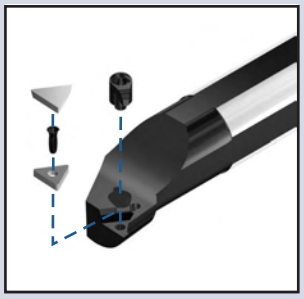
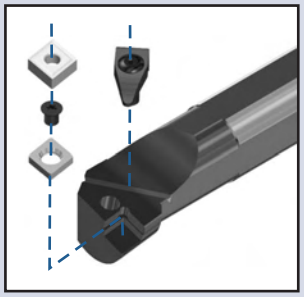
Boring bars

Boring bars



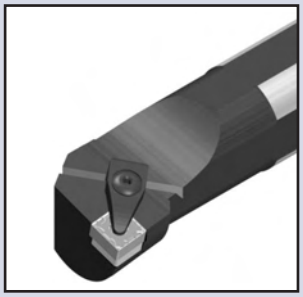
(C) Top clamp

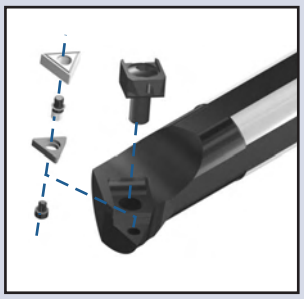
The classic positive insert clamping system is designed to hold flat positive inserts, both with additional or sintered chipbreaker.



(D) Dimple lock

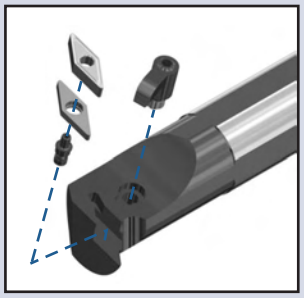
The "D" clamping system avoid insert movement during high feed or heavily interrupted machining, due to its accurate indexing that holds the insert securely clamped.





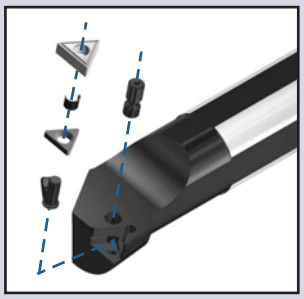
(M) Wedge clamp

Negative inserts require good clamping force for heavy duty work, for this purpose we have designed our "M" system, one of the strongest and safest available.



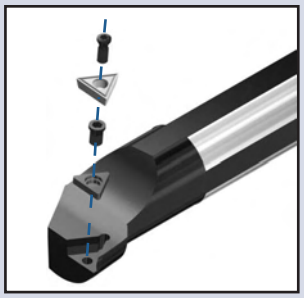
(M-K) Double lock

The double lock system offers good rigidity in negative inserts clamping, it is the first choice for center hole negative ceramic and cermet inserts.



(P) Lever lock

The classic lever lock system allows a wide range of applications, it is the first choice for general purpose turning boring bars.



(S) Center screw

Since the advent of the TORX screw it has been possible to hold with complete safety positive inserts with center hole. Our range covers all the screw fixing permutations.

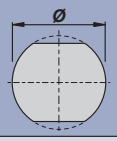
S	25	T	S	D	U	C	R	11	-	EX
1	2	3	4	5	6	7	8	9		10

1

Type of bar			
A	Steel shank with internal coolant.		
H	Anti-vibration shank (Heavy metal)		
J	Anti-vibration shank (heavy metal) with internal coolant		
S	Steel shank		

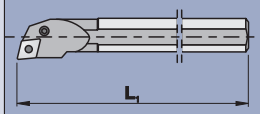
2

Bar diameter, mm.



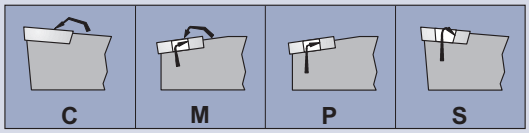
3

Bar length, mm.



H	100	T	300
J	110	U	350
K	125	V	400
L	140	W	450
M	150	Y	500
Q	180	X	Special
R	200		
S	250		

4



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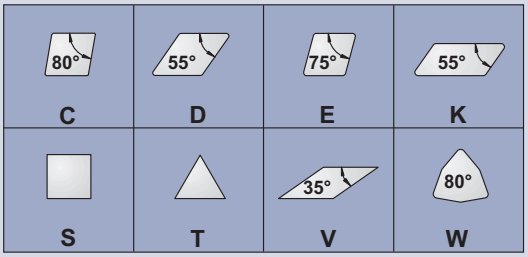

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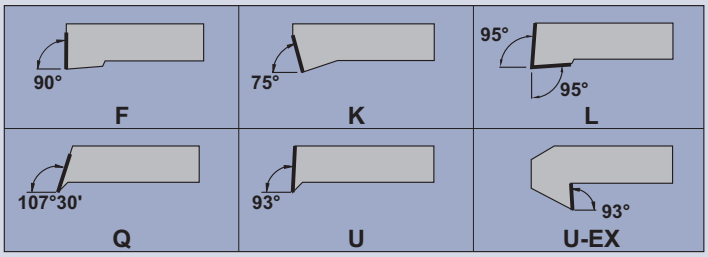

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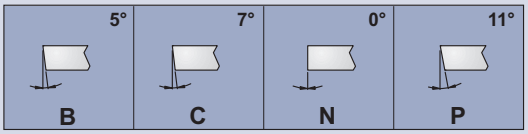
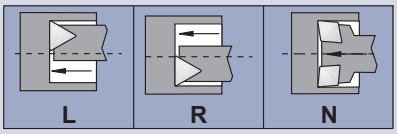


8



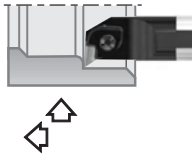
9

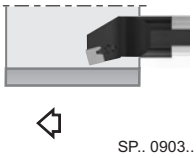
Cutting edge length, mm.

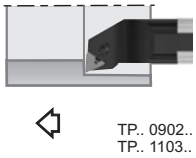
10

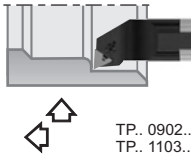
Manufacturer's option

Top clamp boring bars

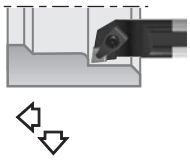
CKUN 93°

Page C.06 KNUX 1604..

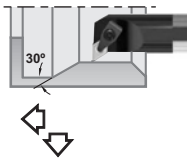
CSKP 75°

Page C.07 SP.. 0903.. SP.. 1203.. SP.. 1904..

CTFP 90°

Page C.08 TP.. 0902.. TP.. 1103.. TP.. 1603.. TP.. 2204..

CTUP 93°

Page C.09 TP.. 0902.. TP.. 1103.. TP.. 1603.. TP.. 2204..

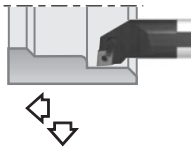
Dimple lock boring bars

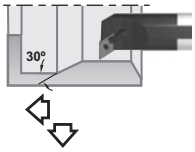
DCLN 95°

Page C.10 CN.. 1204..

DDUN 93°


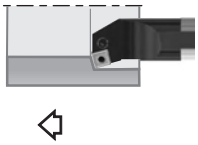
Page C.11 DN.. 1506..

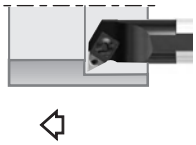
Wedge clamp / Double lock boring bars

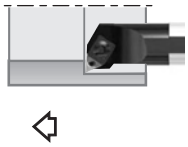
MCLN-K 95°

Page C.12 CN.. 1204..

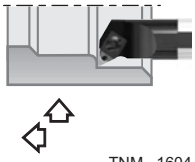
MDUN-K 93°


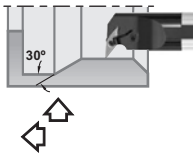
Page C.13 DN.. 1506..

MSKN-K 75°

Page C.14 SNM.. 1204..

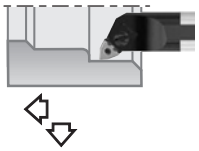
MTFN 90°

Page C.15 TNM.. 1604.. TNM.. 2204..

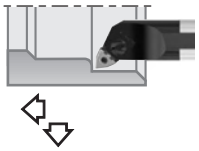
MTFN-K 90°

Page C.16 TNM.. 1604..

MTUN 93°

Page C.17 TNM.. 1604.. TNM.. 2204..

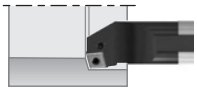
MVUN-K 93°


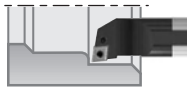
Page C.18 VN.. 1604..

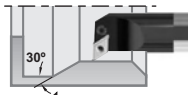
MWLN 95°

Page C.19 WNM.. 0604.. WNM.. 0804..

MWLN-K 95°

Page C.20 WNM.. 0804..

Lever lock boring bars

PCKN 75°

Page C.21 CN.. 1204.. CN.. 1606.. CN.. 1906..

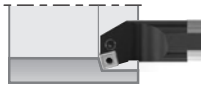
PCLN 95°

Page C.22 CN.. 0903.. CN.. 1204.. CN.. 1606.. CN.. 1906..

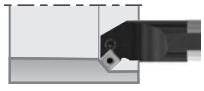
PDUN 93°


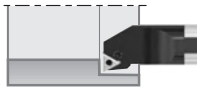
Page C.23 DN.. 1104.. DN.. 1506..

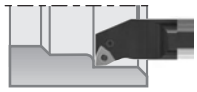
PDUN 93°-EX


Page C.24 DN.. 1506..

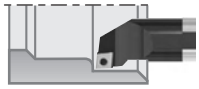
PSKN 75°

Page C.25 SNM.. 1204.. SNM.. 1906..

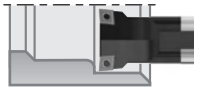
PSSN 45°

Page C.26 SNM.. 1204..

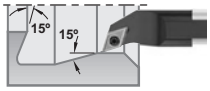
PTFN 90°

Page C.27 TNM.. 1604.. TNM.. 2204..

PWLN 95°

Page C.28 WNM.. 0604.. WNM.. 0804..

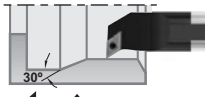
Center screw boring bars

SCLC 95°

Page C.30 — CC.. 0602.. CC.. 09T3.. CC.. 1204..

SCLCN 95°

Page C.32 — CC.. 0602.. CC.. 09T3.. CC.. 1204..

SDQC 107°30'


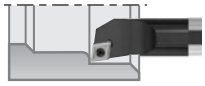
Page C.33 — DC.. 0702.. DC.. 11T3..

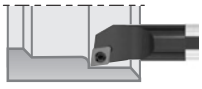
SDUC 93°


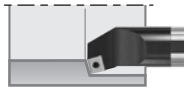
Page C.34 — DC.. 0702.. DC.. 11T3..

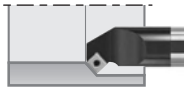
SDUC 93°-EX


Page C.36 — DC.. 0702.. DC.. 11T3..

SELC 97°30'

Page C.38 — ECMT 0602.. ECMT 0803..

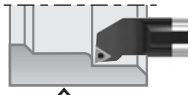
SELP 97°30'

Page C.39 — EPM.. 0402.. EPM.. 0803..

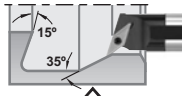
SSKC 75°

Page C.40 — SC.. 09T3.. SC.. 1204..

SSSC 45°

Page C.41 — SC.. 09T3..

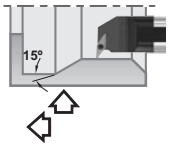
STFC 90°

Page C.42 — TC.. 0902.. TC.. 1102.. TC.. 16T3..

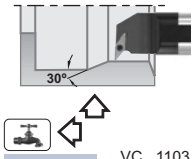
STUC 93°

Page C.44 — TC.. 1102.. TC.. 16T3..

SVQC 107°30'


Page C.45 — VC.. 1103.. VC.. 1303.. VC.. 1604..

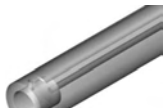
SVUB 93°


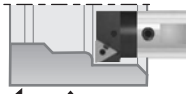
Page C.46 — VBMT 1604..

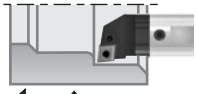
SVUC 93°


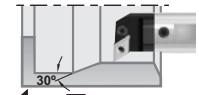
Page C.47 — VC.. 1103.. VC.. 1604..

Anti-vibration tools

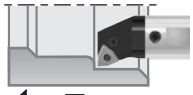
JX

Page C.48

MTUN 93°

Page C.49 — TNM.. 1604.. TNM.. 2204..

PCLN 95°

Page C.50 — CN.. 1204.. CN.. 1606..

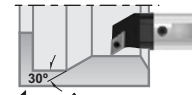
PDUN 93°


Page C.51 — DN.. 1506..

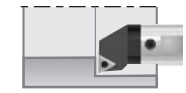
PWLN 95°

Page C.52 — WNM.. 0804..

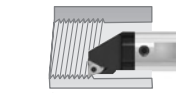
SCLC 95°

Page C.53 — CC.. 09T3.. CC.. 1204..

SDUC 93°


Page C.54 — DC.. 11T3..

STFC 90°

Page C.55 — TC.. 16T3..

SXFN 90°

Page C.56 — 16 NR/L.. 22 NR/L..

Sets

SET SCLC 95°

Page C.58 — CC.. 0602..

SET SDQC 107°30'

Page C59 — DC.. 0702..

SET SDUC 93°

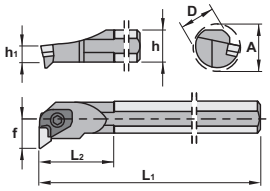
Page C.60 — DC.. 0702..

SET STFC 90°

Page C.61 — TC.. 1102..

Characteristics:
Boring bar for internal turning and profiling operations equipped with KNUX super-positive insert that generates low cutting forces. The top clamp ensures good stability and good rigidity.
Applications:
Profiling boring bar for semi-finishing and finishing operations.

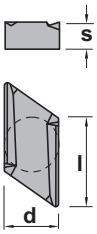
Axial: -6º
Radial: -10º



CKUN 93°

		D	h	h1	L1	L2	f	A	Insert size	Kg
Ref.	**S25T CKUN R/L 16**	25	23	11,5	300	50	20,5	37	KNUX 1604..	0,700
	S32U CKUN R/L 16	32	30	15,0	350	54	22,0	39	KNUX 1604..	2,050
	S40V CKUN R/L 16	40	37	18,5	400	60	27,0	48	KNUX 1604..	3,750
	S50W CKUN R/L 16	50	47	23,5	450	65	35,0	61	KNUX 1604..	6,500

								
Ref.	**S25T CKUN L 16**	2316	1614	5004	4295	4201	-	-
	S32U CKUN L 16	2316	1614	5004	4295	4202	3226	4012
	S40V CKUN L 16	2316	1614	5004	4295	4204	3226	4012
	S50W CKUN L 16	2316	1614	5004	4295	4204	3226	4012
	S25T CKUN R 16	2326	1614	5004	4295	4201	-	-
	S32U CKUN R 16	2326	1614	5004	4295	4202	3236	4012
	S40V CKUN R 16	2326	1614	5004	4295	4204	3236	4012
	S50W CKUN R 16	2326	1614	5004	4295	4204	3236	4012



	KNUX	l	s	d
Ref.	**KNUX 1604..**	16,00	4,76	9,52

Negative KNUX inserts.

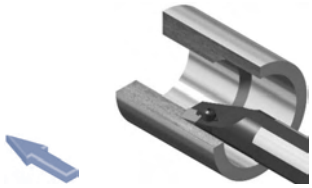
For more information see page: A.25

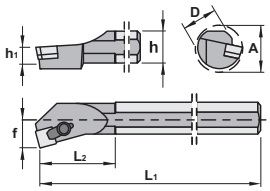
KNUX						
						

Characteristics:
Boring bar for internal turning applications equipped with square positive inserts and strong cutting edges. The top clamp ensures good rigidity and stability.
Applications:
Internal turning boring bar for all kind of materials. The workpiece should be stable.

For interrupted cut choose boring bars Ref. PSKN (Page: C.25).

Axial: 6.5º
Radial: -1.25º

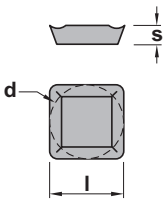




CSKP 75°

Ref.		D	h	h1	L1	L2	f	A	Insert size	Kg
	S16R CSKP R/L 09	16	15	7,5	200	30	11	20	SP.. 0903..	0,300
	S20S CSKP R/L 09	20	18	9,0	250	35	13	24	SP.. 0903..	0,550
	S25T CSKP R/L 12	25	23	11,5	300	40	17	31	SP.. 1203..	1,050
	S32U CSKP R/L 12	32	30	15,0	350	50	22	39	SP.. 1203..	2,050
	S40V CSKP R/L 12	40	37	18,5	400	60	27	48	SP.. 1203..	3,650
	S50W CSKP R/L 12	50	47	23,5	450	65	35	61	SP.. 1203..	6,450
	S50W CSKP R/L 19	50	47	23,5	450	65	35	61	SP.. 1904..	6,400

Ref.							
	S16R CSKP R/L 09	2107	5025	-	-	-	9009
	S20S CSKP R/L 09	2107	5025	-	-	-	9012-9112
	S25T CSKP R/L 12	2109	5003	-	-	2309	9012-9112
	S32U CSKP R/L 12	2209	5003	3112	4002	2309	9012-9112
	S40V CSKP R/L 12	2209	5003	3112	4002	2409	9012-9112
	S50W CSKP R/L 12	2209	5003	3112	4002	2409	9012-9112
	S50W CSKP R/L 19	2211	5004	3119	4012	2411	9019-9119
						Supplementary accessories	



Ref.	SP..	l	s	d
	SP.. 0903..	9,52	3,18	9,52
	SP.. 1203..	12,70	3,18	12,70
	SP.. 1904..	19,05	4,76	19,05

Positive 11° clearance - Square inserts.

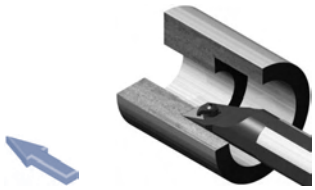
For more information see page: A.28

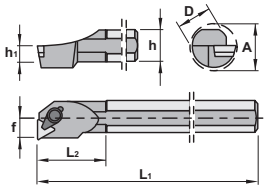
SPMR-33	SPUN					
						

Characteristics:
Boring bar for internal turning applications equipped with triangular positive inserts and strong cutting edges. The top clamp ensures good rigidity and stability.
Applications:
Internal turning boring bar for all kind of materials. The workpiece should be stable.

For interrupted cut choose boring bars Ref. MTFN (Page: C.15) or PTFN (Page: C.27).

