

Inserts

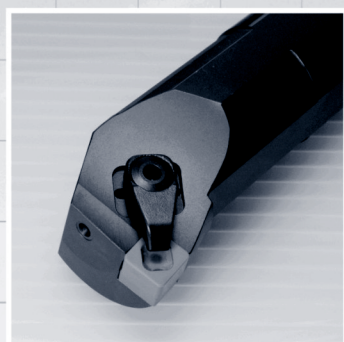
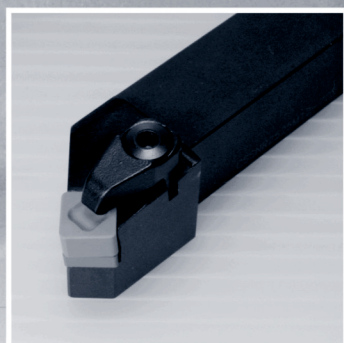
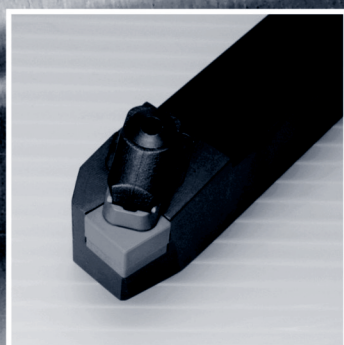
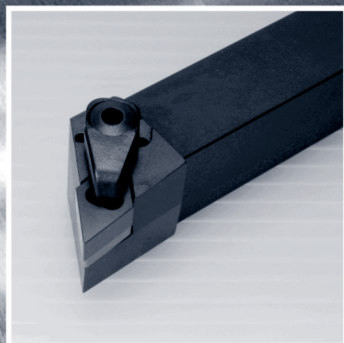
General turning

Aluminium
wheel turning

Automatic lathes

Ceramic tools

Ceramic tools



Ceramic tools

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CX1

CX1 is ultimate silicon-nitride material that has been developed to improve the notch wear of the conventional ceramics which contain silicon nitride.

To reduce notch wear amount in machining gray cast iron, the binding intergranular phase of silicon-nitride particles is changed to the higher-melting-point compound. This contributes to high temperature and high pressure sintering, so that the high density can be created.

This material doesn't cover only the conventional silicon-nitride ceramics application range, but also appears excellent performance under even-higher-speed machining conditions.

	Main components	Major applications	Density g/cm ³	Hardness HRA	Bending strength MPa	Young's modulus GPa	Thermal expansion coefficient X10 ⁻⁶ / K	Heat conductivity X10 ⁶ / K
CX1	Si ₃ N ₄	- Highly efficient cutting of gray cast iron	3,2	93,5	1200	320	3,0	29

CC1

CC1 is a highly wear-resistant tool that has been formed into microstructure by adding a trace amount of zirconia (ZrO₂) to highly pure alumina (Al₂O₃), the main component of this tool material.

	Main components	Major applications	Density g/cm ³	Hardness HRA	Bending strength MPa	Young's modulus GPa	Thermal expansion coefficient X10 ⁻⁶ / K	Heat conductivity X10 ⁶ / K
CC1	Al ₂ O ₃	- Semi-finishing and finishing of cast iron - Tube scarfing	4,0	94,0	700	400	7,8	17

CC2

This material is well-balanced between wear resistance and fracture resistance, and it works well in wide range of cutting cast iron and the turning of hard materials.

	Main components	Major applications	Density g/cm ³	Hardness HRA	Bending strength MPa	Young's modulus GPa	Thermal expansion coefficient X10 ⁻⁶ / K	Heat conductivity X10 ⁶ / K
CC2	Al ₂ O ₃ + TiC	- Semi-finishing and finishing of cast iron - Machining of hardened materials	4,3	94,5	800	420	7,9	21

CC4

Since the finest grain size particle, with high melting point, is composited CC4 improves in both hardness and strength, and it shows superior performance as a special material for machining high-hardened materials.

	Main components	Major applications	Density g/cm ³	Hardness HRA	Bending strength MPa	Young's modulus GPa	Thermal expansion coefficient X10 ⁻⁶ / K	Heat conductivity X10 ⁶ / K
CC4	Al ₂ O ₃ + TiC	- Machining of hardened materials	4,6	95,5	1000	420	7,8	25

PCBN

This PCBN are formed with special ceramic binder based on CBN (Cubic Boron Nitride) particles, and PCBN sintered layer is increasing thickness by carbide base.

PCBN are high-performance tool materials that have high hardness at room temperature and high temperature and are almost free from chemical reactions against the material to be cut.

PCD

PCD consists of a 0,5 mm thick diamond layer, which is inseparably connected to a carbide base.

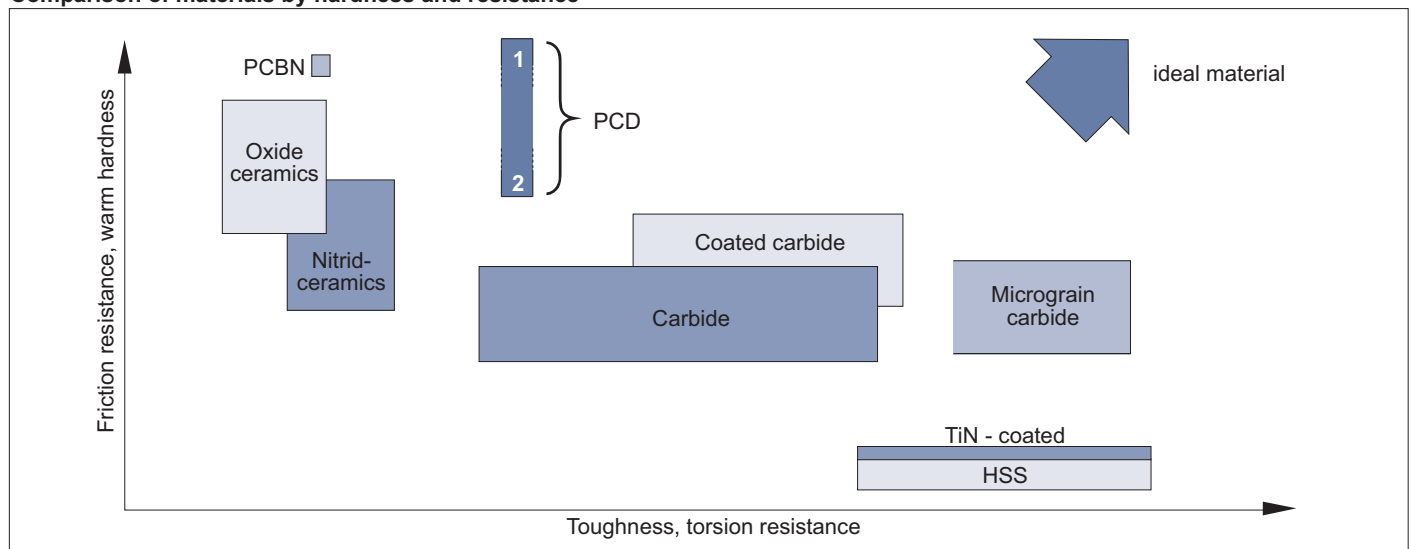
This polycrystalline diamond layer originates at a pressing operation by bonding of smallest diamond grains, supported by a metallic bonding agent.

This cutting material also has a very long tool life.

Polycrystalline boron nitride cutting material				
Material		Vc = m/min.	Infeed f = mm/U	Depth of cut ap=mm
PCBN	- Hardened materials and nitriding steels	60-120	0,03-0,2	1
	- High temperature and corrosion resistant alloys with high nickel or cobalt content	70-150	0,03-0,15	1
	- Gray cast iron, especially hard and abrasion resistant types	300-600	0,10-0,5	3
	- High speed steel (HSS)	60-120	0,03-0,1	1
	- Metal powder spraying	60-120	2	1

Polycrystalline diamond cutting material				
Material		Vc = m/min.	Infeed f = mm/U	Depth of cut ap=mm
PCD	- Aluminium alloys under 3% SIC	200-2000	0,05-0,4	up to the whole diamond cutting edge up to
	- Aluminium alloys up to 12% SIC	150-1000	0,05-0,4	
	- Aluminium alloys up to approx 21% SIC	100-800	0,05-0,4	
	- Brass, magnesium, zinc alloys	200-2000	0,05-0,4	
	- Copper, bronze, lead alloys	200-1000	0,05-0,4	
	- Duro and thermoplastics with and without fillers e.g. epoxy resin	100-1000	0,05-0,2	
	- Hard papers	200-600	0,10-0,3	
	- Hard and soft rubber with and without fillers	100-500	0,10-0,3	
	- Graphite and pre-sintered carbide	100-500	0,10-0,4	
	- Aluminium oxide, silicon, tungsten	50-180	0,1	700

Comparison of materials by hardness and resistance



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CNGA

80° Rhombic
Negative

Page F.05

0°

CNGN

80° Rhombic
Negative

Page F.05

0°

CNGX

80° Rhombic
Negative

Page F.05

0°

DNGA

55° Rhombic
Negative

Page F.05

0°

DNGN

55° Rhombic
Negative

Page F.06

0°

DNGX

55° Rhombic
Negative

Page F.06

0°

ENGN

75° Rhombic
Negative

Page F.06

0°

GWC R/L



Positive

Page F.07

3°

GWG



Positive

Page F.06

3°

GWF

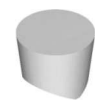


Positive

Page F.07

3°

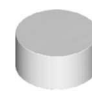
RCGX

Round
Positive

Page F.07

7°

RNGN

Round
Negative

Page F.07

0°

SNGA

Square
Negative

Page F.08

0°

SNGN

Square
Negative

Page F.08

0°

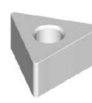
SNGX

Square
Negative

Page F.08

0°

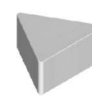
TNGA

Triangular
Negative

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0°

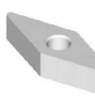
TNGN

Triangular
Negative

Page F.09

0°

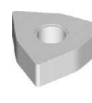
VNGA

35° Rhombic
Negative

Page F.09

0°

WNGA

80° Trigon
Negative

Page F.09

0°

PCBN/PCD Inserts

CCMW

80° Rhombic
Positive

Page F.10

7°

CNGA

80° Rhombic
Negative

Page F.10

0°

DCMW

55° Rhombic
Negative

Page F.10

7°

DNGA

55° Rhombic
Negative

Page F.10

0°

SNGA

55° Square
Negative

Page F.10

0°

TCMW

Triangular
Positive

Page F.11

7°

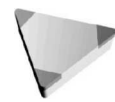
TNGA

Triangular
Negative

Page F.11

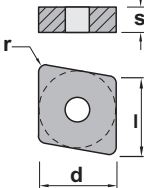
0°

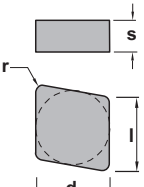
TPMN

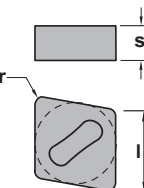
Triangular
Positive

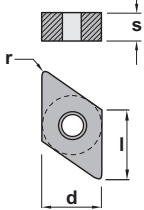
Page F.11

11°

	Negative 80° rhombic insert												Normally available for immediate delivery ●				Only available in a limited quantity ○			
	CNGA	l	s	d	r	CX1	CC1	CC2	CC4											
	CNGA 120404	12,90	4,76	12,70	0,4			●	●											
	CNGA 120408	12,90	4,76	12,70	0,8	●		●	●											
	CNGA 120412	12,90	4,76	12,70	1,2	●		●	●											

	Negative 80° rhombic insert												Normally available for immediate delivery ●				Only available in a limited quantity ○			
	CNGN	l	s	d	r	CX1	CC1	CC2	CC4											
	CNGN 120408	12,90	4,76	12,70	0,8	●		●	●											
	CNGN 120412	12,90	4,76	12,70	1,2	●		●												
	CNGN 120416	12,90	4,76	12,70	1,6	●														
	CNGN 120708	12,90	7,94	12,70	0,8	●		●	●											
	CNGN 120712	12,90	7,94	12,70	1,2	●		●												
	CNGN 120716	12,90	7,94	12,70	1,6	●														

	Negative 80° rhombic insert												Normally available for immediate delivery ●				Only available in a limited quantity ○			
	CNGX	l	s	d	r	CX1	CC1	CC2	CC4											
	CNGX 120708	12,90	7,94	12,70	0,8	●														
	CNGX 120712	12,90	7,94	12,70	1,2	●														
	CNGX 120716	12,90	7,94	12,70	1,6	○														
	CNGX 160708	16,10	7,94	15,87	0,8	○														
	CNGX 160712	16,10	7,94	15,87	1,2	○														
	CNGX 160716	16,10	7,94	15,87	1,6	○														

	Negative 55° rhombic insert												Normally available for immediate delivery ●				Only available in a limited quantity ○			
	DNGA	l	s	d	r	CX1	CC1	CC2	CC4											
	DNGA 150404	12,90	4,76	12,70	0,4		●													
	DNGA 150408	12,90	4,76	12,70	0,8	●	●	●	●											
	DNGA 150412	12,90	4,76	12,70	1,2	●	●	●	●											

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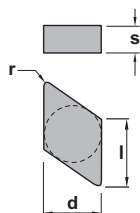
Negative 55° rhombic insert

Normally available for immediate delivery ●

Only available in a limited quantity ○

DNGN

	l	s	d	r	CX1	CC1	CC2	CC4								
DNGN 150708	15,50	7,94	12,70	0,8			●									
DNGN 150712	15,50	7,94	12,70	1,2			●									
DNGN 150716	15,50	7,94	12,70	1,6			●									



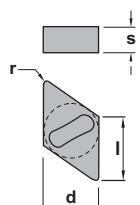
Negative 55° rhombic insert

Normally available for immediate delivery ●

Only available in a limited quantity ○

DNGX

	l	s	d	r	CX1	CC1	CC2	CC4								
DNGX 120708	12,20	7,94	10,00	0,8	○											
DNGX 120712	12,20	7,94	10,00	1,2	○											
DNGX 120716	12,20	7,94	10,00	1,6	○											
DNGX 150708	15,50	7,94	12,70	0,8	●											
DNGX 150712	15,50	7,94	12,70	1,2	●											
DNGX 150716	15,50	7,94	12,70	1,6	○											



