

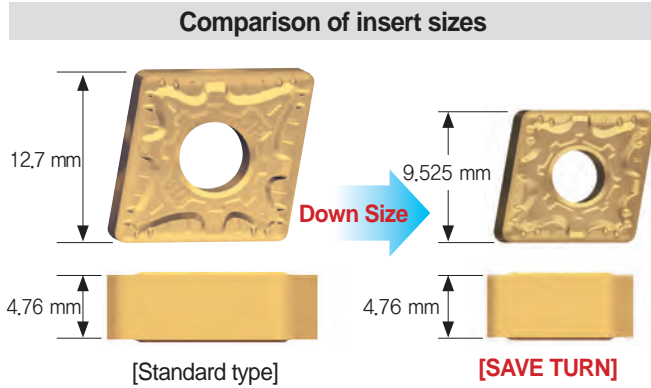
B Technical Information for SAVE TURN

Economical small insert with powerful cutting performance

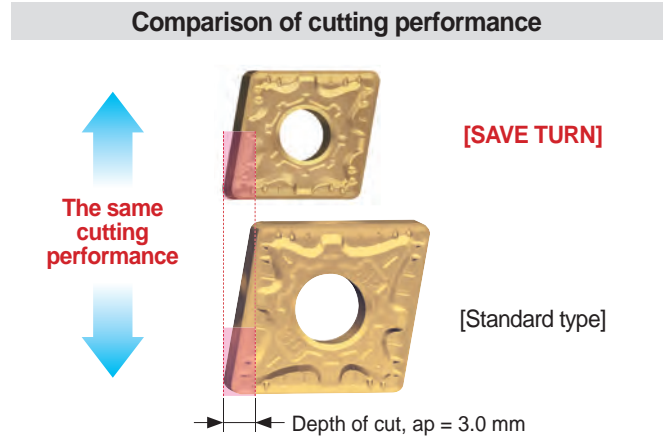
SAVE TURN

- Strongly recommended turning insert for machining smaller diameter than $\varnothing 100$
- Small but powerful and economical insert which performs the same like standard-sized inserts under the depth of cut of 3.0 mm

Features




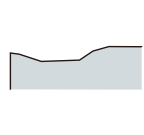

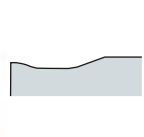


- Optimized size of the same performance like the standard type

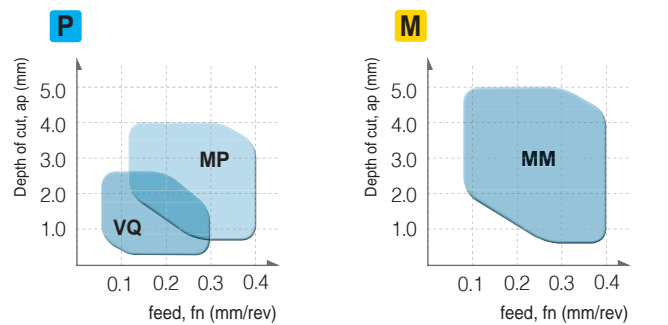


- Performs the same like standard type inserts under the depth of cut of 3.0 mm

Features of chip breaker

Insert shape	Cutting edge	Features
		<ul style="list-style-type: none"> • For finishing steel • Efficient chip breaking and low cutting resistance • Various application available at low depth of cut • Recommended depth of cut: 0.5~2.5 mm
		<ul style="list-style-type: none"> • For medium cutting of steel • 4 dots for improved chip control in medium cutting to finishing • Stable chip evacuation at high depth of cut • Stable tool life due to lower cutting loads at high feed • Recommended depth of cut: 0.5~4.0 mm
		<ul style="list-style-type: none"> • For medium cutting of stainless steel • Limits plastic deformation caused by heat • Stable tool life thanks to the balanced cutting performance and toughness • Stable chip flow at high speeds and feeds • Recommended depth of cut: 0.5~5.0 mm

