

CARBIDEN

2019 EN

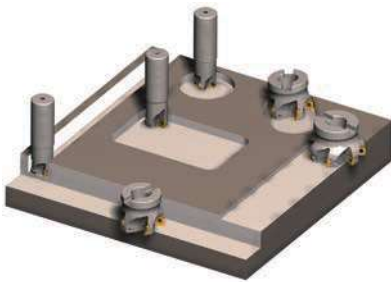
**Tools and inserts
for milling**









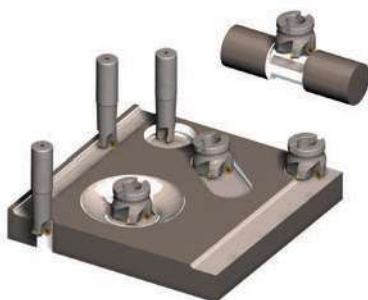
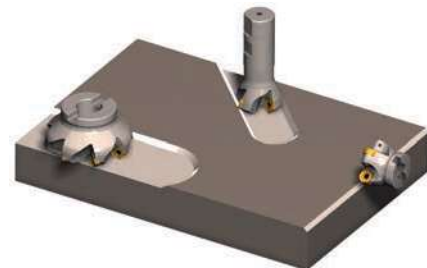
PROFI ***LINE***





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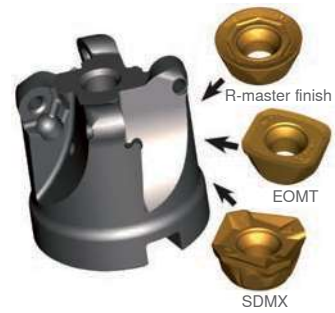


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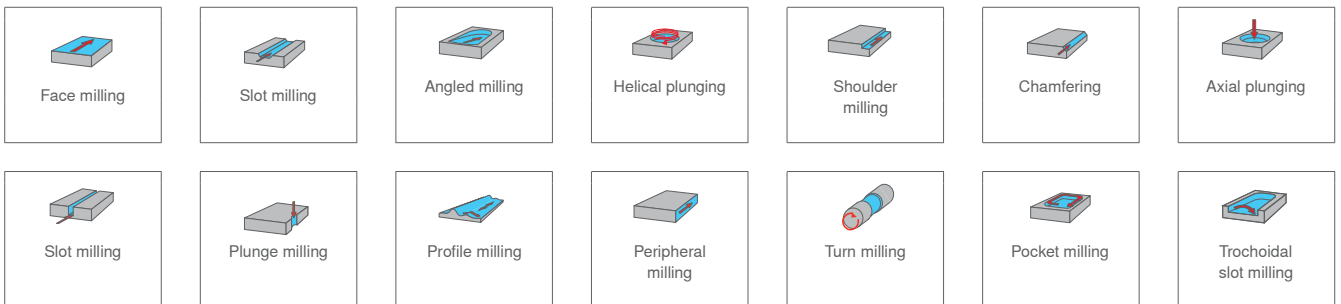
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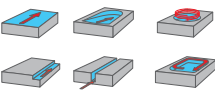

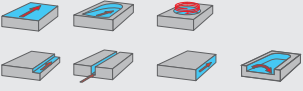

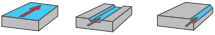

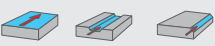

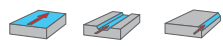




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Shouldering / Face milling


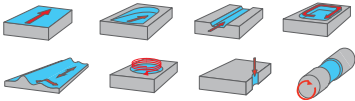

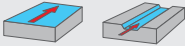

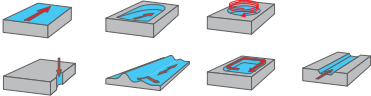

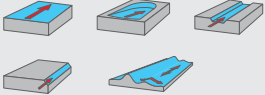
Possible applications



Application		Machining operations	Range	Page
Shouldering 4 x 90°			DSM-L	P 10
Shouldering 3 x 90°			SSM-T	P 14
Shouldering 4 x 90°			SSM-S	P 20
Face milling 6 x 45°			SSM-H	P 26
Face milling 8 x 45°			DSM-S	P 34
Face milling 12 x 45°			DSM-H	P 40



Form milling / High feed cutting / Multiple applications

Application		Machining operations	Range	Page
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Form milling			DSM-R	P 56
High feed cutting			SSM-HFC	P 62
Multiple applications			SSM-A.R	P 72

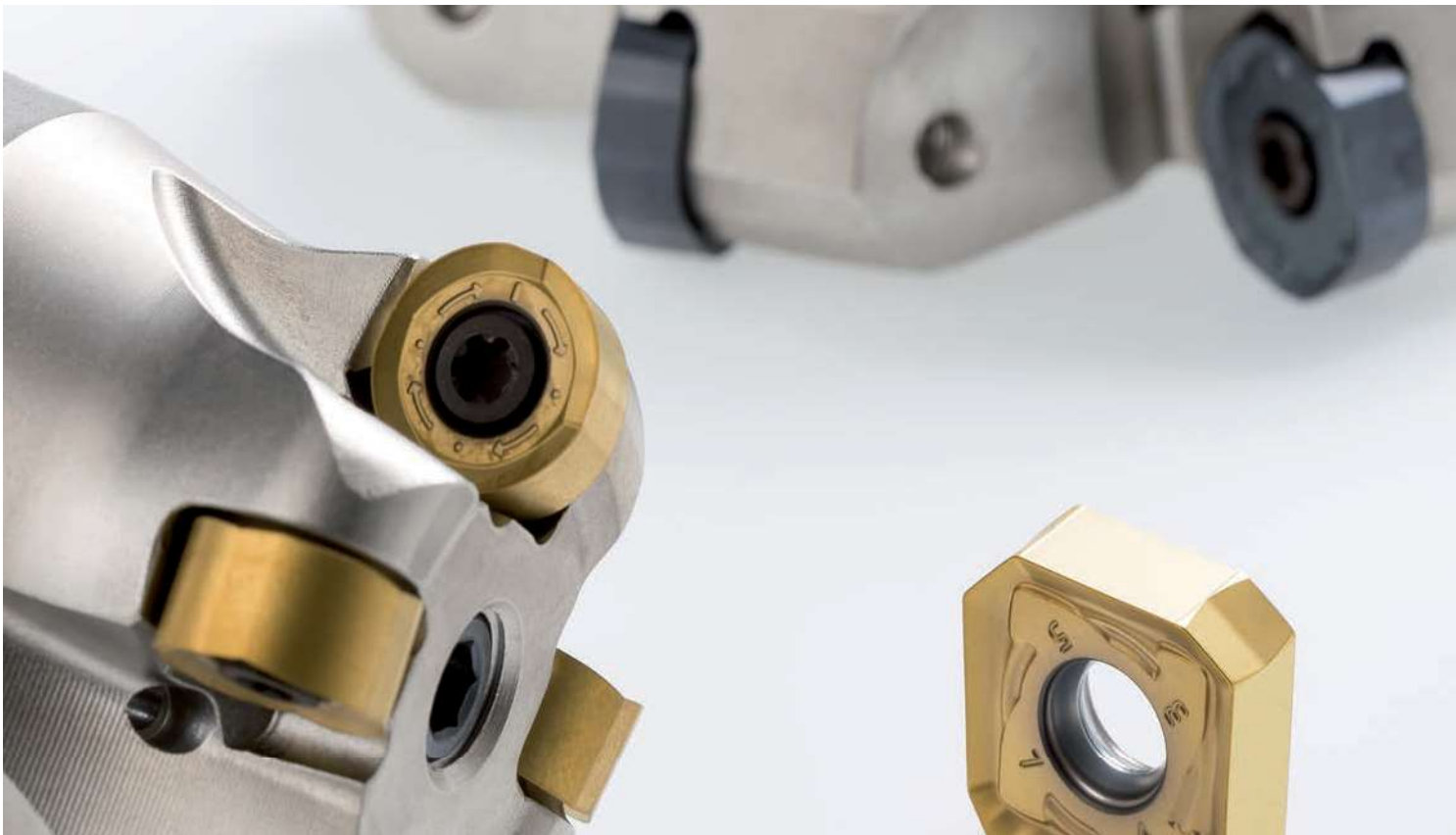


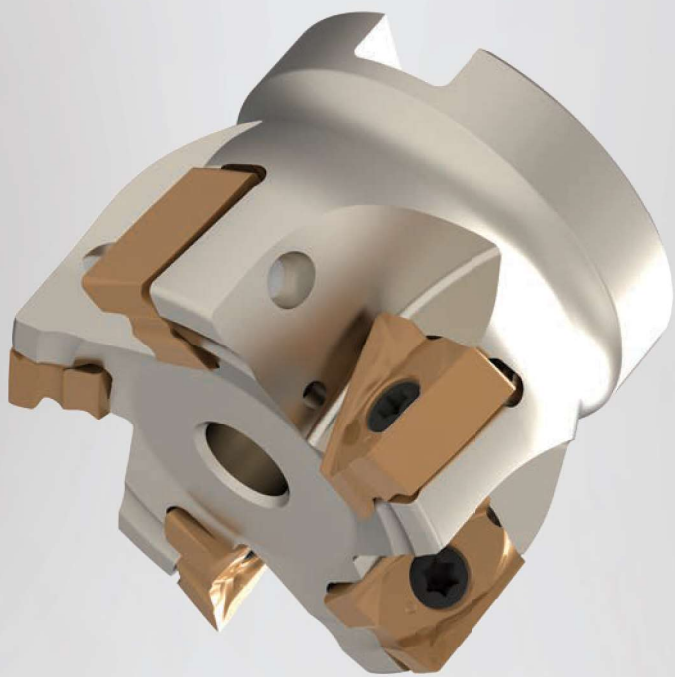
TOOLS AND INSERTS FOR MILLING



TOOLS AND INSERTS FOR MILLING

Products







Overview LNKU / LOKU



Application

1) Face milling



2) Angled milling



3) Helical plunging



4) Shoulder milling



5) Slot milling



6) Pocket milling

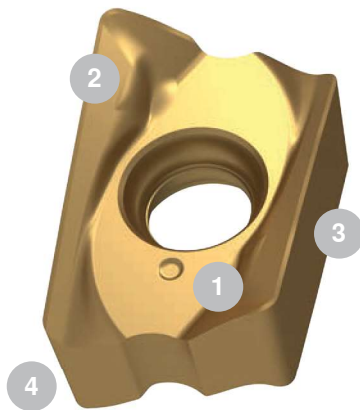


Chipbreaker

HCM: Steel – Cast iron*

SCM: Stainless Steel – Exotic* – Titanium*

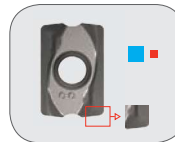
4 effective cutting edges



Customer benefits

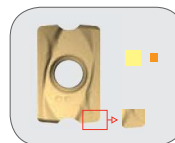
- ▲ High precision 90° milling
- ▲ Low power consumption, maximum chip removal rate
- ▲ Chipbreaker optimised by FEM
- ▲ Soft cutting providing quiet machining and maximum spindle protection

Which chipbreaker to use?



HCM

Strong cutting edge for general steel applications and hard conditions milling.



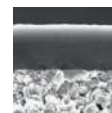
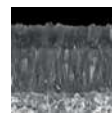
SCM

Sharp cutting edge for general stainless steel applications and for finishing in steels.

CTCP230 ■

CTPP235 ■


CTPM240 ■





* secondary application



Available range LNKU12 / LOKU 12

Insert	Designation	Chipbreaker	Material number	Available
	LNKU 120608-HCM CTPP235	...-HCM	12158008	●
	LNKU 120608-HCM CTCP230	...-HCM	12434604	●
	LNKU 120608-CCM CTPK215	...-CCM	TBD	On request
	LNKU 120608-SCM CTPM240	...-SCM	12373789	●
	LOKU 120608-SCM CTPM240	...-SCM	12373779	●
	LOKU 120608-XCM CTC5235	...-XCM	TBD	On request
	LOKU 120608-XCM CTC5240	...-XCM	TBD	On request

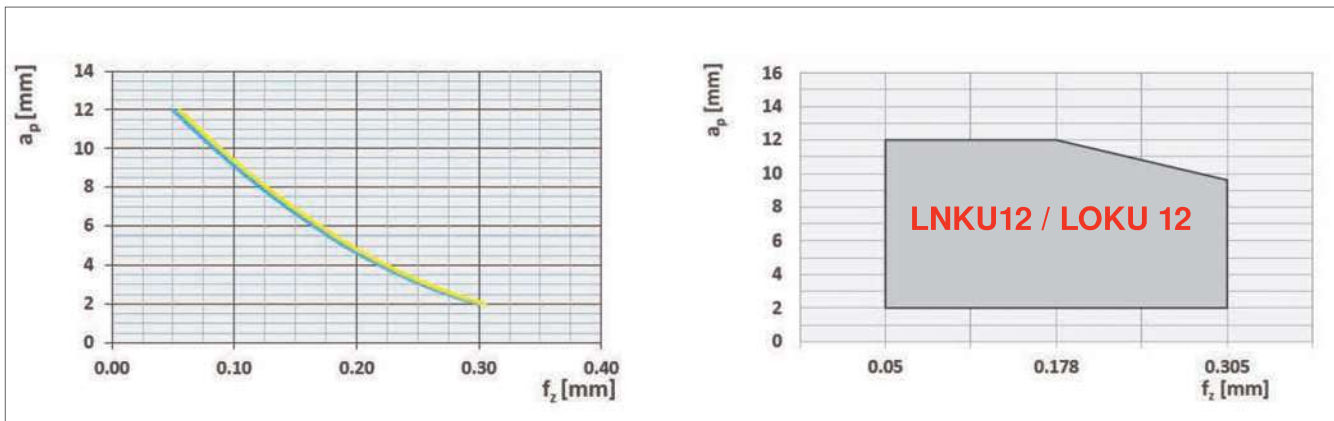
Body	Designation	∅ Milling cutter [mm]	z	Material number	Available
	A-DSM-LO/LN12-50.R.05	50	5	12367555	●
	A-DSM-LO/LN12-63.R.06	63	6		Coming Soon
	A-DSM-LO/LN12-80.R.07	80	7		Coming Soon

Spare parts	Designation	Torque moment [Nm]	Material number	Available
	Screw M4.0 x 11 – T15	5	11042274	●
	Power screw M10.0 x 31.0	15	11040298	●



Cutting data LNKU12 / LOKU 12

Starting parameters:



Grades and materials:







Grades and materials:			Cutting data		
Material group	Chipbreaker	Grade	v_c [m/min]	f_z [mm]	a_p [mm]
P	Steel	HCM	220 – 60	0.05 – 0.30	12 – 2.0
		CTCP230 CTPP235			
M	Stainless steel	SCM	200 – 60	0.05 – 0.30	12 – 2.0





Overview TOKX

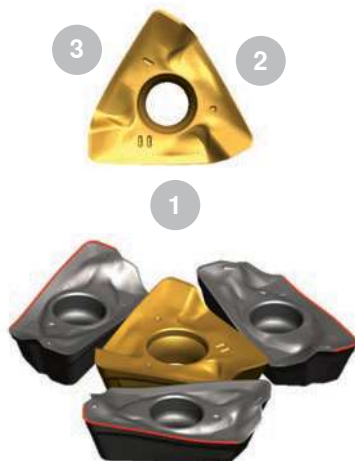
Application

- 1) Face milling 
- 2) Angled milling 
- 3) Helical plunging 
- 4) Shoulder milling 
- 5) Slot milling 
- 6) Pocket milling 

Chipbreaker

HCM: Steel – Cast iron*
SCM: Stainless Steel – Exotic* – Titanium*

3 effective cutting edges



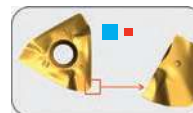
Customer benefits

- ▲ High precision 90° milling
- ▲ Low power consumption. maximum chip removal rate
- ▲ Chipbreaker optimised by FEM
- ▲ Soft cutting providing quiet machining and maximum spindle protection

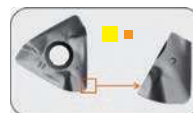


Result: Workpieces with clean surface. close tolerances and reduced formation of burrs, maximum service life of tool and insert.

Which chipbreaker to use?

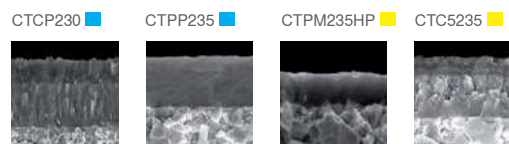


HCM
 Strong cutting edge for general steel applications and hard conditions milling.



SCM
 Sharp cutting edge for general stainless steel applications and for finishing in steels.


Grades







* secondary application



Available range TOKX07

Insert	Designation	Chipbreaker	Material number	Available
	TOKX 070305PDER-HCM CTCP230	...-HCM	12193325	●
	TOKX 070305PDER-HCM CTPP235	...-HCM	12069063	●
	TOKX 070305PDER-SCM CTPM235HP	...-SCM	12251209	●
	TOKX 070305PDER-SCM CTC5235	...-SCM	12069061	●
	TOKX 070308PDER-HCM CTCP230	...-HCM	12307051	●
	TOKX 070308PDER-HCM CTPP235	...-HCM	12143629	●
	TOKX 070308PDER-SCM CTPM235HP	...-SCM	12307074	●
	TOKX 070308PDER-SCM CTC5235	...-SCM	12143628	●

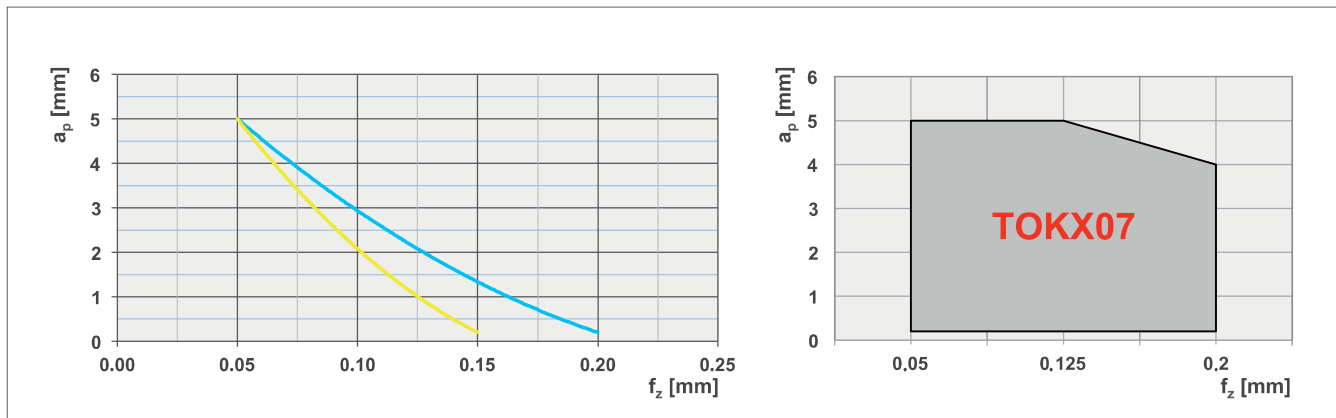
Body	Designation	∅ Milling cutter [mm]	z	Material number	Available
	C-SSM-T07-20.R.03-B-25	20	3	12074285	●
	C-SSM-T07-25.R.04-B-34	25	4	11998760	●
	C-SSM-T07-32.R.05-B-40	32	5	12074282	●
	G-SSM-T07-20.R.03	20	3	12152218	●
	G-SSM-T07-25.R.04	25	4	12152220	●
	G-SSM-T07-32.R.05	32	5	12152223	●
	A-SSM-T07-40.R.05	40	5	12152214	●
	A-SSM-T07-50.R.06	50	6	12152215	On request

Spare parts	Designation	Torque moment [Nm]	Material number	Available
	Screw M2.5x6.0 – T08	1.6	24645	●



Cutting data TOKX07

Starting parameters:

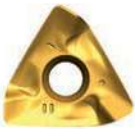




Grades and materials:



Grades and materials:			Cutting data		
Material group	Chipbreaker	Grade	v_c [m/min]	f_z [mm]	a_p [mm]
P	Steel	HCM	220 – 60	0.05 – 0.2	5 – 0.2
		CTCP230 CTPP235			
M	Stainless steel	SCM	200 – 60	0.05 – 0.15	5 – 0.2
		CTPM235HP CTC5235			



Available range TOKX09

Insert	Designation	Chipbreaker	Material number	Available
	TOKX 09T308PDER-HCM CTCP230	...-HCM	12324207	●
	TOKX 09T308PDER-HCM CTPP235	...-HCM	12262506	●
	TOKX 09T308PDER-SCM CTPM235HP	...-SCM	12235910	●
	TOKX 09T308PDER-SCM CTC5235	...-SCM	12066590	●
	TOKX 09T312PDER-HCM CTCP230	...-HCM	12378662	●
	TOKX 09T312PDER-HCM CTPP235	...-HCM	12376480	●
	TOKX 09T312PDER-SCM CTPM235HP	...-SCM	12307082	●
	TOKX 09T312PDER-SCM CTC5235	...-SCM	12143648	●
	TOKX 09T316PDER-HCM CTCP230	...-HCM	12378664	●
	TOKX 09T316PDER-HCM CTPP235	...-HCM	12376489	●
	TOKX 09T316PDER-SCM CTPM235HP	...-SCM	12307078	●
	TOKX 09T316PDER-SCM CTC5235	...-SCM	12143639	●

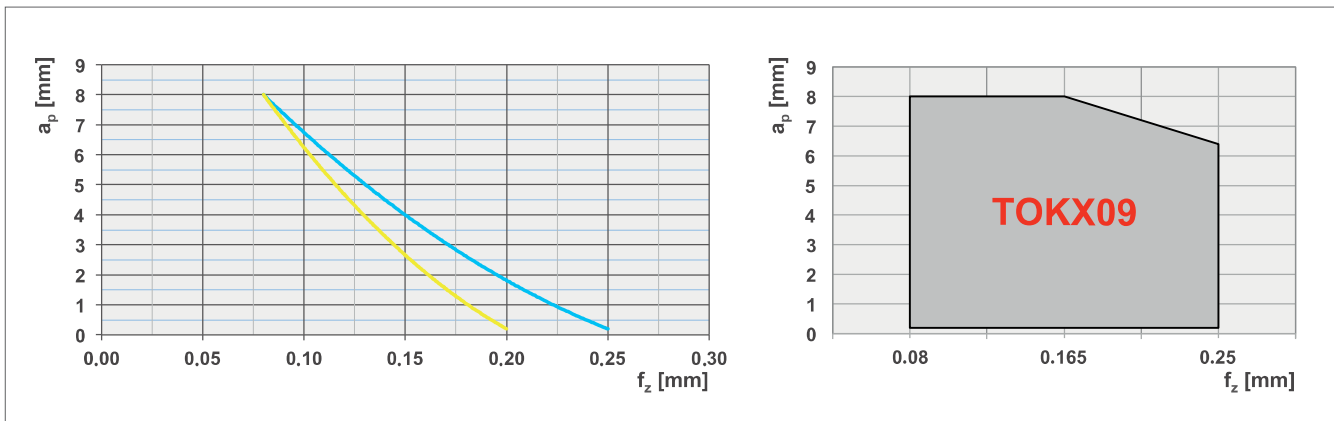
Body	Designation	ø Milling cutter	z	Material number	Available
 	C-SSM-T09-32.R.03-B-40	32	3	11869624	●
	A-SSM-T09-40.R.04	40	4	11987902	●
	A-SSM-T09-50.R.05	50	5	11987903	●
	A-SSM-T09-63.R.06	63	6	11987904	●

Spare parts	Designation	Torque moment [Nm]	Material number	Available
	Screw M3.0 x 7.3 – T08	1.2	77613	●
	Power screw M8.0 x 30.0 (7818267) only for A-SSM-T09-40.R.04	15	11036880	●



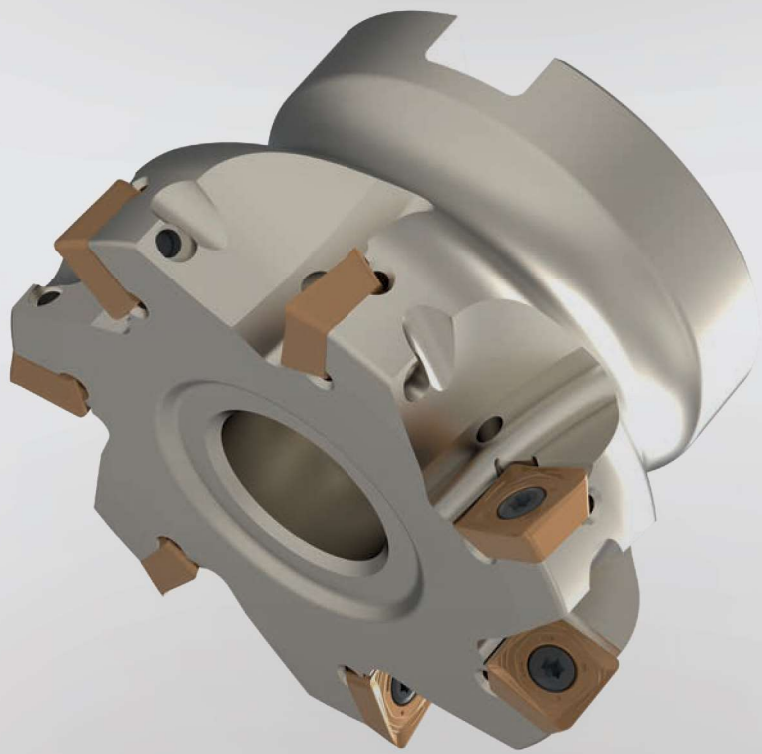
Cutting data TOKX09

Starting parameters:



Grades and materials:








Grades and materials:			Cutting data		
Material group	Chipbreaker	Grade	v_c [m/min]	f_z [mm]	a_p [mm]
P	Steel	HCM	220 – 60	0.08 – 0.25	8 – 0.2
		CTCP230 CTPP235			
M	Stainless steel	SCM	200 – 60	0.08 – 0.2	8 – 0.2
		CTPM235HP CTC5235			





Overview SDKT

Application

- 1) Face milling 
- 2) Angled milling 
- 3) Helical plunging 
- 4) Shoulder milling 
- 5) Slot milling 
- 6) Peripheral milling 
- 7) Trochoidal slot milling 

Chipbreaker

- HCM:** Steel
- SCM:** Stainless Steel – Exotic* – Titanium*
- CCM:** Cast iron
- LMM:** Aluminium

4 effective cutting edges







Grades



Customer benefits

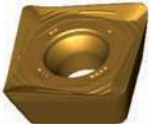
- ▲ High precision 90° milling
- ▲ Economic solution:
High chip volume on low power machines
Reduced cost per cutting edge compared to current insert solutions. (APKT and ADKT)
- ▲ Reduced machining costs:
Compared to APKT10: +20 % to +30 % in price
Advantage: up to 35 % cost reduction per cutting edge!




Which chipbreaker to use?



- HCM**
 Strong cutting edge for general steel applications and hard conditions milling.
- SCM**
 Sharp cutting edge for general stainless steel applications and for finishing in steels.
- CCM**
 Strong cutting edge for cast iron applications.
- LMM**
 Extremely sharp cutting edge for aluminum and non-ferrous metals.

* secondary application

Available range SDKT09

Insert	Designation	Chipbreaker	Material number	Available
	SDKT 09T308SR-HCM CTCP230	...-HCM	11979028	●
	SDKT 09T308SR-HCM CTPP235	...-HCM	11979030	●
	SDKT 09T308SR-SCM CTPM235HP	...-SCM	12251212	●
	SDKT 09T308SR-SCM CTC5235	...-SCM	11584645	●
	SDKT 09T308SR-SCM CTC5240	...-SCM	11710895	●
	SDKT 09T308SR-CCM CTCK215	...-CCM	12193340	●
	SDHT 09T308FR-LMM H216T	...-LMM	11713400	●

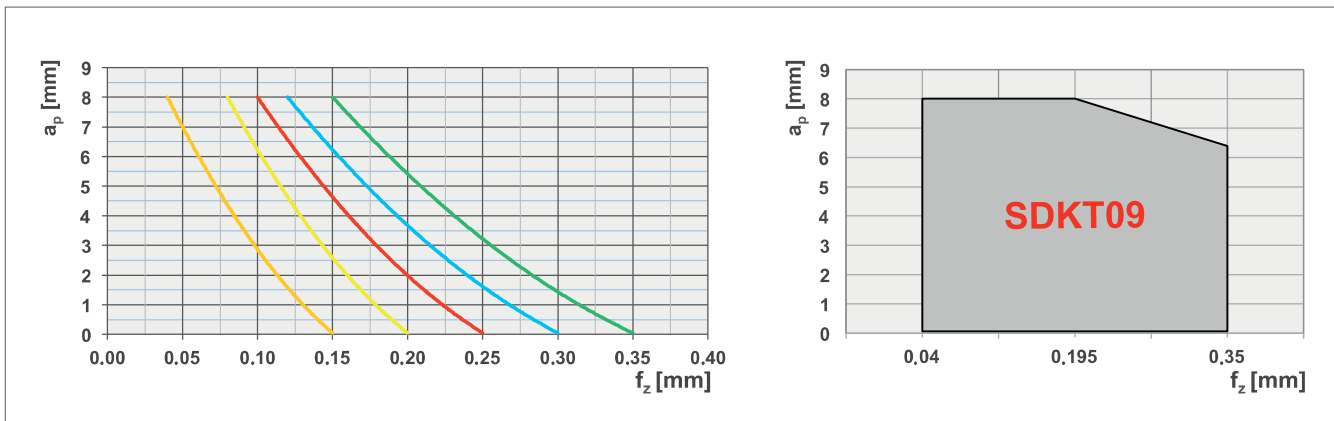
Body	Designation	∅ Milling cutter [mm]	z	Material number	Available
  	C-SSM-S09-25.R.03-B-32	25	3	11596014	●
	C-SSM-S09-32.R.04-B-40	32	4	11596009	●
	G-SSM-S09-25.R.03	25	3	12272435	On request
	G-SSM-S09-32.R.04	32	4	12272436	On request
	A-SSM-S09-40.R.05	40	5	11596010	●
	A-SSM-S09-50.R.06	50	6	11584233	●
	A-SSM-S09-63.R.07	63	7	11596011	●
	A-SSM-S09-80.R.09	80	9	11596013	●

Spare parts	Designation	Torque moment [Nm]	Material number	Available
 	M3.0 x 7.3 – T08	1.2	77613	●
	Power screw M8.0 x 30.0 (7818267) only for A-SSM-S09-40.R.05	15	1036880	●



Cutting data SDKT09

Starting parameters:






Grades and materials:




Cutting data

Material group	Chipbreaker	Grade	v_c [m/min]	f_z [mm]	a_p [mm]
P	HCM	CTCP230	220 – 60	0.12 – 0.3	8 – 0.05
		CTPP235			
M	SCM	CTPM235HP	200 – 60	0.08 – 0.2	8 – 0.05
		CTC5235			
K	CCM	CTCK215	320 – 100	0.1 – 0.25	8 – 0.05
N	LMM	H216T	< 2000	0.15 – 0.35	8 – 0.05
S	SCM	CTC5235	75 – 25	0.04 – 0.15	8 – 0.05
S	SCM	CTC5240			

Available range SDKT12

Insert	Designation	Chipbreaker	Material number	Available
	SDKT 120508SR-HCM CTCP230	...-HCM	12154549	●
	SDKT 120508SR-HCM CTPP235	...-HCM	12062538	●
	SDKT 120508SR-SCM CTPM235HP	...-SCM	12251213	●
	SDKT 120508SR-SCM CTC5235	...-SCM	12067263	●
	SDKT 120508SR-SCM CTC5240	...-SCM	12071921	●
	SDKT 120508SR-CCM CTCK215	...-CCM	12154553	●
	SDHT 120508FR-LMM H216T	...-LMM	12235857	●

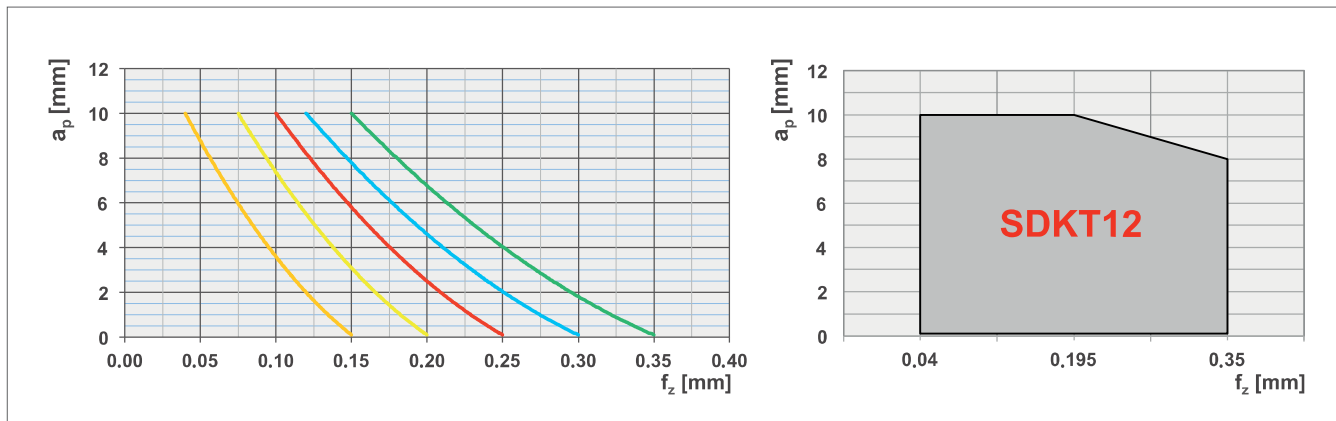
Body	Designation	∅ Milling cutter [mm]	z	Material number	Available
 	C-SSM-S12-32.R.03-B-40	32	3	12138258	●
	A-SSM-S12-40.R.04	40	4	11965069	●
	A-SSM-S12-50.R.05	50	5	11981629	●
	A-SSM-S12-63.R.06	63	6	12060728	●
	A-SSM-S12-80.R.07	80	7	12060727	●

Spare parts	Designation	Torque moment [Nm]	Material number	Available
  	Screw M4.0 x 11 – T15+	5	1345432	●
	Screw M4.0 x 8.5 – T15 (only for C-SSM-S12-32.R.03-B-40)	5	11037484	●
	Power screw M8.0 x 30.0 (7818267) only for A-SSM-S12-40.R.04	15	11036880	●



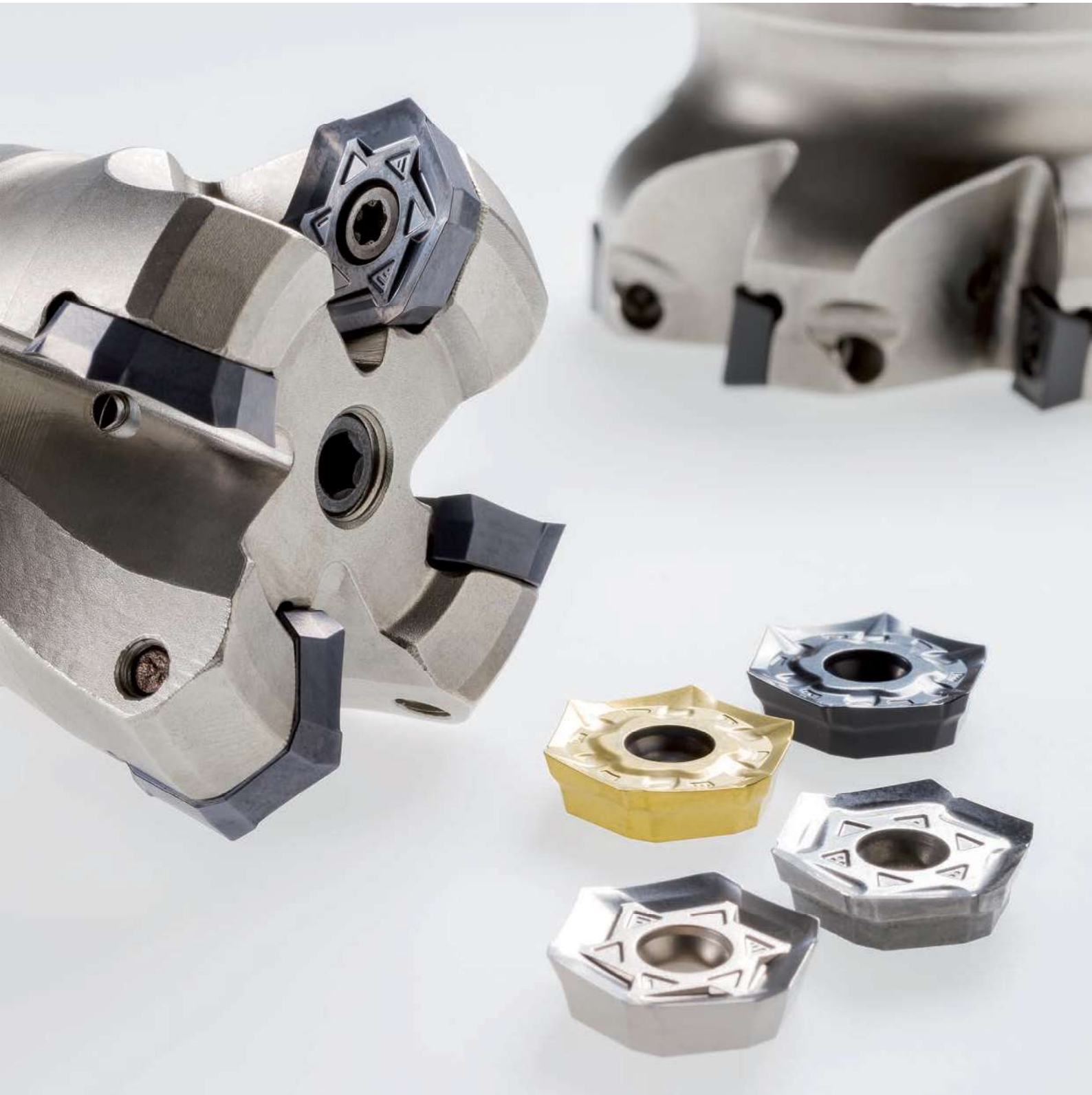
Cutting data SDKT12

Starting parameters:



Grades and materials:

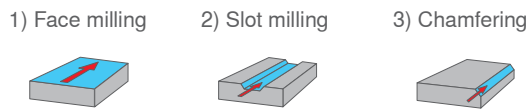
Material group		Chipbreaker	Grade	v_c [m/min]	Cutting data	
					f_z [mm]	a_p [mm]
P	Steel	HCM	CTCP230	220 – 60	0.12 – 0.3	10 – 0.1
			CTPP235			
M	Stainless steel	SCM	CTPM235HP	200 – 60	0.075 – 0.2	10 – 0.1
			CTC5235			
K	Cast iron	CCM	CTCK215	320 – 100	0.1 – 0.25	10 – 0.1
N	Non-ferrous	LMM	H216T	< 2000	0.15 – 0.35	10 – 0.1
S	Heat resistant alloys	SCM	CTC5235	75 – 25	0.04 – 0.15	10 – 0.1
S	Titanium	SCM	CTC5240			





Overview HPKT... HPCT...

