

Nurlock Adapter and Extended Range Tips, Helical Lock Liners, Kits & Accessories

UNITED Adapts To Your Needs!



91000 SERIES TELESCOPING NURLOCK ADAPTER TIPS Pg P28 - P29



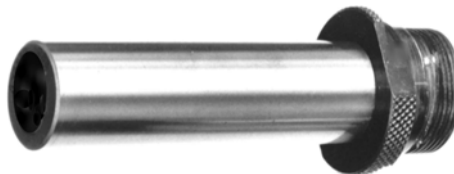
51000 SERIES TELESCOPING NURLOCK ADAPTER TIPS Pg P24 - P25



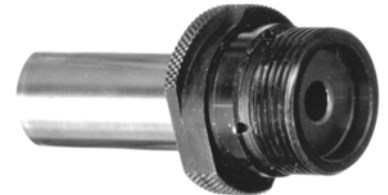
HELICAL NURLOCK ADAPTER TIPS COMPLETE ACCESSORY GUIDE Pg P30



26000 SERIES EXTENDED RANGE ADAPTER TIPS Pg P12 - P15



41000 SERIES HELICAL NURLOCK ADAPTER TIPS Pg P22 - P23



11000 SERIES HELICAL NURLOCK ADAPTER TIPS Pg P4 - P9



31000 SERIES ADJUSTABLE NURLOCK ADAPTER TIPS Pg P20 - P21



NURLOCK CLAMPS Pg P35



21000 SERIES HELICAL NURLOCK ADAPTER TIPS Pg P10 - P11



21000 SERIES CARBIDE ADAPTER TIPS Pg P16 - P17



UNIVERSAL LOCATING JIGS Pg P39



61000 SERIES TELESCOPING NURLOCK ADAPTER TIPS Pg P26 - P27



LOCK RING TOOLS Pg P34



UNIVERSAL LOCATING JIG KITS Pg P39



NURLOCK LINER MOD-REPAIR KITS Pg P44



REDUCER BUSHINGS Pg P35



EXT. RANGE INCREASER-REDUCERS Pg P38



AT ADAPTER TIPS Pg P41



HNL-1 21000 - 25000 SERIES HELICAL NURLOCK LINERS Pg P32 - P33



HNL



STANDARD NURLOCK LINERS Pg 35



STANDARD LOCK LINERS Pg P36

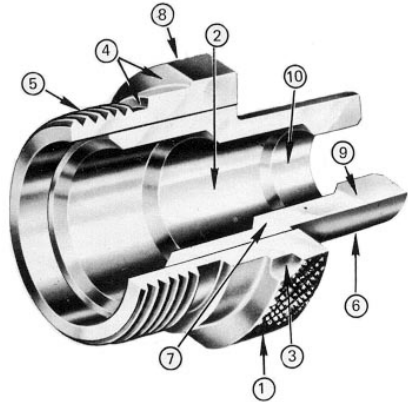


EXTENDED RANGE LOCK LINERS Pg P37

Nurlock Bushing Tips

UNITED Nurlock Drill Bushing Tips & Accessories for Air Feed Drills, Tappers & Back Spotfacers

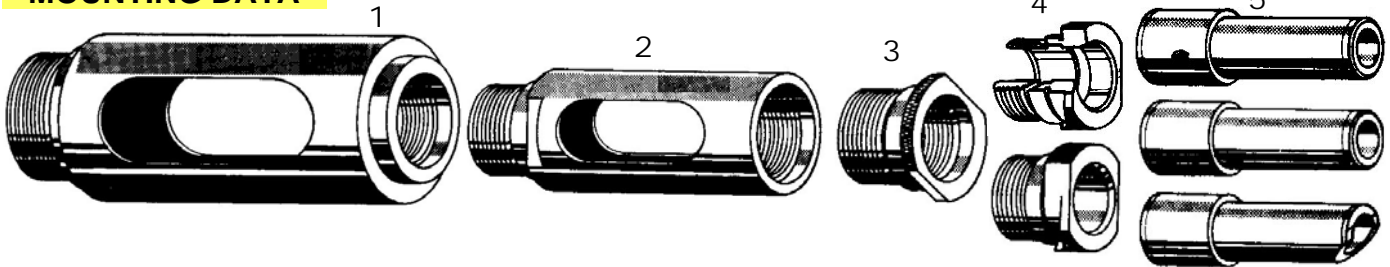
NURLOCK BUSHING TIPS



FEATURING UNITED DESIGNS

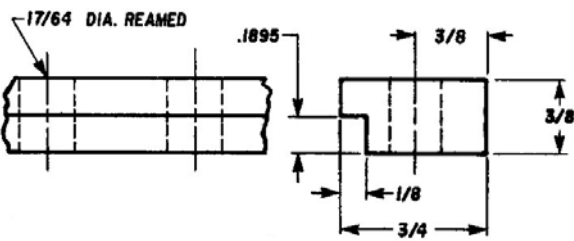
- 1 Outside diameter of collar is knurled to prevent slippage when gripping tool.
- 2 Counterbored Chip clearance hole prevents jam-up of chips. Chips work back into the nosepiece and out of slots in sides of nosepiece.
- 3 Milled slots give quick, positive lock of drill bushing tip under heads of lock screws. A 30° turn locks or unlocks the drill bushing tip.
- 4 Square shoulder and concentric alignment diameter accurately line up drill bushing tip with axis of tool.
- 5 Collar and threads heat treated to produce strength and provide wear resistance. Shank hardened for maximum wear resistance.
- 6 Marked with part number and drill size for easy identification and simplicity in reordering.
- 7 Precision ground shank, with entering bevel for easy insertion in lock liner bushing.
- 8 Black oxide rust preventative finish.
- 9 Concentric ground lead on shank.
- 10 Drill guide hole finished to A.N.S.I. Specifications or customer's exact dimensional requirements.

