

## Rubber stop buffer

TDB0170-0001a-E

Buffers for end stops / cranes and conveyor systems

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### Catalog number

017xxxx-xxxY

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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 General information

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Maximum elasticity and tensile strength are the characteristics of natural caoutchouc vulcanisates. Their properties are a strong notched-bar tenacity and high abrasion resistance. Their mechanical and dynamical load are the highest among all elastomers. Natural caoutchouc is resistant to polar liquids, aliphatic, aromatic and chlorinated hydrocarbons.

Oil and natural gas are the basic materials for composition caoutchouc. Previously a substitution material for natural caoutchouc, composition caoutchouc is being used in many fields of application now. Today there is a wide spectrum of composition caoutchouc, their properties allowing a wide range of applications that helped the rubber material to reach its position in modern technology. Moreover rubber is not a merely chemical substance, but a composite of very different substances. The various resistances and mechanical properties can only be realized from a formula of several hundred substances. Caoutchouc as a macro-molecular material is the elastic component of the rubber. Mechanical properties such as breaking elongation, rebound elasticity, strength, resistance against tear propagation are determined by this component.

The compound of chemicals and aggregates with the rubber and the subsequent vulcanisation process produce a useable material. A multitude of possible combinations of individual materials as well as the various possible fixations provide an appropriate solution for each problem.

The steel plates on rubber buffers are vulcanized into or onto the buffers. The threaded bolts on rubber buffers are inserted without the risk to get twisted. Visible surfaces are primed respectively galvanized. The vulcanisation process guarantees maximum stability between rubber and steel.

### 2 Examples of application

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- Crane systems
- Storage and retrieval machines
- Smelter and rolling mill machines
- Handling technique
- Plant construction and engineering
- Conveyor, transport and gate systems
- Etc.

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### 3 Wampfler standard rubber quality

#### N-Quality

- Resilient and tear resistant
- Age resistant
- Material incompressible
- Operating temperature: -30 to +70°C
- Hardness: 70 Shore A +/-3

#### S-Quality (only on inquiry)

- Seawater and ozone resistant, weather-proof, oil and to a large extent acid and age resistant
- Operating temperature: -30 to +80°C
- Hardness: 70 Shore A +/-3

Special qualities and special constructions on inquiry!

### 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 resistance	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 parts according to ISO 3302-1M

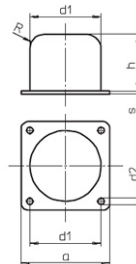
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## 5 Dimensional tables

### 5.1 Construction with steel base plate



Catalog No.	$W_{max}$ [J]	F [kN]	Weight [kg]	$d_1$ [mm]	h [mm]	a [mm]	$d_2$ [mm]	R [mm]	s [mm]	PE <sup>1)</sup> [pc.]	LZ <sup>2)</sup>
017110-040x032 <sup>1)</sup>	57,5	9	0,09	40	35	50	5,5	-	2	1	L
017110-050x040 <sup>1)</sup>	90	13	0,17	50	43	63	6,5	-	2	1	L
017110-063x050 <sup>1)</sup>	200	25	0,36	63	54	80	6,5	-	3	1	L
017111-080N	400	40	0,88	80	63	100	11	16	6	1	L
017111-100N	800	63	1,82	100	80	125	13	20	6	1	L
017111-125N	1600	100	3,25	125	100	160	17	25	6	1	L
017111-160N	3200	160	6,50	160	125	200	17	32	8	1	L
017111-200N	6300	250	11,30	200	160	250	21	40	8	1	L
017111-250N	12500	400	22,60	250	200	315	21	50	10	1	L
017111-315N	25000	630	41,20	315	250	400	21	63	10	1	L

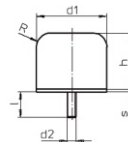
<sup>1)</sup> Conical form, see drawing rubber buffers chapter 5.5

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### 5.2 Construction with threaded bolt

