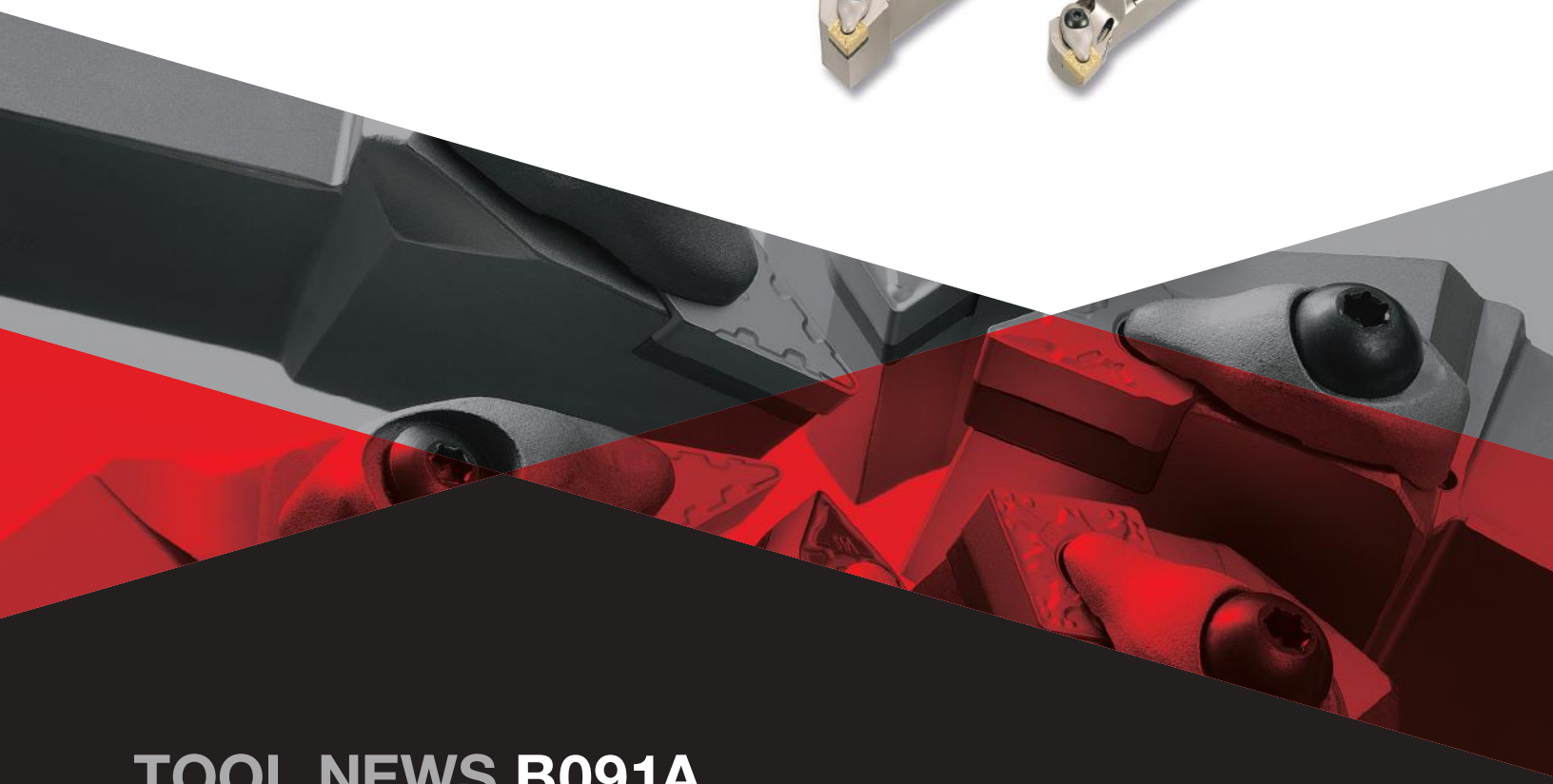
MITSUBISHI MATERIALS

Double Clamp Series

SINGLE ACTION TYPE - SIMPLE AND HIGHLY RIGID CLAMPING





TOOL NEWS **B091A**

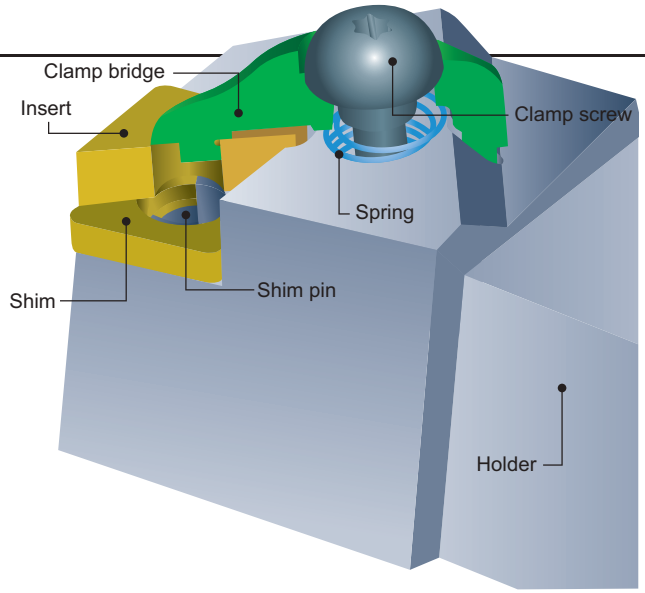
Single Action Type

DOUBLE CLAMP SERIES

■Features

Single action type double clamp system

- Newly developed highly rigid clamping system.
- Easy and secure insert retention.
- World class cutting edge indexing accuracy.



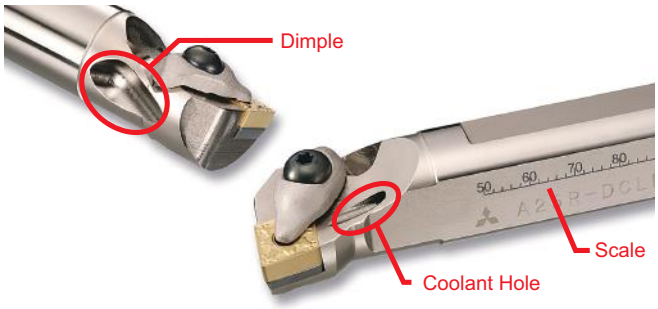
New optimised clamp bridge

The clamp bridge features a new geometry that is optimized promoting chip flow while maintaining tool rigidity. This has been achieved by using CAE design analysis technology to avoid chip packing problems. This new bridge type is also compatible with both right and left hand tool holders.



Higher vibration resistance and chip discharge properties

The dimple boring bar features excellent vibration resistance properties and through coolant holes for better chip discharge. In addition, a scale for easy overhang length setting is etched on the body.



Special surface treatment

The body and clamp bridge has been treated with a special surface coating for higher corrosion and abrasion resistance.



Double-ended torx hole clamp screw

Equally sized torx holes are provided on both ends of the clamp screw, making it easy to attach and remove the insert even when an inverted holder is used, thus ensuring rapid insert indexing and secure clamping.





A wide selection of tool holders

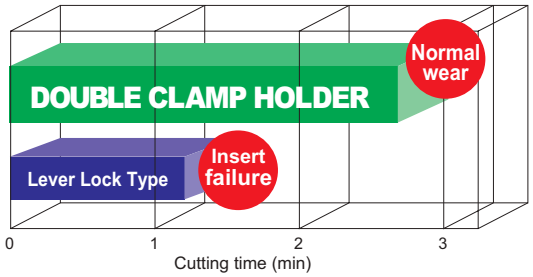
Mitsubishi's Double Clamp series. 23 types, 161 items

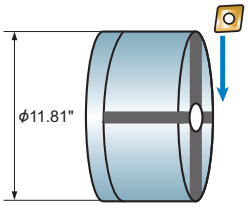
	Shape	Tool holder geometry					
External turning		Type	95°	75°	93°	62° 30′	107° 30′	NEW
		No. of items	12	4	12	1	2	6
		Type	75°	45°	75° NEW	45°	91°	91°
		No. of items	4	2	4	4	8	10
		Type	90° NEW	93°	117° 30′	72° 30′	95°	—
		No. of items	2	6	4	2	10	—
Boring		Type	95°	93°	75°	91°	93°	95°
		No. of items	14	10	10	16	4	14

Cutting Performance

Clamping Rigidity

Higher fracture resistance during interrupted cutting!



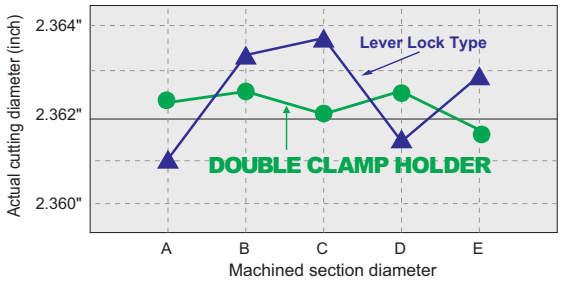


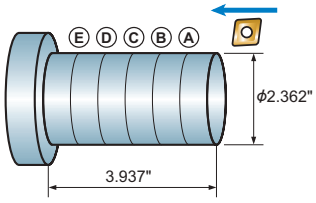
<Cutting conditions>

Workpiece : Carbon steel
Insert : CNMG432
Cutting Speed : 230 SFM
Depth of cut : .118 inch
Feed : .014 IPR
Dry cutting

Accurate Cutting Edge Positioning

Precise cutting performance!



