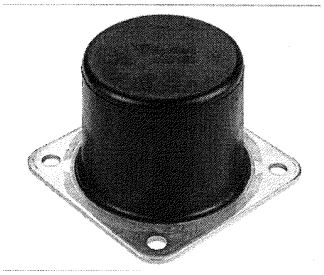
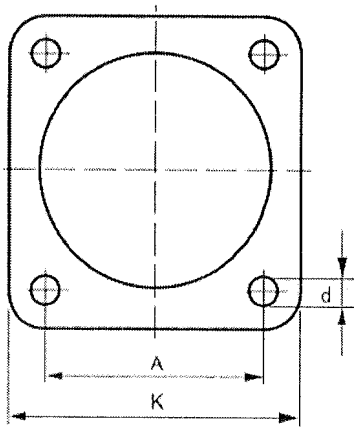
IPB100

elasto-ANB-Mounts 100x84
100x84 ANB / Shore A





Dimensions:

D	H
3.94	3.31

Elastomer	ShoreA
	90

1. Table of Contents

1. Table of Contents

2. Application Analysis Data
   2.1 Calculated Results in Compression and Shear
   - Example Application

3. Recommended Compression Load

4. Recommended Shear Load

5. Compression/Injection Molded Standard Product Tolerances

6. Rubber Selection

7. Tightening Torque and Bolt Grades & Class

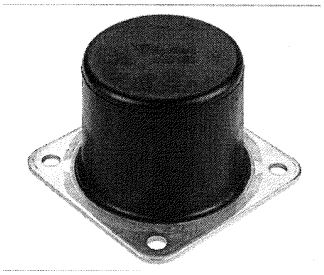
8. Torque Threaded Stud Test of elasto-A- and B-Mounts

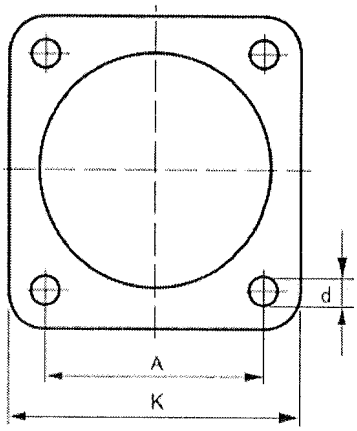
9. Certificate of RoHS compliance and shelf life expectancy.

**All data are given to the best of our knowledge.
The performance are not guaranteed and all liability excluded. Samples are recommended.
Durometer Tolerance as per ASTM D2240 ± 5 Duro. A**

IPB100

elasto-ANB-Mounts 100x84
100x84 ANB / Shore A





Dimensions:

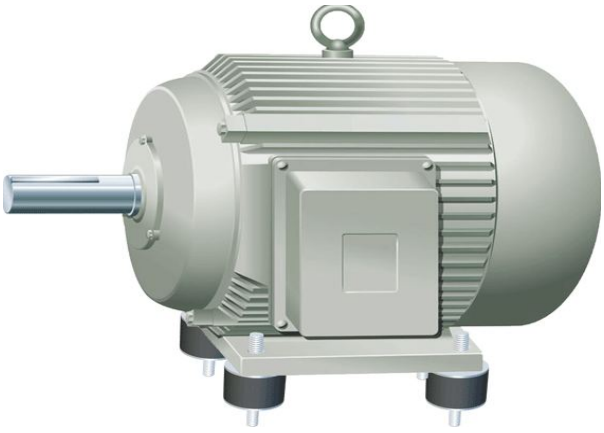
D	H
3.94	3.31

Elastomer	ShoreA
	90

2. Application Analysis Data

Total supported weight:		
Mounting Quantity		Qty
Force per Mount		[N]
		kgf
		lbf
		[kN]
Frequency Source		cpm
		Hz

Example Application



2.1 Calculated Result

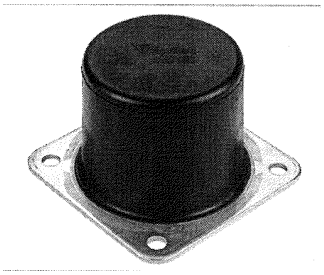
Compression:		
Deflection	0.000	
Spring Rate	1757	
Natural Frequency	?	cpm
	?	Hz
Frequency Ratio	?	N/mm2
Calculated Isolation	?	

