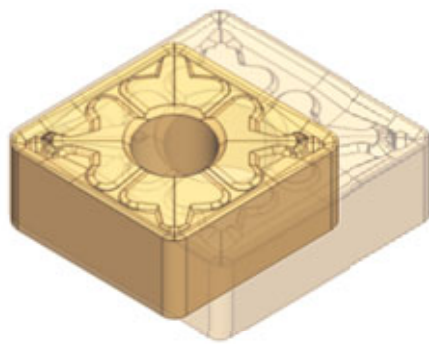


Cartridge Set allowing the use of ISO-EcoTurn insert with **no need to swap** the toolholder

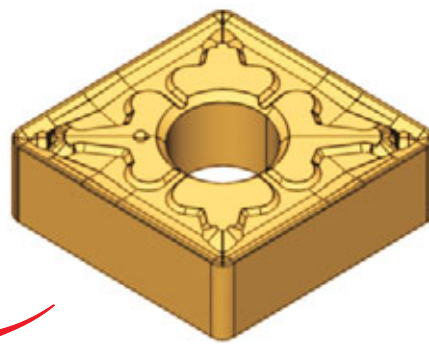




ACCELERATED MACHINING



ISO E^{CO}TURN
CNMG090408E type






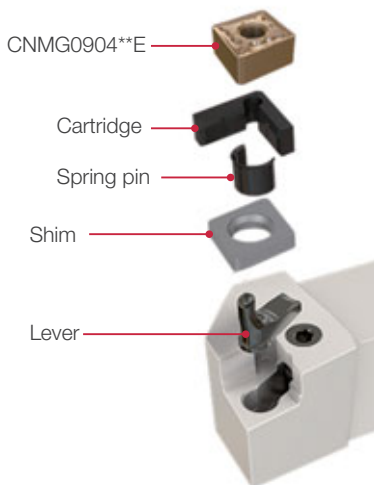
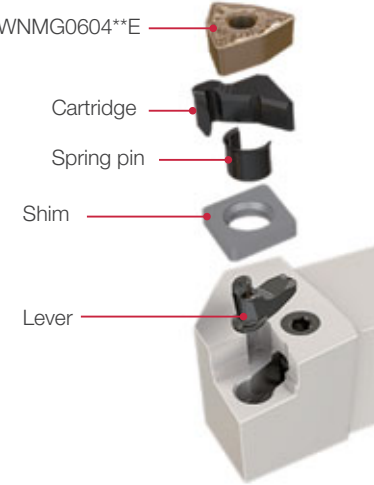
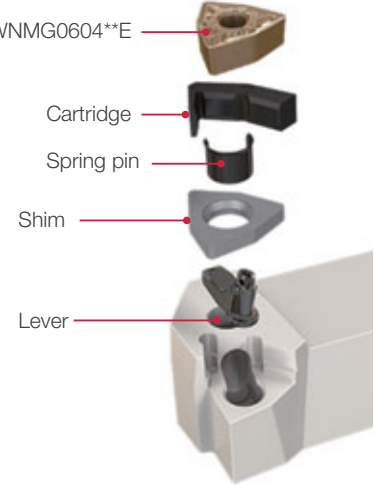
Regular size inserts
CNMG120408 type



Cost effective:
Identical cutting performance, only smaller

ISO-EcoTurn Small size inserts, for an economical advantage

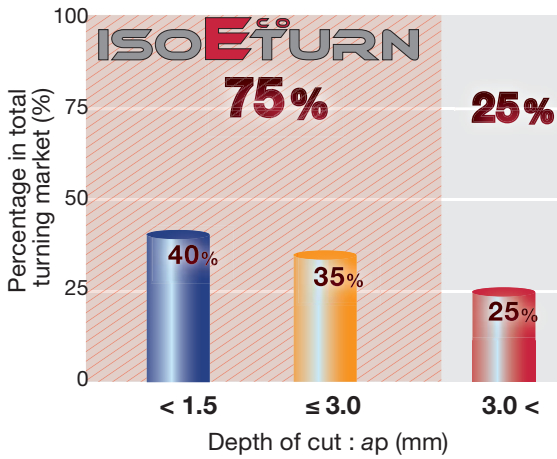
Cartridge Set allows more flexible use of ISO-EcoTurn inserts and the ability to use them to the full potential of cost efficiency and productivity

Applicable combination	CNMG1204... ↓ ISO-EcoTurn CNMG0904**E	CNMG1204... ↓ ISO-EcoTurn WNMG0604**E	WNMG0804... ↓ ISO-EcoTurn WNMG0604**E
Cartridge Set + ISO-EcoTurn Insert	 <p style="text-align: center;">New</p>	 <p style="text-align: center;">New</p>	 <p style="text-align: center;">New</p>
Detail of Cartridge Set	 <p>CNMG0904**E</p> <p>Cartridge</p> <p>Spring pin</p> <p>Shim</p> <p>Lever</p>	 <p>WNMG0604**E</p> <p>Cartridge</p> <p>Spring pin</p> <p>Shim</p> <p>Lever</p>	 <p>WNMG0604**E</p> <p>Cartridge</p> <p>Spring pin</p> <p>Shim</p> <p>Lever</p>
Cartridge Set	AD-CL-4/3-SET AD-CL-4/3-SET-S	AD-CL-4/3-W-SET	AD-WL-4/3-SET
Applicable Tool holder	PCLNR/L**12	PCLNR/L**12	PWLNR/L**08

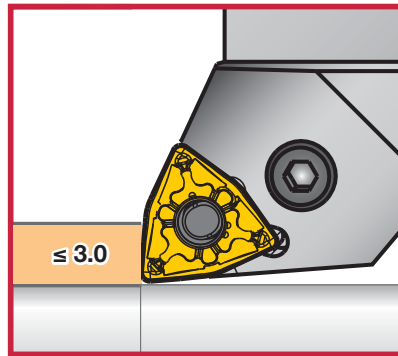
Note: How to install the cartridge set page 11. Cartridge set cannot be assembled on Tungaloy's P-style holders. This product might correspond to the Export Trade Control Order. When you export this product, you might need apply for export licenses to the authorities in your country.

Over 75%* of the turning market only uses a depth of cut at or less than 3 mm

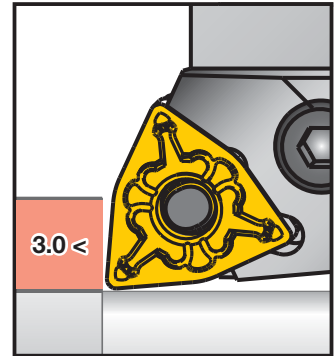
* Based on Tungaloy market research.



ISO ETURN
75% WNMG060408E type



Regular size inserts
WNMG080408 type 25%



Chip control

ISO-EcoTurn inserts incorporate an identical chipbreaker geometry as regular size inserts providing the same chip removal at a depth of cut up to 3 mm.

Workpiece : S45C / C45
Cutting speed : $V_c = 200$ m/min
Coolant : Wet

ISO ETURN
CNMG090408E-TM

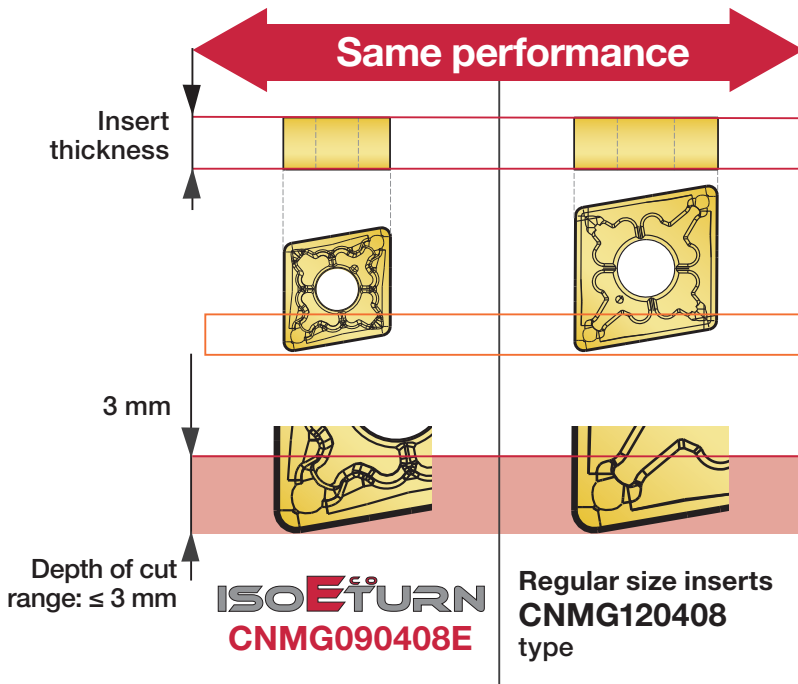
Depth of cut : ap (mm)	3.0					
	2.0					
	1.5					
	1.0					
	0.5					
Condition	0.10	0.15	0.20	0.30	0.40	
Feed : f (mm/rev)						

Regular size inserts
CNMG120408-TM

Depth of cut : ap (mm)	3.0					
	2.0					
	1.5					
	1.0					
	0.5					
Condition	0.10	0.15	0.20	0.30	0.40	
Feed : f (mm/rev)						

Uncompromising insert performance

- Comparison of ISO-EcoTurn and regular size inserts

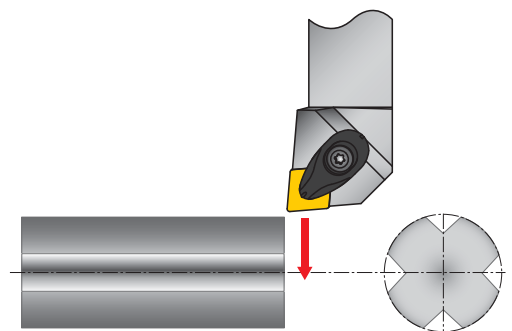
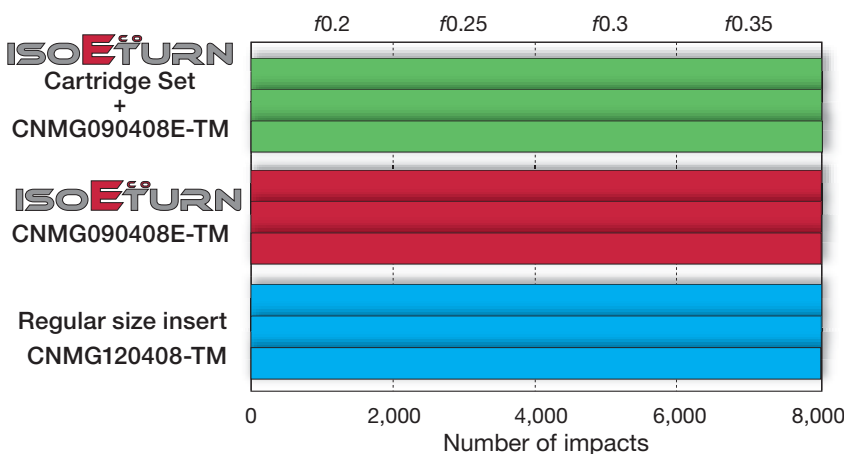


ISO-EcoTurn inserts feature the identical thickness and chipbreaker geometry as Tungaloy's regular size inserts.

These properties provide cutting performance equal to that of the regular size inserts, including chip control at a depth of cut up to 3 mm.

Fracture resistance

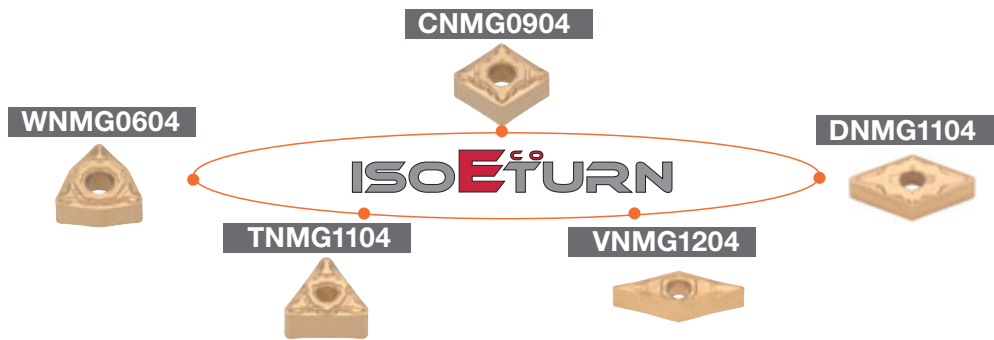
- Even used Cartridge Set ISO-Eco Turn insert preserves the thickness of standard inserts in order to maintain fracture resistance.



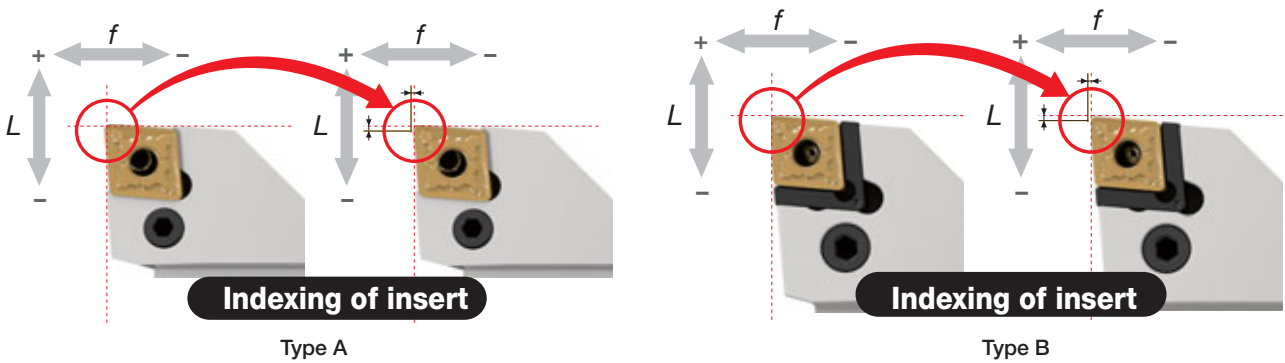
Workpiece : S45C / C45
 Cutting speed : $V_c = 150$ m/min
 Feed : $f = 0.2 - 0.35$ mm/rev
 Depth of cut : $a_p = 3.0$ mm
 Work process : Face turning (Interrupted)
 Coolant : Wet

A complete tooling solution now available with ISO-EcoTurn

For a wide range of turning applications.



