MACKAY
INDUSTRIAL
RUBBER TECHNOLOGY

Since 1932 Mackay Consolidated Industries has made a unique and valuable contribution to Australian industry. It's a success story of expertise in engineering and manufacturing; of adaptability to changing demands and diverse markets; of growth through research, technology and development.

The company has been singularly successful in the specialised field of developing effective noise and vibration control products.

Mackay Consolidated Industries proudly represents and holds sole regional distributor agencies for Paulstra and Continental vibration control products.

By combining selections from the ranges of each of these leading international companies with our Australian developed and manufactured products, we are able to offer a most comprehensive program of engineered isolators.

For applications requiring special design or isolation characteristics, we have in Australia an experienced engineering team who, with the assistance of CAD 3-D modelling and finite element analysis, back our custom isolator manufacturing service.

Our laboratory is NATA accredited and utilises state-of-the-art technology and systems.

At Mackay we are committed to attaining the highest standards possible from the purchase of raw materials to the final product. Our quality system has been certified by BSI to ISO 9001 and AS/NZS ISO14001:2004.

Our vast product range includes dock fenders, bridge bearings, EPDM foam seals, moulded hoses, marine engine mounts, seals for whitegoods, rolling stock components, sheet rubber and products for many construction applications.

We at Mackay Consolidated Industries are committed to excellence.

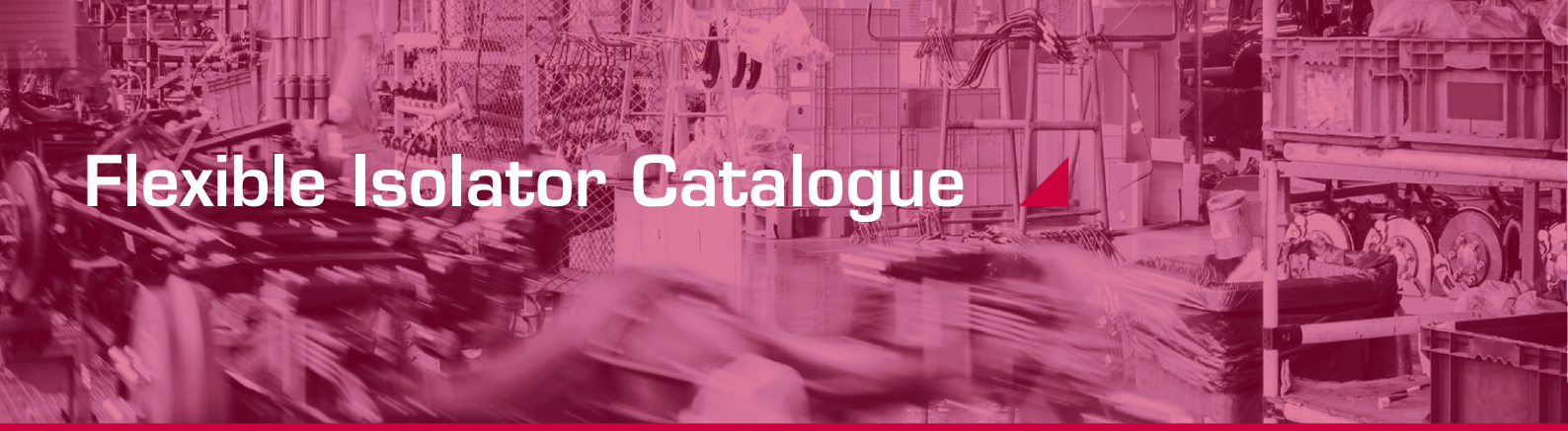
bsi.

ISO 9001 Quality Management

FS 604810

ISO 14001 Environmental Management

EMS 604809



Flexible Isolator Catalogue

Numerical Index 3
Selection Guide 6

Section 1 Multicushion 9

Multicushion 10

Section 2 Buffers 13

Multibuffer 14
Conical Buffers 15
Bonded Buffers 17

Section 3 Flanged Isolators Non interlocked 21

Single V-Shaped 25
(Small Engine) 25
Double V-Shaped (Marine) 26
Flange Isolators 28
General Machinery Isolators 29
Beca 32
Pedestal ***Stabiflex*** ***33***
Slimline 34
Vee-Mount 35

Section 4 Flanged Isolators Safety interlocked 37

Isomount 38
Isomount HD 41
MD 42
BRB 43
PEDESTAL 44

Section 5 Flanged Isolators Recessed Type 45

Recessed flange 46

Section 6 Center Fixing Isolators 53

Mobile Dual Compression 54
Mobile Two Piece isolator 56
Combination & machinery 58

Section 7 Shear Type Isolators 59

Double Shear 60
U-Flex 61

Section 8 Suspension Isolators 63

Suspension Isolators 64
Spring Mounts 65
Simple Base Series 65
Suspension Spring Mounts - Simple 66
Suspension Spring Mounts - Integral Rubber Isolator 66
Sylomer Pad 67
Traxiflex 68

Section 9 Free Standing Isolators 69

Surefoot 70
Leveling 71
Adjustable Rubber Feet 73
Minifix 74
Simple machinery Foot 75

Section 10 Plate Isolators 77

Plate 78

Section 11 Hy-Deflection Isolators 83

Hy-Deflection 84

Section 12 Instrument Isolators 87

Instrument Isolators 88

Section 13 Flexible Bushes Plain Rubber 91

Miscellaneous Bushes 92

Section 14 Flexible Bushes Metal Tube & Rubber 93

Flexible Bearings 94

Section 15 Flexible Bushes Torsional 97

Torsion 98

Section 16 Safety Products 99

Safety Products 100
Snubber 101
Flexi-Straps 102
Cable Protectors 103

Section 17 Power Transmission 105

Redthane Vee Belting 107

Section 18 Universal Hoses 109

"Z" hose 110
Universal Hoses and Fittings 112
Mackayflex 122

Section 19 Miscellaneous 125

Bonnet Clamp 126
Flex-straps 126
Stock Extrusions 127
Impact Bars 130
machinery mounting pad 131

NUMERICAL INDEX

Part No.	Page	Part No.	Page	Part No.	Page	Part No.	Page
25254F	122–123	BC13	92, 115	HH13X1.5	116	M10760	58
25406F	122	BC16	92, 115	HH15910	116	M10770	58
25508F	122	BC19	92, 115	HH1592	116	M10M10	10, 14
25609F	122	BVH1202	119	HH15920	116	M10M12	10, 14
32304F	122	BVH1205	119	HH15940	116	M10W38	10, 14
3238304F	122	BVH1210	119	HH16X1.5	116	M110	27
3238406F	122	BVH902	119	HH17510	116	M11040	28
32406F	122	BVH905	119	HH1752	116	M11050	28
32508F	122	BVH910	119	HH17520	116	M11060	28
32609F	122	CHS35G	115	HH1910	116	M1113SN30	23
3538304F	122	CHS42G	115	HH192	116	M1113SN40	23
3538406F	122	CHS53G	115	HH1920	116	M1113SN50	23
35406F	122	CHS55G	115	HH19X1.5	116	M1113SN60	23
38355F	122	CHS56G	115	HH610	116	M1113SN70	23
38406F	122	CHS5G	115	HH62	116	M11202540	12
3844355F	122	CIB1246	130	HH620	116	M11202555	12
3844457F	122	CIB1295	130	HH650	116	M112235M8	24
3844558F	122	CIB1446	130	HH810	116	M11252040	12
38457F	122	CIB1495	130	HH82	116	M11252055	12
38508F	122	CP120281200	103	HH820	116	M11253040	12
44355F	122	CP12028COIL30	103	HH850	116	M11253055	12
44406F	122	CP150481200	103	LBA1001001000-J	130	M11302040	12
44457F	122	CP15048COIL30	103	M10050	60	M11302055	12
4451304F	122	CP70161200	103	M10060	60	M11303040	12
4451406F	122	CP7016COIL30	103	M101006040	11	M11303055	12
44609F	122	CP90201200	103	M101006055	11	M11304040	12
51203F	122	CP9020COIL30	103	M101006070	11	M11304055	12
51355F	122	DB15090	18	M10131540	11	M114	27
51406F	122	DB15575	18	M10131555	11	M11403040	12
5157304F	122	DB19555	18	M10131570	11	M11403055	12
5157406F	122	DR1059503	100	M101507540	11	M11404040	12
51609F	122	DR1059510	100	M101507555	11	M11404055	12
57254F	122	DR504003	100	M101507570	11	M11440	28
57355F	122	DR504010	100	M10162040	11	M11450	28
57457F	122	DR756503	100	M10162055	11	M11460	28
57558F	122	DR756510	100	M10162070	11	M115008	15
5763304F	122	DRY100951200	100	M10202540	11	M115009	15
5763406F	122	DRY50501200	100	M10202555	11	M115014	15
57660F	122	DRY75701200	100	M10202570	11	M115015	15
57920F	122	EFV1003X10	119	M10252040	11	M11503540	12
63254F	122	EFV1003X2	119	M10252055	11	M11503555	12
63355F	122	EFV1003X20	119	M10252070	11	M11504540	12
63457F	122	EFV1004X10	119	M10253040	11	M11504555	12
6370304F	122	EFV1004X2	119	M10253055	11	M11612	88
6370406F	122	EFV1004X20	119	M10253070	11	M1164	88
70254F	122	EFV10055X10	119	M10302040	11	M1166	88
70355F	122	EFV10055X2	119	M10302055	11	M1168	88
70457F	122	EFV1006X10	119	M10302070	11	M121004055	14
70558F	122	EFV1006X2	119	M10303040	11	M121505555	14
7076304F	122	EFV1006X20	119	M10303055	11	M12201855	14
7076406F	122	FHS15K	102	M10303070	11	M12252555	14
76254F	122	FHS24K	102	M10304040	11	M12302055	14
76355F	122	FHS31K	102	M10304055	11	M12303055	14
76457F	122	FHS9K	102	M10304070	11	M12402055	14
76558F	122	FIH6502	118	M10403040	11	M12403055	14
A1015	92	FIH6505	118	M10403055	11	M12503555	14
A1032	92	FIH6510	118	M10403070	11	M12754055	14
A1169	92	FIH6X1	118	M10404040	11	M130001	90
A1177	126	FIH802	118	M10404055	11	M130002	90
A1226	92	FIH805	118	M10404070	11	M130003	90
A1311	94	FIH810	118	M10440	58	M130004	90
A1312	92	FIH8X1	118	M10450	58	M13201855	14
A1422	94	FIH9502	118	M10460	58	M13252555	14
A1639	94	FIH9505	118	M10470	58	M13302055	14
A1869	94	FIH9510	118	M10503540	11	M13303055	14
A1870	94	HH1010	116	M10503555	11	M13402055	14
A1928	94	HH102	116	M10503570	11	M13403055	14
A2053	94	HH1020	116	M10504540	11	M13503555	14
A2055	94	HH1050	116	M10504555	11	M135210	42
A2058	94	HH10TWX2*	116	M10504570	11	M135212	42
A755	92	HH10TWX20*	116	M10740	58	M135213	42
A775	92	HH12710	116	M10750	58	M135219	42
A92	92	HH1272	116	M10755040	11	M135241	43
A950	92	HH12720	116	M10755055	11	M135242	43
BC10	115	HH12750	116	M10755070	11	M135243	43

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MACKAY INDUSTRIAL RUBBER TECHNOLOGY

NUMERICAL INDEX

Part No.	Page	Part No.	Page	Part No.	Page	Part No.	Page
M135244	43	M177MF	75	M3132250	80	M53919175	55
M135251	43	M181	30	M400300	70	M539886	54
M135252	43	M18146C	51	M401200	70	M53988660	55
M135253	43	M181550C	47, 51	M402500	70	M53988675	55
M135275	43	M18168C	51	M404000	70	M539887	54
M135276	43	M18225H	51	M406000	70	M53988745	55
M135277	43	M183	30, 81	M410300	70	M53988760	55
M135278	43	M184	30	M411200	70	M539951	54
M135331	43	M18409A	51	M4M4	10	M53995145	55
M135332	43	M187	54	M4M5	10	M53995165	55
M135333	43	M18740	55	M4W316	10	M561205	94
M135334	43	M18750	55	M50921055AN55	17	M561207	94
M135451	43	M18760	55	M50921422AN55	17	M561213	94
M135453	43	M18770	55	M50924472AN55	17	M561250	94
M135455	43	M18840	84	M50925080AN55	17	M561312	94
M136061	41	M18860	84	M51010396540	34	M561335	94
M136062	41	M18875	84	M51010396555	34	M561384	94
M136063	41	M189	27	M51010396565	34	M561400	94
M136064	41	M190	16	M51033629	71	M561404	94
M137061	46	M193	64	M51058540	71	M561409	94
M137062	46	M194	101	M51058541	71	M561411	94
M137063	46	M197	64	M510LS1	71	M561418	94
M137082	46	M2000	39	M510LS2	71	M561503	94
M137083	46	M200045	38	M510LS3	71	M561613	94
M137101	46	M200055	38	M5123151055	98	M561701	94
M137103	46	M200065	38	M5123151065	98	M561702	94
M139	27	M2000A	39	M5123170055	98	M68569	19
M13940	28	M2000B	39	M5132142340	89	M68577	19
M13950	28	M2001	39	M5132142355	89	M6M6	10, 14
M13960	28	M200145	38	M5132528440	89	M6M8	10, 14
M13960SS	27	M200155	38	M5132528455	89	M6W14	10, 14
M13970	28	M200165	38	M53060345	33	M6W316	10, 14
M140	27	M2002	39	M53060360	33	M70150	44
M140350	61	M200245	38	M53060375	33	M70165	44
M14040	28	M200255	38	M53061345	33	M70250	50
M140450	61	M200265	38	M53061360	33	M70265	50
M14050	28	M204	58	M53061375	33	M70675	49
M14060	28	M21345	30	M53080550	74	M80103350	35
M14060SS	27	M2200	39	M53080580	74	M80103360	35
M14080	28	M220045	38	M53090321	56	M80103370	35
M143001	73	M220055	38	M53090323	56	M801550	47, 51
M143002	73	M220065	38	M53090325	56	M8040645	31, 81
M143003	73	M220075	38	M53090331	56	M8040660	31, 81
M144001	73	M2200A	39	M53090333	56	M8040670	31, 81
M144002	73	M2200B	39	M53090335	56	M80409	48, 51
M145001	73	M2201	39	M53090341	56	M8090311	56
M148001	26	M220145	38	M53090343	56	M8090313	56
M148003	26	M220155	38	M53090345	56	M8090315	56
M148004	26	M220165	38	M533109	32	M8M10	10, 14
M148006	26	M220175	38	M53310945	32	M8M8	10, 14
M148151	25	M2202	39	M53310975	32	M8W516	10, 14
M148153	25	M220245	38	M533152	32	M9030060	49
M148171	25	M220255	38	M53315245	32	M9030068	49
M148173	25	M220265	38	M53315260	32	M9030075	49
M15260	18	M220275	38	M533203	32	M90300W	49
M15286	51	M2255290	19	M53320345	32	MACSLEEVE	100
M153526	51	M2255300	19	M53320360	32	MBSM10	65
M153527	51	M2255310	19	M53320375	32	MBSM100	65
M153528	51	M2400	39	M533581	32	MBSM25	65
M164	131	M240045	38	M53358145	32	MBSM50	65
M169	54	M240055	38	M53358160	32	MBSM75	65
M16940	55	M240065	38	M533641*	32	MCSM100	66
M16950	55	M240075	38	M53364145	32	MCSM125	66
M16960	55	M2400A	39	M533661*	32	MCSM150	66
M16M16	10, 14	M2400B	39	M53366145	32	MCSM200	66
M17146	51	M2401	39	M53560345	68	MCSM25	66
M17168	51	M240145	38	M53560360	68	MCSM250	66
M172M8	15	M240155	38	M53562145	68	MCSM350	66
M173M10	15	M240165	38	M53562160	68	MCSM50	66
M175001	85	M240175	38	M53562245	68	MCSM75	66
M175003	85	M2402	39	M53562260	68	MCSR100	66
M175021	85	M240245	38	M539190	54	MCSR125	66
M175031	85	M240255	38	M53919045	55	MCSR25	66
M175036	85	M240265	38	M53919060	55	MCSR50	66
M175041	85	M240275	38	M539191	54	MCSR75	66
M176	17	M3128445	80	M53919160	55	MEBS25	127

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MACKAY INDUSTRIAL RUBBER TECHNOLOGY

NUMERICAL INDEX

Part No.	Page	Part No.	Page	Part No.	Page	Part No.	Page
MEBS50	127	MSE503	128	TPH36	96	USH38	115
MEBS52	127	MSE5030	128	TPH802	120	VH4X2	119
MEES11	127	MSE505	128	TPH805	120	WCL150	100
MEES12	127	MSE506	128	TPH810	120	WCM150	100
MEES13	127	MSE5S	128	TPH820	120	WCS100	100
MEES15	127	MSE6012	128	TPH8X2	120	WT3.2X10	121
MEES20	127	MSE607	128	TPL14	96	WT3.2X2	121
MEES25	127	MSE65	128	UHB10-300	113	WT4.8X10	121
MEES5	127	MSE66	128	UHB10-300N	114	WT4.8X2	121
MEGL2	127	MSE7512	128	UHB10-300X500	113	WT6.3X10	121
MEGR1059	127	MSEC10	128	UHB13	113	WT6.3X2	121
MEGR5	127	MSEC12.7	128	UHB13-300	113	ZHB10	110
MEGR778	127	MSEC15	128	UHB13-300N	114	ZHB10EFV	110
MEGR8	127	MSEC16	128	UHB13-300X500	113	ZHB10F	110
MEPS100	127	MSEC17	128	UHB13N	114	ZHB12	110
MEPS104	127	MSEC19	128	UHB16	113	ZHB12EFV	110
MEPS105	127	MSEC22	128	UHB16-300	113	ZHB12F	110
MEPS107	127	MSEC25	128	UHB16-300N	114	ZHB15	110
MEPS109	127	MSEC4.5	128	UHB16-300X500	113	ZHB16F	110
METS100	127	MSEC5	128	UHB16N	114	ZHB19	110
METS20	127	MSEC6	128	UHB19	113	ZHB19F	110
METS25	127	MSEC7.5	128	UHB19-300	113	ZHB25	110
METS40	127	MSEC8	128	UHB19-300N	114	ZHB25F	110
METS50	127	MSM123	65	UHB19N	114	ZHB6	110
METS75	127	MSM173	65	UHB25	113	ZHB6EFV	110
MSE1010	128	MSM223	65	UHB25-300	113	ZHB6F	110
MSE105	128	MSM335	65	UHB25-300/45	113	ZHB8	110
MSE106	128	MSM67	65	UHB25-300/45N	114	ZHB8EFV	110
MSE108MR	128	MSM95	65	UHB25-300N	114	ZHB8F	110
MSE1111	128	MSP11012	67	UHB25-300X500	113		
MSE118S	128	MSP11025	67	UHB25N	114		
MSE1210	128	MSP22012	67	UHB31	113		
MSE1212	128	MSP22025	67	UHB31-300	113		
MSE127S	128	MSP45012	67	UHB31-300/45	113		
MSE1310	128	MSP45025	67	UHB31-300/45N	114		
MSE1313	128	OFH1001	121	UHB31-300N	114		
MSE133	128	OFH1010	121	UHB31-300X500	113		
MSE135	128	OFH1020	121	UHB31N	114		
MSE136	128	OFH801	121	UHB38	113		
MSE13S	128	OFH810	121	UHB38-300	113		
MSE145S	129	OFH8100	121	UHB38-300/45	113		
MSE147S	129	OFH820	121	UHB38-300/45N	114		
MSE1613	128	R10-2F	108	UHB38-300N	114		
MSE1616	128	R12-7F	108	UHB38-300X500	113		
MSE1710	128	R4-8F	108	UHB38N	114		
MSE175	128	R6-4F	108	UHB44	113		
MSE1910	128	R7-9F	108	UHB44-300	113		
MSE1913	128	RB10-2	108	UHB44-300/45	113		
MSE1919	128	RB12-7	108	UHB44-300/45N	114		
MSE196	128	RB4-8	108	UHB44-300N	114		
MSE203	128	RB6-4	108	UHB44-300X500	113		
MSE2213	128	RB7-9	108	UHB44N	114		
MSE2222	128	S154	94	UHB50	113		
MSE251.5	128	S19	94	UHB50-300	113		
MSE2510	128	S229	94	UHB50-300/45	113		
MSE2513	128	S241	94	UHB50-300/45N	114		
MSE2519	128	S284	94	UHB50-300N	114		
MSE2525	128	SHF25	112	UHB50-300X500	113		
MSE253	128	SHF38	112	UHB50N	114		
MSE255	128	SHF41	112	UHB57	113		
MSE256	128	SHF51	112	UHB57-300	113		
MSE256BNOSE	128	SHF54	112	UHB57-300/45	113		
MSE3213	128	SHF57	112	UHB57-300/45N	114		
MSE3219	128	SHF63	112	UHB57-300N	114		
MSE3225	128	T604	92	UHB57-300X500	113		
MSE323	128	T604TD	92	UHB57N	114		
MSE325	128	TPH1	96	UHB63	113		
MSE3813	128	TPH1002	120	UHB63-300	113		
MSE3819	128	TPH1005	120	UHB63-300/45	113		
MSE3825	128	TPH1010	120	UHB63-300/45N	114		
MSE383	128	TPH1020	120	UHB63-300N	114		
MSE385	128	TPH10X2	120	UHB63-300X500	113		
MSE386	128	TPH17	96	UHB63N	114		
MSE407	128	TPH21	96	UHB8-300	113		
MSE5013	128	TPH30	96	UHB8-300N	114		
MSE5025	128	TPH31	96	UHB8-300X500	113		

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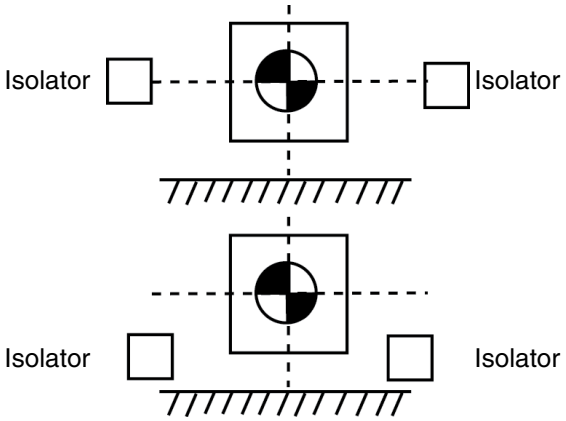
MACKAY INDUSTRIAL RUBBER TECHNOLOGY

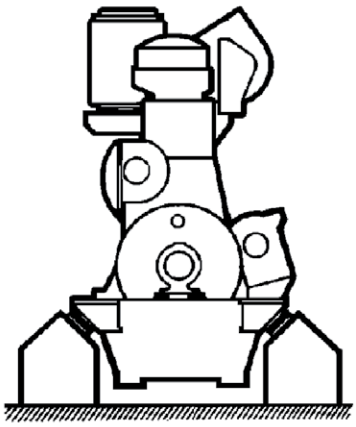
SELECTION PRINCIPLES:

TEMPERATURE
Extremes of temperature can affect the service life of rubber isolators. Generally, operating temperature should not exceed 60° C but occasional temperatures of up to 80° C can be accommodated.

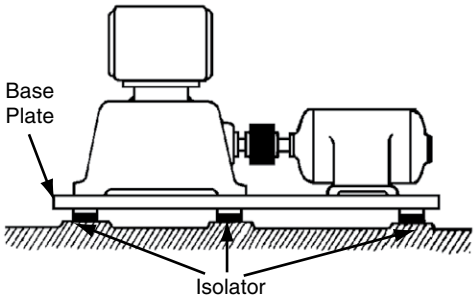
PROTECTION
While most rubber compounds deteriorate if in constant contact with oil or grease, experience has shown that small amounts of oil will not cause a reduction in the mechanical properties of elastomers. It is advisable where oil or grease is prevalent to install isolators so that contact is avoided.

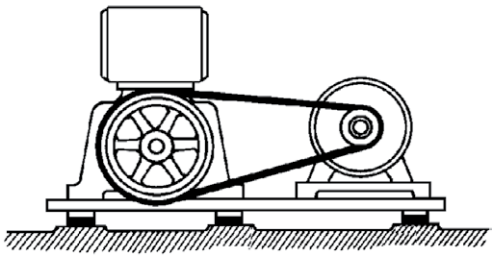


MOUNT POSITIONING
The stability of a resiliently supported mechanism is greatest when the isolators are in a horizontal plane passing through the centre of gravity of the mechanism or where the isolators are placed far away from the centre of gravity. Most machines, because of their design, require mounting below the centre of gravity which tends towards instability. For this reason, a small percentage of the isolators efficiency must be sacrificed for the sake of mechanical stability.

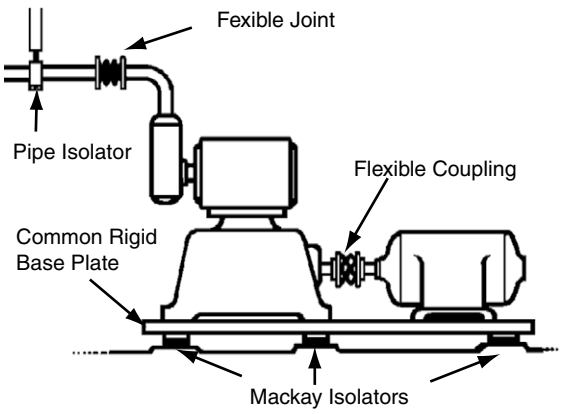


STABILITY
To maintain stability and relative positions between the drive and belt driven units, install both on a common rigid baseplate and then resiliently support the baseplate.





FLEXIBLE COUPLINGS
The efficiency of a resilient isolator under a mechanism can be seriously impaired by the rigidity of the connecting members, such as water and steam pipes, conduit etc. For best performance, it is essential all connecting members be joined as flexibly as possible using flexible couplings and flexible joints.



SELECTION
The main consideration is to select the isolator to carry the load as shown in the load rating charts, giving preference to the top end of the ratings, and then choosing the one to suit your specific fitting requirements. Mackay isolators have each been engineered to specific requirements of deflections under working conditions and providing the disturbing or forced frequency is above 15Hz, selection is simple.

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LOW FREQUENCY SELECTION

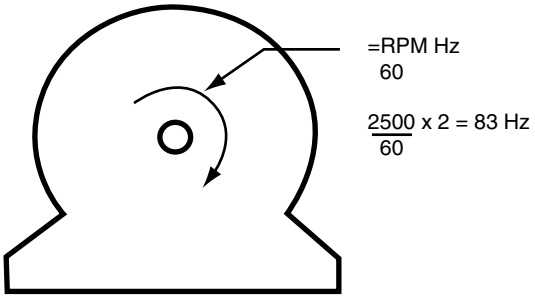
When frequencies under 15Hz are encountered or when there are HEAVY impact loads imposed on the isolator, consult with Mackay's technical division for advice. For normal purposes, the disturbing frequency can be considered as the revolutions per second of the offending item;
i.e. R.P.M. 60

MULTI-CYLINDER ENGINES

In multi-cylinder engines it is usually the number of working impulses per revolution which constitutes the disturbing frequency.

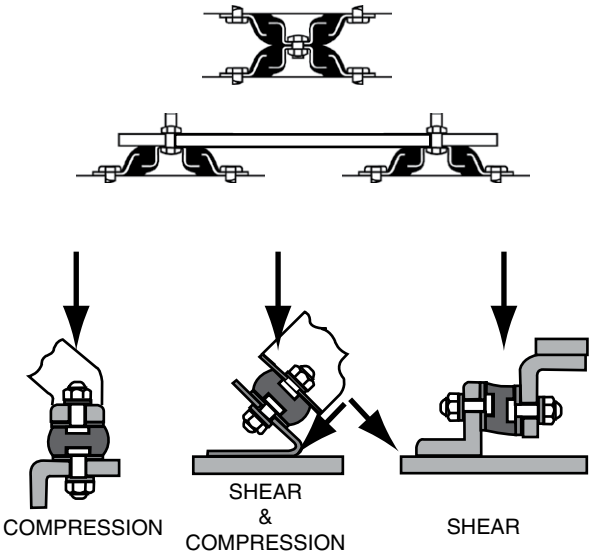
e.g. Two cylinder engine direct drive operating at 2500 r.p.m. = Disturbing Frequency of 83 Hz.

DISTURBING FREQUENCY



SERIES AND PARALLEL ASSEMBLIES

The isolation efficiency of low disturbing frequencies can be increased by using two isolators in series. This effectively doubles the deflection obtained with one isolator of the same load carrying capacity - by placing them in parallel, you double the load rating at the same deflection



CALCULATING DEFLECTIONS

If the isolator selected has a higher load carrying rating than required, the deflection of your actual loading can be calculated approximately by using this formula;

$$\frac{\textit{RATED DEFLECTION X ACTUAL LOAD}}{\textit{RATED LOAD}}$$

and then referring to the graph illustrated, the isolation efficiency can be ascertained (should always exceed 70% under normal operating conditions).

DISTURBING FREQUENCIES & DEFLECTIONS

The graph illustrates the percentage of vibration isolation that is possible to obtain for simple linear vibration in a resiliently mounted assembly with various combinations of static deflection and disturbing frequencies.

The area (shaded) below the resonance line indicates the region of magnification of the vibration that occurs when the ratio of the disturbing frequency to the natural frequency of the mounted assembly is less than the square root of 2. The area above the resonance line shows the percentage of the vibratory forces that are prevented from reaching the supporting structure when correct isolators are selected. Example; With a disturbing frequency of 5 Hz and a deflection of 30mm you will obtain an isolating efficiency of 50%, while with a deflection of 3mm your vibration will magnify by a factor of 1.5. When referencing the load and deflection data shown within this catalogue it should be noted that they are static values and allowances should be factored in to obtain an accurate dynamic stiffness value. As shown in the table below.

Further advice on vibration isolation applications or comprehensive technical information is available on request from the Technical Department at Mackay Consolidated Industries.

Dynamic / Static Ratio	
Duro	Ratio
35	1.0
40	1.1
45	1.1
50	1.2
55	1.3
60	1.4
65	1.5
70	1.7
75	1.8

Static Stiffness X Ratio =Dynamic Stiffness

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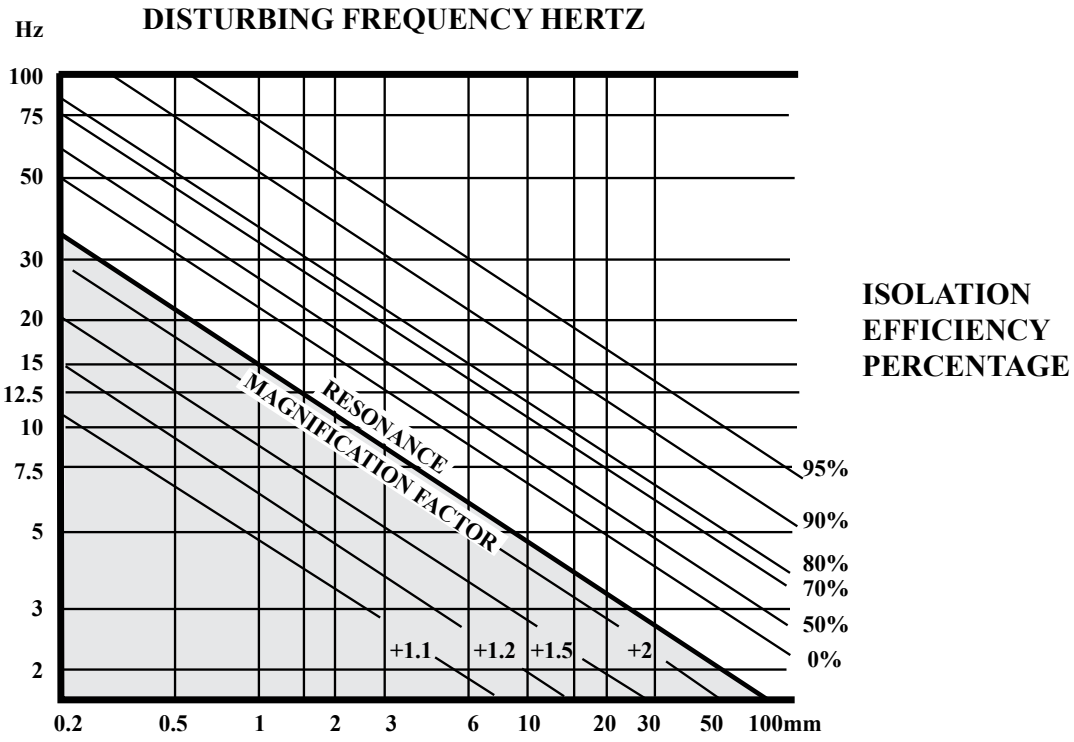

To assist you in selecting the correct isolator from the Mackay range we have listed the isolation efficiency that should be used under normal conditions of operation. The isolation efficiency at any given deflection and disturbing frequencies can be obtained by using the simple graph above.

SUGGESTED ISOLATION EFFICIENCY GUIDE			
	Factories, Schools, Dept. Stores ISOLATION EFFICIENCY		Hospitals, Theatres, Libraries ISOLATION EFFICIENCY
AIR HANDLING UNITS		80%	94%
AXIAL FLOW FANS	UP TO 8 kW	70%	90%
	8kW to 38 kW	75%	94%
	MORE THAN 38kW	80%	96%
CENTRIFUGAL COMPRESSORS		94%	99.5%
CENTRIFUGAL FANS	UP TO 4kW	70%	94%
	4kW TO 18kW	80%	96%
	MORE THAN 18kW	90%	98%
FAN COIL UNITS	HUNG	80%	90%
	SUPPORTED	90%	96%
PIPES	HUNG	70%	90%
PUMPS	UP TO 2 kW	70%	94%
	2kW TO 4kW	80%	96%
	MORE THAN 4 kW	90%	98%
RECIPROCATING COMPRESSORS	UP TO 8kW	70%	94%
	8 kW TO 38kW	80%	96%
	MORE THAN 38kW	90%	98%
UNIT AIR CONDITIONERS	HUNG	80%	90%
	SUPPORTED	90%	96%

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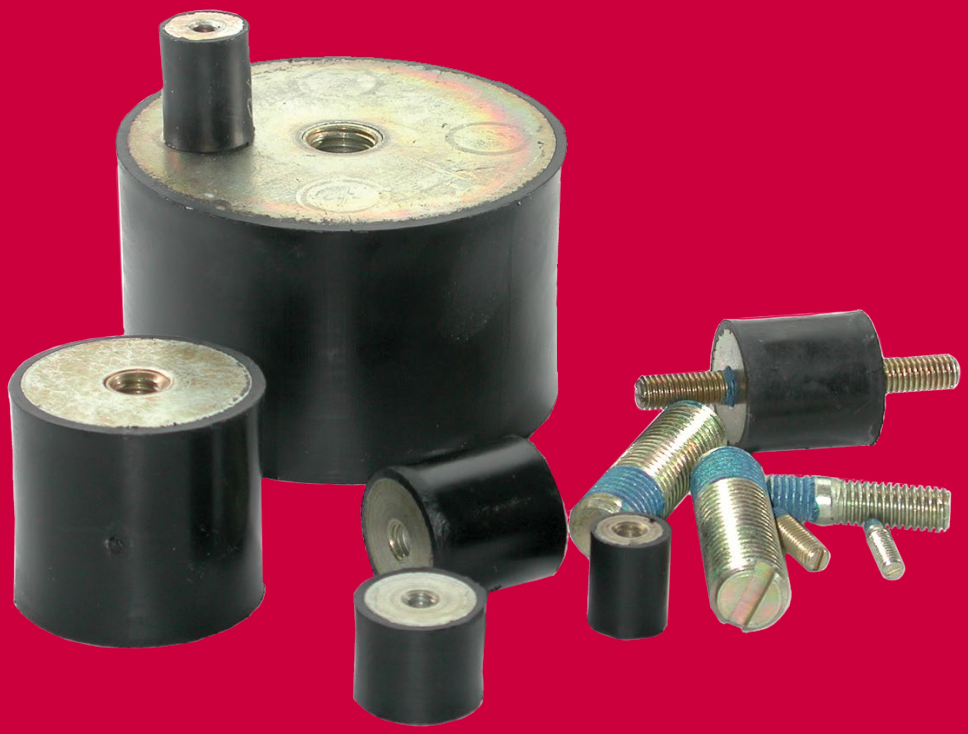
Flexible Isolator Catalogue

section 1



MULTICUSHION

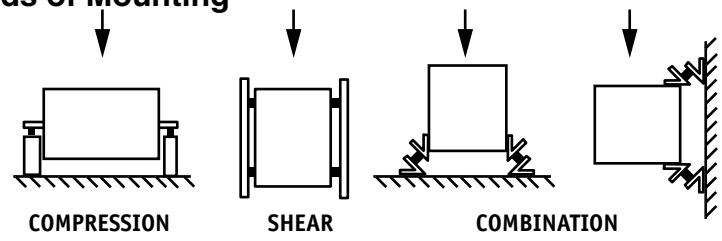
The MULTICUSHION system is a new approach to isolator selection. The large range of sizes and durometers combined with interchangeable metric and imperial studs allows selection of the most appropriate cushion isolator for the application

First choose the best cushion for the application and then choose the desired stud combination.

MULTICUSHION isolators are made from high-grade natural rubber and all metal surfaces are passivated to automotive OEM standards. The interchangeable studs are easily inserted with a screw driver whilst the microBOND™ 'fastener adhesive system' provides secure thread locking.

Note! ***Multicushions are not recommended for use under permanent tension loading. Ensure load is applied to full face and not just on the thread.***

Suggested Methods of Mounting



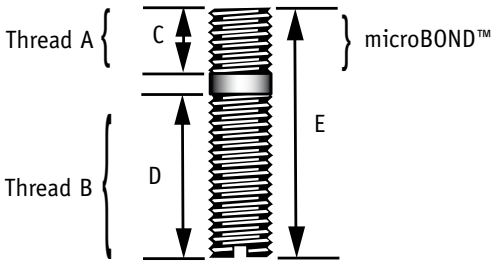
STUD DETAILS

MULTICUSHION Stud Part No.	THREADS		DIMENSIONS		
	A mm	B mm	C mm	D mm	E mm
M4M4	M4 x 0.7	M4 x 0.7	4	15	19 *
M4M5	M4 x 0.7	M5 x 0.8	4	15	20.5
M4W316	M4 x 0.7	3/16"WHIT x 24tpi	4	15	20.5
M6M6	M6 x 1.0	M6 x 1.0	6	15	21 *
M6M8	M6 x 1.0	M8 x 1.25	6	20	28
M6W316	M6 x 1.0	3/16"WHIT x 24tpi	6	15	22.5
M6W14	M6 x 1.0	1/4"WHIT x 20tpi	6	15	22.5
M8M8	M8 x 1.25	M8 x 1.25	8	20	28 *
M8M10	M8 x 1.25	M10 x 1.5	8	25	35
M8W516	M8 x 1.25	5/16"WHIT x 18tpi	8	20	31
M10M10	M10 x 1.5	M10 x 1.5	10	25	37 *
M10M12	M10 x 1.5	M12 x 1.75	10	35	49
M10W38	M10 x 1.5	3/8"WHIT x 16tpi	10	25	39
M16M16	M16 x 2.0	M16 x 2.0	16	40	56 *

* Denotes continuos thread

MICROBOND™ THREAD SECURITY

Thread	Prevailing on-torque (max) Nm	Breakaway off-torque (min) Nm	Prevailing off-torque (min) Nm
M4	-	-	-
M6	1.8	1.5	0.8
M8	2.8	4	2
M10	5.5	11	4
M16	14	33	16



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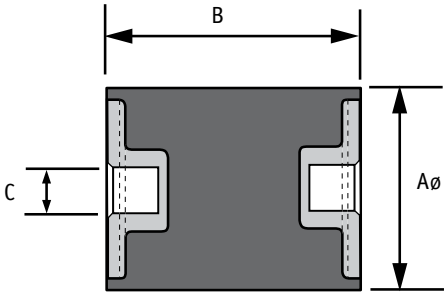
MACKAY INDUSTRIAL RUBBER TECHNOLOGY

CUSHION DETAILS

Part No.	Dimensions		Duro	C metric	Compression		Shear		Weight Kg
	Diameter A mm	Height B mm			Maximum Load Kg	Maximum Deflection mm	Maximum Load Kg	Maximum Deflection mm	
M10131540	13	15	40	M4	13.0	2.5	2.5	3.0	
M10131555	13	15	55	M4	25	2.5	4.5	3	0.01
M10131570	13	15	70	M4	34	2.5	6	3	
M10162040	16	20	40	M6	20.5	3	4.5	4	
M10162055	16	20	55	M6	42.5	3	9	4	0.01
M10162070	16	20	70	M6	53.5	3	12	4	
M10202540	20	25	40	M6	30.5	6	5	6	
M10202555	20	25	55	M6	65	6	11	6	0.02
M10202570	20	25	70	M6	89.5	6	15	6	
M10252040	25	20	40	M6	36	2.5	7	3	
M10252055	25	20	55	M6	54	2.5	12	3	0.02
M10252070	25	20	70	M6	66	2.5	15	3	
M10253040	25	30	40	M6	55	8	10.5	8	
M10253055	25	30	55	M6	98	8	19	8	0.03
M10253070	25	30	70	M6	120	8	26.5	8	
M10302040	30	20	40	M6	42	2.5	8	3	
M10302055	30	20	55	M6	62	2.5	13	3	0.03
M10302070	30	20	70	M6	82	2.5	16	3	
M10303040	30	30	40	M8	44	4	10	5	
M10303055	30	30	55	M8	77	4	18	5	0.05
M10303070	30	30	70	M8	108	4	33	5	
M10304040	30	40	40	M8	49.5	8	9	10	
M10304055	30	40	55	M8	86	8	17.5	10	0.06
M10304070	30	40	70	M8	131	8	35	10	
M10403040	40	30	40	M8	60.5	4	17.5	5	
M10403055	40	30	55	M8	114	4	28.5	5	0.08
M10403070	40	30	70	M8	195	4	49.5	5	
M10404040	40	40	40	M8	78	8	20	10	
M10404055	40	40	55	M8	148	8	34	10	0.09
M10404070	40	40	70	M8	233	8	53.5	10	
M10503540	50	35	40	M10	139.5	6	21.5	6	
M10503555	50	35	55	M10	264	6	40.5	6	0.14
M10503570	50	35	70	M10	363	6	59	6	
M10504540	50	45	40	M10	111.5	8	25	10	
M10504555	50	45	55	M10	195	8	44.5	10	0.16
M10504570	50	45	70	M10	244	8	62	10	
M10755040	75	50	40	M10	390	12	76	13	
M10755055	75	50	55	M10	733	12	140	13	0.4
M10755070	75	50	70	M10	986	12	208	13	
M101006040	100	60	40	M16	510	10	100	10	
M101006055	100	60	55	M16	955	10	180	10	0.8
M101006070	100	60	70	M16	1500	10	306	10	
M101507540	150	75	40	M16	1500	18	277	20	
M101507555	150	75	55	M16	3200	18	525	20	2.2
M101507570	150	75	70	M16	4500	18	760	20	

COLOUR CODE

DURO	COLOUR
40	RED
55	YELLOW
70	Marked 70



Al properties nominal, contact Mackay for Technical advice

All Dimensions in Millimetres

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MACKAY INDUSTRIAL RUBBER TECHNOLOGY

STAINLESS STEEL MULTICUSHION

Stainless steel Multicushion isolators are manufactured in the most popular sizes from high grade natural rubber and stainless steel (type 304) metal components.

