

# SteelWall®

Connectors for steel sheet pile walls

2023



LOtn connects  
Larsen Z sheet piles



LPB100-10 connects a pipe and Larssen Z sheet pile (eccentrically)

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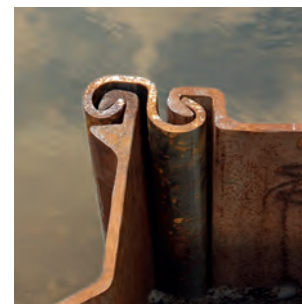
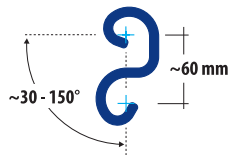


LPB100-10 eccentrically welded to a pipe

**LV20n**

For Larsen sheet piles (U, Z, Hat-type)

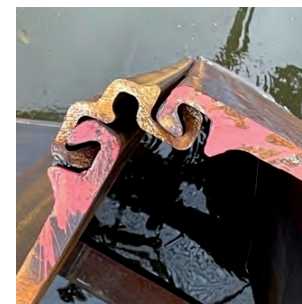
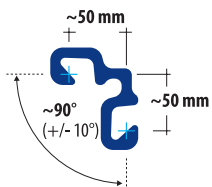
Steel grade: S355J2  
Steel thickness: 8 mm  
Standard lengths:  
11.8 m, 14 m, 18 m  
Weight: 14.07 kg/m



**LLS90**

For Larsen sheet piles (U, Z, Hat-type)

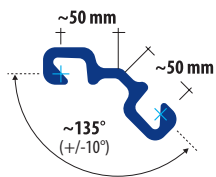
Steel grade: S355J2  
Steel thickness: 9 mm  
Standard lengths:  
8 m, 11.8 m  
Weight: 17.66 kg/m



**LLS135**

For Larsen sheet piles (U, Z, Hat-type)

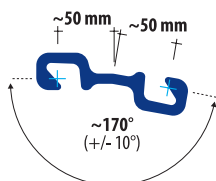
Steel grade: S355J2  
Steel thickness: 9 mm  
Standard lengths:  
8 m, 11.8 m, 18 m  
Weight: 17.66 kg/m



**LLS170**

For Larsen sheet piles (U, Z, Hat-type)

Steel grade: S355J2  
Steel thickness: 9 mm  
Standard lengths:  
8 m, 11.8 m, 18 m  
Weight: 17.63 kg/m



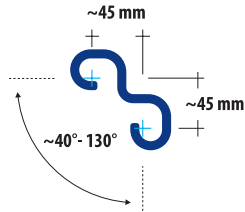


## Larsen Omega corner connectors

### LVO

Steel grade: S355J2  
 Steel thickness: 8 mm  
 Standard lengths: 11.8 m, 14 m, 18 m  
 Weight: 13.85 kg/m  
 This connector will be modified in 2023 and thereafter enable angular positions of approx. 55°-145° (VL603/AZ18). The modified profile will be marked with an additional „n“ LVOn.

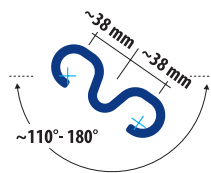
Omega corner connector



### LV-Omega

Steel grade: S355J2  
 Steel thickness: 8 mm  
 Standard lengths: 11.8 m, 14 m, 18 m  
 Weight: 14.04 kg/m

Omega corner connector

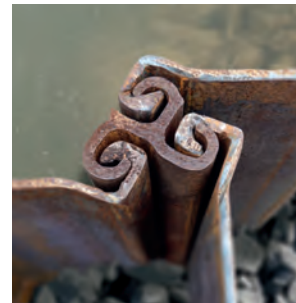
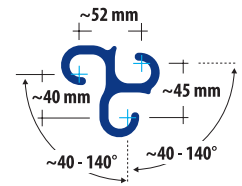


## Larsen T connectors

### LTn

Steel grade: S355GP  
 Steel thickness: 8 mm  
 Standard length: 13.8 m  
 Weight: 15.5 kg/m

