

## Polyurethane Buffers Series PB

### Working Principal

Benefitted from the microcellular structures inside the polyurethane, this kind of buffer can absorb the impact energy and transform the impact energy into elastic potential energy. It was provided with significant damping effect through a kind of multi-cellar “gas” spring.

### Application Range

This kind of buffer is a kind of safety protection device. It is widely applied in all kind of material handling industrial, construction cranes, elevators, all corners around automobiles and all kinds of transmission devices.

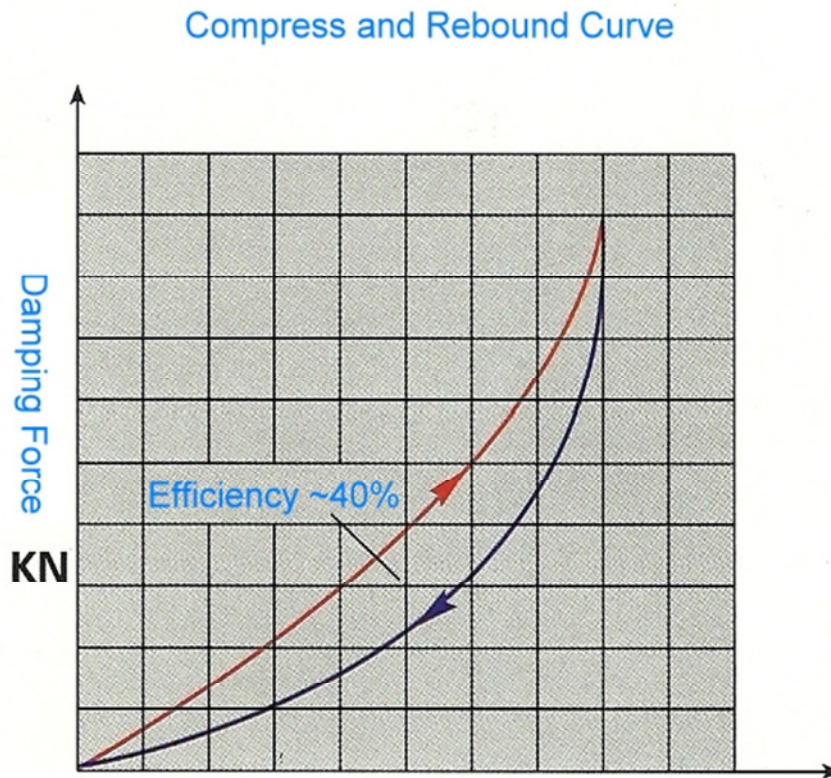
### Main Advantages of Polyurethane Buffer

Polyurethane buffer has the advantages like: excellent anti-pressure and restore capability, good impact resistant, perfect ageing-resistant, good chemical stability and corrosion-resistant capability. It also has the characteristics like low cost, easier maintenance, damping smoothly, low noise and no flash spark.

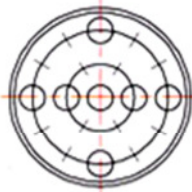
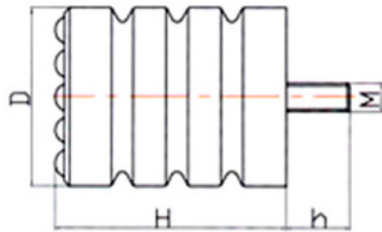
### Technical Parameter (Under Normal Temperature)

Item	Unit	Figures	Remarks
Hardness	Shore hardness A	60~80	
Reversion Rate	%	>97	Compress to 75%, then release for 5 minutes
Compression Strength	MPa	1.5~2.5	Compress to 50%,
Working Temperature	°C	-30~+60	

