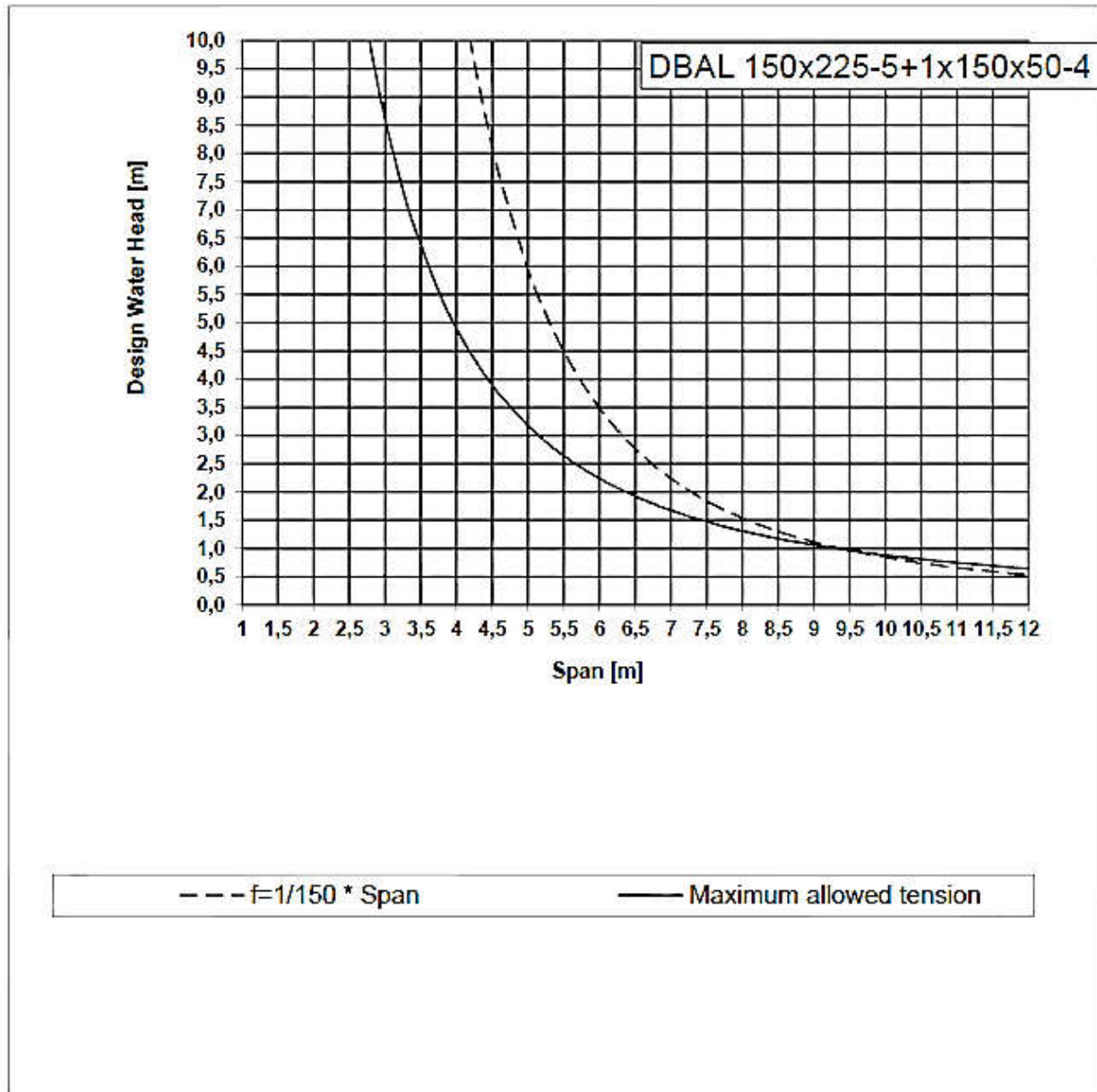
| PROFILE CHARACTERISTICS          |                   |                |
|----------------------------------|-------------------|----------------|
| Height                           | mm                | 225            |
| Width                            | mm                | 150 (+ 150)    |
| Thickness                        | mm                | 5 (+ 4)        |
| Cross-sectional area             | cm <sup>2</sup>   | 61,0           |
| Weight per linear m              | kg/m              | 18,9           |
| Material Dam Beam/Log / VKT-Pipe | -                 | EN AW-6063-T66 |
| Material Seal                    | -                 | EPDM           |
| Moment of inertia                | cm <sup>4</sup>   | 4578,14        |
| Modulus of elasticity E          | N/mm <sup>2</sup> | 70.000         |

DBAL150x225-5.0+1x150x50-4.0LM-BD

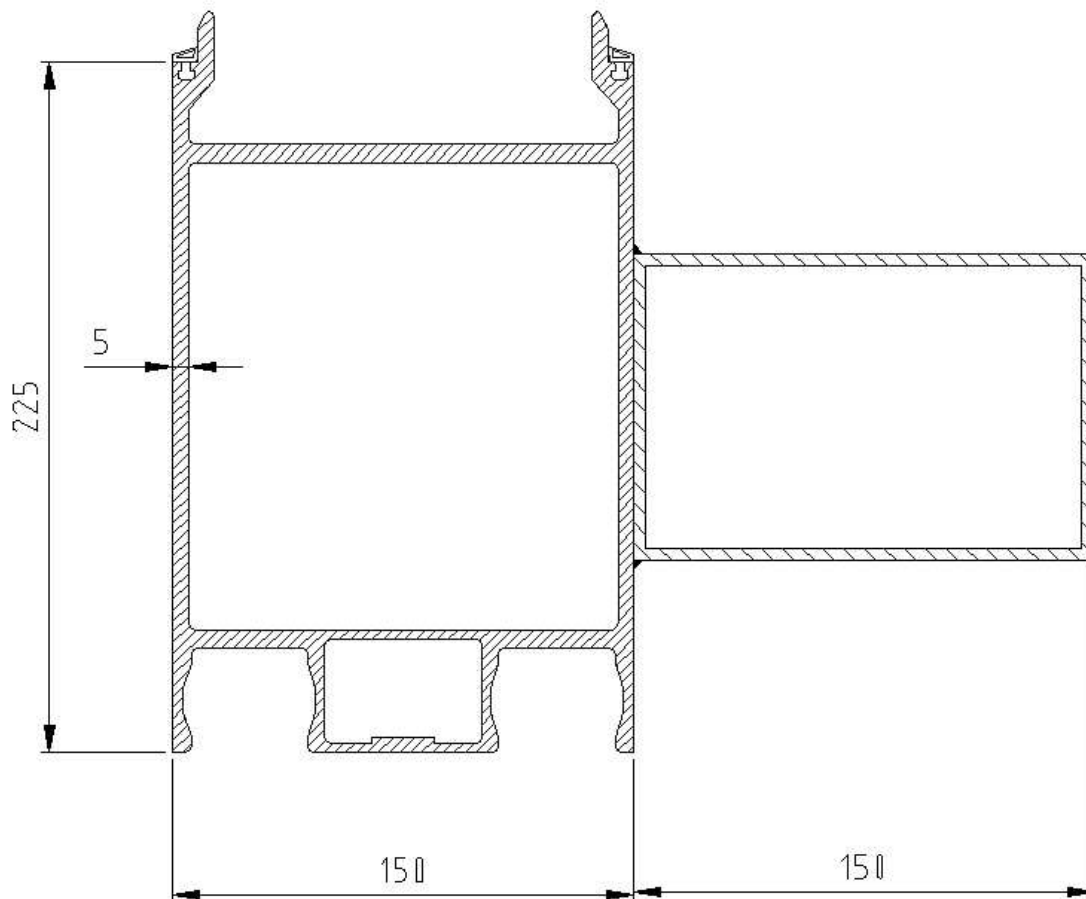


| PROFILE CHARACTERISTICS          |                   |                |
|----------------------------------|-------------------|----------------|
| Height                           | mm                | 225            |
| Width                            | mm                | 150 (+ 150)    |
| Thickness                        | mm                | 5 (+ 4)        |
| Cross-sectional area             | cm <sup>2</sup>   | 61,0           |
| Weight per linear m              | kg/m              | 21,3           |
| Material Dam Beam/Log / VKT-Pipe | -                 | EN AW-6063-T66 |
| Material Seal                    | -                 | EPDM           |
| Moment of inertia                | cm <sup>4</sup>   | 4578,14        |
| Modulus of elasticity E          | N/mm <sup>2</sup> | 70.000         |

Deflection Graph DBAL 150x225-5.0+1x150x50-4.0



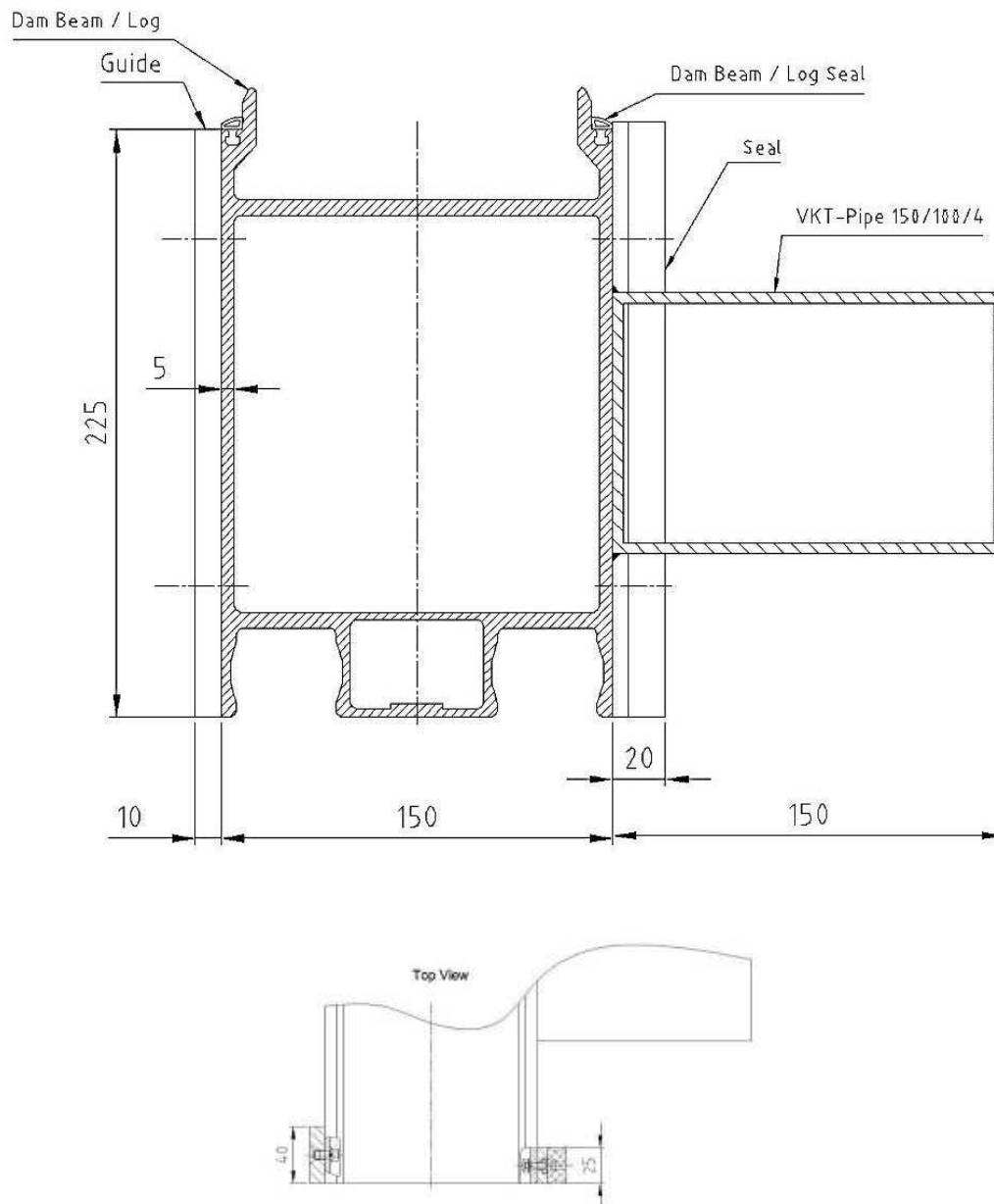
2.2.16 DBAL150x225-5.0+1x150x100-4.0



| PROFILE CHARACTERISTICS          |                   |                |
|----------------------------------|-------------------|----------------|
| Height                           | mm                | 225            |
| Width                            | mm                | 150 (+ 150)    |
| Thickness                        | mm                | 5 (+ 4)        |
| Cross-sectional area             | cm <sup>2</sup>   | 65,0           |
| Weight per linear m              | kg/m              | 20,0           |
| Material Dam Beam/Log / VKT-Pipe | -                 | EN AW-6063-T66 |
| Material Seal                    | -                 | EPDM           |
| Moment of inertia                | cm <sup>4</sup>   | 5262,68        |
| Modulus of elasticity E          | N/mm <sup>2</sup> | 70.000         |

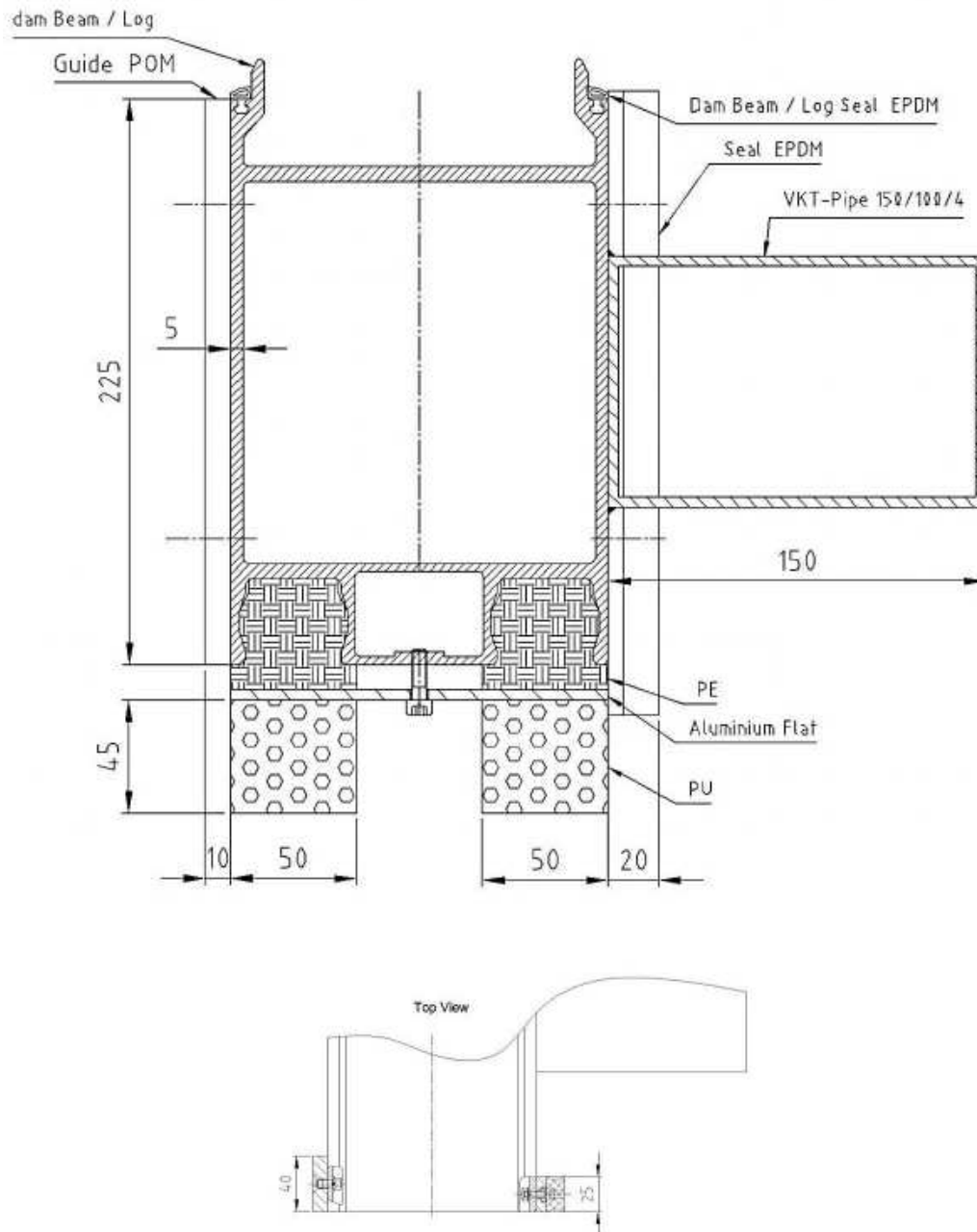


DBAL150x225-5.0+1x150x100-4.0LM



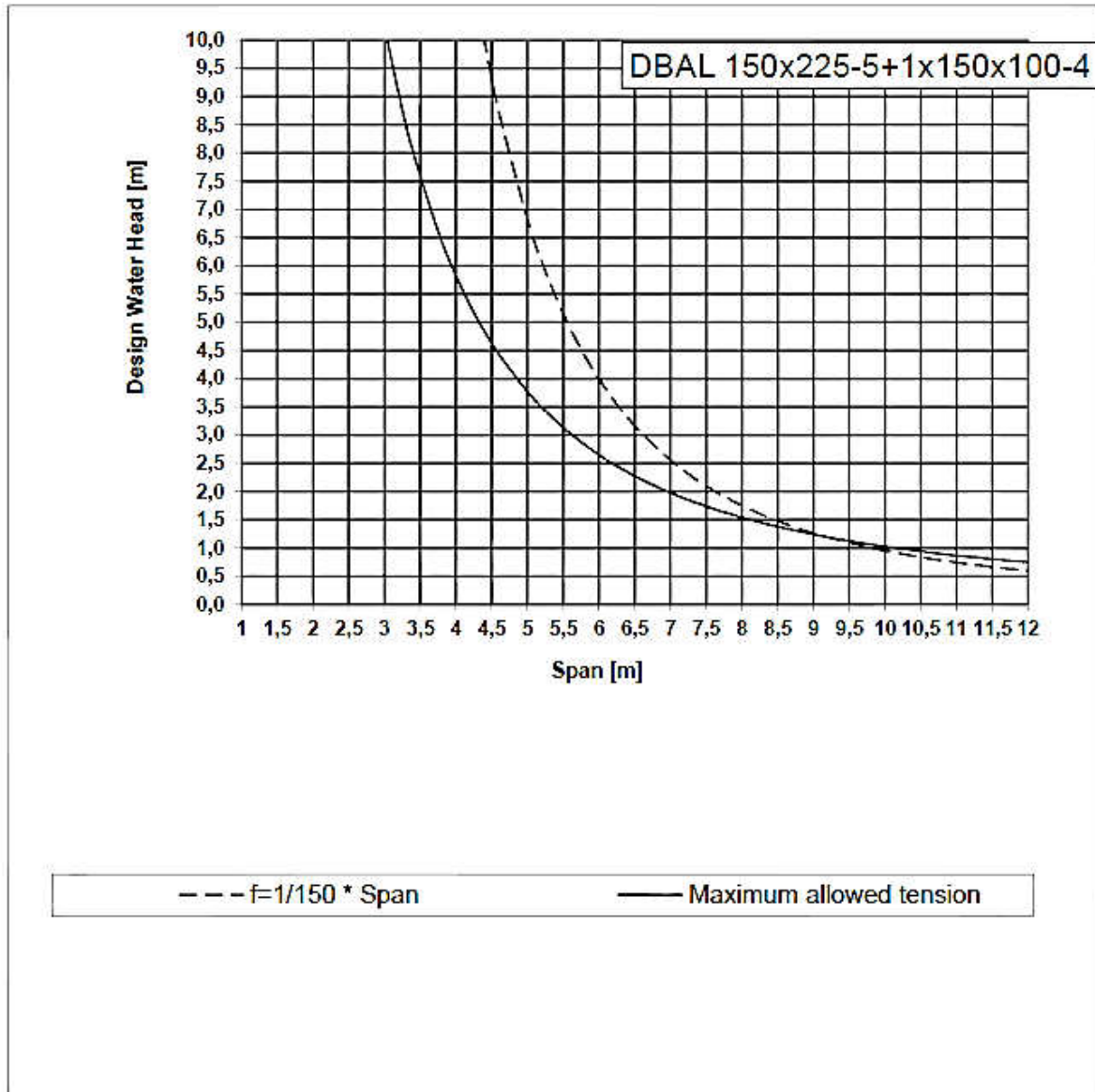
| PROFILE CHARACTERISTICS          |                   |                |
|----------------------------------|-------------------|----------------|
| Height                           | mm                | 225            |
| Width                            | mm                | 150 (+ 150)    |
| Thickness                        | mm                | 5 (+ 4)        |
| Cross-sectional area             | cm <sup>2</sup>   | 65,0           |
| Weight per linear m              | kg/m              | 20,0           |
| Material Dam Beam/Log / VKT-Pipe | -                 | EN AW-6063-T66 |
| Material Seal                    | -                 | EPDM           |
| Moment of inertia                | cm <sup>4</sup>   | 5262,68        |
| Modulus of elasticity E          | N/mm <sup>2</sup> | 70.000         |