Indexing accuracy



Type	Tool holder	Insert	Cartridge Set	<i>f</i> direction (µm)	<i>L</i> direction (µm)
A: ISO-EcoTURN	PCLNR**09	CNMG090412E-TM	-	1	2
B: ISO-EcoTURN + Cartridge Set	PCLNR**12	CNMG090412E-TM	AD-CL-4/3-SET	1.7	2.5
C: Competitor P-type tool holder	PCLNR**12	CNMG120412-TM	-	2	4

GRADES & CHIPBREAKERS

T9200 SERIES (CVD)

PREMIUMTEC

TUNGALOY

- T9205** : Good wear resistance
- T9215** : First choice for machining steel
- T9225** : Grade with a good balance of wear resistance and fracture toughness

NS9530 & GT9530

(Cermet) (Coated cermet)

PREMIUMTEC

TUNGALOY

- NS9530** : Suitable for finishing to medium cutting of steel
- GT9530** : Ideal for finishing with high surface quality

AH600 SERIES (PVD)

PREMIUMTEC

TUNGALOY

- AH630** : Good resistance to wear and fracture in machining stainless steel at low to medium cutting speed
- AH645** : High fracture resistance in machining stainless steel

T6100 SERIES (CVD)

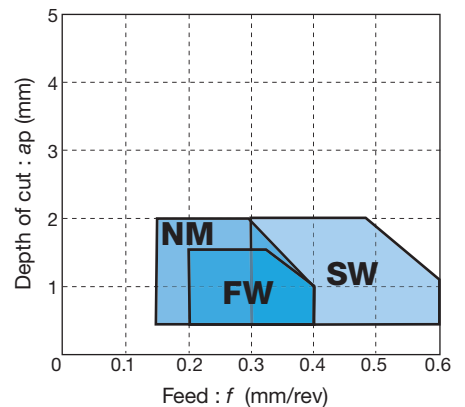
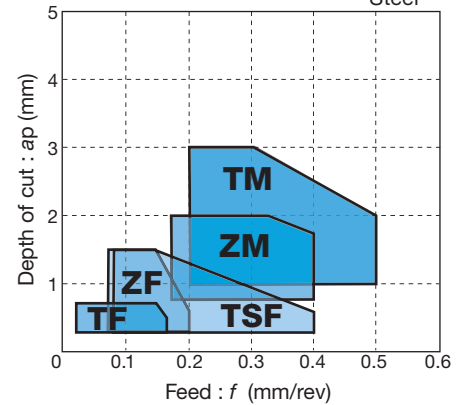
PREMIUMTEC

TUNGALOY

- T6120** : Good wear resistance in continuous cutting at high speed
- T6130** : High wear resistance in cutting at medium to high speed

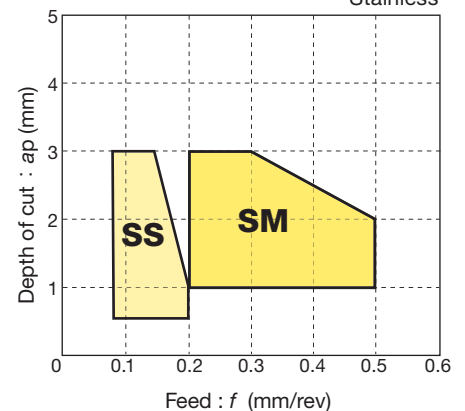
P

Steel



M

Stainless



GRADES & CHIPBREAKERS

T5100 SERIES (CVD)

PREMIUMTEC
TUNGALOY

T5115 : Stable machining in a wide range of applications from continuous to interrupted cutting

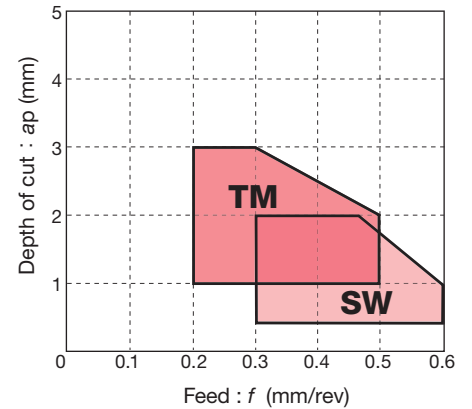
T515 (CVD)

PREMIUMTEC
TUNGALOY

T515 : Good wear resistance even in high speed machining



Cast Iron



AH8000 SERIES (PVD)

PREMIUMTEC
TUNGALOY

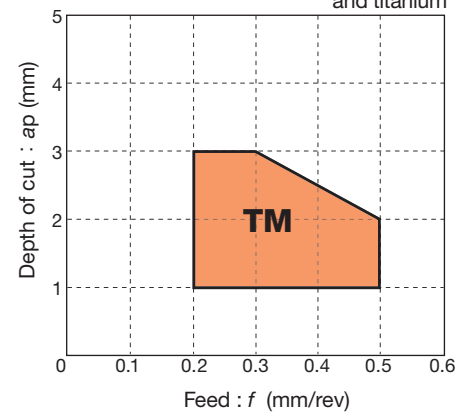
AH8015 : Strong resistance to wear and built up edge



Stainless



Superalloys and titanium



AH120 (PVD)

PREMIUMTEC
TUNGALOY

AH120 : Suitable for machining steel, stainless steel, cast iron and heat resistant alloys under general cutting conditions



Steel



Stainless



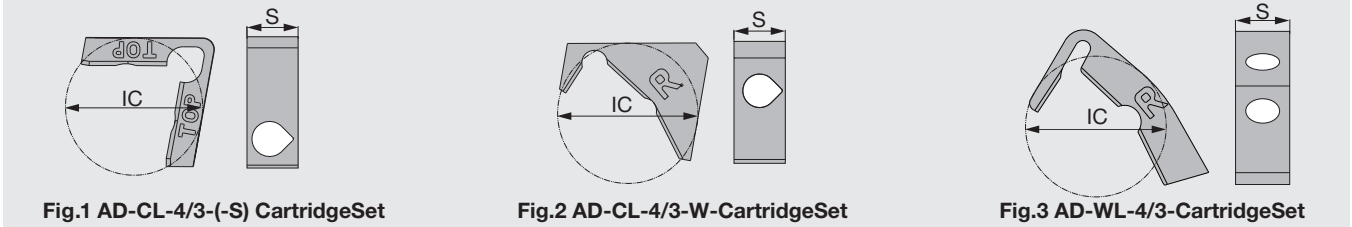
Cast Iron



Superalloys and titanium




AD-*L-4/3-***-SET**



Cartridge Set for ISO-Eco Turn insert



Designation	IC	S	Insert	Fig.
AD-CL-4/3-SET	12.7	4.72	CNM**0904**E	1
AD-CL-4/3-SET-S	12.7	4.72	CNM**0904**E	1
AD-CL-4/3-W-SET	12.7	5	WNM**0604**E	2
AD-WL-4/3-SET	12.7	5	WNM**0604**E	3

Cartridge set cannot be assembled on Tungaloy's P-style holders.

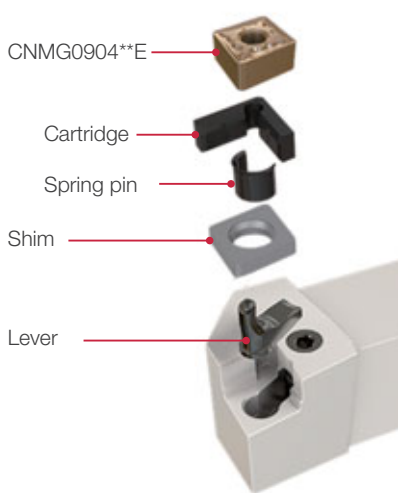
SPARE PARTS			
Designation	Cartridge	Lever	Wrench
AD-CL-4/3-SET	AD-CL-4/3	LR4/3	HW3.0/5
AD-CL-4/3-SET-S	AD-CL-4/3	LR4/3-T	HW3.0/5
AD-WL-4/3-SET	AD-WL-4/3	LR4/3	HW3.0/5
AD-CL-4/3-W-SET	AD-CL-4/3-W	LR4/3	HW3.0/5

	
Shim	Spring pin
TCN423	-
TWN423	-
LSC42-ECO D30	LSP4

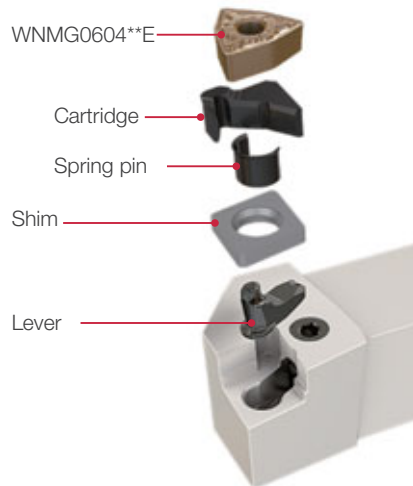
Shim and spring are not included

How to install the Cartridge Set

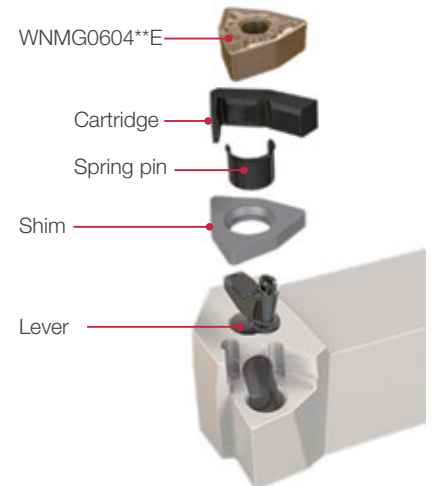
- ① Remove the Shim sheet and Lever from the using toolholder (P type : Lever lock style).
- ② Install the Lever → Shim sheet → Spring Pin → Cartridge.
- Note: Use the key for easy assembly of the spring pin.
- ③ Offset the cutting edge position.
- ④ OK to machining.



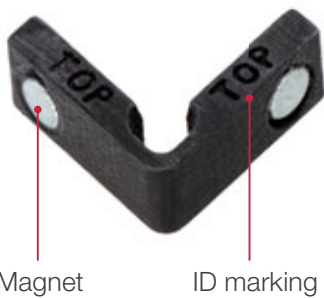
Cartridge for
CNMG12 ⇒ Eco CNMG09



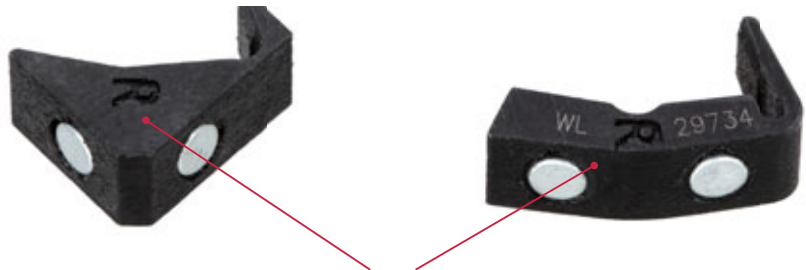
Cartridge for
CNMG12 ⇒ Eco WNMG06



Cartridge for
WNMG08 ⇒ Eco WNMG06

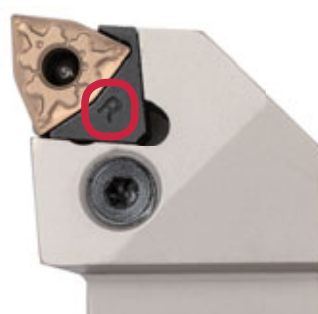


Magnet ID marking



Make sure to place the "R" side face up when using the right-hand insert

◆ Ensures TOP side is placed face up for both right- and left-hand inserts

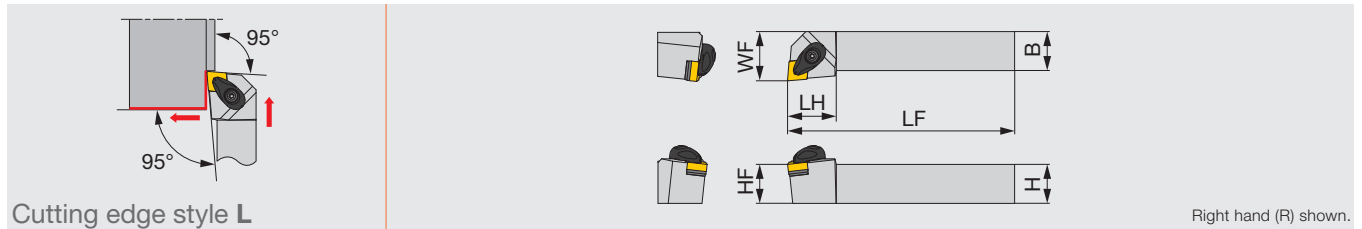


Note: Cartridge set cannot be assembled on Tungaloy's P-style holders.
This product might correspond to the Export Trade Control Order.
When you export this product, you might need apply for export licenses to the authorities in your country.

External toolholders

ACLNR/L-Eco

Double-clamp toolholder with 95° approach angle, for negative 80° rhombic inserts



Designation	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
ACLNR/L2020K0904-A	20	20	125	25	20	25	0.8	CN**0904...	3
ACLNR/L2525M0904-A	25	25	150	25	25	32	0.8	CN**0904...	3

*Torque: Recommended torque (N-m) for clamping

**RE: The holder measurements are true with this insert radius

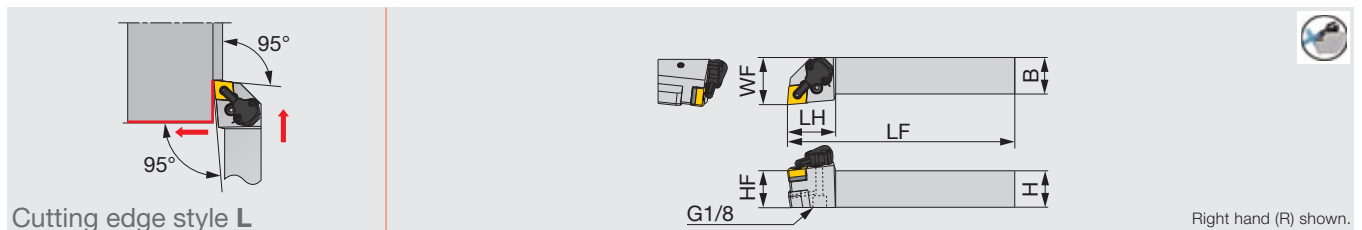
SPARE PARTS

Designation	Clamp	Clamp screw	Spring	Spring pin	Shim	Shim screw	Wrench
ACLNR/L**0904-A	ACP3S-E	ACS-5W	BP-7	SP-2.5	ASC322	CSTB-3.5	T-15F

TUNG T^{URN}JET

PCLNR/L-CHP-Eco

Lever-lock toolholder with 95° approach angle, for negative 80° rhombic inserts, with high pressure coolant capability



Designation	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
PCLNR/L2020K0904-CHP	20	20	125	33	20	32	0.8	CN**0904...	2
PCLNR/L2525M0904-CHP	25	25	150	33	25	32	0.8	CN**0904...	2