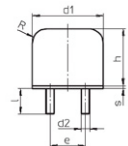


Catalog No.	$W_{max}$ [J]	F [kN]	Weight [kg]	$d_1$ [mm]	h [mm]	$d_2$	l [mm]	R [mm]	s [mm]	PE <sup>1)</sup> [pc.]	LZ <sup>2)</sup>
017120-080N	400	40	0.6	80	63	M12	37	16	3	1	L
017120-100N	800	63	1.1	100	80	M12	36	20	4	1	L
017120-125N	1600	100	2.1	125	100	M16	46	25	4	1	L
017120-160N	3200	160	4.4	160	125	M16	44	32	6	1	L
017120-200N	6300	50	8.4	200	160	M20	49	40	6	1	L
017120-250N	12500	400	16.3	250	200	M20	47	50	8	1	L

1) = packing unit = minimum order quantity

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

### 5.3 Construction with two threaded bolts



Catalog No.	$W_{max}$ [J]	F [kN]	Weight [kg]	$d_1$ [mm]	h [mm]	$d_2$	e [mm]	l [mm]	R [mm]	s [mm]	PE <sup>1)</sup> [pc.]	LZ <sup>2)</sup>
017121-100N	800	63	1,2	100	80	M12	50	36	20	4	1	L
017121-125N	1600	100	2,2	125	100	M16	63	46	25	4	1	L

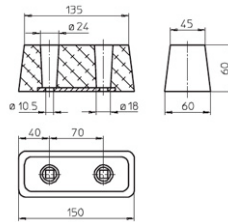
Other dimensions available on inquiry!

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### 5.4 Wheel buffers with fixing holes or thread

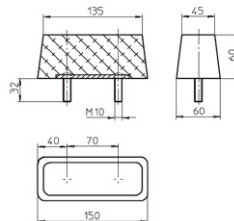


**Catalog No.:** 017131-060x150P

**Technical details**

- Weight: 0.65 kg
- Energy  $W_{max}$ : 550 J
- Force F: 50 kN

PE<sup>1)</sup> = 10 pc.; LZ<sup>2)</sup> = L



**Catalog No.:** 017132-060x150

**Technical details**

- Weight: 0.77 kg
- Energy  $W_{max}$ : 1000 J
- Force: 100 N

PE<sup>1)</sup> = 10 pc.; LZ<sup>2)</sup> = L

1) = packing unit = minimum order quantity

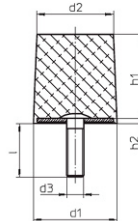
2) = delivery time; L = on stock, 1 = one week, 2 = two weeks, a.s.o.

## Rubber stop buffer

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### 5.5 Conical rubber buffers with threaded bolts



Catalog No.	W <sub>max</sub> [J]	F [kN]	Weight [kg]	d <sub>1</sub> [mm]	d <sub>2</sub> [mm]	d <sub>3</sub> [mm]	h <sub>1</sub> [mm]	h <sub>2</sub> [mm]	l [mm]	PE <sup>1)</sup> [pc.]	LZ <sup>2)</sup>
017220-016X006,3	1.2	0.9	0.008	16	15.5	M5	6.3	0.5	20	1	L
017220-016X008	1.5	0.9	0.009		15.0		8			125	4
017220-016X010	1.8	0.9	0.010		15.0		10			1	L
017220-016X012,5	2.2	0.9	0.011		14.5		12.5			125	4
017220-016X016	2.8	0.9	0.012		14.0		16			1	L
017220-020X008	2.5	1.8	0.013	20	19.5	M6	8	0.6	25	1	L
017220-020X010	3.0	1.65	0.016		19.0		10			100	4
017220-020X012,5	3.8	1.5	0.019		18.5		12.5			1	L
017220-020X016	4.8	1.4	0.021		18.0		16			100	4
017220-020X020	6.0	1.35	0.023		17.5		20			1	L
017220-025X010	7.0	4.6	0.025	25	24.0	M6	10	0.6	25	1	L
017220-025X012,5	8.0	4.0	0.027		23.5		12.5			100	4
017220-025X016	10.0	3.5	0.029		23.0		16			1	L
017220-025X020	12.0	3.2	0.031		22.5		20			100	4
017220-025X025	15.0	3.0	0.034		22.0		25			1	L
017220-032X012,5	22.5	12.5	0.046	32	31.5	M8	12.5	2.3	28	100	4
017220-032X016	23.0	88	0.049		30.0		16			100	4
017220-032X020	24.0	7.0	0.053		29.5		20			1	L
017220-032X025	25.5	5.8	0.057		29.0		25			100	4
017220-032X032	27.5	5.0	0.064		28.5		32			1	L
017220-040X016	51.0	17.5	0.069	40	38.0	M8	16	2.8	28	1	L
017220-040X020	53.0	13.5	0.075		37.5		20			100	4
017220-040X025	55.0	11.0	0.082		37.0		25			100	4
017220-040X032	57.5	9.0	0.090		36.5		32			1	L
017220-040X040	60.0	7.5	0.100		36.0		40			1	L
017220-050X020	70.0	22.5	0.121	50	47.5	M10	20	3.0	32	50	L
017220-050X025	75.0	18.0	0.131		47.0		25			50	4
017220-050X032	80.0	15.0	0.145		46.5		32			1	L
017220-050X040	90.0	13.0	0.160		46.0		40			1	L
017220-050X050	100.0	11.0	0.179		45.5		50			50	4
017220-063X020	150.0	40.0	0.202	63	60.5	M10	20	4.0	31	1	L
017220-063X025	160.0	37.0	0.218		60.0		25			25	4
017220-063X032	170.0	32.5	0.241		59.5		32			1	L
017220-063X040	180.0	28.5	0.266		59.0		40			25	4
017220-063X050	200.0	25.0	0.297		57.5		50			1	L
017220-063X063	220.0	21.0	0.337	56.0	63	25	4				

