

# OmniTurn

# Richlin Machinery

## Tooling - Accessories - Parts

### GT-75 CNC Lathes



**\*\$45,295  
COMPLETE**

(When paid in full at time of order)

C-axis option add \$3,300



**Fast..Precise..Affordable**

**We at Richlin Machinery represent many manufacturers:**

- ACCUTRAK
- ENGBAR
- NSK
- ROBOTUNITS
- FEEDING CONCEPTS
- SCT
- CENTAUR
- ISCAR
- SMC
- CIRCLE MACHINE
- KITAGAWA
- SOMMA
- DUNHAM
- MAXBAR
- NORTHFIELD



**UNIVERSAL ROBOT**



**Richlin Machinery**

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Email: [sales@omni-turn.com](mailto:sales@omni-turn.com) | Web site: [www.omni-turn.com](http://www.omni-turn.com)

*Prices are subject to change without notice.*

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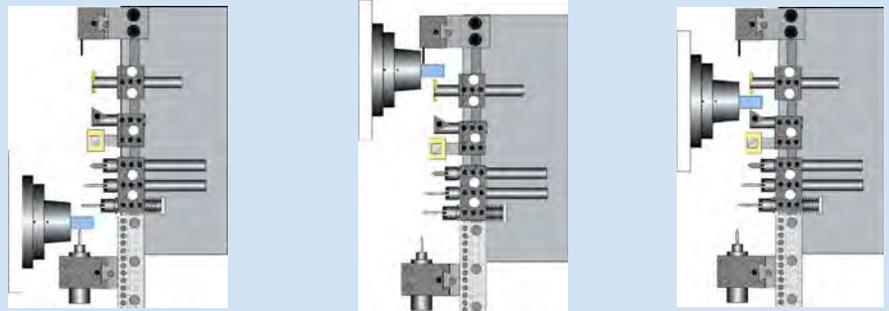
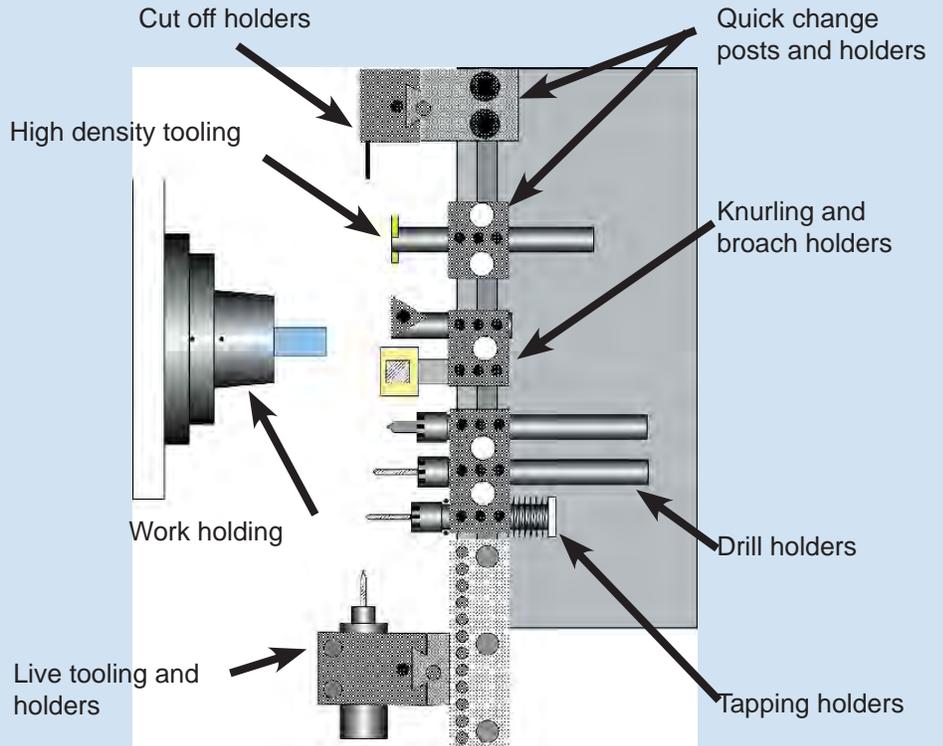
# OmniTurn

Your single source for gang tool machines, tooling, automation, and assistance

## Tooling layout assistance

- ◆ Part and tooling interference
- ◆ Tooling overhang and rigidity
- ◆ Tooling density
- ◆ Tooling sequence and travels

OmniTurn can help you get the most out of your machine and job. We can help you get a layout designed in advance so you are not having to spend time rearranging and reordering tooling until it all fits. If you send us a print we can return a tooling layout like the one to the right.



Tooling Layout Assistance is available - in most cases for FREE!

## Work Holding Secondary Operations - Not Always Easy

Secondary operations are usually simple, it is the work holding that can get in the way. While there is not much in this catalog in the way of work holding options, OmniTurn does offer a great deal of expertise to its users in the way of advise and direction. When you have issues with concentricity, dead length tolerances, internal gripping, off center turning, or over sizes parts, give us a call. We have probably seen and solved the issue before.



## ----- STARTER TOOLING KIT -----

These starter tooling kits are great for shops that do not have experience with gang tooled lathes. The kits represent a good cross section of the different types of tooling and tool holders. They are good for a shop that does not have a specific job to be run on the OmniTurn and would like to try some of every-thing.

### Tool Plate Center Heights:

The standard attachment and GT-75 are available with either 3/8" or 1/2" center heights. Be sure to select the correct kit number.

### Attachment vs. GT-75 Kits:

Our entire range of tool holders are engineered for optimum performance.

### Substitutions are Available:

For changes to the basic kit, please note the difference on your PO, and we will be happy to help create a tooling kit that best suits your needs!

*Ask about kits for 3/8" center height machines.*

## GT-75 or Attachment

### Tooling Kit - 1/2" center height

Tool Post-W

TF-625

Cutoff Blade holder-11/16"

MultiBar Starter Kit

Iscar Cutoff w/inserts

Set of 7 Bushings 5/8"od

(2) Omni-115L Blocks

Omni-205 Block

OMNI-305 Block

Omni-805PFB Block

(2) ER-16 Holders

ER-16 Wrench

ERC-16 Collet Set

**Tool Kit \$3,000.00**

### Optional:

**ER-16 Axial Tap Holder w/ 3/4" Shank and Omni-1175L tool block w/ 3/4" Bore Type E wrench. [Use ER-16 Collets]**

**\$595.00**



Optional: Axial ER-16 Tap Holder, Tool Block & Wrench.



Includes T-nut and bolts



**Tool Post - W**

Tool Post - W \$250.00

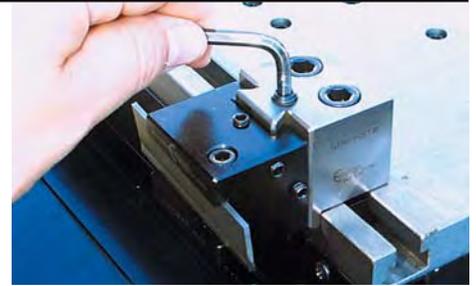


**Tool Post Extended - W**

Tool Post Extended - W \$295.00  
Includes T-nut and bolts

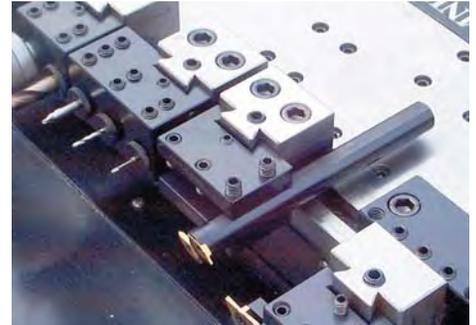
**HEAVY DUTY W TOOL POSTS**

- The W type tool post has a wedge action clamp that pulls the tool holder against the face of the post. This wedge type clamp is much stronger than other tool post's that use a setscrew. The W type holder is strongly recommended when there will be heavier cutting. Turning and cutoff tools can take deeper cuts with better finishes and longer life. This post also works much better for interrupted cuts. The "hammering" of the tool does not loosen the wedge clamp.



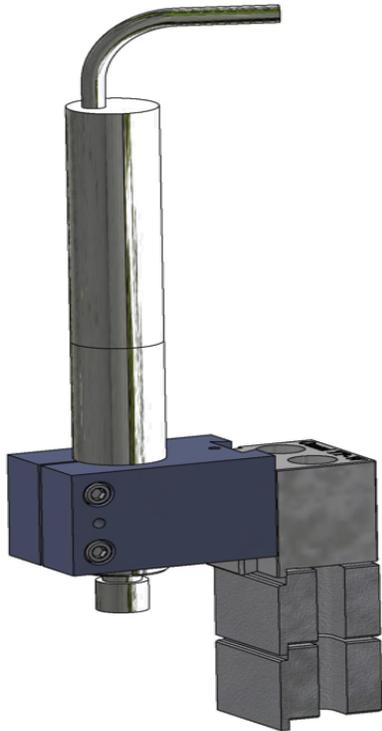
THE LOCKING WEDGE IS DRIVEN BY A SCREW FROM ABOVE

- The wedge clamp holders also have excellent repetition in height. The clamping of the tool does not move the tool up or down.



HOLDERS PLACED NEXT TO ONE ANOTHER WITHOUT INTERFERENCE

- The locking action is done from above. The W type posts can be placed on the tooling plate directly against one another. No space is used on the tooling plate when having to get at the locking set screw.



**Tool Post Risers:**

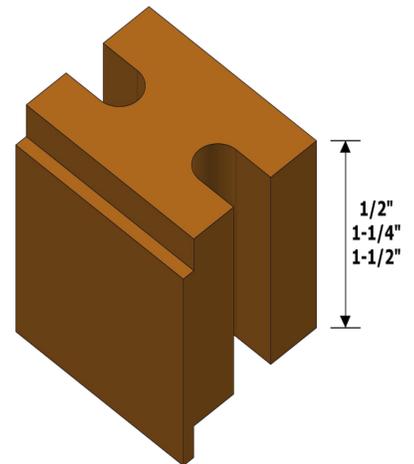
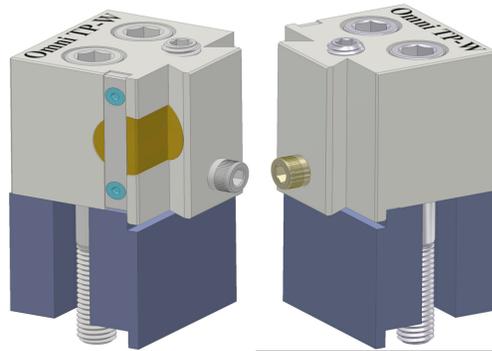
Raise your Toolpost-W to work with live tooling for milling and slotting. The riser is hardened and ground so it gives the best support, square and true.

Tool Post Riser 1/2" Tall \$115.00

Tool Post Riser 1-1/4" Tall \$135.00

Tool Post Riser 1-1/2" Tall \$145.00

"Risers can be stacked to various heights"



**OMNI 5/8" OD Split BUSHINGS**

Bushings are available in stock fractional sizes. All bushings are hardened and ground.

Bushing 1/8 x 5/8"	\$39.00
Bushing 3/16 x 5/8"	\$39.00
Bushing 1/4 x 5/8"	\$39.00
Bushing 5/16 x 5/8"	\$39.00
Bushing 3/8 x 5/8"	\$39.00
Bushing 7/16 x 5/8"	\$39.00
Bushing 1/2 x 5/8"	\$39.00



**OMNI TURN "T" NUTS**

Long T nuts are available for OmniTurn tooling. These nuts help with quick change overs.

TNUT-1	Single hole T-nut	\$13.00
TNUT-P	.900 between centers	\$18.00
TNUT-B	1.1 between centers	\$18.00
TNUT-A	2.2 between centers	\$19.00

Uses 3/8-16 bolts



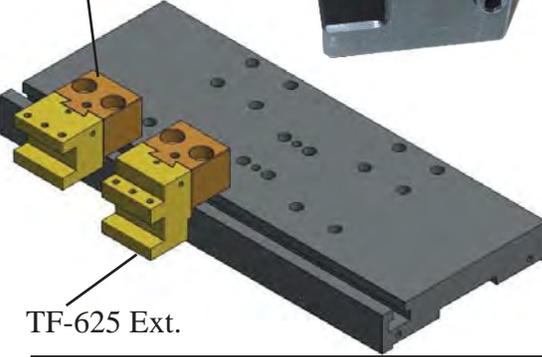
## TF-625 Ext.

Allows for adjustment so a larger tool can be used and still be on center.

TF-625 Ext.....\$189.00



TF-625



TF-625 Ext.

## Tool Holders for OmniTurn Posts



Now holds 3/4" tools

Omni TF625	\$189.00	Omni L type Right	\$189.00	Omni L type Left	\$189.00
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Omni 2 Gang	\$189.00	Omni 3 Gang	\$189.00	Omni Universal	\$129.00
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## OFFSET POST ASSEMBLY

This post assembly is great for getting the most out of your slide's tooling plate and travel. Use it to hold any tool out of the working area. Only the cutting edge is extended into the working range.

**This holder is great for:**

Cutting off - Turning - Live tools

- The rail can be mounted on the front or back of the slide.
- The rail's dovetail is across the entire face. The offset post W adaptor can be set anywhere on the face of the rail.
- The offset post W adaptor has all of the features of the regular W type post, with the W type clamping system. The adaptor is available in Standard and Long length.



OFFSET ASSEMBLY  
BACK MOUNTED

OFFSET ASSEMBLY  
REAR MOUNTED



Offset Post W  
adaptor



Offset Post Assembly  
Rail

Call for options and availability

## Tool Post Extension



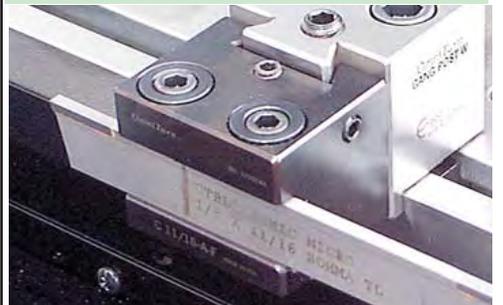
**W-Extension Long  
Extends block 1.750"**

**\$295.00**



This holder bolts to the tooling and holds tools with shanks up to 1/2" parallel to the spindle.

**Omni-500L \$185.00**



**Omni cutoff front holder \$189.00**

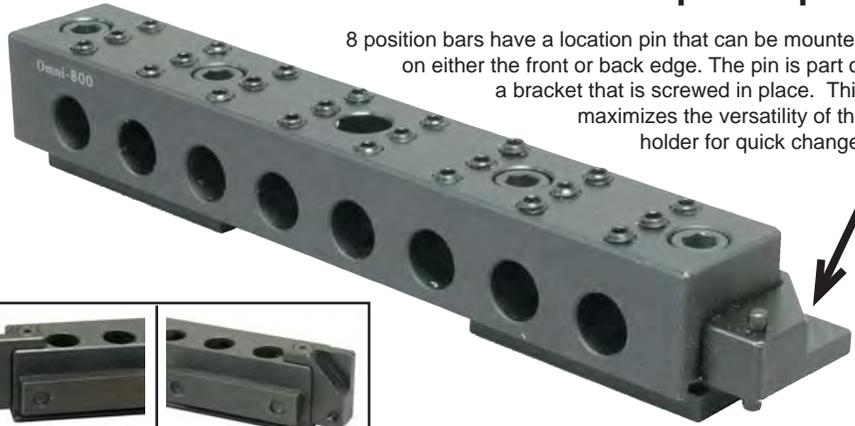
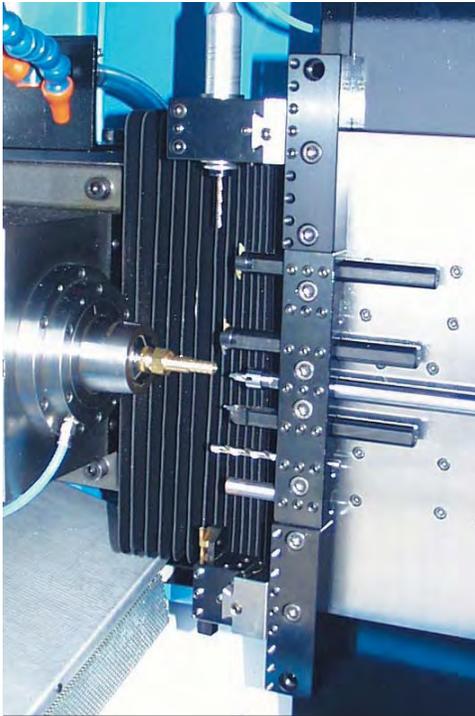
## OMNI 5/8" OD Split BUSHINGS

Bushings are available in stock fractional sizes. All bushings are hardened and ground.

Bushing 1/8 x 5/8"	\$39.00
Bushing 3/16 x 5/8"	\$39.00
Bushing 1/4 x 5/8"	\$39.00
Bushing 5/16 x 5/8"	\$39.00
Bushing 3/8 x 5/8"	\$39.00
Bushing 7/16 x 5/8"	\$39.00
Bushing 1/2 x 5/8"	\$39.00

# QUICK CHANGE OVER HOLDERS

## QUICK CHANGE BARS FOR GT-75 & ATTACHMENTS: Universal pin stops



8 position bars have a location pin that can be mounted on either the front or back edge. The pin is part of a bracket that is screwed in place. This maximizes the versatility of the holder for quick change.