Available in two rubber hardnesses the cushions are supplied without fixing studs. Mackay recommends fixing with appropriate stainless steel hexagonal socket set screws used with an appropriate locking compound

**** Consult with Mackay Technical staff to ensure natural rubber is suitable for use in corrosive environments or solvents.***

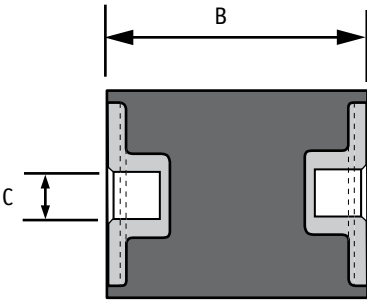
Note! Multicushions are not recommended for use under permanent tension loading. Ensure load is applied to full face and not just on the thread.

CUSHION DETAILS

Part No.	Dimensions		Duro	C metric	Compression		Shear		Weight Kg
	Diameter A mm	Height B mm			Maximum Load Kg	Maximum Deflection mm	Maximum Load Kg	Maximum Deflection mm	
M11202540	20	25	40	M6	30.5	6	5	6	0.02
M11202555	20	25	55	M6	65	6	11	6	0.02
M11252040	25	20	40	M6	36	2.5	7	3	0.02
M11252055	25	20	55	M6	54	2.5	12	3	0.02
M11253040	25	30	40	M6	55	8	10.5	8	0.03
M11253055	25	30	55	M6	98	8	19	8	0.03
M11302040	30	20	40	M6	42	2.5	8	3	0.03
M11302055	30	20	55	M6	62	2.5	13	3	0.03
M11303040	30	30	40	M8	44	4	10	5	0.05
M11303055	30	30	55	M8	77	4	18	5	0.05
M11304040	30	40	40	M8	49.5	8	9	10	0.06
M11304055	30	40	55	M8	86	8	17.5	10	0.06
M11403040	40	30	40	M8	40.5	4	17.5	5	0.09
M11403055	40	30	55	M8	114	4	28.5	5	0.09
M11404040	40	40	40	M8	78	8	20	10	0.1
M11404055	40	40	55	M8	148	8	34	10	0.1
M11503540	50	35	40	M10	139.5	6	21.5	6	0.14
M11503555	50	35	55	M10	264	6	40.5	6	0.14
M11504540	50	45	40	M10	111.5	8	25	10	0.16
M11504555	50	45	55	M10	195	8	44.5	10	0.16

COLOUR CODE

DURO	COLOUR
40	RED
55	YELLOW



All properties nominal, contact Mackay for Technical advice *All Dimensions in Millimetres*

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MACKAY INDUSTRIAL RUBBER TECHNOLOGY

Flexible Isolator Catalogue

section 2

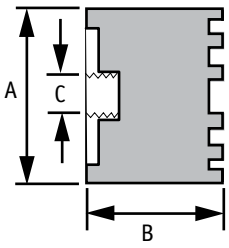
MULTIBUFFERS

Including Multibuffer stainless

Multibuffers are designed for inexpensive and effective control of vibration shock and acoustic noise and are equally adaptable in controlling impact or for use as simple machine feet.

The Multibuffer face profile has been designed to provide a simple slip resistant surface whilst maintaining optimum impact and static properties

Uses Optional Stud System! (not available with stainless steel)



BUFFER DETAILS

Standard Part No.	Stainless Type 304 Part No.	A (mm)	B (mm)	C metric	Duro	Static		Buffing		Weight Kg
						Load Kg	Def mm	Load Kg	Def mm	
M12201855	**M13201855**	20	18	M6	55	26	2.5	57	5	0.01
M12252555	**M13252555**	25	25	M6	55	25	3	53	6	0.02
M12302055	**M13302055**	30	20	M8	55	46	2.5	105	5	0.03
M12303055	**M13303055**	30	30	M8	55	47	3.5	94	7	0.04
M12402055	**M13402055**	40	20	M8	55	78	2.5	184	5	0.05
M12403055	**M13403055**	40	30	M8	55	78	3.5	162	7	0.06
M12503555	**M13503555**	50	35	M10	55	157	4	316	8	0.1
M12754055		75	40	M10	55	323	4.5	696	9	0.3
M121003055		100	30	M16	55					0.5
M121004055		100	40	M16	55	637	4.5	1284	9	0.5
M121505555		150	55	M16	55	1382	6	2950	12	1.4

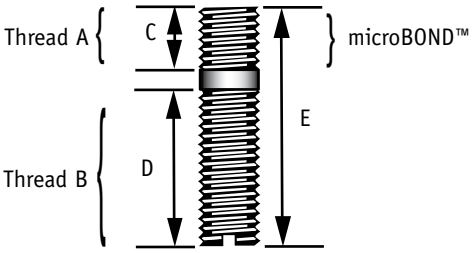
OPTIONAL STUD SYSTEM STUD DETAILS

MULTIBUFFER Stud Part No.	THREADS		DIMENSIONS		
	A	B	C mm	D mm	E mm
M6M6	M6 x 1.0	M6 x 1.0	6	15	21 *
M6M8	M6 x 1.0	M8 x 1.25	6	20	28
M6W316	M6 x 1.0	3/16"WHIT x 24tpi	6	15	22.5
M6W14	M6 x 1.0	1/4"WHIT x 20tpi	6	15	22.5
M8M8	M8 x 1.25	M8 x 1.25	8	20	28 *
M8M10	M8 x 1.25	M10 x 1.5	8	25	35
M8W516	M8 x 1.25	5/16"WHIT x 18tpi	8	20	31
M10M10	M10 x 1.5	M10 x 1.5	10	25	37 *
M10M12	M10 x 1.5	M12 x 1.75	10	35	49
M10W38	M10 x 1.5	3/8"WHIT x 16tpi	10	25	39
M16M16	M16 x 2.0	M16 x 2.0	16	40	56 *

* Denotes continuos thread

MICROBOND™ THREAD SECURITY

Thread	Prevailing on-torque (max) Nm	Breakaway off-torque (min) Nm	Prevailing off-torque (min) Nm
M6	1.8	1.5	0.8
M8	2.8	4	2
M10	5.5	11	4
M16	14	33	16



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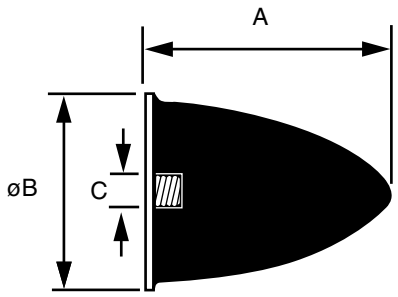
MACKAY INDUSTRIAL RUBBER TECHNOLOGY

CONICAL BUFFER

For **inexpensive** and **effective control** of machinery **vibration** , **shock** and **acoustic noise**.

These buffers are used for controlling impact and may be used as snubbing rubbers when excessive shock loads are encountered in resiliently mounted equipment.

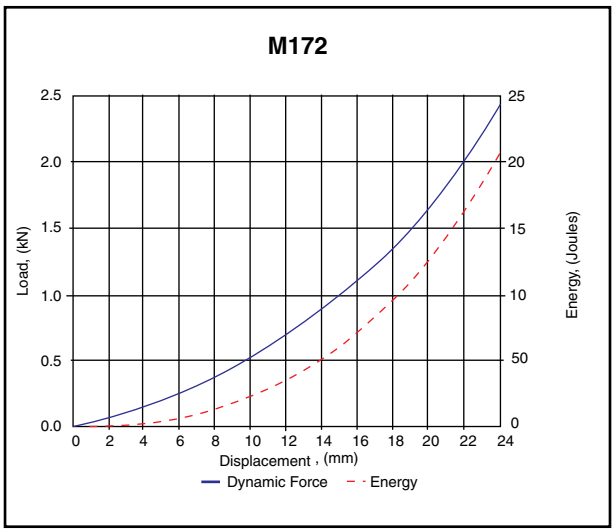
FEATURES
Designed specifically to control impact and torque reaction loads.

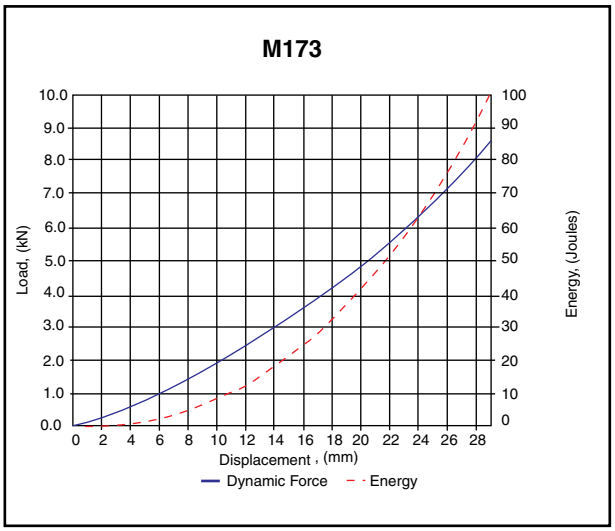


Uses Multicushion Studs
refer optional Stud System Stud Details

PART No.	A	B	C	Max LOAD Kg
M172M8	50	42	M8	250
M173M10	65	51	M10	870
M115008	19	25	M8	230
M115009	30	30	M6	150
M115014	58	72	M12	660
M115015 *	80	95	M16	1100

***** *Multicushion studs not available for this size***





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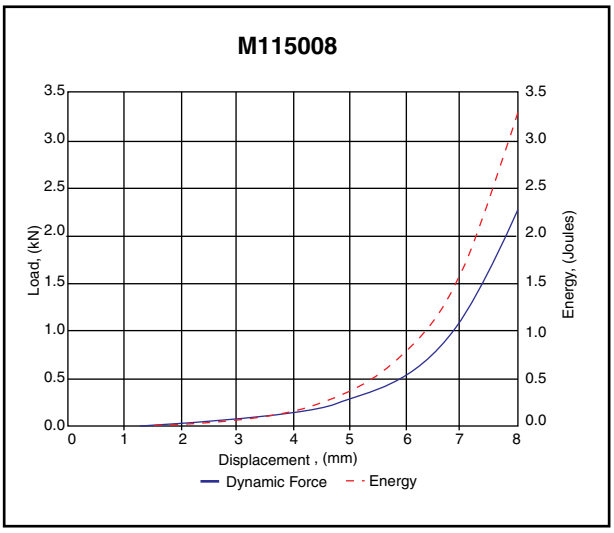

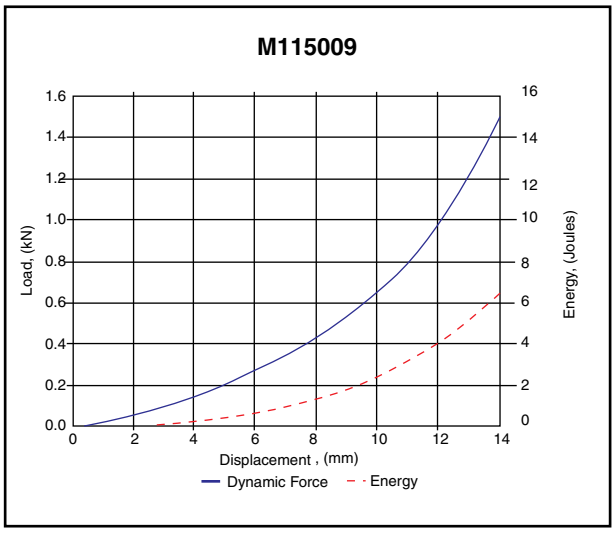

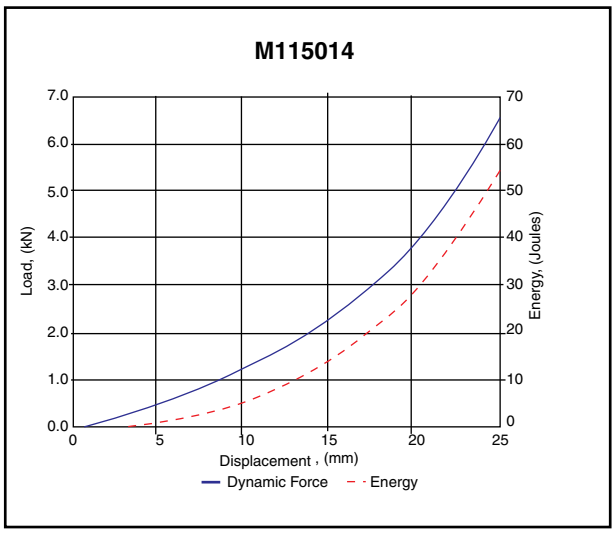

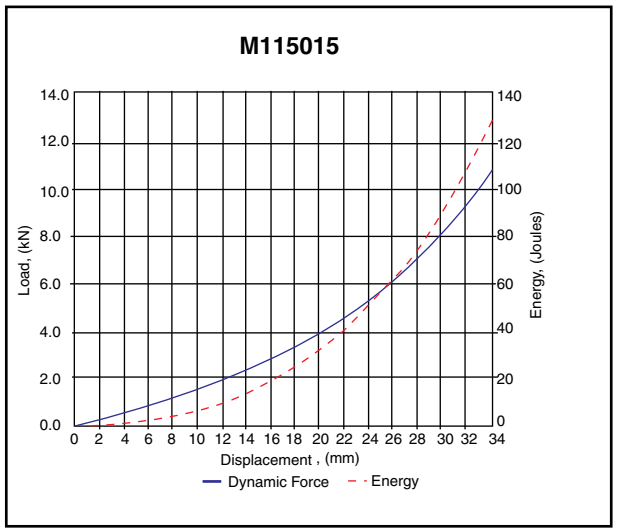

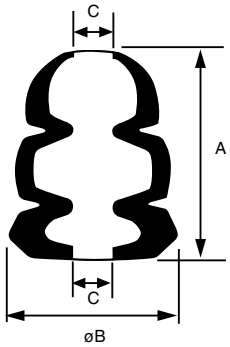

PART No.	A	B	C	Static Load Kg	DEF mm	Buffing Load Kg	DEF mm	Weight Kg
M190	103	79	20	150	25	450	45	0.3

All properties nominal, contact Mackay for Technical advice *All Dimensions in Millimetres*

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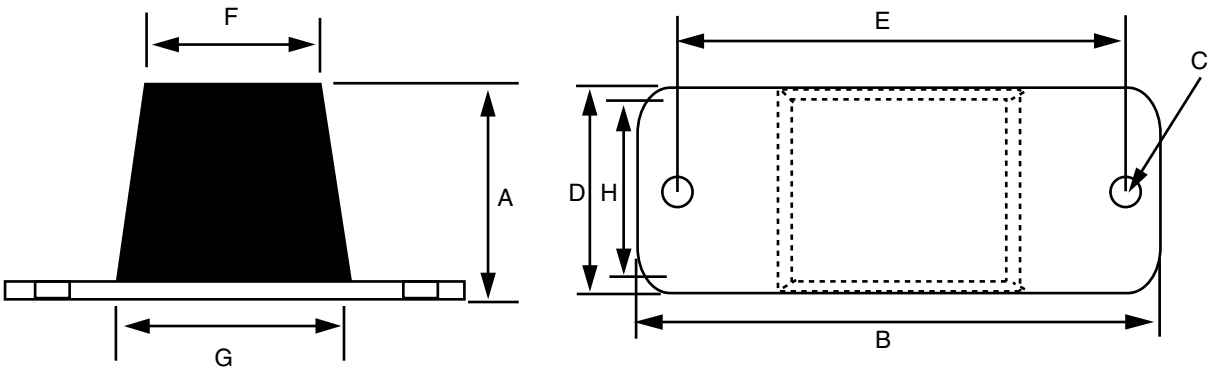
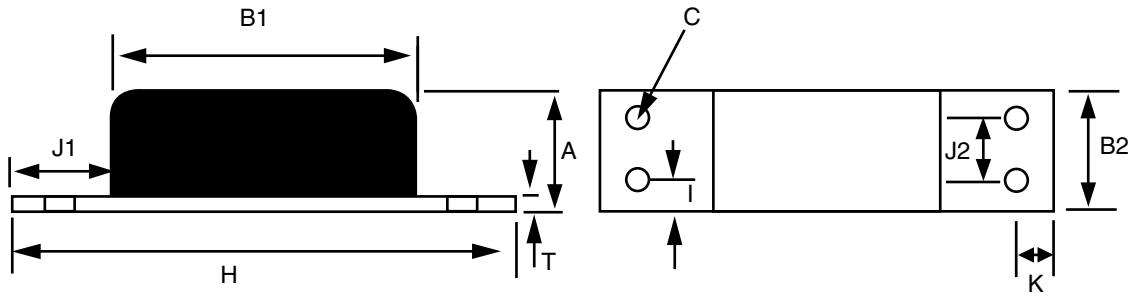
MACKAY INDUSTRIAL RUBBER TECHNOLOGY

BONDED BUFFERS



Part No.	A	B	C	D	E	F	G	H	STATIC LOAD Kg	DEF mm	BUFFING LOAD Kg	DEF mm	Weight Kg
M176	73	127	10	44	101	51	76	32	87	10	200	20	0.3



Part No.	A	B1	B2	C	H	I	J1	J2	K	T	STATIC LOAD Kg	DEF mm	BUFFING LOAD Kg	DEF mm	Weight Kg
M50925080AN55*	70	70	50	8.5	130	25	30	-	15	5	120	10	1000	30	0.5
M50924472AN55	80	120	100	13	200	25	40	50	20	10	700	10	3600	29	2.4
M50921422AN55	70	150	120	15	250	30	50	60	25	10	1300	9	6000	24	3.4
M50921055AN55	80	200	150	17	300	35	50	80	25	15	2250	10	10000	25	7.1

***Two hole fixing**

Al properties nominal, contact Mackay for Technical advice *All Dimensions in Millimetres*

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MACKAY INDUSTRIAL RUBBER TECHNOLOGY

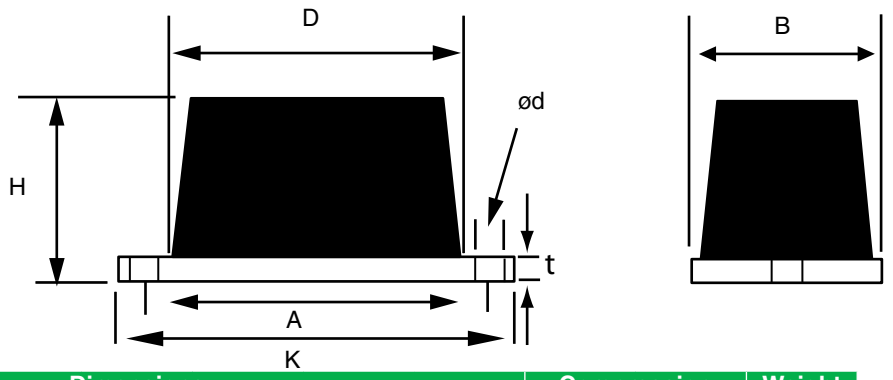
FEATURES

This rectangular buffer is easily fitted. Reduction of transmitted shock loads enables equipment to be designed more economically.

This buffer is designed to protect structures and equipment from impact forces. It is usually fitted as non-metallic stops or incorporated in vehicle suspension systems to provide progressive stiffing under increasing load.

Typical applications:

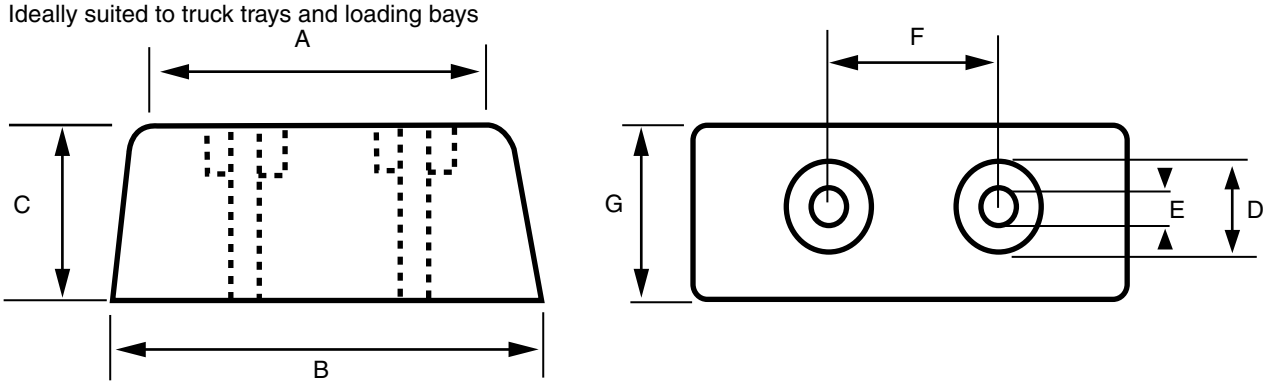
- Dump trucks
- Off-road vehicles
- Cranes
- Handling equipment
- Vehicle suspensions



Part No	Dimensions							Compression		Weight Kg
	A	B	D	H	K	d	t	Load Kg	Def mm	
M15260	127	64	89	37	156	13.5	6.3	250	13	0.6

MOULDED DOCKING BUFFER

Ideally suited to truck trays and loading bays



Part No.	A	B	C	D	E	F	G	Weight Kg
DB15090	145	150	90	40	13.5	75	76	1.2
DB15575	150	155	75	36	14	87	65	0.72
DB19555	185	195	50	32	11	120	55	0.62

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MACKAY INDUSTRIAL RUBBER TECHNOLOGY

ANB BUFFERS

FEATURES

Buffer type ANB consists of a cylindrical rubber body bonded to a square baseplate of steel. Each corner of the baseplate has a fixing hole.

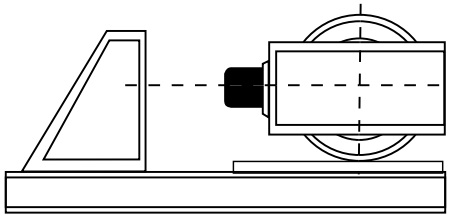
Special high-hysteresis rubber compound is used to ensure as much energy absorption as possible. The volume of the rubber is used at optimum efficiency.

For new machine developments simpler designs and lighter calculated forces can be considered enabling a lower cost.

TYPE ANB

The shockbuffer type ANB is used to effectively limit movement of equipment or machine components.

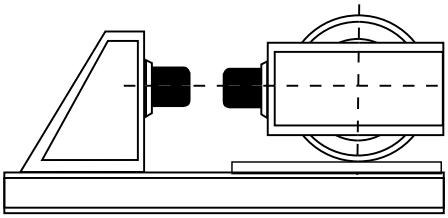
Traverse crane with shock Buffer ANB



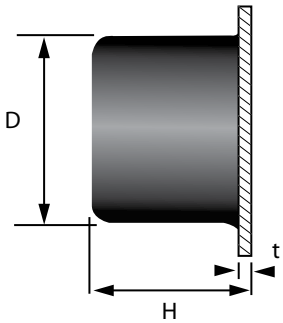
TYPICAL FIELD APPLICATIONS WOULD BE:

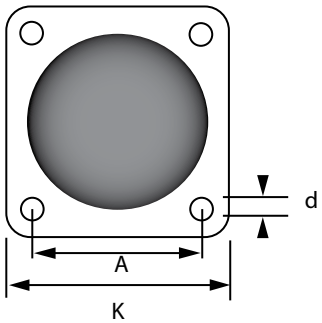
- Wagons
- Traversing cranes
- Lifting cranes
- Working beams
- Falling goods
- Cabinets
- Forestry vehicles
- Off-road material handling equipment
- Container handling equipment

Traverse crane with 2 ANB Buffers connected in series



Through the low resilience of the rubber a high degree of energy absorption is achieved. The rubber is stiffer under dynamic conditions compared to static or pseudo static loading; hence more energy is absorbed for a given deformation.





Part No.	Dimensions						Compression		Weight Kg
	K	A	D	d	H	t	Load Kg-F	Def mm	
M2255290	70	50	50	7	43	3	816	21	0.2
M2255300	100	75	75	9	63	3	2000	30	0.5
M2255310	130	100	100	11	84	4	4100	40	1.2
M68569	185	150	150	13.5	126	6	9100	60	3.9
M68577	240	200	200	13.5	168	8	18300	82	9.1

Al properties nominal, contact Mackay for Technical advice *All Dimensions in Millimetres*

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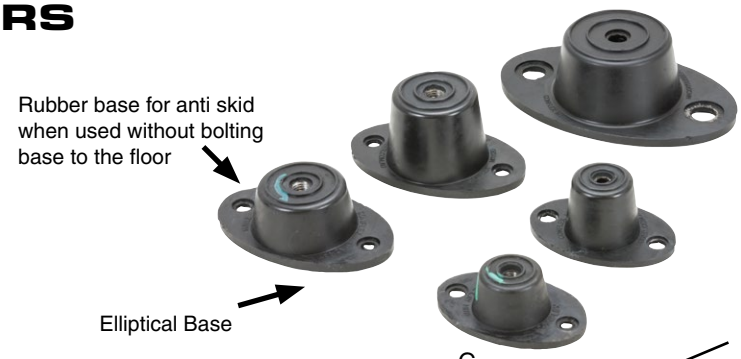
MACKAY INDUSTRIAL RUBBER TECHNOLOGY

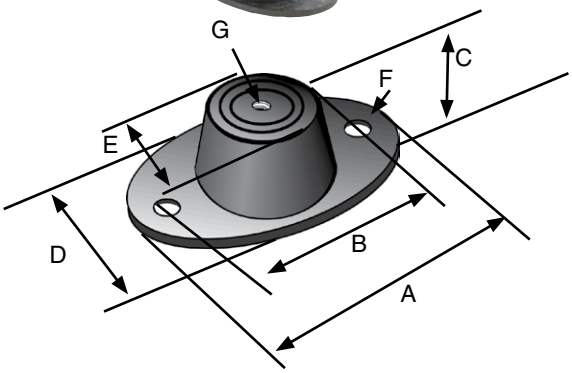
Flexible Isolator Catalogue

section 3

CONFLEX ISOLATORS

Conflex isolators are designed to meet almost all machinery installations within the load range. available in four rubber hardnesses they are the versatile answer to your mobile or static vibration problems.





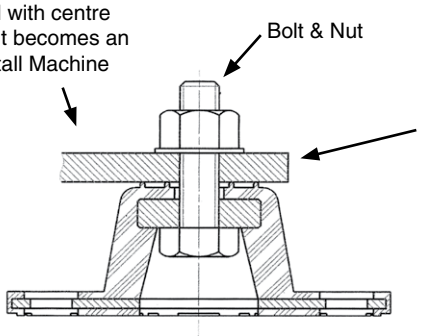
Available in Neoprene for "NM12" suffix part numbers

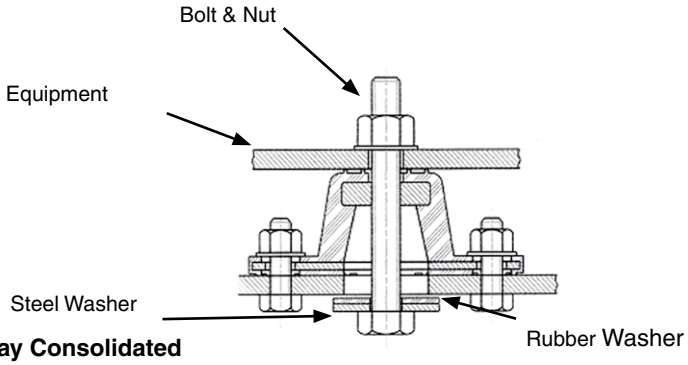
Part No.	Nominal Hardness - Shore A				Max. Deflection mm	Weight g	A mm	B mm	C mm	D mm	E mm	F mm	G
	35	45	55	65									
	Maximum Load kg												
M1111##	30	40	50	75	6	80	80	60	28	50	31	8.5	M8
M1111D##	40	55	80	110	8	95	80	60	38	50	31	8.5	M8
M1112##	90	110	160	250	6	150	100	76	32	60	46	8.5	M10
M1112D##	80	110	160	250	10	170	100	76	48	60	45	11.5	M10
M1112##NM12	90	110	160	250	6	150	100	76	32	60	46	8.5	M12
M1114##	115	170	240	405	6	430	140	104	44	85	60	14	M12

= hardness (35,45,55,65)

STATIONARY APPLICATIONMOBILE APPLICATION

When used with centre nut & bolt, It becomes an easy to install Machine Footing





Note: Rubber & Steel washer not supplied by Mackay Consolidated

All properties nominal, contact Mackay for Technical advice *All Dimensions in Millimetres*

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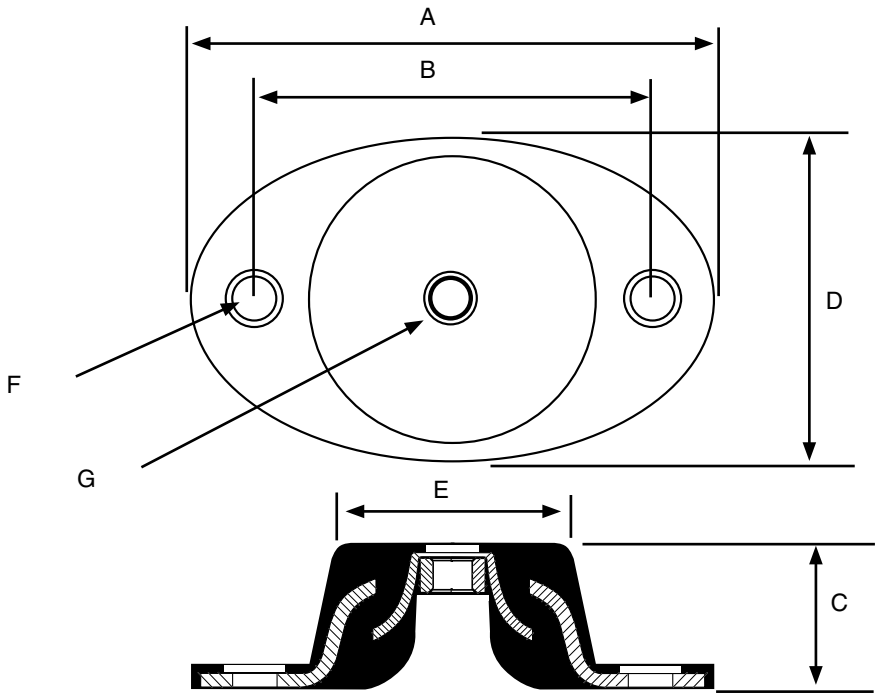
MACKAY INDUSTRIAL RUBBER TECHNOLOGY

STAINLESS STEELCONFLEX
SAFETY INTERLOCKED ISOLATOR

Similar dimensions to M1112 ## Isolators with the inclusion of internal safety interlocks for failsafe protection.

Manufactured in high grade oil resisting rubber compound and type 304 stainless steel for marine and corrosive applications.



Part No.	A	B	C	D	E	F	G	Weight Kg
M1113SN30	100	76	28.5	60	46	8.5	M8	0.2
M1113SN40	100	76	28.5	60	46	8.5	M8	0.2
M1113SN50	100	76	28.5	60	46	8.5	M8	0.2
M1113SN60	100	76	28.5	60	46	8.5	M8	0.2
M1113SN70	100	76	28.5	60	46	8.5	M8	0.2

NOMINAL CHARACTERISTICS

Part No.	Max Load Kg	Max Def mm	Colour Code
M1113SN30	70	2.5	Green
M1113SN40	130	2.5	Red
M1113SN50	210	2.5	Yellow
M1113SN60	270	2.5	White
M1113SN70	330	2.5	Silver

Al properties nominal, contact Mackay for Technical advice *All Dimensions in Millimetres*

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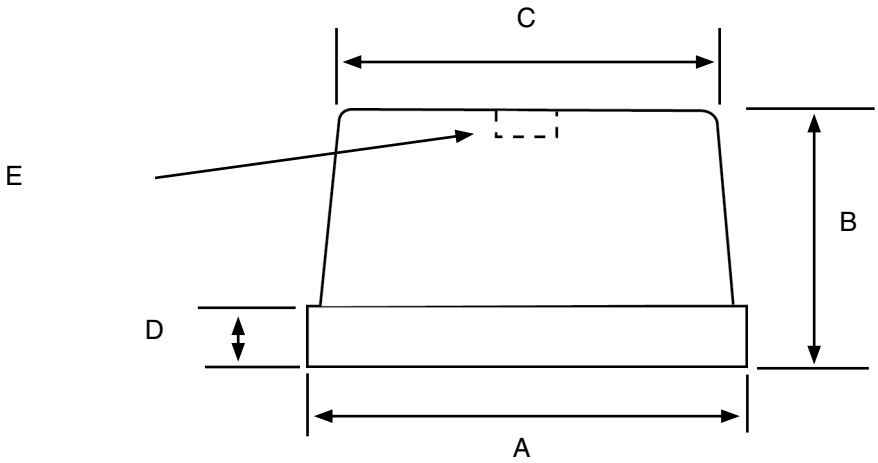
MACKAY INDUSTRIAL RUBBER TECHNOLOGY

CONFLEX FOOT ISOLATOR

The Conflex Foot Isolator is similar in style to our existing range but is supplied minus the two holed fixing flange. Designed as a free standing isolator for use under a wide range of equipment it requires no fixing to the floor, simply attach to the equipment and lower into position

Typical applications include:

Small portable Petrol / Diesel driven equipment
Pumps
Air conditioning units



DIMENSIONS

A	B	C	D	E	Weight Kg
58	35	46	9	M8	0.12

STATIC DEFLECTION AT MAXIMUM LOAD

Part No.	Duro	Load Kg	Def mm
M112235M8	35	80	6

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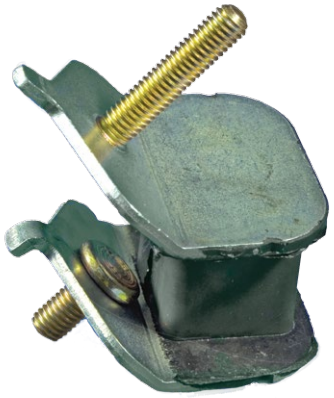
MACKAY INDUSTRIAL RUBBER TECHNOLOGY

SINGLE V-SHAPED
(SMALL ENGINE)

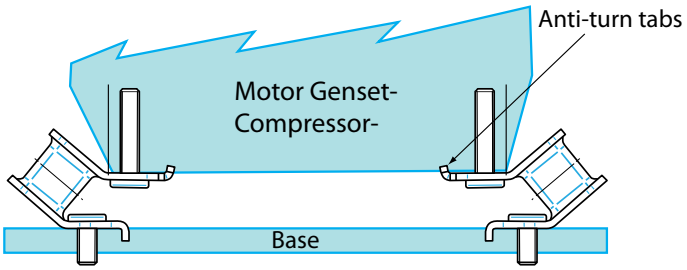


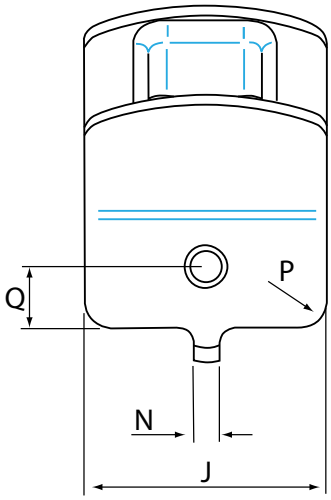
DESCRIPTION
The V-shaped Generator supports are comprised of two symmetrically-tilted metal parts with a screw on each side.

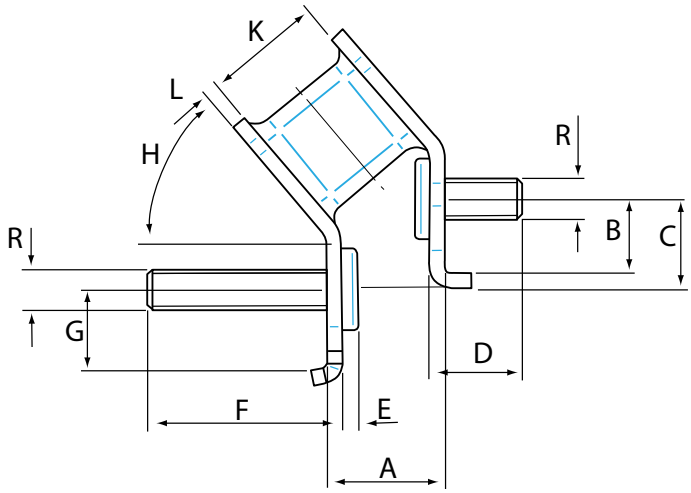
TECHNICAL CHARACTERISTICS
The V-shaped generator mounts render it possible to make installations which are more elastic than the ones usually made with cylindrical or bobbing mounts. This makes it possible to achieve lower frequency and consequently better vibration isolation.
Stability is enhanced when two are installed, symmetrically opposed. See fig. 1.
They have two different length screws which facilitate the assembly of the the engine to the chassis.
They have two “anti-turn” tabs which stop the mount from turning when strong tightening torque is applied (very frequently) with pneumatic tools.
They are supplied in 2 hardnesses to adapt to different load ranges.
They provide vibration attenuation of above 90% in diesel or petrol single-cylinder engines running at 3000 rpm.

APPLICATIONS
Very low-load engines requiring high levels of isolation. Portable gen sets, compressors, motor pumps...

Fig 1







Part No.	Duro	A	B	C	D	E	F	G	H	J	K	L	N	R	P	Q	Load Kg	Static Deflection mm	Weight Kg
M148151	45	23	14.5	18	18	3	38	15.9	50^0	47	23	3	5	M8	5	11	5	5	0.1
M148153	60	23	14.5	18	18	3	38	15.9	50^0	47	23	3	5	M8	5	11	15	5	0.1
M148171	45	28	19.5	23	18	3	38	20	50^0	54	31	3	7	M8	10	16	43	9	0.2
M148173	60	28	19.5	23	18	3	38	20	50^0	54	31	3	7	M8	10	16	90	9	0.2

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MACKAY INDUSTRIAL RUBBER TECHNOLOGY

V - SHAPED (MARINE)

DESCRIPTION

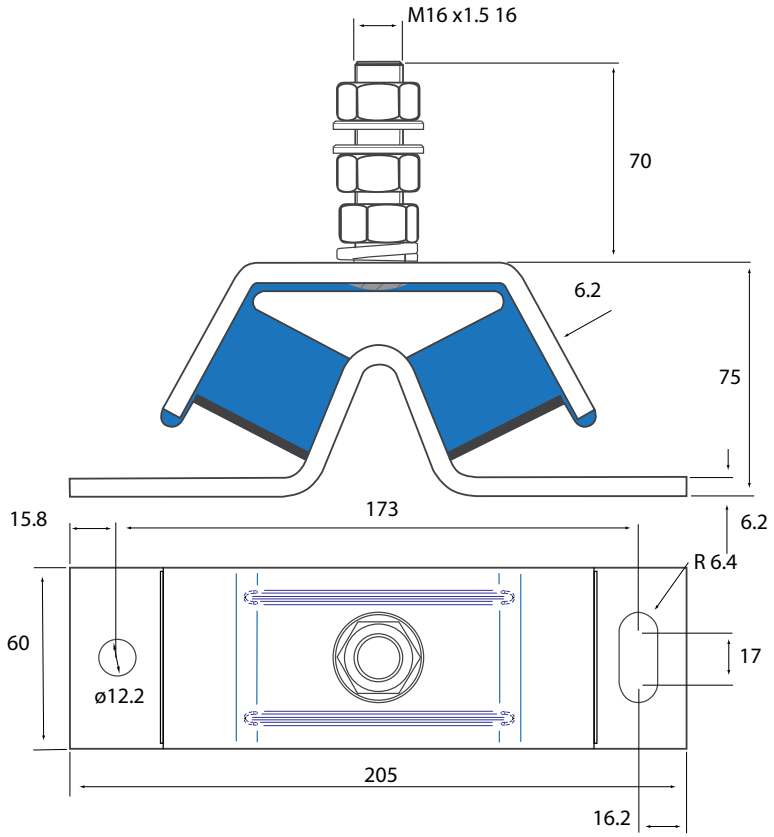
The V-shaped marine mount works the elastomer at shear compression. It is comprised of 2 metal parts which permit its installation by means of a screw at the top and two holes for securing it to the chassis.

TECHNICAL CHARACTERISTICS

The V-shaped marine mount has a V-shaped architecture to provide major deflection at low loads. This means that the natural frequency is low and ideal for engines which normally work ticking over.
It has three different stiffnesses per axis X,Y,Z to be able to adjust the modes of the suspended unit to obtain an optimal isolation.

DESCRIPTION

It is used in applications where the load of the suspended unit is low and the level of vibration isolation is high, such as:
Small vehicle or machines, small and medium-sized gen sets, marine engines...



Part No.	Duro	Load Kg	Static Deflection mm	Weight Kg
M148001	40	40	6	1.7
M148003	50	75	6	1.7
M148004	60	100	6	1.7
M148006	70	150	5	1.7

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MACKAY INDUSTRIAL RUBBER TECHNOLOGY

FLANGE ISOLATORS

These special isolators were developed to meet almost every type of machinery installation within the loading range, with telescopic metal inserts providing considerable stability in all directions. The two light duty isolators, M110 and M114 are equipped with upper metal inserts, tapped to receive standard bolts or set screws. The isolators can be fastened to the floor or other base, with bolts through the two lugs of the lower metal stamping. When using the heavy duty isolators M139 and M140, loads can be suspended as well as supported.

Interlocking flanges incorporated in M139 and M140 isolators ensure suspension even if the rubber is completely destroyed by fire, etc.

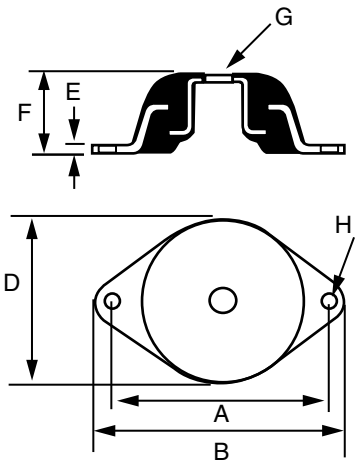
M139-M140*

M110-M114

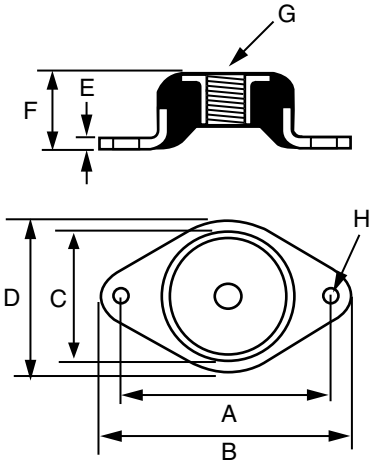
*** ALSO AVAILABLE IN STAINLESS STEEL**
M13960SS (type 316), M14060SS (type 304)

M189 Shield

M139-M140*



M110-M114

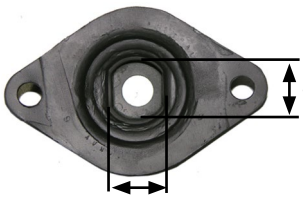


Part No.	A	B	C	D	E	F	G	H	Weight Kg
M110##	60.3	76	41	48	3	22	7/16”-20UNF	8.7	0.1
M114##	76.1	92	57	60	3	29	1/2”-20UNF	8.7	0.2
M140##	110.0	141	--	83	3	41	17/32”	13.5	0.4
M139##	127.0	157	--	102	3	48	13/16”	14.2	0.6

Note ! *## denotes duro refer to the load deflection chart for complete Part Number*

BOLT HEAD RECESS DETAILS

M139



3/4” Whit A/F=32mm

M140

Hex (19.2mm) A/F

Part Nos. M114 and M140 are available with a shield (Part No. M189) to protect the isolators from mechanical and chemical attack. Order if required. M189 = 0.06Kg

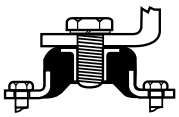
COLOUR CODE

DURO	COLOUR
40	Red
50	Yellow
60	White
70	Marked 70

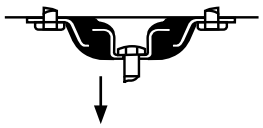
SUGGESTED METHODS OF MOUNTING

Tandem Series

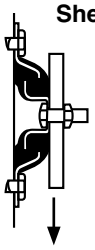
Compression Series



Tension



Shear



Al properties nominal, contact Mackay for Technical advice *All Dimensions in Millimetres*

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MACKAY INDUSTRIAL RUBBER TECHNOLOGY

To assist the isolation system designer we have provided the approximate deflections of Mackay isolators at various static loadings. It therefore becomes a simple matter to obtain the isolation efficiency by referring to the Mackay graph on "disturbing frequencies/deflections" (Shown in our current Flexible Isolator Catalogue). If you require any further technical data on Mackay isolators, please contact the Mackay Technical Department.