Application area of chip breaker



VQ: Depth of cut, $a_p = 0.5\sim 2.5$ mm/feed, $f_n = 0.05\sim 0.30$ mm/rev

MP: Depth of cut, $a_p = 0.5\sim 4.0$ mm/feed, $f_n = 0.15\sim 0.40$ mm/rev

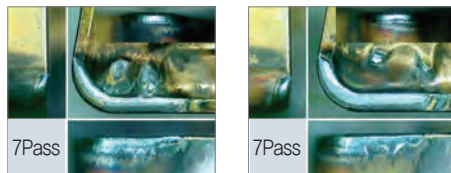
MM: Depth of cut, $a_p = 0.5\sim 5.0$ mm/feed, $f_n = 0.10\sim 0.40$ mm/rev

Application example

Alloy steel (SCM440)

- **Cutting conditions** vc (m/min) = 250, f_n (mm/rev) = 0.25
 a_p (mm) = 2.0~3.0, continuous cutting, wet

- **Cutting Result**



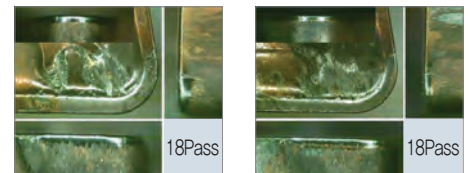
CNMG090408-HM
SAVE TURN

CNMG120408-HM
Standard type

Alloy steel (SCM440)

- **Cutting conditions** vc (m/min) = 250, f_n (mm/rev) = 0.25
 a_p (mm) = 2.0~3.0, interrupted cutting, wet

- **Cutting Result**



CNMG090408-HM
SAVE TURN

CNMG120408-HM
Standard type





Type	Picture	Designation	Coated						Dimensions (mm)				cutting conditions		Configuration	Available tool holders page
			NC3215	NC3225	NC5330	NC6310	NC9125	NC9135	PC9030	d	t	r	d ₁	ap (mm)		
C type		CNMG 090408-VQ			●				9.525	4.76	0.8	3.81	0.50~2.50	0.08~0.30		B116 B119
		090412-VQ			●				9.525	4.76	1.2	3.81	0.50~2.50	0.10~0.30		
		CNMG 090404-MP							9.525	4.76	0.4	3.81	0.50~4.00	0.10~0.40		B116 B119
		090408-MP							9.525	4.76	0.8	3.81	0.50~4.00	0.15~0.40		
		090412-MP							9.525	4.76	1.2	3.81	0.50~4.00	0.15~0.45		
		CNMG 090404-MM							9.525	4.76	0.4	3.81	0.50~5.00	0.08~0.35		B116 B119
		090408-MM							9.525	4.76	0.8	3.81	0.50~5.00	0.10~0.40		
		090412-MM							9.525	4.76	1.2	3.81	0.50~5.00	0.12~0.45		
	D type		DNMG 110508-VQ			●				9.525	5.56	0.4	3.81	0.50~2.50	0.08~0.30	
110512-VQ					●				9.525	5.56	0.8	3.81	0.50~2.50	0.10~0.30		
		DNMG 110504-MP							9.525	5.56	0.4	3.81	0.50~4.00	0.10~0.40		B116 B117 B119 B120
		110508-MP							9.525	5.56	0.8	3.81	0.50~4.00	0.15~0.40		
		110512-MP							9.525	5.56	1.2	3.81	0.50~4.00	0.15~0.45		
		DNMG 110504-MM							9.525	5.56	0.4	3.81	0.50~5.00	0.08~0.35		B116 B117 B119 B120
		110508-MM							9.525	5.56	0.8	3.81	0.50~5.00	0.10~0.40		
		110512-MM							9.525	5.56	1.2	3.81	0.50~5.00	0.12~0.45		
S type			SNMG 090408-VQ			●				9.525	4.76	0.4	3.81	0.50~2.50	0.08~0.30	
	090412-VQ								9.525	4.76	0.8	3.81	0.50~2.50	0.10~0.30		
		SNMG 090404-MP							9.525	4.76	0.4	3.81	0.50~4.00	0.10~0.40		B117 B118 B120
		090408-MP							9.525	4.76	0.8	3.81	0.50~4.00	0.15~0.40		
		090412-MP							9.525	4.76	1.2	3.81	0.50~4.00	0.15~0.45		
		SNMG 090404-MM							9.525	4.76	0.4	3.81	0.50~5.00	0.08~0.35		B117 B118 B120
		090408-MM							9.525	4.76	0.8	3.81	0.50~5.00	0.10~0.40		
		090412-MM							9.525	4.76	1.2	3.81	0.50~5.00	0.12~0.45		
	W type		WNMG 060404-VQ							9.525	4.76	0.4	3.81	0.30~2.00	0.06~0.30	
060408-VQ									9.525	4.76	0.8	3.81	0.50~2.00	0.08~0.30		
060412-VQ									9.525	4.76	1.2	3.81	0.50~2.00	0.10~0.30		
		WNMG 060404-MP	●	●	●	●			9.525	4.76	0.4	3.81	0.50~3.50	0.10~0.40		B119 B120
		060408-MP	●	●	●	●	●		9.525	4.76	0.8	3.81	0.50~3.50	0.15~0.40		
		060412-MP							9.525	4.76	1.2	3.81	0.50~3.50	0.15~0.45		
		WNMG 060404-MM							9.525	4.76	0.4	3.81	0.50~4.00	0.08~0.35		B119 B120
		060408-MM				●	●	●	9.525	4.76	0.8	3.81	0.50~4.00	0.10~0.40		
		060412-MM				●	●	●	9.525	4.76	1.2	3.81	0.50~4.00	0.12~0.45		

