

Cartridges

Inserts

General turning

Aluminum
wheel turning

Automatic lathes

Ceramic tools

Parting and
grooving

Threading

Drills

Cartridges

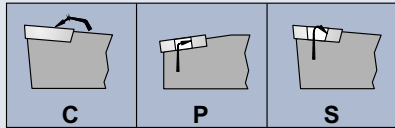


Cartridges

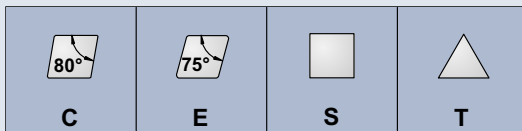
Code key	J.02
Applications	J.03
Top clamp cartridges	J.04
Lever lock cartridges	J.08
Center screw cartridges	J.13

P	C	L	N	R	16	CA	-	12
1	2	3	4	5	6	7		8

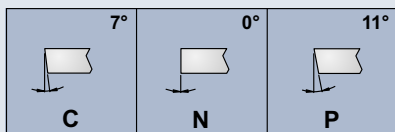
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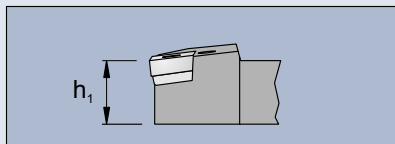
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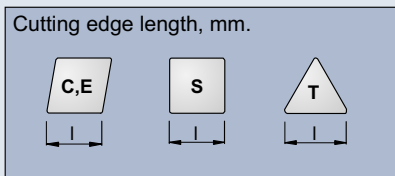
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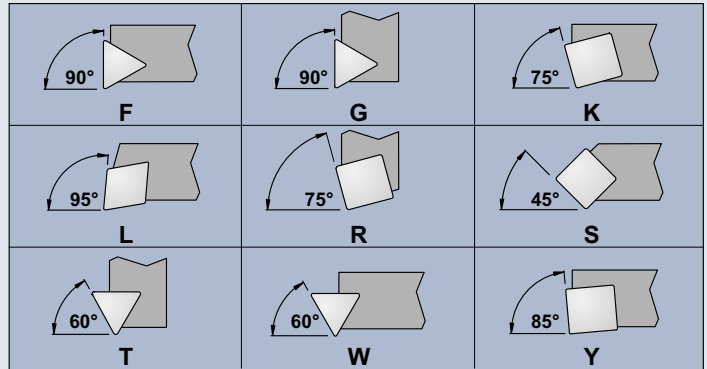
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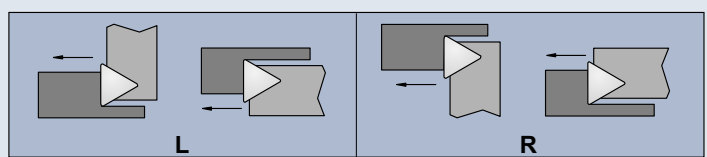
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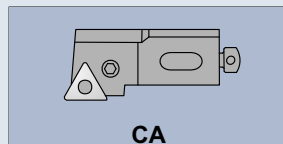
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5



7



Inserts

General turning

Aluminium wheel turning

Automatic lathe

Ceramic tools

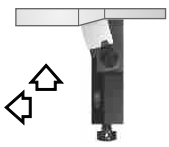
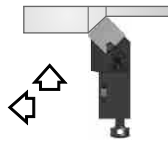
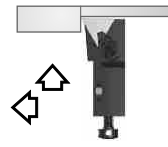
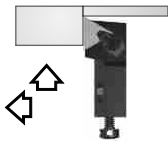
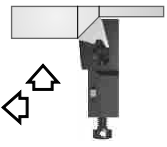
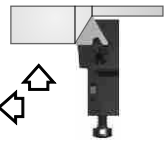
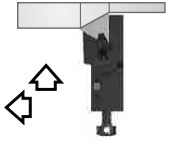
Parting and grooving

Threading

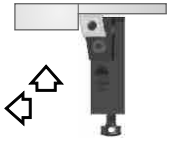
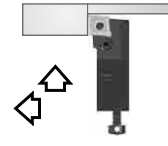
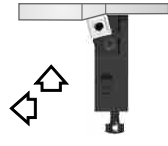
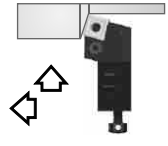
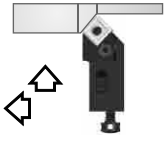
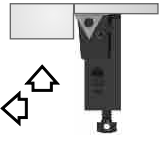
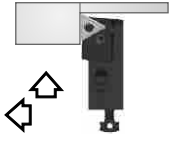
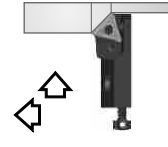
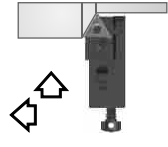
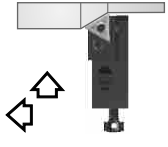
Drills

Cartridges

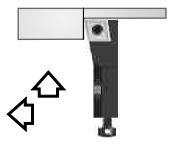
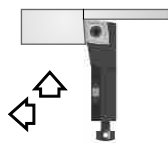
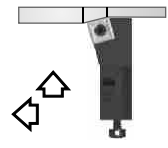
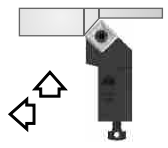
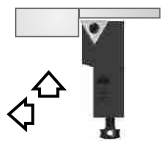
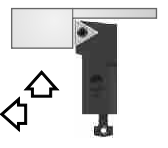
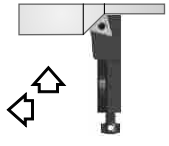
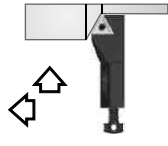
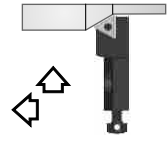
Top clamp cartridges

<p>CSKP 75°</p>  <p>Page J.04 SP.. 0903.. SP.. 1203..</p>	<p>CSSP 45°</p>  <p>Page J.04 SP.. 0903.. SP.. 1203..</p>	<p>CTFP 90°</p>  <p>Page J.05 TP.. 1103.. TP.. 1603..</p>	<p>CTGP 90°</p>  <p>Page J.05 TP.. 1103.. TP.. 1603..</p>	<p>CTSP 45°</p>  <p>Page J.06 TP.. 1103.. TP.. 1603..</p>	<p>CTTP 60°</p>  <p>Page J.06 TP.. 1103.. TP.. 1603..</p>
<p>CTWP 30°</p>  <p>Page J.07 TP.. 1103.. TP.. 1603..</p>					