MOUNTING DATA

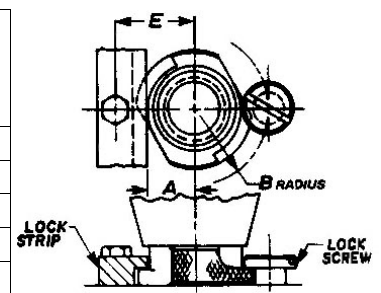


1 NOSEPIECES	2 EXTENSIONS	3 REDUCERS	4 COLLARS	5 SHANKS
Automatic mechanical or air-feed drills, tappers and back spot-facers are equipped with either short or long nosepieces depending on the length of the cutting tool, holding device—i.e., drill chuck, tap chuck, morse taper adapter, etc.	UNITED's nose piece extensions are offered in each collar thread size and are available in 2", 4", 6", 8", and 10" lengths.	Reducer bushings are used to reduce the thread size in a specific nosepiece to adapt it to accommodate smaller thread drill bushing tips.	Nurlock air fluid (top) and standard collars (bottom) are provided with helical milling of the locking shoulder to assure positive lock. Mating shanks are pressed into the collars.	UNITED offers Air Fluid Shanks (top—11101 - 15531 series), Standard Shanks (middle—21101 - 25531 series) and Angular Nose Shanks (bottom). Add suffix 'CS' to air-fluid or standard shanks when ordering.

LOCK STRIP CONSTRUCTION



Drill Bushing Tip Series	A	B	E
21000	.312	.625	.687
22000	.609	.922	.984
23000	.734	1.047	1.109
24000	.859	1.172	1.234
25000	—	1.562	—



SELECTION ORDERING INFORMATION

UNITED provides five Nurlock drill bushing tip threaded sizes matching those of the standard nosepiece. The B dimension is the shank outside diameter. Dimension A is the drill bit guide hole. The shank is inserted into the lock liner bushing, jig hole or headless liner bushing. All ID dimensions (A) are finished to A.N.S.I. Standards specifications. Dimension C is the length of the shank from the face of the lock flange to the end of the shank.

UNITED Nurlock Drill Bushing Tips are furnished to order to the drill size specified by the user. They are available for applications from number 80 drill up through 1-5/8 diameter.

To order UNITED Nurlock Drill Bushing Tips:

Select the part 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: A-21101 (.2500) Nurlock Drill Bushing Tip.

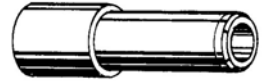
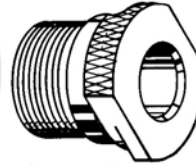
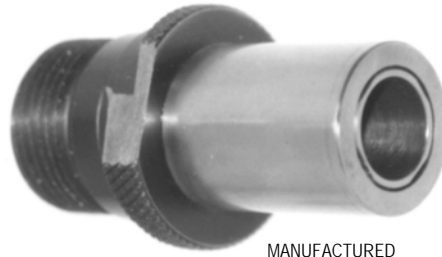
There is an extra charge for all Nurlock Drill Bushing Tips specified to have smaller than the minimum drill size. Standard drill bushing tips are those with standard drill sizes falling between the minimum and maximum sizes shown. An extra charge will be added for each special dimension which may be specified.

UNITED Nurlock Drill Bushing Tips & Accessories for Air Feed Drills, Tappers & Back Spotfacers



NURLOCK BUSHING TIPS

UNITED NURLOCK BUSHING TIPS and ACCESSORIES fit all standard automatic feed drill motors as manufactured by Gardner-Denver, Keller, Buckeye, Aro, Quackenbush, Ingersoll Rand & Zephyr.



MANUFACTURED AS ORDERED FROM SEMI FINISHED.

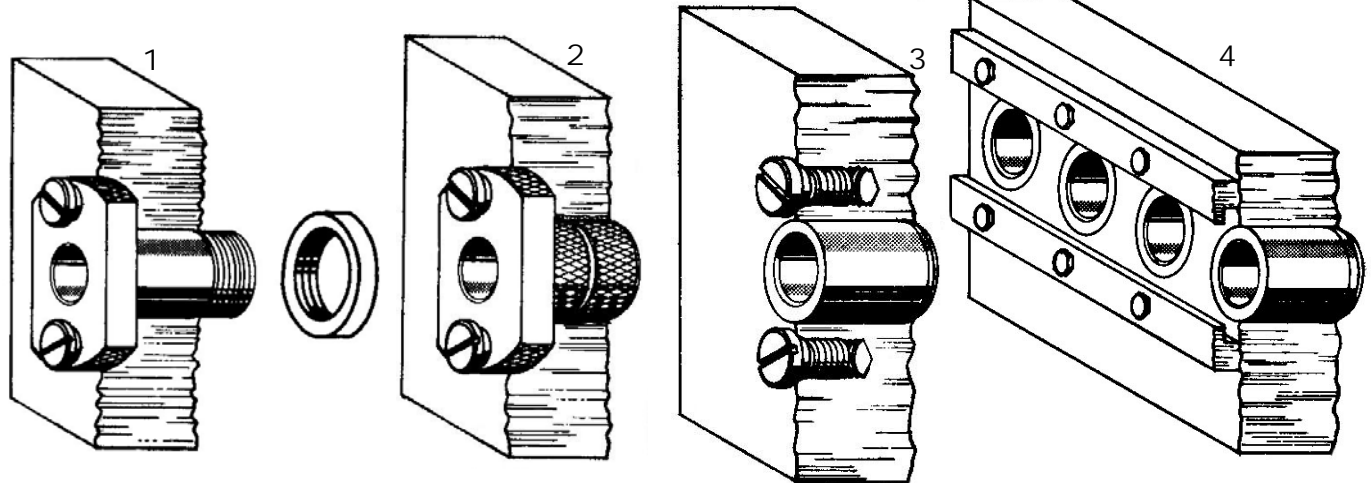
NURLOCK BUSHING TIPS provide a fast accurate method for portable or stationary mounting of drilling, tapping and other self-contained machining units on a jig or fixture.

NURLOCK BUSHING TIP CONSTRUCTION

All Nurlock drill bushing tips are constructed with a two piece method consisting of a collar and a pressed in shank. Collars or shanks may be ordered separately for replacement purposes. See below.

The COLLAR contains the screw threads alignment diameter and lock flange. The SHANK contains the ID, OD and length dimensions as listed in the charts on the following pages. MINIMUM and MAXIMUM DRILL SIZES for Nurlock drill bushing tips are shown in the column headings of the charts.

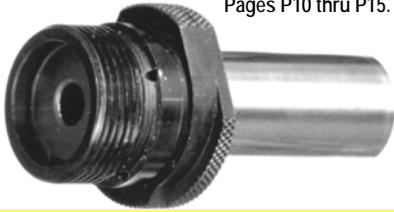
The threaded end of the drill bushing tip screws into the nosepiece of the drilling unit. Locking flanges on the tip fit under the shoulders of lock screws or lockstrips on the jig, effectively holding the drilling unit in aligned position and absorbing both the thrust and torque of drilling.



