

High Precision Multi-purpose Shoulder Milling Cutter

SEC-WaveMill **WEZ** Series

Rev. 6

Ultra-Refined "Universal" Cutter



New Repeater Type WEZR Type
28 New Items



Features

- **Supports A Variety of Machining Operations**
A lineup of cutter sizes from $\phi 14$ to $\phi 160$ mm which enable large ramping angles, 28 repeater type items are now available in addition to the modular type and short shank type
- **Excellent Machining Quality**
With a combination of optimised cutting edge shape and high-precision molding technology, superb wall accuracy and surface finish quality are achieved.
- **Excellent Sharpness with Low Resistance**
Reducing machining noise and suppressing burrs, the lineup includes ground type inserts with a focus on sharpness.
- **Applicable to Various Work Materials**
In addition to the general-purpose grade ACU2500, the new-generation coated carbide grades XCU2500/XCK2000 are available. Applicable to various work materials such as steel, stainless steel, cast iron, exotic alloys, and more.

Product Range (Standard)

Type	Cat. No.	Dia. (mm)																		
		$\phi 14$	$\phi 16$	$\phi 18$	$\phi 20$	$\phi 22$	$\phi 25$	$\phi 26$	$\phi 28$	$\phi 30$	$\phi 32$	$\phi 35$	$\phi 40$	$\phi 50$	$\phi 63$	$\phi 80$	$\phi 100$	$\phi 125$	$\phi 160$	
Shell	WEZ 11000RS												4 6	5 7	6 8	7 10	9 12			
	WEZ 11000R <small>Inch</small>															7 10	9 12			
	WEZ 17000RS												3 4	3 5	4 6	4 7	5 8	6 11	9 12	8 10
	WEZ 17000R <small>Inch</small>															4 7	5 8	6 11	9 12	8 10
Shank	WEZ 11000E	1	2*	2	2 3*	3			2 3*	4	4		2 3 4 5*	5	2 4 6	5 7	8	10		
	WEZ 11000ES <small>For multi-tasking machines</small>	1	2*		3*				4*											
	WEZ 11000EL	1	2*	2	2*	2	2*	3		2	2		2 3	2 3	2	3				
	WEZ 17000E						2*			2	3		2 3*	3	3 4	3 5*	4 6*	7		
	WEZ 17000ES <small>For multi-tasking machines</small>						2						3							
	WEZ 17000EL						2			2	2		2 3	2	2 4	3 5*	4 6*			
	WEZ 11000M		2	2	2 3	3	2 3 4	4 5	4 5	2 4 5	2 3 4 5	2 5	2 5 6							
WEZ 17000M						2 3			2 2 3	2 3 4	2 3 4	2 3 4								

Number in ●●● shows the number of teeth (expanded items are shown in red with white borders) Inch Bore * mark: Different-diameter shanks in stock

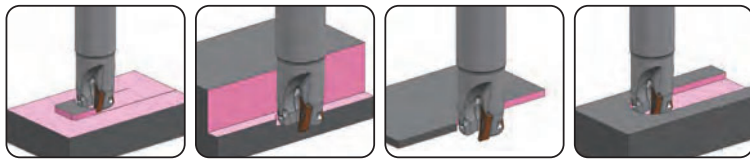
Product Range (Repeaters) *New*

Type	Cat. No.	Dia. (mm)								
		$\phi 20$	$\phi 25$	$\phi 30$	$\phi 32$	$\phi 35$	$\phi 40$	$\phi 50$	$\phi 63$	$\phi 80$
Shell	WEZR 11000RS						4	4		
	WEZR 17000RS							2 3 4	3 4 5	5
Shank	WEZR 11000E	1 2	2	2	2 3	3	3 4			
	WEZR 17000E						2 3	2 3		
Modular	WEZR 11000M				3					
	WEZR 17000M						3			

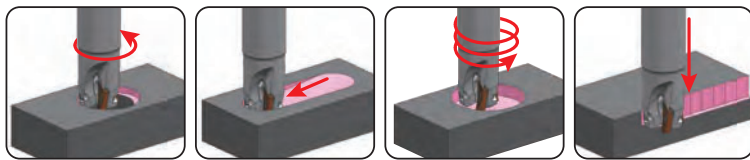
Numbers in ●●● represent the effective number of teeth

■ Supports Ramping/Helical Milling/Plunge Milling
Applicable to various applications!

Face Milling Shoulder Milling Side Milling Groove Milling



Hole Expansion Ramping Helical Milling* Plunge Milling



*Helical milling is not recommended for WEZR Type products.

■ Optimised Body Design
Wide Guide Face
for Stable Insert Clamping



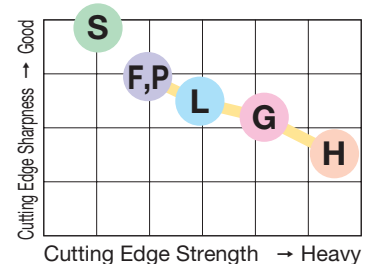
■ Chipbreaker Selection

Work Material	P Steel, M Stainless Steel, K Cast Iron, S Heat-resistant Alloy, Titanium Alloy, H Hardened Steel					N Non-Ferrous Metal
Applications	Light Cutting	General-purpose to Interrupted Milling	Heavy Cutting	Light Cutting	Light Cutting	Non-Ferrous Metals
Features	Low-rigidity Machining	Standard	Heavy Interrupted Cutting Hardened Steel	Medium Finishing Burr Prevention	High-precision Machining High Wall Surface Squareness	Low Resistance
Chipbreaker	L Type	G Type	H Type	F Type	P Type	S Type
Cutting Edge Cross Section	11 Type	Not Available	0.05mm 28°	0.15mm 20°	28°	28°
	17 Type	0.05mm 28°	0.15mm 20°	0.2mm 10°	28°	28°

■ Insert Size Comparison



■ Chipbreaker Selection Guide



■ Product Range (Insert)

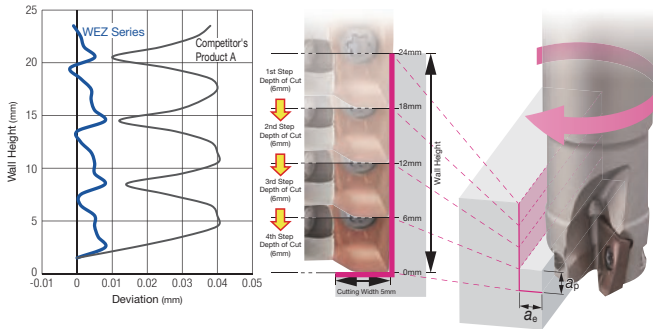
●: Standard stocked item

Type	Class	Cat. No.	Corner Radius (mm)													
			R0.2	R0.4	R0.5	R0.8	R1.0	R1.2	R1.6	R2.0	R2.4	R3.0	R3.2	R4.0	R5.0	R6.4
11 Type	M Class	AOMT11T3○○PEER-G	●	●	●	●	●	●	●	●	●	●				
		AOMT11T3○○PEER-H		●		●		●	●							
	E Class	AOET11T3○○PEER-F	●	●	●	●	●	●	●	●	●	●	●			
		AOET11T3○○PEER-P16	●	●	●	●	●	●	●							
		AOET11T3○○PEER-P20	●	●	●	●	●	●	●							
		AOET11T3○○PEER-P25	●	●	●	●	●	●	●							
		AOET11T3○○PEFR-S	●	●	●	●	●	●	●	●	●	●	●			
17 Type	M Class	AOMT1705○○PEER-L	●	●		●		●	●							
		AOMT1705○○PEER-G	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	E Class	AOMT1705○○PEER-H		●		●		●	●							
		AOET1705○○PEER-F	●	●	●	●	●	●	●	●	●	●	●	●	●	●
		AOET1705○○PEER-P25	●	●	●	●	●	●	●							
		AOET1705○○PEER-P32	●	●	●	●	●	●	●							
		AOET1705○○PEFR-S	●	●	●	●	●	●	●	●	●	●	●	●	●	●

P type chipbreaker Cat. No. is specific to a range of cutter diameters. For details, see the P Type Chipbreaker Selection Guide on P5.