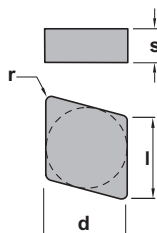
Negative 75° rhombic insert

Normally available for immediate delivery ●

Only available in a limited quantity ○

ENGX

	l	s	d	r	CX1	CC1	CC2	CC4								
ENGX 130708	13,15	7,94	12,70	0,8			●									
ENGX 130712	13,15	7,94	12,70	1,2			●									
ENGX 130716	13,15	7,94	12,70	1,6			●									
ENGX 130720	13,15	7,94	12,70	2,0			●									



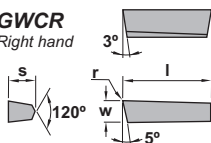
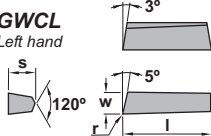
Positive insert

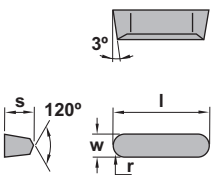
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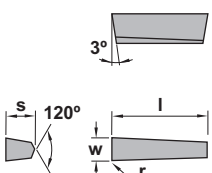
Only available in a limited quantity ○

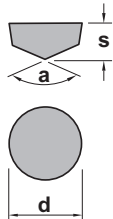
GWC R/L

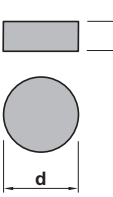
	l	s	w	r	CX1	CC1	CC2	CC4								
GWC 06R	15,00	7,50	6,00	0,6		○										
GWC 08R	15,00	7,50	8,00	0,6		○										
GWC 06L	15,00	7,50	6,00	0,6		○										
GWC 08L	15,00	7,50	8,00	0,6		○										

GWCR
Right hand**GWCL**
Left hand

	Positive insert										Normally available for immediate delivery ● Only available in a limited quantity ○									
	GWF	l	s	w	r	CX1	CC1	CC2	CC4											
	GWF 04 M	12,00	5,00	4,00	2,0	●	○													
	GWF 05 M	12,00	5,00	5,00	2,5		○													
	GWF 06 M	15,00	7,50	6,00	3,0		○													
	GWF 07	15,00	7,50	7,00	3,5		○													
	GWF 08	15,00	7,50	8,00	4,0		○													
	GWF 10	15,00	7,50	10,00	5,0		○													

	Positive insert										Normally available for immediate delivery ● Only available in a limited quantity ○									
	GWG	l	s	w	r	CX1	CC1	CC2	CC4											
	GWG 04 M	12,00	5,00	4,00	0,5		○													
	GWG 05 M	12,00	5,00	5,00	0,8		○													
	GWG 06 M	15,00	7,50	6,00	0,8		○													
	GWG 07	15,00	7,50	7,00	0,8		○													
	GWG 08	15,00	7,50	8,00	0,8		○													
	GWG 10	15,00	7,50	10,00	0,8		○													

	Positive round insert										Normally available for immediate delivery ● Only available in a limited quantity ○									
	RCGX	s	d	a	CX1	CC1	CC2	CC4												
	RCGX 060700	7,94	6,35	120°			●													
	RCGX 090700	7,94	9,52	120°			●													
	RCGX 120700	7,94	12,70	120°			●													
	RCGX 151000	10,00	15,87	120°			●													
	RCGX 191000	10,00	19,05	120°			●													

	Negative round insert										Normally available for immediate delivery ● Only available in a limited quantity ○									
	RNGN	s	d	CX1	CC1	CC2	CC4													
	RNGN 120400	4,76	12,70	●		●														
	RNGN 120700	7,94	12,70			●														

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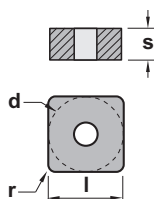
Negative square insert

Normally available for immediate delivery ●

Only available in a limited quantity ○

SNGA

	l	s	d	r	CX1	CC1	CC2	CC4								
SNGA 120408	12,70	4,76	12,70	0,8	●											
SNGA 120412	12,70	4,76	12,70	1,2	●											
SNGA 120416	12,70	4,76	12,70	1,6	●											



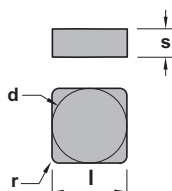
Negative square insert

Normally available for immediate delivery ●

Only available in a limited quantity ○

SNGN

	l	s	d	r	CX1	CC1	CC2	CC4								
SNGN 120404	12,70	4,76	12,70	0,4			●									
SNGN 120408	12,70	4,76	12,70	0,8	●		●									
SNGN 120412	12,70	4,76	12,70	1,2	●		●									
SNGN 120416	12,70	4,76	12,70	1,6	●		●									
SNGN 120420	12,70	4,76	12,70	2,0	●		●									
SNGN 120424	12,70	4,76	12,70	2,4	●		●									
SNGN 120708	12,70	7,94	12,70	0,8			●									
SNGN 120712	12,70	7,94	12,70	1,2			○									
SNGN 120716	12,70	7,94	12,70	1,6			●									
SNGN 120720	12,70	7,94	12,70	2,0			●									



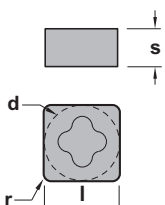
Negative square insert

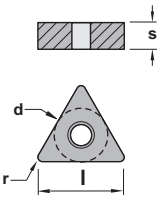
Normally available for immediate delivery ●

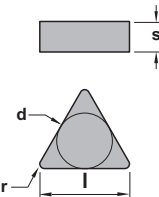
Only available in a limited quantity ○

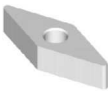
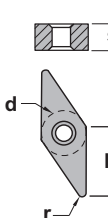
SNGX

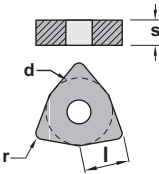
	l	s	d	r	CX1	CC1	CC2	CC4								
SNGX 120708	12,70	7,94	12,70	0,8	●											
SNGX 120712	12,70	7,94	12,70	1,2	●											
SNGX 120716	12,70	7,94	12,70	1,6	○											
SNGX 150708	15,87	7,94	15,87	0,8	○											
SNGX 150712	15,87	7,94	15,87	1,2	○											
SNGX 150716	15,87	7,94	15,87	1,6	○											



	Negative trinagular insert									
	Normally available for immediate delivery ● Only available in a limited quantity ○									
	TNGA	l	s	d	r	CX1	CC1	CC2	CC4	
	TNGA 160404	9,52	4,76	9,52	0,4				●	
	TNGA 160408	9,52	4,76	9,52	0,8	●		●	●	
	TNGA 160412	9,52	4,76	9,52	1,2	●		●		
	TNGA 160416	9,52	4,76	9,52	1,6	○				

	Negative trinagular insert									
	Normally available for immediate delivery ● Only available in a limited quantity ○									
	TNGN	l	s	d	r	CX1	CC1	CC2	CC4	
	TNGN 160408	9,52	4,76	9,52	0,8	●		●		
	TNGN 160412	9,52	4,76	9,52	1,2	●		○		
	TNGN 160416	9,52	4,76	9,52	1,6	●		●		
	TNGN 160708	9,52	7,94	9,52	0,8			●		
	TNGN 160712	9,52	7,94	9,52	1,2			●		
	TNGN 160724	9,52	7,94	9,52	2,4			●		

	Negative 35° rhombic insert									
	Normally available for immediate delivery ● Only available in a limited quantity ○									
	VNGA	l	s	d	r	CX1	CC1	CC2	CC4	
	VNGA 160404	16,50	4,76	9,52	0,4			●		
	VNGA 160408	16,50	4,76	9,52	0,8			●		
	VNGA 160412	16,50	4,76	9,52	1,2			●		

	Negative 80° trigon insert									
	Normally available for immediate delivery ● Only available in a limited quantity ○									
	WNGA	l	s	d	r	CX1	CC1	CC2	CC4	
	WNGA 080408	8,14	4,76	12,70	0,8	●				
	WNGA 080412	8,14	4,76	12,70	1,2	●				

Inserts

General turning

Aluminium
wheel turning

Automatic lathes

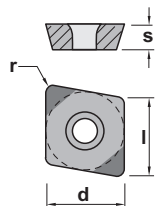
Ceramic tools



Positive 80° rhombic insert

Normally available for immediate delivery ●

Only available in a limited quantity ○

CCMW**CCMW 060202**

l

s

d

r

PCBN

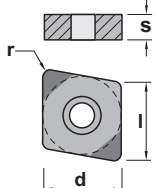
PCD

CCMW 060204**CCMW 09T304****CCMW 09T308**

Negative 80° rhombic insert

Normally available for immediate delivery ●

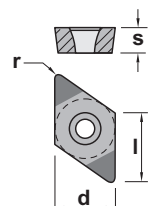
Only available in a limited quantity ○

CNGA**CNGA 120404****CNGA 120408****CNGA 120412**

Positive 55° rhombic insert

Normally available for immediate delivery ●

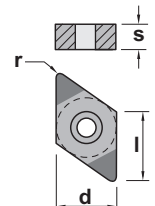
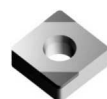
Only available in a limited quantity ○

DCMW**DCMW 070202****DCMW 070204****DCMW 11T302****DCMW 11T304****DCMW 11T308**

Negative 55° rhombic insert

Normally available for immediate delivery ●

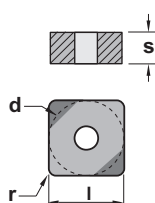
Only available in a limited quantity ○

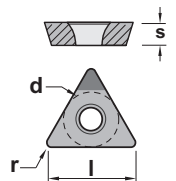
DNGA**DNGA 150404****DNGA 150408****DNGA 150412**

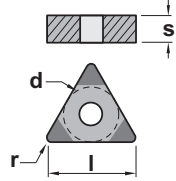
Negative square insert

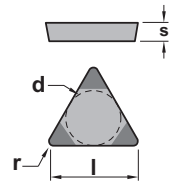
Normally available for immediate delivery ●

Only available in a limited quantity ○

SNGA**SNGA 120404****SNGA 120408****SNGA 120412**

	Positive triangular insert									
	Normally available for immediate delivery ● Only available in a limited quantity ○									
	TCMW	l	s	d	r	PCBN	PCD			
	TCMW 110204	11,00	2,38	6,35	0,4	●				
	TCMW 16T304	16,50	3,97	9,52	0,4	●				
	TCMW 16T308	16,50	3,97	9,52	0,8	●				

	Negative triangular insert									
	Normally available for immediate delivery ● Only available in a limited quantity ○									
	TNGA	l	s	d	r	PCBN	PCD			
	TNGA 160404	16,50	4,76	9,52	0,4	●				
	TNGA 160408	16,50	4,76	9,52	0,8	●				
	TNGA 160412	16,50	4,76	9,52	1,2	○				

	Positive triangular insert									
	Normally available for immediate delivery ● Only available in a limited quantity ○									
	TPMN	l	s	d	r	PCBN	PCD			
	TPMN 110304	11,00	3,18	6,35	0,4	●				
	TPMN 110308	11,00	3,18	6,35	0,8	●				
	TPMN 160304	16,50	3,18	9,52	0,4	●				
	TPMN 160308	16,50	3,18	9,52	0,8	●				
	TPMN 160312	16,50	3,18	9,52	1,2	●				

Inserts

General turning

Aluminium
wheel turning

Automatic lathes

Ceramic tools

CX



CD



Toolholders

CCBN 75° CN.. 1204.. CN.. 1207.. CN.. 1607.. Page F.14	CCKN 75° CN.. 1204.. CN.. 1207.. CN.. 1607.. Page F.15	CCLN 95° CN.. 1204.. CN.. 1207.. CN.. 1607.. Page F.16	CDJN 93° DN.. 1204.. DN.. 1207.. DN.. 1507.. Page F.17	CELN 97°30' EN.. 1307.. Page F.18	CRDC RC.. 0607.. RC.. 1907.. Page F.19
CRDN RN.. 1204.. RN.. 1207.. RN.. 1507.. RN.. 1907.. RN.. 2507.. Page F.20	CRSN RN.. 1204.. RN.. 1207.. Page F.21	CSDN 45° SN.. 120.. SN.. 1507.. Page F.22	CSKN 75° SN.. 1204.. SN.. 1507.. Page F.23	CSRN 75° SN.. 120.. SN.. 1507.. Page F.24	CSSN 45° SN.. 1204.. SN.. 1507.. Page F.25
CSXN 85° SN.. 120.. SN.. 1507.. Page F.26	CSYN 85° SN.. 120.. SN.. 1507.. Page F.27	CTFN 90° TN.. 1604.. TN.. 1607.. Page F.28	CTGN 90° TN.. 1604.. TN.. 1607.. Page F.29	CVJN 93° VN.. 1604.. VN.. 1607.. Page F.30	CVVN 62°30' VN.. 1604.. VN.. 1607.. Page F.31

Boring bars

CCLN 95° CN.. 1204.. CN.. 1207.. Page F.32	CDQN 107°30' DN.. 1204.. DN.. 1207.. DN.. 1504.. DN.. 1507.. Page F.33	CDUN 93° DN.. 1204.. DN.. 1207.. DN.. 1504.. DN.. 1507.. Page F.34	CELN 97°30' EN.. 1307.. Page F.35	CSKN 75° SN.. 1204.. SN.. 1207.. Page F.36	CSSN 45° SN.. 1204.. SN.. 1207.. SN.. 1507.. Page F.37
CSYN 85° SN.. 1204.. SN.. 1207.. Page F.38					

Ceramic tools

Parting and
grooving

Threading

Drills

Cartridges

Brazed tools

Tooling

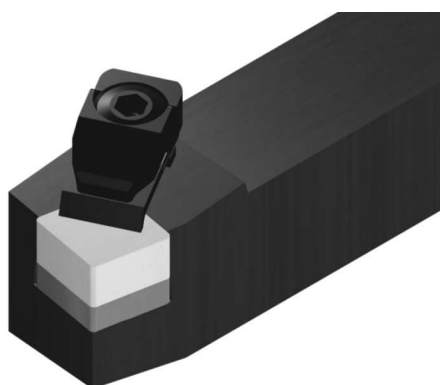
Inserts

General turning

Aluminium
wheel turning

Automatic lathes

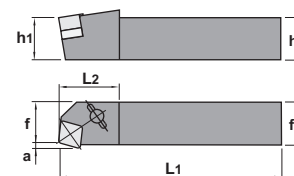
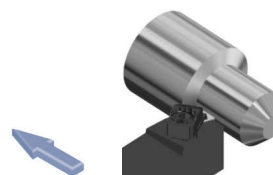
Ceramic tools

**Characteristics:**

Toolholder for external turning applications equipped with rhombic negative inserts (angle 80°).
The top clamp ensures good rigidity in roughing applications.