LOAD / DEFLECTION CHART

Part No.	Compression		Shear		Part No.	Compression		Shear	
	Load Kg	DEF mm	Load Kg	DEF mm		Load Kg	DEF mm	Load Kg	DEF mm
M11040	25	2.3	20	2.2	**M13960**	725	3.6	400	3.4
	30	2.8	25	2.7		750	3.7	425	3.6
	35	3.2	30	3.3		775	3.8	450	3.8
	40	3.7	35	3.8		800	3.9	475	4.0
						825	4.1	500	4.2
M11050	40	2.5	35	2.5		850	4.2	525	4.4
	45	2.8	40	2.8		875	4.3	550	4.6
	50	3.2	45	3.2		900	4.4		
	55	3.5	50	3.5					
					M13970	1100	3.5	550	3.1
M11060	31	1.0	21	1.0		1125	3.6	575	3.3
	60	2.0	54	2.0		1150	3.7	600	3.5
	85	3.0				1175	3.8	625	3.7
						1200	3.9	650	4.0
M11440	40	2.4	25	2.3		1225	4.0	675	4.2
	45	2.7	30	2.8		1250	4.1	700	4.4
	50	3.0	35	3.2		1275	4.2	725	4.5
	55	3.3	40	3.7					
	60	3.6			**M14040**	200	3.3	100	3.3
						210	3.5	110	3.7
M11450	60	2.4	40	2.4		220	3.7	120	4.0
	65	2.6	45	2.7		230	3.9	130	4.3
	70	2.8	50	3.0		240	4.0	140	4.7
	75	3.0	55	3.3		250	4.2		
	80	3.2	60	3.6		260	4.3		
	85	3.4				270	4.5		
						280	4.7		
					M14050	280	3.6	120	3.2
M11460	90	2.4	60	2.6		290	3.7	130	3.5
	95	2.6	65	2.8		300	3.8	140	3.7
	100	2.7	70	3.0		310	3.9	150	4.0
	105	2.8	75	3.2		320	4.1	160	4.3
	110	3.0	80	3.4		330	4.2	170	4.5
	115	3.1				340	4.3	180	4.8
	120	3.2				350	4.4		
	125	3.4							
	130	3.5			**M14060**	350	3.3	160	3.6
						375	3.5	170	3.8
M13940	400	3.4	150	3.0		400	3.8	180	4.0
	425	3.6	175	3.5		425	4.0	190	4.2
	450	3.8	200	4.0		450	4.2	200	4.4
	475	4.0	225	4.5		475	4.5		
	500	4.2	250	5.0		500	4.7		
	525	4.4							
	550	4.6			**M14080**	650	3.4	200	3.3
						675	3.5	210	3.5
M13950	550	3.5	250	3.1		700	3.7	220	3.7
	575	3.6	275	3.4		725	3.8	230	3.8
	600	3.8	300	3.7		750	3.9	240	4.0
	625	3.9	325	4.0		775	4.1	250	4.2
	650	4.1	350	4.3		800	4.2	260	4.3
	675	4.2	375	4.6		825	4.3	270	4.5
	700	4.4	400	4.9		850	4.5	280	4.7
	725	4.5				880	4.6		

All properties nominal, contact Mackay for Technical advice *All Dimensions in Millimetres*

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MACKAY INDUSTRIAL RUBBER TECHNOLOGY

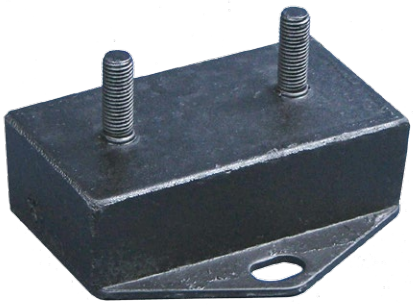
GENERAL MACHINERY

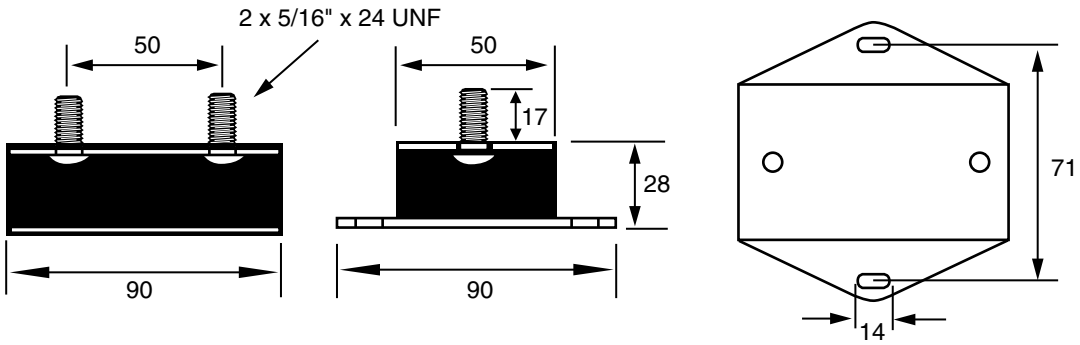
These isolators have been engineered to meet various vibratory problems found within industry and are easily applied to a variety of applications.

FEATURES :

- All angle flexibility.
- Maximum durability.
- Ease of selection.
- Ease of installation.
- Designed for stability.
- Increased service life on equipment.

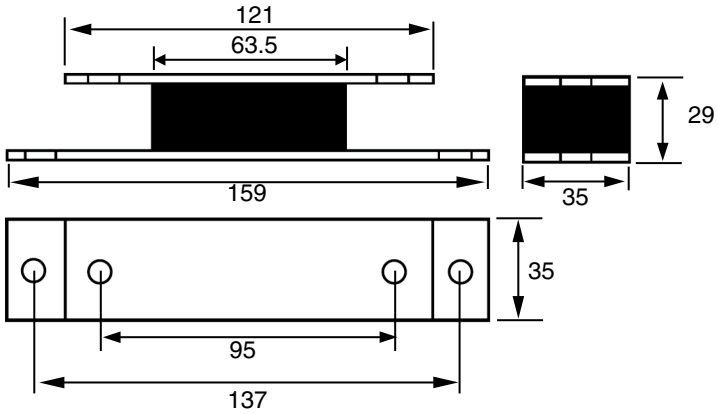
M181





Load Rating at 3mm Deflection Compression 230 Kg Shear 30Kg

M183



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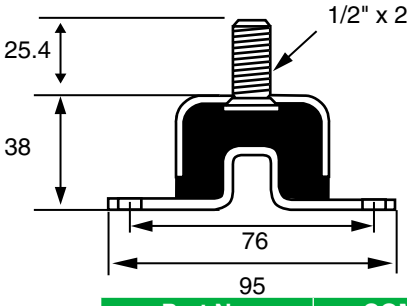
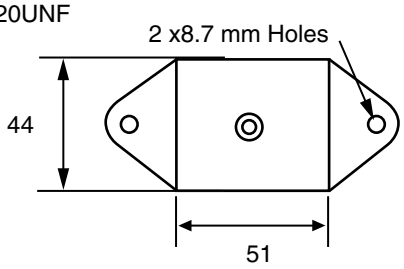
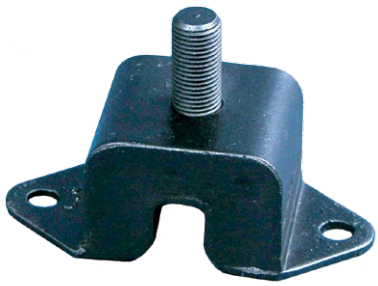
MACKAY INDUSTRIAL RUBBER TECHNOLOGY

M184

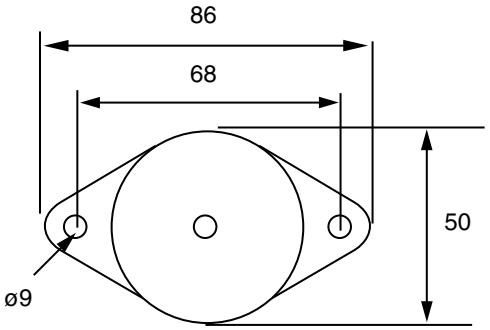


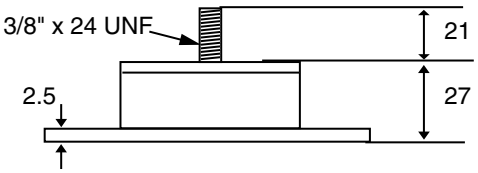




Part No.	COMPRESSION		SHEAR		Weight
	LOAD Kg	DEF mm	LOAD Kg	DEF mm	Kg
M181	125	1.6	15	1.5	0.3
	150	1.9	20	2.0	
	175	2.3	25	2.5	
	200	2.6	30	3.0	
	230	3.0			
M183	50	1.4	5	1.1	0.3
	75	2.0	10	2.3	
	100	2.7	13	3.0	
	110	3.0			
M184	200	1.7			0.3
	250	2.1			
	300	2.6			
	350	3.0			

M21345





Part No.	COMPRESSION		SHEAR		Weight
	LOAD Kg	DEF mm	LOAD Kg	DEF mm	Kg
M21345	26	1.0	5	1.0	0.2
	56	2.0	11	2.0	
	85	3.0	15.5	3.0	
			20.4	4.0	

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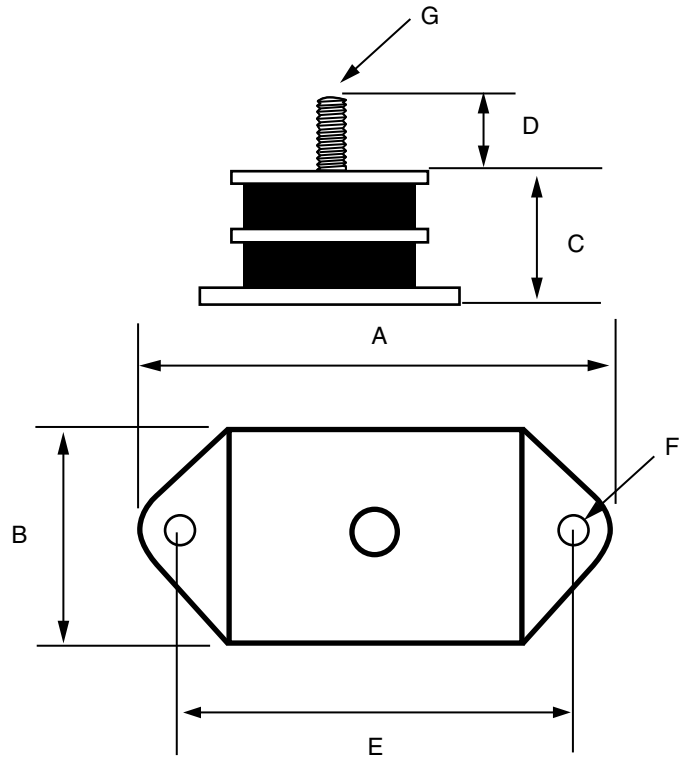
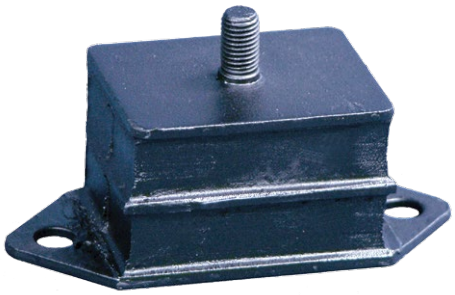
MACKAY INDUSTRIAL RUBBER TECHNOLOGY





Part No.	A	B	C	D	E	F	G	LOAD in Kg		DEF in mm		DURO	Weight
								COMP	SHEAR	COMP	SHEAR		Kg
M8040645	94	41	36	15	74.5	8.5	5/16" UNF	35-95	14-43	1.0-2.8	5.0-15.0	45	0.2
M8040660	94	41	36	15	74.5	8.5	5/16" UNF	65-175	27-70	1.0-2.8	5.0-12.0	60	0.2
M8040670	94	41	36	15	74.5	8.5	5/16" UNF	95-275	42-120	1.0-2.8	5.0-14.0	70	0.2

COLOUR CODE:

Duro	Colour
45	Red
60	White
70	Marked 70

Al properties nominal, contact Mackay for Technical advice *All Dimensions in Millimetres*

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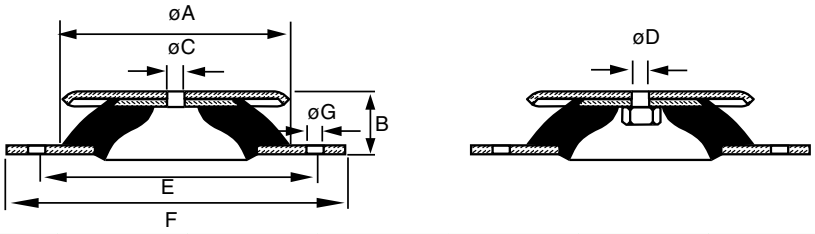
MACKAY INDUSTRIAL RUBBER TECHNOLOGY

BECA ISOLATORS

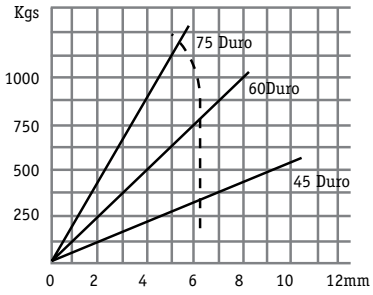
The “Beca” isolator is flexible both horizontally and vertically. It is particularly suitable for machines producing horizontal vibration forces. The horizontal deflections are approximately the same as the vertical deflections. The isolator is effective against all vibrations , irrespective of the direction in which they act.



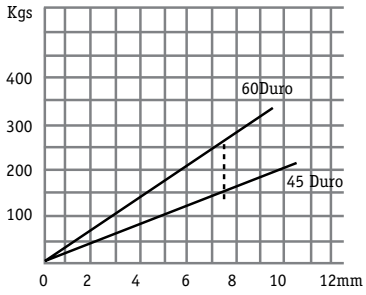
Part No.	DIMENSIONS							Weight
	A	B	C	D	E	F	G	Kg
M533641*	40	20	.	M6	52	64	6.2	0.05
M533661*	60	24	.	M6	76	90	6.2	0.2
M533581	80	27	8.1	-	100	120	8.2	0.3
M533109	100	28	10	-	124	148	10.2	0.5
M533152	150	39	14	-	182	214	12.2	1.4
M533203	200	44	18	-	240	280	14.5	3.1

Supplied with Threaded Fixing Hole

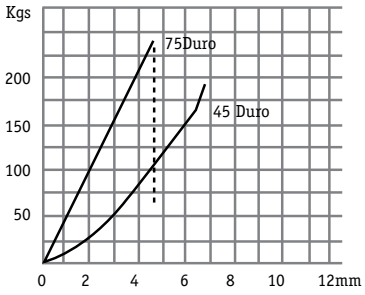
M533203



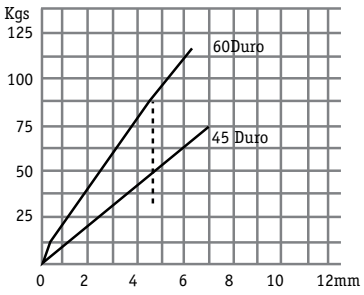
M533152



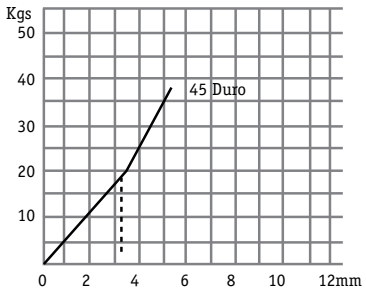
M533109



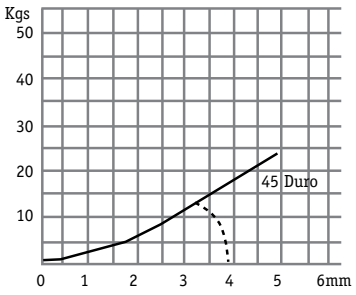
M533581



M533661



M533641



Part No.	LOAD kgs	DEFLECTION mm	DURO
M53364145	5	3	45
M53366145	15	3	45
M53358145	40	4	45
M53310945	60	3	45
M53358160	80	4	60
M53315245	120	7	45
M53310975	180	3	75
M53315260	240	7	60
M53320345	400	6	45
M53320360	700	6	60
M53320375	1000	5	75

COLOUR CODE	
DURO	COLOUR
45	Grey
60	Green
75	Red

All properties nominal, contact Mackay for Technical advice *All Dimensions in Millimetres*

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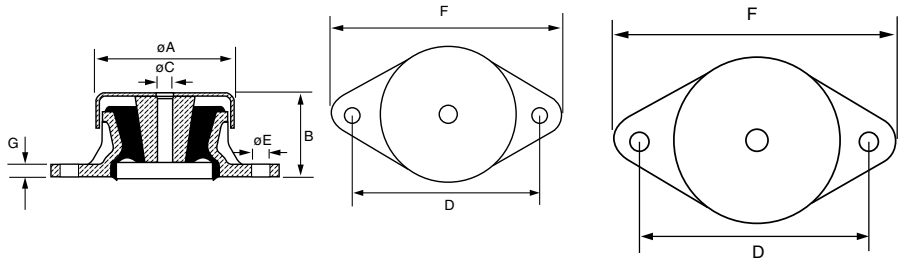
MACKAY INDUSTRIAL RUBBER TECHNOLOGY

STABIFLEX ISOLATORS

The STABIFLEX flexible isolator offers a metal protection shield for the rubber in applications where this is considered necessary.

The STABIFLEX isolators provide excellent isolation in both compression and shear loadings
and are suitable in applications where isolation in the horizontal plane as well as the vertical plane is required.

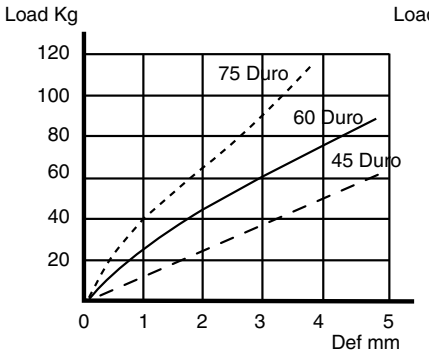


Part No.	A	B	C	D	E	F	G	Weight Kg
M530603	69	41	M12	98	9	114	6	0.3
M530613	84	51	M12	115	11	137	7	0.5

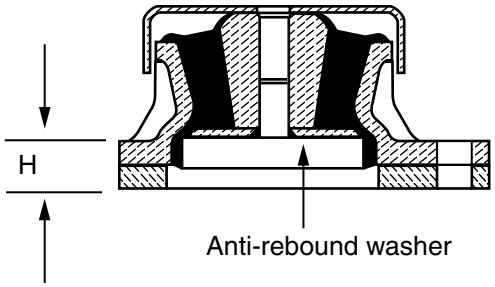
Part No.	LOADING Kg	DEFLECTION mm	DURO
M53060345	42	3.5	45
M53060360	60	3.0	60
M53060375	125	4.0	75
M53061345	93	3.5	45
M53061360	165	3.5	60
M53061375	260	3.0	75

Hardness Colour Codes	
DURO	COLOUR
45	Grey
60	Green
75	Red

M530603



M530613



FITTING WITH ANTI-REBOUND WASHER.

An anti-rebound washer must be fitted if tension forces are likely to be exerted on the isolator. (I.E. for equipment mounted on trailers , ships etc.). The washer is fitted under the inner cone to fit the shape of the outer ring. Do not forget to allow for a clearance space under the isolator according to the following table;

- M530603 H=2mm
- M530613 H=4mm

Note: The anti-rebound washer is not supplied by Mackay Consolidated Industries Pty Ltd

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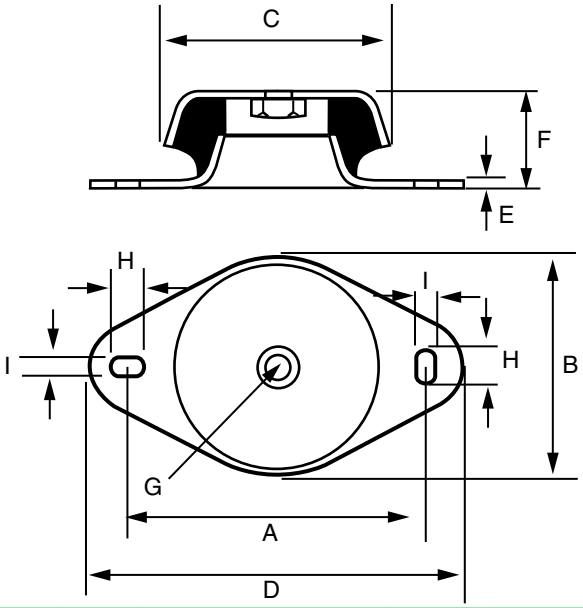
MACKAY INDUSTRIAL RUBBER TECHNOLOGY

SLIMLINE ISOLATORS

SlimLine machinery isolators offer increased protection to the rubber element in applications where it is considered necessary. The series provide excellent isolation efficiency with an equal load capacity in both compression and shear.
They are suitable for all applications where restraint in horizontal movement is required but good isolation is needed in the vertical plane.

- SlimLine Two Hole Mounting
- Elongated Universal Mounting Holes
- Low Profile to Reduce Centre of Gravity
- Available in 3 Elastomer Hardnesses:
  40 Duro
  55 Duro
  65 Duro

M510 SLIMLINE SERIES



Part No.	DIMENSIONS									Weight
	A	B	C	D	E	F	G	H	I	Kg
M510103965										
40-55-65	96	76	72	122	2	33	M10	15	9	0.3

LOAD RATING CHART		
Part No.	COMPRESSION OR SHEAR	
	LOAD Kg	DEFLECTION mm
M51010396540	50	1.39
	100	2.67
	150	3.72
	200	4.71
M51010396555	50	0.94
	100	1.71
	150	2.52
	200	3.23
	250	4.04
M51010396565	50	0.50
	100	1.00
	150	1.50
	200	2.00
	250	2.50
	300	3.00

*Duro rating stamped on Base

All properties nominal, contact Mackay for Technical advice *All Dimensions in Millimetres*

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MACKAY INDUSTRIAL RUBBER TECHNOLOGY

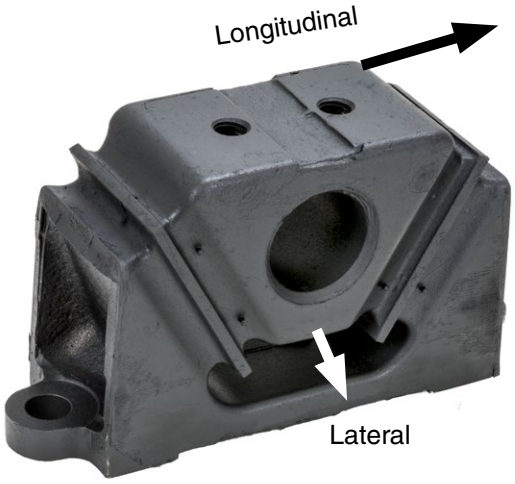
VEE-MOUNTS

ENGINE /TRANSMISSION RAFTS

Vee- mountings provide high load capacity with relatively high deflections, providing a high degree of vibration isolation. Typically used with the long axis in the direction of travel, the load can be connected using sole bars through the central hole or bolting to the inner vee- block. All metal work is cast steel to cater for the high load capacity.

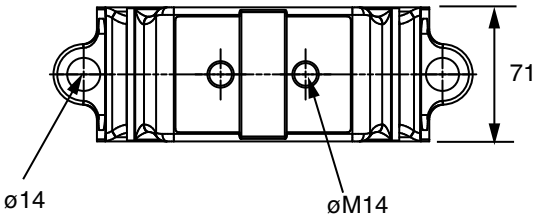
Vee-Mountings are commonly used in suspended engine and transmission rafts in rail. Additional applications in engine rafts for underground mining equipment have also been successful.

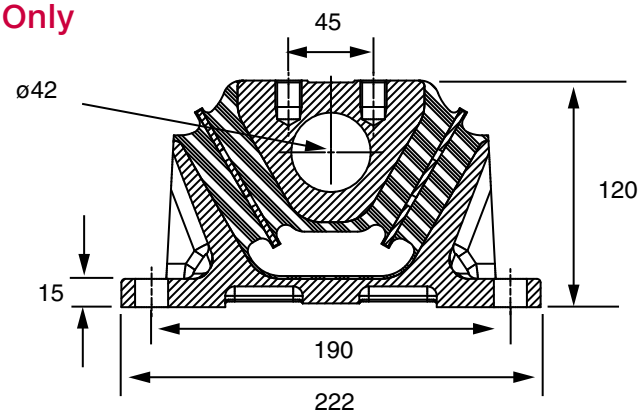
engine rafts are typically movement limited for shock loads beyond the maximum deflection of the Vee- Mountings.



Lateral movement should be limited to 10mm with bump stops.

Non Stocked Item - Special Order Only





Part No.	Vertical Max Load Kg	Vertical Max Deflection mm	Weight Kg
M80103350	590	7	4.5
M80103360	920	7	4.5
M80103370	1300	7	4.5

Al properties nominal, contact Mackay for Technical advice

All Dimensions in Millimetres

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MACKAY INDUSTRIAL RUBBER TECHNOLOGY

Flexible Isolator Catalogue

section 4

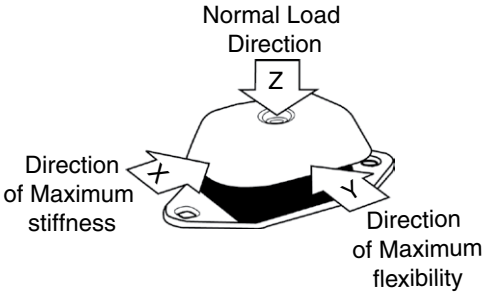
ISOMOUNT ISOLATORS

SUITABLE FOR MARINE APPLICATIONS

Isomounts are general purpose vibration isolators suitable for mobile and static equipment installations.

Available in three different sizes Isomounts have a mechanically galvanized base and come with a choice of rubber hardnesses, they can also be supplied with two types of specialist height adjusters and a mechanically galvanised base.

Isomount isolators are suitable for operation under all types of engines. They offer 3-way control of engine movement with excellent isolation efficiency. Maximum use of this 3-way control when the isomount isolators are used as engine supports can be obtained by arranging the isolator with their maximum flexibility (Y) at right angles to the engine crankshaft and maximum stiffness (X) in line with the crankshaft. Using the isolators in this manner also has the advantage in marine applications of providing isolation against propeller thrust. The Isomount range also features bump and rebound control which prevents excessive movement under shock loads.



NOMINAL STIFFNESS RATIOS
X = 2.5
Y = 0.75
Z = 1.0

The static load figures shown in FIG 1. are offered as a reference to the maximum load acceptable for each rubber mix.

FIG 1 LOAD RANGE

Part No.			Maximum Load Without Thrust Kg	Maximum Load With Thrust Kg	Deflection mm	Duro
TYPE 1	TYPE 2	TYPE 3				
M200045	M200145	M200245	50	35	4	45
M200055	M200155	M200255	70	55	4	55
M200065	M200165	M200265	100	80	4	65
M220045	M220145	M220245	135	85	5	45
M220055	M220155	M220255	200	135	5	55
M220065	M220165	M220265	300	210	5	65
M220075	M220175	M220275	450	315	5	75
M240045	M240145	M240245	355	250	5	45
M240055	M240155	M240255	530	370	5	55
M240065	M240165	M240265	800	560	5	65
M240075	M240175	M240275	1000	700	5	75

Note : When used in marine engine applications with thrust forces, the maximum load capacity is substantially reduced. See table above

HEIGHT ADJUSTERS

Two styles of height adjusters are available for each Isomount Isolator.

Type '1' Is supplied minus height adjuster.

Type '2' Is a general purpose adjuster suitable for static applications.

Type '3' Is available for mobile applications, where thrust is an issue.

Height adjusters are recommended where precise alignment is required and care should be taken when height adjusters are used not to allow excessive bending forces to be imposed on the centre spindle.

All properties nominal, contact Mackay for Technical advice *All Dimensions in Millimetres*

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MACKAY INDUSTRIAL RUBBER TECHNOLOGY

In the past fitment of inappropriate height adjusters has resulted in premature failure of the isolator by damage to the centre spindle.

Both types of height adjusters are available separately for each size Isomount,under the part numbers shown in Fig2.

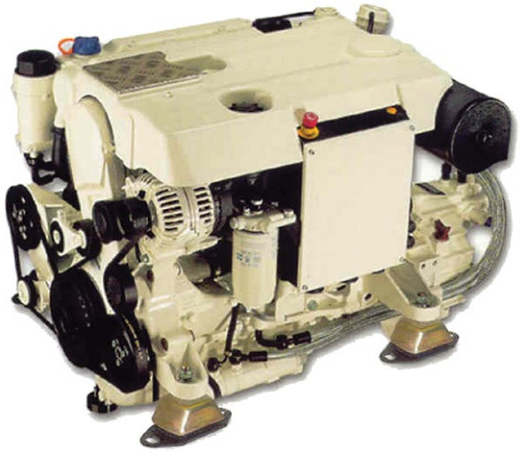
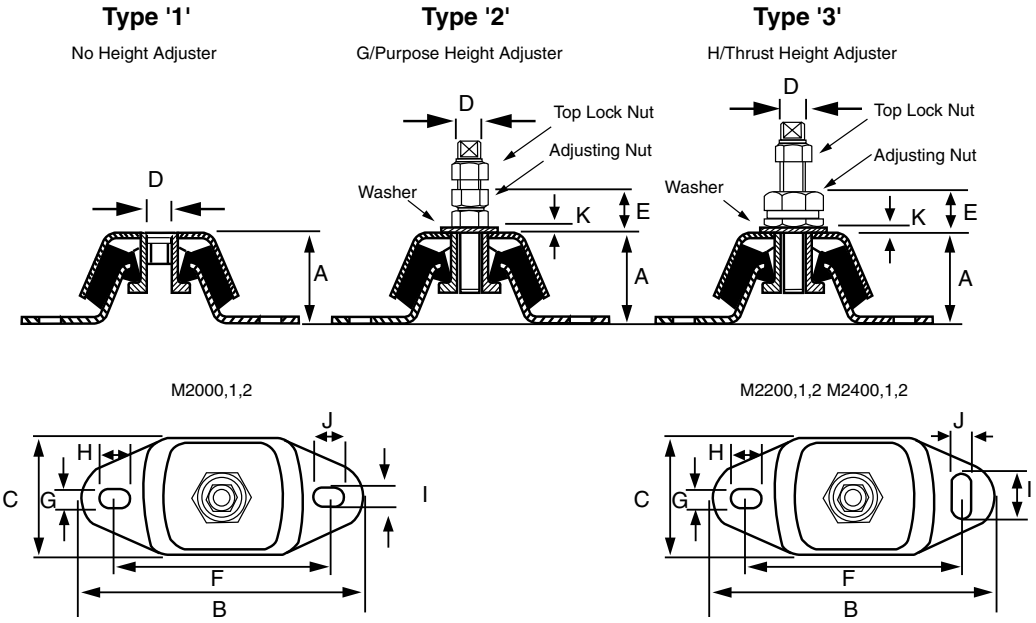


FIG2

ISOMOUNT Part No.	HEIGHT ADJUSTER PART No			
	G/Purpose	Weight Kg	H/ Thrust	Weight Kg
M2000	M2000A	0.13	M2000B	0.3
M2200	M2200A	0.3	M2200B	0.5
M2400	M2400A	0.5	M2400B	0.7

FIG3



Part No.	Type	A	B	C	D	E		F	G	H	I	J	K	Weight kg
						Max	Min							
M2000	1	38.5	120	60	M12	-	-	100	14	11	14	11	-	0.4
M2001	2	38.5	120	60	M12	32	22	100	14	11	14	11	3	0.5
M2002	3	38.5	120	60	M12	40	30	100	14	11	14	11	3	0.6
M2200	1	50.0	183	75	M16	-	-	140	13	20	30	13	-	0.9
M2201	2	50.0	183	75	M16	38	28	140	13	20	30	13	4	1.2
M2202	3	50.0	183	75	M16	41	31	140	13	20	30	13	4	1.4
M2400	1	68.0	228	112	M20	-	-	182	18	26	34	18	-	2.2
M2401	2	68.0	228	112	M20	44	34	182	18	26	34	18	4	2.8
M2402	3	68.0	228	112	M20	41	31	182	18	26	34	18	4	2.9

Al properties nominal, contact Mackay for Technical advice

All Dimensions in Millimetres

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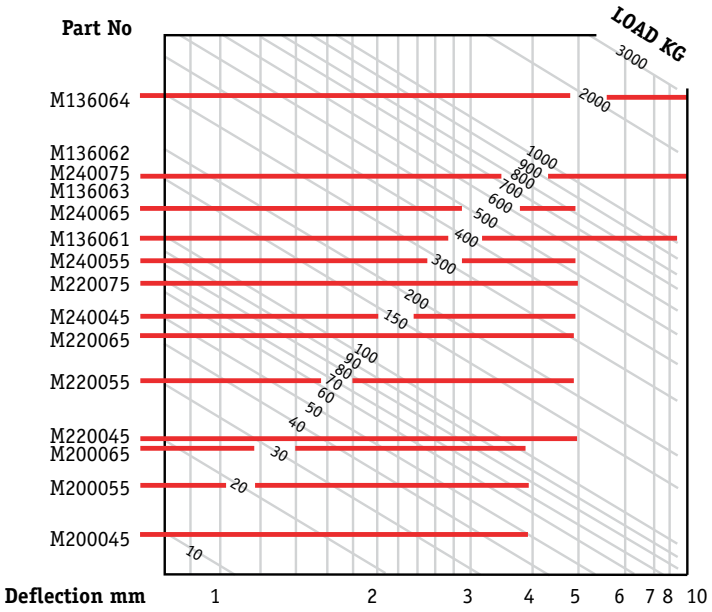
MACKAY INDUSTRIAL RUBBER TECHNOLOGY

SELECTION CHART



*** Isomount isolators do not have a Duro colour coding, the Duro rating is stamped on the base plate.**

INSTALLATION INSTRUCTIONS

It is important that isolators of the correct size (weight carrying capacity) and rubber hardness are selected to suit the application. Details on load range and static deflections are shown in figure 1

INSTALLATION WITHOUT HEIGHT ADJUSTER

Ensure tightening torque values for the centre bolt fixing are followed as shown in figure 4.
Check that after tightening of the centre bolt fixing that there is not excessive distortion, misalignment and rotation of the top cap relative to the base.
Where alignment of the equipment is required packing pieces or shims should be employed either below the mounting base plate or above the isolator top cap. Alignment should be rechecked after centre fixing bolts have been tightened.

FIG 4

Part No.	Type	RECOMMENDED CENTRE BOLT/NUT TIGHTENING TORQUE Nm
M2000	1	45-50
M2001	2	45-50
M2002	3	45-50
M2200	1	100-110
M2201	2	100-110
M2202	3	100-110
M2400	1	150-170
M2401	2	150-170
M2402	3	150-170

INSTALLATION WITH HEIGHT ADJUSTER

When accurate alignment of equipment is required one of two types of adjusters (Type '2' or '3') should be employed.
Ensure that excessive bending forces are not imposed on the centre spindle.
When using height adjusters, ensure that the recommended washer is placed hard against the top cap and the height adjusting spindle is fully located into the isolator.
If height adjusters are insufficient to achieve desired height adjustment shims or packing pieces should be employed under the mounting base.
The isolators with the height adjusters in the mean position (dimension Fig3) should be fitted to the equipment which should then be lowered onto the support. Vertical and horizontal alignment should now be effected using the height adjuster and slotted holes in the mounting base. After tightening centre fixings to the values shown in fig 4 recheck alignment. If necessary coupling and shaft alignment should be undertaken in accordance with the coupling manufactures recommendations. Where possible coupling alignment procedures should be carried out after the power unit has settled on the mountings (preferably 2 days after installation). Should this action not be possible the power unit should be raised approximately 1mm after completion of the alignment procedure.

All properties nominal, contact Mackay for Technical advice *All Dimensions in Millimetres*

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MACKAY INDUSTRIAL RUBBER TECHNOLOGY

ISOMOUNT-HD

Replaces Cushyfloat

DESCRIPTION

The Marine-type IsomountHD mounts are ideal for mobile applications thanks to their rugged architecture.
Their special design offers different stiffnesses on the three axes, they are antivibration mounts with great vertical elasticity, great longitudinal stiffness and optimal lateral stiffness to offer extra isolation on this axis.

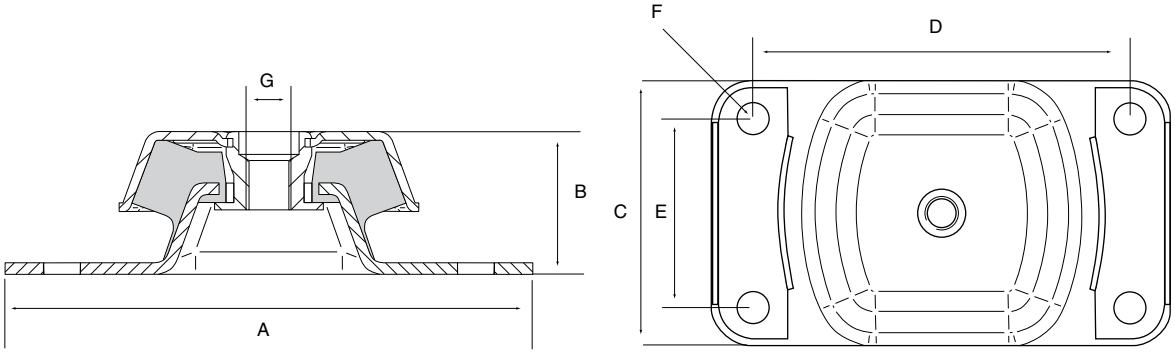
TECHNICAL CHARACTERISTICS

- The top part of the hood has a cross-shaped stamp, which improves its stiffness in mobile applications and also improves the evacuation of oils or liquid which splash onto it.
- The metal parts have an anticorrosive treatment which is suitable for outdoor applications.
- The mounts are clearly identified, as the bases are engraved with the type and hardness.
- They have an interlocking metal component that provides a fail-safe protection for mobile applications. This device limits the ascending vertical movement when the mounting is submitted to shocks at traction.
- The top part protects the elastomer inside from possible dripping oil, diesel, ozone and ultraviolet emissions that may cause major damage to the rubber.
- For marine engine applications, contact the Mackay Consolidated Industries technical department.
- The different stiffnesses for each axis make it possible to offer major flexibility in the direction perpendicular to the crankshaft/shaft of the motor. This provides more effective isolation from vibrations of all types of engines.

APPLICATIONS

In mobile rotating machines that need a major isolation capacity from vibrations and noises, such as:

- Pumps
- Marine-Land units
- Mobile electrical panels
- Industrial vehicles
- Compressors
- Ventilators
- Marine Propellers



Part No.	A	B	C	D	E	F	G	Duro	Load Kg	Static Deflection mm	Weight Kg
M136061	330	112	190	270	135	22	M24	40	890	9.6	9.6
M136062	330	112	190	270	135	22	M24	50	1400	9.6	9.6
M136063	330	112	190	270	135	22	M24	60	2225	10.0	9.6
M136064	330	112	190	270	135	22	M24	70	3000	10.0	9.6

Al properties nominal, contact Mackay for Technical advice *All Dimensions in Millimetres*

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MACKAY INDUSTRIAL RUBBER TECHNOLOGY

MD ISOLATORS

Replaces RAB isolators

DESCRIPTION

The advantage of this mount is that it is a high-damping elastic compound. Its special mix affords it a high degree of anti vibration isolation and offers great stability to suspended equipment.

TECHNICAL CHARACTERISTICS

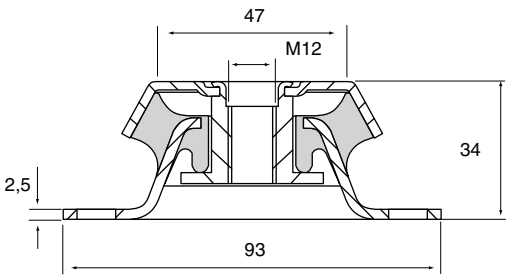
- Metal hood that protects the part from possible oil splashes.
- It has an electrolytic coating that protects the part from corrosion.
- They have an interlocking metal component that provides a fail-safe protection for mobile applications. This device limits the ascending vertical movement when the mounting is submitted to shocks at traction.

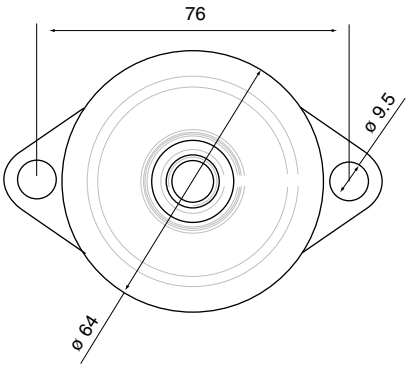
APPLICATIONS

This mount has been specially designed to insulate engines that produce high-amplitude vibrations.
Engines from 1 to 3 cylinders, Motor Pumps, Gensets, Compressors, Ventilators
.

WHEN IS IT USED?

The MD-type works as an anti vibration mount but also as an engine stabiliser. This mount is used when conventional rubber metal mounts do not offer sufficient stability to the suspended equipment.
The MD is installed in small engines of 1, 2 and 3 cylinders which are particularly unstable.
These mounts are suitable for the suspension of machines which are started and stopped a lot and where the passage of resonance needs a high degree of damping or work in conditions which are close to the frequency of resonance of the system.
Diesel engines require MD mounts, particularly when they have few large-diameter cylinders, which makes the engine create high-amplitude vibrations, therefore requiring extra damping to correct these high amplitudes.





Part No.	Load Kg	Deflection mm	Weight Kg
M135210	130	3.5	0.23
M135212	105	3.5	0.23
M135213	70	3.5	0.23
M135219	50	3.0	0.23

All properties nominal, contact Mackay for Technical advice *All Dimensions in Millimetres*

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MACKAY INDUSTRIAL RUBBER TECHNOLOGY

BRB ISOLATORS

Replaces RAEM Isolators

DESCRIPTION

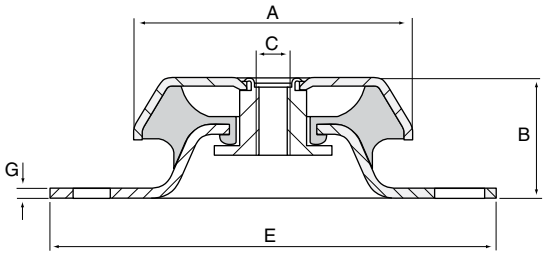
The BRB type mounts are anti vibration elements which work the rubber in shear and compression. Their tall height profiles produce large deflections, low natural frequencies, and excellent vibration isolation results. This range of mounts is suitable for applications where high vibration isolation in the 85-95% range is a priority.

