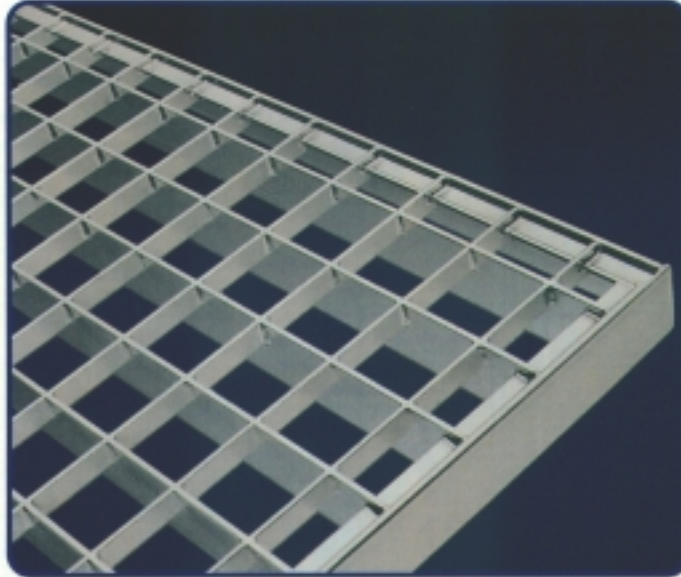
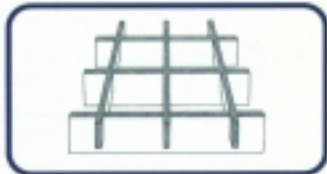
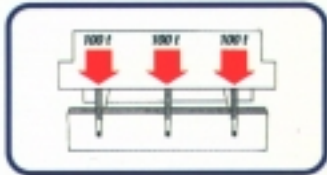


Also in the press grating market, we intend to share our experience of more than 40 years as well as our knowhow with our customers. Let us know your specific requirements! We will do our best to give you an unobjectionable product and offer you an optimal service.

STACO® Press Grates are modern safety components for stages, platforms, ramps, stairways, covers, racks and shelves, separating and protective walls, fences, etc. in many fields in the construction of industrial plants, objects and administration buildings.





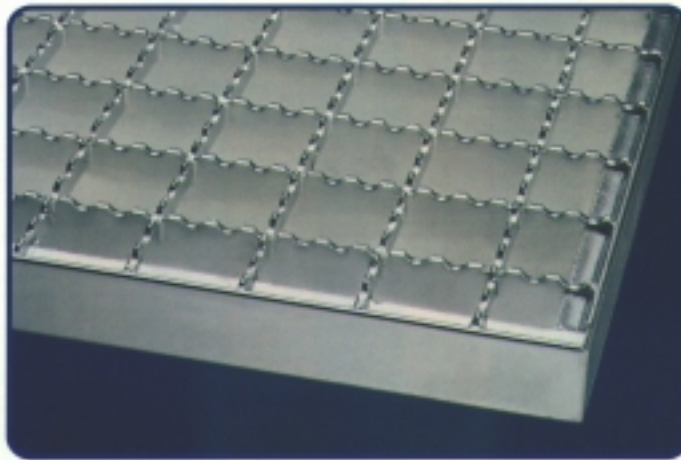
Edge Binding

In general, STACO® PR Grating is provided with a T-profile or a steel flat as edge binding. The grating may also be provided with other special bindings such as binders set on edge, stilts, angle irons, Z-profiles, and the like as a function of the specific application involved (see also page 32).

Design Principle

The transverse bars are pressed into the conically recessed bearing bars under pressure. As a result of the high pressure applied ("cold welding"), the STACO® PR Grating features high stability and is offering two major benefits:

1. The grating is well suited for any further processing such as sawing.
2. Disturbing clattering or rattling noises are avoided permanently.



