



# MASON INDUSTRIES, Inc.

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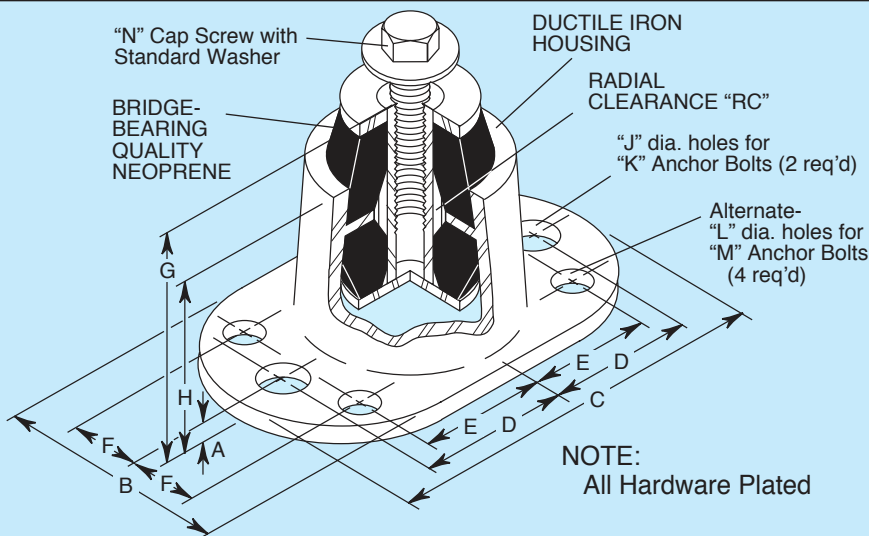
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## ALL DIRECTIONAL CAPTIVE MOUNTING FOR SEISMIC, MOBILE, MARINE, WALL HUNG and OVERSEAS APPLICATIONS

# BR

DATA SHEET DS-400-8.3A



### TYPE BR DIMENSIONS (inches millimeters)

Type	A	B	C	D	E	F	G	H	J	K	L	M	N	RC
BRX	3/16 5	2 50	33/4 95	13/8 35	1 25	5/8 16	21/2 64	15/8 41	7/16 11	3/8 10	5/16 8	1/4 6	1/4-20UNC x 3/4	1/8 3
BRA	3/16 5	2 1/2 64	4 1/4 108	15/8 41	13/8 35	3/4 19	3 76	2 51	1 1/2 13	3/8 10	3/8 10	1/4 6	5/16-18UNC x 1	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	7/16-14UNC x 1	1/4 6
BRC	1/4 6	5 1/4 133	9 229	35/8 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	5/8-11UNC x 1 1/2	5/8 16
BRD	1/4 6	6 152	10 1/2 267	43/8 111	35/8 92	15/8 41	6 1/2 165	4 1/2 114	7/8 22	3/4 19	3/4 19	5/8 16	5/8-11UNC x 1 1/2	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-	X-Green	40	30	14	30	14	20	9	12.0
	X-Red	50	45	20	0.12	45	20	0.12	8.0
	X-White	60	70	32	3	70	32	3	6.0
BR-	A-Green	40	85	39	85	39	20	9	10.4
	A-Red	50	125	57	0.2	125	57	0.18	7.0
	A-White	60	205	93	5	205	95	5	4.3
BR-	A-Yellow	70	290	132	290	132	70	23	3.0
	B-Red	50	450	204	0.2	500	227	0.18	3.4
	B-White	60	740	336	5	750	340	0.18	2.1
BR-	B-Yellow	70	1040	472	5	1050	476	5	1.5
	C-Red	50	650	295	0.3	750	340	0.25	2.8
	C-White	60	1100	499	8	1150	522	6	1.6
BR-	C-Yellow	70	1540	699	8	1610	730	6	1.2
	D-White	60	2390	1084	0.3	2450	1111	0.25	1.3
	D-Yellow	70	3150	1429	8	3430	1556	6	1.0

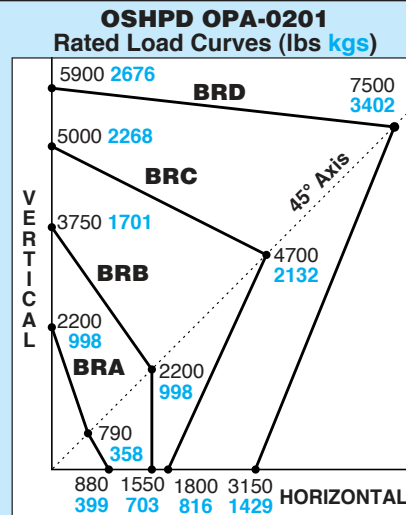
All Rated Capacities are based on proper neoprene loadings without metal to metal contact. Seismic Max. G Ratings are based on metal failure under static seismic loadings as defined in the building codes.

\*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) Tensile Duro-meter	(b) Elongat. at Break (min)	(c) OVEN AGING (70h/212°F) Hardness (max)	(c) Tensile Strength (max)	(d) OZONE 100°F Strain (max)	(e) 22hrs 212°F Method B	
40±5	2000 psi	450%	+15%	±15%	-40%	30%(max)
50±5	2250 psi	400%	+15%	±15%	-40%	35%(max)
60±5	2250 psi	350%	+15%	±15%	-40%	35%(max)
70±5	2250 psi	300%	+15%	±15%	-40%	35%(max)

(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. BRX's have not been submitted to OSHPD.

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 prior to 2010, 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.

Note: OSHPD changed requirements in California in 2010, but the reference remains excellent as a general guideline.