● : Stock item

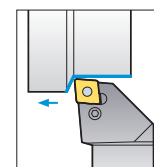
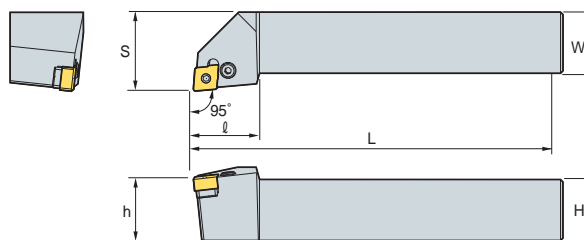


B SAVE TURN Holder

PCLNR/L



CN□□



95°

• R type insert (mm)

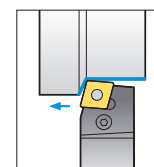
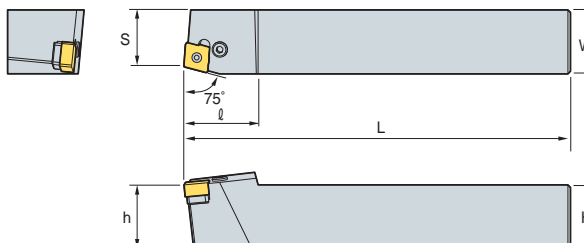
Designation	H	W	L	S	h	ℓ	Insert	Lever	Screw	Shim	Shim pin	Wrench	Shim Pin Punch
PCLNR/L 1616-H09-4N	16	16	100	20	16	20	CN□□ 0904□□						
2020-K09-4N	20	20	125	25	20	25							
2525-M09-4N	25	25	150	32	25	27							

➔ Applicable inserts B115

PCBNR/L



CN□□



75°

• R type insert (mm)

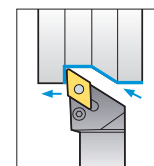
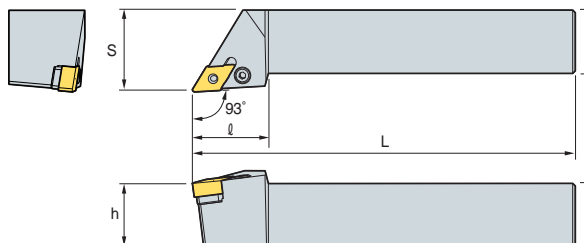
Designation	H	W	L	S	h	ℓ	Insert	Lever	Screw	Shim	Shim pin	Wrench	Shim Pin Punch
PCBNR/L 2020-K09-4N	20	20	125	17	20	27	CN□□ 0904□□						
2525-M09-4N	25	25	150	22	25	29							

➔ Applicable inserts B115

PDJNR/L



DN□□



93°

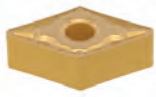
• R type insert (mm)