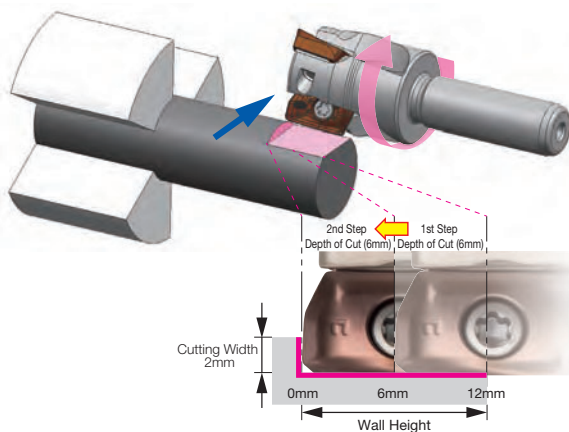
■ Cutting Performance

- Good wall accuracy



Machine : Vertical Machining Centre BT40 Work Material: S50C
 Tool : WEZ 11020E03 (ø20, 3 flutes)
 Insert : AOMT 11T308PEER-G (ACU2500)
 Cutting Conditions: $v_c = 150\text{m/min}$, $f_z = 0.15\text{mm/t}$, $a_p=6\text{mm}$ x 4 Passes, $a_e= 5\text{mm}$, Dry

- Good wall accuracy (for multi-tasking machines)

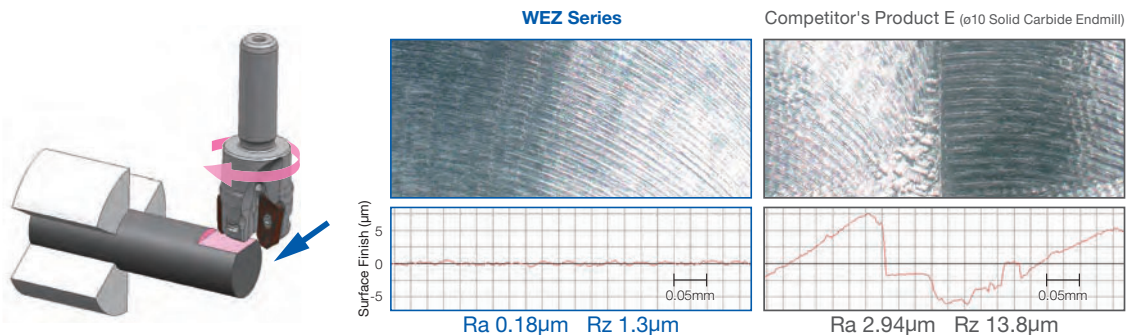


Machine : Multi-tasking Machine Work Material: SUS304 ø16 Round Bar
 Tool : WEZ 11020ES03-10 (ø20, 3 flutes)
 Insert : AOET 11T308PEER-F (ACU2500)
 Cutting Conditions: $v_c=100\text{m/min}$, $f_z=0.08\text{mm/t}$, $a_p=6\text{mm}$ x 2 Passes, $a_e=2\text{mm}$, Wet

- Excellent machined surface quality (for multi-tasking machines)

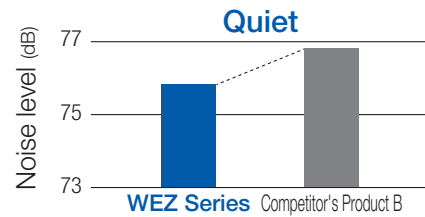
Larger tool diameter than solid carbide endmills enables reduced number of passes for high-efficiency machining!

Good wall accuracy and machined surface quality, eliminating the finishing process!



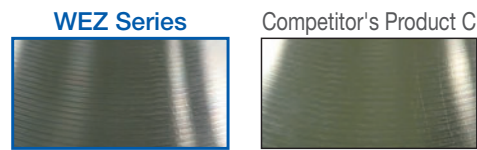
Machine : Multi-tasking Machine Work Material: SUS304 ø16 Round Bar Tool: WEZ 11020ES03-10 (ø20, 3 flutes)
 Insert : AOET 11T308PEER-F (ACU2500)
 Cutting Conditions: **WEZ Series** $v_c=100\text{m/min}$, $f_z=0.05\text{mm/t}$, $a_p=2\text{mm}$, $a_e=12\text{mm}$, Wet
 Competitor's Product E $v_c=100\text{m/min}$, $f_z=0.05\text{mm/t}$, $a_p=2\text{mm}$, $a_e=6\text{mm}$ x 2 Passes, Wet (Solid Carbide Endmill)

- Lower cutting force helps reduce machining noise

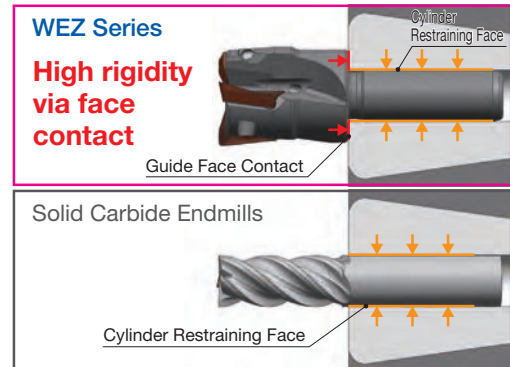
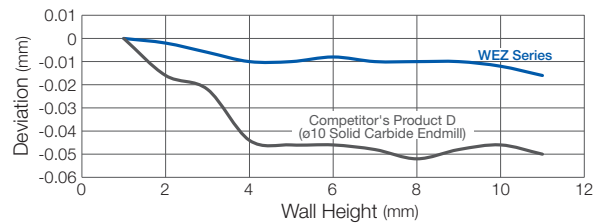


Machine : Vertical Machining Centre BT40, Work Material: S50C
 Tool : WEZ 11020E03 (ø20, 3 flutes)
 Insert : AOMT 11T308PEER-G (ACU2500)
 Cutting Conditions : $v_c = 150\text{m/min}$, $f_z = 0.15\text{mm/t}$, $a_p=8\text{mm}$, $a_e= 5\text{mm}$, Dry

- Excellent surface quality



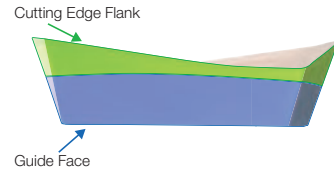
Machine : Vertical Machining Centre BT50, Work Material: SCM440
 Tool : WEZ 17100RS08 (ø100, 8 flutes)
 Insert : AOMT 170508PEER-G (ACU2500)
 Cutting Conditions : $v_c = 250\text{m/min}$, $f_z = 0.15\text{mm/t}$, $a_p=2\text{mm}$, $a_e= 85\text{mm}$, Dry



High-precision Ground Type Insert with Excellent Sharpness

- Ground finish on cutting edge and guide face

The guide face has a ground finish as well as the cutting edge, minimizing corner difference when mounting on the body. Stable runout precision and machining quality

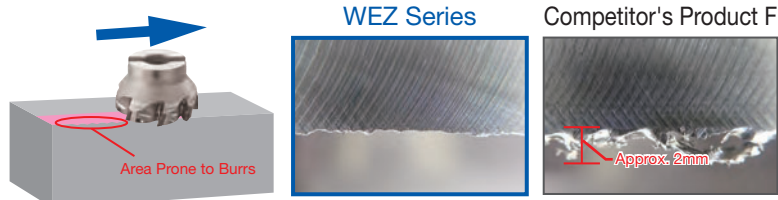


Lineup of Chipbreakers for Ground Type Inserts

- F type Chipbreaker - Emphasises Edge Sharpness



- Sharpness from ground finish enables burr control
- Good wall accuracy with all cutter diameters

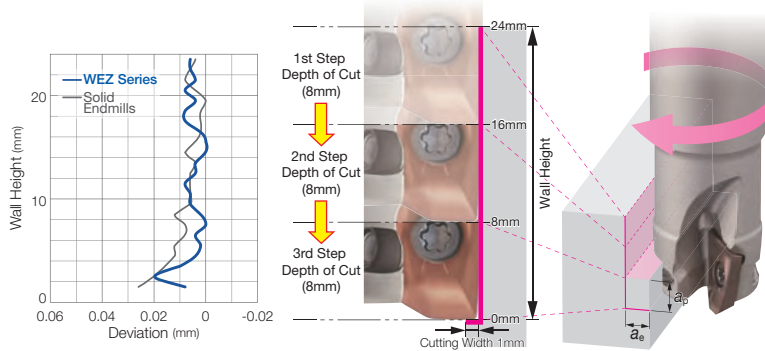


Machine : Vertical Machining Centre BT50 Work Material: SUS304
 Tool : WEZ 11050RS07 (ø50, 7 flutes)
 Insert : AOET 11T308PEER-F (ACU2500)
 Cutting Conditions: $v_c = 120\text{m/min}$, $f_z = 0.12\text{mm/t}$, $a_p=1\text{mm}$, $a_e= 30\text{mm}$, Dry

- P type Chipbreaker - Achieves Wall Squareness Equivalent to Using Solid Endmills



- High-precision type with cutting edge shape optimised for each cutter diameter while maintaining the F Type chipbreaker's sharpness
- Enables wall squareness equal to using solid endmills, through cutting edge shape optimisation for each cutter diameter



Machine : Vertical Machining Centre BT50 Work Material: S50C
 Tool : WEZ 11020E03 (ø20, 3 flutes)
 Insert : AOET 11T308PEER-P20 (ACU2500)
 Cutting Conditions: $v_c = 150\text{m/min}$, $f_z = 0.1\text{mm/t}$, $a_p=8\text{mm} \times 3$ Passes, $a_e= 1\text{mm}$, Dry

P Type Chipbreaker Selection Guide

Cat. No.	Dia. (mm)										
	ø14	ø16	ø18	ø20	ø22	ø25	ø28	ø30	ø32	ø35	ø40 and above
AOET11T300PEER-P00	-P16	-P20	Not applicable		-P25	Not applicable					
AOET170500PEER-P00	Not applicable				-P25	-P32	Not applicable				

- S type Chipbreaker - Sharp-Edged Breaker for Non-Ferrous Metals with Excellent Adhesion Resistance



- Suppresses adhesion with rake face lapping
- DLC Coat inserts available for further improved adhesion resistance



Machine : Vertical Machining Centre BT30 Work Material: ADC12
 Tool : WEZ 11020E03 (ø20, 3 flutes)
 Insert : AOET 11T308PEFR-S (H20)
 Cutting Conditions: $v_c = 350\text{m/min}$, $f_z = 0.1\text{mm/t}$, $a_p=3\text{mm}$, $a_e= 10\text{mm}$, Dry

Grade Application Range

New-generation coated carbide grades **XCU2500/XCK2000** now available! Enhanced lineup of coated grades in addition to cemented carbide and cermet for milling steel, stainless steel, cast iron, and aluminum alloy.