Lever lock cartridges

<p>PCFN 90°</p>  <p>Page J.08 CN.. 1204.. CN.. 1606..</p>	<p>PCLN 95°</p>  <p>Page J.08 CN.. 1204.. CN.. 1606..</p>	<p>PSKN 75°</p>  <p>Page J.09 SNM.. 1204.. SNM.. 1506..</p>	<p>PSRN 75°</p>  <p>Page J.09 SNM.. 1204..</p>	<p>PSSN 45°</p>  <p>Page J.10 SNM.. 1204..</p>	<p>PTFN 90°</p>  <p>Page J.10 TNM.. 1604.. TNM.. 2204..</p>
<p>PTGN 90°</p>  <p>Page J.11 TNM.. 1604.. TNM.. 2204..</p>	<p>PTSN 45°</p>  <p>Page J.11 TNM.. 1604.. TNM.. 2204..</p>	<p>PTTN 60°</p>  <p>Page J.12 TNM.. 1604.. TNM.. 2204..</p>	<p>PTWN 30°</p>  <p>Page J.12 TNM.. 1604.. TNM.. 2204..</p>		

Center screw cartridges

<p>SCFC 90°</p>  <p>Page J.13 CC.. 0602.. CC.. 09T3.. CC.. 1204..</p>	<p>SCLC 95°</p>  <p>Page J.13 CC.. 0602.. CC.. 09T3.. CC.. 1204..</p>	<p>SSKC 75°</p>  <p>Page J.14 SC.. 09T3.. SC.. 1204..</p>	<p>SSSC 45°</p>  <p>Page J.14 SC.. 09T3.. SC.. 1204..</p>	<p>STFC 90°</p>  <p>Page J.15 TC.. 0902.. TC.. 1102.. TC.. 16T3..</p>	<p>STGC 90°</p>  <p>Page J.15 TC.. 1102.. TC.. 16T3..</p>
<p>STSC 45°</p>  <p>Page J.16 TC.. 0902.. TC.. 1102.. TC.. 16T3..</p>	<p>STTC 60°</p>  <p>Page J.16 TC.. 0902.. TC.. 1102.. TC.. 16T3..</p>	<p>STWC 30°</p>  <p>Page J.17 TC.. 1102.. TC.. 16T3..</p>			

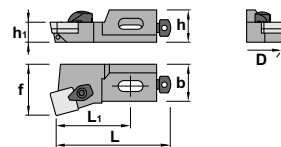
Inserts



Characteristics: Cartridge equipped with square positive inserts and strong cutting edges. The top clamp ensures good rigidity and stability.

For interrupted cut choose cartridge Ref. PSKN (Page: J.09).

Axial: 5.75°
Radial: 1.50°



General turning

CSKP 75°

Ref.	D	h	h1	L	L1	f	b	Insert size	Kg
CSKP R/L 10CA-09	40	15	10	50	30	14	11	SP..0903..	0,035
CSKP R/L 12CA-12	50	20	12	55	35	20	16	SP..1203..	0,075
CSKP R/L 16CA-12	55	25	16	63	38	25	20	SP..1203..	0,125

Aluminium wheel turning

Automatic lathes

Ref.										
CSKP R/L 10CA-09	2304	5025	-	-	1405	1504	5002	2806	1816	5004
CSKP R/L 12CA-12	2305	5003	-	-	1405	1505	5025	2806	1806	5004
CSKP R/L 16CA-12	2305	5003	3112	4002	1406	1505	5025	2808	1808	5005

Ceramic tools

Ref.	SP..	l	s	d	SPMR-33	SPUN
	SP.. 0903..	9,52	3,18	9,52		
SP.. 1203..	12,70	3,18	12,70			

For more information see page: A.28

Positive 11° clearance - Square inserts

Parting and grooving

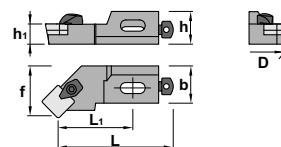
Threading



Characteristics: Cartridge equipped with square positive inserts and strong cutting edges. The top clamp ensures good rigidity and stability.

For interrupted cut choose Cartridge Ref. PSSN (Page: J.10).

Axial: 5°
Radial: 0°



Drills

CSSP 45°

Ref.	D	h	h1	L	L1	f	b	Insert size	Kg
CSSP R/L 10CA-09	40	15	10	44	24	14	11	SP..0903..	0,035
CSSP R/L 12CA-12	50	20	12	47	27	20	16	SP..1203..	0,065
CSSP R/L 16CA-12	55	25	16	53	28	25	20	SP..1203..	0,090

Cartridges

Ref.										
CSSP R/L 10CA-09	2304	5025	-	-	1405	1504	5002	2806	1816	5004
CSSP R/L 12CA-12	2305	5003	-	-	1405	1505	5025	2806	1806	5004
CSSP R/L 16CA-12	2305	5003	3112	4002	1406	1505	5025	2808	1808	5005

Ref.	SP..	l	s	d	SPMR-33	SPUN
	SP.. 0903..	9,52	3,18	9,52		
SP.. 1203..	12,70	3,18	12,70			

For more information see page: A.28

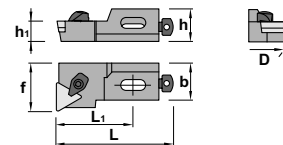
Positive 11° clearance - Square inserts



Characteristics: Cartridge equipped with triangular positive inserts and strong cutting edges. The top clamp ensures good rigidity and stability.

For interrupted cut choose cartridge Ref. PTFN (Page: J.10)

Axial: 6°
Radial: 0°



CTFP 90°		D	h	h1	L	L1	f	b	Insert size	
Ref.	CTFP R/L 10CA-11	40	15	10	50	30	14	11	TP..1103..	0,035
	CTFP R/L 12CA-16	50	20	12	55	35	20	16	TP..1603..	0,080
	CTFP R/L 16CA-16	55	25	16	63	38	25	20	TP..1603..	0,120

Ref.										
CTFP R/L 10CA-11	2304	5025	-	-	1405	1504	5002	2806	1816	5004
CTFP R/L 12CA-16	2305	5003	-	-	1405	1505	5025	2806	1806	5004
CTFP R/L 16CA-16	2305	5003	3116	4002	1406	1505	5025	2808	1808	5005

Ref.	TP..	l	s	d	TPMN	TPMR-33	TPUN	TPUX R/L
	TP.. 1103..	11,00	3,18	6,35				
TP.. 1603..	16,50	3,18	9,52					

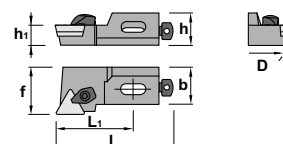
For more information see page: A.31 Positive 11° clearance - Triangular inserts.



