

PRODUCT NEWS

PN-E-008

SERIES EXPANSION



High-Feed Milling Cutter with Double-Sided Inserts

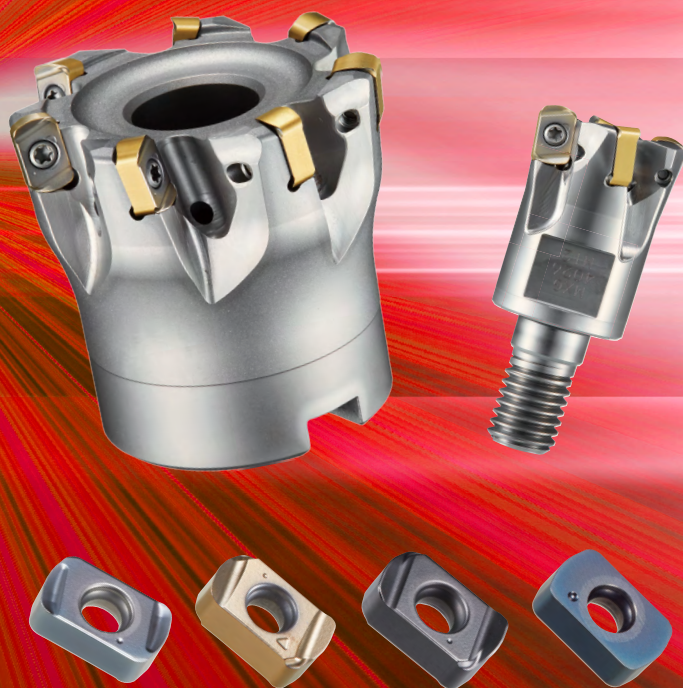
QMGII Series



GMX07/MXG07

Modular type: Ø10–Ø20

Shank type: Ø10–Ø16



GMX10/MXG10

Bore type: Ø40–Ø66

Modular type: Ø16–Ø42

Shank type: Ø16–Ø32

DIJET GmbH

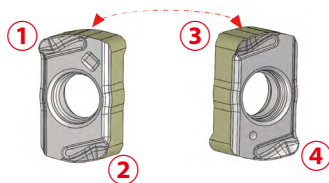
www.dijet.de

High-Feed Milling Cutter Multi-Blade Design with **Double-Sided Compact Inserts** for High Productivity

Feature 1

Lineup from Ø10, featuring economical double-sided inserts with four cutting edges.

1. Economical Double-Sided Inserts



2. Lineup from Ø10 – Insert size 07



- ✓ Tool diameter **Ø10**–Ø20 mm
- ✓ Max. depth of cut: **0.5 mm**
- ✓ **Modular type**: Ø10–Ø20 mm
- Shank type**: Ø10–Ø16 mm

Feature 2

High-Rigidity Design for Stable, Reliable Machining.

1. Increased insert rigidity



NEW

MXG07
ENMU07...

MPM
EOMT06...



2. M2 Fine-Pitch Screw

Fine-pitch
M2 screw



NEW

MXG07

Coarse-pitch
M1.8 screw

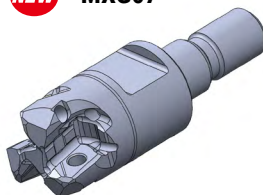


MPM
(Conventional model)

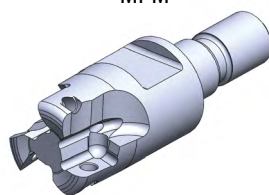
3. High-Rigidity Body Design

NEW

MXG07



MPM



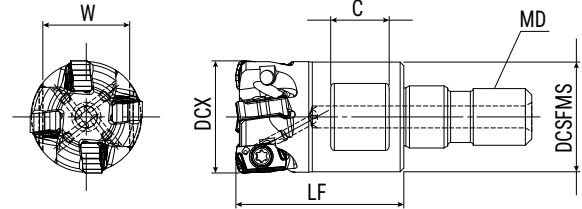
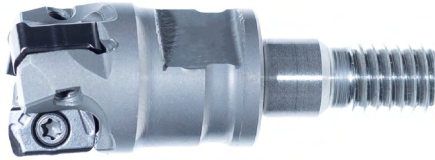
Body rigidity improved by 44%

Through
coolant
hole



MXG07
TYPE

Modular Type



Cat. No.	Stock	No. of inserts	Dimensions (mm)						Insert
			DCX	LF	DCSFMS	MD	C	W	
MXG-2010-07-M6	●	2	10	18	9.5	M6	6.5	8	ENMU07T207ZER-**
MXG-2011-07-M6	●	2	11	18	9.6	M6	6.5	8	
MXG-3012-07-M6	●	3	12	20	11.2	M6	6.5	8	
MXG-3013-07-M6	●	3	13	20	11.2	M6	6.5	8	
MXG-4016-07-M8	●	4	16	23	15	M8	8	12	
MXG-4017-07-M8	●	4	17	23	15	M8	8	12	
MXG-5020-07-M10	●	5	20	30	18	M10	9	14	

Note: All cutter bodies are supplied without inserts, wrenches, or MOLY.