Application



Chipbreaker

- HCM:** Steel – Cast iron*
- SCM:** Stainless Steel – Exotic* – Titanium*
- LMM:** Aluminium and non-ferrous metals

6 effective cutting edges



Grades



* secondary application

Masterfinish

Extremely soft, spindle-friendly cut. The very positive cutting edge chipbreaker paired with the new chipbreaker designs revolutionizes milling on small to medium sized milling machines.



Indexing 6 times




- ▲ Indexing of the insert without complete removal of the clamping screw is possible!
- ▲ Direct insert indexing saves valuable machine time.



Which chipbreaker to use?


	HCM Strong cutting edge for general steel applications and hard conditions milling.
	SCM Sharp cutting edge for general stainless steel applications and for finishing in steels.
	LMM Extremely sharp cutting edge for aluminum and non-ferrous metals.



Available range HPKT... HPCT...

Insert	Designation	Chipbreaker	Material number	Available
	HPKT 0604AZER-HCM CTCP230	...-HCM	12193366	●
	HPKT 0604AZER-HCM CTPP235	...-HCM	12193369	●
	HPKT 0604AZER-SCM CTC5235	...-SCM	11526389	●
	HPCT 0604AZFR-LMM H216T	...-LMM	11556412	●

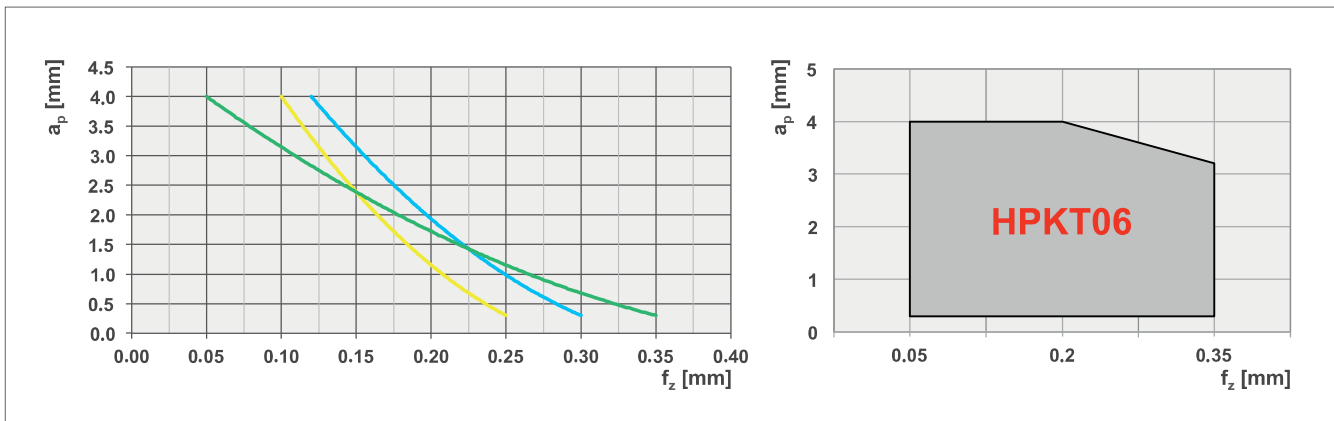
Body	Designation	∅ Milling cutter [mm]	z	Material number	Available
	C-SSM-H06-40.R.04-B	40	4	11520454	●
	A-SSM-H06-40.R.04	40	4	11520455	●
	A-SSM-H06-50.R.05	50	5	11520456	●
	A-SSM-H06-63.R.06	63	6	11520457	●
	A-SSM-H06-80.R.07	80	7	11520458	●
	A-SSM-H06-100.R.09	100	9	11520459	●
	A-SSM-H06-125.R.10	125	10	11520460	●

Spare parts	Designation	Torque moment [Nm]	Material number	Available
	Screw M4.0 x 11 – T15+	5	1345432	●
	Power screw M8.0 x 30.0 (7818267) only for A-SSM-H06-40.R.04	15	11036880	●



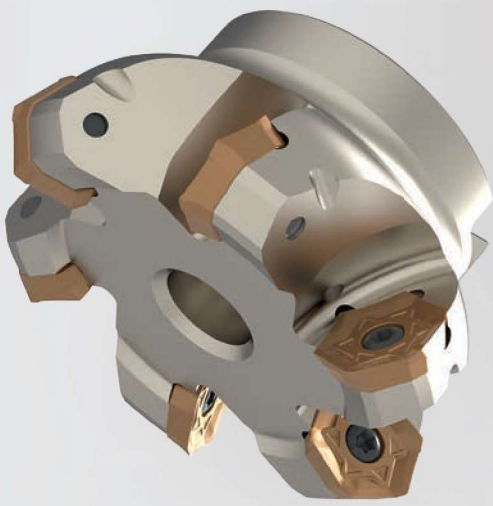
Cutting data HPKT... HPCT...

Starting parameters:



Grades and materials:

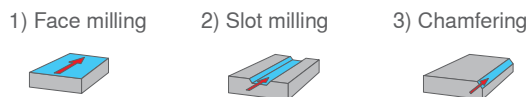
				Cutting data		
Material group	Chipbreaker	Grade	v_c [m/min]	f_z [mm]	a_p [mm]	
P	Steel	HCM	220 – 60	0.12 – 0.3	4 – 0.3	
		CTCP230				
M	Stainless steel	SCM	200 – 60	0.1 – 0.25	4 – 0.3	
		CTPM235HP				
N	Non-ferrous	LMM	< 2000	0.05 – 0.35	4 – 0.3	
		H216T				





Overview HOKT... HOCT...

Application



Chipbreaker

HCM: Steel – Cast iron*

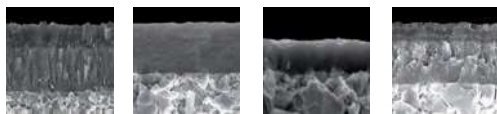
SCM: Stainless Steel – Exotic* – Titanium*

6 effective cutting edges



Grades

CTCP230 ■ CTPP235 ■ CTPM235HP ■ CTC5235 ■



Masterfinish

- ▲ Extremely soft, spindle-friendly cut. The very positive cutting edge chipbreaker paired with the new chipbreaker designs revolutionizes milling on small to medium sized milling machines.



“Masterfinish technology”

Indexing 6 times



- ▲ Indexing of the insert without complete removal of the clamping screw is possible!
- ▲ Direct insert indexing saves valuable machine time.

Which chipbreaker to use?



HCM

Strong cutting edge for general steel applications and hard conditions milling.




SCM



Sharp cutting edge for general stainless steel applications and for finishing in steels.



* secondary application



Available range HOKT... HOCT...

Insert	Designation	Chipbreaker	Material number	Available
	HOKT 0604AZER-HCM CTCP230	...-HCM	11950674	●
	HOKT 0604AZER-HCM CTPP235	...-HCM	11943817	●
	HOCT 0604AZER-SCM CTPM235HP	...-SCM	12307080	●
	HOCT 0604AZER-SCM CTC5235	...-SCM	12212264	●

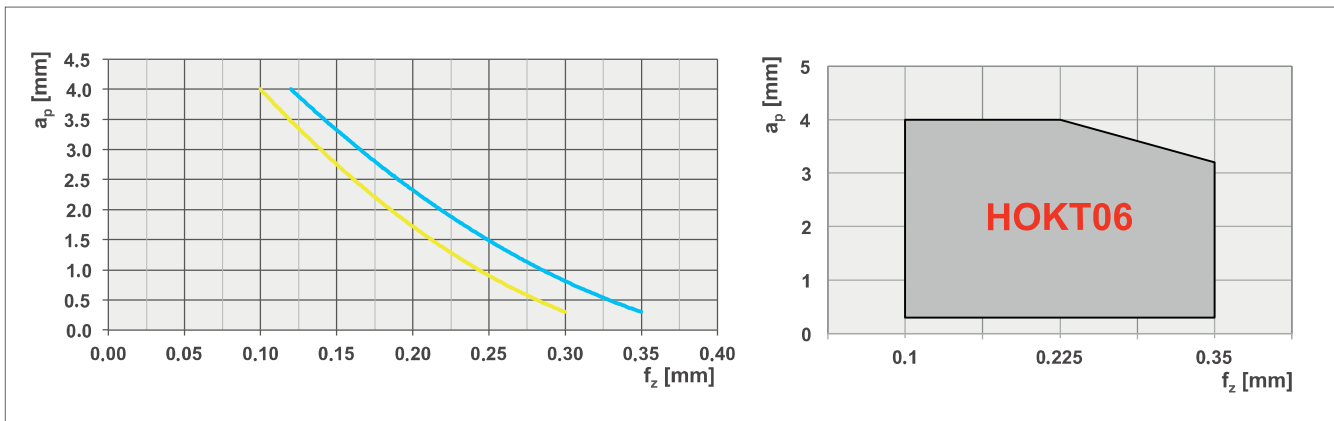
Body	Designation	∅ Milling cutter [mm]	z	Material number	Available
 	C-SSM-H06-40.R.04-B	40	4	11520454	●
	A-SSM-H06-40.R.04	40	4	11520455	●
	A-SSM-H06-50.R.05	50	5	11520456	●
	A-SSM-H06-63.R.06	63	6	11520457	●
	A-SSM-H06-80.R.07	80	7	11520458	●
	A-SSM-H06-100.R.09	100	9	11520459	●
	A-SSM-H06-125.R.10	125	10	11520460	●

Spare parts	Designation	Torque moment [Nm]	Material number	Available
 	Screw M4.0 x 11 – T15+	5	1345432	●
	Power screw M8.0 x 30.0 (7818267) only for A-SSM-H06-40.R.04	15	11036880	●



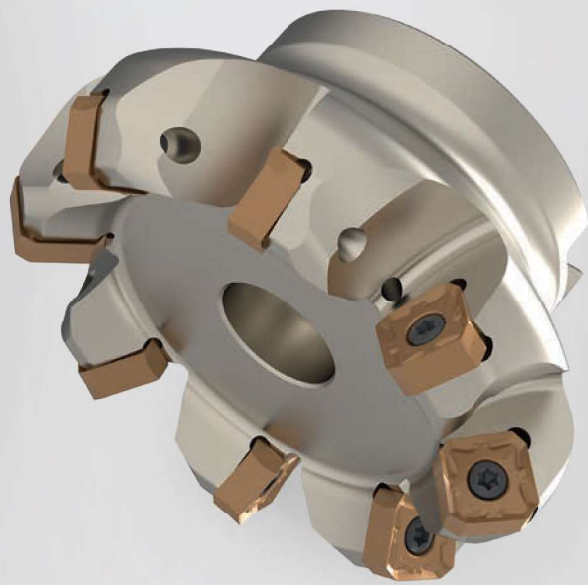
Cutting data HOKT... HOCT...

Starting parameters:



Grades and materials:

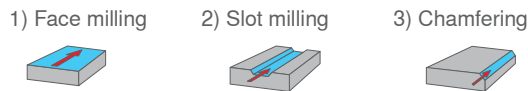
Grades and materials:			Cutting data		
Material group	Chipbreaker	Grade	v_c [m/min]	f_z [mm]	a_p [mm]
P	Steel	HCM	220 – 60	0.12 – 0.35	4 – 0,3
		CTCP230 CTPP235			
M	Stainless steel	SCM	200 – 60	0.1 – 0.3	4 – 0,3
		CTPM235HP CTC5235			





Overview SOKU

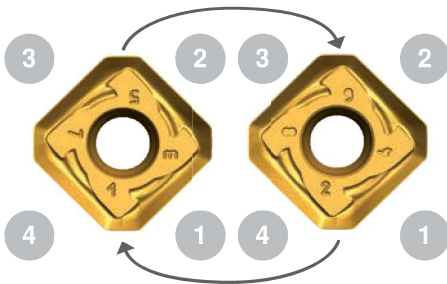
Application



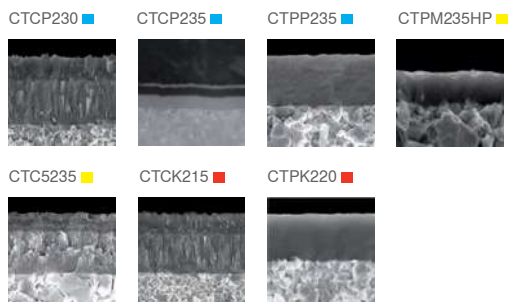
Chipbreaker

HCM: Steel / Medium & roughing operations
SCM: Steel – Stainless Steel / Finishing
CCM: Cast iron

Indexing 4 times and reversible

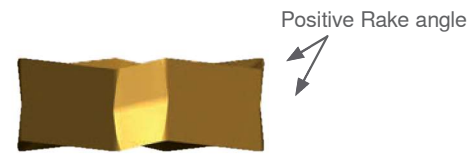


Grades



Customer benefits

- ▲ Masterfinish™ technology
- ▲ Double sided positive (positive rake angle)



Square double-sided insert!

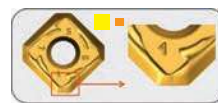
Available in 2 dimensions



Which chipbreaker to use?



HCM
 Strong cutting edge for general steel applications and hard conditions milling.




SCM
 Sharp cutting edge for general stainless steel applications and for finishing in steels.




CCM
 Strong cutting edge for cast iron applications.



Available range SOKU12

Insert	Designation	Chipbreaker	Material number	Available
	SOKU 1205AZER-HCM CTCP230	...-HCM	12193374	●
	SOKU 1205AZER-HCM CTCP235	...-HCM	12219854	●
	SOKU 1205AZER-HCM CTPP235	...-HCM	12193377	●
	SOKU 1205AZER-SCM CTPM235HP	...-SCM	12251214	●
	SOKU 1205AZER-SCM CTC5235	...-SCM	11906808	●

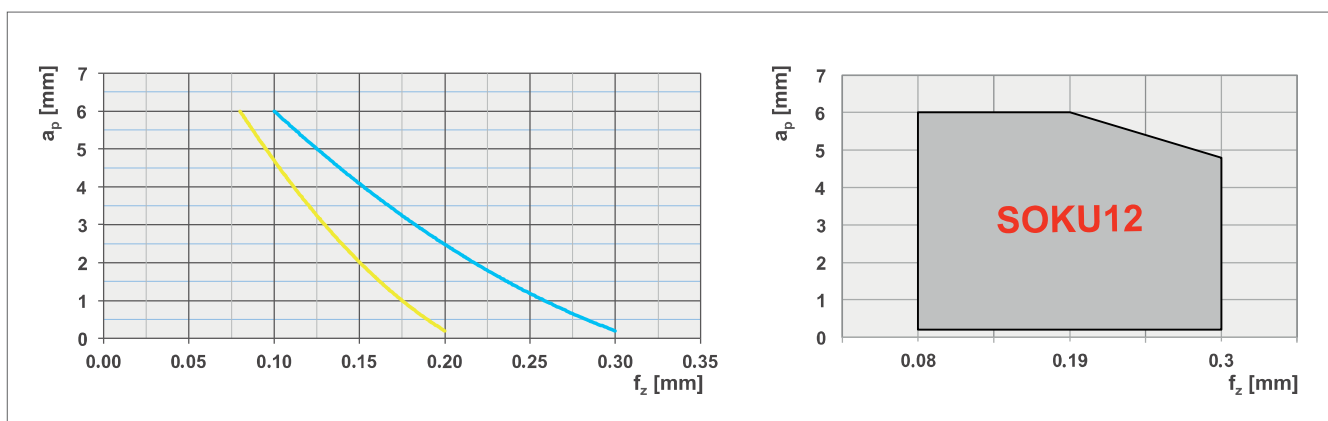
Body	Designation	∅ Milling cutter [mm]	z	Material number	Available
	A-DSM-S12-40.R.04	40	4	11939775	●
	A-DSM-S12-50.R.05	50	5	11909357	●
	A-DSM-S12-63.R.06	63	6	11939774	●
	A-DSM-S12-80.R.08	80	8	11939772	●
	A-DSM-S12-100.R.10	100	10	11939771	●
	A-DSM-S12-125.R.12	125	12	11939769	●

Spare parts	Designation	Torque moment [Nm]	Material number	Available
	Screw M4 x 11 – T15	5	11042274	●



Cutting data SOKU12

Starting parameters:





Grades and materials:


Grades and materials:			Cutting data		
Material group	Chipbreaker	Grade	v_c [m/min]	f_z [mm]	a_p [mm]
P	Steel	HCM	220 – 60	0.1 – 0.3	6 – 0.2
		CTCP230			
		CTCP235			
M	Stainless steel	SCM	200 – 60	0.08 – 0.2	6 – 0.2
		CTPM235HP			
		CTC5235			



Available range SOKU15

Insert	Designation	Chipbreaker	Material number	Available
	SOKU 1505AZER-HCM CTCP230	...-HCM	12237265	●
	SOKU 1505AZER-HCM CTCP235	...-HCM	12219850	●
	SOKU 1505AZER-HCM CTPP235	...-HCM	12193379	●
	SOKU 1505AZER-SCM CTPM235HP	...-SCM	12236290	●
	SOKU 1505AZER-SCM CTC5235	...-SCM	11526409	●
	SOKU 1505AZER-CCM CTCK215	...-CCM	12299379	●
	SOKU 1505AZER-CCM CTPK220	...-CCM	12145626	●

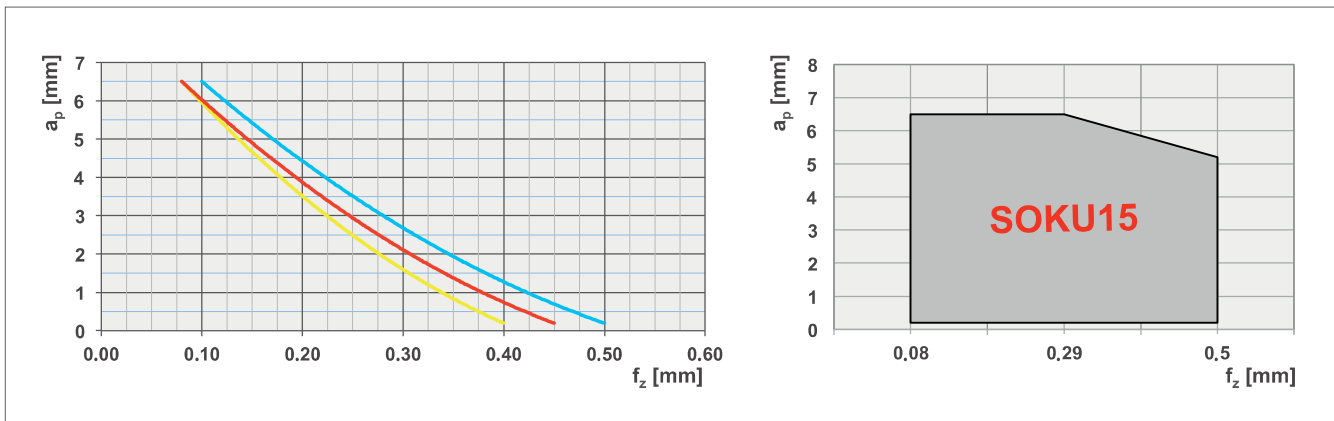
Body	Designation	∅ Milling cutter [mm]	z	Material number	Available
	A-DSM-S15-40.R.04	40	4	11520461	●
	A-DSM-S15-50.R.04	50	4	11520462	●
	A-DSM-S15-63.R.05	63	5	11520463	●
	A-DSM-S15-80.R.06	80	6	11520464	●
	A-DSM-S15-100.R.07	100	7	11520465	●
	A-DSM-S15-125.R.08	125	8	11520466	●
	A-DSM-S15-160.R.10	160	10	11567193	●

Spare parts	Designation	Torque moment [Nm]	Material number	Available
	Screw M4.5 x 13 – T20+	5	1345431	●
	Power screw M8.0 x 30.0 (7818267) only for A-DSM-S15.40	15	11036880	●



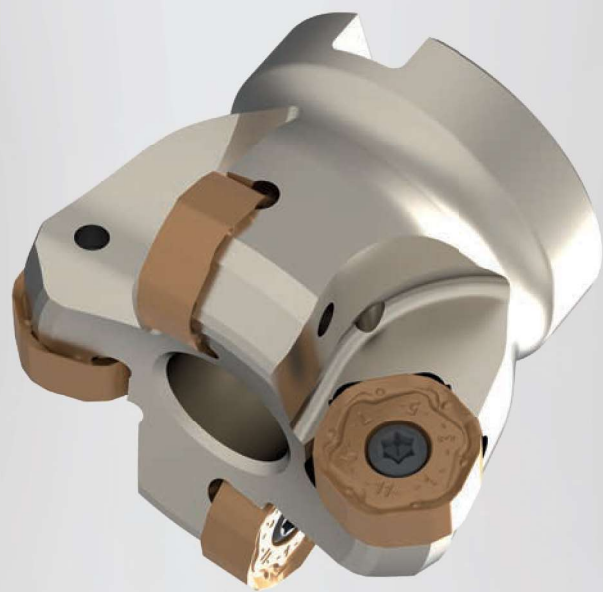
Cutting data SOKU15

Starting parameters:



Grades and materials

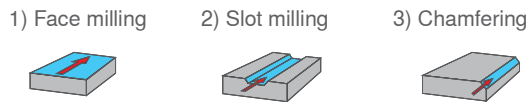
Grades and materials			Cutting data		
Material group	Chipbreaker	Grade	v_c [m/min]	f_z [mm]	a_p [mm]
P	Steel	HCM	220 – 60	0.1 – 0.5	6.5 – 0.2
		CTCP230			
		CTCP235			
M	Stainless steel	SCM	200 – 60	0.08 – 0.4	6.5 – 0.2
		CTPM235HP			
K	Cast iron	CCM	320 – 100	0.08 – 0.45	6.5 – 0.2
		CTCK215			
		CTPK220			





Overview HNKU / HOKU

Application

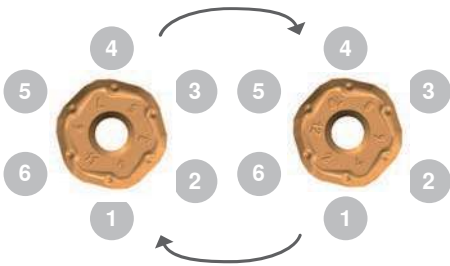


Chipbreaker

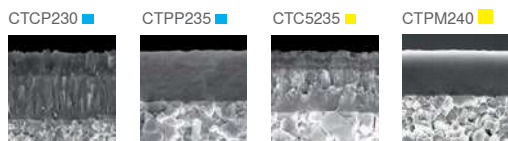
HCM: Steel – Cast iron*

SCM: Stainless Steel – Exotic* – Titanium*

Indexing 6 times and reversible



Grades

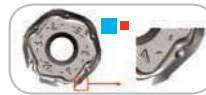


* secondary application

Customer benefits

- ▲ Masterfinish geometry
- ▲ Maximised economy thanks to 12 cutting edges.

Which chipbreaker to use?



HCM

Strong cutting edge for general steel applications and hard conditions milling.





SCM


Sharp cutting edge for general stainless steel applications and for finishing in steels.



Available range HNKU

Insert	Designation	Chipbreaker	Material number	Available
	HNKU 0806AZER-HCM CTCP230	...-HCM	12193383	●
	HNKU 0806AZER-HCM CTPP235	...-HCM	12193384	●
	HNKU 0806AZER-SCM CTC5235	...-SCM	11887368	●

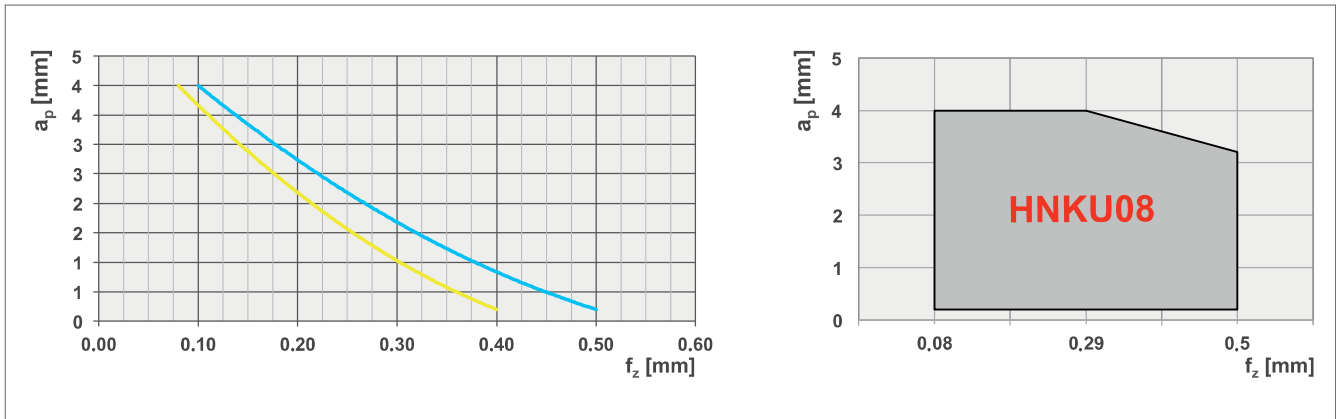
Body	Designation	∅ Milling cutter [mm]	z	Material number	Available
	A-DSM-H08-40.R.04	40	4	11590448	●
	A-DSM-H08-50.R.04	50	4	11561804	●
	A-DSM-H08-63.R.05	63	5	11561802	●
	A-DSM-H08-80.R.06	80	6	11561800	●
	A-DSM-H08-100.R.08	100	8	12152205	On request
	A-DSM-H08-125.R.09	125	9	12152207	On request

Spare parts	Designation	Torque moment [Nm]	Material number	Available
	Screw M4.0 x 11 – T15+	5	1345432	●



Cutting data HNKU

Starting parameters:





Grades and materials:

Grades and materials:				Cutting data		
Material group	Chipbreaker	Grade	v_c [m/min]	f_z [mm]	a_p [mm]	
P	Steel	HCM	220 – 60	0.1 – 0.5	4 – 0.2	
		CTCP230				
M	Stainless steel	SCM	200 – 60	0.08 – 0.4	4 – 0.2	



Available range HOKU

Insert	Designation	Chipbreaker	Material number	Available
	HOKU 0806AZER-HCM CTCP230	...-HCM	12623510	●
	HOKU 0806AZER-HCM CTPP235	...-HCM	12623511	●
	HOKU 0806AZER-SCM CTPM240	...-SCM	12630187	●
	HOKU 0806AZER-SCM CTC5235	...-SCM	12623507	●

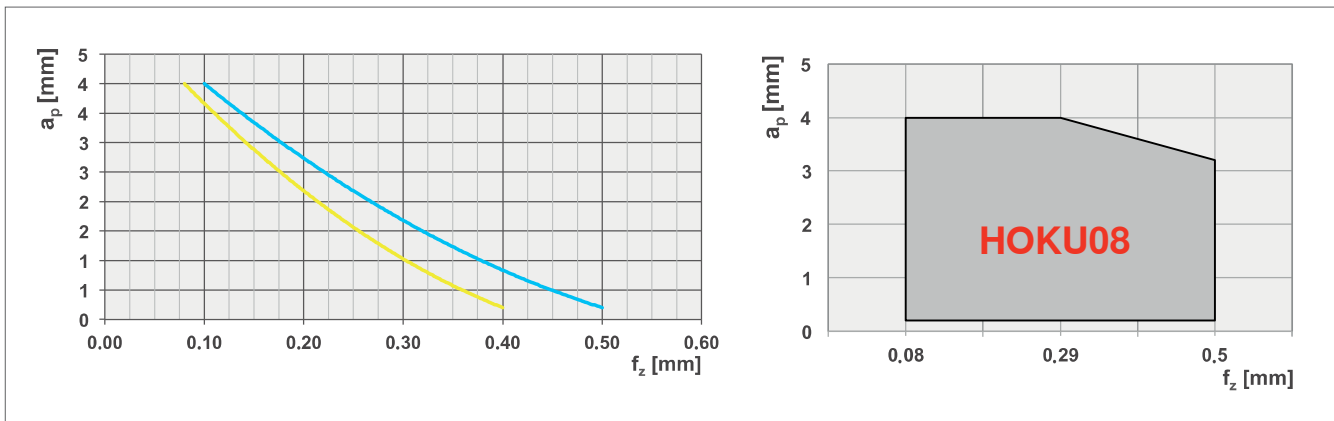
Body	Designation	∅ Milling cutter [mm]	z	Material number	Available
	A-DSM-H08-40.R.04	40	4	11590448	●
	A-DSM-H08-50.R.04	50	4	11561804	●
	A-DSM-H08-63.R.05	63	5	11561802	●
	A-DSM-H08-80.R.06	80	6	11561800	●
	A-DSM-H08-100.R.08	100	8	12152205	On request
	A-DSM-H08-125.R.09	125	9	12152207	On request

Spare parts	Designation	Torque moment [Nm]	Material number	Available
	Screw M4.0 x 11 – T15+	5	1345432	●



Cutting data HOKU

Starting parameters:



Grades and materials:









Grades and materials:				Cutting data		
Material group	Chipbreaker	Grade	v_c [m/min]	f_z [mm]	a_p [mm]	
P	Steel	HCM	220 – 60	0.1 – 0.5	4 – 0.2	
		CTCP230 CTPP235				
M	Stainless steel	SCM	200 – 60	0.08 – 0.4	4 – 0.2	
		CTPM240 CTC5235				





Overview RPMX... RDHX... RPHX... RDHW...

Application

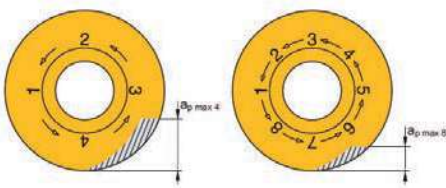
- | | |
|---|--|
| 1) Face milling
 | 2) Angled milling
 |
| 3) Slot milling
 | 4) Pocket milling
 |
| 5) Profile milling
 | 6) Helical plunging
 |
| 7) Plunge milling
 | 8) Turn milling
 |

Chipbreaker

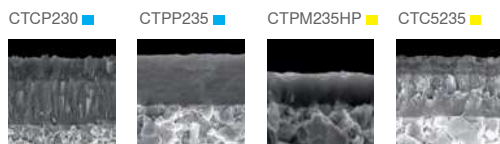
- HCM:** Steel – Cast iron*
- SCM:** Stainless Steel
- XCM:** Exotic – Titanium*
- LMM:** Aluminium and non-ferrous metals
- MOSN:** Reinforced for hard materials

Indexing 4 or 8 times

8 facets for 4 or 8 indexing according to your d.o.c.



Grades



* secondary application

Customer benefits

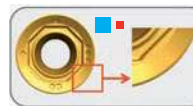
- ▲ Indexing of the insert without complete removal of the clamping screw is possible!
- ▲ Direct insert indexing saves valuable machine time.



Available in 3 dimensions



Which chipbreaker to use?



HCM
Strong cutting edge for general steel applications and hard conditions milling.



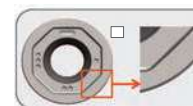
SCM
Sharp cutting edge for general stainless steel applications and for finishing in steels.



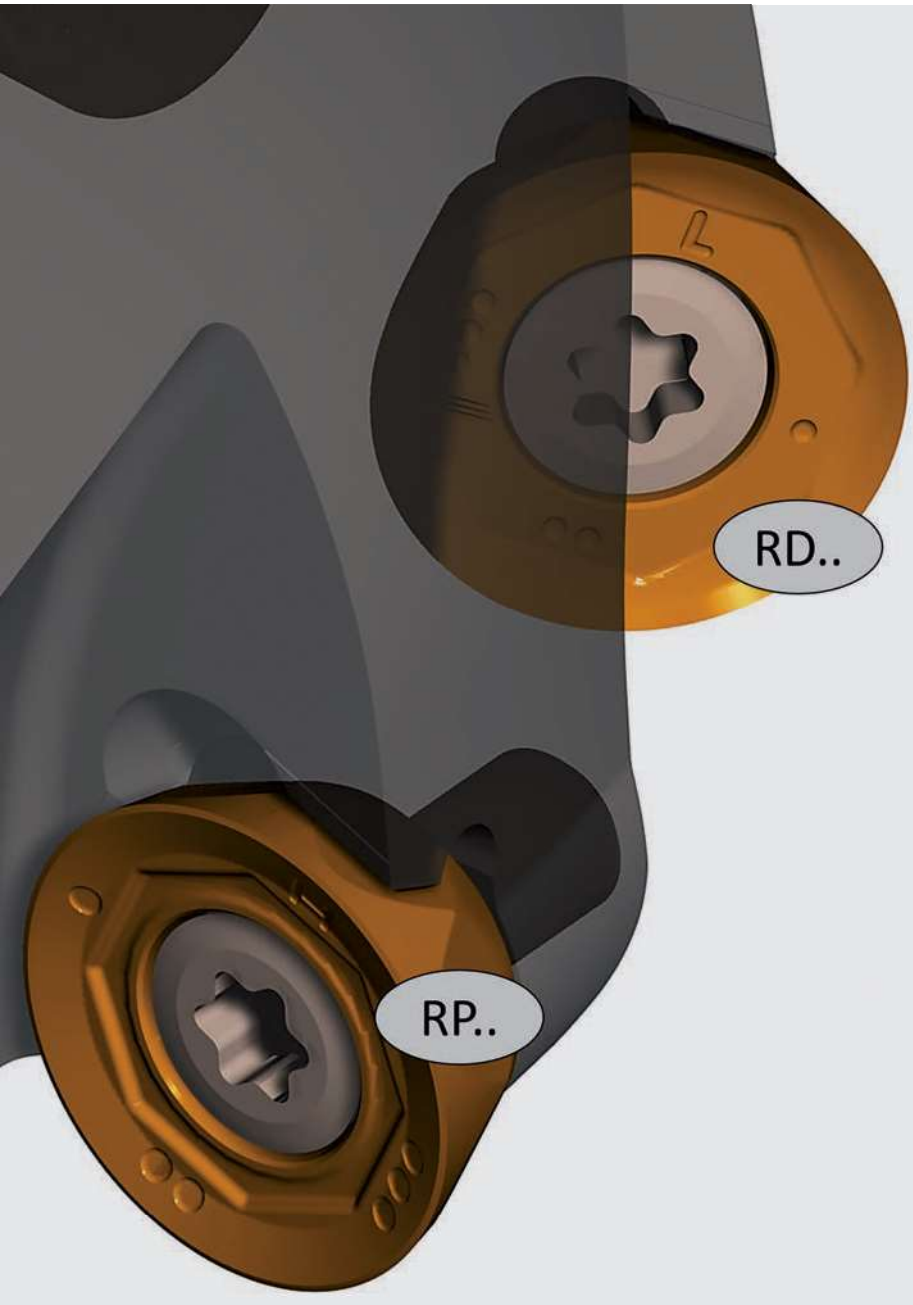
CCM
Strong cutting edge for cast iron applications.



LMM
Extremely sharp cutting edge for aluminum and non-ferrous metals.



MOSN
Strong reinforced cutting edge for hard material.



RD..

RP..



Overview RPMX... RDHX... RPHX... RDHW...

Flexibility – One tool for several round inserts

Optimised clearance angles for high performance milling operations.

11° (RP...): for Steel. Stainless steel. Cast iron and Exotic materials

15° (RD...): for Hard materials and non-ferrous metals.



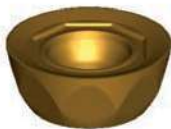
RP...



RD...


