

# Cartridges

Inserts

General turning

Aluminium  
wheel turning

Automatic lathes

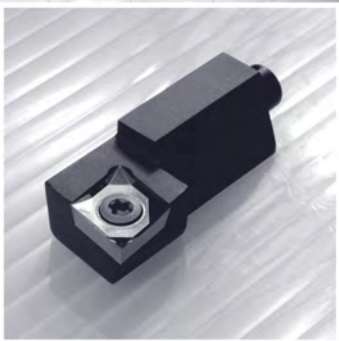
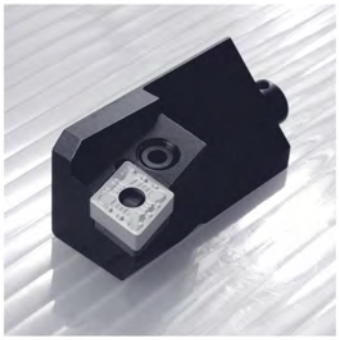
Ceramic tools

Parting and  
grooving

Threading

Drills

Cartridges

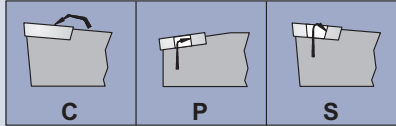


# Cartridges

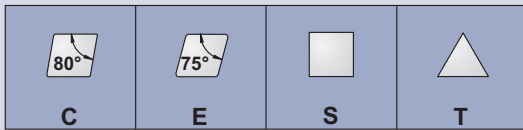
Code key	J.02
Applications index	J.03
Top clamp cartridges	J.04
Lever lock cartridges	J.08
Center screw cartridges	J.13

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

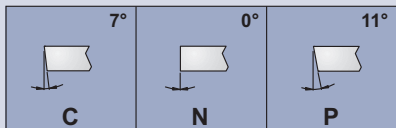
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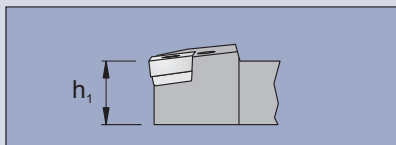
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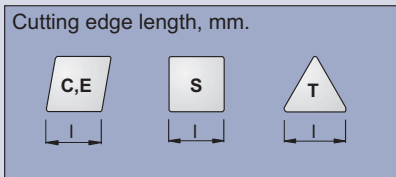
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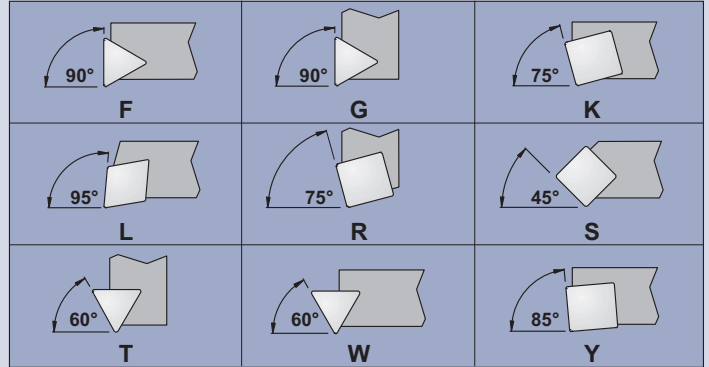
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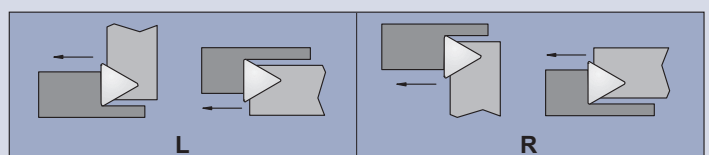
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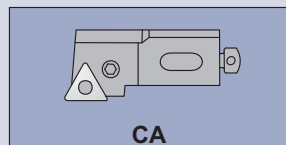
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**5**



