

General-purpose High-precision Multi-function  
Shoulder Milling Cutter

SEC-WAVEMILL **WEZM** series

**WEZ series now offers a  
multi-function type capable of drilling**



**Combining WEZ series and  
GDX series inserts to achieve  
multi-functionality**

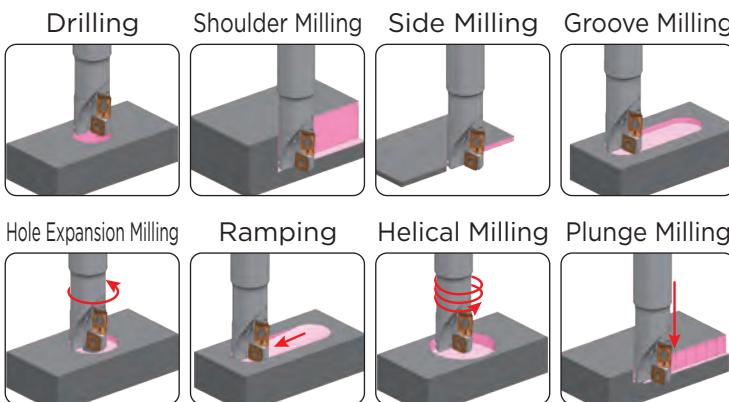


# WEZM series



## ■ Features

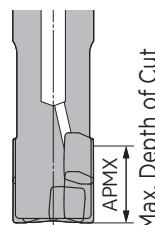
- Multi-function type added to WEZ series
- Insert for WEZ series used as peripheral insert  
Achieves excellent cutting edge sharpness and wall accuracy
- Insert for GDX series used as central insert  
Enables 1D drilling



## ■ Product Range (Multi-function)

Type	Cat. No.	Dia. (mm)			
		ø20	ø21	ø25	ø26
Shank type	<b>WEZM 11000E</b>	19	19	27	27
	<b>WEZM 11000EL</b>	19	19	27	27
Modular type	<b>WEZM 11000M</b>	19	19	27	27

(Max. Depth of Cut: mm)



## ■ Product Range (Insert)

●: Standard stocked item

Size	Process	Series	Tolerance	Cat. No.	Corner Radius (mm)									
					R0.2	R0.4	R0.5	R0.8	R1.0	R1.2	R1.6	R2.0	R2.4	
11 type	Peripheral Insert	WEZ series	M Class	<b>AOMT11T3○○PEER-G</b>	●	●	●	●	●	●	●	●	●	
				<b>AOMT11T3○○PEER-H</b>		●		●		●		●		
		E Class		<b>AOET11T3○○PEER-F</b>	●	●	●	●	●	●	●	●	●	
				<b>AOET11T3○○PEER-P20</b>	●	●	●	●	●	●	●			
				<b>AOET11T3○○PEER-P25</b>	●	●	●	●	●	●	●			
	Central Insert	GDX series	M Class	<b>GDXT070308C-L</b>				●						
				<b>GDXT070308C-G</b>					●					

\*R3.0 and R3.2 cannot be used

\*P type chipbreaker Cat. No. is specific to the cutter diameter. Check "P type Chipbreaker Selection Guide" below.

## ■ P type Chipbreaker Selection Guide

Cat. No.	Dia. (mm)			
	ø20	ø21	ø25	ø26
<b>AOM11T3○○PEER-P●●</b>	-P20		-P25	

# WEZM series

## ■ Insert for GDX Series Used for Central Insert



## ■ Wall Surface Comparison

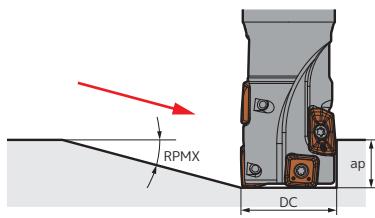


Machine: Vertical Machining Center BT50 Work Material: S50C  
Overhang Amount: 80mm  
Tool: WEZM 11025E2725-07 (ø25)  
Peripheral Insert: AOMT11T308PEER-G (ACU2500)  
Central Insert: GDXT070308C-G  
Cutting Conditions:  $v_c = 150$  m/min  $f_z = 0.15$  mm/rev  $a_p = 27$  mm  $a_e = 5$  mm Dry

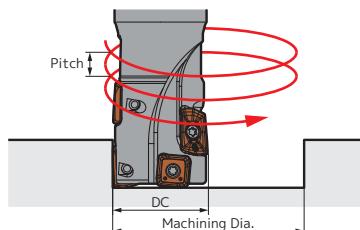
\*Note that the flat head screw sizes for the peripheral and central inserts are different.

