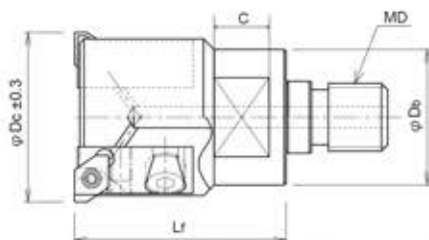
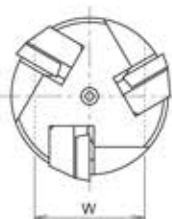


## Back &amp; Forth Cutter

MPF<sup>TYPE</sup>

## BODY

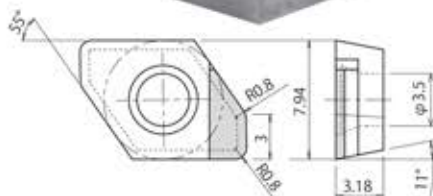
Arbor B193

Cat. No.	Stock	No. of flutes	With/Without Coolant hole	Dimensions (mm)					
				$\phi Dc$	Lr	$\phi Db$	MD	C	W
MPF-2030-M16	<input type="checkbox"/>	2	--	30	50	28	M16	12.5	22
MPF-2033-M16	<input type="checkbox"/>	2	--	33	50	32	M16	12.5	22
MPF-3040-M16	<input type="checkbox"/>	3	●	40	50	32	M16	13	26

- Note) 1. Please refer page B177 for recommended cutting conditions.  
 2. All cutters are supplied without inserts.  
 3. Please refer page B009 for recommended tightening torque.

Clamp Screw	Recommended Torque (N·m)
DSW-307H	1.8

## INSERTS

DPGT0903-W3  
JC8003DPGT0903-W3  
JBN500

Cat. No.	Tolerance	PVD coated	CBN
		JC8003 (Semi-finishing to Finishing)	JBN500 (Superfinishing)
DPGT0903-W3	G	●	□

10 inserts per case, but JBN500: 1 piece per case.

## PARTS

Clamp screw (A)	Wrench for (A) & (B)	Cartridge	Screw for radial adjustment (B)	Set bolt	Wrench for setbolt
DSW-307H	A-10SD	SDGPR09CA-PFC	RSW-05008	HCS5-10	LW-040

## Back &amp; Forth cutter

MPF<sub>TYPE</sub>

## ■ RECOMMENDED CUTTING CONDITIONS

## ● MPF type + MSN Carbide Shank Holder

Work Materials	Insert Grades	Cutting speed Vc (m/min)	Feed per tooth fz (mm/t)	Depth of cut ap (mm)
Cast iron 160-260HB (FC250)	JBN500	1,200 (800~2,000)	0.1 (0.05~0.15)	0.05~0.1
	JC8003	400 (300~500)	0.1 (0.05~0.15)	0.05~0.5
Nodular cast iron 170-200HB (FCD600)	JBN500	1,000 (600~1,500)	0.1 (0.05~0.15)	0.05~0.1
	JC8003	300 (200~400)	0.1 (0.05~0.15)	0.05~0.5
Carbon & Alloy steel (S50C, SCM440)	JC8003	200 (100~300)	0.1 (0.05~0.15)	0.05~0.2

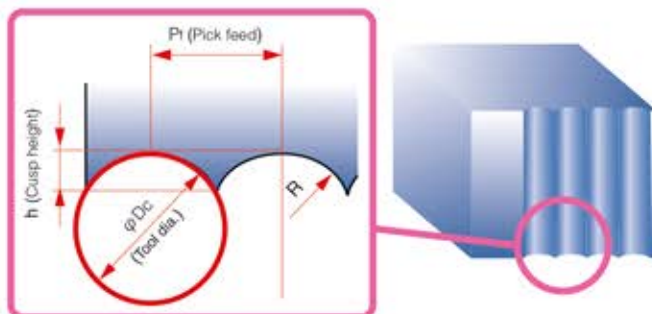
## ■ NOTE

- 1) In case of chattering and rough surface roughness, recommended to reduce feed per tooth.
- 2) In case of using as face mill, recommend to reduce feed per tooth up to 0.05 mm.

## Back &amp; Forth Cutter

PFC TYPE

## ■ SURFACE ROUGHNESS

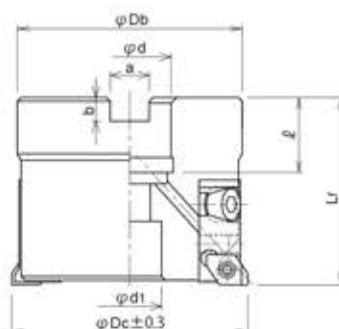


$$h \text{ (Cusp height) } \mu\text{m} = \frac{(Pt)^2}{8R} \times 1000$$

$$R = \frac{\phi Dc \text{ (Tool dia.)}}{2}$$

It is efficient to use large diameter cutter to increase the pick feed. But large diameter cutter may cause interference problem in case of complex work, so to be considered.

## ■ BODY



Cat. No.	Stock	No. of flutes	Dimensions (mm)								Weight (kg)
			φDc	Lf	φDb	φd	φd1	a	b	ℓ	
PFC-4050R-22	●	4	50	50	47	22	17	10.4	6.3	20	0.6
PFC-4063R-22	□	4		50	60	22	17	10.4	6.3	20	1.0
PFC-6063R-22	●	6	63	50	60	22	17	10.4	6.3	20	0.9
PFC-6063R-27	●	6		50	60	27	20	12.4	7	22	0.9
PFC-4080R-27	□	4	80	50	76	27	20	12.4	7	22	1.8
PFC-8080R-27	●	8		50	76	27	20	12.4	7	22	1.8

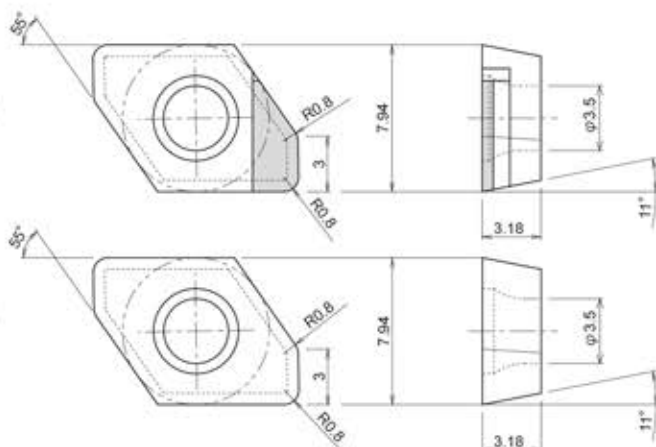
Note)1. All cutters are supplied without inserts.  
2. Please refer page C265 for recommended cutting conditions.

Modular Head Type Please refer Page B179

## Back &amp; Forth Cutter

PFC<sup>TYPE</sup>








## ■ INSERTS

DPGT0903-W3  
JBN500DPGT0903-W3  
JC8003

Cat. No.	Tolerance	PVD coated	CBN
		JC8003 (Semi finishing • Finishing)	JBN500 (Super finishing)
DPGT0903-W3	G	●	□

10 inserts per case, but grade JBN500 insert is packed in 1 piece per case.

## ■ PARTS

Clamp screw	Wrench	Set bolt for arbor	
			
Recommended torque: 1.8N•m		※ for $\phi d=27$ mm cutter	
DSW-307H	A-10SD	M12x1.75x30	
Cartridge	Screw for radial adjustments	Set bolt for cartridge	Wrench for cartridge
			
SDGPR09CA-PFC	RSW-05008	HCS5-10	LW-040