**7**



Inserts

General turning

Aluminium wheel turning

Automatic lathes

Ceramic tools

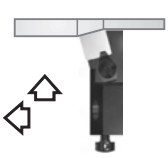
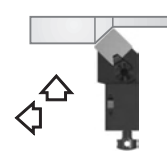
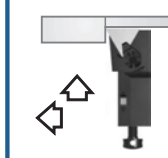
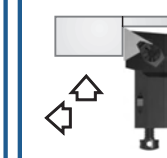
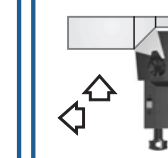
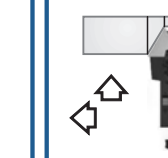
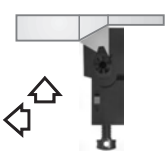
Parting and grooving

Threading

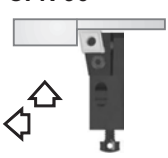
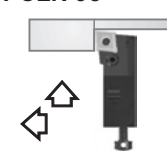
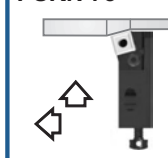

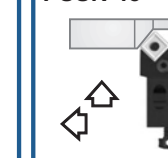
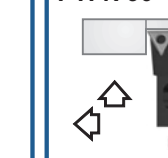
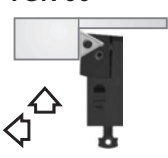
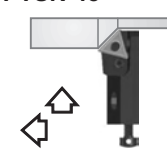
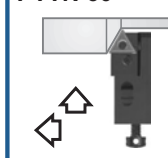
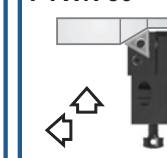
Drills

Cartridges

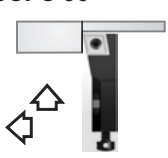
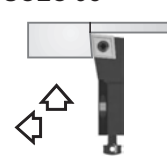
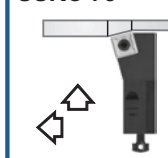
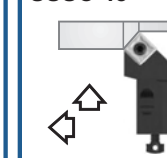
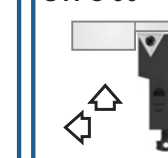
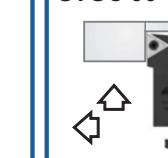
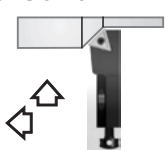
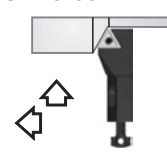
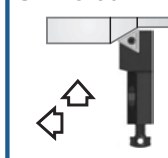
Top clamp cartridges

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

Lever lock cartridges

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

Center screw cartridges

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

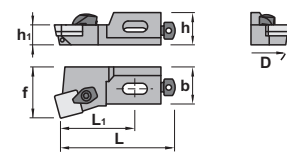
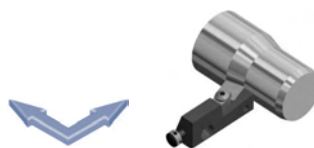
Inserts



**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	h <sub>1</sub>	L	L <sub>1</sub>	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

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

For more information see page: A.28

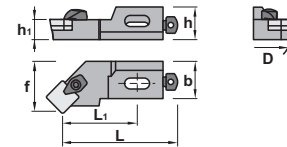
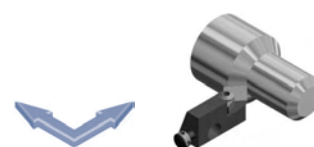
Positive 11° clearance - Square inserts

Parting and grooving

**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°



Threading

## CSSP 45°

Ref.		D	h	h <sub>1</sub>	L	L <sub>1</sub>	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

Drills

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

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

For more information see page: A.28

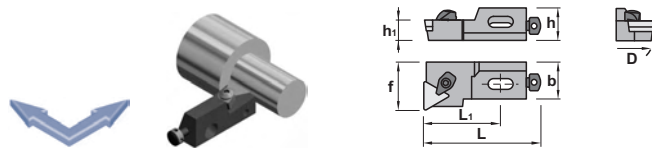
Positive 11° clearance - Square inserts



**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°

Ref.		D	h	h <sub>1</sub>	L	L <sub>1</sub>	f	b	Insert size	kg
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	CTFP R/L 12CA-16	CTFP R/L 16CA-16								
	2304	5025	-	-	1405	1504	5002	2806	1816	5004	
	2305	5003	-	-	1405	1505	5025	2806	1806	5004	
	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					

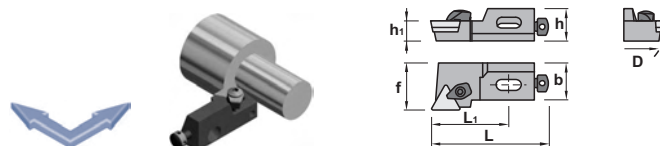
For more information see page: A.31 Positive 11° clearance - Triangular inserts.