Includes T-nut and bolt

### 8 STATION - PIN FRONT OR BACK

Omni-800PFB - 5/8" bore, 3/8" center height \$395.00  
 Omni-805PFB - 5/8" bore, 1/2" center height \$395.00  
 Uses T nut style: TNUT-A



### 1 station with lip

Omni-101L 5/8" bore, 3/8" center height  
 Omni-115L 5/8" bore, 1/2" center height  
 Omni-1175L 3/4" bore, 1/2" center height

**\$175.00 each** Includes T-nut and bolt



### 2 station with lip

Omni-200 5/8" bore, 3/8" center height  
 Omni-205 5/8" bore, 1/2" center height  
 Omni-2075 3/4" bore, 1/2" center height

**\$185.00 each** Includes T-nut and bolt



### 3 station with lip

Omni-300 5/8" bore 3/8" center height  
 Omni-305 5/8" bore 1/2" center height  
 Omni-3075 3/4" bore 1/2" center height

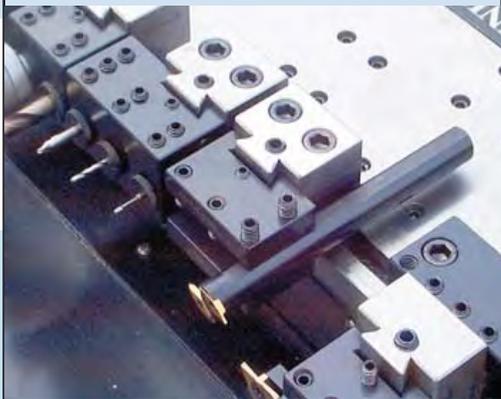
**\$195.00 each** Includes T-nut and bolt



### 1 station No lip

Omni-101 5/8" bore, 3/8" center height  
 Omni-115 5/8" bore, 1/2" center height  
 Omni-1175 3/4" bore, 1/2" center height

**175.00 each** Includes T-nut and bolt



### 1 STATION - HEAVY DUTY

Omni-100 - 5/8" bore, 3/8" center height **\$185.00**  
 Omni-105 - 5/8" bore, 1/2" center height **\$185.00**  
 Omni-1075 - 3/4" bore, 1/2" center height **\$185.00**  
 Omni 5-100 - 1.000" bore, 1/2" center height **\$185.00**

Includes T-nut and bolt

### 8 station - Moveable pin



Omni-800 - 3/8" center height  
 Omni-805 - 1/2" center height  
 5/8" bores With Lip  
**\$395.00 each**

Includes T-nut and bolt



### 7 STATION - with lip

Omni-700 - 5/8" bore, 3/8" center height  
 Omni-705 - 5/8" bore, 1/2" center height  
 Omni-7075 - 3/4" bore, 1/2" center height  
**\$350.00 each**

Includes T-nut and bolt

## LIVE IN-LINE HOLDER

Here is a new holder for live tooling. It has a 30mm bore. The bushings above can be used to step it down.

This holder is great for milling flats or larger slots. With the Tool Post-W you you can adjust the height of the cutter easily. Dove tail style.

Live In-Line - 30mm holder  
\$255.00

Live In-Line - 36mm holder  
\$275.00



## Live Tool Vertical Holders



Live Vertical LV-30  
Live Vertical LV-40

\$255.00  
\$265.00

## Live Tool Horizontal Holders



Live Horizontal LH-30  
Live Horizontal LH-36  
Live Horizontal LH-40

\$255.00  
\$265.00  
\$275.00

## LIVE TOOL HOLDER W/ HOLD DOWN CLAMP



This holder is great for when you need to hold a 1" OD live tool on center with the spindle

Live In-Line - 1" bore \$240.00  
5-30- 30mm bore \$250.00

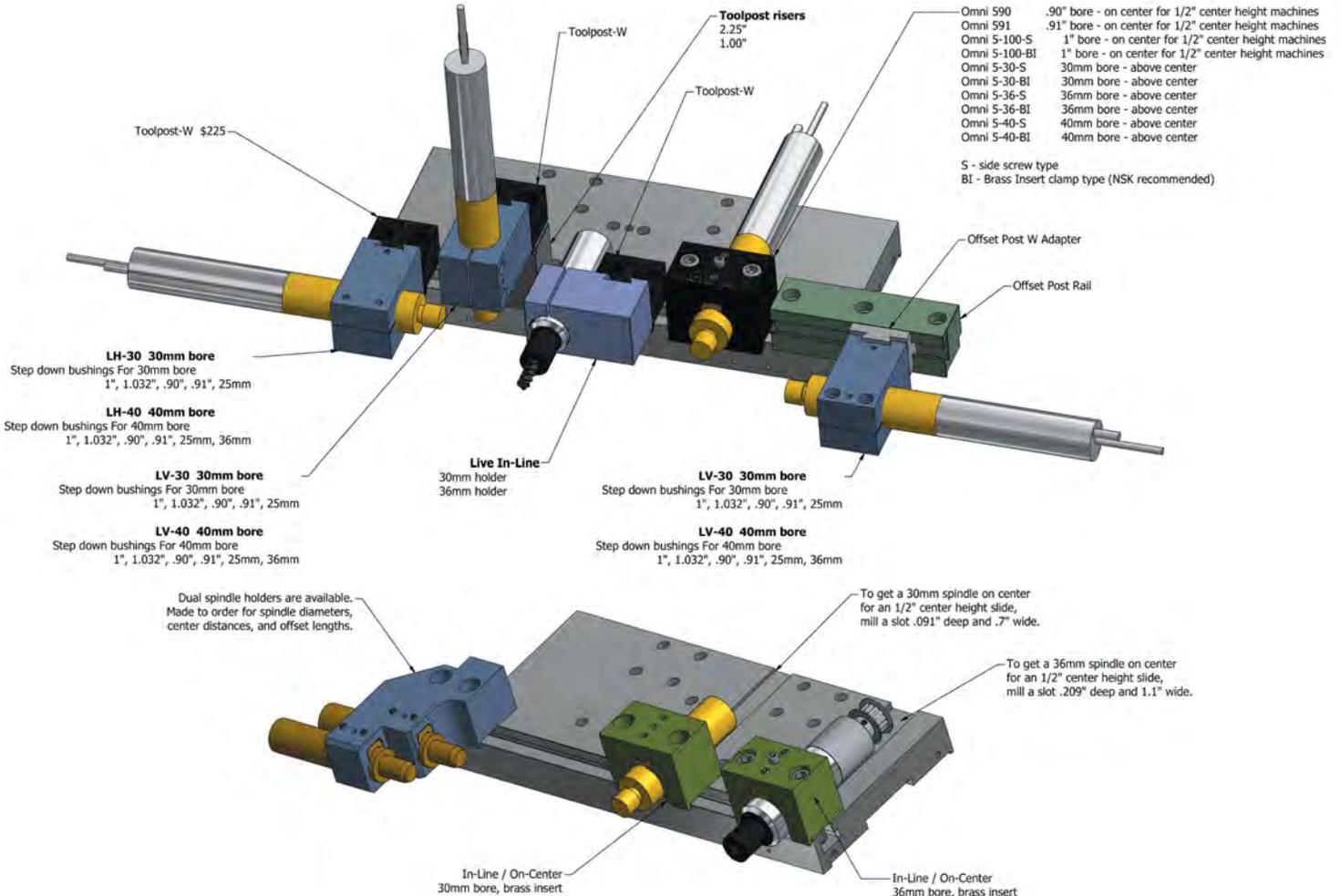
5-36mm no clamp \$235.00  
5-40mm no clamp \$245.00

Includes T-nut and bolt

The 30mm, 36mm and 40mm holders you can modify your tooling plate to hold these on center with the spindle.

### 30MM LIVE TOOL HOLDER

ATTACHES RIGHT TO TOOLING PLATE. HOLDS LIVE TOOLS HORIZONTALLY.  
\$395.00  
Reducer bushing page 9



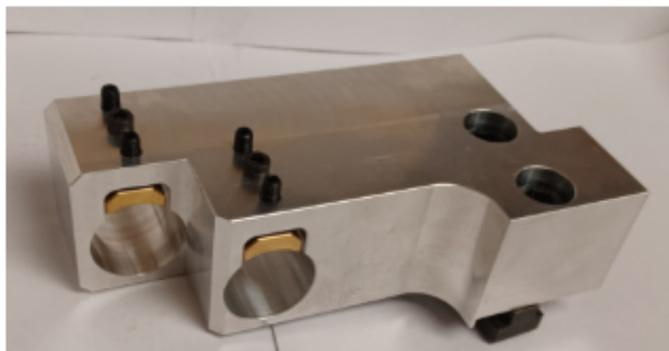
## REDUCER BUSHINGS



1" / 30mm \$140.00  
 1.32" / 30mm \$140.00  
 .900" / 30mm \$140.00  
 .91" / 30mm \$140.00  
 3/4" / 30mm \$140.00  
 36mm / 40mm \$140.00  
 25mm / 30mm \$140.00

## Dual NSK spindle Holder \$495.00

1" bores with hold down clamps



### ANGLE OMNI-LIVE TOOL HOLDERS



You can drill angled holes with the OmniTurn. Holders are made to order. The OmniTurn slide is responsive enough to enable peck drilling at any angle. We have applications in the in use where .062" drill are being drilled at 30 degrees .75" deep.

### NSK OMNI-LIVE TOOL HOLDERS



Omni 590 -  
 1/2" center height  
 \$189.00

## OMNI-TURN BAR PULLERS



- Light weight & self activating. No moving parts.
- 5/8" shank fits directly into OmniTurn tool holders
- Gripper threads onto shank, change in seconds
- Only 1/4" bar engagement is needed.
- Small head diameter minimizes interference
- Using a bar puller reduces bar whip as compared to a push type bar feed



Bar puller shank- 5/8"		
.187"	PBG0187	\$62.00
.250"	PBG0250	\$62.00
.312"	PBG0312	\$62.00
.375"	PBG0375	\$62.00
.437"	PBG0437	\$62.00
.500"	PBG0500	\$62.00
.562"	PBG0562	\$62.00
.625"	PBG0625	\$62.00
.687"	PBG0687	\$62.00
.750"	PBG0750	\$62.00

Metric sizes available call for sizes.

## AccuTrak Two-Die Straddle Holder for Knurling and Threading

Capacity: .19 to 1"  
 Head width: 2.45"  
 Head thickness: .875"  
 Die size: 3/4" diameter, 3/8" wide, 1/4" hole



AccuTrak Knurl Holder \$437.00



### AccuTrak's Holder is Easy to Set Up and Adjust for Size

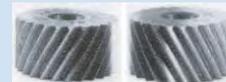
The holder uses two knurling dies held in an adjustable yoke. It is easy to center the holder so there is even pressure on both dies. The adjustment for size is done with a screw.

### Straight Tooth Knurls -



\$18.80 ea HSS		\$23.55 ea Cobalt	
TPI / TEETH	TPI / TEETH	TPI / TEETH	TPI / TEETH
8, 19 (90°)	20, 23 (90°)	12, 28 (90°)	14, 34 (90°)
16, 38 (90°)	20, 47 (90°)	21, 50 (90°)	25, 59 (90°)
30, 71 (90°)	33, 77 (90°)	35, 82 (90°)	40, 94 (90°)
35, 82 (70°)	50, 117 (70°)	60, 141 (70°)	80, 189 (70°)

### 30° DIAGONAL Knurls - RH or LH



\$21.80 ea HSS		\$23.55 ea Cobalt	
8, 16 (90°)	10, 20 (90°)	12, 25 (90°)	14, 34 (90°)
16, 33 (90°)	20, 41 (90°)	21, 50 (90°)	25, 51 (90°)
30, 61 (90°)	33, 77 (90°)	35, 71 (90°)	40, 81 (90°)
50, 102 (70°)	80, 163 (70°)		



30° Diamond Knurls - Male or Female			
12, 25 (90°)	16, 33 (90°)	20, 41 (90°)	25, 51 (90°)
30, 61 (90°)	40, 81 (90°)	50, 102 (70°)	80, 163 (70°)

\$27.00 ea HSS \$32.95 ea Cobalt

# OMNITURN ER 16 & 11 COLLET SYSTEM

**OTC-ER11 Holder w/ mini Nut \$150.00**  
 Wrench for ER11 mini Nut \$25.00  
 Extra nut for ER11 holder \$30.00

**OTC-ER16 Holder w mini Nut \$150.00**  
 Wrench for ER16 Mini Nut \$25.00  
 Extra Mini Nut for ER16 holder \$30.00

## INDIVIDUAL COLLETS

SIZE	FRACTIONAL	ER-11	PRICE	SIZE	FRACTIONAL	ER-16	PRICE
.020 - .039		OTC11-001	\$30.00	.024 - .039		OTC16-001	\$30.00
.039 - .059		OTC11-002	\$25.00	.063 - .078		OTC16-002	\$25.00
.059 - .079	1/16	OTC11-003	\$25.00	.103 - .118		OTC16-003	\$25.00
.079 - .098	3/32	OTC11-004	\$25.00	.118 - .157	1/8, 5/32	OTC16-004	\$25.00
.098 - .118		OTC11-005	\$25.00	.157 - .196	3/16	OTC16-005	\$25.00
.118 - .138	1/8	OTC11-006	\$25.00	.197 - .236	7/32	OTC16-006	\$25.00
.138 - .157	5/32	OTC11-007	\$25.00	.236 - .275	1/4	OTC16-007	\$25.00
.157 - .177		OTC11-008	\$25.00	.276 - .315	9/32, 5/16	OTC16-008	\$25.00
.177 - .197	3/16	OTC11-009	\$25.00	.315 - .354	11/32	OTC16-009	\$25.00
.197 - .217		OTC11-010	\$25.00	.354 - .393	3/8	OTC16-010	\$25.00
.217 - .236	7/32	OTC11-011	\$25.00				
.236 - .256	1/4	OTC11-012	\$25.00				
.256 - .276		OTC11-013	\$25.00				



**SLIM DESIGN ALLOWS  
CLOSER SPACING  
Bars have 5/8" shanks**



**EASIER TOOL  
CHANGES IN POSITION**



### COLLET SETS

**ER-11 Set (13 piece) \$295.00**  
 .020" - .276"

### COLLET SETS

**ER-16 Set (10piece) \$225.00**  
 .020" - .394"



## SURE GRIP 5C COLLETS \$195.00

These collets have been specialty coated to prevent slippage of the material. This makes for a much better hold.

**NO MORE PUSH BACK  
REDUCES COLLET CLOSER  
PRESSURE COLLET ID IS NOW  
Rc 70 AND HIGHER**

**SIZES - 1/2", 5/8", 3/4", 7/8" AND 1"**

Please call for availability of other sizes.

## ER16 TAP COLLETS

Tapping collets are manufactured with an internal square drive that keeps the tap from spinning within the collet during use.

Tap Size	Shank Size	Price
0-6	0.141	\$59.50
8	0.168	\$59.50
10	0.194	\$59.50
12	0.220	\$59.50
1/4	0.255	\$59.50
5/16	0.318	\$59.50



SEE PAGES 36-39  
FOR OMNITURN  
MACHINE REPAIR  
PARTS.....

Servo Motors



Servo Amps

Couplings



Bellows cover

## ER-16 Axial - Float Tension/Compression Tap Holder

Axial-float/tension/compression type for C.N.C. milling machines and lathes

**\$395.00**

Compensates for machine feed and tap pitch variance. Floating mechanism compensates for misalignment

Heavy Duty design for high torque drive ensures the same accuracy as the tap itself.

**3/4" Shank Diameter    1.638" Projection**

**Use with Omni-1175L  
Tool Holder  
3/4" bore  
1/2" center height  
\$175.00**

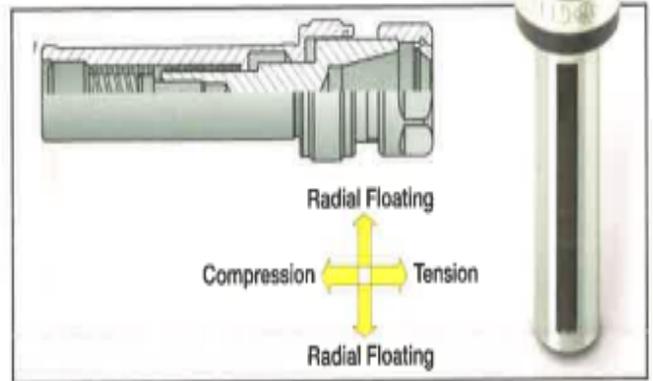


**Slotted Type E  
ER16 Collet  
Wrench \$20.00**



Radial float, axial movement:  
tension/compression type for CNC  
milling machine, lathes with reversing  
motors and also for rigid tapping  
especially for tough materials.

- Radial float, tension/compression, is indicates as per specific ER size



**Use With ER-16 Collets**

### SELF RELEASING TAP HOLDER



**Tap Holder #TH00**

**\$669.00**

pipe tap 1/8"

- For right or left tapping.
- Eases tap into work for better matching of threads.
- No spring plungers to wear or break.

### ER-16 TAP COLLETS

**\$59.50**

**Tapping collets are  
Manufactured with an  
internal square drive that  
keeps the tap from spinning  
within the collet.**

<u>Tap size</u>	<u>Tap Shank Dia.</u>	<u>Part#</u>
#0 thru #6	.141	1001
#7- #8 5/32"	.168	1002
#9 - #10 3/16"	.194	1003
#12 7/32"	.220	1004
#14 1/4"	.255	1005
9/32"	.286	1006
5/16"	.318	1007
11/32"	.349	1008
3/8"	.381	1009

**"Bushings For Tap Holders \$52.00 Each"**

**Tap size    Shank Diameter**

<b>1/8" - #6</b>	<b>.141"</b>
<b>5/32" - #8</b>	<b>.168"</b>
<b>3/16" - #10</b>	<b>.194"</b>
<b>7/32" - #12</b>	<b>.220"</b>
<b>1/4"</b>	<b>.255"</b>
<b>5/16"</b>	<b>.318"</b>





INSERTS ARE SOLD IN PACKS OF 10 (TEN).  
ADD A \$1.00 TO THE COST OF EACH INSERT WHEN  
PURCHASING IN QUANTITIES OF LESS THAN 10 (TEN).

# OMNITURN'S MULTIBAR TURNING SYSTEM

THE OMNITURN MULTIBAR HOLDER AND INSERTS WERE SPECIALLY DESIGNED FOR SMALL PRECISION TURNING ON GANG TOOL LATHES.

NEW AND IMPROVED multibar is made with more material in the pocket area for better holding power of the insert. →



**OMNITURN'S MULTIBAR \$175.00**

Ground edges, not pressed.

Most other inserts have edges that have been pressed and honed. This does not create a sharp cutting edge. When used, there is more tooling pressure created on the radius edge. This causes problems with small "fine" turning. It becomes harder to hold tight tolerances & good finishes, consistently. MultiBar inserts are all ground to a sharp edge with no radius, greatly reducing tooling pressure. Our inserts produce more good parts and last longer than the less expensive alternatives.

One Standard bar with the widest choice of inserts.

The MultiBar will accept many different type of inserts: *Front and Back turning, Cut-off, Grooving, Threading, Plunge*

*and Turn.* Working with one style bar and inserts, you will be able to cover most small turning needs.

