MEISER

Gratings

Statics and load tables

Grating Steps
Press-Locked Gratings
Press-Welded Gratings
Vehicular Gratings

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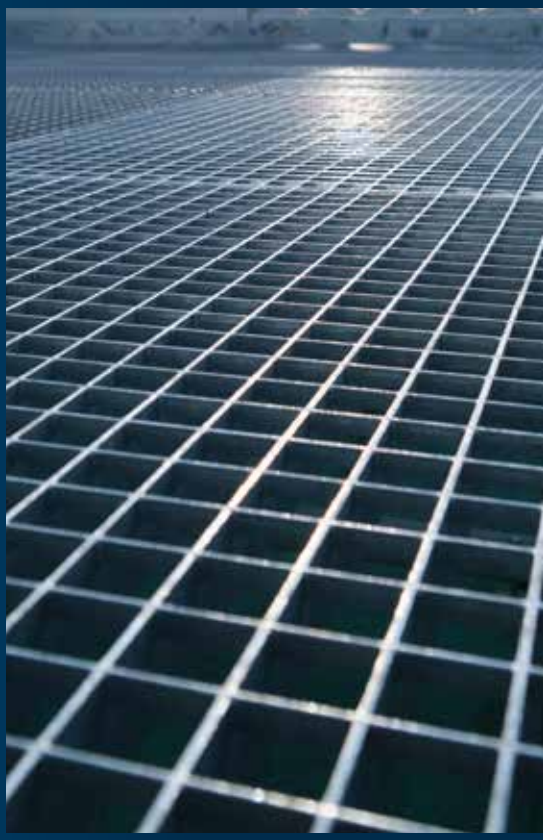

Efficiency with vision

Even after 70 years of company history, MEISER remains true to the principles that made the company strong: working reliably, thinking long term, taking responsibility and maintaining direct contact with customers. Tradition is not about looking back, but it does form the basis for the further development that extends far beyond the company's headquarters in Saarland.

Today, around 4,000 employees work for MEISER, including more than 2,800 in Germany. The two main production sites in Saarland and Saxony form the company's industrial foundation. They are complemented by production facilities in Dubai, Hungary, France, Belgium, Egypt, Brazil, Morocco, Romania, the Czech Republic, the US, Mexico and Turkey. In addition, further branches connect us with all major markets.

This creates a combination that defines MEISER: international capability and personal support on site. Customers benefit from short distances, direct communication and an understanding of regional requirements – backed by the experience of a company that has been active in different markets for decades and has a broad market presence.

As a steel-processing company, MEISER is active in the fields of gratings, sheet metal profiles, GRP, slit strip and galvanising. Further business areas, such as road safety, expanded metal, viticulture products and mounting systems for photovoltaic installations as well as scaffolding and sliding fittings, expand the portfolio and show how versatile the company's expertise can be.

Managing Directors Ulrich and Wolfgang Meiser

For us, an important factor in our quality is our high level of in-house value creation. With our own galvanising plants, slitting facilities and cold rolling mills, MEISER can control and coordinate all the central processes itself. This creates reliability – from planning through to the finished product. Modern production technology, state-of-the-art machinery and committed employees provide the foundation for stable processes and economical solutions.

Despite this growth, the focus on the customer remains decisive. For MEISER, progress means not only new technology or greater capacities, but, above all, better solutions developed through direct exchange. Many exceptional projects have emerged from this collaboration. They show what becomes possible when experience, proximity and trust come together.

We combine 70 years of company history with international presence and personal support. Customers can rely on this, today and in the future. MEISER – built for generations.

MEISER

Our business divisions are synonymous with leading solutions in steel processing.

SCAN

From the initial concept to the finished product, we support you with our expertise and innovative solutions in steel. We manufacture, finish and deliver with clearly defined responsibilities.
We operate cost-effectively and responsibly. With strong regional roots and an international presence, we provide reliable planning for your projects – from the initial consultation through to final acceptance.

Gratings

Customised solutions for complex tasks

meiser.de/en/business-areas/gratings

Road Safety

Well-thought-out solutions for the most stringent safety requirements

meiser.de/en/business-areas/road-safety

Solar Systems

Innovative mounting technology for the energy of tomorrow

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Agri Solutions

Genuine expertise for growing demands

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Expanded Metal

Custom-made expanded metal designs at their best

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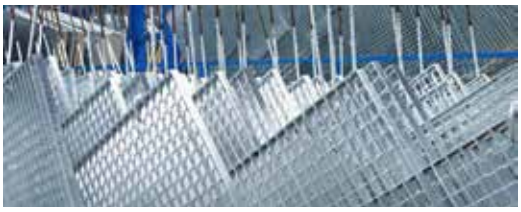

Coating

Precision coatings for reliable corrosion protection

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Other Solutions

Versatile solutions for specific challenges

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Load tables for Grating Steps

The requirements of RAL GZ 638, September 2008 edition, are complied with (deflection f < l/300 and < 0.6 cm).

Selection instructions: If there is no clear assignment of industrial or fire exit staircases, the values for industrial staircases should always be used.

For intermediate sizes (e.g. tread length 735 mm – industrial staircase without slide protection), the next higher tread length (800 mm) should be taken as the Basis of assessment (bearing bar 30 × 3 mm).

Note:
The determination of the bearing bars for rescue and Escape staircases was carried out using the same calculation methods as for industrial staircases. As it concerns the building supervisory area, this is only a preliminary estimate and should be checked for the individual case.

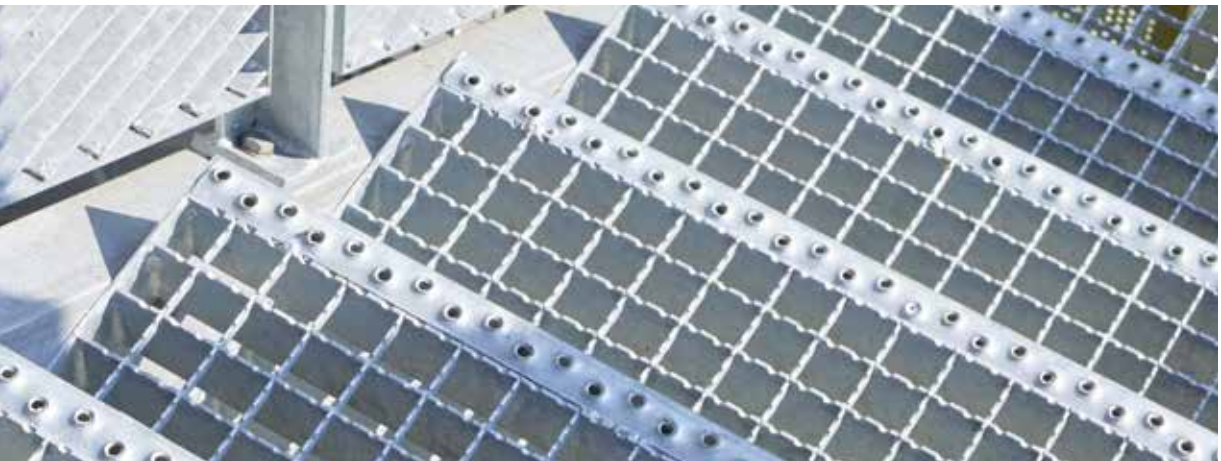
Determination of the bearing bars for the individual span width s, DIN EN 1991, S235 mesh spacing 33.3 × 33.3 mm