**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°

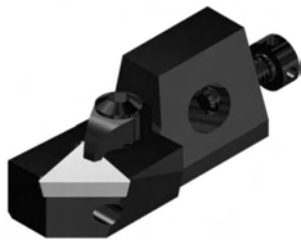
Ref.		D	h	h <sub>1</sub>	L	L <sub>1</sub>	f	b	Insert size	kg
CTGP R/L 10CA-11		40	15	10	50	30	14	11	TP..1103..	0,035
CTGP R/L 12CA-16		50	20	12	55	35	20	16	TP..1603..	0,070
CTGP R/L 16CA-16		60	25	16	63	38	25	20	TP..1603..	0,115

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

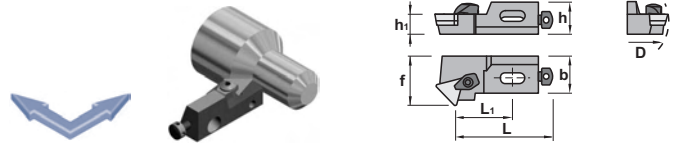
Inserts



**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

CTSP 45°		D	h	h <sub>1</sub>	L	L <sub>1</sub>	f	b	Insert size	kg
Ref.	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

Aluminium wheel turning

Automatic lathes

Ref.	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

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.

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

CTTP 60°		D	h	h <sub>1</sub>	L	L <sub>1</sub>	f	b	Insert size	kg
Ref.	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

Drills

Cartridges

Ref.	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

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					

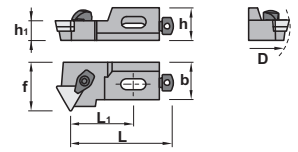
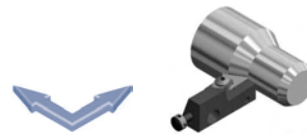
For more information see page: A.31 Positive 11° clearance - Triangular inserts.



**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. PTWN (Page: J.12).

**Axial:** 5.25°  
**Radial:** 3°



## CTWP 30°

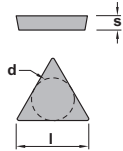
Ref.		D	h	h1	L	L1	f	b	Insert size	kg
CTWP R/L 10CA-11		40	15	10	44	24	14	11	TP..1103..	0,035
CTWP R/L 12CA-16		50	20	12	47	27	20	16	TP..1603..	0,065
CTWP R/L 16CA-16		55	25	16	53	28	25	20	TP..1603..	0,105

Ref.											
CTWP R/L 10CA-11		2304	5025	-	-	1405	1504	5002	2806	1816	5004
CTWP R/L 12CA-16		2305	5003	-	-	1405	1505	5025	2806	1806	5004
CTWP 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

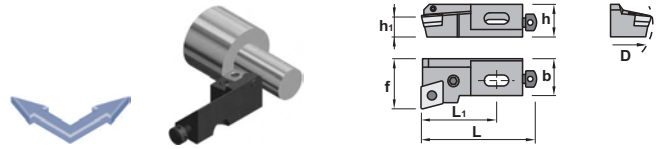
Positive 11° clearance - Triangular inserts.