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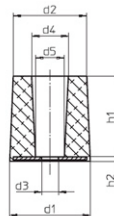
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Catalog No.	W <sub>max</sub> [J]	F [kN]	Weight [kg]	d <sub>1</sub> [mm]	d <sub>2</sub> [mm]	d <sub>3</sub> [mm]	h <sub>1</sub> [mm]	H <sub>2</sub> [mm]	l [mm]	PE <sup>1)</sup> [pc.]	LZ <sup>2)</sup>
017220-080X020	255.0	85.0	0.331	80	77.5	M12	20	4,2	36	1	L
017220-080X025	275.0	70.0	0.358		77.0		25			4	
017220-080X032	290.0	58.5	0.396		76.5		32			4	
017220-080X040	320.0	50.0	0.437		76.0		40			L	
017220-080X050	350.0	42.0	0.490		74.5		50			4	
017220-080X063	390.0	34.0	0.556		73.0		63			4	
017220-080X080	450.0	27.5	0.643		71.5		80			L	
017220-100X020	370.0	150.0	0.506	100	97.5	M12	20	5,2	35	1	L
017220-100X025	400.0	90.0	0.549		97.0		25			4	
017220-100X032	425.0	75.0	0.609		96.5		32			4	
017220-100X040	470.0	65.0	0.676		96.0		40			4	
017220-100X050	510.0	57.5	0.760		94.5		50			L	
017220-100X063	580.0	50.0	0.867		93.0		63			4	
017220-100X080	650.0	45.0	1.007		91.5		80			4	
017220-100X100	750.0	40.0	1.168		90.0		100			L	

Tolerances of the rubber parts according to ISO 3302-1M3

## 5.6 Conical rubber buffers with fixing hole



Catalog No.	W <sub>max</sub> [J]	F [kN]	Weight [kg]	d <sub>1</sub> [mm]	d <sub>2</sub> [mm]	d <sub>3</sub> [mm]	D <sub>4</sub> [mm]	d <sub>5</sub> [mm]	h <sub>1</sub> [mm]	h <sub>2</sub> [mm]	PE <sup>1)</sup> [pc.]	LZ <sup>2)</sup>
017230-016X008	0.9	0.6	0.004	16	15.0	∅	10.0	9	8	2,0	1	L
017230-016X010	1.0	0.5	0.005		15.0		10.0		10		4	
017230-016X012,5	1.1	0.4	0.005		14.5		10.5		12.5		4	
017230-016X016	1.25	0.38	0.006		14.0		11.0		16		L	
017230-020X010	1.6	1.1	0.008	20	19.0	∅	12.0	11	10	2,1	1	L
017230-020X012,5	1.7	0.8	0.008		18.5		12.5		12.5		4	
017230-020X016	1.8	0.5	0.009		18.0		13.0		16		4	
017230-020X020	1.9	0.3	0.010		17.5		13.5		20		L	
017230-025X010	5.9	4.5	0.014	25	24.0	∅	12.0	11	10	2,1	100	4
017230-025X012,5	6.1	3.2	0.015		23.5		12.5		12.5		4	
017230-025X016	6.5	2.1	0.017		23.0		13.0		16		4	
017230-025X020	7.0	1.6	0.019		22.5		13.5		20		4	
017230-025X025	7.8	1.3	0.021		22.0		14.0		25		L	
017230-032X012,5	13.0	6.5	0.023		32		31.5		∅		15.5	14
017230-032X016	13.5	4.4	0.025	30.0		16.0	16	4				
017230-032X020	14.0	3.1	0.028	29.5		16.5	20	4				
017230-032X025	14.5	2.5	0.032	29.0		17.0	25	4				
017230-032X032	15.0	2.0	0.037	28.5		17.5	32	L				

