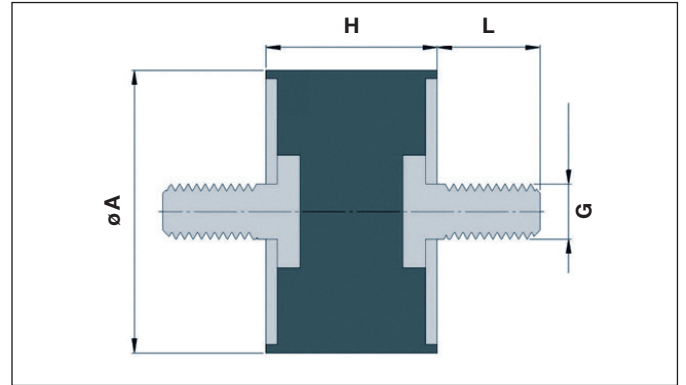
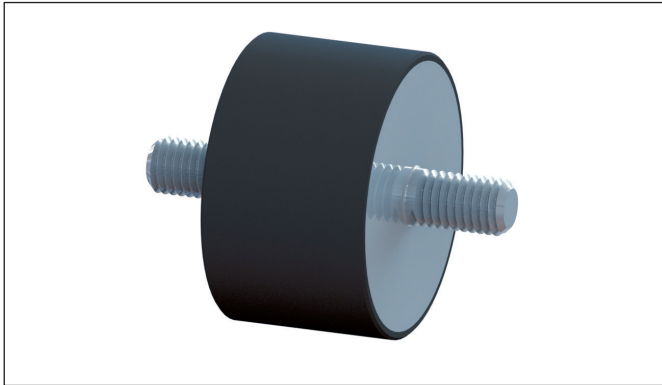


Rubber-Metal Buffer Type A

with threaded bolt on both sides



Product description

Buffers are characterised by their strength and robustness. The wide range of dimensions allows multiple options for usage.

Anwendung

Buffers are particularly suitable for elastic travel limiting and for cushioning impacts on mobile and non-mobile units, machines and generally as stops.

Benefits

- Effective dampening and cushioning of impacts
- Easy to install
- RoHS compliant

Operating temperature

- Natural Rubber (NR): – 50 °C until + 90 °C

Standard quality

Natural Rubber (NR)

Special qualities

- Nitrile-Butadiene Rubber (NBR)
 - Chloroprene Rubber (CR)
 - Fluoro Rubber (FPM)
 - Ethylene-Propylene-Diene-Rubber (EPDM)
 - Polyurethan (PUR)
 - Silicon
 - H-NBR
- More qualities on request

Metal parts

- Steel galvanized or chromated
- Steel blank from a diameter 100 mm upwards
- Alternative support members, e. g. Stainless steel, brass, aluminum, etc. available on request

øA	H	G	L	Shore	Pressure Stress		Shear Stress	
					Spring rate cz	max. rated load	Spring rate cz	max. rated load
mm	mm		mm	A	N/mm	F max. *in N	N/mm	F max. *in N
15	8	M4	13,00	65	420	200	50	55
				55	360	130	30	45
				45	300	70	17	25
15	15	M4	13,00	65	140	150	19	50
				55	80	90	12	30
				45	35	40	6	15

øA	H	G	L	Shore	Pressure Stress		Shear Stress	
					Spring rate cz	max. rated load	Spring rate cz	max. rated load
mm	mm		mm	A	N/mm	F max. *in N	N/mm	F max. *in N
20	15	M6	18,00	65	290	480	50	190
				55	180	300	30	110
				45	110	180	20	70
20	20	M6	18,00	65	180	380	27	130
				55	110	250	17	70
				45	50	90	9	40
20	25	M6	18,00	65	130	300	17	55
				55	80	185	11	40
				45	35	80	6	35
25	10	M6	18,00	65	1600	1400	140	300
				55	1000	900	90	190
				45	600	550	50	110
25	15	M6	18,00	65	500	650	70	280
				55	320	420	45	160
				45	150	190	25	110
25	20	M6	18,00	65	350	740	60	240
				55	220	460	40	150
				45	130	270	20	90
25	25	M6	18,00	65	210	500	32	150
				55	130	300	20	120
				45	60	140	10	60
25	30	M6	18,00	65	185	490	22	140
				55	110	300	14	90
				45	50	140	7	45
30	15	M8	21,00	65	940	1400	110	390
				55	590	880	70	260
				45	340	520	40	150
30	20	M8	21,00	65	570	1200	90	310
				55	360	750	60	210
				45	210	440	30	130
30	25	M8	21,00	65	450	950	70	250
				55	290	600	35	170
				45	150	340	25	110
30	30	M8	21,00	65	260	920	50	180
				55	160	580	30	120
				45	90	310	20	90
30	40	M8	21,00	65	- *	- *	- *	- *
				55	- *	- *	- *	- *
				45	- *	- *	- *	- *
40	20	M8	23,50	65	1100	2640	125	440
				55	620	1650	75	270
				45	300	700	40	220
40	30	M8	23,50	65	510	1850	90	320
				55	320	1150	60	210
				45	190	680	30	180
40	40	M8	23,50	65	320	1600	60	220
				55	200	1000	40	140
				45	120	600	20	120

øA	H	G	L	Shore	Pressure Stress		Shear Stress	
					Spring rate cz	max. rated load	Spring rate cz	max. rated load
mm	mm		mm	A	N/mm	F max. *in N	N/mm	F max. *in N
50	20	M10	28,00	65	2450	5100	240	1200
				55	1500	3200	150	750
				45	900	1900	90	450
50	25	M10	28,00	65	- *	- *	- *	- *
				55	- *	- *	- *	- *
				45	- *	- *	- *	- *
50	30	M10	28,00	65	900	3200	140	1200
				55	550	2000	90	750
				45	330	1200	50	450
50	40	M10	28,00	65	540	2750	100	1250
				55	340	1750	60	750
				45	200	1000	40	450
50	45	M10	28,00	65	430	2520	90	1200
				55	270	1580	50	750
				45	160	930	30	440
50	50	M10	28,00	65	420	2200	60	600
				55	260	1300	37	370
				45	140	710	20	200
60	30	M12	26,00	65	1550	3750	190	1900
				55	950	2380	120	1200
				45	450	1130	60	700
70	45	M10	28,00	65	1100	4300	160	2300
				55	650	2600	90	1100
				45	290	1200	50	600
75	25	M12	37,00	65	4500	12500	400	2800
				55	2800	8000	250	1700
				45	1700	4700	150	1000
75	40	M12	37,00	65	1600	5500	340	2600
				55	1000	3400	210	2300
				45	450	1600	100	1200
75	50	M12	37,00	65	960	6300	170	2500
				55	600	4000	100	1600
				45	350	2300	60	950
75	55	M12	37,00	65	640	4700	120	2100
				55	400	2900	70	1300
				45	240	1700	40	770
100	40	M16	41,00	65	3000	15000	360	4400
				55	1900	9500	220	2800
				45	1100	5600	130	1600
100	55	M16	41,00	65	2000	9600	270	4500
				55	1200	5800	165	3300
				45	550	4100	90	1800
100	60	M16	41,00	65	1400	11000	230	4400
				55	850	6900	140	2800
				45	500	4000	80	1600
100	75	M16	41,00	65	1200	8200	180	3700
				55	700	5000	110	2200
				45	320	2800	60	1200

øA	H	G	L	Shore	Pressure Stress		Shear Stress	
					Spring rate cz	max. rated load	Spring rate cz	max. rated load
mm	mm		mm	A	N/mm	F max. *in N	N/mm	F max. *in N
125	50	M16	41,00	65	- *	- *	- *	- *
				55	- *	- *	- *	- *
				45	- *	- *	- *	- *
125	55	M16	41,00	65	3800	18000	440	6600
				55	2300	11500	270	4000
				45	1200	6700	150	2100
125	60	M16	41,00	65	3200	16000	400	6300
				55	1900	9500	240	3900
				45	900	5800	130	2000
125	75	M16	41,00	65	2100	14000	300	5900
				55	1300	8500	180	3600
				45	600	4200	100	1900
150	50	M16	41,00	65	- *	- *	- *	- *
				55	- *	- *	- *	- *
				45	- *	- *	- *	- *
150	50	M20	41,00	65	- *	- *	- *	- *
				55	- *	- *	- *	- *
				45	- *	- *	- *	- *
150	55	M16	41,00	65	6400	29000	640	8000
				55	3900	18000	400	4800
				45	1900	12000	220	3200
150	55	M20	41,00	65	6400	29000	640	8000
				55	3900	18000	400	4800
				45	1900	12000	220	3200
150	60	M16	41,00	65	5200	27000	570	7400
				55	3200	17000	350	4700
				45	1600	10000	200	2700
150	60	M20	41,00	65	5200	27000	570	7400
				55	3200	17000	350	4700
				45	1600	10000	200	2700
150	75	M16	41,00	65	3400	22000	430	6900
				55	2000	14000	270	4300
				45	950	8000	140	2300
150	75	M20	41,00	65	3400	22000	430	6900
				55	2000	14000	270	4300
				45	950	8000	140	2300
200	100	M20	41,00	65	4200	38000	560	11100
				55	2500	23000	340	6800
				45	1200	14000	190	3700

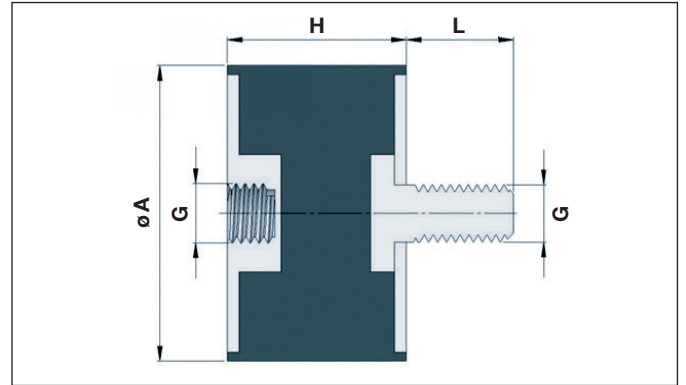
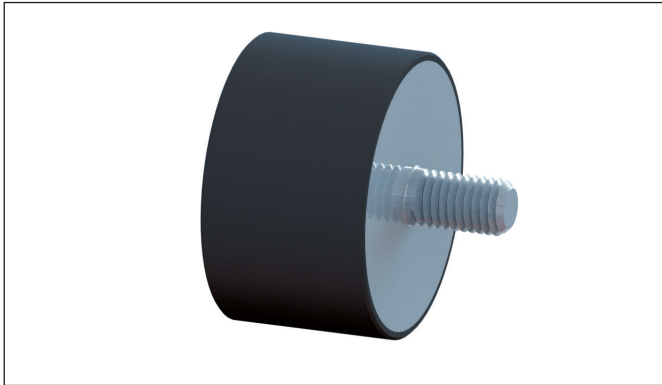
* No values have been determined / measured yet. The values will be added gradually.

