

vulcanite

***Industrial
Components***

vulcanite
Excellence in engineered rubber solutions.

Industrial Elastomers Mounts & Isolators

Industrial Isolators

Vulcanite has engineered and manufactured a range of industrial rubber isolators which are used to isolate damaging mechanical vibrations in mining, construction equipment and other industrial equipment.

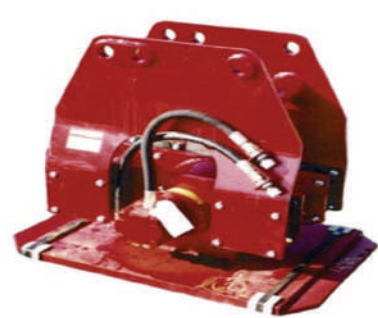
Application

Vibratory Hammers



Piling elastomers are used to isolate damaging mechanical vibrations from crane hoisting equipment during pile driving and extraction activities. The unique elastomers withstand high frequency pile driving hammer vibration and more importantly, very high shear loads during pile extraction. This shear capacity is what gives Vulcanite the competitive advantage in reliable hammer performance. Vulcanite isolation elastomers can be found in most of the vibratory piling hammers manufactured in Europe and the United States. These hammers are located on construction sites all over the world.

Compactor Plates



Vulcanite rubber vibration mounts are widely used on many brands of excavator mounted compaction plates. These heavy duty rubber mounts are designed to perform in shear and compression modes. The purpose is to minimise vibration transmitted to the excavator boom which prevents fatigue and wear on moving parts.

Vibrator Roller



Vibration isolation mounts are ideal for all compaction applications. Vibrating drum roller mounts helped Vulcanite cut its teeth on vibration isolation applications. These mounts are generic in their make up around the world. We have made important improvements to help increase life, provide maximum productivity with operators comfort. These rubber mounts provide single or dual vibration insulating result; vibrating drum to frame and frame to operator's deck.

Materials Handling



Vulcanite produces a range of flexible couplings for dump trucks which allows for isolation of torsional vibration together with our sandwich mounts which isolate the vibration of the dump box from the chassis. A range of shear rubbers to suit transfer chutes, vibratory buffers and multicushion mounts for specialised processing tables and operating damper rubbers for vibratory screens and mineral ore crushers.

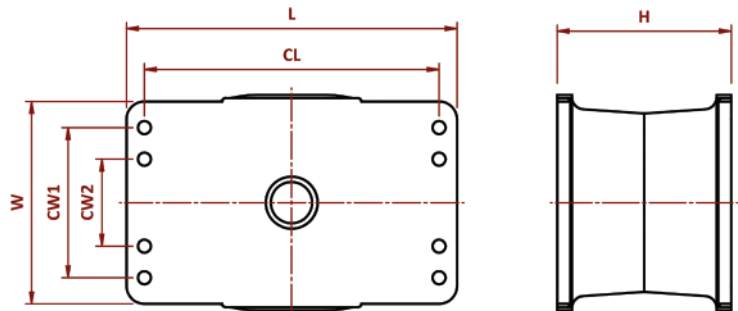
Features

Vulcanite elastomers can be operated at higher frequencies as the rubber formulations used allow heat that is generated to be dissipated effectively. The long history of ongoing development and the challenge to exceed customer expectations has enabled Vulcanite to produce elastomers that out perform others. Vulcanite elastomers can be operated at higher deflections in shear compared to other elastomers and at the same time provides extended service life. The finest ingredients are used to compound the highest grade of natural rubber to provide benefits such as high temperature resistance, extended fatigue life at high operating frequency and improved isolation efficiency.

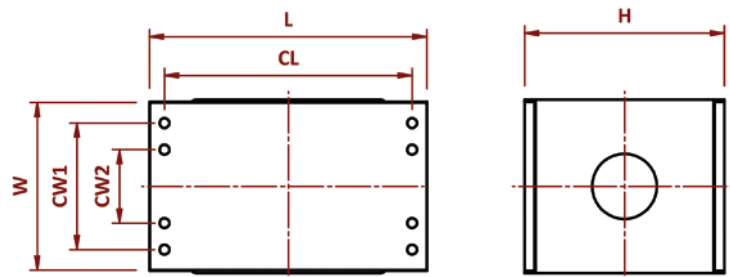
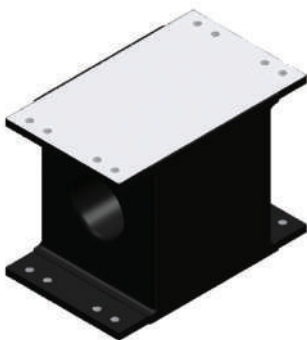
Pile Driving Elastomers

Large Isolators

A large range of sizes and durometers combined with different mounting types allows selection of most appropriate isolation for the application. Vulcanite pile driving elastomers are ideal where you require an isolator of straight forward design to provide an uncomplicated solution to controlling vibration and shock.



