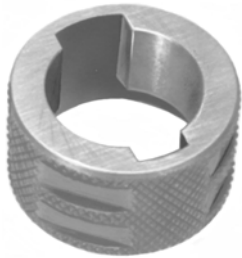


Helox®—Shelox® Guidance System

UNITED HELOX®
UNITED SHELOX®



- ★ No Repairs
- ★ No Clamps
- ★ No Reworks
- ★ No Lock Screws
- ★ No Strip Mounting
- ★ No Massive Lock Liners
- ★ No Big Money Worries

Helox and Shelox are
UNITED's registered
trademark names.

PATENT 3,756,736

★ LESS SPACE

★ BIG COST SAVINGS

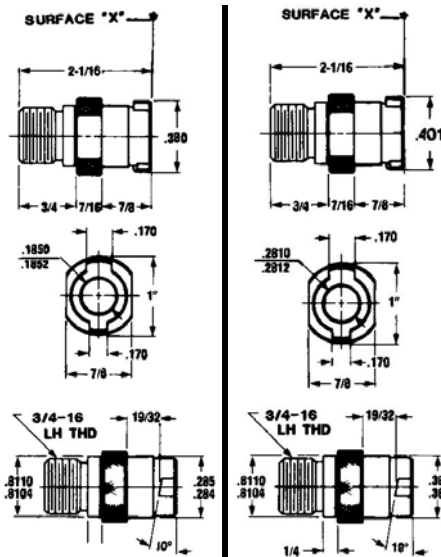
Helox®—Shelox® Guidance



490000 Series
3/4-16 2A L.H.

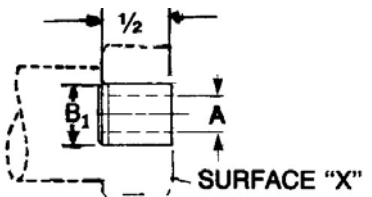
500000 Series
3/4-16 2A L.H.

51000 THRU 60000 ON FOLLOWING PAGES.



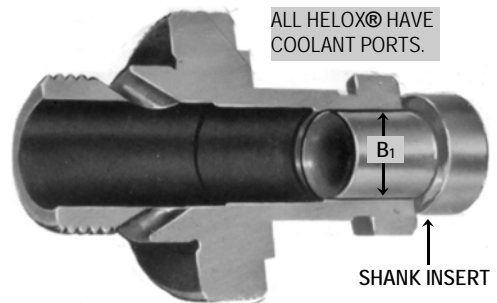
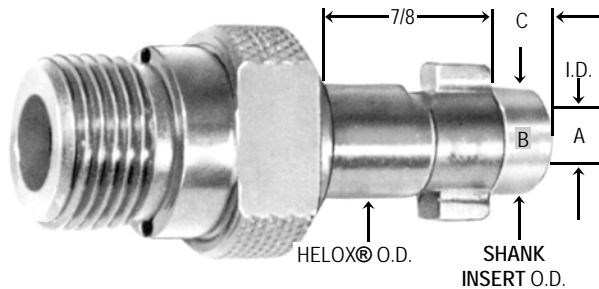
Shank Insert Information

Shank Inserts for UNITED's HELOX® Adapters are similar to the standard shank for the Nurlock Adapters. They are supplied pressed into the HELOX® Adapter or they may be purchased separately.



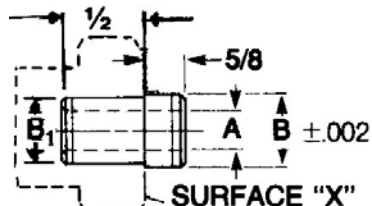
When your fixture is mounted flush to the workpiece and you are using the Knurled SHELOX® for plastic tooling, specify 'FLUSH' insert and leave the bushing to us.

HELOX® SHANK INSERTS



Shank Inserts: 490000 & 500000

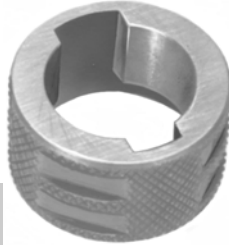
A DRILL SIZE	MIN. 1/16 (.0625) MAX 7/64 (.1094)	1/16 (.0625) 13/16 (.2031)
B	.259	.363
B ₁	.1863	.2823
C' LENGTH SHANK EXTENDS FROM HELOX® (INCHES)	FLUSH	UDB-A490100 UDB-A501100
	1/4	UDB-A490100A UDB-A501100A
	3/8	UDB-A490101 UDB-A501101
	1/2	UDB-A490102 UDB-A501102
	5/8	UDB-A490103 UDB-A501103
	3/4	UDB-A490104 UDB-A501104
	7/8	UDB-A490105 UDB-A501105
	1"	UDB-A490106 UDB-A501106
	1-1/16	UDB-A490107 UDB-A501107
	1-1/8	UDB-A490108 UDB-A501108
	1-3/16	UDB-A490109 UDB-A501109
	1-1/4	UDB-A490110 UDB-A501110
	1-3/8	UDB-A490111 UDB-A501111
	1-7/16	UDB-A490112 UDB-A501112
	1-1/2	UDB-A490113 UDB-A501113
	1-5/8	UDB-A490114 UDB-A501114
	1-3/4	UDB-A490115 UDB-A501115
	1-7/8	UDB-A490116 UDB-A501116
	1-15/16	UDB-A490117 UDB-A501117
	2"	UDB-A490118 UDB-A501118
	2-1/8	UDB-A490119 UDB-A501119
	2-1/4	UDB-A490120 UDB-A501120
	2-3/8	UDB-A490121 UDB-A501121
	2-1/2	UDB-A490122 UDB-A501122
2-5/8	UDB-A490123 UDB-A501123	
2-3/4	UDB-A490124 UDB-A501124	
3"	UDB-A490125 UDB-A501125	
3-1/4	UDB-A490126 UDB-A501126	
3-1/2	UDB-A490127 UDB-A501127	
3-3/4	UDB-A490128 UDB-A501128	
4"	UDB-A490129 UDB-A501129	
5"	UDB-A490130 UDB-A501130	
6"	UDB-A490131 UDB-A501131	



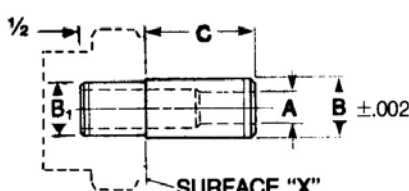
With 1-1/2" style 'S' SHELOX® Liners, use shank inserts 5/8" long in order to be flush with bottom of

A.N.S.I. STANDARD TOLERANCE ON 'A' DIMENSION OF INSERT SHANK	
UP TO 1/4	+0.001 TO +0.004
OVER 1/4 TO 3/4	+0.001 TO +0.005
OVER 3/4 TO 1-1/2	+0.002 TO +0.006

Shelox® Style 'P'
(Plastics or Soft Tooling)



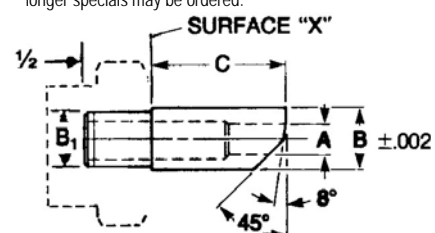
Shelox® Style 'A' Head Down
(Aluminum or Steel Tooling)



In applications where the workpiece is located some distance from the fixture, shanks up to 6" in length or longer specials may be ordered.