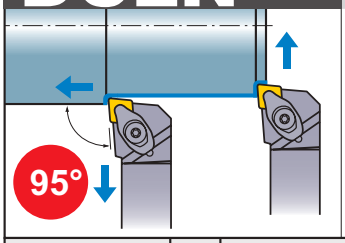


<Cutting conditions>

Workpiece : Alloy steel
Insert : CNMG432
Cutting Speed : 490 SFM
Depth of cut : .118 inch
Feed : .024 IPR
Wet cutting

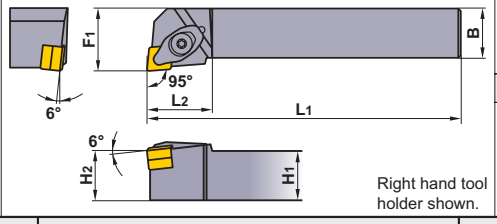
DOUBLE CLAMP HOLDER

DCLN



External turning
Facing

CN○○inserts



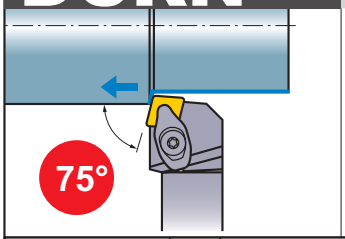
Right hand tool holder shown.

Finish	Light	Medium	Medium
FH	SA	MV	MH
 (4)	 (4)	 (4)	 (4)
Medium	**Medium to Semi-Heavy**	**Stainless**	**CBN**
Standard	GH	MS	
 (4)	 (4)	 (3,4)	 (4)

Order Number	Stock		Insert Number		Dimensions (inch)												
	R	L			H_1	B	L_1	L_2	H_2	F_1	Shim	Shim Pin	Clamp Bridge	Spring	Clamp Screw	Wrench	Punch
DCLNR/L-123	●	●	CNMA CNMG CNMM CNGG NP-CNMA NP-CNGA	32○	.750	.750	4.500	1.000	.750	1.000	LLSCN33 (LLSCN32)*	LLP23	DCK2211	DCS2	DC0520T	TKY15F	LLH3
-124	●	●		43○	.750	.750	4.500	1.250	.750	1.000	LLSCN42	LLP14	DCK2613	DCS1	DC0621T	TKY20F	LLH4
-163	●	●		32○	1.000	1.000	6.000	1.000	1.000	1.250	LLSCN33 (LLSCN32)*	LLP23	DCK2211	DCS2	DC0520T	TKY15F	LLH3
-164	●	●		43○	1.000	1.000	6.000	1.250	1.000	1.250	LLSCN42	LLP14	DCK2613	DCS1	DC0621T	TKY20F	LLH4
-204	●	●		43○	1.250	1.250	6.000	1.250	1.250	1.500	LLSCN42	LLP14	DCK2613	DCS1	DC0621T	TKY20F	LLH4
-244	●	●		43○	1.500	1.500	6.000	1.250	1.500	2.000	LLSCN42	LLP14	DCK2613	DCS1	DC0621T	TKY20F	LLH4

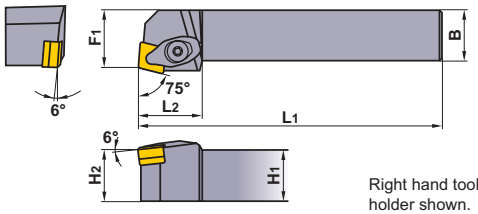
*Please use shim no.LLSCN32 with .187inch thick insert. When using .187inch thick inserts, the shim should be ordered separately.

DCRN



External turning

CN○○inserts



Right hand tool holder shown.

Finish	Light	Medium	Medium
FH	SA	MV	MH
 (4)	 (4)	 (4)	 (4)
Medium	**Medium to Semi-Heavy**	**Stainless**	
Standard	GH	MS	
 (4)	 (4)	 (4)	

Order Number	Stock		Insert Number		Dimensions (inch)												
	R	L			H_1	B	L_1	L_2	H_2	F_1	Shim	Shim Pin	Clamp Bridge	Spring	Clamp Screw	Wrench	Punch
DCRNR/L-124	●	●	CNMA CNMG CNMM CNGG	43○	.750	.750	4.500	1.250	.750	.888	LLSCN42	LLP14	DCK2613	DCS1	DC0621T	TKY20F	LLH4
-164	●	●		43○	1.000	1.000	6.000	1.250	1.000	1.128	LLSCN42	LLP14	DCK2613	DCS1	DC0621T	TKY20F	LLH4

Recommended Cutting Conditions

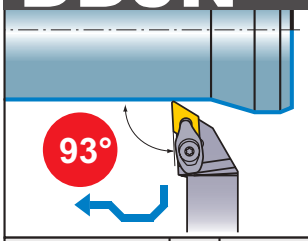
Work Material		Cutting Mode	Breaker	Grade	Cutting Speed (SFM)
P	Mild Steel (≤180HB)	Finish	**FS**	**AP25N**	935–1455
		Light	**SA**	**UE6110**	935–1590
		Medium	**MS**	**UE6110**	850–1440
	Carbon Steel Alloy Steel (180HB–280HB)	Finish	**FH**	**AP25N**	705–1115
		Light	**SA**	**UE6110**	685–1160
		Medium	**MV**	**UE6110**	620–1065

Work Material		Cutting Mode	Breaker	Grade	Cutting Speed (SFM)
M	Stainless Steel (≤200HB)	Finish	**FS**	**AP25N**	375–785
		Light	**SA**	**US735**	310–605
		Medium	**MS**	**US735**	275–540
K	Cast Iron (≤350MPa)	Light	**MA**	**UC5115**	520–965
		Medium	**Standard**	**UC5115**	520–965
		Semi-Heavy	**Flat Top**	**UC5115**	505–915

(Note) Insert photo, letters show chip breaker style, figures show inscribed circle.

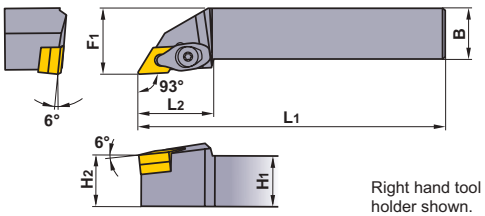
● : **USA Stock**

DDJN

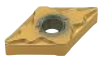
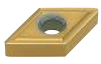
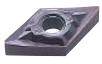
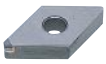


External turning
Copying

DN○○inserts



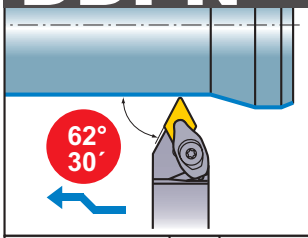
Right hand tool holder shown.

Finish	Light	Medium	Medium
FH	SA	MV	MH
			
(4)	(4)	(4)	(4)
Medium to Semi-Heavy	Stainless	G Class	CBN
GH	MS	MJ	
			
(4)	(3,4)	(4)	(4)

Order Number	Stock		Insert Number		Dimensions (inch)						Shim	Shim Pin	Clamp Bridge	Spring	Clamp Screw	Wrench	Punch
	R	L			H_1	B	L_1	L_2	H_2	F_1							
DDJNR/L-123	●	●	DNMA DNMG DNMM DNGA DNGG DNGM DNMX NP-DNMA NP-DNGA	33○	.750	.750	4.500	1.188	.750	1.000	LLSDN32	LLP23	DCK2211	DCS2	DC0520T	TKY15F	LLH3
-124	●	●		43○	.750	.750	4.500	1.375	.750	1.000	LLSDN43 (LLSDN42)*	LLP24 (LLP14)*	DCK2613	DCS1	DC0621T	TKY20F	LLH4
-163	●	●		33○	1.000	1.000	6.000	1.188	1.000	1.250	LLSDN32	LLP23	DCK2211	DCS2	DC0520T	TKY15F	LLH3
-164	●	●		43○	1.000	1.000	6.000	1.375	1.000	1.250	LLSDN43 (LLSDN42)*	LLP24 (LLP14)*	DCK2613	DCS1	DC0621T	TKY20F	LLH4
-204	●	●		43○	1.250	1.250	6.000	1.375	1.250	1.500	LLSDN43 (LLSDN42)*	LLP24 (LLP14)*	DCK2613	DCS1	DC0621T	TKY20F	LLH4
-244	●	●		43○	1.500	1.500	6.000	1.500	1.500	2.000	LLSDN43 (LLSDN42)*	LLP24 (LLP14)*	DCK2613	DCS1	DC0621T	TKY20F	LLH4

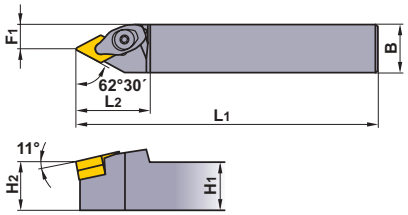
*Please use shim no.LLSDN42 and shim pin LLP14 with .25inch thick insert. When using .25inch thick inserts, the shim and shim pin should be ordered separately.