*Torque: Recommended torque (N-m) for clamping

**RE: The holder measurements are true with this insert radius

SPARE PARTS

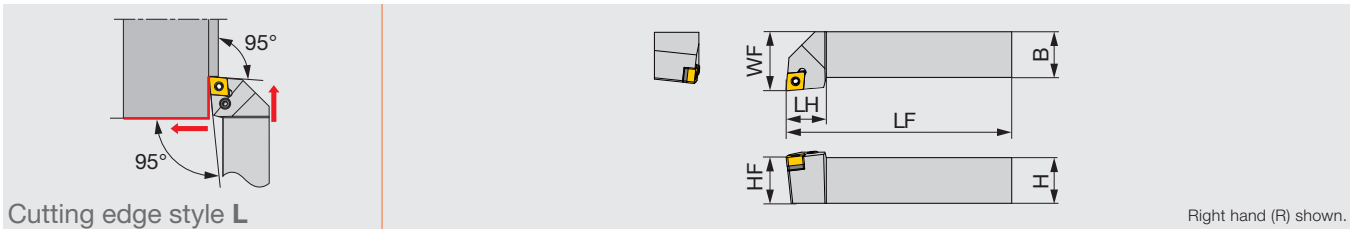
Designation	Shim	Clamping screw	Wrench 1	Spring pin	Lever
PCLNR/L**0904-CHP	LSC317	LCS3	P-2.5	LSP3	LCL33

SPARE PARTS

Designation	Coolant unit	Mounting screw	Wrench 2	O-ring	Coolant screw	Wrench 3
PCLNR/L**0904-CHP	CU-CW-CHP	SRM3	T-8F	OR6.4X0.9N	SRM4X4TL360	P-2

PCLNR/L-Eco

Lever-lock toolholder with 95° approach angle, for negative 80° rhombic inserts



Designation	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
PCLNR/L2020K0904	20	20	125	20	20	25	0.8	CN**0904...	2
PCLNR/L2525M0904	25	25	150	25	25	32	0.8	CN**0904...	2

*Torque: Recommended torque (N·m) for clamping

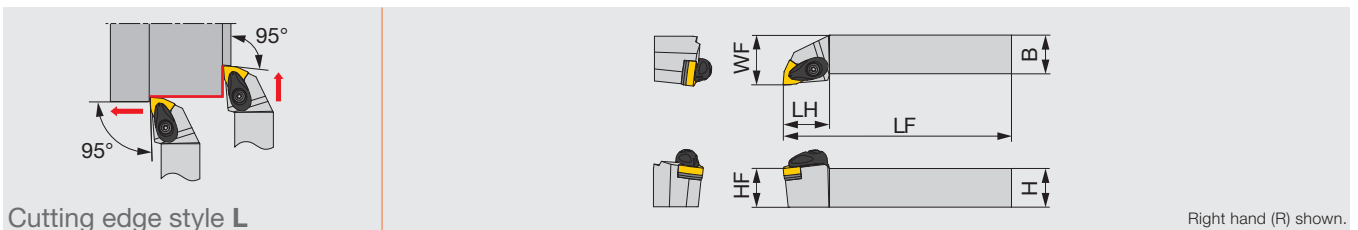
**RE: The holder measurements are true with this insert radius

SPARE PARTS

Designation	Shim	Clamping screw	Wrench	Spring pin	Lever
PCLNR/L**0904	LSC317	LCS3	P-2.5	LSP3	LCL33

AWLNR/L-Eco

Double-clamp toolholder with 95° approach angle, for negative 80° trigon inserts



Designation	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
AWLNR/L2020K0604-A	20	20	125	27	20	25	0.8	WN**0604...	3
AWLNR/L2525M0604-A	25	25	150	27	25	32	0.8	WN**0604...	3

*Torque: Recommended torque (N·m) for clamping

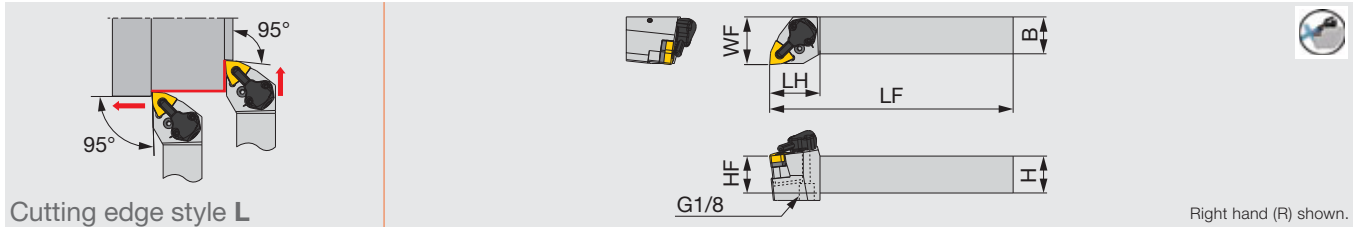
**RE: The holder measurements are true with this insert radius

SPARE PARTS

Designation	Clamp	Clamp screw	Spring	Spring pin	Shim	Shim screw	Wrench
AWLNR/L**0604-A	ACP3S-E	ACS-5W	BP-7	SP-2.5	ASW322	CSTB-3.5	T-15F

TUNGTURN PWLNR/L-CHP

Lever-lock toolholder with 95° approach angle, for negative 80° trigon inserts, with high pressure coolant capability



Designation	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
PWLNR/L2020K0604-CHP	20	20	125	34	20	32	0.8	WN**0604...	2
PWLNR/L2525M0604-CHP	25	25	150	34	25	32	0.8	WN**0604...	2

*Torque: Recommended torque (N-m) for clamping

**RE: The holder measurements are true with this insert radius

SPARE PARTS

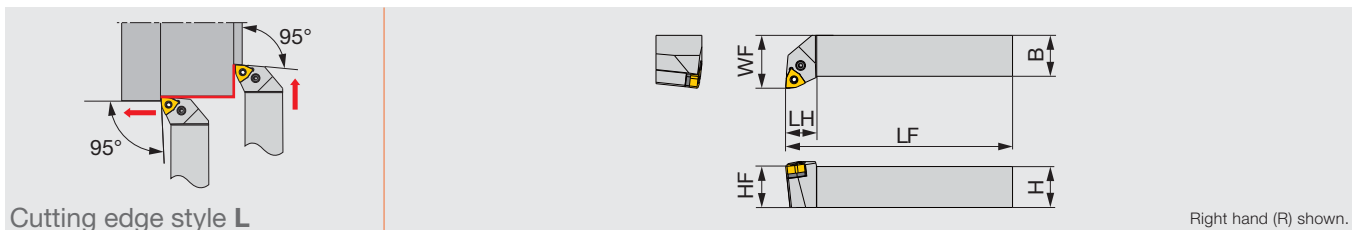
Designation	Shim	Clamping screw	Wrench 1	Spring pin	Lever
PWLNR/L**0604-CHP	LSW312	LCS3	P-2.5	LSP3	LCL3

SPARE PARTS

Designation	Coolant unit	Mounting screw	Wrench 2	O-ring	Coolant screw	Wrench 3
PWLNR/L**0604-CHP	CU-CW-CHP	SRM3	T-8F	OR6.4X0.9N	SRM4X4TL360	P-2

PWLNR/L-Eco

Lever-lock toolholder with 95° approach angle, for negative 80° trigon inserts



Designation	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
PWLNR/L2020K0604	20	20	125	15	20	25	0.8	WN**0604...	2
PWLNR/L2525M0604	25	25	150	19	25	32	0.8	WN**0604...	2

*Torque: Recommended torque (N-m) for clamping

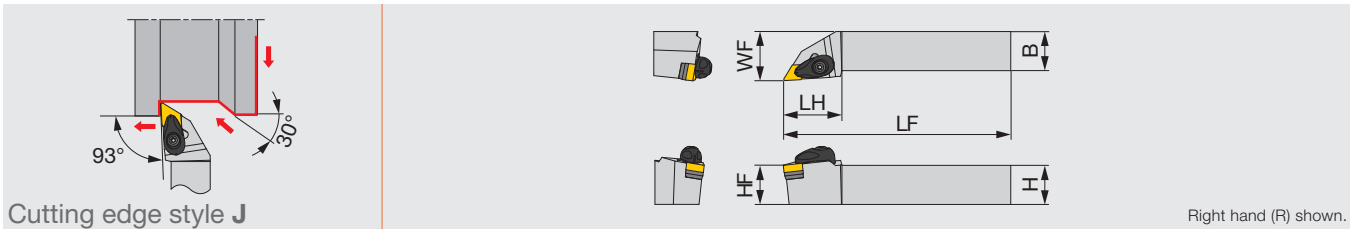
**RE: The holder measurements are true with this insert radius

SPARE PARTS

Designation	Shim	Clamping screw	Wrench	Spring pin	Lever
PWLNR/L**0604	LSW312	LCS3	P-2.5	LSP3	LCL3

ADJNR/L-Eco

Double-clamp toolholder with 93° approach angle, for negative 55° rhombic inserts



Designation	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
ADJNR/L2020K1104-A	20	20	125	30	20	25	0.8	DN**1104...	3
ADJNR/L2525M1104-A	25	25	150	30	25	32	0.8	DN**1104...	3

*Torque: Recommended torque (N·m) for clamping

**RE: The holder measurements are true with this insert radius

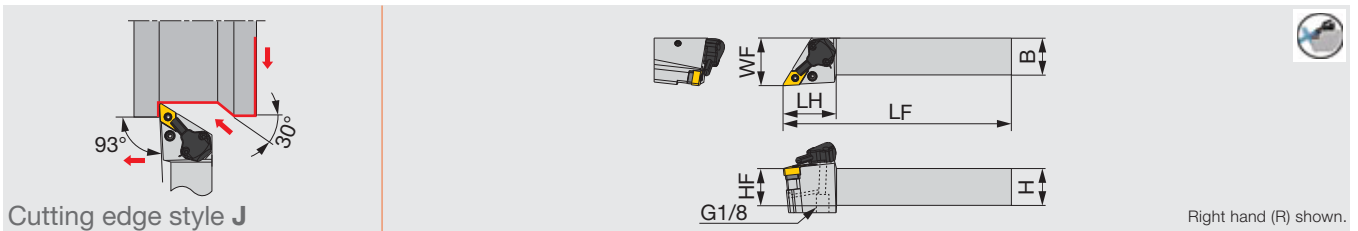
SPARE PARTS

Designation	Clamp	Clamp screw	Spring	Spring pin	Shim	Shim screw	Wrench
ADJNR/L**1104-A	ACP3S-E	ACS-5W	BP-7	SP-2.5	ASD322	CSTB-3.5	T-15F

TUNG T^{URN}JET

PDJNR/L-CHP-Eco

Lever-lock toolholder with 93° approach angle, for negative 55° rhombic inserts, with high pressure coolant capability



Designation	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
PDJNR/L2020K1104-CHP	20	20	125	36	20	32	0.8	DN**1104...	2
PDJNR/L2525M1104-CHP	25	25	150	36	25	32	0.8	DN**1104...	2

*Torque: Recommended torque (N·m) for clamping

**RE: The holder measurements are true with this insert radius

SPARE PARTS

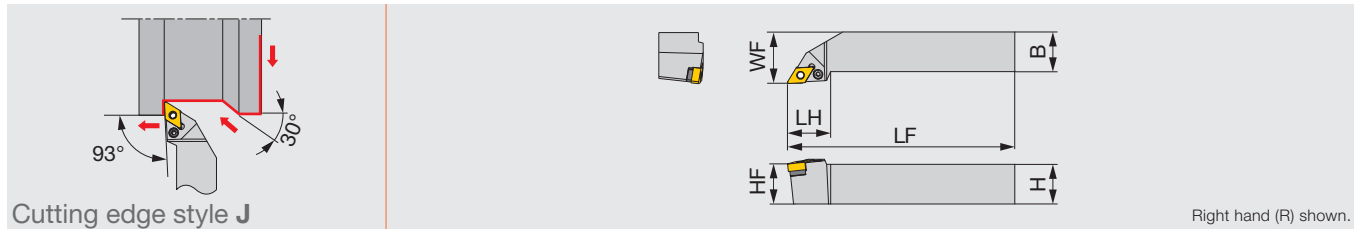
Designation	Shim	Clamping screw	Wrench 1	Spring pin	Lever
PDJNR/L**1104-CHP	ELSD32	LCS3	P-2.5	LSP3	LCL33L

SPARE PARTS

Designation	Coolant unit	Mounting screw	Wrench 2	O-ring	Coolant screw	Wrench 3
PDJNR/L**1104-CHP	CU-D-CHP	SRM3	T-8F	OR6.4X0.9N	SRM4X4TL360	P-2

PDJNR/L-Eco

Lever-lock toolholder with 93° approach angle, for negative 55° rhombic inserts



Designation	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
PDJNR/L1616H1104	16	16	100	27	16	20	0.8	DN**1104...	2
PDJNR/L2020K1104	20	20	125	27	20	25	0.8	DN**1104...	2
PDJNR/L2525M1104	25	25	150	27	25	32	0.8	DN**1104...	2

*Torque: Recommended torque (N·m) for clamping

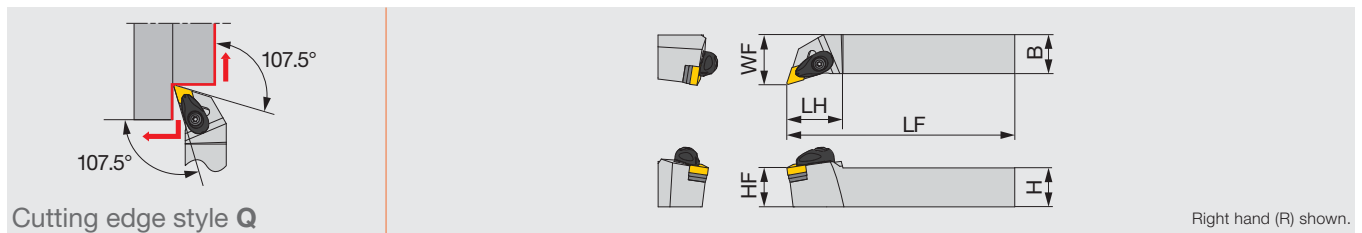
**RE: The holder measurements are true with this insert radius

SPARE PARTS

Designation	Shim	Clamping screw	Wrench	Spring pin	Lever
PDJNR/L**1104	ELSD32	LCS3	P-2.5	LSP3	LCL33L

ADQNR/L-Eco

Double-clamp toolholder with 107.5° approach angle, for negative 55° rhombic inserts



Designation	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
ADQNR/L2020K1104-A	20	20	125	30	20	25	0.8	DN**1104...	3
ADQNR/L2525M1104-A	25	25	150	30	25	32	0.8	DN**1104...	3