Work Material	Finishing to Light Cutting	Medium Cutting	Rough to Heavy Cutting
P Steel	Coated Carbide		
	ACU2500 XCU2500 ACP2000	ACP3000	
	Cermet		
	T2500A		
M Stainless Steel	Coated Carbide		
	ACU2500 XCU2500 ACM200	ACM300	
K Cast Iron	Coated Carbide		
	ACU2500 XCU2500 XCK2000	ACK2000	
	ACK3000		
N Non-Ferrous Metal	Cemented Carbide		
	DL2000	H20	

The letters "C" and "P" at the end of each grade indicate the coating type. ▽ : CVD ▲ : PVD

Grade Features

New coating technology that realises absolute stability **ABSOTECH™** (Absolute Technology)

ABSOTECH CVD

- Special Surface Treatment**
Suppresses thermal cracking by introducing high compressive stress, resulting in chipping resistance more than twice that of conventional types
- Crystal Orientation Control Al₂O₃**
By controlling the growth direction, Al₂O₃ is reinforced for crater wear resistance more than twice that of conventional types
- High Hardness TiCN**
Increased TiCN hardness by using a C-rich composition for flank wear resistance more than twice that of conventional types

Applicable Grades: ACP2000, ACK2000

ABSOTECH PVD

- New Super Multi-Layered Structure**
Higher hardness and twice the conventional wear resistance due to a fine crystal structure AlTiCrBN-based nano-layered coating
- High Adhesion Strength**
Coating adhesion significantly increased for twice or more the conventional chipping resistance

Applicable Grades: ACU2500, ACP3000, ACK3000

ABSOTECH X CVD

- Pure Cubic Crystal AlTiN with High Al Content**
With proprietary structural control technology, differently composed layers of AlTiN are stacked at the nanometre level. With a high-Al composition containing over 80% Al on average, it also maintains a cubic crystalline structure to achieve excellent thermal resistance and high hardness. Vastly improved wear resistance.

Special Surface Treatment
Proprietary surface treatment introduces high compression stress to the coating, suppressing the development of cracks. Greatly improved fracture and thermal crack resistance.

Applicable Grades: XCU2500, XCK2000

Grade Characteristic Values

CVD

Work Material	Grade	Hardness (HRA)	TRS (GPa)	Coating Type	Coating Thickness (µm)	Features	Old Grade
P Steel	ACP2000	89.5	3.2	ABSOTECH	10	<ul style="list-style-type: none"> For high-speed machining of steel Stable long tool life in high-speed machining is realised by adopting a tough carbide substrate and a new coating with excellent thermal crack resistance 	ACP100
	XCU2500	89.5	3.2	ABSOTECH X	6	<ul style="list-style-type: none"> General-purpose grade for a wide variety of materials such as steel, cast iron and stainless steel New coating combining wear and fracture resistance realises long tool life in medium-speed to high-speed machining 	—
M Stainless Steel	ACM200	89.8	3.4	Super FF Coat	6	<ul style="list-style-type: none"> For machining high-hardness stainless steel Adopts a newly developed high-strength cemented carbide substrate with excellent wear resistance and thermal resistance, realizing outstanding stability when machining hardened stainless steel 	AC230
	ACK2000	91.7	3.1	ABSOTECH	10	<ul style="list-style-type: none"> For high-speed cast iron milling Stable long tool life in high-speed machining is realised by adopting a tough carbide substrate and a new coating with excellent thermal resistance 	ACK100 ACK200
K Cast Iron	XCK2000	91.7	2.5	ABSOTECH X	6	<ul style="list-style-type: none"> For high-speed cast iron milling Along with a high-hardness carbide substrate, the new coating combining wear and fracture resistance realises superb long tool life in medium-speed to high-speed machining 	—

PVD

Work Material	Grade	Hardness (HRA)	TRS (GPa)	Coating Type	Coating Thickness (µm)	Features	Old Grade
P Steel	ACU2500	91.6	3.8	ABSOTECH	3	<ul style="list-style-type: none"> General-purpose grade supporting steel, stainless steel, and cast iron machining Adopts a carbide substrate with excellent fracture resistance and wear resistance, plus a new coating with excellent wear resistance and chipping resistance, realising stable long tool life with various work material grades 	—
	ACP3000	89.5	3.2	ABSOTECH	3	<ul style="list-style-type: none"> Our 1st recommended grade for milling steel Carbide substrate with excellent thermal crack resistance, plus a new coating with excellent wear resistance and chipping resistance, realises stable long tool life over a wide range of cutting conditions 	ACP200 ACP300
M Stainless Steel	ACM300	89.8	3.4	(New) Super ZX Coat	3	<ul style="list-style-type: none"> Our 1st recommended grade for milling stainless steel Adopts a high-strength cemented carbide substrate and super multi-layered coating for next-level wear resistance and fracture resistance 	—
K Cast Iron	ACK3000	91.7	3.1	ABSOTECH	3	<ul style="list-style-type: none"> Our 1st recommended grade for milling cast iron Adopts a high thermal conductivity carbide substrate and a new coating with excellent wear resistance and chipping resistance, realizing stable long tool life over a wide range of cast iron machining operations 	ACK300
N Non-Ferrous Metal	DL2000	91.6	3.8	AURORA Coat (DLC)	0.5	<ul style="list-style-type: none"> Grade for milling non-ferrous metal, utilising DLC coat with a low coefficient of friction and excellent adhesion resistance 	—

Cermet

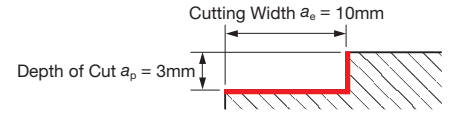
Work Material	Grade	Hardness (HRA)	TRS (GPa)	Coating Type	Coating Thickness (µm)	Features	Old Grade
P Steel M Stainless Steel	T2500A	91.8	2.4	—	—	<ul style="list-style-type: none"> For finishing of steel and stainless steel Fine, uniform grain structure greatly improves toughness, realising long tool life and excellent surface finishes 	T250A

Recommended Cutting Conditions (WEZ Type)

WEZ11 Type

Tool: WEZ11020E03, Insert: AO□T11T3 Type

Cutting Conditions: Depth of Cut $a_p = 3\text{mm}$, Cutting Width $a_e = 10\text{mm}$, Dry



ISO Classification	Work Material	Work Material Hardness (HB)	Chipbreaker	Grade										
				ACU2500	XCU2500	ACP2000	ACP3000	T2500A	XCK2000	ACK2000	ACK3000	ACM200	ACM300	DL2000
				Feed Rate per Tooth f_z (mm/t) Min. - Optimum - Max.										
				0.08 - 0.15 - 0.20	0.08 - 0.15 - 0.20	0.08 - 0.15 - 0.20	0.08 - 0.15 - 0.20	0.08 - 0.12 - 0.18	0.08 - 0.15 - 0.20	0.08 - 0.15 - 0.20	0.08 - 0.15 - 0.20	0.08 - 0.15 - 0.20	0.08 - 0.15 - 0.20	0.05 - 0.10 - 0.15
				Cutting Speed v_c (m/min) Min. - Optimum - Max.										
P	Steel, Carbon Steel S15C	125	G	270 - 320 - 370	300 - 350 - 400	300 - 350 - 400	250 - 300 - 350	230 - 280 - 330						
	S45C	190	G	170 - 220 - 270	200 - 250 - 300	200 - 250 - 300	150 - 200 - 250	130 - 180 - 230						
	S45C Hardened	250	G	140 - 180 - 220	160 - 200 - 245	160 - 200 - 245	120 - 160 - 200	105 - 145 - 185						
	S75C	270	G	110 - 145 - 175	130 - 165 - 195	130 - 165 - 195	100 - 130 - 165	85 - 115 - 150						
	S75C Hardened	300	G	70 - 90 - 110	80 - 100 - 120	80 - 100 - 120	60 - 80 - 100	50 - 70 - 90						
	Low-alloy Steel SCM, SNCM	180	G	160 - 205 - 255	190 - 235 - 280	190 - 235 - 280	140 - 190 - 235	120 - 170 - 215						
	SCM, SNCM Hardened	275	G	95 - 120 - 150	110 - 135 - 165	110 - 135 - 165	80 - 110 - 140	70 - 100 - 125						
	SCM, SNCM Hardened	300	G	85 - 110 - 130	100 - 125 - 150	100 - 125 - 150	75 - 100 - 125	65 - 90 - 115						
	SCM, SNCM Hardened	350	G	60 - 80 - 100	70 - 90 - 110	70 - 90 - 110	50 - 70 - 90	45 - 65 - 85						
	High-alloy Steel SKD, SKT, SKH	200	G	140 - 180 - 220	160 - 200 - 245	160 - 200 - 245	120 - 160 - 205							
M	SKD, SKT, SKH Hardened	325	G	55 - 70 - 85	60 - 80 - 100	60 - 80 - 100	50 - 65 - 80							
	Stainless Steel SUS430, Others (Martensitic/Ferritic)	200	G	110 - 140 - 170	160 - 190 - 210					140 - 170 - 190	90 - 110 - 140			
	SUS403 and Others (Martensitic Hardened)	240	G	100 - 125 - 150	145 - 170 - 190					125 - 150 - 170	80 - 100 - 125			
K	SUS304, SUS316 (Austenitic)	180	G	120 - 150 - 180	170 - 200 - 220					150 - 180 - 200	100 - 120 - 150			
	Cast Iron	G	150 - 200 - 250	250 - 300 - 350				250 - 300 - 350	250 - 300 - 350	170 - 220 - 270				
S	Ductile Cast Iron	G	90 - 120 - 150	150 - 180 - 210				150 - 180 - 210	150 - 180 - 210	100 - 130 - 160				
	Exotic Alloy Heat-Resistant Alloy	G	30 - 40 - 55								35 - 45 - 60	25 - 35 - 50		
N	Ti Alloy	G	60 - 80 - 100								70 - 90 - 110	50 - 70 - 90		
	Aluminum Alloy Si content of 12.6% or less	S											500 - 750 - 1000	
	Si content of over 12.6%	S											170 - 200 - 250	
Copper Alloy	S												300 - 330 - 350	

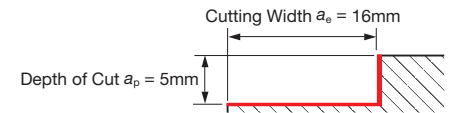
- The recommended cutting conditions may not be practical depending on the operating conditions (e.g. machine, work material shape, clamping system).
- For groove milling, adjust the feed rate to around 70% of the above values.