Shelox® Style 'S' Head Up
(Aluminum or Steel Tooling)



UNITED's Contour Surface Shank may be ordered for drilling sloped or contoured surfaces. The Contour Shank is assembled with the ground angles in 'Clacked' position with the HELOX.



HELOX ONLY	UDB-490000	UDB-500000
Shelox® Style 'A' Ring, Retaining	UDB-521049 (.286 ID x .499 OD) UDB-521549	UDB-521050 (.390 ID x .625 OD) UDB-521550
Shelox® Style 'S' Ring, Lock	UDB-521349 (.286 ID x .499 OD) UDB-521449	UDB-521350 (.390 ID x .625 OD) UDB-521450
Shelox® Style 'P'	UDB-521149 (.286 ID x .499 OD)	UDB-521150 (.390 ID x .625 OD)



Adapters-Shank Inserts-Liners

49000 THRU 50000
ON PREVIOUS
PAGE.

510000 Series
3/4-16 2A L.H.

520000 Series
3/4-16 2A L.H.

530000 Series
1"-14 2A L.H.

540000 Series
1"-14 2A L.H.

550000 Series
1-1/4-12 2A L.H.

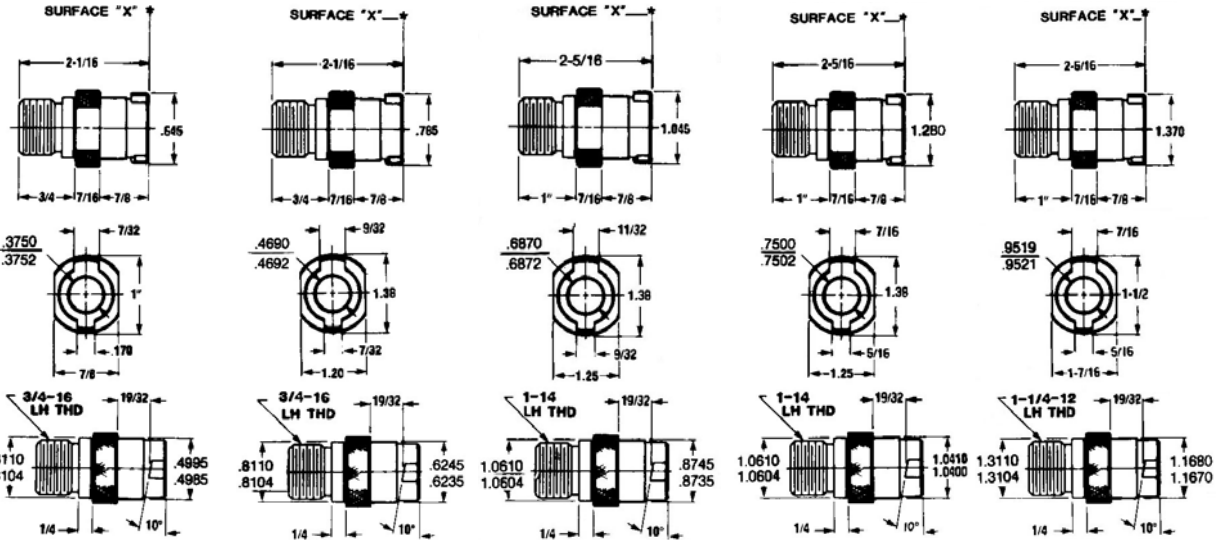
PATENT:
3,756,736

**UNITED
HELOX®**

**Shank
Inserts**

**51000
THRU
55000**

**SHELOX®
Liners**



A DRILL SIZE	MIN. 1/16 (.0625) MAX 19/64 (.2969)	1/16 (.0625) 23/64 (.3594)	3/32 (.0938) 13/32 (.4062)	3/32 (.0938) 5/8 (.6250)	1/4 (.2500) 3/4 (.7500)	
B	.473	.598	.848	1.000	1.093	
B ₁	.3763	.4703	.6883	.7516	.9535	
C LENGTH SHANK EXTENDS FROM HELOX® (INCHES)	FLUSH	UDB-A511100	UDB-A521200	UDB-A531300	UDB-A542400	UDB-A553400
	1/4	UDB-A511100A	UDB-A521200A	UDB-A531300A	UDB-A542400A	UDB-A553400A
	3/8	UDB-A511101	UDB-A521201	UDB-A531301	UDB-A542401	UDB-A553401
	1/2	UDB-A511102	UDB-A521202	UDB-A531302	UDB-A542402	UDB-A553402
	5/8	UDB-A511103	UDB-A521203	UDB-A531303	UDB-A542403	UDB-A553403
	3/4	UDB-A511104	UDB-A521204	UDB-A531304	UDB-A542404	UDB-A553404
	7/8	UDB-A511105	UDB-A521205	UDB-A531305	UDB-A542405	UDB-A553405
	1"	UDB-A511106	UDB-A521206	UDB-A531306	UDB-A542406	UDB-A553406
	1-1/16	UDB-A511107	UDB-A521207	UDB-A531307	UDB-A542407	UDB-A553407
	1-1/8	UDB-A511108	UDB-A521208	UDB-A531308	UDB-A542408	UDB-A553408
	1-3/16	UDB-A511109	UDB-A521209	UDB-A531309	UDB-A542409	UDB-A553409
	1-1/4	UDB-A511110	UDB-A521210	UDB-A531310	UDB-A542410	UDB-A553410
	1-3/8	UDB-A511111	UDB-A521211	UDB-A531311	UDB-A542411	UDB-A553411
	1-7/16	UDB-A511112	UDB-A521212	UDB-A531312	UDB-A542412	UDB-A553412
	1-1/2	UDB-A511113	UDB-A521213	UDB-A531313	UDB-A542413	UDB-A553413
