

1.0

Section product range
Design tables conforming to EAB

2.0

Section illustrations and data

3.0

Available types
Terms of delivery

4.0

| | |
|---------------------------|-----------------|
| Steel piles | |
| Box piles | |
| Steel sheet pile walls | Pipe piles |
| Wide flange bearing piles | Pipe pile walls |
| Wide flange beams | Angle walls |

5.0

Special services

6.0

Anchors/anchor equipment
Driving, extracting, drilling and pressing equipment

1.0

Section product range

1.1 LARSEN sections

Product range

Pages 1 to 3

1.2 HOESCH sections

Product range

Page 4

1.3 UNION straight-web sections

Product range

Pages 5

1.4 Lightweight sections

Product range

Page 6 to 8

1.5 Trench sheeting sections

Product range

Page 9

1.5 Design tables conforming to EAB

Calculation principles

Page 10

Soil characteristics

Page 11

Calculation for 27.5° to 35°

Pages 12 to 19

Bending moments withstood by LARSEN
and HOESCH sheet pile sections

Pages 20 to 21

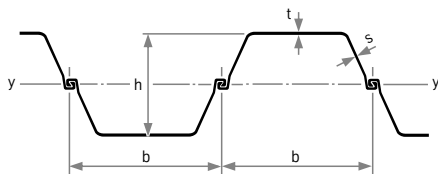
1.0 Sheet pile sections

1.1

Section product range

LARSSEN sections

| | Section modulus | | Weight | | Second moment of inertia | Section width | Wall height | Back thickness | Web thickness |
|---------------------------------|----------------------------------|----------------------------------|----------------------------|-------------|-----------------------------|-------------------|-------------|----------------|---------------|
| | $W_y^{1)}$ cm ³ /m | cm ³ / Single pile | kg/m ² | kg/m | I_y cm ⁴ /m | b | h | t | s |
| | Wall | Single pile | Wall | Single pile | Wall | mm | mm | mm | mm |
| LARSSEN 755 | 2000 | 580 | 127.5 | 95.6 | 45000 | 750 | 450 | 11.7 | 10.0 |
| LARSSEN 703 | 1210 | 414 | 96.4 | 67.5 | 24200 | 700 | 400 | 9.5 | 8.0 |
| LARSSEN 703 K | 1300 | 426 | 103.0 | 72.1 | 25950 | 700 | 400 | 10.0 | 9.0 |
| LARSSEN 703 10/10 ³⁾ | 1340 | 437 | 108.0 | 75.6 | 26800 | 700 | 400 | 10.0 | 10.0 |
| LARSSEN 704 | 1600 | 529 | 115.0 | 80.5 | 35200 | 700 | 440 | 10.2 | 9.5 |
| LARSSEN 600 | 510 | 130 | 94.0 | 56.4 | 3825 | 600 | 150 | 9.5 | 9.5 |
| LARSSEN 600 K | 540 | 133 | 99.0 | 59.4 | 4050 | 600 | 150 | 10.0 | 10.0 |
| LARSSEN 601 | 745 | 251 | 78.0 | 46.8 | 11520 | 600 | 310 | 7.5 | 6.4 |
| LARSSEN 602 | 830 | 265 | 89.0 | 53.4 | 12870 | 600 | 310 | 8.2 | 8.0 |
| LARSSEN 603 | 1200 | 330 | 108.0 | 64.8 | 18600 | 600 | 310 | 9.7 | 8.2 |
| LARSSEN 603 K | 1240 | 340 | 113.5 | 68.1 | 19220 | 600 | 310 | 10.0 | 9.0 |
| LARSSEN 603 10/10 ³⁾ | 1260 | 350 | 116.0 | 69.6 | 19530 | 600 | 310 | 10.0 | 10.0 |
| LARSSEN 604 n | 1600 | 415 | 123.0 | 73.8 | 30400 | 600 | 380 | 10.0 | 9.0 |
| LARSSEN 605 | 2020 | 520 | 139.2 | 83.5 | 42420 | 600 | 420 | 12.5 | 9.0 |
| LARSSEN 605 K | 2030 | 537 | 144.5 | 86.7 | 42630 | 600 | 420 | 12.2 | 10.0 |
| LARSSEN 606 n | 2500 | 565 | 157.0 | 94.2 | 54375 | 600 | 435 | 14.4 | 9.2 |
| LARSSEN 628 | 2780 | 584 | 165.5 | 99.3 | 63380 | 600 | 456 | 16.3 | 9.8 |
| LARSSEN 607 n | 3200 | 649 | 190.0 | 114.0 | 72320 | 600 | 452 | 19.0 | 10.6 |
| LARSSEN 22 10/10 ³⁾ | 1300 | 369 | 130.0 | 65.0 | 22100 | 500 | 340 | 10.0 | 10.0 |
| LARSSEN 23 | 2000 | 527 | 155.0 | 77.5 | 42000 | 500 | 420 | 11.5 | 10.0 |
| LARSSEN 24 | 2500 | 547 | 175.0 | 87.5 | 52500 | 500 | 420 | 15.6 | 10.0 |
| LARSSEN 24/12 | 2550 | 560 | 185.4 | 92.7 | 53610 | 500 | 420 | 15.6 | 12.0 |
| LARSSEN 25 | 3040 | 562 | 206.0 | 103.0 | 63840 | 500 | 420 | 20.0 | 11.5 |
| LARSSEN 43 | 1660 | 483 | 166.0 ²⁾ | 83.0 | 34900 | 500 ⁴⁾ | 420 | 12.0 | 12.0 |
| LARSSEN 430 | 6450 | – | 234.5 | 83.0 | 241800 | 708 | 750 | 12.0 | 12.0 |



¹⁾The section modulus values may only be used in static computations if at least every second interlock in the wall is crimped to adsorb shear forces.

²⁾Wall assembly fabricated from LARSSEN 43 sections. Where quad pile assemblies are supplied, allowance must be made for the weight of the weld seams and reinforcements.

³⁾Rolling/delivery on request only.

⁴⁾With the use of quadruple piles
b = 1416 mm

Lengths from 30 m to 36 m on request. The basis for billing is the weight of the single pile (kg/m).

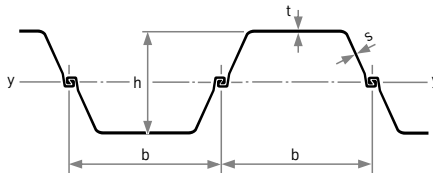
LARSSEN Rolled-down sections

| | | Section modulus | | Weight | | Second moment of inertia I_y cm ⁴ /m | Section Width b mm | Wall height h mm | Back thickness t mm | Web thickness s mm |
|---------------|------|---|----------------------------------|---------------------------|---------------------|---|--------------------------|------------------------|---------------------------|--------------------------|
| | | W_y ¹⁾ cm ³ /m | cm ³ / Single pile | kg/m ² Wall | kg/m Single pile | | | | | |
| LARSSEN 755 | -0.5 | 1920 | 573 | 124.0 | 93.0 | 43200 | 750 | 450 | 11.2 | 9.7 |
| LARSSEN 703 | -0.5 | 1150 | 408 | 93.0 | 65.1 | 23000 | 700 | 400 | 9.0 | 7.7 |
| LARSSEN 704 | -0.5 | 1530 | 523 | 111.4 | 78.0 | 33660 | 700 | 440 | 9.7 | 9.2 |
| LARSSEN 600 | -0.5 | 480 | 124 | 90.0 | 53.4 | 3600 | 600 | 150 | 9.0 | 9.1 |
| LARSSEN 602 | -0.5 | 790 | 254 | 85.5 | 51.3 | 12245 | 600 | 310 | 7.7 | 7.6 |
| LARSSEN 603 | -0.5 | 1150 | 320 | 104.5 | 62.7 | 17825 | 600 | 310 | 9.2 | 7.9 |
| LARSSEN 603 K | -0.5 | 1190 | 335 | 109.5 | 65.7 | 18445 | 600 | 310 | 9.5 | 8.7 |
| LARSSEN 604 n | -0.5 | 1540 | 415 | 119.5 | 71.7 | 29260 | 600 | 380 | 9.5 | 8.8 |
| LARSSEN 605 | -0.5 | 1950 | 515 | 135.5 | 81.3 | 40950 | 600 | 420 | 12.0 | 8.8 |
| LARSSEN 606 n | -0.5 | 2410 | 560 | 153.7 | 92.2 | 52420 | 600 | 435 | 13.9 | 9.0 |
| LARSSEN 628 | -0.5 | 2700 | 575 | 161.8 | 97.1 | 61560 | 600 | 456 | 15.8 | 9.6 |
| LARSSEN 607 n | -0.5 | 3130 | 671 | 186.5 | 111.9 | 70740 | 600 | 452 | 18.5 | 10.4 |
| LARSSEN 23 | -0.5 | 1930 | 539 | 151.6 | 75.8 | 40530 | 500 | 420 | 11.0 | 9.8 |
| LARSSEN 24 | -0.5 | 2440 | 542 | 171.6 | 85.8 | 51240 | 500 | 420 | 15.1 | 9.8 |
| LARSSEN 25 | -0.5 | 2980 | 625 | 202.6 | 101.3 | 62580 | 500 | 420 | 19.5 | 11.3 |

¹⁾ The section modulus values may only be used in static computations if at least every second interlock in the wall is crimped to adsorb shear forces.

Lengths from 30 m to 36 m on request.

The basis for billing is the weight of the single pile (kg/m).



1.1

Section product range

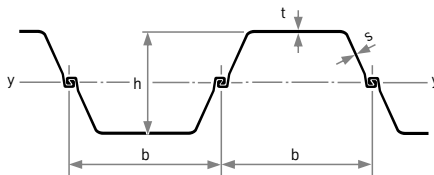
LARSEN Rolled-up sections

| | | Section modulus | | Weight | | Second moment of inertia | Section width | Wall height | Back thickness | Web thickness |
|--------------|------|---------------------|-------------------|-------------------|-------------|--------------------------|---------------|-------------|----------------|---------------|
| | | W_y ¹⁾ | | | | I_y | b | h | t | s |
| | | cm ³ /m | cm ³ / | kg/m ² | kg/m | cm ⁴ /m | mm | mm | mm | mm |
| | | Wall | Single pile | Wall | Single pile | Wall | | | | |
| LARSEN 755 | +0.5 | 2060 | 586 | 131.5 | 98.6 | 46350 | 750 | 450 | 12.2 | 10.3 |
| LARSEN 703 | +0.5 | 1270 | 433 | 100.0 | 70.0 | 25400 | 700 | 400 | 10.0 | 8.3 |
| LARSEN 704 | +0.5 | 1670 | 548 | 118.6 | 83.0 | 36740 | 700 | 440 | 10.7 | 9.8 |
| LARSEN 600 | +0.5 | 540 | 132 | 99.0 | 59.4 | 4050 | 600 | 150 | 10.0 | 9.9 |
| LARSEN 601 | +0.5 | 790 | 246 | 81.8 | 49.1 | 12245 | 600 | 310 | 8.0 | 6.8 |
| LARSEN 602 | +0.5 | 880 | 264 | 92.5 | 55.5 | 13640 | 600 | 310 | 8.7 | 8.4 |
| LARSEN 603 | +0.5 | 1250 | 340 | 111.5 | 66.9 | 19375 | 600 | 310 | 10.2 | 8.5 |
| LARSEN 603 K | +0.5 | 1290 | 343 | 116.5 | 69.9 | 19995 | 600 | 310 | 10.5 | 9.3 |
| LARSEN 604 n | +0.5 | 1667 | 421 | 126.5 | 75.9 | 31675 | 600 | 380 | 10.5 | 9.2 |
| LARSEN 605 | +0.5 | 2090 | 525 | 142.5 | 85.5 | 43890 | 600 | 420 | 13.0 | 9.2 |
| LARSEN 606 n | +0.5 | 2570 | 570 | 160.5 | 96.3 | 55900 | 600 | 435 | 14.9 | 9.4 |
| LARSEN 628 | +0.5 | 2850 | 590 | 169.0 | 101.4 | 64980 | 600 | 456 | 16.8 | 10.0 |
| LARSEN 607 n | +0.5 | 3270 | 681 | 193.5 | 116.1 | 73900 | 600 | 452 | 19.5 | 10.8 |
| LARSEN 23 | +0.5 | 2070 | 551 | 158.6 | 79.3 | 43470 | 500 | 420 | 12.0 | 10.2 |
| LARSEN 24 | +0.5 | 2560 | 581 | 178.6 | 89.3 | 53760 | 500 | 420 | 16.1 | 10.2 |
| LARSEN 25 | +0.5 | 3100 | 626 | 209.6 | 104.8 | 65100 | 500 | 420 | 20.5 | 11.7 |

¹⁾ The section modulus values may only be used in static computations if at least every second interlock in the wall is crimped to adsorb shear forces.

Lengths from 30 m to 36 m on request.

The basis for billing is the weight of the single pile (kg/m).

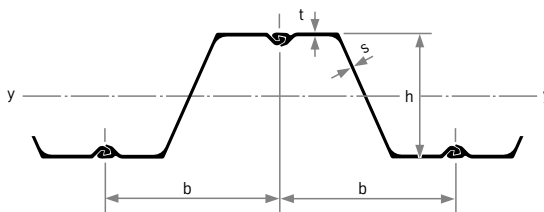


HOESCH sections (Finger-and-socket interlock)

| | Section modulus | | Weight | | Second moment of inertia | Section width | Wall height | Back thickness | Web thickness |
|---------------|-----------------------------|----------------------------------|-------------------|-------------|-----------------------------|---------------|-------------|----------------|---------------|
| | W_y cm ³ /m | cm ³ / Single pile | kg/m ² | kg/m | I_y cm ⁴ /m | b | h | t | s |
| | Wall | Single pile | Wall | Single pile | Wall | mm | mm | mm | mm |
| HOESCH 1105 | 1100 | 628 | 101.0 | 58.1 | 14300 | 575 | 260 | 8.8 | 8.8 |
| HOESCH 1205 | 1140 | 655 | 107.0 | 61.5 | 14820 | 575 | 260 | 9.5 | 9.5 |
| HOESCH 1205 K | 1200 | 690 | 112.5 | 64.7 | 15600 | 575 | 260 | 10.2 | 10.2 |
| HOESCH 1255 | 1250 | 719 | 118.0 | 67.9 | 16250 | 575 | 260 | 10.8 | 10.8 |
| HOESCH 1605 | 1600 | 920 | 107.0 | 61.5 | 28000 | 575 | 350 | 9.2 | 8.1 |
| HOESCH 1655 | 1650 | 949 | 111.9 | 64.3 | 28870 | 575 | 350 | 9.6 | 8.5 |
| HOESCH 1705 | 1720 | 989 | 116.0 | 66.7 | 30100 | 575 | 350 | 10.0 | 9.0 |
| HOESCH 1705 K | 1700 | 978 | 117.0 | 67.3 | 29750 | 575 | 350 | 9.5 | 9.5 |
| HOESCH 1755 | 1750 | 1006 | 120.8 | 69.5 | 30625 | 575 | 350 | 10.4 | 9.5 |
| HOESCH 1805 | 1800 | 1035 | 125.0 | 71.9 | 31500 | 575 | 350 | 10.8 | 9.9 |
| HOESCH 2305 | 2320 | 1334 | 142.3 | 81.8 | 40600 | 575 | 350 | 11.5 | 8.4 |
| HOESCH 2405 | 2400 | 1380 | 148.0 | 85.1 | 42000 | 575 | 350 | 12.1 | 9.0 |
| HOESCH 2505 | 2480 | 1426 | 152.0 | 87.4 | 43400 | 575 | 350 | 12.5 | 9.5 |
| HOESCH 2555 K | 2540 | 1460 | 155.0 | 89.1 | 44450 | 575 | 350 | 12.8 | 10.0 |
| HOESCH 2555 | 2550 | 1466 | 158.1 | 90.9 | 44625 | 575 | 350 | 13.0 | 10.0 |
| HOESCH 2605 | 2600 | 1495 | 162.3 | 93.3 | 45500 | 575 | 350 | 13.3 | 10.3 |

Lengths from 30 m to 36 m on request.

