

Single Action Type

## ***DOUBLE CLAMP SERIES***

New Clamp Bridge

# Simple and highly rigid clamping

- A simple, secure clamping system ensures stable machining.
- New holders for VN type 35° rhombic inserts. Series expansion.
- New design clamp bridge for ultra clamping rigidity and improved chip evacuation.



# 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.

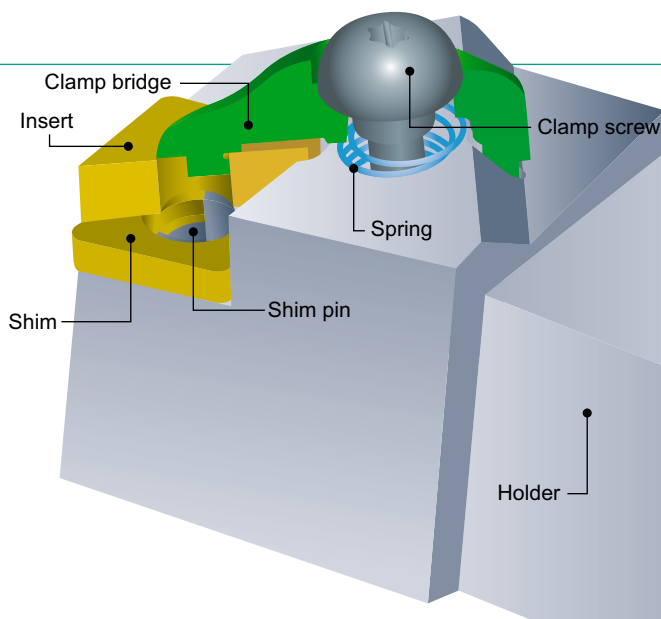
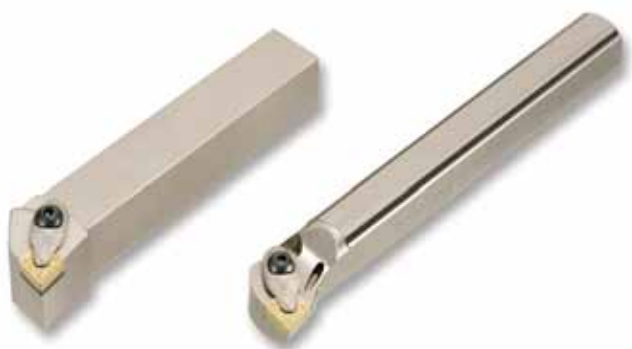
### New optimized clamp bridge

The clamp bridge features a new geometry that is optimized for promoting good 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.



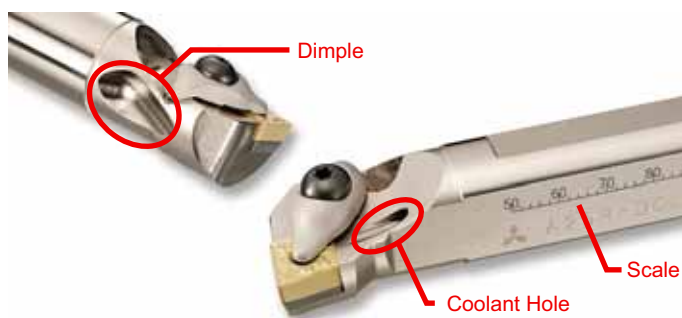
### Special surface treatment

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



### 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.



### 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

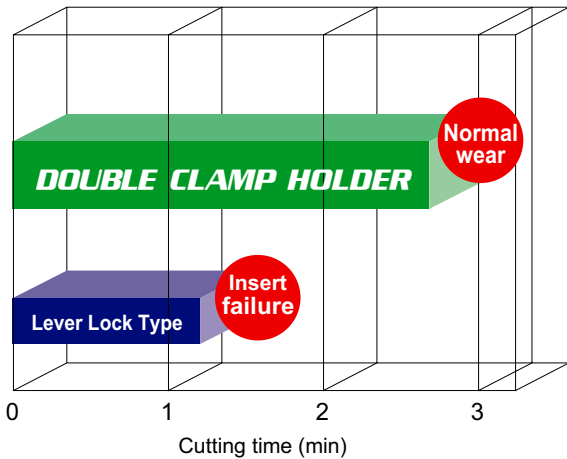
Mitsubishi's Double Clamp series. **13** types, **84** items

Shape		Tool holder geometry							
External turning		Type							
		No. of items	6	14	4	12	12	2	4
Boring		Type							—
		No. of items	4	6	2	6	8	4	—