	1-5/8	UDB-A511114	UDB-A521214	UDB-A531314	UDB-A542414	UDB-A553414
	1-3/4	UDB-A511115	UDB-A521215	UDB-A531315	UDB-A542415	UDB-A553415
	1-7/8	UDB-A511116	UDB-A521216	UDB-A531316	UDB-A542416	UDB-A553416
	1-15/16	UDB-A511117	UDB-A521217	UDB-A531317	UDB-A542417	UDB-A553417
	2"	UDB-A511118	UDB-A521218	UDB-A531318	UDB-A542418	UDB-A553418
2-1/8	UDB-A511119	UDB-A521219	UDB-A531319	UDB-A542419	UDB-A553419	
2-1/4	UDB-A511120	UDB-A521220	UDB-A531320	UDB-A542420	UDB-A553420	
2-3/8	UDB-A511121	UDB-A521221	UDB-A531321	UDB-A542421	UDB-A553421	
2-1/2	UDB-A511122	UDB-A521222	UDB-A531322	UDB-A542422	UDB-A553422	
2-5/8	UDB-A511123	UDB-A521223	UDB-A531323	UDB-A542423	UDB-A553423	
2-3/4	UDB-A511124	UDB-A521224	UDB-A531324	UDB-A542424	UDB-A553424	
3"	UDB-A511125	UDB-A521225	UDB-A531325	UDB-A542425	UDB-A553425	
3-1/4	UDB-A511126	UDB-A521226	UDB-A531326	UDB-A542426	UDB-A553426	
3-1/2	UDB-A511127	UDB-A521227	UDB-A531327	UDB-A542427	UDB-A553427	
3-3/4	UDB-A511128	UDB-A521228	UDB-A531328	UDB-A542428	UDB-A553428	
4"	UDB-A511129	UDB-A521229	UDB-A531329	UDB-A542429	UDB-A553429	
5"	UDB-A511130	UDB-A521230	UDB-A531330	UDB-A542430	UDB-A553430	
6"	UDB-A511131	UDB-A521231	UDB-A531331	UDB-A542431	UDB-A553431	
HELOX® ONLY	UDB-510000	UDB-520000	UDB-530000	UDB-540000	UDB-550000	
Shelox® Style 'A' Ring, Retaining	UDB-521051 (.500 ID x .780 OD) UDB-521551	UDB-521052 (.625 ID x .999 OD) UDB-521552	UDB-521053 (.875 ID x 1.249 OD) UDB-521553	UDB-521054 (1.042 ID x 1.436 OD) UDB-521554	UDB-521055 (1.169 ID x 1.561 OD) UDB-521555	
Shelox® Style 'S' Ring, Lock	UDB-521351 (.500 ID x .8748 OD) UDB-521451	UDB-521352 (.625 ID x .9998 OD) UDB-521452	UDB-521353 (.875 ID x 1.2498 OD) UDB-521453	UDB-521354 (1.042 ID x 1.4998 OD) UDB-521454	UDB-521355 (1.169 ID x 1.6248 OD) UDB-521455	
Shelox® Style 'P'	UDB-521151 (.500 ID x .837 OD)	UDB-521152 (.625 ID x 1.085 OD)	UDB-521153 (.875 ID x 1.335 OD)	UDB-521154 (1.042 ID x 1.563 OD)	UDB-521155 (1.169 ID x 1.688 OD)	

Adapters-Shank Inserts-Liners



49000 THRU 55000 ON PREVIOUS PAGES.	56000 Series 1-1/4-12 2A L.H.	57000 Series 1-1/2-12 2A L.H.	58000 Series 2"-16 2A L.H.	59000 Series 2"-16 2A L.H.	60000 Series 2-1/2-16 2A L.H.
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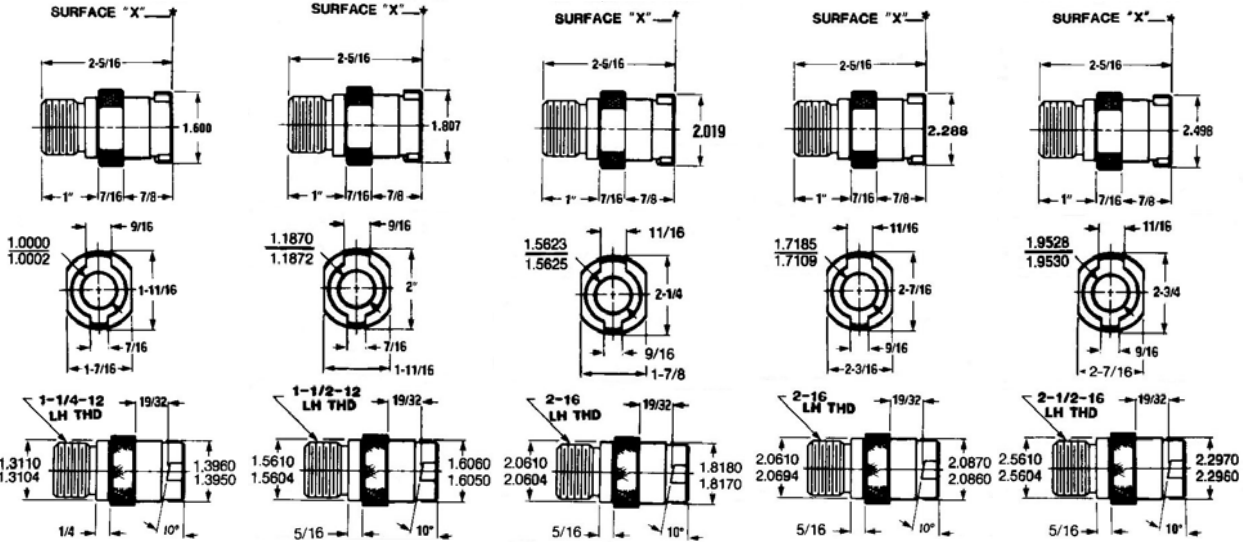
PATENT:
3,756,736