The basis for billing is the weight of the single pile (kg/m).



1.3

Section product range

UNION straight web sections

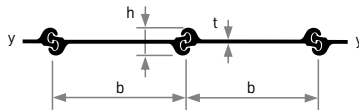
| | Section modulus | | Weight | | Second moment of inertia | Section width | Wall height | Thick-ness |
|------------------------|-----------------------------|----------------------------------|-------------------|-------------|-----------------------------|---------------|-------------|------------|
| | W_y cm ³ /m | cm ³ / Single pile | kg/m ² | kg/m | I_y cm ⁴ /m | b | h | t |
| | Wall | Single pile | Wall | Single pile | Wall | mm | mm | mm |
| FL 511 | 90 | 45 | 136.0 | 68.0 | 350 | 500 | 88 | 11.0 |
| FL 512 | 90 | 45 | 142.0 | 71.0 | 360 | 500 | 88 | 12.0 |
| FL 512.7 ¹⁾ | 92 | 46 | 146.8 | 73.4 | 360 | 500 | 88 | 12.7 |

¹⁾ Rolling/delivery on request only.

Lengths from 30 m to 36 m on request.

Sections with other wall thicknesses can also be supplied.

The basis for billing is the weight of the single pile (kg/m).



Lightweight sections

KL 3/4 to KL 3/8 and TKL 3/9

| | Section modulus | Weight | | Second moment of inertia | Section width | Wall height | Back thickness | Web thickness |
|---------|-----------------------------|-------------------|-------------|-----------------------------|---------------|-------------|----------------|---------------|
| | W_y cm ³ /m | kg/m ² | kg/m | I_y cm ⁴ /m | b | h | t | s |
| | Wall | Wall | Single pile | Wall | mm | mm | mm | mm |
| KL 3/4* | 276 | 41.1 | 31.6 | 2042 | 700 | 146 | 4.0 | |
| KL 3/5* | 339 | 55.8 | 39.1 | 2502 | 700 | 147 | 5.0 | |
| KL 3/6 | 410 | 66.0 | 46.2 | 3080 | 700 | 148 | 6.0 | |
| KL 3/7* | 460 | 78.0 | 54.6 | 3500 | 700 | 149 | 7.0 | |
| KL 3/8 | 540 | 88.0 | 61.5 | 4050 | 700 | 150 | 8.0 | |
| TKL 3/9 | 680 | 106.9 | 74.8 | 5120 | 700 | 160 | 9.0 | |

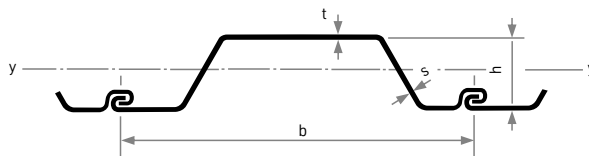
*No section that is available ex stock.

Available lengths: up to 12 m (from 12 m to 14 m on request)

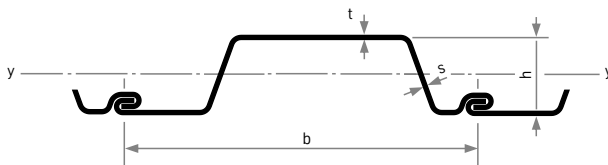
Warehouse lengths from 3 m to 8 m

The basis for billing is the weight of the single pile (kg/m).

KL 3/4 to KL 3/8



TKL 3/9



1.4

Section product range

Lightweight sections

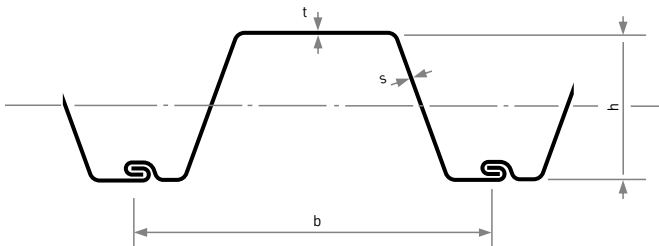
HP 290S-4 to HP 290S-9

| | Section modulus | Weight | | Second moment of inertia | Section width | Wall height | Back thickness | Web thickness |
|-----------|-----------------------------|-------------------|---------|-----------------------------|---------------|-------------|----------------|---------------|
| | W_y cm ³ /m | kg/m ² | kg/m | I_y cm ⁴ /m | b | h | t | s |
| | Wall | Wall | Section | Wall | mm | mm | mm | mm |
| HP 290S-5 | 774 | 69.7 | 49.5 | 10920 | 710 | 294 | 5.0 | |
| HP 290S-6 | 933 | 83.7 | 59.4 | 13530 | 710 | 296 | 6.0 | |
| HP 290S-7 | 1080 | 97.6 | 69.3 | 15701 | 710 | 298 | 7.0 | |
| HP 290S-8 | 1230 | 111.5 | 79.2 | 17896 | 710 | 300 | 8.0 | |
| HP 290S-9 | 1380 | 125.6 | 89.2 | 20896 | 710 | 300 | 9.0 | |

Available lengths: up to 17 m

Warehouse lengths from 8 m to 12 m

The basis for billing is the weight of the single pile (kg/m).



Lightweight sections

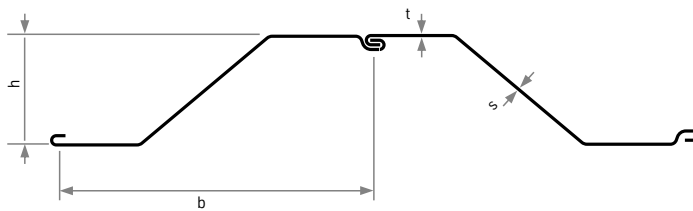
ZK 785-5 to ZK 785-9 and ZK 675-5 to ZK 675-9

| | Section modulus | Weight | | Second moment of inertia | Section width | Wall height | Back thickness | Web thickness |
|----------|-----------------------------|-------------------|-------------|-----------------------------|---------------|-------------|----------------|---------------|
| | W_y cm ³ /m | kg/m ² | kg/m | I_y cm ⁴ /m | b | h | t | s |
| | Wall | Wall | Single pile | Wall | mm | mm | mm | mm |
| ZK 785-5 | 605 | 53.4 | 41.9 | 8395 | 785 | 276 | 5.0 | |
| ZK 785-6 | 724 | 64.2 | 50.4 | 10053 | 785 | 277 | 6.0 | |
| ZK 785-7 | 836 | 74.4 | 58.4 | 11657 | 785 | 278 | 7.0 | |
| ZK 785-8 | 951 | 84.8 | 66.6 | 13302 | 785 | 279 | 8.0 | |
| ZK 785-9 | 1067 | 95.3 | 74.8 | 14944 | 785 | 280 | 9.0 | |
| ZK 675-5 | 972 | 62.1 | 41.9 | 18500 | 675 | 376 | 5.0 | |
| ZK 675-6 | 1164 | 74.4 | 50.4 | 22131 | 675 | 377 | 6.0 | |
| ZK 675-7 | 1350 | 86.5 | 58.4 | 25698 | 675 | 378 | 7.0 | |
| ZK 675-8 | 1540 | 98.7 | 66.6 | 29332 | 675 | 379 | 8.0 | |
| ZK 675-9 | 1728 | 110.8 | 74.8 | 32914 | 675 | 380 | 9.0 | |

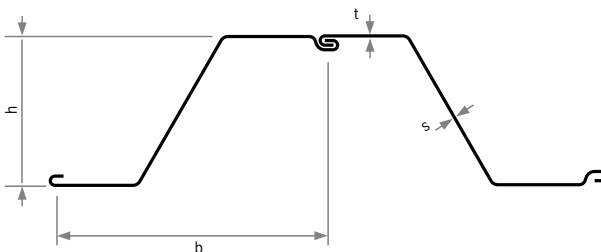
Available lengths: up to 12 m

The basis for billing is the weight of the single pile (kg/m).

ZK 785-5 to ZK 785-9



ZK 675-5 to ZK 675-9



1.5

Section product range

Trench sheeting sections

| | Section modulus | Weight | | Second moment of inertia | Section width | Wall height | Back thickness | Web thickness |
|-----------------------|-----------------------------|-------------------|---------|-----------------------------|---------------|-------------|----------------|---------------|
| | W_y cm ³ /m | kg/m ² | kg/m | I_y cm ⁴ /m | b | h | t | s |
| | Wall | Wall | Section | Wall | mm | mm | mm | mm |
| KD VI/6 ¹⁾ | 182 | 62.5 | 37.5 | 726 | 600 | 78 | 6.0 | |
| KD VI/8 ¹⁾ | 242 | 83.3 | 50.0 | 968 | 600 | 80 | 8.0 | |
| KD 4/4 ²⁾ | 70 | 36.7 | 14.7 | 168 | 400 | 48 | 4.0 | |
| KD 4/6 ²⁾ | 102 | 55.2 | 22.1 | 254 | 400 | 50 | 6.0 | |

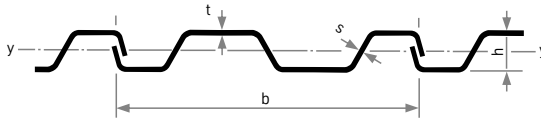
¹⁾ Warehouse lengths from 3 m to 8 m

²⁾ Warehouse lengths from 3 m to 4 m

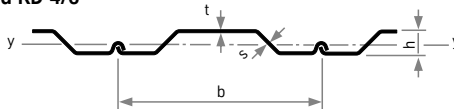
Available lengths: up to 12 m (from 12 m to 14 m on request)

The basis for billing is the weight of the single pile (kg/m).

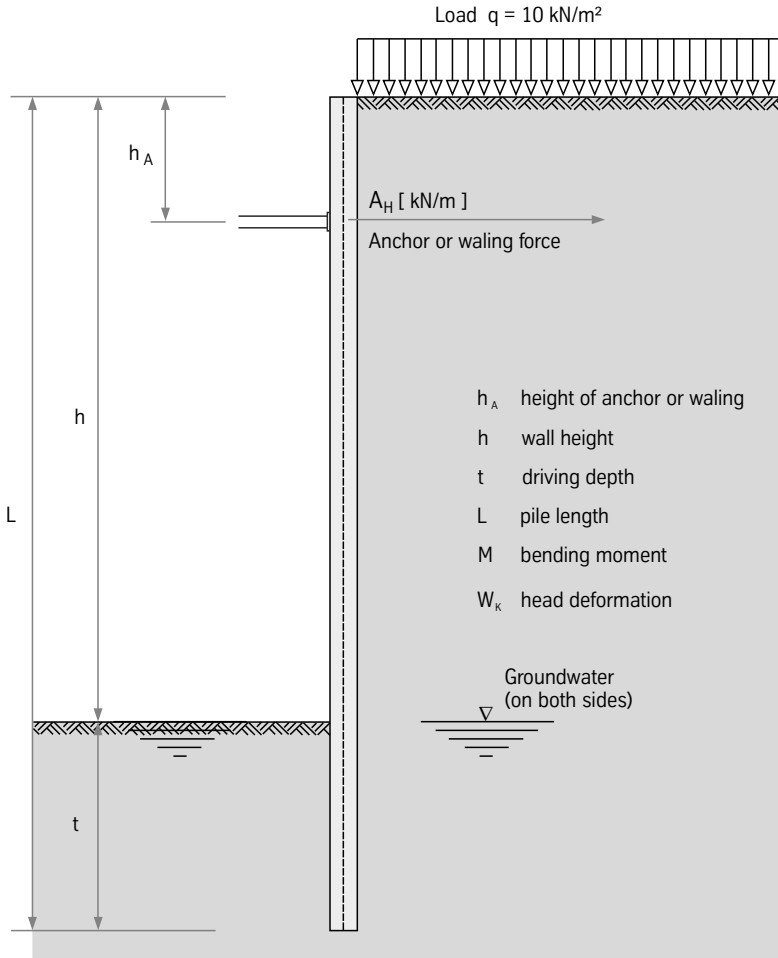
KD VI/6 and KD VI/8



KD 4/4 and KD 4/6



Calculation principles



The calculations are based on the Recommendations of the Construction Pit Working Party (EAB) (4th edition, 2006). The calculation assumes a rectangular soil pressure profile, as a continuous rectangle with support towards the top and as a stepped rectangle conforming to EB 70 with support towards the bottom.

Previous construction states have been disregarded.

