



# MASON INDUSTRIES, Inc.

Manufacturers of Vibration Control Products

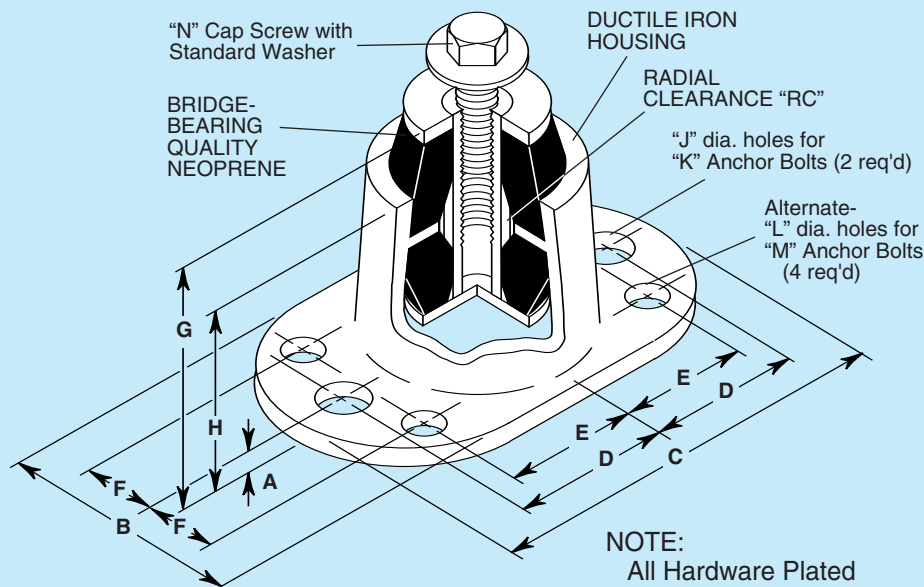
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## ALL DIRECTIONAL CAPTIVE MOUNTING FOR SEISMIC, MOBILE, MARINE, WALL HUNG and OVERSEAS APPLICATIONS

# BR

DATA SHEET DS-400-7.2A



### TYPE BR DIMENSIONS (inches millimeters)

Type	A	B	C	D	E	F	G	H	J	K	L	M	N	RC
BRA	3/16 5	2 1/2 64	4 1/4 108	1 5/8 41	1 3/8 35	3/4 19	3 76	1 25	1/2 13	3/8 10	3/8 10	1/4 6	5/16 x 1 8 x 25	3/16 5
BRB	3/16 5	3 1/4 83	5 3/4 146	2 1/4 57	1 7/8 48	7/8 22	3 76	2 51	5/8 16	1/2 13	1/2 13	3/8 10	7/16 x 1 11 x 25	1/4 6
BRC	1/4 6	5 1/4 133	9 229	3 5/8 92	3 76	1 1/2 38	6 1/2 165	4 1/2 114	7/8 22	3/4 19	3/4 19	5/8 16	5/8 x 1 1/2 16 x 38	5/8 16
BRD	1/4 6	6 152	10 1/2 267	4 3/8 111	3 5/8 92	1 5/8 41	6 1/2 165	4 1/2 114	7/8 22	3/4 19	3/4 19	5/8 16	5/8 x 1 1/2 16 x 38	5/8 16

### TYPE BR RATINGS

Type	Size (Color Mark)	Duro-meter	COMPRESSION		TENSION		SHEAR		Maximum Horizontal Static G Rating*
			Rated Capacity (lbs) (kgs)	Rated Defl (in) (mm)	Rated Capacity (lbs) (kgs)	Rated Defl (in) (mm)	Rated Capacity (lbs) (kgs)	Rated Defl (in) (mm)	
BR-	A-Green	40	85	39	85	39	20	9	10.4
	A-Red	50	125	57	125	57	30	14	7.0
	A-White	60	205	93	205	95	50	23	4.3
	A-Yellow	70	290	132	290	132	70	32	3.0
	B-Red	50	450	204	500	227	100	45	3.4
	B-White	60	740	336	750	340	170	77	2.1
	B-Yellow	70	1040	472	1050	476	240	109	1.5
	C-Red	50	650	295	750	340	380	172	2.8
	C-White	60	1100	499	1150	522	500	227	1.6
	C-Yellow	70	1540	699	1610	730	700	318	1.2
	D-White	60	2390	1084	2450	1111	750	340	1.3
	D-Yellow	70	3150	1429	3430	1556	1050	476	1.0

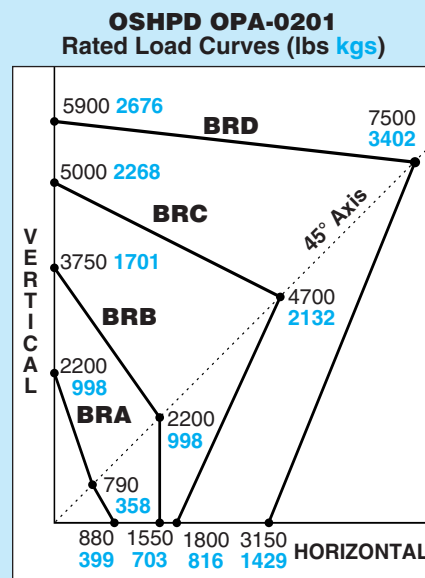
All Rated Capacities are based on proper neoprene loadings without metal to metal contact. Seismic Max. G Ratings are based on metal failure under static seismic loadings as defined in the building codes.

