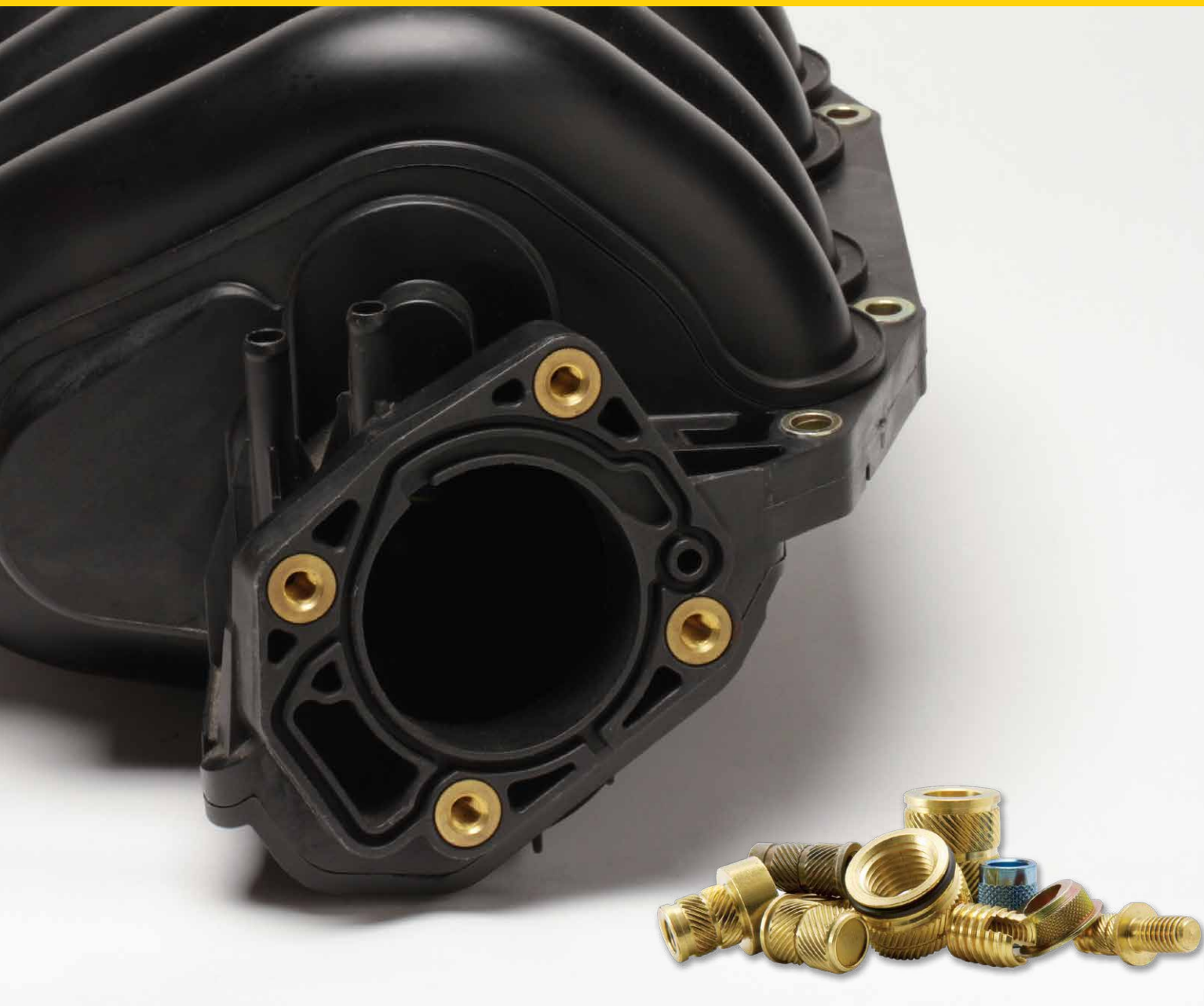


**STANLEY**<sup>®</sup>  
Engineered Fastening



Fastening Solutions for Plastics

**Dodge**<sup>®</sup>



## Ultraser® IV

INCH INSERT SPECIFICATIONS					HOLE SIZE RECOMMENDATIONS	
Thread Size	Part Number	Length	Diameter		Hole Size	Minimum Boss Diameter
		L ± .004	A ± .004	B ± .003	D + .003 – .000	
2-56	UB000256-115	.115	.143	.123	.127	.286
2-56	UB000256	.157	.143	.123	.127	.286
4-40	UB000440-135	.135	.186	.154	.158	.372
4-40	UB000440	.226	.186	.154	.158	.372
6-32	UB000632-150	.150	.217	.185	.189	.434
6-32	UB000632	.281	.217	.185	.189	.434
8-32	UB000832-185	.185	.249	.218	.222	.498
8-32	UB000832	.321	.249	.218	.222	.498
10-24	UB001024-225	.225	.279	.249	.253	.558
10-24	UB001024	.375	.279	.249	.253	.558
10-32	UB001032-225	.225	.279	.249	.253	.558
10-32	UB001032	.375	.279	.249	.253	.558
1/4-20	UB001420-300	.300	.340	.312	.316	.680
1/4-20	UB001420	.500	.340	.312	.316	.680
1/4-28	UB001428-300	.300	.340	.312	.316	.680
1/4-28	UB001428	.500	.340	.312	.316	.680
5/16-18	UB051618-335	.335	.406	.374	.378	.812
5/16-18	UB051618	.500	.406	.374	.378	.812
5/16-24	UB051624-335	.335	.406	.374	.378	.812
5/16-24	UB051624	.500	.406	.374	.378	.812
3/8-16	UB003816-375	.375	.498	.465	.469	.996
3/8-16	UB003816	.500	.498	.465	.469	.996
3/8-24	UB003824-375	.375	.498	.465	.469	.996