DBAL150x225-5.0+1x150x100-4.0LM-BD

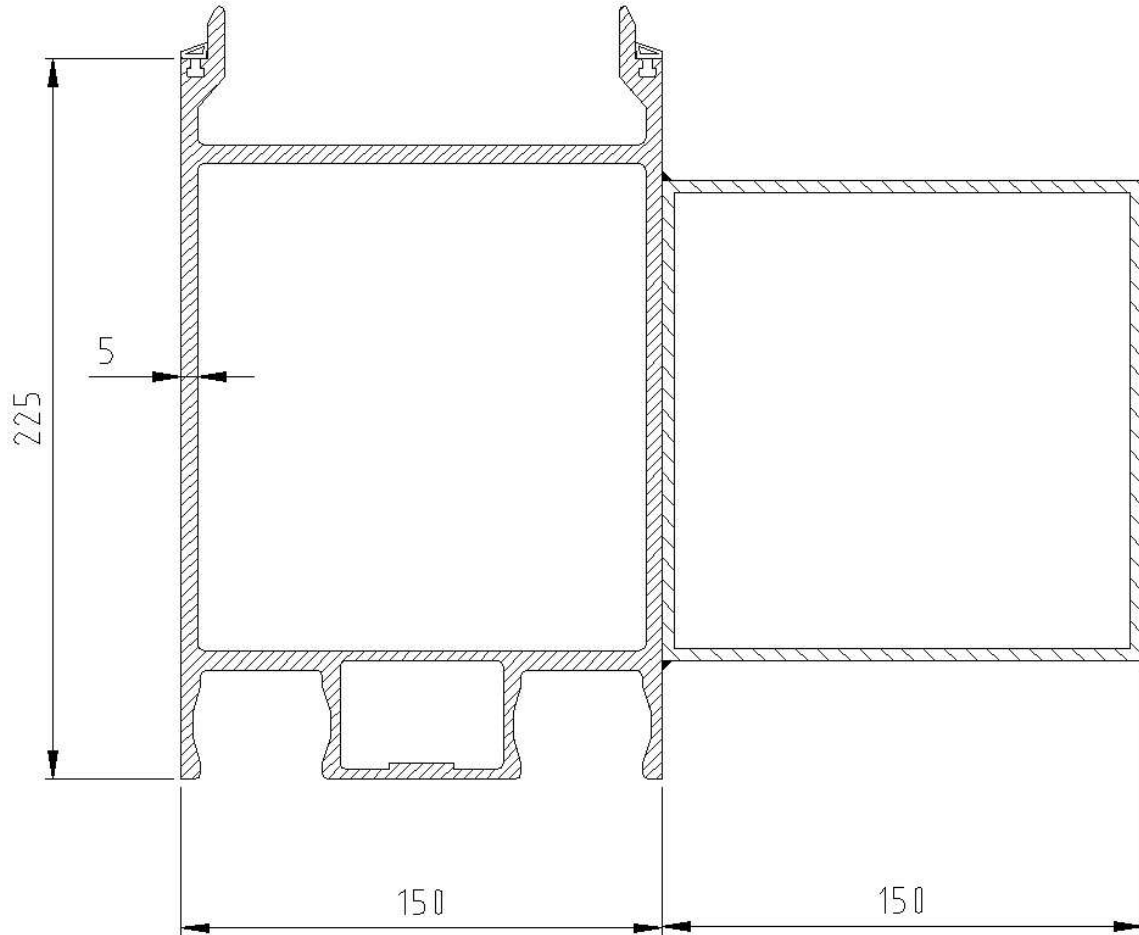


| PROFILE CHARACTERISTICS          |                   |                |
|----------------------------------|-------------------|----------------|
| Height                           | mm                | 225            |
| Width                            | mm                | 150 (+ 150)    |
| Thickness                        | mm                | 5 (+ 4)        |
| Cross-sectional area             | cm <sup>2</sup>   | 65,0           |
| Weight per linear m              | kg/m              | 22,4           |
| Material Dam Beam/Log / VKT-Pipe | -                 | EN AW-6063-T66 |
| Material Seal                    | -                 | EPDM           |
| Moment of inertia                | cm <sup>4</sup>   | 5262,68        |
| Modulus of elasticity E          | N/mm <sup>2</sup> | 70.000         |

Deflection Graph DBAL 150x225-5.0+ 1x150x100-4.0

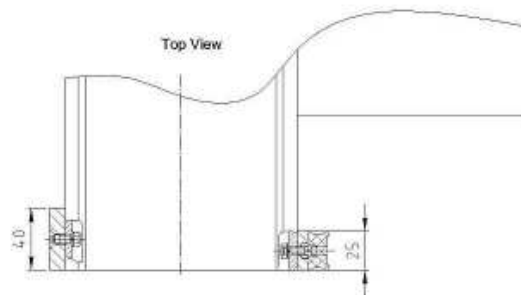
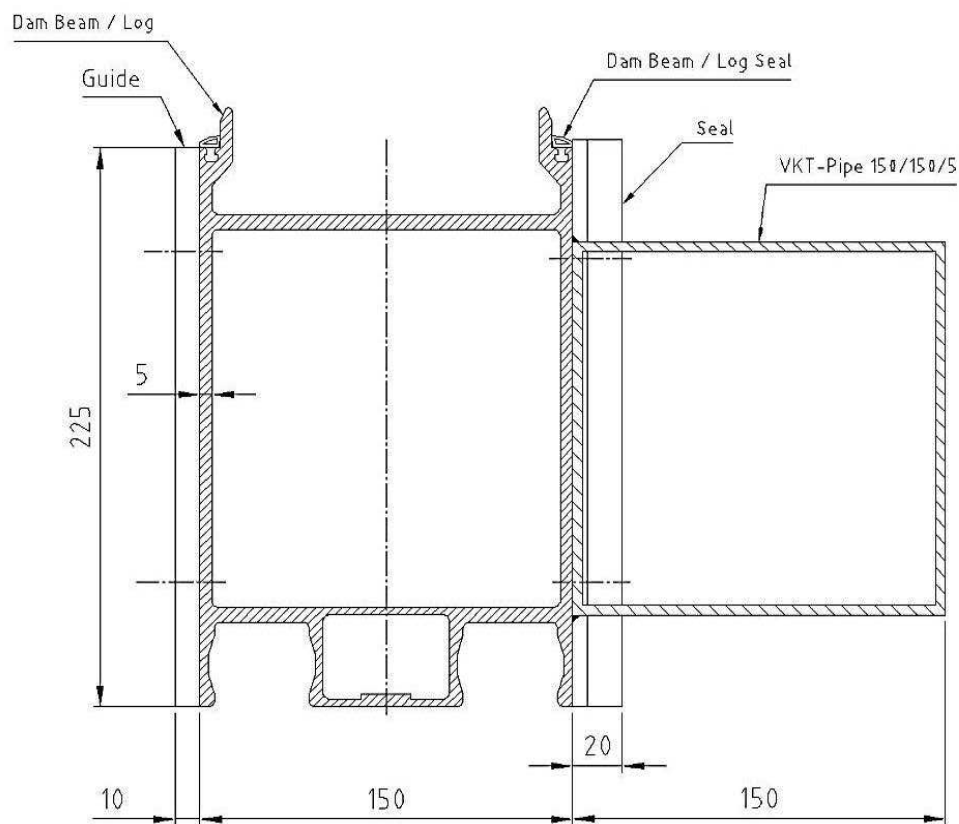


2.2.17 DBAL150x225-5.0+1x150x150-5.0



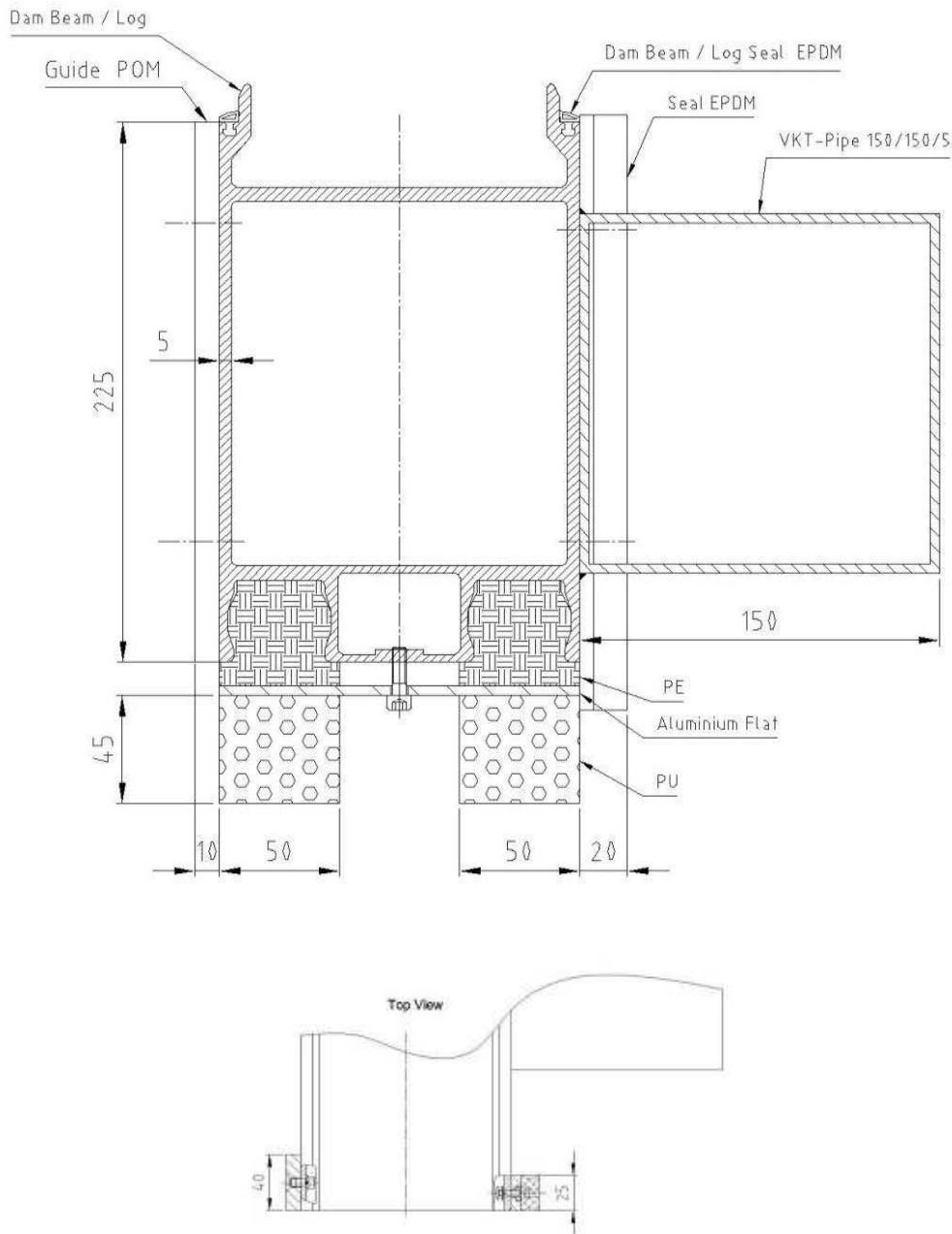
| PROFILE CHARACTERISTICS          |                   |                |
|----------------------------------|-------------------|----------------|
| Height                           | mm                | 225            |
| Width                            | mm                | 150 (+ 150)    |
| Thickness                        | mm                | 5 (+ 5)        |
| Cross-sectional area             | cm <sup>2</sup>   | 69,0           |
| Weight per linear m              | kg/m              | 22,7           |
| Material Dam Beam/Log / VKT-Pipe | -                 | EN AW-6063-T66 |
| Material Seal                    | -                 | EPDM           |
| Moment of inertia                | cm <sup>4</sup>   | 6590,39        |
| Modulus of elasticity E          | N/mm <sup>2</sup> | 70.000         |

DBAL150x225-5.0+1x150x150-5.0LM



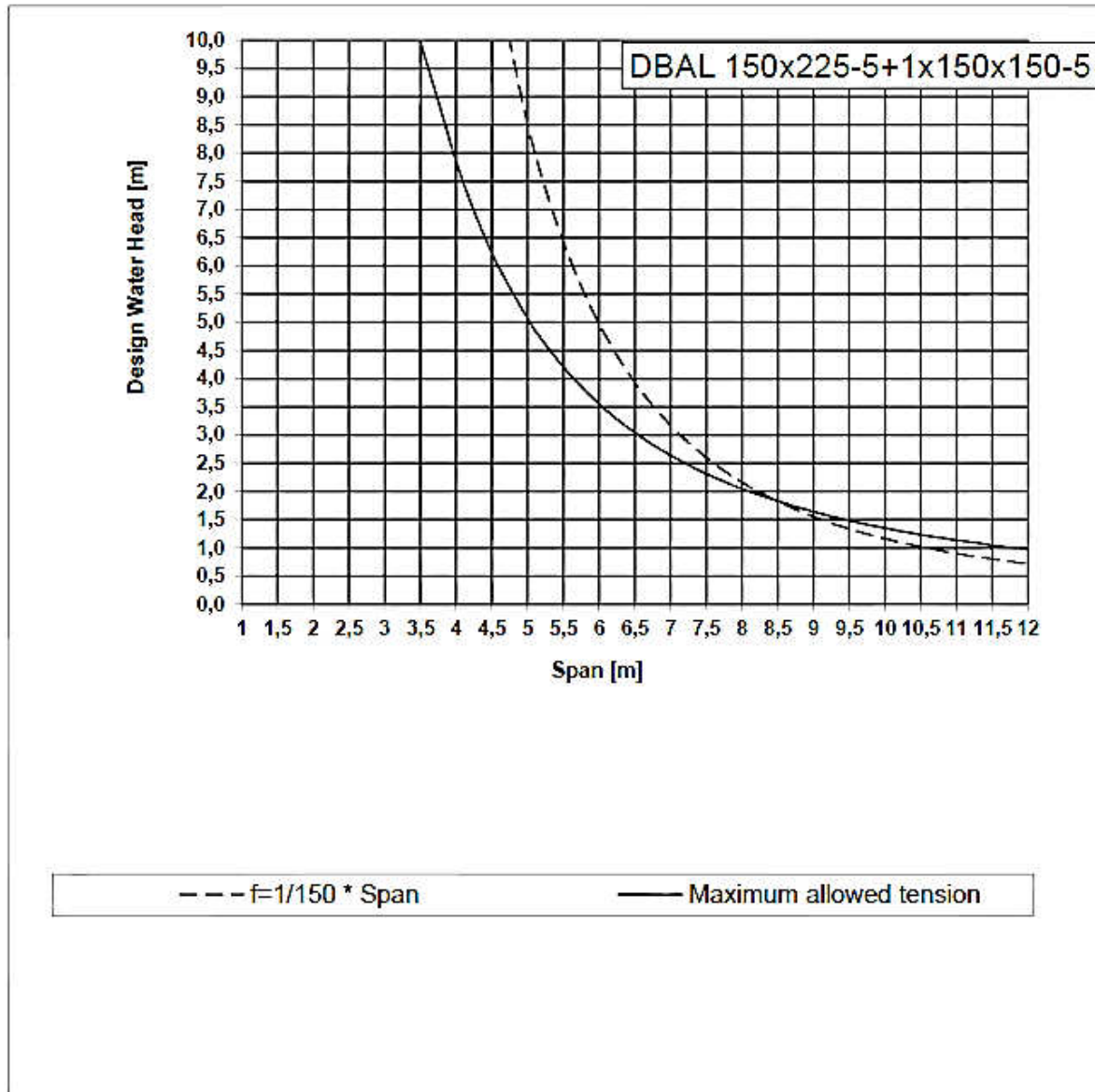
| PROFILE CHARACTERISTICS          |                   |                |
|----------------------------------|-------------------|----------------|
| Height                           | mm                | 225            |
| Width                            | mm                | 150 (+ 150)    |
| Thickness                        | mm                | 5 (+ 5)        |
| Cross-sectional area             | cm <sup>2</sup>   | 69,0           |
| Weight per linear m              | kg/m              | 22,7           |
| Material Dam Beam/Log / VKT-Pipe | -                 | EN AW-6063-T66 |
| Material Seal                    | -                 | EPDM           |
| Moment of inertia                | cm <sup>4</sup>   | 6590,39        |
| Modulus of elasticity E          | N/mm <sup>2</sup> | 70.000         |