## ■ Ramping/Helical Milling Upper Limit

### Ramping



### Helical Milling

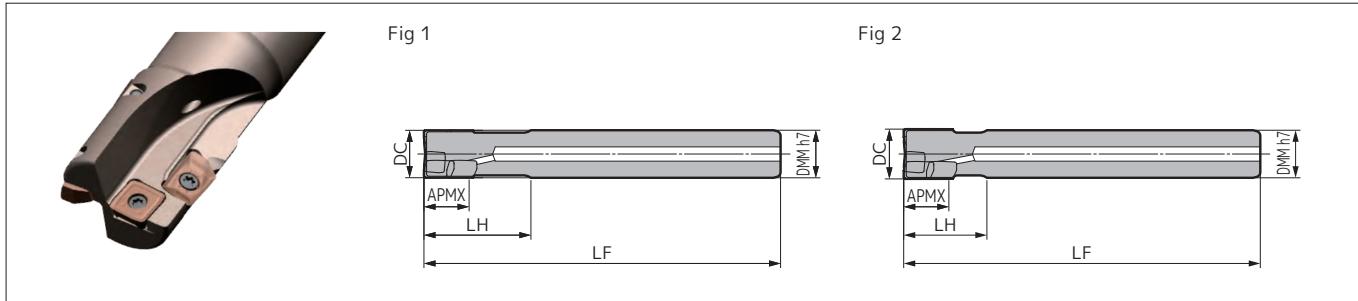
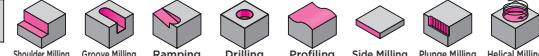


Dia. DC (mm)	Max. Ramping Angle RMPX (°)	Helical Milling	
		Max. Machining Dia. (mm)	Min. Machining Dia. (mm)
20	90	37.3	20.0
21	90	39.3	21.0
25	90	47.3	25.0
26	90	49.3	26.0

## WEZM 11000E(L) type



Rake Angle	Radial	9° to 10°	19.27 mm	90°
Axial		-14° to -15°		



## ■ Body (Shank type)

Dimensions (mm)

Cat. No.	Stock	Dia. DC	Max. Depth of Cut APMX	Shank DMM	Head LH	Overall Length LF	Total No. of Teeth	No. of Steps	Effective No. of Teeth	Weight (kg)	Fig
WEZM 11020E1920-07	○	20	19	20	45	150	3	2	1	0.29	1
WEZM 11021E1920-07	○	21	19	20	35	150	3	2	1	0.30	2
WEZM 11025E2725-07	○	25	27	25	55	150	4	3	1	0.46	1
WEZM 11026E2725-07	○	26	27	25	45	150	4	3	1	0.47	2

Inserts are sold separately.

## ■ Body (Long Shank type)

Dimensions (mm)

Cat. No.	Stock	Dia. DC	Max. Depth of Cut APMX	Shank DMM	Head LH	Overall Length LF	Total No. of Teeth	No. of Steps	Effective No. of Teeth	Weight (kg)	Fig
WEZM 11020EL1920-07	○	20	19	20	60	185	3	2	1	0.36	1
WEZM 11021EL1920-07	○	21	19	20	35	185	3	2	1	0.38	2
WEZM 11025EL2725-07	○	25	27	25	75	220	4	3	1	0.70	1
WEZM 11026EL2725-07	○	26	27	25	45	220	4	3	1	0.72	2

Inserts are sold separately.

## ■ Identification Code

**WEZM 11 020 E L 19 20 - 07**

Series Code	Insert Size	Dia.	Shank type	Max. Depth of Cut	Shank Dia.
			Long Shank		

Central Insert Size

## ■ Parts

	Flat Insert Screw	Wrench	Anti-seizure Cream
Peripheral Insert			
BFTX0306IP	1.5	TRDR08IP*	SUMI-P*
Central Insert	BFTX02506IP		

\*Wrenches and anti-seizure cream are sold separately.

## ■ Recommended Cutting Conditions (Shoulder Milling)

ISO	Work Material	Hardness	Chipbreaker	Cutting Speed vc (m/min)		Feed Rate fz (mm/rev)	Insert Grade
				Min. - Optimum	Max.		
P	Carbon Steel	≤ 280HB	G	80 - 150	200	0.08 - 0.15	0.20
	> 280HB	G		80 - 100	120	0.08 - 0.15	0.20
	Alloy Steel	≤ 280HB	G	80 - 150	180	0.08 - 0.15	0.20
M	Stainless Steel	≤ 280HB	G	80 - 120	160	0.08 - 0.15	0.20
						ACU2500	
						ACS1000	
K	Cast Iron / Ductile Cast Iron	—	G	80 - 150	200	0.08 - 0.15	0.20
						ACK2000	
						ACK3000	
S	Exotic Alloy	—	G	40 - 50	60	0.08 - 0.15	0.20
						ACU2500	
						ACS1000	
N	Aluminum	Si ≤ 12.6%	S	300 - 500	800	0.05 - 0.10	0.15
	Alloy	Si > 12.6%	S	100 - 200	250	0.05 - 0.10	0.15
						H20	

**Note**

- The cutting conditions above are a guide. Actual conditions will need to be adjusted according to machine rigidity, workpiece rigidity, depth of cut and other factors.
- There may be cases where machining cannot be performed under recommended cutting conditions, depending on the machine rigidity and workpiece rigidity.
- For groove milling, adjust the feed rate to around 70% of the above values.

