O-RINGS & SEALS 1

Auto parts stores sell only Buna-N (Nitrile), 70 durometer (This is a measure of resiliency, 70 being softer than 90), temperature range is -40 Deg F to +275 Deg F (-40 Deg C to +135 Deg C).

I use only VITON o-rings, 75 durometer (75 AND 90 being commonly available). Temperature range is -5 Deg F to +395 Deg F (-20 Deg C to +200 Deg C). Viton o-rings are Dowty compound number 9775.

Contact Dowty Corp., Sully Road, PO Box 5000, Sterling, VA 22170, 703-450-8200, 803-747-7656 for catalog and nearest metric distributor.

The following chart lists available o-ring diameters and cross-section areas: (inch x 25.4 = mm; mm / 25.4 = inch)

INCH	MM	AREA IN	AREA MM	INCH	MM	AREA IN	AREA MM
.040	1,02	.00133	.03378	.103	2,62	.00833	.21158
.050	1,27	.00196	.04978		2,70	.00882	.22403
	1,50	.00273	.06934		3,00	.01094	.27788
.060	1,53	.00283	.07188		3,50	.01496	.37998
	1,60	.00312	.07925	.139	3,53	.01517	.38532
.070	1,78	.00385	.09779		3,60	.01561	.39649
	1,90	.00442	.11227		4,00	.01961	.49809
	2,00	.00490	.12446		5,00	.03048	.77419
	2,40	.00709	.18009	.210	5,34	.03464	.87986
	2,50	.00754	.19152		5,70	.03941	1.00101
				.275	6,99	.05940	1.50876

In all applications, o-ring cross-section area must always be smaller than o-ring groove cross-section area. Groove area = width x depth.

In plate to plate sealing applications, o-ring diameter must be larger than groove depth and as large as possible is best.

In static shaft sealing applications, o-ring diameter should be slightly greater than groove depth. Ignore groove width.

Coat o-rings lightly with clean vaseline when installing. This will help hold them in place during assembly and will also aid sealing.

Of course, grooves and mating surfaces must be clean. Fine steel wool is good for polishing but care must be taken with sealing surfaces. Scratches that cross the o-ring contact path can cause leaks. Always polish in a circular motion about the o-ring center.

O-RINGS & SEALS 2

SUPPLIERS

Allied Metrics, Inc. — Metric seals & o-rings
7 Ridge Road
Oak Ridge, NJ 07438
201-697-2679
201-697-1224 FAX

Kyle Fleming
5399 Sir Barton Drive
Virginia Beach, VA 23462
804-499-5170

Group One Sales
P.O. Box 3309
Fort Lee, N. J. 07024
201-224-4656

Maserati Information Exchange
P.O. Box 772
Mercer Island, WA 98040
206-455-4449
800-627-3728

O-RINGS & SEALS 3

EARLY INTAKE MANIFOLD WATER	GROOVE (in)	0.705 x 1.100 x ?
GHIBLI: TABLE 1, ITEM 11	(mm)	17,91 x 27,94 x ?
	BOOK SIZE	18,68 x 25,74 x 3,53
QTY 8	BUY	SAME
PART NO. GOM 61090	PART NO.	200-210-9775
EARLY INTAKE MANIFOLD AIR	GROOVE (in)	1.475 x 1.840 x ?
GHIBLI: TABLE 1, ITEM 12	(mm)	37,47 x 46,74 x ?
	BOOK SIZE	37,70 x 44,76 x 3,53
QTY 8	BUY	SAME
PART NO. GOM 66429	PART NO.	200-222-9775
LATE INTAKE MANIFOLD WATER	GROOVE (in)	1.356 x 1.750 x .096
BORA: TABLE 1, ITEM 11	(mm)	34,44 x 44,45 x 2,44
	BOOK SIZE	34,52 x 41,85 x 3,53
QTY 2	BUY	SAME
PART NO. GOM 65805	PART NO.	200-220-9775
		200-221-9775 (McClure)
LATE INTAKE MANIFOLD AIR	GROOVE (in)	1.615 x 2.047 x .139
BORA: TABLE 1, ITEM 12	(mm)	41,02 x 52,00 x 3,53
	BOOK SIZE	44,45 x 51,51 x 3,53
QTY 8	BUY	44,05 x 51,11 x 3,53
PART NO. GOM 66427	PART NO.	200-224-9775
		200-223-9775 (McClure)
OIL FILL CAP	GROOVE (in)	----------
BORA: TABLE 1, ITEM 49	(mm)	----------
	BOOK SIZE	32,00 x 38,00 x 3,00
QTY 1	BUY	SAME
PART NO. GOM 42352	PART NO.	206-332-9775
FRONT HOUSING OIL SEAL	GROOVE (in)	0.429 x 0.628 x .085
GHIBLI: TABLE 2, ITEM 81	(mm)	10,89 x 15,95 x 2,16
BORA TABLE 2, ITEM 68	BOOK SIZE	11,00 x 16,00 x 2,50
QTY 2	BUY	SAME
PART NO. GOM 42229	PART NO.	206-111-9775
CYLINDER LINER	GROOVE (in)	----------
GHIBLI: TABLE 2, ITEM 48	(mm)	----------
BORA: TABLE 2, ITEM 39	BOOK SIZE	70,00 x 67,60 x 1,20
QTY 8	BUY	70,00 x 67,00 x 1,50
PART NO. GOM 50315	PART NO.	206-070-9775
OIL FITTING SEAL	GROOVE (in)	2.943 x 3.179 x .076
GHIBLI: TABLE 2, ITEM 20	(mm)	74,75 x 80,75 x 1,93
	BOOK SIZE	75,00 x 80,00 x 2,50
QTY 1	BUY	SAME