Axial: +6º
Radial: 0º

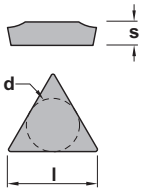




CTFP 90°

Ref.		D	h	h1	L1	L2	f	A	Insert size	Kg
	S10M CTFP R/L 09	10	9	4,5	150	25	7	13	TP.. 0902..	0,060
	S12M CTFP R/L 09	12	11	5,5	150	25	9	16	TP.. 0902..	0,150
	S12M CTFP R/L 11	12	11	5,5	150	25	9	16	TP.. 1103..	0,150
	S16R CTFP R/L 11	16	15	7,5	200	30	11	20	TP.. 1103..	0,300
	S20S CTFP R/L 11	20	18	9,0	250	35	13	24	TP.. 1103..	0,550
	S16R CTFP R/L 16	16	15	7,5	200	30	11	20	TP.. 1603..	0,300
	S20S CTFP R/L 16	20	18	9,0	250	35	13	24	TP.. 1603..	0,550
	S25T CTFP R/L 16	25	23	11,5	300	40	17	31	TP.. 1603..	0,700
	S32U CTFP R/L 16	32	30	15,0	350	50	22	39	TP.. 1603..	2,050
	S40V CTFP R/L 16	40	37	18,5	400	60	27	48	TP.. 1603..	3,750
	S50W CTFP R/L 16	50	47	23,5	450	65	35	61	TP.. 1603..	6,500
	S40V CTFP R/L 22	40	37	18,5	400	60	27	48	TP.. 2204..	3,750
	S50W CTFP R/L 22	50	47	23,5	450	65	35	61	TP.. 2204..	6,500

Ref.							
	S10M CTFP R/L 09	2000	5015	-	-	-	-
	S12M CTFP R/L 09	2000	5015	-	-	-	-
	S12M CTFP R/L 11	2304	5025	-	-	-	-
	S16R CTFP R/L 11	2107	5025	-	-	2307	9011-9111
	S20S CTFP R/L 11	2107	5025	-	-	2307	9011-9111
	S16R CTFP R/L 16	2119	5003	-	-	2309	9016-9116
	S20S CTFP R/L 16	2119	5003	-	-	2309	9016-9116
	S25T CTFP R/L 16	2109	5003	-	-	2309	9016-9116
	S32U CTFP R/L 16	2209	5003	3116	4002	2309	9016-9116
	S40V CTFP R/L 16	2209	5003	3116	4002	2409	9016-9116
	S50W CTFP R/L 16	2209	5003	3116	4002	2409	9016-9116
	S40V CTFP R/L 22	2211	5004	3122	4012	2411	9022-9122
	S50W CTFP R/L 22	2211	5004	3122	4012	2411	9022-9122
						Supplementary accessories	



Ref.	TP..	l	s	d
	TP.. 0902..	9,62	2,38	5,55
	TP.. 1103..	11,00	3,18	6,35
	TP.. 1603..	16,50	3,18	9,52
	TP.. 2204..	22,00	4,76	12,70

Positive 11° clearance - Triangular inserts

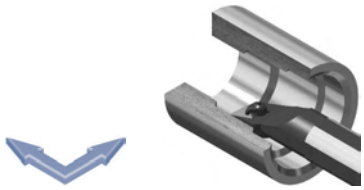
For more information see page: A.31

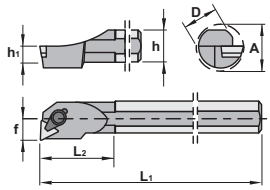
TPMN	TPMR-33	TPUN	TPUX-R	TPUX-L		

Characteristics:
Boring bar for internal turning applications equipped with triangular positive inserts and strong cutting edges. The top clamp ensures good rigidity and stability.
Applications:
Internal turning boring bar for all kind of materials. The workpiece should be stable.

For interrupted cut choose boring bars Ref. MTUN (Page: C.17).

Axial: 0º
Radial: -6º

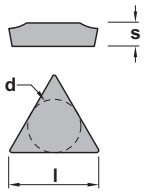




CTUP 93°

Ref.		D	h	h1	L1	L2	f	A	Insert size	Kg
	S10M CTUP R/L 09	10	9	4,5	150	25	7	13	TP.. 0902..	0,060
	S12M CTUP R/L 09	12	11	5,5	150	25	9	16	TP.. 0902..	0,150
	S12M CTUP R/L 11	12	11	5,5	150	25	9	16	TP.. 1103..	0,150
	S16R CTUP R/L 11	16	15	7,5	200	30	11	20	TP.. 1103..	0,300
	S20S CTUP R/L 11	20	18	9,0	250	35	13	24	TP.. 1103..	0,550
	S16R CTUP R/L 16	16	15	7,5	200	30	11	20	TP.. 1603..	0,300
	S20S CTUP R/L 16	20	18	9,0	250	35	13	24	TP.. 1603..	0,550
	S25T CTUP R/L 16	25	23	11,5	300	40	17	31	TP.. 1603..	0,700
	S32U CTUP R/L 16	32	30	15,0	350	50	22	39	TP.. 1603..	2,050
	S40V CTUP R/L 16	40	37	18,5	400	60	27	48	TP.. 1603..	3,750
	S50W CTUP R/L 16	50	47	23,5	450	65	35	61	TP.. 1603..	6,500
	S40V CTUP R/L 22	40	37	18,5	400	60	27	48	TP.. 2204..	3,750
	S50W CTUP R/L 22	50	47	23,5	450	65	35	61	TP.. 2204..	6,500

Ref.							
	S10M CTUP R/L 09	2000	5015	-	-	-	-
	S12M CTUP R/L 09	2000	5015	-	-	-	-
	S12M CTUP R/L 11	2304	5025	-	-	-	-
	S16R CTUP R/L 11	2107	5025	-	-	2307	9011-9111
	S20S CTUP R/L 11	2107	5025	-	-	2307	9011-9111
	S16R CTUP R/L 16	2119	5003	-	-	2309	9016-9116
	S20S CTUP R/L 16	2119	5003	-	-	2309	9016-9116
	S25T CTUP R/L 16	2109	5003	-	-	2309	9016-9116
	S32U CTUP R/L 16	2209	5003	3116	4002	2309	9016-9116
	S40V CTUP R/L 16	2209	5003	3116	4002	2409	9016-9116
	S50W CTUP R/L 16	2209	5003	3116	4002	2409	9016-9116
	S40V CTUP R/L 22	2211	5004	3122	4012	2411	9022-9122
	S50W CTUP R/L 22	2211	5004	3122	4012	2411	9022-9122
						Supplementary accessories	



Ref.	TP..	l	s	d
	TP.. 0902..	9,62	2,38	5,55
	TP.. 1103..	11,00	3,18	6,35
	TP.. 1603..	16,50	3,18	9,52
	TP.. 2204..	22,00	4,76	12,70

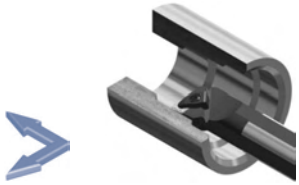
Positive 11° clearance - Triangular inserts

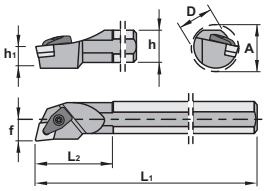
For more information see page: A.31

TPMN	TPMR-33	TPUN	TPUX-R	TPUX-L		
						

Characteristics:
Boring bar for internal turning applications equipped with rhombic negative inserts (angle 80º) and strong cutting edges.
The dimple lock ensures good rigidity and chip flow in roughing applications.
Applications:
Internal boring bar for general applications, roughing, semi-finishing and finishing.
For low powered machines and small pieces choose boring bars Ref. SCLC (Page: C.30).

Axial: -5º
Radial: -13.5º

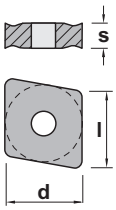




DCLN 95°

		D	h	h1	L1	L2	f	A	Insert size	Kg
Ref.	**S25T DCLN R/L 12**	25	23	11,5	300	40	17	31	CN.. 1204..	0,700
	S32U DCLN R/L 12	32	30	15,0	350	50	22	39	CN.. 1204..	2,050
	S40V DCLN R/L 12	40	37	18,5	400	60	27	48	CN.. 1204..	3,750

							
Ref.	**S25T DCLN R/L 12**	3612	1765	2312	1907	4295	5004
	S32U DCLN R/L 12	ICSN-432	1161	2312	1907	4295	5004
	S40V DCLN R/L 12	ICSN-432	1160	2312	1907	4295	5004



	CN..	l	s	d
Ref.	**CN.. 1204..**	12,90	4,76	12,70

Negative 80° rhombic inserts.

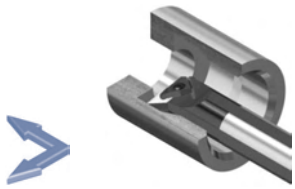
For more information see page: A.18

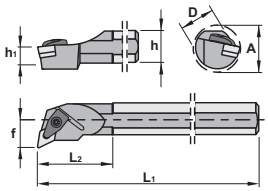
CNMG-CF	CNMG-CM	CNMG-CR	CNMG-CS
			

CNGP	CNMA	CNMG-CFM	CNMG-CFC	CNMG-CMC	CNMG-CMF	CNMG-CMR	CNMM
							

Characteristics:
Boring bar for internal turning and profiling applications equipped with rhombic negative inserts (angle 55º) and strong cutting edges.
The dimple lock ensures good rigidity and chip flow in roughing applications.
Applications:
Profiling boring bar for general applications, roughing, semi-finishing and finishing.
For low powered machines and small pieces choose boring bars Ref. SDUC (Page: C.34).

Axial: -6º
Radial: -14º

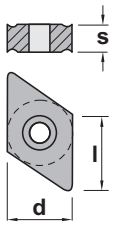




DDUN 93°

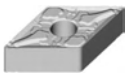
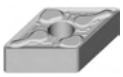
		D	h	h1	L1	L2	f	A	Insert size	Kg
Ref.	S32U DDUN R/L 15	32	30	15,0	350	50	22	39	DN.. 1506..	2,050
	S40V DDUN R/L 15	40	37	18,5	400	60	27	48	DN.. 1506..	3,750

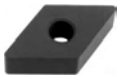
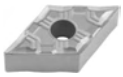
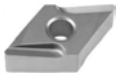
							
Ref.	S32U DDUN R/L 15	IDSN 432	1161	2312	1907	4295	5004
	S40V DDUN R/L 15	IDSN 432	1160	2312	1907	4295	5004



	DN..	l	s	d
Ref.	DN.. 1506..	15,50	6,35	12,70

Negative 55° rhombic inserts.
For more information see page: A.22

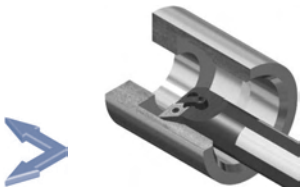
DNMG-CF	DNMG-CM		
			

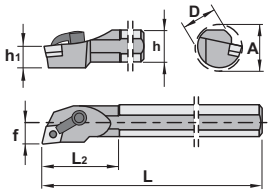
DNGP	DNMA	DNMG-CFM	DNMG-CMR	DNMX			
							

Characteristics:
Multipurpose boring bar equipped with rhombic negative double side insert (angle 80º) with strong cutting edge. The center pin and top clamp ensure good rigidity and stability in roughing applications.
Applications:
Internal boring bar for general applications, roughing, semi-finishing and finishing.
Specially recommended for cermet, ceramic and K10, P10 grade inserts.

For low powered machines and small pieces choose boring bars Ref. SCLC (Page: C.30).

Axial: -5º
Radial: -13.5º

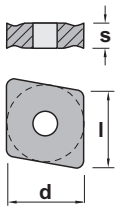




MCLN-K 95°

		D	h	h1	L1	L2	f	A	Insert size	Kg
Ref.	**S25T MCLN R/L 12-K**	25	23	11,5	300	33	17	31	CN.. 1204..	0,700
	S32U MCLN R/L 12-K	32	30	15,0	350	50	22	39	CN.. 1204..	2,050
	S40V MCLN R/L 12-K	40	37	18,5	400	60	27	48	CN.. 1204..	3,750

							
Ref.	**S25T MCLN R/L 12-K**	2613	1186	5003	-	1686	5025
	S32U MCLN R/L 12-K	2613	1086	5003	ICSN-432	1656	5025
	S40V MCLN R/L 12-K	2613	1086	5003	ICSN-432	1656	5025



	CN..	l	s	d
Ref.	**CN.. 1204..**	12,90	4,76	12,70

Negative 80° rhombic inserts.

For more information see page: A.18

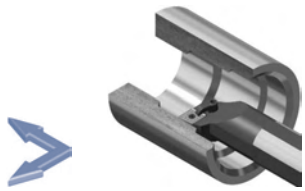
CNMG-CF	CNMG-CM	CNMG-CR	CNMG-CS
			

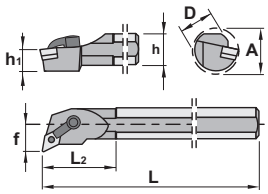
CNGP	CNMA	CNMG-CFM	CNMG-CFC	CNMG-CMC	CNMG-CMF	CNMG-CMR	CNMM
							

Characteristics:
Internal turning and profiling boring bar equipped with rhombic negative double side insert (angle 55º) with strong cutting edge. The center pin and top clamp ensure good rigidity and stability in roughing applications.
Applications:
Internal boring bar for general applications, roughing, semi-finishing and finishing.

For low powered machines and small pieces choose boring bars Ref. SDUC (Page: C.34).

Axial: -6º
Radial: -12º

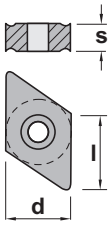




MDUN-K 93°

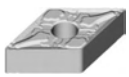
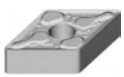
Ref.		D	h	h1	L1	L2	f	A	Insert size	Kg
	S25T MDUN R/L 15-K	25	23	11,5	300	40	17	31	DN.. 1506..	0,700
	S32U MDUN R/L 15-K	32	30	15,0	350	50	22	39	DN.. 1506..	2,050
	S40V MDUN R/L 15-K	40	37	18,5	400	60	27	48	DN.. 1506..	3,750

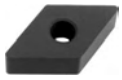
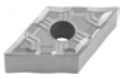
Ref.							
	S25T MDUN R/L 15-K	2614	1186	5003	-	1686	5025
	S32U MDUN R/L 15-K	2614	1086	5003	IDSN-432	1666	5025
	S40V MDUN R/L 15-K	2614	1086	5003	IDSN-432	1666	5025



	DN..	l	s	d
Ref.	DN.. 1506..	15,50	6,35	12,70

Negative 55° rhombic inserts.
For more information see page: A.22

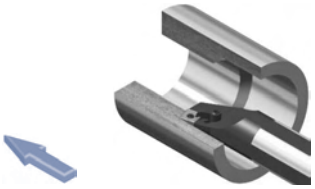
DNMG-CF	DNMG-CM		
			

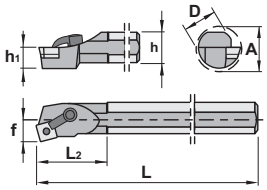
DNGP	DNMA	DNMG-CFM	DNMG-CMR	DNMX			
							

Characteristics:
Boring bar for internal turning applications equipped with square negative inserts and strong cutting edges. The center pin and top clamp ensure good rigidity and stability in roughing applications.
Applications:
Internal boring bar for general applications, roughing, semi-finishing and finishing.

For low powered machines and small pieces choose boring bars Ref. CSKP (Page: C.07) or SSKC (page: C.40).

Axial: -3.25º
Radial: -11º

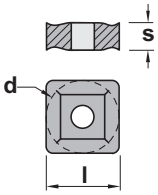




MSKN-K 75°

		D	h	h1	L1	L2	f	A	Insert size	Kg
Ref.	**S32U MSKN R/L 12-K**	32	33	15,0	350	50	22	39	SNM.. 1204..	2,050
	S40V MSKN R/L 12-K	40	37	18,5	400	60	27	48	SNM.. 1204..	3,750

							
Ref.	**S32U MSKN R/L 12-K**	2613	1086	5003	ISSN-432	1656	5025
	S40V MSKN R/L 12-K	2613	1086	5003	ISSN-432	1656	5025



SNM..	l	s	d
Ref. **SNM.. 1204..**	12,70	4,76	12,70

Negative square inserts.

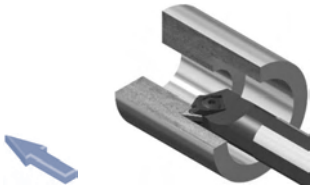
For more information see page: A.27

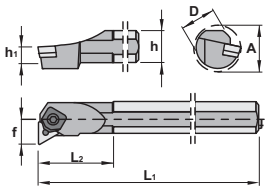
SNMG-CR			
			

SNMA	SNMG-CFM	SNMG-CMR					
							

Characteristics:
Internal turning and profiling boring bar equipped with triangular negative double side insert with strong cutting edge. The center pin and top clamp ensure good rigidity and stability in roughing applications.
Applications:
Internal boring bar for general applications, roughing, semi-finishing and finishing.
Not suitable for cermet, ceramic and K10, P10 grade inserts.
For low powered machines and small pieces choose boring bars Ref. CTFP (Page: C.08) or STFC (page: C.42).

Axial: -6º
Radial: -12º

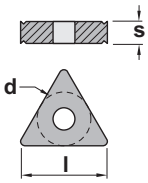




MTFN 90°

Ref.		D	h	h1	L1	L2	f	A	Insert size	Kg
	S25T MTFN R/L 16	25	23	11,5	300	40	17	34	TNM.. 1604..	0,700
	S32U MTFN R/L 16	32	30	15,0	350	50	22	39	TNM.. 1604..	2,050
	S40V MTFN R/L 16	40	37	18,5	400	60	27	48	TNM.. 1604..	3,750
	S50W MTFN R/L 16	50	47	23,5	450	65	35	61	TNM.. 1604..	6,500
	S40V MTFN R/L 22	40	37	18,5	400	60	27	48	TNM.. 2204..	3,750
	S50W MTFN R/L 22	50	47	23,5	450	65	35	61	TNM.. 2204..	6,500

Ref.						
	S25T MTFN R/L 16	2014	5005	3414	1644	1813
	S32U MTFN R/L 16	2014	5005	3414	1644	1393
	S40V MTFN R/L 16	2014	5005	3414	1644	1393
	S50W MTFN R/L 16	2014	5005	3414	1644	1393
	S40V MTFN R/L 22	2024	5005	ITSN-433	1661	1394
	S50W MTFN R/L 22	2024	5005	ITSN-433	1661	1394



Ref.	TNM..	l	s	d
	TNM.. 1604..	16,50	4,76	9,52
	TNM.. 2204..	22,00	4,76	12,70

Negative triangular inserts.

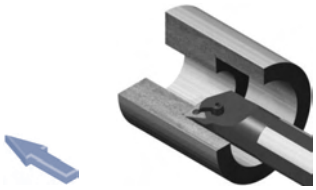
For more information see page: A.29

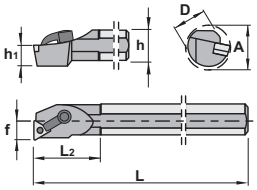
TNMG-CF	TNMG-CM	TNMG-CS	
			

TNMA	TNMG-CFC	TNMG-CFM	TNMG-CMC	TNMG-CMF	TNMG-CMR	TNMX	
							

Characteristics:
Internal turning and profiling boring bar equipped with triangular negative double side insert with strong cutting edge. The center pin and top clamp ensure good rigidity and stability in roughing applications.
Applications:
Internal boring bar for general applications, roughing, semi-finishing and finishing.
Specially recommended for cermet, ceramic and K10, P10 grade inserts.
For low powered machines and small pieces choose boring bars Ref. CTFP (Page: C.08) or STFC (page: C.42).