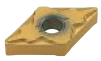
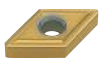
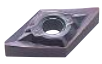
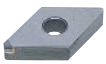
DDPN



External turning
Copying

DN○○inserts



Finish	Light	Medium	Medium
FH	SA	MV	MH
			
(4)	(4)	(4)	(4)
Medium to Semi-Heavy	Stainless	G Class	CBN
GH	MS	MJ	
			
(4)	(4)	(4)	(4)

Order Number	Stock	Insert Number		Dimensions (inch)						Shim	Shim Pin	Clamp Bridge	Spring	Clamp Screw	Wrench	Punch
				H_1	B	L_1	L_2	H_2	F_1							
DDPNN-164	●	DNMA DNMG DNMM DNGA DNGG DNGM NP-DNMA NP-DNGA	43○	1.000	1.000	6.000	1.500	1.000	.500	LLSDN43 (LLSDN42)*	LLP24 (LLP14)*	DCK2613	DCS1	DC0621T	TKY20F	LLH4

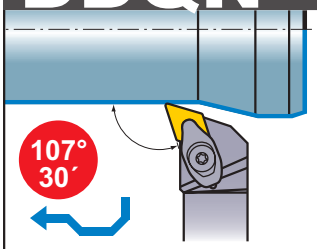
*Please use shim no.LLSDN42 and shim pin LLP14 with .25inch thick insert. When using .25inch thick inserts, the shim and shim pin should be ordered separately.

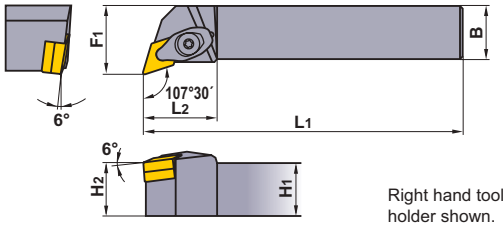
DOUBLE CLAMP HOLDER

DDQN

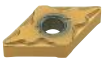
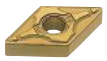
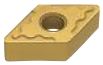
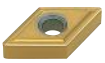
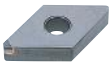
External turning
Copying

DN○○inserts





Right hand tool holder shown.

Finish	Light	Medium	Medium
FH	SA	MV	MH
			
(4)	(4)	(4)	(4)
Medium to Semi-Heavy	Stainless	G Class	CBN
GH	MS	MJ	
			
(4)	(4)	(4)	(4)

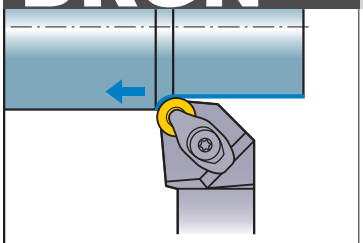
Order Number	Stock		Insert Number		Dimensions (inch)						Shim	Shim Pin	Clamp Bridge	Spring	Clamp Screw	Wrench	Punch
	R	L			H1	B	L1	L2	H2	F1							
DDQNR/L-164	●	●	DNMA DNMG DNMM DNGA DNGG DNGM NP-DNMA NP-DNGA	43○	1.000	1.000	6.000	1.375	1.000	1.250	LLSDN43 (LLSDN42)*	LLP24 (LLP14)*	DCK2613	DCS1	DC0621T	TKY20F	LLH4

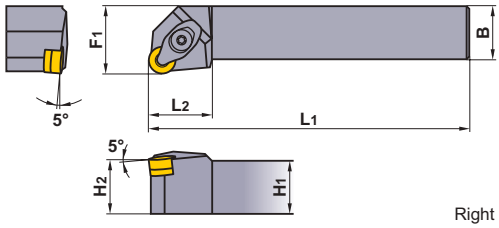
*Please use shim no.LLSDN42 and shim pin LLP14 with .25inch thick insert. When using .25inch thick inserts, the shim and shim pin should be ordered separately.

DRGN NEW

External turning

RN○○inserts





Right hand tool holder shown.

Medium	Medium
Standard	Flat top
	
(4)	(4)

Order Number	Stock		Insert Number		Dimensions (inch)						Shim	Shim Pin	Clamp Bridge	Spring	Clamp Screw	Wrench	Punch
	R	L			H1	B	L1	L2	H2	F1							
DRGNR/L-124	●	●	RNMA RNMG	43○	.750	.750	4.500	1.188	.750	1.000	LLSRN42	LLP14	DCK2613	DCS1	DC0621T	TKY20F	LLH4
-164	●	●		43○	1.000	1.000	6.000	1.188	1.000	1.250	LLSRN42	LLP14	DCK2613	DCS1	DC0621T	TKY20F	LLH4
-204	●	●		43○	1.250	1.250	6.000	1.188	1.250	1.500	LLSRN42	LLP14	DCK2613	DCS1	DC0621T	TKY20F	LLH4

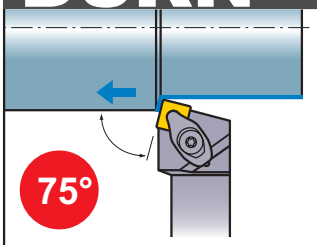
Recommended Cutting Conditions

	Work Material	Cutting Mode	Breaker	Grade	Cutting Speed (SFM)
P	Mild Steel (≤180HB)	Finish	**FS**	**AP25N**	935–1455
		Light	**SA**	**UE6110**	935–1590
		Medium	**MS**	**UE6110**	850–1440
	Carbon Steel Alloy Steel (180HB–280HB)	Finish	**FH**	**AP25N**	705–1115
		Light	**SA**	**UE6110**	685–1160
		Medium	**MV**	**UE6110**	620–1065

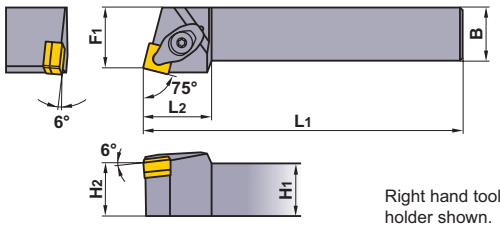
	Work Material	Cutting Mode	Breaker	Grade	Cutting Speed (SFM)
M	Stainless Steel (≤200HB)	Finish	**FS**	**AP25N**	375–785
		Light	**SA**	**US735**	310–605
		Medium	**MS**	**US735**	275–540
K	Cast Iron (≤350MPa)	Light	**MA**	**UC5115**	520–965
		Medium	**Standard**	**UC5115**	520–965
		Semi-Heavy	**Flat Top**	**UC5115**	505–915

(Note) Insert photo, letters show chip breaker style, figures show inscribed circle.

DSRN



External turning — **SN○○inserts**

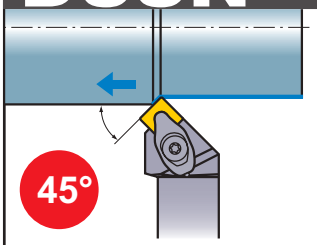


Right hand tool holder shown.

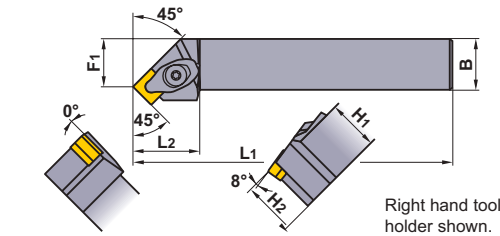
Finish	Light	Medium	Medium
FH	SA	MV	MH
(4)	(4)	(4)	(4)
Medium to Semi-Heavy	**Stainless**	**CBN**	
GH	MS		
(4)	(4)	(4)	

Order Number	Stock		Insert Number		Dimensions (inch)						Shim	Shim Pin	Clamp Bridge	Spring	Clamp Screw	Wrench	Punch
	R	L			H1	B	L1	L2	H2	F1							
DSRNR/L-124	●	●	SNMA SNMG SNMM SNGA SNGG NP-SNMA NP-SNGA	43○	.750	.750	4.500	1.250	.750	.878	LLSSN42	LLP14	DCK2613	DCS1	DC0621T	TKY20F	LLH4
-164	●	●		43○	1.000	1.000	6.000	1.250	1.000	1.128	LLSSN42	LLP14	DCK2613	DCS1	DC0621T	TKY20F	LLH4

DSSN



External turning
Chamfering — **SN○○inserts**

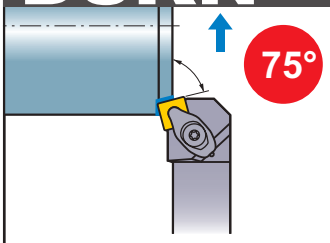


Right hand tool holder shown.

