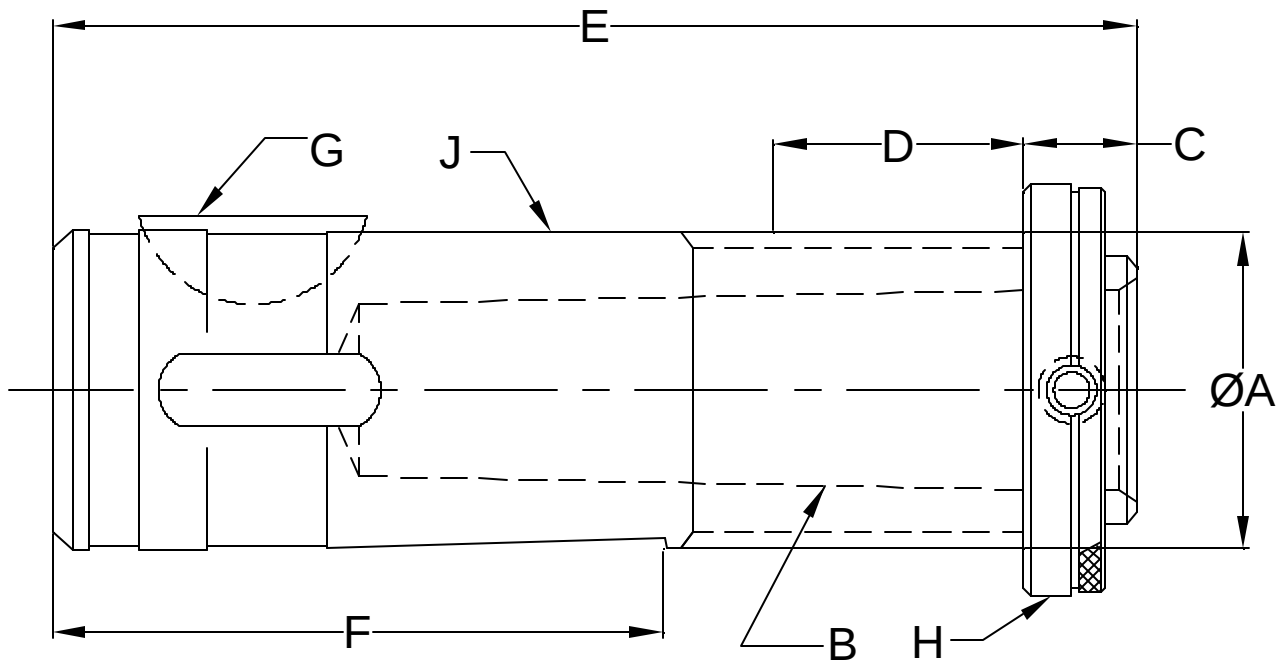


Adjustable Adapter Assemblies

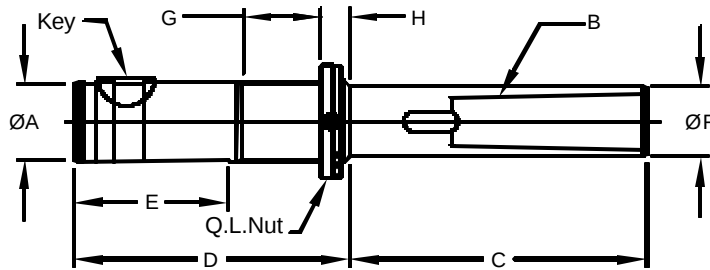
- Shanks conform to industry standard ANSI / ASME B5.11 (1987).
- Outside diameters (including the Acme threads) are held within a .0003" tolerance, starting at .001" under the nominal, so that runout is minimized.
- Shank rear is shaped for easy insertion into the machine spindle. The chance of cocking is minimized.
- Units with longer "whistle" flats "F" can be made.
- The "Adapter Assembly" includes a Woodruff key "G" and a Quick-Lock nut "H". The "Body Assembly" "J" includes a Woodruff key "G" only



Shank Size A	Morse Taper B	Min. Proj. C	Axial Adjust. D	Overall Length E	Flat Length F	Key Number G	Nut Number H	Body Assembly J	Adapter Assembly Number
.50-16	0	.50	.88	3.00	1.50	93150	17272	17277	17290
.62-16	1	.50	.88	3.00	1.50	93151	17273	17278	17291
.75-12	1	.50	.88	3.00	1.50	93151	17252	17279	17292
.88-12	2	.50	1.12	3.62	1.88	93152	17274	17280	17293
1.00-12	1	.50	1.12	3.62	1.88	93153	17254	17281	17294
1.00-12	2	.50	1.12	3.62	1.88	93153	17254	17282	17295
1.06-12	1	.50	1.12	3.62	1.88	93153	17255	17283	17296
1.06-12	2	.50	1.12	3.62	1.88	93153	17255	17284	17297
1.25-12	3	.50	1.25	4.62	2.62	93154	17275	17285	17298
1.38-12	2	.50	1.25	4.62	2.62	93154	17258	17286	17299
1.38-12	3	.50	1.25	4.62	2.62	93154	17258	17287	17300
1.88-12	1	.62	1.25	5.62	3.00	93155	17260	17421	17384
1.88-12	2	.62	1.25	5.62	3.00	93155	17260	17422	17425
1.88-12	3	.62	1.25	5.62	3.00	93155	17260	17383	17426
1.88-12	4	.62	1.25	5.62	3.00	93155	17260	17289	17302

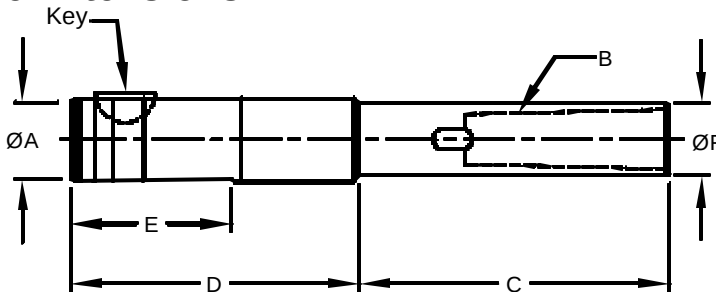
Style 1800 Spindle Extensions

- Shanks conform to industry standard ANSI / ASME B5.11 (1987).
- Shank-to-Taper runout is held to less than .002" T.I.V. at 6.00" projection.
- Longer "whistle" flats "E" & special extension lengths "C" are available upon request.
- To calculate the minimum projection, add the proj. "H" to the extension "C".



Shank Size A	Morse Taper B	C Extension Beyond the Threads							Shank Length D	Flat Length E	Ext. Dia. F	Adjust Length G	Add. Proj. H
		1.00	2.00	3.00	4.00	5.00	6.00	7.00					
.75-12	1	18512	18100	18513	18101	18514	18102	18516	3.00	1.50	.62	.88	.50
.88-12	1	18526	18528	18530	18532	18534	18536	18538	3.62	1.88	.75	1.12	.50
1.00-12	1	18107	18649	18108	18651	18109	18653	18654	3.62	1.88	.88	1.12	.50
1.00-12	2	18114	18661	18115	18663	18116	18665	18117	3.62	1.88	.88	1.12	.50
1.06-12	1	18121	18552	18122	18558	18123	18564	18124	3.62	1.88	.94	1.12	.50
1.06-12	2	18128	18553	18129	18559	18130	18565	18131	3.62	1.88	.94	1.12	.50
1.38-12	2	18585	18587	18155	18591	18593	18595	18156	4.62	2.62	1.25	1.25	.50
1.38-12	3	18586	18588	18162	18592	18594	18596	18163	4.62	2.62	1.25	1.25	.50
1.88-12	3	18621	18622	18169	18624	18625	18626	18627	5.62	3.00	1.75	1.25	.62
1.88-12	4	18633	18634	18177	18636	18637	18638	18639	5.62	3.00	1.75	1.25	.62

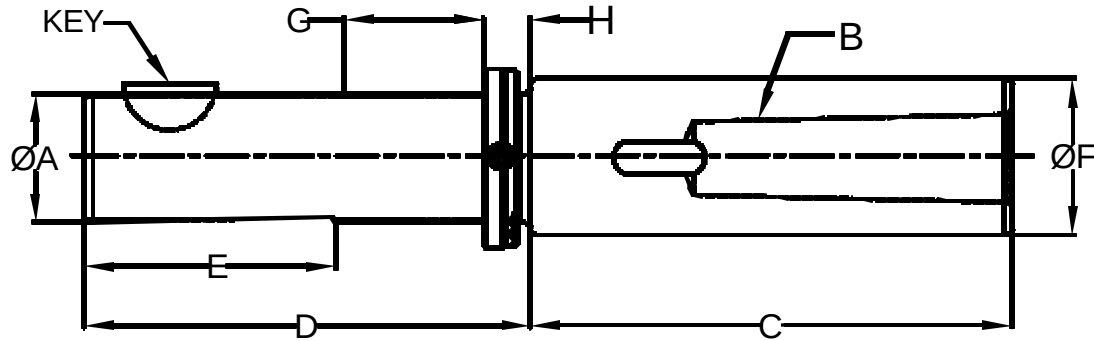
Style 1800 Spindle Extensions



Shank Size A	Morse Taper B	C Extension Beyond the Threads							Shank Length D	Flat Length E	Ext. Dia. F
		1.00	2.00	3.00	4.00	5.00	6.00	7.00			
.75-12	1	18035	18010	18036	18011	18037	18012	18038	3.00	1.50	.62
.88-12	1	18039	18040	18041	18042	18043	18044	18045	3.62	1.88	.75
1.00-12	1	18014	18081	18015	18082	18016	18083	18084	3.62	1.88	.88
1.00-12	2	18017	18086	18018	18087	18019	18088	18020	3.62	1.88	.88
1.06-12	1	18021	18047	18022	18049	18023	18051	18024	3.62	1.88	.94
1.06-12	2	18025	18048	18026	18050	18027	18052	18028	3.62	1.88	.94
1.38-12	2	18055	18057	18029	18059	18061	18063	18030	4.62	2.62	1.25
1.38-12	3	18056	18058	18031	18060	18062	18064	18032	4.62	2.62	1.25
1.88-12	3	18067	18068	18033	18069	18070	18071	18072	5.62	3.00	1.75
1.88-12	4	18074	18075	18034	18076	18077	18078	18079	5.62	3.00	1.75

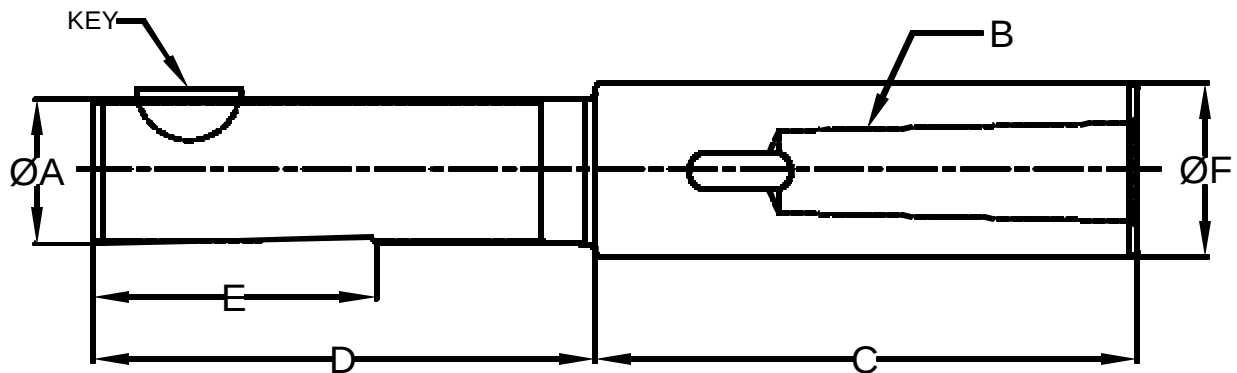
Style 1900 Spindle Extensions

- Shanks conform to industry standard ANSI / ASME B5.11 (1987).
- Shank-to-Taper runout is held to less than .002" T.I.V. at 6.00" projection.
- Longer "whistle" flats "E" & special extension lengths "C" are available upon request.
- To calculate the minimum projection, add the proj. "H" to the extension "C".



Shank Size A	Morse Taper B	C Extension Beyond the Threads							Shank Length D	Flat Length E	Ext. Dia. F	Adjust Length G	Add. Proj. H
		2.00	3.00	4.00	5.00	6.00	7.00	8.00					
.62-16	1	18501	18502	18503	18504	18505	18506	18507	3.00	1.50	.62	.88	.50
.75-12	2	-	18647	18186	18515	18187	18517	18188	3.00	1.50	1.06	.88	.50
.88-12	2	18529	18531	18533	18535	18537	18539	18541	3.62	1.88	1.06	1.12	.50
1.00-12	3	-	-	18193	18676	18194	18678	18679	3.62	1.88	1.31	1.12	.50
1.06-12	3	-	18557	18199	18563	18200	18569	18572	3.62	1.88	1.31	1.12	.50
1.38-12	4	18610	18611	18612	18213	18614	18615	18616	4.62	2.62	1.75	1.25	.50

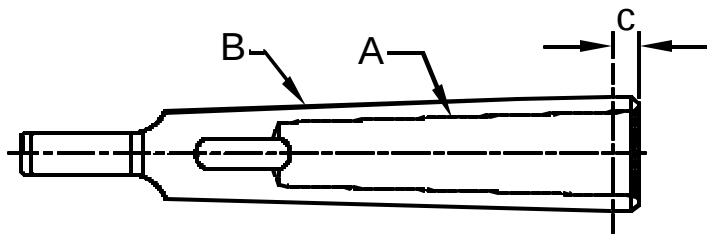
Style 1900 Spindle Extensions



Shank Size A	Morse Taper B	C Extension Beyond the Threads							Shank Length D	Flat Length E	Ext. Dia. F
		2.00	3.00	4.00	5.00	6.00	7.00	8.00			
.62-16	1	18770	18771	18772	18773	18774	18775	18776	3.00	1.50	.62
.75-12	2	-	18796	18762	18777	18763	18778	18764	3.00	1.50	1.06
.88-12	2	18779	18780	18781	18782	18783	18784	18785	3.62	1.88	1.06
1.00-12	3	-	-	18765	18797	18766	18798	18799	3.62	1.88	1.31
1.06-12	3	-	18786	18767	18787	18768	18788	18789	3.62	1.88	1.31
1.38-12	4	18790	18791	18792	18769	18793	18794	18795	4.62	2.62	1.75

Precision Morse Taper Sleeves

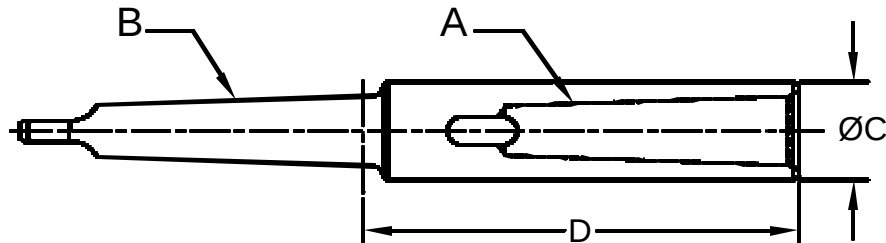
- Carefully hardened and ground to control runout and provide long service.
- Adapt smaller tooling to larger machines. Maximize the use of your existing tooling.



Morse Inside A	Taper Outside B	Projection C	Part Number
1	2	.625	24100
1	3	.250	24101
1	4	.250	24102
2	3	.750	24104
2	4	.250	24105
2	5	.250	24106
3	4	.750	24107
3	5	.250	24108
4	5	.750	24110
4	6	.375	24111
4	7	.375	24112
5	6	.375	24113
5	7	.375	24114
6	7	1.250	24115

Morse Taper Extension Sleeves

- The same high quality runout control as Precision Sleeves.
- Offered in three projection lengths.



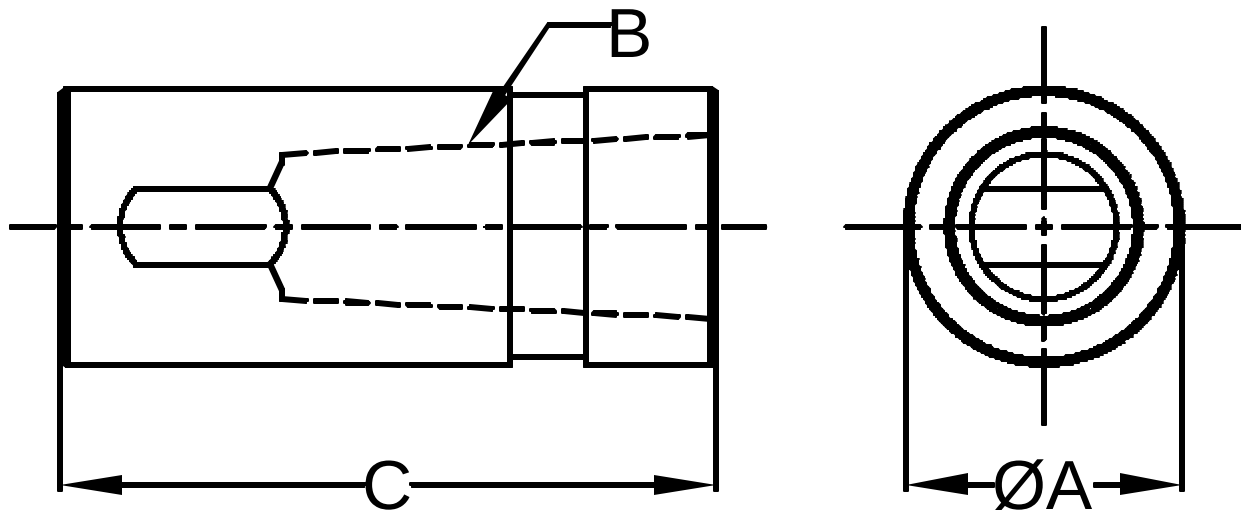
Morse Inside A	Taper Outside B	Body Diameter C	Short		Medium		Long	
			Projection D	Part Number	Projection D	Part Number	Projection D	Part Number
1	1	.88	3.19	23100	5.31	23118	7.31	23136
1	2	.88	3.25	23101	5.25	23119	7.25	23137
1	3	1.00	3.25	23102	5.25	23120	7.25	23138
1	4	1.31	3.31	23103	5.31	23121	7.31	23139
2	1	1.19	3.81	23104	6.19	23122	8.56	23140
2	2	1.19	3.88	23105	6.25	23123	8.63	23141
2	3	1.19	3.88	23106	6.25	23124	8.63	23142
2	4	1.31	3.94	23107	6.31	23125	8.69	23143
3	2	1.44	4.81	23108	7.56	23126	10.31	23144
3	3	1.44	4.81	23109	7.56	23127	10.31	23145
3	4	1.44	4.88	23110	7.62	23128	10.38	23146
3	5	1.88	4.88	23111	7.62	23129	10.38	23147
4	3	1.88	5.75	23112	9.00	23130	12.25	23148
4	4	1.88	5.81	23113	9.06	23131	12.31	23149
4	5	1.88	5.81	23114	9.06	23132	12.31	23150
5	3	2.38	7.13	23115	11.00	23133	14.88	23151
5	4	2.38	7.19	23116	11.06	23134	14.94	23152
5	5	2.38	7.19	23117	11.06	23135	14.94	23153

MORSE TAPER SOCKETS



Turret Tool Holders

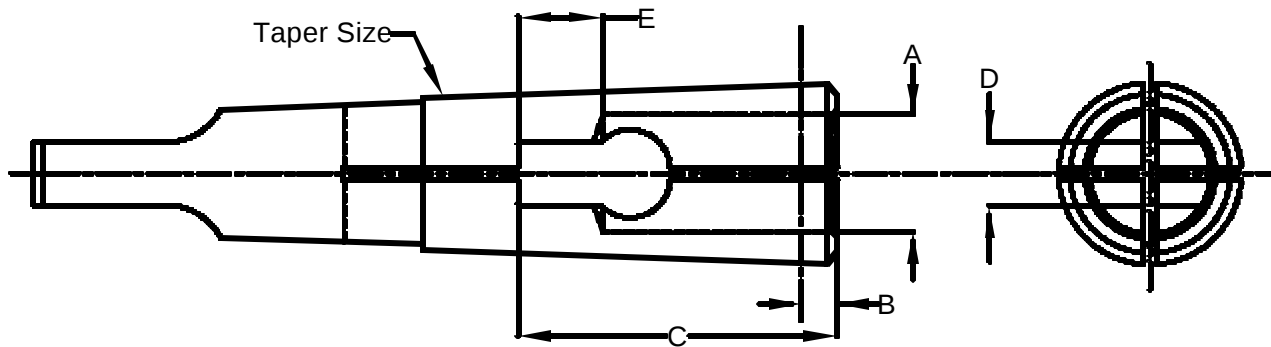
- These holders are made to slide into a cylindrical pocket sized .001" Ø larger than the O.D. "A" shown in the table. This allows any Morse Taper tooling to be used in turret lathes, turning centers, multiple-spindle machines, and turret-type drill presses.
- Outer diameters are precision ground to final dimensions.
- Tapered sockets are reamed concentric to the O.D. within .002" T.I.V. at a projection of 6.00".



Outer Diameter A	Morse Taper Socket B	Short Series Overall Length C	Short Series Part No.	Sleeve Series Overall Length C	Sleeve Series Part No.	Extension Series Overall Length C	Extension Series Part No.
.999	1	2.38	31164	4.00	31104	-	-
.999	2	2.94	31165	4.00	31105	6.25	31135
1.249	1	2.38	31166	-	-	-	-
1.249	2	2.94	31167	4.00	31107	6.75	31137
1.249	3	3.59	31168	5.75	31108	-	-
1.499	1	2.38	31169	4.00	31109	-	-
1.499	2	2.94	31170	4.00	31110	6.75	31140
1.499	3	3.59	31171	5.75	31111	8.50	31141
1.499	4	4.50	31172	5.75	31112	8.50	31142
1.5615	4	-	-	5.75	31115	-	-
1.749	2	2.94	31176	4.00	31116	7.25	31146
1.749	3	3.59	31177	5.75	31117	9.00	31147
1.749	4	4.50	31178	5.75	31118	9.00	31148
1.999	2	2.94	31179	4.00	31119	-	-
1.999	3	3.59	31180	5.75	31120	9.50	31150
1.999	4	4.50	31181	5.75	31121	9.50	31151
1.999	5	5.75	31182	7.00	31122	-	-
2.249	3	3.59	31184	-	-	10.00	31154
2.249	4	4.50	31185	5.75	31125	10.00	31155
2.249	5	5.75	31186	7.00	31126	10.00	31156
2.499	3	3.59	31187	-	-	11.00	31157
2.499	4	4.50	31188	5.75	31128	11.00	31158
2.499	5	5.75	31189	7.00	31129	11.00	31159

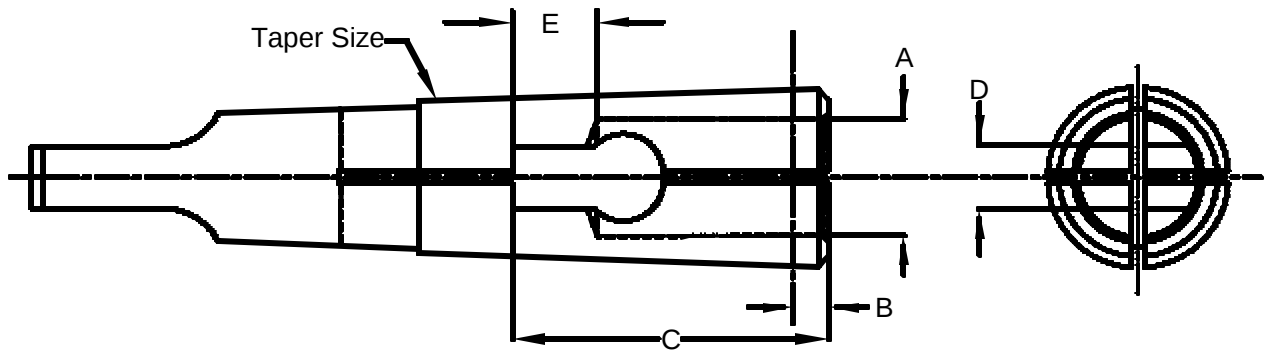
Style B Morse Taper Drill Chucks

- These chucks are designed to grip any cylindrical shank cutting tool. For diameters .125" and larger, integral flats are provided for positive tang drive.
- They meet or exceed the requirements of ANSI / ASME B94.35: runout is controlled to a maximum of .002" at a projection of four times the nominal drill diameter.
- **Tapered surfaces must be clean and dry to mate, lock, and drive properly.**
- Select chucks to fit the **actual size** of your cutter shanks.



Taper Size ®		0	1	2	Depth Drill Enters C
Projection B ®		.16	.19	.25	
Drill Size 'A'					
Nominal	Decimal				
#61	.0390	09100	09251	-	.44
1.00mm	.0394	09100	09251	-	.44
#60	.0400	09100	09251	-	.44
#59	.0410	09103	09254	-	.44
1.05mm	.0413	09103	09254	-	.44
#58	.0420	09103	09254	-	.44
#57	.0430	09104	09255	-	.44
1.10mm	.0433	09104	09255	-	.44
1.15mm	.0453	09106	09257	-	.44
#56	.0465	09106	09257	-	.44
3/64	.0469	09107	09259	-	.44
1.20mm	.0472	09107	09259	-	.44
1.25mm	.0492	09107	09259	-	.44
1.30mm	.0512	09110	09261	-	.44
#55	.0520	09110	09261	-	.44
1.35mm	.0531	09110	09261	-	.44
#54	.0550	09112	09263	-	.44
1.40mm	.0551	09112	09263	-	.44
1.45mm	.0571	09114	09265	-	.44
1.50mm	.0591	09114	09265	-	.44
#53	.0595	09116	09267	09401	.44
1.55mm	.0610	09116	09267	09401	.44
1/16	.0625	09117	09268	09402	.44
1.60mm	.0630	09117	09268	09402	.44
#52	.0635	09117	09268	09402	.44
1.65mm	.0650	09121	09272	09406	.44
1.70mm	.0669	09121	09272	09406	.44
#51	.0670	09121	09272	09406	.44

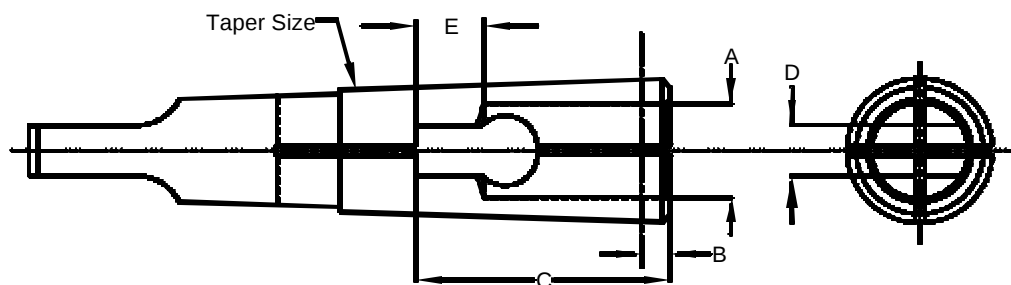
MORSE TAPER DRILL CHUCKS



Taper Size ®		0	1	2	Depth Drill Enters C
Projection B ®		.16	.19	.25	
Drill Size 'A'					
Nominal	Decimal				
1.75mm	.0687	09122	09273	09407	.44
#50	.0700	09122	09273	09407	.44
1.80mm	.0709	09122	09273	09407	.44
1.85mm	.0728	09123	09274	09408	.44
#49	.0730	09123	09274	09408	.44
1.90mm	.0748	09124	09275	09409	.44
#48	.0760	09124	09275	09409	.44
1.95mm	.0768	09125	09276	09410	.44
5/64	.0781	09125	09276	09410	.44
#47	.0785	09126	09277	09411	.50
2.00mm	.0787	09126	09277	09411	.50
2.05mm	.0807	09127	09278	09412	.50
#46	.0810	09127	09278	09412	.50
#45	.0820	09128	09279	09413	.50
2.10mm	.0827	09128	09279	09413	.50
2.15mm	.0846	09130	09281	09415	.50
#44	.0860	09130	09281	09415	.50
2.20mm	.0866	09130	09281	09415	.50
2.25mm	.0886	09131	09282	09416	.50
#43	.0890	09131	09282	09416	.50
2.30mm	.0906	09131	09282	09416	.50
2.35mm	.0925	09133	09284	09418	.50
#42	.0935	09133	09284	09418	.50
3/32	.0937	09134	09285	09419	.50
2.40mm	.0945	09134	09285	09419	.50
#41	.0960	09136	09287	09421	.56
2.45mm	.0965	09136	09287	09421	.56
#40	.0980	09136	09287	09421	.56
2.50mm	.0984	09137	09288	09422	.56
#39	.0995	09137	09288	09422	.56
#38	.1015	09138	09289	09423	.56
2.60mm	.1024	09138	09289	09423	.56
#37	.1040	09140	09291	09425	.56
2.65mm	.1043	09140	09291	09425	.56
2.70mm	.1063	09141	09292	09426	.56
#36	.1065	09141	09292	09426	.56
2.75mm	.1083	09142	09293	09427	.56
7/64	.1094	09142	09293	09427	.56

Taper Size ®		0	1	2	Depth Drill Enters 'C'	Drill Tang Size		
Projection B ®		.16	.19	.25		Thickness 'D'		Length 'E'
Drill Size 'A'						Min.	Max.	
Nominal	Decimal							
#35	.1100	09144	09295	09429	.62	-	-	-
2.80mm	.1102	09144	09295	09429	.62	-	-	-
#34	.1110	09144	09295	09429	.62	-	-	-
#33	.1130	09145	09296	09430	.62	-	-	-
2.90mm	.1142	09146	09297	09431	.62	-	-	-
#32	.1160	09146	09297	09431	.62	-	-	-
3.00mm	.1180	09147	09298	09432	.62	-	-	-
#31	.1200	09147	09298	09432	.62	-	-	-
3.10mm	.1220	09148	09299	09433	.62	-	-	-
1/8	.1250	09149	09300	09434	.75	.090	.094	.28
3.20mm	.1255	09149	09300	09434	.75	.090	.094	.28
3.25mm	.1280	09150	09301	09435	.75	.090	.094	.28
#30	.1285	09150	09301	09435	.75	.090	.094	.28
3.30mm	.1299	09150	09301	09435	.75	.090	.094	.28
3.40mm	.1339	09153	09304	09438	.75	.090	.094	.28
#29	.1360	09153	09304	09438	.75	.090	.094	.28
3.50mm	.1378	09154	09305	09439	.75	.090	.094	.28
#28	.1405	09156	09307	09441	.75	.090	.094	.28
9/64	.1401	09156	09307	09441	.75	.090	.094	.28
3.60mm	.1417	09156	09307	09441	.75	.090	.094	.28
#27	.1440	09157	09308	09442	.75	.090	.094	.28
3.70mm	.1457	09158	09309	09443	.75	.090	.094	.28
#26	.1470	09158	09309	09443	.75	.090	.094	.28
#25	.1495	09159	09310	09444	.75	.090	.094	.28
3.80mm	.1496	09159	09310	09444	.75	.090	.094	.28
#24	.1520	09159	09310	09444	.75	.090	.094	.28
3.90mm	.1535	09161	09312	09446	.75	.090	.094	.28
#23	.1540	09161	09312	09446	.75	.090	.094	.28
5/32	.1562	09163	09314	09448	.75	.090	.094	.28
#22	.1570	09163	09314	09448	.75	.090	.094	.28
4.00mm	.1575	09163	09314	09448	.75	.090	.094	.28
#21	.1590	09165	09316	09450	.75	.090	.094	.28
#20	.1610	09165	09316	09450	.75	.090	.094	.28
4.10mm	.1614	09165	09316	09450	.75	.090	.094	.28
4.20mm	.1654	09166	09317	09451	.75	.090	.094	.28
#19	.1660	09166	09317	09451	.75	.090	.094	.28
4.30mm	.1693	09167	09318	09452	.75	.090	.094	.28
#18	.1695	09167	09318	09452	.75	.090	.094	.28
11/64	.1719	09169	09320	09454	.75	.090	.094	.28
#17	.1730	09169	09320	09454	.75	.090	.094	.28
4.40mm	.1732	09169	09320	09454	.75	.090	.094	.28
#16	.1770	09170	09321	09455	.75	.090	.094	.28
4.50mm	.1772	09170	09321	09455	.75	.090	.094	.28
#15	.1800	09172	09323	09457	.75	.090	.094	.28
4.60mm	.1811	09172	09323	09457	.75	.090	.094	.28
#14	.1820	09172	09323	09457	.75	.090	.094	.28