## Compress and Rebound Curve

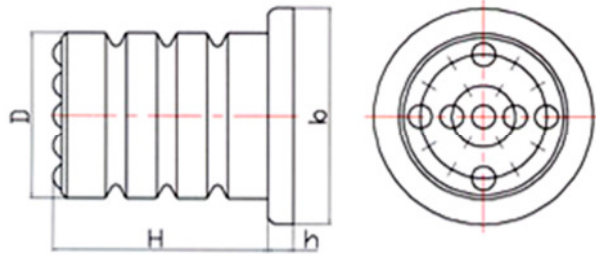


## Model: PB-A (Screw Type)



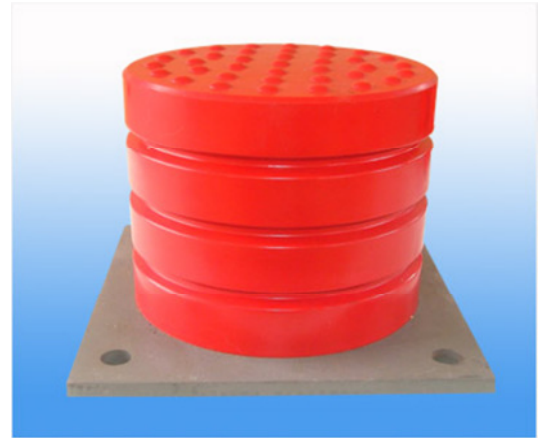
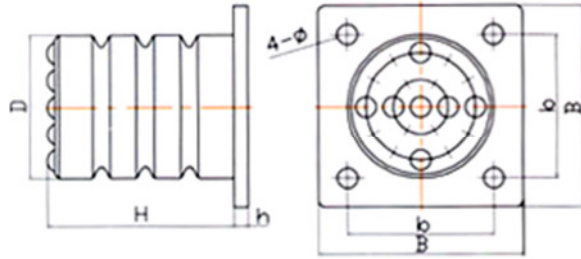
Type	D	H	M	h	Capacity	Stoke	Damping Force	Weight
	mm	mm	mm	mm	kN·m	mm	kN	Kg
PB-A-1	65	80	16	35	0.3	60	28	0.3
PB-A-2	80	80	16	35	0.4	60	42	0.4
PB-A-3	80	100	16	35	0.5	75	42	0.5
PB-A-4	100	80	16	35	0.6	60	66	0.6
PB-A-5	100	100	16	35	0.8	75	66	0.7
PB-A-6	100	125	16	35	1	95	66	0.9
PB-A-7	125	100	16	35	1.2	75	103	1.2
PB-A-8	125	125	16	35	1.5	95	103	1.4
PB-A-9	125	160	16	35	2.1	120	103	2.2
PB-A-10	160	125	16	35	2.5	95	169	2.2
PB-A-11	160	160	16	35	3.5	120	169	2.7
PB-A-12	160	200	16	35	4.2	150	169	3.3
PB-A-13	200	160	20	45	5.1	120	265	4.3
PB-A-14	200	200	20	45	6.5	150	265	5.1
PB-A-15	200	250	20	45	8.2	188	265	6.2
PB-A-16	250	200	20	45	10	150	414	8.1
PB-A-17	250	250	20	45	12.5	188	414	9.7
PB-A-18	250	320	20	45	16	240	414	11.9
PB-A-19	320	250	20	45	21	188	675	15.7
PB-A-20	320	320	20	45	26	240	675	19.4

## Model: PB-B (Clamping Bar)



Type	D	H	M	h	Capacity	Stoke	Damping Force	Weight
	mm	mm	mm	mm	kN·m	mm	kN	Kg
PB-B-1	80	80	110	15	0.4	60	42	0.4
PB-B-2	80	100	110	15	0.6	75	42	0.5
PB-B-3	100	100	130	15	0.8	75	66	0.6
PB-B-4	100	125	130	15	1	94	66	0.7
PB-B-5	125	125	160	15	1.6	94	103	1.3
PB-B-6	125	160	160	15	2.1	120	103	2
PB-B-7	160	160	200	20	3.5	120	169	2.5
PB-B-8	160	200	200	20	4	150	169	3
PB-B-9	200	200	240	20	6.5	150	265	4.7
PB-B-10	200	250	240	20	8.2	188	265	5.7
PB-B-11	250	250	300	20	12.5	188	414	9.1
PB-B-12	250	320	300	25	16	240	414	11.4
PB-B-13	320	320	370	25	26	240	675	18.5
PB-B-14	320	400	370	25	32.5	300	675	22.7

## Model: PB-C (Flange Type)



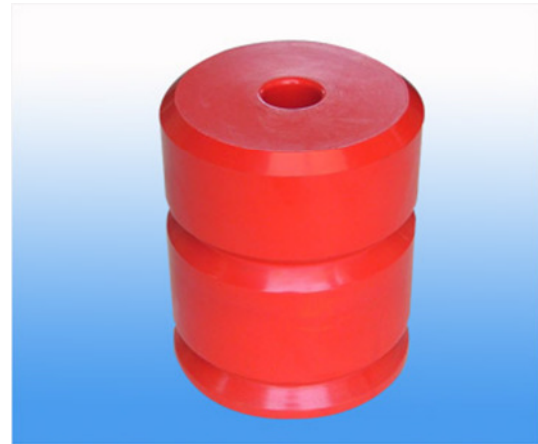
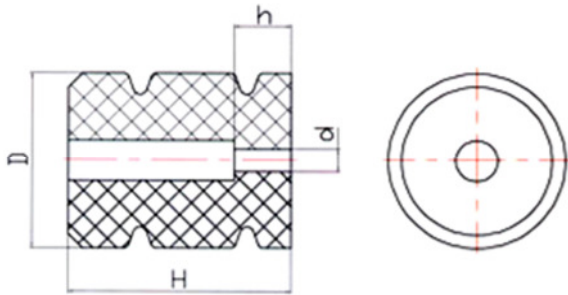
General Parameter Table

