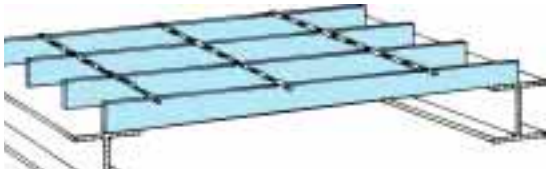
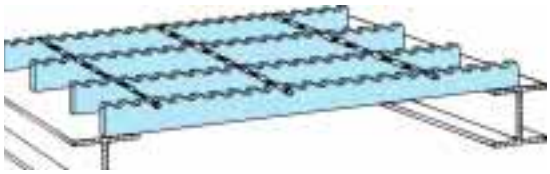
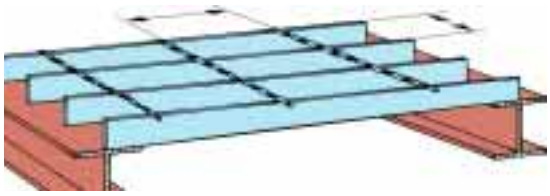
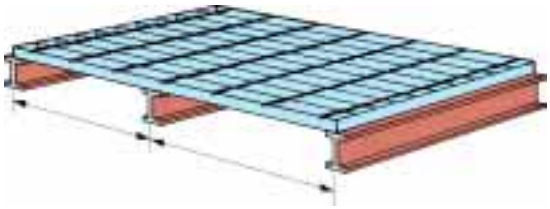
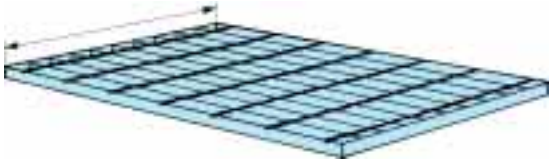
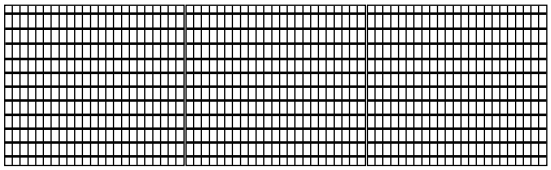
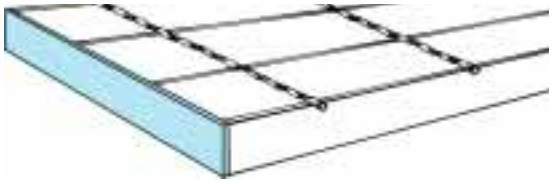
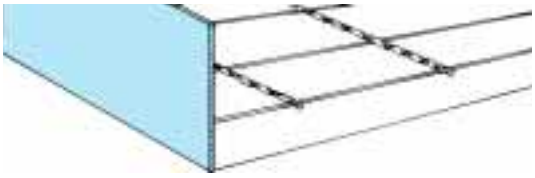
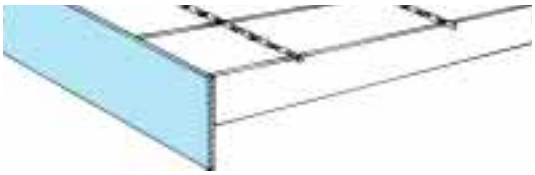
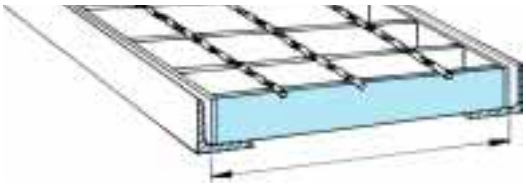
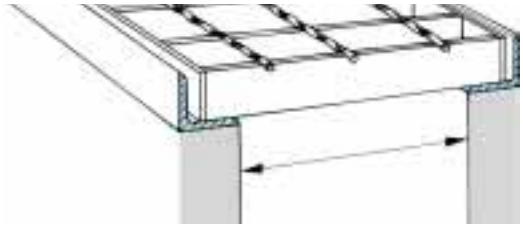
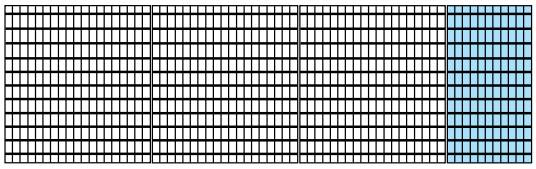
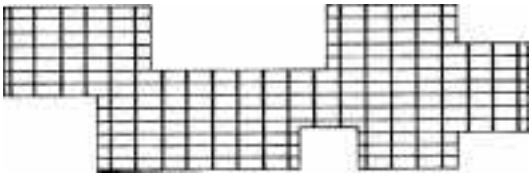
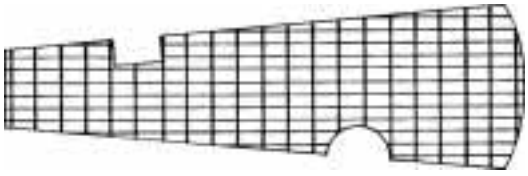
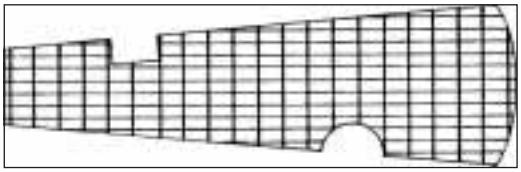
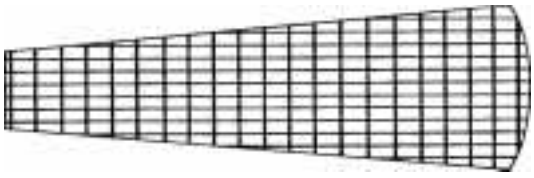
# GRATING



# WELAND TERMINOLOGY

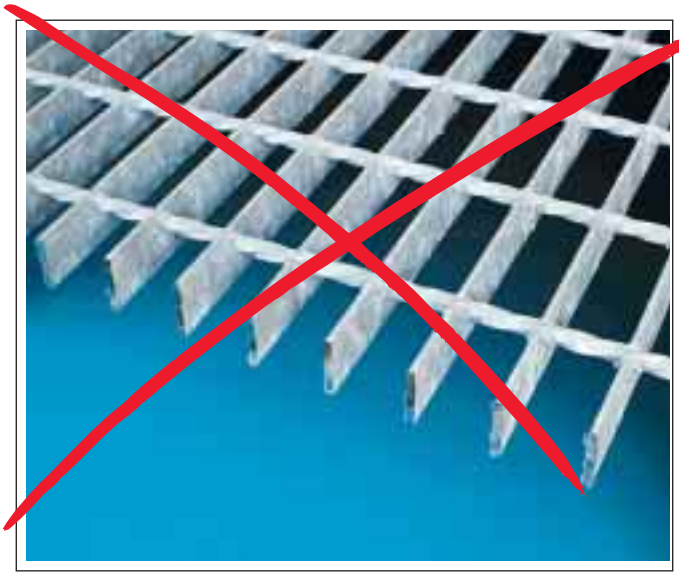
| | | |
|---|---|---|
| LOAD BEARING BAR | Upright positioned flat bar - gives the load bearing capacity to the grating |  |
| CROSS BAR | Twisted square bars connect the load bars at right angles (connected by press welding) |  |
| GRATING TYPE SAF | Load bearing bar with serrated top for extra safety against slipping. |  |
| MESH OPENING | Distance between load bars and cross bars (centre to centre) |  |
| GRATING LENGTH, SPAN WIDTH or LENGTH OF LOAD BAR | Length of grating = length of load bearing bar including binding bar. Span width = the distance between two support beams The grating can be laid over two or more support beams. On the drawing the load bar direction is marked  .The first figure of the panel dimensions indicates the load bar measure, e.g. 815 x 1000 mm. |  |
| GRATING WIDTH (LENGTH OF CROSS BARS) | Width of grating = length of cross bars |  |
| GRATING HEIGHT | Grating height = height of load bearing bars |  |
| MATCHING CROSS BARS | Panels can be laid out with matching cross bars. Valid for panels with the same length of load bars |  |
| BINDING BAR | Flat bar welded to the ends of the load bearing bars connecting them together |  |
| EDGING STRIP | Has the same function as the binding bar, but usually only 15 mm high. |  |

| | | |
|---|---|---|
| HIGH BINDING BAR (KICK PLATE) | Binding bar higher than the load bearing bars, projecting above the top of the grating panel |  |
| LOW BINDING BAR | Binding bar wider than the load bearing bars, projecting below the bottom of the grating panel. |  |
| OPENING MEASUREMENT | The actual measurement of the opening for positioning of the grating panel |  |
| PANEL MEASUREMENT | The exact measurement of the grating panel - must be 6 - 10 mm less than the opening measurement. Applies to both the length of the load bearing bars and the length of the cross bars. |  |
| INSIDE WIDTH | Measurement of the opening to be covered by the grating (distance between the inside edges of the support beams). |  |
| INSERT | Grating cut to width other than standard width (500, 700 or 1000 mm) |  |
| CUT-OUTS | Common term for all types of shaping of grating, see below | |
| STRAIGHT SHAPING | Shaping at right angles to the load bearing bars respectively the cross bars |  |
| CURVED SHAPING | Shaping other than at right angles to the load bearing bars. or cross bars |  |
| GROSS AREA | Total area of grating calculated on basis of our standard widths 500, 700 and 1000 mm. |  |
| NET AREA | Net area of grating after deducting cut-out areas. |  |

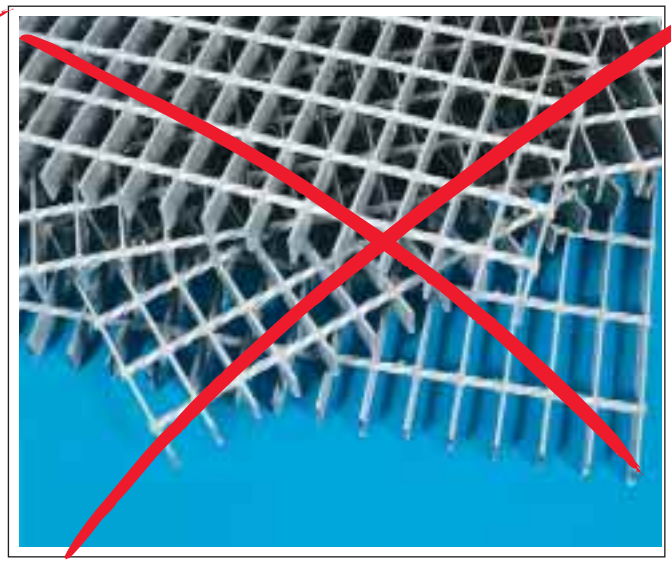
# WHY MULTIPANELS?

Forge welded grating is manufactured in form of mats having different lengths. These mats are very large, heavy and difficult to handle.

Mats are that heavy that they are impossible to be handled by one person. Cut-to-length is carried out by means of angle grinder or gas jet.



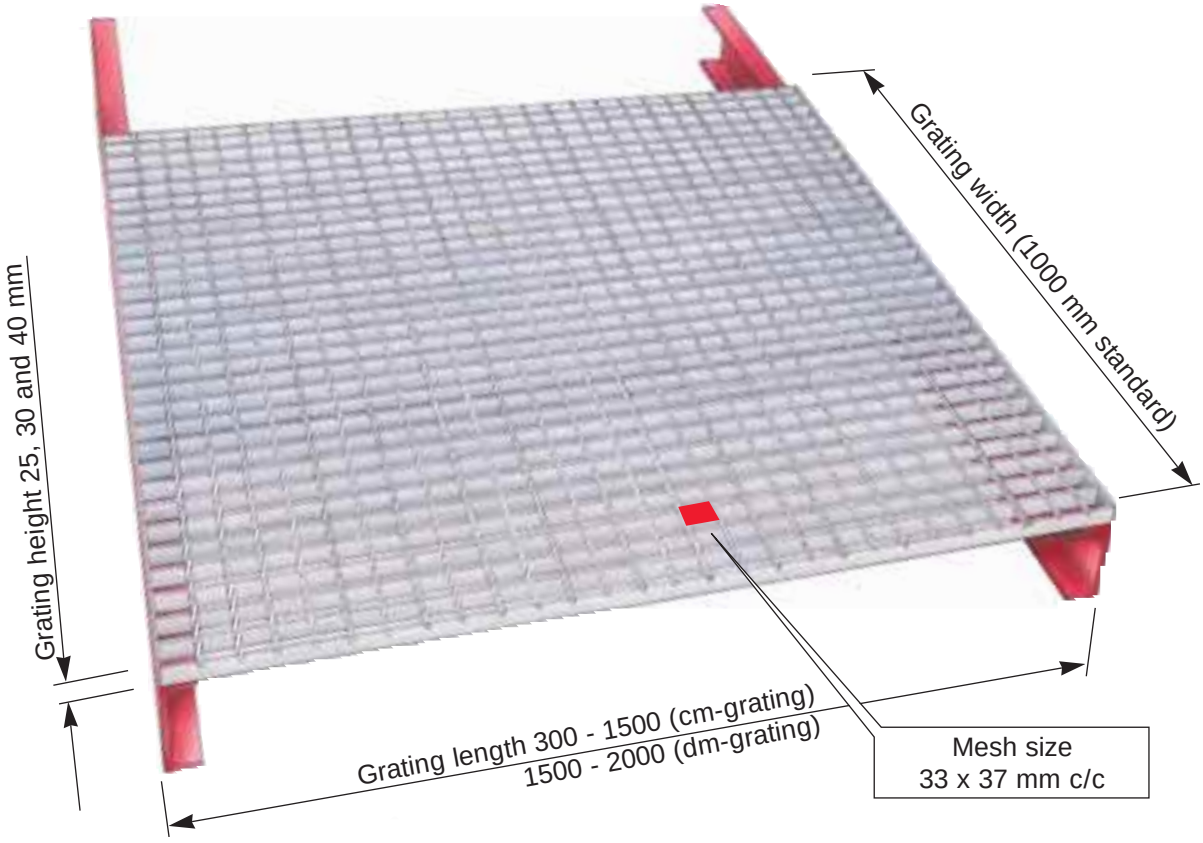
Cut faces are rough, sharp and raw. If a binding bar is welded against, the rust protection is inferior to that of the grating.



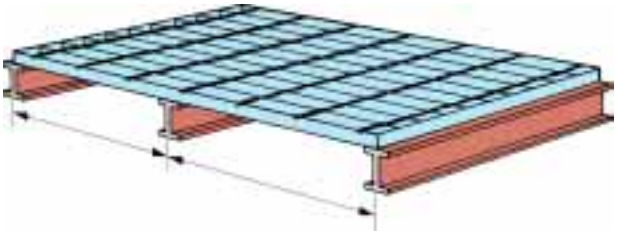
A considerable portion of the mat has to be scrapped, an uneconomical method.

Format manufactured grating is available from stock.

# THIS IS A MULTIPANEL!

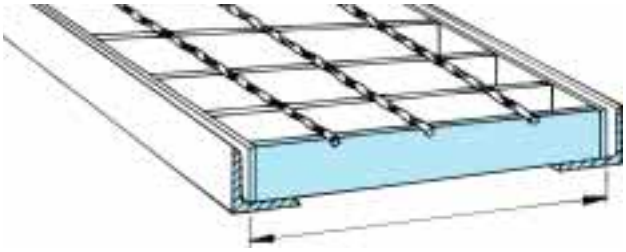



## Dimensions / Lay out



Grating length = length of load bearing bar incl. binding bar.
The span is the distance between two supports. The grating should be laid over two or more supports to reduce deflection. When stating dimensions the length of the load bearing bar is indicated by the first figure, e.g. 810 x 1000 mm.

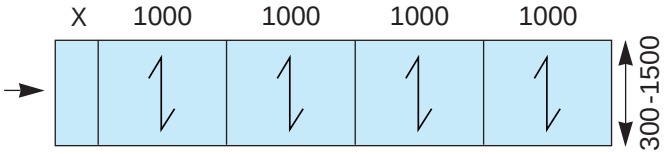
## Grating Measurement



The grating measurement is the exact measurement of the grating. The grating must always be 6-10 mm less than the opening measurement. Applies to both length and width.

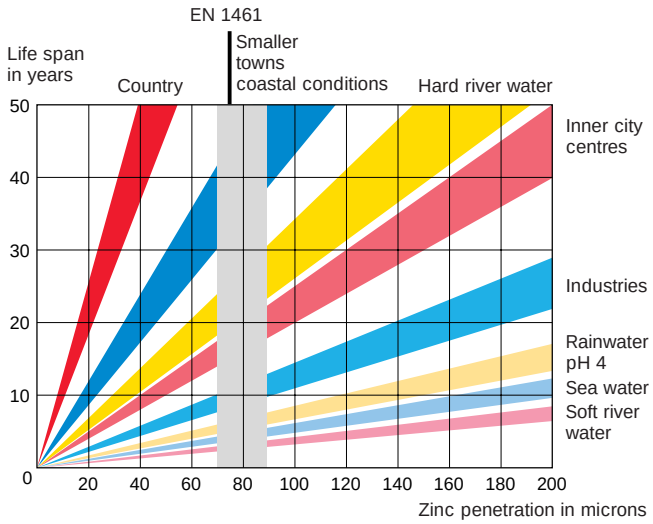
## Width / Insert Piece

The standard width of the grating is 1000 mm. To achieve the full lay out measurement often an insert piece is required. The insert piece is cut close to the nearest load bearing bar. In this way the insert piece receives a binding bar all the way round. All cut faces have to be cold galvanized.




## Surface Treatment

Weland stock grating is as standard hot dip galvanized in accordance with EN 1461.