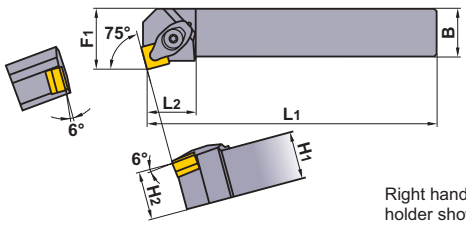
Finish	Light	Medium	Medium
FH	SA	MV	MH
(4)	(4)	(4)	(4)
Medium to Semi-Heavy	**Stainless**	**CBN**	
GH	MS		
(4)	(4)	(4)	

Order Number	Stock		Insert Number		Dimensions (inch)						Shim	Shim Pin	Clamp Bridge	Spring	Clamp Screw	Wrench	Punch
	R	L			H1	B	L1	L2	H2	F1							
DSSNR/L-124	●	●	SNMA SNMG SNMM SNGA SNGG NP-SNMA NP-SNGA	43○	.750	.750	4.500	1.250	.750	.659	LLSSN42	LLP14	DCK2613	DCS1	DC0621T	TKY20F	LLH4
-164	●	●		43○	1.000	1.000	6.000	1.250	1.000	.909	LLSSN42	LLP14	DCK2613	DCS1	DC0621T	TKY20F	LLH4

DSKN NEW



Facing — **SN○○inserts**



Right hand tool holder shown.

Finish	Light	Medium	Medium
FH	SA	MV	MH
(4)	(4)	(4)	(4)
Medium to Semi-Heavy	**Stainless**	**CBN**	
GH	MS		
(4)	(4)	(4)	

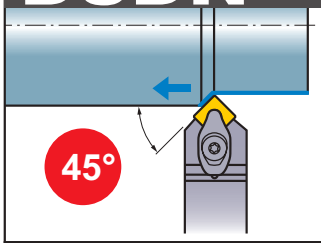
Order Number	Stock		Insert Number		Dimensions (inch)						Shim	Shim Pin	Clamp Bridge	Spring	Clamp Screw	Wrench	Punch
	R	L			H1	B	L1	L2	H2	F1							
DSKNR/L-124	●	●	SNMA SNMG SNMM SNGA SNGG NP-SNMA NP-SNGA	43○	.750	.750	4.500	1.000	.750	1.000	LLSSN42	LLP14	DCK2613	DCS1	DC0621T	TKY20F	LLH4
-164	●	●		43○	1.000	1.000	6.000	1.000	1.000	1.250	LLSSN42	LLP14	DCK2613	DCS1	DC0621T	TKY20F	LLH4

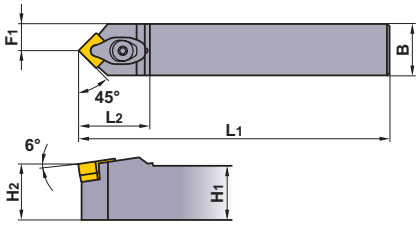
DOUBLE CLAMP HOLDER

DSDN

External turning
Chamfering

SN○○inserts





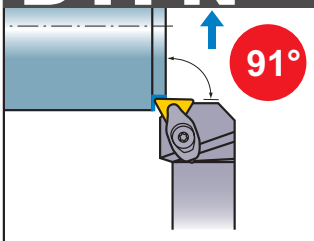
Finish	Light	Medium	Medium
FH	SA	MV	MH
 (4)	 (4)	 (4)	 (4)
Medium to Semi-Heavy	Stainless	CBN	
GH	MS		
 (4)	 (4)	 (4)	

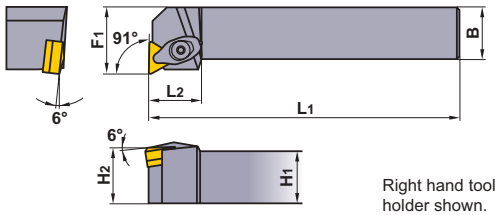
Order Number	Stock	Insert Number		Dimensions (inch)						Shim	Shim Pin	Clamp Bridge	Spring	Clamp Screw	Wrench	Punch
				H1	B	L1	L2	H2	F1							
DSDNN-124	●	SNMA SNMG SNMM SNGA SNGG NP-SNMA NP-SNGA	43○	.750	.750	4.500	1.375	.750	.375	LLSSN42	LLP14	DCK2613	DCS1	DC0621T	TKY20F	LLH4
-164	●		43○	1.000	1.000	6.000	1.375	1.000	.500	LLSSN42	LLP14	DCK2613	DCS1	DC0621T	TKY20F	LLH4

DTFN

Facing

TN○○inserts





Right hand tool holder shown.

Finish	Light	Medium	Medium
FH	SA	MV	MH
 (3,4)	 (3,4)	 (3,4)	 (3,4)
Medium to Semi-Heavy	Stainless	CBN	
GH	MS		
 (3,4)	 (3,4)	 (3,4)	

Order Number	Stock		Insert Number		Dimensions (inch)						Shim	Shim Pin	Clamp Bridge	Spring	Clamp Screw	Wrench	Punch
	R	L			H1	B	L1	L2	H2	F1							
DTFNR/L-123	●	●	TNMA TNMG TNMM TNGA TNGG NP-TNMA NP-TNGA	33○	.750	.750	4.500	1.000	.750	1.000	LLSTN32 (LLSTN33)*	LLP23	DCK2211	DCS2	DC0520T	TKY15F	LLH3
-163	●	●		33○	1.000	1.000	6.000	1.000	1.000	1.250	LLSTN32 (LLSTN33)*	LLP23	DCK2211	DCS2	DC0520T	TKY15F	LLH3
NEW -164	●	●		43○	1.000	1.000	6.000	1.219	1.000	1.250	LLSTN42	LLP14	DCK2613	DCS1	DC0621T	TKY20F	LLH4
NEW -204	●	●		43○	1.250	1.250	6.000	1.219	1.250	1.500	LLSTN42	LLP14	DCK2613	DCS1	DC0621T	TKY20F	LLH4

*Please use shim no.LLSTN33 with .125inch thick insert. When using .125inch thick inserts, the shim should be ordered separately.

Recommended Cutting Conditions

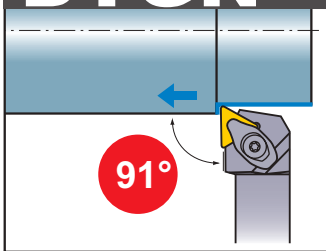
	Work Material	Cutting Mode	Breaker	Grade	Cutting Speed (SFM)
P	Mild Steel (≤180HB)	Finish	FS	AP25N	935—1455
		Light	SA	UE6110	935—1590
		Medium	MS	UE6110	850—1440
	Carbon Steel Alloy Steel (180HB—280HB)	Finish	FH	AP25N	705—1115
		Light	SA	UE6110	685—1160
		Medium	MV	UE6110	620—1065

	Work Material	Cutting Mode	Breaker	Grade	Cutting Speed (SFM)
M	Stainless Steel (≤200HB)	Finish	FS	AP25N	375—785
		Light	SA	US735	310—605
		Medium	MS	US735	275—540
K	Cast Iron (≤350MPa)	Light	MA	UC5115	520—965
		Medium	Standard	UC5115	520—965
		Semi-Heavy	Flat Top	UC5115	505—915

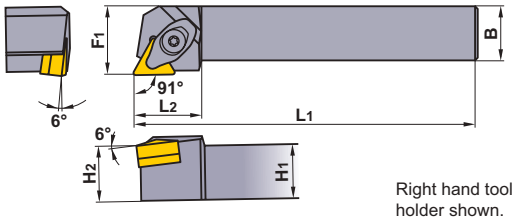
(Note) Insert photo, letters show chip breaker style, figures show inscribed circle.

● : USA Stock

DTGN



External turning — **TN○○inserts**



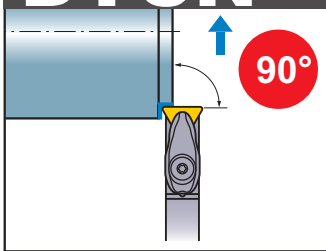
Right hand tool holder shown.

Finish	Light	Medium	Medium
FH	SA	MV	MH
(3,4)	(3,4)	(3,4)	(3,4)
Medium to Semi-Heavy	Stainless	CBN	
GH	MS		
(3,4)	(3,4)	(3,4)	

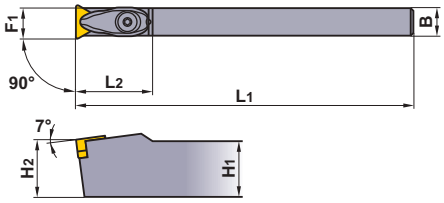
Order Number	Stock		Insert Number		Dimensions (inch)						Shim	Shim Pin	Clamp Bridge	Spring	Clamp Screw	Wrench	Punch
	R	L			H1	B	L1	L2	H2	F1							
DTGNR/L-123	●	●	TNMA TNMG TNMM TNGA TNGG NP-TNMA NP-TNGA	33○	.750	.750	4.500	1.000	.750	1.000	LLSTN32 (LLSTN33)*	LLP23	DCK2211	DCS2	DC0520T	TKY15F	LLH3
-163	●	●		33○	1.000	1.000	6.000	1.000	1.000	1.250	LLSTN32 (LLSTN33)*	LLP23	DCK2211	DCS2	DC0520T	TKY15F	LLH3
NEW **-164**	●	●		43○	1.000	1.000	6.000	1.250	1.000	1.250	LLSTN42	LLP14	DCK2613	DCS1	DC0621T	TKY20F	LLH4
NEW **-204**	●	●		43○	1.250	1.250	6.000	1.250	1.250	1.500	LLSTN42	LLP14	DCK2613	DCS1	DC0621T	TKY20F	LLH4
NEW **-244**	●	●		43○	1.500	1.500	6.000	1.250	1.500	2.000	LLSTN42	LLP14	DCK2613	DCS1	DC0621T	TKY20F	LLH4

*Please use shim no.LLSTN33 with .125inch thick insert. When using .125inch thick inserts, the shim should be ordered separately.