Type	D	H	h	B	b	$\phi$	Capacity	Stoke	Damping Force	Weight
	mm	mm	mm	mm	mm	mm	kN·m	mm	kN	Kg
PB-C-1	65	80	8	100	70	12	0.3	60	28	0.9
PB-C-2	80	80	8	115	85	12	0.4	60	42	1.5
PB-C-3	80	100	8	115	85	12	0.5	75	42	1.6
PB-C-4	100	80	8	130	100	14	0.6	60	66	1.8
PB-C-5	100	100	8	130	100	14	0.8	75	66	1.9
PB-C-6	100	125	8	130	100	14	1	90	66	2.2
PB-C-7	125	100	10	165	130	14	1.2	75	103	3.3
PB-C-8	125	125	10	165	130	14	1.5	94	103	3.5
PB-C-9	125	160	10	165	130	14	2.1	120	103	3.8
PB-C-10	160	125	10	200	160	18	2.5	94	169	5.5
PB-C-11	160	160	10	200	160	18	3.5	120	169	5.8
PB-C-12	160	200	10	200	160	18	4.2	150	169	7.9
PB-C-13	200	160	12	250	200	18	5.1	120	265	9.8
PB-C-14	200	200	12	250	200	18	6.5	150	265	10.7
PB-C-15	200	250	12	250	200	18	8.2	188	265	11.8
PB-C-16	250	200	12	320	250	22	10	150	414	16.7
PB-C-17	250	250	12	320	250	22	12.5	188	414	18.2
PB-C-18	250	320	12	320	250	22	16	240	414	20.4
PB-C-19	320	250	14	400	315	22	21	188	675	30.4
PB-C-20	320	320	14	400	315	22	26	240	675	30.1
PB-C-21	320	400	14	400	315	22	32.5	300	675	38.2
PB-C-22	320	450	14	400	315	22	36.5	337	675	40
PB-C-23	400	450	14	460	370	22	57	337	1054	65.3
PB-C-24	400	300	14	460	370	22	38	225	1054	53
PB-C-25	430	450	14	460	370	22	66	337	1218	71.3

Alterations reserved

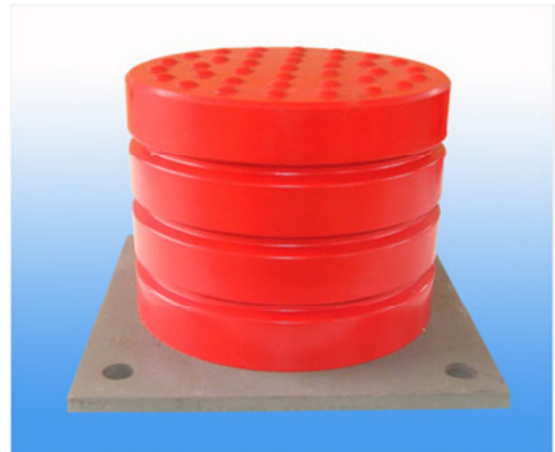
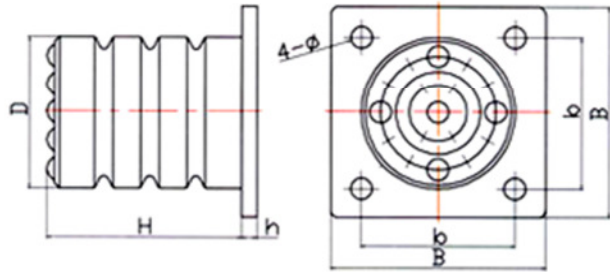
SIBRE Siegerland-Bremsen GmbH – Auf der Stücke 1-5 – D-35708 Haiger, Germany  
Tel.: +49 2773 94000 – Fax: +49 2773 9400-10 – e-mail: info@sibre.de – www.sibre.de