**Characteristics:** Cartridge equipped with 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°



## PCFN 90°

Ref.		D	h	h <sub>1</sub>	L	L <sub>1</sub>	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

Inserts

General turning

Aluminium wheel turning

Automatic lathes

Ceramic tools

Parting and grooving

Threading

Drills

Cartridges

Ref.	PCFN R/L 16CA-12	PCFN R/L 20CA-12	PCFN R/L 25CA-16	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			

	CN..	l	s	d	CNMG-CF	CNMG-CM	CNMG-CR	CNMG-CS
Ref.	CN.. 1204..	12,90	4,76	12,70				
	CN.. 1606..	16,10	6,35	15,88				

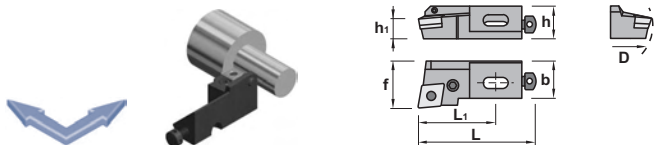
Negative 80° rhombic inserts For more information see page: A.18

More inserts: CNMG-CFM, CNMG-CFC, CNMG-CMC, CNMG-CMF, CNMG-CMR, CNMM.

**Characteristics:** Cartridge equipped with rhombic negative double sided 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°



## PCLN 95°

Ref.		D	h	h <sub>1</sub>	L	L <sub>1</sub>	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

Ref.	PCLN R/L 16CA-12	PCLN R/L 20CA-12	PCLN R/L 25CA-16	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			

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

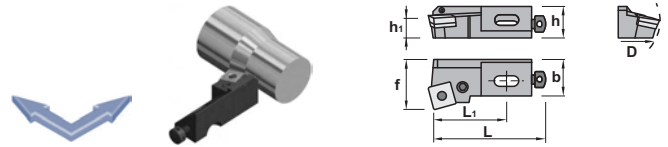
More inserts: CNMG-CFM, CNMG-CFC, CNMG-CMC, CNMG-CMF, CNMG-CMR, CNMM.



**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°

Ref.		D	h	h <sub>1</sub>	L	L <sub>1</sub>	f	b	Insert size	kg
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								
	8212	1626	5025	-	-	1405	1505	-	5025	2806	1806	5004
	8312	1648	5003	3512	4112	1406	1505	0012	5025	2808	1808	5005
	8012	1608	5003	3512	4112	1406	1506	0012	5003	2808	1808	5005
	8016	1618	5003	3515	4115	1408	1508	0015	5004	2810	1810	5006

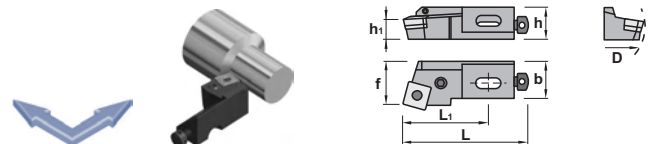
Ref.	SNM..	l	s	d	SNMA	SNMG-CFM	SNMG-CMR	SNMG-CR
	SNM.. 1204..	12,70	4,76	12,70				
SNM.. 1506..	15,88	6,35	15,88					

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



**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°

Ref.		D	h	h <sub>1</sub>	L	L <sub>1</sub>	f	b	Insert size	kg
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										
	8312	1648	5003	3512	4112	1406	1505	0012	5025	2808	1808	5005
	8012	1608	5003	3512	4112	1406	1506	0012	5003	2808	1808	5005

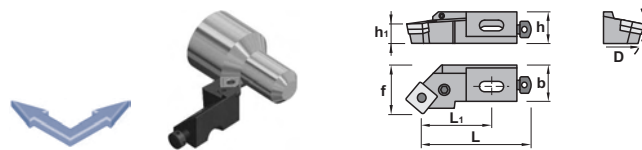
Ref.	SNM..	l	s	d	SNMA	SNMG-CFM	SNMG-CMR	SNMG-CR
	SNM.. 1204..	12,70	4,76	12,70				

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

**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°



PSSN 45°		D	h	h1	L	L1	f	b	Insert size	Kg
Ref.	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

Ref.	PSSN R/L 12CA-12	PSSN R/L 16CA-12	PSSN R/L 20CA-12	8212	1626	5025	-	-	1405	1505	-	5025	2806	1806	5004
	PSSN R/L 16CA-12	PSSN R/L 20CA-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	