Axial: -6º
Radial: -11º

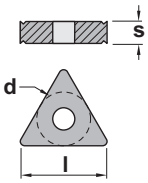




MTFN-K 90°

Ref.		D	h	h1	L1	L2	f	A	Insert size	Kg
	S25T MTFN R/L 16-K	25	23	11,5	300	40	17	31	TNM.. 1604..	0,700
	S32U MTFN R/L 16-K	32	30	15,0	350	50	22	39	TNM.. 1604..	2,050
	S40V MTFN R/L 16-K	40	37	18,5	400	60	27	48	TNM.. 1604..	3,750

Ref.							
	S25T MTFN R/L 16-K	2613	1086	5003	ITSN-322	1665	5002
	S32U MTFN R/L 16-K	2613	1086	5003	ITSN-322	1665	5002
	S40V MTFN R/L 16-K	2613	1086	5003	ITSN-322	1665	5002



TNM..	l	s	d
Ref. TNM.. 1604..	16,50	4,76	9,52

Negative triangular inserts.

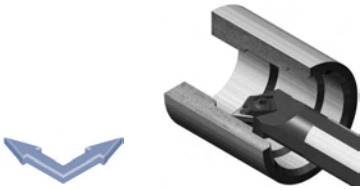
For more information see page: A.29

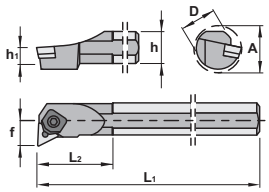
TNMG-CF	TNMG-CM	TNMG-CS	
			

TNMA	TNMG-CFC	TNMG-CFM	TNMG-CMC	TNMG-CMF	TNMG-CMR	TNMX	
							

Characteristics:
Internal turning and profiling boring bar equipped with triangular negative double side insert with strong cutting edge. The center pin and top clamp ensure good rigidity and stability in roughing applications.
Applications:
Internal boring bar for general applications, roughing, semi-finishing and finishing.
Not suitable for cermet, ceramic and K10, P10 grade inserts.
For low powered machines and small pieces choose boring bars Ref. CTUP (Page: C.09) or STUC (page: C.44).

Axial: -6º
Radial: -11º

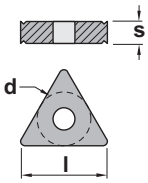




MTUN 93°

Ref.		D	h	h1	L1	L2	f	A	Insert size	Kg
	S25T MTUN R/L 16	25	23	11,5	300	40	17	34	TNM.. 1604..	0,700
	S32U MTUN R/L 16	32	30	15,0	350	50	22	39	TNM.. 1604..	2,050
	S40V MTUN R/L 16	40	37	18,5	400	60	27	48	TNM.. 1604..	3,750
	S50W MTUN R/L 16	50	47	23,5	450	65	35	61	TNM.. 1604..	6,500
	S40V MTUN R/L 22	40	37	18,5	400	60	27	48	TNM.. 2204..	3,750
	S50W MTUN R/L 22	50	47	23,5	450	65	35	61	TNM.. 2204..	6,500

Ref.						
	S25T MTUN R/L 16	2014	5005	3414	1644	1813
	S32U MTUN R/L 16	2014	5005	3414	1644	1393
	S40V MTUN R/L 16	2014	5005	3414	1644	1393
	S50W MTUN R/L 16	2014	5005	3414	1644	1393
	S40V MTUN R/L 22	2024	5005	ITSN-433	1661	1394
	S50W MTUN R/L 22	2024	5005	ITSN-433	1661	1394



	TNM..	l	s	d
Ref.	**TNM.. 1604..**	16,50	4,76	9,52
	TNM.. 2204..	22,00	4,76	12,70

Negative triangular inserts.

For more information see page: A.29

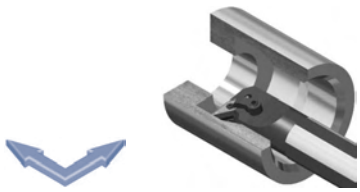
TNMG-CF	TNMG-CM	TNMG-CS	
			

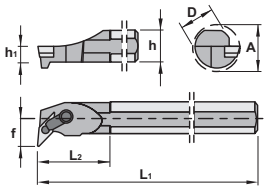
TNMA	TNMG-CFC	TNMG-CFM	TNMG-CMC	TNMG-CMF	TNMG-CMR	TNMX	
							

Characteristics:
Internal turning and profiling boring bar equipped with rhombic negative double side insert (angle 35º) with strong cutting edge. The center pin and top clamp ensure good rigidity and stability in roughing applications.
Applications:
Internal boring bar for general applications, roughing, semi-finishing and finishing.

For low powered machines and small pieces choose boring bars Ref. SVUC (Page: C.47).

Axial: -5º
Radial: -15º

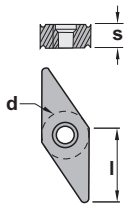




MVUN-K 93°

		D	h	h1	L1	L2	f	A	Insert size	Kg
Ref.	S25T MVUN R/L 16-K	25	23	11,5	300	40	17	31	VN.. 1604..	0,700
	S32U MVUN R/L 16-K	32	30	15,0	350	50	22	39	VN.. 1604..	2,050
	S40V MVUN R/L 16-K	40	37	18,5	400	60	27	48	VN.. 1604..	3,750

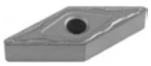
							
Ref.	S25T MVUN R/L 16-K	2614	5003	3717	1186	1665	5002
	S32U MVUN R/L 16-K	2614	5003	3717	1086	1665	5002
	S40V MVUN R/L 16-K	2614	5003	3717	1086	1665	5002



	VN..	l	s	d
Ref.	VN.. 1604..	16,50	4,76	9,52

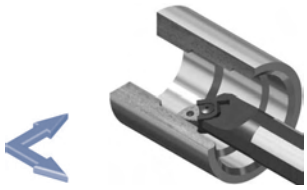
Negative 35° rhombic inserts

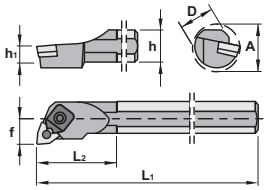
For more information see page: A.33

VNGP	VNMG	VNMG-CMC				
						

Characteristics:
Multipurpose boring bar equipped with trigon negative double side insert (angle 80º) with strong cutting edge. The center pin and top clamp ensure good rigidity and stability in roughing applications.
Applications:
Internal boring bar for general applications, roughing, semi-finishing and finishing.
Not suitable for cermet, ceramic and K10, P10 grade inserts.

Axial: -5º
Radial: -11.5º

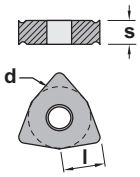




MWLN 95°

Ref.		D	h	h1	L1	L2	f	A	Insert size	Kg
	S20S MWLN R/L 06	20	18	9,0	250	36	13	27	WNM.. 0604..	0,550
	S25T MWLN R/L 06	25	23	11,5	300	40	17	31	WNM.. 0604..	0,700
	S32U MWLN R/L 06	32	30	15,0	350	50	22	39	WNM.. 0604..	2,050
	S25T MWLN R/L 08	25	23	11,5	300	40	17	31	WNM.. 0804..	0,700
	S32U MWLN R/L 08	32	30	15,0	350	50	22	39	WNM.. 0804..	2,050
	S40V MWLN R/L 08	40	37	18,5	400	60	27	48	WNM.. 0804..	3,750
	S50W MWLN R/L 08	50	47	23,5	450	65	35	61	WNM.. 0804..	6,500

Ref.						
	S20S MWLN R/L 06	2006	5025	-	1643	1813
	S25T MWLN R/L 06	2006	5025	3006	1644	1813
	S32U MWLN R/L 06	2006	5025	3006	1644	1813
	S25T MWLN R/L 08	2011	5025	-	1647	1814
	S32U MWLN R/L 08	2011	5025	IWSN-432	1661	1814
	S40V MWLN R/L 08	2011	5025	IWSN-432	1661	1814
	S50W MWLN R/L 08	2011	5025	IWSN-432	1661	1814



Ref.	WNM..	l	s	d
	WNM.. 0604..	6,45	4,76	9,52
	WNM.. 0804..	8,14	4,76	12,70

Negative 80° trigon inserts.

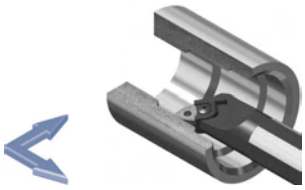
For more information see page: A.34

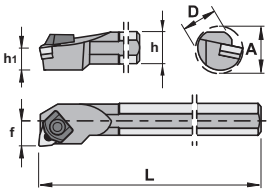
WNMG-CF	WNMG-CM	WNMG-CS	
			

WNMA	WNMG-CFM	WNMG-CMC	WNMG-CMF	WNMG-CMR			
							

Characteristics:
Multipurpose boring bar equipped with trigon negative double side insert (angle 80º) with strong cutting edge. The center pin and top clamp ensure good rigidity and stability in roughing applications.
Applications:
Internal turning boring bar for general applications, roughing, semi-finishing and finishing.
Specially recommended for cermet, ceramic and K10, P10 grade inserts.

Axial: -5º
Radial: -11.5º

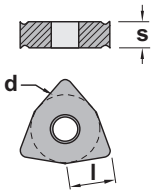




MWLN-K 95°

Ref.		D	h	h1	L1	L2	f	A	Insert size	Kg
	S25T MWLN R/L 08-K	25	23	11,5	300	40	17	31	WNM.. 0804..	0,700
	S32U MWLN R/L 08-K	32	30	15,0	350	50	22	39	WNM.. 0804..	2,050
	S40V MWLN R/L 08-K	40	37	18,5	400	60	27	48	WNM.. 0804..	3,750
	S50W MWLN R/L 08-K	50	47	23,5	450	65	35	61	WNM.. 0804..	6,500

Ref.						
	S25T MWLN R/L 08-K	2018	-	1647	5025	1814
	S32U MWLN R/L 08-K	2018	IWSN-432	1661	5025	1814
	S40V MWLN R/L 08-K	2018	IWSN-432	1661	5025	1814
	S50W MWLN R/L 08-K	2018	IWSN-432	1661	5025	1814



WNM..	l	s	d
Ref. **WNM.. 0804..**	8,14	4,76	12,70

Negative 80° trigon inserts.

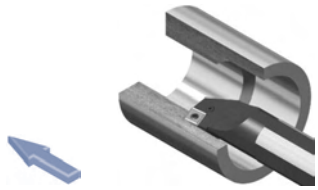
For more information see page: A.34

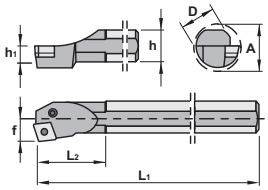
WNMG-CF	WNMG-CM	WNMG-CS	
			

WNMA	WNMG-CFM	WNMG-CMC	WNMG-CMF	WNMG-CMR			
							

Characteristics:
Boring bar for internal turning applications equipped with rhombic negative inserts (angle 80º) and strong cutting edges.
The lever lock ensures good rigidity and chip flow in roughing applications.
Applications:
Internal boring bar for general applications, roughing, semi-finishing and finishing.

Axial: -3º
Radial: -11.5º

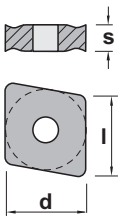




PCKN 75°

Ref.		D	h	h1	L1	L2	f	A	Insert size	Kg
	S25T PCKN R/L 12	25	23	11,5	300	40	17	31	CN.. 1204..	0,700
	S32U PCKN R/L 12	32	30	15,0	350	50	22	39	CN.. 1204..	2,050
	S40V PCKN R/L 12	40	37	18,5	400	60	27	48	CN.. 1204..	3,750
	S50W PCKN R/L 16	50	47	23,5	450	65	35	61	CN.. 1606..	6,500
	S50W PCKN R/L 19	50	47	23,5	450	65	35	61	CN.. 1906..	6,500

Ref.							
	S25T PCKN R/L 12	8212	1626	5025	-	-	-
	S32U PCKN R/L 12	8312	1648	5003	3612	4112	0012
	S40V PCKN R/L 12	8012	1608	5003	3612	4112	0012
	S50W PCKN R/L 16	8016	1618	5003	3616	4115	0015
	S50W PCKN R/L 19	8019	1610	5004	3619	4119	0019



Ref.	CN..	l	s	d
	CN.. 1204..	12,90	4,76	12,70
	CN.. 1606..	16,10	6,35	15,88
	CN.. 1906..	19,30	6,35	19,05

Negative 80° rhombic inserts.

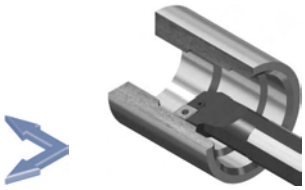
For more information see page: A.18

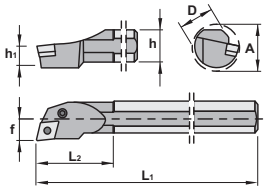
CNMG-CF	CNMG-CM	CNMG-CR	CNMG-CS
			

CNGP	CNMA	CNMG-CFM	CNMG-CFC	CNMG-CMC	CNMG-CMF	CNMG-CMR	CNMM
							

Characteristics:
Boring bar for internal turning applications equipped with rhombic negative inserts (angle 80º) and strong cutting edges.
The lever lock ensures good rigidity and chip flow in roughing applications.
Applications:
Internal boring bar for general applications, roughing, semi-finishing and finishing.
For low powered machines and small pieces choose boring bars Ref. SCLC (Page: C.30).

Axial: -5º
Radial: -13.5º





PCLN 95°

Characteristics:
Boring bars with steel shank.

Ref.		D	h	h1	L1	L2	f	A	Insert size	Kg
	S16R PCLN R/L 09	16	15	7,5	200	26	11	20	CN.. 0903..	0,300
	S20S PCLN R/L 09	20	18	9,0	250	29	13	25	CN.. 0903..	0,550
	S25T PCLN R/L 09	25	23	11,5	300	33	17	32	CN.. 0903..	0,700
	S25T PCLN R/L 12	25	23	11,5	300	40	17	31	CN.. 1204..	0,700
	S32U PCLN R/L 12	32	30	15,0	350	50	22	39	CN.. 1204..	2,050
	S40V PCLN R/L 12	40	37	18,5	400	60	27	48	CN.. 1204..	3,750
	S50W PCLN R/L 12	50	47	23,5	450	65	35	61	CN.. 1204..	6,500
	S50W PCLN R/L 16	50	47	23,5	450	65	35	61	CN.. 1606..	6,500
	S50W PCLN R/L 19	50	47	23,5	450	65	35	61	CN.. 1906..	6,500

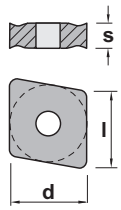
Ref.						
	S16R PCLN R/L 09	8005	1605	5002	-	-	-
	S20S PCLN R/L 09	8005	1605	5002	-	-	-
	S25T PCLN R/L 09	8009	1626	5025	3609	4109	0009
	S25T PCLN R/L 12	8212	1626	5025	-	-	-
	S32U PCLN R/L 12	8312	1648	5003	3612	4112	0012
	S40V PCLN R/L 12	8012	1608	5003	3612	4112	0012
	S50W PCLN R/L 12	8012	1608	5003	3612	4112	0012
	S50W PCLN R/L 16	8016	1618	5003	3616	4115	0015
	S50W PCLN R/L 19	8219	1610	5004	3619	4129	0019

A-PCLN 95°

Characteristics:
Boring bars with internal coolant.

Ref.		D	h	h1	L1	L2	f	A	Insert size	Kg
	A16M PCLN R/L 09	16	15	7,5	150	26	11	20	CN.. 0903..	0,200
	A20Q PCLN R/L 09	20	18	9,0	180	29	13	25	CN.. 0903..	0,400
	A25R PCLN R/L 12	25	23	11,5	200	40	17	31	CN.. 1204..	0,700
	A32S PCLN R/L 12	32	30	15,0	250	50	22	39	CN.. 1204..	1,400
	A40T PCLN R/L 12	40	37	18,5	300	60	27	48	CN.. 1204..	2,650

Ref.						
	A16M PCLN R/L 09	8005	1605	5002	-	-	-
	A20Q PCLN R/L 09	8005	1605	5002	-	-	-
	A25R PCLN R/L 12	8212	1626	5025	-	-	-
	A32S PCLN R/L 12	8312	1648	5003	3612	4112	0012
	A40T PCLN R/L 12	8012	1608	5003	3612	4112	0012



Ref.	CN..	l	s	d
	CN.. 0903..	9,65	3,18	9,52
	CN.. 1204..	12,90	4,76	12,70
	CN.. 1606..	16,10	6,35	15,88
	CN.. 1906..	19,30	6,35	19,05

Negative 80° rhombic inserts.

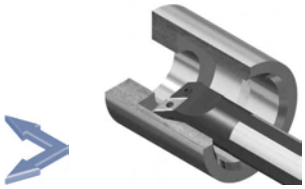
For more information see page: A.18

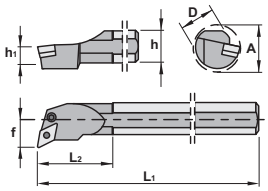
CNMG-CF	CNMG-CM	CNMG-CR	CNMG-CS

CNGP	CNMA	CNMG-CFM	CNMG-CFC	CNMG-CMC	CNMG-CMF	CNMG-CMR	CNMM

Characteristics:
Boring bar for internal turning and profiling applications equipped with rhombic negative inserts (angle 55º) and strong cutting edges.
The lever lock ensures good rigidity and chip flow in roughing applications.
Applications:
Profiling boring bar for general applications, roughing, semi-finishing and finishing.
For low powered machines and small pieces choose boring bars Ref. SDUC (Page: C.34).

Axial: -6º
Radial: -14º





PDUN 93°

Characteristics:
Boring bars with steel shank.

Ref.		D	h	h1	L1	L2	f	A	Insert size	Kg
	S25T PDUN R/L 11	25	23	11,5	300	35	17	32	DN.. 1104..	0,700
	S32U PDUN R/L 11	32	30	15,0	350	40	22	40	DN.. 1104..	2,050
	S32U PDUN R/L 15	32	30	15,0	350	50	22	39	DN.. 1506..	2,050
	S40V PDUN R/L 15	40	37	18,5	400	60	27	48	DN.. 1506..	3,750
	S50W PDUN R/L 15	50	47	23,5	450	65	35	61	DN.. 1506..	6,500

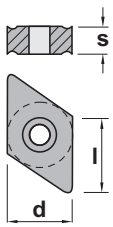
Ref.									
	S25T PDUN R/L 11	8009	1606	5025	3711	4109	0009	-	-
	S32U PDUN R/L 11	8009	1606	5025	3711	4109	0009	-	-
	S32U PDUN R/L 15	8415	1648	5003	3715	4112	0012	3725	4135
	S40V PDUN R/L 15	8415	1638	5003	3715	4112	0012	3725	4135
	S50W PDUN R/L 15	8415	1638	5003	3715	4112	0012	3725	4135
								For DNM.. 1504.. inserts	

A-PDUN 93°

Characteristics:
Boring bars with internal coolant.