1 LOCK LINERS	2 NURLOCK LINERS	3 DIRECT MOUNTING	4 LOCK STRIPS
Conventional method for mounting automatic, mechanical or air-feed drills, tappers and back spotfacers to a jig or fixture. A hole is bored in the jig to accommodate the lock liner bushing. The lock ring holds the lock liner bushing in position in the jig.	The Nurlock Liner is used in potted or cast in place installations.	An alternate mounting method for holes so closely spaced that lock liner bushing cannot be used has lock screws mounted directly into the jig. The shank of the drill bushing tip fits directly into a bored hole in the jig. Hardened headless liner bushings are available to press into the bored hole to provide a wearing surface and prolong the useful life of the jig.	A second mounting method for closely spaced holes employs a lock strip along each side of the row of holes in the jig. The flanges on the drill bushing tip lock under the extended edges of the lock strip when the tip is turned 30° counter-clockwise. Headless liner bushings pressed into the bored holes in the jig are recommended to forestall wear in the bored hole.

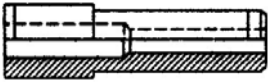
TO ORDER A SHANK or COLLAR ONLY	ORDERING INFORMATION—DRILL GUIDE HOLE SIZES
<p>To order a Shank only: For all UNITED Nurlock Drill Bushing Tips with a prefix letter 'A', select the two piece drill bushing tip of the proper size and specify that part number. Omit the prefix 'A', and add your part name. Include drill size as a parenthetical suffix to the part number, specifying its decimal size to four places.</p> <p>Example: 21101 (.2500) Shank only.</p> <p>For Collar only, specify the part number shown in drawings at head of columns on the following pages. Add the drill size to the part number as a decimal to four places. Example: 21101 (.2500) UNITED Nurlock Collar only.</p>	<p>For UNITED Nurlock Drill Bushing Tips or Shanks with a special drill guide hole clearance: Select the part required. Specify the part number and name. Add the drill size to the part number as a minimum and maximum range for guide hole size. Specify the range parenthetically after the part number as decimals to four places, and add the part name.</p> <p>Example: A-21101 (.2505 - .2510) Nurlock Drill Bushing Tip.</p> <p>Special sizes are supplied only at extra cost. Drill guide hole tolerances closer than standard are supplied at special prices on special quotation.</p> <p>For all other items, specify part number and part name.</p>

See complete DIMENSIONAL TOLERANCES Pages P10 thru P15.



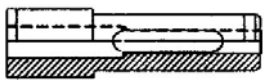
Helical Nurlock STANDARD Coolant Adapter Tip

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
TOLERANCE ON 'B' DIM. —.0002 TO —.0005	



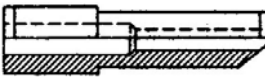
UDB-12531-3/16
OMIT 'A'

EXTENDED RANGE SHANK ONLY —FOR SHANK ONLY, OMIT PREFIX A. Example: UDB-12531



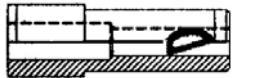
UDB-A-12531CS-3/16
ADD 'CS'

CHIP SLOT —SPECIFY A CHIP SLOT ON LONGER SHANKS, ADD SUFFIX CS. Ex: UDB-A-12531CS-3/16



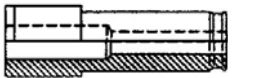
UDB-CTA-12531-3/16
PREFIX 'CT'

CONTOUR SURFACES —FOR CONTOUR SURFACES, USE OUR ANGULAR NOSE SHANK. ADDPREFIX CT. Example: UDB-CTA-12531-3/16



UDB-A-12531CC-3/16
ADD 'CC'

CHIP CUTTER —TO SPECIFY UNITED'S NEW PATENTED CHIP CUTTER, ADD SUFFIX CC TO PART NO. Example: UDB-A-12531CC-3/16



UDB-A-12531EZ-3/16
ADD 'EZ'

EASE IN RADIUS —TO SPECIFY UNITED'S NEW O.D. EASE IN RADIUS, ADD SUFFIX EZ TO PART NO. Example: UDB-A-12531EZ-3/16



UDB-AU-12531-3/16
Insert 'U' for **ULTRA III**
UDB-AC-12531-3/16
Insert 'C' for **CARBIDE**

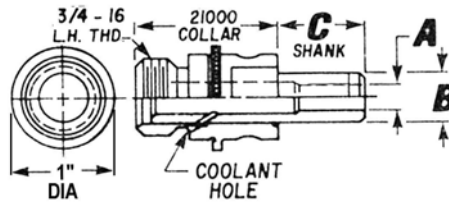
LONG WEARING INSERTS —TO ORDER LONG WEARING INSERTS FOR FIVE TIMES WEAR, SPECIFY PREFIX AU FOR ULTRA III MATERIAL. FOR TEN TIMES WEAR, SPECIFY PREFIX AC FOR CARBIDE.