**UNITED
HELOX®**

**Shank
Inserts**

**56000
THRU
60000**

**SHELOX®
Liners**



A DRILL SIZE	MIN. 1/4 (.2500) MAX 7/8 (.8750)	5/16 (.3125) 1-7/64 (1.1093)	5/16 (.3125) 1-11/64 (1.1719)	3/8 (.3750) 1-9/16 (1.5625)	3/8 (.3750) 1-3/4 (1.7500)	
B	1.281	1.406	1.500	1.875	2.125	
B ₁	1.0020	1.1892	1.5645	1.7212	1.9549	
C LENGTH SHANK EXTENDS FROM HELOX® (INCHES)	FLUSH	UDB-A563400	UDB-A574700	UDB-A584700	UDB-A595400	UDB-A605400
	1/4	UDB-A563400A	UDB-A574700A	UDB-A584700A	UDB-A595400A	UDB-A605400A
	3/8	UDB-A563401	UDB-A574701	UDB-A584701	UDB-A595401	UDB-A605401
	1/2	UDB-A563402	UDB-A574702	UDB-A584702	UDB-A595402	UDB-A605402
	5/8	UDB-A563403	UDB-A574703	UDB-A584703	UDB-A595403	UDB-A605403
	3/4	UDB-A563404	UDB-A574704	UDB-A584704	UDB-A595404	UDB-A605404
	7/8	UDB-A563405	UDB-A574705	UDB-A584705	UDB-A595405	UDB-A605405
	1"	UDB-A563406	UDB-A574706	UDB-A584706	UDB-A595406	UDB-A605406
	1-1/16	UDB-A563407	UDB-A574707	UDB-A584707	UDB-A595407	UDB-A605407
	1-1/8	UDB-A563408	UDB-A574708	UDB-A584708	UDB-A595408	UDB-A605408
	1-3/16	UDB-A563409	UDB-A574709	UDB-A584709	UDB-A595409	UDB-A605409
	1-1/4	UDB-A563410	UDB-A574710	UDB-A584710	UDB-A595410	UDB-A605410
	1-3/8	UDB-A563411	UDB-A574711	UDB-A584711	UDB-A595411	UDB-A605411
	1-7/16	UDB-A563412	UDB-A574712	UDB-A584712	UDB-A595412	UDB-A605412
	1-1/2	UDB-A563413	UDB-A574713	UDB-A584713	UDB-A595413	UDB-A605413
	1-5/8	UDB-A563414	UDB-A574714	UDB-A584714	UDB-A595414	UDB-A605414
	1-3/4	UDB-A563415	UDB-A574715	UDB-A584715	UDB-A595415	UDB-A605415
	1-7/8	UDB-A563416	UDB-A574716	UDB-A584716	UDB-A595416	UDB-A605416
	1-15/16	UDB-A563417	UDB-A574717	UDB-A584717	UDB-A595417	UDB-A605417
	2"	UDB-A563418	UDB-A574718	UDB-A584718	UDB-A595418	UDB-A605418
	2-1/8	UDB-A563419	UDB-A574719	UDB-A584719	UDB-A595419	UDB-A605419
	2-1/4	UDB-A563420	UDB-A574720	UDB-A584720	UDB-A595420	UDB-A605420
	2-3/8	UDB-A563421	UDB-A574721	UDB-A584721	UDB-A595421	UDB-A605421
	2-1/2	UDB-A563422	UDB-A574722	UDB-A584722	UDB-A595422	UDB-A605422
	2-5/8	UDB-A563423	UDB-A574723	UDB-A584723	UDB-A595423	UDB-A605423
	2-3/4	UDB-A563424	UDB-A574724	UDB-A584724	UDB-A595424	UDB-A605424
	3"	UDB-A563425	UDB-A574725	UDB-A584725	UDB-A595425	UDB-A605425
	3-1/4	UDB-A563426	UDB-A574726	UDB-A584726	UDB-A595426	UDB-A605426
	3-1/2	UDB-A563427	UDB-A574727	UDB-A584727	UDB-A595427	UDB-A605427
	3-3/4	UDB-A563428	UDB-A574728	UDB-A584728	UDB-A595428	UDB-A605428
	4"	UDB-A563429	UDB-A574729	UDB-A584729	UDB-A595429	UDB-A605429
	5"	UDB-A563430	UDB-A574730	UDB-A584730	UDB-A595430	UDB-A605430
	6"	UDB-A563431	UDB-A574731	UDB-A584731	UDB-A595431	UDB-A605431
	HELOX® ONLY	UDB-560000	UDB-570000	UDB-580000	UDB-590000	UDB-600000
	Shelox® Style 'A' Ring, Retaining	UDB-521056 (1.397 ID x 1.8115 OD) UDB-521556	UDB-521057 (1.607 ID x 2.061 OD) UDB-521557	UDB-521058 (1.819 ID x 2.311 OD) UDB-521558	UDB-521059 (2.088 ID x 2.561 OD) UDB-521559	UDB-521060 (2.298 ID x 2.874 OD) UDB-521560
	Shelox® Style 'S' Ring, Lock	UDB-521356 (1.397 ID x 1.8748 OD) UDB-521456	UDB-521357 (1.607 ID x 2.1248 OD) UDB-521457	UDB-521358 (1.819 ID x 2.2498 OD) UDB-521458	UDB-521359 (2.088 ID x 2.6248 OD) UDB-521459	UDB-521360 (2.298 ID x 2.8748 OD) UDB-521460
Shelox® Style 'P'	UDB-521156 (1.397 ID x 1.938 OD)	UDB-521157 (1.607 ID x 2.188 OD)	UDB-521158 (1.819 ID x 2.438 OD)	UDB-521159 (2.088 ID x 2.688 OD)	UDB-521160 (2.298 ID x 2.938 OD)	

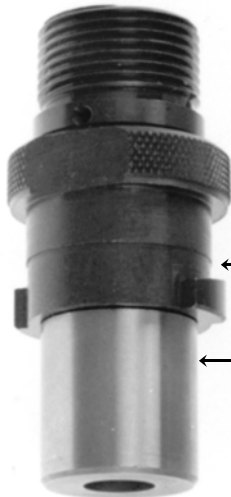
Helox[®] Telescopic Assy

Helox[®] Telescoping For Gun Drilling

HELOX[®] TELESCOPIC ASSEMBLIES

SERIES CONTINUES NEXT PAGE.
PATENT: 3,756,736

Actual Travel is 5/8" for 492000 thru 522000.
Actual Travel is 3/4" for 532000 thru 602000.
Both are rated 1/2" only.



← ADAPTER

← TELESCOPIC SHANK

SEALS AGAINST WORK PIECE.