● : Stocked Items

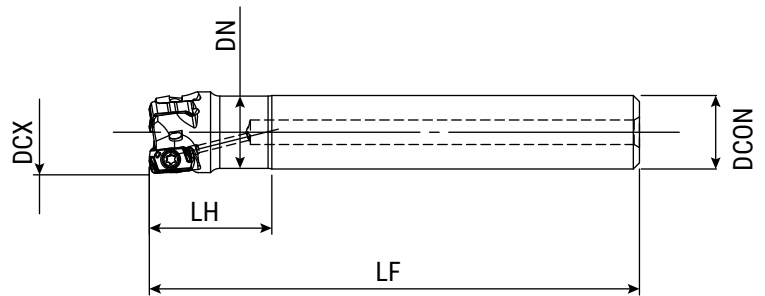
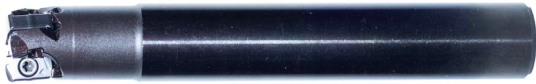
Screw	Torque (N·m)	Wrench
TSW-2044H	0.5	A-06

GMX07/MXG07 type

GMX07
TYPE

Shank Type

Through
coolant
hole



Type	Cat. No.	Stock	No. of inserts	Dimensions (mm)					Insert
				DCX	LH	LF	DN	DCON	
Standard	GMX2010-07-20-S10+A	●	2	10	20	80	9.2	10	ENMU07T207ZER-**
	GMX3012-07-20-S12+A	●	3	12	20	80	11.2	12	
	GMX3014-07-20-S12+A	●	3	14	20	80	11.8	12	
	GMX4016-07-25-S16+A	●	4	16	25	90	14.0	16	
Long shank	GMX2011-07-20-S10-LS+A	●	2	11	20	120	9.6	10	
	GMX3013-07-20-S12-LS+A	●	3	13	20	120	11.6	12	
	GMX3014-07-20-S12-LS+A	●	3	14	20	120	11.8	12	

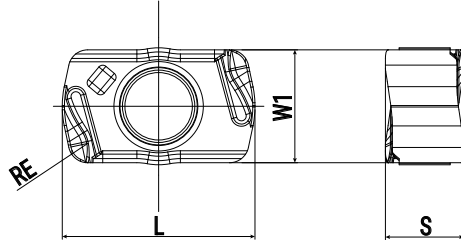
Note: All cutter bodies are supplied without inserts, wrenches, or MOLY.

● : Stocked Items

Screw	Torque (N·m)	Wrench
TSW-2044H	0.5	A-06

GMX07/MXG07 TYPE

Insert



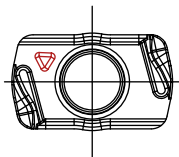
Cat. No.	Tolerance	PVD coating				Dimensions (mm)			
		JC8050	JC8118	DS250	DS217	RE	L	W1	S
ENMU07T207ZER-PM	M	●	●			0.7	7	4.1	2.85
ENMU07T207ZER-SM	M			●	●	0.7	7	4.1	2.85

Note: 10 inserts per case.