LOCKING ACCESSORIES — In this Section

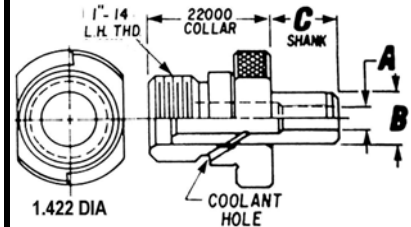


Helical Nurlock Coolant Series

A-11000 SERIES

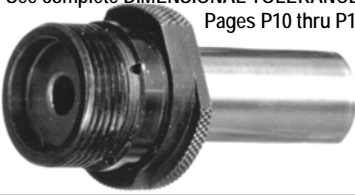


A-12000 SERIES



(DRILL) A	MAX A	MIN A	1/4 3/32	5/16 3/32	3/8 3/32	9/32 3/16	11/32 3/16	13/32 3/16	15/32 3/16	15/32 3/16
(SHANK OD) B			3/8	7/16	1/2	7/16	1/2	9/16	5/8	3/4
C	3/8	A-11101			A-11301	A-12101			A-12401	
	1/2	A-11102	A-11202	A-11302	A-12102	A-12202			A-12402	
L	5/8	A-11103	A-11203	A-11303	A-12103	A-12203	A-12303	A-12403		
E	3/4	A-11104	A-11204	A-11304	A-12104	A-12204	A-12304	A-12404	A-12504	
N	7/8	A-11105	A-11205	A-11305	A-12105	A-12205	A-12305	A-12405	A-12505	
G	1	A-11106	A-11206	A-11306	A-12106	A-12206	A-12306	A-12406	A-12506	
T	1-1/16	A-11107		A-11307						
H	1-1/8	A-11108	A-11208	A-11308	A-12108	A-12208	A-12308	A-12408	A-12508	
	1-3/16				A-12109	A-12209	A-12309	A-12409		
F	1-1/4	A-11110	A-11210	A-11310	A-12110	A-12210	A-12310	A-12410	A-12510	
R	1-3/8	A-11111	A-11211	A-11311	A-12111	A-12211	A-12311	A-12411	A-12511	
O	1-7/16									
M	1-1/2	A-11113	A-11213	A-11313	A-12113	A-12213	A-12313	A-12413	A-12513	
	1-5/8	A-11114	A-11214	A-11314	A-12114	A-12214	A-12314	A-12414	A-12514	
C	1-3/4	A-11115	A-11215	A-11315	A-12115	A-12215	A-12315	A-12415	A-12515	
O	1-7/8	A-11116	A-11216	A-11316	A-12116	A-12216	A-12316	A-12416	A-12516	
L	1-15/16									
L	2	A-11118	A-11218	A-11318	A-12118	A-12218	A-12318	A-12418	A-12518	
A	2-1/8	A-11119	A-11219	A-11319	A-12119	A-12219	A-12319	A-12419	A-12519	
R	2-1/4	A-11120	A-11220	A-11320	A-12120	A-12220	A-12320	A-12420	A-12520	
	2-3/8	A-11121	A-11221	A-11321	A-12121	A-12221	A-12321	A-12421	A-12521	
I	2-1/2	A-11122	A-11222	A-11322	A-12122	A-12222	A-12322	A-12422	A-12522	
N	2-5/8									
	2-3/4	A-11124	A-11224	A-11324	A-12124	A-12224	A-12324	A-12424	A-12524	
I	3	A-11125	A-11225	A-11325	A-12125	A-12225	A-12325	A-12425	A-12525	
N	3-1/4	A-11126	A-11226	A-11326	A-12126	A-12226	A-12326	A-12426	A-12526	
C	3-1/2				A-12127	A-12227	A-12327	A-12427	A-12527	
H	3-3/4				A-12128	A-12228	A-12328	A-12428	A-12528	
E	4				A-12129	A-12229	A-12329	A-12429	A-12529	
S	5			A-11330	A-12130	A-12230	A-12330	A-12430	A-12530	
	6	A-11131			A-12131	A-12231	A-12331	A-12431	A-12531	
C LEN ABOVE			COLLAR A-11000 ADD I.D. SIZE TO LINERS			COLLAR A-12000 ADD I.D. SIZE TO LINERS				
LINER I.D.			3/8	7/16	1/2	7/16	1/2	9/16	5/8	3/4
HELICAL NURLOCK LINERS	DOUBLE LOCK METAL	HNL-213212	HNL-214808	HNL-214808	HNL-224808	HNL-224808	HNL-225210	HNL-225610	HNL-226410	
FOR METAL TOOLING	SINGLE LOCK METAL	HNL-1-213212	HNL-1-214808	HNL-1-214808	HNL-1-224808	HNL-1-224808	HNL-1-225210	HNL-1-225610	HNL-1-226410	
STD NURLOCK LINERS	DOUBLE LOCK METAL	NL-16520		NL-16521	WE RECOMMEND HNL and HNLP				NL-16522	
STD NURLOCK LINERS	DOUBLE LOCK PLASTIC	NLP-375		NLP-500						NLP-750
LOCK LINERS	FOR METAL	LL-21100	LL-21200	LL-21300					LL-22400	
LOCK LINERS	FOR PLASTIC	NL-21100	NL-21200	NL-21300	NL-22100	NL-22200	NL-22300	NL-22400		
LOCK RINGS		UDB-521449	UDB-521450A	UDB-521450A	UDB-521451	UDB-521451	UDB-521451A	UDB-521451	UDB-521452	
HELICAL NURLOCK LINERS	DOUBLE LOCK PLASTIC	HNLP-213212	HNLP-214808	HNLP-214808	HNLP-224808	HNLP-224808	HNLP-225210	HNLP-225610	HNLP-226410	
FOR PLASTIC TOOLING	SINGLE LOCK PLASTIC	HNLP-1-213212	HNLP-1-214808	HNLP-1-214808	HNLP-1-224808	HNLP-1-224808	HNLP-1-225210	HNLP-1-225610	HNLP-1-226410	
TAPERED NURLOCK CLAMPS		TLC-2	TLC-2	TLC-2	TLC-2	TLC-2	TLC-2	TLC-2	TLC-2	
LINER BUSHINGS		19936	19937	19938	19937	19938	19939	19940	19941	
LOCK SCREWS		16531	16531	16531	16532	16532	16532	16532	16532	

See complete DIMENSIONAL TOLERANCES
Pages P10 thru P15.



UP TO TEN
TIMES MORE
WEAR LIFE!

WearEver Carbide Coolant Series

AC-11000 SERIES

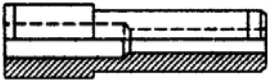
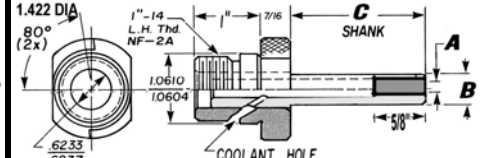
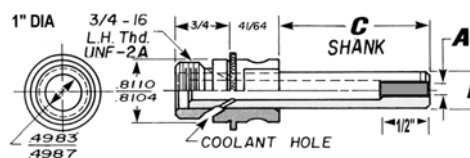
AC-12000 SERIES

WearEver Carbide I.D.

WearEver Carbide I.D.