Design tables conforming to EAB

Soil characteristics

| Soil type | Abbreviation to DIN 18196 | Bedding/ state | Angle of incline $\phi'k [^\circ]$ | Cohesion | | Relative densities | | |
|--|--------------------------------------|--------------------|------------------------------------|-----------------------|------------|------------------------------|------------------------------|------------------------------|
| | | | | c'_k | $c'_{u,k}$ | Damp | Saturated | With uplift |
| | | | | [kN/m ²] | | $\gamma_k [\text{kN/m}^3]$ | $\gamma_k [\text{kN/m}^3]$ | $\gamma_k [\text{kN/m}^3]$ |
| NONCOHESIVE SOILS | | | | | | | | |
| Gravel, sand, narrow grading | NGG, NGS with NU* < 6 | Loose | 30.0 - 32.5 | - | - | 16.0 | 18.5 | 8.5 |
| | | Moderately compact | 32.5 - 37.5 | - | - | 17.0 | 19.5 | 9.5 |
| | | Compact | 35.0 - 40.0 | - | - | 18.0 | 20.5 | 10.5 |
| Gravel, sand, broad or discontinuous grading | GW, GI, SW, SI with $\leq 6 \leq 15$ | Loose | 30.0 - 32.5 | - | - | 16.5 | 19.0 | 9.0 |
| | | Moderately compact | 32.5 - 37.5 | - | - | 18.0 | 20.5 | 10.5 |
| | | Compact | 35.0 - 40.0 | - | - | 19.5 | 22.0 | 12.5 |
| Gravel, sand, broad or discontinuous grading | GW, GI, SW, SI with U > 15 | Loose | 30.0 - 32.5 | - | - | 17.0 | 19.5 | 9.5 |
| | | Moderately compact | 32.5 - 37.5 | - | - | 19.0 | 21.5 | 11.5 |
| | | Compact | 35.0 - 40.0 | - | - | 21.0 | 23.5 | 13.5 |
| COHESIVE SOILS | | | | | | | | |
| Silty soils | | | | | | | | |
| Slightly plastic silts ($W_c^* < 35\%$) | UL | Soft | | 0 | 5 - 60 | 17.5 | 19.0 | 9.0 |
| | | Stiff | 27.5 - 32.5 | 2 - 5 | 20 - 150 | 18.5 | 20.0 | 10.0 |
| | | Semi-solid | | 5 - 10 | 50 - 300 | 19.5 | 21.0 | 11.0 |
| Moderately plastic soils ($35\% \leq W_c \leq 50\%$) | UM | Soft | | 0 | 5 - 60 | 16.5 | 18.5 | 8.5 |
| | | Stiff | 22.5 - 30.0 | 2 - 5 | 20 - 150 | 18.0 | 19.5 | 9.5 |
| | | Semi-solid | | 5 - 10 | 50 - 300 | 19.5 | 20.5 | 10.5 |
| COHESIVE SOILS | | | | | | | | |
| Clays | | | | | | | | |
| Slightly plastic clays ($W_c < 35\%$) | TL | Soft | | 0 - 5 | 5 - 60 | 19.0 | 19.0 | 9.0 |
| | | Stiff | 22.5 - 30.0 | 5 - 10 | 20 - 150 | 20.0 | 20.0 | 10.0 |
| | | Semi-solid | | 10 - 15 | 50 - 300 | 21.0 | 21.0 | 11.0 |
| Moderately plastic clays ($35\% \leq W_c \leq 50\%$) | TM | Soft | | 5 - 10 | 5 - 60 | 18.5 | 18.5 | 8.5 |
| | | Stiff | 17.5 - 27.5 | 10 - 15 | 20 - 150 | 19.5 | 19.5 | 9.5 |
| | | Semi-solid | | 15 - 20 | 50 - 300 | 20.5 | 20.5 | 10.5 |
| Pronounced clays ($35\% \leq W_c \leq 50\%$) | TA | Soft | | 5 - 15 | 5 - 60 | 17.5 | 17.5 | 7.5 |
| | | Stiff | 15.0 - 25.0 | 15 - 20 | 20 - 150 | 18.5 | 18.5 | 8.5 |
| | | Semi-solid | | 15 - 25 | 50 - 300 | 19.5 | 19.5 | 9.5 |
| COHESIVE SOILS | | | | | | | | |
| Organic soils | | | | | | | | |
| Organic silt and organic clay | OS and OC* | Pasty | | 0 | 2 - 20 | 14.0 | 14.0 | 4.0 |
| | | Soft | 17.5 - 22.5 | 2 - 5 | 5 - 60 | 15.5 | 15.5 | 5.5 |
| | | Stiff | | 5 - 10 | 20 - 150 | 17.0 | 17.0 | 7.0 |

c'_k = cohesion of drained soil; $c'_{u,k}$ = cohesion of **undrained** soil (0 is set for $\phi_{u,k}$ (= associated angle of incline))

For the application of the values from this table, please refer to EAB, Appendices A1 to A4.

Design tables conforming to EAB

Calculation

27.5°

LF 2

| | | | | | |
|--------------------------|----------------------------|---|---------------------|---------------|-------------------|
| Ground load: | $p = 10$ | kN/m ² (constant load) | Bulk density | $\gamma = 19$ | kN/m ³ |
| | | | | $\gamma' = 9$ | kN/m ³ |
| Angle of incline: | $\varphi' = 27.5^\circ$ | (unanchored wall $\delta_D = 1/2 \varphi$) | | | |
| | $\delta = \pm 2/3 \varphi$ | (anchored wall: redistribution of soil pressure as far as bottom of pit, previous construction states disregarded, design values) | | | |

| | | Freely supported wall | | | | | Fully pinned wall | | | | | Unanchored wall | | | | |
|------|----------------|-----------------------|---------------------|------|------|---------|-------------------|---------------------|------|-------|-----------|---------------------|-------|-------|---------|----------------|
| h | h _A | A _{n,d} | max. M _d | t | L | Section | A _{n,d} | max. M _d | t | L | Section | min. M _d | t | L | Section | W _k |
| [m] | [m] | [kN/m] | [kNm/m] | [m] | [m] | | [kN/m] | [kNm/m] | [m] | [m] | | [kNm/m] | [m] | [m] | | [mm] |
| 2.00 | 0.20 | 17.55 | 10.70 | 1.42 | 3.42 | L601 | 15.78 | 8.35 | 2.40 | 4.40 | L601 | -63.95 | 4.44 | 6.44 | L601 | 24.7 |
| | 0.60 | 20.90 | 5.51 | 1.27 | 3.27 | | 19.78 | 4.11 | 2.05 | 4.05 | | | | | | |
| 2.20 | 0.20 | 20.36 | 13.90 | 1.54 | 3.74 | L601 | 18.28 | 10.83 | 2.62 | 4.82 | L601 | -81.11 | 4.80 | 7.00 | L601 | 37.0 |
| | 0.70 | 24.74 | 6.48 | 1.35 | 3.55 | | 23.54 | 4.83 | 2.18 | 4.38 | | | | | | |
| 2.40 | 0.20 | 23.43 | 17.73 | 1.67 | 4.07 | L601 | 20.95 | 13.74 | 2.82 | 5.22 | L601 | -101.05 | 5.17 | 7.57 | L601 | 54.0 |
| | 0.70 | 28.03 | 9.01 | 1.48 | 3.88 | | 26.51 | 6.75 | 2.40 | 4.80 | | | | | | |
| 2.60 | 0.30 | 27.32 | 20.62 | 1.77 | 4.37 | L601 | 24.58 | 15.96 | 2.98 | 5.58 | L601 | -123.96 | 5.53 | 8.13 | L602 | 68.3 |
| | 0.80 | 31.55 | 12.07 | 1.61 | 4.21 | | 29.67 | 9.06 | 2.63 | 5.23 | | | | | | |
| 2.80 | 0.30 | 30.78 | 25.45 | 1.89 | 4.69 | L601 | 27.65 | 19.69 | 3.20 | 6.00 | L601 | -150.50 | 5.89 | 8.69 | L603 | 65.3 |
| | 0.80 | 36.22 | 13.81 | 1.70 | 4.50 | | 34.19 | 10.30 | 2.77 | 5.57 | | | | | | |
| 3.00 | 0.30 | 34.45 | 30.97 | 2.01 | 5.01 | L601 | 30.89 | 23.95 | 3.44 | 6.40 | L601 | -179.51 | 6.25 | 9.25 | L604 | n 53.6 |
| | 0.90 | 41.23 | 15.69 | 1.79 | 4.79 | | 39.02 | 11.63 | 2.90 | 5.90 | | | | | | |
| 3.20 | 0.30 | 38.32 | 37.22 | 2.13 | 5.33 | L601 | 34.32 | 28.77 | 3.61 | 6.81 | L601 | -212.57 | 6.61 | 9.81 | L605 | 51.6 |
| | 1.00 | 46.55 | 17.72 | 1.88 | 5.08 | | 44.17 | 13.06 | 3.02 | 6.22 | | | | | | |
| 3.40 | 0.30 | 42.47 | 44.39 | 2.25 | 5.65 | L601 | 37.93 | 34.19 | 3.83 | 7.23 | L601 | -249.41 | 6.98 | 10.38 | L606 | n 52.8 |
| | 1.00 | 51.01 | 22.47 | 2.00 | 5.40 | | 48.20 | 16.61 | 3.26 | 6.66 | | | | | | |
| 3.60 | 0.40 | 47.60 | 49.66 | 2.35 | 5.95 | L601 | 42.72 | 38.24 | 3.99 | 7.59 | L601 | -290.24 | 7.34 | 10.94 | L607 | n 51.3 |
| | 1.10 | 56.90 | 25.05 | 2.09 | 5.69 | | 53.89 | 18.43 | 3.39 | 6.99 | | | | | | |
| 3.80 | 0.40 | 52.13 | 58.14 | 2.47 | 6.27 | L601 | 46.72 | 44.76 | 4.20 | 8.00 | L601 | -335.27 | 7.70 | 11.50 | L430 | 19.6 |
| | 1.10 | 61.77 | 30.78 | 2.21 | 6.01 | | 58.33 | 22.82 | 3.61 | 7.41 | | | | | | |
| 4.00 | 0.40 | 56.86 | 67.52 | 2.59 | 6.59 | L601 | 50.90 | 51.97 | 4.41 | 8.41 | L601/L602 | -384.69 | 8.06 | 12.06 | L430 | 24.7 |
| | 1.20 | 68.21 | 33.97 | 2.30 | 6.30 | | 64.56 | 25.07 | 3.74 | 7.74 | | | | | | |
| 4.20 | 0.40 | 61.80 | 77.84 | 2.71 | 6.91 | L601 | 55.26 | 59.91 | 4.62 | 8.82 | L601/L602 | -438.72 | 8.42 | 12.62 | L430 | 30.8 |
| | 1.30 | 74.98 | 37.35 | 2.39 | 6.59 | | 71.11 | 27.44 | 3.88 | 8.08 | | | | | | |
| 4.40 | 0.40 | 67.02 | 89.38 | 2.84 | 7.24 | L601 | 59.80 | 68.60 | 4.83 | 9.23 | L601/L603 | -497.55 | 8.78 | 13.18 | L430 | 38.1 |
| | 1.30 | 80.62 | 44.96 | 2.52 | 6.92 | | 76.19 | 33.12 | 4.10 | 8.50 | | | | | | |
| 4.60 | 0.50 | 73.41 | 97.76 | 2.94 | 7.54 | L601 | 65.75 | 75.00 | 4.98 | 9.58 | L601/L603 | -561.38 | 9.14 | 13.74 | L430 | 46.7 |
| | 1.40 | 87.95 | 49.05 | 2.61 | 7.21 | | 83.27 | 35.99 | 4.24 | 8.84 | | | | | | |
| 4.80 | 0.50 | 78.99 | 110.89 | 3.06 | 7.86 | L601 | 70.69 | 85.08 | 5.20 | 10.00 | L601/L603 | -630.43 | 9.50 | 14.30 | L430 | 56.8 |
| | 1.50 | 93.98 | 57.86 | 2.73 | 7.53 | | 88.77 | 42.72 | 4.46 | 9.26 | | | | | | |
| 5.00 | 0.50 | 84.79 | 125.14 | 3.17 | 8.17 | L601 | 75.80 | 96.01 | 5.41 | 10.41 | L601/L603 | -704.89 | 9.85 | 14.85 | L430 | 68.4 |
| | 1.60 | 101.87 | 62.69 | 2.81 | 7.81 | | 96.39 | 46.12 | 4.59 | 9.59 | | | | | | |
| 5.20 | 0.50 | 90.79 | 140.55 | 3.29 | 8.49 | L601 | 81.10 | 107.82 | 5.62 | 10.82 | L601/L603 | -784.97 | 10.21 | 15.41 | L430 | 82.0 |
| | 1.60 | 110.08 | 67.77 | 2.90 | 8.10 | | 104.33 | 49.68 | 4.73 | 9.93 | | | | | | |
| 5.40 | 0.50 | 96.99 | 157.16 | 3.41 | 8.81 | L601 | 86.57 | 120.56 | 5.83 | 11.23 | L601/L603 | -870.87 | 10.57 | 15.97 | L430 | 97.7 |
| | 1.60 | 116.89 | 78.92 | 3.03 | 8.43 | | 110.47 | 57.98 | 4.95 | 10.35 | | | | | | |
| 5.60 | 0.60 | 104.62 | 169.31 | 3.51 | 9.11 | L602 | 93.68 | 129.87 | 5.99 | 11.59 | L601/L603 | -962.79 | 10.93 | 16.53 | PEINE | |
| | 1.70 | 125.66 | 84.85 | 3.12 | 8.72 | | 118.95 | 62.14 | 5.08 | 10.68 | | | | | | |
| 5.80 | 0.60 | 111.37 | 188.48 | 3.64 | 9.44 | L602 | 99.55 | 144.26 | 6.20 | 12.00 | L601/L603 | -1060.95 | 11.29 | 17.09 | PEINE | |
| | 1.70 | 132.93 | 97.71 | 3.25 | 9.05 | | 125.50 | 71.70 | 5.30 | 11.10 | | | | | | |
| 6.00 | 0.60 | 118.23 | 208.61 | 3.76 | 9.76 | L603 | 105.60 | 159.68 | 6.40 | 12.40 | L601/L603 | -1165.53 | 11.65 | 17.65 | PEINE | |
| | 1.80 | 142.27 | 104.56 | 3.34 | 9.34 | | 134.52 | 76.50 | 5.43 | 11.43 | | | | | | |

The selected section is a minimum section according to the structural strength requirements for steel grade S 270 GP. Structurally required section/section selected for ease of driving.