If you need other buffers or other thread sizes than listed, please contact us directly.

Our applied technical advice, either oral, written or through tests is given according to our best knowledge. However, this information is to be considered as non-obligatory instruction, also in terms of any protective rights of a third party, and does not exempt you from testing our product in reference to its suitability for the intended process and purpose. Utilisation, application and processing of the products occur entirely outside of our control and are therefore exclusively your responsibility. However, should a case of liability come into question, it will be limited to all damages in the value of the product which we delivered and you used. By all means, we do warrant the impeccable quality of our products in accordance with our general sales and delivery conditions.

Rubber-Metal Buffer Type B

with threaded bolt and internal thread



Product description

Buffers are characterised by their strength and robustness. The wide range of dimensions allows multiple options for usage.

Anwendung

Buffers are particularly suitable for elastic travel limiting and for cushioning impacts on mobile and non-mobile units, machines and generally as stops.

Benefits

- Effective dampening and cushioning of impacts
- Easy to install
- RoHS compliant

Operating temperature

- Natural Rubber (NR): - 50 °C until + 90 °C

Standard quality

Natural Rubber (NR)

Special qualities

- Nitrile-Butadiene Rubber (NBR)
 - Chloroprene Rubber (CR)
 - Fluoro Rubber (FPM)
 - Ethylene-Propylene-Diene-Rubber (EPDM)
 - Polyurethan (PUR)
 - Silicon
 - H-NBR
- More qualities on request

Metal parts

- Steel galvanized or chromated
- Steel blank from a diameter 100 mm upwards
- Alternative support members, e. g. Stainless steel, brass, aluminum, etc. available on request

ϕA	H	G	L	Shore	Pressure Stress		Shear Stress	
					Spring rate cz	max. rated load	Spring rate cz	max. rated load
mm	mm		mm	A	N/mm	F max. *in N	N/mm	F max. *in N
8	6	M3	6,00	65	50	24	22	30
				55	30	16	15	24
				45	15	8	9	15
8	8	M3	6,00	65	110	35	19	26
				55	60	25	12	19
				45	30	10	6	10

ø A	H	G	L	Shore	Pressure Stress		Shear Stress	
					Spring rate cz	max. rated load	Spring rate cz	max. rated load
mm	mm		mm	A	N/mm	F max. *in N	N/mm	F max. *in N
10	8	M4	10,00	65	150	55	25	30
				55	85	35	17	25
				45	45	18	9	15
10	10	M4	10,00	65	110	70	22	27
				55	65	45	14	20
				45	30	20	7	12
10	15	M4	10,00	65	60	65	15	25
				55	35	45	9	17
				45	15	20	5	10
15	10	M4	13,00	65	175	175	80	56
				55	165	115	49	45
				45	70	50	13	25
15	15	M4	13,00	65	140	150	5	55
				55	85	95	30	45
				45	35	40	16	23
15	20	M4	13,00	65	100	135	35	55
				55	60	95	20	40
				45	25	40	12	20
15	25	M4	13,00	65	75	135	10	50
				55	45	95	7	30
				45	25	40	3	15
15	30	M4	13,00	65	60	120	7	42
				55	35	80	4	28
				45	15	40	2	20
20	15	M6	18,00	65	300	490	90	150
				55	185	305	55	95
				45	110	185	30	60
20	20	M6	18,00	65	185	385	27	145
				55	115	370	17	75
				45	50	95	12	55
20	25	M6	18,00	65	140	290	27	140
				55	80	180	17	90
				45	50	100	10	50
25	15	M6	18,00	65	550	700	140	300
				55	330	440	85	190
				45	455	200	50	110
25	20	M6	18,00	65	300	470	60	220
				55	140	290	38	140
				45	110	170	22	80
25	25	M6	18,00	65	220	510	60	210
				55	140	310	38	135
				45	110	150	20	75
25	30	M6	18,00	65	185	500	30	150
				55	110	300	20	120
				45	50	140	10	60
25	35	M6	18,00	65	150	470	22	145
				55	95	300	15	95
				45	40	135	8	50

øA	H	G	L	Shore	Pressure Stress		Shear Stress	
					Spring rate cz	max. rated load	Spring rate cz	max. rated load
mm	mm		mm	A	N/mm	F max. *in N	N/mm	F max. *in N
30	15	M8	21,00	65	800	1600	120	440
				55	600	890	80	270
				45	350	540	45	160
30	20	M8	21,00	65	650	1350	110	370
				55	410	560	70	230
				45	240	330	40	140
30	25	M8	21,00	65	575	1200	70	210
				55	370	755	42	160
				45	220	445	22	95
30	30	M8	21,00	65	340	740	65	340
				55	210	460	40	210
				45	120	270	25	120
30	40	M8	21,00	65	180	660	32	290
				55	110	410	20	180
				45	60	240	12	100
40	15	M8	23,50	65	2000	5200	190	600
				55	1300	1400	120	350
				45	720	750	65	200
40	20	M8	23,50	65	1400	4200	145	480
				55	650	1300	95	305
				45	320	720	60	165
40	30	M8	23,50	65	540	1200	100	510
				55	340	740	60	320
				45	200	440	35	190
40	40	M8	23,50	65	390	1150	90	580
				55	190	700	40	360
				45	110	410	25	210
50	20	M10	28,00	65	2390	2400	210	550
				55	1500	1900	125	300
				45	750	1000	60	130
50	25	M10	28,00	65	- *	- *	- *	- *
				55	- *	- *	- *	- *
				45	- *	- *	- *	- *
50	30	M10	28,00	65	900	2100	150	910
				55	500	1320	90	570
				45	230	780	40	340
50	40	M10	28,00	65	550	2000	110	900
				55	350	1240	65	560
				45	210	730	35	330
50	45	M10	28,00	65	540	2750	85	800
				55	340	1730	50	495
				45	200	1020	30	310
50	50	M10	28,00	65	340	1700	70	790
				55	210	1060	40	480
				45	120	620	25	290
60	30	M10	28,00	65	- *	- *	- *	- *
				55	- *	- *	- *	- *
				45	- *	- *	- *	- *

ø A	H	G	L	Shore	Pressure Stress		Shear Stress	
					Spring rate cz	max. rated load	Spring rate cz	max. rated load
mm	mm		mm	A	N/mm	F max. *in N	N/mm	F max. *in N
60	35	M10	28,00	65	1500	3700	190	1500
				55	950	2400	115	1200
				45	450	1150	60	700
60	40	M10	28,00	65	1130	2900	150	1600
				55	710	2050	95	1040
				45	315	1700	50	540
60	45	M10	28,00	65	780	4700	110	1610
				55	490	2955	70	1010
				45	290	1705	45	600
70	45	M10	28,00	65	1200	4750	165	1200
				55	710	3005	95	750
				45	315	1205	55	600
75	25	M12	37,00	65	4700	9300	450	3100
				55	3000	6100	300	1800
				45	1800	3720	180	1400
75	40	M12	37,00	65	4500	8800	430	2800
				55	2900	5900	270	1600
				45	1700	3450	160	1250
75	45	M12	37,00	65	1700	5600	340	2700
				55	1000	3550	215	1150
				45	480	1610	105	850
75	50	M12	37,00	65	930	4600	160	1850
				55	600	2850	100	1700
				45	310	1680	60	680
75	55	M12	37,00	65	950	6310	170	2600
				55	590	3950	100	1300
				45	350	2310	60	970
75	60	M12	37,00	65	645	4800	120	2100
				55	405	2945	70	1040
				45	140	1735	40	780
75	70	M12	37,00	65	630	4550	110	1610
				55	410	2860	70	1040
				45	215	1340	35	530
100	40	M16	41,00	65	3100	16700	400	2250
				55	1900	11200	220	1400
				45	1120	2500	130	820
100	55	M16	41,00	65	2950	14900	360	2020
				55	1850	9800	215	1360
				45	1080	5500	120	730
100	60	M16	41,00	65	1400	7500	250	1400
				55	830	4900	150	1100
				45	500	2800	90	540
100	75	M16	41,00	65	1350	7100	230	790
				55	800	4700	140	980
				45	470	4100	80	480
125	55	M16	41,00	65	4010	20100	505	7400
				55	2510	13400	300	4650
				45	1300	8100	170	2380

ø A	H	G	L	Shore	Pressure Stress		Shear Stress	
					Spring rate cz	max. rated load	Spring rate cz	max. rated load
mm	mm		mm	A	N/mm	F max. *in N	N/mm	F max. *in N
125	60	M16	41,00	65	3850	18900	450	6700
				55	2450	11600	275	4300
				45	1220	7000	155	2250
125	75	M16	41,00	65	3200	16400	400	6400
				55	1950	9800	245	3900
				45	510	5900	140	1990
150	50	M20	41,00	65	- *	- *	- *	- *
				55	- *	- *	- *	- *
				45	- *	- *	- *	- *
150	50	M16	41,00	65	- *	- *	- *	- *
				55	- *	- *	- *	- *
				45	- *	- *	- *	- *
150	55	M16	41,00	65	6600	31600	660	8200
				55	4000	18700	420	5000
				45	2100	12400	220	3400
150	55	M20	41,00	65	6600	31600	660	8200
				55	4000	18700	420	5000
				45	2100	12400	220	3400
150	60	M16	41,00	65	6500	30500	650	8150
				55	3950	18100	410	4550
				45	2010	12015	220	3380
150	60	M20	41,00	65	6500	30500	650	8150
				55	3950	18100	410	4550
				45	2010	12015	220	3380
150	75	M16	41,00	65	5200	27300	580	7500
				55	3300	16800	360	4710
				45	1600	11050	200	2780
150	75	M20	41,00	65	5200	27300	580	7500
				55	3300	16800	360	4710
				45	1600	11050	200	2780
200	100	M20	41,00	65	4300	38100	560	11150
				55	2550	23400	340	6810
				45	1200	14030	185	3730

