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

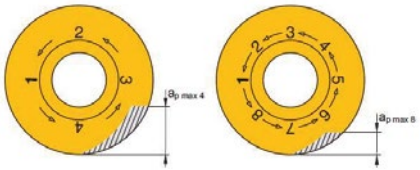
8) Turn milling

Chipbreaker:

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

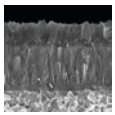
Indexing 4 or 8 times

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

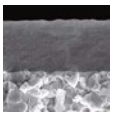


Grades:

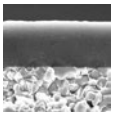
GTCP230 ■



GTPP235 ■

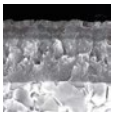


GTPM240 ■

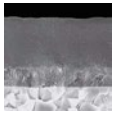


GTWN715 ■

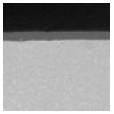
GTC5235 ■



GTC5240 ■



GTP6215 □



* secondary application

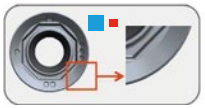
Customer benefits:

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

Available in 3 dimensions

IC 10 IC12 IC16

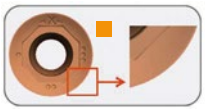
Which chipbreaker to use?



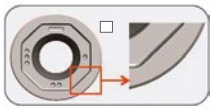
HCM
Strong cutting edge for general steel applications and hard conditions milling.

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

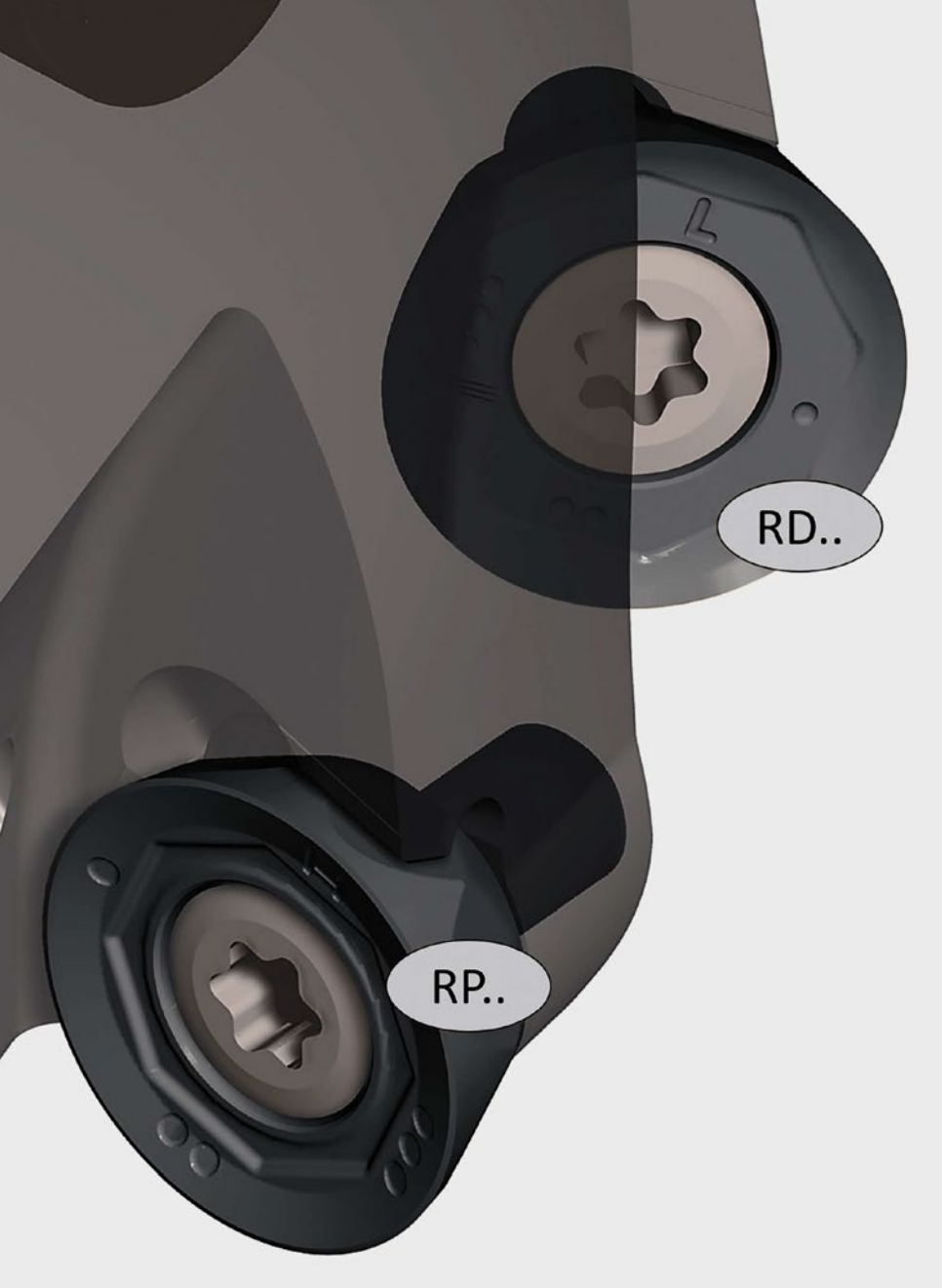
LMM
Extremely sharp cutting edge for aluminum and non-ferrous metals.