\*Horizontal G Ratings are for quick reference only— Use OSHPD Rated Load Curves.

### BRIDGE-BEARING NEOPRENE SPECIFICATIONS

ORIGINAL PHYSICAL PROPERTIES			TESTED FOR AGING			COMPRESSION SET	
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
Duro-meter	Tensile Strength (min)	Elongat. at Break (min)	OVEN AGING (70h/212°F)	OZONE	Hardness	Tensile Strength (max)	22hrs 150°F
40±5	2000 psi	450%	+15% ±15%	No Cracks	30%	(max)	30%
50±5	2500 psi	400%	+15% ±15%	No Cracks	25%	(max)	25%
60±5	2500 psi	350%	+15% ±15%	No Cracks	25%	(max)	25%

(a)ASTM D-676 (b)ASTM D-412 (c)ASTM D-573 (d)ASTM D-1149 (e)ASTM D-395



Horizontal, Vertical and 45° plotted Ratings are California OSHPD approved values having the OSHPD Anchorage Preapproval Number OPA-0201. Testing and calculations were performed to meet OSHPD criteria.

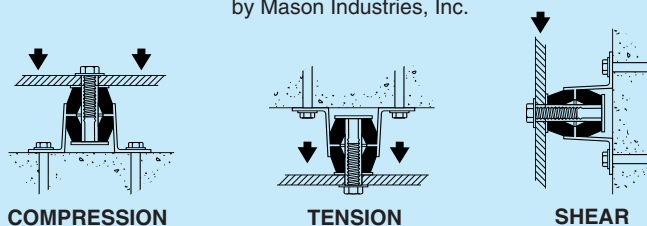
To use approved OSHPD rated load curves: 1) Calculate Vertical and Horizontal Forces on mounting including translations and overturning moments. 2) Plot Horizontal Load vs Vertical Load. The point must fall within the area below the OSHPD curve.

### Specification

Captive Neoprene elements shall be arranged in opposition within a steel or ductile iron housing to provide positive mechanical restraint in all directions. Neoprene elements shall prevent metal to metal contact during normal operation. Bonded assemblies without mechanical interlocks are not acceptable. Neoprene elements shall be of bridge bearing quality as tabulated.

All mountings shall have minimum 1.0 horizontal G ratings and anchorage preapproval "OPA" numbers from the Office of Statewide Health Planning and Development (OSHPD) in the state of California, attesting to the maximum horizontal and vertical load ratings. All mountings shall have bolts for rigid attachment to the equipment and adequate base bolting provision. Mountings shall have a minimum static deflection of 0.2" (5 mm).

In seismic zones, submittals shall include calculations showing that the intersection of the horizontal and vertical seismic loads fall below the OSHPD approved curves. Anchorages must be designed to meet the applicable building codes. All calculations must be signed by a professional engineer. Mountings shall be type BR as manufactured by Mason Industries, Inc.





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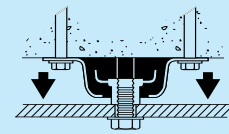
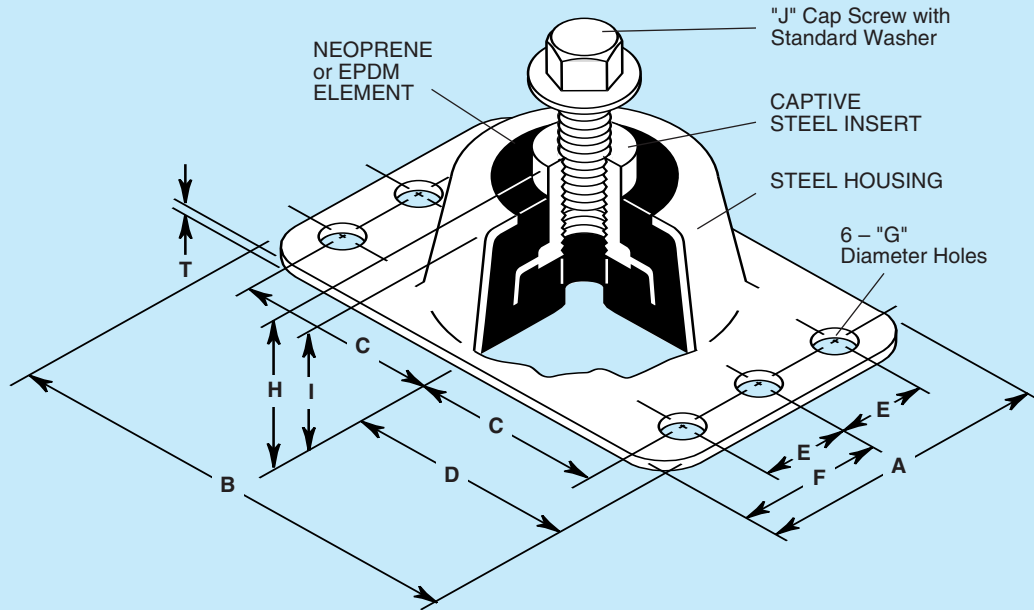
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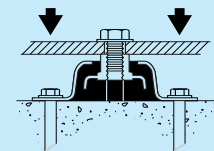
NEOPRENE MOUNTINGS WITH  
CAPTIVE STEEL INSERTS FOR  
SECURING EQUIPMENT TO  
WALLS, FLOORS OR CEILINGS  
IN SEISMIC, MOBILE OR  
STATIONARY INSTALLATIONS