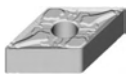
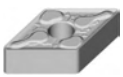
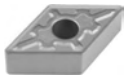
Ref.		D	h	h1	L1	L2	f	A	Insert size	Kg
	A25R PDUN R/L 11	25	23	11,5	200	40	17	31	DN.. 1104..	0,700
	A32S PDUN R/L 15	32	30	15,0	250	50	22	39	DN.. 1506..	1,400
	A40T PDUN R/L 15	40	37	18,5	300	60	27	48	DN.. 1506..	2,650

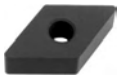
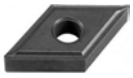
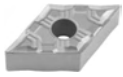
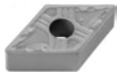
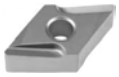
Ref.									
	A25R PDUN R/L 11	8009	1606	5025	3711	4109	0009	-	-
	A32S PDUN R/L 15	8415	1648	5003	3715	4112	0012	3725	4135
	A40T PDUN R/L 15	8415	1638	5003	3715	4112	0012	3725	4135
								For DNM.. 1504.. inserts	



Ref.	DN..	l	s	d
	DN.. 1104..	11,60	4,76	9,52
	DN.. 1504..	15,50	4,76	12,70
	DN.. 1506..	15,50	6,35	12,70

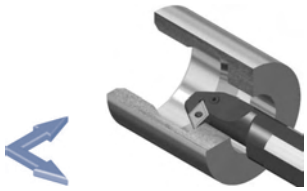
Negative 55° rhombic inserts.
For more information see page: A.22

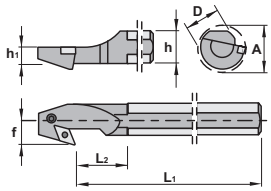
DNMG-CF	DNMG-CM	DNMG-CS	
			

DNGP	DNMA	DNMG-CFC	DNMG-CFM	DNMG-CMC	DNMG-CMF	DNMG-CMR	DNMX
							

Characteristics:
Backwards boring bar for internal turning and profiling applications equipped with rhombic negative inserts (angle 55º) and strong cutting edges.
The lever lock ensures good rigidity and chip flow in roughing applications.
Applications:
Backwards profiling boring bar for general applications, roughing, semi-finishing and finishing.
For low powered machines and small pieces choose boring bars Ref. SDUC-EX (Page: C.36).

Axial: -6º
Radial: -14º

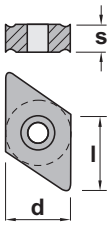




PDUN 93°-EX

Ref.		D	h	h1	L1	L2	f	A	Insert size	Kg
	S32U PDUN R/L 15-EX	32	30	15,0	350	50	22	39	DN.. 1506..	2,050
	S40V PDUN R/L 15-EX	40	37	18,5	400	60	27	48	DN.. 1506..	3,750
	S50W PDUN R/L 15-EX	50	47	23,5	450	65	35	61	DN.. 1506..	6,500

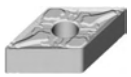
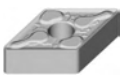
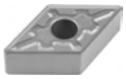
Ref.									
	S32U PDUN R/L 15-EX	8415	1648	5003	-	-	-	-	-
	S40V PDUN R/L 15-EX	8415	1638	5003	3715	4112	0012	3725	4135
	S50W PDUN R/L 15-EX	8415	1638	5003	3715	4112	0012	3725	4135
								For DNM.. 1504.. inserts	

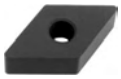
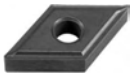
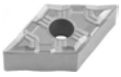
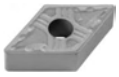
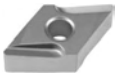


Ref.	DN..	l	s	d
	DN.. 1504..	15,50	4,76	12,70
	DN.. 1506..	15,50	6,35	12,70

Negative 55° rhombic inserts.

For more information see page: A.22

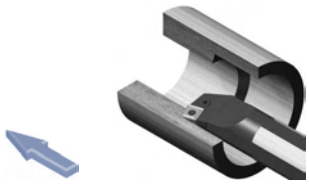
DNMG-CF	DNMG-CM	DNMG-CS	
			

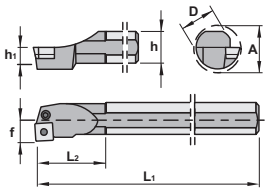
DNGP	DNMA	DNMG-CFC	DNMG-CFM	DNMG-CMC	DNMG-CMF	DNMG-CMR	DNMX
							

Characteristics:
Boring bar for internal turning applications equipped with square negative inserts and strong cutting edges. The lever lock ensures good rigidity and chip flow in roughing applications.
Applications:
Internal boring bar for general applications, roughing, semi-finishing and finishing.

For low powered machines and small pieces choose boring bars Ref. CSKP (Page: C.07) or SSKC (Page: C.40).

Axial: -3º
Radial: -11º





PSKN 75°

Characteristics:
Boring bars with steel shank.

Ref.		D	h	h1	L1	L2	f	A	Insert size	Kg
	S25T PSKN R/L 12	25	23	11,5	300	40	17	31	SNM.. 1204..	0,700
	S32U PSKN R/L 12	32	30	15,0	350	50	22	39	SNM.. 1204..	2,050
	S40V PSKN R/L 12	40	37	18,5	400	60	27	48	SNM.. 1204..	3,750
	S50W PSKN R/L 19	50	47	23,5	450	65	35	61	SNM.. 1906..	6,500

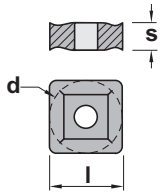
Ref.						
	S25T PSKN R/L 12	8212	1626	5025	-	-	-
	S32U PSKN R/L 12	8312	1648	5003	3512	4112	0012
	S40V PSKN R/L 12	8012	1608	5003	3512	4112	0012
	S50W PSKN R/L 19	8219	1710	5004	3519	4129	0019

A-PSKN 75°

Characteristics:
Boring bars with internal coolant.

Ref.		D	h	h1	L1	L2	f	A	Insert size	Kg
	A25R PSKN R/L 12	25	23	11,5	200	40	17	31	SNM.. 1204..	0,700
	A32S PSKN R/L 12	32	30	15,0	250	50	22	39	SNM.. 1204..	1,400
	A40T PSKN R/L 12	40	37	18,5	300	60	27	48	SNM.. 1204..	2,650

Ref.							
	A25R PSKN R/L 12	8212	1626	5025	-	-	-
	A32S PSKN R/L 12	8312	1648	5003	3512	4112	0012
	A40T PSKN R/L 12	8012	1608	5003	3512	4112	0012



Ref.	SNM..	l	s	d
	SNM.. 1204..	12,70	4,76	12,70
	SNM.. 1906..	19,05	6,35	19,05

Negative square inserts.

For more information see page: A.27

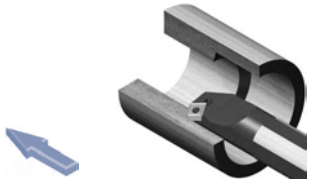
SNMG-CR			
			

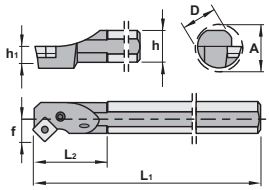
SNMA	SNMG-CFM	SNMG-CMR	SNMM
			

Characteristics:
Boring bar for internal turning applications equipped with square negative inserts and strong cutting edges. The lever lock ensures good rigidity and chip flow in roughing applications.
Applications:
Internal boring bar for general applications, roughing, semi-finishing and finishing.

For low powered machines and small pieces choose boring bars Ref. SSSC (Page: C.41).

Axial: -3º
Radial: -11º



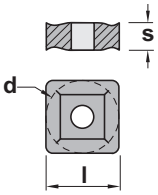


A-PSSN 45°

Characteristics:
Boring bars with internal coolant.

Ref.		D	h	h1	L1	L2	f	A	Insert size	Kg
	A25R PSSN R/L 12	25	23	11,5	200	40	17	31	SNM.. 1204..	0,700
	A32S PSSN R/L 12	32	30	15,0	250	50	22	39	SNM.. 1204..	2,050

Ref.							
	A25R PSSN R/L 12	8212	1626	5025	-	-	-
	A32S PSSN R/L 12	8312	1648	5003	3512	4112	0012



SNM..	l	s	d
Ref. **SNM.. 1204..**	12,70	4,76	12,70

Negative square inserts.

For more information see page: A.27

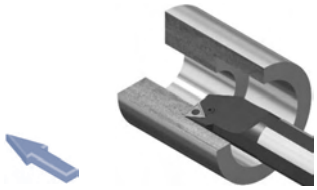
SNMG-CR			
			

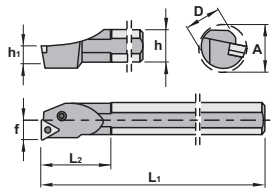
SNMA	SNMG-CFM	SNMG-CMR	SNMM
			

Characteristics:
Boring bar for internal turning applications equipped with triangular negative inserts and strong cutting edges. The lever lock ensures good rigidity and chip flow in roughing applications.
Applications:
Internal boring bar for general applications, roughing, semi-finishing and finishing.

For low powered machines and small pieces choose boring bars Ref. CTFP (Page: C.08) or STFC (Page: C.42).

Axial: -6º
Radial: -11º





PTFN 90°

Characteristics:
Boring bars with steel shank.

Ref.		D	h	h1	L1	L2	f	A	Insert size	Kg
	S25T PTFN R/L 16	25	23	11,5	300	40	17	31	TNM.. 1604..	0,700
	S32U PTFN R/L 16	32	30	15,0	350	50	22	39	TNM.. 1604..	2,050
	S40V PTFN R/L 22	40	37	18,5	400	60	27	48	TNM.. 2204..	3,750
	S50W PTFN R/L 22	50	47	23,5	450	65	35	61	TNM.. 2204..	6,500

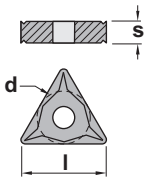
Ref.						
	S25T PTFN R/L 16	8216	1605	5002	-	-	-
	S32U PTFN R/L 16	8009	1606	5025	3416	4109	0009
	S40V PTFN R/L 22	8012	1608	5003	3422	4112	0012
	S50W PTFN R/L 22	8012	1608	5003	3422	4112	0012

A-PTFN 90°

Characteristics:
Boring bars with internal coolant.

Ref.		D	h	h1	L1	L2	f	A	Insert size	Kg
	A25R PTFN R/L 16	25	23	11,5	200	40	17	31	TNM.. 1604..	0,700
	A32S PTFN R/L 16	32	30	15,0	250	50	22	39	TNM.. 1604..	1,400
	A40T PTFN R/L 22	40	37	18,5	300	60	27	48	TNM.. 2204..	2,650

Ref.						
	A25R PTFN R/L 16	8216	1605	5002	-	-	-
	A32S PTFN R/L 16	8009	1606	5025	3416	4109	0009
	A40T PTFN R/L 22	8012	1608	5003	3422	4112	0012



Ref.	TNM..	l	s	d
	TNM.. 1604..	16,50	4,76	9,52
	TNM.. 2204..	22,00	4,76	12,70

Negative triangular inserts.

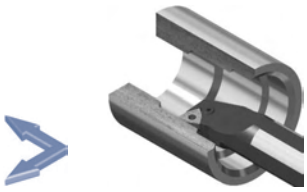
For more information see page: A.29

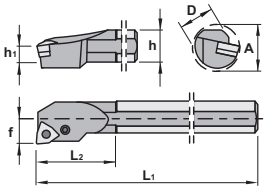
TNMG-CF	TNMG-CM	TNMG-CS

TNMA	TNMG-CFC	TNMG-CFM	TNMG-CMC	TNMG-CMF	TNMG-CMR	TNMX

Characteristics:
Boring bar for internal turning applications equipped with trigon negative inserts (angle 80º) and strong cutting edges.
The lever lock ensures good rigidity and chip flow in roughing applications.
Applications:
Internal boring bar for general applications, roughing, semi-finishing and finishing.

Axial: -6º
Radial: -13.5º



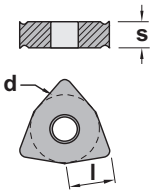


PWLN 95°

Characteristics:
Boring bars with steel shank.

Ref.		D	h	h1	L1	L2	f	A	Insert size	Kg
	S16R PWLN R/L 06	16	15	7,5	200	24	11	20	WNM.. 0604..	0,300
	S20S PWLN R/L 06	20	18	9,0	250	36	13	27	WNM.. 0604..	0,550
	S25T PWLN R/L 06	25	23	11,5	300	40	17	31	WNM.. 0604..	0,700
	S25T PWLN R/L 08	25	23	11,5	300	40	17	31	WNM.. 0804..	0,700
	S32U PWLN R/L 08	32	30	15,0	350	50	22	39	WNM.. 0804..	2,050
	S40V PWLN R/L 08	40	37	18,5	400	60	27	48	WNM.. 0804..	3,750

Ref.							
	S16R PWLN R/L 06	8216	1605	5002	-	-	-
	S20S PWLN R/L 06	8216	1605	5002	-	-	-
	S25T PWLN R/L 06	8009	1606	5025	3007	4109	0009
	S25T PWLN R/L 08	8312	1648	5003	-	-	-
	S32U PWLN R/L 08	8012	1608	5003	3008	4112	0012
	S40V PWLN R/L 08	8012	1608	5003	3008	4112	0012



Ref.	WNM..	l	s	d
	WNM.. 0604..	6,45	4,76	9,52
	WNM.. 0804..	8,14	4,76	12,70

Negative 80° trigon inserts.

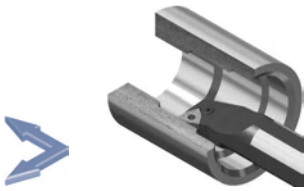
For more information see page: A.34

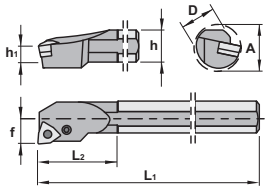
WNMG-CF	WNMG-CM	WNMG-CS	
			

WNMA	WNMG-CFM	WNMG-CMC	WNMG-CMF	WNMG-CMR			
							

Characteristics:
Boring bar for internal turning applications equipped with trigon negative inserts (angle 80º) and strong cutting edges.
The lever lock ensures good rigidity and chip flow in roughing applications.
Applications:
Internal boring bar for general applications, roughing, semi-finishing and finishing.

Axial: -6º
Radial: -13.5º



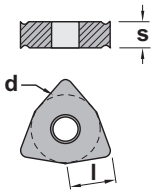


A-PWLN 95°

Characteristics:
Boring bars with internal coolant.

Ref.		D	h	h1	L1	L2	f	A	Insert size	Kg
	A16M PWLN R/L 06	16	15	7,5	150	24	11	20	WNM.. 0604..	0,200
	A20Q PWLN R/L 06	20	18	9,0	180	36	13	27	WNM.. 0604..	0,400
	A25R PWLN R/L 06	25	23	11,5	200	40	17	31	WNM.. 0604..	0,700
	A32S PWLN R/L 06	32	30	15,0	250	50	22	39	WNM.. 0604..	1,400
	A25R PWLN R/L 08	25	23	11,5	200	40	17	31	WNM.. 0804..	0,700
	A32S PWLN R/L 08	32	30	15,0	250	50	22	39	WNM.. 0804..	1,400
	A40T PWLN R/L 08	40	37	18,5	300	60	27	48	WNM.. 0804..	2,650

Ref.							
	A16M PWLN R/L 06	8216	1605	5002	-	-	-
	A20Q PWLN R/L 06	8216	1605	5002	-	-	-
	A25R PWLN R/L 06	8009	1606	5025	3007	4109	0009
	A32S PWLN R/L 06	8009	1606	5025	3007	4109	0009
	A25R PWLN R/L 08	8312	1648	5003	-	-	-
	A32S PWLN R/L 08	8012	1608	5003	3008	4112	0012
	A40T PWLN R/L 08	8012	1608	5003	3008	4112	0012



Ref.	WNM..	l	s	d
	WNM.. 0604..	6,45	4,76	9,52
	WNM.. 0804..	8,14	4,76	12,70

Negative 80° trigon inserts.

For more information see page: A.34

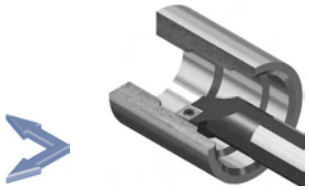
WNMG-CF	WNMG-CM	WNMG-CS	
			

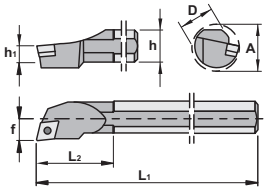
WNMA	WNMG-CFM	WNMG-CMC	WNMG-CMF	WNMG-CMR			
							

Characteristics:
Multipurpose boring bar equipped with rhombic positive insert (angle 80º).
The center screw ensures good rigidity and chip flow.
Applications:
Internal boring bar for general applications, roughing, semi-finishing and finishing.

Negative inserts boring bars Ref. MCLN-K (Page: C.12) or PCLN (Page: C.22).

Axial: 0º
Radial: -6º



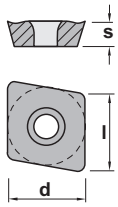


SCLC 95°

Characteristics:
Boring bars with steel shank.

Ref.		D	h	h1	L1	L2	f	A	Insert size	Kg
	S08K SCLC R/L 06	8	7	3,5	125	16	5	11	CC.. 0602..	0,040
	S10M SCLC R/L 06	10	9	4,5	150	25	7	13	CC.. 0602..	0,060
	S12M SCLC R/L 06	12	11	5,5	150	25	9	16	CC.. 0602..	0,150
	S12M SCLC R/L 09	12	11	5,5	150	25	9	16	CC.. 09T3..	0,150
	S12Q SCLC R/L 09	12	11	5,5	180	25	9	16	CC.. 09T3..	0,150
	S16R SCLC R/L 09	16	15	7,5	200	30	11	20	CC.. 09T3..	0,300
	S20S SCLC R/L 09	20	18	9,0	250	35	13	24	CC.. 09T3..	0,550
	S25T SCLC R7L 09	25	23	11,5	300	40	17	31	CC.. 09T3..	0,550
	S20S SCLC R/L 12	20	18	9,0	250	35	13	24	CC.. 1204..	0,550
	S25T SCLC R/L 12	25	23	11,5	300	40	17	31	CC.. 1204..	0,700
	S32U SCLC R/L 12	32	30	15,0	350	50	22	39	CC.. 1204..	2,050
	S40V SCLC R/L 12	40	37	18,5	400	60	27	48	CC.. 1204..	3,750
	S50W SCLC R/L 12	50	47	23,5	450	65	35	61	CC.. 1204..	6,500

Ref.					
	S08K SCLC R/L 06	1425	5507	-	-
	S10M SCLC R/L 06	1425	5507	-	-
	S12M SCLC R/L 06	1425	5507	-	-
	S12M SCLC R/L 09	1440	5515	-	-
	S12Q SCLC R/L 09	1440	5515	-	-
	S16R SCLC R/L 09	1440	5515	-	-
	S20S SCLC R/L 09	1440	5515	-	-
	S25T SCLC R7L 09	1440	5515	-	-
	S20S SCLC R/L 12	1250	5520	-	-
	S25T SCLC R/L 12	1250	5520	-	-
	S32U SCLC R/L 12	1540	5517	3614	1760
	S40V SCLC R/L 12	1540	5517	3614	1760
	S50W SCLC R/L 12	1540	5517	3614	1760



Ref.	CC..	l	s	d
	CC.. 0602..	6,45	2,38	6,35
	CC.. 09T3..	9,65	3,97	9,52
	CC.. 1204..	12,90	4,76	12,70

Positive 7° clearance - 80° rhombic inserts.

For more information see page: A.18

CCGT-AL	CCGT-AP	CCMT-03	CCMW			
						

Characteristics:
Boring bars with internal coolant.