Note The cutting conditions above are a guide. Actual conditions will need to be adjusted according to machine rigidity, work clamp rigidity, depth of cut and other factors.

WEZ17 Type

Tool: WEZ17032E03, Insert: AO□T1705 Type

Cutting Conditions: Depth of Cut $a_p = 5\text{mm}$, Cutting Width $a_e = 16\text{mm}$, Dry



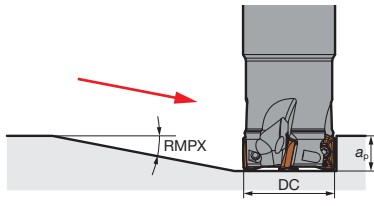
ISO Classification	Work Material	Work Material Hardness (HB)	Chipbreaker	Grade										
				ACU2500	XCU2500	ACP2000	ACP3000	T2500A	XCK2000	ACK2000	ACK3000	ACM200	ACM300	DL2000
				Feed Rate per Tooth f_z (mm/t) Min. - Optimum - Max.										
				0.10 - 0.20 - 0.28	0.10 - 0.20 - 0.28	0.10 - 0.20 - 0.28	0.10 - 0.20 - 0.28	0.10 - 0.15 - 0.22	0.10 - 0.20 - 0.28	0.10 - 0.20 - 0.28	0.10 - 0.20 - 0.28	0.10 - 0.20 - 0.28	0.10 - 0.20 - 0.28	0.05 - 0.10 - 0.15
				Cutting Speed v_c (m/min) Min. - Optimum - Max.										
P	Steel, Carbon Steel S15C	125	G	285 - 335 - 390	315 - 360 - 420	315 - 360 - 420	265 - 315 - 370	240 - 295 - 345						
	S45C	190	G	180 - 230 - 285	210 - 265 - 315	210 - 265 - 315	160 - 210 - 265	135 - 190 - 240						
	S45C Hardened	250	G	145 - 190 - 230	170 - 210 - 255	170 - 210 - 255	130 - 170 - 215	110 - 155 - 195						
	S75C	270	G	115 - 150 - 185	135 - 170 - 205	135 - 170 - 205	100 - 135 - 170	90 - 125 - 155						
	S75C Hardened	300	G	70 - 90 - 115	85 - 105 - 125	85 - 105 - 125	65 - 85 - 105	55 - 75 - 95						
	Low-alloy Steel SCM, SNCM	180	G	170 - 220 - 265	200 - 245 - 295	200 - 245 - 295	150 - 200 - 250	130 - 180 - 225						
	SCM, SNCM Hardened	275	G	100 - 130 - 155	115 - 145 - 175	115 - 145 - 175	85 - 115 - 145	75 - 105 - 135						
	SCM, SNCM Hardened	300	G	90 - 115 - 140	105 - 130 - 155	105 - 130 - 155	75 - 105 - 130	65 - 90 - 120						
	SCM, SNCM Hardened	350	G	65 - 85 - 100	75 - 95 - 115	75 - 95 - 115	55 - 75 - 95	50 - 70 - 85						
	High-alloy Steel SKD, SKT, SKH	200	G	145 - 185 - 230	170 - 215 - 255	170 - 215 - 255	130 - 170 - 215							
M	SKD, SKT, SKH Hardened	325	G	55 - 75 - 90	65 - 85 - 100	65 - 85 - 100	50 - 65 - 85							
	Stainless Steel SUS430 and Others (Martensitic/Ferritic)	200	G	115 - 145 - 175	165 - 195 - 215						145 - 175 - 195	100 - 115 - 145		
	SUS403 and Others (Martensitic Hardened)	240	G	105 - 130 - 155	150 - 175 - 195						130 - 155 - 175	85 - 105 - 130		
K	SUS304, SUS316 (Austenitic)	180	G	125 - 155 - 190	180 - 210 - 230						160 - 190 - 210	105 - 125 - 160		
	Cast Iron	G	160 - 210 - 265	265 - 315 - 370				265 - 315 - 370	265 - 315 - 370	180 - 230 - 285				
S	Ductile Cast Iron	G	95 - 125 - 160	160 - 190 - 220				160 - 190 - 220	160 - 190 - 220	105 - 140 - 170				
	Exotic Alloy Heat-Resistant Alloy	G	30 - 40 - 60								35 - 45 - 60	25 - 35 - 50		
N	Ti Alloy	G	60 - 85 - 105								75 - 95 - 115	50 - 75 - 95		
	Aluminum Alloy Si content of 12.6% or less	S											500 - 750 - 1000	
	Si content of over 12.6%	S											170 - 200 - 250	
Copper Alloy	S												300 - 330 - 350	

- The recommended cutting conditions may not be practical depending on the operating conditions (e.g. machine, work material shape, clamping system).
- For groove milling, adjust the feed rate to around 70% of the above values.

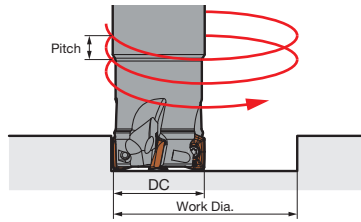
Note The cutting conditions above are a guide. Actual conditions will need to be adjusted according to machine rigidity, work clamp rigidity, depth of cut and other factors.

Ramping/Helical Milling Upper Limit

Ramping



Flat bottom machining



WEZ11 Type

Dia. DC (mm)	Max. Ramping Angle RMPX (°)	Max. Machining Dia. (mm)	Maximum Pitch (mm/rev)	Standard Diameter (mm)	Maximum Pitch (mm/rev)	Min. Machining Dia. (mm)	Maximum Pitch (mm/rev)
14	8.0	25.3	5.0	23.1	3.4	19.0	1.5
16	10.5	29.3	7.6	27.0	5.6	21.7	1.5
18	8.1	33.3	6.7	30.9	5.0	25.2	1.4
20	6.5	37.3	6.0	34.9	4.6	29.1	1.3
22	5.3	41.3	5.4	38.8	4.3	32.9	1.3
25	4.1	47.3	4.8	44.8	3.9	38.9	1.3
28	3.4	53.3	4.4	50.7	3.6	44.9	1.3
30	3.0	57.3	4.2	54.7	3.5	48.8	1.3
32	2.7	61.3	4.0	58.7	3.3	52.8	1.2
35	2.3	67.3	3.8	64.6	3.1	58.8	1.2
40	1.8	77.3	3.4	74.6	2.9	68.8	1.2
50	1.2	97.3	3.0	94.6	2.6	88.8	1.1
63	0.8	123.3	2.8	120.5	2.5	114.7	1.1
80	Not recommended						
100	Not recommended						

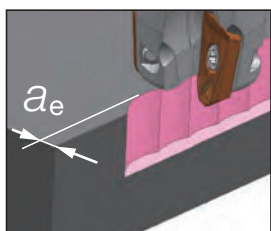
*The table above shows values with corner radius 0.8mm. Helical milling is not recommended for WEZR Type products.

WEZ17 Type

Dia. DC (mm)	Max. Ramping Angle RMPX (°)	Max. Machining Dia. (mm)	Maximum Pitch (mm/rev)	Standard Diameter (mm)	Maximum Pitch (mm/rev)	Min. Machining Dia. (mm)	Maximum Pitch (mm/rev)
25	10.8	47.3	13.0	41.0	8.3	33.1	1.8
28	8.1	53.3	11.1	46.9	7.5	39.0	1.8
30	7.0	57.3	10.2	50.9	7.0	43.0	1.8
32	6.1	61.3	9.5	54.9	6.7	47.0	1.7
35	5.1	67.3	8.7	60.8	6.2	53.0	1.7
40	4.0	77.3	7.7	70.8	5.7	63.0	1.7
50	2.5	97.3	6.5	90.7	5.0	83.0	1.6
63	1.8	123.3	5.6	116.7	4.5	109.0	1.6
80	1.2	156.0	5.0	149.4	4.1	141.8	1.5
100	0.9	197.3	4.7	190.7	4.0	183.1	1.5
125	Not recommended						
160	Not recommended						

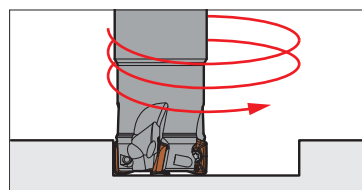
*The table above shows values with corner radius 0.8mm. Helical milling is not recommended for WEZR Type products.