DTCN NEW



Facing — **TN○○inserts**



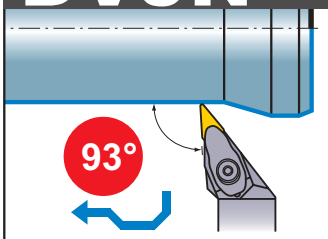
Finish	Light	Medium	Medium
FH	SA	MV	MH
(3)	(3)	(3)	(3)
Medium to Semi-Heavy	Stainless	CBN	
GH	MS		
(3)	(3)	(3)	

Order Number	Stock	Insert Number		Dimensions (inch)						Shim	Shim Pin	Clamp Bridge	Spring	Clamp Screw	Wrench	Punch
				H1	B	L1	L2	H2	F1							
DTCNN-433	●	TNMA TNMG TNMM TNGA TNGG NP-TNMA NP-TNGA	33○	.750	.500	4.500	1.375	.750	.539	LLSTN32 (LLSTN33)*	LLP23	DCK3113	DCS2	DC0520T	TKY15F	LLH3
-443	●		33○	1.000	.500	6.000	1.375	1.000	.539	LLSTN32 (LLSTN33)*	LLP23	DCK3113	DCS2	DC0520T	TKY15F	LLH3

*Please use shim no.LLSTN33 with .125inch thick insert. When using .125inch thick inserts, the shim should be ordered separately.

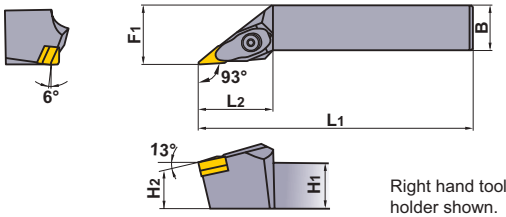
DOUBLE CLAMP HOLDER

DVJN



External turning
Copying

VN○○inserts

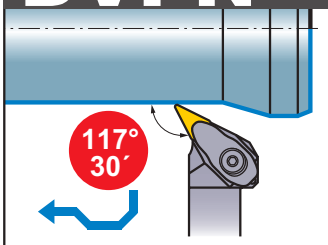


Right hand tool holder shown.

Finish	Light	Medium	Medium
FH	SH	MV	MH
			
(3)	(3)	(3)	(3)
Medium	**Stainless**	**G Class**	**CBN**
Standard	MS	MJ	
			
(3)	(3)	(3)	(3)

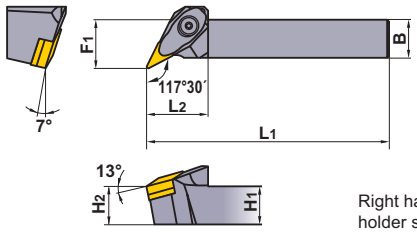
Order Number	Stock R	Stock L	Insert Number		Dimensions (inch) H1	B	L1	L2	H2	F1	Shim	Shim Pin	Clamp Bridge	Spring	Clamp Screw	Wrench	Punch
DVJNR/L-123	●	●	VNGA VNMG VNGM VNGG VNMM NP-VNMA NP-VNGA	33○	.750	.750	4.500	1.625	.750	1.000	DCSVN32	LLP13	DCK3113	DCS2	DC0520T	TKY15F	LLH3
-163	●	●		33○	1.000	1.000	6.000	1.625	1.000	1.250	DCSVN32	LLP13	DCK3113	DCS2	DC0520T	TKY15F	LLH3
NEW **-203**	●	●		33○	1.250	1.250	6.000	1.625	1.250	1.500	DCSVN32	LLP13	DCK3113	DCS2	DC0520T	TKY15F	LLH3

DVPN



Facing
Copying

VN○○inserts



Right hand tool holder shown.

Finish	Light	Medium	Medium
FH	SH	MV	MH
			
(3)	(3)	(3)	(3)
Medium	**Stainless**	**G Class**	**CBN**
Standard	MS	MJ	
			
(3)	(3)	(3)	(3)

Order Number	Stock R	Stock L	Insert Number		Dimensions (inch) H1	B	L1	L2	H2	F1	Shim	Shim Pin	Clamp Bridge	Spring	Clamp Screw	Wrench	Punch
DVPNR/L-123	●	●	VNGA VNMG VNGM VNGG VNMM NP-VNMA NP-VNGA	33○	.750	.750	4.500	1.250	.750	1.000	DCSVN32	LLP13	DCK3113	DCS2	DC0520T	TKY15F	LLH3
-163	●	●		33○	1.000	1.000	6.000	1.250	1.000	1.250	DCSVN32	LLP13	DCK3113	DCS2	DC0520T	TKY15F	LLH3

Recommended Cutting Conditions

	Work Material	Cutting Mode	Breaker	Grade	Cutting Speed (SFM)
P	Mild Steel (≤180HB)	Finish	**FS**	**AP25N**	935–1455
		Light	**SA**	**UE6110**	935–1590
		Medium	**MS**	**UE6110**	850–1440
	Carbon Steel Alloy Steel (180HB–280HB)	Finish	**FH**	**AP25N**	705–1115
		Light	**SA**	**UE6110**	685–1160
		Medium	**MV**	**UE6110**	620–1065

	Work Material	Cutting Mode	Breaker	Grade	Cutting Speed (SFM)
M	Stainless Steel (≤200HB)	Finish	**FS**	**AP25N**	375–785
		Light	**SA**	**US735**	310–605
		Medium	**MS**	**US735**	275–540
K	Cast Iron (≤350MPa)	Light	**MA**	**UC5115**	520–965
		Medium	**Standard**	**UC5115**	520–965
		Semi-Heavy	**Flat Top**	**UC5115**	505–915

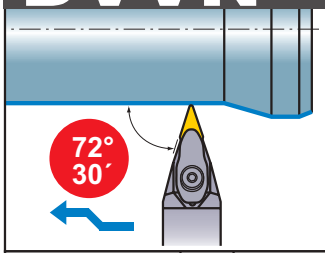
(Note) Insert photo, letters show chip breaker style, figures show inscribed circle.

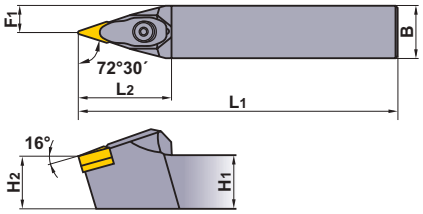
● : **USA Stock**

DVVN

External turning
Copying

VN○○inserts





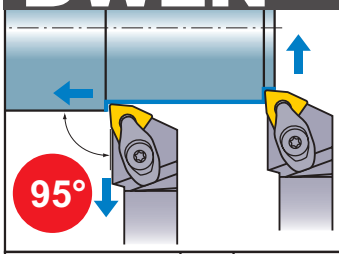
Finish	Light	Medium	Medium
FH	SH	MV	MH
			
(3)	(3)	(3)	(3)
Medium	**Stainless**	**G Class**	**CBN**
Standard	MS	MJ	
			
(3)	(3)	(3)	(3)

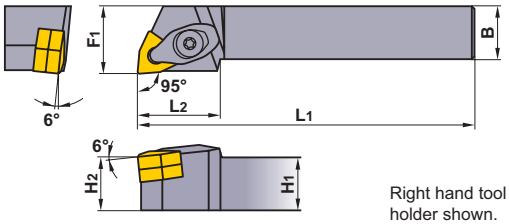
Order Number	Stock	Insert Number		Dimensions (inch)						Shim	Shim Pin	Clamp Bridge	Spring	Clamp Screw	Wrench	Punch
				H1	B	L1	L2	H2	F1							
DVVNN-123	●	VNGA VNMG VNGM VNGG VNMM NP-VNMA NP-VNGA	33○	.750	.750	4.500	1.750	.750	.375	DCSVN32	LLP13	DCK3113	DCS2	DC0520T	TKY15F	LLH3
-163	●		33○	1.000	1.000	6.000	1.750	1.000	.500	DCSVN32	LLP13	DCK3113	DCS2	DC0520T	TKY15F	LLH3

DWLN

External turning
Facing

WN○○inserts





Right hand tool holder shown.