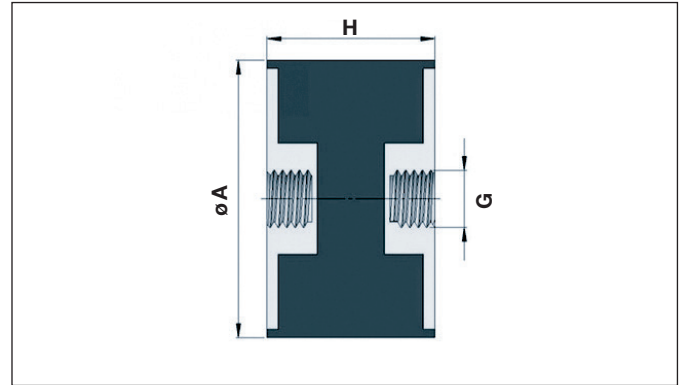
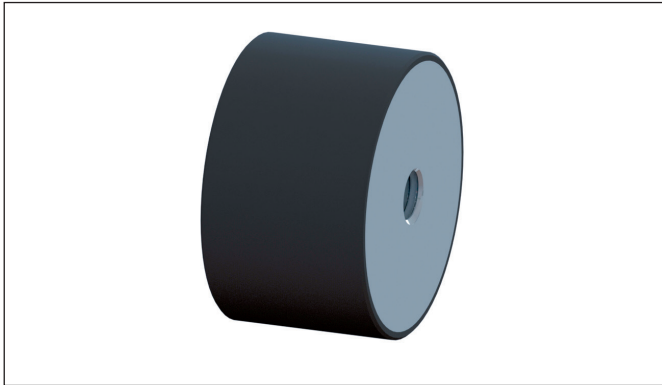
* No values have been determined / measured yet. The values will be added gradually.

If you need other buffers or other thread sizes than listed, please contact us directly.

Our applied technical advice, either oral, written or through tests is given according to our best knowledge. However, this information is to be considered as non-obligatory instruction, also in terms of any protective rights of a third party, and does not exempt you from testing our product in reference to its suitability for the intended process and purpose. Utilisation, application and processing of the products occur entirely outside of our control and are therefore exclusively your responsibility. However, should a case of liability come into question, it will be limited to all damages in the value of the product which we delivered and you used. By all means, we do warrant the impeccable quality of our products in accordance with our general sales and delivery conditions.

Rubber-Metal Buffer Type C

with internal thread on both sides



Product description

Buffers are characterised by their strength and robustness. The wide range of dimensions allows multiple options for usage.

Anwendung

Buffers are particularly suitable for elastic travel limiting and for cushioning impacts on mobile and non-mobile units, machines and generally as stops.

Benefits

- Effective dampening and cushioning of impacts
- Easy to install
- RoHS compliant

Operating temperature

- Natural Rubber (NR): – 50 °C until + 90 °C

Standard quality

Natural Rubber (NR)

Special qualities

- Nitrile-Butadiene Rubber (NBR)
 - Chloroprene Rubber (CR)
 - Fluoro Rubber (FPM)
 - Ethylene-Propylene-Diene-Rubber (EPDM)
 - Polyurethan (PUR)
 - Silicon
 - H-NBR
- More qualities on request

Metal parts

- Steel galvanized or chromated
- Steel blank from a diameter 100 mm upwards
- Alternative support members, e. g. Stainless steel, brass, aluminum, etc. available on request

øA	H	G	Shore	Pressure Stress		Shear Stress	
				Spring rate cz	max. rated load	Spring rate cz	max. rated load
mm	mm		A	N/mm	F max. *in N	N/mm	F max. *in N
15	15	M4	65	140	155	50	58
			55	85	100	30	45
			45	35	45	16	25
20	20	M6	65	185	390	27	150
			55	115	280	17	85
			45	50	95	12	55

øA	H	G	Shore	Pressure Stress		Shear Stress	
				Spring rate cz	max. rated load	Spring rate cz	max. rated load
				N/mm	F max. *in N	N/mm	F max. *in N
20	25	M6	65	180	380	25	140
			55	110	260	17	80
			45	50	90	12	50
25	20	M6	65	300	450	60	210
			55	145	260	40	135
			45	115	165	23	70
25	25	M6	65	220	500	60	200
			55	140	300	38	130
			45	110	145	20	65
25	30	M6	65	185	480	35	145
			55	110	295	20	120
			45	70	140	10	30
30	20	M8	65	650	885	110	360
			55	410	550	70	220
			45	240	310	40	130
30	25	M8	65	575	760	70	250
			55	370	640	40	155
			45	220	290	20	95
30	30	M8	65	530	690	65	220
			55	360	600	50	150
			45	210	280	30	90
30	40	M8	65	220	610	60	180
			55	140	380	35	110
			45	80	220	20	70
40	30	M8	65	880	1060	140	370
			55	550	660	80	230
			45	320	390	50	130
40	40	M8	65	370	990	80	530
			55	230	620	50	330
			45	140	360	30	190
50	30	M10	65	1680	1520	220	480
			55	1050	950	140	300
			45	620	560	80	180
50	40	M10	65	660	1570	140	750
			55	410	980	80	470
			45	240	580	50	280
50	45	M10	65	540	1470	85	780
			55	340	910	50	480
			45	200	530	30	300
50	50	M10	65	360	1380	70	600
			55	220	860	40	380
			45	130	410	25	220
60	30	M12	65	1700	4900	200	1090
			55	1100	2600	130	670
			45	540	1280	70	340
70	45	M10	65	1200	4720	165	2150
			55	700	2995	95	1045
			45	310	1200	55	600

øA	H	G	Shore	Pressure Stress		Shear Stress	
				Spring rate cz	max. rated load	Spring rate cz	max. rated load
				N/mm	F max. *in N	N/mm	F max. *in N
75	40	M12	65	2100	7600	430	2780
			55	1400	4260	270	1730
			45	900	2600	160	1090
75	50	M12	65	980	3620	190	1540
			55	610	2010	120	960
			45	370	1180	70	560
75	55	M12	65	950	3100	170	1280
			55	590	1800	100	730
			45	350	1190	60	460
100	40	M16	65	3100	10100	490	2550
			55	1900	5700	220	2000
			45	1000	3500	120	1010
100	55	M16	65	2950	9440	400	2300
			55	1750	5400	200	1800
			45	1080	3200	110	980
100	60	M16	65	1360	4900	250	2100
			55	850	3060	150	1310
			45	500	1800	90	770
100	75	M16	65	1350	4800	230	2000
			55	800	3000	140	1150
			45	450	1750	80	700
125	55	M16	65	4010	20150	505	4000
			55	2500	13500	300	3000
			45	1390	8150	170	1600
125	60	M16	65	3850	19200	500	3500
			55	2450	12800	280	2800
			45	1220	8400	165	1500
125	75	M16	65	3200	16500	400	2600
			55	1950	10500	245	2450
			45	910	8190	140	1300
150	50	M20	65	- *	- *	- *	- *
			55	- *	- *	- *	- *
			45	- *	- *	- *	- *
150	50	M16	65	- *	- *	- *	- *
			55	- *	- *	- *	- *
			45	- *	- *	- *	- *
150	55	M20	65	6600	33000	660	9900
			55	4300	20000	420	6300
			45	2190	10500	220	3300
150	55	M16	65	6600	33000	660	9900
			55	4300	20000	420	6300
			45	2190	10500	220	3300
150	60	M16	65	6000	30000	650	9750
			55	3950	18200	410	6150
			45	2010	9450	220	3000
150	60	M20	65	6000	30000	650	9750
			55	3950	18200	410	6150
			45	2010	9450	220	3000

ø A	H	G	Shore	Pressure Stress		Shear Stress	
				Spring rate cz	max. rated load	Spring rate cz	max. rated load
mm	mm		A	N/mm	F max. *in N	N/mm	F max. *in N
150	75	M16	65	2610	14480	415	5390
			55	1630	9050	250	3370
			45	960	5320	150	1980
150	75	M20	65	2610	14480	415	5390
			55	1630	9050	250	3370
			45	960	5320	150	1980
200	100	M20	65	3250	30200	460	10460
			55	2030	18900	290	6540
			45	1190	11100	170	3850

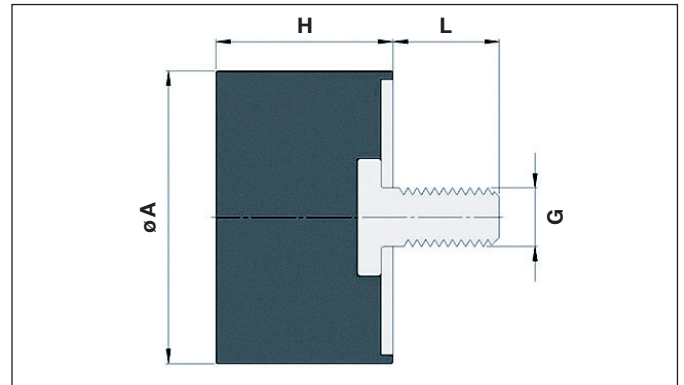
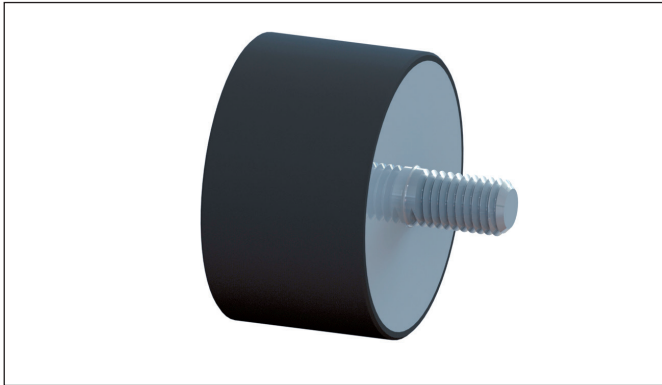
* No values have been determined / measured yet. The values will be added gradually.