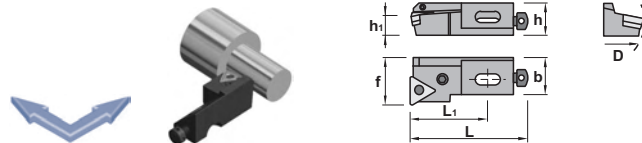
Ref.	SNM..	l	s	d	SNMA	SNMG-CFM	SNMG-CMR	SNMG-CR
	SNM.. 1204..	12,70	4,76	12,70				

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

**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°

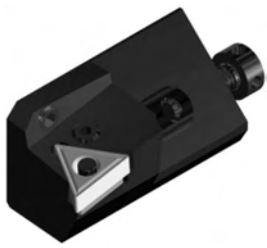


PTFN 90°		D	h	h1	L	L1	f	b	Insert size	Kg
Ref.	PTFN R/L 12CA-16	50	20	12	55	35	20	16	TNM.. 1604..	0,080
	PTFN R/L 16CA-16	60	25	16	63	38	25	20	TNM.. 1604..	0,120
	PTFN R/L 20CA-22	70	30	20	70	40	25	20	TNM.. 2204..	0,160
	PTFN R/L 25CA-22	100	35	25	100	50	32	25	TNM.. 2204..	0,400

Ref.	PTFN R/L 12CA-16	PTFN R/L 16CA-16	PTFN R/L 20CA-22	PTFN R/L 25CA-22	8216	1605	5002	-	-	1405	1505	-	5025	2806	1806	5004
	PTFN R/L 16CA-16	PTFN R/L 20CA-22	PTFN R/L 25CA-22		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

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			

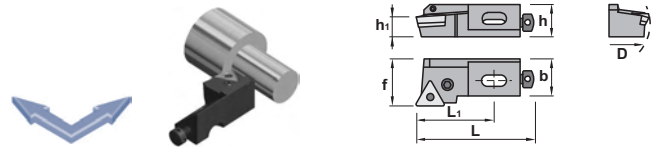
For more information see page: A.29



**Characteristics:** Cartridge equipped with 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°

Ref.		D	h	h <sub>1</sub>	L	L <sub>1</sub>	f	b	Insert size	kg
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	8009	8012	1605	1606	1608	5002	5025	5003	-	-	-
				3416	4109	4112	1405	1406	1406	1505	1506	1505
				5002	5025	5003	1405	1406	1505	1506	0009	0012
				5025	2808	2808	5025	5025	5025	5025	1806	1808
				3422	1808	1808	4112	4112	4112	4112	5004	5005
				4112	5005	5005	1406	1406	1506	1506	5004	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				

For more information see page: A.29

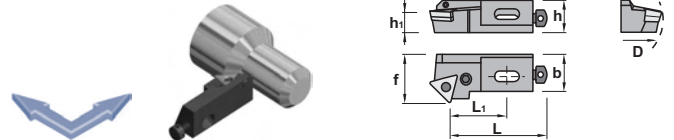
More inserts: TNMA, TNMG-CFC, TNMG-CFM, TNMG-CMC, TNMG-CMF, TNMG-CMR, TNMX



**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°

Ref.		D	h	h <sub>1</sub>	L	L <sub>1</sub>	f	b	Insert size	kg
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	8009	8012	8012	1605	1606	1608	5002	5025	5003	-	-
					3416	4109	4112	1405	1406	1505	1506	1505
					5002	5025	5003	1405	1406	1505	1506	0009
					5025	2808	2808	5025	5025	5025	5025	1806
					3422	1808	1808	4112	4112	4112	4112	5004
					4112	5005	5005	1408	1408	1508	1508	5005
					4112	5005	5005	1408	1408	1508	1508	5006

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				

For more information see page: A.29

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

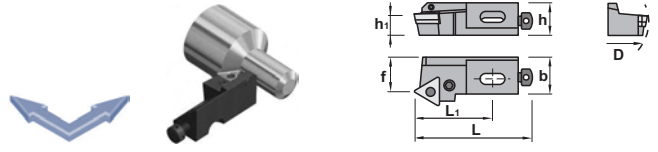
Inserts



**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. CTTP (Page: J.06) or STTC (Page: J.16).

**Axial:** -6°  
**Radial:** -10°



General turning

## PTTN 60°

Ref.		D	h	h1	L	L1	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

Aluminium wheel turning

Automatic lathes

Ref.	PTTN R/L 12CA-16	PTTN R/L 16CA-16	PTTN 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