Applications:

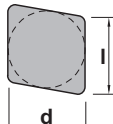
External turning toolholder for general applications, roughing, semi-finishing and finishing.

**CCBN 75°**

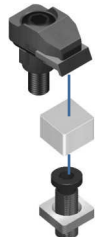
Ref.		h=h ₁	b	L ₁	L ₂	f	a	Insert size	
Ref.	CCBN R/L 2525 M12-4CD	25	25	150	32	22	3,10	CNGN 1204..	0,750
	CCBN R/L 2525 M12-7CD	25	25	150	32	22	3,10	CNGN 1207..	0,750
	CCBN R/L 3225 P12-4CD	32	25	170	32	22	3,10	CNGN 1204..	1,050
	CCBN R/L 3225 P12-7CD	32	25	170	32	22	3,10	CNGN 1207..	1,050
	CCBN R/L 2525 M16-CD	25	25	150	35	27	3,82	CNGN 1607..	0,750
	CCBN R/L 3225 P16-CD	32	25	170	35	27	3,82	CNGN 1607..	1,050
Ref.	CCBN R/L 2525 M12-4CX	25	25	150	32	22	3,10	CNGX 1204..	0,750
	CCBN R/L 2525 M12-7CX	25	25	150	32	22	3,10	CNGX 1207..	0,750
	CCBN R/L 3225 P12-4CX	32	25	170	32	22	3,10	CNGX 1204..	1,050
	CCBN R/L 3225 P12-7CX	32	25	170	32	22	3,10	CNGX 1207..	1,050
	CCBN R/L 2525 M16-CX	25	25	150	35	27	3,82	CNGX 1607..	0,750
	CCBN R/L 3225 P16-CX	32	25	170	35	27	3,82	CNGX 1607..	1,050

							
CD	CCBN R/L 2525 M12-4CD	ICSN 454	1160	9414	2417	-	5004
	CCBN R/L 2525 M12-7CD	ICSN 434	1160	9414	2417	-	5004
	CCBN R/L 3225 P12-4CD	ICSN 454	1160	9414	2417	-	5004
	CCBN R/L 3225 P12-7CD	ICSN 434	1160	9414	2417	-	5004
	CCBN R/L 2525 M16-CD	ICSN 533	1180	9414	2417	-	5004
	CCBN R/L 3225 P16-CD	ICSN 533	1180	9414	2417	-	5004
CX	CCBN R/L 2525 M12-4CX	ICSN 454	1160	-	-	2471	5004
	CCBN R/L 2525 M12-7CX	ICSN 434	1160	-	-	2471	5004
	CCBN R/L 3225 P12-4CX	ICSN 454	1160	-	-	2471	5004
	CCBN R/L 3225 P12-7CX	ICSN 434	1160	-	-	2471	5004
	CCBN R/L 2525 M16-CX	ICSN 533	1180	-	-	2415	5004
	CCBN R/L 3225 P16-CX	ICSN 533	1180	-	-	2415	5004

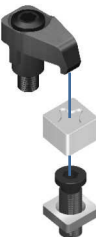
CNG..		l	s	d
Ref.	CNG.. 1204..	12,90	4,76	12,70
	CNG.. 1207..	12,90	7,94	12,70
	CNG.. 1607..	16,10	7,94	15,88
Negative 80° - Rhombic inserts				
For more information see page: F.05				
CNGN		CNGX		
				

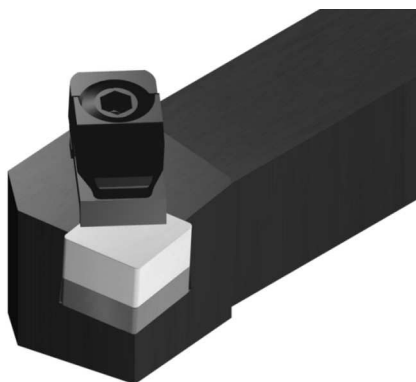



CD



CX

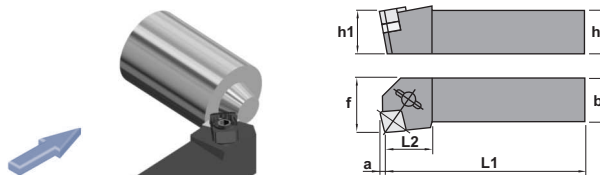


**Characteristics:**

Toolholder for face turning applications equipped with rhombic negative inserts (angle 80°).
The top clamp ensures good rigidity in roughing applications.

Applications:

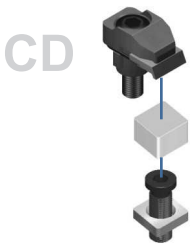
Face turning toolholder for general applications, roughing, semi-finishing and finishing.

**CCKN 75°**

Ref.		h=h ₁	b	L ₁	L ₂	f	a	Insert size	kg
	CCKN R/L 2525 M12-4CD	25	25	150	29	32	3,10	CNGN 1204..	0,750
	CCKN R/L 2525 M12-7CD	25	25	150	29	32	3,10	CNGN 1207..	0,750
	CCKN R/L 3225 P12-4CD	32	25	170	29	32	3,10	CNGN 1204..	1,050
	CCKN R/L 3225 P12-7CD	32	25	170	29	32	3,10	CNGN 1207..	1,050
	CCKN R/L 2525 M12-4CX	25	25	150	29	32	3,10	CNGX 1204..	0,750
	CCKN R/L 2525 M12-7CX	25	25	150	29	32	3,10	CNGX 1207..	0,750
	CCKN R/L 3225 P12-4CX	32	25	170	29	32	3,10	CNGX 1204..	1,050
	CCKN R/L 3225 P12-7CX	32	25	170	29	32	3,10	CNGX 1207..	1,050

							
CD	CCKN R/L 2525 M12-4CD	ICSN 454	1160	9414	2417	-	5004
	CCKN R/L 2525 M12-7CD	ICSN 434	1160	9414	2417	-	5004
	CCKN R/L 3225 P12-4CD	ICSN 454	1160	9414	2417	-	5004
	CCKN R/L 3225 P12-7CD	ICSN 434	1160	9414	2417	-	5004
CX	CCKN R/L 2525 M12-4CX	ICSN 454	1160	-	-	2471	5004
	CCKN R/L 2525 M12-7CX	ICSN 434	1160	-	-	2471	5004
	CCKN R/L 3225 P12-4CX	ICSN 454	1160	-	-	2471	5004
	CCKN R/L 3225 P12-7CX	ICSN 434	1160	-	-	2471	5004

CNG..		l	s	d
Ref.	CNG.. 1204..	12,90	4,76	12,70
	CNG.. 1207..	12,90	7,94	12,70
Negative 80° - Rhombic inserts				
For more information see page: F.05				
CNGN	CNGX			
				



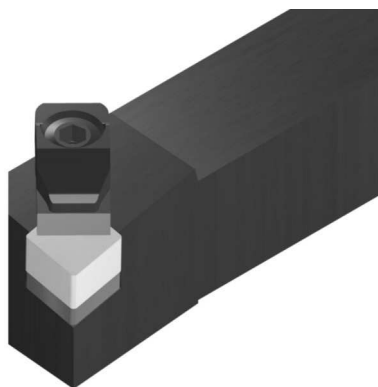

Inserts

General turning

Aluminium
wheel turning

Automatic lathes

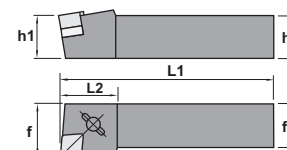
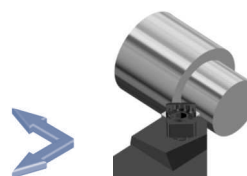
Ceramic tools

**Characteristics:**

Multipurpose toolholder equipped with rhombic negative double side insert (angle 80°).
The top clamp ensures good rigidity in roughing applications.

Applications:

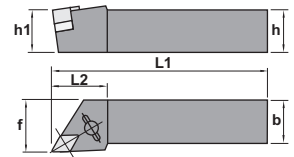
External turning toolholder for general applications, roughing, semi-finishing and finishing.

**CCLN 95°**

Ref.		h=h ₁	b	L ₁	L ₂	f	Insert size	Kg
	CCLN R/L 2525 M12-4CD	25	25	150	35	32	CNGN 1204..	0,750
	CCLN R/L 2525 M12-7CD	25	25	150	35	32	CNGN 1207..	0,750
	CCLN R/L 3225 P12-4CD	32	25	170	35	32	CNGN 1204..	1,050
	CCLN R/L 3225 P12-7CD	32	25	170	35	32	CNGN 1207..	1,050
	CCLN R/L 2525 M16-CD	25	25	150	35	32	CNGN 1607..	0,750
	CCLN R/L 3225 P16-CD	32	25	170	35	32	CNGN 1607..	1,050
	CCLN R/L 2525 M12-4CX	25	25	150	35	32	CNGX 1204..	0,750
	CCLN R/L 2525 M12-7CX	25	25	150	35	32	CNGX 1207..	0,750
	CCLN R/L 3225 P12-4CX	32	25	170	35	32	CNGX 1204..	1,050
	CCLN R/L 3225 P12-7CX	32	25	170	35	32	CNGX 1207..	1,050
	CCLN R/L 2525 M16-CX	25	25	150	35	32	CNGX 1607..	0,750
	CCLN R/L 3225 P16-CX	32	25	170	35	32	CNGX 1607..	1,050

CD	CCLN R/L 2525 M12-4CD	ICSN 454	1160	9414	2417	-	5004
	CCLN R/L 2525 M12-7CD	ICSN 434	1160	9414	2417	-	5004
	CCLN R/L 3225 P12-4CD	ICSN 454	1160	9414	2417	-	5004
	CCLN R/L 3225 P12-7CD	ICSN 434	1160	9414	2417	-	5004
	CCLN R/L 2525 M16-CD	ICSN 533	1180	9414	2417	-	5004
	CCLN R/L 3225 P16-CD	ICSN 533	1180	9414	2417	-	5004
CX	CCLN R/L 2525 M12-4CX	ICSN 454	1160	-	-	2415	5004
	CCLN R/L 2525 M12-7CX	ICSN 434	1160	-	-	2415	5004
	CCLN R/L 3225 P12-4CX	ICSN 454	1160	-	-	2415	5004
	CCLN R/L 3225 P12-7CX	ICSN 434	1160	-	-	2415	5004
	CCLN R/L 2525 M16-CX	ICSN 533	1180	-	-	2432	5004
	CCLN R/L 3225 P16-CX	ICSN 533	1180	-	-	2432	5004

CNG..		l	s	d
Ref.	CNG.. 1204..	12,90	4,76	12,70
	CNG.. 1207..	12,90	7,94	12,70
	CNG.. 1607..	16,10	7,94	15,88
Negative 80° - Rhombic inserts				
For more information see page: F.05				
CNGN		CNGX		



Tooling

F.17

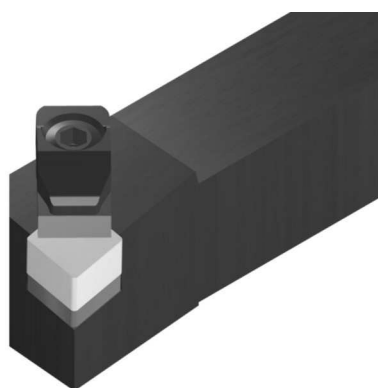
Inserts

General turning

Aluminium
wheel turning

Automatic lathes

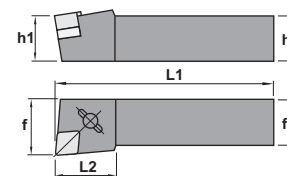
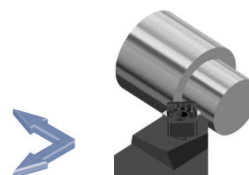
Ceramic tools

**Characteristics:**

Multipurpose toolholder equipped with rhombic negative double side insert (angle 75°).
The top clamp ensures good rigidity in roughing applications.

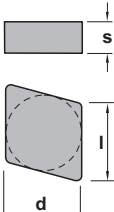
Applications:

External turning toolholder for general applications, roughing, semi-finishing and finishing.