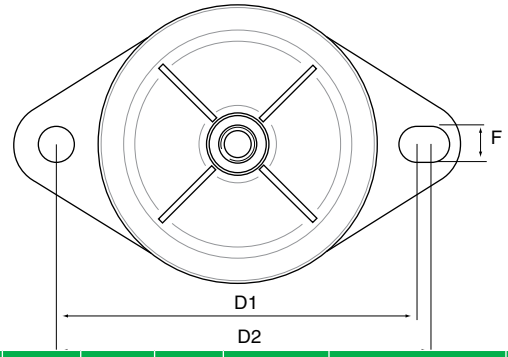
TECHNICAL CHARACTERISTICS

- The top metal hood protects the rubber from the Ozone, UV rays, diesel or oils which damage the rubber.
- The metal parts have a suitable anticorrosive treatment for outdoor applications.
- They have an interlocking metal component that provides a fail-safe protection for mobile applications. This device limits the ascending vertical movement when the mounting is submitted to shocks at traction.
- The mounts are clearly identified, as the bases are engraved with the type and hardness, which makes it possible to easily recognise the piece even after several years of use.
- The hood has a cross stamped on the top, which enhances its rigidity on mobile applications and also improves the evacuation of oils or liquids that precipitate onto it.

APPLICATIONS

This mount is suitable for the isolation of mobile rotating machines which are exposed to axial and radial shocks, dripping, oil diesel or exposure to the weather. It is particularly interesting for applications where a high level of vibration isolation is required.





Part No.	Duro	A	B	C	D1 (min)	D2 (max)	E	F	G	Load Kg	Static Deflection mm	Weight Kg
M135451	40	50	25	M8	63	70	85	6.5	2	20	4.0	0.1
M135453	50	50	25	M8	63	70	85	6.5	2	40	4.0	0.1
M135455	60	50	25	M8	63	70	85	6.5	2	60	4.0	0.1
M135251	40	65	35	M12	100	100	120	11	3	50	4.0	0.25
M135252	50	65	35	M12	100	100	120	11	3	75	4.0	0.25
M135253	60	65	35	M12	100	100	120	11	3	125	4.0	0.25
M135275	40	83	35	M12	108	110	130	11	3	80	4.0	0.39
M135276	50	83	35	M12	108	110	130	11	3	130	4.0	0.39
M135277	60	83	35	M12	108	110	130	11	3	180	4.0	0.39
M135278	70	83	35	M12	108	110	130	11	3	230	4.0	0.39
M135241	40	106	41	M12	136	150	170	12.5	3.5	200	7.0	0.85
M135242	50	106	41	M12	136	150	170	12.5	3.5	300	7.0	0.85
M135243	60	106	41	M12	136	150	170	12.5	3.5	425	7.0	0.85
M135244	70	106	41	M12	136	150	170	12.5	3.5	475	5.5	0.85
M135331	40	106	41	M16	136	150	170	12.5	3.5	200	7.0	0.85
M135332	50	106	41	M16	136	150	170	12.5	3.5	300	7.0	0.85
M135333	60	106	41	M16	136	150	170	12.5	3.5	425	7.0	0.85
M135334	70	106	41	M16	136	150	170	12.5	3.5	475	5.5	0.85

Al properties nominal, contact Mackay for Technical advice *All Dimensions in Millimetres*

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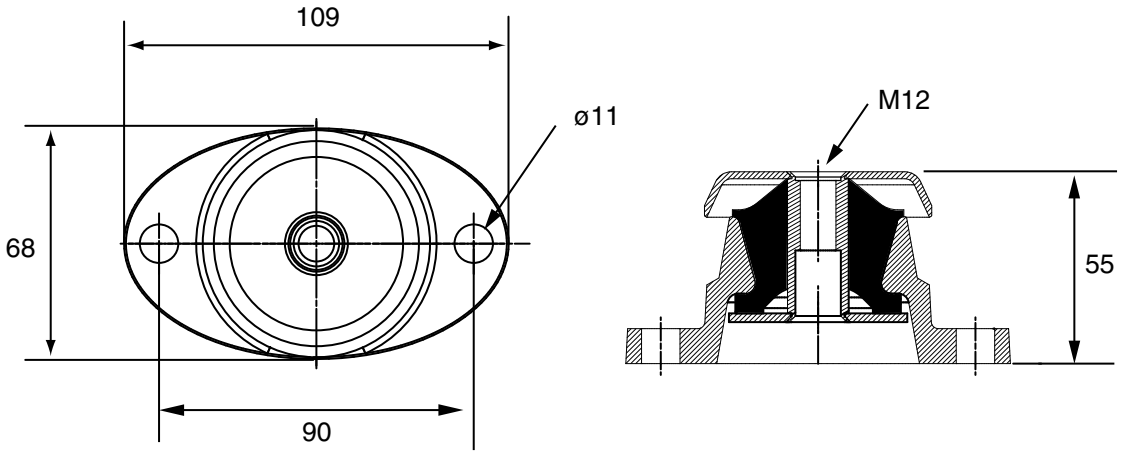
MACKAY INDUSTRIAL RUBBER TECHNOLOGY

PEDESTAL ISOLATORS

The Mackay pedestal mounting combines excellent isolation characteristics with convenient installation features, making it ideal for a wide variety of common installations.
It is typically employed for mounting pumps, compressors, fans, and other machinery, in static and some mobile applications.

Design features include security against excessive overload and rebound movement, a protective stainless steel cover and an attractive lightweight cast aluminium base.

Integral overload and rebound washers



Part No	Normal Load Kg	Deflection at normal Load mm	Weight Kg
M70150	90	6	0.4
M70165	180	6	0.4

* Duro rating stamped on base

All properties nominal, contact Mackay for Technical advice *All Dimensions in Millimetres*

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MACKAY INDUSTRIAL RUBBER TECHNOLOGY

Flexible Isolator Catalogue

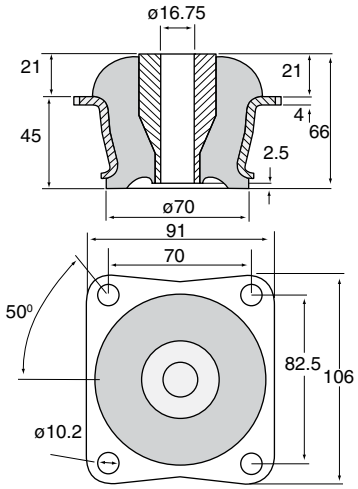
section 5

RECESSED FLANGE ISOLATORS

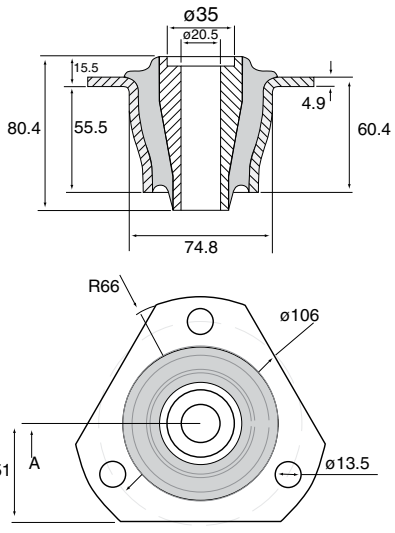
Recessed Flange Isolators designed for high load capacity combined with relatively large static deflections in an axial direction. Their high loading for a given size is obtained by utilising the rubber to the best advantage in both compression and shear.
Isolators listed in the following pages are normally assembled with overload and rebound washers to control and limit the movement of the suspended equipment under the action of shock loads. The central fixing bolts should be torque tightened to the recommended values.

Supplied with overload and rebound washers

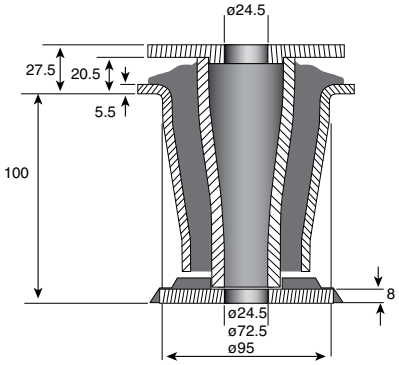
M137061,2,3

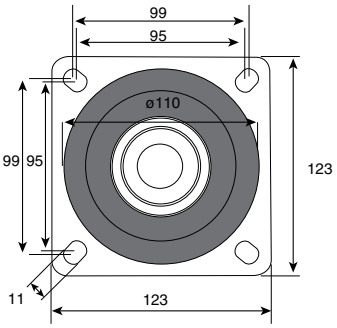


M137082,3



M137101,2,3





Part No.	Duro	Load Kg	Deflection mm	Weight Kg
M137063	50	310	6.5	1.18
M137061	60	500	6.0	1.18
M137062	70	960	6.0	1.18
M137082	60	690	6.0	1.21
M137083	70	1080	6.0	1.21
M137101	45	1000	6	3.45
M137102	60	2100	6	3.45
M137103	70	2500	6	3.45

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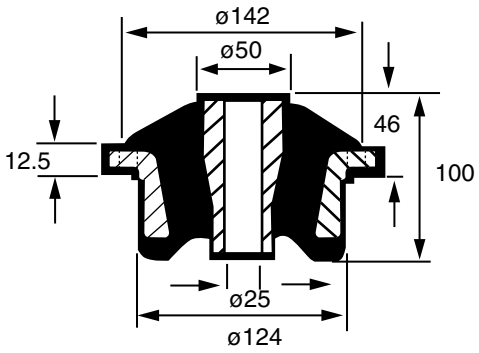
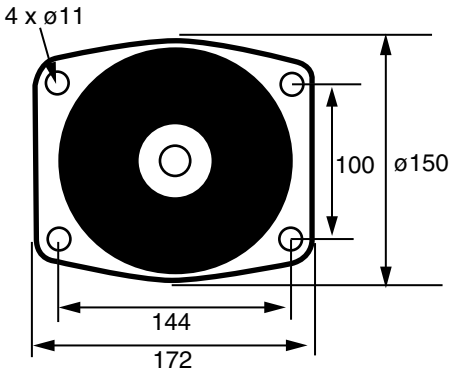
MACKAY INDUSTRIAL RUBBER TECHNOLOGY

M801550

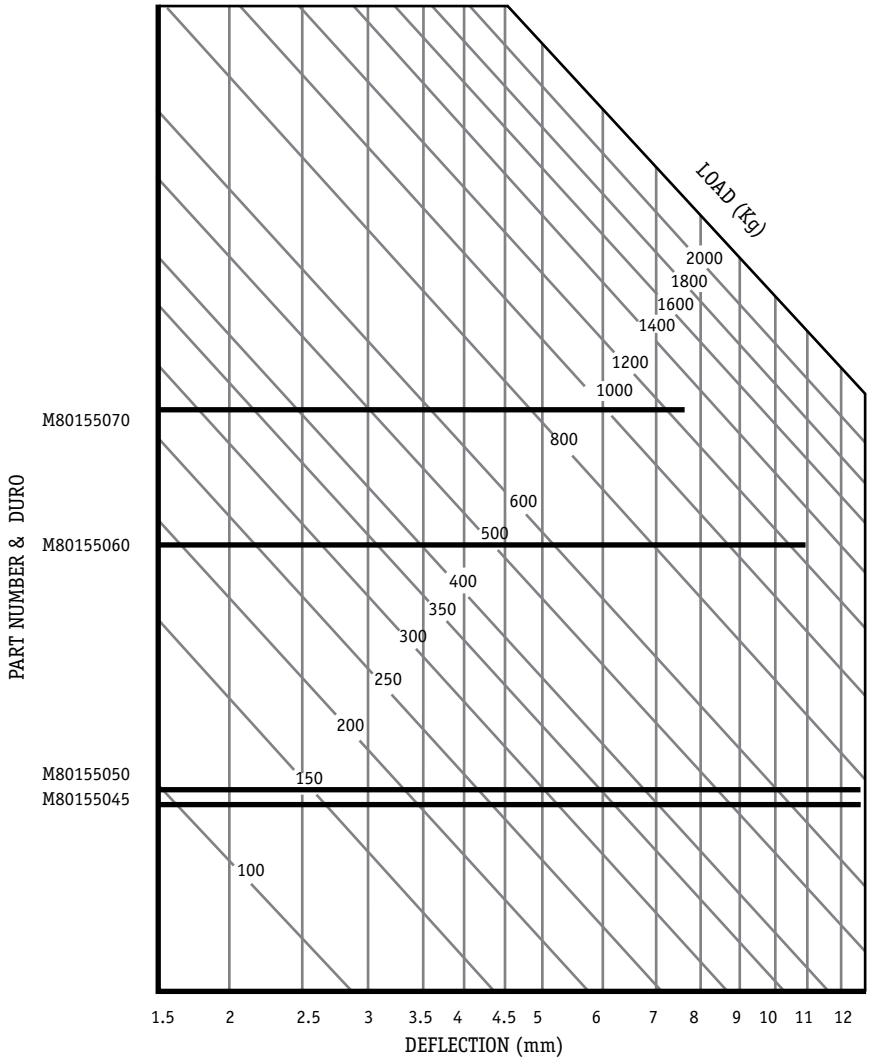
Overload and rebound washers ordered separately





Part No.	No. OF FIXING HOLES	OVERLOAD WASHER	REBOUND WASHER	CENTRE BOLT SIZE & ASSEMBLY TORQUE	WEIGHT Kg
M801550	4	M181550C	M181550C	M24 260Nm	4.5

SELECTION CHART for the following RECESSED FLANGE ISOLATORS **M801550**



COLOUR CODE

Duro	Colour
45	Blue
50	Pink
60	White
70	Orange

Al properties nominal, contact Mackay for Technical advice

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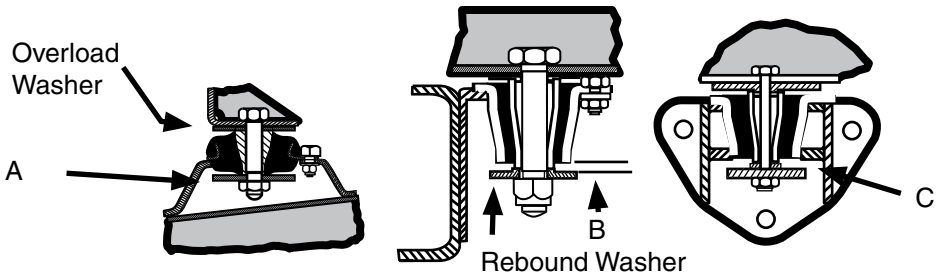
MACKAY INDUSTRIAL RUBBER TECHNOLOGY

TYPICAL METHODS OF INSTALLATION FOR METACONE ISOLATORS

A. Note; Washer must be clear of rebound buffer in static load condition. Spacer washers should be introduced if necessary to provide adequate clearance.

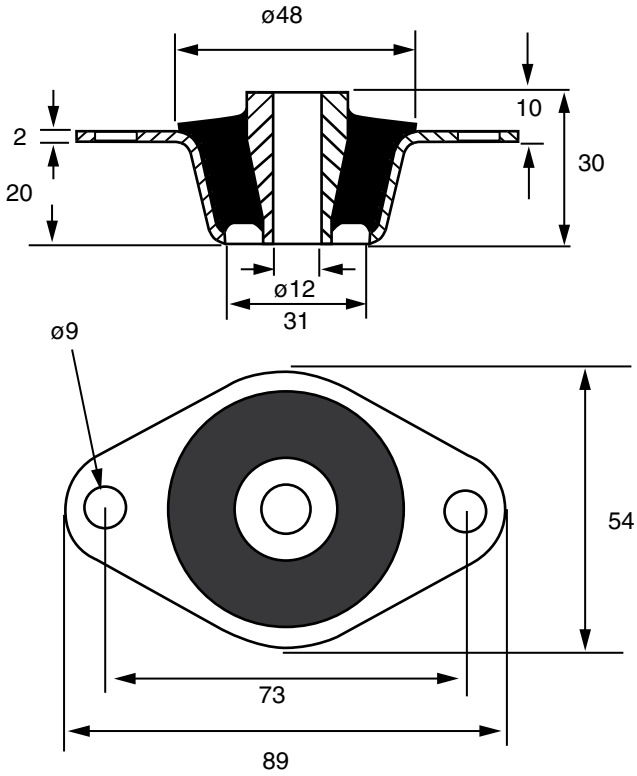
B. Ensure clearance between rebound washer and outer metal under static load.

C. On Part No. M17146 it is essential that lower end of outer metal is located in bracket which also provides reaction face for rebound buffer.

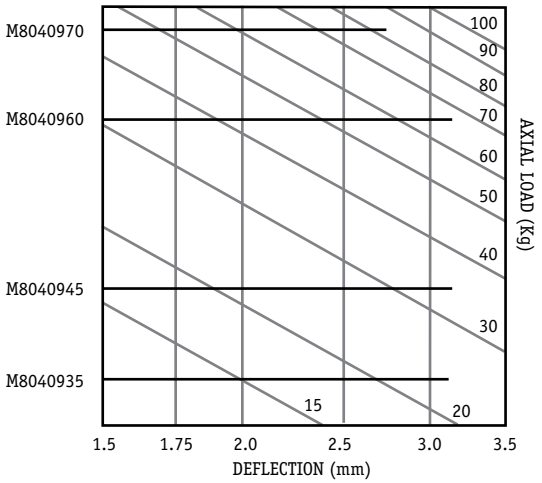


M80409

NOTE: M80409 may or may not require overload and rebound washers depending on the installation. (supplied separatley)



SELECTION CHART



DUROMETER

Duro	
35	Stamped
45	into
60	flange
70	

Part No.	No. of fixing holes	Overload Washer	Rebound Washer	Centre Bolt Size & Assembly Torque	Weight Kg
M80409	2	M18409A	M15286	M12 40Nm	0.1

All properties nominal, contact Mackay for Technical advice *All Dimensions in Millimetres*

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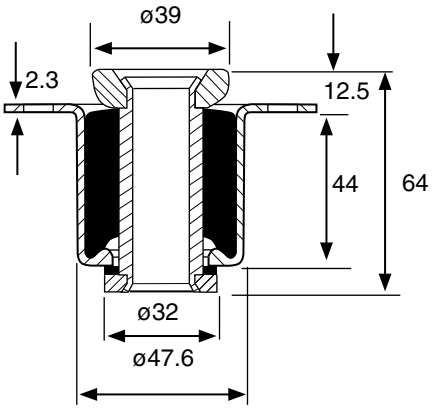
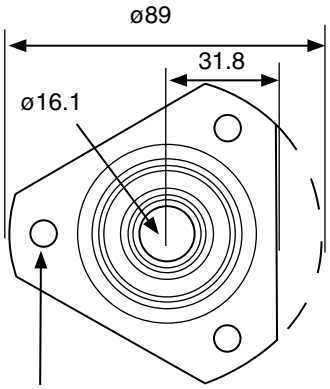
M70675

M70675 is a one piece recessed flange isolator that provides a low profile method os supporting a range of equipment. Their fail safe feature protects supported equipment under shock loads



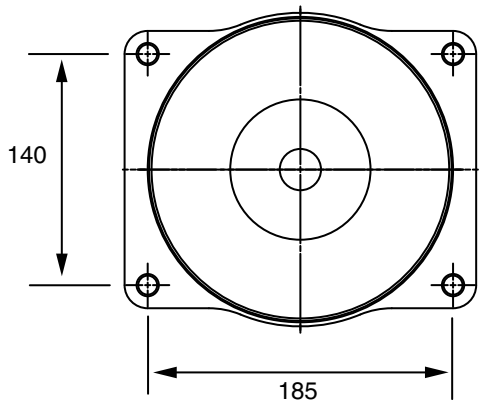


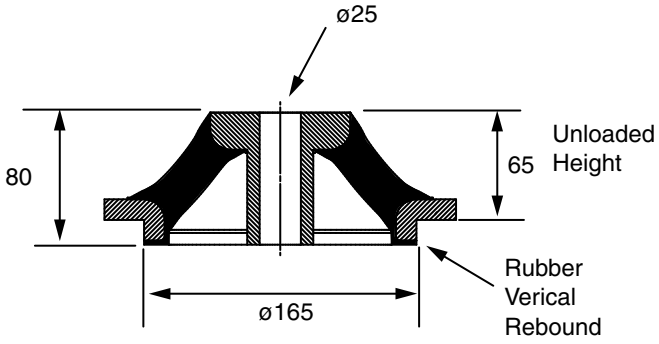
3 x ø8.4 holes on 69.9 PCD

Part No.	Compression		Weight Kg
	Kg	Def mm	
M70675	100	1.0	0.4
	147	1.63	0.4
	200	2.3	0.4

Q - MOUNTS

Non Stocked Item - Special Order Only





Part No.	Max Vertical Load Kg	Max Vertical Deflection mm	Rebound Cup Installed		Weight Kg
			Optimum Load Kg	Design Deflection mm	
M9030060	850	20	425	10	4.1
M9030068	1230	20	615	10	4.1
M9030075	1790	20	895	10	4.1
M90300W					

Al properties nominal, contact Mackay for Technical advice

All Dimensions in Millimetres

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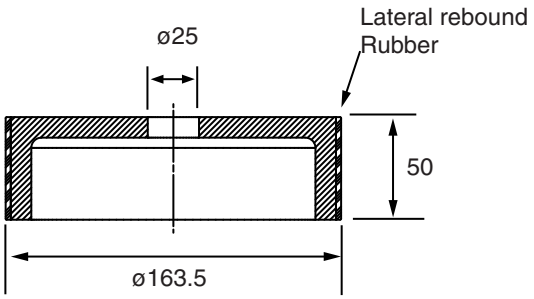
MACKAY INDUSTRIAL RUBBER TECHNOLOGY

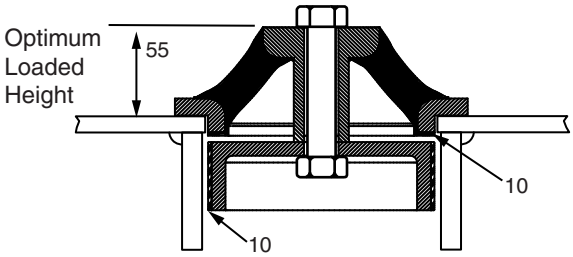
Q MOUNT REBOUND CUP

Non Stocked Item - Special Order Only



Q - Mount rebound cup is specifically deigned to fit into a recess providing rebound protection in vertical loading and lateral bump stop facility.
Lateral clearance 10 mm maximum

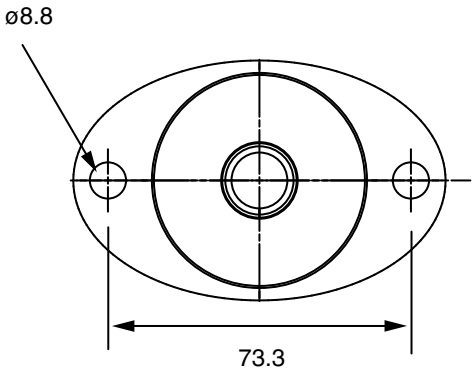
REBOUND CUP INSTALLATION AT OPTIMUM LOAD

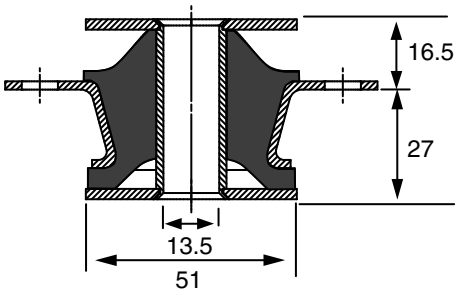


INTEGRAL REBOUND

(Type 304 Stainless Steel)

Designed for recessed fitting into chassis and frames. Integral overload and rebound washers eliminate the need for additional bump stops. Ideally suited to mounting exposed equipment





Part No.	Max Load Kg	Deflection mm	Weight Kg
M70250	90	6	0.25
M70265	180	6	0.25

DUROMETER

Duro	
50	Stamped
65	into Flange

All properties nominal, contact Mackay for Technical advice *All Dimensions in Millimetres*

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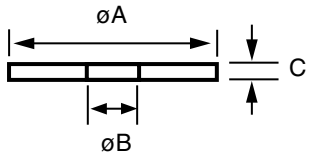
MACKAY INDUSTRIAL RUBBER TECHNOLOGY

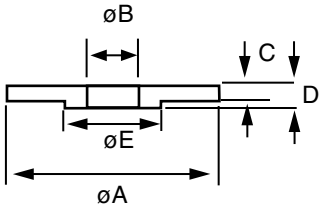
OVERLOAD AND REBOUND WASHERS

Overload and rebound washers (top and Bottom) are necessary to limit maximum movement in the event of shock loading.

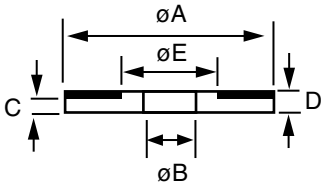
Type A
Steel washer



Type B
Top Stepped Steel Washer



Type C
Rebound Washer with Rubber



Part No.	TYPE	A	B	C	D	E	Top Washer Overload	Bottom Washer Rebound	Weight Kg
M15286	C	48	12	3	6	28.5		M80409	0.1
M153526	C	95	25	6	14	47			
M153527	C	117	25	6	16	48			
M153528	C	67	20	5	10	35			0.2
M18146C	B	116	25	4	8	47			
M181550C	A	139	25	10			M801550	M801550	1.15
M18168C	B	155	25	4	8	47			
M18225H	B	80	20	3	6	34.5			0.25
M18409A	A	50	12	4			M80409		0.07

RECOMMENDED TIGHTENING TORQUE FOR CENTRE FIXING BOLTS

THREAD SIZE	TORQUE (Nm)
M10	25
M12	40
M16	135
M20	180
M24	260

AI properties nominal, contact Mackay for Technical advice

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MACKAY INDUSTRIAL RUBBER TECHNOLOGY

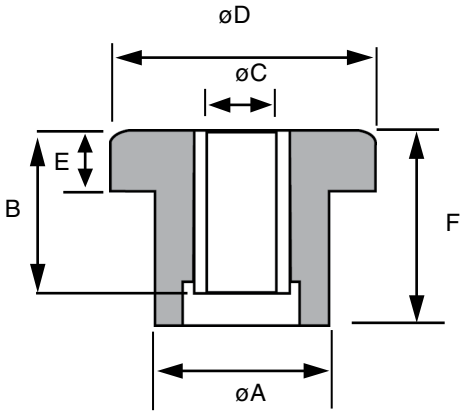
Flexible Isolator Catalogue

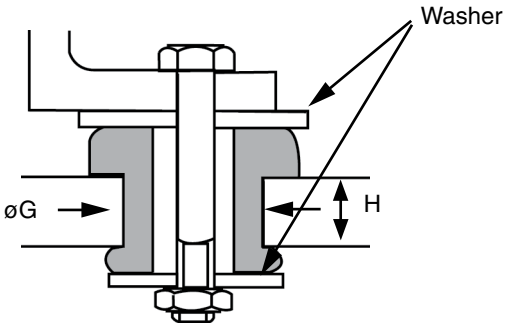
section 6

DUAL COMPRESSION MOBILE ISOLATORS

The Mackay dual compression mobile isolators have been engineered to isolate vibration , control shock and reduce noise due to structure borne vibrations. They have high load carrying capacity with improved multi-directional resilience and built in rebound protection.

The isolators give versatility for protecting the equipment and improving operator comfort for all types of cabins and vehicles. Their engineered design balances stability with resilience to withstand high static and shock loading as well as providing fail safe assembly when installed with suitable washers.



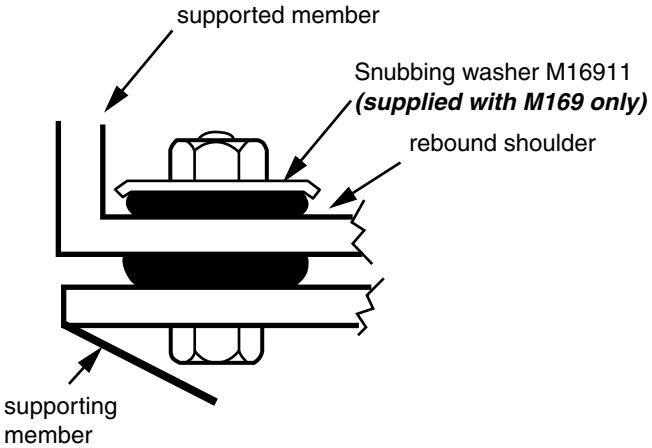


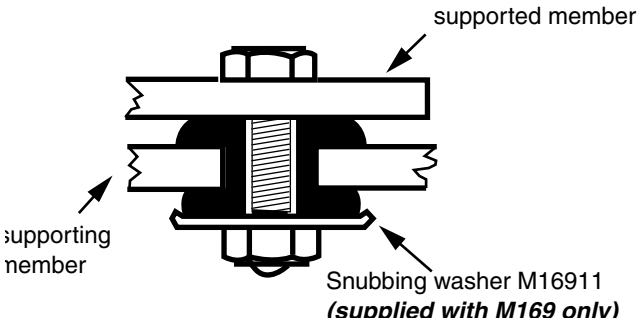
* H : Thickness of supporting member

Part No.	A	B	C	D	E	F	G	H	WEIGHT Kg
M539887	20.6	17.5	10	27.7	5.6	20	20.6	8	0.02
M539190	31.5	25.4	13	44.5	10.4	32	31.5	10	0.05
M539886	34.3	35	13	50.8	13.5	42	34.3	16	0.08
M169	34	35	16	50	13	41.2	34	16	0.1
M187	41	44.5	13	63	22	51	41	16	0.2
M539191	41.1	44.5	16	63.5	15.7	51	41.1	19	0.2
M539951	56.6	50.8	20	95	25.4	62	56	20	0.4

ALSO AVAILABLE ; M189 MECHANICAL & CHEMICAL PROTECTION SHIELD.

METHODS OF MOUNTING





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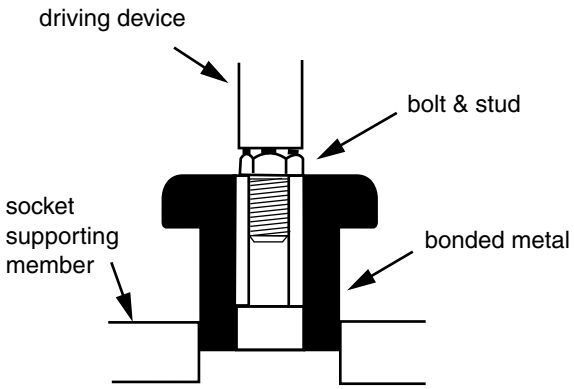
MACKAY INDUSTRIAL RUBBER TECHNOLOGY

Part No.	DURO	COLOUR CODE	STATIC LOAD Kg	DEFLECTION mm
M53988745	45	White	35	0.7
M53988760	60	Green	50	0.7
M53919045	45	White	75	1.2
M53919060	60	Green	100	1.2
M53919160	60	Green	250	2
M53919175	75	Blue	500	2
M53988660	60	Green	150	1.2
M53988675	75	Blue	330	1.2
M53995145	45	Marked 45	700	3
M53995165	65	Marked 65	1000	3
M16940	40	Red	100	1.5
M16950	50	Yellow	150	1.5
M16960	60	White	250	1.5
M18740	40	Red	200	3.3
M18750	50	Yellow	200	2.3
M18760	60	White	200	1.4
M18770	70	marked 70	500	2.3



*** INSTALLATION NOTE:** Tighten nut to pull mounting bracket and snubbing washer firmly against inner member.

INSTALLATION IS SIMPLE

1. Both the isolator and the socket should be lubricated with water.

2. Insert part in socket and rotate by hand , while applying axial force until partially positioned. Insert driving bolt , stud or assembly fixture in the metal inner member of the mounting. **Care should be taken** that the driving device does not overhang the outside diameter of the inner member in order to prevent damage to the Elastomer.

3. Apply pressure to the driving device to seat the mounting in its socket.

4. Assemble the other elements of the support , insert the mounting bolt and tighten by applying the required torque. When the nut is tightened against the snubbing washer , the rebound shoulder is formed automatically. The resulting pre-compression will ensure optimum performance.

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MACKAY INDUSTRIAL RUBBER TECHNOLOGY

MOBILE TWO PIECE ISOLATOR

DESCRIPTION

The Mobile Two Piece isolator is made of two parts of elastomer bonded to a central tube.

- Interior reinforced : cylindrical tube
- Elastomer: Neoprene. Range of three different stiffnesses.

OPERATION

The design of the Mobile Two Piece isolator gives the following basic characteristics.

- Elastomer element resistant to oils.
- Absorb vibrations and reduce noise in all directions.

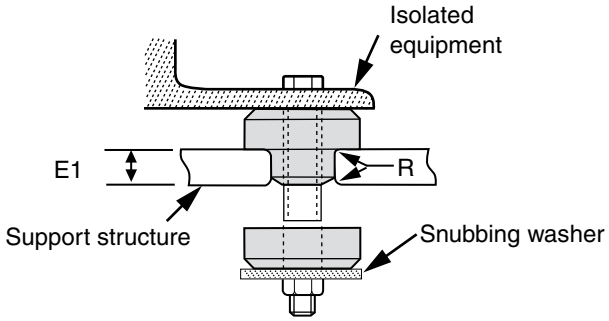
ADVANTAGES

- Good isolation against structual noises.
- Neoprene resistance to oils, most solvents and ozone.
- Simple and economical
- Simple to fit
- Four sizes for load capacity under axial loads from 18-953Kg
- Anti-rebound effect when it is assembled with a washer.

APPLICATIONS

Mobile Two Piece isolator can be used in static or mobile applications , such as:

- Pumps
- Generators
- Engines
- Plant cabs
- Compressors
- Electronic equipment
- Transmissions
- Radiators



Part No.	Colour Code Neoprene	Duro	Support plate details		Load per isolator		Bolt Information		
			E1 (mm)	R (mm)	Load Kg	Def mm	Size mm	SAE Grade	Max (Nm) Torque
M83090311	red	40	9.5	1	18	1.2	9	5	40
M83090313	white	60	9.5	1	64	1.3	9	5	40
M83090315	“75” in silver pen	75	9.5	1	136	1.6	9	5	40
M53090321	red/white	40	14.3	1.5	59	1.9	13	8	162
M53090323	green/white	55	14.3	1.5	109	2.1	13	8	162
M53090325	purple/white	75	14.3	1.5	286	2.4	13	8	162
M53090331	red/white	40	22.2	2.3	95	2.3	16	8	298
M53090333	green/white	55	22.2	2.3	222	2.5	16	8	298
M53090335	purple/white	75	22.2	2.3	604	2.9	16	8	298
M53090341	red/white	45	28.6	3	123	2.7	22	8	813
M53090343	green/white	55	28.6	3	350	3	22	8	813
M53090345	purple/white	75	28.6	3	953	3.5	22	8	813

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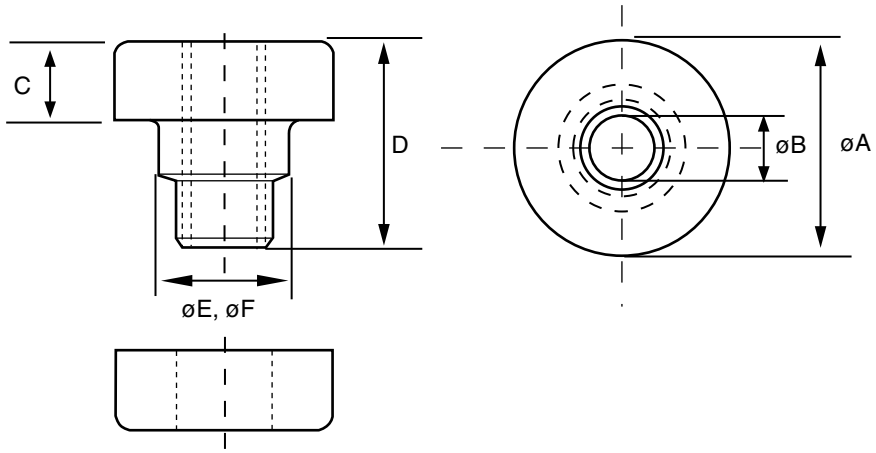
MACKAY INDUSTRIAL RUBBER TECHNOLOGY



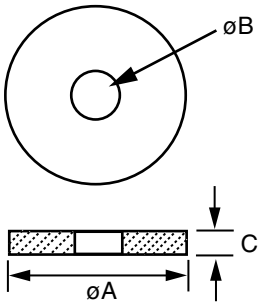
E: ø Isolator
F: ø Mounting Hole
D: Free Height

Part No.	øA mm	øB mm	C mm	D mm	øE mm	øF mm	Weight Kg
M83090311	33.2	10	12.3	31.7	20.1	19	0.04
M83090313	33.2	10	12.3	31.7	20.1	19	0.04
M83090315	33.2	10	12.3	31.7	20.1	19	0.04
M53090321	47.7	13.5	19.8	49.2	33	31.7	0.14
M53090323	47.7	13.5	19.8	49.2	33	31.7	0.14
M53090325	47.7	13.5	19.8	49.2	33	31.7	0.14
M53090331	64.8	16.7	22.8	61.7	40.1	38.1	0.31
M53090333	64.8	16.7	22.8	61.7	40.1	38.1	0.31
M53090335	64.8	16.7	22.8	61.7	40.1	38.1	0.31
M53090341	88.9	23.8	25.4	73.1	58.4	57.1	0.67
M53090343	88.9	23.8	25.4	73.1	58.4	57.1	0.67
M53090345	88.9	23.8	25.4	73.1	58.4	57.1	0.67

Snubbing washers are recommended for the assembly of the isolator. They ensure correct static and dynamic loading of the isolator and protection of suspended equipment under shock loads.

SNUBBING WASHER SIZES

To Suit Isolator Part No.	øA mm	øB mm	C mm
M83090311-15	39.6	10.3	2.2
M53090321-25	54.1	13.5	3.4
M53090331-35	71.3	16.7	4.7
M53090341-45	98.5	23.8	6.3



Note: Snubbing washers are not supplied by Mackay Consolidated Industries. The Standard material should be low-carbon steel

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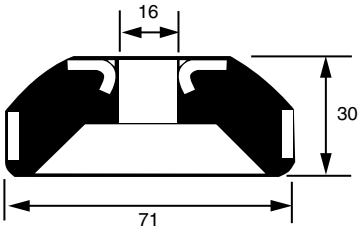
MACKAY INDUSTRIAL RUBBER TECHNOLOGY

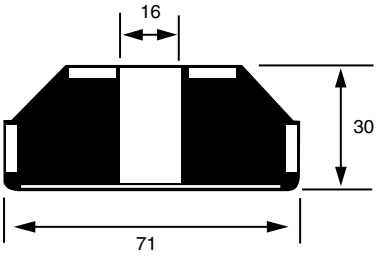
COMBINATION ISOLATORS

Combination isolators provide the excellent shock absorbing properties of rubber in shear and compression with good dynamic cushioning under rugged operating conditions.

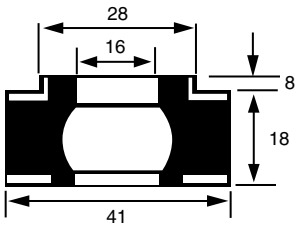
These isolators are designed to be used as an assembly. The rebound unit limits the free movement of the equipment to some extent , but this restriction is very desirable in mobile installations. **Care must be taken when installing** to ensure that the nut is not drawn too tightly so as to avoid any excessive pre-loading of the isolator and rebound unit.



M104



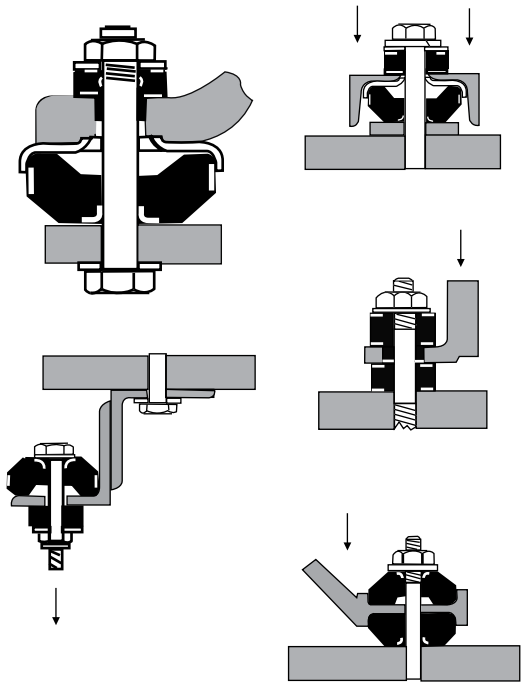
M204



M107

Part No.	LOAD Kg	DEF. mm	Duro	WEIGHT Kg
M10440	57	4	40	0.2
M10450	90	4	50	0.2
M10460	125	4	60	0.2
M10470	180	4	70	0.2
M204	270	4		0.2
M10740	115	4	40	0.05
M10750	170	4	50	0.05
M10760	250	4	60	0.05
M10770	280	4	70	0.05

TYPICAL MOUNTING SYSTEMS



COLOUR CODE

DURO	COLOUR
40	Red
50	Yellow
60	White
70	Marked 70

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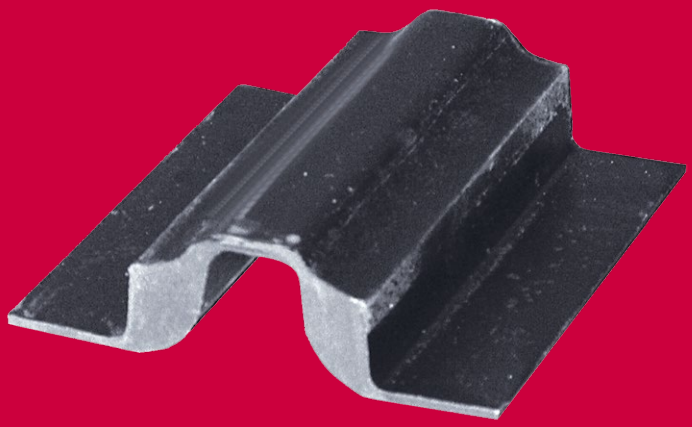
MACKAY INDUSTRIAL RUBBER TECHNOLOGY

Flexible Isolator Catalogue

section 7

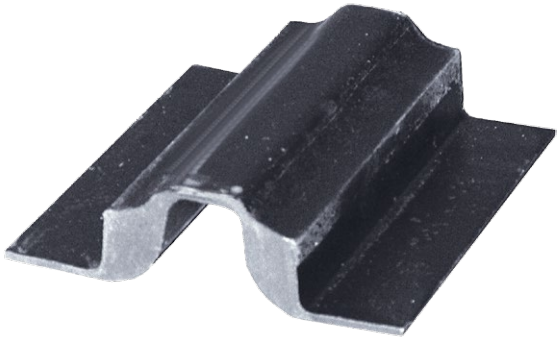


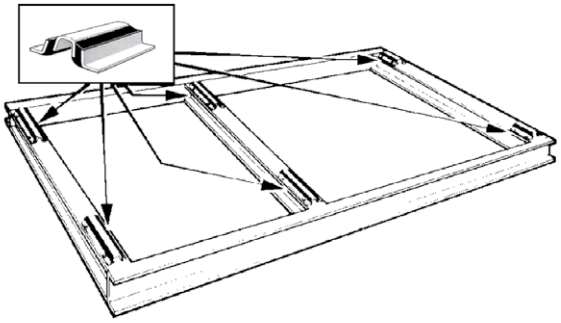
DOUBLE SHEAR ISOLATORS

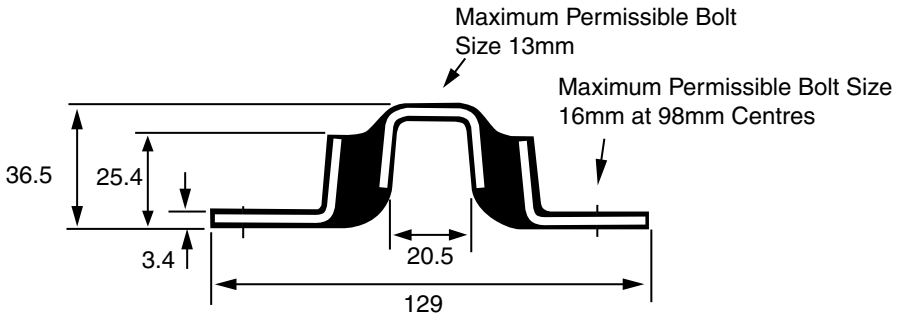
This isolator is particularly versatile and suitable for all types of machinery and structures. The M100 is well suited to installations that require the isolator to resist the sideways pull with belt driven loads and to maintain the centre distance for gears, without a loss of isolation efficiency in the vertical direction. The isolator consists of three steel members which are securely bonded to two sections of rubber in its most effective manner i.e. in shear with progressively increasing compression. The M100 mount is available in 50 and 60 Duro. The mounting holes can be drilled to suit your own individual requirements. The isolator can be bolted or welded to a separate retention plate if preferred , but SECURE fixing is generally recommended.

