



BATRA® RING

Natural frequency : (1)
7 to 22 Hz

DESCRIPTION

The BATRA® ring comprises a rubber ring bonded to two metallic washers one with a circular groove, the other with a mating circular ridge which allows BATRA® rings to be mounted one on top of another.

OPERATION

The design of the BATRA® ring gives the following basic characteristics :

- Behaviour identical to that of a metallic spring plus damper.
- Robustness :
 - well behaved under shock.
 - removal of the risks of suspension collapse.
- Flexibility easily tailored by stacking BATRA® rings.
- Transverse creep limited by the two bonded armatures..

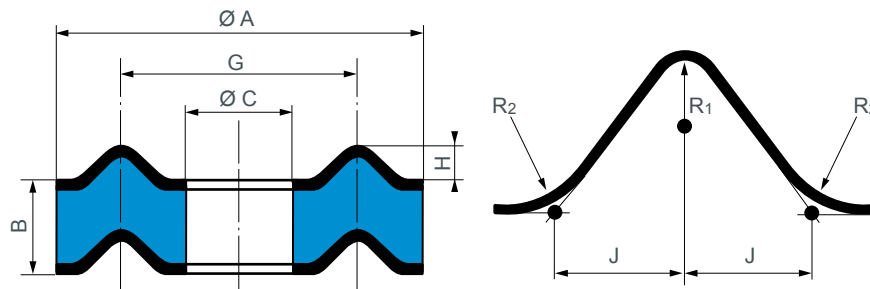
APPLICATIONS

BATRA® rings may be used :

- For making suspensions that are very flexible vertically and also damped by the natural properties of the rubber (road and rail vehicles).
- For making very effective anti-shock buffers (wagons, cars, gantries).
For special applications, where the quantities would justify custom manufacture, it is possible to supply Special BATRA® rings either with only one bonded lower armature or “all rubber”.
For special cases of shock, there are Special BATRA® rings with overlapping, non-bonded, armatures.

1) les fréquences propres indiquées, sont valables pour les charges maxi des plages d'utilisation citées dans le paragraphe : CARACTÉRISTIQUES TECHNIQUES.

DIMENSIONS



Reference	Ø A (mm)	B (mm)	Ø C (mm)	G (mm)	H (mm)	J (mm)	R1 (mm)	R2 (mm)	Weight (g)
541050	50	11	14	32	4	5	2,5	1,5	45
541083	80	27	41,5	61	4	6	3	3	220
541082	86	27,5	32	65	5	7	4	2	300
541100	100	28,5	32	65	5	7	4	2	415
541112	115	30	50	85	10	10	5	3	540
541145	140	35	55	100,5	10	10	5	3	890
541146	146	20	55	100,5	10	10	5	3	750
541144	146	35	55	100,5	10	10	5	3	980
541175	170	35	60	115	10	10	5	3	1 360
541174	170	50	60	115	10	10	5	3	1 680
541185	185	40	95	140	10	10	5	3	1 510
541249	250	50	70	160	10	10	5	3	2 600
541250	250	59	70	160	10	10	5	3	4 400

See current price list for availability of items.

OPERATING CHARACTERISTICS

Static compression		Dynamic compression			Reference
Nominal load (daN)	Deflect. (mm)	Load (daN)	Deflect. (mm) (1)	Ø A max.	
50 - 200	0,8	600	3,5	57	541050
90 - 360	3	1 100	7	90	541083
125 - 500	3	1 500	7	100	541082
175 - 700	3	2 100	7	115	541100
210 - 850	3	2 500	7	130	541112
325 - 1 300	3,5	4 000	9,5	150	541145
375 - 1 500	3	4 500	7	158	541144

Static compression		Dynamic compression			Reference
Nominal load (daN)	Deflect. (mm)	Load (daN)	Deflect. (mm) (1)	Ø A max.	
475 - 1 900	1,1	5 700	2,5	158	541146
500 - 2 000	3	6 000	9,5	190	541175
500 - 2 000	5,3	6 000	14	190	541174
500 - 2 000	4,5	6 000	12	205	541185
1 125 - 4 500	4,5	13 500	12	282	541249
1 125 - 4 500	5,5	13 500	13	282	541250

(1) The instantaneous deflection indicated in this table is approximate as it depends on the impact speed. It is possible to use a metallic cushion for this application.

ASSEMBLY

The rings are centred using the grooves and ridges. To avoid play under no-load conditions, the stack should be pre-compressed by 3 to 10% of its height. It is also necessary to leave sufficient room around the stack for the sideways expansion under load.