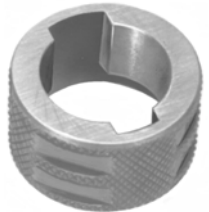
Shelox[®] Style 'S' Head Up (Aluminum or Steel Tooling)



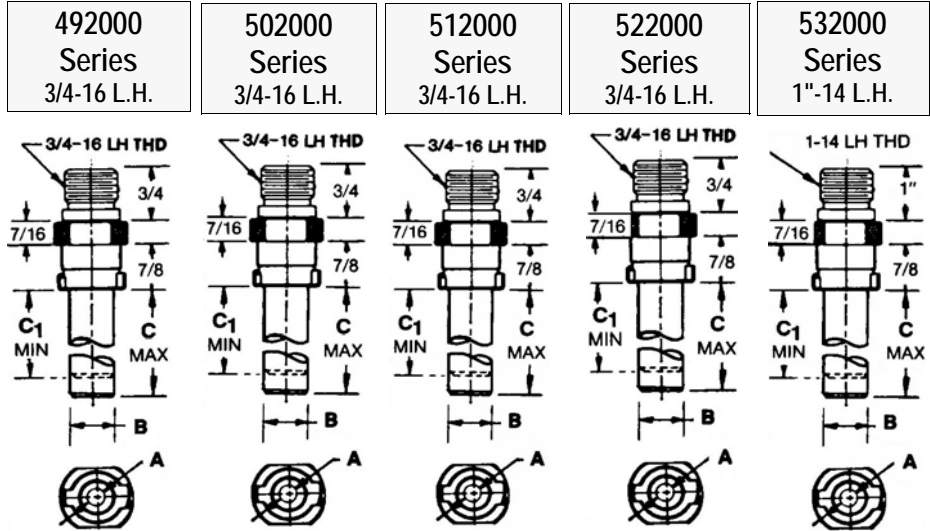
Shelox[®] Style 'A' Head Down (Aluminum or Steel Tooling)



Shelox[®] Style 'P' (Plastics or Soft Tooling)



Shelox[®] Telescoping Spring



TELESCOPIC RANGE	C ₁ MIN LEN	C MAX LEN	A DIA. MIN.		B DIA		
			.0625 MAX .1094	.0625 .2031	3/16	9/32	
FLUSH	1/2	1"	UDB-A492002	UDB-A502002	UDB-A512002	UDB-A522002	UDB-A532002
1/2"	1"	1-1/2"	UDB-A492006	UDB-A502006	UDB-A512006	UDB-A522006	UDB-A532006
1"	1-1/2"	2"	UDB-A492013	UDB-A502013	UDB-A512013	UDB-A522013	UDB-A532013
1-1/2"	2"	2-1/2"	UDB-A492018	UDB-A502018	UDB-A512018	UDB-A522018	UDB-A532018
2"	2-1/2"	3"	UDB-A492022	UDB-A502022	UDB-A512022	UDB-A522022	UDB-A532022
2-1/2"	3"	3-1/2"	UDB-A492025	UDB-A502025	UDB-A512025	UDB-A522025	UDB-A532025
3"	3-1/2"	4"	UDB-A492027	UDB-A502027	UDB-A512027	UDB-A522027	UDB-A532027
3-1/2"	4"	4-1/2"	UDB-A492029	UDB-A502029	UDB-A512029	UDB-A522029	UDB-A532029
4"	4-1/2"	5"	UDB-A492029B	UDB-A502029B	UDB-A512029B	UDB-A522029B	UDB-A532029B
4-1/2"	5"	5-1/2"	UDB-A492030	UDB-A502030	UDB-A512030	UDB-A522030	UDB-A532030
5"	5-1/2"	6"	UDB-A492030B	UDB-A502030B	UDB-A512030B	UDB-A522030B	UDB-A532030B
5-1/2"	6"		UDB-A492031	UDB-A502031	UDB-A512031	UDB-A522031	UDB-A532031

HELOX [®]	UDB-492000	UDB-502000	UDB-512000	UDB-522000	UDB-532000
Shelox [®] Style 'A'	UDB-521049	UDB-521050	UDB-521051	UDB-521052	UDB-521053
Ring, Retaining	.286 ID x .499 OD UDB-521549	.390 ID x .625 OD UDB-521550	.500 ID x .780 OD UDB-521551	.625 ID x .999 OD UDB-521552	.875 ID x 1.249 OD UDB-521553
Shelox [®] Style 'S'	UDB-521349	UDB-521350	UDB-521351	UDB-521352	UDB-521353
Ring, Lock	.286 ID x .499 OD UDB-521449	.390 ID x .625 OD UDB-521450	.500 ID x .8748 OD UDB-521451	.625 ID x .9998 OD UDB-521452	.875 ID x 1.2498 OD UDB-521453
Shelox [®] Style 'P'	UDB-521149	UDB-521150	UDB-521151	UDB-521152	UDB-521153
Spring, Telescoping	.286 ID x .499 OD UDB-A492000-S	.390 ID x .625 OD UDB-A502000-S	.500 ID x .837 OD UDB-A512000-S	.625 ID x 1.085 OD UDB-A522000-S	.875 ID x 1.335 OD UDB-A532000-S

ORDERING INSTRUCTIONS:

- To order Telescopic Assembly (Shelox[®] Liners are ordered separately):**
Example: UDB-A532002-(Specify I.D.) = Complete Assembly Flush to 1/2".
Example: UDB-A532006-(Specify I.D.) = Complete Assembly 1/2 to 1".
- To order Adapter Only, omit 'A' from Part No.**
Example: UDB-532000 = Adapter only.
- To order Shank Only, omit 'A' and add suffix 'I' and specify I.D.**
Example: UDB-532002-I-.3750(I.D.) = Insert only, 1/2 to 1".
- To order Spring Only, omit 'A' and add suffix 'S' to Adapter Part No.**
Example: UDB-532002-S = Spring only.
- To order Shelox[®] Liner longer than 7/8", add length to Part No.**
Example: UDB-A521053-Liner 1-1/2 O/L = Shelox[®] Liner 1-1/2 overall length.

