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POWER TO PRODUCE

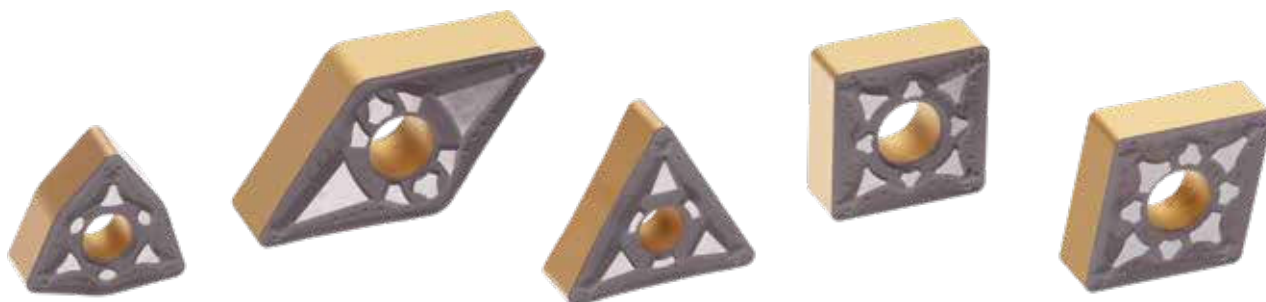
A BRAND OF SARTORIUS WERKZEUGE

NEW GENERATION OF SARA TURNING INSERTS



**Offer valid until
31.12.2024**

SARA STEEL TURNING



Greatly improved Al_2O_3 coating, with optimised crystal orientation. Suitable for productive turning of steels & cast steels.

The ideal choice for most steel turning applications; from roughing to finishing, for continuous or interrupted cuts.

Technical features

Thanks to its innovative alumina layer, this new coating has greatly improved wear and heat resistance.

This enables better performance in the vast majority of steel turning applications, with greater material removal rates, and longer, more predictable tool life.

Unidirectional crystals

Advancements in the CVD process have allowed for a great deal of control over the direction in which alumina crystals are grown.

This ability enables the production of coatings in which every single alumina crystal provides maximum strength and wear resistance.

Other insert details

In addition to the alumina layer, this coating also features a yellow top layer, which allows for improved wear detection, and helps you identify unused edges, helping to reduce waste.

Furthermore, the very hard innermost TiCN layer also helps protect the insert from abrasive wear.

Technical Advices

Application

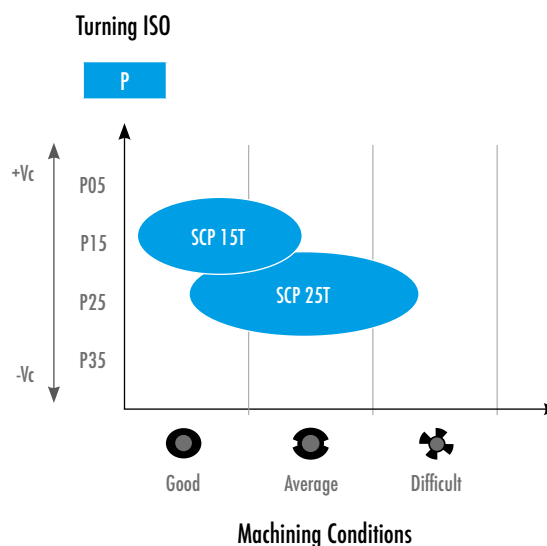
- Turning of steels and cast steels;
- From roughing to finishing operations;

SCP 15T

- Harder grade, with improved heat resistance;
- For higher cutting speeds and continuous cutting;

SCP 25T

- First choice for the majority of steel turning applications;
- Continuous or interrupted cutting, roughing or finishing;



Top coating (TiN)

Designed for easy recognition of insert tool life and wear pattern, combines with new surface treatment for lower adhesion, minimum built-up-edge and enhanced cutting edge stability. Also the special grinding treatment on both top and bottom surfaces, provides improved clamping stability widening the suitable range of applications.



CVD - Alumina coating (Al₂O₃)

The coating has been improved and developed to be an industry leading standard for crystal growth and densification on Al₂O₃ layer. This nano-control technology increases tool life and wear resistance due to the fine, dense crystal growth process.



