

# PRODUCT NEWS

PN-E-002

NEW PRODUCT



FINISHING

# Diemaster 5G

## MXF / XFG type

- Modular Heads type :  $\phi 16\sim 42$
- Face mill type :  $\phi 52\sim 66$



From **semi-finishing** to **finishing**  
on all mold shapes.



**MXF** type



**XFG** type

DIJET GmbH

[www.dijet.de](http://www.dijet.de)

## Features

### High efficient and Multi purpose machining

#### FEATURE 1

- Different grade of insert for machining different kind of materials.
- This tool can make all kind of operations, from **semi-finishing** to **finishing**, in any kind of mold.

#### FEATURE 2

Economical double-side insert ( with 6 cutting edges )

High accuracy ( adopted H-class insert )

JC8015 for general & mold steel  
DH103 for hardened die steel



ISO	P					M					K				H		
	P01	P10	P20	P30	P40	M01	M10	M20	M30	M40	K01	K10	K20	K30	H01	H10	H20
Applicable range	JC8015					JC8015					JC8015						
	DH103										DH103				DH103		

tool for Die and Mold.



**FEATURE 3**

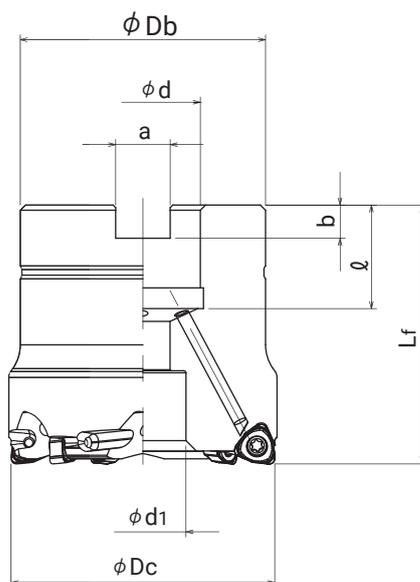
**Many kinds of modular heads are available with combination of carbide shanks.**

**The through coolant holes in the all bodies give longer tool life and safe operations in cavities.**



## Line up

### ● Facemill type



● Through coolant hole

Cat. No.	Stock	No. of inserts	Dimensions (mm)								Set bolt	Weight	Inserts
			$\phi Dc$	$Lf$	$\phi Db$	$\phi d$	$\phi d1$	$a$	$b$	$\ell$			
XFG-6052R-22	●	6	52	50	47	22	16.5	10.4	6.3	20	M10	0.56	WNHU04T310 ZER
XFG-7066R-27	●	7	66	50	48	27	20.0	12.4	7	22	M12×1.75×30★	0.72	

Note ) 1. All cutters are supplied without inserts or wrench.  
 2. ★mark shows : these cutter bodies are equipped with the set bolt because of the specified bolt size.  
 Except for these cutter bodies, please use the set bolt equipped with arbor.

Parts	
Clamp screw	Wrench (not included)
 TSW-2567H	 A-08

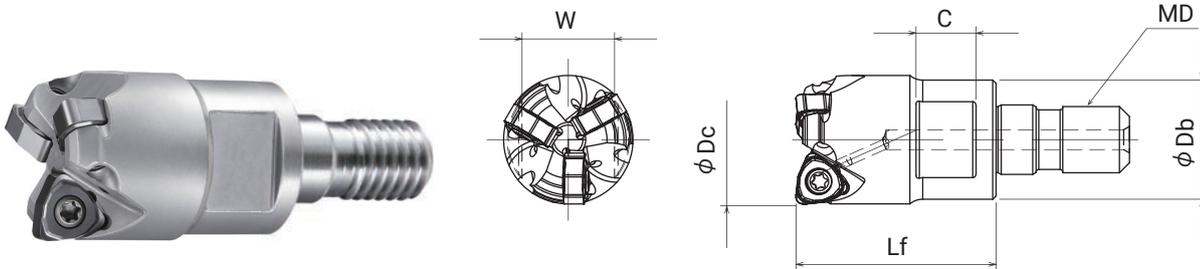
Clamp screw	Recommended torque (N·m)
TSW-2567H	1.1

