

Internal Coolant Holders

Through-clamp coolant supply
improves chip evacuation
and tool life



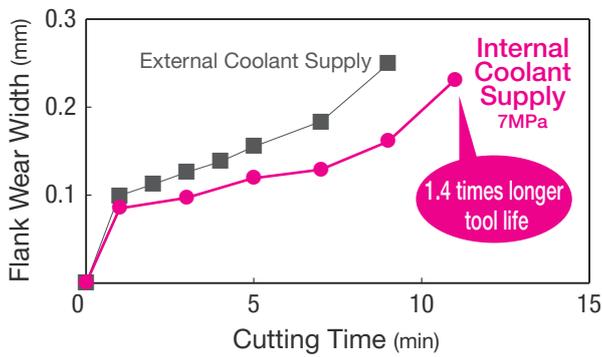
Internal Coolant Holders



■ Features

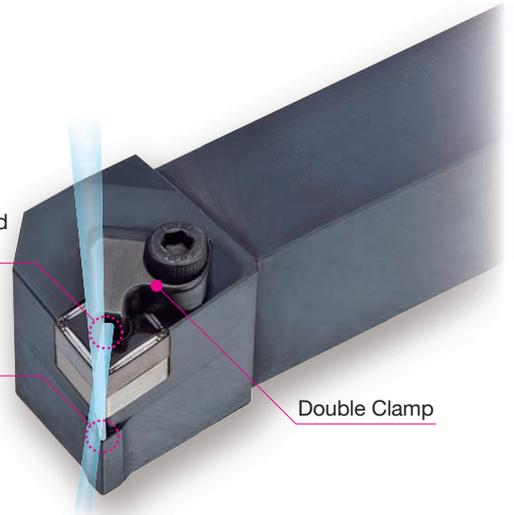
- Through-clamp internal coolant supply holder improves chip evacuation and tool life
- Enables directed coolant supply from a close range, towards the cutting edge
- Suppresses flank wear with additional coolant supply to the flank face
- Realises high rigidity and indexing accuracy with double clamping

■ Wear Resistance



Coolant supply near the rake face directed at the cutting edge

Coolant supply from the bottom suppresses flank wear

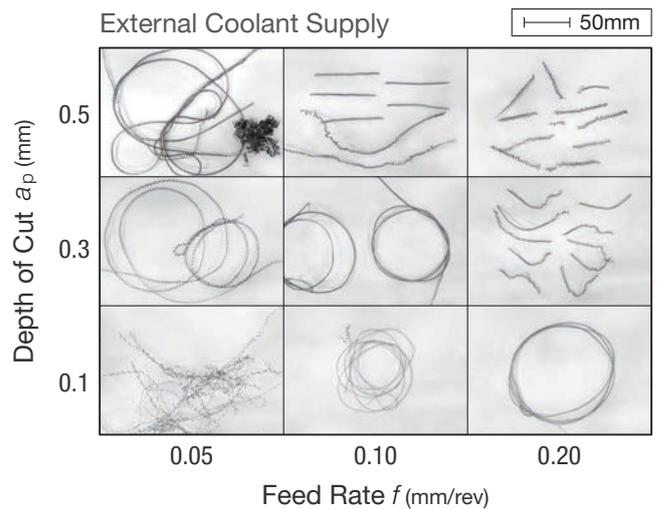
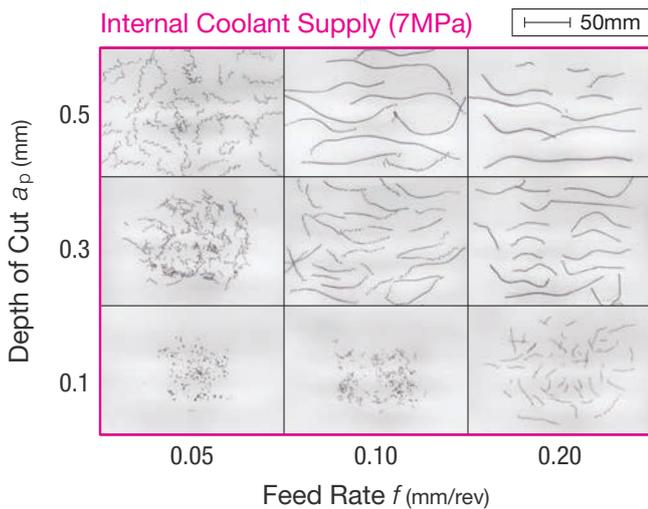


Double Clamp

Work Material: SUS316 Holder: DDJN R2525K15-J Insert: DNMG150408N-FE Cutting Conditions: $v_c = 300\text{m/min}^*$ $f = 0.1\text{mm/rev}$ $a_p = 0.5\text{mm}$ Wet

*Evaluated under high-speed cutting conditions due to accelerated testing.