3/8-24	UB003824	.500	.498	.465	.469	.996

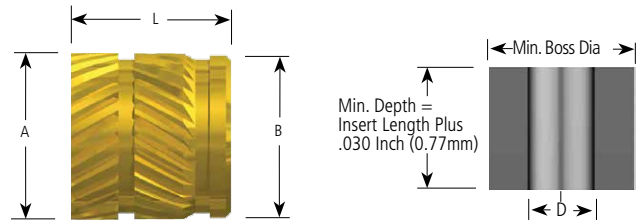
METRIC INSERT SPECIFICATIONS					HOLE SIZE RECOMMENDATIONS	
Thread Size	Part Number	Length	Diameter		Hole Size	Minimum Boss Diameter
		L ± 0.10	A ± 0.10	B ± 0.08	D + 0.08 – 0.00	
M2x0.4	UBM00204-029	2.92	3.63	3.12	3.23	7.26
M2x0.4	UBM00204	3.99	3.63	3.12	3.23	7.26
M2.2x0.45	UBM22045-029	2.92	3.63	3.12	3.23	7.26
M2.2x0.45	UBM22045	3.99	3.63	3.12	3.23	7.26
M2.5x0.45	UBM25045-034	3.43	4.72	3.91	4.01	9.45
M2.5x0.45	UBM25045	5.74	4.72	3.91	4.01	9.45
M3x0.5	UBM00305-034	3.43	4.72	3.91	4.01	9.45
M3x0.5	UBM00305	5.74	4.72	3.91	4.01	9.45
M3.5x0.6	UBM03506-038	3.81	5.51	4.70	4.80	11.02
M3.5x0.6	UBM03506	7.14	5.51	4.70	4.80	11.02
M4x0.7	UBM00407-047	4.70	6.32	5.54	5.64	12.65
M4x0.7	UBM00407	8.15	6.32	5.54	5.64	12.65
M5x0.8	UBM00508-057	5.72	7.09	6.32	6.43	14.17
M5x0.8	UBM00508	9.53	7.09	6.32	6.43	14.17
M6x1.0	UBM00061-076	7.62	8.64	7.92	8.03	17.27
M6x1.0	UBM00061	12.70	8.64	7.92	8.03	17.27
M8x1.25	UBM08125-085	8.51	10.31	9.50	9.60	20.62
M8x1.25	UBM08125	12.70	10.31	9.50	9.60	20.62
M10x1.5	UBM01015-095	9.53	12.65	11.81	11.91	25.30
M10x1.5	UBM01015	12.70	12.65	11.81	11.91	25.30



# Ultrasert<sup>®</sup> IV – Test Data

**Parallel-sided brass insert designed for ultrasonic or heat installation into thermoplastics or structural foam materials.**