IMPORTANT ; The M100 isolator should be securely fixed to the foundations before the load is applied to prevent the mount spreading and therefore , not allowing it to obtain the correct deflections.

The standard lengths are 150mm and 300mm. If you require a load rating that calls for smaller lengths it is an easy matter for you to cut to the required size.







LOAD RATING

Part No. & Duro	Length mm						
	25	50	75	100	150	300	
M10050	10Kg	26Kg	40Kg	58Kg	75Kg	160Kg	As measured at 3mm deflection
M10060	22Kg	60Kg	87Kg	125Kg	170Kg	340Kg	

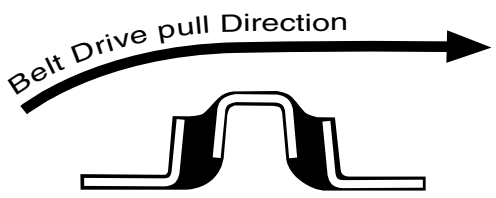
WEIGHT PER LENGTH

Part No.	150mm	300mm
M10050	0.8Kg	1.5Kg
M10060	0.8Kg	1.5Kg

COLOUR CODE

Duro	Colour
50	Yellow
60	White

The M100 isolators are ideal for belt drives etc. and should be installed with tension as shown



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U-FLEX ISOLATORS

Mackay U-Flex isolators are a general purpose isolator which offer excellent protection against vibration and shock to a wide range of applications including electronic apparatus, vibratory feeders, general machinery as well as equipment in packing cases during transit.

U-Flex isolators are most flexible in directions X and Y (Fig1) when the rubber is used in shear and offer greater stiffness in direction Z where the rubber is used in compression. This characteristic is particularly useful when limitation of movement is required in one direction.

Fig1

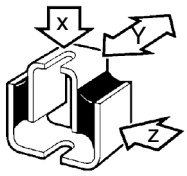
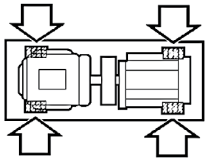
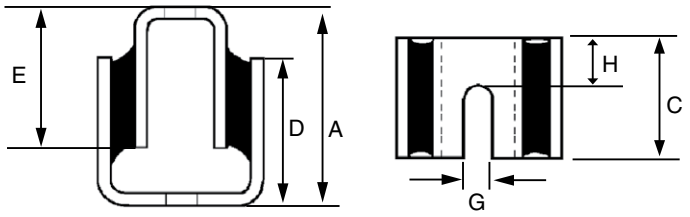


Fig2

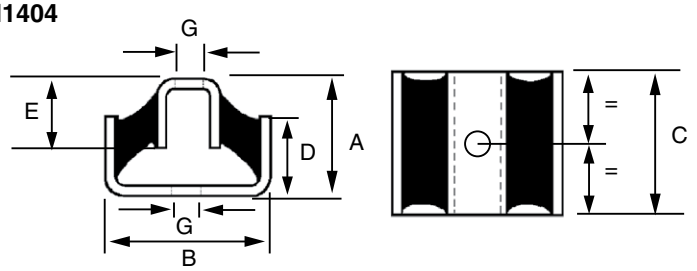


If used as engine supports (fig 2) the U- Flex isolator should be employed so that maximum flexibility (X) is used vertically and (Y) at right angles to the crankshaft as the vibrations are most severe in these directions.

M1403



M1404



Part No.	A	B	C	D	E	F	G	H	Duro	Weight Kg
M140350	108	86	64	83	76	38	16.7	32	50	1.0
M140450	41	60	51	29	24	20	11	-	50	0.2

LOAD RANGE

Part No.	STATIC LOAD kg	DEFLECTION mm
M140350	200	7.5
M140450	50	8

*** Available in other rubber hardnesses on indent order only and subject to minimum order quantity**

Al properties nominal, contact Mackay for Technical advice *All Dimensions in Millimetres*

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MACKAY INDUSTRIAL RUBBER TECHNOLOGY

Flexible Isolator Catalogue

Section 8

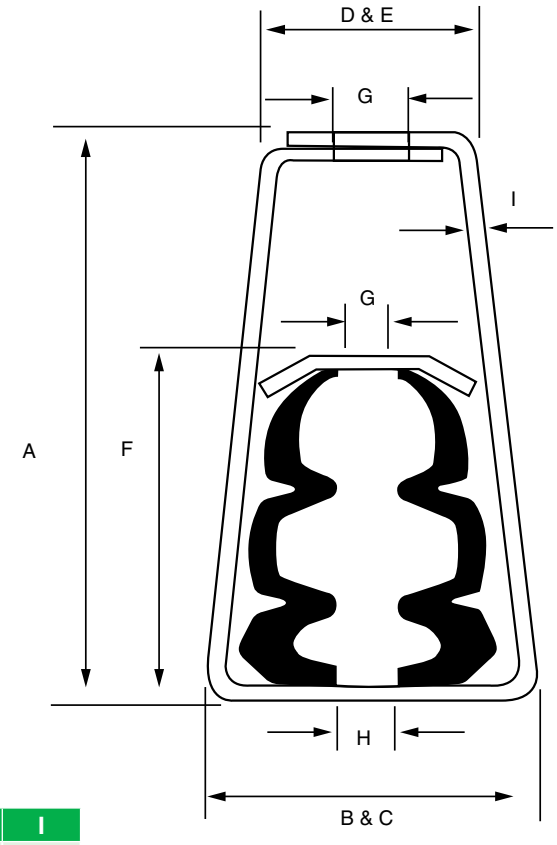
SUSPENSION ISOLATORS

Suspension isolators have been designed for use in the building and construction industry. Use of these isolators will give satisfactory isolation of vibration and structural borne noise transmitted in piping and ductwork.

The mountings work equally well when used in heavy pipe installations, air conditioning, ducting, suspended fan units or acoustical ceilings. Supplied in two parts, the mountings are easily installed. The frame is fixed to the building structure by loxin bolts, welding or other suitable means. The rubber flexible element is then installed in the frame and the hanger rod passed through the base of the assembled mount and fastened in position. Height adjustment can be made to ensure correct location of the suspended unit if threaded hanger rods are used. The smaller unit (M193) allows for pre-assembly of the hanger rod into the rubber element prior to raising into position. The assembled unit provides a strong, compact failsafe mounting for the suspension of all types of equipment. The components form an interlocking link, thus preventing failure in the event of destruction or damage to the rubber flexible element.

M193

M197



Detail Drawing is Typical Only.
Deflection tolerance ± 1.6mm

DIMENSIONS

Part No.	A	B	C	D	E	F	G	H	I
M193	73	56	51	35	25	30	10	25	2.5
M197	178	102	76	64	76	106	19	32	3.2

LOAD RATING

Part No.	LOAD Kg	DEF mm	COLOUR CODE	DURO	Weight Kg
M19350K	30	11	YELLOW	50	0.2
M19360K	45	11	WHITE	60	0.2
M197	91	19			1.5
	272	37			

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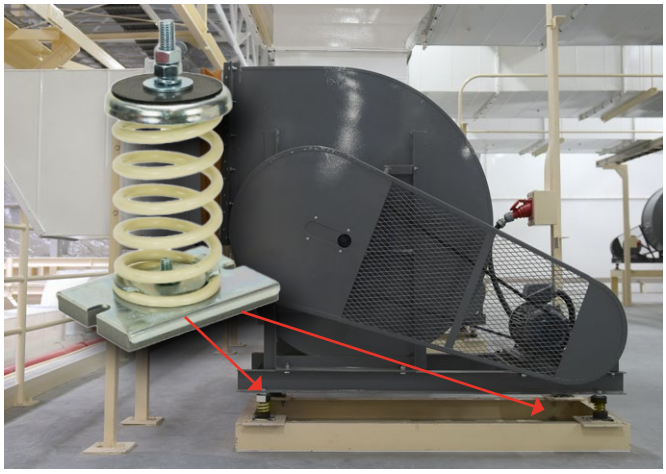
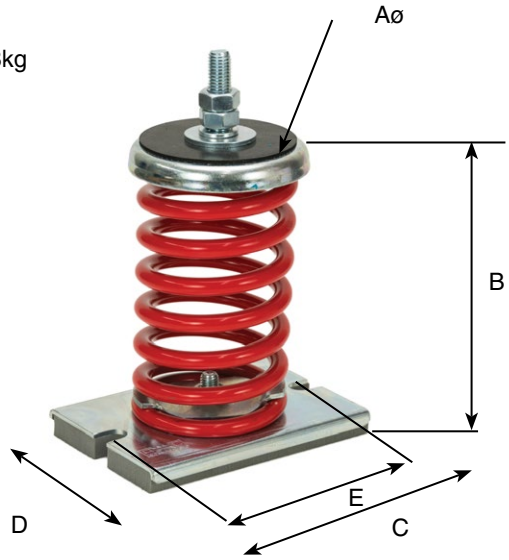
MACKAY INDUSTRIAL RUBBER TECHNOLOGY

SPRING MOUNTS

Free Standing Spring Mounts
Spring mounts used with inertia bases or directly connected to equipment.

- Low natural frequency suitable for low frequency isolation
- Cellular Polyurethane base pad for increased noise reduction
- M12 adjustable stud for levelling of equipment
- Generally used at 50% deflection at point loads from 34kg to 168kg



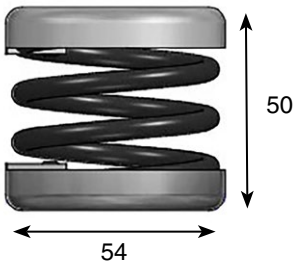


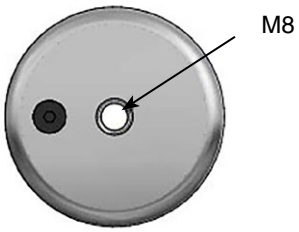
Part No.	Max. Permanent Load KG	Max. Deflection mm	Spring Colour	Weight g	A mm	B mm	C mm	D mm	E mm	Thread	Natural Frequency @ 50% Max Load Hz	Natural Frequency @ Max Load Hz
MSM67	67	50	Blue	1,480	90	172	140	100	120	M12	2.8	2.0
MSM95	95	50	White	1,530	90	172	140	100	120	M12	2.8	2.0
MSM123	123	50	Black	1,560	90	172	140	100	120	M12	2.8	2.0
MSM173	173	50	Beige	1,650	90	172	140	100	120	M12	2.8	2.0
MSM223	223	50	Red	2,010	90	172	140	100	120	M12	2.8	2.0
MSM335	335	50	Grey	2,320	90	172	140	100	120	M12	2.8	2.0

BASE SERIES

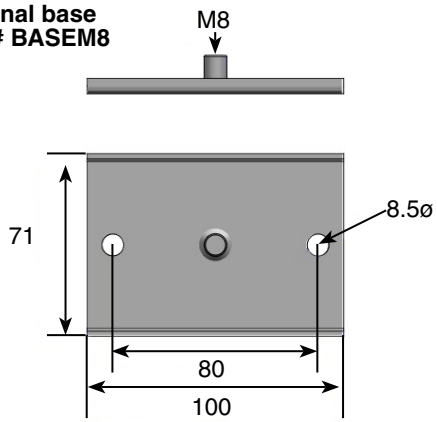
A small spring mount for loads up to 100 kg. With Natural frequencies down to 6Hz, base mounts provide a transition mount between rubber and steel coil spring types. Select these mounts when frequencies are lower and damping is not specifically an issue.

Using the optional base will provide greater free standing ability.





Optional base
Part # BASEM8



Part No.	Max. Permanent Load kg	Max. Deflection mm	Weight g	Natural Frequency @ 50% Max Load Hz	Natural Frequency @ Max Load Hz
MBSM10	10	6	200	9.0	6.5
MBSM25	25	7	205	8.5	6.0
MBSM50	50	7	254	8.5	6.0
MBSM75	75	7	260	8.5	6.0
MBSM100	100	7	290	8.5	6.0

Al properties nominal, contact Mackay for Technical advice *All Dimensions in Millimetres*

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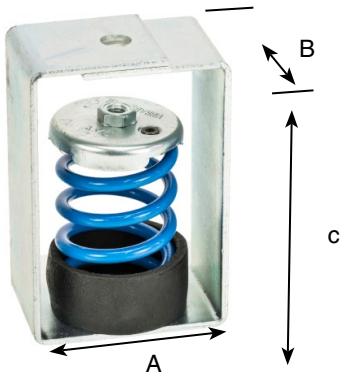
MACKAY INDUSTRIAL RUBBER TECHNOLOGY

SUSPENSION SPRING MOUNTS

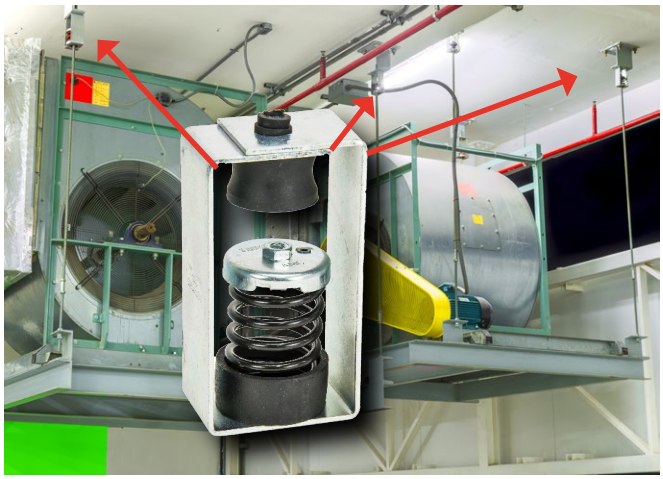
Used for suspension in air-handing, pipework or similar applications.

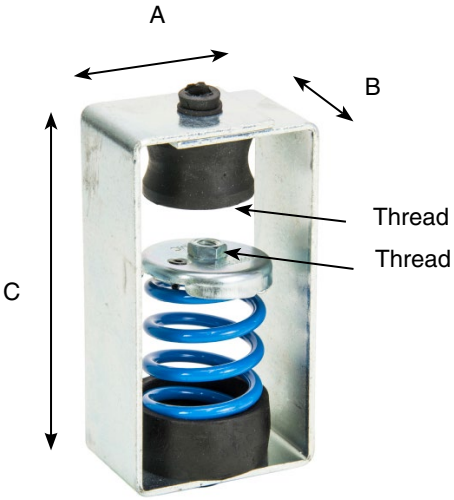


Part No.	Max. Permanent Load kg	Max. Deflection mm	Spring Colour	Weight g	A mm	B mm	C mm	Thread	Natural Frequency @ 50% Max Load Hz	Natural Frequency @ Max Load Hz
MCSM25	25	21	Black	710	75	50	120	M8	6.0	3.5
MCSM50	50	22	Blue	710	75	50	120	M8	5.5	3.5
MCSM75	75	22	Grey	720	75	50	120	M8	5.0	3.5
MCSM100	100	22	Beige	780	75	50	120	M8	5.0	3.5
MCSM125	125	21	White	1,100	75	50	120	M8	5.0	3.5
MCSM150	150	32	Blue	2,040	120	80	160	M12	4.5	3.0
MCSM200	200	30	White	2,070	120	80	160	M12	4.5	3.0
MCSM250	250	32	Black	2,150	120	80	160	M12	4.5	3.0
MCSM350	350	32	Cream	2,330	120	80	160	M12	4.5	3.0

SUSPENSION SPRING MOUNTS - INTEGRAL RUBBER ISOLATOR

Used for suspension in air-handing, pipework or similar applications. Additional of rubber element to provide improvements in isolation of noise.





Part No.	Max. Permanent Load kg	Max. Deflection mm	Spring Colour	Weight g	A mm	B mm	C mm	Thread - Spring Cap	Thread - Rubber Cushion	Natural Frequency @ 50% Max Load Hz	Natural Frequency @ Max Load Hz
MCSR25	25	24	Black	900	75	50	150	M8	M8	6.0	3.5
MCSR50	50	25	Blue	900	75	50	150	M8	M8	5.5	3.5
MCSR75	75	26	Grey	900	75	50	150	M8	M8	5.0	3.5
MCSR100	100	27	Beige	900	75	50	150	M8	M8	5.0	3.5
MCSR125	125	19	White	900	75	50	150	M8	M8	5.0	3.5

All properties nominal, contact Mackay for Technical advice *All Dimensions in Millimetres*

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MACKAY INDUSTRIAL RUBBER TECHNOLOGY

SYLOMER PAD

Closed-cell polyurethane pads or use under the flat base of equipment.

- 12mm thick & 25mm thick
- Microcellular structure provides isolation with very little deflection
- Simple and effective solution for free-standing equipment
- Individual squares show maximum load capacity to simplify application; 20kg, 40kg & 80kg squares easily cut from larger sheet.

Part No.	Max. Permanent Load on 50mm x 50mm Kg	Max. Permanent Load on 300mm x 300mm Sheet Kg	Colour	Weight per 300mm x30mm Sheet g	Thickness mm	Natural Frequency Hz
MSP11012	20	720	Tan	415	12	20.1
MSP11025	20	720	Tan	830	25	13.7
MSP22012	40	1,440	Red	540	12	17.4
MSP22025	40	1,440	Red	1,080	25	11.4
MSP45012	80	2,880	Grey	685	12	16.1
MSP45025	80	2,880	Grey	1,370	25	10.6

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MACKAY INDUSTRIAL RUBBER TECHNOLOGY

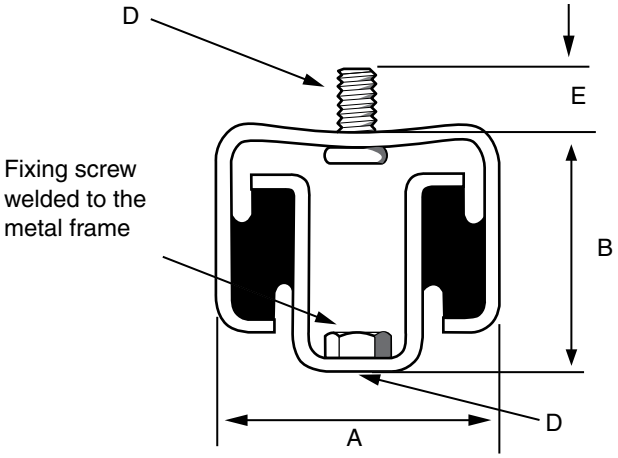
TRAXIFLEX SUSPENSION ISOLATORS

Traxiflex suspension isolators eliminate noise from piping and suspended equipment.
Typical Applications:

- Suspension and insulation of single pipe against vibrations
- Insulation of acoustic false ceilings.
- Suspension of overhead hot air heating ducts.

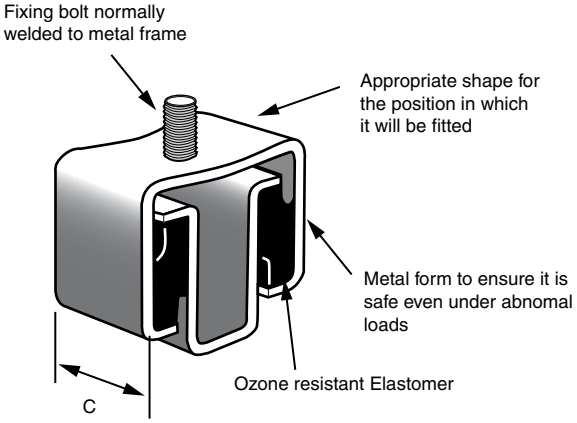
SHAPE A

M53560345
M53560360



SHAPE B

M53562145
M53562160
M53562245
M53562260



Part No.	SHAPE	DIMENSIONS					LOAD RATING		Duro	Weight Kg
		A	B	C	D	E	LOAD Kg	DEF mm		
M53560345	A	47	38	16	M6	12	12-18	3-4	45	0.08
M53560360	A	47	38	16	M6	12	20-30	3-4	60	0.08
M53562145	B	55	47	30	M8	-	40-52	3-4	45	0.2
M53562160	B	55	47	30	M8	-	62-80	3-4	60	0.2
M53562245	B	74	50	40	M12	-	72-92	3-4	45	0.4
M53562260	B	74	50	40	M12	-	104-136	3-4	60	0.4

COLOR CODE

Duro	Colour
45	Grey
60	Green

All properties nominal, contact Mackay for Technical advice *All Dimensions in Millimetres*

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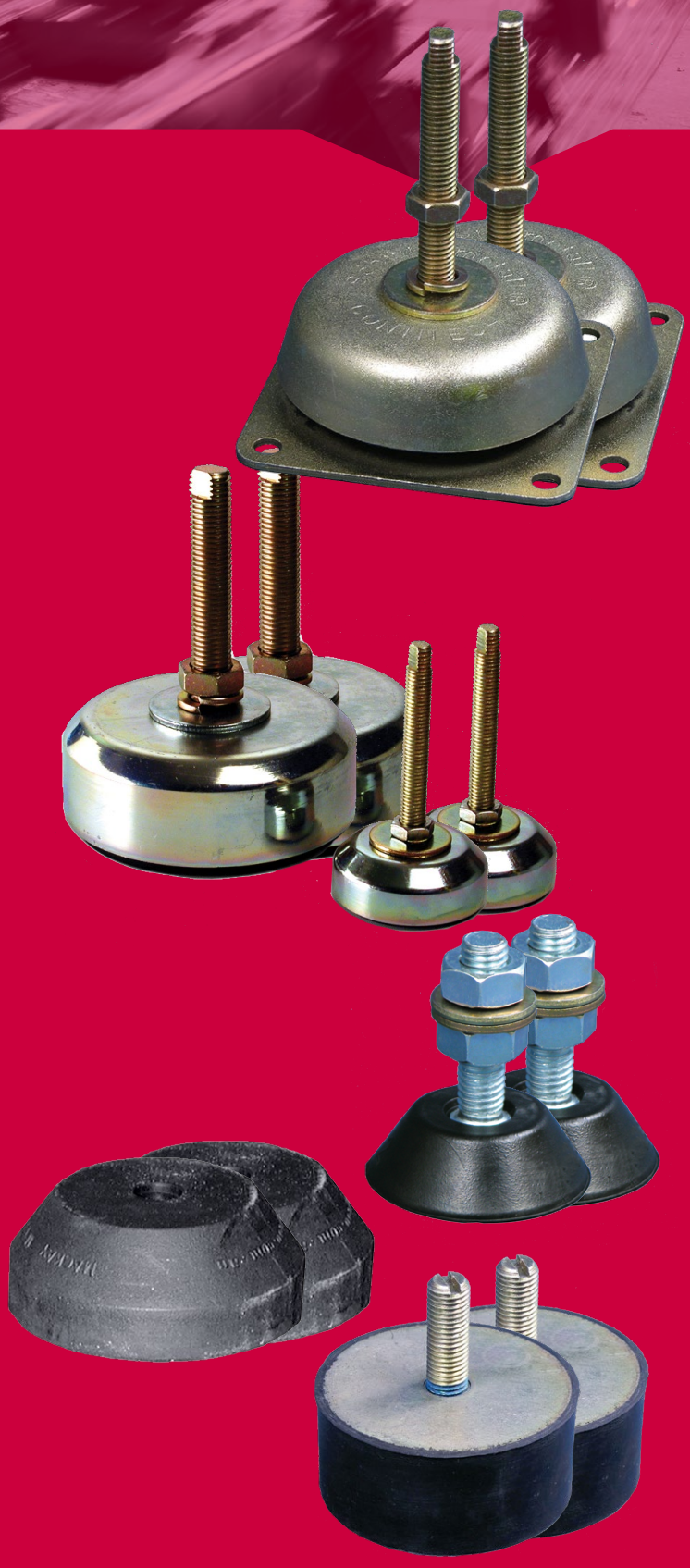
MACKAY INDUSTRIAL RUBBER TECHNOLOGY

Flexible Isolator Catalogue

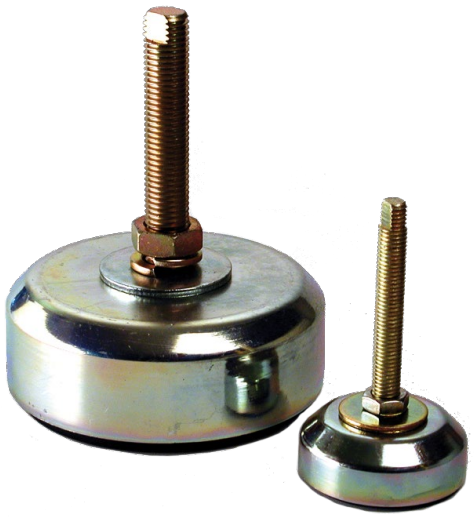
section 9

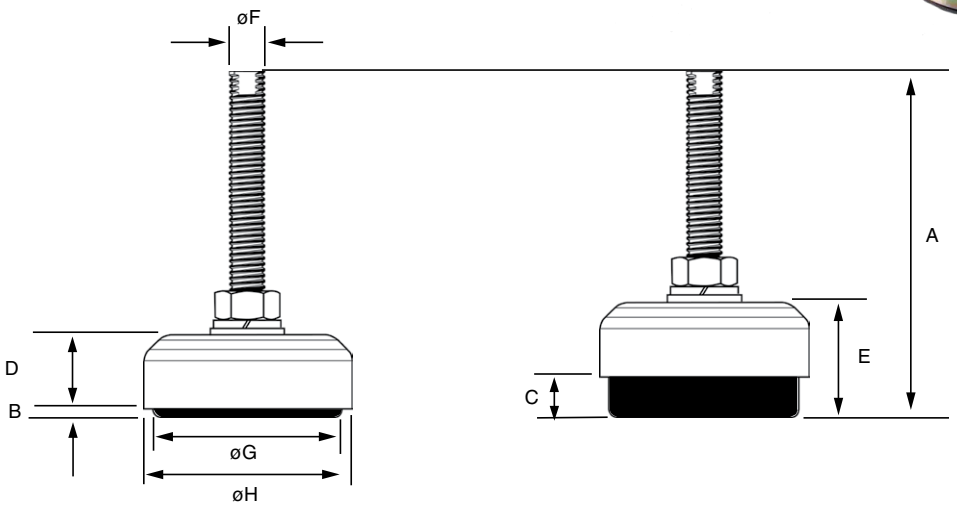


SURE FOOT ISOLATORS

Mackay Sure Foot Levelling Isolators are designed for cost-effective machine levelling for isolator loads up to 6000Kg. Sure Foot Levelling Isolators offer an effective and durable method for isolating free standing equipment and machinery on non-level surfaces.

Sure Foot standard range is made with electrolytically plated zinc applied to automotive standards. Where superior corrosion resistance is required Mackay recommends the Sure Foot stainless Steel alternative. Made using Nitrile rubber, Sure Foot offers superior chemical and oil resistance in comparison to natural rubber





DIMENSIONS

Part No.		OVERALL	EXPOSED BASE		ADJUSTMENT		DIAMETERS		
Standard	Stainless type 304	A mm	Min B mm	Max C mm	Min D mm	Max E mm	Thread F mm	Base G mm	Cap H mm
M400300	**M410300**	119	6.7	15	31.7.	40	(M12x1.75)	64	71
M401200	**M411200**	144	8.8	28	50.8	70	(M16x2.0)	91	101
M402500		177	11.9	32	61.9	82	(M20x2.5)	135	144
M404000		212	14.9	40	74.9	100	(M24x3.0)	180	192
M406000		218	14.9	46	80.9	112	(M24x3.0)	203	216

PROPERTIES

Part No.		LOAD RANGE		DEFLECTION AT MAX EXPOSED BASE		Weight kg
Standard	Stainless type 304	Min kg	Max kg	Min Load mm	Max Load mm	
M400300	M410300	30	300	0.2	2.3	0.4
M401200	M411200	300	1200	1.5	5.9	1.1
M402500		1200	2500	3.0	6.3	2.5
M404000		2500	4000	4.1	6.5	5.2
M406000		4000	6000	6.5	9.7	6.4

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MACKAY INDUSTRIAL RUBBER TECHNOLOGY

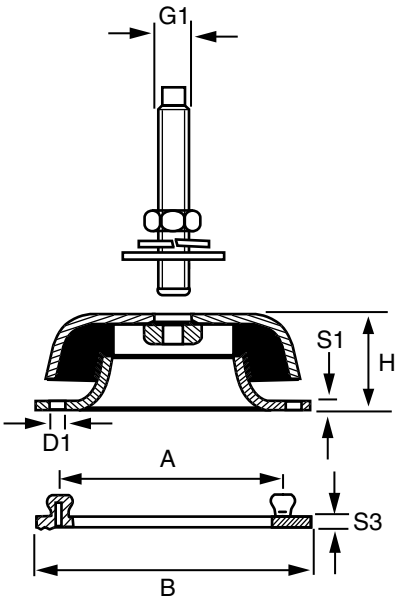
LEVELLING ISOLATOR

This range of isolators offer increased protection to the rubber in applications where this is considered necessary as well as the metal components being galvanised to protect against corrosion. They are also available with a leveling spindle to allow effortless level adjustment so that the height of machines can be set precisely. The Isolators can be used without being anchored to the floor by the use of the rubber underlay which is resistant to oil. It is suggested that before mounting the underlay that the studs are moistened with soapy water.

The isolators provide excellent isolation efficiency with equal load capacity in both compression and shear. They are suitable for applications where restraint in the horizontal position is required but good isolation is needed in the vertical plane.

The isolators are available in three sizes and three elastomer hardnesses ; 40 duro, 55 duro, 65 duro , while providing load capacity from 50kg to 2,000kg.

Typical Mount with leveling spindle and underlay.



DIMENSIONS

Part No.	DOME MOUNT						Leveling SPINDLE	
	B	A	D1	S1	H	G	Part No.	G1
M51058540	108	88	9	3	40	M12	**M510LS1**	M12
M51033629	168	132	13	4	50	M16	**M510LS2**	M16
M51058541	200	165	13	6	70	M20	**M510LS3**	M20

UNDERLAY			MOUNT WEIGHT	
Part No.	WEIGHT Kg	S3	Part No.	WEIGHT Kg
M510UL1	0.01	2.5	M51058540	0.7
M510UL2	0.03	3	M51033629	1.7
M510UL3	0.11	4	M51058541	4.3

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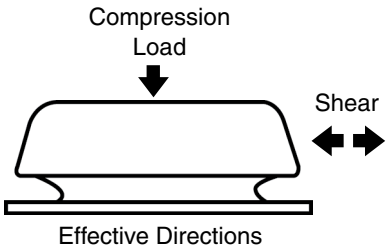
MACKAY INDUSTRIAL RUBBER TECHNOLOGY

LOAD Kg	40 Duro Deflection mm	55 Duro Deflection mm	65 Duro Deflection mm
M51058540			
50	1.11	0.65	0.45
100	2.06	1.21	0.85
150	3.02	1.67	1.21
200	3.82	2.31	1.58
250	-	2.81	1.90
300	-	3.27	2.32
350	-	3.70	2.66
400	-	-	2.98
450	-	-	3.28
500	-	-	3.57
M51033629			
100	1.13	0.63	0.42
200	2.20	1.23	0.84
300	3.23	1.82	1.24
400	4.22	2.40	1.64
500	-	2.97	2.00
600	-	3.53	2.42
700	-	4.07	2.80
800	-	-	3.17
900	-	-	3.54
1000	-	-	3.90
M51058541			
200	1.67	0.93	0.63
400	3.24	1.82	1.25
600	4.50	2.73	1.83
800	5.56	3.51	2.46
1000	-	4.20	3.02
1200	-	5.24	3.65
1400	-	-	4.22
1600	-	-	4.75
1800	-	-	5.27
2000	-	-	5.75



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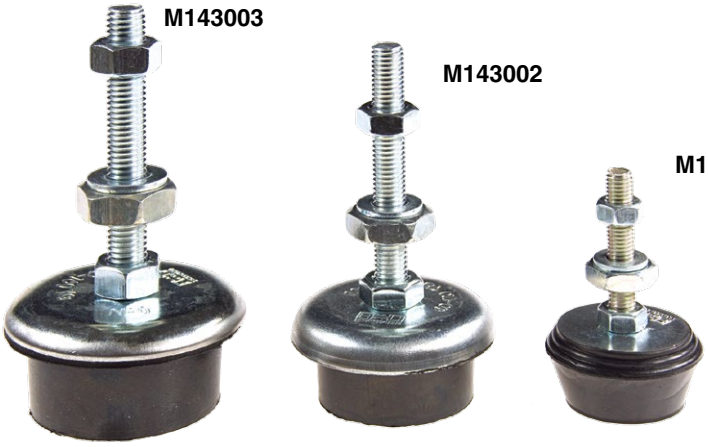
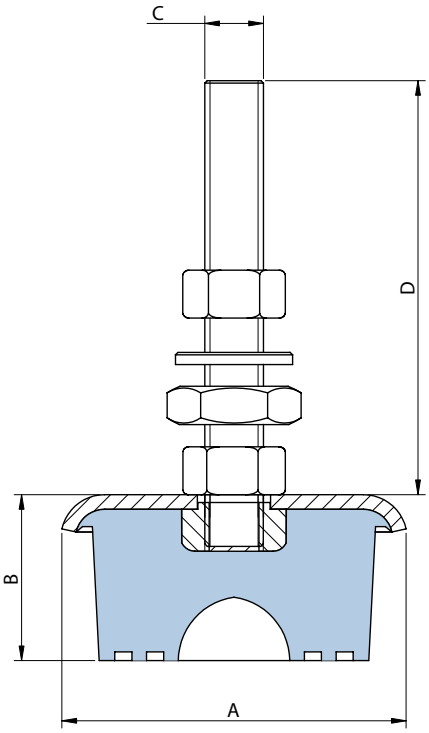
ADJUSTABLE FEET ISOLATOR

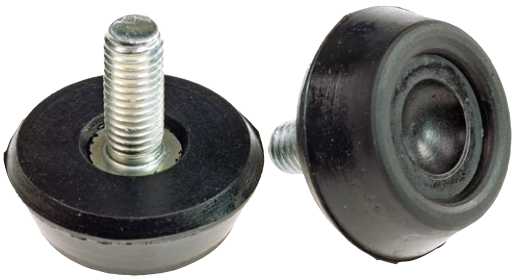
SV TYPE

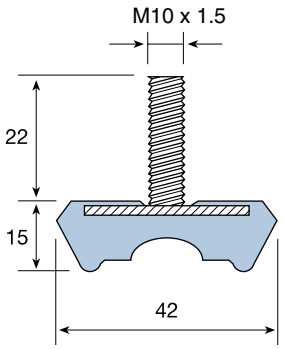




DIMENSIONS mm				LOAD Kg		WEIGHT	Part No.
A	B	C	D	MIN	MAX	(g)	
40	23	M8 x 1.25	48	20	80	89	M143001
60	28	M10 x 1.5	81	60	120	235	M143002
70	32	M12 x 1.75	89	90	160	350	M143003

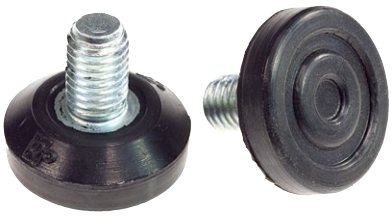
JT TYPE

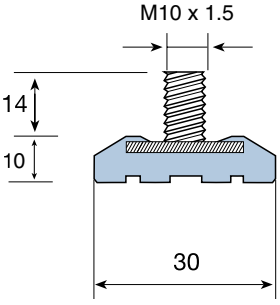




HARDNESS	LOAD Kg	WEIGHT (g)	Part No.
50	25-40	53	M144001
75	75-100	53	M144002

SX TYPE





HARDNESS	LOAD Kg	WEIGHT (g)	Part No.
50	10-25	25	M145001

Al properties nominal, contact Mackay for Technical advice *All Dimensions in Millimetres*

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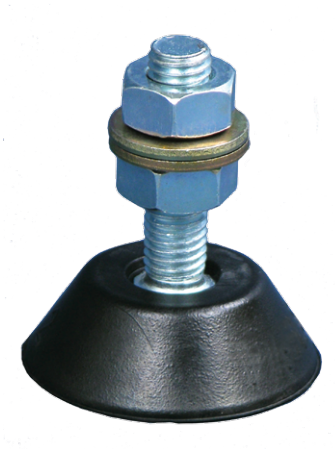
MACKAY INDUSTRIAL RUBBER TECHNOLOGY

MINIFIX ISOLATOR

MINIFIX is a machine support that is composed of a rubber foot with a grooved anti-slip base and a threaded stud which allows equipment to be accurately adjusted.

- **ANTI-VIBRATION**
- **RELIABLE**
- **ECONOMICAL**

MINIFIX is produced in two rubber hardnesses and is supplied complete with locking nuts and washers.



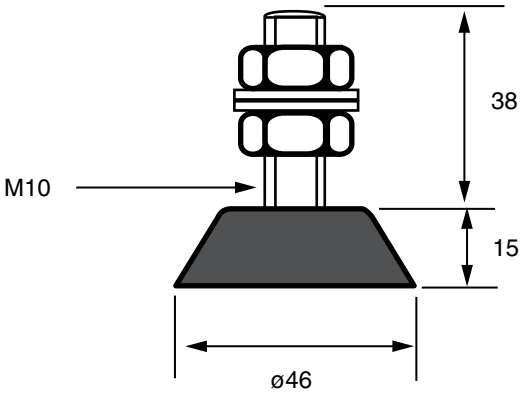
Simple and economical the MINIFIX machine foot is of particular use in the following applications ;

- ELECTRONIC CABINETS
- LABORATORY EQUIPMENT
- AGRICULTURAL EQUIPMENT
- PACKING MACHINERY
- SURVEYING EQUIPMENT
- MEASURING EQUIPMENT
- DOMESTIC APPLIANCES
- ELECTRICAL INSTALLATIONS
- FOOD PROCESSING MACHINES
- FACTORY EQUIPMENT

For larger load ratings please refer to our range of SUREFOOT machine levelling Isolators.

ADVANTAGES;

- No floor bolting required
- Controls noise, shock and vibration
- Save on installation and relocation
- Fast, simplified and precise levelling of all machines
- Compensates for uneven floors



Part No.	COLOUR	Material	LOAD RATING kgs	RECOMMENDED LOAD (N)	DYNAMIC STIFFNESS (kN/M)	DURO	Weight Kg
M53080550	GREY	SBR *(1)*	30-40	300-400	570-660	50	0.1
M53080580	BLACK	Nitrile *(2)*	80-100	800-1000	5500-5800	80	0.1

(1) **POOR** resistance to Fuel, Oil & Grease
(2) **GOOD** resistance to Fuel, Oil & Grease

MULTIBUFFER

Refer **Section 2 Buffers** for details of the multibuffer range

All properties nominal, contact Mackay for Technical advice *All Dimensions in Millimetres*

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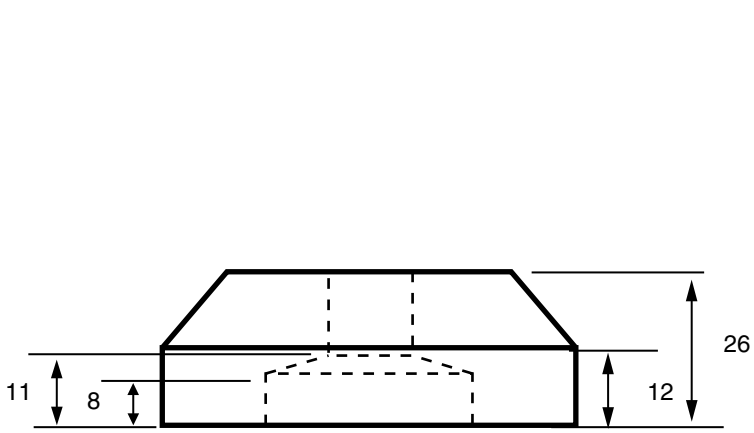
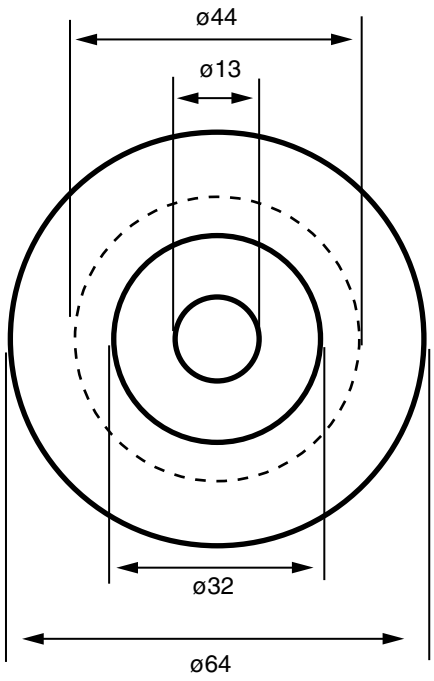
MACKAY INDUSTRIAL RUBBER TECHNOLOGY

SIMPLE MACHINERY FOOT ISOLATOR

Part No. **M177MF**.