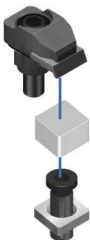
**CELN 97°30'**

Ref.		h=h ₁	b	L ₁	L ₂	f	Insert size	Kg
CELN R/L 2020 K13-CD	CELN R/L 2020 K13-CD	20	20	125	32	25	ENG 1307..	0,400
	CELN R/L 2525 M13-CD	25	25	150	32	32	ENG 1307..	0,750
	CELN R/L 3225 P13-CD	32	25	170	32	32	ENG 1307..	1,050
CELN R/L 2020 K13-CX	CELN R/L 2020 K13-CX	20	20	125	32	25	ENGX 1307..	0,400
	CELN R/L 2525 M13-CX	25	25	150	32	32	ENGX 1307..	0,750
	CELN R/L 3225 P13-CX	32	25	170	32	32	ENGX 1307..	1,050

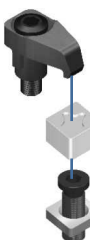
CD	CELN R/L 2020 K13-CD	IESN 432	1161	9414	2413	-	5004
	CELN R/L 2525 M13-CD	IESN 432	1160	9414	2413	-	5004
	CELN R/L 3225 P13-CD	IESN 432	1160	9414	2413	-	5004
CX	CELN R/L 2020 K13-CX	IESN 432	1161	-	-	2415	5004
	CELN R/L 2525 M13-CX	IESN 432	1160	-	-	2415	5004
	CELN R/L 3225 P13-CX	IESN 432	1160	-	-	2415	5004

	ENG..				
	Ref.	ENG.. 1307..	l	s	d
	Negative 75° - Rhombic inserts				
	For more information see page: F.06				
	ENG	ENGX			
					

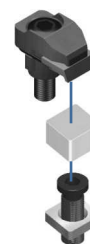
CD



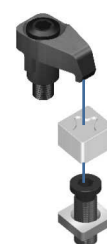
CX

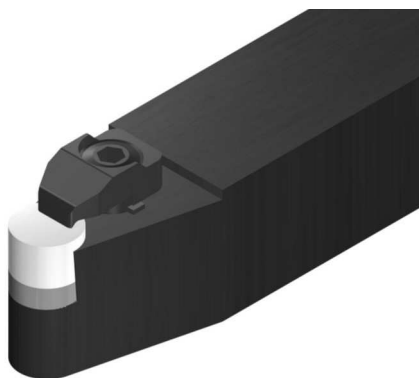


CD



CX

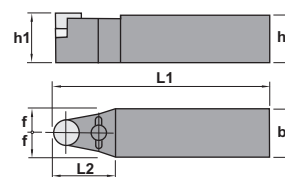
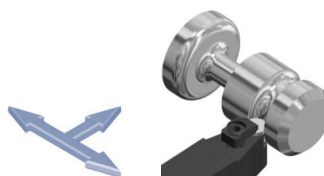


**Characteristics:**

Profiling toolholder equipped with round positive insert.
The top clamp ensures good rigidity in roughing applications.

Applications:

Profiling turning toolholder for general applications, roughing, semi-finishing and finishing.

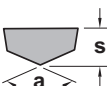


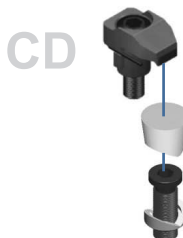
CRDC

Ref.		h=h ₁	b	L ₁	L ₂	f	Insert size	⚖ Kg
	CRDC N 2525 M06-CD	25	25	150	20	12,5	RCGX 0607..	0,750
	CRDC N 2525 M09-CD	25	25	150	20	12,5	RCGX 0907..	0,750
	CRDC N 3225 P09-CD	32	25	170	20	12,5	RCGX 0907..	0,750
	CRDC N 2525 M12-CD	25	25	150	25	12,5	RCGX 1207..	0,750
	CRDC N 3225 P12-CD	32	25	170	25	12,5	RCGX 1207..	1,050
	CRDC N 2525 M15-CD	25	25	150	30	12,5	RCGX 1510..	0,750
	CRDC N 3225 P15-CD	32	25	170	30	12,5	RCGX 1510..	1,050
	CRDC N 3225 P19-CD	32	25	170	42	12,5	RCGX 1910..	1,050
	CRDC N 3232 P19-CD	32	32	170	42	16,0	RCGX 1910..	1,300
	CRDC N 3232 P25-CD	32	32	170	45	16,0	RCGX 2512..	1,300

						
CD	CRDC N 2525 M06-CD	3806	1392	2412	1495	5025
	CRDC N 2525 M09-CD	3809	1225	2209	-	5003
	CRDC N 3225 P09-CD	3809	1225	2209	-	5003
	CRDC N 2525 M12-CD	3813	1230	2209	-	5003
	CRDC N 3225 P12-CD	3813	1230	2209	-	5003
	CRDC N 2525 M15-CD	3817	1230 (2)	2414	-	5004
	CRDC N 3225 P15-CD	3817	1230 (2)	2414	-	5004
	CRDC N 3225 P19-CD	3819	1230 (2)	2414	-	5004
	CRDC N 3232 P19-CD	3819	1230 (2)	2414	-	5004
	CRDC N 3232 P25-CD	3835	1230 (2)	2417	-	5004

RCGX				
Ref.		a	s	d
	RCGX 0607..	120°	7,94	6,35
	RCGX 0907..	120°	7,94	9,52
	RCGX 1207..	120°	7,94	12,70
	RCGX 1510..	120°	10,00	15,87
	RCGX 1910..	120°	10,00	19,05
	RCGX 2512..	140°	12,00	25,40
Positive 7° clearance - Round inserts				
For more information see page: F.07				
RCGX				
				





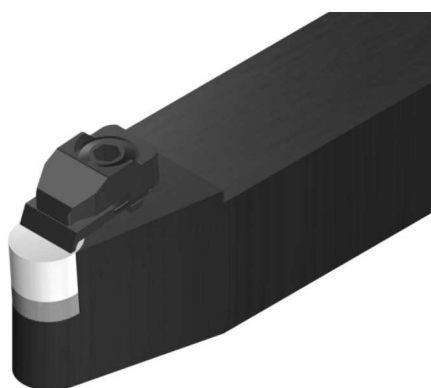
Inserts

General turning

Aluminium
wheel turning

Automatic lathes

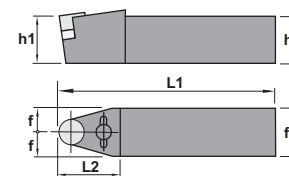
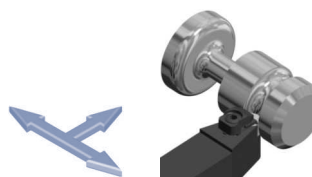
Ceramic tools

**Characteristics:**

Profiling multipurpose turning toolholder equipped with round negative insert.
The top clamp ensures good rigidity in roughing applications.

Applications:

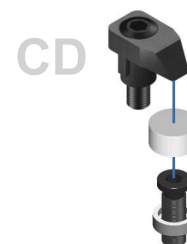
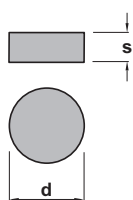
Profiling multipurpose turning toolholder for general applications, roughing, semi-finishing and finishing.

**CRDN**

Ref.		h=h ₁	b	L ₁	L ₂	f	Insert size	 Kg
	CRDN N 2525 M12-4CD	25	25	150	32	12,5	RNGN 1204..	0,750
	CRDN N 2525 M12-7CD	25	25	150	32	12,5	RNGN 1207..	0,750
	CRDN N 3225 P12-4CD	32	25	170	32	12,5	RNGN 1204..	1,050
	CRDN N 3225 P12-7CD	32	25	170	32	12,5	RNGN 1207..	1,050
	CRDN N 2525 M15-7CD	25	25	150	32	12,5	RNGN 1507..	0,750
	CRDN N 3225 P15-7CD	32	25	170	32	12,5	RNGN 1507..	1,050
	CRDN N 3225 P19-7CD	32	25	170	32	12,5	RNGN 1907..	1,050
	CRDN N 3232 P25-7CD	32	32	170	32	16,0	RNGN 2507..	1,300

						
CD	CRDN N 2525 M12-4CD	IRSN 45	1160	2413	9414	5004
	CRDN N 2525 M12-7CD	IRSN 43	1160	2413	9414	5004
	CRDN N 3225 P12-4CD	IRSN 45	1160	2413	9414	5004
	CRDN N 3225 P12-7CD	IRSN 43	1160	2413	9414	5004
	CRDN N 2525 M15-7CD	IRSN 53	1180	2417	9414	5004
	CRDN N 3225 P15-7CD	IRSN 53	1180	2417	9414	5004
	CRDN N 3225 P19-7CD	3919	1182	2417	9414	5004
	CRDN N 3232 P25-7CD	3925	1192	2417	9414	5004

Ref.	RNGN			
	l	s	d	
	RNGN 1204..	-	4,76	12,70
	RNGN 1207..	-	7,94	12,70
	RNGN 1507..	-	7,94	15,88
	RNGN 1907..	-	7,94	19,05
	RNGN 2507..	-	7,94	25,40
Negative round insert				
For more information see page: F.07				
RNGN				
				

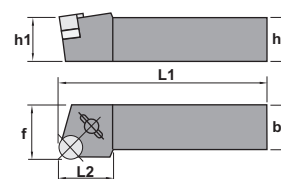
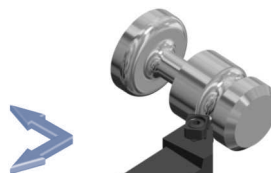


**Characteristics:**

Profiling multipurpose turning toolholder equipped with round negative insert.
The top clamp ensures good rigidity in roughing applications.

Applications:

Profiling multipurpose turning toolholder for general applications, roughing, semi-finishing and finishing.



CRSN

Ref.		h=h ₁	b	L ₁	L ₂	f	Insert size	Kg
	CRSN R/L 2525 M12-4CD	25	25	150	28	32	RNGN 1204..	0,750
	CRSN R/L 2525 M12-7CD	25	25	150	28	32	RNGN 1207..	0,750
	CRSN R/L 3225 P12-4CD	32	25	170	28	32	RNGN 1204..	1,050
	CRSN R/L 3225 P12-7CD	32	25	170	28	32	RNGN 1207..	1,050

CD	CRSN R/L 2525 M12-4CD	IRS N 45	1160	2413	9414	5004
	CRSN R/L 2525 M12-7CD	IRS N 43	1160	2413	9414	5004
	CRSN R/L 3225 P12-4CD	IRS N 45	1160	2413	9414	5004
	CRSN R/L 3225 P12-7CD	IRS N 43	1160	2413	9414	5004

RNGN		l	s	d
Ref.	RNGN 1204..	-	4,76	12,70
	RNGN 1207..	-	7,94	12,70
Negative round insert				
For more information see page: F.07				
RNGN				

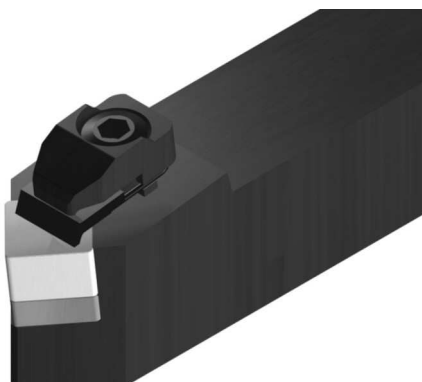
Inserts

General turning

Aluminium
wheel turning

Automatic lathes

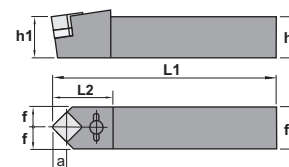
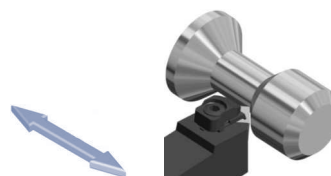
Ceramic tools

**Characteristics:**

Toolholder for external turning and chamfering applications equipped with square negative inserts. The top clamp ensures good rigidity in roughing applications.

Applications:

External turning and chamfering toolholder for general applications, roughing, semi-finishing and finishing.

**CSDN 45°**

Ref.		h=h1	b	L1	L2	f	a	Insert size	Kg
CSDN N 2525 M12-4CD	CSDN N 2525 M12-4CD	25	25	150	35	12,5	8,32	SNGN 1204..	0,750
	CSDN N 2525 M12-7CD	25	25	150	35	12,5	8,32	SNGN 1207..	0,750
	CSDN N 3225 P12-4CD	32	25	170	35	12,5	8,32	SNGN 1204..	1,050
	CSDN N 3225 P12-7CD	32	25	170	35	12,5	8,32	SNGN 1207..	1,050
	CSDN N 2525 M15-CD	25	25	150	38	12,5	10,23	SNGN 1507..	0,750
	CSDN N 3225 P15-CD	32	25	170	38	12,5	10,23	SNGN 1507..	1,050
CSDN N 2525 M12-4CX	CSDN N 2525 M12-4CX	25	25	150	35	12,5	8,32	SNGX 1204..	0,750
	CSDN N 2525 M12-7CX	25	25	150	35	12,5	8,32	SNGX 1207..	0,750
	CSDN N 3225 P12-4CX	32	25	170	35	12,5	8,32	SNGX 1204..	1,050
	CSDN N 3225 P12-7CX	32	25	170	35	12,5	8,32	SNGX 1207..	1,050
	CSDN N 2525 M15-CX	25	25	150	38	12,5	10,23	SNGX 1507..	0,750
	CSDN N 3225 P15-CX	32	25	170	38	12,5	10,23	SNGX 1507..	1,050

CD	CSDN N 2525 M12-4CD	ISSN 454	1160	9414	2417	-	5004
	CSDN N 2525 M12-7CD	ISSN 434	1160	9414	2417	-	5004
	CSDN N 3225 P12-4CD	ISSN 454	1160	9414	2417	-	5004
	CSDN N 3225 P12-7CD	ISSN 434	1160	9414	2417	-	5004
	CSDN N 2525 M15-CD	ISSN 534	1180	9414	2417	-	5004
	CSDN N 3225 P15-CD	ISSN 534	1180	9414	2417	-	5004
CX	CSDN N 2525 M12-4CX	ISSN 454	1160	-	-	2415	5004
	CSDN N 2525 M12-7CX	ISSN 434	1160	-	-	2415	5004
	CSDN N 3225 P12-4CX	ISSN 454	1160	-	-	2415	5004
	CSDN N 3225 P12-7CX	ISSN 434	1160	-	-	2415	5004
	CSDN N 2525 M15-CX	ISSN 534	1180	-	-	2415	5004
	CSDN N 3225 P15-CX	ISSN 534	1180	-	-	2415	5004

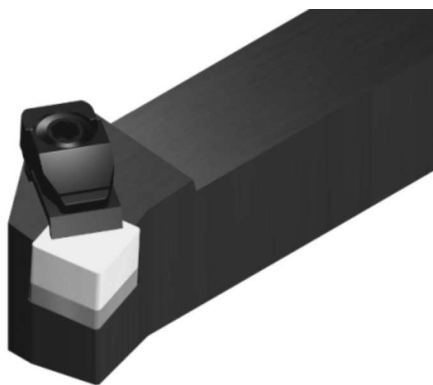
SNG..		l	s	d
Ref.	SNG.. 1204..	12,70	4,76	12,70
	SNG.. 1207..	12,70	7,94	12,70
	SNG.. 1507..	15,87	7,94	15,87
Negative square inserts.				
For more information see page: F.08				
SNGN		SNGX		

CD



CX

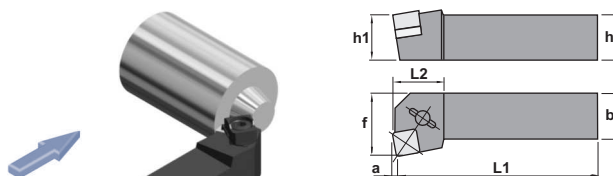


**Characteristics:**

Toolholder for face turning applications equipped with square negative inserts and strong cutting edges. The top clamp ensures good rigidity in roughing applications.