## Cutting Performance

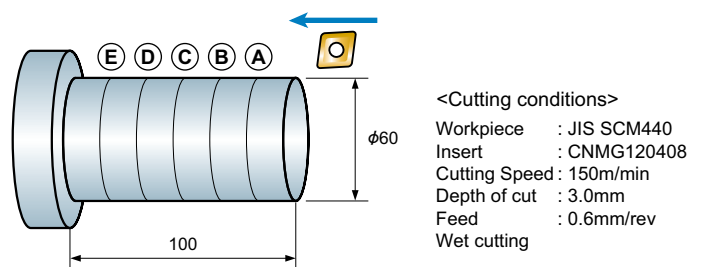
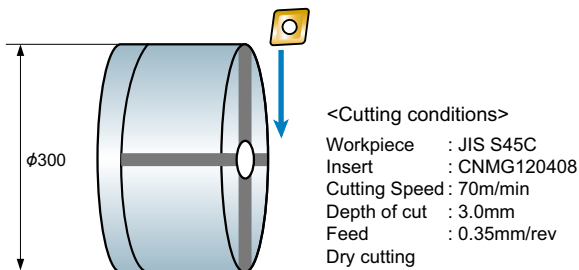
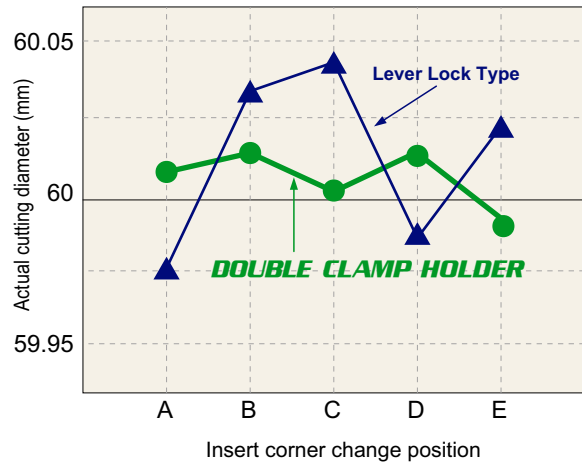
### Clamping Rigidity

Higher fracture resistance during interrupted cutting!



### Accurate Cutting Edge Positioning

Precise cutting performance!



# DOUBLE CLAMP HOLDER

DCLN		External turning Facing		CN $\circ$ inserts		Finish				Tools								
						Light	Medium	Medium	Medium	Shim	Shim Pin	Clamp Bridge	Spring	Clamp Screw	Wrench	Punch		
				FH	SH	MV	MH	(12)	(09,12)	(12)	(12)							
				Medium	Medium to Semi-Heavy	Stainless	CBN	(12)	(12)	(12)	(12)							
				Finish				Tools										
				Light	Medium	Medium	Medium	Shim	Shim Pin	Clamp Bridge	Spring	Clamp Screw	Wrench	Punch				
				FH	SH	MV	MH	(15)	(11,15)	(15)	(15)							
				Medium to Semi-Heavy	Stainless	G Class	CBN	(15)	(11,15)	(15)	(15)							
				Finish				Tools										
				Light	Medium	Medium	Medium	Shim	Shim Pin	Clamp Bridge	Spring	Clamp Screw	Wrench	Punch				
				FH	SH	MV	MH	(15)	(11,15)	(15)	(15)							
				Medium to Semi-Heavy	Stainless	G Class	CBN	(15)	(11,15)	(15)	(15)							

\*Please use shim no. LLSCN33 with 3.18mm thick inserts. When using 3.18mm thick inserts, the shim should be ordered separately.

DDJN		External turning Copying		DN $\circ$ inserts		Finish				Tools								
						Light	Medium	Medium	Medium	Shim	Shim Pin	Clamp Bridge	Spring	Clamp Screw	Wrench	Punch		
				Finish				Tools										
				Light	Medium	Medium	Medium	Shim	Shim Pin	Clamp Bridge	Spring	Clamp Screw	Wrench	Punch				
				FH	SH	MV	MH	(15)	(11,15)	(15)	(15)							
				Medium to Semi-Heavy	Stainless	G Class	CBN	(15)	(11,15)	(15)	(15)							
				Finish				Tools										
				Light	Medium	Medium	Medium	Shim	Shim Pin	Clamp Bridge	Spring	Clamp Screw	Wrench	Punch				
				FH	SH	MV	MH	(15)	(11,15)	(15)	(15)							
				Medium to Semi-Heavy	Stainless	G Class	CBN	(15)	(11,15)	(15)	(15)							

\*Please use shim no. LLSDN42 with 6.35mm thick inserts. When using 6.35mm thick inserts, the shim should be ordered separately.