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			

For more information see page: A.29

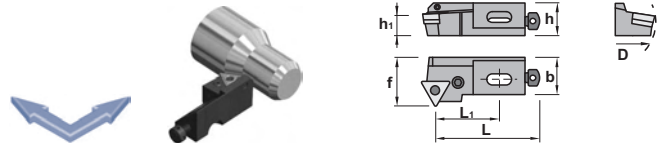
More inserts: TNMA, TNMG-CFC, TNMG-CFM, TNMG-CMC, TNMG-CMF, TNMG-CMR, TNMX

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

## PTWN 30°

Ref.		D	h	h1	L	L1	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

Drills

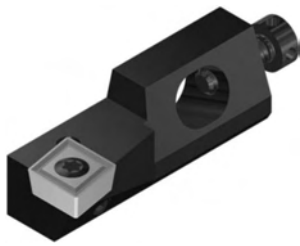
Cartridges

Ref.	PTWN R/L 12CA-16	PTWN R/L 16CA-16	PTWN 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

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			

For more information see page: A.29

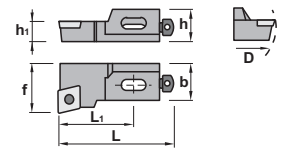
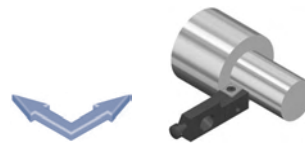
More inserts: TNMA, TNMG-CFC, TNMG-CFM, TNMG-CMC, TNMG-CMF, TNMG-CMR, TNMX



**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°

Ref.		D	h	h1	L	L1	f	b	Insert size	Kg
SCFC R/L 06CA-06		20	8	6	25	13,5	10	5	CCM.. 0602..	0,005
SCFC R/L 08CA-06		25	11	8	27	15	10	7,5	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		1425	5507	1403	1503	5015	2803	1803	5002
SCFC R/L 08CA-06		1425	5507	1403	1503	5015	2804	1804	5025
SCFC R/L 10CA-09		1440	5515	1405	1504	5002	2806	1806	5004
SCFC R/L 12CA-12		1250	5520	1405	1505	5025	2806	1806	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				

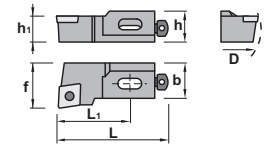
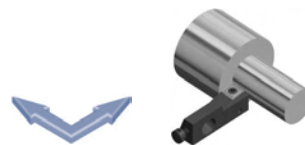
For more information see page: A.18 Positive 7° clearance - 80° Rhombic inserts



**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°

Ref.		D	h	h1	L	L1	f	b	Insert size	Kg
SCLC R/L 06CA-06		20	8	6	25	13,5	10	5	CCM.. 0602..	0,005
SCLC R/L 08CA-06		25	11	8	27	15	12	7,5	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		1425	5507	1403	1503	5015	2803	1803	5002
SCLC R/L 08CA-06		1425	5507	1403	1503	5015	2804	1804	5025
SCLC R/L 10CA-09		1440	5515	1405	1504	5002	2806	1806	5004
SCLC R/L 12CA-12		1250	5520	1405	1505	5025	2806	1806	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

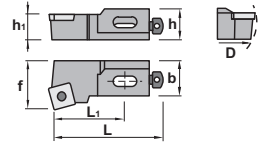
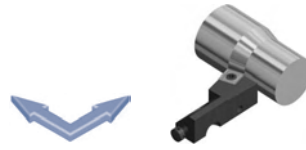
Inserts



**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

## 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

Aluminium wheel turning

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

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

For more information see page: A.26

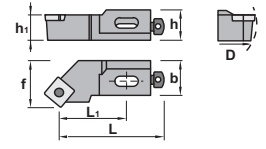
Positive 7° clearance - Square inserts.