Designation	H	W	L	S	h	ℓ	Insert	Lever	Screw	Shim	Shim pin	Wrench	Shim Pin Punch
PDJNR/L 2020-K11-5N	20	20	125	25	20	25	DN□□ 1105□□						
2525-M11-5N	25	25	150	32	25	30							

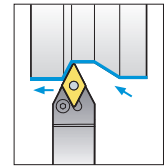
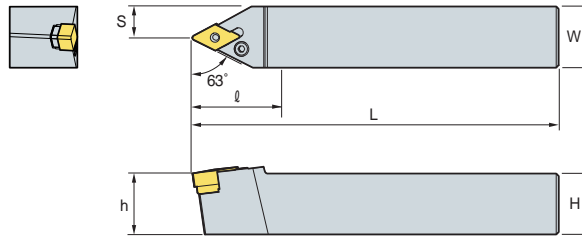
➔ Applicable inserts B115



PDNNR/L



DN□□



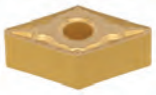
63°

• R type insert
(mm)

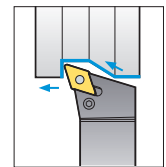
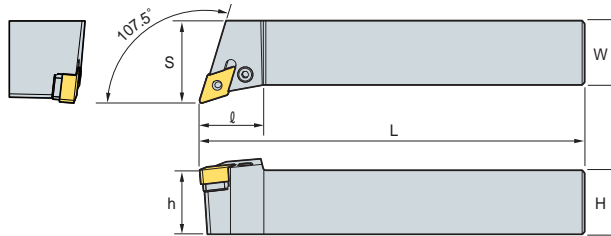
Designation	H	W	L	S	h	ℓ	Insert	Lever	Screw	Shim	Shim pin	Wrench	Shim Pin Punch
PDNNR/L 2020-K11-5N	20	20	125	25	20	30	DN□□ 1105□□						
2525-M11-5N	25	25	150	32	25	30							

↻ Applicable inserts B115

PDQNR/L



DN□□



107.5°

• R type insert
(mm)

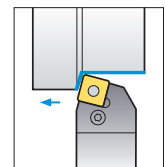
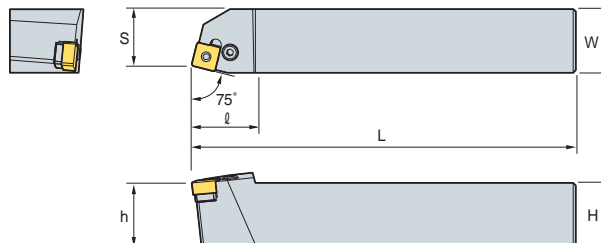
Designation	H	W	L	S	h	ℓ	Insert	Lever	Screw	Shim	Shim pin	Wrench	Shim Pin Punch
PDQNR/L 2020-K11-5N	20	20	125	25	20	30	DN□□ 1105□□						
2525-M11-5N	25	25	150	32	25	30							

↻ Applicable inserts B115

PSBNR/L



SN□□



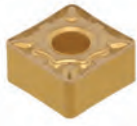
75°

• R type insert
(mm)

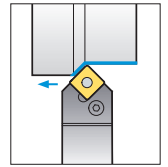
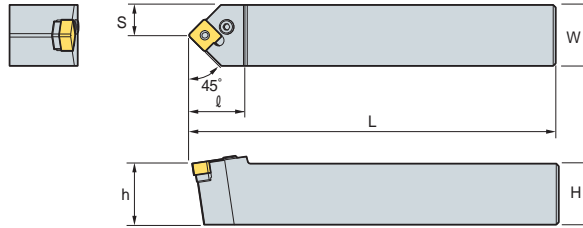
Designation	H	W	L	S	h	ℓ	Insert	Lever	Screw	Shim	Shim pin	Wrench	Shim Pin Punch
PSBNR/L 2020-K09-4N	20	20	125	17	20	25	SN□□ 0904□□						
2525-M09-4N	25	25	150	22	25	25							

↻ Applicable inserts B115

PSDNN



SN□□



45°

• R type insert (mm)

