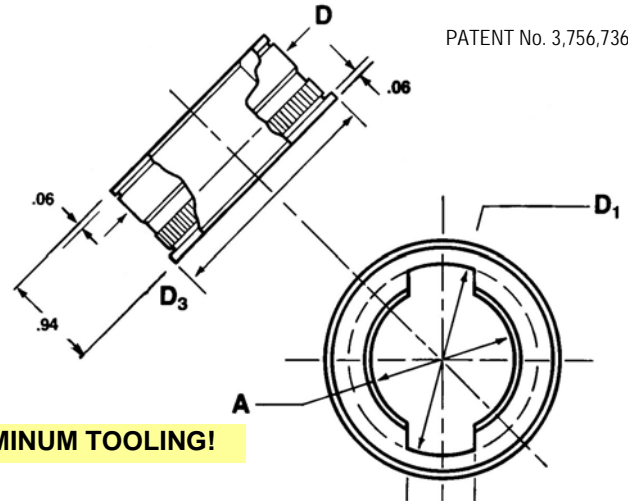
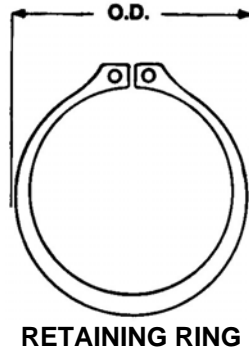


Shelox® Liners Head Down Styles

Shelox® Liners in Steel and Aluminum

SHELOX® LINERS STYLE 'A' - HEAD DOWN

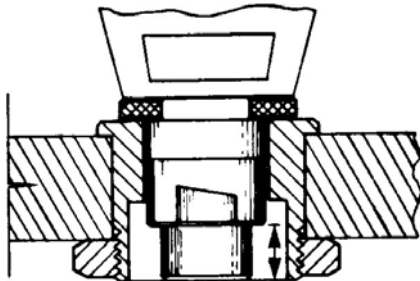


PATENT No. 3,756,736

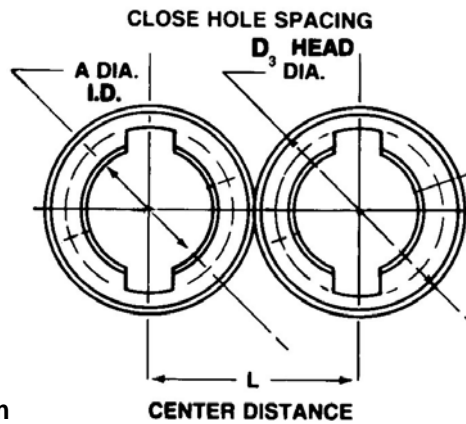
IDEAL FOR METAL AND ALUMINUM TOOLING!

Serrations raised nominally .008 per side above precision body O.D. 'D.'

See Page Q36 for Slot Dimensions.



5/8" Length Shank is necessary to fit Helox® Adapter flush with bottom of 1-1/2" length Threaded Shelox® Liner.



Style 'A' is designed to insert from the bottom of the jig plate. The Retaining Ring secures it in position to prevent accidental removal. The serrated diameter locks into the aluminum plate and prevents spin out.

SAVE TIME, SPACE AND MONEY!

Using Shelox® Style 'A' results in a 60% reduction in space.

Shelox® Liners are less expensive than the older conventional double eared lockscrew liners.

I.D. 'A' TOLERANCE NOMINAL SHOWN PLUS .001.

* PART NO.	D	D ₁	A	D ₃ HEAD	L	RETAINING	O.D.	FITS HELOX
UDB-521049	.499	.386	.286	5/8	.635	UDB-521549	.574	490000
UDB-521050	.624	.500	.390	3/4	.760	UDB-521550	.715	500000
UDB-521051	.780	.700	.500	29/32	.916	UDB-521551	.883	510000
UDB-521052	.999	.835	.625	1-1/8	1.135	UDB-521552	1.122	520000
UDB-521053	1.249	1.085	.875	1-3/8	1.406	UDB-521553	1.396	530000
UDB-521054	1.436	1.302	1.042	1-9/16	1.610	UDB-521554	1.600	540000
UDB-521055	1.561	1.429	1.169	1-11/16	1.750	UDB-521555	1.740	550000
UDB-521056	1.811	1.657	1.397	1-15/16	2.020	UDB-521556	2.010	560000
UDB-521057	2.061	1.888	1.607	2-3/16	2.285	UDB-521557	2.275	570000
UDB-521058	2.311	2.119	1.819	2-7/16	2.538	UDB-521558	2.528	580000
UDB-521059	2.561	2.388	2.088	2-11/16	2.802	UDB-521559	2.792	590000
UDB-521060	2.874	2.618	2.298	3"	3.132	UDB-521560	3.122	600000

* THE LAST TWO NUMBERS OF EACH SHELOX® LINER INDICATE THE HELOX® ADAPTER TO BE USED, FOR EXAMPLE, UDB-521049 = UDB-490000 SERIES HELOX®.

Shelox® Liners in Steel and Aluminum

Shelox® Liners
Head Up Styles

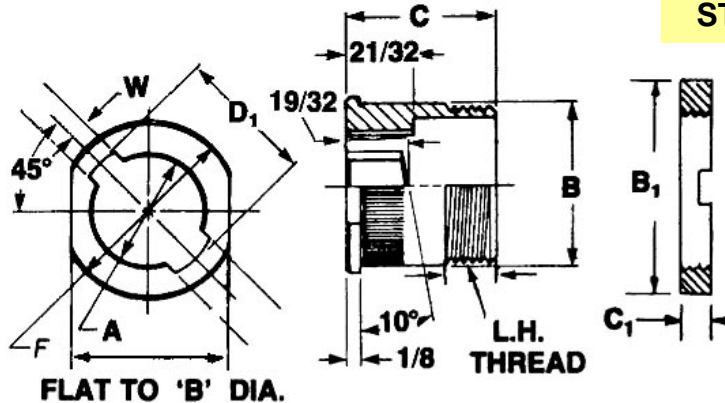
Shelox® Liners Save Space!

These Compact Liners can be mounted in up to 50% less fixture space by eliminating surface locking mechanisms.

UNITED's Shelox® Liners make other weaker locking accessories obsolete, including lockscrews, clamps, strip mountings and all objectionable obstructions protruding above the fixture.