■ Chip Control



Work Material: SCM415 Holder: DDJN R2525K15-J Insert: DNMG150408N-FE Cutting Conditions: $v_c = 300\text{m/min}$ Wet

Internal Coolant Holders

New



Internal Coolant

SEC-D Type Holder - General Turning, Facing and Profiling
Internal Coolant Supply Double Clamp

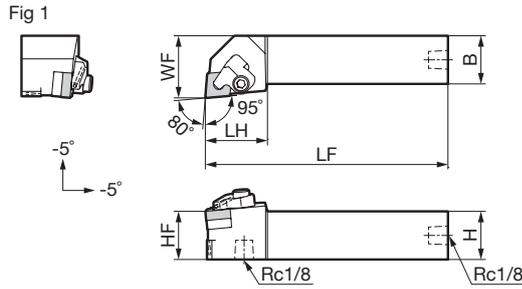
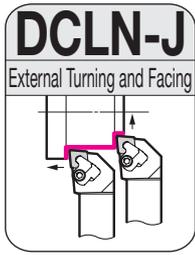


Figure shows right-handed (R) tool.

Holder

Parts

Dimensions (mm)

Cat. No.	Stock		Height H	Width B	Overall Length LF	Cutting Edge WF	Cutting Edge Height HF	Head LH	Applicable Inserts Cat. No.	Fig	Clamp Plate	Cap Screw	Spring	O-ring	Shim	Shim Screw	Wrench for Shim	Top Hex Wrench	Bottom Hex Wrench	Plug	
	R	L																			
DCLN R/L2020K12-J	●	●	20	20	125	27	20	32	CN□□1204	1	JC R/L-01	CP-M5-20-1	5.0	CSP12J	SS060	CNS1204	BFTX0409N	TRX15(*)	LH040	LH025	XP02
DCLN R/L2525K12-J	●	●	25	25	125	32	25	32													

* Wrench for shim is sold separately from the main body.

New



Internal Coolant

SEC-D Type Holder - General Turning and Profiling
Internal Coolant Supply Double Clamp

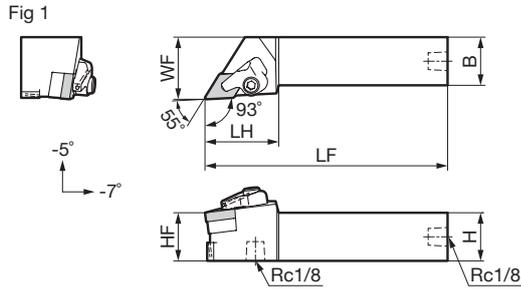
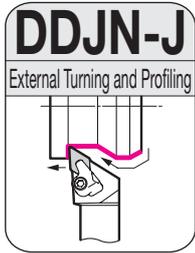


Figure shows right-handed (R) tool.

Holder

Parts

Dimensions (mm)

Cat. No.	Stock		Height H	Width B	Overall Length LF	Cutting Edge WF	Cutting Edge Height HF	Head LH	Applicable Inserts Cat. No.	Fig	Clamp Plate	Cap Screw	Spring	O-ring	Shim	Shim Screw	Wrench for Shim	Top Hex Wrench	Bottom Hex Wrench	Plug	
	R	L																			
DDJN R/L2020K15-J	●	●	20	20	125	26	20	38	DN□□1504	1	JD R/L-01	CP-M5-20-1	5.0	CSP12J	SS060	DNS1504	BFTX0409N	TRX15(*)	LH040	LH025	XP02
DDJN R/L2525K15-J	●	●	25	25	125	32	25	38													
DDJN R/L2525K15E-J	●	●	25	25	125	32	25	38	DN□□1506	1	JD R/L-01	CP-M5-20-1	5.0	CSP12J	SS060	DNS1506	BFTX0409N	TRX15(*)	LH040	LH025	XP02

* Wrench for shim is sold separately from the main body.

Refer to the chapter on "Indexable Inserts" in the General Catalogue for applicable inserts.