Adapter Assemblies

For Gun Drilling

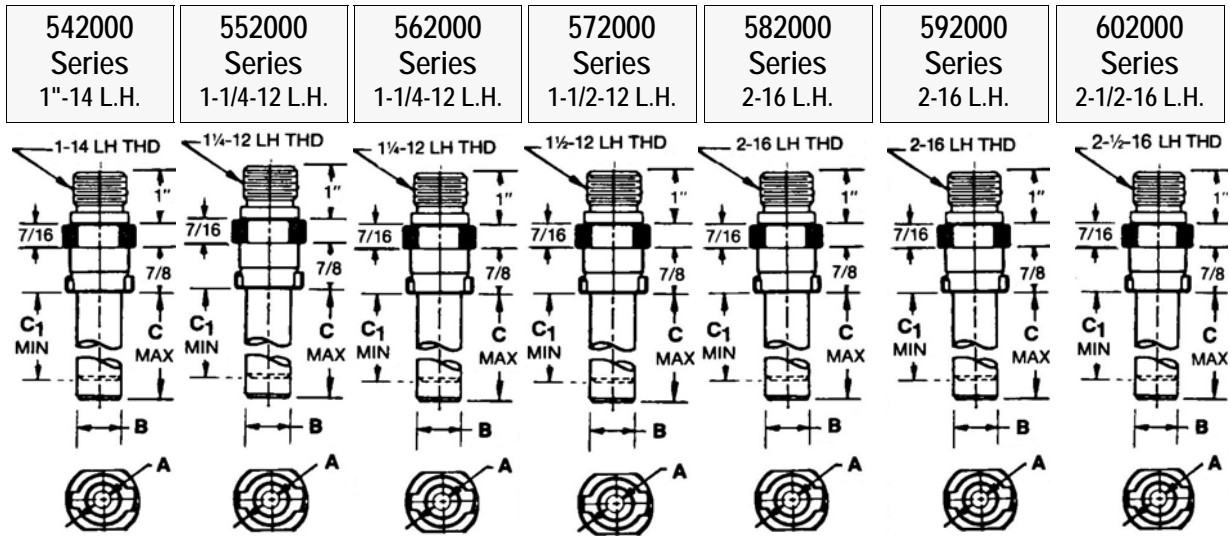
Helox[®]
Telescopic Assy

**UNITED
HELOX[®]
ADAPTERS**

**with
Telescoping
Shanks**

**492000
THRU 602000
Both Pages
Q30-Q31.**

**SHELOX[®]
Liners**



TELESCOPIC RANGE	C ₁ MIN	C MAX	A DIA. MIN.	.0934	.2500	.2500	.3125	.3125	.3750	.3750
	LEN	LEN	MAX	.7250	.7500	1.1093	1.1719	1.5625	1.7500	
			B DIA	3/4	61/64	1"	1-3/16	1-5/16	1-23/32	1-61/64
FLUSH	1/2	1"	UDB-A542002	UDB-A552002	UDB-A562002	UDB-A572002	UDB-A582002	UDB-A592002	UDB-A602002	
1/2	1"	UDB-A542006	UDB-A552006	UDB-A562006	UDB-A572006	UDB-A582006	UDB-A592006	UDB-A602006		
1"	1-1/2	UDB-A542013	UDB-A552013	UDB-A562013	UDB-A572013	UDB-A582013	UDB-A592013	UDB-A602013		
1-1/2	2"	UDB-A542018	UDB-A552018	UDB-A562018	UDB-A572018	UDB-A582018	UDB-A592018	UDB-A602018		
2"	2-1/2	UDB-A542022	UDB-A552022	UDB-A562022	UDB-A572022	UDB-A582022	UDB-A592022	UDB-A602022		
2-1/2	3"	UDB-A542025	UDB-A552025	UDB-A562025	UDB-A572025	UDB-A582025	UDB-A592025	UDB-A602025		
3"	3-1/2	UDB-A542027	UDB-A552027	UDB-A562027	UDB-A572027	UDB-A582027	UDB-A592027	UDB-A602027		
3-1/2	4"	UDB-A542029	UDB-A552029	UDB-A562029	UDB-A572029	UDB-A582029	UDB-A592029	UDB-A602029		
4"	4-1/2	UDB-A542029B	UDB-A552029B	UDB-A562029B	UDB-A572029B	UDB-A582029B	UDB-A592029B	UDB-A602029B		
4-1/2	5"	UDB-A542030	UDB-A552030	UDB-A562030	UDB-A572030	UDB-A582030	UDB-A592030	UDB-A602030		
5"	5-1/2	UDB-A542030B	UDB-A552030B	UDB-A562030B	UDB-A572030B	UDB-A582030B	UDB-A592030B	UDB-A602030B		
5-1/2	6"	UDB-A542031	UDB-A552031	UDB-A562031	UDB-A572031	UDB-A582031	UDB-A592031	UDB-A602031		

HELOX [®]	UDB-542000	UDB-552000	UDB-562000	UDB-572000	UDB-582000	UDB-592000	UDB-602000
Shelox [®] Style 'A'	UDB-521054	UDB-521055	UDB-521056	UDB-521057	UDB-521058	UDB-521059	UDB-521060
Ring, Retaining	1.042 ID x 1.436 OD UDB-521554	1.169 ID x 1.561 OD UDB-521555	1.397 ID x 1.8115 OD UDB-521556	1.607 ID x 2.061 OD UDB-521557	1.819 ID x 2.311 OD UDB-521558	2.088 ID x 2.561 OD UDB-521559	2.298 ID x 2.874 OD UDB-521560
Shelox [®] Style 'S'	UDB-521354	UDB-521355	UDB-521356	UDB-521357	UDB-521358	UDB-521359	UDB-521360
Ring, Lock	1.042 ID x 1.4998 OD UDB-521454	1.169 ID x 1.6248 OD UDB-521455	1.397 ID x 1.8748 OD UDB-521456	1.607 ID x 2.1248 OD UDB-521457	1.819 ID x 2.2498 OD UDB-521458	2.088 ID x 2.6248 OD UDB-521459	2.298 ID x 2.8748 OD UDB-521460
Shelox [®] Style 'P'	UDB-521154	UDB-521155	UDB-521156	UDB-521157	UDB-521158	UDB-521159	UDB-521160
Spring, Telescoping	1.042 ID x 1.563 OD UDB-A542000-S	1.169 ID x 1.688 OD UDB-A552000-S	1.397 ID x 1.938 OD UDB-A562000-S	1.607 ID x 2.188 OD UDB-A572000-S	1.819 ID x 2.438 OD UDB-A582000-S	2.088 ID x 2.688 OD UDB-A592000-S	2.298 ID x 2.938 OD UDB-A602000-S

- No Repairs
- No Clamps
- No Lock Screws
- No Reworks
- No Strip Mounting
- No Massive Lock Liners
- No Big Money Worries

Less Space — Big Results!