## Recommended Cutting Conditions

Work Material	Cutting Mode	Breaker	Grade	Cutting Speed (m/min)	Work Material	Cutting Mode	Breaker	Grade	Cutting Speed (m/min)
P Mild Steel (≤180HB)	Finish	FS	NX2525	270 (180-350)	M Stainless Steel (≤200HB)	Finish	FS	NX2525	120 (100-150)
	Light	SH	UE6010	300 (250-350)		Light	SH	US735	100 (80-120)
	Medium	MV	UE6010	300 (250-350)		Medium	MS	US735	100 (70-120)
Carbon Steel Alloy Steel (180HB-280HB)	Finish	FH	NX2525	250 (150-300)	K Cast Iron (≤350MPa)	Finish	Standard	UC5115	240 (180-300)
	Light	SH	UE6010	220 (180-280)		Medium	Standard	UC5115	210 (160-250)
	Medium	MV	UE6010	200 (150-250)		Semi-Heavy	Flat Top	UC5115	200 (150-240)

(Note 1) Insert photo, letters show chip breaker style, figures show insert dimensions.

(Note 2) The new type clamp bridge and clamp screw can be used on conventional Double Clamp holders.

For details, refer to the cross reference table on page 10.

● : Inventory maintained.








Order Number		Stock		Insert Number		Dimensions (mm)							Tools						
		R	L			H1	B	L1	L2	H2	F1	Shim	Shim Pin	Clamp Bridge	Spring	Clamp Screw	Wrench	Punch	
<b>DTGNR/L1616H16</b>		●	●	TNMA TNMG TNMM TNGA TNGG	1604	16	16	100	25	16	20	LLSTN32 (LLSTN33)	LLP23	DCK2211	DCS2	DC0520T	TKY15F	LLH3	
<b>2020K16</b>		●	●		1604	20	20	125	25	20	25	LLSTN32 (LLSTN33)	LLP23	DCK2211	DCS2	DC0520T	TKY15F	LLH3	
<b>2525M16</b>		●	●		1604	25	25	150	25	25	32	LLSTN32 (LLSTN33)	LLP23	DCK2211	DCS2	DC0520T	TKY15F	LLH3	








\*Please use shim no. LLSTN33 with 3.18mm thick inserts. When using 3.18mm thick inserts, the shim should be ordered separately.

Order Number		Stock		Insert Number		Dimensions (mm)							Tools						
		R	L			H1	B	L1	L2	H2	F1	Shim	Shim Pin	Clamp Bridge	Spring	Clamp Screw	Wrench	Punch	
<b>DWLNR/L1616H06</b>		●	●	WNMG	06T3	16	16	100	24	16	20	LLSWN3T3 (LLSWN32)	LLP23	DCK2211	DCS2	DC0520T	TKY15F	LLH3	
<b>2020K06</b>		●	●		06T3	20	20	125	24	20	25	LLSWN3T3 (LLSWN32)	LLP23	DCK2211	DCS2	DC0520T	TKY15F	LLH3	
<b>2525M06</b>		●	●		06T3	25	25	150	24	25	32	LLSWN3T3 (LLSWN32)	LLP23	DCK2211	DCS2	DC0520T	TKY15F	LLH3	
<b>2020K08</b>		●	●	WNMA WNMG	0804	20	20	125	31	20	25	LLSWN42	LLP14	DCK2613	DCS1	DC0621T	TKY20F	LLH4	
<b>2525M08</b>		●	●		0804	25	25	150	31	25	32	LLSWN42	LLP14	DCK2613	DCS1	DC0621T	TKY20F	LLH4	
<b>3225P08</b>		●	●		0804	32	25	170	31	32	32	LLSWN42	LLP14	DCK2613	DCS1	DC0621T	TKY20F	LLH4	

\*Please use shim no. LLSWN32 with 3.18mm thick inserts. When using 4.76mm thick inserts, the shim should be ordered separately.

# DOUBLE CLAMP HOLDER

Order Number		Stock		Insert Number		Dimensions (mm)							      						
		R	L			H1	B	L1	L2	H2	F1	Shim	Shim Pin	Clamp Bridge	Spring	Clamp Screw	Wrench	Punch	
<b>DVJNR/L2020K16</b>		●	●	VNMG VNGA VNCG	1604	20	20	125	41	20	25	DCSVN32	LLP13	DCK3113	DCS2	DC0520T	TKY15F	LLH3	
<b>2525M16</b>		●	●		1604	25	25	150	41	25	32	DCSVN32	LLP13	DCK3113	DCS2	DC0520T	TKY15F	LLH3	

Order Number		Stock		Insert Number		Dimensions (mm)							      						
		R	L			H1	B	L1	L2	H2	F1	Shim	Shim Pin	Clamp Bridge	Spring	Clamp Screw	Wrench	Punch	
<b>DVPNR/L2020K16</b>		●	●	VNMG VNGA VNCG	1604	20	20	125	32	20	25	DCSVN32	LLP13	DCK3113	DCS2	DC0520T	TKY15F	LLH3	
<b>2525M16</b>		●	●		1604	25	25	150	32	25	32	DCSVN32	LLP13	DCK3113	DCS2	DC0520T	TKY15F	LLH3	