MORSE TAPER DRILL CHUCKS

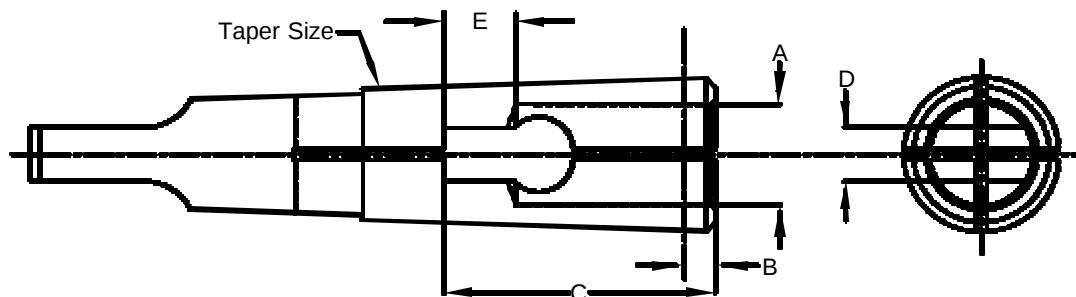


Taper Size ®		0	1	2	3	Depth Drill Enters 'C'	Drill Tang Size		
Projection B ®		.16	.19	.25	.25		Thickness 'D'		Length 'E'
Drill Size 'A'							Min.	Max.	
Nominal	Decimal								
#13	.1850	09173	09324	09458	-	.75	.090	.094	.28
4.70mm	.1850	09173	09324	09458	-	.75	.090	.094	.28
3/16	.1875	09174	09325	09459	-	.75	.090	.094	.28
#12	.1890	09175	09326	09460	-	.88	.118	.122	.31
4.80mm	.1890	09175	09326	09460	-	.88	.118	.122	.31
#11	.1910	09175	09326	09460	-	.88	.118	.122	.31
4.90mm	.1929	09177	09328	09462	-	.88	.118	.122	.31
#10	.1935	09177	09328	09462	-	.88	.118	.122	.31
#9	.1960	09178	09329	09463	-	.88	.118	.122	.31
5.00mm	.1968	09178	09329	09463	-	.88	.118	.122	.31
#8	.1990	09179	09330	09464	-	.88	.118	.122	.31
5.10mm	.2008	09179	09330	09464	-	.88	.118	.122	.31
#7	.2010	09179	09330	09466	-	.88	.118	.122	.31
13/64	.2031	09181	09332	09466	-	.88	.118	.122	.31
#6	.2040	09181	09332	09466	-	.88	.118	.122	.31
5.20mm	.2047	09183	09334	09468	-	.88	.118	.122	.31
#5	.2055	09183	09334	09468	-	.88	.118	.122	.31
5.30mm	.2087	09184	09335	09469	-	.88	.118	.122	.31
#4	.2090	09184	09335	09469	-	.88	.118	.122	.31
5.40mm	.2126	09185	09336	09470	-	.88	.118	.122	.31
#3	.2130	09185	09336	09470	-	.88	.118	.122	.31
5.50mm	.2165	09186	09337	09471	-	.88	.118	.122	.31
7/32	.2188	09186	09337	09471	-	.88	.118	.122	.31
5.60mm	.2205	09187	09338	09472	-	.88	.118	.122	.31
#2	.2210	09187	09338	09472	-	.88	.118	.122	.31
5.70mm	.2244	09188	09339	09473	-	.88	.118	.122	.31
#1	.2280	09189	09340	09474	-	.88	.118	.122	.31
5.80mm	.2283	09189	09340	09474	-	.88	.118	.122	.31
5.90mm	.2323	09190	09341	09475	-	.88	.118	.122	.31
A	.2340	09190	09341	09475	-	.88	.118	.122	.31
15/64	.2344	09190	09341	09475	-	.88	.118	.122	.31
6.00mm	.2362	09192	09343	09477	-	.88	.118	.122	.31
B	.2380	09192	09343	09477	-	.88	.118	.122	.31
6.10mm	.2402	09194	09345	09479	-	.88	.118	.122	.31
C	.2420	09194	09345	09479	-	.88	.118	.122	.31
6.20mm	.2441	09195	09346	09480	-	.88	.118	.122	.31
D	.2460	09195	09346	09480	-	.88	.118	.122	.31
6.30mm	.2480	09196	09347	09481	09551	.88	.118	.122	.31
E, 1/4	.2500	09196	09347	09481	09551	.88	.118	.122	.31

MORSE TAPER DRILL CHUCKS

Taper Size ®		0	1	2	3	Depth Drill	Drill Tang Size		
Projection B ®		.16	.19	.25	.25		Enters 'C'	Thickness 'D'	
Drill Size 'A'						Min.		Max.	
Nominal	Decimal								
6.40mm	.2520	09197	09348	09482	-	1.00	.158	.162	.34
6.50mm	.2559	-	09349	09483	-	1.00	.158	.162	.34
F	.2570	-	09349	09483	-	1.00	.158	.162	.34
6.60mm	.2598	-	09350	09484	-	1.00	.158	.162	.34
G	.2610	-	09350	09484	-	1.00	.158	.162	.34
6.70mm	.2638	-	09351	09485	-	1.00	.158	.162	.34
17/64	.2656	-	09351	09485	-	1.00	.158	.162	.34
H	.2660	-	09352	09486	-	1.00	.158	.162	.34
6.80mm	.2677	-	09352	09486	-	1.00	.158	.162	.34
6.90mm	.2717	-	09353	09487	-	1.00	.158	.162	.34
I	.2720	-	09353	09487	-	1.00	.158	.162	.34
7.00mm	.2756	-	09354	09488	-	1.00	.158	.162	.34
J	.2770	-	09354	09488	-	1.00	.158	.162	.34
7.10mm	.2795	-	09356	09490	-	1.00	.158	.162	.34
K	.2810	-	09356	09490	-	1.00	.158	.162	.34
9/32	.2812	-	09356	09490	-	1.00	.158	.162	.34
7.20mm	.2835	-	09357	09491	-	1.00	.158	.162	.34
7.25mm	.2854	-	09357	09491	-	1.00	.158	.162	.34
7.30mm	.2874	-	09940	09941	-	1.00	.158	.162	.34
L	.2900	-	09358	09492	-	1.00	.158	.162	.34
7.40mm	.2913	-	09358	09492	-	1.00	.158	.162	.34
M	.2950	-	09360	09494	-	1.00	.158	.162	.34
7.50mm	.2953	-	09360	09494	-	1.00	.158	.162	.34
19/64	.2969	-	09361	09495	-	1.00	.158	.162	.34
7.60mm	.2992	-	09361	09495	-	1.00	.158	.162	.34
N	.3020	-	09362	09496	-	1.00	.158	.162	.34
7.70mm	.3031	-	09362	09496	-	1.00	.158	.162	.34
7.80mm	.3071	-	09363	09497	-	1.00	.158	.162	.34
7.90mm	.3110	-	09364	09498	-	1.00	.158	.162	.34
5/16	.3125	-	09364	09498	-	1.00	.158	.162	.34
8.00mm	.3149	-	09365	09499	-	1.12	.199	.203	.38
O	.3160	-	09365	09499	-	1.12	.199	.203	.38
8.10mm	.3189	-	09920	09930	-	1.12	.199	.203	.38
8.20mm	.3228	-	09366	09500	-	1.12	.199	.203	.38
P	.3230	-	09366	09500	-	1.12	.199	.203	.38
8.30mm	.3268	-	09367	09501	09552	1.12	.199	.203	.38
21/64	.3281	-	09367	09501	09552	1.12	.199	.203	.38
8.40mm	.3307	-	09921	09931	-	1.12	.199	.203	.38
Q	.3320	-	09368	09502	-	1.12	.199	.203	.38
8.50mm	.3346	-	09368	09502	-	1.12	.199	.203	.38
8.60mm	.3386	-	09369	09503	-	1.12	.199	.203	.38
R	.3390	-	09369	09503	-	1.12	.199	.203	.38
8.70mm	.3425	-	09370	09504	-	1.12	.199	.203	.38
11/32	.3437	-	09370	09504	-	1.12	.199	.203	.38
8.80mm	.3465	-	09922	09932	-	1.12	.199	.203	.38

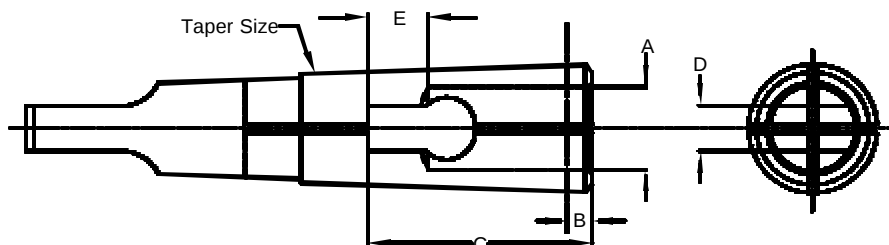
MORSE TAPER DRILL CHUCKS



Taper Size ®		1	2	3	Depth Drill Enters 'C'	Drill Tang Size		
Projection B ®		.19	.25	.25		Thickness 'D'		Length 'E'
Drill Size 'A'						Min.	Max.	
Nominal	Decimal							
S	.3480	09371	09505	-	1.12	.199	.203	.38
8.90mm	.3504	09371	09505	-	1.12	.199	.203	.38
9.00mm	.3543	09372	09506	-	1.12	.199	.203	.38
T	.3580	09373	09507	-	1.12	.199	.203	.38
9.10mm	.3583	09374	09508	-	1.12	.199	.203	.38
23/64	.3594	09374	09508	-	1.12	.199	.203	.38
9.20mm	.3622	09923	09933	-	1.12	.199	.203	.38
9.30mm	.3661	09375	09509	-	1.12	.199	.203	.38
U	.3680	09375	09509	-	1.12	.199	.203	.38
9.40mm	.3701	09377	09529	-	1.12	.199	.203	.38
9.50mm	.3740	09376	09510	09553	1.12	.199	.203	.38
3/8	.3750	09376	09510	09553	1.12	.199	.203	.38
V	.3770	-	09511	09554	1.25	.239	.243	.44
9.60mm	.3780	-	09511	09554	1.25	.239	.243	.44
9.70mm	.3819	-	09530	09583	1.25	.239	.243	.44
9.80mm	.3858	-	09512	09555	1.25	.239	.243	.44
W	.3860	-	09512	09555	1.25	.239	.243	.44
9.90mm	.3898	-	09513	09556	1.25	.239	.243	.44
25/64	.3906	09379	09513	09556	1.25	.239	.243	.44
10.00mm	.3937	-	09924	09934	1.25	.239	.243	.44
X	.3970	-	09514	09557	1.25	.239	.243	.44
10.10mm	.3976	-	09514	09557	1.25	.239	.243	.44
10.20mm	.4016	-	09515	09558	1.25	.239	.243	.44
Y	.4040	-	09515	09558	1.25	.239	.243	.44
13/32	.4062	-	09516	09559	1.25	.239	.243	.44
10.40mm	.4074	-	09516	09559	1.25	.239	.243	.44
Z	.4130	-	09517	09560	1.25	.239	.243	.44
10.50mm	.4134	-	09517	09560	1.25	.239	.243	.44
27/64	.4219	-	09925	09935	1.25	.239	.243	.44
10.80mm	.4252	-	09518	09561	1.25	.239	.243	.44
11.00mm	.4331	-	09531	09584	1.25	.239	.243	.44
7/16	.4375	-	09519	09562	1.25	.239	.243	.44
11.20mm	.4409	-	09532	09585	1.25	.239	.243	.44
11.50mm	.4528	-	09520	09563	1.25	.239	.243	.44
29/64	.4531	-	09520	09563	1.25	.239	.243	.44
11.60mm	.4567	-	09533	09586	1.25	.239	.243	.44
11.70mm	.4606	-	09534	09587	1.25	.239	.243	.44
11.80mm	.4646	-	09535	09588	1.25	.239	.243	.44
11.90mm	.4685	-	09521	09564	1.25	.239	.243	.44
15/32	.4688	-	09521	09564	1.25	.239	.243	.44
12.00mm	.4724	-	09926	09936	1.25	.239	.243	.44

Taper Size ®		2	3	4	Depth Drill Enters 'C'	Drill Tang Size		
Projection B ®		.25	.25	.38		Thickness 'D'		Length 'E'
Drill Size 'A'						Min.	Max.	
Nominal	Decimal							
12.10mm	.4764	09536	09589	-	1.31	.297	.303	.50
12.20mm	.4803	09537	09590	-	1.31	.297	.303	.50
31/64	.4844	09522	09565	-	1.31	.297	.303	.50
12.40mm	.4880	09942	09943	-	1.31	.297	.303	.50
12.50mm	.4921	09538	09591	-	1.31	.297	.303	.50
1/2	.5000	09523	09566	-	1.31	.297	.303	.50
12.80mm	.5039	09539	09592	-	1.31	.297	.303	.50
13.00mm	.5118	09540	09593	-	1.31	.297	.303	.50
33/64	.5156	09524	09567	-	1.31	.297	.303	.50
13.20mm	.5197	09541	09594	-	1.31	.297	.303	.50
17/32	.5312	09525	09568	-	1.31	.297	.303	.50
13.50mm	.5315	09525	09568	-	1.31	.297	.303	.50
13.70mm	.5394	09542	09595	-	1.31	.297	.303	.50
13.80mm	.5433	09543	09596	-	1.31	.297	.303	.50
35/64	.5469	09526	09569	-	1.31	.297	.303	.50
14.00mm	.5512	09544	09597	-	1.31	.297	.303	.50
14.10mm	.5551	09545	09598	-	1.31	.297	.303	.50
14.20mm	.5591	09527	09570	-	1.31	.297	.303	.50
14.25mm	.5610	09527	09570	-	1.31	.297	.303	.50
9/16	.5625	09927	09937	-	1.31	.297	.303	.50
14.30mm	.5630	09927	09937	-	1.31	.297	.303	.50
14.50mm	.5709	09546	09599	-	1.47	.367	.373	.56
14.60mm	.5748	-	09928	09938	1.47	.367	.373	.56
37/64	.5781	-	09571	09601	1.47	.367	.373	.56
14.75mm	.5807	-	09600	09640	1.47	.367	.373	.56
15.00mm	.5906	-	09929	09939	1.47	.367	.373	.56
19/32	.5938	-	09572	09602	1.47	.367	.373	.56
15.25mm	.6004	-	09629	09641	1.47	.367	.373	.56
39/64	.6094	-	09573	09603	1.47	.367	.373	.56
15.50mm	.6102	-	09573	09603	1.47	.367	.373	.56
15.75mm	.6201	-	09630	09642	1.47	.367	.373	.56
5/8	.6250	-	09574	09604	1.47	.367	.373	.56
16.00mm	.6299	-	09631	09643	1.47	.367	.373	.56
16.10mm	.6339	-	09632	09644	1.47	.367	.373	.56
16.25mm	.6398	-	09575	09605	1.47	.367	.373	.56
41/64	.6406	-	09575	09605	1.47	.367	.373	.56
16.50mm	.6496	-	09633	09645	1.47	.367	.373	.56
21/32	.6562	-	09576	09606	1.47	.367	.373	.56
16.75mm	.6594	-	09634	09646	1.62	.437	.443	.62
17.00mm	.6693	-	09577	09607	1.62	.437	.433	.62
43/64	.6719	-	09577	09607	1.62	.437	.443	.62
17.25mm	.6791	-	09635	09647	1.62	.437	.433	.62
11/16	.6875	-	09578	09608	1.62	.437	.433	.62
17.50mm	.6890	-	09578	09608	1.62	.437	.433	.62

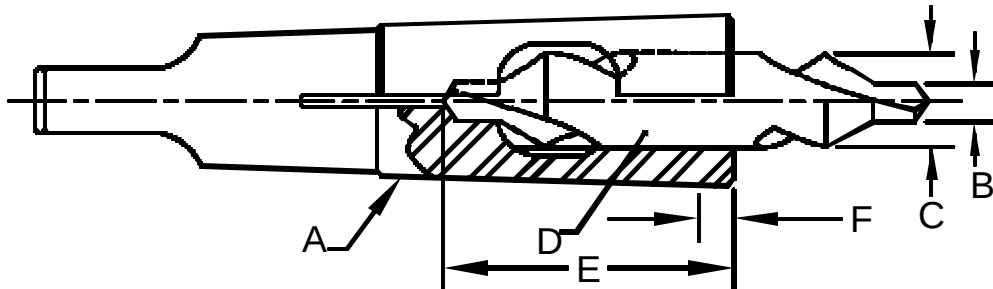
MORSE TAPER DRILL CHUCKS



Taper Size ®		3	4	Depth Drill	Drill Tang Size		
Projection B ®		.25	.38		Thickness 'D'		Length 'E'
Drill Size 'A'							
Nominal	Decimal			Enters 'C'	Min.	Max.	
17.75mm	.6988	09636	09648	1.62	.437	.443	.62
45/64	.7031	09579	09609	1.62	.437	.443	.62
18.00mm	.7087	09637	09649	1.62	.437	.443	.62
18.25mm	.7185	09580	09610	1.62	.437	.443	.62
23/32	.7188	09580	09610	1.62	.437	.443	.62
18.50mm	.7283	09638	09650	1.62	.437	.443	.62
47/64	.7344	09581	09611	1.62	.437	.443	.62
18.75mm	.7382	09639	09691	1.62	.437	.443	.62
19.00mm	.7480	09582	09612	1.62	.437	.443	.62
3/4	.7500	09582	09612	1.62	.437	.443	.62
19.25mm	.7579	-	09692	1.94	.508	.514	.69
49/64	.7656	-	09613	1.94	.508	.514	.69
19.50mm	.7677	-	09693	1.94	.508	.514	.69
19.75mm	.7776	-	09694	1.94	.508	.514	.69
25/32	.7812	-	09614	1.94	.508	.514	.69
20.00mm	.7874	-	09695	1.94	.508	.514	.69
51/64	.7969	-	09615	1.94	.508	.514	.69
20.25mm	.7972	-	09615	1.94	.508	.514	.69
20.50mm	.8071	-	09696	1.94	.508	.514	.69
13/16	.8125	-	09616	1.94	.508	.514	.69
20.75mm	.8169	-	09697	1.94	.508	.514	.69
21.00mm	.8268	-	09617	1.94	.508	.514	.69
53/64	.8281	-	09617	1.94	.508	.514	.69
27/32	.8438	-	09618	1.94	.508	.514	.69
21.50mm	.8465	-	09618	1.94	.508	.514	.69
55/64	.8594	-	09619	1.94	.508	.514	.69
22.00mm	.8661	-	09698	1.94	.508	.514	.69
7/8	.8750	-	09620	1.94	.508	.514	.69
22.50mm	.8858	-	09699	2.12	.601	.609	.75
57/64	.8906	-	09621	2.12	.601	.609	.75
23.00mm	.9055	-	09622	2.12	.601	.609	.75
29/32	.9062	-	09622	2.12	.601	.609	.75
23.25mm	.9154	-	09700	2.12	.601	.609	.75
59/64	.9219	-	09623	2.12	.601	.609	.75
23.50mm	.9252	-	09701	2.12	.601	.609	.75
15/16	.9375	-	09624	2.12	.601	.609	.75
24.00mm	.9449	-	09702	2.12	.601	.609	.75
61/64	.9531	-	09625	2.12	.601	.609	.75
24.50mm	.9646	-	09703	2.12	.601	.609	.75
31/32	.9688	-	09626	2.12	.601	.609	.75
25.00mm	.9843	-	09627	2.12	.601	.609	.75
63/64	.9844	-	09627	2.12	.601	.609	.75
1	1.0000	-	09628	2.12	.601	.609	.75

Style B Center Drill Drivers

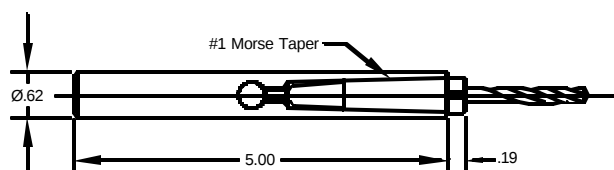
- Internal offset spline provides positive drive while it protects the cutting edges.
- External taper is concentric to the bore within .002" when measured at a 1.00" projection.



External Morse Taper	Drill Diameter	Body Diameter	Style Reference Number	Depth Drill Enters (+ .02)	Chuck Projection	Part Number
A	B	C	D	E	F	
1	.047	.1245	1 & 11	.81	.19	09300
1	.078	.1875	2	.94	.19	12125
1	.062	.1875	12	.93	.19	12125
2	.078	.1875	2	.94	.25	12126
2	.062	.1875	12	.93	.25	12126
1	.109	.250	3	1.07	.19	12127
1	.094	.250	13	1.06	.19	12127
2	.109	.250	3	1.07	.25	12128
2	.094	.250	13	1.06	.25	12128
1	.125	.3125	4	1.18	.19	12111
1	.109	.3125	14	1.17	.19	12111
2	.125	.3125	4	1.18	.25	12112
2	.109	.3125	14	1.17	.25	12112
2	.188	.4375	5	1.60	.25	12115
2	.156	.4375	15	1.59	.25	12115
2	.219	.500	6	1.72	.25	12118
2	.188	.500	16	1.70	.25	12118
3	.250	.625	7	1.92	.25	12120
3	.219	.625	17	1.91	.25	12120
3	.312	.750	8	2.24	.25	12129
3	.250	.750	18	2.21	.25	12129

Taper Chuck Extension

- Accepts any #1 Morse Taper chuck or cutter shank.
- Extends the reach of a cutter, while minimizing clearance diameter.
- Can be chucked by any 5/8" collet.
- Order **Part No. 59342**

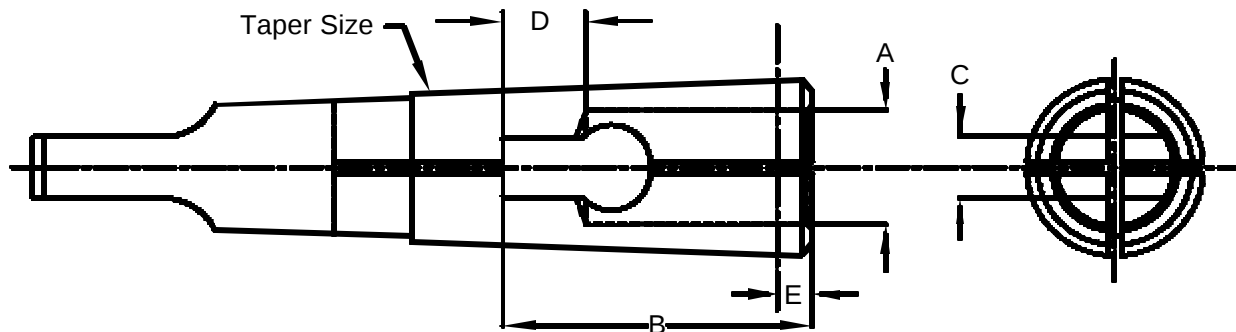


MORSE TAPER CHUCKS



Style “B” Reamer Chucks

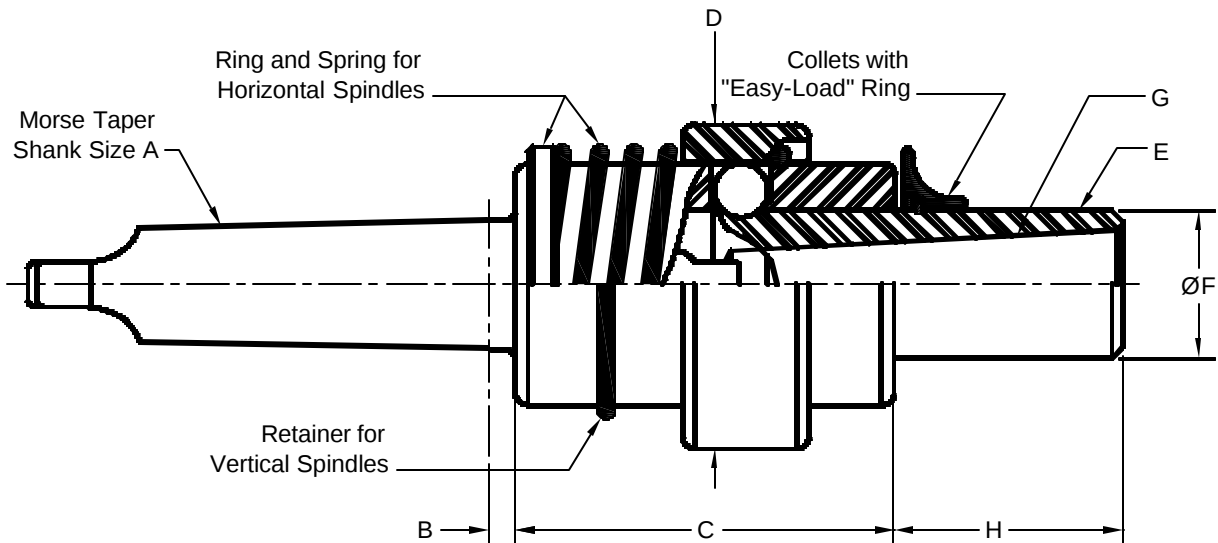
- Designed to drive reamers which have shanks conforming to ANSI / ASME Standard B94.2
- Morse Tapers lock into mating female tapers to drive from the taper, not the tang (which is an ejection feature only). This design centers the reamer and grips it from the same surface.
- Keep mating tapers clean & dry.



Reamer Nom. Size	Max. Shank Dia. A	Depth Reamer Enters B	Tang Size		Morse Taper Size E Projection				
			Max. Thick. C	Length D	0 .16	1 .19	2 .25	3 .25	4 .38
1/8	.1190	.62	-	-	09148	09299	09433	-	-
9/64	.1350	.75	.094	.28	09153	09304	09438	-	-
5/32	.1510	.75	.094	.28	-	09311	09445	-	-
11/64	.1645	.75	.094	.28	09166	09317	-	-	-
3/16	.1805	.75	.094	.28	09171	09322	09456	-	-
13/64	.1945	.88	.122	.31	-	09329	09463	-	-
7/32	.2075	.88	.122	.31	-	09335	09469	-	-
15/64	.2265	.88	.122	.31	-	09340	09474	-	-
1/4	.2405	.88	.122	.31	-	09345	09479	-	-
17/64 - 9/32	.2485	.88	.122	.31	09196	09347	09481	09551	-
19/64 - 11/32	.2792	1.00	.162	.34	-	09356	09490	-	-
23/64 - 13/32	.3105	1.00	.162	.34	-	09364	09498	-	-
27/64 - 15/32	.3730	1.12	.203	.38	-	09376	09510	09553	-
31/64 - 19/32	.4355	1.25	.243	.44	-	-	09519	09562	-
5/8 - 23/32	.5620	1.31	.303	.50	-	-	09527	09570	-
3/4 - 27/32	.6245	1.47	.373	.56	-	-	-	09574	-
7/8 - 31/32	.7495	1.62	.443	.62	-	-	-	09582	09612

Chucks and Collets

- Tool changes are quick and easy. Sliding the outer sleeve "D" toward the spindle unlocks the collet, and sliding away from the spindle locks it.
- Collets accept any combination of Morse Taper tooling, so custom setups are easy to make. Single-spindle drill presses become as productive as multiples.
- **WARNING: Be sure the machine spindle is stopped before attempting a tool change.**



CHUCKS								COLLETS					
A® B®	1	2	3	4	5	Part Number						Part Number	
Spindle Angle	.125	.188	.188	.250	.250	Proj. C	O.D. D	Nom. Size E	O.D. F	M.T. Size G	Proj. H	W / O Easy-Load Ring	With Easy-Load Ring
Vert.	19100	19101	-	-	-	1.75	1.38	0	.69	1	2.06	19145	19645
Horiz.	19180	19181	-	-	-	1.75	1.38	0	.69	1	2.06	19145	19645
Vert.	-	19103	19104	-	-	2.25	1.94	1	.94	1	1.31	19146	19646
Horiz.	-	19183	19184	-	-	2.25	1.94	1	.94	2	1.75	19147	19647
Vert.	-	19106	19107	19108	-	3.00	2.44	2	1.25	1	.62	19148	19648
Horiz.	-	19186	19187	19188	-	3.00	2.44	2	1.25	2	1.19	19149	19649
								2	1.25	3	1.81	19150	19650
Vert.	-	-	19110	19111	19112	3.69	2.94	3	1.69	1	.50	19151	19651
Horiz.	-	-	19190	19191	19192	3.69	2.94	3	1.69	2	.88	19152	19652
								3	1.69	3	1.38	19153	19653
								3	1.69	4	2.31	19154	19654
Vert.	-	-	-	19114	19115	4.38	3.94	4	2.38	2	.62	19156	19656
Horiz.	-	-	-	19194	19195	4.38	3.94	4	2.38	3	.94	19157	19657
								4	2.38	4	1.94	19158	19658
								4	2.38	5	3.06	19159	19659
Vert.	-	-	-	-	19118	5.75	4.94	5	3.25	5	1.94	19163	19663
Horiz.	-	-	-	-	19198	5.75	4.94	5	3.25	5	1.94	19163	19663

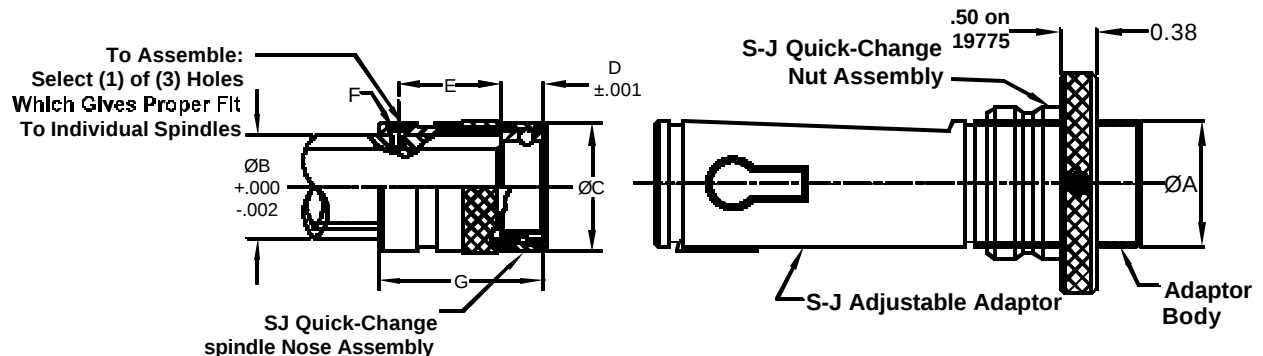
Quick-Change Spindle Nose and Nut Assemblies

FEATURES

- Allows one-handed tool changes.
- Change tools in seconds.
- Eliminates set-screws and drift pins.

HOW TO ORDER

- Order by part number.
- Order Quick-Change nut separately.



Adapter Size A	Spindle Dia. B+	Overall Dia. C	Projection From Spindle D	Tapped Hole Location E	Screw Size F	Overall Length G	Part Numbers	
							Spindle Nose Adapter	Quick-Change Nut
.50	.735	1.06	.750	1.25	.25-28	2.38	19420	19705
.62	.985	1.31	.750	1.25	.31-24	2.38	19425	19715
.75	1.235	1.56	.750	1.25	.31-24	2.38	19430	19725
.88	1.360	1.69	.750	1.56	.31-24	2.69	19435	19735
1.00	1.484	1.88	.750	1.56	.31-24	2.69	19440	19745
1.06	1.610	1.94	.750	1.56	.31-24	2.69	19445	19755
1.38	1.985	2.31	.750	1.81	.31-24	2.94	19470	19765
1.88	2.610	2.94	.750	2.31	.31-24	3.44	19475	19775

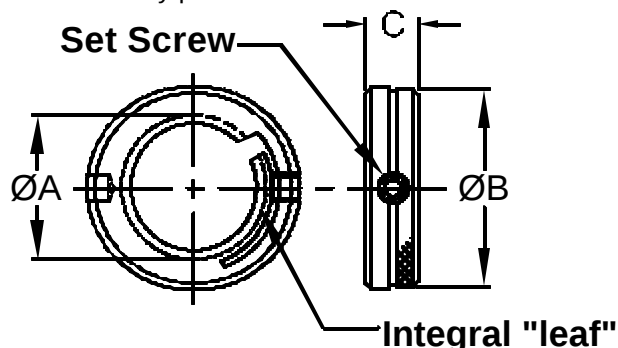
Quick-Lock Nut Assemblies

FEATURES

- Use on National Acme thread applications in place of double lock nuts, castellated nuts, etc.
- One-piece construction.

HOW TO ORDER

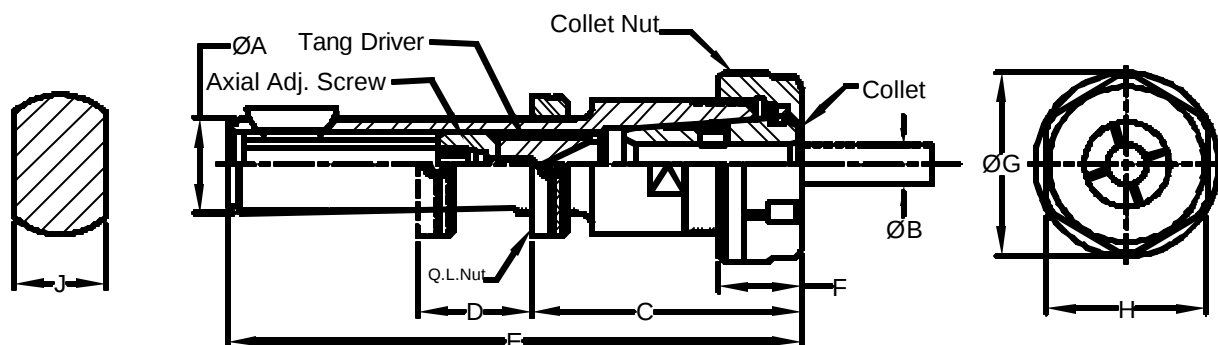
- Order by part number.



Nat'l Acme Thread Size A	Dia. B	Width C	Set screw D	Nut Assembly No.
.50-16	.88	.41	93106	17272
.62-16	1.00	.41	93106	17273
.75-12	1.25	.41	93114	17252
.88-12	1.25	.41	93106	17274
1.00-12	1.50	.41	93114	17254
1.06-12	1.56	.41	93114	17255
1.25-12	1.75	.41	93114	17275
1.31-12	1.81	.41	93114	17257
1.38-12	1.88	.41	93114	17258
1.44-12	2.00	.41	93114	70207
1.75-12	2.50	.50	93133	70312
1.88-12	2.62	.50	93120	17260
2.25-12	3.00	.50	93120	70512

Adjustable Adapter Shank Single-Angle (TG Style) Collet Holders

- Shanks conform to ANSI / ASME Standard B5.11.
- Single-Angle collets offer an ideal combination of gripping power, accuracy, repeatability, and size -- one collet holder for drilling, reaming, and boring and end-milling (a Positive Lock Endmill Collet is shown in the sketch).
- An axial tool-adjusting screw (driving a non-rotating tang pocket), a collet nut, and a shank drive (woodruff) key are furnished. Assemblies with and without Quick-Lock nut can be ordered.
- Collets are shown on page 19.
- Nut and body wrenches are shown on page 31.



Acme Thread Size A	Collet Size Group B	Collet Capacity B	Projection Min. C	Projection Axial Adjust. D	Holder Overall Length E	Collet Nut Size Height F	Collet Nut Size Outer Diam. G	Collet Nut Size Wrench Flats H	Part Number With Q.L. Nut	Part Number W / O Q.L. Nut	Wrench Flats J
.75-12	050	.047-.500	2.44	.88	5.06	.88	1.38	1.25	57870	57920	1.000
.88-12	050	.047-.500	2.12	1.12	5.38	.88	1.38	1.25	57875	57921	1.000
1.00-12	075	.047-.750	2.88	1.12	6.12	.88	2.12	1.88	57885	57922	1.375
1.06-12	050	.047-.500	2.12	1.12	5.38	.88	1.38	1.25	57880	57923	1.000
1.06-12	075	.047-.750	2.88	1.12	6.12	.88	2.12	1.88	57890	57924	1.375
1.38-12	075	.047-.750	2.06	1.25	6.31	.88	2.12	1.88	57895	57925	1.375
1.38-12	100	.078-1.000	3.50	1.25	7.75	1.12	2.50	-	57900	57926	1.750
1.38-12	100	.078-1.000	3.50	1.25	7.75	1.12	2.50	2.25	57918	57868	1.750
1.88-12	100	.078-1.000	2.62	1.25	7.75	1.12	2.50	-	57905	57927	1.750
1.88-12	100	.078-1.000	2.62	1.25	7.75	1.12	2.50	2.25	57919	57869	1.750
1.88-12	150	.484-1.500	4.38	1.25	9.50	1.38	3.25	-	57910	57928	2.500

Shank diameter determines the depth a cutter will enter the collet chuck:

Dias. .453 and larger will not enter the shank bore of 57870.

