



DICHTOMATIK
AMERICAS

SHAFT-EZE

Installation and Dimension Guide



Repair worn shafts with ease

Any Seal...Any Time



Rotary Shaft Seals
Fluid Power Seals

American Seal

O-Rings
Spliced Rings

Nu-Seals

Fitting & Fastener Seals
Custom Molded Rubber

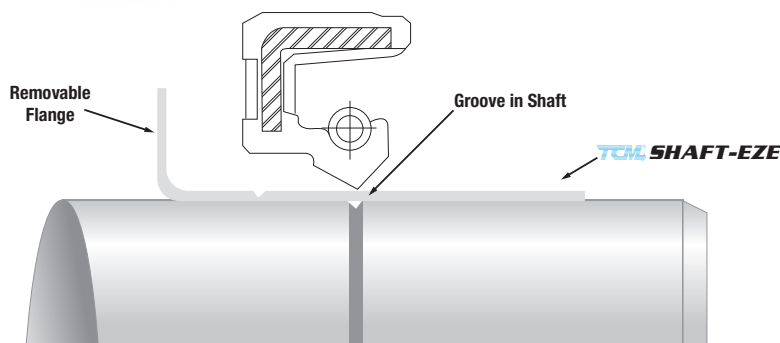
TCM[®]

SHAFT-EZE

TCM[®] SHAFT-EZE has set a new standard for trouble free re-sleeving of shafts. Shaft-Eze's thin-wall flange slides over the worn shaft in minutes, creating a new shaft finish. With Shaft-Eze's precision ground tolerance you still use the original size seal!

Advantages:

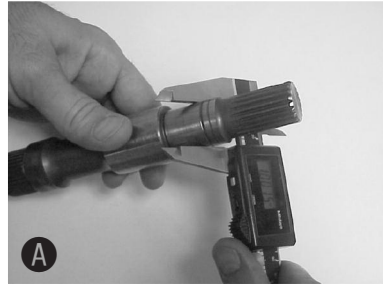
- Installs in minutes
- Stainless steel sleeve with a hardness of 95RB
- Fits tightly on shaft
- Original size seal does not change
- 8–30 micro inch sleeve finish
- Precision ground surface
- No machine shaft lead coil to draw contaminants into the protected area or force lubricants out
- Offered in sizes up to 8 inches.
- Installation is easy!
 - Use the installation tool provided
 - Drive the Shaft-Eze over the worn shaft
 - Remove the flange
 - You're up and running in minutes!



Maximize Your Up Time with **TCM[®] SHAFT-EZE**

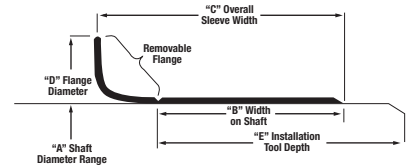
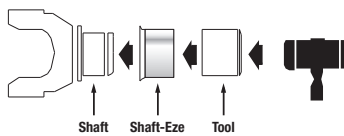
SHAFT-EZE ***Installation***

1. Clean the worn shaft and remove any burrs.
2. Measure the shaft diameter in three locations and determine the average diameter. Select a Shaft-Eze for which the average diameter falls within the shaft range for that sleeve. (See Figure A)
3. Place the Shaft-Eze squarely onto the end of the shaft.
4. Place the Shaft-Eze installation tool over the Shaft-Eze sleeve. If the tool supplied with the sleeve is too short, a pipe or tube can be used as an installation tool. (See Figure B)
5. Hammer gently on the installation tool until the worn area is covered by the Shaft-Eze. (See Figure C)
6. If necessary, the flange on the Shaft-Eze can be removed after installation. Using a pair of side cutters cut all the way around the sleeve along the groove line. Fold the flange back and forth until flange breaks off. (See Figure D)
CAUTION: Do not pull on flange as it may cause damage to the sleeve.
7. Check the repair area and Shaft-Eze for any burrs that may harm the seal during installation.
8. Lubricate the Shaft-Eze prior to installing the seal.
9. Proceed with installing a seal onto the Shaft-Eze.



• **TCM** **SHAFT-EZE** is to be used only with oil and grease seals •

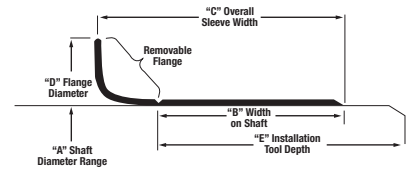
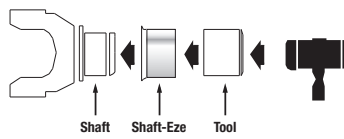
TUM® SHAFT-EZE SIZE LISTING - INCH