DBAL150x225-5.0+1x150x150-5.0LM-BD

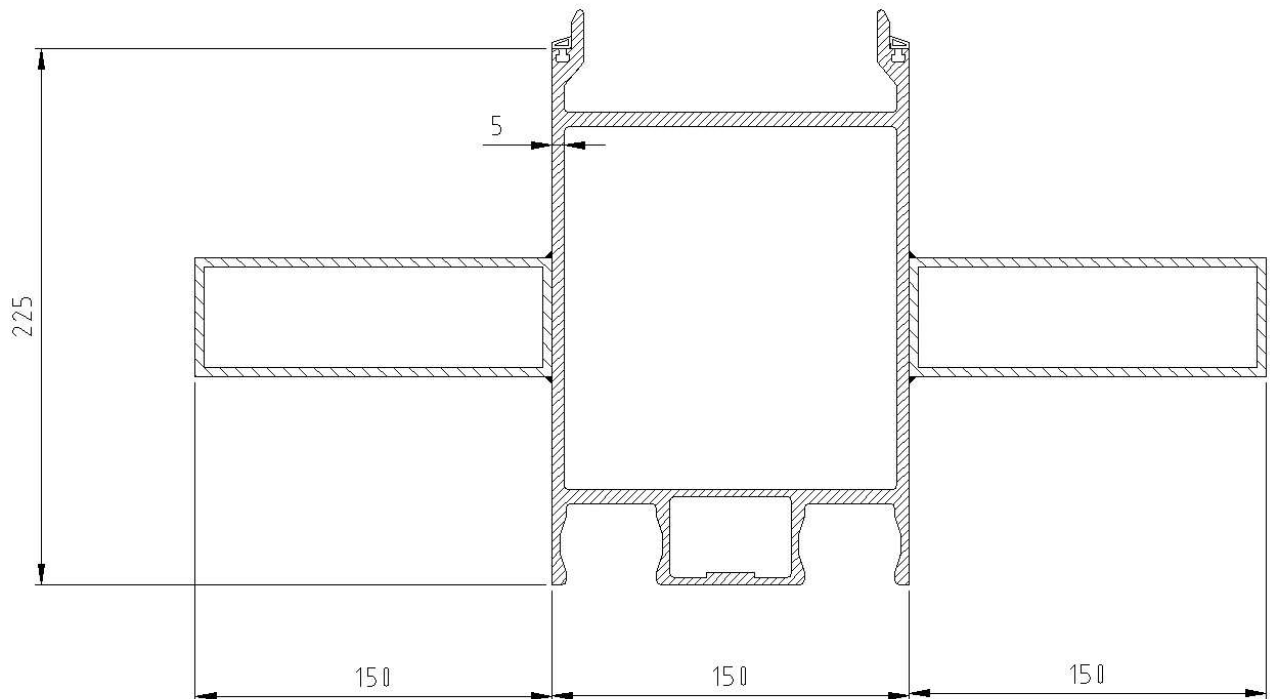


| PROFILE CHARACTERISTICS          |                   |                |
|----------------------------------|-------------------|----------------|
| Height                           | mm                | 225            |
| Width                            | mm                | 150 (+ 150)    |
| Thickness                        | mm                | 5 (+ 5)        |
| Cross-sectional area             | cm <sup>2</sup>   | 69,0           |
| Weight per linear m              | kg/m              | 25,1           |
| Material Dam Beam/Log / VKT-Pipe | -                 | EN AW-6063-T66 |
| Material Seal                    | -                 | EPDM           |
| Moment of inertia                | cm <sup>4</sup>   | 6590,39        |
| Modulus of elasticity E          | N/mm <sup>2</sup> | 70.000         |

Deflection Graph DBAL 150x225-5.0+1x150x150-5.0



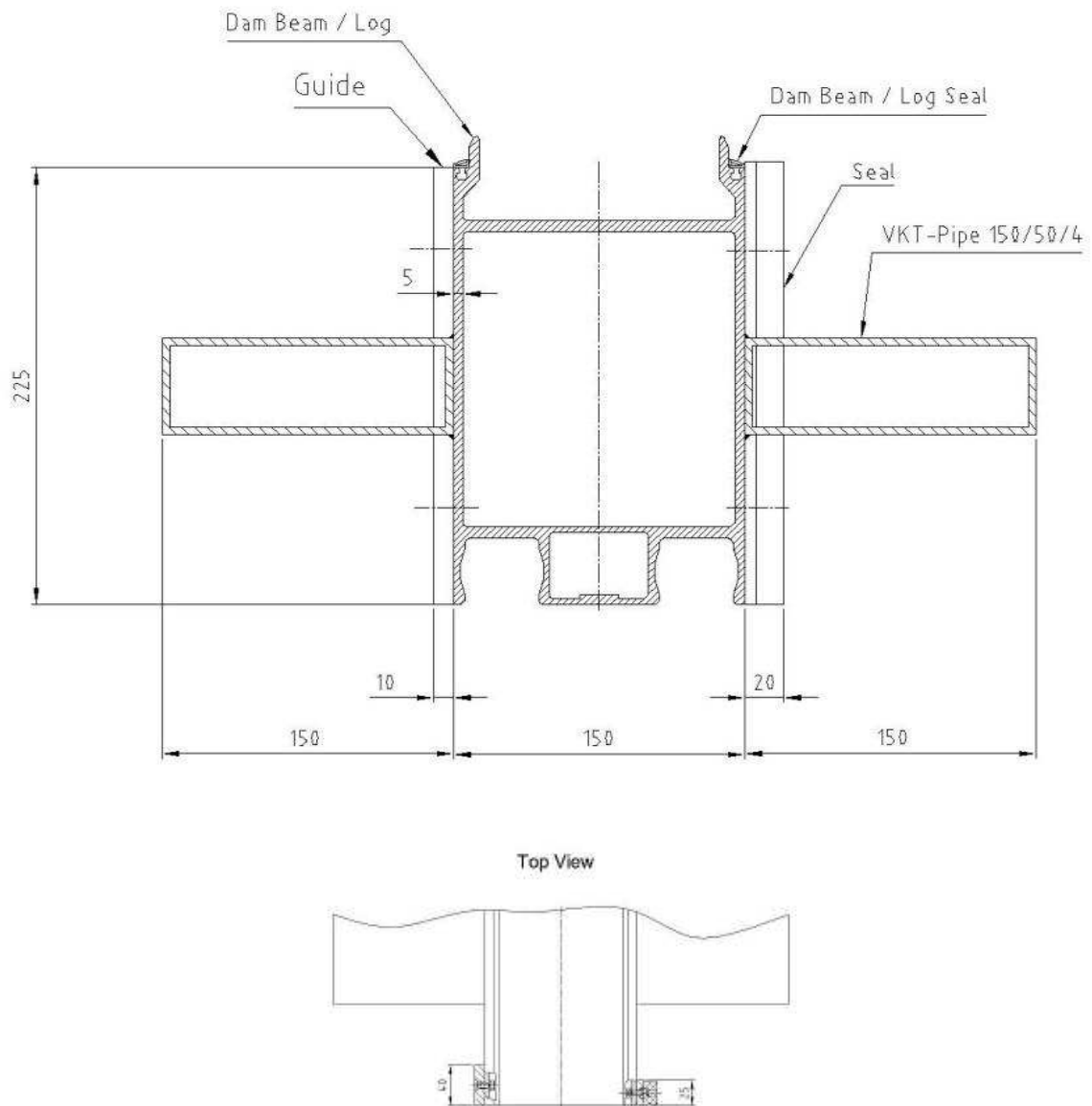
2.2.18 DBAL150x225-5.0+2x150x50-4.0



| PROFILE CHARACTERISTICS          |                   |                     |
|----------------------------------|-------------------|---------------------|
| Height                           | mm                | 225                 |
| Width                            | mm                | (150 +) 150 (+ 150) |
| Thickness                        | mm                | (4 +) 5 (+ 4)       |
| Cross-sectional area             | cm <sup>2</sup>   | 76,6                |
| Weight per linear m              | kg/m              | 23,1                |
| Material Dam Beam/Log / VKT-Pipe | -                 | EN AW-6063-T66      |
| Material Seal                    | -                 | EPDM                |
| Moment of inertia                | cm <sup>4</sup>   | 9312,2              |
| Modulus of elasticity E          | N/mm <sup>2</sup> | 70.000              |

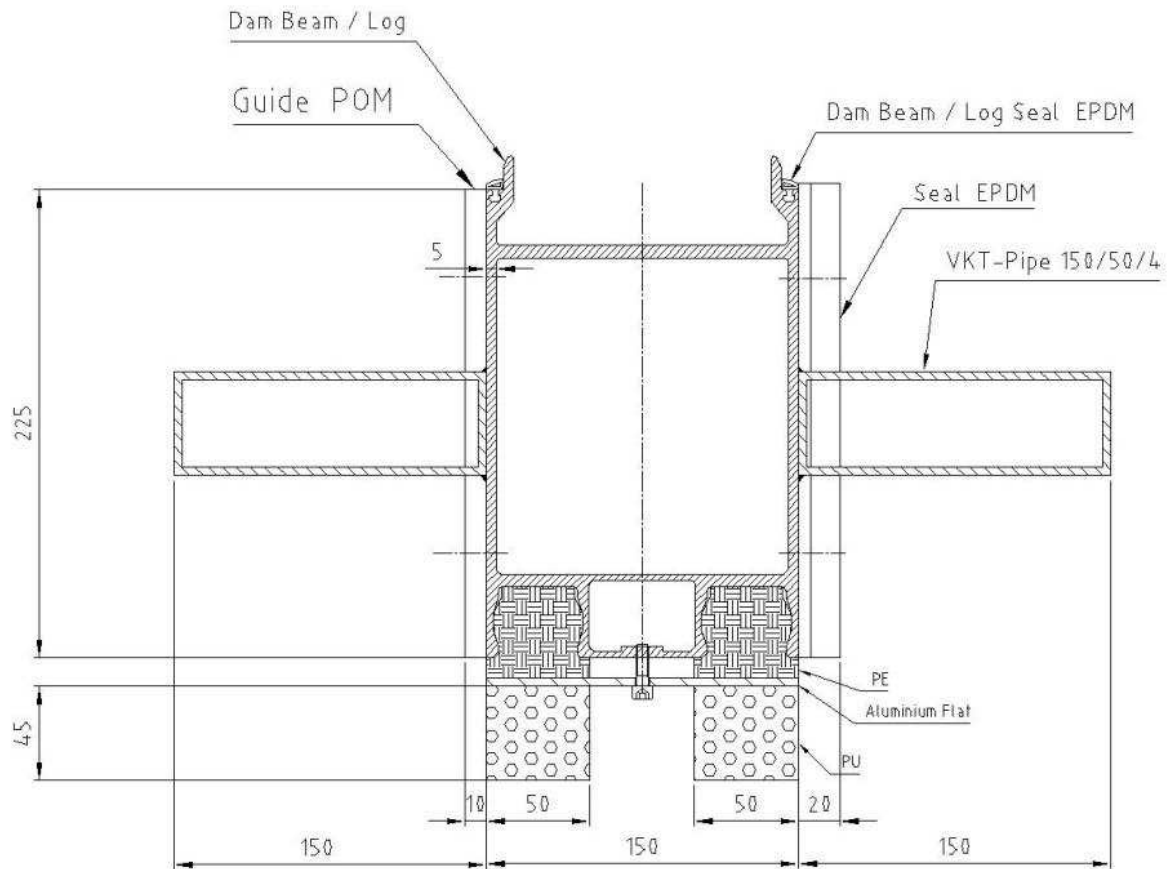


DBAL150x225-5.0+2x150x50-4.0LM

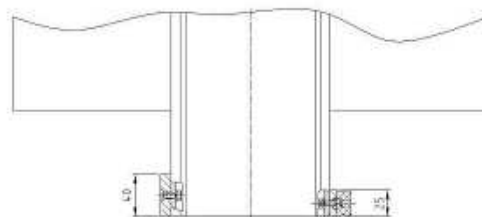


| PROFILE CHARACTERISTICS          |                   |                     |
|----------------------------------|-------------------|---------------------|
| Height                           | mm                | 225                 |
| Width                            | mm                | (150 +) 150 (+ 150) |
| Thickness                        | mm                | (4 +) 5 (+ 4)       |
| Cross-sectional area             | cm <sup>2</sup>   | 76,6                |
| Weight per linear m              | kg/m              | 23,1                |
| Material Dam Beam/Log / VKT-Pipe | -                 | EN AW-6063-T66      |
| Material Seal                    | -                 | EPDM                |
| Moment of inertia                | cm <sup>4</sup>   | 9312,2              |
| Modulus of elasticity E          | N/mm <sup>2</sup> | 70.000              |

DBAL150x225-5.0+2x150x50-4.0LM-BD

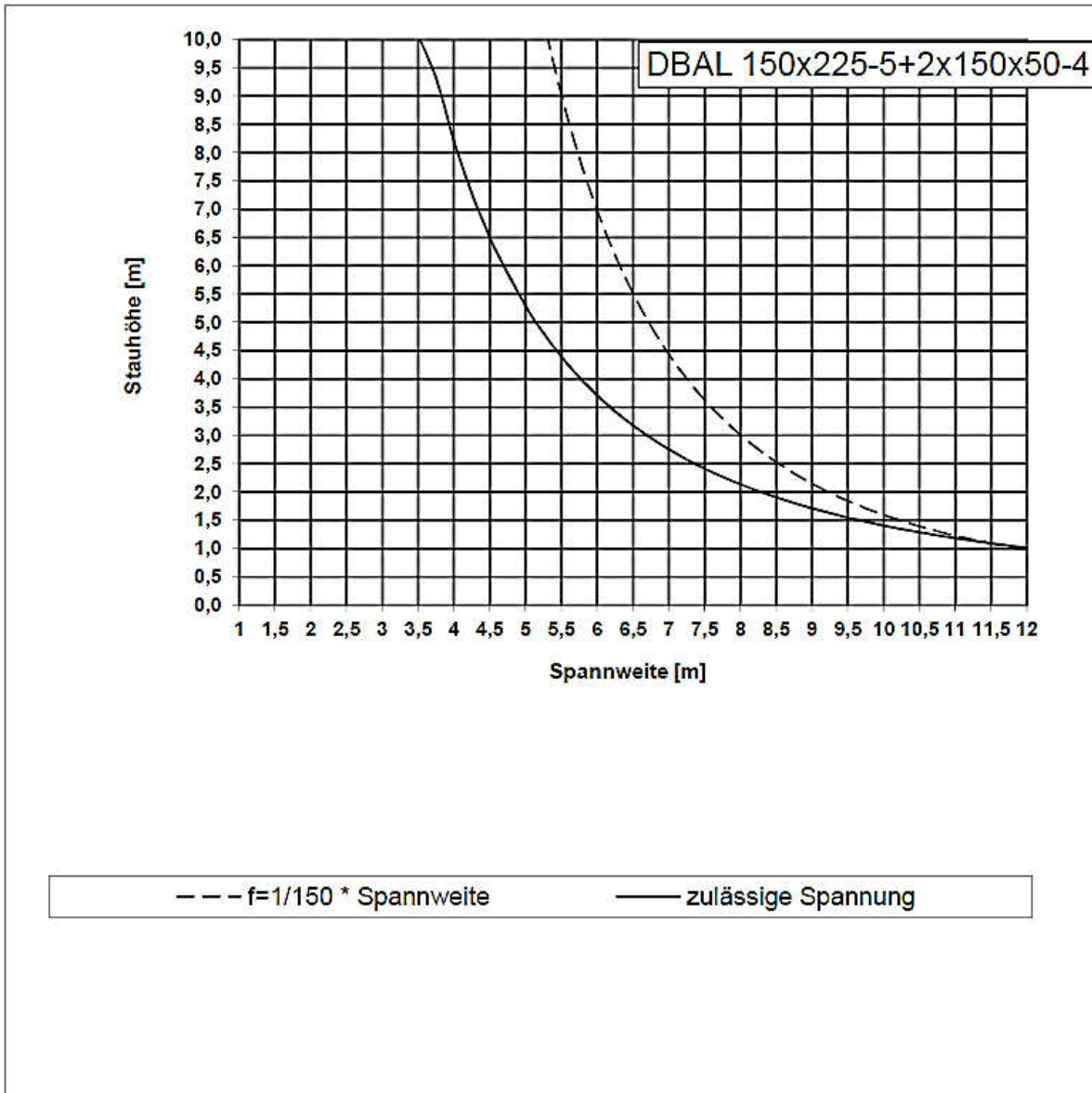


Top View

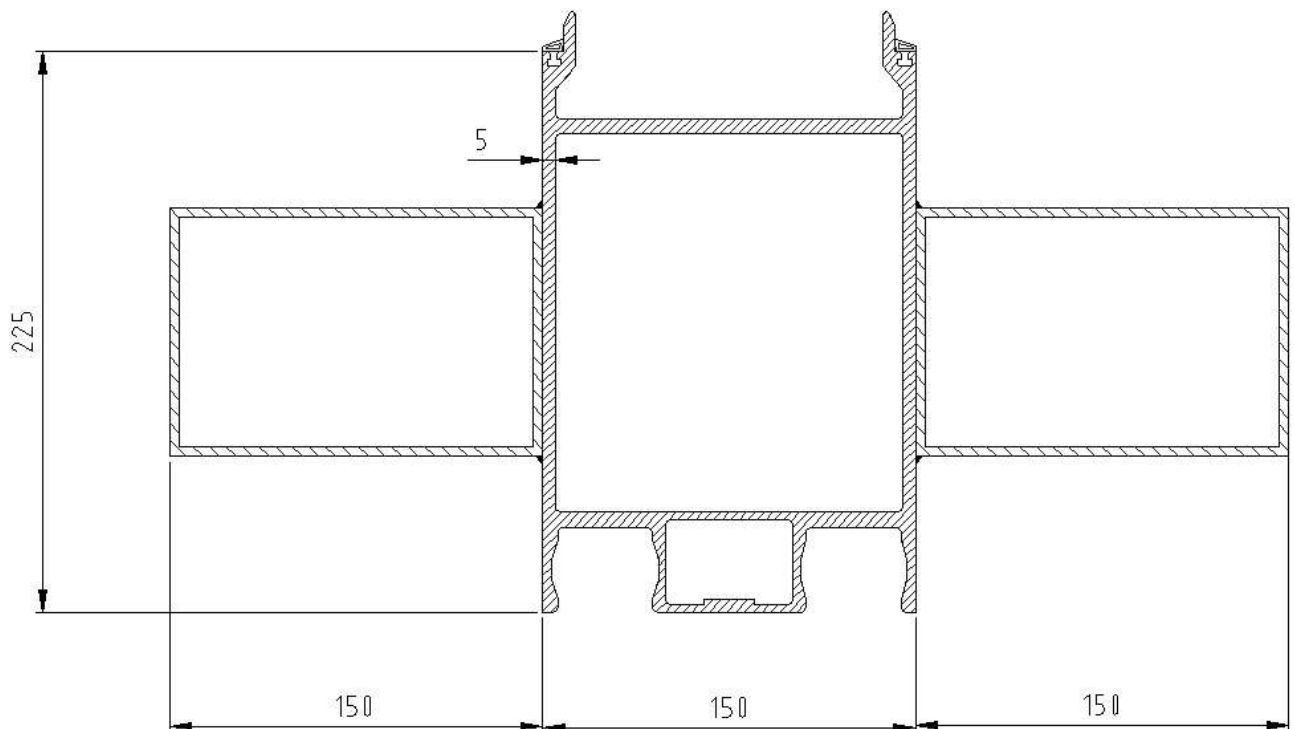


| PROFILE CHARACTERISTICS          |                   |                     |
|----------------------------------|-------------------|---------------------|
| Height                           | mm                | 225                 |
| Width                            | mm                | (150 +) 150 (+ 150) |
| Thickness                        | mm                | (4 +) 5 (+ 4)       |
| Cross-sectional area             | cm <sup>2</sup>   | 76,6                |
| Weight per linear m              | kg/m              | 25,5                |
| Material Dam Beam/Log / VKT-Pipe | -                 | EN AW-6063-T66      |
| Material Seal                    | -                 | EPDM                |
| Moment of inertia                | cm <sup>4</sup>   | 9312,2              |
| Modulus of elasticity E          | N/mm <sup>2</sup> | 70.000              |