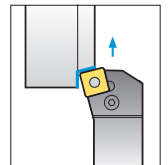
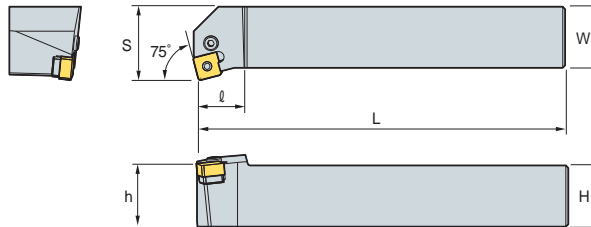
Designation		H	W	L	S	h	ℓ	Insert	Lever	Screw	Shim	Shim pin	Wrench	Shim Pin Punch
PSDNN	2020-K09-4N	20	20	125	17	20	25	SN□□0904□□						
	2525-M09-4N	25	25	150	22	25	25							

↻ Applicable inserts B115

PSKNR/L



SN□□



75°

• R type insert (mm)

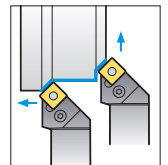
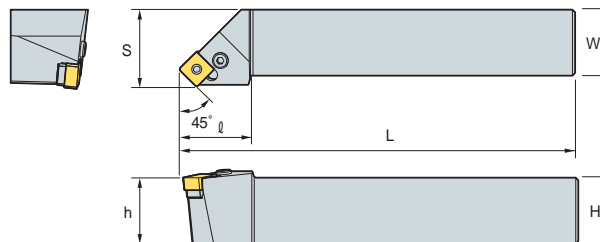
Designation		H	W	L	S	h	ℓ	Insert	Lever	Screw	Shim	Shim pin	Wrench	Shim Pin Punch
PSKNR/L	2020-K09-4N	20	20	125	17	20	25	SN□□0904□□						
	2525-M09-4N	25	25	150	22	25	25							

↻ Applicable inserts B115

PSSNR/L



SN□□



45°

• R type insert (mm)

Designation		H	W	L	S	h	ℓ	Insert	Lever	Screw	Shim	Shim pin	Wrench	Shim Pin Punch
PSSNR/L	2020-K09-4N	20	20	125	17	20	25	SN□□0904□□						
	2525-M09-4N	25	25	150	22	25	25							

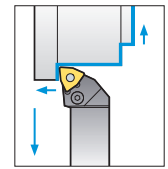
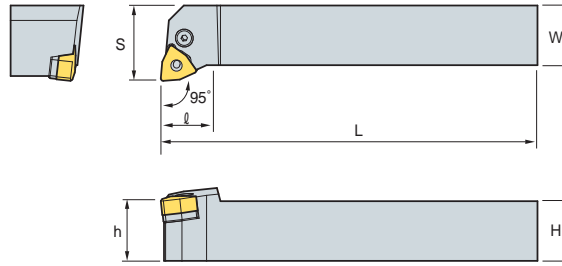
↻ Applicable inserts B115



PWLNLR/L



WN□□



95°

• R type insert (mm)

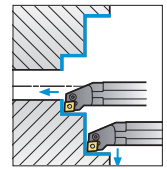
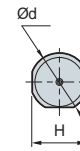
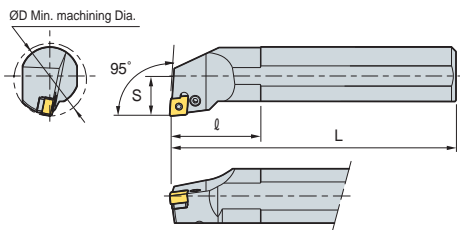
Designation	H	W	L	S	h	ℓ	Insert	Lever	Screw	Shim	Shim pin	Wrench	Shim Pin Punch
PWLNLR/L 1616-H06	16	16	100	20	16	20	WN□□0604□□						
2020-K06	20	20	125	25	20	20							
2525-M06	25	25	150	32	25	20							

↻ Applicable inserts **B115**

PCLNR/L



CN□□



95°

• R type insert (mm)