## Recommended Cutting Conditions

Work Material	Cutting Mode	Breaker	Grade	Cutting Speed (m/min)	Work Material	Cutting Mode	Breaker	Grade	Cutting Speed (m/min)
<b>P</b> Mild Steel (≤180HB)	Finish	<b>FS</b>	<b>NX2525</b>	270 (180-350)	<b>M</b> Stainless Steel (≤200HB)	Finish	<b>FS</b>	<b>NX2525</b>	120 (100-150)
	Light	<b>SH</b>	<b>UE6010</b>	300 (250-350)		Light	<b>SH</b>	<b>US735</b>	100 (80-120)
	Medium	<b>MV</b>	<b>UE6010</b>	300 (250-350)		Medium	<b>MS</b>	<b>US735</b>	100 (70-120)
Carbon Steel Alloy Steel (180HB-280HB)	Finish	<b>FH</b>	<b>NX2525</b>	250 (150-300)	<b>K</b> Cast Iron (≤350MPa)	Finish	<b>Standard</b>	<b>UC5115</b>	240 (180-300)
	Light	<b>SH</b>	<b>UE6010</b>	220 (180-280)		Medium	<b>Standard</b>	<b>UC5115</b>	210 (160-250)
	Medium	<b>MV</b>	<b>UE6010</b>	200 (150-250)		Semi-Heavy	<b>Flat Top</b>	<b>UC5115</b>	200 (150-240)

(Note) Insert photo, letters show chip breaker style, figures show insert dimensions.

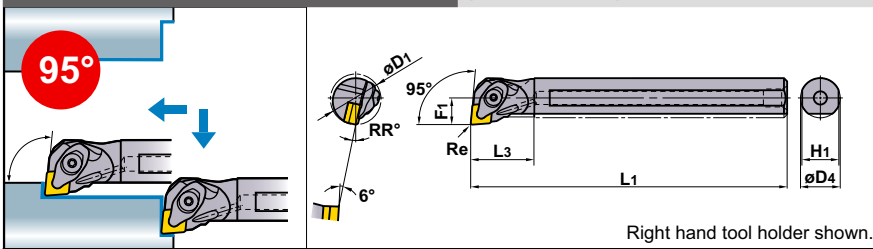
● : Inventory maintained.



<b>DVVN</b>		External turning Copying		VN $\odot$ inserts		Finish				Light				Medium				Medium			
						FH				SH				MV				MH			
				 (16)				 (16)				 (16)				 (16)					
				Medium				Stainless				G Class				CBN					
				 (16)				 (16)				 (16)				 (16)					
				Standard				MS				R/L				CBN					
Order Number	Stock	Insert Number		Dimensions (mm)							Shim              Shim Pin              Clamp Bridge              Spring              Clamp Screw              Wrench              Punch										
				H1	B	L1	L2	H2	F1	Shim	Shim Pin	Clamp Bridge	Spring	Clamp Screw	Wrench	Punch					
<b>DVNN2020K16</b>	●	VNMA VNMG VNGA VNGG	1604 $\odot$	20	20	125	44	20	10	DCSVN32	LLP13	DCK3113	DCS2	DC0520T	TKY15F	LLH3					
<b>2525M16</b>	●	VNMA VNMG VNGA VNGG	1604 $\odot$	25	25	150	44	25	12.5	DCSVN32	LLP13	DCK3113	DCS2	DC0520T	TKY15F	LLH3					

# DOUBLE CLAMP DIMPLE BAR

## DCLN

(With oil hole) CN<sup>o</sup> inserts



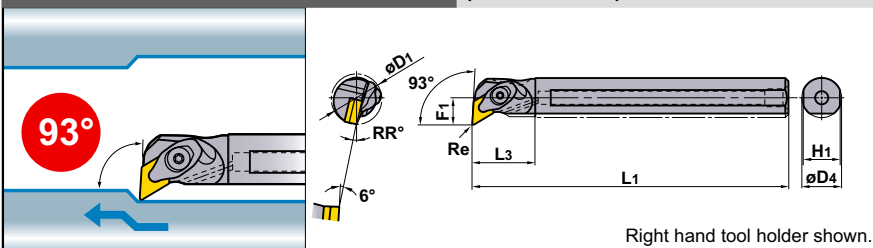
Finish	Light	Light	Medium
FH  (12)	SA  (12)	SH  (12)	MV  (12)
Medium	Medium	Stainless	PCD
MH  (12)	Standard  (12)	MS  (12)	R/L-F  (12)









Right hand tool holder shown.