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

## 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

Drills

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

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

For more information see page: A.26

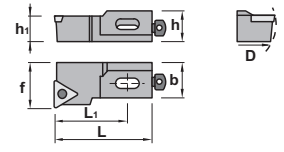
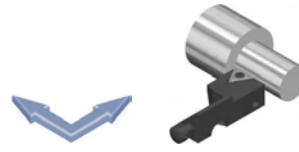
Positive 7° clearance - Square inserts.



**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°

Ref.		D	h	h <sub>1</sub>	L	L <sub>1</sub>	f	b	Insert size	Kg
STFC R/L 08CA-09		25	8	8	36	15	10	7,0	TC.. 0902..	0,010
STFC R/L 08CA-11		25	11	8	36	15	11	7,5	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			

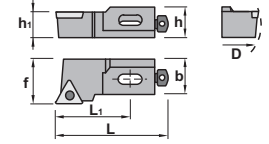
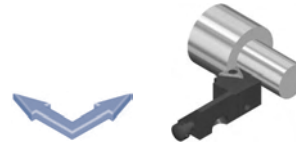
For more information see page: A.28 Positive 7° clearance - Triangular inserts.



**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°

Ref.		D	h	h <sub>1</sub>	L	L <sub>1</sub>	f	b	Insert size	Kg
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.

Inserts

General turning

Aluminium wheel turning

Automatic lathes

Ceramic tools

Parting and grooving

Threading

Drills

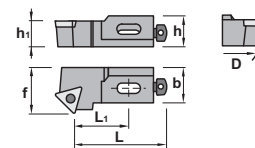
Cartridges



**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 <sub>1</sub>	L	L <sub>1</sub>	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	11	8	27	10	11	7,5	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

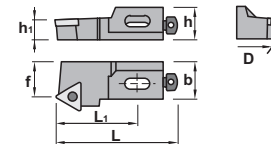
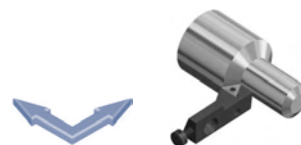
Positive 7° clearance - Triangular inserts.



**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°

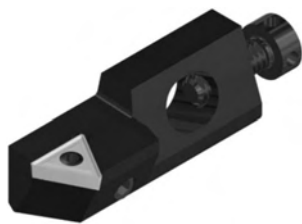
Ref.	D	h	h <sub>1</sub>	L	L <sub>1</sub>	f	b	Insert size	Kg
STTC R/L 08CA-09	25	8	8	27	15	6	7,0	TC.. 0902..	0,010
STTC R/L 08CA-11	25	8	8	27	15	6	7,0	TC.. 1102..	0,010
STTC R/L 10CA-11	30	14	10	50	30	14	10,0	TC.. 1102..	0,035
STTC R/L 12CA-16	40	16	12	55	35	13	14,0	TC.. 16T3..	0,065
STTC R/L 16CA-16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

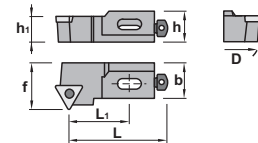
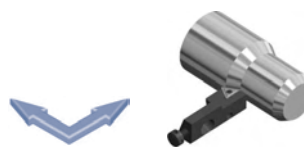
Positive 7° clearance - Triangular inserts.



**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°

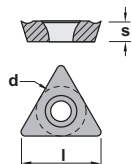
Ref.		D	h	h1	L	L1	f	b	Insert size	kg
	STWC R/L 08CA-11	25	11	8	27	10	10	7,5	TC.. 1102..	0,005
	STWC R/L 10CA-11	30	14	10	44	24	14	10,0	TC.. 1102..	0,035
	STWC R/L 12CA-16	40	16	12	47	27	20	14,0	TC.. 16T3..	0,065
	STWC R/L 16CA-16	50	20	16	53	28	25	17,5	TC.. 16T3..	0,110

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

Ref.	TC..	l	s	d	TCGT-AL	TCMT-03	TCMW
	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.



