

## PRE-LOAD WAVED WASHERS

### APPLICATION

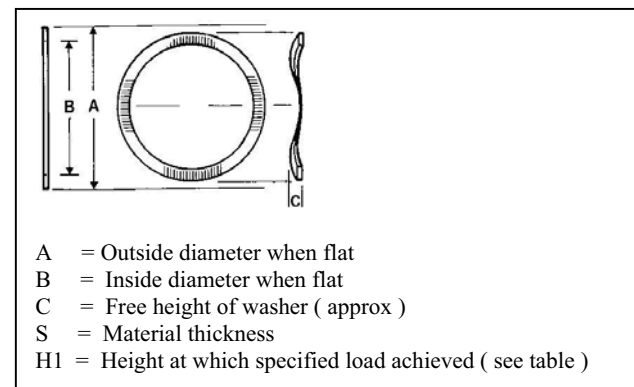
For pre-loading bearings in electric motors. The waved washer is installed in the bearing housing and works by maintaining a force on the outer race of the ball bearing, ensuring smooth and quiet running which results in extended life.

### EPL AND EMO-X PRE-LOAD WAVED WASHER SERIES

Development in liaison with bearing and electric motor manufacturers on the optimum loading characteristics required. The basic EPL range has been supplemented with the EMO-X range of waved washers since designers have found in some circumstances even better results can be obtained with more pressure on the outer ring of the bearing.

### MATERIALS AND FINISHES

All the waved washers are supplied in self colour high carbon spring steel. Other materials can be used on request ( Stainless Steel , Beryllium Copper, etc). Please contact our Sales department for further details.



### METRIC SERIES

EMO REF	To Suit Bearing Housing ( mm )	A ( mm )	B ( mm )	S ( mm )	C approx ( mm )	H1 ( mm )	Load at H1 ( N )	Bearing References
EPL 1	10	9.5	4.5	0.20	1.2	1.0	15	623
EPL 2	13	12.5	7.5	0.20	1.5	1.0	19	624
EPL 4	16	15.5	10.5	0.15	1.5	1.0	19	625 634
EPL 5	16	15.5	10.5	0.15	1.6	1.0	23	
EPL 6	17	16.5	11.5	0.20	1.4	1.0	29	
EPL 8	19	18.5	13.0	0.20	1.5	1.0	29	607 626 635
EPL 10	21	20.5	15.0	0.20	1.8	1.0	29	
EPL 12	22	21.5	16.0	0.20	2.1	1.0	34	608 627
EMO-X 12	22	21.5	16.0	0.20	1.4	1.0	35	
EPL 13	24	23.5	17.0	0.20	2.2	1.5	35	609
EPL 15	26	25.5	19.0	0.30	2.0	1.5	39	6000 629

EMO REF	To Suit Bearing Housing ( mm )	A ( mm )	B ( mm )	S ( mm )	C approx ( mm )	H1 ( mm )	Load at H1 ( N )	Bearing References
EPL 16	26	25.5	19.0	0.30	2.1	1.5	44	6000 629
EMO-X16	26	25.5	19.0	0.30	1.9	1.5	88	
EPL 17	28	27.5	21.0	0.30	2.2	1.5	39	6001
EPL 19	28	27.5	21.0	0.30	2.5	1.5	54	
EMO-X19	28	27.5	21.0	0.30	2.1	1.5	108	
EPL 20	30	29.5	23.0	0.30	2.5	1.5	44	6200
EPL 22	32	31.5	23.0	0.30	2.8	1.5	46	6002 6201
EPL 24	32	31.5	23.0	0.30	3.1	1.5	54	
EMO-X24	32	31.5	23.0	0.30	2.5	1.5	108	
EPL 25	32	31.5	23.0	0.30	3.5	1.5	67	
EPL 28	35	34.5	28.0	0.40	2.7	1.5	68	6003 6202 6300
EMO-X28	35	34.5	28.0	0.40	2.3	1.5	137	
EPL 29	35	34.5	28.0	0.40	2.9	1.5	78	
EPL 30	37	36.5	30.0	0.40	2.7	1.5	55	6301
EPL 31	37	36.5	30.0	0.40	2.9	1.5	66	
EPL 32	38	37.5	31.0	0.40	3.2	1.5	73	
EPL 34	40	39.5	33.0	0.40	3.6	1.5	77	6203
EMO-X34	40	39.5	33.0	0.40	2.8	1.5	147	
EPL 37	42	41.5	33.5	0.40	3.2	1.5	70	6004 6302
EMO-X37	42	41.5	33.5	0.40	2.9	1.5	176	
EPL 38	42	41.5	33.5	0.40	3.6	1.5	87	
EPL 39	44	43.5	35.5	0.40	3.7	1.5	77	
EPL 40	47	46.5	38.5	0.50	3.0	1.5	80	6005 6204 6303
EPL 41	47	46.5	38.5	0.50	3.1	1.5	87	
EMO-X41	47	46.5	38.5	0.50	3.0	1.5	236	
EPL 42	47	46.5	38.5	0.50	3.5	1.5	112	
EPL 43	52	51.5	42.0	0.50	3.3	1.5	87	6205 6304
EPL 44	52	51.5	42.0	0.50	3.8	1.5	112	
EMO-X44	52	51.5	42.0	0.50	3.5	1.5	332	
EPL 45	55	54.5	43.5	0.50	4.1	1.5	132	6006
EPL 46	62	61.5	50.5	0.50	4.0	1.5	75	6007 6206 6305 6403
EPL 47	62	61.5	50.5	0.50	4.9	1.5	111	
EPL 48	62	61.5	50.5	0.60	3.9	1.5	132	