The holder & inserts take less space than any other two cutting tools on the market! Tooling space on gang tool lathes is always at a premium. The MultiBar under 1.1" wide, *including the inserts!!!*

For rigidity and longer life the MultiBar is made from hardened and ground 4140 steel. The MultiBar is made so that you can extend the cutting tools off the face of the slide and still take a deep cut. The bar can be used for heavy roughing cuts, or fine, precise finishing work.

Specially designed geometries help take deeper cuts.

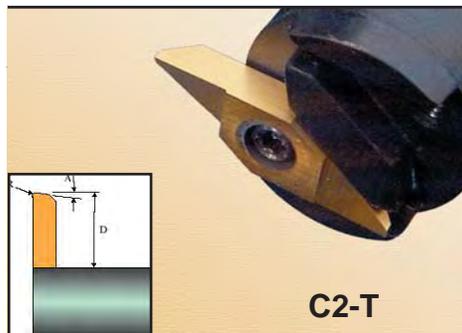


**PROFILING INSERT - 6MM**

**VFTR-6M050 - \$29.95/each**

- .030 RAD - C-2 uncoated
- .020 RAD - C-2 uncoated
- .010 RAD - C-2 uncoated

**All inserts available in uncoated. Please call for availability.**



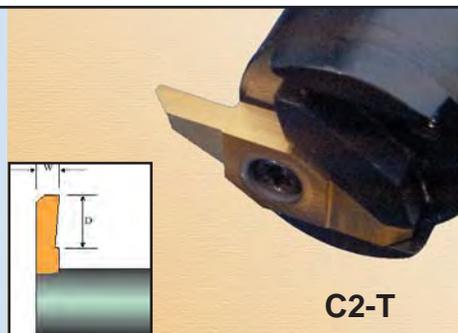
### FRONT TURNING

This insert can be used for general purpose turning. The .2" depth of cut can be used for most turning and facing operations.

The 45 deg. clearance on the back side of the tool can be used to undercut for a thread.

Insert #	A	D	R	Price
VFTR-6M010	1	.2"	.000	\$22.50
VFTR-6M040	4	.2"	.000	\$22.50
VFTR-6M152	15	.2"	.002	\$25.50
VFTRB-6M152*	15	.2"	.002	\$26.50
VFTR-6M157	15	.2"	.007	\$25.50
VFTRB-6M157*	15	.2"	.007	\$26.50

\* with chip breaker

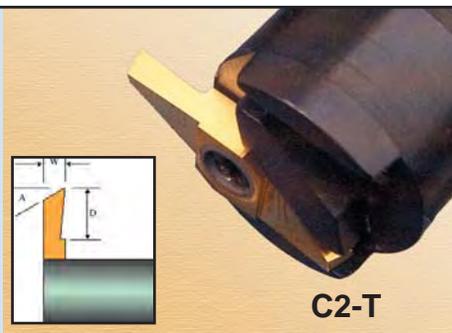


### BACK TURNING

The back turning insert can be used for turning behind a shoulder.

This insert is ground on the front end so that it can easily plunge directly into the material before back turning.

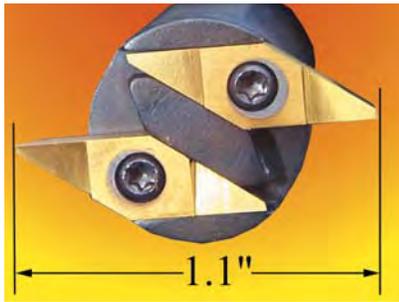
Insert #	W	D	R	Price
VBTR-6M453	.047	.085"	.000	\$24.50
VBTR-6M454	.062	.130"	.000	\$24.50
VBTR-6M455	.078	.200"	.000	\$24.50
VBTR-6M456	.093	.200"	.000	\$23.50



### CUT OFF

The cut off inserts are designed for small precision cut offs. The face angle is very steep to help reduce the cutoff tit.

Insert #	W	D	A	Price
VCOR-6M2520	.020	.050	25	\$24.50
VCOR-6M2525	.025	.065	25	\$24.50
VCOR-6M2531	.031	.090	25	\$24.50
VCOR-6M2040	.040	.100	20	\$23.50
VCOR-6M2047	.047	.130	20	\$23.50
VCOR-6M1562	.062	.160	15	\$23.50
VCOR-6M1578	.078	.200	15	\$23.50
VCOR-6M1593	.093	.200	15	\$23.00



**FIT MORE TOOLS  
PER SETUP WITH  
THE OMNI TURN MULTI BAR!**

THE MULTI BAR PUTS TWO TURNING TOOLS IN THE SMALLEST AREA. THE WIDTH OF THE TOOL WITH INSERTS IS LESS THAN 1.1". BY USING THE MULTI BAR YOU CAN GET MORE TOOLS INTO THE SETUP WITHOUT COMPROMISING RIGIDITY.



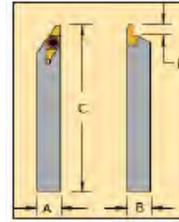
**OMNI TURN'S MULTI BAR**

**MultiBar with 5/8" shank \$175.00**  
 Extra Torx wrench T-7 \$6.00  
 Extra insert screws 2.40-064 \$4.00

- Unless requested, C-2T will be supplied.
- All prices quoted are for coated inserts. Uncoated are available, for \$1.00 less.
- All inserts shown are right handed. Left handed inserts are also available upon request.

6mm Insert Bar \$106.00

Max-Bar universal insert holder! One holder, six functions; Just change the insert! This holder does it all!



Front turn - Back Turn  
 Cut-Off - Groove -  
 Plunge & Turn



R.H. HOLDER NO	A	B	C	D
SVANR-07M6M-C	7mm	7mm	127mm	5mm
SVANR-08M6M-C	8mm	8mm	127mm	5mm
SVANR-10M6M-C	10mm	10mm	127mm	5mm
SVANR-12M6M-C	12mm	12mm	127mm	5mm
SVANR-3756M-C	.375	.375	5.00	.200
SVANR-5006M-C	.500	.500	5.00	.200
SVANR-6256M-C	.625	.625	5.00	.200
SVANR-7506M-C	.750	.750	5.00	.200

Screw 2.40-064 \$3.00/ea Wrench T-7 \$6.00/ea

**MULTI BAR STARTER KIT**

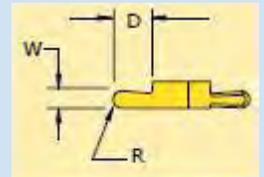
(1) MultiBar PN S10DSVFNL6M2X

- (1) Front turn VFTR-6M040
- (2) Front turn VFTR-6M157
- (1) Back turn VBTR-6M455
- (1) Cut off VCOR-6M1578
- (1) Cut off VCOR-6M2047
- (1) Groove .031 VNGR-6M031
- (1) Threading VNVR-6M062
- (1) Threading VNVR-6M093
- (1) Plunge & turn VTGR-6M078
- (1) Spare screw 2.40-064

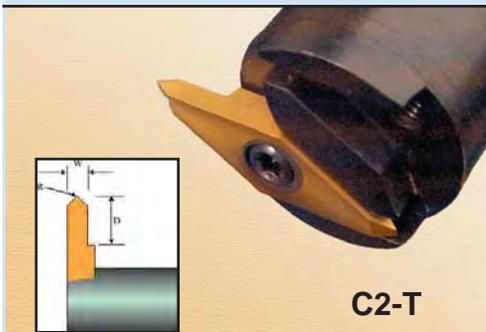


**MultiBar Starter Kit PN-6MBSK \$395.00**  
 Includes bar, torx wrench and screw

**FULL RADIUS INSERTS**



Insert #	Width	Depth	Radius	Price
VFRR-6M010	.010	.030	.005	\$25.50
VFRR-6M015	.015	.040	.007	\$25.50
VFRR-6M020	.020	.050	.01	\$25.00
VFRR-6M025	.025	.065	.012	\$25.00
VFRR-6M030	.030	.090	.015	\$25.00
VFRR-6M040	.040	.110	.02	\$25.00
VFRR-6M047	.047	.130	.023	\$24.00
VFRR-6M062	.062	.160	.031	\$24.00
VFRR-6M078	.078	.180	.039	\$24.00
VFRR-6M093	.093	.180	.046	\$24.00

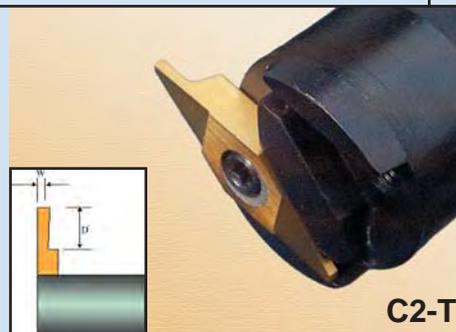


**C2-T**

**THREADING**

The threading inserts are designed for small precision work. The tip radius is very small. This creates less tool pressure. Tool width is less than other inserts. You can thread to shoulders without having to modify the tool.

Insert #	W	D	R	Price
VNVR-6M031	.031	.150	.000	\$23.50
VNVR-6M047	.047	.180	.002	\$23.50
VNVR-6M062	.062	.200	.002	\$23.50
VNVR-6M093	.093	.200	.004	\$23.50

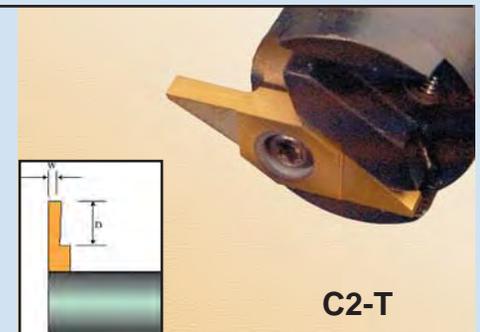


**C2-T**

**GROOVING**

These inserts are a single piece of carbide vs the small inserts that other grooving tool manufacturers use.

Insert #	W	D	R	Price
VNGR-6M020	.020	.050"	.000	\$24.50
VNGR-6M025	.025	.065"	.000	\$24.50
VNGR-6M031	.031	.090"	.000	\$24.50
VNGR-6M040	.040	.100"	.000	\$24.50
VNGR-6M047	.047	.130"	.000	\$23.50
VNGR-6M062	.062	.160"	.000	\$23.50
VNGR-6M078	.078	.200"	.000	\$23.50
VNGR-6M093	.093	.200"	.000	\$23.50



**C2-T**

**PLUNGE AND TURN**

The plunge and turn insert can also be used for back turning work. It does not have as much clearance and relief as the back turn insert. The front edge is parallel to the work piece.

Insert #	W	D	R	Price
VTGR-6M031	.031	.050"	.000	\$24.50
VTGR-6M047	.047	.085"	.000	\$24.50
VTGR-6M062	.062	.130"	.000	\$23.50
VTGR-6M078	.078	.200"	.000	\$23.50
VTGR-6M093	.093	.200"	.000	\$23.50

\* with chip breaker

# 8mm 35 ° SERIES TOOLING INSERTS

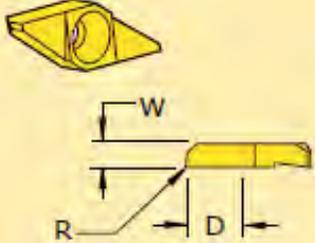
## SPARE PARTS

SCREW  
3.20-095 \$4.50

WRENCH T-10  
\$7.50

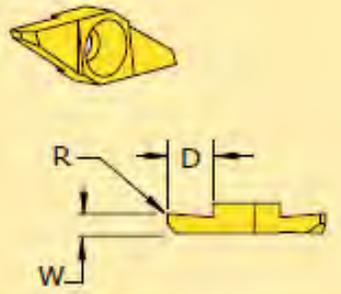
**8MM Insert MultiBar**  
**\$230.00**

## FRONT TURN



RIGHT HAND SHOWN		WIDTH		DEPTH		RADIUS	
R.H. INSERT NO.	PRICE	INCH	MM	INCH	MM	INCH	MM
VFTR-8M040	\$23.00	.156	4,00	.300	7,62	.000	0,00
VFTR-8M045	\$23.50	.156	4,00	.300	7,62	.005	0,13
*VFTRB-8M040	\$25.00	.156	4,00	.300	7,62	.000	0,00
*VFTRB-8M045	\$25.00	.156	4,00	.300	7,62	.005	0,13
*WITH CHIP CONTROL							

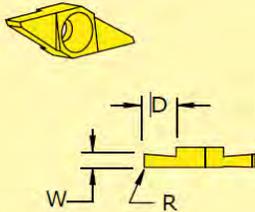
## BACK TURN



RIGHT HAND SHOWN		WIDTH		DEPTH		RADIUS	
R.H. INSERT NO.	PRICE	INCH	MM	INCH	MM	INCH	MM
VBTR-8M308	\$23.50	.125	3,18	.300	7,62	.000	0,00
VBTR-8M306	\$24.00	.093	2,36	.300	7,62	.000	0,00
VBTR-8M305	\$24.00	.078	1,98	.250	6,35	.000	0,00
VBTR-8M304	\$24.00	.062	1,57	.190	4,83	.000	0,00

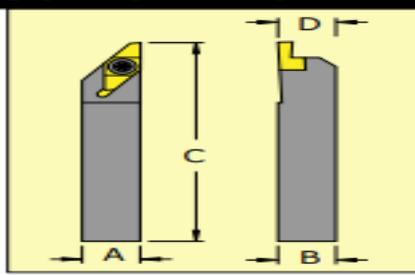
## PLUNGE & TURN

(SQUARE BOTTOM)



RIGHT HAND SHOWN		WIDTH		DEPTH		RADIUS	
R.H. INSERT NO.	PRICE	INCH	MM	INCH	MM	INCH	MM
VTGR-8M125	\$23.50	.125	3,18	.300	7,62	.000	0,00
VTGR-8M093	\$24.00	.093	2,36	.300	7,62	.000	0,00
VTGR-8M078	\$24.00	.078	1,98	.250	6,35	.000	0,00
VTGR-8M062	\$24.00	.062	1,57	.190	4,82	.000	0,00
VTGR-8M047	\$25.00	.047	1,19	.130	3,30	.000	0,00
VTGR-8M031	\$25.00	.031	0,78	.050	1,27	.000	0,00

## TOOLHOLDERS



SVANR-5008M-V  
SVANR-5008M-C  
SVANR-6258M-C

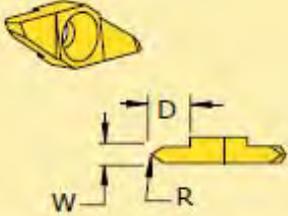
**Square shank insert  
holder for 8MM  
inserts \$115.00**

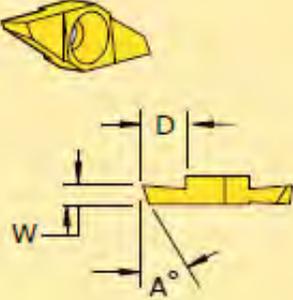
A	B	C	D
.500	.500	3.50	.505
.500	.500	5.00	.505
.625	.625	5.00	.630

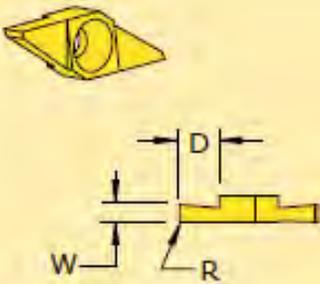
**3.20-095  
Screw \$4.50**

**T-10 Wrench  
\$7.50**

# 8mm 35 ° SERIES TOOLING INSERTS

THREADING 60 °	RIGHT HAND SHOWN							
			WIDTH		DEPTH		RADIUS	
	R.H. INSERT NO.	PRICE	INCH	MM	INCH	MM	INCH	MM
	VNVR-8M125	\$23.50	.125	3,18	.300	7,62	.004	0,10
	VNVR-8M062	\$23.50	.062	1,57	.250	6,35	.002	0,05
	VNVR-8M031	\$24.00	.031	0,78	.190	4,82	.000	0,00
THREAD FORM IS CENTRALLY LOCATED								

CUT-OFF	RIGHT HAND SHOWN						
			WIDTH		DEPTH		A °
	R.H. INSERT NO.	PRICE	INCH	MM	INCH	MM	
	VCOR-8M158	\$23.50	.125	3,18	.320	8,13	15 °
	VCOR-8M156	\$23.50	.093	2,36	.320	8,13	15 °
	VCOR-8M155	\$23.50	.078	1,98	.320	8,13	15 °
	VCOR-8M154	\$23.50	.062	1,57	.260	6,60	15 °
	VCOR-8M153	\$24.00	.047	1,19	.190	4,83	15 °

GROOVING	RIGHT HAND SHOWN							
			WIDTH		DEPTH		RADIUS	
	R.H. INSERT NO.	PRICE	INCH	MM	INCH	MM	INCH	MM
	VNGR-8M125	\$23.50	.125	3,18	.300	7,62	.000	0,00
	VNGR-8M093	\$23.50	.093	2,36	.300	7,62	.000	0,00
	VNGR-8M078	\$23.50	.078	1,98	.250	6,35	.000	0,00
	VNGR-8M062	\$23.50	.062	1,57	.250	6,35	.000	0,00
	VNGR-8M047	\$24.00	.047	1,19	.190	4,83	.000	0,00
	VNGR-8M040	\$24.00	.040	1,00	.130	3,30	.000	0,00
	VNGR-8M031	\$24.00	.031	0,79	.080	2,03	.000	0,00

**OMNI TURN'S 8MM MultiBar \$230.00**

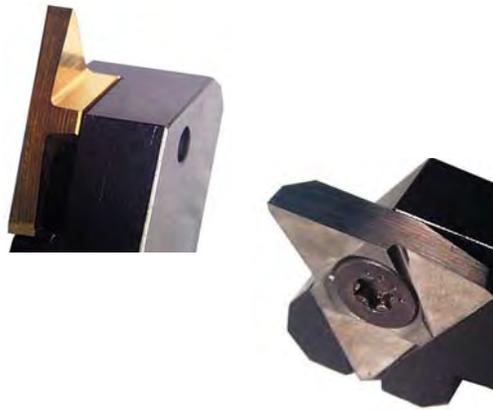


## INSERTS & HOLDERS

- Larger inserts are available for use with a square shank holder.
- The inserts will take heavier and deeper cuts.

See page six for tool holders

- The tool is held off the face of the tooling plate with the Omni Tool *Post-w* and TF-625 holder. This enables longer turns and “back” work.
- The inserts are very cost competitive. They have three cutting edges, so the cost of the insert is not much more than the other “standard” inserts.



