



GANTREX®
ON TRACK. WITH YOU.



High Performance Polyurethane Bumpers

INTRODUCTION

Medium and light duty maintenance and production cranes are often purchased based on CMAA and OSHA codes. While it is always better practice to use hydraulic bumpers on cranes, to allow maximum energy dissipation, in certain cases, polyurethane bumpers can provide an economic and viable alternative. These can be selected to meet the deceleration requirements specified by the code and will provide years of service without maintenance or deterioration.

FEATURES AND ADVANTAGES

The shock-absorbing element of the Galvi bumper consists of a polyurethane resin with a special micro-cellular structure, which provides excellent energy absorption during impact. This element can be compressed to 25% of its free length to absorb the energy with a resultant increase in diameter of only 40%.

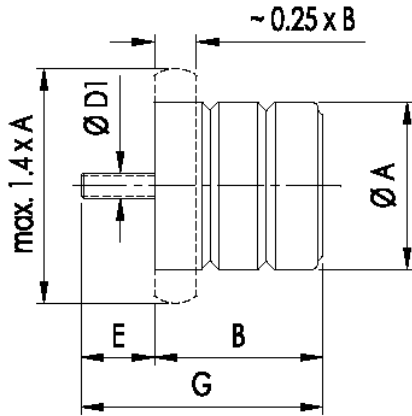
The bumper can be mounted to the crane or end-stop structure by means of a stud arrangement or a square rear flange with four bolt-holes. An internal steel chain is provided in each bumper as a safety device, to prevent damage to surroundings or injury to personnel in the event of a catastrophic impact.

The energy capacity of the bumpers varies with impact speed. The bumper will absorb more energy at a higher speed with the same stroke. Gantrex recommends that bumpers be selected based on a maximum deflection of 50% of its free length. This will minimize end-force and still leave the bumper with an adequate reserve to absorb additional energy.

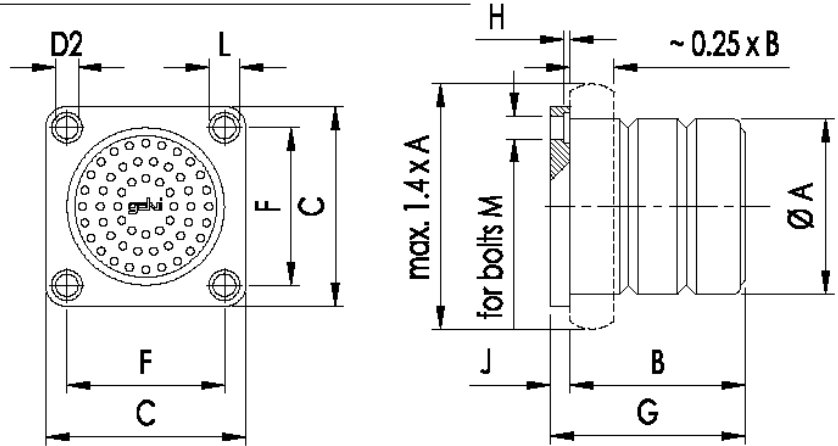
The elastic element is made of an anti-aging material with resistance to mechanical wear, oil, grease and gasoline. The structure is homogeneous and self-extinguishing.