Please scan the QR code for recommended cutting conditions





## ● Modular head type



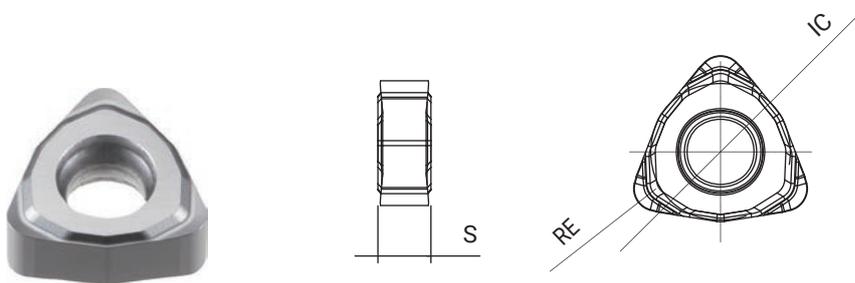
### ● Through coolant hole

Cat. No.	Stock	No. of inserts	Dimensions (mm)					Inserts	Parts	
			φDc	Lf	φDb	MD	C		W	Clamp screw
MXF-2016-M8	●	2	16	23	14	M8	8	WNHU04T310ZER	TSW-2567H	A-08
MXF-3020-M10	●	3	20	30	18	M10	9			
MXF-4025-M12	●	4	25	35	22	M12	11			
MXF-5035-M16	●	5	35	43	29	M16	12			
MXF-6042-M16	●	6	42	43	32	M16	14			

Note) All cutters are supplied without inserts or wrench.

Clamp screw	Recommended torque (N·m)
TSW-2567H	1.1

## ● Inserts



Cat. No.	Tolerance	PVD coated		Dimensions (mm)		
		JC8015	DH103	RE	IC	S
WNHU04T310ZER	H	●	●	1.0	6.35	3.33

Note) 10 inserts per case.

## Attention

### ⚠ Attention to mounting head and MSN/ MGN shank arbor.

#### ■ Tightening procedure

##### ① Cleaning

Remove dirt and chips with air from the connecting thread and face of modular head and MSN/MGN shank arbor.

##### ② Initial Tightening

Tighten by hand until the head and the shank arbor faces touch.

##### ③ Final Tightening

Tighten slowly with torque control spanner wrench or DIJET DS type spanner wrench and confirm that there is no gap.

Attention : Final tightening without initial tightening cause connecting thread damage.

### ⚠ NOTE

- Note) 1. Only use the torque control spanner wrench or DIJET DS type spanner wrench.  
2. Please gently apply pressure on wrench.  
3. Please confirm that there is no gap between MSN/MGN shank arbor and modular

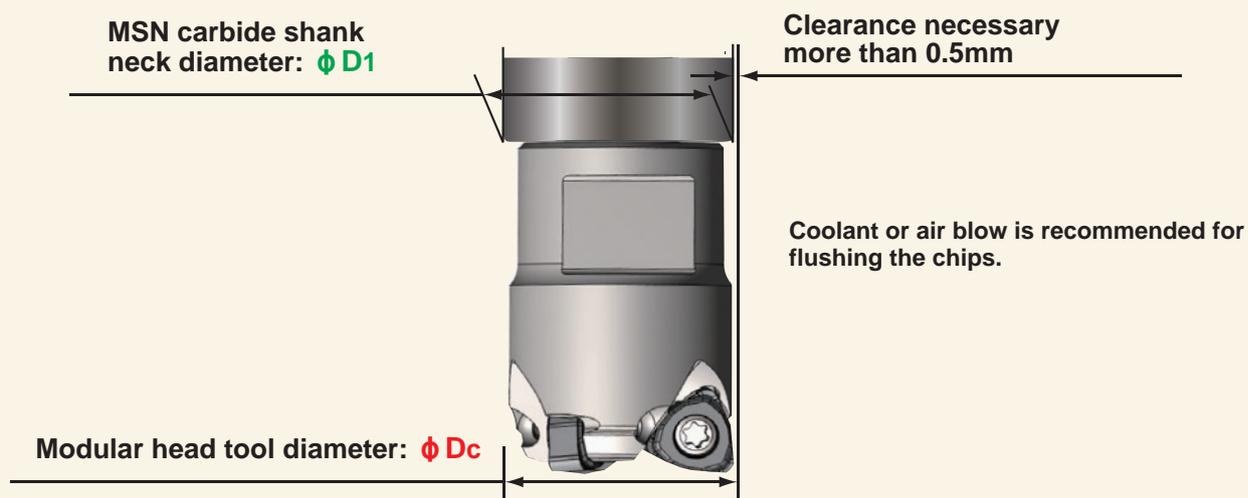
Thread	Tightening torque	Spanner size W (mm)
M8	16N·m	12☆
M10	16N·m	14, 15
M12	20N·m	17, 19
M16	25N·m	22, 26

