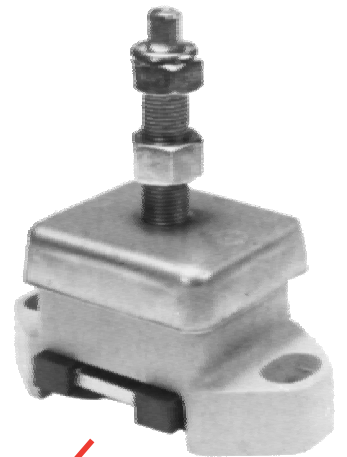
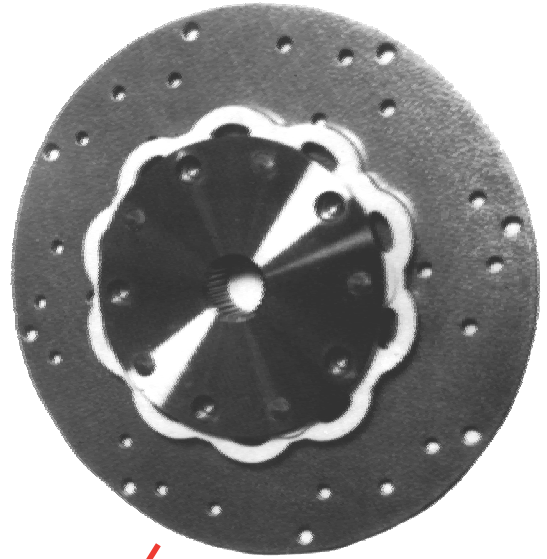
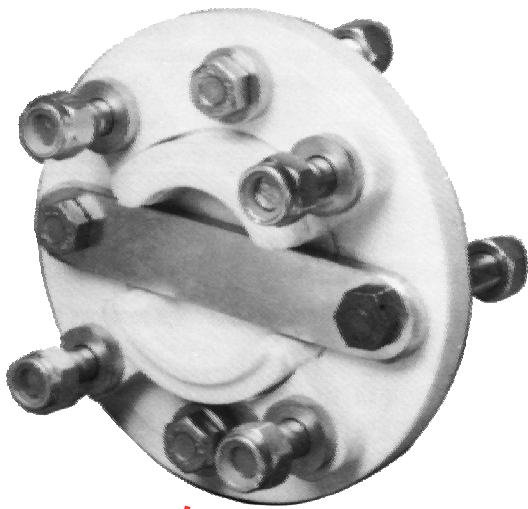


R & D MARINE LTD.

MARINE DAMPER DRIVE PLATES

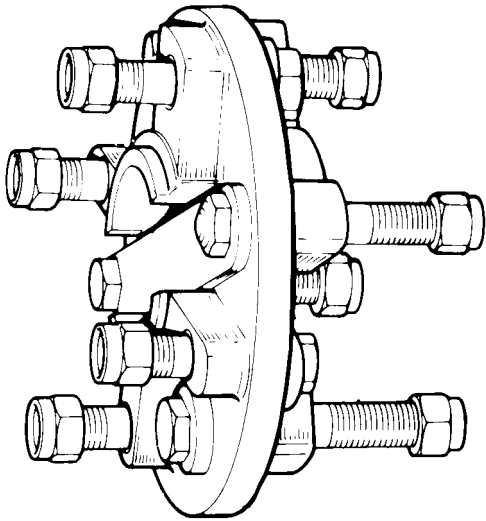
FLEXIBLE SHAFT COUPLINGS &
HALF COUPLING



ENGINE MOUNTING



FLEXIBLE SHAFT COUPLINGS



Why you should buy R & D FLEXIBLE COUPLINGS

1. Bolts between existing shaft flanges.
2. Requires no machining.
3. Simple to install.
4. Simple to periodically check alignment.
5. Reduces engine noise and vibration.
6. Fail Safe

Note: All flexible couplings are supplied with nuts and bolts ready for installing

Couplings as standard are non-conducting but we can supply a silver impregnated rubber element to fit in the centre of the coupling between the two fail safe straps to give continuity if required.

The R & D 910 Series couplings consist of a contoured flexible disc moulded in tough yet resilient new type polyurethane. The contoured disc gives clearance for the bolt heads, and is able to flex freely to take up any temporary misalignment of the engine and shaft, due to flexing of the boat structure or the engine moving on its rubber vibration isolation mountings. Forward thrust is taken in compression on the disc between the two half couplings and reverse thrust is taken again in compression on the disc between the two fail safe straps. In the unlikely event of a disc failure the steel straps make the coupling fail safe and ensure drive is maintained in both forward and reverse.

The 900 series couplings use flat discs and contoured castings with a central high tensile bolt to take reverse thrust, they are also fail safe.

SELECTION GUIDE

BORG WARNER

500910-014, 910-001
 1000910-014, 910-001
 1500910-014, 910-001 910-004
 71C.....910-014, 910-001, 910-004,910-009(BW)
 72C.....910-009 (BW), 910-029
 5000910-009 (BW), 910-029
 73C.....910-003, 910-025, 910-032
 7000910-003, 910-025, 910-032

BUKH

910-013
 910-028

ENFIELD & SONIC DRIVES

910-021

HURTH

35910-014, 910-001
 50910-014, 910-001, 910-004
 100910-014, 910-001, 910-004
 125910-014, 910-001,910-004
 150910-014, 910-001, 910-004
 250910-014, 910-001, 910-004
 360910-009 (Hurth), 910-029
 450A910-009 (Hurth), 910-029
 450H.....910-003, 910-025
 630910-009 (Hurth), 910-029
 800910-006, 910-026, 910-033

LISTER

900-003

NEWAGE PRM

120910-014, 910-001
 DELTA, 150910-014, 910-001, 910-004
 101, 140910-009(PR)
 160, 260910-009(PR)
 175, 265, 310 ...910-003
 301, 302, 500 ...910-003
 401, 402, 750 ...910-003, 910-025, 910-032
 601, 1000 up to 3:1910-003, 910-025, 910-032
 601, 1000 4:1 ...910-018

