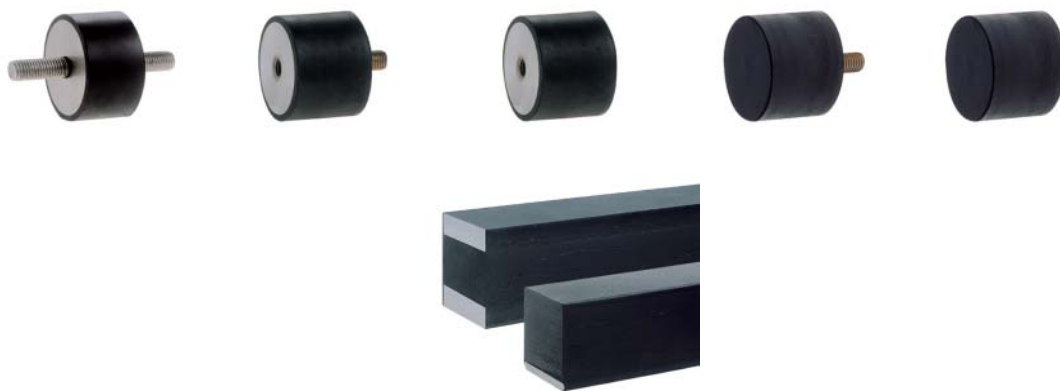


Rubber to Metal Elements

TDB0170-0002-E

Buffers for bearing of light and medium systems

Catalog number
017XXX-YYYxZZZ



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Quantity delivered:

Deviations from the order may occur on order-related manufacture and material cut. We reserve the right for a max. deviation of +/- 10 %.

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1 Examples of application

Rubber to metal elements are used for the vibration-free bearing of dynamically loaded components.

The following vibrations are insulated respectively dampened:

1. Mechanical vibrations caused by components of the system (e.g. electro motor) and abrupt impacts.
2. Impact sound (sound waves, that spread over the system parts).

2 Examples of application

- Machine frame in conveyor technique
- Frame with drive and control units in general engineering
- Conveyor systems
- Machine tools

3 Constructions and quality characteristics

The vulcanization guarantees the highest cohesiveness between rubber and steel.

Rubber to metal rails

- Metal parts vulcanized to one or two sides
- Metal part (s) primed

Rubber to metal elements:

- Metal parts vulcanized to one or two sides
- Metal parts yellow alodined

3.1 Wampfler standard rubber quality

Natural caoutchouc 55 Shore A +/-5

- Resilient and tear resistant
- Material incompressible
- Age resistant
- Operating temperature: -30 to + 70°C
- Not suited for permanent contact with: gasoline, greases, oil and ozone
- Special qualities and special constructions on inquiry!

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4 Quality degrees of the most popular materials

International abbreviated designation	NR Natural caoutchouc	CR Chloroprene caoutchouc	SBR Styrene-Butadiene caoutchouc	EPDM Ethylene-Propylene Terpolymere	NBR Nitrile-Butadiene caoutchouc	VMQ Silicone caoutchouc
Abrasion resistance	2	2	2	3	2	5
Breaking elongation	1	2	2	3	2	4
Tear resistance	2	2	3	3	3	6
Rebound elasticity	2	3	3	3	3	3
Tensile strength not reinforced	1	3	5	5	5	6
Tensile strength reinforced	1	2	2	3	2	4
Temp. resistance hot air	+90°C	+120°C	+100°C	+150°C	+130°C	+200°C
Temp. resistance coldness	-50°C	-30°C	-40°C	-40°C	-40°C	-80°C
Alkali resistance	3	2	3	2	3	5
Age resistance	3	2	3	1	3	1
Gasoline resistance	6	2	4	5	1	5
Electrical insulation resistance	1	3	2	2	4	1
Oil and grease resistance	6	2	5	4	1	1
Ozone resistance	4	2	4	1	3	1
Acid resistance	3	2	3	1	4	5
Hot water	3	3	2	2	3	5

Quality degrees of the individual materials' properties:

1 = very good; 2 = good; 3 = satisfying; 4 = sufficient; 5 = deficient; 6 = insufficient