Dias. .687 and larger will not enter the shank bore of 57885 and 57890.

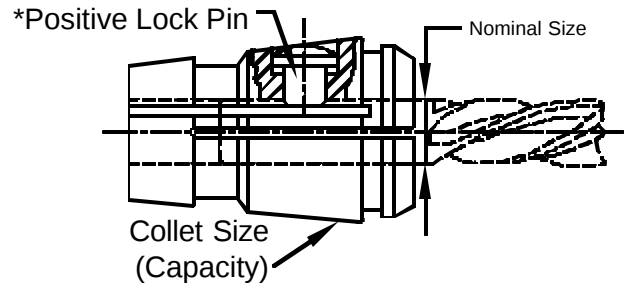
Dias. .875 and larger will not enter the shank bore of 57900 and 57918.

Dias. 1.250 and larger will not enter the shank bore of 57910.

T. G. SINGLE-ANGLE COLLETS



Nominal Size	Decimal Range	Collet Size				Positive Lock End Mill Collet	
		050	075	100	150	100	150
3/64	.0313 - .0469	-	57640	-	-		
1/16	.0469 - .0625	57611	57641	-	-		
5/64	.0625 - .0781	57612	57642	-	-		
3/32	.0781 - .0938	57613	57643	57693	-		
7/64	.0938 - .1094	57614	57644	57694	-		
1/8	.1094 - .1250	57615	57645	57695	-		
9/64	.1250 - .1406	57616	57646	57696	-		
5/32	.1406 - .1562	57617	57647	57697	-		
11/64	.1562 - .1719	57618	57648	57698	-		
3/16	.1719 - .1875	57619	57649	57699	-		
13/64	.1875 - .2031	57620	57650	57700	-		
7/32	.2031 - .2188	57621	57651	57701	-		
15/64	.2188 - .2344	57622	57652	57702	-		
1/4	.2344 - .2500	57623	57653	57703	-		
17/64	.2500 - .2656	57624	57654	57704	-		
9/32	.2656 - .2812	57625	57655	57705	-		
19/64	.2812 - .2969	57626	57656	57706	-		
5/16	.2969 - .3125	57627	57657	57707	-		
21/64	.3125 - .3281	57628	57658	57708	-		
11/32	.3281 - .3438	57629	57659	57709	-		
23/64	.3438 - .3594	57630	57660	57710	-		
3/8	.3594 - .3750	57631	57661	57711	-	57480	
25/64	.3750 - .3906	57632	57662	57712	-		
13/32	.3906 - .4062	57633	57663	57713	-		
27/64	.4062 - .4219	57634	57664	57714	-		
7/16	.4219 - .4375	57635	57665	57715	-		
29/64	.4375 - .4531	57605	57691	57754	-		
15/32	.4528 - .4688	57636	57666	57716	-		
31/64	.4688 - .4844	57637	57667	57717	-		
1/2	.4844 - .5000	57638	57668	57718	57758	57481	57510
33/64	.5000 - .5156	-	57669	57719	57759		
17/32	.5156 - .5312	-	57670	57720	57760		
35/64	.5312 - .5469	-	57671	57721	57761		
9/16	.5469 - .5625	-	57672	57722	57762		
37/64	.5625 - .5781	-	57673	57723	57763		
19/32	.5781 - .5938	-	57674	57724	57764		
39/64	.5938 - .6094	-	57692	57755	57812		
5/8	.6094 - .6250	-	57675	57725	57765	57482	57511
41/64	.6250 - .6406	-	57676	57726	57766		
21/32	.6406 - .6562	-	57677	57727	57767		
43/64	.6562 - .6719	-	57678	57728	57768		
11/16	.6719 - .6875	-	57679	57729	57769		
45/64	.6875 - .7031	-	57680	57730	57770		
23/32	.7031 - .7188	-	57681	57731	57771		
47/64	.7188 - .7344	-	57682	57732	57772		
3/4	.7344 - .7500	-	57683	57733	57773	57483	57512
49/64	.7500 - .7656	-	-	57756	57813		
25/32	.7656 - .7812	-	-	57734	57774		
51/64	.7812 - .7969	-	-	57735	57775		
13/16	.7969 - .8125	-	-	57736	57776		
53/64	.8125 - .8281	-	-	57737	57777		
27/32	.8281 - .8438	-	-	57738	57778		
55/64	.8438 - .8594	-	-	57739	57779		
7/8	.8594 - .8750	-	-	57740	57780	57545	57513
57/64	.8750 - .8906	-	-	57741	57781		
29/32	.8906 - .9062	-	-	57742	57782		
59/64	.9063 - .9219	-	-	57757	57814		
15/16	.9219 - .9375	-	-	57743	57783		
61/64	.9375 - .9531	-	-	57744	57784		
31/32	.9531 - .9688	-	-	57745	57785		
63/64	.9688 - .9844	-	-	57811	57815		
1	.9844 - 1.0000	-	-	57746	57786	57546	57514
1-1/32	1.0156 - 1.0312	-	-	-	57787		
1-1/16	1.0469 - 1.0630	-	-	-	57788		
1-3/32	1.0781 - 1.0938	-	-	-	57789		
1-7/64	1.0938 - 1.1094	-	-	-	57790		
1-1/8	1.1094 - 1.1250	-	-	-	57791		
1-5/32	1.1406 - 1.1562	-	-	-	57792		
1-3/16	1.1719 - 1.1875	-	-	-	57793		
1-7/32	1.2031 - 1.2188	-	-	-	57794		
1-15/64	1.2188 - 1.2344	-	-	-	57795		
1-1/4	1.2344 - 1.2500	-	-	-	57796		57515
1-17/64	1.2500 - 1.2656	-	-	-	57797		
1-9/32	1.2656 - 1.2812	-	-	-	57798		
1-5/16	1.2969 - 1.3125	-	-	-	57799		
1-11/32	1.3281 - 1.3438	-	-	-	57800		
1-3/8	1.3594 - 1.3750	-	-	-	57801		
1-25/64	1.3750 - 1.3906	-	-	-	57802		
1-13/32	1.3906 - 1.4062	-	-	-	57803		
1-27/64	1.4062 - 1.4219	-	-	-	57804		
1-7/16	1.4219 - 1.4375	-	-	-	57805		
1-15/32	1.4531 - 1.4688	-	-	-	57806		
1-1/2	1.4844 - 1.5000	-	-	-	57807		57547



- Scully-Jones' collets offer an exceptional combination of gripping force and accuracy, which allows each collet to be used for drilling, reaming, boring and End Milling. They are made of tough-tempered steel alloy which resists deformation and indentation while remaining springy.
- *Positive Lock collets are built to prevent pullout of Weldon-style endmill -shanked cutting tools.
- These 075, 100 and 150 group collets are interchangeable with other manufacturers' TG-style single-angle collets.
- Runout is controlled to within .0005 T.I.V. at 1.0" from the collet face.

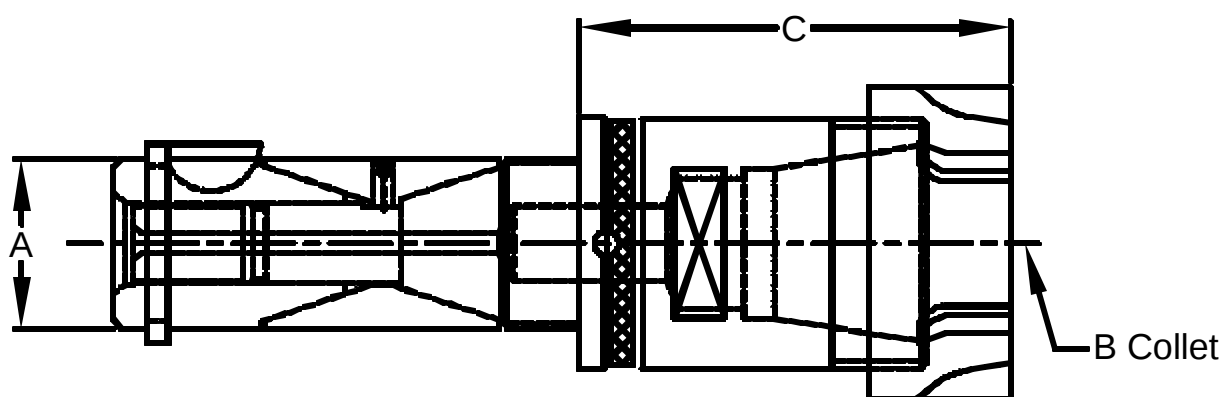
Collet Sets

Collet Size	Span Range	Increment	Collet Per Set	Part Number
050	5/64 to 1/2	64 ths	29	57220
050	1/16 to 1/2	32 nds	15	57221
075	3/64 to 3/4	64 ths	46	57230
075	1/16 to 3/4	32 nds	23	57231
100	3/32 to 1	64 ths	59	57240
100	3/32 to 1	32 nds	30	57241
150	1/2 to 1-1/2	64 ths	54	57270
150	1/2 to 1-1/2	32 nds	33	57271

PRECISION DRILL HOLDER

Single-Angle (ER) Collet Quick-Change Drill Holder

- Uses Standard ER Collets- ER 16, ER 25, ER 32 & ER 40.
- Quick-Change design requires no tools for insertion and easy removal w/spanner.
- No over spindle adapter required.
- Expanding Bore Collet provides minimal runout- **It's as true as the spindle!**
- Thru-Coolant capable with sealed collets or sealed disc system.
- Positive Stop Screw for off-line presetting.
- Shank is precision ground and hardened for added tool life.
- Special sizes available upon request.



SHANK SIZE "A"	COLLET TYPE "B"	PART NUMBER	MINIMUM PRJTN "C"	WRENCH SIZE	NUT DIAMETER	THREAD TYPE
3/4	ER 16	14150	2.38	0.75	1.26	3/4-12 ACME
3/4	ER 25	14200	2.40	1.12	1.65	3/4-12 ACME
7/8	ER 16	14170	2.38	0.75	1.26	7/8-12 ACME
7/8	ER 25	14210	2.40	1.12	1.65	7/8-12 ACME
1 1/16	ER 16	14190	2.38	0.75	1.26	1 1/16-12 ACME
1 1/16	ER 25	14230	2.40	1.12	1.65	1 1/16-12 ACME
1 1/16	ER 32	14270	3.11	1.25	1.97	1 1/16-12 ACME
1 3/8	ER 25	14250	2.40	1.12	1.65	1 3/8- ACME
1 3/8	ER 32	14290	3.11	1.25	1.97	1 3/8- ACME
1 3/8	ER 40	14310	3.56	1.62	2.48	1 3/8- ACME

* Patent Pending

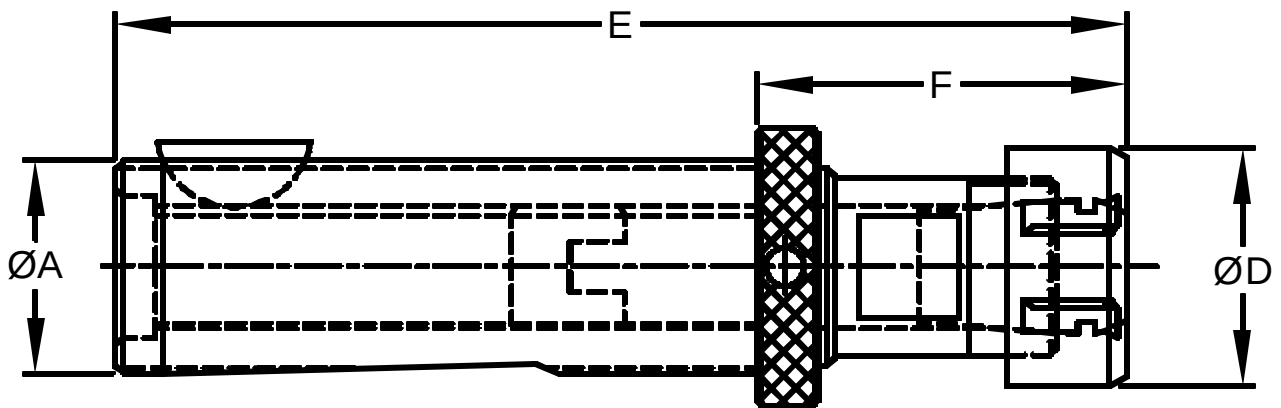
ER COLLET CHUCK



w/ACME SHANK

Automotive Shank, Single-Angle Collet Drill Holder

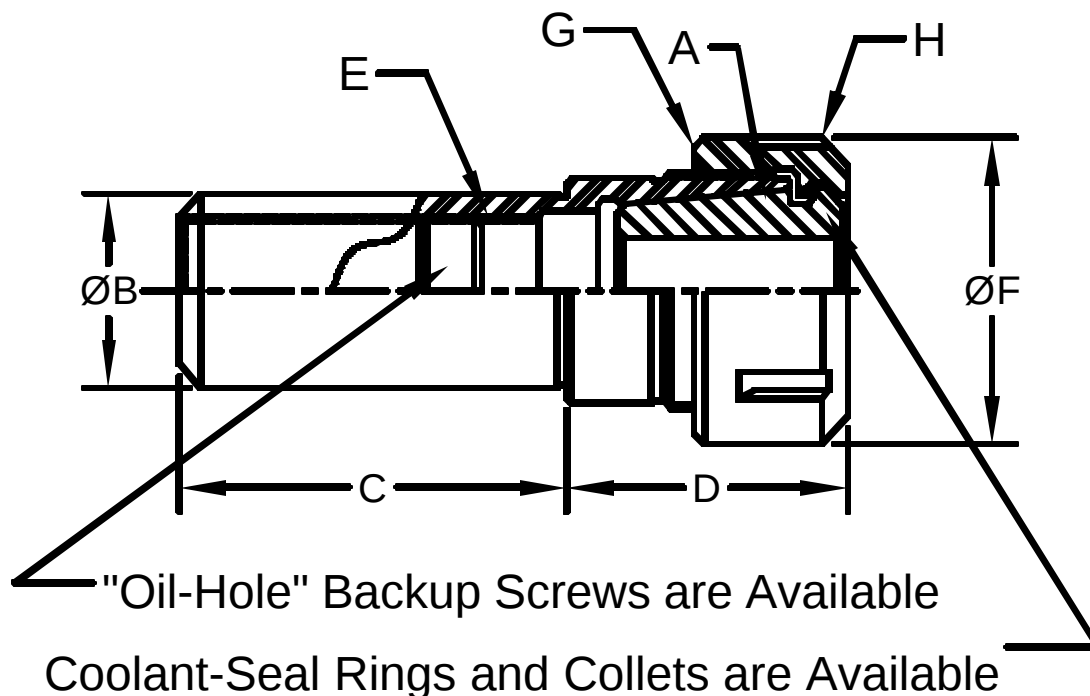
- Uses Standard ER Collets- ER 16, ER 25 & ER 32 .
- Highly accurate stub drilling tool holder.
- Thru-Coolant capable - see separate sheet for rear coolant seal information.
- Positive Stop Screw for off-line presetting.
- Shank is precision ground and hardened .
- Available with Quick-Change nut for use with SJC / Seibert Spindle Nose Adapter.
- Special sizes available upon request.
- Precision Collets - See page 26 & 27



SHANK SIZE "A"	COLLET TYPE	PART NUMBER	MINIMUM PRJTN "F"	SHANK LENGTH	NUT DIAM - "D"	THREAD TYPE
7/8	ER 16	05630	1.88	3.12	1.26	7/8-12 ACME
7/8	ER 25	05631	2.44	3.12	1.65	7/8-12 ACME
1 1/16	ER 16	05632	1.88	3.12	1.26	1 1/16-12 ACME
1 1/16	ER 25	05633	2.44	3.12	1.65	1 1/16-12 ACME
1 1/16	ER 32	05634	2.75	3.12	1.97	1 1/16-12 ACME
1 3/8	ER 16	05635	1.88	4.12	1.26	1 3/8- ACME
1 3/8	ER 25	05636	2.31	4.12	1.65	1 3/8- ACME
1 3/8	ER 32	05637	2.75	4.12	1.97	1 3/8- ACME

Straight Shank ER Collet Holders, Nuts & Wrenches

- These holders are designed to accept precision collets (shown on page 26 & 27) conforming to DIN Standard 6499 -A and -B. These are commonly called the ER type.
- Precision grinding and collet slotting results in uniform collapse which holds runout to less than .0008" at a projection of 2.50" from the collet face. This level of precision and repeatability will be maintained only if the users handle these tools with the care they deserve.
For example: these holders are designed so their collet nuts are to be tightened only with stand ard length hand spanner wrenches listed in the chart on this page.
- A collet nut and backup screw is provided with each holder. Relatively small diameter nuts permit cuts close to fixtures and other obstructions.
- Shank-to-collet-taper runout and nut-threads-to-nut-cone runout are each held within .0002" T.I.V.
- Straight (cylindrical) shanks adapt to any machine tool.
- All dimensions shown in the chart below are millimeters, except the shank diameter "B".

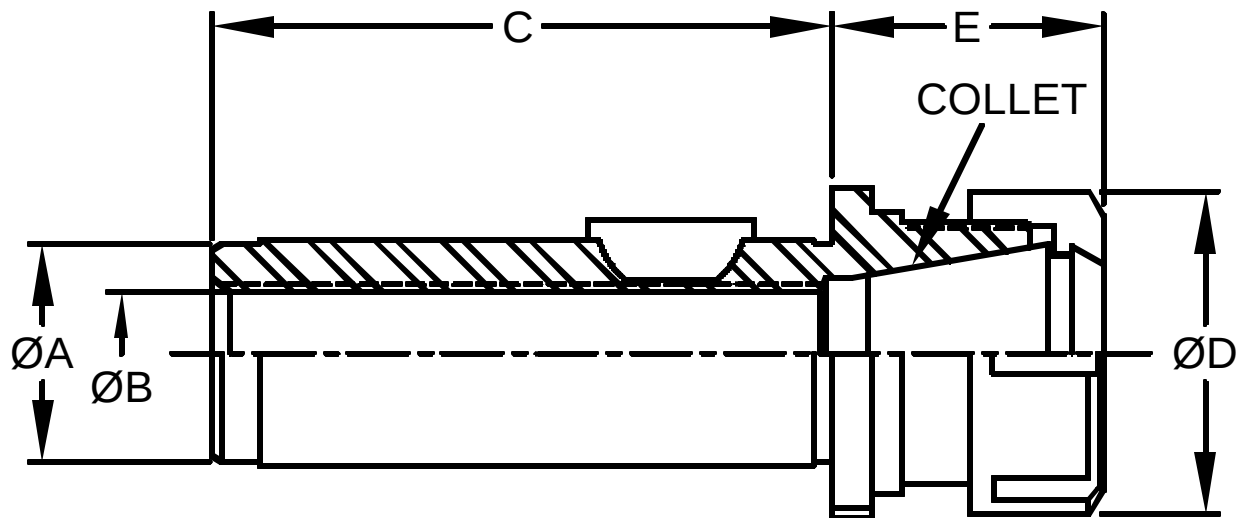


Assembly Number	Collet Capacity	Shank		Projection	Backup Screw Threads	Diameter	Nut Part Number	Wrench Number
		Diameter	Length					
05227	16	5/8"	60	35.1	M10x1.5	32	05184	93225 Hex.
05228	16	3/4"	50	35.1	M10x1.5	32	05184	93225 Hex.
05222	25	1"	50	51.0	M16x2.0	42	05185	93226 Span.
05223	32	1"	50	51.5	M16x2.0	50	05186	93227 Span.
05224	40	1"	50	65.0	M16x2.0	63	05187	93228 Span.

QUICK- CHANGE DRILLING SYSTEM

ACCU-QUICK™ Holders

- Manufactured to .0008 TIR at 4" from gage line.
- 5-10 second tool change with no tools needed for insertion.
- Preset drills off-line for maximum accuracy and minimum down-time.
- Uses ER Single- Angle Collets for increased accuracy and holding power.
- Will retrofit in all spindles made for 50° INCL taper holders with no modifications.
- Uses the Accu-Quick Lug Lock™ Nose adapter for positive locking power into spindle.
- Posi-Drive system available for precise presetting of tool projections.
- Precision Collets - See page 26 & 27



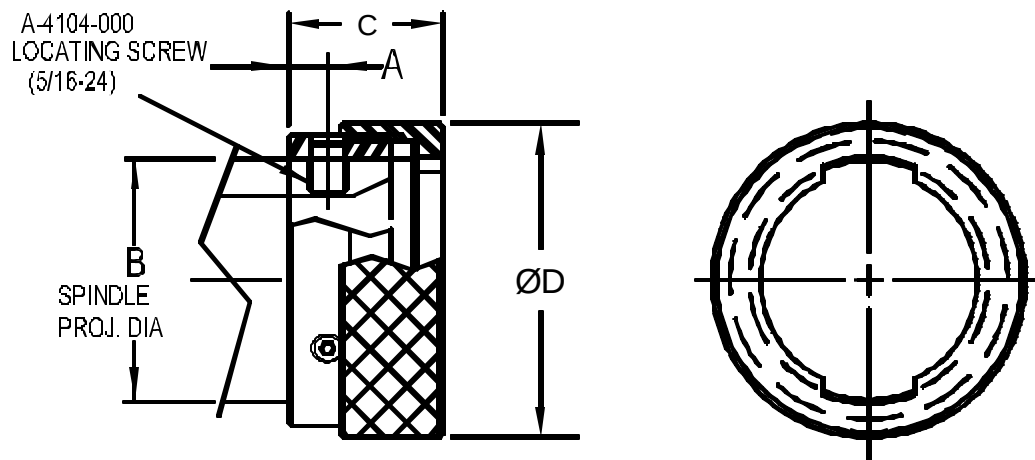
Seibert Part No. **	Shank Dia. A	Collet Series	Collet Range	Adjstmnt Screw	Max Dia. Thru Shank B	Shank Length C	Collet D Max O.D	Nut Hex Size	Nose Prjctn E
A-4680-XXX	3/4	ER-16	.019 to .394	5/16-24 LH	.250	2.500	1.10	.787	1.80
A-4681-XXX	1-1/16	ER-16	.019 to .394	7/16-20 LH	.375	3.120	1.10	.787	1.80
A-4682-XXX	1-1/16	ER-32	.079 to .787	3/4-16 LH	.656	3.120	1.97	N/A	1.75
A-4683-XXX	1-3/8	ER-32	.079 to .787	13/16-20 LH	.750	4.120	1.97	N/A	1.75
A-4683-XXX	1-7/8	ER-40	.984 to 1.024	1-1/8-16 LH	1.000	5.120	2.48	N/A	1.81

* Additional Shank O.D and Collet sizes available upon request (1-7/8" Shank in ER32 and ER40)

** Include cutting Tool Tang dimension (XXX) to select proper Posi-Drive

FOR ACCU-QUICK™ Holders

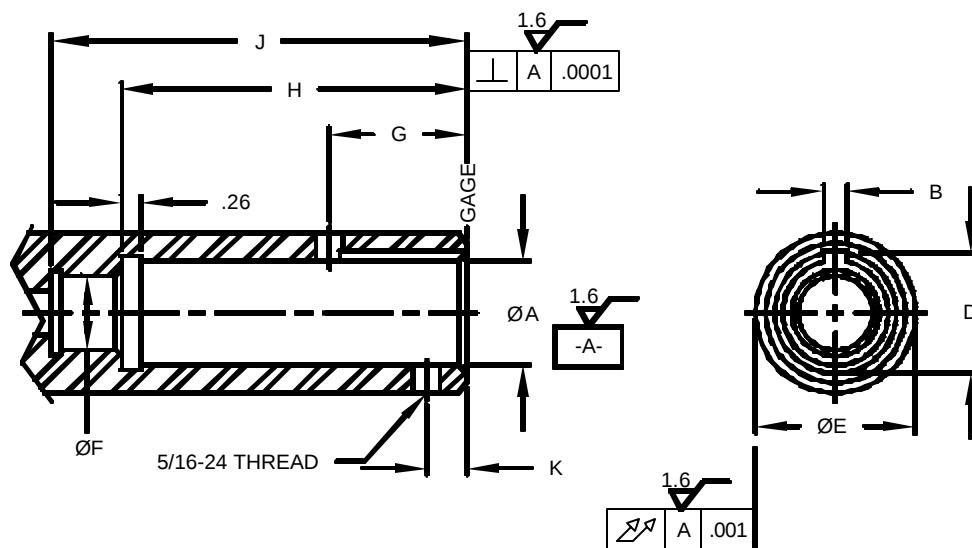
QUICK- CHANGE NOSE ADAPTER



SJC/SEIBERT PART NUMBER	ADAPTER SHANK SIZE	A	B .000-.002	C .000-.010	D MAX O.D
A-4150-000	3/4	0.500	1.234	1.250	1.770
A-4151-000	1-1/16	0.500	1.610	1.250	2.150
A-4152-000	1-3/8	0.500	1.985	1.250	2.565
A-4153-000	1-7/8	0.500	2.610	1.250	3.090

* 1-7/8 Spindle Nose Adapter also available

STANDARD SPINDLE DETAIL

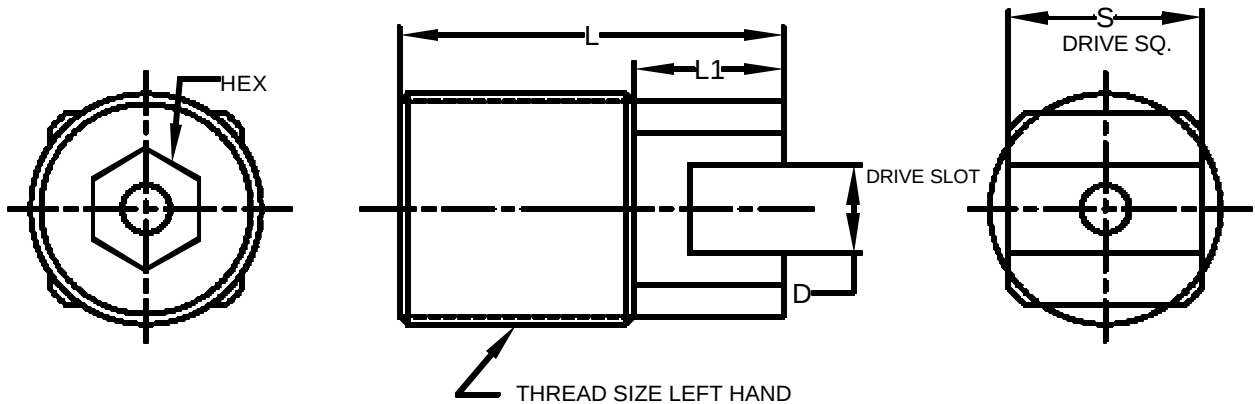


A SPINDLE SIZE	B +.005 -.000	D +.005 -.000	E +.000 -.002	F +.002 -.000	G MIN	H	J	K +.000 -.005
5/8	.162	.710	.985	.562	1.00	2.63	3.62	.500
3/4	.162	.830	1.235	.625	1.00	2.78	3.62	.500
1-1/16	.193	1.158	1.610	.750	1.37	3.40	4.25	.500
1-3/8	.256	1.499	1.985	1.000	1.75	4.40	5.25	.500
1-7/8	.318	2.024	2.610	1.250	2.25	5.65	7.13	.500

SPECIFICATIONS



Positive Drive Assemblies

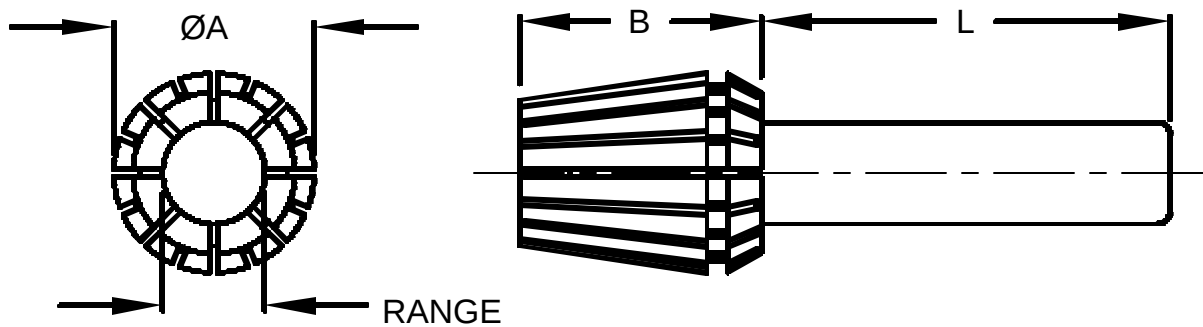


Part No	D		THREAD SIZE	L	L1	S	HEX
	MIN	MAX					
A-5860-	.100	.128	5/16-24	.791	.406	.250	3/16
A-5863-	.100	.209	7/16-20	.791	.406	.375	1/4
A-5866-	.100	.309	9/16-18	.978	.468	.468	5/16
A-5875-	.128	.309	5/8-18	.978	.468	.531	5/16
A-5881-	.128	.379	3/4-16	.978	.468	.625	3/8
A-5869-	.128	.449	13/16-20	1.197	.562	.687	3/8
A-5878-	.128	.449	7/8-14	1.197	.562	.750	3/8
A-5872-	.309	.615	1-1/8-16	1.572	.812	.937	1/2

Part # suffix is determined by Tool's Tang width

Example: Tool's Tang size is .203; the Pos.Drive number is -203

Single Angle Collet



METRIC				
CLAMPING RANGE		L	RUNOUT TOLERANCE	
D			PRECISION	HIGH
MIN.	MAX.		DIN 6499	DIN 6499
1.0	1.6	6	0.015	0.008
1.6	3.0	10		
3.0	6.0	16		
6.0	10.0	25	0.020	0.010
10.0	18.0	40		
18.0	26.0	50		
26.0	34.0	60	0.025	

INCHES				
CLAMPING RANGE		L	RUNOUT TOLERANCE	
D			PRECISION	HIGH PRECISION
MIN.	MAX.		DIN 6499	DIN 6499
0.039	0.063	0.236	0.0006	0.0003
0.063	0.118	0.394		
0.118	0.236	0.630		
0.236	0.394	0.984		
0.394	0.709	1.575	0.0008	0.0004
0.709	1.024	1.969		
1.024	1.339	2.362	0.0010	

ER SINGLE ANGLE COLLETS

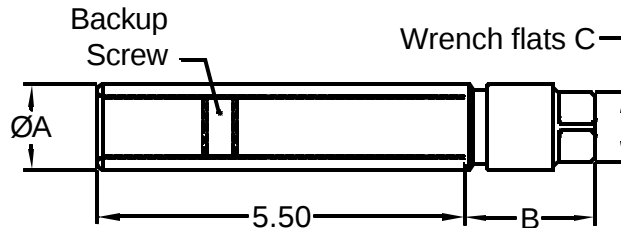


O.D LENGTH	A B	.355 .531	.453 .709	.472 .709	.669 1.063	.827 1.220	1.024 1.378	1.299 1.575	1.614 1.811
RANGE (IN.)		ER 8	ER 11	ER 12	ER 16	ER 20	ER 25	ER 32	ER 40
.019/.039		A-4190-039	A-4191-039	A-4192-039	A-4193-039				
.039/.059		A-4190-059	A-4191-059	A-4192-059					
.059/.079		A-4190-079	A-4191-079	A-4192-079	A-4193-079	A-4194-079	A-4195-079		
.079/.098		A-4190-098	A-4191-098	A-4192-098					
.098/.118		A-4190-118	A-4191-118	A-4192-118	A-4193-118	A-4194-118	A-4195-118	A-4196-118	
.118/.138		A-4190-138	A-4191-138						
.138/.157		A-4190-157	A-4191-157	A-4192-157	A-4193-157	A-4194-157	A-4195-157	A-4196-157	A-4197-157
.157/.177		A-4190-177	A-4191-177						
.177/.197		A-4190-197	A-4191-197	A-4192-197	A-4193-197	A-4194-197	A-4195-197	A-4196-197	A-4197-197
.197/.217			A-4191-217						
.217/.236			A-4191-236	A-4192-236	A-4193-236	A-4194-236	A-4195-236	A-4196-236	A-4197-236
.236/.256			A-4191-256						
.256/.276			A-4191-276	A-4192-276	A-4193-276	A-4194-276	A-4195-276	A-4196-276	A-4197-276
.276/.315					A-4193-315	A-4194-315	A-4195-315	A-4196-315	A-4197-315
.315/.354					A-4193-354	A-4194-354	A-4195-354	A-4196-354	A-4197-354
.354/.394					A-4193-394	A-4194-394	A-4195-394	A-4196-394	A-4197-394
.394/.433						A-4194-433	A-4195-433	A-4196-433	A-4197-433
.433/.472						A-4194-472	A-4195-472	A-4196-472	A-4197-472
.472/.512						A-4194-512	A-4195-512	A-4196-512	A-4197-512
.512/.551							A-4195-551	A-4196-551	A-4197-551
.551/.591							A-4195-591	A-4196-591	A-4197-591
.591/.630							A-4195-630	A-4196-630	A-4197-630
.630/.669								A-4196-669	A-4197-669
.669/.709								A-4196-709	A-4197-709
.709/.748								A-4196-748	A-4197-748
.748/.787								A-4196-787	A-4197-787
.787/.827									A-4197-827
.827/.866									A-4197-866
.866/.906									A-4197-906
.906/.945									A-4197-945
.945/.984									A-4197-984
.984/1.024									A-4197-1024

Extension Collet Holders

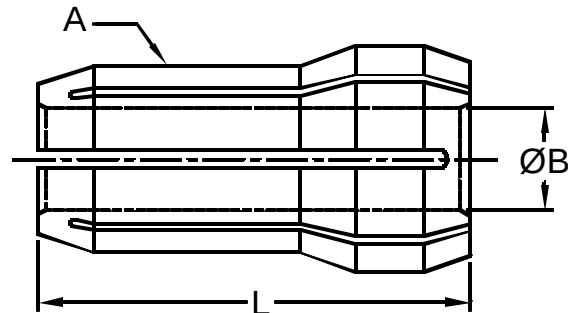
- Smallest possible O.D. permits use in narrow spaces and close spindle centers.
- A collet tightening nut and an internal backup screw is provided with each holder.
- The collets used with these holders are listed below.