PARAGON

4"910-005

SELF CHANGE GEARS

350HD910-015
 700910-016

TECHNODRIVE

TMC30910-014, 910-001
 TMC50910-014, 910-001

TMP

910-009

TWIN DISC

MG5010910-036
 MG 502Adaptor 202148, with 910-003, 910-025, 910-032
 MG 5050910-006, 910-026, 910-033
 MG 5061910-006, 910-026, 910-033
 MG 506910-006, 910-026, 910-033, 910-017
 MG 507910-006, 910-026, 910-033,910-017
 MG 5081910-017
 MG 5091910-017
 MG 509910-017, 910-024
 MG 510910-022, 910-024
 MG 511910-022, 910-024
 MG 514910-024

VOLVO

MS& RB910-007
 MS2.....910-019, 910-020
 MS3.....910-009 (MS3)
 MS4.....910-009 (Volvo)
 MS5.....910-009 (Volvo), 910-029

YANMAR

KBW10, KM3 (78mm PCD)910-002
 KBW20, KBW21, KM4 (100mm PCD)910-012
 KM5 (4 1/4" PCD)910-037

ZF-MPM

IRM 41910-009, 910-029
 IRM 50910-009, 910-029
 IRM 220AAdaptor 202-148, with 910-003, 910-025, 910-032
 IRM 301910-006, 910-026, 910-033
 IRM310.....910-018