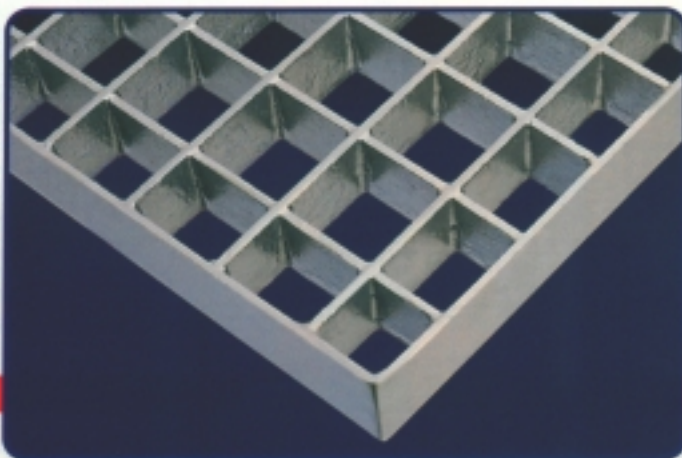
STACO® Serrated Non-slip Grates

STACO® Grates are of highly nonskid design. Snow, ice, oil, fat, moisture or other critical conditions at ascending or descending catwalks or surfaces increase the danger of skidding. In such cases STACO® PR Serrated Grates and treads with their non-slip notches offer a very good protection against accidents. STACO® PR Serrated Grating is manufactured in different designs

STACO® Full Grates

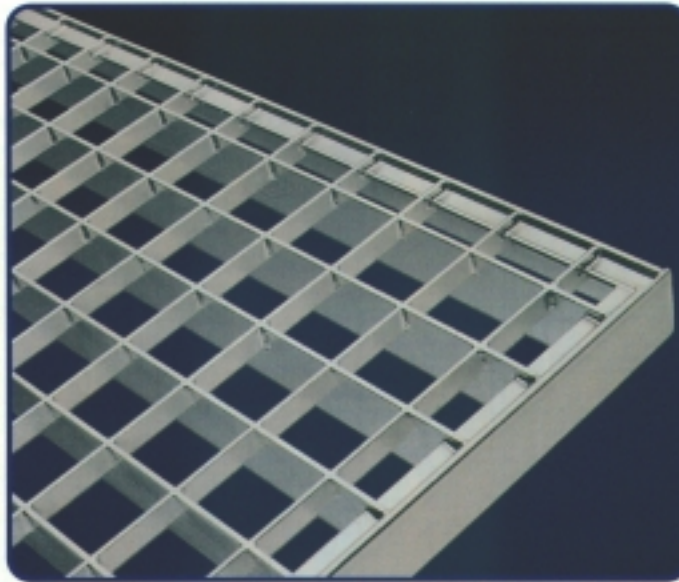
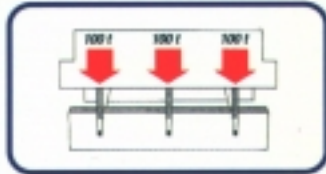
STACO® Full Grates, generally also called carton grates, are manufactured by pressing of bearing bars and transverse bars of identical height and identical thickness. Steel, special steel and aluminium may be used for this

manufacturing method. Accordingly, attractive structural elements for building fronts, suspended ceilings, partition walls, and many other purposes are available for architectural purposes in particular.



STACO® PR Safety Mesh Grating

For safety reasons, a transverse bar spacing of approx. 10 mm clear width is recommended for areas with heavy pedestrian traffic. The narrow meshing also contributes to an attractive and uniform appearance.



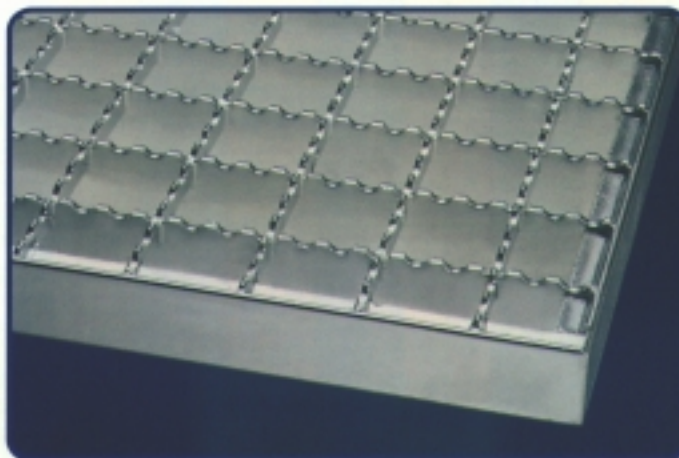
Edge Binding

In general, STACO® PR Grating is provided with a T-profile or a steel flat as edge binding. The grating may also be provided with other special bindings such as binders set on edge, stilts, angle irons, Z-profiles, and the like as a function of the specific application involved (see also page 32).