# RBA, RCA & RDA

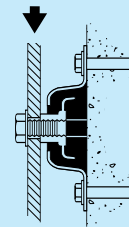
DATA SHEET DS-400-7.2B



TENSION



COMPRESSION



SHEAR

### TYPE RBA, RCA and RDA DIMENSIONS (inches millimeters)

Type	A	B	C	D	E	F	G	H	I	J	T
RBA	3 76	43/4 121	115/16 49	23/8 60	1 25	11/2 38	7/16 11	17/8 48	11/2 38	1/2-13UNC x 11/4	3/32 2
RCA	33/4 95	61/4 159	21/2 64	31/8 79	11/4 32	17/8 48	9/16 14	17/8 48	11/2 38	5/8 -11UNC x 11/4	3/32 2
RDA	5 127	8 203	31/4 83	4 102	13/4 44	21/2 64	3/4 19	23/8 60	17/8 48	7/8 -9UNC x 11/4	3/16 5

### TYPE RBA, RCA and RDA RATINGS

Type	Size (Color Mark)	Duro-meter	COMPRESSION		TENSION		SHEAR		Maximum Horizontal Static G Rating*	
			Rated Capacity (lbs) (kgs)	Rated Defl (in) (mm)	Rated Capacity (lbs) (kgs)	Rated Defl (in) (mm)	Rated Capacity (lbs) (kgs)	Rated Defl (in) (mm)		
RBA-	Black	30	250	113	0.15	200	91	200	90	13.6
	Green	45	525	238	4	420	191	420	191	6.5
	White	60	1000	454	4	800	363	800	363	3.4
RCA-	Green	40	1400	635	0.15	1000	454	400	181	2.7
	Red	50	2100	953	4	1500	680	600	272	1.8
	White	60	3500	1588	4	2500	1134	1000	454	1.1
RDA-	Green	40	2800	1270	0.18	2000	910	900	410	3.3
	Red	50	4200	1910	5	2900	1320	1300	590	2.2
	White	60	7100	3230	5	4200	1910	1800	820	1.3

All Rated Capacities are based on proper neoprene loadings without metal to metal contact. Seismic Max. G Ratings are based on metal failure under static seismic loadings as defined in the building codes.

\*Horizontal G Ratings are for quick reference only— Use OSHPD Rated Load Curves.

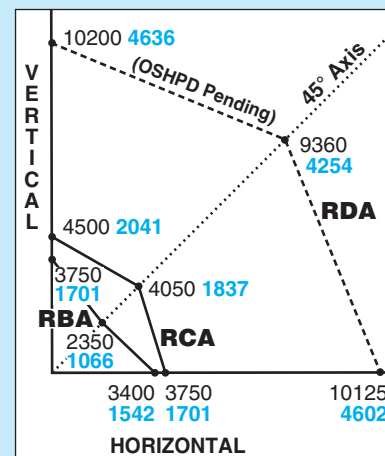
### Specification

Captive neoprene mountings shall consist of a steel housing with a captive steel insert embedded in neoprene to prevent contact between the housing and the central threaded insert. Bonded assemblies without mechanical interlocks are not acceptable.

All mountings shall have minimum 1.0 horizontal G ratings and anchorage preapproval "OPA" numbers from the Office of Statewide Health Planning and Development (OSHPD) in the state of California, attesting to the maximum horizontal and vertical load ratings. All mountings shall have bolts for rigid attachment to the equipment and adequate base bolting provision. Mountings shall have a minimum static deflection of 0.15" (4 mm).

In seismic zones, submittals shall include calculations showing that the intersection of the horizontal and vertical seismic loads fall below the OSHPD approved curves. Anchorages must be designed to meet the applicable building codes. All calculations must be signed by a professional engineer. Mountings shall be type RBA, RCA and RDA as manufactured by Mason Industries, Inc.

### OSHPD OPA-0200 Rated Load Curves (lbs kgs)



Horizontal, Vertical and 45° plotted Ratings are California OSHPD approved values having the OSHPD Anchorage Preapproval Number OPA-0200. Testing and calculations were performed to meet OSHPD criteria.

**To use approved OSHPD rated load curves:** 1) Calculate Vertical and Horizontal Forces on mounting including translations and overturning moments. 2) Plot Horizontal Load vs Vertical Load. The point must fall within the area below the OSHPD curve.