Tolerances of the rubber to metal elements according to ISO 3302-1M3

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5 Dimensional tables

5.1 Cylindrical buffer body with two threaded bolts (type A)



Catalog No.	d ₁ [mm]	h ₁ [mm]	d ₂ [mm]	l [mm]	PE ¹⁾ [pc.]	LZ ²⁾
017211-008x008	8	8	M3	6	300	3
017211-010x010	10	10	M4	10	300	3
017211-015x008	15	8	M4	10	300	3
017211-015x010	15	10	M4	10	300	3
017211-015x015	15	15	M4	10	300	3
017211-015x020	15	20	M4	13	300	3
017211-020x010	20	10	M6	18	300	3
017211-020x015	20	15	M6	18	300	3
017211-020x020	20	20	M6	18	300	3
017211-020x025	20	25	M6	18	300	3
017211-025x010	25	10	M6	18	200	3
017211-025x015	25	15	M6	18	200	3
017211-025x020	25	20	M6	18	200	3
017211-025x025	25	25	M6	18	200	3
017211-025x030	25	30	M6	18	200	3
017211-030x015	30	15	M8	20	200	3
017211-030x020	30	20	M8	20	200	3
017211-030x025	30	25	M8	20	200	3
017211-030x030	30	30	M8	20	200	3
017211-030x040	30	40	M8	20	200	3
017211-040x015	40	15	M8	13	100	3
017211-040x025	40	25	M8	13	100	3
017211-040x030	40	30	M8	23	100	3
017211-040x040	40	40	M8	23	100	3

1) = packing unit = minimum order quantity

2) = delivery time; L = on stock, 1 = one week, 2 = two weeks, a.s.o.

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Catalog-No.	d ₁ [mm]	h ₁ [mm]	d ₂ [mm]	l [mm]	PE ¹⁾ [pc.]	LZ ²⁾
017211-050x020	50	20	M10	28	100	3
017211-050x030	50	30	M10	28	100	3
017211-050x040	50	40	M10	28	100	3
017211-050x050	50	50	M10	28	100	3
017211-060x040	60	40	M10	28	50	3
017211-070x045	70	45	M10	28	50	3
017211-075x025	75	25	M12	37	50	3
017211-075x040	75	40	M12	37	50	3
017211-075x050	75	50	M12	37	50	3
017211-100x040	100	40	M16	41	25	3
017211-100x050	100	50	M16	41	25	3
017211-100x060	100	60	M16	41	25	3
017211-100x075	100	75	M16	41	25	3
017211-150x050	150	50	M16	41	10	4
017211-150x075	150	75	M16	41	10	4

1) = packing unit = minimum order quantity

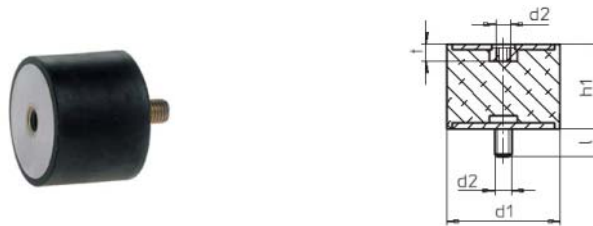
2) = delivery time; L = on stock, 1 = one week, 2 = two weeks, a.s.o.

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5.2 Cylindrical buffer body with threaded bolt and internal thread (type B)



Catalog No.	d ₁ [mm]	h ₁ [mm]	d ₂ [mm]	l [mm]	t [mm]	PE ¹⁾ [pc.]	LZ ²⁾
017212-008x008	8	8	M3	6	6	300	3
017212-010x010	10	10	M4	10	4	300	3
017212-010x015	10	15	M4	10	4	300	3
017212-015x015	15	15	M4	10	6	300	3
017212-015x020	15	20	M4	10	5	300	3
017212-015x030	15	30	M4	15	4	300	3
017212-020x015	20	15	M6	18	6	300	3
017212-020x020	20	20	M6	18	6	300	3
017212-020x025	20	25	M6	18	6	300	3
017212-025x015	25	15	M6	18	6	200	3
017212-025x020	25	20	M6	18	6	200	3
017212-025x025	25	25	M6	18	6	200	3
017212-025x030	25	30	M6	18	6	200	3
017212-030x015	30	15	M8	21	8	200	3
017212-030x020	30	20	M8	20	8	200	3
017212-030x025	30	25	M8	20	8	200	3
017212-030x030	30	30	M8	20	8	200	3
017212-030x040	30	40	M8	20	8	200	3
017212-040x025	40	25	M8	23	8	100	3
017212-040x030	40	30	M8	23	8	100	3
017212-040x040	40	40	M8	23	8	100	3

