

Corruplus Mk1 seals for sealing round holes (air, oil, fuel systems for example) were developed for use where high integrity sealing was required. This is particularly true for high temperature applications where flange separation caused by, for example, inefficient or incomplete tightening, insert pulling, bolt failure or thermal movement, would be a problem with conventional gasketry due to their basic lack of elasticity.

Corruplus Mk1 seals have the following basic characteristics:

Low clamp load

Elasticity/Resilience after long term exposure to high temperatures

Fire proof operation

Re-usability, (Corruplus Test Rig required)

The seal is manufactured from two halves of Nimonic 80A welded together circumferentially. After welding the seal is stress relieved and then, after final forming, it is age hardened to obtain the necessary mechanical properties for high temperature resilience.

The standard seal is silver plated and subjected to a high temperature bake to soften the silver plating. Each finished seal is individually leak tested so that on installation there is complete confidence in the seal performance.

Other materials and coatings are available such as Inconel X750 and Nickel respectively.

Non-standard diameter seals can be manufactured for special applications. However, it is preferable from a delivery and cost point of view to use standard sizes wherever possible.

Although normally used in a groove or counterbore it is possible to use the Corruplus Mk1 with a retaining/nip control ring.

The sealing surface finish should ideally have circular lay and be N6 (32 microinches, 0.8 micrometres) or better.

The Corruplus Mk1 seal is approved as a SBAC industry standard part (part numbers AS42700-AS42799).

Production meets with CAA approval.

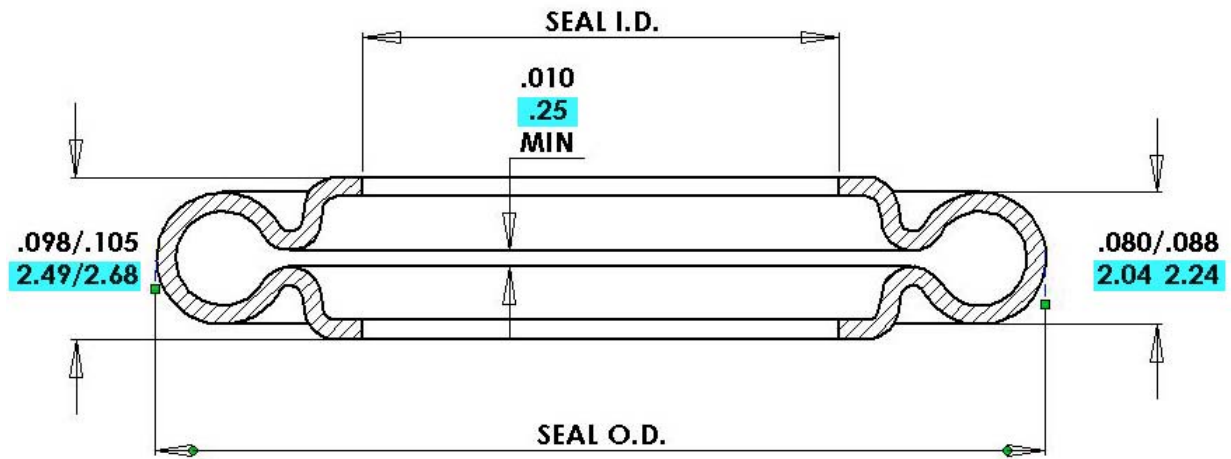
Corruplus Mk1 seals are in widespread use, e.g. on Concorde, Tornado, European Fighter Aircraft, BAe 146 engines and systems.

The low clamp load characteristic of the seal makes it ideally suited for use in 'V band type couplings.

Throughout this pdf imperial dimensions are in Inches, metric dimensions are in millimetres and are shown on a pale blue background (see below), except where otherwise stated.