Order Number	Stock		Insert Number	Dimensions (mm)							Min. Cutting Diameter D1	Standard Corner Radius Re	Tools						
	R	L		D4	L1	L3	F1	H1	RR°	Shim			Shim Pin	Clamp Bridge	Spring	Clamp Screw	Wrench	Punch	
<b>NEW</b> A25R-DCLNR/L12	●	●	CNMA 1204 <sup>o</sup>	25	200	40	17	23	11	32	0.8	LLSCP42	LLP14	DCK2613	DCS1	DC0621T	TKY20F	LLH4	
<b>NEW</b> A32S-DCLNR/L12	●	●	CNMG 1204 <sup>o</sup>	32	250	50	22	30	13	40	0.8	LLSCN42	LLP14	DCK2613	DCS1	DC0621T	TKY20F	LLH4	
<b>NEW</b> A40T-DCLNR/L12	●	●	CNMG 1204 <sup>o</sup>	40	300	63	27	37	10	50	0.8	LLSCN42	LLP14	DCK2613	DCS1	DC0621T	TKY20F	LLH4	

## DDUN

(With oil hole) DN<sup>o</sup> inserts



Finish	Light	Medium	Medium
FH  (15)	SH  (15)	MV  (15)	MH  (15)
Medium	Stainless	G Class	PCD
Standard  (15)	MS  (15)	R/L  (15)	R/L-F  (15)

Right hand tool holder shown.

Order Number	Stock		Insert Number	Dimensions (mm)							Min. Cutting Diameter D1	Standard Corner Radius Re	Tools						
	R	L		D4	L1	L3	F1	H1	RR°	Shim			Shim Pin	Clamp Bridge	Spring	Clamp Screw	Wrench	Punch	
<b>NEW</b> A25R-DDUNR/L15	●	●	DNMA 1504 <sup>o</sup>	25	200	40	17	23	13	32	0.8	LLSDP42	LLP14	DCK2613	DCS1	DC0621T	TKY20F	LLH4	
<b>NEW</b> A32S-DDUNR/L15	●	●	DNMG 1504 <sup>o</sup>	32	250	50	22	30	13	40	0.8	LLSDN42	LLP14	DCK2613	DCS1	DC0621T	TKY20F	LLH4	
<b>NEW</b> A40T-DDUNR/L15	●	●	DNMG 1504 <sup>o</sup>	40	300	63	27	37	10	50	0.8	LLSDN42	LLP14	DCK2613	DCS1	DC0621T	TKY20F	LLH4	

### Recommended Cutting Conditions

Work Material	Hardness	Cutting Mode	l/d ≤ 3			l/d = 3 - 4		
			Cutting Speed (m/min)	Feed (mm/rev)	Depth of Cut (mm)	Cutting Speed (m/min)	Feed (mm/rev)	Depth of Cut (mm)
<b>P</b> Carbon Steel, Alloy Steel (JIS S45C, JIS SCM440 etc.)	180-280HB	Medium Cutting	110 (80-140)	0.25 (0.1-0.4)	-5.0	110 (80-140)	0.2 (0.1-0.3)	-4.0
<b>M</b> Stainless Steel (JIS SUS304, JIS SUS316 etc.)	≤200HB	Medium Cutting	80 (60-100)	0.2 (0.1-0.3)	-4.0	70 (50-100)	0.15 (0.1-0.25)	-3.0
<b>K</b> Cast Iron (JIS FC250 etc.)	Tensile Strength ≤350MPa	Medium Cutting	80 (60-100)	0.25 (0.1-0.4)	-5.0	80 (60-100)	0.2 (0.1-0.3)	-4.0

(Note 1) Insert photo, letters show chip breaker style, figures show insert dimensions.


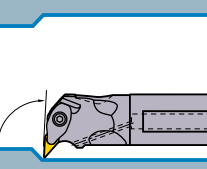
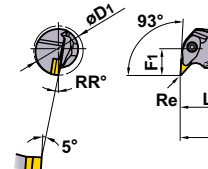
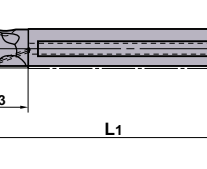
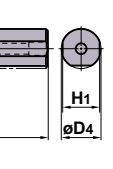
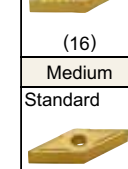
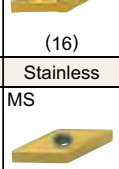

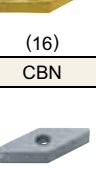







(Note 2) When using inserts with right and left hand chip breakers, please use left hand inserts for right hand holders and right hand inserts for left hand holders.


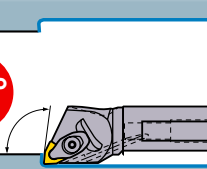
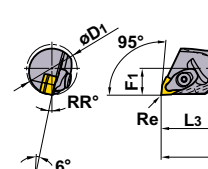
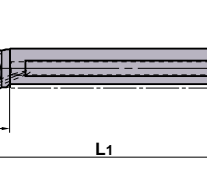
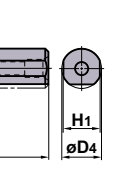
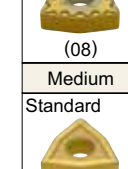

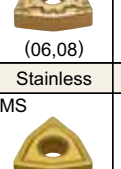
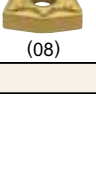