PART #	NOMINAL SHAFT DIA. (IN.)	"A" SHAFT DIA. RANGE (IN.)		"B" WIDTH ON SHAFT (IN. $\pm 0.031"$)	"C" OVERALL WIDTH (IN. $\pm 0.031"$)	"D" FLANGE DIA. (IN. $\pm 0.063"$)	"E" INSTALL. DEPTH (IN.)
99049	0.472	0.469	0.475	0.236	0.331	0.610	1.874
99050	0.500	0.498	0.502	0.248	0.343	0.610	2.000
99055	0.551	0.547	0.551	0.248	0.390	0.752	1.831
99056	0.563	0.560	0.566	0.248	0.390	0.752	1.831
99059	0.591	0.589	0.593	0.197	0.354	0.752	1.862
99062	0.625	0.623	0.627	0.315	0.406	0.752	2.000
99058	0.630	0.626	0.630	0.315	0.437	0.717	2.000
99068	0.669	0.667	0.671	0.315	0.433	0.874	2.000
99060	0.684	0.682	0.686	0.315	0.437	0.894	2.000
99082	0.706	0.704	0.709	0.315	0.433	0.961	1.811
99076	0.750	0.748	0.752	0.315	0.437	0.945	2.000
99081	0.760	0.759	0.761	0.315	0.437	0.937	2.000
99080	0.781	0.780	0.784	0.315	0.437	0.937	2.000
99078	0.787	0.785	0.789	0.315	0.433	0.929	2.000
99083	0.813	0.812	0.815	0.375	0.563	1.188	3.000
99086	0.859	0.857	0.861	0.248	0.374	1.154	2.000
99084	0.866	0.861	0.866	0.260	0.358	1.189	1.854
99085	0.866	0.861	0.866	0.315	0.472	1.189	1.811
99087	0.875	0.873	0.877	0.315	0.437	1.095	2.000
99091	0.910	0.908	0.912	0.315	0.437	1.217	1.847
99092	0.945	0.940	0.945	0.315	0.437	1.130	2.000
99094	0.969	0.966	0.970	0.315	0.437	1.130	2.000
99096	0.969	0.966	0.970	0.626	0.721	1.130	2.000
99098	0.984	0.982	0.986	0.315	0.433	1.299	2.000
99100	1.000	0.998	1.002	0.315	0.437	1.221	2.000
99103	1.024	1.019	1.024	0.315	0.472	1.315	1.811
99106	1.063	1.060	1.064	0.315	0.437	1.319	1.843
99108	1.089	1.087	1.091	0.315	0.437	1.406	0.626
99111	1.102	1.100	1.104	0.374	0.500	1.374	1.843
99112	1.125	1.123	1.127	0.315	0.437	1.500	0.689
99116	1.125	1.123	1.127	0.374	0.500	1.500	0.689
99120	1.156	1.154	1.158	0.374	0.500	1.350	0.689
99122	1.175	1.173	1.178	0.315	0.437	1.402	0.689
99114	1.181	1.179	1.184	0.315	0.433	1.402	0.689
99118	1.188	1.185	1.190	0.315	0.437	1.402	0.689
99123	1.219	1.216	1.222	0.315	0.433	1.563	0.626
99141	1.240	1.237	1.243	0.315	0.437	1.539	0.689
99125	1.252	1.247	1.253	0.315	0.437	1.500	0.689
99128	1.260	1.257	1.263	0.315	0.437	1.500	0.689
99121	1.299	1.297	1.301	0.591	0.709	1.594	0.813
99129	1.313	1.308	1.314	0.248	0.374	1.598	0.815
99131	1.313	1.310	1.316	0.500	0.626	1.595	0.815
99134	1.339	1.333	1.339	0.500	0.626	1.626	0.815
99138	1.375	1.371	1.377	0.500	0.626	1.638	0.815
99139	1.375	1.375	1.381	0.512	0.630	1.638	0.815
99133	1.375	1.371	1.377	0.315	0.437	1.638	0.815
99146	1.417	1.411	1.417	0.512	0.669	1.780	0.984
99143	1.438	1.432	1.438	0.563	0.689	1.780	1.016
99144	1.438	1.435	1.441	0.374	0.500	1.780	1.016
99147	1.496	1.490	1.496	0.512	0.669	1.780	0.984
99149	1.500	1.497	1.503	0.563	0.689	1.780	1.016
99150	1.500	1.497	1.503	0.374	0.500	1.780	1.016
99152	1.523	1.520	1.526	0.437	0.563	1.858	1.016
99155	1.552	1.549	1.555	0.437	0.563	1.858	1.016
99156	1.563	1.559	1.565	0.563	0.689	1.858	1.016
99159	1.569	1.566	1.572	0.626	0.752	1.858	1.016
99153	1.575	1.569	1.575	0.390	0.508	1.847	1.000
99157	1.578	1.572	1.578	0.512	0.630	1.850	1.024
99160	1.605	1.602	1.608	0.500	0.642	1.937	1.000
99163	1.614	1.608	1.614	0.500	0.626	1.937	1.016
99162	1.625	1.622	1.628	0.563	0.689	1.874	0.815
99161	1.625	1.622	1.628	0.315	0.437	1.874	1.016
99169	1.650	1.647	1.654	0.563	0.689	2.087	0.827
99166	1.650	1.647	1.654	0.445	0.571	2.087	0.843
99165	1.656	1.653	1.659	0.551	0.689	2.087	0.827
99168	1.688	1.684	1.690	0.563	0.689	1.906	0.874
99167	1.688	1.685	1.691	0.315	0.437	1.906	0.874
99182	1.693	1.687	1.693	0.500	0.626	1.906	0.839