INCHES .100 MILLIMETRES 2.54

SMALL SECTION CORRUGULUS MK1 SEALS



PART NUMBER	CAVITY				SEAL			
	I.D.		O.D.		I.D.		O.D.	
	inches	mm	inches	mm	inches	mm	inches	mm
	(MAX)	(MAX)	+0.005 -0.000	+0.13 -0.00	+0.010 -0.000	+0.25 -0.00	+0.000 -0.010	+0.00 -0.25
CPL 107	.118	3.00	.407	10.34	.145	3.68	.405	10.29
CPL 108	.149	3.78	.438	11.13	.176	4.47	.436	11.07
CPL 109	.211	5.36	.500	12.70	.238	6.04	.498	12.65
AS42701	.249	6.32	.537	13.65	.276	7.00	.535	13.60
CPL 110	.272	6.91	.563	14.30	.300	7.62	.560	14.22
AS42702	.288	7.32	.577	14.65	.315	8.00	.575	14.60
AS42703	.328	8.32	.616	15.65	.354	9.00	.614	15.60
CPL 111	.336	8.53	.625	15.88	.363	9.22	.623	15.82
AS42704	.367	9.32	.656	16.65	.394	10.00	.654	16.60
CPL 112	.397	10.08	.688	17.48	.425	10.79	.685	17.40
AS42705	.406	10.32	.695	17.65	.433	11.00	.693	17.60
AS42706	.446	11.32	.734	18.65	.472	12.00	.732	18.60
CPL 113	.461	11.71	.750	19.05	.488	12.39	.748	19.00
AS42707	.485	12.32	.774	19.65	.512	13.00	.772	19.60
AS42708	.524	13.32	.813	20.65	.551	14.00	.811	20.60
AS42709	.564	14.32	.852	21.65	.591	15.00	.850	21.60
CPL 115	.586	14.88	.875	22.22	.613	15.57	.873	22.17
AS42710	.603	15.32	.892	22.65	.630	16.00	.890	22.60

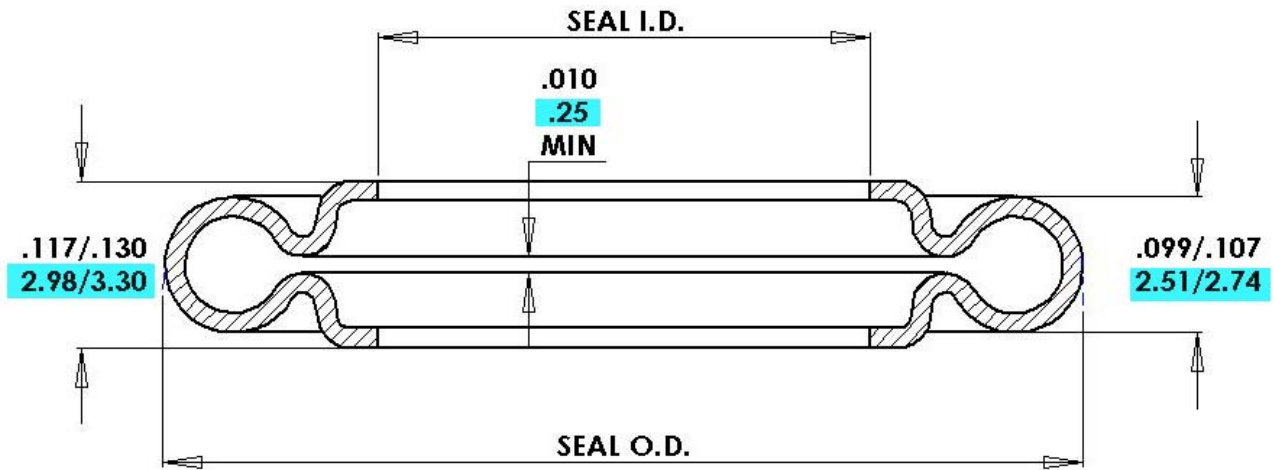
PART NUMBER	CAVITY				SEAL			
	I.D.		O.D.		I.D.		O.D.	
	inches	mm	inches	mm	inches	mm	inches	mm
	(MAX)	(MAX)	+0.005 -0.000	+0.13 -0.00	+0.010 -0.000	+0.25 -0.00	+0.000 -0.010	+0.00 -0.25
