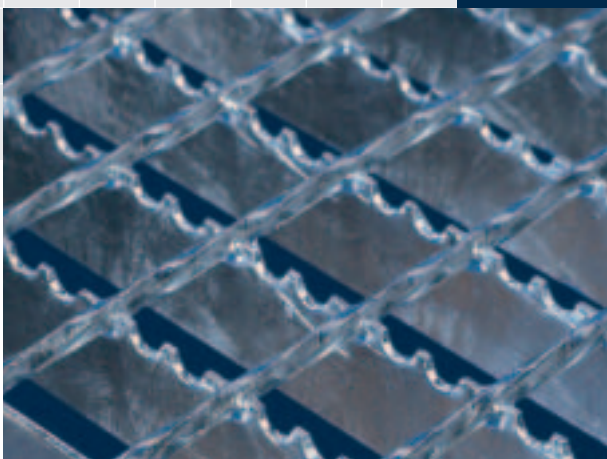


MEISEGrate® Press Welded Grating

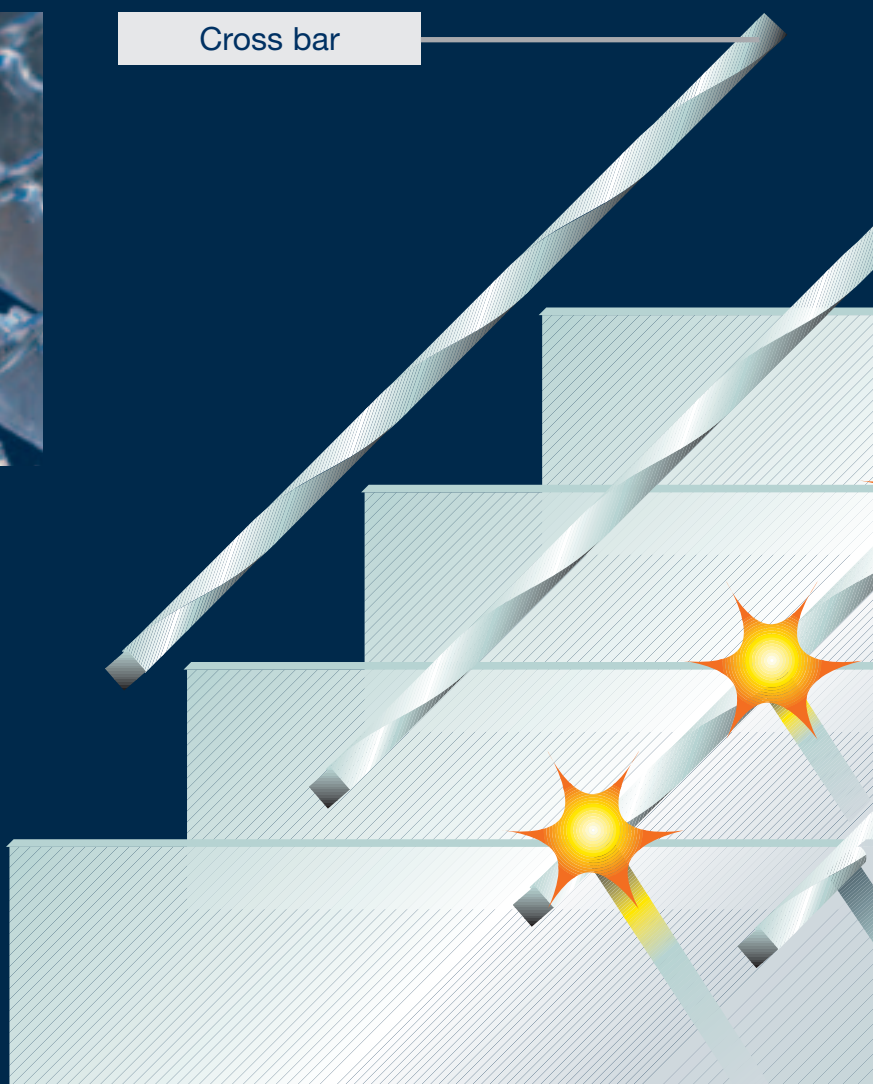




Due to the construction of the bearing bars, press welded gratings have a natural anti-skid property. See page 37.

We offer press welded gratings in stainless steel with round steel rods of 4 mm diameter.

