MÜPRO

MPR-Installation channels BV
## oblong hole grid 50 mm, sendzimir galvanised

Application

- Fast and efficient attachment of piping and pipe routes
- Also ideal as support structure for air ducts

Your advantages

- Rear perforation matched to the welding bolt perforation grid in ships
- Meshing into the channel slot for positive-fit attachment of add-on parts
- High bending stiffness due to the cross-section design
- For secure fastening that is adjustable laterally and vertically
- For setting up structures with correctly measured static loads by means of diverse connection components
- Strong, square C-section combines compact design with optimum load-bearing capacity
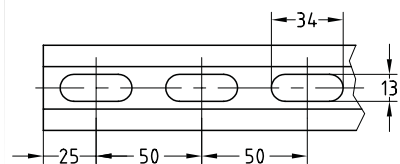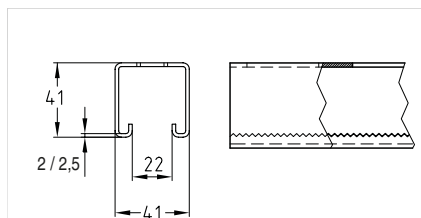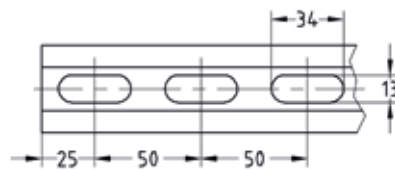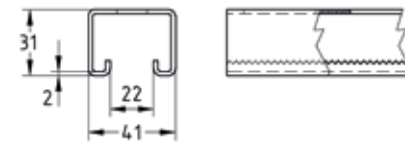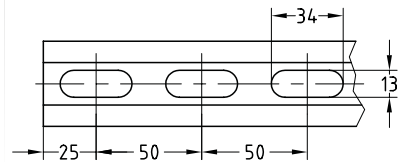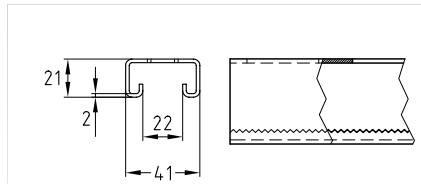
Profile 41/21/2.0

Profile 41/31/2.0

Profile 41/41/2.0, 41/41/2.5

Features
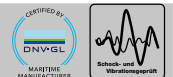
Profile	Length [mm]	Part no.	Sales unit	Pack unit
41/21/2.0 BV	3,000	**161613**	1	Pieces
	6,000	**161614**		
41/31/2.0 BV	3,000	**165778**		
	6,000	**165779**		
41/41/2.0 BV	3,000	**161611**		
	6,000	**161612**		
41/41/2.5 BV	3,000	**161608**		
	6,000	**161609**		

⚠ We also manufacture MPR-Installation channels BV in other material/surface variants on request. These products are manufactured to order. Minimum quantities and delivery times on request.

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Technical data

Technical data of profile:

Features

Profile	Material	Surface	Admissible steel stress $\sigma_{adm.}$ [N/mm²]	Available threaded plates*	Profile weight [kg/m]	Profile cross-section [cm²]	Moment of inertia		Resistance moment	
							I_y [cm⁴]	I_z [cm⁴]	W_y [cm³]	W_z [cm³]
41/21/2.0 BV	S250GD	sendzimir galvanised	162	M6, M8, M10, M12, M16	1.54	1.7	0.9571	4.5699	0.867	2.229
41/31/2.0 BV			188		1.85	2.1	2.5906	6.0922	1.622	2.972
41/41/2.0 BV					2.16	2.5	5.2736	7.6145	2.52	3.714
41/41/2.5 BV					2.63	3.03	6.1704	9.09	2.924	4.434

Load bearing capacities of profiles for bending around the y-axis [N]:

Profile	L [m]						L [m]					
	0.5	1.0	1.5	2.0	4.0	6.0	0.5	1.0	1.5	2.0	4.0	6.0
41/21/2.0 BV	1,122	473	200	102	-	-	840	278	118	60	-	-
41/31/2.0 BV	2,439	1,212	563	304	36		1,826	760	331	178	21	
41/41/2.0 BV	3,791	1,888	1,161	638	113		2,837	1,417	682	374	66	
41/41/2.5 BV	4,398	2,190	1,358	745	130		3,292	1,644	797	437	76	
41/21/2.0 BV	561	199	84	43	-	-	468	156	66	34	-	-
41/31/2.0 BV	1,219	544	237	128	15		1,016	428	186	100	12	
41/41/2.0 BV	1,895	944	489	269	48		1,580	786	384	211	37	
41/41/2.5 BV	2,199	1,095	572	314	55		1,833	912	449	246	43	

* Please note additional information on the catalog pages of threaded plates/hammer head fasteners.
The determined loads apply for static loads. Calculation based on Eurocode (EC3).
The safety coefficient γ = 1.54 takes into account the partial and combination coefficients as well as the safety factor of the material.
For the given values, the permissible steel stress and the maximum permissible deflection L/200 are not exceeded, taking the deadweight into consideration.