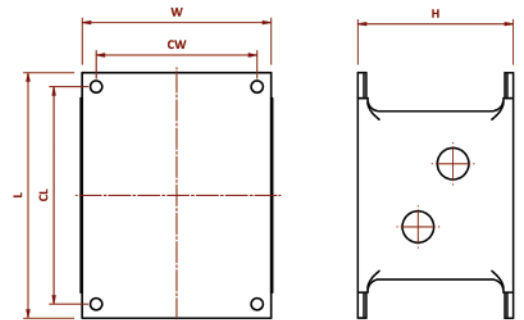
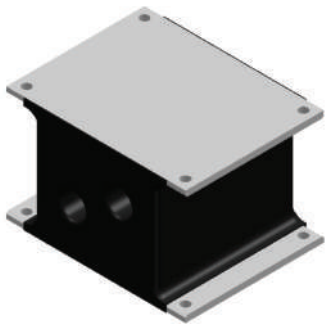
Part No.	Dimensions (mm)						Shear	
	L	W	H	C _L	C _{W1}	C _{W2}	Max Load (kN)	Max Def (kN)
102.483.295.141.003-47	483	295	355	219	430	127	42	345
102.483.295.141.004-55	483	295	355	219	430	127	54	320
102.483.295.141.001-60	483	295	355	219	430	127	69	300
102.483.295.141.002-65	483	295	355	219	430	127	89	275
102.483.295.101.001-47	483	295	254	219	430	127	54	200
102.483.295.101.002-55	483	295	254	219	430	127	69	185
102.483.295.101.003-60	483	295	254	219	430	127	90	170
102.483.295.101.004-65	483	295	254	219	430	127	115	155



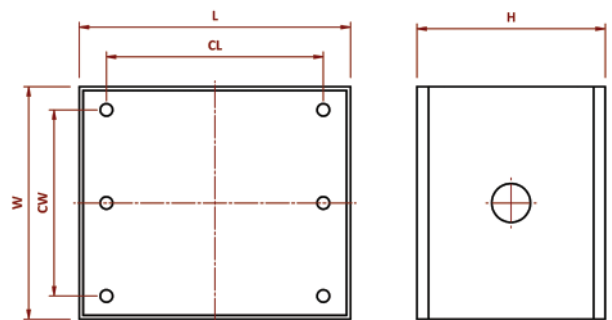
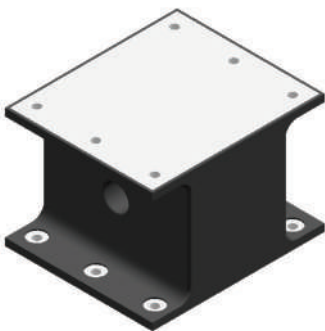
Part No.	Dimensions (mm)						Shear	
	L	W	H	C _L	C _{W1}	C _{W2}	Max Load (kN)	Max Def (kN)
102.482.300.347.001-47	482	300	347	430	219	127	42	240
102.482.300.347.002-55	482	300	347	430	219	127	54	220
102.482.300.347.003-60	482	300	347	430	219	127	70	205
102.482.300.347.004-65	482	300	347	430	219	127	90	185

Pile Driving Elastomers

Medium Isolators

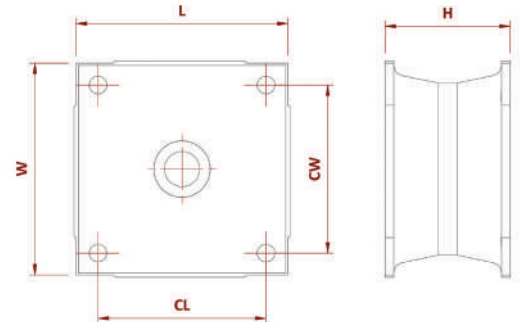
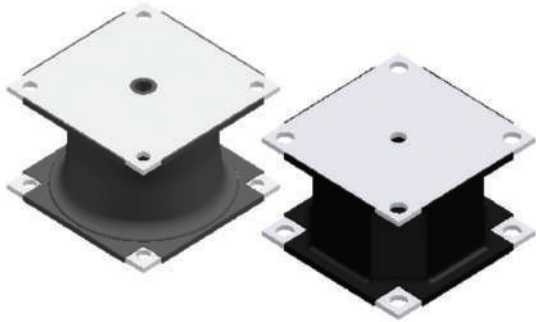


