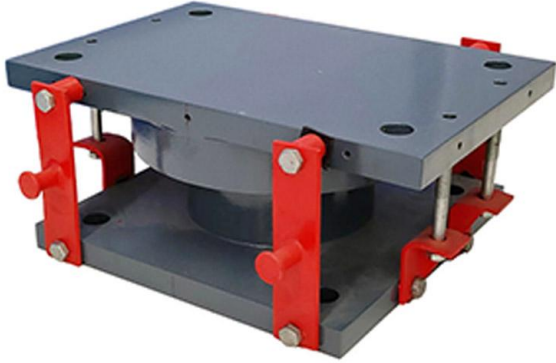


DLYY



ELASTOMERIC BEARING

DALIAN YINGYU CO., LIMITED



ELASTOMERIC BEARING

Elastomeric bearings are versatile and can be implemented across a range of structural applications, such as:

Bridges: They are commonly employed in bridge engineering to handle and disperse the forces resulting from vehicular traffic and temperature-induced expansion.

Buildings: In the context of buildings, these bearings offer the necessary flexibility, enabling structures to move during seismic activities without incurring substantial harm.

Industrial Facilities: Within industrial environments, elastomeric bearings serve to attenuate vibrations generated by the operation of large-scale machinery and equipment.

Product type:



PAD ELASTOMERIC BEARING

Elastomeric bearings, specified by "JT/T663-2006," are ideal for highway bridges with loads under 5000kN. They consist of rubber and steel, offering:

- Adequate vertical stiffness for load transfer.
- Elasticity for beam end rotation.
- Shear capacity for horizontal movement.

PTFE sliding versions, with a 2-3mm PTFE layer, enable free horizontal sliding with low friction, suitable for medium to small bridges needing significant displacement.

These bearings are valued for their performance, simplicity, cost-effectiveness, maintainability, and shock isolation, making them widely used in the bridge industry.



PAD ELASTOMERIC BEARING

Product type:

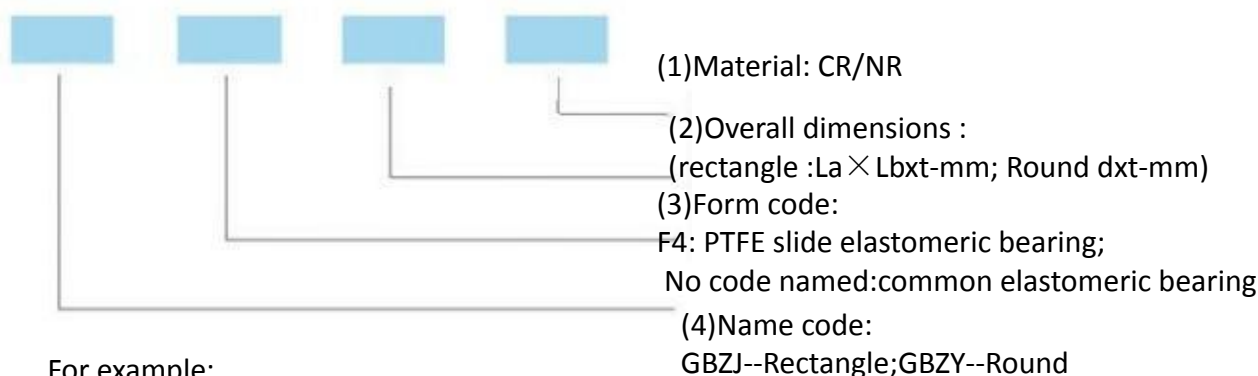


Applicable temperature for pad elastomeric bearing:

A) room temperature type: Neoprene rubber (CR) , applicable temperature $-25^{\circ}\text{C}\sim+60^{\circ}\text{C}$

B) cold-resistant type: Natural rubber (NR) , applicable temperature $-40^{\circ}\text{C}\sim+60^{\circ}\text{C}$

Code expression :



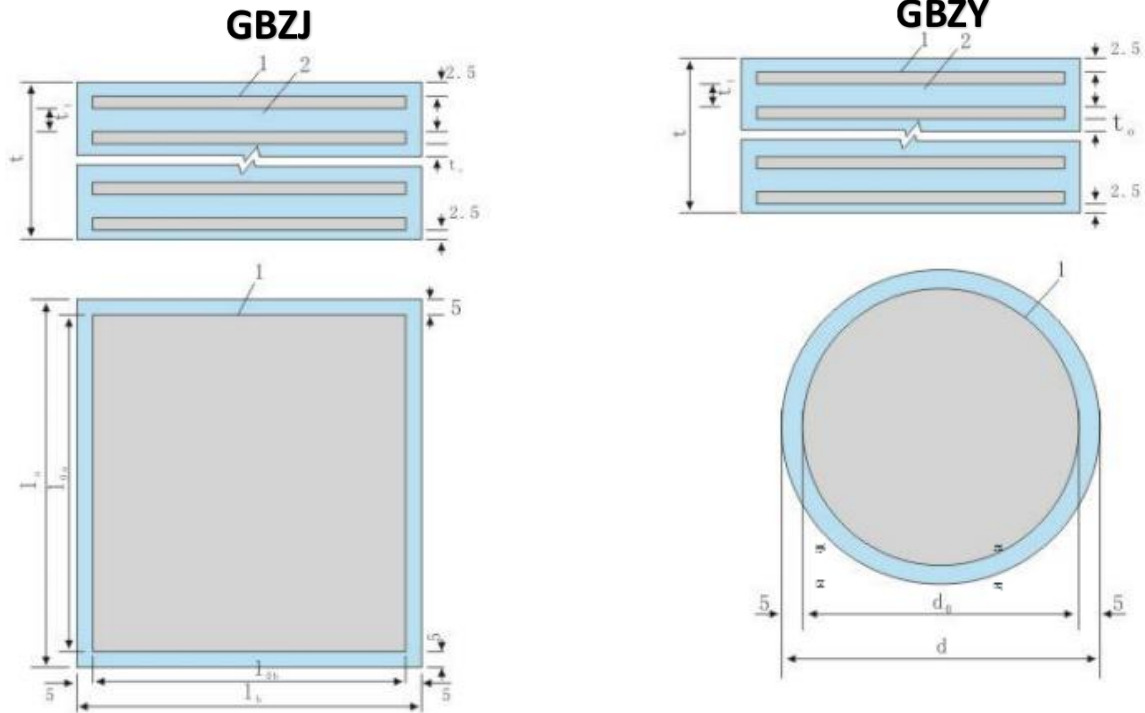
For example:

GZBJ300 × 400 × 47(CR) indicates: rectangular pad neoprene elastomeric bearing;
the short side size is 300mm, the long side size is 400mm, and the thickness is 47mm.

Guidelines for pad elastomeric bearings :

- For pad elastomeric bearings, ensure the maximum load capacity matches the bridge support reactions within a $\pm 10\%$ margin. Circular bearings are recommended for bridges with complex geometries. Avoid spherical or sloped bearings in highway bridge designs.
- On bridges with a 1% or less slope, bearings can be installed directly, adjusted for slope. For steeper slopes, use steel plates or other leveling to maintain flatness. Adhere to JTG D62 for quality checks before installation.
- For PTFE sliding bearings, install horizontally with the PTFE layer facing upwards, and ensure the stainless steel plate associated with the PTFE does not touch the bridge supports.
- The technical indicators of the bearings comply with the specifications outlined in "JT/T4-2019 Highway Bridge Rubber Slab Bearings".

PAD ELASTOMERIC BEARING(COMMON)



Pad elastomeric bearing code:(1) rectangle: GBZJ (2)round: GBZY.

The meanings of symbols in the specification table are as follows:

$l_1 \times l_2$ or d - flat size or diameter; R_{ck} -- Maximum pressure support; S -- shape factor; t -- the total thickness of the support; Δl_1 -- regardless of braking force maximum displacement; Δl_2 -- the maximum displacement when counting braking force; t_e -- the total thickness of the rubber layer; $\tan\theta$ - allowed Angle tangent; R_{Gk} - minimum bearing pressure against sliding; t_1 -- the thickness of the middle rubber layer; t_0 -- Thickness of single-layer steel plate.

No.	$l_1 \times l_2 / d$ (mm)	R_{ck}	S	t mm	Δl_1 mm)	Δl_2 mm	t_e mm)	$\tan\theta$ (Unit of θ :rad)			R_{Gk} (kN)			t_1 mm)	t_0 (mm)
								Warm area	Cold area	Severe cold area	Warm area	Cold area	Severe cold area		
1	100×150	101	5.48	21	5.0	7.0	15	0.0107	0.0090	0.0074	35 (53)	42 (63)	53 (79)	5	2
				28	7.5	10.5	20	0.0160	0.0135	0.0111					
2	100×200	137	6.11	21	5.0	7.0	15	0.0087	0.0074	0.0061	47 (70)	56 (84)	70 (105)	5	2
				28	7.5	10.5	20	0.0131	0.0111	0.0091					
3	d150(GBZY)	154	7.00	21	5.0	7.0	15	0.0057	0.0050		41 (62)	49 (74)	62 (93)	5	2
				28	7.5	10.5	20	0.0085	0.0073	0.0060					
				35	10.0	14.0	25	0.0114	0.0097	0.0080					
				42	12.5	17.5	30	0.0143	0.0122	0.0101					
4	150×150	196	7.00	21	5.0	7.0	15	0.0057	0.0050		53 (79)	63 (95)	79 (118)	5	2
				28	7.5	10.5	20	0.0085	0.0073	0.0060					
				35	10.0	14.0	25	0.0114	0.0097	0.0080					
				42	12.5	17.5	30	0.0143	0.0122	0.0101					

No.	$l_1 \times l_2 / d$ (mm)	R_{ck}	S	t (mm)	Δl_1 (mm)	Δl_2 (mm)	t_e (mm)	tan θ (Unit of θ :rad)			R_{Gk} (kN)			t_1 (mm)	t_0 (mm)
								Warm area	Cold area	Severe cold area	Warm area	Cold area	Severe cold area		
5	150×200	266	8.06	21	5.0	7.0	15	0.0050		-	70 (105)	84 (126)	105 (158)	5	2
				28	7.5	10.5	20	0.0067	0.0057	0.0050					
				35	10.0	14.0	25	0.0089	0.0077	0.0064					
				42		17.5	30	0.0112	0.0096	0.0080					
6	150×250	336	8.84	28	7.5	10.5	20	0.0057	0.0050	-	88 (131)	105 (158)	131 (197)	5	2
				35	10.0	14.0	25	0.0077	0.0066	0.0050					
				42	12.5	17.5	30	0.0096	0.0083	0.0069					
7	150×300	406	9.44	28	7.5	10.5	20	0.0052	0.0050	—	105 (158)	126 (189)	158 (236)	5	2
				35	10.0	14.0	25	0.0069	0.0060	0.0050					
				42	12.5	17.5	30	0.0086	0.0074	0.0063					
8	d200(GBZY)	284	9.50	35	10.0	14.0	25	0.0051		-	73 (110)	88 (132)	110 (165)	5	2
				42	12.5	17.5	30	0.0064	0.0055	0.0050					
				49	15.0	21.0	35	0.0077	0.0066	0.0056					
				56	17.5	24.5	40	0.0089	0.0077	0.0065					
9	200×200	361	9.50	35	10.0	14.0	25	0.0051			93 (140)	112 (168)	140 (210)	5	2
				42	12.5	17.5	30	0.0064	0.0055	0.0050					
				49	15.0	21.0	35	0.0077	0.0066	0.0056					
				56	17.5	24.5	40	0.0089	0.0077	0.0065					
10	200×250	456	10.60	42	12.5	17.5	30	0.0054	0.0050	-	117 (175)	140 (210)	175 (263)	5	2
				49	15.0	21.0	35	0.0064	0.0056	0.0050					
				56	17.5	24.5	40	0.0075	0.0066	0.0056					
11	200×300	551	7.17	30	8.0	11.2	21	0.0066	0.0056	0.0050	140 (210)	168 (252)	210 (315)	8	3
				41	12.0	16.8	29	0.0098	0.0084	0.0070					
				52	16.0	22.4	37	0.0131	0.0112	0.0093					
12	200×350	646	7.62	30	8.0	11.2	21	0.0059	0.0051		163 (245)	196 (294)	245 (368)	8	3
				41	12.0	16.8	29	0.0089	0.0076	0.0063					
				52	16.0	22.4	37	0.0118	0.0101	0.0084					
13	200×400	741	7.98	30	8.0	11.2	21	0.0055	0.0050		187 (280)	224 (336)	280 (368)	8	3
				41	12.0	16.8	29	0.0082	0.0070	0.0059					
				52	16.0	22.4	37	0.0109	0.0093	0.0078					
14	d250(GBZY)	452	7.50	41	12.0	16.8	29	0.0073	0.0062	0.0052	115 (172)	137 (206)	172 (258)	8	3
				52	16.0	22.4	37	0.0097	0.0083	0.0069					
				63	20.0	28.0	45	0.0121	0.0104	0.0086					
				74	24.0	33.6	53	0.0146	0.0124	0.0103					