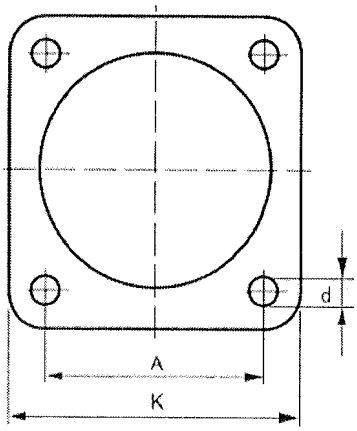
Shear:		
Deflection	0.000	
Spring Rate	422	
Natural frequency	?	cpm
	?	Hz
Frequency Ratio	?	N/mm2
Isolation	?	

All data are given to the best of our knowledge.
The performance are not guaranteed and all liability excluded. Samples are recommended.
Durometer Tolerance as per ASTM D2240 ± 5 Duro. A

IPB100

elasto-ANB-Mounts 100x84
100x84 ANB / Shore A





Dimensions:	
D	H
3.94	3.31

Elastomer	ShoreA
	90

3. Recommended Compression Load

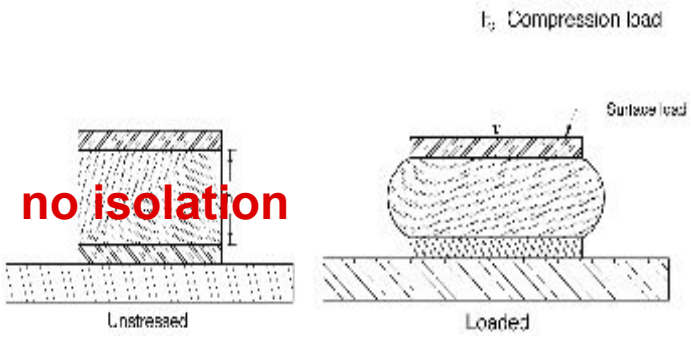
Compression Information

Deflection	0.000
Spring Rate	1757
Maximum Stress	75.06

Compression Deflection Information

0.000
1756.8
? Natural Frequency at max. load
?Isolation at

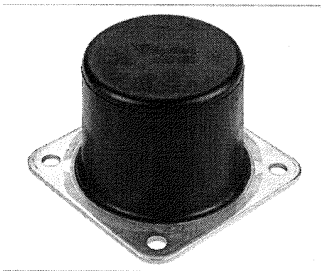
Maximum Force		
Maximum Deflection		
Stress	0.00	
max. force at 15%	2.82	
Natural Frequency	?	cpm
	?	Hz
Frequency Ratio	?	N/mm2
Calculated Isolation	?	

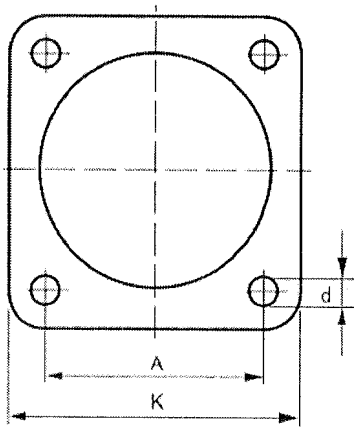


All data are given to the best of our knowledge.
The performance are not guaranteed and all liability excluded. Samples are recommended.
Durometer Tolerance as per ASTM D2240 ± 5 Duro. A

IPB100

elasto-ANB-Mounts 100x84
100x84 ANB / Shore A





Dimensions:

D	H
3.94	3.31

Elastomer	ShoreA
	90

4. Recommended Shear Load

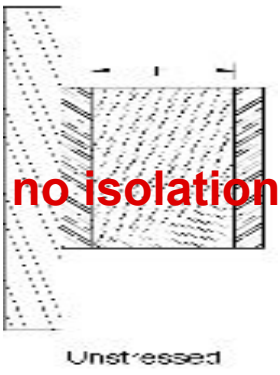
Shear Information

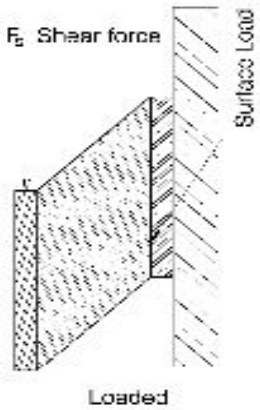
Deflection	0.000
Spring Rate	422
max. stress	17.15

