

VPOT TYPE PL



- Allow rotations in any direction
- Allow movements in any direction
- Do not bear horizontal loads apart from friction between sliding elements

Bearings according to European Standard EN 1337-5 and AASHTO LRFD 2020

FREE BEARING											
DATASHEET FOR A LONGITUDINAL DISPLACEMENT OF ± 50 MM											
BEARING DESIGNATION	$V_{max, ULS}$ (kN)	$V_{max, SLS}$ (kN)	UX (mm)	EN				AASHTO			
				L5 (mm)	B5 (mm)	D2 (mm)	TH (mm)	L5 (mm)	B5 (mm)	D2 (mm)	TH (mm)
PL-500 ± 50	500	358	± 50	275	175	171	88	296	196	186	93
PL-1000 ± 50	1000	715	± 50	316	216	210	88	345	245	235	98
PL-1500 ± 50	1500	1072	± 50	349	249	246	88	390	290	280	103
PL-2000 ± 50	2000	1429	± 50	376	276	275	88	428	328	318	104
PL-3000 ± 50	3000	2143	± 50	422	330	330	92	490	390	380	113
PL-4000 ± 50	4000	2858	± 50	461	382	382	97	540	440	436	118
PL-5000 ± 50	5000	3572	± 50	499	432	432	98	588	490	490	133
PL-6000 ± 50	6000	4286	± 50	531	471	471	107	628	536	536	143
PL-7000 ± 50	7000	5000	± 50	561	508	508	107	668	581	581	159
PL-8000 ± 50	8000	5715	± 50	592	544	544	112	705	622	622	159
PL-9000 ± 50	9000	6429	± 50	621	579	579	117	735	661	661	169
PL-10000 ± 50	10000	7143	± 50	651	614	614	118	768	698	698	170
PL-11000 ± 50	11000	7858	± 50	676	647	647	122	800	734	734	180
PL-12000 ± 50	12000	8572	± 50	704	679	679	126	825	763	763	180
PL-13000 ± 50	13000	9286	± 50	721	702	702	126	858	799	799	196
PL-14000 ± 50	14000	10000	± 50	749	733	733	131	887	831	831	196
PL-15000 ± 50	15000	10715	± 50	766	756	756	136	904	853	853	206
PL-16000 ± 50	16000	11429	± 50	791	786	786	138	933	884	884	206
PL-17000 ± 50	17000	12143	± 50	815	813	813	142	953	908	908	207
PL-18000 ± 50	18000	12858	± 50	825	829	829	142	980	937	937	217
PL-19000 ± 50	19000	13572	± 50	845	853	853	147	1000	961	961	217
PL-20000 ± 50	20000	14286	± 50	856	870	870	153	1022	990	990	227
PL-22000 ± 50	22000	15715	± 50	896	917	917	153	1065	1038	1038	232
PL-24000 ± 50	24000	17143	± 50	923	958	958	169	1104	1083	1083	241
PL-26000 ± 50	26000	18572	± 50	959	1000	1000	169	1150	1133	1133	252
PL-28000 ± 50	28000	20000	± 50	998	1046	1046	171	1190	1178	1178	252
PL-30000 ± 50	30000	21429	± 50	1020	1076	1076	175	1221	1215	1215	262

FREE BEARING											
DATASHEET FOR A LONGITUDINAL DISPLACEMENT OF ± 100 MM											
BEARING DESIGNATION	$V_{max, ULS}$ (kN)	$V_{max, SLS}$ (kN)	UX (mm)	EN				AASHTO			
				L5 (mm)	B5 (mm)	D2 (mm)	TH (mm)	L5 (mm)	B5 (mm)	D2 (mm)	TH (mm)
PL-500 ± 100	500	358	± 100	375	175	171	88	396	196	186	93
PL-1000 ± 100	1000	715	± 100	416	216	210	88	445	245	235	98
PL-1500 ± 100	1500	1072	± 100	449	249	246	88	490	290	280	103
PL-2000 ± 100	2000	1429	± 100	476	276	275	88	528	328	318	104
PL-3000 ± 100	3000	2143	± 100	522	330	330	92	590	390	380	113
PL-4000 ± 100	4000	2858	± 100	561	382	382	97	640	440	436	118
PL-5000 ± 100	5000	3572	± 100	599	432	432	102	688	490	490	133
PL-6000 ± 100	6000	4286	± 100	631	471	471	107	728	536	536	143
PL-7000 ± 100	7000	5000	± 100	661	508	508	111	768	581	581	159
PL-8000 ± 100	8000	5715	± 100	692	544	544	116	805	622	622	159
PL-9000 ± 100	9000	6429	± 100	721	579	579	117	835	661	661	169
PL-10000 ± 100	10000	7143	± 100	751	614	614	122	868	698	698	170
PL-11000 ± 100	11000	7858	± 100	776	647	647	126	900	734	734	180
PL-12000 ± 100	12000	8572	± 100	804	679	679	127	925	763	763	180
PL-13000 ± 100	13000	9286	± 100	821	702	702	131	958	799	799	196
PL-14000 ± 100	14000	10000	± 100	849	733	733	136	987	831	831	196
PL-15000 ± 100	15000	10715	± 100	866	756	756	136	1004	853	853	206
PL-16000 ± 100	16000	11429	± 100	891	786	786	139	1033	884	884	206
PL-17000 ± 100	17000	12143	± 100	915	813	813	147	1053	908	908	207
PL-18000 ± 100	18000	12858	± 100	925	829	829	147	1080	937	937	217
PL-19000 ± 100	19000	13572	± 100	945	853	853	147	1100	961	961	217
PL-20000 ± 100	20000	14286	± 100	956	870	870	153	1122	990	990	227
PL-22000 ± 100	22000	15715	± 100	996	917	917	158	1165	1038	1038	232
PL-24000 ± 100	24000	17143	± 100	1023	958	958	169	1204	1083	1083	241
PL-26000 ± 100	26000	18572	± 100	1059	1000	1000	174	1250	1133	1133	252
PL-28000 ± 100	28000	20000	± 100	1098	1046	1046	175	1290	1178	1178	252
PL-30000 ± 100	30000	21429	± 100	1120	1076	1076	176	1321	1215	1215	262

Bearings have been designed with the following parameters :

Concrete on deck is H40 ($f_{ck} = 40$ MPa)

Concrete on piers and abutment is H35 ($f_{ck} = 35$ MPa)

Bearing designation: bearing type – $V_{max, ULS}$ (kN) – Longitudinal displacement capacity ULS (mm)

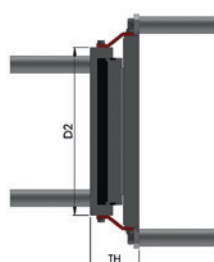
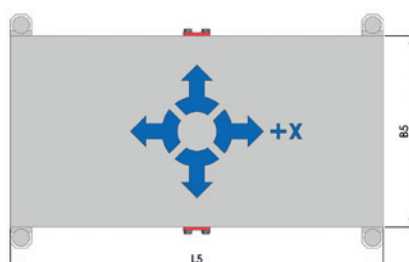
It is supposed a transversal displacement of ± 20 mm

Minimum vertical load at SLS and ULS is 25% of maximum vertical load at SLS

Rotation 0,01 rad (EN) and 0,02 rad (AASHTO)

Other models are available on request

The dimensions given are indicative. Designs and dimensions may be modified by VSL without prior notification.



Notes

L5 = upper plate length

B5 = upper plate width

D2 = lower plate diameter

TH = total height