

VPOT TYPE PF



- Transfers horizontal loads in both longitudinal and transverse directions
- Allows rotations in any direction
- Restrains horizontal movements in any direction

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

FIXED BEARING										
DATASHEET FOR A HORIZONTAL LOAD 10% OF THE VERTICAL LOAD										
BEARING DESIGNATION	V _{max, ULS} (kN)	V _{max, SLS} (kN)	H _{max, ULS} (kN)	H _{max, SLS} (kN)	EN			AASHTO		
					D5 (mm)	D2 (mm)	TH (mm)	D5 (mm)	D2 (mm)	TH (mm)
PF-500-H10%	500	358	50	36	171	171	81	180	180	85
PF-1000-H10%	1000	715	100	72	210	210	81	235	235	93
PF-1500-H10%	1500	1072	150	107	246	246	81	280	280	96
PF-2000-H10%	2000	1429	200	143	281	281	81	318	318	96
PF-3000-H10%	3000	2143	300	214	352	352	85	383	383	108
PF-4000-H10%	4000	2858	400	286	408	408	93	440	440	113
PF-5000-H10%	5000	3572	500	357	462	462	98	494	494	125
PF-6000-H10%	6000	4286	600	429	503	503	102	540	540	135
PF-7000-H10%	7000	5000	700	500	543	540	107	585	585	152
PF-8000-H10%	8000	5715	800	572	580	580	106	627	627	151
PF-9000-H10%	9000	6429	900	643	621	619	116	664	664	161
PF-10000-H10%	10000	7143	1000	714	657	657	115	701	701	178
PF-11000-H10%	11000	7858	1100	786	690	688	120	737	737	177
PF-12000-H10%	12000	8572	1200	857	725	723	120	766	766	186
PF-13000-H10%	13000	9286	1300	929	748	748	120	802	802	194
PF-14000-H10%	14000	10000	1400	1000	782	780	128	835	835	203
PF-15000-H10%	15000	10715	1500	1072	805	805	128	855	855	203
PF-16000-H10%	16000	11429	1600	1143	839	839	129	888	888	212
PF-17000-H10%	17000	12143	1700	1214	868	865	133	911	911	210
PF-18000-H10%	18000	12858	1800	1286	883	883	138	941	941	210
PF-19000-H10%	19000	13572	1900	1357	915	912	147	966	966	219
PF-20000-H10%	20000	14286	2000	1429	937	934	147	991	991	219
PF-22000-H10%	22000	15715	2200	1572	985	985	146	1040	1040	235
PF-24000-H10%	24000	17143	2400	1714	1028	1025	156	1084	1084	244
PF-26000-H10%	26000	18572	2600	1857	1072	1058	160	1136	1136	252
PF-28000-H10%	28000	20000	2800	2000	1123	1124	170	1181	1181	260
PF-30000-H10%	30000	21429	3000	2143	1156	1156	169	1217	1217	269

FIXED BEARING										
DATASHEET FOR A HORIZONTAL LOAD 20% OF THE VERTICAL LOAD										
BEARING DESIGNATION	V _{max, ULS} (kN)	V _{max, SLS} (kN)	H _{max, ULS} (kN)	H _{max, SLS} (kN)	EN			AASHTO		
					D5 (mm)	D2 (mm)	TH (mm)	D5 (mm)	D2 (mm)	TH (mm)
PF-500-H20%	500	358	100	72	171	171	81	180	180	85
PF-1000-H20%	1000	715	200	143	210	210	88	235	235	93
PF-1500-H20%	1500	1072	300	214	259	259	87	283	283	96
PF-2000-H20%	2000	1429	400	286	300	300	86	327	327	101
PF-3000-H20%	3000	2143	600	429	374	372	90	401	401	118
PF-4000-H20%	4000	2858	800	572	432	432	98	462	462	132
PF-5000-H20%	5000	3572	1000	714	488	488	102	518	518	145
PF-6000-H20%	6000	4286	1200	857	533	534	111	566	566	145
PF-7000-H20%	7000	5000	1400	1000	579	576	110	616	616	162
PF-8000-H20%	8000	5715	1600	1143	621	621	115	660	660	171
PF-9000-H20%	9000	6429	1800	1286	662	662	121	696	696	181
PF-10000-H20%	10000	7143	2000	1429	704	704	125	735	735	188
PF-11000-H20%	11000	7858	2200	1572	742	742	125	773	773	197
PF-12000-H20%	12000	8572	2400	1714	780	780	130	803	803	196
PF-13000-H20%	13000	9286	2600	1857	803	803	133	841	841	214
PF-14000-H20%	14000	10000	2800	2000	846	846	142	878	878	223
PF-15000-H20%	15000	10715	3000	2143	875	875	142	900	900	223
PF-16000-H20%	16000	11429	3200	2286	909	909	141	933	933	231
PF-17000-H20%	17000	12143	3400	2429	941	941	151	958	958	229
PF-18000-H20%	18000	12858	3600	2572	958	958	160	989	989	239
PF-19000-H20%	19000	13572	3800	2714	985	985	159	1014	1014	238
PF-20000-H20%	20000	14286	4000	2857	1010	1010	159	1040	1040	257
PF-22000-H20%	22000	15715	4400	3143	1081	1081	168	1091	1091	265
PF-24000-H20%	24000	17143	4800	3429	1127	1127	167	1138	1138	264
PF-26000-H20%	26000	18572	5200	3714	1180	1180	177	1195	1195	292
PF-28000-H20%	28000	20000	5600	4000	1232	1232	176	1242	1242	290
PF-30000-H20%	30000	21429	6000	4286	1270	1270	185	1280	1280	299