Inserts

General turning

Aluminium  
wheel turning

Automatic lathes

Ceramic tools

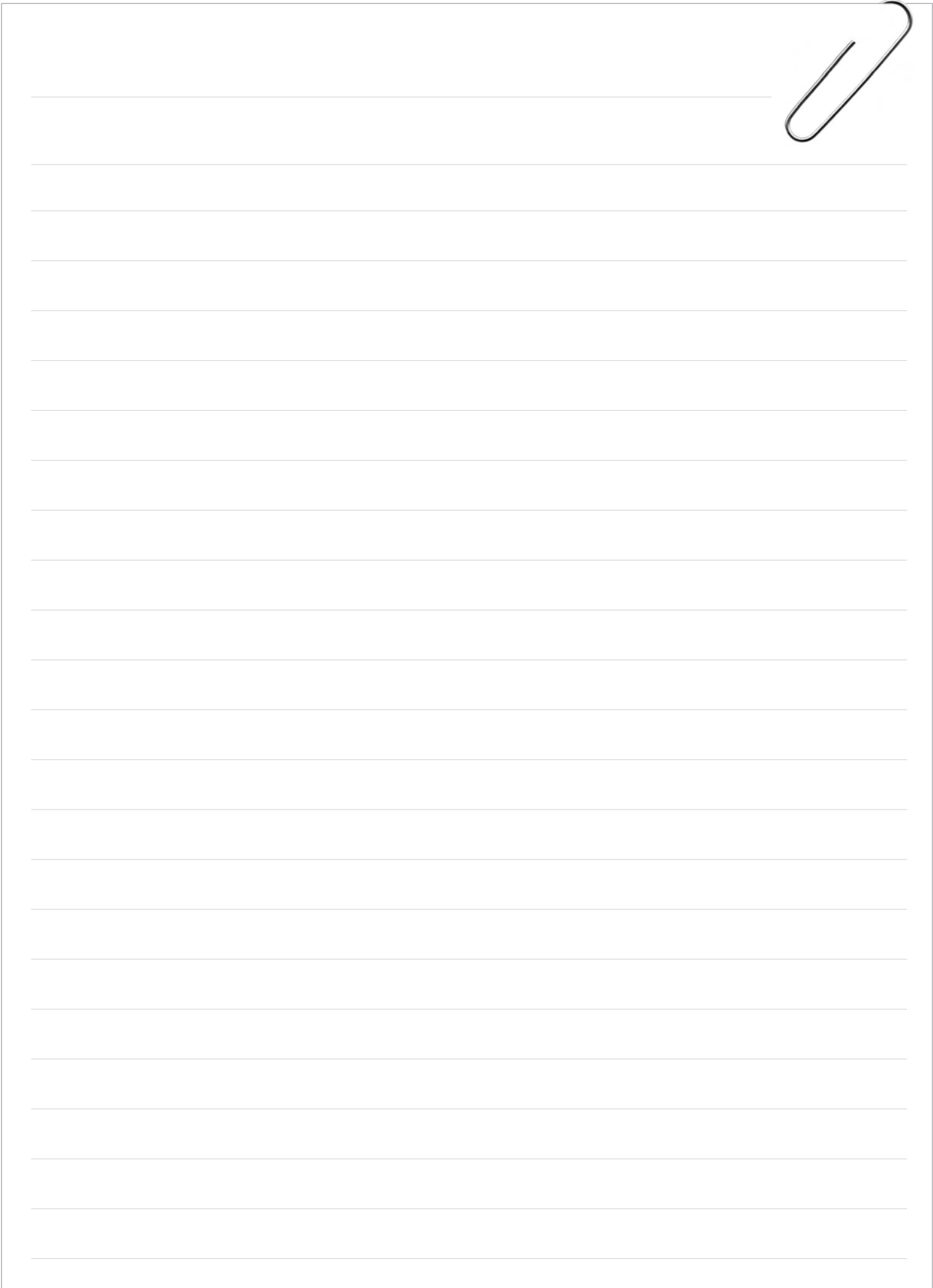
Parting and  
grooving

Threading

Drills

Cartridges





A large rectangular area with horizontal lines for writing, resembling a notepad page. A paperclip is drawn in the top right corner of this area.

Cartridges
Brazed tools
Tooling