1) = packing unit = minimum order quantity

2) = delivery time; L = on stock, 1 = one week, 2 = two weeks, a.s.o.

Rubber to Metal Elements

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Buffers for bearing of light and medium systems

Catalog No.	d ₁ [mm]	h ₁ [mm]	d ₂ [mm]	l [mm]	t [mm]	PE ¹⁾ [pc.]	LZ ²⁾
017212-050x020	50	20	M10	28	10	100	3
017212-050x025	50	25	M10	28	10	100	3
017212-050x030	50	30	M10	28	10	100	3
017212-050x040	50	40	M10	28	10	100	3
017212-050x045	50	45	M10	28	10	100	3
017212-050x050	50	50	M10	28	10	100	3
017212-060x040	60	40	M10	28	10	50	3
017212-070x045	70	45	M10	28	10	50	3
017212-075x025	75	25	M12	37	12	50	3
017212-075x040	75	40	M12	37	12	50	3
017212-075x055	75	55	M12	37	12	50	3
017212-100x040	100	40	M16	41	16	25	3
017212-100x050	100	50	M16	41	16	25	3
017212-100x060	100	60	M16	41	16	25	3
017212-100x075	100	75	M16	41	16	25	3
017212-150x050	150	50	M16	41	16	10	4
017212-150x075	150	75	M16	41	16	10	4

1) = packing unit = minimum order quantity

2) = delivery time; L = on stock, 1 = one week, 2 = two weeks, a.s.o.

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Buffers for bearing of light and medium systems

5.3 Cylindrical buffer body with two interior threads (type C)



Catalog No.	d ₁ [mm]	h ₁ [mm]	d ₂ [mm]	t [mm]	PE ¹⁾ [pc.]	LZ ²⁾
017213-008x008	8	8	M3	3	300	3
017213-010x010	10	10	M4	4	300	3
017213-010x015	10	15	M4	4	300	3
017213-015x015	15	15	M4	5	300	3
017213-015x020	15	20	M4	5	300	3
017213-020x015	20	15	M6	6	300	3
017213-020x020	20	20	M6	6	300	3
017213-020x025	20	25	M6	6	300	3
017213-025x020	25	20	M6	6	200	3
017213-025x025	25	25	M6	6	200	3
017213-025x030	25	30	M6	6	200	3
017213-030x020	30	20	M8	8	200	3
017213-030x025	30	25	M8	8	200	3
017213-030x030	30	30	M8	8	200	3
017213-030x040	30	40	M8	8	200	3
017213-040x030	40	30	M8	8	100	3
017213-040x040	40	40	M8	8	100	3
017213-050x030	50	30	M10	10	100	3
017213-050x040	50	40	M10	10	100	3
017213-050x045	50	45	M10	10	100	3
017213-050x050	50	50	M10	10	100	3
017213-060x040	60	40	M10	10	50	3
017213-070x045	70	45	M12	12	50	3
017213-075x040	75	40	M12	12	50	3
017213-075x050	75	50	M12	12	50	3

1) = packing unit = minimum order quantity

2) = delivery time; L = on stock, 1 = one week, 2 = two weeks, a.s.o.

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Catalog No.	d ₁ [mm]	h ₁ [mm]	d ₂ [mm]	t [mm]	PE ¹⁾ [pc.]	LZ ²⁾
017213-100x040	100	40	M16	16	25	3
017213-100x050	100	50	M16	16	25	3
017213-100x060	100	60	M16	16	25	3
017213-100x075	100	75	M16	16	25	3
017213-150x050	150	50	M16	16	10	4
017213-150x075	150	75	M16	16	10	4
017213-200x100	200	100	M20	18	2	4

1) = packing unit = minimum order quantity

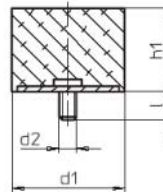
2) = delivery time; L = on stock, 1 = one week, 2 = two weeks, a.s.o.

