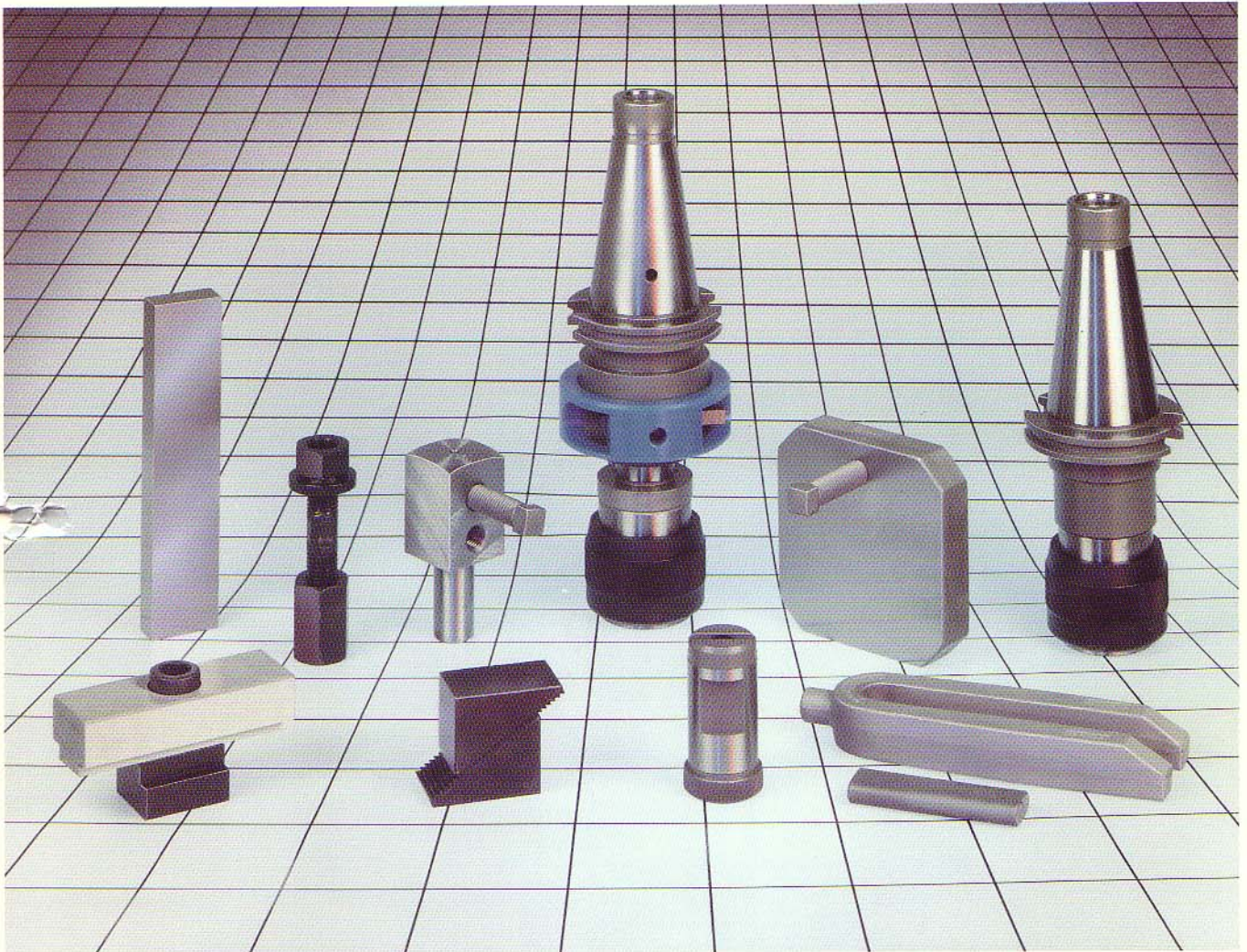


TOOLING ACCESSORIES



GIDDINGS & LEWIS®

TAP-LEADER

a tap compensating tool that can be used for both drilling and tapping

Now you can power feed all taps on machines without matching tap leads. The Davis Tap-Leader improves all tapping finishes and speeds tool changing.

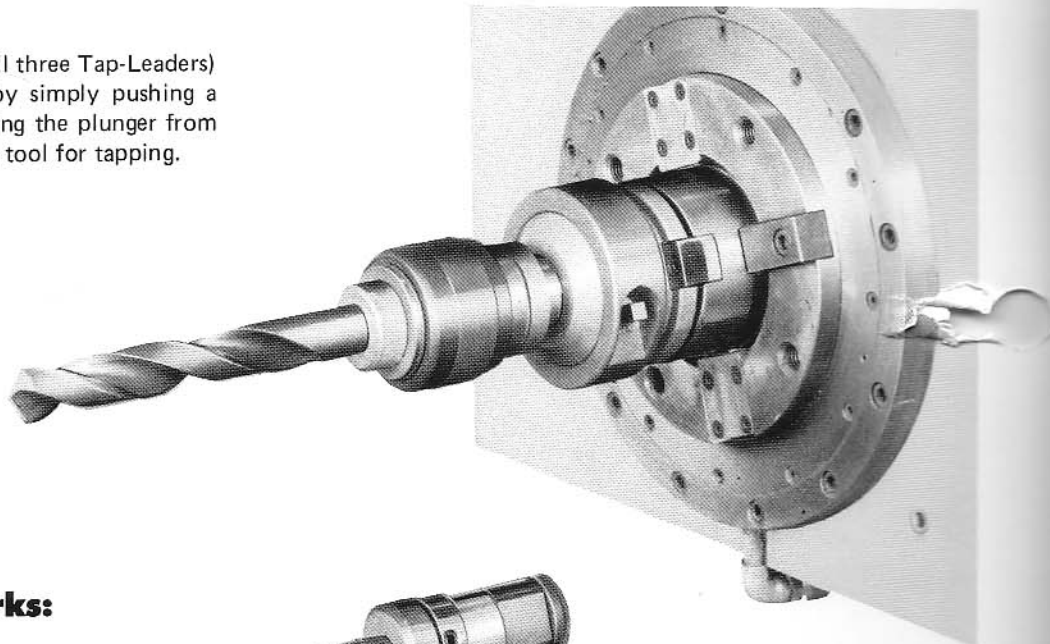
It is no longer necessary to manually feed taps on high-production machines not equipped with proper thread leads for the job. The Davis Tap-Leader automatically compensates for the difference between feed and lead and enables you to perform tapping operations using regular feeds. It also absorbs backlash in the feed gearing when the tap is reversed. Because of the feed variance feature, tapping finish is improved even with feeds matched to the tap.