DIMENSIONAL DATA

GPBE - STUD MOUNT



GPBV - REAR FLANGE MOUNT



Bumper Model			Dimensions												
Size	Type	Weight (lbs.)	A (ins)	B (ins)	C (ins)	D1 (ins)	D2 (ins)	E (ins)	F (ins)	G1 (ins)	G2 (ins)	H (ins)	J (ins)	L (ins)	M (ins)
063.063	GPBV	0.51	2.48	2.48	3.15	-	.35	-	2.48	-	2.79	-	.32	-	M8
063.095	GPBV	0.61	2.48	3.74	3.15	-	.35	-	2.48	-	4.06	-	.32	-	M8
080.080	GPBV	0.97	3.15	3.15	3.93	-	.43	-	3.15	-	3.54	-	.39	-	M10
	GPBE	0.77	3.15	3.15	-	M12	-	1.38	-	4.53	-	-	-	-	-
080.120	GPBV	1.20	3.15	4.72	3.93	-	.43	-	3.15	-	5.12	-	.39	-	M10
	GPBE	1.00	3.15	4.72	-	M12	-	1.22	-	6.10	-	-	-	-	-
100.100	GPBV	1.65	3.94	3.94	4.92	-	.43	-	3.94	-	4.33	-	.39	-	M10
	GPBE	1.32	3.94	3.94	-	M12	-	1.38	-	5.32	-	-	-	-	-
100.150	GPBV	2.09	3.94	5.91	4.92	-	.43	-	3.94	-	6.30	-	.39	-	M10
	GPBE	1.76	3.94	5.91	-	M12	-	1.38	-	7.28	-	-	-	-	-
125.125	GPBV	3.38	4.92	4.92	6.30	-	.55	-	4.92	-	5.39	.19	.47	.79	M12
	GPBE	2.35	4.92	4.92	-	M12	-	1.38	-	6.30	-	-	-	-	-
125.190	GPBV	4.07	4.92	7.48	6.30	-	.55	-	4.92	-	7.95	.19	.47	.79	M12
	GPBE	3.04	4.92	7.48	-	M12	-	1.38	-	8.86	-	-	-	-	-
160.160	GPBV	6.49	6.30	6.30	7.87	-	.55	-	6.30	-	6.77	.19	.47	.79	M12
	GPBE	5.77	6.30	6.30	-	M12	-	1.57	-	7.87	-	-	-	-	-
160.240	GPBV	8.40	6.30	9.45	7.87	-	.55	-	6.30	-	9.92	.19	.47	.79	M12
	GPBE	7.69	6.30	9.45	-	M12	-	1.57	-	11.02	-	-	-	-	-
200.200	GPBV	12.32	7.87	7.87	9.84	-	.71	-	7.87	-	8.46	.24	.59	1.02	M16
	GPBE	9.94	7.87	7.87	-	M12	-	1.57	-	9.45	-	-	-	-	-
200.300	GPBV	15.95	7.87	11.81	9.84	-	.71	-	7.87	-	12.40	.24	.59	1.02	M16
	GPBE	13.58	7.87	11.81	-	M12	-	1.57	-	13.39	-	-	-	-	-
250.250	GPBV	22.00	9.84	9.84	12.40	-	.71	-	9.84	-	10.43	.24	.59	1.02	M16
	GPBE	20.36	9.84	9.84	-	M24	-	3.15	-	12.99	-	-	-	-	-
250.375	GPBV	28.93	9.84	14.76	12.40	-	.71	-	9.84	-	15.35	.24	.59	1.02	M16
	GPBE	27.31	9.84	14.76	-	M24	-	3.15	-	17.91	-	-	-	-	-
315.315	GPBV	40.04	12.40	12.40	15.75	-	.71	-	12.40	-	13.00	.24	.59	1.02	M16
	GPBE	37.89	12.40	12.40	-	M24	-	3.15	-	15.55	-	-	-	-	-
315.475	GPBV	54.00	12.40	18.70	15.75	-	.71	-	12.40	-	19.29	.24	.59	1.02	M16
	GPBE	51.88	12.40	18.70	-	M24	-	3.15	-	21.85	-	-	-	-	-
400.400	GPBV	85.80	15.75	15.75	19.69	-	.79	-	15.75	-	16.54	.28	.79	1.30	M20
	GPBE	76.66	15.75	15.75	-	M30	-	3.15	-	18.90	-	-	-	-	-
400.600	GPBV	115.02	15.75	23.62	19.69	-	.79	-	15.75	-	24.41	.28	.79	1.30	M20
	GPBE	107.07	15.75	23.62	-	M30	-	3.15	-	26.77	-	-	-	-	-
500.500	GPBV	167.86	19.69	19.69	24.80	-	.79	-	15.75	-	20.47	.32	.79	1.54	M24