AS42711	.643	16.32	.931	23.65	.669	17.00	.929	23.60
CPL 116	.647	16.43	.938	23.83	.675	17.14	.935	23.75
AS42712	.682	17.32	.970	24.65	.709	18.00	.969	24.60
CPL 117	.711	18.06	1.000	25.40	.738	18.74	.998	25.35
AS42713	.721	18.32	1.010	25.65	.748	19.00	1.008	25.60
AS42714	.761	19.32	1.049	26.65	.787	20.00	1.047	26.60
CPL 118	.772	19.61	1.063	27.00	.800	20.32	1.060	26.92
AS42715	.800	20.32	1.089	27.65	.827	21.00	1.087	27.60
CPL 119	.836	21.23	1.125	28.58	.863	21.92	1.123	28.52
AS42716	.839	21.32	1.128	28.65	.866	22.00	1.126	28.60
AS42717	.879	22.32	1.167	29.65	.906	23.00	1.165	29.60
CPL 120	.899	22.83	1.188	30.18	.926	23.52	1.186	30.12
AS42718	.918	23.32	1.207	30.65	.945	24.00	1.205	30.60
AS42719	.957	24.32	1.246	31.65	.984	25.00	1.244	31.60
CPL 121	.961	24.41	1.250	31.75	.988	25.10	1.248	31.70
AS42720	.997	25.32	1.285	32.65	1.024	26.00	1.283	32.60
CPL 122	1.022	25.96	1.313	33.35	1.050	26.67	1.310	33.27
AS42721	1.036	26.32	1.325	33.65	1.063	27.00	1.323	33.60
AS42722	1.076	27.32	1.364	34.65	1.102	28.00	1.362	34.60
CPL 123	1.086	27.58	1.375	34.92	1.113	28.27	1.373	34.80
AS42723	1.115	28.32	1.404	35.65	1.142	29.00	1.402	35.60
CPL 124	1.149	29.18	1.438	36.53	1.176	29.87	1.436	36.47
AS42724	1.154	29.32	1.443	36.65	1.181	30.00	1.441	36.60
AS42725	1.194	30.32	1.482	37.65	1.220	31.00	1.480	37.60
CPL 125	1.211	30.76	1.500	38.10	1.238	31.45	1.498	38.05
AS42726	1.233	31.32	1.522	38.65	1.260	32.00	1.520	38.60