**STANR-085-V \$120.00**  
1/2" square shank - 3.5" overall length

### Insert price notes:

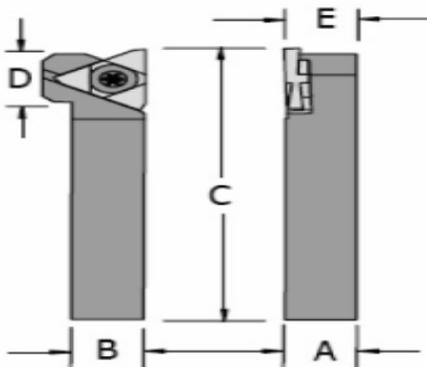
C-2T  
Prices quoted are for C2T coated inserts.  
Uncoated inserts are POR

- Inserts shown are right handed. Left handed inserts and holders are also stocked.

**STANR-085-V Right Hand \$120.00**  
Comes with one screw and wrench.

### Extras

**Wrench T25 \$5.50 each**  
**Screws 4.76-127 \$4.50 each**



INSERTS ARE SOLD IN PACKS OF 10 (TEN).  
ADD A \$1.00 TO THE COST OF EACH INSERT WHEN PURCHASING IN QUANTITIES OF LESS THAN 10 (TEN).

### 5/8" i.c. Triangular inserts

Insert #	Width	Doc Radius	Price
<b>FRONT TURN</b>			
TFTR-5040	.25	.44" .000	\$30.00
TFTR-5045	.25	.44" .005	\$32.00
TFTRB-5040*	.25	.44" .000	\$33.00
TFTRB-5045*	.25	.44" .005	\$33.00

\* Notes chip breaker is ground on top edge

Insert #	Width	Doc Radius	Price
<b>CUT OFF</b>			
TCOR-51510	.156	.44" .000	\$32.00
TCOR-5158	.125	.44" .000	\$31.00
TCOR-5156	.093	.44" .000	\$31.00
TCOR-5155	.078	.37" .000	\$31.00
TCOR-5154	.062	.30" .000	\$31.00
TCOR-5153	.047	.23" .000	\$32.00

Insert #	Width	Doc Radius	Price
<b>THREADING 60 DEGREE</b>			
TNVR-5125	.125	.44" .004	\$32.00
TNVR-5093	.093	.37" .002	\$31.00
TNVR-5047	.047	.25" .000	\$31.00

Thread form is centrally located

Insert #	Width	Doc Radius	Price
<b>BACK TURN</b>			
TBTR-5308	.125	.44" .000	\$32.00
TBTR-5306	.093	.37" .000	\$32.00
TBTR-5305	.078	.30" .000	\$32.00
TBTR-5304	.062	.23" .000	\$32.00

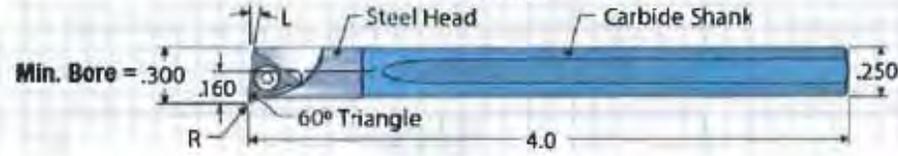
Insert #	Width	Doc Radius	Price
<b>GROOVING</b>			
TNGR-5156	.156	.44" .000	\$31.00
TNGR-5125	.125	.44" .000	\$31.00
TNGR-5093	.093	.37" .000	\$31.00
TNGR-5078	.078	.37" .000	\$31.00
TNGR-5062	.062	.30" .000	\$31.00
TNGR-5047	.047	.23" .000	\$32.00
TNGR-5040	.040	.18" .000	\$32.00

Insert #	Width	Doc Radius	Price
<b>PLUNGE &amp; TURN</b>			
TTGR-5156	.156	.44" .000	\$32.00
TTGR-5125	.125	.44" .000	\$32.00
TTGR-5093	.093	.37" .000	\$32.00
TTGR-5078	.078	.30" .000	\$32.00
TTGR-5062	.062	.23" .000	\$32.00

## INDEXABLE BORING BAR SETS - 1/4" and 3/8" SHANK

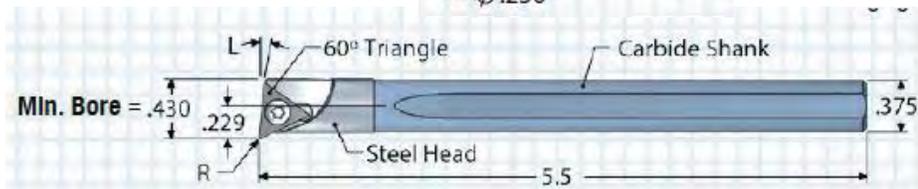
### 1/4" Shank Kit - \$185

"R" Corner Radius .007



### 3/8" Shank Kit - \$235

"R" Corner Radius .007



## RIGHT - HAND BORING BAR SETS *with* TRIANGLE-SHAPED CARBIDE INSERTS

Each kit includes:

- (1) Bar with flat (L-angle at 5 degree)
- (5) Altin + coated inserts
- (5) Screws
- (1) Wrench



1/4" Shank kit \$185.00  
3/8" Shank kit \$235.00



# ATTENTION - SWISS MACHINE USERS...



**DEPTH OF CUT YOU WANT! - SHANK SIZE YOU NEED!**  
DESIGNED TO FIT YOUR SWISS TYPE CNC SCREW MACHINE WITHOUT THE NEED OF MODIFICATION OR LARGE OFFSETS

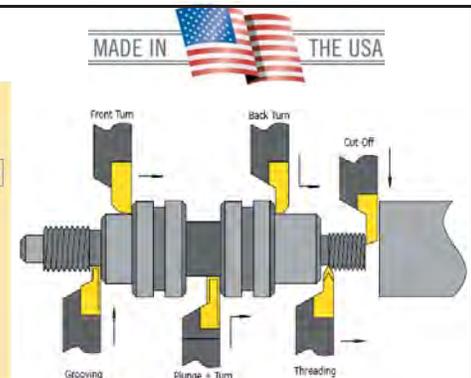
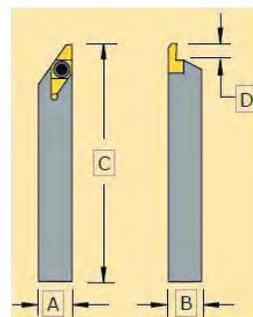
FRONT TURN \* BACK TURN \* CUT-OFF  
\* GROOVE \* THREAD \* LUNGE & TURN

- WITH ONE TOOLHOLDER, JUST CHANGE INSERT
- INSERTS ARE PRECISION GROUND FOR REPEATABILITY
- SCREW DOWN INSERTS CUT CLOSE TO BUSHING OR CHUCK
- ZERO RADIUS AS STANDARD
- WIDEST CHOICE OF INSERTS PER HOLDER
- MACHINE READY TOOLHOLDER DIMENSIONS

### RIGHT HAND SHOWN

R.H. HOLDER NO.	A	B	C	D
SVANR-07M6M-C	7mm	7mm	127mm	5mm
SVANR-08M6M-C	8mm	8mm	127mm	5mm
SVANR-10M6M-C	10mm	10mm	127mm	5mm
SVANR-12M6M-C	12mm	12mm <td 127mm	5mm	
SVANR-3756M-C	.375	.375	5.00	.200
SVANR-5006M-C	.500	.500	5.00	.200
SVANR-6256M-C	.625	.625	5.00	.200
SVANR-7506M-C	.750	.750	5.00	.200
SPARE PARTS	SCREW 2.40-064		WRENCH T-7	

### TOOL HOLDERS



Bar Price: **\$98.00** [Uses 6mm inserts on pages 14-15]

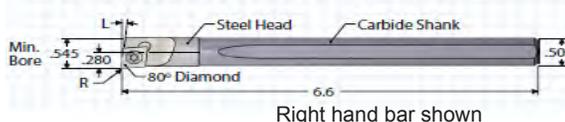
SEE PAGES 12 AND 13 FOR COMPATIBLE INSERTS - CUSTOM INSERTS AVAILABLE UPON REQUEST

## FACE AND TURN BAR WITH INSERTS 1/2" CARBIDE SHANK - DIAMOND SHAPED INSERTS

BAR: EACH BAR COMES WITH ONE SCREW AND ONE KEY **\$165.00.**

BAR AND INSERT KIT: COMES WITH ONE BAR, FIVE INSERTS AND FIVE SCREWS **\$229.00.**

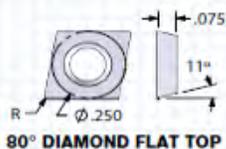
### BAR WITHOUT COOLANT HOLE



"L" ANGLE 5 DEGREES  
1/2" SHANK WITH FLAT  
LEFT HAND BAR

Right hand bar shown

### CARBIDE INSERTS



"R" CORNER RADIUS 0.007  
90 DEGREE DIAMOND FLAT TOP  
UNCOATED OR ALTiN+



**\$195.00 Each**

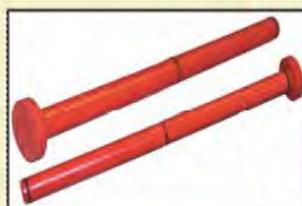
### Available sizes

- 1/8"
- 3/16"
- 1/4"
- 5/16"
- 3/8"
- 7/16"
- 1/2"
- 5/8"
- 3/4"

Drawtube spindle plugs **\$69.00**

GT-75 AND GT-JR ROUND SPINDLE LINERS:

**\$215.00 each**



### SPINDLE LINERS

OmniTurn is now offering a new style of spindle liner. A cast polyurethane liner. This new style liner supports the bar better, helps dampen bar whip and vibration, and weighs less. Custom ID shapes and sizes are available, POR. Excellent liners for square, hex and extruded shapes.

*The tubes are oversized to fit this stock.*

"Custom sizes available on special order"

Hex style available call for pricing

## USB extension cable: **\$39.00**

Great for when it's difficult to get to the back of the machine to access the thumb drive. You can now access the USB slot from the front of the machine.



## Part Catcher options

There are many types of parts catchers. Please contact us for suggestions. Here are a few examples:



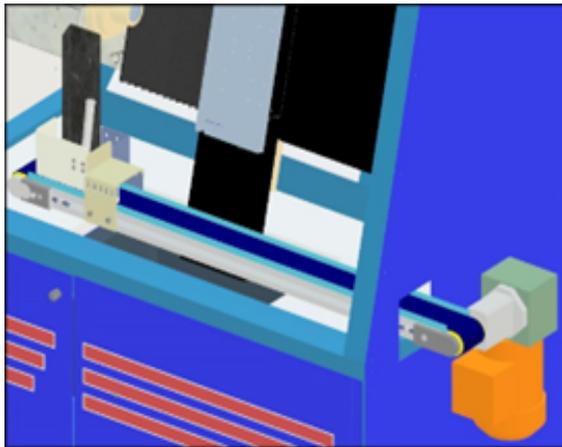
### Tooling plate mounted shoot with catch basket:

The sheet-metal baffle and right side lower cover needs to be modified by the end user. Prints are supplied with the kit. The shoot is configured based on the application.

Catch basket with mounting hardware:

Price: \$950

Shoot: POR



### Conveyor and Diverter:

M function controlled tipping or extending diverter

Price: \$4,750

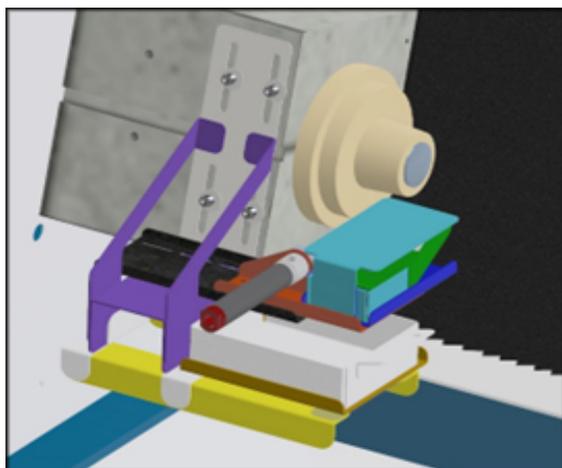
Includes:

- Conveyor and mounting hardware
- Diverter: tipping or extending
- Sensor for conformation that the diverter is retracted.

Requires

M function controlled 3 phase relay

M function controlled solenoid



### Headstock mounted diverter and catch basket:

Great for small parts. The diverter is pneumatically controlled by an M function. It extends under the collet to catch the part. When it retracts the part is captured in a removable tray.

Requires M function controlled solenoid

# MULTIBAR TREPAN FACE GROOVING

**\$175.00** 5/8" Shank

Extra Insert screws 2.40-064 \$3.50 each



Cutting a face groove can be difficult without the correct tooling. Here is a holder and insert that makes doing this easy. The holder has flats on both sides of the bar, it can be held with the cutter facing up or down.

- Min diameter .187" • Max diameter .750"
- From .05" to .2" depth of cut
- From .03" to .09" wide grooves
- C2 carbide with positive rake



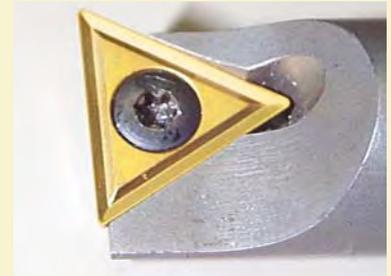
## SIDE CLEARANCE FOR SHOULDERS

### MultiBar Face Groove bar **\$175.00**

Insert #	Width	Depth	Dia		
			Min	Major	
VFGL-6M305025.03"	.05"	.25"	.25"	.50"	\$29.00
VFGL-6M307550.03"	.075"	.50"	.50"	.75"	\$29.00
VFGL-6M406025.04"	.06"	.25"	.25"	.50"	\$29.00
VFGL-6M409050.04"	.09"	.50"	.50"	.75"	\$29.00
VFGL-6M507530.05"	.075"	.30"	.30"	.60"	\$29.00
VFGL-6M501060.05"	.10"	.60"	.60"	.90"	\$29.00
VFGL-6M608030.06"	.08"	.30"	.30"	.60"	\$29.00
VFGL-6M601060.06"	.10"	.60"	.60"	.90"	\$29.00
VFGL-6M709030.07"	.09"	.30"	.30"	.60"	\$29.00
VFGL-6M701260.07"	.12"	.60"	.60"	.90"	\$28.00
VFGL-6M801030.08"	.10"	.30"	.30"	.60"	\$28.00
VFGL-6M801460.08"	.14"	.60"	.60"	.90"	\$28.00
VFGL-6M901430.09"	.14"	.30"	.30"	.60"	\$28.00
VFGL-6M902060.09"	.20"	.60"	.60"	.90"	\$28.00
Extra Torx wrench T-7					\$5.50
Extra insert screws 2.40-064					\$3.50

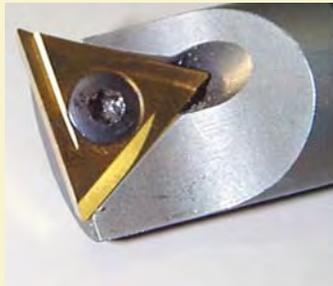
sold in packs of ten

## LEFT HANDED TURNING



**TURNING INSERT W/ .015 TNR**  
**5/8" SHANK**

This is a 5/8" round shank turning bar. The rake angle is 0 degree. The tool is very useful for heavy turning and light facing. The tool is very rigid and the in-vert is well supported. Threading inserts are also available.



**NOW HAS FLATS ON BOTH SIDES  
FOR BETTER STABILITY.**

**Left Handed turning Tool \$160.00**

**Spare screw - SC-30 \$4.50 each**

**LHHT-.007 \$18.50 each Left Handed  
Turning w/.007 TNR**

**LHHT-.015 \$18.50 each Left Handed  
Turning w/.015 TNR**

Starter kit, includes one bar and 10 inserts  
LH bar, (5) TPGH-320, (5) TPGH-321 \$299.00



**DISCONTINUED**

INSERTS STILL STOCKED

Inserts

**Threading 375-TD \$23.75 ea**

Threading insert for T/T Tool (sold in box of 10),  
3 sided, coated

**Turning OMTN-007 \$15.90 ea**

Turning insert for T/T Tool (sold in box of 10),  
2 edged, coated, .007" TNR

**Turning OMTN-015 \$14.90 ea**

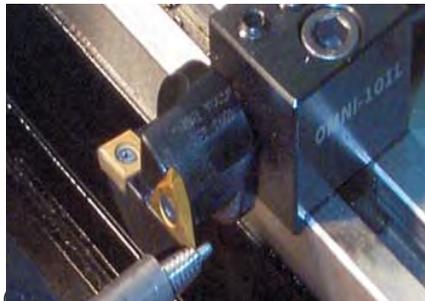
Turning insert for T/T Tool (sold in box of 10),  
2 edged, coated, .015" TNR

Accessories

**FT-9 Torx wrench for threading insert \$3.50**

**VR-1 Screw for threading insert \$3.50**

**MS1027 Screw for turning insert \$3.50**



## ISCAR CUT OFF BLADE



W	Part #	R	K	Price
.087"	GFR 2-4D	.006	4	\$19.45
.087"	GFR 2-6D	.006	6	\$19.45
.087"	GFR 2-8D	.006	8	\$19.45
.087"	GFR 2-15D	.006	15	\$19.45
.087"	GFR 2S-15	.001	15	\$19.95

Iscar 11/16" x 1/16" Cutoff Blade.....\$162.00

## LOW COST! MORE PIECES PER BLADE!

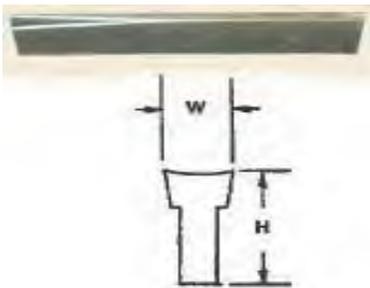
Longer wear, less galling, better finish, higher speeds than high-speed steels. PLUS greater rigidity and up to 10 times the re-sharpen able tool life of carbide tipped tools.

Tools are supplied ready for use with cut-off angles sharpened on both ends so that tools can be used on front or rear side and for either right or left hand operations.