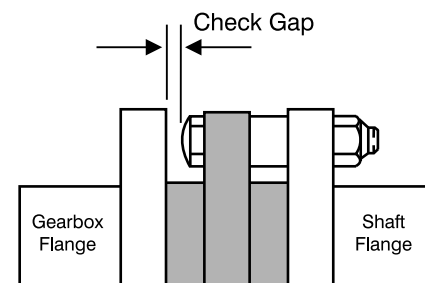
Flexible Coupling	GEARBOX FLANGE DIMENSIONS						FLEXIBLE COUPLING DETAILS					
	Manufacturer	Diameter mm <i>inch</i>	No. Bolts	Nom. Dia. of hole mm <i>inch</i>	Bolt Pitch Circle mm <i>inch</i>	Register mm <i>inch</i>	Diameter mm <i>inch</i>	Length mm <i>inch</i>	Diameter of Bolts	Capacity /100 rpm kW <i>HP</i>	Special Refs.	
910-001	BW, PRM, Hurth, Technodrive	101.6 <i>4.00</i>	4	10.0 <i>0.39</i>	82.55 <i>3.25</i>	63.5 <i>2.50</i>	114.3 <i>4.50</i>	32.5 <i>1.28</i>	M10	3.73 <i>5</i>		
910-002	Yanmar	101.6 <i>4.00</i>	4	10.0 <i>0.39</i>	78.00 <i>3.07</i>	50.0 <i>1.97</i>	114.3 <i>4.50</i>	32.5 <i>1.28</i>	M10	2.24 <i>3</i>		
910-003	BW, PRM, Hurth, MPM, Twin Disc	146.0 <i>5.75</i>	6	12.7 <i>0.50</i>	120.6 <i>4.75</i>	76.2 <i>3.00</i>	152.4 <i>6.00</i>	47.5 <i>1.87</i>	½ UNF	14.92 <i>20</i>	X O	
910-004	BW, PRM, Hurth	101.6 <i>4.00</i>	4	10.0 <i>0.39</i>	82.55 <i>3.25</i>	63.5 <i>2.50</i>	114.3 <i>4.50</i>	34.3 <i>1.35</i>	¾ UNF	5.22 <i>7</i>		
910-005	Paragon	101.6 <i>4.00</i>	4	9.7 <i>0.38</i>	82.55 <i>3.25</i>	66.7 <i>2.625</i>	114.3 <i>4.50</i>	34.5 <i>1.35</i>	¾ UNF	5.22 <i>7</i>		
910-006	Twin Disc, MPM, Hurth	146.0 <i>5.75</i>	6	16.0 <i>0.63</i>	120.6 <i>4.75</i>	76.2 <i>3.00</i>	152.4 <i>6.00</i>	47.5 <i>1.87</i>	½ UNF	14.92 <i>20</i>	● X O	
910-007	Volvo	101.6 <i>4.00</i>	4	10.0 <i>0.39</i>	80.00 <i>3.15</i>	60.0 <i>2.36</i>	114.3 <i>4.50</i>	43.7 <i>1.72</i>	M10	2.24 <i>3</i>		
910-009	BW, PRM, Hurth, Volvo	127.0 <i>5.00</i>	4	11.2 <i>0.44</i>	107.9 <i>4.25</i>	63.5 <i>2.50</i>	143.0 <i>5.63</i>	45.0 <i>1.77</i>	7/16 UNF	9.69 <i>13</i>	X O	
910-012	Yanmar	127.0 <i>5.00</i>	4	10.0 <i>0.39</i>	100.0 <i>3.93</i>	65.0 <i>2.56</i>	143.0 <i>5.63</i>	45.0 <i>1.77</i>	M10	7.46 <i>10</i>		
910-013	Bukh	90.0 <i>3.54</i>	4	8.1 <i>0.32</i>	74.5 <i>2.93</i>	47.0 <i>1.85</i>	114.3 <i>4.50</i>	32.5 <i>1.28</i>	M8	2.24 <i>3</i>		
910-014	BW, PRM, Hurth, Technodrive	101.6 <i>4.00</i>	4	10.0 <i>0.39</i>	82.55 <i>3.25</i>	63.5 <i>2.50</i>	114.3 <i>4.50</i>	32.5 <i>1.28</i>	M10	2.24 <i>3</i>		
910-015	Self Change 350HD	222.2 <i>8.75</i>	6	11.2 <i>0.44</i>	190.5 <i>7.50</i>	152.4 <i>6.00</i>	222.2 <i>8.75</i>	43.2 <i>1.70</i>	7/16 UNF	32.1 <i>43</i>	O	
910-016	Self Change 700HD	260.4 <i>10.25</i>	6	16.0 <i>0.63</i>	228.6 <i>9.00</i>	152.4 <i>6.00</i>	276.4 <i>10.88</i>	58.0 <i>2.28</i>	¾ UNF	48.5 <i>65</i>	X O	
910-017	Twin Disc	184.2 <i>7.25</i>	6	19.0 <i>0.75</i>	152.4 <i>6.00</i>	95.25 <i>3.75</i>	190.5 <i>7.50</i>	60.7 <i>2.39</i>	¾ UNF	29.84 <i>40</i>	● O	
910-018	PRM	184.2 <i>7.25</i>	6	19.0 <i>0.625</i>	152.4 <i>6.00</i>	95.25 <i>3.75</i>	190.5 <i>7.50</i>	60.7 <i>2.39</i>	¾ UNF	29.84 <i>40</i>	O	
910-019	Volvo	101.6 <i>4.00</i>	4	10.0 <i>0.39</i>	80.00 <i>3.15</i>	60.0 <i>2.36</i>	114.3 <i>4.50</i>	32.5 <i>1.28</i>	M10	2.24 <i>3</i>		
910-020	Volvo	101.6 <i>4.00</i>	4	10.0 <i>0.39</i>	80.00 <i>3.15</i>	60.0 <i>2.36</i>	114.3 <i>4.50</i>	32.5 <i>1.28</i>	M10	3.73 <i>5</i>		
910-021	Enfield, Sonic	101.6 <i>4.00</i>	2	11.2 <i>0.44</i>	76.0 <i>3.00</i>	--	108.0 <i>4.25</i>	41.7 <i>1.64</i>	7/16 UNF	1.87 <i>2.5</i>		
910-022	Twin Disc	228.6 <i>9.00</i>	8	22.6 <i>0.89</i>	190.5 <i>7.50</i>	152.4 <i>6.00</i>	222.2 <i>8.75</i>	44.5 <i>1.75</i>	½ UNF	44.00 <i>59</i>	● X O	
910-024	Twin Disc	266.7 <i>10.5</i>	8	25.4 <i>1.00</i>	222.2 <i>8.75</i>	127.0 <i>5.00</i>	276.4 <i>10.88</i>	56.7 <i>2.23</i>	¾ UNF	63.41 <i>85</i>	● X O	
910-025	BW, PRM, Hurth, MPM, Twin Disc	146.0 <i>5.75</i>	6	12.7 <i>0.5</i>	120.6 <i>4.75</i>	76.2 <i>3.00</i>	152.4 <i>6.00</i>	49.8 <i>1.96</i>	½ UNF	20.88 <i>28</i>		
910-026	Twin Disc	146.0 <i>5.75</i>	6	16.0 <i>0.63</i>	120.6 <i>4.75</i>	76.2 <i>3.00</i>	152.4 <i>6.00</i>	49.8 <i>1.96</i>	½ UNF	20.88 <i>28</i>	● X O	
910-028	Bukh	90.0 <i>3.54</i>	4	8.1 <i>0.32</i>	74.5 <i>2.93</i>	47.0 <i>1.85</i>	114.3 <i>4.50</i>	32.5 <i>1.28</i>	M8	3.73 <i>5</i>		
910-029	BW, Hurth, Volvo	127.0 <i>5.00</i>	4	11.2 <i>0.44</i>	107.9 <i>4.25</i>	63.5 <i>2.50</i>	143.0 <i>5.63</i>	52.4 <i>2.06</i>	7/16 UNF	14.92 <i>20</i>	O	
910-030		292.1 <i>11.5</i>	8	25.4 <i>1.00</i>	247.6 <i>9.75</i>	152.4 <i>6.00</i>	292.1 <i>11.5</i>	58.4 <i>2.30</i>	¾ UNF	89.52 <i>120</i>	● X O	
910-032	BW, PRM, MPM, Twin Disc	146.0 <i>5.75</i>	6	12.7 <i>0.5</i>	120.6 <i>4.75</i>	76.2 <i>3.00</i>	152.4 <i>6.00</i>	55.4 <i>2.18</i>	½ UNF	27.6 <i>37</i>		
910-033	Twin Disc, MPM, Hurth	146.0 <i>5.75</i>	6	16.0 <i>0.63</i>	120.6 <i>4.75</i>	76.2 <i>3.00</i>	152.4 <i>6.00</i>	55.4 <i>2.18</i>	½ UNF	27.6 <i>37</i>	●	
910-035	Manufactured to fit flange	--	8	--	293.3 <i>11.625</i>	--	340.0 <i>13.38</i>	--	--	119.36 <i>160</i>		
910-036	Twin Disc	127.0 <i>5.00</i>	4	10.0 <i>0.39</i>	104.8 <i>4.125</i>	63.5 <i>2.50</i>	143.0 <i>5.63</i>	45.0 <i>1.77</i>	M10	7.46 <i>10</i>		
910-037	Yanmar	130.0 <i>5.12</i>	4	12.3 <i>0.48</i>	107.9 <i>4.25</i>	63.5 <i>2.50</i>	143.0 <i>5.63</i>	51.1 <i>2.01</i>	7/16 UNF	9.69 <i>13</i>		
900-003	Lister, casting type coupling	120.7 <i>4.75</i>	6	11.2 <i>0.44</i>	98.5 <i>3.875</i>	63.5 <i>2.5</i>	150.9 <i>5.94</i>	69.9 <i>2.75</i>	7/16 UNF	7.46 <i>10</i>		

- O These flexible couplings have been approved by BUREAU VERITAS.
- X These flexible couplings have been approved by LLOYDS REGISTER OF SHIPPING.
- These couplings are fitted with a shouldered bush to locate in the Gearbox Flange.