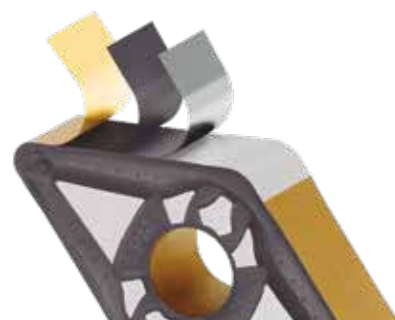
Inner coating (Ti(C,N))

Very hard and abrasion resistant layer, produced from fine grain TiCN particles for greatly improved chipping resistance.



Substrate

Palbit's cemented carbide substrates combine high strength and insert toughness.



NEW ISO indexable cutting inserts CN.. ISO P/K

• 80° rhombic, negative 0°

Chip breaker **MP** negative

F finishing	M medium	R roughing	SARA®	ISO P	ISO M	ISO K	ISO N	ISO S	ISO H	Quality	Art.no.	€	
○	●	-	ISO designation										
<p>Medium processing</p>		CNMG 120404-MP	●		○					SCP15T	10 367020 0115	5,60	
			●		○						SCP25T	10 367020 0125	5,60
			●		○						SCP15T	10 367020 0215	5,60
			●		○						SCP25T	10 367020 0225	5,60
			●		○						SCP15T	10 367020 0315	5,60
			●		○						SCP25T	10 367020 0325	5,60

ISO	SCP15T	SCP25T
ISO P Steel	Vc = 110 - 400	Vc = 100 - 345
ISO K Cast iron	Vc = 110 - 400	Vc = 100 - 345
Vc = [m/min] f = [mm/U] ap = [mm]	f = 0,10 - 0,65 ap = 0,40 - 5,50	

NEW ISO indexable cutting inserts DN.. ISO P/K

• 55° rhombic, negative 0°

Chip breaker **MP** negative

F finishing	M medium	R roughing	SARA®	ISO P	ISO M	ISO K	ISO N	ISO S	ISO H	Quality	Art.no.	€		
○	●	-	ISO designation											
<p>Medium processing</p>		DNMG 150604-MP	●		○					SCP15T	10 367021 0115	8,20		
			●		○						SCP25T	10 367021 0125	8,20	
			●		○							SCP15T	10 367021 0215	8,20
			●		○							SCP25T	10 367021 0225	8,20

ISO	SCP15T	SCP25T
ISO P Steel	Vc = 110 - 350	Vc = 100 - 345
ISO K Cast iron	Vc = 110 - 350	Vc = 100 - 345
Vc = [m/min] f = [mm/U] ap = [mm]	f = 0,15 - 0,50 ap = 0,50 - 6,00	

NEW ISO indexable cutting inserts WN.. ISO P/K

• 80° rhombic, negative 0°

Chip breaker **MP** negative


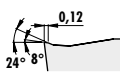
F finishing	M medium	R roughing	SARA®	ISO P	ISO M	ISO K	ISO N	ISO S	ISO H	Quality	Art.no.	€		
○	●	-	ISO designation											
<p>Medium processing</p>		WNMG 060404-MP	●		○					SCP15T	10 367022 0115	5,25		
			●		○						SCP25T	10 367022 0125	5,25	
			●		○							SCP15T	10 367022 0215	5,25
			●		○							SCP25T	10 367022 0225	5,25
			●		○							SCP15T	10 367022 0315	6,40
			●		○							SCP25T	10 367022 0325	6,40
			●		○							SCP15T	10 367022 0415	6,40
			●		○							SCP25T	10 367022 0425	6,40

ISO	SCP15T	SCP25T
ISO P Steel	Vc = 110 - 400	Vc = 100 - 345
ISO K Cast iron	Vc = 110 - 400	Vc = 100 - 345
Vc = [m/min] f = [mm/U] ap = [mm]	f = 0,10 - 0,30 ap = 0,50 - 4,50	