Part No.	Dimensions (mm)					Shear	
	L	W	H	C _L	C _{W1}	Max Load (kN)	Max Def (kN)
102.350.295.222.001-47	350	295	222	310	230	40	190
102.350.295.222.002-55	350	295	222	310	230	52	180
102.350.295.222.003-60	350	295	222	310	230	65	175
102.350.295.222.004-65	350	295	222	310	230	85	167
102.350.270.222.001-60	350	270	222	310	230	50	190
102.350.270.222.002-55	350	270	222	310	230	38	185
102.350.270.222.003-47	350	270	222	310	230	40	190
102.350.270.222.004-65	350	270	222	310	230	85	167



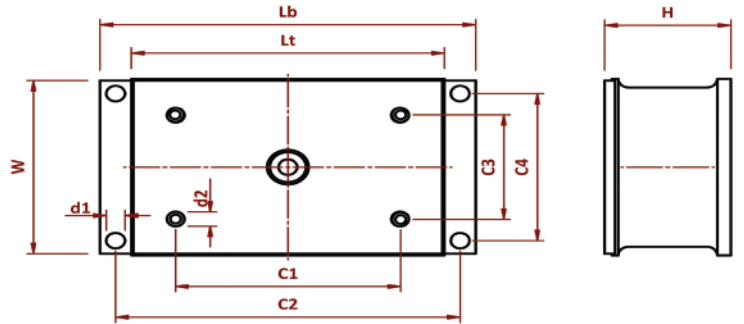
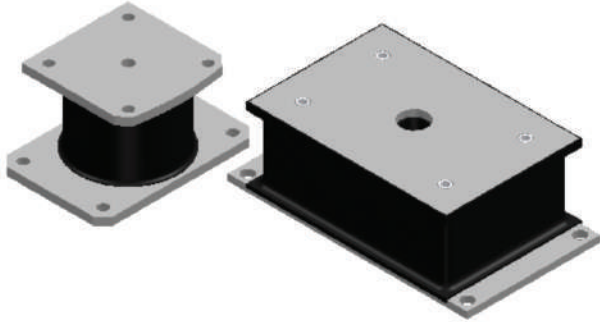
Part No.	Dimensions (mm)					Shear	
	L	W	H	C _L	C _{W1}	Max Load (kN)	Max Def (kN)
102.350.300.245.001-47	350	300	245	280	240	32	245
102.350.300.245.004-55	350	300	245	280	240	40	236
102.350.300.245.002-65	350	300	245	280	240	65	130
102.350.300.245.003-60	350	300	245	280	240	50	220