Finish	Light	Medium	Medium
FH	SA	MV	MH
			
(4)	(4)	(3,4)	(4)
Medium	**Medium to Semi-Heavy**	**Stainless**	**CBN**
Standard	GH	MS	
			
(4)	(4)	(3,4)	(4)

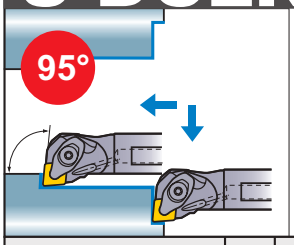
Order Number	Stock		Insert Number		Dimensions (inch)						Shim	Shim Pin	Clamp Bridge	Spring	Clamp Screw	Wrench	Punch
	R	L			H1	B	L1	L2	H2	F1							
DWLNR/L-123	●	●	WNMA WNMG NP-WNMA NP-WNGA	33○	.750	.750	4.500	1.000	.750	1.000	LLSWN32 (LLSWN33)*	LLP23	DCK2211	DCS2	DC0520T	TKY15F	LLH3
-124	●	●		43○	.750	.750	4.500	1.250	.750	1.000	LLSWN42	LLP14	DCK2613	DCS1	DC0621T	TKY20F	LLH4
-163	●	●		33○	1.000	1.000	6.000	1.000	1.000	1.250	LLSWN32 (LLSWN33)*	LLP23	DCK2211	DCS2	DC0520T	TKY15F	LLH3
-164	●	●		43○	1.000	1.000	6.000	1.250	1.000	1.250	LLSWN42	LLP14	DCK2613	DCS1	DC0621T	TKY20F	LLH4
-204	●	●		43○	1.250	1.250	6.000	1.250	1.250	1.500	LLSWN42	LLP14	DCK2613	DCS1	DC0621T	TKY20F	LLH4

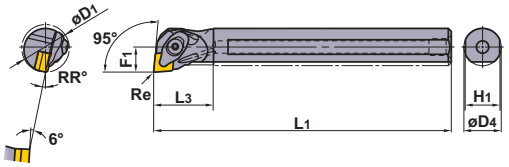
*Please use shim no.LLSWN33 with .125inch thick insert. When using .125inch thick inserts, the shim should be ordered separately.

DOUBLE CLAMP DIMPLE BAR

S-DCLN

Steel shank with coolant hole — **CN○○inserts**





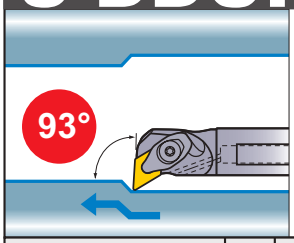
Right hand tool holder shown.

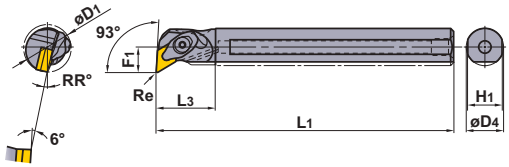
Finish	Light	Light	Medium
FH	SA	SH	MV
			
(4)	(4)	(3,4)	(4)
Medium	**Medium**	**Stainless**	**CBN**
MH	Standard	MS	
			
(4)	(3,4)	(3,4)	(4)

Order Number	Stock R	Stock L	Insert Number		Dimensions (inch) D4	L1	L3	F1	H1	RR°	Min. Cutting Diameter (inch) D1	Standard Corner Radius (inch) Re	Shim	Shim Pin	Clamp Bridge	Spring	Clamp Screw	Wrench	Punch
S-DCLNR/L-123-C	●	●	CNMA CNMG	32○	.750	10.000	1.219	.500	.711	12	1.000	.031	LLSCP32	LLP13	DCK2211	DCS2	DC0520T	TKY15F	LLH3
NEW **-163-C**	●	●		32○	1.000	12.000	1.625	.641	.922	11	1.281	.031	LLSCP32	LLP13	DCK2211	DCS2	DC0520T	TKY15F	LLH3
-164-C	●	●	CNMA CNMG CNMM CNGG NP-CNMA NP-CNGA	43○	1.000	12.000	1.625	.641	.922	11	1.281	.031	LLSCP42	LLP14	DCK2613	DCS1	DC0621T	TKY20F	LLH4
-204-C	●	●		43○	1.250	14.000	2.000	.766	1.171	13	1.532	.031	LLSCN42	LLP14	DCK2613	DCS1	DC0621T	TKY20F	LLH4
NEW **-244-C**	●	●		43○	1.500	14.000	2.000	.891	1.382	12	1.782	.031	LLSCN42	LLP14	DCK2613	DCS1	DC0621T	TKY20F	LLH4
NEW **-284-C**	●	●		43○	1.750	14.000	2.500	1.016	1.632	10	2.032	.031	LLSCN42	LLP14	DCK2613	DCS1	DC0621T	TKY20F	LLH4
NEW **-324-C**	●	●		43○	2.000	14.000	2.500	1.281	1.882	10	2.562	.031	LLSCN42	LLP14	DCK2613	DCS1	DC0621T	TKY20F	LLH4

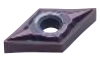
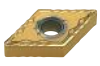
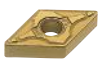
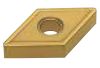
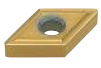
S-DDUN

Steel shank with coolant hole — **DN○○inserts**





Right hand tool holder shown.

Finish	Finish	Light	Medium
FH	FJ	SA	MV
			
(4)	(4)	(4)	(4)
Medium	**Medium**	**Stainless**	**CBN**
MH	Standard	MS	
			
(4)	(3,4)	(3,4)	(4)

Order Number	Stock R	Stock L	Insert Number		Dimensions (inch) D4	L1	L3	F1	H1	RR°	Min. Cutting Diameter (inch) D1	Standard Corner Radius (inch) Re	Shim	Shim Pin	Clamp Bridge	Spring	Clamp Screw	Wrench	Punch
S-DDUNR/L-164-C	●	●	DNMA DNMG DNMX DNGA DNGG NP-DNMA NP-DNGA	43○	1.000	12.000	1.625	.657	.922	13	1.314	.031	LLSDP42	LLP14	DCK2613	DCS1	DC0621T	TKY20F	LLH4
-204-C	●	●		43○	1.250	14.000	2.000	1.000	1.171	11	2.000	.031	LLSDN43	LLP14	DCK2613	DCS1	DC0621T	TKY20F	LLH4
NEW **-244-C**	●	●		43○	1.500	14.000	2.000	1.125	1.382	10	2.250	.031	LLSDN43	LLP24	DCK2613	DCS1	DC0621T	TKY20F	LLH4
NEW **-284-C**	●	●		43○	1.750	14.000	2.500	1.250	1.632	9	2.500	.031	LLSDN43	LLP24	DCK2613	DCS1	DC0621T	TKY20F	LLH4
NEW **-324-C**	●	●		43○	2.000	14.000	2.500	1.375	1.882	8	2.750	.031	LLSDN43	LLP24	DCK2613	DCS1	DC0621T	TKY20F	LLH4

Recommended Cutting Conditions

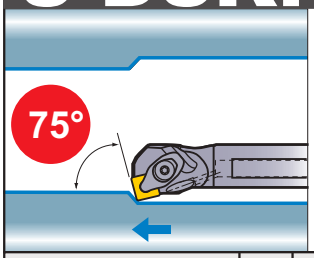
	Work Material	Hardness	Cutting Mode	l/d≤3 Cutting Speed (SFM)	l/d≤3 Feed (IPR)	l/d≤3 Depth of Cut (inch)	3<l/d≤4 Cutting Speed (SFM)	3<l/d≤4 Feed (IPR)	3<l/d≤4 Depth of Cut (inch)
P	Carbon Steel, Alloy Steel	180—280HB	Medium Cutting	360 (260—460)	.010 (.004—.016)	—.197	360 (260—460)	.008 (.004—.012)	—.157
M	Stainless Steel	≤200HB	Medium Cutting	260 (195—330)	.008 (.004—.012)	—.157	230 (165—330)	.006 (.004—.015)	—.118
K	Cast Iron	Tensile Strength ≤350MPa	Medium Cutting	260 (195—330)	.010 (.004—.016)	—.197	260 (195—330)	.008 (.004—.012)	—.157

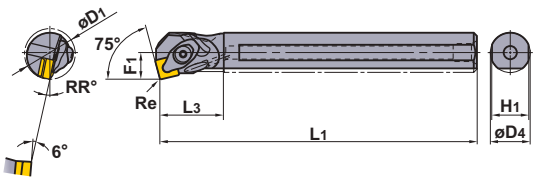
(Note 1) Insert photo, letters show chip breaker style, figures show inscribed circle.
(Note 2) When using inserts with right and left hand chip breakers, please use left hand inserts for right hand holders and right hand inserts for left hand holders.

● : **USA Stock**

S-DSKN

Steel shank with coolant hole — **SN○○inserts**





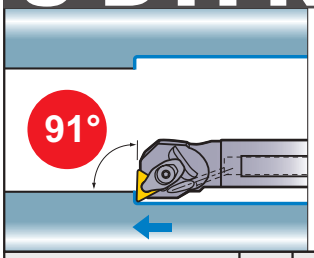
Right hand tool holder shown.