Characteristics: Cartridge equipped with triangular positive inserts and strong cutting edges. The top clamp ensures good rigidity and stability.

For interrupted cut choose Cartridge Ref. PTGN (Page: J.11).

Axial: 0°
Radial: 4°



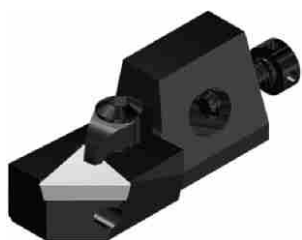
CTGP 90°		D	h	h1	L	L1	f	b	Insert size	
Ref.	CTGP R/L 10CA-11	40	15	10	50	30	14	11	TP..1103..	0,035
	CTGP R/L 12CA-16	50	20	12	55	35	20	16	TP..1603..	0,070
	CTGP R/L 16CA-16	60	25	16	63	38	25	20	TP..1603..	0,115

Ref.										
CTGP R/L 10CA-11	2304	5025	-	-	1405	1504	5002	2806	1816	5004
CTGP R/L 12CA-16	2305	5003	-	-	1405	1505	5025	2806	1806	5004
CTGP R/L 16CA-16	2305	5003	3116	4002	1406	1505	5025	2808	1808	5005

Ref.	TP..	l	s	d	TPMN	TPMR-33	TPUN	TPUX R/L
	TP.. 1103..	11,00	3,18	6,35				
TP.. 1603..	16,50	3,18	9,52					

For more information see page: A.31 Positive 11° clearance - Triangular inserts.

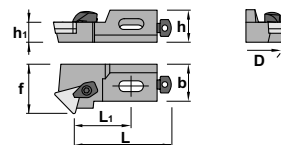
Inserts



Characteristics: Cartridge equipped with triangular positive inserts and strong cutting edges. The top clamp ensures good rigidity and stability.

For interrupted cut choose cartridge Ref. PTSN (Page: J.11).

Axial: 3.50°
Radial: 3.50°



General turning

Aluminium wheel turning

CTSP 45°

Ref.	D	h	h1	L	L1	f	b	Insert size	Kg
CTSP R/L 10CA-11	40	15	10	44	24	14	11	TP..1103..	0,035
CTSP R/L 12CA-16	50	20	12	47	27	20	16	TP..1603..	0,075
CTSP R/L 16CA-16	55	25	16	53	28	25	20	TP..1603..	0,140

Automatic lathes

Ref.	CTSP R/L 10CA-11	CTSP R/L 12CA-16	CTSP R/L 16CA-16	2304	5025	-	-	1405	1504	5002	2806	1816	5004
CTSP R/L 10CA-11	2304	5025	-	-	1405	1504	5002	2806	1816	5004			
CTSP R/L 12CA-16	2305	5003	-	-	1405	1505	5025	2806	1806	5004			
CTSP R/L 16CA-16	2305	5003	3116	4002	1406	1505	5025	2808	1808	5005			

Ceramic tools

TP..	l	s	d	TPMN	TPMR-33	TPUN	TPUX R/L
Ref. TP.. 1103..	11,00	3,18	6,35				
TP.. 1603..	16,50	3,18	9,52				

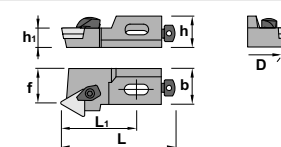
For more information see page: A.31 Positive 11° clearance - Triangular inserts.

Parting and grooving

Characteristics: Cartridge equipped with triangular positive inserts and strong cutting edges. The top clamp ensures good rigidity and stability.

For interrupted cut choose cartridge Ref. PTTN (Page: J.12).

Axial: 2.5°
Radial: 4.3°



Threading

Drills

CTTP 60°

Ref.	D	h	h1	L	L1	f	b	Insert size	Kg
CTTP R/L 10CA-11	40	15	10	50	30	9	11	TP..1103..	0,040
CTTP R/L 12CA-16	50	20	12	55	35	13	16	TP..1603..	0,075
CTTP R/L 16CA-16	55	25	16	63	38	15	20	TP..1603..	0,115

Cartridges

Ref.	CTTP R/L 10CA-11	CTTP R/L 12CA-16	CTTP R/L 16CA-16	2304	5025	-	-	1405	1504	5002	2806	1816	5004
CTTP R/L 10CA-11	2304	5025	-	-	1405	1504	5002	2806	1816	5004			
CTTP R/L 12CA-16	2305	5003	-	-	1405	1505	5025	2806	1806	5004			
CTTP R/L 16CA-16	2305	5003	3116	4002	1406	1505	5025	2808	1808	5005			

TP..	l	s	d	TPMN	TPMR-33	TPUN	TPUX R/L
Ref. TP.. 1103..	11,00	3,18	6,35				
TP.. 1603..	16,50	3,18	9,52				

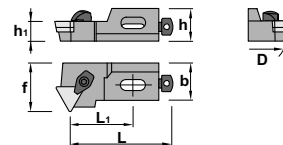
For more information see page: A.31 Positive 11° clearance - Triangular inserts.



Characteristics: Multipurpose Cartridge equipped with trigon negative double side insert (angle 80°) with strong cutting edge. The top clamp ensures good rigidity and stability.

For interrupted cut choose cartridge Ref. PTWN (Page: J.12).

Axial: 5.25°
Radial: 3°



CTWP 30°		D	h	h1	L	L1	f	b	Insert size	Kg
Ref.	CTWP R/L 10CA-11	40	15	10	44	24	14	11	TP..1103..	0,035
	CTWP R/L 12CA-16	50	20	12	47	27	20	16	TP..1603..	0,065
	CTWP R/L 16CA-16	55	25	16	53	28	25	20	TP..1603..	0,105

Ref.	CTWP R/L 10CA-11	CTWP R/L 12CA-16	CTWP R/L 16CA-16								
	2304	2305	2305	5025	5003	5003	-	-	1405	1504	5002
	2305	5003	5003	-	-	3116	4002	1406	1505	5025	2806
	2305	5003	5003	-	-	4002	1406	1505	5025	2808	1816
	2305	5003	5003	-	-	4002	1406	1505	5025	2808	1806
	2305	5003	5003	-	-	4002	1406	1505	5025	2808	1808
	2305	5003	5003	-	-	4002	1406	1505	5025	2808	1808

	TP..	l	s	d	TPMN	TPMR-33	TPUN	TPUX R/L
	Ref.	TP.. 1103..	11,00	3,18	6,35			
	TP.. 1603..	16,50	3,18	9,52				
For more information see page: A.31					Positive 11° clearance - Triangular inserts.			