Shear Deflection Information

0.000
422.4
? Natural Frequency by max. load
? Isolation by

max. Force		
max. Deflection		
Stress	0.00	
max. Shear Stress at 15 %	0.68	
Natural frequency	?	1/min
	?	Hz
Frequency Ratio	?	N/mm2
Calculated Isolation	?	





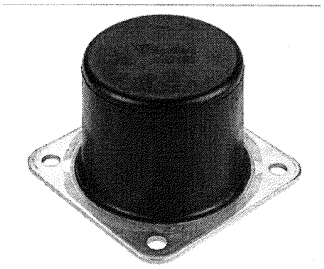
All data are given to the best of our knowledge.
The performance are not guaranteed and all liability excluded. Samples are recommended.
Durometer Tolerance as per ASTM D2240 ± 5 Duro. A

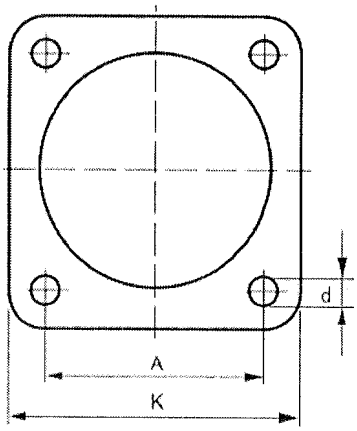
IPB100

elasto-ANB-Mounts 100x84
100x84 ANB / Shore A

Dimensions:	
D	H
3.94	3.31

Elastomer	ShoreA
	90





5. Compression/Injection Molded Standard Product Tolerances

Standard compression molded product dimensional tolerances conform to DIN ISO 3302-1 M3 C
Standard Injection molded product tolerances conform to DIN ISO 3302-1 M3 F
Further information regarding product/process quality can be provided upon request.

Dimensions mm		Dimensions inch		Tolerance in mm Class M3-F DIN ISO 3302-1	Tolerance in Inch Class M3-F DIN ISO 3302-1	Tolerance in mm Class M3-C DIN ISO 3302-1	Tolerance in Inch Class M3-C DIN ISO 3302-1
from	to	from	to	mm	inch	mm	inch
0	4	0	.15"	± 0.25	± .010	± 0.40	± .016
4	6.3	.16"	.25"	± 0.25	± .010	± 0.40	± .016
6.3	10	.25"	.39"	± 0.30	± .012	± 0.50	± .020
10	16	.39"	.63"	± 0.40	± .016	± 0.60	± .024
16	25	.63"	.98"	± 0.50	± .020	± 0.80	± .032
25	40	.98"	1.57"	± 0.60	± .024	± 1.00	± .040
40	64	1.57"	2.52"	± 0.80	± .032	± 1.30	± .051
63	100	2.38"	3.94"	± 1.00	± .040	± 1.60	± .063
100	160	3.94"	6.30"	± 1.30	± .051	± 2.00	± .079
160	-	6.30"	-	± 1.3 %	± 1.3 %	± 1.3 %	± 1.3 %

Standard rubber hardness tolerance ± 5 Shore A Durometer per ASTM D2000

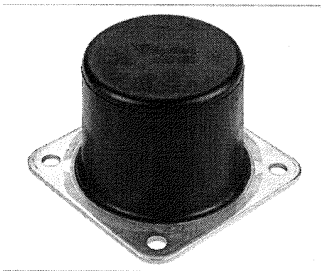
All data are given to the best of our knowledge.
The performance are not guaranteed and all liability excluded. Samples are recommended.
Durometer Tolerance as per ASTM D2240 ± 5 Duro. A

