

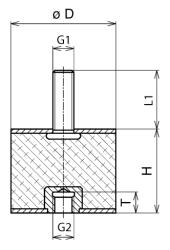
Product Specification/ Certificates and Assembly Instruction elasto 250113 Release: 1 Page: 1 of 8

5050B13U25

elasto-B-Mounts 50x50 50x50 B UNC1/2-13/25 Shore A

Dimensions:	
D	Н
1.97	1.97
G1	G2
UNC1/2-13	UNC1/2-13
L1	T
0.98	
Elastomer	ShoreA
	57





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

Printed On: 11/17/17, 8:35:02 am

- 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.



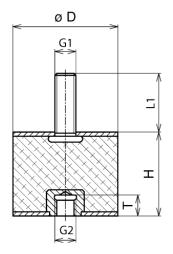
Product Specification/ Certificates and Assembly Instruction elasto 250113 Release: 1 Page: 2 of 8

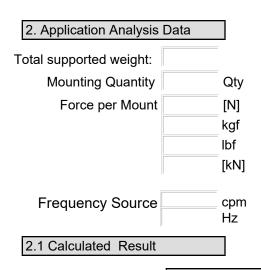
5050B13U25

elasto-B-Mounts 50x50 50x50 B UNC1/2-13/25 Shore A

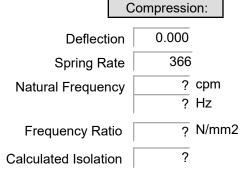
Dimensions:	
D	Н
1.97	1.97
G1	G2
UNC1/2-13	UNC1/2-13
L1	T
0.98	
Elastomer	ShoreA
	57

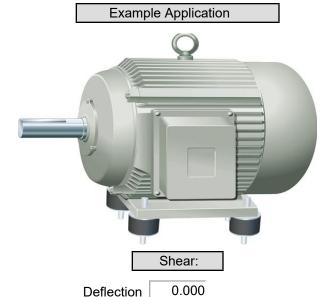






Printed On: 11/17/17, 8:35:02 am





Spring Rate

Isolation

Natural frequency

Frequency Ratio

74

? cpm

? N/mm2

? Hz

?



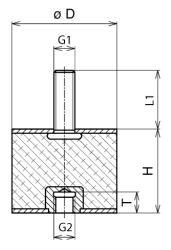
Product Specification/ Certificates and Assembly Instruction elasto 250113 Release: 1 Page: 3 of 8

5050B13U25

elasto-B-Mounts 50x50 50x50 B UNC1/2-13/25 Shore A

Dimensions:	
D	Н
1.97	1.97
G1	G2
UNC1/2-13	UNC1/2-13
L1	T
0.98	
Elastomer	ShoreA
	57





3. Recommended Compression Load

Compression Information

Deflection	0.000
Spring Rate	366
Maximum Stress	28.80

Compression Deflection Information

0.000 366.0

? Natural Frequency at max. load ?Isolation at

t_a Compression load

Surface load

Maximum Force

Maximum Deflection

Printed On: 11/17/17, 8:35:02 am

Stress 0.00
max. force at 15% 0.78
Natural Frequency ? cpm
? Hz

Frequency Ratio ? N/mm2
Calculated Isolation ?

Unstressed Loaded



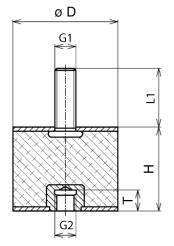
Product Specification/ Certificates and Assembly Instruction elasto 250113 Release: 1 Page: 4 of 8

5050B13U25

elasto-B-Mounts 50x50 50x50 B UNC1/2-13/25 Shore A

Dimensions:	
D	Н
1.97	1.97
G1	G2
UNC1/2-13	UNC1/2-13
L1	T
0.98	
Elastomer	ShoreA
	57





4. Recommended Shear Load

Shear Information

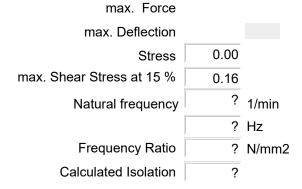
Deflection	0.000
Spring Rate	74
max. stress	0.31

Shear Deflection Information

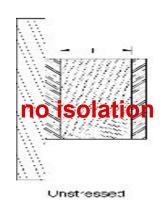
0.000

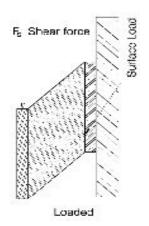
74.1

? Natural Frequency by max. load ? Isolation by



Printed On: 11/17/17, 8:35:02 am







Product Specification/ Certificates and Assembly Instruction elasto 250113 Release: 1 Page: 5 of 8