Design tables conforming to EAB

Calculation

| | | | | | |
|--------------------------|----------------------------|---|---------------------|---------------|-----------------|
| Ground load: | $p = 10$ | kN/m^2 (constant load) | Bulk density | $\gamma = 19$ | kN/m^3 |
| | | | | $\gamma' = 9$ | kN/m^3 |
| Angle of incline: | $\varphi' = 27.5^\circ$ | (unanchored wall $\delta_p = 1/2 \varphi$) | | | |
| | $\delta = \pm 2/3 \varphi$ | (anchored wall: redistribution of soil pressure as far as bottom of pit, previous construction states disregarded, design values) | | | |

27.5°

LF 2

| h | h _A | Freely supported wall | | | | | Fully pinned wall | | | | | Unanchored wall | | | | |
|-------|----------------|-----------------------|---------------------|------|-------|-------------|-------------------|---------------------|-------|-------|-------------|---------------------|-------|-------|---------|----------------|
| | | A _{h,d} | max. M _d | t | L | Section | A _{h,d} | max. M _d | t | L | Section | min. M _d | t | L | Section | W _k |
| [m] | [m] | [kN/m] | [kNm/m] | [m] | [m] | | [kN/m] | [kNm/m] | [m] | [m] | | [kNm/m] | [m] | [m] | | [mm] |
| 6.20 | 0.60 | 125.29 | 230.12 | 3.88 | 10.08 | L603 | 111.83 | 176.13 | 6.62 | 12.82 | L601/L603 | -1276.74 | 12.01 | 18.21 | PEINE | |
| | 1.90 | 151.92 | 111.68 | 3.43 | 9.63 | L601/L603 | 143.85 | 81.48 | 5.57 | 11.77 | | | | | | |
| 6.40 | 0.60 | 132.56 | 253.03 | 3.99 | 10.39 | L603 | 118.24 | 193.67 | 6.83 | 13.23 | L602/L604 n | -1394.79 | 12.37 | 18.77 | PEINE | |
| | 1.90 | 159.81 | 126.70 | 3.54 | 9.94 | L601/L603 | 151.05 | 92.90 | 5.80 | 12.20 | L601/L603 | | | | | |
| 6.60 | 0.70 | 141.43 | 269.71 | 4.09 | 10.69 | L603 | 126.50 | 206.42 | 6.94 | 13.54 | L603/L604 n | -1519.89 | 12.72 | 19.32 | PEINE | |
| | 2.00 | 170.03 | 134.80 | 3.63 | 10.23 | L601/L603 | 160.92 | 98.58 | 5.93 | 12.53 | L601/L603 | | | | | |
| 6.80 | 0.70 | 149.15 | 295.16 | 4.21 | 11.01 | L603 | 133.31 | 225.91 | 7.19 | 13.99 | L603/L604 n | -1652.22 | 13.08 | 19.88 | PEINE | |
| | 2.00 | 178.48 | 152.18 | 3.76 | 10.56 | L601/L603 | 168.54 | 111.46 | 6.15 | 12.95 | L601/L604 n | | | | | |
| 7.00 | 0.70 | 157.18 | 322.71 | 4.34 | 11.34 | L604 n | 140.30 | 246.57 | 7.41 | 14.41 | L603/L604 n | -1792.01 | 13.44 | 20.44 | PEINE | |
| | 2.10 | 189.26 | 161.32 | 3.85 | 10.85 | L601/L603 | 178.95 | 117.90 | 6.28 | 13.28 | L601/L604 n | | | | | |
| 7.20 | 0.70 | 165.30 | 351.32 | 4.46 | 11.66 | L604 n | 147.46 | 268.44 | 7.62 | 14.82 | L603/L604 n | -1939.44 | 13.80 | 21.00 | PEINE | |
| | 2.20 | 200.35 | 170.85 | 3.94 | 11.14 | L601/L603 | 189.67 | 124.55 | 6.42 | 13.62 | L601/L604 n | | | | | |
| 7.40 | 0.70 | 173.63 | 381.56 | 4.58 | 11.98 | L604 n | 154.81 | 291.55 | 7.82 | 15.22 | L603/L604 n | -2094.73 | 14.16 | 21.56 | PEINE | |
| | 2.20 | 209.41 | 190.64 | 4.06 | 11.46 | L602/L603 | 197.93 | 139.57 | 6.64 | 14.04 | L601/L604 n | | | | | |
| 7.60 | 0.80 | 183.76 | 403.46 | 4.68 | 12.28 | L605 | 164.23 | 308.28 | 7.98 | 15.58 | L604 n | -2258.07 | 14.52 | 22.12 | PEINE | |
| | 2.30 | 221.06 | 201.27 | 4.15 | 11.75 | L602/L603 | 209.19 | 147.03 | 6.77 | 14.37 | L601/L604 n | | | | | |
| 7.80 | 0.80 | 192.53 | 436.60 | 4.79 | 12.59 | L605 | 171.97 | 333.62 | 8.20 | 16.00 | L604 n | -2429.68 | 14.87 | 22.67 | PEINE | |
| | 2.30 | 230.69 | 223.82 | 4.27 | 12.07 | L602/L603 | 217.86 | 163.72 | 6.99 | 14.79 | L601/L604 n | | | | | |
| 8.00 | 0.80 | 201.50 | 471.50 | 4.91 | 12.91 | L605 | 179.89 | 360.30 | 8.41 | 16.41 | L604 n/L605 | -2609.75 | 15.23 | 23.23 | PEINE | |
| | 2.40 | 242.91 | 235.66 | 4.36 | 12.36 | L603 | 229.67 | 172.03 | 7.12 | 15.12 | L601/L604 n | | | | | |
| 8.20 | 0.80 | 210.70 | 508.20 | 5.03 | 13.23 | L605 | 187.99 | 388.34 | 8.61 | 16.81 | L604 n/L605 | -2798.48 | 15.59 | 23.79 | PEINE | |
| | 2.50 | 255.45 | 247.88 | 4.45 | 12.65 | L603 | 241.79 | 180.58 | 7.26 | 15.46 | L601/L604 n | | | | | |
| 8.40 | 0.80 | 220.22 | 547.52 | 5.16 | 13.56 | L606 n | 196.27 | 417.79 | 8.83 | 17.23 | L605 | -2996.09 | 15.95 | 24.35 | PEINE | |
| | 2.50 | 265.78 | 273.74 | 4.58 | 12.98 | L603 | 251.10 | 199.70 | 7.49 | 15.89 | L602/L604 n | | | | | |
| 8.60 | 0.90 | 231.59 | 575.34 | 5.26 | 13.86 | L606 n | 206.84 | 439.04 | 8.99 | 17.59 | L605 | -3202.77 | 16.31 | 24.91 | PEINE | |
| | 2.60 | 278.88 | 287.26 | 4.67 | 13.27 | L603/L604 n | 263.76 | 209.17 | 7.61 | 16.21 | L603/L605 | | | | | |
| 8.80 | 0.90 | 241.43 | 617.19 | 5.38 | 14.18 | L607 n | 215.52 | 471.00 | 9.19 | 17.99 | L605 | -3418.72 | 16.66 | 25.46 | PEINE | |
| | 2.60 | 289.56 | 315.00 | 4.79 | 13.59 | L604 n | 273.49 | 230.17 | 7.84 | 16.64 | L603/L605 | | | | | |
| 9.00 | 0.90 | 251.47 | 661.00 | 5.50 | 14.50 | L607 n | 224.37 | 504.46 | 9.40 | 18.40 | L606 n | -3644.16 | 17.02 | 26.02 | PEINE | |
| | 2.70 | 303.22 | 329.86 | 4.88 | 13.88 | L604 n | 286.69 | 240.59 | 7.97 | 16.97 | L603/L605 | | | | | |
| 9.20 | 0.90 | 261.72 | 706.82 | 5.62 | 14.82 | L607 n | 233.41 | 539.45 | 9.62 | 18.82 | L606 n | -3879.28 | 17.38 | 26.58 | PEINE | |
| | 2.80 | 314.49 | 360.95 | 5.01 | 14.21 | L604 n | 296.83 | 263.57 | 8.19 | 17.39 | L603/L605 | | | | | |
| 9.40 | 0.90 | 272.17 | 754.70 | 5.73 | 15.13 | L607 n | 242.62 | 576.01 | 9.83 | 19.23 | L606 n | -4124.28 | 17.74 | 27.14 | PEINE | |
| | 2.80 | 328.71 | 377.24 | 5.09 | 14.49 | L604 n | 310.57 | 275.00 | 8.33 | 17.73 | L603/L605 | | | | | |
| 9.60 | 1.00 | 284.79 | 789.14 | 5.83 | 15.43 | L430 | 254.36 | 602.31 | 9.98 | 19.58 | L606 n | -4379.38 | 18.10 | 27.70 | PEINE | |
| | 2.90 | 343.25 | 393.97 | 5.18 | 14.78 | L605 | 324.62 | 286.71 | 8.46 | 18.06 | L603/L605 | | | | | |
| 9.80 | 1.00 | 295.84 | 841.70 | 5.96 | 15.76 | L430 | 263.97 | 641.66 | 10.19 | 19.99 | L607 n | -4644.77 | 18.45 | 28.25 | PEINE | |
| | 2.90 | 355.09 | 428.07 | 5.30 | 15.10 | L605 | 335.41 | 312.51 | 8.68 | 18.48 | L604 n/L605 | | | | | |
| 10.00 | 1.00 | 306.95 | 895.44 | 6.08 | 16.08 | L430 | 273.76 | 682.66 | 10.41 | 20.41 | L607 n | -4920.65 | 18.81 | 28.81 | PEINE | |
| | 3.00 | 370.19 | 446.28 | 5.39 | 15.39 | L605 | 350.00 | 325.29 | 8.81 | 18.81 | L604 n/L605 | | | | | |

The selected section is a minimum section according to the structural strength requirements for steel grade S 270 GP. Structurally required section/section selected for ease of driving.

Design tables conforming to EAB

Calculation

30.0°

LF 2

| | | | | | |
|--------------------------|----------------------------|---|---------------------|---------------|-----------------|
| Ground load: | $p = 10$ | kN/m^2 (constant load) | Bulk density | $\gamma = 19$ | kN/m^3 |
| | | | | $\gamma' = 9$ | kN/m^3 |
| Angle of incline: | $\varphi' = 30.0^\circ$ | (unanchored wall $\delta_p = 1/2 \varphi$) | | | |
| | $\delta = \pm 2/3 \varphi$ | (anchored wall: redistribution of soil pressure as far as bottom of pit, previous construction states disregarded, design values) | | | |

| | | Freely supported wall | | | | | Fully pinned wall | | | | | Unanchored wall | | | | |
|------|----------------|-----------------------|---------------------|------|------|-----------|-------------------|---------------------|------|-------|-----------|---------------------|------|-------|---------|----------------|
| h | h _A | A _{n,d} | max. M _d | t | L | Section | A _{n,d} | max. M _d | t | L | Section | min. M _d | t | L | Section | W _k |
| [m] | [m] | [kN/m] | [kNm/m] | [m] | [m] | | [kN/m] | [kNm/m] | [m] | [m] | | [kNm/m] | [m] | [m] | | [mm] |
| 2.00 | 0.20 | 14.73 | 8.21 | 1.14 | 3.14 | L601 | 13.18 | 6.30 | 1.99 | 3.99 | L601 | -46.86 | 3.65 | 5.65 | L601 | 13.9 |
| | 0.60 | 17.91 | 3.86 | 1.00 | 3.00 | | 16.99 | 2.81 | 1.65 | 3.65 | | | | | | |
| 2.20 | 0.20 | 17.11 | 10.71 | 1.24 | 3.44 | L601 | 15.26 | 8.19 | 2.16 | 4.36 | L601 | -59.49 | 3.95 | 6.15 | L601 | 20.9 |
| | 0.70 | 21.26 | 4.48 | 1.06 | 3.26 | | 20.27 | 3.25 | 1.75 | 3.95 | | | | | | |
| 2.40 | 0.20 | 19.64 | 13.62 | 1.34 | 3.74 | L601 | 17.49 | 10.41 | 2.34 | 4.74 | L601 | -74.16 | 4.26 | 6.66 | L601 | 30.5 |
| | 0.70 | 24.03 | 6.37 | 1.17 | 3.57 | | 22.77 | 5.65 | 1.95 | 4.35 | | | | | | |
| 2.60 | 0.30 | 22.95 | 15.76 | 1.41 | 4.01 | L601 | 20.58 | 12.04 | 2.47 | 5.07 | L601 | -91.03 | 4.55 | 7.15 | L601 | 43.1 |
| | 0.80 | 27.88 | 7.28 | 1.23 | 3.83 | | 26.52 | 5.27 | 2.05 | 4.65 | | | | | | |
| 2.80 | 0.30 | 25.86 | 19.50 | 1.51 | 4.31 | L601 | 23.14 | 14.88 | 2.64 | 5.44 | L601 | -110.24 | 4.85 | 7.65 | L602 | 53.5 |
| | 0.80 | 31.06 | 9.81 | 1.34 | 4.14 | | 29.36 | 7.41 | 2.23 | 5.03 | | | | | | |
| 3.00 | 0.30 | 29.00 | 23.87 | 1.61 | 4.61 | L601 | 25.85 | 18.13 | 2.83 | 5.83 | L601 | -131.95 | 5.15 | 8.15 | L603 | 50.1 |
| | 0.90 | 35.39 | 11.03 | 1.40 | 4.40 | | 33.58 | 7.97 | 2.34 | 5.34 | | | | | | |
| 3.20 | 0.30 | 32.25 | 28.73 | 1.71 | 4.91 | L601 | 28.71 | 21.82 | 3.00 | 6.20 | L601 | -156.30 | 5.45 | 8.65 | L603 | 66.9 |
| | 1.00 | 40.00 | 12.32 | 1.47 | 4.67 | | 38.08 | 8.84 | 2.44 | 5.64 | | | | | | |
| 3.40 | 0.30 | 35.69 | 34.20 | 1.81 | 5.21 | L601 | 31.72 | 25.96 | 3.17 | 6.57 | L601 | -183.44 | 5.74 | 9.14 | L604 | n 53.6 |
| | 1.00 | 43.78 | 15.87 | 1.58 | 4.98 | | 41.46 | 11.45 | 2.63 | 6.03 | | | | | | |
| 3.60 | 0.40 | 40.06 | 38.12 | 1.88 | 5.48 | L601 | 35.80 | 28.93 | 3.31 | 6.91 | L601 | -213.52 | 6.04 | 9.64 | L604 | n 68.7 |
| | 1.10 | 48.88 | 17.52 | 1.64 | 5.24 | | 46.43 | 12.57 | 2.73 | 6.33 | | | | | | |
| 3.80 | 0.40 | 43.86 | 44.70 | 1.98 | 5.78 | L601 | 39.14 | 33.91 | 3.48 | 7.28 | L601 | -246.70 | 6.34 | 10.14 | L605 | 63.5 |
| | 1.10 | 53.00 | 21.81 | 1.74 | 5.54 | | 50.17 | 15.80 | 2.92 | 6.2 | | | | | | |
| 4.00 | 0.40 | 47.84 | 51.98 | 2.07 | 6.07 | L601 | 42.63 | 39.42 | 3.66 | 7.66 | L601 | -283.13 | 6.64 | 10.64 | L606 | n 62.2 |
| | 1.20 | 58.58 | 23.87 | 1.80 | 5.80 | | 55.60 | 17.20 | 3.03 | 7.03 | | | | | | |
| 4.20 | 0.40 | 51.99 | 59.99 | 2.17 | 6.37 | L601 | 46.27 | 45.48 | 3.83 | 8.03 | L601 | -322.94 | 6.93 | 11.13 | L607 | n 58.7 |
| | 1.30 | 64.04 | 27.04 | 1.89 | 6.09 | | 61.31 | 18.66 | 3.13 | 7.33 | | | | | | |
| 4.40 | 0.40 | 56.32 | 68.79 | 2.26 | 6.66 | L601 | 50.06 | 52.13 | 4.01 | 8.41 | L601/L602 | -366.30 | 7.22 | 11.62 | L607 | n 72.5 |
| | 1.30 | 69.22 | 31.72 | 1.97 | 6.37 | | 65.59 | 22.83 | 3.32 | 7.72 | | | | | | |
| 4.60 | 0.50 | 61.82 | 75.22 | 2.35 | 6.95 | L601 | 55.13 | 56.84 | 4.14 | 8.74 | L601/L602 | -413.35 | 7.52 | 12.12 | L430 | 26.6 |
| | 1.40 | 75.57 | 34.34 | 2.04 | 6.64 | | 71.77 | 24.60 | 3.42 | 8.02 | | | | | | |
| 4.80 | 0.50 | 66.52 | 85.42 | 2.45 | 7.25 | L601 | 59.25 | 64.54 | 4.31 | 9.11 | L601/L603 | -464.25 | 7.82 | 12.62 | L430 | 32.4 |
| | 1.40 | 80.74 | 41.10 | 2.15 | 6.95 | | 76.41 | 29.55 | 3.60 | 8.40 | | | | | | |
| 5.00 | 0.50 | 71.39 | 96.49 | 2.54 | 7.54 | L601 | 63.52 | 72.89 | 4.48 | 9.48 | L601/L603 | -519.14 | 8.12 | 13.12 | L430 | 39.2 |
| | 1.50 | 87.57 | 44.23 | 2.21 | 7.21 | | 83.06 | 31.67 | 3.71 | 8.71 | | | | | | |
| 5.20 | 0.50 | 76.44 | 108.47 | 2.64 | 7.84 | L601 | 67.94 | 81.93 | 4.66 | 9.86 | L601/L603 | -578.17 | 8.41 | 13.61 | L430 | 46.9 |
| | 1.60 | 94.69 | 47.49 | 2.28 | 7.48 | | 89.99 | 33.87 | 3.81 | 9.01 | | | | | | |
| 5.40 | 0.50 | 81.66 | 121.40 | 2.73 | 8.13 | L601/L602 | 72.51 | 91.67 | 4.84 | 10.24 | L601/L603 | -641.49 | 8.70 | 14.10 | L430 | 55.8 |
| | 1.60 | 100.39 | 55.63 | 2.37 | 7.77 | | 95.16 | 39.96 | 4.00 | 9.40 | | | | | | |
| 5.60 | 0.60 | 88.15 | 130.47 | 2.81 | 8.41 | L601/L602 | 78.57 | 98.52 | 4.97 | 10.57 | L601/L603 | -709.26 | 9.01 | 14.61 | L430 | 66.2 |
| | 1.70 | 108.06 | 59.66 | 2.45 | 8.05 | | 102.56 | 42.53 | 4.10 | 9.70 | | | | | | |
| 5.80 | 0.60 | 93.74 | 145.07 | 2.91 | 8.71 | L601/L602 | 83.47 | 109.53 | 5.14 | 10.94 | L601/L603 | -781.61 | 9.30 | 15.10 | L430 | 77.9 |
| | 1.70 | 114.15 | 69.06 | 2.55 | 8.35 | | 108.09 | 49.56 | 4.29 | 10.09 | | | | | | |
| 6.00 | 0.60 | 99.51 | 160.70 | 3.00 | 9.00 | L601/L602 | 88.52 | 121.31 | 5.31 | 11.31 | L601/L603 | -858.72 | 9.59 | 15.59 | L430 | 91.2 |
| | 1.80 | 122.23 | 73.47 | 2.61 | 8.61 | | 115.95 | 52.55 | 4.40 | 10.40 | | | | | | |