If you need other buffers or other thread sizes than listed, please contact us directly.

Our applied technical advice, either oral, written or through tests is given according to our best knowledge. However, this information is to be considered as non-obligatory instruction, also in terms of any protective rights of a third party, and does not exempt you from testing our product in reference to its suitability for the intended process and purpose. Utilisation, application and processing of the products occur entirely outside of our control and are therefore exclusively your responsibility. However, should a case of liability come into question, it will be limited to all damages in the value of the product which we delivered and you used. By all means, we do warrant the impeccable quality of our products in accordance with our general sales and delivery conditions.

Rubber-Metal Buffer Type D

with one-sided threaded bolt



Product description

Buffers are characterised by their strength and robustness. The wide range of dimensions allows multiple options for usage.

Anwendung

Buffers are particularly suitable for elastic travel limiting and for cushioning impacts on mobile and non-mobile units, machines and generally as stops.

Benefits

- Effective dampening and cushioning of impacts
- Easy to install
- RoHS compliant

Operating temperature

- Natural Rubber (NR): – 50 °C until + 90 °C

Standard quality

Natural Rubber (NR)

Special qualities

- Nitrile-Butadiene Rubber (NBR)
 - Chloroprene Rubber (CR)
 - Fluoro Rubber (FPM)
 - Ethylene-Propylene-Diene-Rubber (EPDM)
 - Polyurethan (PUR)
 - Silicon
 - H-NBR
- More qualities on request

Metal parts

- Steel galvanized or chromated
- Steel blank from a diameter 100 mm upwards
- Alternative support members, e. g. Stainless steel, brass, aluminum, etc. available on request

øA	H	G	L	Shore	Pressure Stress		Shear Stress	
					Spring rate cz	max. rated load	Spring rate cz	max. rated load
mm	mm		mm	A	N/mm	F max. *in N	N/mm	F max. *in N
15	8	M4	13,00	65	– *	– *	– *	– *
				55	50	75	– *	– *
				45	– *	– *	– *	– *
15	15	M4	13,00	65	– *	– *	– *	– *
				55	350	150	– *	– *
				45	– *	– *	– *	– *

ø A	H	G	L	Shore	Pressure Stress		Shear Stress	
					Spring rate cz	max. rated load	Spring rate cz	max. rated load
mm	mm		mm	A	N/mm	F max. *in N	N/mm	F max. *in N
20	11	M6	18,00	65	- *	- *	- *	- *
				55	150	260	- *	- *
				45	- *	- *	- *	- *
20	15	M6	18,00	65	- *	- *	- *	- *
				55	145	250	- *	- *
				45	- *	- *	- *	- *
20	20	M6	18,00	65	- *	- *	- *	- *
				55	100	240	- *	- *
				45	- *	- *	- *	- *
20	23	M6	18,00	65	- *	- *	- *	- *
				55	85	225	- *	- *
				45	- *	- *	- *	- *
20	25	M6	18,00	65	- *	- *	- *	- *
				55	70	200	- *	- *
				45	- *	- *	- *	- *
25	10	M6	18,00	65	- *	- *	- *	- *
				55	310	500	- *	- *
				45	- *	- *	- *	- *
25	15	M6	18,00	65	- *	- *	- *	- *
				55	280	480	- *	- *
				45	- *	- *	- *	- *
25	20	M6	18,00	65	- *	- *	- *	- *
				55	110	290	- *	- *
				45	- *	- *	- *	- *
25	25	M6	18,00	65	- *	- *	- *	- *
				55	80	250	- *	- *
				45	- *	- *	- *	- *
25	30	M6	18,00	65	- *	- *	- *	- *
				55	72	235	- *	- *
				45	- *	- *	- *	- *
30	15	M8	21,00	65	- *	- *	- *	- *
				55	360	470	- *	- *
				45	- *	- *	- *	- *
30	18	M8	21,00	65	- *	- *	- *	- *
				55	360	750	- *	- *
				45	- *	- *	- *	- *
30	20	M8	21,00	65	- *	- *	- *	- *
				55	250	660	- *	- *
				45	- *	- *	- *	- *
30	25	M8	21,00	65	- *	- *	- *	- *
				55	- *	- *	- *	- *
				45	- *	- *	- *	- *
30	30	M8	21,00	65	- *	- *	- *	- *
				55	200	500	- *	- *
				45	- *	- *	- *	- *
30	40	M8	21,00	65	- *	- *	- *	- *
				55	- *	- *	- *	- *
				45	- *	- *	- *	- *

ø A	H	G	L	Shore	Pressure Stress		Shear Stress	
					Spring rate cz	max. rated load	Spring rate cz	max. rated load
					N/mm	F max. *in N	N/mm	F max. *in N
40	20	M8	23,50	65	- *	- *	- *	- *
				55	- *	- *	- *	- *
				45	- *	- *	- *	- *
40	30	M8	23,50	65	- *	- *	- *	- *
				55	270	970	- *	- *
				45	- *	- *	- *	- *
40	35	M8	23,50	65	- *	- *	- *	- *
				55	- *	- *	- *	- *
				45	- *	- *	- *	- *
40	40	M8	23,50	65	- *	- *	- *	- *
				55	- *	- *	- *	- *
				45	- *	- *	- *	- *
40	45	M8	23,50	65	- *	- *	- *	- *
				55	- *	- *	- *	- *
				45	- *	- *	- *	- *
50	20	M10	28,00	65	- *	- *	- *	- *
				55	650	1750	- *	- *
				45	- *	- *	- *	- *
50	25	M10	28,00	65	- *	- *	- *	- *
				55	- *	- *	- *	- *
				45	- *	- *	- *	- *
50	30	M10	28,00	65	- *	- *	- *	- *
				55	350	1300	- *	- *
				45	- *	- *	- *	- *
50	40	M10	28,00	65	- *	- *	- *	- *
				55	- *	- *	- *	- *
				45	- *	- *	- *	- *
50	45	M10	28,00	65	- *	- *	- *	- *
				55	- *	- *	- *	- *
				45	- *	- *	- *	- *
50	50	M10	28,00	65	- *	- *	- *	- *
				55	- *	- *	- *	- *
				45	- *	- *	- *	- *
60	30	M10	28,00	65	- *	- *	- *	- *
				55	830	2400	- *	- *
				45	- *	- *	- *	- *
70	45	M10	28,00	65	- *	- *	- *	- *
				55	- *	- *	- *	- *
				45	- *	- *	- *	- *
75	15	M12	37,00	65	- *	- *	- *	- *
				55	- *	- *	- *	- *
				45	- *	- *	- *	- *
75	25	M12	37,00	65	- *	- *	- *	- *
				55	- *	- *	- *	- *
				45	- *	- *	- *	- *
75	40	M12	37,00	65	- *	- *	- *	- *
				55	- *	- *	- *	- *
				45	- *	- *	- *	- *

ø A	H	G	L	Shore	Pressure Stress		Shear Stress	
					Spring rate cz	max. rated load	Spring rate cz	max. rated load
mm	mm		mm	A	N/mm	F max. *in N	N/mm	F max. *in N
75	50	M12	37,00	65	-*	-*	-*	-*
				55	-*	-*	-*	-*
				45	-*	-*	-*	-*
75	55	M12	37,00	65	-*	-*	-*	-*
				55	-*	-*	-*	-*
				45	-*	-*	-*	-*
100	20	M16	41,00	65	-*	-*	-*	-*
				55	-*	-*	-*	-*
				45	-*	-*	-*	-*
100	40	M16	41,00	65	-*	-*	-*	-*
				55	1400	7750	-*	-*
				45	-*	-*	-*	-*
100	50	M16	41,00	65	-*	-*	-*	-*
				55	1300	7800	-*	-*
				45	-*	-*	-*	-*
100	55	M16	41,00	65	-*	-*	-*	-*
				55	-*	-*	-*	-*
				45	-*	-*	-*	-*
100	60	M16	41,00	65	-*	-*	-*	-*
				55	-*	-*	-*	-*
				45	-*	-*	-*	-*
100	75	M16	41,00	65	-*	-*	-*	-*
				55	-*	-*	-*	-*
				45	-*	-*	-*	-*
125	50	M16	41,00	65	-*	-*	-*	-*
				55	-*	-*	-*	-*
				45	-*	-*	-*	-*
125	55	M16	41,00	65	-*	-*	-*	-*
				55	-*	-*	-*	-*
				45	-*	-*	-*	-*
125	60	M16	41,00	65	-*	-*	-*	-*
				55	-*	-*	-*	-*
				45	-*	-*	-*	-*
150	50	M16	41,00	65	-*	-*	-*	-*
				55	-*	-*	-*	-*
				45	-*	-*	-*	-*
150	50	M20	41,00	65	-*	-*	-*	-*
				55	-*	-*	-*	-*
				45	-*	-*	-*	-*
150	55	M16	41,00	65	-*	-*	-*	-*
				55	-*	-*	-*	-*
				45	-*	-*	-*	-*
150	55	M20	41,00	65	-*	-*	-*	-*
				55	-*	-*	-*	-*
				45	-*	-*	-*	-*
150	60	M20	41,00	65	-*	-*	-*	-*
				55	-*	-*	-*	-*
				45	-*	-*	-*	-*

ø A	H	G	L	Shore	Pressure Stress		Shear Stress	
					Spring rate cz	max. rated load	Spring rate cz	max. rated load
mm	mm		mm	A	N/mm	F max. *in N	N/mm	F max. *in N
150	60	M16	41,00	65	- *	- *	- *	- *
				55	- *	- *	- *	- *
				45	- *	- *	- *	- *
150	75	M16	41,00	65	- *	- *	- *	- *
				55	- *	- *	- *	- *
				45	- *	- *	- *	- *
150	75	M20	41,00	65	- *	- *	- *	- *
				55	- *	- *	- *	- *
				45	- *	- *	- *	- *
200	100	M20	41,00	65	- *	- *	- *	- *
				55	2000	18000	- *	- *
				45	- *	- *	- *	- *