Typical Applications:
- Small generators
- Small compressors
- Portable equipment





LOAD RATING CHART

Load g	Def mm	Weight Kg
90	3	0.2

Al properties nominal, contact Mackay for Technical advice *All Dimensions in Millimetres*

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MACKAY INDUSTRIAL RUBBER TECHNOLOGY

Flexible Isolator Catalogue

section 10

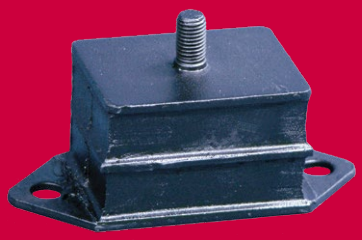
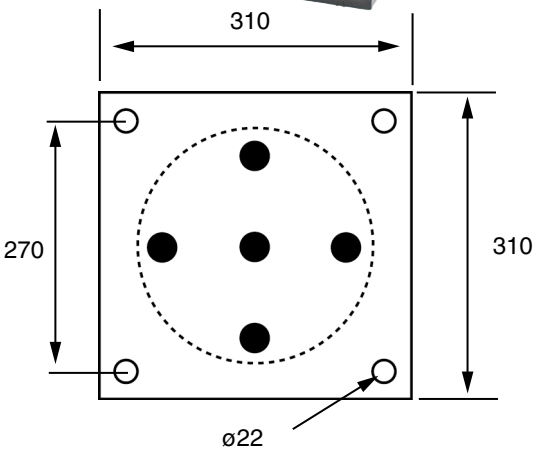


PLATE ISOLATORS

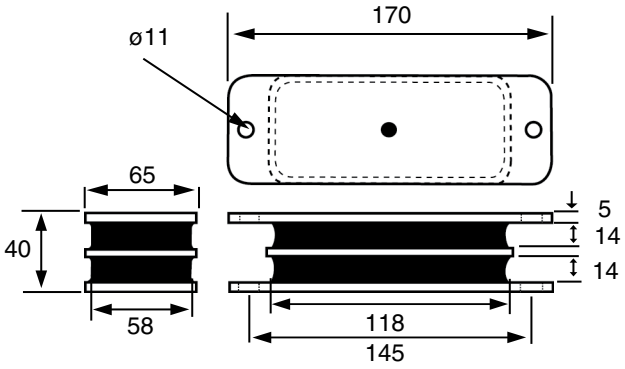
Where you require a isolator of straight forward design to provide an uncomplicated solution to controlling vibration and shock , the range of Mackay Plate Mountings provide the answer. These isolators are designed to protect equipment and machinery from damaging vibration and shock and have an excellent capacity for energy control.

APPLICATIONS: Printing presses , Road rollers , Vibratory feeders , Shipping containers , Crushers, Shaker units,Industrial machinery.

M148208



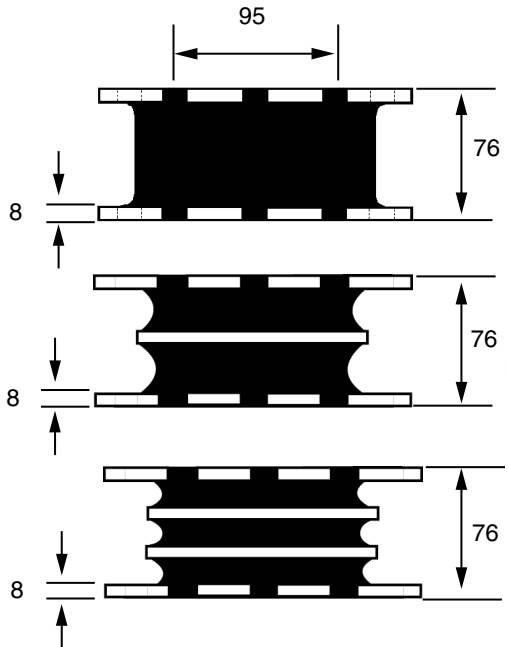
M2061##

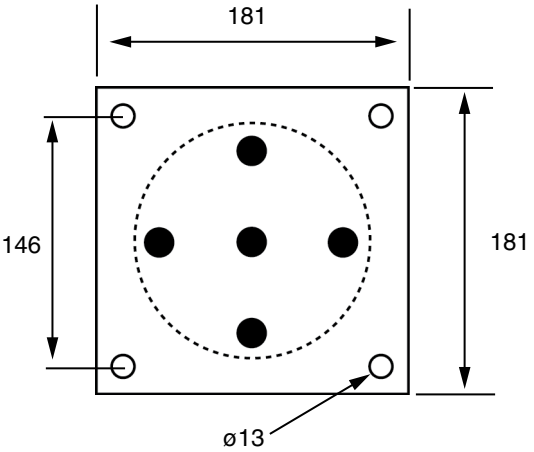


M2110##

M211160

M211260





All properties nominal, contact Mackay for Technical advice *All Dimensions in Millimetres*

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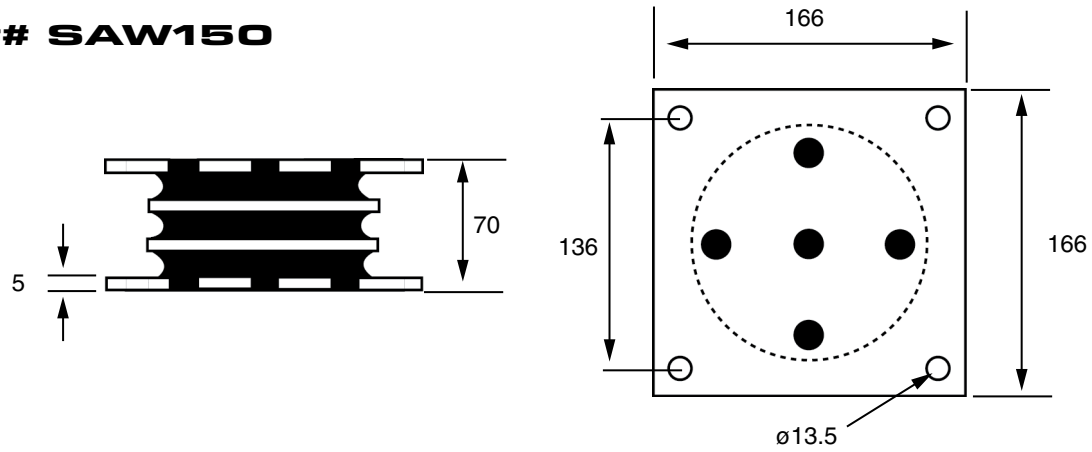
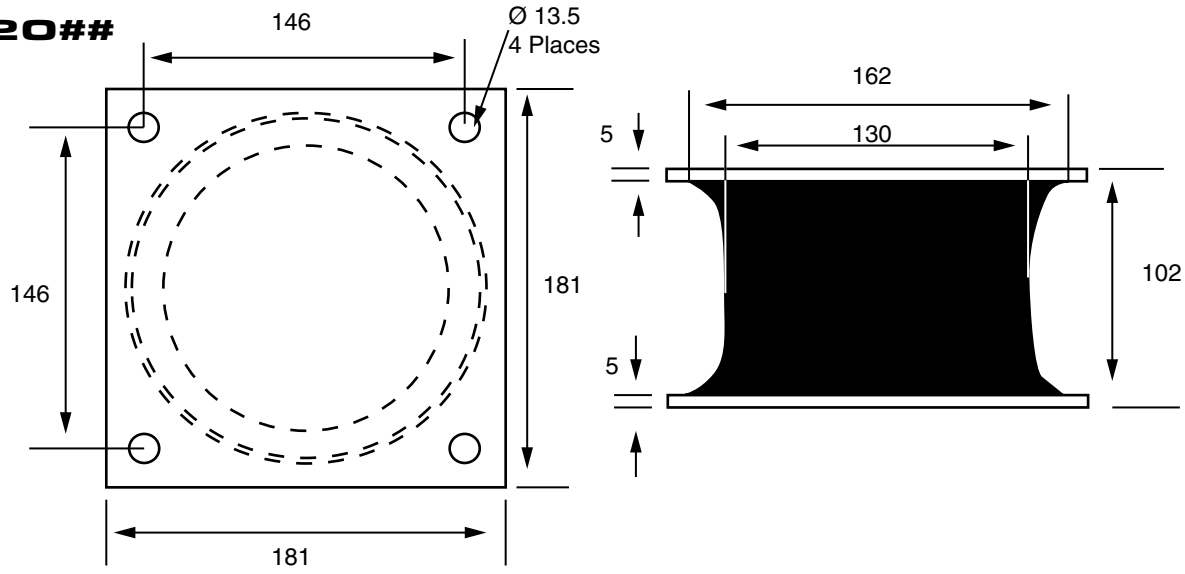
MACKAY INDUSTRIAL RUBBER TECHNOLOGY

M2112## SAW150



M2120##



COLOUR CODE	
M206135	GREEN
M206145	RED
M206155	YELLOW
M206165	WHITE

M206 Series (Supersedes M207,M208,M209,M210)
M206135 Substitute * for M207
M206145 Substitute * for M208
M206155 Substitute * for M209
M206165 Substitute * for M210
* Note: Some dimensions and properties have changed

PART No.	Compression Properties		Shear Properties		Durometer	Item Weight (kg)
	Compression Load (kg)	deflection (mm)	Shear Load (kg)	deflection (mm)		
M148208	30,000	9			60	27
M206135	970	4	70	7	35	1.2
M206145	1,410	4	110	7	45	1.2
M206155	1,840	4	140	7	55	1.2
M206165	2,640	4	190	7	65	1.2
M211045	1,452	10	308	16	45	5.2
M211060	3,104	10	418	10	60	5.2
M211160	4,064	8	381	12	60	5.5
M211260	9,476	8	608	14	60	6.2
M211275SAW150	17,700	8	300	8	75	4.2
M212045					45	
M212055					55	
M212065	1,765	14			65	

A combination of shear and compression loads will affect actual properties.

Al properties nominal, contact Mackay for Technical advice *All Dimensions in Millimetres*

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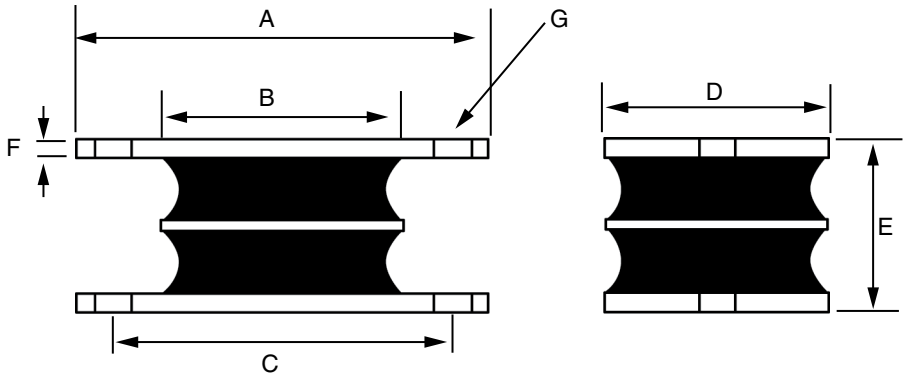
MACKAY INDUSTRIAL RUBBER TECHNOLOGY

M3128445
M3132250



Part No.	A	B	C	D	E	F	G
M3128445	127	82.5	108	57	43	5	11
M3132250	108	63.5	89	57	43	5	10.3

Part No.	COMPRESSION LOAD Kg	DEF mm	SHEAR LOAD Kg	DEF mm	Weight Kg
M3128445	120	0.9	30	3.9	0.84
	140	1.1	40	5.2	
	180	1.3	60	8.0	
	250	1.9	80	10.5	
	350	2.7	110	14.0	
	400	3.0			
M3132250	50	0.8	16	4.0	0.6
	65	1.0	22	6.0	
	80	1.3	32	8.5	
	115	1.8	42	11.0	
	145	2.0	52	14.0	
	160	2.5			
	195	3.0			

COLOUR CODE

Duro	Colour
45	Blue
50	Pink

All properties nominal, contact Mackay for Technical advice *All Dimensions in Millimetres*

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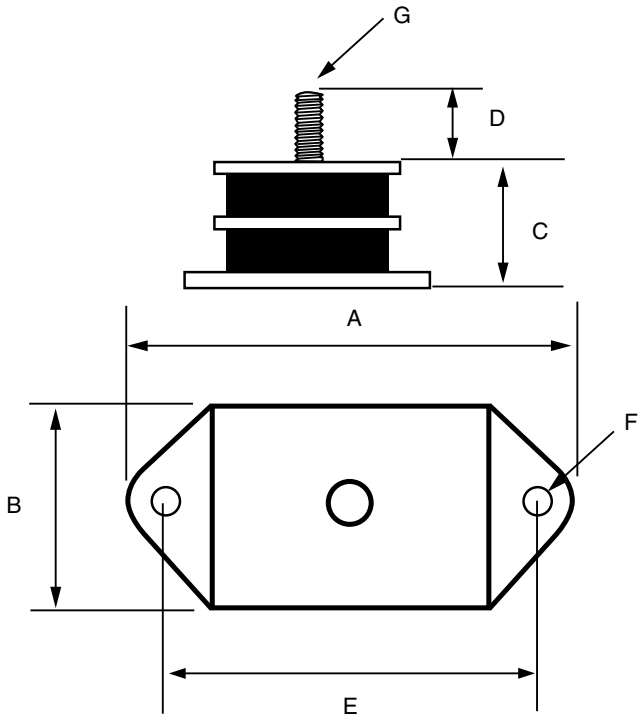
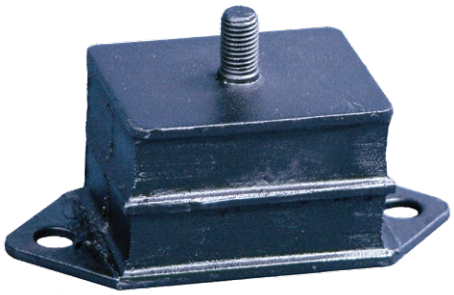
MACKAY INDUSTRIAL RUBBER TECHNOLOGY



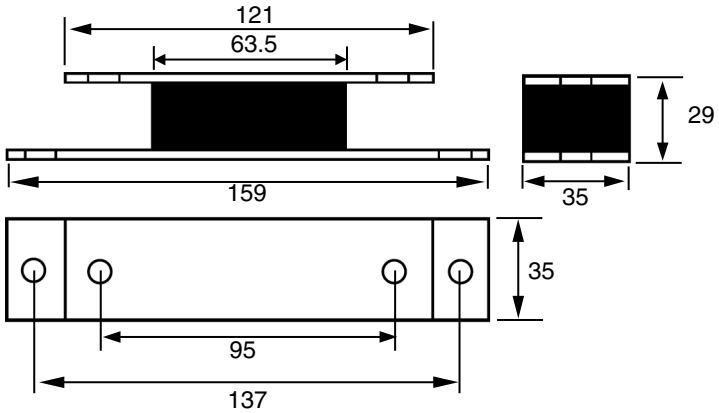


Part No.	A	B	C	D	E	F	G	LOAD in Kg		DEF in mm		DURO	Weight Kg
								COMP	SHEAR	COMP	SHEAR		
M8040645	94	41	36	15	74.5	8.5	5/16" UNF	35-95	14-43	1.0-2.8	5.0-15.0	45	0.2
M8040660	94	41	36	15	74.5	8.5	5/16" UNF	65-175	27-70	1.0-2.8	5.0-12.0	60	0.2
M8040670	94	41	36	15	74.5	8.5	5/16" UNF	95-275	42-120	1.0-2.8	5.0-14.0	70	0.2

COLOUR CODE:

Duro	Colour
45	**Red**
60	**White**
70	**Marked 70**

M183



Part No.	COMPRESSION		SHEAR		WEIGHT Kg
	LOAD Kg	DEF mm	LOAD Kg	DEF mm	
M183	50	1.4	5	1.1	0.3
	75	2.0	10	2.3	
	100	2.7	13	3.0	
	110	3.0			

Al properties nominal, contact Mackay for Technical advice *All Dimensions in Millimetres*

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MACKAY INDUSTRIAL RUBBER TECHNOLOGY

Flexible Isolator Catalogue

section 11

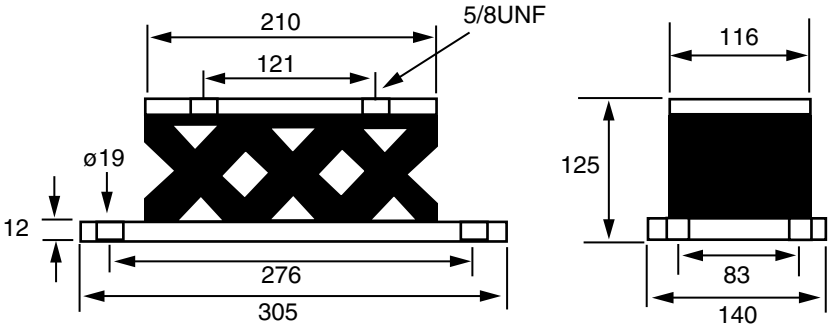
HY-DEFLECTION ISOLATORS

Hy-Deflection Isolators provide flexible support for mechanical apparatus which is subject to intermittent or continuous , low frequency , high amplitude vibration. The design provides soft spring rate quality in all directions with exceptional horizontal stability.

APPLICATIONS;

Hy-Deflection Isolators are traditionally used in equipment where a high degree of vibration isolation is required , such as; Vibrating Screens,Vibrating Conveyors,Generators,Industrial Refrigeration Units,Air Conditioning Compressors,Industrial Pumping Equipment and Shipboard Applications. The ease of installation makes it suitable for numerous other applications.

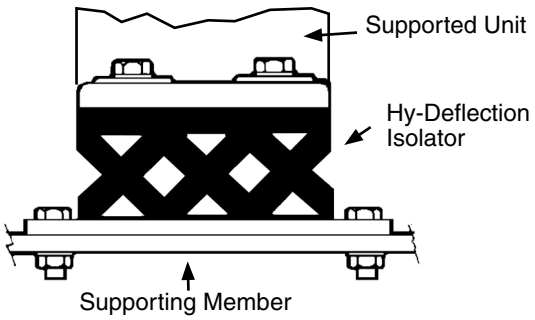
Isolator Weight 10.0 Kg



Part No.	COMPRESSION		SHEAR		PART No.	COMPRESSION		SHEAR	
	LOAD Kg	DEF mm	LOAD Kg	DEF mm		LOAD Kg	DEF mm	LOAD Kg	DEFmm
M18840	50	4	25	5	**M18875**	100	1	100	5
	100	7	50	10		200	2	200	9
	150	11	75	15		300	3	300	14
	200	14	100	20		400	5	400	20
	250	18	125	25		500	6	470	25
	300	21				600	8		
	350	25				700	10		
M18860	100	2	50	5		800	11		
	200	4	100	9		900	13		
	300	7	150	13		1000	16		
	400	10	200	18		1100	18		
	500	12	250	22		1200	21		
	600	17	300	28		1300	24		
	700	22				1400	26		
	800	28							

TYPICAL INSTALLATION ARRANGEMENT:

These Hy-Deflection Isolators are recommended for use where the disturbing or forced frequency is as low as 5 hertz. Their lattice design provides a soft vertical spring rate combined with lateral stability. This isolator is intended for anti-vibration applications where high static deflections is required ; but is not suitable for applications involving repetitive shock load.



All properties nominal, contact Mackay for Technical advice *All Dimensions in Millimetres*

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MACKAY INDUSTRIAL RUBBER TECHNOLOGY

These mounts offer great elasticity in the radial an axial direction. Their internal design makes them ideal mounts for machines that produce vibrations in 3 directions. The design of the mounts facilitates easy installation. The top metal part has an inside thread for securing to the machine, with two passing screw holes for the flange for securing to the bed plate.

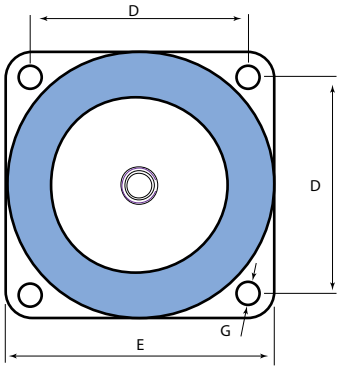
- The metal parts are electrolytic coated to protect against corrosion.
- The rubber hardness is engraved on the metal parts

APPLICATIONS:

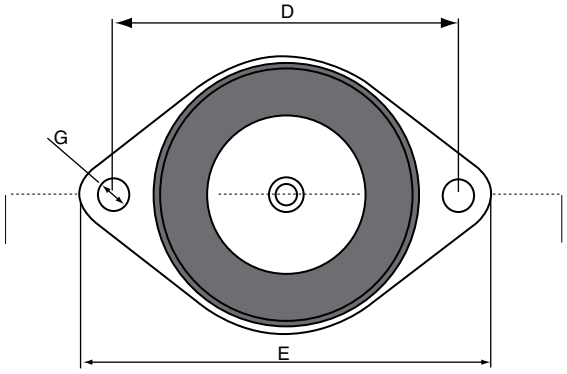
- Compressors
- Air-conditioners
- Ventilators
- Vibrating Tables

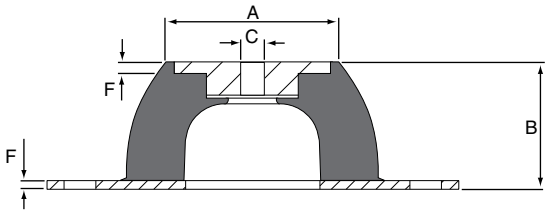
Replaces "M" Type Isolators

M175031
M175036
M175041



M175001
M175003
M175021





Part No.	A	B	C	D	E	F	G	Load Kg	Deflection mm	Weight KgM
M175001	48	35	M10	92	114	2	10.0	40	4	.17
M175003	48	38	M10	110	136	2	11.5	70	11	.3
M175021	57	45	M10	124	151	3	11.5	130	9	.43
M175031	76	63	M12	120	150	3	14.5	280	14	1.35
M175036	93	85	M16	160	200	4	14.5	380	18	2.39
M175041	187	160	M24	250	310	6	18.0	1400	50	10.4

Al properties nominal, contact Mackay for Technical advice *All Dimensions in Millimetres*

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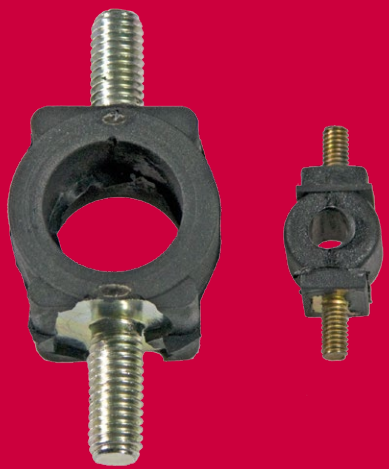
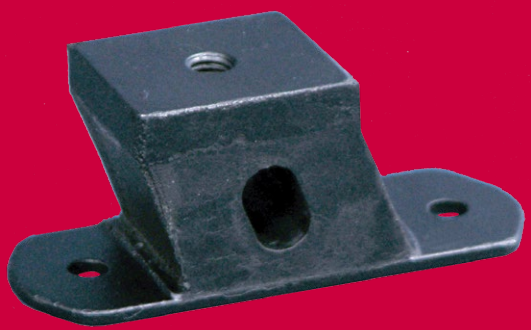
MACKAY INDUSTRIAL RUBBER TECHNOLOGY

Flexible Isolator Catalogue

section 12



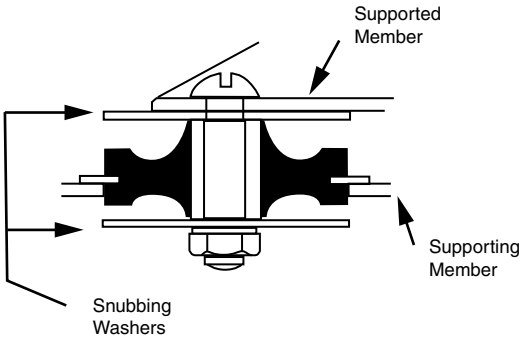


INSTRUMENT ISOLATORS

he Mackay range of instrument isolators are widely used to isolate steady static vibration and the control of occasional shock.

These mountings are easy to install and are in configurations to suit a variety of design requirements. It is generally recommended that snubbing washers be used to provide an interlocking system of metal parts which act to prevent damage from overload or excessive shock impact.

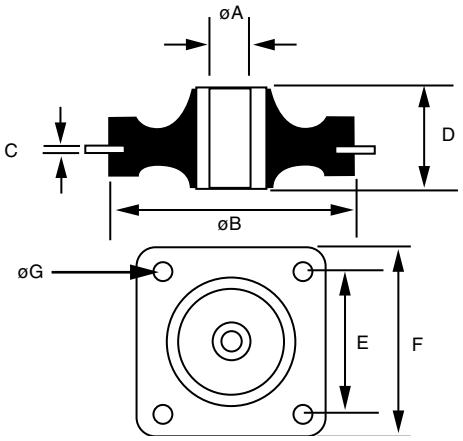
The snubbing washers act to restrict axial movement when space limitations must be considered , but they have no other effect upon the action or efficiency of the mounting. This type of isolator is particularly suitable for the isolation of noise transmission and similar high frequency vibration.



Note: snubbing washes are not supplied by Mackay Consolidated Industries

DIMENSIONS

	M116
A	6
B	38
C	1.2
D	16
E	35
F	44
G	4



Part No.	LOAD Kg	DEF. mm	WEIGHT Kg
M1164	1.8	1.5	0.03
M1166	2.7	1.5	0.03
M1168	3.6	1.5	0.03
M11612	5.4	1.5	0.03

All properties nominal, contact Mackay for Technical advice *All Dimensions in Millimetres*

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MACKAY INDUSTRIAL RUBBER TECHNOLOGY

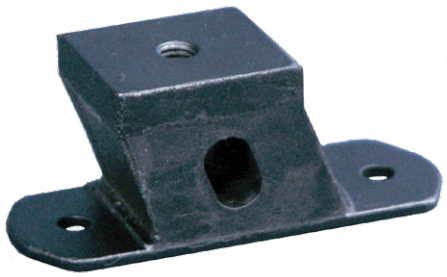
Extra flexible.....ideal for shear stress applications
Resilient bearing applications for lightweight machinery , precision instruments and equipment.

The M513 isolators are designed for the suspension of precision instruments so that they can be suspended singly or in groups on a common baseplate.

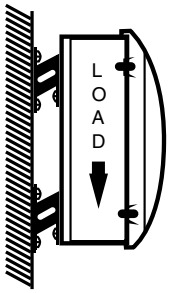
For the type of instruments that either show erroneous readings or are quickly damaged by even the slightest of shocks , these isolators are constructed so that easy deflections are ensured.

The M513 mounts are much stiffer in compression than in shear and therefore they should be installed so that the rubber is constantly in shear.

Being very suitable for low frequency isolation , they are excellent when used to isolate vibration and or shock in such items as closed circuit television cameras , scientific instruments , switchboards etc.

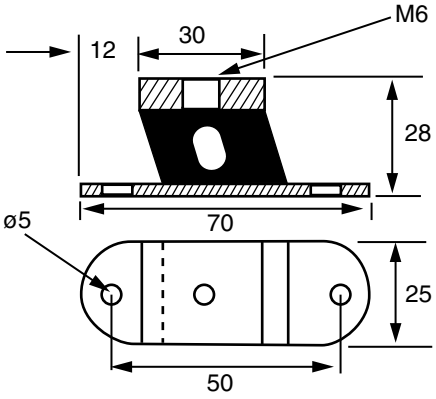


Isolator weight 0.07Kg

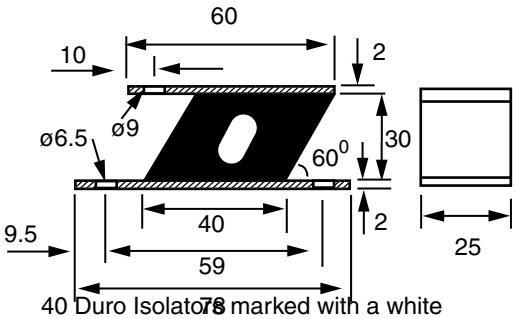


Method of mounting showing the rubber **constantly in shear**

PART NO M51325284



PART NO M51321423



40 Duro Isolators marked with a white dot.

Part No.	COMPRESSION		SHEAR	
	Kg	DEF mm	Kg	DEF mm
M5132528440	5	0.86	3	2.91
	10	1.71	6	6.23
	20	3.47	9	10.37
	30	5.35		
	40	7.4		
M5132528455	10	0.94	3	1.55
	20	1.88	6	3.21
	30	2.83	9	5
	40	3.83	12	6.95
			15	9.19
M5132142340	10	2.12	5	5.7
	20	4.3	10	13.28
	30	6.42		
	40	8.36		
	50	10.18		
M5132142355	10	1.16	5	3
	20	2.34	10	6.33
	30	3.52	15	10.26
	40	4.74	20	15.22
	50	5.9		

Al properties nominal, contact Mackay for Technical advice *All Dimensions in Millimetres*

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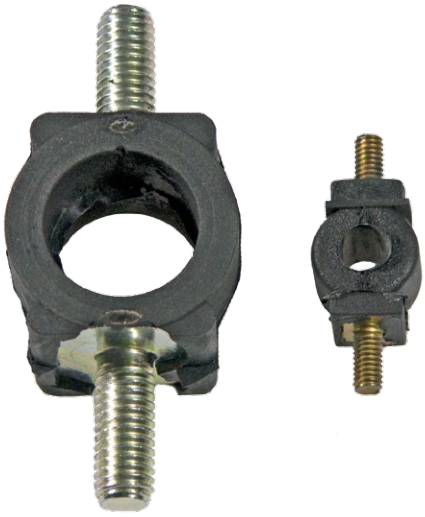
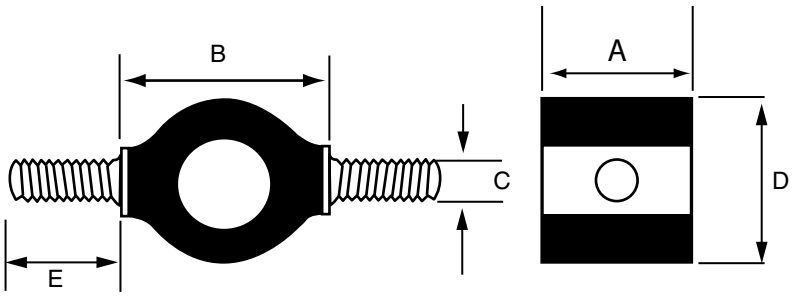
MACKAY INDUSTRIAL RUBBER TECHNOLOGY

ANNULAR ISOLATORS

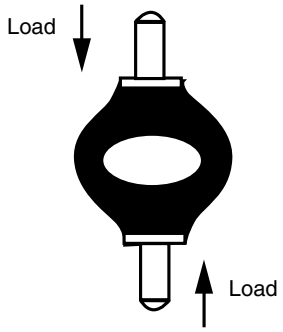
REPLACES HY-DEFLECTION - LOW FREQUENCY ISOLATORS

These anti-vibration isolators provide large deflections under small loads. They are employed for protecting instruments and apparatus from transmitted vibration and shock as well as vibration from light machines and equipment. They are normally fitted to take loads in compression or shear. Continuous loading in tension is not recommended although the occasional shock load which places the rubber in tension can be permitted. In compression , shock loads severe enough to close the centre hole can be taken with safety. Low frequency instrument isolators are made in two sizes , each with a range of Duros available in each size.





Radial Compression Loading



Part No.	A	B	C	D	E	Marking	Load Kg	Deflection mm
M130001	14	18	M4	14	8	Red	2.5	1
M130002	24	30	M8	29	20	Red	8	6
M130003	14	18	M4	14	8	Green	1.25	1.5
M130004	24	30	M8	29	20	Green	3.5	6
M130004SS304 *	24	30	M8	29	20		3.5	6

***Made Using Type 304 Stainless Steel**

All properties nominal, contact Mackay for Technical advice *All Dimensions in Millimetres*

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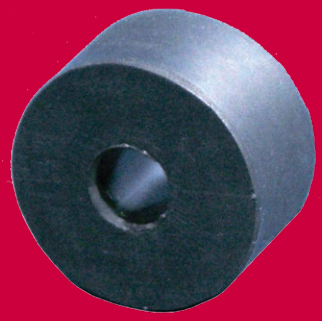
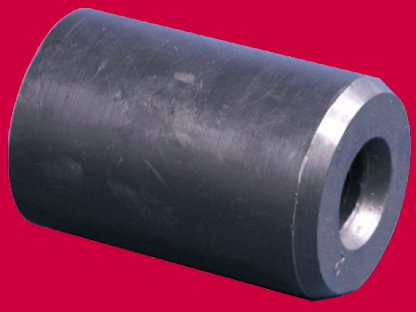
MACKAY INDUSTRIAL RUBBER TECHNOLOGY

Flexible Isolator Catalogue

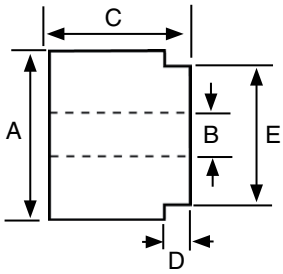
section 13



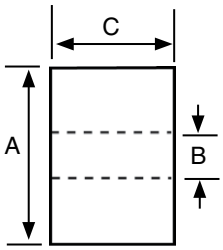


MISCELLANEOUS BUSHES

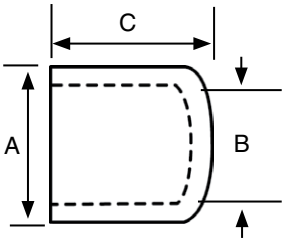
Part No.	A	B	C	D	E	DURO	Weight Kg
A775	32.5	9.0	20.5	3.5	16.1	70	0.02
A755	25.7	9.0	18.5	3.5	14.6	75	0.01
A1032	31.5	12.5	15.0	1.5	19.5	50	0.01
A1169	37.4	9.1	18.0	1.6	13.5	65	0.02
A1015	23.7	9.5	7.4	1.5	12.0	65	0.0002
A950	27.0	10.5	22.5	5.0	20.5	75	0.02



Part No.	A	B	C	DURO	Weight Kg
A1226	29.9	10.0	15.5	70	0.015
A1312	21.5	7.5	14.5	70	0.005
A92	25.2	9.5	16.3	60	0.005

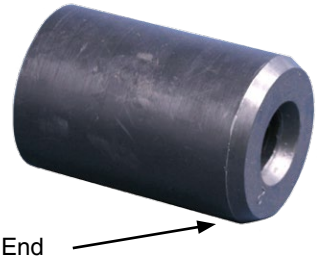


Part No.	A	B	C	DURO	Weight Kg
BC13	19.5	13	32	70	0.01
BC16	23.5	16	36	70	0.01
BC19 Replaces A1421	25	19	26	70	0.01

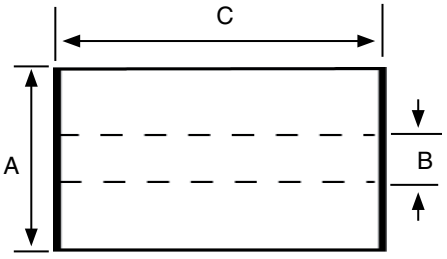


T604

Part No.	Nominal dimensions			Description	Duro	Weight Kg
	A	B	C			
T604	71.0	28.0	107	All Rubber Bush	90	0.5
T604TD	71.0	23.0	100	(Nitrille)	90	0.5



Chamfered End



T604TD

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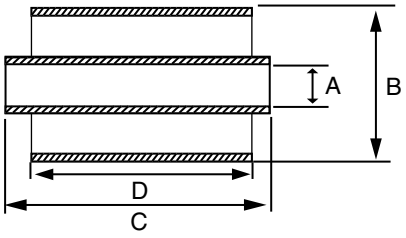
MACKAY INDUSTRIAL RUBBER TECHNOLOGY

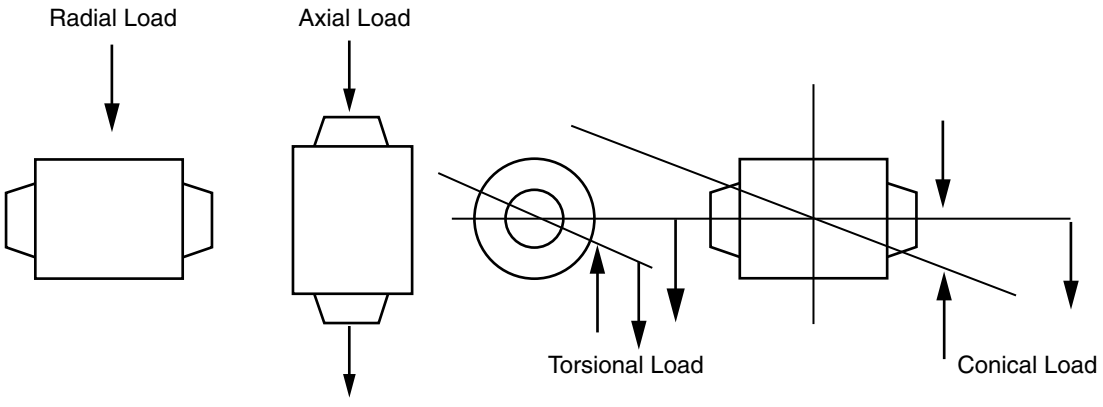
Flexible Isolator Catalogue

section 14

FLEXIBLE BEARINGS



Part No.	NOMINAL DIMENSIONS				RADIAL		TORSIONAL	AXIAL		CONICAL	Weight Kg
	A	B	C	D	STATIC LOAD Kg	DEF mm	MAX ANGLE DEGREES	STATIC LOAD Kg	DEF mm	MAX ANGLE DEGREES	
M561418	8	32	23.2	18	30	0.5	35	20	1.5	6	0.04
M561205	10	22	17	15	40	0.3	25	15	0.8	6	0.02
M561207	10	22	30	25	100	0.2	20	40	1.5	3	0.03
M561613	10	27	22	17	65	0.5	30	25	1.5	3	0.03
A1422	10	42.3	50	35							
A2055	10.1	29.2	54.7	50.4	-	-	-	-	-	-	0.1
A2053	10.2	31	40	26.1	-	-	-	-	-	-	0.08
A2058	10.2	31	50	32.8	-	-	-	-	-	-	0.1
M561213	12	25	34	30	120	0.2	20	50	0.8	3	0.05
M561250	12	25	54	50	550	0.3	20	45	0.6	1	0.09
A1639	12.0	55.2	54.2	43.0	-	-	-	-	-	-	0.2
A1928	12.3	55.2	76	60							
S241	12.7	25.4	73.1	64.3	-	-	-	-	-	-	0.1
S19	12.7	27.0	50.8	44.5	-	-	-	-	-	-	0.1
S229	13.0	52.2	78	64.0	-	-	-	-	-	-	0.3
A1311	14.3	35.0	45.0	37.5	-	-	-	-	-	-	0.5
S154	14.3	30.1	69.7	63.5	-	-	-	-	-	-	0.2
S284	15.8	33.1	63.9	60.0	-	-	-	-	-	-	0.2
M561312	16	32	28	25	140	0.2	20	50	1.6	5	0.07
A1869	18.3	55.4	60	45.5							
A1870	18.5	51.1	60	45.0							
M561384	20	38	42	38	230	0.2	25	75	1.0	3	0.2
M561335	20	38	59	55	300	0.15	20	150	1.0	2	0.2
M561404	20	42	42	38	300	0.3	25	90	1.5	4	0.2
M561411	24	48	44	40	160	0.3	20	110	1.5	2	0.2
M561400	24	48	58	50	350	0.3	20	120	2.0	2	0.3
M561409	28	48	66	60	400	0.15	20	190	1.1	2	0.3
M561503	32	52	66	60	600	0.15	20	260	2.2	1	0.4
M561701	42	78	86	80	1000	0.5	10	200	1.6	1	1.0
M561702	42	78	140	130	2000	0.6	20	400	2.0	1	1.7



All properties nominal, contact Mackay for Technical advice *All Dimensions in Millimetres*

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MACKAY INDUSTRIAL RUBBER TECHNOLOGY

INSTALLATION TOLERANCES & BRACKET LIMITS

RIGID HOUSING INTERFERENCE FIT

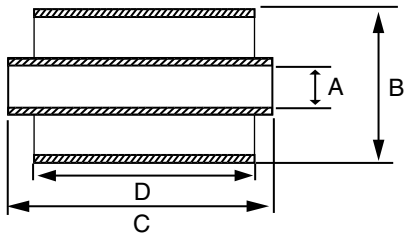
O.D Bush Dia (mm)	Housing Limit (mm)
UP to 22.0	-0.038 - 0.063
23.7 - 39.6	-0.050 - 0.076
41.2 - 50.8	-0.063 - 0.088
52.3 - 78.0	-0.076 - 0.113
80 - 125	-0.076 - 0.127

ROLLED SPRING EYE

O.D Bush Dia (mm)	Spring Eye Limit (mm)
UP to 22.0	-0.25 - 0.50
23.7 - 28.5	-0.40 - 0.66
30.1 - 34.9	-0.63 - 0.88
36.4 - 41.2	-0.71 - 0.96
42.8 - 53.9	-0.86 - 1.11
55.5 - 70.0	-1.01 - 1.39

TE34

TE38



Part No.	Nominal dimensions				Description	Weight Kg
	A	B	C	D		
TE34	64	111	134	95	Rubber / Steel Bush	3
TE38	64	111	146	109	Rubber / Steel Bush	3.3

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MACKAY INDUSTRIAL RUBBER TECHNOLOGY

TPH1

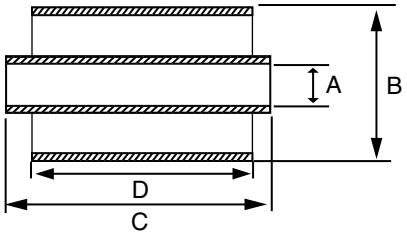
TPH17

TPH21

TPH30

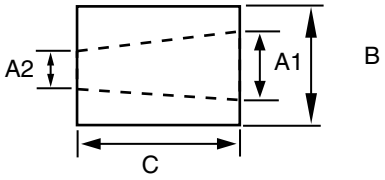
TPH31

TPH36



Part No.	Nominal dimensions				Description	Weight Kg
	A	B	C	D		
TPH1	28.2	76.0	82.5	63.0	Rubber / Steel Bush	1.6
TPH17	28.2	73.0	82.5	51.0	" "	1.3
TPH21	25.6	76.0	57.0	44.0	" "	1.1
TPH30	25.4	70.0	117.5	108.0	" "	1.8
TPH31	22.2	60.0	79.0	76.0	" "	0.9
TPH36	28.2	70.0	82.5	56.0	" "	1.1

TPL14



Part No.	Nominal dimensions				Description	Weight Kg
	A1	A2	B	C		
TPL14	*50.7	42.0	105	71.0	Rubber / Steel Bush	2.1
	* Large End Taper					

SPECIFICATIONS

Part No.	Radial Load			
	Constant Load Tonne	Def mm	Occasional Load Tonne	Def mm
TE34	14.0	1.3	33.0	2.7
TE38	14.0	1.3	33.0	2.7
TPH1	2.5	0.8	5.0	1.6
TPH17	-	-	-	-
TPH21	1.5	-	-	-
TPH30	6.0	-	-	-
TPH31	-	-	-	-
TPH36	-	-	-	-
TPL14	-	-	-	-

All properties nominal, contact Mackay for Technical advice *All Dimensions in Millimetres*

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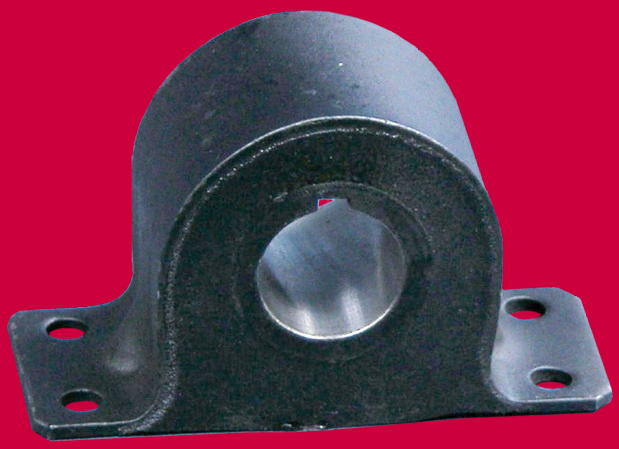
MACKAY INDUSTRIAL RUBBER TECHNOLOGY

Flexible Isolator Catalogue

section 15

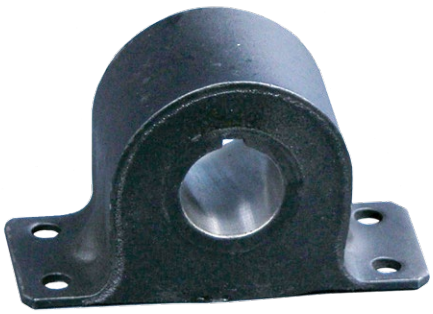


TORSION ISOLATORS

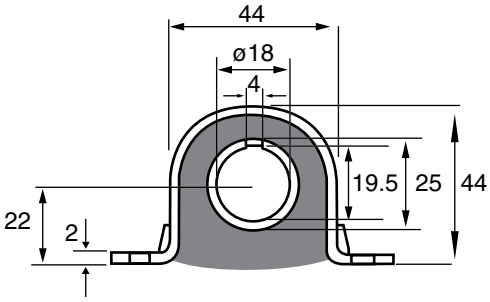
Torsion isolators lend themselves to a wide variety of applications as they can be subjected to compression , torsion or shear.