NEW ISO indexable cutting inserts CC.. ISO P/K

• 80° rhombic, positive 7°

Chip breaker MP negative


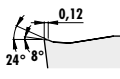
F finishing	M medium	R roughing	SARA®	ISO P	ISO M	ISO K	ISO N	ISO S	ISO H	Quality	Art.no.	€	
○	●	-	ISO designation										
 <p>Medium processing</p> 	CCMT 09T304-MP	●		●						SCP15T	10 367026 0115	5,10	
		●		●							SCP25T	10 367026 0125	5,10
	CCMT 09T308-MP	●		●							SCP15T	10 367026 0215	5,10
		●		●							SCP25T	10 367026 0225	5,10
	CCMT 120404-MP	●		●							SCP15T	10 367026 0315	6,25
		●		●							SCP25T	10 367026 0325	6,25
	CCMT 120408-MP	●		●							SCP15T	10 367026 0415	6,25
		●		●							SCP25T	10 367026 0425	6,25

ISO	SCP15T	SCP25T
ISO P Steel	Vc = 110 - 400	Vc = 100 - 345
ISO K Cast iron	Vc = 110 - 400	Vc = 100 - 345
Vc = [m/min] f = [mm/U] ap = [mm]	f = 0,08 - 0,60 ap = 0,20 - 3,60	

NEW ISO indexable cutting inserts DC.. ISO P/K

• 55° rhombic, positive 7°

Chip breaker MP negative


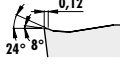
F finishing	M medium	R roughing	SARA®	ISO P	ISO M	ISO K	ISO N	ISO S	ISO H	Quality	Art.no.	€	
○	●	-	ISO designation										
 <p>Medium processing</p> 	DCMT 070204-MP	●		●						SCP15T	10 367027 0115	5,10	
		●		●							SCP25T	10 367027 0125	5,10
	DCMT 070208-MP	●		●							SCP15T	10 367027 0215	5,10
		●		●							SCP25T	10 367027 0225	5,10
	DCMT 11T304-MP	●		●							SCP15T	10 367027 0315	5,10
		●		●							SCP25T	10 367027 0325	5,10
	DCMT 11T308-MP	●		●							SCP15T	10 367027 0415	5,10
		●		●							SCP25T	10 367027 0425	5,10

ISO	SCP15T	SCP25T
ISO P Steel	Vc = 110 - 400	Vc = 100 - 345
ISO K Cast iron	Vc = 110 - 400	Vc = 100 - 345
Vc = [m/min] f = [mm/U] ap = [mm]	f = 0,06 - 0,60 ap = 0,20 - 3,00	

NEW ISO indexable cutting inserts VC.. ISO P/K

• 35° rhombic, positive 7°

Chip breaker MP negative

F finishing	M medium	R roughing	SARA®	ISO P	ISO M	ISO K	ISO N	ISO S	ISO H	Quality	Art.no.	€	
○	●	-	ISO designation										
 <p>Medium processing</p> 	VCMT 110304-MP	●		●						SCP15T	10 367028 0115	6,75	
		●		●							SCP25T	10 367028 0125	6,75
	VCMT 110308-MP	●		●							SCP15T	10 367028 0215	6,75
		●		●							SCP25T	10 367028 0225	6,75
	VCMT 160404-MP	●		●							SCP15T	10 367028 0315	8,55
		●		●							SCP25T	10 367028 0325	8,55
	VCMT 160408-MP	●		●							SCP15T	10 367028 0415	8,55
		●		●							SCP25T	10 367028 0425	8,55

ISO	SCP15T	SCP25T
ISO P Steel	Vc = 110 - 400	Vc = 100 - 345
ISO K Cast iron	Vc = 110 - 400	Vc = 100 - 345
Vc = [m/min] f = [mm/U] ap = [mm]	f = 0,10 - 0,33 ap = 0,23 - 2,70	