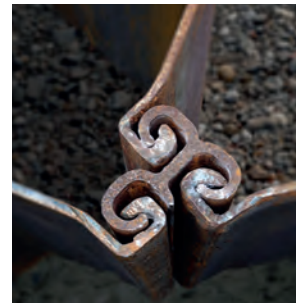
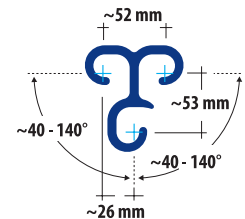
T connector



### LOTn

Steel grade: S355GP  
 Steel thickness: 8 mm  
 Standard length: 13.8 m  
 Weight: 17.2 kg/m

T connector



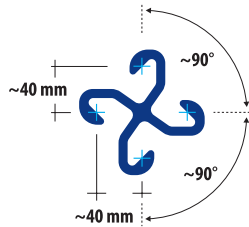
## Larssen cross connector

### Cold-formed corner connector, weld-on

#### L4S

For Larssen sheet piles  
(U, Z, Hat-type)

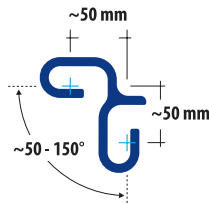
Steel grade: S355J2  
Steel thickness: 8 mm  
Standard length: 11.8 m  
Weight: 23.2 kg/m



#### CF90

Corner connector for midsize  
cold-formed sheet piles

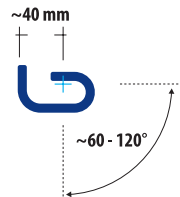
Steel grade: S355GP  
Steel thickness: 8 mm  
Standard length: 13.45 m  
Weight: 17.5 kg/m



#### CF-Junction

Weld-on connector for midsize  
cold-formed sheet piles

Steel grade: S355J2  
Steel thickness: 8 mm  
Standard length: 11.8 m  
Weight: 8.87 kg/m



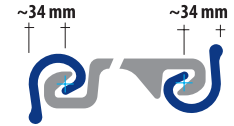
## Larssen

### Combined wall connectors

#### LV22

For Larssen sheet piles  
(U, Z, Hat-type)

Steel grade: S355J2  
Steel thickness: 8 mm  
Standard length: 11.8 m  
Weight: 8.02 kg/m



#### L8

For Larssen sheet piles  
(U, Z)\*

Steel grade: S355J2  
Steel thickness: 9.5 mm  
Standard length: 11.8 m  
Weight: 8.47 kg/m



#### LPB100-9A

For Larssen sheet piles  
(U, Z, Hat-type)\*

Steel grade: S355J2  
Steel thickness: 9 mm  
Standard lengths: 8 m, 11.8 m  
Weight: 9.05 kg/m



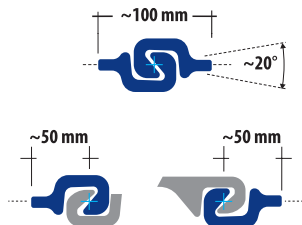
\* Exceptions are Russian L4/L5 and Japanese SP-IVw sheet piles.  
The Japanese SP-IVw fits with all 8 and 9 mm thick SteelWall connectors.

# Larsen Pipe pile, H-pile and combined wall connectors

## LPB100-10

For Larsen sheet piles (U, Z)\*

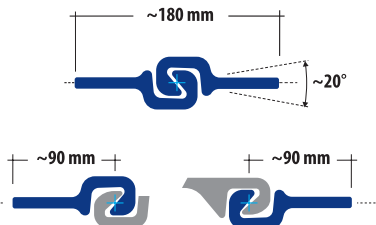
Steel grade: S355J2  
Steel thickness: 10 mm  
Standard lengths: 8 m, 11.8 m  
Weight: 9.86 kg/m  
Max. tensile strength: 980 kN/m