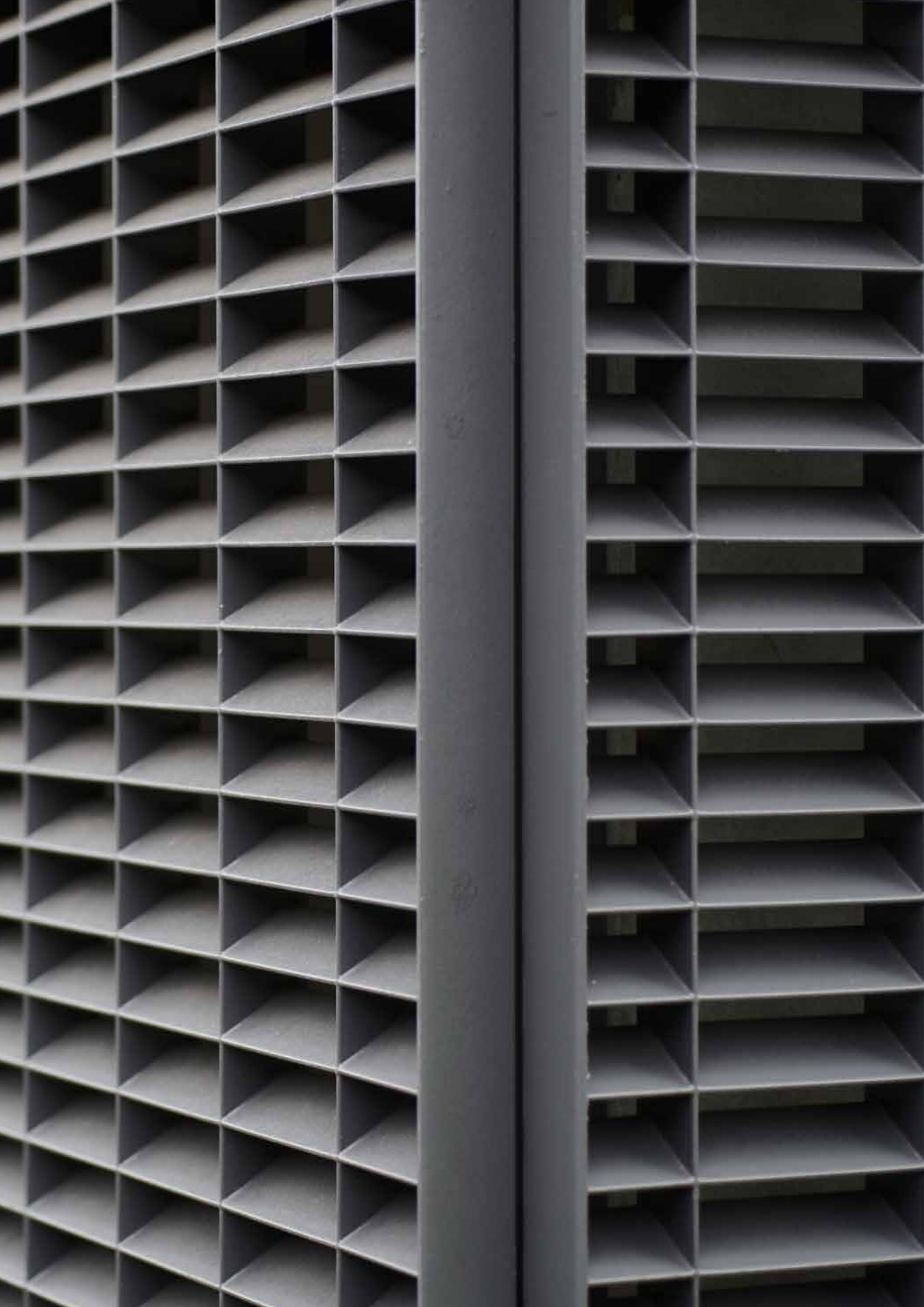
Tread length [mm]	Industrial staircases, working platforms and walkways, load 2.00 kN/m² / 1.5 kN point loading, DIN EN ISO 14122, RAL-GZ 638 - 2008		Load 5.00 kN/m² / 2.0 kN point loading, residential building load 3.00 kN/m² / 2.0 kN point loading, contact area 50 × 50 mm	
	Bearing bar/deflection [cm]		Bearing bar/deflection [cm]	
	without sl.prot.	with sl.prot.	without sl.prot.	with sl.prot.
500	30 × 2 / 0,06	30 × 2 / 0,07	30 × 3 / 0,08	30 × 3 / 0,09
600	30 × 2 / 0,10	30 × 2 / 0,12	35 × 3 / 0,10	35 × 3 / 0,12
700	30 × 2 / 0,16	30 × 3 / 0,15	35 × 3 / 0,16	40 × 3 / 0,14
800	30 × 3 / 0,18	30 × 3 / 0,22	40 × 3 / 0,18	45 × 3 / 0,16
900	30 × 3 / 0,26	35 × 3 / 0,23	45 × 3 / 0,16	45 × 3 / 0,18
1.000	35 × 3 / 0,26	35 × 3 / 0,31	45 × 3 / 0,22	45 × 3 / 0,25
1.100	35 × 3 / 0,34	40 × 3 / 0,30	45 × 3 / 0,29	50 × 3 / 0,27
1.200	45 × 2 / 0,39	45 × 3 / 0,34	50 × 3 / 0,31	50 × 3 / 0,35
1.250	45 × 3 / 0,34	45 × 3 / 0,40	50 × 3 / 0,35	60 × 3 / 0,26
1.300	45 × 3 / 0,39	50 × 3 / 0,36	50 × 3 / 0,39	60 × 3 / 0,29
1.400	50 × 3 / 0,40	50 × 3 / 0,47	60 × 3 / 0,32	60 × 3 / 0,37
1.500	60 × 3 / 0,33	60 × 3 / 0,38	60 × 3 / 0,40	60 × 3 / 0,45
1.600	60 × 3 / 0,41	60 × 3 / 0,47	60 × 3 / 0,48	60 × 3 / 0,55
1.700	60 × 3 / 0,51	60 × 3 / 0,58	60 × 3 / 0,58	60 × 4 / 0,52
1.800	60 × 4 / 0,55	60 × 5 / 0,51	60 × 4 / 0,55	60 × 5 / 0,51
1.900	60 × 5 / 0,55	70 × 3 / 0,53	60 × 5 / 0,55	70 × 3 / 0,53
2.000	70 × 3 / 0,59	70 × 4 / 0,52	70 × 3 / 0,59	70 × 4 / 0,52
2.100	70 × 4 / 0,56	70 × 5 / 0,52	70 × 4 / 0,56	70 × 5 / 0,52
2.200	70 × 5 / 0,55	70 × 5 / 0,62	70 × 5 / 0,55	70 × 5 / 0,62
2.300	80 × 4 / 0,57	80 × 5 / 0,51	80 × 4 / 0,57	80 × 5 / 0,51
2.500	90 × 5 / 0,51	90 × 5 / 0,55	90 × 5 / 0,51	90 × 5 / 0,55
3.000	110 × 5 / 0,58	120 × 5 / 0,48	110 × 5 / 0,58	120 × 5 / 0,48

Determination of the bearing bars for the individual span width s, DIN EN 1991, S235 mesh spacing 33,3 × 11,1 mm on TS 2 – 3 mm, mesh spacing 33,3 × 16,65 mm on TS 5 mm

Tread length [mm]	Industrial staircase, working platforms and walkways, load 2.00 kN/m² / 1.5 kN point loading, DIN EN ISO 14122, RAL-GZ 638 - 2008		Load 5.00 kN/m² / 2.0 kN point loading, residential building load 3.00 kN/m² / 2.0 kN point loading, contact area 50 × 50	
	Bearing bar/deflection [cm]		Bearing bar/deflection [cm]	
	without sl.prot.	with sl.prot.	without sl.prot.	with sl.prot.
500	30 × 2 / 0,05	30 × 2 / 0,05 *	30 × 2 / 0,07	30 × 2 / 0,07 *
600	30 × 2 / 0,08	30 × 2 / 0,08 *	30 × 3 / 0,10	30 × 3 / 0,10 *
700	30 × 2 / 0,13	30 × 2 / 0,13 *	30 × 3 / 0,16	30 × 3 / 0,16 *
800	30 × 2 / 0,19	30 × 2 / 0,19 *	35 × 3 / 0,17	35 × 3 / 0,17 *
900	30 × 3 / 0,21	30 × 3 / 0,21 *	35 × 3 / 0,25	35 × 3 / 0,25 *
1.000	30 × 3 / 0,29	30 × 3 / 0,29 *	40 × 3 / 0,25	40 × 3 / 0,25 *
1.100	35 × 3 / 0,27	35 × 3 / 0,27 *	40 × 3 / 0,33	40 × 3 / 0,33 *
1.200	40 × 3 / 0,35	40 × 3 / 0,35 *	45 × 3 / 0,33	45 × 3 / 0,33 *
1.250	40 × 3 / 0,41	40 × 3 / 0,41 *	45 × 3 / 0,32	45 × 3 / 0,32 *
1.300	45 × 2 / 0,43	45 × 2 / 0,43 *	45 × 3 / 0,36	45 × 3 / 0,36 *
1.400	45 × 3 / 0,41	45 × 3 / 0,41 *	45 × 3 / 0,45	45 × 3 / 0,45 *
1.500	50 × 3 / 0,41	50 × 3 / 0,41 *	50 × 3 / 0,44	50 × 3 / 0,44 *
1.600	50 × 3 / 0,51	50 × 3 / 0,51 *	50 × 3 / 0,54	50 × 3 / 0,54 *
1.700	60 × 3 / 0,40	60 × 3 / 0,40 *	60 × 3 / 0,42	60 × 3 / 0,42 *
1.800	60 × 3 / 0,56	60 × 3 / 0,56 *	60 × 3 / 0,56	60 × 3 / 0,56 *
1.900	60 × 4 / 0,56	60 × 4 / 0,56 *	60 × 4 / 0,56	60 × 4 / 0,56 *
2.000	60 × 5 / 0,55	60 × 5 / 0,55 *	60 × 5 / 0,55	60 × 5 / 0,55 *
2.100	70 × 3 / 0,57	70 × 3 / 0,57 *	70 × 3 / 0,57	70 × 3 / 0,57 *
2.200	70 × 4 / 0,56	70 × 4 / 0,56 *	70 × 4 / 0,56	70 × 4 / 0,56 *
2.300	70 × 5 / 0,55	70 × 5 / 0,55 *	70 × 5 / 0,55	70 × 5 / 0,55 *
2.500	80 × 5 / 0,58	80 × 5 / 0,58 *	80 × 5 / 0,58	80 × 5 / 0,58 *
3.000	110 × 5 / 0,49	110 × 5 / 0,49 *	110 × 5 / 0,49	110 × 5 / 0,49 *