PART #	NOMINAL SHAFT DIA. (IN.)	"A" SHAFT DIA. RANGE (IN.)		"B" WIDTH ON SHAFT (IN. $\pm 0.031"$)	"C" OVERALL WIDTH (IN. $\pm 0.031"$)	"D" FLANGE DIA. (IN. $\pm 0.063"$)	"E" INSTALL. DEPTH (IN.)
99171	1.719	1.715	1.721	0.563	0.689	2.032	0.815
99170	1.739	1.736	1.742	0.374	0.500	2.063	0.815
99172	1.750	1.747	1.753	0.374	0.500	2.055	0.815
99174	1.750	1.747	1.753	0.563	0.689	2.063	0.815
99175	1.750	1.747	1.753	0.752	0.874	2.063	0.815
99180	1.750	1.747	1.753	0.532	0.626	2.063	0.878
99176	1.766	1.761	1.767	0.563	0.689	2.063	0.815
99177	1.772	1.769	1.775	0.551	0.669	2.087	0.811
99179	1.781	1.778	1.784	0.665	0.799	2.126	1.063
99181	1.813	1.809	1.815	0.563	0.689	2.091	1.000
99185	1.859	1.857	1.863	0.563	0.689	2.158	1.000
99186	1.868	1.866	1.872	0.890	1.024	2.189	1.000
99187	1.875	1.872	1.878	0.563	0.689	2.205	1.000
99184	1.875	1.872	1.878	0.374	0.516	2.205	1.047
99188	1.875	1.872	1.878	0.295	0.413	2.205	0.740
99190	1.875	1.872	1.878	0.177	0.295	2.205	0.740
99189	1.891	1.887	1.893	0.551	0.669	2.205	0.984
99192	1.912	1.909	1.915	0.374	0.500	2.221	1.000
99193	1.938	1.934	1.940	0.563	0.689	2.221	1.000
99196	1.969	1.965	1.971	0.551	0.669	2.244	0.984
99198	1.980	1.977	1.983	0.563	0.705	2.315	1.047
99199	2.000	1.997	2.003	0.563	0.689	2.406	1.000
99200	2.000	1.997	2.003	0.874	1.000	2.406	1.000
99204	2.047	2.040	2.047	0.500	0.626	2.469	1.358
99205	2.063	2.057	2.063	0.780	0.937	2.469	1.374
99210	2.125	2.123	2.128	0.500	0.752	2.421	1.280
99212	2.125	2.124	2.130	0.780	0.937	2.421	1.374
99215	2.165	2.162	2.168	0.787	0.906	2.441	1.252
99218	2.188	2.186	2.192	0.780	0.937	2.500	1.315
99220	2.205	2.198	2.205	0.500	0.626	2.532	1.315
99224	2.205	2.197	2.205	0.779	0.936	2.531	3.150
99229	2.230	2.227	2.233	0.500	0.626	2.532	1.315
99230	2.230	2.227	2.233	0.780	0.906	2.532	1.252
99226	2.240	2.237	2.243	0.764	0.902	2.563	1.252
99225	2.250	2.249	2.255	0.780	0.937	2.532	1.315
99227	2.250	2.249	2.255	0.315	0.437	2.532	1.315
99219	2.284	2.280	2.286	0.781	0.938	2.598	1.375
99231	2.313	2.309	2.315	0.780	0.937	2.689	1.374
99233	2.328	2.327	2.333	0.752	0.874	2.748	1.500
99235	2.362	2.359	2.365	0.787	0.906	2.784	1.469
99241	2.362	2.359	2.365	0.370	0.449	2.784	1.374
99236	2.375	2.369	2.375	0.780	0.937	2.748	1.374
99237	2.375	2.374	2.380	0.780	0.937	2.748	1.374
99238	2.375	2.372	2.378	0.595	0.752	2.748	1.374
99240	2.375	2.374	2.380	0.528	0.685	2.748	1.374
99243	2.438	2.434	2.440	0.780	0.937	2.827	1.394
99242	2.438	2.435	2.441	0.500	0.626	2.827	1.421
99244	2.441	2.434	2.441	0.500	0.626	2.827	1.421
99249	2.492	2.489	2.495	0.780	0.937	2.874	1.394
99248	2.500	2.500	2.506	0.500	0.658	2.827	1.394
99250	2.500	2.500	2.506	0.780	0.937	2.819	1.374
99253	2.500	2.497	2.503	0.555	0.650	2.819	0.890
99251	2.516	2.510	2.516	0.780	0.906	2.827	1.437
99254	2.559	2.556	2.562	0.787	0.906	2.850	1.374
99256	2.563	2.560	2.566	0.780	0.937	2.890	1.374
99259	2.598	2.595	2.601	0.780	0.937	2.992	1.252
99261	2.621	2.618	2.624	0.780	0.937	3.047	1.374
99262	2.625	2.625	2.631	0.780	0.937	3.047	1.374
99264	2.625	2.621	2.627	0.780	0.906	3.047	1.374
99260	2.625	2.622	2.628	0.500	0.626	3.047	1.374
99266	2.677	2.670	2.677	0.752	0.874	3.126	1.689
99268	2.730	2.727	2.733	0.780	0.906	3.126	1.315
99273	2.743	2.740	2.746	0.780	0.937	3.063	1.252
99272	2.750	2.750	2.756	0.406	0.563	3.126	1.252
99274	2.750	2.745	2.751	0.780	0.937	3.126	1.252
99275	2.750	2.750	2.756	0.780	0.937	3.126	1.252
99267	2.750	2.747	2.753	1.437	1.626	3.075	1.626
99269	2.750	2.750	2.756	1.126	1.252	3.126	1.311

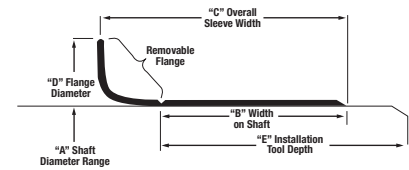
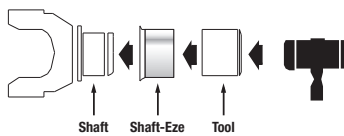
TUM® SHAFT-EZE SIZE LISTING - INCH