FIXED BEARING

DATASHEET FOR A HORIZONTAL LOAD 30% OF THE VERTICAL LOAD

BEARING DESIGNATION	$V_{max, ULS}$ (kN)	$V_{max, SLS}$ (kN)	$H_{max, ULS}$ (kN)	$H_{max, SLS}$ (kN)	EN			AASHTO		
					D5 (mm)	D2 (mm)	TH (mm)	D5 (mm)	D2 (mm)	TH (mm)
PF-500-H30%	500	358	150	107	180	180	81	180	180	85
PF-1000-H30%	1000	715	300	215	218	218	86	238	238	92
PF-1500-H30%	1500	1072	450	322	270	270	86	287	287	100
PF-2000-H30%	2000	1429	600	429	312	312	92	336	336	110
PF-3000-H30%	3000	2143	900	643	388	388	95	410	411	132
PF-4000-H30%	4000	2858	1200	857	454	454	100	473	473	140
PF-5000-H30%	5000	3572	1500	1072	521	521	105	529	529	158
PF-6000-H30%	6000	4286	1800	1286	574	574	110	582	582	167
PF-7000-H30%	7000	5000	2100	1500	624	624	115	630	630	188
PF-8000-H30%	8000	5715	2400	1715	669	669	123	673	673	198
PF-9000-H30%	9000	6429	2700	1929	711	711	128	719	719	205
PF-10000-H30%	10000	7143	3000	2143	752	752	131	753	753	204
PF-11000-H30%	11000	7858	3300	2357	798	798	140	789	789	213
PF-12000-H30%	12000	8572	3600	2572	840	840	140	833	833	230
PF-13000-H30%	13000	9286	3900	2786	869	869	140	864	864	229
PF-14000-H30%	14000	10000	4200	3000	905	905	158	892	892	238
PF-15000-H30%	15000	10715	4500	3215	938	938	158	921	921	237
PF-16000-H30%	16000	11429	4800	3429	969	969	156	952	952	255
PF-17000-H30%	17000	12143	5100	3643	1004	1004	157	988	988	272
PF-18000-H30%	18000	12858	5400	3857	1050	1050	166	1009	1009	270
PF-19000-H30%	19000	13572	5700	4072	1079	1079	165	1035	1039	289
PF-20000-H30%	20000	14286	6000	4286	1103	1103	165	1069	1069	288
PF-22000-H30%	22000	15715	6600	4715	1161	1161	183	1118	1118	296
PF-24000-H30%	24000	17143	7200	5143	1212	1212	182	1176	1176	324
PF-26000-H30%	26000	18572	7800	5572	1266	1266	191	1220	1220	322
PF-28000-H30%	28000	20000	8400	6000	1322	1322	190	1278	1278	330
PF-30000-H30%	30000	21429	9000	6429	1364	1364	200	0	0	0

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) – % $H_{max, ULS}$ *

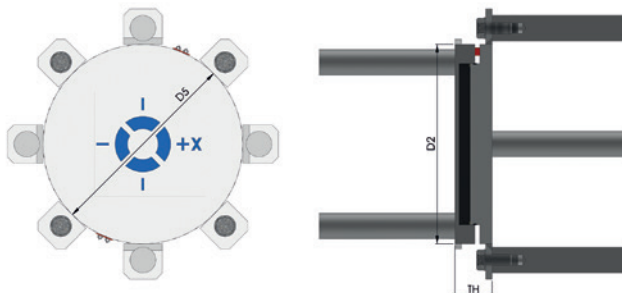
*% of horizontal load in ULS in comparison with vertical load in ULS

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

D5 = upper plate diameter

D2 = lower plate diameter

TH = total height