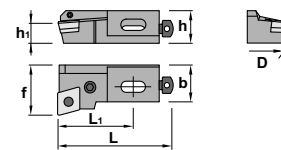
Inserts



Characteristics: Cartridge equipped with rhombic negative inserts (angle 80°) and strong cutting edges. The lever lock ensures good rigidity and chip flow in roughing applications.

For low powered machines and small pieces choose cartridge Ref. SCFC (Page: J.13).

Axial: -6°
Radial: -8°



General turning

Aluminium wheel turning

PCFN 90°

Ref.	D	h	h ₁	L	L ₁	f	b	Insert size	Kg
PCFN R/L 16CA-12	60	25	16	63	38	25	20	CNM.. 1204..	0,140
PCFN R/L 20CA-12	70	30	20	70	40	25	20	CNM.. 1204..	0,170
PCFN R/L 25CA-16	100	35	25	100	50	32	25	CNM.. 1606..	0,380

Automatic lathes

Ref.	8312	1648	5003	3612	4112	1406	1505	0012	5025	2808	1808	5005
PCFN R/L 16CA-12	8312	1648	5003	3612	4112	1406	1505	0012	5025	2808	1808	5005
PCFN R/L 20CA-12	8012	1608	5003	3612	4112	1406	1506	0012	5003	2808	1808	5005
PCFN R/L 25CA-16	8016	1618	5003	3616	4115	1408	1508	0015	5004	2810	1810	5006

Ceramic tools

Ref.	CN..	l	s	d	CNMG-CF	CNMG-CM	CNMG-CR	CNMG-CS
	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

More inserts: CNMG-CF, CNMG-CM, CNMG-CR, CNMG-CS, CNMG-CFM, CNMG-CFC, CNMG-CMC, CNMG-CMF, CNMG-CMR, CNMM.

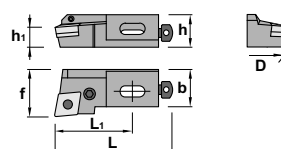
Parting and grooving



Characteristics: Cartridge equipped with rhombic negative double side insert (angle 80°) with strong cutting edge. The lever lock ensures good rigidity and chip flow in roughing applications.

For low powered machines and small pieces choose cartridge Ref. SCLC (Page: J.13).

Axial: -6°
Radial: -6°



Threading

Drills

PCLN 95°

Ref.	D	h	h ₁	L	L ₁	f	b	Insert size	Kg
PCLN R/L 16CA-12	60	25	16	63	38	25	20	CNM.. 1204..	0,135
PCLN R/L 20CA-12	70	30	20	70	40	25	20	CNM.. 1204..	0,160
PCLN R/L 25CA-16	100	35	25	100	50	32	25	CNM.. 1606..	0,375

Cartridges

Ref.	8312	1648	5003	3612	4112	1406	1505	0012	5025	2808	1808	5005
PCLN R/L 16CA-12	8312	1648	5003	3612	4112	1406	1505	0012	5025	2808	1808	5005
PCLN R/L 20CA-12	8012	1608	5003	3612	4112	1406	1506	0012	5003	2808	1808	5005
PCLN R/L 25CA-16	8016	1618	5003	3616	4115	1408	1508	0015	5004	2810	1810	5006

Ref.	CN..	l	s	d	CNMG-CF	CNMG-CM	CNMG-CR	CNMG-CS
	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

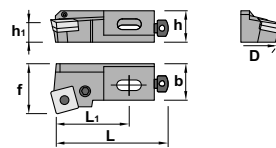
More inserts: CNMG-CF, CNMG-CM, CNMG-CR, CNMG-CS, CNMG-CFM, CNMG-CFC, CNMG-CMC, CNMG-CMF, CNMG-CMR, CNMM.



Characteristics: Cartridge equipped with square negative inserts and strong cutting edges. The lever lock ensures good rigidity and chip flow in roughing applications.

For low powered machines and small pieces choose cartridge Ref. CSKP (Page: J.04) or SSKC (Page: J.14).

Axial: -4°
Radial: -4°



PSKN 75°		D	h	h1	L	L1	f	b	Insert size	
Ref.	PSKN R/L 12CA-12	50	20	12	55	35	20	16	SNM.. 1204..	0,080
	PSKN R/L 16CA-12	60	25	16	63	38	25	20	SNM.. 1204..	0,135
	PSKN R/L 20CA-12	70	30	20	70	40	25	20	SNM.. 1204..	0,180
	PSKN R/L 25CA-15	100	35	25	100	50	32	25	SNM.. 1506..	0,400

Ref.	PSKN R/L 12CA-12	PSKN R/L 16CA-12	PSKN R/L 20CA-12	PSKN R/L 25CA-15																																																
Ref.	PSKN R/L 12CA-12	8212	1626	5025	-	-	1405	1505	-	5025	2806	1806	5004	PSKN R/L 16CA-12	8312	1648	5003	3512	4112	1406	1505	0012	5025	2808	1808	5005	PSKN R/L 20CA-12	8012	1608	5003	3512	4112	1406	1506	0012	5003	2808	1808	5005	PSKN R/L 25CA-15	8016	1618	5003	3515	4115	1408	1508	0015	5004	2810	1810	5006

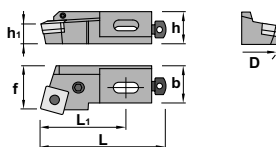
	SNM..	l	s	d	SNMA	SNMG-CFM	SNMG-CMR	SNMG-CR
	Ref.	SNM.. 1204..	12,70	4,76	12,70			
	SNM.. 1506..	15,88	6,35	15,88	Negative square insert			

Negative square inserts For more information see page: A.27



Characteristics: Cartridge for face turning applications equipped with square negative inserts and strong cutting edges. The lever lock ensures good rigidity and chip flow in roughing applications.