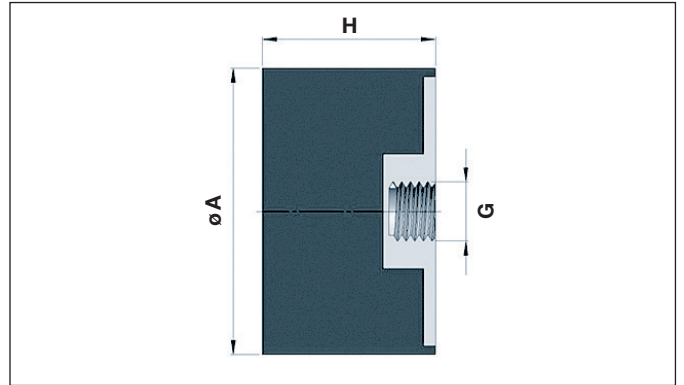
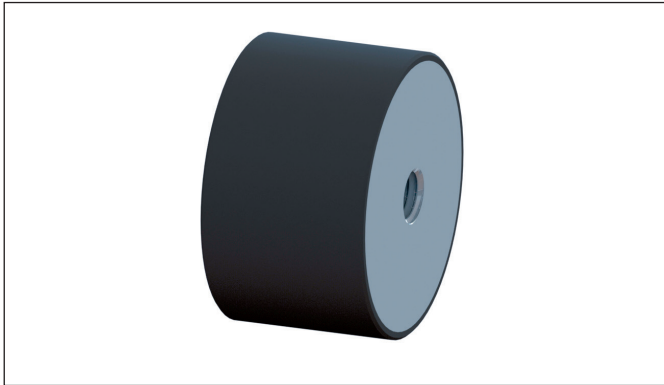
* No values have been determined / measured yet. The values will be added gradually.

If you need other buffers or other thread sizes than listed, please contact us directly.

Our applied technical advice, either oral, written or through tests is given according to our best knowledge. However, this information is to be considered as non-obligatory instruction, also in terms of any protective rights of a third party, and does not exempt you from testing our product in reference to its suitability for the intended process and purpose. Utilisation, application and processing of the products occur entirely outside of our control and are therefore exclusively your responsibility. However, should a case of liability come into question, it will be limited to all damages in the value of the product which we delivered and you used. By all means, we do warrant the impeccable quality of our products in accordance with our general sales and delivery conditions.

Rubber-Metal Buffer Type E

with one-sided internal thread



Product description

Buffers are characterised by their strength and robustness. The wide range of dimensions allows multiple options for usage.

Anwendung

Buffers are particularly suitable for elastic travel limiting and for cushioning impacts on mobile and non-mobile units, machines and generally as stops.

Benefits

- Effective dampening and cushioning of impacts
- Easy to install
- RoHS compliant

Operating temperature

- Natural Rubber (NR): – 50 °C until + 90 °C

Standard quality

Natural Rubber (NR)

Special qualities

- Nitrile-Butadiene Rubber (NBR)
 - Chloroprene Rubber (CR)
 - Fluoro Rubber (FPM)
 - Ethylene-Propylene-Diene-Rubber (EPDM)
 - Polyurethan (PUR)
 - Silicon
 - H-NBR
- More qualities on request

Metal parts

- Steel galvanized or chromated
- Steel blank from a diameter 100 mm upwards
- Alternative support members, e. g. Stainless steel, brass, aluminum, etc. available on request

$\varnothing A$	H	G	Shore	Pressure Stress		Shear Stress	
				Spring rate cz	max. rated load	Spring rate cz	max. rated load
mm	mm		A	N/mm	F max. *in N	N/mm	F max. *in N
15	8	M4	65	- *	- *	- *	- *
			55	- *	- *	- *	- *
			45	- *	- *	- *	- *
15	15	M4	65	- *	- *	- *	- *
			55	320	140	- *	- *
			45	- *	- *	- *	- *

øA	H	G	Shore	Pressure Stress		Shear Stress	
				Spring rate cz	max. rated load	Spring rate cz	max. rated load
mm	mm		A	N/mm	F max. *in N	N/mm	F max. *in N
20	11	M6	65	-*	-*	-*	-*
			55	220	230	-*	-*
			45	-*	-*	-*	-*
20	15	M6	65	-*	-*	-*	-*
			55	210	220	-*	-*
			45	-*	-*	-*	-*
20	20	M6	65	-*	-*	-*	-*
			55	100	240	-*	-*
			45	-*	-*	-*	-*
20	23	M6	65	-*	-*	-*	-*
			55	-*	-*	-*	-*
			45	-*	-*	-*	-*
20	25	M6	65	-*	-*	-*	-*
			55	70	180	-*	-*
			45	-*	-*	-*	-*
25	10	M6	65	-*	-*	-*	-*
			55	310	420	-*	-*
			45	-*	-*	-*	-*
25	15	M6	65	-*	-*	-*	-*
			55	280	410	-*	-*
			45	-*	-*	-*	-*
25	20	M6	65	-*	-*	-*	-*
			55	110	270	-*	-*
			45	-*	-*	-*	-*
25	25	M6	65	-*	-*	-*	-*
			55	90	250	-*	-*
			45	-*	-*	-*	-*
25	30	M6	65	-*	-*	-*	-*
			55	80	230	-*	-*
			45	-*	-*	-*	-*
30	15	M8	65	-*	-*	-*	-*
			55	360	450	-*	-*
			45	-*	-*	-*	-*
30	18	M8	65	-*	-*	-*	-*
			55	350	620	-*	-*
			45	-*	-*	-*	-*
30	20	M8	65	-*	-*	-*	-*
			55	250	600	-*	-*
			45	-*	-*	-*	-*
30	25	M8	65	-*	-*	-*	-*
			55	-*	-*	-*	-*
			45	-*	-*	-*	-*
30	30	M8	65	-*	-*	-*	-*
			55	200	500	-*	-*
			45	-*	-*	-*	-*
30	40	M8	65	-*	-*	-*	-*
			55	-*	-*	-*	-*
			45	-*	-*	-*	-*

øA	H	G	Shore	Pressure Stress		Shear Stress	
				Spring rate cz	max. rated load	Spring rate cz	max. rated load
				N/mm	F max. *in N	N/mm	F max. *in N
40	20	M8	65	-*	-*	-*	-*
			55	-*	-*	-*	-*
			45	-*	-*	-*	-*
40	30	M8	65	-*	-*	-*	-*
			55	350	920	-*	-*
			45	-*	-*	-*	-*
40	35	M8	65	-*	-*	-*	-*
			55	-*	-*	-*	-*
			45	-*	-*	-*	-*
40	40	M8	65	-*	-*	-*	-*
			55	-*	-*	-*	-*
			45	-*	-*	-*	-*
40	45	M8	65	-*	-*	-*	-*
			55	-*	-*	-*	-*
			45	-*	-*	-*	-*
50	20	M10	65	-*	-*	-*	-*
			55	700	1100	-*	-*
			45	-*	-*	-*	-*
50	25	M10	65	-*	-*	-*	-*
			55	520	1200	-*	-*
			45	-*	-*	-*	-*
50	30	M10	65	-*	-*	-*	-*
			55	450	1250	-*	-*
			45	-*	-*	-*	-*
50	40	M10	65	-*	-*	-*	-*
			55	-*	-*	-*	-*
			45	-*	-*	-*	-*
50	45	M10	65	-*	-*	-*	-*
			55	-*	-*	-*	-*
			45	-*	-*	-*	-*
50	50	M10	65	-*	-*	-*	-*
			55	-*	-*	-*	-*
			45	-*	-*	-*	-*
60	30	M12	65	-*	-*	-*	-*
			55	-*	-*	-*	-*
			45	-*	-*	-*	-*
70	45	M10	65	-*	-*	-*	-*
			55	-*	-*	-*	-*
			45	-*	-*	-*	-*
75	25	M12	65	-*	-*	-*	-*
			55	1700	3200	-*	-*
			45	-*	-*	-*	-*
75	40	M12	65	-*	-*	-*	-*
			55	-*	-*	-*	-*
			45	-*	-*	-*	-*
75	50	M12	65	-*	-*	-*	-*
			55	-*	-*	-*	-*
			45	-*	-*	-*	-*