Order Number		Stock		Insert Number		Dimensions (mm)							Min. Cutting Diameter D1	Standard Corner Radius Re	Accessories						
						D4	L1	L3	F1	H1	RR°	Shim			Shim Pin	Clamp Bridge	Spring	Clamp Screw	Wrench	Punch	
<b>NEW</b> A25R-DSKNR/L12	● ●	SNMA SNMG SNMM SNGA SNGG	1204	25	200	40	17	23	13	32	0.8	LLSP42	LLP14	DCK2613	DCS1	DC0621T	TKY20F	LLH4			
<b>NEW</b> A32S-DSKNR/L12	● ●	SNMA SNMG SNMM SNGA SNGG	1204	32	250	50	22	30	13	40	0.8	LLSN42	LLP14	DCK2613	DCS1	DC0621T	TKY20F	LLH4			

Order Number		Stock		Insert Number		Dimensions (mm)							Min. Cutting Diameter D1	Standard Corner Radius Re	Accessories						
						D4	L1	L3	F1	H1	RR°	Shim			Shim Pin	Clamp Bridge	Spring	Clamp Screw	Wrench	Punch	
<b>NEW</b> A25R-DTFNR/L16	● ●	TNMA TNMG TNMM TNGA TNGG	1604	25	200	40	17	23	13	32	0.8	LLSTP32	LLP23	DCK2211	DCS2	DC0520T	TKY15F	LLH3			
<b>NEW</b> A32S-DTFNR/L16	● ●	TNMA TNMG TNMM TNGA TNGG	1604	32	250	50	22	30	13	40	0.8	LLSTN32	LLP23	DCK2211	DCS2	DC0520T	TKY15F	LLH3			

# DOUBLE CLAMP DIMPLE BAR

<b>DVUN</b>		(With oil hole) <b>VN</b> inserts										Finish									
												Light	Medium	Medium	Medium						
									FH	SH	MV	MH	(16)	(16)	(16)	(16)					
									Medium	Stainless	Stainless	CBN									
									Standard	MS	R/L		(16)	(16)	(16)	(16)					
									Right hand tool holder shown.												
Order Number	Stock		Insert Number	Dimensions (mm)									Min. Cutting Diameter $\phi D_1$	Standard Corner Radius $R_e$	 Shim	 Shim Pin	 Clamp Bridge	 Spring	 Clamp Screw	 Wrench	 Punch
	R	L		$D_4$	$L_1$	$L_3$	$F_1$	$H_1$	$RR^\circ$	$D_1$	$R_e$										
<b>NEW</b> A40T-DVUNR/L16	●	●	VNMA VNGA	1604	40	300	63	27	37	9	50	0.8	DCSVN32	LLP13	DCK3113	DCS2	DC0520T	TKY15F	LLH3		

<b>DWLN</b>		(With oil hole) <b>WN</b> inserts										Finish									
												Light	Medium	Medium	Medium						
									FH	SH	MV	MH	(08)	(06,08)	(06,08)	(08)					
									Medium	Medium to Semi-Heavy	Stainless										
									Standard	GH	MS		(08)	(08)	(06,08)						
									Right hand tool holder shown.												
Order Number	Stock		Insert Number	Dimensions (mm)									Min. Cutting Diameter $\phi D_1$	Standard Corner Radius $R_e$	 Shim	 Shim Pin	 Clamp Bridge	 Spring	 Clamp Screw	 Wrench	 Punch
	R	L		$D_4$	$L_1$	$L_3$	$F_1$	$H_1$	$RR^\circ$	$D_1$	$R_e$										
<b>NEW</b> A25R-DWLN/L06	●	●	WNMG	0604	25	200	40	17	23	13	32	0.8	LLSWP32	LLP23	DCK2211	DCS2	DC0520T	TKY15F	LLH3		
<b>NEW</b> A25R-DWLN/L08	●	●		0804	25	200	40	17	23	13	32	0.8	LLSWP42	LLP14	DCK2613	DCS1	DC0621T	TKY20F	LLH4		
<b>NEW</b> A32S-DWLN/L08	●	●	WNMA WNMG	0804	32	250	50	22	30	13	40	0.8	LLSWN42	LLP14	DCK2613	DCS1	DC0621T	TKY20F	LLH4		
<b>NEW</b> A40T-DWLN/L08	●	●		0804	40	300	63	27	37	10	50	0.8	LLSWN42	LLP14	DCK2613	DCS1	DC0621T	TKY20F	LLH4		