Plunge Cutting Upper Limit



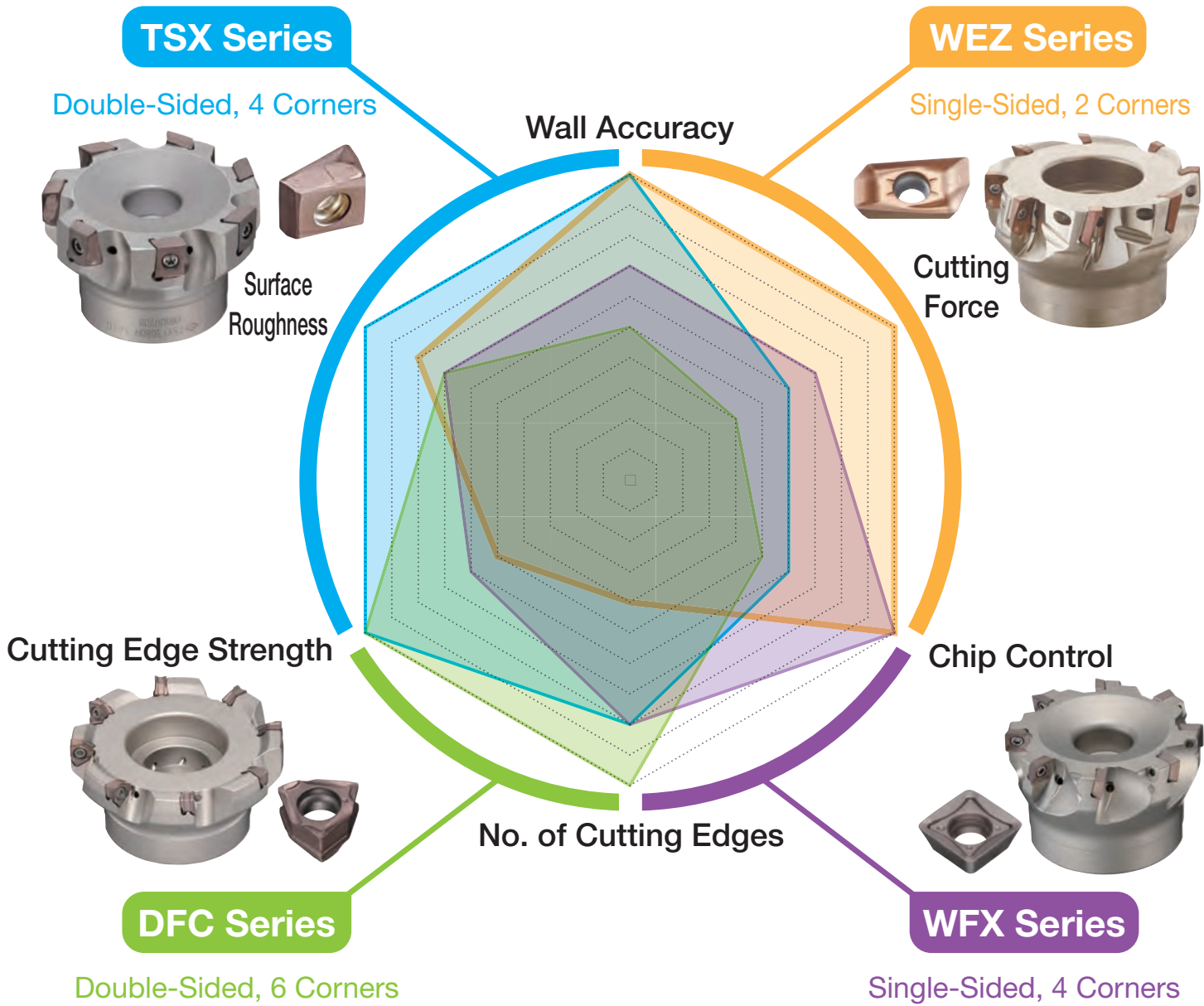
	Max. a_e (mm)
WEZ11 Type	3
WEZ17 Type	5

Precautions for Flat Bottom Machining



- For flat bottom machining, if the work diameter is smaller than the standard diameter, there will be a center uncut portion.
- A prepared center hole should be made.
- Above the standard diameter, this portion can be removed by traverse cutting with the same cutter.

Shoulder Milling Selection Guide



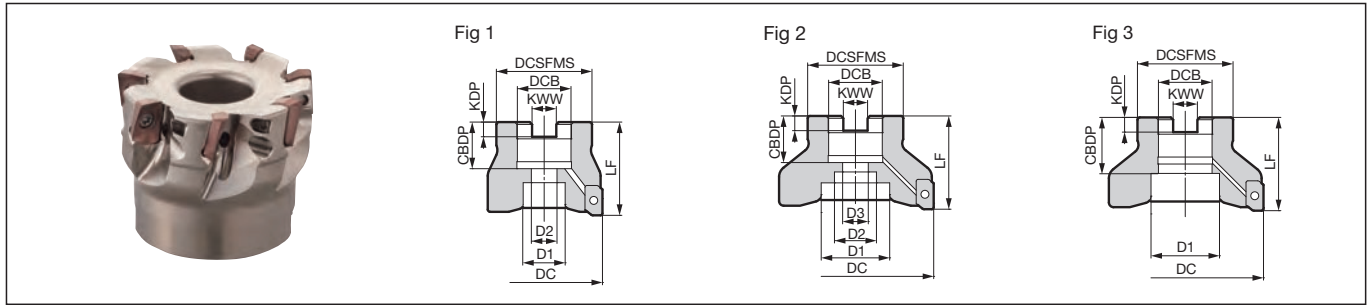
- WEZ
- WEZR
- Shell
- Shank
- Modular
- Application Examples
- Made-to-Order Product

★★★: 1st Recommendation

	Surface Roughness	Wall Accuracy	Cutting Force	Chip Control	No. of Cutting Edges	Cutting Edge Strength
WEZ Series	★★★★	★★★★	★★★★	★★★★	★	★★★
TSX Series	★★★★	★★★★	★★★	★★★	★★★	★★★★
DFC Series	★★★	★	★	★★★	★★★★	★★★★
WFX Series	★★★	★★★	★★★	★★★★	★★★	★★★

* For the details of each product, see the TSX series (brochure No. 523), DFC series (brochure No. 513), and WFX series (brochure No. 491).

Rake Angle	Radial	-7° to -11°	10mm	90°
	Axial	14° to 15°		



Body (Shell Type)

Dimensions (mm)

Cat. No.	Stock	Diameter DC	Boss DCSFMS	Height LF	Hole Dia. DCB	Keyway Width KWW	Keyway Depth KDP	Mounting Depth CBBDP	Bolt D1	Bolt D2	Bolt D3	Number of Teeth	Weight (kg)	Fig
WEZ 11040RS04	●	40	33	40(39.7)	16	8.4	5.6	18	14	9	—	4	0.21	1
11040RS06	●	40	33	40(39.7)	16	8.4	5.6	18	14	9	—	6	0.20	1
11050RS05	●	50	41	40(39.7)	22	10.4	6.3	20	18	11	—	5	0.32	1
11050RS07	●	50	41	40(39.7)	22	10.4	6.3	20	18	11	—	7	0.31	1
11063RS06	●	63	50	40(39.7)	22	10.4	6.3	20	18	11	—	6	0.58	1
11063RS08	●	63	50	40(39.7)	22	10.4	6.3	20	18	11	—	8	0.57	1
11080RS07	●	*80	55	50(49.7)	27	12.4	7	22	20	14	—	7	1.08	1
11080RS10	●	*80	55	50(49.7)	27	12.4	7	22	20	14	—	10	1.07	1
11100RS09	●	100	70	50(49.7)	32	14.4	8	32	46	—	—	9	1.57	3
11100RS12	●	100	70	50(49.7)	32	14.4	8	32	46	—	—	12	1.56	3
WEZ 11080R07	●	*80	55	50(49.7)	25.4	9.5	6	25	20	14	—	7	1.09	1
11080R10	●	*80	55	50(49.7)	25.4	9.5	6	25	20	14	—	10	1.08	1
11100R09	●	*100	70	63(62.7)	31.75	12.7	8	32	46	27	18	9	2.12	2
11100R12	●	*100	70	63(62.7)	31.75	12.7	8	32	46	27	18	12	2.10	2

The LF dimensions in parentheses are dimensions using RE = 3.0/3.2 insert.

When using RE = 3.0/3.2 inserts, the maximum depth of cut is 9.5.

Take note of the cutter mounting size (DCB) when selecting a cutter. Inserts are sold separately.

For mounting the ø80 and ø100mm sized cutters marked with * to an arbor, use a JIS B1176 hex socket bolt (ø80: M12 x 30 to 35mm, ø100: M16 x 40 to 45mm).