# STOCK SIZES
# „Podestrian Multipanel System”


## Advantages of Multipanels from Stock

- *Short delivery*
- *No waste*
- *Easily handled and quick mounted formats*
- *No sharp edges*
- *No additional charge for cut-to-length*
- *Matching cross bars*

## Detailed Data on Multipanels

- *Smallest Length 300 mm*
- *Largest Length.*: 1500 mm*
- *Available lengths from stock: 300, 310,....1490, 1500 mm + 1600, 1700, 1800, 1900 and 2000 mm*
- *Standard Width 1000 mm*
- *Grating Height 25, 30 & 40 mm*
- *Mesh Size 33 x 37 mm*
- *Surface Treatment Hot dip galvanized*
- *Multipanels are fully edged.*
- *Kerb angles available to suit, see pages 16-17.*

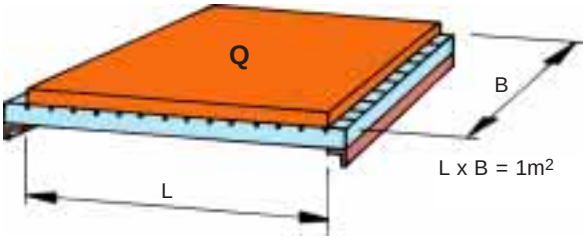
## STOCK SIZES (length x width)

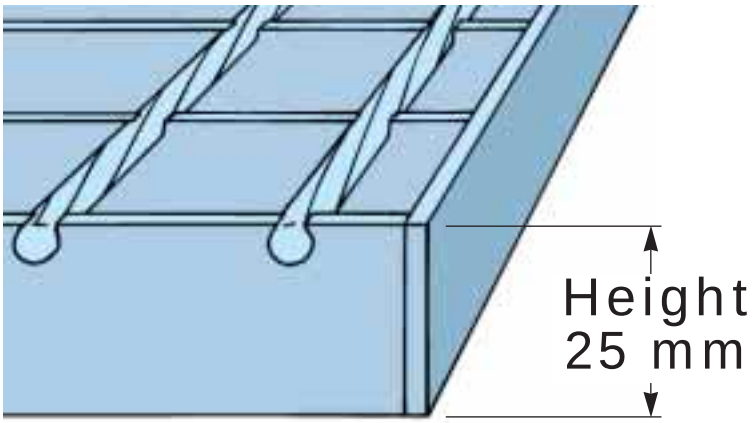
| | | | | | | |
|---|---|---|---|---|---|---|
| 300 x 1000 | 480 x 1000 | 660 x 1000 | 840 x 1000 | 1020 x 1000 | 1200 x 1000 | 1380 x 1000 |
| 310 x 1000 | 490 x 1000 | 670 x 1000 | 850 x 1000 | 1030 x 1000 | 1210 x 1000 | 1390 x 1000 |
| 320 x 1000 | 500 x 1000 | 680 x 1000 | 860 x 1000 | 1040 x 1000 | 1220 x 1000 | 1400 x 1000 |
| 330 x 1000 | 510 x 1000 | 690 x 1000 | 870 x 1000 | 1050 x 1000 | 1230 x 1000 | 1410 x 1000 |
| 340 x 1000 | 520 x 1000 | 700 x 1000 | 880 x 1000 | 1060 x 1000 | 1240 x 1000 | 1420 x 1000 |
| 350 x 1000 | 530 x 1000 | 710 x 1000 | 890 x 1000 | 1070 x 1000 | 1250 x 1000 | 1430 x 1000 |
| 360 x 1000 | 540 x 1000 | 720 x 1000 | 900 x 1000 | 1080 x 1000 | 1260 x 1000 | 1440 x 1000 |
| 370 x 1000 | 550 x 1000 | 730 x 1000 | 910 x 1000 | 1090 x 1000 | 1270 x 1000 | 1450 x 1000 |
| 380 x 1000 | 560 x 1000 | 740 x 1000 | 920 x 1000 | 1100 x 1000 | 1280 x 1000 | 1460 x 1000 |
| 390 x 1000 | 570 x 1000 | 750 x 1000 | 930 x 1000 | 1110 x 1000 | 1290 x 1000 | 1470 x 1000 |
| 400 x 1000 | 580 x 1000 | 760 x 1000 | 940 x 1000 | 1120 x 1000 | 1300 x 1000 | 1480 x 1000 |
| 410 x 1000 | 590 x 1000 | 770 x 1000 | 950 x 1000 | 1130 x 1000 | 1310 x 1000 | 1490 x 1000 |
| 420 x 1000 | 600 x 1000 | 780 x 1000 | 960 x 1000 | 1140 x 1000 | 1320 x 1000 | 1500 x 1000 |
| 430 x 1000 | 610 x 1000 | 790 x 1000 | 970 x 1000 | 1150 x 1000 | 1330 x 1000 | **1600 x 1000** |
| 440 x 1000 | 620 x 1000 | 800 x 1000 | 980 x 1000 | 1160 x 1000 | 1340 x 1000 | **1700 x 1000** |
| 450 x 1000 | 630 x 1000 | 810 x 1000 | 990 x 1000 | 1170 x 1000 | 1350 x 1000 | **1800 x 1000** |
| 460 x 1000 | 640 x 1000 | 820 x 1000 | 1000 x 1000 | 1180 x 1000 | 1360 x 1000 | **1900 x 1000** |
| 470 x 1000 | 650 x 1000 | 830 x 1000 | 1010 x 1000 | 1190 x 1000 | 1370 x 1000 | **2000 x 1000** |

# Load Alternatives

For the tables shown below the following applies: To the left of the boundary lines the deflection is <1/200 of the span at 5 kN/m$^2$ uniformly distributed load.

**Q** = permitted uniformly distributed load (kN/m$^2$).
**f$_1$** = deflection at **Q**$_{permitted}$ / deflection at 5 kN/m$^2$ in mm.



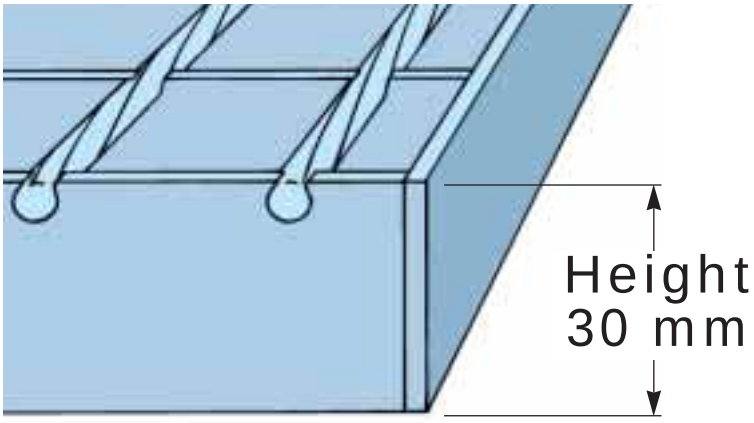




## For normal load

**Permitted Span 1200 mm**

To the left of the boundary line the deflection is <1/200 of the span at 5 kN/m$^2$ uniformly distributed load.

| Height of load bearing bar (mm) | kg/m$^2$ | | Span mm | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 300 | 400 | 500 | 600 | 700 | 800 | 900 | 1000 | 1100 | 1200 | 1300 | 1400 | 1500 | 1600 | 1800 | 2000 | 2200 | 2400 |
| 25 | 16 | Q | 94,9 | 53,4 | 34,2 | 23,7 | 17,4 | 13,3 | 10,5 | 8,5 | 7,1 | 8,9 | 7,6 | | | | | | | |
| | | f1 | 1/0 | 1/0 | 2/0 | 3/1 | 3/1 | 4/2 | 5/3 | 7/4 | 8/5 | 10/5 | 11/7 | | | | | | | |

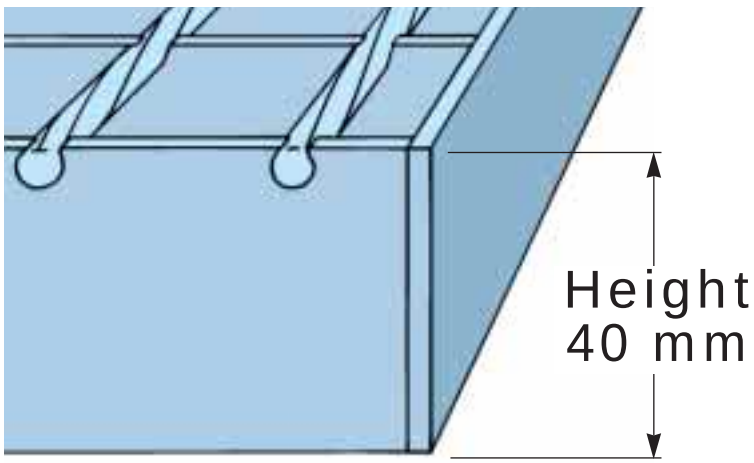



## For somewhat higher load

**Permitted Span 1500 mm**

To the left of the boundary line the deflection is <1/200 of the span at 5 kN/m$^2$ uniformly distributed load.

| Height of load bearing bar (mm) | kg/m$^2$ | | Span mm | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 300 | 400 | 500 | 600 | 700 | 800 | 900 | 1000 | 1100 | 1200 | 1300 | 1400 | 1500 | 1600 | 1800 | 2000 | 2200 | 2400 |
| 30 | 19 | Q | 136,6 | 76,9 | 49,2 | 34,2 | 25,1 | 19,2 | 15,2 | 12,3 | 10,2 | 8,5 | 7,3 | 9,4 | 8,2 | 7,2 | | | | |
| | | f1 | 1/0 | 1/0 | 2/0 | 2/0 | 3/1 | 4/1 | 5/2 | 6/2 | 7/3 | 8/5 | 9/6 | 11/6 | 12/8 | 14/10 | | | | |

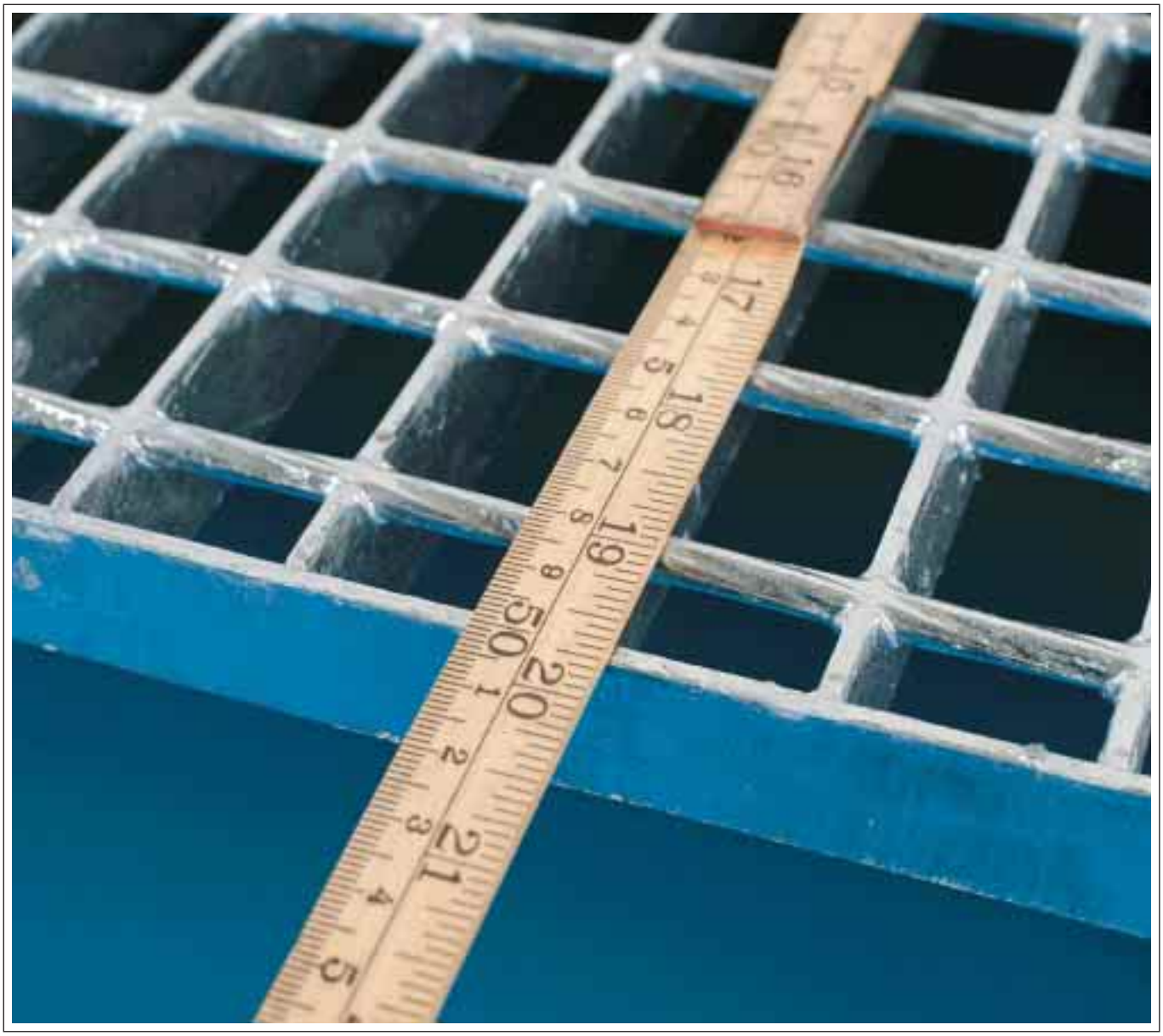



## Cheaper Substructure with longer span

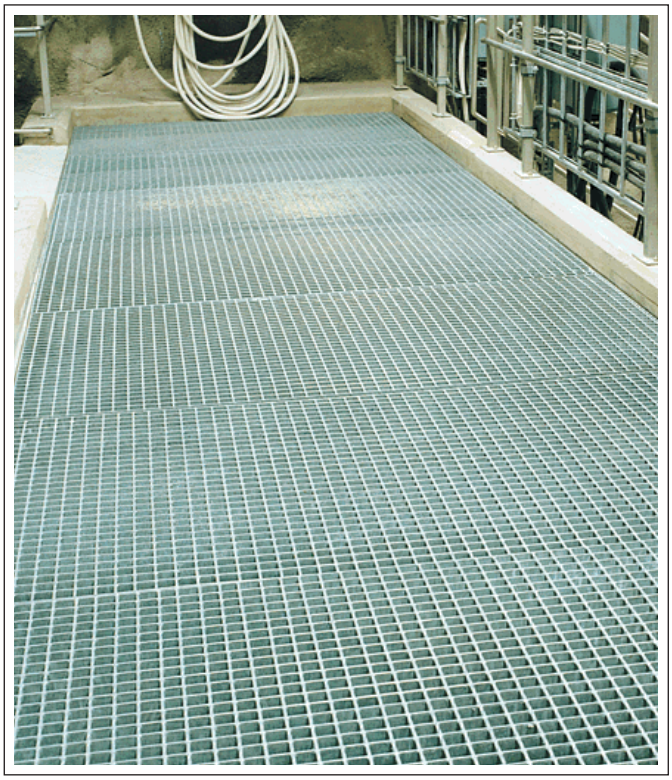
**Permitted Span 1700 mm**

To the left of the boundary line the deflection is <1/200 of the span at 5 kN/m$^2$ uniformly distributed load.

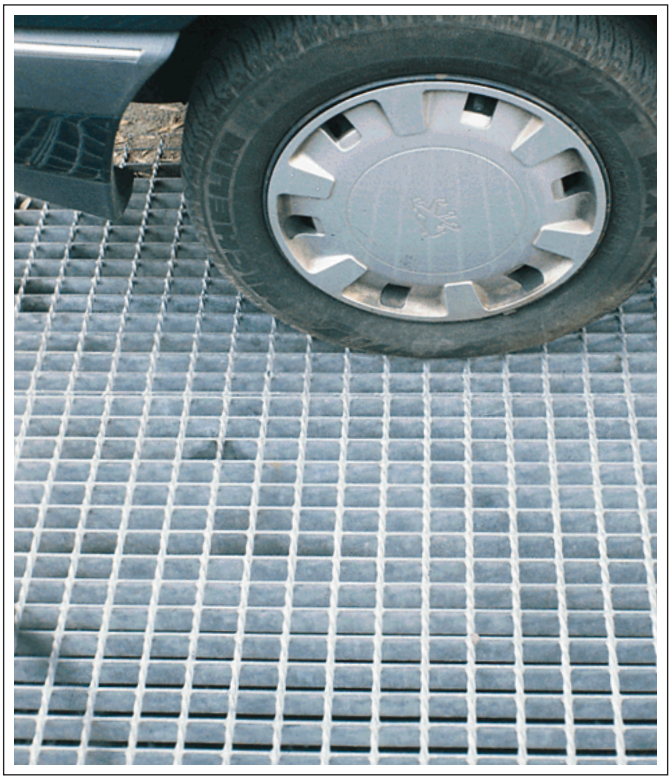
| Height of load bearing bar (mm) | kg/m$^2$ | | Span mm | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 300 | 400 | 500 | 600 | 700 | 800 | 900 | 1000 | 1100 | 1200 | 1300 | 1400 | 1500 | 1600 | 1800 | 2000 | 2200 | 2400 |
| 40 | 25 | Q | 242,9 | 136,6 | 87,4 | 60,7 | 44,6 | 34,2 | 27,0 | 21,9 | 18,1 | 15,2 | 12,9 | 11,2 | 9,7 | 8,5 | 6,7 | | | |
| | | f1 | 1/0 | 1/0 | 1/0 | 2/0 | 2/0 | 3/1 | 3/1 | 4/1 | 5/2 | 6/2 | 7/3 | 8/4 | 9/5 | 11/6 | 13/10 | | | |



Weland multipanels = accuracy to size

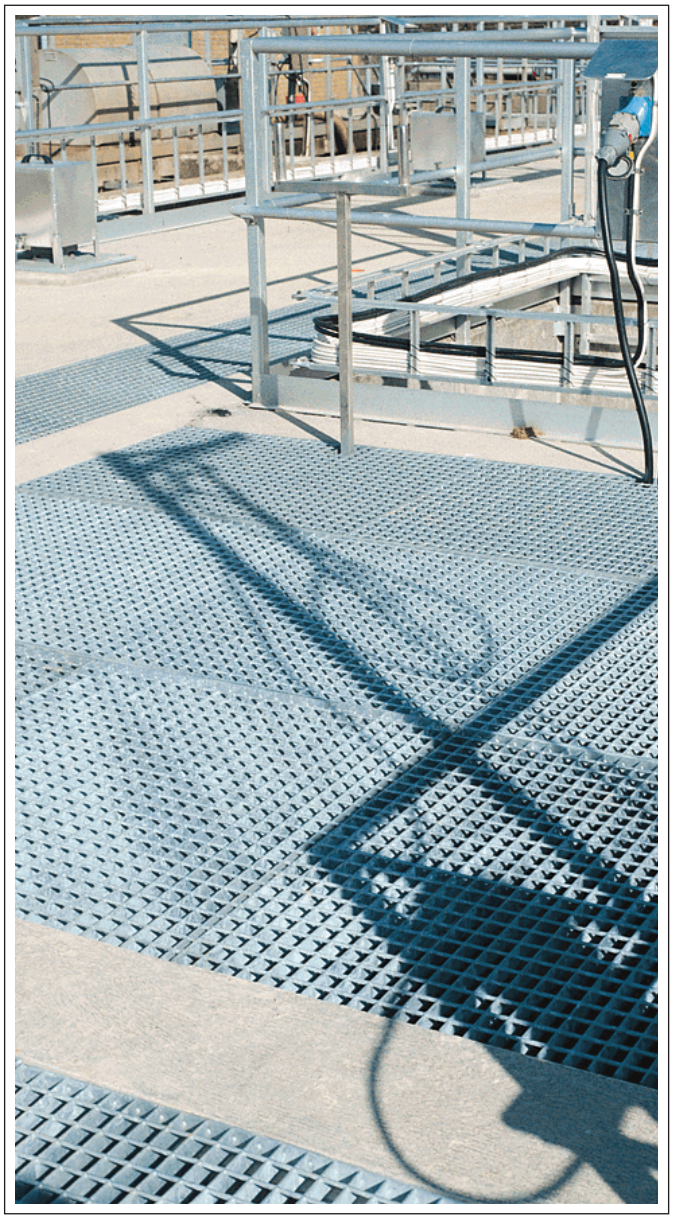


Weland multipanels is easy to lay.



Vehicular grating available for immediate laying.

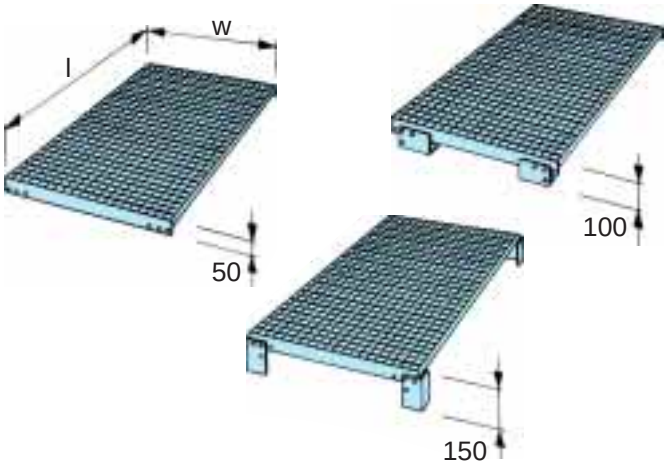
Grating laid on stand of olympic ground at Lillehammar.



Weland also stock hot dip galvanized kerb angle frames.

# DUCKBOARD

Duckboard manufactured from Weland grating type H3 (mesh 33 x 37 mm). It is easily adjustable between 3 heights 50, 100 and 150 mm. Hot dip galvanized.




## Stock Duckboards

| Size l x w | Weight (kg) |
|---|---|
| 1000 x 700<br>1000 x 1000 | 19<br>27 |

# STOCKED VEHICULAR MULTIPANELS

Weland vehicular multipanels are always fully edged and as standard hot dip galvanized. Matching kerb angle frames, also available from stock, see pages 16-17.