* Slide protection only on the cross bar





Load Table Press-Locked Gratings / Steel

Press-locked gratings mesh spacing 33.3 × 33.3 mm, DIN EN 1991											S235 JR+N (St 37-2)
Bearing bars [mm]		Width between supports [mm]									
		200	300	400	500	600	700	800	900	1.000	1.100
20/2	FP	4,25	2,13	1,42	1,06	0,85	0,71	0,61	0,42	0,31	0,23
	FV	70,71	31,43	17,68	11,31	7,86	5,77	3,91	2,44	1,60	1,09
20/3	FP	7,02	3,51	2,34	1,76	1,40	1,17	0,91	0,63	0,46	0,34
	FV	116,67	51,85	29,17	18,67	12,96	8,75	5,86	3,66	2,40	1,64
25/2	FP	9,89	4,94	3,30	2,47	1,98	1,65	1,41	1,23	0,89	0,67
	FV	165,73	73,66	41,43	26,52	18,41	13,53	10,36	7,15	4,69	3,20
25/3	FP	16,31	8,16	5,44	4,08	3,26	2,72	2,33	1,84	1,34	1,00
	FV	273,45	121,53	68,36	43,75	30,38	22,32	17,09	10,73	7,04	4,81
30/2	FP	14,11	7,06	4,70	3,53	2,82	2,35	2,02	1,76	1,53	1,14
	FV	238,65	106,07	59,66	38,18	26,52	19,48	14,92	11,79	8,11	5,54
30/3	FP	23,29	11,64	7,76	5,82	4,66	3,88	3,33	2,91	2,29	1,72
	FV	393,77	175,01	98,44	63,00	43,75	32,14	24,61	18,54	12,16	8,31
30/4	FP	31,05	15,53	10,35	7,76	6,21	5,18	4,44	3,88	3,05	2,29
	FV	525,03	233,35	131,26	84,00	58,34	42,86	32,81	24,71	16,21	11,07
30/5	FP	38,81	19,41	12,94	9,70	7,76	6,47	5,54	4,85	3,82	2,86
	FV	656,29	291,68	164,07	105,01	72,92	53,57	41,02	30,89	20,27	13,84
35/2	FP	19,02	9,51	6,34	4,76	3,80	3,17	2,72	2,38	2,11	1,80
	FV	324,83	144,37	81,21	51,97	36,09	26,52	20,30	16,04	12,87	8,79
35/3	FP	31,39	15,69	10,46	7,85	6,28	5,23	4,48	3,92	3,49	2,70
	FV	535,97	238,21	133,99	85,75	59,55	43,75	33,50	26,47	19,31	13,19
35/4	FP	41,85	20,93	13,95	10,46	8,37	6,98	5,98	5,23	4,65	3,60
	FV	714,62	317,61	178,66	114,34	79,40	58,34	44,66	35,29	25,75	17,59
35/5	FP	52,31	26,16	17,44	13,08	10,46	8,72	7,47	6,54	5,81	4,50
	FV	893,28	397,07	223,32	142,92	99,25	72,92	55,83	44,11	32,19	21,98
40/2	FP	24,63	12,31	8,21	6,16	4,93	4,10	3,52	3,08	2,74	2,46
	FV	424,27	188,56	106,07	67,88	47,14	34,63	26,52	20,95	16,97	13,13
40/3	FP	40,64	20,32	13,55	10,16	8,13	6,77	5,81	5,08	4,52	3,99
	FV	700,04	311,13	175,01	112,01	77,78	57,15	43,75	34,57	28,00	19,69
40/4	FP	54,18	27,09	18,06	13,55	10,84	9,03	7,74	6,77	6,02	5,32
	FV	933,38	414,84	233,35	149,34	103,71	76,19	58,34	46,09	37,34	26,25
40/5	FP	67,73	33,86	22,58	16,93	13,55	11,29	9,68	8,47	7,53	6,65
	FV	1166,73	518,55	291,68	186,68	129,64	95,24	72,92	57,62	46,67	32,81
45/4	FP	67,96	33,98	22,65	16,99	13,59	11,33	9,71	8,50	7,55	6,80
	FV	1181,31	525,03	295,33	189,01	131,26	96,43	73,83	58,34	47,25	37,38
50/2	FP	37,75	18,88	12,58	9,44	7,55	6,29	5,39	4,72	4,19	3,78
	FV	662,91	294,63	165,73	106,07	73,66	54,12	41,43	32,74	26,52	21,91
50/3	FP	62,29	31,15	20,76	15,57	12,46	10,38	8,90	7,79	6,92	6,23
	FV	1093,81	486,14	273,45	175,01	121,53	89,29	68,36	54,02	43,75	36,16
50/4	FP	83,06	41,53	27,69	20,76	16,61	13,84	11,87	10,38	9,23	8,31
	FV	1458,41	648,18	364,60	233,35	162,05	119,05	91,15	72,02	58,34	48,21
50/5	FP	103,82	51,91	34,61	25,96	20,76	17,30	14,83	12,98	11,54	10,38
	FV	1823,01	810,23	455,75	291,68	202,56	148,82	113,94	90,03	72,92	60,26
60/3	FP	88,08	44,04	29,36	22,02	17,62	14,68	12,58	11,01	9,79	8,81
	FV	1575,08	700,04	393,77	252,01	175,01	128,58	98,44	77,78	63,00	52,07
60/4	FP	117,44	58,72	39,15	29,36	23,49	19,57	16,78	14,68	13,05	11,74
	FV	2100,11	933,38	525,03	336,02	233,35	171,44	131,26	103,71	84,00	69,43
60/5	FP	146,80	73,40	48,93	36,70	29,36	24,47	20,97	18,35	16,31	14,68
	FV	2625,14	1166,73	656,29	420,02	291,68	214,30	164,07	129,64	105,01	86,78
70/3	FP	117,54	58,77	39,18	29,38	23,51	19,59	16,79	14,69	13,06	11,75
	FV	2143,86	952,83	535,97	343,02	238,21	175,01	133,99	105,87	85,75	70,87
70/4	FP	156,71	78,36	52,24	39,18	31,34	26,12	22,39	19,59	17,41	15,67
	FV	2858,49	1270,44	714,62	457,36	317,61	233,35	178,66	141,16	114,34	94,50
70/5	FP	195,89	97,95	65,30	48,97	39,18	32,65	27,98	24,49	21,77	19,59
	FV	3573,11	1588,05	893,28	571,70	397,01	291,68	223,32	176,45	142,92	118,12

The table applies to the standard mesh spacing of 33.3 × 33.3 and material S235 JR+N St 37-2. The values represent the maximum permitted load-bearing capacity of the grating.