A special "Float-Lock" (standard on all three Tap-Leaders) converts them to rigid drill holders by simply pushing a plunger on the side of the body. Pushing the plunger from the opposite side of the body resets the tool for tapping.

Quick-change drill and tap collets make tool changing fast and easy. Each tool (drill, tap, reamer, etc.) is mounted in a collet which is interchangeable with all others in the set. Tools lock instantly in place . . . release just as quickly.

Three sizes of Tap-Leaders handle taps ranging from 1/4" through 2" and Morse Taper shank drills from #1 through #4. For work ranges of each Tap-Leader model, see page #3.

Tap-Leaders are stocked with #50 Vee Flange shanks. Other shanks available on short delivery.



How the Tap-Leader Works:

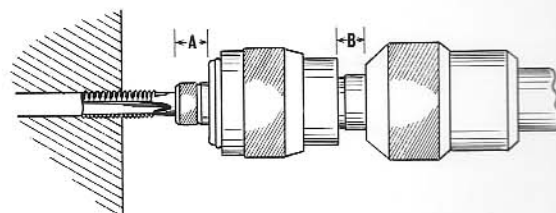
(A) Extension action:

As the tap enters work, the tap lead will gradually pull the tap and collet ahead of the Tap-Leader body. As the tap is reversed, the tap and collet move back into the Tap-Leader body. (The collet is driven by the body but slides freely along the longitudinal axis.)

(B) Compression action:

Machine backlash is no problem. If backlash causes interference as the tap leaves the work (the spindle feed may pick up after the tap has started back), a separate compression spring absorbs the extra travel, protecting the thread in the work.

Springs **DO NOT** work against each other. Extension spring tension is very light to insure a good thread. Compression spring is adjustable to suit the material being tapped.

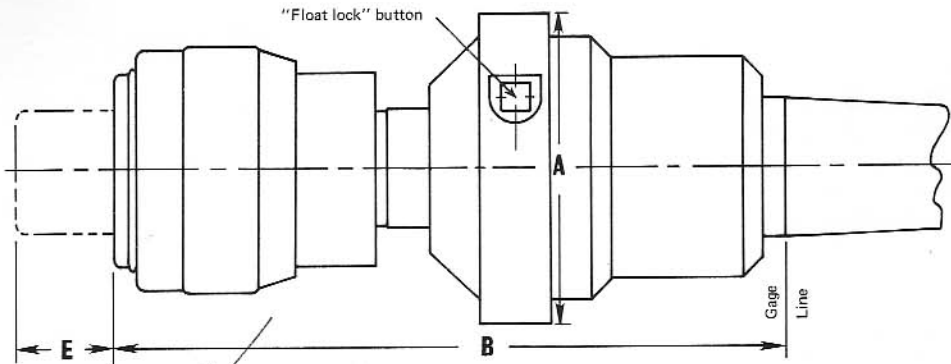


NOTE: Machine feed should be slightly less than the tap lead.

The machine and products illustrated in this catalog are protected by United States and foreign patents, patents pending, and applied for. Illustrations and specifications published in this catalog are not binding in detail as Giddings & Lewis reserves the right to make and incorporate design changes and improvements without notice, as conditions warrant.

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TAP-LEADER DIMENSIONS AND SPECIFICATIONS



See page 5 for
collet information.

Size	Shank	Part Number	A	B	Float		Tap Range
					Extension	Compression	
#13	#50 Vee Flange	314-01469-00	5.25	8.75	1.312	.500	.25 to 1.25
#23	#5 A.N.S.	314-00002-25	4.25	8.88	.562	.625	.25 to 1.25
	#6 A.N.S.	314-00002-26		7.19			
	#7 A.N.S.	314-00002-27		7.00			
	#40 A.N.S.	314-00002-24		8.06			
	#50 B5.40	314-01233-00		7.62			
#50 B5.50	314-01380-00	7.62					
#24	#5 A.N.S.	314-00003-22	6.00	12.12	.750	.938	.75 to 2.00
	#6 A.N.S.	314-00003-23		12.31			
	#7 A.N.S.	314-00003-24		10.00			
	#40 A.N.S.	314-00003-21		11.31			
	#50 B5.40	314-01415-00		12.25			
	#50 B5.50	314-01676-00		12.25			

NOTE:
NM TB 50
SHANK
ALSO
AVAILABLE

#50 Vee Flange Taper Shanks in stock. Other shanks available on short delivery.

TYPICAL RECOMMENDED FEEDS AND SPEEDS FOR DAVIS TAP-LEADERS

Tap Dia.	Depth	Lead	FOR G&L MODEL G 5 MACHINES ONLY					
			SPINDLE FEED		SADDLE FEED			
			Feed/Rev.	Total Diff.*	In. Min.	Spnd. Rpm	Result. Feed	Total Diff.*
1/4"-20	1"	.050	.044	.120	8.75	190	.046	.080
5/16"-18	1"	.056	.044	.216	10.4	190	.055	0
3/8"-16	1"	.062	.062	0	10.4	190	.055	.128
7/16"-14	1"	.071	.062	.126	12.4	190	.065	.084
1/2"-13	1"	.077	.062	.195	14.6	190	.077	0
5/8"-11	1"	.091	.088	.033	14.6	190	.077	.121
3/4"-10	1"	.100	.088	.120	17.5	190	.092	.080
7/8"-9	1"	.111	.088	.207	20.6	190	.108	.027
1"-8	1"	.125	.125	0	17.5	140	.125	0
1-1/4"-7	1"	.143	.125	.126	17.5	140	.125	.144
1-3/8"-6	1"	.167	.125	.252	14.6	95	.154	.078
1-1/2"-6	1"	.167	.125	.252	14.6	95	.154	.078
1-5/4"-5	1"	.200	.125	.375	17.5	95	.184	.080
2"-4-1/2	1"	.222	.125	.437	20.6	95	.217	.023

FEED AND SPEED
CHARTS FOR ALL
G&L MACHINES
ARE AVAILABLE
ON REQUEST
TO THE FACTORY

*All differentials based on 1" depth of tap. For differentials at depths other than 1", multiply differential given above by actual depth of tap.
All differentials shown give the tap-leader extension float (machine feed less than tap lead), which is preferred.