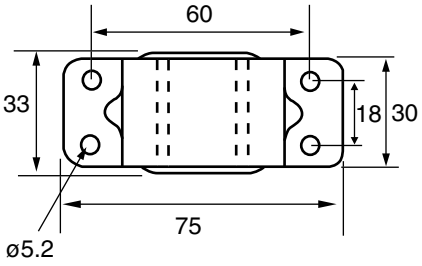
They are of particular use in all types of material handling equipment and because of the ease of fitment of the M512 series lend themselves to installation of connections and supporting links in shaker screens , conveyors etc.

The torsional stiffness of the M512 is particularly low and therefore reduces friction losses and power loss in vibrating drives and offers you a service free torsional bearing with equidirectional resilience.

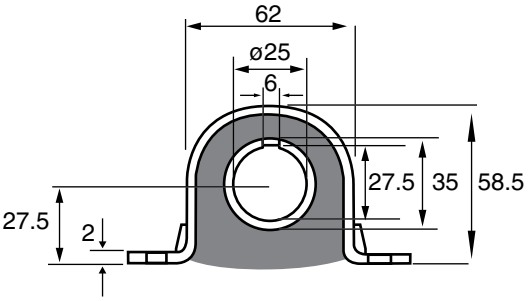


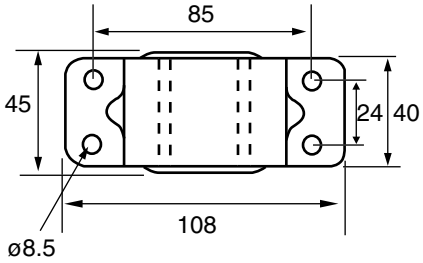
M5123151055
M5123151065

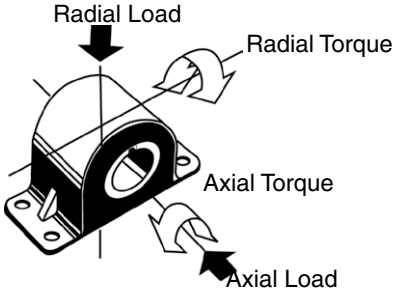




M5123170055







* Duro rating moulded into rubber

Part No.	RADIAL		AXIAL		RADIAL TORQUE		AXIAL TORQUE		DURO	Weight Kg
	LOAD Kg	DEF mm	LOAD Kg	DEF mm	ANGLE DEGREES	kgm	ANGLE DEGREES	kgm		
M5123151055	110	0.7	120	4.5	4	1	30	3.5	55	0.2
M5123151065	110	0.5	140	3.5	2.7	1.2	20	3.5	65	0.2
M5123170055	200	0.8	250	7.5	4	2	34	10	55	0.4

All properties nominal, contact Mackay for Technical advice *All Dimensions in Millimetres*

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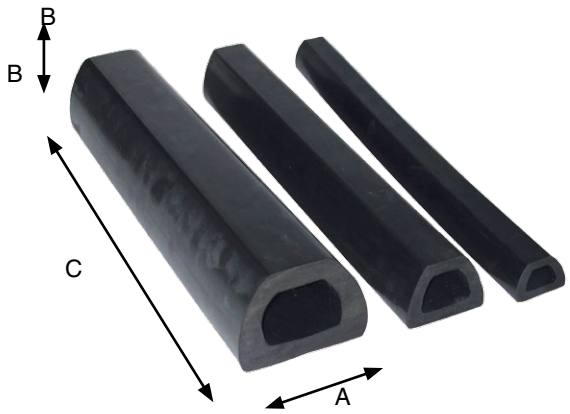
MACKAY INDUSTRIAL RUBBER TECHNOLOGY

Flexible Isolator Catalogue

Section 16

DOCK - FENDERING RUBBER

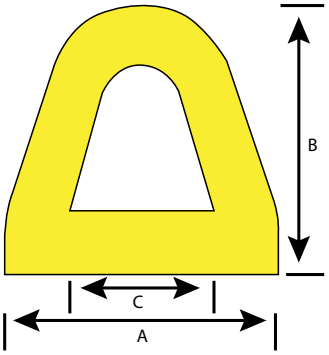
Part No.	A mm	B mm	C* mm	Nominal Wall Thickness mm	Weight Kg
DR504003	50	40	300	10	0.33
DR504010	50	40	1000	10	1.4
DR756503	75	65	300	12	0.8
DR756510	75	65	1000	12	2.8
DR1059503	105	90	300	18	1.3
DR1059510	105	90	1000	18	5.6



HIGH VISIBILITY DOCKING RUBBER

Part No.	A mm	B mm	C* mm	Length	Weight Kg
DRY50501200	50	50	25	1200	1.92
DRY75701200	75	70	45	1200	3.12
DRY100951200	100	92	50	1200	7.20

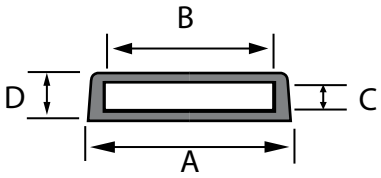
* Also available in selected lengths



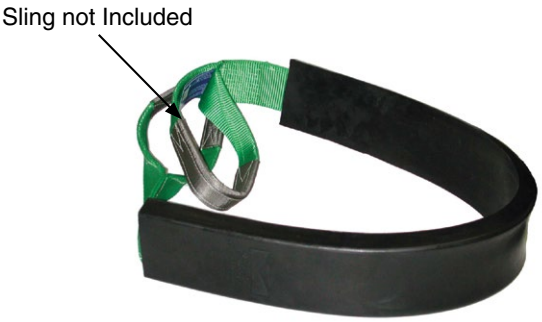
SLING PROTECTOR

A textile reinforced fully vulcanised high grade cut and abrasion resistant rubber sling and goods protector.

Suits webbing up to 90mm wide



Part No.	A mm	B mm	C mm	D mm	LENGTH mm	Weight KG
MACSLEEVE	115	95.2	15	27	1090	1.5



RUBBER WHEEL CHOCKS

Part No.	Duro	A mm	B* mm	C mm	Weight Kg
WCS100	70	140	100	75	0.5
WCM150	70	155	150	155	2.2
WCL150	70	275	150	160	3.9
WCXL400	90	297	400	200	11

* Also available in selected widths

All properties nominal, contact Mackay for Technical advice *All Dimensions in Millimetres*

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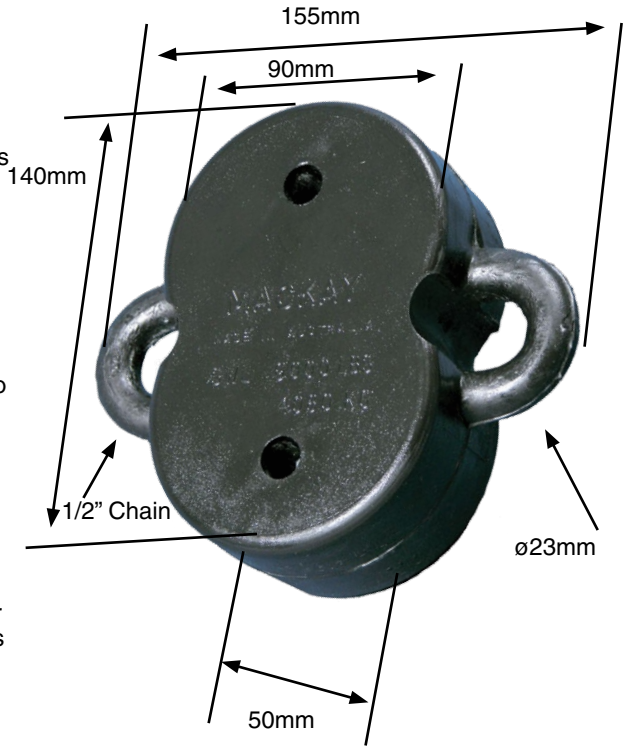
MACKAY INDUSTRIAL RUBBER TECHNOLOGY

SNUBBER & TENSION CONTROLLER

PART NO. M194

TAKES THE SNAP AND THE DANGER OUT OF CHAINS UNDER LOAD.



Weight 1.2 Kg

The snubber design has an important advantage. During loading the rubber within the chain is put into compression , when the load is released the rubber springs back and the unit returns to it's normal shape.

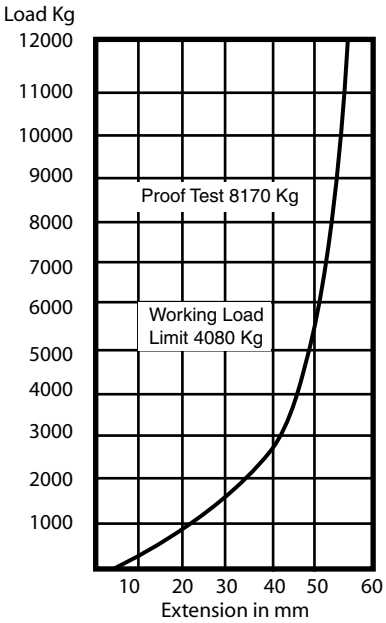
It consists of an endless circle of chain encased in a solid block of rubber. When a sudden impact or tension is applied , the chain expands and the shock is absorbed by the rubber.

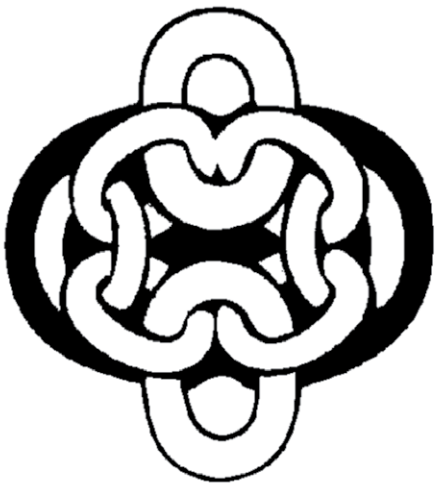
Be sure chain assemblies can absorb heavy shock loads caused by impact and tension. Specify the Mackay Rubber Snubber, a unique device that helps eliminate chain breakage and damage to cargo.

ENERGY CONTROL
Of shock loads or of steady tension. That is the Mackay Rubber Snubber. Simple , Positive , Maintenace Free ; with over 25mm of controlled tension , using a single compact light unit.

PROTECT VALUABLE EQUIPMENT
Include the Mackay Rubber Snubber in your tie-down , hoisting or towing chain system. The cushioning of rubber and the toughness of Herc-Alloy Steel Chain ensures safety.

Ideal for ;
Truck & rolling stock tie-downs, Tow chains, Mooring lines & anchor chains, Hoist lifting chains, Block and tackle, Wherever shock is a factor. Where steady tension is desired.





The graph indicates extension of a unit at varying load. Major extension takes place between zero load and the recommended working load. No advantage to overloading. Pretensioning gives protection against slack chain due to temperature changes.

M194 ; Approved by statutory authorities for use in applications that require approval.

Al properties nominal, contact Mackay for Technical advice *All Dimensions in Millimetres*

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MACKAY INDUSTRIAL RUBBER TECHNOLOGY

FLEXI-STRAPS

RUBBER STRAPS & FASTENERS

- REINFORCED ENDS - hooks will not pull out
- QUICK ON/OFF HOOKS - eliminate rope tying
- PLASTIC COATED HOOKS - will not mark paint work
- NON-STAINING , LONG LIFE RUBBER - weather resistant compound

Part No.	LENGTH mm	STRETCH LENGTH mm	Weight kg
FHS9K	230	285	0.08
FHS15K	380	475	0.10
FHS24K	610	765	0.14
FHS31K	785	980	0.16

Add 100mm for Hooks

For your protection , Mackay recommend that the use of “Flexi-straps”
DOES NOT EXCEED the specified stretch as listed.

All properties nominal, contact Mackay for Technical advice *All Dimensions in Millimetres*

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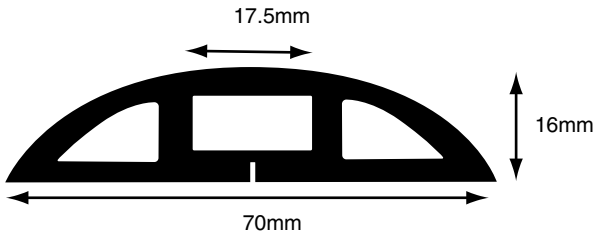
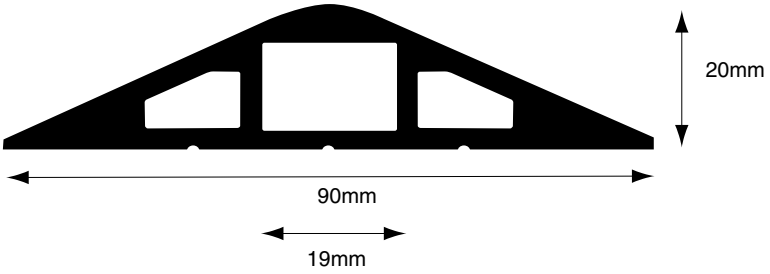
CABLE PROTECTORS

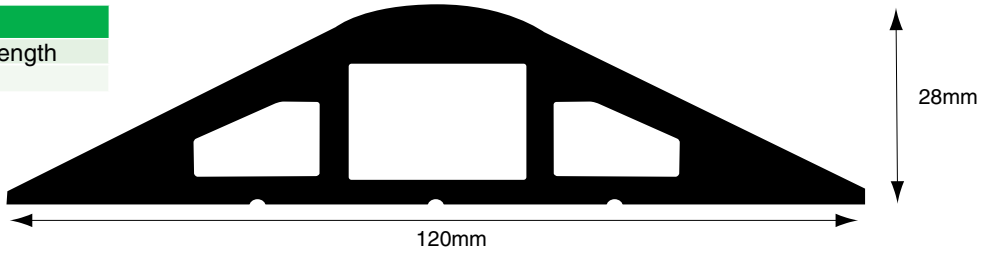
Part No.	
CP70161200	1200mm Length
CP7016COIL30	30m Coil



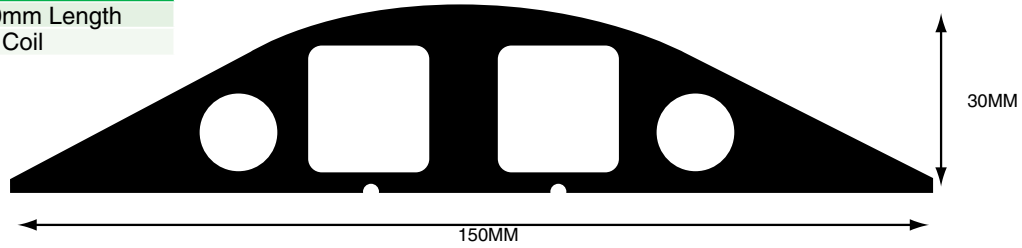
Part No.	
CP90201200	1200mm Length
CP9020COIL30	30m Coil



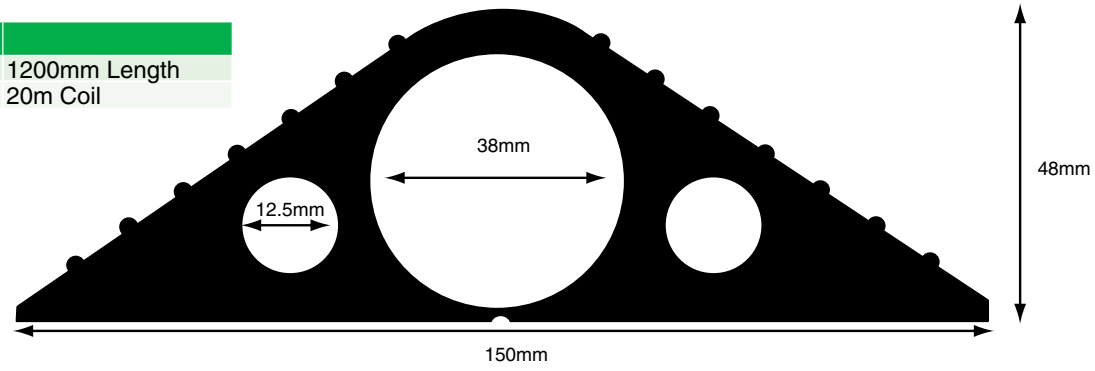
Part No.	
CP120281200	1200mm Length
CP12028COIL30	30m Coil



Part No.	
CP150301200	1200mm Length
CP15030COIL20	20m Coil



Part No.	
CP150481200	1200mm Length
CP15048COIL20	20m Coil



Al properties nominal, contact Mackay for Technical advice *All Dimensions in Millimetres*

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MACKAY INDUSTRIAL RUBBER TECHNOLOGY

Flexible Isolator Catalogue

Section 17

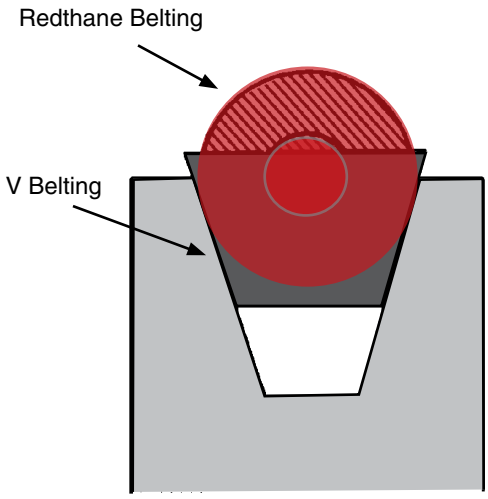
REDTHANE VEE BELTING

Redthane Vee Belting has proved itself to be an exciting new development in the field of mechanical power transmission, both in terms of reliability and cost saving.

Mackay Polyurethane Vee Belting - it's so different it really saves money!

FEATURES:

- Replaces almost all types of conventional belting i.e. A, M and B section vee belts, link belting and all round section belts.
- Precision manufactured in the form of a Polyurethane based tube offering unique qualities of strength, durability, resistance to oils and abrasion, moisture, radiation and chemicals.
- Supplied in a continuous length. Required length is simply cut off and fastened internally (as illustrated) to give smooth, trouble free running. No motor/pulley adjustments are necessary before or after fitting.
- Reduces fitting time dramatically e.g. Conventional Belting on a Holbrook Centre Lathe - 155 minutes; RVB - 20 minutes. Crucial savings in terms of machine down time, direct labour, production losses etc.
- Cuts belt wastage to a minimum. When just one portion of the belt is damaged, that portion can be cut and replaced with a new section. No question of scrapping the whole belt.
- Provides the complete answer where stocks are concerned. Instead of having to stock up with countless different vee belts, just one or more RVB coils will supply all your needs with the minimum of time and space taken up.



THE MAXIMUM OPERATING TEMPERATURE FOR REDTHANE IS 80 DEGREES CELSIUS

Foot per Minute	A Section		B Section	
	Minimum Pulley Dia.	H.P. Rating	Minimum Pulley Dia.	H.P. Rating
1000	4.0"	0.60	5.0"	1.00
1200	4.0"	0.60	5.0"	1.35
1400	4.0"	0.95	5.0"	1.60
1600	4.0"	1.05	5.0"	1.90
1800	4.0"	1.20	5.0"	2.07
2000	4.6"	1.25	6.0"	2.30
2200	4.6"	1.35	6.0"	2.45
2400	4.6"	1.45	6.0"	2.75
2600	4.6"	1.55	6.0"	2.90
2800	4.6"	1.60	6.0"	3.00
3000	4.6"	1.65	6.0"	3.15
3200	5.0"	1.70	7.0"	3.25
3400	5.0"	1.75	7.0"	3.33
3600	5.0"	1.80	7.0"	3.40
3800	5.0"	1.82	7.0"	3.45
4000	5.0"	1.85	7.0"	3.50

Al properties nominal, contact Mackay for Technical advice *All Dimensions in Millimetres*

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MACKAY INDUSTRIAL RUBBER TECHNOLOGY

SPECIFICATIONS

Part No.	DIA mm	APPROX MIN. PULLEY DIA.	COIL LENGTH Metres	BELT FASTENERS	SECTIONS REPLACED	COIL Weight Kg
RB12-7	12.7	150	25	**R12-7F**	B Section	3.6
RB10-2	10.2	100	50	**R10-2F**	A & Some M Sections	4.4
RB7-9	7.9	75	50	**R7-9F**	Most M Sections	2.7
RB6-4	6.4	60	50	**R6-4F**	Low PowerDrives	1.8
RB4-8	4.8	25	100	**R4-8F**	Low Power Drives	2.0

HOW TO MAKE ENDLESS REDTHANE BELTING

USING THE PATENTED INTERNAL FASTENER;

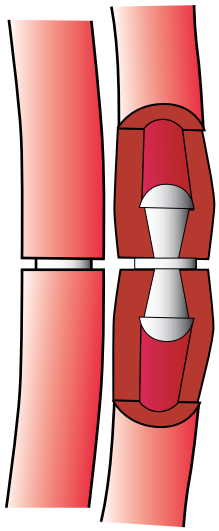
This method can be carried out on the machine if necessary.

1. Check the length of the belting required , reduce the measurment by 7%(70mm per metre) and cut.

2. Using long nose pliers insert the fastener into the tube at an angle and “walk” it in until the fastener is completely home , taking care NOT to damage the flange.

3. Insert the other end of the fastener into the tube’s other bore and using the same principle as before fit it in to form an endless belt.

4. Stretch onto the pulleys.



USING HEAT WELDING;

1. Cut the belt 7% shorter than required , making sure the ends are square and flat.

2. Heat a flat element to 300 degrees Celsius plus or minus 40 degrees (any flat , hot surface is suitable).

3. Press both ends of the belt onto the element and melt back 1mm.

4. Press the melted ends together squarely (a V block can be used as a guide) and hold firmly for approximately one minute. Do not squeeze the molten Redthane away from the joining faces.

5. Cool thoroughly.

6.Trim off the surplus material around the joint using a sharp knife or grinding wheel.

7. Wait five minutes before stretching the belt over the pulleys.

- **EASILY JOINED**
- **HIGH PULLEY GRIP**
- **SHOCK ABSORBENT**
- **UNAFFECTED BY LUBRICANT**

Redthane belting is generally considered non-toxic, but has not been approved by the U.K. Drug and Food Administration.

All properties nominal, contact Mackay for Technical advice *All Dimensions in Millimetres*

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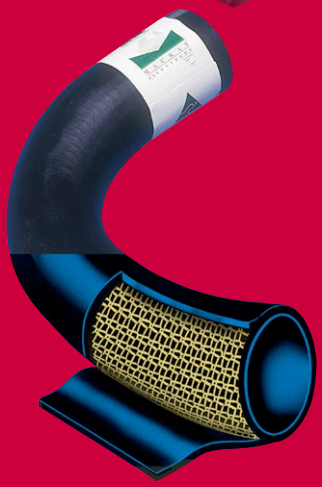
MACKAY INDUSTRIAL RUBBER TECHNOLOGY

Flexible Isolator Catalogue

section 18



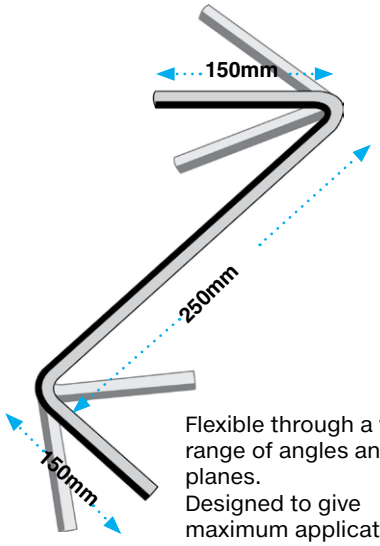
UNIVERSAL "Z" HOSE ™ BENDS

- **Universal Application for Water, Fuel & Oil and EFV**
- **Covers majority of small bore market**
- **Reduced Inventory**

Mackay Universal Small Bore "Z" hose ™ bends, the only hose specially designed to provide the largest small bore application coverage from a few part numbers.

Unlike Radiator hoses, demand for small bore hoses can be relatively inconsistent, requiring an unjustifiably large range to cater for the varied shapes and sizes in the market.

Mackay Universal Small Bore "Z" hose ™ bends now solves this problem giving you the versatility to meet the majority of applications without high inventory costs. Combined with our application specific small bore range Mackay Hoses provide a superior and cost effective solution.



Flexible through a wide range of angles and planes.
Designed to give maximum application coverage

ID mm	ID Inches	Part No.	Maximum Working Pressure		SAE Minimum Burst Pressure		Application
6mm	¼"	ZHB6	0.43 MPa	62 psi	1.72 MPa	249 psi	Heater Hose SAE 20R3
8mm	5/16"	ZHB8					
10mm	⅜"	ZHB10					
12mm	15/32"	ZHB12					
16mm	⅝"	ZHB15					
19mm	¾"	ZHB19	0.35 MPa	51 psi	1.38 MPa	200 psi	
25mm	1"	ZHB25	0.24 MPa	35 psi	0.97 MPa	141 psi	Radiator Hose SAE 20R4
6mm	¼"	ZHB6F	0.34 MPa	50 psi	1.72 MPa	250 psi	Low-Pressure Fuel & Oil Hose SAE 30R6
8mm	5/16"	ZHB8F					
10mm	⅜"	ZHB10F					
12mm	½"	ZHB12F	0.24 MPa	35 psi	1.20 MPa	175 psi	
16mm	⅝"	ZHB16F					
19mm	¾"	ZHB19F					
25mm	1"	ZHB25F					
6mm	¼"	ZHB6EFV	Vacuum / Vent Hose				Emission Control, Fuel Vapour & PCV
8mm	5/16"	ZHB8EFV					
10mm	⅜"	ZHB10EFV					
12mm	15/32"	ZHB12EFV					

All properties nominal, contact Mackay for Technical advice *All Dimensions in Millimetres*

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MACKAY INDUSTRIAL RUBBER TECHNOLOGY

"Z" HOSE ™ TRADE PACKS

The revolutionary Mackay "Z" hoses ™ are now available in a two popular TRADE PACKS, Part Number ZBAG1 and ZBAG2.

The ZBAG1 consists of one each of the top 5 "Z" water hoses and is especially suited as an introductory or replenishment stock pack for workshops. The ZBAG2 contains the additional larger ID 19mm and 25mm hoses.

"Z" Hose Trade Pack - 6mm to 15mm ID - Part Number ZBAG1

Part No.	ID mm	ID Inches	QTY In Pack	Application
ZHB6	6mm	1/4"	1	Heater Hose SAE 20R3
ZHB8	8mm	5/16"	1	
ZHB10	10mm	3/8"	1	
ZHB12	12mm	15/32"	1	
ZHB15	16mm	5/8"	1	

"Z" Hose Trade Pack - 6mm to 25mm ID - Part Number ZBAG2

Part No.	ID mm	ID Inches	QTY In Pack	Application
ZHB6	6mm	1/4"	1	Heater Hose SAE 20R3
ZHB8	8mm	5/16"	1	
ZHB10	10mm	3/8"	1	
ZHB12	12mm	15/32"	1	
ZHB15	16mm	5/8"	1	
ZHB19	19mm	3/4"	1	
ZHB25	25mm	1"	1	Radiator Hose SAE 20R4

Al properties nominal, contact Mackay for Technical advice *All Dimensions in Millimetres*

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MACKAY INDUSTRIAL RUBBER TECHNOLOGY

STRAIGHT HOSE

Mackay Universal Straight Hose is available in two specifications, one is suitable for water applications and the other is suitable for fuel and oil applications.

STRAIGHT HOSE – WATER

The straight moulded water hoses are suitable for use with plain water and automotive coolant applications.

Manufactured using an electrochemical degradation (ECD) resistant EPDM rubber tube, lock-stitch knitted Rayon fibre reinforcement, with an EPDM rubber cover for heat, abrasion and ozone resistance.
The 19mm ID size Exceeds Heater Hose Specification SAE J20R3 Type EC Class D-1 and D-2

Sizes 22mm to 63mm ID Exceeds Radiator Hose Specification SAE J20R4 Type EC Class D-1 and Class D-2

Working Temperature Range: -40°C to 125°C (-40°F to 257°F)

Caution: Not suitable for fuel, oil transfer or brake fluid applications.

STRAIGHT HOSE - WATER

ID mm	ID Inches	Part No.	Length	Maximum Working Pressure		SAE 20R3/R4 Minimum Burst Pressure	
19mm	¾”	SHW19	1m	0.43 MPa	62 psi	1.72 MPa	249 psi
22mm	⅞”	SHW22	1m	0.24 MPa	35 psi	0.97 MPa	141 psi
25mm	1”	SHW25	1m				
28mm	1 ⅛”	SHW28	1m	0.23 MPa	33 psi	0.90 MPa	131 psi
32mm	1 ¼”	SHW32	1m				
35mm	1 ⅜”	SHW35	1m	0.21 MPa	30 psi	0.83 MPa	120 psi
38mm	1 ½”	SHW38	1m				
41mm	1 ⅝”	SHW41	1m	0.19 MPa	28 psi	0.76 MPa	110 psi
44mm	1 ¾”	SHW44	1m				
48mm	1 ⅞”	SHW48	1m	0.17 MPa	25 psi	0.69 MPa	100 psi
51mm	2”	SHW51	1m				
54mm	2 ⅛”	SHW54	1m				
57mm	2 ¼”	SHW57	1m	0.16 MPa	22 psi	0.62 MPa	90 psi
63mm	2 ½”	SHW63	1m	0.14 MPa	20 psi	0.55 MPa	80 psi

STRAIGHT HOSE - FUEL & OIL

The straight moulded fuel and oil hoses are suitable for fuel filler, turbo intercooler and low pressure fuel applications with leaded and unleaded petrol, Ethanol blended fuels up to E85, Diesel & Biodiesel fuels, lubricating oil as well as crankcase and fuel vapour applications.

Manufactured using an OE developed Nitrile/PVC (NBR/PVC) blended rubber for the tube and cover chosen for its Fuel, Oil and ozone resistance, with a knitted high tensile strength Para-Aramid fibre reinforcement for maximum burst resistance.
Exceeds Fuel Hose Specification SAE J30R6

Working Temperature Range -34°C to 100°C (-29°F to 212°F)

ATTENTION: Some sizes are non-stocked and made to order, minimum order quantities may apply.
CAUTION: Not suitable for coolant transfer, brake fluid or marine applications.

STRAIGHT HOSE - FUEL & OIL

ID mm	ID Inches	Part No.	Length	SAE 30R6 Maximum Working Pressure		SAE 30R6 Minimum Burst Pressure	
25mm	1”	SHF25	1m	0.24 Mpa	35 psi	1.20 Mpa	175 psi
38mm	1 ½”	SHF38	1m	0.11 MPa	16 psi	0.55 MPa	80 psi
41mm	1 ⅝”	SHF41	1m				
51mm	2”	SHF51	1m				
54mm	2 ⅛”	SHF54	1m				
57mm	2 ¼”	SHF57	1m				
63mm	2 ½”	SHF63	1m				

All properties nominal, contact Mackay for Technical advice *All Dimensions in Millimetres*

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MACKAY INDUSTRIAL RUBBER TECHNOLOGY

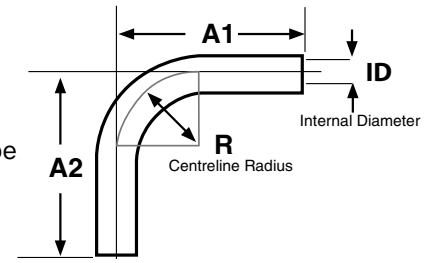
UNIVERSAL HOSE BENDS

Mackay 45° & 90° Universal Hose Bends are available in two specifications, one is suitable for water applications and the other is suitable for fuel and oil applications.

45° & 90° UNIVERSAL HOSE BENDS - WATER

The 45° & 90° moulded water hoses are suitable for plain water and automotive coolant applications.

Manufactured using an electrochemical degradation (ECD) resistant EPDM rubber tube, lock-stitch knitted Rayon fibre reinforcement, with an EPDM rubber cover for heat and ozone resistance.



Sizes 8mm to 19mm ID Exceed Heater Hose Specification SAE J20R3 Type EC Class D-1 and D-2

Sizes 25mm to 63mm ID Exceed Radiator Hose specification SAE J20R4 Type EC Class D-1 and Class D-2

Working Temperature Range: -40°C to 125°C (-40°F to 257°F)

CAUTION: Not suitable for fuel, oil transfer or brake fluid applications.

45° UNIVERSAL HOSE BENDS - WATER

ID mm	ID Inches	Part No.	Arm 1 Centerline Length A1	Arm 2 Centerline Length A2	Maximum Working Pressure		SAE 20R4 Minimum Burst Pressure	
25mm	1”	UHB25-300/45	300mm	300mm	0.24 MPa	35 psi	0.97 MPa	141 psi
31mm	1 ¼”	UHB31-300/45	300mm	300mm	0.23 MPa	33 psi	0.90 MPa	131 psi
38mm	1 ½”	UHB38-300/45	300mm	300mm	0.21 MPa	30 psi	0.83 MPa	120 psi
44mm	1 ¾”	UHB44-300/45	300mm	300mm	0.19 MPa	28 psi	0.76 MPa	110 psi
50mm	2”	UHB50-300/45	300mm	300mm	0.17 MPa	25 psi	0.69 MPa	100 psi
57mm	2 ¼”	UHB57-300/45	300mm	300mm	0.16 MPa	22 psi	0.62 MPa	90 psi
63mm	2 ½”	UHB63-300/45	300mm	300mm	0.14 MPa	20 psi	0.55 MPa	80 psi

90° UNIVERSAL HOSE BENDS - WATER

ID mm	ID Inches	Part No.	Arm 1 Centerline Length A1	Arm 2 Centerline Length A2	Centreline Radius R	Maximum Working Pressure		SAE 20R3/R4 Minimum Burst Pressure	
8mm	5/16”	UHB8-300	300mm	300mm	50mm	0.43 MPa	62 psi	1.72 MPa	249 psi
		UHB8-300X500	300mm	500mm					
10mm	3/8”	UHB10-300	300mm	300mm	50mm				
		UHB10-300X500	300mm	500mm					
13mm	½”	UHB13	105mm	105mm	50mm	0.43 MPa	62 psi	1.72 MPa	249 psi
		UHB13-300	300mm	300mm					
		UHB13-300X500	300mm	500mm					
16mm	5/8”	UHB16	105mm	105mm	50mm	0.43 MPa	62 psi	1.72 MPa	249 psi
		UHB16-300	300mm	300mm					
		UHB16-300X500	300mm	500mm					
19mm	¾”	UHB19	105mm	105mm	50mm	0.35 MPa	51 psi	1.38 MPa	200 psi
		UHB19-300	300mm	300mm					
		UHB19-300X500	300mm	500mm					
25mm	1”	UHB25	105mm	105mm	50mm	0.24 MPa	35 psi	0.97 MPa	141 psi
		UHB25-300	300mm	300mm					
		UHB25-300X500	300mm	500mm					
31mm	1 ¼”	UHB31	120mm	120mm	60mm	0.23 MPa	33 psi	0.90 MPa	131 psi
		UHB31-300	300mm	300mm					
		UHB31-300X500	300mm	500mm					
38mm	1 ½”	UHB38	120mm	120mm	60mm	0.21 MPa	30 psi	0.83 MPa	120 psi
		UHB38-300	300mm	300mm					
		UHB38-300X500	300mm	500mm					
44mm	1 ¾”	UHB44	140mm	140mm	70mm	0.19 MPa	28 psi	0.76 MPa	110 psi
		UHB44-300	300mm	300mm					
		UHB44-300X500	300mm	500mm					
50mm	2”	UHB50	140mm	140mm	70mm	0.17 MPa	25 psi	0.69 MPa	100 psi
		UHB50-300	300mm	300mm					
		UHB50-300X500	300mm	500mm					
57mm	2 ¼”	UHB57	170mm	170mm	85mm	0.16 MPa	22 psi	0.62 MPa	90 psi
		UHB57-300	300mm	300mm					
		UHB57-300X500	300mm	500mm					
63mm	2 ½”	UHB63	170mm	170mm	95mm	0.14 MPa	20 psi	0.55 MPa	80 psi
		UHB63-300	300mm	300mm					
		UHB63-300X500	300mm	500mm					

Al properties nominal, contact Mackay for Technical advice *All Dimensions in Millimetres*

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MACKAY INDUSTRIAL RUBBER TECHNOLOGY

45° & 90° UNIVERSAL HOSE BENDS - FUEL & OIL

The 45° & 90° moulded Fuel & Oil hoses use two constructions depending on size.

Sizes 8mm to 19mm ID are suitable for low pressure fuel applications and are manufactured using a Nitrile (NBR) rubber tube, lock-stitch knitted Polyester fibre reinforcement, with an oil resistant Hypalon® (CSM) rubber outer cover for maximum heat and ozone protection.

Sizes 25mm to 63mm ID are suitable for fuel filler and turbo intercooler applications and are manufactured with an OE Grade Nitrile/PVC (NBR/PVC) blended rubber tube and cover for Fuel, Oil and ozone resistance, with a knitted high tensile strength Para-Aramid fibre for maximum burst protection.
Both constructions are suitable for use with leaded and unleaded petrol, Ethanol blended fuels up to E85, Diesel & Biodiesel fuels, lubricating oil as well as crankcase and fuel vapour applications.

Exceeds Fuel Hose Specification SAE J30R6

Working Temperature Range -34°C to 100°C (-29°F to 212°F)

ATTENTION: Some sizes are non-stocked and made to order, minimum order quantities may apply.
CAUTION: This hose is not suitable for fuel injection, in-tank fuel submersion, coolant, brake fluid or marine applications.

45° UNIVERSAL HOSE BENDS - FUEL & OIL

ID mm	ID Inches	Part No.	Arm 1 Centerline Length A1	Arm 2 Centerline Length A2	SAE 30R6 Maximum Working Pressure		SAE 30R6 Minimum Burst Pressure	
25mm	1”	UHB25-300/45N	300mm	300mm	0.24 Mpa	35 psi	1.20 Mpa	175 psi
31mm	1 ¼”	UHB31-300/45N	300mm	300mm	0.11 MPa	16 psi	0.55 MPa	80 psi
38mm	1 ½”	UHB38-300/45N	300mm	300mm				
44mm	1 ¾”	UHB44-300/45N	300mm	300mm				
50mm	2”	UHB50-300/45N	300mm	300mm				
57mm	2 ¼”	UHB57-300/45N	300mm	300mm				
63mm	2 ½”	UHB63-300/45N	300mm	300mm				

90° UNIVERSAL HOSE BENDS - FUEL & OIL

ID mm	ID Inches	Part No.	Arm 1 Centerline Length A1	Arm 2 Centerline Length A2	Centreline Radius R	SAE 30R6 Maximum Working Pressure		SAE 30R6 Minimum Burst Pressure	
8mm	5/16”	UHB8-300N	300mm	300mm	50mm	0.34 MPa	50 psi	1.72 MPa	250 psi
10mm	3/8”	UHB10-300N	300mm	300mm	50mm				
13mm	½”	UHB13N	105mm	105mm	50mm	0.24 MPa	35 psi	1.20 MPa	175 psi
		UHB13-300N	300mm	300mm					
16mm	5/8”	UHB16N	105mm	105mm	50mm				
		UHB16-300N	300mm	300mm					
19mm	¾”	UHB19N	105mm	105mm	50mm				
		UHB19-300N	300mm	300mm					
25mm	1”	UHB25N	105mm	105mm	50mm				
		UHB25-300N	300mm	300mm					
31mm	1 ¼”	UHB31N	120mm	120mm	60mm	0.11 MPa	16 psi	0.55 MPa	80 psi
		UHB31-300N	300mm	300mm					
38mm	1 ½”	UHB38N	120mm	120mm	60mm				
		UHB38-300N	300mm	300mm					
44mm	1 ¾”	UHB44N	140mm	140mm	70mm				
		UHB44-300N	300mm	300mm					
50mm	2”	UHB50N	140mm	140mm	70mm				
		UHB50-300N	300mm	300mm					
57mm	2 ¼”	UHB57N	170mm	170mm	85mm				
		UHB57-300N	300mm	300mm					
63mm	2 ½”	UHB63N	170mm	170mm	95mm				
		UHB63-300N	300mm	300mm					

All properties nominal, contact Mackay for Technical advice *All Dimensions in Millimetres*

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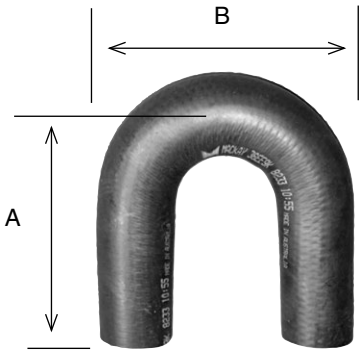
MACKAY INDUSTRIAL RUBBER TECHNOLOGY

U SHAPED UNIVERSAL WATER HOSE

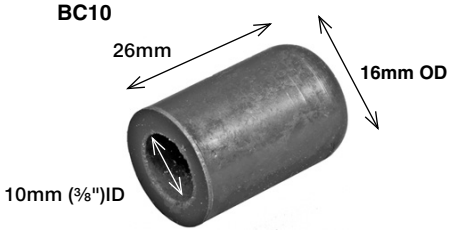
ID mm	ID Inches	Part No.	LENGTH	
			A	B
38mm	1 ½"	USH38	145	155



BLANKING CAPS

ID mm	ID Inches	Part No.	Application
10mm	⅜"	BC10	Coolant
13mm	½"	BC13	
16mm	⅝"	BC16	
19mm	¾"	BC19	

BC10



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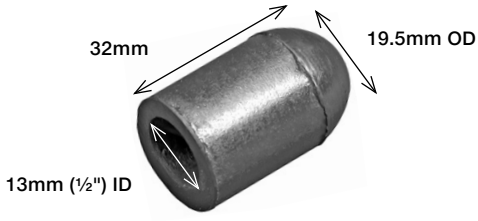

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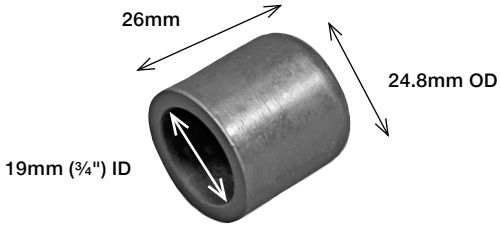
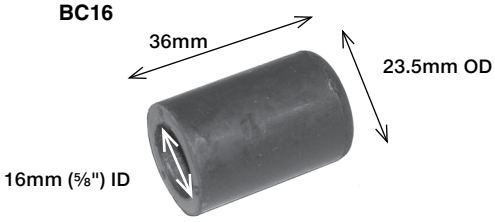


BC16



UNIVERSAL HOSE SPRINGS

Galvanised springs for use in non- standard applications where the hose may be more susceptible to vacuum collapse.