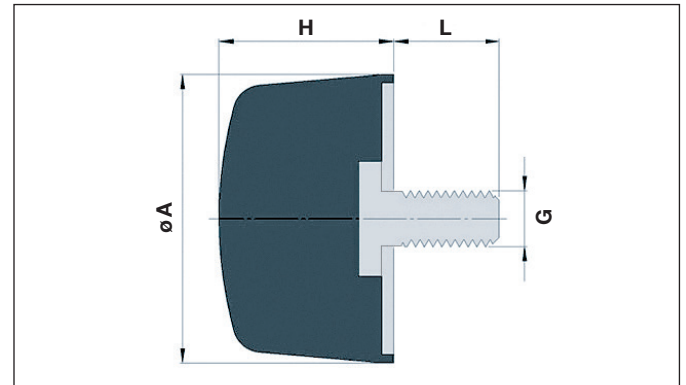
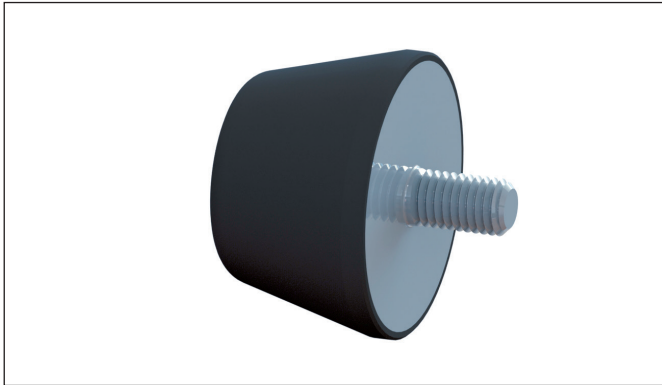
øA	H	G	Shore	Pressure Stress		Shear Stress	
				Spring rate cz	max. rated load	Spring rate cz	max. rated load
				N/mm	F max. *in N	N/mm	F max. *in N
75	55	M12	65	-*	-*	-*	-*
			55	-*	-*	-*	-*
			45	-*	-*	-*	-*
100	40	M16	65	-*	-*	-*	-*
			55	1400	5000	-*	-*
			45	-*	-*	-*	-*
100	50	M16	65	-*	-*	-*	-*
			55	1300	7500	-*	-*
			45	-*	-*	-*	-*
100	55	M16	65	-*	-*	-*	-*
			55	-*	-*	-*	-*
			45	-*	-*	-*	-*
100	60	M16	65	-*	-*	-*	-*
			55	-*	-*	-*	-*
			45	-*	-*	-*	-*
100	75	M16	65	-*	-*	-*	-*
			55	-*	-*	-*	-*
			45	-*	-*	-*	-*
150	50	M16	65	-*	-*	-*	-*
			55	-*	-*	-*	-*
			45	-*	-*	-*	-*
150	50	M20	65	-*	-*	-*	-*
			55	-*	-*	-*	-*
			45	-*	-*	-*	-*
150	55	M16	65	-*	-*	-*	-*
			55	-*	-*	-*	-*
			45	-*	-*	-*	-*
150	55	M20	65	-*	-*	-*	-*
			55	-*	-*	-*	-*
			45	-*	-*	-*	-*
150	60	M16	65	-*	-*	-*	-*
			55	-*	-*	-*	-*
			45	-*	-*	-*	-*
150	60	M20	65	-*	-*	-*	-*
			55	-*	-*	-*	-*
			45	-*	-*	-*	-*
150	75	M16	65	-*	-*	-*	-*
			55	1300	11500	-*	-*
			45	-*	-*	-*	-*
150	75	M20	65	-*	-*	-*	-*
			55	-*	-*	-*	-*
			45	-*	-*	-*	-*
200	100	M20	65	-*	-*	-*	-*
			55	1700	21000	-*	-*
			45	-*	-*	-*	-*

* No values have been determined / measured yet. The values will be added gradually.
If you need other buffers or other thread sizes than listed, please contact us directly.

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Rubber-Metal Buffer Type F

with one-sided threaded bolt



Product description

Buffers are characterised by their strength and robustness. The wide range of dimensions allows multiple options for usage.

Anwendung

Buffers are particularly suitable for elastic travel limiting and for cushioning impacts on mobile and non-mobile units, machines and generally as stops.

Benefits

- Effective dampening and cushioning of impacts
- Easy to install
- RoHS compliant

Operating temperature

- Natural Rubber (NR): – 50 °C until + 90 °C

Standard quality

Natural Rubber (NR)

Special qualities

- Nitrile-Butadiene Rubber (NBR)
 - Chloroprene Rubber (CR)
 - Fluoro Rubber (FPM)
 - Ethylene-Propylene-Diene-Rubber (EPDM)
 - Polyurethan (PUR)
 - Silicon
 - H-NBR
- More qualities on request

Metal parts

- Steel galvanized or chromated
- Steel blank from a diameter 100 mm upwards
- Alternative support members, e. g. Stainless steel, brass, aluminum, etc. available on request

øA	H	G	L	Shore	Pressure Stress		Shear Stress	
					Spring rate cz	max. rated load	Spring rate cz	max. rated load
mm	mm		mm	A	N/mm	F max. *in N	N/mm	F max. *in N
25	17	M6	18,00	65	– *	1150	– *	– *
				55	– *	950	– *	– *
				45	– *	890	– *	– *
50	18	M10	28,00	65	– *	3920	– *	– *
				55	– *	3870	– *	– *
				45	– *	3600	– *	– *

ø A	H	G	L	Shore	Pressure Stress		Shear Stress	
					Spring rate cz	max. rated load	Spring rate cz	max. rated load
mm	mm		mm	A	N/mm	F max. *in N	N/mm	F max. *in N
80	25	M12	37,00	65	- *	16800	- *	- *
				55	- *	16500	- *	- *
				45	- *	15600	- *	- *
125	45	M16	41,00	65	- *	51000	- *	- *
				55	- *	49500	- *	- *
				45	- *	48000	- *	- *

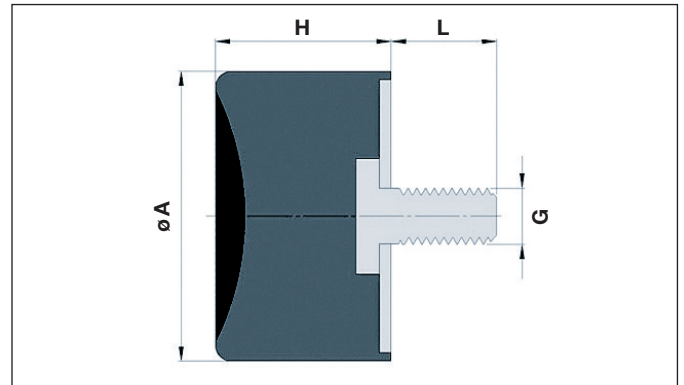
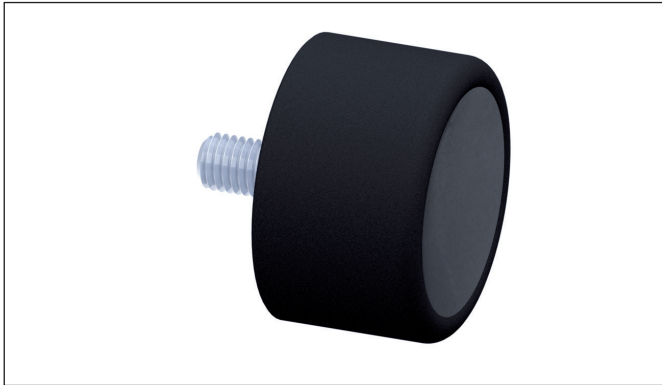
* No values have been determined / measured yet. The values will be added gradually.

If you need other buffers or other thread sizes than listed, please contact us directly.

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Rubber-Metal Buffer Type H

Concave Buffer – with one-sided threaded bolt



Product description

Buffers are characterised by their strength and robustness. The wide range of dimensions allows multiple options for usage.

Anwendung

Buffers are particularly suitable for elastic travel limiting and for cushioning impacts on mobile and non-mobile units, machines and generally as stops.

Benefits

- Effective dampening and cushioning of impacts
- Easy to install
- RoHS compliant

Operating temperature

- Natural Rubber (NR): – 50 °C until + 90 °C

Standard quality

Natural Rubber (NR)

Special qualities

- Nitrile-Butadiene Rubber (NBR)
 - Chloroprene Rubber (CR)
 - Fluoro Rubber (FPM)
 - Ethylene-Propylene-Diene-Rubber (EPDM)
 - Polyurethan (PUR)
 - Silicon
 - H-NBR
- More qualities on request

Metal parts

- Steel galvanized or chromated
- Steel blank from a diameter 100 mm upwards
- Alternative support members, e. g. Stainless steel, brass, aluminum, etc. available on request

øA	H	G	L	Shore	Pressure Stress		Shear Stress	
					Spring rate cz	max. rated load	Spring rate cz	max. rated load
mm	mm		mm	A	N/mm	F max. *in N	N/mm	F max. *in N
15	14	M4	13,00	65	– *	– *	– *	– *
				55	50	100	8	– *
				45	– *	– *	– *	– *
20	17	M6	18,00	65	– *	– *	– *	– *
				55	– *	– *	– *	– *
				45	– *	– *	– *	– *

ø A	H	G	L	Shore	Pressure Stress		Shear Stress	
					Spring rate cz	max. rated load	Spring rate cz	max. rated load
mm	mm		mm	A	N/mm	F max. *in N	N/mm	F max. *in N
20	24	M6	18,00	65	- *	- *	- *	- *
				55	65	150	10	- *
				45	- *	- *	- *	- *
25	20	M6	18,00	65	- *	- *	- *	- *
				55	90	250	20	- *
				45	- *	- *	- *	- *
30	28	M8	23,50	65	- *	- *	- *	- *
				55	80	350	15	- *
				45	- *	- *	- *	- *
40	29	M8	23,50	65	- *	- *	- *	- *
				55	125	600	15	- *
				45	- *	- *	- *	- *
50	28	M10	28,00	65	- *	- *	- *	- *
				55	210	1000	55	- *
				45	- *	- *	- *	- *
70	43	M10	28,00	65	- *	- *	- *	- *
				55	300	1900	65	- *
				45	- *	- *	- *	- *
75	37	M12	37,00	65	- *	- *	- *	- *
				55	360	2200	90	- *
				45	- *	- *	- *	- *
100	50	M16	41,00	65	- *	- *	- *	- *
				55	- *	- *	- *	- *
				45	- *	- *	- *	- *

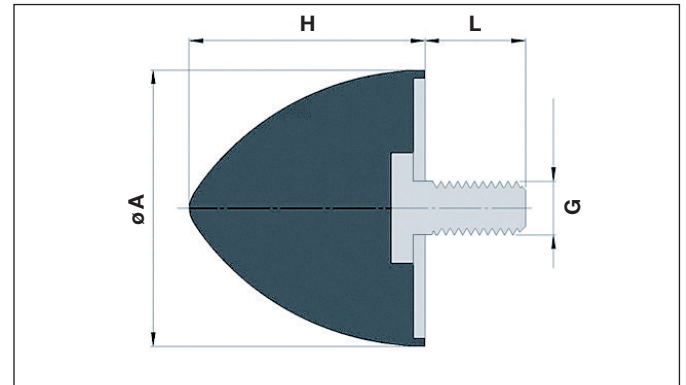
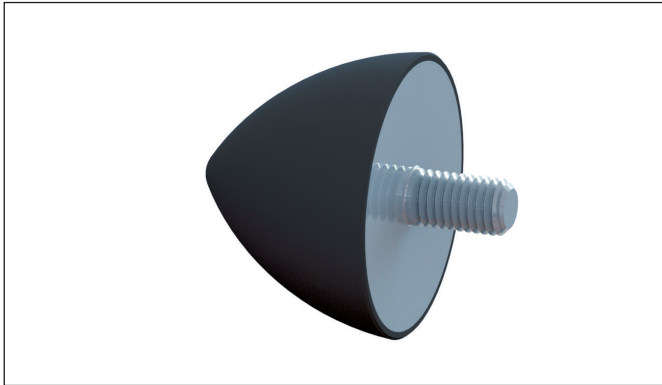
* No values have been determined / measured yet. The values will be added gradually.