TOLERANCE on INSIDE Diameter	
I. D. Range	Tolerance over NOM.
Up to .2500	+0.0001 to +0.0004
Over .2500 to .7500	+0.0001 to +0.0005
Over .7500 to 1.5000	+0.0002 to +0.0006
Over 1.5000 to 1.8750	+0.0003 to +0.0007

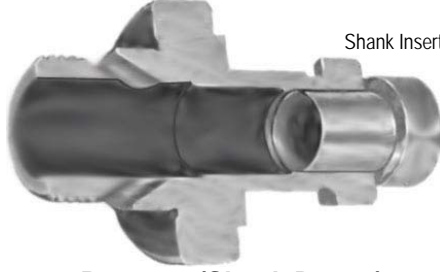
Helox® Adapters

Helox® Adapters for Shank Inserts

HELOX® ADAPTERS



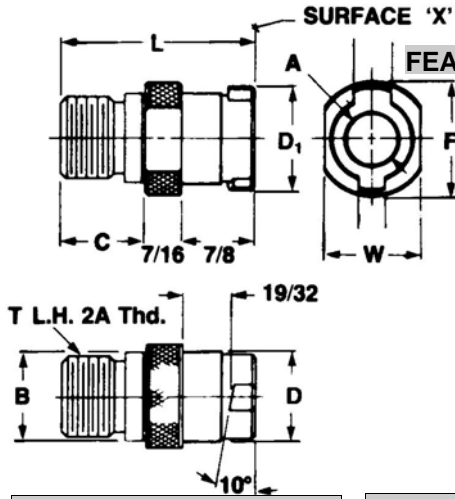
Helox® Adapter



Shank Insert

UNITED's Helox® Adapter Tips and Accessories fit all standard automatic feed drill motors as manufactured by Gardner-Denver (Keller), Buckeye, ARO, Quackenbush, Ingersoll Rand, Rockwell. The threaded end of the Helox® fits into the nose piece of the motor. The male locking ears of the Helox® positively engage the helical inside ramp surfaces of the Shelox® Liner. Locking always occurs at 45° of rotation. This positive lock results in greater accuracy in depth control than previously realized with other conventional adapter tip and lock liner configurations. Shelox® Liners are manufactured for both plastic and steel fixture tooling.

Rc 60-64 (Shank Drawn)
ALLOY STEEL—BLACK OXIDE FINISH



FEATURES:

1. Locking ears provide full bearing with helical internal Shelox® ramps.
2. Helox® outside diameter is knurled to prevent grip slip..
3. Chip clearance counterbore prevents jam ups.
4. Helical ground locking ramps lock positively faster. A 45° turn locks with full bearing and repeats within one degree.
5. Square shoulders, concentric diameters, and precision ground helical ramps assure accurate alignment of drill with axis.
6. Heat treated for strength and wear resistance. Black oxide rust preventative finish.
7. Internal and external diameters are finished to ANSI and UNITED specifications.
8. Locking helical ramps width vary to assure angular control orientation.
9. Absorbs maximum thrust and resists drill torque.
10. Eliminates vibration from powerful, high speed drill motors.

Ordering Information:

HELOX ASSEMBLIES
(Helox Adapter with Shank Installed)

ADD PREFIX "A"
Select the HELOX and the insert shank required. Specify the part number and name. Add the drill size to the part number. The drill size should be specified as a decimal to four places.

EXAMPLE:
UDB-A542401 (.6250)
HELOX ADAPTER TIP
COMPLETE ASSY.

HELOX ONLY

Specify HELOX part number only and part name.

EXAMPLE:
510000 HELOX ADAPTER
ADAPTER
WITHOUT SHANK

SHANK INSERT ONLY

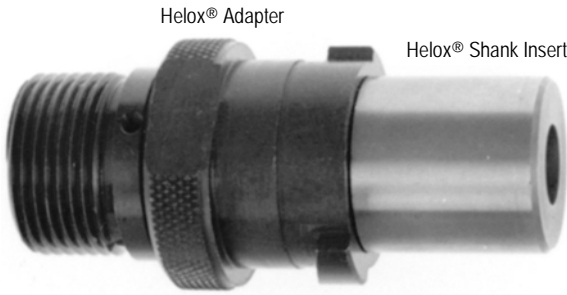
OMIT PREFIX "A"
Determine the shank insert size required to fit the appropriate HELOX omit the "A" from the call-out and specify the drill size to four places.

EXAMPLE:
521201 (.2500)
HELOX SHANK INSERT ONLY

DRILL SIZE RANGE (WITH INSERT)	PART NO.	A +.0002 -.0000	B +.0000 -.0006	T THD	C	D	D ₁	F	L	W	FITS SHELOX NO.
.062 - .1094	UDB-490000	.1850 .1852	.8110 .8104	3/4 - 16	3/4	.285 .284	.380	1	2-1/16	7/8	521049 521149 521349
.062 - .2031	UDB-500000	.2810 .2812	.8110 .8104	3/4 - 16	3/4	.3896 .3886	.491	1	2-1/16	7/8	521050 521150 521350
.062 - .2969	UDB-510000	.3750 .3752	.8110 .8104	3/4 - 16	3/4	.4995 .4985	.645	1	2-1/16	7/8	521051 521151 521351
.062 - .3594	UDB-520000	.4690 .4692	.8110 .8104	3/4 - 16	3/4	.6245 .6235	.785	1-3/8	2-1/16	1-1/4	521052 521152 521352
.0937 - .4062	UDB-530000	.6870 .6872	1.0610 1.0604	1 - 14	1"	.8745 .8735	1.045	1-3/8	2-5/16	1-1/4	521053 521153 521353
.0937 - .6250	UDB-540000	.7500 .7502	1.0610 1.0604	1 - 14	1"	1.0410 1.0400	1.280	1-3/8	2-5/16	1-1/4	521054 521154 521354
.2500 - .7500	UDB-550000	.9519 .9521	1.3110 1.3104	1-1/4 - 12	1"	1.1680 1.1670	1.370	1-1/2	2-5/16	1-7/16	521055 521155 521355
.2500 - .8750	UDB-560000	1.0000 1.0002	1.3110 1.3104	1-1/4 - 12	1"	1.3960 1.3950	1.600	1-11/16	2-5/16	1-7/16	521056 521156 521356
.3125 - 1.1093	UDB-570000	1.1870 1.1872	1.5610 1.5604	1-1/2 - 12	1"	1.6060 1.6050	1.807	2	2-5/16	1-11/16	521057 521157 521357
.3125 - 1.1719	UDB-580000	1.5623 1.5625	2.0610 2.0604	2 - 16	1"	1.8180 1.8170	2.019	2-1/4	2-5/16	1-7/8	521058 521158 521358
.3750 - 1.5625	UDB-590000	1.7185 1.7187	2.0610 2.0604	2 - 16	1"	2.0870 2.0860	2.288	2-7/16	2-5/16	2-3/16	521059 521159 521359
.3750 - 1.7500	UDB-600000	1.9528 1.9530	2.5610 2.5604	2-1/2 - 16	1"	2.2970 2.2960	2.498	2-3/4	2-5/16	2-7/16	521060 521160 521360

Ordering Information: Special sizes are supplied only at extra cost. Drill guide hole tolerances closer than standard are special orders.