**WIDTH - 1/16"**  
**HEIGHT - 11/16"**  
**LENGTH - 4"**

**REF. NO. - P-3N-866 .....\$192.00**

Solid Carbide Tin-Coated



## ROTATING BROACH (WOBBLE BROACH)

This tool is used to produce hexagon, square, and other irregular internal shapes in the work piece as it is rotating in the spindle of the machine.

Minimal tool driving force is required due to the spindle offset which distributes the load of the cut. The tool holder spindle, which is mounted in ball bearings, rotates freely with the work piece and does not require auxiliary driving attachments.



### SOMMA OFFSET ROTATING BROACH TOOL

5/8" SHANK, 2" OVERHANG, 1-1/2" WIDTH

PART #: BROACH.....\$1138.00



### HEX - INCH .....PART #: BROACHTOOL

HEX	FLATS	DEPTH	PART	# PRICE
.050	.0505	5/64	HX00-.050	\$77.00
1/16	.0630	3/32	HX00-1/16	\$77.00
5/64	.0786	7/64	HX00-5/64	\$77.00
3/32	.0947	9/64	HX00-3/32	\$77.00
7/64	.1106	5/32	HX00-7/64	\$77.00
1/8	.1265	3/16	HX00-1/8	\$77.00
9/64	.1421	7/32	HX00-9/64	\$77.00
5/32	.1582	1/4	HX00-5/32	\$77.00
3/16	.1895	9/32	HX00-3/16	\$77.00
7/32	.2212	11/32	HX00-7/32	\$77.00
1/4	.2525	3/8	HX00-1/4	\$77.00

### SQUARE - INCH

HEX	FLATS	DEPTH	PART #	PRICE
3/32	.0947	9/64	SQ00-3/32	\$77.00
1/8	.1265	3/16	SQ00-1/8	\$77.00
5/32	.1582	1/4	SQ00-5/32	\$77.00
3/16	.1895	9/32	SQ00-3/16	\$77.00
7/32	.2212	11/32	SQ00-7/32	\$77.00



# AIR CHUCKS

NORTHFIELD... THE WORLD LEADER IN PRECISION WORKHOLDING AIR CHUCKS.

Guaranteed accuracy from 0.0001" (2.5 $\mu$ ) to 0.000010" (0.25 $\mu$ )

## Productivity

- Automatic self-centering.
- Uniform pre-determined holding pressure.
- Adjustable jaw force for semi-rough or fragile holding.
- Automatic or manual operation.
- Jaws can be removed and replaced accurately.

## Reliability

- Rotary joint air bearing eliminates metal-to-metal wear for extremely long life.
- Balanced to operate at high speeds.
- Built-in, self-contained air cylinder.
- Built-in safety features.

**MADE IN THE U.S.A.**

## Reasons why you should use an air chuck:

1. Dead length
2. Part diameter variations - does not effect holding force
3. Can hold thin walled or delicate parts with very concentric and adjustable clamping pressure

**Model 350 - 3 Inch - 3 jaw (.060" opening) \$4,495.00**  
**(76mm) - (1.5mm opening)**

Model 350 Air Chuck comes complete.  
Including air tube assembly and one set of #AL-1-3-3/4  
aluminum top jaws and mount.

**Max. Recommended RPM 4200**

**Max. Opening of Jaws .060" (1.5mm)**

**Force per Jaw** variable to 316 lbs. (144 kg)

**Repeatability** concentricity - .0001 (2.5 $\mu$ ) T.I.R. max  
end lengths - .0001 (2.5 $\mu$ ) T.I.R. max

**Also available with .000010" (10 millionths) (2.5 $\mu$ )  
repeatability.**

**Master Jaws** move at perfect right angle to  $\perp$  of spindle

**Model 450 - 4 Inch - 3 jaw (.100" opening) \$4,995.00**  
**(100mm) - (2.5mm opening)**

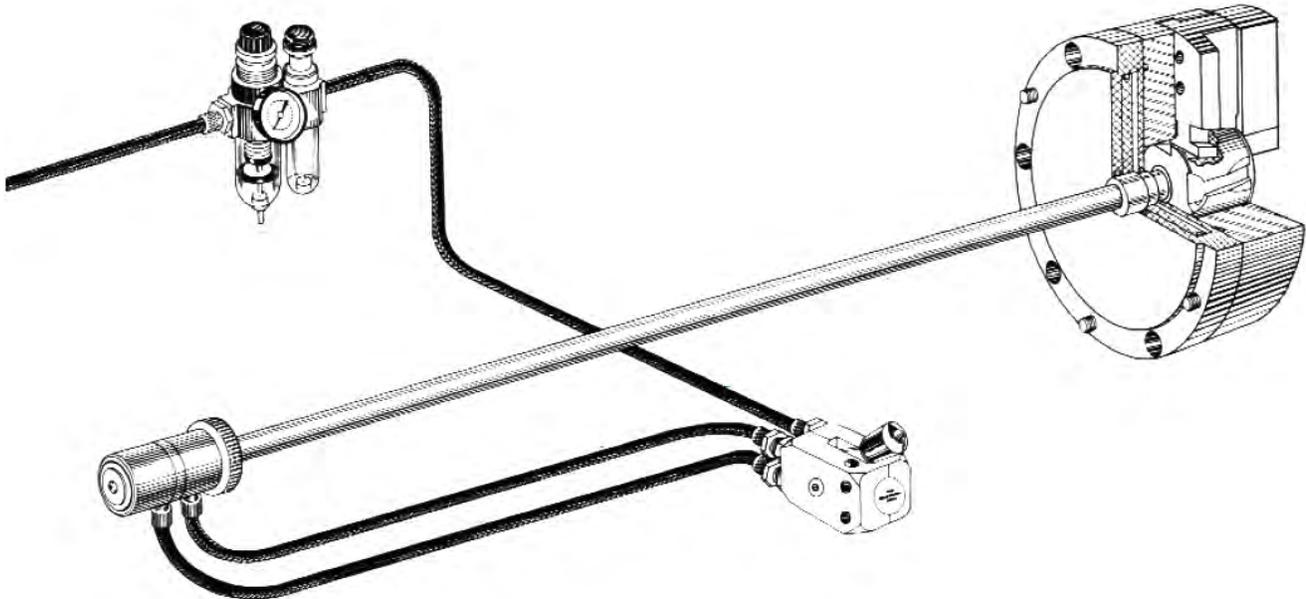
Model 450 Air Chuck comes complete  
Including air tube assembly and one set of #AL-1-4-3/4  
aluminum top jaws and mount.

**Max. Recommended RPM 3000**

**Max. Opening of Jaws .100" (2.5mm)**

**Force per Jaw** variable to 625 lbs. (284 kg)

**Repeatability** concentricity - .0001 (2.5 $\mu$ ) T.I.R. max  
end lengths - .0001 (2.5 $\mu$ ) T.I.R. max



Part Number	Thru-Hole MM	Max Radial Stroke	Max Radial Stroke w/ Dunham Collet Closer	Max Speed Min -1 (R.P.M)
B204	26	.19"	.13"	8000
N04	No	.19"	.13"	6000
NT04	No	.19"	.13"	6000

B204	N04	NT04
------	-----	------



**4" - 3 JAW AUTOMATIC CHUCK  
W/ 1" THRU HOLE**

Part Number .....B204

Includes 1 set of steel jaws, adapter plate for spindle nose, adapter for between draw tube and chuck actuator

**\$6,495.00**



**4" - 3 JAW AUTOMATIC  
CHUCK BLIND**

Part Number .....N04

Includes 1 set of steel jaws, adapter plate for spindle nose, adapter for between draw tube and chuck actuator

**\$5,995.00**

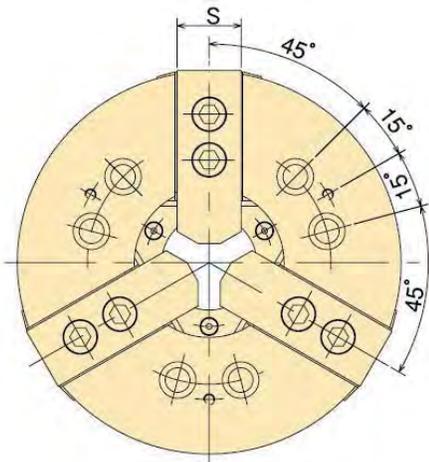


**4" - 2 JAW AUTOMATIC  
CHUCK BLIND**

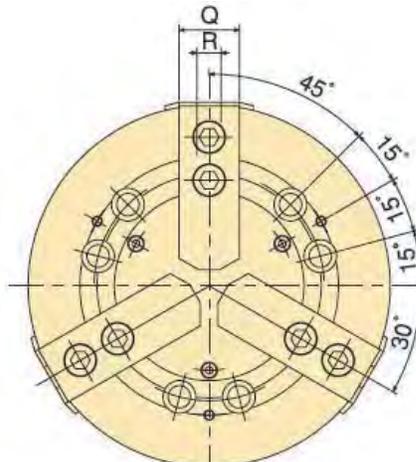
Part Number .....NT04

Includes 1 set of steel jaws, adapter plate for spindle nose, adapter for between draw tube and chuck actuator

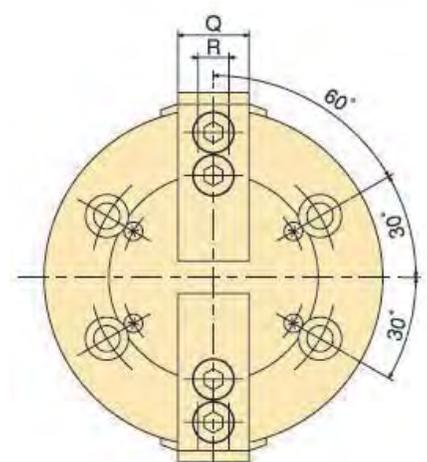
**\$5,495.00**



B204

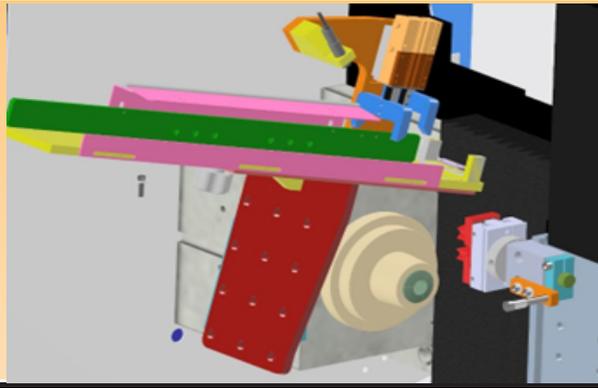


N04



NT04

Track Loader  
Insert type:



Track loaders are simple. However, they do need to be configured based on the application. This automation system can be purchased as parts or with assistance from Richlin Machinery.

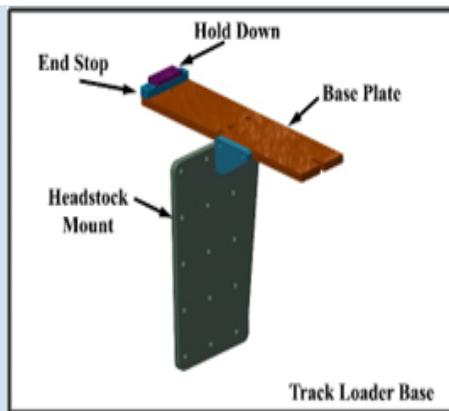
### Assistance Options

Configuration of track loader with CAD models and installation notes includes:

- Tooling layout to work around the track and work holding
- CAD drawings of transfer gripper jaws
- CAD drawings of track modifications if needed
- GT-75 sheet metal modifications details
- Schematics for interfacing stack lamp and track options with OmniTurn control

Price on request

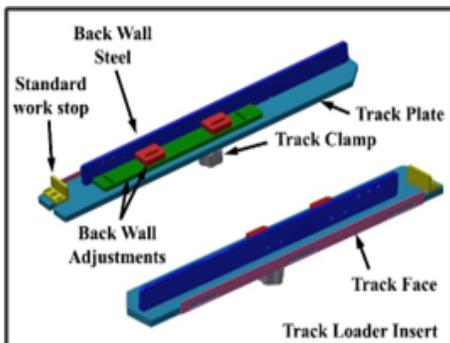
Turnkey installation by Richlin Machinery on site: P.O.R.



### Track loader Base:

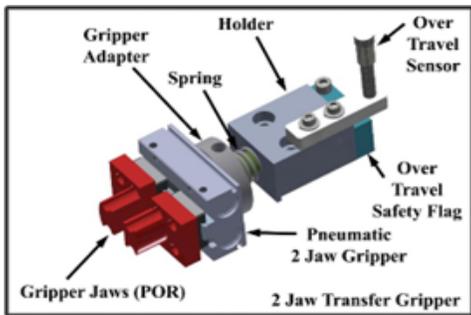
\$950.00

Installs in minutes by end user.



### Standard Track Loader Insert:

\$950.00



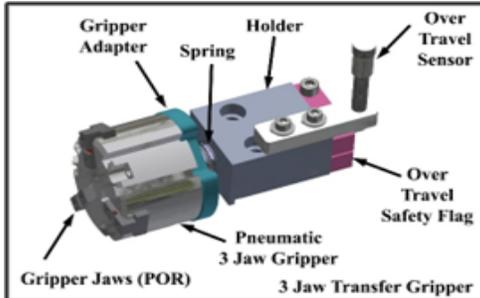
### 2 Jaw Transfer Gripper:

Basic unit price: \$1,895.00

- Over travel sensor wired into End of Bar in OmniTurn control
- Gripper adapter configured to match pneumatic gripper
- Spring pressure dependent on application

Options: Custom work holding jaws.

Modification of track insert based on application.

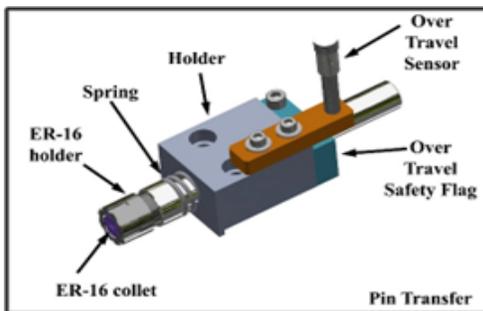


### 3 Jaw Transfer Gripper:

Basic unit price: \$1,895.00

- Over travel sensor wired into End of Bar in OmniTurn control
- Gripper adapter configured to match pneumatic gripper
- Spring pressure dependent on application

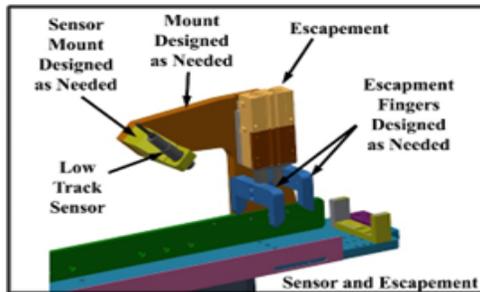
Options: Custom work holding jaws



### Pin Type Transfer:

Base unit price: \$750.00

- Over travel sensor wired into End of Bar in OmniTurn control
- Gripper adapter configured to match pneumatic gripper
- Spring pressure dependent on application



### Escapement and Low Track Sensor: Price: POR

These need to be configured for each application

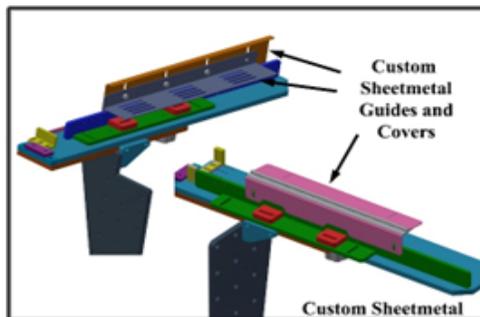
Escapement requires an M function-controlled solenoids

Low track sensor requires

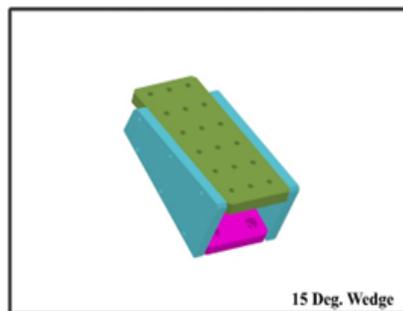
M95 (G4 controls)

or

PLC interface with G3 or older controls



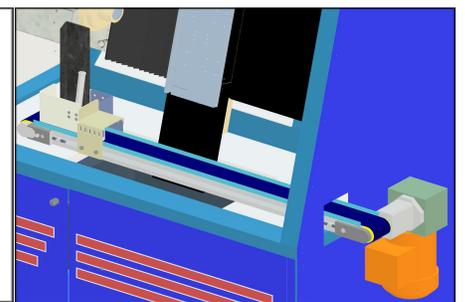
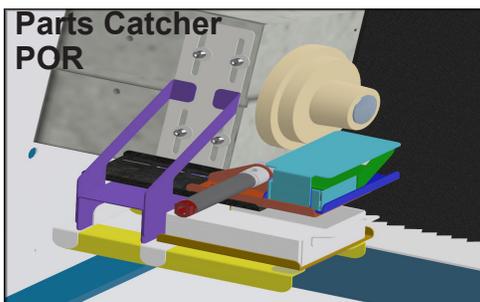
Sheet metal covers and guides available



### 15 Degree Wedge:

Price \$750.00

Description: This wedge changes the pitch of the track. It is needed when parts won't roll down the track. At 30 degrees parts will slide down the track



# NSK MACHINE TOOL SPINDLE COMBINATIONS

## E2000 SERIES COMBINATION 1K-50K (RPM)- 200 WATTS



UNIT SPECIFICATION	
Model	NE314
Power source	AC-100 50-60 Hz 1 phase
Power consumption	1.45A
Weight	4lb. 14.99 oz.
MOTOR & SPINDLE	
Motor	EM25N-5000- J4
Spindle	NR-2551
Speed	1,000 – 50,000 min - (rpm)* 500 min -1 (rpm) : for centering
Weight	1 lb. 0.40 oz. (w/o motor cable)
Dimensions	Ø 0.98" x 7.41"

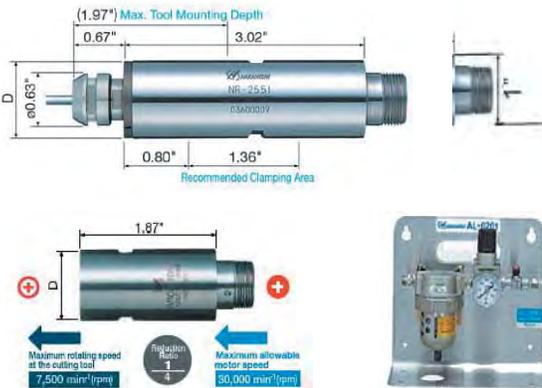
### E2000 SERIES COMBINATION:

CAT. NO.	MODEL	PRODUCT	PRICE
7720	NE314	Control Unit	\$1,696.00
AS88322	EM25-N5000-J	Brushless Motor w/cord	\$1,532.00
AS81820	NR-H2551	1" OD Spindle	\$1,220.00
4504	AL-C1204	Air Line Kit	\$488.00
		<b>Total</b>	<b>\$4,936.00</b>

NSK Omni-Live Tool Holder - Part # 1" BORE \$240.00  
WITH BRASS CLAMP TO HELP PROTECT SPINDLE



Spindle  
1.00" OD



## LIVE TOOL HOLDER W/ BRASS CLAMP



This holder is great for when you need to hold a 1" OD live tool on center with the spindle



Live in-line 1" Bore \$240.00  
Live in-line 30mm Bore \$250.00  
Live in-Line 36mm Bore \$250.00

Speed Reducer D=Ø1.0" (Ø25.4mm), Ø0.98" (Ø25mm)				
CAT No.	Model	Outside Diameter	Speed Reduction Ratio	Price
AS81826P	ARG-H2504N	Ø1.0" (Ø25.4mm)	¼"	
AS81822P	ARG-2504N	Ø0.98" (Ø25MM)		

NSK Omni-Live Tool Holder -  
Part # Omni 590 - 1/2" center height - \$185

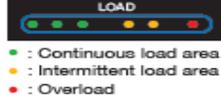
# E3000 SERIES CONTROLLER

- AC100-240V for international operation
- 1,000~60,000 rpm
- Maximum Output 350W
- $\phi 0.79"$  ( $\phi 20$  mm),  $\phi 0.897"$  ( $\phi 22.8$  mm),  $\phi 0.98"$  ( $\phi 25$  mm),  $\phi 1.0"$  ( $\phi 25.4$  mm),  $\phi 1.18"$  ( $\phi 30$  mm) spindles are available.

