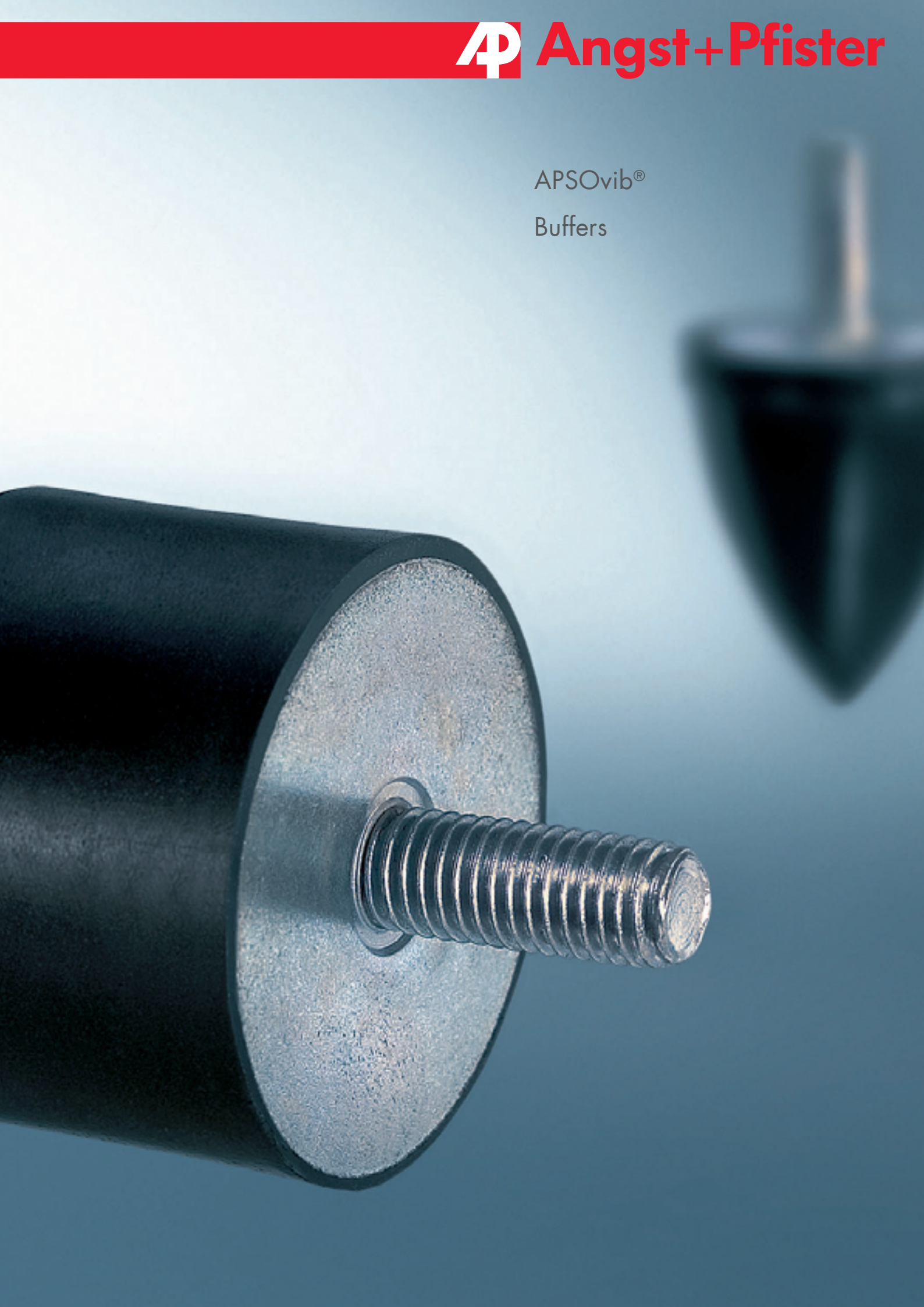
Angst+Pfister

APSOvib®

Buffers



Summary

APSOvib® Buffers

APSOvib®: Advanced antivibration technology solutions

The APSOvib® name stands for cost-optimized customized solutions for any antivibration technology challenge, backed by our outstanding application know-how and our huge APSOvib® range of antivibration elements. APSOvib® masterfully solves even highly specialized problems such as in applications in connection with drinking water, clean rooms or the pharmaceutical and food-and-beverage industry, for example. Custom fabrication of panels and molded parts rounds out the comprehensive APSOvib® arsenal for combating vibrations and noise emissions.

Engineering services: Expertise for the benefit of customers

Excellent knowledge of materials, customer- and solution-focused consulting, and profound manufacturing technology know-how – engineering is the connecting link between all of Angst+Pfister's product lines. Our specialists pass their knowledge on to customers in the course of order fulfillment. Virtual design and development of components using CAD/CAE tools are just as much a part of our engineering portfolio as our technical expertise. Thanks to these services, Angst+Pfister customers receive more than just parts; they obtain components perfectly tailored to their requirements.

Logistics and quality assurance

Our state-of-the-art Global Logistics Centre is the linchpin of Angst+Pfister's logistical services. At the roughly 18,000-square-meter logistics center, 120,000 different stock-keeping units are warehoused and a daily order volume encompassing more than 1,500 separate items is reliably processed and shipped. Excellent C-parts management coupled with a world-spanning procurement network guarantees high product availability – even for custom items – with fast delivery times. With just-in-time, kanban, supply management and other logistics concepts, Angst+Pfister enables customers to synchronize their incoming parts shipments to precisely match their production rhythm and to thus minimize inventory carrying costs. Our ISO 9001:2008-certified complete quality assurance system additionally enables customers to greatly simplify their incoming goods inspection procedures.

Balanced and varied: The new APSOvib® range of buffers

Angst+Pfister's APSOvib® range of buffers provides a comprehensive and balanced array of round buffers and stop buffers. Our clearly structured product offering with its distinct buffer type designations ensures clarity and makes it easy to quickly find the ideal buffer from an assortment of more than 1,000 different items, whether for use as equipment mountings or as vibration-isolating fixing elements. Each type of deployment places specific demands on buffers: load capacity, spring deflection and spring stiffness must be precisely coordinated. Thirteen different buffer shapes available in three different grades of hardness cover every conceivable application. The ideal buffer effortlessly shoulders the weight force that acts upon it while also providing the right amount of spring deflection for the given circumstances. To help you select the right APSOvib® antivibration elements, the product descriptions for each individual buffer provide information on their spring characteristics, dimensions, hardness and fastening method.
It goes without saying that custom-fabricated buffers tailored to your specific needs and expert advice are also constituent components of Angst+Pfister's APSOvib® service offering!

APSOvib® round buffer shape A, medium hardness

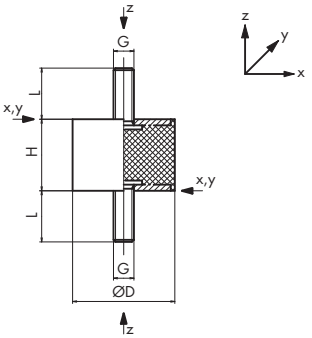
Item number	Diameter D	Height H	Thread G	Thread length L	Compressive force F_z	Spring deflection s_z	Spring constant c_z	Spring constant $c_{x,y}$	Norm
	mm	mm	–	mm	N	mm	N/mm	N/mm	–
12.2033.0003	6	7.0	M3	6	15	1.1	14.0	1.6	DIN 95363
12.2033.0013	8	8.0	M3	6	35	0.9	38.0	4.0	–
12.2033.0023	10	8.0	M4	10	65	1.0	64.0	14.0	DIN 95363
12.2033.0033	10	10.0	M4	10	55	1.3	44.0	9.0	DIN 95363
12.2033.0043	10	15.0	M4	10	40	2.0	20.0	4.4	DIN 95363
12.2033.0053	15	8.0	M4	10	90	0.8	110.0	15.0	DIN 95363
12.2033.0063	15	15.0	M4	13	90	1.5	59.0	9.0	DIN 95363
12.2033.0073	15	20.0	M5	12	90	2.3	40.0	9.0	–
12.2033.0083	16	10.0	M5	12	150	1.0	155.0	25.0	–
12.2033.0093	16	15.0	M5	12	135	1.8	75.0	15.0	–
12.2033.0103	16	20.0	M5	12	120	2.7	45.0	10.0	–
12.2033.0113	18	8.5	M6	16	200	0.8	260.0	40.0	DIN 95363
12.2033.0123	20	8.5	M6	16	400	0.6	725.0	50.0	
12.2033.0133	20	15.0	M6	20	160	1.1	140.0	22.0	DIN 95363
12.2033.0143	20	20.0	M6	20	140	1.6	85.0	11.0	DIN 95363
12.2033.0153	20	25.0	M6	20	160	2.8	57.0	13.0	DIN 95363
12.2033.0163	25	10.0	M6	20	560	0.7	800.0	73.0	DIN 95363
12.2033.0173	25	15.0	M6	20	445	2.0	220.0	40.0	DIN 95363
12.2033.0183	25	20.0	M6	20	400	2.1	190.0	30.0	DIN 95363
12.2033.0193	25	22.0	M8	20	375	3.0	125.0	26.0	–
12.2033.0203	25	25.0	M8	20	325	3.4	95.0	22.0	–
12.2033.0213	25	30.0	M6	20	300	4.0	75.0	18.0	–
12.2033.0223	30	15.0	M8	20	600	1.2	515.0	65.0	DIN 95363
12.2033.0233	30	20.0	M8	20	500	1.6	320.0	50.0	DIN 95363
12.2033.0243	30	22.0	M8	20	500	2.5	200.0	44.0	–
12.2033.0253	30	25.0	M8	20	480	3.6	133.0	30.0	DIN 95363
12.2033.0263	30	30.0	M8	20	350	2.9	120.0	25.0	DIN 95363
12.2033.0273	30	40.0	M8	23	325	4.3	75.0	19.0	–
12.2033.0283	40	30.0	M8	20	800	2.8	290.0	50.0	DIN 95363
12.2033.0293	40	40.0	M8	25	690	4.1	170.0	30.0	DIN 95363
12.2033.0303	50	20.0	M10	25	2200	1.7	1300.0	120.0	DIN 95363
12.2033.0313	50	30.0	M10	25	1300	2.7	480.0	80.0	DIN 95363
12.2033.0323	50	35.0	M10	25	1250	3.8	325.0	65.0	–
12.2033.0333	50	40.0	M10	25	1200	4.0	300.0	50.0	DIN 95363
12.2033.0343	50	45.0	M10	25	1100	4.6	240.0	40.0	DIN 95363
12.2033.0353	70	35.0	M10	25	4500	5.5	825.0	120.0	–
12.2033.0363	70	45.0	M10	30	1900	4.0	475.0	79.0	DIN 95363
12.2033.0373	75	40.0	M12	37	2500	3.3	750.0	110.0	DIN 95363
12.2033.0383	75	50.0	M12	37	2300	4.3	540.0	85.0	DIN 95363
12.2033.0393	75	55.0	M12	37	2300	5.3	430.0	68.0	DIN 95363
12.2033.0403	80	30.0	M14	35	6000	3.8	1600.0	190.0	–
12.2033.0413	80	40.0	M14	35	4800	5.6	850.0	135.0	–
12.2033.0423	100	40.0	M16	42	6900	4.6	1500.0	180.0	DIN 95363
12.2033.0433	100	55.0	M16	42	3800	3.6	1050.0	130.0	DIN 95363
12.2033.0443	100	60.0	M16	44	3800	4.8	800.0	110.0	DIN 95363
12.2033.0453	100	75.0	M16	43	3500	6.6	530.0	100.0	DIN 95363

Material used for elastomer part: NR, black
Material used for connecting part: chromated galvanized steel
Shape: DIN 95363, shape A
Hardness: medium, approx. 55 Shore A
Tolerance: DIN 2768-c, DIN ISO 3302-1 M3, DIN ISO 4759-1 class A
Working temperature: –30 to +70 °C
EU guidelines: complies with 2002/95/EG (RoHS)
Intended use:
Round buffers are suitable for elastic fixation and vibration-insulating mounting of small to midsize equipment units.