Square Isolators



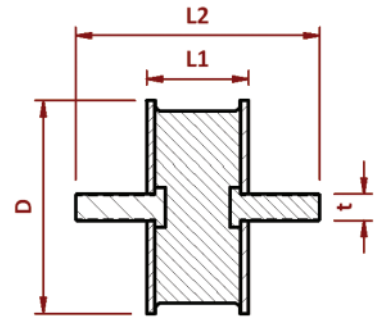
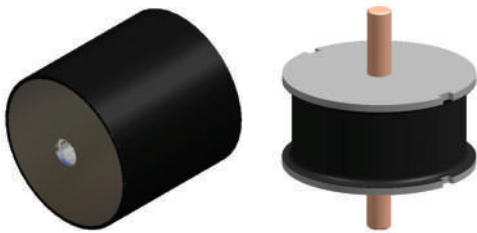
Part No.	Dimensions (mm)					Shear	
	L	W	H	C _L	C _{W1}	Max Load (kN)	Max Def (kN)
102.120.110.060.003 – 45x	120	110	60	100	86	4	60
102.120.110.060.004 – 60	120	110	60	100	86	8	60
102.120.110.060.001 – 47	120	110	60	100	86	5	60
102.120.110.060.002 – 55	120	110	60	100	86	6.5	60
102.120.110.060.005 – 65	120	110	60	100	86	11	60
102.05i.05i.02i.001 – 60	132	132	51	66	66	6.5	15
102.05i.05i.02i.002 – 47	132	132	51	66	66	3.9	15
102.05i.05i.02i.003 – 55	132	132	51	66	66	5	15
102.05i.05i.02i.004 – 65	132	132	51	66	66	8	15
102.05i.05i.03i.001 – 60	132	132	76	66	66	6	24
102.07i.07i.04i.016 – 55 oct	176	176	102	146	146	21	124
102.07i.07i.04i.018 – 47 oct	176	176	102	146	146	16	124
102.07i.07i.04i.019 – 60 oct	176	176	102	146	146	27	124
102.07i.07i.04i.020 – 65 oct	176	176	102	146	146	35	124
102.07i.07i.04i.009 – 47	178	178	102	146	146	12	100
102.07i.07i.04i.015 – 55	178	178	102	146	146	16	100
102.07i.07i.04i.013 – 60	178	178	102	146	146	20	100
102.07i.07i.04i.017 – 65	178	178	102	146	146	26	100
102.07i.07i.04i.007 – 70	178	178	102	146	146	32	100
102.184.184.124.001 - 55	184	184	124	152	152	12	100
102.184.184.124.002 - 47	184	184	124	152	152	9	100
102.184.184.124.003 – 60	184	184	124	152	152	16	100
102.184.184.124.004 - 65	184	184	124	152	152	20	100
102.09i.09i.05i.002 – 47	240	240	140	191	191	32	124
102.09i.09i.05i.003 – 55	240	240	140	191	191	42	124
102.09i.09i.05i.004 – 60	240	240	140	191	191	55	124
102.09i.09i.05i.001 - 65	240	240	140	191	191	70	124
102.12i.12i.03i.001 – 47	300	300	76	254	254	13	22

Square Isolators



Part No.	Dimensions (mm)										Shear	
	Lb	Lt	W	H	C ₁	C ₂	C ₃	C ₄	D ₁	D ₂	Max Load (kN)	Max Def (kN)
102.195.150.086.001 – 55	195	195	150	86	170	-	120	-	13.5	13.5	11.5	40
102.195.150.086.001 – 47	195	195	150	86	170	-	120	-	13.5	13.5	9	40
102.195.150.086.001 – 60	195	195	150	86	170	-	120	-	13.5	13.5	15	40
102.195.150.086.001 – 65	195	195	150	86	170	-	120	-	13.5	13.5	19	40
102.200.190.093.001 – 60	200	190	190	93	122	17	165	165	13	13	15	80
102.200.190.093.001 – 55	200	190	190	93	122	17	165	165	13	13	11	80
102.200.190.093.001 – 47	200	190	190	93	122	17	165	165	13	13	9	80
102.200.190.093.001 – 65	200	190	190	93	122	17	165	165	13	13	19	80
102.210.185.120.002 – 60	210	185	185	120	120	175	150	150	15	14	14	100
102.210.185.120.002 – 55	210	185	185	120	120	175	150	150	15	14	11	100
102.210.185.120.002 – 47	210	185	185	120	120	175	150	150	15	14	8.5	100
102.210.185.120.002 – 65	210	185	185	120	120	175	150	150	15	14	18	100
102.235.160.119.001 – 60	235	160	160	119	120	195	120	120	15	M14	14	100
102.235.160.119.002 – 55	235	160	160	119	120	195	120	120	15	M14	11	100
102.235.160.119.003 – 47	235	160	160	119	120	195	120	120	15	M14	8.5	100
102.235.160.119.004 – 65	235	160	160	119	120	195	120	120	15	M14	18	100
103.265.130.100.001 – 60	265	265	130	130	220	-	98	-	14	14	30	80
103.265.130.100.002 – 47	265	265	130	130	220	-	98	-	14	14	18	80
103.265.130.100.003 – 55	265	265	130	130	220	-	98	-	14	14	24	80
103.265.130.100.004 – 65	265	265	130	130	220	-	98	-	14	14	39	80
102.360.200.120.006 – 60	360	300	200	120	115	330	120	170	18	M12	43	100
102.360.200.120.002 – 45X	360	300	200	120	115	330	120	170	18	M12	20	100
102.360.200.120.005 – 46	360	300	200	120	115	330	120	170	18	M12	25	100
102.360.200.120.001 – TA50	360	300	200	120	115	330	120	170	18	M12	32	100
102.360.200.120.004 – 50	360	300	200	120	115	330	120	170	18	M12	33	100
102.360.200.120.003 – 65	360	300	200	120	115	330	120	170	18	M12	55	100