● mark: Standard stocked item Recommended Tightening Torque (N·m)

Internal Coolant Holders



SEC-D Type Holder - General Turning and Profiling
Internal Coolant Supply Double Clamp

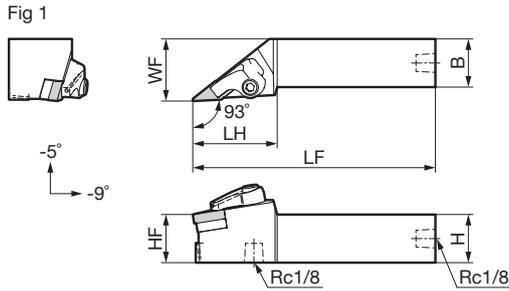
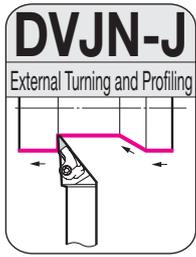


Figure shows right-handed (R) tool.

Holder

Parts

Dimensions (mm)

Cat. No.	Stock		Height H	Width B	Overall Length LF	Cutting Edge WF	Cutting Edge Height HF	Head LH	Applicable Inserts Cat. No.	Fig	Clamp Plate	Cap Screw	Spring	O-ring	Shim	Shim Screw	Wrench for Shim	Top Hex Wrench	Bottom Hex Wrench	Plug	
	R	L																			
DVJN R/L2020K16-J	●	●	20	20	125	27	20	43	VN□□1604	1	JV R/L-01	CP-M5-20-1	5.0	CSP12J	SS060	VNS1604	BFTX0307N	TRX10(*)	LH040	LH025	XP02
DVJN R/L2525K16-J	●	●	25	25	125	32	25	43													

* Wrench for shim is sold separately from the main body.



SEC-D Type Holder - General Turning and Facing
Internal Coolant Supply Double Clamp

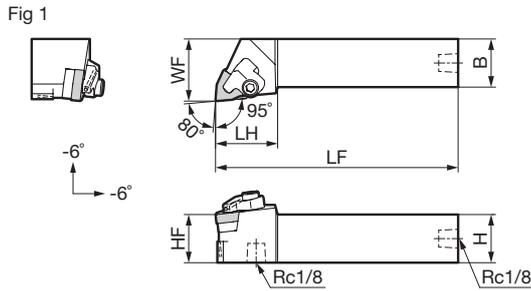
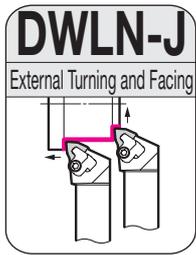


Figure shows right-handed (R) tool.

Holder

Parts

Dimensions (mm)

Cat. No.	Stock		Height H	Width B	Overall Length LF	Cutting Edge WF	Cutting Edge Height HF	Head LH	Applicable Inserts Cat. No.	Fig	Clamp Plate	Cap Screw	Spring	O-ring	Shim	Shim Screw	Wrench for Shim	Top Hex Wrench	Bottom Hex Wrench	Plug	
	R	L																			
DWLN R/L2020K08-J	●	●	20	20	125	26	20	32	WN□□0804	1	JC R/L-01	CP-M5-20-1	5.0	CSP12J	SS060	WNS0804	BFTX0409N	TRX15(*)	LH040	LH025	XP02
DWLN R/L2525K08-J	●	●	25	25	125	32	25	32													

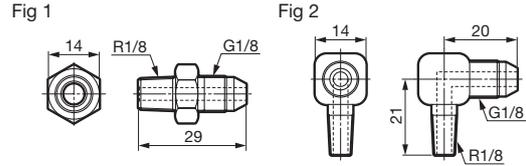
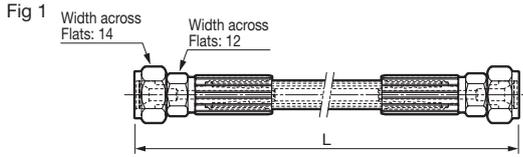
* Wrench for shim is sold separately from the main body.

Refer to the chapter on "Indexable Inserts" in the General Catalogue for applicable inserts.

● mark: Standard stocked item (N-m) Recommended Tightening Torque (N-m)

Internal Coolant Holders

Parts for Internal Coolant Holder Piping



Parts (Hose)

Cat. No.	Stock	Dimensions (mm)			
		L	Screw Standard	Screw Standard	Fig
J-HOSE-G1/8-G1/8-200	●	200	G1/8	G1/8	1
J-HOSE-G1/8-G1/8-300	●	300	G1/8	G1/8	1

