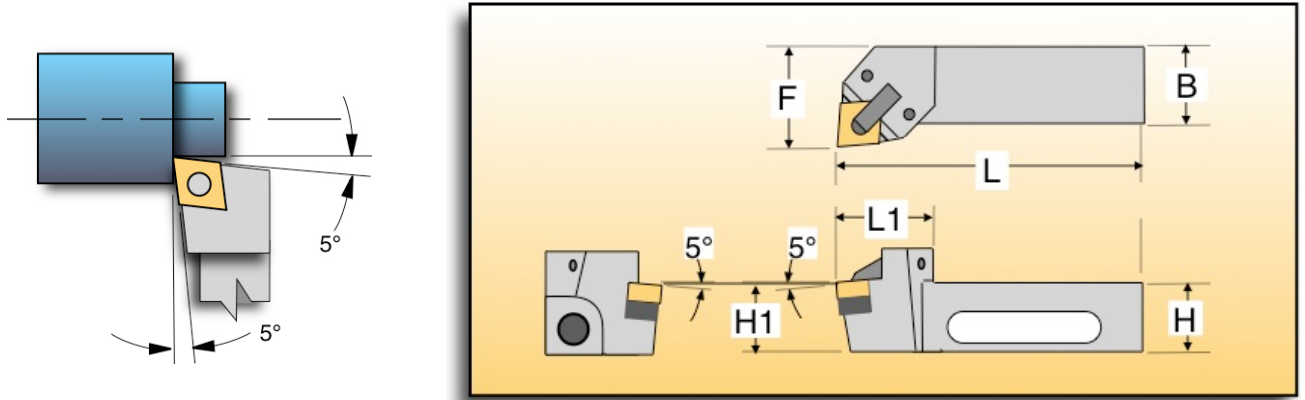


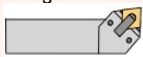

Click Change Lathe Tool Holders

U.S. Patent 7153069 other US & foreign patents pending
Specifications are subject to change without notice



DCLNR/L - CNMG, 80° Diamond

This tool is designed for turning and facing applications where cutting loads are heavy. The DWLNR/L or GWLNR/L is more economical (6 tips per insert) if insert grades and cutting conditions allow.



Metric Sizes			Dimensions in Millimeters									
Catalog Number		Gage Insert	H	B	H1	L	F	L1	Shim	Options		
Right Hand	Left Hand		Shank Height ±.10	Shank Width ±.15	Insert Height ±.08	Overall Length ±.08	Tip Offset ±.08	Head Length ±.15		Coolant Head	Parts List	
												
DCLNR-2020J-12	<input type="checkbox"/> DCLNL-2020J-12	<input type="checkbox"/> CNMG 12 04 08	20.00	20.00	20.00	110.00	30.00	30.00	ICSN-433	CHM-1002	PLM-1002	
DCLNR-2020K-12	<input checked="" type="checkbox"/> DCLNL-2020K-12	<input checked="" type="checkbox"/> CNMG 12 04 08	20.00	20.00	20.00	125.00	30.00	30.00	ICSN-433	CHM-1002	PLM-1002	
DCLNR-2525K-12	<input type="checkbox"/> DCLNL-2525K-12	<input type="checkbox"/> CNMG 12 04 08	25.00	25.00	25.00	125.00	32.00	32.00	ICSN-433	CHM-1002	PLM-1002	
DCLNR-2525M-12	<input checked="" type="checkbox"/> DCLNL-2525M-12	<input checked="" type="checkbox"/> CNMG 12 04 08	25.00	25.00	25.00	150.00	32.00	32.00	ICSN-433	CHM-1002	PLM-1002	
DCLNR-3225P-12	<input checked="" type="checkbox"/> DCLNL-3225P-12	<input checked="" type="checkbox"/> CNMG 12 04 08	32.00	25.00	32.00	170.00	32.00	32.00	ICSN-433	CHM-1002	PLM-1002	

Normally Stocked Special Order

Inch Sizes			Dimensions in Inches									
Catalog Number		Gage Insert	H	B	H1	L	F	L1	Shim	Options		
Right Hand	Left Hand		Shank Height ±.004	Shank Width ±.006	Insert Height ±.003	Overall Length ±.003	Tip Offset ±.003	Head Length ±.006		Coolant Head	Parts List	
												