Helical Nurlock Carbide I.D. Coolant Adapter Tip

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
TOLERANCE ON 'B' DIM. — .0002 TO —.0005	



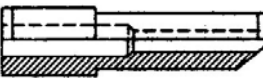
UDB-C-12531-3/16
OMIT 'A'

EXTENDED RANGE SHANK ONLY —FOR SHANK ONLY, OMIT PREFIX A. Example: UDB-C-12531



UDB-AC-12531CS-3/16
ADD 'CS'

CHIP SLOT —SPECIFY A CHIP SLOT ON LONGER SHANKS, ADD SUFFIX CS. Ex: UDB-AC-12531CS-3/16



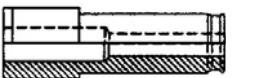
UDB-CTAC-12531-3/16
PREFIX 'CT'

CONTOUR SURFACES —FOR CONTOUR SURFACES, USE OUR ANGULAR NOSE SHANK. ADD PREFIX CT. Example: UDB-CTAC-12531-3/16



UDB-AC-12531CC-3/16
ADD 'CC'

CHIP CUTTER —TO SPECIFY UNITED'S NEW PATENTED CHIP CUTTER, ADD SUFFIX CC TO PART NO. Example: UDB-AC-12531CC-3/16



UDB-AC-12531EZ-3/16
ADD 'EZ'

EASE IN RADIUS —TO SPECIFY UNITED'S NEW O.D. EASE IN RADIUS, ADD SUFFIX EZ TO PART NO. Example: UDB-AC-12531EZ-3/16



UDB-AU-12531-3/16
Insert 'U' for ULTRA III
UDB-AC-12531-3/16
Insert 'C' for CARBIDE

LONG WEARING INSERTS —TO ORDER LONG WEARING INSERTS FOR FIVE TIMES WEAR, SPECIFY PREFIX AU FOR ULTRA III MATERIAL. FOR TEN TIMES WEAR, SPECIFY PREFIX AC FOR CARBIDE.

(DRILL) A	MAX	3/16	7/32	9/32	7/32	9/32	5/16	3/8	7/16
A	MIN	1/16	1/16	1/16	1/8	1/8	1/8	1/8	1/8
(SHANK OD) B		3/8	7/16	1/2	7/16	1/2	9/16	5/8	3/4
C	3/8	AC-11101		AC-11301	AC-12101			AC-12401	
	1/2	AC-11102	AC-11202	AC-11302	AC-12102	AC-12202		AC-12402	
L	5/8	AC-11103	AC-11203	AC-11303	AC-12103	AC-12203	AC-12303	AC-12403	
E	3/4	AC-11104	AC-11204	AC-11304	AC-12104	AC-12204	AC-12304	AC-12404	AC-12504
N	7/8	AC-11105	AC-11205	AC-11305	AC-12105	AC-12205	AC-12305	AC-12405	AC-12505
G	1	AC-11106	AC-11206	AC-11306	AC-12106	AC-12206	AC-12306	AC-12406	AC-12506
T	1-1/16	AC-11107	AC-11207	AC-11307					
H	1-1/8	AC-11108	AC-11208	AC-11308	AC-12108	AC-12208	AC-12308	AC-12408	AC-12508
	1-3/16				AC-12109	AC-12209	AC-12309	AC-12409	
F	1-1/4	AC-11110	AC-11210	AC-11310	AC-12110	AC-12210	AC-12310	AC-12410	AC-12510
R	1-3/8	AC-11111	AC-11211	AC-11311	AC-12111	AC-12211	AC-12311	AC-12411	AC-12511
O	1-7/16								
M	1-1/2	AC-11113	AC-11213	AC-11313	AC-12113	AC-12213	AC-12313	AC-12413	AC-12513
	1-5/8	AC-11114	AC-11214	AC-11314	AC-12114	AC-12214	AC-12314	AC-12414	AC-12514
C	1-3/4	AC-11115	AC-11215	AC-11315	AC-12115	AC-12215	AC-12315	AC-12415	AC-12515
O	1-7/8	AC-11116	AC-11216	AC-11316	AC-12116	AC-12216	AC-12316	AC-12416	AC-12516
L	1-15/16								
L	2	AC-11118	AC-11218	AC-11318	AC-12118	AC-12218	AC-12318	AC-12418	AC-12518
A	2-1/8	AC-11119	AC-11219	AC-11319	AC-12119	AC-12219	AC-12319	AC-12419	AC-12519
R	2-1/4	AC-11120	AC-11220	AC-11320	AC-12120	AC-12220	AC-12320	AC-12420	AC-12520
	2-3/8	AC-11121	AC-11221	AC-11321	AC-12121	AC-12221	AC-12321	AC-12421	AC-12521
I	2-1/2	AC-11122	AC-11222	AC-11322	AC-12122	AC-12222	AC-12322	AC-12422	AC-12522
N	2-5/8								
	2-3/4	AC-11124	AC-11224	AC-11324	AC-12124	AC-12224	AC-12324	AC-12424	AC-12524
I	3	AC-11125	AC-11225	AC-11325	AC-12125	AC-12225	AC-12325	AC-12425	AC-12525
N	3-1/4	AC-11126	AC-11226	AC-11326	AC-12126	AC-12226	AC-12326	AC-12426	AC-12526
C	3-1/2				AC-12127	AC-12227	AC-12327	AC-12427	AC-12527
H	3-3/4				AC-12128	AC-12228	AC-12328	AC-12428	AC-12528
E	4				AC-12129	AC-12229	AC-12329	AC-12429	AC-12529
S	5			AC-11330	AC-12130	AC-12230	AC-12330	AC-12430	AC-12530
	6	AC-11131			AC-12131	AC-12231	AC-12331	AC-12431	AC-12531