## Advantages of stocked formats

- *Short delivery • No waste • Easily handled and quick mounted formats*
- *No badly protected cut faces • All panels fully edged*
- *No additional charge for cut-to-length • Matching cross bars.*

### Private Cars

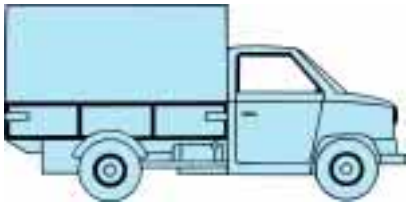
Load 10 kN
Tyre contact area 100 x 100 mm
Traffic flow any direction

| Daylight (m) | 0,3 | 0,4 | 0,5 | 0,6 | 0,7 | 0,8 | 0,9 | 1,0 | 1,1 | 1,2 | 1,3 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Grating no. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |

### Fork Lift Truck

Load 37,5 kN
Tyre contact area 200 x 200 mm
Traffic flow any direction

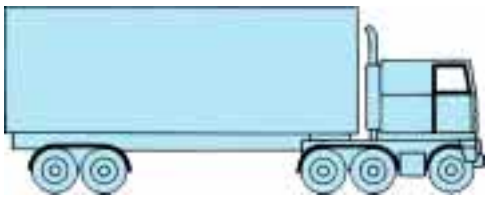
| Daylight (m) | 0,3 | 0,4 | 0,5 | 0,6 | 0,7 | 0,8 | 0,9 | 1,0 | 1,1 | 1,2 | 1,3 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Grating no. | 12 | 13 | 14 | 15 | 16 | 17 | | | | | |



### Small Trucks

Load 45 kN
Tyre contact area 600 x 200 mm

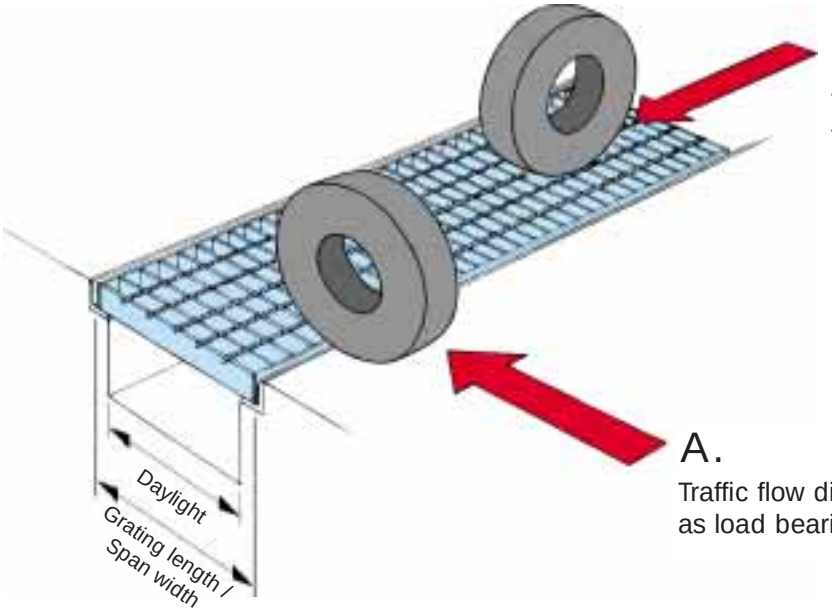
| Daylight (m) | 0,3 | 0,4 | 0,5 | 0,6 | 0,7 | 0,8 | 0,9 | 1,0 | 1,1 | 1,2 | 1,3 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Grating no. | 1 | 18 | 19 | 4 | 5 | 6 | Traffic flow direction A | | | | |
| Grating no. | 1 | 13 | 19 | 15 | 20 | 21 | Traffic flow direction B | | | | |



### Heavy Trucks (General traffic)

Load 90 kN
Tyre contact area 600 x 200 mm

| Daylight (m) | 0,3 | 0,4 | 0,5 | 0,6 | 0,7 | 0,8 | 0,9 | 1,0 | 1,1 | 1,2 | 1,3 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Grating no. | 12 | 13 | 14 | 15 | 16 | 21 | Traffic flow direction A | | | | |
| Grating no. | 12 | 13 | 14 | 22 | 23 | | Traffic flow direction B | | | | |




## Maximum freespan for vehicular multipanels

The table below gives examples of four common load situations with motor vehicles.

The values indicated are calculated and tested for such load conditions exposing the panel to maximum stress.

The tyre contact area and the traffic flow direction determine the type and dimensions of the grating panel.

Welands technical department is available to help you, if you require advice or have any questions on this subject.

## Example. How to read the traffic tables

A grating is required for trafficc with small trucks and 0.6 m daylight. Traffic flow direction is the same as the load bearing bars.

Look up the table on page 14, small trucks. Under daylight 0.6 m and traffic flow direction A you will find grating no. 4.

Look up grating no. 4 in the table below. Here you find the information on grating height, mesh size, grating format and matching kerb angle frame.

| Grating no. | Daylight mm | Grating type | Grating height mm | Mesh size mm | Grating format mm | Dimensions Kerb angle frame | Measure Frame end |
|---|---|---|---|---|---|---|---|
| 1 | 300 | H3 | 35 | 33 x 37 | 360 x 1000 | L-40 x 40 x 5 | 380 |
| 2 | 400 | H3 | 40 | 33 x 37 | 470 x 1000 | L-45 x 45 x 5 | 490 |
| 3 | 500 | H3 | 45 | 33 x 37 | 580 x 1000 | L-50 x 50 x 5 | 600 |
| 4 | 600 | H3 | 50 | 33 x 37 | 690 x 1000 | L-55 x 55 x 5 | 710 |
| 5 | 700 | H3 | 50 | 33 x 37 | 790 x 1000 | L-55 x 55 x 5 | 810 |
| 6 | 800 | H3 | 50 | 33 x 37 | 890 x 1000 | L-55 x 55 x 5 | 910 |
| 7 | 900 | H3 | 50 | 33 x 37 | 990 x 1000 | L-55 x 55 x 5 | 1010 |
| 8 | 1000 | H3 | 50 | 33 x 37 | 1090 x 1000 | L-55 x 55 x 5 | 1110 |
| 9 | 1100 | H3 | 60 | 33 x 37 | 1215 x 1000 | L-70 x 70 x 7 | 1240 |
| 10 | 1200 | H3 | 60 | 33 x 37 | 1315 x 1000 | L-70 x 70 x 7 | 1340 |
| 11 | 1300 | H3 | 60 | 33 x 37 | 1415 x 1000 | L-70 x 70 x 7 | 1440 |
| 12 | 300 | H3 | 50 | 33 x 37 | 390 x 1000 | L-55 x 55 x 5 | 410 |
| 13 | 400 | H3 | 50 | 33 x 37 | 490 x 1000 | L-55 x 55 x 5 | 510 |
| 14 | 500 | H3 | 60 | 33 x 37 | 615 x 1000 | L-70 x 70 x 7 | 640 |
| 15 | 600 | H3 | 60 | 33 x 37 | 715 x 1000 | L-70 x 70 x 7 | 740 |
| 16 | 700 | H3 | 70 | 33 x 37 | 835 x 700 | L-80 x 80 x 8 | 860 |
| 17 | 800 | H3 | 80 | 33 x 37 | 950 x 700 | L-90 x 90 x 9 | 980 |
| 18 | 400 | H3 | 45 | 33 x 37 | 480 x 1000 | L-50 x 50 x 5 | 500 |
| 19 | 500 | H3 | 50 | 33 x 37 | 590 x 1000 | L-55 x 55 x 5 | 610 |
| 20 | 600 | H3 | 60 | 33 x 37 | 815 x 1000 | L-70 x 70 x 7 | 840 |
| 21 | 800 | H3 | 70 | 33 x 37 | 935 x 700 | L-80 x 80 x 8 | 960 |
| 22 | 600 | H3 | 80 | 33 x 37 | 750 x 700 | L-90 x 90 x 9 | 780 |
| 23 | 700 | H3 | 80 | 33 x 37 | 850 x 700 | L-90 x 90 x 9 | 880 |

# STOCK KERB ANGLE FRAMES

Weland stock kerb angle frames for all pedestrian and vehicular multipanels. The angle frames consist of frame end modules designed to match the corresponding grating and side sections 3000 mm long. The side sections are cut to the required length when fixing.

All frame components are hot dip galvanized with grouting tangs and nail holes for easy fixing to shuttering.

## FOR PEDESTRIAN PANELS

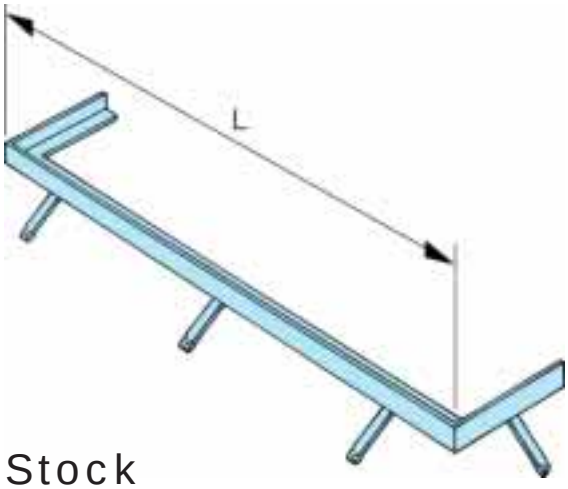
### Stock side sections

| To fit grating height | Length |
|---|---|
| 25, 30 mm | 3 000 mm |

## FOR VEHICULAR PANELS

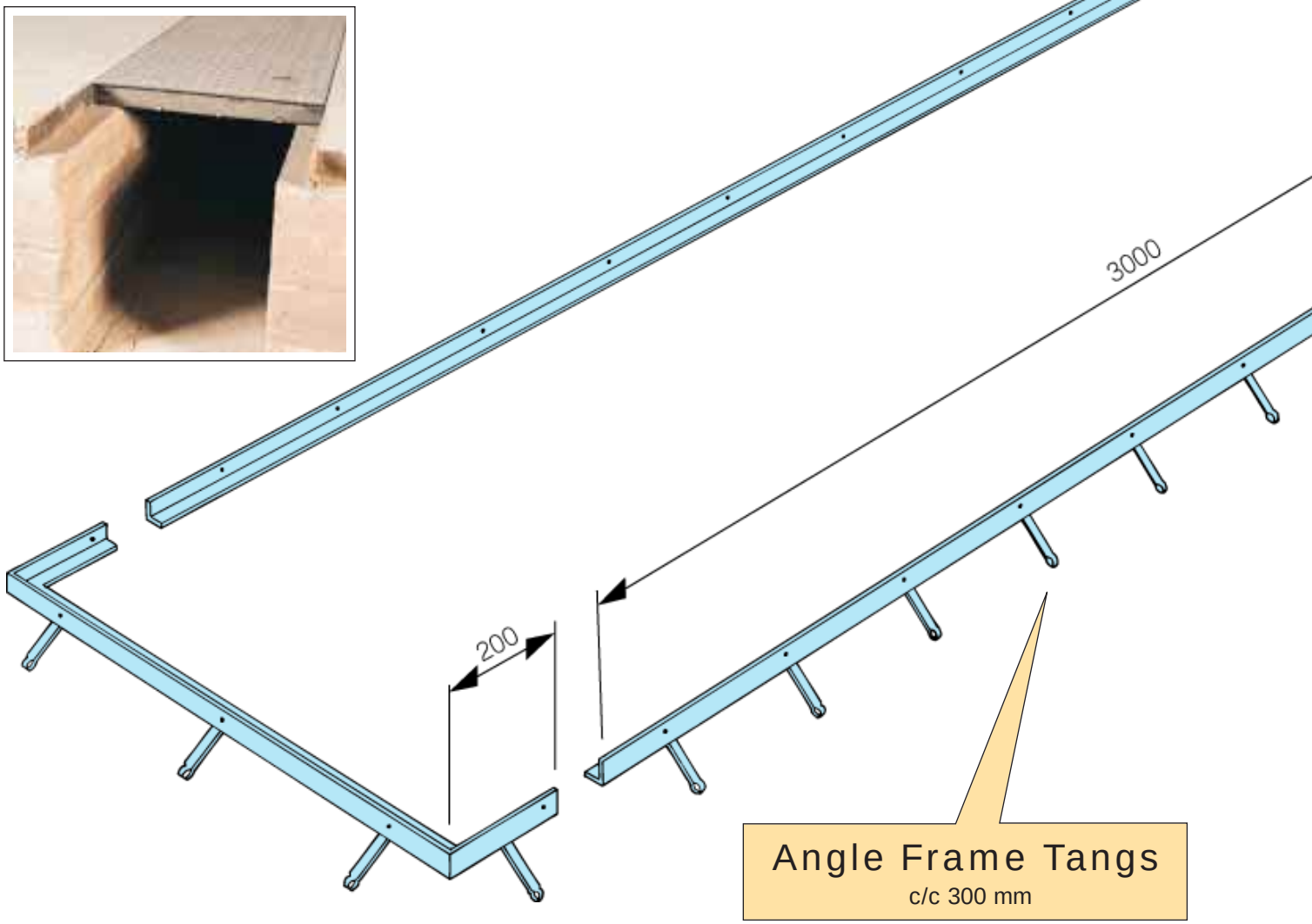
### Stock side sections

| To fit grating height | Length |
|---|---|
| 35, 40, 45, 50, 60, 70, 80 mm | 3 000 mm |




### Stock frame end modules

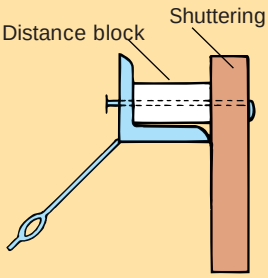
Measurement to suit the stock multipanel span width and load bearing bar height




Angle Frame Tangs
c/c 300 mm

## Nail holes and distances

The frame components are provided with nail holes at c/c 300 mm distance. Distance blocks are available for positioning the frame against the shuttering.










## Insert Pieces

see table on page 31

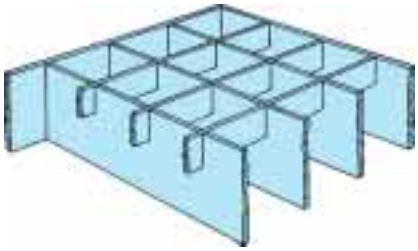
# STOCK ENTRANCE MATS

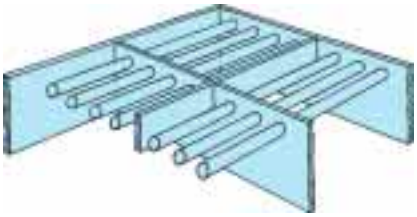
## BOOT SCRAPER
### Type A1-25
Mesh size c/c 25 x 25 mm.
Height 25 mm.

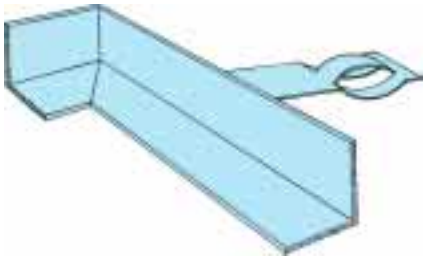
### Type A11-25
Mesh size c/c 25 x 10 mm.
Height 25 mm. The grating is constructed with flat bar in both directions.
Galvanized finish.

## USER FRIENDLY TO LADIES SMALL HEELS
### Typ AR1-25
Mesh size c/c 5 x 50 mm. Height 25 mm. The grating is constructed with flat bar in both directions and additionally has 5 mm round bars that give a small mesh opening.
Galvanized finish.

## KERB ANGLES
Angle frames for stock Entrance mats are available constructed of L shaped 30 x 30 mm together with tangs for casting in concrete.
Galvanized finish.







## STOCK SIZES FOR GRATING AND ANGLE FRAMES
(Outside dimensions of angle frames in mm, grating sizes to match).

| | | | | |
|---|---|---|---|---|
| 310 x 610 | 410 x 710 | 510 x 810 | 610 x 810 | 610 x 1210 |
| 360 x 610 | 410 x 810 | 510 x 910 | 610 x 910 | 710 x 910 |
| 410 x 610 | 510 x 710 | 510 x 1010 | 610 x 1010 | 710 x 1010 |

# BOOT SCRAPERS

## Stock gratings
## Sizes

| | |
|---|---|
| 500 x 322 | 700 x 322 |
| 600 x 322 | 1000 x 486 |

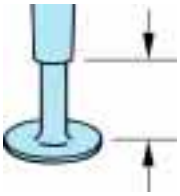
## Stock frames
## Sizes

| | |
|---|---|
| 515 x 335 | 715 x 335 |
| 615 x 335 | 1015 x 500 |

## Freestanding scrapers
## Type N6 20

Mesh c/c 16 x 75 mm, height 20 mm.
The grating is forge welded with edging strip of L-profile 35 x 20 mm.
Galvanized finish.
Also available kerb angle frames of L-profile 40 x 20 mm with angle frame tangs.
Galvanized finish

# BOOT SCRAPERS WITH ADJUSTABLE LEGS



Alt. 1 110 - 160 mm
Alt. 2 135 - 210 mm

## Boot scrapers with adjustable legs Type N9 20

Mesh size c/c 16 x 100 mm The grating is forge welded with 50 mm deep edging strip and can be supplied with or without adjustable legs. Galvanized finish.

## Adjustable legs

Are available in 2 lengths as shown above.
Galvanized finish.

## Stock sizes

| | | |
|---|---|---|
| 1000 x 500 | 1000 x 700 | 1000 x 1000 |

# ENTRANCE MATS IN SPECIAL SIZES

## The ENTRANCE MATS

are manufactured from Weland forge welded grating types N6 and N9 as shown below. Grating is manufactured to the customers requirements and provided with an edging strip of the same height as the load bearing bars.
The grating is hot dip galvanized as standard.

| Type | Load bearing bars (mm) | Mesh opening size c/c (mm) | Max.* span (mm) |
|---|---|---|---|
| N6 | 20 | 16 x 75 | 1000 |
| N6 | 25 | 16 x 75 | 1400 |
| N6 | 30 | 16 x 75 | 1600 |
| N9 | 20 | 16 x 100 | 1200 |
| N9 | 25 | 16 x 100 | 1600 |
| N9 | 30 | 16 x 100 | 1800 |
| N9 | 35 | 16 x 100 | 2200 |
| N9 | 40 | 16 x 100 | 2400 |

* Deflection is less than 1/200 of the span when exposed to 5 kN/m$^2$ uniformly distributed load.

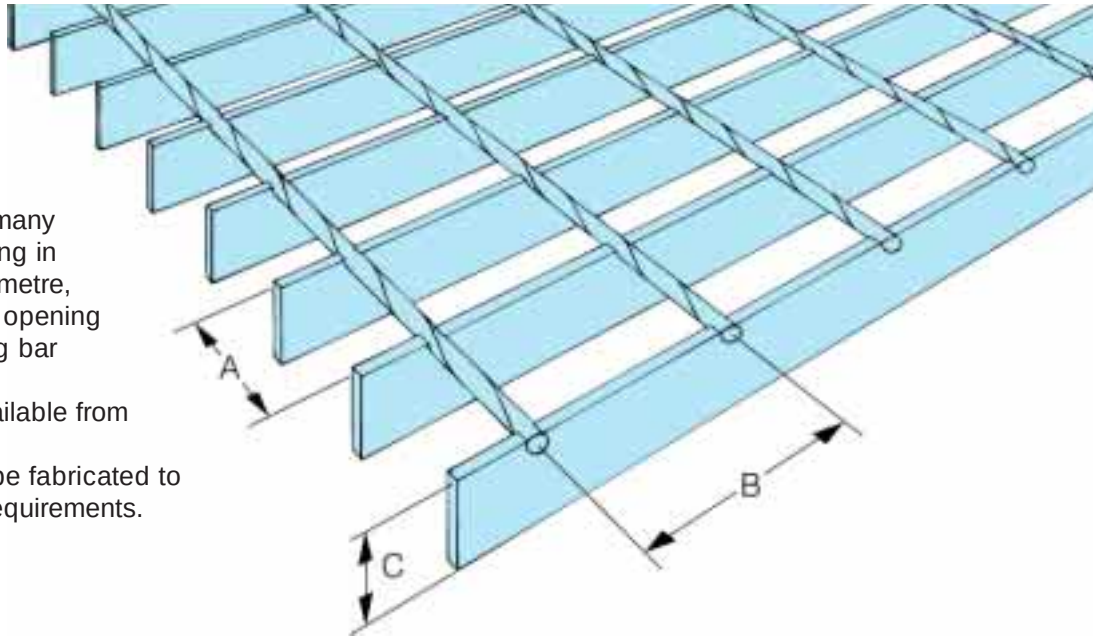
Special size angles frames and other support steelwork can be manufactured to order.
Weland manufacture grating with other mesh sizes. Contact the company for information.