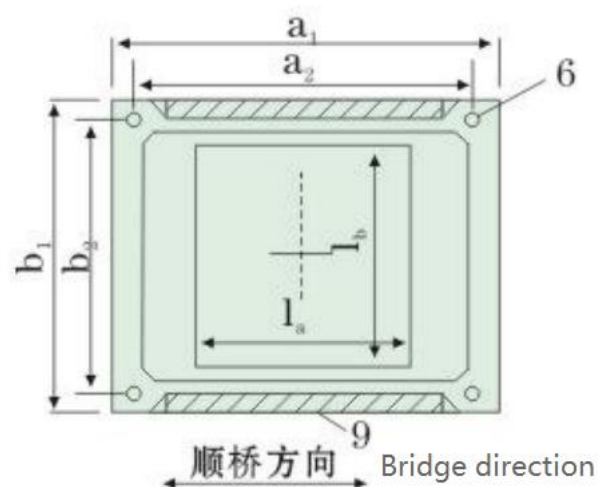
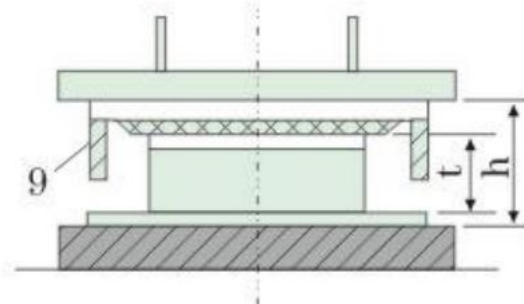
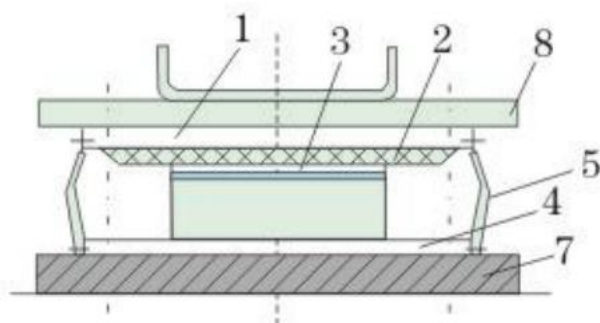
No.	$I_1 \times I_2 / d$ (mm)	R_{ck}	S	t (mm)	ΔI_1 (mm)	ΔI_2 (mm)	t_e (mm)	tan θ (Unit of θ :rad)			R_{GK} (kN)			t_1 (mm)	t_0 (mm)
								Warm area	Cold area	Severe cold area	Warm area	Cold area	Severe e cold area		
15	250×250	576	7.50	41	12.0	16.8	29	0.0073	0.0062	0.0052	146 (219)	175 (263)	219 (328)	8	3
				52	16.0	22.4	37	0.0097	0.0083	0.0069					
				63	20.0	28.0	45	0.0121	0.010	40.0086					
				74	24.0	33.6	53	0.0146	0.0124	0.0103					
16	250×300	696	8.21	41	12.0	16.8	29	0.0062	0.0054	0.0050	175 (263)	210 (315)	263 (394)	8	3
				52	16.0	22.4	37	0.0083	0.0071	0.0060					
				63	20.0	28.0	45	0.0104	0.0089	0.0075					
				74	24.0	33.6	53	0.0125	0.0107	0.0090					
17	250×350	816	8.79	41	12.0	16.8	29	0.0056	0.0050	-	204 (306)	245 (368)	205 (459)	8	3
				52	16.0	22.4	37	0.0074	0.0064	0.0054					
				63	20.0	28.0	45	0.0093	0.0080	0.0067					
				74	24.0	33.6	53	0.0111	0.0096	0.0081					
18	250×400	936	9.29	41	12.0	16.8	29	0.0051	—		233 (350)	280 (420)	350 (525)	8	3
				52	16.0	22.4	37	0.0068	0.0059	0.0050					
				63	20.0	28.0	45	0.0085	0.0073	0.0062					
				74	24.0	33.6	53	0.0102	0.0088	0.0074					
19	250×450	1056	9.71	41	12.0	16.8	29	0.0050	—		263 (394)	315 (473)	394 (591)	8	3
				52	16.0	22.4	37	0.0063	0.0055	0.0050					
				63	20.0	28.0	45	0.0079	0.0068	0.0058					
				74	24.0	33.6	53	0.0095	0.0082	0.0069					
20	250×500	1176	10.07	41	12.0	16.8	29	0.0050	-	—	292 (438)	350 (525)	438 (656)	8	3
				52	16.0	22.4	37	0.0060	0.0052						
				63	20.0	28.0	45	0.0074	0.00	0.0055					
				74	24.0	33.6	53	0.0089	0.0078	0.0066					
21	d300	661	9.06	52	16.0	22.4	37	0.0059	0.0051		165 (247)	198 (297)	247 (371)	8	3
				63	20.0	28.0	45	0.0074	0.0063	0.0053					
				74	24.0	33.6	53	0.0088	0.0076	0.0064					
				85	28.0	39.2	61	0.0103	0.0089	0.0075					
22	300×300	841	9.06	52	16.0	22.4	37	0.0059	0.0051		210 (315)	252 (378)	315 (473)	8	3
				63	20.0	28.0	45	0.0074	0.0063	0.0053					
				74	24.0	33.6	53	0.0088	0.0076	0.0064					
				85	28.0	39.2	61	0.0103	0.0089	0.0075					
23	300×350	986	9.78	52	16.0	22.4	37	0.0052	0.0050	—	245 (368)	294 (441)	368 (551)	8	3
				63	20.0	28.0	45	0.0065	0.0056	0.0050					
				74	24.0	33.6	53	0.0078	0.0068	0.0057					
				85	28.0	39.2	61	0.009	0.0079	0.0067					
24	300×400	1131	10.40	52	16.0	22.4	37	0.0050		—	280 (420)	336 (504)	420 (630)	8	3
				63	20.0	28.0	45	0.0059	0.0051	-					
				74	24.0	33.6	53	0.007	0.0062	0.0053					
				85	28.0	39.2	61	0.0083	0.0072	0.006					

No.	$I_1 \times I_2 / d$ (mm)	R_{ck}	S	t (mm)	ΔI_1 (mm)	ΔI_2 (mm)	t_e (mm)	tan θ (Unit of θ :rad)			$R_{GK}(kN)$			t_1 (mm)	t_0 (mm)
								Warm area	Cold area	Severe cold area	Warm area	Cold area	Severe e cold area		
25	300×450	1276	10.92	63	20.0	28.0	45	0.0055	0.0050		315 (473)	378 (567)	473 (709)	8	3
				74	24.0	33.6	53	0.0066	0.0057	0.005					
				85	28.0	39.2	61	0.0077	0.0067	0.0057					
26	300×500	1421	8.28	54	16.5	23.1	38	0.0070	0.0061	0.0051	350 (525)	420 (630)	525 (788)	11	4
				69	22.0	30.8	49	0.0094	0.008	0.0068					
				84	27.5	38.5	60	0.0117	0.0101	0.0084					
27	300×550	1566	8.58	54	16.5	23.1	38	0.0066	0.0057	0.0050	385 (578)	462 (693)	578 (866)	11	4
				69	22.0	30.8	49	0.0088	0.0076	0.0064					
				84	27.5	38.5	60	0.0110	0.0095	0.0080					
28	300×600	1171	8.84	54	16.5	23.1	38	0.0063	0.0054	0.0050	420 (630)	504 (756)	630 (945)	11	4
				69	22.0	30.8	49	0.0084	0.0073	0.0061					
				84	27.5	38.5	60	0.0105	0.0091	0.0076					
29	d350	908	10.63	63	20.0	28.0	45	0.0050			224 (337)	408	3;75	8	3
				74	24.0	33.6	53	0.0059	0.0051						
				85	28.0	39.2	61	0.0068	0.0060	0.0051					
				96	32.0	44.8	69	0.0078	0.0068	0.0058					
30	350×350	1156	10.63	63	20.0	28.0	45	0.0050			286 (429)	343 (515)	68	8	3
				74	24.0	33.6	53	0.0059	0.0051						
				85	28.0	39.2	61	0.0068	0.0060	0.0051					
				96	32.0	44.8	69	0.0078	0.0068	0.0068R					
31	350×400	1326	8.26	54	16.5	23.1	38	0.0061	0.0052		327 (490)	392 (588)	490 (735)	11	4
				69	22.0	30.8	49	0.008	0.0069	0.0058					
				84	27.5	38.5	60	0.010	0.0087	0.0073					
				99	33.0	46.2	71	0.0121	0.0104	0.0087					
32	350×450	1496	8.72	54	16.5	23.1	38	0.0055	0.0050		368 (551)	441 (662)	551 (827)	11	4
				69	22.0	30.8	49	0.0074	0.0064	0.0053					
				84	27.5	38.5	60	0.0092	0.0079	0.0067					
				99	33.0	46.2	71	0.0111	0.0095	0.0080					
33	350×500	1666	9.12	54	16.5	23.1	38	0.0051			408 (613)	490 (735)	613 (919)	11	4
				69	22.0	30.8	49	0.0069	0.0059	0.0050					
				84	27.5	38.5	60	0.0086	0.0074	0.0062					
				99	33.0	46.2	71	0.0103	0.0089	0.0075					
34	350×550	1836	9.48	54	16.5	23.1	38	0.0050			449 (674)	539 (809)	674 (1011)	11	4
				69	22.0	30.8	49	0.0064	0.0056	0.0050					
				84	27.5	38.5	60	0.0081	0.0070	0.0059					
				99	33.0	46.2	71	0.0097	0.0084	0.0071					
35	350600	2006	9.80	54	16.5	23.1	38	0.0050			490 (735)	588 (882)	735 (1103)	11	4
				69	22.0	30.8	49	0.0061	0.0053	0.0050					
				84	27.5	38.5	60	0.0076	0.0066	0.0056					
				99	33.0	46.2	71	0.0092	0.0079	0.0067					

No.	$I_1 \times I_2 / d$ (mm)	R_{ck}	S	t (mm)	ΔI_1 (mm)	ΔI_2 (mm)	t_e (mm)	tan θ (Unit of θ :rad)			R_{GK} (kN)			t_1 (mm)	t_0 (mm)
								Warm area	Cold area	Severe cold area	Warm area	Cold area	Severe cold area		
37	400×400	1521	8.86	54	16.5	23.1	38	0.0050			373 (560)	448 672		11	4
				69	22.0	30.8	49	0.0063	0.0054	0.0050					
				84	27.5	38.5	60	0.0079	0.0068	0.0057					
				99	33.0	46.2	71	0.0094	0.0081	0.0068					
38	400×450	1716	9.40	69	22.0	30.8	49	0.0057	0.0050		420 (630)	50 (78)		11	4
				84	27.5	38.5	60	0.0071	0.0062	0.0052					
				99	33.0	46.2	71	0.0086	0.0074	0.0063					
				114	38.5	53.9	82	0.0100	0.0086	0.0073					
39	400×450	1911	9.87	69	22.0	30.8	+9	0.0053	0.0050		467 (700)	560 (840)	700 (1050)	11	4
				84	27.5	38.5	60	0.0066	0.0057	0.0050					
				99	33.0	46.2	71	0.0079	0.0069	0.0058					
				114	38.5	53.9	82	0.0092	0.0080	0.0068					
40	400×550	2106	10.29	69	22.0	30.8	49	0.0050			513 (770)	616 (924)	770 (1155)	11	4
				84	27.5	38.5	60	0.0062	0.0054	0.0050					
				99	33.0	46.2	71	0.0074	0.0065	0.0055					
41	400×600	2301	10.67	69	22.0	30.8	49	0.0050			560 (840)	672 (1008)	840 (1260)	11	4
				84	27.5	38.5	60	0.0058	0.0051						
				99	33.0	46.2	71	0.0070	0.0061	0.0052					
42	400×650	2490	11.02	69	22.0	30.8	49	0.0050			607 (910)	728 (1092)	910 (1365)	11	4
				84	27.5	38.5	60	0.0056	0.0050						
				99	33.0	46.2	71	0.0067	0.0058	0.0050					
43	d450	1521	10.00	69	22.0	30.8	49	0.0050		—	371 (557)	445 (668)	557 (835)	11	4
				84	27.5	38.5	60	0.0057	0.0050						
				99	33.0	46.2	71	0.0069	0.0060	0.0051					
				114	38.5	53.9	82	0.0080	0.0070	0.0059					
44	450×450	1936	10.00	69	22.0	30.8	49	0.0050			473 (709)	567 (851)	709 (1063)	11	4
				84	27.5	38.5	60	0.0057	0.0050						
				99	33.0	46.2	71	0.0069	0.0060	0.0051					
				114	38.5	53.9	82	0.0080	0.0070	0.0059					
45	450×500	2156	10.54	84	27.5	38.5	60	0.0053	0.0050		525 (788)	630 (945)	788 (1181)	11	4
				99	33.0	46.2	71	0.0064	0.0055	0.0050					
				114	38.5	53.9	82	0.0074	0.0065	0.0055					
46	450×550	2376	11.02	84	27.5	38.5	60	0.0050			578 (866)	693 (1040)	866 (1299)	11	4
				99	33.0	46.2	71	0.0059	0.0052						
				114	38.5	53.9	82	0.0069	0.0061	0.0052					

PAD ELASTOMERIC BEARING +PTFE

Assembly diagram of PTFE sliding bearing



- 1- Upper steel plate
- 2- Stainless steel plate
- 3-PTFE sliding bearing (GBZJH, GBZYH)
- 4- Lower steel plate
- 5- Dust cover
- 6- Anchor bolts
- 7- Bearing pad stone
- 8- Embedded steel plate at beam bottom
- 9- Guide plate

The meanings of symbols in the specification table below are as follows:

$l_1 \times l_2$ or d - flat size or diameter; R_{ck} -- Maximum pressure support; S -- shape factor; t -- the total thickness of the support; Δl_3 -- displacement of multi-directional support; Δl_4 -- unidirectional bearing displacement; t_e -- the total thickness of the rubber layer; $\tan\theta$ - allowed Angle tangent; R_{Gk} - minimum bearing pressure against sliding; t_1 -- the thickness of the middle rubber layer; t_0 - thickness of single-layer steel plate; t_f -- ptfе slide thickness.