Deflection Graph DBAL 150x225-5.0+2x150x50-4.0

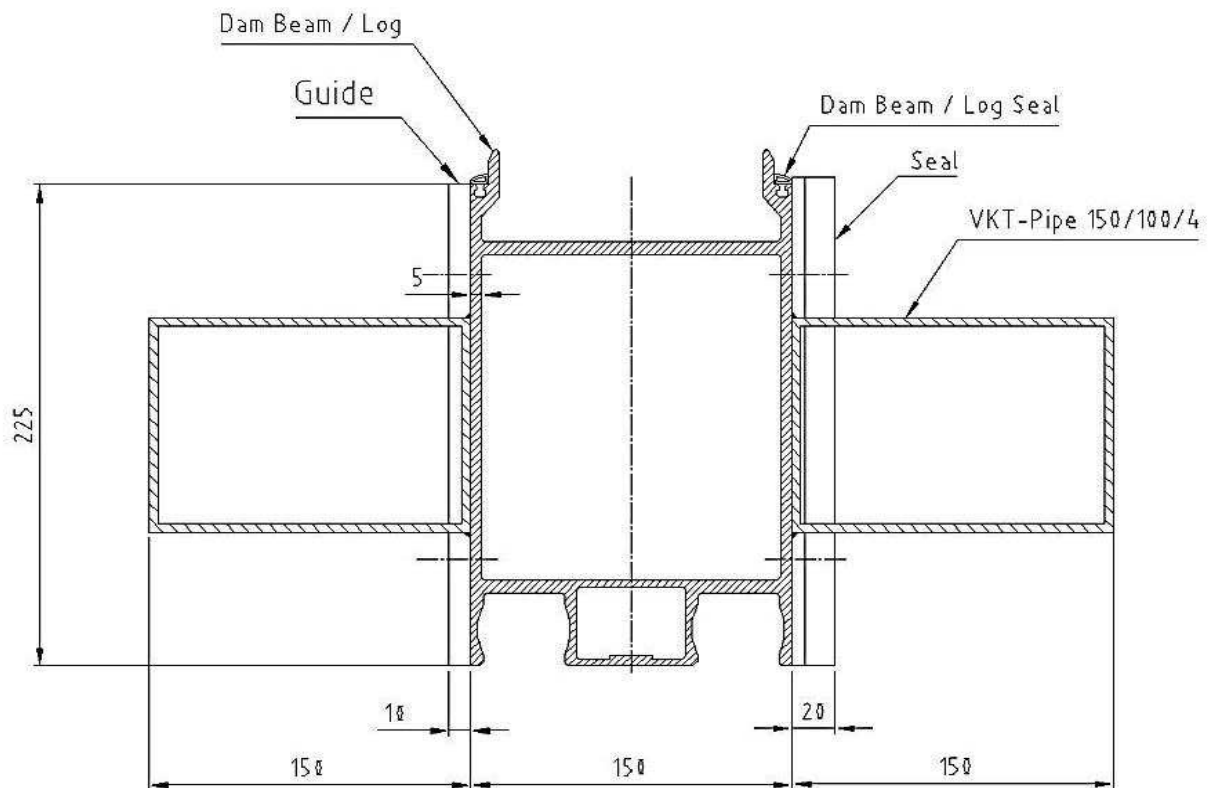


2.2.19 DBAL150x225-5.0+2x150x100-4.0

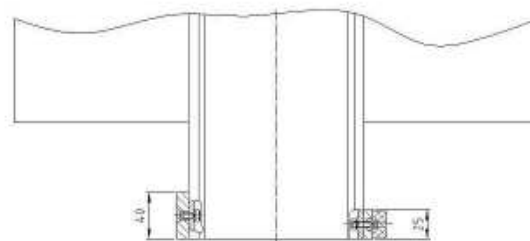


| PROFILE CHARACTERISTICS          |                   |                    |
|----------------------------------|-------------------|--------------------|
| Height                           | mm                | 225                |
| Width                            | mm                | (150 +) 150 (+150) |
| Thickness                        | mm                | (4 +) 5 (+ 4)      |
| Cross-sectional area             | cm <sup>2</sup>   | 84,6               |
| Weight per linear m              | kg/m              | 25,3               |
| Material Dam Beam/Log / VKT-Pipe | -                 | EN AW-6063-T66     |
| Material Seal                    | -                 | EPDM               |
| Moment of inertia                | cm <sup>4</sup>   | 11538,63           |
| Modulus of elasticity E          | N/mm <sup>2</sup> | 70.000             |

DBAL150x225-5.0+2x150x100-4.0LM

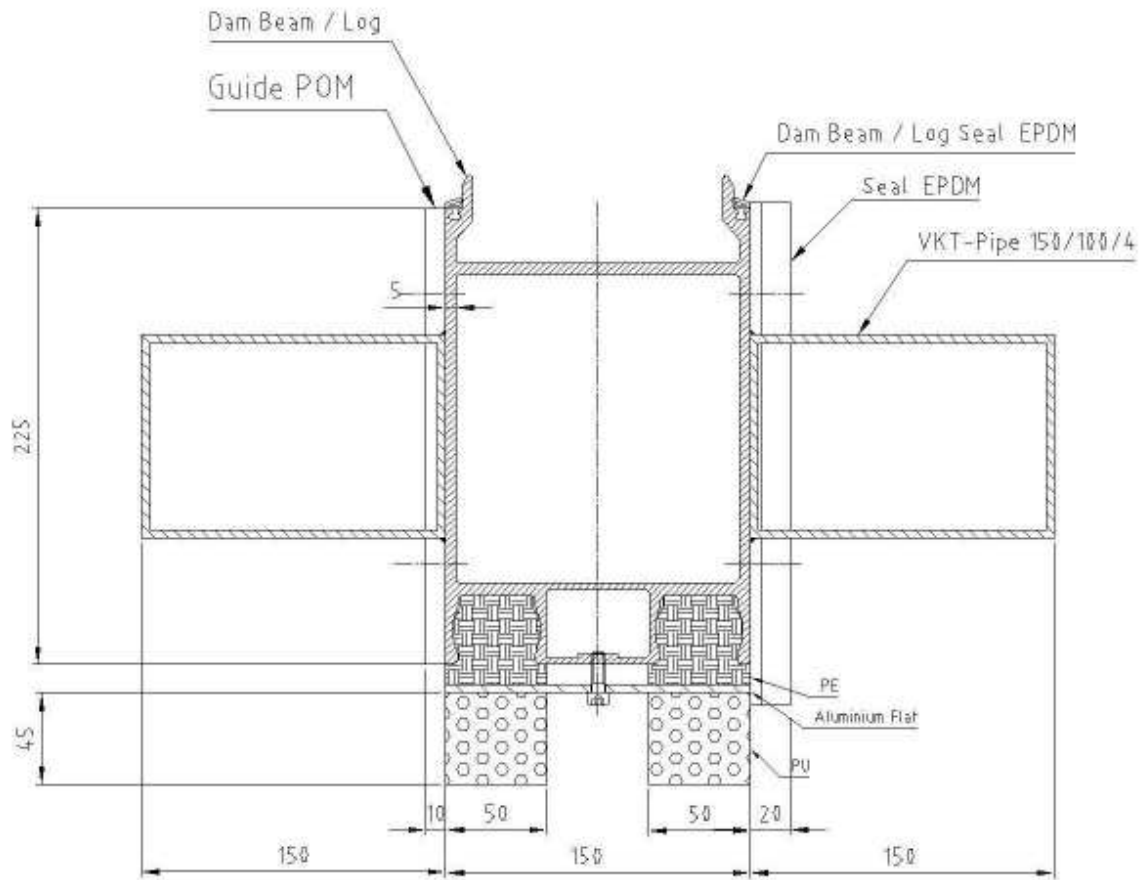


Top View

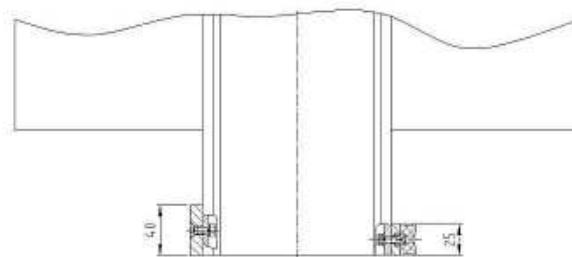


| PROFILE CHARACTERISTICS          |                   |                    |
|----------------------------------|-------------------|--------------------|
| Height                           | mm                | 225                |
| Width                            | mm                | (150 +) 150 (+150) |
| Thickness                        | mm                | (4 +) 5 (+ 4)      |
| Cross-sectional area             | cm <sup>2</sup>   | 84,6               |
| Weight per linear m              | kg/m              | 25,3               |
| Material Dam Beam/Log / VKT-Pipe | -                 | EN AW-6063-T66     |
| Material Seal                    | -                 | EPDM               |
| Moment of inertia                | cm <sup>4</sup>   | 11538,63           |
| Modulus of elasticity E          | N/mm <sup>2</sup> | 70.000             |

DBAL150x225-5.0+2x150x100-4.0LM-BD

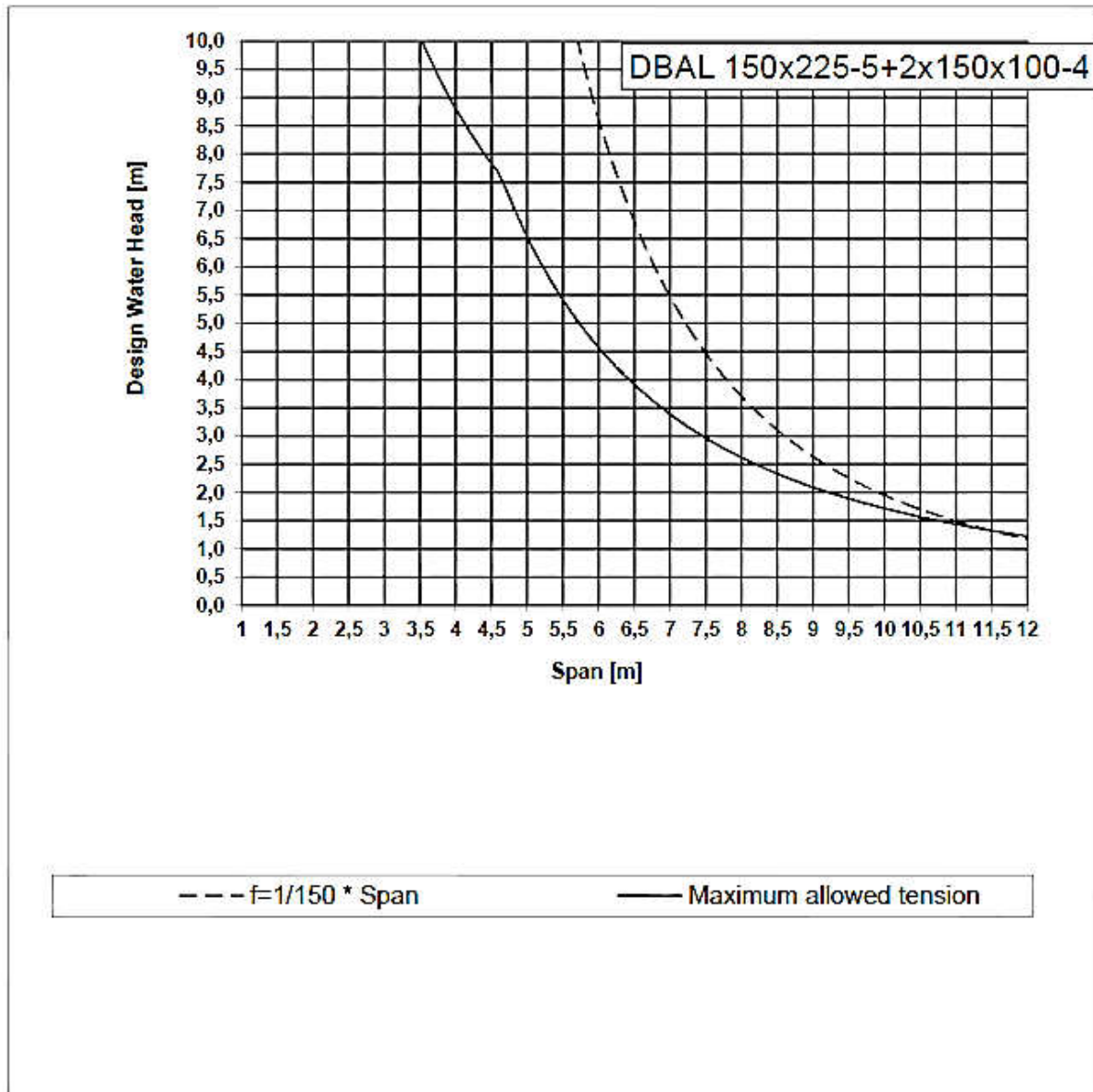


Top View

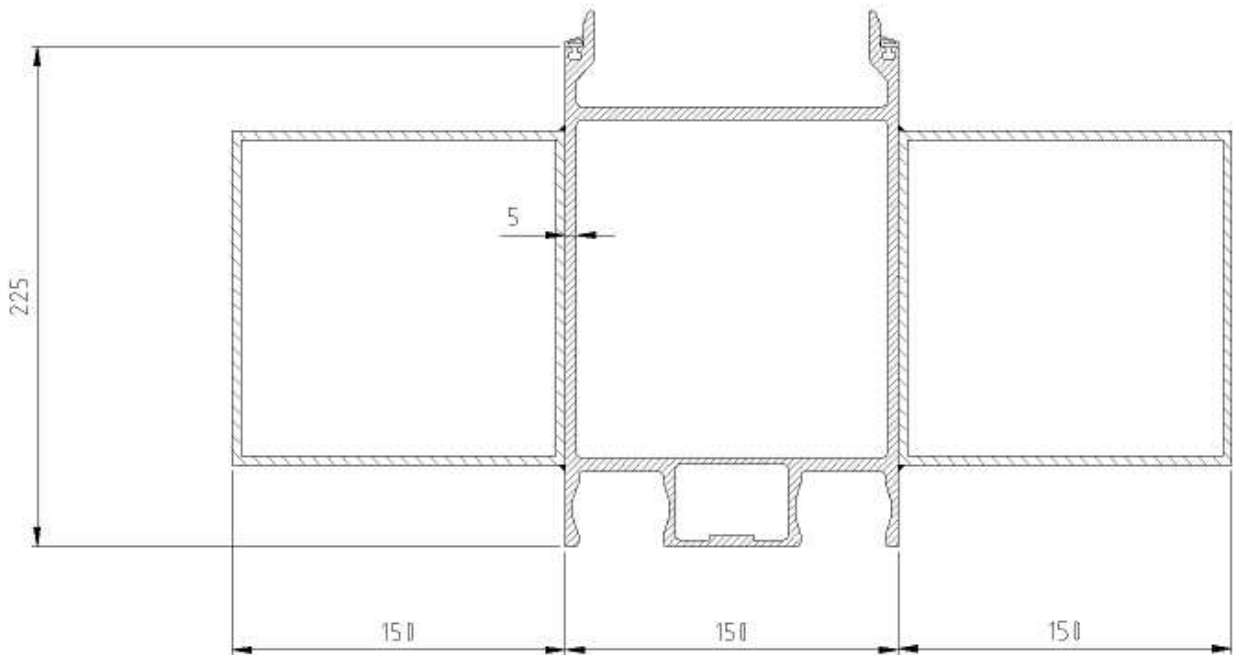


| PROFILE CHARACTERISTICS          |                   |                    |
|----------------------------------|-------------------|--------------------|
| Height                           | mm                | 225                |
| Width                            | mm                | (150 +) 150 (+150) |
| Thickness                        | mm                | (4 +) 5 (+ 4)      |
| Cross-sectional area             | cm <sup>2</sup>   | 84,6               |
| Weight per linear m              | kg/m              | 27,7               |
| Material Dam Beam/Log / VKT-Pipe | -                 | EN AW-6063-T66     |
| Material Seal                    | -                 | EPDM               |
| Moment of inertia                | cm <sup>4</sup>   | 11538,63           |
| Modulus of elasticity E          | N/mm <sup>2</sup> | 70.000             |

Deflection Graph DBAL 150x225-5.0+2x150x100-4.0



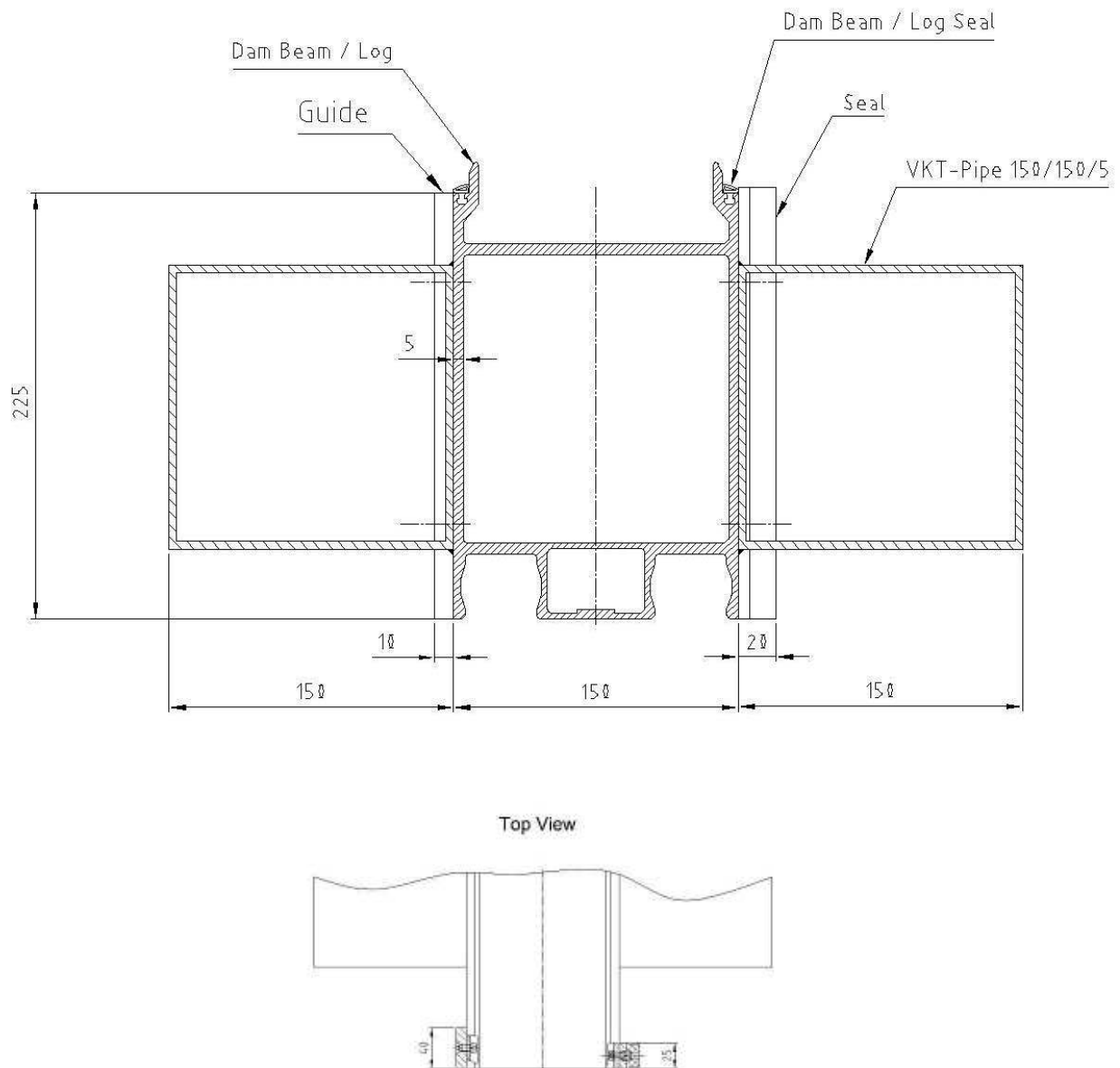
2.2.20 DBAL150x225-5.0+2x150x150-5.0



| PROFILE CHARACTERISTICS          |                   |                     |
|----------------------------------|-------------------|---------------------|
| Height                           | mm                | 225                 |
| Width                            | mm                | (150 +) 150 (+ 150) |
| Thickness                        | mm                | (5 +) 5 (+ 5)       |
| Cross-sectional area             | cm <sup>2</sup>   | 92,6                |
| Weight per linear m              | kg/m              | 30,7                |
| Material Dam Beam/Log / VKT-Pipe | -                 | EN AW-6063-T66      |
| Material Seal                    | -                 | EPDM                |
| Moment of inertia                | cm <sup>4</sup>   | 16676,83            |
| Modulus of elasticity E          | N/mm <sup>2</sup> | 70.000              |