# Gratings for different environments and applications


# SPECIAL GRATING

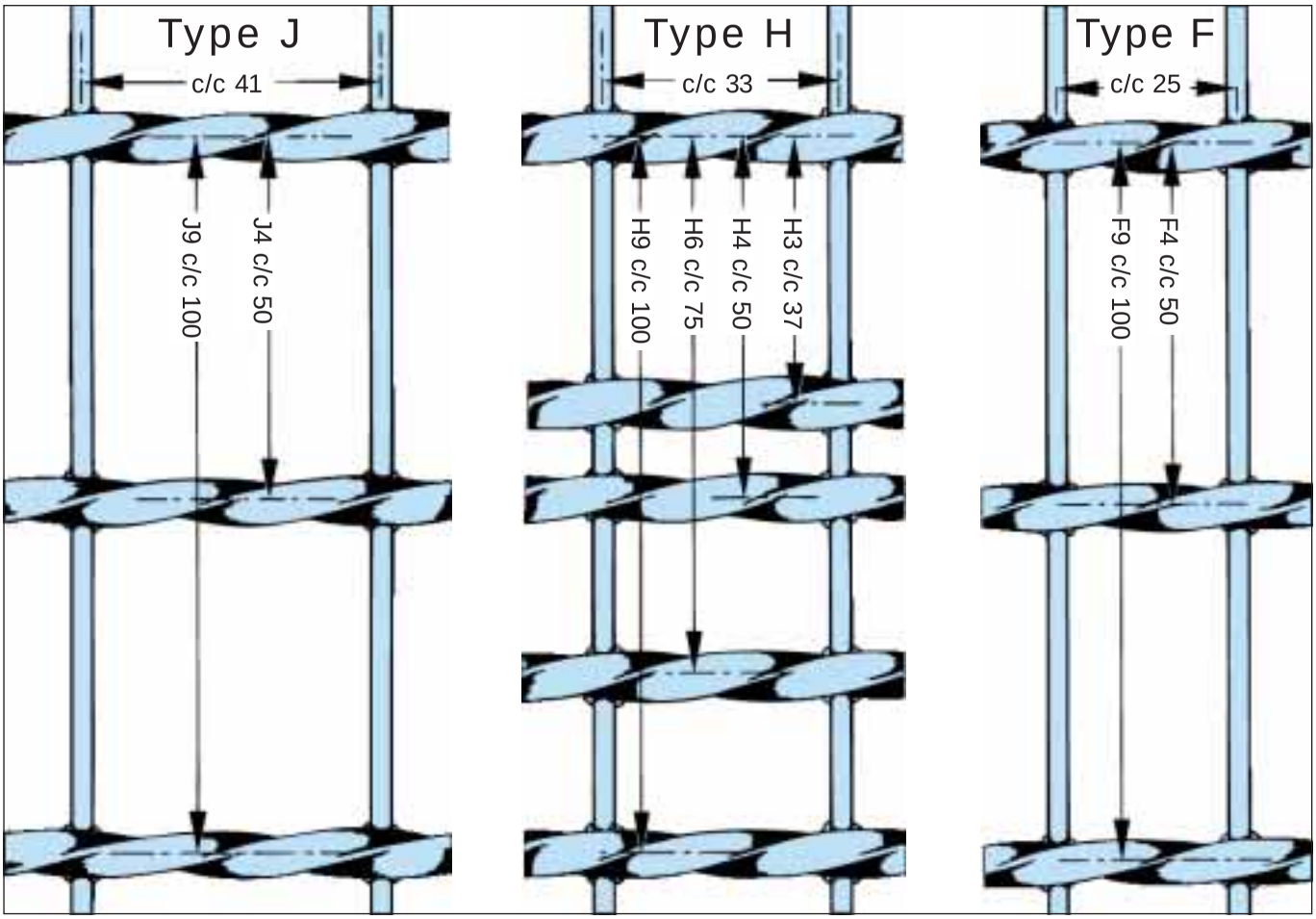
## FULL SIZE MATS

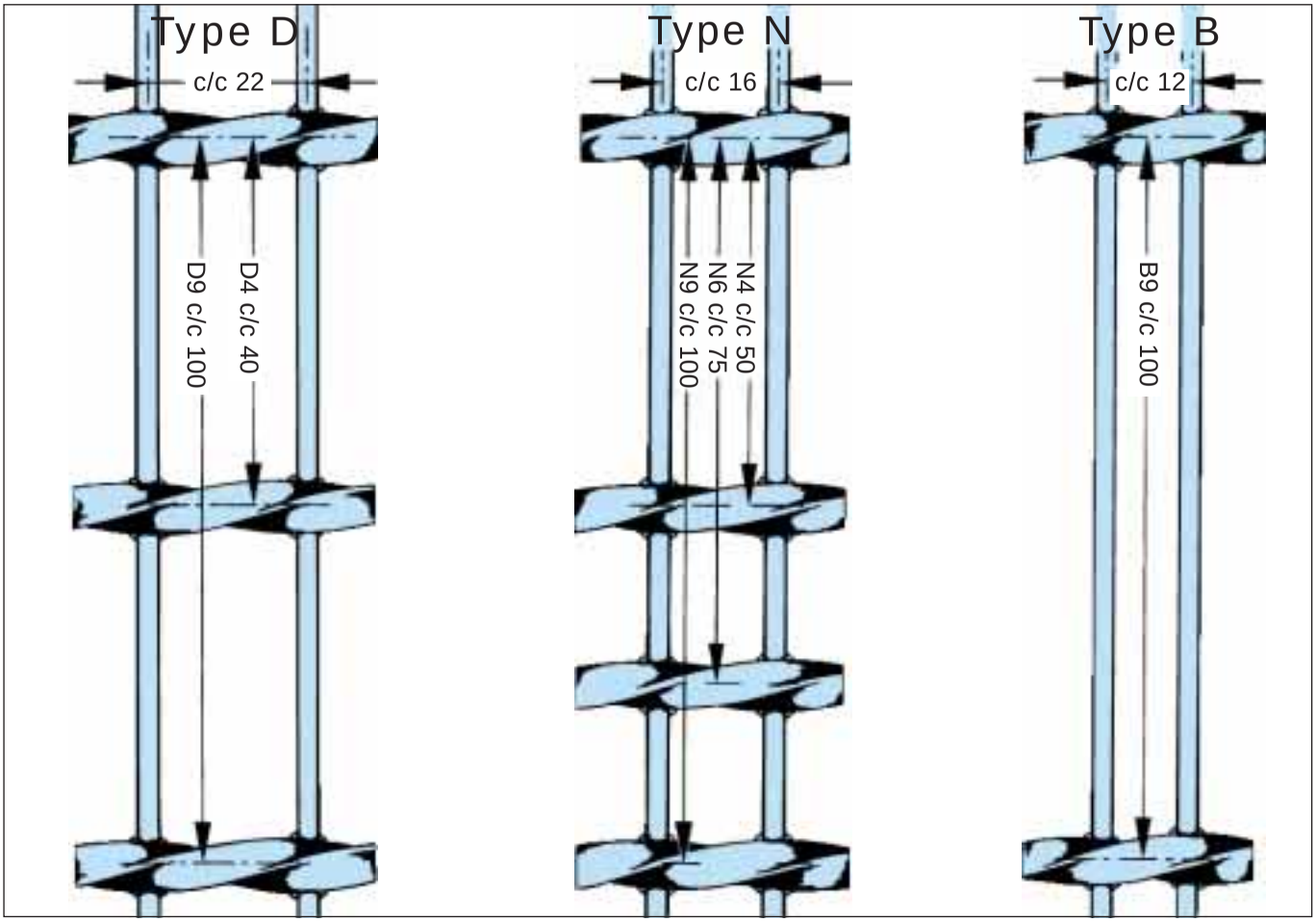
Weland manufacture many different types of grating in full size mats of 6 x 1 metre, with a variety of mesh opening sizes and load bearing bar heights.
Some of these are available from stock.
The grating can also be fabricated to meet the customers requirements.




| Grating type | Mesh size c/c (mm) (A x B) | Load bar (mm) (C) |
|---|---|---|
| J4 | 41 x 50 | 20 - 80 |
| J9 | 41 x 100 | 20 - 80 |
| H3 | 33 x 37 | 20 - 80 |
| H4 | 33 x 50 | 20 - 80 |
| H6 | 33 x 75 | 20 - 80 |
| H9 | 33 x 100 | 20 - 80 |
| F4 | 25 x 50 | 20 - 80 |
| F9 | 25 x 100 | 20 - 80 |
| D4 | 22 x 50 | 20 - 80 |
| D9 | 22 x 100 | 20 - 80 |
| N4 | 16 x 50 | 20 - 60 |
| N6 | 16 x 75 | 20 - 60 |
| N9 | 16 x 100 | 20 - 60 |
| B9 | 12 x 100 | 20 - 40 |

# MESH OPENING SIZES 1:1



# LOAD TABLES

## Loading

In order to be able to choose the right type and dimension of grating it is important to know the loading that the grating will be subjected to.

Below and on the following pages are extracts from load tables and descriptions of some simple rules. If your require additional information on this subject please contact Weland Limited.

## Load group Calculated loading to NR

| | |
|---|---|
| Dwelling load<br>(domestic rooms etc.) | 2,0 kN/m² |
| Small gatherings<br>(classroom, restaurant etc.) | 2,5 kN/m² |
| Large public gathering<br>(department store, exhibition hall, stands with seats etc.) | 4,0 kN/m² |
| Heavy loading<br>(Terraces, light industry) | 5,0 kN/m² |

## Calculation of Load

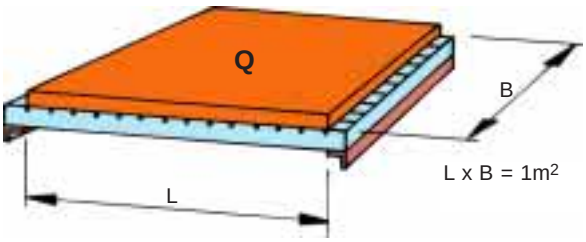
If grating type, span width and uniformly distributed load are known, the deflection allowed for can be calculated (1/200 of the span width) from the following formula:

$$\mathbf{Q}_{permitted} = \frac{\mathbf{Q}_{max}}{\mathbf{f}} \times \mathbf{f}_{permitted}$$

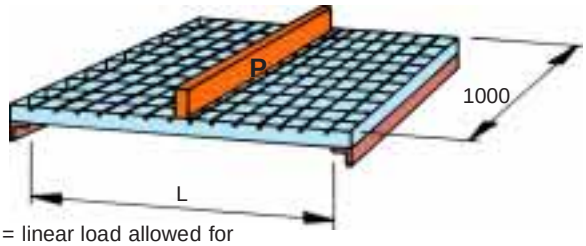
$\mathbf{Q}_{permitted}$ = uniformly distributed load permitted
$\mathbf{Q}_{max}$ = maximum load permitted according to table
$\mathbf{f}$ = deflection at $\mathbf{Q}_{max.}$ (according to table)
$\mathbf{f}_{permitted}$ = 1/200 of span

## Load alternatives

For all tables the conditions stated below apply. To the left of the boundary lines the deflection is less than 1/200 of the span width at 5 kN/m² uniformly distributed load. An approximate guide for point loading can be obtained from part of linear loading. Example: Point loading Ø 100 mm. Take 1/10 value of the linear loading.




**Q** = uniformly distributed load allowed for (kN/m²).
$\mathbf{f}_1$ = deflection at $\mathbf{Q}_{permitted}$ /deflection at 5 kN/m² (mm).




**P** = linear load allowed for
$\mathbf{f}_2$ = deflection at $\mathbf{P}_{permitted.}$ (mm).

Load tables for some of Weland's grating types and dimensions of load bearing bars.

## WELAND GRATING TYPE N

| Load bar dim. mm | kg/m² | | span width mm | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 300 | 400 | 500 | 600 | 700 | 800 | 900 | 1000 | 1100 | 1200 | 1300 | 1400 | 1500 | 1600 | 1800 | 2000 | 2200 | 2400 |
| 25 x 2 | raw 27<br>galv. 30 | Q<br>$f_1$ | 192,8<br>1/0 | 108,5<br>1/0 | 69,4<br>2/0 | 48,2<br>3/0 | 35,4<br>3/1 | 27,1<br>4/1 | 21,4<br>5/1 | 17,4<br>7/2 | 14,3<br>8/3 | 12,1<br>10/4 | 10,3<br>11/6 | 8,9<br>13/7 | 7,7<br>15/10 | | | | | |
| | | P<br>$f_2$ | 29,4<br>1 | 22,0<br>1 | 17,5<br>1 | 14,6<br>2 | 12,5<br>3 | 10,9<br>4 | 9,7<br>4 | 8,7<br>5 | 7,9<br>7 | 7,3<br>8 | 6,7<br>9 | 6,2<br>10 | 5,8<br>12 | | | | | |
| 30 x 2 | raw 32<br>galv. 36 | Q<br>$f_1$ | 277,7<br>1/0 | 156,2<br>1/0 | 100,0<br>2/0 | 69,4<br>2/0 | 51,0<br>3/0 | 39,0<br>4/1 | 30,9<br>5/1 | 25,0<br>6/1 | 20,7<br>7/2 | 17,4<br>8/2 | 14,8<br>9/3 | 12,8<br>11/4 | 11,1<br>12/6 | 9,8<br>14/7 | 7,7<br>18/12 | | | |
| | | P<br>$f_2$ | 42,4<br>1 | 31,6<br>1 | 25,2<br>1 | 21,0<br>2 | 18,0<br>2 | 15,7<br>3 | 14,0<br>4 | 12,6<br>5 | 11,4<br>5 | 10,5<br>6 | 9,6<br>8 | 9,0<br>9 | 8,4<br>10 | 7,8<br>11 | 7,0<br>14 | | | |

To the left of the boundary lines the deflection is less than 1/200 of the span width at 5 kN/m² uniformly distributed load