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Buffers for bearing of light and medium systems

5.4 Cylindrical buffer body with one threaded bolt (type D)



Catalog No.	d ₁ [mm]	h ₁ [mm]	d ₂ [mm]	l [mm]	PE ¹⁾ [pc.]	LZ ²⁾
017221-010x010	10	10	M4	10	300	3
017221-010x015	10	15	M4	10	300	3
017221-015x008	15	8	M4	10	300	3
017221-015x010	15	10	M4	10	300	3
017221-015x015	15	15	M4	10	300	3
017221-020x005	20	5	M6	18	300	3
017221-020x011	20	11	M6	18	300	3
017221-020x015	20	15	M6	18	300	3
017221-020x020	20	20	M6	18	300	3
017221-020x025	20	25	M6	18	300	3
017221-025x010	25	10	M6	18	200	3
017221-025x015	25	15	M6	18	200	3
017221-025x020	25	20	M6	18	200	3
017221-025x025	25	25	M6	18	200	3
017221-025x030	25	30	M6	18	200	3
017221-030x015	30	15	M8	20	200	3
017221-030x020	30	20	M8	20	200	3
017221-030x025	30	25	M8	20	200	3
017221-030x030	30	30	M8	20	200	3
017221-030x040	30	40	M8	20	200	3
017221-040x020	40	20	M8	23	100	3
017221-040x030	40	30	M8	23	100	3
017221-040x040	40	40	M8	23	100	3

1) = packing unit = minimum order quantity

2) = delivery time; L = on stock, 1 = one week, 2 = two weeks, a.s.o.

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Buffers for bearing of light and medium systems

Catalog No.	d ₁ [mm]	h ₁ [mm]	d ₂ [mm]	l [mm]	PE ¹⁾ [pc.]	LZ ²⁾
017221-050x020	50	20	M10	28	100	3
017221-050x030	50	30	M10	28	100	3
017221-050x040	50	40	M10	28	100	3
017221-050x045	50	45	M10	28	100	3
017221-050x050	50	50	M10	28	100	3
017221-060x040	60	40	M10	28	50	3
017221-070x025	70	25	M10	35	50	3
017221-070x045	70	45	M10	28	50	3
017221-075x025	75	25	M12	37	50	3
017221-075x040	75	40	M12	37	50	3
017221-075x050	75	50	M12	37	50	3
017221-100x040	100	40	M16	41	25	3
017221-100x050	100	50	M16	41	25	3
017221-100x060	100	60	M16	41	25	3
017221-100x075	100	75	M16	41	25	3
017221-150x050	150	50	M16	41	10	4
017221-150x060	150	60	M16	41	10	4
017221-150x075	150	75	M16	41	10	4

1) = packing unit = minimum order quantity

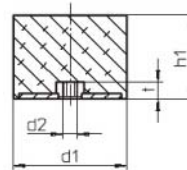
2) = delivery time; L = on stock, 1 = one week, 2 = two weeks, a.s.o.

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5.5 Cylindrical buffer body with one interior thread (type E)



Catalog No.	d ₁ [mm]	h ₁ [mm]	d ₂ [mm]	t [mm]	PE ¹⁾ [pc.]	LZ ²⁾
017241-010x010	10	10	M4	4	300	3
017241-010x015	10	15	M4	4	300	3
017241-015x015	15	15	M4	5	300	3
017241-020x011	20	11	M6	6	300	3
017241-020x015	20	15	M6	6	300	3
017241-020x020	20	20	M6	6	300	3
017241-020x025	20	25	M6	6	300	3
017241-025x010	25	10	M6	6	200	3
017241-025x015	25	15	M6	6	200	3
017241-025x020	25	20	M6	6	200	3
017241-025x025	25	25	M6	6	200	3
017241-025x030	25	30	M6	6	200	3
017241-030x015	30	15	M8	8	200	3
017241-030x020	30	20	M8	8	200	3
017241-030x025	30	25	M8	8	200	3
017241-030x030	30	30	M8	8	200	3
017241-040x030	40	30	M8	8	100	3
017241-040x040	40	40	M8	8	100	3
017241-050x020	50	20	M10	10	100	3
017241-050x030	50	30	M10	10	100	3
017241-050x040	50	40	M10	10	100	3
017241-050x045	50	45	M10	10	100	3
017241-050x050	50	50	M10	10	100	3
017241-060x040	60	40	M10	10	50	3
017241-070x045	70	45	M10	10	50	3
017241-075x025	75	25	M12	12	50	3
017241-075x040	75	40	M12	12	50	3
017241-075x050	75	50	M12	12	50	3