DCLNR-124B	<input type="checkbox"/> DCLNL-124B	<input type="checkbox"/> CNMG-432	0.750	0.750	0.750	4.50	1.188	1.188	ICSN-433	CHE-1002	PLE-1002	
DCLNR-124C	<input checked="" type="checkbox"/> DCLNL-124C	<input checked="" type="checkbox"/> CNMG-432	0.750	0.750	0.750	5.00	1.188	1.188	ICSN-433	CHE-1002	PLE-1002	
DCLNR-164B	<input checked="" type="checkbox"/> DCLNL-164B	<input type="checkbox"/> CNMG-432	1.000	1.000	1.000	4.50	1.250	1.250	ICSN-433	CHE-1002	PLE-1002	
DCLNR-164C	<input checked="" type="checkbox"/> DCLNL-164C	<input checked="" type="checkbox"/> CNMG-432	1.000	1.000	1.000	5.00	1.250	1.250	ICSN-433	CHE-1002	PLE-1002	
DCLNR-164D	<input checked="" type="checkbox"/> DCLNL-164D	<input checked="" type="checkbox"/> CNMG-432	1.000	1.000	1.000	6.00	1.250	1.250	ICSN-433	CHE-1002	PLE-1002	
DCLNR-204D	<input checked="" type="checkbox"/> DCLNL-204D	<input checked="" type="checkbox"/> CNMG-432	1.250	1.250	1.250	6.00	1.500	1.250	ICSN-433	CHE-1002	PLE-1002	
DCLNR-244D	<input type="checkbox"/> DCLNL-244D	<input type="checkbox"/> CNMG-432	1.500	1.500	1.500	6.00	1.750	1.250	ICSN-433	CHE-1002	PLE-1002	

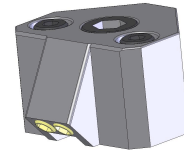
Normally Stocked Special Order

Revised 5/27/08

DCLNR/L - CNMG, 80° Diamond

All prices are in US Dollars

This tool is designed for turning and facing applications where cutting loads are heavy. The DWLNR/L or GWLNR/L is more economical (6 tips per insert) if insert grades and cutting conditions allow.



Coolant Head

Metric Tool Holders

Tool Holder Catalog Number					
Right Hand	Left Hand	List Price	Weight (Lbs.)		
DCLNR-2020J-12	DCLNL-2020J-12	\$375.50	0.92		
DCLNR-2020K-12	DCLNL-2020K-12	\$375.50	0.92		
DCLNR-2525K-12	DCLNL-2525K-12	\$389.50	1.85		
DCLNR-2525M-12	DCLNL-2525M-12	\$389.50	1.85		
DCLNR-3225P-12	DCLNL-3225P-12	\$419.50	2.3(est)		

Metric Parts

Accessories & Parts (Applies to all sizes)		
Description	Part Number	Price
Coolant Head	CHM-1002	\$124.00
Shim Kit	SK-CNMG-4M	\$23.50
Clamp Kit (RH)	CK-CNMG-4RM	\$54.50
Clamp Kit (LH)	CK-CNMG-4LM	\$54.50
Cam Rod Kit	RK-1002R/L	\$29.95

Inch Tool Holders

Tool Holder Catalog Number					
Right Hand	Left Hand	List Price	Weight (Lbs.)		
DCLNR-124B	DCLNL-124B	\$375.50	0.84		
DCLNR-124C	DCLNL-124C	\$375.50	0.94		
DCLNR-164B	DCLNL-164B	\$389.50	1.34		
DCLNR-164C	DCLNL-164C	\$389.50	1.51		
DCLNR-164D	DCLNL-164D	\$389.50	1.79		
DCLNR-204D	DCLNL-204D	\$419.50	2.68		
DCLNR-244D	DCLNL-244D	\$449.50			