SHELOX® LINERS FOR METAL AND ALUMINUM TOOLING

Shelox® Liners lock securely with a 45° turn. They repeat within one degree which permits accurate orientation of Helox® Adapters in the event of abnormal surfaces.

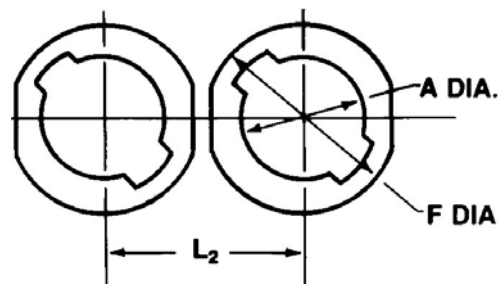


*See Page P34 for Lock Rings

SHELOX® LINERS STYLE 'S' - HEAD UP

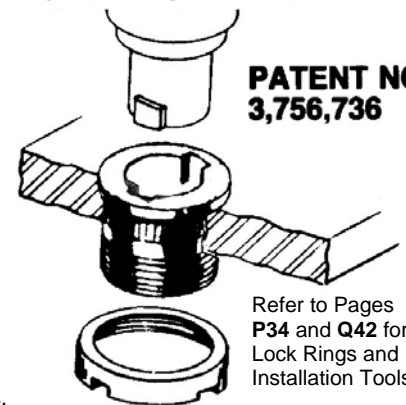


CLOSE HOLE SPACING



CENTER DISTANCE

STYLE 'S' HEAD UP

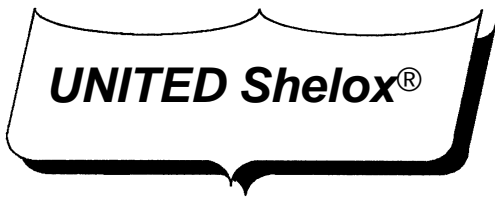


PATENT NO.
3,756,736

Refer to Pages
P34 and Q42 for
Lock Rings and
Installation Tools.

* See Page Q36 for additional Slot Dimensions.

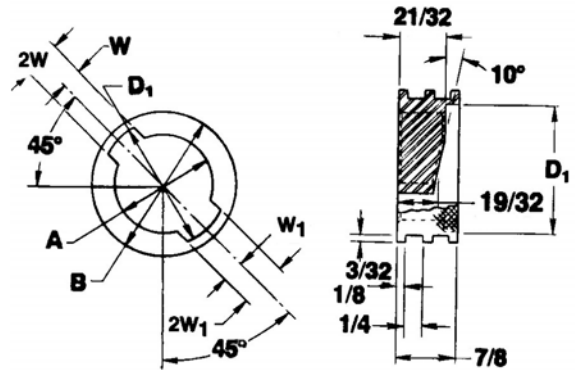
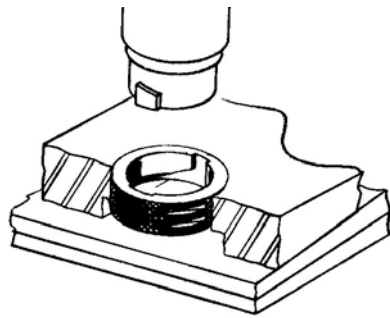
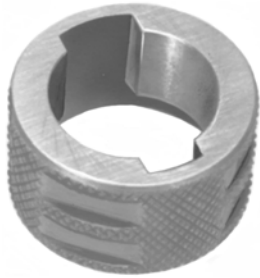
PART NO.	A I.D.	B O.D.	D ₁	F HEAD DIA	* W	C	L ₁	L ₂	L.H. THD	FITS HELOX	LOCK RING No.	B ₁	C ₁
UDB-521349	.2860 .2870	.4990 .4987	.386	5/8	3/32	3/4	7/16	.760	1/2 - 20	490000	UDB-521449	3/4	1/4
UDB-521350	.3906 .3916	.6248 .6245	.500	3/4	3/32	3/4	7/16	.885	5/8 - 18	500000	UDB-521450	7/8	1/4
UDB-521351	.500 .501	.8748 .8744	.700	1"	3/32	7/8	7/16	1.260	7/8 - 14	510000	UDB-521451	1-1/4	1/4
UDB-521352	.625 .626	.9998 .9994	.835	1-1/8	1/8	7/8	7/16	1.385	1 - 14	520000	UDB-521452	1-3/8	1/4
UDB-521353	.875 .876	1.2498 1.2494	1.085	1-3/8	5/32	7/8	7/16	1.760	1-1/4 - 12	530000	UDB-521453	1-1/2	5/16
UDB-521354	1.042 1.043	1.4998 1.4994	1.302	1-5/8	3/16	1-1/2	1/2	1.760	1-1/2 - 12	540000	UDB-521454	1-3/4	5/16
UDB-521355	1.169 1.170	1.6248 1.6244	1.429	1-3/4	3/16	1-1/2	1/2	2.135	1-5/8 - 16	550000	UDB-521455	2-1/8	1/4
UDB-521356	1.397 1.398	1.8748 1.8744	1.657	2"	1/4	1-1/2	1/2	2.385	1-7/8 - 16	560000	UDB-521456	2-3/8	1/4
UDB-521357	1.607 1.608	2.1248 2.1242	1.888	2-1/4	1/4	1-1/2	1/2	2.635	2-1/8 - 16	570000	UDB-521457	2-5/8	5/16
UDB-521358	1.819 1.820	2.2498 2.2492	2.119	2-3/8	5/16	1-1/2	1/2	2.760	2-1/4 - 16	580000	UDB-521458	2-3/4	5/16
UDB-521359	2.088 2.089	2.6248 2.6242	2.388	2-3/4	5/16	1-1/2	1/2	3.135	2-5/8 - 16	590000	UDB-521459	3-1/8	3/8
UDB-521360	2.298 2.299	2.8748 2.8742	2.618	3"	5/16	1-1/2	1/2	3.385	2-7/8 - 16	600000	UDB-521460	3-3/8	3/8