PART NUMBER	CAVITY				SEAL			
	I.D.		O.D.		I.D.		O.D.	
	inches	mm	inches	mm	inches	mm	inches	mm
	(MAX)	(MAX)	+0.05 -0.00	+0.13 -0.00	+0.010 -0.000	+0.25 -0.00	+0.000 -0.010	+0.00 -0.25
AS42727	1.272	32.32	1.561	39.65	1.299	33.00	1.559	39.60
AS42728	1.312	33.32	1.600	40.65	1.339	34.00	1.598	40.60
CPL 127	1.336	33.93	1.625	41.28	1.363	34.62	1.623	41.22
AS42729	1.351	34.32	1.640	41.65	1.378	35.00	1.638	41.60
AS42730	1.391	35.32	1.679	42.65	1.417	36.00	1.677	42.60
CPL 128	1.398	35.51	1.688	42.88	1.425	36.19	1.686	42.82
AS42731	1.430	36.32	1.719	43.65	1.457	37.00	1.717	43.60
CPL 129	1.461	37.11	1.750	44.45	1.488	37.79	1.748	44.40
AS42732	1.469	37.32	1.758	44.65	1.496	38.00	1.756	44.60
AS42733	1.509	38.32	1.797	45.65	1.535	39.00	1.795	45.60
CPL 130	1.522	38.66	1.813	46.05	1.550	39.37	1.810	45.97
AS42734	1.548	39.32	1.837	46.65	1.575	40.00	1.835	46.60
AS42735	1.587	40.32	1.876	47.65	1.614	41.00	1.874	47.60
AS42736	1.627	41.32	1.915	48.65	1.654	42.00	1.913	48.60
CPL 132	1.647	41.83	1.938	49.23	1.675	42.54	1.935	49.15
AS42737	1.666	42.32	1.955	49.65	1.693	43.00	1.953	49.60
AS42738	1.706	43.32	1.994	50.65	1.732	44.00	1.992	50.60
CPL 134	1.711	43.46	2.000	50.80	1.738	44.14	1.998	50.75
AS42739	1.745	44.32	2.033	51.65	1.772	45.00	2.031	51.60
CPL 135	1.772	45.01	2.063	52.40	1.800	45.72	2.060	52.32
AS42740	1.784	45.32	2.073	52.65	1.811	46.00	2.071	52.60
AS42741	1.824	46.32	2.112	53.65	1.850	47.00	2.110	53.60
CPL 136	1.835	46.61	2.126	54.00	1.863	47.32	2.123	53.92
AS42742	1.863	47.32	2.152	54.65	1.890	48.00	2.150	54.60
CPL 137	1.899	48.23	2.188	55.58	1.926	48.92	2.186	55.52
AS42743	1.902	48.32	2.191	55.65	1.929	49.00	2.189	55.60