No.	l ₁ ×l ₂ /d (mm)	R _{ck}	S	t mm	△l ₃ (mm)		△l ₄ (mm)		t ₀ (mm)	tanθ(Unit of θ:rad)			R(kN)			t ₁ (mm)	t ₀ (mm)	t _f (mm)
					horiz ontal	vert ical	horiz ontal	verti cal		Warm area	Cold area	Severe cold area	War m area	Cold area	Severe cold area			
12	200×350	646	7.62	32	±30	±20	±30	±3	21	0.0059	0.0051		245	294	368	8	3	2
				43					29	0.0089	0.0076	0.0063						
				54					37	0.0118	0.0101	0.0084						
13	200×400	741	7.98	32	±30	±20	±30	±3	21	0.0055	0.0050		280	336	420	8	3	2
				43					29	0.0082	0.0070	0.0059						
				54					37	0.0109	0.0093	0.0078						
14	d250	452	7.50	43	±60	±30	±60	±3	29	0.0073	0.0062	0.0052	172	206	258	8	3	2
				54					37	0.0097	0.0083	0.0069						
				65					45	0.0121	0.0104	0.0086						
				76					53	0.0146	0.0124	0.0103						
15	250×250	576	7.50	43	±50	±20	50	±3	29	0.0073	0.0062	0.0052	219	263	328	8	3	2
				54					37	0.0097	0.0083	0.0069						
				65					45	0.0121	0.0104	0.0086						
				76					53	0.0146	0.0124	0.0103						
16	250×300	696	8.21	43	±50	±20	±50	±3	29	0.0062	0.0054	0.0050	263	315	394	8	3	2
				54					37	0.0083	0.0071	0.0060						
				65					45	0.0104	0.0089	0.0075						
				76					53	0.0125	0.0107	0.0090						
17	250×350	816	8.79	43	±50	±20	±50	±3	29	0.0056	0.0050	-	306	368	459	8	3	2
				54					37	0.0074	0.0064	0.0054						
				65					45	0.0093	0.0080	0.0067						
				76					53	0.0111	0.0096	0.0081						
18	250×400	936	9.29	43	±50	±20	±50	±3	29	0.0051	-	-	350	420	525	8	3	2
				54					37	0.0068	0.0059	0.0050						
				65					45	0.0085	0.0073	0.0062						
				76					53	0.0102	0.0088	0.0074						
19	250×450	056	9.71	43	±50	±20	±50	±3	29	0.0050	—		394	473	591	8	3	2
				54					37	0.0063	0.0055	0.0050						
				65					45	0.0079	0.0068	0.0058						
				76					53	0.0095	0.0082	0.0069						

No.	l ₁ ×l ₂ /d (mm)	R _{ck}	S	t nm	Δl ₃ (mm)		Δl ₄ (mm)		t ₀ (m)	tanθ(Unit of θ:rad)			R(kN)			t ₁ (mm)	t ₀ (mm)	t _f (mm)
					horiz ontal	vert ical	horiz ontal	vert ical		Warm area	Cold area	Severe cold area	War m area	Cold area	Severe cold area			
20	250×500	176	0.07	43	±50	±20	±50	±3	29	0.0050	-	-	438	525	656	8	3	2
				54					37	0.0060	0.0052							
				65					45	0.0074	0.0065	0.0055						
				76					53	0.0089	0.0078	0.0066						
21	d300	661	9.06	54	±60	±30	±60	±3	37	0.0059	0.0051		247	297	371	8	3	2
				65					45	0.0074	0.0063	0.0053						
				76					53	0.0088	0.0076	0.0064						
				87					61	0.0103	0.0089	0.0075						
22	300×300	841	9.06	54	±70	±30	±70	±3	37	0.0059	0.0051		315	378	473	8	3	2
				65					45	0.0074	0.0063	0.0053						
				76					53	0.0088	0.0076	0.0064						
				87					61	0.0103	0.0089	0.0075						
23	300×350	986	9.78	54	70	±30	:70	±3	37	0.0052	0.0050		368	441	551	8	3	2
				65					45	0.0065	0.0056	0.0050						
				76					53	0.0078	0.0068	0.0057						
				87					61	0.0091	0.0079	0.0067						
24	300×400	113	0.40	54	70	±30	±70	±3	37	0.0050			420	504	630	8	3	2
				65					45	0.0059	0.0051							
				76					53	0.0071	0.0062	0.0053						
				87					61	0.0083	0.0072	0.0061						
25	300×450	276	10.92	65	±70	±30	±70	±3	45	0.0055	0.0050		473	567	709	8	3	2
				76					53	0.0066	0.0057	0.0050						
				87					61	0.0077	0.0067	0.0057						
26	300×500	421	8.28	56	±70	±30	±70	±3	38	0.0070	0.0061	0.0051	525	630	788	11	4	2
				71					49	0.0094	0.0081	0.0068						
				86					60	0.0117	0.0101	0.0084						
27	300×550	1566	8.58	57	±70	±30	±70	±3	38	0.0066	0.0057	0.0050	578	693	866	11	4	3
				72					49	0.0088	0.0076	0.0064						
				87					60	0.0110	0.0095	0.0080						
28	300×600	71	8.84	57	±70	±30	±70	±3	38	0.0063	0.0054	0.0050	630	756	945	11	4	3
				72					49	0.0084	0.0073	0.0061						
				87					60	0.0105	0.0091	0.0076						
29	d350	908	10.63	65	90	±40	±90	±3	45	0.0050			337	404	505	8	3	2
				76					53	0.0059	0.0051							
				87					61	0.0068	0.0060	0.0051						
				98					69	0.0078	0.0068	0.0058						

No.	l ₁ × l ₂ / d (mm)	R _{ck}	S	t mm	Δl ₃ (mm)		Δl ₄ (mm)		t ₀ (mm)	tanθ(Unit of θ:rad)			R(kN)			t ₁ (mm)	t ₀ (mm)	t _f (mm)
					horiz ontal	vert ical	horiz ontal	verti cal		Warm area	Cold area	Severe cold area	War m area	Cold area	Severe cold area			
30	350×350	1156	0.63	65	90	±40	±90	±3	45	0.0050	-	-	429	515	643	8	3	2
				76					53	0.0059	0.0051							
				87					61	0.0068	0.0060	0.0051						
				98					69	0.0078	0.0068	0.0058						
31	350×400	326	8.26	56	±90	±40	±90	±3	38	0.0061	0.0052		490	588	735	11	4	2
				71					49	0.0081	0.0069	0.0058						
				86					60	0.0101	0.0087	0.0073						
				101					71	0.0121	0.0104	0.0087						
32	350×450	496	8.72	56	±90	±40	±90	±3	38	0.0055	0.0050		551	662	827	11	4	2
				71					49	0.0074	0.0064	0.0053						
				86					60	0.0092	0.0079	0.0067						
				101					71	0.0111	0.0095	0.0080						
33	350×500	666	9.12	56	±90	±40	±90	±3	38	0.0051	—		613	735	919	11	4	2
				71					49	0.0069	0.0059	0.0050						
				86					60	0.0086	0.0074	0.0062						
				101					71	0.0103	0.0089	0.0075						
34	350×550	836	9.48	57	±90	±40	±90	±3	38	0.0050	—	—	674	809	011	11	4	3
				72					49	0.0064	0.0056	0.0050						
				87					60	0.0081	0.0070	0.0059						
				102					71	0.0097	0.0084	0.0071						
35	350×600	2006	9.80	57	±90	±40	±90	±3	38	0.0050	—		735	882	1103	11	4	3
				72					49	0.0061	0.0053	0.0050						
				87					60	0.0076	0.0066	0.0056						
				102					71	0.0092	0.0079	0.0067						
36	d400	195	8.86	56	±90	±40	±90	±3	38	0.0050			440	528	660	11	4	2
				71					49	0.0063	0.0054	0.0050						
				86					60	0.0079	0.0068	0.0057						
				101					71	0.0094	0.0081	0.0068						
37	400×400	521	8.86	56	±90	±40	±90	±3	38	0.0050			560	672	840	11	4	2
				71					49	0.0063	0.0054	0.0050						
				86					60	0.0079	0.0068	0.0057						
				101					71	0.0094	0.0081	0.0068						
38	400×450	716	9.40	71	±90	±40	±90	±3	49	0.0057	0.0050	-	630	756	945	11	4	2
				86					60	0.0071	0.0062	0.0052						
				101					71	0.0086	0.0074	0.0063						
				116					82	0.0100	0.0086	0.0073						
39	400×500	911	9.87	71	±90	±40	±90	±3	49	0.0053	0.0050		700	840	1050	11	4	2
				86					60	0.0066	0.0057	0.0050						
				101					71	0.0079	0.0069	0.0058						
				116					82	0.0092	0.0080	0.0068						



POT ELASTOMERIC BEARING

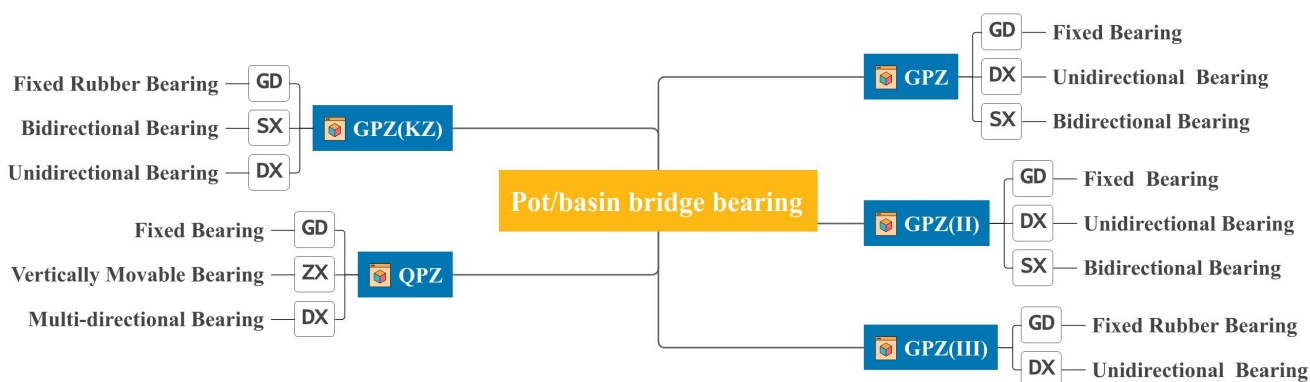
Breif introduction:

Pot bearings operate on the principle of using elastic rubber blocks within a steel pot to facilitate upper structure rotation under triaxial stress. The low friction between the central PTFE plate and the stainless steel plate on the upper seat allows horizontal displacement. With a triaxial compressive modulus of 5×10^5 kg/cm²—20 times higher than the unconstrained modulus—the pot bearing enhances load capacity beyond that of standard rubber bearings. This makes it suitable for applications requiring substantial support forces, large displacements, and rotation angles.

Specifications Series:

As the design of the pot bearing continues to mature and its application becomes more extensive, there are several specifications series, mainly including GPZ series, GPZ (II) series, GPZ (III) series and GPZ (KZ) series.

Production type:





GPZ ELASTOMERIC BEARING

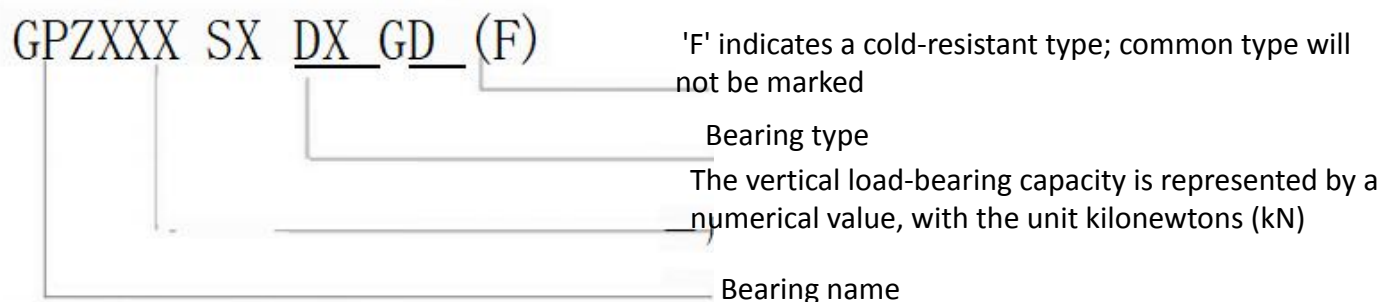
GPZ Bearing Code:

★Fixed Bearing: with vertical load-bearing and rotation capabilities, coded as *GD*

★Unidirectional Bearing: with vertical load-bearing, rotation, and unidirectional sliding capabilities, coded as *DX*

★Bidirectional Bearing: with vertical load-bearing, rotation, and longitudinal as well as transverse sliding, coded as *SX*

Code expression :



Applicable temperature

★Standard temperature type : Suitable for -25°C to $+60^{\circ}\text{C}$

★Cold-resistant type: Suitable for -40°C to $+60^{\circ}\text{C}$, coded as F.