# WELAND GRATING TYPE H

| Load bar dim. mm | kg/m² | | span width mm | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 300 | 400 | 500 | 600 | 700 | 800 | 900 | 1000 | 1100 | 1200 | 1300 | 1400 | 1500 | 1600 | 1800 | 2000 | 2200 | 2400 |
| 20 x 2 | raw 12 | Q $f_1$ | 60,7 1/0 | 34,2 1/0 | 21,9 2/1 | 15,2 3/1 | 11,2 4/2 | 8,5 5/3 | 6,7 7/5 | | | | | | | | | | | |
| | galv. 14 | P $f_2$ | 9,3 1 | 6,9 1 | 5,5 2 | 4,6 3 | 3,9 3 | 3,4 4 | 3,1 5 | | | | | | | | | | | |
| 20 x 3 | raw 17 | Q $f_1$ | 91,1 1/0 | 51,2 1/0 | 32,8 2/0 | 22,8 3/1 | 16,7 4/1 | 12,8 5/2 | 10,1 7/3 | 8,2 8/5 | 6,8 10/7 | | | | | | | | | |
| | galv. 19 | P $f_2$ | 13,9 1 | 10,4 1 | 8,3 2 | 6,9 3 | 5,9 3 | 5,2 4 | 4,6 5 | 4,1 7 | 3,7 8 | | | | | | | | | |
| 25 x 2 | raw 14 | Q $f_1$ | 94,9 1/0 | 53,4 1/0 | 34,2 2/0 | 23,7 3/1 | 17,4 3/1 | 13,3 4/2 | 10,5 5/3 | 8,5 7/4 | 7,1 8/6 | | | | | | | | | |
| | galv. 16 | P $f_2$ | 14,5 1 | 10,8 1 | 8,6 1 | 7,2 2 | 6,1 3 | 5,4 4 | 4,8 4 | 4,3 5 | 3,9 7 | | | | | | | | | |
| 25 x 3 | raw 21 | Q $f_1$ | 142,3 1/0 | 80,1 1/0 | 51,2 2/0 | 35,6 3/0 | 26,1 3/1 | 20,0 4/1 | 15,8 5/2 | 12,8 7/3 | 10,6 8/4 | 8,9 10/5 | 7,6 11/7 | | | | | | | |
| | galv. 23 | P $f_2$ | 21,7 1 | 16,2 1 | 12,9 1 | 10,8 2 | 9,2 3 | 8,1 4 | 7,2 4 | 6,4 5 | 5,8 7 | 5,4 8 | 4,9 9 | | | | | | | |
| 30 x 2 | raw 17 | Q $f_1$ | 136,6 1/0 | 76,9 1/0 | 49,2 2/0 | 34,2 2/0 | 25,1 3/1 | 19,2 4/1 | 15,2 5/2 | 12,3 6/2 | 10,2 7/3 | 8,5 8/5 | 7,3 9/6 | 6,3 11/9 | | | | | | |
| | galv. 19 | P $f_2$ | 20,8 1 | 15,6 1 | 12,4 1 | 10,3 2 | 8,8 2 | 7,7 3 | 6,9 4 | 6,2 5 | 5,6 5 | 5,1 6 | 4,7 8 | 4,4 9 | | | | | | |
| 30 x 3 | raw 24 | Q $f_1$ | 205,0 1/0 | 115,3 1/0 | 73,8 2/0 | 51,2 2/0 | 37,6 3/1 | 28,8 4/1 | 22,8 5/1 | 18,4 6/2 | 15,2 7/2 | 12,8 8/3 | 10,9 9/4 | 9,4 11/6 | 8,2 12/8 | 7,2 14/10 | | | | |
| | galv. 27 | P $f_2$ | 31,3 1 | 23,3 1 | 18,6 1 | 15,5 2 | 13,3 2 | 11,6 3 | 10,3 4 | 9,3 5 | 8,4 5 | 7,7 6 | 7,1 8 | 6,6 9 | 6,2 10 | 5,8 11 | | | | |
| 35 x 2 | raw 19 | Q $f_1$ | 186,0 1/0 | 104,6 1/0 | 67,0 1/0 | 46,5 2/0 | 34,2 2/0 | 26,2 3/1 | 20,7 4/1 | 16,7 5/2 | 13,8 6/2 | 11,6 7/3 | 9,9 8/4 | 8,5 9/6 | 7,4 11/7 | 6,5 12/9 | | | | |
| | galv. 22 | P $f_2$ | 28,4 0 | 21,2 1 | 16,9 1 | 14,1 2 | 12,0 2 | 10,5 3 | 9,4 3 | 8,4 4 | 7,6 5 | 7,0 6 | 6,5 7 | 6,0 8 | 5,6 9 | 5,2 10 | | | | |
| 35 x 3 | raw 28 | Q $f_1$ | 279,0 1/0 | 156,9 1/0 | 100,4 1/0 | 69,7 2/0 | 51,2 2/0 | 39,2 3/1 | 31,0 4/1 | 25,1 5/1 | 20,7 6/2 | 17,4 7/2 | 14,9 8/3 | 12,8 9/4 | 11,2 11/5 | 9,8 12/6 | 7,7 15/10 | | | |
| | galv. 30 | P $f_2$ | 42,6 0 | 31,8 1 | 25,4 1 | 21,1 2 | 18,1 2 | 15,8 3 | 14,0 3 | 12,6 4 | 11,5 5 | 10,5 6 | 9,7 7 | 9,0 8 | 8,4 9 | 7,9 10 | 7,0 12 | | | |
| 40 x 2 | raw 22 | Q $f_1$ | 242,9 1/0 | 136,6 1/0 | 87,4 1/0 | 60,7 2/0 | 44,6 2/0 | 34,2 3/1 | 27,0 3/1 | 21,9 4/1 | 18,1 5/2 | 15,2 6/2 | 12,9 7/3 | 11,2 8/4 | 9,7 9/5 | 8,5 11/6 | 6,7 13/10 | | | |
| | galv. 25 | P $f_2$ | 37,1 0 | 27,7 1 | 22,1 1 | 18,4 1 | 15,7 2 | 13,7 2 | 12,2 3 | 11,0 3 | 10,0 4 | 9,1 5 | 8,4 6 | 7,8 7 | 7,3 8 | 6,9 9 | 6,1 11 | | | |
| 40 x 3 | raw 31 | Q $f_1$ | 364,4 1/0 | 205,0 1/0 | 131,2 1/0 | 91,1 2/0 | 66,9 2/0 | 51,2 3/0 | 40,5 3/1 | 32,8 4/1 | 27,1 5/1 | 22,8 6/1 | 19,4 7/2 | 16,7 8/3 | 14,6 9/3 | 12,8 11/4 | 10,1 13/7 | 8,2 17/10 | 6,8 20/15 | |
| | galv. 35 | P $f_2$ | 55,6 0 | 41,5 1 | 33,1 1 | 27,6 1 | 23,6 2 | 20,6 2 | 18,3 3 | 16,5 3 | 15,0 4 | 13,7 5 | 12,7 6 | 11,8 7 | 11,0 8 | 10,3 9 | 9,1 11 | 8,2 13 | 7,5 16 | |
| 45 x 3 | raw 35 | Q $f_1$ | 461,2 0/0 | 259,4 1/0 | 166,0 1/0 | 115,3 1/0 | 84,7 2/0 | 64,9 2/0 | 51,2 3/0 | 41,5 4/1 | 34,3 5/1 | 28,8 5/1 | 24,6 6/1 | 21,2 7/2 | 18,4 8/2 | 16,2 9/3 | 12,8 12/5 | 10,4 15/7 | 8,6 18/10 | 7,2 21/15 |
| | galv. 39 | P $f_2$ | 70,3 0 | 52,5 1 | 41,9 1 | 34,9 1 | 29,9 2 | 26,1 2 | 23,2 3 | 20,9 3 | 19,0 4 | 17,4 4 | 16,0 5 | 14,9 6 | 13,9 7 | 13,0 8 | 11,6 10 | 10,4 12 | 9,5 14 | 8,7 17 |
| 50 x 3 | raw 39 | Q $f_1$ | 569,3 0/0 | 320,2 1/0 | 205,0 1/0 | 142,3 1/0 | 104,6 2/0 | 80,1 2/0 | 63,3 3/0 | 51,2 3/0 | 42,3 4/1 | 35,6 5/1 | 30,3 6/1 | 26,1 7/1 | 22,8 8/2 | 20,0 9/2 | 15,8 11/4 | 12,8 13/5 | 10,6 16/8 | 8,9 19/11 |
| | galv. 43 | P $f_2$ | 86,8 0 | 64,9 1 | 51,8 1 | 43,1 1 | 36,9 1 | 32,2 2 | 28,6 2 | 25,7 3 | 23,4 3 | 21,4 4 | 19,8 5 | 18,4 5 | 17,1 6 | 16,1 7 | 14,3 9 | 12,8 11 | 11,7 13 | 10,7 15 |
| 50 x 4 | raw 51 | Q $f_1$ | 1036,5 1/0 | 583,0 1/0 | 373,1 1/0 | 259,1 2/0 | 190,4 2/0 | 145,8 3/0 | 115,2 4/0 | 93,3 5/0 | 77,1 6/1 | 64,8 7/1 | 55,2 8/1 | 47,6 9/1 | 41,5 10/1 | 36,4 12/2 | 28,8 15/3 | 23,3 18/4 | 19,3 22/6 | 16,2 26/8 |
| | galv. 55 | P $f_2$ | 158,1 0 | 118,1 1 | 94,2 1 | 78,4 1 | 67,1 2 | 58,7 2 | 52,1 3 | 46,9 4 | 42,6 5 | 39,0 5 | 36,0 6 | 33,4 7 | 31,2 8 | 29,2 9 | 26,0 12 | 23,4 15 | 21,2 18 | 19,5 21 |
| 50 x 5 | raw 63 | Q $f_1$ | 1295,6 1/0 | 728,8 1/0 | 466,4 1/0 | 323,9 2/0 | 238,0 2/0 | 182,2 3/0 | 144,0 4/0 | 116,6 5/0 | 96,4 6/0 | 81,0 7/1 | 69,0 8/1 | 59,5 9/1 | 51,8 10/1 | 45,5 12/1 | 36,0 15/2 | 29,2 18/3 | 24,1 22/5 | 20,2 26/7 |
| | galv. 67 | P $f_2$ | 197,6 0 | 147,6 1 | 117,8 1 | 98,0 1 | 83,9 2 | 73,3 2 | 65,1 3 | 58,6 4 | 53,2 5 | 48,8 5 | 45,0 6 | 41,8 7 | 39,0 8 | 36,6 9 | 32,5 12 | 29,2 15 | 26,6 18 | 24,3 21 |
| 60 x 4 | raw 61 | Q $f_1$ | 1492,5 0/0 | 839,5 1/0 | 537,3 1/0 | 373,1 1/0 | 274,1 2/0 | 209,9 3/0 | 165,8 3/0 | 134,3 4/0 | 111,0 5/0 | 93,3 6/0 | 79,5 6/1 | 68,5 7/1 | 59,7 9/1 | 52,5 10/1 | 41,5 12/2 | 33,6 15,2 | 27,8 18/3 | 23,3 22/5 |
| | galv. 65 | P $f_2$ | 227,7 0 | 170,0 1 | 135,7 1 | 112,9 1 | 96,6 2 | 84,5 2 | 75,0 3 | 67,5 3 | 61,3 4 | 56,2 4 | 51,9 5 | 48,1 6 | 44,9 7 | 42,1 8 | 37,4 10 | 33,7 12 | 30,6 15 | 28,0 17 |
| 60 x 5 | raw 75 | Q $f_1$ | 1865,6 0/0 | 1049,4 1/0 | 671,6 1/0 | 466,4 1/0 | 342,7 2/0 | 262,4 3/0 | 207,3 3/0 | 167,9 4/0 | 138,8 5/0 | 116,6 6/0 | 99,4 6/0 | 85,7 7/1 | 74,6 9/1 | 65,6 10/1 | 51,8 12/1 | 42,0 15/2 | 34,7 18/3 | 29,2 22/4 |
| | galv. 80 | P $f_2$ | 284,6 0 | 212,5 1 | 169,6 1 | 141,1 1 | 120,8 2 | 105,6 2 | 93,8 3 | 84,4 3 | 76,7 4 | 70,3 4 | 64,8 5 | 60,2 6 | 56,2 7 | 52,6 8 | 46,8 10 | 42,1 12 | 38,2 15 | 35,1 17 |
| 70 x 4 | raw 70 | Q $f_1$ | 2031,5 0/0 | 1142,7 1/0 | 731,3 1/0 | 507,9 1/0 | 373,1 2/0 | 285,7 2/0 | 225,7 3/0 | 182,8 3/0 | 151,1 4/0 | 127,0 5/0 | 108,2 6/0 | 93,3 6/0 | 81,3 7/1 | 71,4 8/1 | 56,4 11/1 | 45,7 13/2 | 37,8 16/2 | 31,7 19/3 |
| | galv. 76 | P $f_2$ | 309,9 0 | 231,4 1 | 184,7 1 | 153,6 1 | 131,5 1 | 115,0 2 | 102,1 2 | 91,9 3 | 83,5 3 | 76,5 4 | 70,6 4 | 65,5 5 | 61,1 6 | 57,3 7 | 50,9 8 | 45,8 10 | 41,6 13 | 38,2 15 |
| 70 x 5 | raw 87 | Q $f_1$ | 2539,4 0/0 | 1428,4 1/0 | 914,2 1/0 | 634,8 1/0 | 466,4 2/0 | 357,1 2/0 | 282,2 3/0 | 228,5 3/0 | 188,9 4/0 | 158,7 5/0 | 135,2 6/0 | 116,6 6/0 | 101,6 7/1 | 89,3 8/1 | 70,5 11/1 | 57,1 13/1 | 47,2 16/2 | 39,7 19/2 |
| | galv. 93 | P $f_2$ | 387,4 0 | 289,3 1 | 230,9 1 | 192,1 1 | 164,4 1 | 143,7 2 | 127,7 2 | 114,8 3 | 104,4 3 | 95,6 4 | 88,2 4 | 81,9 5 | 76,4 6 | 71,6 7 | 63,7 8 | 57,3 10 | 52,1 13 | 47,7 15 |
| 80 x 4 | raw 80 | Q $f_1$ | 2653,4 0/0 | 1492,5 1/0 | 955,2 1/0 | 663,3 1/0 | 487,4 2/0 | 373,1 2/0 | 294,8 2/0 | 238,8 3/0 | 197,4 4/0 | 165,8 4/0 | 141,3 5/0 | 121,8 6/0 | 106,1 6/0 | 93,3 7/1 | 73,7 9/1 | 59,7 11/1 | 49,3 14/2 | 41,5 16/2 |
| | galv. 86 | P $f_2$ | 404,8 0 | 302,3 1 | 241,2 1 | 200,7 1 | 171,8 1 | 150,2 2 | 133,4 2 | 120,0 2 | 109,0 3 | 99,9 3 | 92,2 4 | 85,6 5 | 79,9 5 | 74,9 6 | 66,5 7 | 59,9 9 | 54,4 11 | 49,9 13 |
| 80 x 5 | raw 100 | Q $f_1$ | 3316,7 0/0 | 1865,6 1/0 | 1194,0 1/0 | 829,2 1/0 | 609,2 2/0 | 466,4 2/0 | 368,5 2/0 | 298,5 3/0 | 246,7 4/0 | 207,3 4/0 | 176,6 5/0 | 152,3 6/0 | 132,7 6/0 | 116,6 7/0 | 92,1 9/1 | 74,6 11/1 | 61,7 14/1 | 51,8 16/2 |
| | galv. 106 | P $f_2$ | 505,9 0 | 377,9 1 | 301,5 1 | 250,8 1 | 214,8 1 | 187,7 2 | 166,8 2 | 150,0 2 | 136,3 3 | 124,9 3 | 115,3 4 | 107,0 5 | 99,8 5 | 93,6 6 | 83,1 7 | 74,8 9/ | 68,0 11 | 62,3 13 |

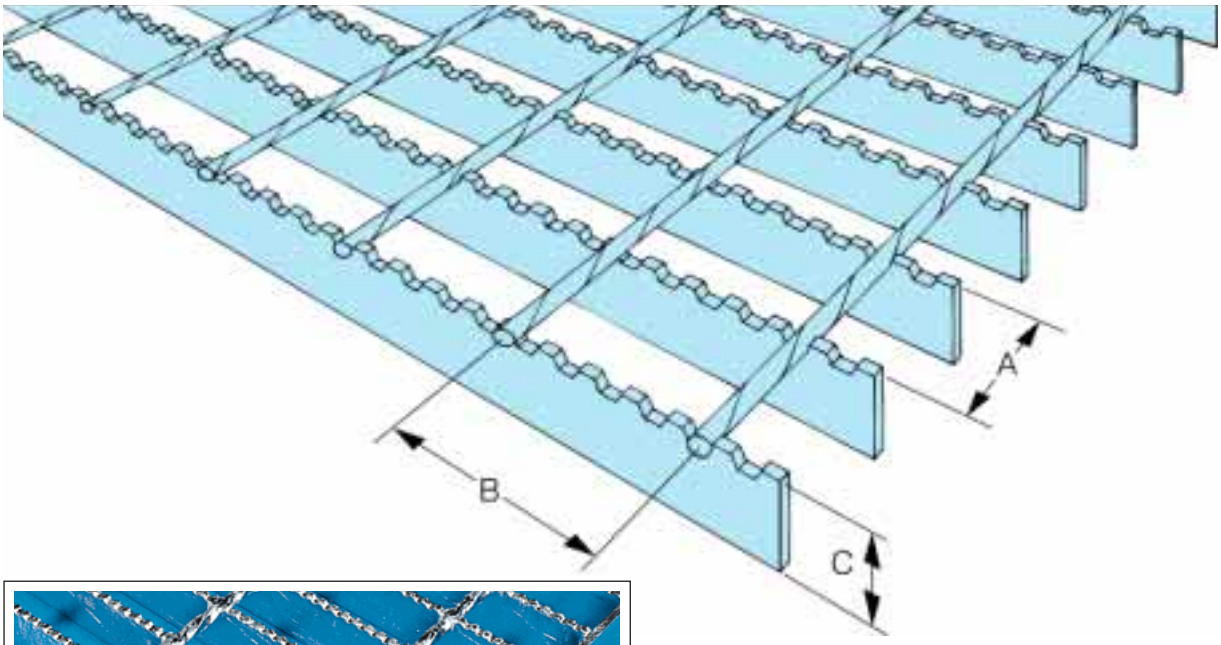
To the left of the boundary lines the deflection is less than 1/200 of the span width at 5 kN/m² uniformly distributed load