PART #	NOMINAL SHAFT DIA. (IN.)	"A" SHAFT DIA. RANGE (IN.)	"B" WIDTH ON SHAFT (IN. ±0.031")	"C" OVERALL WIDTH (IN. ±0.031")	"D" FLANGE DIA. (IN. ±0.063")	"E" INSTALL. DEPTH (IN.)
99270	2.750	2.747 2.753	0.780	0.937	3.126	1.252
99276	2.756	2.753 2.759	0.787	0.945	3.126	1.252
99281	2.813	2.809 2.815	0.595	0.689	3.189	1.252
99284	2.835	2.828 2.835	0.752	0.874	3.224	1.343
99282	2.838	2.838 2.844	0.500	0.658	3.224	1.252
99286	2.869	2.866 2.872	0.780	0.937	3.189	1.252
99287	2.875	2.873 2.879	0.780	0.937	3.221	1.252
99290	2.938	2.937 2.943	0.500	0.642	3.343	1.331
99293	2.938	2.937 2.943	0.780	0.937	3.343	1.315
99289	2.953	2.950 2.956	0.595	0.689	3.272	1.083
99294	2.953	2.950 2.956	0.866	1.024	3.307	1.315
99292	2.974	2.972 2.976	0.811	1.000	3.236	1.252
99299	2.993	2.990 2.996	0.811	1.000	3.350	1.280
99291	2.993	2.990 2.996	0.484	0.626	3.358	1.331
99298	2.993	2.990 2.996	0.563	0.689	3.358	1.374
99300	3.000	3.000 3.006	0.811	1.000	3.236	1.280
99303	3.000	3.000 3.006	0.626	0.811	3.347	1.280
99296	3.000	2.997 3.003	0.811	0.937	3.240	1.374
99301	3.011	3.008 3.014	0.500	0.626	3.354	2.000
99306	3.071	3.064 3.071	0.752	0.874	3.465	2.055
99307	3.125	3.124 3.132	0.551	0.709	3.524	2.032
99311	3.125	3.120 3.126	0.689	0.811	3.532	2.000
99312	3.125	3.120 3.126	0.811	1.000	3.532	2.000
99313	3.146	3.142 3.150	0.752	0.886	3.539	1.374
99315	3.150	3.146 3.153	0.827	0.945	3.543	1.374
99317	3.150	3.146 3.153	0.433	0.591	3.543	1.374
99328	3.228	3.225 3.231	0.661	0.847	3.587	1.752
99322	3.250	3.247 3.253	0.811	1.000	3.595	1.374
99324	3.250	3.250 3.256	0.595	0.721	3.575	1.374
99325	3.250	3.250 3.256	0.811	1.000	3.587	1.374
99326	3.250	3.250 3.256	0.689	0.874	3.587	1.252
99331	3.310	3.307 3.313	0.811	1.000	3.689	1.374
99332	3.342	3.337 3.347	0.669	0.827	3.701	1.378
99333	3.342	3.337 3.347	0.827	0.984	3.701	1.378
99334	3.347	3.338 3.347	0.398	0.500	3.579	1.429
99337	3.375	3.373 3.379	0.811	1.000	3.693	1.374
99338	3.375	3.373 3.379	0.374	0.500	3.689	1.409
99339	3.438	3.435 3.441	0.780	0.906	3.843	1.406
99340	3.480	3.477 3.483	0.780	0.906	3.835	1.406
99346	3.500	3.497 3.503	0.626	0.811	3.843	1.347
99347	3.500	3.500 3.506	0.315	0.500	3.827	1.347
99350	3.500	3.500 3.506	0.811	1.000	3.843	1.347
99349	3.504	3.501 3.507	0.626	0.811	3.843	1.347
99351	3.543	3.540 3.546	0.709	0.906	4.000	1.811
99352	3.543	3.540 3.546	0.437	0.539	4.000	1.811
99353	3.543	3.540 3.546	0.528	0.665	4.000	1.752
99354	3.543	3.540 3.546	0.906	1.102	4.000	1.752
99356	3.563	3.560 3.566	0.811	1.000	3.902	1.752
99360	3.621	3.618 3.624	0.811	1.000	4.032	1.752
99362	3.625	3.623 3.629	0.811	1.000	4.032	1.752
99363	3.626	3.623 3.629	0.500	0.625	4.025	1.750
99365	3.688	3.685 3.691	0.811	0.937	4.024	1.799
99368	3.688	3.684 3.690	0.315	0.437	4.032	0.874
99359	3.730	3.727 3.733	0.469	0.595	4.032	1.799
99366	3.730	3.727 3.733	0.780	0.906	4.024	1.799
99364	3.740	3.740 3.746	0.469	0.595	4.035	1.799
99369	3.740	3.737 3.743	0.827	0.945	4.024	1.799
99374	3.740	3.740 3.746	0.343	0.500	4.032	1.799
99367	3.750	3.750 3.756	0.343	0.500	4.024	1.799
99372	3.750	3.750 3.756	0.689	0.874	4.020	1.799
99376	3.750	3.746 3.752	0.563	0.689	4.024	1.799
99386	3.871	3.868 3.874	0.813	1.000	4.185	1.875
99387	3.875	3.873 3.875	0.811	1.000	4.221	1.874
99393	3.937	3.935 3.941	0.811	1.000	4.311	2.047
99395	4.000	3.998 4.006	0.598	0.724	4.374	2.047
99399	4.000	3.998 4.006	0.811	1.000	4.374	2.047
99400	4.000	3.998 4.006	0.650	0.776	4.374	1.374
99401	4.000	3.998 4.006	0.500	0.626	4.374	2.067

PART #	NOMINAL SHAFT DIA. (IN.)	"A" SHAFT DIA. RANGE (IN.)	"B" WIDTH ON SHAFT (IN. ±0.031")	"C" OVERALL WIDTH (IN. ±0.031")	"D" FLANGE DIA. (IN. ±0.063")	"E" INSTALL. DEPTH (IN.)
99409	4.095	4.090 4.098	0.787	0.945	4.437	1.417
99412	4.125	4.122 4.130	0.811	1.000	4.469	1.374
99413	4.134	4.130 4.138	0.787	0.913	4.469	1.378
99418	4.188	4.183 4.191	0.811	1.000	4.500	1.374
99423	4.234	4.226 4.234	0.780	0.906	4.610	1.437
99424	4.250	4.248 4.256	0.811	1.000	4.610	1.437
99435	4.328	4.327 4.335	0.508	0.650	4.921	1.260
99434	4.331	4.322 4.331	0.449	0.591	4.921	1.295
99437	4.375	4.370 4.378	0.811	1.000	4.752	1.654
99438	4.406	4.402 4.409	0.752	0.886	4.752	1.299
99439	4.438	4.434 4.442	1.000	1.142	4.811	1.315
99450	4.500	4.496 4.504	0.811	1.000	4.902	1.260
99452	4.528	4.523 4.531	0.811	0.937	5.000	1.260
99463	4.626	4.621 4.629	1.000	1.252	5.063	1.374
99465	4.626	4.621 4.629	0.437	0.626	5.000	1.374
99468	4.688	4.685 4.693	0.811	1.000	5.063	1.374
99471	4.724	4.720 4.728	0.315	0.433	5.110	1.323
99473	4.724	4.720 4.728	0.787	0.984	5.110	1.260
99475	4.750	4.746 4.754	0.500	0.752	5.000	1.500
99472	4.803	4.799 4.807	0.787	0.945	5.177	1.260
99484	4.843	4.839 4.847	0.787	0.984	5.228	1.244
99487	4.875	4.871 4.879	0.626	0.752	5.248	1.437
99492	4.921	4.917 4.925	1.024	1.260	5.402	1.437
99490	4.921	4.917 4.925	0.394	0.551	5.402	1.437
99498	5.000	4.998 5.006	0.689	0.874	5.402	1.437
99499	5.000	4.998 5.006	0.811	1.000	5.390	1.437
99501	5.000	4.998 5.006	0.539	0.681	5.402	1.437
99494	5.114	5.110 5.118	0.752	0.937	5.492	1.181
99491	5.125	5.117 5.125	0.866	0.996	5.492	1.280
99513	5.125	5.120 5.128	0.811	1.000	5.500	1.252
99525	5.250	5.246 5.254	0.811	1.000	5.559	1.252
99533	5.313	5.307 5.315	0.807	1.000	5.736	1.252
99537	5.375	5.371 5.379	0.811	1.000	5.874	1.252
99548	5.438	5.434 5.442	1.500	1.965	5.752	1.874
99547	5.476	5.472 5.480	0.563	0.752	5.902	1.232
99549	5.500	5.498 5.506	0.811	1.000	5.937	1.252
99550	5.500	5.498 5.506	0.520	0.705	5.937	1.252
99552	5.512	5.508 5.516	0.807	1.000	5.945	1.252
99560	5.625	5.621 5.629	0.875	1.000	6.188	1.812
99571	5.709	5.699 5.709	0.752	0.874	6.098	1.811
99562	5.734	5.726 5.734	0.563	0.752	6.098	1.937
99575	5.750	5.746 5.754	0.811	1.000	6.181	1.752
99587	5.875	5.871 5.879	1.000	1.252	6.189	1.315
99595	5.906	5.896 5.906	1.024	1.181	6.260	1.280
99596	5.938	5.934 5.942	1.000	1.126	6.374	1.874
99599	6.000	5.995 6.003	1.000	1.252	6.374	1.752
99601	6.000	5.995 6.003	0.500	0.752	6.358	1.752
99605	6.063	6.058 6.068	1.024	1.181	6.374	1.299
99606	6.097	6.093 6.102	1.024	1.181	6.575	1.299
99620	6.203	6.198 6.208	0.811	1.063	6.626	1.752
99625	6.250	6.245 6.255	1.032	1.252	6.626	1.752
99630	6.299	6.289 6.299	1.000	1.252	6.748	1.378
99650	6.500	6.495 6.505	1.000	1.252	7.000	1.378
99640	6.688	6.683 6.693	1.252	1.496	7.189	1.752
99675	6.750	6.745 6.755	0.811	1.063	7.126	1.752
99687	6.890	6.880 6.890	1.102	1.260	7.362	1.378
99700	7.000	6.995 7.005	1.000	1.252	7.476	1.685
99721	7.087	7.077 7.087	1.299	1.496	7.500	1.752
99725	7.250	7.244 7.254	1.252	1.500	7.760	2.173
99726	7.278	7.273 7.284	1.260	1.496	7.760	2.173
99745	7.453	7.444 7.454	0.811	1.000	7.858	1.252
99750	7.500	7.495 7.505	0.811	1.000	7.874	1.252
99775	7.750	7.745 7.755	1.000	1.315	8.272	1.874
99787	7.875	7.869 7.879	1.358	1.500	8.374	1.752
99799	7.938	7.933 7.943	1.000	1.252	8.374	1.752
99800	8.000	7.995 8.005	1.000	1.252	8.374	1.752