Product Code **9775** CONTROLLER NE211

60,000 rpm

\* : Load Meter



External Input-Output Connector A (D-SUB25 Female)

External Input-Output Connector B (D-SUB15 Female)

Motor Connector

Air Output Joint  $\phi 6$  mm

Air Input Joint  $\phi 6$  mm

Power Switch

Communication Connector for NE212

Intake with Power Fuse



- [1] Load Meter\*
- [2] Running LED (RUN)
- [3] Warning LED (WARNING)
- [4] Error LED (ERROR)
- [5] Error Reset Switch (RESET)
- [6] Gear Setting Switch (GEAR)
- [7] Control Switch (AUTO/MANUAL)
- [8] Rotating Direction Selector Switch (FWD./REV.)
- [9] Start Switch (START)
- [10] Motor Speed Adjustment Switch (SPEED)
- [11] Display



### Specifications

Product Name	: NE211
Power Source	: AC120V / 240V
Motor Speed	: 1,000-60,000 rpm
Max. Output Power	: 350W
Power Consumption	: 1.8A
Air Flow Volume	: 1.0CFM (98-44PSI)
Weight	: 6 lb. 2.77 oz.
Dimensions	: W3.46" x D5.43" x H9.37"

Product Code **7847** SPINDLE NR-403E

40,000 rpm

BRUSHLESS MOTOR EM-3060J

60,000 rpm



- Allowable Motor Speed ..... 40,000 rpm
- Spindle Accuracy ..... Within 1  $\mu$ m
- Weight ..... 15.52 oz.
- Additional collet purchase required:
- Collet Series CHK-XX .....  $\phi 0.5$ mm- $\phi 6.35$ mm
- Recommended ..... CHK-3.175  $\phi 1/8"$  (See Page 6-p3 for additional sizes)
- Collet Nut (K-265) ..... For Collet (CHK)
- Metal Saw Arbor (KCH-03) ..... For  $\phi 0.24"$  (I.D.) x  $\phi 1.18"$  (O.D.)
- Grindstone Arbor (AGM-03) ... For grinding wheel with I.D. of  $\phi 5$  mm
- Grindstone Flange (EGF-19) .....  $\phi 19.05$  (I.D.) x  $\phi 40$  (O.D.) x 7 (W) mm

### Spindle

Product Code	Product Name	Standard Equipment - Accessories
7847	NR-403E	• Collet Nut (K-265) : 1 pc. • Wrench (12 x 14) : 2 pcs. (22 x 27) : 1 pc.

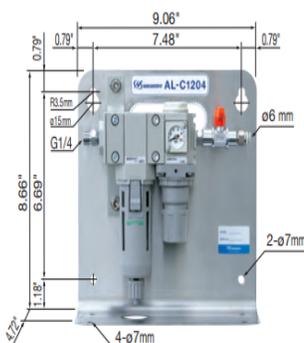
- This spindle can be used for small-diameter milling, drilling, slitting, chamfering, grinding, etc.



Description - Product Name	Length
Motor Cord 3M EMCD-3000J-3M	10 ft (3.0m)

- Motor Speed ..... 1,000~60,000 rpm
- Max. Output Power ..... 350W
- Housing ..... Stainless steel (SUS416)
- Weight ..... 12.70 oz. (w/o Cord)

Product Code **4504** AIR LINE KIT AL-C1204



- The AL-C1204 Air Line Kit is designed to deliver clean, dry air to Electric Motors via the Controller. The filter removes small amounts of debris while the adjustable regulator provides the correct air pressure for cooling and purging.

Air Line Kit (For  $\phi 6$  mm Hose · Filter Mesh 0.3  $\mu$ m )

Product Code	Product Name	Standard Equipment - Accessories
4504	AL-C1204	• Air Filter · Air Regulator • Air Pressure Gauge • Air ON-OFF Valve • Hose for Piping (K-275) : 6 ft

E3000 COMBO TOTAL \$6,260.00

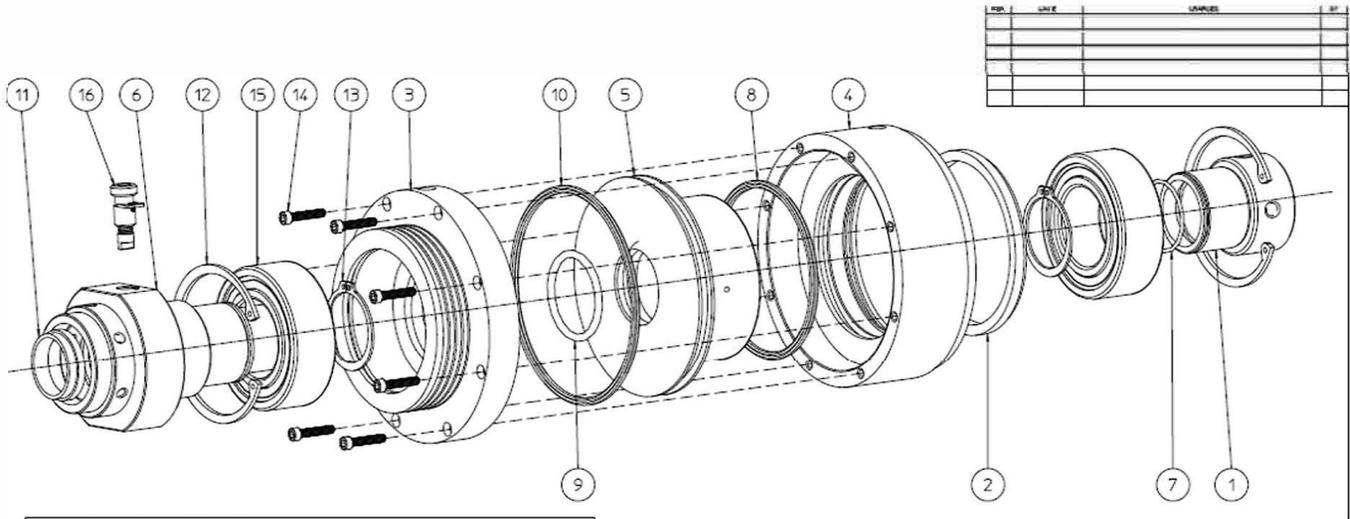
NE211 CONTROL \$2,744.00  
 NR-403E 30MM SPINDLE \$1,183.00  
 EM-3060J MOTOR \$1,414.00  
 EMCD-3000J-3M MOTOR CORD \$433.00  
 AL-C1204 AIR LINE KIT \$488.00

## GT-75 / GT-JR DUNHAM COLLET CLOSERS

Mobil "DTE" light (or Equivalent) - One drop every 15 seconds - Air pressure: 15 PSI

	Dunham Collet Closer w/ Drawtube	693-08-200	\$1,995
	Dunham Drawtube Only	693-08-211	\$275.00
	Drawtube Plug Spindle	633-11-001	\$59.00
	Mac Double Solenoid Valve Only Collet Open / Collet Close	997-15-007	\$175.00
	Anti Rotation Bracket	693-01-001	\$39.00
	<b>Air Lubricator Assembly with bracket</b> <b>Fittings addtional.</b>	<b>697-11-003</b>	<b>\$95.00</b>
	<b>Dunham Collet closer Air Fittings</b> Air line 1/4" x 1/4" npt Lube line 5/32" x 1032 npt		<b>\$5.00/each</b>
	<b>Drawtube locking key</b> <b>Assembly</b>	<b>693-08-210</b>	<b>\$79.00</b>
 	<u><b>Dunham collet closer rebuilt kit,</b></u> <u><b>includes seals and bearings.</b></u>  <b>Dunham rebuild kit.</b> <b>Dunham bearings only.</b> <b>Dunham seal kit with drawtube seal .</b>	<b>693-09-103</b> <b>693-08-202</b> <b>693-09-102</b>	<b>\$225.00</b> <b>\$170.00</b> <b>\$65.00</b>

# Dunham collet closer breakdown for GT-75 and GT-JR



\* Dunham rebuild and seal kits include the seals highlighted in yellow:

BOM: AIR COLLET CLOSER OIL MIST OMNITURN			
Pos	Qty	Part Name	Part No.
1	1	KNURLED KNOB	D211-MC544
2	1	DISOGRIN SEAL	D211-006-044
3	1	DACCOM MAIN BEARING HOUSING	D211-MC542
4	1	DACCOM CYLINDER	D211-MC540
5	1	DACCOM PISTON	D211-MC541
6	1	DACCOM-NC MAIN BRG MNT OMNITURN	D211-MC543-F
* 7	1	O RING	D211-D-130
* 8	1	QUAD RING	D211-Q4353
* 9	1	O RING	D211-D-328
* 10	1	QUAD RING	D211-Q4345
* 11	1	DISOGRIN SEAL	D210-00602100A
12	2	SNAP RING	D210-5002-354
13	2	SNAP RING	D210-5102-196
14	8	SHCS 10-24x1	D900-10241-SHCS
15	2	AIR COLLET CLOSER BEARING	D210-D-55510ND
16	1	DRAWTUBE LOCK ASSEMBLY	D010-DLK-HD

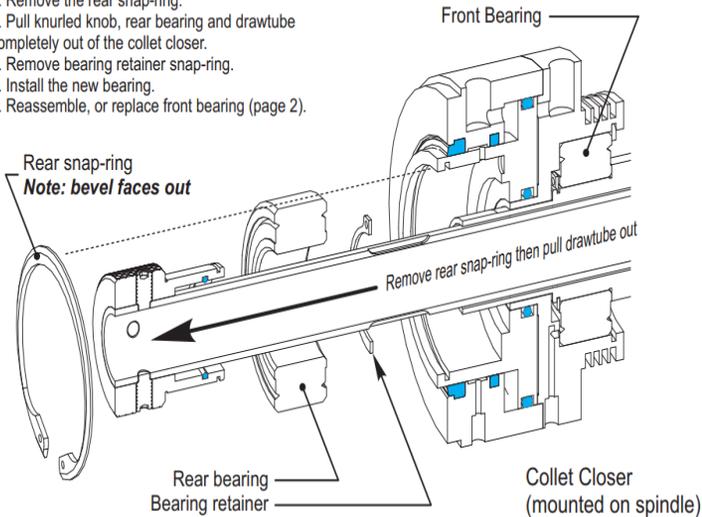
## Replace Dunham Collet Closer Bearings procedure:

To replace the bearings:  
(Do not remove collet closer from spindle)

### Rear Bearing

1. Remove the collet.
2. Remove the rear snap-ring.
3. Pull knurled knob, rear bearing and drawtube completely out of the collet closer.
4. Remove bearing retainer snap-ring.
5. Install the new bearing.
6. Reassemble, or replace front bearing (page 2).

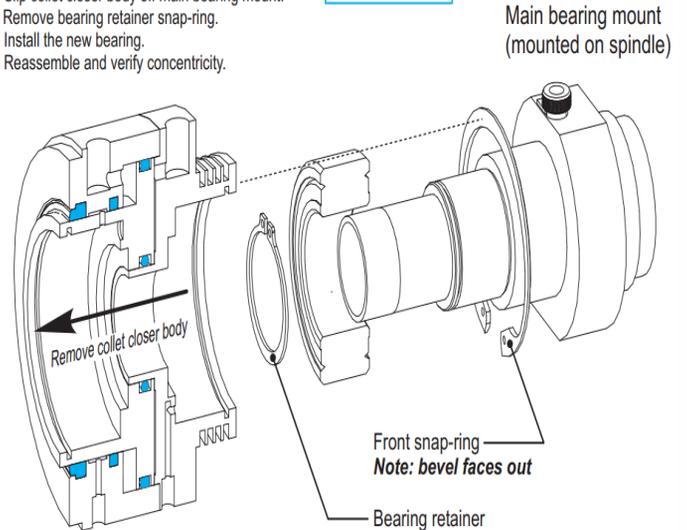
Seals & O-rings shown in blue



### Front bearing:

7. Remove anti-rotation bracket
8. Remove four air hoses (push-lock fittings)
9. Remove front snap-ring.
10. Slip collet closer body off main bearing mount.
11. Remove bearing retainer snap-ring.
12. Install the new bearing.
13. Reassemble and verify concentricity.

Seals & O-rings shown in blue



The World's Most Cost-Effective Turning Machines

## GT-75 Turning Center

**\$45,295**  
**C-axis add \$3,300**



- Gang-Tooled slant bed
- 5hp spindle w/5C nose
- Air-actuated collet closer
- Flood-coolant system
- Spindle Positioning Option
- [Standard G- & M-Codes](#)

Gang-tooled for fastest tool changes.  
 75° slant-bed lets chips fall away quickly.  
 12" X-Axis travel; 9" Z-Axis travel.  
 Highest quality ground ball-screws and linear guides for precision and reliability.  
 Closed-loop servo system provides .0001" accuracy with .00005" resolution.  
 5hp spindle (C-Axis positioning optional)  
 4000rpm (5000 optional)  
 Barfeed ready.

## Specifications:

### Capacities

Workholding . . . . . 5C Collet  
 . . . . . 4" Chuck Max (opt.)  
 Max. Cutting Diameter . . . . . .6"  
 Max. Bar Diameter . . . . . 1.06"  
 Tooling Plate . . . . . 6" x 14" with 3/8" T-Slot

### Spindle

Max Speed . . . . . 4,000rpm (6000 opt.)  
 Max Rating . . . . . .5 hp  
 Spindle Nose . . . . . 5C w/4° camlock  
 Drawtube Bore . . . . . 1.125"

### Construction

Ways . . . . . Precision Linear Guides  
 Ball Screws . . . . . Precision-ground Zero Backlash  
 Base Billet . . . . . MJ7 Composite Casting  
 Headstock . . . . . Mehanite  
 Coolant Pump . . . . . 1/8hp 5gpm (1/4hp 20gpm opt)

### Travels & Feedrates

X-Axis . . . . . 12"  
 Z-Axis . . . . . 9"  
 Resolution of Slide Travel . . . . . 0.00005"  
 Repeatability of Slide Travel . . . . . 0.0001"  
 Threading . . . . . 240tpi to unlimited  
 Axes Thrust . . . . . 500lbs cont. 750lbs int.  
 Max Rapid . . . . . 300ipm  
 Max Cutting . . . . . 300ipm

### General

Machine Weight . . . . . 1,650lbs  
 Air Required . . . . . 3 scfm @ 70 psi  
 Electrical . . . . . 208 - 240 VAC, 1 or 3 phase @ 20A  
 Floor Space . . . . . 34" x 66" (75" high)



## OmniTurn Zip Loader on GT-75

Fast  
 Simple  
 Compact  
 Smart! **\$10,500**

Handles bars or parts 1-1/2 to 26 inches long; 1/8 to 1-1/16 diameter.

### It's a magazine bar loader!

Loads bar for machining and cutoff; pushes more bar for next part.  
 At end of bar, Zip Loader ejects remnant and loads new bar.  
 Tray holds up to 225 feet of barstock for hours of un-attended operation.

### It's a shaft loader!

Loads part for machining and closes collet or chuck.  
 Then ejects finished part and gets next part.

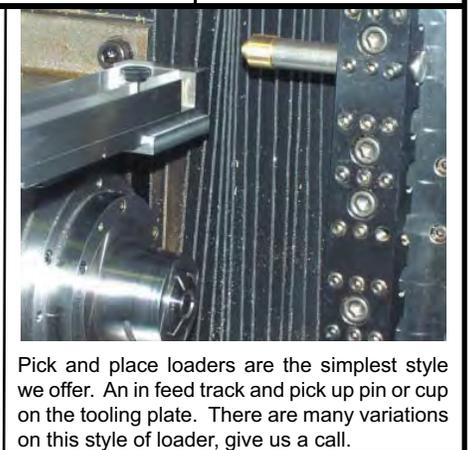
# OmniTurn Automation

Automation has become an important tool to be used to survive in today's difficult market. The OmniTurn system has been designed with automation in mind.

Automation can be easy or a nightmare. There are so many issues that must to be taken into account or they can get out of hand if you don't have the prior experience.