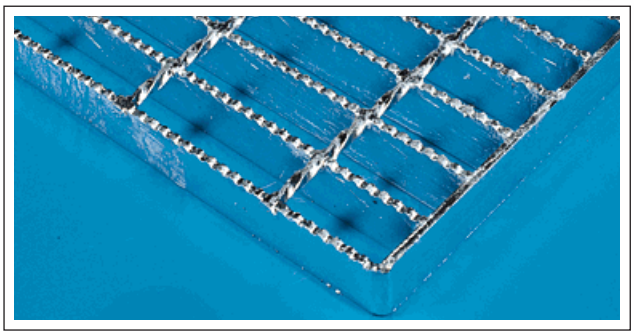
# WELAND GRATING TYPE F

| Load bar dim. mm | kg/m² | | span width mm | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 300 | 400 | 500 | 600 | 700 | 800 | 900 | 1000 | 1100 | 1200 | 1300 | 1400 | 1500 | 1600 | 1800 | 2000 | 2200 | 2400 |
| 20 x 3 | raw 22 galv. 24 | Q $f_1$ | 120,5 1/0 | 67,8 1/0 | 43,4 2/0 | 30,1 3/1 | 22,1 4/1 | 16,9 5/2 | 13,4 7/3 | 10,8 8/4 | 9,0 10/6 | 7,5 12/8 | | | | | | | | |
| | | P $f_2$ | 18,4 1 | 13,7 1 | 11,0 2 | 9,1 3 | 7,8 3 | 6,8 4 | 6,1 5 | 5,4 7 | 5,0 8 | 4,5 10 | | | | | | | | |
| 25 x 3 | raw 26 galv. 29 | Q $f_1$ | 188,2 1/0 | 105,9 1/0 | 67,8 2/0 | 47,1 3/0 | 34,6 3/1 | 26,5 4/1 | 20,9 5/1 | 16,9 7/2 | 14,0 8/3 | 11,8 10/4 | 10,0 11/6 | 8,6 13/8 | | | | | | |
| | | P $f_2$ | 28,7 1 | 21,4 1 | 17,1 1 | 14,2 2 | 12,2 3 | 10,7 4 | 9,5 4 | 8,5 5 | 7,7 7 | 7,1 8 | 6,5 9 | 6,1 10 | | | | | | |
| 30 x 3 | raw 31 galv. 35 | Q $f_1$ | 271,1 1/0 | 152,5 1/0 | 97,6 2/0 | 67,8 2/0 | 49,8 3/0 | 38,1 4/1 | 30,1 5/1 | 24,4 6/1 | 20,2 7/2 | 16,9 8/2 | 14,4 9/3 | 12,4 11/4 | 10,8 12/6 | 9,5 14/7 | 7,5 18/12 | | | |
| | | P $f_2$ | 41,4 1 | 30,9 1 | 24,6 1 | 20,5 2 | 17,6 2 | 15,3 3 | 13,6 4 | 12,3 5 | 11,1 5 | 10,2 6 | 9,4 8 | 8,7 9 | 8,2 10 | 7,6 11 | 6,8 14 | | | |
| 35 x 3 | raw 36 galv. 39 | Q $f_1$ | 369,0 1/0 | 207,5 1/0 | 132,8 1/0 | 92,2 2/0 | 67,8 2/0 | 51,9 3/0 | 41,0 4/1 | 33,2 5/1 | 27,4 6/1 | 23,1 7/2 | 19,6 8/2 | 16,9 9/3 | 14,8 11/4 | 13,0 12/5 | 10,2 15/8 | 8,3 19/11 | | |
| | | P $f_2$ | 56,3 0 | 42,0 1 | 33,5 1 | 27,9 2 | 23,9 2 | 20,9 3 | 18,6 3 | 16,7 4 | 15,2 5 | 13,9 6 | 12,8 7 | 11,9 8 | 11,1 9 | 10,4 10 | 9,2 12 | 8,3 15 | | |
| 40 x 3 | raw 41 galv. 45 | Q $f_1$ | 481,9 1/0 | 271,1 1/0 | 173,5 1/0 | 120,5 2/0 | 88,5 2/0 | 67,8 3/0 | 53,5 3/0 | 43,4 4/1 | 35,8 5/1 | 30,1 6/1 | 25,7 7/1 | 22,1 8/2 | 19,3 9/3 | 16,9 11/3 | 13,4 13/5 | 10,8 17/8 | 9,0 20/11 | |
| | | P $f_2$ | 73,5 0 | 54,9 1 | 43,8 1 | 36,4 1 | 31,2 2 | 27,3 2 | 24,2 3 | 21,8 3 | 19,8 4 | 18,1 5 | 16,7 6 | 15,5 7 | 14,5 8 | 13,6 9 | 12,1 11 | 10,9 13 | 9,9 16 | |
| 45 x 3 | raw 46 galv. 50 | Q $f_1$ | 609,9 0/0 | 343,1 1/0 | 219,6 1/0 | 152,5 1/0 | 112,0 2/0 | 85,8 2/0 | 67,8 3/0 | 54,9 4/0 | 45,5 5/1 | 38,1 5/1 | 32,5 6/1 | 28,0 7/1 | 24,4 8/2 | 21,4 9/2 | 16,9 12/4 | 13,7 15/5 | 11,3 18/8 | 9,5 21/11 |
| | | P $f_2$ | 93,0 0 | 69,5 1 | 55,4 1 | 46,1 1 | 39,5 2 | 34,5 2 | 30,7 3 | 27,6 3 | 25,1 4 | 23,0 4 | 21,2 5 | 19,7 6 | 18,4 7 | 17,2 8 | 15,3 10 | 13,8 12 | 12,5 14 | 11,5 17 |
| 50 x 3 | raw 51 galv. 56 | Q $f_1$ | 753,0 0/0 | 423,6 1/0 | 271,1 1/0 | 188,2 1/0 | 138,3 2/0 | 105,9 2/0 | 83,7 3/0 | 67,8 3/0 | 56,0 4/1 | 47,1 5/1 | 40,1 6/1 | 34,6 7/1 | 30,1 8/1 | 26,5 9/2 | 20,9 11/3 | 16,9 13/4 | 14,0 16/6 | 11,8 19/8 |
| | | P $f_2$ | 114,9 0 | 85,8 1 | 68,5 1 | 56,9 1 | 48,8 1 | 42,6 2 | 37,9 2 | 34,1 3 | 30,9 3 | 28,4 4 | 26,2 5 | 24,3 5 | 22,7 6 | 21,2 7 | 18,9 9 | 17,0 11 | 15,4 13 | 14,1 15 |
| 50 x 4 | raw 67 galv. 72 | Q $f_1$ | 1370,8 1/0 | 771,1 1/0 | 493,5 1/0 | 342,7 2/0 | 251,8 2/0 | 192,8 3/0 | 152,3 4/0 | 123,4 5/0 | 102,0 6/0 | 85,7 7/1 | 73,0 8/1 | 62,9 9/1 | 54,8 10/1 | 48,2 12/1 | 38,1 15/2 | 30,8 18/3 | 25,5 22/4 | 21,4 26/6 |
| | | P $f_2$ | 209,1 0 | 156,2 1 | 124,6 1 | 103,7 1 | 88,8 2 | 77,6 2 | 68,9 3 | 62,0 4 | 56,3 5 | 51,6 5 | 47,6 6 | 44,2 7 | 41,3 8 | 38,7 9 | 34,4 12 | 30,9 15 | 28,1 18 | 25,8 21 |
| 60 x 4 | raw 79 galv. 86 | Q $f_1$ | 1974,0 0/0 | 1110,4 1/0 | 710,6 1/0 | 493,5 1/0 | 362,6 2/0 | 277,6 3/0 | 219,3 3/0 | 177,7 4/0 | 146,8 5/0 | 123,4 6/0 | 105,1 6/0 | 90,6 7/1 | 79,0 9/1 | 69,4 10/1 | 54,8 12/1 | 44,4 15/2 | 36,7 18/3 | 30,8 22/4 |
| | | P $f_2$ | 301,1 0 | 224,9 1 | 179,5 1 | 149,3 1 | 127,8 2 | 111,7 2 | 99,3 3 | 89,3 3 | 81,1 4 | 74,3 4 | 68,6 5 | 63,7 6 | 59,4 7 | 55,7 8 | 49,5 10 | 44,5 12 | 40,5 15 | 37,1 17 |
| 70 x 4 | raw 92 galv. 100 | Q $f_1$ | 2686,8 0/0 | 1511,3 1/0 | 967,2 1/0 | 671,7 1/0 | 493,5 2/0 | 377,8 2/0 | 298,5 3/0 | 241,8 3/0 | 199,8 4/0 | 167,9 5/0 | 143,1 6/0 | 123,4 6/0 | 107,5 7/0 | 94,5 8/1 | 74,6 11/1 | 60,5 13/1 | 50,0 16/2 | 42,0 19/2 |
| | | P $f_2$ | 409,9 0 | 306,1 1 | 244,3 1 | 203,2 1 | 174,0 1 | 152,1 2 | 135,1 2 | 121,5 3 | 110,4 3 | 101,2 4 | 93,4 4 | 86,7 5 | 80,9 6 | 75,8 7 | 67,4 8 | 60,6 10 | 55,1 13 | 50,5 15 |
| 80 x 4 | raw 105 galv. 114 | Q $f_1$ | 3509,3 0/0 | 1974,0 1/0 | 1263,3 1/0 | 877,3 1/0 | 644,6 2/0 | 493,5 2/0 | 389,9 2/0 | 315,8 3/0 | 261,0 4/0 | 219,3 4/0 | 186,9 5/0 | 161,1 6/0 | 140,4 6/0 | 123,4 7/0 | 97,5 9/1 | 79,0 11/1 | 65,3 14/1 | 54,8 16/2 |
| | | P $f_2$ | 535,3 0 | 399,8 1 | 319,0 1 | 265,4 1 | 227,2 1 | 198,6 2 | 176,4 2 | 158,7 2 | 144,2 3 | 132,1 3 | 121,9 4 | 113,2 5 | 105,6 5 | 99,0 6 | 88,0 7 | 79,2 9 | 71,9 11 | 65,9 13 |
| 35 x 5 | raw 58 galv. 62 | Q $f_1$ | 839,6 1/0 | 472,3 1/0 | 302,3 2/0 | 209,9 2/0 | 154,2 3/0 | 118,1 4/0 | 93,3 5/0 | 75,6 7/1 | 62,5 8/1 | 52,5 9/1 | 44,7 11/1 | 38,6 13/2 | 33,6 15/2 | 29,5 17,3 | 23,3 21/5 | 18,9 26/7 | 15,6 31/10 | 13,1 37/14 |
| | | P $f_2$ | 128,1 1 | 95,7 1 | 76,3 1 | 63,5 2 | 54,4 3 | 47,5 3 | 42,2 4 | 38,0 5 | 34,5 6 | 31,6 8 | 29,2 9 | 27,1 10 | 25,3 12 | 23,7 13 | 21,0 17 | 18,9 21 | 17,2 25 | 15,8 30 |
| 40 x 5 | raw 67 galv. 71 | Q $f_1$ | 1096,7 1/0 | 616,9 1/0 | 394,8 2/0 | 274,2 2/0 | 201,4 3/0 | 154,2 4/0 | 121,9 5/0 | 98,7 6/0 | 81,6 7/1 | 68,5 8/1 | 58,4 10/1 | 50,4 11/1 | 43,9 13/2 | 38,6 14/2 | 30,5 18/3 | 24,7 23/5 | 20,4 27/7 | 17,1 32/10 |
| | | P $f_2$ | 167,3 1 | 124,9 1 | 99,7 1 | 82,9 2 | 71,0 2 | 62,1 3 | 55,1 4 | 49,6 5 | 45,1 6 | 41,3 7 | 38,1 8 | 35,4 9 | 33,0 10 | 30,9 12 | 27,5 15 | 24,7 18 | 22,5 22 | 20,6 26 |
| 45 x 5 | raw 75 galv. 79 | Q $f_1$ | 1388,0 1/0 | 780,7 1/0 | 499,7 1/0 | 347,0 2/0 | 254,9 3/0 | 195,2 3/0 | 154,2 4/0 | 124,9 5/0 | 103,2 6/0 | 86,7 7/1 | 73,9 9/1 | 63,7 10/1 | 55,5 11/1 | 48,8 13/1 | 38,6 16/2 | 31,2 20/3 | 25,8 24/5 | 21,7 29/7 |
| | | P $f_2$ | 211,7 1 | 158,1 1 | 126,2 1 | 105,0 2 | 89,9 2 | 78,6 3 | 69,8 3 | 62,8 4 | 57,0 5 | 52,3 6 | 48,2 7 | 44,8 8 | 41,8 9 | 39,2 10 | 34,8 13 | 31,3 16 | 28,5 19 | 26,1 23 |
| 50 x 5 | raw 83 galv. 88 | Q $f_1$ | 1713,5 1/0 | 963,9 1/0 | 616,9 1/0 | 428,4 2/0 | 314,7 2/0 | 241,0 3/0 | 190,4 4/0 | 154,2 5/0 | 127,5 6/0 | 107,1 7/0 | 91,3 8/1 | 78,7 9/1 | 68,5 10/1 | 60,2 12/1 | 47,6 15/2 | 38,6 18/2 | 31,9 22/4 | 26,8 26/5 |
| | | P $f_2$ | 261,4 0 | 195,2 1 | 155,8 1 | 129,6 1 | 110,9 2 | 97,0 2 | 86,2 3 | 77,5 4 | 70,4 5 | 64,5 5 | 59,5 6 | 55,3 7 | 51,6 8 | 48,3 9 | 43,0 12 | 38,7 15 | 35,1 18 | 32,2 21 |
| 60 x 5 | raw 99 galv. 105 | Q $f_1$ | 2467,5 0/0 | 1388,0 1/0 | 888,3 1/0 | 616,9 1/0 | 453,2 2/0 | 347,0 3/0 | 274,2 3/0 | 222,1 4/0 | 183,5 5/0 | 154,2 6/0 | 131,4 6/0 | 113,3 7/0 | 98,7 9/1 | 86,7 10/1 | 68,5 12/1 | 55,5 15/1 | 45,9 18/2 | 38,6 22/3 |
| | | P $f_2$ | 376,4 0 | 281,1 1 | 224,3 1 | 186,6 1 | 159,8 2 | 139,7 2 | 124,1 3 | 111,6 3 | 101,4 4 | 92,9 4 | 85,7 5 | 79,6 6 | 74,3 7 | 69,6 8 | 61,9 10 | 55,7 12 | 50,6 15 | 46,4 17 |
| 70 x 5 | raw 115 galv. 122 | Q $f_1$ | 3358,5 0/0 | 1889,2 1/0 | 1209,1 1/0 | 839,6 1/0 | 619,9 2/0 | 472,3 2/0 | 373,2 3/0 | 302,3 3/0 | 249,8 4/0 | 209,9 5/0 | 178,9 6/0 | 154,2 6/0 | 134,3 7/0 | 118,1 8/0 | 93,3 11/1 | 75,6 13/1 | 62,5 16/1 | 52,5 19/2 |
| | | P $f_2$ | 512,3 0 | 382,6 1 | 305,3 1 | 254,0 1 | 217,5 1 | 190,1 2 | 168,9 2 | 151,9 3 | 138,0 3 | 126,5 4 | 116,7 4 | 108,3 5 | 101,1 6 | 94,8 7 | 84,2 8 | 75,8 10 | 68,9 13 | 63,1 15 |
| 80 x 5 | raw 131 galv. 139 | Q $f_1$ | 4386,6 0/0 | 2467,5 1/0 | 1579,2 1/0 | 1096,7 1/0 | 805,7 2/0 | 616,9 2/0 | 487,4 2/0 | 394,8 3/0 | 326,3 4/0 | 274,2 4/0 | 233,6 5/0 | 201,4 6/0 | 175,5 6/0 | 154,2 7/0 | 121,9 9/1 | 98,7 11/1 | 81,6 14/1 | 68,5 16/1 |
| | | P $f_2$ | 669,1 0 | 499,7 1 | 398,8 1 | 331,8 1 | 284,0 1 | 248,3 2 | 220,6 2 | 198,4 2 | 180,3 3 | 165,2 3 | 152,4 4 | 141,5 5 | 132,0 5 | 123,8 6 | 110,0 7 | 98,9 9 | 89,9 11 | 82,4 13 |

To the left of the boundary lines the deflection is less than 1/200 of the span width at 5 kN/m² uniformly distributed load

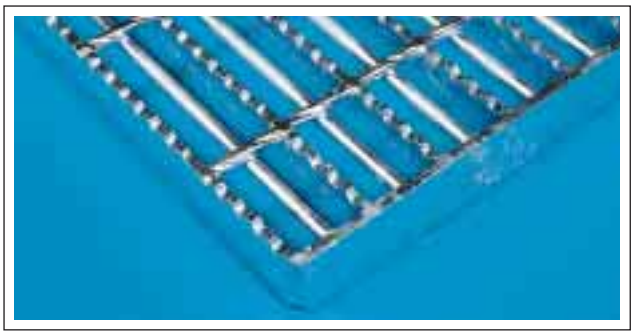
# SAFETY GRATING (NON-SLIP)



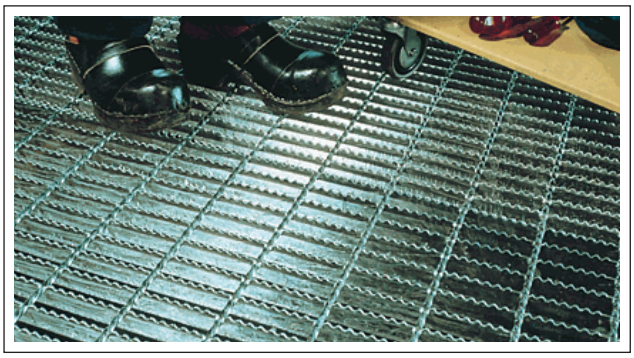
## Safety grating

The serrated top side gives extra protection against slipping and is, therefore, used in conditions where for example oil spillage occurs.



## Safety grating with infill bars Type JN9 and HN9

This grating has been specially developed for offshore industries. Alternate load bars are replaced by a round bar to reduce overall weight while still fulfilling the requirement of a maximum opening size of 15 mm.

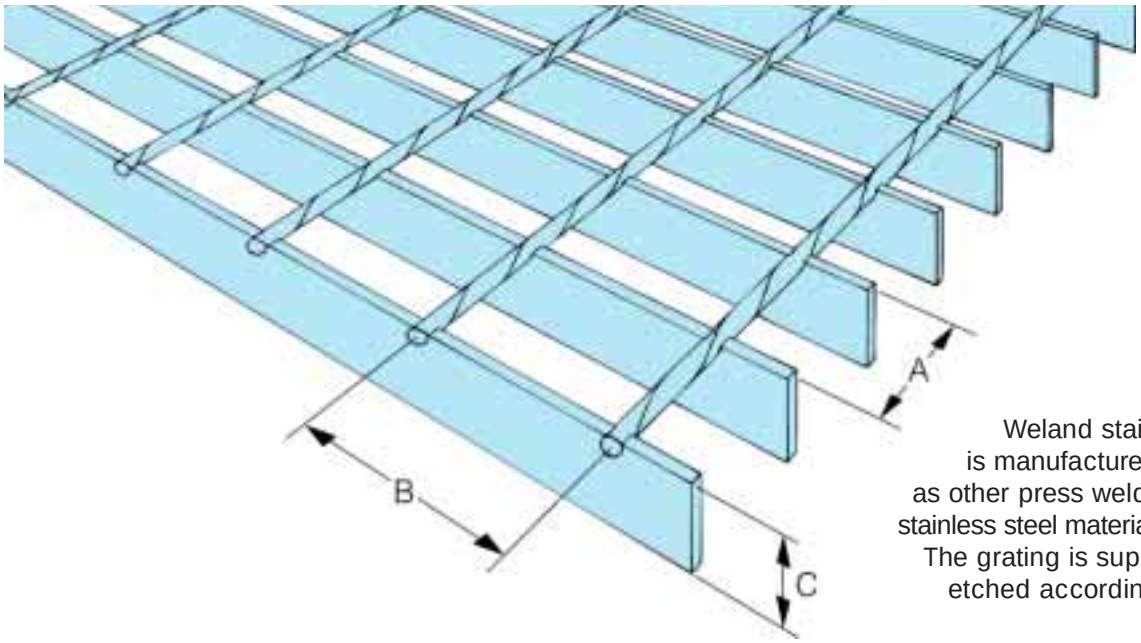


| Grating type | Mesh size c/c mm (A x B) | Load bar mm (C) |
|---|---|---|
| H4-SAF | 33 x 50 | 25 - 60 |
| H9-SAF | 33 x 100 | 25 - 60 |
| F4-SAF | 25 x 50 | 25 - 60 |
| F9-SAF | 25 x 100 | 25 - 50 |
| N9-SAF | 16 x 100 | 25 - 40 |
| J4-SAF | 41 x 50 | 25 - 40 |
| **Safety grating with infill bars Type** | **Opening mm** | |
| JN9-SAF | 15 x 92 | 25 - 60 |
| HN9-SAF | 13 x 92 | 25 - 60 |
| HB9-SAF | 10 x 92 | 25 - 60 |

Weland safety grating represents a good alternative where oil spillage or the like can make the flooring slippery and where especially good grip is required.

Weland manufactures grating for all possible conditions.

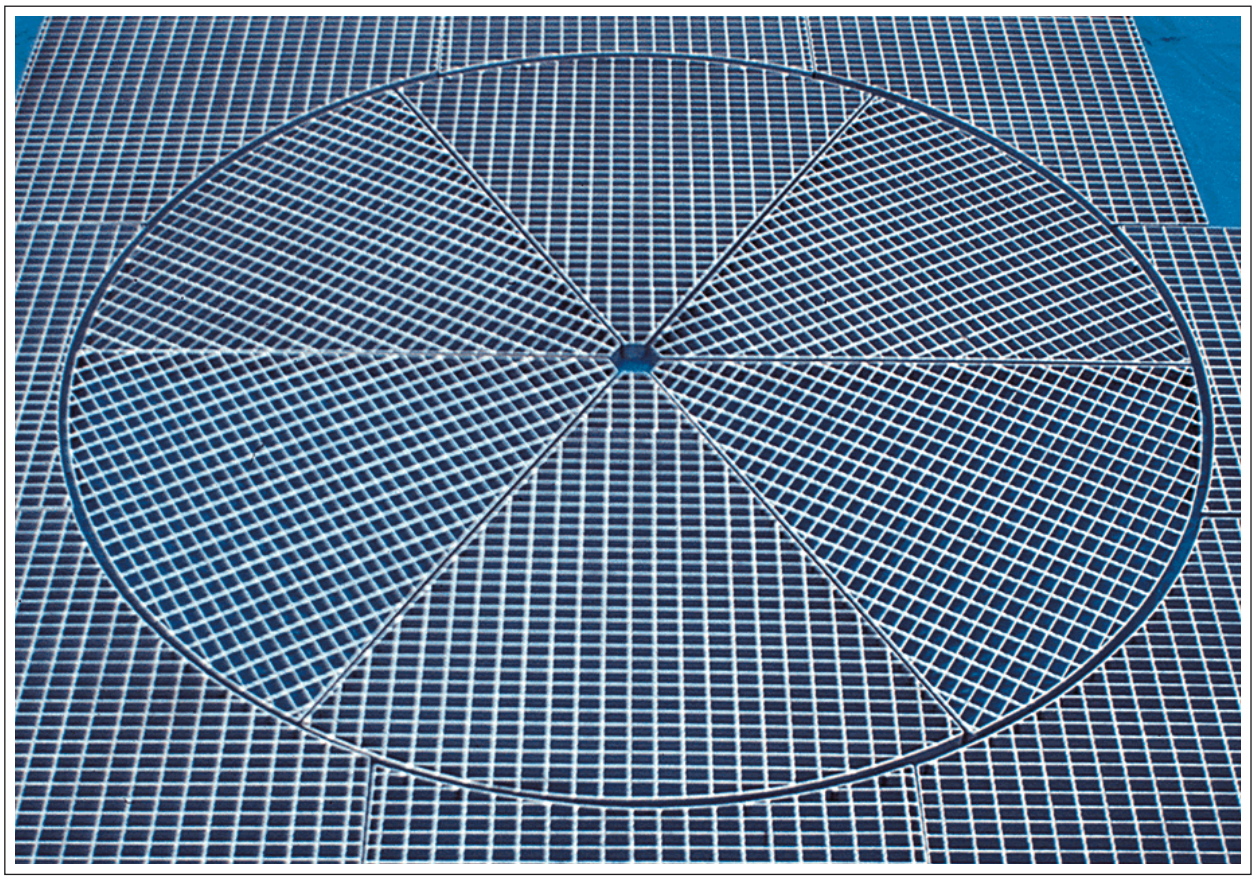
# STAINLESS STEEL GRATING



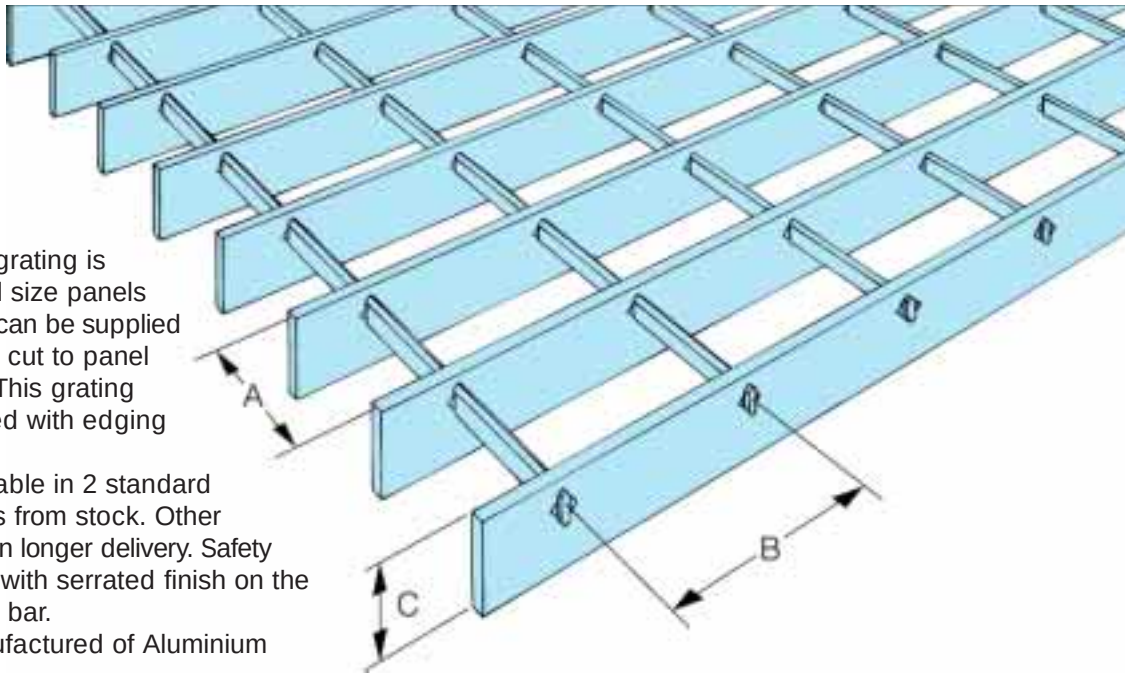

Weland stainless steel grating is manufactured in the same way as other press welded gratings but of stainless steel material 303, 316 Grades. The grating is supplied un-treated or etched according to requirements.

| Grating type | Mesh opening c/c (mm) (A x B) | Load bearing (mm) (C) |
|---|---|---|
| H3<br>H3<br>H3 | 33 x 37<br>33 x 37<br>33 x 37 | 20 x<br>25 x<br>30 x |
| N6<br>N6 | 16 x 75<br>16 x 75 | 25 x 2<br>30 x 2 |

Shaped stainless steel gratings.