Design Principle

The transverse bars are pressed into the conically recessed bearing bars under pressure. As a result of the high pressure applied ("cold welding"), the STACO® PR Grating features high stability and is offering two major benefits:

1. The grating is well suited for any further processing such as sawing.
2. Disturbing clattering or rattling noises are avoided permanently.



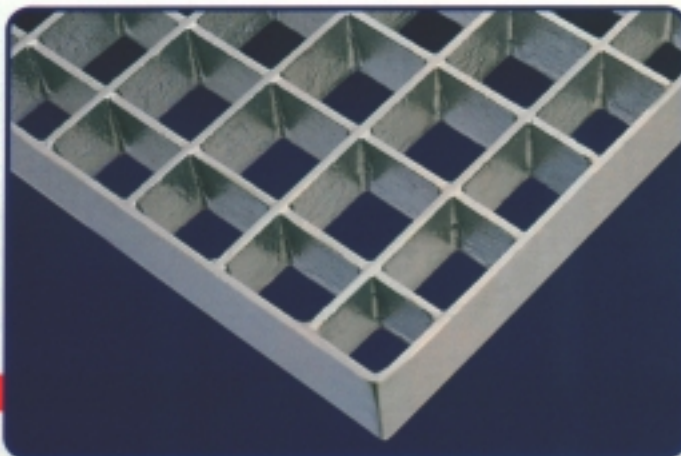
STACO® Serrated Non-slip Grates

STACO® Grates are of highly nonskid design. Snow, ice, oil, fat, moisture or other critical conditions at ascending or descending catwalks or surfaces increase the danger of skidding. In such cases STACO® PR Serrated Grates and treads with their non-slip notches offer a very good protection against accidents. STACO® PR Serrated Grating is manufactured in different designs

STACO® Full Grates

STACO® Full Grates, generally also called carton grates, are manufactured by pressing of bearing bars and transverse bars of identical height and identical thickness. Steel, special steel and aluminium may be used for this

manufacturing method. Accordingly, attractive structural elements for building fronts, suspended ceilings, partition walls, and many other purposes are available for architectural purposes in particular.



STACO® PR Safety Mesh Grating

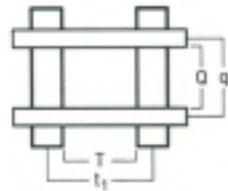
For safety reasons, a transverse bar spacing of approx. 10 mm clear width is recommended for areas with heavy pedestrian traffic. The narrow meshing also contributes to an attractive and uniform appearance.

Type 30

Material:
Steel St. 37.2

Nominal meshes:
 3010 } for loading data see table
 3020 }
 3030 }
 3040 }
 3050 } for loading data see table minus 5%
 3065 }
 30100 }

For exact manufacturing dimensions (t, u, q₁) see pages 18/19



t₁ = Bearing bar pitch
(spacing between centers)
 T = Bearing bar width
(clear dimension)
 q₁ = Transverse bar pitch
(spacing between centers)
 Q = Transverse bar pitch
(clear dimension)