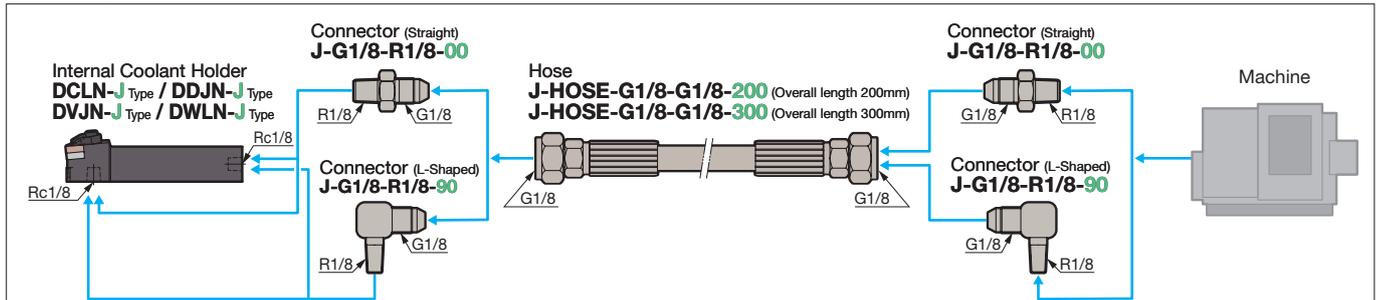
Hoses are sold separately.

Parts (Connector)

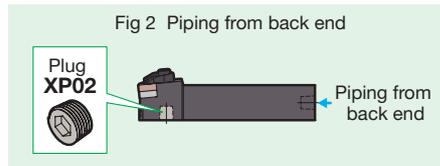
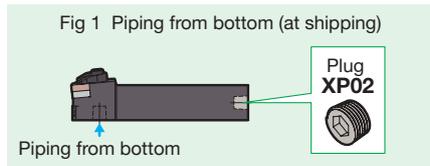
Cat. No.	Stock	Dimensions (mm)		
		Screw Standard	Screw Standard	Fig
J-G1/8-R1/8-00	●	G1/8	R1/8	1
J-G1/8-R1/8-90	●	G1/8	R1/8	2

Connectors are sold separately.

Piping Method for Hoses and Connectors

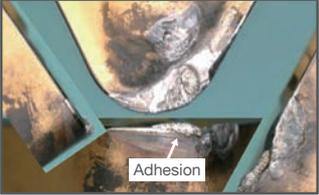
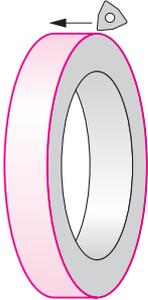
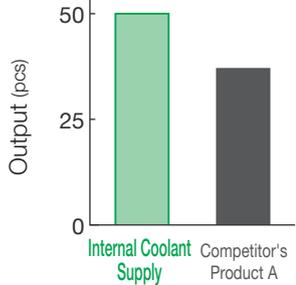
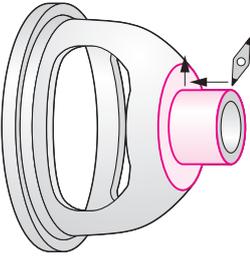
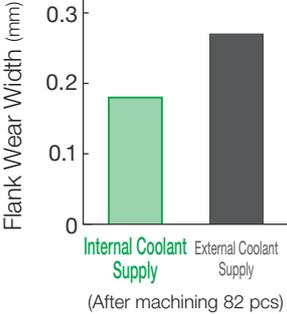
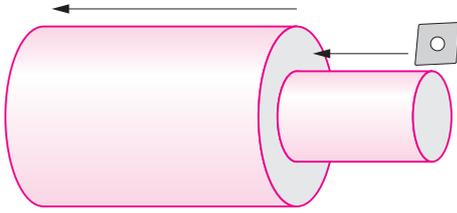


- Apply sealant such as commercial sealing tape to the piping connection parts.
- Internal coolant holders have a plug (XP02) mounted on the holder back end at shipping. (See Fig 1) When piping from the holder back end, mount a plug (XP02) on the bottom of the holder for use. (See Fig 2)