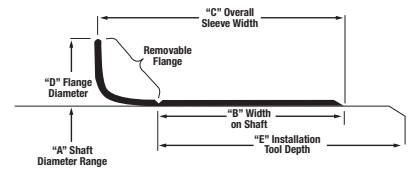
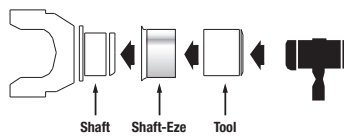
TUM[®] SHAFT-EZE SIZE LISTING - METRIC



PART #	NOMINAL SHAFT DIA. (mm)	"A" SHAFT DIA. RANGE (mm)		"B" WIDTH ON SHAFT (mm ±0.8mm)	"C" OVERALL WIDTH (mm ±0.8mm)	"D" FLANGE DIA. (mm ±1.6mm)	"E" INSTALL. DEPTH (mm)
		MIN	MAX				
99049	12.00	11.91	12.07	6.00	8.40	15.50	47.60
99050	12.70	12.65	12.75	6.30	8.70	15.50	50.80
99055	14.00	13.89	14.00	6.30	9.90	19.10	46.50
99056	14.30	14.22	14.38	6.30	9.90	19.10	46.50
99059	15.00	14.96	15.06	5.00	9.00	19.10	47.30
99062	15.88	15.83	15.93	8.00	10.30	19.10	50.80
99058	16.00	15.90	16.00	8.00	11.10	18.20	50.80
99068	17.00	16.94	17.04	8.00	11.00	22.20	50.80
99060	17.37	17.32	17.42	8.00	11.10	22.70	50.80
99082	17.93	17.88	18.01	8.00	11.00	24.40	46.00
99076	19.05	19.00	19.10	8.00	11.10	24.00	50.80
99081	19.30	19.28	19.33	8.00	11.10	23.80	50.80
99080	19.84	19.81	19.91	8.00	11.10	23.80	50.80
99078	20.00	19.94	20.04	8.00	11.00	23.60	50.80
99083	20.65	20.62	20.70	9.53	14.30	30.18	76.20
99086	21.82	21.77	21.87	6.30	9.50	29.30	50.80
99084	22.00	21.87	22.00	6.60	9.10	30.20	47.10
99085	22.00	21.87	22.00	8.00	12.00	30.20	46.00
99087	22.23	22.18	22.28	8.00	11.10	27.80	50.80
99091	23.11	23.06	23.16	8.00	11.10	30.90	46.90
99092	24.00	23.88	24.00	8.00	11.10	28.70	50.80
99094	24.60	24.54	24.64	8.00	11.10	28.70	50.80
99096	24.60	24.54	24.64	15.90	18.30	28.70	50.80
99098	25.00	24.94	25.04	8.00	11.00	33.00	50.80
99100	25.40	25.35	25.45	8.00	11.10	31.00	50.80
99103	26.01	25.88	26.01	8.00	12.00	33.40	46.00
99106	27.00	26.92	27.03	8.00	11.10	33.50	46.80
99108	27.66	27.61	27.71	8.00	11.10	35.70	15.90
99111	28.00	27.94	28.04	9.50	12.70	34.90	46.80
99112	28.58	28.53	28.63	8.00	11.10	38.10	17.50
99116	28.58	28.53	28.63	9.50	12.70	38.10	17.50
99120	29.36	29.31	29.41	9.50	12.70	34.30	17.50
99122	29.85	29.80	29.92	8.00	11.10	35.60	17.50
99114	30.00	29.95	30.07	8.00	11.00	35.60	17.50
99118	30.18	30.10	30.23	8.00	11.10	35.60	17.50
99123	30.96	30.89	31.04	8.00	11.00	39.70	15.90
99141	31.50	31.42	31.58	8.00	11.10	39.10	17.50
99125	31.80	31.67	31.83	8.00	11.10	38.10	17.50
99128	32.00	31.92	32.08	8.00	11.10	38.10	17.50
99121	33.00	32.94	33.05	15.01	18.00	40.49	20.65
99129	33.35	33.22	33.38	6.30	9.50	40.60	20.70
99131	33.35	33.27	33.43	12.70	15.90	40.50	20.70
99134	34.01	33.86	34.01	12.70	15.90	41.30	20.70
99138	34.93	34.82	34.98	12.70	15.90	41.60	20.70
99139	34.93	34.93	35.08	13.00	16.00	41.60	20.70
99133	34.93	34.82	34.98	8.00	11.10	41.60	20.70
99146	36.00	35.84	36.00	13.00	17.00	45.20	25.00
99143	36.53	36.37	36.53	14.30	17.50	45.20	25.80
99144	36.53	36.45	36.60	9.50	12.70	45.20	25.80
99147	38.00	37.85	38.00	13.00	17.00	45.20	25.00
99149	38.10	38.02	38.18	14.30	17.50	45.20	25.80
99150	38.10	38.02	38.18	9.50	12.70	45.20	25.80
99152	38.68	38.61	38.76	11.10	14.30	47.20	25.80
99155	39.42	39.34	39.50	11.10	14.30	47.20	25.80
99156	39.70	39.60	39.75	14.30	17.50	47.20	25.80
99159	39.85	39.78	39.93	15.90	19.10	47.20	25.80
99153	40.00	39.85	40.00	9.90	12.90	46.90	25.40
99157	40.08	39.93	40.08	13.00	16.00	47.00	26.00
99160	40.77	40.69	40.84	12.70	16.30	49.20	25.40
99163	41.00	40.84	41.00	12.70	15.90	49.20	25.80
99162	41.28	41.20	41.35	14.30	17.50	47.60	20.70
99161	41.28	41.20	41.35	8.00	11.10	47.60	25.80
99169	41.90	41.83	42.00	14.30	17.50	53.00	21.00
99166	41.90	41.83	42.00	11.30	14.50	53.00	21.40
99165	42.06	41.99	42.14	14.00	17.50	53.00	21.00
99168	42.88	42.77	42.93	14.30	17.50	48.40	22.20
99167	42.88	42.80	42.95	8.00	11.10	48.40	22.20
99182	43.00	42.85	43.00	12.70	15.90	48.40	21.30