*Torque: Recommended torque (N·m) for clamping

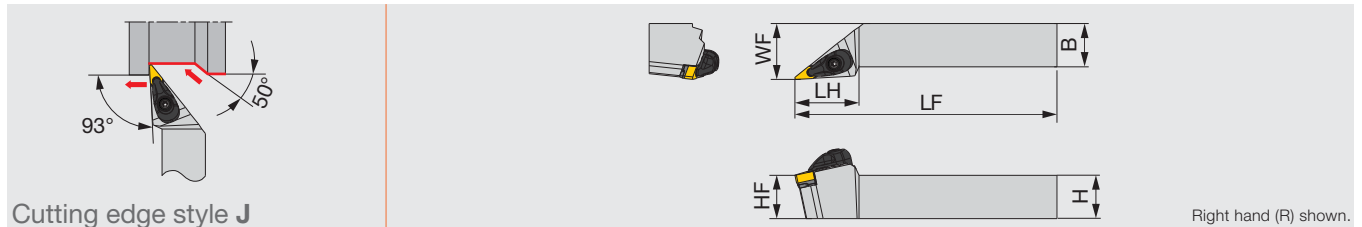
**RE: The holder measurements are true with this insert radius

SPARE PARTS

Designation	Clamp	Clamp screw	Spring	Spring pin	Shim	Shim screw	Wrench
ADQNR/L**1104-A	ACP3S-E	ACS-5W	BP-7	SP-2.5	ASD322	CSTB-3.5	T-15F

AVJNR/L-Eco

Double-clamp toolholder with 93° approach angle, for negative 35° rhombic inserts



Designation	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
AVJNR/L2020K1204-A	20	20	125	37	20	25	0.8	VN**1204...	3
AVJNR/L2525M1204-A	25	25	150	37	25	32	0.8	VN**1204...	3

*Torque: Recommended torque (N·m) for clamping

**RE: The holder measurements are true with this insert radius

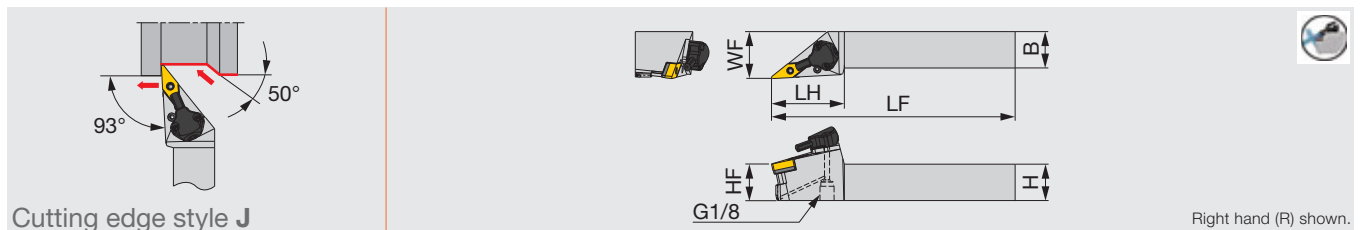
SPARE PARTS

Designation	Clamp	Clamp screw	Spring	Spring pin	Shim	Shim screw	Wrench
AVJNR/L**A	ACP3L-E	ACS-5W	BP-7	SP-2.5	ASV222	CSTB-3.0	T-15F

TUNG^{URN}TJET

PVJNR/L-CHP

Lever-lock toolholder with 93° approach angle, for negative 35° rhombic inserts, with high pressure coolant capability



Designation	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
PVJNR/L2020K1204-CHP	20	20	125	50	20	32	0.8	VN**1204...	2
PVJNR/L2525M1204-CHP	25	25	150	50	25	32	0.8	VN**1204...	2

*Torque: Recommended torque (N·m) for clamping

**RE: The holder measurements are true with this insert radius

SPARE PARTS

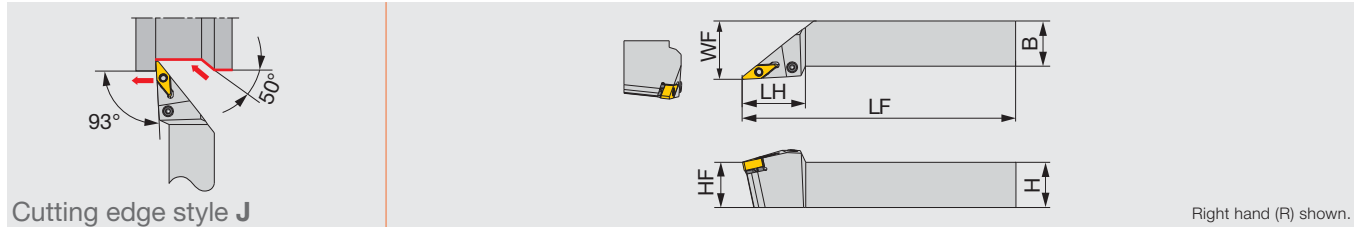
Designation	Shim	Clamping screw	Wrench 1	Spring pin	Lever
PVJNR/L**1204-CHP	LSV212	LCS3V	P-2.5	LSP3	LCL3V

SPARE PARTS

Designation	Coolant unit	Mounting screw	Wrench 2	O-ring	Coolant screw	Wrench 3
PVJNR/L**1204-CHP	CU-V-CHP	SRM3	T-8F	OR6.4X0.9N	SRM4X4TL360	P-2

PVJNR/L-Eco

Lever-lock toolholder with 93° approach angle, for negative 35° rhombic inserts



Cutting edge style J

Right hand (R) shown.

Designation	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
PVJNR/L2020K1204	20	20	125	35	20	25	0.8	VN**1204...	2
PVJNR/L2525M1204	25	25	150	35	25	32	0.8	VN**1204...	2

*Torque: Recommended torque (N·m) for clamping

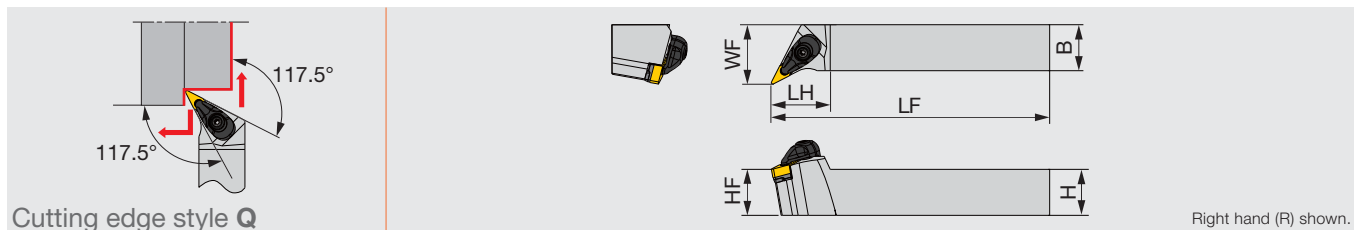
**RE: The holder measurements are true with this insert radius

SPARE PARTS

Designation	Shim	Clamping screw	Wrench	Spring pin	Lever
PVJNR/L**1204	LSV212	LCS3V	P-2.5	LSP3	LCL3V

AVQNR/L-Eco

Double-clamp toolholder with 117.5° approach angle, for negative 35° rhombic inserts



Cutting edge style Q

Right hand (R) shown.

Designation	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
AVQNR/L2020K1204-A	20	20	125	32	20	25	0.8	VN**1204...	3
AVQNR/L2525M1204-A	25	25	150	32	25	32	0.8	VN**1204...	3

*Torque: Recommended torque (N·m) for clamping

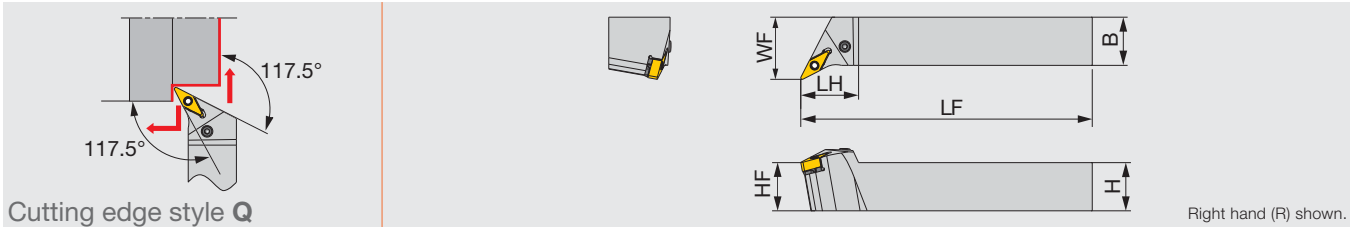
**RE: The holder measurements are true with this insert radius

SPARE PARTS

Designation	Clamp	Clamp screw	Spring	Spring pin	Shim	Shim screw	Wrench
AVQNR/L**-A	ACP3L-E	ACS-5W	BP-7	SP-2.5	ASV222	CSTB-3.0	T-15F

PVQNR/L-Eco

Lever-lock toolholder with 117.5° approach angle, for negative 35° rhombic inserts



Designation	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
PVQNR/L2020K1204	20	20	125	30	20	25	0.8	VN**1204...	2
PVQNR/L2525M1204	25	25	150	30	25	32	0.8	VN**1204...	2

*Torque: Recommended torque (N·m) for clamping

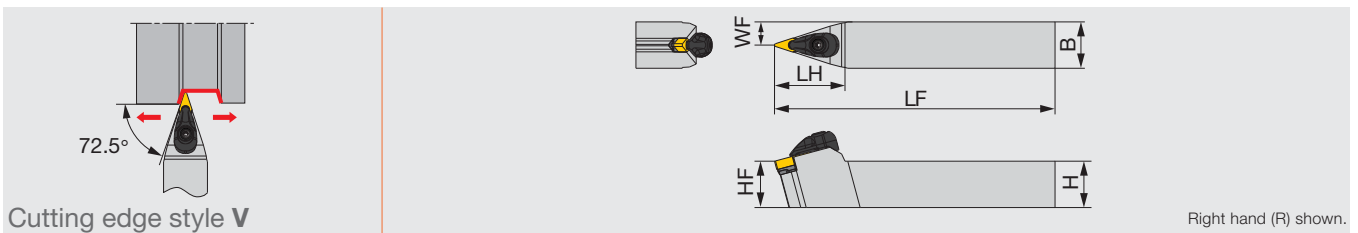
**RE: The holder measurements are true with this insert radius

SPARE PARTS

Designation	Shim	Clamping screw	Wrench	Spring pin	Lever
PVQNR/L**1204	LSV212	LCS3V	P-2.5	LSP3	LCL3V

AVVNN-Eco

Double-clamp toolholder with 72.5° approach angle, for negative 35° rhombic inserts



Designation	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
AVVNN2020K1204-A	20	20	125	38	20	10	0.8	VN**1204...	3
AVVNN2525M1204-A	25	25	150	38	25	13	0.8	VN**1204...	3

*Torque: Recommended torque (N·m) for clamping

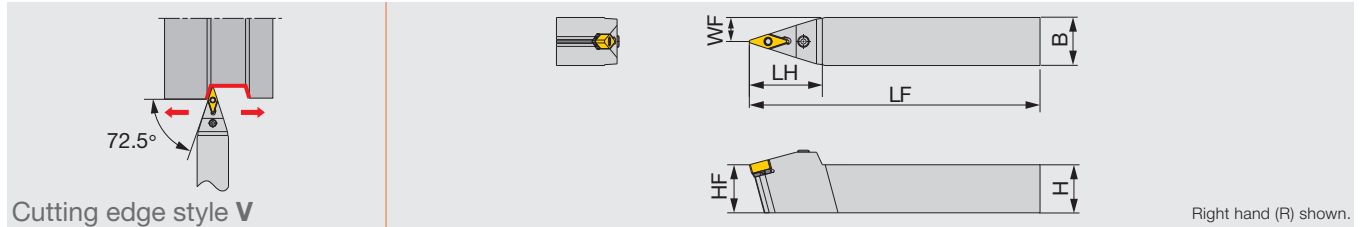
**RE: The holder measurements are true with this insert radius

SPARE PARTS

Designation	Clamp	Clamp screw	Spring	Spring pin	Shim	Shim screw	Wrench
AVVNN**A	ACP3L-E	ACS-5W	BP-7	SP-2.5	ASV222	CSTB-3.0	T-15F

PVVNN-Eco

Lever-lock toolholder with 72.5° approach angle, for negative 35° rhombic inserts



Designation	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
PVVNN2020K1204	20	20	125	38	20	10	0.8	VN**1204...	2
PVVNN2525M1204	25	25	150	38	25	12.5	0.8	VN**1204...	2

*Torque: Recommended torque (N·m) for clamping

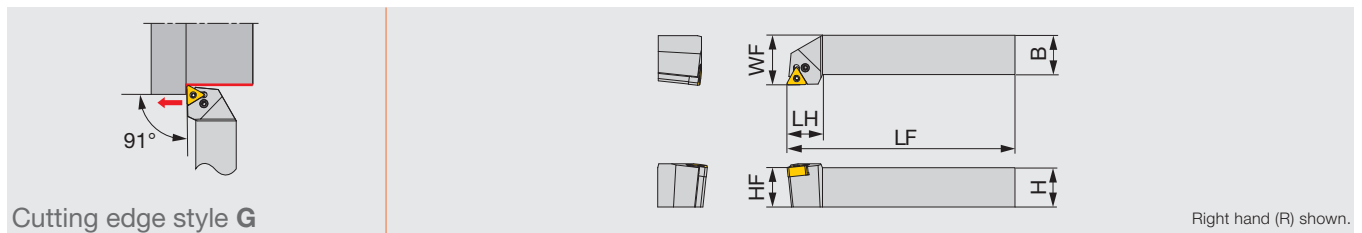
**RE: The holder measurements are true with this insert radius

SPARE PARTS

Designation	Shim	Clamping screw	Wrench	Spring pin	Lever
PVVNN**1204	LSV212	LCS3V	P-2.5	LSP3	LCL3V

PTGNR/L-Eco

Lever-lock toolholder with 91° approach angle, for negative triangular inserts



Designation	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
PTGNR/L2020K1104	20	20	125	20	20	25	0.8	TN**1104...	2
PTGNR/L2525M1104	25	25	150	20	25	32	0.8	TN**1104...	2

*Torque: Recommended torque (N·m) for clamping

**RE: The holder measurements are true with this insert radius

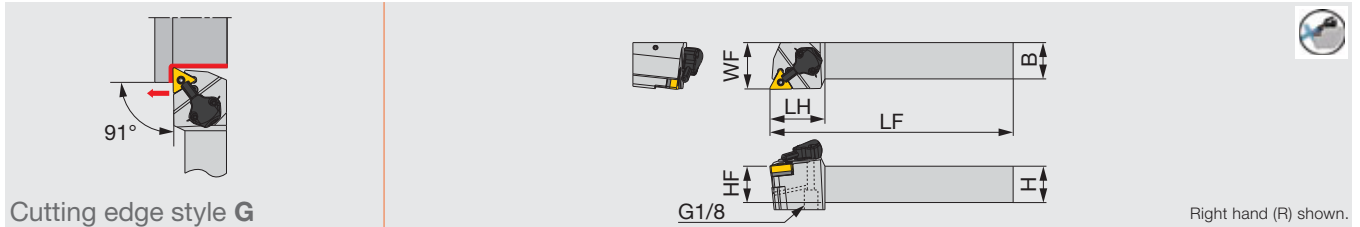
SPARE PARTS

Designation	Clamping screw	Wrench	Lever
PTGNR/L**1104	LCS23A	P-2.5	LCL23

TUNG T^{URN}JET

PTGNR/L-CHP

Lever-lock toolholders with 91° approach angle, for negative 60° triangular inserts, with high pressure coolant capability