XCM
Stable cutting edge for dedicated exotic materials and titanium.



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

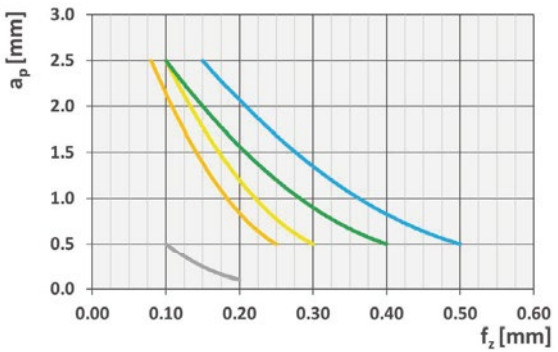
Insert	Designation	Chipbreaker	Material number	Available
	RPMX 10T3MO-HCM GTCP230	...-HCM	MM11978869	●
	RPMX 10T3MO-HCM GTPP235	...-HCM	MM11978872	●
	RPMX 10T3MO-SCM GTPM240	...-SCM	MM11978876	●
	RPMX 10T3MO-SCM GTC5235	...-SCM	MM2193387	●
	RDHX 10T3MO-LMM GTWN715	...-LMM	MM14652613	●
	RPHX 10T3MO-XCM GTC5235	...-XCM	MM11678477	●
	RPHX 10T3MO-XCM GTC5240	...-XCM	MM11678481	●
	RDHW 10T3MOSN GTP6215	-	MM11716131	●

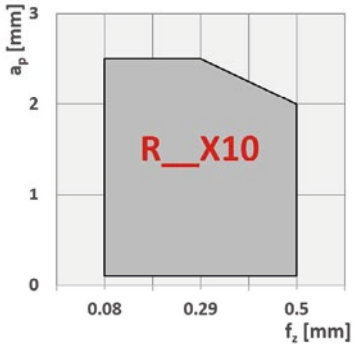
Body	Designation	ø Milling cutter	z	Material number	Available
	C-SSM-R10-20.R.02-A-50-102	20	2	MM11720312	●
	C-SSM-R10-20.R.02-A-50-165	20	2	MM11720313	●
	C-SSM-R10-25.R.03-A-60-116	25	3	MM11720314	●
	C-SSM-R10-25.R.03-A-60-165	25	3	MM11720315	●
	C-SSM-R10-32.R.04-A-70-130	32	4	MM11720318	●
	C-SSM-R10-32.R.04-A-70-165	32	4	MM11720321	●
	G-SSM-R10-20.R.02	20	2	MM11879525	○
	G-SSM-R10-25.R.03	25	3	MM11879526	○
	G-SSM-R10-32.R.04	32	4	MM11879532	●
	G-SSM-R10-35.R.04	35	4	MM14653979	●
	A-SSM-R10-40.R.04	40	4	MM11718403	●
	A-SSM-R10-42.R.05	42	5	MM14653976	●
	A-SSM-R10-50.R.05	50	5	MM11720322	●

Spare parts	Designation	Torque moment [Nm]	Material number	Available
	M3.0 x 7.5 – T10+	2	MM11689894	●
	Power screw M8.0 x 30.0 (for A-SSM-R10-40.R.04 and for A-SSM-R10-42.R.04)	15	MM11036880	●

Cutting data R10

Starting Parameters:





Grades and Materials:

	Material group	Chipbreaker	Grade	Cutting data v_c [m/min]	Cutting data f_z [mm]	Cutting data a_p [mm]
P	Steel	HCM	GTCP230 GTPP235	220 – 60	0.15 – 0.5	2.5 – 0.5
M	Stainless steel	SCM	GTPM240 GTC5235	200 – 60	0.1 – 0.3	2.5 – 0.5
N	Non-ferrous	LMM	GTWN715	< 2000	0.1 – 0.4	2.5 – 0.5
S	Heat-resistant alloys	XCM	GTC5235	75 – 25	0.08 – 0.25	2.5 – 0.5
S	Titanium	XCM	GTC5240			
H	Hard materials	–	GTP6215	180 – 100	0.1 – 0.2	0.5 – 0.1

Recommended!