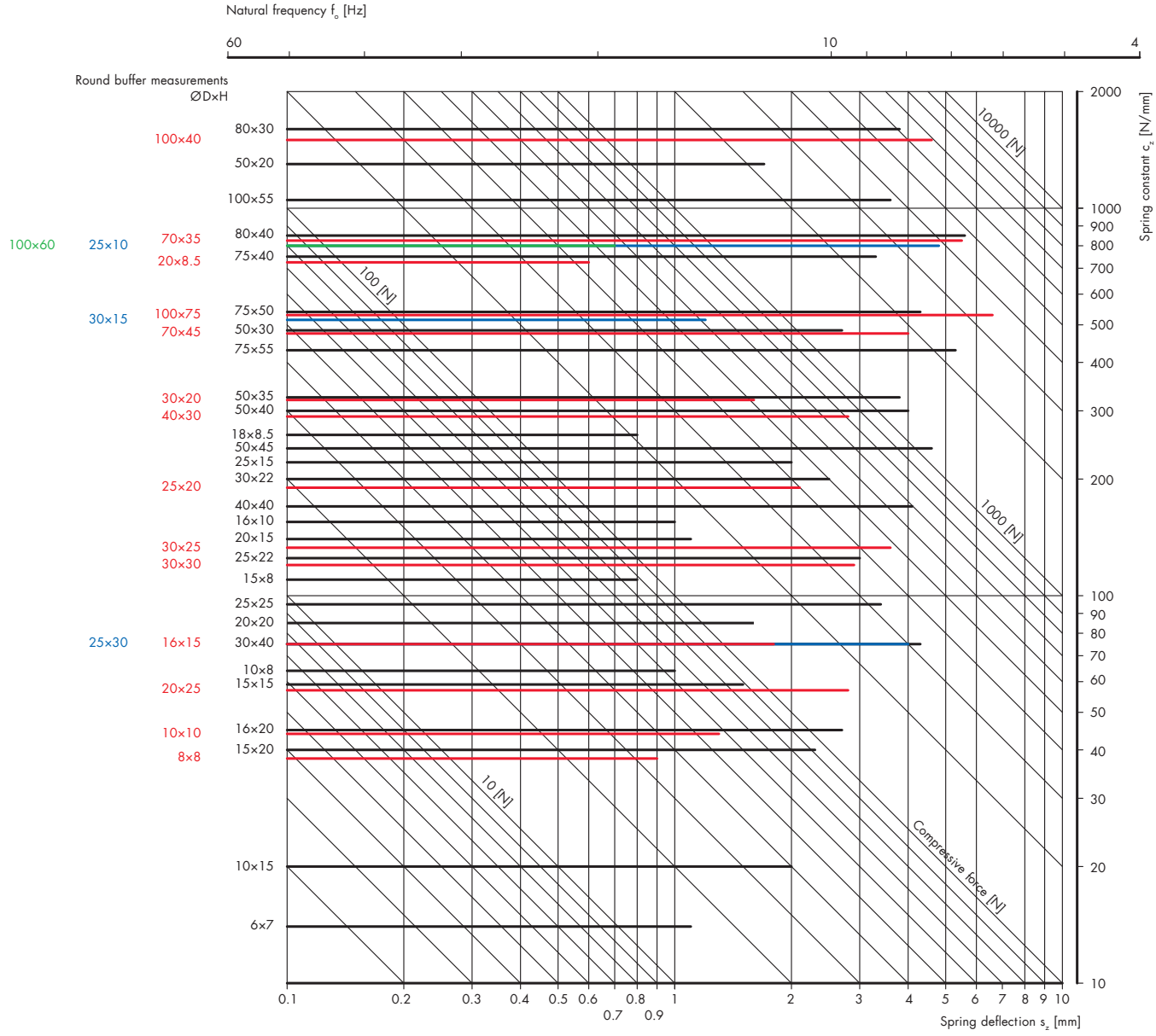
Attention:
Round buffers with threaded bolts on both ends may be subjected to pressure and thrust loads, but not to tensional loads.

On request:
– soft hardness, approx. 40 Shore A: spring constant: × 0.5; compressive force: × 0.68
– hard hardness, approx. 70 Shore A: spring constant: × 2.0; compressive force: × 1.4

Ordering example:
– soft hardness (approx. 40 Shore A): 12.2033.00**01**
– medium hardness (approx. 55 Shore A): 12.2033.00**03**
– hard hardness (approx. 70 Shore A): 12.2033.00**04**



Performance chart for APSOvib® round buffer shape A, medium hardness



The different colors serve solely to enhance legibility.

APSOvib® round buffer shape B, medium hardness

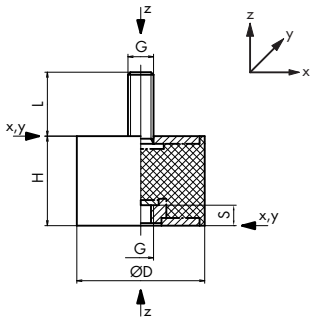
Item number	Diameter D	Height H	Thread G	Thread length L	Thread depth s	Compressive force F_z	Spring deflection s_z	Spring constant c_z	Spring constant $c_{x,y}$	Norm
	mm	mm	–	mm	mm	N	mm	N/mm	N/mm	–
12.2034.0003	6	7	M3	6	3.0	15	0.3	50.0	6.2	–
12.2034.0013	8	8	M3	6	3.0	35	0.8	44.5	8.6	DIN 95363
12.2034.0023	10	8	M4	10	4.0	65	1.0	67.0	16.0	DIN 95363
12.2034.0033	10	10	M4	10	4.0	55	1.2	46.0	9.0	DIN 95363
12.2034.0043	10	15	M4	10	4.0	40	1.8	22.0	4.6	DIN 95363
12.2034.0053	15	15	M4	13	4.5	90	1.2	73.0	10.0	DIN 95363
12.2034.0063	15	20	M5	12	5.0	90	1.6	55.0	8.0	–
12.2034.0073	15	30	M4	12	5.0	90	3.0	30.0	5.5	–
12.2034.0083	16	10	M5	12	3.0	150	0.7	225.0	22.3	–
12.2034.0093	16	15	M5	12	3.0	135	1.6	85.0	12.0	–
12.2034.0103	16	20	M5	12	3.0	120	2.4	50.0	8.0	–
12.2034.0113	20	15	M6	20	6.0	160	0.9	170.0	27.0	DIN 95363
12.2034.0123	20	20	M6	20	6.0	140	1.2	120.0	15.0	DIN 95363
12.2034.0133	20	25	M6	20	6.0	160	2.1	75.0	13.0	DIN 95363
12.2034.0143	25	15	M6	20	6.0	445	1.7	263.0	47.0	DIN 95363
12.2034.0153	25	20	M6	20	6.0	400	2.4	170.0	28.0	DIN 95363
12.2034.0163	25	22	M8	20	8.0	375	1.6	235.0	26.0	–
12.2034.0173	25	25	M6	20	6.0	325	3.5	93.0	21.0	DIN 95363
12.2034.0183	25	30	M6	20	6.0	300	3.0	100.0	17.3	–
12.2034.0193	30	15	M8	20	8.0	645	0.6	1075.0	100.0	–
12.2034.0203	30	20	M8	20	8.0	500	1.5	340.0	50.0	DIN 95363
12.2034.0213	30	22	M8	23	8.0	500	1.3	400.0	45.0	–
12.2034.0223	30	25	M8	20	8.0	480	3.3	147.0	40.0	DIN 95363
12.2034.0233	30	30	M8	20	8.0	350	2.7	130.0	30.0	DIN 95363
12.2034.0243	30	40	M8	23	8.0	325	3.3	100.0	21.0	–
12.2034.0253	40	20	M10	25	8.0	1400	1.1	1300.0	85.0	–
12.2034.0263	40	28	M10	25	8.0	880	2.0	430.0	60.0	–
12.2034.0273	40	30	M8	20	8.0	800	2.3	350.0	55.0	DIN 95363
12.2034.0283	40	35	M10	25	8.0	1200	4.8	250.0	40.0	–
12.2034.0293	40	40	M8	25	8.0	690	3.8	180.0	35.0	DIN 95363
12.2034.0303	50	20	M10	25	10.0	2200	1.4	1570.0	130.0	DIN 95363
12.2034.0313	50	30	M10	25	10.0	1300	2.4	550.0	75.0	DIN 95363
12.2034.0323	50	35	M10	25	10.0	1250	2.4	520.0	65.0	–
12.2034.0333	50	40	M10	25	10.0	1200	3.6	330.0	60.0	DIN 95363
12.2034.0343	50	45	M10	25	10.0	1100	4.8	230.0	35.0	DIN 95363
12.2034.0353	50	50	M10	25	10.0	1000	5.3	190.0	30.0	DIN 95363
12.2034.0363	60	36	M10	25	10.0	2800	3.5	800.0	78.0	–
12.2034.0373	70	45	M10	30	12.0	1900	3.9	490.0	79.0	DIN 95363
12.2034.0383	75	40	M12	37	12.0	2500	3.1	800.0	120.0	DIN 95363
12.2034.0393	75	50	M12	37	12.0	2300	4.0	580.0	90.0	DIN 95363
12.2034.0403	75	55	M12	37	12.0	2300	4.8	480.0	80.0	DIN 95363
12.2034.0413	80	40	M14	35	12.0	4800	3.1	1550.0	155.0	–
12.2034.0423	100	40	M16	42	16.0	6900	4.3	1600.0	200.0	DIN 95363
12.2034.0433	100	55	M16	42	16.0	3800	3.3	1150.0	150.0	DIN 95363
12.2034.0443	100	60	M16	44	16.0	3800	4.0	950.0	120.0	DIN 95363
12.2034.0453	100	75	M16	43	16.0	3500	6.6	530.0	100.0	DIN 95363

Material used for elastomer part: NR, black
Material used for connecting part: chromated galvanized steel
Shape: DIN 95363, shape B
Hardness: medium, approx. 55 Shore A
Tolerance: DIN 2768-c, DIN ISO 3302-1 M3, DIN ISO 4759-1 class A
Working temperature: –30 to +70 °C
EU guidelines: complies with 2002/95/EG (RoHS)
Intended use:
Round buffers are suitable for elastic fixation and vibration-insulating mounting of small to midsize equipment units.

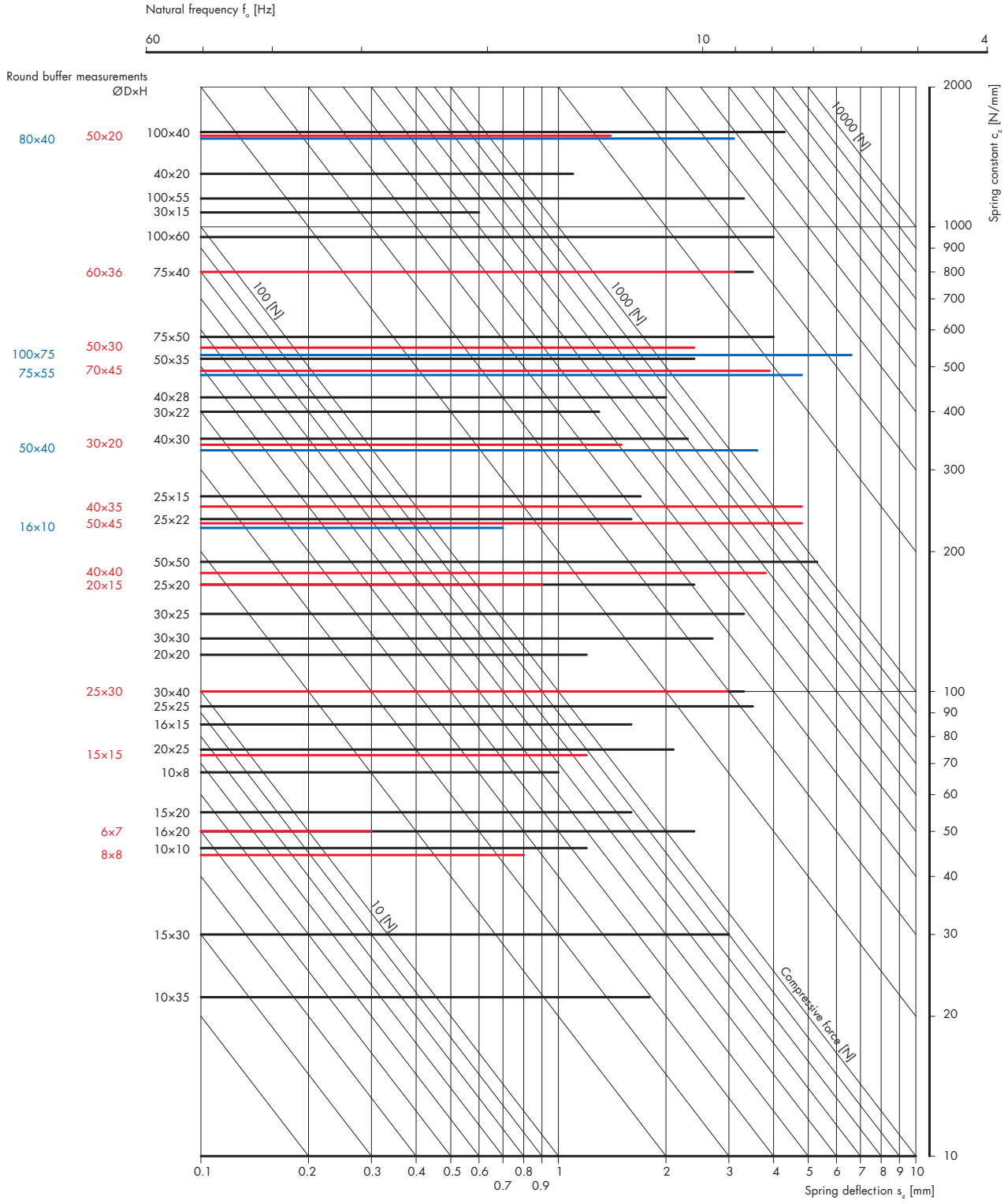
Attention:
Round buffers with threaded bolts on both ends may be subjected to pressure and thrust loads, but not to tensional loads.