Shank Dia. A	Collet Size	Projection B	Wrench Flats C	Holder Number	Nut Number
.4995	C-30	1.38	.5000	05220	05221
.7495	C-20	1.69	.6875	05225	05226
.9995	C-10	1.94	.8750	05230	05231
1.2495	C-18	1.83	1.1875	05700	05742



B Bore Size		A Collet Size			
Fraction	Decimal	C-30	C-20	C-10	C-18
3/64	.0469	05236	05235	05189	05695
1/16	.0625	05237	05250	05190	05696
5/64	.0781	05238	05251	05191	05697
3/32	.0938	05239	05252	05192	05698
7/64	.1094	05240	05253	05193	05699
1/8	.1250	05241	05254	05194	05701
9/64	.1406	05242	05255	05195	05702
5/32	.1562	05243	05256	05196	05703
11/64	.1719	05244	05257	05197	05704
3/16	.1875	05245	05258	05271	05705
13/64	.2031	05246	05259	05272	05706
7/32	.2188	05247	05260	05273	05707
15/64	.2344	05248	05261	05274	05708
1/4	.2500	05249	05262	05275	05709
17/64	.2656	-	05263	05276	05710
9/32	.2812	-	05264	05277	05711
19/64	.2969	-	05265	05278	05712
5/16	.3125	-	05266	05279	05713
21/64	.3281	-	05267	05280	05714
11/32	.3438	-	05268	05281	05715
23/64	.3594	-	05269	05282	05716
3/8	.3750	-	05270	05283	05717
25/64	.3906	-	-	05284	05718
13/32	.4062	-	-	05285	05719
27/64	.4219	-	-	05286	05720
7/16	.4375	-	-	05287	05721
29/64	.4531	-	-	05288	05722
15/32	.4688	-	-	05289	05723
31/64	.4844	-	-	05290	05724
1/2	.5000	-	-	05291	05725
33/64	.5156	-	-	05292	05726
17/32	.5312	-	-	05293	05727
35/64	.5469	-	-	05294	05728
9/16	.5625	-	-	05295	05729
37/64	.5781	-	-	-	05730
19/32	.5938	-	-	-	05731
39/64	.6094	-	-	-	05732
5/8	.6250	-	-	-	05733
41/64	.6406	-	-	-	05734
21/32	.6563	-	-	-	05735
43/64	.6719	-	-	-	05736
11/16	.6875	-	-	-	05737
45/64	.7031	-	-	-	05738
23/32	.7188	-	-	-	05739
47/64	.7344	-	-	-	05740
3/4	.7500	-	-	-	05741
Length: - L		1.00	1.19	1.44	1.63

Double-Angle Collets

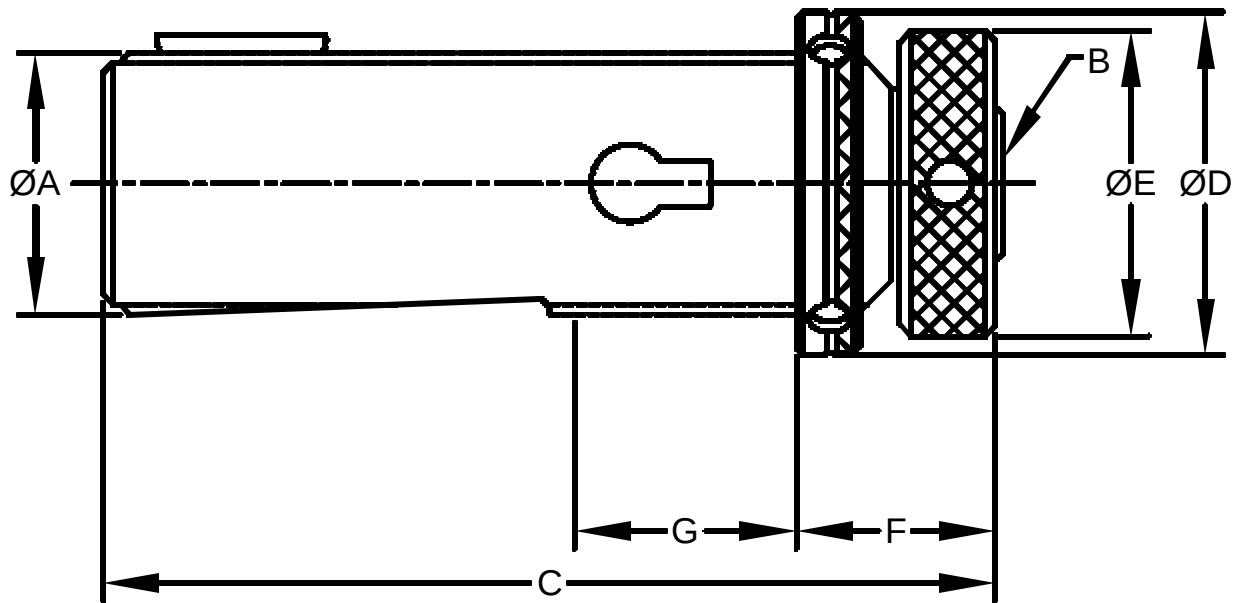


Double-Angle Collet Sets

Collet Size	Span	Collet Step	Set Qty.	No.
C-30	.047 - .250	64ths	14	05780
C-30	.063 - .250	32nds	7	05781
C-20	.047 - .375	64ths	22	05770
C-20	.063 - .375	32nds	11	05771
C-10	.047 - .563	64ths	34	05760
C-10	.063 - .563	32nds	17	05761
C-18	.047 - .750	64ths	46	05790
C-18	.063 - .750	32nds	23	05791

Solid Drill Drivers

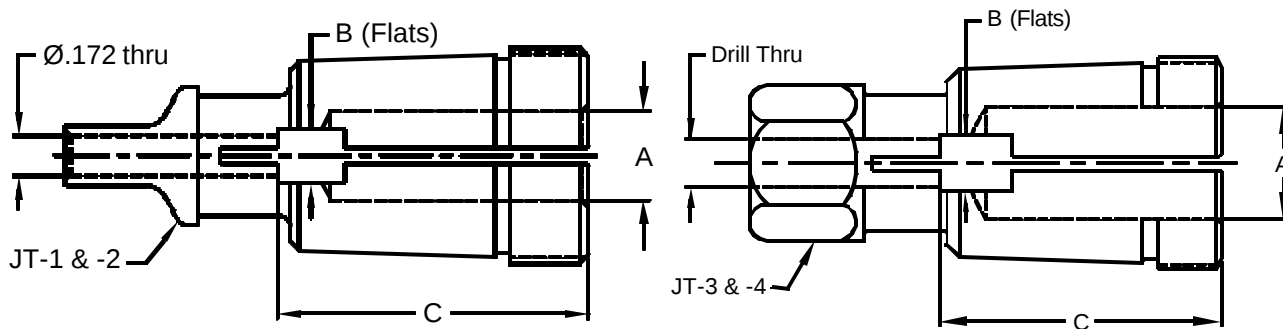
- JT drill chucks, shown on page 30, provide positive drive of drills in machines equipped with spindles which conform to ANSI / ASME Standard B 5.11.
- Mating tapers assure minimum runout.
- Axial adjustments “G” using Quick-Lock Nut “D” give precise, repeatable presets of the cutter tip.
- The Quick-Lock Nuts shown here are easily replaced by Nuts shown on page 17 for use with Spindle-Nose Quick-Change Adapters.



Shank Size A	JT Chuck Size B	Overall Length C	O. L. Nut Dia. D	Chuck Nut Dia. E	Projection		Assembly Number
					Minimum F	Adjust G	
.75-12	1	3.62	1.25	1.25	1.12	.88	27100
.88-12	1	4.12	1.25	1.25	1.03	1.12	27110
1.00-12	1	4.12	1.50	1.25	1.03	1.12	27120
1.06-12	1	4.12	1.56	1.25	1.03	1.12	27130
1.06-12	2	4.16	1.56	1.62	1.16	1.12	27160
1.38-12	2	5.16	1.88	1.62	1.16	1.25	27170
1.38-12	3	5.25	1.88	2.12	1.12	1.25	27180
1.88-12	3	6.25	2.62	2.12	1.47	1.25	27190

Drill Chucks

- Ideal for gripping any cylindrical shank tool which has a drive tang conforming to the dimensions in the chart.
- These chucks have thru-holes to permit free flow of coolant.
- The thread on the outside of each chuck is engaged by the chucking nut, which spins freely on the holder body. Turning the nut either jacks the chuck firmly into its mating taper, or quickly draws the chuck out of the taper to release the cutter shank.
- Careful slotting assures uniform collapse, which gives a strong grip.



Drill Shank Sizes		Drill Tang Sizes		Depth Inside Chuck C	Part Number			
Nominal	A Decimal	Max. Thick. B	Length		JT-1	JT-2	JT-3	JT-4
31	.1200	-	-	.75	11239	-	-	-
1/8	.1250	.094	.28	.88	11210	-	-	-
24	.1520	.094	.28	.88	11240	-	-	-
5/32	.1562	.094	.28	.88	11214	-	-	-
15	.1800	.094	.28	.88	11237	-	-	-
3/16	.1875	.094	.28	.88	11216	-	-	-
13/64	.2031	.122	.31	1.00	11203	-	-	-
4	.2090	.122	.31	1.00	11220	11425	-	-
3	.2130	.122	.31	1.00	11221	-	-	-
7/32	.2187	.122	.31	1.00	11222	-	-	-
C	.2420	.122	.31	1.00	11241	11424	-	-
1/4 - E	.2500	.122	.31	1.00	11223	11410	-	-
9/32	.2812	.162	.34	1.12	11205	11402	-	-
5/16	.3125	.162	.34	1.12	11206	11403	-	-
11/32	.3437	.203	.38	1.25	11232	-	-	-
3/8	.3750	.203	.38	1.25	11207	11404	-	-
7/16	.4375	.243	.44	1.38	-	11405	11551	-
1/2	.5000	.303	.50	1.44	-	11421	11555	-
9/16	.5625	.303	.50	1.44	-	11406	11552	-
5/8	.6250	.373	.56	1.59	-	-	11553	-
3/4	.7500	.443	.62	1.75	-	-	11554	11615
7/8	.8750	.514	.69	1.75	-	-	-	11616
1	1.0000	.609	.75	1.75	-	-	-	11617
1-1/4	1.2500	.817	.88	1.75	-	-	-	11618

WRENCHES



TYPE A WRENCH



TYPE B WRENCH



TYPE C WRENCH



TYPE D WRENCH

COLLET SERIES	WRENCH STYLE	PART NUMBER
ER 11	C	
ER 16	C	93225
ER 20	C	
ER 25	D	93226
ER 32	D	93227
ER 40	D	93228

Collet Holder Size		JT Chuck Size	Wrench Size		Part Number
Body	Nut		A	B	
050	-	-	1.000	-	93685
-	-	JT-1	-	1.250	93680
-	050 Hex.	-	1.250	-	95559
075	-	-	1.375	-	93686
-	-	JT-2	-	1.500	93681
100	-	-	1.750	-	93687
-	075 Hex.	-	1.875	-	95599
-	-	JT-3	-	2.000	93682
-	100 Hex.	-	2.250	-	93639
-	100 Rnd.	JT-4	-	2.500	93683
150	-	-	2.500	-	93688
-	150 Rnd.	-	-	3.250	93684

Tool Chucks

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Hydraulic Chucks for Square Shank Tools.....	36
Hydraulic Chucks for Tang Drive Tools.....	37



Scully Jones, Better-Hold Flange-Type Chucks.

Scully Jones, Better-Hold chucks are ideally suited to production machines having short, compact spindles. Offering both high-torque driving power and extreme accuracy, these chucks are ideal for milling, precision drilling, reaming and boring operations which must be performed without guide bushings.

Featuring a tapered split liner, or collet, which mates with the tapered I.D. of the chuck bore, Better-Hold chucks offer from three to five times the holding power of conventional split collet. When the Lock- Eject nut is tightened the collet is drawn firmly into the bore of the chuck, virtually eliminating the possibility of tool pull-out and near-perfect concentricity and rigidity are assured. When the Lock-and -Eject nut is tightened, there is sufficient holding power to transmit virtually any required torque. However, to guard against the event of an operator failing to properly tighten the nut, all Better-Hold chucks offer positive drive of either square shank or tapered tools.

Using the Lock-and-Eject nut means tool changes are fast and easy. A clockwise turn of the nut applies a powerful and accurate centering fit on the shank of the cutting tool. A counterclockwise turn-as the name implies-ejects the tool from the grip of the tapered liner, and allows it to be easily removed.

By providing a stop within the spindle and an adjustable back-up screw on the shank of the cutting tool, tools are easily preset to length, off the machine. This eliminates time-consuming machine-side adjustments and further cuts tool-change downtime.

Using the Better-Hold flange-type chucks, tool runout is guaranteed to be no more than .002" T.I.R at up to 5.00" from the chuck nose

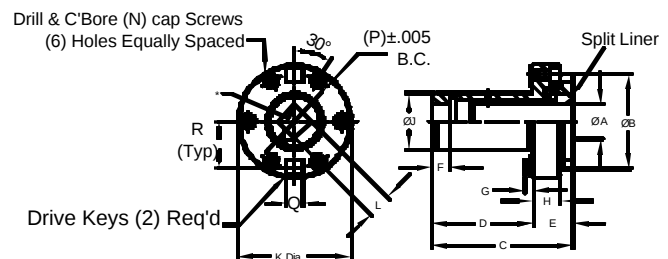
Better-Hold Chucks for Square Shank Tools

FEATURES

- Runout less than .002" TIR at 5.00" from the chuck nose.
- Lock and Eject nuts offer fast tool changing.
- Rugged construction assures long life, reliability.

HOW TO ORDER

- Order By part number.
- Longer flats available at additional cost.

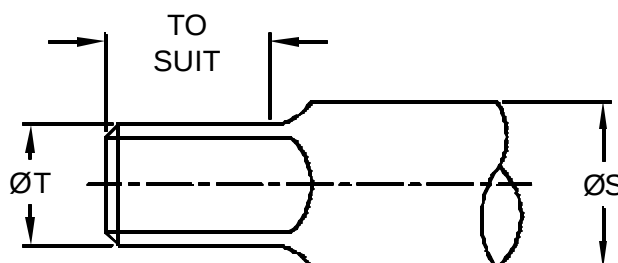


Assy. No.	Chuck Dia. A	Nut Dia. B	Overall Length C	Projection Into Spindle D	Projection From Spindle E	Drive Length F	Drive Key Length G	Flange Width H
41700	1.00	2.75	4.75	3.31	1.44	.62	.25	1.00
41710	1.25	3.25	5.00	3.56	1.44	.62	.25	1.00
41720	1.50	3.50	5.00	3.56	1.44	.62	.25	1.00
41730	1.75	3.75	5.12	3.69	1.44	.62	.25	1.00
41740	2.00	4.00	5.12	3.69	1.44	.62	.25	1.00
41750	2.25	4.25	5.12	3.69	1.44	.62	.25	1.00
41760	2.50	4.62	5.12	3.69	1.44	.62	.31	1.00
41770	3.00	5.25	6.12	4.69	1.44	.88	.31	1.00

Assy. No.	Liner No.	Pilot Dia. J	Flange Dia. K	Square Drive L	Screw Size N	Bolt Circle P	Drive Key Square Q	Drive Key Location R
41700	41703	1.8747 1.8744	3.38	.760 .775	.31	2.75	.500	1.38
41710	41713	1.9997 1.9994	3.88	.905 .915	.31	3.25	.500	1.62
41720	41723	2.2497 2.2494	4.12	1.030 1.040	.31	3.50	.500	1.75
41730	41733	2.7497 2.7494	4.38	1.280 1.290	.31	3.75	.500	1.87
41740	41743	2.9997 2.9994	4.62	1.655 1.665	.31	4.00	.500	2.00
41750	41753	3.3747 3.3744	4.88	1.655 1.665	.31	4.25	.500	2.12
41760	41763	3.7497 3.7494	5.38	1.655 1.665	.38	4.62	.625	2.31
41770	41773	4.4997 4.4994	6.00	2.030 2.040	.38	5.25	.625	2.62

.125" radius for Nos. 41700 through 41730, .188" radius for Nos. 41740, .250" radius for Nos. 41750 through 41770

Specifications for Tool Shank



For Tool No.	Shank	Diameter	Recommended Square On Shank	
	S Max.	S Min.	T Max.	T Min.
41700	.9995	.9990	.740	.730
41710	1.2495	1.2490	.865	.855
41720	1.4995	1.4990	.990	.980
41730	1.7495	1.7490	1.240	1.230
41740	1.9995	1.9990	1.615	1.605
41750	2.2495	2.2490	1.615	1.605
41760	2.4995	2.4990	1.615	1.605
41770	2.9995	2.9990	1.990	1.980

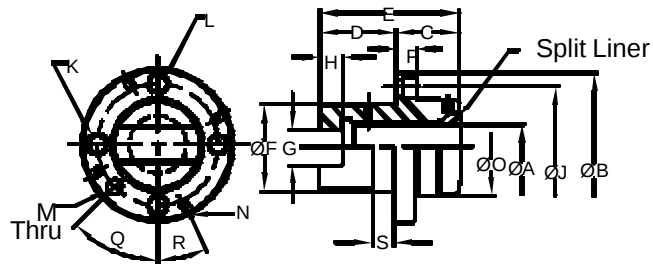
Better-Hold Chucks for Tang Drive Tools

FEATURES

- Runout less than .002" TIR at 5.00" from the chuck nose.
- Lock and Eject nuts offer fast tool changing.
- Rugged construction assures long life, reliability.

HOW TO ORDER

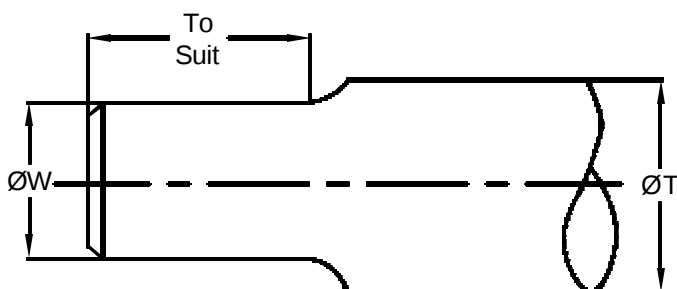
- Order by part number.
- See below for recommended tool shank specifications for optimum performance



Assy. No.	Chuck Dia. A	Flange Dia. B	Projection From Spindle C	Projection Into Spindle D	Overall Length E	Pilot Dia. F	Tang Drive Width G	Tang Drive Length H	Mounting Hole Diameter Bolt Circle J+.005	Screw Size K	No. of Holes L
41600	1.00	3.12	1.47	1.25	2.72	1.9997 1.9994	.687 .697	.56	2.500	.31	4
41610	1.25	3.88	1.62	1.94	3.56	2.2497 2.2494	.875 .885	.69	3.125	.38	4
41620	1.50	4.25	1.91	2.06	3.97	2.3747 2.3744	1.046 1.056	.75	3.500	.38	4
41630	1.75	4.62	1.91	2.12	4.03	2.6247 2.6244	1.187 1.197	.81	3.875	.38	4
41640	2.00	5.00	1.97	2.38	4.34	2.9997 2.9994	1.343 1.353	.88	4.250	.38	6
41650	2.25	6.25	2.41	2.75	5.16	3.7497 3.7494	1.656 1.666	1.06	5.375	.50	6

Assy. No.	Liner No.	Pin Hole Dia. M	Wrench Hole Dia. N	Nut Dia. O	Flange Width P	Wrench & Pin Hole Location Q	R	Pilot Length S
41600	41013	.34*	.31	2.06	.56	45°	25°	.44
41610	41023	.41	.31	2.50	.56	45°	25°	.50
41620	41033	.41	.38	2.94	.62	45°	25°	.50
41630	40143	.41	.38	3.28	.62	45°	25°	.50
41640	41053	.41	.38	3.62	.62	30°	15°	.50
41650	41063	.53	.55	4.56	.75	30°	15°	.62

Specifications for Tool Shank



For Tool No.	Shank Diameter T. Max.	T. Min.	Tang +.0000 W -.0156
41600	.9995	.9990	.625
41610	1.2495	1.2490	.812
41620	1.4995	1.4990	.984
41630	1.7495	1.7490	1.125
41640	1.9995	1.9990	1.281
41650	2.4995	2.4990	1.594

Scully-Jones Hydraulic Tooling

Scully-Jones hydraulic tooling offers 50% more gripping power than mechanical devices. Further, runout is kept to an absolute minimum due to the large concentric gripping surfaces.

Utilizing integral, screw actuated hydraulic pistons, this tooling needs no loose components such as collets or liners. They are ideal for high- pressure through-coolant applications.

Standard tooling is available for O.D gripping of diameters from 1" to nearly 6". While there is no practical maximum diameter for which a special can be made, the minimum is about .375".

These Scully-Jones tools lend themselves to round tool or workpiece gripping, for operations such as turning, boring, drilling, grinding, gaging and inspection. Runout will not exceed .0005" T.I.R at 5.0" projection.

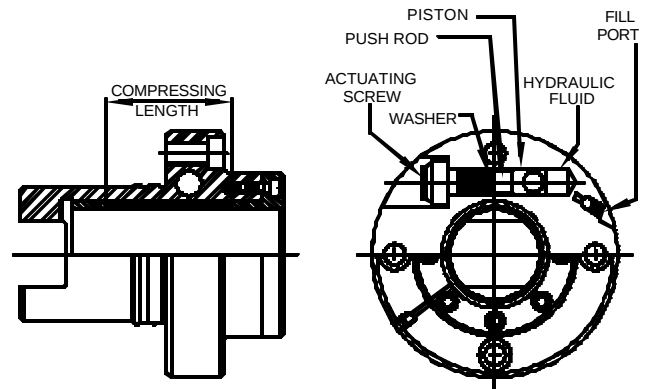
S-J Hydraulic Mandrels

Mandrels, because of their precise workpiece holding and rotating capabilities, are used on OD grinders for between centers operations and on 4th axis machining centers. They are the optimal holders for usage in turning, gaging, and inspection operations. Runout is held to within 0.0002" TIV between centers.

- **Made to order.**

All mandrels are custom manufactured to your needs. They may employ single or multiple diameters:

Our lead time is only 10-12 weeks!



Why Choose hydraulic holders?

- **Precision**
Hydraulics are the most accurate holders available for cylindrical shank cutting tools and round work parts.
- **Gripping Strength**
Cutting tools stay firmly and accurately seated throughout their operations.
- **Repeatability**
Hydraulic holders assure repeatable cuts.
- **Rigidity**
Tool shanks are uniformly enveloped by an Expansion sleeve. Extreme concentricity of grip assures utmost rigidity.
- **Positive Coolant Sealing.**
The chuck design absolutely seals the tool shank for coolant flow-thru applications.
- **Quick Change**
Gripping and releasing are done in a flash, just by turning an actuating screw.

- **Dead Stop Grip**

The actuating screw is designed to bottom out-it can't be overtightened. Packed with specifically formulated molydisulfide grease not oil. We deliver 18,000 PSI of raw gripping power!

- **Accuracy and Repeatability**

Each holder is guaranteed to within 0.0005" TIV at 5" from the face without indicating every time!

- **No Leaks**

Our self-contained hydraulic reservoirs employ precise taper press-fit seals which positively prevent fluid leakage.

Why Choose S-J hydraulic holders?

- **Aircraft Steel Construction**
Thru-hardened and tempered steels assure years of trouble-free service... and every holder is rebuildable.

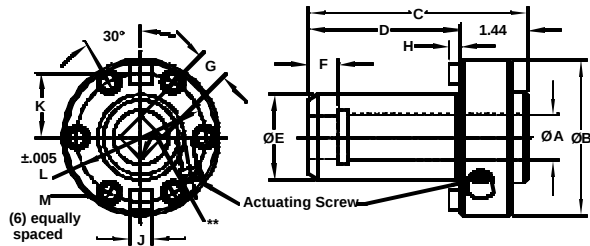
Flange Mount Hydraulic Chucks with Square Drive

FEATURES

- Highest grip force.
- No loose parts in bore to be lost or replaced.

HOW TO ORDER

- Order by part number.
- See below for recommended tool shank specifications for optimum performance.



Assembly Number	Bore Dia. A	Flange Dia. B	Length C	Spindle Entry D	Actuated Pilot Dia. + .000 - .0003 E	Drive Length F
64150	1.00	3.38	4.75	3.31	1.8747	.62
64155	1.25	3.88	5.00	3.56	1.9997	.62
64160	1.50	4.12	5.00	3.56	2.2497	.62
64165	1.75	4.38	5.12	3.69	2.7497	.62
64170	2.00	4.62	5.12	3.69	2.9997	.62
64175	2.25	4.88	5.12	3.69	3.3747	.62
64180	2.50	5.38	5.12	3.69	3.7497	.62
64185	3.00	6.00	6.12	4.69	4.4997	.88

Assembly Number	Chuck Square G		Height H	Drive Keys Square J	Location K	Mounting Bolt Circle L	Bolt M	Fill Adapter No.***
	Min.	Max.						
64150	.760	.775	.25	.500	1.38	2.75	.31	64002
64155	.905	.915	.25	.500	1.62	3.25	.31	64002
64160	1.030	1.040	.25	.500	1.75	3.50	.31	64002
64165	1.280	1.290	.25	.500	1.88	3.75	.31	64002
64170	1.655	1.665	.25	.500	2.00	4.00	.31	64002
64175	1.655	1.665	.25	.500	2.12	4.25*	.31	64002
64180	1.655	1.665	.31	.625	2.31	4.62*	.38	64003
64185	2.030	2.040	.31	.625	2.62	5.25*	.38	64003

* 5 holes based on 6 equally spaced

** 125" radius for 64150 through 64165, .188" radius for 64170 and .250 radius for 64175 through 64185

*** For refill: Follow instructions described in "Care and Maintenance" sheet shipped with each chuck.

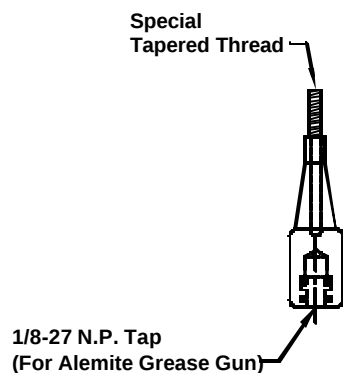
Use grease No. 64290.

Measure pilot diam, when a test plug equal to bore diam has been chucked.

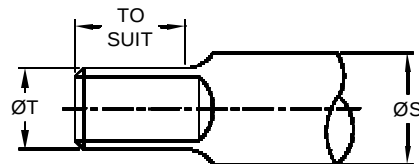
Fill Adapter

HOW TO ORDER

- Order by part number.
- See chart and ***note above



Specifications: For Tool Shank



Chuck Number	Shank Dia.		Shank Square	
	S Max.	S Min.	T Max.	T Min.
64150	.9997	.9994	.740	.730
64155	1.2497	1.2494	.865	.855
64160	1.4997	1.4994	.990	.980
64165	1.7497	1.7494	1.240	1.230
64170	1.9997	1.9994	1.615	1.605
64175	1.2497	1.2494	1.615	1.605
64180	1.4997	1.4994	1.615	1.605
64185	2.9997	2.9994	1.990	1.980

HYDRAULIC CHUCKS



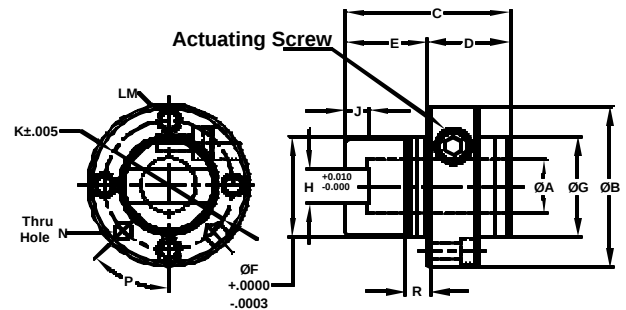
Flange Mount Hydraulic Chucks with Tang Drive

FEATURES

- Highest grip force.
- No loose parts in bore to be lost or replaced.
- Concentric gripping for extremely low runout.

HOW TO ORDER

- Order By part number.
- See below specifications for optimum performance.



Assy. No.	Bore Dia. A	Flange Dia. B	Length C	Proj. D	Spindle Entry E	Actuated Pilot Dia. F# +.0000 -.0003	Nose Dia. G
64100	1.00	3.12	3.12	1.88	1.26	1.9997	2.00
64105	1.25	3.88	4.00	1.88	2.12	2.2497	2.50
64110	1.50	4.25	4.38	2.00	2.38	2.3747	2.88
64115	1.75	4.62	4.50	2.12	2.38	2.6247	3.12
64120	2.00	5.00	5.00	2.62	2.38	2.9997	3.50
64125	2.50	6.25	6.25	3.50	2.75	3.7497	4.25

Measure pilot diam. when a test plug equal to bore diam. has been chucked.

Assy. No.	Tang Drive		B.C. K	Bolt L	No. M	Size N	Pos. P	Pilot Length R	Fill Adaptor Number
	Width H	Length J							
64100	.688	.56	2.50	.31	4	.34	45°	.44	64003
64105	.875	.69	3.12	.38	4	.41	45°	.50	64003
64110	1.047	.75	3.50	.38	4	.41	45°	.50	64003
64115	1.188	.81	3.88	.38	4	.41	45°	.50	64003
64120	1.344	.88	4.25	.38	6	.41	30°	.50	64002
64125	1.656	1.12	5.38	.50	6	.53	30°	.62	64003

* The pin hole on chuck 64100 only is located on 2.56" diameter.

** For refill: Follow instructions described in "Care and Maintenance" sheet shipped with each chuck.
Use grease No. 64290.

Fill Adapter

HOW TO ORDER

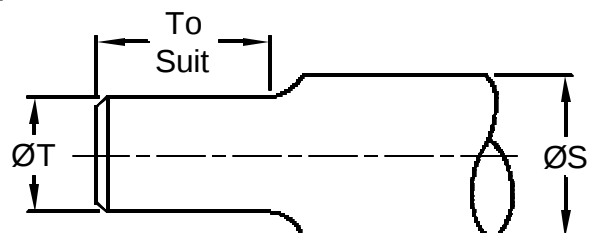
- Order By part number.
- See chart and ** note above

Special Tapered Thread



1/8-27 N.P. Tap
(For Alemite Grease Gun)

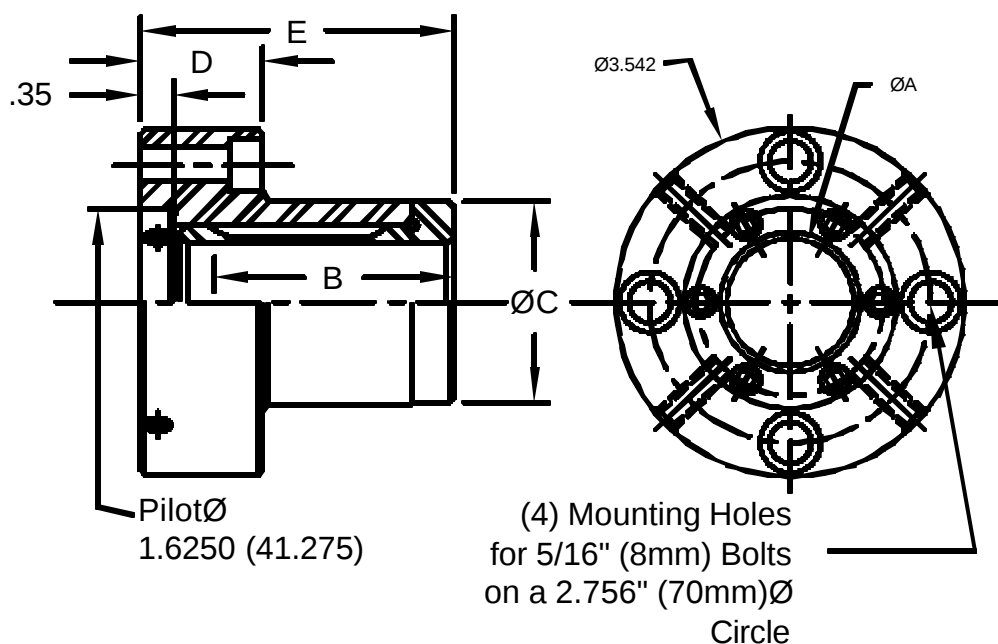
Specification For Tool Shank



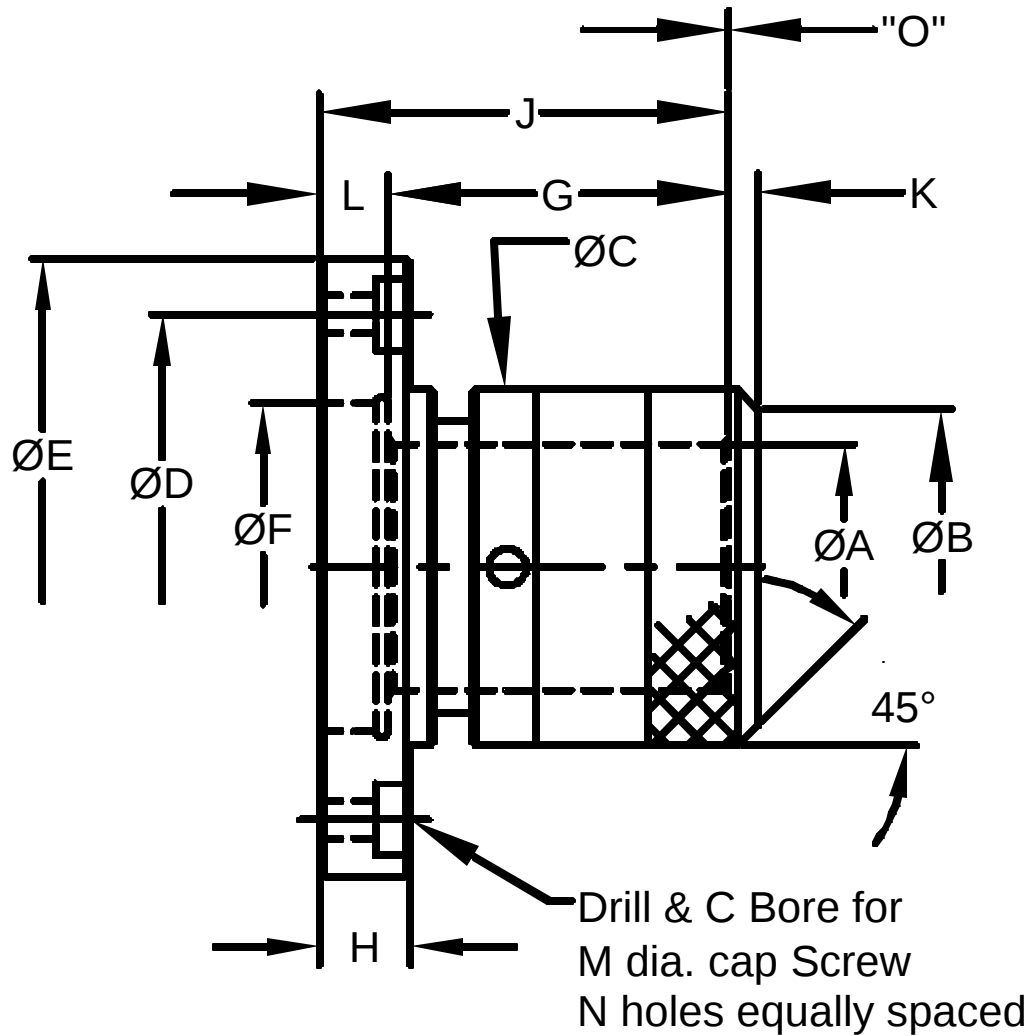
For Chuck No.	Shank Diameter		Tang T +0.000 -.0156
	S. Max.	S. Min.	
64100	.9997	.9994	.625
64105	1.2497	1.2494	.812
64110	1.4997	1.4994	.984
64115	1.7497	1.7494	1.125
64120	1.9997	1.9994	1.281
64125	2.4997	2.4994	1.594

External Spindle-Nose Pilot, Flange Mount

- Rebuildable -- not a welded throwaway.
 - Self-contained sealed hydraulic system grips with 10,000 psi. Internal stop prevents over tightening.
 - Sealed gripping surface makes these chucks ideal for gundrilling and other high pressure coolant-through applications.
 - Straight smooth bore allows unrestricted precise tool presetting with no axial movement while clamping.
 - Runout is held to less than .0005" at 5.00" projection from the chuck face.
 - Can be balanced to G2.5 at 30,000 rpm (G1.0 at 12,000 rpm) upon request.
- The following 'rules' must be observed to prevent damage to the chuck:
 1. Never remove the actuating screw.
 2. Never turn the actuating screw on an empty chuck.
 3. Make sure the chuck bore and the cutter shank are clean.
 4. Cutter shanks must be void of grooves, slits, nicks, slots, or flats.
 5. Cutter shanks must be inserted at least the length of "B" in the chart.