Designation	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
PTGNR/L2020K1104-CHP	20	20	125	38	20	32	0.8	TN**1104...	2
PTGNR/L2525M1104-CHP	25	25	150	38	25	32	0.8	TN**1104...	2

*Torque: Recommended torque (N·m) for clamping

**RE: The holder measurements are true with this insert radius

SPARE PARTS

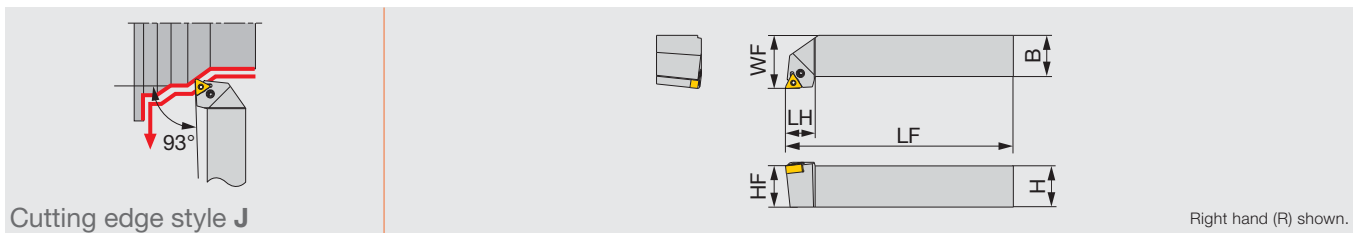
Designation	Shim	Clamping screw	Wrench 1	Spring pin	Lever
PTGNR/L**1104-CHP	-	LCS23A	P-2.5	LSP3	LCL23

SPARE PARTS

Designation	Coolant unit	Mounting screw	Wrench 2	O-ring	Coolant screw	Wrench 3
PTGNR/L**1104-CHP	CU-CW-CHP	SRM3	T-8F	OR6.4X0.9N	SRM4X4TL360	P-2

PTJNR/L-Eco

Lever-lock toolholder with 93° approach angle, for negative triangular inserts



Designation	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
PTJNR/L2525M1104	25	25	150	18	25	32	0.8	TN**1104...	2

*Torque: Recommended torque (N·m) for clamping

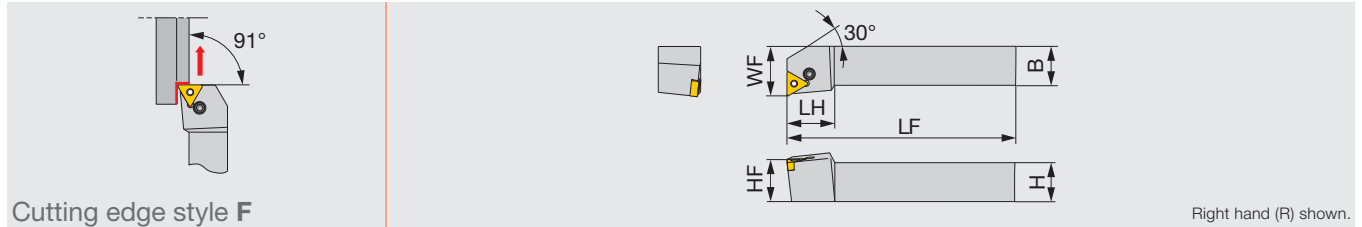
**RE: The holder measurements are true with this insert radius

SPARE PARTS

Designation	Clamping screw	Wrench	Lever
PTJNR/L2525M1104	LCS23A	P-2.5	LCL23

PTFNR/L-Eco

Lever-lock toolholder with 91° approach angle, for negative triangular inserts



Designation	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
PTFNR/L2020K1104	20	20	125	16	20	25	0.8	TN**1104...	2
PTFNR/L2525M1104	25	25	150	22	25	32	0.8	TN**1104...	2

*Torque: Recommended torque (N·m) for clamping

**RE: The holder measurements are true with this insert radius

SPARE PARTS

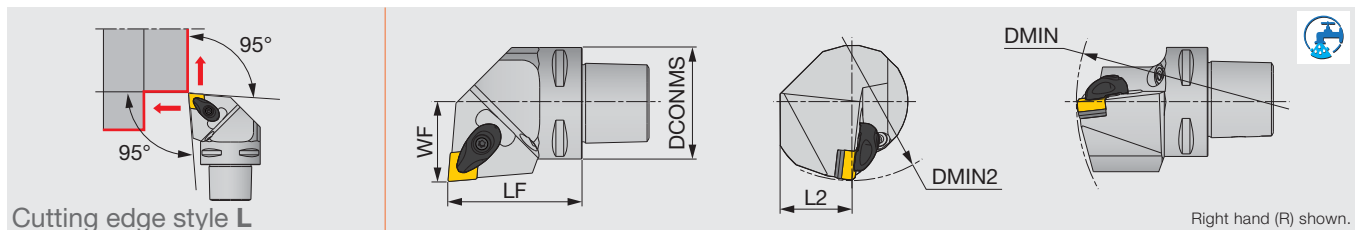
Designation	Clamping screw	Wrench	Lever
PTFNR/L**1104	LCS23A	P-2.5	LCL23

TURNINGA

TUNGCAP

C-ACLN/L

Double-clamp toolholder, with 95° approach angle, for negative 80° rhombic inserts (TurningA)



Designation	DCONMS	LF	L2	WF	DMIN	DMIN2	RE**	Insert
C3ACLN/L22040-0904N	32	40	20	22	110	121	0.8	CN**0904**E
C4ACLN/L27050-0904N	40	50	25	27	140	110	0.8	CN**0904**E
C6ACLN/L45065-0904N	63	65	35	45	190	110	0.8	CN**0904**E

**RE: The holder measurements are true with this insert radius

Applicable for 7 MPa coolant

SPARE PARTS

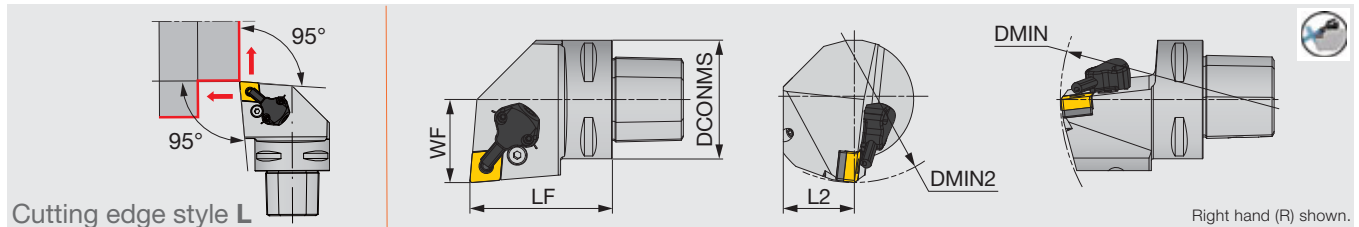
Designation	Clamp	Clamp screw	Coolant parts	Shim	Shim screw	Spring	Spring pin	Wrench
C*ACLN**-0904N	ACP3S-E	ACS-5W	SATZ-M10X1-5	ASC322	CSTB-3.5	BP-7	SP-2.5	T-15F

TUNG^{TURN}TJET

C-PCLNR/L-CHP

TUNGCAP

Lever-lock toolholder with TungCap connection, for negative 80° rhombic inserts, with high pressure coolant capability



Designation	DCONMS	LF	L2	WF	DMIN	DMIN2	RE**	Insert
C4PCLNR/L27050-0904-CHP	40	50	25	27	140	110	0.8	CN**0904...
C6PCLNR/L45065-0904-CHP	63	65	41	45	190	125	0.8	CN**0904...

**RE: The holder measurements are true with this insert radius
Applicable for 14 MPa coolant

SPARE PARTS

Designation	Shim	Clamping screw	Wrench 1	Spring pin	Lever
C*PCLNR/L**0904-CHP	LSC317	LCS3	P-2.5	LSP3	LCL33

SPARE PARTS

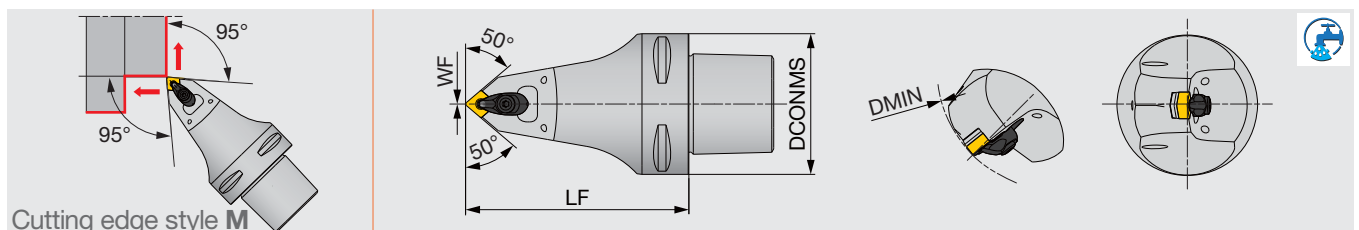
Designation	Coolant unit	Mounting screw	Wrench 2	O-ring
C*PCLNR/L*-CHP	CU-CW-CHP	SRM3	T-8F	OR6.4X0.9N

TURNINGA

C-ACMNN

TUNGCAP

Double-clamp toolholder, with 50° approach angle, for negative 80° rhombic inserts



Designation	DCONMS	LF	WF	DMIN	RE**	Insert
C6ACMNN00100-0904N	63	100	0	110	0.8	CN**0904**E
C6ACMNN00140-0904N	63	140	0	110	0.8	CN**0904**E

**RE: The holder measurements are true with this insert radius
Applicable for 7 MPa coolant

SPARE PARTS

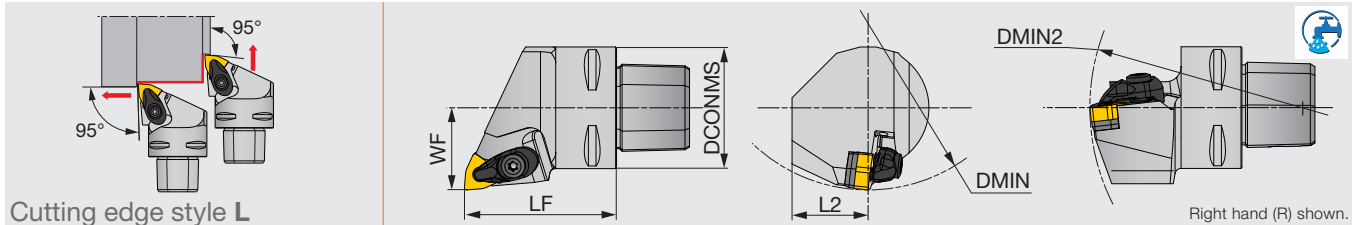
Designation	Clamp	Clamp screw	Shim	Shim screw	Spring	Spring pin	Wrench
C6ACMNN001**0904N	ACP3S-E	ACS-5W	ACS322	CSTB-3.5	BP-7	SP-2.5	T-15F

TURNINGA

TUNGCAP

C-AWLNLR/L

Double-clamp toolholder, with 95° approach angle, for negative 80° trigon inserts (TurningA)



Designation	DCONMS	LF	L2	WF	DMIN	DMIN2	RE**	Insert
C4AWLNLR/L27050-0604N	40	50	25	27	140	110	0.8	WN**0604...

**RE: The holder measurements are true with this insert radius
Applicable for 7 MPa coolant

SPARE PARTS

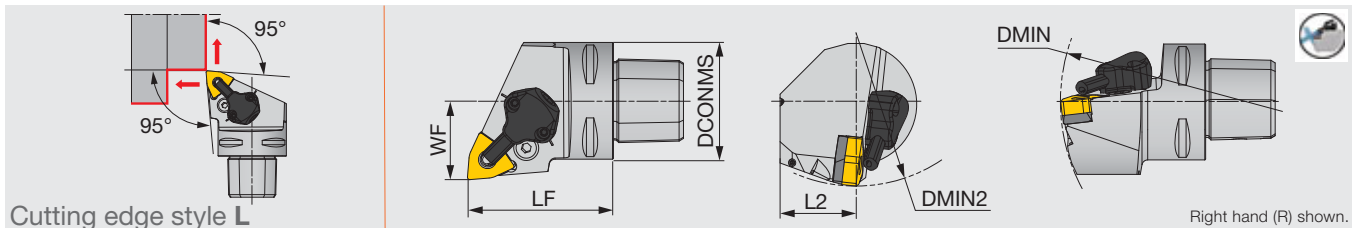
Designation	Clamp	Clamp screw	Shim	Shim screw	Spring	Spring pin	Wrench
C4AWLNLR/L27050-0604N	ACP4S	ACS-5W	ASW422	CSTB-3.5	BP-7	SP-2.5	T-15F

TUNG T^{URN}JET

TUNGCAP

C-PWLNLR/L-CHP

Lever-lock toolholder with TungCap connection, for negative 80° trigon inserts, with high pressure coolant capability



Designation	DCONMS	LF	L2	WF	DMIN	DMIN2	RE**	Insert
C4PWLNLR/L27050-0604-CHP	40	50	25	27	140	110	0.8	WN**0604...

**RE: The holder measurements are true with this insert radius
Applicable for 14 MPa coolant

SPARE PARTS

Designation	Shim	Clamping screw	Wrench 1	Spring pin	Lever
C*PWLNLR/L**0604-CHP	LSW312	LCS3	P-2.5	LSP3	LCL3

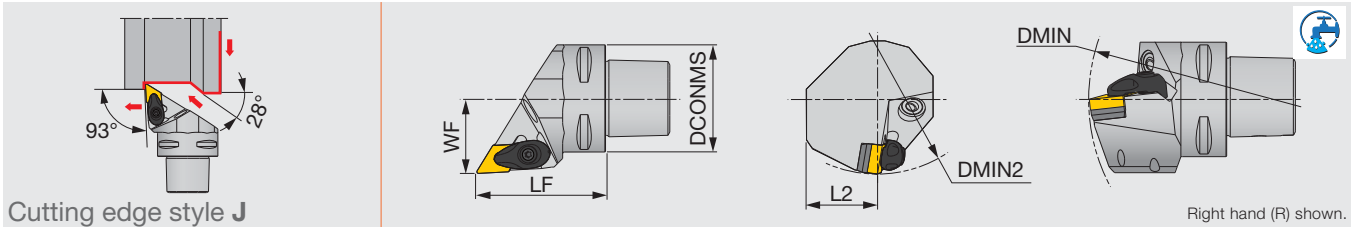
SPARE PARTS

Designation	Coolant unit	Mounting screw	Wrench 2	O-ring
C*PWLNLR/L*-CHP	CU-CW-CHP	SRM3	T-8F	OR6.4X0.9N

TURNING

C-ADJNR/L

Double-clamp toolholder, with 93° approach angle, for negative 55° rhombic inserts (TurningA)



Designation	DCONMS	LF	L2	WF	DMIN	DMIN2	RE**	Insert
C3ADJNR/L22050-1104N	32	50	20	22	121	85	0.8	DN**1104...
C4ADJNR/L27050-1104N	40	50	25	27	145	110	0.8	DN**1104...
C6ADJNR/L45065-1104N	63	65	35	45	190	110	0.8	DN**1104...