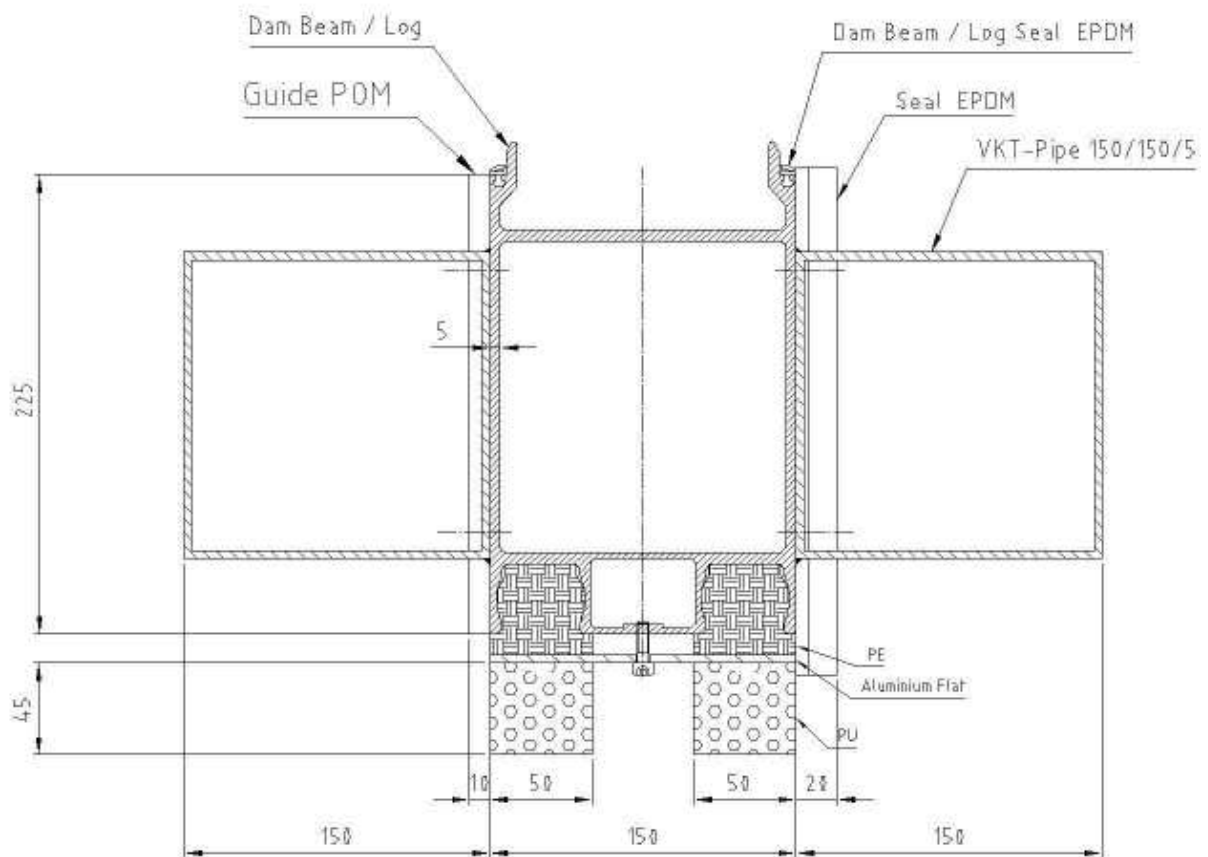


DBAL150x225-5.0+2x150x150-5.0LM

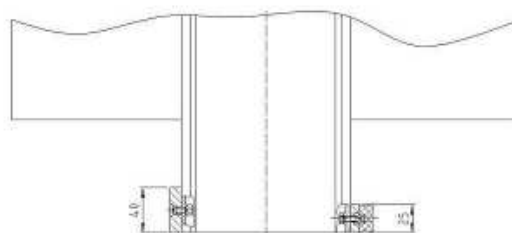


| PROFILE CHARACTERISTICS          |                   |                     |
|----------------------------------|-------------------|---------------------|
| Height                           | mm                | 225                 |
| Width                            | mm                | (150 +) 150 (+ 150) |
| Thickness                        | mm                | (5 +) 5 (+ 5)       |
| Cross-sectional area             | cm <sup>2</sup>   | 92,6                |
| Weight per linear m              | kg/m              | 30,7                |
| Material Dam Beam/Log / VKT-Pipe | -                 | EN AW-6063-T66      |
| Material Seal                    | -                 | EPDM                |
| Moment of inertia                | cm <sup>4</sup>   | 16676,83            |
| Modulus of elasticity E          | N/mm <sup>2</sup> | 70.000              |

DBAL150x225-5.0+2x150x150-5.0LM-BD

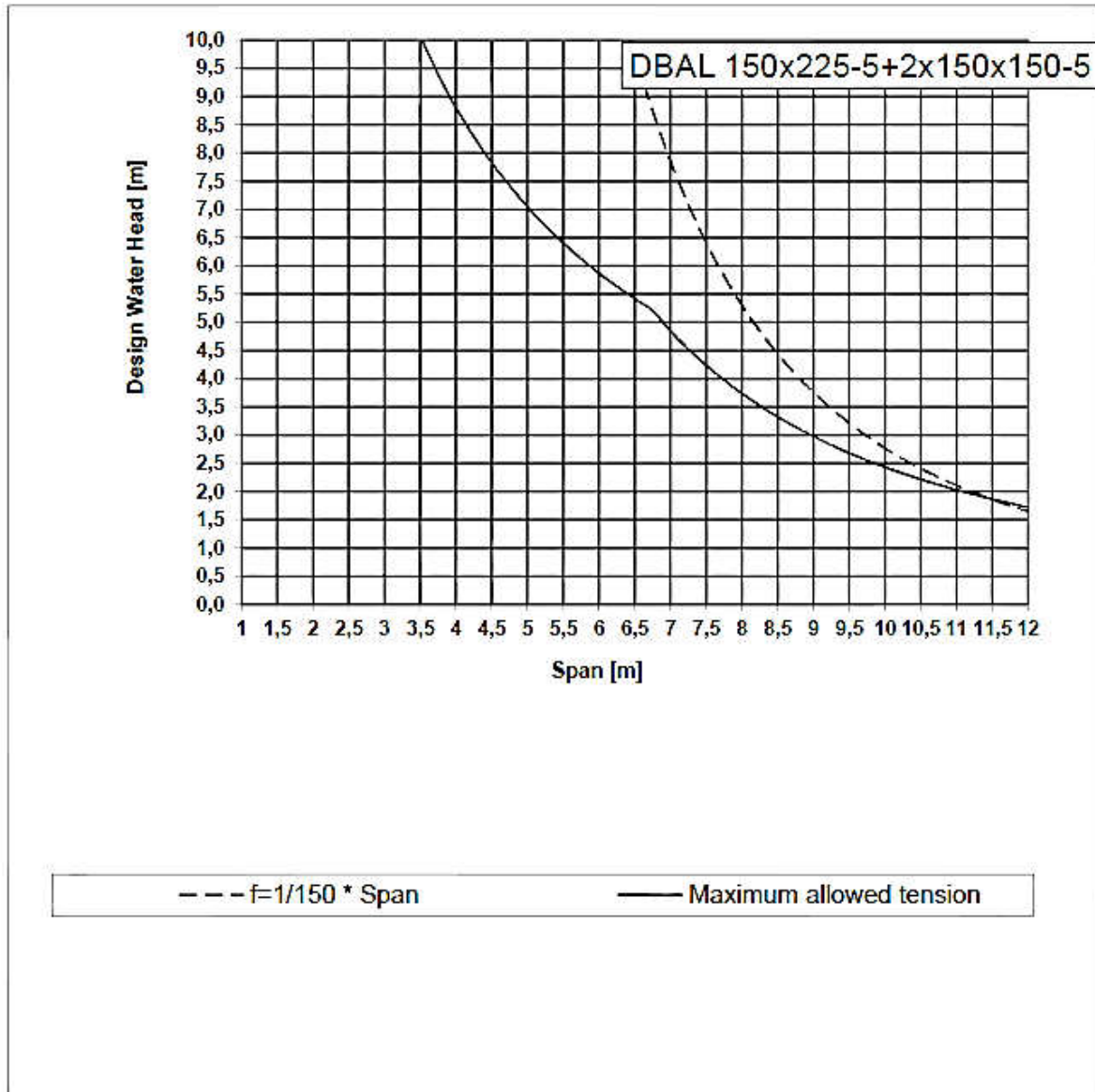


Top View

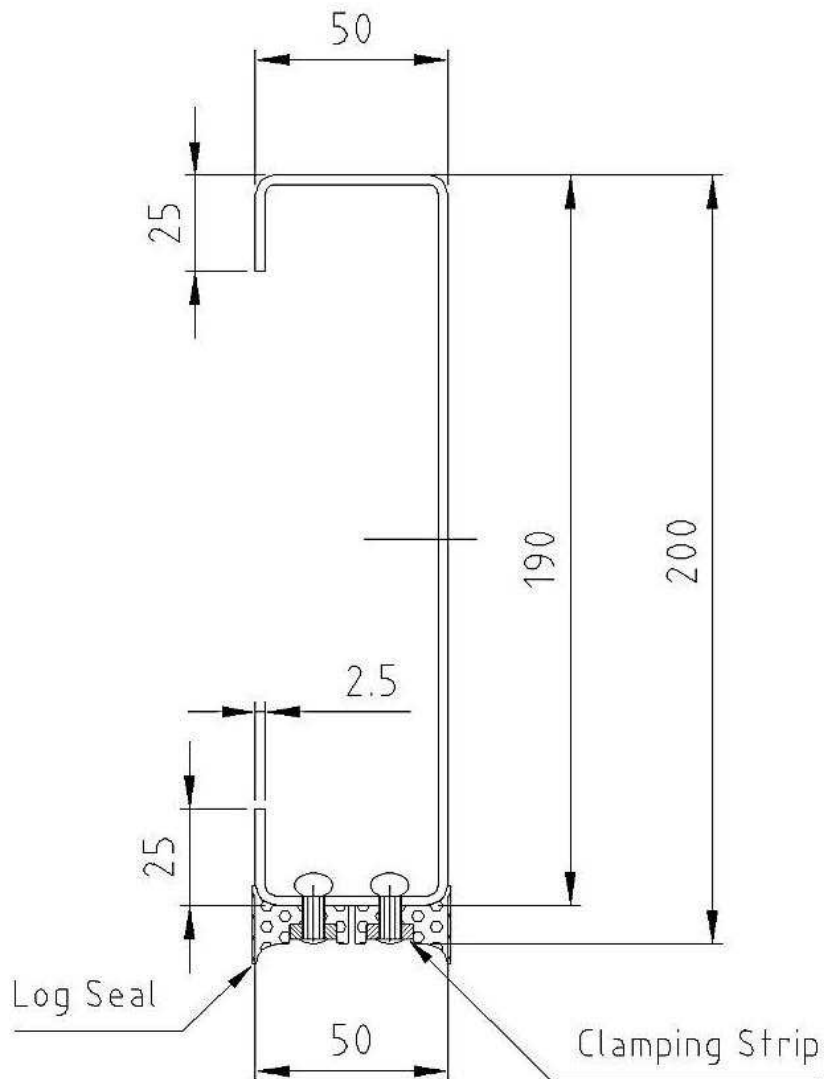


| PROFILE CHARACTERISTICS          |                   |                     |
|----------------------------------|-------------------|---------------------|
| Height                           | mm                | 225                 |
| Width                            | mm                | (150 +) 150 (+ 150) |
| Thickness                        | mm                | (5 +) 5 (+ 5)       |
| Cross-sectional area             | cm <sup>2</sup>   | 92,6                |
| Weight per linear m              | kg/m              | 33,1                |
| Material Dam Beam/Log / VKT-Pipe | -                 | EN AW-6063-T66      |
| Material Seal                    | -                 | EPDM                |
| Moment of inertia                | cm <sup>4</sup>   | 16676,83            |
| Modulus of elasticity E          | N/mm <sup>2</sup> | 70.000              |

Deflection Graph DBAL 150x225-5.0+2x150x150-5.0

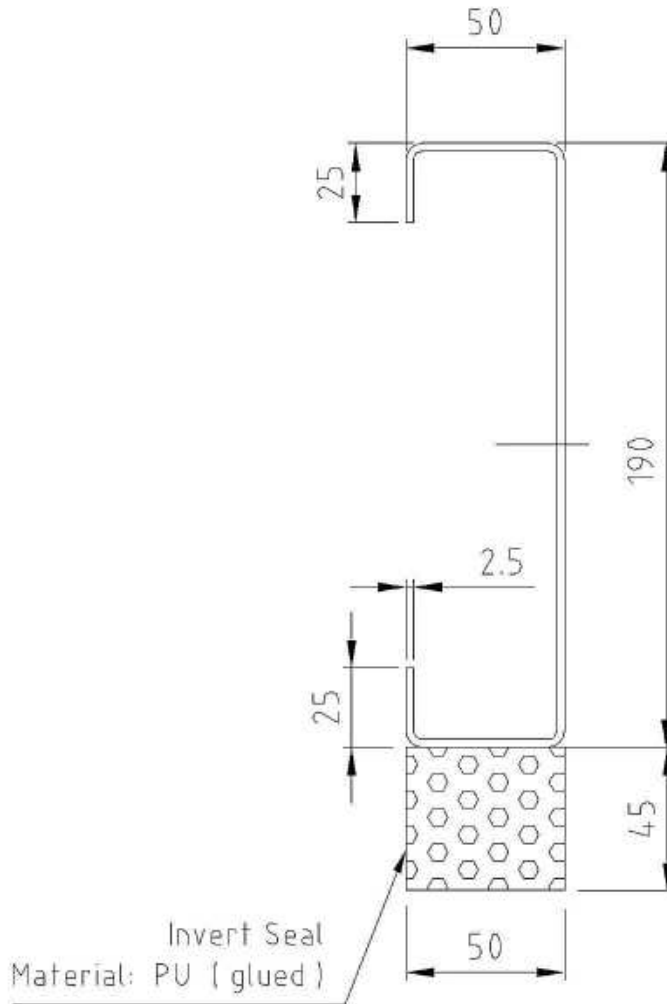


2.2.21 DBVA50x200-2.5-25



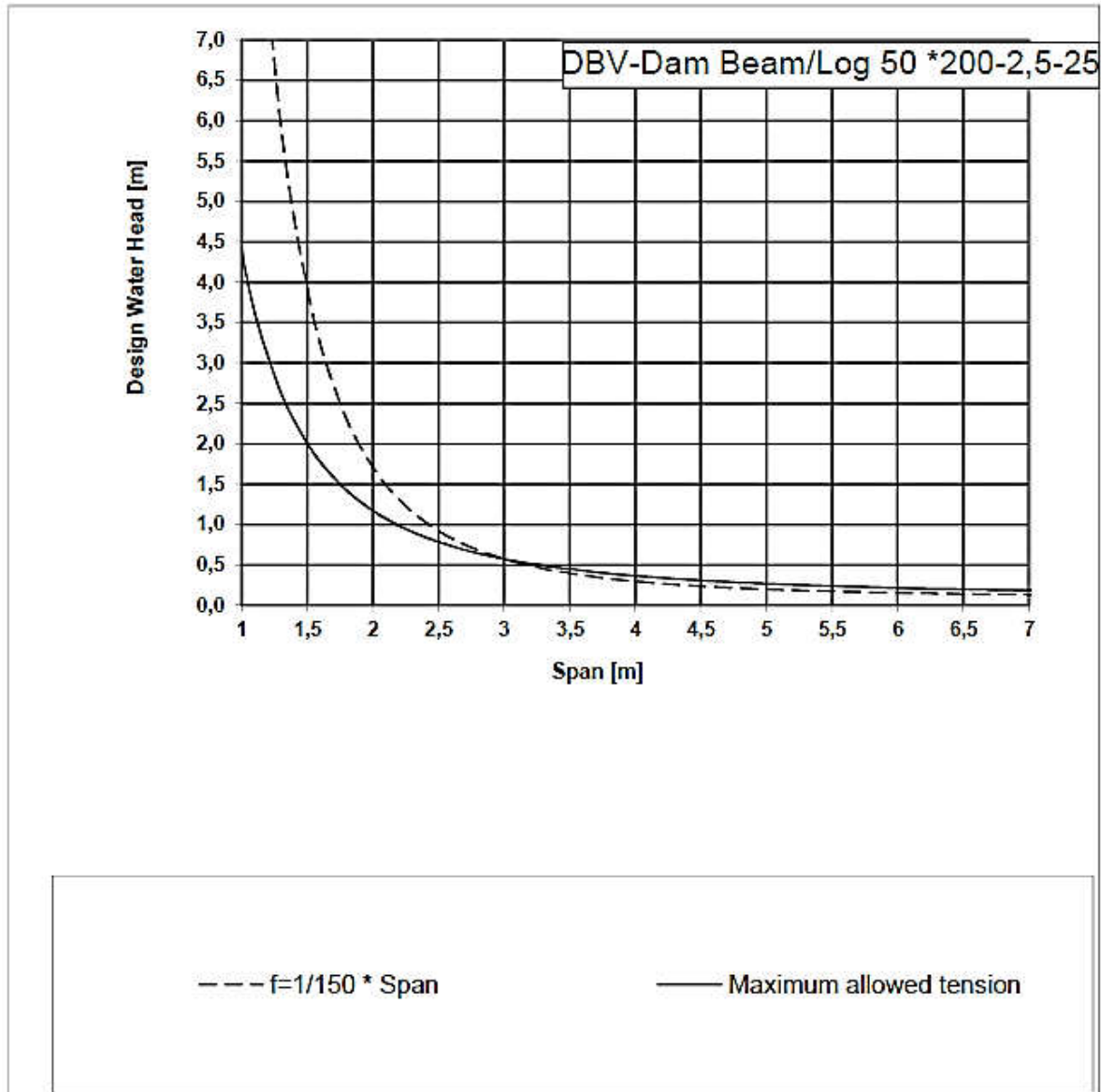
| PROFILE CHARACTERISTICS             |                   |                |
|-------------------------------------|-------------------|----------------|
| Height                              | mm                | 200            |
| Width                               | mm                | 50             |
| Thickness                           | mm                | 2,5-25         |
| Cross-sectional area                | cm <sup>2</sup>   | 8,5            |
| Weight per linear m                 | kg/m              | 8,1            |
| Material Dam Beam/Log               | -                 | DBV2A / DBV4A  |
| Material Dam Beam/Log Horizontal R5 | -                 | EPDM / Silicon |
| Moment of inertia                   | cm <sup>4</sup>   | 28,2           |
| Modulus of elasticity E             | N/mm <sup>2</sup> | 17.000         |