Shelox® in Plastic and Soft Tools

SHELOX® NURLOCK LINERS FOR PLASTIC AND SOFT TOOLING

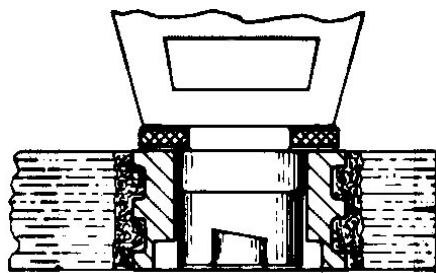
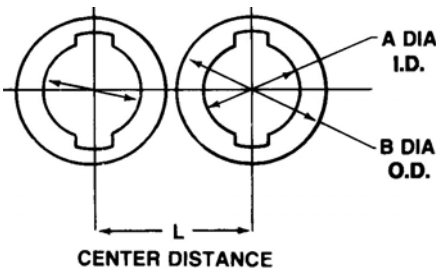
STYLE 'P'



PATENT No. 3,756,736

UNITED's SHELOX® NURLOCK LINERS are better for these reasons:

- | | | | | | | |
|--|---|---|---|---|--|--|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| New positive lock Shelox® Nurlock Liners provide full bearing. The mating Helox® locking ears replace weaker, less sophisticated single point contact. | Tough Shelox® Nurlock Liners assure precision alignment and stop vibration while absorbing the thrust and resisting the torque of modern powerful, higher speed drill motors. | Precision knurled Shelox® Nurlock Liners are mounted flush with the top of your fixture. The Helox® Adapters lock inside the Shelox® Nurlock Liners, eliminating the obstructions created by conventional locking mechanisms. | Shelox® Nurlock Liners are designed to lock UNITED's Helox® Adapters to precise locations in Fixture Plates or Drill Bars. When this unique combination is used, they provide one of the most accurate and positive methods of automatic feed drilling available. | Shelox® Nurlock Liners provide strong positive lock in the same 45° locking position. This allows for more accurate setting of depth and countersinking operations. | Made for plastic tooling, the Shelox® Nurlock Liners have no protrusion on either side of the Drill Bar. This gives you the cleanest method of fabricating Drill Bars in the industry. | Shelox® Nurlock Liners also work with any of the specialized drilling adapters made by UNITED for Taper Lock and other fastener hole preparations. |



HELOX® IS FLUSH WITH BOTTOM OF ALL KNURLED AND 7/8" LENGTH THREADED SHELOX® LINERS.

PART NO.	A I.D.	B O.D.	D ₁	L	W (SMALL)	FITS HELOX	W ₁
UDB-521149	.286 .287	.500	.386	.510	3/32	490000	3/32
UDB-521150	.390 .3916	.625	.500	.635	3/32	500000	3/32
UDB-521151	.500 .501	.837	.700	.847	3/32	510000	1/8
UDB-521152	.625 .626	1.085	.835	1.095	1/8	520000	5/32
UDB-521153	.875 .876	1.335	1.085	1.345	5/32	530000	3/16
UDB-521154	1.042 1.043	1.563	1.302	1.573	3/16	540000	1/4
UDB-521155	1.169 1.170	1.688	1.429	1.698	3/16	550000	1/4
UDB-521156	1.397 1.398	1.938	1.657	1.948	1/4	560000	5/16
UDB-521157	1.607 1.608	2.188	1.888	2.198	1/4	570000	5/16
UDB-521158	1.819 1.820	2.438	2.119	2.448	5/16	580000	3/8
UDB-521159	2.088 2.089	2.688	2.388	2.698	5/16	590000	3/8
UDB-521160	2.298 2.299	2.938	2.618	2.948	5/16	600000	3/8

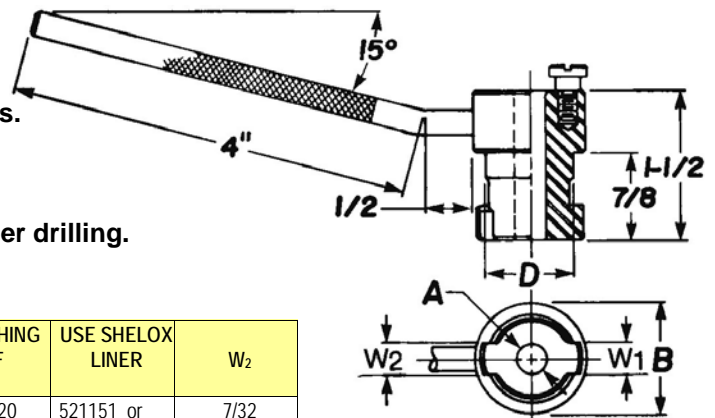
Helox[®] Adapters with Renewable Bushings



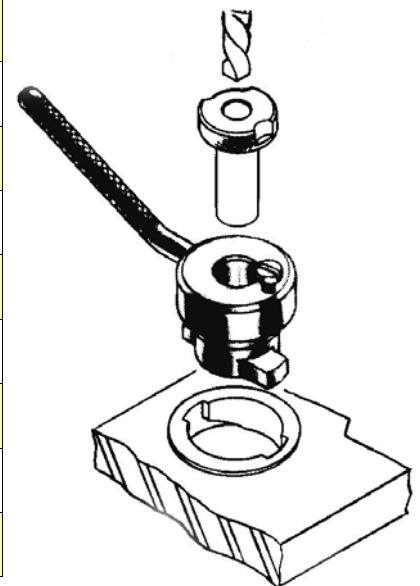
HANDLE HELOX[®] ADAPTER

USE THE HANDLE HELOX[®]:

1. When automatic feed drills are not available.
2. Where space will not permit use of large drill motors.
3. For short runs.
4. To drill and/or ream clean-up holes.
5. For pre-drilling or reaming straight hole prior to taper drilling.
6. Because Helox[®] is better!