- » Provides high tensile and rotational strength
- » Two lengths allow for design flexibility
- » Lead-in pilot positions insert for installation
- » Parallel sides for installation into straight holes



INCH		ABS		POLYCARBONATE		STRUCTURAL FOAM		NYLON 6/6 30% G.F.	
Thread Size	Length	Rotation lbs-in.	Tensile lbs	Rotation lbs-in.	Tensile lbs	Rotation lbs-in.	Tensile lbs	Rotation lbs-in.	Tensile lbs
No. 2	.115	**	**	**	**	**	**	**	**
	.157	6	110	11*	200	10	177	13*	159
No. 4	.135	**	**	**	**	**	**	**	**
	.226	15.8	228	23*	338	23*	329	23*	350
No. 6	.150	**	**	**	**	**	**	**	**
	.281	27	298	45*	598	45*	388	45*	488
No. 8	.185	**	**	**	**	**	**	*	**
	.321	44	440	85*	831	68	567	90	583
No. 10	.225	**	**	**	**	**	**	**	**
	.375	76	622	120*	1026	99	748	139	862
1/4"	.300	**	**	**	**	**	**	**	**
	.500	118	887	210	1717	171	871	213	1100
5/16"	.335	**	**	**	**	**	**	**	**
	.500	168	980	313*	1840	265	1231	316	1618
3/8"	.375	**	**	**	**	**	**	**	**
	.500	336	1334	534	2306	411	1315	663	2938

METRIC		ABS		POLYCARBONATE		STRUCTURAL FOAM		NYLON 6/6 30% G.F.	
Thread Size	Length	Rotation Nm	Tensile N	Rotation Nm	Tensile N	Rotation Nm	Tensile N	Rotation Nm	Tensile N
M2 & M2.2	2.92	**	**	**	**	**	**	**	**
	3.99	.68	489	1.24	890	1.13	787	1.47*	707
M2.5 & M3	3.43	**	**	**	**	**	**	**	**
	5.74	1.79	1014	2.60*	1503	2.60*	1463	2.60*	1557
M3.5	3.81	**	**	**	**	**	**	**	**
	7.14	3.05	1326	5.08*	2660	5.08*	1726	5.08*	2171
M4	4.70	**	**	**	**	**	**	**	**
	8.15	4.97	1957	9.60*	3696	7.68	2522	10.17*	2593
M5	5.72	**	**	**	**	**	**	***	**
	9.53	8.59	2767	13.56	4564	11.19	3327	15.70	3834
M6	7.62	**	**	**	**	**	**	**	**
	12.70	13.33	3946	23.73	7638	19.32	3874	24.07	4893
M8	8.51	**	**	**	**	**	**	**	**
	12.70	18.98	4359	35.36	8185	29.94	5476	35.70	7197
M10	9.53	**	**	**	**	**	**	**	**
	12.70	37.96	5934	60.33	10258	46.44	5849	74.91	13069

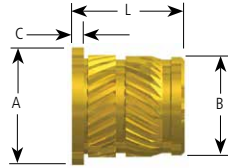
(\* ) Screw failed.

(\*\* ) Please contact Applications Engineering for test data.