Internal Coolant Holders

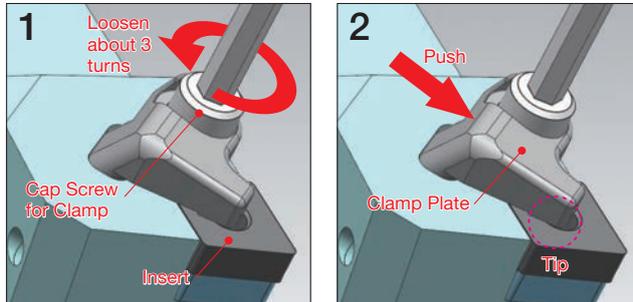
Application Examples

<p>SCM435H Shaft P</p> <p>With secure coolant supply to the machining point, expanded damage due to adhesion is significantly suppressed</p> <div style="display: flex; justify-content: space-around;">   </div> <p>Internal Coolant Supply After machining 33 pcs External Coolant Supply After machining 33 pcs</p> <p>Body: DDJNR2525K15E-J Insert: DNMG150612N-GU Cutting Conditions: $v_c = 163\text{m/min}$ $f = 0.35\text{mm/rev}$ $a_p = 2.10\text{mm}$ Wet (1MPa)</p>	<p>SCM415 Ring P</p> <p>With internal coolant supply at normal pressure, tool life is 35% extended and chip evacuation is also improved</p> <div style="display: flex; align-items: center;">   </div> <p>Body: DWLNR2525K08-J Insert: WNMG080408N-SEW Cutting Conditions: $v_c = 300\text{m/min}$ $f = 0.35\text{mm/rev}$ $a_p = 1.00$ to 1.50mm Wet (1MPa)</p>
<p>FCD600 Differential Case K</p> <p>Suppresses flank wear through the use of internal coolant supply Suppresses dimensional variation for stable quality</p> <div style="display: flex; align-items: center;">   </div> <p>Body: DDJNR2525K15-J Insert: 2NU-DNGA150412 Cutting Conditions: $v_c = 198\text{m/min}$ $f = 0.15\text{mm/rev}$ $a_p = 0.20$ to 0.30mm Wet (1MPa)</p>	<p>SCM420 Automotive Component P</p> <p>High-pressure internal coolant supply split chips prone to lengthening at small depths of cut, realising stable machining</p>  <p>Body: DCLNL2525K12-J Insert: CNMG120408N-FE Cutting Conditions: $v_c = 300\text{m/min}$ $f = 0.1\text{mm/rev}$ $a_p = 0.3\text{mm}$ Wet (7MPa)</p>

Precautions for SEC-External Holders / Internal Coolant Holders

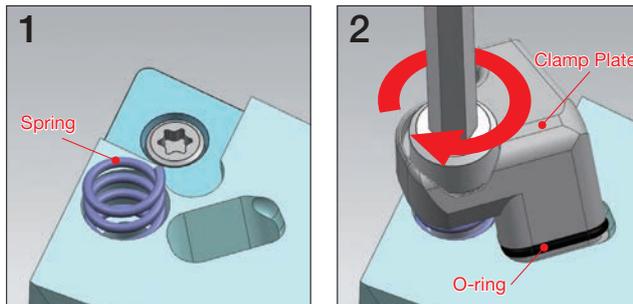
■ Insert Mounting and Removing Precautions

- Use a wrench to loosen the cap screw for clamp by about three turns, and then remove the insert. (Fig 1 below)
- If the clamp plate tip catches on the insert when removing, push the clamp plate in the arrow direction as in Fig 2 below.



■ Precautions for Removing and Assembling O-Rings and Clamps

- O-rings are consumable parts. If worn or damaged, replace with a new O-ring as stipulated.
- When replacing, remove the cap screw and then remove the clamp from the body. (Be careful not to lose the spring). Remove the old O-ring from the clamp plate, clean the clamp plate groove, and then set the new O-ring so that it fits entirely into the groove.
- When setting the clamp plate, as in Fig 1 below, place the spring and then set and tighten the clamp plate and cap screw to mount the clamp plate on the body. (Fig 2 below) **Be careful at this point that the O-ring does not protrude.**
- When mounting the clamp plate, **do not tighten the cap screw forcefully all the way to the bottom** without setting the insert.



Sumitomo Electric Cutting Tools Official Apps for iOS/Android



Cutting calculation App

SumiTool Calculator



Grade & chipbreaker comparison App

SumiTool Converter



< SAFETY NOTES >



- Very hot or lengthy chips may be discharged while the machine is in operation. Therefore, machine guards, safety goggles or other protective covers must be used. Fire safety precautions must also be considered.

- Please handle with care as this product has sharp edges.
- Improper cutting conditions or mis-handling of the tool may result in breakages or projectiles. Therefore, please use the tool within its recommended conditions.

- When using non-water soluble cutting oil, precautions against fire must be taken and please ensure that a fire extinguisher is placed near the machine.

 Sumitomo Electric Industries, Ltd.

Hardmetal Division

Global Marketing Department : 1-1-1, Koyakita, Itami, Hyogo 664-0016, Japan

<https://www.sumitool.com/global>