For the Twin Disc 502 and ZF-MPM 220A Gearbox, we can supply adapter plate 202-148 (54mm *2.125"* long) that bolts onto flexible coupling 910-003, 910-025 or 910-032 and with half coupling 202-037 or 202-054 alternatively clamp type 202-176 or 202-178.

INSTALLATION PROCEDURE FOR R & D FLEXIBLE COUPLINGS

- Roughly align engine and stern gear without flexible coupling i.e. only two rigid half couplings pushed together.
- Bolt 'R&D Marine' coupling between the two rigid couplings. Tightening details as below.
- Check alignment of engine by placing feeler gauges between the **RED CONE HEADED BOLT** and the rigid half coupling. Repeat for the **SAME** bolt at 90° intervals by rotating the shaft.
- If the gap is the same in all four positions, the engine is accurately aligned. Recommended minimum to maximum gap difference: 0.25mm *0.010"*
- Run installation to bring engine compartment to working temperature. Re-check torque settings.



Recommended torque settings for lubricated threads (light oil):

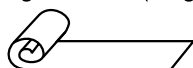
¾ UNF - 33.5 Nm *25 lbs ft* M10 - 40 Nm *30 lbs ft* 7/16 UNF - 47 Nm *35 lbs ft* ½ UNF - 74 Nm *55 lbs ft* 5/8 UNF - 154 Nm *115 lbs ft*

EARTHING CONNECTORS

'R & D Marine' Earthing Connector consists of a silver impregnated rubber strip, which when fitted through the axis of the coupling between the two fail safe straps gives electrical continuity. R & D have sizes to fit all 910 series couplings.

INSTALLATION PROCEDURE FOR R&D EARTHING CONNECTORS

- While carrying out the following procedure, ensure that the connector is not contaminated by grease or dirt.
- Before fitting the coupling into the drive train, remove 2 off bolts holding one of the fail safe straps.
- Remove the fail safe strap to uncover the hole in the centre of the coupling.
- Roll up the earthing connector (lengthways) as tight as possible.



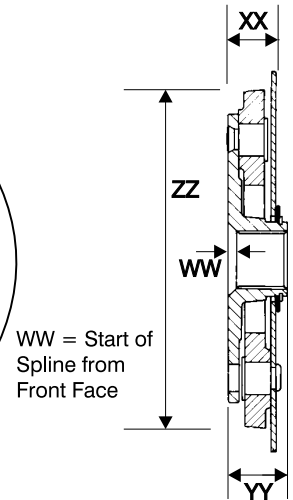
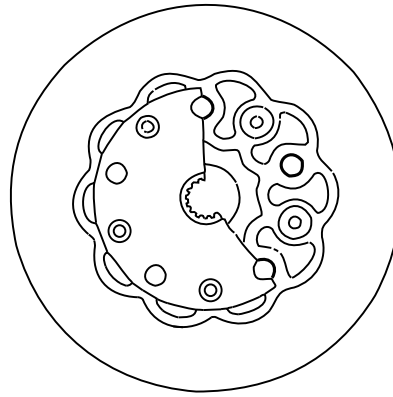
- Push into the hole previously uncovered by removing the strap as far as possible.
- Replace the fail safe strap ensuring that the connector is not damaged, replace 2 off bolts.
- Fit the coupling as per the installation instructions.
- Check electrical continuity on installation and thereafter at three to six month intervals.

R & D Marine Earthing Connector Application Guide		
Part No.	Size (mm)	To suit Coupling
103-036	9x57	910-021
103-037	11x57	910-001, 002, 007, 013, 014, 019, 020
103-038	15x57	910-004, 005, 012
103-039	17x57	910-003, 006, 009
103-040	19x57	910-017, 018, 025, 026
103-041	23x57	910-029
103-042	25x57	910-032, 033
103-043	15x75	910-015, 016, 022, 024
103-044	17x75	910-030

MARINE DAMPER DRIVE PLATES

Why you should buy R&D Marine Damper Drive Plates

1. Reduces gear noise
2. Allows engine to run at lower speeds
3. Back plate punched ready to install
4. Fail safe design
5. No springs to rust solid, fret or rattle



The 'R&D Damper' was developed to prevent gearbox rattle (gear hammer) at low engine speeds and allow engines to be used over their complete speed range. To isolate the torsional vibrations at slow speeds it is necessary to have a very soft drive connection, which must be sufficiently strong to transmit the full torque. The 'R&D Damper' meets these requirements and consists of a moulded element in a new type polyurethane which is fail safe and in the unlikely event of a flexible element failing, the drive is maintained.

R&D can offer three styles of Damper Drive Plate. The Loop Type as illustrated above is suitable for most applications. In some cases the 3 stage stiffness of the Hammer Head or the High Deflection Type is more suitable on torsionally active applications.

R&D Marine has a wide range of damper elements to meet all applications from 80 to 1630 Nm.

$$\text{Torque Nm} = \frac{\text{Engine Horsepower}}{\text{Engine Speed}} \times 7123$$

$$\text{Torque lbf} = \frac{\text{Engine Horsepower}}{\text{Engine Speed}} \times 5250$$

Element	LOOP														HAMMER HEAD						HIGH DEFLECTION			
	A	B	E	F	G	H	J	K	M	N	P	S	V	Z	W	D	L	R	U	Y	AA	AC	AD	AE
Capacity Nm	80	135	245	270	340	360	405	405	540	610	745	1015	610	1630	135	215	420	745	475	340	135	270	540	815
Capacity lbf	60	100	180	200	250	270	300	300	400	450	550	750	450	1200	100	160	310	550	350	250	100	200	400	600