Press-locked grating mesh spacing 33.3 × 33.3 mm, DIN EN 1991										S235 JR+N (St 37-2)
Bearing bars [mm]		Width between supports [mm]								
		1.200	1.300	1.400	1.500	1.600	1.700	1.800	1.900	2.000
20/2	FP	0,18	0,14	0,11	0,09	0,07	0,06	0,05	0,04	0,04
	FV	0,77	0,56	0,42	0,32	0,24	0,19	0,15	0,12	0,10
20/3	FP	0,26	0,21	0,17	0,14	0,11	0,09	0,08	0,07	0,06
	FV	1,16	0,84	0,63	0,47	0,37	0,29	0,23	0,18	0,15
25/2	FP	0,51	0,40	0,32	0,26	0,22	0,18	0,15	0,13	0,11
	FV	2,26	1,64	1,22	0,93	0,72	0,56	0,45	0,36	0,29
25/3	FP	0,77	0,60	0,48	0,39	0,32	0,27	0,23	0,19	0,16
	FV	3,39	2,46	1,83	1,39	1,07	0,84	0,67	0,54	0,44
30/2	FP	0,88	0,69	0,55	0,45	0,37	0,31	0,26	0,22	0,19
	FV	3,91	2,84	2,11	1,60	1,24	0,97	0,77	0,62	0,51
30/3	FP	1,32	1,03	0,83	0,67	0,55	0,46	0,39	0,33	0,28
	FV	5,86	4,26	3,17	2,40	1,86	1,46	1,16	0,93	0,76
30/4	FP	1,76	1,38	1,10	0,90	0,74	0,61	0,52	0,44	0,38
	FV	7,82	5,68	4,22	3,20	2,47	1,94	1,54	1,24	1,01
30/5	FP	2,20	1,72	1,38	1,12	0,92	0,77	0,65	0,55	0,47
	FV	9,77	7,10	5,28	4,00	3,09	2,43	1,93	1,56	1,27
35/2	FP	1,38	1,08	0,87	0,70	0,58	0,48	0,41	0,35	0,30
	FV	6,21	4,51	3,35	2,54	1,96	1,54	1,23	0,99	0,80
35/3	FP	2,07	1,63	1,30	1,06	0,87	0,72	0,61	0,52	0,44
	FV	9,31	6,76	5,03	3,81	2,95	2,31	1,84	1,48	1,21
35/4	FP	2,76	2,17	1,73	1,41	1,16	0,97	0,81	0,69	0,59
	FV	12,42	9,02	6,70	5,09	3,93	3,08	2,45	1,98	1,61
35/5	FP	3,45	2,71	2,17	1,76	1,45	1,21	1,02	0,86	0,74
	FV	15,52	11,27	8,38	6,36	4,91	3,85	3,07	2,47	2,01
40/2	FP	2,04	1,60	1,28	1,04	0,86	0,71	0,60	0,51	0,44
	FV	9,27	6,73	5,00	3,80	2,93	2,30	1,83	1,47	1,20
40/3	FP	3,07	2,41	1,92	1,56	1,29	1,07	0,90	0,77	0,66
	FV	13,90	10,09	7,50	5,69	4,40	3,45	2,75	2,21	1,80
40/4	FP	4,09	3,21	2,57	2,08	1,72	1,43	1,20	1,02	0,88
	FV	18,54	13,46	10,00	7,59	5,86	4,60	3,66	2,95	2,40
40/5	FP	5,11	4,01	3,21	2,60	2,14	1,79	1,50	1,28	1,09
	FV	23,17	16,82	12,51	9,49	7,33	5,75	4,58	3,69	3,00
45/4	FP	5,77	4,53	3,62	2,94	2,42	2,02	1,70	1,44	1,24
	FV	26,39	19,16	14,25	10,81	8,35	6,55	5,21	4,20	3,42
50/2	FP	3,43	3,08	2,46	2,00	1,64	1,37	1,15	0,98	0,84
	FV	18,10	13,14	9,77	7,41	5,73	4,49	3,58	2,88	2,35
50/3	FP	5,66	4,61	3,69	2,99	2,46	2,05	1,73	1,47	1,26
	FV	27,15	19,71	14,66	11,12	8,59	6,74	5,36	4,32	3,52
50/4	FP	7,55	6,15	4,92	3,99	3,29	2,74	2,30	1,96	1,68
	FV	36,20	26,28	19,54	14,83	11,45	8,99	7,15	5,76	4,69
50/5	FP	9,44	7,69	6,15	4,99	4,11	3,42	2,88	2,45	2,10
	FV	45,25	32,85	24,43	18,54	14,32	11,23	8,94	7,20	5,86
60/3	FP	8,01	7,34	6,26	5,08	4,18	3,48	2,93	2,49	2,14
	FV	43,75	34,06	25,32	19,22	14,84	11,65	9,27	7,47	6,08
60/4	FP	10,68	9,79	8,34	6,77	5,58	4,65	3,91	3,32	2,85
	FV	58,34	45,42	33,77	25,62	19,79	15,53	12,36	9,95	8,11
60/5	FP	13,35	12,23	10,43	8,47	6,97	5,81	4,89	4,15	3,56
	FV	72,92	56,77	42,21	32,03	24,74	19,41	15,45	12,44	10,13
70/3	FP	10,69	9,79	9,04	7,91	6,51	5,42	4,57	3,88	3,32
	FV	59,55	50,74	40,21	30,52	23,57	18,50	14,72	11,85	9,66
70/4	FP	14,25	13,06	12,05	10,55	8,68	7,23	6,09	5,17	4,43
	FV	79,40	67,66	53,62	40,69	31,43	24,66	19,62	15,81	12,87
70/5	FP	17,81	16,32	15,07	13,18	10,85	9,04	7,61	6,47	5,54
	FV	99,25	84,57	67,02	50,86	39,29	30,83	24,53	19,76	16,09

Legend for conversion values: see page 28/29.

Press-locked gratings mesh spacing 33.3 × 33.3 mm, DIN EN 1991											S235 JR+N (St 37-2)
Bearing bars [mm]		Width between supports [mm]									
		200	300	400	500	600	700	800	900	1.000	1.100
80/4	FP	200,60	100,30	66,87	50,15	40,12	33,43	28,66	25,07	22,29	20,06
	FV	3733,53	1659,35	933,38	597,37	414,84	304,78	233,35	184,37	149,34	123,42
80/5	FP	250,75	125,37	83,58	62,69	50,15	41,79	35,82	31,34	27,86	25,07
	FV	4666,92	2074,19	1166,73	746,71	518,55	380,97	291,68	230,47	186,68	154,28
90/4	FP	249,01	124,50	83,00	62,25	49,80	41,50	35,57	31,13	27,67	24,90
	FV	4725,25	2100,11	1181,31	756,04	525,03	385,73	295,33	233,35	189,01	156,21
90/5	FP	311,26	155,63	103,75	77,82	62,25	51,88	44,47	38,91	34,58	31,13
	FV	5906,57	2625,14	1476,64	945,05	656,29	482,17	369,16	291,68	236,26	195,26
100/5	FP	363,00	188,14	125,43	94,07	75,26	62,71	53,75	47,04	41,81	37,63
	FV	7292,06	3240,91	1823,01	1166,73	810,23	595,27	455,75	360,10	291,68	241,06
110/5	FP	399,30	227,65	151,77	113,83	91,06	75,88	65,04	56,91	50,59	45,53
	FV	8823,39	3921,51	2205,85	1411,74	981,38	720,28	551,46	435,72	352,94	291,68
120/5	FP	435,50	270,92	180,62	135,46	108,37	90,31	77,41	67,73	60,21	54,18
	FV	10500,56	4666,92	2625,14	1680,09	1166,73	857,19	656,29	518,55	420,02	347,13
130/5	FP	471,00	317,96	211,97	158,98	127,18	105,99	90,85	79,49	70,66	63,59
	FV	11760,00	5477,15	3080,89	1971,77	1369,29	1006,01	770,22	608,57	492,94	407,39
140/5	FP	508,00	368,76	245,84	184,38	147,50	122,92	105,36	92,19	81,95	73,75
	FV	12700,00	6352,19	3573,11	2286,79	1588,05	1166,73	893,28	705,80	571,70	472,48
150/5	FP	544,00	423,32	282,21	211,66	169,33	141,11	120,95	105,83	94,07	84,66
	FV	13610,00	7292,06	4101,78	2625,14	1823,01	1339,36	1025,45	810,23	656,29	542,38
160/5	FP	580,00	481,64	321,09	240,82	192,66	160,55	137,61	120,41	107,03	96,33
	FV	14520,00	8296,74	4666,92	2986,83	2074,19	1523,89	1166,73	921,86	746,71	617,11
170/5	FP	617,00	543,73	362,49	271,86	217,49	181,24	155,36	135,93	120,83	108,75
	FV	15420,00	9366,24	5268,51	3371,85	2341,56	1720,33	1317,13	1040,69	842,96	696,66

The table applies to the standard mesh spacing of 33.3 × 33.3 and material S235 JR+N St 37-2. The values represent the maximum permitted load-bearing capacity of the grating.