## ■ Recommended Cutting Conditions (Drilling)

ISO	Work Material	Hardness	Chipbreaker	Cutting Speed vc (m/min)		Feed Rate fz (mm/rev)	Min. - Optimum - Max.	Insert Grade
				Min. - Optimum	Max.		Ø20 to Ø21	Ø25 to Ø26
P	Carbon Steel	≤ 280HB	G	100 - 160	220	0.06 - 0.13	0.20	0.06 - 0.14 - 0.22
	> 280HB	G		90 - 120	150	0.05 - 0.10	0.14	0.05 - 0.10 - 0.14
	Alloy Steel	≤ 280HB	G	110 - 140	170	0.05 - 0.10	0.14	0.05 - 0.10 - 0.14
M	Stainless Steel	≤ 280HB	G	120 - 180	210	0.05 - 0.10	0.15	0.05 - 0.10 - 0.15
						ACU2500		
						ACS1000		
K	Cast Iron / Ductile Cast Iron	—	G	100 - 125	150	0.09 - 0.15	0.19	0.09 - 0.16 - 0.22
						ACK2000		
						ACK3000		
S	Exotic Alloy	—	G	15 - 20	25	0.06 - 0.08	0.10	0.06 - 0.08 - 0.10
						ACU2500		
						ACS1000		
N	Aluminum	Si ≤ 12.6%	S	200 - 260	320	0.06 - 0.11	0.17	0.06 - 0.11 - 0.17
	Alloy	Si > 12.6%	S	70 - 100	120	0.06 - 0.11	0.17	0.06 - 0.11 - 0.17
						H20		

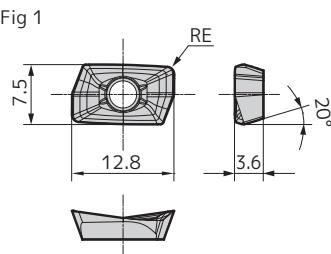
**Note**

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- There may be cases where machining cannot be performed under recommended cutting conditions, depending on the machine rigidity and workpiece rigidity.

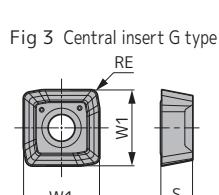
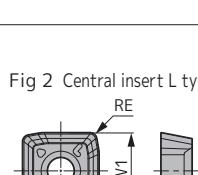
\*For holes over 3mm deep, 0.3 to 1mm step machining is recommended for chip breaking.