Gearbox Details		Spline Dia.	
		mm	inch
Borg Warner			
71, 72, 73, 5000	26 Teeth 20/40 DP	34.4	1.394
1000, 1500	22 Teeth PA30	18.5	0.729
500,	10 Teeth B10 x 23 x 29 DIN 5464	29.0	1.142
7000	SAE 1 1/2 x 10	38.1	1.50
Newage PRM			
Delta	17 Teeth 24/48 DP	19.7	0.776
120, 150	10 Teeth B10 x 23 x 29 DIN 5464	29.0	1.142
100, 101, 140, 160, 260	SAE 1" x 10 Teeth	25.4	1.000
175, 250, 265, 310	SAE 1 1/8 x 10 Teeth	28.6	1.125
301, 302, 401, 402, 500, 750	17 Teeth 16/32 DP	28.84	1.135
In-Line 301, 302, 401, 402, 750	26 Teeth 20/40DP	34.4	1.394
601, 1000	18 Teeth 12/24 DP	40.5	1.595
Paragon			
P Series	26 Teeth 20/40 DP	34.4	1.394
Self Change Gear			
MRF 350 HD	32 Teeth 16/32 DP	52.3	2.060
MRF 350	SAE 1 5/8 X 10 Teeth	41.3	1.625

Gearbox Details		Spline Dia.	
		mm	inch
Technodrive			
TCM 30, 40, 50, 60,	10 Teeth B10 x 23 x 29 DIN 5464	29.0	1.142
TMP			
1200	26 Teeth 20/40 DP	34.4	1.394
Twin Disc			
502, 5010	26 Teeth 20/40 DP	34.4	1.394
Volvo			
MS3, 4, 5, HS1	26 Teeth 20/40 DP	34.4	1.394
ZF (Hurth)			
HBW35, 40, 50, 100, 125, 150	10 Teeth B10 x 23 x 29 DIN5464	29.0	1.142
HSW 125			
HBW 250, 360			
HSW 450, 630, 800	26 Teeth 20/40 DP	34.4	1.394
ZF (MPM)			
IRM 220A	26 Teeth 20/40 DP	34.4	1.394

A Selection from over 100 Standard Back Plates

Back Plate 60 SAE 6 1/2 215.85/215.8 Dia 8.498/8.495 6 x 8.1 0.32 on 200.0 7.875	Back Plate 40, 49 SAE 7 1/2 241.25/241.12 Dia 9.498/9.495 8 x 8.5 0.334 on 222.3 8.750	Back Plate 35, 43 SAE 8 263.48/263.4 Dia 10.373/10.370 6 x 9.5 0.375 on 244.5 9.625	Back Plate 17, 91 SAE 10 314.28/314.20 Dia 12.373/12.370 8 x 10.6 0.416 on 295.3 11.625 6 x 8.1 0.32 on 250.0 9.843 6 x 8.1 0.32 on 269.9 10.625 6 x 8.1 0.32 on 273.0 10.750 6 x 8.1 0.32 on 200.0 7.875
Back Plate 5, 14, 78, 101 SAE 11 1/2 352.37/352.29 Dia 13.873/13.870 8 x 10.6 0.416 on 333.4 13.125	Back Plate 34, 52, 79, 103 SAE 14 466.7/466.6 Dia 18.373/18.370 8 x 13.5 0.53 on 438.1 17.25	Back Plate 25, 94 287.32 Dia 11.312 6 x 9.0 0.356 on 269.9 10.625 3 x 6.35 0.25 on 269.9 10.625	Back Plate 6 202.69/202.59 Dia 7.980/7.976 8 x 8.1 0.32 on 181.0 7.125
Back Plate 2 362.0 Dia 14.25 6 x 8.1 0.32 on 200.0 7.875 6 x 8.1 0.32 on 210.0 8.268 6 x 8.1 0.32 on 263.5 10.375 6 x 8.1 0.32 on 269.9 10.625 6 x 8.1 0.32 on 276.3 10.875 6 x 8.1 0.32 on 288.9 11.375 6 x 8.1 0.32 on 295.3 11.625 6 x 8.7 0.344 on 304.8 12.000 6 x 8.1 0.32 on 314.3 12.375 6 x 9.5 0.375 on 320.7 12.625 12 x 9.5 0.375 on 342.9 13.500	Back Plate 7 180.9 Dia 7.12 9 x 6.3 0.25 on 167.4 6.589	Back Plate 4 155.5 Dia 6.12 5 x 6.3 0.25 on 142.0 5.593	Back Plate 1, 8 298.5 Dia 11.75 6 x 8.1 0.32 on 200.0 7.875 6 x 8.1 0.32 on 250.0 9.843 6 x 8.1 0.32 on 269.9 10.625 6 x 8.1 0.32 on 273.0 10.750
	Back Plate 36, 37 266.7 Dia 10.5 12 x 8.1 0.32 on 222.3 8.750 12 x 8.1 0.32 on 246.0 9.685 12 x 8.1 0.32 on 242.0 9.527 [6 x 8.1 0.32 on 244.5 9.625] [Spaced in 2 groups of 3]	Back Plate 3 336.4/336.2 Dia 13.245/13.235 6 x 8.1 0.32 on 200.0 7.875 6 x 8.1 0.32 on 210.0 8.268 6 x 8.1 0.32 on 263.5 10.375 6 x 8.1 0.32 on 269.9 10.625 6 x 8.1 0.32 on 276.3 10.875 6 x 8.1 0.32 on 288.9 11.375 6 x 8.1 0.32 on 295.3 11.625 6 x 8.7 0.344 on 304.8 12.000 6 x 8.1 0.32 on 314.3 12.375 6 x 9.5 0.375 on 320.7 12.625	Back Plate 15 362.0 Dia 14.25 12 x 9.5 0.375 on 342.9 13.50

FLEXIBLE ENGINE MOUNTINGS

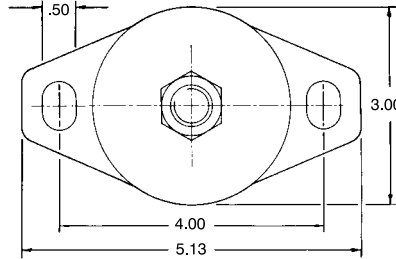
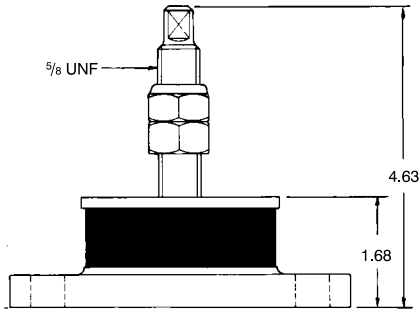
All R & D Engine Mountings have the following features:

1. Designed for marine applications & accept propeller thrust
2. Give good vibration isolation
3. Fail safe design using steel rebound control washer
4. Pre loaded in manufacture to restrict engine movement
5. Slotted holes in casting to assist alignment
6. Height adjusting to simplify alignment
7. All parts are zinc plated & passivated

Installation Details

Maximum clearance between the height adjusting nut and the top washer is 10mm.