## Recommended Cutting Conditions

Work Material	Hardness	Cutting Mode	$l/d \leq 3$			$l/d = 3 - 4$		
			Cutting Speed (m/min)	Feed (mm/rev)	Depth of Cut (mm)	Cutting Speed (m/min)	Feed (mm/rev)	Depth of Cut (mm)
<b>P</b> Carbon Steel, Alloy Steel (JIS S45C, JIS SCM440 etc.)	180-280HB	Medium Cutting	110 (80-140)	0.25 (0.1-0.4)	-5.0	110 (80-140)	0.2 (0.1-0.3)	-4.0
<b>M</b> Carbon Steel, Alloy Steel (JIS S45C, JIS SCM440 etc.)	$\leq 200$ HB	Medium Cutting	80 (60-100)	0.2 (0.1-0.3)	-4.0	70 (50-100)	0.15 (0.1-0.25)	-3.0
<b>K</b> Cast Iron (JIS FC250 etc.)	Tensile Strength $\leq 350$ MPa	Medium Cutting	80 (60-100)	0.25 (0.1-0.4)	-5.0	80 (60-100)	0.2 (0.1-0.3)	-4.0

(Note 1) Insert photo, letters show chip breaker style, figures show insert dimensions.

(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.

## Cross reference table for old and new parts

Order Number	Shim	Shim Pin	Spring	Clamp Bridge		Clamp Screw		Wrench		Punch
				Old Number	New Number	Old Number	New Number	Old Number	New Number	
<b>DCLNR/L1616H09</b>	LLSCN3T3 (LLSCN33)	LLP23	DCS2	DCK11R/L	DCK2211	DCCS085	DC0520T	HKY30R	TKY15F	LLH3
<b>2020K09</b>	LLSCN3T3 (LLSCN33)	LLP23	DCS2	DCK11R/L	DCK2211	DCCS085	DC0520T	HKY30R	TKY15F	LLH3
<b>2525M09</b>	LLSCN3T3 (LLSCN33)	LLP23	DCS2	DCK11R/L	DCK2211	DCCS085	DC0520T	HKY30R	TKY15F	LLH3
<b>DCLNR/L2020K12</b>	LLSCN42	LLP14	DCS1	DCK14R/L	DCK2613	DCBS106	DC0621T	HKY40R	TKY20F	LLH4
<b>2525M12</b>	LLSCN42	LLP14	DCS1	DCK14R/L	DCK2613	DCBS106	DC0621T	HKY40R	TKY20F	LLH4
<b>3225P12</b>	LLSCN42	LLP14	DCS1	DCK14R/L	DCK2613	DCBS106	DC0621T	HKY40R	TKY20F	LLH4
<b>DDJNR/L1616H11</b>	LLSDN32	LLP23	DCS2	DCK11R/L	DCK2211	DCCS085	DC0520T	HKY30R	TKY15F	LLH3
<b>2020K11</b>	LLSDN32	LLP23	DCS2	DCK11R/L	DCK2211	DCCS085	DC0520T	HKY30R	TKY15F	LLH3
<b>2525M11</b>	LLSDN32	LLP23	DCS2	DCK11R/L	DCK2211	DCCS085	DC0520T	HKY30R	TKY15F	LLH3
<b>3225P11</b>	LLSDN32	LLP23	DCS2	DCK11R/L	DCK2211	DCCS085	DC0520T	HKY30R	TKY15F	LLH3
<b>DDJNR/L2020K15</b>	LLSDN43 (LLSDN42)	LLP24 (LLP14)	DCS1	DCK14R/L	DCK2613	DCBS106	DC0621T	HKY40R	TKY20F	LLH4
<b>2525M15</b>	LLSDN43 (LLSDN42)	LLP24 (LLP14)	DCS1	DCK14R/L	DCK2613	DCBS106	DC0621T	HKY40R	TKY20F	LLH4
<b>3225P15</b>	LLSDN43 (LLSDN42)	LLP24 (LLP14)	DCS1	DCK14R/L	DCK2613	DCBS106	DC0621T	HKY40R	TKY20F	LLH4
<b>DTGNR/L1616H16</b>	LLSTN32 (LLSTN33)	LLP23	DCS2	DCK11R/L	DCK2211	DCCS085	DC0520T	HKY30R	TKY15F	LLH3
<b>2020K16</b>	LLSTN32 (LLSTN33)	LLP23	DCS2	DCK11R/L	DCK2211	DCCS085	DC0520T	HKY30R	TKY15F	LLH3
<b>2525M16</b>	LLSTN32 (LLSTN33)	LLP23	DCS2	DCK11R/L	DCK2211	DCCS085	DC0520T	HKY30R	TKY15F	LLH3
<b>DWLNLR/L1616H06</b>	LLSWN3T3 (LLSWN32)	LLP23	DCS2	DCK11R/L	DCK2211	DCCS085	DC0520T	HKY30R	TKY15F	LLH3
<b>2020K06</b>	LLSWN3T3 (LLSWN32)	LLP23	DCS2	DCK11R/L	DCK2211	DCCS085	DC0520T	HKY30R	TKY15F	LLH3
<b>2525M06</b>	LLSWN3T3 (LLSWN32)	LLP23	DCS2	DCK11R/L	DCK2211	DCCS085	DC0520T	HKY30R	TKY15F	LLH3
<b>DWLNLR/L2020K08</b>	LLSWN42	LLP14	DCS1	DCK14R/L	DCK2613	DCBS106	DC0621T	HKY40R	TKY20F	LLH4
<b>2525M08</b>	LLSWN42	LLP14	DCS1	DCK14R/L	DCK2613	DCBS106	DC0621T	HKY40R	TKY20F	LLH4
<b>3225P08</b>	LLSWN42	LLP14	DCS1	DCK14R/L	DCK2613	DCBS106	DC0621T	HKY40R	TKY20F	LLH4