Bearing bar dimension	Span L = clear width between supports, in mm																					
	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	2500	
20 x 2	Fv	1839	1277	938	718	568	460	380	319	272	235	204	180	159	142	127	115	104	95	87	80	74
	fv	0.20	0.29	0.39	0.51	0.64	0.79	0.96	1.14	1.34	1.56	1.79	2.03	2.29	2.57	2.87	3.17	3.50	3.84	4.20	4.57	4.96
	Fp	179	143	119	102	89	79	71	65	60	55	51	48	45	42	40	38	36	34	32	31	30
	fp	0.20	0.27	0.36	0.46	0.58	0.70	0.85	1.00	1.16	1.34	1.53	1.73	1.95	2.18	2.42	2.67	2.94	3.22	3.51	3.82	4.13
20 x 3	Fv	2765	1920	1410	1080	853	691	572	480	409	353	307	270	240	213	191	173	157	143	131	120	111
	fv	0.20	0.29	0.39	0.51	0.64	0.79	0.96	1.14	1.34	1.56	1.79	2.03	2.29	2.57	2.87	3.17	3.50	3.84	4.20	4.57	4.96
	Fp	269	215	179	154	134	119	107	96	86	80	77	72	67	63	60	57	54	51	49	47	45
	fp	0.20	0.27	0.36	0.46	0.58	0.71	0.85	1.00	1.16	1.34	1.53	1.73	1.95	2.18	2.42	2.67	2.94	3.22	3.51	3.82	4.13
25 x 2	Fv	2876	1997	1457	1123	887	719	594	500	426	367	319	281	249	222	199	180	163	149	136	125	115
	fv	0.16	0.23	0.31	0.41	0.51	0.63	0.77	0.91	1.07	1.24	1.43	1.62	1.83	2.05	2.29	2.54	2.80	3.07	3.35	3.65	3.96
	Fp	277	222	185	158	139	123	111	101	92	85	79	74	69	65	62	58	55	53	50	48	46
	fp	0.16	0.22	0.29	0.37	0.46	0.56	0.67	0.80	0.93	1.07	1.22	1.38	1.56	1.74	1.93	2.14	2.35	2.57	2.80	3.05	3.30
25 x 3	Fv	4313	2995	2201	1685	1328	1078	891	749	638	550	479	421	373	333	299	270	245	223	204	187	173
	fv	0.16	0.23	0.31	0.41	0.51	0.63	0.77	0.91	1.07	1.24	1.43	1.62	1.83	2.05	2.29	2.54	2.80	3.07	3.35	3.65	3.96
	Fp	416	332	277	237	208	185	166	151	139	128	119	111	104	98	92	87	83	79	76	72	69
	fp	0.16	0.22	0.29	0.37	0.46	0.56	0.67	0.80	0.93	1.07	1.22	1.38	1.56	1.74	1.93	2.14	2.35	2.57	2.80	3.05	3.30
25 x 4	Fv	5751	3993	2934	2246	1775	1437	1168	986	851	734	639	562	497	444	398	359	326	297	272	250	230
	fv	0.16	0.23	0.31	0.41	0.51	0.63	0.77	0.91	1.07	1.24	1.43	1.62	1.83	2.05	2.29	2.54	2.80	3.07	3.35	3.65	3.96
	Fp	554	443	369	317	277	246	222	201	185	170	158	148	138	130	123	117	111	106	101	96	92
	fp	0.16	0.22	0.29	0.37	0.46	0.56	0.67	0.80	0.93	1.07	1.22	1.38	1.56	1.74	1.93	2.14	2.35	2.57	2.80	3.05	3.30
25 x 5	Fv	7188	4962	3668	2808	2219	1797	1485	1248	1064	917	798	702	622	554	498	449	408	371	340	312	288
	fv	0.16	0.23	0.31	0.41	0.51	0.63	0.77	0.91	1.07	1.24	1.43	1.62	1.83	2.05	2.29	2.54	2.80	3.07	3.35	3.65	3.96
	Fp	693	554	462	396	346	308	277	252	231	213	198	185	173	163	154	146	139	132	126	120	115
	fp	0.16	0.22	0.29	0.37	0.46	0.56	0.67	0.80	0.93	1.07	1.22	1.38	1.56	1.74	1.98	2.14	2.35	2.57	2.80	3.05	3.30
30 x 2	Fv	4147	2880	2116	1620	1280	1037	857	720	614	529	461	405	359	320	287	259	235	214	196	180	166
	fv	0.13	0.19	0.26	0.34	0.43	0.53	0.64	0.76	0.89	1.04	1.19	1.35	1.53	1.71	1.91	2.12	2.33	2.56	2.80	3.05	3.30
	Fp	396	317	264	226	198	176	158	144	132	122	113	105	99	90	80	83	79	75	72	69	66
	fp	0.13	0.18	0.24	0.31	0.39	0.47	0.56	0.66	0.77	0.89	1.02	1.16	1.30	1.45	1.61	1.78	1.96	2.15	2.34	2.54	2.76