A-SCLC 95°

Ref.		D	h	h1	L1	L2	f	A	Insert size	Kg
	A08F SCLC R/L 06	8	7	3,5	80	16	5	11	CC.. 0602..	0,030
	A10H SCLC R/L 06	10	9	4,5	100	25	7	13	CC.. 0602..	0,040
	A12K SCLC R/L 06	12	11	5,5	125	25	9	16	CC.. 0602..	0,100
	A16M SCLC R/L 09	16	15	7,5	150	30	11	20	CC.. 09T3..	0,200
	A20Q SCLC R/L 09	20	18	9,0	180	35	13	24	CC.. 09T3..	0,400
	A25R SCLC R/L 09	25	23	11,5	200	40	17	31	CC.. 09T3..	0,700
	A32S SCLC R/L 12	32	30	15,0	250	50	22	39	CC.. 1204..	1,400
	A40T SCLC R/L 12	40	37	18,5	300	60	27	48	CC.. 1204..	2,650

Ref.					
	A08F SCLC R/L 06	1425	5507	-	-
	A10H SCLC R/L 06	1425	5507	-	-
	A12K SCLC R/L 06	1425	5507	-	-
	A16M SCLC R/L 09	1440	5515	-	-
	A20Q SCLC R/L 09	1440	5515	-	-
	A25R SCLC R/L 09	1440	5515	-	-
	A32S SCLC R/L 12	1540	5517	3614	1760
	A40T SCLC R/L 12	1540	5517	3614	1760

Characteristics:
Boring bars with anti-vibration shank.

H-SCLC 95°

Ref.		D	h	h1	L1	L2	f	A	Insert size	Kg
	H08K SCLC R/L 06	8	7	3,5	125	16	5	11	CC.. 0602..	0,100
	H10M SCLC R/L 06	10	9	4,5	150	25	7	13	CC.. 0602..	0,200
	H12M SCLC R/L 06	12	11	5,5	150	25	9	16	CC.. 0602..	0,300
	H16R SCLC R/L 09	16	15	7,5	200	30	11	20	CC.. 09T3..	0,650

Ref.			
	H08K SCLC R/L 06	1425	5507
	H10M SCLC R/L 06	1425	5507
	H12M SCLC R/L 06	1425	5507
	H16R SCLC R/L 09	1440	5515

Characteristics:
Boring bars with internal coolant and anti-vibration shank.

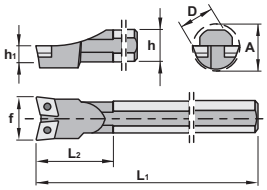
J-SCLC 95°

Ref.		D	h	h1	L1	L2	f	A	Insert size	Kg
	J08K SCLC R/L 06	8	7	3,5	125	16	5	11	CC.. 0602..	0,080
	J10M SCLC R/L 06	10	9	4,5	150	25	7	13	CC.. 0602..	0,150
	J12M SCLC R/L 06	12	11	5,5	150	25	9	16	CC.. 0602..	0,250
	J16R SCLC R/L 09	16	15	7,5	200	30	11	20	CC.. 09T3..	0,600

Ref.			
	J08K SCLC R/L 06	1425	5507
	J10M SCLC R/L 06	1425	5507
	J12M SCLC R/L 06	1425	5507
	J16R SCLC R/L 09	1440	5515

Characteristics:
Multipurpose internal and external boring bar equipped with rhombic positive insert (angle 80º).
The center screw ensures good rigidity and chip flow.
Applications:
Internal boring bar for general applications, roughing, semi-finishing and finishing.

Axial: 0º
Radial: -9º

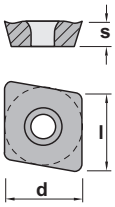


SCLCN 95°

Characteristics:
Boring bars with steel shank.

Ref.		D	h	h1	L1	L2	f	A	Insert size	Kg
	S12M SCLC N 06	12	11	5,5	150	25	18	20	CC.. 0602..	0,150
	S16R SCLC N 06	16	15	7,5	200	30	22	25	CC.. 0602..	0,300
	S20S SCLC N 06	20	18	9,0	250	35	26	30	CC.. 0602..	0,550
	S25T SCLC N 09	25	23	11,5	300	40	34	40	CC.. 09T3..	0,700
	S32U SCLC N 12	32	30	15,0	350	50	44	50	CC.. 1204..	2,050
	S40V SCLC N 12	40	37	18,5	400	60	54	60	CC.. 1204..	3,750
	S50W SCLC N 12	50	47	23,5	450	65	62	68	CC.. 1204..	6,500

Ref.					
	S12M SCLC N 06	1425	5507	-	-
	S16R SCLC N 06	1225	5507	-	-
	S20S SCLC N 06	1225	5507	-	-
	S25T SCLC N 09	1440	5515	-	-
	S32U SCLC N 12	1540	5517	3614	1760
	S40V SCLC N 12	1540	5517	3614	1760
	S50W SCLC N 12	1540	5517	3614	1760



Ref.	CC..	l	s	d
	CC.. 0602..	6,45	2,38	6,35
	CC.. 09T3..	9,65	3,97	9,52
	CC.. 1204..	12,90	4,76	12,70

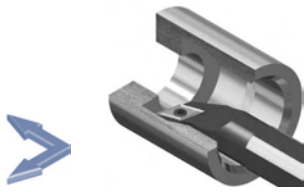
Positive 7° clearance - 80° rhombic inserts.

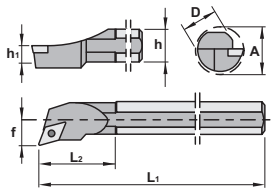
For more information see page: A.18

CCGT-AL	CCGT-AP	CCMT-03	CCMW			
						

Characteristics:
Multipurpose profiling boring bar equipped with rhombic positive insert (angle 55º).
The center screw ensures good rigidity and chip flow.
Applications:
Profiling boring bar for general applications, roughing, semi-finishing and finishing.

Axial: 0º
Radial: -6º





SDQC 107°30'

Characteristics:
Boring bars with steel shank.

Ref.		D	h	h1	L1	L2	f	A	Insert size	Kg
	S10M SDQC R/L 07	10	9	4,5	150	25	7	13	DC.. 0702..	0,060
	S12M SDQC R/L 07	12	11	5,5	150	25	9	16	DC.. 0702..	0,150
	S16R SDQC R/L 07	16	15	7,5	200	30	11	20	DC.. 0702..	0,300
	S20S SDQC R/L 07	20	18	9,0	250	35	13	24	DC.. 11T3..	0,550
	S20S SDQC R/L 11	20	18	9,0	250	35	13	24	DC.. 11T3..	0,550
	S25T SDQC R/L 11	25	23	11,5	300	40	17	31	DC.. 11T3..	0,700
	S32U SDQC R/L 11	32	30	15,0	350	50	22	39	DC.. 11T3..	2,050
	S40V SDQC R/L 11	40	37	18,5	400	60	27	48	DC.. 11T3..	3,750

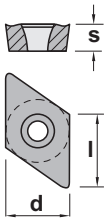
Ref.					
	S10M SDQC R/L 07	1425	5507	-	-
	S12M SDQC R/L 07	1225	5507	-	-
	S16R SDQC R/L 07	1225	5507	-	-
	S20S SDQC R/L 07	1225	5507	-	-
	S20S SDQC R/L 11	1240	5515	-	-
	S25T SDQC R/L 11	1240	5515	-	-
	S32U SDQC R/L 11	1335	5516	3714	1750
	S40V SDQC R/L 11	1335	5516	3714	1750

A-SDQC 107°30'

Characteristics:
Boring bars with internal coolant.

Ref.		D	h	h1	L1	L2	f	A	Insert size	Kg
	A12K SDQC R/L 07	12	11	5,5	125	25	9	16	DC.. 0702..	0,100
	A16M SDQC R/L 07	16	15	7,5	150	30	11	20	DC.. 0702..	0,200
	A20Q SDQC R/L 11	20	18	9,0	180	35	13	24	DC.. 11T3..	0,400
	A25R SDQC R/L 11	25	23	11,5	200	40	17	31	DC.. 11T3..	0,700
	A32S SDQC R/L 11	32	30	15,0	250	50	22	39	DC.. 11T3..	1,400
	A40T SDQC R/L 11	40	37	18,5	300	60	27	48	DC.. 11T3..	2,650

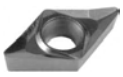
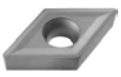
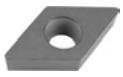
Ref.					
	A12K SDQC R/L 07	1225	5507	-	-
	A16M SDQC R/L 07	1225	5507	-	-
	A20Q SDQC R/L 11	1240	5515	-	-
	A25R SDQC R/L 11	1240	5515	-	-
	A32S SDQC R/L 11	1335	5516	3714	1750
	A40T SDQC R/L 11	1335	5516	3714	1750



Ref.	DC..	l	s	d
	DC.. 0702..	7,75	2,38	6,35
	DC.. 11T3..	11,60	3,97	9,52

Positive 7° clearance - 55° rhombic inserts.

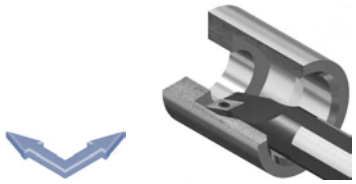
For more information see page: A.21

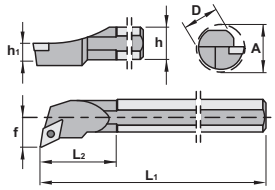
DCGT-AL	DCGT-AP	DCMT-03	DCMW			
						

Characteristics:
Multipurpose profiling boring bar equipped with rhombic positive insert (angle 55º).
The center screw ensures good rigidity and chip flow.
Applications:
Profiling boring bar for general applications, roughing, semi-finishing and finishing.

Negative inserts boring bars Ref. MDUN-K (Page: C.13) or PDUN (Page: C.23).

Axial: 0º
Radial: -6º



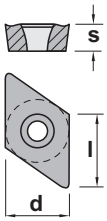


SDUC 93°

Characteristics:
Boring bars with steel shank.

Ref.		D	h	h1	L1	L2	f	A	Insert size	Kg
	S10M SDUC R/L 07	10	9	4,5	150	25	7	13	DC.. 0702..	0,060
	S12M SDUC R/L 07	12	11	5,5	150	25	9	16	DC.. 0702..	0,150
	S12Q SDUC R/L 07	12	11	5,5	180	25	9	16	DC.. 0702..	0,150
	S16R SDUC R/L 07	16	15	7,5	200	30	11	20	DC.. 0702..	0,300
	S20S SDUC R/L 07	20	18	9,0	250	35	13	24	DC.. 0702..	0,550
	S20S SDUC R/L 11	20	18	9,0	250	35	13	24	DC.. 11T3..	0,550
	S25T SDUC R/L 11	25	23	11,5	300	40	17	31	DC.. 11T3..	0,700
	S32U SDUC R/L 11	32	30	15,0	350	50	22	39	DC.. 11T3..	2,050
	S40V SDUC R/L 11	40	37	18,5	400	60	27	48	DC.. 11T3..	3,750

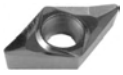
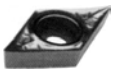
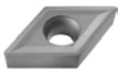
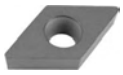
Ref.					
	S10M SDUC R/L 07	1425	5507	-	-
	S12M SDUC R/L 07	1225	5507	-	-
	S12Q SDUC R/L 07	1225	5507	-	-
	S16R SDUC R/L 07	1225	5507	-	-
	S20S SDUC R/L 07	1225	5507	-	-
	S20S SDUC R/L 11	1240	5515	-	-
	S25T SDUC R/L 11	1240	5515	-	-
	S32U SDUC R/L 11	1335	5516	3714	1750
	S40V SDUC R/L 11	1335	5516	3714	1750



Ref.	DC..	l	s	d
	DC.. 0702..	7,75	2,38	6,35
	DC.. 11T3..	11,60	3,97	9,52

Positive 7° clearance - 55° rhombic inserts.

For more information see page: A.21

DCGT-AL	DCGT-AP	DCMT-03	DCMW			
						

Characteristics:
Boring bars with internal coolant.

A-SDUC 93°

Ref.		D	h	h1	L1	L2	f	A	Insert size	Kg
	A12K SDUC R/L 07	12	11	5,5	125	25	9	16	DC.. 0702..	0,100
	A16M SDUC R/L 07	16	15	7,5	150	30	11	20	DC.. 0702..	0,200
	A20Q SDUC R/L 11	20	18	9,0	180	35	13	24	DC.. 11T3..	0,400
	A25R SDUC R/L 11	25	23	11,5	200	40	17	31	DC.. 11T3..	0,700
	A32S SDUC R/L 11	32	30	15,0	250	50	22	39	DC.. 11T3..	1,400
	A40T SDUC R/L 11	40	37	18,5	300	60	27	48	DC.. 11T3..	2,650

Ref.					
	A12K SDUC R/L 07	1225	5507	-	-
	A16M SDUC R/L 07	1225	5507	-	-
	A20Q SDUC R/L 11	1240	5515	-	-
	A25R SDUC R/L 11	1240	5515	-	-
	A32S SDUC R/L 11	1335	5516	3714	1750
	A40T SDUC R/L 11	1335	5516	3714	1750

Characteristics:
Boring bars with anti-vibration shank.

H-SDUC 93°

Ref.		D	h	h1	L1	L2	f	A	Insert size	Kg
	H10M SDUC R/L 07	10	9	4,5	150	25	7	13	DC.. 0702..	0,200
	H12M SDUC R/L 07	12	11	5,5	150	25	9	16	DC.. 0702..	0,300
	H16R SDUC R/L 07	16	15	7,5	200	30	11	20	DC.. 0702..	0,650

Ref.			
	H10M SDUC R/L 07	1425	5507
	H12M SDUC R/L 07	1225	5507
	H16R SDUC R/L 07	1225	5507

Characteristics:
Boring bars with internal coolant and anti-vibration shank.

J-SDUC 93°

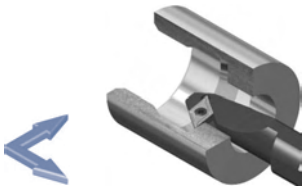
Ref.		D	h	h1	L1	L2	f	A	Insert size	Kg
	J10M SDUC R/L 07	10	9	4,5	150	25	7	13	DC.. 0702..	0,150
	J12M SDUC R/L 07	12	11	5,5	150	25	9	16	DC.. 0702..	0,250
	J16R SDUC R/L 07	16	15	7,5	200	30	11	20	DC.. 0702..	0,600

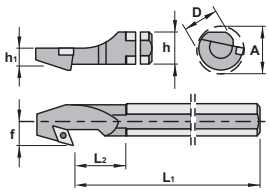
Ref.			
	J10M SDUC R/L 07	1425	5507
	J12M SDUC R/L 07	1225	5507
	J16R SDUC R/L 07	1225	5507

Characteristics:
Backwards Multipurpose profiling boring bar equipped with rhombic positive insert (angle 55º).
The center screw ensures good rigidity and chip flow.
Applications:
Backwards profiling boring bar for general applications, roughing, semi-finishing and finishing.

Negative inserts boring bars Ref. PDUN-EX (Page: C.24).

Axial: 0º
Radial: -6º



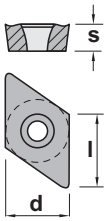


SDUC 93°-EX

Characteristics:
Boring bars with steel shank.

Ref.		D	h	h1	L1	L2	f	A	Insert size	Kg
	S12M SDUC R/L 07-EX	12	11	5,5	150	25	9	16	DC.. 0702..	0,150
	S16R SDUC R/L 07-EX	16	15	7,5	200	30	11	20	DC.. 0702..	0,300
	S20S SDUC R/L 07-EX	20	18	9,0	250	35	13	24	DC.. 0702..	0,550
	S20S SDUC R/L 11-EX	20	18	9,0	250	35	13	24	DC.. 11T3..	0,550
	S25T SDUC R/L 11-EX	25	23	11,5	300	40	17	31	DC.. 11T3..	0,700
	S32U SDUC R/L 11-EX	32	30	15,0	350	50	22	39	DC.. 11T3..	2,050
	S40V SDUC R/L 11-EX	40	37	18,5	400	60	27	48	DC.. 11T3..	3,750

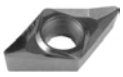
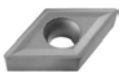
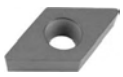
Ref.					
	S12M SDUC R/L 07-EX	1225	5507	-	-
	S16R SDUC R/L 07-EX	1225	5507	-	-
	S20S SDUC R/L 07-EX	1225	5507	-	-
	S20S SDUC R/L 11-EX	1440	5515	-	-
	S25T SDUC R/L 11-EX	1240	5515	-	-
	S32U SDUC R/L 11-EX	1335	5516	3714	1750
	S40V SDUC R/L 11-EX	1335	5516	3714	1750



Ref.	DC..	l	s	d
	DC.. 0702..	7,75	2,38	6,35
	DC.. 11T3..	11,60	3,97	9,52

Positive 7° clearance - 55° rhombic inserts.

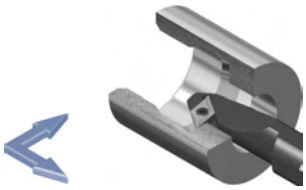
For more information see page: A.21

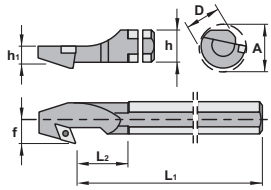
DCGT-AL	DCGT-AP	DCMT-03	DCMW			
						

Characteristics:
Backwards Multipurpose profiling boring bar equipped with rhombic positive insert (angle 55º).
The center screw ensures good rigidity and chip flow.
Applications:
Backwards profiling boring bar for general applications, roughing, semi-finishing and finishing.

Negative inserts boring bars Ref. PDUN-EX (Page: C.24).

Axial: 0º
Radial: -6º



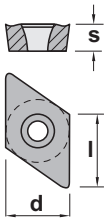


A-SDUC 93°-EX

Characteristics:
Boring bars with internal coolant.

		D	h	h1	L1	L2	f	A	Insert size	Kg
Ref.	A12K SDUC R/L 07-EX	12	11	5,5	125	25	9	16	DC.. 0702..	0,100
	A16M SDUC R/L 07-EX	16	15	7,5	150	30	11	20	DC.. 0702..	0,200
	A20Q SDUC R7L 11-EX	20	18	9,0	180	35	13	24	DC.. 11T3..	0,400
	A25R SDUC R/L 11-EX	25	23	11,5	200	40	17	31	DC.. 11T3..	0,700

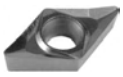
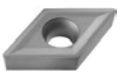
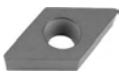
			
Ref.	A12K SDUC R/L 07-EX	1225	5507
	A16M SDUC R/L 07-EX	1225	5507
	A20Q SDUC R7L 11-EX	1440	5515
	A25R SDUC R/L 11-EX	1240	5515



	DC..	l	s	d
Ref.	DC.. 0702..	7,75	2,38	6,35
	DC.. 11T3..	11,60	3,97	9,52

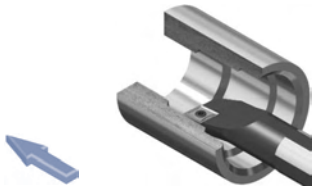
Positive 7° clearance - 55° rhombic inserts.