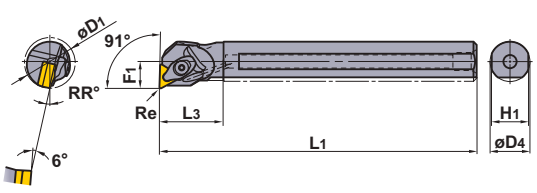
Finish	Light	Medium	Medium
FH	SA	MV	MH
			
(4)	(4)	(4)	(4)
Medium	**Stainless**	**G Class**	**CBN**
Standard	MS	R/L	
			
(4)	(4)	(4)	(4)

Order Number	Stock		Insert Number		Dimensions (inch)						Min. Cutting Diameter (inch)	Standard Corner Radius (inch)	Shim	Shim Pin	Clamp Bridge	Spring	Clamp Screw	Wrench	Punch
	R	L			D4	L1	L3	F1	H1	RR°	D1	Re							
S-DSKNR/L-164-C	●	●	SNMA SNMG SNMM SNGA SNGG NP-SNMA NP-SNGA	43○	1.000	12.000	1.625	.641	.922	13	1.282	.031	LLSSP42	LLP14	DCK2613	DCS1	DC0621T	TKY20F	LLH4
-204-C	●	●		43○	1.250	14.000	2.000	.766	1.171	13	1.532	.031	LLSSN42	LLP14	DCK2613	DCS1	DC0621T	TKY20F	LLH4
NEW **-244-C**	●	●		43○	1.500	14.000	2.000	.891	1.382	11	1.782	.031	LLSSN42	LLP14	DCK2613	DCS1	DC0621T	TKY20F	LLH4
NEW **-284-C**	●	●		43○	1.750	14.000	2.500	1.016	1.632	10	2.032	.031	LLSSN42	LLP14	DCK2613	DCS1	DC0621T	TKY20F	LLH4
NEW **-324-C**	●	●		43○	2.000	14.000	2.500	1.281	1.882	9	2.562	.031	LLSSN42	LLP14	DCK2613	DCS1	DC0621T	TKY20F	LLH4

S-DTFN

Steel shank with coolant hole — **TN○○inserts**





Right hand tool holder shown.

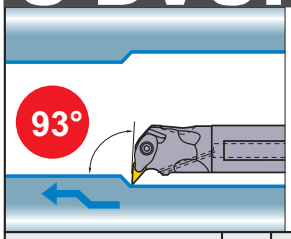
Finish	Light	Medium	Medium
FH	SA	MV	MH
			
(3)	(3,4)	(3,4)	(3,4)
Medium	**Stainless**	**G Class**	**CBN**
Standard	MS	R/L	
			
(3,4)	(3,4)	(3,4)	(3,4)

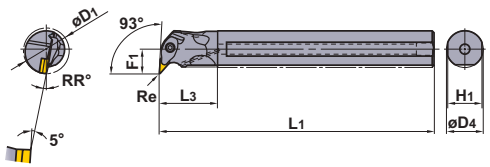
Order Number	Stock		Insert Number		Dimensions (inch)						Min. Cutting Diameter (inch)	Standard Corner Radius (inch)	Shim	Shim Pin	Clamp Bridge	Spring	Clamp Screw	Wrench	Punch
	R	L			D4	L1	L3	F1	H1	RR°	D1	Re							
S-DTFNR/L-123-C	●	●	TNMA TNMG TNMM TNGA TNGG NP-TNMA NP-TNGA	33○	.750	10.000	1.250	.500	.711	13	1.000	.031	—	—	DCK2211	DCS2	DC0520T	TKY15F	—
-163-C	●	●		33○	1.000	12.000	1.625	.641	.922	13	1.282	.031	LLSTP32	LLP13	DCK2211	DCS2	DC0520T	TKY15F	LLH3
-203-C	●	●		33○	1.250	14.000	2.000	.766	1.171	13	1.532	.031	LLSTN32	LLP13	DCK2211	DCS2	DC0520T	TKY15F	LLH3
NEW **-243-C**	●	●		33○	1.500	14.000	2.000	.891	1.382	12	1.782	.031	LLSTN32	LLP13	DCK2211	DCS2	DC0520T	TKY15F	LLH3
NEW **-244-C**	●	●		43○	1.500	14.000	2.000	.891	1.382	12	1.782	.031	LLSTN42	LLP14	DCK2613	DCS1	DC0621T	TKY20F	LLH4
NEW **-283-C**	●	●		33○	1.750	14.000	2.500	1.016	1.632	11	2.032	.031	LLSTN32	LLP13	DCK2211	DCS2	DC0520T	TKY15F	LLH3
NEW **-284-C**	●	●		43○	1.750	14.000	2.500	1.016	1.632	11	2.032	.031	LLSTN42	LLP14	DCK2613	DCS1	DC0621T	TKY20F	LLH4
NEW **-324-C**	●	●		43○	2.000	14.000	2.500	1.125	1.882	10	2.250	.031	LLSTN42	LLP14	DCK2613	DCS1	DC0621T	TKY20F	LLH4

DOUBLE CLAMP DIMPLE BAR

S-DVUN

Steel shank with coolant hole — **VN○○inserts**





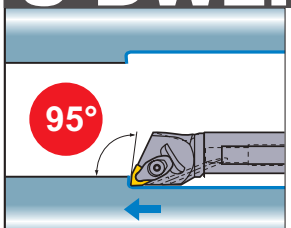
Right hand tool holder shown.

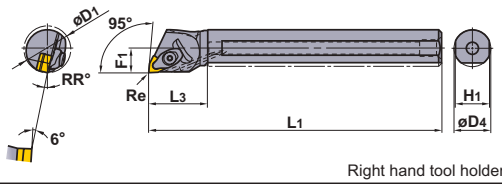
Finish	Finish	Light	Medium
FH	FJ	SH	MV
			
(3)	(3)	(3)	(3)
Medium	**Stainless**	**CBN**	
MH	MS		
			
(3)	(3)	(3)	

Order Number	Stock R	Stock L	Insert Number		Dimensions (inch) D4	L1	L3	F1	H1	RR°	Min. Cutting Diameter (inch) D1	Standard Corner Radius (inch) Re	Shim	Shim Pin	Clamp Bridge	Spring	Clamp Screw	Wrench	Punch
S-DVUNR/L-203-C	●	●	VNMA VNMG VNGA VNGM NP-VNMA NP-VNGA	33○	1.250	14.000	2.000	1.000	1.171	10	2.000	.031	DCSVN32	LLP13	DCK3113	DCS2	DC0520T	TKY15F	LLH3
NEW **-243-C**	●	●		33○	1.500	14.000	2.500	1.125	1.382	9	2.250	.031	DCSVN32	LLP13	DCK3113	DCS2	DC0520T	TKY15F	LLH3

S-DWLN

Steel shank with coolant hole — **WN○○inserts**





Right hand tool holder shown.

Finish	Light	Medium
FH	SA	MV
		
(4)	(4)	(3,4)
Stainless	**CBN**	
MS		
		
(3,4)	(4)	

Order Number	Stock R	Stock L	Insert Number		Dimensions (inch) D4	L1	L3	F1	H1	RR°	Min. Cutting Diameter (inch) D1	Standard Corner Radius (inch) Re	Shim	Shim Pin	Clamp Bridge	Spring	Clamp Screw	Wrench	Punch
S-DWLNR/L-123-C	●	●	WNMG	33○	.750	10.000	1.250	.500	.711	12	1.000	.031	—	—	DCK2211	DCS2	DC0520T	TKY15F	—
NEW **-163-C**	●	●		33○	1.000	12.000	1.750	.641	.922	13	1.282	.031	LLSWP32	LLP13	DCK2211	DCS2	DC0520T	TKY15F	LLH3
-164-C	●	●	WNMA WNMG NP-WNMA NP-WNGA	43○	1.000	12.000	2.000	.641	.922	13	1.282	.031	LLSWP42	LLP14	DCK2613	DCS1	DC0621T	TKY20F	LLH4
-204-C	●	●		43○	1.250	14.000	2.000	.766	1.171	13	1.532	.031	LLSWN42	LLP14	DCK2613	DCS1	DC0621T	TKY20F	LLH4
NEW **-244-C**	●	●		43○	1.500	14.000	2.500	.891	1.382	12	1.782	.031	LLSWN42	LLP14	DCK2613	DCS1	DC0621T	TKY20F	LLH4
NEW **-284-C**	●	●		43○	1.750	14.000	2.500	1.125	1.632	11	2.250	.031	LLSWN42	LLP14	DCK2613	DCS1	DC0621T	TKY20F	LLH4
NEW **-324-C**	●	●		43○	2.000	14.000	2.500	1.281	1.882	10	2.562	.031	LLSWN42	LLP14	DCK2613	DCS1	DC0621T	TKY20F	LLH4

Recommended Cutting Conditions

	Work Material	Hardness	Cutting Mode	l/d≤3 Cutting Speed (SFM)	l/d≤3 Feed (IPR)	l/d≤3 Depth of Cut (inch)	3<l/d≤4 Cutting Speed (SFM)	3<l/d≤4 Feed (IPR)	3<l/d≤4 Depth of Cut (inch)
P	Carbon Steel, Alloy Steel	180—280HB	Medium Cutting	360 (260—460)	.010 (.004—.016)	—.197	360 (260—460)	.008 (.004—.012)	—.157
M	Stainless Steel	≤200HB	Medium Cutting	260 (195—330)	.008 (.004—.012)	—.157	230 (165—330)	.006 (.004—.015)	—.118
K	Cast Iron	Tensile Strength ≤350MPa	Medium Cutting	260 (195—330)	.010 (.004—.016)	—.197	260 (195—330)	.008 (.004—.012)	—.157

(Note 1) Insert photo, letters show chip breaker style, figures show inscribed circle.
(Note 2) When using inserts with right and left hand chip breakers, please use left hand inserts for right hand holders and right hand inserts for left hand holders.