On request:
– soft hardness, approx. 40 Shore A: spring constant: × 0.5; compressive force: × 0.68
– hard hardness, approx. 70 Shore A: spring constant: × 2.0; compressive force: × 1.4

Ordering example:
– soft hardness (approx. 40 Shore A): 12.2034.00**01**
– medium hardness (approx. 55 Shore A): 12.2034.00**03**
– hard hardness (approx. 70 Shore A): 12.2034.00**04**



Performance chart for APSOvib® round buffer shape B, medium hardness



The different colors serve solely to enhance legibility.

APSOvib® round buffer shape C, medium hardness

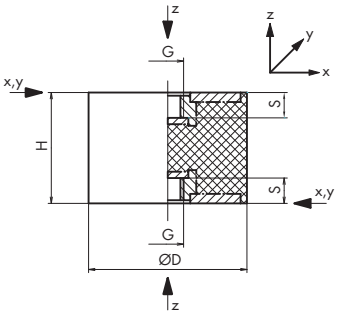
Item number	Diameter D	Height H	Thread G	Thread depth s	Compressive force F_z	Spring deflection s_z	Spring constant c_z	Spring constant $c_{x,y}$	Norm
	mm	mm	–	mm	N	mm	N/mm	N/mm	–
12.2035.0003	10	10	M4	4.0	55	1.0	53.0	10.0	DIN 95363
12.2035.0013	10	15	M4	4.0	40	1.6	25.0	4.8	DIN 95363
12.2035.0023	15	15	M4	4,5	90	1.2	78.0	18.0	DIN 95363
12.2035.0033	15	20	M5	5.0	90	1.1	85.0	275.0	–
12.2035.0043	16	10	M5	3.0	150	0.3	550.0	30.0	–
12.2035.0053	16	15	M5	3.0	135	0.5	300.0	16.0	–
12.2035.0063	16	20	M5	3.0	120	1.2	100.0	11.0	–
12.2035.0073	20	15	M6	6.0	160	0.5	355.0	50.0	–
12.2035.0083	20	20	M6	6.0	140	1.5	95.0	15.0	DIN 95363
12.2035.0093	20	25	M6	6.0	160	2.0	80.0	13.0	DIN 95363
12.2035.0103	25	20	M6	6.0	400	2.2	180.0	30.0	DIN 95363
12.2035.0113	25	25	M6	6.0	325	3.3	98.0	22.0	DIN 95363
12.2035.0123	30	20	M8	8.0	500	0.9	530.0	60.0	DIN 95363
12.2035.0133	30	25	M8	8.0	480	3.0	160.0	50.0	DIN 95363
12.2035.0143	30	30	M8	8.0	350	2.3	150.0	40.0	DIN 95363
12.2035.0153	40	28	M10	8.0	880	1.5	600.0	225.0	–
12.2035.0163	40	30	M8	8.0	800	1.8	450.0	105.0	DIN 95363
12.2035.0173	40	40	M8	8.0	690	3.3	210.0	40.0	DIN 95363
12.2035.0183	40	45	M8	8.0	1200	6.0	200.0	500.0	–
12.2035.0193	50	30	M10	10.0	1300	2.2	600.0	110.0	DIN 95363
12.2035.0203	50	35	M10	8.0	1250	3.1	400.0	85.0	–
12.2035.0213	50	40	M10	10.0	1200	3.2	370.0	70.0	DIN 95363
12.2035.0223	50	45	M10	10.0	1100	4.4	250.0	40.0	DIN 95363
12.2035.0233	50	50	M10	10.0	1000	4.8	210.0	35.0	DIN 95363
12.2035.0243	70	35	M10	10.0	4500	1.5	3000.0	150.0	–
12.2035.0253	70	45	M10	12.0	1900	2.5	750.0	100.0	DIN 95363
12.2035.0263	75	40	M12	12.0	2500	2.3	1100.0	160.0	DIN 95363
12.2035.0273	75	50	M12	12.0	2300	3.8	600.0	100.0	DIN 95363
12.2035.0283	75	55	M12	12.0	2300	4.6	500.0	85.0	DIN 95363
12.2035.0293	80	70	M14	14.0	4250	6.5	650.0	60.0	–
12.2035.0303	100	40	M16	16.0	6900	3.8	1800.0	240.0	DIN 95363
12.2035.0313	100	55	M16	16.0	3800	3.2	1200.0	200.0	DIN 95363
12.2035.0323	100	60	M16	16.0	3800	3.8	1000.0	180.0	DIN 95363
12.2035.0333	100	75	M16	16.0	3500	6.6	530.0	100.0	DIN 95363
12.2035.0343	150	55	M20	17.0	10000	3.2	3150.0	405.0	DIN 95363
12.2035.0353	150	75	M20	17.0	9000	6.0	1500.0	200.0	DIN 95363
12.2035.0363	200	100	M20	17.0	17000	9.7	1760.0	300.0	DIN 95363

Material used for elastomer part: NR, black
Material used for connecting part: chromated galvanized steel
Shape: DIN 95363, shape C
Hardness: medium, approx. 55 Shore A
Tolerance: DIN 2768-c, DIN ISO 3302-1 M3, DIN ISO 4759-1 class A
Working temperature: –30 to +70 °C
EU guidelines: complies with 2002/95/EG (RoHS)
Intended use:
Round buffers are suitable for elastic fixation and vibration-insulating mounting of small to midsize equipment units.

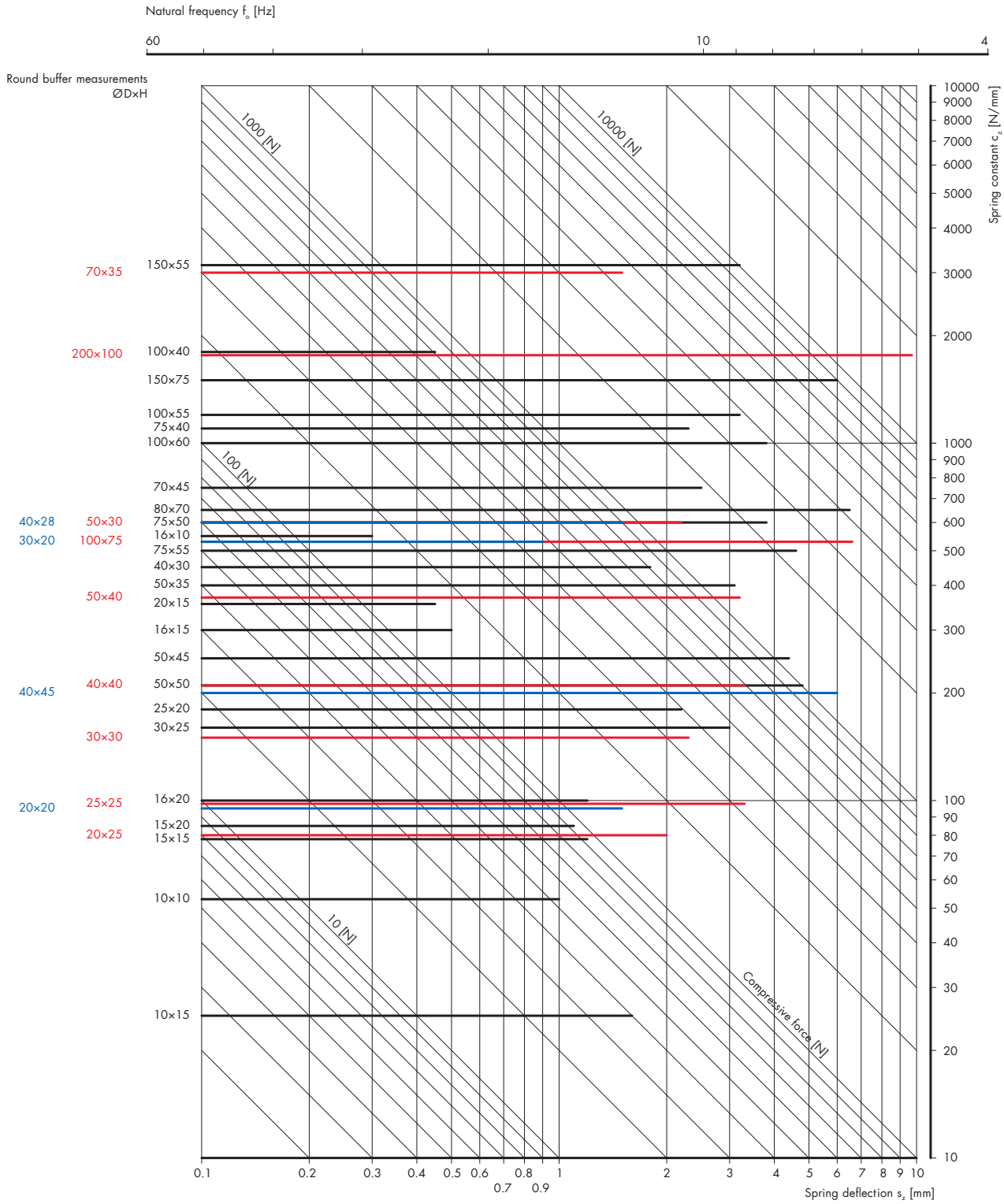
Attention:
Round buffers with threaded bolts on both ends may be subjected to pressure and thrust loads, but not to tensional loads.

On request:
- soft hardness, approx. 40 Shore A: spring constant: × 0.5; compressive force: × 0.68
- hard hardness, approx. 70 Shore A: spring constant: × 2.0; compressive force: × 1.4

Ordering example:
- soft hardness (approx. 40 Shore A): 12.2035.00**01**
- medium hardness (approx. 55 Shore A): 12.2035.00**03**
- hard hardness (approx. 70 Shore A): 12.2035.00**04**



Performance chart for APSOvib® round buffer shape C, medium hardness



The different colors serve solely to enhance legibility.