Parts

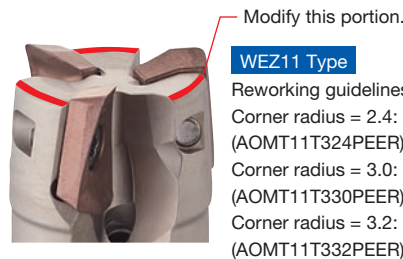
Flat Insert Screw	Wrench	Anti-seizure Cream
BFTX0306IP	1.5	TRDR08IP SUMI-P

Identification Code

WEZ 11 050 R S 07

Series Insert Size Dia. Feed Direction Metric Bore Number of Teeth

* Modification of the cutter body is required when mounting a corner radius 2.4 or higher insert.



WEZ11 Type

Reworking guidelines
 Corner radius = 2.4: C1 (AOMT11T324PEER)
 Corner radius = 3.0: C1 (AOMT11T330PEER)
 Corner radius = 3.2: C1 (AOMT11T332PEER)

WEZ17 Type

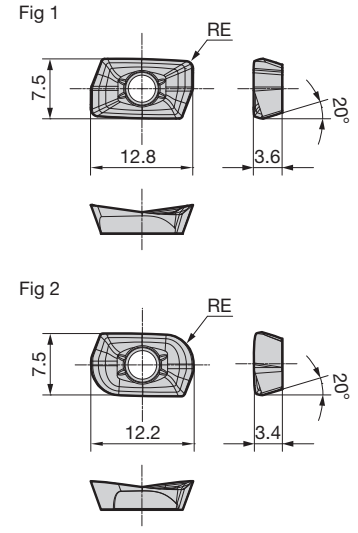
Reworking guidelines
 Corner radius = 2.4: C1 (AOMT170524PEER)
 Corner radius = 3.0: C1 (AOMT170530PEER)
 Corner radius = 3.2: C1 (AOMT170532PEER)
 Corner radius = 4.0: C2 (AOMT170540PEER)
 Corner radius = 5.0: C5 (AOMT170550PEER)
 Corner radius = 6.4: C5 (AOMT170564PEER)

Standard: R1.

Insert

Dimensions (mm)

Material Classification	Coated Carbide								Cemented Carbide	DLC	Cermet			
	High-speed/Light	KP	P	K	K	M	S		N	P				
	General-purpose	KP	P	K	K	M	S	N	N					
Process	Roughing		P		K	M	S							
Cat. No.	ACU2500	XCU2500	ACP2000	ACP3000	XCK2000	ACK2000	ACK3000	ACM200	ACM300	H20	DL2000	T2500A	Corner Radius RE	Fig
AOMT 11T302PEER-G	●			●			●	●				●	0.2	1
11T304PEER-G	●	●	●	●	●	●	●	●				●	0.4	1
11T305PEER-G	●							●	●				0.5	1
11T308PEER-G	●	●	●	●	●	●	●	●				●	0.8	1
11T310PEER-G	●							●	●				1.0	1
11T312PEER-G	●			●			●	●					1.2	1
11T316PEER-G	●			●			●	●	●				1.6	1
11T320PEER-G	●			●			●	●	●				2.0	1
11T324PEER-G	●			●			●	●	●				2.4	1
11T330PEER-G	●			●			●	●	●				3.0	2
11T332PEER-G	●			●			●	●	●				3.2	2
AOMT 11T304PEER-H	●	●	●	●	●	●	●	●					0.4	1
11T308PEER-H	●	●	●	●	●	●	●	●					0.8	1
11T312PEER-H	●						●	●					1.2	1
11T316PEER-H	●						●	●	●				1.6	1
AOET 11T302PEER-F	●												0.2	1
11T304PEER-F	●												0.4	1
11T305PEER-F	●												0.5	1
11T308PEER-F	●												0.8	1
11T310PEER-F	●												1.0	1
11T312PEER-F	●												1.2	1
11T316PEER-F	●												1.6	1
11T320PEER-F	●												2.0	1
11T324PEER-F	●												2.4	1
11T330PEER-F	●												3.0	2
11T332PEER-F	●												3.2	2
AOET 11T302PEFR-S									●	●			0.2	1
11T304PEFR-S									●	●			0.4	1
11T305PEFR-S									●	●			0.5	1
11T308PEFR-S									●	●			0.8	1
11T310PEFR-S									●	●			1.0	1
11T312PEFR-S									●	●			1.2	1
11T316PEFR-S									●	●			1.6	1
11T320PEFR-S									●	●			2.0	1
11T324PEFR-S									●	●			2.4	1
11T330PEFR-S									●	●			3.0	2
11T332PEFR-S									●	●			3.2	2

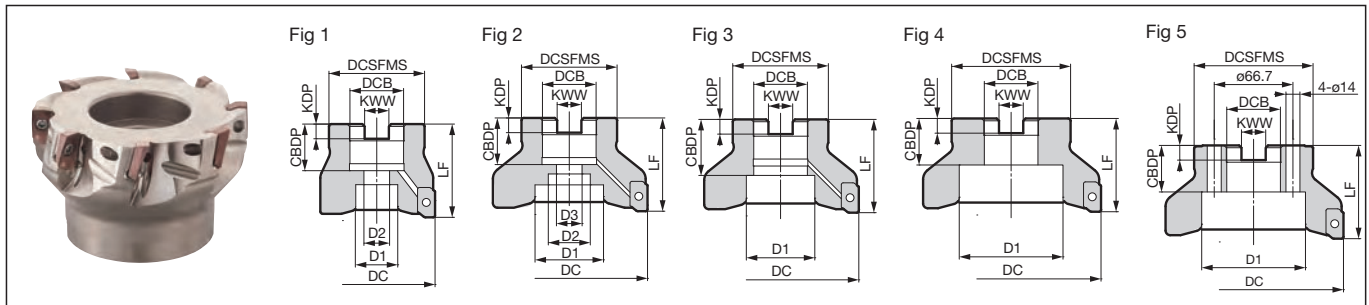


-G: General-purpose, -H: Strong Edge, -F: Medium Finishing, -P16/-P20/-P25: High-precision Machining, -S: Non-Ferrous Metals.

Precautions for Mounting Inserts **P49** Recommended Cutting Conditions **P7**

WEZ
 WEZR
 Shell
 Shank
 Modular
 Application Examples
 Made-to-Order Product

Rake Angle	Radial	-4° to -9°	15mm	90°
	Axial	10° to 15°		



Body (Shell Type)

													Dimensions (mm)		
Cat. No.	Stock	Dia. DC	Boss DCSFMS	Height LF	Hole Dia. DCB	Keyway Width KWW	Keyway Depth KDP	Mounting Depth CBDDP	Bolt D1	Bolt D2	Bolt D3	Number of Teeth	Weight (kg)	Fig	
WEZ 17040RS03	●	40	33	40(39.3)	16	8.4	5.6	18	14	9	—	3	0.19	1	
17040RS04	●	40	33	40(39.3)	16	8.4	5.6	18	14	9	—	4	0.16	1	
17050RS03	●	50	41	40(39.3)	22	10.4	6.3	20	18	11	—	3	0.30	1	
17050RS05	●	50	41	40(39.3)	22	10.4	6.3	20	18	11	—	5	0.26	1	
17063RS04	●	63	50	40(39.3)	22	10.4	6.3	20	18	11	—	4	0.54	1	
17063RS06	●	63	50	40(39.3)	22	10.4	6.3	20	18	11	—	6	0.51	1	
17080RS04	●	*80	55	50(49.3)	27	12.4	7	22	20	14	—	4	1.10	1	
17080RS07	●	*80	55	50(49.3)	27	12.4	7	22	20	14	—	7	1.05	1	
17100RS05	●	100	70	50(49.3)	32	14.4	8	32	46	—	—	5	1.58	3	
17100RS08	●	100	70	50(49.3)	32	14.4	8	32	46	—	—	8	1.57	3	
17125RS06	●	125	80	63(62.3)	40	16.4	9	29	52	29	—	6	3.04	1	
17125RS09	●	125	80	63(62.3)	40	16.4	9	29	52	29	—	9	3.07	1	
17125RS11	●	125	80	63(62.3)	40	16.4	9	29	52	29	—	11	3.02	1	
17160RS08	●	160	130	63(62.3)	40	16.4	9	29	90	—	—	8	5.24	5	
17160RS10	●	160	130	63(62.3)	40	16.4	9	29	90	—	—	10	5.31	5	
17160RS12	●	160	130	63(62.3)	40	16.4	9	29	90	—	—	12	5.26	5	
WEZ 17080R04	●	*80	55	50(49.3)	25.4	9.5	6	25	20	14	—	4	1.10	1	
17080R07	●	*80	55	50(49.3)	25.4	9.5	6	25	20	14	—	7	1.06	1	
17100R05	●	*100	70	63(62.3)	31.75	12.7	8	32	46	27	18	5	2.08	2	
17100R08	●	*100	70	63(62.3)	31.75	12.7	8	32	46	27	18	8	2.07	2	
17125R06	●	125	80	63(62.3)	38.1	15.9	10	35.5	55	30	—	6	3.09	1	
17125R09	●	125	80	63(62.3)	38.1	15.9	10	35.5	55	30	—	9	3.11	1	
17125R11	●	125	80	63(62.3)	38.1	15.9	10	35.5	55	30	—	11	3.06	1	
17160R08	●	160	100	63(62.3)	50.8	19.1	11	38	72	—	—	8	5.04	4	
17160R10	●	160	100	63(62.3)	50.8	19.1	11	38	72	—	—	10	5.09	4	
17160R12	●	160	100	63(62.3)	50.8	19.1	11	38	72	—	—	12	5.04	4	

The LF dimensions in parentheses are dimensions using RE = 5.0/6.4 insert. When using RE = 5.0/6.4 inserts, the maximum depth of cut is 14.5. Take note of the cutter mounting size (DCB) when selecting a cutter. Inserts are sold separately.