PART #	NOMINAL SHAFT DIA. (mm)	"A" SHAFT DIA. RANGE (mm)		"B" WIDTH ON SHAFT (mm ±0.8mm)	"C" OVERALL WIDTH (mm ±0.8mm)	"D" FLANGE DIA. (mm ±1.6mm)	"E" INSTALL. DEPTH (mm)
		MIN	MAX				
99171	43.66	43.56	43.71	14.30	17.50	51.60	20.70
99170	44.17	44.09	44.25	9.50	12.70	52.40	20.70
99172	44.45	44.37	44.53	9.50	12.70	52.20	20.70
99174	44.45	44.37	44.53	14.30	17.50	52.40	20.70
99175	44.45	44.37	44.53	19.10	22.20	52.40	20.70
99180	44.45	44.37	44.53	13.50	15.90	52.40	22.30
99176	44.86	44.73	44.88	14.30	17.50	52.40	20.70
99177	45.00	44.93	45.09	14.00	17.00	53.00	20.60
99179	45.24	45.16	45.31	16.90	20.30	54.00	27.00
99181	46.05	45.95	46.10	14.30	17.50	53.10	25.40
99185	47.22	47.17	47.32	14.30	17.50	54.80	25.40
99186	47.45	47.40	47.55	22.60	26.00	55.60	25.40
99187	47.63	47.55	47.70	14.30	17.50	56.00	25.40
99184	47.63	47.55	47.70	9.50	13.10	56.00	26.60
99188	47.63	47.55	47.70	7.50	10.50	56.00	18.80
99190	47.63	47.55	47.70	4.50	7.50	56.00	18.80
99189	48.03	47.93	48.09	14.00	17.00	56.00	25.00
99192	48.56	48.49	48.64	9.50	12.70	56.40	25.40
99193	49.23	49.12	49.28	14.30	17.50	56.40	25.40
99196	50.00	49.91	50.06	14.00	17.00	57.00	25.00
99198	50.30	50.22	50.37	14.30	17.90	58.80	26.60
99199	50.80	50.72	50.88	14.30	17.50	61.10	25.40
99200	50.80	50.72	50.88	22.20	25.40	61.10	25.40
99204	52.00	51.82	52.00	12.70	15.90	62.70	34.50
99205	52.40	52.25	52.40	19.80	23.80	62.70	34.90
99210	53.98	53.92	54.05	12.70	19.10	61.50	32.50
99212	53.98	53.95	54.10	19.80	23.80	61.50	34.90
99215	55.00	54.91	55.07	20.00	23.00	62.00	31.80
99218	55.58	55.52	55.68	19.80	23.80	63.50	33.40
99220	56.00	55.83	56.00	12.70	15.90	64.30	33.40
99224	56.00	55.81	56.00	19.79	23.77	64.29	80.01
99229	56.64	56.57	56.72	12.70	15.90	64.30	33.40
99230	56.64	56.57	56.72	19.80	23.00	64.30	31.80
99226	56.90	56.82	56.97	19.40	22.90	65.10	31.80
99225	57.15	57.12	57.28	19.80	23.80	64.30	33.40
99227	57.15	57.12	57.28	8.00	11.10	64.30	33.40
99219	58.00	57.91	58.06	19.84	23.83	65.99	34.93
99231	58.75	58.65	58.80	19.80	23.80	68.30	34.90
99233	59.13	59.10	59.26	19.10	22.20	69.80	38.10
99235	60.00	59.92	60.07	20.00	23.00	70.70	37.30
99241	60.00	59.92	60.07	9.40	11.40	70.70	34.90
99237	60.33	60.30	60.45	19.80	23.80	69.80	34.90
99238	60.33	60.25	60.40	15.10	19.10	69.80	34.90
99240	60.33	60.30	60.45	13.40	17.40	69.80	34.90
99236	60.33	60.17	60.33	19.80	23.80	69.80	34.90
99243	61.92	61.82	61.98	19.80	23.80	71.80	35.40
99242	61.93	61.85	62.00	12.70	15.90	71.80	36.10
99244	62.00	61.82	62.00	12.70	15.90	71.80	36.10
99249	63.30	63.22	63.37	19.80	23.80	73.00	35.40
99248	63.50	63.50	63.65	12.70	16.70	71.80	35.40
99250	63.50	63.50	63.65	19.80	23.80	71.60	34.90
99253	63.50	63.42	63.58	14.10	16.50	71.60	22.60
99251	63.91	63.75	63.91	19.80	23.00	71.80	36.50
99254	65.00	64.92	65.08	20.00	23.00	72.40	34.90
99256	65.10	65.02	65.18	19.80	23.80	73.40	34.90
99259	66.00	65.91	66.07	19.80	23.80	76.00	31.80
99261	66.57	66.49	66.65	19.80	23.80	77.40	34.90
99262	66.68	66.68	66.83	19.80	23.80	77.40	34.90
99264	66.68	66.57	66.73	19.80	23.00	77.40	34.90
99260	66.68	66.60	66.75	12.70	15.90	77.40	34.90
99266	68.00	67.82	68.00	19.10	22.20	79.40	42.90
99268	69.34	69.27	69.42	19.80	23.00	79.40	33.40
99273	69.67	69.60	69.75	19.80	23.80	77.80	31.80
99272	69.85	69.85	70.00	10.30	14.30	79.40	31.80
99274	69.85	69.72	69.88	19.80	23.80	79.40	31.80
99275	69.85	69.85	70.00	19.80	23.80	79.40	31.80
99267	69.85	69.77	69.93	36.50	41.30	78.10	41.30
99269	69.85	69.85	70.00	28.60	31.80	79.40	33.30