Drum Roller Mounts



Part No.	Dimensions (mm)				Shear	
	D	L1	L2	L2	Max Load (kN)	Max Def (kN)
CF05-070 – 65	40	40	102	M12	55	10
CF05-070 – 47	40	40	102	M12	25	10
CF05-070 – 55	40	40	102	M12	35	10
CF05-070 – 60	40	40	102	M12	40	10
102.048.000.020.001 – 70	48	20	70	M10	112	7
102.048.000.020.003 – 47	48	20	70	M10	42	7
102.048.000.020.004 – 55	48	20	70	M10	53	7
102.048.000.020.005 – 60	48	20	70	M10	68	7
102.048.000.020.006 – 65	48	20	70	M10	88	7
102.048.000.090.001 – 60	48	90	140	M10	70	30
102.048.000.090.002 – 47	48	90	140	M10	42	30
102.048.000.090.003 – 55	48	90	140	M10	54	30
102.048.000.090.004 – 65	48	90	140	M10	90	30
102.056.000.098.001 – 47	56	46	98	3/8" BSW	50	15
102.056.000.098.002 – 55	56	46	98	3/8" BSW	60	15
102.056.000.098.003 – 60	56	46	98	3/8" BSW	80	15
102.056.000.098.004 – 65	56	46	98	3/4" BSW	100	15
102.060.000.030.001 – 60	60	30	65	M12	145	8
102.060.000.030.002 – 47	60	30	65	M12	88	8
102.060.000.030.003 – 55	60	30	65	M12	114	8
102.060.000.030.004 – 65	60	30	65	M12	180	8
102.065.000.022.002 – 70	65	22	82	M12	210	5
102.065.000.022.003 – 47	65	22	82	M12	77	5
102.065.000.022.004 – 55	65	22	82	M12	100	5
102.065.000.022.005 – 60	65	22	82	M12	128	5
102.065.000.022.006 – 65	65	22	82	M12	165	5
102.079.000.076.001 – 60	79	76	-	1/2" UNC	115	20
102.079.000.076.002 – 47	79	76	-	1/2" UNC	70	20
102.079.000.076.003 – 55	79	76	-	1/2" UNC	90	20
102.079.000.076.004 – 65	79	76	-	1/2" UNC	150	20
102.102.000.108.001 – 55	102	108	192	M16	215	30
102.102.000.108.002 – 47	102	108	192	M16	165	30

Part No.	Dimensions (mm)				Shear	
	D	L1	L2	L2	Max Load (kN)	Max Def (kN)
102.102.000.108.003 – 60	102	108	192	M16	275	30
102.102.000.108.004 – 65	102	108	192	M16	355	30
102.104.000.054.001 – 55	104	54	104	M16	210	15
102.104.000.054.002 – 47	104	54	104	M16	160	15
102.104.000.054.003 – 60	104	54	104	M16	265	15
102.104.000.054.004 – 65	104	54	104	M16	345	15
102.104.000.040.001 – 47	104	40	100	M16	155	10
102.104.000.040.002 – 55	104	40	100	M16	200	10
102.104.000.040.003 – 60	104	40	100	M16	260	10
102.104.000.040.004 – 65	104	40	100	M16	335	10
102.106.000.060.001 – 47	106	60	126	¾" UNC	200	18
102.106.000.060.002 – 55	106	60	126	¾" UNC	260	18
102.106.000.060.003 – 60	106	60	126	¾" UNC	330	18
102.106.000.060.004 – 65	106	60	126	¾" UNC	425	18
102.158.000.070.001 – 47	158	70	130	M16	440	20
102.158.000.070.002 – 55	158	70	130	M16	570	20
102.158.000.070.003 – 60	158	70	130	M16	730	20
102.158.000.070.004 – 65	158	70	130	M16	940	20
102.160.000.074.001 – 60	160	74	174	M20	620	20
102.160.000.074.002 – 47	160	74	174	M20	380	20
102.160.000.074.001 – 55	160	74	174	M20	490	20
102.160.000.074.001 – 65	160	74	174	M20	810	20
102.160.000.077.002 – 60	160	77	165	M20	540	20
102.160.000.077.003 – 47	160	77	165	M20	330	20
102.160.000.077.004 – 55	160	77	165	M20	420	20
102.160.000.077.005 – 65	160	77	165	M20	695	20
102.160.000.060.001 – 60	160	60	180	M16	725	16
102.160.000.060.002 – 47	160	60	180	M16	435	16
102.160.000.060.003 – 55	160	60	180	M16	565	16
102.160.000.060.0014 – 65	160	60	180	M16	935	16
103.160.000.080.001 – 65	160	80	230	M20	855	15
103.160.000.080.002 – 47	160	80	230	M20	400	15
103.160.000.080.003 – 55	160	80	230	M20	515	15
103.160.000.080.004 – 60	160	80	230	M20	665	15
102.170.000.090.001 – 55	170	90	132	M20	420	25
102.170.000.090.002 – 47	170	90	132	M20	330	25
102.170.000.090.003 – 60	170	90	132	M20	545	25
102.170.000.090.004 – 65	170	90	132	M20	700	25