PART NUMBER	CAVITY				SEAL			
	I.D.		O.D.		I.D.		O.D.	
	inches	mm	inches	mm	inches	mm	inches	mm
	(MAX)	(MAX)	+0.005 -0.000	+0.13 -0.00	+0.010 -0.000	+0.25 -0.00	+0.000 -0.010	+0.00 -0.25
AS42744	1.942	49.32	2.230	56.65	1.969	50.00	2.228	56.60
CPL 138	1.962	49.83	2.251	57.18	1.989	50.52	2.249	57.12
AS42745	1.981	50.32	2.270	57.65	2.008	51.00	2.268	57.60
AS42746	2.020	51.32	2.309	58.65	2.047	52.00	2.307	58.60
AS42747	2.060	52.32	2.348	59.65	2.087	53.00	2.346	59.60
AS42748	2.099	53.32	2.388	60.65	2.126	54.00	2.386	60.60

SEAL DIMENSIONS APPLY AFTER PLATING

LARGE SECTION CORRUPPLUS MK1 SEALS

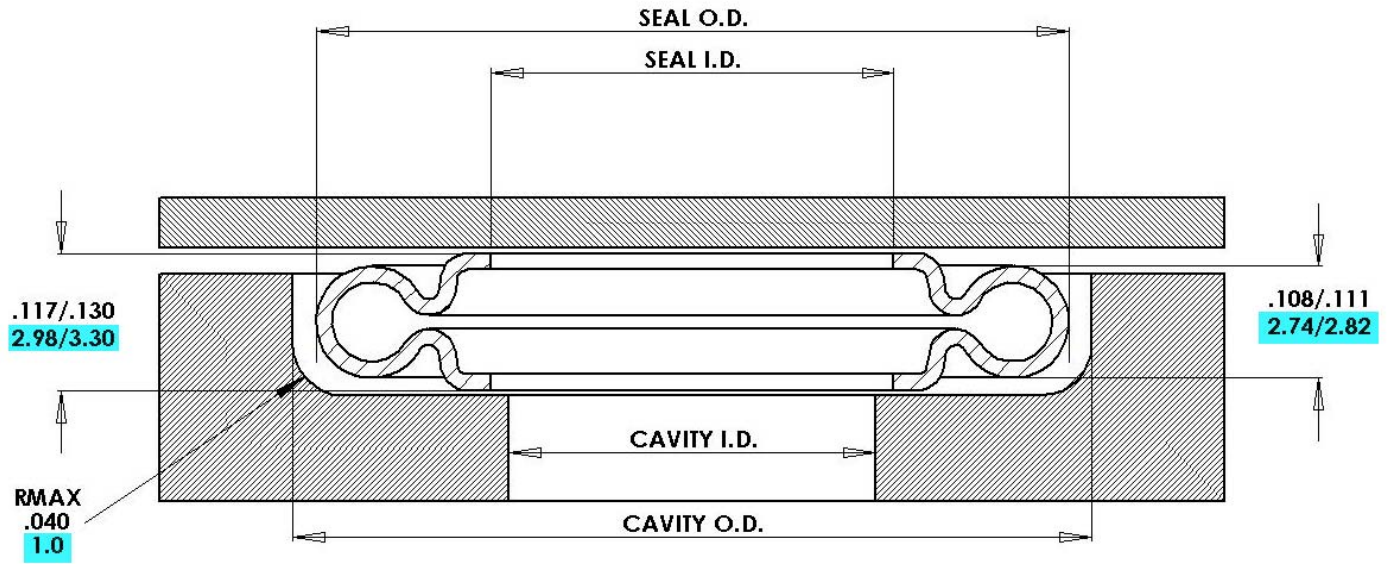


PART NUMBER	CAVITY				SEAL			
	I.D.		O.D.		I.D.		O.D.	
	inches	mm	inches	mm	inches	mm	inches	mm
	(MAX)	(MAX)	+0.005 -0.000	+0.13 -0.00	+0.010 -0.000	+0.25 -0.00	+0.000 -0.010	+0.00 -0.25
FOR SMALLER DIAMETER SEALS SEE SMALL SECTION SEALS								
CPL 227	1.998	50.75	2.382	60.50	2.030	51.56	2.380	60.45
CPL 228	2.123	53.92	2.507	63.68	2.155	54.74	2.505	63.63
AS42749	2.132	54.15	2.520	64.00	2.165	55.00	2.516	63.90
CPL 229	2.248	57.10	2.632	66.85	2.280	57.91	2.630	66.80
AS42750	2.329	59.15	2.717	69.00	2.362	60.00	2.713	68.90
CPL 230	2.373	60.27	2.757	70.03	2.405	61.09	2.755	69.98
CPL 231	2.498	63.45	2.882	73.20	2.530	64.26	2.880	73.15
AS42751	2.526	64.15	2.913	74.00	2.559	65.00	2.909	73.90
CPL 232	2.623	66.62	3.007	76.38	2.655	67.44	3.005	76.33
AS42752	2.722	69.15	3.110	79.00	2.756	70.00	3.106	78.90
CPL 233	2.748	69.80	3.132	79.55	2.780	70.61	3.130	79.50
CPL 234	2.873	72.97	3.257	82.73	2.905	73.79	3.255	82.68
AS42753	2.919	74.15	3.307	84.00	2.953	75.00	3.303	83.90
CPL 235	2.998	76.15	3.382	85.90	3.030	76.96	3.380	85.85
AS42754	3.116	79.15	3.504	89.00	3.150	80.00	3.500	88.90
CPL 236	3.123	79.32	3.507	89.08	3.155	80.14	3.505	89.03

PART NUMBER	CAVITY				SEAL			
	I.D.		O.D.		I.D.		O.D.	
	inches	mm	inches	mm	inches	mm	inches	mm
	(MAX)	(MAX)	+0.005 -0.000	+0.13 -0.00	+0.010 -0.000	+0.25 -0.00	+0.000 -0.010	+0.00 -0.25
CPL 237	3.248	82.50	3.632	92.25	3.280	83.31	3.630	92.20
AS42755	3.313	84.15	3.701	94.00	3.346	85.00	3.697	93.90