NEW! Two different clearances and only ONE milling tool





OPTION: Adapted clearance angles are also available on request





ROMX 1204 (1° to 16°)

Available range R10

Insert	Designation	Chipbreaker	Material number	Available
	RPMX 10T3MO-HCM CTCP230	...-HCM	11978869	●
	RPMX 10T3MO-HCM CTPP235	...-HCM	11978872	●
	RPMX 10T3MO-SCM CTPM235HP	...-SCM	12251216	●
	RPMX 10T3MO-SCM CTC5235	...-SCM	12193387	●
	RDHX 10T3MO-LMM H216T	...-LMM	11716174	●
	RPHX 10T3MO-XCM CTC5235	...-XCM	11678477	●
	RPHX 10T3MO-XCM CTC5240	...-XCM	11678481	●
	RDHW 10T3MOSN CTP6215	–	11716131	●

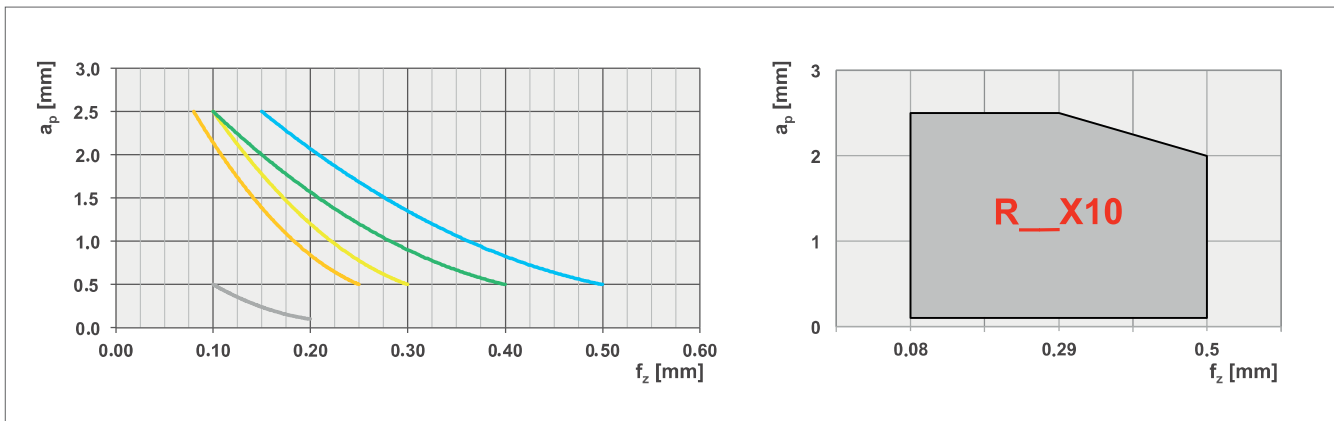
Body	Designation	∅ Milling cutter [mm]	z	Material number	Available
   	C-SSM-R10-20.R.02-A-50	20	2	11720312	●
	C-SSM-R10-20.R.02-A-50-165	20	2	11720313	●
	C-SSM-R10-25.R.03-A-60	25	3	11720314	●
	C-SSM-R10-25.R.03-A-60-165	25	3	11720315	●
	C-SSM-R10-32.R.04-A-70	32	4	11720318	●
	C-SSM-R10-32.R.04-A-70-165	32	4	11720321	●
	G-SSM-R10-20.R.02	20	2	11879525	On request
	G-SSM-R10-25.R.03	25	3	11879526	On request
	G-SSM-R10-32.R.04	32	4	11879532	●
	A-SSM-R10-40.R.04	40	4	11718403	●
A-SSM-R10-50.R.05	50	5	11720322	●	

Spare parts	Designation	Torque moment [Nm]	Material number	Available
 	Screw M3.0 x 7.5 – T10+	1.2	11689894	●
	Power screw M8.0 x 30.0 (7818267) for A-SSM-R10-40.R.04	15	11036880	●



Cutting data R10

Starting parameters:



Grades and materials:


Grades and materials:				Cutting data		
Material group	Chipbreaker	Grade	v_c [m/min]	f_z [mm]	a_p [mm]	
P Steel	HCM	CTCP230 CTPP235	220 – 60	0.15 – 0.5	2.5 – 0.5	
M Stainless steel	SCM	CTPM235HP CTC5235	200 – 60	0.1 – 0.3	2.5 – 0.5	
N Non-ferrous	LMM	H216T	< 2000	0.1 – 0.4	2.5 – 0.5	
S Heat-resistant alloys	XCM	CTC5235	75 – 25	0.08 – 0.25	2.5 – 0.5	
S Titanium	XCM	CTC5240				
H Hard materials	–	CTP6215	180 – 100	0.1 – 0.2	0.5 – 0.1	



Recommended!




\varnothing [mm]	4 times		8 times
	a_p [mm]	$a_{p\ max}$ [mm]	$a_{p\ max}$ [mm]
10	2.5	4.5	1.4
12	3.0	5.5	1.7
16	4.0	7.5	2.3



Available range R12

Insert	Designation	Chipbreaker	Material number	Available
	RPMX 1204MO-HCM CTCP230	...-HCM	11979003	●
	RPMX 1204MO-HCM CTPP235	...-HCM	11979006	●
	RPMX 1204MO-SCM CTPM235HP	...-SCM	12251218	●
	RPMX 1204MO-SCM CTC5235	...-SCM	12193389	●
	RDHX 1204MO-LMM H216T	...-LMM	11712552	●
	RPHX 1204MO-XCM CTC5235	...-XCM	11666768	●
	RPHX 1204MO-XCM CTC5240	...-XCM	11666769	●
	RDHW 1204MOSN CTP6215	–	11716128	●

Body	Designation	∅ Milling cutter [mm]	z	Material number	Available
 	C-SSM-R12-25.R.02-A-30	25	2	11720305	●
	C-SSM-R12-25.R.02-A-60	25	2	11720307	●
	C-SSM-R12-32.R.03-A-40	32	3	11720308	●
	C-SSM-R12-32.R.03-A-70	32	3	11720310	●
	A-SSM-R12-40.R.04	40	4	11596003	●
	A-SSM-R12-50.R.05	50	5	11667287	●
	A-SSM-R12-63.R.06	63	6	11667291	●
	A-SSM-R12-80.R.08	80	8	11707446	●
	A-SSM-R12-100.R.10	100	10	11707445	●

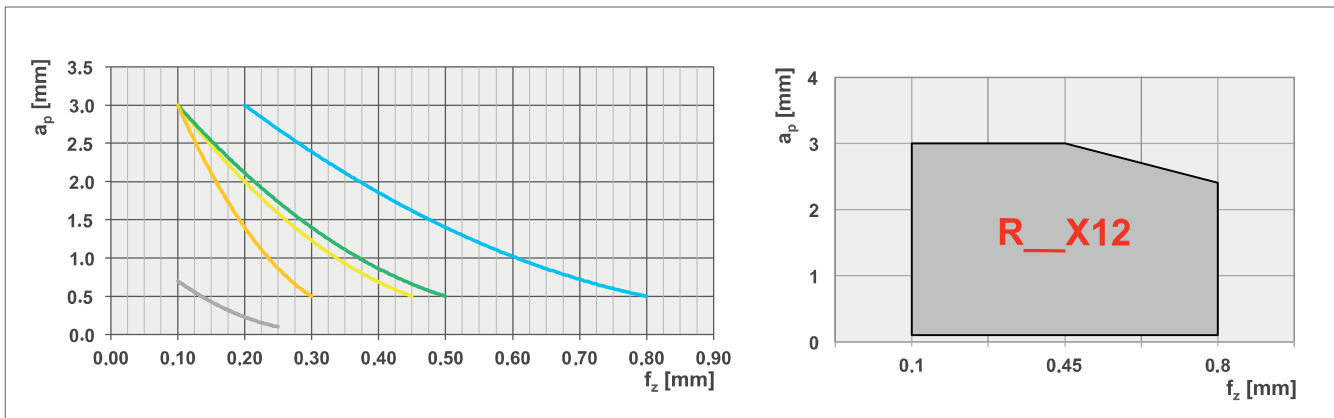
Spare parts	Designation	Torque moment [Nm]	Material number	Available
  	Screw M4.0 x 11 – T15+ (only for A-)	5	1345432	●
	Screw M4.0 x 8.5 – T15 (only for C-)	5	11037484	●
	Power screw M8.0 x 30.0 (7818267) for A-SSM-R12-40.R.04	15	11036880	●

● available from stock, ○ available upon request



Cutting data R12

Starting parameters:



Grades and materials:


				Cutting data		
Material group	Chipbreaker	Grade	v_c [m/min]	f_z [mm]	a_p [mm]	
P Steel	HCM	CTCP230	220 – 60	0.2 – 0.8	3 – 0.5	
		CTPP235				
M Stainless steel	SCM	CTPM235HP	200 – 60	0.1 – 0.45	3 – 0.5	
		CTC5235				
N Non-ferrous	LMM	H216T	< 2000	0.1 – 0.5	3 – 0.5	
S Heat-resistant alloys	XCM	CTC5235	75 – 25	0.1 – 0.3	3 – 0.5	
S Titanium	XCM	CTC5240				
H Hard materials	–	CTP6215	180 – 100	0.1 – 0.25	0.7 – 0.1	


Recommended!


\varnothing [mm]	4 times		8 times
	a_p [mm]	$a_{p\ max}$ [mm]	$a_{p\ max}$ [mm]
10	2.5	4.5	1.4
12	3.0	5.5	1.7
16	4.0	7.5	2.3



Available range R16

Insert	Designation	Chipbreaker	Material number	Available
	RPMX 1605MO-HCM CTCP230	...-HCM	11979017	●
	RPMX 1605MO-HCM CTPP235	...-HCM	11979021	●
	RPMX 1605MO-SCM CTPM235HP	...-SCM	12251253	●
	RPMX 1605MO-SCM CTC5235	...-SCM	12193449	●
	RPHX 1605MO-XCM CTC5235	...-XCM	11670391	●
	RPHX 1605MO-XCM CTC5240	...-XCM	11670392	●

Body	Designation	∅ Milling cutter [mm]	z	Material number	Available
	A-SSM-R16-50.R.03	50	3	11739864	●
	A-SSM-R16-63.R.05	63	5	11739862	●
	A-SSM-R16-80.R.06	80	6	11739860	●
	A-SSM-R16-100.R.07	100	7	11739857	●
	A-SSM-R16-125.R.08	125	8	11739853	●

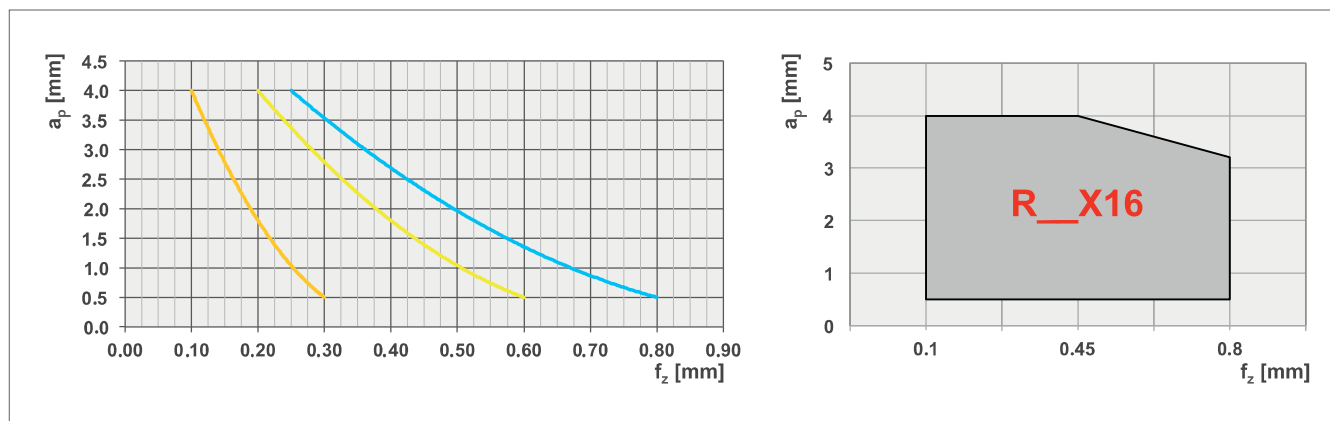
Spare parts	Designation	Torque moment [Nm]	Material number	Available
	Screw M4.5 x 13 – T20+	5	1345431	●
	Power screw M10.0 x 31.0 (7818268) for A-SSM-R16-50.R.03	20	11040298	●

● available from stock, ○ available upon request



Cutting data R16

Starting parameters:

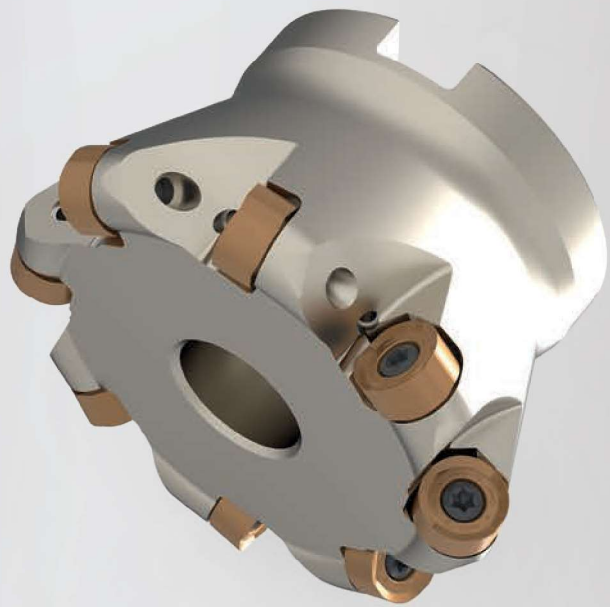


Grades and materials:

Material group	Chipbreaker	Grade	v_c [m/min]	Cutting data	
				f_z [mm]	a_p [mm]
P Steel	HCM	CTCP230	220 – 60	0.25 – 0.8	4 – 0.5
		CTPP235			
M Stainless steel	SCM	CTPM235HP	200 – 60	0.2 – 0.6	4 – 0.5
		CTC5235			
S Heat-resistant alloys	XCM	CTC5235	75 – 25	0.1 – 0.3	4 – 0.5
S Titanium	XCM	CTC5240			

Recommended!

\varnothing [mm]	4 times		8 times
	a_p [mm]	$a_{p\ max}$ [mm]	$a_{p\ max}$ [mm]
10	2.5	4.5	1.4
12	3.0	5.5	1.7
16	4.0	7.5	2.3





Overview RNKU... ROHU...

Application

1) Face milling



2) Slot milling



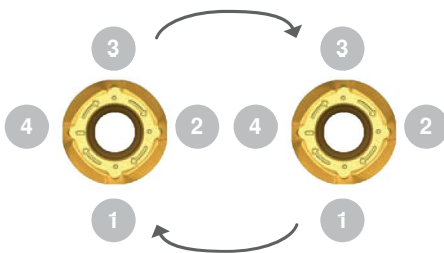
Chipbreaker

HCM: Steel – Cast iron*

SCM: Stainless Steel

XCM: Exotic – Titanium*

Indexing 4 times and reversible



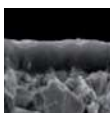
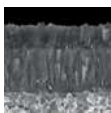
Grades

CTCP230 ■

CTPP235 ■

CTPM235HP ■

CTC5235 ■



Customer benefits

- ▲ Indexing of the insert without complete removal of the clamping screw is possible!
- ▲ Direct insert indexing saves valuable machine time.



Available in 2 dimensions



Best finishing



Cutting parameters: v_c 280m/ min. f 0.4 mm. a_p 0.5 mm

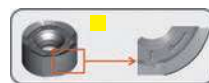
- ▲ The alliance of a round insert for the robustness and a surfacing insert for the finishing. The double sided insert has 4 minor cutting edges per side for a best surface finish.
- ▲ For example
 - Ra with a standard round insert: 3 μ m
 - Ra with the double-sided round insert: 1 μ m

Which chipbreaker to use?



HCM

Strong cutting edge for general steel applications and hard conditions milling.






SCM


Sharp cutting edge for general stainless steel applications and for finishing in steels.



Available range R12

Insert	Designation	Chipbreaker	Material number	Available
	RNKU 1204MOER-HCM CTCP230	...-HCM	11979067	●
	RNKU 1204MOER-HCM CTPP235	...-HCM	11979068	●
	ROHU 1204MOER-SCM CTPM235HP	...-SCM	12251254	●
	ROHU 1204MOER-SCM CTC5235	...-SCM	12193450	●

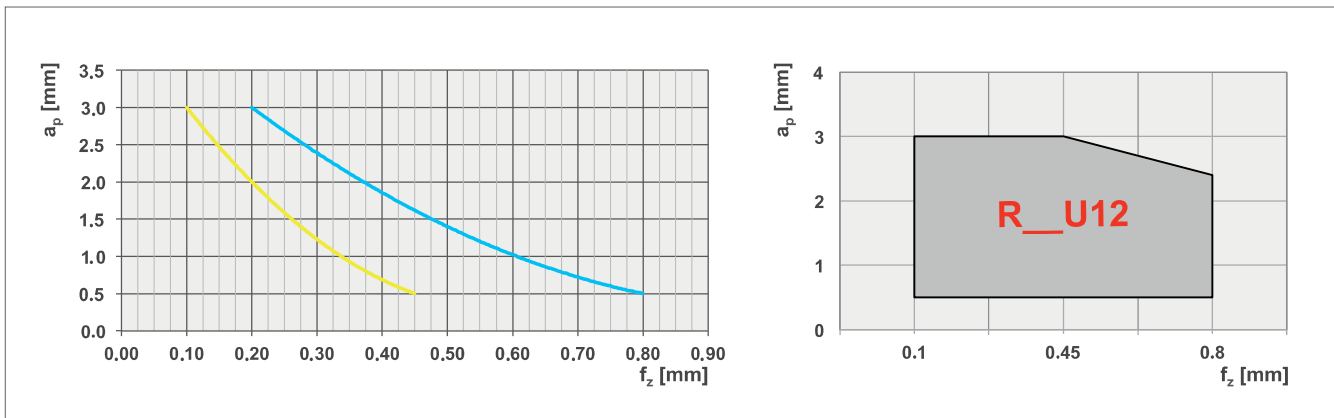
Body	Designation	∅ Milling cutter [mm]	z	Material number	Available
	C-DSM-R12-32.R.03-A-70	32	3	11775976	●
	C-DSM-R12-32.R.03-A-70-165	32	3	11984880	●
	A-DSM-R12-40.R.04	40	4	11718939	●
	A-DSM-R12-50.R.05	50	5	11775978	●
	A-DSM-R12-63.R.06	63	6	11775977	●
	A-DSM-R12-80.R.08	80	8	11987879	●
	A-DSM-R12-100.R.10	100	10	11984878	●

Spare parts	Designation	Torque moment [Nm]	Material number	Available
	Screw M4.0 x 11 – T15+ (only for A-)	5	1345432	●
	Screw M4.0 x 8.5 – T15 (only for C-)	5	11037484	●
	Power screw M8.0 x 30.0 (7818267) for A-SSM-R12-40.R.04	15	11036880	●



Cutting data R12

Starting parameters:



Grades and materials:

Grades and materials:				Cutting data		
Material group	Chipbreaker	Grade	v_c [m/min]	f_z [mm]	a_p [mm]	
P	Steel	HCM	220 – 60	CTCP230	0.2 – 0.8	3 – 0.5
				CTPP235		
M	Stainless steel	SCM	200 – 60	CTPM235HP	0.1 – 0.45	3 – 0.5
				CTC5235		


Recommended!





\varnothing [mm]	4 times		8 times
	a_p [mm]	$a_{p\ max}$ [mm]	$a_{p\ max}$ [mm]
10	2.5	4.5	1.4
12	3.0	5.5	1.7
16	4.0	7.5	2.3



Available range R16

Insert	Designation	Chipbreaker	Material number	Available
	RNKU 1605MOER-HCM CTCP230	...-HCM	12193454	●
	RNKU 1605MOER-HCM CTPP235	...-HCM	12193465	●
	ROHU 1605MOER-SCM CTPM235HP	...-SCM	12251255	●
	ROHU 1605MOER-SCM CTC5235	...-SCM	12193480	●

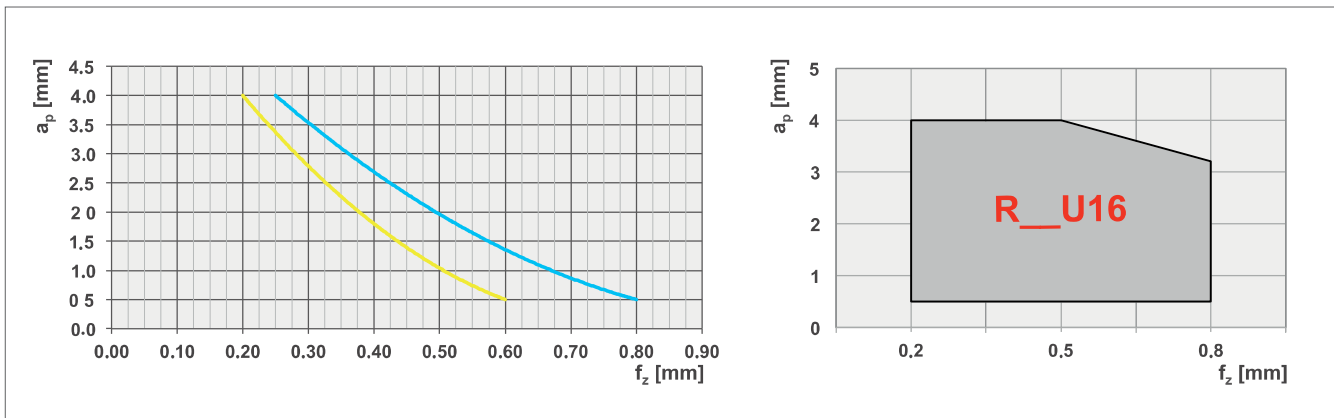
Body	Designation	∅ Milling cutter [mm]	z	Material number	Available
	A-DSM-R16-63.R.05	63	5	11928824	●

Spare parts	Designation	Torque moment [Nm]	Material number	Available
	Screw M4.5 x 13 – T20	5	188399	●



Cutting data R16


Starting parameters:



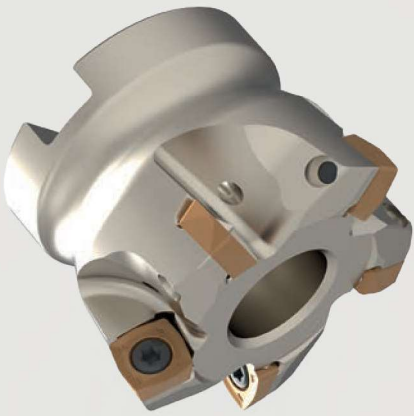
Grades and materials:

Grades and materials:				Cutting data		
Material group	Chipbreaker	Grade	v_c [m/min]	f_z [mm]	a_p [mm]	
P	Steel	HCM	220 – 60	CTCP230	0.25 – 0.8	4 – 0.5
				CTPP235		
M	Stainless steel	SCM	200 – 60	CTPM235HP	0.2 – 0.6	4 – 0.5
				CTC5235		

Recommended!










\varnothing [mm]	4 times		8 times
	a_p [mm]	$a_{p \max}$ [mm]	$a_{p \max}$ [mm]
10	2.5	4.5	1.4
12	3.0	5.5	1.7
16	4.0	7.5	2.3





Overview XPLT... XDLT... XDLX... XOLT...

Application

- 1) Face milling 
- 2) Angled milling 
- 3) Helical plunging 
- 4) Plunge milling 
- 5) Profile milling 
- 6) Pocket milling 
- 7) Slot milling 

Customer benefits

- ▲ With feed rates up to 3 mm / tooth and closely pitched tools, very high chip removal rates are achieved.
- ▲ Maximal tool life thanks to HyperCoat coating.
- ▲ Maximised economy thanks to 4 cutting edges.
- ▲ Reduced machining noise and vibration. Light cutting geometries.
- ▲ Flexibility thanks to coolant holes with minimum quantity lubrication design.

Available in 3 dimensions



IC 07 IC 10 IC 13

Chipbreaker

HCM: Steel – Cast iron*
SCM: Stainless Steel – Titanium*

4 effective cutting edges



Which chipbreaker to use?



HCM

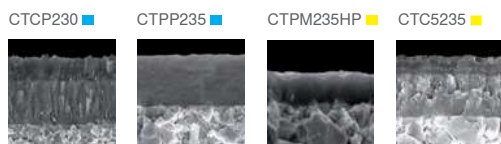
Strong cutting edge for general steel applications and hard conditions milling.



SCM



Sharp cutting edge for general stainless steel applications and for finishing in steels.



Grades





Available range HFC07

Insert	Designation	Chipbreaker	Material number	Available
	XPLT 070305SR-HCM CTCP230	...-HCM	12193481	●
	XPLT 070305SR-HCM CTPP235	...-HCM	12193482	●
	XPLT 070305ER-SCM CTPM235HP	...-SCM	12251260	●
	XPLT 070305ER-SCM CTC5235	...-SCM	11869773	●

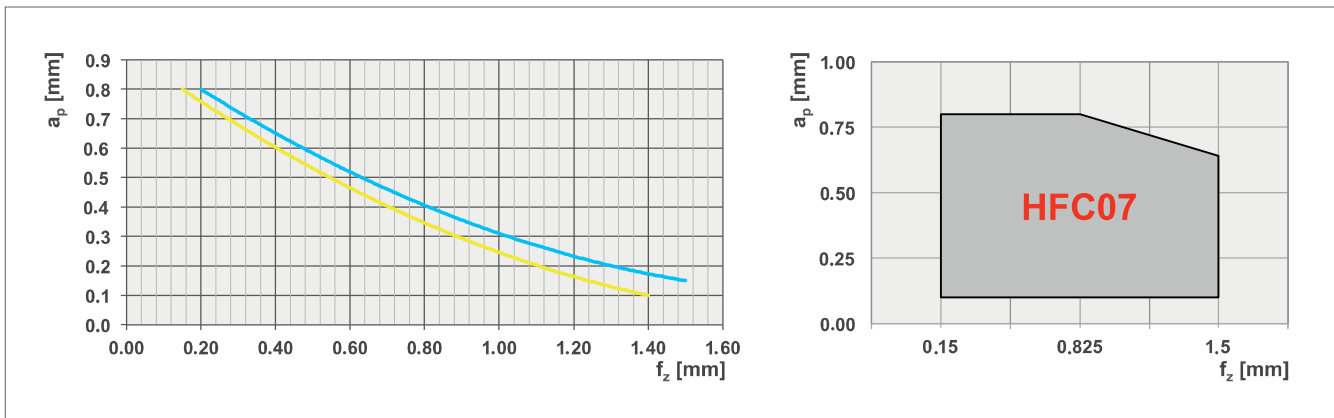
Body	Designation	∅ Milling cutter [mm]	z	Material number	Available
	C-SSM-HFC07-16.R.02-A-50-200	16	2	11919179	●
	C-SSM-HFC07-20.R.03-A-50-200	20	3	11919180	●
	C-SSM-HFC07-25.R.04-A-50-200	25	4	11919182	●
	G-SSM-HFC07-16.R.02	16	2	11919183	●
	G-SSM-HFC07-20.R.03	20	3	11919184	●
	G-SSM-HFC07-25.R.04	25	4	11919185	●

Spare parts	Designation	Torque moment [Nm]	Material number	Available
	M2.5x5.0 T08	1.2	76913	●



Cutting data HFC07



Starting parameters:






Grades and materials:

Grades and materials:				Cutting data		
Material group	Chipbreaker	Grade	v_c [m/min]	f_z [mm]	a_p [mm]	
P Steel	HCM	CTCP230	220 – 60	0.2 – 1.5	0.8 – 0.15	
		CTPP235				
M Stainless steel	SCM	CTPM235HP	200 – 60	0.15 – 1.4	0.8 – 0.1	
		CTC5235				

Available range HFC10 – XDLT

Insert	Designation	Chipbreaker	Material number	Available
	XDLT 10T308SR-HCM CTCP230	...-HCM	12193485	●
	XDLT 10T308SR-HCM CTPP235	...-HCM	12193487	●
	XDLT 10T308ER-SCM CTPM235HP	...-SCM	12264804	●
	XDLT 10T308ER-SCM CTC5235	...-SCM	11940752	●

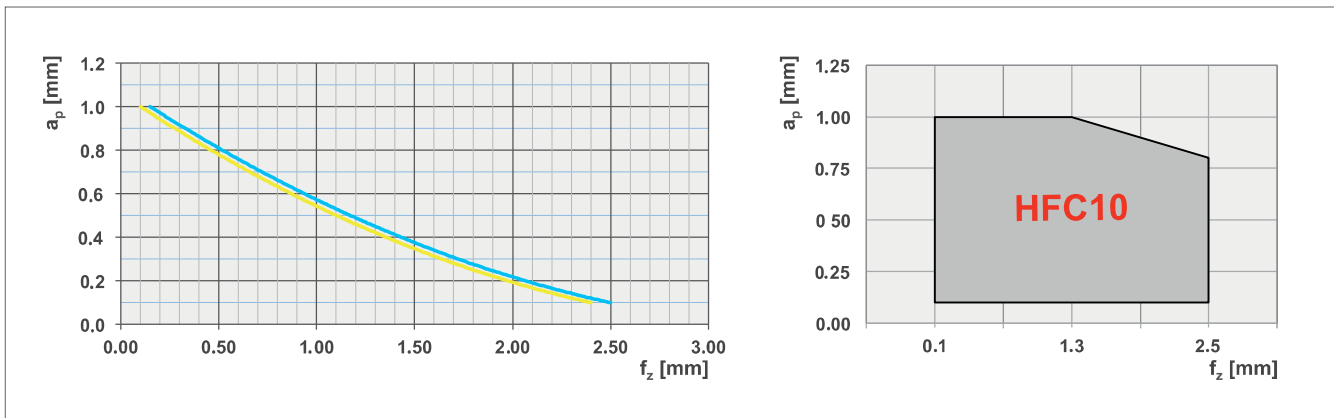
Body	Designation	∅ Milling cutter [mm]	z	Material number	Available
	C-SSM-HFC10-25.R.03-A-50-225	25	3	11536252	●
	A-SSM-HFC10-40.R.04	40	4	11536253	●
	A-SSM-HFC10-50.R.05	50	5	11536255	●
	A-SSM-HFC10-63.R.06	63	6	11536256	●

Spare parts	Designation	Torque moment [Nm]	Material number	Available
	Screw M3.5 x 7.2 – T15 (7722111) for C-SSM-HFC10	3.2	54976	●
	Screw M3.5 x 8.6 – T15 (7883209) for A-SSM-HFC10	3.2	165795	●
	Power screw M8.0 x 30.0 (7818267) only for A-SSM-HFC-40.R.04	15	11036880	●



Cutting data HFC10 – XDLT

Starting parameters:



Grades and materials:



Grades and materials:				Cutting data		
Material group	Chipbreaker	Grade	v_c [m/min]	f_z [mm]	a_p [mm]	
P	HCM	CTCP230	220 – 60	0.15 – 2.5	1 – 0.1	
		CTPP235				
M	SCM	CTPM235HP	200 – 60	0.1 – 2.4	1 – 0.1	
		CTC5235				


Available range HFC10 – XDLX


Your advantages / benefits

- ▲ Reduced machining noise and vibration, light cutting geometry
- ▲ Maximized economy thanks to 4 cutting edges
- ▲ Same milling body as previous range
- ▲ Increased productivity
- ▲ Tool life increased



Insert	Designation	Chipbreaker	Material number	Available
	XDLX 10T308SR-HCM CTCP230	...-HCM	12308829	●
	XDLX 10T308SR-HCM CTPP235	...-HCM	12248334	●
	XDLX 10T308SR-SCM CTPM235HP	...-SCM	12257442	●
	XDLX 10T308SR-SCM CTC5235	...-SCM	12188504	●

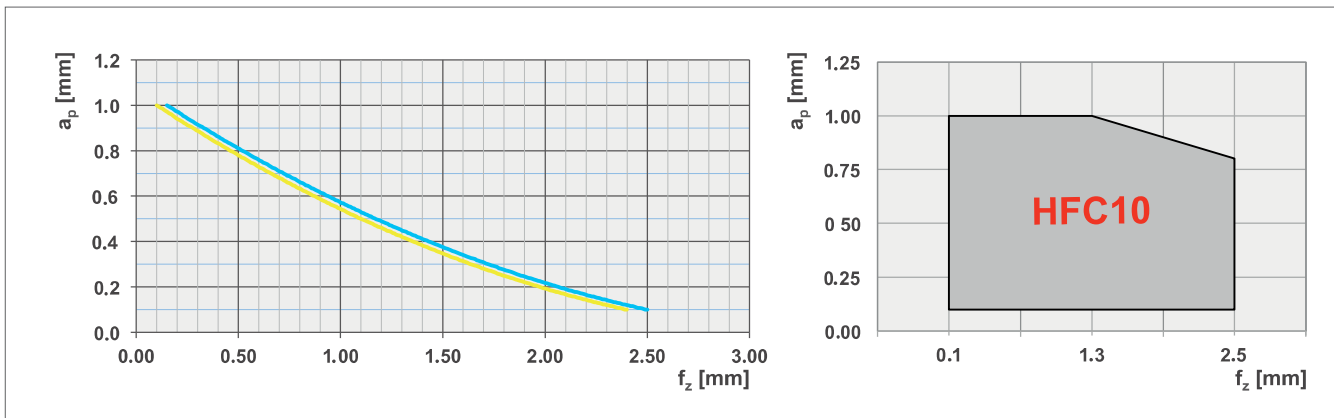
Body	Designation	∅ Milling cutter [mm]	z	Material number	Available
	C-SSM-HFC10-25.R.03-A-50-225	25	3	11536252	●
	A-SSM-HFC10-40.R.04	40	4	11536253	●
	A-SSM-HFC10-50.R.05	50	5	11536255	●
	A-SSM-HFC10-63.R.06	63	6	11536256	●

Spare parts	Designation	Torque moment [Nm]	Material number	Available
	Screw M3.5 x 7.2 – T15 (7722111) for C-SSM-HFC10	3.2	54976	●
	Screw M3.5 x 8.6 – T15 (7883209) for A-SSM-HFC10	3.2	165795	●
	Power screw M8.0 x 30.0 (7818267) only for A-SSM-HFC-40.R.04	15	11036880	●



Cutting data HFC10 – XDLX

Starting parameters:






Grades and materials:


Grades and materials:				Cutting data		
Material group	Chipbreaker	Grade	v_c [m/min]	f_z [mm]	a_p [mm]	
P	HCM	CTCP230	220 – 60	0.15 – 2.5	1 – 0.1	
		CTPP235				
M	SCM	CTPM235HP	200 – 60	0.1 – 2.4	1 – 0.1	
		CTC5235				



Available range HFC13

Insert	Designation	Chipbreaker	Material number	Available
	XOLT 130410SR-HCM CTCP230	...-HCM	12193499	●
	XOLT 130410SR-HCM CTPP235	...-HCM	12193508	●
	XOLT 130410ER-SCM CTPM235HP	...-SCM	12251262	●
	XOLT 130410ER-SCM CTC5235	...-SCM	11940763	●

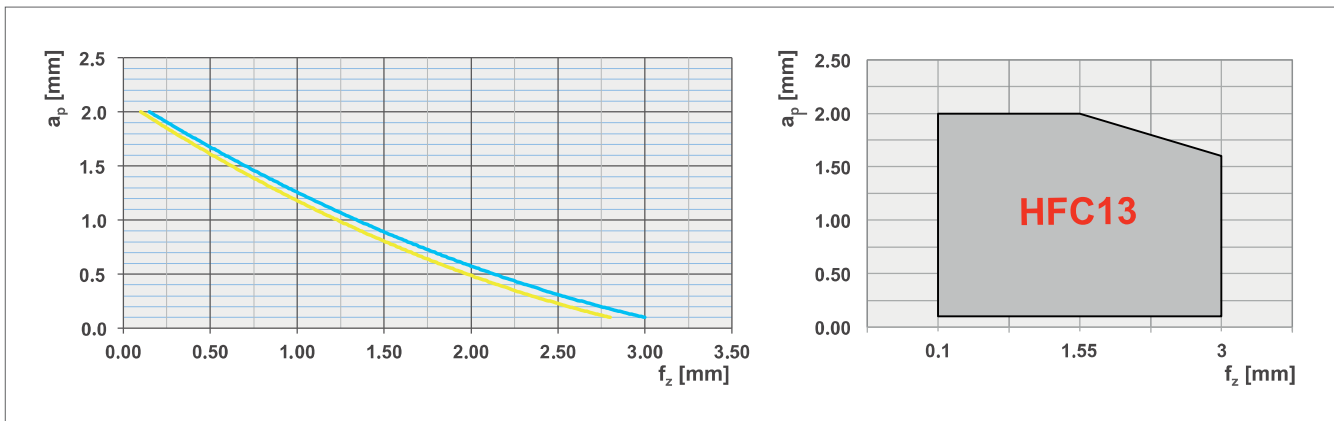
Body	Designation	∅ Milling cutter [mm]	z	Material number	Available
	C-SSM-HFC13-35.R.03-A-63-250	35	3	11536246	●
	A-SSM-HFC13-50.R.04	50	4	11536249	●
	A-SSM-HFC13-63.R.05	63	5	11536248	●
	A-SSM-HFC13-80.R.07	80	7	11536247	●

Spare parts	Designation	Torque moment [Nm]	Material number	Available
	Screw M4.5 x 10.5 – T20 (7822114)	5	106022	●



Cutting data HFC13

Starting parameters:

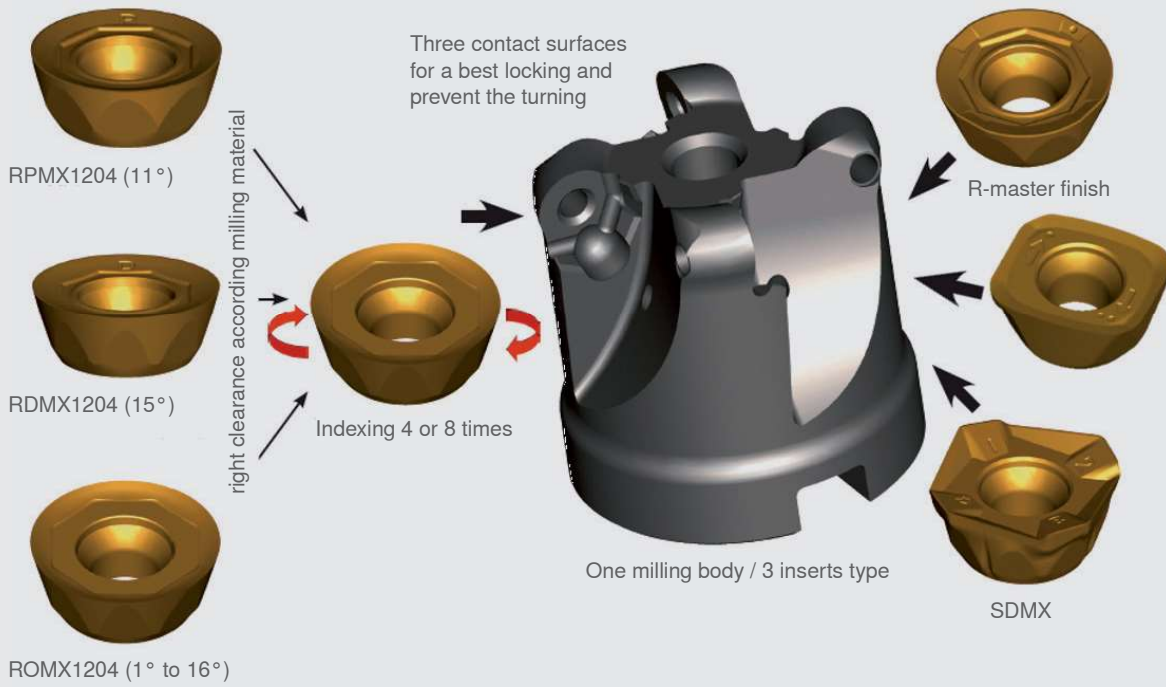


Grades and materials:

Grades and materials:				Cutting data		
Material group	Chipbreaker	Grade	v_c [m/min]	f_z [mm]	a_p [mm]	
P Steel	HCM	CTCP230	220 – 60	0.15 – 3	2 – 0.1	
		CTPP235				
M Stainless steel	SCM	CTPM235HP	200 – 60	0.1 – 2.8	2 – 0.1	
		CTC5235				

Standard application






Additional application





Overview SDMX

Application

- 1) Face milling 
- 2) Angled milling 
- 3) Slot milling 
- 4) Chamfering 
- 5) Profile milling 

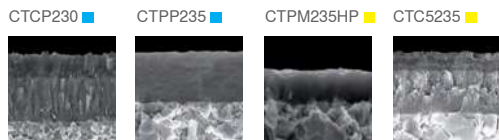
Chipbreaker

HCM: Steel – Cast iron*
SCM: Stainless Steel

4 effective cutting edges



Grades



Customer benefits

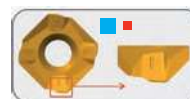
- ▲ Indexing of the insert without complete removal of the clamping screw is possible!
- ▲ Direct insert indexing saves valuable machine time.