If you need other buffers or other thread sizes than listed, please contact us directly.

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Rubber-Metal Buffer Type J

with one-sided threaded bolt



Product description

Buffers are characterised by their strength and robustness. The wide range of dimensions allows multiple options for usage.

Anwendung

Buffers are particularly suitable for elastic travel limiting and for cushioning impacts on mobile and non-mobile units, machines and generally as stops.

Benefits

- Effective dampening and cushioning of impacts
- Easy to install
- RoHS compliant

Operating temperature

- Natural Rubber (NR): – 50 °C until + 90 °C

Standard quality

Natural Rubber (NR)

Special qualities

- Nitrile-Butadiene Rubber (NBR)
 - Chloroprene Rubber (CR)
 - Fluoro Rubber (FPM)
 - Ethylene-Propylene-Diene-Rubber (EPDM)
 - Polyurethan (PUR)
 - Silicon
 - H-NBR
- More qualities on request

Metal parts

- Steel galvanized or chromated
- Steel blank from a diameter 100 mm upwards
- Alternative support members, e. g. Stainless steel, brass, aluminum, etc. available on request

øA	H	G	L	Shore	Pressure Stress		Shear Stress	
					Spring rate cz	max. rated load	Spring rate cz	max. rated load
mm	mm		mm	A	N/mm	F max. *in N	N/mm	F max. *in N
20	15	M6	18,00	65	- *	- *	- *	- *
				55	- *	- *	- *	- *
				45	- *	- *	- *	- *
20	24	M6	18,00	65	- *	700	- *	- *
				55	- *	530	- *	- *
				45	- *	260	- *	- *

ø A	H	G	L	Shore	Pressure Stress		Shear Stress	
					Spring rate cz	max. rated load	Spring rate cz	max. rated load
mm	mm		mm	A	N/mm	F max. *in N	N/mm	F max. *in N
25	19	M6	18,00	65	- *	- *	- *	- *
				55	- *	- *	- *	- *
				45	- *	- *	- *	- *
30	30	M8	21,00	65	- *	- *	- *	- *
				55	- *	- *	- *	- *
				45	- *	- *	- *	- *
30	36	M8	21,00	65	- *	1400	- *	- *
				55	- *	1200	- *	- *
				45	- *	700	- *	- *
50	50	M10	28,00	65	- *	- *	- *	- *
				55	- *	- *	- *	- *
				45	- *	- *	- *	- *
50	58	M10	28,00	65	- *	4450	- *	- *
				55	- *	3850	- *	- *
				45	- *	2050	- *	- *
50	67	M8	23,50	65	- *	- *	- *	- *
				55	- *	- *	- *	- *
				45	- *	- *	- *	- *
50	68	M10	28,00	65	- *	- *	- *	- *
				55	- *	- *	- *	- *
				45	- *	- *	- *	- *
72	58	M12	37,00	65	- *	- *	- *	- *
				55	- *	- *	- *	- *
				45	- *	- *	- *	- *
75	89	M12	37,00	65	- *	9100	- *	- *
				55	- *	8200	- *	- *
				45	- *	4500	- *	- *
115	136	M16	41,00	65	- *	21000	- *	- *
				55	- *	16500	- *	- *
				45	- *	9200	- *	- *
165	195	M16	41,00	65	- *	- *	- *	- *
				55	- *	- *	- *	- *
				45	- *	- *	- *	- *

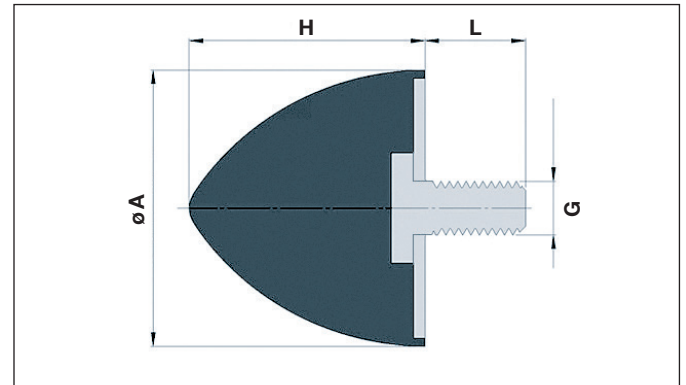
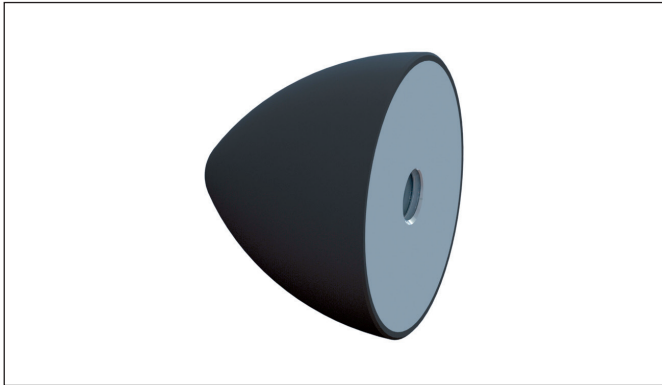
* No values have been determined / measured yet. The values will be added gradually.

If you need other buffers or other thread sizes than listed, please contact us directly.

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Rubber-Metal Buffer Type K

with one-sided internal thread



Product description

Buffers are characterised by their strength and robustness. The wide range of dimensions allows multiple options for usage.

Anwendung

Buffers are particularly suitable for elastic travel limiting and for cushioning impacts on mobile and non-mobile units, machines and generally as stops.

Benefits

- Effective dampening and cushioning of impacts
- Easy to install
- RoHS compliant

Operating temperature

- Natural Rubber (NR): – 50 °C until + 90 °C

Standard quality

Natural Rubber (NR)

Special qualities

- Nitrile-Butadiene Rubber (NBR)
 - Chloroprene Rubber (CR)
 - Fluoro Rubber (FPM)
 - Ethylene-Propylene-Diene-Rubber (EPDM)
 - Polyurethan (PUR)
 - Silicon
 - H-NBR
- More qualities on request

Metal parts

- Steel galvanized or chromated
- Steel blank from a diameter 100 mm upwards
- Alternative support members, e. g. Stainless steel, brass, aluminum, etc. available on request

øA	H	G	Shore	Pressure Stress		Shear Stress	
				Spring rate cz	max. rated load	Spring rate cz	max. rated load
mm	mm		A	N/mm	F max. *in N	N/mm	F max. *in N
20	15	M6	65	- *	- *	- *	- *
			55	- *	- *	- *	- *
			45	- *	- *	- *	- *
20	24	M6	65	- *	- *	- *	- *
			55	- *	- *	- *	- *
			45	- *	- *	- *	- *

ø A	H	G	Shore	Pressure Stress		Shear Stress	
				Spring rate cz	max. rated load	Spring rate cz	max. rated load
				N/mm	F max. *in N	N/mm	F max. *in N
25	19	M6	65	-*	-*	-*	-*
			55	-*	-*	-*	-*
			45	-*	-*	-*	-*
30	30	M8	65	-*	-*	-*	-*
			55	-*	-*	-*	-*
			45	-*	-*	-*	-*
30	36	M8	65	-*	-*	-*	-*
			55	-*	-*	-*	-*
			45	-*	-*	-*	-*
50	50	M10	65	-*	-*	-*	-*
			55	-*	-*	-*	-*
			45	-*	-*	-*	-*
50	58	M10	65	-*	-*	-*	-*
			55	-*	-*	-*	-*
			45	-*	-*	-*	-*
50	67	M8	65	-*	-*	-*	-*
			55	-*	-*	-*	-*
			45	-*	-*	-*	-*
50	68	M10	65	-*	-*	-*	-*
			55	-*	-*	-*	-*
			45	-*	-*	-*	-*
72	58	M12	65	-*	-*	-*	-*
			55	-*	-*	-*	-*
			45	-*	-*	-*	-*
75	89	M12	65	-*	-*	-*	-*
			55	-*	-*	-*	-*
			45	-*	-*	-*	-*
115	136	M16	65	-*	-*	-*	-*
			55	-*	-*	-*	-*
			45	-*	-*	-*	-*
165	195	M16	65	-*	-*	-*	-*
			55	-*	-*	-*	-*
			45	-*	-*	-*	-*

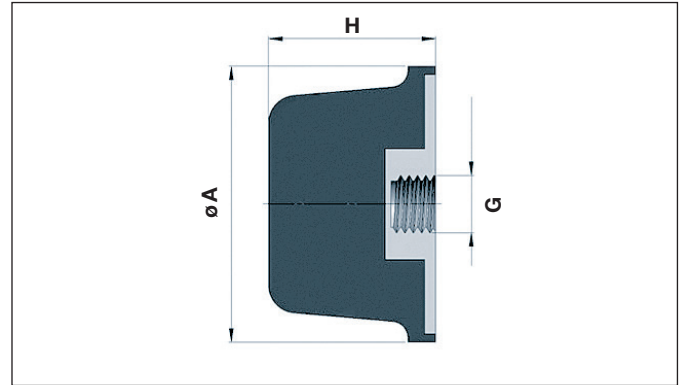
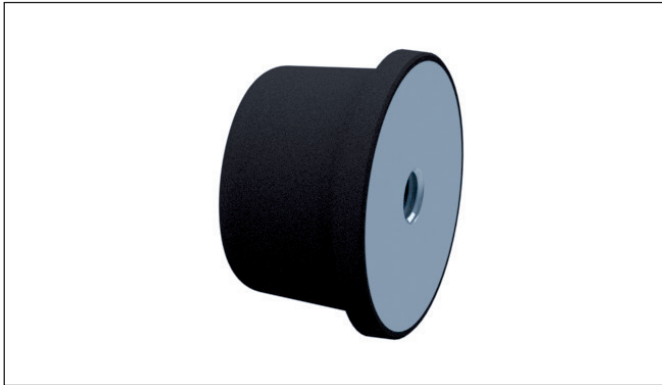
* No values have been determined / measured yet. The values will be added gradually.