Technical performance :

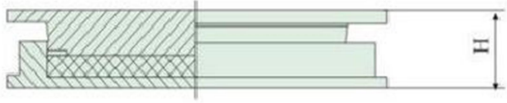
★The bearing offers a minimum vertical rotation angle of 40 arc minutes and supports vertical loads from 1000 to 50,000 kN across 28 levels.

★The horizontal load capacity is 10% of the vertical load.

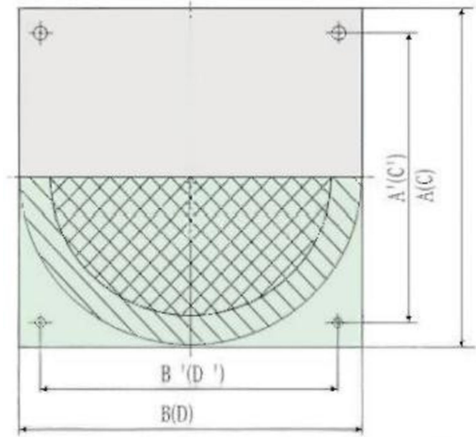
★Friction coefficients are $\mu \leq 0.04$ for standard and $\mu \leq 0.06$ for cold-resistant types.

★ Adheres to "JT391-1999" for production and inspection standards.

GPZ-GD



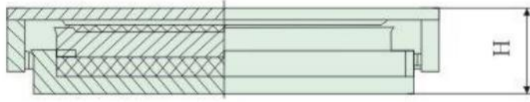
Elevation



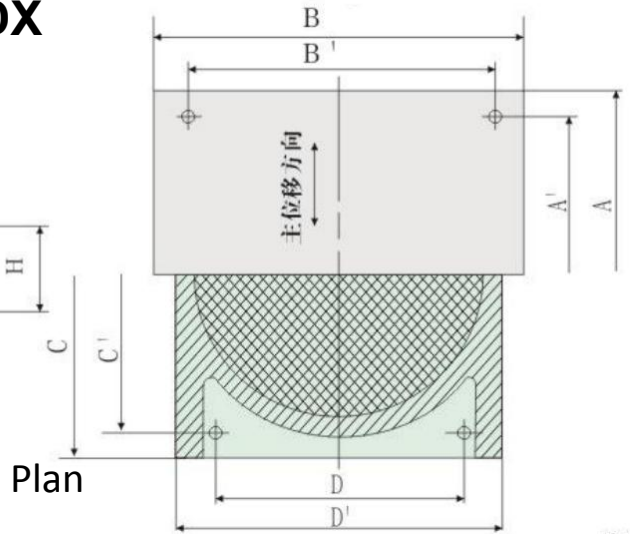
Plan

ITEM No.	Key size(mm)					Weight(kg)	Anchor Bolt	
	A(C)	A'(C')	B(D)	B'(D')	H		Dia ×Length	Weight(kg)
GPZ1000GD	305	240	305	240	65	31	M16×160	2.2
GPZ1250GD	330	260	330	260	70	39	M16×160	
GPZ1500GD	370	290	370	290	80	57	M16×160	
GPZ2000GD	410	320	410	320	85	73	M20×200	4.2
GPZ2500GD	465	360	465	360	95	105	M20×200	
GPZ3000GD	515	400	515	400	05	44	M24×240	7.2
GPZ3500GD	545	430	545	430	115	174	M24×240	
GPZ4000GD	590	460	590	460	125	221	M30×300	14.2
GPZ5000GD	660	500	660	500	135	297	M30×300	
GPZ6000GD	725	570	725	570	145	383	M30×300	
GPZ7000GD	780	610	780	610	155	478	M36×360	24.5
GPZ8000GD	820	650	820	650	165	562	M36×360	
GPZ9000GD	875	690	875	690	175	676	M42×420	38.9
GPZ10000GD	930	730	930	730	185	815	M42×420	
GPZ12500GD	1025	800	1025	800	195	1023	M48×480	58.1
GPZ15000GD	1135	900	1135	900	215	1405	M48×480	
GPZ17500GD	1220	950	1220	950	225	1690	M56×560	91.4
GPZ20000GD	1305	1030	1305	1030	245	2091	M56×560	
GPZ22500GD	1400	1100	1400	1100	260	2561	M64×640	136.2
GPZ25000GD	1480	1160	1480	1160	265	2890	M64×640	
GPZ27500GD	1540	1220	1540	1220	270	3163	M72×720	193.4
GPZ30000GC	1610	1260	1610	1260	285	3680	M72×720	
GPZ32500GD	1670	1340	1670	1340	290	3999	M72×720	264.5
GPZ35000GD	1740	1360	1740	1360	305	4640	M80×800	
GPZ37500GC	1800	1440	1800	1440	310	5011	M80×800	
GPZ40000GD	1870	1480	1870	1480	315	5446	M80×800	
GPZ45000GD	2000	1600	2000	1600	330	6588	M90×900	377.8
GPZ50000GD	2080	1660	2080	1660	335	7173	M90×900	

GPZ-DX



Elevation



Plan

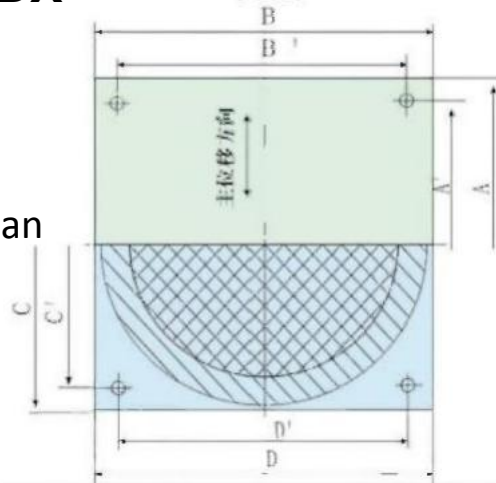
ITEM No.	Key size(mm)								Weight(kg)	Anchor Bolt	
	A	A'	B	B'	C(D)	C'	D'	H		Dia ×Length	Weight (kg)
GPZ1000DX	450/550	380/480	370	250	305	260	180	70	48/53	M16×160	2.2
GPZ1250DX	480/580	410/510	395	275	330	280	210	75	59/65	M16×160	
GPZ1500DX	500/600	430/530	430	310	370	310	240	85	80/87	M16×160	
GPZ2000DX	560/660	480/580	480	340	410	350	270	90	105/114	M20×200	4.2
GPZ2500DX	590/690	510/610	530	390	465	380	320	100	141/152	M20×200	
GPZ3000DX	640/740	560/660	600	435	515	420	340	110	199/213	M24×240	7.2
GPZ3500DX	770/870	690/790	630	465	545	450	370	120	256/271	M24×240	
GPZ4000DX	820/920	730/830	670	495	590	480	400	130	316/333	M30×300	14.2
GPZ5000DX	870/970	780/880	755	560	660	540	440	140	423/445	M30×300	
GPZ6000DX	920/1020	830/930	815	620	725	600	500	150	524/549	M30×300	
GPZ7000DX	1000/1100	890/990	885	650	780	640	510	160	668/698	M36×360	24.5
GPZ8000DX	1040/1140	930/1030	925	690	820	680	550	170	773/806	M36×360	
GPZ9000DX	1090/1190	960/1060	975	730	875	720	590	180	910/946	M42×420	38.9
GPZ10000DX	1230/1330	1100/1200	1025	780	930	770	640	190	1108/1148	M42×420	
GPZ12500DX	1330/1430	1200/1300	1165	860	1025	850	690	200	1446/1494	M48×480	58.1
GPZ15000DX	1400/1500	1260/1360	1265	960	1135	940	790	220	1886/1944	M48×480	
GPZ17500DX	1490/1590	1340/1440	1345	1030	1220	1000	860	230	2232/2296	M56×560	
GPZ20000DX	1550/1650	1400/1500	1425	1110	1305	1080	940	250	2695/2767	M56×560	91.4
GPZ22500DX	1630/1730	1470/1570	1475	1200	1400	1160	960	265	3126/3210	M64×640	
GPZ25000DX	1680/1780	1520/1620	1550	1280	1480	1200	1000	270	3487/3565	M64×640	
GPZ27500DX	1750/1850	1570/1670	1610	1320	1540	1280	1060	275	3813/3895	M72×720	193.4
GPZ30000DX	1800/1900	1630/1730	1685	1390	1610	1340	1100	290	4421/4514	M72×720	
GPZ32500DX	1950/2050	1780/1880	1745	1450	1670	1400	1160	295	4876/4973	M72×720	
GPZ35000DX	2025/2125	1840/1940	1820	1500	1740	1440	1180	310	5649/5759	M80×800	264.5
GPZ37500DX	2075/2175	1890/1990	1880	1560	1800	1500	1240	315	6073/6186	M80×800	
GPZ40000DX	2125/2225	1940/2040	1945	1630	1870	1540	1280	320	6570/6687	M80×800	
GPZ45000DX	2260/2360	2060/2160	2080	1740	2000	1660	1380	335	7902/8036	M90×900	377.8
GPZ50000DX	2310/2410	2110/2210	2155	1810	2080	1700	1400	340	8580/8720	M90×900	

GPZ-DX



Elevation

Plan



ITEM No.	Key size(mm)							Weight (kg)	Anchor Bolt	
	A	A'	B	B'	C(D)	C'(D)	H		Dia ×Length	Weight (kg)
GPZ1000SX	450/550	380/480	305	240	305	240	70	34/37	M16×160	2.2
GPZ1250SX	480/580	410/510	330	260	330	260	75	43/46	M16×160	
GPZ1500SX	500/600	430/530	370	290	370	290	85	61/66	M16×160	
GPZ2000SX	560/660	480/580	410	320	410	320	90	79/84	M20×200	4.2
GPZ2500SX	590/690	510/610	465	360	465	360	100	111/118	M20×200	
GPZ3000SX	640/740	560/660	515	400	515	400	110	152/161	M24×240	7.2
GPZ3500SX	770/870	690/790	545	430	545	430	120	197/207	M24×240	
GPZ4000SX	820/920	730/830	590	460	590	460	130	248/260	M30×300	14.2
GPZ5000SX	870/970	780/880	660	500	660	500	140	326/342	M30×300	
GPZ6000SX	920/1020	830/930	725	570	725	570	150	416/432	M30×300	
GPZ7000SX	1000/1100	890/990	780	610	780	610	160	522/541	M36×360	24.5
GPZ8000SX	1040/1140	930/1030	820	650	820	650	170	611/632	M36×360	
GPZ9000SX	1090/1190	960/1060	875	690	875	690	180	730/755	M42×420	38.9
GPZ10000SX	1230/1330	1100/1200	930	730	930	730	190	901/929	M42×420	
GPZ12500SX	1330/1430	1200/1300	1025	800	1025	800	200	1120/1151	M48×480	58.1
GPZ15000SX	1400/1500	1260/1360	1135	900	1135	900	220	1514/1554	M48×480	
GPZ17500SX	1490/1590	1340/1440	1220	950	1220	950	230	1814/1859	M56×560	91.4
GPZ20000SX	1550/1650	1400/1500	1305	1030	1305	1030	250	2129/2270	M56×560	
GPZ22500SX	1400/1430	900/900	1400	1230	1400	1100	265	2570/2588	M64×640	136.2
GPZ25000SX	1480/1480	1000/1000	1480	1290	1480	1160	270	2899/2901	M64×640	
GPZ27500SX	1540/1540	1050/1050	1540	1350	1540	1220	275	3173/3175	M72×720	193.4
GPZ30000SX	1610/1610	1100/1100	1610	1400	1610	1260	290	3691/3693	M72×720	
GPZ32500SX	1670/1730	1200/1200	1670	1470	1670	1340	295	A01314058	M80×800	264.5
GPZ35000SX	1740/1780	1250/1250	1740	1530	1740	1360	310	4644/4679	M80×800	
GPZ37500SX	1800/1830	1300/1300	1800	1580	1800	1440	315	5026/5054	M80×800	
GPZ40000SX	1870/1880	1350/1350	1870	1640	1870	1480	320	5462/5473	M80×800	377.8
GPZ45000SX	2000/2000	1400/1400	2000	1750	2000	1600	335	6605/6608	M90×900	
GPZ50000SX	2080/2080	1450/1450	2080	1820	2080	1660	340	7191/7194	M90×900	



GPZ(II) POT BEARING

Construction Features:

The GPZ(II) series pot rubber bearing is an enhanced version of the GPZ series, designed for reliable force transfer and beam-end rotation in bridges, utilizing incompressible rubber blocks under triaxial stress. It accommodates horizontal displacement due to temperature changes and material behavior through PTFE and stainless steel sliding surfaces, ensuring bridge safety. Suitable for various large and medium-sized bridges, it is designed by the China Communications and Planning Design Institute and produced to the JT391-1999 standard, marking significant advancements over the original GPZ series.