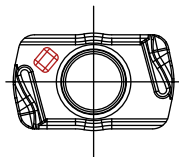
● : Stocked Items

GRADE MARKING

ENMU07T207ZER-PM/-SM

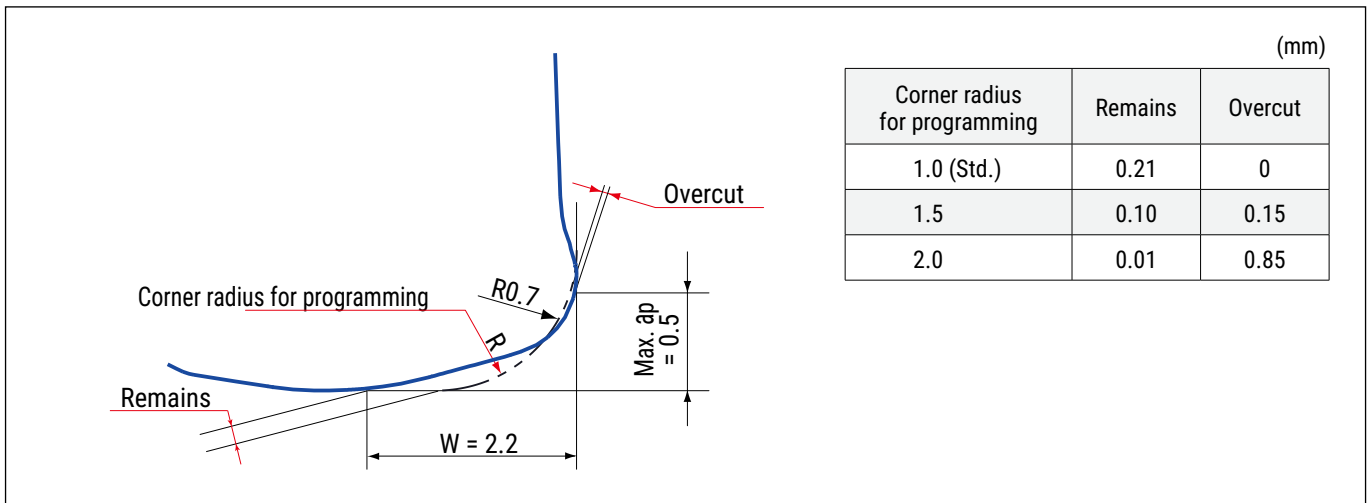


JC8118/DS217



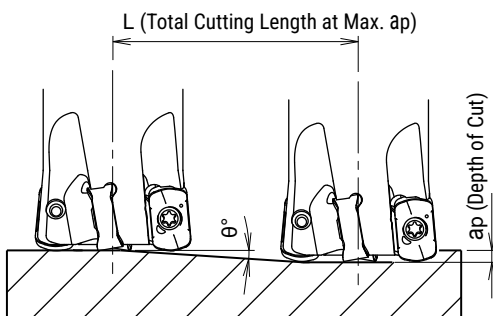
JC8050/DS250

Definition of corner shape for programming

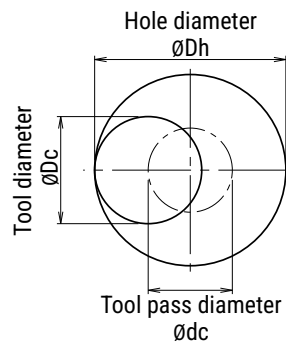


Recommended Data for Profile Milling

Ramping



Helical interpolation



- Calculation of tool pass dia.

$$\phi_{dc} = \phi_{Dh} - \phi_{Dc}$$

Tool pass dia. Hole dia. Tool Dia.

- Depth of cut per circuit should not exceed max. depth of cut (ap).
- Down cutting is recommended, tool pass rotation should be counterclockwise.

- For ramping and helical interpolation, use 70% or less of the feed rate (Vf) listed in the standard cutting conditions table.
- Drilling is not recommended.

● ENMU07T207ZER-**

(Unit: mm)

Tool dia. ØDc	Effective Cutting Dia.	Max. ap	Ramping		Helical Interpolation		
			Max. ramping angle θ	L	Through hole Dh min	Flat Bottom Dh min	Through hole Dh max
10	5.5	0.5	1.1	26.0	15	16	19
11	6.5	0.5	1.4	20.5	17	18	21
12	7.5	0.5	1.2	23.9	19	20	23
13	8.4	0.5	1.1	26.0	21	22	25
16	11.4	0.5	0.9	31.8	27	28	31
17	12.4	0.5	0.8	35.8	29	30	33
20	15.4	0.5	0.6	47.7	35	36	39

■ Recommended Cutting Conditions | GMX07/MXG07 type

Material	Insert	Grade	Vc (m/min)	fz (mm/t)	ap (mm)	ae (mm)
Carbon Steel below 250 HB	ENMU07...-PM	JC8050 (JC8118)	165	1.0	0.30	0.5-0.6 Dc
Cast steel Below 285 HB	ENMU07...-PM	JC8050 (JC8118)	150	1.0	0.30	0.5-0.6 Dc
Tool & Die steel Below 255 HB	ENMU07...-PM	JC8050 (JC8118)	150	1.0	0.30	0.5-0.6 Dc
Mold steel 30-36 HRC	ENMU07...-PM	JC8050 (JC8118)	150	1.0	0.30	0.5-0.6 Dc
Mold steel 38-43 HRC	ENMU07...-PM	JC8118	110	0.9	0.25	0.5-0.6 Dc
Hardened die steel 42-52 HRC	ENMU07...-PM	JC8118	90	0.6	0.25	0.5-0.6 Dc
Cast iron 160-260 HB	ENMU07...-PM	JC8118	200	1.0	0.30	0.5-0.6 Dc
Nodular cast iron 170-300 HB	ENMU07...-PM	JC8118	180	1.0	0.30	0.5-0.6 Dc
Austenitic stainless steel (AISI 304, 316, 317)	ENMU07...-SM	DS250 (DS217)	125	0.8	0.30	0.5-0.6 Dc
Ferritic / martensitic stainless steel (AISI 403, 420J2, 430)	ENMU07...-SM	DS250 (DS217)	150	1.0	0.30	0.5-0.6 Dc
Super duplex stainless steel (S32750)	ENMU07...-SM	DS217 (DS250)	70	0.5	0.30	0.5-0.6 Dc
Precipitation hardening stainless steel Below 280 HB	ENMU07...-SM	DS217 (DS250)	100	0.7	0.30	0.5-0.6 Dc

Notes:

1. These parameters represent stable machining with an overhang length of 3×D.
Please adjust the cutting conditions according to machine rigidity and workpiece rigidity.
2. In case of chatter, reduce ap or rpm while maintaining the feed per tooth.
3. Reduce ap when using a low-rigidity machine.
4. Use air blow.