If more height is required use spacer under the mounting casting.

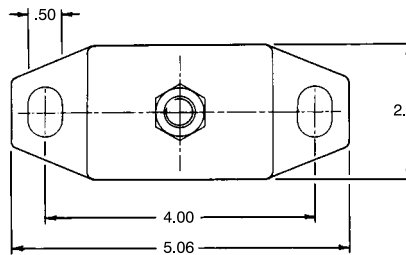
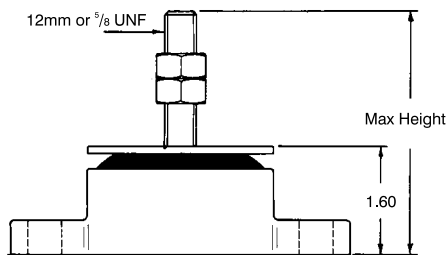


R&D MARINE COMPRESSION MOUNTING

The R&D Compression Mount is a low height mounting with minimum deflection.

Part No.	Capacity lbs	Deflection Inches
800-003	100-180	.09
800-004	160-370	.09
800-005	320-500	.09
Pre-loaded .06		

Height adjusting nut thickness: 0.55

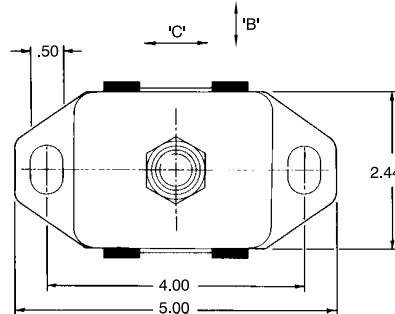
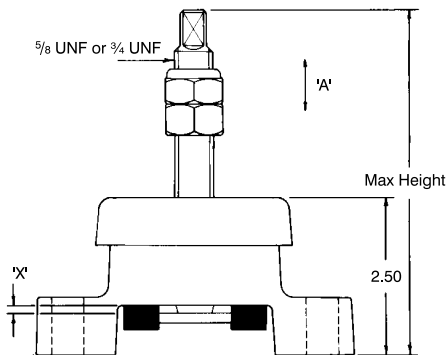


R&D MARINE SMALL SHEAR MOUNTING

The R&D Compression Mount is a low height mounting with minimum deflection.

12mm Stud			5/8 UNF Stud		
Part No.	Capacity lbs	Deflection Inches	Part No.	Capacity lbs	Deflection Inches
800-038	30-90	.07-.14	800-040	30-91	.07-.14
800-039	70-200	.07-.14	800-041	70-201	.07-.14
Pre-loaded .07					

Height adjusting nut thickness: .38
Maximum height 3.90



*X' dimensions on initial installation should not be more than 0.28 inches.

R&D MARINE "SUPER MOUNTS" SHEAR LOADED MOUNTING

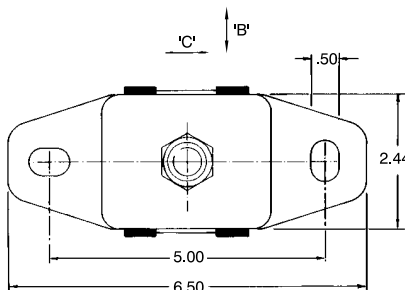
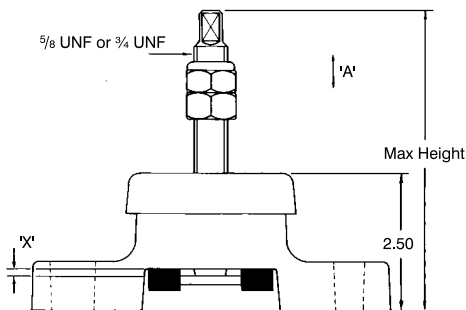
The R&D Shear Mount is a low height rectangular mounting giving the best combination of lateral stiffness, ie.

- Direction A – Soft to isolate vibration
- Direction B – Soft to isolate vibration at right angles to crankshaft
- Direction C – Stiff to take propeller thrust.

It is fitted with an oil shield to protect the rubber.

5/8 UNF Stud			3/4 UNF Stud		
Part No.	Capacity lbs	Deflection Inches	Part No.	Capacity lbs	Deflection Inches
800-010	80-230	.09-.21	800-020	80-231	.09-.21
800-011	120-410	.09-.21	800-021	120-411	.09-.21
800-012	250-560	.09-.21	800-022	250-561	.09-.21
800-014	300-680	.09-.21	800-023	300-681	.09-.21
Pre-loaded .09					

Height adjusting nut thickness: .55
Maximum height 5.38



*X' dimensions on initial installation should not be more than 0.28 inches.

R&D MARINE "SUPER MOUNTS" SHEAR LOADED MOUNTING

The R&D Shear Mount is a low height rectangular mounting giving the best combination of lateral stiffness, ie.