ø [mm]	4 times a_p [mm]	4 times $a_{p\,max}$ [mm]	8 times $a_{p\,max}$ [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 GTCP230	...-HCM	MM11979003	●
	RPMX 1204MO-HCM GTPP235	...-HCM	MM11979006	●
	RPMX 1204MO-SCM GTPM240	...-SCM	MM11979015	●
	RPMX 1204MO-SCM GTC5235	...-SCM	MM12193389	●
	RDHX 1204MO-LMM GTWN715	...-LMM	MM14652616	●
	RPHX 1204MO-XCM GTC5235	...-XCM	MM11666768	●
	RPHX 1204MO-XCM GTC5240	...-XCM	MM11666769	●
	RDHW 1204MOSN GTP6215	-	MM11716128	●

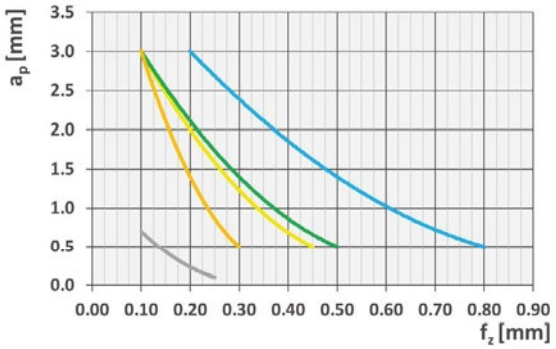
Body	Designation	ø Milling cutter	z	Material number	Available
	C-SSM-R12-25.R.02-A-30-86	25	2	MM11720305	●
	C-SSM-R12-25.R.02-A-60-116	25	2	MM11720307	●
	C-SSM-R12-32.R.03-A-40-100	32	3	MM11720308	●
	C-SSM-R12-32.R.03-A-70-130	32	3	MM11720310	●
	G-SSM-R12-25.R.02	25	2	MM12156946	●
	G-SSM-R12-35.R.03	35	3	MM14653989	●
	A-SSM-R12-40.R.04	40	4	MM11596003	●
	A-SSM-R12-42.R.04	42	4	MM14653984	●
	A-SSM-R12-50.R.05	50	5	MM11667287	●
	A-SSM-R12-52.R.05	52	5	MM14427687	●
	A-SSM-R12-63.R.06	63	6	MM11667291	●
	A-SSM-R12-66.R.06	66	6	MM14653987	●
	A-SSM-R12-80.R.08	80	8	MM11707446	●
	A-SSM-R12-100.R.10	100	10	MM11707445	●

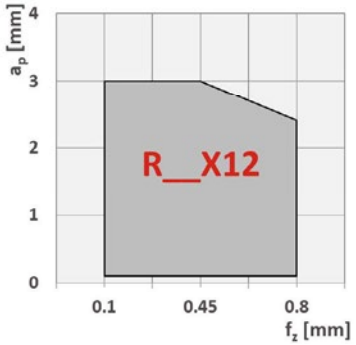
Spare parts	Designation	Torque moment [Nm]	Material number	Available
	M4.0 x 8.5 – T15 (only for C- and G-)	5	MM11037484	●
	M4.0 x 11.0 – T15+ (only for A-)	5	MM1345432	●
	Power screw M8.0 x 30.0 (for A-SSM-R12-40.R.04 and for A-SSM-R12-42.R.04)	15	MM11036880	●

● available from stock, ○ available upon request

Cutting data R12

Starting Parameters:





Grades and materials:

	Material group	Chipbreaker	Grade	Cutting data v_c[m/min]	f_z[mm]	a_p[mm]
P	Steel	HCM	GTCP230 GTPP235	220 – 60	0.2 – 0.8	3 – 0.5
M	Stainless steel	SCM	GTPM240 GTC5235	200 – 60	0.1 – 0.45	3 – 0.5
N	Non-ferrous	LMM	GTWN715	< 2000	0.1 – 0.5	3 – 0.5
S	Heat-resistant alloys	XCM	GTC5235	75 – 25	0.1 – 0.3	3 – 0.5
S	Titanium	XCM	GTC5240			
H	Hard materials	–	GTP6215	180 – 100	0.1 – 0.25	0.7 – 0.1

Recommended!