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Permissible buckling loads for profiles [N]:

Buckling length Lk [mm]	41/21/2.0 BV	41/31/2.0 BV	41/41/2.0 BV	41/41/2.5 BV
200	29,182	39,526	45,557	56,946
300	27,244	38,288	44,788	55,811
400	24,922	36,863	43,416	54,027
500	22,127	35,309	41,962	52,126
600	19,030	33,573	40,383	50,048
700	16,008	31,616	38,641	47,743
800	13,362	29,436	36,711	45,181
900	11,181	27,080	34,586	42,366
1,000	9,427	24,647	32,296	39,350
1,100	8,024	22,253	29,902	36,233
1,200	6,896	19,996	27,489	33,134
1,300	5,981	17,937	25,140	30,161
1,400	5,232	16,097	22,922	27,392
1,500	4,613	14,474	20,875	24,864
1,600	4,095	13,051	19,015	22,589
1,700	3,659	11,806	17,342	20,558
1,800	3,289	10,718	15,846	18,752
1,900	2,971	9,764	14,512	17,150
2,000	2,697	8,925	13,324	15,728
2,100	2,459	8,186	12,265	14,464
2,200	2,251	7,532	11,319	13,338
2,300	2,068	6,951	10,473	12,333
2,400	1,907	6,433	9,715	11,433
2,500	1,764	5,970	9,033	10,625
2,600	1,636	5,554	8,418	9,898
2,700	1,521	5,179	7,862	9,240
2,800	1,419	4,841	7,358	8,645
2,900	1,326	4,535	6,900	8,105
3,000	1,242	4,256	6,483	7,613
3,100	1,166	4,002	6,102	7,164
3,200	1,096	3,770	5,753	6,753
3,300	1,033	3,557	5,433	6,376
3,400	975	3,362	5,138	6,029
3,500	921	3,182	4,867	5,710
3,600	872	3,017	4,616	5,415
3,700	827	2,864	4,385	5,142
3,800	785	2,722	4,170	4,889
3,900	747	2,590	3,970	4,655
4,000	711	2,468	3,784	4,436
4,100	677	2,354	3,611	4,233
4,200	646	2,248	3,450	4,043
4,300	617	2,149	3,299	3,866
4,400	590	2,056	3,157	3,700
4,500	565	1,969	3,025	3,544
4,600	541	1,887	2,900	3,398
4,700	519	1,811	2,784	3,261
4,800	498	1,739	2,674	3,132
4,900	478	1,671	2,570	3,011
5,000	459	1,607	2,472	2,896
5,100	442	1,547	2,380	2,788
5,200	425	1,490	2,293	2,686
5,300	410	1,436	2,211	2,589
5,400	395	1,385	2,132	2,497
5,500	381	1,337	2,058	2,410
5,600	368	1,291	1,988	2,328
5,700	355	1,247	1,921	2,250
5,800	343	1,206	1,858	2,175
5,900	332	1,166	1,798	2,105
6,000	321	1,129	1,740	2,037

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⚠️ Buckling loads as per DIN EN 1993-1-1 sections 6.2 and 6.3.
The values in the table apply for fully bearing cross-sections and central load transmission!
The potentially lower slenderness parameter for buckling and lateral torsional buckling must be examined separately!
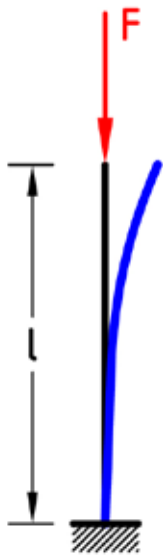
Buckling about the z-axis and the y-axis was considered.
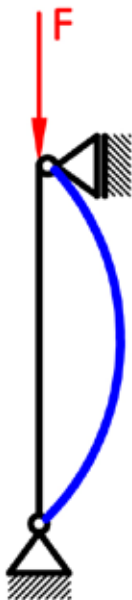The least favourable buckling load is documented in the table.

The safety coefficient $\gamma = 1.54$ takes into account the safety and combination coefficients as well as the safety factor of the material.

Determine the authoritative buckling length Lk depending on the storage conditions and the rod length l, as shown in the figure.
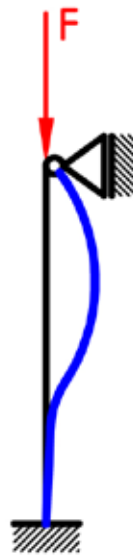Read off the buckling load F as Lk from the table.

| Lk = 2,0 x l | Lk = 1,0 x l | Lk = 0,7 x l | Lk = 0,5 x l |

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