Cross bar



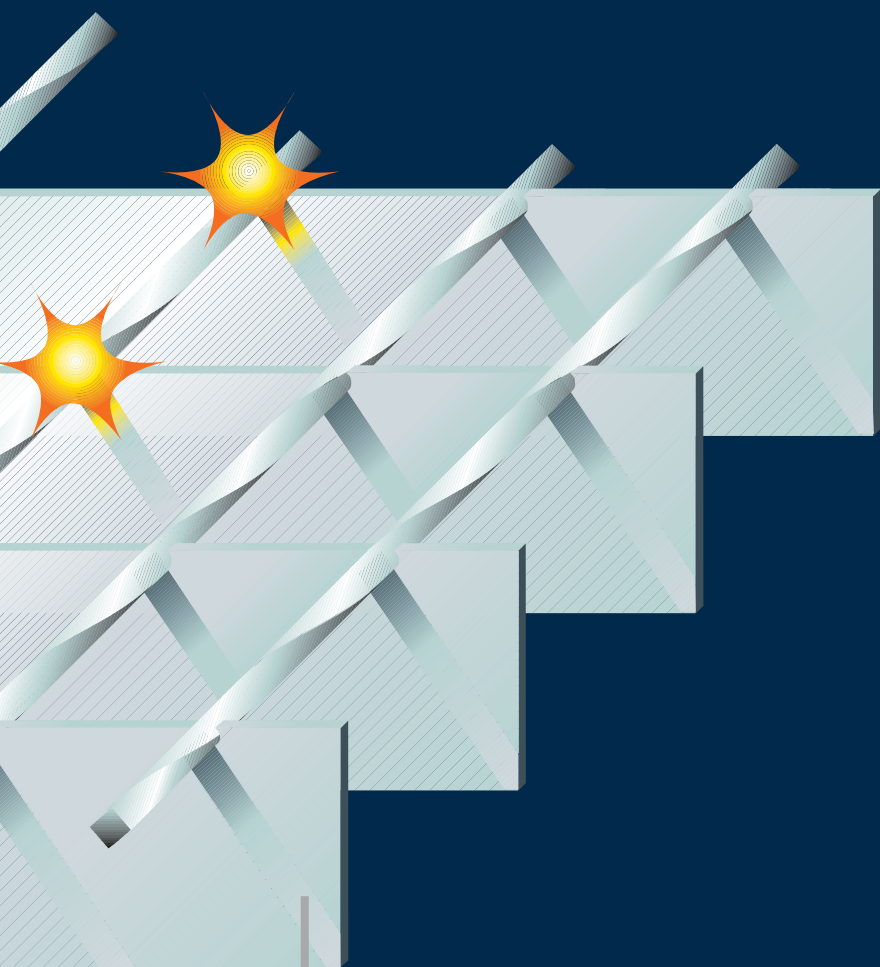
Press Welded Gratings

MeiseGrate press welded gratings are produced from steel. The bearing bars (I-bar or Flat Bar) and the twisted square cross bars are cut to grating size before the cross bars are locked into the bearing bars at a pressure of 1000 kN and – simultaneously – electrically welded with 2500 KVA. into one unit.

In combination with welded cross bars, bearing bars make for high torsion rigidity.

Press welded gratings are banded with flat bars which, as a rule, will be the same dimension as the bearing bar.

In addition to our standard press-welded gratings, we offer offshore grating (O-SP-SS) and gratings with perforated sheet, details of which you will find on p42.



Bearing bar

Maximum cross bar length
1050 mm

Maximum bearing bar length
6000 mm

Mesh Width Clearance

Clear mesh width is calculated on the basis of the given mesh spacing and the thickness of the material used.

Example

Spacing of 34.3 x 38.1 / bearing bar 3 mm / cross bar 6 x 6 mm = a clearance of 31.3 x 32.3.

In the trade, this is known as a "30 x 30".

* **Support width** =
clearance between the rests.

Standard Mesh Spacing						
Flat bar		Cross bar				
12.5	x	30	40	50	60	100
30	x		40	50	60	100
40	x	30		50	60	100
60	x	30	40	50		100
90	x	30	40	50		

[illegible]

Load Tables for Flat Bearing Bars

Light duty

Medium duty

Vehicle access: trucks up to 3 tonnes in overall weight.

Vehicle access: trucks up to 9 tonnes in overall weight.

Vehicle access: trucks up to 30 tonnes in overall weight.