DAPPER-TAPPER

a quick-change precision drill and tap holder

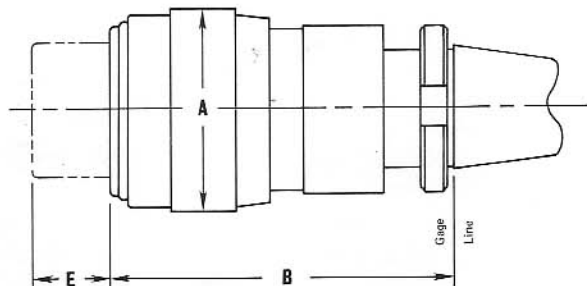
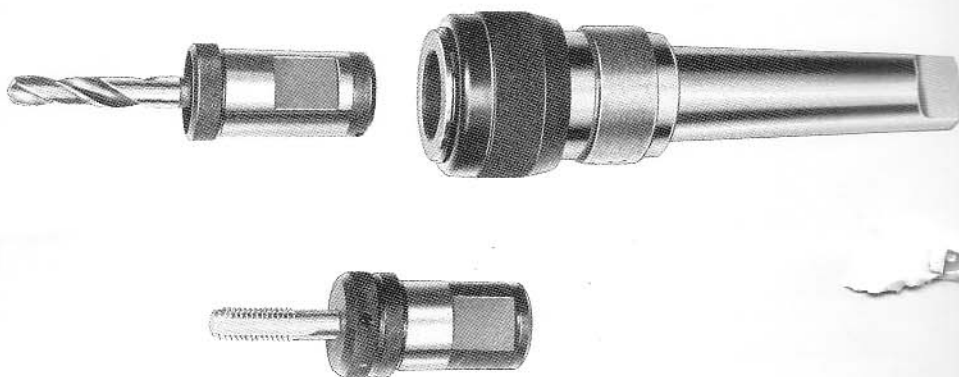
Here's a Davis product that will more than pay its way the first few times you use it. The Dapper-Tapper is a quick-change precision drill and tap holder that provides greater positive drive to the collet than is normally available in tools of this type. All units are close-coupled to keep tool overhang short.

Tool changing is fast and easy. Each tool (drill, tap, reamer, etc.) is mounted in a collet which is quickly interchanged with all other collets in the set. Tools lock instantly in place release just as quickly.

The tap collets used in the Dapper-Tapper provide extension to compensate for the difference between feed and lead. The collet is driven by the body, but slides freely along the longitudinal axis.

Depending on the model selected, you have a choice of Nos. 4, 5 or 6, A.N.S. shanks. The Dapper-Tapper handles 1/4" through 2" Davis tap collets; Nos. 1, 2, 3, or 4, A.N.S. taper drill collets; and axial-adjustment straight-shank drill collets.

See page 5 for
collet information.



DIMENSIONS AND SPECIFICATIONS

Size	Shank	Part Number	A	B	Extension	Tap Range
#33	#4 A.N.S.	374-00030-05	3.00	4.50	.562	.25 to 1.25
	#5 A.N.S.	374-00030-00		4.62		
	#40 A.N.S.	374-00030-03		4.91		
	#50 Vee Flange	374-01470-00		5.62		
	#50 B5.50	374-01668-00		5.62		
#34	#5 A.N.S.	374-00115-00	4.38	5.50	.750	.75 to 2.00
	#6 A.N.S.	374-00115-06		5.56		
	#40 A.N.S.	374-00115-04		5.91		
	#50 Vee Flange	374-01471-00		6.62		
	#50 B5.50	374-01667-00		5.00		

COLLETS FOR TAP-LEADER AND DAPPER-TAPPER

Collet for: #13 Tap-Leader
#23 Tap-Leader
#33 Dapper-Tapper

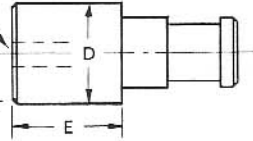
Collet for: #24 Tap-Leader
#34 Dapper-Tapper

AXIAL ADJUSTABLE DRILL COLLETS

Part Number	Drill R	D	E
314-00110-00	1/2"	2-1/4"	2"
314-00111-00	5/8"	2-1/4"	2"
314-00112-00	3/4"	2-1/4"	3"
314-00113-00	7/8"	2-1/4"	3"
314-00114-00	1"	2-1/4"	4"

"R" DIA DRILLS

1" AXIAL ADJUSTMENT

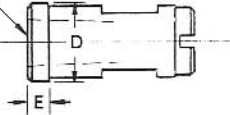


Part Number	Drill R	D	E
314-00118-00	1/2"	2-9/16"	2"
314-00119-00	5/8"	2-9/16"	2"
314-00120-00	3/4"	2-9/16"	3"
314-00121-00	7/8"	2-9/16"	3"
314-00122-00	1"	2-9/16"	4"

A.N.S. TAPER DRILL COLLETS

Part Number	Socket M	D	E
300-53401-00	1	1-23/32"	15/32"
300-53402-00	2	1-23/32"	15/32"
300-53403-00	3	1-23/32"	21/32"
300-53404-00	4	1-3/4"	1-3/4"

"M" TAPER

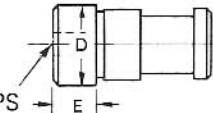


Part Number	Socket M	D	E
300-54402-00	2	2-9/16"	5/8"
300-54403-00	3	2-9/16"	1/2"
300-54404-00	4	2-9/16"	1"
300-54405-00	5	2-9/16"	2-1/4"

TAP COLLETS

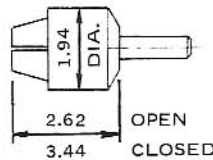
Part Number	Taps T	D	E
314-00004-00	1/4"	1-13/16"	1"
314-00005-00	5/16"	1-13/16"	1"
300-53102-00	3/8"	1-13/16"	1"
300-53104-00	7/16"	1-13/16"	1"
300-53105-00	1/2"	1-13/16"	1"
300-53107-00	9/16"	1-13/16"	1"
300-53108-00	5/8"	1-13/16"	1"
300-53112-00	3/4"	1-13/16"	1"
300-53114-00	7/8"	1-13/16"	1"
300-53122-00	1"	1-13/16"	1-1/2"
300-53127-00	1-1/4"	1-13/16"	1-1/2"
300-53141-00	1-1/2"	1-13/16"	1-1/2"