TUM® SHAFT-EZE SIZE LISTING - METRIC



PART #	NOMINAL SHAFT DIA. (mm)	"A" SHAFT DIA. RANGE (mm)		"B" WIDTH ON SHAFT (mm ±0.8mm)	"C" OVERALL WIDTH (mm ±0.8mm)	"D" FLANGE DIA. (mm ±1.6mm)	"E" INSTALL. DEPTH (mm)
		MIN	MAX				
99270	69.85	69.77	69.93	19.80	23.80	79.40	31.80
99276	70.00	69.93	70.08	20.00	24.00	79.40	31.80
99281	71.45	71.35	71.50	15.10	17.50	81.00	31.80
99284	72.00	71.83	72.00	19.10	22.20	81.90	34.10
99282	72.09	72.09	72.24	12.70	16.70	81.90	31.80
99286	72.87	72.80	72.95	19.80	23.80	81.00	31.80
99287	73.03	72.97	73.13	19.80	23.80	81.80	31.80
99290	74.63	74.60	74.75	12.70	16.30	84.90	33.80
99293	74.63	74.60	74.75	19.80	23.80	84.90	33.40
99289	75.00	74.93	75.08	15.10	17.50	83.10	27.50
99294	75.00	74.93	75.08	22.00	26.00	84.00	33.40
99292	75.54	75.49	75.59	20.60	25.40	82.20	31.80
99299	76.02	75.95	76.10	20.60	25.40	85.10	32.50
99291	76.02	75.95	76.10	12.30	15.90	85.30	33.80
99298	76.02	75.95	76.10	14.30	17.50	85.30	34.90
99300	76.20	76.20	76.35	20.60	25.40	82.20	32.50
99303	76.20	76.20	76.35	15.90	20.60	85.00	32.50
99296	76.20	76.12	76.28	20.60	23.80	82.30	34.90
99301	76.48	76.40	76.56	12.70	15.90	85.20	50.80
99306	78.00	77.83	78.00	19.10	22.20	88.00	52.20
99307	79.38	79.35	79.55	14.00	18.00	89.50	51.60
99311	79.38	79.25	79.40	17.50	20.60	89.70	50.80
99312	79.38	79.25	79.40	20.60	25.40	89.70	50.80
99313	79.91	79.81	80.01	19.10	22.50	89.90	34.90
99315	80.00	79.91	80.09	21.00	24.00	90.00	34.90
99317	80.00	79.91	80.09	11.00	15.00	90.00	34.90
99328	82.00	81.92	82.07	16.80	21.50	91.10	44.50
99322	82.55	82.47	82.63	20.60	25.40	91.30	34.90
99324	82.55	82.55	82.70	15.10	18.30	90.80	34.90
99325	82.55	82.55	82.70	20.60	25.40	91.10	34.90
99326	82.55	82.55	82.70	17.50	22.20	91.10	31.80
99331	84.07	84.00	84.15	20.60	25.40	93.70	34.90
99332	84.89	84.76	85.01	17.00	21.00	94.00	35.00
99333	84.89	84.76	85.01	21.00	25.00	94.00	35.00
99334	85.00	84.79	85.00	10.10	12.70	90.90	36.30
99337	85.73	85.67	85.83	20.60	25.40	93.80	34.90
99338	85.73	85.67	85.83	9.50	12.70	93.70	35.80
99339	87.33	87.25	87.41	19.80	23.00	97.60	35.70
99340	88.39	88.31	88.47	19.80	23.00	97.40	35.70
99346	88.90	88.82	88.98	15.90	20.60	97.60	34.20
99347	88.90	88.90	89.06	8.00	12.70	97.20	34.20
99350	88.90	88.90	89.06	20.60	25.40	97.60	34.20
99349	89.00	88.92	89.08	15.90	20.60	97.60	34.20
99351	90.00	89.91	90.07	18.00	23.00	101.60	46.00
99352	90.00	89.91	90.07	11.10	13.70	101.60	46.00
99353	90.00	89.91	90.07	13.40	16.90	101.60	44.50
99354	90.00	89.91	90.07	23.00	28.00	101.60	44.50
99356	90.50	90.42	90.58	20.60	25.40	99.10	44.50
99360	91.97	91.90	92.05	20.60	25.40	102.40	44.50
99362	92.08	92.02	92.18	20.60	25.40	102.40	44.50
99363	92.10	92.02	92.18	12.70	15.87	102.24	44.45
99365	93.68	93.60	93.76	20.60	23.80	102.20	45.70
99368	93.68	93.57	93.73	8.00	11.10	102.40	22.20
99359	94.74	94.66	94.82	11.90	15.10	102.40	45.70
99366	94.74	94.66	94.82	19.80	23.00	102.20	45.70
99364	95.00	95.00	95.15	11.90	15.10	102.50	45.70
99369	95.00	94.92	95.08	21.00	24.00	102.20	45.70
99374	95.00	95.00	95.15	8.70	12.70	102.40	45.70
99367	95.25	95.25	95.41	8.70	12.70	102.20	45.70
99372	95.25	95.25	95.41	17.50	22.20	102.10	45.70
99376	95.25	95.15	95.30	14.30	17.50	102.20	45.70
99386	98.32	98.24	98.40	20.65	25.40	106.30	47.63
99387	98.43	98.37	98.43	20.60	25.40	107.20	47.60
99393	100.00	99.95	100.11	20.60	25.40	109.50	52.00
99395	101.60	101.55	101.75	15.20	18.40	111.10	52.00
99399	101.60	101.55	101.75	20.60	25.40	111.10	52.00
99400	101.60	101.55	101.75	16.50	19.70	111.10	34.90
99401	101.60	101.55	101.75	12.70	15.90	111.10	52.50

