

Shock Absorbing Elements DEFORM plus® R/RMP

Reversible buffer for absorption of kinetic energies without additional spring.

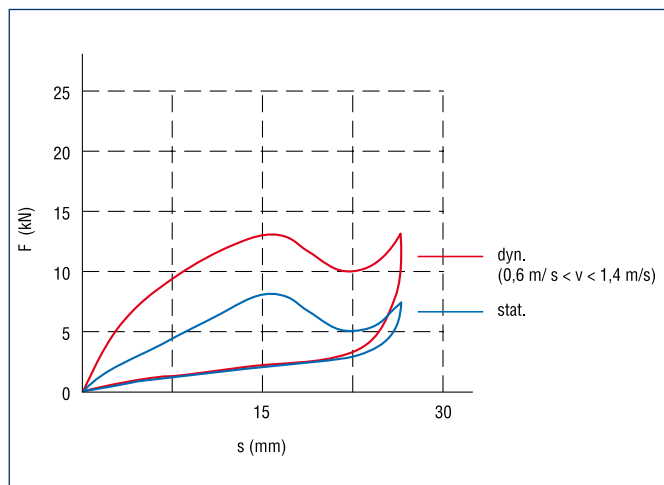
The casing combines the function of a spring and a damper. It can be reused after a dynamic load. Dependent on the velocity, the maximum supporting load automatically adapts to the impact energy, which means that i.e. equal masses are retarded more softly at lower velocities. Working temperature: -10°C up to +50°C.

Ambient conditions:

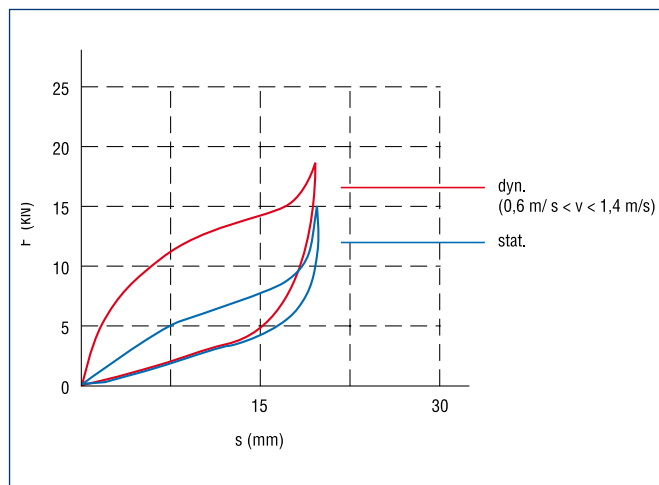
The material is resistant to

- **bleach liquor 3%**
- **sugar solution 30%**
- **hydrogen peroxide 10%**
- **ammonia 5%**
- **acetic acid 2%**
- **formic acid 2%**
- **linseed fatty acid**
- **tannic acid solution 20%**
- **lubrication grease and oil**

A continuous contact with water should be avoided. In accordance with DIN 4012, building material class 2, the material is classified as non-combustible, dripping (off).



DEFORM plus® R45
Spring diagram at appr. 20°C



DEFORM plus® R45MP
Spring diagram at appr. 20°C

Coil scale



Even with smallest setting velocities, impacts are created which can, on sensitive machine parts like this precision scale, lead to damages.

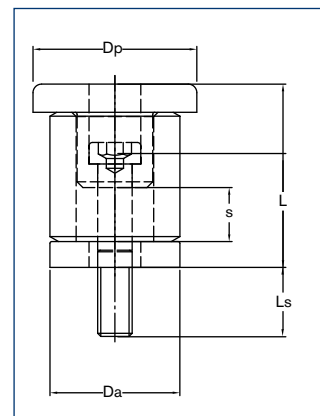
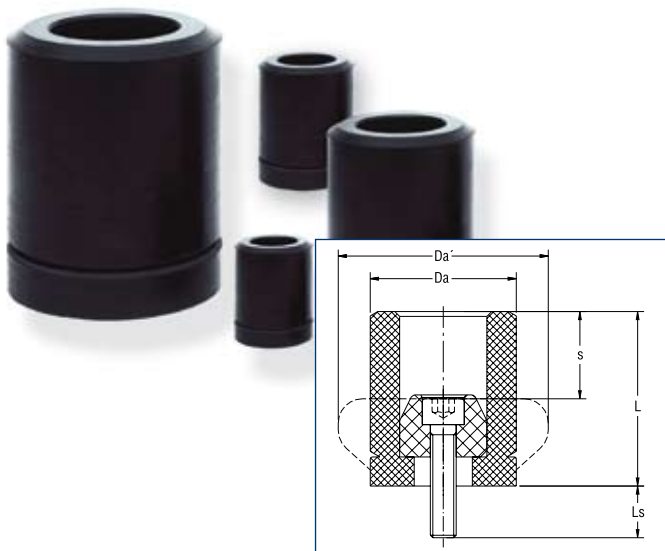
Standard DEFORM plus® Units												
Type	Wmax / 16h	Wmax / 1h	Wstat / load	Fdyn (= 2 x Fstat)	max. driving force	s _{max.}	Da'	D _a / D _p	L	Thread	L _s	weight
	Werte bei ≈20°C Value at ≈ 20°C			bei ≈ 20°C at ≈ 20°C			mm	mm	mm		[mm]	[g]
R30	76 Nm		38 Nm	7 kN (1,1 m/s)	1,5 kN	18 mm	45	30 / -	36	M6	14	47
R45	240 Nm		120 Nm	16 kN (1,4 m/s)	2,5 kN	27 mm	68	45 / -	54	M8	17	85
R60	560 Nm		280 Nm	33 kN (2,0 m/s)	4,5 kN	36 mm	91	60 / -	72	M12	17	240
R90	1800 Nm		900 Nm	66 kN (3,2 m/s)	9,0 kN	54 mm	137	90 / -	108	M16	24	750
R30MP		57 Nm	30 Nm	8 kN (1,1 m/s)	5 kN	13 mm	45	30 / 37	42	M8	16	70
R45MP		180 Nm	115 Nm	18 kN (1,4 m/s)	10 kN	19 mm	65	45 / 57	63	M12	25	160
R60MP		420 Nm	200 Nm	36 kN (2,0 m/s)	15 kN	25 mm	90	60 / 71	85	M16	22	360
R90MP		1350 Nm	750 Nm	83 kN (3,2 m/s)	20 kN	37 mm	130	90 / 112	127	M24	28	1300

The Damping Elements are impervious to dirt and are supplied ready-to-install including the locking bolt.

Mounting of the buffers is most simple: The screw, with a coating of Loctite, is tightened to the component part to be protected, until the buffer can no longer rotate; then, the buffer is pretensioned by half a screw turn.

Due to its guidance by the fastening screw, the buffer (see figure below) is relatively insensitive to the influence of lateral forces. In case of a design "impact buffer vs. buffer", at least one damper must be equipped with a baffle plate.

A low-cost version designed for infrequently occurring stresses, the DEFORM plus® R damper without baffle plate (see figure below). This type provides max. protection by avoiding the progressive force rise.





Weitere technische Hinweise befinden sich im jeweiligen Katalog.

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Check out the respective catalogue for further technical details

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