Available in 2 dimensions



Which chipbreaker to use?



HCM
 Strong cutting edge for general steel applications and hard conditions milling.






SCM
 Sharp cutting edge for general stainless steel applications and for finishing in steels.


* secondary application



Available range SDMX11

Insert	Designation	Chipbreaker	Material number	Available
	SDMX 1105AEER-HCM CTCP230	...-HCM	12193911	●
	SDMX 1105AEER-HCM CTPP235	...-HCM	12193912	●
	SDMX 1105AEER-SCM CTPM235HP	...-SCM	12251266	●
	SDMX 1105AEER-SCM CTC5235	...-SCM	12193916	●

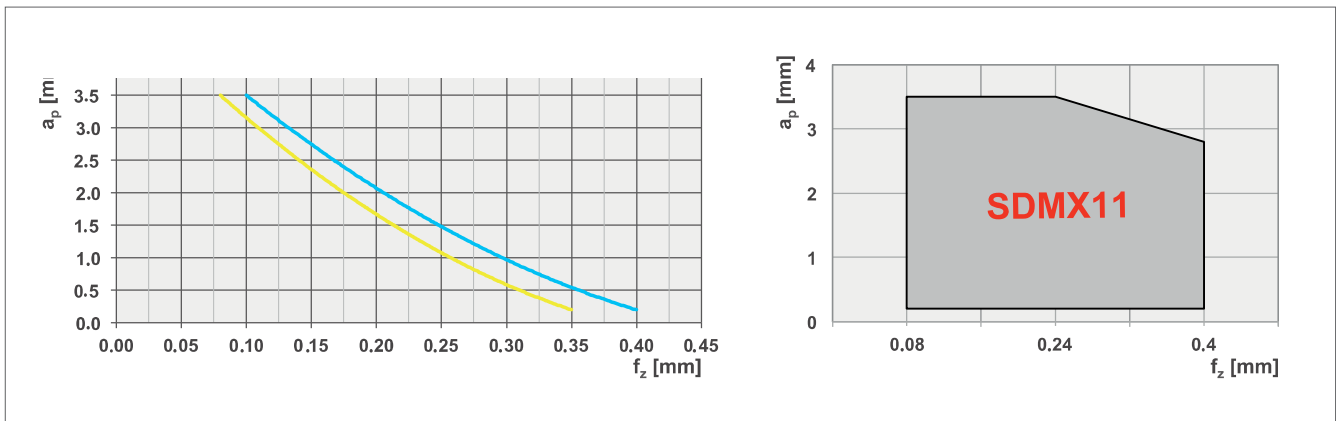
Body	Designation	∅ Milling cutter [mm]	z	Material number	Available
	C-SSM-R12-25.R.02-A-30	25	2	11720305	●
	C-SSM-R12-25.R.02-A-60	25	2	11720307	●
	C-SSM-R12-32.R.03-A-40	32	3	11720308	●
	C-SSM-R12-32.R.03-A-70	32	3	11720310	●
	A-SSM-R12-40.R.04	40	4	11596003	●
	A-SSM-R12-50.R.05	50	5	11667287	●
	A-SSM-R12-63.R.06	63	6	11667291	●
	A-SSM-R12-80.R.08	80	8	11707446	●
	A-SSM-R12-100.R.10	100	10	11707445	●

Spare parts	Designation	Torque moment [Nm]	Material number	Available
	Screw M4.0 x 11 – T15+ (Only for A-)	5	1345432	●
	Screw M4.0 x 8.5 – T15 (Only for C-)	5	11037484	●
	Power screw M8.0 x 30.0 (7818267) for A-SSM-R12-40.R.04	15	11036880	●



Cutting data SDMX11

Starting parameters:





Grades and materials:


Grades and materials:				Cutting data		
Material group	Chipbreaker	Grade	v_c [m/min]	f_z [mm]	a_p [mm]	
P	HCM	CTCP230	220 – 60	0.1 – 0.4	3.5 – 0.2	
		CTPP235				
M	SCM	CTPM235HP	200 – 60	0.08 – 0.35	3.5 – 0.2	
		CTC5235				



Available range SDMX15

Insert	Designation	Chipbreaker	Material number	Available
	SDMX 1506AEER-HCM CTCP230	...-HCM	12193917	●
	SDMX 1506AEER-HCM CTPP235	...-HCM	12212274	●
	SDMX 1506AEER-SCM CTPM235HP	...-SCM	12251268	●
	SDMX 1506AEER-SCM CTC5235	...-SCM	12212268	●

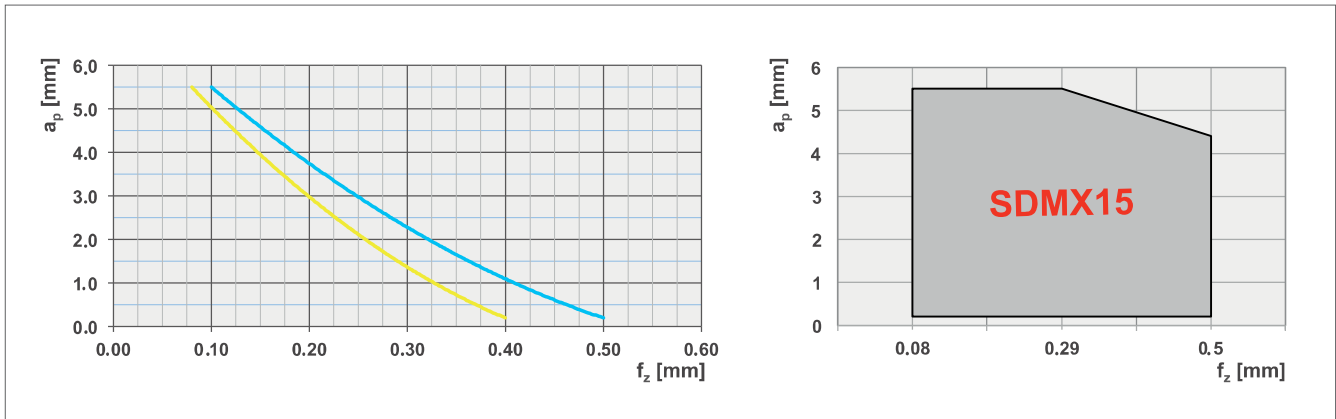
Body	Designation	∅ Milling cutter [mm]	z	Material number	Available
	A-SSM-R16-50.R.03	50	3	11739864	●
	A-SSM-R16-63.R.05	63	5	11739862	●
	A-SSM-R16-80.R.06	80	6	11739860	●
	A-SSM-R16-100.R.07	100	7	11739857	●
	A-SSM-R16-125.R.08	125	8	11739853	●

Spare parts	Designation	Torque moment [Nm]	Material number	Available
	Screw M4.5 x 13 – T20+	5	1345431	●
	Power screw M10.0 x 31.0 (7818268) for A-SSM-R16-50.R.03	20	11040298	●



Cutting data SDMX15

Starting parameters:



Grades and materials:






Grades and materials:				Cutting data		
Material group		Chipbreaker	Grade	v_c [m/min]	f_z [mm]	a_p [mm]
P	Steel	HCM	CTCP230	220 – 60	0.1 – 0.5	5.5 – 0.2
			CTPP235			
M	Stainless steel	SCM	CTPM235HP	200 – 60	0.08 – 0.4	5.5 – 0.2
			CTC5235			





Overview RPMX-MF

Application

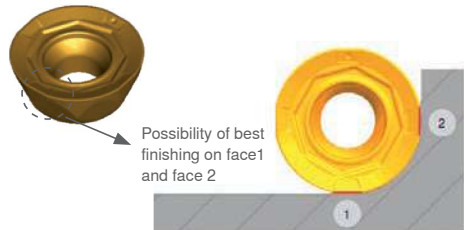
- 1) Face milling 
- 2) Angled milling 
- 3) Slot milling 
- 4) Chamfering 
- 5) Profile milling 

Chipbreaker

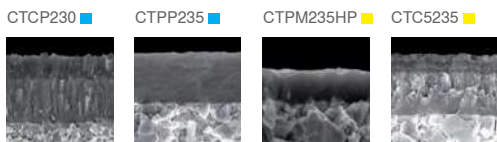
HCM: Steel – Cast iron*
SCM: Stainless Steel

Indexing 4 / Master finish

4 cutting edges Master Finish for a best finishing.



Grades



* secondary application

Customer benefits

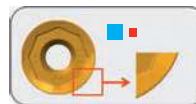
- ▲ Indexing of the insert without complete removal of the clamping screw is possible!
- ▲ Direct insert indexing saves valuable machine time.



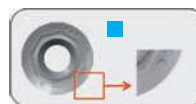
Available in 2 dimensions



Which chipbreaker to use?




HCM
 Strong cutting edge for general steel applications and hard conditions milling.






SCM
 Sharp cutting edge for general stainless steel applications and for finishing in steels.



Available range R...X12-MF

Insert	Designation	Chipbreaker	Material number	Available
	RPMX 1204MO-MFHCM CTCP230	...-MFHCM	11988961	●
	RPMX 1204MO-MFHCM CTPP235	...-MFHCM	11988960	●
	RPMX 1204MO-MFSCM CTPM235HP	...-MFSCM	12251272	●
	RPMX 1204MO-MFSCM CTC5235	...-MFSCM	12212285	●

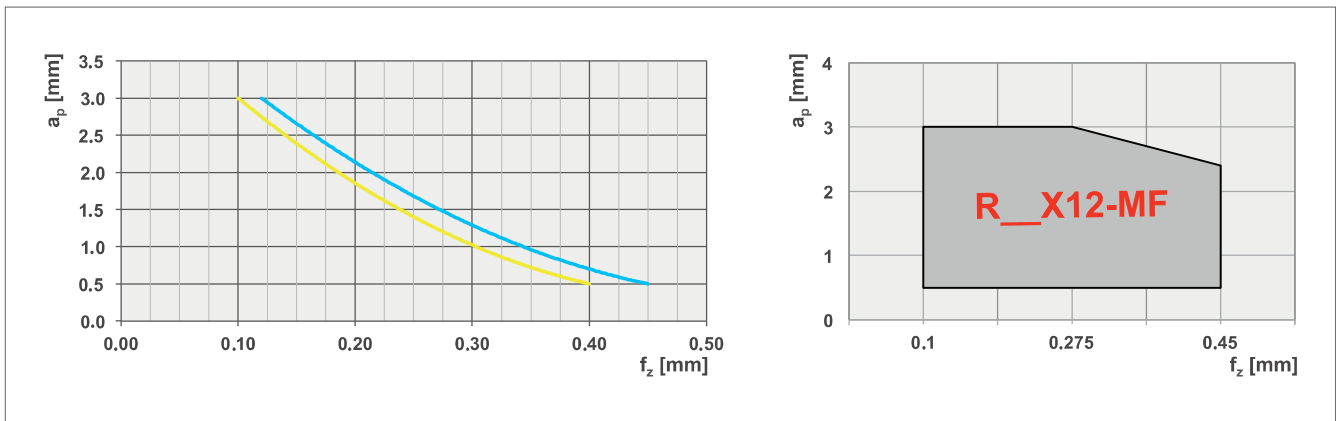
Body	Designation	Ø Milling cutter [mm]	z	Material number	Available
	C-SSM-R12-25.R.02-A-30	25	2	11720305	●
	C-SSM-R12-25.R.02-A-60	25	2	11720307	●
	C-SSM-R12-32.R.03-A-40	32	3	11720308	●
	C-SSM-R12-32.R.03-A-70	32	3	11720310	●
	A-SSM-R12-40.R.04	40	4	11596003	●
	A-SSM-R12-50.R.05	50	5	11667287	●
	A-SSM-R12-63.R.06	63	6	11667291	●
	A-SSM-R12-80.R.08	80	8	11707446	●
	A-SSM-R12-100.R.10	100	10	11707445	●

Spare parts	Designation	Torque moment [Nm]	Material number	Available
	Screw M4.0 x 11 – T15+ (Only for A-)	5	1345432	●
	Screw M4.0 x 8.5 – T15 (Only for C-)	5	11037484	●
	Power screw M8.0 x 30.0 (7818267) for A-SSM-R12-40.R.04	15	11036880	●



Cutting data R...X12-MF

Starting parameters:



Grades and materials:

Grades and materials:				Cutting data		
Material group	Chipbreaker	Grade	v_c [m/min]	f_z [mm]	a_p [mm]	
P	Steel	HCM	220 – 60	CTCP230	0.12 – 0.45	3 – 0.5
				CTPP235		
M	Stainless steel	SCM	200 – 60	CTPM235HP	0.1 – 0.4	3 – 0.5
				CTC5235		





Recommended!


\varnothing [mm]	4 times	
	a_p [mm]	$a_{p \max}$ [mm]
12	3.0	5.5
16	4.0	7.5



Available range R...X16-MF

Insert	Designation	Chipbreaker	Material number	Available
	RPMX 1605MO-MFHCM CTCP230	...-MFHCM	11988954	●
	RPMX 1605MO-MFHCM CTPP235	...-MFHCM	11988952	●
	RPMX 1605MO-MFSCM CTPM235HP	...-MFSCM	12251275	●
	RPMX 1605MO-MFSCM CTC5235	...-MFSCM	12212286	●

Body	Designation	∅ Milling cutter [mm]	z	Material number	Available
	A-SSM-R16-50.R.03	50	3	11739864	●
	A-SSM-R16-63.R.05	63	5	11739862	●
	A-SSM-R16-80.R.06	80	6	11739860	●
	A-SSM-R16-100.R.07	100	7	11739857	●
	A-SSM-R16-125.R.08	125	8	11739853	●

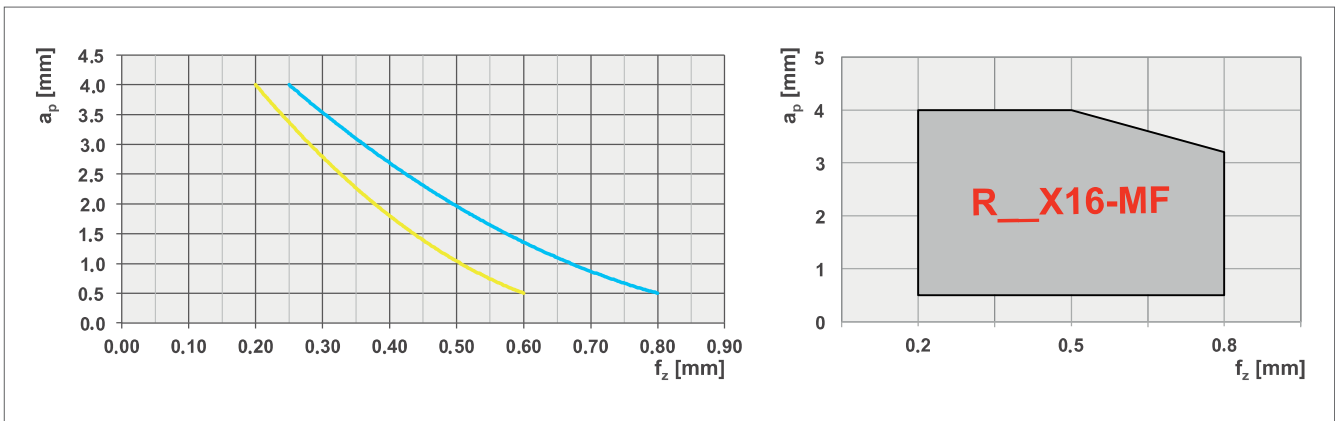
Spare parts	Designation	Torque moment [Nm]	Material number	Available
	Screw M4.5 x 13 – T20+	5	1345431	●
	Power screw M10.0 x 31.0 (7818268) for A-SSM-R16-50.R.03	20	11040298	●

● available from stock, ○ available upon request



Cutting data R...X16-MF

Starting parameters:



Grades and materials:

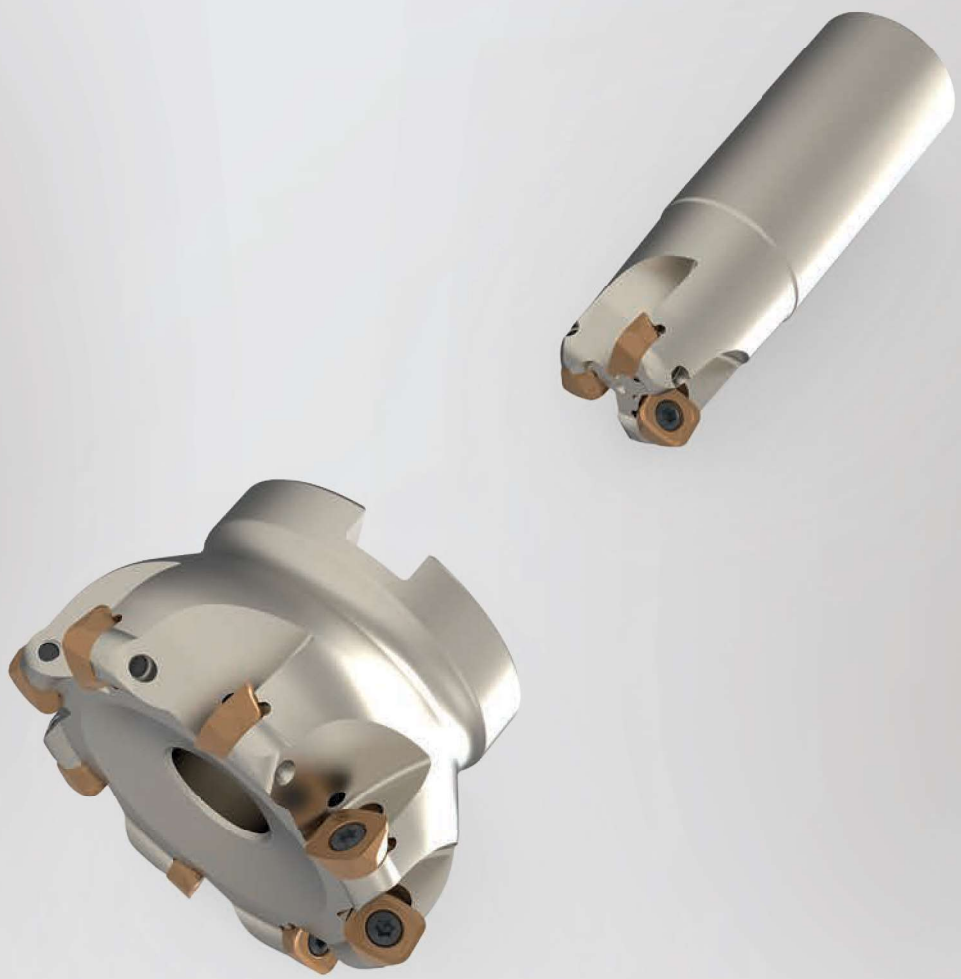
Grades and materials:			Cutting data		
Material group	Chipbreaker	Grade	v_c [m/min]	f_z [mm]	a_p [mm]
P	HCM	CTCP230	220 – 60	0.25 – 0.8	4 – 0.5
		CTPP235			
M	SCM	CTPM235HP	200 – 60	0.2 – 0.6	4 – 0.5
		CTC5235			



4 times

Recommended!

\varnothing [mm]	a_p [mm]	$a_{p\ max}$ [mm]
12	3.0	5.5
16	4.0	7.5





Overview EOMT

Application

1) Face milling



2) Angled milling



3) Slot milling



4) Chamfering



5) Profile milling



Chipbreaker

HCM: Steel – Cast iron*

SCM: Stainless Steel

Indexing 2 times

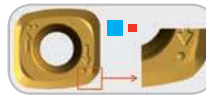


Customer benefits

- ▲ Indexing of the insert without complete removal of the clamping screw is possible!
- ▲ Direct insert indexing saves valuable machine time.

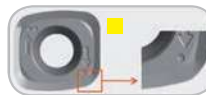


Which chipbreaker to use?



HCM

Strong cutting edge for general steel applications and hard conditions milling.



SCM

Sharp cutting edge for general stainless steel applications and for finishing in steels.

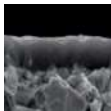
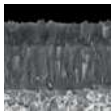
Grades

CTCP230 ■


CTPP235 ■



CTPM235HP ■


CTC5235 ■



Available range EOMT12

Insert	Designation	Chipbreaker	Material number	Available
	EOMT 120416-HCM CTCP230	...-HCM	12212261	●
	EOMT 120416-HCM CTPP235	...-HCM	12212263	●
	EOMT 120416-SCM CTPM235HP	...-SCM	12251279	●
	EOMT 120416-SCM CTC5235	...-SCM	12212295	●

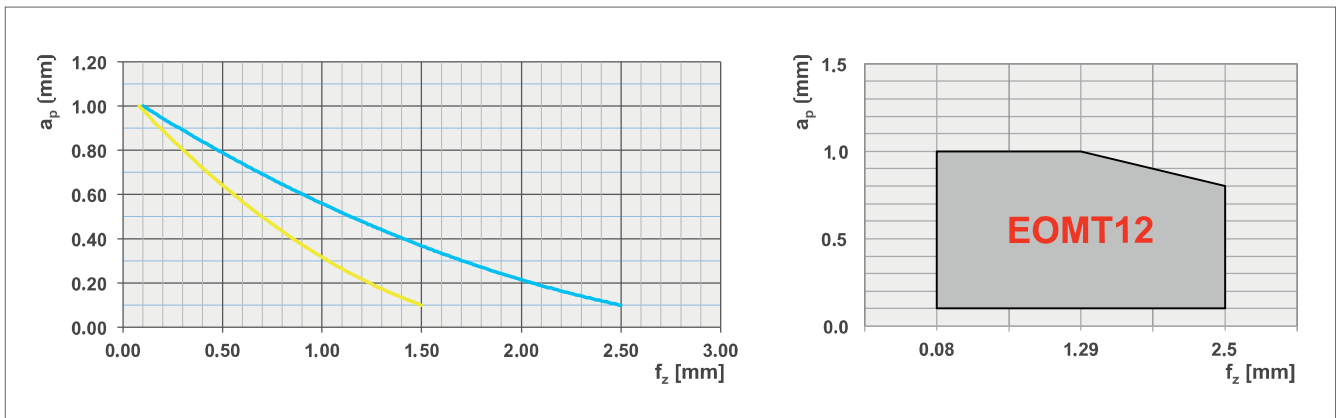
Body	Designation	∅ Milling cutter [mm]	z	Material number	Available
	C-SSM-R12-25.R.02-A-30	25	2	11720305	●
	C-SSM-R12-25.R.02-A-60	25	2	11720307	●
	C-SSM-R12-32.R.03-A-40	32	3	11720308	●
	C-SSM-R12-32.R.03-A-70	32	3	11720310	●
	A-SSM-R12-40.R.04	40	4	11596003	●
	A-SSM-R12-50.R.05	50	5	11667287	●
	A-SSM-R12-63.R.06	63	6	11667291	●
	A-SSM-R12-80.R.08	80	8	11707446	●
	A-SSM-R12-100.R.10	100	10	11707445	●

Spare parts	Designation	Torque moment [Nm]	Material number	Available
	Screw M4.0 x 11 – T15+ (Only for A-)	5	1345432	●
	Screw M4.0 x 8.5 – T15 (Only for C-)	5	11037484	●
	Power screw M8.0 x 30.0 (7818267) for A-SSM-R12-40.R.04	15	11036880	●



Cutting data EOMT12

Starting parameters:



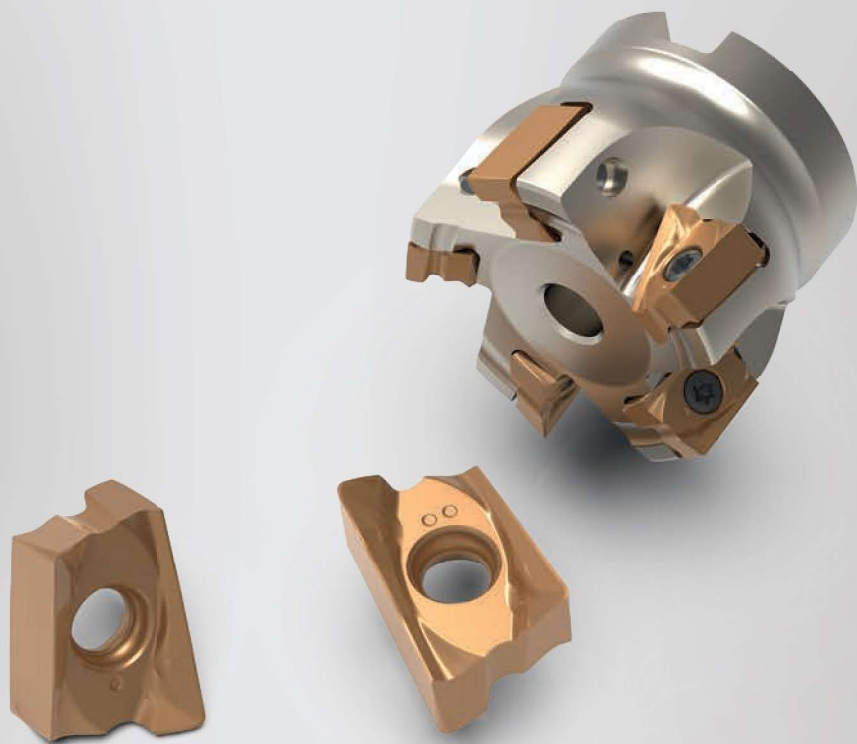
Grades and materials:

Material group		Chipbreaker	Grade	v_c [m/min]	Cutting data f_z [mm]	a_p [mm]
P	Steel	HCM	CTCP230	220 – 60	0.1 – 2.5	1 – 0.1
			CTPP235			
M	Stainless steel	SCM	CTPM235HP	200 – 60	0.08 – 1.5	1 – 0.1
			CTC5235			



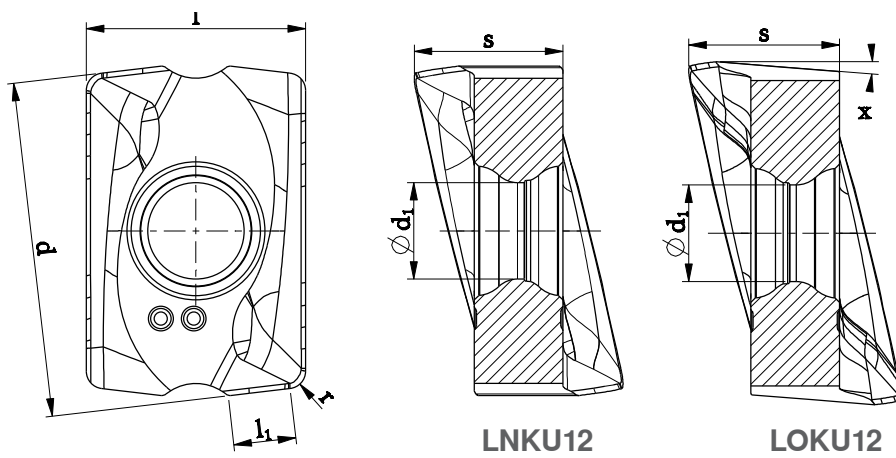
Technical Data





SSM-L / Shouldering 4 x 90°

Insert (LNKU12 / LOKU12)



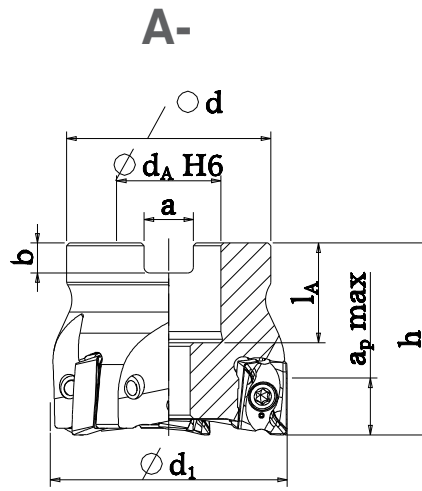
Description	d [mm]	l [mm]	s [mm]	l ₁ [mm]	r [mm]	d ₁ [mm]	x [°]
LNKU 120608-HCM	15.27	10	6.78	2.84	0.8	4.4	–
LOKU 120608-SCM	15.86	10	6.87	2.57	0.8	4.4	5



SSM-L / Shouldering 4 x 90°

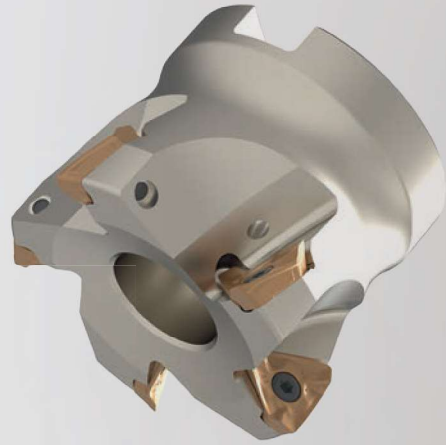
Milling body (LNKU12 / LOKU12)

- ▲ Face milling
- ▲ Angled milling
- ▲ Helical plunging
- ▲ Shoulder milling
- ▲ Slot milling
- ▲ Pocket milling



Description	$\varnothing d_1$ [mm]	h [mm]	$\varnothing d_A$ [mm]	$a_p \text{ max}$ [mm]	n_{max} [min ⁻¹]	z	$\varnothing d$ [mm]	l_A	a	b
A-DSM-LO/LN12-50.R.05	50	40 / 40.44*	22		14800	5	43	20	10.4	6.3
A-DSM-LO/LN12-63.R.06	63	40 / 40.44*	22	12	12850	6	48	21	10.4	6.3
A-DSM-LO/LN12-80.R.07	80	50 / 50.44*	27		11250	7	58	22	12.4	7

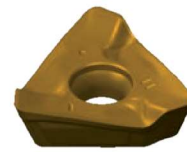
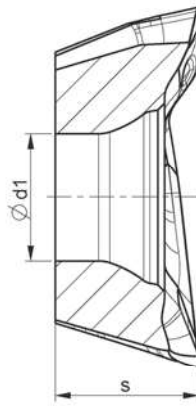
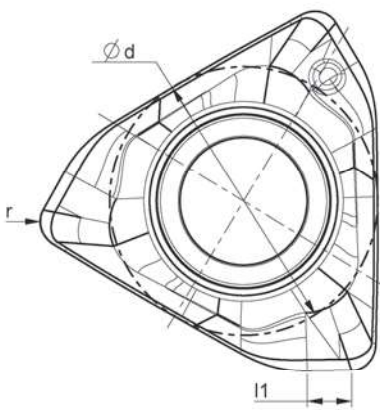
*with LOKU insert





SSM-T / Shouldering 3 x 90°

Insert (TOKX)



-HCM



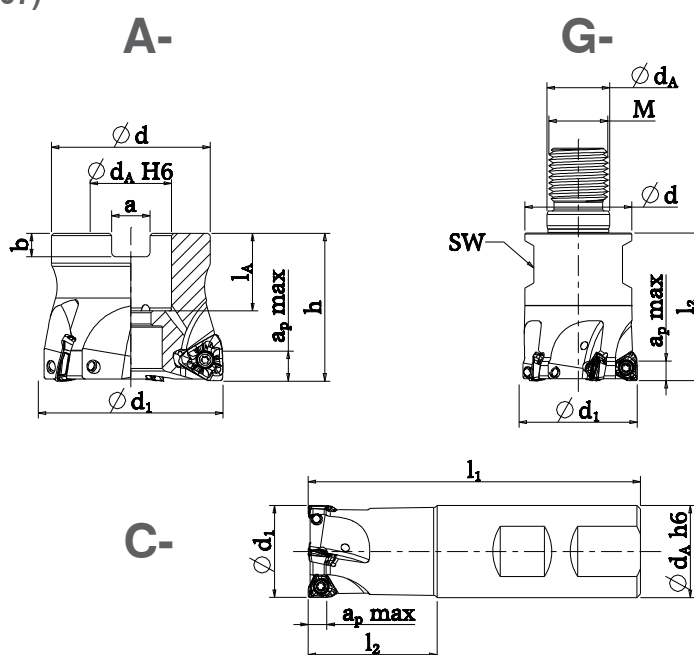
-SCM

Description	d [mm]	s [mm]	r [mm]	d ₁ [mm]	l ₁ [mm]
TOKX 070305PDER-HCM	5.9	3.15	0.5	2.8	1
TOKX 070305PDER-SCM					
TOKX 070308PDER-HCM	5.9	3.15	0.8	2.8	1
TOKX 070308PDER-SCM					
TOKX 09T308PDER-HCM	9.525	3.8	0.8	3.4	1.5
TOKX 09T308PDER-SCM					
TOKX 09T312PDER-HCM	9.525	3.8	1.2	3.4	1.5
TOKX 09T312PDER-SCM					
TOKX 09T316PDER-HCM	9.525	3.8	1.6	3.4	1.5
TOKX 09T316PDER-SCM					

SSM-T / Shouldering 3 x 90°

Milling body (TOKX07)

- ▲ Face milling
- ▲ Angled milling
- ▲ Helical plunging
- ▲ Shoulder milling
- ▲ Slot milling
- ▲ Pocket milling



