

Hot rolled Z Piles are stocked in our warehouses in Klang Valley, Malaysia

Steel grades of hot rolled sheet pile SHZ sections according to MS 2674-1:2017

| Steel grade | Min. yield strength | Min. tensile strength | Min. elongation | Chemical composition (% max) |      |      |       |       |       |
|-------------|---------------------|-----------------------|-----------------|------------------------------|------|------|-------|-------|-------|
|             | MPa                 | MPa                   | %               | C                            | Mn   | Si   | P     | S     | N     |
| S240GP      | 240                 | 340                   | 26              | 0.25                         | -    | -    | 0.050 | 0.050 | 0.014 |
| S270GP      | 270                 | 410                   | 24              | 0.27                         | -    | -    | 0.050 | 0.050 | 0.014 |
| S320GP      | 320                 | 440                   | 23              | 0.27                         | 1.70 | 0.60 | 0.050 | 0.050 | 0.014 |
| S355GP      | 355                 | 480                   | 22              | 0.27                         | 1.70 | 0.60 | 0.050 | 0.050 | 0.014 |
| S390GP      | 390                 | 490                   | 20              | 0.27                         | 1.70 | 0.60 | 0.050 | 0.045 | 0.014 |
| S430GP      | 430                 | 510                   | 19              | 0.27                         | 1.70 | 0.60 | 0.045 | 0.045 | 0.014 |

Tolerances on shape and dimensions of hot rolled sheet pile SHZ sections according to MS 2674-2:2017

| Designation           | Tolerances                             |
|-----------------------|----------------------------------------|
| Mass <sup>1)</sup>    | ± 5%                                   |
| Length, L             | ± 200 mm                               |
| Height, h             | h ≥ 300mm: ± 7 mm                      |
| Thickness, t          | t ≤ 8.5mm: ± 0.5 mm<br>t > 8.5mm: ± 6% |
| Width single pile, b  | ± 2% b                                 |
| Width double pile, 2b | ± 3% 2b                                |
| Straightness, q       | ≤ 0.2% L                               |
| Ends out of square    | ± 2% b                                 |

<sup>1)</sup> From the mass of the total delivery

**SG Sheet Piling Sdn Bhd**  
C-23-09 The Hub SS2, Jalan Harapan  
Seksyen 19, 46300 Petaling Jaya  
Selangor Darul Ehsan  
**Tel** :+603-7932 1663  
**Fax** :+603-7932 1163  
**Email** : sales@sgsheetpiling.com.my  
[www.sgsheetpiling.com.my](http://www.sgsheetpiling.com.my)  
[www.facebook.com/sgsheetpile](http://www.facebook.com/sgsheetpile)

# Hot Rolled Z Type Sheet Piles

Efficient and Economical.  
Readily Available Stocks.

SHZ SHEET PILES  
2020/2021



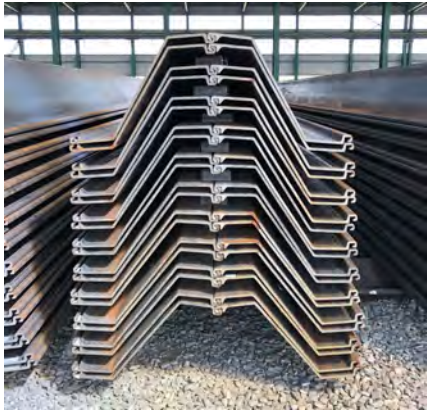
# Hot Rolled Z Pile

## Weight Advantage of SHZ Sheet Piles vs JIS Type U Sheet Piles

- ✓ SHZ 12-1 vs FSP 2 (21% Less Weight, 43% Stronger)
- ✓ SHZ 13-1 vs FSP 3 (34% Less Weight)
- ✓ SHZ 24-2 vs FSP 4 (27% Less Weight)



Efficient and Economical.  
Readily Available Stocks.



Hot Rolling Process  
of Steel Sheet Pile



Stronger Hot Rolled  
Interlock with Thumb  
to reinforce and  
prevent rotation



### Target

- ✓ River and Flood Control
- ✓ Waterfront Projects
- ✓ Infrastructure
- ✓ Reclamation
- ✓ Harbours
- ✓ Substructure
- ✓ Bridges and Wharfs
- ✓ Permanent Retaining Wall

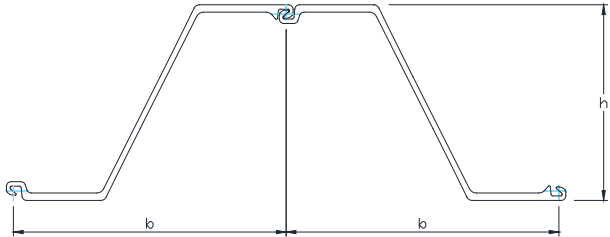


Engineered with  
'reinforced shoulders'  
yielding the optimum  
section geometry for  
hard driving