## LPB180-10

For Larsen sheet piles (U, Z)\*

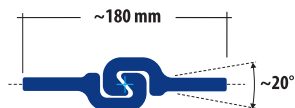
Steel grades: S355J2, S430GP  
Steel thickness: 10 mm  
Standard lengths: 8 m, 11.8 m  
Weight: 12.94 kg/m  
Max. tensile strength: 1,026 kN/m



## LPB180-12

Not suitable for Larsen sheet piles

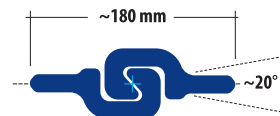
Steel grade: S355J2  
Steel thickness: 12 mm  
Standard lengths: 8 m, 11.8 m  
Weight: 14.5 kg/m  
Max. tensile strength: 1,502 kN/m



## LPB180-16

Not suitable for Larsen sheet piles

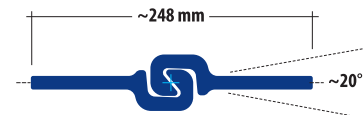
Steel grade: S355J2  
Steel thickness: 16 mm  
Standard lengths: 8 m, 11.8 m  
Weight: 22.4 kg/m  
Max. tensile strength:  
please see LPB300-16



## LPB248-12

Not suitable for Larsen sheet piles

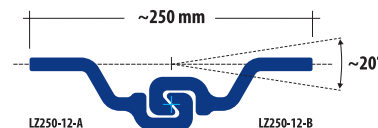
Steel grade: S355J2  
Steel thickness: 12 mm  
Standard lengths: 8 m, 11.8 m  
Weight: 18.26 kg/m  
Max. tensile strength:  
~1,500 kN/m



## LZ250-12A, LZ250-12B

Not suitable for Larsen sheet piles

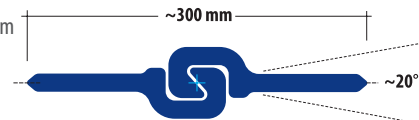
Steel grade: S355J2  
Steel thickness: 12 mm  
Standard lengths: 8 m, 11.8 m  
Weight: 19.48 kg/m each  
Max. tensile strength:  
1,200 kN/m



## LPB300-16

Not suitable for Larsen sheet piles

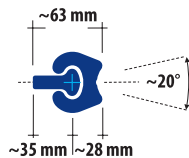
Steel grade: S355J2  
Steel thickness: 16 mm  
Standard lengths: 8 m, 11.8 m  
Weight: 29.65 kg/m  
Max. tensile strength:  
1,828 kN/m



## MF high tensile connectors For pipe pile and H pile steel walls

### MF63

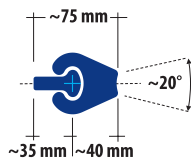
Steel grade M35: S355J2, F28: S355J2/-GP  
Steel thickness: 12 mm  
Standard lengths: 8 m, 11.8 m  
Weight M35: 4.76 kg/m  
Weight F28: 10.7 kg/m  
Max. tensile strength: 2,552 kN/m (FEM)



OOO III

### MF75

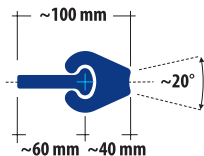
Steel grade: S355J2  
Steel thickness: 12 mm  
Standard lengths: 8 m, 11.8 m  
Weight M35: 4.76 kg/m  
Weight F40: 14.28 kg/m  
Max. tensile strength: 3,419 kN/m



OOO III

### MF100

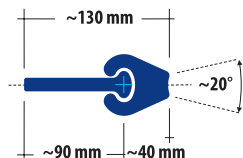
Steel grade: S355J2  
Steel thickness: 12 mm  
Standard lengths: 8 m, 11.8 m  
Weight M60: 6.9 kg/m  
Weight F40: 14.28 kg/m  
Max. tensile strength: 3,419 kN/m



OOO III

### MF130

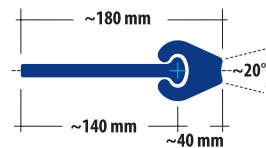
Steel grade: S355J2  
Steel thickness: 12 mm  
Standard lengths: 8 m, 11.8 m  
Weight M90: 9.76 kg/m  
Weight F40: 14.28 kg/m  
Max. tensile strength: 3,419 kN/m