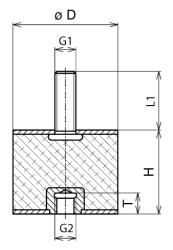
5050B13U25

elasto-B-Mounts 50x50 50x50 B UNC1/2-13/25 Shore A

Dimensions:	
D	Н
1.97	1.97
G1	G2
UNC1/2-13	UNC1/2-13
L1	T
0.98	
Elastomer	ShoreA
	57

Printed On: 11/17/17, 8:35:02 am





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		nsions ch	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



Product Specification/ Certificates and Assembly Instruction

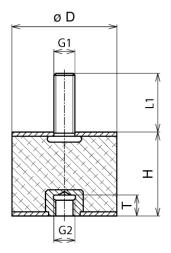
elasto 250113 Release: 1 Page: 6 of 8

5050B13U25

elasto-B-Mounts 50x50 50x50 B UNC1/2-13/25 Shore A

Dimensions:	
D	Н
1.97	1.97
G1	G2
UNC1/2-13	UNC1/2-13
L1	T
0.98	
Elastomer	ShoreA
	57





6. Rubber Selection

	E.	<u>.</u>			Elastomer							PRO	PER	TIES					
Hardness Range (ShoreA)	Temperature Resistance Range 'C (F°)	Short Term Peak Temperature C° (F°)	Tensile Strength (Nmm²) (PSI)	Tensile Eloangariotion %	Basic Material Chemical-Technical Discription Below: (Trade Name)	International Description	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	2	4	1

1 = Very Good

Printed On: 11/17/17, 8:35:02 am

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.



Product Specification/ Certificates and Assembly Instruction

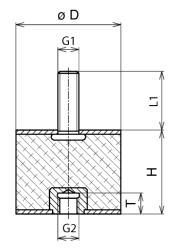
elasto 250113 Release: 1 Page: 7 of 8

5050B13U25

elasto-B-Mounts 50x50 50x50 B UNC1/2-13/25 Shore A

Dimensions:	
D	Н
1.97	1.97
G1	G2
UNC1/2-13	UNC1/2-13
L1	T
0.98	
Elastomer	ShoreA
	57





7. Tightening Torque and Bolt Grades & Class

Tightening Torque per ASTM A193 and A194

Metric	Units: (Met	tric Thread)	Ĺ
8	CLASS 5.6	CLASS 8.8	CLASS 10.9
Thread Size & Pitch	Tightening Torque (Nm)	Tightening Torque (Nm)	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

308.91	710.99	10
460.92	1049.32	14
522.73	1421.97	20
Non-Standard	Į.	

Printed On: 11/17/17, 8:35:02 am

	GRADE 2	GRADE 5	GRADE 8
Thread Size & Pitch	Tightening Torque (ft-lb)	Tightening Torque (ft-lb)	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

	GRADE 2	GRADE 5	GRADE 8
Thread Size & Pitch	Tightening Torque (ft-lb)	Tightening Torque (ft-lb)	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

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



Product Specification/ Certificates and Assembly Instruction

elasto 250113 Release: 1 Page: 8 of 8

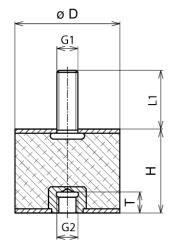
5050B13U25

elasto-B-Mounts 50x50 50x50 B UNC1/2-13/25 Shore A

Dimensions:		
D	Н	
1.97	1.97	
G1	G2	
UNC1/2-13	UNC1/2-13	
L1	T	
0.98		
Elastomer	ShoreA	
	57	

Printed On: 11/17/17, 8:35:02 am

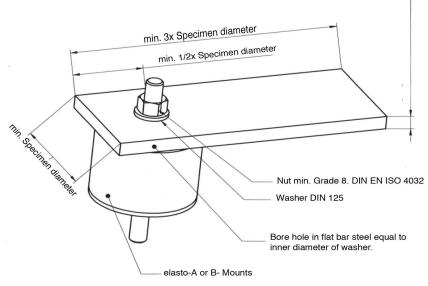




8. Torque Threaded Stud Test of elasto-A- and B-Mounts

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





Product Specification/ Certificates and Assembly Instruction

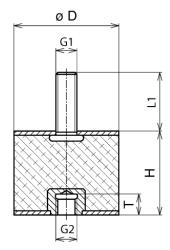
elasto 250113 Release: 1 Page: 9 of 8

5050B13U25

elasto-B-Mounts 50x50 50x50 B UNC1/2-13/25 Shore A

Dimensions:		
D	Н	
1.97	1.97	
G1	G2	
UNC1/2-13	UNC1/2-13	
L1	T	
0.98		
Elastomer	ShoreA	
	57	





9. Certificate of RoHS Compliance

Customer

We confirm that these mounts are RoHS Compliance.

9. Shelf Life Expectancy

Printed On: 11/17/17, 8:35:02 am

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 -