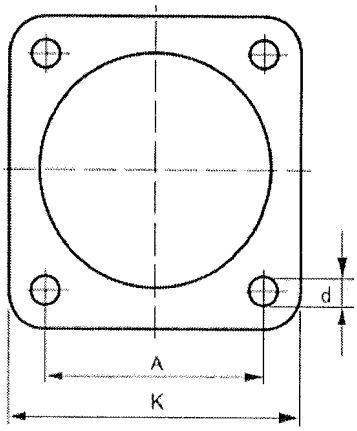
IPB100

elasto-ANB-Mounts 100x84
100x84 ANB / Shore A

Dimensions:	
D	H
3.94	3.31

Elastomer	ShoreA
	90





6. Rubber Selection

Hardness Range (ShoreA)	Temperature Resistance Range °C (F°)	Short Term Peak Temperature C° (F°)	Tensile Strength (N/mm²) (PSI)	Tensile Eloangariotion %	Elastomer Basic Material / Chemical-Technical Discription / Below: (Trade Name)	International Description	PROPERTIES: Tensile Strength	Tear Resistance	Abrasion Resistance	Restoring Ability	Rebound Resilience	Ozone Resistance	Flame Resistance	Acid Resistance	Benzene & Mineral Oil Resistance	Gas Impermeability	Water Absorption Resistance	- Temperature Resistance	+ Temperature Resistance
25 - 95	**-40°- 75°** (-40°- 167°)	**+100°** (212°)	**31** (4496)	800	Natural Rubber	NR	2	2	2	2	1	4	5	3	5	4	3	2	4
30 - 90	**-30°- 120°** (-22°- 248°)	**+150°** (302°)	**27.5** (3988)	450	Chloroprene (Baypren, Neoprene)	CR	2	3	2	3	2	2	2	2	3	3	4	4	3
30 - 90	**-40°- 150°** (-40°- 302°)	**+180°** (356°)	**20** (2901)	450	Ethylene-Propylene - Terpolymer	EPDM	3	4	3	3	3	1	6	3	5	3	2	3	2
25 - 95	**-40°- +140°** (-40°- 248°)	**+160°** (320°)	**25** (3626)	500	Ntrile Butadine (Perbunan)	NBR	3	4	3	3	3	5	5	3	1	3	3	4	3
35 - 95	**-30°- +110°** (-22°- 230°)	**+150°** (302°)	**25** (3626)	450	Styrene-Butadiene	SBR	3	3	2	3	3	5	5	3	5	3	3	3	3
30 - 85	**-40°- +130°** (-40°- 266°)	**+150°** (302°)	**17** (2466)	800	Butyl	IIR	3	2	2	3	5	1	4	4	6	4	2	2	3
55 - 98	**-30°- +80°** (-22°- 176°)	**+100°** (212°)	**30** (4351)	800	Polyurethane	PUR	1	2	1	3	3	2	4	5	2	4	5	3	4
40 - 80	**-70°- +180°** (-94°- 356°)	**+225°** (437°)	**8** (1160)	250	Silicone Rubber	SI	5	5	5	5	2	1	4	3	5	5	4	1	1
65 - 90	**-30°- +225°** (-22°- 437°)	**+350°** (662°)	**20** (2901)	400	Fluorocarbon (Viton)	FPM	3	2	5	5	4	1	1	1	1	1	-	4	1

1 = Very Good 2 = Good 3 = Satisfactory 4 = Adequate 5 = Poor 6 = Inadequate

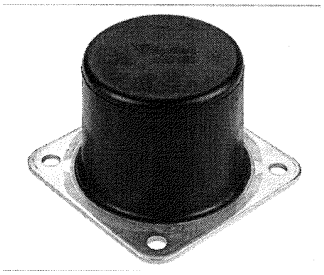
The above mentioned information are used for a guide and can be modified by elatometall to improve certain characteristis.