The selected section is a minimum section according to the structural strength requirements for steel grade S 270 GP. Structurally required section/section selected for ease of driving.

Design tables conforming to EAB

Calculation

30.0°

LF 2

Ground load: $p = 10$ kN/m² (constant load) **Bulk density** $\gamma = 19$ kN/m³
 $\gamma' = 9$ kN/m³

Angle of incline: $\phi' = 30.0^\circ$ (unanchored wall $\delta_p = 1/2 \phi$)
 $\delta = \pm 2/3 \phi$ (anchored wall: redistribution of soil pressure as far as bottom of pit, previous construction states disregarded, design values)

| h | h _A | Freely supported wall | | | | | Fully pinned wall | | | | | Unanchored wall | | | | |
|-------|----------------|-----------------------|---------------------|------|-------|-------------|-------------------|---------------------|------|-------|-------------|---------------------|-------|-------|---------|----------------|
| | | A _{h,d} | max. M _d | t | L | Section | A _{h,d} | max. M _d | t | L | Section | min. M _d | t | L | Section | W _k |
| [m] | [m] | [kN/m] | [kNm/m] | [m] | [m] | | [kN/m] | [kNm/m] | [m] | [m] | | [kNm/m] | [m] | [m] | | [mm] |
| 6.20 | 0.60 | 105.45 | 177.41 | 3.01 | 9.21 | L601/L603 | 93.72 | 133.91 | 5.49 | 11.69 | | | | | | |
| | 1.90 | 130.60 | 78.03 | 2.68 | 8.88 | L601/L602 | 124.09 | 55.63 | 4.50 | 10.70 | L601/L603 | -940.71 | 9.89 | 16.09 | PEINE | |
| 6.40 | 0.60 | 111.56 | 195.22 | 3.19 | 9.59 | L602/L603 | 99.08 | 147.33 | 5.67 | 12.07 | | | | | | |
| | 1.90 | 137.36 | 89.54 | 2.78 | 9.18 | L601/L603 | 130.17 | 64.01 | 4.68 | 11.08 | L601/L603 | -1027.75 | 10.18 | 16.58 | PEINE | |
| 6.60 | 0.70 | 119.21 | 208.06 | 3.28 | 9.88 | L603 | 106.12 | 156.72 | 5.79 | 12.39 | | | | | | |
| | 2.00 | 146.21 | 94.76 | 2.85 | 9.45 | L601/L603 | 138.78 | 67.54 | 4.79 | 11.39 | L601/L603 | -1119.98 | 10.48 | 17.08 | PEINE | |
| 6.80 | 0.70 | 125.69 | 277.86 | 3.38 | 10.18 | L603 | 111.80 | 171.62 | 5.97 | 12.77 | | | | | | |
| | 2.00 | 153.38 | 107.78 | 2.96 | 9.76 | L601/L603 | 145.20 | 77.01 | 4.97 | 11.71 | L601/L603 | -1217.55 | 10.78 | 17.58 | PEINE | |
| 7.00 | 0.70 | 132.35 | 248.86 | 3.47 | 10.74 | L603 | 117.63 | 187.43 | 6.15 | 13.15 | L602/L604 n | | | | | |
| | 2.10 | 162.71 | 113.71 | 3.02 | 10.02 | L601/L603 | 154.28 | 81.02 | 5.07 | 12.07 | L601/L603 | -1320.61 | 11.07 | 18.07 | PEINE | |
| 7.20 | 0.70 | 139.19 | 271.11 | 3.57 | 10.77 | L603 | 123.62 | 204.16 | 6.32 | 13.52 | L602/L604 n | | | | | |
| | 2.20 | 172.32 | 119.81 | 3.09 | 10.29 | L601/L603 | 163.64 | 85.14 | 5.18 | 12.38 | L601/L603 | -1429.32 | 11.36 | 18.56 | PEINE | |
| 7.40 | 0.70 | 146.20 | 294.63 | 3.66 | 11.06 | L603 | 129.75 | 221.85 | 6.50 | 13.90 | L603/L604 n | | | | | |
| | 2.20 | 180.00 | 134.61 | 3.18 | 10.58 | L601/L603 | 170.60 | 96.16 | 5.37 | 12.77 | L601/L603 | -1543.81 | 11.67 | 19.07 | PEINE | |
| 7.60 | 0.80 | 154.81 | 310.97 | 3.74 | 11.34 | L604 n | 137.78 | 234.18 | 6.62 | 14.22 | L603/L604 n | | | | | |
| | 2.30 | 190.10 | 141.45 | 3.25 | 10.85 | L601/L603 | 180.43 | 100.80 | 5.47 | 13.07 | L601/L604 n | -1664.25 | 11.96 | 19.56 | PEINE | |
| 7.80 | 0.80 | 162.19 | 336.73 | 3.84 | 11.64 | L604 n | 144.24 | 253.57 | 6.80 | 14.60 | L603/L604 n | | | | | |
| | 2.30 | 198.26 | 158.34 | 3.36 | 11.16 | L601/L603 | 187.75 | 113.06 | 5.65 | 13.45 | L601/L604 n | -1790.79 | 12.25 | 20.05 | PEINE | |
| 8.00 | 0.80 | 169.74 | 363.87 | 3.93 | 11.93 | L604 n | 150.86 | 273.98 | 6.98 | 14.98 | L603/L604 n | | | | | |
| | 2.40 | 208.84 | 165.99 | 3.42 | 11.42 | L601/L603 | 198.04 | 118.24 | 5.76 | 13.76 | L601/L604 n | -1923.56 | 12.55 | 20.05 | PEINE | |
| 8.20 | 0.80 | 177.47 | 392.41 | 4.03 | 12.23 | L604 n | 157.62 | 295.44 | 8.15 | 15.35 | L603/L604 n | | | | | |
| | 2.50 | 219.70 | 173.84 | 3.49 | 11.69 | L601/L602 | 208.62 | 123.55 | 5.86 | 14.06 | L601/L604 n | -2062.73 | 12.84 | 21.04 | PEINE | |
| 8.40 | 0.80 | 185.37 | 422.39 | 4.12 | 12.52 | L605 | 164.54 | 317.98 | 7.32 | 15.72 | L604 n | | | | | |
| | 2.50 | 228.46 | 193.19 | 3.59 | 11.99 | L602/L603 | 216.48 | 137.59 | 6.05 | 14.45 | L601/L604 n | -2208.43 | 13.14 | 21.54 | PEINE | |
| 8.60 | 0.90 | 195.16 | 443.82 | 4.21 | 12.81 | L605 | 173.55 | 333.66 | 7.45 | 16.05 | L604 n | | | | | |
| | 2.60 | 239.81 | 201.90 | 3.66 | 12.26 | L602/L603 | 227.52 | 143.47 | 6.15 | 14.75 | L601/L604 n | -2360.83 | 13.44 | 22.04 | PEINE | |
| 8.80 | 0.90 | 203.44 | 476.36 | 4.30 | 13.10 | L605 | 180.80 | 358.11 | 7.63 | 16.43 | L604 n/L605 | | | | | |
| | 2.60 | 248.87 | 222.65 | 3.75 | 12.55 | L603 | 235.74 | 158.90 | 6.34 | 15.14 | L601/L604 n | -2520.07 | 13.73 | 22.53 | PEINE | |
| 9.00 | 0.90 | 211.89 | 510.43 | 4.40 | 13.40 | L606 n | 188.19 | 383.71 | 7.81 | 16.81 | L604 n/L605 | | | | | |
| | 2.70 | 260.70 | 232.24 | 3.82 | 12.82 | L603 | 247.25 | 165.40 | 6.44 | 15.44 | L601/L604 n | -2686.31 | 14.02 | 23.02 | PEINE | |
| 9.20 | 0.90 | 220.51 | 546.09 | 4.50 | 13.70 | L606 n | 195.74 | 410.49 | 7.98 | 17.18 | L605 | | | | | |
| | 2.80 | 272.92 | 242.64 | 3.90 | 13.10 | L603/L604 n | 259.04 | 172.04 | 6.54 | 15.74 | L601/L604 n | -2859.69 | 14.33 | 23.53 | PEINE | |
| 9.40 | 0.90 | 292.31 | 583.35 | 4.59 | 13.99 | L606 n | 203.43 | 438.48 | 8.15 | 17.55 | L605 | | | | | |
| | 2.80 | 282.57 | 266.08 | 3.99 | 13.39 | L603/L604 n | 267.79 | 189.44 | 6.74 | 16.14 | L602/L605 | -3040.35 | 14.62 | 24.02 | PEINE | |
| 9.60 | 1.00 | 240.04 | 609.09 | 4.67 | 14.27 | L606 n | 213.43 | 457.88 | 8.29 | 17.89 | L605 | | | | | |
| | 2.90 | 295.16 | 276.85 | 4.06 | 13.66 | L603/L604 n | 280.05 | 196.73 | 6.84 | 16.44 | L602/L605 | -3228.46 | 14.91 | 24.51 | PEINE | |
| 9.80 | 1.00 | 249.21 | 649.16 | 4.76 | 14.56 | L607 n | 221.46 | 487.99 | 8.46 | 18.26 | L605 | | | | | |
| | 2.90 | 305.32 | 303.02 | 4.16 | 13.96 | L604 n | 289.16 | 215.69 | 7.02 | 16.82 | L603/L605 | -3424.15 | 15.20 | 25.00 | PEINE | |
| 10.00 | 1.00 | 258.55 | 690.93 | 4.86 | 14.86 | L607 n | 229.64 | 519.37 | 8.63 | 18.63 | L606 n | | | | | |
| | 3.00 | 318.40 | 314.80 | 4.23 | 14.23 | L604 n | 301.88 | 223.66 | 7.12 | 17.12 | L603/L605 | -3627.59 | 15.50 | 25.50 | PEINE | |

The selected section is a minimum section according to the structural strength requirements for steel grade S 270 GP. Structurally required section/section selected for ease of driving.