For mounting the ø80 and ø100mm sized cutters marked with * to an arbor, use a JIS B1176 hex socket bolt (ø80: M12 x 30 to 35mm, ø100: M16 x 40 to 45mm).

Parts

Applicable Cutter	Flat Insert Screw		Integrated Wrench	Detachable Wrench		Anti-seizure Cream
		N·m		Handle Grip	Bit	
WEZ17040RS03 WEZ17040RS04 WEZ17050RS03 WEZ17050RS05 WEZ17063RS04 WEZ17063RS06 WEZ17080R(S)04 WEZ17080R(S)07 WEZ17100R(S)05 WEZ17100R(S)08 WEZ17125R(S)06 WEZ17125R(S)09 WEZ17125R(S)11 WEZ17160R(S)08 WEZ17160R(S)10 WEZ17160R(S)12	BFTX0409IP	3.0	—	HPS1015	TRB15IP	SUMI-P
			TRDR15IP	—	—	

Identification Code

WEZ 17 100 R S 05
 Series Insert Size Dia. Feed Direction Metric Bore Number of Teeth

* Modification of the cutter body is required when mounting a corner radius 2.4 or higher insert.

Modify this portion.



WEZ11 Type

Reworking guidelines
 Corner radius = 2.4: C1 (AOMT11T324PEER)
 Corner radius = 3.0: C1 (AOMT11T330PEER)
 Corner radius = 3.2: C1 (AOMT11T332PEER)

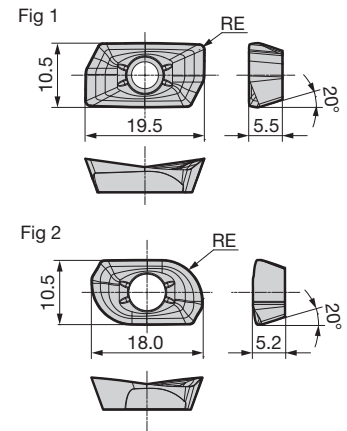
WEZ17 Type

Reworking guidelines
 Corner radius = 2.4: C1 (AOMT170524PEER)
 Corner radius = 3.0: C1 (AOMT170530PEER)
 Corner radius = 3.2: C1 (AOMT170532PEER)
 Corner radius = 4.0: C2 (AOMT170540PEER)
 Corner radius = 5.0: C5 (AOMT170550PEER)
 Corner radius = 6.4: C5 (AOMT170564PEER)
 Standard: R1.

Insert

Dimensions (mm)

Material Classification	Coated Carbide							Cemented Carbide	DLC	Cermet				
	High-speed/Light	KP	P	K	K	M	S		N	P				
	General-purpose	KP	P	K	K	M	S	N	N					
Process	Roughing	KP	P	K	K	M	S							
Cat. No.	ACU2500	XCU2500	ACP2000	ACP3000	XCK2000	ACK2000	ACK3000	ACM200	ACM300	H20	DL2000	T2500A	Corner Radius RE	Fig
AOMT 170502PEER-L	●												0.2	1
170504PEER-L	●	●			●							●	0.4	1
170508PEER-L	●	●			●							●	0.8	1
170512PEER-L	●												1.2	1
170516PEER-L	●												1.6	1
AOMT 170502PEER-G	●			●			●						0.2	1
170504PEER-G	●	●	●	●	●	●	●	●	●			●	0.4	1
170505PEER-G	●							●	●				0.5	1
170508PEER-G	●	●	●	●	●	●	●	●	●			●	0.8	1
170510PEER-G	●							●	●				1.0	1
170512PEER-G	●			●			●	●	●				1.2	1
170516PEER-G	●			●			●	●	●				1.6	1
170520PEER-G	●			●			●	●	●				2.0	1
170524PEER-G	●			●			●	●	●				2.4	1
170530PEER-G	●			●			●	●	●				3.0	1
170532PEER-G	●			●			●	●	●				3.2	1
170540PEER-G	●			●			●	●	●				4.0	1
170550PEER-G	●			●			●	●	●				5.0	2
170564PEER-G	●			●			●	●	●				6.4	2
AOMT 170504PEER-H	●	●	●	●	●	●	●	●	●				0.4	1
170508PEER-H	●	●	●	●	●	●	●	●	●				0.8	1
170512PEER-H	●												1.2	1
170516PEER-H	●							●	●				1.6	1
AOET 170502PEER-F	●												0.2	1
170504PEER-F	●												0.4	1
170505PEER-F	●												0.5	1
170508PEER-F	●												0.8	1
170510PEER-F	●												1.0	1
170512PEER-F	●												1.2	1
170516PEER-F	●												1.6	1
170520PEER-F	●												2.0	1
170524PEER-F	●												2.4	1
170530PEER-F	●												3.0	1
170532PEER-F	●												3.2	1
170540PEER-F	●												4.0	1
170550PEER-F	●												5.0	2
170564PEER-F	●												6.4	2
AOET 170502PEFR-S								●	●				0.2	1
170504PEFR-S								●	●				0.4	1
170505PEFR-S								●	●				0.5	1
170508PEFR-S								●	●				0.8	1
170510PEFR-S								●	●				1.0	1
170512PEFR-S								●	●				1.2	1
170516PEFR-S								●	●				1.6	1
170520PEFR-S								●	●				2.0	1
170524PEFR-S								●	●				2.4	1
170530PEFR-S								●	●				3.0	1
170532PEFR-S								●	●				3.2	1
170540PEFR-S								●	●				4.0	1
170550PEFR-S								●	●				5.0	2
170564PEFR-S								●	●				6.4	2



-L: Low Cutting Force, -G: General-purpose, -H: Strong Edge, -F: Medium Finishing, -S: Non-Ferrous Metals.

Precautions for Mounting Inserts **P49** Recommended Cutting Conditions **P7**

● mark: Standard stocked item ● mark: Standard stocked item (expanded item) Blank: Made-to-order item — mark: Not available

WEZ

WEZR

Shell

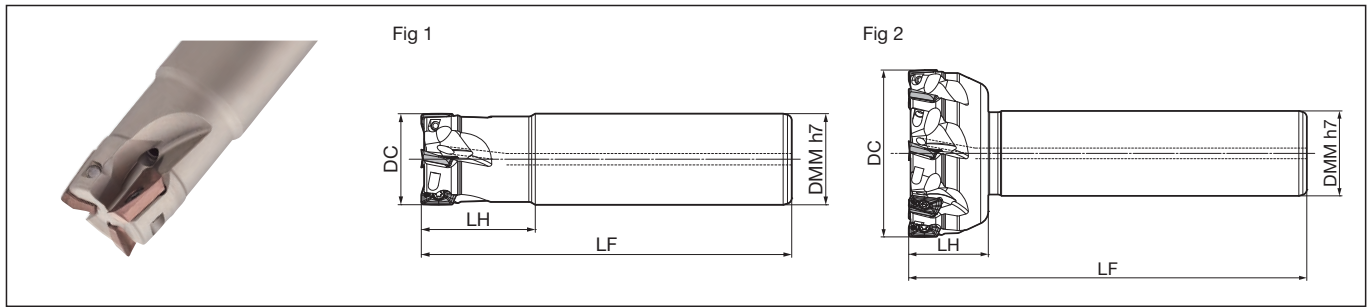
Shank

Modular

Application Examples

Made-to-Order Product

Rake Angle	Radial	-7° to -18°	10mm	90°
	Axial	6° to 15°		



Body (Shank Type)

								Dimensions (mm)
Cat. No.	Stock	Dia. DC	Shank DMM	Head LH	Overall Length LF	Number of Teeth	Weight (kg)	Fig
WEZ 11014E01	●	14	16	25(24.7)	80(79.7)	1	0.10	1
11016E02	●	16	16	25(24.7)	100(99.7)	2	0.13	1
11016E02-12	●	16	12	25(24.7)	100(99.7)	2	0.07	2
11018E02	●	18	16	25(24.7)	100(99.7)	2	0.13	2
11020E02	●	20	20	30(29.7)	110(109.7)	2	0.23	1
11020E02-16	●	20	16	30(29.7)	110(109.7)	2	0.15	2
11020E03	●	20	20	30(29.7)	110(109.7)	3	0.22	1
11020E03-16	●	20	16	30(29.7)	110(109.7)	3	0.14	2
11022E03	●	22	20	30(29.7)	110(109.7)	3	0.23	2
11025E02	●	25	25	35(34.7)	120(119.7)	2	0.40	1
11025E03	●	25	25	35(34.7)	120(119.7)	3	0.40	1
11025E03-20	●	25	20	35(34.7)	120(119.7)	3	0.26	2
11025E04	●	25	25	35(34.7)	120(119.7)	4	0.39	1
11025E04-20	●	25	20	35(34.7)	120(119.7)	4	0.26	2
11028E04	●	28	25	35(34.7)	120(119.7)	4	0.41	2
11030E04	●	30	25	40(39.7)	130(129.7)	4	0.46	2
11032E02	●	32	32	40(39.7)	130(129.7)	2	0.74	1
11032E03	●	32	32	40(39.7)	130(129.7)	3	0.73	1
11032E04	●	32	32	40(39.7)	130(129.7)	4	0.73	1
11032E05	●	32	32	40(39.7)	130(129.7)	5	0.72	1
11032E05-25	●	32	25	40(39.7)	130(129.7)	5	0.46	2
11035E05	●	35	32	40(39.7)	130(129.7)	5	0.75	2
11040E02	●	40	32	30(29.7)	150(149.7)	2	0.96	2
11040E04	●	40	32	30(29.7)	150(149.7)	4	0.94	2
11040E06	●	40	32	30(29.7)	150(149.7)	6	0.93	2
11050E05	●	50	32	30(29.7)	150(149.7)	5	1.04	2
11050E07	●	50	32	30(29.7)	150(149.7)	7	1.04	2
11063E08	●	63	32	30(29.7)	150(149.7)	8	1.24	2
11080E10	●	80	32	30(29.7)	150(149.7)	10	1.52	2

The LH and LF dimensions in parentheses are dimensions using RE = 3.0/3.2 insert. When using RE = 3.0/3.2 inserts, the maximum depth of cut is 9.5. Inserts are sold separately.