1) = packing unit = minimum order quantity

2) = delivery time; L = on stock, 1 = one week, 2 = two weeks, a.s.o.

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Catalog No.	d ₁ [mm]	h ₁ [mm]	d ₂ [mm]	t [mm]	PE ¹⁾ [pc.]	LZ ²⁾
017241-100x040	100	40	M16	16	25	3
017241-100x050	100	50	M16	16	25	3
017241-100x060	100	60	M16	16	25	3
017241-100x075	100	75	M16	16	25	3
017241-150x050	150	50	M16	16	10	4
017241-150x060	150	60	M16	16	10	4
017241-150x075	150	75	M16	16	10	4

1) = packing unit = minimum order quantity

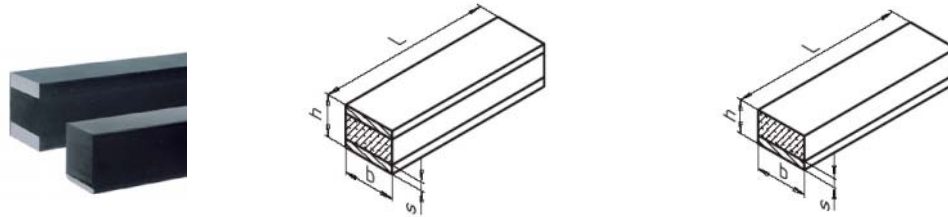
2) = delivery time; L = on stock, 1 = one week, 2 = two weeks, a.s.o.

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5.6 Rubber to metal rails (type A and type F)



Type A; catalog No.: 017911-

Type F; catalog No.: 017912-

Catalog No. Type-	b ₁ [mm]	h ₁ [mm]	L [mm]	Index []			PE ¹⁾ [pc.]	LZ ²⁾
				[1]	[2]	[3]		
025x025	25	25	2000	5			1	4
025x030	25	30	2000	5			1	4
030x025	30	25	2000	5			1	4
030x030	30	30	2000	5			1	4
040x020	40	20	2000	5			1	4
040x030	40	30	2000	5			1	4
040x040	40	40	2000	5	10		1	4
050x030	50	30	2000	5	10		1	4
050x050	50	50	2000	5	10		1	4
050x070	50	70	2000	5	10		1	4
060x030	60	30	2000		10		1	4
060x060	60	60	2000		10		1	4
060x080	60	80	2000		10		1	4
070x030	70	30	2000		10		1	4
070x050	70	50	2000		10		1	4
070x070	70	70	2000		10		1	4
080x040	80	40	2000		10		1	4
080x060	80	60	2000		10		1	4
080x080	80	80	2000		10		1	4
100x040	100	40	2000		10	15	1	4
100x060	100	60	2000		10	15	1	4
100x080	100	80	2000		10	15	1	4
100x100	100	100	2000		10	15	1	4
120x040	120	40	2000		10	15	1	4
120x060	120	60	2000		10	15	1	4
120x080	120	80	2000		10	15	1	4
150x050	150	50	2000			15	1	4
150x070	150	70	2000			15	1	4
150x100	150	100	2000			15	1	4
200x060	200	60	2000			15	1	4
200x080	200	80	2000			15	1	4
200x100	200	100	2000			15	1	4

1) = packing unit = minimum order quantity

2) = delivery time; L = on stock, 1 = one week, 2 = two weeks, a.s.o.

Other dimensions, material and hardness on inquiry!

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5.6.1 Example for order details

017911-050x040/XXX