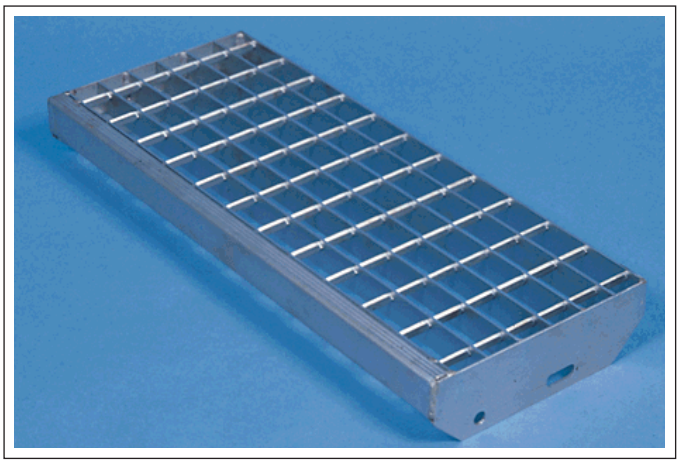
# ALUMINIUM GRATING



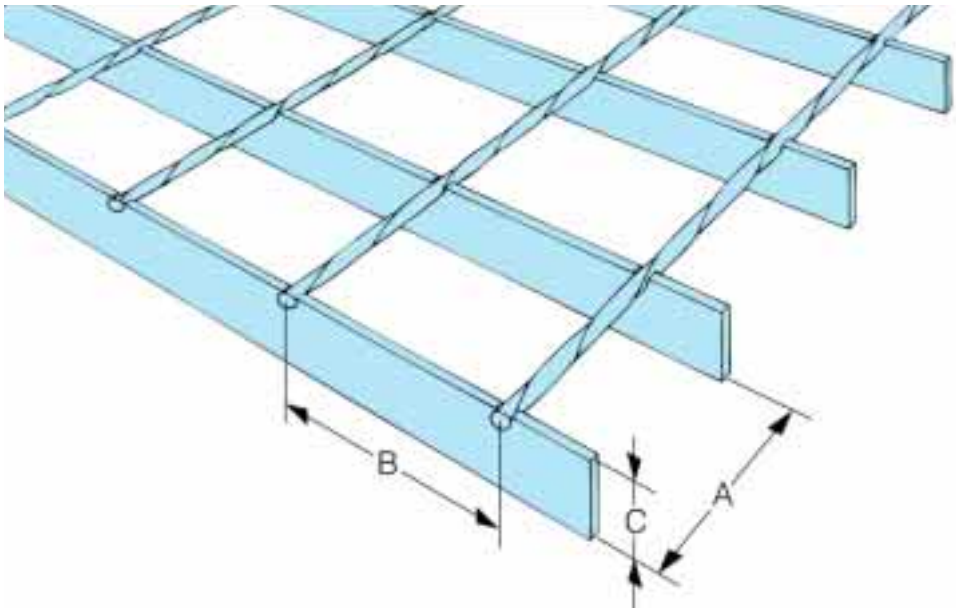

Weland aluminium grating is manufactured in full size panels 6000 x 1000 mm. It can be supplied either in this size or cut to panel size requirements. This grating can also be supplied with edging strips.
The grating is available in 2 standard mesh opening sizes from stock. Other sizes are available on longer delivery. Safety grating is available with serrated finish on the top side of the load bar.
The grating is manufactured of Aluminium alloy Al Mg Si.

| Grating type | Mesh opening size c/c (mm) (A x B) | Load bearing bar (mm) (C) | Weight (kg/m²) | Max. span* (mm) |
|---|---|---|---|---|
| AL 35 | 35 x 50 | 30 | 9,3 | 1 000 |
| AL 17 | 17,5 x 100 | 25 | 12,8 | 1 000 |

* for pedestrian walkways



# WELAND 'LARGE' MESH GRATING




Weland large mesh grating can be put to a number of uses. For example security grating, gates, break in protection, fencing, ceilings, partitioning and display board stands.

Grating is available in 2 different mesh opening sizes and 3 load bearing bar depths. The material also can be made to measure.

The grating is hot dip galvanized as standard but can also be delivered powder coated.

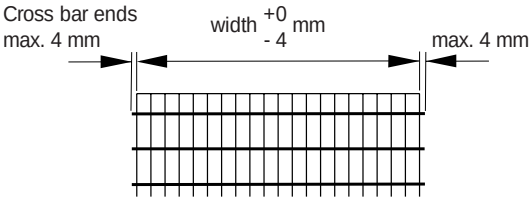
| Grating type | Mesh opening size c/c (mm) (A x B) | Load bar (mm) (C) |
|---|---|---|
| I6 20<br>I6 25<br>I6 30 | 66 x 75<br>66 x 75<br>66 x 75 | 20<br>25<br>30 |
| I9 20<br>I9 25<br>I9 30 | 100 x 100<br>100 x 100<br>100 x 100 | 20<br>25<br>30 |

# GRATING TOLERANCES (MAXIMUM)

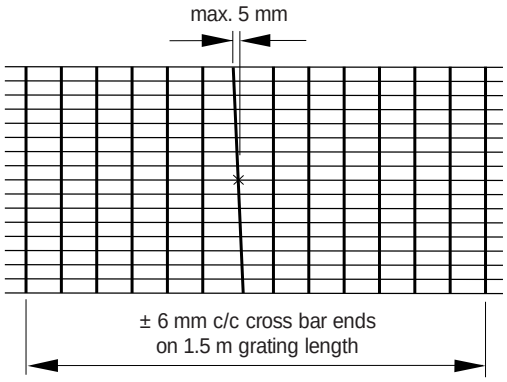
## Length, width and diagonal dimension

Maximum tolerances +0 -4 mm

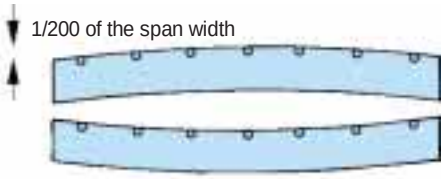
## Maximum length of cross bar ends




## Cross bar pitch



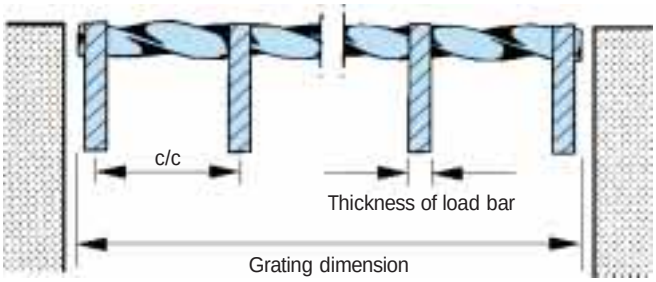

## Load bearing bar deflection




## Grating dimensions

The table below shows the constructional dimensions offered by the grating (full mesh). The marked dimensions indicate standard widths.

Example: When ordering a channel covering 600 x 16845 mm from grating type H the division is as follows: 16 panels 600 x 1000 and 1 panel 600 x 834 (value 834 is next to value 845 in the table).




| Type H c/c 33 mm (mm) | | Type F c/c 25 mm (mm) | | Type D c/c 22 mm (mm) | | Type N c/c 16 mm (mm) | | Type B c/c 12 mm (mm) | | Type J c/c 41 mm (mm) | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1000 | 500 | 1000 | 500 | 1000 | 500 | 1000 | 500 | 700 | 350 | 1000 | 500 |
| 966 | 469 | 973 | 475 | 975 | 476 | 982 | 483 | 685 | 338 | 957 | 456 |
| 933 | 436 | 949 | 451 | 952 | 455 | 966 | 465 | 672 | 326 | 914 | 416 |
| 900 | 403 | 923 | 426 | 930 | 433 | 949 | 449 | 659 | 313 | 872 | 375 |
| 867 | 370 | 898 | 401 | 907 | 412 | 933 | 433 | 646 | 301 | 830 | 334 |
| 834 | 337 | 873 | 377 | 884 | 390 | 916 | 416 | 633 | 289 | 788 | 293 |
| 801 | 304 | 849 | 352 | 862 | 369 | 900 | 400 | 620 | 276 | 745 | 252 |
| 768 | 271 | 825 | 327 | 840 | 348 | 883 | 383 | 608 | 264 | 700 | 211 |
| 734 | 238 | 799 | 302 | 818 | 327 | 867 | 367 | 596 | 252 | 662 | 171 |
| 700 | 205 | 774 | 278 | 796 | 305 | 850 | 351 | 584 | 240 | 621 | 130 |
| 668 | 171 | 750 | 253 | 773 | 284 | 834 | 334 | 571 | 228 | 580 | 89 |
| 635 | 139 | 725 | 228 | 750 | 263 | 817 | 318 | 559 | 215 | 540 | 48 |
| 602 | 106 | 700 | 204 | 727 | 242 | 801 | 302 | 547 | 203 | | |
| 568 | 73 | 674 | 179 | 700 | 220 | 784 | 285 | 535 | 191 | | |
| 534 | 40 | 650 | 154 | 670 | 199 | 768 | 272 | 522 | 178 | | |
| | | 625 | 130 | 647 | 177 | 751 | 269 | 511 | 166 | | |
| | | 600 | 105 | 625 | 156 | 734 | 252 | 500 | 154 | | |
| | | 575 | 81 | 604 | 135 | 718 | 236 | 485 | 142 | | |
| | | 550 | 56 | 580 | 113 | 700 | 220 | 473 | 130 | | |
| | | 526 | 32 | 548 | 92 | 683 | 203 | 460 | 117 | | |
| | | | | 525 | 70 | 665 | 187 | 448 | 105 | | |
| | | | | | 49 | 649 | 171 | 436 | 93 | | |
| | | | | | 28 | 632 | 154 | 424 | 80 | | |
| | | | | | | 616 | 122 | 411 | 68 | | |
| | | | | | | 600 | 105 | 399 | 56 | | |
| | | | | | | 583 | 89 | 387 | 44 | | |
| | | | | | | 568 | 72 | 374 | 31 | | |
| | | | | | | 550 | 56 | 362 | 19 | | |
| | | | | | | 534 | 40 | | | | |
| | | | | | | 518 | 24 | | | | |

# PLANNING

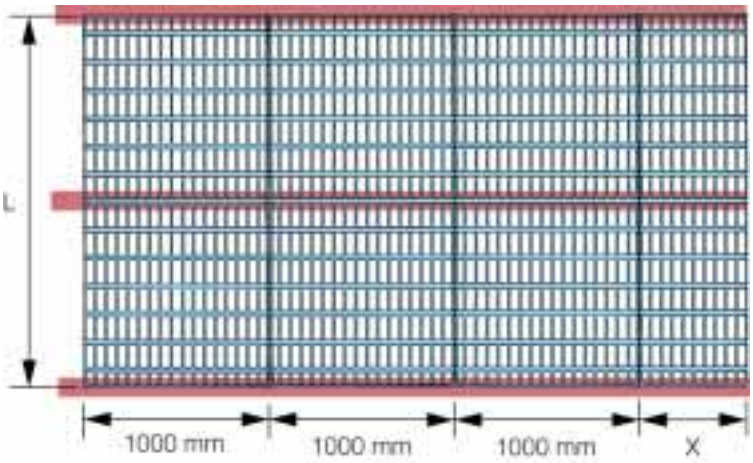
Weland's technical department is available for the production of layout drawings and specifications for open steel flooring. Every panel is given specific measures and marked for identification.

# CHOICE OF GRATING LENGTH AND LAYOUT

When establishing layout drawings the panel size should be based on the standard width of the grating (1000 mm) to achieve best possible economy.

If the grating is to be laid across a number of support beams, choose a length of grating that spans across as many supports as possible. This results in less deflection under load, you get a pleasant overall pattern and a minor number of joints.

If you on the same occasion order gratings with the same length of load bearing bars, you can make the cross bar match.





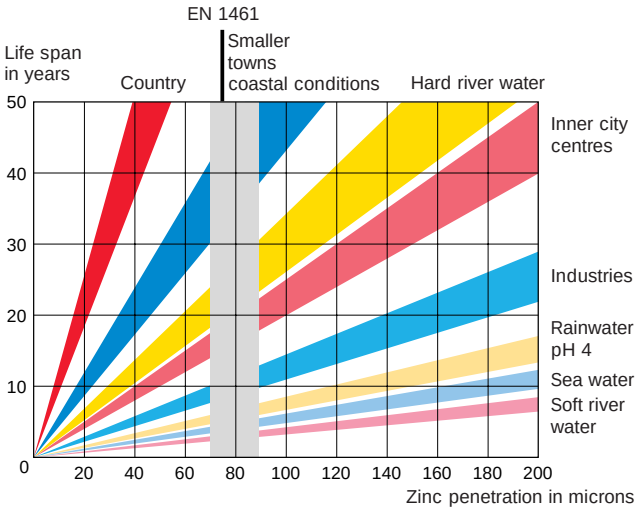
# TAGGING

Every panel is provided with a marked tag with reference to the layout drawing, which makes site fixing easier.

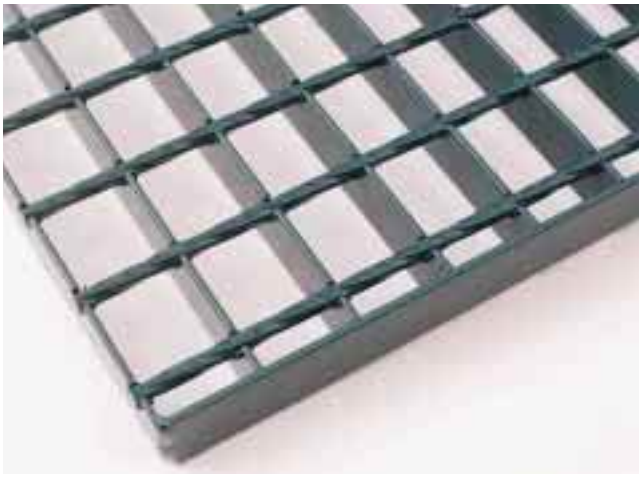
# SURFACE TREATMENT

Weland products are as standard hot dip galvanized meeting the requirements of Fe/Zn class EN 1461.

## Hot Dip Galvanizing




The diagram shows the average length of life for different zinc penetrations in different environments.



## Epoxy Varnish

Is coated on the galvanized grating giving it excellent protection against corrosion. Thickness of layer 150 - 200 µm

## Primer

Grating can be treated with zinc chromate primer or shop primer

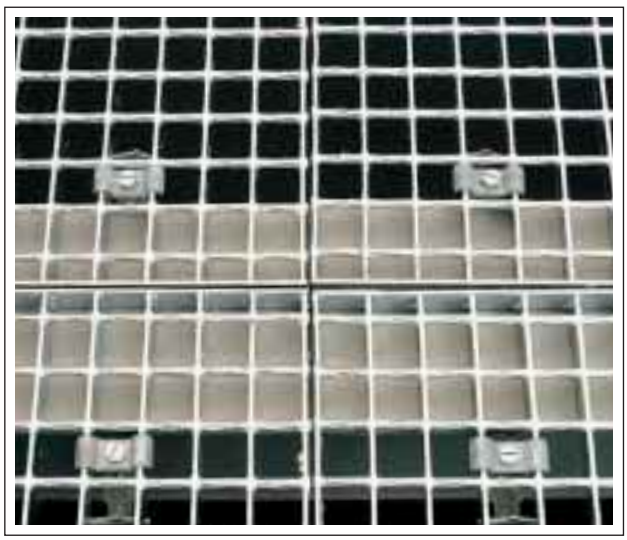
## Bitumen (Asphalt treatment)

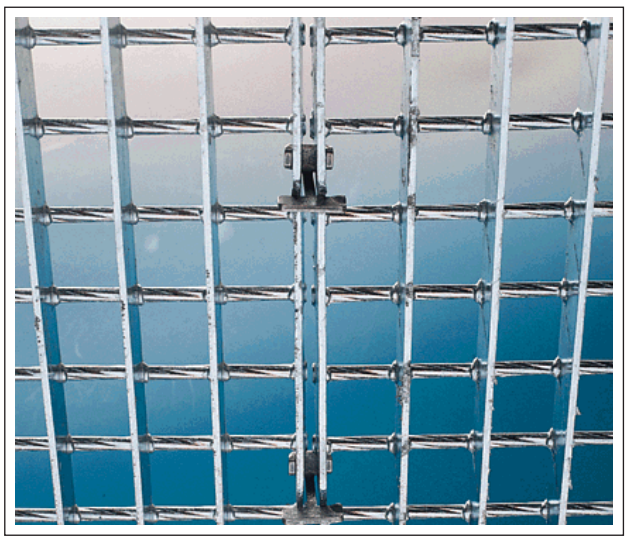
This finish is used mainly indoors. It can be carried out on self-colour or galvanized grating.

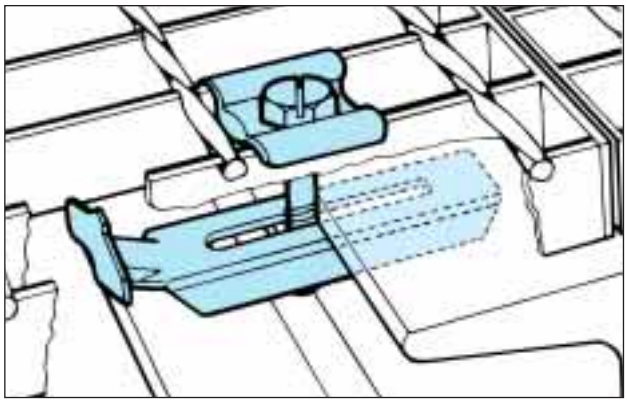
## Treatment of stainless steel

Stainless steel grating can be shot blasted, pickled or electrolytically treated to produce a good surface finish

# FIXINGS



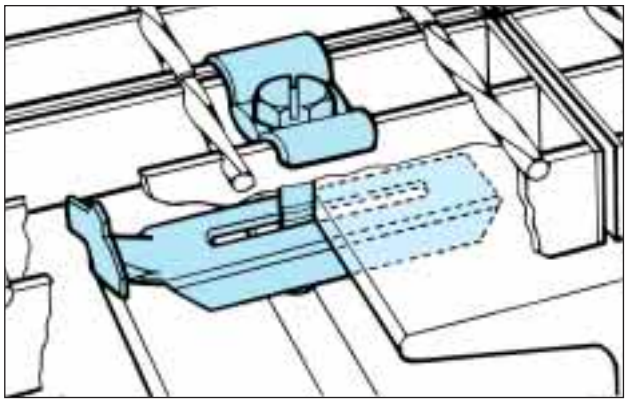




## Complete clip

Top clip + bolt + bottom clip + nut.