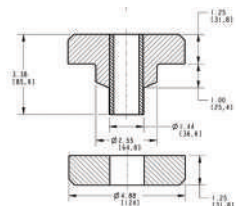
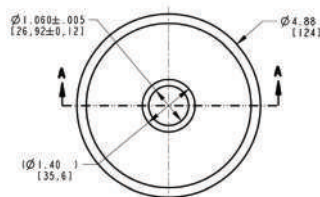
Isolator Mounts

Centre Bonded Isolators

Application

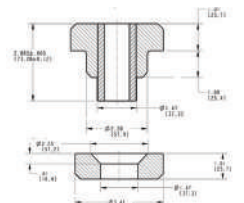
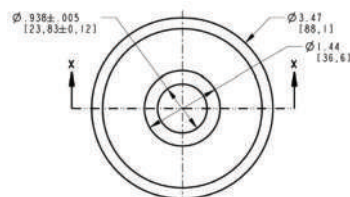
These are primarily used for mobile application where high dynamic and shock forces are encountered. Dynamic vertical movements in both directions are restricted and excellent horizontal stability is provided. Isolators are designed to achieve effective isolation on engines, operator cabs and other motorised units.

A1030 Series



Part No.	Hardness (Shore A)	Axial Compression Specification			Shear		
		Rate (kN/mm)	Max Deflection (mm)	Load at Max Deflection (kN)	Rate (kN/mm)	Max Deflection (mm)	Load at Max Deflection (kN)
FG/5-2-3-15/101	40	1.7	3	5.2	11.4	1.5	16.5
FG/5-2-3-15/96	50	2.6	3	7.8	17.5	1.5	25.4
FG/5-2-3-15/50	60	3.9	3	11.7	28.3	1.5	40.9
FG/5-2-3-15/70	70	4.9	3	14.9	33.5	1.5	48.5
FG/5-2-3-15/86	75	6.7	3	20.3	36.9	1.5	53.4

A1035 Series



Part No.	Hardness (Shore A)	Axial Compression Specification			Shear		
		Rate (kN/mm)	Max Deflection (mm)	Load at Max Deflection (kN)	Rate (kN/mm)	Max Deflection (mm)	Load at Max Deflection (kN)
FG/5-2-3-15/101	40	1.7	3	5.2	11.4	1.5	16.5
FG/5-2-3-15/96	50	2.6	3	7.8	17.5	1.5	25.4
FG/5-2-3-15/50	60	3.9	3	11.7	28.3	1.5	40.9
FG/5-2-3-15/70	70	4.9	3	14.9	33.5	1.5	48.5
FG/5-2-3-15/86	75	6.7	3	20.3	36.9	1.5	53.4

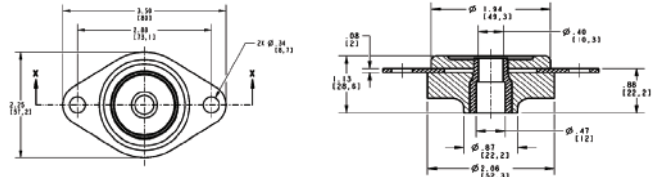
Isolator Mounts

Plate & Tube Bonded Isolators

Application

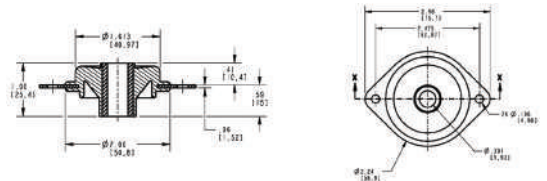
These isolators are designed for high load ratings with very small deflections. Applications include suspensions for off road and road going vehicles, cabs for rail and heavy machinery, fluid vessels, and other mobile applications.