Axial: -11.25°
Radial: -3.25°



PSRN 75°		D	h	h1	L	L1	f	b	Insert size	
Ref.	PSRN R/L 16CA-12	60	25	16	63	38	25	20	SNM.. 1204..	0,135
	PSRN R/L 20CA-12	70	30	20	70	40	25	20	SNM.. 1204..	0,180

Ref.	PSRN R/L 16CA-12	PSRN R/L 20CA-12																								
Ref.	PSRN R/L 16CA-12	8312	1648	5003	3512	4112	1406	1505	0012	5025	2808	1808	5005	PSRN R/L 20CA-12	8012	1608	5003	3512	4112	1406	1506	0012	5003	2808	1808	5005

	SNM..	l	s	d	SNMA	SNMG-CFM	SNMG-CMR	SNMG-CR
	Ref.	SNM.. 1204..	12,70	4,76	12,70			

Negative square inserts For more information see page: A.27

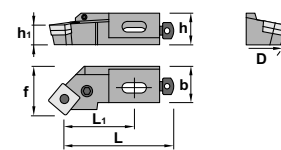
Inserts



Characteristics: Cartridge equipped with square negative inserts and strong cutting edges. The lever lock ensures good rigidity and chip flow in roughing applications.

For low powered machines and small pieces choose cartridge Ref. CSSP (Page: J.04) or SSSC (Page: J.14).

Axial: -7°
Radial: -7°



General turning

Aluminium wheel turning

PSSN 45°

Ref.		D	h	h ₁	L	L ₁	f	b	Insert size	Kg
PSSN R/L 12CA-12		50	20	12	47	27	20	16	SNM.. 1204..	0,070
PSSN R/L 16CA-12		60	25	16	53	28	25	20	SNM.. 1204..	0,110
PSSN R/L 20CA-12		70	30	20	60	30	25	20	SNM.. 1204..	0,140

Automatic lathes

Ref.													
PSSN R/L 12CA-12		8212	1626	5025	-	-	1405	1505	-	5025	2806	1806	5004
PSSN R/L 16CA-12		8312	1648	5003	3512	4112	1406	1505	0012	5025	2808	1808	5005
PSSN R/L 20CA-12		8012	1608	5003	3512	4112	1406	1506	0012	5003	2808	1808	5005

Ceramic tools

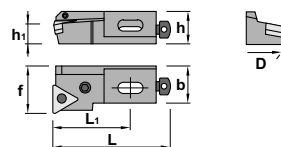
	SNM..	l	s	d	SNMA	SNMG-CFM	SNMG-CMR	SNMG-CR
Ref. SNM.. 1204..		12,70	4,76	12,70				
Negative square inserts					Negative square insert			

Parting and grooving

Characteristics: Cartridge equipped with triangular negative inserts and strong cutting edges. The lever lock ensures good rigidity and chip flow in roughing applications.

For low powered machines and small pieces choose cartridge Ref. CTFP (Page: J.05) or STFC (Page: J.15).

Axial: -6°
Radial: -8°



Threading

Drills

PTFN 90°

Ref.		D	h	h ₁	L	L ₁	f	b	Insert size	Kg
PTFN R/L 12CA-16		50	20	12	55	35	20	16	TNM.. 1604..	0,080
PTFN R/L 16CA-16		60	25	16	63	38	25	20	TNM.. 1604..	0,120
PTFN R/L 20CA-22		70	30	20	70	40	25	20	TNM.. 2204..	0,160
PTFN R/L 25CA-22		100	35	25	100	50	32	25	TNM.. 2204..	0,400

Cartridges

Ref.													
PTFN R/L 12CA-16		8216	1605	5002	-	-	1405	1505	-	5025	2806	1806	5004
PTFN R/L 16CA-16		8009	1606	5025	3416	4109	1406	1505	0009	5025	2808	1808	5005
PTFN R/L 20CA-22		8012	1608	5003	3422	4112	1406	1506	0012	5003	2808	1808	5005
PTFN R/L 25CA-22		8012	1608	5003	3422	4112	1408	1508	0012	5004	2810	1810	5006

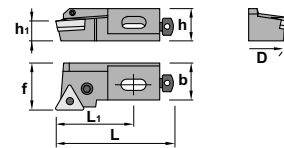
	TNM..	l	s	d	TNMG-CF	TNMG-CM	TNMG-CS
Ref. TNM.. 1604..		16,50	4,76	9,52			
TNM.. 2204..		22,00	4,76	12,70			
More inserts: TNMA, TNMG-CFC, TNMG-CFM, TNMG-CMC, TNMG-CMF, TNMG-CMR, TNMX					For more information see page: A.29		



Characteristics: Cartridge equipped with triangular negative inserts and strong cutting edges. The lever lock ensures good rigidity and chip flow in roughing applications.

For low powered machines and small pieces choose cartridge Ref. CTGP (Page: J.05) or STGC (Page: J.15).

Axial: -6°
Radial: -10°



PTGN 90°		D	h	h1	L	L1	f	b	Insert size	
Ref.	PTGN R/L 12CA-16	50	20	12	55	35	20	16	TNM.. 1604..	0,080
	PTGN R/L 16CA-16	60	25	16	63	38	25	20	TNM.. 1604..	0,120
	PTGN R/L 20CA-22	70	30	20	70	40	25	20	TNM.. 2204..	0,160

Ref.	PTGN R/L 12CA-16	PTGN R/L 16CA-16	PTGN R/L 20CA-22											
	8216	1605	5002	-	-	1405	1505	-	5025	2806	1806	5004		
	8009	1606	5025	3416	4109	1406	1505	0009	5025	2808	1808	5005		
	8012	1608	5003	3422	4112	1406	1506	0012	5003	2808	1808	5005		

	TNM..	l	s	d	TNMG-CF	TNMG-CM	TNMG-CS
	Ref.	TNM.. 1604..	16,50	4,76	9,52		
	TNM.. 2204..	22,00	4,76	12,70			

More inserts: TNMA, TNMG-CFC, TNMG-CFM, TNMG-CMC, TNMG-CMF, TNMG-CMR, TNMX

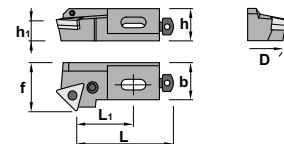
For more information see page: A.29



Characteristics: Cartridge equipped with triangular negative inserts and strong cutting edges. The lever lock ensures good rigidity and chip flow in roughing applications.

For low powered machines and small pieces choose cartridge Ref. CTSP (Page: J.06) or STSC (Page: J.16).