"T" DIA TAPS



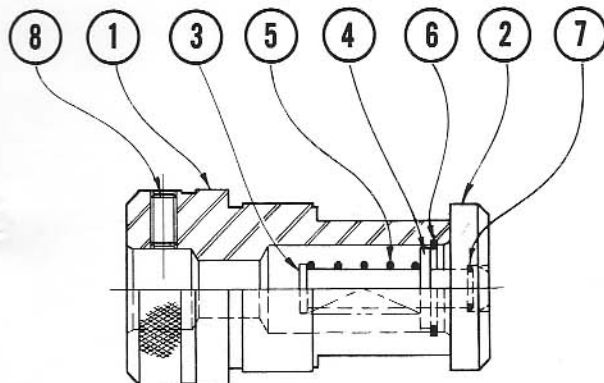
Part Number	Taps T	D	E
300-54104-00	3/4"	2-9/16"	1-9/16"
300-54107-00	7/8"	2-9/16"	1-9/16"
300-54110-00	1"	2-9/16"	1-9/16"
300-54116-00	1-1/4"	2-9/16"	1-9/16"
300-54124-00	1-3/8"	2-9/16"	2-5/16"
300-54127-00	1-1/2"	2-9/16"	2-5/16"
300-54133-00	1-3/4"	2-9/16"	2-5/16"
300-54147-00	2"	2-9/16"	2-7/16"
300-54198-00	2 1/4		
307-10509-00	2 1/2		
307-30068-00	2 3/4		

3-jaw chucks with 1/2" diameter shank to be used with 1/2" axial adjustable collet for drills under 1/2" diameter.



Part Number - 314-00318-00

TAP COLLET REPAIR PARTS



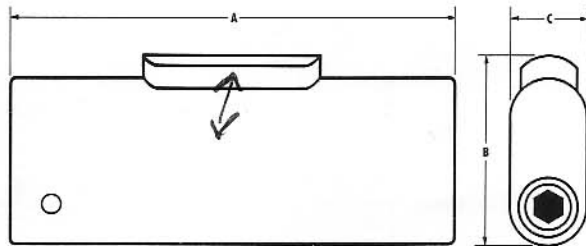
Item No.	Qty.	Description
1	1	Body
2	1	Location Pad
3	1	Spring Pin
4	1	Washer
5	1	Spring
6	1	Internal Snap-Ring
7	1	Wire Ring
8	1	Lock Screw

NOTE: When ordering repair parts for tap collets, specify which tapping unit the collet is used in, or the part number of the collet.

ADJUSTABLE DRAWKEYS

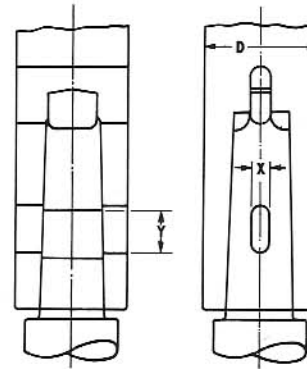
Advantages:

- **Fewer keys needed** — 1/8" adjustment range eliminates need for a large assortment of solid "special-fit" drawkeys.
- **No hammering** — Avoids damage to spindle and tool shank.
- **Seated in seconds** — Simple hex wrench adjustment expands wedge and draws tool firmly into spindle socket.
- **Instant release** — Reversing wrench action permits key to drop out of spindle and tool shank slots.
- **Complete size range** — Standard sizes available for machines with spindles ranging from 3" to 8" in diameter.
- **Precision-machined** — Rugged construction — easily disassembled for cleaning and oiling.



Now, operators no longer waste valuable time sorting through dozens of solid "special fit" drawkeys to find the right one for a particular tool shank. A **single** Davis adjustable drawkey, with its 1/8" plunger adjustment, fits a wide range of A.N.S. taper shank sizes, substantially reducing tool change downtime and tooling investment.

Hammering A.N.S. taper shank tools into the spindle with solid drawkeys damages the spindle and tool. It also can pull the tool to one side, cocking it in the spindle, reducing stability and accuracy. With the Davis adjustable drawkey,



pressure of the expanding plunger **draws** the taper straight back **every time**, locking tool shank firmly in the spindle — **without hammering**. As a result, machining accuracy is improved and maintenance expenses on drawkeys, tools, and spindles is reduced sharply.

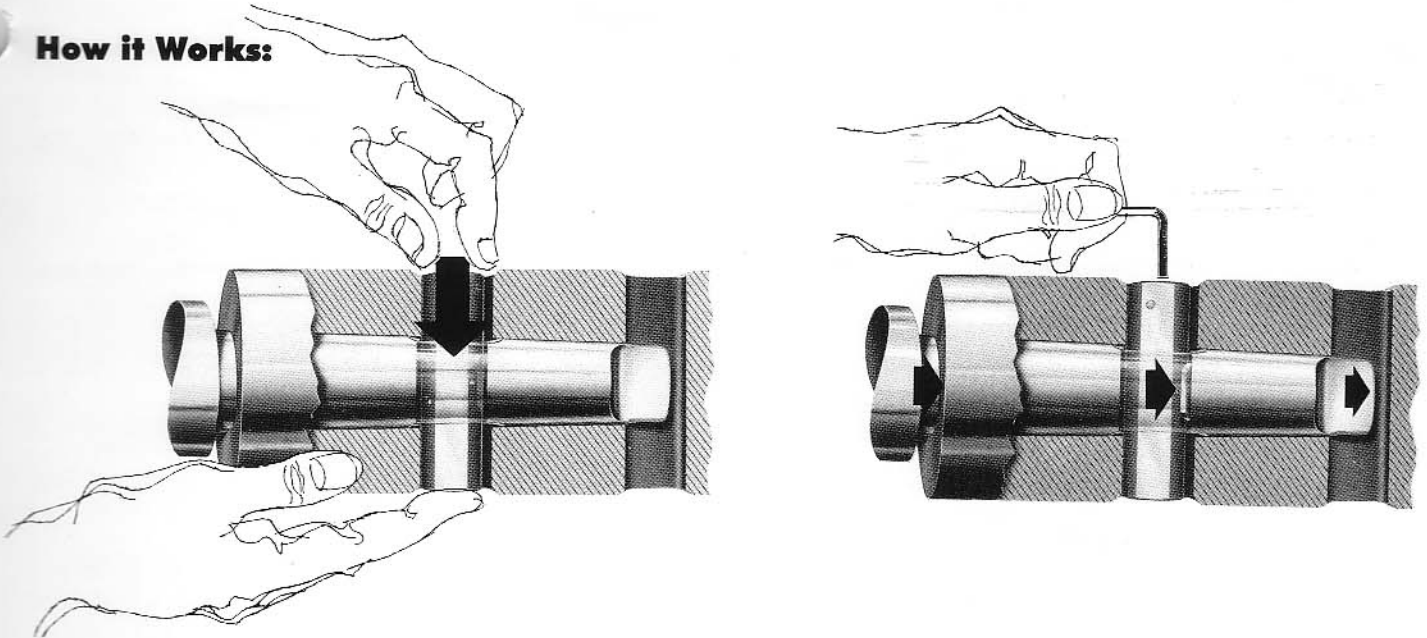
When ordering Davis adjustable drawkeys, be sure to provide machine data and dimensions D, X, and Y shown on the diagram above. Please note that the Y dimension is from the front of the drawkey slot in the **spindle** to the back of the drawkey slot in the **shank**. The X dimension is the width of the slot in the spindle or spindle, whichever is smaller. NOTE: Special sizes are available to order — consult factory, furnishing information mentioned above.

