Calculation method

The published payloads are based on tests with perforated fixing rails. For non-perforated fixing rails, 20% higher payload than the one reported.

The loads are calculated considering a maximum deflection (f) of a value equal to $1/200 \times L$ and a maximum bending load of 160 N/mm^2.

Example: for a length of 500 mm the maximum payload is 1400 N; the maximum deflection will be $(1/200 \times 500 \text{ mm}) = 2.5 \text{ mm}$

1N (Newton) = 0.102 kg   1 kg = 9.8 N (Newton)

Attaching of the fixing rail to walls or partitions

The anchoring force of the fixing rail has not been taken into consideration.

The installer must check that the screws and anchors used to attach the fixing rail to the wall or ceiling are suitable for the maximum load permitted by the fixing rail.

Loading methods

Where loads are suspended on the fixing rails, the load must not exceed the safe payload of the attachment to the fixing rail. To increase the rigidity of the installation we recommend the use of U washers.
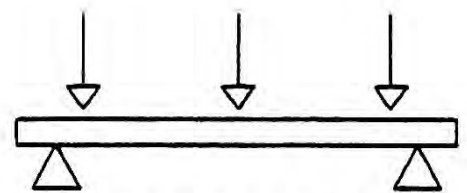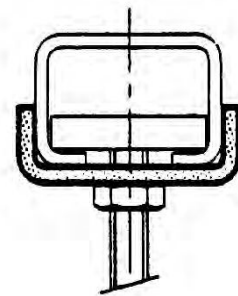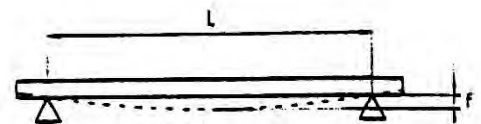
When loading is from above the fixing rail, the possible load is greater than that shown in the tables.

Load from above

How to read load tables

Where the box is empty, it is not possible to use the fixing rail selected for that application and it will be necessary to use one with a higher range.
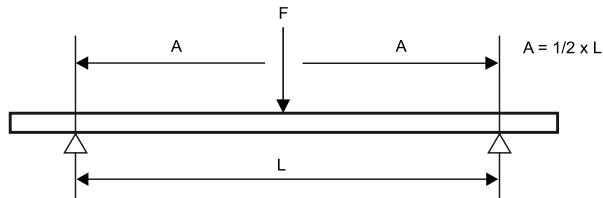
Special conditions

In case of uncertainty or special conditions not shown in the load tables, do not hesitate to contact our technical department for suggestions and advice.

C fixing rail

1 point suspension

F   A   A   A = 1/2 x L
L

L (mm)	CH0 (27 x 18)	CH1 (30 x 15)	CH15 (30 x 20)	CH (32 x 20)	CH2 (30 x 30)	CH30 (30 x 45)
250	758	899	1.249	1.951	3.238	5.199
300	631	749	1.041	1.626	2.698	4.333
350	541	642	892	1.393	2.313	3.714
400	474	562	781	1.219	2.023	3.250
450	421	499	694	1.084	1.799	2.889
500	379	449	625	975	1.619	2.600
600	316	358	521	813	1.349	2.166
700	266	263	446	697	1.156	1.857
800	204	202	348	571	1.012	1.625
900	161	159	275	451	899	1.444
1.000	130	129	223	366	780	1.300
1.200	91	90	155	254	542	1.083
1.400	67	66	114	187	398	928
1.600	51	50	87	143	305	812
1.800	40	40	69	113	241	643
2.000	33	32	56	91	195	521
2.250	26	25	44	72	154	412
2.500	21	21	36	58	125	333
2.750	17	17	29	48	103	275
3.000	14	14	25	41	87	231
3.250	12	12	21	35	74	197
3.500	11	11	18	30	64	170
3.750	–	–	16	26	55	148
4.000	–	–	14	23	49	130
4.250	–	–	12	20	43	115
4.500	–	–	11	18	39	103
4.750	–	–	–	16	35	92
5.000	–	–	–	15	31	83
5.250	–	–	–	13	28	76
5.500	–	–	–	12	26	69
5.750	–	–	–	11	24	63
6.000	–	–	–	10	22	58

Maximum payload in N.

The values reported are only valid for the fixing rail.
The maximum payload of all the other construction parts must be verified.