If you need other buffers or other thread sizes than listed, please contact us directly.

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Rubber-Metal Buffer Type L

with one-sided internal thread



Product description

Buffers are characterised by their strength and robustness. The wide range of dimensions allows multiple options for usage.

Anwendung

Buffers are particularly suitable for elastic travel limiting and for cushioning impacts on mobile and non-mobile units, machines and generally as stops.

Benefits

- Effective dampening and cushioning of impacts
- Easy to install
- RoHS compliant

Operating temperature

- Natural Rubber (NR): – 50 °C until + 90 °C

Standard quality

Natural Rubber (NR)

Special qualities

- Nitrile-Butadiene Rubber (NBR)
 - Chloroprene Rubber (CR)
 - Fluoro Rubber (FPM)
 - Ethylene-Propylene-Diene-Rubber (EPDM)
 - Polyurethan (PUR)
 - Silicon
 - H-NBR
- More qualities on request

Metal parts

- Steel galvanized or chromated
- Steel blank from a diameter 100 mm upwards
- Alternative support members, e. g. Stainless steel, brass, aluminum, etc. available on request

ø A	H	G	L	Shore	Pressure Stress		Shear Stress	
					Spring rate cz	max. rated load	Spring rate cz	max. rated load
mm	mm		mm	A	N/mm	F max. *in N	N/mm	F max. *in N
50	35	M10		65	- *	4100	- *	- *
				55	- *	3900	- *	- *
				45	- *	3800	- *	- *
80	60	M12		65	- *	12000	- *	- *
				55	- *	11500	- *	- *
				45	- *	11000	- *	- *
125	90	M16		65	- *	28000	- *	- *
				55	- *	28000	- *	- *
				45	- *	26000	- *	- *

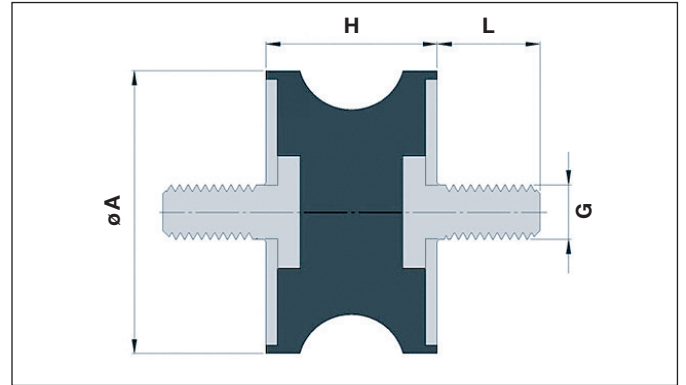
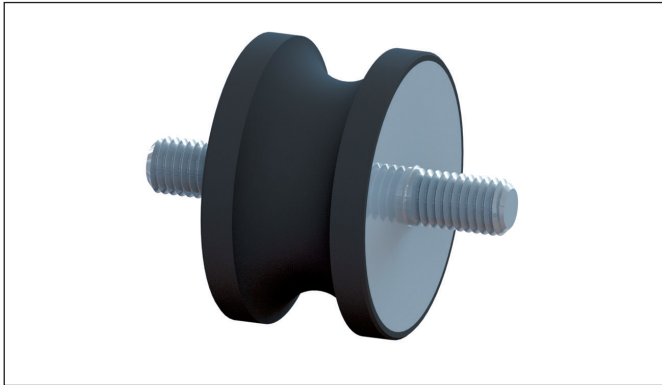
* No values have been determined / measured yet. The values will be added gradually.

If you need other buffers or other thread sizes than listed, please contact us directly.

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Rubber-Metal Buffer Type TA

with threaded bolt on both sides



Product description

Buffers are characterised by their strength and robustness. The wide range of dimensions allows multiple options for usage.

Anwendung

Buffers are particularly suitable for elastic travel limiting and for cushioning impacts on mobile and non-mobile units, machines and generally as stops.

Benefits

- Effective dampening and cushioning of impacts
- Easy to install
- RoHS compliant

Operating temperature

- Natural Rubber (NR): – 50 °C until + 90 °C

Standard quality

Natural Rubber (NR)

Special qualities

- Nitrile-Butadiene Rubber (NBR)
 - Chloroprene Rubber (CR)
 - Fluoro Rubber (FPM)
 - Ethylene-Propylene-Diene-Rubber (EPDM)
 - Polyurethan (PUR)
 - Silicon
 - H-NBR
- More qualities on request

Metal parts

- Steel galvanized or chromated
- Steel blank from a diameter 100 mm upwards
- Alternative support members, e. g. Stainless steel, brass, aluminum, etc. available on request

$\varnothing A$	H	G	L	Shore	Pressure Stress		Shear Stress	
					Spring rate cz	max. rated load	Spring rate cz	max. rated load
mm	mm		mm	A	N/mm	F max. *in N	N/mm	F max. *in N
20	15	M6	18,00	65	150	420	30	60
				55	100	320	20	55
				45	50	290	12	50
30	20	M8	21,00	65	270	900	35	105
				55	180	720	25	90
				45	92	580	15	60

ø A	H	G	L	Shore	Pressure Stress		Shear Stress	
					Spring rate cz	max. rated load	Spring rate cz	max. rated load
mm	mm		mm	A	N/mm	F max. *in N	N/mm	F max. *in N
40	48	M8	23,50	65	- *	- *	- *	- *
				55	- *	- *	- *	- *
				45	- *	- *	- *	- *
50	30	M10	28,00	65	400	2200	50	270
				55	270	1800	32	250
				45	130	1450	18	120
75	40	M12	37,00	65	830	5000	90	650
				55	530	4500	60	600
				45	295	3900	33	350
100	55	M16	41,00	65	- *	- *	- *	- *
				55	- *	- *	- *	- *
				45	- *	- *	- *	- *

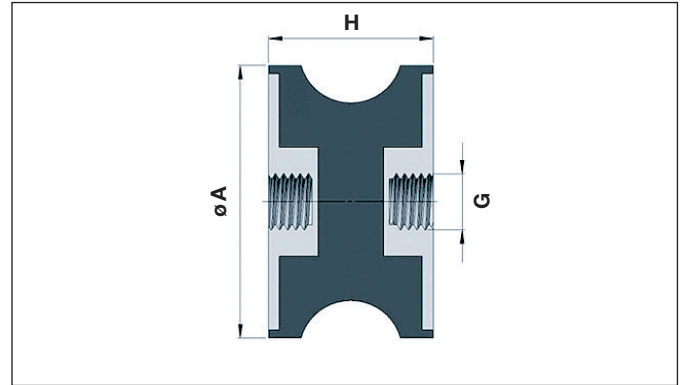
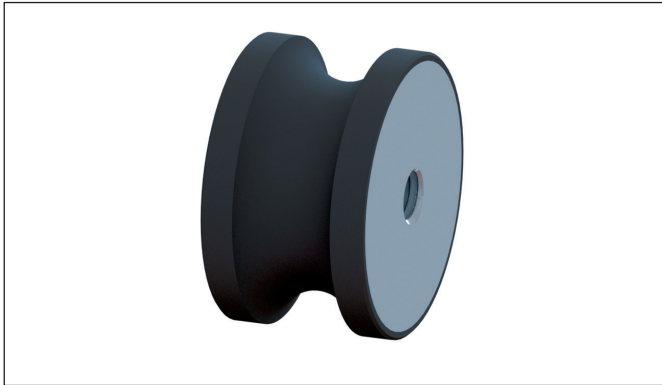
* No values have been determined / measured yet. The values will be added gradually.

If you need other buffers or other thread sizes than listed, please contact us directly.

Our applied technical advice, either oral, written or through tests is given according to our best knowledge. However, this information is to be considered as non-obligatory instruction, also in terms of any protective rights of a third party, and does not exempt you from testing our product in reference to its suitability for the intended process and purpose. Utilisation, application and processing of the products occur entirely outside of our control and are therefore exclusively your responsibility. However, should a case of liability come into question, it will be limited to all damages in the value of the product which we delivered and you used. By all means, we do warrant the impeccable quality of our products in accordance with our general sales and delivery conditions.

Rubber-Metal Buffer Type TC

with internal thread on both sides



Product description

Buffers are characterised by their strength and robustness. The wide range of dimensions allows multiple options for usage.

Anwendung

Buffers are particularly suitable for elastic travel limiting and for cushioning impacts on mobile and non-mobile units, machines and generally as stops.

Benefits

- Effective dampening and cushioning of impacts
- Easy to install
- RoHS compliant

Operating temperature

- Natural Rubber (NR): – 50 °C until + 90 °C

Standard quality

Natural Rubber (NR)

Special qualities

- Nitrile-Butadiene Rubber (NBR)
 - Chloroprene Rubber (CR)
 - Fluoro Rubber (FPM)
 - Ethylene-Propylene-Diene-Rubber (EPDM)
 - Polyurethan (PUR)
 - Silicon
 - H-NBR
- More qualities on request

Metal parts

- Steel galvanized or chromated
- Steel blank from a diameter 100 mm upwards
- Alternative support members, e. g. Stainless steel, brass, aluminum, etc. available on request

øA	H	G	Shore	Pressure Stress		Shear Stress	
				Spring rate cz	max. rated load	Spring rate cz	max. rated load
mm	mm		A	N/mm	F max. *in N	N/mm	F max. *in N
30	20	M6	65	216	720	28	85
			55	144	575	20	72
			45	74	465	12	48
50	30	M10	65	320	1750	40	215
			55	215	1450	25	200
			45	105	1150	15	95

ø A	H	G	Shore	Pressure Stress		Shear Stress	
				Spring rate cz	max. rated load	Spring rate cz	max. rated load
mm	mm		A	N/mm	F max. *in N	N/mm	F max. *in N
75	40	M12	65	665	400	72	520
			55	425	3600	48	480
			45	235	3100	25	280
100	55	M16	65	- *	- *	- *	- *
			55	- *	- *	- *	- *
			45	- *	- *	- *	- *

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