DIMENSIONS AND SPECIFICATIONS

SPINDLE DIMENSIONS			DRAWKEY DIMENSIONS				Key No.	Part Number	Typical Machines
Dia. D	X	Y	A	B Min.	B Max.	C			
3"	33/64"	1-1/8"	2-7/8"	1-3/32"	1-7/32"	1/2"	1	305-40704-00	Giddings & Lewis, Kaukauna with 5 M.T.
3-1/2"	33/64"	1-1/8"	2-7/8"	1-3/32"	1-7/32"	1/2"	1	305-40704-00	Cincinnati Gilbert
3-3/4"	41/64"	1-21/64"	3-5/8"	1-17/64"	1-25/64"	5/8"	8	305-40706-00	Lucas
3-15/16"	33/64"	1-1/8"	3-7/8"	1-1/16"	1-3/16"	1/2"	2	305-40707-00	Bickford
4"	33/64"	1-1/8"	3-7/8"	1-1/16"	1-3/16"	1/2"	2	305-40707-00	Giddings & Lewis
4"	41/64"	1-3/8"	3-7/8"	1-21/64"	1-29/64"	5/8"	9	305-40708-00	Lucas, Universal
4"	41/64"	1-1/4"	3-7/8"	1-13/64"	1-21/64"	5/8"	10	305-40710-00	Bickford, Kaukauna, Portage
4-1/2"	41/64"	1-1/4"	4-3/8"	1-13/64"	1-21/64"	5/8"	11	305-40711-00	Bickford
4-1/2"	41/64"	1-1/4"	4-3/8"	1-13/64"	1-21/64"	5/8"	11	305-40711-00	Lucas
5"	41/64"	1-3/16"	4-3/4"	1-9/64"	1-17/64"	5/8"	3	305-40712-00	Giddings & Lewis
5"	41/64"	1-1/4"	4-3/4"	1-13/64"	1-21/64"	5/8"	12	305-40713-00	Defiance, Bickford
5"	41/64"	1-9/32"	4-3/4"	1-15/64"	1-23/64"	5/8"	13	305-40714-00	Lucas
5"	41/64"	1-3/8"	4-3/4"	1-21/64"	1-29/64"	5/8"	14	305-40715-00	Universal
5-1/2"	41/64"	1-1/4"	4-3/4"	1-13/64"	1-21/64"	5/8"	12	305-40713-00	Bickford
6"	11/16"	1-3/8"	5-3/4"	1-21/64"	1-29/64"	5/8"	4	305-40716-00	Giddings & Lewis
7"	11/16"	1-3/8"	6-3/4"	1-21/64"	1-29/64"	5/8"	5	305-40717-00	Giddings & Lewis
8"	11/16"	1-3/8"	7-3/4"	1-21/64"	1-29/64"	5/8"	6	305-40718-00	Giddings & Lewis

ADJUSTABLE DRAWKEYS (Cont.)

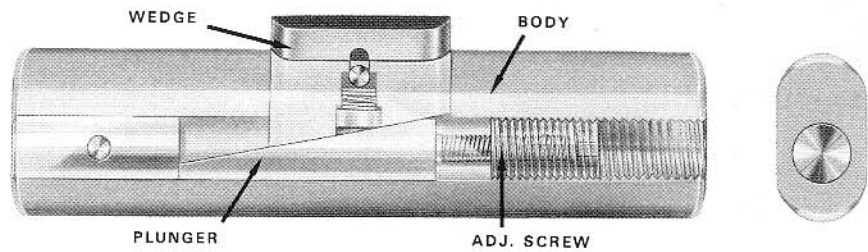
How it Works:



The operator inserts the adjustable drawkey just as he would a tapered drawkey. Turning the differential screw locks the tool shank in place.

Tightening the differential screw in the drawkey quickly draws the tool shank tightly into position. To remove the drawkey, simply loosen the screw to release pressure to the wedge.

REPAIR PARTS:



Key No.	PART NUMBER			
	Body	Wedge Ass'y	Plunger	Adjusting Scr.
1	305-40704-01	375-40704-02	305-40704-03	305-40704-04
2	305-40707-01	375-40704-17	305-40705-03	305-40704-04
3	305-40712-01	375-40704-02	305-40712-02	305-40704-04
4	305-40716-01	375-40704-08	305-40716-02	305-40704-04
5	305-40717-01	375-40704-08	305-40717-02	305-40704-04
6	305-40718-01	375-40704-08	305-40718-02	305-40704-04
7				
8	305-40705-01	375-40704-07	305-40705-03	305-40704-04
9	305-40708-01	375-40704-08	305-40705-03	305-40704-04
10	305-40708-01	375-40704-06	305-40705-03	305-40704-04
11	305-40711-01	375-40704-06	305-40711-02	305-40704-04
12	305-40712-01	375-40704-06	305-40712-02	305-40704-04
13	305-40712-01	375-40704-12	305-40712-02	305-40704-04
14	305-40712-01	375-40704-08	305-40712-02	305-40704-04

TAPER SHANK TOOLHOLDERS

precision tooling to assure optimum results from
your machine tool



Superior quality Davis toolholders provide a precision means of mounting a wide range of cutting tools.

Davis toolholders are manufactured in strict accordance with A.N.S. specifications. All are case hardened to 55-60 Rockwell "C" to guarantee long, accurate service life, even under severe shop use. Precision grinding assures vibrationless drive and helps transmit the full rigidity and accuracy of the machine to the tool.