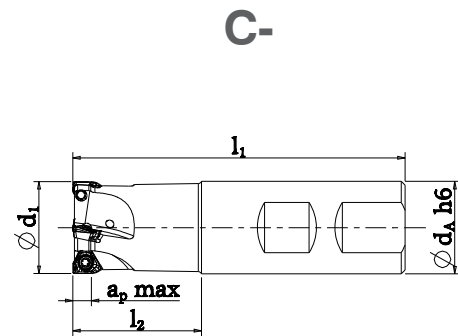
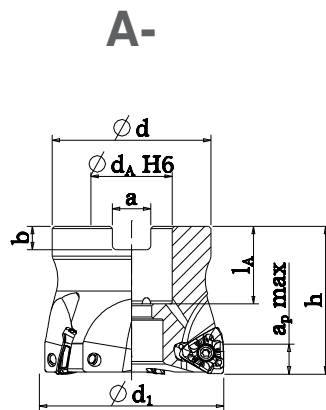
Description	Ød ₁ [mm]	l ₁ [mm]	l ₂ [mm]	h [mm]	Ød _A [mm]	a _{p max} [mm]	n _{max} [min ⁻¹]	z	Ød [mm]	SW	M	l _A	a	b
C-SSM-T07-20.R.03-B	20	77	25	–	20	5	22000	3	–	–	–	–	–	–
C-SSM-T07-25.R.04-B	25	90	34	–	25		20000	4	–	–	–	–	–	–
C-SSM-T07-32.R.05-B	32	102	40	–	32		19700	5	–	–	–	–	–	–
G-SSM-T07-20.R.03	20	–	30	–	10.5	36900	3	18	SW15	M10	–	–	–	–
G-SSM-T07-25.R.04	25	–	35	–	12.5	33200	4	21	SW17	M12	–	–	–	–
G-SSM-T07-32.R.05	32	–	40	–	17	30200	5	29	SW24	M16	–	–	–	–
A-SSM-T07-40.R.05	40	–	–	40	16	17000	5	38	–	–	20	8.4	5.6	–
A-SSM-T07-50.R.06	50	–	–	40	22	14800	6	43	–	–	21	10.4	6.3	–



SSM-T / Shouldering 3 x 90°

Milling body (TOKX09)

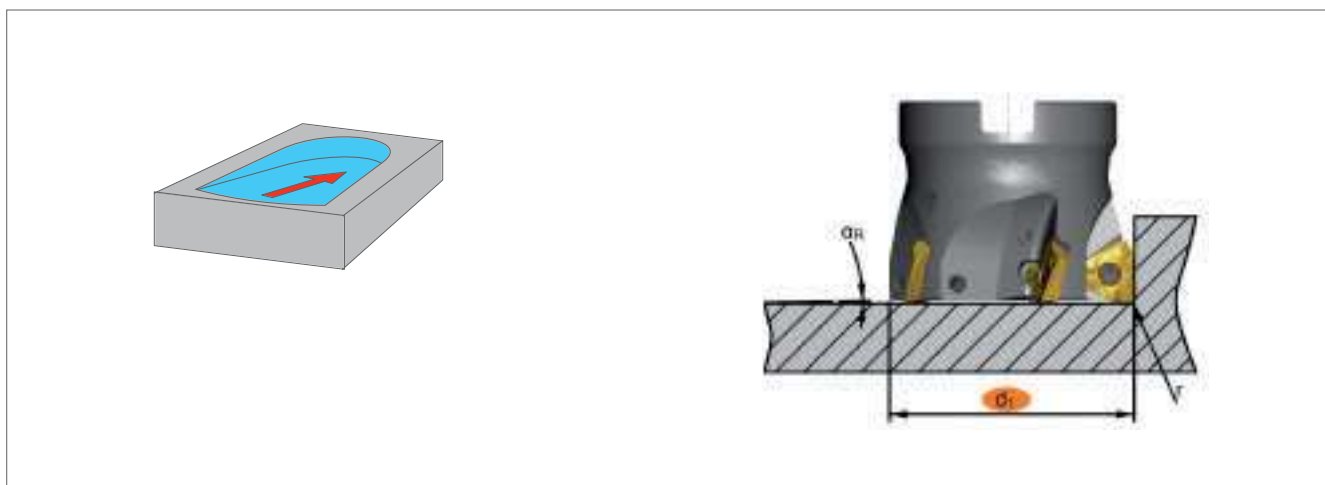
- ▲ Face milling
- ▲ Angled milling
- ▲ Helical plunging
- ▲ Shoulder milling
- ▲ Slot milling
- ▲ Pocket milling



Description	Ø d ₁ [mm]	l ₁ [mm]	l ₂ [mm]	h [mm]	Ø d _A [mm]	a _{p max} [mm]	n _{max} [min ⁻¹]	z	Ø d [mm]	l _A	a	b
C-SSM-T09-32.R.03-B-40	32	102	40	–	32		19700	3	–	–	–	–
A-SSM-T09-40.R.04	40	–	–	40	16	8	17000	4	38	20.5	8.4	5.6
A-SSM-T09-50.R.05	50	–	–	40	22		14800	5	43	21	10.4	6.3
A-SSM-T09-63.R.06	63	–	–	40	22		12850	6	48	21	10.4	6.3

SSM-T / Shouldering 3 x 90°

Application data (angled ramping TOKX07)

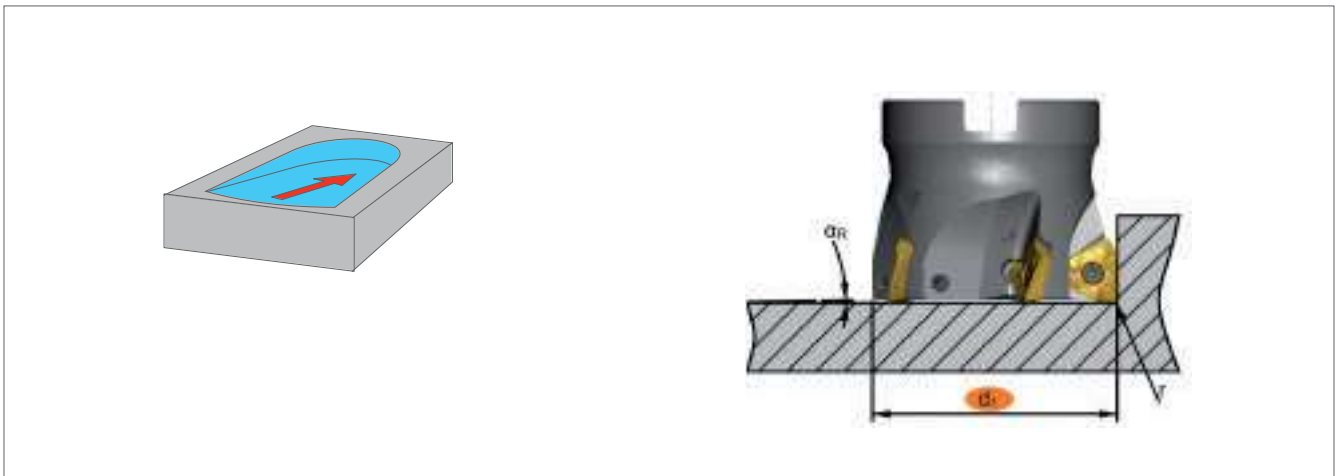


Description	d_1 [mm]	α_r [°]
C-SSM-T07-20.R.03-B	20	1.4
C-SSM-T07-25.R.04-B	25	1.2
C-SSM-T07-32.R.05-B	32	0.8
G-SSM-T07-20.R.03	20	1.4
G-SSM-T07-25.R.04	25	1.2
G-SSM-T07-32.R.05	32	0.8



SSM-T / Shouldering 3 x 90°

Application data (angled ramping TOKX09)



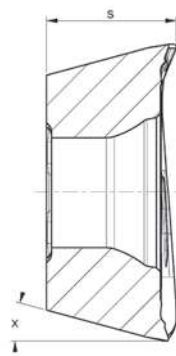
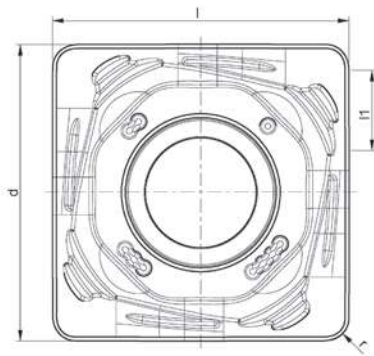
Description	d_r [mm]	α_r [°]
C-SSM-T09-32.R.03-B-40	32	1.1
A-SSM-T09-40.R.04	40	0.8
A-SSM-T09-50.R.05	50	0.5
A-SSM-T09-63.R.06	63	0.5





SSM-S / Shouldering 4 x 90°

Insert (SDKT)



-HCM



-SCM



-CCM



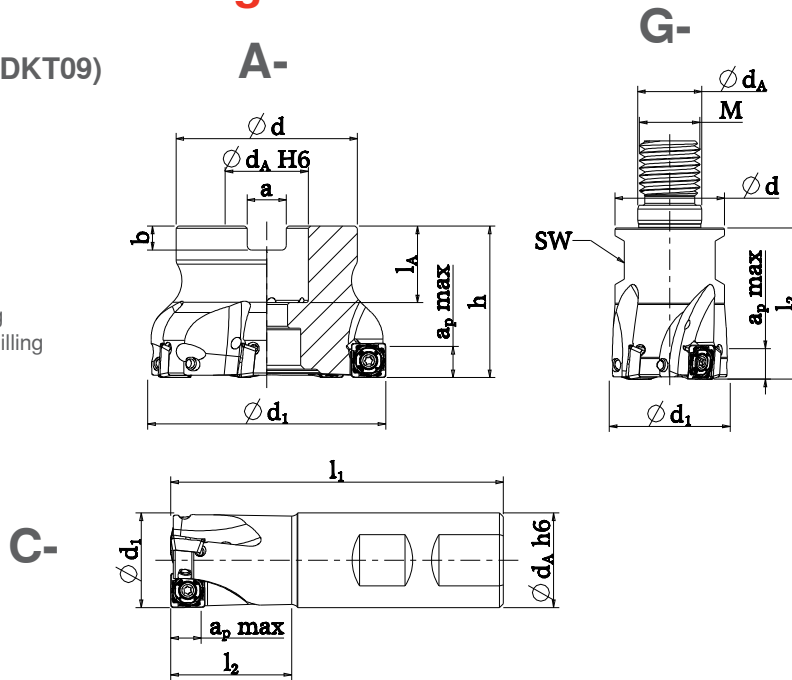
-LMM

Description	d [mm]	l [mm]	s [mm]	l ₁ [mm]	r [mm]	d ₁ [mm]	x [°]
SDKT 09T308SR-HCM	9	9	3.97	2.5	0.8	3.4	15
SDKT 09T308SR-SCM							
SDKT 09T308SR-CCM							
SDHT 09T308FR-LMM	12.3	12.3	5	2.5	0.8	4.7	15
SDKT 120508SR-HCM							
SDKT 120508SR-SCM							
SDKT 120508SR-CCM							
SDHT 120508SR-LMM							

SSM-S / Shouldering 4 x 90°

Milling body (SDKT09)

- ▲ Face milling
- ▲ Angled milling
- ▲ Helical plunging
- ▲ Shoulder milling
- ▲ Slot milling
- ▲ Peripheral milling
- ▲ Trochoidal slot milling



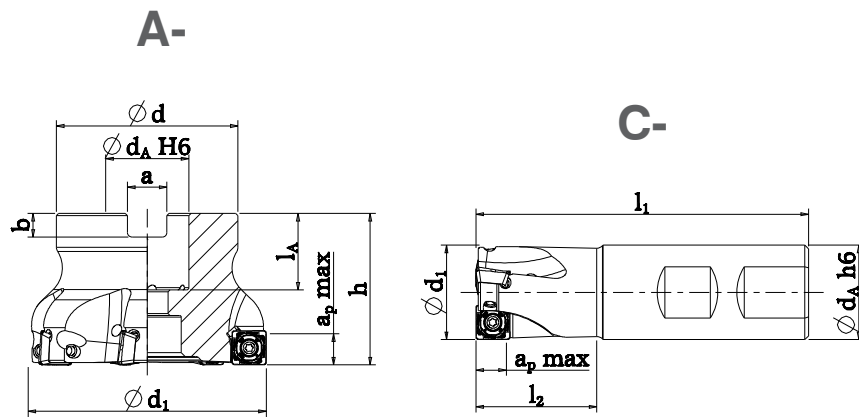
Description	ϕd_1 [mm]	l_1 [mm]	l_2 [mm]	h [mm]	ϕd_A [mm]	$a_p \max$ [mm]	n_{\max} [min ⁻¹]	z	ϕd [mm]	SW	M	l_A	a	b
C-SSM-S09-25.R.03-B-32	32	88	32	–	25		23700	3	–	–	–	–	–	–
C-SSM-S09-32.R.04-B-40	40	100	40	–	40		19700	4	–	–	–	–	–	–
G-SSM-S09-25.R.03	25	–	35	–	12.5		33200	3	21	SW17	M12	–	–	–
G-SSM-S09-32.R.04	32	–	40	–	17		30200	4	29	SW24	M16	–	–	–
A-SSM-S09-40.R.05	40	–	–	40	16	8	17000	5	38	–	–	20	8.4	5.6
A-SSM-S09-50.R.06	50	–	–	40	22		14800	6	43	–	–	20	10.4	6.3
A-SSM-S09-63.R.07	63	–	–	40	22		12855	7	48	–	–	20	10.4	6.3
A-SSM-S09-80.R.09	80	–	–	50	27		11250	9	58	–	–	22	12.4	7



SSM-S / Shouldering 4 x 90°

Milling body (SDKT12)

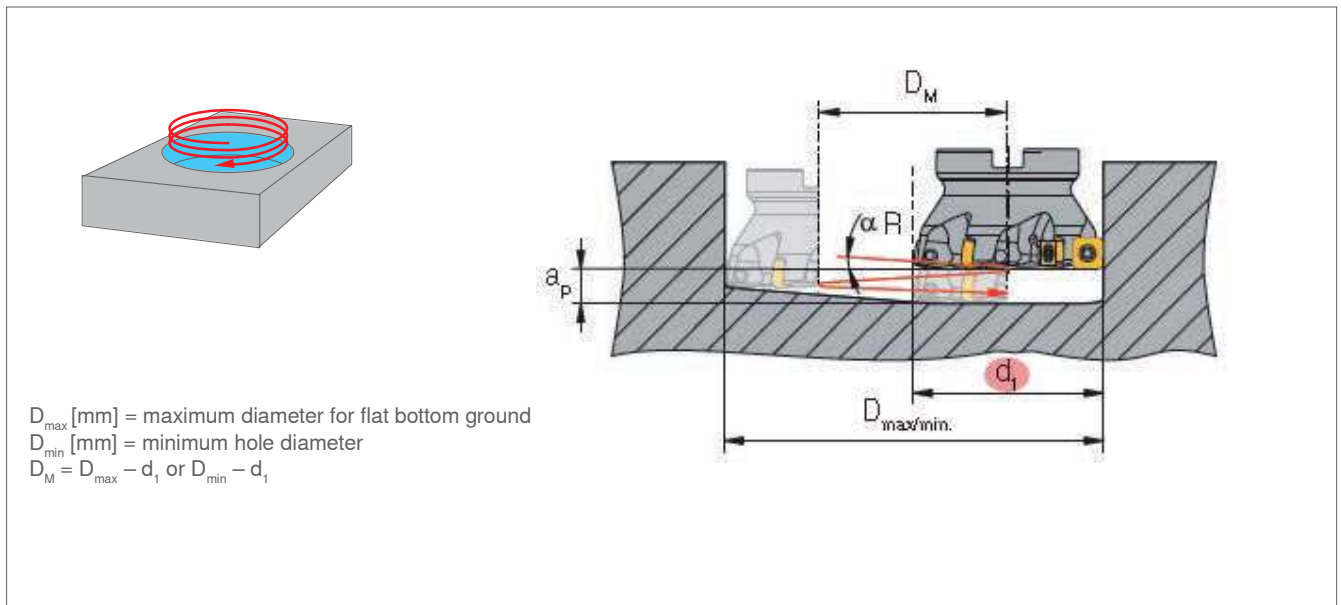
- ▲ Face milling
- ▲ Angled milling
- ▲ Helical plunging
- ▲ Shoulder milling
- ▲ Slot milling
- ▲ Peripheral milling
- ▲ Trochoidal slot milling



Description	Ød ₁ [mm]	l ₁ [mm]	l ₂ [mm]	h [mm]	Ød _A [mm]	a _{p max} [mm]	n _{max} [min ⁻¹]	z	Ø d [mm]	l _A	a	b
C-SSM-S12-32.R.03-B-40	32	100	40	–	32		19700	3	–	–	–	–
A-SSM-S12-40.R.04	40	–	–	40	16		17000	4	38	20	8.4	5.6
A-SSM-S12-50.R.05	50	–	–	40	22	10	14800	5	43	20	10.4	6.3
A-SSM-S12-63.R.06	63	–	–	40	22		12850	6	48	21	10.4	6.3
A-SSM-S12-80.R.07	80	–	–	50	27		11250	7	58	22	12.4	7

SSM-S / Shouldering 4 x 90°

Application data (helical plunge milling SDKT09)

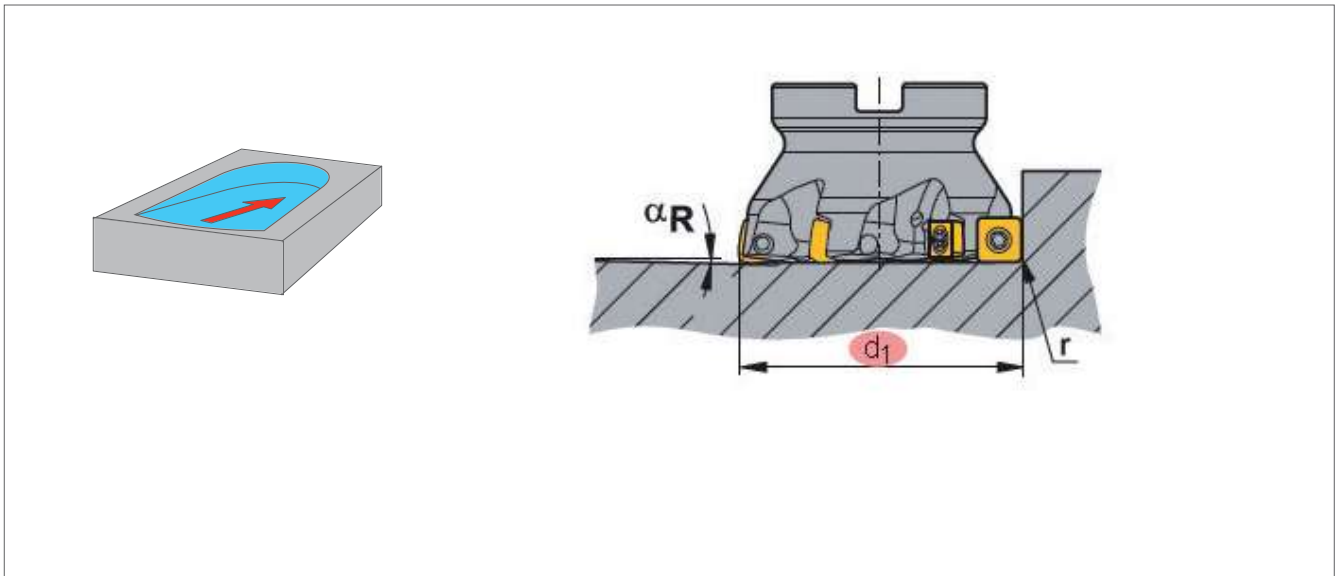


Description	d_1 [mm]	D_{max} [mm]	D_{min} [mm]	α_R [°]
C-SSM-S09-25.R.03-B	25	48	37	4.4
C-SSM-S09-32.R.04-B	32	62	47	2.2
A-SSM-S09-40.R.05	40	78	63	0.75
A-SSM-S09-50.R.06	50	98	83	0.5
A-SSM-S09-63.R.07	63	124	109	0.35
A-SSM-S09-80.R.09	80	158	143	0.25



SSM-S / Shouldering 4 x 90°

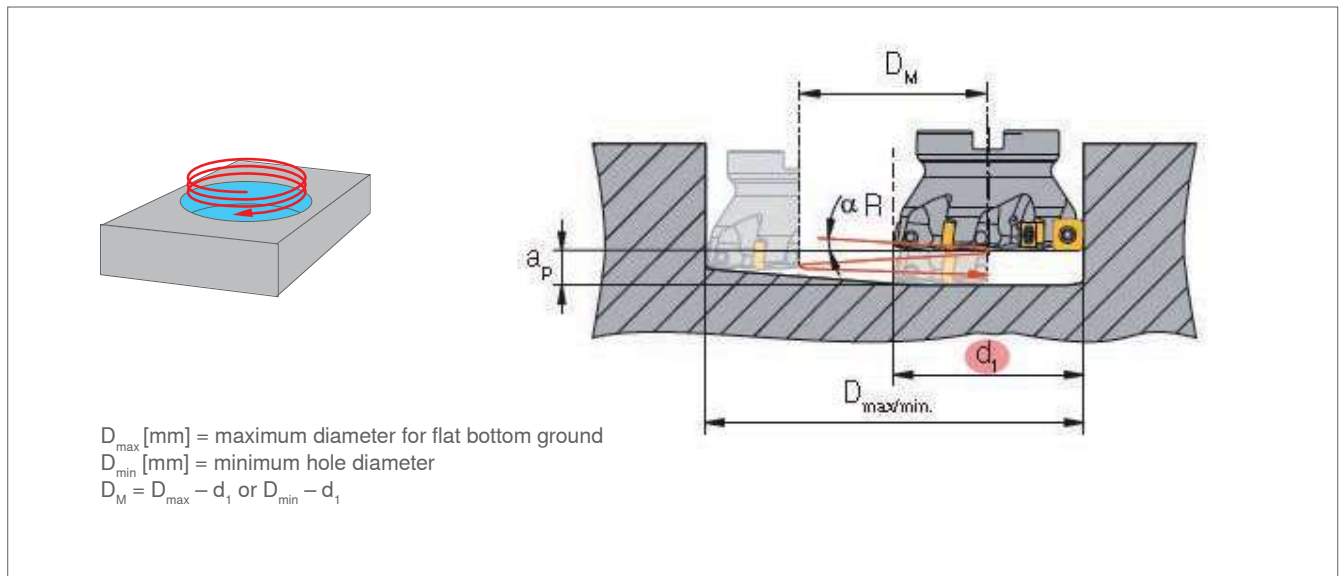
Application data (angled ramping SDKT09)



Description	d_1 [mm]	α_R [°]
C-SSM-S09-25.R.03-B	25	4.4
C-SSM-S09-32.R.04-B	32	2.2
A-SSM-S09-40.R.05	40	0.75
A-SSM-S09-50.R.06	50	0.5
A-SSM-S09-63.R.07	63	0.35
A-SSM-S09-80.R.09	80	0.25

SSM-S / Shouldering 4 x 90°

Application data (helical plunge milling SDKT12)

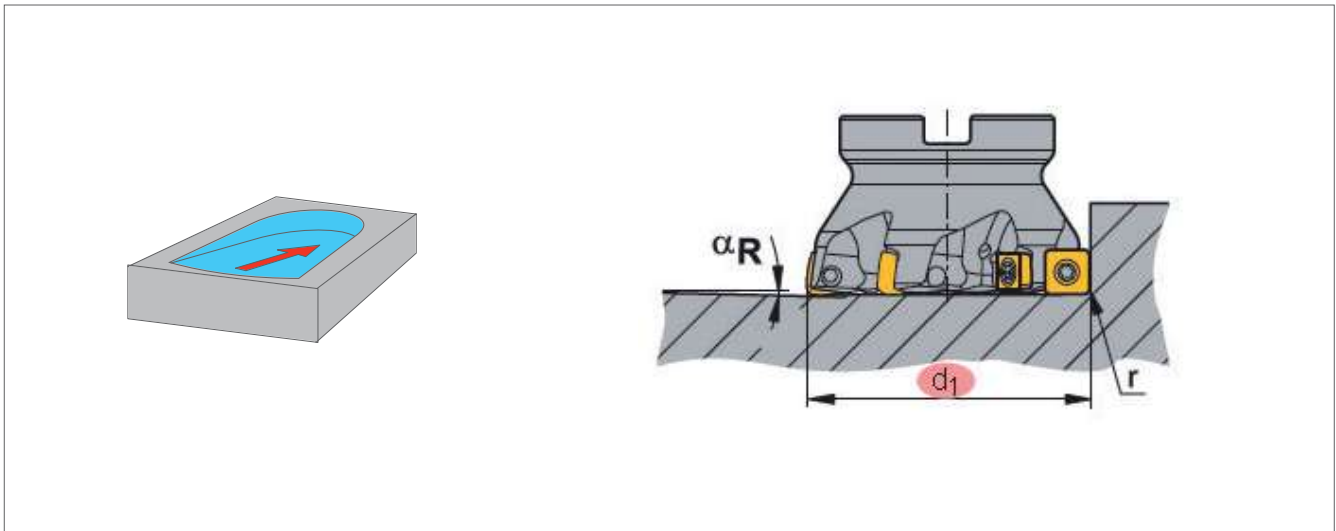


Description	d_1 [mm]	D_{max} [mm]	D_{min} [mm]	α_R [°]
C-SSM-S12-32.R.03-B-40	32	62	41	2.0
A-SSM-S12-40.R.04	40	78	57	2.0
A-SSM-S12-50.R.05	50	98	77	1.2
A-SSM-S12-63.R.06	63	124	103	0.7
A-SSM-S12-80.R.07	80	158	137	0.6

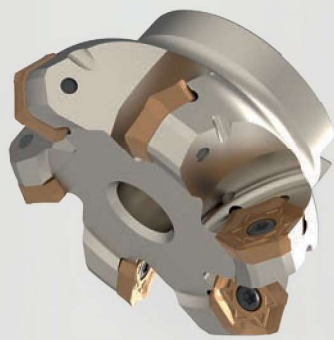


SSM-S / Shouldering 4 x 90°

Application data (angled ramping SDKT12)



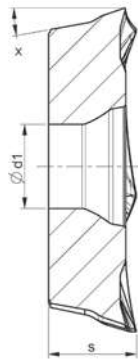
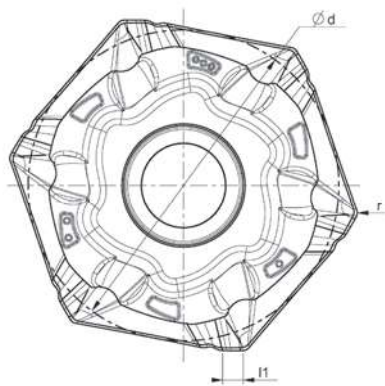
Description	d_1 [mm]	α_R [°]
C-SSM-S12-32.R.03-B-40	32	2.0
A-SSM-S12-40.R.04	40	2.0
A-SSM-S12-50.R.05	50	1.2
A-SSM-S12-63.R.06	63	0.7
A-SSM-S12-80.R.07	80	0.6





SSM-H / Face milling 6 x 45°

Insert (HPKT, HOKT, HPCT and HOCT)



HPKT-HCM



HOKT-HCM



HPKT-SCM



HOCT-SCM



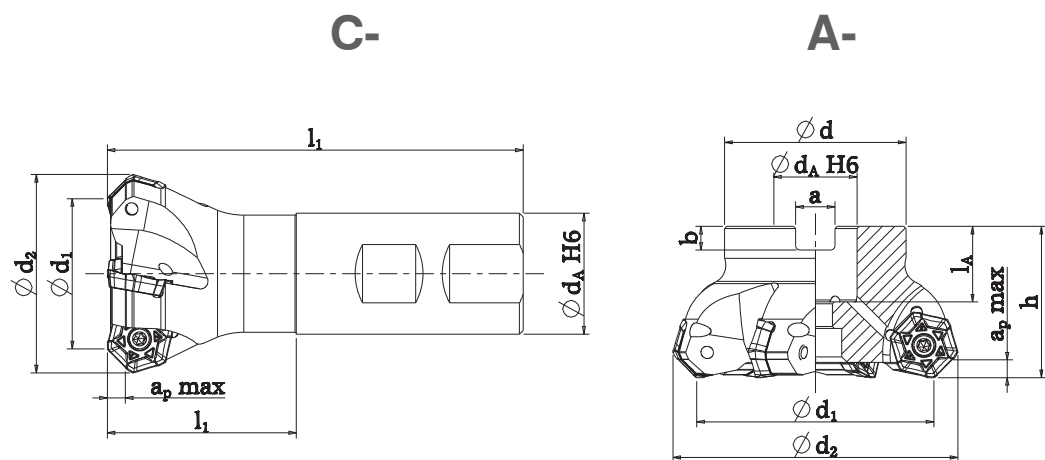
HPCT-LMM

Description	d [mm]	s [mm]	l ₁ [mm]	r ₁ [mm]	r ₂ [mm]	d ₁ [mm]	x [°]
HPKT 0604AZER-HCM							
HPKT 0604AZER-SCM							
HOKT 0604AZER-HCM	16.3	4.5	1.7	0.4	0.5	4.4	11
HPCT 0604AZFR-LMM							
HOCT 0604AZFR-SCM							

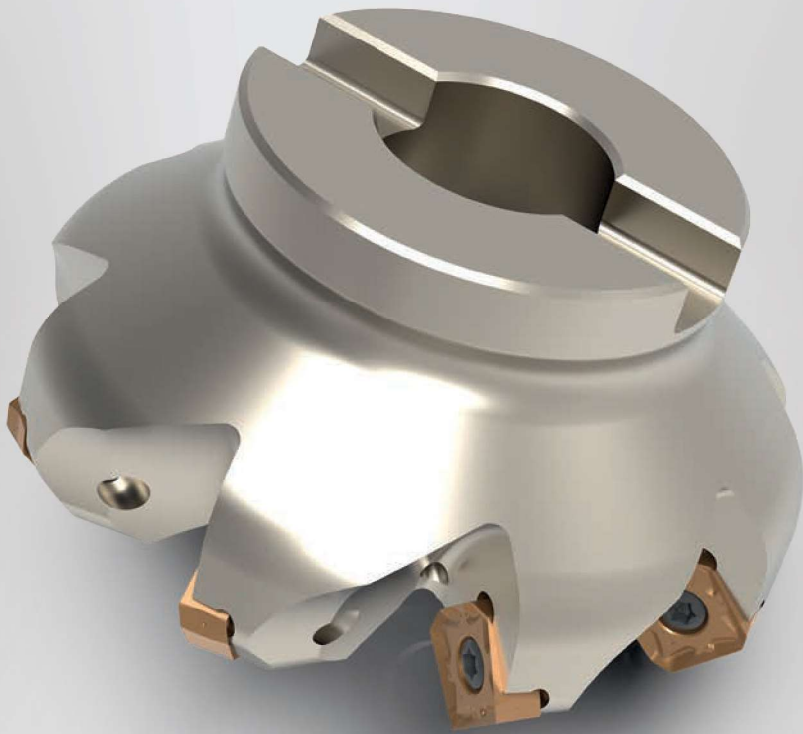
SSM-H / Face milling 6 x 45°

Milling body (HPKT, HOKT, HPCT and HOCT)

- ▲ Face milling
- ▲ Slot milling
- ▲ Chamfering

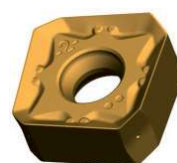
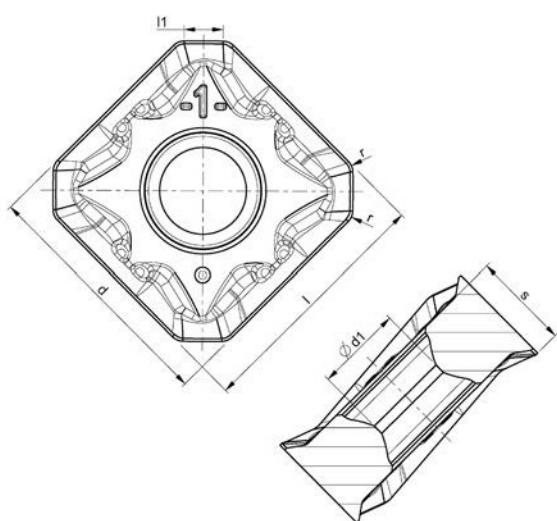


Description	Ø d ₁ [mm]	Ø d ₂ [mm]	l ₁ [mm]	l ₂ [mm]	h [mm]	Ø d _A [mm]	a _p max [mm]	n _{max} [min ⁻¹]	z	Ø d [mm]	l _A	a	b
C-SSM-H06-40.R.04-B50	40	52.2	110	50	–	32		17000	4	–	–	–	–
A-SSM-H06-40.R.04	40	52.2	–	–	40	16		19900	4	38	19	8.4	5.6
A-SSM-H06-50.R.05	50	62.2	–	–	40	22		15900	5	43	20	10.4	6.3
A-SSM-H06-63.R.06	63	75.2	–	–	40	22	4.5	12600	6	48	20	10.4	6.3
A-SSM-H06-80.R.07	80	92.2	–	–	50	27		9900	7	58	22	12.4	7
A-SSM-H06-100.R.09	100	112.2	–	–	50	32		7900	9	78	25	14.4	8
A-SSM-H06-125.R.10	125	137.2	–	–	63	40		6300	10	88	33	16.4	9

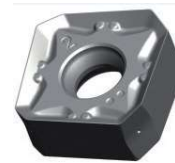


DSM-S / Face milling 8 x 45°

Insert (SOKU)



-HCM



-SCM



-CCM

Description	d [mm]	l [mm]	s [mm]	l ₁ [mm]	r [mm]	d ₁ [mm]	x [°]
SOKU 1205 AZER-HCM							
SOKU 1205 AZER-CCM	13	13	5	2	0.8	4.55	6
SOKU 1205 AZER-SCM							
SOKU 1505 AZER-HCM							
SOKU 1505 AZER-CCM	15.875	15.875	6.0	2.7	1.0	5.74	6
SOKU 1505 AZER-SCM							

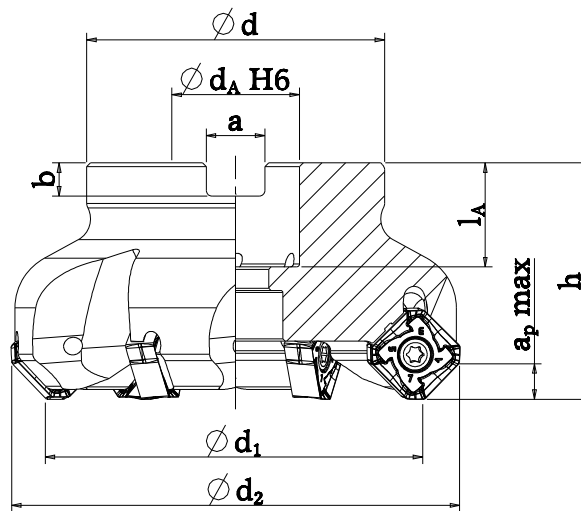


DSM-S / Face milling 8 x 45°

Milling body (SOKU12)

- ▲ Face milling
- ▲ Slot milling
- ▲ Chamfering

A-

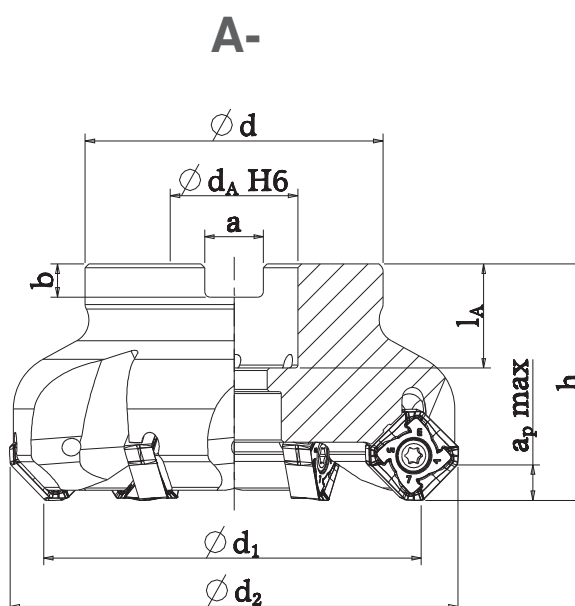


Description	Ø d ₁ [mm]	Ø d ₂ [mm]	h [mm]	Ø d _A [mm]	a _{p max} [mm]	n _{max} [min ⁻¹]	z	Ø d [mm]	l _A	a	b
A-DSM-S12-40.R.04	40	52.4	45	16	6	19900	4	38	19	8.4	5.6
A-DSM-S12-50.R.05	50	62.4	45	22		15900	5	43	20	10.4	6.3
A-DSM-S12-63.R.06	63	75.4	45	22		12600	6	48	20	10.4	6.3
A-DSM-S12-80.R.08	80	92.4	50	27		9900	8	58	23	12.4	7
A-DSM-S12-100.R.10	100	112.4	50	32		7900	10	78	25	14.4	8
A-DSM-S12-125.R.12	125	137.4	63	40		6300	12	88	28	16.4	9

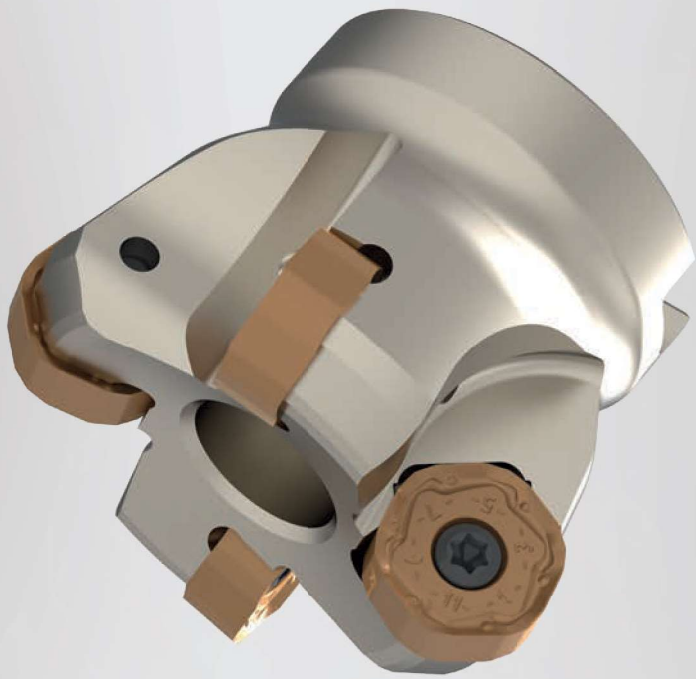
DSM-S / Face milling 8 x 45°

Milling body (SOKU15)