## ■ Insert (Peripheral Insert)

Grade Classification		Coated Carbide						Carbide		DLC		Cermet		Dimensions (mm)		
Process	High-speed/Light Cutting	P	K	M	S	M	S	M	S	N	P	N	P			
	Medium Cutting	K	P	K	M	S	M	S	M	N	N					
	Roughing	K	P	K	M	S	M	S	M							
Cat. No.		ACU2500	ACP2000	ACP3000	ACK2000	ACK3000	ACS1000	ACS2500	ACS3000	ACM200	ACM300	H20	DL2000	T2500A	Corner Radius RE	Fig
<b>AOMT 11T302PEER-G</b>		●	●	●	●	●	●	●	●	▲	▲	—	—	●	0.2	1
<b>11T304PEER-G</b>		●	●	●	●	●	●	●	●	▲	▲	—	—	●	0.4	1
<b>11T305PEER-G</b>		●	—	—	—	—	—	—	—	▲	▲	—	—	—	0.5	1
<b>11T308PEER-G</b>		●	●	●	●	●	●	●	●	▲	▲	—	—	●	0.8	1
<b>11T310PEER-G</b>		●	—	—	—	—	—	—	—	▲	▲	—	—	—	1.0	1
<b>11T312PEER-G</b>		●	—	●	●	●	●	●	●	▲	▲	—	—	—	1.2	1
<b>11T316PEER-G</b>		●	—	●	●	●	●	●	●	▲	▲	—	—	—	1.6	1
<b>11T320PEER-G</b>		●	—	●	●	●	●	●	●	▲	▲	—	—	—	2.0	1
<b>11T324PEER-G</b>		●	—	—	—	—	—	—	—	▲	▲	—	—	—	2.4	1
<b>AOMT 11T304PEER-H</b>		●	●	●	●	●	●	●	●	▲	▲	—	—	—	0.4	1
<b>11T308PEER-H</b>		●	●	●	●	●	●	●	●	▲	▲	—	—	—	0.8	1
<b>11T312PEER-H</b>		●	—	—	—	—	—	—	—	▲	▲	—	—	—	1.2	1
<b>11T316PEER-H</b>		●	—	—	—	—	—	—	—	▲	▲	—	—	—	1.6	1
<b>AOET 11T302PEER-F</b>		●	—	—	—	—	—	●	—	—	—	—	—	—	0.2	1
<b>11T304PEER-F</b>		●	—	—	—	—	—	●	—	—	—	—	—	—	0.4	1
<b>11T305PEER-F</b>		●	—	—	—	—	—	—	—	—	—	—	—	—	0.5	1
<b>11T308PEER-F</b>		●	—	—	—	—	—	●	—	—	—	—	—	—	0.8	1
<b>11T310PEER-F</b>		●	—	—	—	—	—	—	—	—	—	—	—	—	1.0	1
<b>11T312PEER-F</b>		●	—	—	—	—	—	●	—	—	—	—	—	—	1.2	1
<b>11T316PEER-F</b>		●	—	—	—	—	—	—	—	—	—	—	—	—	1.6	1
<b>11T320PEER-F</b>		●	—	—	—	—	—	●	—	—	—	—	—	—	2.0	1
<b>11T324PEER-F</b>		●	—	—	—	—	—	—	—	—	—	—	—	—	2.4	1
<b>AOET 11T302PEER-P20</b>		●	—	—	—	—	—	—	—	—	—	—	—	—	0.2	1
<b>11T304PEER-P20</b>		●	—	—	—	—	—	—	—	—	—	—	—	—	0.4	1
<b>11T305PEER-P20</b>		●	—	—	—	—	—	—	—	—	—	—	—	—	0.5	1
<b>11T308PEER-P20</b>		●	—	—	—	—	—	—	—	—	—	—	—	—	0.8	1
<b>11T310PEER-P20</b>		●	—	—	—	—	—	—	—	—	—	—	—	—	1.0	1
<b>11T312PEER-P20</b>		●	—	—	—	—	—	—	—	—	—	—	—	—	1.2	1
<b>AOET 11T302PEER-P25</b>		●	—	—	—	—	—	—	—	—	—	—	—	—	0.2	1
<b>11T304PEER-P25</b>		●	—	—	—	—	—	—	—	—	—	—	—	—	0.4	1
<b>11T305PEER-P25</b>		●	—	—	—	—	—	—	—	—	—	—	—	—	0.5	1
<b>11T308PEER-P25</b>		●	—	—	—	—	—	—	—	—	—	—	—	—	0.8	1
<b>11T310PEER-P25</b>		●	—	—	—	—	—	—	—	—	—	—	—	—	1.0	1
<b>11T312PEER-P25</b>		●	—	—	—	—	—	—	—	—	—	—	—	—	1.2	1
<b>AOET 11T302PEFR-S</b>		—	—	—	—	—	—	—	●	●	●	—	—	—	0.2	1
<b>11T304PEFR-S</b>		—	—	—	—	—	—	—	●	●	●	—	—	—	0.4	1
<b>11T305PEFR-S</b>		—	—	—	—	—	—	—	●	●	●	—	—	—	0.5	1
<b>11T308PEFR-S</b>		—	—	—	—	—	—	—	●	●	●	—	—	—	0.8	1
<b>11T310PEFR-S</b>		—	—	—	—	—	—	—	●	●	●	—	—	—	1.0	1
<b>11T312PEFR-S</b>		—	—	—	—	—	—	—	●	●	●	—	—	—	1.2	1
<b>11T316PEFR-S</b>		—	—	—	—	—	—	—	●	●	●	—	—	—	1.6	1
<b>11T320PEFR-S</b>		—	—	—	—	—	—	—	●	●	●	—	—	—	2.0	1
<b>11T324PEFR-S</b>		—	—	—	—	—	—	—	●	●	●	—	—	—	2.4	1

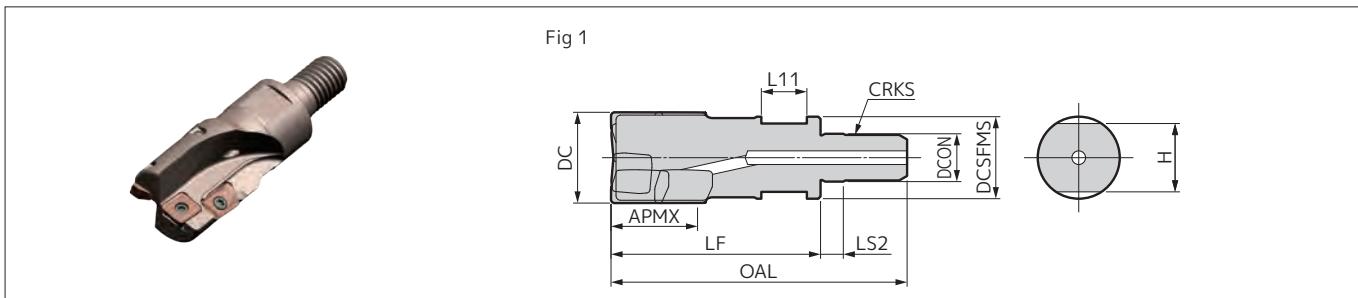
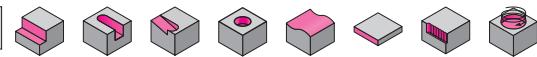


Grade Classification		Coated Carbide												Dimensions (mm)	
Process	High-speed/Light Cutting	P	K	M	S	M	S	M	S	N	P				
	Medium Cutting	K	P	K	M	S	M	S	M	N	N				
	Roughing	K	P	K	M	S	M	S	M						
Cat. No.		ACU2500	Width W1	Thickness S	Corner Radius RE	Fig									
<b>GDXT 070308C-L</b>		●	8.6	3.18	0.8	2									
<b>070308C-G</b>		●	8.6	3.31	0.8	3									