**RE: The holder measurements are true with this insert radius
Applicable for 7 MPa coolant

SPARE PARTS

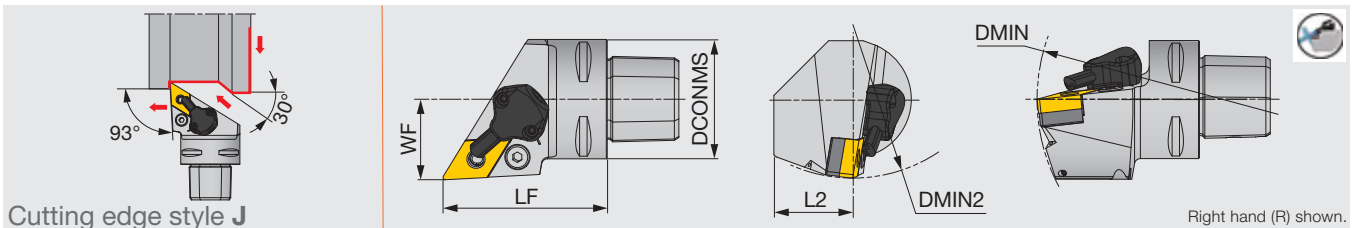
Designation	Clamp	Clamp screw	Coolant parts	Shim	Shim screw	Spring	Spring pin	Wrench
C*ADJNR/L**1104N	ACP3S-E	ACS-5W	SATZ-M10X1-M5	ASD322	CSTB-3.5	BP-7	SP-2.5	T-15F

TUNG^{TURN}TJET

C-PDJNR/L-CHP

TUNGCAP

Lever-lock toolholder with TungCap connection, for negative 55° rhombic inserts, with high pressure coolant capability



Designation	DCONMS	LF	L2	WF	DMIN	DMIN2	RE**	Insert
C4PDJNR/L27055-1104-CHP	40	55	25	27	140	110	0.8	DN**1104...
C6PDJNR/L45065-1104-CHP	63	65	41	45	190	110	0.8	DN**1104...

**RE: The holder measurements are true with this insert radius
Applicable for 14 MPa coolant

SPARE PARTS

Designation	Shim	Clamping screw	Wrench 1	Spring pin	Lever
C*PDJNR/L**1104-CHP	ELSD32	LCS3	P-2.5	LSP3	LCL33L

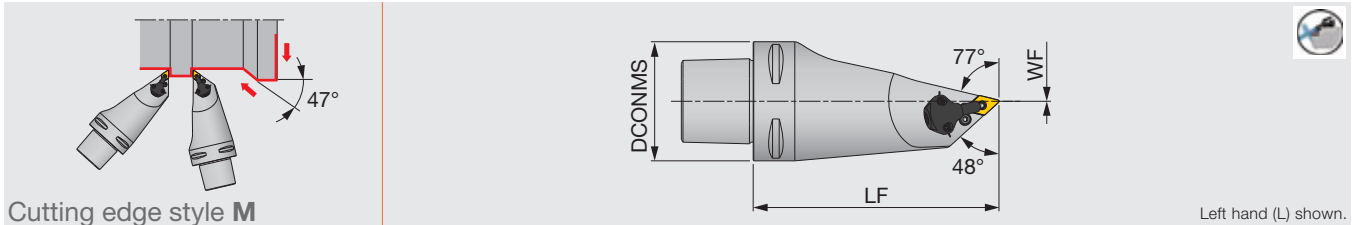
SPARE PARTS

Designation	Coolant unit	Mounting screw	Wrench 2	O-ring
C*PDJLNR/L**CHP	CU-D-CHP	SRM3	T-8F	OR6.4X0.9N

TUNGTURN C-PDMNL-CHP

TUNGCAP

Lever-lock toolholder with TungCap connection, for negative 55° rhombic inserts, with high pressure coolant capability



Designation	DCONMS	LF	WF	RE**	Insert
C6PDMNL00130-1104-CHP	63	130	0	0.8	DN**1104...

**RE: The holder measurements are true with this insert radius
Applicable for 14 MPa coolant

Cannot be used for boring.

SPARE PARTS

Designation	Shim	Clamping screw	Wrench 1	Spring pin	Lever
C6PDMNL00130-1104-CHP	ELSD32	LCS3	P-2.5	LSP3	LCL33L

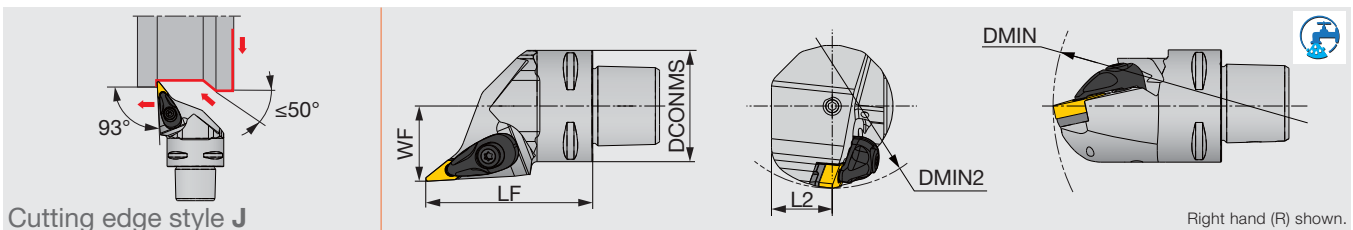
SPARE PARTS

Designation	Coolant unit	Mounting screw	Wrench 2	O-ring
C6PDMNL00130-1104-CHP	CU-D-CHP	SRM3	T-8F	OR6.4X0.9N

TURNINGA C-AVJNR/L

TUNGCAP

Double-clamp toolholder, with 93° approach angle, for negative 35° rhombic inserts (TurningA)



Designation	DCONMS	LF	L2	WF	DMIN	DMIN2	RE**	Insert
C4AVJNR/L27060-1204N	40	60	20	27	140	55	0.8	VN**1204...
C6AVJNR/L45065-1204N	63	65	31.5	45	190	81	0.8	VN**1204...

**RE: The holder measurements are true with this insert radius
Applicable for 7 MPa coolant

SPARE PARTS

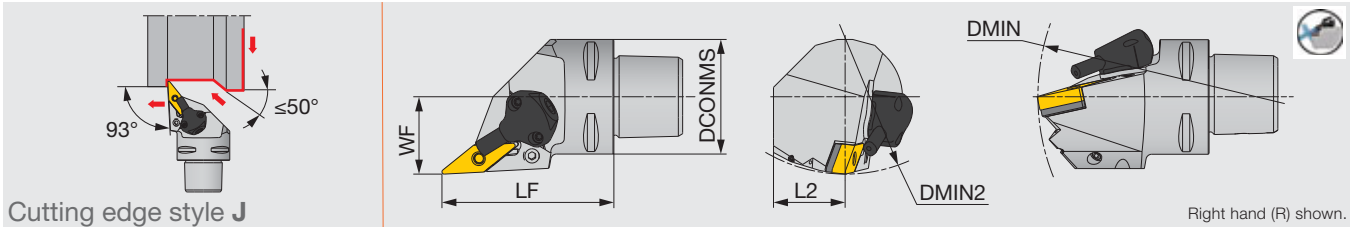
Designation	Clamp	Clamp screw	Coolant parts	Shim	Shim screw	Spring	Spring pin	Wrench 1	Wrench 2
C4AVJNR/L...	ACP3L-E	ACS-5W	-	ASV222	CSTB-3	BP-7	SP-2.5	T-9F	T-15F
C6AVJNR/L...	ACP3L-E	ACS-5W	SATZ-M10X1-M5	ASV222	CSTB-3	BP-7	SP-2.5	T-9F	T-15F

TUNG^TJET

C-PVJNR/L-CHP

TUNGCAP

Lever-lock toolholder with TungCap connection, with 93° approach angle, for negative 35° rhombic inserts, with high pressure coolant capability



Designation	DCONMS	LF	L2	WF	DMIN	DMIN2	RE**	Insert
C4PVJNR/L27060-1204-CHP	40	60	20	27	140	90	0.8	VN**1204...
C6PVJNR/L45065-1204-CHP	63	65	31.5	45	190	81	0.8	VN**1204...

**RE: The holder measurements are true with this insert radius
Applicable for 14 MPa coolant

SPARE PARTS

Designation	Shim	Clamping screw	Wrench 1	Wrench 2	Spring pin	Lever
C*PVJNR/L**1204-CHP	LSV212	LCS3V	P-2.5	P-3	LSP3	LCL3V

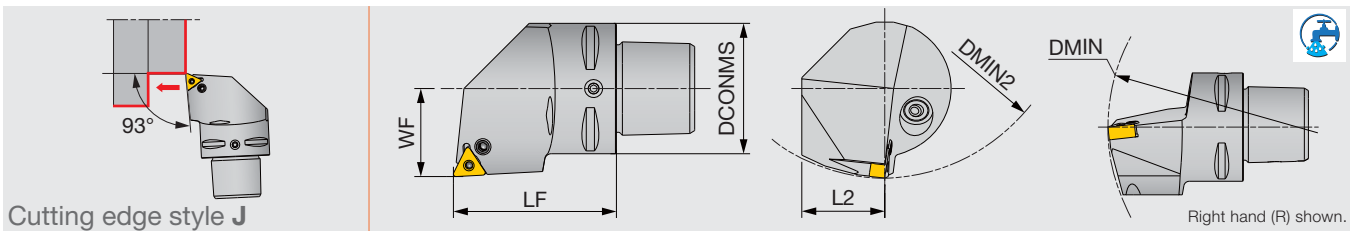
SPARE PARTS

Designation	Coolant unit	Mounting screw	Wrench 2	O-ring
C*PVJNR/L**1204-CHP	CU-V-CHP	SRM3	T-8F	OR6.4X0.9N

TUNGCAP

C-PTJNR/L

Lever-lock external turning toolholder (P type)



Designation	DCONMS	LF	L2	WF	DMIN	DMIN2	RE**	Insert
C4PTJNR/L27050-1104N	40	50	25	27	140	110	0.8	TN**1104**E

**RE: The holder measurements are true with this insert radius
Applicable for 7 MPa coolant

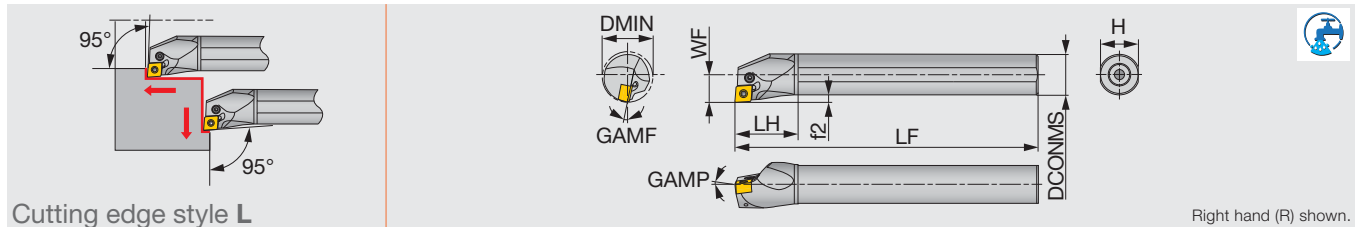
SPARE PARTS

Designation	Coolant parts	Lever	Clamping screw	Wrench
C4PTJNR/L27050-1104N	SATZ-M8X1-M3	LCL23	LCS23A	P-2.5

Internal toolholders

A-PCLNR/L-Eco

Lever-lock boring bar, for negative 80° rhombic inserts



Designation	Material	DMIN	DCONMS	WF	LF	LH	H	f2	GAMP	GAMF	RE**	Insert	Torque*
A16M-PCLNR/L0904-D200	Steel	20	16	11	150	32	15	3	-6°	-16°	0.8	CN**0904...	1.7
A20Q-PCLNR/L0904-D250	Steel	25	20	13	180	36	18	3	-6°	-12°	0.8	CN**0904...	1.7

*Torque: Recommended torque (N·m) for clamping

**RE: The holder measurements are true with this insert radius

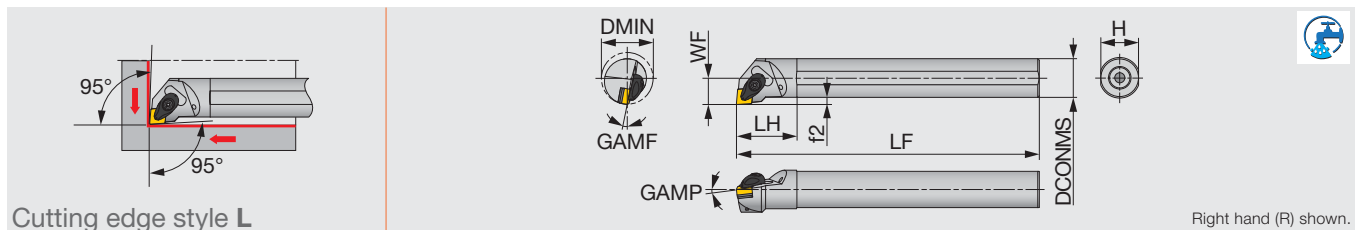
SPARE PARTS

Designation	Clamping screw	Wrench	Lever	Oil supply attachment*	Screw for oil hole*
A16M-PCLNR/L0904-D200	LCS33	P-2F	LCL33N	-	SSHM3-4
A20Q-PCLNR/L0904-D250	LCS33	P-2F	LCL33N	EA-20	SSHM3-4

*Optional

A-ACLNR/L-Eco

Double-clamp boring bar, for negative 80° rhombic inserts



Designation	Material	DMIN	DCONMS	WF	LF	LH	H	f2	GAMP	GAMF	RE**	Insert	Torque*
A25R-ACLNR/L0904-D320	Steel	32	25	17	200	45	23	4.5	-6°	-13°	0.8	CN**0904...	3
A32S-ACLNR/L0904-D400	Steel	40	32	22	250	50	30	6	-6°	-10°	0.8	CN**0904...	3