Inch Parts

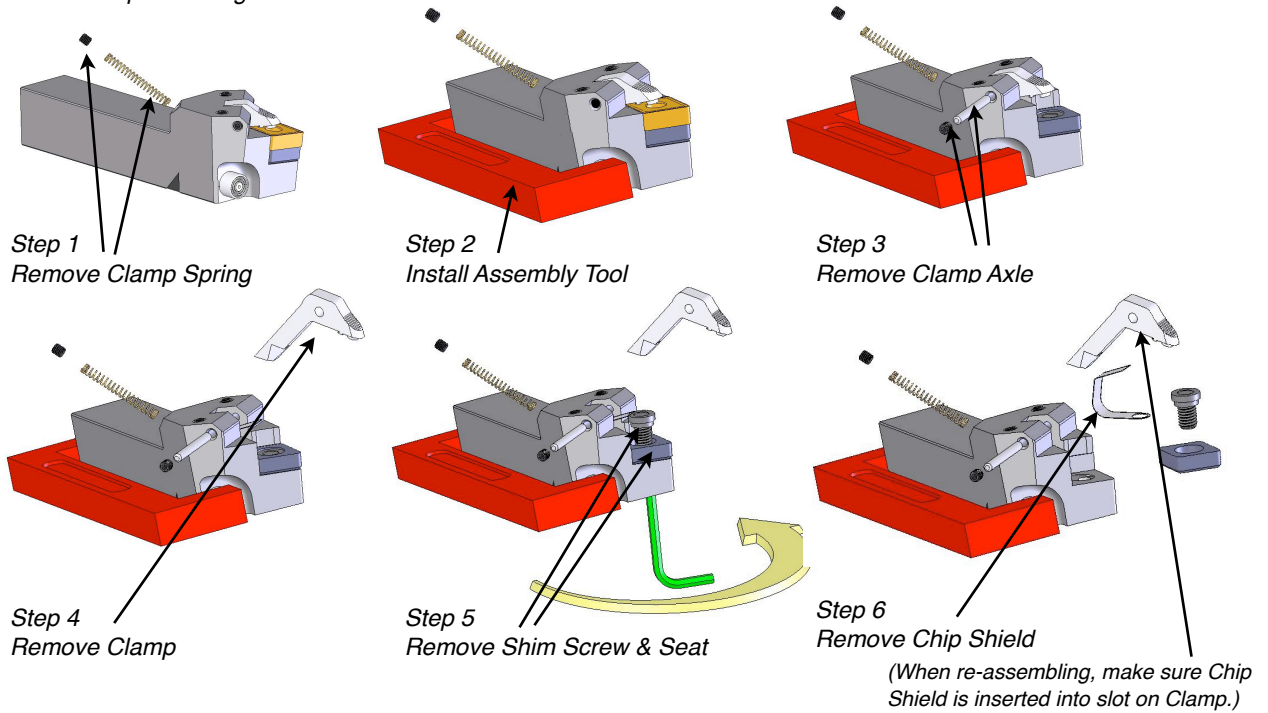
Accessories & Parts (Applies to all sizes)		
Description	Part Number	Price
Coolant Head	CHE-1002	\$124.00
Shim Kit	SK-CNMG-4	\$23.50
Clamp Kit (RH)	CK-CNMG-4R	\$54.50
Clamp Kit (LH)	CK-CNMG-4L	\$54.50
Cam Rod Kit	RK-1002R/L	\$29.95