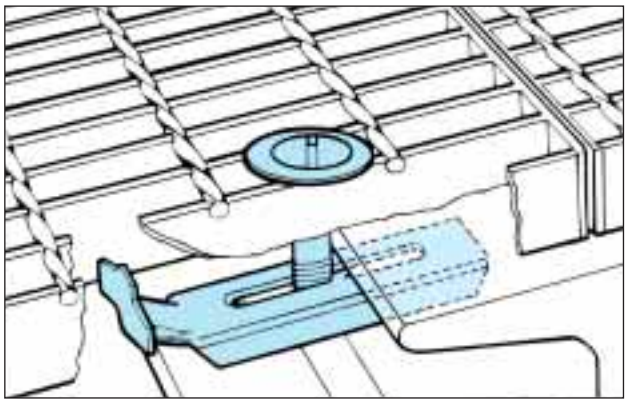
Suitable for grating types: H, F, D, J.



## Complete clip for joining two panels

Special double top clip + bolt + bottom clip + nut.

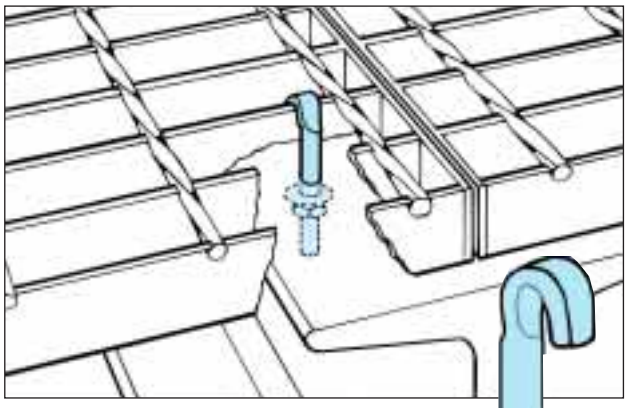
Suitable for grating types: H and J..



## Complete clip for small mesh grating

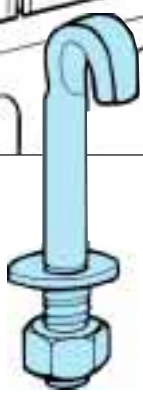
Special top clip + bolt + bottom clip + nut.

Suitable for grating types: D and N.



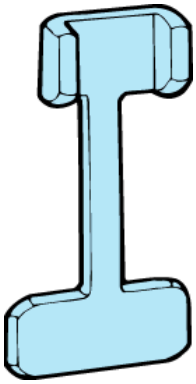
## J-clip

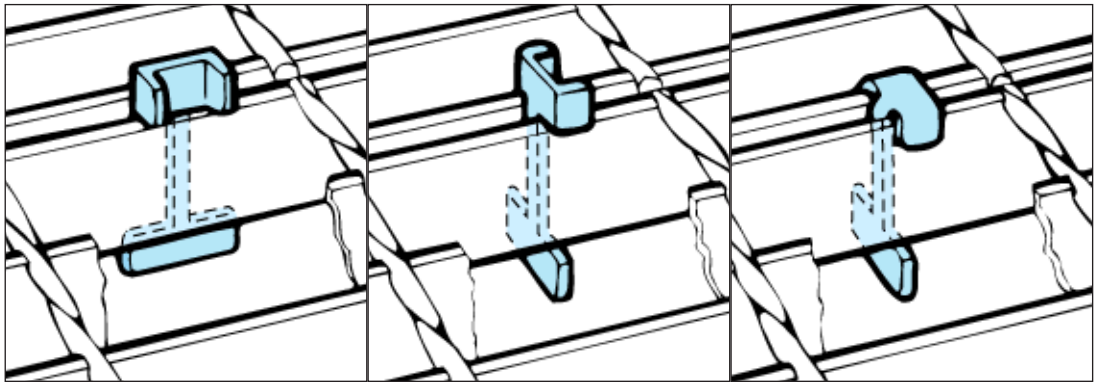
Suitable for all types of grating.



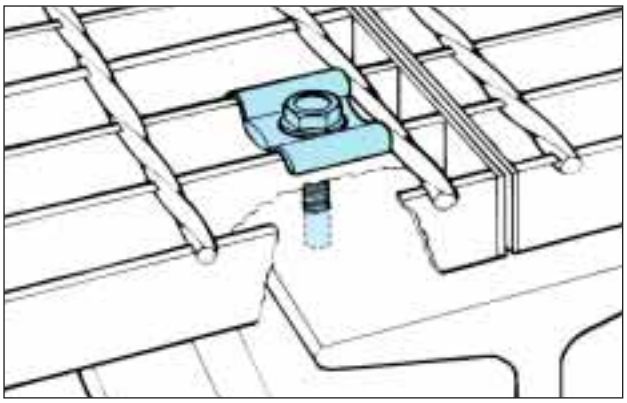
## Clips for load spreading

from panel to panel, no support

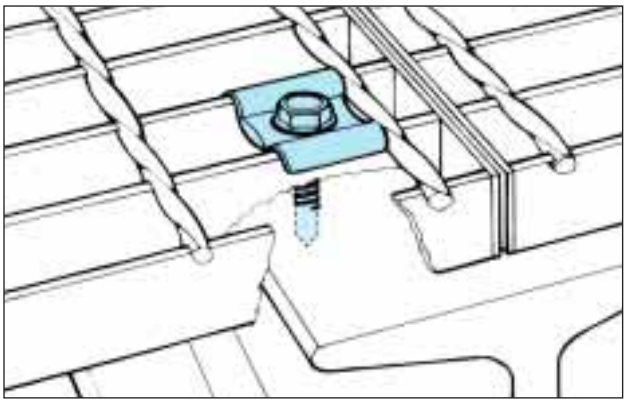




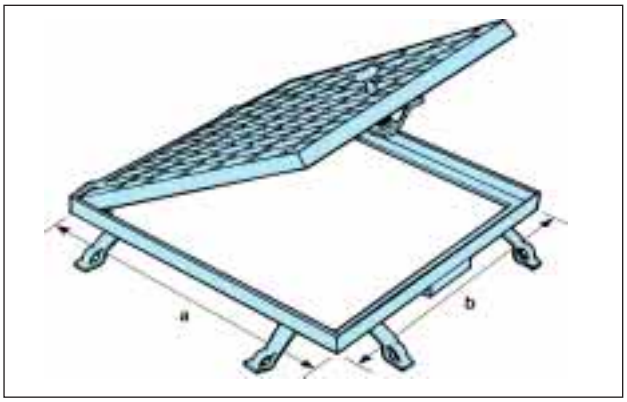
1. Push the clip into the gap between the two grating panels
2. Turn the clip 90 degrees
3. Knock down with hammer the top part of the clip



Self cutting screw



Self drilling screw



### Hatches

Hatches with kerb angle frames 30 x 30 x 4 mm, hinge and lock. Grating type H6 25/3.

| Sizes (a x b) mm. Dimensions incl. frame | | |
|---|---|---|
| 525 x 510 mm<br>735 x 510 mm | 735 x 710 mm<br>1035 x 710 mm | 1035 x1010 mm |

### Lock

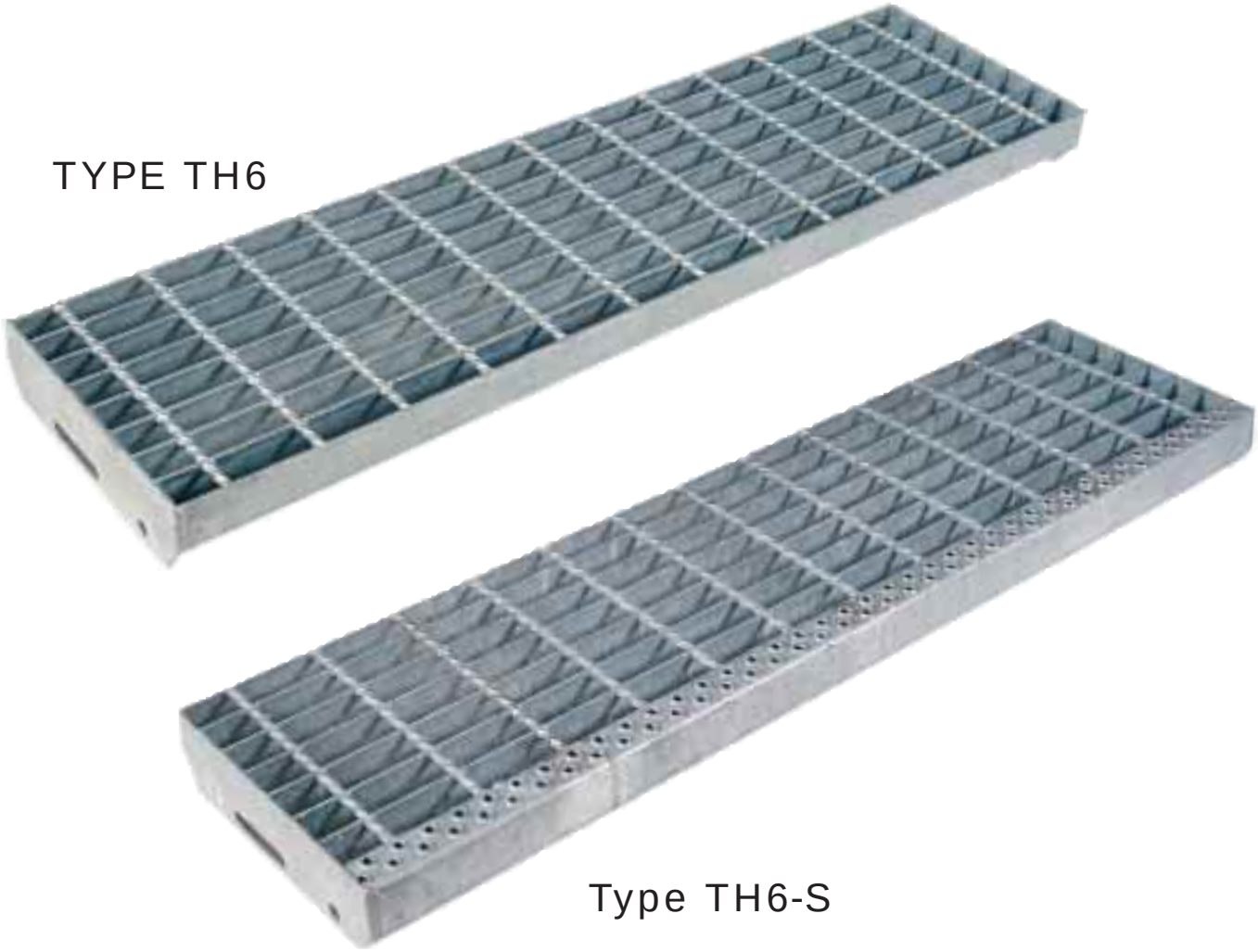
Complete lock including key for hatches

# STOCK STAIRTREAD

Weland manufactures different types of stairtreads and landings from grating. The tables on the next page show the formats kept in stock. All stairtreads and landings are as standard hot dip galvanized.

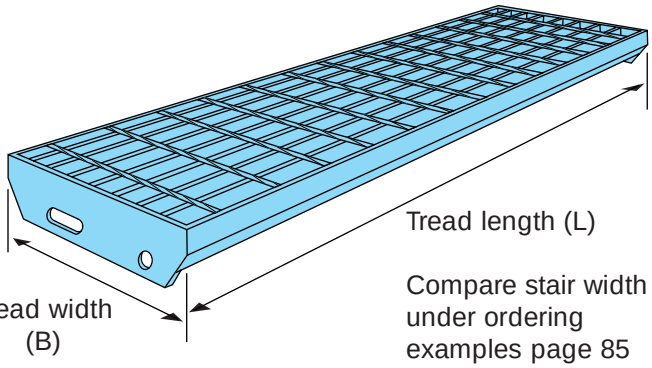
Information on other formats or stairtreads and landings manufactured from other material is given on pages Pagen 47, 53, 78 and 79. For other requirements please contact us.

TYPE TH6



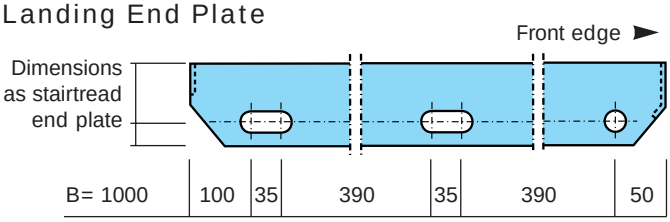
Type TH6-S

# DIMENSIONS FOR STAIRTREADS AND LANDINGS

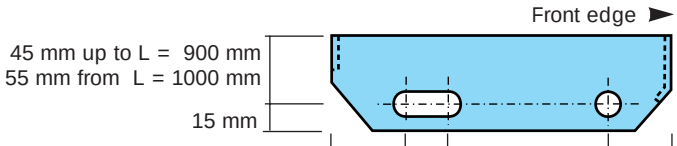



Compare stair width under ordering examples page 85

## Landing End Plate




## Stairtread end plate




| | | | | |
|---|---|---|---|---|
| B= 130 | 40 | 15 | 25 | 50 |
| B= 160 | 36 | 39 | 35 | 50 |
| B= 200 | 50 | 35 | 65 | 50 |
| B= 230 | 60 | 50 | 70 | 50 |
| B= 260 | 80 | 58 | 72 | 50 |
| B= 300 | 100 | 35 | 115 | 50 |
| B= 500 | 100 | 35 | 315 | 50 |
| B= 700 | 100 | 35 | 515 | 50 |

Hole diametre 14 mm for M12 screw

## Stock Stairtreads

| Size (mm) | Type TH6 part no. | Type TH6-S part no. | Weight kg |
|---|---|---|---|
| 400 x 130 | 14204131 | | 2 |
| 400 x 160 | 14204161 | | 2 |
| 500 x 130 | 14205131 | | 2 |
| 500 x 160 | 14205161 | | 3 |
| 500 x 200 | 14205201 | 14305201 | 3 |
| 600 x 130 | 14206131 | 14306131 | 3 |
| 600 x 160 | 14206161 | 14306161 | 3 |
| 600 x 200 | 14206201 | 14306201 | 4 |
| 600 x 230 | 14206231 | 14306231 | 4 |
| 600 x 260 | 14206261 | | 5 |
| 700 x 130 | 14207131 | | 3 |
| 700 x 160 | 14207161 | 14307161 | 4 |
| 700 x 200 | 14207201 | 14307201 | 5 |
| 700 x 230 | 14207231 | 14307231 | 5 |
| 700 x 260 | 14207261 | 14307261 | 6 |
| 800 x 130 | 14208131 | | 4 |
| 800 x 160 | 14208161 | | 5 |
| 800 x 200 | 14208201 | 14308201 | 5 |
| 800 x 230 | 14208231 | 14308231 | 6 |
| 800 x 260 | 14208261 | 14308261 | 7 |
| 900 x 130 | 14209131 | | 4 |
| 900 x 160 | 14209161 | | 5 |
| 900 x 200 | 14209201 | 14309201 | 6 |
| 900 x 230 | 14209231 | 14309231 | 7 |
| 900 x 260 | 14209261 | 14309261 | 7 |
| 1000 x 130 | 14210131 | | 6 |
| 1000 x 160 | 14210161 | | 7 |
| 1000 x 200 | 14210201 | 14310201 | 8 |
| 1000 x 230 | 14210231 | 14310231 | 9 |
| 1000 x 260 | 14210261 | 14310261 | 10 |
| 1000 x 300 | 14210301 | 14310301 | 11 |
| 1100 x 200 | 14211201 | | 8 |
| 1100 x 230 | 14211231 | | 9 |
| 1100 x 260 | 14211261 | 14311261 | 10 |
| 1100 x 300 | 14211301 | 14311301 | 12 |
| 1200 x 200 | 14212201 | | 9 |
| 1200 x 230 | 14212231 | | 10 |
| 1200 x 260 | 14212261 | 14312261 | 11 |
| 1200 x 300 | 14212301 | 14312301 | 12 |
| 1300 x 230 | 14213231 | | 12 |
| 1300 x 260 | 14213261 | 14313261 | 13 |
| 1300 x 300 | 14213301 | 14313301 | 15 |
| 1400 x 230 | 14214231 | | 13 |
| 1400 x 260 | 14214261 | 14314261 | 14 |
| 1400 x 300 | 14214301 | 14314301 | 16 |
| 1500 x 230 | 14215231 | | 15 |
| 1500 x 260 | 14215261 | 14315261 | 17 |
| 1500 x 300 | 14215301 | 14315301 | 19 |
| 1600 x 260 | 14216261 | | 18 |
| 1600 x 300 | 14216301 | 14316301 | 20 |
| 1800 x 300 | 14218301 | 14318301 | 22 |

## Stock Landings

| Size (mm) | Type TH6 part no. | Type TH6-S part no. | Weight kg |
|---|---|---|---|
| 500 x 500 | 14805051 | 14905051 | 6 |
| 500 x 700 | 14805071 | 14905071 | 8 |
| 500 x 1000 | 14805101 | 14905101 | 11 |
| 600 x 500 | 14806051 | 14906051 | 7 |
| 600 x 700 | 14806071 | 14906071 | 9 |
| 600 x 1000 | 14806101 | 14906101 | 13 |
| 700 x 500 | 14807051 | 14907051 | 9 |
| 700 x 700 | 14807071 | 14907071 | 12 |
| 700 x 1000 | 14807101 | 14907101 | 18 |
| 800 x 500 | 14808051 | 14908051 | 10 |
| 800 x 700 | 14808071 | 14908071 | 14 |
| 800 x 1000 | 14808101 | 14908101 | 20 |
| 900 x 500 | 14809051 | 14909051 | 12 |
| 900 x 700 | 14809071 | 14909071 | 16 |
| 900 x 1000 | 14809101 | 14909101 | 22 |
| 1000 x 500 | 14810051 | 14910051 | 15 |
| 1000 x 700 | 14810071 | 14910071 | 21 |
| 1000 x 1000 | 14810101 | 14910101 | 29 |
| 1100 x 500 | 14811051 | 14911051 | 17 |
| 1100 x 700 | 14811071 | 14911071 | 23 |
| 1100 x 1000 | 14811101 | 14911101 | 31 |
| 1200 x 500 | 14812051 | 14912051 | 18 |
| 1200 x 700 | 14812071 | 14912071 | 24 |
| 1200 x 1000 | 14812101 | 14912101 | 34 |
| 1300 x 500 | 14813051 | 14913051 | 22 |
| 1300 x 700 | 14813071 | 14913071 | 30 |
| 1300 x 1000 | 14813101 | 14913101 | 42 |
| 1400 x 500 | 14814051 | 14914051 | 23 |
| 1400 x 700 | 14814071 | 14914071 | 32 |
| 1400 x 1000 | 14814101 | 14914101 | 45 |
| 1500 x 500 | 14815051 | 14915051 | 28 |
| 1500 x 700 | 14815071 | 14915071 | 38 |
| 1500 x 1000 | 14815101 | 14915101 | 53 |
| 1600 x 500 | 14816051 | 14916051 | 30 |
| 1600 x 700 | 14816051 | 14916051 | 41 |
| 1800 x 1000 | 14818101 | 14918101 | 61 |

## Fixing Screw + Nut

Hot dip galvanized

| Name | Dimensions | Part no. |
|---|---|---|
| Fixing screw + nut | M12 x 25<br>M12 x 40 | 16412251<br>16412401 |

Standard packing = 100 off