Applications:

Face turning toolholder for general applications, roughing, semi-finishing and finishing.



CSKN 75°

Ref.		h=h1	b	L1	L2	f	a	Insert size	kg
CSKN R/L 2525 M12-4CD	CSKN R/L 2525 M12-4CD	25	25	150	27	32	3,06	SNGN 1204..	0,750
	CSKN R/L 2525 M12-7CD	25	25	150	27	32	3,06	SNGN 1207..	0,750
	CSKN R/L 3225 P12-4CD	32	25	170	27	32	3,06	SNGN 1204..	1,050
	CSKN R/L 3225 P12-7CD	32	25	170	27	32	3,06	SNGN 1207..	1,050
	CSKN R/L 2525 M15-CD	25	25	150	28	32	3,77	SNGN 1507..	0,750
	CSKN R/L 3225 P15-CD	32	25	170	28	32	3,77	SNGN 1507..	1,050
CSKN R/L 2525 M12-4CX	CSKN R/L 2525 M12-4CX	25	25	150	27	32	3,06	SNGX 1204..	0,750
	CSKN R/L 2525 M12-7CX	25	25	150	27	32	3,06	SNGX 1207..	0,750
	CSKN R/L 3225 P12-4CX	32	25	170	27	32	3,06	SNGX 1207..	1,050
	CSKN R/L 3225 P12-7CX	32	25	170	27	32	3,06	SNGX 1207..	1,050
	CSKN R/L 2525 M15-CX	25	25	150	28	32	3,77	SNGX 1507..	0,750
	CSKN R/L 3225 P15-CX	32	25	170	28	32	3,77	SNGX 1507..	1,050
	CSKN R/L 4040 P15-CX	40	40	170	28	50	3,77	SNGX 1507..	1,300

CD	CSKN R/L 2525 M12-4CD	ISSN 454	1160	9414	2417	-	5004
	CSKN R/L 2525 M12-7CD	ISSN 434	1160	9414	2417	-	5004
	CSKN R/L 3225 P12-4CD	ISSN 454	1160	9414	2417	-	5004
	CSKN R/L 3225 P12-7CD	ISSN 434	1160	9414	2417	-	5004
	CSKN R/L 2525 M15-CD	ISSN 534	1180	9414	2417	-	5004
	CSKN R/L 3225 P15-CD	ISSN 534	1180	9414	2417	-	5004
CX	CSKN R/L 2525 M12-4CX	ISSN 454	1160	-	-	2415	5004
	CSKN R/L 2525 M12-7CX	ISSN 434	1160	-	-	2415	5004
	CSKN R/L 3225 P12-4CX	ISSN 454	1160	-	-	2415	5004
	CSKN R/L 3225 P12-7CX	ISSN 434	1160	-	-	2415	5004
	CSKN R/L 2525 M15-CX	ISSN 534	1180	-	-	2415	5004
	CSKN R/L 3225 P15-CX	ISSN 534	1180	-	-	2415	5004
	CSKN R/L 4040 P15-CX	ISSN 534	1180	-	-	2415	5004

SNG..		l	s	d
Ref.	SNG.. 1204..	12,70	4,76	12,70
	SNG.. 1207..	12,70	7,94	12,70
	SNG.. 1507..	15,87	7,94	15,87
Negative square inserts.				
For more information see page: F.08				
SNGN		SNGX		

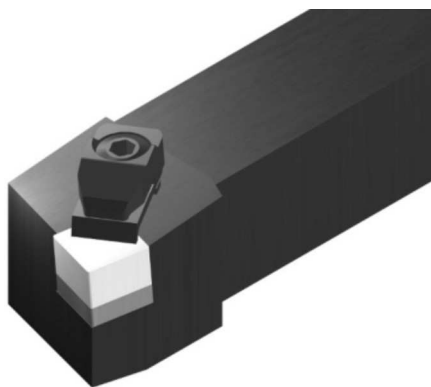
Inserts

General turning

Aluminium
wheel turning

Automatic lathes

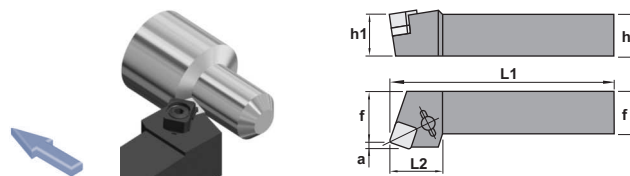
Ceramic tools

**Characteristics:**

Toolholder for external turning applications equipped with square negative inserts.
The top clamp ensures good rigidity in roughing applications.

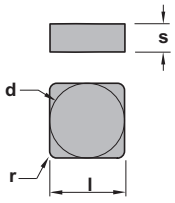
Applications:

External turning toolholder for general applications, roughing, semi-finishing and finishing.

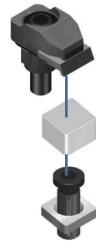
**CSRN 75°**

Ref.		h=h ₁	b	L ₁	L ₂	f	a	Insert size	
Ref.	CSRN R/L 2525 M12-4CD	25	25	150	32	27	3,06	SNGN 1204..	0,750
	CSRN R/L 2525 M12-7CD	25	25	150	32	27	3,06	SNGN 1207..	0,750
	CSRN R/L 3225 P12-4CD	32	25	170	32	27	3,06	SNGN 1204..	1,050
	CSRN R/L 3225 P12-7CD	32	25	170	32	27	3,06	SNGN 1207..	1,050
	CSRN R/L 2525 M15-CD	25	25	150	34	27	3,77	SNGN 1507..	0,750
	CSRN R/L 3225 P15-CD	32	25	170	34	27	3,77	SNGN 1507..	1,050
	CSRN R/L 3232 P19-CD	32	32	170	34	35	4,50	SNGN 1907..	1,150
	CSRN R/L 4040 P19-CD	40	40	170	34	43	4,50	SNGN 1907..	1,300
	CSRN R/L 2525 M12-4CX	25	25	150	32	27	3,06	SNGX 1204..	0,750
	CSRN R/L 2525 M12-7CX	25	25	150	32	27	3,06	SNGX 1207..	0,750
	CSRN R/L 3225 P12-4CX	32	25	170	32	27	3,06	SNGX 1204..	1,050
	CSRN R/L 3225 P12-7CX	32	25	170	32	27	3,06	SNGX 1207..	1,050
	CSRN R/L 2525 M15-CX	25	25	150	34	27	3,77	SNGX 1507..	0,750
	CSRN R/L 3225 P15-CX	32	25	170	34	27	3,77	SNGX 1507..	1,050

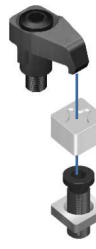
							
CD	CSRN R/L 2525 M12-4CD	ISSN 454	1160	9414	2417	-	5004
	CSRN R/L 2525 M12-7CD	ISSN 434	1160	9414	2417	-	5004
	CSRN R/L 3225 P12-4CD	ISSN 454	1160	9414	2417	-	5004
	CSRN R/L 3225 P12-7CD	ISSN 434	1160	9414	2417	-	5004
	CSRN R/L 2525 M15-CD	ISSN 534	1180	9414	2417	-	5004
	CSRN R/L 3225 P15-CD	ISSN 534	1180	9414	2417	-	5004
	CSRN R/L 3232 P19-CD	3519	1182	9414	2417	-	5004
	CSRN R/L 4040 P19-CD	3519	1182	9414	2417	-	5004
CX	CSRN R/L 2525 M12-4CX	ISSN 454	1160	-	-	2415	5004
	CSRN R/L 2525 M12-7CX	ISSN 434	1160	-	-	2415	5004
	CSRN R/L 3225 P12-4CX	ISSN 454	1160	-	-	2415	5004
	CSRN R/L 3225 P12-7CX	ISSN 434	1160	-	-	2415	5004
	CSRN R/L 2525 M15-CX	ISSN 534	1180	-	-	2415	5004
	CSRN R/L 3225 P15-CX	ISSN 534	1180	-	-	2415	5004

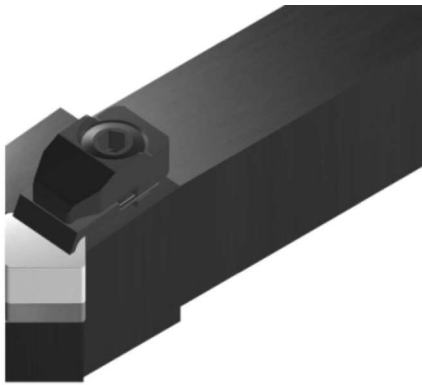
	SNG..			
	Ref.	l	s	d
	SNG.. 1204..	12,70	4,76	12,70
	SNG.. 1207..	12,70	7,94	12,70
	SNG.. 1507..	15,87	7,94	15,87
Negative square inserts.				
For more information see page: F.08				
SNGN	SNGX			
				

CD



CX

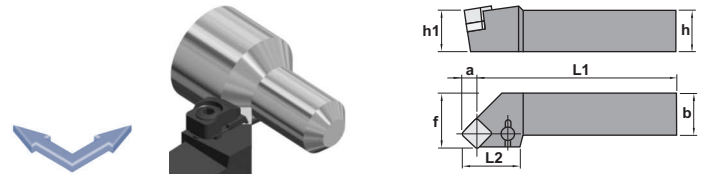


**Characteristics:**

Toolholder for external turning and chamfering applications equipped with square negative inserts. The top clamp ensures good rigidity in roughing applications.

Applications:

External turning and chamfering toolholder for general applications, roughing, semi-finishing and finishing.

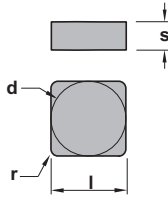


CSSN 45°

Ref.		h=h1	b	L1	L2	f	a	Insert size	kg
CD	CSSN R/L 2525 M12-4CD	25	25	150	35	32	8,32	SNGN 1204..	0,750
	CSSN R/L 2525 M12-7CD	25	25	150	35	32	8,32	SNGN 1207..	0,750
	CSSN R/L 3225 P12-4CD	32	25	170	35	32	8,32	SNGN 1204..	1,050
	CSSN R/L 3225 P12-7CD	32	25	170	35	32	8,32	SNGN 1207..	1,050
	CSSN R/L 2525 M15-CD	25	25	150	37	32	10,23	SNGN 1507..	0,750
	CSSN R/L 3225 P15-CD	32	25	170	37	32	10,23	SNGN 1507..	1,050
	CSSN R/L 3232 P19-CD	32	32	170	37	40	12,50	SNGN 1907..	1,150
	CSSN R/L 4040 P19-CD	40	40	170	37	50	12,50	SNGN 1907..	1,300
CX	CSSN R/L 2525 M12-4CX	25	25	150	35	32	8,32	SNGX 1204..	0,750
	CSSN R/L 2525 M12-7CX	25	25	150	35	32	8,32	SNGX 1207..	0,750
	CSSN R/L 3225 P12-4CX	32	25	170	35	32	8,32	SNGX 1204..	1,050
	CSSN R/L 3225 P12-7CX	32	25	170	35	32	8,32	SNGX 1207..	1,050
	CSSN R/L 2525 M15-CX	25	25	150	37	32	10,23	SNGX 1507..	0,750
	CSSN R/L 3225 P15-CX	32	25	170	37	32	10,23	SNGX 1507..	1,050

							
CD	CSSN R/L 2525 M12-4CD	ISSN 454	1160	9414	2417	-	5004
	CSSN R/L 2525 M12-7CD	ISSN 434	1160	9414	2417	-	5004
	CSSN R/L 3225 P12-4CD	ISSN 454	1160	9414	2417	-	5004
	CSSN R/L 3225 P12-7CD	ISSN 434	1160	9414	2417	-	5004
	CSSN R/L 2525 M15-CD	ISSN 534	1180	9414	2417	-	5004
	CSSN R/L 3225 P15-CD	ISSN 534	1180	9414	2417	-	5004
	CSSN R/L 3232 P19-CD	3519	1182	9414	2417	-	5004
	CSSN R/L 4040 P19-CD	3519	1182	9414	2417	-	5004
CX	CSSN R/L 2525 M12-4CX	ISSN 454	1160	-	-	2415	5004
	CSSN R/L 2525 M12-7CX	ISSN 434	1160	-	-	2415	5004
	CSSN R/L 3225 P12-4CX	ISSN 454	1160	-	-	2415	5004
	CSSN R/L 3225 P12-7CX	ISSN 434	1160	-	-	2415	5004
	CSSN R/L 2525 M15-CX	ISSN 534	1180	-	-	2415	5004
	CSSN R/L 3225 P15-CX	ISSN 534	1180	-	-	2415	5004

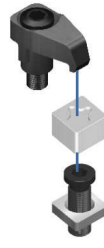
SNG..		l	s	d
Ref.	SNG.. 1204..	12,70	4,76	12,70
	SNG.. 1207..	12,70	7,94	12,70
	SNG.. 1507..	15,87	7,94	15,87
Negative square inserts.				
For more information see page: F.08				
SNGN		SNGX		
				



CD



CX



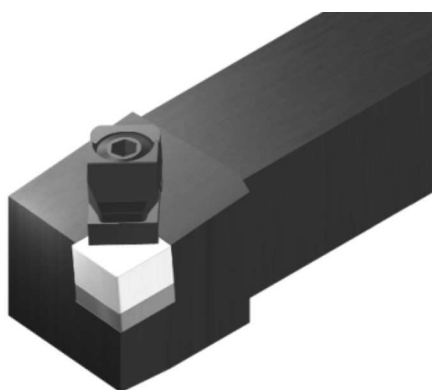
Inserts

General turning

Aluminium
wheel turning

Automatic lathes

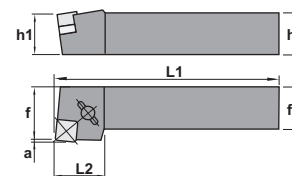
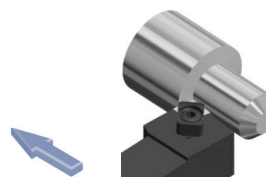
Ceramic tools

**Characteristics:**

Toolholder for external turning applications equipped with square negative inserts.
The top clamp ensures good rigidity in roughing applications.