## WEZM 11000M type

Rake Angle	Radial	9° to 10°	19.27 mm	90°
Axial		-14° to -15°		
	Shoulder Milling	Groove Milling	Ramping	Drilling



## ■ Body (Modular type)

Dimensions (mm)

Cat. No.	Stock	Dia. DC	Max. Depth of Cut APMX	Boss DCSFMS	Mounting Dia. DCON	Screw CRKS	Overall Length OAL	Effective Length LF	Length LS2	Flat L11	Width H	Total No. of Teeth	No. of Steps	Effective No. of Teeth	Weight (kg)	Fig
WEZM 11020M1019Z1-07	○	20	19	18	10.5	M10	65	46	5	10	15	3	2	1	0.07	1
WEZM 11021M1019Z1-07	○	21	19	18	10.5	M10	65	46	5	10	15	3	2	1	0.07	1
WEZM 11025M1227Z1-07	○	25	27	22	12.5	M12	73	52	5	11	19	4	3	1	0.11	1
WEZM 11026M1227Z1-07	○	26	27	22	12.5	M12	73	52	5	11	19	4	3	1	0.12	1

Inserts are sold separately.

## ■ Identification Code

WEZM 11 020 M10 19 Z1 - 07

Series Code	Insert Size	Dia.	Mounting Screw Size	Max. Depth of Cut	Number of Flutes	Central Insert Size
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## ■ Parts

	Flat Insert Screw	Wrench	Anti-seizure Cream
Peripheral Insert	BFTX0306IP		
Central Insert	BFTX02506IP	1.5	TRDR08IP*
			SUMI-P*

\*Wrenches and anti-seizure cream are sold separately.

## ■ Recommended Cutting Conditions (Shoulder Milling)

ISO	Work Material	Hardness	Chipbreaker	Cutting Speed vc (m/min)		Feed Rate fz (mm/rev)	Insert Grade
				Min. - Optimum	Max.		
P	Carbon Steel	≤ 280HB	G	80 - 150	200	0.08 - 0.15 - 0.20	ACU2500
		> 280HB	G	80 - 100	120	0.08 - 0.15 - 0.20	ACP2000
	Alloy Steel	≤ 280HB	G	80 - 150	180	0.08 - 0.15 - 0.20	ACP3000
M	Stainless Steel	≤ 280HB	G	80 - 120	160	0.08 - 0.15 - 0.20	ACU2500 ACS1000 ACS2500 ACS3000
		≥ 280HB	G	80 - 120	160	0.08 - 0.15 - 0.20	ACU2500 ACS1000 ACS2500 ACS3000
K	Cast Iron / Ductile Cast Iron	—	G	80 - 150	200	0.08 - 0.15 - 0.20	ACU2500 ACK2000 ACK3000
		—	G	80 - 150	200	0.08 - 0.15 - 0.20	ACK2000 ACK3000
S	Exotic Alloy	—	G	40 - 50	60	0.08 - 0.15 - 0.20	ACU2500 ACS1000 ACS2500 ACS3000
		—	G	40 - 50	60	0.08 - 0.15 - 0.20	ACU2500 ACS1000 ACS2500 ACS3000
N	Aluminum Alloy	Si ≤ 12.6%	S	300 - 500	800	0.05 - 0.10 - 0.15	DL2000
		Si > 12.6%	S	100 - 200	250	0.05 - 0.10 - 0.15	H20

- Note** · The cutting conditions above are a guide. Actual conditions will need to be adjusted according to machine rigidity, workpiece rigidity, depth of cut and other factors.  
· There may be cases where machining cannot be performed under recommended cutting conditions, depending on the machine rigidity and workpiece rigidity.  
· For groove milling, adjust the feed rate to around 70% of the above values.

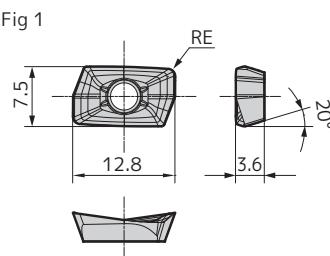
## ■ Recommended Cutting Conditions (Drilling)