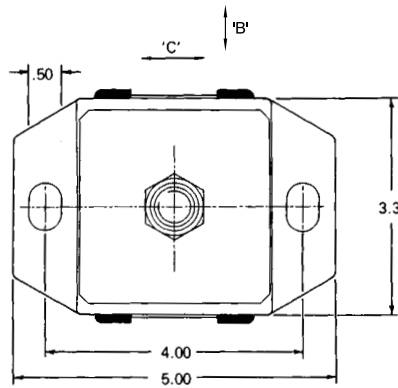
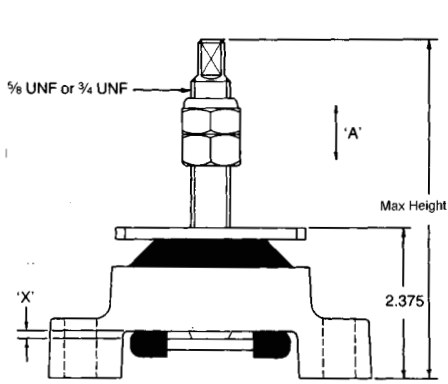
- Direction A – Soft to isolate vibration.
- Direction B – Soft to isolate vibration at right angles to crankshaft.
- Direction C – Stiff to take propeller thrust.

It is fitted with an oil shield to protect the rubber.

5/8 UNF Stud			3/4 UNF Stud		
Part No.	Capacity lbs	Deflection Inches	Part No.	Capacity lbs	Deflection Inches
800-024	80-232	.09-.21	800-028	80-233	.09-.21
800-025	120-412	.09-.21	800-029	120-413	.09-.21
800-026	250-562	.09-.21	800-030	250-563	.09-.21
800-027	300-682	.09-.21	800-031	300-683	.09-.21
Pre-loaded .09					

Height adjusting nut thickness: .55
Maximum height 5.38

FLEXIBLE ENGINE MOUNTINGS



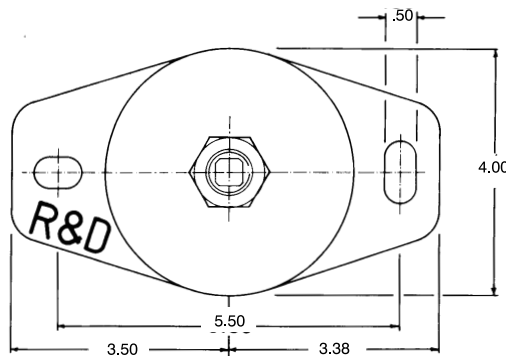
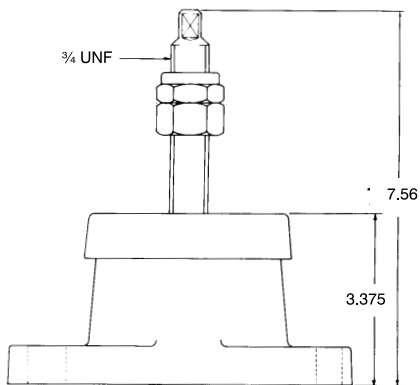
R&D MARINE "SUPER MOUNTS" SHEAR LOADED MOUNTING

The R&D Shear Mount is a low height rectangular mounting giving combination of lateral stiffness, i.e.
 Direction A – Soft to isolate vibration
 Direction B – Soft to isolate vibration at right angles to crankshaft
 Direction C – Stiff to take propeller thrust

Part No.	⁵ / ₈ UNF Stud		³ / ₄ UNF Stud		
	Capacity lbs	Deflection Inches	Capacity lbs	Deflection Inches	
800-013	340-760	.09-.19	800-035	340-761	.09-.19
					Pre-loaded .09

Height adjusting nut thickness:	.55	.43
Maximum height	5.38	6.00

'X' dimensions on initial installation should not be more than 0.28 inches.

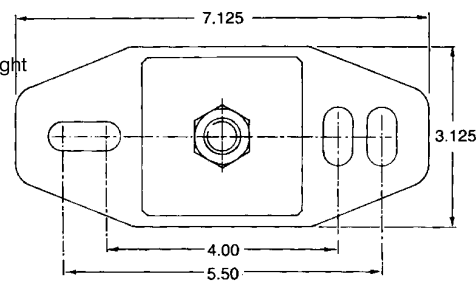
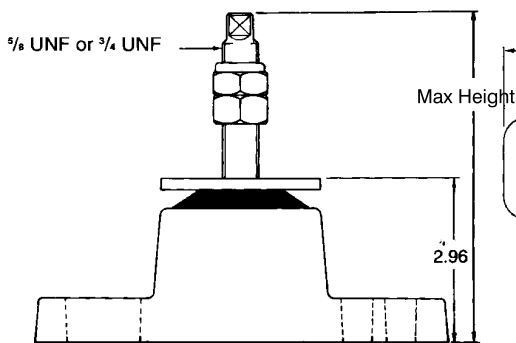


R&D MARINE HEAVY DUTY CIRCULAR SHEAR MOUNTING

The R&D Heavy Duty Circular Shear Mount is designed to give excellent vibration isolation and is fitted with an oil shield to protect the rubber.

Part No.	Capacity lbs	Deflection inches
800-015	500-1200	.12-.25
800-016	650-1500	.12-.25
800-017	880-2000	.12-.25
		Pre-loaded .12

Height adjusting nut thickness: 0.63

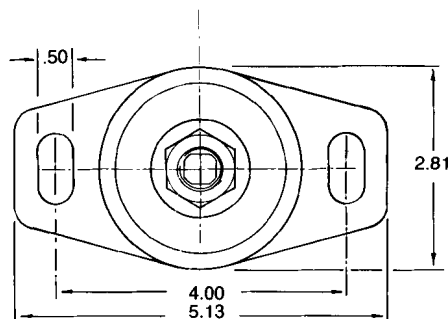
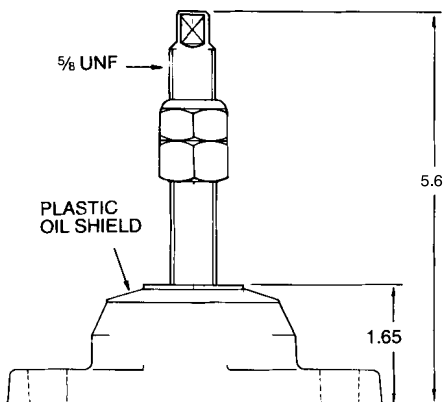


R&D MARINE DOUBLE ACTING "SUPER MOUNT" SHEAR LOADED MOUNTING

The R&D Double Acting Shear Mount is a unique mounting incorporating 2 rubber elements which are pre-loaded against each other, giving excellent isolation together with good control on problem installations.