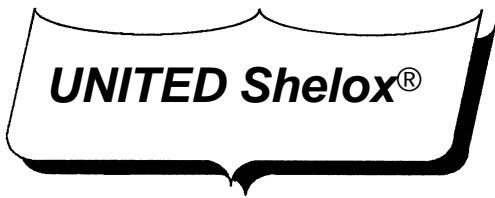
PART NO.	A	B	D	W ₁	MATCHING SF	USE SHELOX LINER	W ₂
UDB-511100	.3126 .3129	1-1/4	.4995 .4985	5/32	SF-20 5/16 O.D.	521151 or 521351	7/32
UDB-522200	.3126 .3129	1-1/4	.6245 .6235	7/32	SF-20 5/16 O.D.	521152 or 521352	9/32
UDB-533300	.3126 .3129	1-1/4	.8745 .8735	9/32	SF-20 5/16 O.D.	521153 or 521353	11/32
UDB-544400	.5002 .5005	1-5/8	1.0410 1.0400	5/16	SF-32 1/2 O.D.	521154 or 521354	7/16
UDB-555500	.5002 .5005	1-5/8	1.1680 1.1670	5/16	SF-32 1/2 O.D.	521155 or 521355	7/16
UDB-566600	.7503 .7506	1-7/8	1.3960 1.3950	7/16	SF-48 3/4 O.D.	521156 or 521356	9/16
UDB-577700	.7503 .7506	2-5/32	1.6060 1.6050	7/16	SF-48 3/4 O.D.	521157 or 521357	9/16
UDB-588800	.7503 .7506	2-13/32	1.8180 1.8170	9/16	SF-48 3/4 O.D.	521158 or 521358	11/16
UDB-599900	.7503 .7506	2-5/8	2.0870 2.0860	9/16	SF-48 3/4 O.D.	521159 or 521359	11/16
UDB-606600	1.0004 1.0007	2-7/8	2.2970 2.2960	9/16	SF-64 1" O.D.	521160 or 521360	11/16



Additional sizes are available from our SF Bushings.

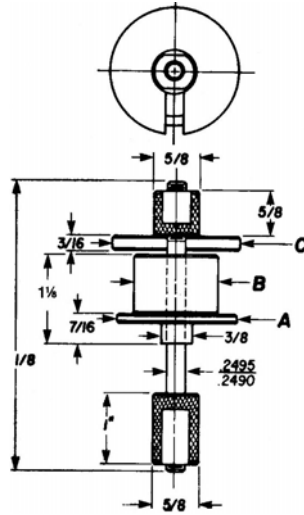
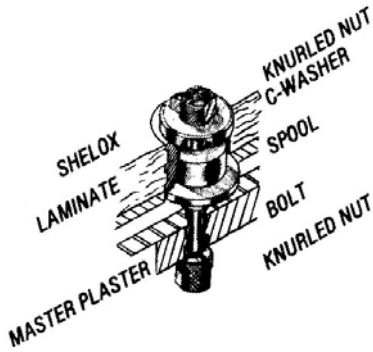
SLIP FIXED RENEWABLE BUSHINGS — SF

I.D. RANGE		O.D. RANGE		LENGTH OF BUSHING					
NOMINAL	ACTUAL	NOM.	ACTUAL	3/4	1"	1-3/8	1-1/2	1-3/4	2-1/8
#80 - #70	.0135-.0280	5/16	.3125-.3123	SF-20-12	SF-20-16	SF-20-22	SF-20-24		
#69 - 3/64	.0292-.0469	5/16	.3125-.3123	SF-20-12	SF-20-16	SF-20-22	SF-20-24		
#55 - 1/16	.0520-.0625	5/16	.3125-.3123	SF-20-12	SF-20-16	SF-20-22	SF-20-24		
#62 - #43	.0635-.0890	5/16	.3125-.3123	SF-20-12	SF-20-16	SF-20-22	SF-20-24	SF-20-28	
#42 - #10	.0935-.1935	5/16	.3125-.3123	SF-20-12	SF-20-16	SF-20-22	SF-20-24	SF-20-28	
#18 - 3/16	.1405-.1875	1/2	.5000-.4998	SF-32-12	SF-32-16	SF-32-22	SF-32-24	SF-32-28	SF-32-34
#12 - 11/32	.1890-.3437	1/2	.5000-.4998	SF-32-12	SF-32-16	SF-32-22	SF-32-24	SF-32-28	SF-32-34
9/32 - 9/16	.2812-.5625	3/4	.7500-.7498	SF-48-12	SF-48-16	SF-48-22	SF-48-24	SF-48-28	SF-48-34
15/32 - 25/32	.4687-.7812	1"	1.0000-.9998	SF-64-12	SF-64-16	SF-64-22	SF-64-24	SF-64-28	SF-64-34



Hold and Install Shelox® Liners

SHELOX® INDEX SPOOLS STANDARD



SIMPLE INSTALLATION

Shelox® Index Spools locate and hold Shelox® Liners while laying up a laminate from your master.

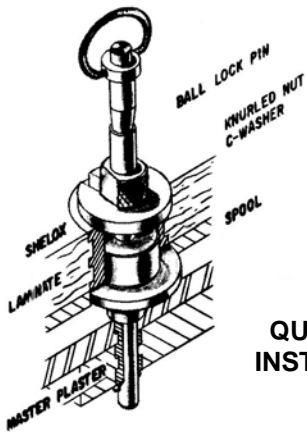
Smaller sizes available on request. PATENTED

After locating and scribing your slope direction on your Master Plaster with UNITED's Slope Indicator, proceed with installations in the following steps:

1. Be sure you Shelox® Liners are clean. Do not mar the top surface of the Shelox® Liner.
2. Slip the Spool into Shelox® Bushing. Keep the Locking Ramps down.
3. Insert the bolt or ball lock pin through the Spool and C-Washer.
4. Thread the knurled nut finger tight or insert the ball lock pin to lock position.
5. Visually check to insure that the Spool is seated flush on the surface of the Liner and the bushing is faired at the low point of the slope.
6. Tighten the knurled nut to a snug fit.
7. Proceed to next Liner and repeat the preceding instructions.
8. When all the Shelox® Liners are in position, laminate around Shelox® and allow to cure.
9. Remove all Lock Pins, bolts, nuts, C-Washer, and Spools. Clean and return the Index Spools to crib for reuse.
10. Remove the drill bar from the Master, clean the drill bar, inspect and make ready for production.

PART NO.	A	B	C	FITS SHELOX®
UDB-5214411-1	7/8	.499	7/8	521151 or 521351
UDB-5214421-1	1-1/8	.624	1-1/8	521152 or 521352
UDB-5214431-1	1-3/8	.874	1-3/8	521153 or 521353
UDB-5214441-1	1-5/8	1.041	1-5/8	521154 or 521354
UDB-5214451-1	1-5/8	1.168	1-5/8	521155 or 521355
UDB-5214461-1	2"	1.396	2"	521156 or 521356
UDB-5214471-1	2-1/8	1.606	2-1/8	521157 or 521357
UDB-5214481-1	2-1/2	1.818	2-1/2	521158 or 521358
UDB-5214491-1	2-5/8	2.087	2-5/8	521159 or 521359
UDB-5214501-1	3"	2.297	3"	521160 or 521360
UDB-5214401-1	5/8	.3896	9/16	521150 or 521350

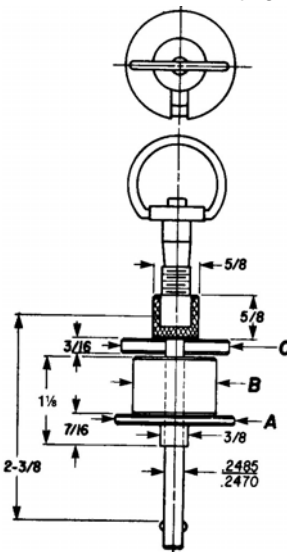
BALL LOCK SHELOX® INDEX SPOOL



QUICKLY INSTALLED

The Ball Lock Shelox® Index Spool is tightened by turning the knurled Thumb Nut under the head of the pin.