DBVA50x200-2.5-25-BD

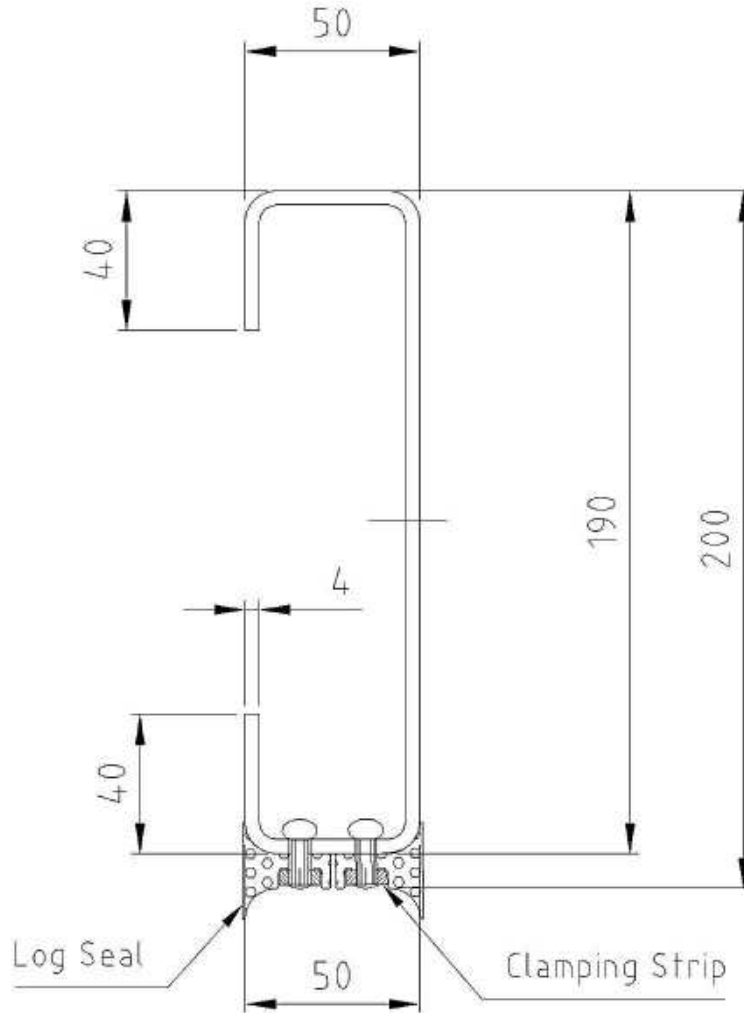


| PROFILE CHARACTERISTICS |                   |               |
|-------------------------|-------------------|---------------|
| Height                  | mm                | 200           |
| Width                   | mm                | 50            |
| Thickness               | mm                | 2,5-25        |
| Cross-sectional area    | cm <sup>2</sup>   | 8,5           |
| Weight per linear m     | kg/m              | 6,9           |
| Material Dam Beam/Log   | -                 | DBV2A / DBV4A |
| Material Ground Seal    | -                 | PU            |
| Moment of inertia       | cm <sup>4</sup>   | 28,2          |
| Modulus of elasticity E | N/mm <sup>2</sup> | 17.000        |

Deflection Graph DBVA50x200-2.5-25

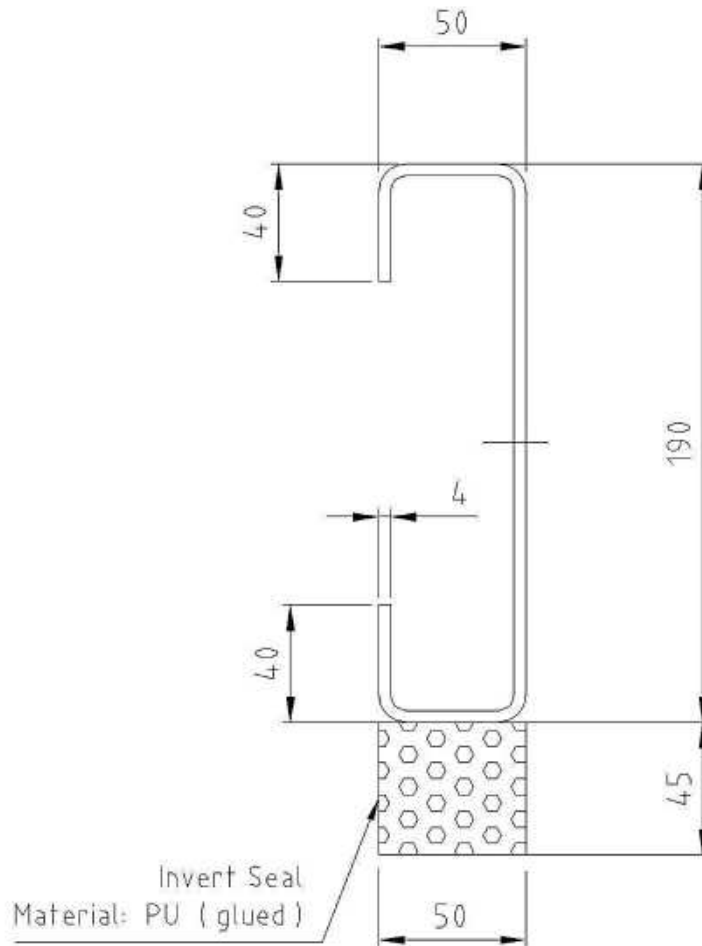


2.2.22 DBVA50x200-4.0-40



| PROFILE CHARACTERISTICS             |                   |                |
|-------------------------------------|-------------------|----------------|
| Height                              | mm                | 200            |
| Width                               | mm                | 50             |
| Thickness                           | mm                | 4,0-40         |
| Cross-sectional area                | cm <sup>2</sup>   | 14,2           |
| Weight per linear m                 | kg/m              | 12,6           |
| Material Dam Beam/Log               | -                 | DBV2A / DBV4A  |
| Material Dam Beam/Log Horizontal R9 | -                 | EPDM / Silicon |
| Moment of inertia                   | cm <sup>4</sup>   | 52,59          |
| Modulus of elasticity E             | N/mm <sup>2</sup> | 17.000         |

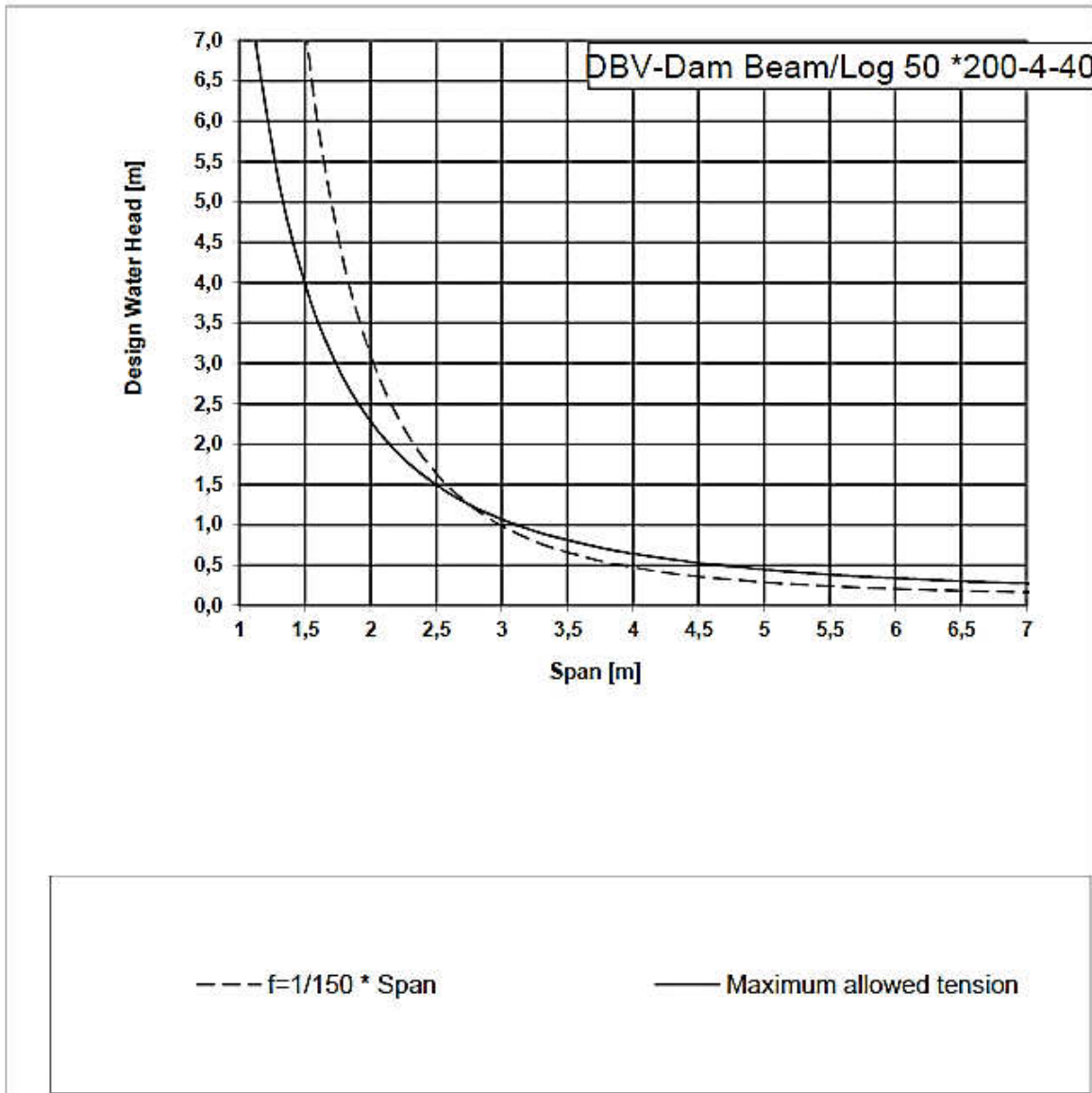
DBVA50x200-4.0-40-BD



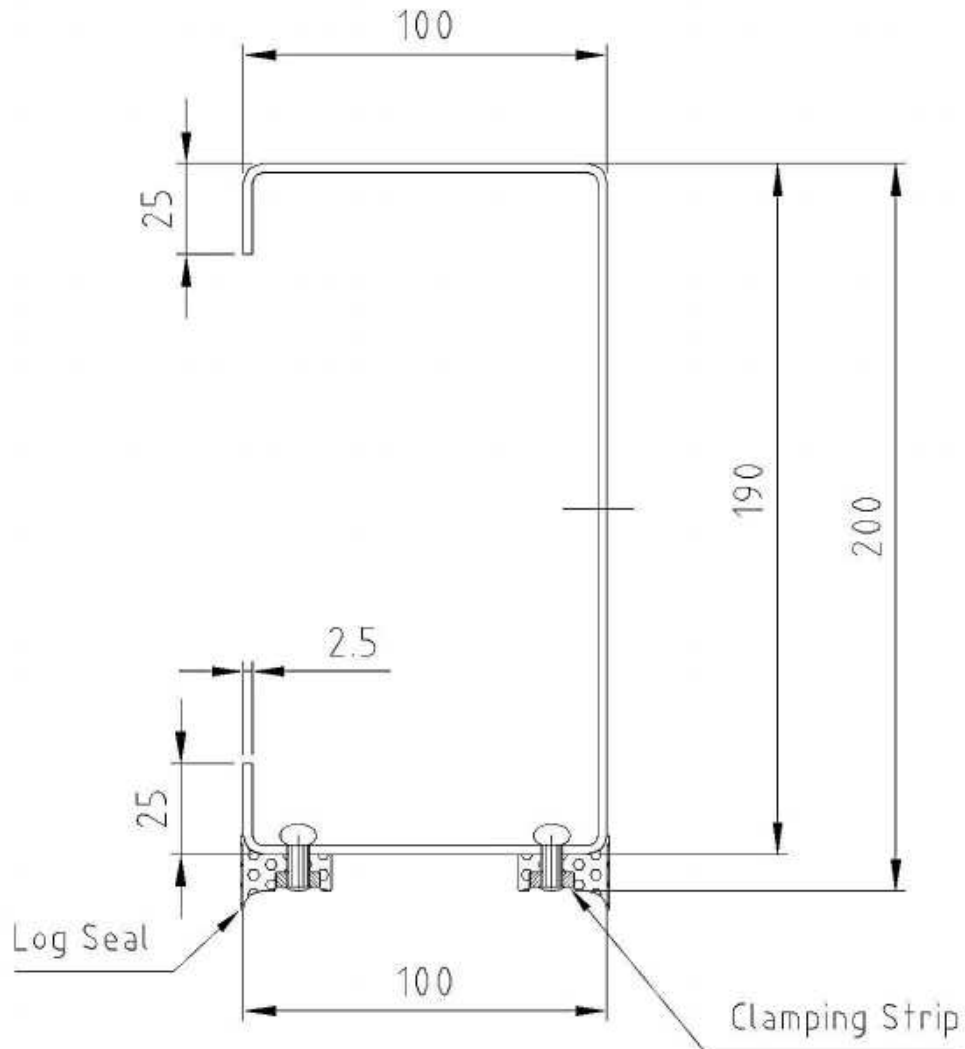
| PROFILE CHARACTERISTICS |                   |               |
|-------------------------|-------------------|---------------|
| Height                  | mm                | 200           |
| Width                   | mm                | 50            |
| Thickness               | mm                | 4,0-40        |
| Cross-sectional area    | cm <sup>2</sup>   | 14,2          |
| Weight per linear m     | kg/m              | 11,4          |
| Material Dam Beam/Log   | -                 | DBV2A / DBV4A |
| Material Ground Seal    | -                 | PU            |
| Moment of inertia       | cm <sup>4</sup>   | 52,59         |
| Modulus of elasticity E | N/mm <sup>2</sup> | 17.000        |



Deflection Graph DBVA50x200-4.0-40

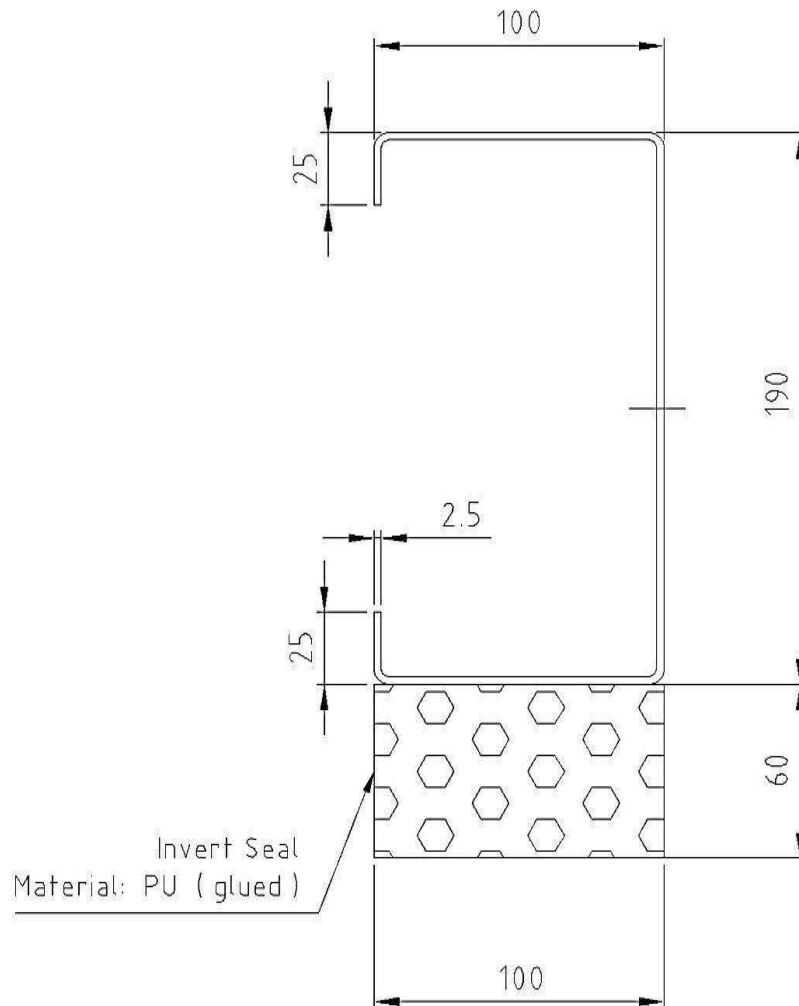


2.2.23 DBVA100x200-2.5-25



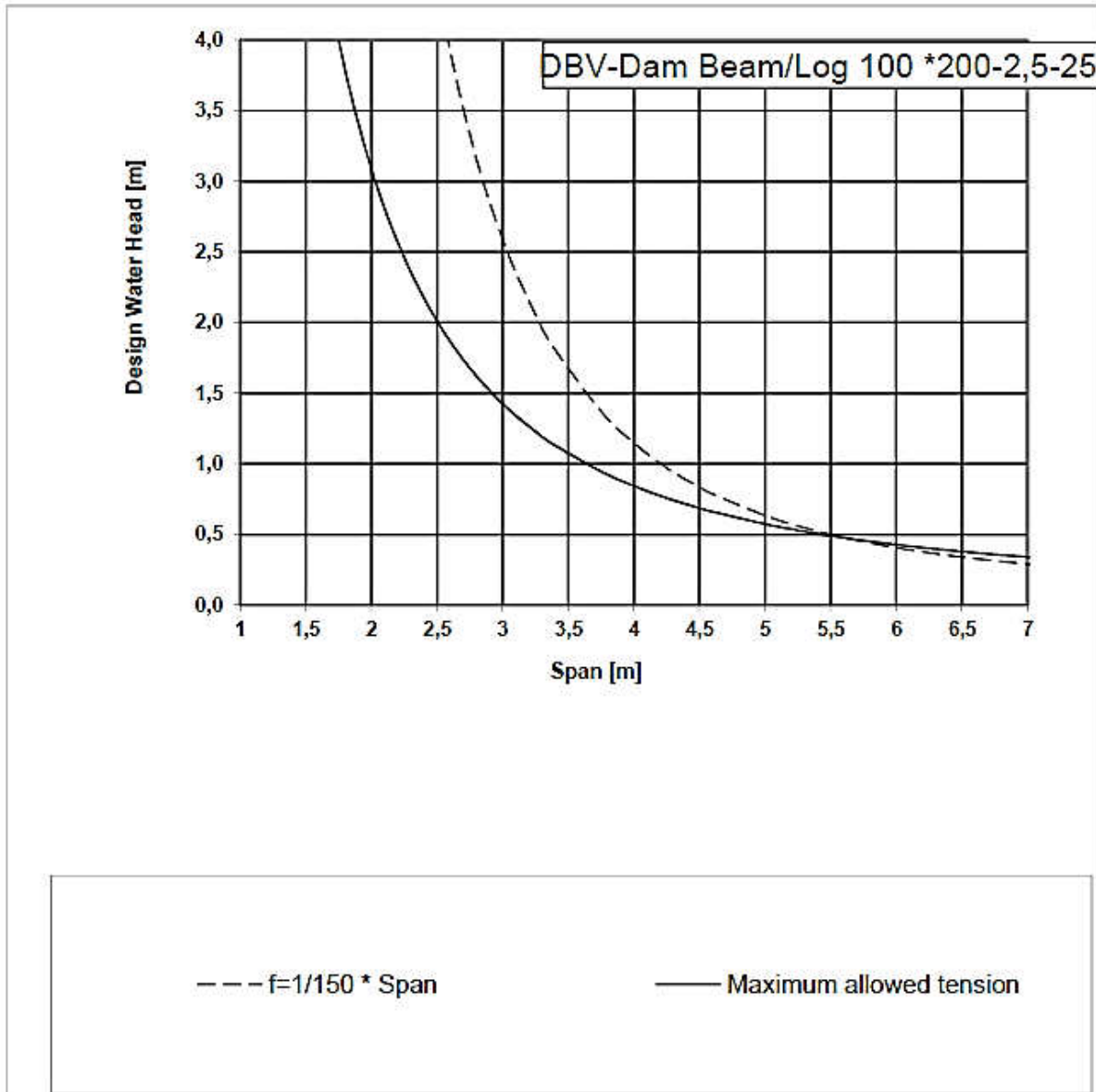
| PROFILE CHARACTERISTICS             |                   |                |
|-------------------------------------|-------------------|----------------|
| Height                              | mm                | 200            |
| Width                               | mm                | 100            |
| Thickness                           | mm                | 2,5-25         |
| Cross-sectional area                | cm <sup>2</sup>   | 10,8           |
| Weight per linear m                 | kg/m              | 9,9            |
| Material Dam Beam/Log               | -                 | DBV2A / DBV4A  |
| Material Dam Beam/Log Horizontal R5 | -                 | EPDM / Silicon |
| Moment of inertia                   | cm <sup>4</sup>   | 146,94         |
| Modulus of elasticity E             | N/mm <sup>2</sup> | 17.000         |