Part No.	⁵ / ₈ UNF Stud		³ / ₄ UNF Stud		
	Capacity lbs	Deflection Inches	Capacity lbs	Deflection Inches	
800-034	160-670	.19-.30	800-042	160-671	.19-.30
					Pre-loaded .19

Height adjusting nut thickness:	.55	.43
Maximum height	6.00	6.00



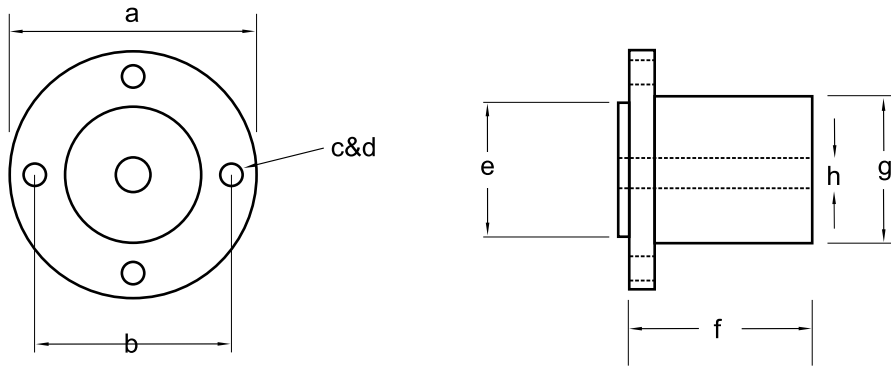
R&D MARINE SMALL COMPRESSION MOUNTING

The R&D Small Compression Mount is a competitive, low height, medium capacity compression mount giving good engine control.

Part No.	Capacity lbs	Deflection inches
800-036	300	.04

Height adjusting nut thickness: 0.55

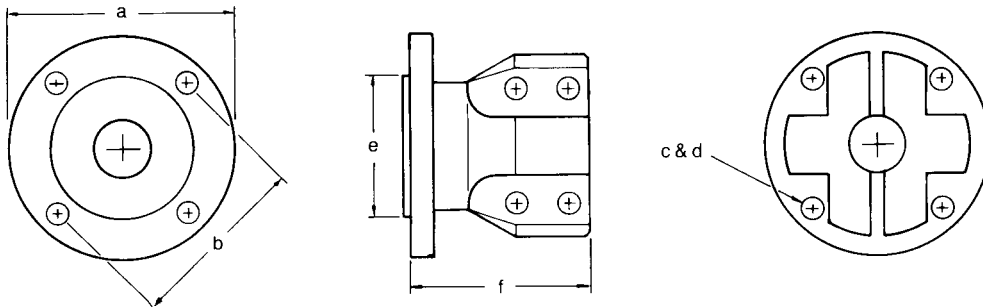
STEEL SHAFT HALF COUPLINGS



Special Half Couplings can also be supplied in small batches.

Part No.	Type of Gearbox	a Flange Dia.	b Hole Pitch Circle	c No. Holes	d Hole Size	e Register	f Length	g Boss Dia.	h Shaft Fixing
202 - 026	4" B/W, Hurth, Delta	4.00	3.250	4	10mm	2.500 M	2.16	2.25	Pilot drill .64
202 - 027	5" B/W, PRM 160, Hurth	5.00	4.250	4	.438	2.500 M	2.16	3.37	Pilot drill .75
202 - 006	Volvo, MS3, MS4	5.00	4.250	4	.438	2.500 M	4.90	3.37	Pilot drill .75
202 - 037	PRM 310, 301, 401, 601	5.75	4.750	6	.500	3.000 M	3.52	3.65	Pilot drill .81
202 - 054	PRM 310, 301, 401, 601	5.75	4.750	6	.500	3.000 M	5.87	3.65	Pilot drill .81
202 - 120	Twin Disc 506/507	5.75	4.750	6	.625	3.000 F	6.00	3.65	Pilot drill .81

STEEL SPLIT HALF COUPLINGS



PART No	TYPE OF GEARBOX	IMPERIAL BORE DIA. (Ins)								METRIC BORE DIA. (mm)								COUPLING DIMENSION						
		- - B D F H J K L								B C D F H J K L M								a FLANGE DIA.	b HOLE PITCH CIRCLE	c NO HOLES	d HOLE SIZE	e REGISTER	f LENGTH	
		.750	.875	1.000	1.250	1.500	1.750	2.000	2.250	2.500	22	25	30	35	40	45	50							55
202-153	4" FLANGE BW, PR, HURTH	X		X	X	X													4.00	3.25	4	10mm	2.500 M	3.19
202-165										X	X	X	X											
202-254	4" FLANGE YANMAR	X		X	X														4.00	78mm	4	10mm	50mm M	3.19
202-257										X	X	X												
202-255	4" FLANGE VOLVO	X																	4.00	80mm	4	10mm	60mm F	3.28
202-258										X	X	X												
202-168	5" FLANGE BW, PR, HURTH, VOLVO	P	X	⊗	⊗	⊗	⊗												5.00	4.25	4	.438	2.500 M	3.75
202-171														⊗	⊗	⊗	⊗	⊗						
202-316	5" FLANGE YANMAR	P		⊗															4.72	100mm	4	10mm	65mm M	3.75
202-300														⊗										
202-176	6" FLANGE PR	P		⊗	⊗	⊗	⊗	⊗	⊗										5.75	4.75	6	.500	3.000 M	5.50
202-178																⊗	⊗	⊗	⊗					
202-188	6" FLANGE TWIN DISC	P		⊗															5.75	4.75	6	.625	3.000 F	5.50
202-314																		⊗						

P PILOT DRILLED

X BORED ONLY

⊗ BORED & KEYED



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