C1070 Series



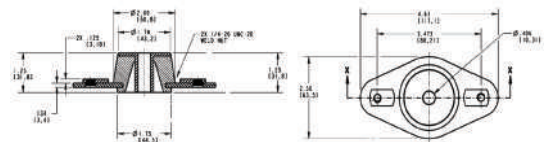
Part No.	Hardness (Shore A)	Axial Compression Specification		
		Rate (kN/mm)	Max Deflection (mm)	Load at Max Deflection (kN)
FG/5-2-3-15/46	35	0.7	2.5	1.8
FG/5-2-3-15/47	45	0.8	2.5	2.1
FG/5-2-3-15/48 – 55	55	1.4	2.5	3.6

C1080 Series



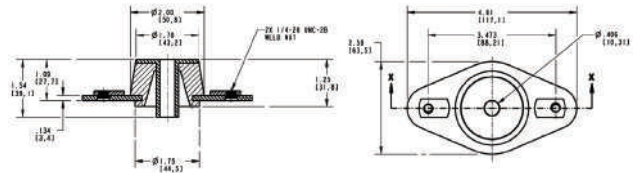
Part No.	Hardness (Shore A)	Axial Compression Specification		
		Rate (kN/mm)	Max Deflection (mm)	Load at Max Deflection (kN)
FG/3-16-7/15	30	11.7	4.5	53.4
FG/3-16-7/15A	40	24.3	4.5	111.2
FG/3-16-7/15B	50	31.1	4.5	142.3
FG/3-16-7/40	60	43.8	4.5	200.2

C 2150 Series



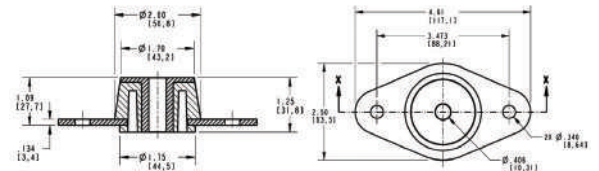
Part No.	Hardness (Shore A)	Axial Compression Specification		
		Rate (kN/mm)	Max Deflection (mm)	Load at Max Deflection (kN)
FG/5-2-3-15/102 – 45	45	175	2.5	437
FG/5-2-3-15/102 – 50	50	207	2.5	517
FG/5-2-3-15/102 – 55	55	267	2.5	667
FG/5-2-3-15/102 – 60	60	343	2.5	857
FG/5-2-3-15/102 – 65	65	441	2.5	1104
FG/5-2-3-15/102 – 70	70	559	2.5	1399

C2180 Series



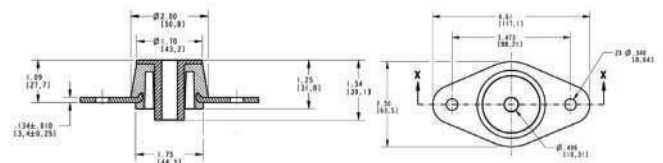
Part No.	Hardness (Shore A)	Axial Compression Specification		
		Rate (kN/mm)	Max Deflection (mm)	Load at Max Deflection (kN)
FG/5-2-3-15/96 - 45	45	133	2.5	334
FG/5-2-3-15/96 - 50	50	158	2.5	395
FG/5-2-3-15/96 - 55	55	204	2.5	510
FG/5-2-3-15/96 - 60	60	262	2.5	655
FG/5-2-3-15/96 - 65	65	337	2.5	843
FG/5-2-3-15/96 - 70	70	428	2.5	1069

C2490 Series



Part No.	Hardness (Shore A)	Axial Compression Specification		
		Rate (kN/mm)	Max Deflection (mm)	Load at Max Deflection (kN)
FG/5-2-3-15/40A	45	178	2.5	445
FG/5-2-3-15/40 - 50	50	211	2.5	527
FG/5-2-3-15/40B	55	272	2.5	680
FG/5-2-3-15/76	60	349	2.5	874
FG/5-2-3-15/40C	65	450	2.5	1125
FG/5-2-3-15/82	70	570	2.5	1426
FG/5-2-3-15/40D	75	734	2.5	1836

C2510 Series

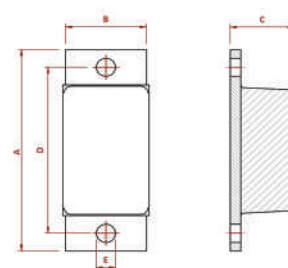
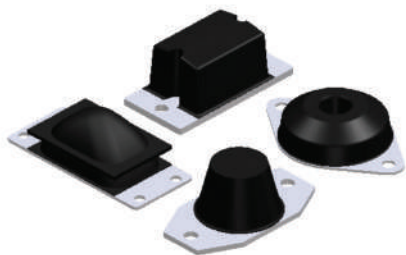