# SHZ Hot Rolled Sheet Piles

## Malaysian Standard MS 2674-1&2:2017

Z Type Sheet Piles with Larssen interlocks  
have been used in Europe for over 40 years.  
Their advantage lies in the superior design and  
dimensions, making them more efficient than  
U Type JIS Piles commonly found in Asia.



| Section  | Width<br>b | Height<br>h | Thickness<br>Flange/Web | Sectional<br>Area  | Weight | Weight            | Moment<br>of Inertia | Section<br>Modulus | Bending<br>Moment |
|----------|------------|-------------|-------------------------|--------------------|--------|-------------------|----------------------|--------------------|-------------------|
|          | mm         | mm          | mm                      | cm <sup>2</sup> /m | kg/m   | kg/m <sup>2</sup> | cm <sup>4</sup> /m   | cm <sup>3</sup> /m | kNm/m             |
| SHZ 12-1 | 770        | 343.5       | 8.6/8.5                 | 120.8              | 72.8   | 94.5              | 21496                | 1252               | 444.46            |
| SHZ 13-1 | 770        | 344         | 9.1/9.0                 | 126.5              | 76.2   | 99                | 22433                | 1304               | 462.92            |
| SHZ 14-1 | 770        | 344.5       | 9.6/9.5                 | 132.2              | 79.6   | 103.4             | 23370                | 1357               | 481.74            |
| SHZ 17-1 | 700        | 420         | 8.5/8.4                 | 132.8              | 73.3   | 104.7             | 36425                | 1735               | 615.93            |
| SHZ 18-1 | 700        | 420.5       | 9.1/9.0                 | 139.1              | 76.7   | 109.6             | 38001                | 1807               | 641.49            |
| SHZ 19-1 | 700        | 421         | 9.6/9.5                 | 145.4              | 80.2   | 114.6             | 39578                | 1880               | 667.40            |
| SHZ 20-1 | 700        | 421.5       | 10.1/10.0               | 151.7              | 83.7   | 119.5             | 41155                | 1953               | 693.32            |
| SHZ 24-2 | 700        | 459.2       | 11.3/11.2               | 174.4              | 95.8   | 136.9             | 55949                | 2437               | 865.14            |
| SHZ 26-2 | 700        | 460.2       | 12.3/12.2               | 187.4              | 103    | 147.1             | 59843                | 2601               | 923.36            |
| SHZ 27-1 | 700        | 460.7       | 12.8/12.7               | 193.6              | 106.4  | 152               | 61641                | 2676               | 949.98            |
| SHZ 28-2 | 700        | 461.2       | 13.3/13.2               | 200.4              | 110.1  | 157.3             | 63740                | 2764               | 981.22            |
| SHZ 36-1 | 700        | 499.2       | 15.1/11.2               | 216.1              | 118.7  | 169.6             | 89753                | 3596               | 1276.58           |
| SHZ 38-1 | 700        | 500.2       | 16.1/12.2               | 230.2              | 126.5  | 180.7             | 94984                | 3798               | 1348.29           |
| SHZ 40-1 | 700        | 501.2       | 17.1/13.2               | 244.4              | 134.3  | 191.8             | 100219               | 3999               | 1419.65           |
| SHZ 42-1 | 700        | 499.2       | 18.1/14.0               | 260.2              | 143    | 204.2             | 105453               | 4228               | 1500.94           |
| SHZ 44-1 | 700        | 500.2       | 19.1/15.0               | 274.3              | 150.7  | 215.3             | 110942               | 4436               | 1574.78           |
| SHZ 46-1 | 700        | 501.2       | 20.1/16.0               | 288.5              | 158.5  | 226.5             | 116159               | 4635               | 1645.43           |
| SHZ 48-1 | 700        | 503.2       | 22.1/15.0               | 290                | 159.3  | 227.6             | 120467               | 4788               | 1699.74           |
| SHZ 48-2 | 580        | 482         | 19.2/15.1               | 307.2              | 139.9  | 241.1             | 115712               | 4801               | 1704.36           |
| SHZ 50-1 | 700        | 504.2       | 23.1/16.0               | 303.4              | 166.7  | 238.2             | 125358               | 4973               | 1765.42           |
| SHZ 52-1 | 700        | 505.2       | 24.1/17.0               | 317.2              | 174.3  | 249               | 130403               | 5162               | 1832.51           |

### COMPARISON TO U TYPE JIS PILES

|       |     |     |      |       |      |     |       |      |        |
|-------|-----|-----|------|-------|------|-----|-------|------|--------|
| FSP 2 | 400 | 100 | 10.5 | 61.18 | 48   | 120 | 8740  | 874  | 257.83 |
| FSP 3 | 400 | 125 | 13.0 | 76.42 | 60   | 150 | 16800 | 1340 | 395.30 |
| FSP 4 | 400 | 170 | 15.5 | 96.99 | 76.1 | 190 | 38600 | 2270 | 669.65 |



MS 2674-1:2017 Hot rolled steel sheet piling of non alloy steels - Part 1: Technical delivery conditions

- ✓ S270GP / S355GP / S390GP / S430GP
- ✓ Lengths up to 33m long in Single or Double Pile Crimping Configuration