APSOvib® round buffer shape D, medium hardness

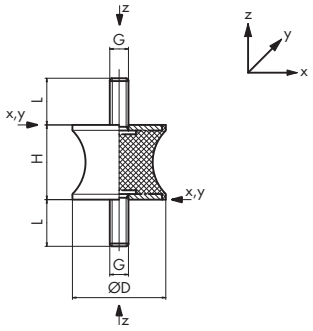
Item number	Diameter D	Height H	Thread G	Thread depth s	Compressive force F_z	Spring deflection s_z	Spring constant c_z	Spring constant $c_{x,y}$	Norm
	mm	mm	–	mm	N	mm	N/mm	N/mm	–
12.2033.1003	20	15	M6	20	160	1.8	90.0	15.0	DIN 95363
12.2033.1013	20	19	M6	15	120	2.5	48.0	6.0	–
12.2033.1023	25	20	M6	20	400	4.7	85.0	14.0	DIN 95363
12.2033.1033	30	20	M8	20	500	2.6	190.0	32.0	DIN 95363
12.2033.1043	40	28	M10	25	300	5.0	60.0	40.0	–
12.2033.1053	50	30	M10	25	1300	3.7	350.0	26.0	DIN 95363
12.2033.1063	55	45	M10	25	1200	3.8	320.0	50.0	DIN 95363
12.2033.1073	60	44	M8	22	400	5.0	80.0	14.0	–
12.2033.1083	60	45	M8	22	750	5.0	150.0	20.0	–
12.2033.1093	60	60	M10	25	1500	7.9	190.0	32.0	–
12.2033.1103	75	40	M12	37	2500	3.0	820.0	50.0	DIN 95363
12.2033.1113	80	70	M14	37	3000	9.5	316.0	60.0	–
12.2033.1123	95	76	M16	47	4000	9.5	420.0	90.0	–

Material used for elastomer part: NR, black
Material used for connecting part: chromated galvanized steel
Shape: DIN 95363, shape D
Hardness: medium, approx. 55 Shore A
Tolerance: DIN 2768-c, DIN ISO 3302-1 M3, DIN ISO 4759-1 class A
Working temperature: –30 to +70 °C
EU guidelines: complies with 2002/95/EG (RoHS)
Intended use:
Round buffers are suitable for elastic fixation and vibration-insulating mounting of small to midsize equipment units.

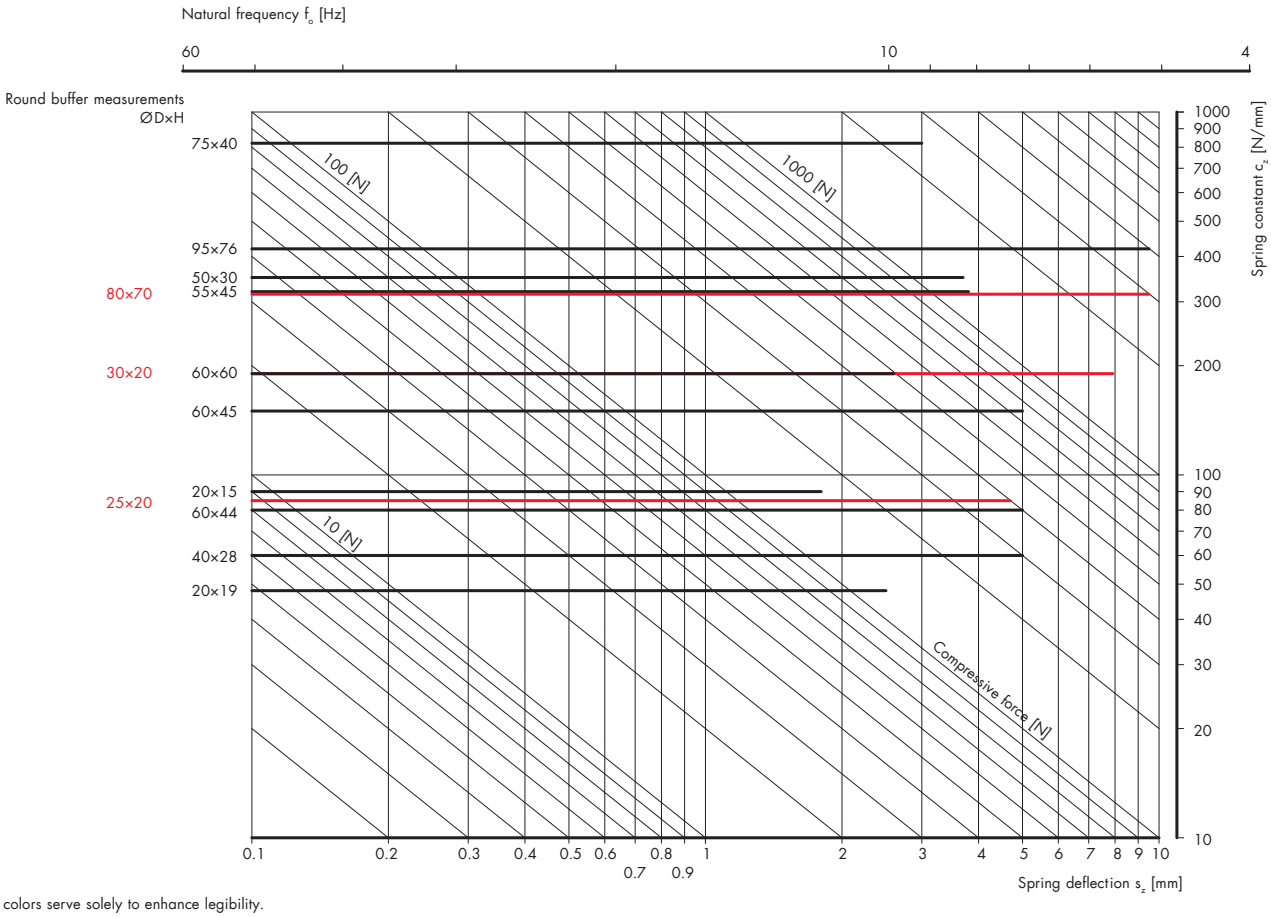
Attention:
Round buffers with threaded bolts on both ends may be subjected to pressure and thrust loads, but not to tensional loads.

On request:
- soft hardness, approx. 40 Shore A: spring constant: × 0.5; compressive force: × 0.68
- hard hardness, approx. 70 Shore A: spring constant: × 2.0; compressive force: × 1.4

Ordering example:
- soft hardness (approx. 40 Shore A): 12.2033.10**01**
- medium hardness (approx. 55 Shore A): 12.2033.10**03**
- hard hardness (approx. 70 Shore A): 12.2033.10**04**



Performance chart for APSOvib® round buffer shape D, medium hardness



The different colors serve solely to enhance legibility.

APSOvib® round buffer shape E, medium hardness

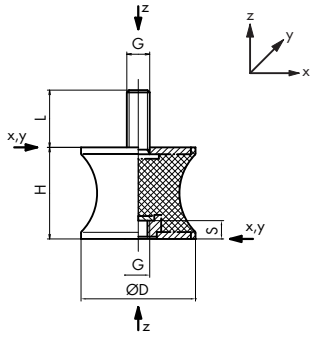
Item number	Diameter D	Height H	Thread G	Thread length L	Thread depth s	Compressive force F_z	Spring deflection s_z	Spring constant c_z	Spring constant $c_{x,y}$	Norm
	mm	mm	–	mm	mm	N	mm	N/mm	N/mm	–
12.2034.1003	20	15	M6	20	6.0	160	1.2	130.0	22.0	DIN 95363
12.2034.1013	25	20	M6	20	6.0	400	4.4	90.0	15.0	DIN 95363
12.2034.1023	30	20	M8	20	6.0	500	2.1	240.0	40.0	DIN 95363

Material used for elastomer part: NR, black
Material used for connecting part: chromated galvanized steel
Shape: DIN 95363, shape E
Hardness: medium, approx. 55 Shore A
Tolerance: DIN 2768-c, DIN ISO 3302-1 M3, DIN ISO 4759-1 class A
Working temperature: –30 to +70 °C
EU guidelines: complies with 2002/95/EG (RoHS)
Intended use:
Round buffers are suitable for elastic fixation and vibration-insulating mounting of small to midsize equipment units.

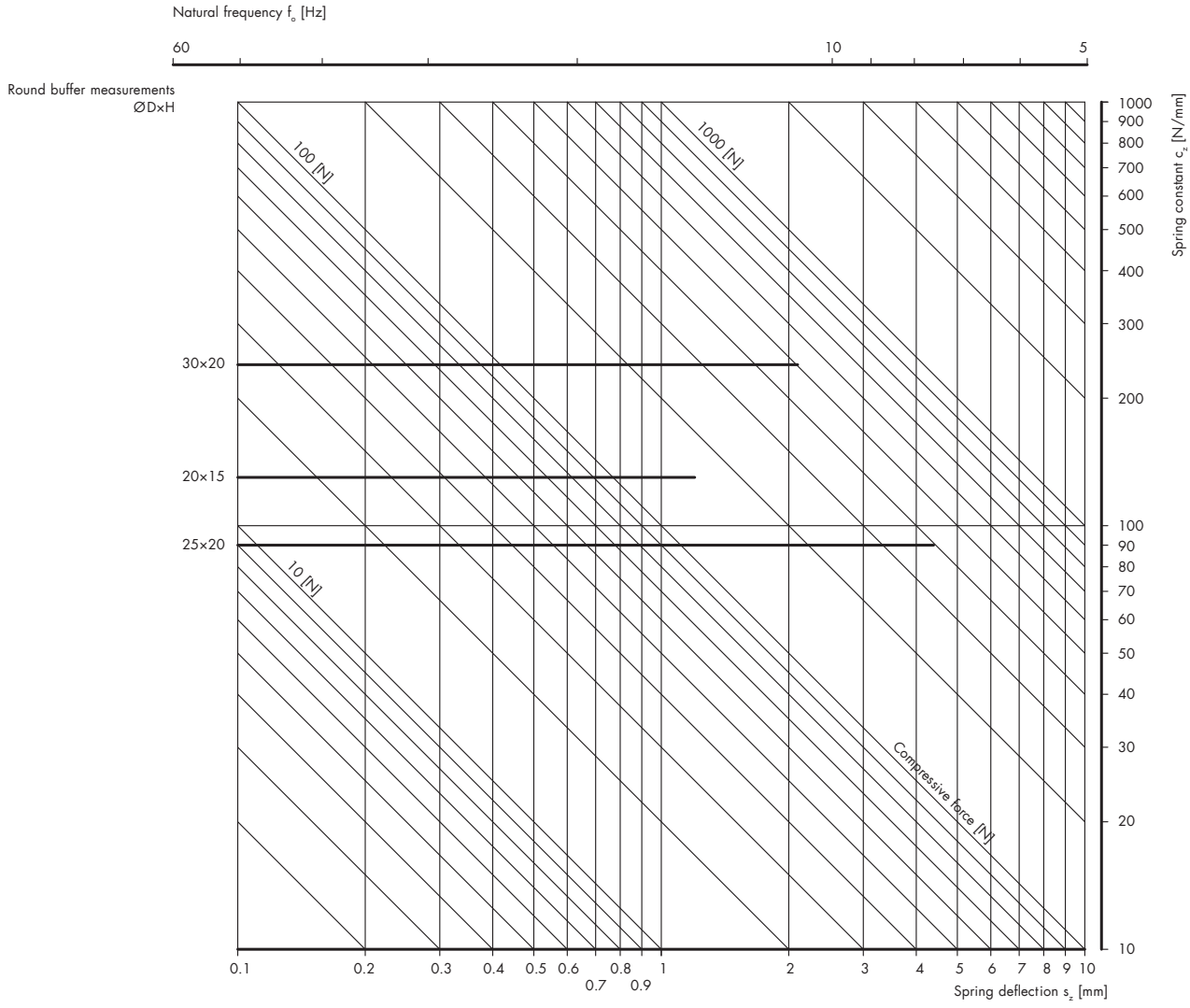
Attention:
Round buffers with threaded bolts on both ends may be subjected to pressure and thrust loads, but not to tensional loads.