It is faster to install and eliminates any problem which may arise in removing the lower knurled nut from the Threaded Shelox® Index Spool.



The Ball Lock Shelox® Index Spool is ideal for duplicating any part or master with a blind hole. It is used to duplicate large Master Plaster Patterns when the hole is blind or the reverse side is hard to reach.

Smaller sizes available on request.

PART NO.	A	B	C	FITS SHELOX®
UDB-521421	7/8	.499	7/8	521151 or 521351
UDB-521422	1-1/8	.624	1-1/8	521152 or 521352
UDB-521423	1-3/8	.874	1-3/8	521153 or 521353
UDB-521424	1-5/8	1.041	1-5/8	521154 or 521354
UDB-521425	1-5/8	1.168	1-5/8	521155 or 521355
UDB-521426	2"	1.396	2"	521156 or 521356
UDB-521427	2-1/8	1.606	2-1/8	521157 or 521357
UDB-521428	2-1/2	1.818	2-1/2	521158 or 521358
UDB-521429	2-5/8	2.087	2-5/8	521159 or 521359
UDB-521430	3"	2.297	3"	521160 or 521360

Slope Indicator and Marker

Shelox[®]
Slope Scope

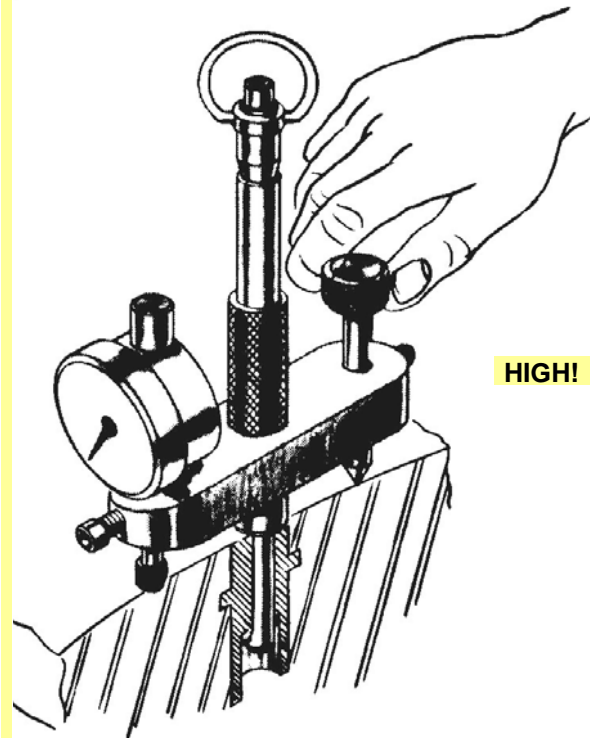
SHELOX[®] SLOPE SCOPE

To lay out a Shelox[®] Taper Lock Drill Fixture for bolt holes requires the Shelox[®] Liner to be installed so that the wide locking ear indicates the lowest point of any incline.

TO FIND THE LOW POINT,
use UNITED's Slope Scope and the following simple steps:

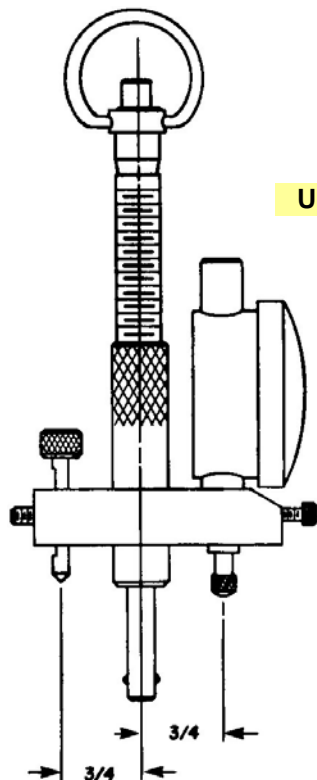
1. Clean the work surface and insert the Slope Scope ball lock pin in a 1/4" diameter bushing in the master plaster pattern.
2. Turn the knurled nut until the Scope is snug.
3. Revolve the Slope Scope until the dial indicator registers the lowest point of the incline.
4. Using the scribe, mark opposite the low point.
5. Remove the Scope.
6. Scribe a line from the mark through the center of the bushing showing the axis of the hole and the direction of the slope.

After installation of the Shelox[®] Liner with its wide locking ear at the lowest point of the axis, all drilling, countersinking and gauging will now be in reference to this same point. You will be assured that at no time will the countersunk head of the bolt protrude above the surface of the production part.

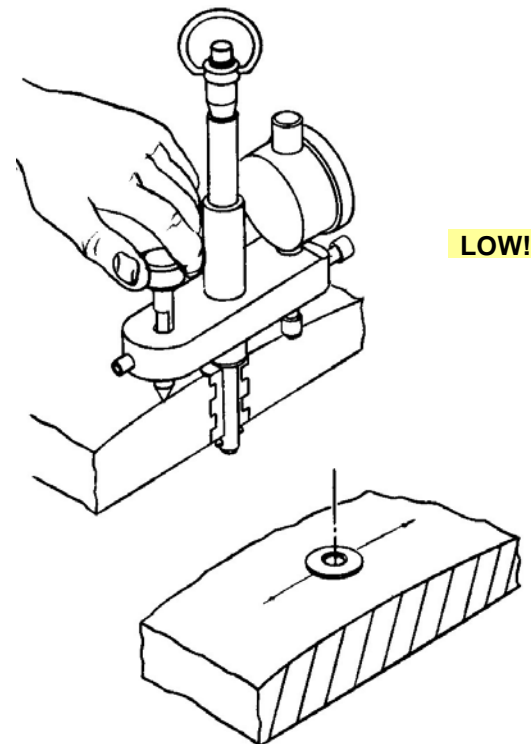


HIGH!