30 x 3	Fv	6221	4320	3174	2430	1920	1555	1295	1080	920	794	691	608	538	480	431	370	353	321	294	270	249
	fv	0.13	0.19	0.26	0.34	0.43	0.53	0.64	0.76	0.89	1.04	1.19	1.35	1.53	1.71	1.91	2.12	2.33	2.56	2.80	3.05	3.30
	Fp	594	475	396	340	297	264	238	216	198	183	170	158	149	140	132	125	119	113	108	103	99
	fp	0.13	0.18	0.24	0.31	0.39	0.47	0.56	0.66	0.77	0.89	1.02	1.16	1.30	1.45	1.61	1.78	1.96	2.15	2.34	2.54	2.76
30 x 4	Fv	8294	5760	4232	3240	2560	2074	1714	1440	1227	1058	922	810	717	640	574	518	470	428	392	360	332
	fv	0.13	0.19	0.26	0.34	0.43	0.53	0.64	0.76	0.89	1.04	1.19	1.35	1.53	1.71	1.91	2.12	2.33	2.56	2.80	3.05	3.30
	Fp	792	634	528	453	396	352	317	288	264	244	226	211	198	186	176	167	158	151	144	138	132
	fp	0.13	0.18	0.24	0.31	0.39	0.47	0.56	0.66	0.77	0.89	1.02	1.16	1.30	1.45	1.61	1.78	1.96	2.15	2.34	2.54	2.76
30 x 5	Fv	10368	7200	5290	4050	3200	2592	2142	1800	1534	1322	1152	1013	897	800	718	648	588	536	490	450	415
	fv	0.13	0.19	0.26	0.34	0.43	0.53	0.64	0.76	0.89	1.04	1.19	1.35	1.53	1.71	1.91	2.12	2.33	2.56	2.80	3.05	3.30
	Fp	990	792	660	566	495	440	396	360	330	305	283	264	248	233	220	208	196	189	180	172	165
	fp	0.13	0.18	0.24	0.31	0.39	0.47	0.56	0.66	0.77	0.89	1.02	1.16	1.30	1.45	1.61	1.78	1.96	2.15	2.34	2.54	2.76
40 x 2	Fv	7368	5117	3759	2876	2274	1842	1523	1279	1090	940	819	720	637	568	510	461	418	381	348	320	295
	fv	0.10	0.14	0.19	0.25	0.32	0.40	0.48	0.57	0.67	0.78	0.89	1.02	1.15	1.28	1.43	1.59	1.75	1.92	2.10	2.29	2.48
	Fp	691	553	461	395	345	307	276	251	230	213	197	184	173	163	153	145	138	132	126	120	115
	fp	0.10	0.14	0.18	0.23	0.29	0.35	0.42	0.50	0.58	0.67	0.76	0.87	0.97	1.09	1.21	1.34	1.47	1.61	1.76	1.91	2.07
40 x 3	Fv	11059	7680	5642	4320	3414	2765	2285	1920	1636	1410	1229	1080	957	853	766	691	627	571	523	480	442
	fv	0.10	0.14	0.19	0.25	0.32	0.40	0.48	0.57	0.67	0.78	0.89	1.02	1.15	1.29	1.43	1.59	1.75	1.92	2.10	2.29	2.48
	Fp	1037	829	691	592	518	451	415	377	346	319	296	276	259	244	230	218	207	197	189	180	173
	fp	0.10	0.14	0.18	0.23	0.29	0.35	0.42	0.50	0.58	0.67	0.77	0.87	0.97	1.09	1.21	1.34	1.47	1.61	1.76	1.91	2.07
40 x 4	Fv	14737	10234	7519	5756	4549	3684	3045	2559	2180	1879	1637	1439	1274	1137	1021	921	835	761	696	640	590
	fv	0.10	0.14	0.19	0.25	0.32	0.40	0.48	0.57	0.67	0.78	0.89	1.02	1.15	1.28	1.43	1.59	1.75	1.92	2.10	2.28	2.48
	Fp	1362	1105	921	789	691	614	553	502	461	425	395	368	345	325	307	291	276	263	251	240	230
	fp	0.10	0.14	0.18	0.23	0.29	0.35	0.42	0.50	0.58	0.67	0.76	0.87	0.97	1.09	1.21	1.34	1.47	1.61	1.75	1.91	2.07
40 x 5	Fv	18428	12797	9401	7196	5667	4607	3807	3120	2726	2351	2048	1800	1594	1422	1276	1152	1045	952	871	800	737
	fv	0.10	0.14	0.19	0.25	0.32	0.40	0.48	0.57	0.67	0.78	0.89	1.02	1.15	1.29	1.43	1.59	1.75	1.92	2.10	2.29	2.48
	Fp	1728	1362	1152	967	864	766	691	628	576	532	494	461	432	406	384	364	346	329	314	300	288
	fp	0.10	0.14	0.18	0.23	0.29	0.35	0.42	0.50	0.58	0.67	0.77	0.87	0.97	1.09	1.21	1.34	1.47	1.61	1.76	1.91	2.07