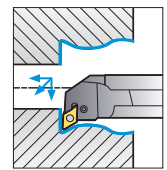
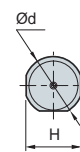
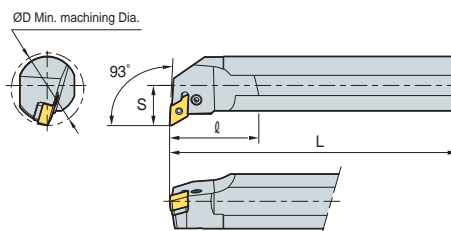
Designation	ØD	Ød	H	L	S	ℓ	Insert	Lever	Screw	Shim	Shim pin	Wrench	Shim Pin Punch
S20Q-PCLNR/L-09-4N	25	20	18	180	13	50	CN□□0904□□						
S25R-PCLNR/L-09-4N	32	25	23	200	17	50							
S32S-PCLNR/L-09-4N	40	32	30	250	22	50							

↻ Applicable inserts **B115**

PDUNR/L



DN□□



93°

• R type insert (mm)

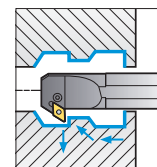
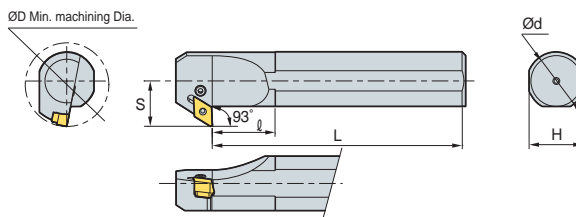
Designation	ØD	Ød	H	L	S	ℓ	Insert	Lever	Screw	Shim	Shim pin	Wrench	Shim Pin Punch
S32S-PDUNR/L-11-5N	40	32	30	250	22	30	DN□□1105□□						
S40T-PDUNR/L-11-5N	50	40	38	300	27	50							

↻ Applicable inserts **B115**

PDZNR/L



DN□□



93°

• R type insert (mm)

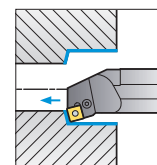
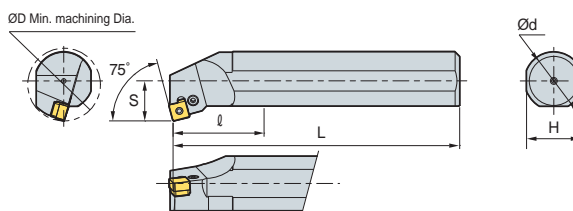
Designation	ØD	Ød	H	L	S	l	Insert	Lever	Screw	Shim	Shim pin	Wrench	Shim Pin Punch
S32S-PDZNR/L-11-5N	40	32	30	250	22	30	DN□□1105□□						
S40T-PDZNR/L-11-5N	50	40	38	300	27	50							

↻ Applicable inserts B115

PSKNR/L



SN□□



75°

• R type insert (mm)

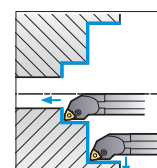
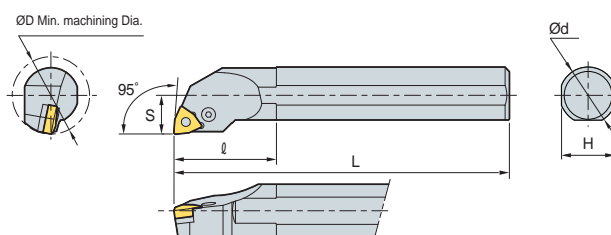
Designation	ØD	Ød	H	L	S	l	Insert	Lever	Screw	Shim	Shim pin	Wrench	Shim Pin Punch
S25R-PSKNR/L-09-4N	32	25	23	200	17	32	SN□□0904□□						
S32S-PSKNR/L-09-4N	40	32	30	250	22	32							

↻ Applicable inserts B115

PWLNRL



WN□□



95°

• R type insert (mm)

Designation	ØD	Ød	H	L	S	l	Insert	Lever	Screw	Shim	Shim pin	Wrench	Shim Pin Punch						
S20S-PWLNRL/L-06	25	20	18	250	13	40	WN□□0604□□												
S25R-PWLNRL/L-06	32	25	23	200	17	40								LV3B	VHX0512B	-	-	-	-
S32S-PWLNRL/L-06	44	32	30	250	22	45								LV3B	VHX0617B	SW317	SW317	HW25L	LSPS3

↻ Applicable inserts B115