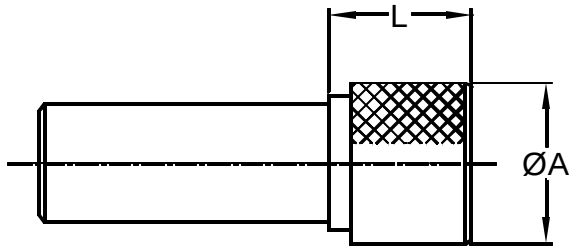


Assembly Number	Bore Dia. A	Minimum Insertion B	Nose Dia. C	Flange Thickness D	Overall Length E
64300	.5000	1.67	1.614	1.25	2.52
64305	.5625	1.67	1.614	1.25	2.52
64310	.6250	1.67	1.614	1.25	2.52
64315	.7500	1.97	1.969	1.25	2.84
64320	.8750	1.97	1.969	1.25	2.84
64325	1.0000	2.11	2.106	1.25	2.96
64330	1.2500	2.40	2.130	1.50	3.25



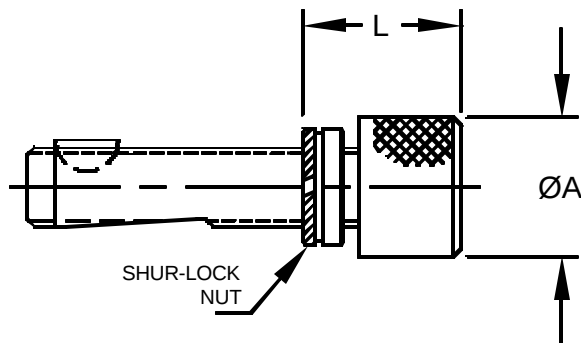
A +.0002 -.0000	B	C	D	E +.0000 -.0004	F +.0002 -.0000	G	H	J	K	L	M	N	Roll-Lock Chuck No.
.5000	.88	1.12	1.378	1.9687	.7500	1.75	.39	2.00	.09	.25	#10	4	15500
.6250	1.12	1.38	2.756	3.5435	1.6250	2.03	.59	2.38	.12	.35	.312	4	15520
.7500	1.38	1.69	2.756	3.5435	1.6250	2.24	.59	2.59	.19	.35	.312	4	15540
.8750	1.50	1.88	2.756	3.5435	1.6250	2.24	.59	2.59	.14	.35	.312	4	15560
1.0000	1.62	2.12	2.756	3.5435	1.6250	2.49	.59	2.84	.25	.35	.312	4	15580
1.2500	2.00	2.62	2.756	3.5435	1.6250	2.74	.59	3.09	.19	.35	.312	4	15600
Recommended Shaft Diameter for Maximum Accuracy: Nominal "A" Diameter -.0002 / -.0005 Runout Max: .0005 T.I.R. at projection = 4 x "A" Diameter Measured from "O" Surface.													
Note: Due to the extreme pressures generated by mechanical forces in Roll-Lock Tools: It is necessary to use a solid shank, free of notches or flats.													

SI Quick Change Tapholders Straight Shank



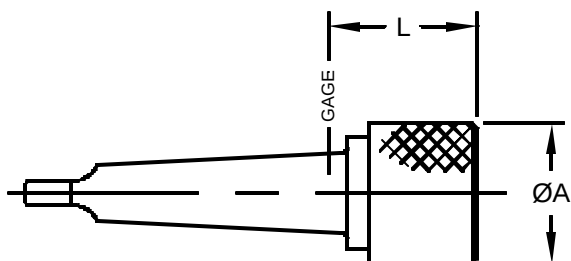
Part Number	Holder Size	Tap Sizes	A Diameter	L Length	Shank
8406401-009 8406402-009	0	0 to 1/4	.875	1.450	1/2 3/4
8416401-009 8416402-009 8416403-009	1	0 to 1/2	1.250	1.605	3/4 1" 1-1/4
8426402-009 8426403-009 8426404-009	2	5/16 to 7/8	1.980	2.475	1" 1-1/4 1-1/2
8436403-009 8436404-009	3	13/16 to 1-3/8	2.835	3.555	1-1/2 2"

SI Quick Change Tapholders Acme Shank



Part Number	Holder Size	Tap Sizes	A Diameter	L Length	Shank
8401401-009 8401402-009	0	0 to 1/4	.875	1.890	5/8 x 16 3/4 x 12
8411401-009 8411402-009 8411405-009	1	0 to 1/2	1.250	2.043	5/8 x 16 3/4 x 12 1-1/16 x 12
8421405-009 8421406-009	2	5/16 to 7/8	1.980	2.913	1-1/16 x 12 1-3/8 x 12
8431406-009	3	13/16 to 1-3/8	2.835	3.883	1-3/8 x 12

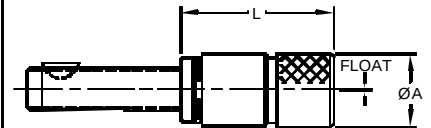
SI Quick Change Tapholders - Morse Taper Shank



Part Number	Holder Size	Tap Sizes	A Diameter	L Length	Shank
8405401-009 8405402-009	0	0 to 1/4	.875	1.575 1.637	#1 #2
8415401-009 8415402-009 8415403-009	1	0 to 1/2	1.250	1.730 1.793 1.793	#1 #2 #3
8425402-009 8425403-009 8425404-009	2	5/16 to 7/8	1.980	2.663 2.663 2.723	#2 #3 #4
8435403-009 8435404-009	3	13/16 to 1 3/8	2.835	3.743 3.805	#3 #4

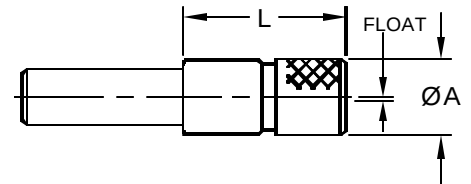
SI Quick Change Tapholders Radial - Parallel Float ACME Shank

Part Number	Holder Size	Tap Sizes	Float	A Diameter	L Length	Shank
8401300-009 8401301-009 8401302-009	0	0 to 1/4	.010	.875	2.448	1/2 x 16 5/8 x 16 3/4 x 12
8411301-009 8411302-009 8411303-009 8411304-009 8411305-009	1	0 to 1/2	.020	1.250	2.730	5/8 x 16 3/4 x 12 7/8 x 12 1 x 12 1-1/16 x 12
8421303-009 8421304-009 8421305-009 8421306-009	2	5/16 to 7/8	.040	1.980	3.863	7/8 x 12 1 x 12 1-1/16 x 12 1-3/8 x 12
8431306-009 8431307-009	3	13/16 to 1-3/8	.060	2.835	5.343 5.530	1-3/8 x 12 1-7/8 x 12



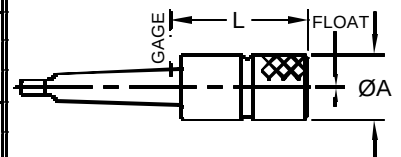
SI Quick Change Tapholders Radial - Parallel Float Straight Shank

Part Number	Holder Size	Tap Sizes	Float	A Diameter	L Length	Shank
8406301-009 8406302-009	0	0 to 1/4	.010	.875	2.011	1/2 3/4
8416301-009 8416302-009 8416303-009	1	0 to 1/2	.020	1.250	2.293	3/4 1" 1-1/4
8426302-009 8426303-009 8426304-009	2	5/16 to 7/8	.040	1.980	3.426	1" 1-1/4 1-1/2
8436303-009 8436304-009	3	13/16 to 1-3/8	.060	2.835	4.906	1-1/2 2"

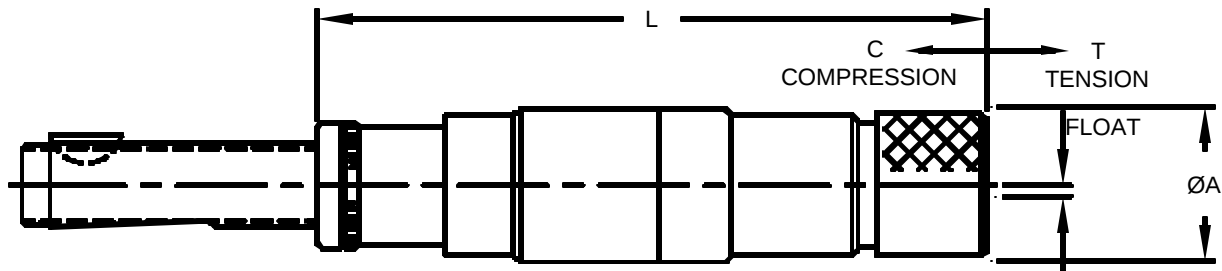


SI Quick Change Tapholders Radial - Parallel Float, Morse Taper Shank

Part Number	Holder Size	Tap Sizes	Float	A Diameter	L Length	Shank
8405301-009 8405302-009	0	0 to 1/4	.010	.875	2.136 2.199	1 2
8415301-009 8415302-009 8415303-009	1	0 to 1/2	.020	1.250	2.418 2.481 2.481	1 2 3
8425302-009 8425303-009 8425304-009	2	5/16 to 7/8	.040	1.980	3.613 3.613 3.671	2 3 4
8435303-009 8435304-009	3	13/16 to 1-3/8	.060	2.835	5.093 5.156	3 4

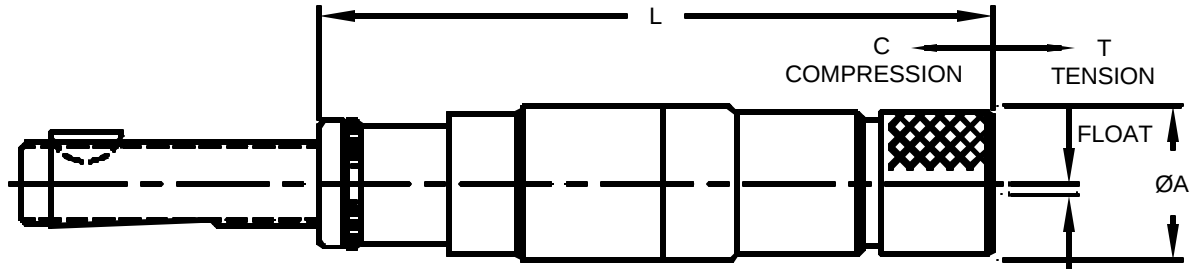


SI Quick Change Compression - Tension Tapholders Radial - Parallel Float ACME Shank



PART NO.	HLDR. SIZE	TAP SIZES	FLOAT	A DIAMETER	C COMP	T TENS	L LENGTH	SHANK
8401010-009 8401011-009 8401012-009	0	0 TO 1/4	.010	.875	0.875	-	5.639	1/2 X 16 5/8 X 16 3/4 X 12
8401020-009 8401021-009 8401022-009					1.187	-	5.795	1/2 X 16 5/8 X 16 3/4 X 12
8401210-009 8401211-009 8401212-009					0.790	0.396	5.399	1/2 X 16 5/8 X 16 3/4 X 12
8401220-009 8401221-009 8401222-009					0.593	0.593	5.200	1/2 X 16 5/8 X 16 3/4 X 12
8401120-009 8401121-009 8401122-009					-	1.187	4.608	1/2 X 16 5/8 X 16 3/4 X 12
8411021-009 8411022-009 8411023-009 8411024-009 8411025-009	1	0 TO 1/2	.020	1.375	1.170	-	6.782	5/8 X 16 3/4 X 12 7/8 X 12 1 X 12 1-1/16 X 12
8411031-009 8411032-009 8411033-009 8411034-009 8411035-009					1.560	-	6.980	5/8 X 16 3/4 X 12 7/8 X 12 1 X 12 1-1/16 X 12
8411231-009 8411232-009 8411233-009 8411234-009 8411235-009					1.166	0.396	6.587	5/8 X 16 3/4 X 12 7/8 X 12 1 X 12 1-1/16 X 12
8411241-009 8411242-009 8411243-009 8411244-009 8411245-009					0.781	0.781	6.200	5/8 X 16 3/4 X 12 7/8 X 12 1 X 12 1-1/16 X 12
8411131-009 8411132-009 8411133-009 8411134-009 8411135-009					-	1.562	5.420	5/8 X 16 3/4 X 12 7/8 X 12 1 X 12 1-1/16 X 12

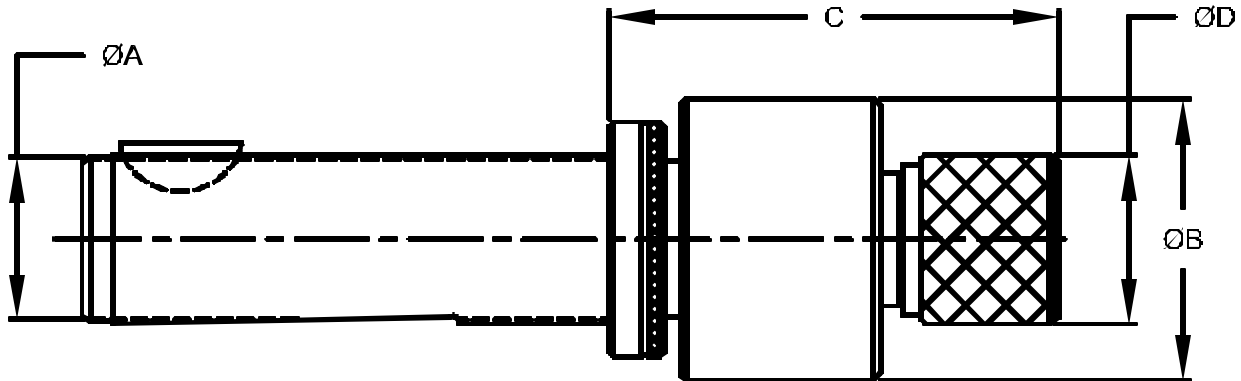
SI Quick Change Compression - Tension Tapholders Radial - Parallel Float ACME Shank



PART NO.	HLDR. SIZE	TAP SIZES	FLOAT	A DIAMETER	C COMP	T TENS	L LENGTH	SHANK
8421023-009 8421024-009 8421025-009 8421026-009	2	5/16 TO 7/8	.040	1.980	1.090	-	7.853	7/8 X 12 1 X 12 1-1/16 X 12 1-3/8 X 12
8421033-009 8421034-009 8421035-009 8421036-009					1.560	-	8.098	7/8 X 12 1 X 12 1-1/16 X 12 1-3/8 X 12
8421233-009 8421234-009 8421235-009 8421236-009					1.166	0.396	7.704	7/8 X 12 1 X 12 1-1/16 X 12 1-3/8 X 12
8421243-009 8421244-009 8421245-009 8421246-009					0.781	0.781	7.319	7/8 X 12 1 X 12 1-1/16 X 12 1-3/8 X 12
8421133-009 8421134-009 8421135-009 8421136-009					-	1.562	6.538	7/8 X 12 1 X 12 1-1/16 X 12 1-3/8 X 12
8431026-009 8431027-009	3	13/16 TO 1 3/8	.060	2.835	0.812	-	9.930 10.117	1-3/8 X 12 1-7/8 X 12
8431036-009 8431037-009					1.562	-	10.305 10.492	1-3/8 X 12 1-7/8 X 12
8431236-009 8431237-009					1.166	.396	9.909 10.096	1-3/8 X 12 1-7/8 X 12
8431246-009 8431247-009					0.781	0.781	9.524 9.711	1-3/8 X 12 1-7/8 X 12
8431136-009 8431137-009					-	1.562	8.743 8.930	1-3/8 X 12 1-7/8 X 12

Automotive Shank, Quick-Change Tap or Reamer Holder

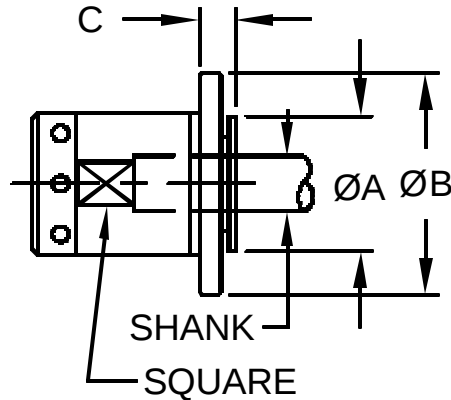
- Designed for tapping applications using standard Quick-Change Tap Adapters or for Reaming applications using ER Collet-Style Quick-Change Adapters.
- Radial Float provides positive Tap/Reamer entry- even with minor misalignment
- Balanced Spline Drive allows 360° of unrestricted radial float.
- Heavy-Duty float cage with .88 to 1.12 axial adjustment and .060 total range.
- Quick-Change front-end allows offline presetting w/5 second tool change.
- Coolant-Thru version is shown and Coolant-Induced version is also available.
- Float cage is sealed to eliminate contamination from coolant by use of our patented **“Flow-Thru”** delivery system-no rust, no “gummy” residue.
- See “Tap and Reamer Adapter” (Collet-Style) and “Q/C Tap Adapter” product sheets for full adapter options and details.



SHANK SIZE "A"	ADAPTER TYPE	TAP RANGE	PART NUMBER	MINIMUM PRJ-"C"	BODY DIA-"B"	ADAPTER DIA-"D"	THREAD TYPE
.750	Size 1	0-9/16	46604	3.18	1.75	1.25	3/4-12 ACME
.875	Size 1	0-9/16	46605	3.18	1.75	1.25	7/8-12 ACME
1.0625	Size 1	0 - 9/16	46606	3.38	2.19	1.25	1 1/16-12 ACME
1.0625	Size 2	5/16-7/8	46609	3.38	2.81	1.97	1 1/16-12 ACME
1.375	Size 2	5/16-7/8	46610	4.69	2.81	1.97	1 3/8-12
1.375	Size 3	3/4-1-3/8	46613	5.96	3.50	3.50	1 3/8-12
1.875	Size 3	3/4-1-3/8	46614	6.07	3.50	3.50	1 3/8-12

Quick-Change Adapters for Tapping

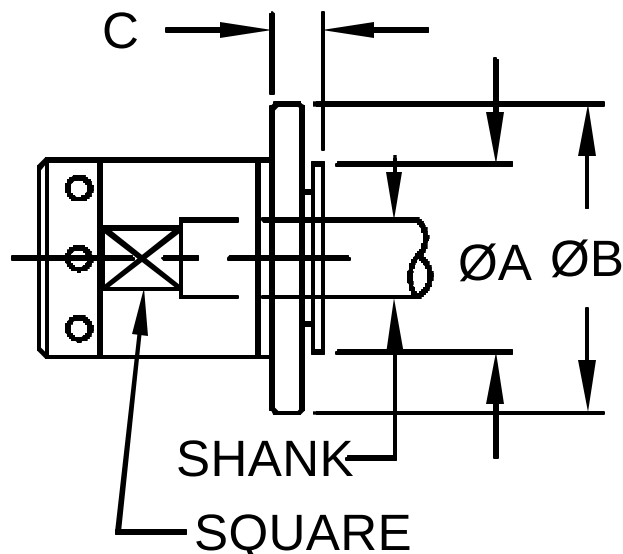
- Adapters are compatible with Bilz, Collis, Emuge, Lyndex, Seibert, TM Smith and others.
- Coolant-Thru applications may incur some leakage due to fit between tap shanks and adapters.
- Specials/Modifications available and also DIN, ISO, JIS available upon request.
- For Tang-Drive style adapters drop "B" from the part number to designate Tang-Drive.



ADAPTER SIZE	TAP SIZE	PART NUMBER	SHANK INCH	DIAMETER MM	SQUARE INCH	SQUARE MM	A	B	C	
1	0-6	21413B	0.141	3.58	0.11	2.79	0.73	1.18	0.37	
	8	21414B	0.168	4.27	0.13	3.33				
	10	21415B	0.194	4.93	0.15	3.86				
	12	21416B	0.220	5.59	0.17	4.19				
	1/4	21417B	0.255	6.48	0.19	4.85				
	5/16	21419B	0.318	8.08	0.24	6.05			0.38	
	3/8	21422B	0.381	9.68	0.29	7.26				
	7/16	21420B	0.323	8.20	0.24	6.15				
	1/2	21421B	0.367	9.32	0.28	6.99				
	9/16	21423B	0.429	10.90	0.32	8.18				
1/8 LS PIPE	21424B	0.438	11.13	0.33	8.33					
2	5/16	21425B	0.318	8.08	0.24	6.05	0.73	1.88	0.42	
	3/8	21428B	0.381	9.68	0.29	7.26				
	7/16	21426B	0.323	8.20	0.24	6.15				
	1/2	21427B	0.367	9.32	0.28	6.99				
	9/16	21429B	0.429	10.90	0.32	8.18				
	5/8	21430B	0.480	12.19	0.36	9.14	1.17		0.46	
	11/16	21431B	0.542	13.77	0.41	10.31				
	3/4	21433B	0.590	14.99	0.44	11.23				
	13/16	21434B	0.652	16.56	0.49	12.42				
	7/8	21436B	0.697	17.70	0.52	13.28				
	1/8 LS PIPE	21452B	0.438	11.13	0.33	8.33	0.73		1.17	0.38
	1/4 PIPE	21432B	0.563	14.30	0.42	10.69	0.39			
	3/8 PIPE	21437B	0.700	17.78	0.53	13.49				
	1/2 PIPE	21435B	0.688	17.48	0.52	13.08				
3	3/4	21453B	0.590	14.99	0.44	11.23	1.17	2.75	0.50	
	13/16	21438B	0.652	16.56	0.49	12.42				
	7/8	21440B	0.697	17.70	0.52	13.28				
	15/16	21441B	0.760	19.30	0.57	14.48	1.87		0.71	
	1	21442B	0.800	20.32	0.60	15.24				
	1-1/16 & 1-1/18	21443B	0.896	22.76	0.67	17.07				
	1-3/16 & 1-1/4	21445B	1.021	25.93	0.77	19.46				
	1-5/16 & 1-3/8	21450B	1.108	28.14	0.83	21.11				
	3/4 PIPE	21444B	0.906	23.01	0.68	17.25	1.89		0.46	
	1" PIPE	21451B	1.125	28.58	0.84	21.41				

Quick-Change Metric Adapters for Tapping

- Adapters are compatible with Bilz, Collis, Emuge, Lyndex, Seibert, TM Smith and others
- Coolant-Thru applications may incur some leakage due to fit between tap shanks and adapters
- Specials/Modifications available and also ANSI, ISO, JIS available upon request
- For Tang-Drive style adapters drop "B" from the part number to designate Tang-Drive

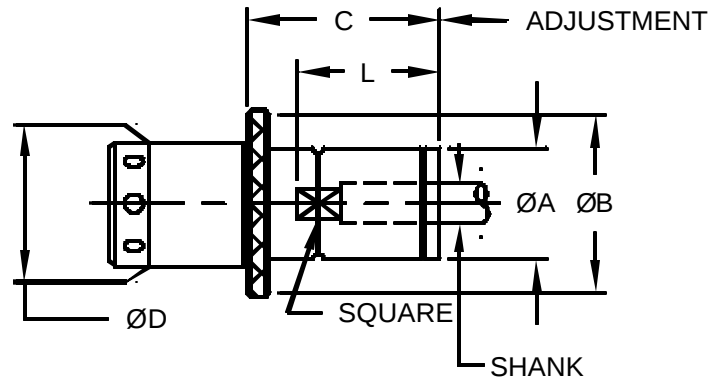


ADAPTER SIZE	PART NUMBER	SHANK INCH	DIAMETER MM	SQUARE INCH	SQUARE MM	A	B	C
1	21880B	0.138	3.5	0.106	2.7	0.73	1.18	0.29
	21881B	0.157	4.0	0.118	3.0			
	21882B	0.177	4.5	0.134	3.4			
	21883B	0.236	6.0	0.193	4.9			
	21884B	0.276	7.0	0.217	5.5			
	21885B	0.315	8.0	0.244	6.2			
	21886B	0.354	9.0	0.276	7.0			
	21887B	0.394	10.0	0.315	8.0			
2	21888B	0.236	6.0	0.193	4.9	0.73	1.88	0.29
	21889B	0.276	7.0	0.217	5.5			
	21890B	0.315	8.0	0.244	6.2			
	21891B	0.354	9.0	0.276	7.0			
	21892B	0.394	10.0	0.315	8.0			
	21893B	0.433	11.0	0.354	9.0			
	21894B	0.472	12.0	0.354	9.0			
	21895B	0.551	14.0	0.433	11.0			
	21896B	0.630	16.0	0.472	12.0			
3	21897B	0.709	18.0	0.571	14.5	1.17	2.75	0.38
	21898B	0.709	18.0	0.571	14.5			
	21899B	0.787	20.0	0.630	16.0			
	21901B	0.866	22.0	0.709	18.0			
	21902B	0.984	25.0	0.787	20.0			

ADJUSTABLE-LENGTH COOLANT-THRU

Adjustable Length, Quick-Change Tap Adapters

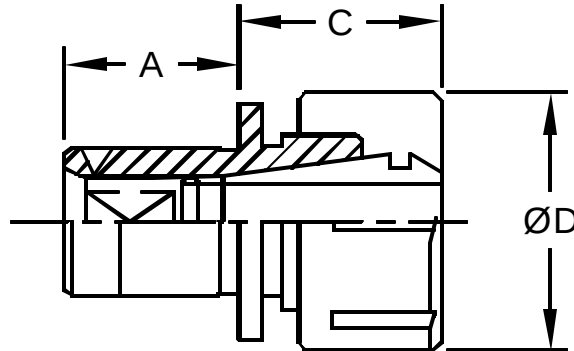
- Adjustable design allows precise presetting for blind holes and close tolerance applications.
- Compatible with all Quick-Change tap holders including Bilz, Collis, Lyndex and TM Smith.
- For Coolant-Thru applications-Note: Some leakage may occur due to Q/C shank/adapter fit.
- Available in both Tang-Drive and Ball-Drive styles. Drop "B" from part number for Tang-Drive.



PART NUMBER	ADAPTER SIZE	TAP SIZE	SHANK INCH	DIAMETER METRIC	SQUARE INCH	SQUARE MM	TAP DEPTH-L	PROJ C	ADJUSTMENT	BUSHING DIA. A	FLANGE DIA. B
21745B	1	0-6	0.141	3.58	0.110	2.79	0.71	1.39	0.39	0.75	1.18
21746B		8	0.168	4.27	0.130	3.33					
21747B		10	0.194	4.93	0.150	3.86					
21748B		12	0.220	5.59	0.170	4.19					
21749B		1/4	0.255	6.48	0.190	4.85	0.63	1.40			
21750B		5/16	0.318	8.08	0.240	6.05					
21751B		3/8	0.381	9.68	0.290	7.26					
21752B		7/16	0.323	8.20	0.240	6.15					
21753B		1/2	0.367	9.32	0.280	6.99					
21754B		9/16	0.429	10.90	0.320	8.18		0.54			
21755B	1/8 LS PIPE	0.438	11.13	0.330	8.33						
21756B	2	0-6	0.141	3.58	0.110	2.79	0.46	1.08	0.39	1.18	1.88
21757B		8	0.168	4.27	0.130	3.33					
21758B		10	0.194	4.93	0.150	3.86					
21759B		12	0.220	5.59	0.170	4.19					
21760B		1/4	0.255	6.48	0.190	4.85					
21761B		5/16	0.318	8.08	0.240	6.05	0.38	1.09			
21762B		3/8	0.381	9.68	0.290	7.26					
21763B		7/16	0.323	8.20	0.240	6.15					
21764B		1/2	0.367	9.32	0.280	6.99					
21765B		9/16	0.429	10.90	0.320	8.18					
21766B		5/8	0.480	12.19	0.360	9.14	1.15				
21767B		11/16	0.542	13.77	0.410	10.31					
21768B		3/4	0.590	14.99	0.440	11.23					
21769B		13/16	0.652	16.56	0.490	12.42					
21770B		7/8	0.697	17.70	0.520	13.28					
21771B		1/8 LS PIPE	0.438	11.13	0.330	8.33	1.54	2.31			
21772B		1/4 PIPE	0.563	14.30	0.420	10.69	1.49	2.34			
21773B		3/8 PIPE	0.700	17.78	0.530	13.49					
21774B	1/2 PIPE	0.688	17.48	0.520	13.08						

Quick-Change Collet Adapters for Tapping and Reaming

- Uses ER Collets for the highest accuracy, most clamping range and widest availability
- Adapter is compatible with Bilz, Collis, Emuge, Lyndex, Seibert, TM Smith and others
- Order collets separately and use sealed collets or coolant disk/nut system with coolant
- Specials/Modifications available and also DIN, ISO, JIS available upon request
- Collet nuts must be tightened to proper torque: 45 ft/lbs-SA16 and 100 ft/lbs-SA32
- For Tang-Drive style adapters drop "B" from the part number to designate Tang Drive



ADAPTER SIZE -TAP	TAP SIZE ANSI	PART NUMBER	COLLET (ORDER SEPERATELY)	DRIVE SCREW	TAP DEPTH A	PROJ C	NUT DIA. D
1	1/4	21940B	05448	21820-191	0.34	1.06	1.10
	5/16	21941B	05450	21820-243	0.42		
	3/8	21942B	05451	21820-286	0.42		
	7/16	21943B	05450	21820-243	0.42		
	1/2	21944B	05451	21820-286	0.42		
2	1/4	21945B	05448	21820-191	0.34	1.10	1.10
	5/16	21946B	05450	21820-243	0.42		
	3/8	21947B	05451	21820-286	0.42		
	7/16	21948B	05450	21820-243	0.42		
	1/2	21949B	05451	21820-286	0.42		
3	9/16	21950B	05089	21822-322	0.47	1.40	1.96
	5/8	21951B	05091	21822-360	0.47		
	11/16	21952B	05093	21822-406	0.59		
	3/4	21953B	05094	21822-443	0.59		
	13/16	21954B	05875	21822-489	0.84		
	7/8	21955B	05876	21822-523	0.84		

ADAPTER SIZE -REAMER	REAMER SIZE	PART NUMBER	COLLET (ORDER SEPERATELY)	DRIVE SCREW	REAMER DEPTH-A	PROJ C	DIA. D
1	3/16	21956B	ER16-XXX	21820-094	0.34	1.06	1.10
	1/4	21957B		21820-122	0.42		
	3/8	21958B		21820-162	0.42		
	7/16	21959B		21820-203	0.42		
	Stop Screw	21960B		21820	NA		
2	3/8	21961B	ER 32-XXX	21822-162	0.47	1.40	1.96
	7/16	21962B		21822-203	0.47		
	1/2	21963B		21822-243	0.59		
	5/8	21964B		21822-303	0.59		
	3/4	21965B		21822-373	0.84		
	7/8	21966B		21822-443	0.84		
	Stop Screw	21967B		21822	NA		

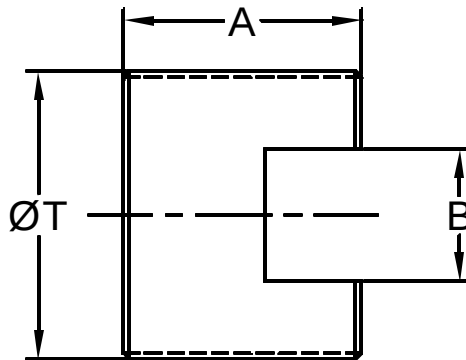
XXX - Shank size required for collet choice

SQUARE PRESET SCREWS



SQUARE DRIVE PRESET SCREWS FOR TAP AND REAMER SHANKS

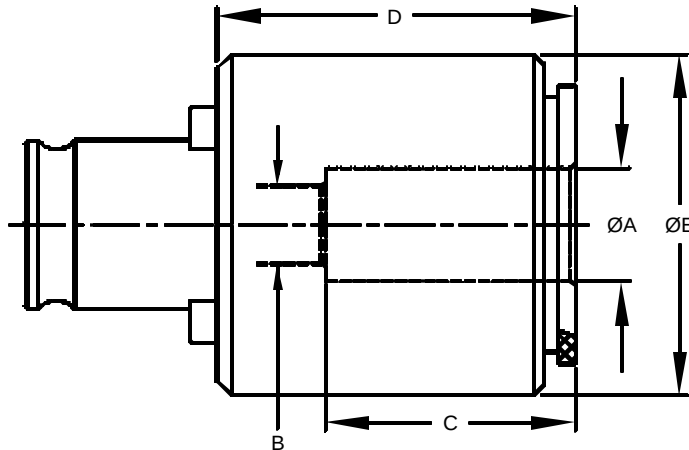
- For use with SJC Floating Holders to provide positive drive for tapping and reaming.
- Threads into tool socket of the SJC Floating Holder (use Locktite in heavy applications)
- Additional styles and sizes available upon request.