Davis toolholders are available in #40 and #50 A.N.S. taper shanks, but can be manufactured to suit **any** machine spindle. For specific information on stock sizes, refer to the following:

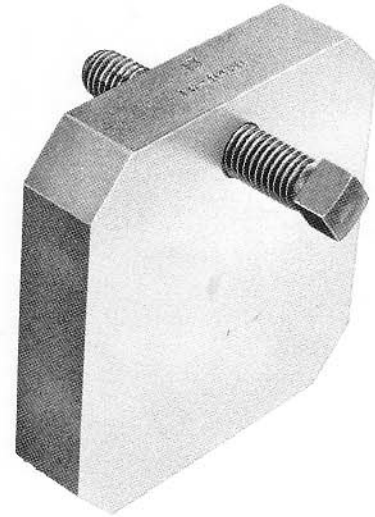
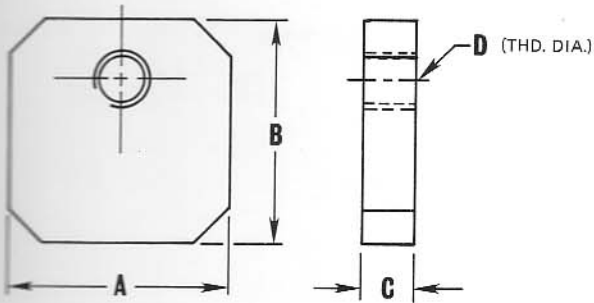
#50 B5.40 Taper Shank - Davis Catalog DP-870-93.

#50 B5.50 Taper Shank - Davis Catalog DP-880-92.

COMBINATION STOP AND JACK BLOCKS

Combination stop and jack blocks are convenient means of positioning castings or weldments on the worktable. Designed to fit snugly into table or floor plate T-slots, these blocks assure proper alignment of the workpiece during all machining operations.

All blocks are of hardened alloy steel, ground to a tolerance of .0005". They serve the same function as the cross-slot stop blocks but do not bolt in place in the T-slots.



DIMENSIONS AND SPECIFICATIONS

Block No.	DIMENSIONS				
	T-Slot Size	A	B	C	D
371-60322-00	.6875"	4"	4"	.6875/0.6870"	5/8"-11"
371-60522-00	.8125"	4"	4"	.8125/0.8120"	5/8"-11"
371-60420-00	1.0625"	5"	5"	1.0625/1.0620"	5/8"-11"

NOTE: Combination stop and jack block come complete with (1) jack screw.

PARALLEL BLOCKS

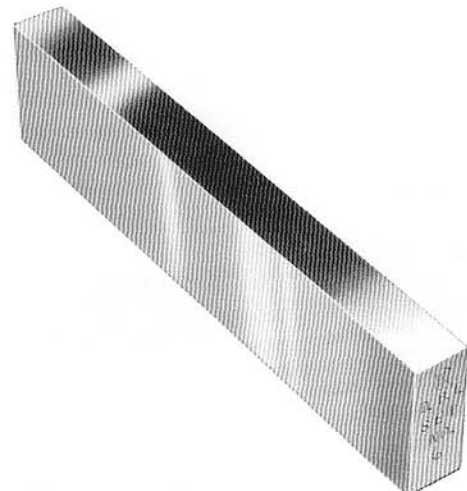
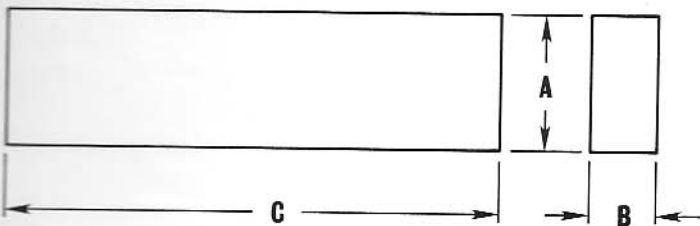
These precision-machined blocks help solve many setup problems and serve as valuable toolroom and inspection aids.

They can be used to simplify such difficult jobs as:

- The accurate setting up of rough castings and irregularly shaped pieceparts having insufficient bearing surface for mounting directly on the machine table.
- Elevating parts to provide clearance for the cutter above the machine table, to permit completion of face milling cuts on vertical surfaces in a single setup.

- Providing reference surface parallel to the top of the machine table for making layouts and other toolroom work.
- Providing an accurate reference for checking squareness and parallelism of complete work.

Every parallel block is stress-relieved to prevent inaccuracies due to distortion, then machined and precision-ground to exact squareness and parallelism.



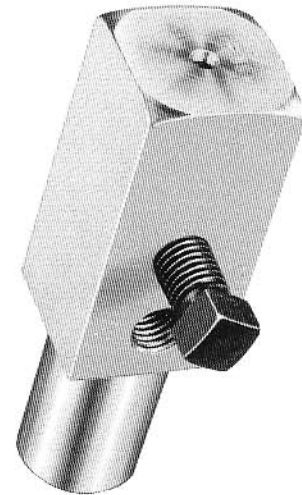
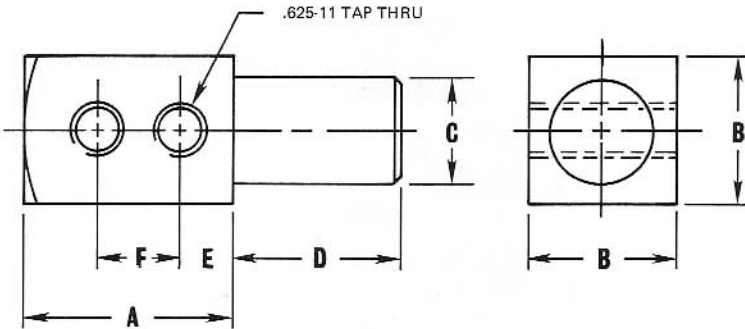
DIMENSIONS AND SPECIFICATIONS

Size No.	Part No.	A Width	B Depth	C Length	Approximate Wt. Lb.
6*	301-60425-00	1-3/4"	3/4"	8"	3

ADJUSTABLE STOP JACKS

These simple holding tools prevent movement of the workpiece and assure correct alignment during machining operation. They also enable the operator to adjust the workpiece rapidly, thus saving time in making setups.

Properly used, these stop jacks provide full rigidity for securing castings where lateral forces and cutter shock are great; or in holding workpieces during heavy metal-removal operations such as gang, slab, face, and climb milling.