## Model: PB-D (for elevator)



Type	D	H	h	d	Capacity	Speed	Max. Weight	Min. Weight
	mm	mm	mm	mm	mm	m/s	Kg	Kg
PB-D-1	80	100	10	18	80	≤0.5	500	150
PB-D-2	100	125	10	18	100	≤0.5	1000	250
PB-D-3	115	150	15	18	120	≤0.8	1500	350
PB-D-4	125	160	15	18	128	≤0.8	1800	400
PB-D-5	140	175	20	22	140	≤1	2400	600
PB-D-6	150	190	20	22	152	≤1	3200	800
PB-D-7	160	200	20	22	160	≤1	4000	1000
PB-D-8	165	220	20	22	176	≤1	4600	1100
PB-D-9	175	220	20	22	176	≤1	5000	1200
PB-D-10	185	230	30	22	184	≤1	6000	1500
PB-D-11	200	250	30	22	200	≤1	7800	1800
PB-D-12	220	275	40	22	220	≤1	10000	2500
PB-D-13	250	320	40	22	256	≤1	12000	3000

## Model: XPB-C-1 (Special Designed)



Type	D mm	H mm	h mm	B mm	b mm	φ mm	Capacity kN·m	Stoke mm	Damping Force kN	Weight Kg
XPB-C-1	65	80	8	100	70	12	0.42	60	52	0.8
XPB-C-2	80	80	8	115	85	12	0.64	60	79	1.1
XPB-C-3	80	100	8	115	85	12	0.8	75	79	1.2
XPB-C-4	100	80	8	130	100	14	1	60	123	1.5
XPB-C-5	100	100	8	130	100	14	1.25	75	123	1.6
XPB-C-6	100	125	8	130	100	14	1.56	90	123	1.7
XPB-C-7	125	100	10	165	130	14	1.95	75	192	2.9
XPB-C-8	125	125	10	165	130	14	2.44	94	192	3.1
XPB-C-9	125	160	10	165	130	14	3.12	120	192	3.3
XPB-C-10	160	125	10	200	160	18	4	94	315	4.6
XPB-C-11	160	160	10	200	160	18	5.12	120	315	5.1
XPB-C-12	160	200	10	200	160	18	6.4	150	315	5.6
XPB-C-13	200	160	12	250	200	18	8	120	492	8.5
XPB-C-14	200	200	12	250	200	18	10	150	492	9.4
XPB-C-15	200	250	12	250	200	18	12.5	188	492	10.4
XPB-C-16	250	200	12	320	250	22	15.6	150	768	15.2
XPB-C-17	250	250	12	320	250	22	19.5	188	768	16.8
XPB-C-18	250	320	12	320	250	22	25	240	768	19.1
XPB-C-19	320	250	14	400	315	22	32	188	1258	28.4
XPB-C-20	320	320	14	400	315	22	41	240	1258	32
XPB-C-21	320	400	14	400	315	22	51.3	300	1258	36.3
XPB-C-22	320	450	14	400	315	22	57.7	337	1258	38.9
XPB-C-23	400	450	14	460	370	22	90	337	1965	56.6
XPB-C-24	400	300	14	460	370	22	60	225	1965	44.3
XPB-C-25	430	450	14	460	370	22	104	337	2270	62.5

Alterations reserved

SIBRE Siegerland-Bremsen GmbH – Auf der Stücke 1-5 – D-35708 Haiger, Germany  
Tel.: +49 2773 94000 – Fax: +49 2773 9400-10 – e-mail: info@sibre.de – www.sibre.de

## SIBRE Main Subsidiaries

SIBRE Brakes Spain S.L.  
Pol. Ind. Santa Cruz  
C/La Gatanilla 17  
29196 Malaga, Spain

Contact: Mr. Javier Toscano  
Phone: +34 952 203912  
Fax: +34 952 291510  
e-mail: jtoscano@sibre.es

SIBRE CHINA  
SIBRE Brakes Tianjin Co. Ltd.  
No. 165, Nanhai Road  
TEDA, Tianjin 300457, P.R. China

Contact: Mr. Wu Jianwei  
Phone: +86 22 59813100  
Fax: +86 22 59813101  
e-mail: info@sibre.cn

SIBRE INDIA  
SIBRE BRAKES INDIA Pvt. Ltd.  
Sukh Sagar, 7th. Floor, 7-A  
Kolkata 700 020, India

Contact: Mr. Sudipto Gangopadhay.  
Phone: +91 33 2454 3280  
Fax: +91 33 2454 3269  
e-mail: sganguly@sibre.in





SIBRE – Siegerland Bremsen GmbH  
Auf der Stücke 1-5  
D-35708 HAIGER, GERMANY  
phone: +49 2773 9400-0 – fax: +49 2773 9400-10  
mail: [info@sibre.de](mailto:info@sibre.de) – home: [www.sibre.de](http://www.sibre.de)

