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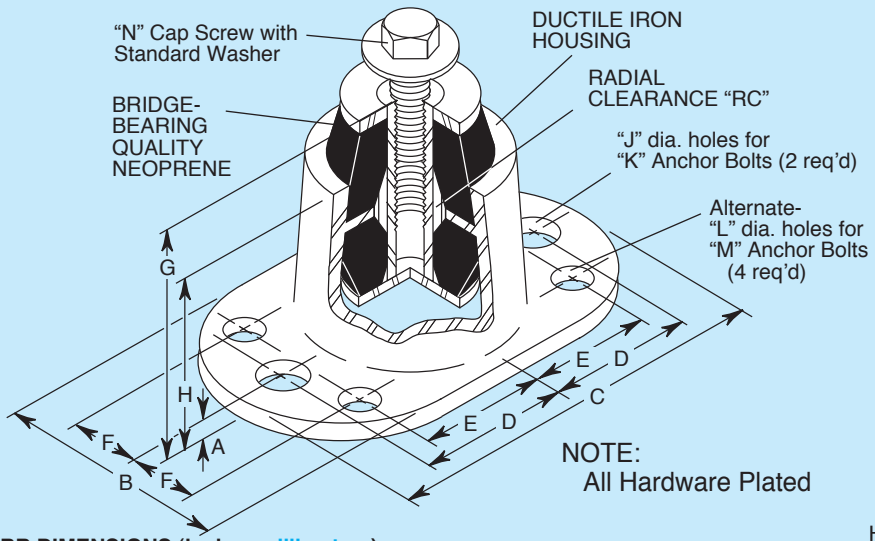
ALL DIRECTIONAL CAPTIVE MOUNTING FOR SEISMIC, MOBILE, MARINE, WALL HUNG and OVERSEAS APPLICATIONS

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	3 3/4 95	1 3/8 35	1 25	5/8 16	2 1/2 64	1 5/8 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	1 5/8 41	1 3/8 35	3/4 19	3 76	2 51	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	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	5/8-11UNC x 1 1/2	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	5/8-11UNC x 1 1/2	5/8 16

TYPE BR RATINGS

Type	Size (Color Mark)	Duro-meter	COMPRESSION Rated Capacity (lbs)	(kgs)	Rated Defl (in)	(mm)	TENSION Rated Capacity (lbs)	(kgs)	Rated Defl (in)	(mm)	SHEAR Rated Capacity (lbs)	(kgs)	Rated Defl (in)	(mm)	Maximum Horizontal Static G Rating*
BR-	X-Green	40	30	14	0.12	3	30	14	0.12	3	20	9	0.08	2	12.0
	X-Red	50	45	20			45	20			35	16			8.0
	X-White	60	70	32			70	32			45	20			6.0
	A-Green	40	85	39	0.2	5	85	39	0.18	5	20	9	0.13	3	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	0.2	5	500	227	0.18	5	100	45	0.15	4	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	0.3	8	750	340	0.25	6	380	172	0.50	13	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	0.3	8	2450	1111	0.25	6	750	340	0.50	13	1.3
	D-Yellow	70	3150	1429			3430	1556			1050	476			1.0

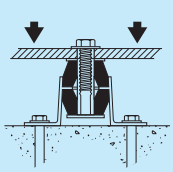
All Rated Capacities are based on proper neoprene loadings without metal to metal contact. Seismic Max. G Ratings are based on metal failure under static seismic loadings as defined in the building codes.

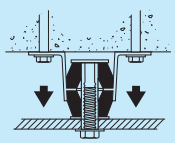
*Horizontal G Ratings are for quick reference only– Use OSHPD Rated Load Curves.

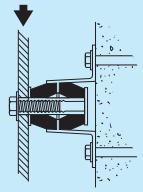
BRIDGE-BEARING NEOPRENE SPECIFICATIONS

ORIGINAL PHYSICAL PROPERTIES (a) Duro-meter	(b) Tensile Strength (min)	(b) Elongat. at Break (min)	TESTED FOR AGING (c) OVEN AGING(70h/212°F) Hard-ness (max)	Tensile Strength (max)	Elongat. at Break (max)	(d) OZONE 100 ppm in air by Vol.20% Strain 100°F	COMPRES-SION SET (e) 22hrs 212°F Method B
40±5	2000 psi	450%	+15%	±15%	-40%	No Cracks	30%(max)
50±5	2250 psi	400%	+15%	±15%	-40%	No Cracks	35%(max)
60±5	2250 psi	350%	+15%	±15%	-40%	No Cracks	35%(max)
70±5	2250 psi	300%	+15%	±15%	-40%	No Cracks	35%(max)

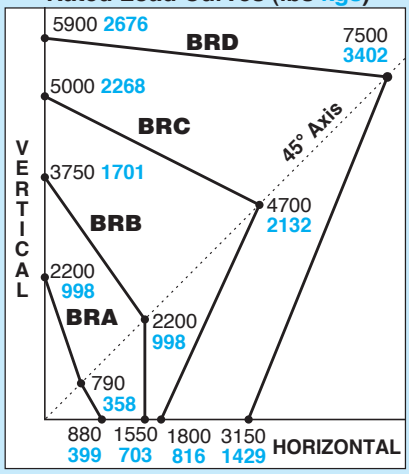
(a)ASTM D-676 (b)ASTM D-412 (c)ASTM D-573 (d)ASTM D-1149 (e)ASTM D-395


COMPRESSION


TENSION


SHEAR

OSHPD OPA-0201
Rated Load Curves (lbs kgs)



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.