Part No.	Hardness (Shore A)	Axial Compression Specification		
		Rate (kN/mm)	Max Deflection (mm)	Load at Max Deflection (kN)
FG/3-16-7/12A	45	160	2.5	400
FG/3-16-7/12 - 50	50	190	2.5	474
FG/3-16-7/12 - 55	55	245	2.5	612
FG/3-16-7/12 - 60	60	314	2.5	786
FG/3-16-7/12	65	405	2.5	1012
FG/3-16-7/12 - 70	70	513	2.5	1282
FG/3-16-7/12 - 75	75	661	2.5	1652

Buffers & Bumstops

Application

Buffers and bump stops are often used to absorb shock loads and prevent over travel. They are essential for systems where critical components need to be protected from exceeding their operating range. Bump stops and buffers are designed to be highly deformable, which allows a high degree of energy absorption on impact.



Part No.	Axial Compression Specification				
	A	B	C	D	E
302.106.050.030.002	106	50	30	56.5	M10
302.106.050.030.001	106	50	30	56.5	M10
102.131.089.100.001	131	100	89	89	3/8" UNC
300.155.064.054.001	155	64	54	127	13.5
300.155.085.062.001	155	85	62	127	13.5
300.200.130.025.001	200	130	25	170	13
300.200.130.055.001	200	130	55	170	14
300.200.075.060.001	200	75	60	165	18
300.200.100.088.001	200	100	88	165	18
300.208.120.076.001	208	120	76	184	13
302.229.102.074.001	229	102	74	203	11
300.240.070.076.001	240	70	76	200	18
300.240.070.103.001	240	70	103	200	M16
300.250.090.066.001	250	90	66	210	18
300.260.080.030.001	260	80	30	230	13
103.141.083.061.001	355	152	83	280	41

Partnering & Engineering



Our Partners

Vulcanite provides you with a development partner. This enables you to use the extensive industry experience and engineering facilities within Vulcanite to develop and manufacture new products from concept to completion.

Vulcanite's innovative approach to engineering enables Vulcanite to provide customers with effective, flexible, affordable and low maintenance engineered solutions. Vulcanite products are developed by design & manufacturing teams with extensive practical & operational experience.

Our History

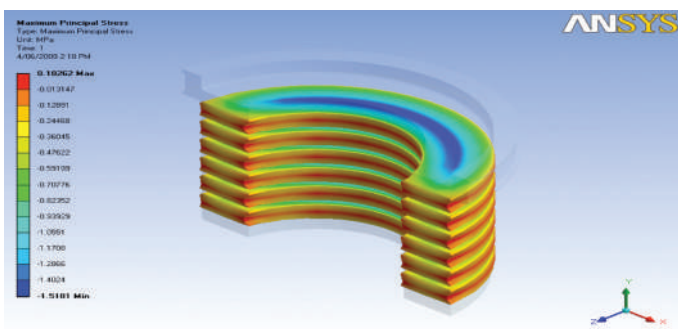
With a trading history dating back to 1911, Vulcanite was incorporated in 1946 as a manufacturer of moulded rubber components. Today, through investment in technology and highly skilled engineering staff, the company has positioned itself as a provider of innovative & flexible engineering solutions to major companies around the world. These include three of the world's four leading railway rolling stock builders and five of the world's six major vibratory piling hammer manufacturers, making Vulcanite the largest supplier of isolation elastomers in the world.



CAD Modelling & FEA Capability

With our Finite Element Analysis software (ANSYS Workbench and MSC MARC) we can now simulate your product requirements in real time before full development and product manufacturing of component.

Together with our solid modelling software (Solid Edge) we can also design and draw the proposed components in 3 dimensions showing all aspects of the product design.



In House Testing & Prototyping

Vulcanite's in house testing machines provide the feedback that is required to design components to a customer's specifications. Purpose built shear, compression & torsional testing machines also provide accurate results for analysis and validation of end products.

In addition, Vulcanite has a Creep Testing Machine which is used to acquire the dimensional movement in a product whilst under constant load over a time period. The creep deflection curve data provides long term predictions of load settlement.





vulcanite

Excellence in engineered rubber solutions.

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