C LENGTH ABOVE		COLLAR AC-11000 ADD I.D. SIZE TO LINERS			COLLAR AC-12000 ADD I.D. SIZE TO LINERS				
LINER I.D.		3/8	7/16	1/2	7/16	1/2	9/16	5/8	3/4
HELICAL NURLOCK LINERS	DOUBLE LOCK METAL	HNL-213212	HNL-214808	HNL-214808	HNL-224808	HNL-224808	HNL-225210	HNL-225610	HNL-226410
FOR METAL TOOLING	SINGLE LOCK METAL	HNL-1-213212	HNL-1-214808	HNL-1-214808	HNL-1-224808	HNL-1-224808	HNL-1-225210	HNL-1-225610	HNL-1-226410
STD NURLOCK LINERS	DOUBLE LOCK METAL	NL-16520		NL-16521	WE RECOMMEND			NL-16522	
STD NURLOCK LINERS	DOUBLE LOCK PLASTIC	NLP-375		NLP-500	HNL and HNLP				NLP-750
LOCK LINERS	FOR METAL	LL-21100	LL-21200	LL-21300				LL-22400	
LOCK LINERS	FOR PLASTIC	NL-21100	NL-21200	NL-21300	NL-22100	NL-22200	NL-22300	NL-22400	
LOCK RINGS		UDB-521449	UDB-521450A	UDB-521450A	UDB-521451	UDB-521451	UDB-521451A	UDB-521451	UDB-521452
HELICAL NURLOCK LINERS	DOUBLE LOCK PLASTIC	HNLP-213212	HNLP-214808	HNLP-214808	HNLP-224808	HNLP-224808	HNLP-225210	HNLP-225610	HNLP-226410
FOR PLASTIC TOOLING	SINGLE LOCK PLASTIC	HNLP-1-213212	HNLP-1-214808	HNLP-1-214808	HNLP-1-224808	HNLP-1-224808	HNLP-1-225210	HNLP-1-225610	HNLP-1-226410
TAPERED NURLOCK CLAMPS		TLC-2	TLC-2	TLC-2	TLC-2	TLC-2	TLC-2	TLC-2	TLC-2
LINER BUSHINGS		19936	19937	19938	19937	19938	19939	19940	19941
LOCK SCREWS		16531	16531	16531	16532	16532	16532	16532	16532

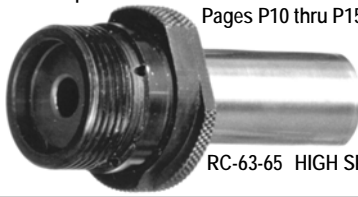
LOCKING ACCESSORIES — In this Section



Stronger Ultra III Coolant Series

AU-11000 SERIES

AU-12000 SERIES

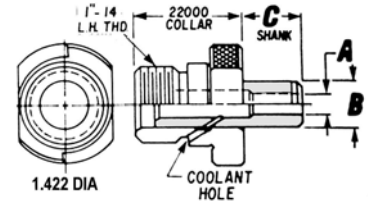
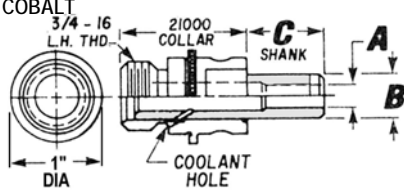


UP TO FIVE TIMES
MORE WEAR LIFE!

RC-63-65 HIGH SPEED STEEL WITH COBALT

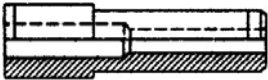
Stronger ULTRA III

Stronger ULTRA III



Helical Nurlock ULTRA III Coolant Adapter Tip

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
TOLERANCE ON 'B' DIM. —.0002 TO —.0005	



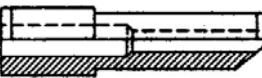
UDB-U-12531-3/16
OMIT 'A'

EXTENDED RANGE SHANK ONLY —FOR SHANK ONLY, OMIT PREFIX A. Example: UDB-U-12531



UDB-AU-12531CS-3/16
ADD 'CS'

CHIP SLOT —SPECIFY A CHIP SLOT ON LONGER SHANKS, ADD SUFFIX CS. Ex: UDB-AU-12531CS-3/16



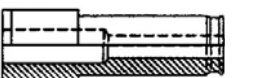
UDB-CTAU-12531-3/16
PREFIX 'CT'

CONTOUR SURFACES —FOR CONTOUR SURFACES, USE OUR ANGULAR NOSE SHANK. ADD PREFIX CT. Example: UDB-CTAU-12531-3/16



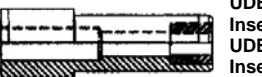
UDB-AU-12531CC-3/16
ADD 'CC'

CHIP CUTTER —TO SPECIFY UNITED'S NEW PATENTED CHIP CUTTER, ADD SUFFIX CC TO PART NO. Example: UDB-AU-12531CC-3/16



UDB-AU-12531EZ-3/16
ADD 'EZ'

EASE IN RADIUS —TO SPECIFY UNITED'S NEW O.D. EASE IN RADIUS, ADD SUFFIX EZ TO PART NO. Example: UDB-AU-12531EZ-3/16



UDB-AU-12531-3/16
Insert 'U' for ULTRA III
UDB-AC-12531-3/16
Insert 'C' for CARBIDE

LONG WEARING INSERTS —TO ORDER LONG WEARING INSERTS FOR FIVE TIMES WEAR, SPECIFY PREFIX AU FOR ULTRA III MATERIAL. FOR TEN TIMES WEAR, SPECIFY PREFIX AC FOR CARBIDE.