DIMENSIONS AND SPECIFICATIONS

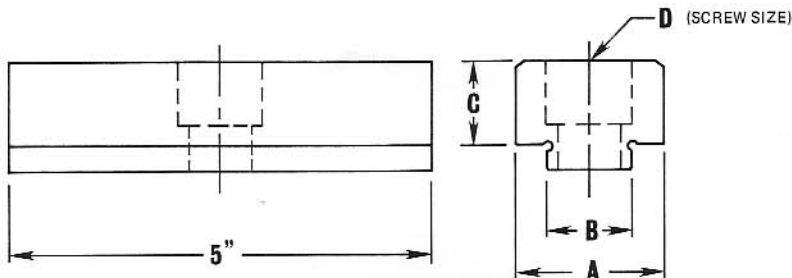
Part No.	DIMENSIONS					
	A	B	C	D	E	F
371-60321-00	2-1/4"	1-1/2" Sq	3/4"	1-3/4"	5/8"	1-5/8"
371-60421-00	2-1/2"	1-3/4" Sq	1"	2"	5/8"	1-5/8"
371-60618-00	2-1/2"	1-3/4" Sq	1-1/4"	2"	5/8"	1-5/8"

NOTE: Adjustable stop jacks come complete with (1) jack screw.

CROSS-SLOT STOP BLOCKS

These precision gage blocks are designed for use in setting work parallel to cross-slots or bedways on table-type machines. They are quickly locked in place with T-nuts and socket head cap screws.

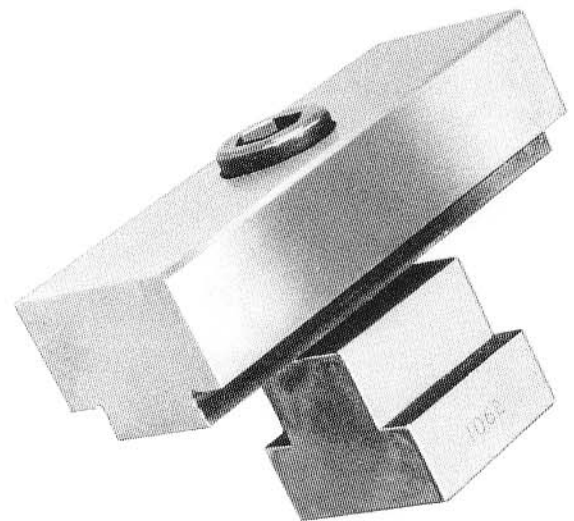
All blocks are made of hardened tool steel precision-ground to a tolerance of .0005" to provide a close fit with cross-slots in the machine table. Opposing block surfaces are ground parallel and adjacent surfaces ground at right angles.



DIMENSIONS AND SPECIFICATIONS

Size No.	Part No.	DIMENSIONS				
		Cross-Slot Size	A	B	C	D
1	027-06447-00	.6875"	1-1/4"	.6875"	3/4"	1/2-13
2	027-06448-00	.8125"	1-1/2"	.8125"	3/4"	5/8-11
3	027-24871-00	1.0625"	1-3/4"	1.0625"	1"	3/4-10

NOTE: These blocks are ground from .0005" to .001" under standard.



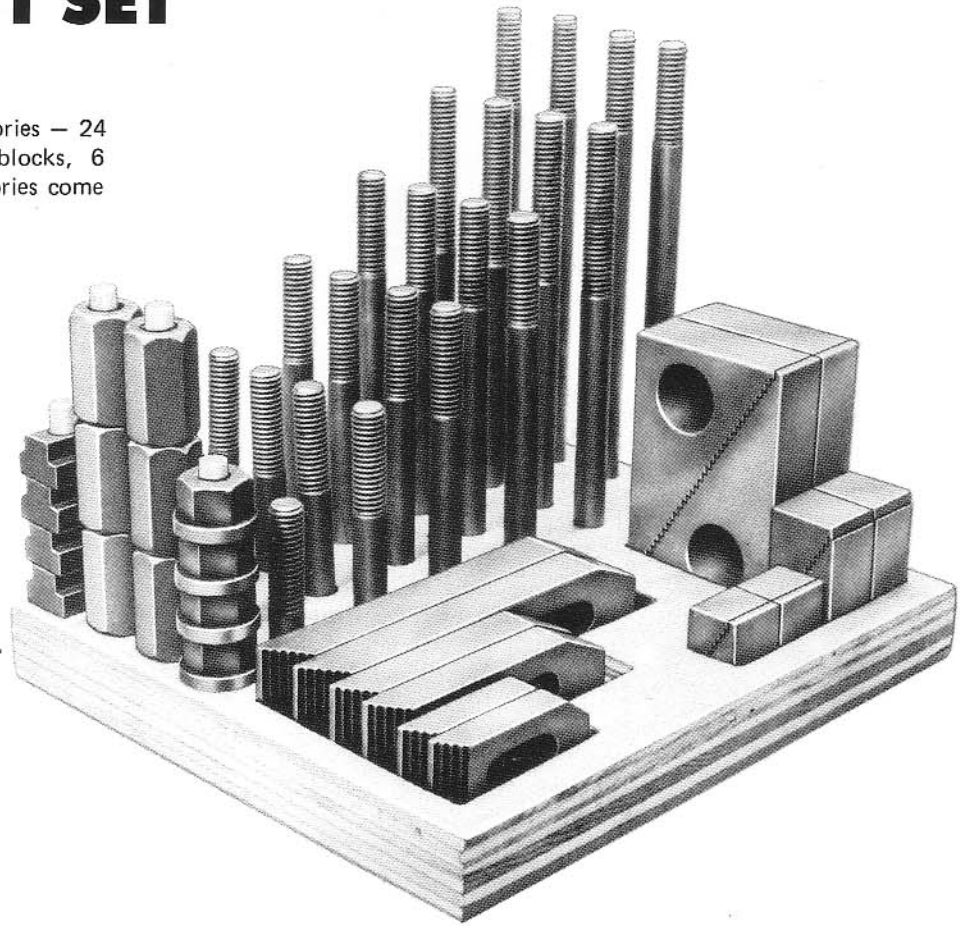
NOTE: Cross-slot stop blocks come complete with tee nut and cap screw.

COMBINATION STEP-BLOCK, CLAMP, STUD AND T-NUT SET

Each set includes most widely used setup accessories — 24 studs of varying lengths, 6 clamps, 6 step-blocks, 6 coupler-nuts, 4 T-nuts, and 4 hex nuts. Accessories come boxed in compact wooden box for easy storage.