Applications:

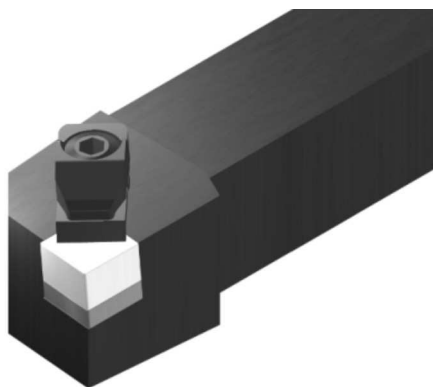
External turning toolholder for general applications, roughing, semi-finishing and finishing.

**CSXN 85°**

Ref.		h=h1	b	L1	L2	f	a	Insert size	Kg
Ref.	CSXN R/L 2525 M12-4CD	25	25	150	30	32	1,03	SNGN 1204..	0,750
	CSXN R/L 2525 M12-7CD	25	25	150	30	32	1,03	SNGN 1207..	0,750
	CSXN R/L 3225 P12-4CD	32	25	170	30	32	1,03	SNGN 1204..	1,050
	CSXN R/L 3225 P12-7CD	32	25	170	30	32	1,03	SNGN 1207..	1,050
	CSXN R/L 2525 M15-CD	25	25	150	33	32	1,38	SNGN 1507..	0,750
	CSXN R/L 3225 P15-CD	32	25	170	33	32	1,38	SNGN 1507..	1,050
	CSXN R/L 2525 M12-4CX	25	25	150	30	32	1,03	SNGX 1204..	0,750
	CSXN R/L 2525 M12-7CX	25	25	150	30	32	1,03	SNGX 1207..	0,750
	CSXN R/L 3225 P12-4CX	32	25	170	30	32	1,03	SNGX 1204..	1,050
	CSXN R/L 3225 P12-7CX	32	25	170	30	32	1,03	SNGX 1207..	1,050
	CSXN R/L 2525 M15-CX	25	25	150	33	32	1,38	SNGX 1507..	0,750
	CSXN R/L 3225 P15-CX	32	25	170	33	32	1,38	SNGX 1507..	1,050

CD	CSXN R/L 2525 M12-4CD	ISSN 454	1160	9414	2417	-	5004
	CSXN R/L 2525 M12-7CD	ISSN 434	1160	9414	2417	-	5004
	CSXN R/L 3225 P12-4CD	ISSN 454	1160	9414	2417	-	5004
	CSXN R/L 3225 P12-7CD	ISSN 434	1160	9414	2417	-	5004
	CSXN R/L 2525 M15-CD	ISSN 534	1180	9414	2417	-	5004
	CSXN R/L 3225 P15-CD	ISSN 534	1180	9414	2417	-	5004
CX	CSXN R/L 2525 M12-4CX	ISSN 454	1160	-	-	2415	5004
	CSXN R/L 2525 M12-7CX	ISSN 434	1160	-	-	2415	5004
	CSXN R/L 3225 P12-4CX	ISSN 454	1160	-	-	2415	5004
	CSXN R/L 3225 P12-7CX	ISSN 434	1160	-	-	2415	5004
	CSXN R/L 2525 M15-CX	ISSN 534	1180	-	-	2415	5004
	CSXN R/L 3225 P15-CX	ISSN 534	1180	-	-	2415	5004

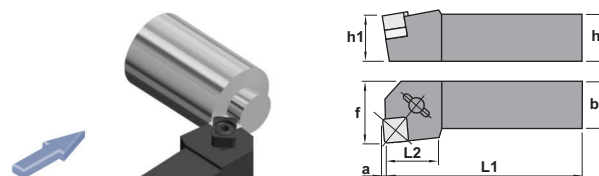
	SNG..		l	s	d	CD		CX	
	Ref.	SNG.. 1204..	12,70	4,76	12,70				
	SNG.. 1207..	12,70	7,94	12,70					
	SNG.. 1507..	15,87	7,94	15,87					
Negative square inserts.									
For more information see page: F.08									
SNGN		SNGX							
									

**Characteristics:**

Toolholder for front turning applications equipped with square negative inserts.
The top clamp ensures good rigidity in roughing applications.

Applications:

External turning toolholder for general applications, roughing, semi-finishing and finishing.

**CSYN 85°**

Ref.		h=h1	b	L1	L2	f	a	Insert size	kg
CSYN R/L 2525 M12-4CD	CSYN R/L 2525 M12-4CD	25	25	150	27	32	1,03	SNGN 1204..	0,750
	CSYN R/L 2525 M12-7CD	25	25	150	27	32	1,03	SNGN 1207..	0,750
	CSYN R/L 3225 P12-4CD	32	25	170	27	32	1,03	SNGN 1204..	1,050
	CSYN R/L 3225 P12-7CD	32	25	170	27	32	1,03	SNGN 1207..	1,050
	CSYN R/L 2525 M15-CD	25	25	150	27	32	1,38	SNGN 1507..	0,750
	CSYN R/L 3225 P15-CD	32	25	170	27	32	1,38	SNGN 1507..	1,050
CSYN R/L 2525 M12-4CX	CSYN R/L 2525 M12-4CX	25	25	150	27	32	1,03	SNGX 1204..	0,750
	CSYN R/L 2525 M12-7CX	25	25	150	27	32	1,03	SNGX 1207..	0,750
	CSYN R/L 3225 P12-4CX	32	25	170	27	32	1,03	SNGX 1204..	1,050
	CSYN R/L 3225 P12-7CX	32	25	170	27	32	1,03	SNGX 1207..	1,050
	CSYN R/L 2525 M15-CX	25	25	150	27	32	1,38	SNGX 1507..	0,750
	CSYN R/L 3225 P15-CX	32	25	170	27	32	1,38	SNGX 1507..	1,050

CD	CSYN R/L 2525 M12-4CD	ISSN 454	1160	9414	2417	-	5004
	CSYN R/L 2525 M12-7CD	ISSN 434	1160	9414	2417	-	5004
	CSYN R/L 3225 P12-4CD	ISSN 454	1160	9414	2417	-	5004
	CSYN R/L 3225 P12-7CD	ISSN 434	1160	9414	2417	-	5004
	CSYN R/L 2525 M15-CD	ISSN 534	1180	9414	2417	-	5004
	CSYN R/L 3225 P15-CD	ISSN 534	1180	9414	2417	-	5004
CX	CSYN R/L 2525 M12-4CX	ISSN 454	1160	-	-	2415	5004
	CSYN R/L 2525 M12-7CX	ISSN 434	1160	-	-	2415	5004
	CSYN R/L 3225 P12-4CX	ISSN 454	1160	-	-	2415	5004
	CSYN R/L 3225 P12-7CX	ISSN 434	1160	-	-	2415	5004
	CSYN R/L 2525 M15-CX	ISSN 534	1180	-	-	2415	5004
	CSYN R/L 3225 P15-CX	ISSN 534	1180	-	-	2415	5004

SNG..		l	s	d
Ref.	SNG.. 1204..	12,70	4,76	12,70
	SNG.. 1207..	12,70	7,94	12,70
	SNG.. 1507..	15,87	7,94	15,87
Negative square inserts.				
For more information see page: F.08				
SNGN		SNGX		

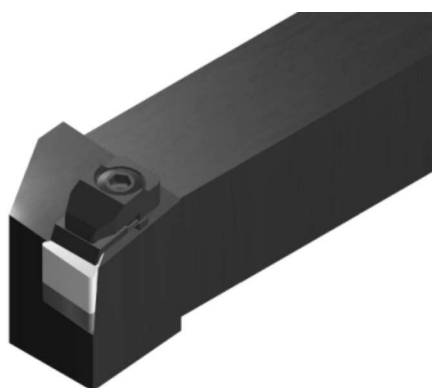
Inserts

General turning

Aluminium
wheel turning

Automatic lathes

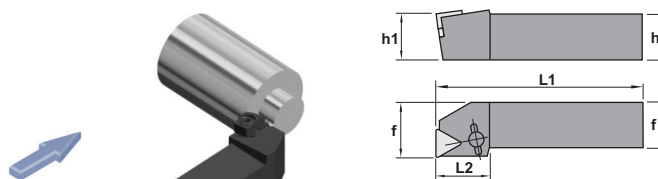
Ceramic tools

**Characteristics:**

Toolholder for face turning applications equipped with triangular negative inserts.
The top clamp ensures good rigidity in roughing applications.

Applications:

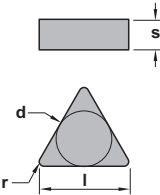
Face turning toolholder for general applications, roughing, semi-finishing and finishing.

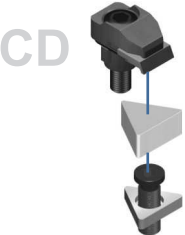
**CTFN 90°**

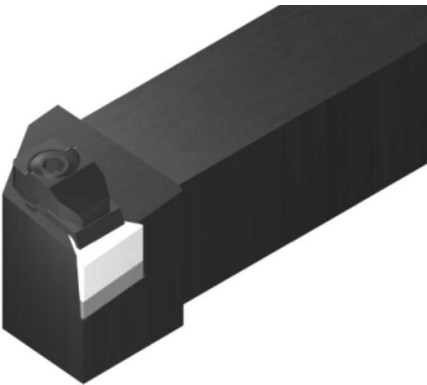
Ref.		h=h ₁	b	L ₁	L ₂	f	Insert size	 Kg
	CTFN R/L 2525 M16-4CD	25	25	150	29	32	TNGN 1604..	0,750
	CTFN R/L 2525 M16-7CD	25	25	150	29	32	TNGN 1607..	0,750
	CTFN R/L 3225 P16-4CD	32	25	170	29	32	TNGN 1604..	1,050
	CTFN R/L 3225 P16-7CD	32	25	170	29	32	TNGN 1607..	1,050

						
CD	CTFN R/L 2525 M16-4CD	ITSN 342	1150	9416	2413	5004
	CTFN R/L 2525 M16-7CD	ITSN 324	1150	9416	2413	5004
	CTFN R/L 3225 P16-4CD	ITSN 342	1150	9416	2413	5004
	CTFN R/L 3225 P16-7CD	ITSN 324	1150	9416	2413	5004

TNGN		l	s	d
Ref.	TNGN 1604..	16,50	4,76	9,52
	TNGN 1607..	16,50	7,94	9,52
Negative triangular inserts				
For more information see page: F.09				
TNGN				
				

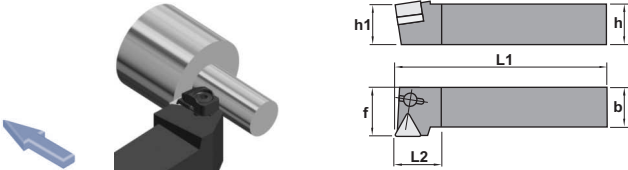






Characteristics:
Toolholder for external turning applications equipped with triangular negative inserts.
The top clamp ensures good rigidity in roughing applications.

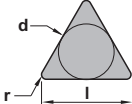
Applications:
External turning toolholder for general applications, roughing, semi-finishing and finishing.

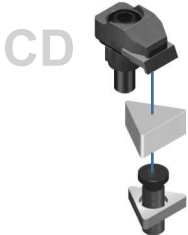


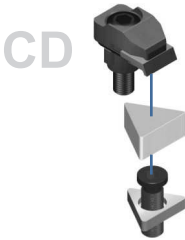
CTGN 90°		h=h1	b	L1	L2	f	Insert size	⚖️
Ref.	CTGN R/L 2525 M16-4CD	25	25	150	20	32	TNGN 1604..	0,750
	CTGN R/L 2525 M16-7CD	25	25	150	20	32	TNGN 1607..	0,750
	CTGN R/L 3225 P16-4CD	32	25	170	20	32	TNGN 1604..	1,050
	CTGN R/L 3225 P16-7CD	32	25	170	20	32	TNGN 1607..	1,050

CD	CTGN R/L 2525 M16-4CD	ITSN 342	1150	9416	2413	5004
	CTGN R/L 2525 M16-7CD	ITSN 324	1150	9416	2413	5004
	CTGN R/L 3225 P16-4CD	ITSN 342	1150	9416	2413	5004
	CTGN R/L 3225 P16-7CD	ITSN 324	1150	9416	2413	5004

		TNGN		
Ref.	TNGN 1604..	16,50	4,76	9,52
	TNGN 1607..	16,50	7,94	9,52
Negative triangular inserts				
For more information see page: F.09				
TNGN				
				







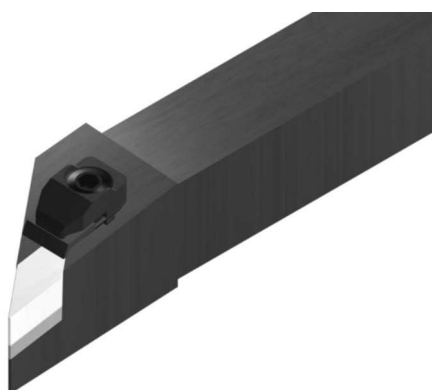
Inserts

General turning

Aluminium
wheel turning

Automatic lathes

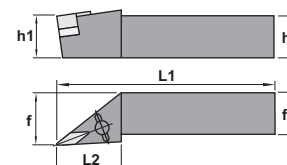
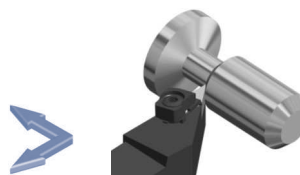
Ceramic tools

**Characteristics:**

External turning and profiling toolholder equipped with rhombic negative double side insert (angle 35°). The top clamp ensures good rigidity in roughing applications.