Simply select the grating based on your characteristic action Q k from the tables.
All required partial safety factors have already been taken int o account.

FP (Qk) and FV (Qk), for the individual spans, were determined according to RAL-GZ 638 - 2008 and DIN EN 1993-1-1③ + NA (Germany).

FP (Qk) is the maximum individual load in kN on a load cube of 200 × 200 mm.

FV (Qk) is the maximum uniformly distributed area load in kN/m² .
FP (Qk) and FV (Qk) were determined either by load capacity or serviceability (4mm or L/200th criterion).

For the load of gratings made of the material S355 JR, the maximum load to the left of the black line can be multiplied by 1.5.

The support width for gratings should correspond to the grating height, but at least 30 mm (BGI/GUV -I 588-1).

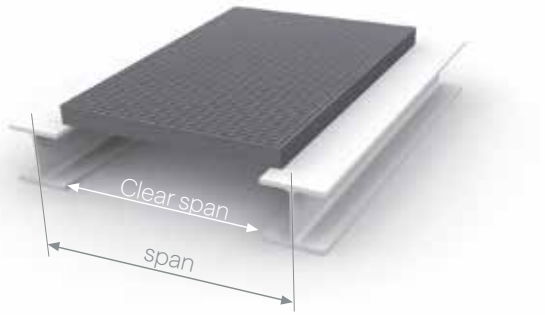
Press-locked gratings mesh spacing 33.3 × 33.3 mm, DIN EN 1991										S235 JR+N (St 37-2)
Bearing bars [mm]		Width between supports [mm]								
		1.200	1.300	1.400	1.500	1.600	1.700	1.800	1.900	2.000
80/4	FP	18,24	16,72	15,43	14,33	12,70	10,58	8,91	7,57	6,48
	FV	103,71	88,37	76,19	60,74	46,92	36,81	29,29	23,59	19,22
80/5	FP	22,80	20,90	19,29	17,91	15,88	13,22	11,13	9,46	8,11
	FV	129,64	110,46	95,24	75,92	58,65	46,02	36,61	29,49	24,02
90/4	FP	22,64	20,75	19,15	17,79	16,60	14,77	12,44	10,57	9,06
	FV	131,26	111,84	96,43	84,00	66,80	52,42	41,70	33,59	27,36
90/5	FP	28,30	25,94	23,94	22,23	20,75	18,47	15,55	13,21	11,32
	FV	164,07	139,80	120,54	105,01	83,50	65,52	52,13	41,99	34,20
100/5	FP	34,21	31,36	28,94	26,88	25,09	23,52	20,88	17,74	15,21
	FV	202,56	172,59	148,82	129,64	113,94	89,88	71,51	57,60	46,92
110/5	FP	41,39	37,94	35,02	32,52	30,35	28,46	26,78	23,62	20,24
	FV	245,09	208,84	180,07	156,86	137,87	119,63	95,18	76,67	62,45
120/5	FP	49,26	45,15	41,68	38,70	36,12	33,87	31,87	30,10	26,28
	FV	291,68	248,53	214,30	186,68	164,07	145,34	123,57	99,54	81,07
130/5	FP	57,81	52,99	48,92	45,42	42,39	39,74	37,41	35,33	33,41
	FV	342,32	291,68	251,50	219,09	192,56	170,57	152,14	126,55	103,08
140/5	FP	67,05	61,46	56,73	52,68	49,17	46,09	43,38	40,97	38,82
	FV	397,01	338,28	291,68	254,09	223,32	197,82	176,45	158,06	128,74
150/5	FP	76,97	70,55	65,13	60,47	56,44	52,91	49,80	47,04	44,56
	FV	455,75	388,33	334,84	291,68	256,36	227,09	202,56	181,80	158,35
160/5	FP	87,57	80,27	74,10	68,81	64,22	60,21	56,66	53,52	50,70
	FV	518,55	441,84	380,97	331,87	291,68	258,38	230,47	206,84	186,68
170/5	FP	98,86	90,62	83,65	77,68	72,50	67,97	63,97	60,41	57,23
	FV	585,39	498,79	430,08	374,65	329,28	291,68	260,17	233,51	210,74

Conversion values:

1 kN ≙ ca. 100 kg

10 KN ≙ ca. 1 t

10 N ≙ ca. 1 daN ≙ ca. 1 kp



Accessible area with a point loading of 1.5 kN on a 200 × 200 mm load cube with a deflection ≤ 4 mm according to BGI 588 and RAL GZ 637.

Area with a point loading of 1.5 kN on a 200 x 200 mm load cube with a deflection ≤ L/200.

4

Load Table Press-Welded Gratings

Press-welded gratings mesh spacing 34.3 × 38.1 mm, DIN EN 1991											S235 JR+N (St 37-2)
Bearing bars [mm]		Width between supports [mm]									
		200	300	400	500	600	700	800	900	1.000	1.100
20/2	FP	6,14	3,07	2,05	1,53	1,23	1,02	0,87	0,61	0,44	0,33
	FV	114,53	50,90	28,63	18,32	12,73	9,35	6,33	3,95	2,59	1,77
20/3	FP	10,13	5,06	3,38	2,53	2,03	1,69	1,31	0,92	0,66	0,50
	FV	188,97	83,99	47,24	30,23	21,00	14,18	9,50	5,93	3,89	2,66
25/2	FP	9,52	4,76	3,17	2,38	1,90	1,59	1,36	1,18	0,86	0,64
	FV	178,95	79,53	44,74	28,63	19,88	14,61	11,18	7,72	5,07	3,46
25/3	FP	15,71	7,85	5,24	3,93	3,14	2,62	2,24	1,77	1,29	0,96
	FV	295,26	131,23	73,82	47,24	32,81	24,10	18,45	11,58	7,60	5,19
30/2	FP	13,61	6,80	4,54	3,40	2,72	2,27	1,94	1,70	1,47	1,10
	FV	257,68	114,53	64,42	41,23	28,63	21,04	16,10	12,73	8,75	5,98
30/3	FP	22,45	11,22	7,48	5,61	4,49	3,74	3,21	2,81	2,21	1,65
	FV	425,18	188,97	106,29	68,03	47,24	34,71	26,57	20,01	13,13	8,97
30/4	FP	29,93	14,97	9,98	7,48	5,99	4,99	4,28	3,74	2,94	2,21
	FV	566,90	251,96	141,73	90,70	62,99	46,28	35,43	26,68	17,51	11,96
30/5	FP	37,42	18,71	12,47	9,35	7,48	6,24	5,35	4,68	3,68	2,76
	FV	708,63	314,95	177,16	113,38	78,74	57,85	44,29	33,36	21,88	14,95
35/2	FP	18,35	9,18	6,12	4,59	3,67	3,06	2,62	2,29	2,04	1,74
	FV	350,68	155,88	87,68	56,12	38,97	28,63	21,92	17,32	13,90	9,49
35/3	FP	30,29	15,14	10,10	7,57	6,06	5,05	4,33	3,79	3,37	2,60
	FV	578,72	257,21	144,68	92,59	64,30	47,24	36,17	28,58	20,85	14,24
35/4	FP	40,38	20,19	13,46	10,10	8,08	6,73	5,77	5,05	4,49	3,47
	FV	771,62	342,94	192,91	123,46	85,74	62,99	48,23	38,10	27,80	18,99
35/5	FP	50,48	25,24	16,83	12,62	10,10	8,41	7,21	6,31	5,61	4,34
	FV	964,53	428,68	241,13	154,32	107,17	78,74	60,28	47,63	34,75	23,74
40/2	FP	23,79	11,90	7,93	5,95	4,76	3,97	3,40	2,97	2,64	2,38
	FV	458,11	203,60	114,53	73,30	50,90	37,40	28,63	22,62	18,32	14,17
40/3	FP	39,26	19,63	13,09	9,81	7,85	6,54	5,61	4,91	4,36	3,86
	FV	755,87	335,94	188,97	120,94	83,99	61,70	47,24	37,33	30,23	21,26
40/4	FP	52,35	26,17	17,45	13,09	10,47	8,72	7,48	6,54	5,82	5,14
	FV	1007,83	447,92	251,96	161,25	111,98	82,27	62,99	49,77	40,31	28,35
40/5	FP	65,43	32,72	21,81	16,36	13,09	10,91	9,35	8,18	7,27	6,43
	FV	1259,79	559,91	314,95	201,57	139,98	102,84	78,74	62,21	50,39	35,43
45/4	FP	65,74	32,87	21,91	16,44	13,15	10,96	9,39	8,22	7,30	6,57
	FV	1275,54	566,90	318,88	204,09	141,73	104,13	79,72	62,99	51,02	40,36
50/2	FP	36,61	18,30	12,20	9,15	7,32	6,10	5,23	4,58	4,07	3,66
	FV	715,79	318,13	178,95	114,53	79,53	58,43	44,74	35,35	28,63	23,66
50/3	FP	60,40	30,20	20,13	15,10	12,08	10,07	8,63	7,55	6,71	6,04
	FV	1181,05	524,91	295,26	188,97	131,23	96,41	73,82	58,32	47,24	39,04
50/4	FP	80,54	40,27	26,85	20,13	16,11	1,42	11,51	10,07	8,95	8,05
	FV	1574,74	699,88	393,68	251,96	174,97	128,55	98,42	77,76	62,99	52,06
50/5	FP	100,67	50,34	33,56	25,17	20,13	16,78	14,38	12,58	11,19	10,07
	FV	1968,42	874,85	492,10	314,95	218,71	160,69	123,03	97,21	78,74	65,07
60/3	FP	85,51	42,86	28,50	21,38	17,10	14,25	12,22	10,69	9,50	8,55
	FV	1700,71	755,87	425,18	272,11	188,97	138,83	106,29	83,99	68,03	56,22
60/4	FP	114,02	57,01	38,01	28,50	22,80	19,00	16,29	14,25	12,67	11,40
	FV	2267,62	1007,83	566,90	362,82	251,96	185,11	141,73	111,98	90,70	74,96
60/5	FP	142,52	71,26	47,51	35,63	28,50	23,75	20,36	17,82	15,84	14,25
	FV	2834,52	1259,79	708,63	453,2	314,95	231,39	177,16	139,98	113,38	93,70
70/3	FP	114,55	57,27	38,18	28,64	22,91	19,09	16,36	14,32	12,73	11,45
	FV	2314,86	1028,83	578,72	370,38	257,21	188,97	144,68	114,31	92,59	76,52
70/4	FP	152,73	76,37	50,91	38,18	30,55	25,46	21,82	19,09	16,97	15,27
	FV	3086,48	1371,77	771,62	493,84	342,94	251,86	192,91	152,42	123,46	102,03
70/5	FP	190,92	95,46	63,64	47,73	38,18	31,82	27,27	23,86	21,21	19,09
	FV	3858,10	1714,71	964,53	617,30	428,68	314,95	241,13	190,52	154,32	127,54
80/4	FP	196,01	98,01	65,34	49,00	39,20	32,67	28,00	24,50	21,78	19,60
	FV	4031,32	1791,70	1007,83	645,01	447,92	329,09	251,96	199,08	161,25	133,27
80/5	FP	245,02	122,51	81,67	61,25	49,00	40,84	35,00	30,63	27,22	24,50
	FV	5039,16	2239,62	1259,79	806,26	559,91	411,36	314,95	248,85	201,57	166,58