Bearing bar dimension	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	2500	
50 x 3	Fv	17280	12000	8816	6750	5333	4320	3570	3000	2556	2204	1920	1688	1495	1333	1197	1080	979	893	816	750	691
	fv	0.08	0.11	0.16	0.20	0.26	0.32	0.38	0.46	0.54	0.62	0.71	0.81	0.92	1.03	1.15	1.27	1.40	1.54	1.68	1.83	1.98
	Fp	1589	1272	1060	908	795	706	636	578	530	489	454	424	397	374	353	335	318	303	289	276	265
	fp	0.08	0.11	0.15	0.19	0.23	0.28	0.34	0.40	0.46	0.54	0.61	0.69	0.78	0.87	0.97	1.07	1.18	1.29	1.40	1.53	1.65
50 x 4	Fv	23031	16994	11750	8996	7106	5757	4758	3999	3407	2938	2559	2249	1993	1778	1595	1439	1306	1190	1088	1000	922
	fv	0.08	0.11	0.16	0.20	0.26	0.32	0.38	0.46	0.54	0.62	0.71	0.81	0.92	1.03	1.15	1.27	1.40	1.54	1.68	1.83	1.98
	Fp	2118	1685	1412	1210	1059	941	847	770	706	652	605	565	530	498	471	446	424	403	385	368	353
	fp	0.08	0.11	0.15	0.19	0.23	0.28	0.34	0.40	0.46	0.54	0.61	0.69	0.78	0.87	0.97	1.07	1.18	1.29	1.40	1.53	1.65
50 x 5	Fv	28796	19997	14692	11248	8888	7199	5950	5000	4260	3673	3200	2813	2491	2222	1994	1800	1633	1488	1361	1250	1152
	fv	0.08	0.11	0.16	0.20	0.26	0.32	0.38	0.46	0.54	0.62	0.71	0.81	0.92	1.03	1.15	1.27	1.40	1.54	1.68	1.83	1.98
	Fp	2649	2119	1766	1513	1324	1177	1059	963	883	815	757	706	662	623	589	558	530	504	482	461	441
	fp	0.08	0.11	0.15	0.19	0.23	0.28	0.34	0.40	0.46	0.54	0.61	0.69	0.78	0.87	0.97	1.07	1.18	1.29	1.40	1.53	1.65
60 x 3	Fv	24883	17280	12685	9720	7680	6220	5141	4320	3681	3173	2764	2430	2152	1919	1723	1555	1410	1285	1175	1080	995
	fv	0.07	0.10	0.13	0.17	0.21	0.27	0.32	0.38	0.45	0.52	0.60	0.68	0.78	0.86	0.96	1.06	1.17	1.28	1.40	1.52	1.65
	Fp	2247	1797	1498	1284	1123	998	899	817	749	691	642	599	561	528	499	473	449	428	408	390	374
	fp	0.07	0.09	0.12	0.15	0.19	0.24	0.28	0.33	0.39	0.45	0.51	0.56	0.65	0.73	0.81	0.89	0.98	1.07	1.17	1.27	1.38
60 x 4	Fv	33178	23040	16927	12960	10240	8294	6855	5790	4908	4232	3686	3240	2870	2560	2298	2074	1881	1714	1568	1440	1328
	fv	0.07	0.10	0.13	0.17	0.21	0.27	0.32	0.38	0.45	0.52	0.60	0.68	0.78	0.86	0.96	1.06	1.17	1.28	1.40	1.52	1.65
	Fp	2986	2397	1998	1712	1498	1332	1199	1090	999	922	856	799	749	705	666	631	599	571	545	521	499
	fp	0.07	0.09	0.12	0.15	0.19	0.24	0.28	0.33	0.39	0.45	0.51	0.56	0.65	0.73	0.81	0.89	0.98	1.07	1.17	1.27	1.38
60 x 5	Fv	41472	28800	21159	16200	12800	10368	8569	7200	6135	5290	4608	4050	3587	3200	2872	2592	2351	2142	1960	1800	1658
	fv	0.07	0.10	0.13	0.17	0.21	0.27	0.32	0.38	0.45	0.52	0.60	0.68	0.78	0.86	0.96	1.06	1.17	1.28	1.40	1.52	1.65
	Fp	3745	2996	2497	2140	1873	1665	1498	1362	1248	1152	1070	999	936	881	832	789	749	713	681	651	624
	fp	0.07	0.09	0.12	0.15	0.19	0.24	0.28	0.33	0.39	0.45	0.51	0.56	0.65	0.73	0.81	0.89	0.98	1.07	1.17	1.27	1.38
70 x 5	Fv	56443	39196	28797	22048	17420	14111	11662	9799	8349	7190	6271	5512	4882	4355	3908	3528	3190	2915	2667	2450	2257
	fv	0.06	0.08	0.11	0.15	0.18	0.23	0.27	0.33	0.38	0.44	0.51	0.58	0.66	0.74	0.82	0.91	1.00	1.10	1.20	1.31	1.42
	Fp	4997	3998	3338	2855	2498	2221	1999	1817	1686	1537	1428	1332	1249	1175	1110	1052	999	952	908	869	833
	fp	0.05	0.07	0.10	0.13	0.16	0.20	0.24	0.28	0.33	0.38	0.43	0.49	0.55	0.62	0.69	0.76	0.84	0.92	1.00	1.09	1.18
70 x 6	Fv	67737	47039	33854	25920	20480	16588	13709	11520	9815	8463	7372	6480	5740	5120	4595	4147	3761	3427	3135	2840	2710
	fv	0.06	0.08	0.11	0.15	0.18	0.23	0.27	0.33	0.38	0.44	0.51	0.58	0.66	0.74	0.82	0.91	1.00	1.10	1.20	1.31	1.42
	Fp	5997	4798	3998	3427	2998	2665	2399	2181	1999	1845	1713	1599	1499	1411	1332	1262	1199	1142	1090	1043	999
	fp	0.05	0.07	0.10	0.13	0.16	0.20	0.24	0.28	0.33	0.38	0.43	0.49	0.55	0.62	0.69	0.76	0.84	0.92	1.00	1.09	1.18