PART #	NOMINAL SHAFT DIA. (mm)	"A" SHAFT DIA. RANGE (mm)		"B" WIDTH ON SHAFT (mm ±0.8mm)	"C" OVERALL WIDTH (mm ±0.8mm)	"D" FLANGE DIA. (mm ±1.6mm)	"E" INSTALL. DEPTH (mm)
		MIN	MAX				
99409	104.00	103.89	104.09	20.00	24.00	112.70	36.00
99412	104.78	104.70	104.90	20.60	25.40	113.50	34.90
99413	105.00	104.90	105.10	20.00	23.20	113.50	35.00
99418	106.38	106.25	106.45	20.60	25.40	114.30	34.90
99423	107.54	107.34	107.54	19.80	23.00	117.10	36.50
99424	107.95	107.90	108.10	20.60	25.40	117.10	36.50
99435	109.93	109.91	110.11	12.90	16.50	125.00	32.00
99434	110.00	109.78	110.00	11.40	15.00	125.00	32.90
99437	111.13	111.00	111.20	20.60	25.40	120.70	42.00
99438	111.91	111.80	112.00	19.10	22.50	120.70	33.00
99439	112.73	112.63	112.83	25.40	29.00	122.20	33.40
99450	114.30	114.20	114.40	20.60	25.40	124.50	32.00
99452	115.00	114.89	115.09	20.60	23.80	127.00	32.00
99463	117.50	117.38	117.58	25.40	31.80	128.60	34.90
99465	117.50	117.38	117.58	11.10	15.90	127.00	34.90
99468	119.08	119.00	119.20	20.60	25.40	128.60	34.90
99471	120.00	119.89	120.09	8.00	11.00	129.80	33.60
99473	120.00	119.89	120.09	20.00	25.00	129.80	32.00
99475	120.65	120.55	120.75	12.70	19.10	127.00	38.10
99472	122.00	121.90	122.10	20.00	24.00	131.50	32.00
99484	123.00	122.91	123.11	20.00	25.00	132.80	31.60
99487	123.83	123.73	123.93	15.90	19.10	133.30	36.50
99492	125.00	124.89	125.10	26.00	32.00	137.20	36.50
99490	125.00	124.89	125.10	10.00	14.00	137.20	36.50
99498	127.00	126.95	127.15	17.50	22.20	137.20	36.50
99499	127.00	126.95	127.15	20.60	25.40	136.90	36.50
99501	127.00	126.95	127.15	13.70	17.30	137.20	36.50
99494	129.90	129.79	130.00	19.10	23.80	139.50	30.00
99491	130.18	129.97	130.18	22.00	25.30	139.50	32.50
99513	130.18	130.05	130.25	20.60	25.40	139.70	31.80
99525	133.35	133.25	133.45	20.60	25.40	141.20	31.80
99533	134.95	134.80	135.00	20.50	25.40	145.70	31.80
99537	136.53	136.43	136.63	20.60	25.40	149.20	31.80
99548	138.13	138.03	138.23	38.10	49.90	146.10	47.60
99547	139.09	138.99	139.19	14.30	19.10	149.90	31.30
99549	139.70	139.65	139.85	20.60	25.40	150.80	31.80
99550	139.70	139.65	139.85	13.20	17.90	150.80	31.80
99552	140.00	139.90	140.11	20.50	25.40	151.00	31.80
99560	142.88	142.77	142.98	22.23	25.40	157.18	46.02
99571	145.00	144.75	145.00	19.10	22.20	154.90	46.00
99562	145.64	145.44	145.64	14.30	19.10	154.90	49.20
99575	146.05	145.95	146.15	20.60	25.40	157.00	44.50
99587	149.23	149.13	149.33	25.40	31.80	157.20	33.40
99595	150.00	149.75	150.01	26.00	30.00	159.00	32.50
99596	150.83	150.73	150.93	25.40	28.60	161.90	47.60
99599	152.40	152.27	152.47	25.40	31.80	161.90	44.50
99601	152.40	152.27	152.47	12.70	19.10	161.50	44.50
99605	154.00	153.87	154.13	26.00	30.00	161.90	33.00
99606	154.86	154.75	155.00	26.00	30.00	167.00	33.00
99620	157.56	157.43	157.69	20.60	27.00	168.30	44.50
99625	158.75	158.62	158.88	26.20	31.80	168.30	44.50
99630	160.00	159.74	160.00	25.40	31.80	171.40	35.00
99650	165.10	164.97	165.23	25.40	31.80	177.80	35.00
99640	169.88	169.75	170.00	31.80	38.00	182.60	44.50
99675	171.45	171.32	171.58	20.60	27.00	181.00	44.50
99687	175.01	174.75	175.01	28.00	32.00	187.00	35.00
99700	177.80	177.67	177.93	25.40	31.80	189.90	42.80
99721	180.01	179.75	180.01	33.00	38.00	190.50	44.50
99725	184.15	183.99	184.25	31.80	38.10	197.10	55.20
99726	184.86	184.74	185.00	32.00	38.00	197.10	55.20
99745	189.31	189.08	189.33	20.60	25.40	199.60	31.80
99750	190.50	190.37	190.63	20.60	25.40	200.00	31.80
99775	196.85	196.72	196.98	25.40	33.40	210.10	47.60
99787	200.03	199.87	200.13	34.50	38.10	212.70	44.50
99799	201.63	201.50	201.75	25.40	31.80	212.70	44.50
99800	203.20	203.07	203.33	25.40	31.80	212.70	44.50



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