PART NO. GOM 52319

PART NO. 206-175-9775

O-RINGS & SEALS 4

CRANKSHAFT EXTENSION	GROOVE (in)	0.978 x 1.112 x .065
BORA: TABLE 3, ITEM 30	(mm)	24,84 x 28,25 x 1,65
	BOOK SIZE	NONE
QTY 1	BUY	24,00 x 28,00 x 2,00
PART NO. GOM 55510	PART NO.	204-024-9775
CHAIN TENSIONER HOUSING	GROOVE (in)	1.534 x 1.734 x .130
GHIBLI: TABLE 4, ITEM 24	(mm)	38,96 x 44,04 x 3,30
BORA: TABLE 4, ITEM 23	BOOK SIZE	39,00 x 45,00 x 3,00
QTY 2	BUY	SAME
PART NO. GOM 49497	PART NO.	206-339-9775
CHAIN TENSIONER SHAFT	GROOVE (in)	0.709 x ? x .115
GHIBLI: TABLE 4, ITEM 25	(mm)	18,01 x ? x 2,92
BORA : TABLE 4, ITEM 24	BOOK SIZE	18,00 x 24,00 x 3,00
QTY 2	BUY	SAME
PART NO. GOM 45791	PART NO.	206-318-9775
MAIN CHAIN IDLER SHAFT	GROOVE (in)	0.641 x 0.786 x .082
GHIBLI: TABLE 4, ITEM 63	(mm)	16,28 x 19,96 x 2,08
BORA : TABLE 4, ITEM 60	BOOK SIZE	14,20 x 18,60 x 2,20
QTY 1	BUY	15,60 x 19,16 x 1,78
PART NO. GOM 57307	PART NO.	200-016-9775
OIL FILL CAP	GROOVE (in)	----------
GHIBLI: TABLE 5, ITEM 73	(mm)	----------
	BOOK SIZE	NONE
QTY 1	BUY	
PART NO. GOM 50656	PART NO.	
OIL FILTER HOUSING	GROOVE (in)	1.100 x 1.335 x .100
GHIBLI: TABLE 5, ITEM 53	(mm)	27,94 x 33,91 x 2,54
BORA : TABLE 5, ITEM 21	BOOK SIZE	28,00 x 34,00 x 3,00
QTY 2	BUY	SAME
PART NO. GOM 42693	PART NO.	206-328-9775
OIL FILTER HOUSING	GROOVE (in)	0.874 x 1.100 x .100
GHIBLI: TABLE 5, ITEM 54	(mm)	22,20 x 27,94 x 2,54
BORA : TABLE 5, ITEM 22	BOOK SIZE	22,00 x 28,00 x 3,00
QTY 1	BUY	SAME
PART NO. GOM 42866	PART NO.	206-322-9775
OIL PUMP HOUSING	GROOVE (in)	?
GHIBLI: TABLE 5, ITEM 18	(mm)	?
BORA : TABLE 5, ITEM 84	BOOK SIZE	70,00 x 72,40 x 1,20
QTY 1	BUY	70,00 x 73,00 x 1,50
PART NO. GOM 50315	PART NO.	206-080-9775