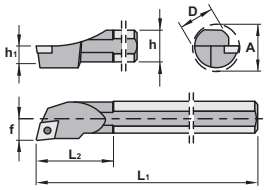
For more information see page: A.21

DCGT-AL	DCGT-AP	DCMT-03	DCMW			
						

Characteristics:
Multipurpose boring bar equipped with rhombic positive insert (angle 75º).
The center screw ensures good rigidity and chip flow.
Applications:
Internal boring bar for general applications, roughing, semi-finishing and finishing.

Axial: 0º
Radial: -7º



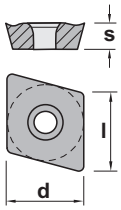


SELC 97°30'

Characteristics:
Boring bars with steel shank.

Ref.		D	h	h1	L1	L2	f	A	Insert size	Kg
	S08K SELC R/L 06	8	7	3,5	125	16	5	11	ECMT 0602..	0,040
	S10M SELC R/L 06	10	9	4,5	150	25	7	13	ECMT 0602..	0,060
	S12M SELC R/L 08	12	11	5,5	150	25	9	16	ECMT 0803..	0,150
	S16R SELC R/L 08	16	15	7,5	200	30	11	20	ECMT 0803..	0,300
	S20S SELC R/L 08	20	18	9,0	250	35	13	24	ECMT 0803..	0,550

Ref.			
	S08K SELC R/L 06	1425	5507
	S10M SELC R/L 06	1425	5507
	S12M SELC R/L 08	1430	5508
	S16R SELC R/L 08	1430	5508
	S20S SELC R/L 08	1230	5508



Ref.	ECMT	l	s	d
	ECMT 0602..	6,57	2,38	6,35
	ECMT 0803..	8,20	3,18	7,93

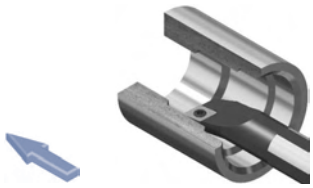
Positive 7° clearance - 75° Rhombic inserts

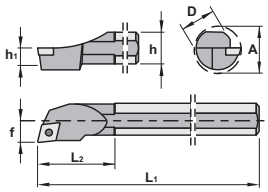
For more information see page: A.24

ECMT						
						

Characteristics:
Multipurpose boring bar equipped with rhombic positive insert (angle 75º).
The center screw ensures good rigidity and chip flow.
Applications:
Internal boring bar for general applications, roughing, semi-finishing and finishing.

Axial: 0º
Radial: -5º



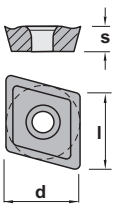


SELP 97°30'

Characteristics:
Boring bars with steel shank.

		D	h	h1	L1	L2	f	A	Insert size	Kg
Ref.	S08K SELP R/L 04	8	7	3,5	125	16	5	11	EPM.. 0402..	0,040
	S10M SELP R/L 08	10	9	4,5	150	25	7	13	EPM.. 0803..	0,060
	S12M SELP R/L 08	12	11	5,5	150	25	9	16	EPM.. 0803..	0,150
	S16R SELP R/L 08	16	15	7,5	200	30	11	20	EPM.. 0803..	0,300

			
Ref.	S08K SELP R/L 04	1220	5506
	S10M SELP R/L 08	1140	5515
	S12M SELP R/L 08	1140	5515
	S16R SELP R/L 08	1140	5515



	EPM..	l	s	d
Ref.	EPM.. 0402..	4,92	2,38	4,76
	EPM.. 0803..	8,28	3,00	8,00

Positive 11° clearance - 75° Rhombic inserts

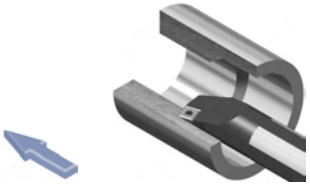
For more information see page: A.24

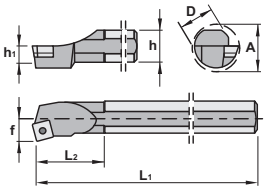
EPMT	EPMW	EPMX				
						

Characteristics:
Multipurpose boring bar equipped with square positive insert.
The center screw ensures good rigidity and chip flow.
Applications:
Internal boring bar for general applications, roughing, semi-finishing and finishing.

Negative inserts boring bars Ref. MSKN-K (Page: C.14) or PSKN (Page: C.25).

Axial: 0º
Radial: -8º



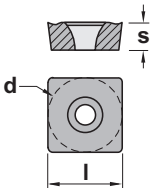


SSKC 75°

Characteristics:
Boring bars with steel shank.

Ref.		D	h	h1	L1	L2	f	A	Insert size	Kg
	S16R SSKC R/L 09	16	15	7,5	200	30	11	20	SC.. 09T3..	0,300
	S20S SSKC R/L 09	20	18	9,0	250	35	13	24	SC.. 09T3..	0,550
	S25T SSKC R/L 09	25	23	11,5	300	40	17	31	SC.. 09T3..	0,700
	S32U SSKC R/L 12	32	30	15,0	350	50	22	39	SC.. 1204..	2,050
	S40V SSKC R/L 12	40	37	18,5	400	60	27	48	SC.. 1204..	3,750
	S50W SSKC R/L 12	50	47	23,5	450	65	35	61	SC.. 1204..	6,500

Ref.					
	S16R SSKC R/L 09	1440	5515	-	-
	S20S SSKC R/L 09	1240	5515	-	-
	S25T SSKC R/L 09	1240	5515		
				-	-
	S32U SSKC R/L 12	1540	5517	3514	1760
	S40V SSKC R/L 12	1540	5517	3514	1760
	S50W SSKC R/L 12	1540	5517	3514	1760



Ref.	SC..	l	s	d
	SC.. 09T3..	9,52	3,97	9,52
	SC.. 1204..	12,70	4,76	12,70

Positive 7° clearance - Square inserts

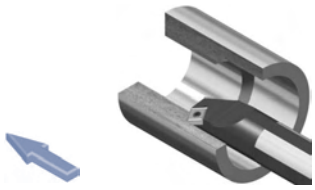
For more information see page: A.26

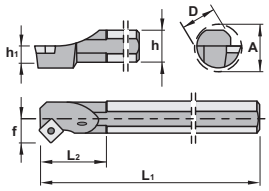
SCGT-AL	SCMT-03	SCMT-39	SCMW			
						

Characteristics:
Multipurpose boring bar equipped with square positive insert.
The center screw ensures good rigidity and chip flow.
Applications:
Internal boring bar for general applications, roughing, semi-finishing and finishing.

Negative inserts boring bars Ref. PSSN (Page: C.26).

Axial: 0º
Radial: -8º



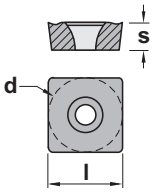


A-SSSC 45°

Characteristics:
Boring bars with internal coolant.

Ref.		D	h	h1	L1	L2	f	A	Insert size	Kg
	A16M SSSC R/L 09	16	15	7,5	150	30	11	20	SC.. 09T3..	0,300
	A20Q SSSC R/L 09	20	18	9,0	180	35	13	24	SC.. 09T3..	0,550
	A25R SSSC R/L 09	25	23	11,5	200	40	17	31	SC.. 09T3..	0,700

Ref.			
	A16M SSSC R/L 09	1440	5515
	A20Q SSSC R/L 09	1440	5515
	A25R SSSC R/L 09	1440	5515



	SC..	l	s	d
Ref.	SC.. 09T3..	9,52	3,97	9,52

Positive 7° clearance - Square inserts

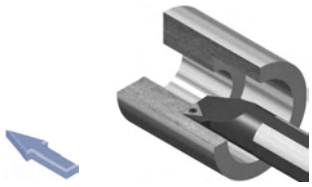
For more information see page: A.26

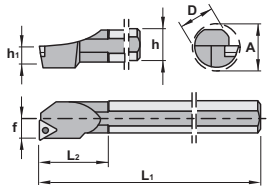
SCGT-AL	SCMT-03	SCMT-39	SCMW			
						

Characteristics:
Multipurpose boring bar equipped with triangular positive insert.
The center screw ensures good rigidity and chip flow.
Applications:
Internal boring bar for general applications, roughing, semi-finishing and finishing.

Negative inserts boring bars Ref. MTFN (Page: C.15), MTFN-K (Page: C.16) or PTFN (Page: C.27).

Axial: 0º
Radial: -6º



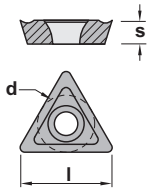


STFC 90°

Characteristics:
Boring bars with steel shank.

Ref.		D	h	h1	L1	L2	f	A	Insert size	Kg
	S10M STFC R/L 09	10	9	4,5	150	25	7	13	TC.. 0902..	0,060
	S12M STFC R/L 09	12	11	5,5	150	25	9	16	TC.. 0902..	0,150
	S12M STFC R/L 11	12	11	5,5	150	25	9	16	TC.. 1102..	0,150
	S12Q STFC R/L 11	12	11	5,5	180	25	9	16	TC.. 1102..	0,050
	S16R STFC R/L 11	16	15	7,5	200	30	11	20	TC.. 1102..	0,300
	S20S STFC R/L 11	20	18	9,0	250	35	13	24	TC.. 1102..	0,550
	S20S STFC R/L 16	20	18	9,0	250	35	13	24	TC.. 16T3..	0,550
	S25T STFC R/L 16	25	23	11,5	300	40	17	31	TC.. 16T3..	0,700
	S32U STFC R/L 16	32	30	15,0	350	50	22	39	TC.. 16T3..	2,050
	S40V STFC R/L 16	40	37	18,5	400	60	27	48	TC.. 16T3..	3,750

Ref.					
	S10M STFC R/L 09	1222	5506	-	-
	S12M STFC R/L 09	1222	5506	-	-
	S12M STFC R/L 11	1225	5507	-	-
	S12Q STFC R/L 11	1225	5507	-	-
	S16R STFC R/L 11	1225	5507	-	-
	S20S STFC R/L 11	1225	5507	-	-
	S20S STFC R/L 16	1240	5515	-	-
	S25T STFC R/L 16	1240	5515	-	-
	S32U STFC R/L 16	1335	5516	3414	1750
	S40V STFC R/L 16	1335	5516	3414	1750



Ref.	TC..	l	s	d
	TC.. 0902..	9,62	2,38	5,55
	TC.. 1102..	11,00	2,38	6,35
	TC.. 16T3..	16,50	3,97	9,52

Positive 7° clearance - Triangular inserts.

For more information see page: A.28

TCGT-AL	TCMT-03	TCMW				
						

Characteristics:
Boring bars with internal coolant.

A-STFC 90°

Ref.		D	h	h1	L1	L2	f	A	Insert size	Kg
	A10H STFC R/L 09	10	9	4,5	100	25	7	13	TC.. 0902..	0,040
	A12K STFC R/L 11	12	11	5,5	125	25	9	16	TC.. 1102..	0,100
	A16M STFC R/L 11	16	15	7,5	150	30	11	20	TC.. 1102..	0,200
	A20Q STFC R/L 11	20	18	9,0	180	35	13	24	TC.. 1102..	0,400
	A25R STFC R/L 16	25	23	11,5	200	40	17	31	TC.. 16T3..	0,700
	A32S STFC R/L 16	32	30	15,0	250	50	22	39	TC.. 16T3..	1,400
	A40T STFC R/L 16	40	37	18,5	300	60	27	48	TC.. 16T3..	2,650

Ref.					
	A10H STFC R/L 09	1222	5506	-	-
	A12K STFC R/L 11	1225	5507	-	-
	A16M STFC R/L 11	1225	5507	-	-
	A20Q STFC R/L 11	1225	5507	-	-
	A25R STFC R/L 16	1240	5515	-	-
	A32S STFC R/L 16	1335	5516	3414	1750
	A40T STFC R/L 16	1335	5516	3414	1750

Characteristics:
Boring bars with anti-vibration shank.

H-STFC 90°

Ref.		D	h	h1	L1	L2	f	A	Insert size	Kg
	H10M STFC R/L 09	10	9	4,5	150	25	7	13	TC.. 0902..	0,200
	H12M STFC R/L 11	12	11	5,5	150	25	9	16	TC.. 1102..	0,300
	H16R STFC R/L 11	16	15	7,5	200	30	11	20	TC.. 1102..	0,650

Ref.			
	H10M STFC R/L 09	1222	5506
	H12M STFC R/L 11	1225	5507
	H16R STFC R/L 11	1440	5515

Characteristics:
Boring bars with internal coolant and anti-vibration shank.

J-STFC 90°

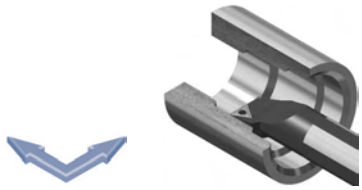
Ref.		D	h	h1	L1	L2	f	A	Insert size	Kg
	J10M STFC R/L 09	10	9	4,5	150	25	7	13	TC.. 0902..	0,150
	J12M STFC R/L 11	12	11	5,5	150	25	9	16	TC.. 1102..	0,250
	J16R STFC R/L 11	16	15	7,5	200	30	11	20	TC.. 1102..	0,600

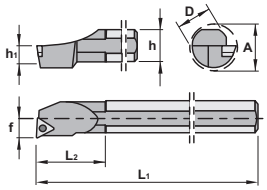
Ref.			
	J10M STFC R/L 09	1222	5506
	J12M STFC R/L 11	1225	5507
	J16R STFC R/L 11	1440	5515

Characteristics:
Multipurpose boring bar equipped with triangular positive insert.
The center screw ensures good rigidity and chip flow.
Applications:
Internal boring bar for general applications, roughing, semi-finishing and finishing.

Negative inserts boring bars Ref. MTUN (Page: C.17).

Axial: 0º
Radial: -4º



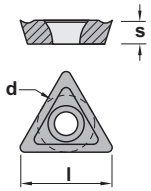


STUC 93°

Characteristics:
Boring bars with steel shank.

Ref.		D	h	h1	L1	L2	f	A	Insert size	Kg
	S12M STUC R/L 11	12	11	5,5	150	25	9	16	TC.. 1102..	0,150
	S16R STUC R/L 16	16	15	7,5	200	30	11	20	TC.. 16T3..	0,300
	S20S STUC R/L 16	20	18	9,0	250	35	13	24	TC.. 16T3..	0,550
	S25T STUC R/L 16	25	23	11,5	300	40	17	31	TC.. 16T3..	0,700
	S32U STUC R/L 16	32	30	15,0	350	50	22	39	TC.. 16T3..	2,050

Ref.					
	S12M STUC R/L 11	1225	5507	-	-
	S16R STUC R/L 16	1240	5515	-	-
	S20S STUC R/L 16	1240	5515	-	-
	S25T STUC R/L 16	1240	5515	-	-
	S32U STUC R/L 16	1335	5516	3414	1750



Ref.	TC..	l	s	d
	TC.. 1102..	11,00	2,38	6,35
	TC.. 16T3..	16,50	3,97	9,52

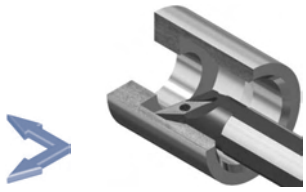
Positive 7° clearance - Triangular inserts.

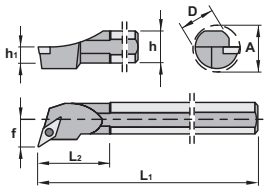
For more information see page: A.28

TCGT-AL	TCMT-03	TCMW				
						

Characteristics:
Multipurpose profiling boring bar equipped with rhombic positive insert (angle 35º).
The center screw ensures good rigidity and chip flow.
Applications:
Profiling boring bar for general applications, roughing, semi-finishing and finishing.

Axial: 0º
Radial: -6º





SVQC 107°30'

Characteristics:
Boring bars with steel shank.

Ref.		D	h	h1	L1	L2	f	A	Insert size	Kg
	S16R SVQC R/L 11	16	15	7,5	200	30	11	20	VC.. 1103..	0,300
	S20S SVQC R/L 11	20	18	9,0	250	35	13	24	VC.. 1103..	0,550
	S16R SVQC R/L 13	16	15	7,5	200	30	11	20	VC.. 1303..	0,300
	S20S SVQC R/L 13	20	18	9,0	250	35	13	24	VC.. 1303..	0,550
	S25T SVQC R/L 16	25	23	11,5	300	40	17	31	VC.. 1604..	0,700




Ref.					
	S16R SVQC R/L 11	1225	5507	-	-
	S20S SVQC R/L 11	1225	5507	-	-
	S16R SVQC R/L 13	1230	5508	-	-
	S20S SVQC R/L 13	1230	5508	-	-
	S25T SVQC R/L 16	1335	5516	3718	1750

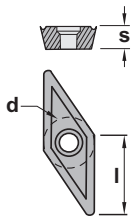
A-SVQC 107°30'

Characteristics:
Boring bars with internal coolant.

Ref.		D	h	h1	L1	L2	f	A	Insert size	Kg
	A16M SVQC R/L 11	16	15	7,5	150	30	11	20	VC.. 1103..	0,200
	A20Q SVQC R/L 11	20	18	9,0	180	35	13	24	VC.. 1103..	0,400
	A25R SVQC R/L 16	25	23	11,5	200	40	17	31	VC.. 1604..	0,700
	A32S SVQC R/L 16	32	30	15,0	250	50	22	39	VC.. 1604..	1,400
	A40T SVQC R/L 16	40	37	18,5	300	60	27	48	VC.. 1604..	2,650




Ref.				
	A16M SVQC R/L 11	1225	5507	-	-
	A20Q SVQC R/L 11	1225	5507	-	-
	A25R SVQC R/L 16	1335	5516	3718	1750
	A32S SVQC R/L 16	1335	5516	3718	1750
	A40T SVQC R/L 16	1335	5516	3718	1750



Ref.	VC..	l	s	d
	VC.. 1103..	11,00	3,18	6,35
	VC.. 1303..	13,00	3,18	8,00
	VC.. 1604..	16,50	4,76	9,52

Positive 7° clearance - 35° Rhombic inserts.

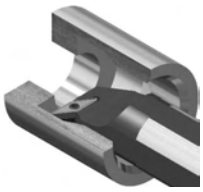
For more information see page: A.32

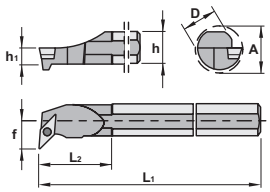
VCGT-AL	VCGT-AP	VCMT-03				
						

Characteristics:
Multipurpose profiling boring bar equipped with rhombic positive insert (angle 35º).
The center screw ensures good rigidity and chip flow.
Applications:
Profiling boring bar for general applications, roughing, semi-finishing and finishing.

Negative inserts boring bars Ref. MVUN-K (Page: C.18).

Axial: 0º
Radial: -5º



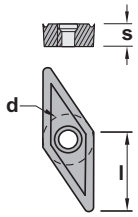


SVUB 93°

Characteristics:
Boring bars with steel shank.

		D	h	h1	L1	L2	f	A	Insert size	Kg
Ref.	**S25T SVUB R/L 16**	25	23	11,5	300	40	17	31	VBMT 1604..	0,700
	S32U SVUB R/L 16	32	30	15,0	350	50	22	39	VBMT 1604..	2,050
	S40V SVUB R/L 16	40	37	18,5	400	60	27	48	VBMT 1604..	3,750

					
Ref.	**S25T SVUB R/L 16**	1335	5516	3718	1750
	S32U SVUB R/L 16	1335	5516	3718	1750
	S40V SVUB R/L 16	1335	5516	3718	1750



	VBMT	l	s	d
Ref.	**VBMT 1604..**	16,50	4,76	9,52

Positive 5° clearance - 35° rhombic inserts.