On request:
– soft hardness, approx. 40 Shore A: spring constant: × 0.5; compressive force: × 0.68
– hard hardness, approx. 70 Shore A: spring constant: × 2.0; compressive force: × 1.4

Ordering example:
– soft hardness (approx. 40 Shore A): 12.2034.10**01**
– medium hardness (approx. 55 Shore A): 12.2034.10**03**
– hard hardness (approx. 70 Shore A): 12.2034.10**04**



Performance chart for APSOvib® round buffer shape E, medium hardness



APSOvib® round buffer shape F, medium hardness

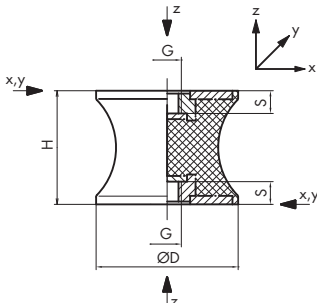
Item number	Diameter D	Height H	Thread G	Thread depth s	Compressive force F_z	Spring deflection s_z	Spring constant c_z	Spring constant $c_{x,y}$	Norm
	mm	mm	–	mm	N	mm	N/mm	N/mm	–
12.2035.1003	25	20	M6	6.0	400	4.0	100.0	17.0	DIN 95363
12.2035.1013	55	45	M10	10.0	1200	3.0	400.0	67.0	DIN 95363

Material used for elastomer part: NR, black
Material used for connecting part: chromated galvanized steel
Shape: DIN 95363, shape F
Hardness: medium, approx. 55 Shore A
Tolerance: DIN 2768-c, DIN ISO 3302-1 M3, DIN ISO 4759-1 class A
Working temperature: –30 to +70 °C
EU guidelines: complies with 2002/95/EG (RoHS)
Intended use:
Round buffers are suitable for elastic fixation and vibration-insulating mounting of small to midsize equipment units.

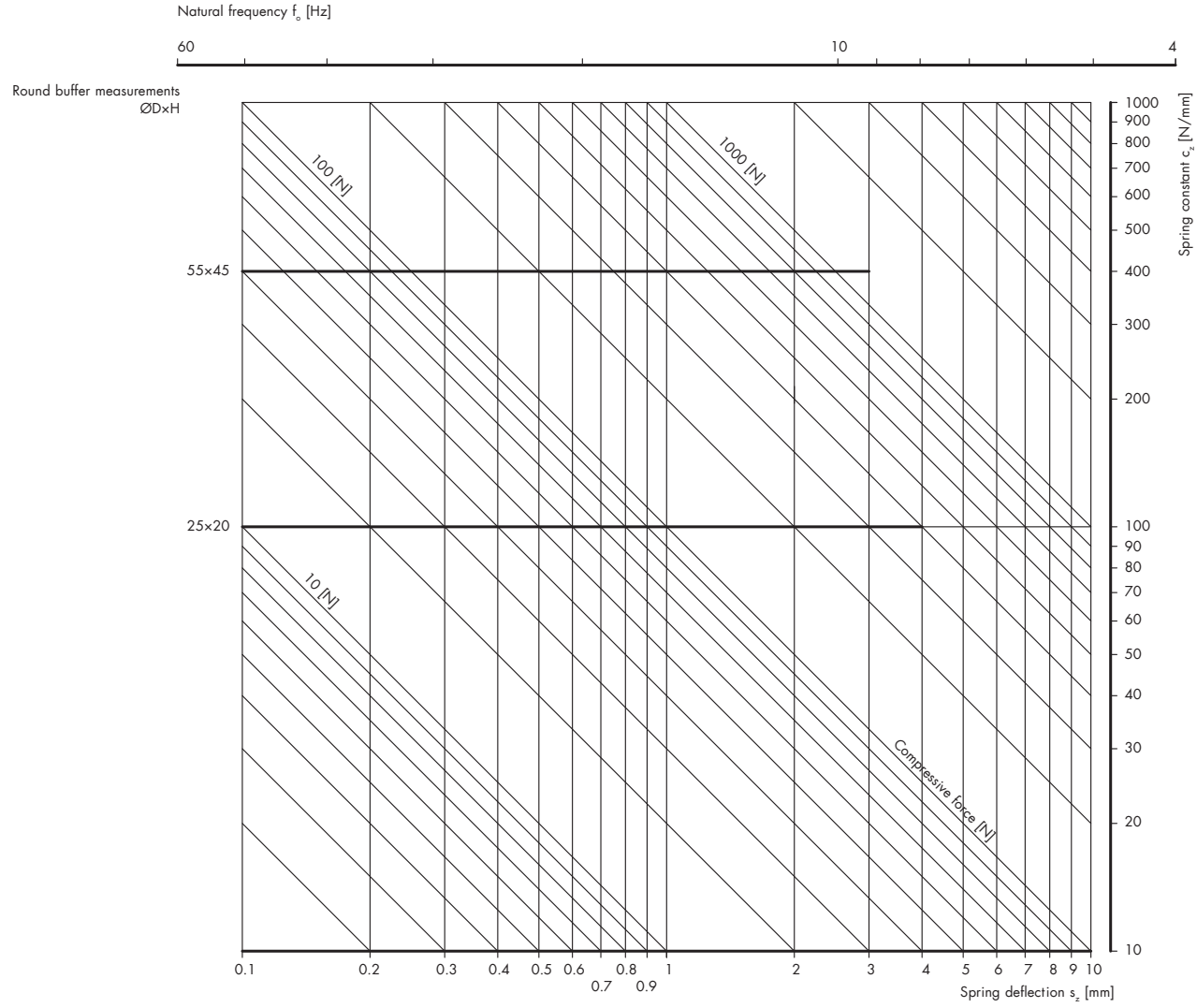
Attention:
Round buffers with threaded bolts on both ends may be subjected to pressure and thrust loads, but not to tensional loads.

On request:
– soft hardness, approx. 40 Shore A: spring constant: × 0.5; compressive force: × 0.68
– hard hardness, approx. 70 Shore A: spring constant: × 2.0; compressive force: × 1.4

Ordering example:
– soft hardness (approx. 40 Shore A): 12.2035.10**01**
– medium hardness (approx. 55 Shore A): 12.2035.10**03**
– hard hardness (approx. 70 Shore A): 12.2035.10**04**



Performance chart for APSOvib® round buffer shape F, medium hardness



APSOvib® stop buffer shape A, medium hardness

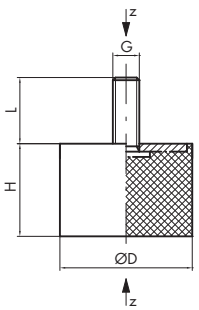
Item number	Diameter D	Height H	Thread G	Thread length L	Compressive force F_z	Spring deflection s_z	Spring constant c_z	Norm
	mm	mm	–	mm	N	mm	N/mm	–
12.2036.0003	10	10.0	M4	10.0	50	1.3	38.0	–
12.2036.0013	15	14.0	M4	13.0	90	1.5	59.0	DIN 95364
12.2036.0023	15	15.0	M4	13.0	90	1.5	59.0	DIN 95364
12.2036.0033	16	10.0	M5	12.0	150	1.3	116.0	–
12.2036.0043	16	15.0	M5	12.0	135	2.3	60.0	–
12.2036.0053	16	20.0	M5	12.0	115	2.8	41.0	–
12.2036.0063	16	25.0	M5	12.0	110	3.7	30.0	–
12.2036.0073	18	7.5	M6	16.0	190	0.8	250.0	DIN 95364
12.2036.0083	20	8.5	M6	16.0	350	1.0	350.0	–
12.2036.0093	20	10.0	M6	16.0	300	1.3	235.0	DIN 95364
12.2036.0103	20	13.5	M6	16.0	230	1.9	120.0	DIN 95364
12.2036.0113	20	15.0	M6	16.0	260	2.4	110.0	DIN 95364
12.2036.0123	20	20.0	M6	16.0	200	2.9	70.0	–
12.2036.0133	20	23.0	M6	16.0	150	2.5	59.0	DIN 95364
12.2036.0143	20	25.0	M6	16.0	185	3.6	52.0	–
12.2036.0153	25	10.0	M8	20.0	540	1.2	450.0	–
12.2036.0163	25	13.0	M6	18.0	430	1.7	260.0	–
12.2036.0173	25	15.0	M8	20.0	390	2.0	200.0	–
12.2036.0183	25	17.0	M6	16.0	350	2.3	150.0	DIN 95364
12.2036.0193	25	19.0	M8	20.0	335	2.5	132.0	–
12.2036.0203	25	20.0	M6	16.0	320	2.8	113.0	DIN 95364
12.2036.0213	25	25.0	M8	20.0	300	3.4	88.0	–
12.2036.0223	25	28.0	M6	16.0	300	4.1	73.0	DIN 95364
12.2036.0233	25	30.0	M8	20.0	280	4.1	68.0	–
12.2036.0243	30	15.0	M8	23.0	650	1.9	340.0	–
12.2036.0253	30	17.0	M8	20.0	400	1.5	270.0	DIN 95364
12.2036.0263	30	20.0	M8	20.0	380	1.9	200.0	DIN 95364
12.2036.0273	30	22.0	M8	23.0	360	2.1	170.0	–
12.2036.0283	30	28.0	M8	20.0	350	3.2	110.0	–
12.2036.0293	30	29.0	M8	20.5	350	3.0	115.0	DIN 95364
12.2036.0303	30	30.0	M8	23.0	340	3.4	100.0	–
12.2036.0313	40	20.0	M10	25.0	1200	2.9	415.0	–
12.2036.0323	40	25.0	M10	25.0	1000	3.6	280.0	–
12.2036.0333	40	27.0	M8	21.0	800	3.3	240.0	DIN 95364
12.2036.0343	40	28.0	M8	23.0	700	3.0	230.0	–
12.2036.0353	40	29.0	M8	24.5	600	2.8	215.0	DIN 95364
12.2036.0363	40	35.0	M10	25.0	600	3.8	160.0	–
12.2036.0373	40	38.0	M8	24.5	600	5.9	102.0	DIN 95364
12.2036.0383	40	40.0	M10	25.0	580	4.3	135.0	–
12.2036.0393	40	45.0	M10	25.0	500	4.5	110.0	–
12.2036.0403	50	21.0	M10	25.0	1800	2.9	620.0	DIN 95364
12.2036.0413	50	25.0	M10	25.0	1600	3.2	500.0	–
12.2036.0423	50	28.0	M10	25.0	1400	4.0	347.0	DIN 95364
12.2036.0433	50	35.0	M10	25.0	1100	3.9	280.0	–
12.2036.0443	50	44.0	M10	25.0	1100	5.1	215.0	DIN 95364
12.2036.0453	50	45.0	M10	25.0	1000	5.3	190.0	–
12.2036.0463	60	25.0	M10	25.0	2800	3.3	840.0	–
12.2036.0473	60	36.0	M10	25.0	2100	4.9	430.0	–
12.2036.0483	60	45.0	M10	25.0	1900	6.3	300.0	–

Material used for elastomer part: NR, black
Material used for connecting part: chromated galvanized steel
Shape: DIN 95364, shape A
Hardness: medium, approx. 55 Shore A
Tolerance: DIN 2768-c, DIN ISO 3302-1 M3, DIN ISO 4759-1 class A
Working temperature: –30 to +70 °C
EU guidelines: complies with 2002/95/EG (RoHS)
Intended use:
Stop buffers are suitable for all types of end stops and for vibration-insulating mounting of small to midsize equipment units.

Attention:
Stop buffers may only be subjected to pressure loads.

On request:
– soft hardness, approx. 40 Shore A: spring constant: × 0.5; compressive force: × 0.68
– hard hardness, approx. 70 Shore A: spring constant: × 2.0; compressive force: × 1.4

Ordering example:
– soft hardness (approx. 40 Shore A): 12.2036.00**01**
– medium hardness (approx. 55 Shore A): 12.2036.00**03**
– hard hardness (approx. 70 Shore A): 12.2036.00**04**



APSOvib® stop buffer shape A, medium hardness

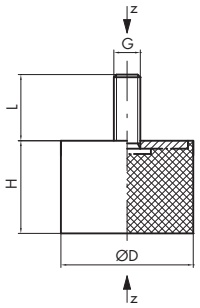
Item number	Diameter D	Height H	Thread G	Thread length L	Compressive force F_z	Spring deflection s_z	Spring constant c_z	Norm
	mm	mm	–	mm	N	mm	N/mm	–
12.2036.0493	70	35.0	M10	25.0	2100	3.2	650.0	–
12.2036.0503	70	43.0	M10	25.0	1900	4.0	477.0	DIN 95364
12.2036.0513	70	50.0	M10	25.0	2600	6.8	380.0	–
12.2036.0523	70	70.0	M10	25.0	2300	10.0	230.0	–
12.2036.0533	75	20.0	M12	37.0	4500	1.5	3000.0	DIN 95364
12.2036.0543	75	25.0	M12	37.0	3200	2.7	1200.0	DIN 95364
12.2036.0553	75	53.0	M12	37.0	2200	5.1	432.0	DIN 95364
12.2036.0563	80	30.0	M14	35.0	5300	4.1	1300.0	–
12.2036.0573	80	40.0	M14	35.0	4200	5.5	760.0	–
12.2036.0583	80	80.0	M14	35.0	3000	11.3	265.0	–
12.2036.0593	100	40.0	M16	44.0	4800	3.8	1250.0	DIN 95364
12.2036.0603	100	50.0	M20	43.0	4000	7.4	541.0	DIN 95364

Material used for elastomer part: NR, black
Material used for connecting part: chromated galvanized steel
Shape: DIN 95364, shape A
Hardness: medium, approx. 55 Shore A
Tolerance: DIN 2768-c, DIN ISO 3302-1 M3, DIN ISO 4759-1 class A
Working temperature: –30 to +70 °C
EU guidelines: complies with 2002/95/EG (RoHS)
Intended use:
Stop buffers are suitable for all types of end stops and for vibration-insulating mounting of small to midsize equipment units.