Design tables conforming to EAB

Calculation

32.5°

LF 2

| | | | | | |
|--------------------------|----------------------------|---|---------------------|---------------|-------------------|
| Ground load: | $p = 10$ | kN/m ² (constant load) | Bulk density | $\gamma = 19$ | kN/m ³ |
| | | | | $\gamma' = 9$ | kN/m ³ |
| Angle of incline: | $\varphi' = 32.5^\circ$ | (unanchored wall $\delta_D = 1/2 \varphi$) | | | |
| | $\delta = \pm 2/3 \varphi$ | (anchored wall: redistribution of soil pressure as far as bottom of pit, previous construction states disregarded, design values) | | | |

| | | Freely supported wall | | | | | Fully pinned wall | | | | | Unanchored wall | | | | |
|------|----------------|-----------------------|---------------------|------|------|-----------|-------------------|---------------------|------|------|-----------|---------------------|------|-------|---------|----------------|
| h | h _A | A _{h,d} | max. M _d | t | L | Section | A _{h,d} | max. M _d | t | L | Section | min. M _d | t | L | Section | W _k |
| [m] | [m] | [kN/m] | [kNm/m] | [m] | [m] | | [kN/m] | [kNm/m] | [m] | [m] | | [kNm/m] | [m] | [m] | | [mm] |
| 2.00 | 0.20 | 12.09 | 5.96 | 0.79 | 2.79 | L601 | 10.72 | 4.44 | 1.46 | 3.46 | L601 | -31.92 | 2.70 | 4.70 | L601 | 6.5 |
| | 0.60 | 15.16 | 4.43 | 0.66 | 2.66 | | 14.45 | 1.71 | 1.16 | 3.16 | | | | | | |
| 2.20 | 0.20 | 14.04 | 7.80 | 0.86 | 3.06 | L601 | 12.40 | 5.80 | 1.60 | 3.80 | L601 | -40.58 | 2.92 | 5.12 | L601 | 9.8 |
| | 0.70 | 18.06 | 2.76 | 0.70 | 2.90 | | 17.32 | 1.92 | 1.23 | 3.43 | | | | | | |
| 2.40 | 0.20 | 16.10 | 9.92 | 0.92 | 3.32 | L601 | 14.21 | 7.39 | 1.73 | 4.13 | L601 | -50.64 | 3.13 | 5.53 | L601 | 14.1 |
| | 0.70 | 20.37 | 4.10 | 0.78 | 2.92 | | 19.36 | 2.87 | 1.38 | 3.78 | | | | | | |
| 2.60 | 0.30 | 18.92 | 11.47 | 0.98 | 3.58 | L601 | 16.81 | 8.49 | 1.82 | 4.42 | L601 | -62.22 | 3.36 | 5.96 | L601 | 20.3 |
| | 0.80 | 23.69 | 4.59 | 0.82 | 3.42 | | 22.62 | 3.18 | 1.44 | 4.04 | | | | | | |
| 2.80 | 0.30 | 21.28 | 14.18 | 1.04 | 3.84 | L601 | 18.88 | 10.53 | 1.96 | 4.76 | L601 | -75.40 | 3.58 | 6.38 | L601 | 28.1 |
| | 0.80 | 26.30 | 6.35 | 0.89 | 3.69 | | 24.96 | 4.45 | 1.59 | 4.39 | | | | | | |
| 3.00 | 0.30 | 23.82 | 17.36 | 1.11 | 4.11 | L601 | 21.08 | 12.87 | 2.09 | 5.09 | L601 | -90.30 | 3.80 | 6.80 | L601 | 38.3 |
| | 0.90 | 30.04 | 7.01 | 0.93 | 3.93 | | 28.63 | 4.87 | 1.65 | 4.65 | | | | | | |
| 3.20 | 0.30 | 26.51 | 20.97 | 1.18 | 4.38 | L601 | 23.40 | 15.51 | 2.22 | 5.42 | L601 | -107.02 | 4.02 | 7.20 | L601 | 51.2 |
| | 1.00 | 34.02 | 7.70 | 0.97 | 4.17 | | 32.55 | 5.30 | 1.71 | 4.91 | | | | | | |
| 3.40 | 0.30 | 29.35 | 25.04 | 1.25 | 4.65 | L601 | 25.84 | 18.49 | 2.34 | 5.74 | L601 | -125.66 | 4.24 | 7.64 | L603 | 41.5 |
| | 1.00 | 37.16 | 10.21 | 1.05 | 4.45 | | 35.33 | 7.07 | 1.86 | 5.26 | | | | | | |
| 3.60 | 0.40 | 33.02 | 27.79 | 1.30 | 4.90 | L601 | 29.27 | 20.51 | 2.43 | 6.03 | L601 | -146.32 | 4.46 | 8.02 | L603 | 53.8 |
| | 1.10 | 41.56 | 11.10 | 1.09 | 4.69 | | 39.66 | 7.64 | 1.93 | 5.53 | | | | | | |
| 3.80 | 0.40 | 36.16 | 32.68 | 1.37 | 5.17 | L601 | 31.98 | 24.09 | 2.57 | 6.37 | L601 | -169.11 | 4.68 | 8.48 | L603 | 68.8 |
| | 1.10 | 45.00 | 14.15 | 1.16 | 4.96 | | 42.74 | 9.84 | 2.07 | 5.87 | | | | | | |
| 4.00 | 0.40 | 39.39 | 37.98 | 1.43 | 5.43 | L601 | 34.81 | 28.05 | 2.70 | 6.70 | L601 | -194.14 | 4.90 | 8.90 | L603 | 87.1 |
| | 1.20 | 49.81 | 15.28 | 1.20 | 5.20 | | 47.46 | 10.55 | 2.14 | 6.14 | | | | | | |
| 4.20 | 0.40 | 42.82 | 43.96 | 1.50 | 5.70 | L601 | 37.77 | 32.42 | 2.83 | 7.03 | L601 | -221.49 | 5.12 | 9.32 | L604 | n65.7 |
| | 1.30 | 54.87 | 16.44 | 1.24 | 5.44 | | 52.44 | 11.28 | 2.20 | 6.40 | | | | | | |
| 4.40 | 0.40 | 46.40 | 50.54 | 1.57 | 5.97 | L601 | 40.85 | 37.21 | 2.97 | 7.37 | L601 | -251.29 | 5.34 | 9.74 | L604 | n81.5 |
| | 1.30 | 58.85 | 20.50 | 1.32 | 5.72 | | 55.96 | 14.11 | 2.35 | 6.75 | | | | | | |
| 4.60 | 0.50 | 50.97 | 54.94 | 1.62 | 6.22 | L601 | 45.10 | 40.42 | 3.06 | 7.66 | L601 | -283.62 | 5.56 | 10.16 | L605 | 72.6 |
| | 1.40 | 64.34 | 21.94 | 1.36 | 5.96 | | 61.34 | 15.01 | 2.41 | 7.01 | | | | | | |
| 4.80 | 0.50 | 54.80 | 62.38 | 1.68 | 6.48 | L601 | 48.45 | 45.96 | 3.19 | 7.99 | L601 | -318.60 | 5.78 | 10.58 | L605 | 88.4 |
| | 1.40 | 68.61 | 26.65 | 1.43 | 6.23 | | 65.16 | 18.38 | 2.55 | 7.35 | | | | | | |
| 5.00 | 0.50 | 58.83 | 70.64 | 1.76 | 6.76 | L601 | 51.92 | 51.97 | 3.32 | 8.32 | L601/L602 | -356.32 | 5.99 | 10.99 | L606n | 83.0 |
| | 1.50 | 74.50 | 28.38 | 1.48 | 6.48 | | 70.95 | 19.65 | 2.62 | 7.62 | | | | | | |
| 5.20 | 0.50 | 63.01 | 79.60 | 1.83 | 7.03 | L601 | 55.51 | 58.48 | 3.44 | 8.64 | L601/L602 | -396.89 | 6.22 | 11.42 | L606n | 99.7 |
| | 1.60 | 80.65 | 30.16 | 1.52 | 6.72 | | 76.98 | 20.57 | 2.69 | 7.89 | | | | | | |
| 5.40 | 0.50 | 67.26 | 89.05 | 1.89 | 7.29 | L601 | 59.22 | 65.51 | 3.58 | 8.98 | L601/L603 | -440.42 | 6.44 | 11.84 | L607n | 89.5 |
| | 1.60 | 85.41 | 35.96 | 1.59 | 6.99 | | 81.25 | 24.71 | 2.83 | 8.23 | | | | | | |
| 5.60 | 0.60 | 72.72 | 95.45 | 1.94 | 7.54 | L601 | 64.30 | 70.18 | 3.67 | 9.27 | L601/L603 | -487.00 | 6.65 | 12.25 | L430 | 31.6 |
| | 1.70 | 91.97 | 38.06 | 1.63 | 7.23 | | 87.79 | 26.02 | 2.89 | 8.49 | | | | | | |
| 5.80 | 0.60 | 77.35 | 106.35 | 2.01 | 7.81 | L601 | 68.29 | 78.11 | 3.80 | 9.60 | L601/L603 | -537.74 | 6.87 | 12.67 | L430 | 37.3 |
| | 1.70 | 97.07 | 44.76 | 1.70 | 7.50 | | 92.25 | 30.81 | 3.05 | 8.85 | | | | | | |
| 6.00 | 0.60 | 82.04 | 117.79 | 2.07 | 8.07 | L601/L602 | 72.40 | 86.61 | 3.93 | 9.93 | L601/L603 | -589.74 | 7.10 | 13.10 | L430 | 43.8 |
| | 1.80 | 104.04 | 47.21 | 1.74 | 7.74 | | 99.09 | 32.34 | 9.10 | 9.10 | | | | | | |

The selected section is a minimum section according to the structural strength requirements for steel grade S 270 GP.
Structurally required section/section selected for ease of driving.

Design tables conforming to EAB

Calculation

| | | | | | |
|--------------------------|----------------------------|---|---------------------|---------------|-------------------|
| Ground load: | $p = 10$ | kN/m ² (constant load) | Bulk density | $\gamma = 19$ | kN/m ³ |
| | | | | $\gamma' = 9$ | kN/m ³ |
| Angle of incline: | $\varphi' = 32.5^\circ$ | (unanchored wall $\delta_D = 1/2 \varphi$) | | | |
| | $\delta = \pm 2/3 \varphi$ | (anchored wall: redistribution of soil pressure as far as bottom of pit, previous construction states disregarded, design values) | | | |

32.5°

LF 2

| h | h _A | Freely supported wall | | | | | Fully pinned wall | | | | | Unanchored wall | | | | |
|-------|----------------|-----------------------|---------------------|------|-------|-----------|-------------------|---------------------|------|-------|-------------|---------------------|-------|-------|---------|----------------|
| | | A _{n,d} | max. M _d | t | L | Section | A _{n,d} | max. M _d | t | L | Section | min. M _d | t | L | Section | W _k |
| [m] | [m] | [kN/m] | [kNm/m] | [m] | [m] | | [kN/m] | [kNm/m] | [m] | [m] | | [kNm/m] | [m] | [m] | | [mm] |
| 6.20 | 0.60 | 86.96 | 130.29 | 2.14 | 8.34 | L601/L602 | 76.62 | 95.96 | 4.06 | 10.26 | L601/L603 | -646.11 | 7.31 | 13.51 | L430 | 51,0 |
| | 1.90 | 111.27 | 49.71 | 1.78 | 7.98 | L601 | 106.18 | 33.90 | 3.17 | 9.37 | L601/L603 | -646.11 | 7.31 | 13.51 | L430 | 51,0 |
| 6.40 | 0.60 | 92.02 | 143.62 | 2.21 | 8.61 | L601/L602 | 80.97 | 105.37 | 4.20 | 10.60 | L601/L603 | -705.95 | 7.53 | 13.93 | L430 | 59,3 |
| | 1.90 | 116.86 | 57.70 | 1.85 | 8.25 | L601/L602 | 111.19 | 39.60 | 3.31 | 9.71 | L601/L603 | -705.95 | 7.53 | 13.93 | L430 | 59,3 |
| 6.60 | 0.70 | 98.37 | 152.42 | 2.26 | 8.86 | L601/L602 | 86.88 | 111.78 | 4.29 | 10.89 | L601/L603 | -769.36 | 7.74 | 14.34 | L430 | 68,4 |
| | 2.00 | 124.50 | 60.58 | 1.89 | 8.49 | L601/L602 | 118.69 | 41.39 | 3.38 | 9.98 | L601/L603 | -769.36 | 7.74 | 14.34 | L430 | 68,4 |
| 6.80 | 0.70 | 103.66 | 166.89 | 2.33 | 9.13 | L601/L603 | 91.50 | 122.53 | 4.42 | 11.22 | L601/L603 | -836.44 | 7.96 | 14.76 | L430 | 78,8 |
| | 2.00 | 130.42 | 69.63 | 1.97 | 8.77 | L601/L602 | 123.99 | 47.85 | 3.53 | 10.83 | L601/L603 | -836.44 | 7.96 | 14.76 | L430 | 78,8 |
| 7.00 | 0.70 | 109.17 | 182.59 | 2.40 | 9.40 | L601/L603 | 96.25 | 133.93 | 4.54 | 11.54 | L601/L603 | -907.30 | 8.19 | 15.19 | L430 | 90,4 |
| | 2.10 | 138.47 | 72.91 | 2.01 | 9.01 | L601/L602 | 131.89 | 49.91 | 3.59 | 10.59 | L601/L603 | -907.30 | 8.19 | 15.19 | L430 | 90,4 |
| 7.20 | 0.70 | 114.83 | 199.23 | 2.47 | 9.67 | L602/L603 | 101.11 | 146.00 | 4.67 | 11.87 | L601/L603 | -982.04 | 8.40 | 15.60 | PEINE | |
| | 2.20 | 146.77 | 76.26 | 2.05 | 9.25 | L601/L603 | 140.04 | 51.99 | 3.65 | 10.85 | L601/L603 | -982.04 | 8.40 | 15.60 | PEINE | |
| 7.40 | 0.70 | 120.55 | 216.45 | 2.53 | 9.93 | L603 | 106.10 | 158.77 | 4.80 | 12.20 | L601/L603 | -1060.76 | 8.62 | 16.20 | PEINE | |
| | 2.20 | 153.19 | 86.80 | 2.12 | 9.52 | L601/L603 | 145.79 | 59.50 | 3.79 | 11.19 | L601/L603 | -1060.76 | 8.62 | 16.20 | PEINE | |
| 7.60 | 0.80 | 128.78 | 228.01 | 2.58 | 10.18 | L603 | 112.83 | 167.30 | 4.89 | 12.49 | L601/L603 | -1143.58 | 8.84 | 16.44 | PEINE | |
| | 2.30 | 161.91 | 90.58 | 2.16 | 9.76 | L601/L603 | 154.35 | 61.86 | 3.86 | 11.46 | L601/L603 | -1143.58 | 8.84 | 16.44 | PEINE | |
| 7.80 | 0.80 | 133.90 | 247.28 | 2.65 | 10.45 | L603 | 118.09 | 181.18 | 5.03 | 12.83 | L601/L603 | -1230.58 | 9.05 | 16.85 | PEINE | |
| | 2.30 | 168.73 | 102.64 | 2.24 | 10.04 | L601/L603 | 160.39 | 70.23 | 4.01 | 11.81 | L601/L603 | -1230.58 | 9.05 | 16.85 | PEINE | |
| 8.00 | 0.80 | 149.06 | 267.13 | 2.71 | 10.71 | L603 | 123.47 | 195.90 | 5.16 | 13.16 | L602/L604 n | -1321.87 | 9.28 | 17.28 | PEINE | |
| | 2.40 | 177.86 | 106.90 | 2.28 | 10.28 | L601/L603 | 169.35 | 72.89 | 4.07 | 12.07 | L601/L603 | -1321.87 | 9.28 | 17.28 | PEINE | |
| 8.20 | 0.80 | 146.45 | 288.49 | 2.78 | 10.98 | L603 | 128.97 | 211.40 | 5.29 | 13.49 | L603/L604 n | -1417.56 | 9.49 | 17.69 | PEINE | |
| | 2.50 | 187.24 | 111.22 | 2.23 | 10.52 | L601/L603 | 178.56 | 75.58 | 4.14 | 12.34 | L601/L603 | -1417.56 | 9.49 | 17.69 | PEINE | |
| 8.40 | 0.80 | 153.00 | 310.95 | 2.86 | 11.26 | L604 n | 134.59 | 227.68 | 5.42 | 13.49 | L603/L604 n | -1517.76 | 9.71 | 18.11 | PEINE | |
| | 2.50 | 194.49 | 124.67 | 2.40 | 10.80 | L601/L603 | 185.05 | 85.13 | 4.28 | 12.68 | L601/L603 | -1517.76 | 9.71 | 18.11 | PEINE | |
| 8.60 | 0.90 | 161.13 | 325.66 | 2.91 | 11.51 | L604 n | 142.15 | 238.39 | 5.52 | 14.12 | L603/L604 n | -1622.55 | 9.93 | 18.53 | PEINE | |
| | 2.60 | 204.29 | 129.49 | 2.44 | 11.94 | L601/L603 | 194.66 | 88.14 | 4.34 | 12.94 | L601/L603 | -1622.55 | 9.93 | 18.53 | PEINE | |
| 8.80 | 0.90 | 167.88 | 349.46 | 2.97 | 11.77 | L604 n | 148.05 | 256.03 | 5.65 | 14.45 | L603/L604 n | -1732.05 | 10.15 | 18.95 | PEINE | |
| | 2.60 | 211.86 | 144.30 | 2.51 | 11.31 | L601/L603 | 201.45 | 98.672 | 4.49 | 13.29 | L601/L604 n | -1732.05 | 10.15 | 18.95 | PEINE | |
| 9.00 | 0.90 | 174.87 | 374.95 | 3.04 | 12.04 | L604 n | 154.06 | 274.51 | 5.77 | 14.77 | L603/L604 n | -1846.36 | 10.37 | 19.37 | PEINE | |
| | 2.70 | 222.07 | 149.64 | 2.55 | 11.55 | L601/L603 | 211.46 | 102.01 | 4.55 | 13.55 | L601/L604 n | -1846.36 | 10.37 | 19.37 | PEINE | |
| 9.20 | 0.90 | 181.90 | 401.05 | 3.10 | 12.30 | L605 | 160.20 | 293.85 | 5.90 | 15.10 | L603/L604 n | -1965.58 | 10.59 | 19.79 | PEINE | |
| | 2.80 | 232.53 | 155.06 | 2.59 | 11.79 | L601/L603 | 221.73 | 105.38 | 4.62 | 13.82 | L601/L604 n | -1965.58 | 10.59 | 19.79 | PEINE | |
| 9.40 | 0.90 | 189.19 | 428.93 | 3.17 | 12.57 | L605 | 166.46 | 314.07 | 6.03 | 15.43 | L604 n | -2089.82 | 10.80 | 20.20 | PEINE | |
| | 2.80 | 240.61 | 171.75 | 2.66 | 12.06 | L601/L603 | 228.96 | 117.24 | 4.76 | 14.16 | L601/L604 n | -2089.82 | 10.80 | 20.20 | PEINE | |
| 9.60 | 1.00 | 198.21 | 447.16 | 3.22 | 12.82 | L605 | 174.84 | 327.34 | 6.12 | 15.72 | L604 n | -2219.17 | 11.03 | 20.63 | PEINE | |
| | 2.90 | 251.48 | 177.72 | 2.70 | 12.30 | L601/L603 | 239.63 | 120.96 | 4.83 | 14.43 | L601/L604 n | -2219.17 | 11.03 | 20.63 | PEINE | |
| 9.80 | 1.00 | 205.80 | 477.14 | 3.29 | 13.09 | L605 | 181.38 | 349.07 | 6.26 | 16.06 | L604 n/L605 | -2353.75 | 11.24 | 21.04 | PEINE | |
| | 2.90 | 259.88 | 195.92 | 2.77 | 12.57 | L602/L603 | 247.16 | 133.90 | 4.98 | 14.78 | L601/L604 n | -2353.75 | 11.24 | 21.04 | PEINE | |
| 10.00 | 1.00 | 213.42 | 507.73 | 3.35 | 13.35 | L606 n | 188.03 | 371.73 | 6.39 | 16.39 | L604 n/L605 | -2493.65 | 11.46 | 21.46 | PEINE | |
| | 3.00 | 217.17 | 202.47 | 2.81 | 12.81 | L602/L603 | 258.23 | 137.99 | 5.04 | 15.04 | L601/L604 n | -2493.65 | 11.46 | 21.46 | PEINE | |