Design Parameters :

According to the performance, it is divided into:

A. Bidirectional sliding bearings: with vertical load-bearing, vertical rotation, and bidirectional sliding capabilities, code is SX;

B. Uni-directional sliding bearing: with vertical load-bearing, vertical rotation, and unidirectional sliding capabilities, code is DX;

C. Fixed bearing: with vertical load-bearing and vertical rotation capabilities, code is GD.

According to the applicable temperature range, it is divided into:

A. Common type bearing: suitable for use at -25°C to $+60^{\circ}\text{C}$.

B. Cold-resistant type bearing: suitable for use at -40°C to $+60^{\circ}\text{C}$, code is F.

Technical Specifications:

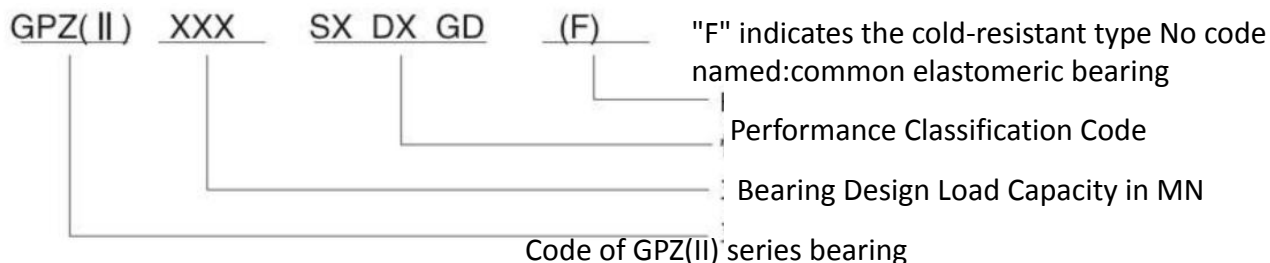
- ◆ Vertical Load Capacity: Compression should not exceed 2% of the bearing's height, and pot ring mouth radial deformation should not exceed 0.5% of its outer diameter, with residual deformation capped at 5% of total deformation.
- ◆ Horizontal Load Capacity: Must be at least 10% of the vertical capacity for fixed bearings and non-sliding directions of unidirectional bearings, with a 10% overload allowance.
- ◆ Rotation Angle: Minimum rotation of 0.02 rad ($1^{\circ} 08'$).
- ◆ Friction Coefficient: After application of 5201 silicone grease, the coefficient is a minimum of 0.03 for standard bearings and 0.06 for cold-resistant bearings.
- ◆ These parameters ensure the bearing's performance under load, rotation, and in various temperature conditions(refer to the table below).

Support reaction (MN)	Max. longitudinal displacement (mm)			Max. transverse displacement(mm)		
	GD	Sx	DX	GD	Sx	DX
0.8-3	0	$\pm 50; \pm 100; \pm 150$	$\pm 50; \pm 100; \pm 150$	0	± 40	± 3
3.5-9	0	$\pm 100; \pm 150; \pm 200$	$\pm 100; \pm 150; \pm 200$	0	± 40	± 3
10-30	0	$\pm 150; \pm 200; \pm 250$	$\pm 150; \pm 200; \pm 250$	0	± 40	± 3
32.5-60			$\pm 200; \pm 250; \pm 300$	0	± 40	± 3



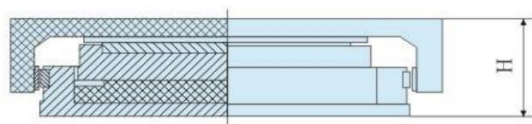
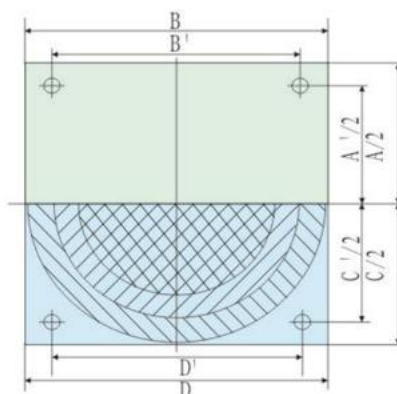
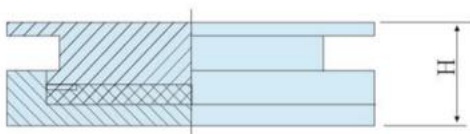
GPZ(II) POT BEARING

Code expression :

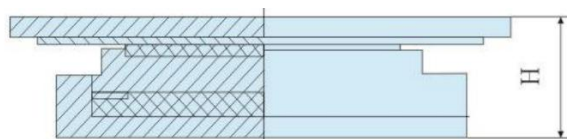
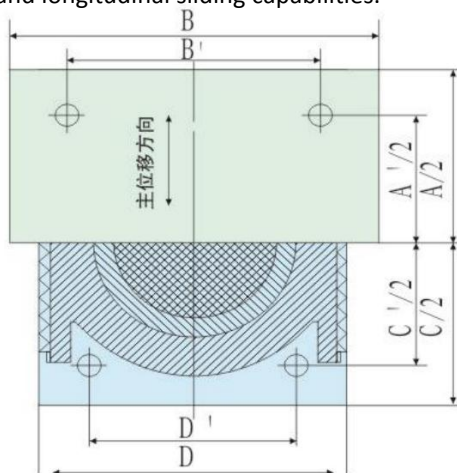


For example, GPZ(II)15MNSXF represents a bidirectional sliding, cold-resistant bearing in the GPZ(II) series with a design load capacity of 15MN

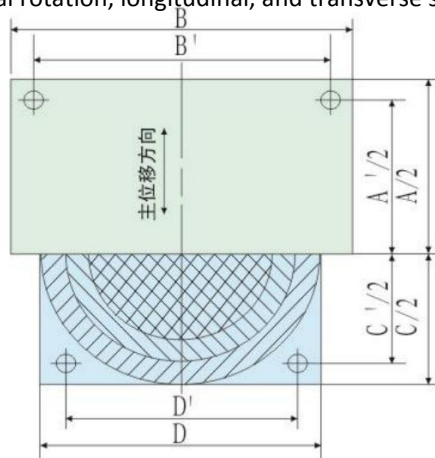
GPZ(II) pot rubber bearing (GD) , features vertical rotation capability



GPZ(II) pot rubber bearing (DX) possesses vertical rotation and longitudinal sliding capabilities.



GPZ(II) bidirectional sliding bearing (SX) structural schematic (features vertical rotation, longitudinal, and transverse sliding capabilities)



GPZ(II)-GD Key size

ITEM No.	Key size(mm)							Weight(kg)	Anchor Bolt	
	A	A'	B	B'	C(D)	C'(D)	H		Dia×Length	Weight(kg)
GPZ(II)0.8GD	250	210	250		210		75	25	φ40×250	19.9
GPZ(II)1.0GD	280	235	280		235		80	34	φ40×250	
GPZ(II)1.25GD	310	260	310		260		85	45	φ40×250	
GPZ(II)1.5GD	340	290	340		290		90	57	φ40×250	
GPZ(II)2GD	390	330	390		330		95	79	φ40×250	
GPZ(II)2.5GD	435	370	435		370		100	104	φ40×250	
GPZ(II)3GD	475	400	475		400		105	131	φ40×250	20
GPZ(II)3.5GD	510	430	510		430		110	158	φ40×250	
GPZ(II)4GD	545	460	545		460		115	187	φ40×250	
GPZ(II)5GD	610	520	610		520		130	265	φ50×300	37.4
GPZ(II)6GD	670	570	670		570		140	348	φ50×300	
GPZ(II)7GD	720	610	720		610		150	428	φ50×300	
GPZ(II)8GD	770	650	770		650		155	509	φ60×300	54.2
GPZ(II)9GD	815	690	815		690		160	592	φ60×300	
GPZ(II)10GD	860	730	860		730		170	697	φ60×300	
GPZ(II)12.5GD	960	810	960		810		185	947	φ70×350	86.1
GPZ(II)15GD	1050	890	1050		890		200	1227	φ70×350	
GPZ(II)17.5GD	1135	960	1135		960		210	1497	φ70×350	
GPZ(II)20GD	1220	1040	1220		1040		230	1896	φ80×350	112.9
GPZ(II)22.5GD	1290	1100	1290		1100		240	2217	φ80×.350	
GPZ(II)25GD	1360	1150	1360		1150		250	2566	φ80×350	163.5
GPZ(II)27.5GD	1430	1220	1430		1220		260	2930	φ90×400	
GPZ(II)30GD	1490	1270	1490		1270		270	3295	φ90×400	
GPZ(II)32.5GD	1550	1320	1550		1320		280	3709	φ90×400	202.4
GPZ(II)35GD	1610	1370	1610		1370		290	4154	φ100×400	
GPZ(II)37.5GD	1670	1420	1670		1420		300	4610	φ100×400	
GPZ(II))40GD	1720	1460	1720		1460		310	5050	φ100×400	
GPZ(II)45GD	1830	1560	1830		1560		320	5856	φ100×400	275.8
GPZ(II)50GD	1920	1630	1920		1630		335	6744	φ110×450	
GPZ(II))55GD	2020	1720	2020		1720		350	7827	φ110×450	329.6
GPZ(II II)60GD	2100	1790	2100		1790		365	881	φ120×450	

GPZ(II)-DX Key size

ITEM No. (MM)	Longitudinal displacement (mm)	Key size(mm)								Weight (kg)	Embedded column basedxI	Weight (kg)
		A	A'	B	B'	C(D)	C	D'	H			
GPZ(II)0.8DX	50±100±150	320420520	280380480	315	220	265	230	80	75	34.2 38.8 43.4	φ40×250	19.9
GPZ(II)1.0DX	±50±100±150	340440540	300400500	340	245	290	250	200	80	42.6 47.8 53.1	φ40×250	
GPZ()1.25DX	±50±100±150	360460560	320420520	370	275	320	280	230	85	52.5 58.3 64.0	40×250	
GPZ(II)1.5DX	±50±100±150	280480580	340440540	410	300	350	310	260	90	66.9 73.9 80.9	φ40×250	
GPZ(II)2DX	±50±100±150	420520620	380480580	460	350	400	360	310	100	96.0 104.9 113.8	φ40×250	
GPZ(II)2.5DX	±50±100±150	460560660	420520620	505	395	445	405	355	105	122.3 132.3 142.4	φ40×250	
GPZ(II)3DX	±50±100±150	485585685	435535635	565	425	485	435	370	110	157.3 169.6 182.1	φ40×250	20
GPZ(II)3.5DX	±100±150±200	620720820	570670770	600	460	520	470	400	115	202.6 216.7 230.8	φ40×250	
GPZ(II)4DX	±100±150±200	640740840	590690790	635	485	555	505	435	130	258.5 275.7 292.9	φ40×250	
GPZ(II)5DX	±100±150±200	690790890	635735835	710	545	620	560	480	140	338.3 358.5 378.7	φ50×300	37.4
GPZ(II)6DX	±100±150±200	740840940	680780880	770	600	680	620	540	150	423.7 446.2 468.7	φ50×300	
GPZ(II)7DX	±100±150±200	780880980	720820920	820	650	730	670	590	160	516.7542.5568.4	φ50×300	
GPZ(II)8DX	100±150±200	8109101010	740840940	890	690	780	710	620	170	634.0 664.7 695.5	φ60×300	54.2
GPZ(II)9DX	±100±150±200	8509501050	780880980	935	725	825	755	665	180	744.9 778.9 813.0	φ60×300	
GPZ(II)10DX	±100±150±200	10801180	91010101110	985	770	875	800	715	190	907.4 944.9 982. 3	φ60×300	
GPZ(II)12.5DX	±150±200±250	106011601260	98010801180	1100	860	970	890	780	205	1205.7 1251.4 1297.1	φ70×350	86.1
GPZ(II)15DX	±150±200±250	131012301330	105011501250	1190	950	1060	980	870	220	1513.7 1565.91618.2	φ70×350	
GPZ(II)17.5DX	±150±200±250	119012901390	110512051305	1295	1030	1145	1060	935	235	1887. 61949. 12010. 6	φ70×350	
(II)20DX	±150±200±250	12501350 1450	115512551355	1375	1100	1225	1130	1000	250	2263.9 2332.12400.2	φ80×350	112.9
GPZ(II)22.5DX	±150±200±250	13101410 1510	1220 1320 1420	1450	1180	1300	1210	1080	260	2620. 3 2694.2 2768. 1	φ80×350	
GPZ(II)25DX	±150±200±250	1370 1460 1560	127013601460	1540	1240	1370	1210	1080	270	3058.8 3134. 3 3229. 3	φ90×400	163.5
GPZ(II)27.5DX	±150±200±250	1440 1510 1610	134014101510	1610	1310	1440	1340	1190	280	3476.4 3539. 8 3661. 7	φ90×400	
GPZ(II)30DX	150±200±250	150015601660	140014601560	1670	1370	1500	1400	1250	290	3903.9 3975.04072. 7	φ90×400	
GPZ(II)32.5DX	150±200±250	161017101810	150016001700	1750	1420	1560	1450	1270	300	4470.0 4577.44684.7	φ00×400	202.4
GPZ(II)35DX	±200±250±300	165017501850	154016401740	1810	1480	1620	1510	1330	310	4949.3 5064.35179.3	φ100×400	
GPZ()37.5DX	±200±250±300	169017901890	158016801780	1890	1540	1680	1570	1370	320	5512.05637. 2 5762.4	φ00×400	
GPZ(II)40DX	±200±250±300	173018301930	162017201820	1940	1590	1730	1620	1420	330	5003.46134. 9 6266. 5	φ100×400	
GPZ(II)45DX	±200±250±300	184019102010	171017801880	2070	1680	1840	1710	1510	345	7109.8 7214. 2 7361.8	φ110×450	275.8
GPZ(II)50DX	±200±250±300	193019902090	180018601960	2160	1770	1930	1800	1600	360	8124.98222. 9838 3.6	φ110×450	
GPZ(II)55DX	±200±250±300	203020602160	189019202020	2280	1860	2030	890	1680	375	9430.39486. 8966 5.4	φ120×450	329.6
GPZ(II)60DX	±200±250±300	211021302230	197019902090	2360	1940	2110	1970	1760	390	10484. 510526. 41 0718.8	φ120×450	