SELECTION CHART

Gantrex polyurethane bumper selection chart											
Bumper size/stroke						Bumper performance based on speed					
Size	Mounting Style	Dia. A (ins.)	Length B (ins.)	Stroke		50FPM		200 FPM		400 FPM	
				% of length	(ins.)	Energy (ft.lbs.)	Force (lbs.)	Energy (ft.lbs.)	Force (lbs.)	Energy (ft.lbs.)	Force (lbs.)
063.063	GPBV	2.48	2.48	30%	0.74	7	450	22	720	36	1125
				50%	1.24	36	720	59	1057	88	1665
				70%	1.74	103	3150	132	2925	177	2925
063.095	GPBV	2.48	3.74	30%	1.12	7	450	36	720	51	1125
				50%	1.87	51	720	88	1057	132	1665
				70%	2.62	154	3150	199	2925	265	2925
080.080	GPBV GPBE	3.15	3.15	30%	0.95	29	720	51	1192	811	1867
				50%	1.58	73	1192	118	1800	921	2700
				70%	2.21	206	5400	265	4950	354	4950
080.120	GPBV GPBE	3.15	4.72	30%	1.42	44	720	73	1192	110	1867
				50%	2.36	110	1192	177	1800	272	2700
				70%	3.30	309	5400	398	4950	531	4950
100.100	GPBV GPBE	3.94	3.94	30%	1.18	51	1125	103	1912	147	2925
				50%	1.97	147	1912	236	2700	1843	4275
				70%	2.76	413	8325	516	7650	693	7650
100.150	GPBV GPBE	3.94	5.91	30%	1.77	73	1125	154	1912	221	2925
				50%	2.96	221	1912	354	2700	553	4275
				70%	4.14	619	8325	774	7650	1039	7650
125.125	GPBV GPBE	4.92	4.92	30%	1.48	110	1800	206	2925	295	4500
				50%	2.46	280	2925	472	4275	737	6525
				70%	3.44	752	13050	1047	11925	1401	11925
125.190	GPBV GPBE	4.92	7.48	30%	2.24	162	1800	309	2925	442	4500
				50%	3.74	420	2925	708	4275	1106	6525
				70%	5.24	1128	13050	1570	11925	2101	11925
160.160	GPBV GPBE	6.29	6.29	30%	1.89	221	2925	398	4725	604	7425
				50%	3.15	590	4725	936	6975	1475	11025
				70%	4.40	1666	20925	2116	19350	2832	19350
160.240	GPBV GPBE	6.29	9.45	30%	2.84	331	2925	597	4726	907	7425
				50%	4.73	885	4725	1401	6975	2212	11025
				70%	6.62	2500	20925	3171	19350	4248	19350
200.200	GPBV GPBE	7.87	7.87	30%	2.36	442	4500	885	7425	1253	11700
				50%	3.94	1180	7650	1917	11250	2950	17100
				70%	5.51	3318	33075	4248	30375	5634	30375
200.300	GPBV GPBE	7.87	11.81	30%	3.54	663	4500	1327	7425	1880	11700
				50%	5.91	1770	7650	2876	11250	4425	17100
				70%	8.27	4978	33075	6372	30375	8451	30375
250.250	GPBV GPBE	9.84	9.84	30%	2.95	885	7200	1696	11925	2507	18000
				50%	4.92	2286	11925	3835	17100	6121	27000
				70%	6.89	6637	51750	8628	47925	11431	47925
250.375	GPBV GPBE	9.84	14.76	30%	4.43	1327	7200	2544	11925	3761	18000
				50%	7.38	3429	11925	5752	17100	9100	27000
				70%	10.33	9956	51750	12943	47925	17146	47925
315.315	GPBV GPBE	12.40	12.40	30%	3.72	1843	11250	3392	18450	4867	28800
				50%	6.20	4734	19125	7670	27000	12242	42075
				70%	8.68	13275	83250	16962	76500	22567	76500
315.475	GPBV GPBE	12.40	18.70	30%	5.61	2765	11250	5088	18450	7301	28800
				50%	9.35	7102	19125	11505	27000	18363	42075
				70%	13.09	19912	83250	25443	76500	33851	76500
400.400	GPBV GPBE	15.75	15.75	30%	4.73	3245	18450	6637	29700	10325	46800
				50%	7.88	9218	30375	14897	43875	23600	67500
				70%	11.03	25812	135000	33187	123750	44250	123750
400.600	GPBV GPBE	15.75	23.62	30%	7.09	4867	18450	9955	29700	15487	46800
				50%	11.81	13827	30375	22345	43875	35400	67500
				70%	16.53	38718	135000	49780	123750	66375	123750
500.500	GPBV	19.68	19.68	30%	5.90	7080	28800	13275	47700	20650	74700
				50%	9.84	19912	47250	30532	69750	48158	108000
				70%	13.78	53837	213750	67112	196875	88500	196875



TOLL FREE: 800 2 GANTREX (800) 242-6873

Web site: www.gantrex.com • Email: sales@gantrex.com

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