Axial: -7.75°
Radial: -7.75°



PTSN 45°		D	h	h1	L	L1	f	b	Insert size	
Ref.	PTSN R/L 12CA-16	50	20	12	47	27	20	16	TNM.. 1604..	0,070
	PTSN R/L 16CA-16	60	25	16	53	28	25	20	TNM.. 1604..	0,130
	PTSN R/L 20CA-22	70	30	20	60	30	25	20	TNM.. 2204..	0,165
	PTSN R/L 25CA-22	100	35	25	67	37	32	25	TNM.. 2204..	0,330

Ref.	PTSN R/L 12CA-16	PTSN R/L 16CA-16	PTSN R/L 20CA-22	PTSN R/L 25CA-22											
	8216	1605	5002	8012	-	-	1405	1505	-	5025	2806	1806	5004		
	8009	1606	5025	8012	3416	4109	1406	1505	0009	5025	2808	1808	5005		
	8012	1608	5003	8012	3422	4112	1406	1506	0012	5003	2808	1808	5005		
	8012	1608	5003	8012	3422	4112	1408	1508	0012	5004	2810	1810	5006		

	TNM..	l	s	d	TNMG-CF	TNMG-CM	TNMG-CS
	Ref.	TNM.. 1604..	16,50	4,76	9,52		
	TNM.. 2204..	22,00	4,76	12,70			

More inserts: TNMA, TNMG-CFC, TNMG-CFM, TNMG-CMC, TNMG-CMF, TNMG-CMR, TNMX

For more information see page: A.29

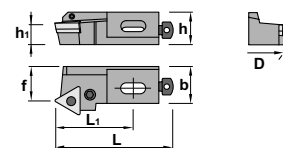
Inserts



Characteristics: Cartridge equipped with triangular negative inserts and strong cutting edges. The lever lock ensures good rigidity and chip flow in roughing applications.

For low powered machines and small pieces choose cartridge Ref. CTPP (Page: J.06) or STTC (Page: J.16).

Axial: -6°
Radial: -10°



General turning

Aluminium wheel turning

PTTN 60°

Ref.	D	h	h ₁	L	L ₁	f	b	Insert size	Kg
PTTN R/L 12CA-16	50	20	12	55	35	13	16	TNM.. 1604..	0,135
PTTN R/L 16CA-16	60	25	16	63	38	15	20	TNM.. 1604..	0,120
PTTN R/L 20CA-22	70	30	20	70	40	15	20	TNM.. 2204..	0,160

Automatic lathes

Ref.	PTTN R/L 12CA-16	PTTN R/L 16CA-16	PTTN R/L 20CA-22												
PTTN R/L 12CA-16	8216	1605	5002	-	-	1405	1505	-	5025	2806	1806	5004			
PTTN R/L 16CA-16	8009	1606	5025	3416	4109	1406	1505	0009	5025	2808	1808	5005			
PTTN R/L 20CA-22	8012	1608	5003	3422	4112	1406	1506	0012	5003	2808	1808	5005			

Ceramic tools

Ref.	TNM..	l	s	d	TNMG-CF	TNMG-CM	TNMG-CS
	TNM.. 1604..	16,50	4,76	9,52			
TNM.. 2204..	22,00	4,76	12,70				

More inserts: TNMA, TNMG-CFC, TNMG-CFM, TNMG-CMC, TNMG-CMF, TNMG-CMR, TNMX

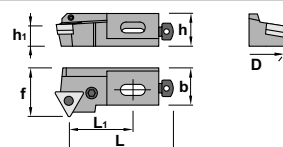
For more information see page: A.29

Parting and grooving

Characteristics: Cartridge equipped with triangular negative inserts and strong cutting edges. The lever lock ensures good rigidity and chip flow in roughing applications.

For low powered machines and small pieces choose cartridge Ref. CTWP (Page: J.07) or STWC (Page: J.17).

Axial: -2.25°
Radial: -8.50°



Threading

Drills

PTWN 30°

Ref.	D	h	h ₁	L	L ₁	f	b	Insert size	Kg
PTWN R/L 12CA-16	50	20	12	47	27	20	16	TNM.. 1604..	0,080
PTWN R/L 16CA-16	60	25	16	53	28	25	20	TNM.. 1604..	0,130
PTWN R/L 20CA-22	70	30	20	60	30	25	20	TNM.. 2204..	0,165

Cartridges

Ref.	PTWN R/L 12CA-16	PTWN R/L 16CA-16	PTWN R/L 20CA-22											
PTWN R/L 12CA-16	8216	1605	5002	-	-	1405	1505	-	5025	2806	1806	5004		
PTWN R/L 16CA-16	8009	1606	5025	3416	4109	1406	1505	0009	5025	2808	1808	5005		
PTWN R/L 20CA-22	8012	1608	5003	3422	4112	1406	1506	0012	5003	2808	1808	5005		

Ref.	TNM..	l	s	d	TNMG-CF	TNMG-CM	TNMG-CS
	TNM.. 1604..	16,50	4,76	9,52			
TNM.. 2204..	22,00	4,76	12,70				

More inserts: TNMA, TNMG-CFC, TNMG-CFM, TNMG-CMC, TNMG-CMF, TNMG-CMR, TNMX

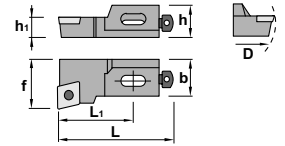
For more information see page: A.29



Characteristics: Cartridge equipped with rhombic positive insert (angle 80°).
The center screw ensures good rigidity and chip flow.

Negative inserts cartridge Ref. PCFN (Page: J.08).

Axial: 0°
Radial: 0°



SCFC 90°		D	h	h1	L	L1	f	b	Insert size	
Ref.	SCFC R/L 06CA-06	20	6	6	25	15	10	6	CCM.. 0602..	0,005
	SCFC R/L 08CA-06	25	8	8	27	16	12	7	CCM.. 0602..	0,010
	SCFC R/L 10CA-09	30	14	10	42	24	14	10	CCM.. 09T3..	0,030
	SCFC R/L 12CA-12	40	16	12	47	35	20	14	CCM.. 1204..	0,060

Ref.	SCFC R/L 06CA-06	SCFC R/L 08CA-06	SCFC R/L 10CA-09	SCFC R/L 12CA-12								
	1425	1425	1440	1250	5507	5507	5515	5520	1403	1403	1405	1405
	1503	1503	1504	1505	5015	5015	5002	5025	2803	2804	2806	2806
	1803	1804	1806	1806	5002	5002	5002	5025	1803	1804	1806	1806
	5002	5025	5004	5004					5002	5025	5004	5004

Ref.	CC..	l	s	d	CCGT-AL	CCGT-AP	CCMT-03	CCMW
	CC.. 0602..	6,45	2,38	6,35				
CC.. 09T3..	9,65	3,97	9,52					
CC.. 1204..	12,90	4,76	12,70					

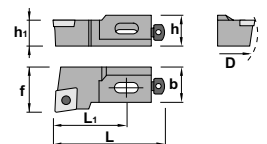
For more information see page: A.18 Positive 7° clearance - 80° Rhombic inserts



Characteristics: Cartridge equipped with rhombic positive insert (angle 80°).
The center screw ensures good rigidity and chip flow.