Legend:

Fv = Loading data for uniformly distributed loads (Fv), in daN/m²
fv = Deflection values (fv) in case of load Fv, in cm
Fp = Loading data for a central single load (Fp), in daN, and a loading area of 200 x 200 mm
fp = Deflection values (fp) in case of load Fp, in cm

Loading of material (permissible stress): 1600 daN/cm²

Safety factor up to yield point: 1.5

Safety factor up to breaking point: 2.35

Grating support = grating height, however 30 mm minimum

As compared with nominal mesh PR 3030 the loading data (Fv) will be reduced by 3 % and loads (Fp) by 4 % in case of PR 3230.

Load-bearing capacity of Serrated Grating

In case of S1 and S2 the load data are reduced as follows:

Types S1 and S2 (punching depth = 2.5 mm)

in case of a grating height of 25 mm = 10.0 %	in case of a grating height of 50 mm = 5.0 %
in case of a grating height of 30 mm = 8.3 %	in case of a grating height of 60 mm = 4.2 %
in case of a grating height of 35 mm = 7.2 %	in case of a grating height of 70 mm = 3.6 %
in case of a grating height of 40 mm = 6.3 %	

In case of type S3 there will be no change of loading data.

(For Serrated Grating types see pages 30/31)

- This range should not be exceeded to ensure a safe passage. The elastic deflection under loading conditions is not more than 1/200 of the span, in any case ≤ 4 mm with a single traffic load of 150 daN referred to a loading area of 200 x 200 mm.
- Within this restriction the grating is still capable of taking up a single traffic load of 150 daN in the most unfavourable position of a loading area of 200 x 200 mm in case of a maximum deflection of 1/200 of the span (see AGI).
- If in case of a distributed live load of 500 daN/m² the maximum deflection is to be 4 mm, STACO® recommends to account for a span limitation according to this line.
- In case of a distributed live load of 500 daN/m², the maximum deflection at this limitation will be 1/200 of the span.

Multipliers of loading values:

Material	Fv/Fp	fv/fp
V2A (1.4301)	Factor 0,83	Factor 0,95
V4A (1.4571)	Factor 0,89	Factor 0,95
Stainless (4003)	Factor 1,38	Factor 1,00
AlMG₁ (Aluminium)	Factor 0,76	Factor 2,94