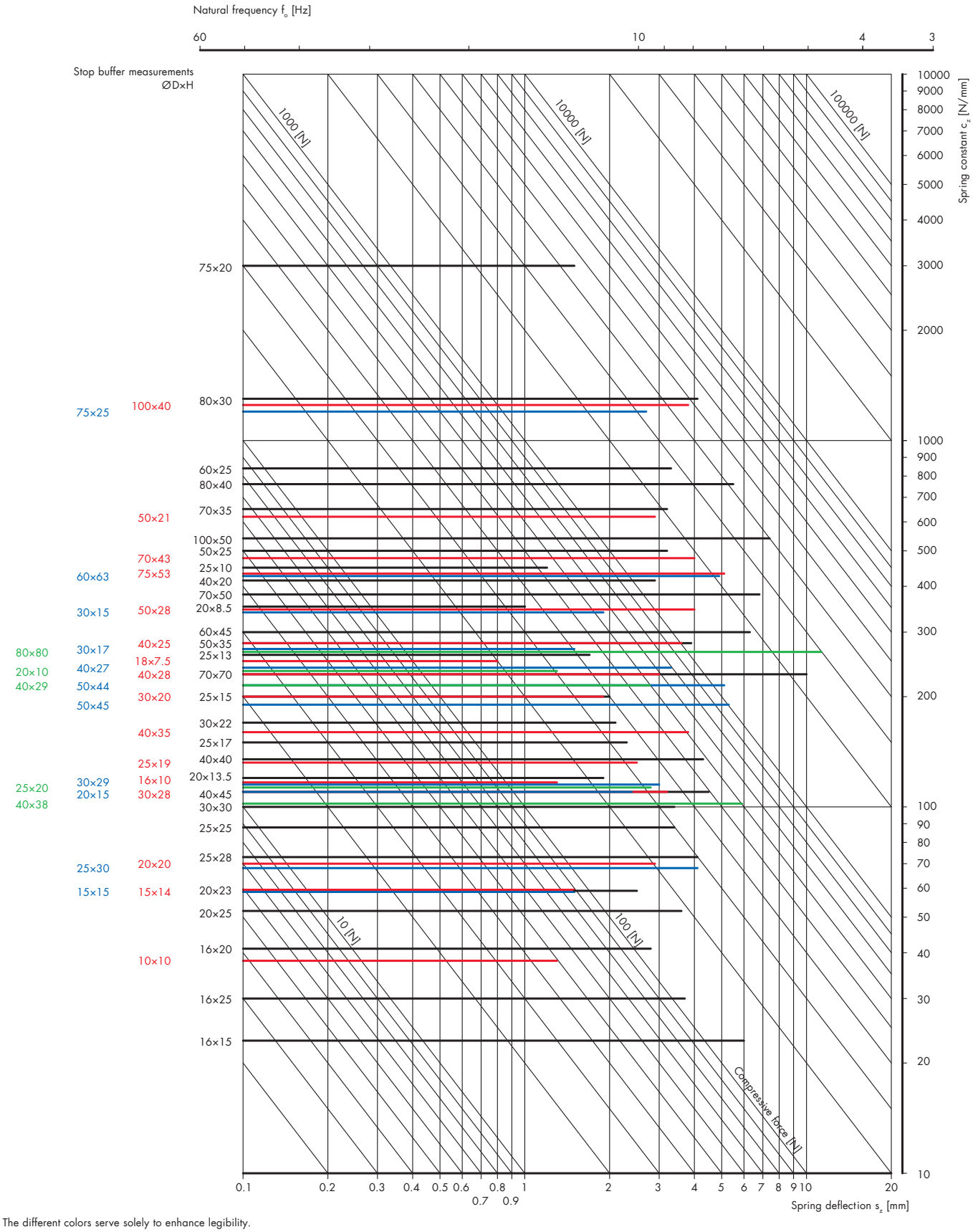
Attention:
Stop buffers may only be subjected to pressure loads.

On request:
– soft hardness, approx. 40 Shore A: spring constant: × 0.5; compressive force: × 0.68
– hard hardness, approx. 70 Shore A: spring constant: × 2.0; compressive force: × 1.4

Ordering example:
– soft hardness (approx. 40 Shore A): 12.2036.04**91**
– medium hardness (approx. 55 Shore A): 12.2036.04**93**
– hard hardness (approx. 70 Shore A): 12.2036.04**94**



Performance chart for APSOvib® stop buffer shape A, medium hardness



The different colors serve solely to enhance legibility.

APSOvib® stop buffer shape B, medium hardness

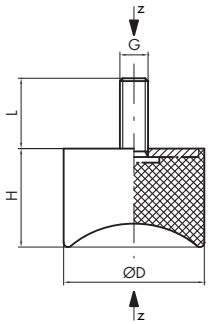
Item number	Diameter D	Height H	Thread G	Thread length L	Compressive force F_z	Spring deflection s_z	Spring constant c_z	Norm
	mm	mm	–	mm	N	mm	N/mm	–
12.2036.1003	15	14.0	M4	13.0	90	1.8	50.0	DIN 95364
12.2036.1013	20	23.5	M6	18.0	150	2.4	62.5	–
12.2036.1023	25	18.5	M6	16.0	250	2.6	95.0	DIN 95364
12.2036.1033	25	20.0	M6	16.0	320	3.0	105.0	DIN 95364
12.2036.1043	30	29.0	M8	20.5	350	3.6	96.0	DIN 95364
12.2036.1053	40	29.0	M8	24.5	600	3.8	158.0	DIN 95364
12.2036.1063	50	28.0	M10	25.0	1400	6.4	220.0	DIN 95364
12.2036.1073	70	43.0	M10	25.0	1900	5.2	364.0	DIN 95364
12.2036.1083	75	37.0	M12	37.0	2200	5.6	392.8	–
12.2036.1093	100	50.0	M16	45.0	4000	7.4	540.5	–

Material used for elastomer part: NR, black
Material used for connecting part: chromated galvanized steel
Shape: DIN 95364, shape B
Hardness: medium, approx. 55 Shore A
Tolerance: DIN 2768-c, DIN ISO 3302-1 M3, DIN ISO 4759-1 class A
Working temperature: –30 to +70 °C
EU guidelines: complies with 2002/95/EG (RoHS)
Intended use:
Stop buffers with suction feet are suitable for non-slip and vibration-insulating mounting of small to midsize equipment units.

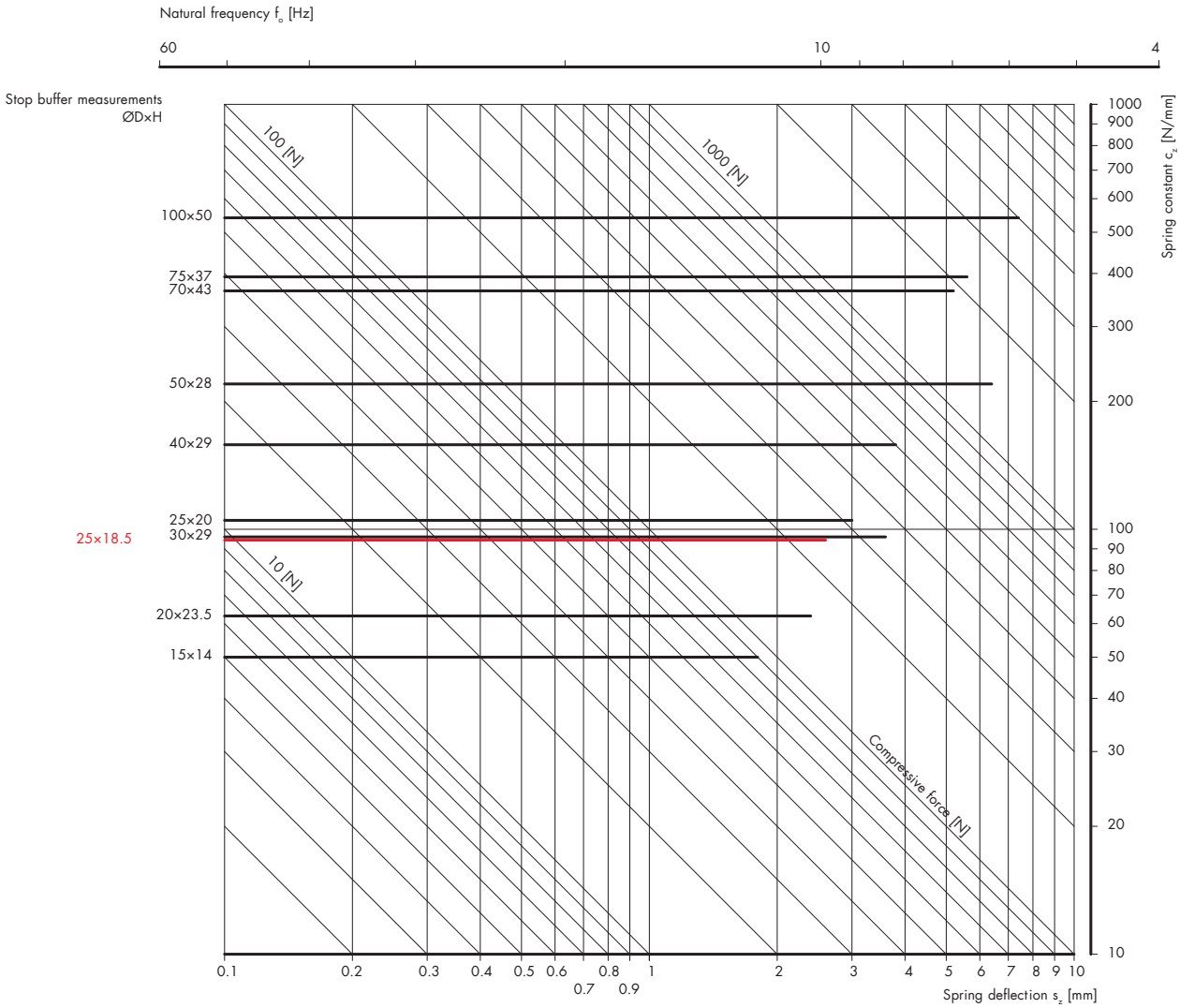
Attention:
Stop buffers may only be subjected to pressure loads.

On request:
- soft hardness, approx. 40 Shore A: spring constant: × 0.5; compressive force: × 0.68
- hard hardness, approx. 70 Shore A: spring constant: × 2.0; compressive force: × 1.4

Ordering example:
- soft hardness (approx. 40 Shore A): 12.2036.10**01**
- medium hardness (approx. 55 Shore A): 12.2036.10**03**
- hard hardness (approx. 70 Shore A): 12.2036.10**04**



Performance chart for APSOvib® stop buffer shape B, medium hardness



The different colors serve solely to enhance legibility.