Conversion factor for kg into kN
10 kN ≈ 1 tonne
1 kN ≈ 100 kg

F_P

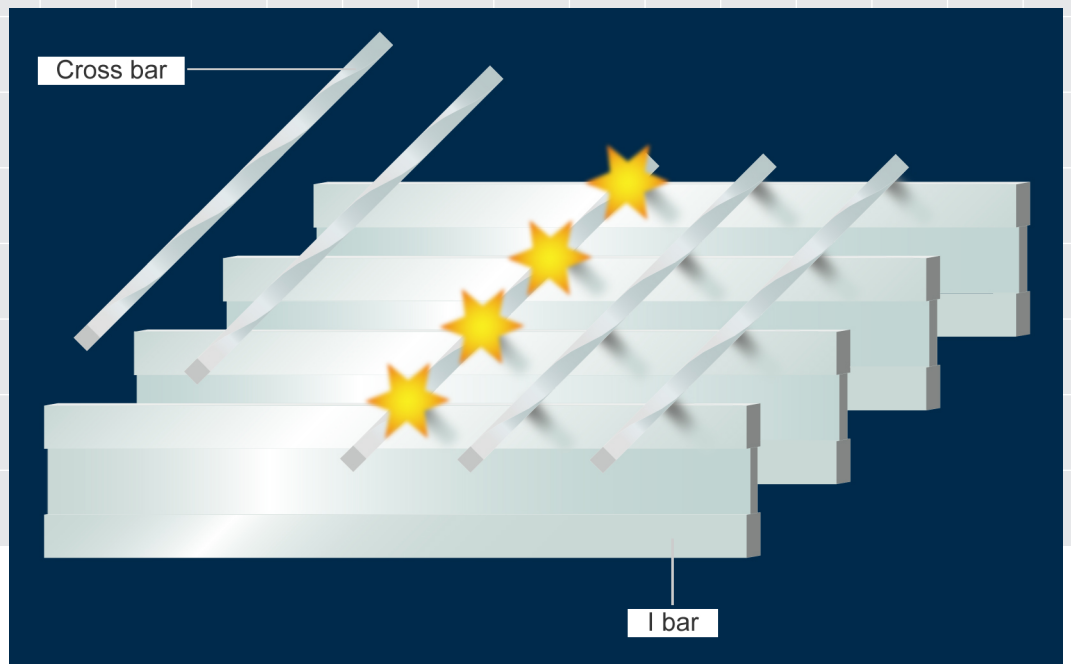
Point load in kN

F_V

uniformly distributed load in kN per sq. m.

Flat Bar 3 mm		Flat Bar 4mm		Flat Bar 5 mm	
20x3					
32x3		25x4		25x5	
35x3		32x4		30x5	
40x3		35x4		35x5	
		40x4		40x5	
		45x4		45x5	
		50x4		50x5	
		60x4		60x5	
Banding Flat	3mm	4mm		5mm	
or		Angle	per customers' request		

32 x 5		35 x 5		40 x 5		45 x 5		50 x 5		55 x 5		60 x 5	
F _P	F _V	F _P	F _V	F _P	F _V	F _P	F _V	F _P	F _V	F _P	F _V	F _P	F _V
78.33	510.46	91.10	631.54	119.01	815.88	140.40	1084.35	179.34	1416.74	221.03	1791.52	229.56	2142.34
48.92	238.09	57.28	251.60	78.49	321.99	93.15	407.59	117.97	496.28	138.72	623.46	152.91	724.90
34.03	113.34	38.17	127.28	49.86	166.22	63.11	210.37	77.91	259.72	94.27	314.26	112.20	374.00
27.15	72.56	30.54	81.44	39.89	106.38	50.49	134.64	62.33	166.22	75.24	201.12	89.76	239.36
22.59	50.24	25.45	56.56	33.24	73.87	42.07	93.50	51.94	115.43	62.85	139.67	74.80	166.22
19.25	32.05	21.81	41.56	28.49	52.47	36.06	68.69	44.52	84.80	53.87	102.61	64.11	122.12
16.00	21.32	19.08	28.34	24.93	41.55	31.55	52.59	38.95	64.93	47.13	78.56	56.10	93.50
12.53	14.84	16.79	19.90	22.16	29.71	28.05	41.55	34.62	51.30	41.90	62.07	49.96	73.87
10.03	10.70	13.60	14.51	19.94	21.66	25.24	30.84	31.16	41.55	37.71	50.28	44.88	59.64
8.18	7.93	11.24	10.90	16.78	16.27	22.96	23.17	28.33	31.78	34.28	41.56	40.80	49.45
6.75	6.00	9.44	8.39	14.10	12.53	20.08	17.85	25.97	24.48	31.42	32.59	37.40	41.55
5.64	4.62	8.05	6.60	12.01	9.86	17.11	14.03	23.47	19.25	29.00	25.63	34.52	33.27
		6.61	5.03	9.86	7.51	14.05	10.07	19.27	14.86	25.65	19.54	32.05	25.37
		5.37	3.82	8.02	5.70	11.42	8.12	15.67	11.14	20.85	14.85	27.07	19.25
				6.61	4.40	9.41	6.27	12.91	8.60	17.18	11.45	22.31	14.87
				5.51	3.45	7.94	4.92	10.76	6.75	14.32	8.99	18.60	11.67
						6.61	3.91	9.06	5.37	12.07	7.15	15.67	9.28
								7.71	4.32	10.26	5.76	13.32	7.48
								6.61	3.52	8.79	4.89	11.42	6.09