The table applies to the standard mesh spacing of 34.3 × 38.1 and material S235 JR + N St 37-2. The values represent the maximum permitted load-bearing capacity of the grating .

Press-welded gratings mesh spacing 34.3 × 38.1 mm, DIN EN 1991 — S235 JR+N (St 37-2)

Bearing bars [mm]		Width between supports [mm]								
		1.200	1.300	1.400	1.500	1.600	1.700	1.800	1.900	2.000
20/2	FP	0,25	0,20	0,16	0,13	0,11	0,09	0,07	0,06	0,05
	FV	1,25	0,91	0,68	0,51	0,40	0,31	0,25	0,20	0,16
20/3	FP	0,38	0,30	0,24	0,19	0,16	0,13	0,11	0,10	0,08
	FV	1,88	1,36	1,01	0,77	0,59	0,47	0,37	0,30	0,24
25/2	FP	0,49	0,39	0,31	0,25	0,21	0,17	0,15	0,12	0,11
	FV	2,44	1,77	1,32	1,00	0,77	0,61	0,48	0,39	0,32
25/3	FP	0,74	0,58	0,46	0,38	0,31	0,26	0,22	0,19	0,16
	FV	3,66	2,66	1,98	1,50	1,16	0,91	0,72	0,58	0,47
30/2	FP	0,85	0,67	0,53	0,43	0,36	0,30	0,25	0,21	0,18
	FV	4,22	3,07	2,28	1,73	1,34	1,05	0,83	0,67	0,55
30/3	FP	1,27	1,00	0,80	0,65	0,53	0,44	0,37	0,32	0,27
	FV	6,33	4,60	3,42	2,59	2,00	1,57	1,25	1,01	0,82
30/4	FP	1,69	1,33	1,06	0,86	0,71	0,59	0,50	0,42	0,36
	FV	8,44	6,13	4,56	3,46	2,67	2,10	1,67	1,34	1,09
30/5	FP	2,12	1,66	1,33	1,08	0,89	0,74	0,62	0,53	0,45
	FV	10,55	7,66	5,70	4,32	3,34	2,62	2,08	1,68	1,37
35/2	FP	1,33	1,05	0,84	0,68	0,56	0,47	0,39	0,33	0,29
	FV	6,70	4,87	3,62	2,75	2,12	1,66	1,32	1,07	0,87
35/3	FP	2,00	1,57	1,26	1,02	0,84	0,70	0,59	0,50	0,43
	FV	10,06	7,30	5,43	4,12	3,18	2,50	1,99	1,60	1,30
35/4	FP	2,67	2,09	1,67	1,36	1,12	0,93	0,78	0,67	0,57
	FV	13,41	9,73	7,24	5,49	4,24	3,33	2,65	2,13	1,74
35/5	FP	3,33	2,62	2,09	1,70	1,40	1,16	0,98	0,83	0,71
	FV	16,76	12,17	9,05	6,86	5,30	4,16	3,31	2,67	2,17
40/2	FP	1,98	1,55	1,24	1,01	0,83	0,69	0,58	0,49	0,42
	FV	10,01	7,27	5,40	4,10	3,17	2,48	1,98	1,59	1,30
40/3	FP	2,96	2,33	1,86	1,51	1,24	1,04	0,87	0,74	0,63
	FV	15,01	10,90	8,10	6,15	4,75	3,73	2,96	2,39	1,95
40/4	FP	3,95	3,10	2,48	2,01	1,66	1,38	1,16	0,99	0,85
	FV	20,01	14,53	10,80	8,20	6,33	4,97	3,95	3,18	2,59
40/5	FP	4,94	3,88	3,10	2,52	2,07	1,73	1,45	1,23	1,06
	FV	25,02	18,16	13,50	10,25	7,92	6,21	4,94	3,98	3,24
45/4	FP	5,58	4,38	3,50	2,84	2,34	1,95	1,64	1,40	1,20
	FV	28,50	20,69	15,38	11,67	9,02	7,07	5,63	4,53	3,69
50/2	FP	3,33	2,98	2,38	1,94	1,59	1,33	1,12	0,95	0,81
	FV	19,54	14,19	10,55	8,01	6,18	4,85	3,86	3,11	2,53
50/3	FP	5,49	4,47	3,58	2,90	2,39	1,99	1,68	1,42	1,22
	FV	29,32	21,28	15,82	12,01	9,28	7,28	5,79	4,66	3,80
50/4	FP	7,32	5,96	4,77	3,87	3,19	2,65	2,23	1,90	1,63
	FV	39,09	28,38	21,10	16,01	12,37	9,70	7,72	6,22	5,07
50/5	FP	9,15	7,46	5,96	4,84	3,98	3,32	2,79	2,37	2,03
	FV	48,86	35,47	26,37	20,01	15,46	12,13	9,65	7,77	6,33
60/3	FP	7,77	7,13	6,07	4,93	4,06	3,38	2,85	2,42	2,07
	FV	47,24	36,78	27,34	20,75	16,03	12,58	10,01	8,06	6,57
60/4	FP	10,37	9,50	8,10	6,58	5,41	4,51	3,80	3,23	2,76
	FV	62,99	49,04	36,46	27,67	21,37	16,77	13,34	10,75	8,75
60/5	FP	12,96	11,88	10,12	8,22	6,77	5,64	4,75	4,03	3,46
	FV	78,74	61,30	45,57	34,58	26,72	20,96	16,68	13,43	10,94
70/3	FP	10,41	9,55	8,81	7,71	6,35	5,29	4,45	3,78	3,24
	FV	64,30	54,79	42,94	43,42	25,45	19,97	15,89	12,80	10,43
70/4	FP	13,88	12,73	11,75	10,28	8,46	7,05	5,93	5,04	4,32
	FV	85,74	73,05	57,90	43,93	33,94	26,63	21,19	17,07	13,90
70/5	FP	17,36	15,91	14,69	12,85	10,58	8,81	7,42	6,30	5,40
	FV	107,17	91,32	72,37	54,92	42,42	33,29	26,48	21,33	17,38
80/4	FP	17,82	16,33	15,08	14,00	12,41	10,34	8,70	7,39	6,34
	FV	111,98	95,42	82,27	65,14	50,66	39,75	31,63	25,48	20,75
80/5	FP	22,27	20,42	18,85	17,50	15,51	12,92	10,88	9,24	7,92
	FV	139,98	119,27	102,84	81,98	63,32	49,69	39,53	31,84	25,94