PART NUMBER	COLLET SERIES	THREAD T	SCREW LENGTH-A	MAX TANG-B	MIN TANG-B
21820-094	SA-16	7/16-20 LH	0.38	0.094	0.10
21820-122				0.122	0.10
21820-162				0.162	0.10
21820-191				0.191	0.10
21820-203				0.203	0.18
21820-243				0.243	0.18
21820-280				0.280	0.18
21821-094	SA-20	1/2-20 LH	0.50	0.094	0.10
21821-122				0.122	0.10
21821-162				0.162	0.10
21821-203				0.203	0.18
21821-243				0.243	0.18
21822-162	SA-32	7/8-14 LH	0.50	0.162	0.18
21822-203				0.203	0.18
21822-243				0.243	0.18
21822-303				0.303	0.20
21822-373				0.373	0.20
21822-406				0.406	0.20
21822-443				0.443	0.25
21822-524				0.524	0.25
21823-203	SA-40	1 1/8-16 LH	0.94	0.203	0.18
21823-243				0.243	0.18
21823-303				0.303	0.20
21823-373				0.373	0.20
21823-443				0.443	0.31
21823-514				0.514	0.50
21823-609				0.609	0.62
21824-303	TG-150	1 5/8-12 LH	1.00	0.303	0.20
21824-373				0.373	0.20
21824-443				0.443	0.31
21824-514				0.514	0.50
21824-609				0.609	0.62
21824-817				0.817	0.69

Torque - Limiting Tap Collets

- These collets are interchangeable with Bilz and similar ones made by other manufacturers.
- They are ideal for bottom-tapping operations in blind holes when using a compression holder. When the tap contacts the bottom of the hole, it stops rotating while the axial movement of the spindle is absorbed by the holder's compression stroke.
- The release-torque is factory-set to prevent breakage of the tap for which each collet is designed. Small torque adjustments can be made by experienced users to accommodate variations in tap strength and material toughness.



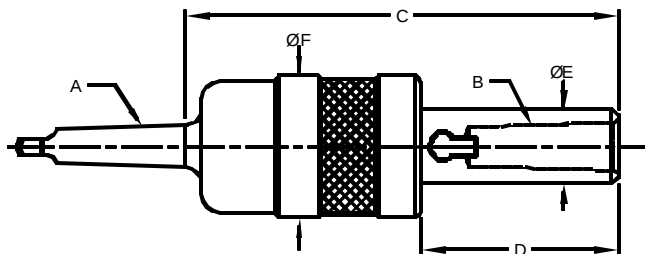
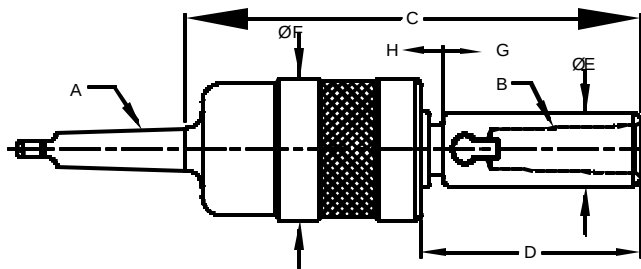
Tap Dia. A	Shank Sqr. B	TC Quick-Change Torque-Limiting Tap Collets											
		Size 1				Size 2				Size 3			
		C	D	E	No.	C	D	E	No.	C	D	E	No.
.141	.110	.85	.98	1.26	21463	-	-	-	-	-	-	-	-
.168	.131	.92	.98	1.26	21464	-	-	-	-	-	-	-	-
.194	.152	.92	.98	1.26	21465	-	-	-	-	-	-	-	-
.220	.165	.95	.98	1.26	21466	-	-	-	-	-	-	-	-
.255	.191	.95	.98	1.26	21467	-	-	-	-	-	-	-	-
.3125	.234	1.05	.98	1.26	21468	-	-	-	-	-	-	-	-
.318	.238	.98	.98	1.26	21469	1.49	1.34	1.97	21475	-	-	-	-
.323	.242	1.08	.98	1.26	21470	1.59	1.34	1.97	21476	-	-	-	-
.367	.275	1.11	.98	1.26	21471	1.62	1.34	1.97	21477	-	-	-	-
.381	.286	1.05	.98	1.26	21472	1.56	1.34	1.97	21478	-	-	-	-
.429	.322	1.17	.98	1.26	21473	1.68	1.34	1.97	21479	-	-	-	-
.4375	.328	1.05	.98	1.26	21474	-	-	-	-	-	-	-	-
.480	.360	-	-	-	-	1.74	1.34	1.97	21480	-	-	-	-
.542	.406	-	-	-	-	1.81	1.34	1.97	21481	-	-	-	-
.5625	.421	-	-	-	-	1.81	1.34	1.97	21482	-	-	-	-
.590	.442	-	-	-	-	1.87	1.34	1.97	21483	-	-	-	-
.652	.489	-	-	-	-	1.87	1.34	1.97	21484	2.42	1.77	2.83	21446
.6875	.515	-	-	-	-	1.37	1.34	1.97	21485	1.70	1.77	2.83	21447
.697	.523	-	-	-	-	1.93	1.34	1.97	21486	2.48	1.77	2.83	21488
.7000	.531	-	-	-	-	1.24	1.34	1.97	21487	-	-	-	-
.760	.570	-	-	-	-	-	-	-	-	2.48	1.77	2.83	21489
.800	.600	-	-	-	-	-	-	-	-	2.54	1.77	2.83	21490
.896	.672	-	-	-	-	-	-	-	-	2.61	1.77	2.83	21491
.9063	.679	-	-	-	-	-	-	-	-	1.55	1.65	2.83	21492
1.021	.766	-	-	-	-	-	-	-	-	2.73	1.77	2.83	21493
1.108	.831	-	-	-	-	-	-	-	-	2.79	1.77	2.83	21448
1.1250	.843	-	-	-	-	-	-	-	-	1.68	1.65	2.83	21449
Collet Sets		(12) 21523				(13) 21524				(10) 21525			

TORQUE-LIMITING DRIVERS



MT Taper Size		Proj. C	Socket		Body Diam. F	Axial Stroke		Tapping Range				Ass'y. No.
Shank A	Socket B		Length D	Diam. E		Tens. G	Comp. H	Tap From	Size To	Torque (In.-Lb.) From	To	
2	2	7.94	3.88	1.12	2.22	.50	.25	#10	1/2	50	500	16325
3	2	7.88	3.88	1.12	2.22	.50	.25	#10	1/2	50	500	16375
3	2	8.31	3.94	1.12	2.75	.50	.25	5/16	5/8	200	700	16425

Safe-Torque™, PAT Tap Drivers with Tension & Compression



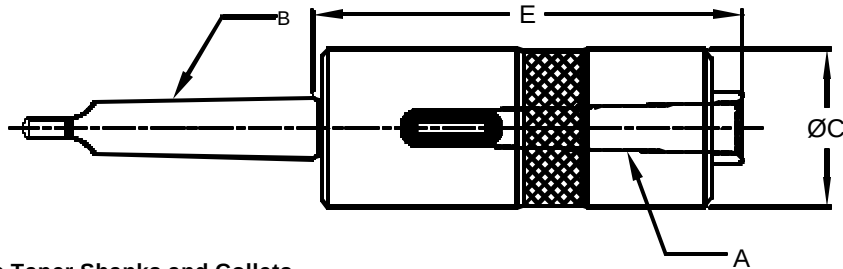
- Cam-and-roller drive clutch releases instantly when the adjustable pre-set torque is reached. Free-wheeling action after the clutch has released produces no vibration or heat. This improves thread quality, and prevents damage to the driver or the tap.
- Reversing the spindle's rotation (to extract the tap from the threaded hole) automatically re-engages the roller clutch for the next use.
- No friction components to heat up or wear out.
- The tension and compression models (above) allow the tap to act as its own leadscrew.
- The rigid models (below) are designed for blind hole bottom-tapping in machines which have precise depth control.
- This combination of features allows the user to produce the best possible threads, increasing tap life and reducing downtime.
- When using Driver No. **16500** with a 7/16" tap, a precision Sleeve No. **24104** will also be needed.

Safe-Torque™, PAT Tap Drivers

MT Taper Size		Proj. C	Socket		Body Diam. F	Tapping Range				Ass'y. No.
Shank A	Socket B		Length D	Diam. E		Tap From	Size To	Torque (In.-Lb.) From	To	
2	2	7.44	3.38	1.12	2.22	#10	1/2	50	500	16300
3	2	7.38	3.38	1.12	2.22	#10	1/2	50	500	16350
3	2	7.75	3.38	1.12	2.75	5/16	5/8	200	700	16400
3	3	8.69	4.31	1.50	2.75	7/16	1-1/8	500	1200	16500
4	4	11.62	5.31	1.88	3.69	3/4	1-1/2	1000	2400	16550

JA Floating Holders with Morse Taper Shanks and Collets

- Parallel (radial) float compensates for misalignment.
- Spline drive coupling provides free float, produces consistent results.
- Order by part number

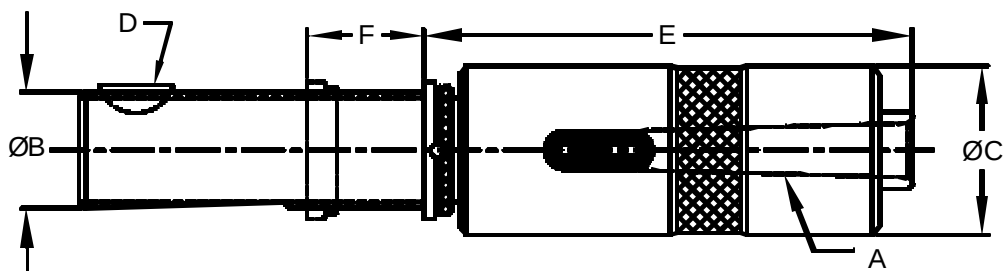


Morse Taper Shanks and Collets

Morse Taper Hole A	Shank B	Part Number	Body Diameter C	Projection E	Total Float
1	1	73180	1.50	3.62	.031/.038
2	2	73200	1.88	4.44	.031/.038
3	3	73170	2.38	5.31	.026/.036
4	4	73310	3.00	6.44	.050/.060
5	5	73550	4.31	8.12	.040/.050

JA Floating Holders with Adjustable Adapter Shanks and Morse Taper Collets

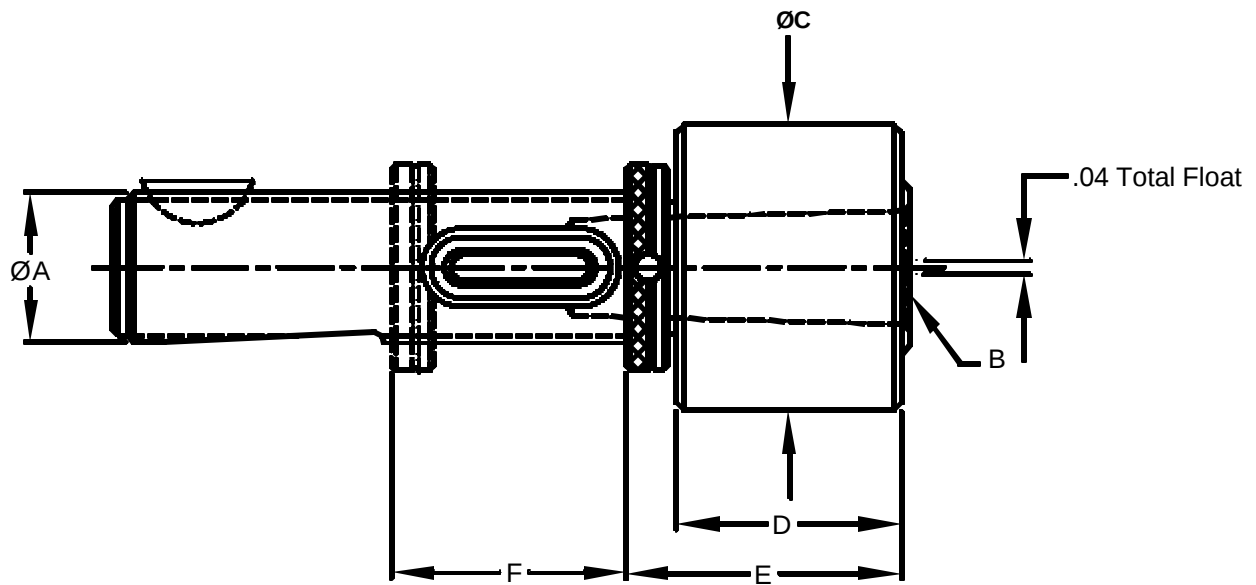
- Parallel (radial) float compensates for misalignment.
- Spline drive coupling provides free float, produces consistent results.
- Order by part number and name of tool.



Morse Taper Hole A	Shank and Thread Size B	Part Number	Body Diameter C	Key Number D	Minimum Projection E	Axial Adj. F	Total Float
1	.75-12	73402	1.50	6	4.06	.88	.031/.038
2	.75-12	73410	1.88	6	4.81	.88	.031/.038
2	.88-12	73411	1.88	9	4.81	1.00	.031/.038
2	1.00-12	73412	1.88	11	4.81	1.00	.031/.038
2	1.06-12	73413	1.88	11	4.81	1.00	.031/.038
3	1.06-12	73421	2.38	11	5.81	1.00	.026/.036

JAS Floating Holders with Adjustable Adapter Shanks and Morse Taper Sockets

- Oversize thrust bearings hold the cutting tool axis parallel to the spindle centerline, preventing out-of-round, bell-mouthed and oversize threads.
- Scully-Jones' exclusive 360° gear drive provides chatter-free unrestricted float.
- Centering force is adjustable through the shank rear.
- **Keep mating tapers clean and dry.**



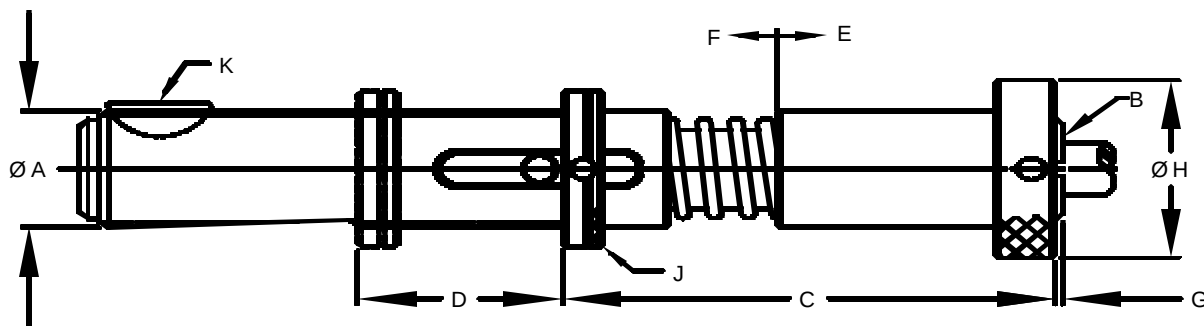
Shank & Thread A	Taper Socket B	Body		Projection		Assy. No.
		Dia. C	Length D	Min. E	Adjust F	
1.06-12	1	1.75	1.41	2.00	1.00	39580
1.06-12	2	2.19	1.62	2.25	1.00	39605
1.38-12	2	2.19	1.62	2.25	1.12	39610
1.38-12	3	2.81	1.94	2.50	1.12	39640
1.88-12	3	2.81	1.94	2.50	1.12	39650
1.88-12	4	3.50	2.19	2.75	1.12	39680

Using JT Lock-and-Eject Chucks

- The tap drivers shown on the first eight pages of this section use **JT** chucks (listed on page 60) to **lock-and-eject** the tap.
- Each driver is equipped with a freely rotating nut captive at the chuck end. This nut surrounds a tapered socket and a hexagonal or flatted drive surface which accept **JT** chucks.
- This chucking system allows quick tap changes, on the machine, to minimize down-time. Spanner wrenches to fit the nuts are shown on page 31.
- When a chuck is inserted with the drive surfaces engaged, rotating the nut pulls the chuck into its mating taper to lock it in place, while gripping the tap's shank and pocketing the tap's square.
- Rotating the nut in the opposite direction ejects the chuck and tap.
- Mated driving surfaces assure that torque is solidly transmitted, even during machine spindle reversal.

Using Tension and Compression Tap Drivers

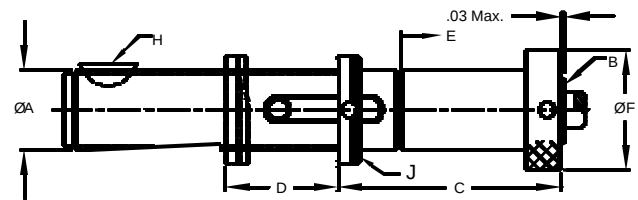
- These tap drivers compensate for variations between the tap's pitch and the axial feed of the machine spindle. They allow a variety of taps, with different pitches, to be driven simultaneously with one spindle. In some cases they eliminate the need to change leadscrews when changing setups from one tap pitch to another.
- **Compression** is best used when the spindle feed is greater than the tap's pitch, and **Tension** is used when the spindle's axial motion lags the tap's pitch. Either way, the possibility of cutting oversize threads due to thread flank shaving is minimized because the tap is allowed to act as its own leadscrew.
- The holders shown here provide both tension and compression, allowing the greatest freedom and variety in any setup.
- They also cushion the tap and spindle upon entry, reversal, and exit, to extend tap and spindle life.
- Shanks are Acme-threaded "Automotive Adjustable Adapters" which conform to ANSI /ASME Standard B5.11.



Acme Shank Size A	Size	B JT Chucks Tap Capacity			Min. Proj. C	Axial Adj. D	Stroke		Nut O.D. H	Q.L. Nut No. J	Key No. K	Ass'y. No..
		Mach.	Hand	Pipe			Tens. E	Comp. F				
1.00-12	JT-2	0 -14	1/4 -3/4	1/16 -1/4	4.06	1.12	.72	.19	1.62	17254	93153	40170
1.06-12	JT-2	0 -14	1/4 -3/4	1/16 -1/4	4.06	1.12	.72	.19	1.62	17255	93153	40180
1.38-12	JT-2	0 -14	1/4 -3/4	1/16 -1/4	3.56	1.25	.72	.18	1.62	17258	93154	40205
1.38-12	JT-3	14	1/4 - 1	1/16 -3/8	4.99	1.25	.94	.50	2.12	17258	93154	40190

Tension-Only

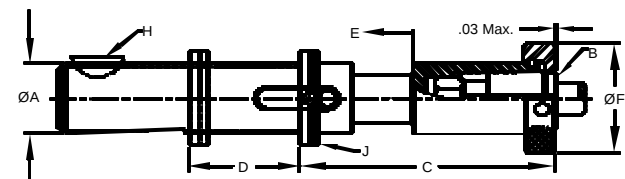
- When the feed of the spindle is set to lag the pitch of the tap, this type of holder extends freely, allowing the tap to behave as its own leadscrew.
- A multi-spindle drill head can be set up to perform tapping operations with a variety of tap sizes and pitches.
- JT tap chucks are listed on page 60.



Acme Shank Size A	Size	B JT Chucks Tap Capacity			Min. Proj. C	Axial Adj. D	Tension Stroke E	Nut O.D. F	Key No. H	Q.L. Nut No. J	Ass'y. No.
		Mach.	Hand	Pipe							
.50-16	JT-1	0-14	1/4	-	2.77	1.00	.75	1.25	93150	17272	40109
.62-16	JT-1	0-14	1/4	-	2.77	1.00	.75	1.25	93151	17273	40119
.75-12	JT-1	0-14	1/4 - 1/2	-	3.46	1.00	1.25	1.25	93151	17252	40129
.88-12	JT-1	0-14	1/4 - 1/2	-	3.15	1.12	1.25	1.25	93152	17274	40139
1.00-12	JT-2	0-14	1/4 - 3/4	1/16 - 1/4	3.37	1.12	1.38	1.62	93153	17254	40149
1.06-12	JT-2	0-14	1/4 - 3/4	1/16 - 1/4	3.37	1.12	1.38	1.62	93153	17255	40159
1.38-12	JT-2	0-14	1/4 - 3/4	1/16 - 1/4	2.90	1.12	1.38	1.62	93154	17258	40069
1.38-12	JT-3	14	1/4 - 1	1/16 - 1/2	4.02	1.25	1.88	2.12	93154	17258	40169
1.88-12	JT-2	0-14	1/4 - 3/4	1/16 - 1/4	3.03	1.12	1.38	1.62	93155	17260	40079

Compression-Only

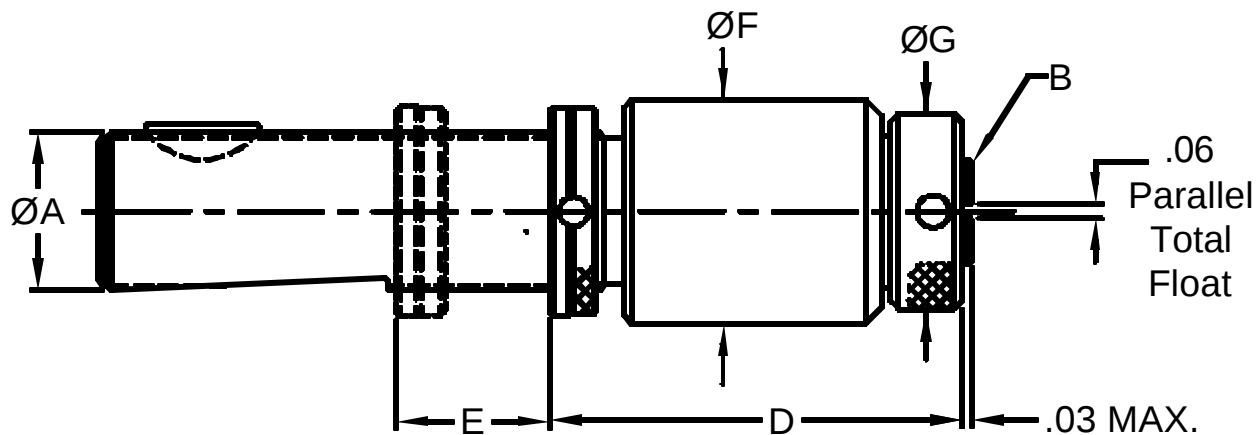
- When the spindle feed is set faster than the tap's pitch, this holder compresses, allowing the tap to enter the work and cut smoothly at its own pace.
- The results achieved by multiple spindle tapping setups become easy to control, particularly when these holders are used in tandem with tension-only and/or tension-and-compression holders.
- JT tap chucks are listed on page 60.



Acme Shank Size A	Size	B JT Chucks Tap Capacity			Min. Proj. C	Axial Adj. D	Comp. Stroke E	Nut O.D. F	Key No. H	Q.L. Nut No. J	Ass'y. No.
		Mach.	Hand	Pipe							
.50-16	JT-1	0-14	1/4	-	3.53	1.00	.75	1.25	93150	17272	40100
.62-16	JT-1	0-14	1/4	-	3.53	1.00	.75	1.25	93151	17273	40110
.75-12	JT-1	0-14	1/4 - 1/2	-	4.71	1.00	1.25	1.25	93151	17252	40120
.88-12	JT-1	0-14	1/4 - 1/2	-	4.53	1.12	1.25	1.25	93152	17274	40130
1.00-12	JT-2	0-14	1/4 - 3/4	1/16 - 1/4	4.74	1.12	1.38	1.62	93153	17254	40140
1.06-12	JT-2	0-14	1/4 - 3/4	1/16 - 1/4	4.74	1.12	1.38	1.62	93153	17255	40150
1.38-12	JT-2	0-14	1/4 - 3/4	1/16 - 1/4	4.27	1.12	1.38	1.62	93154	17258	40060
1.38-12	JT-3	14	1/4 - 1	1/16 - 1/2	5.89	1.25	1.88	2.12	93154	17258	40160
1.88-12	JT-2	0-14	1/4 - 3/4	1/16 - 1/4	4.40	1.12	1.38	1.62	93155	17260	40070

Adjustable Adapter Shanks

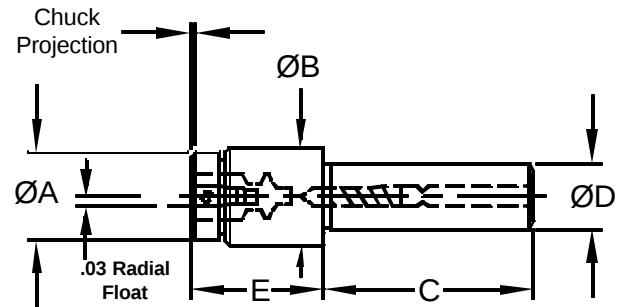
- Parallel float permits the cutting tools chucked into these holders to align themselves with off-center holes. Years of chatter-free operation is assured by Scully-Jones' unique 360° gear drive.
- Parallel float is assured by two rows of thrust bearings.
- In addition, the adjustable adapter shanks provide the ability to axially pre-set the cutting tool tip in any machine tool, using the proper adapter.
- Float stiffness adjustment screw access is at the rear of the shank.
- JT tap chucks are shown on page 60.
- Spanner wrenches are shown on page 31.



Shank Size A	JT Chuck Size B	Minimum Projection D	Maximum Adjustment E	Body Diameter F	Nut Diameter G	Assembly Number
.50-16	JT-1	2.77	.88	1.50	1.25	37100
.62-16	JT-1	2.77	.88	1.50	1.25	37105
.75-12	JT-1	2.77	.88	1.50	1.25	37110
.88-12	JT-1	2.77	1.00	1.50	1.25	37115
.88-12	JT-2	3.21	1.00	1.88	1.62	37350
1.00-12	JT-1	2.77	1.00	1.50	1.25	37120
1.00-12	JT-2	3.21	1.00	1.88	1.62	37300
1.06-12	JT-1	2.77	1.00	1.50	1.25	37125
1.06-12	JT-2	3.21	1.00	1.88	1.62	37305
1.06-12	JT-3	3.58	1.00	2.50	2.12	37525
1.38-12	JT-1	2.77	1.12	1.50	1.25	37130
1.38-12	JT-2	3.21	1.12	1.88	1.62	37310
1.38-12	JT-3	3.58	1.12	2.50	2.12	37500
1.38-12	JT-4	4.19	1.25	2.88	2.62	37900
1.88-12	JT-3	3.70	1.12	2.50	2.12	37505
1.88-12	JT-4	4.31	1.25	2.88	2.62	37905

JT Floating Holders With Straight Shanks

- Parallel (radial) float compensates for misalignment.
- Spline drive coupling provides free float, produces consistent results.
- Lock and Eject chucks provide fast and easy tool change.
- Float stiffness can be adjusted.
- Order by part number
- Radial float is measured from holder centerline.
- Order **JT** lock and eject tap chucks separately. See page 60.
- Assembly includes Lock-and-Eject nut. Order nut wrenches separately using part number indicated in chart.

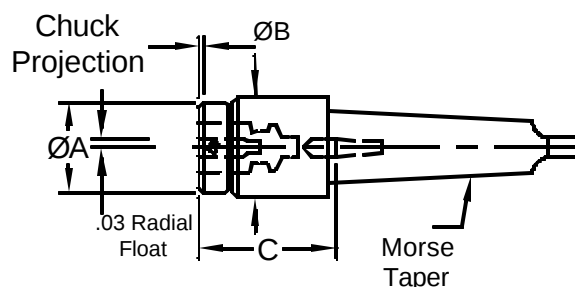


Style Size	JT-1	JT-2	JT-3
Radial Float	.03	.03	.03
Nut Dia. A	1.25	1.62	2.12
Body Dia. B	1.50	1.88	2.50
Shank Lgth. C	3.00	4.00	5.00
Wrench Part No.	93680	93681	93682

Shank Dia. D	Part No.	Body Length E	Part No.	Body Length E	Part No.	Body Length E
.50	37135	2.16				
.75	37140	2.16	37315	2.59		
1.00	37145	2.16	37320	2.59		
1.25			37325	2.59	37510	3.09
1.50			37330	2.59	37515	3.09
1.75					37520	3.09

JT Floating Holders With Morse Taper Shanks

- Same as straight shank holders, except: float stiffness is fixed
- Order same as straight shank holders.

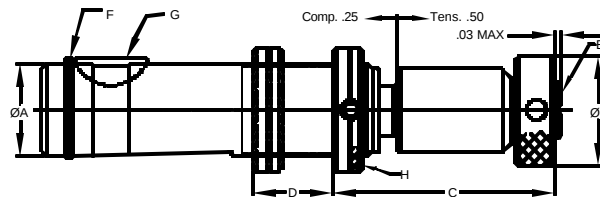


Style Size	JT-1	JT-2	JT-3	JT-4
Radial Float	.03	.03	.03	.03
Nut Dia. A	1.25	1.62	2.12	2.62
Body Dia. B	1.50	1.88	2.50	2.88
Wrench Part No.	93680	93681	93682	93683

Morse Taper	Part No.	Proj. C	Part No.	Proj. C	Part No.	Proj. C	Part No.	Proj. C
1	37175	2.28						
2	37180	2.34	37335	2.78				
3	37185	2.34	37340	2.78	37535	3.28	37895	4.00
4			37345	2.84	37540	3.34		
5					37545	3.34		

FLOW-THRU^{PAT, TM} Tension-&-Compression

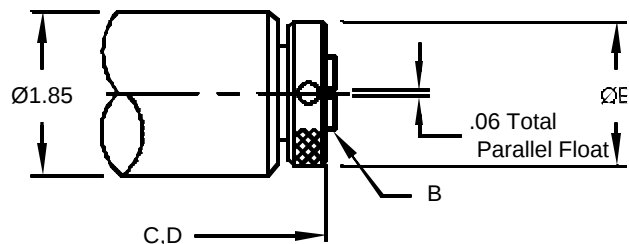
- In addition to their use in transfer-line machines, they can be adapted to any machining center to give the advantage of precise axial preset adjustment.
- These drivers deliver high pressure coolant directly to the cutting edges of the tap, regardless of the hole's depth or any other obstruction. As shown here they are particularly valuable in tapping **Blind holes**, forcing the chips and heat back thru the tap flutes.
- Tension-and-Compression are unaffected by coolant flow or pressure from 80 to 800 p.s.i..
- Use an "oil-hole" tap which has a 1/8" diameter hole thru its axis.
- JT tap chucks are shown on page 60.



Shank Thread Size A	JT Chuck Size Size	Project B	Min. Project. C	Max. Adjust. D	Nut Diameter E	Seal Ring Number F	Woodruff Key Number G	Q.L. Nut Number H	Assembly Number
1.06-12	JT-2	.18	3.77	1.12	1.62	46238	93153	17255	46230
1.38-12	JT-2	.18	2.92	1.25	1.62	46214	93154	17258	46200
1.38-12	JT-3	.11	3.43	1.25	2.12	46214	93154	17258	46280
1.38-12	JT-4	.03	3.81	1.25	2.62	46214	93154	17258	46400

FLOW-THRU^{PAT, TM} Floating Holders

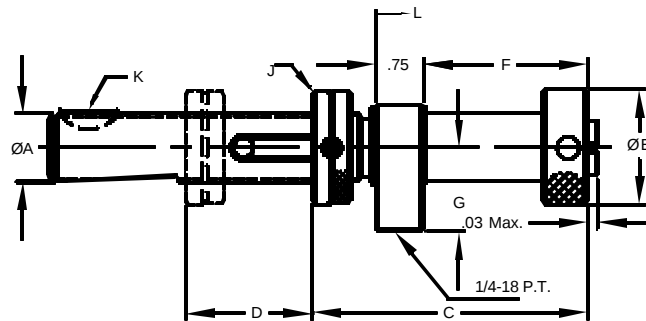
- All the same **Flow-Thru** advantages that are offered by the holders shown above are available in these holders, except tension-and-compression is replaced by radial float.
- These axially rigid tap and reamer drivers permit a cutter to align itself with an off-axis hole to cleanly perform a secondary operation. True parallel float is assured by two rows of ball thrust-bearings.
- The float mechanism is Scully-Jones' unique 360° gear drive, assuring many years of chatter-free performance.
- Columns "F", "G" & "H" in this table refer to the drawing above.



Shank Thread Size A	JT Chuck Size Size	Project B	Min. Project. C	Max. Adjust. D	Nut Diameter E	Seal Ring Number F	Woodruff Key Number G	Q.L. Nut Number H	Assembly Number
1.06-12	JT-2	.18	4.16	1.12	1.62	46238	93153	17255	46295
1.38-12	JT-2	.18	3.02	1.25	1.62	46214	93154	17258	46190

Coolant-Induced Tension-Only Holders

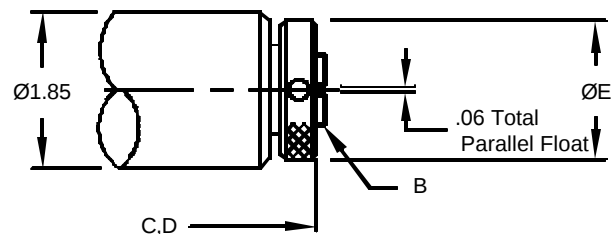
- In addition to their use in transfer-line machines, these drivers can be adapted to any machining center with the additional advantage of precise axial pre-set of the cutting tool tip.
- They are designed for use on any machine which doesn't have a "wet spindle".
- Tension-only allows the tap to start "hard" and then act as its own leadscrew. Set the spindle feed to lag the tap's pitch.
- High pressure coolant is directed thru the tap's 1/8" center hole to the end of the **Blind hole** which is being tapped. The coolant carries heat and chips out thru the tap's flutes.
- JT tap chucks are shown on page 60.



Shank Thread Size A	JT Chuck Size B	Max Proj. C	Min. Proj. D	Max. Adj. E	Nut Diam. E	Inducer Location		Q.L. Nut Number J	Woodruff Key Number K	Tension Stroke L	Assembly Number
.75-12	JT-1	.18	4.59	1.00	1.25	2.15	.94	17252	93151	1.25	46240
1.00-12	JT-2	.18	4.61	1.12	1.62	2.57	1.12	17254	93153	1.38	46225
1.06-12	JT-2	.18	4.61	1.12	1.62	2.57	1.12	17255	93153	1.38	46220
1.38-12	JT-2	.18	4.14	1.25	1.62	2.57	1.12	17258	93154	1.38	46285
1.38-12	JT-3	.11	6.16	1.25	2.12	3.88	1.19	17258	93154	1.88	46290

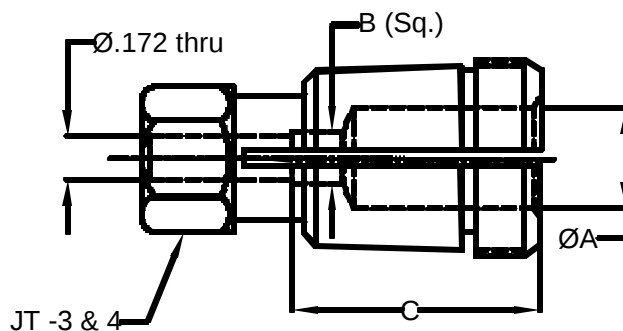
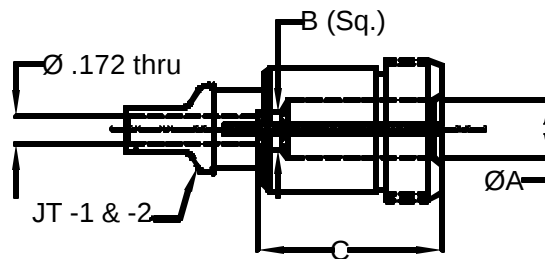
Coolant-Induced Floating Holders

- All the same Coolant-Induced advantages that are offered by the holders shown above are provided by these holders.
- These drivers allow a tap to float radially, so it will align itself with an off-axis hole to cut straight threads. The spindle's axial feed must equal the tap's pitch.
- Scully-Jones' unique 360° gear drive and two rows of ball thrust-bearings assure many years of chatter-free performance.
- Columns "A", "F", "G", "J" & "K" in this table refer to the drawing above.