- ▲ Face milling
- ▲ Slot milling
- ▲ Chamfering

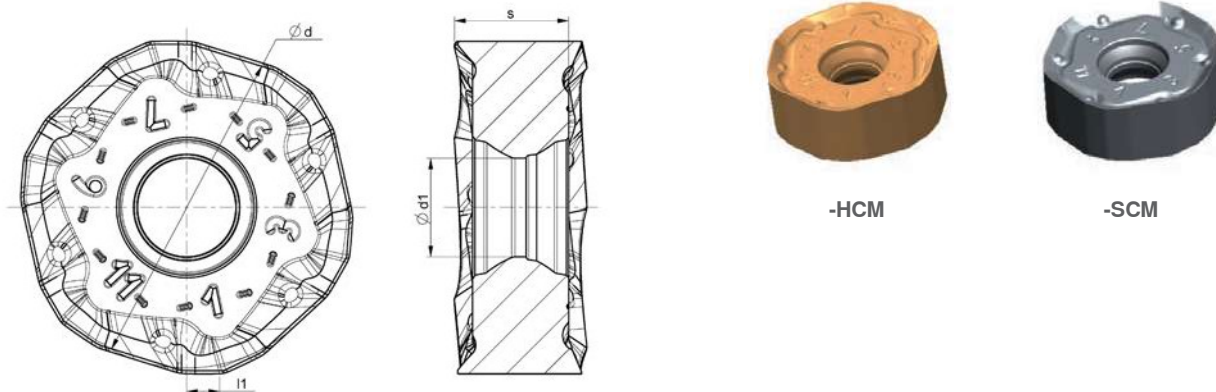


Description	Ø d ₁ [mm]	Ø d ₂ [mm]	h [mm]	Ø d _A [mm]	a _{p max} [mm]	n _{max} [min ⁻¹]	z	Ø d [mm]	l _A	a	b
A-DSM-S15-40.R.04	40	55	45	16		15900	4	38	19	8.4	5.6
A-DSM-S15-50.R.04	50	65	45	22		12700	4	43	20	10.4	6.3
A-DSM-S15-63.R.05	63	78	45	22		10100	5	48	20	10.4	6.3
A-DSM-S15-80.R.06	80	95	50	27	6.5	7900	6	58	22	12.4	7
A-DSM-S15-100.R.07	100	115	50	32		6300	7	78	25	14.4	8
A-DSM-S15-125.R.08	125	140	63	40		5000	8	88	28	16.4	9
A-DSM-S15-160.R.10	160	175	63	40		3800	10	93.4	29	16.4	9



DSM-H / Face milling 12 x 45°

Insert (HNKU / HOKU)



Description	d [mm]	s [mm]	l ₁ [mm]	d ₁ [mm]
HNKU 0806 AZER-HCM	14.7	5.3	1.5	4.1
HNKU 0806 AZER-SCM				
HOKU 0806AZER-HCM				
HOKU 0806AZER-SCM				

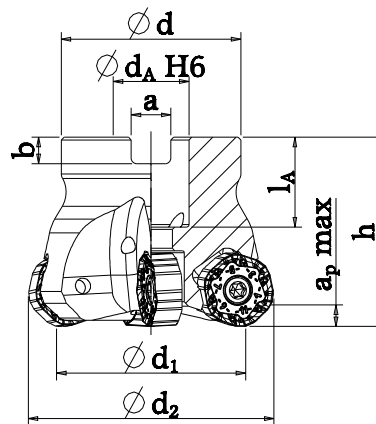


DSM-H / Face milling 12 x 45°

Milling body (HNKU / HOKU)

- ▲ Face milling
- ▲ Slot milling
- ▲ Chamfering

A-



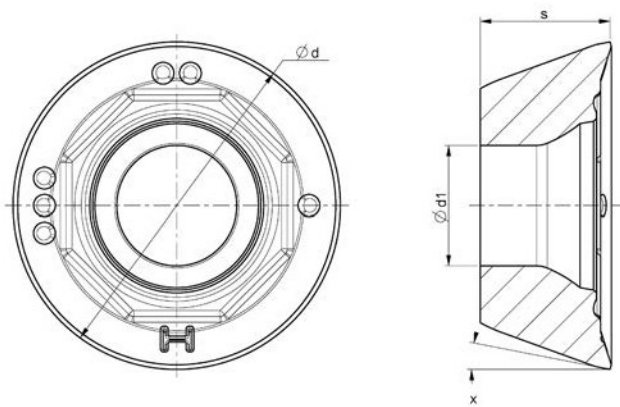
Description	Ø d ₁ [mm]	Ø d ₂ [mm]	h [mm]	Ø d _A [mm]	a _{p max} [mm]	n _{max} [min ⁻¹]	z	Ø d [mm]	l _A	a	b
A-DSM-H08-40.R.04	40	52	40	16	4.5	15900	4	38	19	8.4	5.6
A-DSM-H08-50.R.04	50	62	40	22		12700	4	43	20	10.4	6.3
A-DSM-H08-63.R.05	63	75	40	22		10100	5	48	20	10.4	6.3
A-DSM-H08-80.R.06	80	92	50	27		7900	6	58	22	12.4	7
A-DSM-H08-100.R.08	100	112	50	32		6400	8	78	25	14.4	8
A-DSM-H08-125.R.09	125	137	63	40		5100	9	88	28	16.4	9





SSM-R / Form milling

Insert (RPMX, RPHX, RDHW and RDHX)

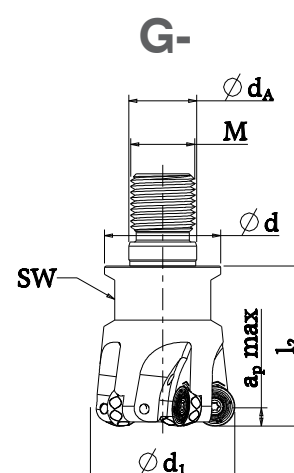
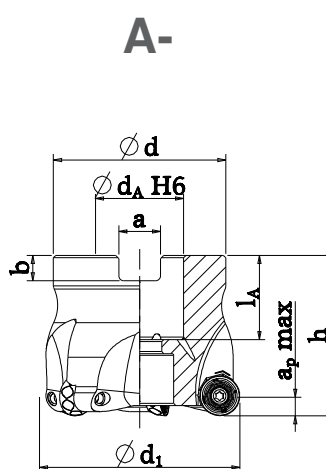
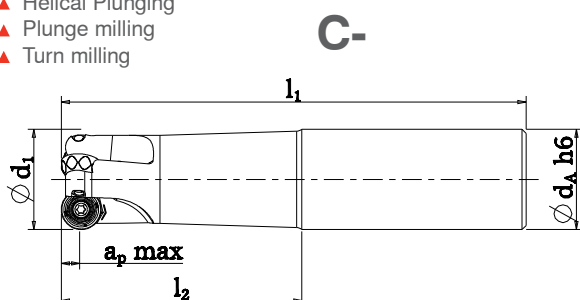


Description	d [mm]	s [mm]	d ₁ [mm]	x [°]
RPMX 10T3MO-HCM	10	3.97	3.4	11
RPMX 10T3MO-SCM				
RPHX 10T3MO-XCM				
RDHW 10T3MOSN	12	4.76	4.4	15
RDHX 10T3MO-LMM				
RPMX 1204MO-HCM				
RPMX 1204MO-SCM	16	5.56	5.5	11
RPHX 1204MO-XCM				
RDHW 1204MOSN				
RDHX 1204MO-LMM	16	5.56	5.5	11
RPMX 1605MO-HCM				
RPMX 1605MO-SCM				
RPHX 1605MO-XCM				

SSM-R / Form milling

Milling body (RP/RD10)

- ▲ Face milling
- ▲ Angled milling
- ▲ Slot milling
- ▲ Pocket milling
- ▲ Profile milling
- ▲ Helical Plunging
- ▲ Plunge milling
- ▲ Turn milling



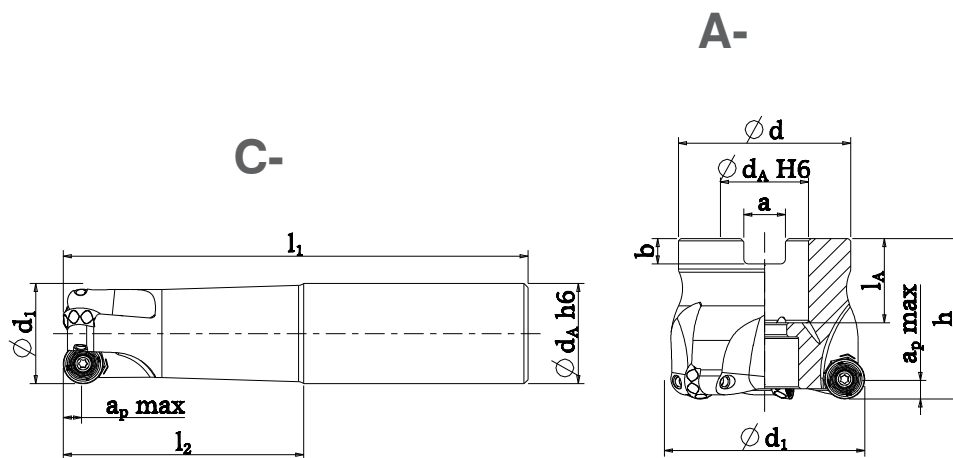
Description	$\varnothing d_1$ [mm]	l_1 [mm]	l_2 [mm]	h [mm]	$\varnothing d_A$ [mm]	$a_p \max$ [mm]	n_{\max} [min ⁻¹]	z	$\varnothing d$ [mm]	SW	M	l_A	a	b
C-SSM-R10-20.R.02-A-50	20	102	50	–	20	5	31800	2	–	–	–	–	–	–
C-SSM-R10-20.R.02-A-50-165	20	165	50	–	20		22260	2	–	–	–	–	–	–
C-SSM-R10-25.R.03-A-60	25	116	60	–	25		20000	3	–	–	–	–	–	–
C-SSM-R10-25.R.03-A-60-165	25	165	60	–	25		20000	3	–	–	–	–	–	–
C-SSM-R10-32.R.04-A-70	32	130	70	–	32		19000	4	–	–	–	–	–	–
C-SSM-R10-32.R.04-A-70-165	32	165	70	–	32		18000	4	–	–	–	–	–	–
G-SSM-R10-20.R.02	20	–	30	–	10.5		36900	2	18	SW15	M10	–	–	–
G-SSM-R10-25.R.03	25	–	35	–	12.5		33200	3	21	SW17	M12	–	–	–
G-SSM-R10-32.R.04	32	–	40	–	17		30200	4	29	SW24	M16	–	–	–
A-SSM-R10-40.R.04	40	–	–	40	16		15900	4	38	–	–	20	8.4	5.6
A-SSM-R10-50.R.05	50	–	–	40	22	12700	5	43	–	–	21	10.4	7.6	



SSM-R / Form milling

Milling body (RP/RD12)

- ▲ Face milling
- ▲ Angled milling
- ▲ Slot milling
- ▲ Pocket milling
- ▲ Profile milling
- ▲ Helical Plunging
- ▲ Plunge milling
- ▲ Turn milling



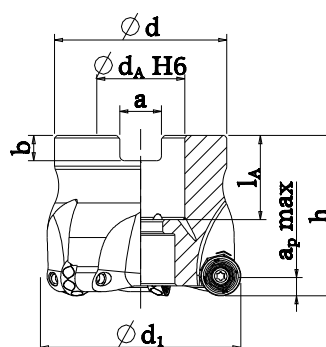
Description	Ø d ₁ [mm]	l ₁ [mm]	l ₂ [mm]	h [mm]	Ø d _A [mm]	a _{p max} [mm]	n _{max} [min ⁻¹]	z	Ø d [mm]	l _A	a	b
C-SSM-R12-25.R.02-A-30	25	86	30	–	25		25000	2	–	–	–	–
C-SSM-R12-25.R.02-A-60	25	116	60	–	25		18000	2	–	–	–	–
C-SSM-R12-32.R.03-A-40	32	100	40	–	32		19000	3	–	–	–	–
C-SSM-R12-32.R.03-A-70	32	130	70	–	32		17000	3	–	–	–	–
A-SSM-R12-40.R.04	40	–	–	40	16	6	15900	4	38	20	8.4	5.6
A-SSM-R12-50.R.05	50	–	–	40	22		12700	5	43	21	10.4	6.3
A-SSM-R12-63.R.06	63	–	–	40	22		10100	6	48	21	10.4	6.3
A-SSM-R12-80.R.08	80	–	–	50	27		7950	8	58	22	12.4	7
A-SSM-R12-100.R.10	100	–	–	50	32		6350	10	78	26	14.4	8

SSM-R / Form milling

Milling body (RP16)

- ▲ Face milling
- ▲ Angled milling
- ▲ Slot milling
- ▲ Pocket milling
- ▲ Profile milling
- ▲ Helical Plunging
- ▲ Plunge milling
- ▲ Turn milling

A-

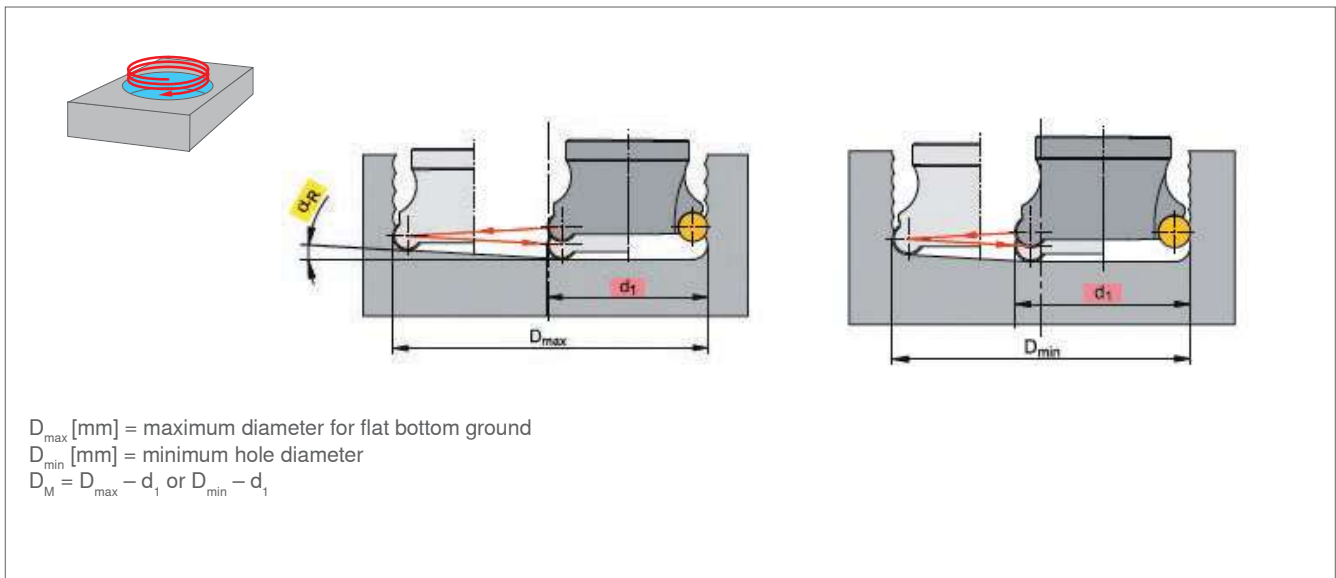


Description	Ø d ₁ [mm]	h [mm]	Ø d _A [mm]	a _p max [mm]	n _{max} [min ⁻¹]	z	Ø d [mm]	l _A	a	b
A-SSM-R16-50.R.03	50	40	22		12700	3	48	22	10.4	6.3
A-SSM-R16-63.R.05	63	40	22		10100	5	48	21	10.4	6.3
A-SSM-R16-80.R.06	80	50	27	8	7950	6	58	23	12.4	7
A-SSM-R16-100.R.07	100	50	32		6350	7	78	26	14.4	8
A-SSM-R16-125.R.08	125	63	40		5050	8	88	28	16.4	9



SSM-R / Form milling

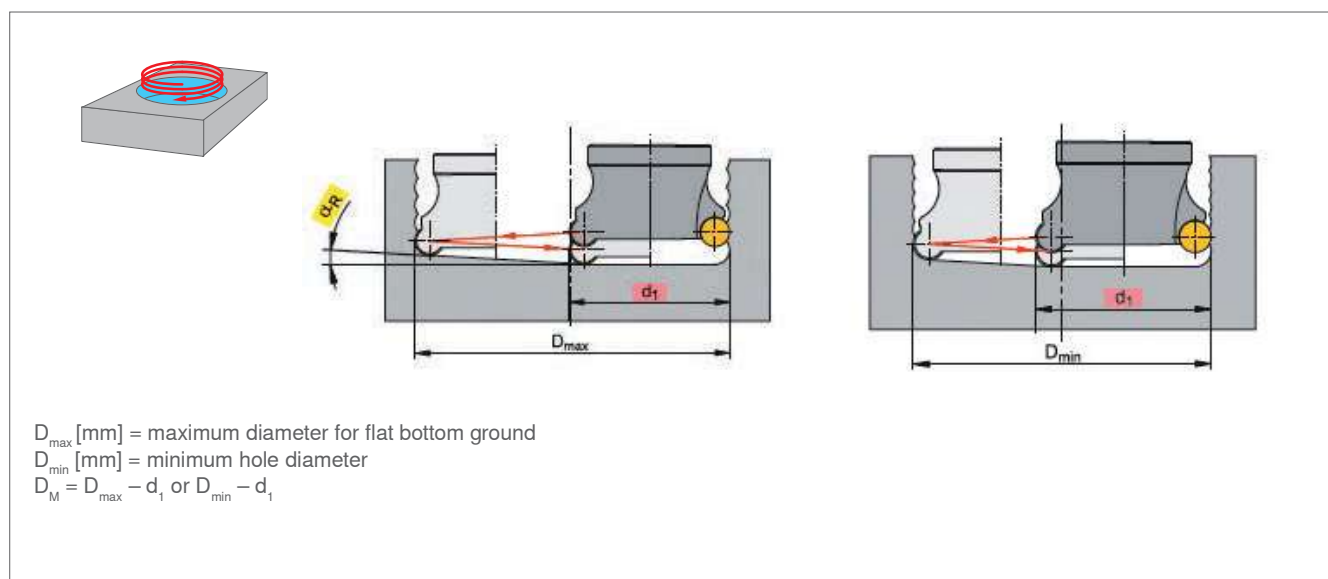
Application data (helical plunge milling RP/RD10)



Description	d_1 [mm]	D_{max} [mm]	D_{min} [mm]	R_{max} [°]
C-SSM-R10-20.R.02-A (-A50)	20	30	26	1.3
C-SSM-R10-25.R.03-A (-A60)	25	40	37	1.8
C-SSM-R10-32.R.04-A (-A70)	32	54	50	1.5
G-SSM-R10-20.R.02	20	30	26	1.3
G-SSM-R10-25.R.03	25	40	37	1.8
G-SSM-R10-32.R.04	32	54	50	1.5
A-SSM-R10-40.R.04	40	70	64	1.1
A-SSM-R10-50.R.05	50	74	68	1.1

SSM-R / Form milling

Application data (helical plunge milling RP/RD12)

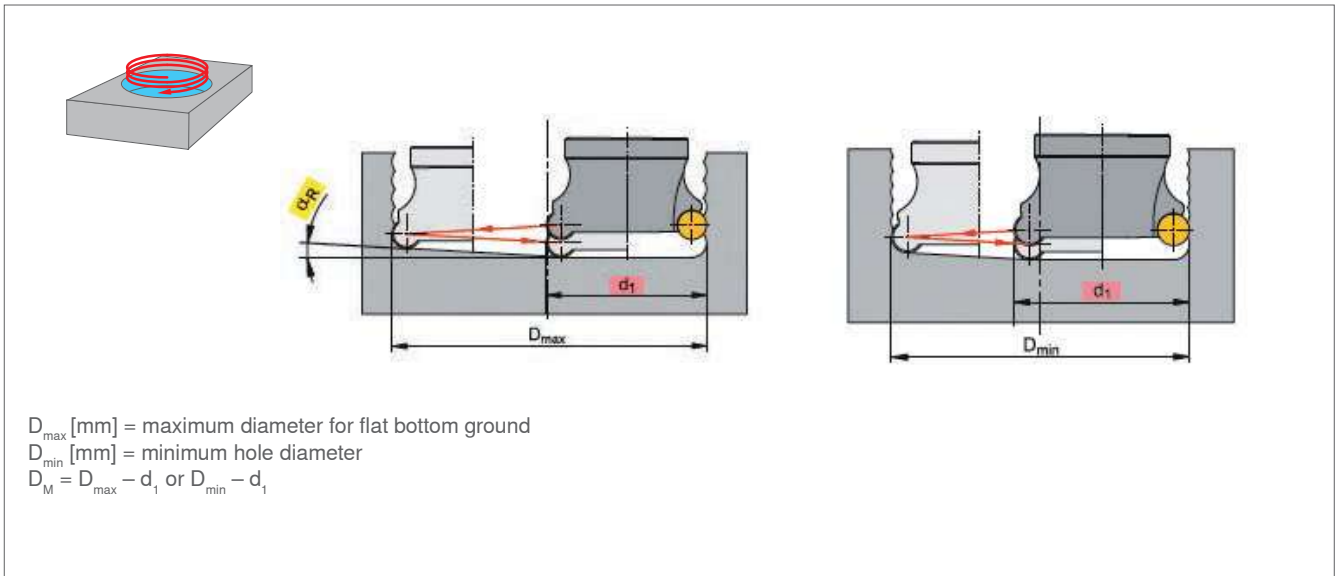


Description	d_1 [mm]	D_{max} [mm]	D_{min} [mm]	α_R [°]
C-SSM-R12-25.R.02-A (-A60)	25	38	31	2.2
C-SSM-R12-32.R.03-A (-A70)	32	52	46	1.7
A-SSM-R12-40.R.04	40	68	62	1.4
A-SSM-R12-50.R.05	50	88	81	1.1
A-SSM-R12-63.R.06	63	114	107	0.9
A-SSM-R12-80.R.08	80	148	142	0.7
A-SSM-R12-100.R.10	100	188	181	0.5



SSM-R / Form milling

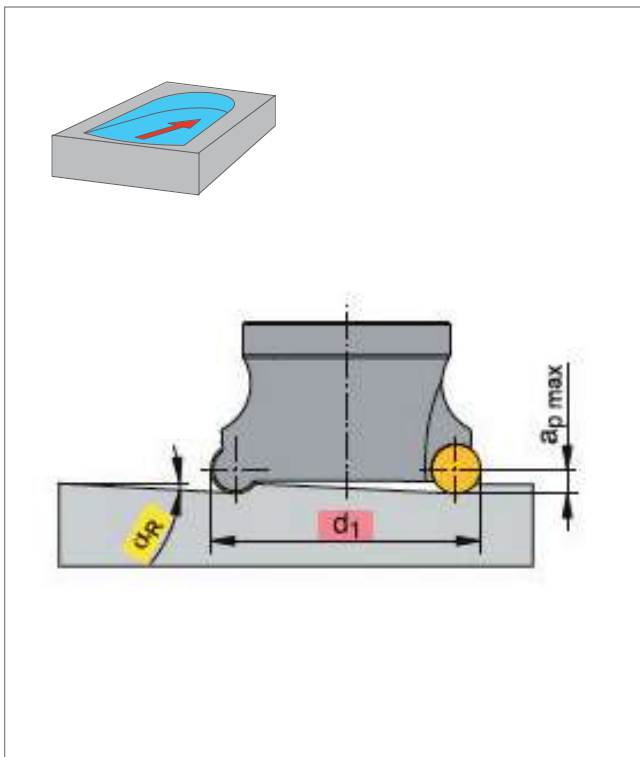
Application data (helical plunge milling RP16)



Description	d_1 [mm]	D_{max} [mm]	D_{min} [mm]	α_R [°]
A-SSM-R16-50.R.03	50	84	75	1.5
A-SSM-R16-63.R.05	63	110	101	1.1
A-SSM-R16-80.R.06	80	144	135	0.9
A-SSM-R16-100.R.07	100	184	175	0.7
A-SSM-R16-125.R.08	125	234	225	0.5

SSM-R / Form milling

Application data (angled ramping)

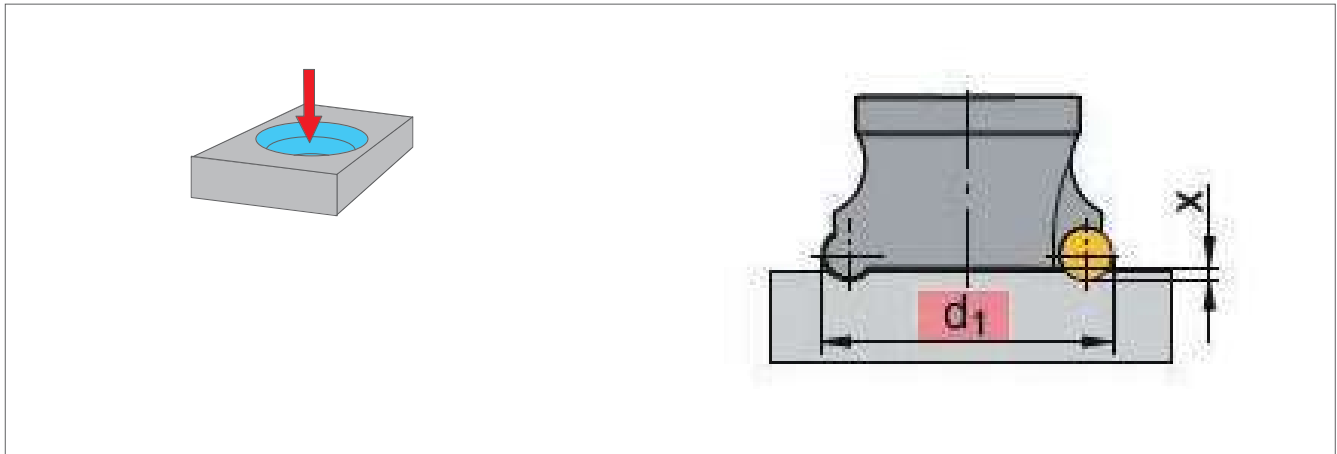


Description	d_1 [mm]	α_R [°]
C-SSM-R10-20.R.02-A (-A50)	20	1.3
C-SSM-R10-25.R.03-A (-A60)	25	2.0
C-SSM-R10-32.R.04-A (-A70)	32	3.0
A-SSM-R10-40.R.04	40	3.3
A-SSM-R10-50.R.05	50	2.4
G-SSM-R10-20.R.02	20	1.3
G-SSM-R10-25.R.03	25	2.0
G-SSM-R10-32.R.04	32	3.0
C-SSM-R12-25.R.02-A (-A60)	25	6.4
C-SSM-R12-32.R.03-A (-A70)	32	4.0
A-SSM-R12-40.R.04	40	2.8
A-SSM-R12-50.R.05	50	2.6
A-SSM-R12-63.R.06	63	1.9
A-SSM-R12-80.R.08	80	1.3
A-SSM-R12-100.R.10	100	1.0
A-SSM-R16-50.R.03	50	4.0
A-SSM-R16-63.R.05	63	2.8
A-SSM-R16-80.R.06	80	2.0
A-SSM-R16-100.R.07	100	1.5
A-SSM-R16-125.R.08	125	1.0

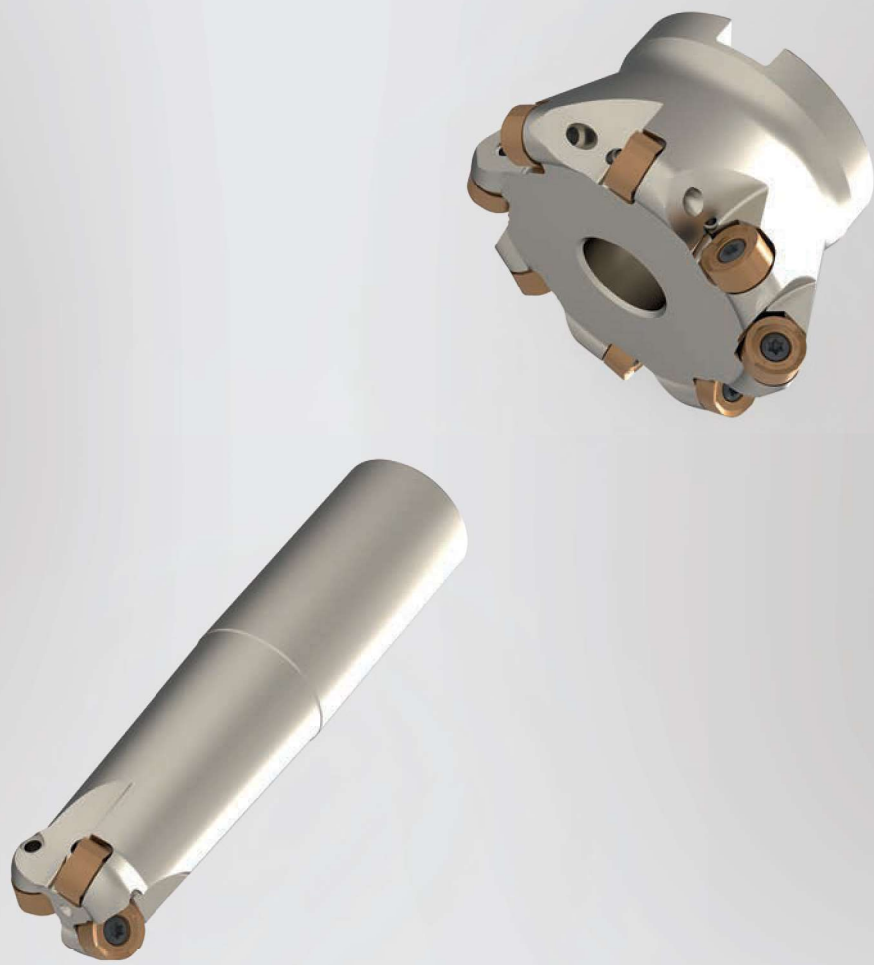


SSM-R / Form milling

Application data (axial plunging)



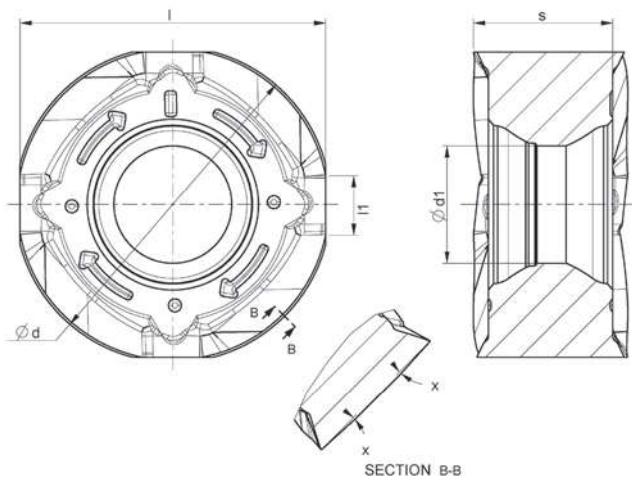
\varnothing [mm]	d_1 [mm]	X_{max} [mm]
10	20	0.2
	25	0.4
	32	0.8
	40 – 50	1.5
12	25	1.0
	32	1.1
	40	1.2
	50 – 100	1.5
16	50	1.1
	63 – 125	1.0





DSM-R / Form milling

Insert (RNKU and ROHU)



-HCM



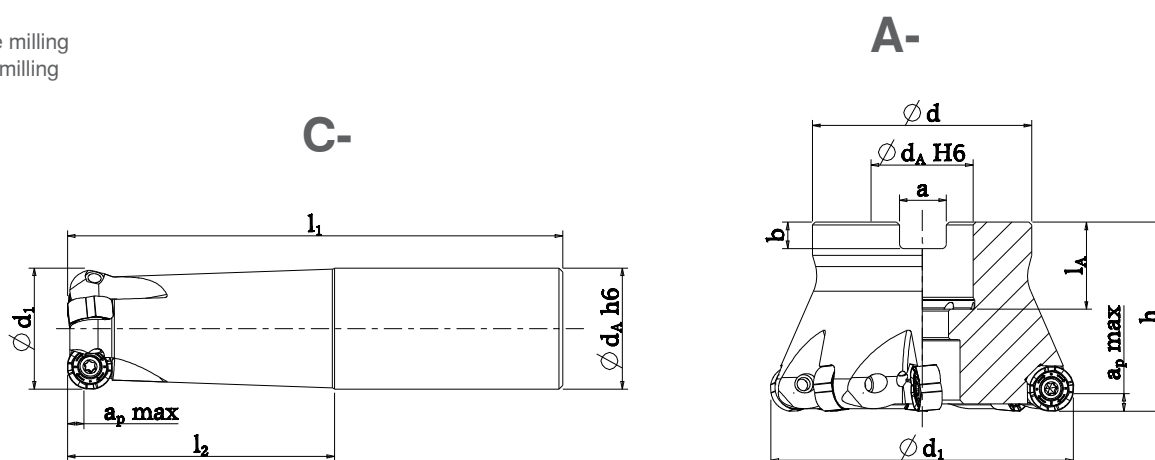
-SCM

Description	d [mm]	l [mm]	s [mm]	l ₁ [mm]	d ₁ [mm]	x [°]
RNKU 1204MOER-HCM	12	11.8	5.9	2.3	4.5	0
ROHU 1204MOER-SCM						3
RNKU 1605MOER-HCM	16	15.7	6.7	2.7	5.8	0
ROHU 1605MOER-SCM						3

DSM-R / Form milling

Milling body (RNKU12 and ROHU12)

- ▲ Face milling
- ▲ Slot milling



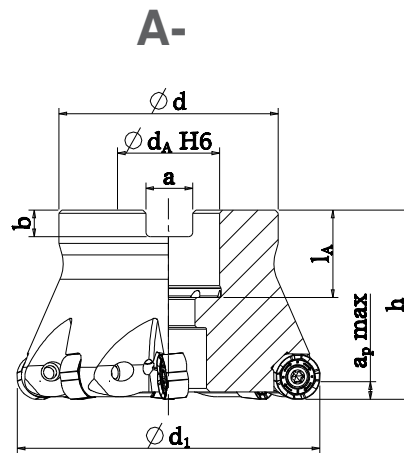
Description	Ø d ₁ [mm]	l ₁ [mm]	l ₂ [mm]	h [mm]	Ø d _A [mm]	a _{p max} [mm]	n _{max} [min ⁻¹]	z	Ø d [mm]	l _A	a	b
C-DSM-R12-32.R.03-A-70	32	131	70	–	32		19000	3	–	–	–	–
C-DSM-R12-32.R.03-A-70-165	32	165	70	–	32		17000	3	–	–	–	–
A-DSM-R12-40.R.04	40	–	–	40	16		15900	4	38	20	8.4	5.6
A-DSM-R12-50.R.05	50	–	–	40	22	4.5	12700	5	43	21	10.4	6.3
A-DSM-R12-63.R.06	63	–	–	40	22		10100	6	48	21	10.4	6.3
A-DSM-R12-80.R.08	80	–	–	50	27		7950	8	58	23	12.4	7
A-DSM-R12-100.R.10	100	–	–	50	32		6350	10	78	26	14.4	8



DSM-R / Form milling

Milling body (RNKU16 and ROHU16)

- ▲ Face milling
- ▲ Slot milling



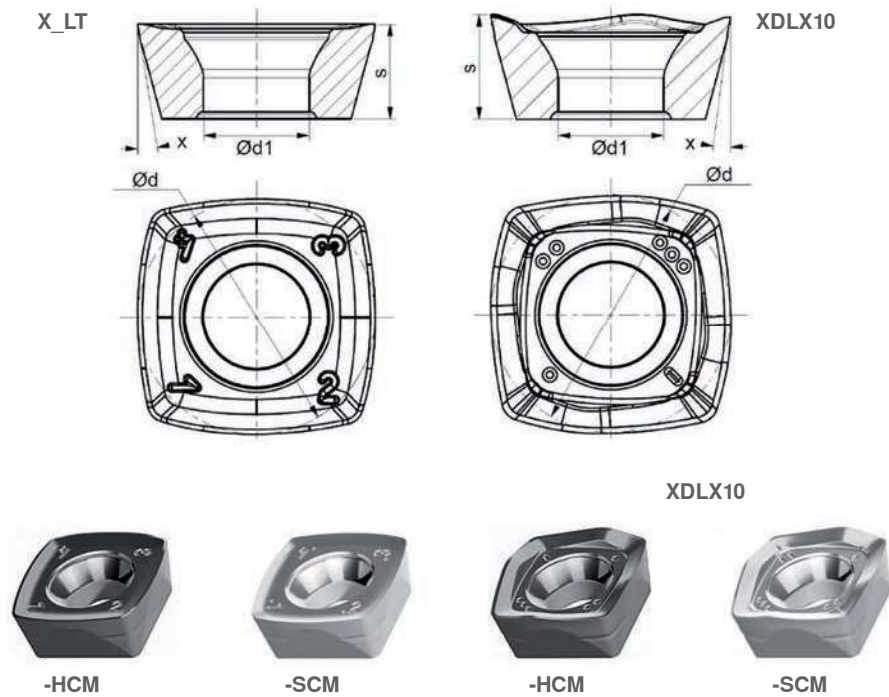
Description	Ø d ₁ [mm]	h [mm]	Ø d _A [mm]	a _{p max} [mm]	n _{max} [min ⁻¹]	z	Ø d [mm]	l _A	a	b
A-DSM-R16-63.R.05	63	40	22	6	10100	5	48	21	10.4	6.3