Helox[®] Shank Inserts for Helox[®] Adapters



Helox[®] Shank Inserts are configured for your needs. See below right.

HELOX[®] SHANK INSERTS



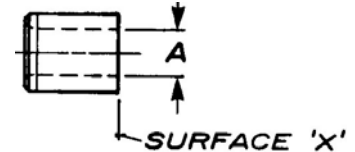
INSERT INFORMATION

Shank Inserts for **UNITED's** Helox[®] Adapters are the same configuration as the Standard Shank for the Nurlock Adapters.

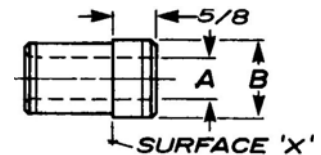
Rc 60-65	
TOLERANCE ON 'A' DIMENSION	
UP TO 1/4	+0.001 TO +0.004
OVER 1/4 TO 3/4	+0.001 TO +0.005
OVER 3/4 TO 1-1/2	+0.002 TO +0.006

They are supplied pressed into the Helox[®] Adapter, or they may be purchased separately.

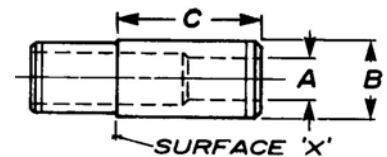
FITS HELOX [®]	490000	500000	510000	520000	530000	540000	550000	560000	570000	580000	590000	600000
A DIA MAX	7/64	13/64	19/64	23/64	13/32	5/8	3/4	7/8	1-7/64	1-11/64	1-9/16	1-3/4
A DIA MIN	1/16	1/16	1/16	1/16	3/32	3/32	1/4	1/4	5/16	5/16	3/8	3/8
B DIA	.259	.363	.473	.598	.848	1.000	1.093	1.281	1.406	1.500	1.875	2.125
C LENGTH												
FLUSH	491100	501100	511100	521200	531300	542400	553400	563400	574700	584700	595400	605400
3/8	491101	501101	511101	521201	531301	542401	553401	563401	574701	584701	595401	605401
1/2	491102	501102	511102	521202	531302	542402	553402	563402	574702	584702	595402	605402
5/8	491103	501103	511103	521203	531303	542403	553403	563403	574703	584703	595403	605403
3/4	491104	501104	511104	521204	531304	542404	553404	563404	574704	584704	595404	605404
7/8	491105	501105	511105	521205	531305	542405	553405	563405	574705	584705	595405	605405
1"	491106	501106	511106	521206	531306	542406	553406	563406	574706	584706	595406	605406
1-1/16	491107	501107	511107	521207	531307	542407	553407	563407	574707	584707	595407	605407
1-1/8	491108	501108	511108	521208	531308	542408	553408	563408	574708	584708	595408	605408
1-3/16	491109	501109	511109	521209	531309	542409	553409	563409	574709	584709	595409	605409
1-1/4	491110	501110	511110	521210	531310	542410	553410	563410	574710	584710	595410	605410
1-3/8	491111	501111	511111	521211	531311	542411	553411	563411	574711	584711	595411	605411
1-7/16	491112	501112	511112	521212	531312	542412	553412	563412	574712	584712	595412	605412
1-1/2	491113	501113	511113	521213	531313	542413	553413	563413	574713	584713	595413	605413
1-5/8	491114	501114	511114	521214	531314	542414	553414	563414	574714	584714	595414	605414
1-3/4	491115	501115	511115	521215	531315	542415	553415	563415	574715	584715	595415	605415
1-7/8	491116	501116	511116	521216	531316	542416	553416	563416	574716	584716	595416	605416
1-15/16	491117	501117	511117	521217	531317	542417	553417	563417	574717	584717	595417	605417
2"	491118	501118	511118	521218	531318	542418	553418	563418	574718	584718	595418	605418
2-1/8	491119	501119	511119	521219	531319	542419	553419	563419	574719	584719	595419	605419
2-1/4	491120	501120	511120	521220	531320	542420	553420	563420	574720	584720	595420	605420
2-3/8	491121	501121	511121	521221	531321	542421	553421	563421	574721	584721	595421	605421
2-1/2	491122	501122	511122	521222	531322	542422	553422	563422	574722	584722	595422	605422
2-5/8	491123	501123	511123	521223	531323	542423	553423	563423	574723	584723	595423	605423
2-3/4	491124	501124	511124	521224	531324	542424	553424	563424	574724	584724	595424	605424
3"	491125	501125	511125	521225	531325	542425	553425	563425	574725	584725	595425	605425
3-1/4	491126	501126	511126	521226	531326	542426	553426	563426	574726	584726	595426	605426
3-1/2	491127	501127	511127	521227	531327	542427	553427	563427	574727	584727	595427	605427
3-3/4	491128	501128	511128	521228	531328	542428	553428	563428	574728	584728	595428	605428
4"	491129	501129	511129	521229	531329	542429	553429	563429	574729	584729	595429	605429
5"	491130	501130	511130	521230	531330	542430	553430	563430	574730	584730	595430	605430
6"	491131	501131	511131	521231	531331	542431	553431	563431	574731	584731	595431	605431



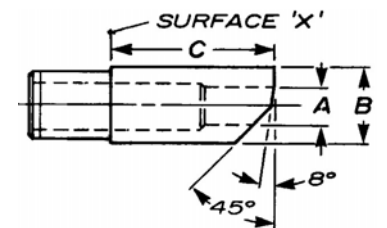
When your fixture is mounted flush to the work piece and you are using the Knurled Shelox[®] for plastic tooling, specify 'FLUSH' Insert and leave the bushing to us.



When one and one half inch long Threaded Shelox[®] Liners are used, an Insert with a Shank 5/8 inch long should be ordered to be flush with the end of the Liner. These are non-counterbored.



In applications where the work piece is located some distance from the fixture, Shanks up to 6" in length or longer specials may be ordered. These may be NCB per the counterbore tables.



UNITED's Contour Surface Shank may be ordered for drilling sloped or contoured surfaces. The Contour Shank is assembled with the ground angles in 'Clocked' position with the Helox[®]. Add suffix 'CS' to Part No. for these orders.