Shank Thread Size A	JT Chuck Size B	Min. Proj. C	Max. Adj. D	Nut Dia. E	Inducer Location		Q.L. Nut Number J	Woodruff Key Number K	Assembly Number
1.06-12	JT-2	5.32	1.12	1.62	2.75	1.44	17255	93153	46260
1.38-12	JT-2	4.04	1.25	1.62	2.75	1.44	17258	93154	46270

Tap Chucks



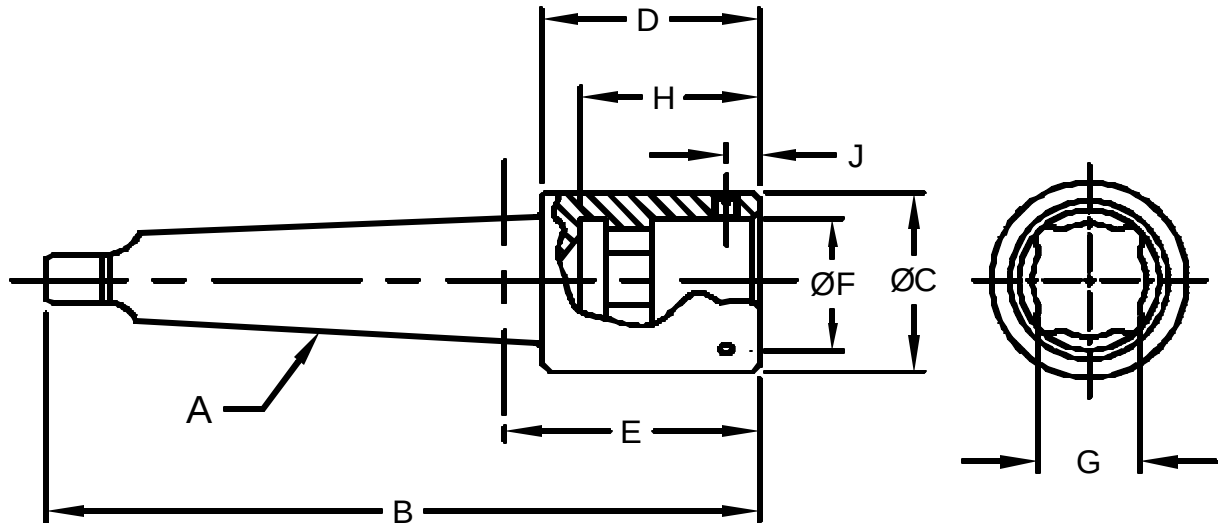
Tap Shank Dimensions		Nominal Tap Sizes			JT-1		JT-2		Lock Eject chucks			
A Dia	B Sq.	Frac. & Machine	Std. Metric	Pipe N.P.T.	C	Part No.	C	Part No.	JT-3		JT-4	
.141	.110	0-6	1.6-3.5		.88	11150	1.00	11346				
.168	.131	8, 5/32	4		.94	11151	1.06	11347				
.194	.152	10, 3/16	4.5, 5		.94	11152	1.06	11348				
.220	.165	12, 7/32			.97	11153	1.09	11349				
.255	.191	14, 1/4	6, 6.3		.97	11155	1.09	11350	1.22	11517		
.275	.206	3/8 SS			1.17	11161						
.3125	.234			1/16 & 1/8 SS	1.06	11156	1.19	11351	1.31	11518		
.318	.238	5/16	7, 8		1.00	11157	1.12	11352	1.25	11519		
.323	.242	7/16			1.09	11159	1.44	11354	1.34	11521		
.367	.275	1/2	12, 12.5		1.12	11160	1.25	11355	1.25	11522		
.381	.286	3/8 LS	10		1.06	11158	1.18	11353	1.31	11520		
.429	.322	9/16	14				1.31	11357	1.44	11523		
.4375	.328			1/8 LS			1.19	11356	1.31	11524		
.48	.360	5/8	16				1.38	11358	1.50	11525		
.542	.406	11/6	18				1.44	11359	1.56	11526		
.5625	.421			1/4			1.25	11360	1.31	11527		
.590	.442	3/4					1.50	11361	1.62	11528	1.38	11600
.625	.489	13/16	20						1.63	11529		
.6875	.515			1/2					1.56	11531	1.50	11606
.697	.523	7/8	22						1.69	11532	1.69	11601
.7000	.531			3/8					1.44	11530		
.760	.570	15/16	24						1.69	11533		
.800	.600	1	25						1.75	11534	1.75	11602
.896	.672	1-1/16, 1-1/8	27								1.75	11603
.9063	.679			3/4							1.62	11607
1.021	.766	1-3/16, 1-3/8	30								1.75	11604
1.108	.831	1-5/16, 1-3/8	33	1							1.75	11605
1.1250	.843										1.75	11608
1.233	.925	1-7/16, 1-1/2	36								1.75	11609
Chuck Sets					(11)	11118	(16)	11322	(18)	11535	(10)	11619

TAP HOLDERS



Heavy Duty Tap Holders Pipe tap Sizes

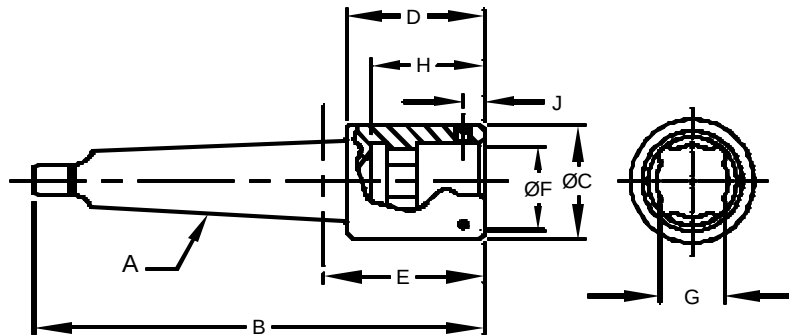
- Alloy steel offers high yield strength and long wear characteristics for tough tapping operations.
- Three set-screws used for tool retention.
- Designed for driving large hand and pipe taps.
- Order by part number.
- Note: Broached square in holder is approximately .030" larger than the square dimension "G".



Pipe Tap Size	M.T A	Part No.	Total Length B	Body Dia. C	Body Length D	Proj. E	Tap Dimension Shank F	Square G	Depth Tap Enters H	Set Screw Loc. J
3/4	3	04138	6.00	1.72	2.12	2.31	.9063	.679	1.62	.50
	4	04139	7.00	1.72	2.12	2.38				
1	3	04140	6.00	1.72	2.12	2.31	1.1250	.843	1.75	.50
	4	04141	7.00	1.72	2.12	2.38				
1-1/4	4	04142	7.56	2.22	2.69	2.94	1.3125	.984	2.00	.62
	5	04143	8.81	2.22	2.69	2.94				
1-1/2	4	04144	7.56	2.22	2.69	2.94	1.5000	1.125	2.25	.62
	5	04145	8.81	2.22	2.69	2.94				
1-3/4	4	04146	7.88	2.59	3.00	3.25	1.6250	1.218	2.38	.75
	5	04147	9.12	2.59	3.00	3.25				
2	5	04148	9.50	3.19	3.38	3.62	1.8750	1.406	2.50	.75
	6	04149	11.94	3.19	3.38	3.69				
2-1/4	5	04150	9.50	3.19	3.38	3.62	2.0000	1.500	2.62	.75
	6	04151	11.94	3.19	3.38	3.69				
2-1/2	5	04152	9.50	3.19	3.38	3.62	2.2500	1.687	2.75	.75
	6	04153	12.38	3.59	3.81	4.12				
2-3/4	5	04154	9.94	3.59	3.81	4.06	2.3750	1.781	2.88	.75
	6	04155	12.38	3.59	3.81	4.12				
3	5	04156	9.94	3.59	3.81	4.06	2.6250	1.968	3.00	.75
	6	04157	12.38	3.59	3.81	4.12				

Heavy Duty Tap Holders Hand tap Sizes

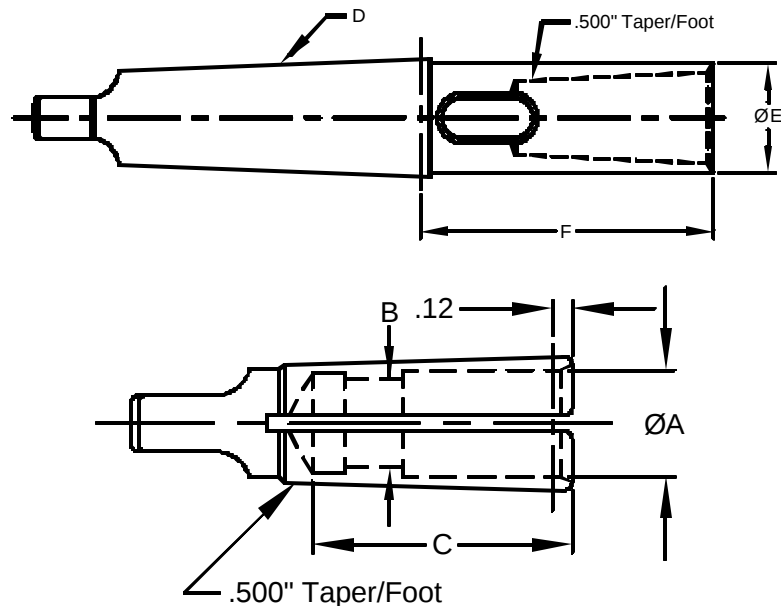
- Alloy steel offers high yield strength and long wear characteristics for tough tapping operations.
- Three set-screws used for tool retention.
- Designed for driving large hand and pipe taps.
- Order by part number.
- Note: Broached square in holder is approximately .030" larger than the square dimension "G".



Hand Tap Size	M.T A	Part No.	Total Length B	Body Dia. C	Body Length D	Proj. E	Tap Dimension Square F	Depth Tap Enters G	Set Screw Loc. H	J
3/4	3	04100	6.00	1.72	2.12	2.31	.590	.442	1.38	.44
	4	04101	7.00	1.72	2.12	2.38				.44
7/8	3	04102	6.00	1.72	2.12	2.31	.697	.523	1.50	.44
	4	04103	7.00	1.72	2.12	2.38				.44
1	3	04104	6.00	1.72	2.12	2.31	.800	.600	1.62	.44
	4	04105	7.00	1.72	2.12	2.38				.44
1-1/16-1-1/8	3	04106	6.00	1.72	2.12	2.31	.896	.672	1.75	.44
	4	04107	7.00	1.72	2.12	2.38				.44
1-3/16-1-1/4	3	04108	6.62	1.84	2.75	2.94	1.021	.766	2.19	.62
	4	04109	7.62	1.84	2.75	3.00				.62
1-5/16-1-3/8	3	04110	6.62	1.84	2.75	2.94	1.108	.831	2.25	.62
	4	04111	7.62	1.84	2.75	3.00				.62
1-7/16-1-1/2	4	04112	7.62	1.84	2.75	3.00	1.233	.925	2.31	.62
	5	04113	9.12	2.59	3.00	3.25				.62
1-5/8	4	04114	7.88	2.59	3.00	3.25	1.305	.979	2.38	.62
	5	04115	9.12	2.59	3.00	3.25				.62
1-3/4	4	04116	7.88	2.59	3.00	3.25	1.430	1.072	2.38	.62
	5	04117	9.12	2.59	3.00	3.25				.62
1-7/8	4	04118	7.88	2.59	3.00	3.25	1.519	1.139	2.50	.62
	5	04119	9.12	2.59	3.00	3.25				.62
2	4	04120	8.00	2.59	3.12	3.38	1.644	1.233	2.62	.62
	5	04121	9.62	2.72	3.50	3.75				.75
2-1/8	5	04122	9.62	2.72	3.50	3.75	1.769	1.327	3.00	.62
	6	04123	12.62	2.97	4.06	4.38				.88
2-1/4	5	04124	10.19	2.97	4.06	4.31	1.894	1.420	3.12	.88
	6	04125	12.62	2.97	4.06	4.38				.88
2-3/8	5	04126	10.19	2.97	4.06	4.31	2.019	1.514	3.38	.88
	6	04127	12.62	2.97	4.06	4.38				.88
2-1/2	5	04128	10.50	3.34	4.38	4.62	2.100	1.575	3.50	1.00
	6	04129	12.94	3.34	4.38	4.69				1.00
2-5/8	5	04130	10.50	3.34	4.38	4.62	2.225	1.669	3.50	1.00
	6	04131	12.94	3.34	4.38	4.69				1.00
2-3/4	5	04132	10.50	3.34	4.38	4.62	2.350	1.762	3.62	1.00
	6	04133	13.12	3.53	4.56	4.88				1.00
2-7/8	5	04134	10.69	3.53	4.56	4.81	2.475	1.856	3.62	1.00
	6	04135	13.12	3.53	4.56	4.88				1.00
3	5	04136	10.69	3.53	4.56	4.81	2.543	1.907	3.75	1.00
	6	04137	13.12	3.53	4.56	4.88				1.00

Close Center Drivers and Chucks

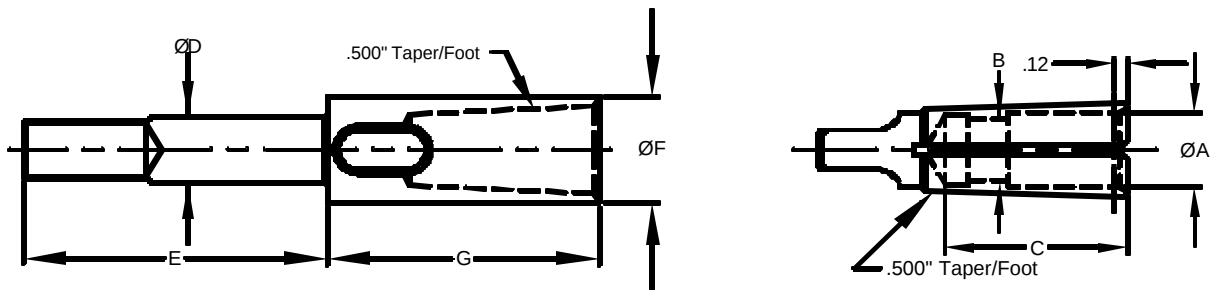
- These drivers are most useful where long reach and small radial clearances are needed.
- The **.500" / foot** tapers used by these drivers and chucks are not Morse Tapers. They are designed to be used only with the tooling on this page & 64.
- **To use this chart:**
 1. Select the chuck needed to grip the shank of the tap you want to drive,
 2. Select the driver, from within that same size group, ("band") which provides the projection "F" your operation requires, and
 3. Select the Morse Taper shank "D" to mate with your spindle, extension, and/or adapter.



Nominal Tap Sizes			Tap Shanks		Tap Chucks		Chuck Drivers				
Mach. & Fract.	Std. Metric	Pipe N.P.T.	Tap Dia. A	Sqr. B	Entry Depth C	Part No.	Morse Taper D	Body Dia. E	Projection - F Part Number		
									3.00	6.00	9.00
8	4	-	0.168	.131	.83	05350	1	.34	05300	05301	05302
10	4.5, 5.0	-	0.194	.152	.83	05351	1	.34	05300	05301	05302
0 - 6	1.6 -3.5	-	0.141	.110	.72	05366	1	.45	05303	05304	05305
8	4	-	0.168	.131	.83	05367	1	.45	05303	05304	05305
10	4.5, 5.0	-	0.194	.152	.89	05368	1	.45	05303	05304	05305
12	-	-	0.220	.165	.91	05369	1	.45	05303	05304	05305
14, 1/4	6.0, 6.3	-	0.255	.191	.97	05353	1	.45	05303	05304	05305
3/8SS	-	-	0.275	.206	1.05	05354	1	.45	05303	05304	05305
-	-	1/16, 1/8SS	0.3125	.234	1.00	05355					
5/16	7.0, 8.0	-	0.318	.238	1.00	05356	1	.50	05306	05307	05308
7/16	-	-	0.323	.242	1.08	05357	2	.50	05309	05310	05311
1/2	12, 12.5	-	0.367	.275	1.11	05358	1	.56	05312	05313	05314
3/8LS	10	-	0.381	.286	1.05	05359	2	.56	05315	05316	05317
9/16	14	-	0.429	.322	1.27	05360	2	.69	05318	05319	05320
5/8	16	-	0.480	.360	1.27	05361	3	.69	05321	05322	05323
-	-	1/8LS	0.4375	.328	1.00	05362					
-	-	1/4	0.5625	.421	1.12	05365	3	.88	05324	05325	05326
3/4	-	-	0.590	.442	1.27	05363	3	.88	05324	05325	05326

Extension Drivers and Chucks

- The shanks of these extensions “D” are standard tap shank sizes, so they fit into standard tap driving chucks of any design.
- Most useful for reaching past obstructions or through cavities in a workpiece, where long reach and small clearances are needed.
- The drivers are thru-hardened, and their outside diameters “F” are ground for concentricity. Ideal for running through a bushing.
- The .500" / foot taper used by these drivers and chucks are **not standard Morse Tapers**. They are designed to be used only with the components shown on this page and on page 63
- Select the chuck to grip the tap you want to drive, then select one of the three chuck drivers within that same size group which offers the projection length “G” your operation needs.



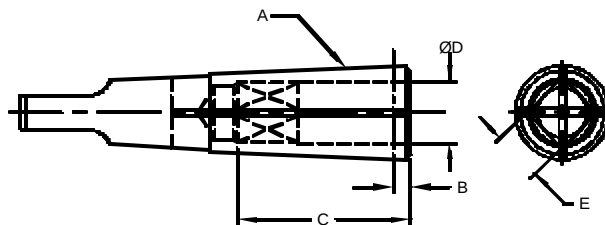
Nominal Tap Sizes			Tap Shanks		Tap Chucks		Extension Chuck Drivers						
Mach. & Fract.	Std. Metric	Pipe N.P.T.	Dia. A	Sqr. B	Entry Depth C	Part No.	Shank		Body Dia. F	Projection - G			
							Dia. D	Lgth. E		3.00	6.00	9.00	
8	4	-	.168	.131	.83	05350	.255	1.50	.34	05200	05201	05202	
10	4.5, 5.0	-	.194	.152	.83	05351	.255	1.50	.34	05200	05201	05202	
0 - 6	1.6 -3.5	-	.141	.110	.72	05366	.255	1.50	.45	05203	05204	05205	
8	4	-	.168	.131	.83	05367	.255	1.50	.45	05203	05204	05205	
10	4.5, 5.0	-	.194	.152	.89	05368	.255	1.50	.45	05203	05204	05205	
12	-	-	.220	.165	.91	05369	.255	1.50	.45	05203	05204	05205	
14, 1/4	6.0, 6.3	-	.255	.191	.97	05353	.255	1.50	.45	05203	05204	05205	
3/8 SS	-	-	.275	.206	1.05	05354	.255	1.50	.45	05203	05204	05205	
-	-	1/16, 1/8SS	.3125	.234	1.00	05355	.381	1.69	.50	05206	05207	05208	
5/16	7.0, 8.0	-	.318	.238	1.00	05356	.381	1.69	.50	05206	05207	05208	
7/16	-	-	.323	.242	1.08	05357	.381	1.69	.50	05206	05207	05208	
1/2	12, 12.5	-	.367	.275	1.11	05358	.381	1.69	.56	05209	05210	05211	
3/8 LS	10	-	.381	.286	1.05	05359	.381	1.69	.56	05209	05210	05211	
9/16	14	-	.429	.322	1.27	05360	.480	2.00	.69	05212	05213	05214	
5/8	16	-	.480	.360	1.27	05361	.480	2.00	.69	05212	05213	05214	
-	-	1/8LS	.4375	.328	1.00	05362	.480	2.00	.69	05212	05213	05214	
-	-	1/4	.5625	.421	1.12	05365	.590	2.25	.88	05215	05216	05217	
3/4	-	-	.590	.442	1.27	05363	.590	2.25	.88	05215	05216	05217	

MORSE TAPER CHUCKS



Style "A" Tap Chucks

- Four-slot design is inherently more flexible, gripping taps of varying shank diameters more securely.
- Taps are centered by the same concentric surfaces as generate the grip.
- Keep mating tapers clean & dry.



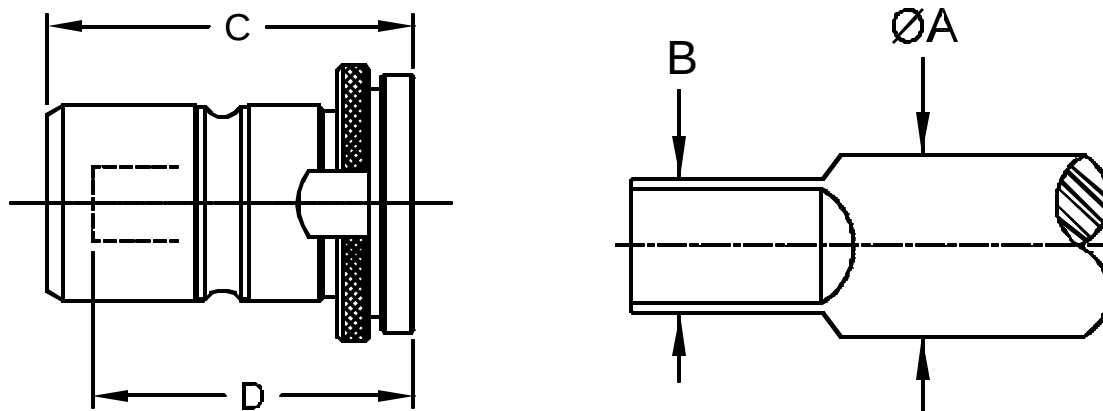
Tap Style	Nominal Tap Size		Morse Taper	Chuck Projection	Depth Tap Enters C $\pm .02$	Tap Shank		Part Number
	Fract. & Mach.	Metric				Diam. D	Sqr. E	
Machine Screw	#0 - #6	M1.6 - M3.5	1	.19	.72	.141	.110	01102
	#8	M4	1	.19	.83	.168	.131	01105
	#10	M4.5, M5	1	.19	.89	.194	.152	01106
	#12	-	1	.19	.91	.220	.165	01107
	#14	M6, M6.3	1	.19	.97	.255	.191	01115
	#14	M6, M6.3	2	.25	.97	.255	.191	01116
Hand	1/4	M6, M6.3	1	.19	.97	.255	.191	01115
	1/4	M6, M6.3	2	.25	.97	.255	.191	01116
	5/16	M7, M8	1	.19	1.00	.318	.238	01119
	5/16	M7, M8	2	.25	1.00	.318	.238	01121
Hand	3/8SS	-	1	.19	1.05	.275	.206	01237
	3/8SS	-	2	.25	1.05	.275	.206	01238
	3/8LS	M10	2	.25	1.05	.381	.286	01126
	7/16	-	2	.25	1.08	.323	.242	01131
Hand	1/2	M12, M12.5	2	.25	1.09	.367	.275	01133
	1/2	M12, M12.5	3	.25	1.09	.367	.275	01135
	9/16	M14	2	.25	1.28	.429	.322	01139
	5/8	M16	2	.25	1.45	.480	.360	01141
	5/8	M16	3	.25	1.45	.480	.360	01143
Hand	3/4	-	3	.25	1.80	.590	.442	01146
	3/4	-	4	.38	1.80	.590	.442	01148
	13/16	M20	3	.25	1.25	.652	.489	01150
Hand	7/8	M22	3	.25	1.91	.697	.523	01153
	7/8	M22	4	.38	1.91	.697	.523	01155
	15/16	M24	4	.38	1.93	.760	.570	01157
	1	M25	4	.38	2.03	.800	.600	01159
Hand	1-1/8	M27	5	.44	2.14	.896	.672	01162
	1-1/4	M30	5	.44	2.30	1.021	.766	01166
	1-3/8	M33	5	.44	2.34	1.108	.831	01168
	1-1/2	M36	5	.44	2.41	1.233	.925	01171
	1-3/4	M42	5	.44	2.38	1.430	1.072	01174
Pipe	1/16, 1/8SS	-	2	.25	1.00	.3125	.234	01192
	1/8LS	-	2	.25	1.00	.4375	.328	01193
	1/4	-	3	.25	1.12	.5625	.421	01197
	3/8LS	-	4	.38	1.38	.7000	.531	01201
	1/2SS	-	4	.38	1.50	.6875	.515	01203
Pipe	3/4	-	4	.38	1.69	.9063	.679	01208
	3/4	-	5	.44	1.69	.9063	.679	01209
	1	-	5	.44	1.88	1.1250	.843	01212
	1-1/4	-	5	.44	2.12	1.3125	.984	01214
	1-1/2	-	5	.44	2.25	1.5000	1.125	01216

Quick-Change MJ Style Tap Chucks

- For use with **MJ**, **MJF**, & **MJT** tap drivers.
- These chucks are offered to replace worn or damaged chucks which fit your current **MJ** style tap drivers.
- New **TC** style drivers, which functionally replace these three **MJ** models are shown on pages 40 - 44.

NOTE: **TC** drivers are functional replacements for **MJ** drivers.

TC chucks do not interchange with **MJ** chucks.



T A P S						C H U C K S			Assembly No.
Mach.	Nominal Hand	Sizes Metric	Pipe	Shank Dia. A	Size Sqr. B	Size No.	Length C	Inside D	
0 - 6	-	1.6 - 3.5	-	.141	.110	0	.91	.906	11620
8	-	4	-	.168	.131	0	.91	.906	11621
10	-	4.5, 5	-	.194	.152	0	.91	.953	11622
12	-	-	-	.220	.165	0	.91	.953	11623
14	1/4	6, 6.3	-	.255	.191	0	.91	.953	11624
0 - 6	-	1.6 - 3.5	-	.141	.110	1	1.38	.906	11638
8	-	4	-	.168	.131	1	1.38	.906	11639
10	-	4.5, 5	-	.194	.152	1	1.38	.953	11630
12	-	-	-	.220	.165	1	1.38	.953	11631
14	1/4	6, 6.3	-	.255	.191	1	1.38	.953	11632
-	-	-	1/8SS	.3125	.234	1	1.38	1.312	11637
-	5/16	7, 8	-	.318	.238	1	1.38	1.188	11633
-	3/8LS	10	-	.381	.286	1	1.38	1.250	11634
-	7/16	-	-	.323	.242	1	1.38	1.250	11635
-	1/2	12, 12.5	-	.367	.275	1	1.38	1.250	11636
-	5/16	7, 8	-	.318	.238	2	1.78	1.250	11640
-	3/8LS	10	-	.381	.286	2	1.78	1.312	11641
-	7/16	-	-	.323	.242	2	1.78	1.312	11642
-	1/2	12, 12.5	-	.367	.275	2	1.78	1.375	11643
-	9/16	14	-	.429	.322	2	1.78	1.438	11644
-	-	-	1/8LS	.4375	.328	2	1.78	1.312	11648
-	5/8	16	-	.480	.360	2	1.78	1.500	11645
-	-	-	1/4	.5625	.421	2	1.78	1.375	11649
-	3/4	-	-	.590	.442	2	1.78	1.562	11646
-	7/8	22	-	.697	.523	2	1.78	1.625	11647
-	-	-	3/8	.7000	.531	2	1.78	1.438	11655
-	-	-	1/2	.6875	.515	2	1.78	1.562	11656

Automatic Recessing Tools

Scully-Jones automatic recessing tools are ideally suited to cutting oil grooves, retainer grooves, reliefs and chamfers. Using these tools virtually any machine can bore, counter-bore, face or backface.

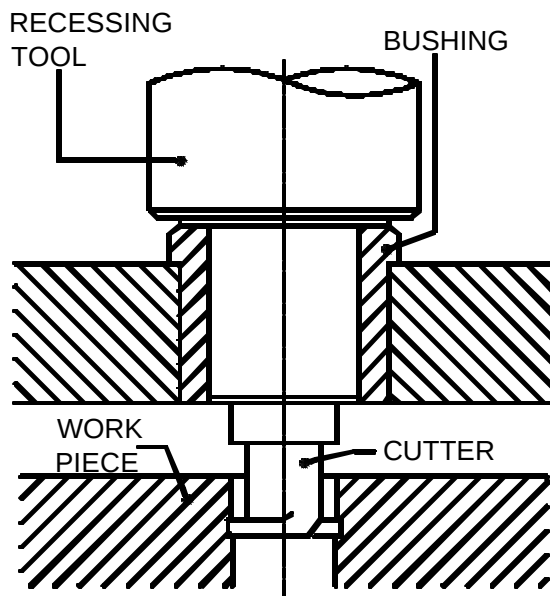
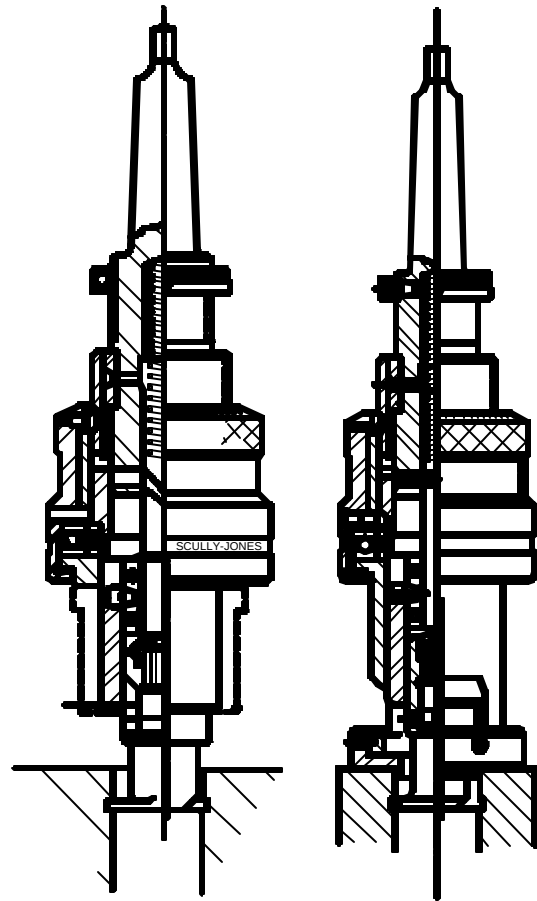
Here's how the tools work.

At rest, the centerline of the cutting tool is on the axis of the spindle. When fed into the cutting position, the nose of the tool contacts its pilot-in the work or in a bushing. This contact-along with the continued spindle feed-causes the cutting tool to feed via a lead cam within the tool.

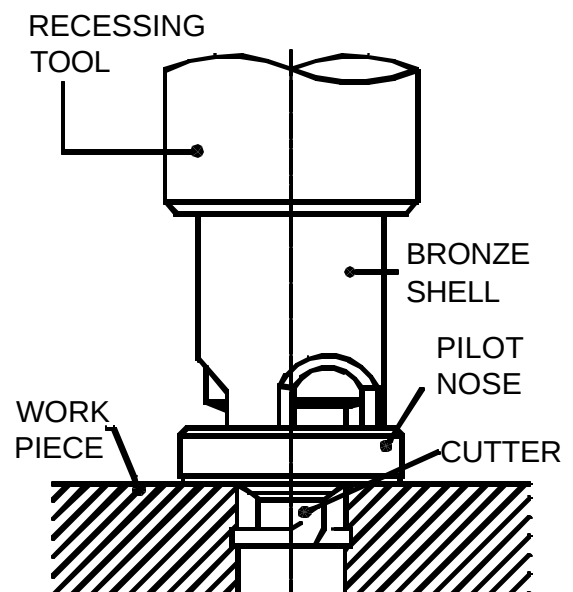
By adjusting the relative position of the tool nose, the cut can be accurately positioned in the hole. A collar sets the depth of the cut by limiting the stroke of the lead cam or can be set with the stop on the machine. The radial feed is relatively slow at the start of the cut, increasing until a fixed rate is reached. This eases the tool into the cut, prolonging tool life. The feed ratio is approximately 4:1.

While tools are available for guide-bushing pilot application or work pilot application, either style of tool is readily converted to the other style when necessary.

Special tools are available for unusual applications.



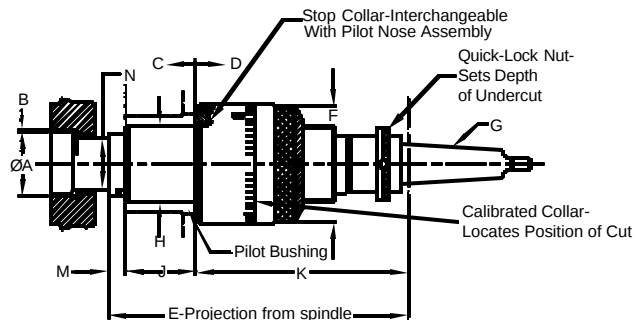
PILOT IN BUSHING



PILOT IN WORK

Pilot-in-Bushing Automatic Recessing Tools

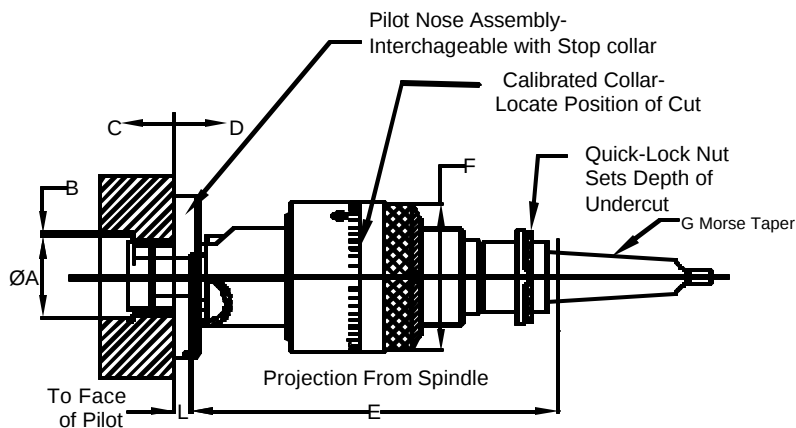
- For use in bushing plate applications where tool feeds through pilot bushing.
- Cut depth and location easily adjustable.
- Order by part number.
- Order cutters and blanks separately.
- Additional pilot nose blanks, shells and stop collars are available.