Applications:

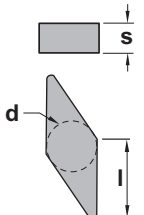
External turning and profiling toolholder for general applications, roughing, semi-finishing and finishing.

**CVJN 93°**

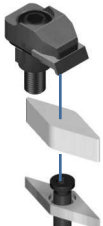
Ref.		h=h1	b	L1	L2	f	Insert size	 kg
	CVJN R/L 2525 M16-4CD	25	25	150	41	32	VNGN 1604..	0,750
	CVJN R/L 2525 M16-7CD	25	25	150	41	32	VNGN 1607..	0,750
	CVJN R/L 3225 P16-4CD	32	25	170	41	32	VNGN 1604..	1,050
	CVJN R/L 3225 P16-7CD	32	25	170	41	32	VNGN 1607..	1,050
	CVJN R/L 2525 M16-4CX	25	25	150	41	32	VNGX 1604..	0,750
	CVJN R/L 2525 M16-7CX	25	25	150	41	32	VNGX 1607..	0,750
	CVJN R/L 3225 P16-4CX	32	25	170	41	32	VNGX 1604..	1,050
	CVJN R/L 3225 P16-7CX	32	25	170	41	32	VNGX 1607..	1,050

							
CD	CVJN R/L 2525 M16-4CD	IVSN 342	1150	9416	2417	-	5004
	CVJN R/L 2525 M16-7CD	IVSN 322	1150	9416	2417	-	5004
	CVJN R/L 3225 P16-4CD	IVSN 342	1150	9416	2417	-	5004
	CVJN R/L 3225 P16-7CD	IVSN 322	1150	9416	2417	-	5004
CX	CVJN R/L 2525 M16-4CX	IVSN 342	1150	-	-	2428	5004
	CVJN R/L 2525 M16-7CX	IVSN 322	1150	-	-	2428	5004
	CVJN R/L 3225 P16-4CX	IVSN 342	1150	-	-	2428	5004
	CVJN R/L 3225 P16-7CX	IVSN 322	1150	-	-	2428	5004

VNG..		l	s	d
Ref.	VNG.. 1604..	16,50	4,76	9,52
	VNG.. 1607..	16,50	7,94	9,52
Negative 35° rhombic insert				
For more information see page: F.09				
VNGN	VNGX			
				

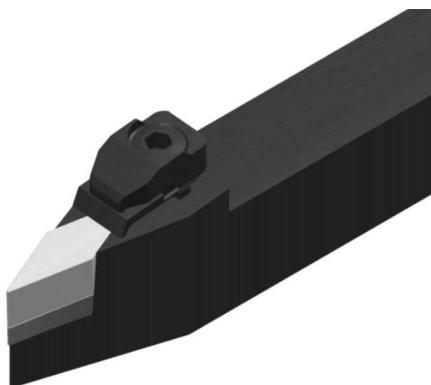


CD



CX

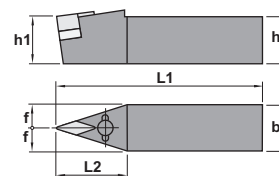
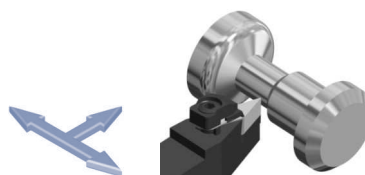


**Characteristics:**

External turning and profiling toolholder equipped with rhombic negative double side insert (angle 35°). The top clamp ensures good rigidity in roughing applications.

Applications:

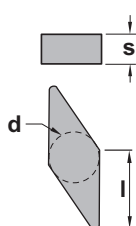
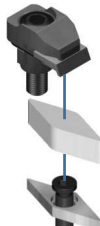
External turning and profiling toolholder for general applications, roughing, semi-finishing and finishing.



CVVN 62°30'

Ref.		h=h ₁	b	L ₁	L ₂	f	Insert size	kg
	CVVN N 2525 M16-4CD	25	25	150	45	12,5	VNGN 1604..	0,750
	CVVN N 2525 M16-7CD	25	25	150	45	12,5	VNGN 1607..	0,750
	CVVN N 3225 P16-4CD	32	25	170	45	12,5	VNGN 1604..	1,050
	CVVN N 3225 P16-7CD	32	25	170	45	12,5	VNGN 1607..	1,050
	CVVN N 2525 M16-4CX	25	25	150	45	12,5	VNGX 1604..	0,750
	CVVN N 2525 M16-7CX	25	25	150	45	12,5	VNGX 1607..	0,750
	CVVN N 3225 P16-4CX	32	25	170	45	12,5	VNGX 1604..	1,050
	CVVN N 3225 P16-7CX	32	25	170	45	12,5	VNGX 1607..	1,050

							
CD	CVVN N 2525 M16-4CD	IVSN 342	1150	9416	2417	-	5004
	CVVN N 2525 M16-7CD	IVSN 322	1150	9416	2417	-	5004
	CVVN N 3225 P16-4CD	IVSN 342	1150	9416	2417	-	5004
	CVVN N 3225 P16-7CD	IVSN 322	1150	9416	2417	-	5004
CX	CVVN N 2525 M16-4CX	IVSN 342	1150	-	-	2428	5004
	CVVN N 2525 M16-7CX	IVSN 322	1150	-	-	2428	5004
	CVVN N 3225 P16-4CX	IVSN 342	1150	-	-	2428	5004
	CVVN N 3225 P16-7CX	IVSN 322	1150	-	-	2428	5004

	VNG..				 
	Ref.	VNG.. 1604..	l	s	d
		VNG.. 1607..	16,50	4,76	9,52
			16,50	7,94	9,52
Negative 35° rhombic insert					
For more information see page: F.09					
	VNGN	VNGX			
					

Inserts

General turning

Aluminium
wheel turning

Automatic lathes

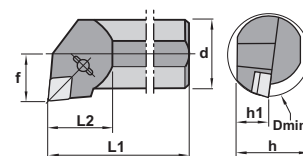
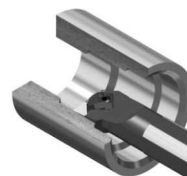
Ceramic tools

**Characteristics:**

Multipurpose boring bar equipped with rhombic negative double side insert (angle 80°).
The top clamp ensures good rigidity in roughing applications.

Applications:

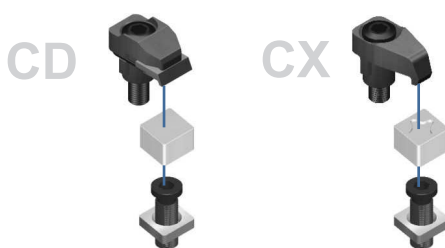
Internal boring bar for general applications, roughing, semi-finishing and finishing.

**CCLN 95°**

Ref.		d	h1	L1	L2	f	h	Dmin	Insert size	Kg
S32S CCLN R/L 12-7CD	S32S CCLN R/L 12-7CD	32	15,0	250	40	22	30	40	CNGN 1207..	1,450
	S40T CCLN R/L 12-4CD	40	18,5	300	35	27	37	70	CNGN 1204..	2,700
	S40T CCLN R/L 12-7CD	40	18,5	300	35	27	37	70	CNGN 1207..	2,700
	S50U CCLN R/L 12-4CD	50	23,5	350	38	32	47	70	CNGN 1204..	4,950
	S50U CCLN R/L 12-7CD	50	23,5	350	38	32	47	70	CNGN 1207..	4,950
S32S CCLN R/L 12-7CX	S32S CCLN R/L 12-7CX	32	15,0	250	40	22	30	40	CNGX 1207..	1,450
	S40T CCLN R/L 12-4CX	40	18,5	300	35	27	37	70	CNGX 1204..	2,700
	S40T CCLN R/L 12-7CX	40	18,5	300	35	27	37	70	CNGX 1207..	2,700
	S50U CCLN R/L 12-4CX	50	23,5	350	38	32	47	70	CNGX 1204..	4,950
	S50U CCLN R/L 12-7CX	50	23,5	350	38	32	47	70	CNGX 1207..	4,950

							
CD	S32S CCLN R/L 12-7CD	-	-	9414	2417	-	5004
	S40T CCLN R/L 12-4CD	ICSN 454	1161	9414	2417	-	5004
	S40T CCLN R/L 12-7CD	ICSN 434	1161	9414	2417	-	5004
	S50U CCLN R/L 12-4CD	ICSN 454	1160	9414	2417	-	5004
	S50U CCLN R/L 12-7CD	ICSN 434	1160	9414	2417	-	5004
CX	S32S CCLN R/L 12-7CX	-	-	-	-	2415	5004
	S40T CCLN R/L 12-4CX	ICSN 454	1161	-	-	2415	5004
	S40T CCLN R/L 12-7CX	ICSN 434	1161	-	-	2415	5004
	S50U CCLN R/L 12-4CX	ICSN 454	1160	-	-	2415	5004
	S50U CCLN R/L 12-7CX	ICSN 434	1160	-	-	2415	5004

CNG..		l	s	d
Ref.	CNG.. 1204..	12,90	4,76	12,70
	CNG.. 1207..	12,90	7,94	12,70
Negative 80° - Rhombic inserts				
For more information see page: F.05				
CNGN	CNGX			
				

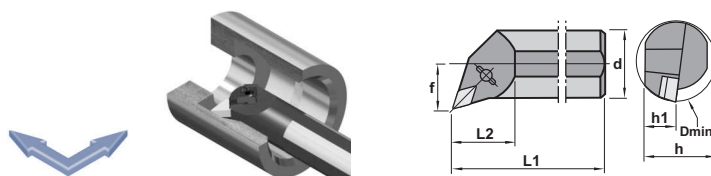


**Characteristics:**

Profiling boring bar equipped with rhombic negative double side insert (angle 55°).
The top clamp ensures good rigidity in roughing applications.

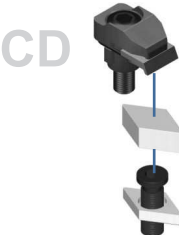
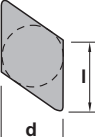
Applications:

Internal boring bar for general applications, roughing, semi-finishing and finishing.

**CDQN 107°30'**

Ref.		d	h1	L1	L2	f	h	Dmin	Insert size	kg
S32S CDQN R/L 12-7CD	S32S CDQN R/L 12-7CD	32	15,0	250	40	22	30	50	DNGN 1207..	1,450
	S40T CDQN R/L 12-4CD	40	18,5	300	35	27	37	70	DNGN 1204..	2,700
	S40T CDQN R/L 12-7CD	40	18,5	300	35	27	37	70	DNGN 1207..	2,700
	S50U CDQN R/L 15-4CD	50	23,5	350	38	32	47	70	DNGN 1504..	4,950
	S50U CDQN R/L 15-7CD	50	23,5	350	38	32	47	70	DNGN 1507..	4,950
S32S CDQN R/L 12-7CX	S32S CDQN R/L 12-7CX	32	15,0	250	40	22	30	50	DNGX 1207..	1,450
	S40T CDQN R/L 12-4CX	40	18,5	300	35	27	37	70	DNGX 1204..	2,700
	S40T CDQN R/L 12-7CX	40	18,5	300	35	27	37	70	DNGX 1207..	2,700
	S50U CDQN R/L 15-4CX	50	23,5	350	38	32	47	70	DNGX 1504..	4,950
	S50U CDQN R/L 15-7CX	50	23,5	350	38	32	47	70	DNGX 1507..	4,950

							
CD	S32S CDQN R/L 12-7CD	-	-	9414	2413	-	5004
	S40T CDQN R/L 12-4CD	IDSN 354	1151	9414	2413	-	5004
	S40T CDQN R/L 12-7CD	IDSN 334	1151	9414	2413	-	5004
	S50U CDQN R/L 15-4CD	IDSN 452	1160	9414	2417	-	5004
	S50U CDQN R/L 15-7CD	IDSN 432	1160	9414	2417	-	5004
CX	S32S CDQN R/L 12-7CX	-	-	-	-	2415	5004
	S40T CDQN R/L 12-4CX	IDSN 354	1151	-	-	2415	5004
	S40T CDQN R/L 12-7CX	IDSN 334	1151	-	-	2415	5004
	S50U CDQN R/L 15-4CX	IDSN 452	1160	-	-	2432	5004
	S50U CDQN R/L 15-7CX	IDSN 432	1160	-	-	2432	5004

	DNG..						
	Ref.	DNG.. 1204..	12,20	4,76			10,00
	DNG.. 1207..	12,20	7,94	10,00			
	DNG.. 1504..	15,50	4,76	12,70			
	DNG.. 1507..	15,50	7,94	12,70			
Negative 55° - Rhombic inserts							For more information see page: F.06
DNGN		DNGX					
							

Inserts

General turning

Aluminium
wheel turning

Automatic lathes

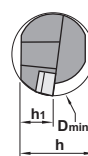
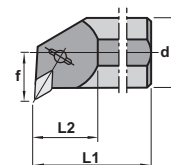
Ceramic tools

**Characteristics:**

Profiling boring bar equipped with rhombic negative double side insert (angle 55°).
The top clamp ensures good rigidity in roughing applications.

Applications:

Internal boring bar for general applications, roughing, semi-finishing and finishing.