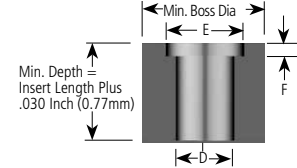


## Ultraser® IV Flanged

### INCH INSERT SPECIFICATIONS



### HOLE SIZE RECOMMENDATIONS



Thread Size	Part Number	Length L ± .004	Hole Diameter		Flange Thickness C ± .003	Hole Size D + .003 - .000	Counterbore		Minimum Boss Diameter
			A ± .005	B ± .003			E ± .001	F ± .001	
2-56	UFB000256-133	.133	.188	.123	.018	.127	.204	.022	.286
2-56	UFB000256	.175	.188	.123	.018	.127	.204	.022	.286
4-40	UFB000440-156	.156	.219	.154	.021	.158	.235	.025	.372
4-40	UFB000440	.247	.219	.154	.021	.158	.235	.025	.372
6-32	UFB000632-177	.177	.250	.185	.027	.189	.266	.031	.434
6-32	UFB000632	.308	.250	.185	.027	.189	.266	.031	.434
8-32	UFB000832-218	.218	.281	.218	.033	.222	.297	.037	.498
8-32	UFB000832	.354	.281	.218	.033	.222	.297	.037	.498
10-24	UFB001024-265	.265	.313	.249	.040	.253	.329	.040	.558
10-24	UFB001024	.415	.313	.249	.040	.253	.329	.044	.558
10-32	UFB001032-265	.265	.313	.249	.040	.253	.329	.044	.558
10-32	UFB001032	.415	.313	.249	.040	.253	.329	.044	.558
1/4-20	UFB001420-350	.350	.375	.312	.050	.316	.391	.054	.680
1/4-20	UFB001420	.550	.375	.312	.050	.316	.391	.054	.680
1/4-28	UFB001428-350	.350	.375	.312	.050	.316	.391	.054	.680
1/4-28	UFB001428	.550	.375	.312	.050	.316	.391	.054	.680
5/16-18	UFB051618-385	.385	.438	.374	.050	.378	.454	.054	.812
5/16-18	UFB051618	.550	.438	.374	.050	.378	.454	.054	.812
5/16-24	UFB051624-385	.385	.438	.374	.050	.378	.454	.054	.812
5/16-24	UFB051624	.550	.438	.374	.050	.378	.454	.054	.812
3/8-16	UFB003816-440	.440	.550	.465	.065	.469	.566	.069	.996
3/8-16	UFB003816	.565	.550	.465	.065	.469	.566	.069	.996
3/8-24	UFB003824-440	.440	.550	.465	.065	.469	.566	.069	.996
3/8-24	UFB003824	.565	.550	.465	.065	.469	.566	.069	.996

### METRIC INSERT SPECIFICATIONS

### HOLE SIZE RECOMMENDATIONS

Thread Size	Part Number	Length L ± 0.10	Hole Diameter		Flange Thickness C ± 0.08	Hole Size D + 0.08 - 0.00	Counterbore		Minimum Boss Diameter
			A ± 0.13	B ± 0.08			E ± 0.03	F ± 0.03	
M2x0.4	UFBM00204-034	3.38	4.78	3.12	0.48	3.23	5.18	0.56	7.26
M2x0.4	UFBM00204	4.45	4.78	3.12	0.48	3.23	5.18	0.56	7.26
M2.2x0.45	UFBM22045-034	3.38	4.78	3.12	0.48	3.23	5.18	0.56	7.26
M2.2x0.45	UFBM22045	4.45	4.78	3.12	0.48	3.23	5.18	0.56	7.26
M2.5x0.45	UFBM25045-039	3.96	5.56	3.91	0.53	4.01	5.97	0.64	9.45
M2.5x0.45	UFBM25045	6.27	5.56	3.91	0.53	4.01	5.97	0.64	9.45
M3x0.5	UFBM00305-039	3.96	5.56	3.91	0.53	4.01	5.97	0.64	9.45
M3x0.5	UFBM00305	6.27	5.56	3.91	0.53	4.01	5.97	0.64	9.45
M3.5x0.6	UFBM03506-045	4.50	6.35	4.70	0.69	4.80	6.76	0.79	11.02
M3.5x0.6	UFBM03506	7.82	6.35	4.70	0.69	4.80	6.76	0.79	11.02
M4x0.7	UFBM00407-055	5.54	7.14	5.54	0.84	5.64	7.54	0.94	12.65
M4x0.7	UFBM00407	8.99	7.14	5.54	0.84	5.64	7.54	0.94	12.65
M5x0.8	UFBM00508-067	6.73	7.95	6.32	1.02	6.43	8.36	1.12	14.17
M5x0.8	UFBM00508	10.54	7.95	6.32	1.02	6.43	8.36	1.12	14.17
M6x1.0	UFBM00061-089	8.89	9.53	7.92	1.27	8.03	9.93	1.37	17.27
M6x1.0	UFBM00061	13.97	9.53	7.92	1.27	8.03	9.93	1.37	17.27
M8x1.25	UFBM08125-098	9.78	11.13	9.50	1.27	9.60	11.53	1.37	20.62
M8x1.25	UFBM08125	13.97	11.13	9.50	1.27	9.60	11.53	1.37	20.62
M10x1.5	UFBM01015-111	11.18	13.97	11.81	1.65	11.91	14.38	1.75	25.30
M10x1.5	UFBM01015	14.35	13.97	11.81	1.65	11.91	14.38	1.75	25.30