Standard Mesh Spacing					
I-bar		Cross bar			
30	x	30	50	60	100
40	x	30	50	60	100
60	x	30	50		
90	x	30		60	

*** Support width =**
clearance between the rests.

B e a r i n g B a r – I - B a r s [m m]										
width * [mm]	25 x 5 x 3		32 x 5 x 3		38 x 5 x 3		44 x 5 x 3		50 x 5 x 3	
	Fp	Fv	Fp	Fv	Fp	Fv	Fp	Fv	Fp	Fv
600	18.20	60.68	25.97	86.57	45.56	140.10	45.62	149.97	71.48	238.28
750	14.56	38.84	20.59	55.41	36.21	89.69	36.48	95.62	57.18	152.50
900	12.13	22.87	17.16	38.47	30.16	62.20	30.34	66.27	47.65	105.90
1050	9.45	14.40	14.70	24.67	25.81	45.61	25.96	48.61	40.48	77.00
1200	7.23	9.64	12.28	16.53	22.49	30.96	22.61	40.78	35.73	59.57
1350	5.72	6.78	9.70	11.60	19.70	21.62	20.01	29.24	31.76	47.06
1500	4.63	4.94	7.85	8.45	15.84	15.65	17.93	24.31	28.59	38.12
1650	3.82	3.71	6.49	6.35	12.98	11.66	16.22	18.36	25.99	29.16
1800	2.77	2.40	5.46	4.89	10.79	8.89	14.80	14.06	23.83	22.46
1950			4.46	3.84	9.08	6.90	13.27	10.98	21.53	17.66
2100			3.71	3.00	7.32	5.17	10.75	8.28	17.68	13.63
2250					5.80	3.82	8.59	6.20	14.38	10.22
2400					4.63	2.86	6.92	4.70	11.84	7.89
2550								3.61	9.87	6.19
2700									8.31	4.93
2850									7.07	3.96
3000									6.06	3.23



Load Tables for I Bars

Conversion factor for kg into kN
10 kN ≈ 1 tonne
1 kN ≈ 100 kg

The values shown have been calculated for maximum admissible load rating (deflection 1/200) on the basis of a load carrying area of 200 x 200 mm and a bearing bar spacing of 30mm. To avoid trip up points the maximum deflection should not exceed 4 mm. Please note the  coloured nominal line.

-  Light duty
-  Medium duty
-  Vehicle access: trucks up to 3 tonnes in overall weight.
-  Vehicle access: trucks up to 9 tonnes in overall weight.

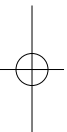
F_P

Point load in kN

F_V

uniformly distributed load in kN per sq. m.

I - B A R 5 X 3 mm		I - B A R 7 X 4 mm	
25x5x3		50x7x4	
32x5x3		55x7x4	
38x5x3		60x7x4	
44x5x3		65x7x4	
50x5x3		75x7x4	
Banding Flat or	5mm Angle per customers' request	7mm	



50 x 7 x 4		55 x 7 x 4		60 x 7 x 4		65 x 7 x 4		75 x 7 x 4	
F _P	F _V	F _P	F _V	F _P	F _V	F _P	F _V	F _P	F _V
40.20	126.19	53.98	166.79	68.91	183.77	89.70	274.63	138.46	421.43
38.79	113.63	52.10	150.21	66.55	165.50	86.64	247.38	133.78	379.64
36.88	99.54	49.54	131.60	63.32	144.90	82.47	216.78	127.38	332.74
36.42	73.67	48.92	97.45	62.57	107.35	81.51	160.63	125.94	246.66
36.40	64.60	47.56	85.47	60.87	94.16	79.32	140.95	122.59	216.47
34.88	60.04	46.87	79.46	60.02	87.53	78.23	131.06	120.96	201.32
33.81	46.01	45.41	60.93	58.23	67.12	75.93	100.60	117.44	154.62
30.03	35.83	40.38	47.50	51.81	52.31	67.59	78.50	104.63	120.76
27.40	27.41	36.85	36.38	50.26	40.06	65.60	60.24	101.58	92.75
24.59	21.39	33.09	28.43	42.59	31.30	55.64	47.17	86.26	72.70
19.94	16.11	26.86	21.47	34.63	23.63	45.38	35.73	70.47	55.16
15.94	12.03	21.50	16.08	27.88	17.69	36.55	26.87	56.91	41.58
12.86	9.11	17.37	12.22	22.66	13.44	29.78	20.52	46.50	31.86
10.45	6.97	14.14	9.40	18.57	10.33	24.49	15.89	38.37	24.75
8.53	5.38	11.57	7.30	15.33	8.02	20.28	12.43	31.93	19.45
6.97	4.18	9.49	5.71	12.71	6.26	16.90	9.82	26.75	15.45
5.70	3.36	7.79	4.49	10.58	4.91	14.14	7.81	22.53	12.37