PATENTED



UDB-607800



LOW!

Slope Indicator has a range of .125 in increments of .0005.

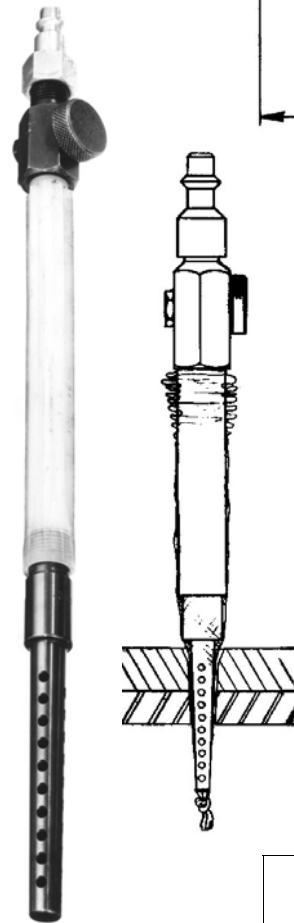
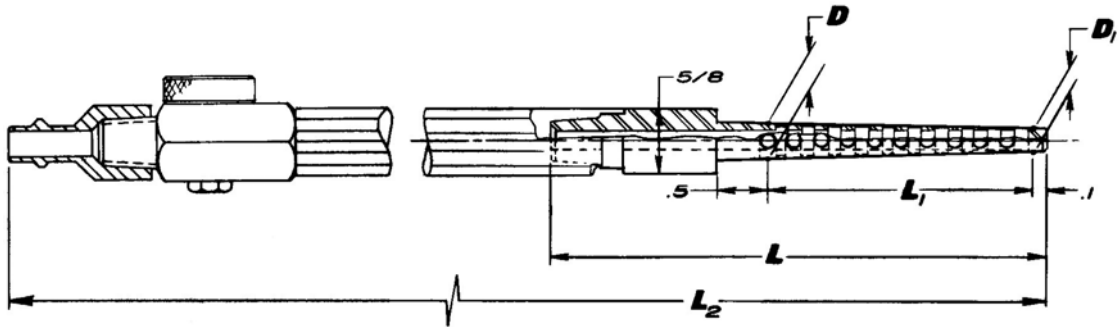
To find the low point of the incline, mark the reverse side. Scribe a line through the center of the bushing. This will indicate the low axis of the hole to be drilled.

For Tapered Holes

Tapered Hole Cleaners

TAPERED HOLE CLEANERS

Clean Holes After Drilling and Before Gauging.



- The Tapered Hole must be free of dirt, chips or foreign matter prior to installing a tapered fastener.
- The purpose of *UNITED*'s Tapered Hole Cleaner is to clean these holes. A fully adjustable air-valve provides the right amount of cleaning air.
- Tubular Gauze can be used over Tapered Hole Cleaner to polish while cleaning. It must be changed frequently.

The Tapered Hole Cleaner is available in sizes ranging from 1/4 thru 5/8 diameter in all Group sizes.

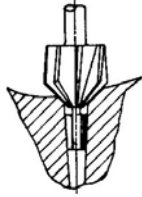
PART NO.	For FASTENER SIZE and GROUP No.	D	D ₁	L	L ₁	L ₂
UDB-756724	1/4 GROUP 1 THRU 5	.292	.240	5"	2.50	13-7/8
UDB-756725	5/16 GROUP 1 THRU 5	.357	.300	5"	2.75	13-7/8
UDB-756726	3/8 GROUP 1 THRU 5	.425	.363	5-1/4	3.00	14-1/8
UDB-756727	7/16 GROUP 1 THRU 5	.503	.430	5-1/2	3.50	14-3/8
UDB-756728	1/2 GROUP 1 THRU 5	.579	.492	6-1/4	4.18	15-1/8
UDB-756729	9/16 GROUP 1 THRU 5	.677	.555	8"	5.87	16-7/8
UDB-756730	5/8 GROUP 1 THRU 5	.749	.615	8-1/2	6.43	17-3/8

TUBULAR GAUZE is available in 150 ft. lengths.
Specify UDB-756720 Taper Hole Cleaner Gauze and indicate number of feet required

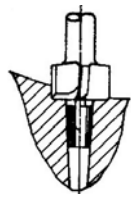
Tapered Guide Bushings

Tapered Guide Bushings

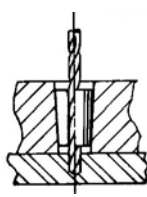
COUNTERSINK GUIDE



COUNTERBORE GUIDE

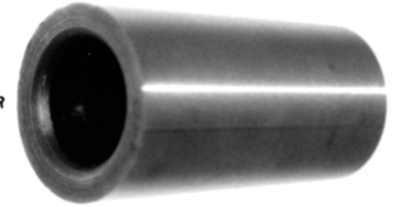
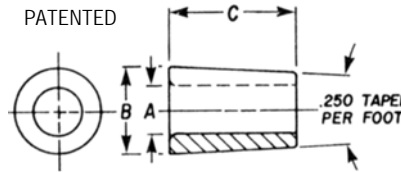


TRANSFER HOLES



UNITED's precision TAPERED GUIDE BUSHINGS guide piloted countersinks, counterbores and spotfacing tools.

TAPERED GUIDE BUSHINGS



UNITED's precision TAPERED GUIDE BUSHINGS provide a straight, concentric pilot hole for the guiding of any secondary cutter. Tapered Bushings are ideal to transfer tapered to straight hole patterns.

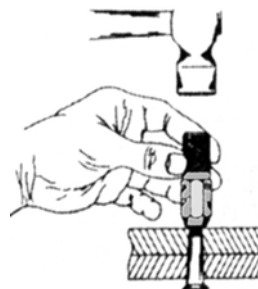
Available in all lengths corresponding with Tapered Fasteners. Also available in aluminum. Add 'A' to Part No. for Aluminum. All Aluminum Bushings are 1" long. Heat Treated Alloy Steel. Precision Ground.