Part Number	T-Slot	Stud
314-00395-00	.562	.500-13
314-00396-00	.687	.625-11
314-00397-00	.812	.750-10
314-00398-00	1.062	1.000-8

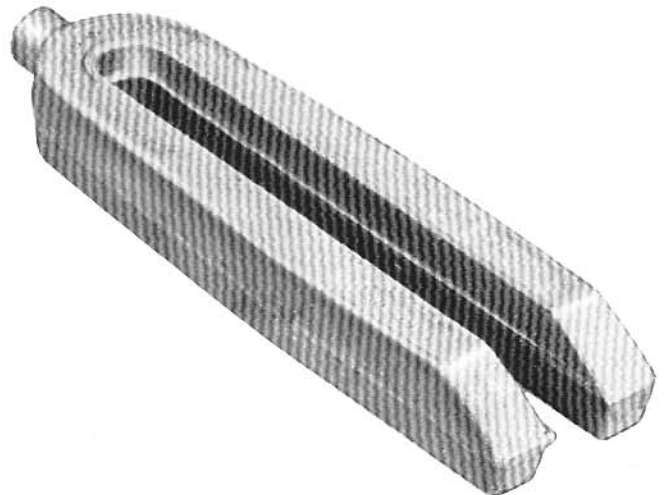
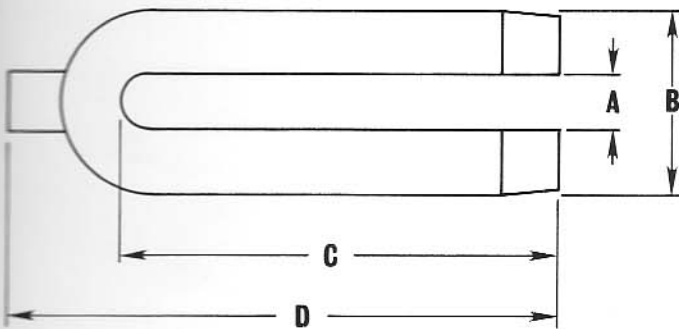
870:
1-25-2000



FORGED STEEL U-CLAMPS

U-clamps save valuable minutes on every setup and help assure rigid clamping and holding for a wide range of piece-part sizes and shapes. By preventing movement of the work and maintaining correct alignment, these invaluable setup accessories provide low-cost insurance against work spoilage.

U-slot design enables the operator to move the clamp easily to meet individual setup requirements. Either end of the clamp may be used to hold the work. Heavy forged steel construction resists bowing.

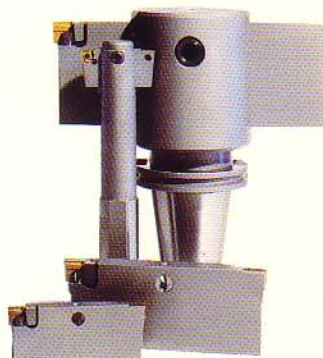


Part Number	A	B	C	D
313-00061-00	.81	2.50	7.38	8.75
313-00063-00	1.06	3.25	11.00	12.00

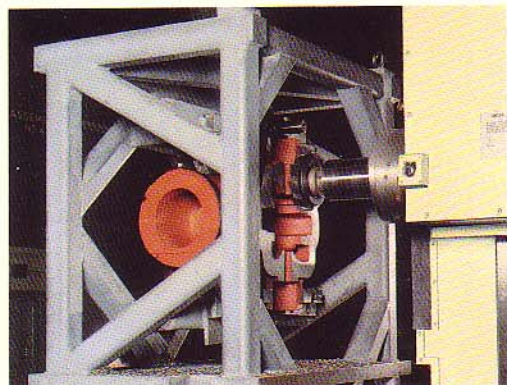
ACCELERATE YOUR PAYBACK WITH GIDDINGS & LEWIS TOOLING SYSTEMS.



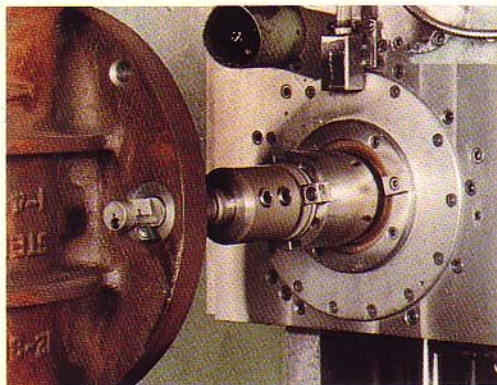
Full Line of Precision Tooling and Toolholders — including ANSI NO. 40, 45, 50 and 60 taper shank tooling.



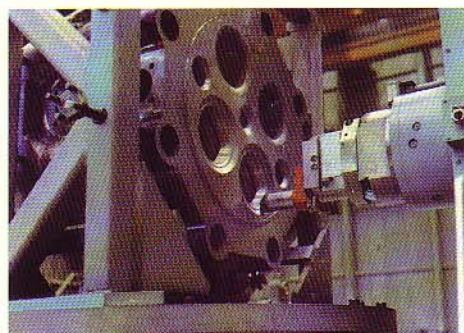
Double-Cutter Block-Type Boring Tool Systems — Cut 3 times faster than single-point tools. Hold tolerances $\pm .0005"$ (0.0125 mm).



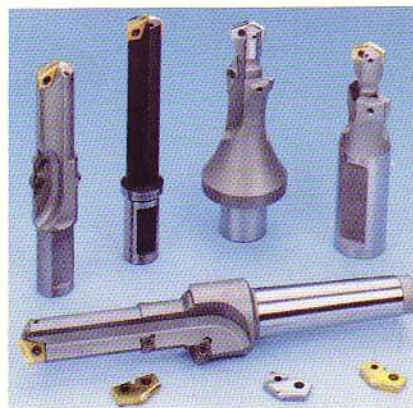
Customized Fixturing — Custom-engineered and built to hold your specific workparts for positive accuracy.



Erix Automatic Back Spotfacers — Slash back spotface cycle times up to 90%. Back spotface automatically without stopping machine to change cutters.



N/C Contouring Heads — Adds turning machine versatility to a live-spindle boring machine. Completes several contouring or turning operations in a single setup.



Stellram unidril® Replaceable Insert Drills — Full range of high-speed steel and carbide drills for hole sizes from .393" to 4" (10 mm to 100 mm). Both standard drills and combination tools available.

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142 DOTY STREET, P.O. BOX 590
FOND DU LAC, WI 54936-0590 U.S.A.
TEL. (414) 921-9400, FAX (414) 929-4522