*Torque: Recommended torque (N·m) for clamping

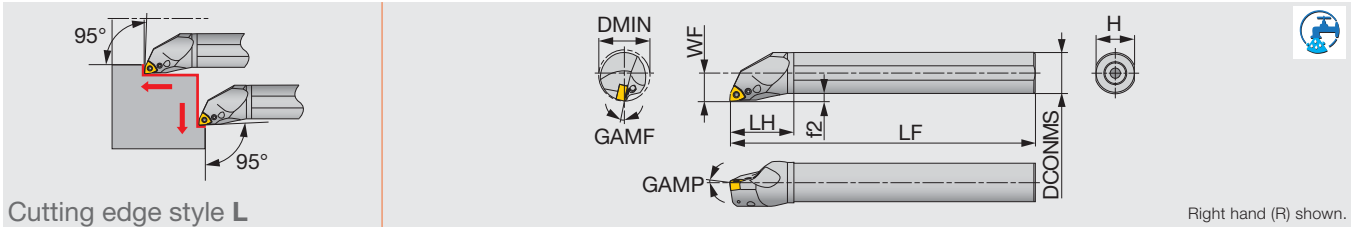
**RE: The holder measurements are true with this insert radius

SPARE PARTS

Designation	Clamp	Clamp screw	Spring	Spring pin	Shim	Shim screw	Wrench
A**-ACLNR/L0904...	ACP3S-E	ACS-5W	BP-7	SP-2.5	ASC322	CSTB-3.5	T-15F

A-PWLNLR/L-Eco

Lever-lock boring bar, for negative 80° trigon inserts



Designation	Material	DMIN	DCONMS	WF	LF	LH	H	f2	GAMP	GAMF	RE**	Insert	Torque*
A16M-PWLNLR/L0604-D200	Steel	20	16	11	150	32	15	3	-8°	-17°	0.8	WN**0604...	1.7
A20Q-PWLNLR/L0604-D250	Steel	25	20	13	180	36	18	3	-6°	-14°	0.8	WN**0604...	1.7

*Torque: Recommended torque (N·m) for clamping

**RE: The holder measurements are true with this insert radius

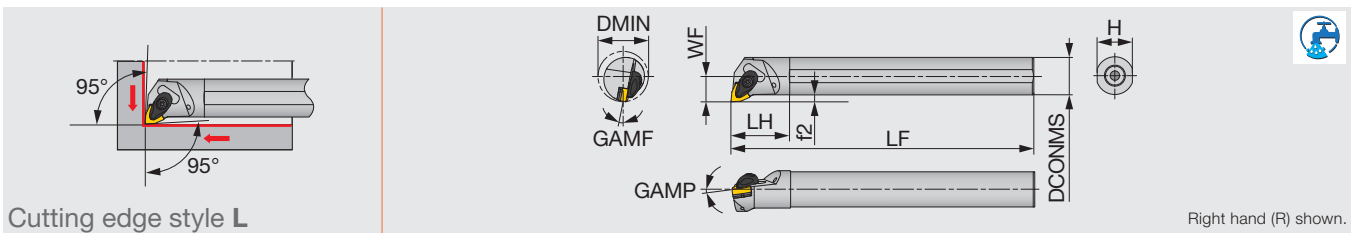
SPARE PARTS

Designation	Clamping screw	Wrench	Lever	Oil supply attachment*	Screw for oil hole*
A16M-PWLNLR/L0604-D200	LCS33	P-2F	LCL33N	-	SSHM3-4
A20Q-PWLNLR/L0604-D250	LCS33	P-2F	LCL33N	EA-20	SSHM3-4

*Optional

A-AWLNLR/L-Eco

Double-clamp boring bar, for negative 80° trigon inserts



Designation	Material	DMIN	DCONMS	WF	LF	LH	H	f2	GAMP	GAMF	RE**	Insert	Torque*
A25R-AWLNLR/L0604-D320	Steel	32	25	17	200	45	23	4.5	-6°	-13°	0.8	WN**0604...	3
A32S-AWLNLR/L0604-D400	Steel	40	32	22	250	50	30	6	-6°	-10°	0.8	WN**0604...	3

*Torque: Recommended torque (N·m) for clamping

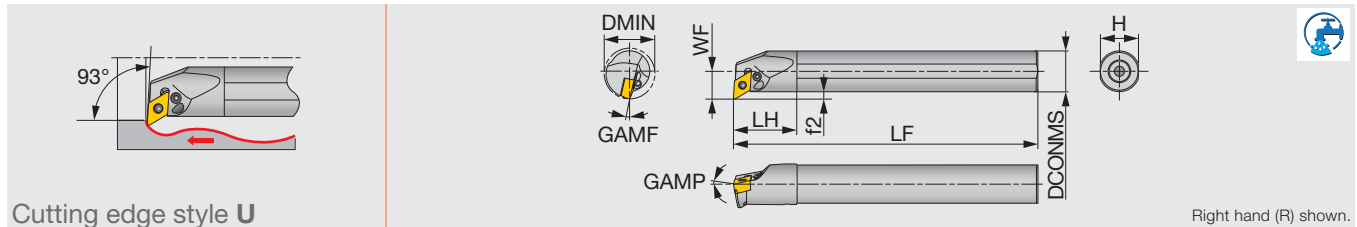
**RE: The holder measurements are true with this insert radius

SPARE PARTS

Designation	Clamp	Clamp screw	Spring	Spring pin	Shim	Shim screw	Wrench
A**-AWLNLR/L...	ACP3S-E	ACS-5W	BP-7	SP-2.5	ASW322	CSTB-3.5	T-15F

A-PDUNR/L-Eco

Lever-lock boring bar, for negative 55° rhombic inserts



Designation	Material	DMIN	DCONMS	WF	LF	LH	H	f2	GAMP	GAMF	RE**	Insert	Torque*
A20Q-PDUNR/L1104-D250	Steel	25	20	13	180	36	18	3	-6°	-14°	0.8	DN**1104...	1.7

*Torque: Recommended torque (N-m) for clamping

**RE: The holder measurements are true with this insert radius

Note: Use right-hand toolholders (R) with left-hand inserts (L); and left-hand toolholders (L) with right-hand inserts (R).

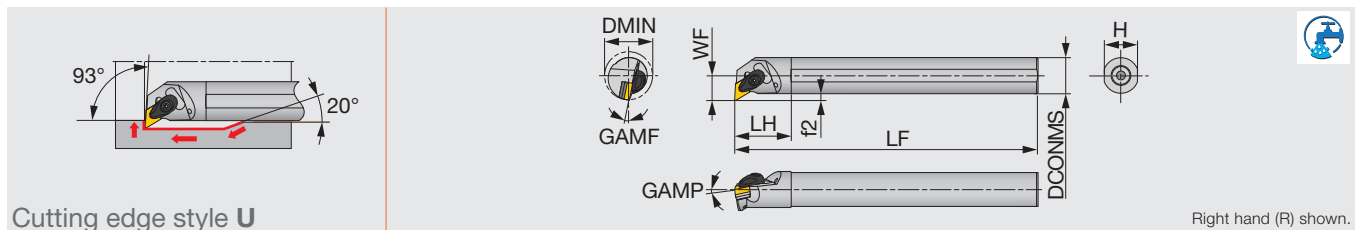
SPARE PARTS

Designation	Clamping screw	Wrench	Lever	Oil supply attachment*	Screw for oil hole*
A20Q-PDUNR/L1104-D250	LCS22A	P-2F	LCL33NL	EA-20	SSHM2.5-3

*Optional

A-ADUNR/L-Eco

Double-clamp boring bar, for negative 55° rhombic inserts



Designation	Material	DMIN	DCONMS	WF	LF	LH	H	f2	GAMP	GAMF	RE**	Insert	Torque*
A25R-ADUNR/L1104-D320	Steel	32	25	17	200	45	23	4.5	-6°	-13°	0.8	DN**1104...	3
A32S-ADUNR/L1104-D400	Steel	40	32	22	250	50	30	6	-6°	-11°	0.8	DN**1104...	3

*Torque: Recommended torque (N-m) for clamping

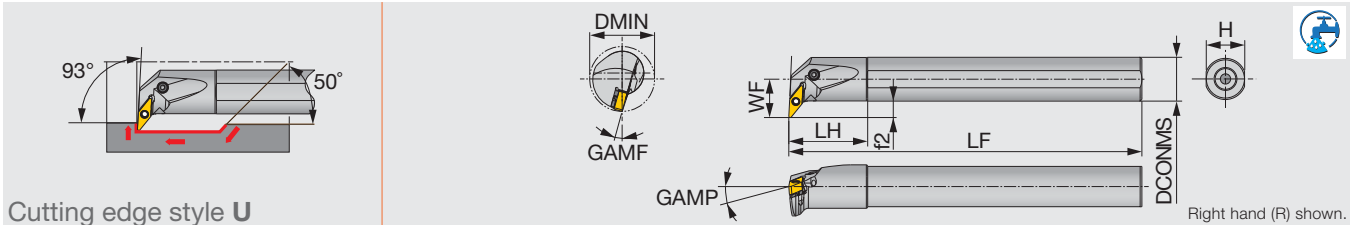
**RE: The holder measurements are true with this insert radius

SPARE PARTS

Designation	Clamp	Clamp screw	Spring	Spring pin	Shim	Shim screw	Wrench
A*-ADUNR/L...	ACP3S-E	ACS-5W	BP-7	SP-2.5	ASD322	CSTB-3.5	T-15F

A-PVUNR/L-Eco

Lever-lock boring bar, for negative 35° rhombic inserts



Designation	Material	DMIN	DCONMS	WF	LF	LH	H	f2	GAMP	GAMF	RE**	Insert	Torque*
A25R-PVUNR/L1204-D320	Steel	32	25	18	200	45	23	5.0	-5°	-15°	0.8	VN**1204...	3
A25R-PVUNR/L1204-D370	Steel	37	25	22	200	45	23	8.0	-4°	-15°	0.8	VN**1204...	3
A32S-PVUNR/L1204-D400	Steel	40	32	22	250	50	30	5.5	-6°	-12°	0.8	VN**1204...	3

*Torque: Recommended torque (N·m) for clamping

**RE: The holder measurements are true with this insert radius

SPARE PARTS

Designation	Clamping screw	Wrench	Lever	Shim	Spring pin	Oil supply attachment*	Screw for oil hole*
A25R-PVUNR/L1204-D...	LCS3V	P-2.5	LCL3V	LSV212	LSP3	EA-25	SSH4-5
A32S-PVUNR/L1204-D400	LCS3V	P-2.5	LCL3V	LSV212	LSP3	EA-32	SSH4-5

*Optional

Economical sized insert bring benefits in small diameter ID Turning

- The new VNMG1204 insert combined with a P-type holder can turn and profile an inner diameter as small as $\varnothing 32$ mm.

A25R-PVUNR/L1204-D320



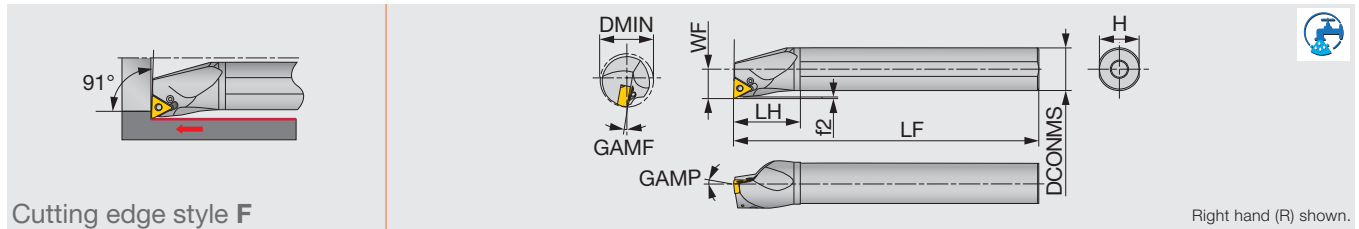
- ISO-EcoTurn also offers a holder line for a minimum working diameter of $\varnothing 37$ mm with VNMG1204 insert. This holder makes an excellent alternative to a standard holder with VNMG1604 insert, whose minimum working diameter is also $\varnothing 37$ mm.

A25R-PVUNR/L1204-D370



A-PTFNR/L-Eco

Lever-lock boring bar, for negative triangular inserts



Cutting edge style F

Right hand (R) shown.

Designation	Material	DMIN	DCONMS	WF	LF	LH	H	f2	GAMP	GAMF	RE**	Insert	Torque*
A25R-PTFNR/L1104-D320	Steel	32	25	17	200	45	23	1.31	-6°	-12°	0.8	TN**1104...	2
A32S-PTFNR/L1104-D400	Steel	40	32	22	250	50	30	1.25	-6°	-10°	0.8	TN**1104...	2

*Torque: Recommended torque (N-m) for clamping

**RE: The holder measurements are true with this insert radius

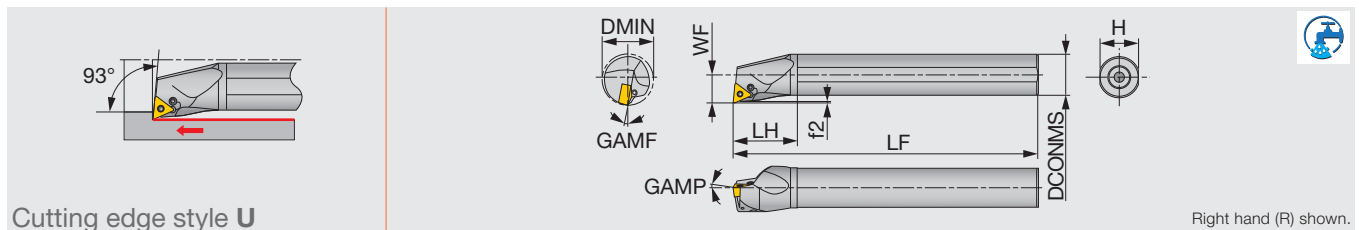
SPARE PARTS

Designation	Clamping screw	Wrench	Lever	Oil supply attachment*	Screw for oil hole*
A25R-PTFNR/L...	LCS23A	P-2.5	LCL23	EA-25	SSHM4-5
A32S-PTFNR/L...	LCS23A	P-2.5	LCL23	EA-32	SSHM4-5

*Optional

A-PTUNR/L-Eco

Lever-lock boring bar, for negative triangular inserts



Cutting edge style U

Right hand (R) shown.