The selected section is a minimum section according to the structural strength requirements for steel grade S 270 GP. Structurally required section/section selected for ease of driving.

Design tables conforming to EAB

Calculation

35.0°

LF 2

| | | | | | |
|--------------------------|----------------------------|---|---------------------|---------------|-----------------|
| Ground load: | $p = 10$ | kN/m^2 (constant load) | Bulk density | $\gamma = 19$ | kN/m^3 |
| | | | | $\gamma' = 9$ | kN/m^3 |
| Angle of incline: | $\varphi' = 35.0^\circ$ | (unanchored wall $\delta_D = 1/2 \varphi$) | | | |
| | $\delta = \pm 2/3 \varphi$ | (anchored wall: redistribution of soil pressure as far as bottom of pit, previous construction states disregarded, design values) | | | |

| h | h _A | Freely supported wall | | | | | Fully pinned wall | | | | | Unanchored wall | | | | |
|------|----------------|-----------------------|---------------------|------|------|---------|-------------------|---------------------|------|------|-----------|---------------------|------|-------|---------|----------------|
| | | A _{h,d} | max. M _d | t | L | Section | A _{h,d} | max. M _d | t | L | Section | min. M _d | t | L | Section | W _k |
| [m] | [m] | [kN/m] | [kNm/m] | [m] | [m] | | [kN/m] | [kNm/m] | [m] | [m] | | [kNm/m] | [m] | [m] | | [mm] |
| 2.00 | 0.20 | 10.38 | 4.82 | 0.63 | 2.63 | L601 | 9.15 | 3.53 | 1.22 | 3.22 | L601 | -24.89 | 2.25 | 4.25 | L601 | 4.1 |
| | 0.60 | 13.26 | 1.85 | 0.52 | 2.52 | | 12.65 | 1.68 | 0.95 | 2.95 | | | | | | |
| 2.20 | 0.20 | 12.03 | 6.29 | 0.68 | 2.88 | L601 | 10.58 | 4.61 | 1.34 | 3.54 | L601 | -31.67 | 2.43 | 4.63 | L601 | 6.2 |
| | 0.70 | 15.83 | 2.44 | 0.55 | 2.75 | | 15.19 | 2.44 | 0.99 | 3.19 | | | | | | |
| 2.40 | 0.20 | 13.84 | 8.07 | 0.74 | 3.14 | L601 | 12.12 | 5.89 | 1.45 | 3.85 | L601 | -39.54 | 2.62 | 5.02 | L601 | 9.1 |
| | 0.70 | 17.80 | 3.12 | 0.61 | 3.01 | | 16.94 | 2.59 | 1.12 | 3.52 | | | | | | |
| 2.60 | 0.30 | 16.26 | 9.26 | 0.78 | 3.38 | L601 | 14.38 | 6.74 | 1.51 | 4.11 | L601 | -48.60 | 2.81 | 5.41 | L601 | 13.0 |
| | 0.80 | 19.92 | 4.42 | 0.67 | 3.27 | | 18.82 | 3.05 | 1.25 | 3.85 | | | | | | |
| 2.80 | 0.30 | 18.30 | 11.49 | 0.83 | 3.63 | L601 | 16.15 | 8.38 | 1.63 | 4.43 | L601 | -58.92 | 2.99 | 5.79 | L601 | 18.0 |
| | 0.80 | 23.00 | 4.88 | 0.70 | 3.50 | | 21.84 | 3.78 | 1.30 | 4.10 | | | | | | |
| 3.00 | 0.30 | 20.49 | 14.11 | 0.89 | 3.89 | L601 | 18.02 | 10.25 | 1.74 | 4.74 | L601 | -70.59 | 3.18 | 6.18 | L601 | 24.6 |
| | 1.00 | 29.81 | 6.52 | 0.76 | 2.96 | | 25.09 | 5.03 | 1.34 | 4.34 | | | | | | |
| 3.20 | 0.30 | 22.78 | 17.01 | 0.94 | 4.14 | L601 | 20.00 | 12.38 | 1.85 | 5.05 | L601 | -83.68 | 3.36 | 6.56 | L601 | 32.9 |
| | 1.00 | 29.81 | 6.52 | 0.76 | 2.96 | | 28.57 | 6.52 | 1.39 | 4.59 | | | | | | |
| 3.40 | 1.00 | 25.18 | 20.28 | 0.99 | 4.39 | L601 | 22.08 | 14.77 | 1.96 | 5.36 | L601 | -98.28 | 3.54 | 6.94 | L603 | 26.7 |
| | 0.40 | 32.50 | 7.78 | 0.82 | 4.22 | | 30.96 | 6.82 | 1.51 | 4.91 | | | | | | |
| 3.60 | 0.40 | 28.42 | 22.56 | 1.04 | 4.64 | L601 | 25.05 | 16.34 | 2.04 | 5.64 | L601 | -114.47 | 3.73 | 7.33 | L603 | 34.6 |
| | 1.10 | 36.39 | 8.62 | 0.85 | 4.45 | | 34.79 | 8.62 | 1.56 | 5.16 | | | | | | |
| 3.80 | 0.40 | 31.09 | 26.49 | 1.09 | 4.89 | L601 | 27.36 | 19.21 | 2.14 | 5.94 | L601 | -132.32 | 3.91 | 7.71 | L603 | 44.2 |
| | 1.10 | 39.37 | 10.86 | 0.91 | 4.71 | | 37.43 | 9.00 | 1.69 | 5.49 | | | | | | |
| 4.00 | 0.40 | 33.88 | 30.85 | 1.14 | 5.14 | L601 | 29.78 | 22.39 | 2.26 | 6.26 | L601 | -151.92 | 4.10 | 8.10 | L604 n | 34.2 |
| | 1.20 | 43.61 | 11.64 | 0.94 | 4.94 | | 41.62 | 11.15 | 1.74 | 5.74 | | | | | | |
| 4.20 | 0.40 | 36.85 | 35.77 | 1.20 | 5.40 | L601 | 32.30 | 25.90 | 2.37 | 6.57 | L601 | -173.35 | 4.28 | 8.48 | L604 n | 42.9 |
| | 1.30 | 48.08 | 13.60 | 0.97 | 5.17 | | 46.03 | 13.60 | 1.79 | 5.99 | | | | | | |
| 4.40 | 0.40 | 39.88 | 41.05 | 1.25 | 5.65 | L601 | 34.93 | 29.75 | 2.48 | 6.88 | L601 | -196.69 | 4.46 | 8.86 | L605 | 38.0 |
| | 1.30 | 51.49 | 15.61 | 1.03 | 5.43 | | 49.06 | 14.12 | 1.91 | 6.31 | | | | | | |
| 4.60 | 0.50 | 43.85 | 44.55 | 1.29 | 5.89 | L601 | 38.62 | 32.25 | 2.55 | 7.15 | L601 | -222.03 | 4.65 | 9.25 | L605 | 46.7 |
| | 1.40 | 56.33 | 16.87 | 1.06 | 5.66 | | 53.83 | 16.97 | 1.96 | 6.56 | | | | | | |
| 4.80 | 0.50 | 47.20 | 50.80 | 1.35 | 6.15 | L601 | 41.48 | 37.70 | 2.66 | 7.46 | L601 | -249.43 | 4.84 | 9.64 | L606 n | 44.4 |
| | 1.40 | 60.03 | 20.39 | 1.12 | 5.92 | | 57.11 | 17.57 | 2.08 | 6.88 | | | | | | |
| 5.00 | 0.50 | 50.63 | 57.44 | 1.40 | 6.40 | L601 | 44.44 | 41.54 | 2.77 | 7.77 | L601 | -278.99 | 5.01 | 10.01 | L606 n | 53.6 |
| | 1.50 | 65.22 | 21.58 | 1.15 | 6.15 | | 62.24 | 20.86 | 2.14 | 7.14 | | | | | | |
| 5.20 | 0.50 | 54.17 | 64.63 | 1.45 | 6.65 | L601 | 47.50 | 46.77 | 2.88 | 8.08 | L601/L602 | -310.78 | 5.20 | 10.40 | L607 n | 48.4 |
| | 1.60 | 70.64 | 24.52 | 1.18 | 6.38 | | 67.59 | 24.52 | 2.18 | 7.38 | | | | | | |
| 5.40 | 0.50 | 57.89 | 72.57 | 1.51 | 6.91 | L601 | 50.67 | 52.42 | 2.99 | 8.39 | L601/L602 | -344.89 | 5.38 | 10.78 | L607 n | 57.6 |
| | 1.60 | 74.77 | 27.45 | 1.24 | 6.64 | | 71.26 | 25.31 | 2.31 | 7.71 | | | | | | |
| 5.60 | 0.60 | 62.64 | 77.68 | 1.55 | 7.15 | L601 | 55.08 | 56.07 | 3.07 | 8.67 | L601/L602 | -381.39 | 5.56 | 11.16 | L430 | 20.5 |
| | 1.70 | 80.56 | 29.45 | 1.27 | 6.87 | | 76.96 | 29.45 | 2.36 | 7.96 | | | | | | |
| 5.80 | 0.60 | 66.57 | 86.44 | 1.60 | 7.40 | L601 | 58.48 | 62.44 | 3.18 | 8.98 | L601/L602 | -420.37 | 5.74 | 11.54 | L430 | 24.1 |
| | 1.70 | 84.98 | 34.29 | 1.33 | 7.13 | | 80.88 | 30.34 | 2.48 | 8.28 | | | | | | |
| 6.00 | 0.60 | 70.69 | 96.05 | 1.66 | 7.66 | L601 | 61.98 | 69.27 | 3.29 | 9.29 | L601/L603 | -461.90 | 5.93 | 11.93 | L430 | 28.2 |
| | 1.80 | 91.12 | 35.98 | 1.36 | 7.36 | | 86.95 | 35.01 | 2.53 | 8.53 | | | | | | |

The selected section is a minimum section according to the structural strength requirements for steel grade S 270 GP. Structurally required section/section selected for ease of driving.