PART NO.	TAPERLOCK FASTENER SIZE & GROUP	A +.0004 +.0001	B +.000 -.001	C +.000 -.015
UDB-758680	5/32 GROUP 1	.0937	.1688	.312
UDB-758685	5/32 GROUP 2	.0937	.1766	.687
UDB-758690	5/32 GROUP 3	.0937	.1844	.750
UDB-758695	5/32 GROUP 4	.0937	.1922	.750
UDB-758700	3/16 GROUP 1	.1250	.1969	.437
UDB-758705	3/16 GROUP 2	.1250	.2073	.750
UDB-758710	3/16 GROUP 3	.1250	.2177	.750
UDB-758715	3/16 GROUP 4	.1250	.2281	.750
UDB-758720	3/16 GROUP 5	.1250	.2385	.750
UDB-758725	1/4 GROUP 1	.1875	.2586	.562
UDB-758730	1/4 GROUP 2	.1875	.2716	.750
UDB-758735	1/4 GROUP 3	.1875	.2846	.750
UDB-758740	1/4 GROUP 4	.1875	.2976	.750
UDB-758745	1/4 GROUP 5	.1875	.3107	.750
UDB-758750	5/16 GROUP 1	.1875	.3216	.625
UDB-758755	5/16 GROUP 2	.1875	.3359	.750
UDB-758760	5/16 GROUP 3	.1875	.3503	.750
UDB-758765	5/16 GROUP 4	.1875	.3646	.750
UDB-758770	5/16 GROUP 5	.1875	.3789	.750
UDB-758775	3/8 GROUP 1	.2500	.3847	.687
UDB-758780	3/8 GROUP 2	.2500	.4003	.750
UDB-758785	3/8 GROUP 3	.2500	.4159	.750
UDB-758790	3/8 GROUP 4	.2500	.4315	.750
UDB-758795	3/8 GROUP 5	.2500	.4472	.750
UDB-758800	7/16 GROUP 1	.3125	.4488	.750
UDB-758805	7/16 GROUP 2	.3125	.4670	.750
UDB-758810	7/16 GROUP 3	.3125	.4852	.750
UDB-758815	7/16 GROUP 4	.3125	.5035	.750
UDB-758820	7/16 GROUP 5	.3125	.5217	.750

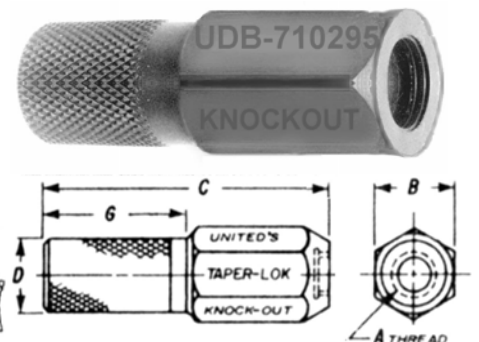
PART NO.	TAPERLOCK FASTENER SIZE & GROUP	A +.0004 +.0001	B +.000 -.001	C +.000 -.015
UDB-758825	1/2 GROUP 1	.3125	.5130	.750
UDB-758830	1/2 GROUP 2	.3125	.5338	.750
UDB-758835	1/2 GROUP 3	.3125	.5547	.750
UDB-758840	1/2 GROUP 4	.3125	.5755	.750
UDB-758845	1/2 GROUP 5	.3125	.5963	.750
UDB-758850	9/16 GROUP 1	.3750	.5849	.750
UDB-758855	9/16 GROUP 2	.3750	.6162	.750
UDB-758860	9/16 GROUP 3	.3750	.6475	.750
UDB-758865	9/16 GROUP 4	.3750	.6786	.750
UDB-758870	9/16 GROUP 5	.3750	.7099	.750
UDB-758875	5/8 GROUP 1	.3750	.6500	.750
UDB-758880	5/8 GROUP 2	.3750	.6839	.750
UDB-758885	5/8 GROUP 3	.3750	.7178	.750
UDB-758890	5/8 GROUP 4	.3750	.7517	.750
UDB-758895	5/8 GROUP 5	.3750	.7855	.750
UDB-758900	3/4 GROUP 1	.3750	.7790	.750
UDB-758905	3/4 GROUP 2	.3750	.8180	.750
UDB-758910	3/4 GROUP 3	.3750	.8571	.750
UDB-758915	3/4 GROUP 4	.3750	.8962	.750
UDB-758920	3/4 GROUP 5	.3750	.9352	.750
UDB-758925	7/8 GROUP 1	.3750	.9118	.750
UDB-758930	7/8 GROUP 2	.3750	.9586	.750
UDB-758935	7/8 GROUP 3	.3750	1.0055	.750
UDB-758940	7/8 GROUP 4	.3750	1.0524	.750
UDB-758945	7/8 GROUP 5	.3750	1.0993	.750
UDB-758950	1" GROUP 1	.3750	1.0420	.750
UDB-758955	1" GROUP 2	.3750	1.0941	.750
UDB-758960	1" GROUP 3	.3750	1.1461	.750
UDB-758965	1" GROUP 4	.3750	1.1982	.750
UDB-758970	1" GROUP 5	.3750	1.2503	.750

PART NO.	A THD	B HEX	C LEN	D HANDLE	G HANDLE LEN
UDB-710255	6-40	3/8	1-1/2	11/32	3/4
UDB-710260	8-36	3/8	1-1/2	11/32	3/4
UDB-710265	10-32	7/16	1-5/8	13/32	7/8
UDB-710270	12-32	7/16	1-5/8	13/32	7/8
UDB-710275	1/4-28	7/16	1-5/8	13/32	7/8
UDB-710280	5/16-24	9/16	1-7/8	17/32	15/16
UDB-710285	3/8-24	9/16	1-7/8	17/32	15/16
UDB-710290	7/16-20	3/4	2-1/8	11/16	1"
UDB-710295	1/2-20	3/4	2-1/8	11/16	1"
UDB-710300	9/16-18	3/4	2-1/8	11/16	1"
UDB-710305	5/8-18	1"	2-1/4	15/16	1-1/16
UDB-710310	3/4-16	1"	2-1/4	15/16	1-1/16
UDB-710315	7/8-14	1-1/4	2-1/2	1-3/16	1-1/8
UDB-710320	1"-14	1-1/4	2-1/2	1-3/16	1-1/8

TAPER LOCK KNOCKOUT TOOL grips the protruding Taper Lock Thread and aligns the Knockout securely to the Fastener. A sharp blow from a hammer knocks out the Taper Lock Fastener without damaging the Thread.