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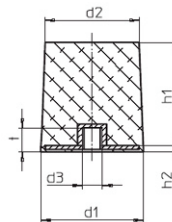
## Rubber stop buffer

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Buffers for end stops / cranes and conveyor systems

Catalog No.	W <sub>max</sub> [J]	F [kN]	Weight [kg]	d <sub>1</sub> [mm]	d <sub>2</sub> [mm]	d <sub>3</sub> [mm]	d <sub>4</sub> [mm]	d <sub>5</sub> [mm]	h <sub>1</sub>	h <sub>2</sub> [mm]	PE <sup>1)</sup> [pc.]	LZ <sup>2)</sup>
017230-040X016	34.0	14.0	0.046	40	38.0	∅ 9.4	16.0	14	16	2.8	100	4
017230-040X020	35.0	9.0	0.051		37.5		16.5		20			
017230-040X025	37.0	6.5	0.057		37.0		17.0		25			
017230-040X032	39.5	5.1	0.063		36.5		17.5		32			
017230-040X040	41.0	4.9	0.071		36.0		18.0		40			
017230-050X020	55.0	18.0	0.078	50	47.5	∅ 10.5	20.5	18	20	3.0	50	4
017230-050X025	58.0	14.0	0.086		47.0		21.0		25			
017230-050X032	62.0	11.0	0.097		46.5		21.5		32			
017230-050X040	67.0	8.0	0.109		46.0		22.0		40			
017230-050X050	72.0	7.5	0.124		45.5		22.5		50			
017230-063X025	110.0	23.0	0.173	63	60.0	∅ 10.5	21.0	18	25	4	25	4
017230-063X032	120.0	18.0	0.193		59.5		21.5		32			
017230-063X040	135.0	14.0	0.215		59.0		22.0		40			
017230-063X050	150.0	12.0	0.243		57.5		23.5		50			
017230-063X063	175.0	10.0	0.277		56.0		25.0		63			
017230-080X025	230.0	57.0	0.282	80	77.0	∅ 13.9	23.0	20	25	4.2	25	4
017230-080X032	245.0	44.0	0.317		76.5		23.5		32			
017230-080X040	265.0	35.0	0.355		76.0		24.0		40			
017230-080X050	285.0	29.0	0.402		74.5		25.5		50			
017230-080X063	315.0	24.0	0.459		73.0		27.0		63			
017230-080X080	350.0	20.0	0.536	71.5	28.5	80						
017230-100X020	360.0	130.0	0.433	100	97.5	∅ 13.9	22.5	20	20	5.2	10	4
017230-100X025	380.0	90.0	0.473		97.0		23.0		25			
017230-100X032	410.0	75.0	0.430		96.5		23.5		32			
017230-100X040	440.0	65.0	0.593		96.0		24.0		40			
017230-100X050	470.0	55.0	0.672		94.5		25.5		50			
017230-100X063	520.0	45.0	0.770		93.0		27.0		63			
017230-100X080	575.0	37.0	0.900		91.5		28.5		80			
017230-100X100	650.0	30.0	1.045		90.0		30.0		100			