Legend for conversion values: see page 28/29.

Load Table Vehicular Gratings

Vehicular gratings, DIN EN 1991															S235 JR+N (St 37-2)
Belastung		Width between supports [mm]													
		200	300	400	500	600	700	800	900	1.000	1.100	1.200	1.300	1.400	1.500
Total load Wheel load LA	Small van (F2) 10 kN 200 × 200 mm	30/4	30/4	30/4	40/4	40/4	40/5	50/4	50/4	60/4	60/4	60/4	70/4	70/4	70/4
Total load Wheel load LA	Van 6,0 to 20 kN 200 × 200 mm	30/4	40/5	50/5	60/4	60/5	70/5	70/5	80/5	80/5	90/5	90/5	100/5	100/5	110/5
Total load Wheel load LA	Van 9,0 to 30 kN 200 × 260 mm	30/5	50/4	60/4	70/4	80/4	80/5	90/5	100/5	100/5	110/5	110/5	120/5	120/5	130/5
Total load Wheel load LA	Van 12,0 to 40 kN 200 × 300 mm	30/5	50/5	60/5	70/5	80/5	90/5	100/5	110/5	120/5	120/5	130/5	140/5	140/5	150/5
Total load Wheel load LA	Van 16,0 to / Heavy truck 30 to 50 kN 200 × 400 mm	30/5	50/4	60/5	80/5	90/5	100/5	110/5	120/5	130/5	130/5	140/5	150/5	150/5	-
Total load Wheel load LA	Heavy truck 60 to 100 kN 200 × 600 mm	40/4	60/4	70/5	90/5	110/5	130/5	140/5	150/5	-	-	-	-	-	-

The calculation of the bearing bars for passenger cars is carried out taking into account the vibration coefficient (braking factor) of 1.0 according to DIN EN 1991-1-1:2010-12 +NA. The calculation of the bearing bars for trucks and heavy trucks is carried out taking into account the vibration coefficient (braking factor) of 1.4 according to DIN 1072 (12.85).

Vehicular gratings with forklift truck, pneumatic tyres, DIN EN 1 991															S235 JR+N (St 37-2)
Load		Width between supports [mm]													
		200	300	400	500	600	700	800	900	1.000	1.100	1.200	1.300	1.400	1.500
Total load Wheel load LA	3,1 to 13 kN 200 × 200 mm	30/4	30/5	40/5	50/4	50/5	60/4	60/5	60/5	70/5	70/5	80/4	80/5	80/5	90/5
Total load Wheel load LA	4,6 to 20 kN 200 × 200 mm	30/4	40/5	50/5	60/4	60/5	70/5	70/5	80/5	80/5	90/5	90/5	100/5	100/5	110/5
Total load Wheel load LA	7 to 31,5 kN 200 × 200 mm	35/5	50/5	60/5	70/5	80/5	90/5	90/5	100/5	110/5	110/5	120/5	120/5	130/5	130/5
Total load Wheel load LA	10 to 45 kN 200 × 200 mm	45/5	60/5	70/5	80/5	100/5	100/5	110/5	120/5	130/5	130/5	140/5	150/5	150/5	-
Total load Wheel load LA	15 to 70 kN 200 × 200 mm	50/5	70/5	90/5	110/5	120/5	130/5	140/5	150/5	-	-	-	-	-	-
Total load Wheel load LA	19 to 85 kN 200 × 200 mm	60/5	80/5	100/5	120/5	130/5	140/5	150/5	-	-	-	-	-	-	-

The calculation of the bearing bars is carried out taking into account the vibration coefficient (braking factor) of 1.4.

Vehicular gratings with forklift truck, solid rubber tyres, DIN E N 1991															S235 JR+N (St 37-2)
Load		Width between supports [mm]													
		200	300	400	500	600	700	800	900	1.000	1.100	1.200	1.300	1.400	1.500
Total load Wheel load LA	3,1 to 13 kN 200 × 200 mm	30/4	35/5	45/5	50/5	60/5	70/5	70/5	80/5	80/5	90/5	90/5	90/5	100/5	100/5
Total load Wheel load LA	4,6 to 20 kN 200 × 200 mm	35/4	45/5	60/5	70/5	80/4	80/5	90/5	100/5	100/5	110/5	110/5	120/5	120/5	130/5
Total load Wheel load LA	7 to 31,5 kN 200 × 200 mm	40/5	60/5	70/5	80/5	100/5	100/5	110/5	120/5	130/5	130/5	140/5	150/5	150/5	-
Total load Wheel load LA	10 to 45 kN 200 × 200 mm	50/5	70/5	90/5	100/5	110/5	120/5	130/5	140/5	150/5	-	-	-	-	-
Total load Wheel load LA	15 to 70 kN 200 × 200 mm	60/5	90/5	110/5	130/5	140/5	150/5	-	-	-	-	-	-	-	-
Total load Wheel load LA	19 to 85 kN 200 × 200 mm	70/5	100/5	120/5	140/5	150/5	-	-	-	-	-	-	-	-	-

The calculation of the bearing bars is carried out taking into account the vibration coefficient (braking factor) of 1.4.

Vehicular gratings, DIN EN 1991						S235 JR+N (St 37-2)
Load		Width between supports [mm]				
		1.600	1.700	1.800	1.900	2.000
Total load Wheel load LA	Small van (F2) 10 kN 200 × 200 mm	70/5	80/4	80/5	90/5	90/5
Total load Wheel load LA	Van 6,0 to 20 kN 200 × 200 mm	110/5	110/5	120/5	120/5	130/5
Total load Wheel load LA	Van 9,0 to 30 kN 200 × 260 mm	130/5	140/5	140/5	150/5	150/5
Total load Wheel load LA	Van 12,0 to 40 kN 200 × 300 mm	150/5	-	-	-	-
Total load Wheel load LA	Van 16,0 to / Heavy truck 30 to 50 kN 200 × 400 mm	-	-	-	-	-
Total load Wheel load LA	Heavy truck 60 to 100 kN 200 × 600 mm	-	-	-	-	-

Vehicular gratings with forklift truck, pneumatic tyres, DIN EN 1 991,						S235 JR+N (St 37-2)
Load		Width between supports [mm]				
		1.600	1.700	1.800	1.900	2.000
Total load Wheel load LA	3,1 to 13 kN 200 × 200 mm	90/5	90/5	100/5	110/5	110/5
Total load Wheel load LA	4,6 to 20 kN 200 × 200 mm	110/5	110/5	120/5	120/5	130/5
Total load Wheel load LA	7 to 31,5 kN 200 × 200 mm	140/5	140/5	150/5	150/5	150/5
Total load Wheel load LA	10 to 45 kN 200 × 200 mm	-	-	-	-	-
Total load Wheel load LA	15 to 70 kN 200 × 200 mm	-	-	-	-	-
Total load Wheel load LA	19 to 85 kN 200 × 200 mm	-	-	-	-	-

Vehicular gratings with forklift truck, solid rubber tyres, DIN E N 1991						S235 JR+N (St 37-2)
Load		Width between supports [mm]				
		1.600	1.700	1.800	1.900	2.000
Total load Wheel load LA	3,1 to 13 kN 200 × 200 mm	110/5	110/5	110/5	120/5	120/5
Total load Wheel load LA	4,6 to 20 kN 200 × 200 mm	130/5	140/5	140/5	140/5	150/5
Total load Wheel load LA	7 to 31,5 kN 200 × 200 mm	-	-	-	-	-
Total load Wheel load LA	10 to 45 kN 200 × 200 mm	-	-	-	-	-
Total load Wheel load LA	15 to 70 kN 200 × 200 mm	-	-	-	-	-
Total load Wheel load LA	19 to 85 kN 200 × 200 mm	-	-	-	-	-

The table applies to the standard mesh spacing of 33.3 × 33.3 and material S235 JR+N St 37-2.