SSM-HFC / High feed cutting

Insert (XPLT, XDLT, XDLX and XOLT)

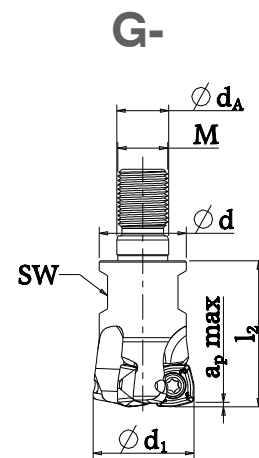
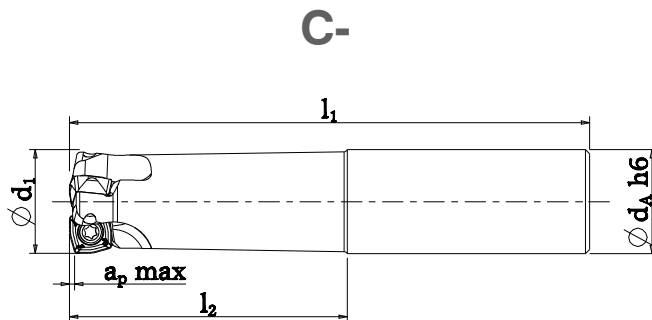


Description	d [mm]	s [mm]	r [mm]	d_1 [mm]	x [°]
XPLT 070305SR-HCM	7	2.75	0.5	2.8	11
XPLT 070305ER-SCM	7	2.75	0.5	2.8	11
XDLT 10T308SR-HCM	10	3.97	0.8	4.4	9
XDLT 10T308ER-SCM	10	3.97	0.8	4.4	9
XDLX 10T308SR-HCM	10	4.38	0.85	4.4	15
XDLX 10T308SR-SCM	10	4.38	0.85	4.4	15
XOLT 130410SR-HCM	13	4.76	1.0	5.5	9
XOLT 130410ER-SCM	13	4.76	1.0	5.5	9

SSM-HFC / High feed cutting

Milling body (XPLT07)

- ▲ Face milling
- ▲ Angled milling
- ▲ Helical plunging
- ▲ Plunge milling
- ▲ Profile milling
- ▲ Pocket milling
- ▲ Slot milling



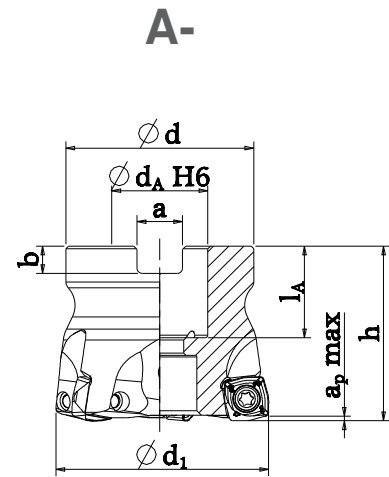
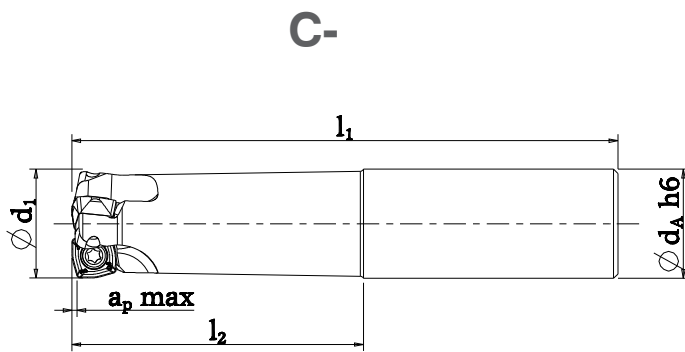
Description	$\varnothing d_1$ [mm]	l_1 [mm]	l_2 [mm]	$\varnothing d_A$ [mm]	$a_p \text{ max}$ [mm]	n_{max} [min ⁻¹]	z	$\varnothing d$ [mm]	SW	M
C-SSM-HFC07-16.R.02-A-50-200	16	200	50	16	0.8	4600	2	–	–	–
C-SSM-HFC07-20.R.03-A-50-200	20	200	50	20		4200	3	–	–	–
C-SSM-HFC07-25.R.04-A-50-200	25	200	50	25		3900	4	–	–	–
G-SSM-HFC07-16.R.02	16	–	25	8.5		20800	2	13.8	SW10	M8
G-SSM-HFC07-20.R.03	20	–	30	10.5	19800	3	18	SW15	M10	
G-SSM-HFC07-25.R.04	25	–	35	12.5	18700	4	21	SW17	M12	



SSM-HFC / High feed cutting

Milling body (XDLT10 and XDLX10)

- ▲ Face milling
- ▲ Angled milling
- ▲ Helical plunging
- ▲ Plunge milling
- ▲ Profile milling
- ▲ Pocket milling
- ▲ Slot milling

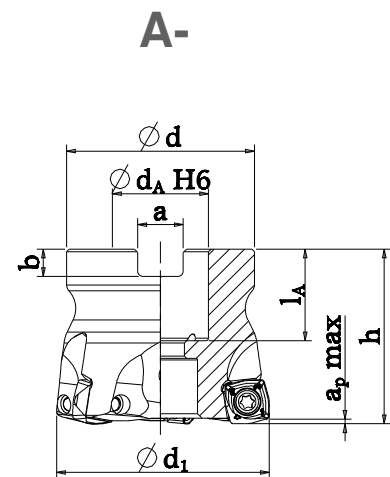
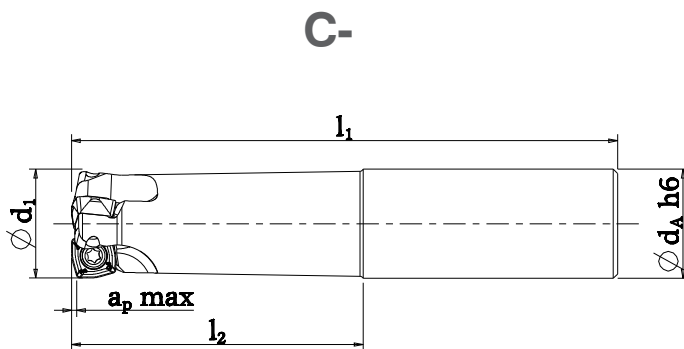


Description	$\varnothing d_1$ [mm]	l_1 [mm]	l_2 [mm]	h [mm]	$\varnothing d_A$ [mm]	$a_p \text{ max}$ [mm]	n_{max} [min ⁻¹]	z	$\varnothing d$ [mm]	$\varnothing d_A$ l_A	a	b
C-SSM-HFC10-25.R.03-A-50-225	25	225	50	–	25		9000	3	–	–	–	–
A-SSM-HFC10-40.R.04	40	–	–	40	16	1	26400	4	38	20	8.4	5.6
A-SSM-HFC10-50.R.05	50	–	–	40	22		23500	5	43	21	10.4	6.3
A-SSM-HFC10-63.R.06	63	–	–	40	22		20500	6	48	21	10.4	6.3

SSM-HFC / High feed cutting

Milling body (XOLT13)

- ▲ Face milling
- ▲ Angled milling
- ▲ Helical plunging
- ▲ Plunge milling
- ▲ Profile milling
- ▲ Pocket milling
- ▲ Slot milling

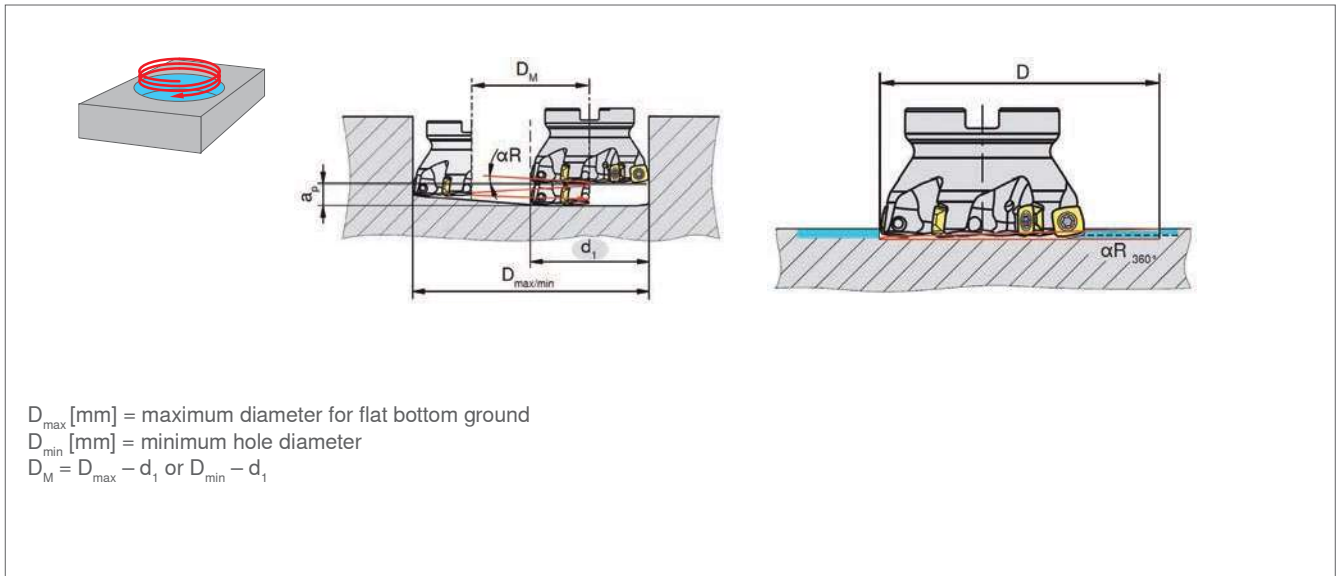


Description	$\varnothing d_1$ [mm]	l_1 [mm]	l_2 [mm]	h [mm]	$\varnothing d_A$ [mm]	$a_p \text{ max}$ [mm]	n_{max} [min ⁻¹]	z	$\varnothing d$ [mm]	$\varnothing d_A$ l_A	a	b
C-SSM-HFC13-35.R.03-A-63-250	35	250	63	–	32		6400	3	–	–	–	–
A-SSM-HFC13-50.R.04	50	–	–	40	22	2	18800	4	43	21	10.4	6.3
A-SSM-HFC13-63.R.05	63	–	–	40	22		16400	5	48	21	10.4	6.3
A-SSM-HFC13-80.R.07	80	–	–	50	27		14000	7	58	23	12.4	7



SSM-HFC / High feed cutting

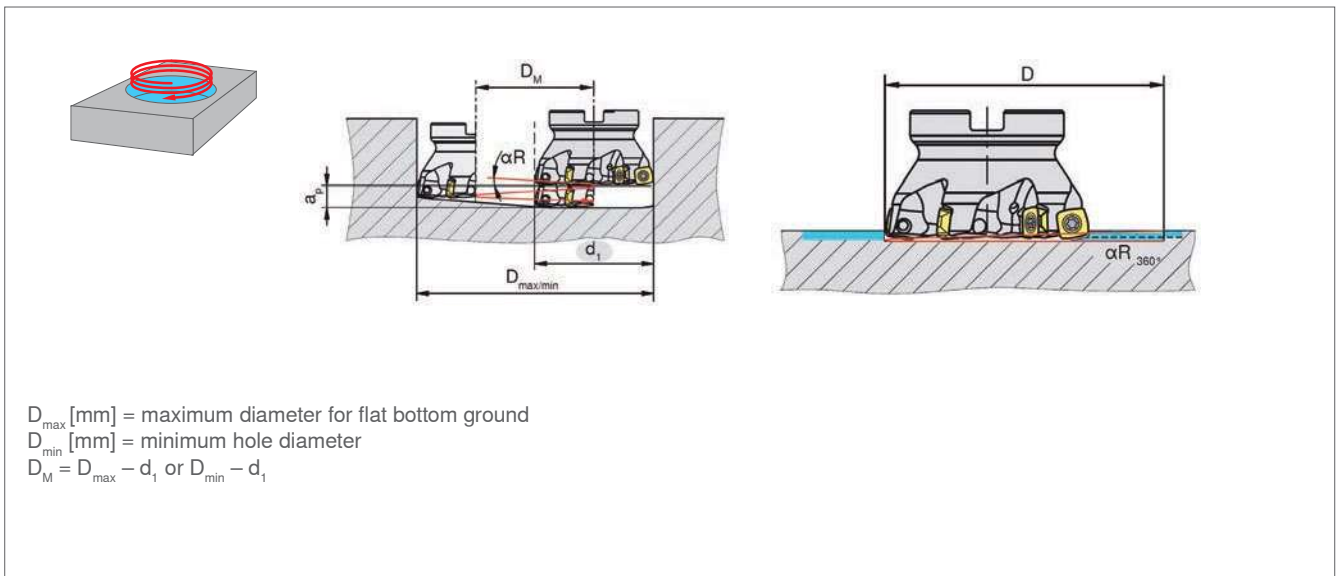
Application data (helical plunge milling XPLT07)



Description	d_1 [mm]	D_{max} [mm]	D_{min} [mm]	α_R [°]
C-SSM-HFC07-16.R.02-A-50-200	16	31	22	4.5
C-SSM-HFC07-20.R.03-A-50-200	20	39	30	2.3
C-SSM-HFC07-25.R.04-A-50-200	25	49	40	1.3
G-SSM-HFC07-16.R.02	16	31	22	4.5
G-SSM-HFC07-20.R.03	20	39	30	2.3
G-SSM-HFC07-25.R.04	25	49	40	1.3

SSM-HFC / High feed cutting

Application data (helical plunge milling XDLT10, XDLX10)

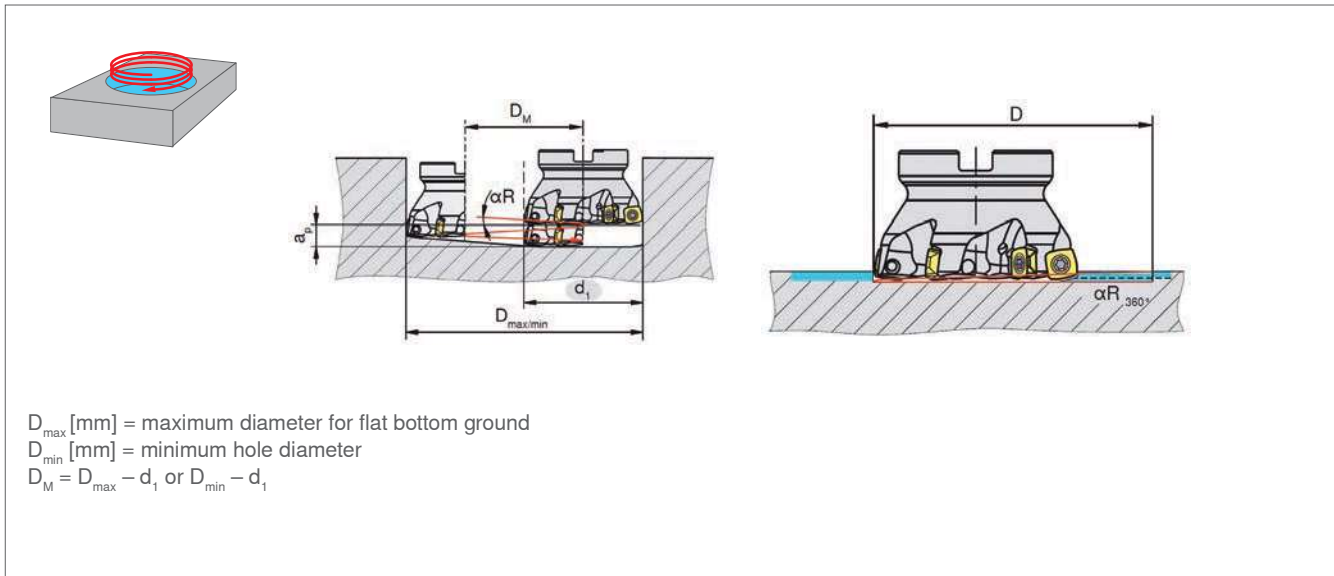


Description	d_1 [mm]	D_{max} [mm]	D_{min} [mm]	α_R [°]
C-SSM-HFC10-25.R.03-A-50-225	25	48	35	3.1
A-SSM-HFC10-40.R.04	40	78	65	1.0
A-SSM-HFC10-50.R.05	50	98	85	0.8
A-SSM-HFC10-63.R.06	63	124	111	0.7



SSM-HFC / High feed cutting

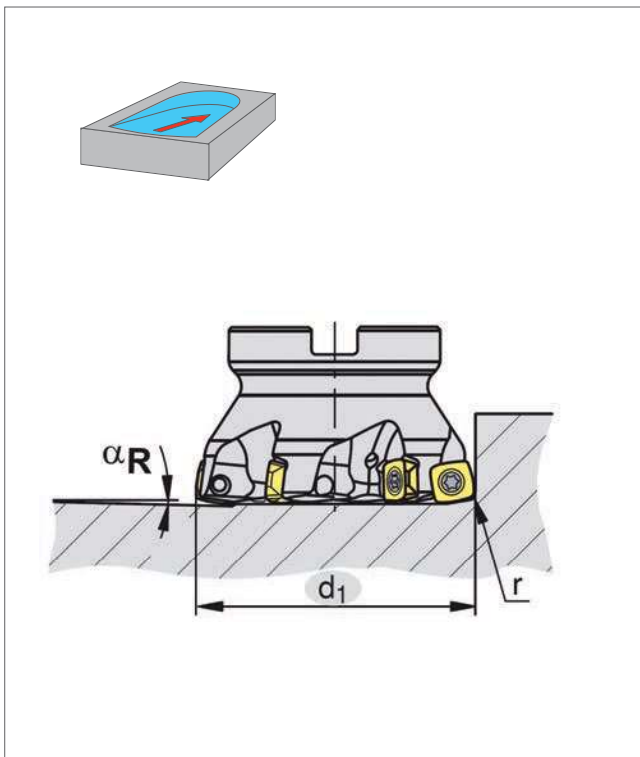
Application data (helical plunge milling XOLT13)



Description	d_1 [mm]	D_{max} [mm]	D_{min} [mm]	α_R [°]
C-SSM-HFC13-35.R.03-A-63-250	35	68	50	3.7
A-SSM-HFC13-50.R.04	50	98	80	1.3
A-SSM-HFC13-63.R.05	63	124	106	0.9
A-SSM-HFC13-80.R.07	80	158	140	1.1

SSM-HFC / High feed cutting

Application data (angled ramping)

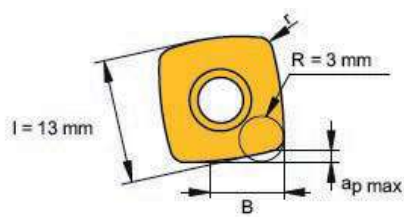


Description	d_1 [mm]	α_R [°]
C-SSM-HFC07-16.R.02-A-50-200	16	5.9
C-SSM-HFC07-20.R.03-A-50-200	20	3.2
C-SSM-HFC07-25.R.04-A-50-200	25	2.0
G-SSM-HFC07-16.R.02	16	5.9
G-SSM-HFC07-20.R.03	20	3.2
G-SSM-HFC07-25.R.04	25	2.0
C-SSM-HFC10-25.R.03-A-50-225	25	3.6
A-SSM-HFC10-40.R.04	40	1.2
A-SSM-HFC10-50.R.05	50	0.9
A-SSM-HFC10-63.R.06	63	0.8
C-SSM-HFC13-35.R.03-A-63-250	35	4.4
A-SSM-HFC13-50.R.04	50	1.5
A-SSM-HFC13-63.R.05	63	1.1
A-SSM-HFC13-80.R.07	80	1.3



SSM-HFC / High feed cutting

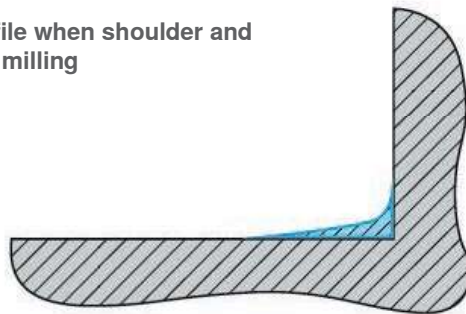
Depth of cut and remaining material



R = programmed radius

Recommended $f_z \geq 0.5$ / tooth

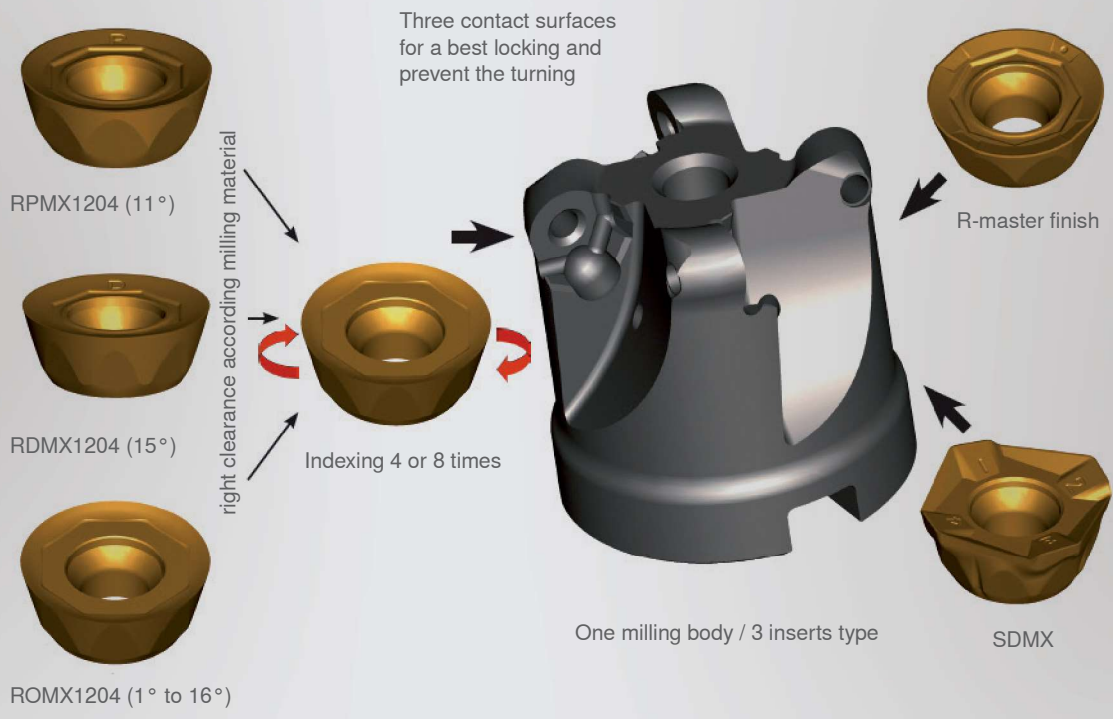
Profile when shoulder and slot milling



Insert	l [mm]	R [mm]	B [mm]	r [mm]	$a_{p \text{ max}}$ [mm]
XPLT07	7	1.2	4.3	0.5	0.8
XDLT10	10	2.0	5.9	0.8	1.0
XDLX10	10	2.0	5.9	0.8	1.0
XOLT13	13	3.0	8.5	1.0	2.0

Standard application

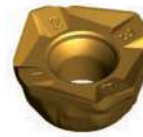
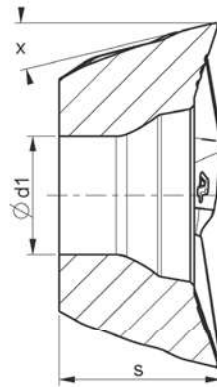
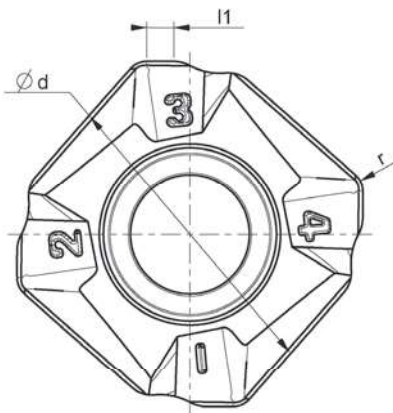
Additional application





SSM-A.R / Multiple applications

Insert (SDMX)



-HCM



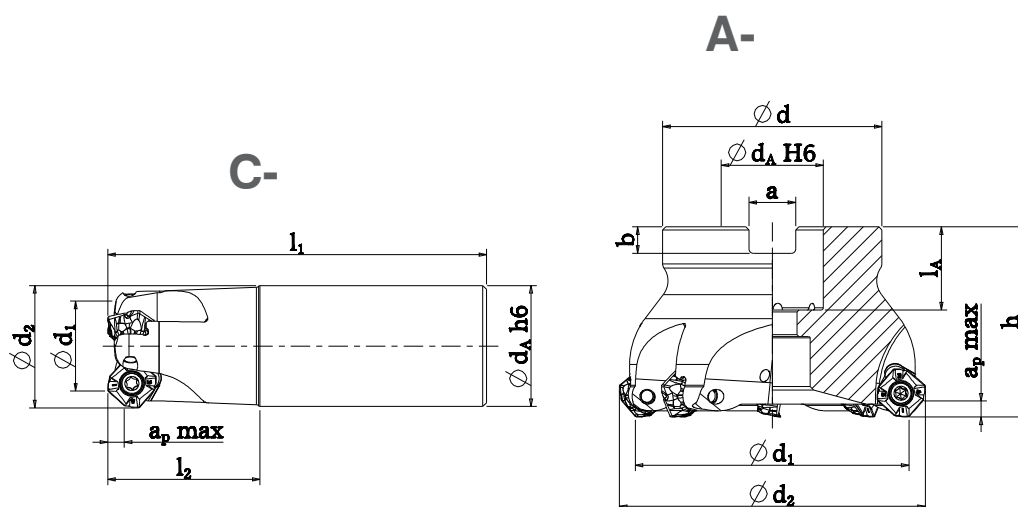
-SCM

Description	d [mm]	s [mm]	l ₁ [mm]	d ₁ [mm]	r [mm]	x [°]
SDMX 1105AEER-HCM	11.4	5.9	1.0	4.4	0.8	15
SDMX 1105AEER-SCM						
SDMX 1506AEER-HCM	15	6.5	1.5	5.5	0.8	15
SDMX 1506AEER-SCM						

SSM-A.R / Multiple applications

Milling body (SDMX11)

- ▲ Face milling
- ▲ Angled milling
- ▲ Slot milling
- ▲ Chamfering
- ▲ Profile milling



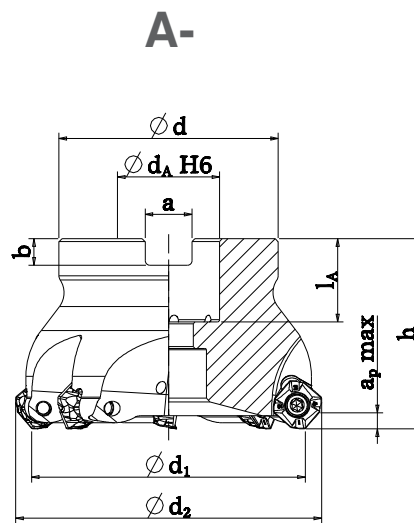
Description	Ø d ₁ [mm]	Ø d ₂ [mm]	l ₁ [mm]	l ₂ [mm]	h [mm]	Ø d _A [mm]	a _{p max} [mm]	n _{max} [min ⁻¹]	z	Ø d [mm]	l _A	a	b
C-SSM-R12-25.R.02-A-30	17.5	25	86.3	30.3	–	25		25000	2	–	–	–	–
C-SSM-R12-25.R.02-A-60	17.5	25	116.3	60.3	–	25		18000	2	–	–	–	–
C-SSM-R12-32.R.03-A-40	24.5	32	100.3	40.3	–	32		19000	3	–	–	–	–
C-SSM-R12-32.R.03-A-70	24.5	32	130.3	70.3	–	32		17000	3	–	–	–	–
A-SSM-R12-40.R.04	32.5	40	–	–	40.3	16	4	15900	4	38	20	8.4	5.6
A-SSM-R12-50.R.05	42.5	50	–	–	40.3	22		12700	5	43	21	10.4	6.3
A-SSM-R12-63.R.06	55.5	63	–	–	40.3	22		10100	6	48	21	10.4	6.3
A-SSM-R12-80.R.08	72.5	80	–	–	50.3	27		7950	8	58	22	12.4	7
A-SSM-R12-100.R.10	92.5	100	–	–	50.3	32		6350	10	78	26	14.4	8



SSM-A.R / Multiple applications

Milling body (SDMX15)

- ▲ Face milling
- ▲ Angled milling
- ▲ Slot milling
- ▲ Chamfering
- ▲ Profile milling



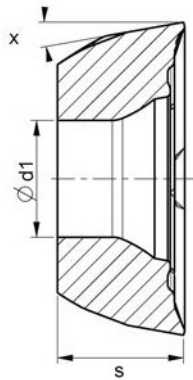
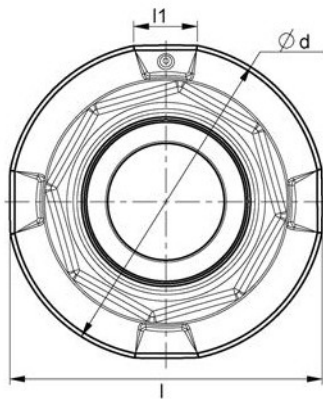
Description	Ø d ₁ [mm]	Ø d ₂ [mm]	h [mm]	Ø d _A [mm]	a _p max [mm]	n _{max} [min ⁻¹]	z	Ø d [mm]	l _A	a	b
A-SSM-R16-50.R.03	39.8	50	40.5	22		12700	3	48	22	10.4	6.3
A-SSM-R16-63.R.05	52.8	63	40.5	22		10100	5	48	21	10.4	6.3
A-SSM-R16-80.R.06	69.8	80	50.5	27	6	7950	6	58	23	12.4	7
A-SSM-R16-100.R.07	89.8	100	50.5	32		6350	7	78	26	14.4	8
A-SSM-R16-125.R.08	114.8	125	63.5	40		5050	8	88	28	16.4	9





SSM-A.R / Multiple applications

Insert (RPMX and RPHX)



-MFHCM



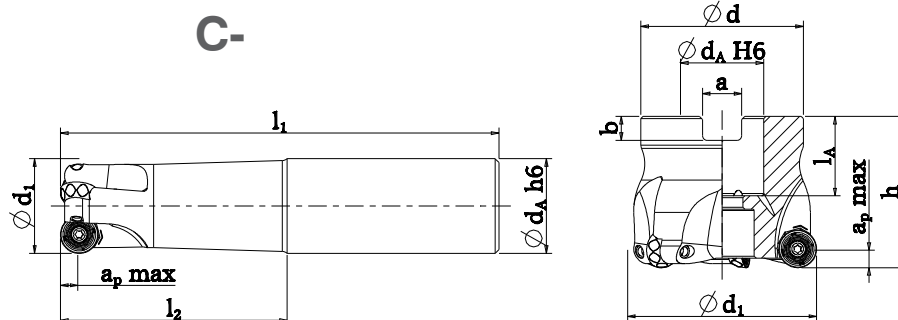
-MFSCM

Description	d [mm]	l [mm]	s [mm]	l ₁ [mm]	d ₁ [mm]	X [°]
RPMX 1204MO-MFHCM	12	11.75	4.76	2.4	4.4	11
RPMX 1204MO-MFSCM						
RPMX 1605MO-MFHCM	16	15.8	5.56	2.5	5.5	11
RPMX 1605MO-MFSCM						

SSM-A.R / Multiple applications

Milling body (RP12)

- ▲ Face milling
- ▲ Angled milling
- ▲ Slot milling
- ▲ Chamfering
- ▲ Profile milling



Description	$\varnothing d_1$ [mm]	l_1 [mm]	l_2 [mm]	h [mm]	$\varnothing d_A$ [mm]	$a_p \max$ [mm]	n_{\max} [min ⁻¹]	z	$\varnothing d$ [mm]	l_A	a	b
C-SSM-R12-25.R.02-A-30	24.75	85.87	29.87	–	25	–	25000	2	–	–	–	–
C-SSM-R12-25.R.02-A-60	24.75	115.87	59.87	–	25	–	18000	2	–	–	–	–
C-SSM-R12-32.R.03-A-40	31.75	99.87	39.87	–	32	–	19000	3	–	–	–	–
C-SSM-R12-32.R.03-A-70	31.75	129.87	69.87	–	32	–	17000	3	–	–	–	–
A-SSM-R12-40.R.04	39.75	–	–	39.87	16	6	15900	4	38	20	8.4	5.6
A-SSM-R12-50.R.05	49.75	–	–	39.87	22	–	12700	5	43	21	10.4	6.3
A-SSM-R12-63.R.06	62.75	–	–	39.87	22	–	10100	6	48	21	10.4	6.3
A-SSM-R12-80.R.08	79.75	–	–	49.87	27	–	7950	8	58	22	12.4	7
A-SSM-R12-100.R.10	99.75	–	–	49.87	32	–	6350	10	78	26	14.4	8

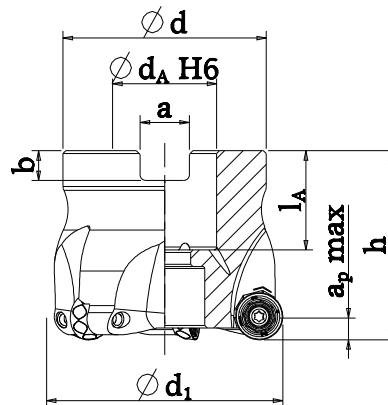


SSM-A.R / Multiple applications

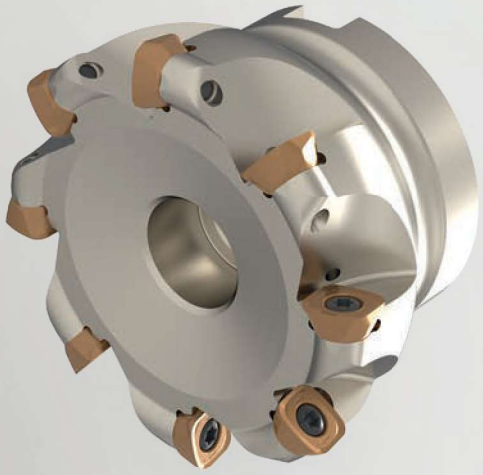
Milling body (RP16)

- ▲ Face milling
- ▲ Angled milling
- ▲ Slot milling
- ▲ Chamfering
- ▲ Profile milling

A-



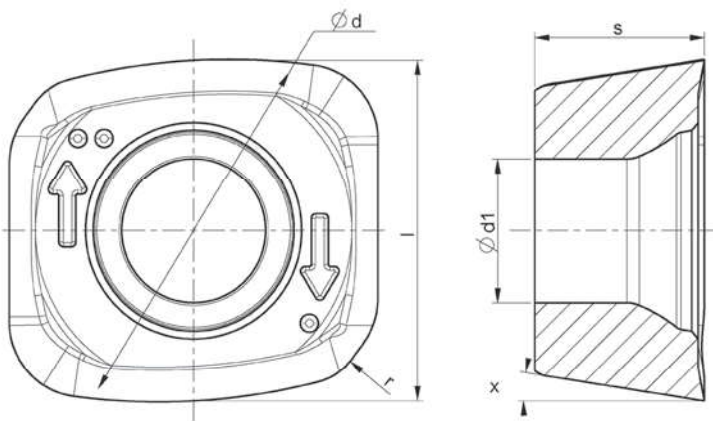
Description	Ø d ₁ [mm]	h [mm]	Ø d _A [mm]	a _{p max} [mm]	n _{max} [min ⁻¹]	z	Ø d [mm]	l _A	a	b
A-SSM-R16-50.R.03	49.8	39.9	22		12700	3	48	22	10.4	6.3
A-SSM-R16-63.R.05	62.8	39.9	22		10100	5	48	21	10.4	6.3
A-SSM-R16-80.R.06	79.8	49.9	27	8	7950	6	58	23	12.4	7
A-SSM-R16-100.R.07	99.8	49.9	32		6350	7	78	26	14.4	8
A-SSM-R16-125.R.08	124.8	62.9	40		5050	8	88	28	16.4	9





SSM-A.R / Multiple applications

Insert (EOMT)



-HCM

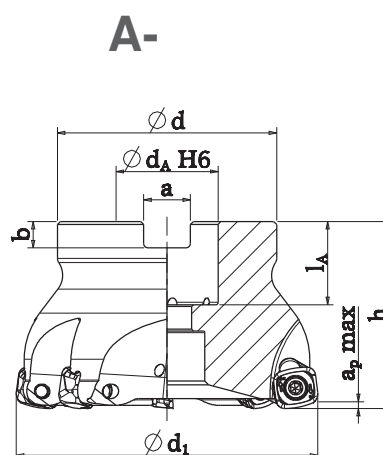
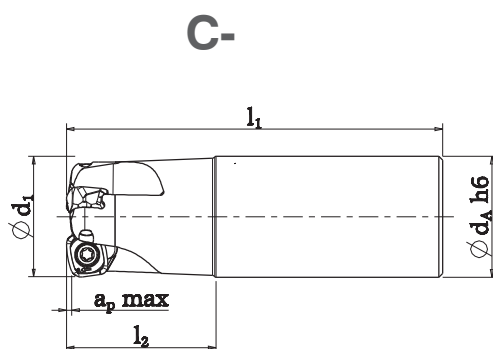
-SCM