SEAL DIMENSIONS APPLY AFTER PLATING

LARGE SECTION CORRUPPLUS MK1 SEALS



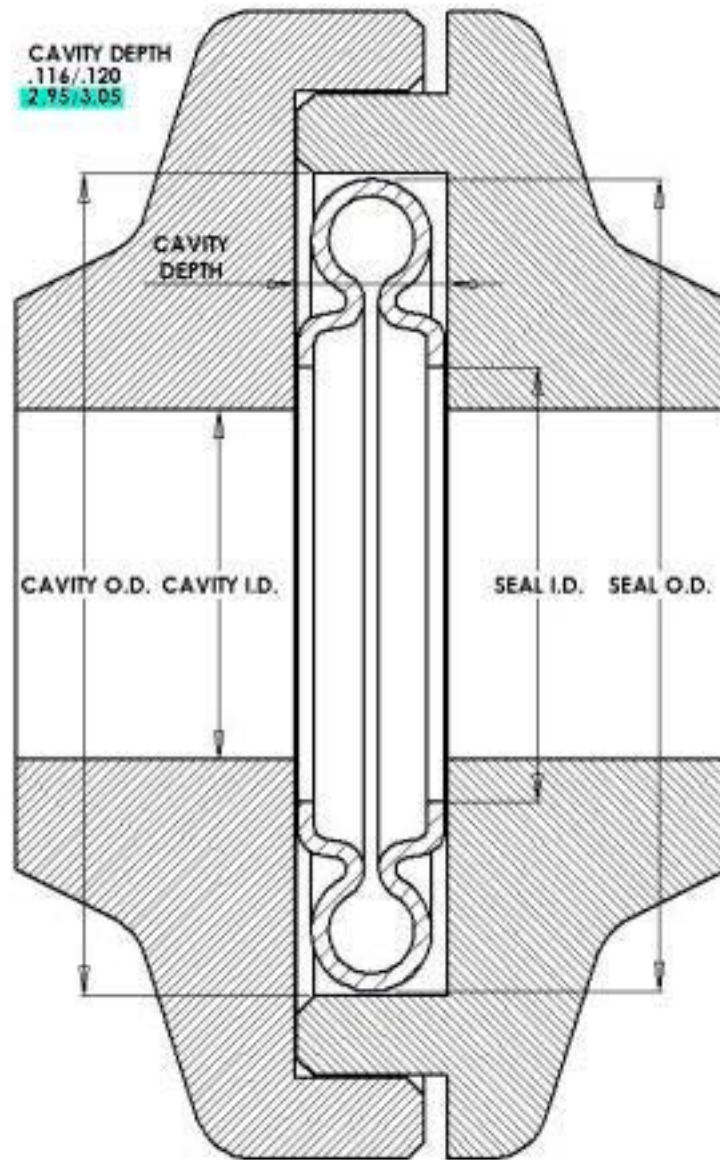
PART NUMBER	CAVITY				SEAL			
	I.D.		O.D.		I.D.		O.D.	
	inches	mm	inches	mm	inches	mm	inches	mm
	(MAX)	(MAX)	+0.005 -0.000	+0.13 -0.00	+0.010 -0.000	+0.25 -0.00	+0.000 -0.010	+0.00 -0.25
CPL 238	3.373	85.67	3.757	95.43	3.405	86.49	3.755	95.38
CPL 239	3.498	88.85	3.882	98.60	3.530	89.66	3.880	98.55
AS42756	3.510	89.15	3.898	99.00	3.543	90.00	3.894	98.90
CPL 240	3.623	92.02	4.007	101.78	3.655	92.84	4.005	101.73
AS42757	3.707	94.15	4.094	104.00	3.740	95.00	4.091	103.90
CPL 241	3.748	95.20	4.132	104.95	3.780	96.01	4.130	104.90
CPL 242	3.873	98.37	4.257	108.13	3.905	99.19	4.255	108.08
AS42758	3.904	99.15	4.291	109.00	3.937	100.00	4.287	108.90
CPL 243	3.998	101.55	4.382	111.30	4.030	102.36	4.380	111.25
AS42759	4.100	104.15	4.488	114.00	4.134	105.00	4.484	113.90
CPL 244	4.123	104.72	4.507	114.48	4.155	105.54	4.505	114.43
CPL 245	4.248	107.90	4.632	117.65	4.280	108.71	4.630	117.60
AS42760	4.297	109.15	4.685	119.00	4.331	110.00	4.681	118.90
CPL 246	4.373	111.07	4.757	120.83	4.405	111.89	4.755	120.78
AS42761	4.494	114.15	4.882	124.00	4.528	115.00	4.878	123.90
CPL 248	4.623	117.42	5.007	127.18	4.655	118.24	5.005	127.13
AS42762	4.691	119.15	5.079	129.00	4.724	120.00	5.075	128.90