- *Qualify length from a dimension off the part. This can be from the front*      - *Concentricity*      - *Chips*
- *Orientation*      - *Change over time for similar parts*      - *Part consistency*      - *Cost*      - *Cycle time*
- *Finished part unloading*      - *Work holding*      - *Fault resets and automation*      - *Vibratory bowl interface*
- *Documentation for operator use, setup, and troubleshooting*      - *Schematics and spare parts lists*

 <p><b>3 second Load/unload</b> Held on the OD, drilled 14 holes, bored the ID, Qualified the overall length</p>	 <p><b>6 second Load/unload</b> Held on the OD, Finished the radius on the face.</p>	 <p><b>3 second Load/unload</b> Held on the OD, Turn, Bore, Drill, Ramp Broach, Deburr.</p>	 <p><b>10 second Load/unload</b> One of a family of parts, load and unload without damaging finish 10 minute change over,</p>	 <p><b>8 second Load/unload</b> Thin sheet metal stamping. Work holding was an issue.</p>
 <p><b>6 second Load/unload</b> Very simple track loader. Simple to build and setup</p>	 <p><b>5 second Load/unload</b> Universal pick and place that can be changed over in minutes</p>	 <p><b>2.5 second Load/unload</b> Turn radius on end, cross drill Dedicated loader from bowl</p>	 <p><b>6 second Load/unload</b> Simple track loader, adjustable and universal</p>	 <p><b>6 second Load/unload</b> Unloaded carefully, no marks on finished face</p>
 <p><b>8 second Load/unload</b> End work on shafts, OmniZip with hopper holds 1000 parts.</p>	 <p><b>3 second Load/unload</b> Universal pick and place that can be changed over in minutes</p>	 <p><b>3.5 second Load/unload</b> On C axis machine, load off center, drill and tap one hole, drill other.</p>	 <p><b>4 second Load/unload</b> Loader for family of parts, fast load time, simple change overs.</p>	 <p><b>12 second Load/Load/Unload</b> Both sides of part was machined.</p>
 <p><b>Bar fed by OmniZip</b> Extruded stock loaded by rear end loader, 3 second cycle time per part</p>	 <p><b>6 second Load/unload</b> 5,000 part run, OD thread only. Built loader in 2 days for almost off the shelf delivery</p>	 <p><b>6.5 second Load/unload</b> Family of parts done with simple loader. Change over time is only 5 minutes.</p>	 <p><b>6 second Load/unload</b> Unloading was critical. They could not touch one another.</p>	 <p><b>8 second Load/Unload</b> Held on ID, turned entire OD. .0003" total all over.</p>



Visit our website to see most of these loaders in action.  
[www.omni-turn.com](http://www.omni-turn.com)

Give us a call for help with automation. We can help you design a system that you will build, or OmniTurn can deliver a turnkey system

### High volume, dedicated application:

First off, what do we mean by "High Volume"? We take it to mean any job that will run longer than 6 months without having to change the setup. Notice that we look at the length of the run, not the number of parts. Automation of this type should be considered to be replacing operator costs and increase production rates. The cost of implementing a dedicated loader usually takes the 6 months to offset an operator's salary and overhead charge. Loaders that will be dedicated to one job do not need to be convertible. This leaves us to play with speed and price. Dedicated loaders can be simple to design and implement since they are built around doing only one job. Usually load times are around the 3 seconds. However there are cases where we have been down around 1.2 seconds.

### To "Bowl" or "not to Bowl"? Is this a question?

Most customers assume that a bowl is required for long running production automation. OmniTurn wonders how often the bowl is really needed? We find in many applications having an operator once in a while feel an in feed track is more cost efficient. You could make argue that automation is implemented to remove operator intervention. However there are still reasons to keep an operator near the setup: Tool life, tolerance maintenance, part out flows safeguarding, chip removal, etc. While the operator is maintaining the other issues of the work cell, they could fill the in feed track. If the track holds at 30 minutes of parts, it still frees the operator for other duties and still load a number of automated OmniTurns. After a job has been up and running for a while it is a better time to determine if the purchase of a bowl is justified. If your automation is designed to work with a bowl, then the addition of it at a later date is simple!

### Similar part automation:

There are many instances where part family production is critical to making a product economically. Here we have a case where automation will be needed for a long time, but must be convertible enough to handle variations in the blank part. This could be variations in lengths, diameters, shapes, etc. If the parts all maintain some basic characteristics it is possible to build automation that can be changed over quickly. Here the 3rd item to be left out could be either the speed or price. In some cases we can build systems that are convertible and fast at a higher price. Or one that is convertible and less expensive but not as fast. The defining issue is usually the lot size and how often the loader will have to be changed over.



Pick and place for delicate parts



Simple track loader with in feed bin



High volume production - FAST



Very simple table mounted system

## THROUGH SPINDLE COOLANT AND AIR BLASTS

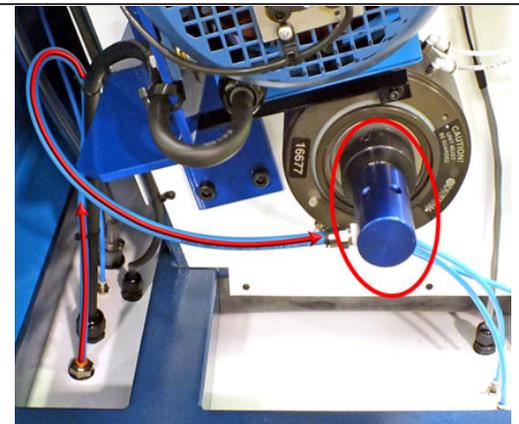
Through-spindle coolant option is very effective for clearing chips while boring, grooving or threading id holes. Coolant is pumped through precision rotary union into drawtube to collet.

Through spindle coolant \$1,250.00

The through-spindle air-blast option is very effective for clearing chips while boring, grooving or threading id thru-holes.

Through spindle air blast \$995.00

Combined system \$1,500.00



## NEW OMNIZIP AUTOMATIC REAR END LOADER AND FEEDER

**OmniZip: \$10,500**

Here is a universal answer for all types of part and bar feed rear end loading. The new line of OmniTurn Zip loaders has been designed around what end users have been asking for. **It is fast!** If you are loading parts for secondary operations its cycle time is under 5 seconds - part to part. **Versatile:** will load and cycle bars up to 24" long. **Smart:** Is programmable to act as a smart dead stop. The slide will repeat to within +/- .0015". **Large Capacity:** up to 400 1/2" diameter blanks per loading. If you have a 30 second machine time, that turns into almost 4 hours of unattended run time.



Visit [www.omni-turn.com](http://www.omni-turn.com) for video of the OmniZip in action

**Repeatability: .0015"**  
**Programmable from keypad**  
**2" to 24" part lengths**  
**1/4" to 1" diameter**  
**Fast cycle time: 5 seconds**  
**Compact size: 28" x 71"**  
 Made in America

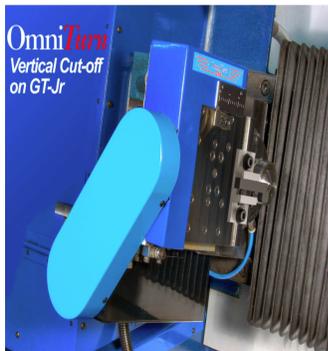


**ZipLoader & GT-75**

### VERTICAL CUT OFF

**\$6,000.00**

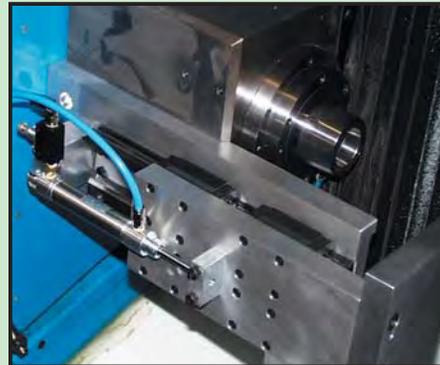
For existing machine in field add **\$450.00**



The vertical cutoff system is now easier to use. The M functions include variables for constant surface feet spindle control, grooving functions and cutoff functions. The setup is also easier than before. The front panel has a jog switch with the same functionality as the X and Z axis.

### TAILSTOCK FOR GT'S

This headstock mounted tailstock is great for special applications where the part must be supported while being machined.



- Tailstock activation can be pneumatic or manual lead screw driven
- The tailstock clears the tooling plate.
- Tailstock stroke: 2" max
- The tailstock can be mounted at any point in Z so you can make the most of the 2" of travel.

Contact your factory representative for details and application assistance.

Price.....\$5,900 Built to order 8-10 week delivery

### PART CONVEYORS FOR GT-75 AND GT-JR'S

Why fight to separate your parts from chips and coolant? Install a part conveyor to do most of the work for you. The new conveyor option will take the parts outside the working area. Installed as shown below the parts can be dropped into a bucket or table on the right side of the machine. Discharging to the left can also be done by the end user.

Standard installations do not include an M function control. Turn the conveyor on, let it run all day.

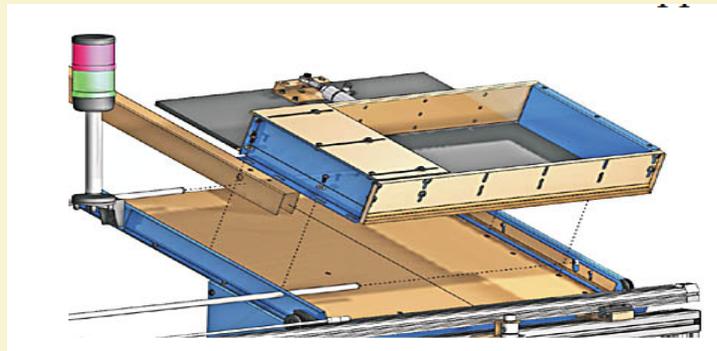
The conveyors are normally installed in front of the working area. Under the cutoff tool or in front of a spring loaded collet a baffle can be setup to direct the finished part onto the conveyor. This part of the setup is left to the end user.

Factory installed - new machines \$3,750



### Parts Hopper for Zip Loader \$1,500

The hopper allows small diameter parts (1/8" - 1/2") to be loaded in quantity in a 3-1/2"h x 11-3/4" x 24-1/8"w box. The length of the part can be from approximately 2 inches, to 24 inches. The parts are then presented to the top of the knife in the ZipLoader, and loaded into the rear of the spindle for machining.



**UPGRADE TODAY!!**

**FLOPPY TO USB CONVERTER**

THE KIT GOES DIRECTLY WHERE THE FLOPPY DRIVE USED TO BE. SO NO MODIFICATION TO THE MACHINE IS NEEDED. THIS WILL ENABLE THE CONTROL TO USE A THUMB DRIVE INSTEAD OF A FLOPPY DISK. THIS KIT CAN BE INSTALLED BY THE END USER IN A FEW MINUTES. NO SOFTWARE UPDATES ARE NEEDED TO THE CONTROL. THE KIT INCLUDES A THUMB DRIVE THAT HAS BEEN PROPERLY FORMATTED.

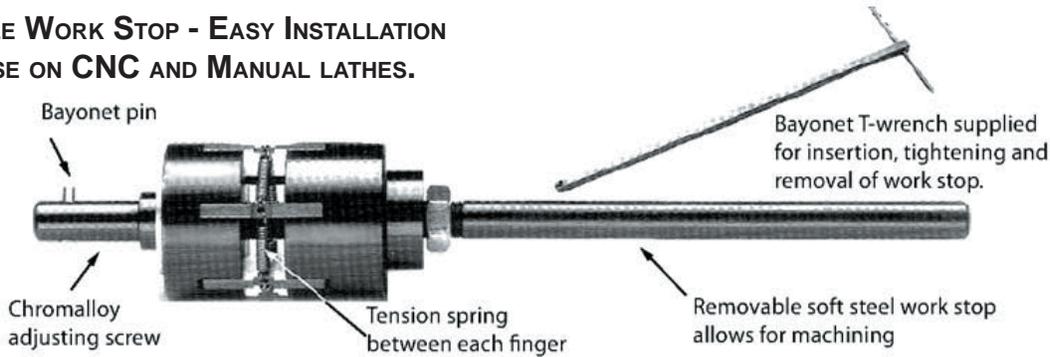


**\$195.00**



GET YOURS TODAY AND STOP FUMBLING WITH FLOPPY DISKS!

**SPINDLE WORK STOP - EASY INSTALLATION**  
**FOR USE ON CNC AND MANUAL LATHES.**

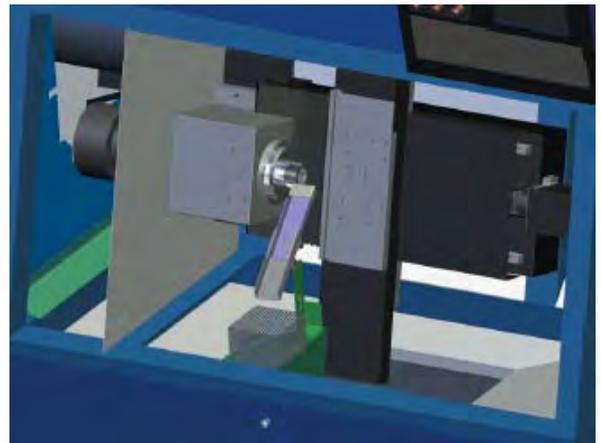
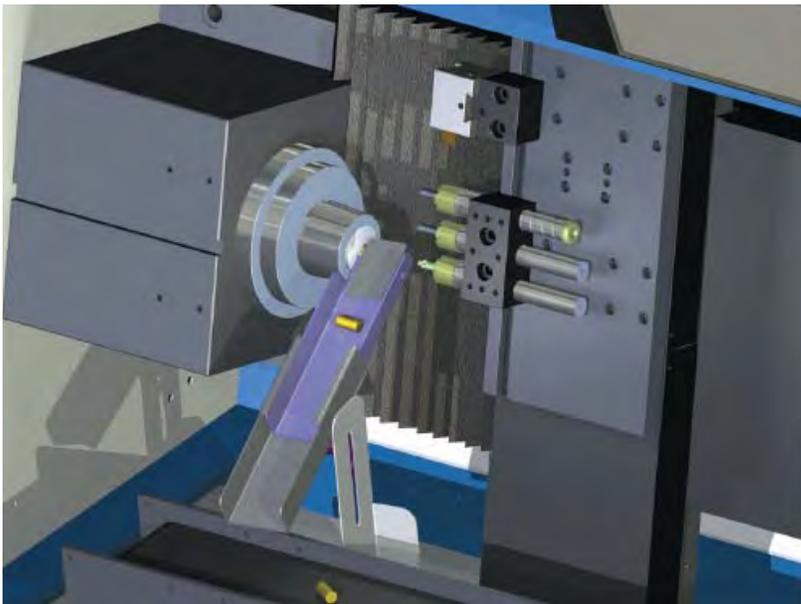


*Range 1" - 1 1/8"*

THE SPINDLE WORK STOP IS AN EXPANDING TOOL THAT FITS INTO A LATHE SPINDLE OR DRAW TUBE FOR QUICK SETUP WHEN ACCURACY OR CONSISTENCY OF LINEAR DIMENSIONS IS NECESSARY.

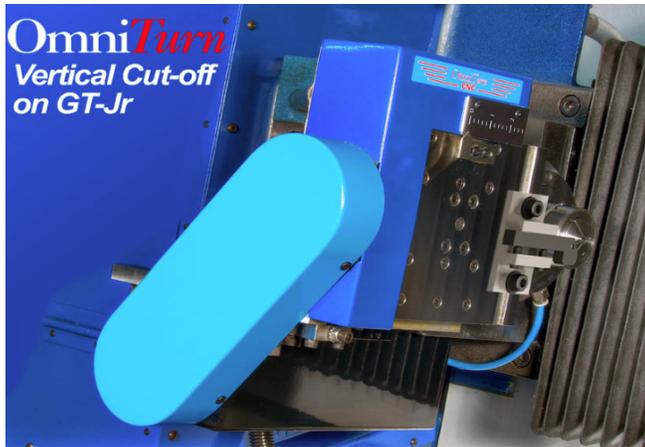
INSERT WORK STOP INTO REAR OF SPINDLE OR DRAW TUBE. EXPAND FINGERS UNTIL THEY TOUCH SPINDLE; THEN BACK OFF SCREW QUARTER TURN. USING T WRENCH, SLIDE WORK STOP INTO SPINDLE UNTIL IT CONTACTS WITH WORK PIECE. TIGHTEN WORK STOP AND REMOVE WRENCH. ....\$295.00

**SHOOT TYPE PARTS CATCHER**



FINALLY, A RETRACTABLE PARTS CATCHER THAT WORKS WELL WITH BARFEED CUTOFF PARTS AND AUTOMATIC LOADERS. INSTALLS ON ALL GT-75'S & GT-JR'S IN THE FIELD. PNEUMATIC OPERATED. CAN BE USED WITH EITHER A PARTS CONVEYOR (LEFT) OR CATCH BASKET (ABOVE)..... **\$950**

## Vertical Cut-off (VCO) \$6,000



Vertical Cut-off provides quick part-off without using space on the table. Servo-control allows simultaneous part-off to start while turning; can also be used for grooving.

- Frees up space on tooling plate
- Servo controlled for accuracy
- Programable for feed and depth
- Can be used for grooving
- Cut groove while turning or facing
- Start cut-off while turning or facing
- Part-off into tool-plate mounted diverter

# Richlin Machinery, Inc.



## Manufacturing Automation, System Integration, Engineering Solutions

We are full-service- from concept to fabrication, to installation, training and service. Richlin Co. is your comprehensive manufacturing automation resource.

We focus on making things work dependably, practically and profitably. The unusual and so-called "impossible" challenges are what really get us excited! Inventive, clever and elegant solutions to your challenges are our stock in trade. And because we are entrepreneurs ourselves, we are always thinking about your competitive advantage.

### Table mounted shaft unloader

\$1,050



The OmniTurn table-mounted shaft unloader is part of a comprehensive shaft, or long part, automation system.

Parts are automatically fed into the collet by Zip Loader, machined, then ejected onto the shaft-unloader, which transfers the finished parts to a conveyor to be carried out of the machine.

The Zip Loader can load and eject parts up 25 inches long, and the shaft-unloader catches these long parts and transfers them to the conveyor.