Holder

Old → New

Clamp Bridge

Old → New

Clamp Screw

Old → New

Wrench

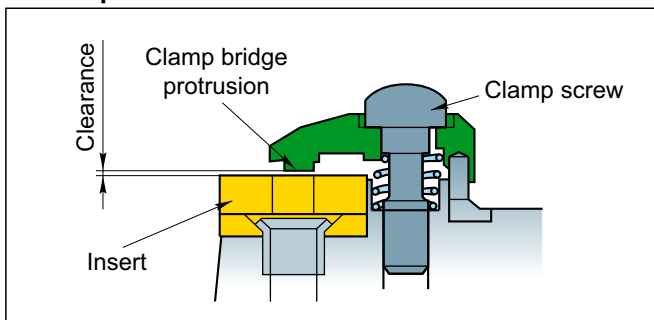
Old → New

(Note) When replacing old clamp screws with new ones, the wrench should also be replaced with a new type.

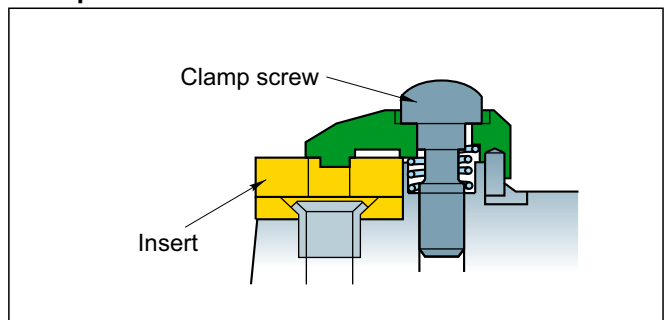
## Operational Guidance

- When indexing or replacing an insert, check 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 5.0Nm for a TKY20F wrench size; 3.5Nm for a TKY15F type.)

### Unclamped state



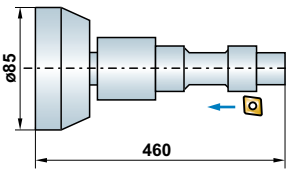
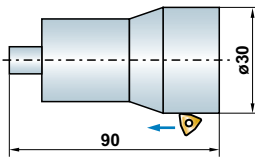
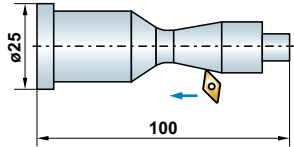
### Clamped state

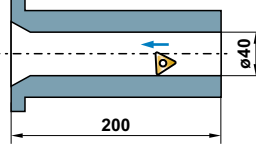
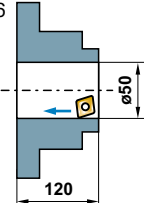
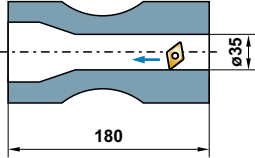


- If chips interfere or wrap around the clamp screw, the selected insert breaker may not be suitable. In this case, a review of the insert breaker is recommended as this may affect the surface finish accuracy of the workpiece.

**DOUBLE CLAMP SERIES**

## Application Example

Tool	DCLNL2525M12	DWLN2020K08	DVJNR2525M16	
Insert	CNMG120408-MA	WNMG080408-SA	VNMG160408-MV	
Grade	UE6010	UE6010	UE6020	
Workpiece	JIS S53C 	JIS S45C 	JIS SCM440 	
Cutting Conditions	Cutting Speed (m/min)	140 – 150	150 – 222	175
	Feed (mm/rev)	0.25	0.15 – 0.4	0.4
	Depth of Cut (mm)	1.0 – 3.5	1.0 – 2.0	1.0
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	A32S-DTFNR16	A32S-DCLNR12	A25R-DDUNR15	
Insert	TNMG160404-MS	CNMG120408-MS	DNMG150408-MA	
Grade	US7020	VP15TF	UE6020	
Workpiece	JIS S45C 	JIS SUS316 	JIS SCM440 	
Cutting Conditions	Cutting Speed (m/min)	150	130	150
	Feed (mm/rev)	0.4	0.2	0.25
	Depth of Cut (mm)	1.0	2.0	1.5
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.	

## 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 spanner.

**MITSUBISHI MATERIALS CORPORATION**


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Design, Development and  
Production of Cemented  
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 (Tools specifications subject to change without notice.)