Negative inserts cartridge Ref. PCLN (Page: J.08).

Axial: 0°
Radial: 0°



SCLC 95°		D	h	h1	L	L1	f	b	Insert size	
Ref.	SCLC R/L 06CA-06	20	6	6	25	15	10	6	CCM.. 0602..	0,005
	SCLC R/L 08CA-06	25	8	8	27	16	12	7	CCM.. 0602..	0,010
	SCLC R/L 10CA-09	30	14	10	42	24	14	10	CCM.. 09T3..	0,030
	SCLC R/L 12CA-12	40	16	12	47	35	20	14	CCM.. 1204..	0,060

Ref.	SCLC R/L 06CA-06	SCLC R/L 08CA-06	SCLC R/L 10CA-09	SCLC R/L 12CA-12								
	1425	1425	1440	1250	5507	5507	5515	5520	1403	1403	1405	1405
	1503	1503	1504	1505	5015	5015	5002	5025	2803	2804	2806	2806
	1803	1804	1806	1806	5002	5002	5002	5025	1803	1804	1806	1806
	5002	5025	5004	5004					5002	5025	5004	5004

Ref.	CC..	l	s	d	CCGT-AL	CCGT-AP	CCMT-03	CCMW
	CC.. 0602..	6,45	2,38	6,35				
CC.. 09T3..	9,65	3,97	9,52					
CC.. 1204..	12,90	4,76	12,70					

For more information see page: A.18 Positive 7° clearance - 80° Rhombic inserts

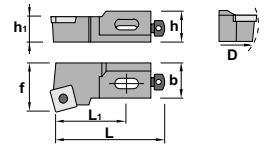
Inserts



Characteristics: Cartridge equipped with square positive inserts. The center screw ensures good rigidity and chip flow.

Negative inserts Cartridge Ref. PSKN (Page: J.09).

Axial: -1°
Radial: -3.75°



General turning

Aluminium wheel turning

SSKC 75°

Ref.	D	h	h1	L	L1	f	b	Insert size	Kg
SSKC R/L 10CA-09	30	14	10	50	30	14	10,0	SC.. 09T3..	0,030
SSKC R/L 12CA-12	40	16	12	55	35	20	14,0	SC.. 1204..	0,065
SSKC R/L 16CA-12	50	20	16	63	38	25	17,5	SC.. 1204..	0,115

Automatic lathes

Ref.								
SSKC R/L 10CA-09	1440	5515	1405	1504	5002	2806	1816	5004
SSKC R/L 12CA-12	1250	5520	1405	1505	5025	2806	1806	5004
SSKC R/L 16CA-12	1250	5520	1406	1505	5025	2808	1808	5005

Ceramic tools

Ref.	SC..	l	s	d	SCGT-AL	SCMT-03	SCMT-39	SCMW
	SC.. 09T3..	9,52	3,97	9,52				
SC.. 1204..	12,70	4,76	12,70					

For more information see page: A.26

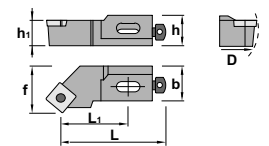
Positive 7° clearance - Square inserts.

Parting and grooving

Characteristics: Cartridge equipped with square positive inserts. The center screw ensures good rigidity and chip flow.

Negative inserts Cartridge Ref. PSSN (Page: J.10).

Axial: -3.5°
Radial: -3.5°



Threading

Drills

SSSC 45°

Ref.	D	h	h1	L	L1	f	b	Insert size	Kg
SSSC R/L 10CA-09	30	14	10	44	24	14	10,0	SC.. 09T3..	0,030
SSSC R/L 12CA-12	40	16	12	47	27	20	14,0	SC.. 1204..	0,055
SSSC R/L 16CA-12	50	20	16	53	28	25	17,5	SC.. 1204..	0,090

Cartridges

Ref.								
SSSC R/L 10CA-09	1240	5515	1405	1504	5002	2806	1816	5004
SSSC R/L 12CA-12	1250	5520	1405	1505	5025	2806	1806	5004
SSSC R/L 16CA-12	1250	5520	1406	1505	5025	2808	1808	5005

Ref.	SC..	l	s	d	SCGT-AL	SCMT-03	SCMT-39	SCMW
	SC.. 09T3..	9,52	3,97	9,52				
SC.. 1204..	12,70	4,76	12,70					

For more information see page: A.26

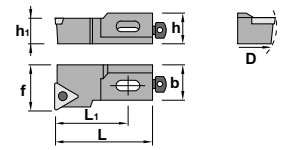
Positive 7° clearance - Square inserts.



Characteristics: Cartridge for face turning applications equipped with triangular positive inserts. The center screw ensures good rigidity and chip flow.

Negative inserts cartridge Ref. PTFN (Page: J.10).

Axial: 0°
Radial: -3°



STFC 90°		D	h	h1	L	L1	f	b	Insert size	
Ref.	STFC R/L 08CA-09	25	8	8	36	15	10	7,0	TC.. 0902..	0,010
	STFC R/L 08CA-11	25	8	8	36	15	10	7,0	TC.. 1102..	0,010
	STFC R/L 10CA-11	30	14	10	50	30	14	10,0	TC.. 1102..	0,035
	STFC R/L 12CA-16	40	16	12	55	35	20	14,0	TC.. 16T3..	0,065
	STFC R/L 16CA-16	50	20	16	63	38	25	17,5	TC.. 16T3..	0,125

Ref.	STFC R/L 08CA-09	1222	5506	1403	1503	5015	2804	1804	5025
	STFC R/L 08CA-11	1225	5507	1403	1503	5015	2804	1804	5025
	STFC R/L 10CA-11	1225	5507	1405	1504	5002	2806	1816	5004
	STFC R/L 12CA-16	1240	5515	1405	1505	5025	2806	1806	5004
	STFC R/L 16CA-16	1240	5515	1406	1505	5025	2808	1808	5005

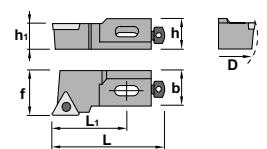
		TC..	l	s	d	TCGT-AL	TCMT-03	TCMW
Ref.	TC.. 0902..		9,62	2,38	5,55			
	TC.. 1102..		11,00	2,38	6,35			
	TC.. 16T3..		16,50	3,97	9,52			
For more information see page: A.28						Positive 7° clearance - Triangular inserts.		