Shorter parts are also easily handled. Total unload/load time for a six-inch part is less than five seconds from eject finished part to next part in collet

**Mounting feet for GT-75 and GT-Jr**



Feet - 4 per set  
 691-13-001 \$89.00  
 Feet with vibration pads - 4 per set  
 691-13-001-vibration \$98.00

**Air Lubricator Assembly  
 For Collet closer**



697-11-003 \$95.00

**Computer power supply  
 [G2 & G3 CONTROLS]**



995-16-009 \$125.00

**Work lamp kit (INCLUDES BRACKETS)**

**LED**



491-09-002  
 Work lamp kit for GT-75 \$169.00

**Collet closer Regulator  
 with gauge.**



997-11-002 \$98.00

**Encoder Cable**



995-07-003 \$95.00



**X-Axis Brake Piston**  
 697-27-001 - \$110.00  
**Brake Bumper -**  
 \$12.00

**Main Filter / Regulator  
 with Gauge**



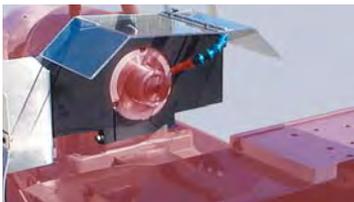
997-11-101 \$89.00

**Coolant pumps**

Standard 1/8 hp pump only  
 696-16-001 \$395.00  
 1/8HP Mounting Bracket  
 696-01-001 \$ 39.00  
 1/4 hp pump with mounting  
 flange 696-16-001HD  
 \$695.00



**The Splash Guard System that is as easy to  
 install and use as the OmniTurn!**



Headstock Only Guard Kit \$295.00  
 Replacement Lexan Guards \$69.00  
 Complete Set-up \$995.00

**Ballscrews for all OmniTurn machines.**  
 Note: The screw must be cut to length for instal-  
 lation.



Ballscrew  
 992-08-011 \$1,1325.00  
 Ballscrew & thrust bearing  
 992-08-002 \$1,625.00

**Thrust bearing assembly**



992-08-003 \$300.00



**Linear way assembly** includes 2 bearing  
 block truck. 2 assemblies needed per axis

X axis 10" travel - 18" long (460 mm) or  
 Z axis 8" travel - 18" long (460 mm)  
 992-08-004 \$575.00  
 X axis 12" travel - 21" long (520 mm)  
 992-08-005 \$595.00  
 Z axis 5" travel - 10" long (280mm)  
 392-08-001 [Cut to size] \$575.00  
 Bearing block trucks only - 2 per set  
 992-08-012 \$395.00

**Motor Coupling**



Standard  
 992-11-002 \$110.00



Precision Flex Couplings  
 If you are breaking couplings  
 due to alignment issues  
 992-11-003 \$150.00

**Bellows cover - GT-75 and GT-Jr**



692-11-001 \$235.00

**Z axis way cover - Attachments**



392-11-002  
 5" or 8" travel [Cut to fit] \$30.00

**Axis scales**



992-04-002 Z axis scale \$45.00  
 992-04-001 X axis scale \$45.00

**Spindle bearings for:**

OmniTurn GT-75  
 OmniTurn GT-Jr  
 Hardinge HSL, DSM, DV-59  
 HLV, DSMA, ASM



693-08-106 set of two \$495.00  
 693-08-105 - Nilos Seal \$98.00  
 Hardinge HC, AHC, HNC  
 693-08-107 set of two \$795.00

**Grease for spindle bearings  
 004026-221**



\$39.50

**Spindle encoder for all machines**



**Encoder**  
 995-16-005 \$895.00

**Encoder belts**

Encoder belt - GT-75 (MX315)



All attachments except HLV  
 993-21-001 \$25.00  
 Encoder belt - GT-JR (MX280)  
 593-21-001 \$25.00  
 093-21-001 HLV or HLV-H \$25.00

**Encoder pulley - encoder side**



995-22-001 \$110.00

**Encoder pulley - Spindle side**



GT-75 & GT-Jr 693-22-001 ID=2.737" \$110.00  
 DSM, DV 193-22-001 ID=2.375" \$110.00  
 HSL 193-22-001 ID=2.375" \$110.00  
 HC,AHC,HNC 293-22-001 ID=1.875" \$110.00

**Axis motors - All OmniTurn  
 systems use the same  
 X and Z axis motor.**



995-16-100 - 1 year warranty  
 \$1,995.00

**OmniTurn Axis Amplifier**

Both X and Z use the same amp



Part Number 995-16-007 \$750.00

**Axis motor thermal overload**



Thermal overload  
 replacement Switch  
 assembly for both X and Z  
 axis. \$159.00



Thermal Overload Element  
 only - W43 \$29.00

**Spindle drive belts**

**Spindle drive belt GT-75 / GT-Jr**

- PolyV 310J10 633-21-001 \$39.00
- PolyV 290J10 633-21-002 \$39.00
- PolyV 360J10 633-21-004 \$39.00

**Spindle drive belt C axis cog type**

- 663-21-001 (for GT-75 & GT-Jr) \$39.00
- 300H100

**Spindle drive belt - C axis - Herringbone type**

- 693-21-001 \$95.00

**LCD Upgrade from CRT Monitor**

**Omnivision**  
No longer in stock.



**Replacement LCD Monitor**

- 995-16-019 G3 AND G4 \$430.00



**Motherboard for G2 & G3**  
**NO LONGER AVAILABLE**  
995-17-010



**MC2 motion control card - 995-17-003**



Exchange - 90 day warranty \$1,150.00

**MC2B CARD - 995-17-004**

**Keyboard G3 CNC**

- 995-16-001 \$225



**12V relay**



- Relay 999-15-005 \$25.00
- Socket for relay - 999-15-006 \$15.00

**Dunham collet closer rebuild kit, includes seals and bearings**

- Dunham rebuild kit 693-09-103 \$225.00
- Dunham bearings only 693-08-202 \$170.00



- Dunham seal kit with drawtube seal 693-09-102 \$65.00

- Retaining Ring Pliers \$39.00



**Control push buttons and switches:**

Change to an LED bulb for longer life and less down time for an additional \$4.00

**Power on button assembly**  
Yellow, illuminated, maintained  
995-12-101 \$39.00



**Servo On button assembly**  
Blue, illuminated, momentary  
995-12-102 \$39.00



**Cycle start Switch assembly**  
Green, illuminated, momentary  
995-12-106 \$39.00



**Motion stop button assembly**  
Red, illuminated, momentary  
995-12-105 \$39.00



**Spindle drive Auto/Off switch**  
Black, 2 pos. selector, maintained  
995-12-104 \$39.00



**Spindle speed override dial assembly**  
Speed potentiometer \$26.00



**Jog switch assembly**  
995-12-107 \$148.00



**Emergency stop push button**  
Red, push to lock, twist release  
995-12-103 \$39.00



**Operator station complete with cable**  
998-00-000 \$495.00

**Palm box push buttons**

**Collet close push button assembly**  
Red, momentary  
998-12-101 \$25.00



**Collet open push button assembly**  
green, momentary  
998-12-102 \$25.00



**Cycle start palm button assembly**  
Black, momentary  
998-12-103 \$47.00



**Emergency stop push button**  
Red, maintained, twist to unlock  
998-12-104 \$39.00



**Grease gun and grease**

- Grease Gun \$59.00
- Grease only \$19.00



**Hard Drive**

- 995-09-003 \$125.00



**USB Portable External Floppy Drive Disk Laptop Desktop**



\$29.50

**Internal Floppy Drive Disk**



No longer available

**Spindle drive inverters: \$895.00**

- 914-16-004 GT-75/GT-Jr 5hp
- 924-16-001 Attachment 5hp



**Spindle Nose Cover**

- 693-01-003 \$98.00



**Pins, sockets, cable jacket and plugs**

- Pins: \$.95 PolyTuff Jacket: \$2.50/foot
- Sockets: \$.95 14 pin male connector: \$9.00
- Pin Extractor: \$39
- PolyTuff fitting: \$19 14 pin female connector: \$7.50

**Braking resistors**

- 5HP 914-15-001 \$300.00



**Mac single solenoid - no**

- manifold 997-15-008 - \$125.00



**Mac single solenoid - with**

- manifold 997-15-204 - \$150.00



**Mac double solenoid - no**

- manifold 997-15-007 - \$175



**Mac double solenoid - with**

- manifold 997-15-203 - \$195



**Fittings**  
Flow Control - 1/8 NPT - \$10  
Push on Fittings 1/8 NPT - \$5  
Push on Fittings 1/4 NPT - \$5  
Plugs 1/8 or 1/4 NPT \$3



Chip bin  
with perforated  
bottom  
696-11-003  
\$179.00



Chip bin  
filter  
\$15.00



Spindle  
nose  
cover  
693-01-003  
\$98.00



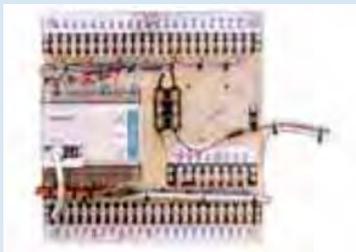
Collet closer  
Regulator  
997-11-002  
\$98.00



12VDC RELAY  
999-15-005  
\$25.00



Servo  
motor  
thermal  
overload  
995-15-015  
\$25.00



PLC kit  
16-Inputs  
14-outputs  
999-39-103  
\$1,395.00

## DIRECT DRIVES FOR ATTACHMENTS

Over the last 10 years OmniTurn has helped automate more than a few Hardinge lathes. We have been advocating the addition of both 2 and 5hp variable speed drives. These systems have proven that they are reliable and up to the task of supporting the requirements placed on them. However as time has gone on we have found ways to improve the systems. With most retrofits, the spindle drive includes a vari-shiv drive belt for speed adjustment and a clutch/brake assembly. These two items add components that slow down and diminish the system's overall performance.

The vari-shiv belt system takes much more power to drive than a standard belt system.

- The pulleys are 5 times larger than a standard belt pulley. The inertia added by these pulleys is significant in hindering the stopping and starting of the spindle.
- The belts for the vari-shiv are very thick and require significant additional power to drive.
- The vari-shiv system adds an intermediate shaft with second belt. More belt issues, additional bearings, and a shaft the shiv rides on that wears out causing vibration and noise.

- The clutch/brake assembly also add additional mass and inertia problems. There is also the issue of additional bearings and drive shafts included in the system when they are not really needed.

OmniTurn has come up with a system where the intermediate shivs, belts, and drives are no longer needed. You can remove all the heavy belts and pulley and replace them with a single belt and simple, smaller pulleys. The systems run much smoother, quieter, and with much less inertia. Older 2 hp systems that had problems shutting down while running shorter cycles are given a new life with these direct drive system. The new belt and pulleys take only 2-3 hours to install.

### Parts only -

Modify customers spindle pulley  
Motor Pulley, belt, and motor bushing.....\$2,250.00



Note: The old spindle drive pulley must be returned to OmniTurn. The price is based on a pulley exchange.



## NEW OMNITURN G4 CNC CONTROL

WITH CORE EXCHANGE

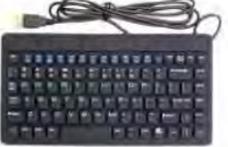
1 Year Warranty from Ship Date

The OmniTurn G4 CNC Control incorporates the latest in PC CNC control technology.

This CNC utilizes the best features gained since our first PC based CNC control was introduced in 1987. The parts count in the control is reduced considerably, as well as the number of electrical connections, resulting in better reliability.

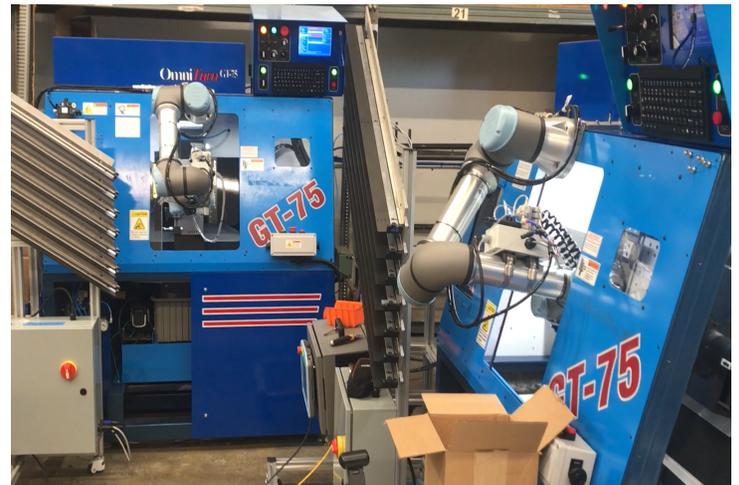
- Up to 5 axes of motion can be controlled simultaneously.
- OmniTurn lathes with "C" axis spindle can be programmed simultaneously with X and Z axis.
- Now you can save and transfer programs using a standard USB memory stick.
- ENABLES ADDITION of Vertical cut off
- Y axis on tooling plate

### G4 CONTROL REPLACEMENT PARTS

	<p>5AXMC CARD 995-49-011 <b>\$895</b> with exchange 90 day warranty</p>		<p>MOTHERBOARD 995-17-015 <b>\$720</b> G4 controls only</p>
	<p>POWER SUPPLY 995-16-020 <b>\$125</b> G4 CONTROLS</p>		<p>AXIS AMP X and Z axis 995-16-007 <b>\$750</b> ALL CONTROLS</p>
	<p>WORK LAMP KIT (INCLUDES BRACKETS) <b>LED</b> 491-09-002 <b>\$169</b></p>		<p>DIRECT MOUNT ENCODER 5HP 1/4" SHAFT - 995-16-105 - <b>\$440</b></p> <p>DIRECT MOUNT ENCODER 5HP 3/8" SHAFT - 995-16-103 - <b>POR</b></p>
	<p>Control On/Off Switch Assembly 995-12-201 <b>\$40</b></p>		<p>Collet Open/Close Assembly 995-12-202 <b>\$40</b> C-Axis Jog Switch Assembly 995-12-202 <b>\$40</b></p>
	<p><b>USB keyboard</b> [For G4 CNC ONLY] 995-16-025 <b>\$275.00</b></p>		<p>Replacement LCD Monitor for G4 controls. 995-16-019 <b>\$430.00</b></p>



# Richlin Machinery - Engineered to Order Since 1978



## DAN'S TIPS

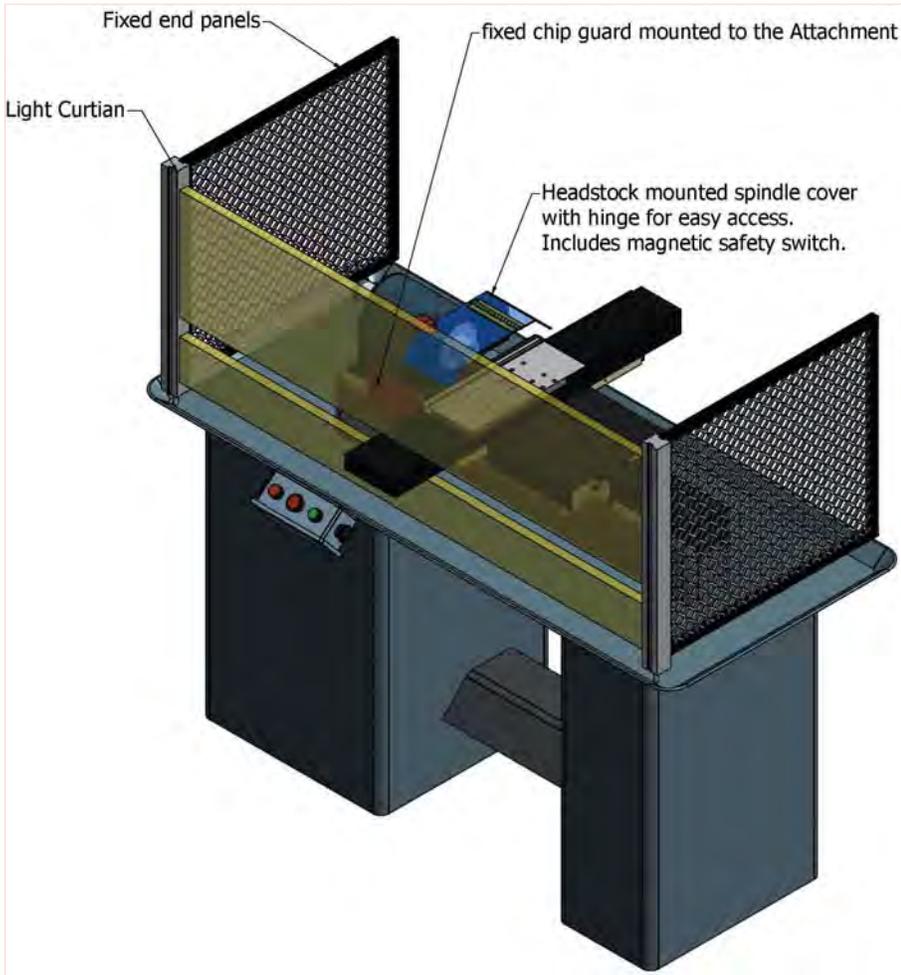
Periodically check your spindle belts as well as your encoder belts for cracks, this could be evidence of your belt failing soon. It's a good idea to keep several of these belts in stock so there will be no down time when you're running that big job.

Check our web site, [omni-turn.com](http://omni-turn.com) for information on diagnosing and repairing your Omniturn machine.

Contact Dan - (631) 694-9400 for all your tooling and parts questions.



# Light Curtain OmniTurn Attachment System



**Includes:**

- (1) set of 537mm x 30mm light curtain
  - (2) end panels with mounting hardware
  - (1) fixed chip guard to be mounted to Attachment
  - (1) Headstock spindle cover with hinged cover
  - (1) Magnetic Safety switch on hinged cover
- Interface to OmniTurn control  
Keyed bypass switch for setup and service

**Price: On request**

Installation: 4 hours per unit



**WIT (WHATEVER IT TAKES)**



# OmniTurn

## East Coast Sales Headquarters

97 Sherwood Ave.

Farmingdale, NY 11735

Tel: (631) 694-9400 | Fax: (631) 694-9415



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Labels in diagram: Cut off holders, High density tooling, Work holding, Live tooling and holders, Quick change posts and holders, Knurling and broach holders, Drill holders, Tapping holders.

### Get the most out of your OmniTurn

Tooling a CNC gang tool lathe differs greatly from turret type lathes. Most tool holders available for other types of lathes do not work well with the gang type. The tooling and holders have been selected after years of experience with tooling gang style lathes. They take best advantage of the lathes ability to be changed over and requirement that the tooling must be compact.



**OmniTurn GT-75**  
2 and 3 axis lathes for production bar work and secondaries



Attachments and retrofits for Hardinge\* and Hardinge type machines