OOO III

### MF180a

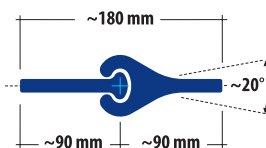
Steel grade: S355J2  
Steel thickness: 12 mm  
Standard lengths: 8 m, 11.8 m  
Weight M140: 14.77 kg/m  
Weight F40: 14.28 kg/m  
Max. tensile strength: 3,419 kN/m



OOO III

### MF180b

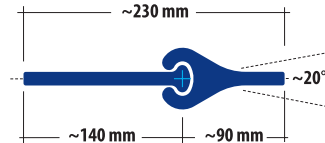
Steel grade: S355J2  
Steel thickness: 12 mm  
Standard lengths: 8 m, 11.8 m  
Weight M90: 9.76 kg/m  
Weight F90: 18.42 kg/m  
Max. tensile strength: 2,128 kN/m



OOO III

### MF230

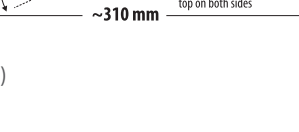
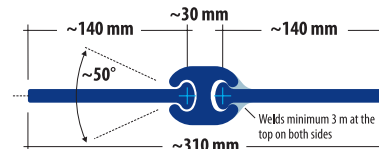
Steel grade: S355J2  
Steel thickness: 12 mm  
Standard lengths: 8 m, 11.8 m  
Weight M140: 14.77 kg/m  
Weight F90: 18.42 kg/m  
Max. tensile strength: 2,128 kN/m



OOO III

### MDF310

Steel grade M140: S355J2  
Steel grade DF: S430GP  
Steel thickness: 12 mm  
Standard lengths: 8 m, 11.8 m  
Weight M140: 14.77 kg/m  
Weight DF: 14.62 kg/m  
Max. tensile strength: 3,204 kN/m (FEM)



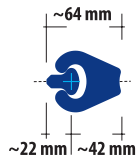
OOO III



## MF high tensile connectors For DTH driving method

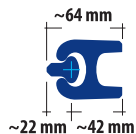
### MF64

Steel grade: S355J2  
 Steel thickness: 12 mm  
 Standard lengths: 8 m, 11.8 m  
 Weight M22: 3.42 kg/m  
 Weight F40: 14.28 kg/m  
 Max. tensile strength: 3,419 kN/m  
 Exclusively for DTH driving method



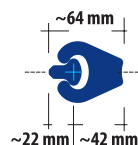
### MF64-IC

Steel grade: S355J2  
 Steel thickness: 10-12 mm  
 Standard lengths: 8 m, 11.8 m  
 Weight M22: 3.42 kg/m  
 Weight F40-IC: 13.55 kg/m  
 Max. tensile strength: 3,167 kN/m  
 Exclusively for DTH driving method



## MF64 high tensile connectors Comparative tensile test with WOM-S/WOF-S

### MF64

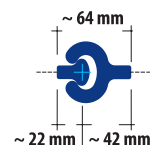


Test setup



After testing, failure through deformation

### WOM-S / WOF-S



Sample no.	Maximum force $F_m$		Length of the clutch bar		Length-related maximum resilience		
	[kN]	[lb]	[mm]	[in]	[kN/m]	[t/m]	[kip/in]
P1Z1 (WOM-S/WOF-S)	111,97	25.171,83	50,5	1,99	2.217,23	226,09	12,66
P2Z1 (MF64, S355)	168,92	37.974,69	49,4	1,94	3.419,43	348,69	19,53

### Conclusion

It is proven that the MF64 connectors can take more than 50% more tensile force than the WOM-S/WOF-S connectors. This is very important information for pipe pile steel wall applications in the DTH driving method.

Please see/download the complete test report from our website: [steelwall.eu](http://steelwall.eu)



# SteelWall®

Connectors for steel sheet pile walls



MF75 connects pipe pile sheet piles