Description	d [mm]	s [mm]	l [mm]	d ₁ [mm]	r [mm]	x [°]
EOMT 120416-HCM	12	5	10.5	4.4	16	9
EOMT 120416-SCM						

SSM-A.R / Multiple applications

Milling body (SSM-A.R / EOMT12)

- ▲ Face milling
- ▲ Angled milling
- ▲ Slot milling
- ▲ Chamfering
- ▲ Profile milling



Description	$\varnothing d_1$ [mm]	l_1 [mm]	l_2 [mm]	h [mm]	$\varnothing d_A$ [mm]	$a_p \text{ max}$ [mm]	n_{max} [min ⁻¹]	z	$\varnothing d$ [mm]	l_A	a	b
C-SSM-R12-25.R.02-A-30	24.7	84.5	29.5	–	25	1.5	25000	2	–	–	–	–
C-SSM-R12-25.R.02-A-60	24.7	110.5	59.5	–	25		18000	2	–	–	–	–
C-SSM-R12-32.R.03-A-40	31.7	99.5	39.5	–	32		19000	3	–	–	–	–
C-SSM-R12-32.R.03-A-70	31.7	129.5	69.5	–	32		17000	3	–	–	–	–
A-SSM-R12-40.R.04	39.7	–	–	39.5	16		15900	4	38	20	8.4	5.6
A-SSM-R12-50.R.05	49.7	–	–	39.5	22		12700	5	43	21	10.4	6.3
A-SSM-R12-63.R.06	62.7	–	–	39.5	22		10100	6	48	21	10.4	6.3
A-SSM-R12-80.R.08	79.7	–	–	49.5	27		7950	8	58	22	12.4	7
A-SSM-R12-100.R.10	99.7	–	–	49.5	32		6350	10	78	26	14.4	8

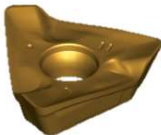


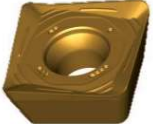
Previous catalogue range






Previous range TOKX / SDKT


Insert	Designation	Chipbreaker	Material number	Available
	TOKX 09T308PDER-HCM CTP1235	...-HCM	11910318	●
	TOKX 09T308PDER-SCM CTP2235	...-SCM	11910317	●


Insert	Designation	Chipbreaker	Material number	Available
	SDKT 09T308SR-HCM CTP1235	...-HCM	11564723	●
	SDKT 09T308SR-SCM CTP2235	...-SCM	11564724	●
	SDKT 09T308SR-CCM CTC3215	...-CCM	11678200	●
	SDKT 09T308SR-SCM CTPM240	...-SCM	11979032	●



Previous range HPKT / HOKT / SOKU / HNKU


Insert	Designation	Chipbreaker	Material number	Available
	HPKT 0604AzER-HCM CTC3215	...-HCM	11512020	●
	HPKT 0604AzER-HCM CTP1235	...-HCM	11512017	●
	HPKT 0604AzER-HCM CTP2235	...-HCM	11512019	●
	HPKT 0604AzER-SCM CTP1235	...-SCM	11512023	●
	HPKT 0604AzER-SCM CTP2235	...-SCM	11512022	●
	HOCT 0604AzFR-SCM CTPM235	...-SCM	11945601	●

Insert	Designation	Chipbreaker	Material number	Available
	SOKU 1205AZER-HCM CTC3215	...-HCM	11906809	●
	SOKU 1205AZER-SCM CTP1235	...-SCM	11865196	●
	SOKU 1205AZER-SCM CTP2235	...-SCM	11906807	●
	SOKU 1205AZER-SCM CTP230	...-SCM	11988967	●
	SOKU 1205AZER-SCM CTPP235	...-SCM	11988966	●
	SOKU 1205AZER-SCM CTPM240	...-SCM	11988963	●
	SOKU 1505AZER-HCM CTC3215	...-HCM	11527254	●
	SOKU 1505AZER-SCM CTP1235	...-SCM	11509488	●
	SOKU 1505AZER-SCM CTP2235	...-SCM	11509491	●
	SOKU 1505AZER-SCM CTC5240	...-SCM	11968808	●
	SOKU 1505AZER-SCM CTP230	...-SCM	11979058	●
	SOKU 1505AZER-SCM CTPP235	...-SCM	11979059	●
	SOKU 1505AZER-SCM CTPM240	...-SCM	11979060	●

Insert	Designation	Chipbreaker	Material number	Available
	HNKU 0806AZER-HCM CTC3215	...-HCM	11887363	●
	HNKU 0806AZER-SCM CTP1235	...-SCM	11887365	●
	HNKU 0806AZER-SCM CTP2235	...-SCM	11887364	●

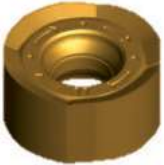


Previous range RP / RD

Insert	Designation	Chipbreaker	Material number	Available
	RPMX 10T3MO-HCM CTP1235	...-HCM	11678472	●
	RPMX 10T3MO-HCM CTC3215	...-HCM	11712554	●
	RPMX 10T3MO-SCM CTP2235	...-SCM	11678476	●
	RPMX 10T3MO-SCM CTPM240	...-SCM	11978876	●
	RPMX 1204MO-HCM CTP1235	...-HCM	11625883	●
	RPMX 1204MO-HCM CTC3215	...-HCM	11707777	●
	RPMX 1204MO-SCM CTP2235	...-SCM	11598153	●
	RPMX 1204MO-SCM CTPM240	...-SCM	11979015	●
	RPMX 1605MO-SCM CTPM240	...-SCM	11979026	●




Previous range RNKU / ROHU

Insert	Designation	Chipbreaker	Material number	Available
	RNKU 1204MOER-HCM CTP1235	...-HCM	11716443	●
	RNKU 1204MOER-HCM CTC3215	...-HCM	11780844	●
	ROHU 1204MOER-SCM CTP2235	...-SCM	11824459	●
	ROHU 1204MOER-SCM CTPM235	...-SCM	11979071	●
	RNKU 1605MOER-HCM CTP1235	...-HCM	11891269	●
	ROHU 1605MOER-SCM CTP2235	...-SCM	11891267	●

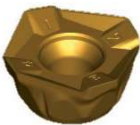


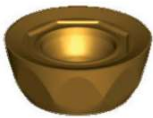
Previous range XPLT / XDLT / XOLT

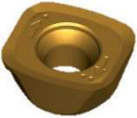
Insert	Designation	Chipbreaker	Material number	Available
	XPLT 070305SR-HCM+ CTP1235	...-HCM	11869444	●
	XPLT 070305SR-HCM+ CTP2235	...-HCM	11869450	●
	XPLT 070305ER-SCM+ CTC5240	...-SCM	11869775	●
	XDLT 10T308SR-HCM+ CTP1235	...-HCM	11940761	●
	XDLT 10T308SR-HCM+ CTP2235	...-HCM	11940762	●
	XDLT 10T308SR-HCM+ CTC3215	...-HCM	11940760	●
	XDLT 10T308ER-SCM+ CTP1235	...-SCM	11940755	●
	XDLT 10T308ER-SCM+ CTP2235	...-SCM	11940756	●
	XDLT 10T308ER-SCM+ CTC5240	...-SCM	11940753	●
	XOLT 130410SR-HCM+ CTP1235	...-HCM	11940770	●
	XOLT 130410SR-HCM+ CTP2235	...-HCM	11940771	●
	XOLT 130410SR-HCM+ CTC3215	...-HCM	11940769	●
	XOLT 130410ER-SCM+ CTP1235	...-SCM	11940767	●
	XOLT 130410ER-SCM+ CTP2235	...-SCM	11940768	●
	XOLT 130410ER-SCM+ CTC5240	...-SCM	11940765	●



Previous range SDMX / RPMX-MF / EOMT

Insert	Designation	Chipbreaker	Material number	Available
	SDMX 1105AEER-HCM CTP1235	...-HCM	11792627	●
	SDMX 1105AEER-HCM CTC3215	...-HCM	11828057	●
	SDMX 1105AEER-SCM CTP2235	...-SCM	11828460	●
	SDMX 1506AEER-HCM CTP1235	...-HCM	11828463	●
	SDMX 1506AEER-HCM CTC3215	...-HCM	11828468	●
	SDMX 1506AEER-SCM CTP2235	...-SCM	11828464	●

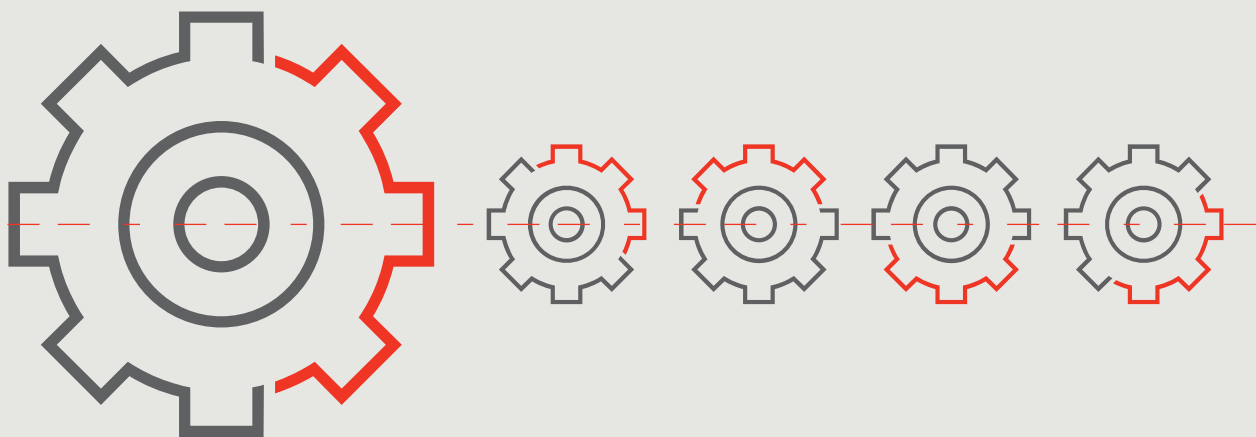
Insert	Designation	Chipbreaker	Material number	Available
	RPMX 1204MO-MFHCM CTP1235	...-HCM	11781436	●
	RPMX 1204MO-MFHCM CTC3215	...-HCM	11830157	●
	RPMX 1204MO-MFSCM CTPM240	...-SCM	11988957	●
	RPMX 1605MO-MFSCM CTPM240	...-SCM	11988950	●

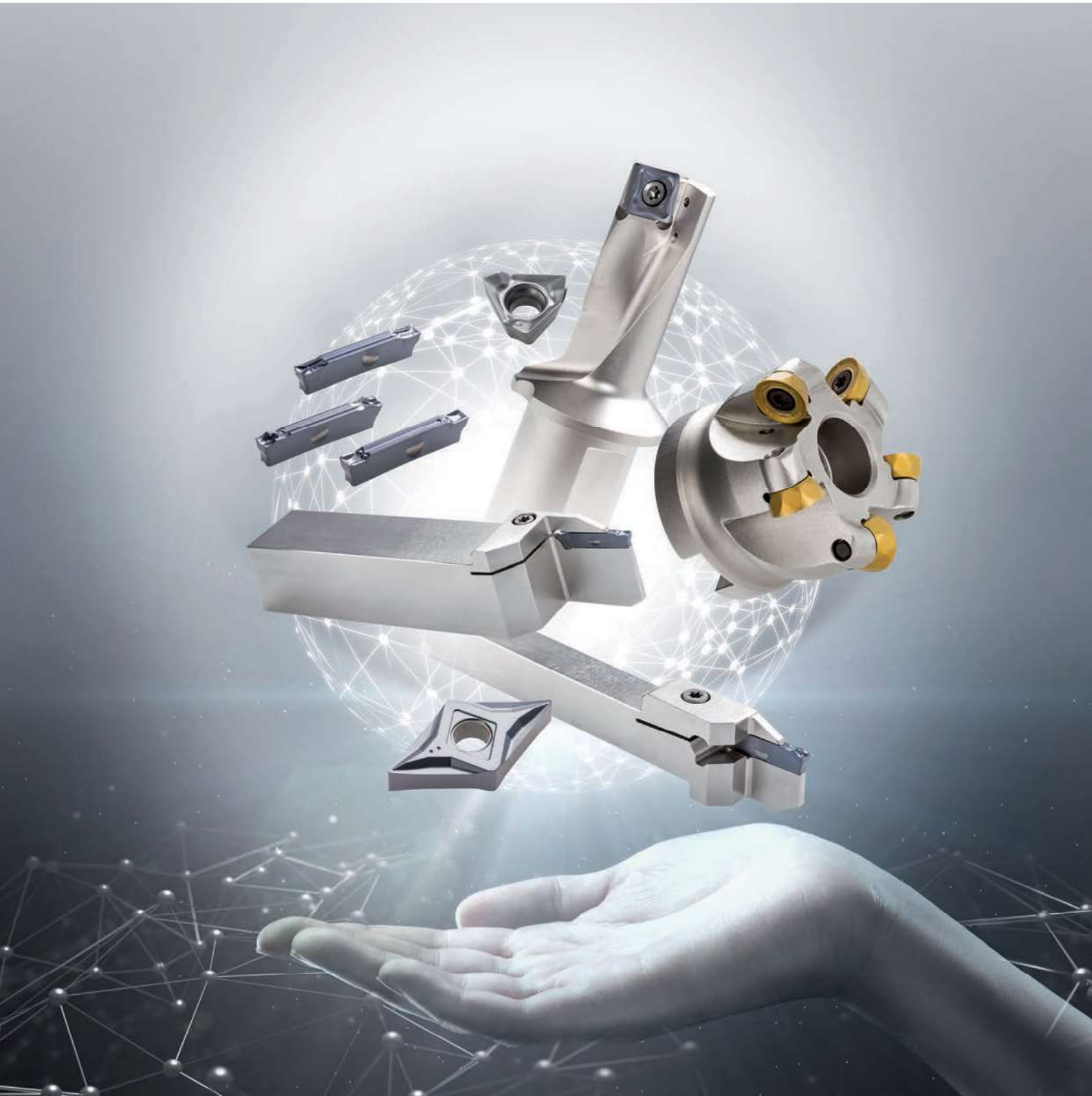
Insert	Designation	Chipbreaker	Material number	Available
	EOMT 120416-HCM CTP1235	...-HCM	11828709	●
	EOMT 120416-SCM CTP2235	...-SCM	11828710	●

● available from stock, ○ available upon request



Technical information







designation system

Insert designation

A	85°	
B	82°	
K	55°	
H	120°	
L	90°	
O	135°	
P	108°	
C	80°	
D	55°	
E	75°	
M	86°	
V	35°	
R		
S	90°	
T	60°	
W	80°	
X		
Z		Special shapes

Insert shape

	α
A	3°
B	5°
C	7°
D	15°
E	20°
F	25°
G	30°
N	0°
O	Special version

Clearance angle

	d ±	m ±	s ±	d = 6,35/9,52	d = 12,7	d = 15,87/19,05
A	0.025	0.005	0.025	●	●	●
C	0.025	0.013	0.025	●	●	●
E	0.025	0.025	0.025	●	●	●
F	0.013	0.005	0.025	●	●	●
G	0.025	0.025	0.13	●	●	●
H	0.013	0.013	0.025	●	●	●
J	0.08	0.005	0.025	●	●	●
	0.10	0.005	0.025	●	●	●
K	0.08	0.013	0.025	●	●	●
	0.10	0.013	0.025	●	●	●
	0.05	0.08	0.13	●	●	●
M	0.08	0.13	0.13	●	●	●
	0.10	0.15	0.13	●	●	●
	0.05	0.08	0.025	●	●	●
N	0.08	0.13	0.025	●	●	●
	0.10	0.15	0.025	●	●	●
	0.08	0.13	0.13	●	●	●
U	0.13	0.20	0.13	●	●	●
	0.18	0.27	0.13	●	●	●

Tolerances

A	
F	
G	
M	
N	
Q	
R	
T	
U	
W	
X	Special shapes

Form of top surface


A		P		K		T		10	
R		P		G		T		10	

Cutting edge length

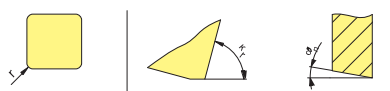
A	T	C/S	H	R



	s [mm]
01	1.59
T1	1.98
02	2.38
03	3.18
T3	3.97
04	4.76
05	5.56
06	6.35
07	7.94
09	9.52



Insert thickness



Radius		1st sign		2nd sign	
	r [mm]		s [mm]		α° n
M0*		r		A	3°
2	0.2	A	45°	B	5°
4	0.4	D	60°	C	7°
8	0.8	E	75°	D	15°
12	1.2	F	85°	E	20°
		P	90°	F	25°
		Z	Others	G	30°
				N	0°
				P	11°
				Z	Others
				O	

Facet, corner radius

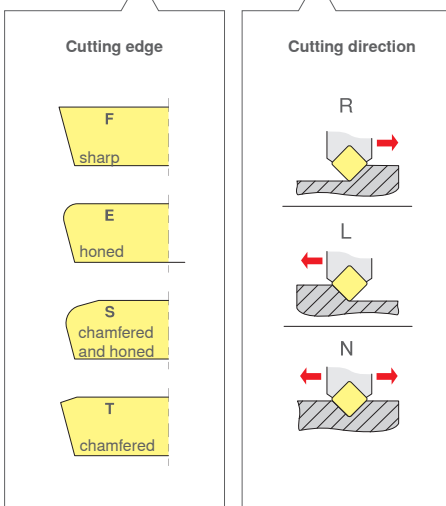
Chipbreaker designation

HCM = Steel machining
 SCM = Stainless steel machining
 CCM = Cast iron machining
 LMM = Non-ferrous machining
 XCM = Exotic machining
 - = Hard material machining
 RCM = Insert with specific radius

Chipbreaker

03	P	D	E	R	-	H	M
T3	M	O	E	N	-	L	M

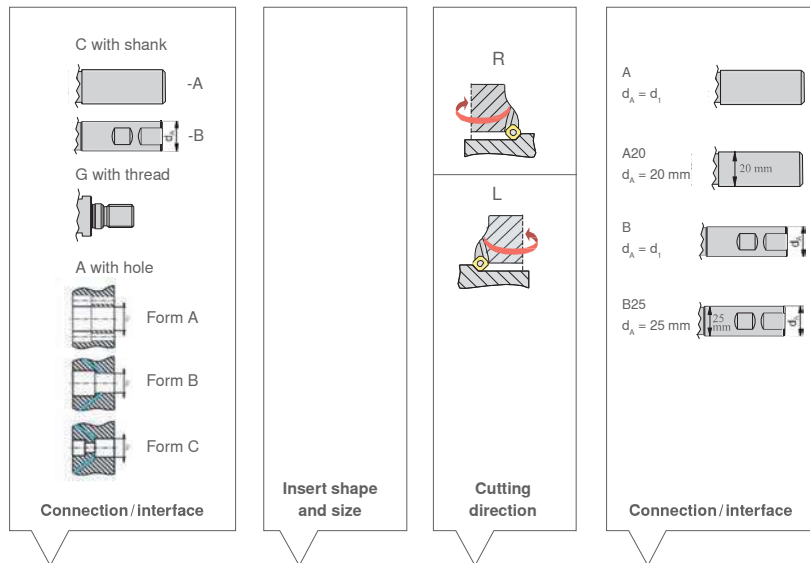
Cutting edge	Cutting direction
F sharp	R
E honed	L
S chamfered and honed	N
T chamfered	





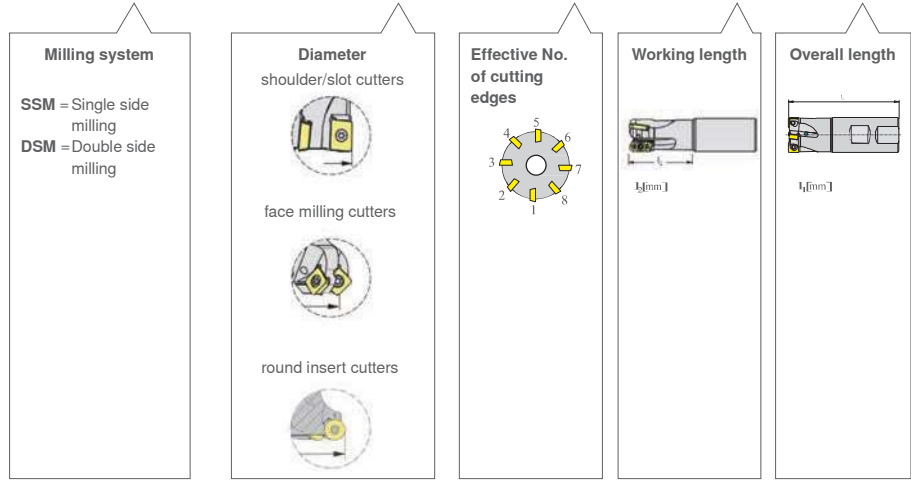
designation system

Body designation









C - SSM - S12 - 32 . R . 03 - B - 40

C - DSM - R12 - 32 . R . 03 - A - 70 - 165





Application

 P	Steel	 M	Stainless steel	 K	Cast iron
 N	Non-ferrous metals and non-metals	 S	Heat-resistant alloys, titanium	 H	Hard materials

Machining application types



HCM
Strong cutting edge for general steel applications and hard conditions milling.



XCM
Stable cutting edge for dedicated exotic materials and titanium.



SCM
Sharp cutting edge for general stainless steel applications and for finishing in steels.



CCM
Strong cutting edge for cast iron applications.



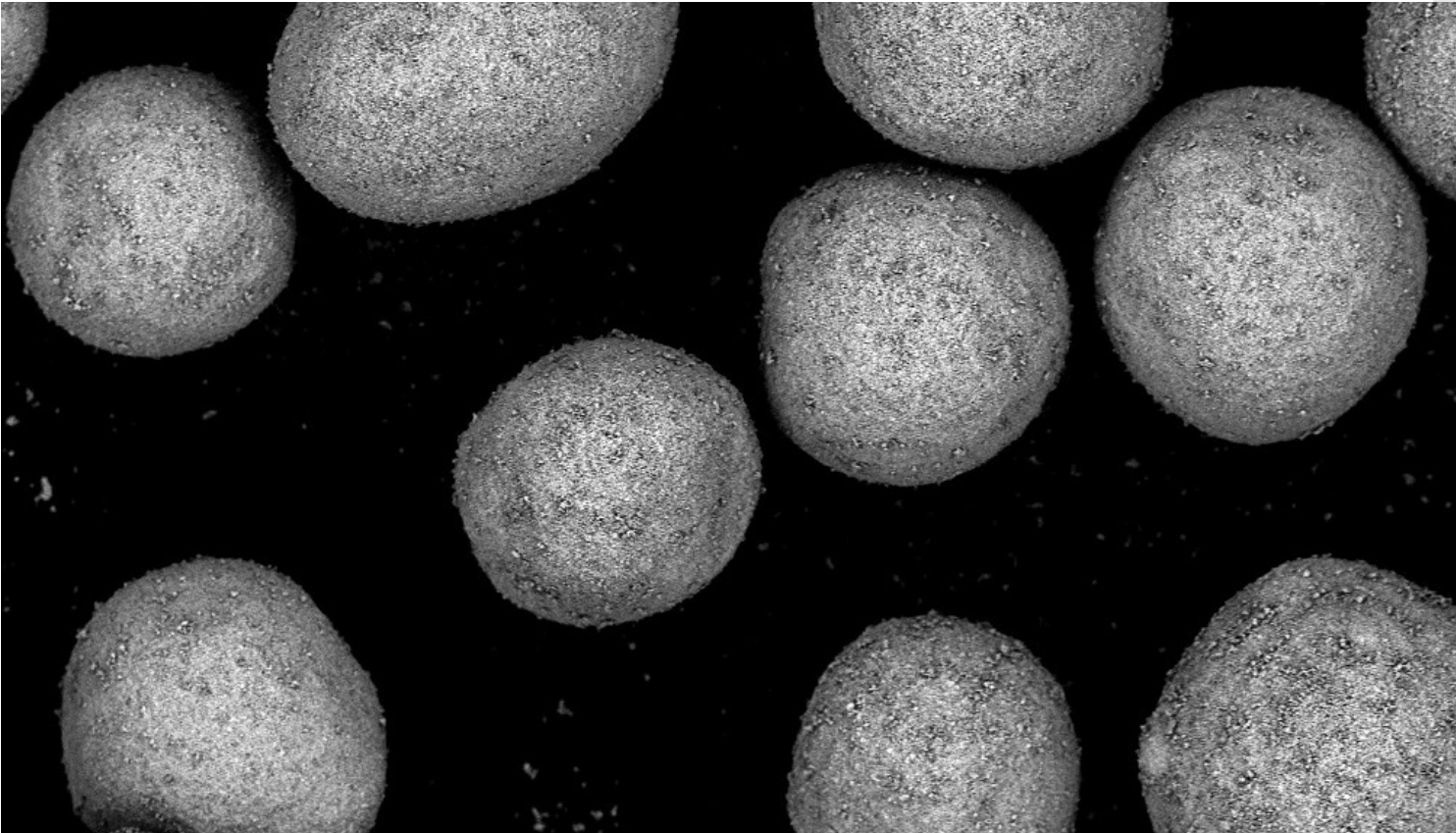
LMM
Sharp cutting edge for aluminium and non-ferrous metals.



MOSN
Strong reinforced cutting edge for hard material.

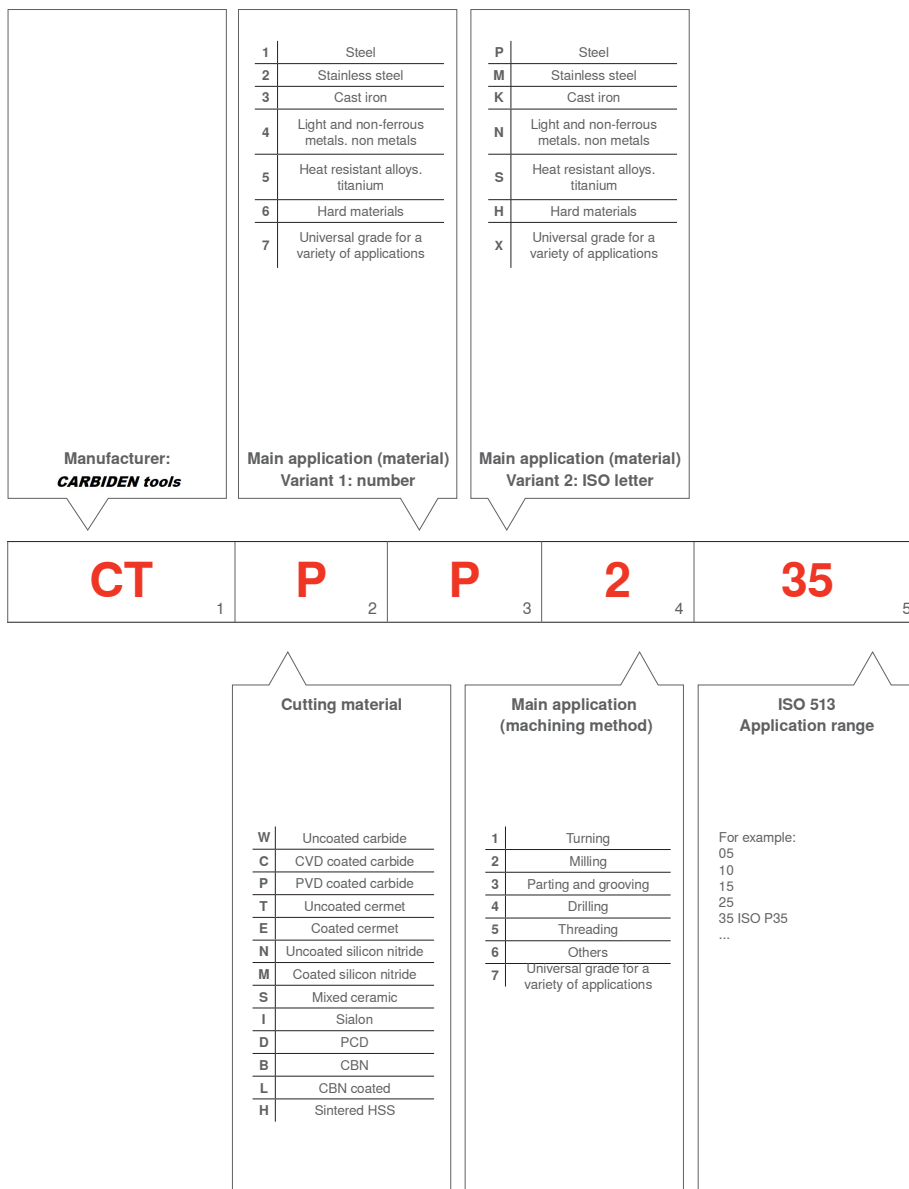


Grades





designation system





Grade overview

Grade designation	Standard designation		*Type of cutting material	Application range												Steel	Stainless	Cast iron	Non-ferrous metals	Heat-resistant	Hard materials
	ISO	ANSI		05	10	15	20	25	30	35	40	45	50								
CTP1235	HC-P35	C5	P															●			
	HC-M30	-	P															●			
CTCP230	HC-P30	C6	C															●			
	HC-K25	C2	C															●			
CTCP235	HC-M25	-	C															●			
	HC-P35	C5	C															●			
CTCP235	HC-M30	-	C															●			
	HC-P35	C5	P															●			
CTPP235	HC-M30	-	P															●			
	HC-P35	C5	P															●			
CTPM235	HC-M35	-	P															●			
CTP2235	HC-M35	-	P															●			
CTPM240	HC-P40	C5	P															●			
	HC-M40	-	P															●			
CTPM235HP	HC-M35	-	P															●			
	HC-P35	C5	P															●			
CTC3215	HC-K15	C3	C															●			
CTCK215	HC-K15	C3	C															●			
CTPK220	HC-K20	C2	P															●			
H216T	HW-N15	C3	W															●			
	HW-K15	C3	W															●			
CTC5235	HC-S35	-	C															●			
	HC-M35	-	C															●			
CTC5240	HC-S35	-	C															●			
CTP6215	HC-H15	-	P															●			
	HC-K15	-	P															●			

● Main application
○ Extended application



CTP1235

HC-P35 | HC-M30

**Specification:**

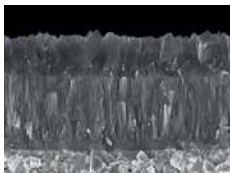
Composition: Co 9.0 %; mixed carbides 4.0 %; WC balance | Grain size: 1-1.5 μm | Hardness: HV 1510 |
Coating specification: PVD (TiAl)N + TiN; 4 μm

Recommended application:

First choice for dry machining of steels.

CTCP230

HC-P30 | HC-K25 | HC-M25

**Specification:**

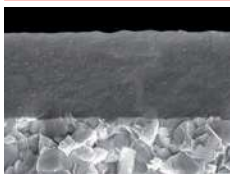
Composition: Co 10.5 %; mixed carbides 2.0 %; WC balance | Grain size: 1-2 μm | Hardness: HV₃₀ 1400 |
Coating specification: CVD TiCN-Al₂O₃

Recommended application:

First choice for dry machining of steels at high cutting speeds.

CTPP235

HC-P35 | HC-M30

**Specification:**

Composition: Co 10.5 %; mixed carbide 2.0 %; WC balance | Grain size: 1-2 μm | Hardness: HV₃₀ 1400 |
Coating specification: PVD TiAlTaN

Recommended application:

Particularly suitable for the wet machining of steels.

CTCP235

HC-P35 | HC-M30

**Specification:**

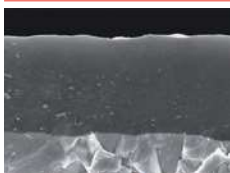
Composition: Co 12.5%; mixed carbides 2.0%; WC balance | Grain size: fine
Hardness: HV₃₀ 1380 | Coating specification: CVD TiCN-Al₂O₃ + TiN; 7 μm

Recommended application:

Milling Grade designed for Alloyed Steel cutting.

CTPM235

HC-M35 | HC-P35

**Specification:**

Composition: Co 11 %; other 0.75 %; WC balance | Grain size: 0.5-0.8 μm | Hardness: HV₃₀ 1500 |
Coating specification: PVD TiAlTaN

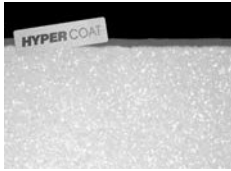
Recommended application:

The first choice for the machining of authentic steels.



CTP2235

HC-M40 | HC-P40

**Specification:**

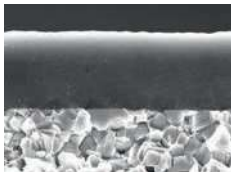
Composition: Co 12.5 %; mixed carbide 2.0 %; WC balance | Grain size: 1 μm | Hardness: HV 1380 |
Coating specification: PVD (TiA)N; 4 μm

Recommended application:

Particularly suitable for the machining of stainless steels.

CTPM240

HC-M40 | HC-P40

**Specification:**

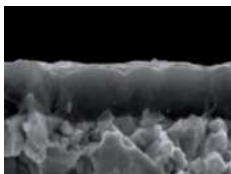
Composition: Co 12.5 %; mixed carbides 2.0 %; WC balance | Grain size: 1 μm | Hardness: HV₃₀ 1380 |
Coating specification: PVD TiAlTaN

Recommended application:

The first choice for the machining of austenitic steels.

CTPM235HP

HC-M35 | HC-P35

**Specification:**

Composition: Co 10.0 %; other 1.5 %; rest TC | Grain size: coarse |
Hardness: HV₃₀ 1330 | Layer system: PVD TiAlTaN

Recommended application:

Particularly suitable for the machining of high-alloy steels (austenitic).

CTC3215

HC-K15

**Specification:**

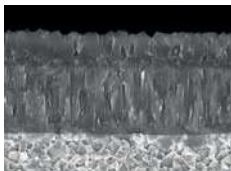
Composition: Co 6.0 %; mixed carbide 2.0 %; WC balance | Grain size: 1 μm | Hardness: HV 1630 |
Coating specification: CVD Ti(C,N) + Al₂O₃; 5 μm

Recommended application:

First choice for the machining of cast iron.

CTCK215

HC-K15

**Specification:**

Composition: Co 6.0 %; mixed carbides 2.0 %; WC balance | Grain size: 1 μm | Hardness: HV₃₀ 1600 |
Coating specification: CVD TiN, MT-TiCN; Al₂O₃

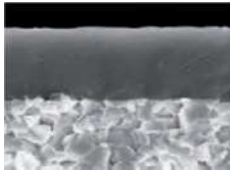
Recommended application:

The first choice for the machining of cast iron at high cutting speeds.



CTPK220

HC-K20

**Specification:**

Composition: Co 6.0 %; mixed carbides 2.0%, WC balance | Grain size: 1 μm | Hardness: HV₃₀ 1630 |
Coating specification: PVD TiAlTaN

Recommended application:

Optimal for the machining of high-tensile cast iron materials when toughness is required.

H216T

HW-N15 | HW-K15

**Specification:**

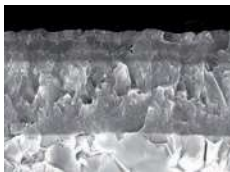
Composition: Co 6.0 %; WC balance | Grain size: 1 μm | Hardness: HV₃₀ 1630

Recommended application:

The uncoated carbide grade for the machining of aluminium. It's an high wear and high heat resistant carbide with a low tendency to adhesion.

CTC5235

HC-S35 | HC-M35

**Specification:**

Composition: 10.0 % binder; WC balance | Grain size: 2 μm | Hardness: HV₃₀ 1330 |
Coating specification: CVD TiCN-Al₂O₃ multi-layer

Recommended application:

Particularly suitable for the machining of heat-resistant steels and iron-based alloys.

CTC5240

HC-S35

**Specification:**

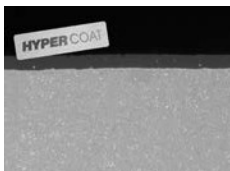
Composition: Co 10.0 %; WC balance | Grain size: 2 μm | Hardness: HV 1330 |
Coating specification: CVD TiN +TiB₂; 4 μm

Recommended application:

Recommended for the machining of titanium materials.

CTP6215

HC-H15 | HC-K15

**Specification:**

Composition: Co 12.0 %; WC balance | Grain size: 4 μm | Hardness: HV 1730 |
Coating specification: PVD (TiAl)N; 4 μm

Recommended application:

Particularly suitable for the machining of hardened steels.



Production





The carbide formula for success





Carbide production



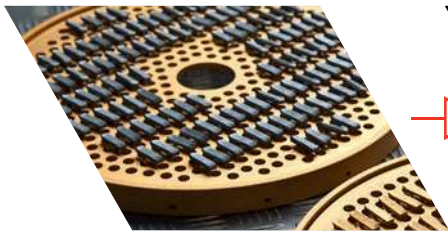
Preparation of the powder



Forming / Pressing



Sintering



Finishing



Dispatch



Recycling