APSOvib® stop buffer shape C, medium hardness

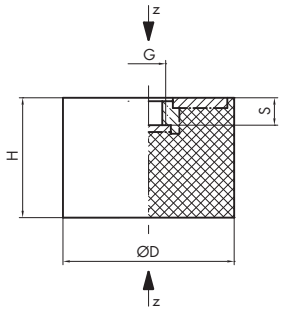
Item number	Diameter D	Height H	Thread G	Thread length L	Compressive force F_z	Spring deflection s_z	Spring constant c_z	Norm
	mm	mm	–	mm	N	mm	N/mm	–
12.2037.0003	10	10.0	M4	4.0	50.0	1.1	45.0	DIN 95364
12.2037.0013	15	15.0	M4	4.0	90.0	1.3	72.0	–
12.2037.0023	20	13.5	M6	6.5	230.0	1.2	200.0	DIN 95364
12.2037.0033	20	15.0	M6	6.0	260.0	2.2	120.0	DIN 95364
12.2037.0043	25	17.0	M6	6.0	290.0	1.2	250.0	–
12.2037.0053	30	16.0	M8	8.0	300.0	0.9	330.0	DIN 95364
12.2037.0063	30	17.0	M8	8.0	400.0	0.9	430.0	DIN 95364
12.2037.0073	30	20.0	M8	10.0	380.0	0.8	500.0	–
12.2037.0083	30	29.0	M8	8.0	350.0	2.6	137.0	DIN 95364
12.2037.0093	40	27.0	M8	8.0	800.0	2.6	310.0	DIN 95364
12.2037.0103	40	28.0	M8	8.0	700.0	2.1	335.0	–
12.2037.0113	40	29.0	M8	9.5	600.0	2.0	302.0	DIN 95364
12.2037.0123	50	21.0	M10	10.5	1800.0	2.9	620.0	DIN 95364
12.2037.0133	50	30.0	M10	10.0	1300.0	3.1	420.0	DIN 95364
12.2037.0143	50	44.0	M10	10.0	1100.0	4.8	229.0	DIN 95364
12.2037.0153	75	25.0	M12	12.5	3200.0	2.1	1500.0	DIN 95364
12.2037.0163	75	53.0	M12	12.0	2200.0	4.5	488.0	DIN 95364
12.2037.0173	100	40.0	M16	16.5	4800.0	3.1	1550.0	DIN 95364
12.2037.0183	100	45.0	M16	16.0	7200.0	6.5	1100.0	DIN 95364
12.2037.0193	100	50.0	M20	20.0	4000.0	4.3	937.0	DIN 95364
12.2037.0203	150	75.0	M20	17.5	10500.0	6.9	1515.0	DIN 95364
12.2037.0213	200	100.0	M20	17.5	19000.0	10.3	1841.0	DIN 95364

Material used for elastomer part: NR, black
Material used for connecting part: chromated galvanized steel
Shape: DIN 95364, shape C
Hardness: medium, approx. 55 Shore A
Tolerance: DIN 2768-c, DIN ISO 3302-1 M3, DIN ISO 4759-1 class A
Working temperature: –30 to +70 °C
EU guidelines: complies with 2002/95/EG (RoHS)
Intended use:
Stop buffers are suitable for all types of end stops and for vibration-insulating mounting of small to midsize equipment units.

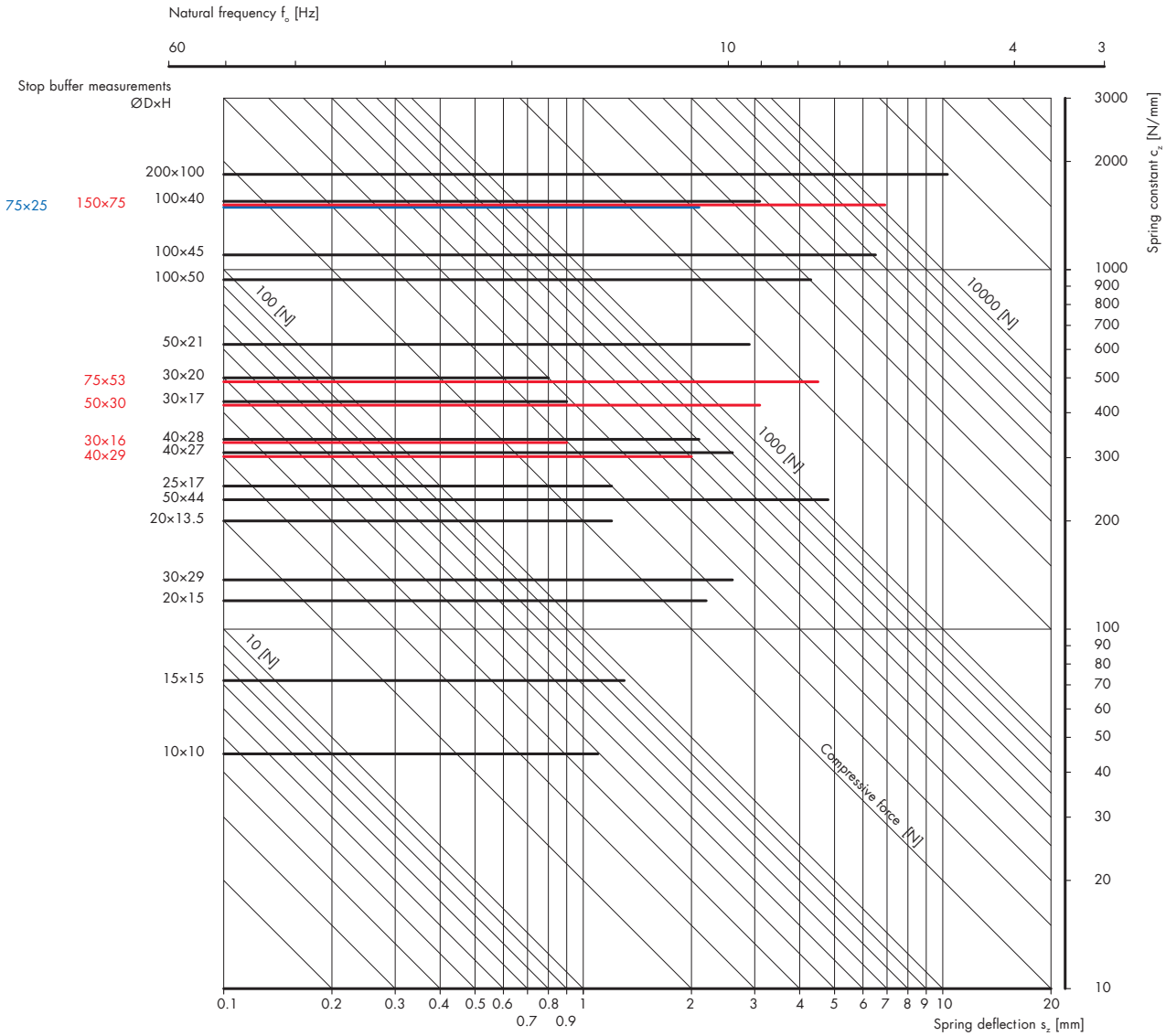
Attention:
Stop buffers may only be subjected to pressure loads.

On request:
– soft hardness, approx. 40 Shore A: spring constant: × 0.5; compressive force: × 0.68
– hard hardness, approx. 70 Shore A: spring constant: × 2.0; compressive force: × 1.4

Ordering example:
– soft hardness (approx. 40 Shore A): 12.2037.00**01**
– medium hardness (approx. 55 Shore A): 12.2037.00**03**
– hard hardness (approx. 70 Shore A): 12.2037.00**04**



Performance chart for APSOvib® stop buffer shape C, medium hardness



The different colors serve solely to enhance legibility.

APSOvib® stop buffer shape D, medium hardness

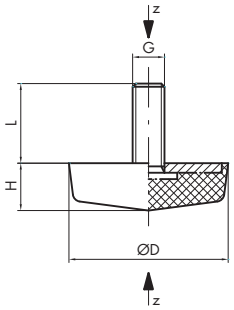
Item number	Diameter D	Height H	Thread G	Thread length L	Compressive force F_z	Spring deflection s_z	Energy	Norm
	mm	mm	–	mm	N	mm	N × m	–
12.2036.2003	25	16	M6	20	1000	7.0	3.0	DIN 95364
12.2036.2013	50	18	M10	25	4000	4.0	5.0	DIN 95364
12.2036.2023	80	30	M12	37	20000	9.0	70.0	DIN 95364
12.2036.2033	125	45	M16	44	50000	18.0	300.0	DIN 95364

Material used for elastomer part: NR, black
Material used for connecting part: chromated galvanized steel
Shape: DIN 95364, shape D
Hardness: medium, approx. 55 Shore A
Tolerance: DIN 2768-c, DIN ISO 3302-1 M3, DIN ISO 4759-1 class A
Working temperature: –30 to +70 °C
EU guidelines: complies with 2002/95/EG (RoHS)
Intended use:
Thanks to their high energy absorption and low inherent damping characteristic, conical stop buffers are suitable for cushioning the impact of parts and components that need to be slowed down or stopped.

Attention:
Stop buffers may only be subjected to pressure loads.

On request:
– soft hardness, approx. 40 Shore A: spring constant: × 0.5; compressive force: × 0.68
– hard hardness, approx. 70 Shore A: spring constant: × 2.0; compressive force: × 1.4

Ordering example:
– soft hardness (approx. 40 Shore A): 12.2036.20**01**
– medium hardness (approx. 55 Shore A): 12.2036.20**03**
– hard hardness (approx. 70 Shore A): 12.2036.20**04**



APSOvib® stop buffer shape E, medium hardness

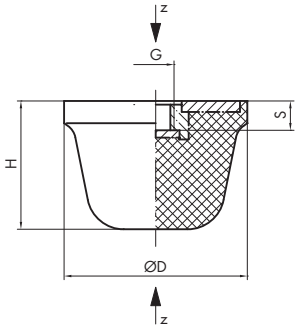
Item number	Diameter D	Height H	Thread G	Thread length L	Compressive force F_z	Spring deflection s_z	Energy	Norm
	mm	mm	–	mm	N	mm	N × m	–
12.2037.1003	50	35	M10	8.8	4000	16	20	DIN 95364
12.2037.1013	80	60	M12	11.6	12000	31	120	DIN 95364
12.2037.1023	125	90	M16	17.5	30000	45	400	DIN 95364

Material used for elastomer part: NR, black
Material used for connecting part: chromated galvanized steel
Shape: DIN 95364, shape E
Hardness: medium, approx. 55 Shore A
Tolerance: DIN 2768-c, DIN ISO 3302-1 M3, DIN ISO 4759-1 class A
Working temperature: –30 to +70 °C
EU guidelines: complies with 2002/95/EG (RoHS)
Intended use:
Thanks to their high energy absorption and low inherent damping characteristic, conical stop buffers are suitable for cushioning the impact of parts and components that need to be slowed down or stopped.

Attention:
Stop buffers may only be subjected to pressure loads.

On request:
– soft hardness, approx. 40 Shore A: spring constant: × 0.5; compressive force: × 0.68
– hard hardness, approx. 70 Shore A: spring constant: × 2.0; compressive force: × 1.4

Ordering example:
– soft hardness (approx. 40 Shore A): 12.2037.10**01**
– medium hardness (approx. 55 Shore A): 12.2037.10**03**
– hard hardness (approx. 70 Shore A): 12.2037.10**04**



APSOvib® stop buffer shape F, medium hardness

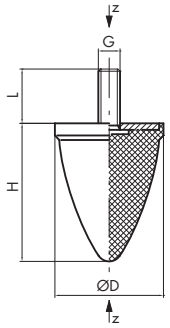
Item number	Diameter D	Height H	Thread G	Thread length L	Compressive force F_z	Spring deflection s_z	Energy	Norm
	mm	mm	–	mm	N	mm	N × m	–
12.2036.3003	20	24	M6	20	550	14.0	2.2	DIN 95364
12.2036.3013	25	19	M8	20	1000	8.0	3.0	–
12.2036.3023	30	30	M8	12	1400	15.0	6.0	–
12.2036.3033	30	36	M8	20	1400	20.0	7.4	DIN 95364
12.2036.3043	50	50	M8	19	3400	25.0	30.0	–
12.2036.3053	50	58	M10	25	4000	35.0	37.0	DIN 95364
12.2036.3063	50	58	M8	19	4000	28.0	37.0	–
12.2036.3073	50	61	M8	26	2600	25.0	23.7	–
12.2036.3083	50	67	M8	25	3100	30.0	31.0	DIN 95364
12.2036.3093	72	58	M12	37	5500	26.0	50.0	–
12.2036.3103	75	89	M12	37	8500	50.0	118.0	DIN 95364
12.2036.3113	95	80	M16	47	11000	37.0	120.0	–
12.2036.3123	95	83	M16	37	7500	35.0	91.0	DIN 95364
12.2036.3133	115	136	M16	44	17000	80.0	420.0	DIN 95364

Material used for elastomer part: NR, black
Material used for connecting part: chromated galvanized steel
Shape: DIN 95364, shape F
Hardness: medium, approx. 55 Shore A
Tolerance: DIN 2768-c, DIN ISO 3302-1 M3, DIN ISO 4759-1 class A
Working temperature: –30 to +70 °C
EU guidelines: complies with 2002/95/EG (RoHS)
Intended use:
Parabolic stop buffers are especially suitable for use as emergency end stops thanks to their progressive spring characteristic.