C fixing rail

## 2 equal loads
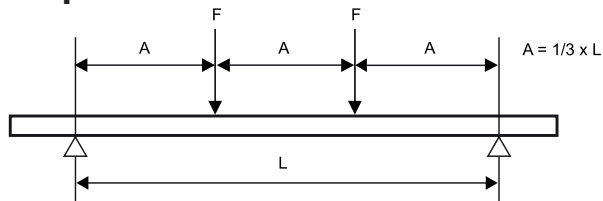
L (mm)	CH0 27 x 18	CH1 30 x 15	CH15 30 x 20	CH 32 x 20	CH2 30 x 30	CH30 30 x 45
250	568	674	937	1.463	2.428	3.900
300	474	562	781	1.219	2.023	3.250
350	406	481	669	1.045	1.734	2.785
400	355	421	586	914	1.518	2.437
450	316	374	521	813	1.349	2.166
500	284	303	468	732	1.214	1.950
600	213	210	363	596	1.012	1.625
700	156	155	267	438	867	1.393
800	120	118	204	335	715	1.219
900	95	94	161	265	565	1.083
1.000	77	76	131	215	458	975
1.200	53	53	91	149	318	812
1.400	39	39	67	109	234	624
1.600	30	30	51	84	179	478
1.800	24	23	40	66	141	377
2.000	19	19	33	54	114	306
2.250	15	15	26	42	90	242
2.500	12	12	21	34	73	196
2.750	10	10	17	28	61	162
3.000	-	-	15	24	51	136
3.250	-	-	12	20	43	116
3.500	-	-	11	18	37	100
3.750	-	-	-	15	33	87
4.000	-	-	-	13	29	76
4.250	-	-	-	12	25	68
4.500	-	-	-	11	23	60
4.750	-	-	-	-	20	54
5.000	-	-	-	-	18	49
5.250	-	-	-	-	17	44
5.500	-	-	-	-	15	40
5.750	-	-	-	-	14	37
6.000	-	-	-	-	13	34

Max payload in N. Suspension for point (F)

The values reported are only valid for the fixing rail.
The maximum payload of all the other construction parts must be verified.

C fixing rail

3 equal loads

A = 1/4 x L
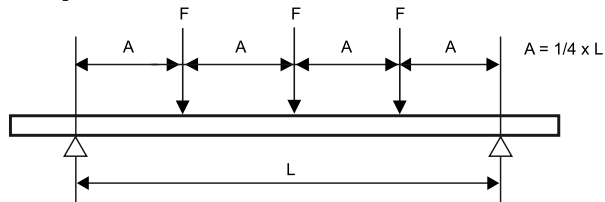
L (mm)	CH0 (27 x 18)	CH1 (30 x 15)	CH15 (30 x 20)	CH (32 x 20)	CH2 (30 x 30)	CH30 (30 x 45)
250	379	449	625	975	1.619	2.600
300	316	374	521	813	1.349	2.166
350	271	321	446	697	1.156	1.857
400	237	281	390	610	1.012	1.625
450	210	250	347	542	899	1.444
500	189	217	312	488	809	1.300
600	153	151	260	406	674	1.083
700	112	111	191	314	578	928
800	86	85	147	241	506	812
900	68	67	116	190	406	722
1.000	55	54	94	154	328	650
1.200	38	38	65	107	228	542
1.400	28	28	48	79	168	448
1.600	21	21	37	60	128	343
1.800	17	17	29	48	101	271
2.000	14	14	23	38	82	219
2.250	11	11	19	30	65	173
2.500	-	-	15	25	53	140
2.750	-	-	12	20	43	116
3.000	-	-	10	17	36	97
3.250	-	-	-	15	31	83
3.500	-	-	-	13	27	72
3.750	-	-	-	11	23	62
4.000	-	-	-	-	21	55
4.250	-	-	-	-	18	49
4.500	-	-	-	-	16	43
4.750	-	-	-	-	15	39
5.000	-	-	-	-	13	35
5.250	-	-	-	-	12	32
5.500	-	-	-	-	11	29
5.750	-	-	-	-	-	27
6.000	-	-	-	-	-	24

Max payload in N. Suspension for point (F)

The values reported are only valid for the fixing rail.
The maximum payload of all the other construction parts must be verified.
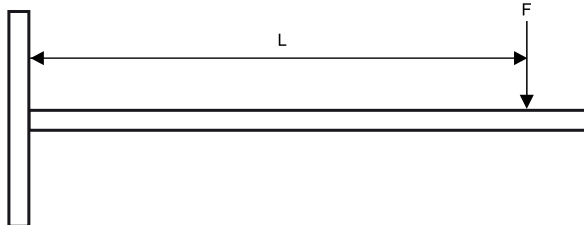
C fixing rail