Characteristics: Cartridge for face turning applications equipped with triangular positive inserts. The center screw ensures good rigidity and chip flow.

Negative inserts cartridge Ref. PTGN (Page: J.11).

Axial: 0°
Radial: -3°



STGC 90°		D	h	h1	L	L1	f	b	Insert size	
Ref.	STGC R/L 10CA-11	30	14	10	50	30	14	10,0	TC.. 1102..	0,035
	STGC R/L 12CA-16	40	16	12	55	35	20	14,0	TC.. 16T3..	0,065
	STGC R/L 16CA-16	50	20	16	63	38	25	17,5	TC.. 16T3..	0,125

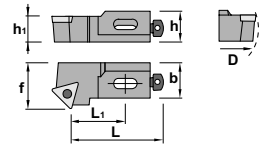
Ref.	STGC R/L 10CA-11	1225	5507	1405	1504	5002	2806	1816	5004
	STGC R/L 12CA-16	1240	5515	1405	1505	5025	2806	1806	5004
	STGC R/L 16CA-16	1240	5515	1406	1505	5025	2808	1808	5005

		TC..	l	s	d	TCGT-AL	TCMT-03	TCMW
Ref.	TC.. 1102..		11,00	2,38	6,35			
	TC.. 16T3..		16,50	3,97	9,52			
For more information see page: A.28						Positive 7° clearance - Triangular inserts.		

Characteristics: Cartridge for face turning applications equipped with triangular positive inserts. The center screw ensures good rigidity and chip flow.

Negative inserts cartridge Ref. PTSN (Page: J.11).

Axial: -3.5°
Radial: -3.5°



STSC 45°

Ref.	D	h	h ₁	L	L ₁	f	b	Insert size	Kg
STSC R/L 08CA-09	25	8	8	27	16	10	7,0	TC.. 0902..	0,005
STSC R/L 08CA-11	25	8	8	27	16	10	7,0	TC.. 1102..	0,005
STSC R/L 10CA-11	30	14	10	44	24	14	10,0	TC.. 1102..	0,035
STSC R/L 12CA-16	40	16	12	47	27	20	14,0	TC.. 16T3..	0,065
STSC R/L 16CA-16	50	20	16	53	28	25	17,5	TC.. 16T3..	0,110

Ref.	1222	5506	1403	1503	5015	2804	1804	5025
STSC R/L 08CA-09	1222	5506	1403	1503	5015	2804	1804	5025
STSC R/L 08CA-11	1225	5507	1403	1503	5015	2804	1804	5025
STSC R/L 10CA-11	1225	5507	1405	1504	5002	2806	1816	5004
STSC R/L 12CA-16	1240	5515	1405	1505	5025	2806	1806	5004
STSC R/L 16CA-16	1240	5515	1406	1505	5025	2808	1808	5005

	TC..	l	s	d	TCGT-AL	TCMT-03	TCMW
Ref.	TC.. 0902..	9,62	2,38	5,55			
	TC.. 1102..	11,00	2,38	6,35			
	TC.. 16T3..	16,50	3,97	9,52			

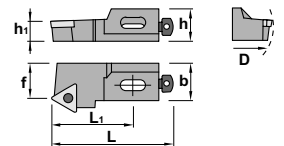
For more information see page: A.28

Positive 7° clearance - Triangular inserts.

Characteristics: Cartridge for face turning applications equipped with triangular positive inserts. The center screw ensures good rigidity and chip flow.

Negative inserts cartridge Ref. PTTN (Page: J.12).

Axial: -1.5°
Radial: -2.5°



STTC 60°

Ref.	D	h	h ₁	L	L ₁	f	b	Insert size	Kg
STTC R/L 08CA-09	25	8	8	27	15	6	7,0	TC.. 0902..	0,010
STTC R/L 08CA-11	25	8	8	27	15	6	7,0	TC.. 1102..	0,010
STTC R/L 10CA-11	30	14	10	50	30	9	10,0	TC.. 1102..	0,035
STTC R/L 12CA-16	40	16	12	55	35	13	14,0	TC.. 16T3..	0,065
STTC R/L 16CA-16	50	20	16	63	38	15	17,5	TC.. 16T3..	0,105

Ref.	1222	5506	1403	1503	5015	2804	1804	5025
STTC R/L 08CA-09	1222	5506	1403	1503	5015	2804	1804	5025
STTC R/L 08CA-11	1225	5507	1403	1503	5015	2804	1804	5025
STTC R/L 10CA-11	1225	5507	1405	1504	5002	2806	1816	5004
STTC R/L 12CA-16	1240	5515	1405	1505	5025	2806	1806	5004
STTC R/L 16CA-16	1240	5515	1406	1505	5025	2808	1808	5005

	TC..	l	s	d	TCGT-AL	TCMT-03	TCMW
Ref.	TC.. 0902..	9,62	2,38	5,55			
	TC.. 1102..	11,00	2,38	6,35			
	TC.. 16T3..	16,50	3,97	9,52			

For more information see page: A.28

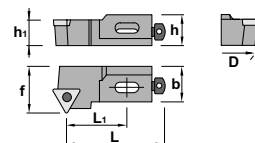
Positive 7° clearance - Triangular inserts.



Characteristics: Cartridge for face turning applications equipped with triangular positive inserts. The center screw ensures good rigidity and chip flow.

Negative inserts cartridge Ref. PTWN (Page: J.12).

Axial: -1.5°
Radial: -2.5°



STWC 30°		D	h	h1	L	L1	f	b	Insert size	Kg
Ref.	STWC R/L 08CA-11	25	8	8	27	16	10	7,0	TC.. 1102..	0,005
	STWC R/L 10CA-11	30	14	10	44	24	14	10,0	TC.. 1102..	0,035
	STWC R/L 12CA-16	40	16	12	47	27	20	14,0	TC.. 16T3..	0,065
	STWC R/L 16CA-16	50	20	16	53	28	25	17,5	TC.. 16T3..	0,110

Ref.	STWC R/L 08CA-11	STWC R/L 10CA-11	STWC R/L 12CA-16	STWC R/L 16CA-16					
	1225	1225	1240	1240	1225	5507	1403	1503	5015
	5507	1405	1505	5025	2804	1804	5025	2806	1806
	1405	1505	5025	2806	1806	5004	2808	1808	5005

	TC..				TCGT-AL	TCMT-03	TCMW
	Ref.	l	s	d			
	TC.. 1102..	11,00	2,38	6,35			
TC.. 16T3..	16,50	3,97	9,52				

For more information see page: A.28