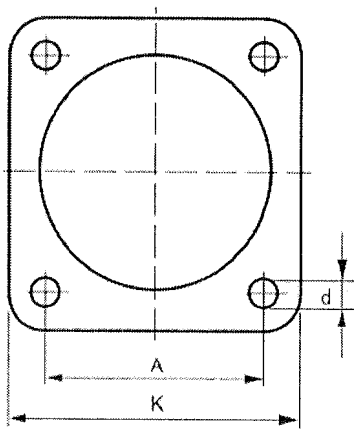
All data are given to the best of our knowledge.
The performance are not guaranteed and all liability excluded. Samples are recommended.
Durometer Tolerance as per ASTM D2240 ± 5 Duro. A

IPB100

elasto-ANB-Mounts 100x84
100x84 ANB / Shore A

Dimensions:	
D	H
3.94	3.31
Elastomer	ShoreA
	90





7. Tightening Torque and Bolt Grades & Class

Tightening Torque per ASTM A193 and A194

Metric Units: (Metric Thread)

Thread Size & Pitch	CLASS 5.6 Tightening Torque (Nm)	CLASS 8.8 Tightening Torque (Nm)	CLASS 10.9 Tightening Torque (Nm)
M2	0.16	0.37	0.52
M2.3	0.26	0.6	0.84
M2.6	0.37	0.86	1.21
M3	0.59	1.34	1.88
M3.5	0.9	2.06	2.89
M4	1.34	3.04	4.31
M5	2.65	6.03	8.48
M6	4.51	10.3	14.71
M7	7.45	17.16	24.52
M8	10.79	25.5	35.3
M10	21.57	50.01	70.61
M12	38.25	87.28	122.58
M14	60.8	138.27	194.17
M16	93.16	210.84	299.1
M18	127.49	411.88	411.88
M20	180.44	558.98	578.5
M22	245.17	558.98	784.54
M24	308.91	710.99	1000.28
M27	460.92	1049.32	1480.81
M30	522.73	1421.97	2010.38

Non-Standard

English Units: (Coarse Thread)

Thread Size & Pitch	GRADE 2 Tightening Torque (ft-lb)	GRADE 5 Tightening Torque (ft-lb)	GRADE 8 Tightening Torque (ft-lb)
6-32	0.86	1.33	1.88
8-32	1.58	2.44	3.44
10-24	2.29	3.53	499
12-24	3.59	5.55	7.84
1/4-20	5.47	8.45	11.9
5/16-18	11.3	17.4	24.6
3/8-16	20	30.9	43.6
7/16-14	32	39.4	69.8
1/2-13	48.8	75.4	106
9/16-12	70.4	109	154
5/8-11	97.1	150	212
3/4-10	103	366	376
7/8-9	167	430	606
1-8	250	561	909
1-1/8-7	354	794	1288
1-1/4-7	500	1120	1817
1-3/8-6	655	1469	2382
1/2-6	869	1949	3161

English Units: (Fine Thread)

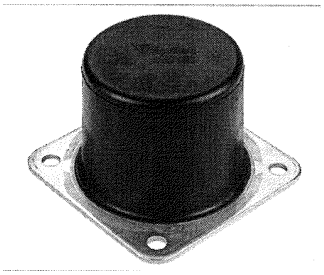
Thread Size & Pitch	GRADE 2 Tightening Torque (ft-lb)	GRADE 5 Tightening Torque (ft-lb)	GRADE 8 Tightening Torque (ft-lb)
6-40	0.96	1.49	2.1
8-36	1.66	2.57	3.63
10-32	2.61	4.04	5.7
12-28	3.83	5.92	8.36
1/4-28	6.26	9.7	13.7
5/16-24	12.5	19.3	27.2
3/8-24	22.66	35	49.4
7/16-20	35.7	55.2	77.9
1/2-20	55	84.9	120
9/16-18	78.5	121	171
5/8-18	110	170	240
3/4-16	115	297	420
7/8-14	184	473	668
1-12	273	613	995
1-1/8-12	397	891	1445
1-1/4-12	553	1241	2012
1-3/8-12	746	1673	2712
1-1/2-12	978	2194	3557

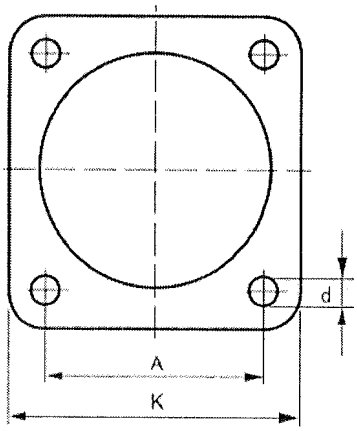
The performance are not guaranteed

All data are given to the best of our knowledge. and all liability excluded. Samples are recommended. Durometer Tolerance as per ASTM D2240 ± 5 Duro. A