1.6

Design tables conforming to EAB

Calculation

35.0°

LF 2

| | | | | | |
|--------------------------|----------------------------|---|---------------------|---------------|-----------------|
| Ground load: | $p = 10$ | kN/m^2 (constant load) | Bulk density | $\gamma = 19$ | kN/m^3 |
| | | | | $\gamma' = 9$ | kN/m^3 |
| Angle of incline: | $\varphi' = 35.0^\circ$ | (unanchored wall $\delta_p = 1/2 \varphi$) | | | |
| | $\delta = \pm 2/3 \varphi$ | (anchored wall: redistribution of soil pressure as far as bottom of pit, previous construction states disregarded, design values) | | | |

| h | h _A | Freely supported wall | | | | | Fully pinned wall | | | | | Unanchored wall | | | | |
|-------|----------------|-----------------------|---------------------|------|-------|-----------|-------------------|---------------------|------|-------|------------|---------------------|------|-------|---------|----------------|
| | | A _{h,d} | max. M _d | t | L | Section | A _{h,d} | max. M _d | t | L | Section | min. M _d | t | L | Section | W _k |
| [m] | [m] | [kN/m] | [kNm/m] | [m] | [m] | | [kN/m] | [kNm/m] | [m] | [m] | | [kNm/m] | [m] | [m] | | [mm] |
| 6.20 | 0.60 | 74.85 | 106.04 | 1.71 | 7.91 | L601 | 65.59 | 76.57 | 3.39 | 9.59 | L601/L603 | -506.07 | 6.12 | 12.32 | L430 | 33.0 |
| | 1.90 | 97.48 | 40.11 | 1.39 | 7.59 | | 93.23 | 40.11 | 2.57 | 8.77 | L601/L602 | | | | | |
| 6.40 | 0.60 | 79.18 | 116.88 | 1.76 | 8.16 | L601/L602 | 69.30 | 84.36 | 3.51 | 9.91 | L601/L603 | -552.96 | 6.29 | 12.69 | L430 | 38.3 |
| | 1.90 | 102.30 | 44.00 | 1.44 | 7.84 | L601 | 97.54 | 41.22 | 2.70 | 9.10 | | | | | | |
| 6.60 | 0.70 | 84.73 | 124.04 | 1.81 | 8.41 | L601/L602 | 74.43 | 89.37 | 3.58 | 10.18 | L601/L603 | -602.66 | 6.48 | 13.08 | L430 | 44.3 |
| | 2.00 | 109.07 | 46.90 | 1.48 | 8.08 | | 104.18 | 46.90 | 2.75 | 9.35 | | | | | | |
| 6.80 | 0.70 | 89.26 | 135.79 | 1.85 | 8.65 | L601/L602 | 78.37 | 98.01 | 3.69 | 10.49 | L601/L603 | -655.23 | 6.66 | 13.46 | L430 | 50.9 |
| | 2.00 | 114.17 | 53.25 | 1.53 | 8.33 | | 108.75 | 48.12 | 2.88 | 9.58 | | | | | | |
| 7.00 | 0.70 | 93.98 | 148.55 | 1.91 | 8.91 | L601/L602 | 82.42 | 107.18 | 3.80 | 10.80 | L601/L603 | -710.76 | 6.85 | 13.85 | L430 | 58.5 |
| | 2.10 | 121.30 | 55.63 | 1.57 | 8.57 | | 115.75 | 54.41 | 2.92 | 9.92 | | | | | | |
| 7.20 | 0.70 | 98.82 | 162.19 | 1.96 | 9.16 | L601/L603 | 86.57 | 116.89 | 3.92 | 11.12 | L601/L603 | -769.33 | 7.02 | 14.22 | L430 | 66.7 |
| | 2.20 | 128.65 | 61.19 | 1.60 | 8.80 | L601/L603 | 122.97 | 61.19 | 2.97 | 10.17 | | | | | | |
| 7.40 | 0.70 | 103.78 | 176.38 | 2.02 | 9.42 | L601/L603 | 90.83 | 127.16 | 4.02 | 11.42 | L601/L603 | -831.03 | 7.21 | 14.61 | L430 | 76.1 |
| | 2.20 | 134.19 | 66.41 | 1.66 | 9.06 | | 127.92 | 62.68 | 3.10 | 10.50 | | | | | | |
| 7.60 | 0.80 | 110.12 | 185.78 | 2.06 | 9.66 | L602/L603 | 96.67 | 133.75 | 4.09 | 11.69 | L601/L603 | -895.93 | 7.39 | 14.99 | L430 | 86.2 |
| | 2.30 | 141.84 | 70.12 | 1.68 | 9.28 | L601/L603 | 135.50 | 70.12 | 3.14 | 10.74 | | | | | | |
| 7.80 | 0.80 | 151.35 | 201.46 | 2.12 | 9.92 | L602/L603 | 101.16 | 144.99 | 4.21 | 12.01 | L601/L603 | -964.12 | 7.58 | 15.38 | L430 | 97.6 |
| | 2.30 | 147.73 | 78.48 | 1.75 | 9.55 | L601/L603 | 140.70 | 71.74 | 3.27 | 11.07 | | | | | | |
| 8.00 | 0.80 | 120.62 | 217.60 | 2.16 | 10.16 | L603 | 105.75 | 156.84 | 4.31 | 12.31 | L601/L603 | -1035.67 | 7.76 | 15.76 | PEINE | |
| | 2.40 | 155.75 | 81.28 | 1.77 | 9.77 | L601/L603 | 148.64 | 79.88 | 3.32 | 11.32 | | | | | | |
| 8.20 | 0.80 | 126.10 | 234.97 | 2.22 | 10.42 | L603 | 110.45 | 169.30 | 4.43 | 12.63 | L601/L603 | -1110.67 | 7.94 | 16.14 | PEINE | |
| | 2.50 | 164.05 | 88.59 | 1.81 | 10.01 | L601/L603 | 156.80 | 88.59 | 3.36 | 11.56 | | | | | | |
| 8.40 | 0.80 | 131.70 | 253.22 | 2.27 | 10.67 | L603 | 115.25 | 182.40 | 4.53 | 12.93 | L601/L603 | -1189.19 | 8.13 | 16.53 | PEINE | |
| | 2.50 | 170.30 | 95.06 | 1.86 | 10.26 | L601/L603 | 162.38 | 90.51 | 3.49 | 11.89 | | | | | | |
| 8.60 | 0.90 | 138.81 | 265.19 | 2.32 | 10.92 | L603 | 121.81 | 190.78 | 4.61 | 13.21 | L602/L604n | -1271.33 | 8.31 | 16.91 | PEINE | |
| | 2.60 | 178.98 | 99.97 | 1.90 | 10.50 | L601/L603 | 170.90 | 99.97 | 3.53 | 12.13 | L601/L603 | | | | | |
| 8.80 | 0.90 | 144.68 | 284.99 | 2.37 | 11.17 | L603 | 126.84 | 204.98 | 4.72 | 13.52 | L603/L604n | -1357.15 | 8.49 | 17.29 | PEINE | |
| | 2.60 | 185.51 | 110.29 | 1.95 | 10.75 | L601/L603 | 176.74 | 102.04 | 3.66 | 12.46 | L601/L603 | | | | | |
| 9.00 | 0.90 | 150.57 | 305.26 | 2.42 | 11.42 | L604 n | 131.98 | 219.84 | 4.83 | 13.83 | L603/L604n | -1446.74 | 8.67 | 17.67 | PEINE | |
| | 2.70 | 194.55 | 114.15 | 1.99 | 10.99 | L601/L603 | 185.62 | 112.27 | 3.71 | 12.71 | L601/L603 | | | | | |
| 9.20 | 0.90 | 156.69 | 326.95 | 2.47 | 11.67 | L604 n | 137.22 | 235.41 | 4.94 | 14.14 | L603/L604n | -1540.18 | 8.86 | 18.06 | PEINE | |
| | 2.80 | 201.37 | 127.05 | 2.04 | 11.24 | L601/L603 | 191.71 | 114.51 | 3.84 | 13.04 | L601/L603 | | | | | |
| 9.40 | 0.90 | 162.92 | 349.64 | 2.53 | 11.93 | L604 n | 142.56 | 251.67 | 5.05 | 14.45 | L603/L604n | -1637.56 | 9.04 | 18.44 | PEINE | |
| | 2.80 | 210.78 | 131.31 | 2.08 | 11.48 | L601/L603 | 200.94 | 125.55 | 3.88 | 13.28 | L601/L604n | | | | | |
| 9.60 | 1.00 | 170.82 | 364.47 | 2.57 | 12.17 | L604 n | 149.84 | 261.06 | 5.13 | 14.73 | L603/L604n | -1738.94 | 9.22 | 18.82 | PEINE | |
| | 2.90 | 220.33 | 137.25 | 2.10 | 11.70 | L601/L603 | 210.39 | 137.25 | 3.93 | 13.53 | L601/L604n | | | | | |
| 9.80 | 1.00 | 177.32 | 388.87 | 2.63 | 12.43 | L604 n | 155.42 | 279.54 | 5.23 | 15.03 | L603/L604n | -1844.42 | 9.40 | 19.20 | PEINE | |
| | 2.90 | 227.65 | 150.10 | 2.17 | 11.97 | L601/L603 | 216.88 | 139.83 | 4.06 | 13.86 | L601/L604n | | | | | |
| 10.00 | 1.00 | 183.84 | 413.74 | 2.67 | 12.67 | L605 | 161.10 | 297.78 | 5.35 | 15.35 | L604 n | -1954.07 | 9.59 | 19.59 | PEINE | |
| | 3.00 | 237.57 | 154.43 | 2.19 | 12.19 | L601/L603 | 226.69 | 152.39 | 4.10 | 14.10 | L601/L604n | | | | | |

The selected section is a minimum section according to the structural strength requirements for steel grade S 270 GP. Structurally required section/section selected for ease of driving.

Design tables conforming to EAB

Bending moments withstood by LARSSEN sheet pile sections

| Section | Modulus of elasticity $W_{y,el}$ [cm ³ /m] | Withstandable bending moments $M_{y,Rd}$ $W_{y,el} / 1000 * f_{yk} / 1,1$ | | | | | |
|-------------------|--|--|---------------------|---------------------|---------------------|---------------------|---------------------|
| | | S 240 GP [kNm/m] | S 270 GP [kNm/m] | S 320 GP [kNm/m] | S 355 GP [kNm/m] | S 390 GP [kNm/m] | S 430 GP [kNm/m] |
| LARSSEN 755 | 2000 | 436 | 491 | 582 | 645 | 709 | 782 |
| LARSSEN 703 | 1210 | 264 | 297 | 352 | 391 | 429 | 473 |
| LARSSEN 703 K | 1300 | 284 | 319 | 378 | 420 | 461 | 508 |
| LARSSEN 703 10/10 | 1340 | 292 | 329 | 390 | 432 | 475 | 524 |
| LARSSEN 704 | 1600 | 349 | 393 | 465 | 516 | 567 | 625 |
| LARSSEN 600 | 510 | 111 | 125 | 148 | 165 | 181 | 199 |
| LARSSEN 600 K | 540 | 118 | 133 | 157 | 174 | 191 | 211 |
| LARSSEN 601 | 745 | 163 | 183 | 217 | 240 | 264 | 291 |
| LARSSEN 602 | 830 | 181 | 204 | 241 | 268 | 294 | 324 |
| LARSSEN 603 | 1200 | 262 | 295 | 349 | 387 | 425 | 469 |
| LARSSEN 603 K | 1240 | 271 | 304 | 361 | 400 | 440 | 485 |
| LARSSEN 603 10/10 | 1260 | 275 | 309 | 367 | 407 | 447 | 493 |
| LARSSEN 604 n | 1600 | 349 | 393 | 465 | 516 | 567 | 625 |
| LARSSEN 605 | 2020 | 441 | 496 | 588 | 652 | 716 | 790 |
| LARSSEN 605 K | 2030 | 443 | 498 | 591 | 655 | 720 | 794 |
| LARSSEN 606 n | 2500 | 545 | 614 | 727 | 807 | 886 | 977 |
| LARSSEN 628 | 2780 | 607 | 682 | 809 | 897 | 986 | 1087 |
| LARSSEN 607 n | 3200 | 98 | 785 | 931 | 1033 | 1135 | 1251 |
| LARSSEN 22 10/10 | 1300 | 284 | 319 | 378 | 420 | 461 | 508 |
| LARSSEN 23 | 2000 | 436 | 491 | 582 | 645 | 709 | 782 |
| LARSSEN 24 | 2500 | 545 | 614 | 727 | 807 | 886 | 977 |
| LARSSEN 24/12 | 2550 | 556 | 626 | 742 | 823 | 904 | 997 |
| LARSSEN 25 | 3040 | 663 | 746 | 884 | 981 | 1078 | 1188 |
| LARSSEN 43 | 1660 | 362 | 407 | 483 | 536 | 589 | 649 |
| LARSSEN 430 | 6450 | 1407 | 1583 | 1876 | 2082 | 2287 | 2521 |

The given values only apply to calculations conforming to the new safety strategy (design values to EN 1993-5). Without interaction – values refer **solely** to flexural stressing, and reduction factors have been disregarded. The values refer to elastic design for Class 3 cross sections. Plastic exploitation of the cross section, which is permitted for Class 1 and 2 sections, has been disregarded here.

 These are Class 4 cross sections on which local denting has reduced cross-sectional strength. This means that additional proof of structural strength is required. These values cannot be exploited to their full extent.

Bending moments withstood by LARSEN sheet pile sections

| Section | Modulus of elasticity | Withstandable bending moments $M_{y,Rd}$ | | | | | |
|---------------|-----------------------|--|----------|----------|----------|----------|----------|
| | | $W_{y,el} / 1000 * f_{yk} / 1,1$ | | | | | |
| | | S 240 GP | S 270 GP | S 320 GP | S 355 GP | S 390 GP | S 430 GP |
| | $W_{y,el} [cm^3/m]$ | [kNm/m] | [kNm/m] | [kNm/m] | [kNm/m] | [kNm/m] | [kNm/m] |
| HOESCH 1105 | 1100 | 240 | 270 | 320 | 355 | 390 | 430 |
| HOESCH 1205 | 1140 | 249 | 280 | 332 | 368 | 404 | 446 |
| HOESCH 1205 K | 1200 | 262 | 295 | 349 | 387 | 425 | 469 |
| HOESCH 1255 | 1250 | 273 | 307 | 364 | 403 | 443 | 489 |
| HOESCH 1605 | 1600 | 349 | 393 | 465 | 516 | 567 | 625 |
| HOESCH 1655 | 1650 | 360 | 405 | 480 | 533 | 585 | 645 |
| HOESCH 1705 | 1720 | 375 | 422 | 500 | 555 | 610 | 672 |
| HOESCH 1705 K | 1700 | 371 | 417 | 495 | 549 | 603 | 665 |
| HOESCH 1755 | 1750 | 382 | 430 | 509 | 565 | 620 | 684 |
| HOESCH 1805 | 1800 | 393 | 442 | 524 | 581 | 638 | 704 |
| HOESCH 2305 | 2320 | 506 | 569 | 675 | 749 | 823 | 907 |
| HOESCH 2405 | 2400 | 524 | 589 | 698 | 775 | 851 | 938 |
| HOESCH 2505 | 2480 | 541 | 609 | 721 | 800 | 879 | 969 |
| HOESCH 2555 K | 2540 | 554 | 623 | 739 | 820 | 901 | 993 |
| HOESCH 2555 | 2550 | 556 | 626 | 742 | 823 | 904 | 997 |
| HOESCH 2605 | 2600 | 567 | 638 | 756 | 839 | 922 | 1016 |

The given values only apply to calculations conforming to the new safety strategy (design values to EN 1993-5).

Without interaction – values refer **solely** to flexural stressing, and reduction factors have been disregarded.

The values refer to elastic design for Class 3 cross sections. Plastic exploitation of the cross section, which is permitted for Class 1 and 2 sections, has been disregarded here.