DBVA100x200-2.5-25-BD

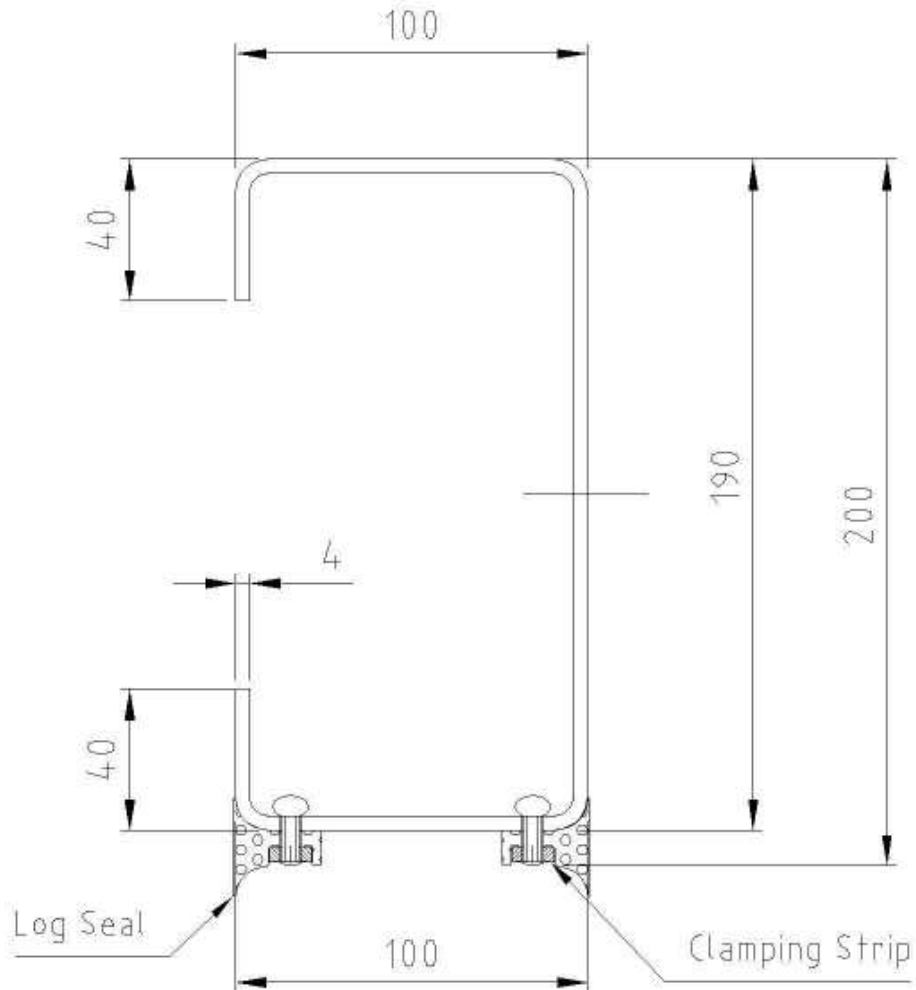


| PROFILE CHARACTERISTICS |                   |               |
|-------------------------|-------------------|---------------|
| Height                  | mm                | 200           |
| Width                   | mm                | 100           |
| Thickness               | mm                | 2,5-25        |
| Cross-sectional area    | cm <sup>2</sup>   | 10,8          |
| Weight per linear m     | kg/m              | 8,7           |
| Material Dam Beam/Log   | -                 | DBV2A / DBV4A |
| Material Ground Seal    | -                 | PU            |
| Moment of inertia       | cm <sup>4</sup>   | 146,94        |
| Modulus of elasticity E | N/mm <sup>2</sup> | 17.000        |

Deflection Graph DBVA100x200-2.5-25

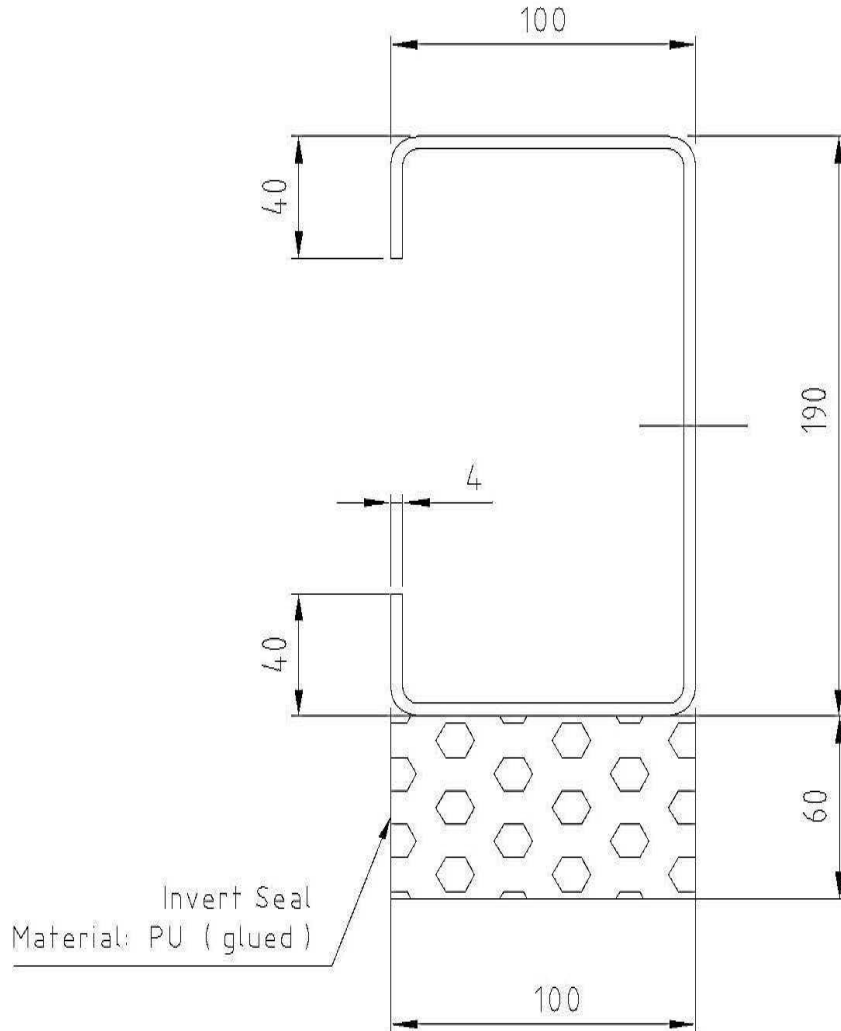


2.2.24 DBVA100x200-4.0-40



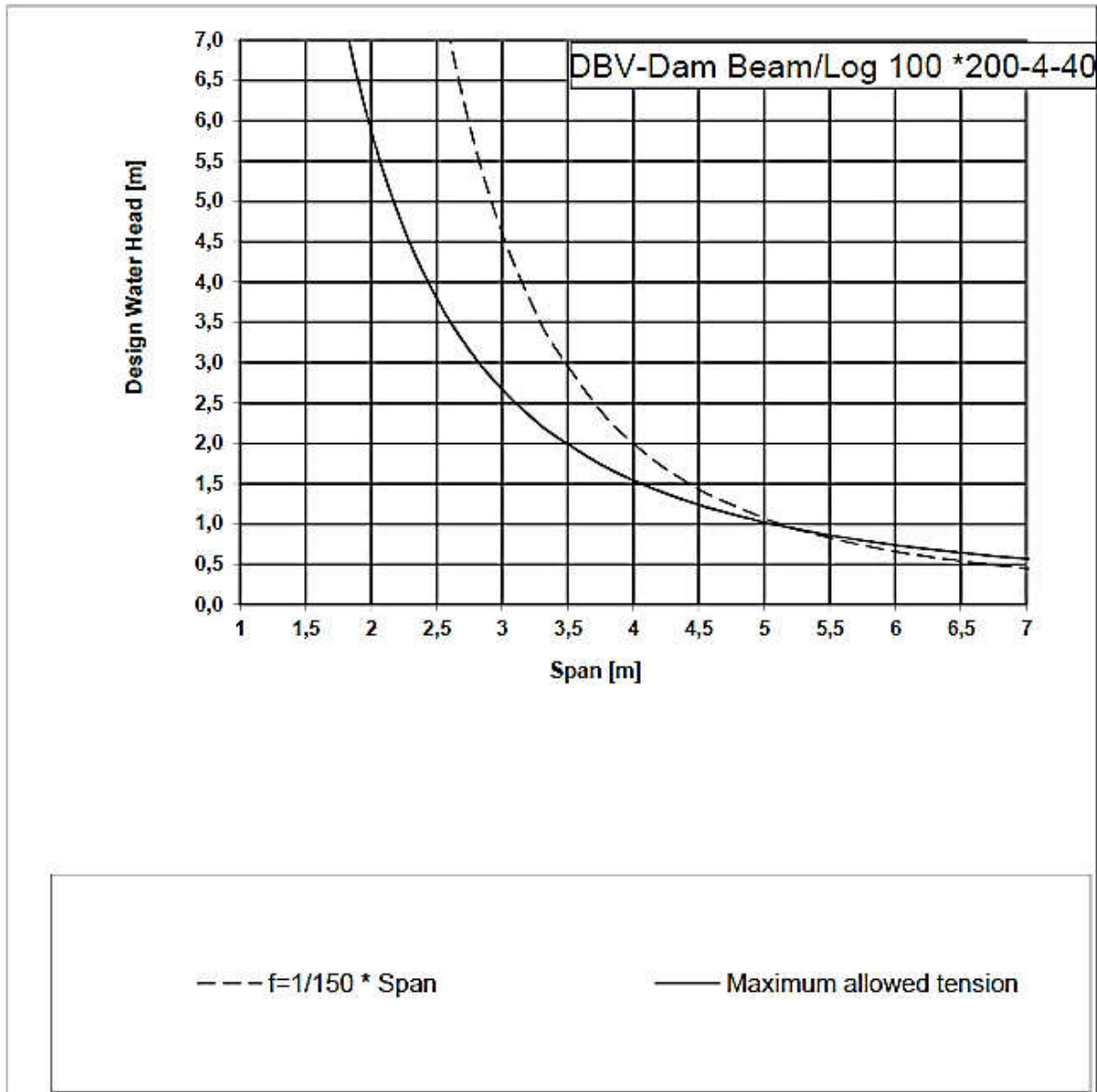
| PROFILE CHARACTERISTICS             |                   |                |
|-------------------------------------|-------------------|----------------|
| Height                              | mm                | 200            |
| Width                               | mm                | 100            |
| Thickness                           | mm                | 4,0-40         |
| Cross-sectional area                | cm <sup>2</sup>   | 18,2           |
| Weight per linear m                 | kg/m              | 15,7           |
| Material Dam Beam/Log               | -                 | DBV2A / DBV4A  |
| Material Dam Beam/Log Horizontal R9 | -                 | EPDM / Silicon |
| Moment of inertia                   | cm <sup>4</sup>   | 266            |
| Modulus of elasticity E             | N/mm <sup>2</sup> | 17.000         |

DBVA100x200-4.0-40-BD

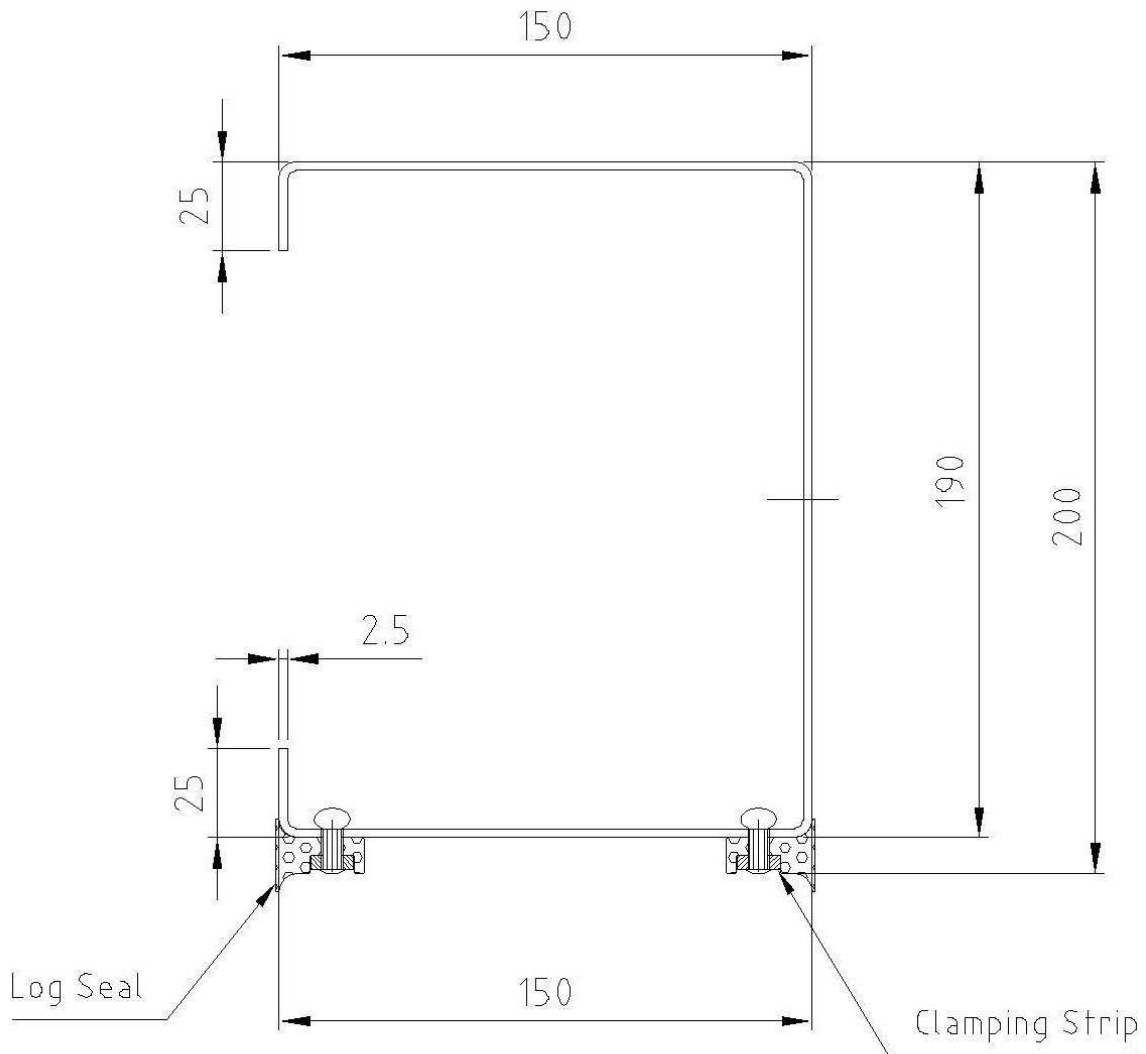


| PROFILE CHARACTERISTICS |                   |               |
|-------------------------|-------------------|---------------|
| Height                  | mm                | 200           |
| Width                   | mm                | 100           |
| Thickness               | mm                | 4,0-40        |
| Cross-sectional area    | cm <sup>2</sup>   | 18,2          |
| Weight per linear m     | kg/m              | 14,8          |
| Material Dam Beam/Log   | -                 | DBV2A / DBV4A |
| Material Ground Seal    | -                 | PU            |
| Moment of inertia       | cm <sup>4</sup>   | 266           |
| Modulus of elasticity E | N/mm <sup>2</sup> | 17.000        |