LOCKING ACCESSORIES — In this Section



(DRILL) A	MAX	1/4	5/16	3/8	9/32	11/32	13/32	15/32	15/32
A	MIN	3/32	3/32	3/32	3/16	3/16	3/16	3/16	3/16
(SHANK OD) B		3/8	7/16	1/2	7/16	1/2	9/16	5/8	3/4
C	3/8	AU-11101		AU-11301	AU-12101			AU-12401	
	1/2	AU-11102	AU-11202	AU-11302	AU-12102	AU-12202		AU-12402	
L	5/8	AU-11103	AU-11203	AU-11303	AU-12103	AU-12203	AU-12303	AU-12403	
E	3/4	AU-11104	AU-11204	AU-11304	AU-12104	AU-12204	AU-12304	AU-12404	AU-12504
N	7/8	AU-11105	AU-11205	AU-11305	AU-12105	AU-12205	AU-12305	AU-12405	AU-12505
G	1	AU-11106	AU-11206	AU-11306	AU-12106	AU-12206	AU-12306	AU-12406	AU-12506
T	1-1/16	AU-11107	AU-11207	AU-11307					
H	1-1/8	AU-11108	AU-11208	AU-11308	AU-12108	AU-12208	AU-12308	AU-12408	AU-12508
	1-3/16				AU-12109	AU-12209	AU-12309	AU-12409	
F	1-1/4	AU-11110	AU-11210	AU-11310	AU-12110	AU-12210	AU-12310	AU-12410	AU-12510
R	1-3/8	AU-11111	AU-11211	AU-11311	AU-12111	AU-12211	AU-12311	AU-12411	AU-12511
O	1-7/16								
M	1-1/2	AU-11113	AU-11213	AU-11313	AU-12113	AU-12213	AU-12313	AU-12413	AU-12513
	1-5/8	AU-11114	AU-11214	AU-11314	AU-12114	AU-12214	AU-12314	AU-12414	AU-12514
C	1-3/4	AU-11115	AU-11215	AU-11315	AU-12115	AU-12215	AU-12315	AU-12415	AU-12515
O	1-7/8	AU-11116	AU-11216	AU-11316	AU-12116	AU-12216	AU-12316	AU-12416	AU-12516
L	1-15/16								
L	2	AU-11118	AU-11218	AU-11318	AU-12118	AU-12218	AU-12318	AU-12418	AU-12518
A	2-1/8	AU-11119	AU-11219	AU-11319	AU-12119	AU-12219	AU-12319	AU-12419	AU-12519
R	2-1/4	AU-11120	AU-11220	AU-11320	AU-12120	AU-12220	AU-12320	AU-12420	AU-12520
	2-3/8	AU-11121	AU-11221	AU-11321	AU-12121	AU-12221	AU-12321	AU-12421	AU-12521
I	2-1/2	AU-11122	AU-11222	AU-11322	AU-12122	AU-12222	AU-12322	AU-12422	AU-12522
N	2-5/8								
	2-3/4	AU-11124	AU-11224	AU-11324	AU-12124	AU-12224	AU-12324	AU-12424	AU-12524
I	3	AU-11125	AU-11225	AU-11325	AU-12125	AU-12225	AU-12325	AU-12425	AU-12525
N	3-1/4	AU-11126	AU-11226	AU-11326	AU-12126	AU-12226	AU-12326	AU-12426	AU-12526
C	3-1/2				AU-12127	AU-12227	AU-12327	AU-12427	AU-12527
H	3-3/4				AU-12128	AU-12228	AU-12328	AU-12428	AU-12528
E	4				AU-12129	AU-12229	AU-12329	AU-12429	AU-12529
S	5			AU-11330	AU-12130	AU-12230	AU-12330	AU-12430	AU-12530
	6	AU-11131			AU-12131	AU-12231	AU-12331	AU-12431	AU-12531
C LENGTH ABOVE		COLLAR AU-11000 ADD I.D. SIZE TO LINERS			COLLAR AU-12000 ADD I.D. SIZE TO LINERS				
LINER I.D.		3/8	7/16	1/2	7/16	1/2	9/16	5/8	3/4
HELICAL NURLOCK LINERS	DOUBLE LOCK METAL	HNL-213212	HNL-214808	HNL-214808	HNL-224808	HNL-224808	HNL-225210	HNL-225610	HNL-226410
HELICAL NURLOCK LINERS	SINGLE LOCK METAL	HNL-1-213212	HNL-1-214808	HNL-1-214808	HNL-1-224808	HNL-1-224808	HNL-1-225210	HNL-1-225610	HNL-1-226410
STD NURLOCK LINERS	DOUBLE LOCK METAL	NL-16520		NL-16521	WE RECOMMEND			NL-16522	
STD NURLOCK LINERS	DOUBLE LOCK PLASTIC	NLP-375		NLP-500	HNL and HNL P				NLP-750
LOCK LINERS	FOR METAL	LL-21100	LL-21200	LL-21300					
LOCK LINERS	FOR PLASTIC	NL-21100	NL-21200	NL-21300	NL-22100	NL-22200	NL-22300	NL-22400	
LOCK RINGS		UDB-521449	UDB-521450A	UDB-521450A	UDB-521451	UDB-521451	UDB-521451A	UDB-521451	UDB-521452
HELICAL NURLOCK LINERS	DOUBLE LOCK PLASTIC	HNL P-213212	HNL P-214808	HNL P-214808	HNL P-224808	HNL P-224808	HNL P-225210	HNL P-225610	HNL P-226410
HELICAL NURLOCK LINERS	SINGLE LOCK PLASTIC	HNL P-1-213212	HNL P-1-214808	HNL P-1-214808	HNL P-1-224808	HNL P-1-224808	HNL P-1-225210	HNL P-1-225610	HNL P-1-226410
TAPERED NURLOCK CLAMPS		TLC-2	TLC-2	TLC-2	TLC-2	TLC-2	TLC-2	TLC-2	TLC-2
LINER BUSHINGS		19936	19937	19938	19937	19938	19939	19940	19941
LOCK SCREWS		16531	16531	16531	16532	16532	16532	16532	16532

Nurlock Adapter Tips and Accessories

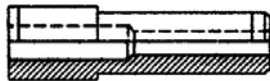
A-21000 SERIES

A-22000 SERIES



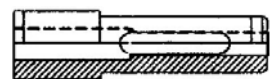
Nurlock Adapter Tip

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
TOLERANCE ON 'B' DIM. —.0002 TO —.0005	



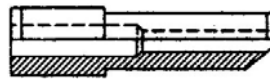
UDB-22531-3/16
OMIT 'A'

EXTENDED RANGE SHANK ONLY —FOR SHANK ONLY, OMIT PREFIX A. Example: UDB-22531



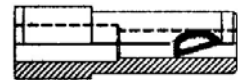
UDB-A-22531CS-3/16
ADD 'CS'

CHIP SLOT —SPECIFY A CHIP SLOT ON LONGER SHANKS, ADD SUFFIX CS. Ex: UDB-A-22531CS-3/16



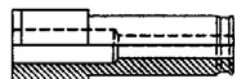
UDB-CTA-22531-3/16
PREFIX 'CT'

CONTOUR SURFACES —FOR CONTOUR SURFACES, USE OUR ANGULAR NOSE SHANK. ADD PREFIX CT. Example: UDB-CTA-22531-3/16



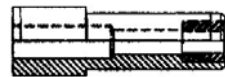
UDB-A-22531CC-3/16
ADD 'CC'

CHIP CUTTER —TO SPECIFY UNITED'S NEW PATENTED CHIP CUTTER, ADD SUFFIX CC TO PART NO. Example: UDB-A-22531CC-3/16



UDB-A-22531EZ-3/16
ADD 'EZ'

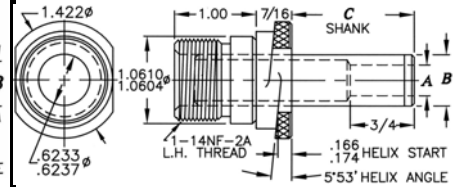
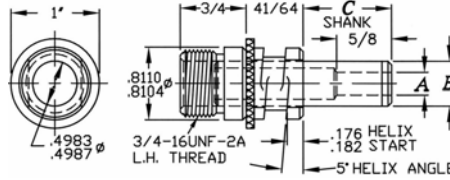
EASE IN RADIUS —TO SPECIFY UNITED'S NEW O.D. EASE IN RADIUS, ADD SUFFIX EZ TO PART NO. Example: UDB-A-22531EZ-3/16



UDB-AU-22531-3/16
Insert 'U' for **ULTRA III**
UDB-AC-22531-3/16
Insert 'C' for **CARBIDE**

LONG WEARING INSERTS —TO ORDER LONG WEARING INSERTS FOR FIVE TIMES WEAR, SPECIFY PREFIX AU FOR ULTRA III MATERIAL. FOR TEN TIMES WEAR, SPECIFY PREFIX AC FOR CARBIDE.