Designation	Material	DMIN	DCONMS	WF	LF	LH	H	f2	GAMP	GAMF	RE**	Insert	Torque*
A25R-PTUNR/L1104-D320	Steel	32	25	17	200	45	23	1.22	-6°	-12°	0.8	TN**1104...	2
A32S-PTUNR/L1104-D400	Steel	40	32	22	250	50	30	1.16	-6°	-10°	0.8	TN**1104...	2

*Torque: Recommended torque (N-m) for clamping

**RE: The holder measurements are true with this insert radius

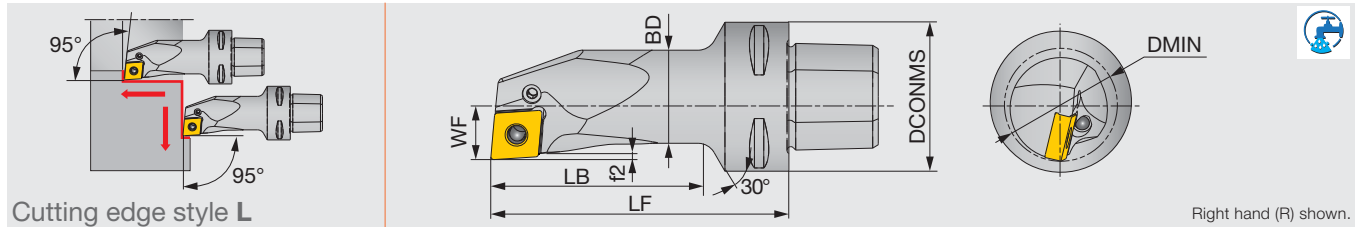
SPARE PARTS

Designation	Clamping screw	Wrench	Lever	Oil supply attachment*	Screw for oil hole*
A25R-PTUNR/L1104-D320	LCS23A	P-2.5	LCL23	EA-25	SSHM4-5
A32S-PTUNR/L1104-D400	LCS23A	P-2.5	LCL23	EA-32	SSHM4-5

*Optional

C-PCLNR/L-IN

Lever-lock boring bar, for negative 80° rhombic inserts



Designation	DMIN	DCONMS	BD	LB	LF	WF	f2	RE**	Insert
C4PCLNR17090-0904	32	40	25	90	63	17	1.3	0.8	CN**0904**E
C4PCLNR22110-0904	40	40	32	110	86.5	22	1.3	0.8	CN**0904**E
C4PCLNR27120-0904	50	40	39.5	120	100	27	1.7	0.8	CN**0904**E

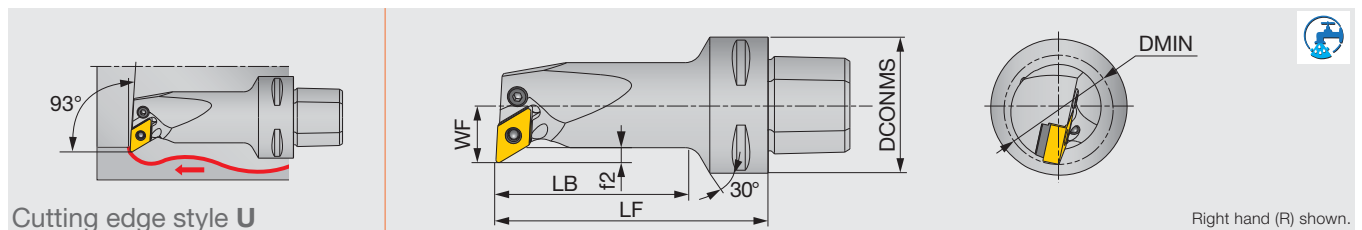
**RE: The holder measurements are true with this insert radius
Applicable for 10 MPa coolant

SPARE PARTS

Designation	Lever	Clamping screw	Wrench
C*PCLNR/L...	LCL43N	LCS43	P-2.5

C-PDUNR/L

Lever-lock boring bar, for negative 55° rhombic inserts



Designation	DMIN	DCONMS	LF	LB	WF	f2	RE**	Insert
C4PDUNR/L17080-11	32	40	80	58.5	17	4.4	0.8	DN**1104...

**RE: The holder measurements are true with this insert radius
Applicable for 10 MPa coolant

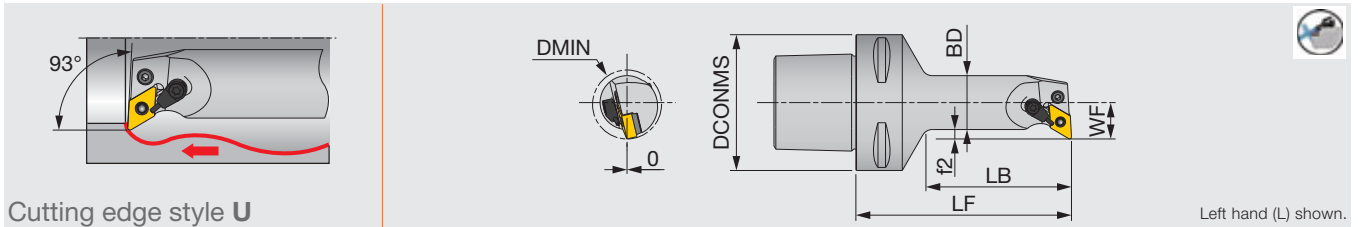
SPARE PARTS

Designation	Lever	Clamping screw	Shim	Spring pin	Wrench
C4PDUNR17080-11	LCL33L	LCS3	ELSD317BR	LSP3	P-2.5
C4PDUNL17080-11	LCL33L	LCS3	ELSD317BL	LSP3	P-2.5

TUNG T^{URN} JET
C-PDUNL-CHP

TUNGCAP

Lever-lock boring bar with TungCap connection, with 93° approach angle, for negative 55° rhombic inserts, with high pressure coolant capability



Designation	DMIN	DCONMS	BD	LF	LB	WF	f2	RE**	Insert
C6PDUNL17100-1104-CHP	32	63	25	100	67.5	17	4.5	0.8	DN**1104...

**RE: The holder measurements are true with this insert radius
Applicable for 14 MPa coolant

SPARE PARTS

Designation	Shim	Clamping screw	Coolant unit	Wrench	Spring pin	Lever
C6PDUNL17100-1104-CHP	ELSD317BL	LCS43	S-CU-CHP	P-2.5	LSP3	LCL33L

STANDARD CUTTING CONDITIONS

P Steel

Application	Chipbreaker	Grades	Cutting speed Vc (m/min)			Depth of cut ap (mm)	Feed f (mm/rev)
			Low carbon steels Alloy steels	Medium carbon steels Alloy steels	High carbon steels Alloy steels		
Precision finishing	TF	T9215	150 - 400	150 - 400	120 - 300	0.1 - 0.5	0.03 - 0.15
		T9225	120 - 300	120 - 300	100 - 250		
Finishing	TSF	NS9530	150 - 250	80 - 220	80 - 180	0.2 - 1.5	0.08 - 0.4
		GT9530	150 - 300	80 - 250	80 - 200		
		AT9530	150 - 300	80 - 250	80 - 200		
		T9215	150 - 400	150 - 400	120 - 300		
	ZF	T9215	150 - 400	150 - 400	120 - 300	0.2 - 1.5	0.07 - 0.2
		T9225	120 - 300	120 - 300	100 - 250		
Finishing (Wiper)	FW	T9205	180 - 400	180 - 400	150 - 350	0.2 - 1.5	0.08 - 0.4
		T9215	150 - 400	150 - 400	120 - 300		
		T9225	120 - 300	120 - 300	100 - 250		
		NS9530	150 - 250	80 - 220	80 - 180	0.5 - 1.5	0.2 - 0.4
		GT9530	150 - 300	80 - 250	80 - 200		
Finishing to medium cutting	ZM	T9215	150 - 400	150 - 400	120 - 300	0.7 - 2.0	0.15 - 0.4
		T9225	120 - 300	120 - 300	100 - 250		
Finishing to medium cutting (Wiper)	SW	T9205	180 - 400	180 - 400	150 - 350	0.5 - 2.0	0.3 - 0.6
		T9215	150 - 400	150 - 400	120 - 300		
		T9225	120 - 300	120 - 300	100 - 250		
Finishing to medium cutting	NM	T9225	120 - 300	120 - 300	100 - 250	0.5 - 2.0	0.15 - 0.4
Medium cutting	TM	T9215	150 - 400	150 - 400	120 - 300	1.0 - 3.0	0.2 - 0.5
		T9225	120 - 300	120 - 300	100 - 250		

M Stainless

Application	Chipbreaker	Grades	Cutting speed Vc (m/min)			Depth of cut ap (mm)	Feed f (mm/rev)
			Austenitic	Ferritic / Martensitic	Precipitation hardened		
Finishing	SS	AH630	90 - 190	110 - 210	60 - 90	0.5 - 3.0	0.08 - 0.2
		AH645	70 - 150	90 - 170	-		
Medium cutting	SM	T6120	140 - 240	160 - 280	80 - 150	1.0 - 3.0	0.2 - 0.5
		T6130	100 - 200	120 - 240	70 - 110		
		AH630	90 - 190	110 - 210	60 - 90		



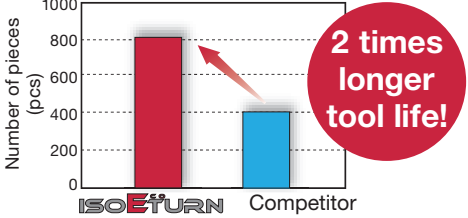
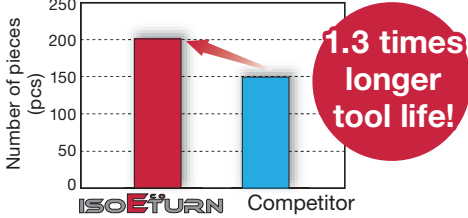
K Cast Iron

Application	Chipbreaker	Grades	Cutting speed Vc (m/min)		Depth of cut ap (mm)	Feed f (mm/rev)
			Grey cast irons	Ductile cast irons		
Finishing to medium cutting (Wiper)	SW	T5115	140 - 400	140 - 370	0.5 - 2.0	0.3 - 0.6
Medium cutting	TM	T515	150 - 700	140 - 370	1.0 - 3.0	0.2 - 0.5

S Superalloys and titanium

Application	Chipbreaker	Grades	Cutting speed Vc (m/min)		Depth of cut ap (mm)	Feed f (mm/rev)
			Titanium alloys	Ni-base alloys		
Medium cutting	TM	AH8015	20 - 150	20 - 100	1.0 - 3.0	0.2 - 0.5

PRACTICAL EXAMPLES

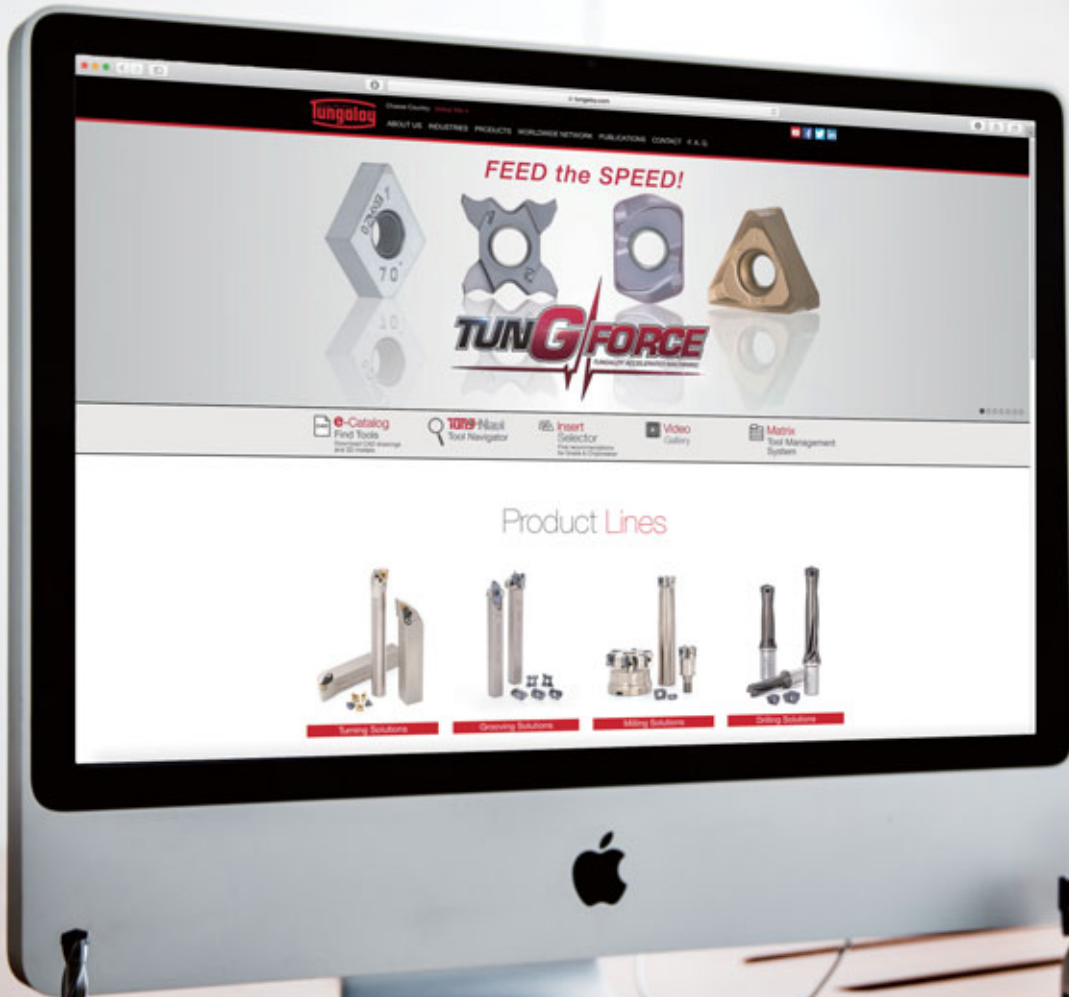
Workpiece type		Machine part	Shaft
Toolholder		AWLNR2525M0604-A	ADJNR2525M1104-A
Insert		WNMG060408E-TM	DNMG110408E-TSF
Grade		T9215 SCM415	T9215 S45C / C45
Workpiece material		 P	 P
Cutting conditions	Cutting speed: V_c (m/min)	240	260
	Feed : f (mm/rev)	0.1 - 0.25	0.2
	Depth of cut : a_p (mm)	1	1
	Machining	External face turning	External turning
	Coolant	Wet	Wet
Results		 <p>2 times longer tool life!</p> <p>ISO EcoTURN Competitor</p> <p>ISO-EcoTurn insert has demonstrated excellent chip control at 1 mm depth of cut. With T9215 grade, tool life has been doubled over the competitor's regular sized CNMG1204 insert.</p>	 <p>1.3 times longer tool life!</p> <p>ISO EcoTURN Competitor</p> <p>ISO-EcoTurn insert in T9215 grade has increased tool life by 1.3 time over the competitor's regular sized DNMG1504 insert with added machining stability.</p>



MEMO

A large grid of graph paper for taking notes, consisting of 20 columns and 30 rows of small squares.

Check our site and our App to get more info!



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