- Note) 1. Modular heads are supplied without spanner wrench.  
2. In case of choosing torque control spanner wrench, confirm that the wrench size is match to the dimensions W & C of each modular head. (There are some cases that modifying the thickness of spanner wrench is necessary)  
3. ☆ mark shows: DIJET have a stock of DS-8 and 12 type spanner wrenches.

### ⚠ Selection of "MSN Carbide shank arbor"

In case of using modular head over  $\phi 16\text{mm}$ , please select **MSN carbide shank arbor that diameter ( $\phi D1$ ) is 1mm or more smaller than modular head ( $\phi Dc$ ).**  
A wrong selection causes damage to the carbide shank.

$$\phi Dc - \phi D1 \geq 1\text{mm}$$



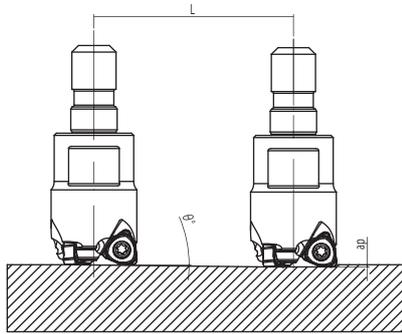
### ⚠ Caution for the mounting to shrink fit holder.

When you use a carbide shank and a modular head on the shrink fit holder, please put the only carbide shank without modular head. **Please mount a modular head after cooling off.**

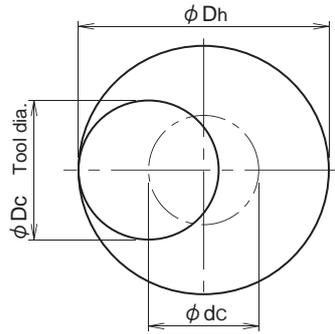
Note) In case of shrink fit MSN shank + modular head together, it will be difficult to loose due to heat desipation.

## Attention for profile milling

### Ramping



### Helical interpolation



#### ● Calculation of tool pass dia.

$$\phi dc = \phi Dh - \phi Dc$$

Tool pass dia.                      Bore dia.                      Tool dia.

- Depth of cut per one circuit should not exceed max. depth of cut  $a_p$ .
- Down cutting is recommended, so tool pass rotation should be counterclockwise.
- To obtain a flat bottom surface when helical milling, it requires to remove "the uncut part" in the center of work materials at final pass.

- In case of ramping and helical interpolation, apply 80% or less feed speed from standard cutting condition table.
- In case of helical interpolation, recommend wet cutting by coolant through the tool.

Cat. No.	Tool dia. (mm)	Max. depth of cut (mm)	Ramping		Helical interpolation			
			Max. ramping angle $\theta^\circ$	Total cutting length at Max. $a_p$	Through hole Min. bore dia. Dh min (mm)	Through hole Max. bore dia. Dh max (mm)	Flat bottom Max. bore dia. Dh min (mm)	
MXF-2016-M8	16	0.5	0.4	72	28.2	31	29.6	
MXF-3020-M10	20	0.5	0.3	95	36.2	39	37.6	
MXF-4025-M12	25	0.5	0.2	143	46.2	49	47.6	
MXF-5035-M16	35	0.5	0.15	191	66.2	69	67.6	
MXF-6042-M16	42	0.5	0.1	286	80.2	83	81.6	
XFG-6052R-22	52	0.5	0.1	286	100.2	103	101.6	
XFG-7066R-27	66	0.5	Ramping & helical interpolation is not recommended.					

※Drilling is not recommended.

Please scan the QR code for recommended cutting conditions





## HEADQUARTER

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