PART NUMBER	CAVITY				SEAL			
	I.D.		O.D.		I.D.		O.D.	
	inches	mm	inches	mm	inches	mm	inches	mm
	(MAX)	(MAX)	+0.005 -0.000	+0.13 -0.00	+0.010 -0.000	+0.25 -0.00	+0.000 -0.010	+0.00 -0.25
CPL 249	4.748	120.60	5.132	130.35	4.780	121.41	5.130	130.30
CPL 250	4.873	123.77	5.257	133.53	4.905	124.59	5.255	133.48
AS42763	4.888	124.15	5.276	134.00	4.921	125.00	5.272	133.90
CPL 251	4.998	126.95	5.382	136.70	5.030	127.76	5.380	136.65
AS42764	5.085	129.15	5.472	139.00	5.118	130.00	5.468	138.90
CPL 252	5.123	130.12	5.507	139.88	5.155	130.94	5.505	139.83
CPL 253	5.248	133.30	5.632	143.05	5.280	134.11	5.630	143.00
AS42765	5.281	134.15	5.669	144.00	5.315	135.00	5.665	143.90
CPL 254	5.373	136.47	5.757	146.23	5.405	137.29	5.755	146.18
AS42766	5.478	139.15	5.866	149.00	5.512	140.00	5.862	148.90
CPL 255	5.498	139.65	5.882	149.40	5.530	140.46	5.880	149.35
CPL 256	5.623	142.82	6.007	152.58	5.655	143.64	6.005	152.53
AS42767	5.675	144.15	6.063	154.00	5.709	145.00	6.059	153.90
CPL 257	5.748	146.00	6.132	155.75	5.780	146.81	6.130	155.70
AS42768	5.872	149.15	6.260	159.00	5.906	150.00	6.256	158.90
AS42769	6.069	154.15	6.457	164.00	6.102	155.00	6.453	163.90
AS42770	6.266	159.15	6.654	169.00	6.299	160.00	6.650	168.90
AS42771	6.463	164.15	6.850	174.00	6.496	165.00	6.846	173.90
AS42772	6.659	169.15	7.047	179.00	6.693	170.00	7.043	178.90
AS42773	6.856	174.15	7.244	184.00	6.890	175.00	7.240	183.90
AS42774	7.053	179.15	7.441	189.00	7.087	180.00	7.437	188.90
AS42775	7.250	184.15	7.638	194.00	7.283	185.00	7.634	193.90
AS42776	7.447	189.15	7.835	199.00	7.480	190.00	7.831	198.90
AS42777	7.644	194.15	8.031	204.00	7.677	195.00	8.028	203.90
AS42778	7.841	199.15	8.228	209.00	7.874	200.00	8.224	208.90
AS42779	8.234	209.15	8.622	219.00	8.268	210.00	8.618	218.90

PART NUMBER	CAVITY				SEAL			
	I.D.		O.D.		I.D.		O.D.	
	inches	mm	inches	mm	inches	mm	inches	mm
	(MAX)	(MAX)	+0.005 -0.000	+0.13 -0.00	+0.010 -0.000	+0.25 -0.00	+0.000 -0.010	+0.00 -0.25
AS42780	8.628	219.15	9.016	229.00	8.661	220.00	9.012	228.90
AS42781	9.022	229.15	9.409	239.00	9.055	230.00	9.406	238.90
AS42782	9.415	239.15	9.803	249.00	9.449	240.00	9.799	248.90
AS42783	9.809	249.15	10.197	259.00	9.843	250.00	10.193	258.90
AS42784	10.203	259.15	10.591	269.00	10.236	260.00	10.587	268.90
AS42785	10.596	269.15	10.984	279.00	10.630	270.00	10.980	278.90
AS42786	10.990	279.15	11.378	289.00	11.024	280.00	11.374	288.90
AS42787	11.384	289.15	11.772	299.00	11.417	290.00	11.768	298.90
AS42788	11.778	299.15	12.165	309.00	11.811	300.00	12.161	308.90