Dia of Work Hole A		Depth of Cut B Max	Collar Adjustment C D		E	F	M.T G	H	J	K	M	Cutter Shank Dia. N	Part No.	Size & Type
Min	Max													
.38	1.25	.080	.50	.38	6.44	2.50	2	1.25	1.75	4.25	.44	.478	70110	1NB2MT
.62	1.75	.140	.56	.75	8.50	3.22	3	1.75	2.12	5.88	.50	.750	70320	3NB3MT
.62	1.88	.180	.56	.75	8.88	3.22	3	1.88	2.12	6.25	.50	.750	70420	4NB3MT
.62	1.88	.180	.56	.75	8.88	3.22	4	1.88	2.12	6.25	.50	.750	70430	4NB4MT
1.50	2.25	.300	.50	.25	13.12	4.38	5	2.25	2.75	9.88	.50	.750	70610	6NB5MT

Pilot-in-work Automatic Recessing Tools

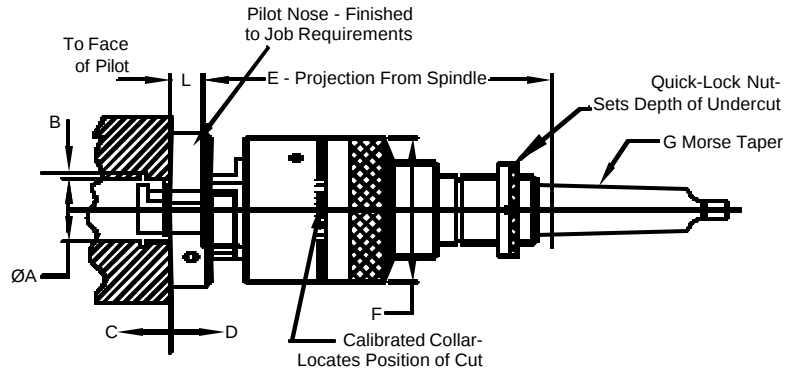
- Integral Pilot eliminates the need for bushing plate.
- Cut depth and location easily adjustable.
- Order by part number.



Dia of Work Hole A		Depth of Cut B Max	Collar Adjustment C D		E	F	M.T G	L	Cutter Shank Dia. N	Part No.	Size & Type
Min	Max										
.41	1.25	.080	.38	.12	6.44	2.50	2	.44	.478	70120	1NW2MT
.62	1.75	.140	.56	.12	8.50	3.22	3	.44	.750	70330	3NW3MT
.75	1.88	.180	.56	.12	8.88	3.22	3	.44	.750	70440	4NW3MT
.75	1.88	.180	.56	.12	8.88	3.22	4	.44	.750	70450	4NW4MT
1.50	4.50	.300	.62	.12	13.12	4.38	5	.75	.750	70620	6NW5MT

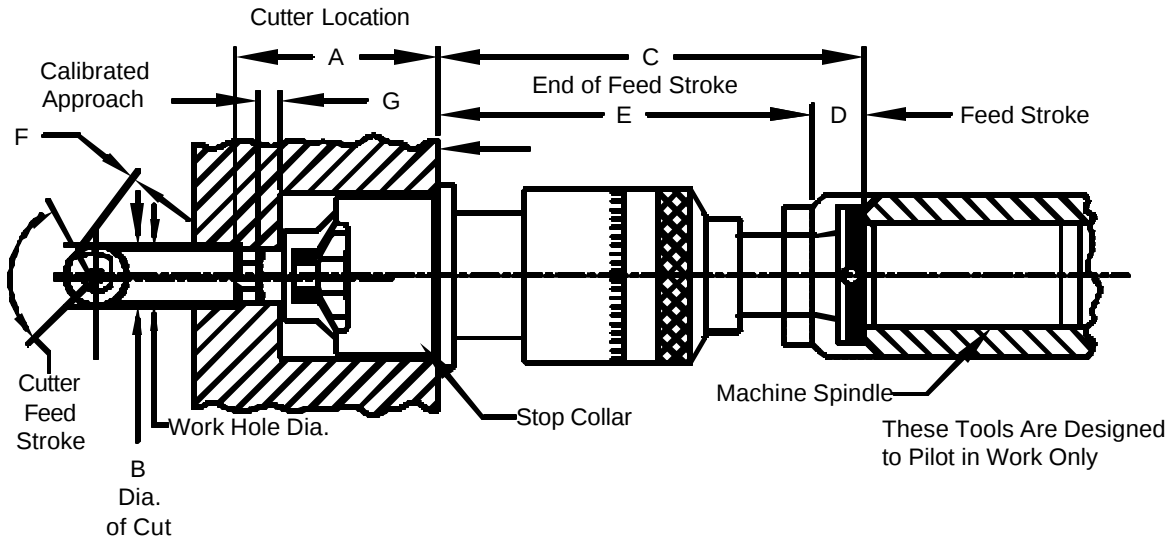
Short-Nose Pilot-in-Work Only Automatic Recessing Tool

- Non-convertible to pilot-in-bushing.
- Minimal projection for low overhang applications.
- Cut depth and location easily adjustable.
- Order by part number.
- Order cutters and blanks separately.
- Additional pilot nose blanks, shells and stop collars are available.



Dia of Work Hole A		Depth of Undercut B Max	Collar Adjustment		E	F	M.T G	L	Cutter Shank Dia. N	Part No.	Size & Type
Min	Max		C	D							
.41	1.00	.080	.19	.12	4.31	2.50	2	.44	.312	70240	2NW2MT
.75	2.75	.180	.25	.12	5.44	3.25	4	.50	.750	70530	5NW4MT
1.50	4.50	.300	.31	.19	6.88	4.44	5	.75	.750	70710	7NW5MT

NC & Special Application Recessing Tools



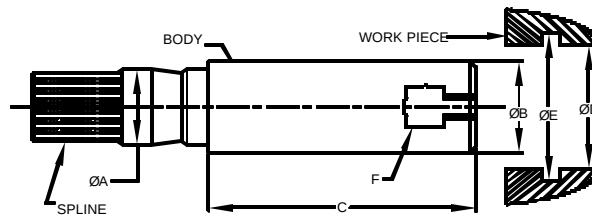
- Specifications can be custom tailored to specific applications.
- Contact Scully-Jones with part, machine and fixture information to obtain recommended tool layout, price and delivery.

Recessing operations on special machines and NC machines frequently require additional tool flexibility. Scully-Jones' experience with these special applications can be called upon to solve your recessing problem.

In the drawing, above right dimensions "A" through "G" are adjustable. They can be accurately measured and locked in place. With only slight modification, it can also be used for part measurement. Further, specific clearance between the cutter and work hole can be maintained to assure consistent cutting stroke.

Recessing Tool Bit Holder Blanks

- Splines are induction hardened to 50 Rockwell "C".
- Bodies are left soft for machining. Not to be used to make circular form cutters.
- Accurate grinding for precise fit.
- Order by part number.
- Tool bit holder blanks for tool sizes 6 and 7 are non-stock. Price and delivery quoted on application.



Tool Size	Min Dia. Of Work Hole	Max Dia. Of Recess	B	C	A	Blt	Part No.
1	.62	.81	.44	1.31	.478	.19 Dia.	70274
	1.00	1.19	.81	2.44	.478	.25 Sq.	70276
	1.25	1.44	1.06	2.62	.478	.31Sq.	70278
2	.62	.81	.44	1.31	.312	.19 Dia.	70231
	1.00	1.19	.81	2.00	.312	.25 Sq.	70232
3	.94	1.25	.69	2.00	.750	.25 Sq.	70223
	1.25	1.56	1.00	2.50	.750	.31 Sq.	70224
	1.75	2.06	1.50	3.00	.750	.38 Sq.	70225
4&5	1.00	1.38	.69	2.00	.750	.25 Sq.	70223
	1.31	1.69	1.00	2.50	.750	.31 Sq.	70224
	1.81	2.19	1.50	3.00	.750	.38 Sq.	70225
	2.75	3.12	2.44	3.50	.750	.38 Sq.	70226
6 & 7 On Application							

Recessing Tool Quotation Guidelines

1. Furnish detail print or sketch of piece part or if these are not available, submit actual piece part
2. Type of material and hardness

3. Pilot in piece part bore _____
4. Pilot in bushing (furnish fixture print if available) _____
5. Type and manufacturer of machine being used _____
6. What Production is expected _____
7. Method employed if piece part is in current production _____
8. Have any difficulties been experienced in machining this material _____

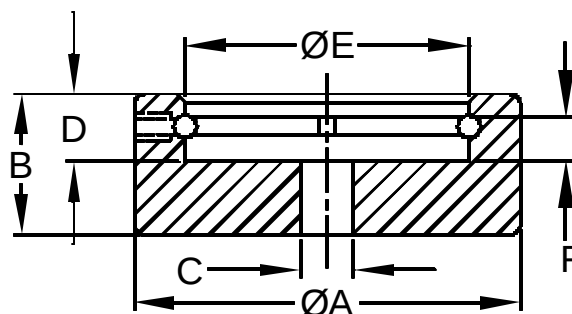


9. Type of cutters preferred.

- ☐ Form
☐ Tool Bits
☐ HSS
☐ TCT

Engineers name: _____ Phone #: _____

Recessing Tool Pilot Nose Blanks

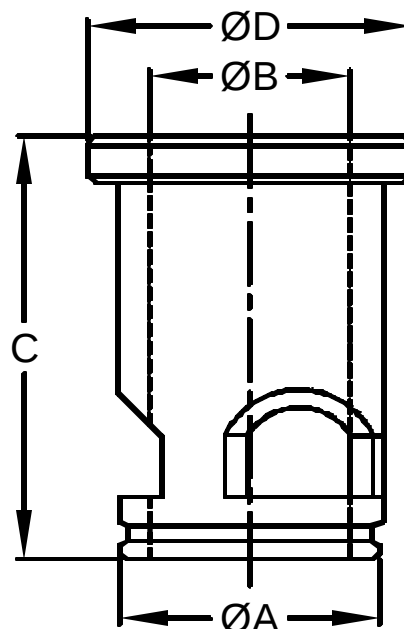


Tool Size	A	B	C	D	E+.0005 -.0000	F+.002 -.000	Part No.
1&2	1.98	1.00	.12	.34	1.5625	.221	70117
3,4&5	3.12	1.12	.38	.44	2.2500	.254	70332
6 & 7 -On Application							

Recessing Tool Bronze Shells

- For use with pilot nose blanks listed above.
- Quickly converts standard recessing tools from pilot-in-bushing to pilot-in-work.
- Order by part number.
- Bronze shell for tool sizes 6 and 7 are non-stock. Price and delivery quoted on application.

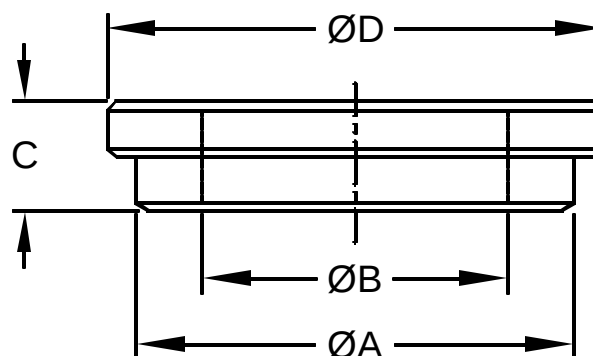
Tool Size	A	B	C	D	Part No.
1	1.56	1.25	2.75	2.25	70112
2	1.56	1.00	1.69	2.25	70241
3	2.25	1.75	3.31	2.88	70331
4	2.25	1.88	3.31	2.88	70441
5	2.25	1.75	2.06	2.88	70531
6 & 7 On Application					



Recessing Tool Stop Collars

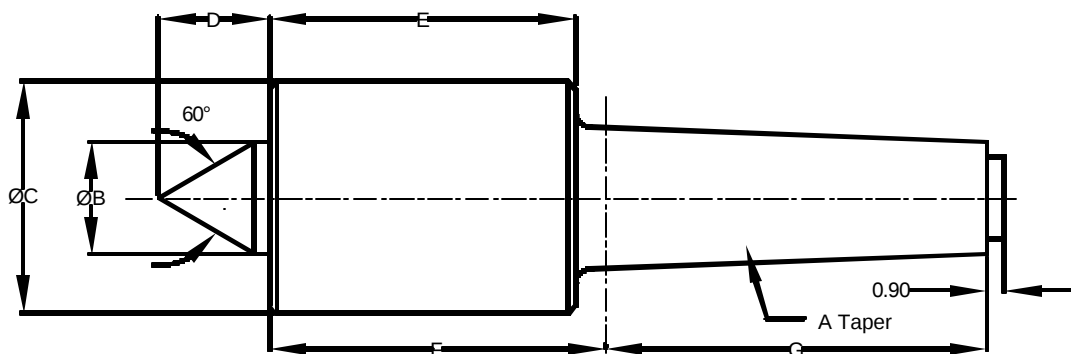
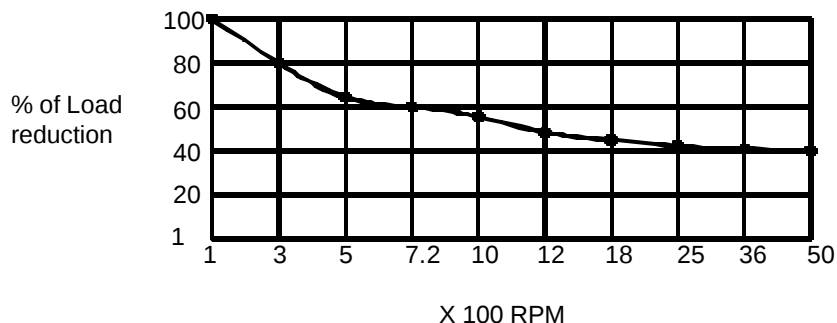
- For use with pilot-in-bushing recessing tools.
- Quickly converts standard recessing tools from pilot-in-work to pilot-in-bushing.
- Order by part number.
- Stop collars for size 6 tools are non-stock.

Tool Size	A	B	C	D	Part No.
1	1.81	1.25	.44	2.25	70111
3	2.50	1.75	.44	2.88	70321
4	2.50	1.88	.44	2.88	70426
6 On Application					



- The points are ground on their own bearings, assuring runout of .0002" T.I.V or less.
- "Max. Load" is the maximum weight of a symmetrical workpiece rotating at 100 rpm, plus the load applied by radial cutting forces. To maintain long service life, reduce loads as rotating speed increases. See chart.

Reduction Load by Percentage Shown
at Various Rotating Speeds



Discontinued Centers (for comparison)

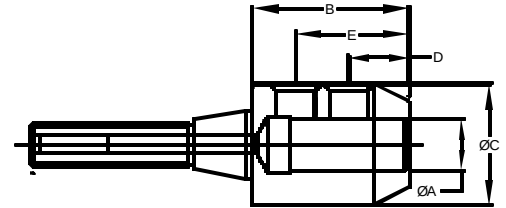
Morse Taper A	Part No.	Spindle Dia. B	Body Dia. C	Point Proj. D	Body Length E	Body Proj. F	Taper Length G	Max. Load Lbs.
2	74100	.75	1.69	.75	1.75	1.94	2.47	1000
3	74101	.75	1.69	.75	1.75	2.06	3.10	1000
4	74102	1.12	2.44	1.06	2.88	3.19	3.97	2400
5	74103	1.12	2.44	1.06	2.88	3.19	5.09	2400

New Centers

Morse Taper A	Part No.	Spindle Dia. B	Body Dia. C	Point Proj. D	Body Length E	Body Proj. F	Taper Length G	Max. Load Lbs.
2	74220	.56	1.63	.81	1.62	1.88	2.47	300
3	74230	.81	2.00	1.00	1.94	2.19	3.10	500
4	74240	1.00	2.38	1.25	2.25	2.50	3.97	1100
5	74250	1.00	2.38	1.25	2.25	2.50	5.09	1100

R8 End Mill Holders

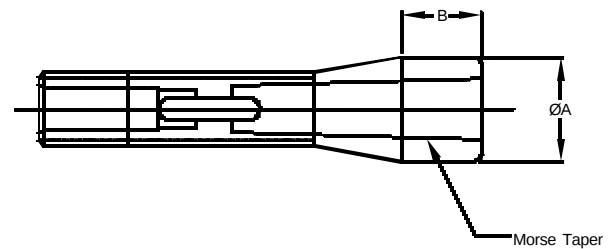
SJ Number	Description	A	B	C	D	E	Set Screw
06300	R8 EMH .187-1.41	.187	1.41	0.69	0.50		1/4 -28
06305	R8 EMH 2.50-1.41	.250	1.41	0.69	0.56		1/4 -28
06310	R8 EMH 375-1.41	.375	1.41	1.00	0.75		3/8 -24
06315	R8 EMH .500-1.41	.500	1.41	1.38	0.88		7/16 -20
06320	R8 EMH .625-2.06	.625	2.06	1.62	1.94		9/16 -18
06325	R8 EMH .750-2.38	.750	2.38	1.75	1.00		5/8 -18
06330	R8 EMH .875-2.38	.875	2.38	2.00	1.00	1.81	5/8 -18
06335	R8 EMH 1.00-3.00	1.00	3.00	2.38	1.12	2.12	3/4 -16
06340	R8 EMH 1.25-3.12	1.25	3.12	2.62	1.12	2.12	3/4 -16
06345	R8 EMH 1.50-3.38	1.50	3.38	2.75	1.12	2.12	3/4 -16



Single End Cutters Only.

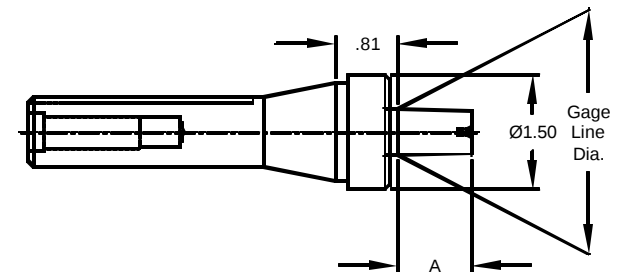
R8 Morse Taper Holders

SJ Number	Description	A Dia.	B Proj.
06420	R8 1MT	1.25	.88
06425	R8 2MT	1.25	.88
06430	R8 3MT	1.50	4.62



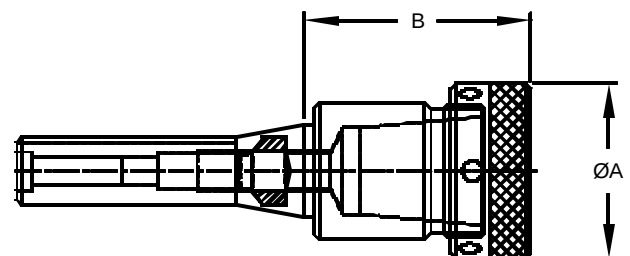
R8 Jacobs Taper Holders

SJ Number	Description	A Length	Gage Line Dia.
06435	R8 JT # 1	0.66	.384
06440	R8 JT # 2	0.88	.559
06445	R8 JT # 3	1.22	.811
06450	R8 JT # 4	1.66	1.124
06455	R8 JT # 6	1.00	.676
06460	R8 JT # 33	1.00	.624



R8 Collect Chuck Single Angle

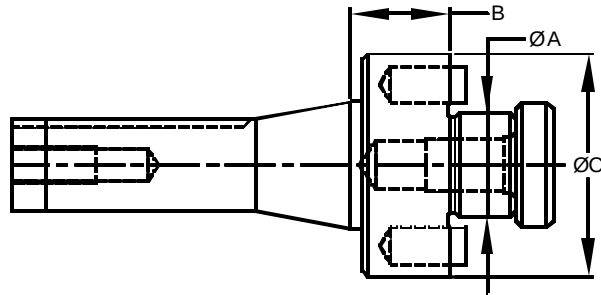
SJ Number	Description	Nut	B Proj.	A Dia.
06350	R8 X 75SA	95380	2.38	2.12
06355	R8 X 100SA	95390	3 1/8	2.44
06360	R8 X 16ER	05184	1 1/8	1.08
06365	R8 X 25ER	05185	2.00	1.65
06370	R8 X 40ER	05187	2.50	2.48



See pages 19 for collets

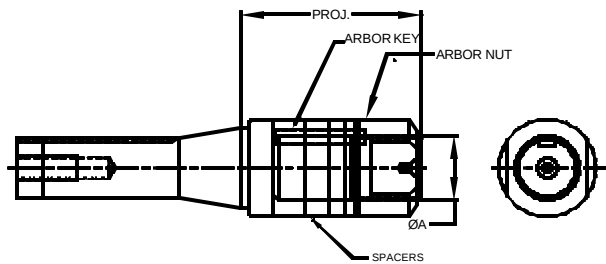
R8 Shell Mill Holders

SJ Number	Description	A Pilot	B Proj.	C Dia.
06375	R8 SMH .500 1.00	.500	1.00	1.75
06380	R8 SMH .750 1.00	.750	1.00	1.75
06385	R8 SMH 1.00 1.00	1.00	1.00	2.19
06390	R8 SMH 1.25 1.25	1.25	1.25	2.75
06395	R8 SMH 1.50 1.25	1.50	1.25	3.62



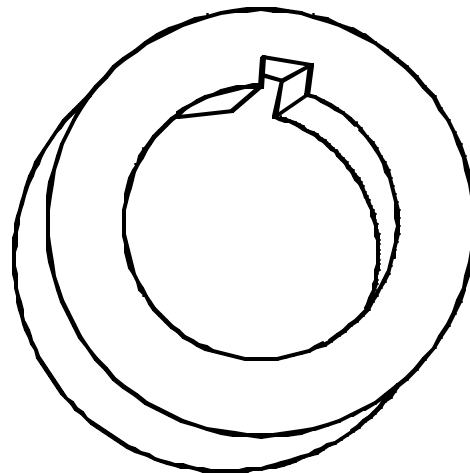
R8 Stub Mill Holders

SJ Number	Proj.	A Dia.	Spacers	Nut
06400	2.75	1.00	1/8, 1/4, 3/8, 1/2	36475
06405	2.81	1.25	1/8, 1/4, 3/8, 1/2	36466



R8 1" Arbor Spacers

SJ Number	Spacers
34212	1/8
34214	1/4
34216	3/8
34218	1/2



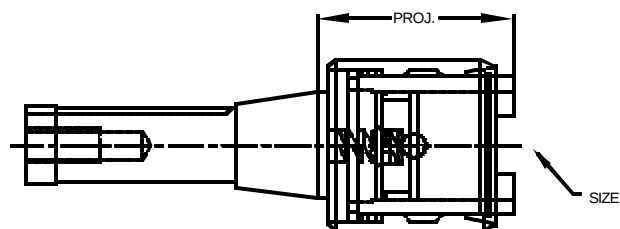
R8 1- 1/4" Arbor Spacers

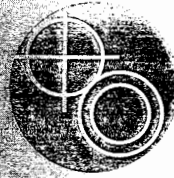
SJ Number	Spacers
34244	1/8
34246	1/4
34248	3/8
34250	1/2

R8 Quick Change Tap Adapter

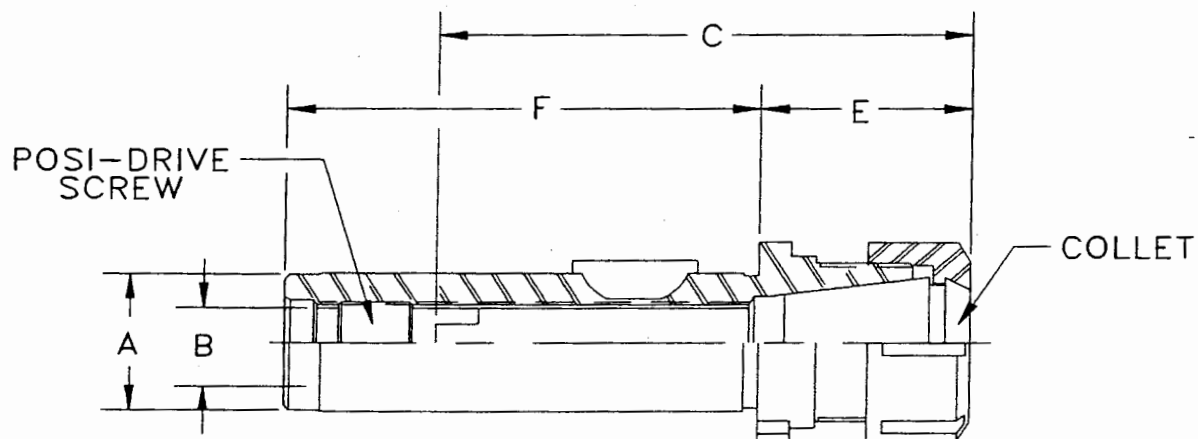
SJ Number	Size	Proj.
06410	1	1.45
06415	2	2.25

See Page 45, 46, 47 & 48 for Tap Adapters.



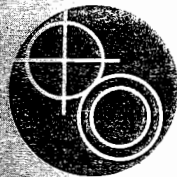


- Manufactured to .0005 TIR measured 4" from gage line
- Quick-Change system allows 5-second tool change with no wrenches or keys
- Uses ER-style ultra-precision collets for maximum availability and minimum cost
- Uses the Magik™ collet nut which increases clamping force up to 100%
- Uses the Accu-Quik Lug-Lock™ nose adapter for positive locking in the spindle
- Requires no spindle modifications such as nose tapers or special set screw holes
- Will retrofit in all spindles make for 50° taper holders with no modifications
- Protected with Dyclad™ for rust protection, wear reduction and added lubricity



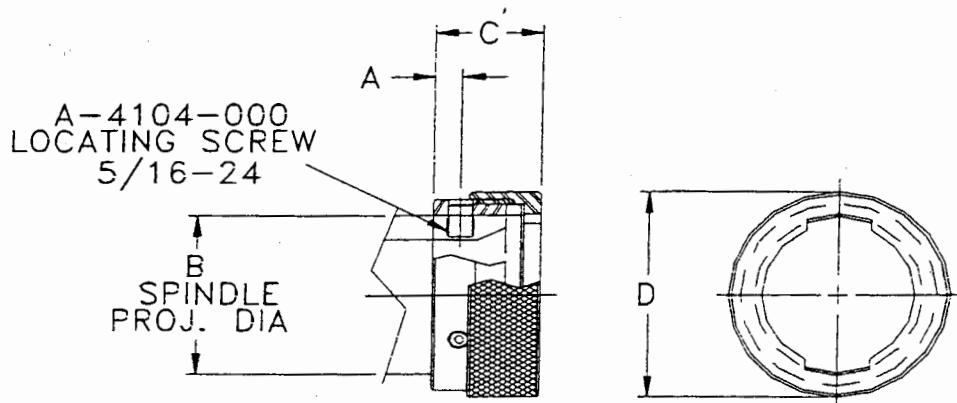
SEIBERT PART NO.	SHANK DIA. A	S/A COLLET SERIES NO. & RANGE	POSI-DRIVE SCREW NO. & SIZE	MAX DIA. THRU SHANK B	POSI-DRIVE ADJUSTMENT C	COLLET NUT		NOSE PROJECTION E
						D MAX O.D.	HEX SIZE	
A-4679-	5/8	ER-11 .019 TO .276	A-5860- 5/16-24 LH	.250	1.12" TO 3.15"	.630	.433	1.35
A-4680-	3/4	ER-16 .019 TO .394	A-5863- 7/16-20 LH	.375	1.56" TO 3.15"	1.10	.787	1.80
A-4681-	1-1/16	ER-16 .019 TO .394	A-5863- 7/16-20 LH	.375	1.56" TO 3.15"	1.10	.787	1.80
A-4682-	1-1/16	ER-32 .079 TO .787	A-5981- 3/4-16 LH	.656	2.14" TO 3.55"	1.97	---	1.75
A-4683-	1-3/8	ER-32 .079 TO .787	A-5869- 13/16-20 LH	.750	2.14" TO 3.55"	1.97	---	1.75

Lug-Lock™ System For Use With Accu-Quik™



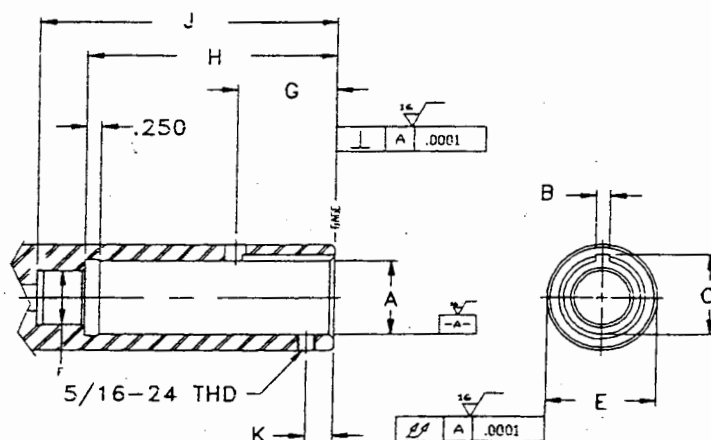
SEIBERT

Lug-Lock™ Spindle Nose Adapter For Accu-Quik™



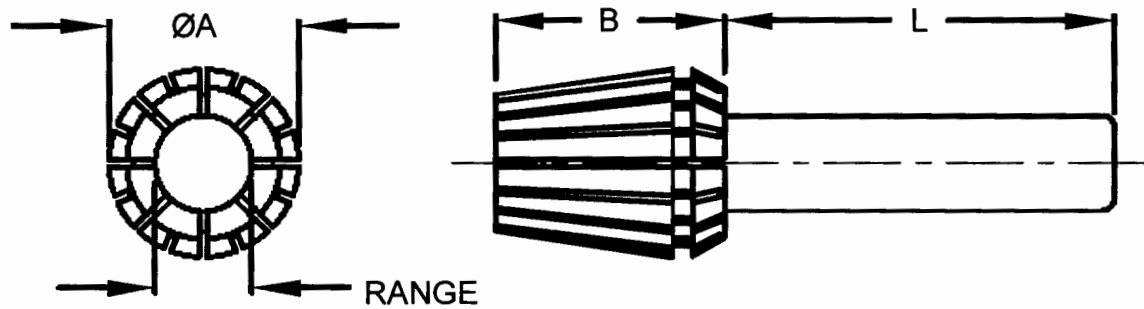
PART NUMBER	ADAPTER SHANK SIZE	A	$\pm .000$ -.002	$\pm .000$ 0.010	MAX D
A-4149-000	5/8	0.320	0.985	1.250	1.562
A-4150-000	3/4	0.320	1.235	1.250	1.770
A-4151-000	1-1/16	0.320	1.610	1.250	2.190
A-4152-000	1-3/8	0.320	1.985	1.250	2.565

Accu-Quik™ Spindle Detail



$\pm .0003$ 0.000	$\pm .005$ 0.000	$\pm .005$ 0.000	$\pm .000$ -.002	$\pm .000$ 0.002	MIN	H	J	$\pm .000$ -.005
A	B	C	E	F	G	H	J	K
0.6253	0.162	0.710	0.985	—	1.000	2.625	—	0.500
0.7503	0.162	0.830	1.235	—	1.000	2.781	3.625	0.500
1.0629	0.193	1.158	1.610	0.750	1.375	3.400	4.250	0.500
1.3754	0.256	1.499	1.985	1.000	1.750	4.400	5.250	0.500

Single Angle Collet



METRIC				
CLAMPING RANGE		L	RUNOUT TOLERANCE	
D			PRECISION	HIGH
MIN.	MAX.		DIN 6499	DIN 6499
1.0	1.6	6	0.015	0.008
1.6	3.0	10		
3.0	6.0	16		
6.0	10.0	25		
10.0	18.0	40	0.020	0.010
18.0	26.0	50		
26.0	34.0	60	0.025	

INCHES				
CLAMPING RANGE		L	RUNOUT TOLERANCE	
D			PRECISION	HIGH PRECISION
MIN.	MAX.		DIN 6499	DIN 6499
0.039	0.063	0.236	0.0006	0.0003
0.063	0.118	0.394		
0.118	0.236	0.630		
0.236	0.394	0.984		
0.394	0.709	1.575	0.0008	0.0004
0.709	1.024	1.969		
1.024	1.339	2.362	0.0010	

ER SINGLE ANGLE COLLETS



O.D LENGTH	A B	.355 .531	.453 .709	.472 .709	.669 1.063	.827 1.220	1.024 1.378	1.299 1.575	1.614 1.811
RANGE (IN.)		ER 8	ER 11	ER 12	ER 16	ER 20	ER 25	ER 32	ER 40
.019/.039	A-4190-039	A-4191-039	A-4192-039	A-4193-039					
.039/.059	A-4190-059	A-4191-059	A-4192-059						
.059/.079	A-4190-079	A-4191-079	A-4192-079	A-4193-079	A-4194-079	A-4195-079			
.079/.098	A-4190-098	A-4191-098	A-4192-098						
.098/.118	A-4190-118	A-4191-118	A-4192-118	A-4193-118	A-4194-118	A-4195-118	A-4196-118		
.118/.138	A-4190-138	A-4191-138							
.138/.157	A-4190-157	A-4191-157	A-4192-157	A-4193-157	A-4194-157	A-4195-157	A-4196-157	A-4197-157	
.157/.177	A-4190-177	A-4191-177							
.177/.197	A-4190-197	A-4191-197	A-4192-197	A-4193-197	A-4194-197	A-4195-197	A-4196-197	A-4197-197	
.197/.217		A-4191-217							
.217/.236		A-4191-236	A-4192-236	A-4193-236	A-4194-236	A-4195-236	A-4196-236	A-4197-236	
.236/.256		A-4191-256							
.256/.276		A-4191-276	A-4192-276	A-4193-276	A-4194-276	A-4195-276	A-4196-276	A-4197-276	
.276/.315				A-4193-315	A-4194-315	A-4195-315	A-4196-315	A-4197-315	
.315/.354				A-4193-354	A-4194-354	A-4195-354	A-4196-354	A-4197-354	
.354/.394				A-4193-394	A-4194-394	A-4195-394	A-4196-394	A-4197-394	
.394/.433					A-4194-433	A-4195-433	A-4196-433	A-4197-433	
.433/.472					A-4194-472	A-4195-472	A-4196-472	A-4197-472	
.472/.512					A-4194-512	A-4195-512	A-4196-512	A-4197-512	
.512/.551						A-4195-551	A-4196-551	A-4197-551	
.551/.591						A-4195-591	A-4196-591	A-4197-591	
.591/.630						A-4195-630	A-4196-630	A-4197-630	
.630/.669							A-4196-669	A-4197-669	
.669/.709							A-4196-709	A-4197-709	
.709/.748							A-4196-748	A-4197-748	
.748/.787							A-4196-787	A-4197-787	
.787/.827								A-4197-827	
.827/.866								A-4197-866	
.866/.906								A-4197-906	
.906/.945								A-4197-945	
.945/.984								A-4197-984	
.984/1.024								A-4197-1024	