O-RINGS & SEALS 5

OIL PICK-UP TUBE	GROOVE (in)	1.361 x 1.579 x .087
GHIBLI: TABLE 5, ITEM 44	(mm)	34,57 x 40,11 x 2,21
BORA : TABLE 5, ITEM 88	BOOK SIZE	34,60 x 39,70 x 3,65
QTY 1	BUY	34,60 x 39,84 x 2,62
PART NO. GOM 54022	PART NO.	200-126-9775
OIL PUMP INLET & OUTLET	GROOVE (in)	?
GHIBLI: TABLE 5, ITEM 19	(mm)	?
	BOOK SIZE	30,00 x 36,00 x 3,00
QTY 2	BUY	SAME
PART NO. GOM 45899	PART NO.	206-330-9775
DIPSTICK	GROOVE (in)	0.275 x 0.400 x .090
GHIBLI: TABLE 5, ITEM 76	(mm)	07,01 x 10,16 x 2,29
	BOOK SIZE	NONE
QTY 1	BUY	0.266 x 0.406 x .070
PART NO. GOM 63446	PART NO.	200-610-9775
WATER PUMP HOUSING	GROOVE (in)	3.300 x 3.510 x .103
BORA: TABLE 6, ITEM 52	(mm)	83,82 x 89,15 x 2,62
	BOOK SIZE	82,00 x 89,03 x 3,80
QTY 1	BUY	83,80 x 89,03 x 2,62
PART NO. GOM 68560	PART NO.	200-643-9775
WATER PUMP TO BLOCK	GROOVE (in)	1.494 x 1.735 x .093
GHIBLI: TABLE 6, ITEM 15	(mm)	37,94 x 44,07 x 2,36
BORA : TABLE 6, ITEM 67	BOOK SIZE	38,00 x 44,00 x 3,00
QTY 1	BUY	SAME
PART NO. GOM 41462	PART NO.	206-338-9775
DISTRIBUTOR SHAFT	GROOVE (in)	?
GHIBLI: TABLE 8, ITEM 77	(mm)	?
BORA : TABLE 7, ITEM 85	BOOK SIZE	21,00 x 27,00 x 3,00
QTY 1	BUY	SAME
PART NO. GOM 51396	PART NO.	206-321-9775
THERMOSTAT HOUSING	GROOVE (in)	3.154 x 3.309 x .036
BORA: TABLE 8, ITEM 41	(mm)	80,11 x 84,05 x 0,91
	BOOK SIZE	NONE
QTY 1	BUY	80,00 x 83,00 x 1,50
PART NO. GOM 65802	PART NO.	206-080-9775
THERMOSTAT HOUSING	GROOVE (in)	2.271 x 2.559 x .072
GHIBLI: TABLE 9, ITEM 55	(mm)	57,68 x 65,00 x 1,83
	BOOK SIZE	58,42 x 63,20 x 2,62
QTY 2	BUY	SAME
PART NO. GOM 61411	PART NO.	200-141-9775 or 206-158-9775

O-RINGS & SEALS 6

TRANSMISSION DIPSTICK	GROOVE (in)	0.376 x 0.550 x .107
GHIBLI: TABLE 13, ITEM 41	(mm)	09,55 x 13,97 x 2,72
	BOOK SIZE	NONE
QTY 1	BUY	0.362 x 0.568 x .103
PART NO. GOM 57918	PART NO.	200-110-9775
OUTER A-ARM BUSHING	GROOVE (in)	----------
BORA: TABLE 18, ITEM 43	(mm)	----------
	BOOK SIZE	28,25 x 33,50 x 2,62
QTY 8	BUY	SAME
PART NO. GOM 75774	PART NO.	200-122-9775
INNER A-ARM BUSHING	GROOVE (in)	----------
BORA: TABLE 18, ITEM 38	(mm)	----------
	BOOK SIZE	32,95 x 40,00 x 3,53
QTY 8	BUY	SAME
PART NO. GOM 67775	PART NO.	200-219-9775
POWER STEERING PUMP CASE	GROOVE (in)	2.675 x 2.800 x .130
GHIBLI: TABLE 22, ITEM 78	(mm)	67,95 x 71,12 x 3,30
	BOOK SIZE	NONE
QTY 1	BUY	2.818 x 2.612 x .103
PART NO. GOM 59894	PART NO.	200-146-9775
GAS CAP	GROOVE (in)	
BORA: TABLE 26, ITEM 8	(mm)	
	BOOK SIZE	NONE
QTY 1	BUY	
PART NO. GOM 50650	PART NO.	
GAS CAP	GROOVE (in)	
GHIBLI: TABLE 29, ITEM 39	(mm)	
	BOOK SIZE	NONE
QTY 2	BUY	
PART NO. GOM 50656	PART NO.	
CAM COVER STUD SEAL	GROOVE	Replace rubber inside washers
GHIBLI: TABLE , ITEM		
BORA : TABLE 1, ITEM 25	BOOK SIZE	NONE
QTY 32	BUY	4,00 x 7,00 x 1,50
PART NO. CN 65244	PART NO.	206-004-9775

O-RINGS & SEALS 7

SEAL - ALUMINUM CRUSH WASHERS

Earl's Performance Products
14611 Hawthorne Blvd.
Lawndale, CA 90260
310-644-0881, 2298
310-644-6475 FAX

3/8" ID	177003
7/16"	177004
9/16"	177006
3/4"	177008
7/8"	177010
1-1/16"	177012
1-5/16"	177016
10mm	177100

SEAL - ALUMINUM WASHER WITH O-RING SEAL

Earl's Performance Products
14611 Hawthorne Blvd.
Lawndale, CA 90260
310-644-0881, 2298
310-644-6475 FAX

3/16" ID	178003
1/4"	178004
5/16"	178005
3/8"	178006
7/16"	178007
1/2"	178008
9/16"	178009
5/8"	178010
3/4"	178012
7/8"	178014

NOTE: Also see **ENGINE** for additional seals.