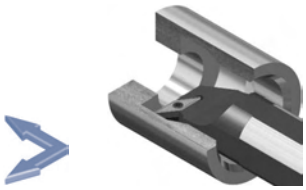
For more information see page: A.32

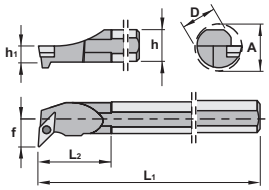
VBMT						
						

Characteristics:
Multipurpose profiling boring bar equipped with rhombic positive insert (angle 35º).
The center screw ensures good rigidity and chip flow.
Applications:
Profiling boring bar for general applications, roughing, semi-finishing and finishing.

Negative inserts boring bars Ref. MVUN-K (Page: C.18).

Axial: 0º
Radial: -5º





SVUC 93°

Characteristics:
Boring bars with steel shank.

Ref.		D	h	h1	L1	L2	f	A	Insert size	Kg
	S16R SVUC R/L 11	16	15	7,5	200	30	11	20	VC.. 1103..	0,300
	S20S SVUC R/L 11	20	18	9,0	250	35	13	24	VC.. 1103..	0,550
	S25T SVUC R/L 16	25	23	11,5	300	40	17	31	VC.. 1604..	0,700
	S32U SVUC R/L 16	32	30	15,0	350	50	22	39	VC.. 1604..	2,050
	S40V SVUC R/L 16	40	37	18,5	400	60	27	48	VC.. 1604..	3,750




Ref.					
	S16R SVUC R/L 11	1225	5507	-	-
	S20S SVUC R/L 11	1225	5507	-	-
	S25T SVUC R/L 16	1335	5516	3718	1750
	S32U SVUC R/L 16	1335	5516	3718	1750
	S40V SVUC R/L 16	1335	5516	3718	1750

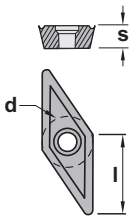
A-SVUC 93°

Characteristics:
Boring bars with internal coolant.

Ref.		D	h	h1	L1	L2	f	A	Insert size	Kg
	A16M SVUC R/L 11	16	15	7,5	150	30	11	20	VC.. 1103..	0,200
	A20Q SVUC R/L 11	20	18	9,0	180	35	13	24	VC.. 1103..	0,400
	A25R SVUC R/L 16	25	23	11,5	200	40	17	31	VC.. 1604..	0,700
	A32S SVUC R/L 16	32	30	15,0	250	50	22	39	VC.. 1604..	1,400
	A40T SVUC R/L 16	40	37	18,5	300	60	27	48	VC.. 1604..	2,650




Ref.					
	A16M SVUC R/L 11	1225	5507	-	-
	A20Q SVUC R/L 11	1225	5507	-	-
	A25R SVUC R/L 16	1335	5516	3718	1750
	A32S SVUC R/L 16	1335	5516	3718	1750
	A40T SVUC R/L 16	1335	5516	3718	1750

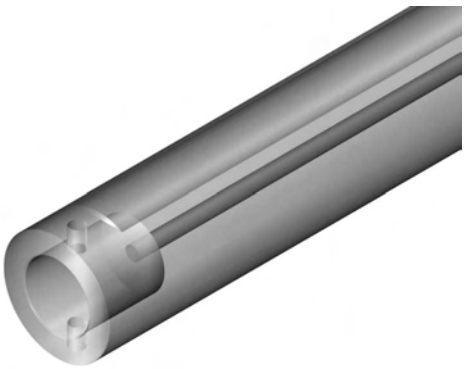


Ref.	VC..	l	s	d
	VC.. 1103..	11,00	3,18	6,35
	VC.. 1604..	16,50	4,76	9,52

Positive 7° clearance - 35° Rhombic inserts.

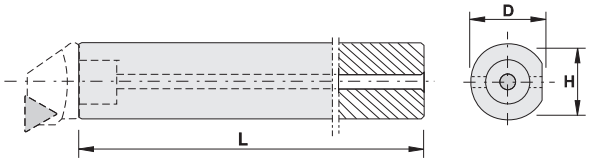
For more information see page: A.32

VCGT-AL	VCGT-AP	VCMT-03				
						



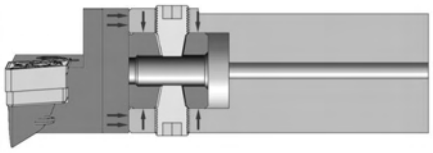
Characteristics:
Anti-vibration shank with internal coolant.

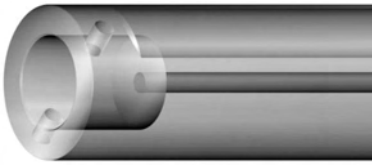
Max. cutting depth: 5 x Diameter



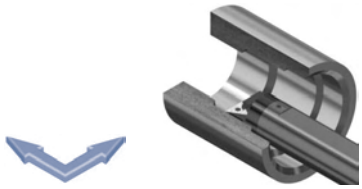
JX

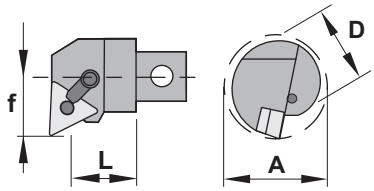
Ref.		D	L	H	Kg
	J20X	20	225	19	1,100
	J25X	25	270	24	2,100
	J32X	32	320	31	4,150
	J40X	40	370	38	3,650
	J50X	50	510	48	8,150
	J60X	60	610	58	13,850





Characteristics:
Internal turning and profiling boring head equipped with triangular negative double side insert with strong cutting edge.The center pin and top clamp ensure good rigidity and stability in roughing applications.
Applications:
Internal boring bar for general applications, roughing, semi-finishing and finishing.



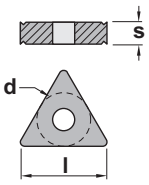


MTUN 93°

Characteristics:
Boring bars with internal coolant and anti-vibration shank.

		D	L	f	A	Insert size	Kg
Ref.	A32X MTUN R/L 16	32	30	22	40	TNM.. 1604..	0,150
	A40X MTUN R/L 16	40	30	27	50	TNM.. 1604..	0,300
	A50X MTUN R/L 16	50	30	35	63	TNM.. 1604..	0,650
	A50X MTUN R/L 22	50	40	35	63	TNM.. 2204..	0,650
	A60X MTUN R/L 22	60	40	43	80	TNM.. 2204..	0,850

							
Ref.	A32X MTUN R/L 16	2613	5003	3416	1086	1665	5002
	A40X MTUN R/L 16	2613	5003	3416	1086	1665	5002
	A50X MTUN R/L 16	2613	5003	3416	1086	1665	5002
	A50X MTUN R/L 22	2024	5005	ITSN-433	1394	1661	-
	A60X MTUN R/L 22	2024	5005	ITSN-433	1394	1661	-



	TNM..	l	s	d
Ref.	TNM.. 1604..	16,50	4,76	9,52
	TNM.. 2204..	22,00	4,76	12,70

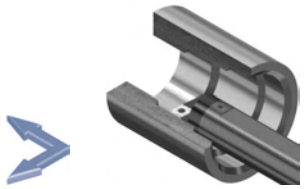
Negative triangular inserts.

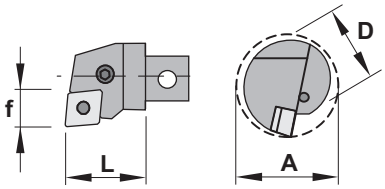
For more information see page: A.29

TNMG-CF	TNMG-CM	TNMG-CS	
			

TNMA	TNMG-CFC	TNMG-CFM	TNMG-CMC	TNMG-CMF	TNMG-CMR	TNMX	
							

Characteristics:
Boring head for internal turning applications equipped with rhombic negative inserts (angle 80º) and strong cutting edges.
The lever lock ensures good rigidity and chip flow in roughing applications.
Applications:
Internal boring bar for general applications, roughing, semi-finishing and finishing.
For low powered machines and small pieces choose boring bars Ref. SCLC (Page: C.30).



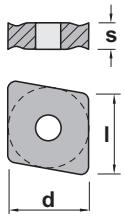


PCLN 95°

Characteristics:
Boring bars with internal coolant and anti-vibration shank.

Ref.		D	L	f	A	Insert size	Kg
	A25X PCLN R/L 12	25	25	17	32	CN.. 1204..	0,050
	A32X PCLN R/L 12	32	30	22	40	CN.. 1204..	0,150
	A40X PCLN R/L 12	40	30	27	50	CN.. 1204..	0,300
	A50X PCLN R/L 12	50	30	35	63	CN.. 1204..	0,600
	A50X PCLN R/L 16	50	40	35	63	CN.. 1606..	0,600
	A60X PCLN R/L 16	60	40	43	80	CN.. 1606..	0,800

Ref.							
	A25X PCLN R/L 12	8212	1626	5025	-	-	-
	A32X PCLN R/L 12	8312	1648	5003	3612	4112	0012
	A40X PCLN R/L 12	8012	1608	5003	3612	4112	0012
	A50X PCLN R/L 12	8012	1608	5003	3612	4112	0012
	A50X PCLN R/L 16	8016	1618	5003	3616	4115	0015
	A60X PCLN R/L 16	8016	1618	5003	3616	4115	0015



Ref.	CN..	l	s	d
	CN.. 1204..	12,90	4,76	12,70
	CN.. 1606..	16,10	6,35	15,88

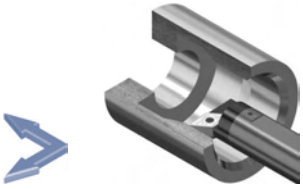
Negative 80° rhombic inserts.

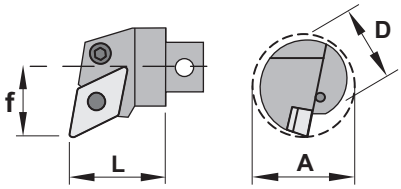
For more information see page: A.18

CNMG-CF	CNMG-CM	CNMG-CR	CNMG-CS
			

CNGP	CNMA	CNMG-CFM	CNMG-CFC	CNMG-CMC	CNMG-CMF	CNMG-CMR	CNMM
							

Characteristics:
Boring head for internal turning and profiling applications equipped with rhombic negative inserts (angle 55º) and strong cutting edges.
The lever lock ensures good rigidity and chip flow in roughing applications.
Applications:
Profiling boring bar for general applications, roughing, semi-finishing and finishing.
For low powered machines and small pieces choose boring bars Ref. SDUC (Page: C.34).



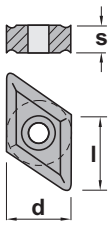


PDUN 93°

Characteristics:
Boring bars with internal coolant and anti-vibration shank.

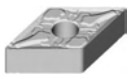
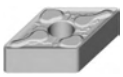
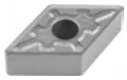
Ref.		D	L	f	A	Insert size	Kg
	A32X PDUN R/L 15	32	30	22	40	DN.. 1506..	0,150
	A40X PDUN R/L 15	40	30	27	50	DN.. 1506..	0,300
	A50X PDUN R/L 15	50	40	35	63	DN.. 1506..	0,600
	A60X PDUN R/L 15	60	40	43	80	DN.. 1506..	0,800

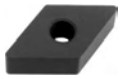
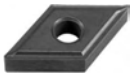
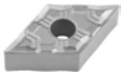
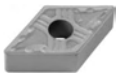
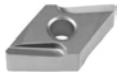
Ref.								
	A32X PDUN R/L 15	8415	1648	5003	3715	4112	0012	3725
	A40X PDUN R/L 15	8415	1638	5003	3715	4112	0012	3725
	A50X PDUN R/L 15	8415	1638	5003	3715	4112	0012	3725
	A60X PDUN R/L 15	8415	1638	5003	3715	4112	0012	3725
							For DNM.. 1504.. inserts	



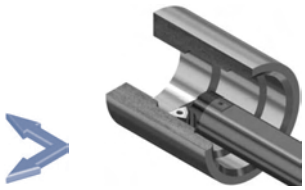
Ref.	DN..	l	s	d
	DN.. 1504..	15,50	4,76	12,70
	DN.. 1506..	15,50	6,35	12,70

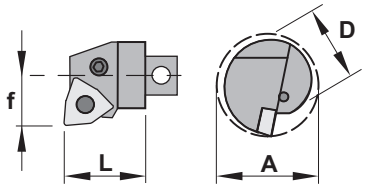
Negative 55° rhombic inserts.
For more information see page: A.22

DNMG-CF	DNMG-CM	DNMG-CS	
			

DNGP	DNMA	DNMG-CFC	DNMG-CFM	DNMG-CMC	DNMG-CMF	DNMG-CMR	DNMX
							

Characteristics:
Boring head for internal turning applications equipped with trigon negative inserts (angle 80º) and strong cutting edges.
The lever lock ensures good rigidity and chip flow in roughing applications.
Applications:
Internal boring bar for general applications, roughing, semi-finishing and finishing.



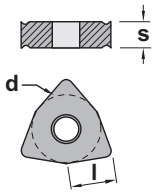


PWLN 95°

Characteristics:
Boring bars with internal coolant and anti-vibration shank.

Ref.		D	L	f	A	Insert size	Kg
	A32X PWLN R/L 08	32	30	22	40	WNM.. 0804..	0,150
	A40X PWLN R/L 08	40	30	27	50	WNM.. 0804..	0,300
	A50X PWLN R/L 08	50	40	35	63	WNM.. 0804..	0,600
	A60X PWLN R/L 08	60	40	43	80	WNM.. 0804..	0,800

Ref.							
	A32X PWLN R/L 08	8312	1648	5003	3008	4112	0012
	A40X PWLN R/L 08	8012	1608	5003	3008	4112	0012
	A50X PWLN R/L 08	8012	1608	5003	3008	4112	0012
	A60X PWLN R/L 08	8012	1608	5003	3008	4112	0012



WNM..		l	s	d
Ref.	WNM.. 0804..	8,14	4,76	12,70

Negative 80° trigon inserts.

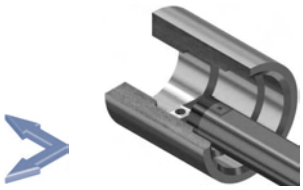
For more information see page: A.34

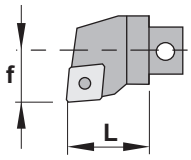
WNMG-CF	WNMG-CM	WNMG-CS	
			

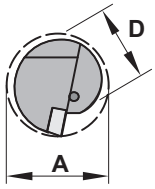
WNMA	WNMG-CFM	WNMG-CMC	WNMG-CMF	WNMG-CMR			
							

Characteristics:
Multipurpose boring head equipped with rhombic positive insert (angle 80º).
The center screw ensures good rigidity and chip flow.
Applications:
Internal boring bar for general applications, roughing, semi-finishing and finishing.

Negative inserts boring bars Ref. PCLN (Page: C.22).





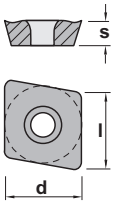


SCLC 95°

Characteristics:
Boring bars with internal coolant and anti-vibration shank.

Ref.		D	L	f	A	Insert size	Kg
	A20X SCLC R/L 09	20	25	13	25	CC.. 09T3..	0,030
	A25X SCLC R/L 09	25	25	17	32	CC.. 09T3..	0,070
	A32X SCLC R/L 12	32	30	22	40	CC.. 1204..	0,150
	A40X SCLC R/L 12	40	30	27	50	CC.. 1204..	0,250
	A50X SCLC R/L 12	50	40	35	63	CC.. 1204..	0,650
	A60X SCLC R/L 12	60	40	43	80	CC.. 1204..	0,850

Ref.					
	A20X SCLC R/L 09	1440	5515	-	-
	A25X SCLC R/L 09	1440	5515	-	-
	A32X SCLC R/L 12	1540	5517	3614	1760
	A40X SCLC R/L 12	1540	5517	3614	1760
	A50X SCLC R/L 12	1540	5517	3614	1760
	A60X SCLC R/L 12	1540	5517	3614	1760



Ref.	CC..	l	s	d
	CC.. 09T3..	9,65	3,97	9,52
	CC.. 1204..	12,90	4,76	12,70

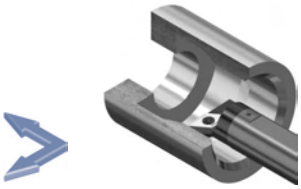
Positive 7° clearance - 80° Rhombic inserts.

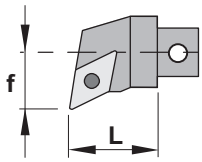
For more information see page: A.18

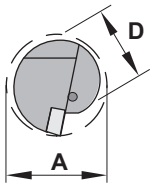
CCGT-AL	CCGT-AP	CCMT-03	CCMW			
						

Characteristics:
Multipurpose profiling boring head equipped with rhombic positive insert (angle 55º).
The center screw ensures good rigidity and chip flow.
Applications:
Profiling boring bar for general applications, roughing, semi-finishing and finishing.

Negative inserts boring bars Ref. PDUN (Page: C.23).





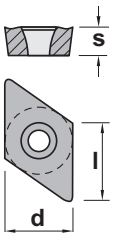


SDUC 93°

Characteristics:
Boring bars with internal coolant and anti-vibration shank.

Ref.		D	L	f	A	Insert size	Kg
	A20X SDUC R/L 11	20	25	13	25	DC.. 11T3..	0,030
	A25X SDUC R/L 11	25	25	17	32	DC.. 11T3..	0,070
	A32X SDUC R/L 11	32	30	22	40	DC.. 11T3..	0,150
	A40X SDUC R/L 11	40	30	27	50	DC.. 11T3..	0,250
	A50X SDUC R/L 11	50	40	35	63	DC.. 11T3..	0,650
	A60X SDUC R/L 11	60	40	43	80	DC.. 11T3..	0,850

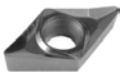
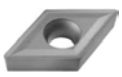
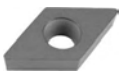
Ref.					
	A20X SDUC R/L 11	1240	5515	-	-
	A25X SDUC R/L 11	1240	5515	-	-
	A32X SDUC R/L 11	1335	5516	3714	1750
	A40X SDUC R/L 11	1335	5516	3714	1750
	A50X SDUC R/L 11	1335	5516	3714	1750
	A60X SDUC R/L 11	1335	5516	3714	1750



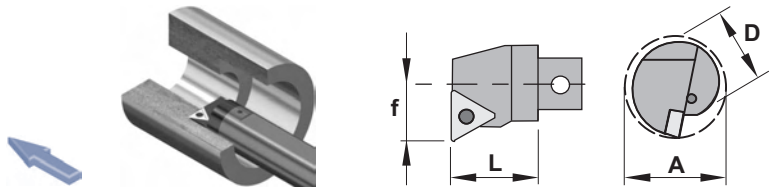
	DC..	l	s	d
Ref.	DC.. 11T3..	11,60	3,97	9,52

Positive 7° clearance - 55° Rhombic inserts.

For more information see page: A.21

DCGT-AL	DCGT-AP	DCMT-03	DCMW			
						

Characteristics:
Multipurpose boring head equipped with tringular positive insert.
The center screw ensures good rigidity and chip flow.
Applications:
Internal boring bar for general applications, roughing, semi-finishing and finishing.