The values represent the maximum permitted load-bearing capacity of the gratings.

LA = Lastaufstandsfläche

Conversion values:

1 kN ≙ ca. 100 kg

10 KN ≙ ca. 1 t

10 N ≙ ca. 1 daN ≙ ca. 1 kp

The support length for gratings should correspond to the gratings height, but at least 30 mm.**

* NOTE: DIN 1072 is no longer valid. However, these load assumptions are still frequently used for gratings. When using these load assumptions, it is advisable to consult with the inspector and client.
** according to BGI/GUV-I 588-1, page 12

Quality and Test Specification

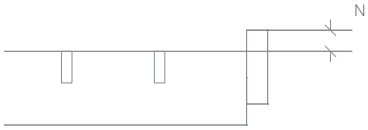
are described in the quality assurance document RALGZ 638.

These manufacturing and delivery tolerances must be observed for the production of all grating in accordance with the following specification of sizes::

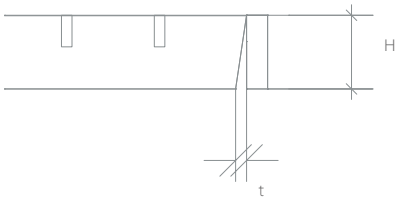
- for bearing bars ≤ 60 mm x 5 mm
- mesh spacing max. 68 mm and min. 11 mm
- grating size max. 2.0 m², with a permissible lateral dimension of at most 2,000 mm.

Permitted tolerances for press-locked gratings:

The tolerances occurring under a load (deformations) are not included.

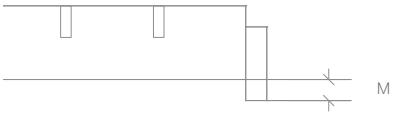


Top protruding edge N max. = 1.0 mm

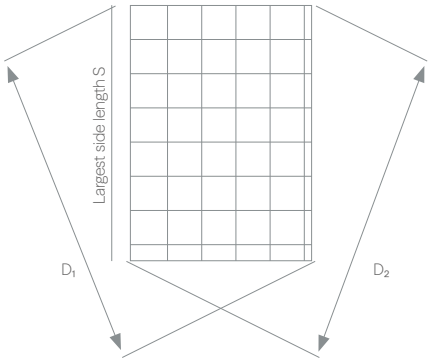


Oblique section of the bearing bar and cross bar t max. = ± 0.1 x H, but max. 3 mm

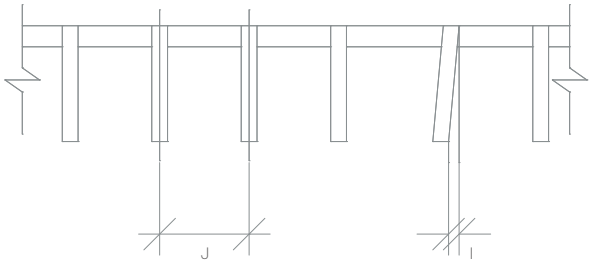
Higher cross bar K max. = 1.5 mm



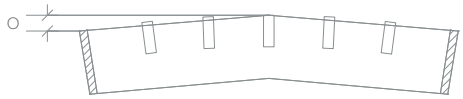
Bottom protruding edge M max. = 1.0 mm



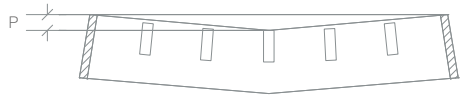
Diagonal distortion: D1 - D2 0,01 x s



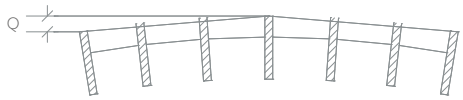
Inclination of the bearing and edge bars I max. = 0.1 x J, but max. 3 mm



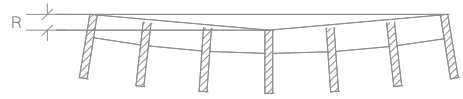
Deviations for convex O max. = 1/200 of the length for dimensions > 450 mm; max. 8 mm for dimensions smaller than 450 mm; max. 3 mm



Deviations for concave P max. = 1/200 of the length for dimensions > 600 mm; max. 8 mm for dimensions smaller than 600 mm; max. 3 mm



Deviations for convex Q max. = 1/200 of the width for dimensions > 450 mm; max. 8 mm for dimensions smaller than 450 mm; max. 3 mm

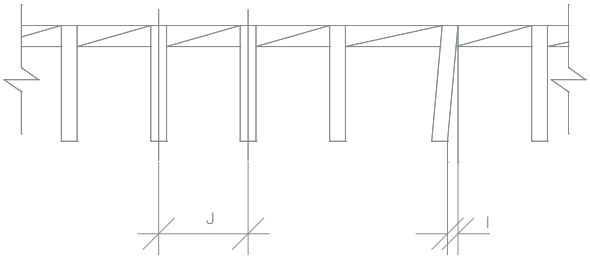


Deviations for concave R max. = 1/200 of the width for dimensions > 600 mm; max. 8 mm for dimensions smaller than 600 mm; max. 3 mm

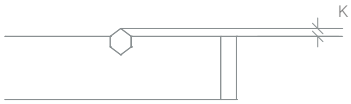
Permitted tolerances for press-welded gratings:

The tolerances occurring under a load (deformations) are not included.

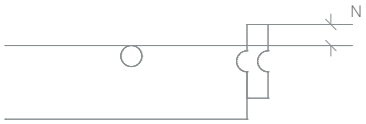
Projecting cross and edge bar L max. = 0.5 mm



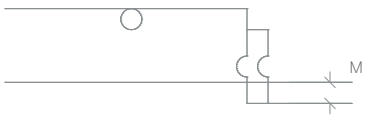
Inclination of the bearing and edge bars J max. = 0.1 x I, but max. 3 mm



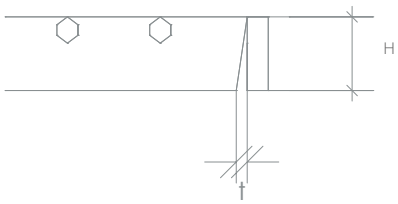
Higher cross bar K max. = 1.5 mm



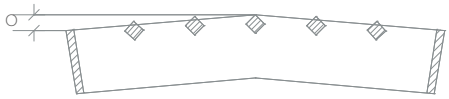
Top protruding edge N max. = 1.0 mm



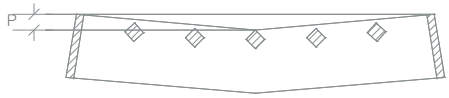
Bottom protruding edge M max. = 1.0 mm



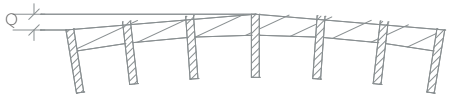
Inclination of the bearing and/or cross bar t max. = ± 0.1 x H, but max. 3 mm



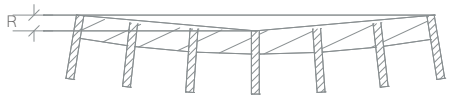
Deviations for convex O max. = 1/150 of the length for dimensions > 450 mm; max. 8 mm for dimensions smaller than 450 mm; max. 3 mm



Deviations for concave P max. = 1/200 of the length for dimensions > 600 mm; max. 8 mm for dimensions smaller than 600 mm; max. 3 mm



Deviations for convex Q max. = 1/150 of the width for dimensions > 600 mm; max. 8 mm for dimensions smaller than 450 mm; max. 3 mm



Deviations for concave R max. = 1/200 of the width for dimensions > 600 mm; max. 8 mm for dimensions smaller than 600 mm; max. 3 mm

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