Click Change Disassembly & Assembly Instructions

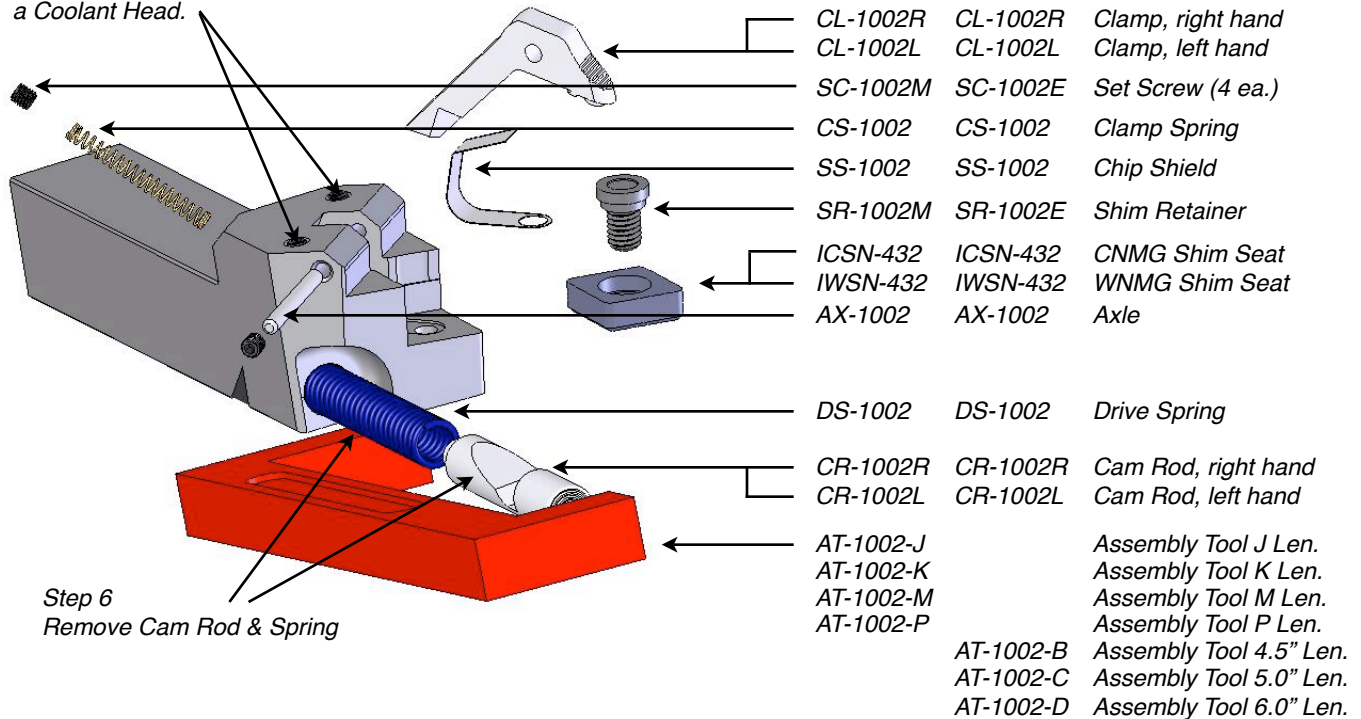
U.S. Patent 7153069 other US & foreign patents pending
Specifications are subject to change without notice

DCLNR/L & DWLNR/L Tool Holder Disassembly

Follow Steps 1 through 6.



These two screws are to be removed only when installing a Coolant Head.



DCLNR/L & DWLNR/L Tool Holder Assembly

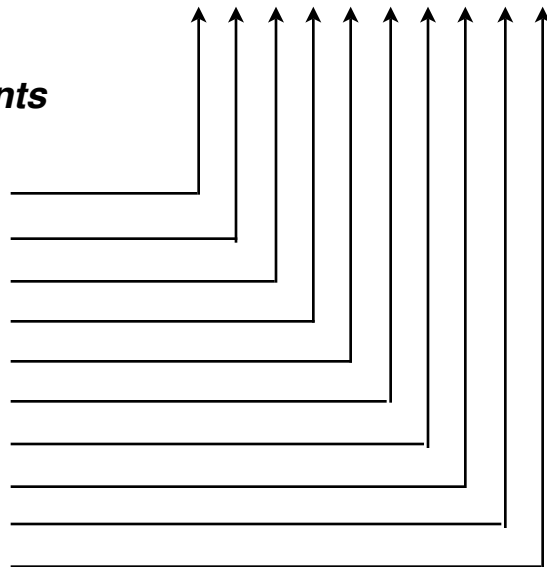
Follow the procedure above in reverse order. Use a medium grease on the Cam Rod (NLGI #2) and Clamp. Use Locktite #242 (Blue) on the set screws. Note that the Shim Retainer is a right handed thread. The Shim Seat can be removed and replaced without disassembling the tool holder.