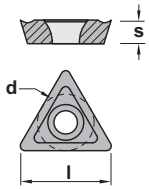


STFC 90°

Characteristics:
Boring bars with internal coolant and anti-vibration shank.

Ref.		D	L	f	A	Insert size	Kg
	A20X STFC R/L 16	20	25	13	25	TC.. 16T3..	0,030
	A25X STFC R/L 16	25	25	17	32	TC.. 16T3..	0,070
	A32X STFC R/L 16	32	30	22	40	TC.. 16T3..	0,150
	A40X STFC R/L 16	40	30	27	50	TC.. 16T3..	0,250
	A50X STFC R/L 16	50	40	35	63	TC.. 16T3..	0,650
	A60X STFC R/L 16	60	40	43	80	TC.. 16T3..	0,850

Ref.					
	A20X STFC R/L 16	1240	5515	-	-
	A25X STFC R/L 16	1240	5515	-	-
	A32X STFC R/L 16	1335	5516	3414	1750
	A40X STFC R/L 16	1335	5516	3414	1750
	A50X STFC R/L 16	1335	5516	3414	1750
	A60X STFC R/L 16	1335	5516	3414	1750



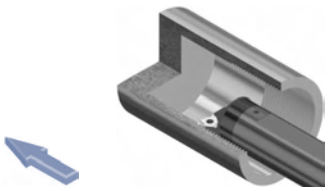
TC..	l	s	d
Ref. TC.. 16T3..	16,50	3,97	9,52

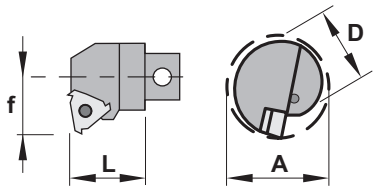
Positive 7° clearance - Triangular inserts

For more information see page: A.28

TCGT-AL	TCMT-03	TCMW				

Characteristics:
Threading boring head equipped with tringular negative insert.
The center screw ensures good rigidity and chip flow.
Applications:
Internal threading boring bar.



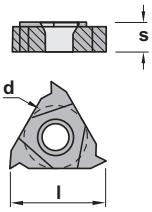


SXFN 90°

Characteristics:
Boring bars with internal coolant and anti-vibration shank.

Ref.		D	L	f	A	Insert size	Kg
	A20X SXFN R/L 16	20	25	13,40	25	16 NR/L..	0,030
	A25X SXFN R/L 16	25	25	16,30	32	16 NR/L..	0,070
	A32X SXFN R/L 16	32	30	19,60	40	16 NR/L..	0,150
	A25X SXFN R/L 22	25	25	17,20	32	22 NR/L..	0,070
	A32X SXFN R/L 22	32	32	21,50	40	22 NR/L..	0,150
	A40X SXFN R/L 22	40	32	25,80	50	22 NR/L..	0,250
	A50X SXFN R/L 22	50	40	31,40	63	22 NR/L..	0,650
	A60X SXFN R/L 22	60	40	36,40	80	22 NR/L..	0,850

Ref.						
	A20X SXFN R/L 16	SA3T	5510	YE3	YI3	SY3
	A25X SXFN R/L 16	SA3	5510	YE3	YI3	SY3
	A32X SXFN R/L 16	SA3	5510	YE3	YI3	SY3
	A25X SXFN R/L 22	SA4	5520	YE4	YI4	SY4
	A32X SXFN R/L 22	SA4	5520	YE4	YI4	SY4
	A40X SXFN R/L 22	SA4	5520	YE4	YI4	SY4
	A50X SXFN R/L 22	SA4	5520	YE4	YI4	SY4
	A60X SXFN R/L 22	SA4	5520	YE4	YI4	SY4



Ref.	N R/L	l	s	d
	16 NR/L..	16,50	3,18	9,52
	22 NR/L..	22,00	4,76	12,70

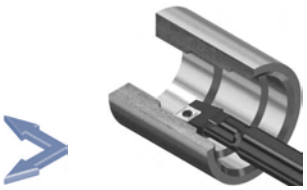
Negative triangular inserts for internal threading.

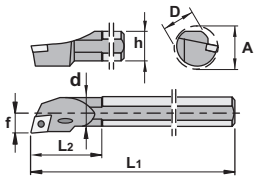
For more information see page: H.05

N R/L	N R/L TD					
						

Characteristics:
Multipurpose boring bar equipped with rhombic positive insert (angle 80º).
The center screw ensures good rigidity and chip flow.
Applications:
Internal boring bar for general applications, roughing, semi-finishing and finishing.

Negative inserts boring bars Ref. PCLN (Page: C.22).



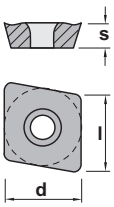


SET SCLC 95°

Characteristics:
Boring bars with internal coolant.

		D	d	L_1	L_2	f	A	h	Insert size	Kg
Ref.	**A0608H SCLC R/L 06**	8	6	100	25	4	10	7	CC.. 0602..	0,400
	A0810J SCLC R/L 06	10	8	110	32	6	12	9	CC.. 0602..	
	A1012K SCLC R/L 06	12	10	125	38	7	14	11	CC.. 0602..	
	A1216M SCLC R/L 06	16	12	150	50	9	18	15	CC.. 0602..	

			
Ref.	**A0608H SCLC R/L 06**	1425	5507
	A0810J SCLC R/L 06	1425	5507
	A1012K SCLC R/L 06	1225	5507
	A1216M SCLC R/L 06	1225	5507



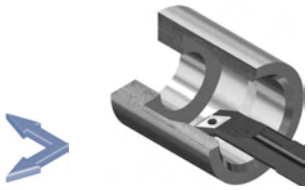
	CC..	l	s	d
Ref.	**CC.. 0602..**	6,45	2,38	6,35

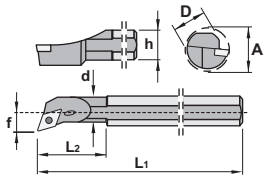
Positive 7° clearance - 80° rhombic inserts.

For more information see page: A.18

CCGT-AL	CCGT-AP	CCMT-03	CCMW			
						

Characteristics:
Multipurpose profiling boring bar equipped with rhombic positive insert (angle 55º).
The center screw ensures good rigidity and chip flow.
Applications:
Profiling boring bar for general applications, roughing, semi-finishing and finishing.



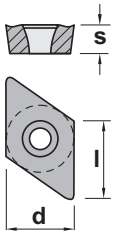


SET SDQC 107°30'

Characteristics:
Boring bars with internal coolant.

Ref.		D	d	L1	L2	f	A	h	Insert size	Kg
	A0810J SDQC R/L 07	10	8	110	32	7	12,5	9	DC.. 0702..	0,350
	A1012K SDQC R/L 07	12	10	125	38	9	15,5	11	DC.. 0702..	
	A1216M SDQC R/L 07	16	12	150	50	11	19,5	15	DC.. 0702..	

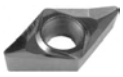
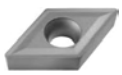
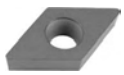
Ref.			
	A0810J SDQC R/L 07	1425	5507
	A1012K SDQC R/L 07	1225	5507
	A1216M SDQC R/L 07	1225	5507



DC..	l	s	d
Ref. DC.. 0702..	9,52	2,38	6,35

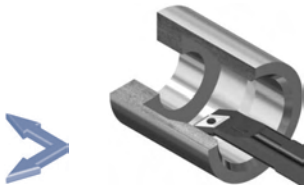
Positive 7° clearance - 55° Rhombic inserts.

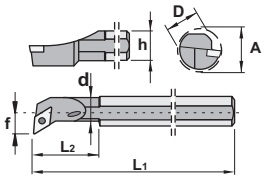
For more information see page: A.21

DCGT-AL	DCGT-AP	DCMT-03	DCMW			
						

Characteristics:
Multipurpose profiling boring bar equipped with rhombic positive insert (angle 55º).
The center screw ensures good rigidity and chip flow.
Applications:
Profiling boring bar for general applications, roughing, semi-finishing and finishing.

Negative inserts boring bars Ref. PDUN (Page: C.23).



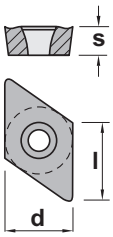


SET SDUC 93°

Characteristics:
Boring bars with internal coolant.

		D	d	L1	L2	f	A	h	Insert size	Kg
Ref.	A0810J SDUC R/L 07	10	8	110	32	7	12,5	9	DC.. 0702..	0,350
	A1012K SDUC R/L 07	12	10	125	38	9	15,5	11	DC.. 0702..	
	A1216M SDUC R/L 07	16	12	150	50	11	19,5	15	DC.. 0702..	

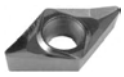
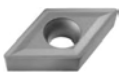
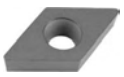
			
Ref.	A0810J SDUC R/L 07	1425	5507
	A1012K SDUC R/L 07	1225	5507
	A1216M SDUC R/L 07	1225	5507



	DC..	l	s	d
Ref.	DC.. 0702..	9,52	2,38	6,35

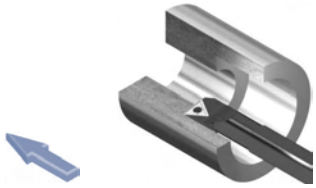
Positive 7° clearance - 55° rhombic inserts.

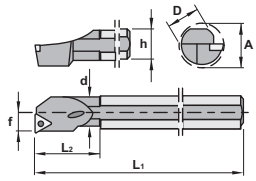
For more information see page: A.21

DCGT-AL	DCGT-AP	DCMT-03	DCMW			
						

Characteristics:
Multipurpose profiling boring bar equipped with triangular positive insert.
The center screw ensures good rigidity and chip flow.
Applications:
Internal boring bar for general applications, roughing, semi-finishing and finishing.

Negative inserts boring bars Ref. PTFN (Page: C.27).



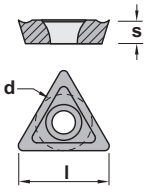


SET STFC 90°

Characteristics:
Boring bars with internal coolant.

		D	d	L_1	L_2	f	A	h	Insert size	Kg
Ref.	A0810J STFC R/L 11	10	8	110	32	7	12,5	9	TC.. 1102..	0,350
	A1012K STFC R/L 11	12	10	125	38	9	15,5	11	TC.. 1102..	
	A1216M STFC R/L 11	16	12	150	50	11	19,5	15	TC.. 1102..	

			
Ref.	A0810J STFC R/L 11	1425	5507
	A1012K STFC R/L 11	1225	5507
	A1216M STFC R/L 11	1225	5507



TC..	l	s	d
Ref. TC.. 1102..	11,00	2,38	6,35

Positive 7° clearance - Triangular inserts

For more information see page: A.28

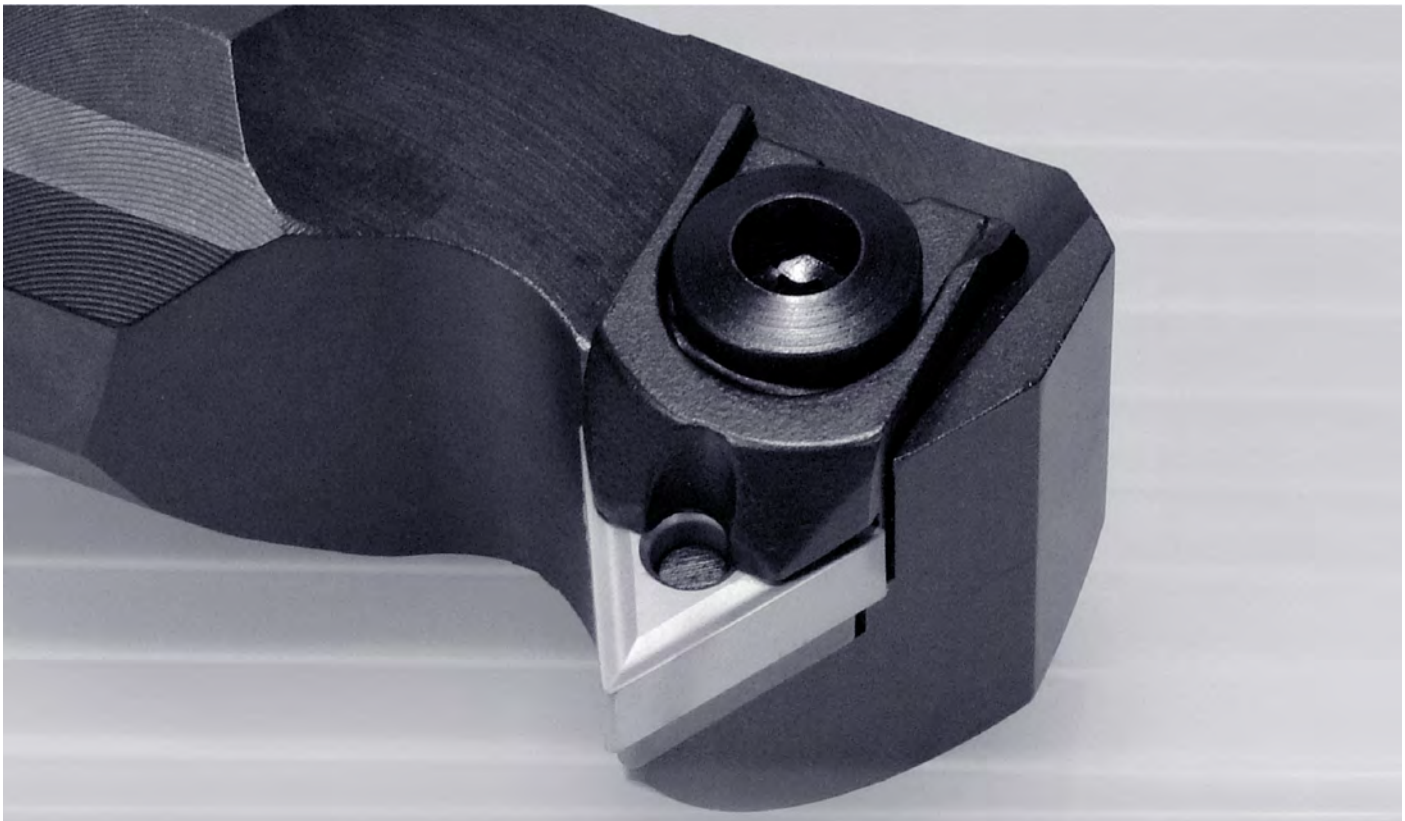
TCGT-AL	TCMT-03	TCMW				
						

Nominal cutting speed and feed values for boring bars

Material P	HB	Condition	Cutting speed m/min. PM 25	PM 40	NC 25	TIN 16	TIN 22	TIN 32	Specific cutting force K_c0,4
			0.3-0.6-1.2		0.1 - 0.3	0.1-0.4-0.8	0.1-0.4-0.8	0.2-0.5-1.2	
Unalloyed steel	125 150 200	C=0.15% C=0.35% C=0.60%	150 115 80 145 105 70 115 90 65		350 280 270 230 240 190	480 345 250 440 315 230 385 275 200	440 300 205 400 275 190 350 240 165	330 230 110 300 210 150 260 185 130	1900 2100 2250
Low alloyed steel	180 275 300 350	Annealed Hardened Hardened Hardened	90 70 45 65 45 30 60 40 25 50 35 20		300 260 220 140 230 180 220 140	380 265 195 260 180 130 240 165 120 210 145 105	320 220 170 215 150 115 200 135 105 170 120 90	200 140 100 140 100 70 125 90 60 110 75 55	2100 2600 2700 2850
High alloyed steel	200 325	Annealed Hardened	80 60 45 40 25 20		200 160 200 160	350 230 170 170 110	280 185 135 120 80 60	175 115 80 85 55 40	2600 3900
Stainless steel	200	Martensitic/Ferritic	110 95 75		270 130	295 240 190	275 210 165	225 180 145	2300
Steel castings	180 200 225	Unalloyed Low alloyed High alloyed	60 50 35 50 45 30 40 30 20		300 260 230 180 220 140	260 185 145 230 160 120 190 130 95	230 160 120 190 125 85 170 115 80	135 105 75 120 90 60 95 70 55	2000 2500 2700

Material M	HB	Condition	Cutting speed m/min. PM 25	PM 40	NC 25	TIN 16	TIN 17	TIN 22	TIN 32	TIN 35	Specific cutting force K_c0,4
			0.1-0.3		0.1-0.3	0.1-0.4-0.8	0.1-0.3		0.2-0.4-0.6	0.2-0.4-0.6	
Stainless steel annealed	180	Austenitic Ni > 8%, Cr 12-25% Austenitic/Ferritic Austenitic/Ferritic, Low S	205 170		240 200 160 130 160 130	180 150 120 180 150 120 180 150 120	600 100 400 100 400 100		190 160 130 190 160 100 140 110	190 160 130 190 160 130 160 130 100	2450
Heat resistant alloys	200 280 250 350 320	Annealed Aged Annealed Aged Cast					50 20 50 20 40 15 35 20 25 10		40 20 35 15 25 6 15 4 15 4	40 20 35 15 25 8 15 4 15 4	3000 3050 3500 4150 4150
Titanium alloys	400 950 1050	Ti Cast a, almost a and a+b Aged cast a+b					140 80 45 25 45 25			80 130 15 35 15 35	1530 1675 1690

Material K	HB	Condition	Cutting speed m/min. KM 15	TIN 17	NC 25	TIN 16	TIN 22	ZR 10	Specific cutting force K_c0,4
			0.2-0.5-1.0	0.2-0.5-1.0	0.2-0.5	0.2-0.5-1.0		0.2-0.5-1.0	
Hardened steel	350 250	Hardened steel Manganese steel 12%	27 16 10 65 40 16	180 150 110 120 90 60		175 145 100 120 85 50			4500 3600
Malleable cast iron	130 230	Ferritic Pearlitic	105 75 45 80 60 30	250 180 100 160 100 60		225 150 90 155 95 55			1100 1100
Cast iron	180 260	Low tensile strength High tensile strength	135 95 60 95 65 40	180 120 80 140 105 60	300 200 250 180	165 110 70 120 90 55			1100 1500
Nodular SG iron	160 250	Ferritic Pearlitic	115 80 45 80 50 30	220 180 100 150 100 50	250 180 180 120				1100 1800
Chilled cast iron	400		17 11	17 11					3000
Aluminium alloys	60 100	Non heat treatable Heat treatable	1750 1280 800 510 370 250	1750 1280 800 510 370 250				1750 1280 800 510 370 250	500 800
Aluminium alloys (Cast)	75 90	Non heat treatable Heat treatable	460 285 175 300 180 110	460 285 175 300 180 110				460 285 175 300 180 110	750 900
Bronze - Brass alloys	110 90 100	Lead alloys, Pb>1% Brass and bronze Inc. electrolytic copper	610 430 295 310 250 195 225 160 115	610 430 295 310 250 195 225 160 115				610 430 295 310 250 195 225 160 115	700 750 1750
Other materials		Hard plastics Fibre Hard rubber	380 240 190 120 225 160	380 240 190 120 225 160				380 240 190 120 225 160	



Very often some special tools are required to achieve different kinds of application, either to reduce the time of machining or because there is no standard tool which can accomplish a specific machining operation. Eines CANELA gives to his costumers the possibility of manufacturing this kind of tooling, starting from a drawing or making a study about the piece which must be machined. The wide range of possibilities offered by the manufacture of special tooling helps to solve all kind of machining problems from the small to the aerospace industry.