ISO	Work Material	Hardness	Chipbreaker	Cutting Speed vc (m/min)		Feed Rate fz (mm/rev)	Optimum	Max. Ø20 to Ø21	Ø25 to Ø26	Insert Grade
				Min. - Optimum	Max.					
P	Carbon Steel	≤ 280HB	G	100 - 160	220	0.06 - 0.13 - 0.20	0.06 - 0.14 - 0.22	ACU2500		
		> 280HB	G	90 - 120	150	0.05 - 0.10 - 0.14	0.05 - 0.10 - 0.14	ACP2000		
	Alloy Steel	≤ 280HB	G	110 - 140	170	0.05 - 0.10 - 0.14	0.05 - 0.10 - 0.14	ACP3000		
M	Stainless Steel	≤ 280HB	G	120 - 180	210	0.05 - 0.10 - 0.15	0.05 - 0.10 - 0.15		ACU2500 ACS1000 ACS2500 ACS3000	
		≥ 280HB	G	120 - 180	210	0.05 - 0.10 - 0.15	0.05 - 0.10 - 0.15		ACU2500 ACS1000 ACS2500 ACS3000	
K	Cast Iron / Ductile Cast Iron	—	G	100 - 125	150	0.09 - 0.15 - 0.19	0.09 - 0.16 - 0.22	ACK2000 ACK3000		
		—	G	100 - 125	150	0.09 - 0.15 - 0.19	0.09 - 0.16 - 0.22	ACK2000 ACK3000		
S	Exotic Alloy	—	G	15 - 20	25	0.06 - 0.08 - 0.10	0.06 - 0.08 - 0.10		ACU2500 ACS1000 ACS2500 ACS3000	
		—	G	15 - 20	25	0.06 - 0.08 - 0.10	0.06 - 0.08 - 0.10		ACU2500 ACS1000 ACS2500 ACS3000	
N	Aluminum Alloy	Si ≤ 12.6%	S	200 - 260	320	0.06 - 0.11 - 0.17	0.06 - 0.11 - 0.17	DL2000		
		Si > 12.6%	S	70 - 100	120	0.06 - 0.11 - 0.17	0.06 - 0.11 - 0.17	H20		

- Note** · The cutting conditions above are a guide. Actual conditions will need to be adjusted according to machine rigidity, workpiece rigidity, depth of cut and other factors.  
· There may be cases where machining cannot be performed under recommended cutting conditions, depending on the machine rigidity and workpiece rigidity.  
\*For holes over 3mm deep, 0.3 to 1mm step machining is recommended for chip breaking.

## ■ Insert (Peripheral Insert)

Grade Classification		Coated Carbide						Carbide		DLC		Cermet		Dimensions (mm)		
Process	High-speed/Light Cutting	P	K	M	S	M	S	M	S	N	P	N	P			
	Medium Cutting	K	P	K	M	S	M	S	M	N	N					
	Roughing	K	P	K	M	S	M	S	M							
Cat. No.		ACU2500	ACP2000	ACP3000	ACK2000	ACK3000	ACS1000	ACS2500	ACS3000	ACM200	ACM300	H20	DL2000	T2500A	Corner Radius RE	Fig
<b>AOMT 11T302PEER-G</b>		●	●	●	●	●	●	●	●	▲	▲	—	—	●	0.2	1
<b>11T304PEER-G</b>		●	●	●	●	●	●	●	●	▲	▲	—	—	●	0.4	1
<b>11T305PEER-G</b>		●	—	—	—	—	—	—	—	▲	▲	—	—	—	0.5	1
<b>11T308PEER-G</b>		●	●	●	●	●	●	●	●	▲	▲	—	—	●	0.8	1
<b>11T310PEER-G</b>		●	—	—	—	—	—	—	—	▲	▲	—	—	—	1.0	1
<b>11T312PEER-G</b>		●	—	●	●	●	●	●	●	▲	▲	—	—	—	1.2	1
<b>11T316PEER-G</b>		●	—	●	●	●	●	●	●	▲	▲	—	—	—	1.6	1
<b>11T320PEER-G</b>		●	—	●	●	●	●	●	●	▲	▲	—	—	—	2.0	1
<b>11T324PEER-G</b>		●	—	—	—	—	—	—	—	▲	▲	—	—	—	2.4	1
<b>AOMT 11T304PEER-H</b>		●	●	●	●	●	●	●	●	▲	▲	—	—	—	0.4	1
<b>11T308PEER-H</b>		●	●	●	●	●	●	●	●	▲	▲	—	—	—	0.8	1
<b>11T312PEER-H</b>		●	—	—	—	—	—	—	—	▲	▲	—	—	—	1.2	1
<b>11T316PEER-H</b>		●	—	—	—	—	—	—	—	▲	▲	—	—	—	1.6	1
<b>AOET 11T302PEER-F</b>		●	—	—	—	—	—	—	—	—	—	—	—	—	0.2	1
<b>11T304PEER-F</b>		●	—	—	—	—	—	—	—	●	—	—	—	—	0.4	1
<b>11T305PEER-F</b>		●	—	—	—	—	—	—	—	—	—	—	—	—	0.5	1
<b>11T308PEER-F</b>		●	—	—	—	—	—	—	—	●	—	—	—	—	0.8	1
<b>11T310PEER-F</b>		●	—	—	—	—	—	—	—	—	—	—	—	—	1.0	1
<b>11T312PEER-F</b>		●	—	—	—	—	—	—	—	●	—	—	—	—	1.2	1
<b>11T316PEER-F</b>		●	—	—	—	—	—	—	—	—	—	—	—	—	1.6	1
<b>11T320PEER-F</b>		●	—	—	—	—	—	—	—	●	—	—	—	—	2.0	1
<b>11T324PEER-F</b>		●	—	—	—	—	—	—	—	—	—	—	—	—	2.4	1
<b>AOET 11T302PEER-P20</b>		●	—	—	—	—	—	—	—	—	—	—	—	—	0.2	1
<b>11T304PEER-P20</b>		●	—	—	—	—	—	—	—	—	—	—	—	—	0.4	1
<b>11T305PEER-P20</b>		●	—	—	—	—	—	—	—	—	—	—	—	—	0.5	1
<b>11T308PEER-P20</b>		●	—	—	—	—	—	—	—	—	—	—	—	—	0.8	1
<b>11T310PEER-P20</b>		●	—	—	—	—	—	—	—	—	—	—	—	—	1.0	1
<b>11T312PEER-P20</b>		●	—	—	—	—	—	—	—	—	—	—	—	—	1.2	1
<b>AOET 11T302PEER-P25</b>		●	—	—	—	—	—	—	—	—	—	—	—	—	0.2	1
<b>11T304PEER-P25</b>		●	—	—	—	—	—	—	—	—	—	—	—	—	0.4	1
<b>11T305PEER-P25</b>		●	—	—	—	—	—	—	—	—	—	—	—	—	0.5	1
<b>11T308PEER-P25</b>		●	—	—	—	—	—	—	—	—	—	—	—	—	0.8	1
<b>11T310PEER-P25</b>		●	—	—	—	—	—	—	—	—	—	—	—	—	1.0	1
<b>11T312PEER-P25</b>		●	—	—	—	—	—	—	—	—	—	—	—	—	1.2	1
<b>AOET 11T302PEFR-S</b>		—	—	—	—	—	—	—	—	●	●	—	—	—	0.2	1
<b>11T304PEFR-S</b>		—	—	—	—	—	—	—	—	●	●	—	—	—	0.4	1
<b>11T305PEFR-S</b>		—	—	—	—	—	—	—	—	●	●	—	—	—	0.5	1
<b>11T308PEFR-S</b>		—	—	—	—	—	—	—	—	●	●	—	—	—	0.8	1
<b>11T310PEFR-S</b>		—	—	—	—	—	—	—	—	●	●	—	—	—	1.0	1
<b>11T312PEFR-S</b>		—	—	—	—	—	—	—	—	●	●	—	—	—	1.2	1
<b>11T316PEFR-S</b>		—	—	—	—	—	—	—	—	●	●	—	—	—	1.6	1
<b>11T320PEFR-S</b>		—	—	—	—	—	—	—	—	●	●	—	—	—	2.0	1
<b>11T324PEFR-S</b>		—	—	—	—	—	—	—	—	●	●	—	—	—	2.4	1