Deflection Graph DBVA100x200-4.0-40



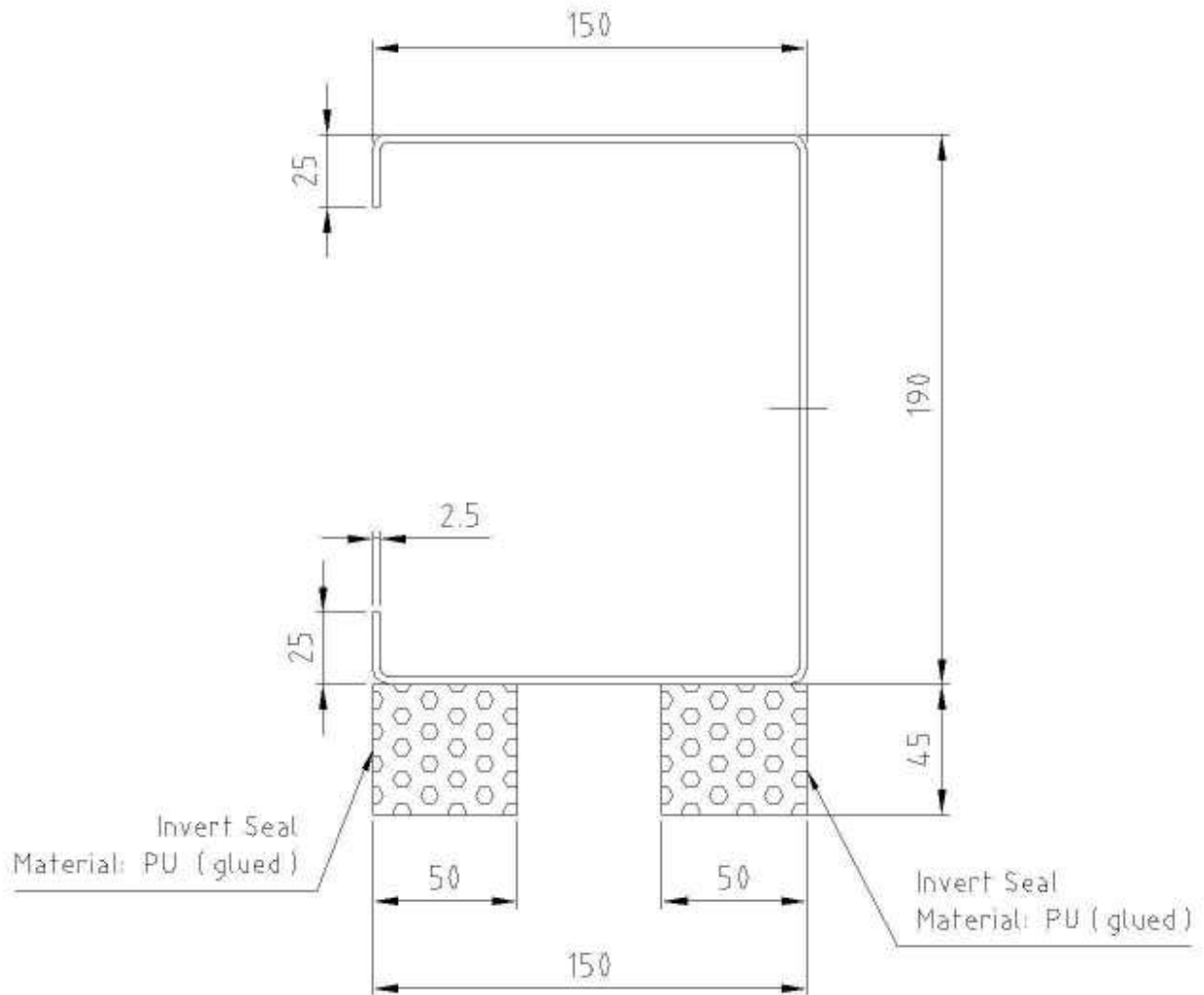
2.2.25 DBVA150x200-2.5-25



| PROFILE CHARACTERISTICS             |                   |                |
|-------------------------------------|-------------------|----------------|
| Height                              | mm                | 200            |
| Width                               | mm                | 150            |
| Thickness                           | mm                | 2,5-25         |
| Cross-sectional area                | cm <sup>2</sup>   | 21,2           |
| Weight per linear m                 | kg/m              | 18,1           |
| Material Dam Beam/Log               | -                 | DBV2A / DBV4A  |
| Material Dam Beam/Log Horizontal R9 | -                 | EPDM / Silicon |
| Moment of inertia                   | cm <sup>4</sup>   | 393,59         |
| Modulus of elasticity E             | N/mm <sup>2</sup> | 17.000         |

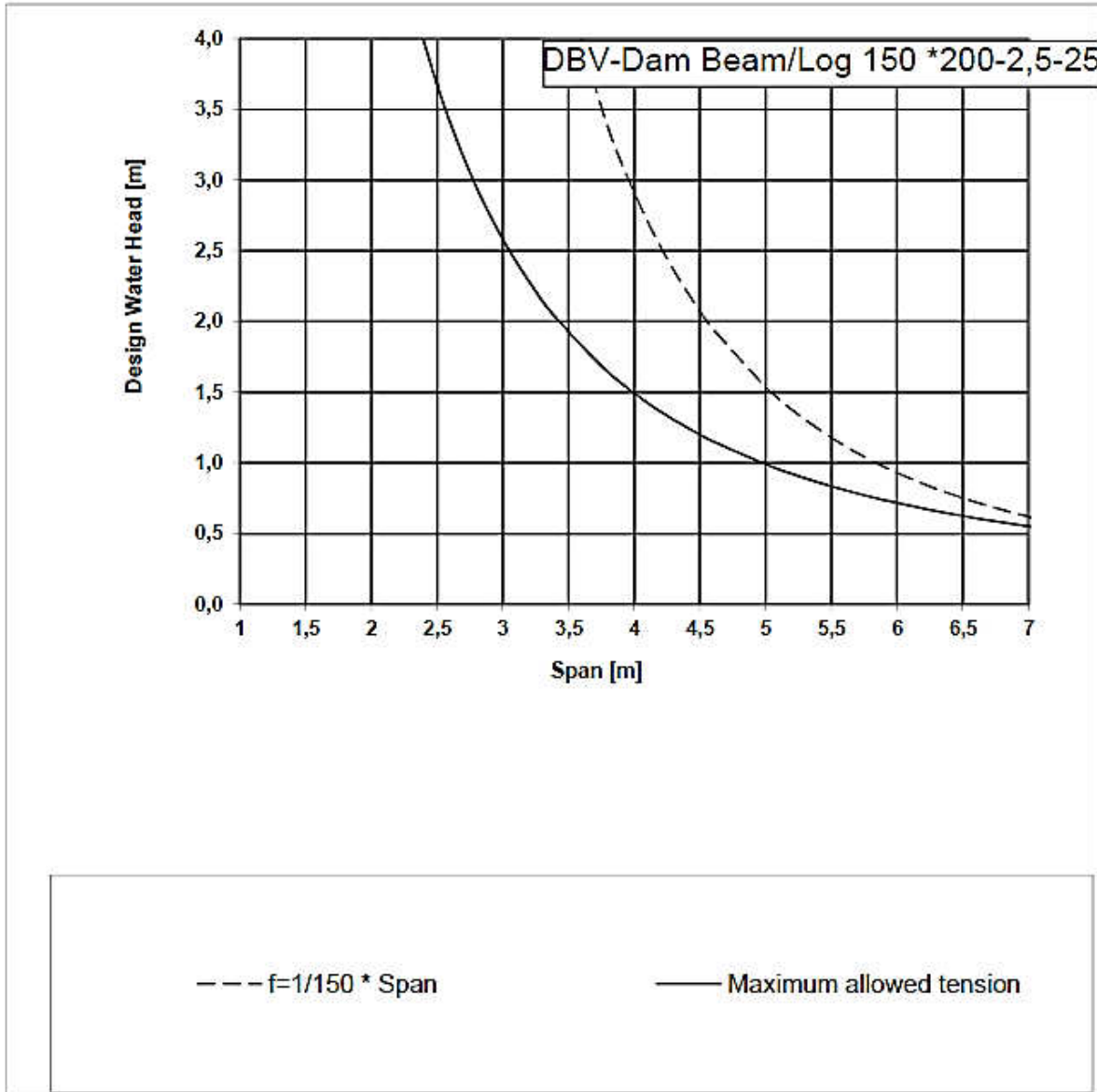


DBVA150x200-2.5-25-BD

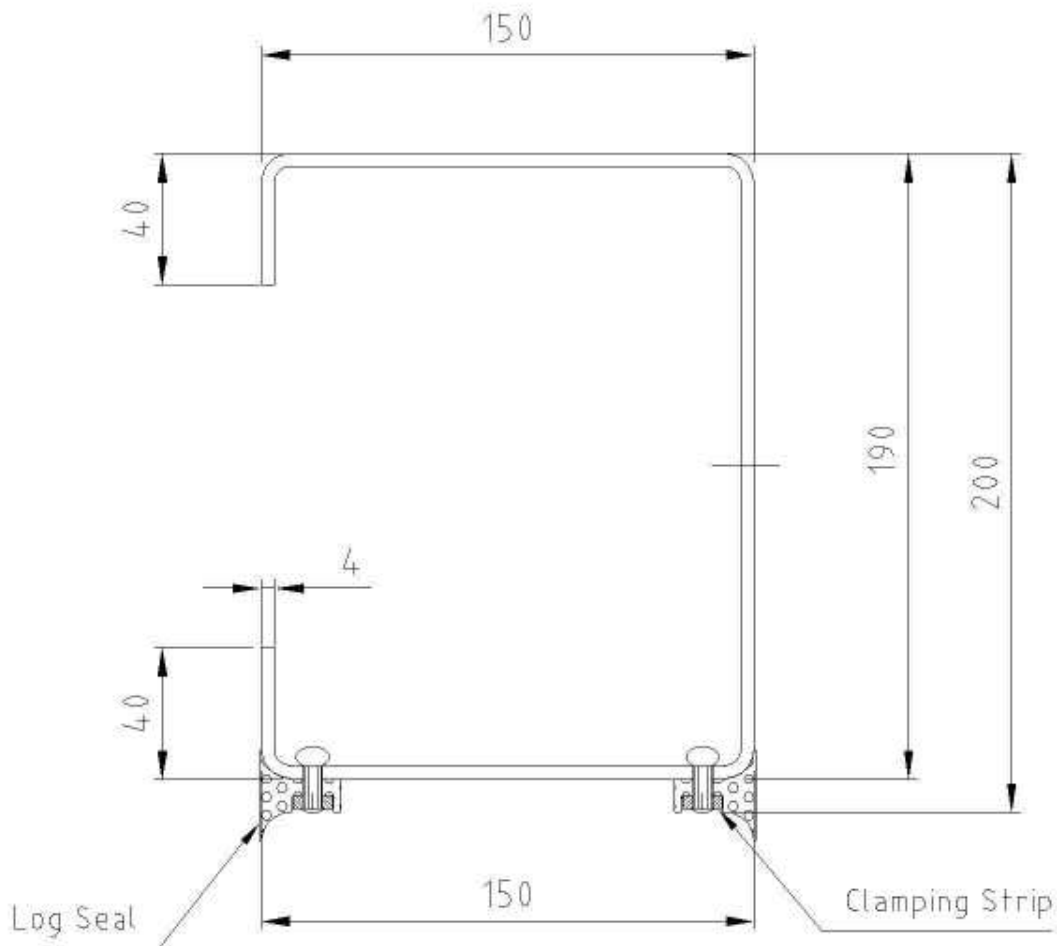


| PROFILE CHARACTERISTICS |                   |               |
|-------------------------|-------------------|---------------|
| Height                  | mm                | 200           |
| Width                   | mm                | 150           |
| Thickness               | mm                | 2,5-25        |
| Cross-sectional area    | cm <sup>2</sup>   | 21,2          |
| Weight per linear m     | kg/m              | 17,1          |
| Material Dam Beam/Log   | -                 | DBV2A / DBV4A |
| Material Ground Seal    | -                 | PU            |
| Moment of inertia       | cm <sup>4</sup>   | 393,59        |
| Modulus of elasticity E | N/mm <sup>2</sup> | 17.000        |

Deflection Graph DBVA150x200-2.5-25

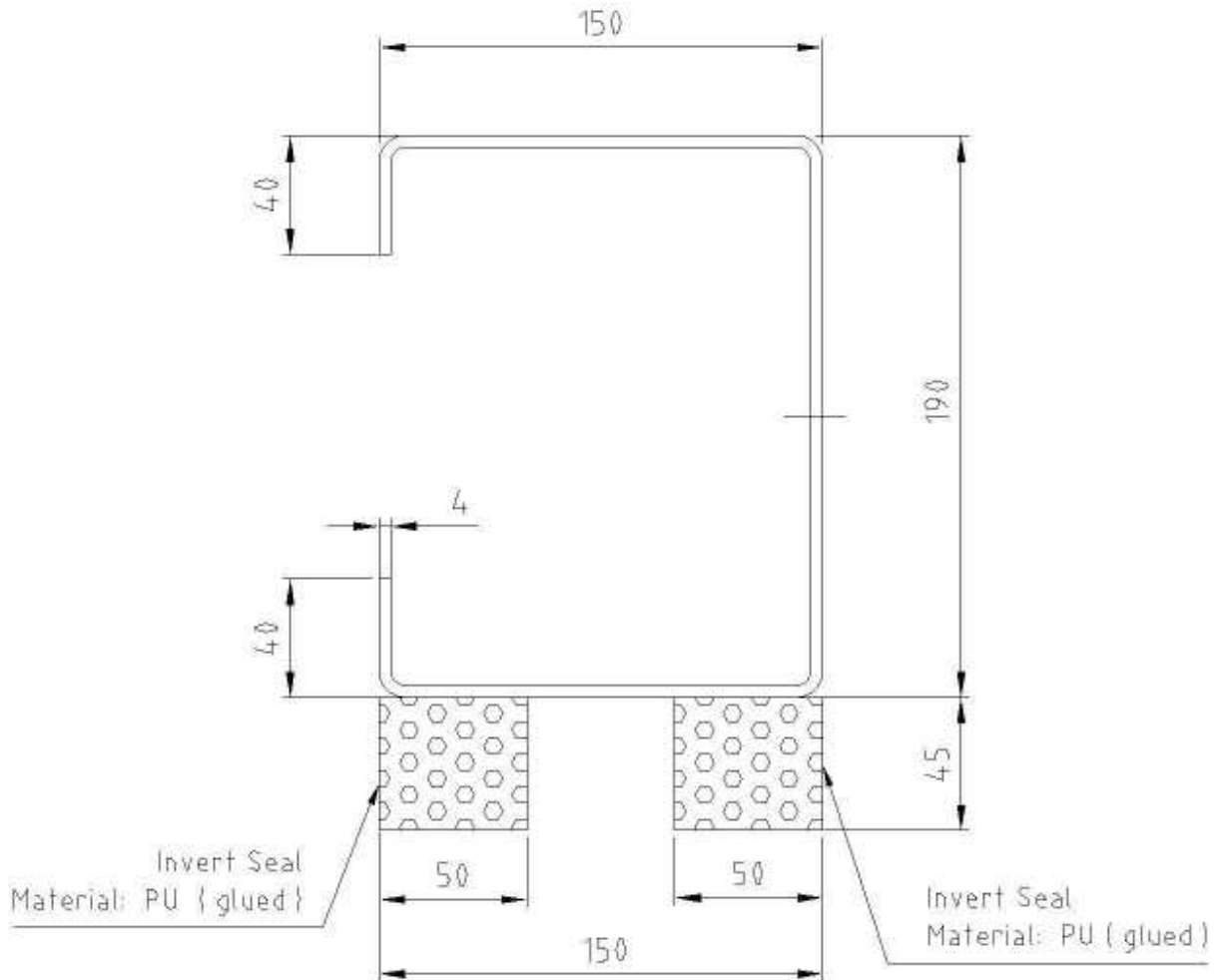


2.2.26 DBVA150x200-4.0-40



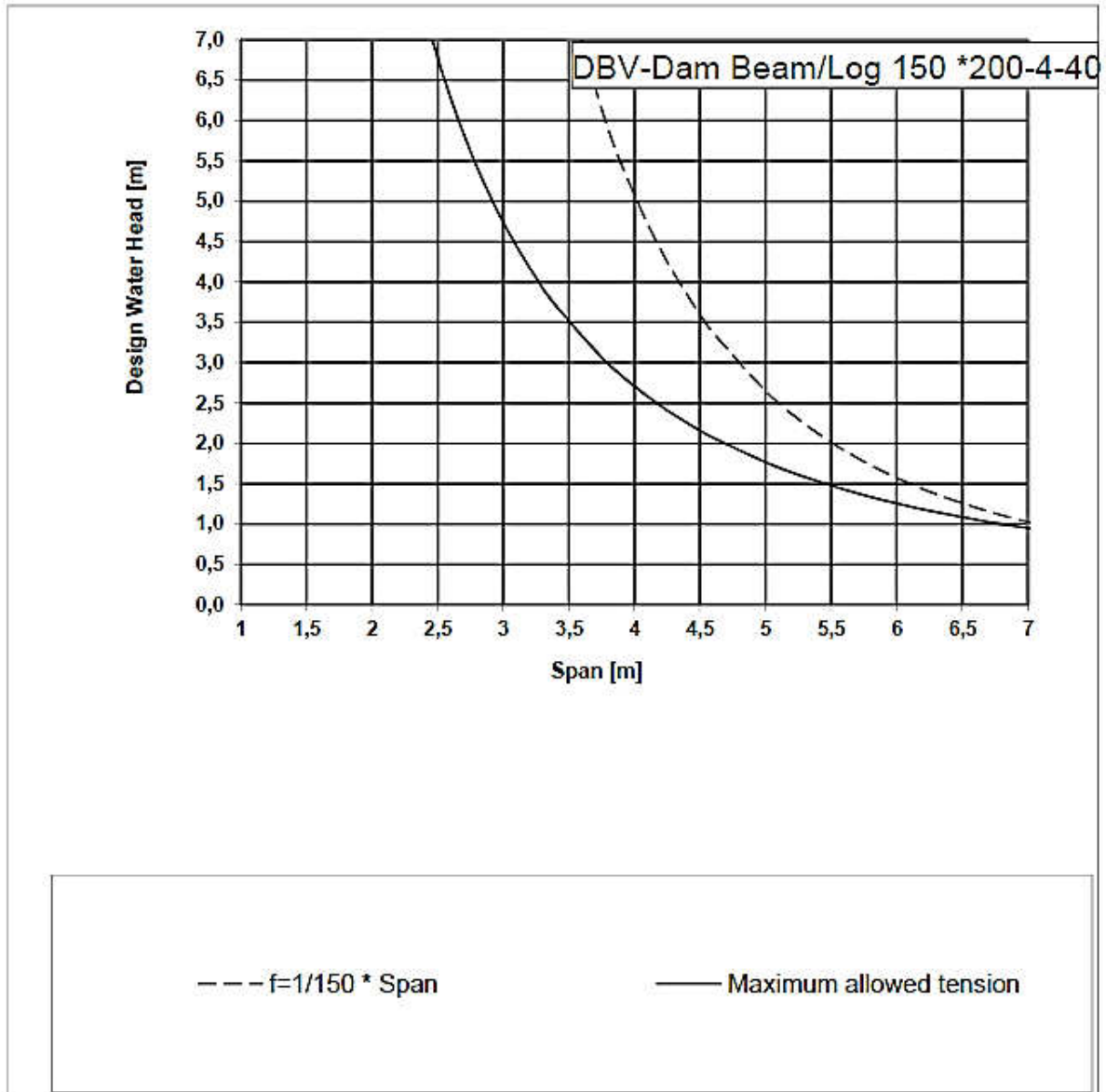
| PROFILE CHARACTERISTICS             |                   |                |
|-------------------------------------|-------------------|----------------|
| Height                              | mm                | 200            |
| Width                               | mm                | 150            |
| Thickness                           | mm                | 4,0-40         |
| Cross-sectional area                | cm <sup>2</sup>   | 22,2           |
| Weight per linear m                 | kg/m              | 18,8           |
| Material Dam Beam/Log               | -                 | DBV2A / DBV4A  |
| Material Dam Beam/Log Horizontal R9 | -                 | EPDM / Silicon |
| Moment of inertia                   | cm <sup>4</sup>   | 696,65         |
| Modulus of elasticity E             | N/mm <sup>2</sup> | 17.000         |

DBVA150x200-4.0-40-BD



| PROFILE CHARACTERISTICS |                   |               |
|-------------------------|-------------------|---------------|
| Height                  | mm                | 200           |
| Width                   | mm                | 150           |
| Thickness               | mm                | 4,0-40        |
| Cross-sectional area    | cm <sup>2</sup>   | 22,2          |
| Weight per linear m     | kg/m              | 17,9          |
| Material Dam Beam/Log   | -                 | DBV2A / DBV4A |
| Material Ground Seal    | -                 | PU            |
| Moment of inertia       | cm <sup>4</sup>   | 696,65        |
| Modulus of elasticity E | N/mm <sup>2</sup> | 17.000        |

Deflection Graph DBVA150x200-4.0-40



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2.2.27 DTAL50x150-4.0

2.2.28 DTAL50x300-4.0

2.2.29 DTAL100x150-5.0

2.2.30 DTAL100x200-3.7

2.2.31 DTAL150x225-5.0