LOCKING ACCESSORIES — In this Section



(DRILL) A	MAX	1/4	5/16	3/8	9/32	11/32	13/32	15/32	15/32
A	MIN	3/32	3/32	3/32	3/16	3/16	3/16	3/16	3/16
(SHANK OD) B		3/8	7/16	1/2	7/16	1/2	9/16	5/8	3/4
C	3/8	A-21101		A-21301	A-22101			A-22401	
	1/2	A-21102	A-21202	A-21302	A-22102	A-22202		A-22402	
L	5/8	A-21103	A-21203	A-21303	A-22103	A-22203	A-22303	A-22403	
	3/4	A-21104	A-21204	A-21304	A-22104	A-22204	A-22304	A-22404	A-22504
N	7/8	A-21105	A-21205	A-21305	A-22105	A-22205	A-22305	A-22405	A-22505
	1	A-21106	A-21206	A-21306	A-22106	A-22206	A-22306	A-22406	A-22506
T	1-1/16	A-21107		A-21307					
	1-1/8	A-21108	A-21208	A-21308	A-22108	A-22208	A-22308	A-22408	A-22508
H	1-3/16							A-22409	
	1-1/4	A-21110	A-21210	A-21310	A-22110	A-22210	A-22310	A-22410	A-22510
R	1-3/8	A-21111	A-21211	A-21311	A-22111	A-22211	A-22311	A-22411	A-22511
	1-7/16								
O	1-1/2	A-21113	A-21213	A-21313	A-22113	A-22213	A-22313	A-22413	A-22513
	1-5/8	A-21114	A-21214	A-21314	A-22114	A-22214	A-22314	A-22414	A-22514
C	1-3/4	A-21115	A-21215	A-21315	A-22115	A-22215	A-22315	A-22415	A-22515
	1-7/8	A-21116	A-21216	A-21316	A-22116	A-22216	A-22316	A-22416	A-22516
L	1-15/16								
	2	A-21118	A-21218	A-21318	A-22118	A-22218	A-22318	A-22418	A-22518
A	2-1/8	A-21119	A-21219	A-21319	A-22119	A-22219	A-22319	A-22419	A-22519
	2-1/4	A-21120	A-21220	A-21320	A-22120	A-22220	A-22320	A-22420	A-22520
I	2-3/8	A-21121	A-21221	A-21321	A-22121	A-22221	A-22321	A-22421	A-22521
	2-1/2	A-21122	A-21222	A-21322	A-22122	A-22222	A-22322	A-22422	A-22522
N	2-5/8								
	2-3/4	A-21124	A-21224	A-21324	A-22124	A-22224	A-22324	A-22424	A-22524
I	3	A-21125	A-21225	A-21325	A-22125	A-22225	A-22325	A-22425	A-22525
	3-1/4	A-21126	A-21226	A-21326	A-22126	A-22226	A-22326	A-22426	A-22526
C	3-1/2				A-22127	A-22227	A-22327	A-22427	A-22527
	3-3/4				A-22128	A-22228	A-22328	A-22428	A-22528
H	4				A-22129	A-22229	A-22329	A-22429	A-22529
	5			A-21330	A-22130	A-22230	A-22330	A-22430	A-22530
S	6	A-21131			A-22131	A-22231	A-22331	A-22431	A-22531
	COLLAR A-21000 ADD I.D. SIZE TO LINERS				COLLAR A-22000 ADD I.D. SIZE TO LINERS				
LINER I.D.		3/8	7/16	1/2	7/16	1/2	9/16	5/8	3/4
HELICAL NURLOCK LINERS	DOUBLE LOCK FOR METAL	HNL-213212	HNL-214808	HNL-214808	HNL-224808	HNL-224808	HNL-225210	HNL-225610	HNL-226410
FOR METAL TOOLING	SINGLE LOCK FOR METAL	HNL-1-213212	HNL-1-214808	HNL-1-214808	HNL-1-224808	HNL-1-224808	HNL-1-225210	HNL-1-225610	HNL-1-226410
STD NURLOCK LINERS	DOUBLE LOCK FOR METAL	NL-16520		NL-16521	WE RECOMMEND HNL and HNL P				
STD NURLOCK LINERS	DOUBLE LOCK FOR PLASTIC	NLP-375		NLP-500					NLP-750
LOCK LINERS	FOR METAL	LL-21100	LL-21200	LL-21300				LL-22400	
LOCK LINERS	FOR PLASTIC	NL-21100	NL-21200	NL-21300	NL-22100	NL-22200	NL-22300	NL-22400	
LOCK RINGS		UDB-521449	UDB-521450A	UDB-521450A	UDB-521451	UDB-521451	UDB-521451A	UDB-521451	UDB-521452
HELICAL NURLOCK LINERS	DOUBLE LOCK FOR PLASTIC	HNL P-213212	HNL P-214808	HNL P-214808	HNL P-224808	HNL P-224808	HNL P-225210	HNL P-225610	HNL P-226410
FOR PLASTIC TOOLING	SINGLE LOCK FOR PLASTIC	HNL P-1-213212	HNL P-1-214808	HNL P-1-214808	HNL P-1-224808	HNL P-1-224808	HNL P-1-225210	HNL P-1-225610	HNL P-1-226410
TAPERED NURLOCK CLAMPS		TLC-2	TLC-2	TLC-2	TLC-2	TLC-2	TLC-2	TLC-2	TLC-2
LINER BUSHINGS		19936	19937	19938	19937	19938	19939	19940	19941
LOCK SCREWS		16531	16531	16531	16532	16532	16532	16532	16532