ITEM No. (MM)	Longitudinal displacement (mm)	Key size(mm)								Weight (kg)	Embedded column base d×l	Weight (kg)
		A	A'	B	B'	C(D)	C	D'	H			
GPZ(Ⅱ)0.8DX	±50±100±150	320 420 520	280 380 480	315	220	265	230	80	75	34.2 38.8 43.4	φ40×250	19.9
GPZ(Ⅱ)1.0DX	±50±100±150	340 440 540	300 400 500	340	245	290	250	200	80	42.6 47.8 53.1	φ40×250	
GPZ(Ⅱ)1.25DX	±50±100±150	360 460 560	320 420 520	370	275	320	280	230	85	52.5 58.3 64.0	φ40×250	
GPZ(Ⅱ)1.5DX	±50±100±150	280 480 580	340 440 540	410	300	350	310	260	90	66.9 73.9 80.9	φ40×250	
GPZ(Ⅱ)2DX	±50±100±150	420 520 620	380 480 580	460	350	400	360	310	100	96.0 104.9 113.8	φ40×250	
GPZ(Ⅱ)2.5DX	±50±100±150	460 560 660	420 520 620	505	395	445	405	355	105	122.3 132.3 142.4	φ40×250	20
GPZ(Ⅱ)3DX	±50±100±150	485 585 685	435 535 635	565	425	485	435	370	110	157.3 169.6 182.1	φ40×250	
GPZ(Ⅱ)3.5DX	±100±150±200	620 720 820	570 670 770	600	460	520	470	400	115	202.6 216.7 230.8	φ40×250	
GPZ(Ⅱ)4DX	±100±150±200	640 740 840	590 690 790	635	485	555	505	435	130	258.5 275.7 292.9	φ40×250	37.4
GPZ(Ⅱ)5DX	±100±150±200	690 790 890	635 735 835	710	545	620	560	480	140	338.3 358.5 378.7	φ50×300	
GPZ(Ⅱ)6DX	±100±150±200	740 840 940	680 780 880	770	600	680	620	540	150	423.7 446.2 468.7	φ50×300	
GPZ(Ⅱ)7DX	±100±150±200	780 880 980	720 820 920	820	650	730	670	590	160	516.7 542.5 568.4	φ50×300	54.2
GPZ(Ⅱ)8DX	±100±150±200	810 910 1010	740 840 940	890	690	780	710	620	170	634.0 664.7 695.5	φ60×300	
GPZ(Ⅱ)9DX	±100±150±200	850 950 1050	780 880 980	935	725	825	755	665	180	744.9 778.9 813.0	φ60×300	
GPZ(Ⅱ)10DX	±150±200±250	980 1080 1180	910 1010 1110	985	770	875	800	715	190	907.4 944.9 982.3	φ60×300	86.1
GPZ(Ⅱ)12.5DX	±150±200±250	1060 1160 1260	980 1080 1180	1100	860	970	890	780	205	1205.7 1251.4 1297.1	φ70×350	
GPZ(Ⅱ)15DX	±150±200±250	1310 1230 1330	1050 1150 1250	1190	950	1060	980	870	220	1513.7 1565.9 1618.2	φ70×350	
GPZ(Ⅱ)17.5DX	±150±200±250	1190 1290 1390	1105 1205 1305	1295	1030	1145	1060	935	235	1887.6 1949.1 2010.6	φ70×350	112.9
GPZ(Ⅱ)20DX	±150±200±250	1250 1350 1450	1155 1255 1355	1375	1100	1225	1130	1000	250	2263.9 2332.1 2400.2	φ80×350	
GPZ(Ⅱ)22.5DX	±150±200±250	1310 1410 1510	1220 1320 1420	1450	1180	1300	1210	1080	260	2620.3 2694.2 2768.1	φ80×350	
GPZ(Ⅱ)25DX	±150±200±250	1370 1460 1560	1270 1360 1460	1540	1240	1370	1210	1080	270	3058.8 3134.3 3229.3	φ90×400	163.5
GPZ(Ⅱ)27.5DX	±150±200±250	1440 1510 1610	1340 1410 1510	1610	1310	1440	1340	1190	280	3476.4 3539.8 3661.7	φ90×400	
GPZ(Ⅱ)30DX	±150±200±250	1500 1560 1660	1400 1460 1560	1670	1370	1500	1400	1250	290	3903.9 3975.0 4072.7	φ90×400	
GPZ(Ⅱ)32.5DX	±200±250±300	1610 1710 1810	1500 1600 1700	1750	1420	1560	1450	1270	300	4470.0 4577.4 4684.7	φ100×400	202.4
GPZ(Ⅱ)35DX	±200±250±300	1650 1750 1850	1540 1640 1740	1810	1480	1620	1510	1330	310	4949.3 5064.3 5179.3	φ100×400	
GPZ(Ⅱ)37.5DX	±200±250±300	1690 1790 1890	1580 1680 1780	1890	1540	1680	1570	1370	320	5512.0 5637.2 5762.4	φ100×400	
GPZ(Ⅱ)40DX	±200±250±300	1730 1830 1930	1620 1720 1820	1940	1590	1730	1620	1420	330	5003.4 6134.9 6266.5	φ100×400	275.8
GPZ(Ⅱ)45DX	±200±250±300	1840 1910 2010	1710 1780 1880	2070	1680	1840	1710	1510	345	7109.8 7214.2 7361.8	φ110×450	
GPZ(Ⅱ)50DX	±200±250±300	1930 1990 2090	1800 1860 1960	2160	1770	1930	1800	1600	360	8124.9 8222.9 8383.6	φ110×450	
GPZ(Ⅱ)55DX	±200±250±300	2030 2060 2160	1890 1920 2020	2280	1860	2030	890	1680	375	9430.3 9486.8 9665.4	φ120×450	329.6
GPZ(Ⅱ)60DX	±200±250±300	2110 2130 2230	1970 1990 2090	2360	1940	2110	1970	1760	390	10484.5 10526.4 10718.8	φ120×450	

GPZ(II)-SX Key size

ITEM No. (MM)	Longitudinal displacement (mm)	Key size(mm)							Weight (kg)	Embedded column base d×l	Weight (kg)
		A	A'	B	B'	C(D)	C(D)	H			
GPZ(II)0.8SX	±50±100±150	320420520	280380480	300	260	245	200	75	26.9 30.1 33.4	φ40×250	19.9
GPZ(II)1.0SX	±50±100±150	340440540	300400500	320	280	270	225	80	33.9 37.6 41.3	φ40×250	
GPZ(II)1.25SX	±50±100±150	360460560	320420520	340	300	300	250	85	42.0 46.0 50.0	φ40×250	
GPZ(II)1.5SX	±50±100±150	380480580	340440540	360	320	330	275	90	52.5 57.0 61.5	φ40×250	
GPZ(II)2SX	±50±100±150	420520620	380480580	400	360	385	320	100	78.7 84.7 90.6	φ40×250	
GPZ(II)2.5SX	±50±100±150	460560660	420520620	440	400	425	355	105	100.1 107.0 113.8	φ40×250	
GPZ(II)3SX	±50±100±150	490590690	440540640	465	415	465	385	110	124.1 131.7 139.3	φ40×250	20
GPZ(II)3.5SX	±100±150±200	620720820	570670770	500	450	500	415	115	159.2 168.2 177.2	φ40×250	
GPZ(II)4SX	±100±150±200	640740840	590690790	540	490	540	450	130	210.4 221.8 233.2	φ40×250	
GPZ(II)5SX	±100±150±200	690790890	630730830	600	540	600	500	140	271.6 284.7 297.8	φ50×300	37.4
GPZ(II)6SX	±100±150±200	740840940	680780880	655	595	655	540	150	341.7 356.5 371.3	φ50×300	
GPZ(II)7SX	±100±150±200	780880980	720820920	705	640	705	580	160	423.7 441.3 458.9	φ50×300	
GPZ(II)8SX	±100±150±200	8109101010	735835935	755	680	755	630	170	422 532.2 552.2	φ60×300	54.2
GPZ(II)9SX	±100±150±200	8509501050	775875975	800	720	800	660	180	608.2 630.7 653.1	φ60×300	
GPZ(II)10SX	±150±200±250	38010801180	90510051105	845	765	845	700	190	736.9 762.0 787.0	φ60×300	
GPZ(II)12.5SX	±150±200±250	06011601260	97010701170	945	855	945	780	205	983.4 1013.6 1043.9	φ70×350	86.1
GPZ(II)15SX	±150±200±250	3012301330	104011401240	1030	940	1030	860	220	2452 1280.5 13159	φ70×350	
GPZ(II)17.5SX	±150±200±250	90 290 90	100 1200 300	1110	1020	1110	920	235	531.4 572.4 1612.8	φ70x.35	
GPZ(II)20SX	±150±200±250	2501350	50 250 1350	190	1090	190	990	250	49648 91 2 1957.6	φ80×350	112.9
GPZ(II)22.5SX	±150±200±250	10 1410 15	21013101410	260	1160	260	050	260	216622217.42268.5	φ80×350	
GPZ(II)25SX	±150±200±250	360460	5013501450	1340	1230	1340	1110	270	2540.42597.92651.2	φ90×40	
GPZ(II)27.5SX	±150±200±250	4101510 161	30014001500	410	1300	410	1170	280	2898.82961.53019.5	φ90×400	163.5
GPZ(II)30SX	±150±200±250	470 560	3601450 1550	470	1360	470	220	290	3277.33334.53403	φ90×400	
GPZ(II)32.5SX	±200±250±300	10 1710 8	90 15901690	525	1400	525	270	300	3714.13788.93863.8	φ100×400	
GPZ(II)35SX	±200±250±300	50 1750	53016301730	58E	1460	585	320	310	4143.94225.54307.0	φ100×400	202.4
GPZ(II)37.5SX	±200±250±300	690 17901890	57016701770	645	1520	645	370	320	581.94669.04756.2	φ100x4x	
GPZ(II)40SX	±200±250±300	7301830193	461017101810	690	1570	690	410	330	4993.35085.55177.7	φ100×40	
GPZ(II)45SX	±200±250±300	810 910 20	680 30 80	1800	1660	800	1500	345	5870.95973.36075.8	φ110v	275.8
GPZ(II)50SX	±200±250±300	89019902090	760 18601960	890	1750	1890	1570	360	6751.06864.56977.9	φ110×45	
GPZ(II)55SX	±200±250±300	990206021	85019202020	990	850	1990	1660	375	7832.47921.58047.2	φ120×450	
GPZ(II)60SX	200±250±30	2130	930 19902090	2070	1930	2070	1720	390	8823.78907.79044.9	φ120×450	329.6



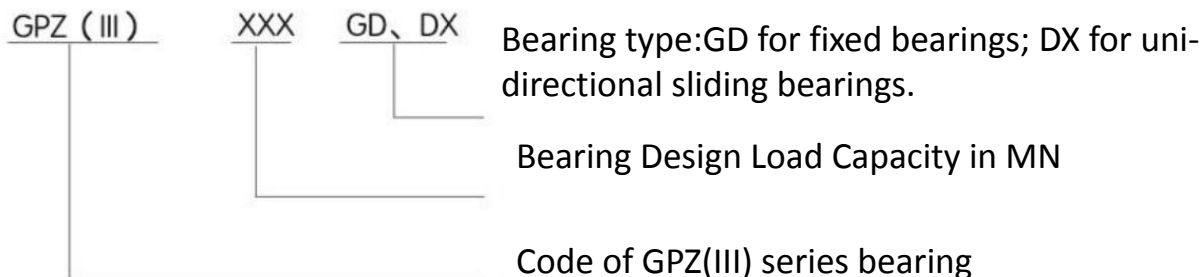
GPZ(III) POT BEARING

The GPZ(III) series pot bearings are designed to enhance earthquake resilience in bridge engineering within seismic zones up to intensity 8.

Key features:

1. Seismic Protection: Implements earthquake prevention policies to safeguard life, property, and reduce economic impact.
2. Standard Compliance: Aligns with key standards such as JTJ021-89, JTJ025-86, JTJ004-89, and JTJ391-1999 for bridge and culvert design.
3. Seismic Performance: Integrates research from Tongji University for robust performance in seismic events, optimizing the functionality of highway bridges in disaster relief.

Code expression :

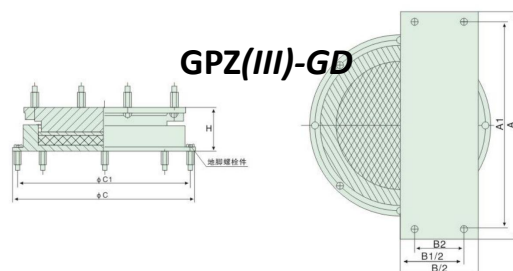
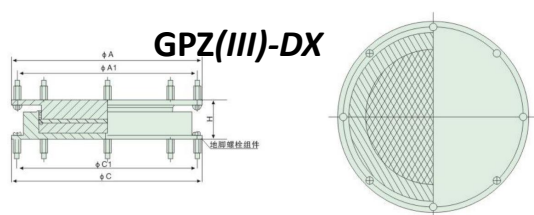


Technical performance :

The bearing supports loads from 0.8 to 60 MN across 31 specifications and allows a rotation angle of 0.02 radians.

For seismic-resistant bearings, the friction coefficient is a minimum of 0.03 for standard and 0.06 for cold-resistant types when lubricated with silicone grease.

The horizontal force for fixed and non-sliding directions is 20% of the design load capacity.