DCLNR/L & DWLNR/L Individual Parts Price List

Part Number	Metric/ Inch	Description	Price Each	Quantity per Kit								
CL-1002R	Either	Clamp, right hand	\$34.50				1	1				
CL-1002L	Either	Clamp, left hand	\$34.50					1	1			
SC-1002M	Metric	Setscrew (3x3mm)	\$2.50				2	2				
SC-1002E	Inch	Setscrew (6-40 x .125")	\$2.50						2	2		
CS-1002	Either	Clamp Spring	\$4.50				1	1	1	1		
SS-1002	Either	Chip Shield	\$9.75				1	1	1	1		
SR-1002M	Metric	Shim Retainer (5mm thread)	\$17.45	1	1							
SR-1002E	Inch	Shim Retainer (10-32 Thread)	\$17.45		1	1						
ICSN-432	Either	Shim Seat (CNMG Industry Std.)	\$8.50	1	1							
IWSN-432	Either	Shim Seat (WNMG Industry Std.)	\$8.50			1	1					
AX-1002	Either	Axle	\$5.50				1	1	1	1		
DS-1002	Either	Drive Spring	\$12.95								1	1
CR-1002R	Either	Cam Rod, right hand	\$17.95									1
CR-1002L	Either	Cam Rod, left hand	\$17.95								1	
AT-1002-J	Metric	Assembly tool, Metric J length	\$28.50									
AT-1002-K	Metric	Assembly tool, Metric K length	\$28.50									
AT-1002-M	Metric	Assembly tool, Metric M length	\$28.50									
AT-1002-P	Metric	Assembly tool, Metric P length	\$28.50									
AT-1002-B	Inch	Assembly tool, Inch 4.5" length	\$28.50									
AT-1002-C	Inch	Assembly tool, Inch 5.0" length	\$28.50									
AT-1002-D	Inch	Assembly tool, Inch 6.0" length	\$28.50									

DCLNR/L & DWLNR/L Kit Components

Part number	Description	Price
SK-CNMG-4M	Metric CNMG Shim Kit	\$23.50
SK-CNMG-4	Inch CNMG Shim Kit	\$23.50
SK-WNMG-4M	Metric WNMG Shim Kit	\$23.50
SK-WNMG-4	Inch WNMG Shim Kit	\$23.50
CK-CNMG-4RM	Metric, R.H., Clamp Kit	\$54.50
CK-CNMG-4LM	Metric, L.H., Clamp Kit	\$54.50
CK-CNMG-4R	Inch, R.H., Clamp Kit	\$54.50
CK-CNMG-4L	Inch, L.H., Clamp Kit	\$54.50
RK-1002R	Cam Rod Kit, R.H	\$29.95
RK-1002L	Cam Rod Kit, L.H	\$29.95



DCLNR/L Insert Repeatability

This test shows the insert repeatability of the Click Change tool holder. The test is performed using a standard gauge insert in a metrology environment. The insert is manually removed and manually replaced for each reading using the same insert tip. Each measurement is recorded in the table below for each of the three axes. A standard production Click Change tool holder is used for the test, and similar results may be expected using any production tool. Measurements are taken with a Mititoyo Digimatic Indicator model ID-F, and recorded to a resolution of .00005". The gauge R&R error is +/- .00005.

Repeatability Test Results (inches)

	Height	Width	Length
Avg. Value	1.00215	1.24849	4.98746
Std. Deviation	0.00004	0.00004	0.00005
Maximum Val	1.00220	1.24855	4.98755
Minimum Val	1.00210	1.24845	4.98740
Total Variation	0.00010	0.00010	0.00015

Measurement Data (inches)

No.	Height	Width	Length
1	1.00210	1.24845	4.98750
2	1.00220	1.24850	4.98745
3	1.00215	1.24845	4.98745
4	1.00215	1.24845	4.98740
5	1.00220	1.24855	4.98740
6	1.00220	1.24850	4.98745
7	1.00215	1.24845	4.98750
8	1.00210	1.24850	4.98740
9	1.00215	1.24845	4.98755
10	1.00210	1.24855	4.98745

Insert Repeatability	<.00015"	<.004 mm.
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DCLNR/L Machining Test Cuts

These examples show some actual test cutting conditions for the Click Change Tool Holder. They are not intended to show the limits of the tool. The important measurements here are the depth of cut, the feed rate, and the material being cut. These three parameters determine the cutting forces that the tool holder will see. Increasing the cutting speed, will require more horsepower, but has little or no effect on the forces seen by the insert or the tool holder. In general, it is the machine rigidity, the insert composition and coating, and the coolant type and delivery method that limit the metal removal rate. The tool holder is not usually the "Weak Link".

	Test 1		Test 2		Test 3	
Material	347 Stainless		Inconel 625		1018	
Feed Rate	.020 in.	0.51 mm	.020 in.	0.51 mm	.035 in.	.89 mm
Depth of Cut	.150 in.	3.8 mm	.150 in.	3.8 mm	.150 in.	3.8 mm
Diameter	1.0 in.	25.4 mm	1.25 in.	31.75 mm	1.5 in.	38.1 mm
Speed	450 SF/M	135 M/M	225 SF/M	67.5 M/M	1200 SF/M	366 M/M
RPM	1720	1720	685	685	3000	3000