Peripheral Insert: -G: General-purpose, -H: Strong Edge, -F: Medium Finishing, -P20/-P25: High-precision Machining, -S: Non-Ferrous Metals.

\*For the 2nd step on, use R0.8 or below.

\*-P20 is applicable to cutter diameters ø20 and ø21. -P25 is applicable to cutter diameters ø25 and ø26.

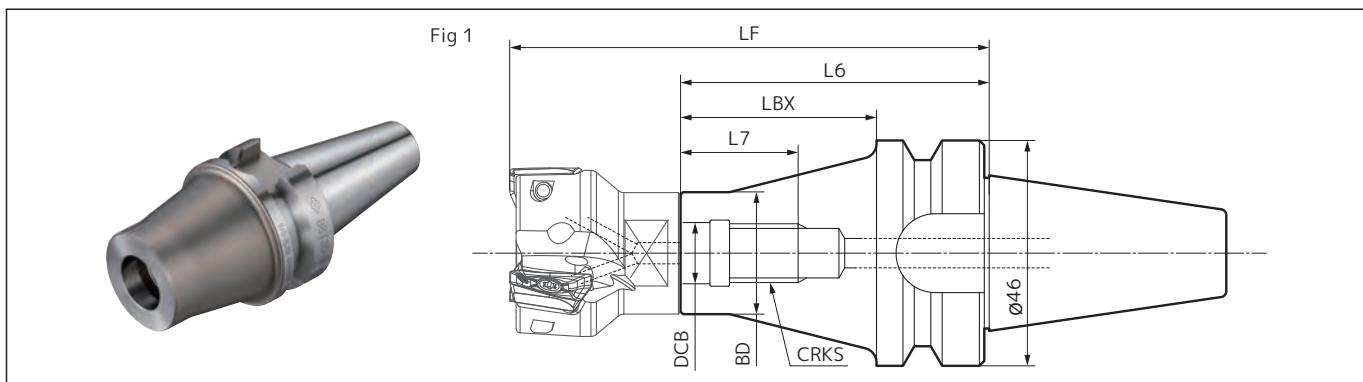
## ■ Insert (Central Insert)

Grade Classification		Coated Carbide						Carbide		DLC		Cermet		Dimensions (mm)	
Process	High-speed/Light Cutting	P	K	M	S	M	S	M	S	N	P	N	P		
	Medium Cutting	K	P	K	M	S	M	S	M	N	N				
	Roughing	K	P	K	M	S	M	S	M						
Cat. No.		ACU2500	Width W1	Thickness S	Corner Radius RE	Fig		Fig 2 Central insert L type		Fig 3 Central insert G type					
<b>GDXT 070308C-L</b>		●	8.6	3.18	0.8	2									
<b>070308C-G</b>		●	8.6	3.31	0.8	3									