Load distributed uniformly
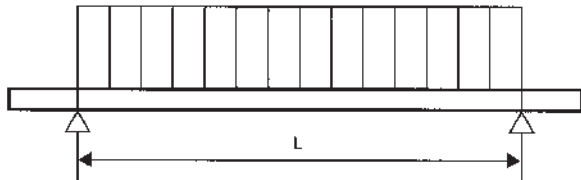
L (mm)	CH0 27 x 18	CH1 30 x 15	CH15 30 x 20	CH 32 x 20	CH2 30 x 30	CH30 30 x 45
250	1.516	1.797	2.499	3.901	6.475	10.399
300	1.263	1.498	2.082	3.251	5.396	8.666
350	1.083	1.284	1.785	2.787	4.625	7.428
400	947	1.123	1.562	2.438	4.047	6.499
450	842	998	1.388	2.167	3.597	5.777
500	758	826	1.249	1.951	3.238	5.199
600	580	574	990	1.625	2.698	4.333
700	426	421	727	1.194	2.313	3.714
800	326	323	557	914	1.950	3.250
900	258	255	440	722	1.541	2.889
1.000	209	206	356	585	1.248	2.600
1.200	145	143	248	406	867	2.166
1.400	106	105	182	298	637	1.701
1.600	82	81	139	228	488	1.302
1.800	64	64	110	181	385	1.029
2.000	52	52	89	146	312	833
2.250	41	41	70	116	247	658
2.500	33	33	57	94	200	533
2.750	28	27	47	77	165	441
3.000	23	23	40	65	139	370
3.250	20	20	34	55	118	316
3.500	17	17	29	48	102	272
3.750	15	15	25	42	89	237
4.000	13	13	22	37	78	208
4.250	12	11	20	32	69	185
4.500	10	10	18	29	62	165
4.750	-	-	16	26	55	148
5.000	-	-	14	23	50	133
5.250	-	-	13	21	45	121
5.500	-	-	12	19	41	110
5.750	-	-	11	18	38	101
6.000	-	-	-	16	35	93

Max payload in N. Suspension for point (F)

The values reported are only valid for the fixing rail.
The maximum payload of all the other construction parts must be verified.

Rail cantilever arm

1 point suspension

L (mm)	CH0 27 x 18	CH1 30 x 15	CH15 30 x 20	CH 32 x 20	CH2 30 x 30	CH30 30 x 45
100	474	562	781	1.219	2.023	3.250
150	316	358	521	813	1.349	2.166
200	204	202	348	571	1.012	1.625
250	130	129	223	366	780	1.300
300	91	90	155	254	542	1.083
350	67	66	114	187	398	928
400	51	50	87	143	305	812
450	40	40	69	113	241	643
500	33	32	56	91	195	521
550	27	27	46	76	161	430
600	23	22	39	63	135	362
700	17	16	28	47	100	266
800	13	13	22	36	76	203
900	10	–	17	28	60	161
1.000	–	–	14	23	49	130
1.100	–	–	12	19	40	108
1.200	–	–	–	16	34	90
1.300	–	–	–	14	29	77
1.400	–	–	–	12	25	66
1.500	–	–	–	10	22	58

Max payload in N.

The values reported are only valid for the fixing rail.
The maximum payload of all the other construction parts must be verified.

Rail cantilever arm

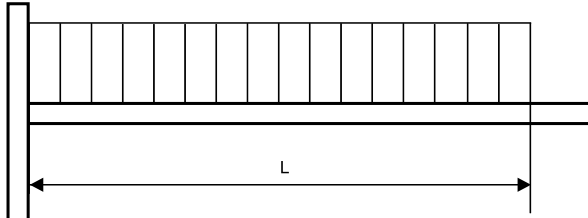## Load distributed uniformly

L (mm)	CH0 27 x 18	CH1 30 x 15	CH15 30 x 20	CH 32 x 20	CH2 30 x 30	CH30 30 x 45
100	947	1.123	1.562	2.438	4.047	6.499
150	631	749	1.041	1.626	2.698	4.333
200	474	538	781	1.219	2.023	3.250
250	348	344	594	975	1.619	2.600
300	242	239	413	677	1.349	2.166
350	177	176	303	497	1.061	1.857
400	136	134	232	381	813	1.625
450	107	106	183	301	642	1.444
500	87	86	149	244	520	1.300
550	72	71	123	201	430	1.148
600	60	60	103	169	361	965
700	44	44	76	124	265	709
800	34	34	58	95	203	543
900	27	27	46	75	161	429
1.000	22	22	37	61	130	347
1.100	18	18	31	50	107	287
1.200	15	15	26	42	90	241
1.300	13	13	22	36	77	205
1.400	11	11	19	31	66	177
1.500	–	–	17	27	58	154

Max payload in N.

The values reported are only valid for the fixing rail.
The maximum payload of all the other construction parts must be verified.