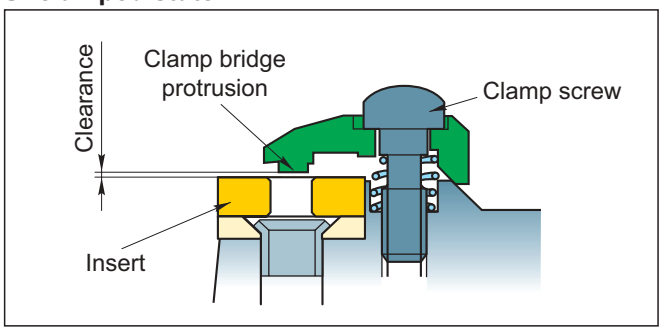
● : **USA Stock**

■Operational Guidance

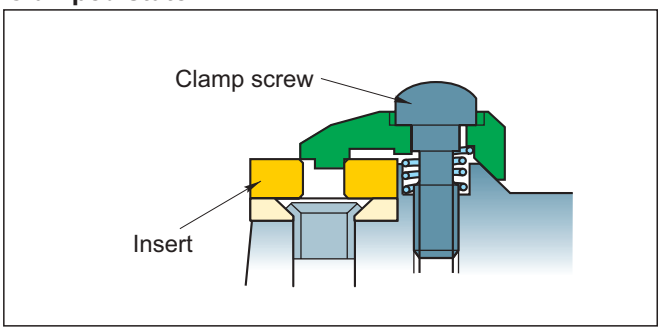
●When indexing or replacing an insert, check to be sure there is clearance between the protruding section of the clamp and the insert, as shown in the figure below. → Guide: Turn the clamp screw 2-3 rotations from the fully clamped state to ensure clearance.

●When clamping the insert, be sure to use the wrench provided. Over tightening may cause damage to the clamp bridge and the torx holes of the clamp screw. (The appropriate tightening torque is 44 in.•lbs. for a TKY20F wrench size; 31 in.•lbs. for a TKY15F type.)

Unclamped state



Clamped state

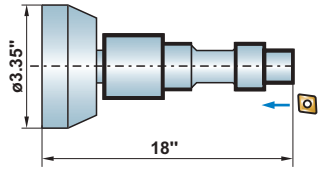
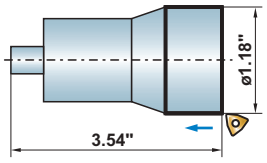
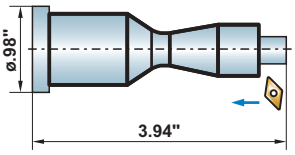


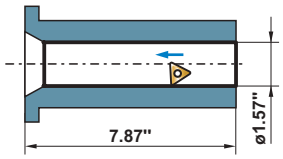
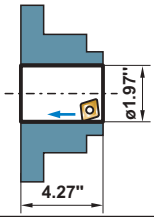
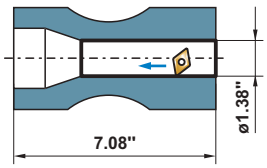
●If chips interfere or wrap around the clamp screw, the selected insert breaker may not be suitable. In this case, a review of the insert breaker is recommended as this may affect the surface finish accuracy of the workpiece.

Single Action Type Double Clamp Series

DOUBLE CLAMP SERIES

Application Example

Tool		**DCLNL-164**	**DWLNR-124**	**DVJNR-163**
Insert		**CNMG432MA**	**WNMG432SA**	**VNMG332MV**
Grade		**UE6010**	**UE6010**	**UE6020**
Workpiece		Carbon steel 	Carbon steel 	Alloy steel 
Cutting Conditions	Cutting Speed (SFM)	460 — 490	490 — 730	575
	Feed (IPR)	.010	.006 — .016	.016
	Depth of Cut (inch)	.040 — .138	.040 — .079	.040
	Coolant	Water soluble	Water soluble	Water soluble
Result		Abnormal damage to the insert is unlikely to occur during machining because mis-clamping can easily be avoided compared to when using conventional products.	Dimensional control becomes easier due to a higher cutting edge positioning accuracy.	Higher clamping rigidity of the insert and a 20% increase in the number of components machined.

Tool		**S-DTFNR-163-C**	**S-DCLNR-164-C**	**S-DDUNR-164-C**
Insert		**TNMG331MS**	**CNMG432MS**	**DNMG432MA**
Grade		**US7020**	**VP15TF**	**UE6020**
Workpiece		Carbon steel 	Stainless steel 	Alloy steel 
Cutting Conditions	Cutting Speed (SFM)	490	425	490
	Feed (IPR)	.016	.008	.010
	Depth of Cut (inch)	.039	.079	.059
	Coolant	Water soluble	Water soluble	Water soluble
Result		Excellent machining with no vibration even when using a long overhang of l/d = 5.5.	Double tool life achieved with no vibration when compared to conventional products.	Prolonged tool life with no vibration even when using an overhang 2 times longer than normal.

Memo

MTEC

MACHINING TECHNOLOGY AND EDUCATION CENTER

Welcome to our new world-class Machining Technology and Education Center (MTEC) in Mooresville, NC providing year round support and services to North America.



ABOUT MTEC

TOOLING PROPOSALS & EVALUATION

We will review your current processes or outline a new process. From this review, we will improve productivity, analyze programming methods and output a solution with programming, tooling and time savings.

MACHINING SIMULATION

Using the latest CAD/CAM software and our cutting tool experience, we will outline a new process using proper machining techniques to maximize tool life and productivity.

TECHNICAL SUPPORT

Dedicated local professionals to answer any of your order, product or technical questions.

TRAINING

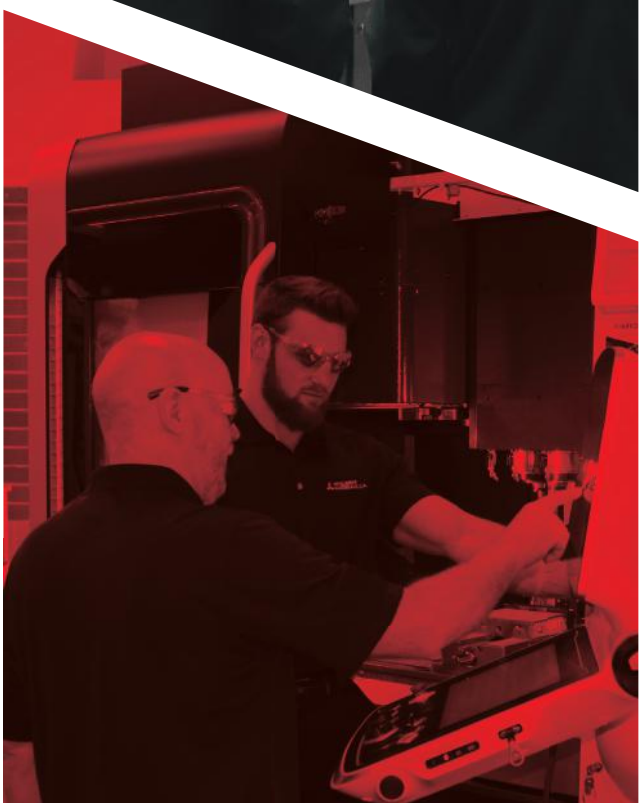
We are excited to offer several levels of training with goals to reach our highest level--Craftsman Machining Technology. At MTEC NC, we will train using a combination of classroom and hands-on machine time to develop skills and real-world understanding of materials, tools and applications. In addition to multi-day courses, we will have Machining Technology skills seminars, as well as seminars from our partners to complement our apprentice level courses, our journeyman courses, and up to our craftsman level courses.

PROCESS IMPROVEMENTS

Review of the complete part processing and recommend changes of speed, feed, new tooling, reduction of passes, modifying programming and other solutions to reduce cycle time, save money and be proactive.







WEBINARS

Our FREE online webinar series is available anytime on-demand. Narrated by the MTEC training staff, you will receive in-depth knowledge of the topic. Simply register online at the link below for access. You will receive a certificate upon completion of each course.

mmusnewsstand.com/register

ONLINE TRAINING

Our FREE e-learning program offers 11 courses in drilling, milling, turning, threading, tool grades and workpiece materials. Once each course is completed, you will be given the opportunity to print a certificate.

- Basic Drilling
- Basic Milling
- Basic Turning
- Advanced Drilling
- Advanced End Milling
- Advanced Turning
- Basic Threading
- Advanced Face Milling
- Basic Workpiece Materials
- Tool Grades
- Advanced Workpiece Materials

TRAINING COURSES

Programs are designed for several levels of skill development – from basic understanding to advance manufacturing with digital solutions, complementing to your valued experience in CNC machining environment. Participate in machining demonstrations with Mitsubishi Materials' skilled engineers. Discover methods to reduce setup and cycle time, optimize programs and enhance your knowledge base.

Information on course schedule,
course description, and accommodations

MTECTRAINING.INFO

Follow the QR Code for a virtual facility tour

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FOR YOUR SAFETY

- Don't handle inserts and chips without gloves.
- Please machine within the recommended application range and exchange expired tools with new ones in advance of breakage.
- Please use safety covers and wear safety glasses.
- When using compounded cutting oils, please take fire precautions.
- When attaching inserts or spare parts, please use only the correct wrench or driver.
- When using rotating tools, please make a trial run to check run-out, vibration and abnormal sounds etc.

www.mmc-carbide.com/us

Tools specifications subject to change without notice.

B091A-US-2007.10