ø [mm]	4 times a_p [mm]	4 times $a_{p\,max}$ [mm]	8 times $a_{p\,max}$ [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 GTCP230	...-HCM	MM11979017	●
	RPMX 1605MO-HCM GTPP235	...-HCM	MM11979021	●
	RPMX 1605MO-SCM GTPM240	...-SCM	MM11979026	●
	RPMX 1605MO-SCM GTC5235	...-SCM	MM12193449	●
	RDHX 1605MO-LMM GTWN715	...-LMM		○
	RPHX 1605MO-XCM GTC5235	...-XCM	MM11670391	●
	RPHX 1605MO-XCM GTC5240	...-XCM	MM11670392	●
	RDHW 1605MOSN GTP6215	-		○

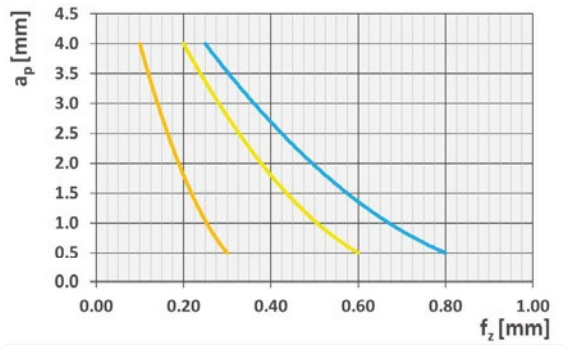
Body	Designation	ø Milling cutter	z	Material number	Available
	A-SSM-R16-50.R.03	50	3	MM11739864	●
	A-SSM-R16-52.R.04	52	4	MM14653992	●
	A-SSM-R16-63.R.05	63	5	MM11739862	●
	A-SSM-R16-66.R.05	66	5	MM14653995	●
	A-SSM-R16-80.R.06	80	6	MM11739860	●
	A-SSM-R16-100.R.07	100	7	MM11739857	●
	A-SSM-R16-125.R.08	125	8	MM11739853	●

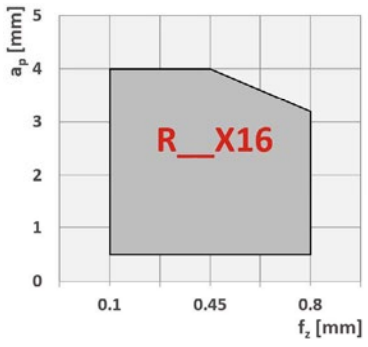
Spare parts	Designation	Torque moment [Nm]	Material number	Available
	M4.5 x 13.0 – T20+	5	MM1345431	●
	Power screw M10.0 x 31.0 (for A-SSM-R16-50.R.03 and for A-SSM-R16-52.R.04)	20	MM11040298	●

● available from stock ○ available upon request

Cutting data R16

Starting Parameters:



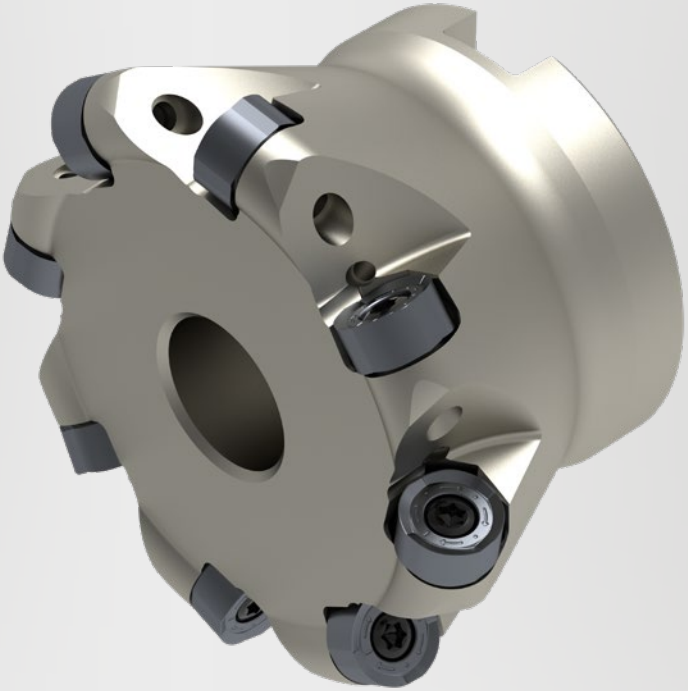


Grades and materials:

	Material group	Chipbreaker	Grade	Cutting data v_c[m/min]	f_z[mm]	a_p[mm]
P	Steel	HCM	GTCP230 GTPP235	220 – 60	0.25 – 0.8	4 – 0.5
M	Stainless steel	SCM	GTPM240 GTC5235	200 – 60	0.2 – 0.6	4 – 0.5
S	Heat-resistant alloys	XCM	GTC5235	75 – 25	0.1 – 0.3	4 – 0.5
S	Titanium	XCM	GTC5240			

Recommended!

ø [mm]	4 times a_p [mm]	4 times $a_{p\,max}$ [mm]	8 times $a_{p\,max}$ [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:

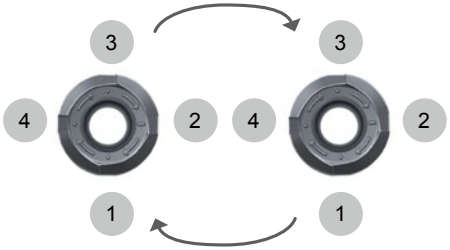
1) Face milling

2) Slot milling

Chipbreaker:

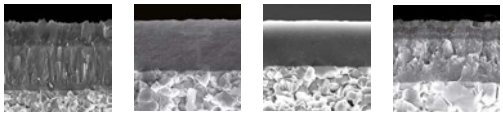
HCM: Steel – Cast iron*
SCM: Stainless Steel

Indexing 4 times and reversible



Grades:

GTCP230 ■ GTPP235 ■ GTPM240 ■ GTC5235 ■



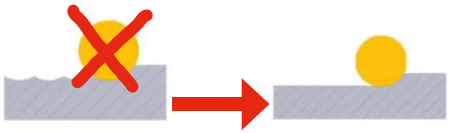
Customer benefits:

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

Available in 2 dimensions:

CI 12 CI 16

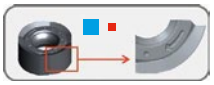
Best finishing:



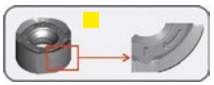
Cutting parameters: v_c 280m/ min. f 0.4 mm. a_p 0.5 mm

- 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 μm
  → Ra with the double-sided round insert: 1 μm

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

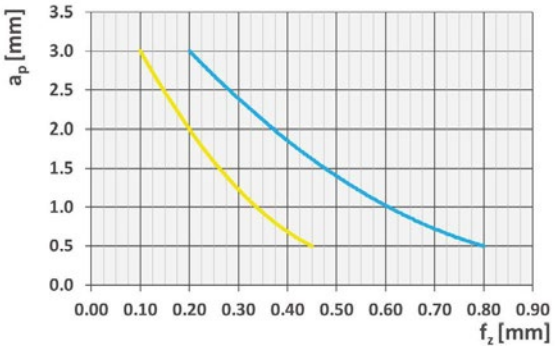
Insert	Designation	Chipbreaker	Material number	Available
	RNKU 1204MOER-HCM GTCP230	...-HCM	MM11979067	●
	RNKU 1204MOER-HCM GTPP235	...-HCM	MM11979068	●
	ROHU 1204MOER-SCM GTPM240	...-SCM	MM12376587	●
	ROHU 1204MOER-SCM GTC5235	...-SCM	MM12193450	●

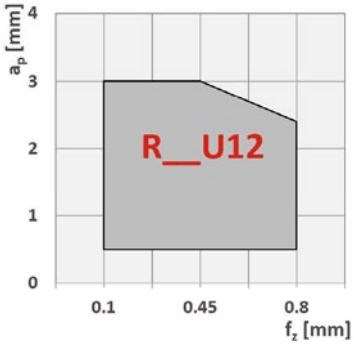
Body	Designation	ø Milling cutter	z	Material number	Available
	C-DSM-R12-32.R.03-A-70-131	32	3	MM11775976	●
	C-DSM-R12-32.R.03-A-70-165	32	3	MM11984880	●
	A-DSM-R12-40.R.04	40	4	MM11718939	●
	A-DSM-R12-50.R.05	50	5	MM11775978	●
	A-DSM-R12-63.R.06	63	6	MM11775977	●
	A-DSM-R12-80.R.08	80	8	MM11984879	●
	A-DSM-R12-100.R.10	100	10	MM11984878	●