GPZ(III) GD

ITEM NO.(MM)	Part size(mm)					Support weight (kg)	bolt		
	φA	φA1	φC	φC1	H		Anchorbolt	Sleeve diameter×Length	Weight (kg)
GPZ(I)0.8GD	325	295	325	295	95	37.30	M16×160	φ30×160	13.1
GPZ(III)1GD	355	325	355	325	100	47.45	M16×160	φ30×160	13.1
GPZ(III)1.25GD	385	355	385	355	105	60.80	M16×160	φ30×160	13.1
GPZ(III)1.5GD	435	395	435	395	115	79.62	M20×160	φ40×160	23.9
GPZ(III)2GD	490	450	490	450	120	110.63	M20×160	φ40×160	23.9
GPZ(III)2.5GD	555	505	555	505	125	143.06	M24×160	φ50×200	45.6
GPZ(III)3GD	595	545	595	545	130	176.18	M24×160	φ50×200	45.6
GPZ(III)3.5GD	610	570	610	570	135	202.38	M20×160	φ40×160	23.9
GPZ(I)4GD	645	605	645	605	150	250.09	M20×160	φ40×160	23.9
GPZ(I)5GD	735	685	735	685	160	336.02	M24×200	φ50×200	45.8
GPZ(III)6GD	795	745	795	745	170	427.05	M24×200	φ50×200	45.8
GPZ(III)7GD	860	805	860	805	180	526.56	M27×220	φ55×220	61.8
GPZ(III)8GD	915	860	915	860	195	648.55	M27×220	φ55×220	61.8
GPZ(III)9GD	965	905	965	905	200	730.06	M30×240	φ60×240	80.8
GPZ(III)10.0GD	1015	955	1015	955	205	842.43	M30×240	φ60×240	80.8
GPZ(I)12.5GD	1135	1065	1135	1065	230	1192.92	M36×280	φ70×280	127.2
GPZ(III)15GD	1225	1155	1225	1155	245	1490.12	M36×280	φ70×280	127.2
GPZ(III)17.5GD	1335	1255	1335	1255	260	1866.6	M42×340	φ80×340	203.8
GPZ(III)20GD	1420	1340	1420	1340	270	2193.78	M42×340	φ80×340	203.8
GPZ(III)22.5GD	1510	1420	1510	1420	285	2620.57	M48×380	φ90×380	292
GPZ(II)25GD	1585	1495	1585	1495	300	3040.21	M48×380	φ90×380	292
GPZ(III)27.5GD	1660	1570	1660	1570	315	3500.99	M48×380	φ90×380	292
GPZ(III)30GD	1740	1640	1740	1640	325	3922.35	M56×450	φ100×450	424
GPZ(III)32.5GD	1800	700	1800	1700	340	4414.24	M56×450	φ100×450	424
GPZ(III)35GD	1860	1760	1860	1760	350	4896.8	M56×450	φ100×450	424
GPZ(III)37.5GD	1925	1825	1925	1825	360	5482.77	M56×450	φ100×450	424
GPZ(II)40GD	1995	1885	1995	1885	370	5970.5	M64×500	φ110×500	574.8
GPZ(III)45GD	2100	1990	2100	1990	390	7014.84	M64×500	φ110×500	574.8
GPZ(III)50GD	2225	2105	2225	2105	405	8130.38	M72×580	φ120×580	799.2
GPZ(III)55GD	2320	2200	2320	2200	420	9172.23	M72×580	φ120×580	799.2
GPZ(III)60GD	2405	2285	2405	2285	435	10239.25	M72×580	φ120×580	799.2

GPZ(KZ) POT BEARING

The GPZ(KZ) series seismic-resistant pot bearings are developed in accordance with Chinese standards JT391-1999 and JT004-89, featuring enhanced damping and energy dissipation over standard pot bearings.

Key features:

- ◆ **Standard Compliance:** Designed based on China's traffic industry standards for highway bridge pot bearings and seismic design codes.
- ◆ **Damping and Energy Dissipation:** Incorporates advanced damping features for improved seismic performance.
- ◆ **Expert Development:** Developed by experts from the China Highway Planning and Design Institute, validated by vibration table tests.
- ◆ **Variety of Types:** Includes fixed, uni-directional, and bi-directional sliding bearings to meet diverse structural needs.
- ◆ **Increased Horizontal Load:** Horizontal force capacity increased to 20% of the original design load for enhanced stability.
- ◆ **Seismic Resistance Approach:** Combines rigid and flexible seismic resistance methods to enhance energy dissipation and seismic performance.
- ◆ **Dual Functionality:** Operates as general pot bearings under non-seismic conditions, providing versatility in usage.

These bearings are engineered to limit relative displacement and reduce seismic force amplification during earthquakes, ensuring both safety and functionality.

Technical Parameters:

- ◆ **Vertical Load Capacity:** The bearings are rated in 31 levels from 0.8 to 60 MN, with a 10% overload allowance.
- ◆ **Horizontal Load Capacity:** Fixed bearings and uni-directional sliding bearings' non-sliding direction can handle 20% of the vertical design load.
- ◆ **Friction Coefficient:**
- ◆ **Standard temperature bearings:** $\mu \geq 0.03$ for -25°C to $+60^{\circ}\text{C}$.
- ◆ **Cold-resistant bearings:** $\mu \geq 0.06$ for -40°C to $+60^{\circ}\text{C}$, lubricated with silicone grease.
- ◆ **Rotation Angle:** Designed for 0.02 radians of rotation.
- ◆ **Displacement:** Sliding bearings allow $\pm 3\text{mm}$ transverse displacement and specified longitudinal displacements relative to the bridge's axis.
- ◆ These parameters ensure the GPZ(KZ) series bearings provide robust performance under various conditions, including seismic events (refer to table 1).



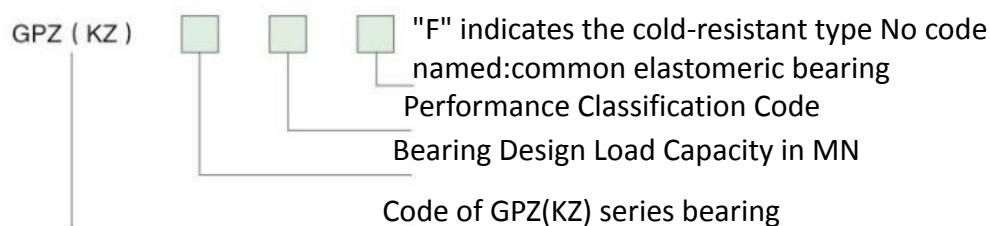
GPZ(KZ) POT BEARING

ITEM No.	Design support capacity(MN)	Longitudinal Displacement(mm)	DXTransverse Displacement)(mm)	SXTransverse Displacement)(mm)
GPZ(KZ)0.8~3	0.8~3	±50;±100;±150	±3	±40
GPZ(KZ)3.5~9	3.5~9	±100;±150;±200	±3	±40
GPZ(KZ)10~30	10~30	±150;±200;±250	±3	±40
GPZ(KZ)32.5~60	32.5~60	±200;±250;±300	±3	±40

Table 1

*Please be advised that should the actual displacement required for the support surpass the numerical values presented in the table, the support can be custom designed and fabricated to meet the specific requirements.

Code expression :



For example:

GPZ(KZ)12.5GDF: This denotes a cold-resistant fixed seismic pot bearing in the GPZ(KZ) series with a design load capacity of 12.5MN for highway bridge applications.

GPZ(KZ)20DX: This signifies a standard temperature uni-directional sliding seismic pot bearing in the GPZ(KZ) series with a design load capacity of 20MN for highway bridge applications.

Symbol Description in the Size list:

A,A' — Represent the length of the upper seat plate of the bearing in the longitudinal bridge direction and the center-to-center distance of the foundation bolt holes.

B,B' — Represent the length of the upper seat plate of the bearing in the transverse bridge direction and the center-to-center distance of the foundation bolt holes.

C,C' — Represent the length of the lower seat plate of the bearing in the longitudinal bridge direction and the center-to-center distance of the foundation bolt holes.

D,D' — Represent the length of the lower seat plate of the bearing in the transverse bridge direction and the center-to-center distance of the foundation bolt holes.

H,H' — Represents the height of the bearing.

GPZ(KZ)-GD

ITEM NO.(MN)	Key size(mm)					Weight(kg)	Anchorbolt	Bolt weight (kg)
	A(B)	A(B)	C(D)	C(D)	H		D×L(mm)	
GPZ(KZ)0.8GD	265	225	265	225	95	36	φ40×250	20
GPZ(KZ)1GD	295	245	295	245	100	47	φ40×250	
GPZ(KZ)1.25GD	325	275	325	275	105	60	φ50×300	37.4
GPZ(KZ)1.5GD	355	300	355	300	115	77	φ50×300	
GPZ(KZ)2GD	410	350	410	350	125	114	φ60×300	54.2
GPZ(KZ)2.5GD	455	380	455	380	130	145	φ60×300	
GPZ(KZ)3GD	495	420	495	420	135	177	φ70×350	86.1
GPZ(KZ)3.5GD	530	450	530	450	140	211	φ70×350	
GPZ(KZ)4GD	565	480	565	480	155	262	φ80×350	112.9
GPZ(KZ)5GD	635	530	635	530	165	350	φ80×350	
GPZ(KZ)6GD	695	580	695	580	175	445	φ90×400	163.5
GPZ(KZ)7GD	750	630	750	630	185	553	φ100×400	202.4
GPZ(KZ)8GD	800	670	800	670	200	680	φ100×400	
GPZ(KZ)9GD	845	700	845	700	205	778	φ100×400	
GPZ(KZ)10GD	890	740	890	740	210	885	φ110×45	275.8
GPZ(KZ)12.5GD	995	820	995	820	235	1236	φ120×450	329.6
GPZ(KZ)15GD	1085	880	1085	880	250	1562	φ120×450	
GPZ(KZ)17.5GD	1170	950	1170	950	265	1925	φ140×500	492.4
GPZ(KZ)20GD	1260	1030	1260	1030	280	2334	φ140×500	
GPZ(KZ)22.5GD	1330	1080	1330	1080	295	2757	φ140×500	
GPZ(KZ)25GD	1400	1140	1400	1140	310	3207	φ160×550	707.4
GPZ(KZ)27.5GD	1475	1190	1475	1190	325	3750	φ160×550	
GPZ(KZ)30GD	1540	1250	1540	1250	340	4236	φ160×550	
GPZ(KZ)32.5GD	1600	1290	1600	1290	350	4702	φ160×550	
GPZ(KZ)35GD	1660	1340	1660	1340	360	5185	φ160×550	
GPZ(KZ)37.5GD	1720	1390	1720	1390	370	5734	φ180×600	976.7
GPZ(KZ)40GD	1770	1430	1770	1430	380	6257	φ180×600	
GPZ(KZ)45GD	1880	1520	1880	1520	400	7399	φ180×600	
GPZ(KZ)50GD	1980	1590	1980	1590	415	8488	φ180×600	
GPZ(KZ)55GD	2080	1670	2080	1670	430	9710	φ200×600	205.8
GPZ(KZ)60GD	2165	1740	2165	1740	445	10875	φ200×600	

QPZ Bridge Bearing

Feature of QPZ pot bearings :

- (1) The stainless steel plate and polytetrafluoroethylene (PTFE) plate of the sliding bearing are lubricated with silicone grease, which can reduce frictional resistance.
- (2) The longitudinal sliding bearing adopts a central guiding mechanism, capable of accommodating the lateral bending deformation of the beam.
- (3) The central guiding of the longitudinal sliding bearing, compared to the slot-shaped upper bearing plate commonly used in China, not only reduces the weight but also simplifies the complexity of the upper seat plate.
- (4) The bearing is equipped with a dust-proof enclosure to reduce the intrusion of dust.

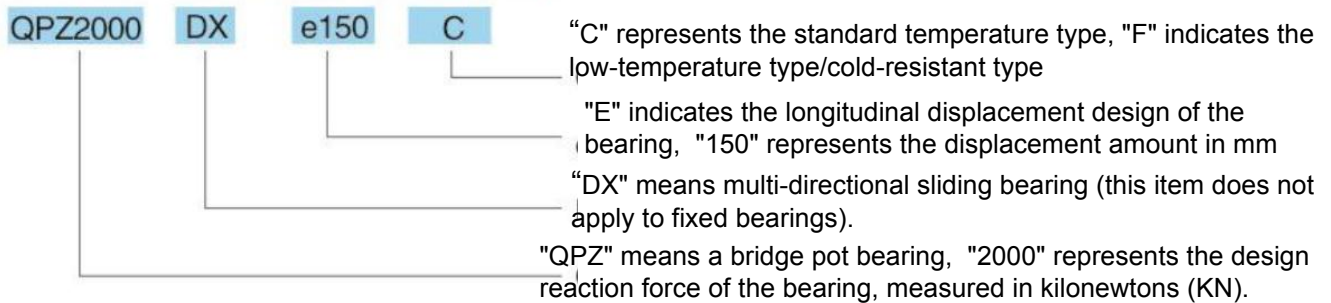
QPZ Bearing Code:

- ★Multi-directional sliding bearings (DX) have the capabilities of vertical rotation and longitudinal as well as transverse sliding.
- ★Longitudinal sliding bearings (ZX) have the capabilities of vertical rotation and longitudinal sliding.
- ★Fixed rubber bearings (GD) have the capability of vertical rotation

Applicable temperature

- ★Standard temperature type : Suitable for -25°C to $+60^{\circ}\text{C}$
- ★Cold-resistant type: Suitable for -40°C to $+60^{\circ}\text{C}$, coded as F.