Attention:
Stop buffers may only be subjected to pressure loads.

On request:
- soft hardness, approx. 40 Shore A: spring constant: × 0.5; compressive force: × 0.68
- hard hardness, approx. 70 Shore A: spring constant: × 2.0; compressive force: × 1.4

Ordering example:
- soft hardness (approx. 40 Shore A): 12.2036.30**01**
- medium hardness (approx. 55 Shore A): 12.2036.30**03**
- hard hardness (approx. 70 Shore A): 12.2036.30**04**



APSOvib® stop buffer shape G, medium hardness

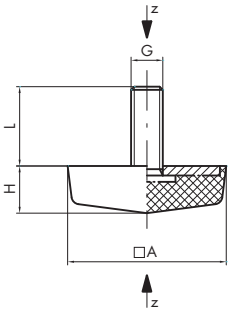
Item number	Width A	Height H	Thread G	Thread length L	Compressive force F_z	Spring deflection s_z	Energy	Norm
	mm	mm	–	mm	N	mm	N × m	–
12.2036.4003	80×80	25	M12	35	20000	8.7	59.5	–
12.2036.4013	80×80	30	M12	35	20000	10.0	70.0	DIN 95364

Material used for elastomer part: NR, black
Material used for connecting part: chromated galvanized steel
Shape: DIN 95364, shape G
Hardness: medium, approx. 55 Shore A
Tolerance: DIN 2768-c, DIN ISO 3302-1 M3, DIN ISO 4759-1 class A
Working temperature: –30 to +70 °C
EU guidelines: complies with 2002/95/EG (RoHS)
Intended use:
Thanks to their high energy absorption and low inherent damping characteristic, conical stop buffers are suitable for cushioning the impact of parts and components that need to be slowed down or stopped.

Attention:
Stop buffers may only be subjected to pressure loads.

On request:
- soft hardness, approx. 40 Shore A: spring constant: × 0.5; compressive force: × 0.68
- hard hardness, approx. 70 Shore A: spring constant: × 2.0; compressive force: × 1.4

Ordering example:
- soft hardness (approx. 40 Shore A): 12.2036.40**01**
- medium hardness (approx. 55 Shore A): 12.2036.40**03**
- hard hardness (approx. 70 Shore A): 12.2036.40**04**



Online shopping with APSOparts® takes you faster to the product you want!

APSOparts® is the Angst+Pfister Group's online shop. Here you will find Angst+Pfister's complete standard range of high-grade industrial components.

Online ordering – easy and efficient

Twenty-four hours a day and seven days a week you can directly access Angst+Pfister's tried and trusted range of more than 100,000 standard items and order them online – with a delivery time of 24 to 48 hours. Items that are not immediately available from stock are indicated via a traffic light symbol.

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Your advantages at a glance

- Special APSOparts® shop discount
- No surcharge for small orders
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- Display of product availability

Order from APSOparts® in just a few quick and easy steps

APSOparts®: Key icons and symbols

Click on the calculator icon to view graduated prices.

If you want to place the indicated quantity of your chosen item in your shopping cart, click on the shopping cart icon on the same line.

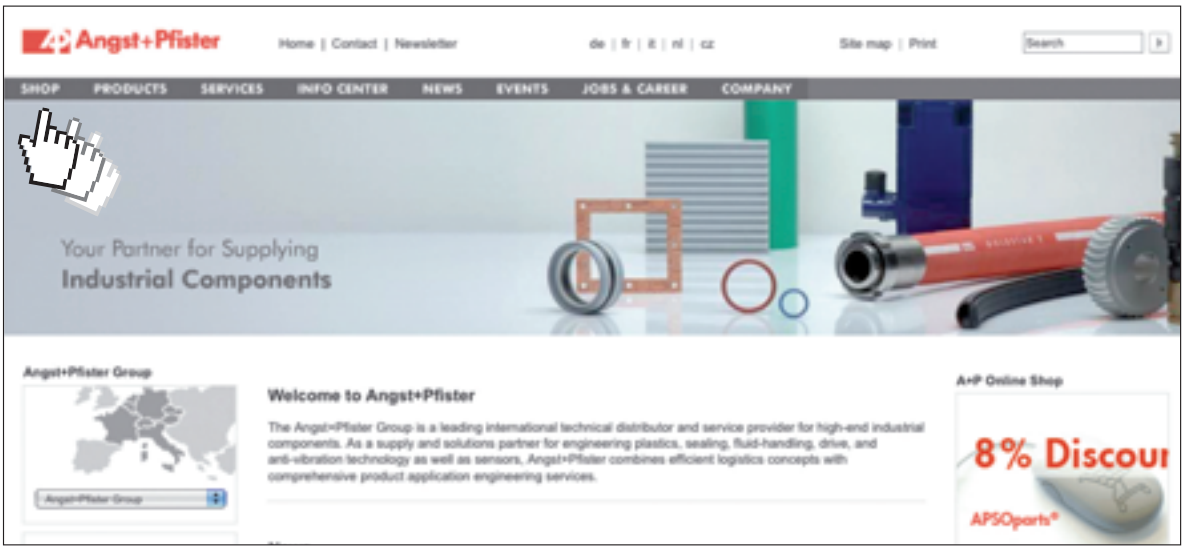
When you click on this symbol, a comment box opens below the selected order item (to enable you, for example, to specify your own item number).

1 Open APSOparts®

Many paths lead to APSOparts®. Here's how to find Angst + Pfister's online shop:

- on the Angst+Pfister website at www.angst-pfister.com, select the menu item "Shop" Ⓐ or click on the APSOparts® logo Ⓑ;
- or go directly to the APSOparts® website at http://shop.angst-pfister.com for prices listed in euros;
- or to http://shop.angst-pfister.ch for prices listed in Swiss francs.

Ⓐ



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2 Register with APSOparts® for a personalized price quote

APSOparts® displays all standard prices. You of course also have the option of viewing your personalized price quotes by using your personal login and password Ⓒ. A one-time registration Ⓓ is required for this. Please provide us with your name, company name, e-mail address, billing address, delivery address and VAT number. You will immediately receive a registration confirmation from us. As soon as we have checked your information, you will be connected with our system so that you can view your personalized price quotes.

Please note that your e-mail address can only be used once.

Ⓒ

Ⓓ

3 Search, calculate and shop with APSOparts®

The overview page shows you Angst+Pfister's various tried and trusted product lines. Click on the one you want to find your desired product. The navigation path G lets you jump back one or more levels.

The information on the product and item display pages is presented in tabular form. A click on "Advanced Search" J opens a helpful search interface that you can use, for example, to look for O-rings on the basis of cord diameter or inner diameter.

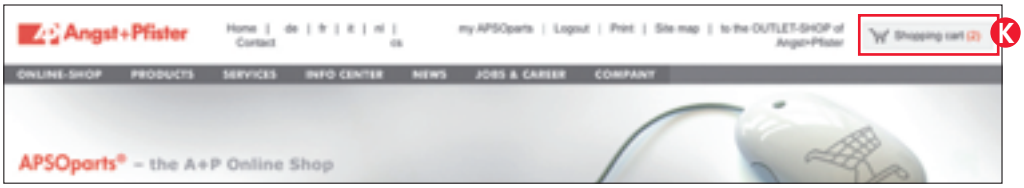
4 The APSOparts® turbocharger: Direct ordering

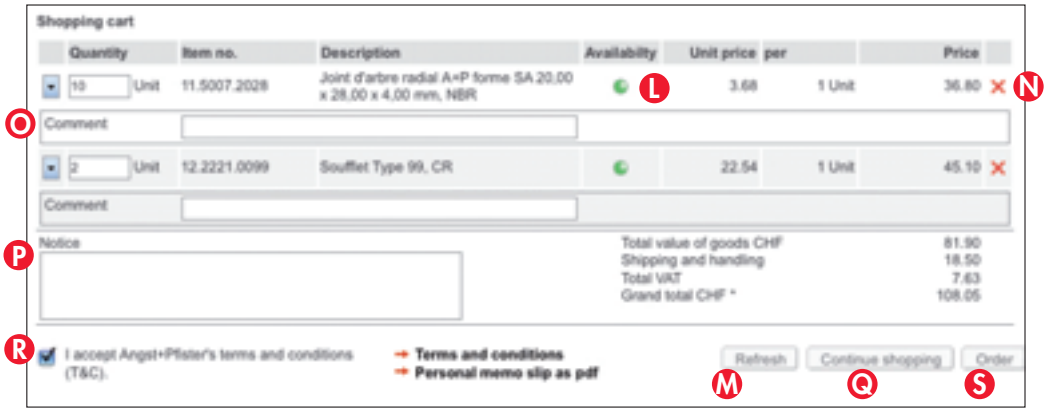
Do you already know the item number for the product you are seeking? If you do, you can order with extra speed and ease via the "Direct Order" function F, which places the desired item directly in your shopping cart.

5 The APSOparts® shopping cart

The shopping cart icon K shows the number of selected order items currently in your shopping cart. View the items in your shopping cart by clicking on the shopping cart button.

- The traffic light symbol L indicates the availability of the selected item:
  red = not in stock, the item will be backordered (the order confirmation will notify you of the delivery date);
  green = immediate availability (the ordered item will usually be shipped on the next workday).
- You can change the order quantities in the shopping cart at any time. Then click on the "Refresh" button M to recalculate the price and to view the product availability.
- Click on the red X N to remove an item from the shopping cart.
- Clicking on the arrow button O enables you to enter a comment concerning a specific order item (e.g. your own item number to be printed on the delivery slip and billing invoice). In the "Notice" box P you can add supplementary information concerning your order (e.g. your own order number).
- The "Continue shopping" button Q takes you back to the product or item page, where you can continue shopping.
- When you have placed all of the items that you want in your shopping cart and have accepted the sale and delivery terms and conditions R, click on the "Order" button S.





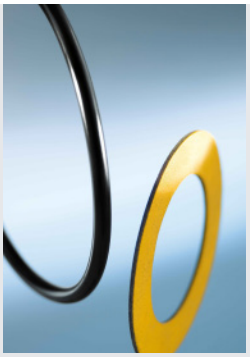
Services from Angst+Pfister Group

Angst+Pfister – Your supply and solutions partner

The Angst+Pfister Group is a leading international technical manufacturer and service provider for high-end industrial components. As a supply and solutions partner for engineering plastics, sealing, fluid handling, drive, and antivibration technology as well as sensors, Angst+Pfister combines efficient logistics concept with comprehensive product application engineering services. Besides providing customer-specific parts, the Group offers a product range consisting of approximately 100,000 standard items.

Our core product divisions

APSOplast®
Engineering Plastics
Technology



APSOseal®
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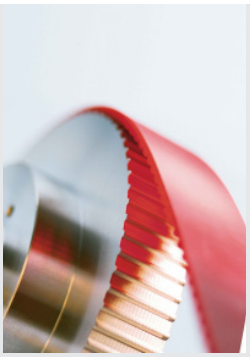
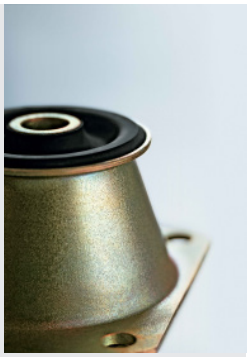
Technology

APSOfluid®
Fluid Handling
Technology



APSOdrive®
Drive
Technology



APSOvib®
Antivibration
Technology

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