Spare parts	Designation	Torque moment [Nm]	Material number	Available
	Screw M4.0 x 11.0 – T15+	5	MM1345432	●
	Power screw M8.0 x 30.0 (only for A-DSM-R12-40.R.04)	15	MM11036880	●

Cutting data R12

Starting Parameters:





Grades and materials:

	Material group	Chipbreaker	Grade	v_c[m/min]	Cutting data f_z[mm]	a_p[mm]
P	Steel	HCM	GTCP230 GTPP235	220 – 60	0.2 – 0.8	3 – 0.5
M	Stainless steel	SCM	GTPM240 GTC5235	200 – 60	0.1 – 0.45	3 – 0.5

Recommended!

ø [mm]	4 times a_p [mm]	4 times $a_{p\,max}$ [mm]	8 times $a_{p\,max}$ [mm]
12	3.0	5.5	1.7
16	4.0	7.5	2.3

Available range R16

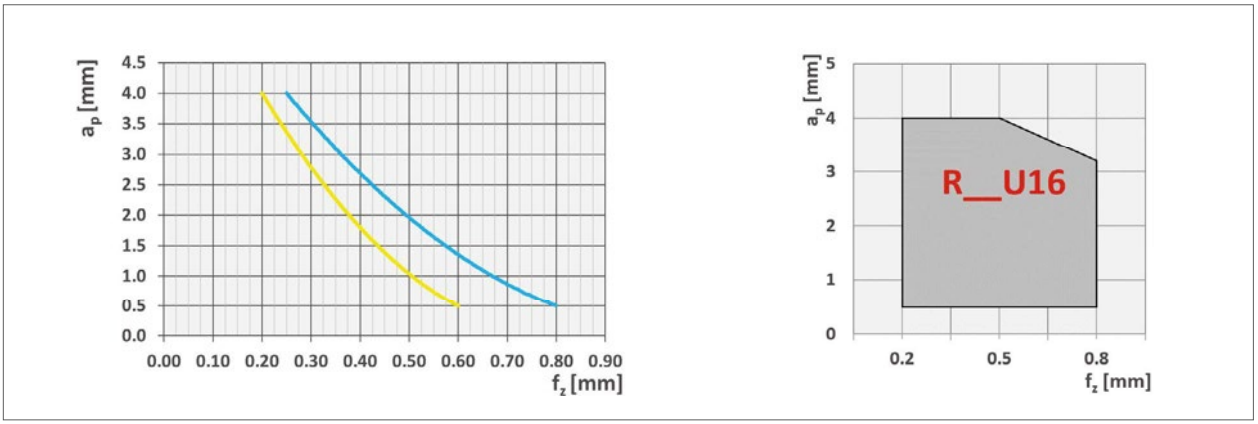
Insert	Designation	Chipbreaker	Material number	Available
	RNKU 1605MOER-HCM GTCP230	...-HCM	MM12193454	●
	RNKU 1605MOER-HCM GTPP235	...-HCM	MM12193465	●
	ROHU 1605MOER-SCM GTPM240	...-SCM	MM14652625	●
	ROHU 1605MOER-SCM GTC5235	...-SCM	MM12193480	●

Body	Designation	ø Milling cutter	z	Material number	Available
	A-DSM-R16-50.R.03	50	3		○
	A-DSM-R16-63.R.05	63	5	MM11928824	●
	A-DSM-R16-80.R.06	80	6		○
	A-DSM-R16-100.R.07	100	7		○
	A-DSM-R16-125.R.08	125	8		○

Spare parts	Designation	Torque moment [Nm]	Material number	Available
	M4.5 x 13.0 – T20	5	MM188399	●
	Power screw M10.0 x 31.0 (only for A-DSM-R16-50.R.03)	20	MM11040298	●

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	GTCP230 GTPP235	220 – 60	0.25 – 0.8	4 – 0.5
M	Stainless steel	SCM	GTPM240 GTC5235	200 – 60	0.2 – 0.6	4 – 0.5

	ø [mm]	4 times a_p [mm]	4 times $a_{p\,max}$ [mm]	8 times $a_{p\,max}$ [mm]
Recommended!	12	3.0	5.5	1.7
	16	4.0	7.5	2.3