TAPER LOCK KNOCKOUT



Install/Remove Lock Rings

Installation / Removal Tools for Lock Rings

UDB-RT-5 HANDLE



HANDLE FOR SOCKETS UDB-521449-RTS thru UDB-521453A-RTS

HANDLE ONLY UDB-RT-5

Handle is 1/4" O.D. and 6" Long.

ORDER INDIVIDUALLY

1/4" SQ

RTS SOCKETS.

SOCKET NO.	I.D.	D ₁	O.D.	LEN
UDB-521449A-RTS	0.75	1.000		3/4"
UDB-521449-RTS	0.75	1.000		
UDB-521450-RTS	0.87	1.120		
UDB-521450A-RTS	1.00	1.250		
UDB-521450B-RTS	1.00	1.250		
UDB-521451A-RTS	1.18	1.430		
UDB-521451B-RTS	1.18	1.430		
UDB-521451-RTS	1.25	1.500		
UDB-521451C-RTS	1.25	1.500		
UDB-521452A-RTS	1.37	1.620		
UDB-521452-RTS	1.37	1.620		
UDB-521452B-RTS	1.37	1.620		
UDB-521453A-RTS	1.50	1.750		
UDB-521453-RTS	1.75	2.000		



UDB-RT-6 HANDLE



HANDLE FOR SOCKETS UDB-521453-RTS thru UDB-521480-RTS

HANDLE ONLY UDB-RT-6

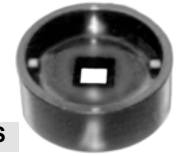
Handle is 11/16" O.D. and 6" Long.

ORDER INDIVIDUALLY OR IN SIZES.

1/2" SQ

RTS SOCKETS

SOCKET NO.	I.D.	D ₁	O.D.	LEN
UDB-521453B-RTS		2.000		1"
UDB-521454A-RTS	1.75	2.000		
UDB-521454-RTS	1.75	2.000		
UDB-521454B-RTS	1.75	2.000		
UDB-521455A-RTS	2.06	2.310		
UDB-521455-RTS	2.12	2.370		
UDB-521455B-RTS	2.18	2.430		
UDB-521456A-RTS	2.37	2.620		
UDB-521456-RTS	2.37	2.620		
UDB-521457A-RTS	2.50	2.750		
UDB-521457-RTS	2.62	2.870		
UDB-521458-RTS	2.75	3.000		
UDB-521458A-RTS	3.00	3.250		
UDB-521459-RTS	3.12	3.370		
UDB-521460-RTS	3.37	3.620		
UDB-521470A-RTS	3.50	3.620		
UDB-521472A-RTS	4.00	3.620		
UDB-521474A-RTS	4.50	3.620		
UDB-521480-RTS	5.00	3.620		



USE WITH MATCHING UNITED LOCK RINGS FOR DEPENDABLE SERVICE. SEE BELOW.

AVAILABLE INDIVIDUALLY OR IN SETS

UDB-RTS-5-11 HANDLE & SOCKET SET

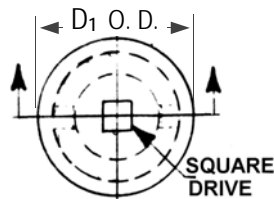


SET contains A Handle and 9 Sockets in a case

RTS-5 ASSEMBLIES
Receive all Thread Lock Ring Sizes from 1/2 – 20 thru 1-1/4 – 12 and HANDLE.

ALL SIZES UDB-521449 THRU UDB-521453.

SETS UDB-RTS-5-11



UDB-RTS-6-16 HANDLE & SOCKET SET

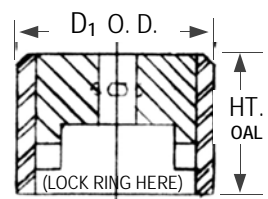


SET contains A Handle and 14 Sockets in a case

RTS-6 ASSEMBLIES
Receive all Thread Lock Ring Sizes from 1-3/8 – 16 thru 2-7/8 – 16 and HANDLE.

ALL SIZES UDB-521454A THRU UDB-521460.

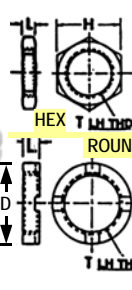
SETS UDB-RTS-6-16



LOCK RINGS



HEX LOCK NUTS are UDB-14441 thru UDB-14448.



LOCK RING #	T	L/H THD	H or D	L	LOCK RING #	T	L/H THD	O.D.	L	LOCK RING #	T	L/H THD	O.D.	L
UDB-14441	1/2	-20	0.75	0.25	UDB-521451	7/8	-14	1.25	0.25	UDB-521456A	1-3/4	-16	2.37	0.25
UDB-14442	3/4	-16	1.00	0.25	UDB-521452A	15/16	-16	1.37	0.25	UDB-521456	1-7/8	-16	2.37	0.25
UDB-14443	7/8	-14	1.25	0.25	UDB-521452	1	-14	1.37	0.25	UDB-521457A	2	-16	2.50	0.25
UDB-14445	1-1/4	-12	1.75	0.37	UDB-521453A	1-1/8	-16	1.50	0.25	UDB-521457	2-1/8	-16	2.62	0.31
UDB-14446	1-1/2	-12	2.00	0.50	UDB-521453	1-1/4	-12	1.75	0.31	UDB-521458	2-1/4	-16	2.75	0.31
UDB-14447	2	-16	2.50	0.50	UDB-521454A	1-3/8	-16	1.75	0.31	UDB-521458A	2-1/2	-16	3.00	0.31
UDB-14448	2-1/2	-16	3.00	0.50	UDB-521454	1-1/2	-12	1.75	0.31	UDB-521459	2-5/8	-16	3.12	0.37
UDB-521449	1/2	-20	0.75	0.25	UDB-521454B	1-1/2	-16	1.75	0.25	UDB-521460	2-7/8	-16	3.37	0.37
UDB-521450	5/8	-18	0.87	0.25	UDB-521455A	1-9/16	-16	2.06	0.25	UDB-521470A	3-1/2	-16	3.50	0.37
UDB-521450A	3/4	-16	1.20	0.25	UDB-521455	1-5/8	-16	2.12	0.25	UDB-521472A	3-1/2	-16	4.00	0.37
UDB-521451A	13/16	-16	1.18	0.25	UDB-521455B	1-11/16	-16	2.18	0.25	UDB-521474A	4	-16	4.50	0.43
										UDB-521480	4-1/2	-16	5.00	0.43