To insert spring into a hose lubricate with soapy water.

UNIVERSAL HOSE SPRINGS

Part No.	OD of Spring mm	Smallest ID Hose it Suits	Biggest ID Hose it Suits	Length of Spring mm
CHS5G	29	31	38	450
CHS53G	34	36	43	280
CHS55G	34	36	43	350
CHS56G	42	44	51	305
CHS42G	42/47 Bell	44/50 Bell	51/56 Bell	370
CHS35G	56	58	65	405

Al properties nominal, contact Mackay for Technical advice *All Dimensions in Millimetres*

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MACKAY INDUSTRIAL RUBBER TECHNOLOGY

HEATER HOSE

Mackay Heater Hose is formulated from rubber compounds developed for Original Equipment (OE) applications.
Suitable for plain water and automotive coolant applications.
Manufactured using an OE grade electrochemical degradation (ECD) resistant EPDM rubber tube, Rayon fibre spiral reinforcement, with an EPDM rubber cover for heat and ozone resistance.
Exceeds Heater Hose Specification SAE J20R3 Type EC Class D-1 and D-2
Working Temperature Range -40°C to 125°C (-40°F to 257°F)
Caution: Not suitable for fuel, oil or brake fluid applications.
*TW = Thin Wall made to Ford OE Specifications not SAE (Features 3mm wall thickness)

HEATER HOSE

ID mm	ID Inches	Part No.	Length	Packaging	Maximum Working Pressure		SAE 20R3 Minimum Burst Pressure	
6mm	¼"	HH62	2m	Pack	0.43 MPa	62 psi	1.72 MPa	249 psi
		HH610	10m	Box				
		HH620	20m	Box				
		HH650	50m	Coil				
8mm	5/16"	HH82	2m	Pack	0.43 MPa	62 psi	1.72 MPa	249 psi
		HH810	10m	Box				
		HH820	20m	Box				
		HH850	50m	Coil				
9.5mm	⅜"	HH10TWX2*	2m	Pack	0.43 MPa	62 psi	1.72 MPa	249 psi
		HH10TWX20*	20m	Box				
10mm	⅜"	HH102	2m	Pack	0.43 MPa	62 psi	1.72 MPa	249 psi
		HH1010	10m	Box				
		HH1020	20m	Box				
		HH1050	50m	Coil				
12.7mm	½"	HH13X1.5	1.5m	Retail Pack	0.43 MPa	62 psi	1.72 MPa	249 psi
		HH1272	2m	Pack				
		HH12710	10m	Box				
		HH12720	20m	Box				
		HH12750	50m	Coil				
15.9mm	⅝"	HH16X1.5	1.5m	Retail Pack	0.43 MPa	62 psi	1.72 MPa	249 psi
		HH1592	2m	Pack				
		HH15910	10m	Box				
		HH15920	20m	Box				
		HH15940	40m	Coil				
17.5mm	11/16"	HH1752	2m	Pack	0.43 MPa	62 psi	1.72 MPa	249 psi
		HH17510	10m	Box				
		HH17520	20m	Coil				
19mm	¾"	HH19X1.5	1.5m	Retail Pack	0.35 MPa	51 psi	1.38 MPa	200 psi
		HH192	2m	Pack				
		HH1910	10m	Box				
		HH1920	20m	Coil				
25.4mm	1"	HH2545	5m	Coil	0.30 MPa	44 psi	1.21 MPa	175 psi
		HH25420	20m	Coil				

All properties nominal, contact Mackay for Technical advice *All Dimensions in Millimetres*

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MACKAY INDUSTRIAL RUBBER TECHNOLOGY

FUEL & OIL HOSE

Mackay Fuel and Oil Hose has been developed using materials from our experience as an Original Equipment Manufacturer (OEM).

Suitable for low pressure fuel use with leaded and unleaded petrol, Ethanol blended fuels up to E85, Diesel & Biodiesel fuels, lubricating oil as well as crankcase and fuel vapour.

Manufactured using a high quality Nitrile (NBR) rubber tube, knitted Polyester fibre reinforcement, with an oil resistant Nitrile/PVC (NBR/PVC) blended rubber outer layer for heat and ozone protection.

Exceeds Fuel Hose Specifications SAE J30R6

Working Temperature Range -34°C to 100°C (-29°F to 212°F)

Caution: Not suitable for fuel injection, transmission cooler, in-tank fuel submersion, coolant transfer, brake fluid or marine applications.

FUEL & OIL HOSE

ID mm	ID Inches	Part No.	Length	Packaging	SAE 30R6 Maximum Working Pressure		SAE 30R6 Minimum Burst Pressure	
4mm	5/32"	FH1004X2	2m	Plastic Bag	0.34 MPa	50 psi	1.72 MPa	250 psi
		FH1004X10	10m	Box				
		FH1004X20	20m	Box				
		FH1004X50	50m	Coil				
5mm	3/16"	FH1005X2	2m	Plastic Bag	0.34 MPa	50 psi	1.72 MPa	250 psi
		FH1005X10	10m	Box				
		FH1005X20	20m	Box				
		FH1005X50	50m	Coil				
6mm	1/4"	FH6X1.5	1.5m	Retail Pack	0.34 MPa	50 psi	1.72 MPa	250 psi
		FH1006X2	2m	Plastic Bag				
		FH1006X10	10m	Box				
		FH1006X20	20m	Box				
		FH1006X50	50m	Coil				
8mm	5/16"	FH8X1.5	1.5m	Retail Pack	0.34 MPa	50 psi	1.72 MPa	250 psi
		FH1008X2	2m	Plastic Bag				
		FH1008X10	10m	Box				
		FH1008X20	20m	Box				
		FH1008X50	50m	Coil				
10mm	3/8"	FH10X1.5	1.5m	Retail Pack	0.34 MPa	50 psi	1.72 MPa	250 psi
		FH1010X2	2m	Plastic Bag				
		FH1010X10	10m	Box				
		FH1010X20	20m	Box				
		FH1010X50	50m	Coil				
13mm	1/2"	FH1013X2	2m	Plastic Bag	0.24 MPa	35 psi	1.20 MPa	175 psi
		FH1013X10	10m	Box				
		FH1013X20	20m	Box				
		FH1013X50	50m	Coil				
16mm	5/8"	FH1016X2	2m	Plastic Bag	0.24 MPa	35 psi	1.20 MPa	175 psi
		FH1016X10	10m	Box				
		FH1016X20	20m	Coil				
19mm	3/4"	FH1019X2	2m	Plastic Bag	0.24 MPa	35 psi	1.20 MPa	175 psi
		FH1019X10	10m	Box				
		FH1019X20	20m	Coil				

Al properties nominal, contact Mackay for Technical advice *All Dimensions in Millimetres*

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MACKAY INDUSTRIAL RUBBER TECHNOLOGY

FUEL INJECTION HOSE

Mackay Fuel Injection Hose is manufactured using the same materials and construction that we supplied as Original Equipment (OE) to the Australian automotive Industry.

Suitable for withstanding the high pressures used in modern fuel injection systems and compatible with leaded and unleaded petrol, Ethanol blended fuels up to E85, Diesel & Biodiesel fuels, LPG vapour, lubricating oil as well as crankcase and fuel vapour applications.

Manufactured using a Fluoroelastomer (FKM) inner lining chosen for its high heat tolerance, low permeation characteristics as well as its ability to handle alcohol and oxygenated fuels, this is then coated by an intermediate layer of Hypalon® (CSM) rubber, which is braided with Polyester fibre reinforcement for high burst strength, the final outer cover layer is an abrasion and oil resistant Hypalon® (CSM) rubber for maximum heat and ozone protection ensuring long service life.

Exceeds Fuel Injection Hose Specification SAE J30R9

Working Temperature Range -34°C to 135°C (-29°F to 275°F) and intermittent use at 150°C (302°F)

CAUTION: This hose is not suitable for Methanol levels over 15%, in-tank fuel submersion, coolant, brake fluid or marine applications.

FUEL INJECTION HOSE

ID mm	ID Inches	Part No.	Length	Packaging	SAE 30R9 Maximum Working Pressure		SAE 30R9 Minimum Burst Pressure	
6mm	¼"	FIH6X1	1m	Retail Pack	0.69 MPa	100 psi	6.2 MPa	900 psi
		FIH6502	2m	Plastic Bag				
		FIH6505	5m	Plastic Bag				
		FIH6510	10m	Box				
8mm	5/16"	FIH8X1	1m	Retail Pack	0.69 MPa	100 psi	6.2 MPa	900 psi
		FIH802	2m	Plastic Bag				
		FIH805	5m	Plastic Bag				
		FIH810	10m	Box				
9.5mm	⅜"	FIH9502	2m	Plastic Bag	0.69 MPa	100 psi	6.2 MPa	900 psi
		FIH9505	5m	Plastic Bag				
		FIH9510	10m	Box				

PVC HOSE

Mackay PVC Hose is constructed using an Ozone and UV resistant Polyvinyl Chloride (PVC) and reinforced for high pressure transfer of Air and Water. Mackay PVC Hose can also be used for short term low pressure transfer of Fuel and Oil.

HOSE SPECIFICATIONS:

- Maximum Recommended Working Pressure for Air and Water: 101psi (0.7MPa)
- Minimum Burst Pressure for Air and Water: 406psi (2.8MPa)
- Working Temperature Range: -10°C to +60°C

APPLICATIONS:

- Transfer of Air.
- Transfer of Water.
- Short term low pressure transfer of Fuel and Oil, such as carbureted lawn mowers.

Caution

- NOT SUITABLE FOR DRINKING WATER.
- NOT SUITABLE FOR LONG TERM CONTACT WITH FUEL OR OIL, OR SUBMERSION IN THESE LIQUIDS AS THE HOSE WILL GO BRITTLE.
- NOT SUITABLE FOR HIGH PRESSURE FUEL APPLICATIONS.
- NOT SUITABLE FOR FUEL TRANSFER IN ENCLOSED SPACES.
- NOT SUITABLE FOR MARINE FUEL APPLICATIONS.

Part No	ID mm	ID Inch	Length
PVC8X20	8	5/16"	20m
PVC10X20	10	⅜"	20m
PVC13X20	13	½"	20m
PVC16X10	16	⅝"	10m
PVC19X10	19	¾"	10m

All properties nominal, contact Mackay for Technical advice *All Dimensions in Mill*

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MACKAY INDUSTRIAL RUBBER TECHNOLOGY

BRAKE BOOSTER VACUUM HOSE

Mackay Brake Booster Vacuum Hose is manufactured using the same materials and construction that we supplied as Original Equipment (OE) to the Australian automotive Industry.

Suitable for the light duty vacuum brake applications found on Passenger Cars and Light Trucks.

Manufactured using an oil and fuel vapour resistant Nitrile (NBR) rubber inner tube, high levels of Polyester fibre reinforcement for resistance to vacuum collapse, with an outer Hypalon® (CSM) cover material known for its excellent heat and ozone resistance.

Exceeds Vacuum Brake Hose Specification SAE J1403 Type L

Working Temperature Range -40°C to 125°C (-40°F to 257°F)

CAUTION: This hose is not suitable for coolant or brake fluid applications.

POWER BRAKE VACUUM HOSE

ID mm	ID Inches	Part No.	Length	Packaging
8.8mm	11/32"	BVH902	2m	Plastic Bag
		BVH905	5m	Plastic Bag
		BVH910	10m	Box
12mm	15/32"	BVH1202	2m	Plastic Bag
		BVH1205	5m	Plastic Bag
		BVH1210	10m	Box

EMISSIONS CONTROL, FUEL VAPOUR & VACUUM HOSE

Mackay EFV Hose is manufactured using the same materials and specifications that we supplied to the local automotive Industry as Original Equipment (OE).

It is constructed of a non-reinforced Nitrile/PVC (NBR/PVC) rubber tube that gives it resistance to crankcase fumes, Petrol, Diesel and Ethanol vapour while also providing protection against the aging effects of heat and ozone degradation.

Manufactured to the original OE specifications this hose is suitable for emissions control, fuel vapour and vacuum applications as well as having the pressure capability required to regulate turbo control valves.

Working Temperature Range -34°C to 125°C (-29°F to 257°F)

Caution: This hose is not suitable for fuel, oil, coolant, or brake fluid applications.

EMISSIONS CONTROL, FUEL VAPOUR & VACUUM HOSE

ID mm	ID Inches	Part No.	Length	Packaging
3mm	1/8"	EFV1003X2	2m	Plastic Bag
		EFV1003X10	10m	Box
		EFV1003X20	20m	Box
4mm	5/32"	VH4X2	2m	Retail Pack
		EFV1004X2	2m	Plastic Bag
		EFV1004X10	10m	Box
		EFV1004X20	20m	Box
5.5mm	7/32"	EFV10055X2	2m	Plastic Bag
		EFV10055X10	10m	Box
6mm	1/4"	EFV1006X2	2m	Plastic Bag
		EFV1006X10	10m	Box
		EFV1006X20	20m	Box

Al properties nominal, contact Mackay for Technical advice *All Dimensions in Millimetres*

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MACKAY INDUSTRIAL RUBBER TECHNOLOGY

TRANSMISISON COOLER & POWER STEERING RETURN HOSE

Mackay Transmission Cooler and Power Steering Return Hose has been developed using materials from our experience as an Original Equipment Manufacturer (OEM).

Suitable for use with transmission & power steering fluids.

Manufactured using a Nitrile (NBR) rubber tube, with a knitted high tensile strength Para-Aramid fibre reinforcement for maximum burst protection, with an oil resistant Nitrile/PVC (NBR/PVC) rubber outer cover layer for heat and ozone protection.

Exceeds Power Steering Return Hose Specification SAE J189

Working Temperature Range -40°C to 120°C (-40°F to 248°F) average and 135°C (275°F) maximum peaks

CAUTION: Not suitable for coolant, brake fluid or high pressure power steering line applications.

TRANSMISSION COOLER & POWER STEERING RETURN HOSE

ID mm	ID Inches	Part No.	Length	Packaging	SAE J189 Maximum Working Pressure		SAE J189 Minimum Burst Pressure	
8mm	5/16"	TPH8X2	2m	Retail Pack	0.69 MPa	100 psi	6.9 MPa	1000 psi
		TPH802	2m	Plastic Bag				
		TPH805	5m	Plastic Bag				
		TPH810	10m	Box				
		TPH820	20m	Box				
9.5mm	3/8"	TPH10X2	2m	Retail Pack	0.69 MPa	100 psi	6.9 MPa	1000 psi
		TPH1002	2m	Plastic Bag				
		TPH1005	5m	Plastic Bag				
		TPH1010	10m	Box				
		TPH1020	20m	Box				

IN-LINE FILTER

SUITABLE FOR TRANSMISSION COOLER & POWER STEERING RETURN HOSE APPLICATIONS

Part number ILF1010 is an In-Line filter that can be installed on the return line of any hydraulic Power Steering system or Automatic Transmission Cooler Line. Its design features a two stage filtering system that uses a large magnet to attract and trap fine metal particulates and a traditional filter to trap large nonmetallic particles that can naturally occur in hydraulic systems. It also includes a Safety Bypass so the flow of fluid is never inhibited even in a fully contaminated system. It fits standard 9.5mm ID (3/8") Transmission Cooler & Power Steering return hose and comes with two hose clamps.

All properties nominal, contact Mackay for Technical advice *All Dimensions in Millimetres*

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MACKAY INDUSTRIAL RUBBER TECHNOLOGY

WINDSCREEN WASHER TUBING

Mackay Wiper Tubing is manufactured from EPDM which is resistant to ozone, heat and water swell. The tubing meets Spec. SAE J1037. This tubing is not suitable for conveying petroleum products.

Working Temperature Range -40°C to 125°C (-40°F to 257°F)

WINDSCREEN WASHER TUBING

ID mm	ID Inches	Part No.	Length	Packaging	Maximum Working Pressure		SAE J1037 Minimum Burst Pressure	
3.2mm	1/8"	WT3.2X2	2m	Plastic Bag	0.17 MPa	25 psi	0.70 MPa	102 psi
		WT3.2X10	10m	Box				
4.8mm	3/16"	WT4.8X2	2m	Plastic Bag				
		WT4.8X10	10m	Box				
6.3mm	1/4"	WT6.3X2	2m	Plastic Bag				
		WT6.3X10	10m	Box				

RADIATOR OVERFLOW HOSE

Low pressure non reinforced hose made from EPDM, providing resistance to coolant additives and heat and ozone.

RADIATOR OVERFLOW HOSE

ID mm	ID Inches	Part No.	Length	Packaging
8mm	5/16"	OFH801	1m	Plastic Bag
		OFH810	10m	Box
		OFH820	20m	Box
		OFH8100	100m	Box
10mm	3/8"	OFH1001	1m	Plastic Bag
		OFH1010	10m	Box
		OFH1020	20m	Box

TRADE PACKS

45° & 90° UHB Trade Pack - Part Number UBAG1

Part No.	ID mm	ID Inches	Arm Length	QTY In Pack	Application
UHB31	31mm	1 1/4"	120mm	1	Radiator Hose SAE 20R4
UHB31-300/45	31mm	1 1/4"	300mm	1	
UHB38	38mm	1 1/2"	120mm	1	
UHB38-300/45	38mm	1 1/2"	300mm	1	
UHB44	44mm	1 3/4"	140mm	1	
UHB44-300/45	44mm	1 3/4"	300mm	1	
UHB50	50mm	2"	140mm	1	
UHB50-300/45	50mm	2"	300mm	1	

Heater Hose Trade Pack - Part Number HHPACK1

Part No.	ID mm	ID Inches	Length	QTY In Pack	Application
HH82	8mm	5/16"	2m	1	Heater Hose SAE 20R3* (*Excluding HH10T-WX2)
HH10TWX2	9.5mm	3/8"	2m	1	
HH102	10mm	3/8"	2m	1	
HH1272	12.7mm	1/2"	2m	1	
HH1592	15.9mm	5/8"	2m	1	
HH1752	17.5mm	11/16"	2m	1	
HH192	19mm	3/4"	2m	1	

Fuel Hose Trade Pack - Part Number FHPACK1

Part No.	ID mm	ID Inches	Length	QTY In Pack	Application
FH1004X2	4mm	5/32"	2m	1	Low-Pressure Fuel & Oil Hose SAE 30R6
FH1005X2	5mm	3/16"	2m	1	
FH1006X2	6mm	1/4"	2m	1	
FH1008X2	8mm	5/16"	2m	1	
FH1010X2	10mm	3/8"	2m	1	
FH1013X2	13mm	1/2"	2m	1	

Al properties nominal, contact Mackay for Technical advice *All Dimensions in Millimetres*

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MACKAY INDUSTRIAL RUBBER TECHNOLOGY

MACKAYFLEX ™

MackayFlex™ is a flexible water hose (Not suitable for oil, fuel applications) designed to suit universal Automotive and Industrial applications.

MackayFlex™ hoses can bend and flex in almost any direction and is an ideal replacement for unusual / emergency applications or permanent use. Made from quality EPDM rubber, with textile reinforcement and rubber encapsulated steel inner spring construction.

Suitable for Water Applications

Working Temperature: -40 degrees C To +125 degrees C.

Burst Pressure: According to SAEJ20R5 standards

Part Number Identification system:

eg. **Single ID**

25254F = 25mm ID X 254mm Length

Dual ID

3844558F = 38mm ID on one end, 44mm ID other end x 558mm Length.

MACKAYFLEX™ Single ID

MackayFlex#	ID (mm)	Length (mm) (+20 -0 mm)
25254F	25	254
25406F*	25	406
25508F	25	508
25609F	25	609
32304F*	32	304
32406F*	32	406
32508F*	32	508
32609F	32	609
35406F	35	406
38355F*	38	355
38406F*	38	406
38457F*	38	457
38508F*	38	508
44355F*	44	355
44406F*	44	406
44457F*	44	457
44609F	44	609
51203F	51	203
51355F*	51	355
51406F*	51	406
51609F	51	609
57254F	57	254
57355F*	57	355
57457F*	57	457
57558F	57	558
57660F	57	660
57920F	57	920
63254F	63	254
63355F*	63	355
63457F	63	457
70254F	70	254
70355F*	70	355
70457F	70	457
70558F	70	558
76254F	76	254
76355F*	76	355
76457F	76	457
76558F	76	558

MACKAYFLEX™ Dual ID

MackayFlex #	ID 1 (mm)	ID 2 (mm)	Length (mm) (+20 /-0 mm)
3238304F	32	38	304
3238406F	32	38	406
3538304F	35	38	304
3538406F	35	38	406
3844355F	38	44	355
3844457F	38	44	457
3844558F	38	44	558
4451304F	44	51	304
4451406F	44	51	406
5157304F	51	57	304
5157406F	51	57	406
5763304F	57	63	304
5763406F	57	63	406
6370304F	63	70	304
6370406F	63	70	406
7076304F	70	76	304
7076406F	70	76	406

dvice *All Dimensions in Millimetres*

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MACKAY INDUSTRIAL RUBBER TECHNOLOGY

MACKAYFLEX ™ MERCHANDISER MFM2

The MackayFlex ™ Hose Merchandiser helps you easily display the top 18 MackayFlex ™ Hoses.

The Merchandiser includes a 18 hook rack (HR1), Header board and the 18 most popular MackayFlex hoses.

* Hoses included with Merchandiser (1 of each)
All Dimensions Nominal

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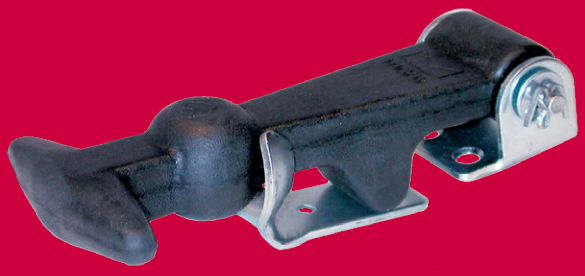
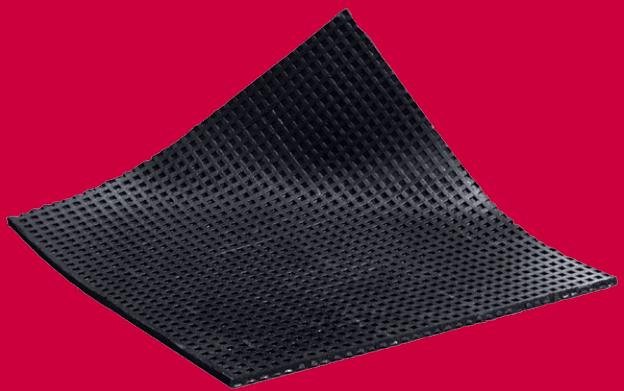
Flexible Isolator Catalogue

section 19

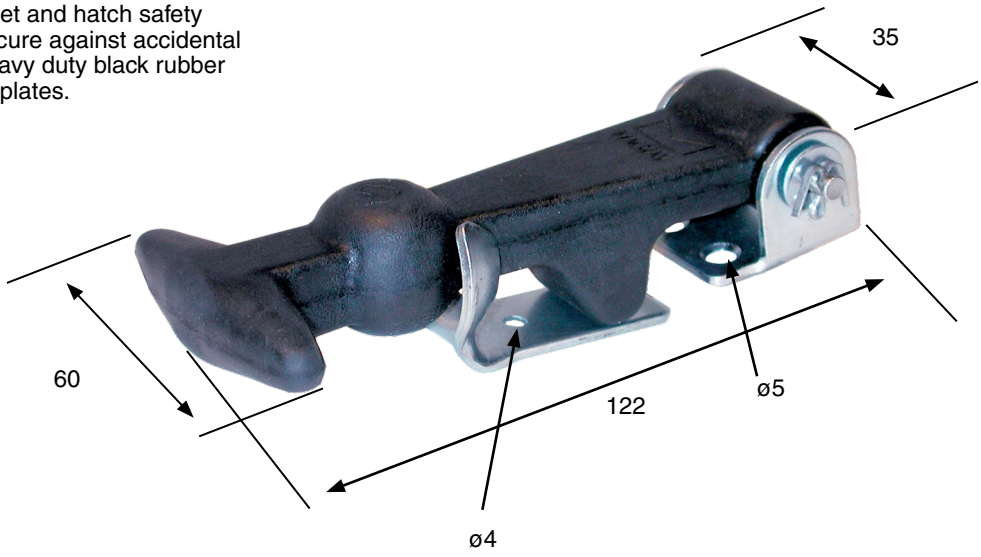




BONNET CLAMP

A1177
Weight 0.1 Kg

A very strong and rugged bonnet and hatch safety clamp specially designed to secure against accidental opening. Stoutly moulded in heavy duty black rubber and is complete with mounting plates.



FLEXI-STRAPS
RUBBER STRAPS & FASTENERS

- REINFORCED ENDS - hooks will not pull out
- QUICK ON/OFF HOOKS - eliminate rope tying
- PLASTIC COATED HOOKS - will not mark paint work
- NON-STAINING , LONG LIFE RUBBER - weather resistant compound

Part No.	LENGTH mm	STRETCH LENGTH mm	Weight kg
FHS9K	230	285	0.08
FHS15K	380	475	0.10
FHS24K	610	765	0.14
FHS31K	785	980	0.16

Add 100mm for Hooks

For your protection , Mackay recommend that the use of “Flexi-straps” DOES NOT EXCEED the specified stretch as listed.

All properties nominal, contact Mackay for Technical advice *All Dimensions in Millimetres*

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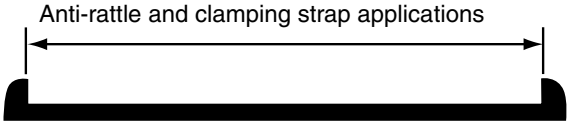
MACKAY INDUSTRIAL RUBBER TECHNOLOGY

BRACKET STRAPS

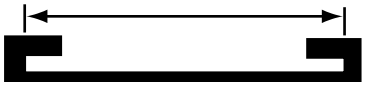
Anti-rattle and clamping strap applications



Part No.	Width	Length
MEBS25	25	50m
MEBS50	50	50m
MEBS52	52	50m
MEBS75	75	50m

TANK STRAPS

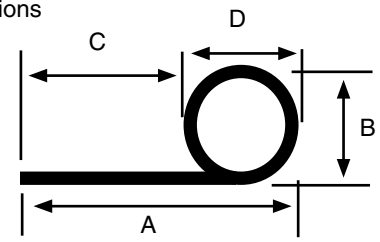
Anti-rattle and clamping strap applications



Part No.	Width	Length
METS20	20	50m
METS25	25	50m
METS40	40	50m
METS50	50	50m
METS75	75	50m
METS100	100	25m

DOOR SEAL P SECTION

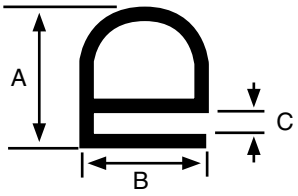
Dust and moisture sealing strip. Also suited to anti-rattle applications



Part No.	STD Length	A	B	C	D
MEPS100	50 mtrs	38	14	24	14
MEPS104	50 mtrs	30	13	20	10
MEPS105	50 mtrs	35	13	22	13
MEPS107	50 mtrs	32	10	20	12
MEPS109	50 mtrs	30	20	14	16

DOOR SEALS E SECTION

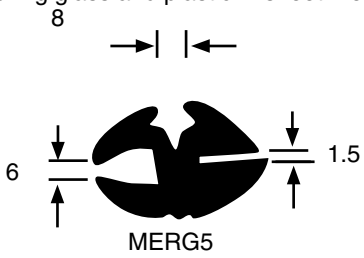
Dust and moisture sealing strip. Also suited to anti-rattle applications



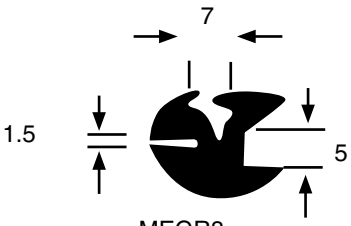
Part No.	STD Length	A	B	C
MEES5	50mtrs	9	12	1.5
MEES11	50mtrs	15	15	3
MEES12	50mtrs	13	13	3
MEES13	50mtrs	18	18	3
MEES15	50mtrs	19	22	2.5
MEES20	30mtrs	20	20	3
MEES25	30mtrs	50	45	6

GLAZING RUBBER EXTRUSIONS

For securing glass and plastic in sheet metal

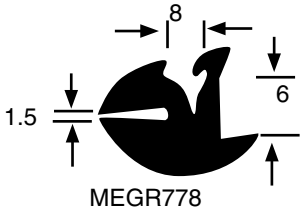


MERG5

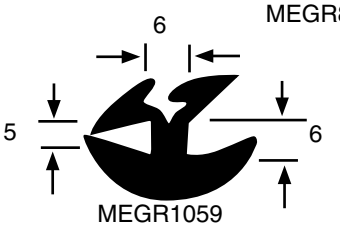


MEGR8

MEGL2



MEGR778



MEGR1059

Part No.	STD Length
MEGR5	30 mtrs
MEGR8	30 mtrs
MEGR778	30 mtrs
MEGR1059	30 mtrs
MEGL2	30 mtrs

Al properties nominal, contact Mackay for Technical advice *All Dimensions in Millimetres*

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MACKAY INDUSTRIAL RUBBER TECHNOLOGY

SPONGE EXTRUSIONS

EPDM RUBBER SPONGE STRIP

available in 30 metre lengths

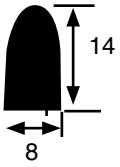
Part No.	Description	Dunlop	Ormiston
MSE1010	10x10	A187	S186
MSE105	10x5	A36	S152
MSE106	10x6	A23	S141
MSE1111	11x11	A40	S154
MSE1210	12x10	A33	S150
MSE1212	12x12	A56	S512
MSE1310	13x10		
MSE1313	13x13		
MSE133	13x3	A42	S156
MSE135	3x5	A28	S146
MSE136	13x6	A10	S130
MSE1613	16x3	A63	S549
MSE1616	16x16	A62	S162
MSE1710	17x10	A43	
MSE175	17x5	A11	S131
MSE1910	19x10		S157
MSE1913	19x13	A57	S550
MSE1919	19x19	A55	S400
MSE196	19x6	A64	S163
MSE203	20x3		
MSE2213	22x13	A18	S136
MSE2222	22x22	A21	S139
MSE251.5	25x1.5		S166
MSE2510	25x10	A209	S321
MSE2513	25x13	A17	S135
MSE2519	25x19	A185	S529
MSE2525	25x25		
MSE253	25x3	A66	S165
MSE255	25x5	A65	S164
MSE256	25x6	A77	S179
MSE3213	32x13		
MSE3219	32x19		
MSE3225	32x25	A72	S169
MSE323	32x3	A69	S167
MSE325	32x5		S325
MSE3813	38x13	A70	S168
MSE3819	38x19		S381
MSE3825	38x25		S382
MSE383	38x3	A51	S160
MSE385	38x5	A141	S526
MSE386	38x6		S602
MSE407	40x7		
MSE5013	50x13	A59	S551
MSE5025	50x25		
MSE503	50x3		
MSE5030	50x30		
MSE505	50x5		
MSE506	50x6		S183
MSE6012	60x12		
MSE607	60x7		
MSE65	6x5		S544
MSE66	6x6		
MSE7512	75x12		

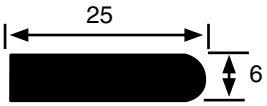
EPDM RUBBER SPONGE CORD

available in 30 metre lengths

Part No.	Description	Dunlop	Ormiston
MSEC4.5	4.5mm		S548
MSEC5	5mm		
MSEC6	6mm		S606
MSEC7.5	7.5mm		
MSEC8	8mm		S617
MSEC8.5	8.5mm		
MSEC10	10mm	A35	S151
MSEC12.7	12.7mm	A19	S137
MSEC15	15mm		
MSEC16	16mm		
MSEC17	17mm		
MSEC19	19mm		S158
MSEC22	22mm		
MSEC25	25mm	A61	S161

EPDM RUBBER SPONGE BULL NOSE STRIP

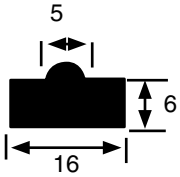


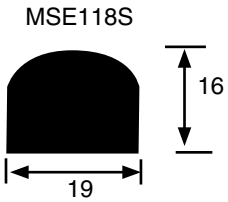


available in 30 metre lengths

Part No.	Description mm
MSE108MR	10x8
MSE256BNOSE	25x6

EPDM RUBBER SPONGE BULB STRIP





available in 30 metre lengths

Part No.	Description	Dunlop	Ormiston
MSE118S	19x16	A118	S158
MSE127S	16x6 mm		S127
MSE13S	12x8 mm	A13	
MSE5S	16x8 mm	A5	

All properties nominal, contact Mackay for Technical advice *All Dimensions in Millimetres*

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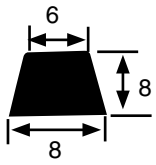
MACKAY INDUSTRIAL RUBBER TECHNOLOGY

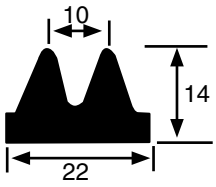
EPDM RUBBER SPONGE SINGLE PYRAMID STRIP



available in 30 metre lengths

Part No.	Description	Dunlop	Ormiston
MSE145S	8x8x6mm	A27	

EPDM RUBBER SPONGE DOUBLE PYRAMID STRIP



available in 30 metre lengths

Part No.	Description	Dunlop	Ormiston
MSE147S	22x14mm	A29	S147

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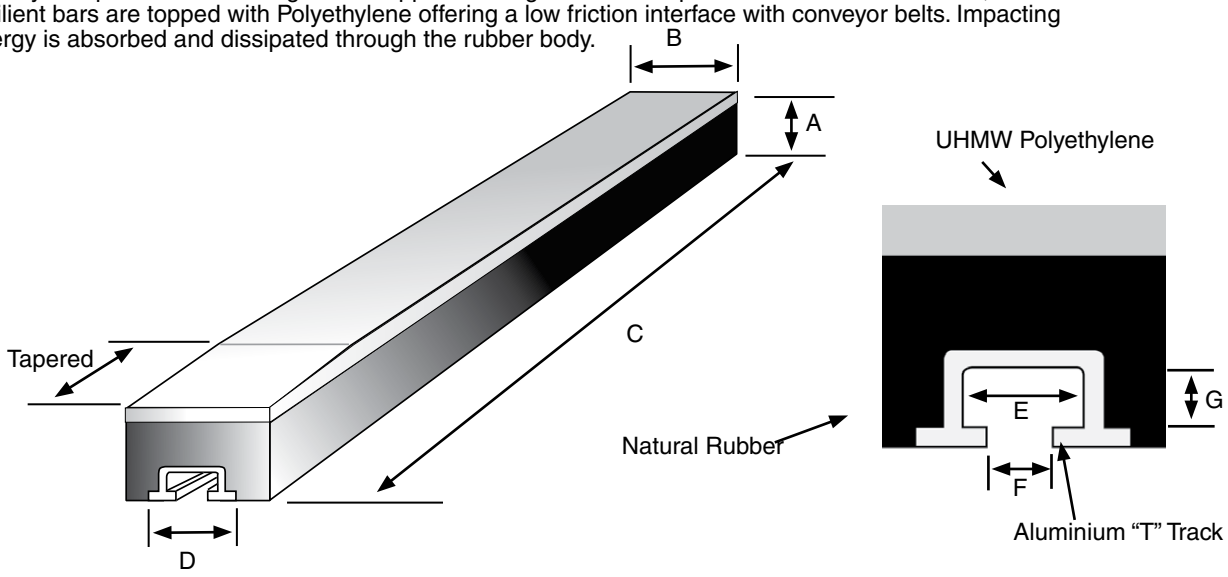
IMPACT BAR

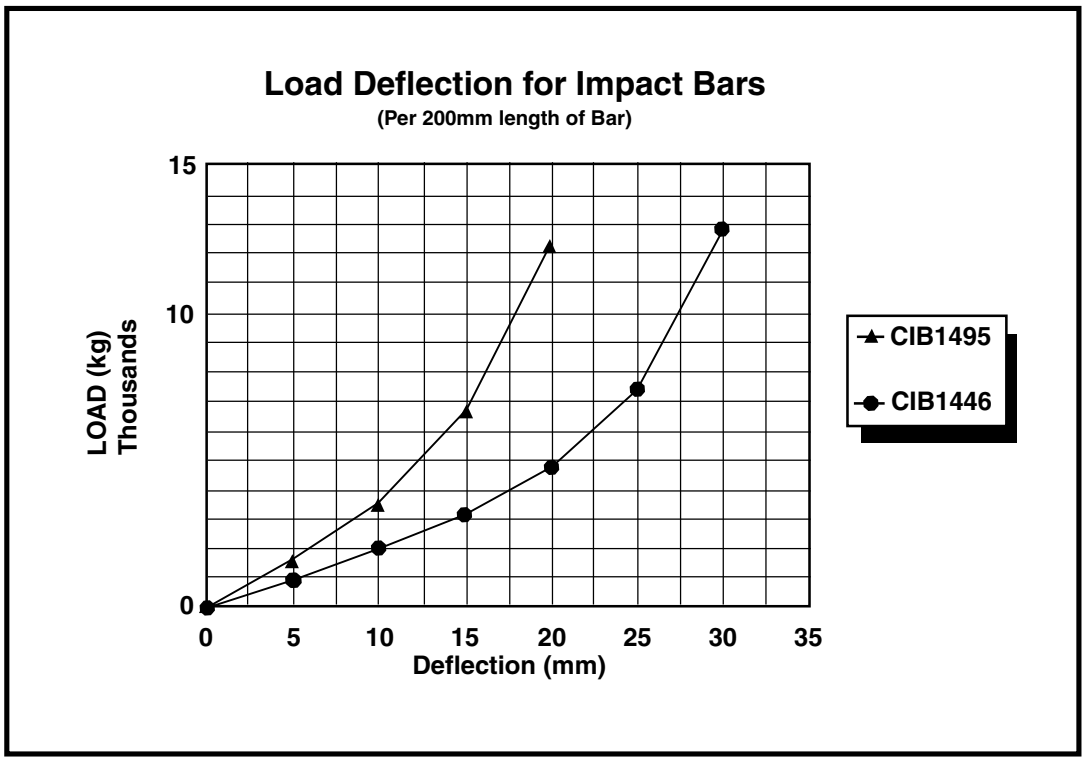
Non Stocked Item - Special Order Only

Conveyor impact bars are designed to support loading and transfer points. Available in four sizes, these resilient bars are topped with Polyethylene offering a low friction interface with conveyor belts. Impacting energy is absorbed and dissipated through the rubber body.



Part No	A	B	C Length	D	E	F	G
CIB1295	75	100	1200	95	57	22	12
CIB1495	75	100	1400	95	57	22	12
CIB1246	75	100	1200	46	27	14	8
CIB1446	75	100	1400	46	27	14	8
***LBA1001001000-J**	100	100	1000	95	57	22	12

*Impact Bar only (no Polyethylene top section)



All properties nominal, contact Mackay for Technical advice *All Dimensions in Millimetres*

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MACKAY INDUSTRIAL RUBBER TECHNOLOGY

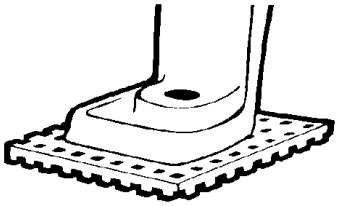
MACHINERY PAD

M164

The QUALITY material for effective control of machinery vibration , shock and acoustic noise.

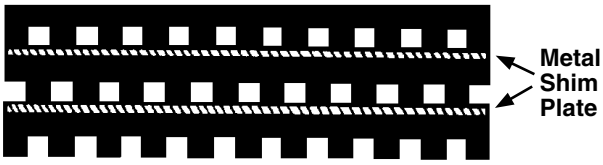
“Similar “products may not be suitable for use in and around oil and greases

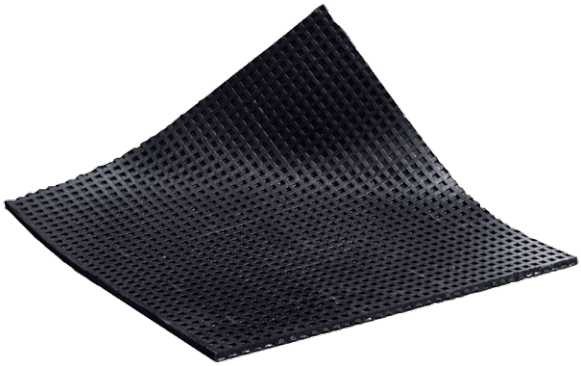
OIL-RESISTANT NEOPRENE Pad weight 1.7Kgs



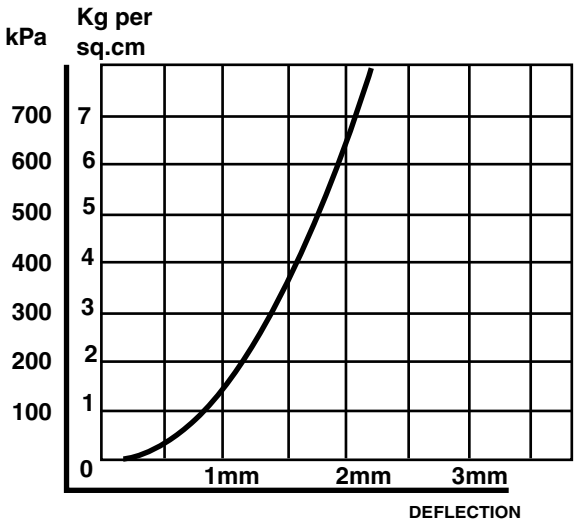
When installing a M164 pad an overlay of 6mm around the feet of the machine should be allowed for.

MULTIPLE LAYERS:
Where it is required to obtain increased deflection at the same kg/sq.cm. the M164 pad can be stacked in layers but, where more than two layers are used , separate each layer with a metal shim plate of 1.5 to 2mm thickness.
if several layers are required , the height of the stack should be less than the length or width.





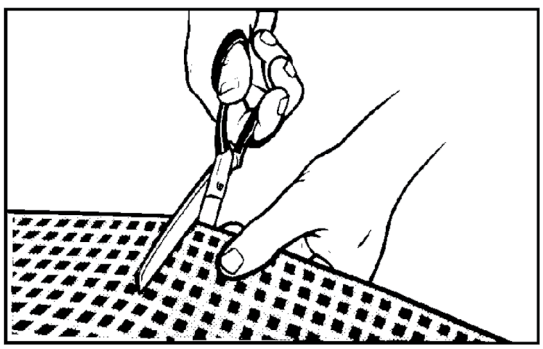
LOADING

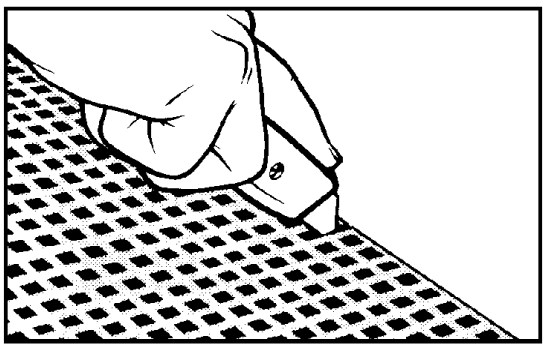


DEFLECTION GRAPH
For optimum operation , the M164 pad should be loaded at 3.5 kg/sq.cm.(50psi) , but it is suitable for a load rating from 0.7 to 4.2 kg/sq.cm.

When used with impact type machinery such as punch presses, the pad should be loaded at 1.8 kg/sq.cm.

The Mackay M164 mounting pad is available in a ***standard size of 457mm x 457mm***. Using scissors or a knife , the pad can be easily cut to required size. ***Thickness 7mm.***





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