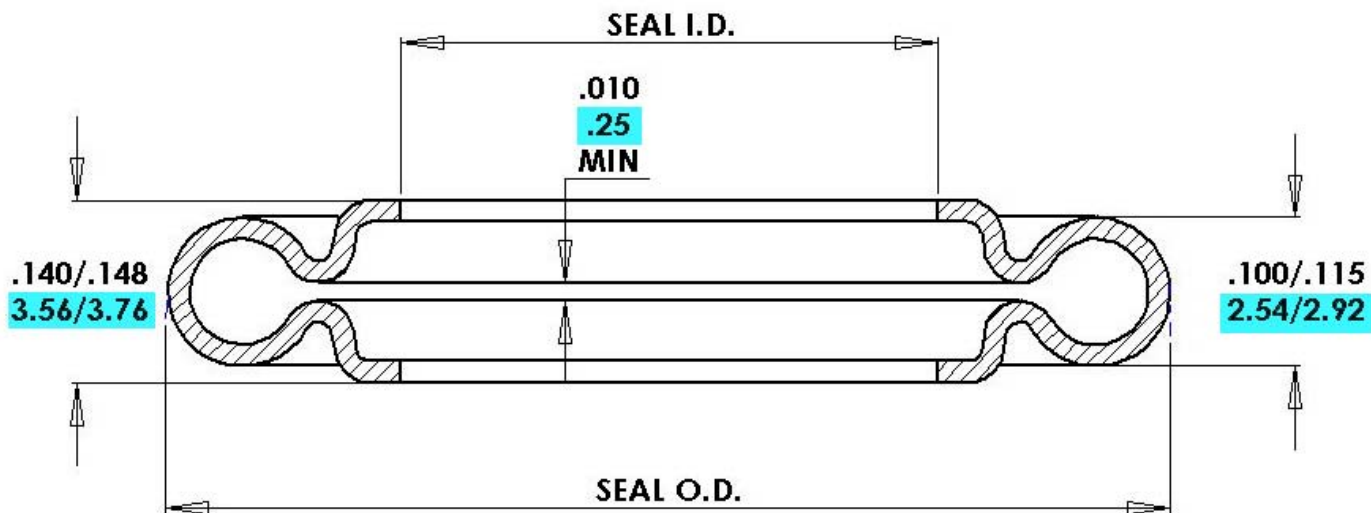
SEAL DIMENSIONS APPLY AFTER PLATING

CORRUPLUS MK1 SEALS FOR 'V' BAND COUPLINGS



CORRUPLUS MK1 SEALS FOR 'V' BAND COUPLINGS

CORRUPLUS MK1 SEALS FOR 'V' BAND COUPLINGS



PART NUMBER	CAVITY				SEAL			
	I.D.		O.D.		I.D.		O.D.	
	inches	mm	inches	mm	inches	mm	inches	mm
	(MAX)	(MAX)	+0.005 -0.000	+0.13 -0.00	+0.010 -0.000	+0.25 -0.00	+0.000 -0.010	+0.00 -0.25
CPL/V 100	.962	24.44	1.364	34.65	.988	25.10	1.363	34.62
CPL/V 125	1.212	30.79	1.614	41.00	1.238	31.45	1.613	40.97
CPL/V 150	1.462	37.14	1.864	47.35	1.488	37.80	1.863	47.32
CPL/V 175	1.712	43.49	2.114	53.70	1.738	44.15	2.113	53.67
CPL/V 200	1.962	49.84	2.364	60.05	1.988	50.50	2.363	60.02
CPL/V 225	2.213	56.22	2.615	66.42	2.239	56.87	2.614	66.40
CPL/V 250	2.463	62.57	2.865	72.77	2.489	63.22	2.864	72.75
CPL/V 275	2.713	68.92	3.115	79.12	2.739	69.57	3.114	79.10
CPL/V 300	2.963	75.27	3.365	85.47	2.989	75.92	3.364	85.45
CPL/V 325	3.213	81.62	3.615	91.82	3.239	82.27	3.614	91.80
CPL/V 350	3.464	87.99	3.866	98.20	3.490	88.65	3.865	98.17
CPL/V 400	3.964	100.69	4.366	110.90	3.990	101.35	4.365	110.87
CPL/V 450	4.464	113.39	4.866	123.60	4.490	114.05	4.865	123.57
CPL/V 500	4.966	126.14	5.368	136.35	4.992	126.80	5.367	136.32
CPL/V 550	5.466	138.84	5.868	149.05	5.492	139.50	5.867	149.02
CPL/V 600	5.966	151.54	6.368	161.75	5.992	152.20	6.367	161.72

SEAL DIMENSIONS APPLY AFTER PLATING