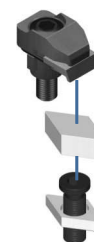
**CDUN 93°**

Ref.		d	h1	L1	L2	f	h	Dmin	Insert size	 Kg
S32S CDUN R/L 12-7CD	S32S CDUN R/L 12-7CD	32	15,0	250	40	22	30	40	DNGN 1207..	1,450
	S40T CDUN R/L 12-4CD	40	18,5	300	50	27	37	70	DNGN 1204..	2,700
	S40T CDUN R/L 12-7CD	40	18,5	300	50	27	37	70	DNGN 1207..	2,700
	S50U CDUN R/L 15-4CD	50	23,5	350	50	32	47	70	DNGN 1504..	4,950
	S50U CDUN R/L 15-7CD	50	23,5	350	50	32	47	70	DNGN 1507..	4,950
S32S CDUN R/L 12-7CX	S32S CDUN R/L 12-7CX	32	15,0	250	40	22	30	40	DNGX 1207..	1,450
	S40T CDUN R/L 12-4CX	40	18,5	300	50	27	37	70	DNGX 1204..	2,700
	S40T CDUN R/L 12-7CX	40	18,5	300	50	27	37	70	DNGX 1207..	2,700
	S50U CDUN R/L 15-4CX	50	23,5	350	50	32	47	70	DNGX 1504..	4,950
	S50U CDUN R/L 15-7CX	50	23,5	350	50	32	47	70	DNGX 1507..	4,950

							
CD	S32S CDUN R/L 12-7CD	-	-	9416	2413	-	5004
	S40T CDUN R/L 12-4CD	IDSN 354	1151	9416	2413	-	5004
	S40T CDUN R/L 12-7CD	IDSN 334	1151	9416	2413	-	5004
	S50U CDUN R/L 15-4CD	IDSN 452	1160	9416	2417	-	5004
	S50U CDUN R/L 15-7CD	IDSN 432	1160	9416	2417	-	5004
CX	S32S CDUN R/L 12-7CX	-	-	-	-	2415	5004
	S40T CDUN R/L 12-4CX	IDSN 354	1151	-	-	2415	5004
	S40T CDUN R/L 12-7CX	IDSN 334	1151	-	-	2415	5004
	S50U CDUN R/L 15-4CX	IDSN 452	1160	-	-	2432	5004
	S50U CDUN R/L 15-7CX	IDSN 432	1160	-	-	2432	5004

Ref.	DNG..	l	s	d
	DNG.. 1204..	12,20	4,76	10,00
Ref.	DNG.. 1207..	12,20	7,94	10,00
	DNG.. 1504..	15,50	4,76	12,70
Ref.	DNG.. 1507..	15,50	7,94	12,70
	Negative 55° - Rhombic inserts			
Ref.	DNGN	DNGX		
				

CD



CX

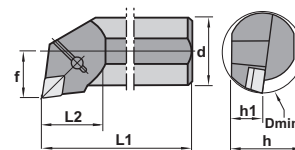
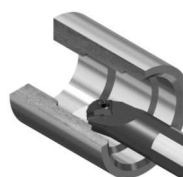


**Characteristics:**

Multipurpose boring bar equipped with rhombic negative double side insert (angle 75°).
The top clamp ensures good rigidity in roughing applications.

Applications:

Internal boring bar for general applications, roughing, semi-finishing and finishing.

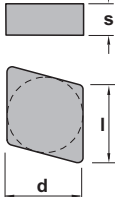


CELN 97°30'

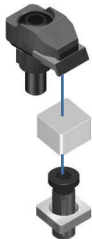
Ref.		d	h1	L1	L2	f	h	Dmin	Insert size	kg
	S40T CELN R/L 13-CD	40	18,5	300	32	27	37	50	ENGX 1307..	2,700
	S50U CELN R/L 13-CD	50	23,5	350	32	35	47	63	ENGX 1307..	4,950
	S40T CELN R/L 13-CX	40	18,5	300	32	27	37	50	ENGX 1307..	2,700
	S50U CELN R/L 13-CX	50	23,5	350	32	35	47	63	ENGX 1307..	4,950

							
CD	S40T CELN R/L 13-CD	IESN 432	1161	9414	2417	-	5004
	S50U CELN R/L 13-CD	IESN 432	1160	9414	2417	-	5004
	S40T CELN R/L 13-CX	IESN 432	1161	-	-	2415	5004
	S50U CELN R/L 13-CX	IESN 432	1160	-	-	2415	5004

ENG..		l	s	d
Ref.	ENG.. 1307..	13,12	7,94	12,70
Negative 75° - Rhombic inserts				
For more information see page: F.06				
ENGX	ENGX			
				



CD



CX



Inserts

General turning

Aluminium
wheel turning

Automatic lathes

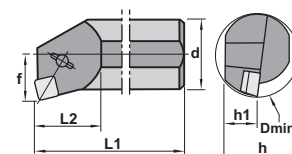
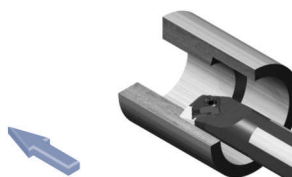
Ceramic tools

**Characteristics:**

Boring bar for internal turning applications equipped with square negative inserts and strong cutting edges. The top clamp ensures good rigidity in roughing applications.

Applications:

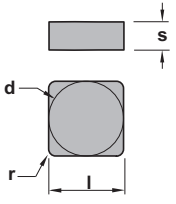
Internal turning boring bar for general applications, roughing, semi-finishing and finishing.

**CSKN 75°**

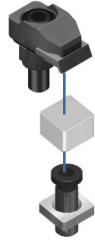
Ref.		d	h1	L1	L2	f	h	Dmin	Insert size	
S32S CSKN R/L 12-7CD	S32S CSKN R/L 12-7CD	32	15,0	250	40	22	30	40	SNGN 1207..	1,450
	S40T CSKN R/L 12-4CD	40	18,5	300	67	27	37	70	SNGN 1204..	2,700
	S40T CSKN R/L 12-7CD	40	18,5	300	67	27	37	70	SNGN 1207..	2,700
	S50U CSKN R/L 12-4CD	50	23,5	350	67	35	47	70	SNGN 1204..	4,950
	S50U CSKN R/L 12-7CD	50	23,5	350	67	35	47	70	SNGN 1207..	4,950
S32S CSKN R/L 12-7CX	S32S CSKN R/L 12-7CX	32	15,0	250	40	22	30	40	SNGX 1207..	1,450
	S40T CSKN R/L 12-4CX	40	18,5	300	67	27	37	70	SNGX 1204..	2,700
	S40T CSKN R/L 12-7CX	40	18,5	300	67	27	37	70	SNGX 1207..	2,700
	S50U CSKN R/L 12-4CX	50	23,5	350	67	35	47	70	SNGX 1204..	4,950
	S50U CSKN R/L 12-7CX	50	23,5	350	67	35	47	70	SNGX 1207..	4,950

							
CD	S32S CSKN R/L 12-7CD	-	-	9414	2417	-	5004
	S40T CSKN R/L 12-4CD	ISSN 454	1161	9414	2417	-	5004
	S40T CSKN R/L 12-7CD	ISSN 434	1161	9414	2417	-	5004
	S50U CSKN R/L 12-4CD	ISSN 454	1160	9414	2417	-	5004
	S50U CSKN R/L 12-7CD	ISSN 434	1160	9414	2417	-	5004
CX	S32S CSKN R/L 12-7CX	-	-	-	-	2415	5004
	S40T CSKN R/L 12-4CX	ISSN 454	1161	-	-	2415	5004
	S40T CSKN R/L 12-7CX	ISSN 434	1161	-	-	2415	5004
	S50U CSKN R/L 12-4CX	ISSN 454	1160	-	-	2415	5004
	S50U CSKN R/L 12-7CX	ISSN 434	1160	-	-	2415	5004

SNG..		l	s	d
Ref.	SNG.. 1204..	12,70	4,76	12,70
	SNG.. 1207..	12,70	7,94	12,70
Negative square inserts.				
For more information see page: F.08				
SNGN	SNGX			
				



CD



CX

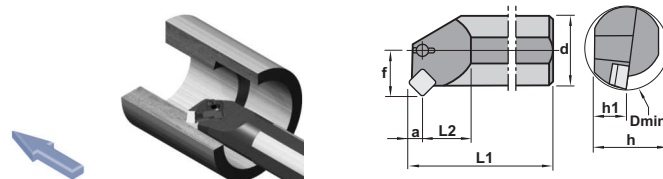


**Characteristics:**

Boring bar for internal turning and chamfering applications equipped with square negative inserts. The top clamp ensures good rigidity in roughing applications.

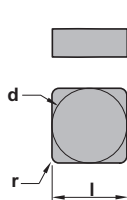
Applications:

Internal turning and chamfering boring bar for general applications, roughing, semi-finishing and finishing.

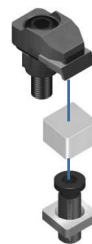
**CSSN 45°**

Ref.		d	h ₁	L ₁	L ₂	f	h	D _{min}	Insert size	kg
	S32S CSSN R/L 12-7CD	32	15,0	250	40	22	30	40	SNGN 1207..	1,450
	S40T CSSN R/L 12-4CD	40	18,5	300	50	27	37	70	SNGN 1204..	2,700
	S40T CSSN R/L 12-7CD	40	18,5	300	50	27	37	70	SNGN 1207..	2,700
	S50U CSSN R/L 15-CD	50	23,5	350	50	32	47	70	SNGN 1507..	4,950
	S32S CSSN R/L 12-7CX	32	15,0	250	40	22	30	40	SNGX 1207..	1,450
	S40T CSSN R/L 12-4CX	40	18,5	300	50	27	37	70	SNGX 1204..	2,700
	S40T CSSN R/L 12-7CX	40	18,5	300	50	27	37	70	SNGX 1207..	2,700
	S50U CSSN R/L 15-CX	50	23,5	350	50	32	47	70	SNGX 1507..	4,950

							
CD	S32S CSSN R/L 12-7CD	-	-	9414	2417	-	5004
	S40T CSSN R/L 12-4CD	ISSN 454	1161	9414	2417	-	5004
	S40T CSSN R/L 12-7CD	ISSN 434	1161	9414	2417	-	5004
	S50U CSSN R/L 15-CD	ISSN 534	1180	9414	2417	-	5004
CX	S32S CSSN R/L 12-7CX	-	-	-	-	2415	5004
	S40T CSSN R/L 12-4CX	ISSN 454	1161	-	-	2415	5004
	S40T CSSN R/L 12-7CX	ISSN 434	1161	-	-	2415	5004
	S50U CSSN R/L 15-CX	ISSN 534	1180	-	-	2415	5004

	SNG..			
	Ref.	l	s	d
	SNG.. 1204..	12,70	4,76	12,70
	SNG.. 1207..	12,70	7,94	12,70
	SNG.. 1507..	15,87	7,94	15,87
Negative square inserts.				
For more information see page: F.08				
SNGN		SNGX		
				

CD



CX



Inserts

General turning

Aluminium
wheel turning

Automatic lathes

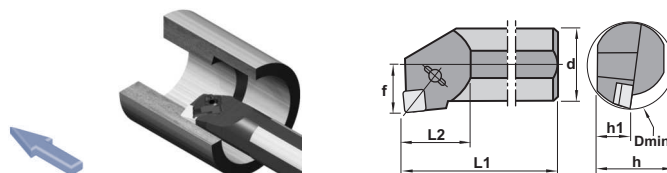
Ceramic tools

**Characteristics:**

Boring bar for internal turning applications equipped with square negative inserts and strong cutting edges. The top clamp ensures good rigidity in roughing applications.

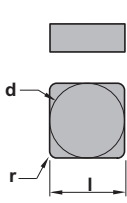
Applications:

Internal turning boring bar for general applications, roughing, semi-finishing and finishing.

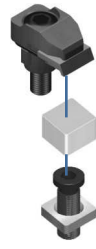
**CSYN 85°**

Ref.		d	h1	L1	L2	f	h	Dmin	Insert size	 Kg
S32S CSYN R/L 12-7CD	S32S CSYN R/L 12-7CD	32	15,0	250	40	22	30	40	SNGN 1207..	1,450
	S40T CSYN R/L 12-4CD	40	18,5	300	67	27	37	70	SNGN 1204..	2,700
	S40T CSYN R/L 12-7CD	40	18,5	300	67	27	37	70	SNGN 1207..	2,700
	S50U CSYN R/L 12-4CD	50	23,5	350	67	35	47	70	SNGN 1204..	4,950
	S50U CSYN R/L 12-7CD	50	23,5	350	67	35	47	70	SNGN 1207..	4,950
S32S CSYN R/L 12-7CX	S32S CSYN R/L 12-7CX	32	15,0	250	40	22	30	40	SNGX 1207..	1,450
	S40T CSYN R/L 12-4CX	40	18,5	300	67	27	37	70	SNGX 1204..	2,700
	S40T CSYN R/L 12-7CX	40	18,5	300	67	27	37	70	SNGX 1207..	2,700
	S50U CSYN R/L 12-4CX	50	23,5	350	67	35	47	70	SNGX 1204..	4,950
	S50U CSYN R/L 12-7CX	50	23,5	350	67	35	47	70	SNGX 1207..	4,950

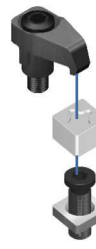
							
CD	S32S CSYN R/L 12-7CD	-	-	9414	2417	-	5004
	S40T CSYN R/L 12-4CD	ISSN 454	1161	9414	2417	-	5004
	S40T CSYN R/L 12-7CD	ISSN 434	1161	9414	2417	-	5004
	S50U CSYN R/L 12-4CD	ISSN 454	1160	9414	2417	-	5004
	S50U CSYN R/L 12-7CD	ISSN 434	1160	9414	2417	-	5004
CX	S32S CSYN R/L 12-7CX	-	-	-	-	2415	5004
	S40T CSYN R/L 12-4CX	ISSN 454	1161	-	-	2415	5004
	S40T CSYN R/L 12-7CX	ISSN 434	1161	-	-	2415	5004
	S50U CSYN R/L 12-4CX	ISSN 454	1160	-	-	2415	5004
	S50U CSYN R/L 12-7CX	ISSN 434	1160	-	-	2415	5004

	SNG..				
	Ref.	SNG.. 1204..	l	s	d
		SNG.. 1207..	12,70	4,76	12,70
Negative square inserts.					
For more information see page: F.08					
SNGN		SNGX			
					

CD



CX





Ceramic tools

Parting and
grooving

Threading

Drills

Cartridges

Brazed tools

Tooling