### 5.7 Conical rubber buffers with internal thread



Catalog No.	W <sub>max</sub> [J]	F [kN]	Weight [kg]	d <sub>1</sub> [mm]	d <sub>2</sub> [mm]	D <sub>3</sub> [mm]	h <sub>1</sub> [mm]	h <sub>2</sub> [mm]	L [mm]	PE <sup>1)</sup> [pc.]	LZ <sup>2)</sup>
017240-020X012,5	3.8	1.5	0.015	20	18.5	M6	12.5	2.1	7.1	1	L
017240-020X016	4.8	1.4	0.016		18		16.0			100	4
017240-020X020	6.0	1.35	0.018		17.5		20.0			1	L
017240-025X12,5	8.0	4.0	0.023	25	23.5	M6	12.5	2.1	7.1	100	4
017240-025X016	10.0	3.5	0.025		23.0		16.0			100	4
017240-025X020	12.0	3.2	0.027		22.5		20.0			100	4
017240-025X025	15.0	3.0	0.030		22.0		25.0			1	L

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TDB0170-0001a-E

Buffers for end stops / cranes and conveyor systems

Catalog No.	W <sub>max</sub> [J]	F [kN]	Weight [kg]	d <sub>1</sub> [mm]	d <sub>2</sub> [mm]	d <sub>3</sub> [mm]	h <sub>1</sub> [mm]	h <sub>2</sub> [mm]	l [mm]	PE <sup>1)</sup> [pc.]	LZ <sup>2)</sup>
017240-032X016	23.0	8.8	0.039	32	30.0	M8	16.0	2.3	9.3	100	4
017240-032X020	24.0	7.0	0.043		29.5		20.0			100	4
017240-032X025	25.5	5.8	0.048		29.0		25.0			100	4
017240-032X032	27.5	5.0	0.054		28.5		32.0			1	L
017240-040X016	51.0	17.5	0.060	40	38.0	M8	16.0	2.8	9.3	1	L
017240-040X020	53.0	13.5	0.068		37.5		20.0			100	4
017240-040X025	55.0	11.0	0.073		37.0		25.0			100	4
017240-040X032	57.5	9.0	0.081		36.5		32.0			100	4
017240-040X040	60.0	7.5	0.091	50	36.0	M10	40.0	3.0	11.5	1	L
017240-050X020	70.0	22.5	0.104		47.5		20.0			50	4
017240-050X025	75.0	18.0	0.114		47.0		25.0			50	4
017240-050X032	80.0	15.0	0.127		46.5		32.0			50	4
017240-050X040	90.0	13.0	0.142	63	46.0	M10	40.0	4.0	11.5	50	4
017240-050X050	100.0	11.0	0.162		45.5		50.0			1	L
017240-063X020	150.0	40.0	0.183		60.5		20.0			25	4
017240-063X025	160.0	37.0	0.199		60.0		25.0			25	4
017240-063X032	170.0	32.5	0.222	80	59.5	M12	32.0	4.2	13.7	25	4
017240-063X040	180.0	28.5	0.247		59.0		40.0			25	4
017240-063X050	200.0	25.0	0.278		57.5		50.0			25	4
017240-063X063	220.0	21.0	0.317		56.0		63.0			1	L
017240-080X025	275.0	70.0	0.305	100	77.0	M12	25.0	5.2	13.7	25	4
017240-080X032	290.0	58.5	0.343		76.5		32.0			25	4
017240-080X040	320.0	50.0	0.385		76.0		40.0			25	4
017240-080X050	350.0	42.0	0.437		74.5		50.0			25	4
017240-080X063	390.0	34.0	0.503	100	73.0	M12	63.0	5.2	13.7	25	4
017240-080X080	450.0	27.5	0.590		71.5		80.0			1	L
017240-100X025	400.0	90.0	0.507		97.0		25.0			10	4
017240-100X032	425.0	75.0	0.567		96.5		32.0			10	4
017240-100X040	470.0	65.0	0.634	100	96.0	M12	40.0	5.2	13.7	10	4
017240-100X050	510.0	57.5	0.718		94.5		50.0			10	4
017240-100X063	580.0	50.0	0.825		93.0		63.0			10	4
017240-100X080	650.0	45.0	0.965		91.5		80.0			10	4
017240-100X100	750.0	40.0	1.126	100	90.0	M12	100.0	5.2	13.7	1	L

1) = packing unit = minimum order quantity

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

## 6 Example of order details