EMO REF	To Suit Bearing Housing ( mm )	A ( mm )	B ( mm )	S ( mm )	C approx ( mm )	H1 ( mm )	Load at H1 ( N )	Bearing References			
EMO-X48	62	61.5	50.5	0.60	3.7	1.5	392	6007	6206	6305	6403
EPL 49	62	61.5	50.5	0.60	4.4	1.5	165				
EPL 50	68	67.5	55.0	0.60	5.0	1.5	175	6008			
EPL 51	70	69.5	57.0	0.60	5.0	1.5	155				
EPL 53	72	71.5	59.0	0.60	4.8	1.5	133		6207	6306	6404
EPL 54	72	71.5	59.0	0.60	5.2	1.5	155				
EMO-X54	72	71.5	59.0	0.60	4.7	1.5	412				
EPL 55	75	74.5	62.0	0.60	7.1	1.5	203	6009			
EPL 57	80	79.5	63.5	0.60	5.2	1.5	156	6010	6208	6307	6405
EPL 58	80	79.5	63.5	0.60	5.8	1.5	176				
EMO-X58	80	79.5	63.5	0.60	5.6	1.5	540				
EPL 60	85	84.5	67.0	0.60	6.8	1.5	201		6209		
EMO-X60	85	84.5	67.0	0.60	5.7	1.5	500				
EPL 61	90	89.5	72.0	0.60	6.0	1.5	135	6011	6210	6308	6406
EPL 62	90	89.5	72.0	0.60	7.0	1.5	175				
EMO-X62	90	89.5	72.0	0.70	5.3	1.5	590				
EPL 64	90	89.5	72.0	0.70	6.4	1.5	243				
EPL 65	95	94.5	75.5	0.70	7.2	1.5	266	6012			
EPL 67	100	99.5	80.5	0.70	6.9	1.5	203	6013	6211	6309	6407
EMO-X67	100	99.5	80.5	0.70	6.5	1.5	605				
EPL 70	105	104.5	84.5	0.80	6.6	1.5	266				
EPL 72	110	109.5	90.5	0.80	7.0	1.5	224	6014	6212	6310	6408
EMO-X72	110	109.5	90.5	0.80	6.8	1.5	687				
EPL 75	115	114.5	95.5	0.80	10.0	1.5	280	6015			
EPL 77	117	116.5	97.5	0.80	9.0	1.5	248				
EPL 79	120	119.5	100.5	0.80	10.0	1.5	248		6213	6311	
EPL 82	125	124.5	105.5	0.80	13.0	1.5	312	6016	6214		
EPL 84	127	126.5	107.5	0.80	14.0	1.5	312				
EPL 86	130	129.5	110.5	0.80	13.0	1.5	264	6017	6215	6312	6410
EMO-X86	130	129.5	110.5	1.00	9.5	2.5	906				
EPL 87	130	129.5	110.5	1.00	11.0	2.5	330				
EPL 89	135	134.5	114.0	1.00	11.7	2.5	361				
EPL 90	137	136.5	116.0	1.00	10.3	2.5	285				

<b>EMO REF</b>	<b>To Suit Bearing Housing ( mm )</b>	<b>A ( mm )</b>	<b>B ( mm )</b>	<b>S ( mm )</b>	<b>C approx ( mm )</b>	<b>H1 ( mm )</b>	<b>Load at H1 ( N )</b>	<b>Bearing References</b>			
EPL 92	140	139.5	119.0	1.00	10.8	2.5	285	6018	6216	6313	6411
EMO-X92	140	139.5	119.0	1.00	7.5	2.5	495				
EPL 96	145	144.5	124.0	1.00	15.5	2.5	418	6019			
EPL 99	150	149.5	129.0	1.00	12.0	2.5	266	6020	6217	6314	6412
EMO-X99	150	149.5	129.0	1.00	9.1	2.5	547				
EPL 103	157	156.5	136.0	1.00	16.5	2.5	336				
EPL 105	160	159.5	139.0	1.00	17.0	2.5	336	6021	6218	6315	6413
EMO-X105	160	159.5	139.0	1.00	9.0	2.5	501				
EPL 109	170	169.5	149.0	1.00	18.0	2.5	297	6022	6219	6316	
EMO-X109	170	169.5	149.0	1.20	12.0	2.5	546				
EPL 113	180	179.5	159.0	1.00	22.5	2.5	314	6024	6220	6317	6414
EMO-X113	180	179.5	159.0	1.00	12.1	2.5	455				
EPL 118	190	189.5	167.0	1.00	24.0	2.5	331		6221	6318	6415
EMO-X118	190	189.5	167.0	1.00	12.0	2.5	422				
EPL 122	200	199.5	177.0	1.00	16.5	2.5	170		6222	6319	6416
EPL 124	210	209.5	185.5	1.00	17.5	2.5	171		6223	6417	
EPL 127	215	214.5	190.5	1.00	18.5	2.5	171		6224	6320	
EPL 129	220	219.5	195.5	2.00	7.4	3.5	333				
EPL 131	225	224.5	200.5	2.00	10.7	3.5	567			6321	6418
EPL 132	230	229.5	205.0	2.00	10.8	3.5	540		6226		
EPL 134	240	239.5	214.0	2.00	12.2	3.5	594			6322	
EPL 136	250	249.5	224.0	2.00	17.0	3.5	803		6228	6323	
EPL 138	260	259.5	234.0	2.00	18.2	3.5	770		6229	6324	
EPL 140	270	269.5	242.0	2.00	26.7	3.5	1184		6230		
EPL 141	280	279.5	252.0	2.00	23.5	3.5	897			6326	