# Ultrasert<sup>®</sup> IV Flanged – Test Data

**Flange provides a large bearing surface ideal for use in weaker plastics.**

- » Ideal for use as an electrical contact or fastening terminal connectors
- » For high strength assemblies; can be used in a reverse screw entry

## Test Data From Flange Side

INCH		ABS		POLYCARBONATE		STRUCTURAL FOAM		NYLON 6/6 30% G.F.	
Thread Size	Length	Rotation lbs-in.	Tensile lbs	Rotation lbs-in.	Tensile lbs	Rotation lbs-in.	Tensile lbs	Rotation lbs-in.	Tensile lbs
No. 2	.175	6	110	11	200	10	177	13	159
No. 4	.247	15.8	228	23*	338	23*	329	23*	350
No. 6	.308	27	298	45*	598	45*	388	45*	488
No. 8	.354	44	440	85*	831	68	567	90*	583
No. 10	.415	76	622	120	1026	99	748	139	662
1/4"	.550	118	887	210	1717	171	871	213	1100
5/16"	.550	168	980	313	1840	265	1231	316	1618
3/8"	.565	336	1334	534	2306	411	1315	663	2938

METRIC		ABS		POLYCARBONATE		STRUCTURAL FOAM		NYLON 6/6 30% G.F.	
Thread Size	Length	Rotation Nm	Tensile N	Rotation Nm	Tensile N	Rotation Nm	Tensile N	Rotation Nm	Tensile N
M2 & M2.2	4.45	0.68	489	1.24	890	1.13	787	1.47*	707
M2.5 & M3	6.27	1.79	1014	2.60*	1503	2.60*	1463	2.60*	1557
M3.5	7.82	3.05	1326	5.08*	2660	5.08*	1726	5.08*	2171
M4	8.99	4.97	1957	9.60*	3696	7.68	2522	10.17*	2593
M5	10.54	8.59	2767	13.56	4564	11.19	3327	15.70	3834
M6	13.97	13.33	3946	23.73	7638	19.32	3874	24.07	4893
M8	13.97	18.98	4359	35.36	8185	29.94	5476	35.70	7197
M10	14.35	37.96	5934	60.33	10258	46.44	5849	74.91	13069

## Test Data For Loads Applied From Opposite End

INCH		ABS		POLYCARBONATE		STRUCTURAL FOAM		NYLON 6/6 30% G.F.	
Thread Size	Length	Rotation lbs-in.	Tensile lbs	Rotation lbs-in.	Tensile lbs	Rotation lbs-in.	Tensile lbs	Rotation lbs-in.	Tensile lbs
No. 2	.175	6	292	11	359	10	367	13	382
No. 4	.247	15.8	573	23*	827	23*	711	23*	840
No. 6	.308	27	846	45*	1294	46*	966	46*	1329
No. 8	.354	44	1161	85*	1952	68	1310	90*	1939
No. 10	.415	76	1251	120	2159	99	1557	139	2113
1/4"	.550	118	1409	210	2369	171	1800	213	2881
5/16"	.550	168	1759	313	2720	265	2003	316	2925
3/8"	.565	336	2714	534	4904	411	3083	663	5678

METRIC		ABS		POLYCARBONATE		STRUCTURAL FOAM		NYLON 6/6 30% G.F.	
Thread Size	Length	Rotation Nm	Tensile N	Rotation Nm	Tensile N	Rotation Nm	Tensile N	Rotation Nm	Tensile N
M2 & M2.2	4.45	0.68	1299	1.24	1597	1.13	1632	1.47*	1699
M2.5 & M3	6.27	1.79	2549	2.60*	3679	2.60*	3163	2.60*	3737
M3.5	7.82	3.05	3763	5.08*	5756	5.08*	4297	5.08*	5912
M4	8.99	4.97	5164	9.60*	8683	7.68	5827	10.17*	8625
M5	10.54	8.59	5565	13.56	9604	11.19	6976	15.70	9399
M6	13.97	13.33	6268	23.73	10538	19.32	8006	24.07	12815
M8	13.97	18.98	7824	35.36	12099	29.94	8910	35.70	13011
M10	14.35	37.96	12072	60.33	21814	46.44	13714	74.91	25257

(\*) Screw failed. Note: Test data is for long lengths only. Please contact Applications Engineering for short length test data.