SPM NEW GRADE

The cutting edge technology for superalloys Turning



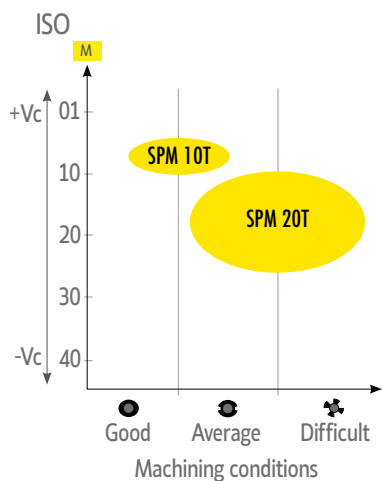
SPM 10T

M05-M10
S05-S15

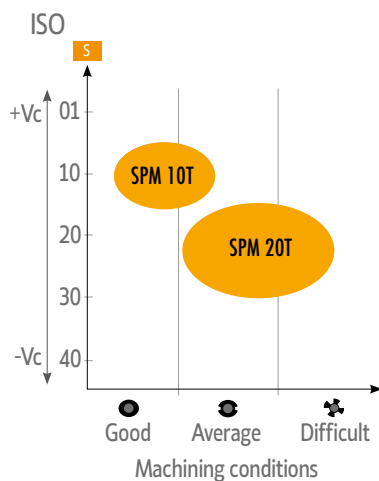
An hard micro grain substrate combined with a thin optimized nanostructure PVD coating with excellent heat dissipation

The solution for Stainless steel and HRSA from medium turning to finishing. For continuous to semi-interrupted turning. First choice for HRSA.

M - STAINLESS STEEL



S - HEAT RESISTANT / TITANIUM ALLOYS



SPM 20T

M10-M25
S15-S30



A micro grain substrate combined with a thin optimized nanostructure PVD coating with excellent heat dissipation

Solution for general turning of stainless steels and HRSA.

NEW ISO indexable cutting inserts CN.. ISO M/S

• 80° rhombic, negative 0°

Spanbrecher **MM** negativ



F finishing ○	M medium ●	R roughing -	SARA ISO designation	ISO P	ISO M	ISO K	ISO N	ISO S	ISO H	Quality	Art.no.	€
 Medium processing 										SPM10T	10 367023 0110	5,20
										SPM20T	10 367023 0120	5,20
										SPM10T	10 367023 0210	5,20
										SPM20T	10 367023 0220	5,20
										SPM10T	10 367023 0310	5,20
										SPM20T	10 367023 0320	5,20

ISO	SPM10T	SPM20T
ISO M Stainless steel	Vc = 130 - 250	Vc = 110 - 220
ISO S Superalloys	Vc = 25 - 70	Vc = 20 - 60
Vc = [m/min] f = [mm/U] ap = [mm]	f = 0,10 - 0,50 ap = 0,50 - 4,0	

NEW ISO indexable cutting inserts DN.. ISO M/S

• 55° rhombic, negative 0°

Spanbrecher **MM** negativ


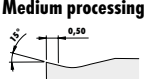
F finishing ○	M medium ●	R roughing -	SARA ISO designation	ISO P	ISO M	ISO K	ISO N	ISO S	ISO H	Quality	Art.no.	€
 Medium processing 										SPM10T	10 367024 0110	5,20
										SPM20T	10 367024 0120	5,20
										SPM10T	10 367024 0210	5,20
										SPM20T	10 367024 0220	5,20
										SPM10T	10 367024 0310	7,70
										SPM20T	10 367024 0320	7,70
										SPM10T	10 367024 0410	7,70
										SPM20T	10 367024 0420	7,70

ISO	SPM10T	SPM20T
ISO M Stainless steel	Vc = 130 - 250	Vc = 110 - 220
ISO S Superalloys	Vc = 25 - 70	Vc = 20 - 60
Vc = [m/min] f = [mm/U] ap = [mm]	f = 0,10 - 0,35 ap = 0,15 - 3,0	

NEW ISO indexable cutting inserts WN.. ISO M/S

• 80° rhombic, negative 0°

Spanbrecher **MM** negativ

F finishing ○	M medium ●	R roughing -	SARA ISO designation	ISO P	ISO M	ISO K	ISO N	ISO S	ISO H	Quality	Art.no.	€
 Medium processing 										SPM10T	10 367025 0110	4,65
										SPM20T	10 367025 0120	4,65
										SPM10T	10 367025 0210	4,65
										SPM20T	10 367025 0220	4,65
										SPM10T	10 367025 0310	5,70
										SPM20T	10 367025 0320	5,70
										SPM10T	10 367025 0410	5,70
										SPM20T	10 367025 0420	5,70