Code expression :

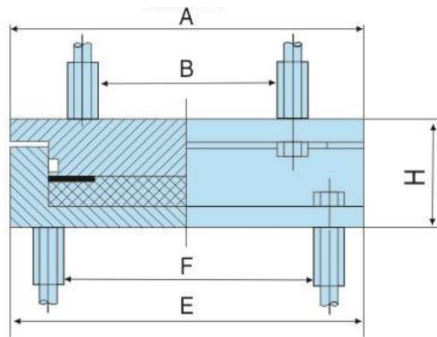


Technical performance:

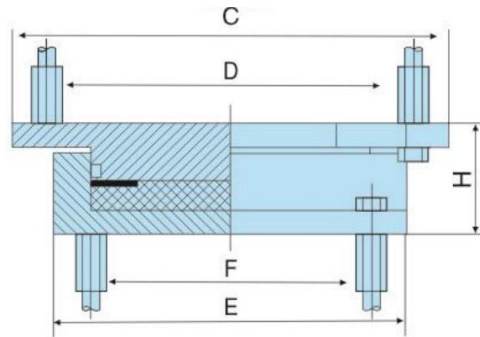
- ◆ The reaction force of the bearings (vertical carrying capacity) is categorized into 28 levels. In the non-sliding direction, they can sustain a horizontal force that is equivalent to 10% of the designed reaction force of the bearings.
- ◆ The vertical rotational capacity of the bearings is no less than 40 arc minutes.

QPZ-GD

Transverse Direction



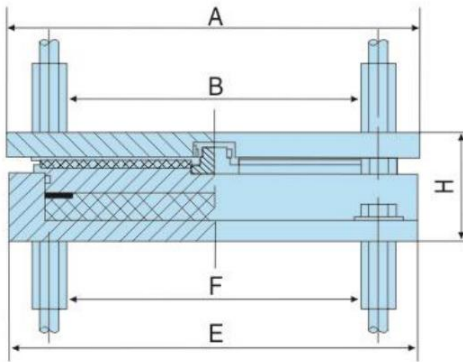
Longitudinal Direction



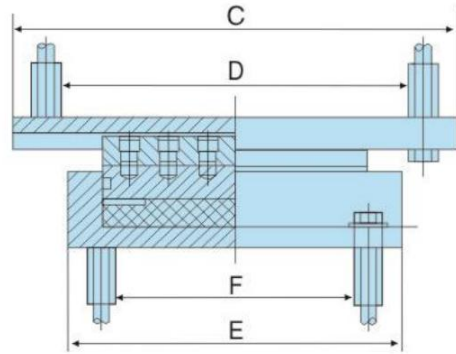
Item no. (KN)	Key size(mm)							Weight (Kg)	Anchor Bolt	
	A	B	C	D	E	F	H		M×L	Weight (Kg)
1000GD	300	180	370	310	300	240	100	62	M16×240	5.45
500GD	340	200	420	350	340	270	100	78	M16×240	5.45
2000GD	390	230	460	390	390	320	105	102	M16×240	5.45
2500GD	440	250	510	430	440	360	105	128	M16×240	5.45
3000GD	480	280	560	480	480	400	120	183	M20×300	10.00
3500GD	500	290	580	490	500	410	125	200	M20×300	10.00
4000GD	550	310	630	540	550	460	140	273	M20×300	10.00
4500GD	580	330	660	560	580	480	145	306	M20×300	10.00
5000GD	610	350	700	600	610	510	145	343	M24×300	4.80
6000GD	660	370	750	640	660	550	165	454	M24×300	14.80
7000GD	730	410	820	700	730	610	170	559	M24×300	14.80
8000GD	780	440	890	760	780	650	170	649	M30×360	26.90
9000GD	820	460	940	800	820	680	175	725	M30×360	26.90
10000GD	880	490	1000	850	880	730	195	933	M30×360	26.90
12500GD	970	550	1100	940	970	810	200	1152	M36×360	40.70
15000GD	1070	600	1210	1030	1070	890	205	1408	M36×360	40.70
17500GD	1150	650	131C	112C	115{	960	210	1669	M42×420	64.40
20000GD	1220	680	1380	1180	1220	1020	235	2147	M42×420	64.40
22500GD	1320	740	150C	128C	1320	1100	245	2582	M48×480	95.40
25000GD	1380	770	1560	133C	1380	1150	250	2832	M48×480	95.40
27500GD	1440	800	1620	1380	144{	120C	255	3103	M48×480	95.40
30000GD	500	840	171C	146C	500	125C	260	3445	M56×560	142.50
32500GD	1580	880	1790	1530	158C	132C	285	4329	M56×560	142.50
35000GD	1640	910	1850	1580	64{	1370	290	4683	M56×560	142.50
37500GD	1700	980	197C	170C	175{	146C	300	5010	M56×560	142.50
40000GD	1750	980	990	700	1750	1460	300	5480	M64×640	207.70
45000GD	1850	1030	2090	1780	1850	1540	300	6098	M64×640	207.70
50000GD	940	1080	2180	1860	1940	1620	305	6731	M64×640	207.70

QPZ-ZX

Transverse Direction



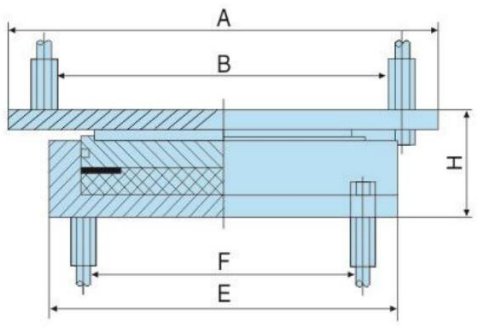
Longitudinal Direction



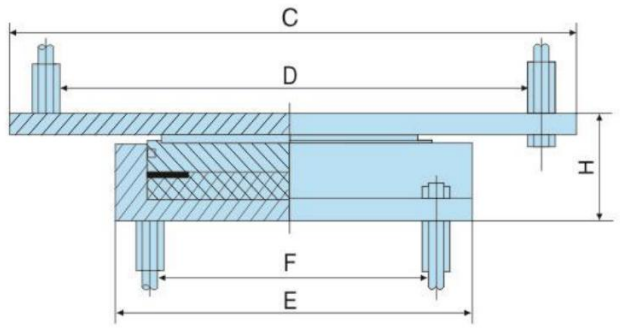
Item no.(KN)	Key size(mm)															Weight (Kg)					Anchor Bolt	
	A	B	C(e=)					D(e=)					E	F	H							
			±50	±100	±150	±200	±250	±50	±100	±150	±200	±250				±50	±100	±150	±200	±250	M×L	Weight (Kg)
000ZX	300	240	400	500	600			340	440	540			300	240	120	72	79	85			M16×240	5.45
500ZX	340	270	440	540	640			370	470	570			340	270	120	90	78	106			M16×240	5.45
2000ZX	390	320	490	590	690			420	520	620			390	320	135	129	139	50			M16×240	5.45
2500ZX	440	360	540	640	740			460	560	660			440	360	135	161	173	185			M16×240	5.45
3000ZX	480	400	580	680	780			500	600	700			480	400	145	209	222	235			M20×300	10.00
3500ZX	500	410	600	700	800			510	610	710			500	410	150	229	243	256			M20×300	10.00
4000ZX	550	460	650	750	850			560	640	760			550	460	160	300	317	334			M20×300	10.00
4500ZX	580	480	680	780	88			580	680	780			580	480	165	336	354	372			M20×300	10.00
5000ZX	610	510	710	810	910			610	710	810			610	510	165	374	393	412			M24×300	14.80
6000ZX	660	550	760	860	960			550	750	850			660	550	180	469	490	510			M24×300	14.80
7000ZX	730	610	830	930	1030			710	810	910			730	610	190	557	625	650			M24×300	14.80
8000ZX	780	650	80	980	08			750	850	950			780	650	195	703	779	756			M30×360	26.90
9000ZX	820	680	920	1020	112C			780	880	980			820	680	205	811	842	844			M30×360	26.90
10000ZX	880	730	980	080	180			830	930	030			880	730	220	994	027	061			M30×360	26.90
2500ZX	970	810	070	170	1270			910	010	110			970	810	230	1263	303	1344			M36×360	40.70
15000ZX	1070	890	1170	1270	1370			990	1090	1190			070	890	235	538	1582	1627			M36×360	40.70
7500ZX	1150	960		1350	450	1500	165C		160	1260	1360	1460	1150	980	250		947	2000	2052	2105	M42×420	64.40
20000ZX	220	020		1420	1520	1620	1720		220	1320	1420	1520	1220	1020	265		2318	2374	2429	2485	M42×420	64.40
22500ZX	1320	1100		520	620	1720	1820		300	400	500	400	1320	100	275		2770	2830	2890	2950	M48×480	95.40
25000ZX	380	150		580	680	1780	1880		350	450	550	650	380	1150	280		3050	3098	3161	3223	M48×480	95.40
27500ZX	1440	1200		1640	740	1840	1940		400	1500	1600	700	440	1200	295		3358	3529	3600	3671	M48×480	95.40
30000ZX	1500	1250		1700	1800	900	2000		450	550	650	750	500	1250	300		3810	3884	3957	4031	M56×560	42.50
32500ZX	1580	1320		1780	880	1980	208C		520	1620	1720	820	580	1320	325		4602	4687	4771	4855	M56×560	42.50
35000ZX	640	370		1840	940	2040	2140		570	1670	770	870	640	370	320		4973	5060	5147	5234	M56×560	142.50
37500ZX	1700	1420		1900	2000	2100	2200		620	720	820	1920	700	420	330		5389	5479	5570	5660	M56×560	42.50
40000ZX	750	1460		1950	2050	2150	2250		660	760	860	960	1750	460	335		5790	5883	5976	6069	M64×640	207.70
45000ZX	1850	1540		2050	2150	2250	2350		740	1840	1940	2040	850	540	340		6589	6695	6800	6905	M64×640	207.70

QPZ-DX

Transverse Direction



Longitudinal Direction



Item no.(KN)	Key size(mm)										Weight (Kg)				Anchor Bolt					
	A	B	C(e=)				D(e=)				E F H									
			±50	±100	±150	±200	±250	±50	±100	±150	±200	±250	M×L	Weight (Kg)						
1000DX	380	320	400	500	600		340	440	540		300	240	100	66	73	79		M16×240	5.45	
1500DX	420	350	440	540	640		370	470	570		340	270	100	82	89	96		M16×240	5.45	
2000DX	460	390	480	580	680		410	510	610		380	310	105	101	09	17		M16×240	5.45	
2500DX	500	420	520	620	720		440	540	640		420	340	105	120	29	137		M16×240	5.45	
3000DX	540	460	560	660	760		480	580	680		460	380	120	72	84	95		M20×300	10.00	
3500DX	560	470	580	680	780		490	590	690		480	390	125	188	200	212		M20×300	10.00	
4000DX	590	500	410	710	810		520	620	720		510	420	140	240	255	269		M20×300	10.00	
4500DX	620	520	640	740	840		540	640	740		540	440	45	269	284	300		M20×300	10.00	
5000DX	650	550	670	770	870		570	670	770		570	470	145	302	318	335		M24×300	14.80	
6000DX	700	590	720	820	927		610	710	810		620	510	65	402	423	443		M24×300	14.80	
7000DX	760	640	780	880	980		560	760	860		680	560	170	483	505	527		M24×300	14.80	
8000DX	820	690	840	940	1040		730	810	910		740	610	170	578	602	625		M30×360	26.90	
9000DX	850	710	870	970	1070		330	830	930		770	630	175	627	652	676		M30×360	26.90	
10000DX	900	750	920	020	120		770	870	970		820	670	195	793	822	852		M30×360	26.90	
12500DX	X199	083	010	011	012	10	850	950	050		910	750	200	987	1019	1051		M36×360	40.70	
15000DX	080	900	100	200	300		920	1020	120		1000	820	205	1187	1223	1258		M36×360	40.70	
17500DX	160	970		280	380	480	1580	1090	1190	1290	1390	1080	890	210	1453	149	1529	1567	M42×420	64.40
20000DX	220	020		340	440	540	640	140	240	340	1440	140	940	235	1852	1902	95	200	M42×420	64.40
22500DX	1340	120		1460	560	1660	1760	240	340	440	1540	260	040	245	2318	2322	2426	248	M48×480	95.40
25000DX	400	170		520	620	720	820	290	390	490	1590	320	090	250	2549	2605	2662	2719	M48×480	95.40
27500DX	440	220		1580	1680	1780	1880	340	440	540	1640	380	1140	255	2796	2855	2914	2973	M48×480	95.40
30000DX	520	270		640	740	840	940	370	1490	1590	1690	1440	190	260	3100	3161	3223	3284	M56×560	142.50
32500DX	570	310		690	790	890	1990	1430	530	1630	1730	1490	1250	285	375	3827	3903	3979	M56×560	142.50
35000DX	1630	1360		750	850	950	2050	480	1580	680	1780	550	280	290	4068	4147	4226	4305	M56×560	42.50
37500DX	680	400		800	900	2000	2100	520	1620	720	1820	1600	320	290	4310	439	4472	4553	M56×560	42.50
40000DX	740	450		1860	960	2060	2160	1570	1670	1770	1870	1660	1370	300	4778	4862	4946	5031	M64×640	207.70
45000DX	840	530		960	2060	2160	2260	650	1750	1850	1950	1760	450	300	5344	5433	5522	5611	M64×640	207.70