Recommended Tightening Torque (N·m) ● mark: Standard stocked item ▲ mark: To be replaced by a new product, made to order, or discontinued Blank: Made-to-order item — mark: Not available

## ■ BBT Integrated type - SEC-Modular Tools Special Arbors



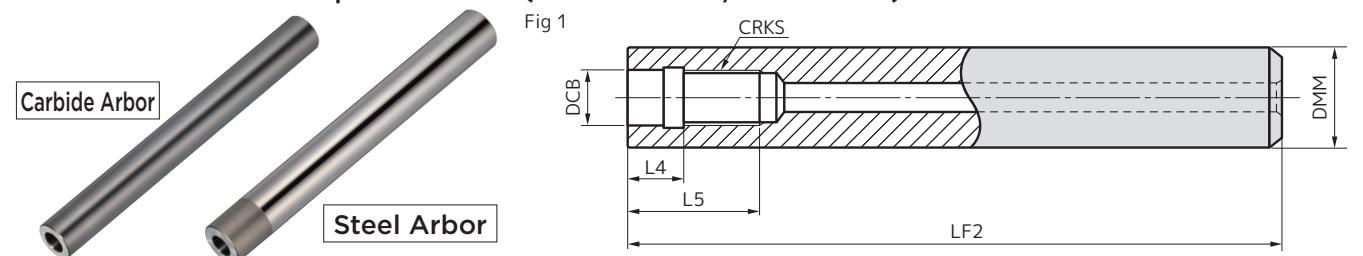
## ■ BBT Integrated Arbor

Cat. No.	Stock	Screw CRKS	Hole Dia. DCB	External Dia. BD	Body Overhang L6	Length LBX	Thread Depth L7	Overhang LF <sup>1</sup>	Dimensions (mm)	
									Fig	
<b>BBT30-M10-45</b>	●	M10	10.5	19.9	67	45	20	113	Yes	1
<b>M12-40</b>	●	M12	12.5	24.9	62	40	22	114	Yes	1

\*1: Overhang length for LF is with head mounted.

Can also be used with BT30 spindle machines.

## ■ SEC-Modular Tools - Special Arbors (Carbide Arbor/Steel Arbor)



## ■ Carbide Arbor

Cat. No.	Stock	Screw CRKS	Hole Dia. DCB	Shank DMM	Overall Length LF2	Depth L4	Thread Depth L5	Overhang LF <sup>2</sup>	Dimensions (mm)	
									Fig	
<b>MA18M10L150C</b>	●	M10	10.5	18	150	10	20	196	1	
<b>18M10L200C</b>	●	M10	10.5	18	200	10	20	246	1	
<b>20M10L150C</b>	●	M10	10.5	20	150	10	20	196	1	
<b>20M10L200C</b>	●	M10	10.5	20	200	10	20	246	1	
<b>MA23M12L200C</b>	●	M12	12.5	23	200	10	22	252	1	
<b>23M12L250C</b>	●	M12	12.5	23	250	10	22	302	1	
<b>25M12L200C</b>	●	M12	12.5	25	200	10	22	252	1	
<b>25M12L250C</b>	●	M12	12.5	25	250	10	22	302	1	

## ● Set Dimensions (\*2)



## ■ Steel Arbor

Cat. No.	Stock	Screw CRKS	Hole Dia. DCB	Shank DMM	Overall Length LF2	Depth L4	Thread Depth L5	Overhang LF <sup>2</sup>	Dimensions (mm)	
									Fig	
<b>MA20M10L150S</b>	●	M10	10.5	20	150	10	20	196	1	
<b>25M12L200S</b>	●	M12	12.5	25	200	10	22	252	1	

## ■ Recommended Tightening Torque (N·m)

### \*Take care when tightening the head.

- When mounting the head to an arbor, follow the regulated tightening torque in the table below.
- Check the mounting screw size for the head and arbor beforehand.

Screw Size	Regulated Tightening Torque (N·m)
<b>M10</b>	<b>46</b>
<b>M12</b>	<b>60</b>



## ■ Identification Code

**MA 20 M10 L150 C**

Series Code      Shank Dia.      Mounting Screw Size      Arbor Overall Length      Arbor Material  
(C: Carbide  
S: Steel)

● mark: Standard stocked item



- Very hot or lengthy chips may be discharged while the machine is in operation. Therefore, machine guards, safety goggles or other protective covers must be used. Fire safety precautions must also be considered.

## < SAFETY NOTES >

- Please handle with care as this product has sharp edges.
- Improper cutting conditions or mis-handling of the tool may result in breakages or projectiles. Therefore, please use the tool within its recommended conditions.

- When using non-water soluble cutting oil, precautions against fire must be taken and please ensure that a fire extinguisher is placed near the machine.

 **Sumitomo Electric Industries, Ltd.**

## Hardmetal Division

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