ISO	SPM10T	SPM20T
ISO M Stainless steel	Vc = 130 - 250	Vc = 110 - 220
ISO S Superalloys	Vc = 25 - 70	Vc = 20 - 60
Vc = [m/min] f = [mm/U] ap = [mm]	f = 0,10 - 0,40 ap = 0,15 - 3,5	

NEW ISO indexable cutting inserts CC.. ISO M/S

• 80° rhombic, positive 7°

Spanbrecher **MM** positiv

F finishing	M medium	R roughing	SARA ISO designation	ISO P	ISO M	ISO K	ISO N	ISO S	ISO H	Quality	Art.no.	€
○	●	-			●			●		SPM10T	10 367029 0110	4,25
			CCMT 09T304-MM		●			●		SPM20T	10 367029 0120	4,25
			CCMT 09T308-MM		●			●		SPM10T	10 367029 0210	4,25
					●			●		SPM20T	10 367029 0220	4,25
			CCMT 120404-MM		●			●		SPM10T	10 367029 0310	5,25
					●			●		SPM20T	10 367029 0320	5,25
			CCMT 120408-MM		●			●		SPM10T	10 367029 0410	5,25
					●			●		SPM20T	10 367029 0420	5,25

ISO	SPM10T	SPM20T
ISO M Stainless steel	Vc = 100 - 230	Vc = 90 - 220
ISO S Superalloys	Vc = 40 - 150	Vc = 35 - 145
Vc = [m/min] f = [mm/U] ap = [mm]	f = 0,06 - 0,60 ap = 0,20 - 3,60	

NEW ISO indexable cutting inserts DC.. ISO M/S

• 55° rhombic, positive 7°

Spanbrecher **MM** positiv

F finishing	M medium	R roughing	SARA ISO designation	ISO P	ISO M	ISO K	ISO N	ISO S	ISO H	Quality	Art.no.	€
○	●	-			●			●		SPM10T	10 367030 0110	4,25
			DCMT 070204-MM		●			●		SPM20T	10 367030 0120	4,25
			DCMT 070208-MM		●			●		SPM10T	10 367030 0210	4,25
					●			●		SPM20T	10 367030 0220	4,25
			DCMT 11T304-MM		●			●		SPM10T	10 367030 0310	4,25
					●			●		SPM20T	10 367030 0320	4,25
			DCMT 11T308-MM		●			●		SPM10T	10 367030 0410	4,25
					●			●		SPM20T	10 367030 0420	4,25

ISO	SPM10T	SPM20T
ISO M Stainless steel	Vc = 100 - 230	Vc = 90 - 220
ISO S Superalloys	Vc = 40 - 150	Vc = 35 - 145
Vc = [m/min] f = [mm/U] ap = [mm]	f = 0,06 - 0,60 ap = 0,19 - 3,00	

NEW ISO indexable cutting inserts VC.. ISO M/S

• 35° rhombic, positive 7°

Spanbrecher **MM** positiv

F finishing	M medium	R roughing	SARA ISO designation	ISO P	ISO M	ISO K	ISO N	ISO S	ISO H	Quality	Art.no.	€
○	●	-			●			●		SPM10T	10 367031 0110	5,55
			VCMT 110304-MM		●			●		SPM20T	10 367031 0120	5,55
			VCMT 110308-MM		●			●		SPM10T	10 367031 0210	5,55
					●			●		SPM20T	10 367031 0220	5,55
			VCMT 160404-MM		●			●		SPM10T	10 367031 0310	6,95
					●			●		SPM20T	10 367031 0320	6,95
			VCMT 160408-MM		●			●		SPM10T	10 367031 0410	6,95
					●			●		SPM20T	10 367031 0420	6,95

ISO	SPM10T	SPM20T
ISO M Stainless steel	Vc = 110 - 230	Vc = 90 - 220
ISO S Superalloys	Vc = 40 - 150	Vc = 35 - 145
Vc = [m/min] f = [mm/U] ap = [mm]	f = 0,07 - 0,33 ap = 0,23 - 2,70	

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