IPB100

elasto-ANB-Mounts 100x84
100x84 ANB / Shore A



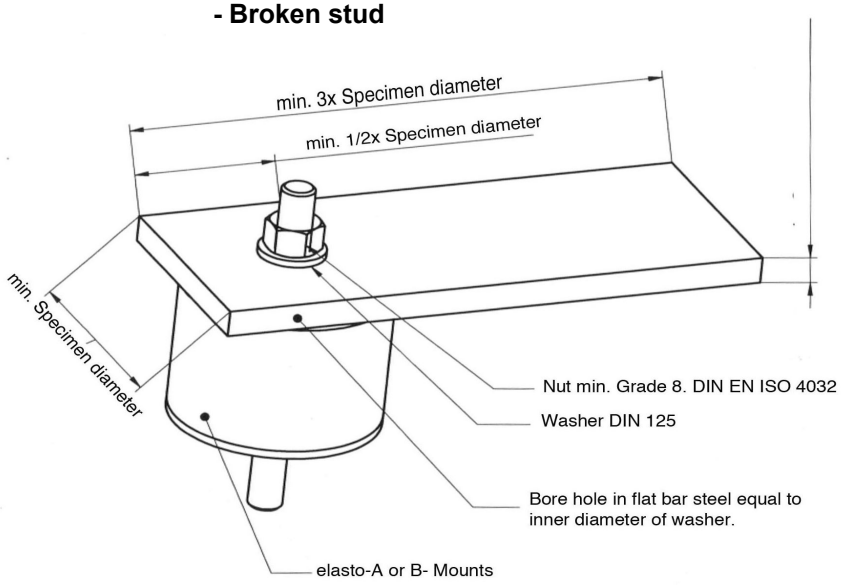


Dimensions:	
D	H
3.94	3.31
Elastomer	ShoreA
	90

8. Torque Threaded Stud Test of elasto-A- and B-Mounts

Tighten flat bar steel on jaw vise. Setup required torque wrench per table. Use a nut for specimen and tighten it with torque wrench until the required torque is achieved. Loosen nut from specimen and visual check threaded studs for:

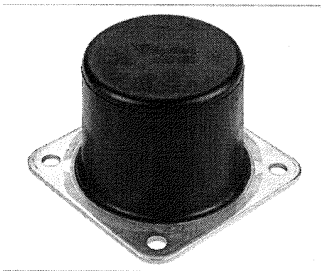
- **Stud extension**
- **Thread pitch damaged or sheered**
- **Connection between washer**
- **Broken stud**

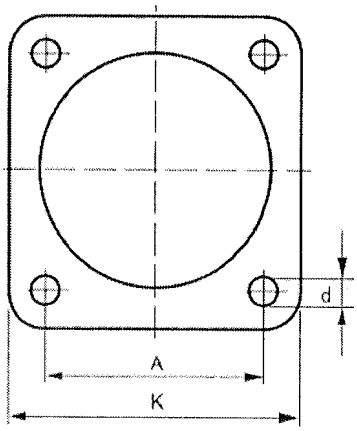


**All data are given to the best of our knowledge.
The performance are not guaranteed and all liability excluded. Samples are recommended.
Durometer Tolerance as per ASTM D2240 ± 5 Duro. A**

IPB100

elasto-ANB-Mounts 100x84
100x84 ANB / Shore A





Dimensions:	
D	H
3.94	3.31
Elastomer	ShoreA
	90

9. Certificate of RoHS Compliance

Customer _____

We confirm that these mounts are RoHS Compliance.

9. Shelf Life Expectancy

Rubber to metal bonded products have a shelf life expectancy of up to 20 years under certain conditions such as room temperature and avoiding direct sunlight or artificial lights.

- ALWAYS KEEP PARTS AWAY FROM DIRECT SUNLIGHT AND BETWEEN 10° - 30° CELSIUS -

The performance are not guaranteed

All data are given to the best of our knowledge. and all liability excluded. Samples are recommended. Durometer Tolerance as per ASTM D2240 ± 5 Duro. A