Parts

Applicable Cutter	Flat Insert Screw		Integrated Wrench	Anti-seizure Cream
WEZ11014E01	BFTX0305IP	1.5	TRDR08IP	SUMI-P
WEZ11016E02(-12)				
WEZ11018E02				
WEZ11020E02(-16)				
WEZ11020E03(-16)				
WEZ11022E03				
WEZ11025E02				
WEZ11025E03(-20)				
WEZ11025E04(-20)				
WEZ11028E04				
WEZ11030E04	BFTX0306IP	1.5	TRDR08IP	SUMI-P
WEZ11032E02				
WEZ11032E03				
WEZ11032E04				
WEZ11032E05(-25)				
WEZ11035E05				
WEZ11040E02				
WEZ11040E04				
WEZ11040E06				
WEZ11050E05				
WEZ11050E07				
WEZ11063E08				
WEZ11080E10				

Identification Code

WEZ 11 025 E 03 -20

Series Insert Size Dia. Shank Type Number of Teeth Shank Dia.

* Modification of the cutter body is required when mounting a corner radius 2.4 or higher insert.

Modify this portion.

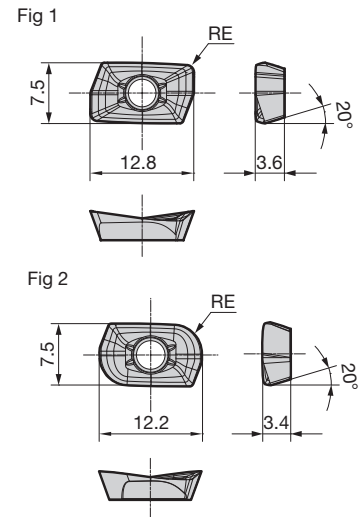
WEZ11 Type	WEZ17 Type
Reworking guidelines	Reworking guidelines
Corner radius = 2.4: C1 (AOMT11T324PEER)	Corner radius = 2.4: C1 (AOMT170524PEER)
Corner radius = 3.0: C1 (AOMT11T330PEER)	Corner radius = 3.0: C1 (AOMT170530PEER)
Corner radius = 3.2: C1 (AOMT11T332PEER)	Corner radius = 3.2: C1 (AOMT170532PEER)
	Corner radius = 4.0: C2 (AOMT170540PEER)
	Corner radius = 5.0: C5 (AOMT170550PEER)
	Corner radius = 6.4: C5 (AOMT170564PEER)
	Standard: R1.

Recommended Tightening Torque (N·m) ● mark: Standard stocked item

Insert

Dimensions (mm)

Material Classification		Coated Carbide						Cemented Carbide	DLC	Cermet	Corner Radius RE Fig				
Process	High-speed/Light	K M P	K K	K K	M S	M S		N	P						
	General-purpose	K M P	K K	K K	M S	M S	N	N							
	Roughing	K M P		K K	M S										
Cat. No.		ACU2500	XCU2500	ACP2000	ACP3000	XCK2000	ACK2000	ACK3000	ACM200	ACM300	H20	DL2000	T2500A		
AOMT 11T302PEER-G	●			●				●					●	0.2	1
11T304PEER-G	●	●	●	●	●	●	●	●	●	●			●	0.4	1
11T305PEER-G	●								●	●				0.5	1
11T308PEER-G	●	●	●	●	●	●	●	●					●	0.8	1
11T310PEER-G	●								●	●				1.0	1
11T312PEER-G	●			●				●	●	●				1.2	1
11T316PEER-G	●			●				●	●	●				1.6	1
11T320PEER-G	●			●				●	●	●				2.0	1
11T324PEER-G	●							●	●	●				2.4	1
11T330PEER-G	●			●				●	●	●				3.0	2
11T332PEER-G	●							●	●	●				3.2	2
AOMT 11T304PEER-H	●	●	●	●	●	●	●	●						0.4	1
11T308PEER-H	●	●	●	●	●	●	●	●						0.8	1
11T312PEER-H	●							●	●	●				1.2	1
11T316PEER-H	●							●	●	●				1.6	1
AOET 11T302PEER-F	●													0.2	1
11T304PEER-F	●													0.4	1
11T305PEER-F	●													0.5	1
11T308PEER-F	●													0.8	1
11T310PEER-F	●													1.0	1
11T312PEER-F	●													1.2	1
11T316PEER-F	●													1.6	1
11T320PEER-F	●													2.0	1
11T324PEER-F	●													2.4	1
11T330PEER-F	●													3.0	2
11T332PEER-F	●													3.2	2
AOET 11T302PEER-P16	●													0.2	1
11T304PEER-P16	●													0.4	1
11T305PEER-P16	●													0.5	1
11T308PEER-P16	●													0.8	1
11T310PEER-P16	●													1.0	1
11T312PEER-P16	●													1.2	1
AOET 11T302PEER-P20	●													0.2	1
11T304PEER-P20	●													0.4	1
11T305PEER-P20	●													0.5	1
11T308PEER-P20	●													0.8	1
11T310PEER-P20	●													1.0	1
11T312PEER-P20	●													1.2	1
AOET 11T302PEER-P25	●													0.2	1
11T304PEER-P25	●													0.4	1
11T305PEER-P25	●													0.5	1
11T308PEER-P25	●													0.8	1
11T310PEER-P25	●													1.0	1
11T312PEER-P25	●													1.2	1
AOET 11T302PEFR-S	—							●	●					0.2	1
11T304PEFR-S	—							●	●					0.4	1
11T305PEFR-S	—							●	●					0.5	1
11T308PEFR-S	—							●	●					0.8	1
11T310PEFR-S	—							●	●					1.0	1
11T312PEFR-S	—							●	●					1.2	1
11T316PEFR-S	—							●	●					1.6	1
11T320PEFR-S	—							●	●					2.0	1
11T324PEFR-S	—							●	●					2.4	1
11T330PEFR-S	—							●	●					3.0	2
11T332PEFR-S	—							●	●					3.2	2



-G: General-purpose, -H: Strong Edge, -F: Medium Finishing, -P16/-P20/-P25: High-precision Machining, -S: Non-Ferrous Metals.

Precautions for Mounting Inserts **P49** Recommended Cutting Conditions **P7**

* -P16 is applicable to cutter diameters $\phi 14$ and $\phi 16$. -P20 is applicable to cutter diameters $\phi 18$ and $\phi 20$. -P25 is applicable to cutter diameters $\phi 25$ and $\phi 28$.

● mark: Standard stocked item ● mark: Standard stocked item (expanded item) Blank: Made-to-order item — mark: Not available

WEZ

WEZR

Shell

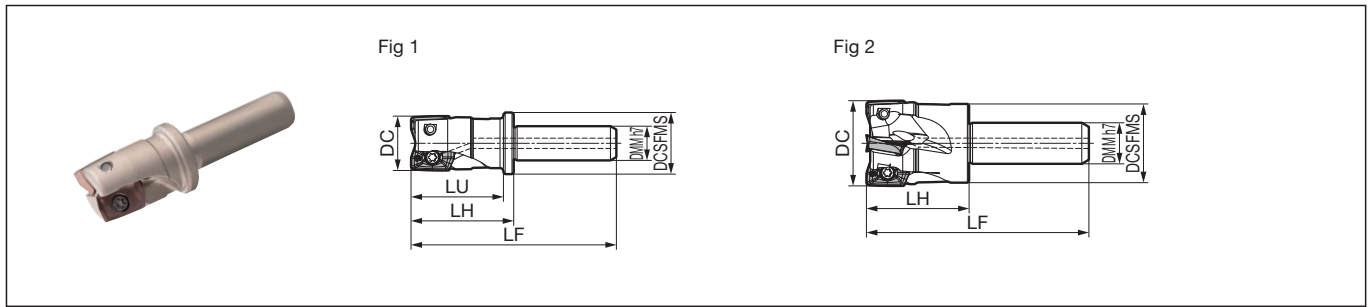
Shank

Modular

Application Examples

Made-to-Order Product

Rake Angle	Radial	-14° to -18°	10mm	90°
	Axial	6° to 10°		



Body (Short Shank Type)

Cat. No.	Stock	Dia. DC	Boss DCSFMS	Shank DMM	Head LH	Neck LU	Overall Length LF	Number of Teeth	Dimensions (mm)	
									Weight (kg)	Fig
WEZ 11014ES01-12	●	14	18	12	30(29.7)	27	65(64.7)	1	0.05	1
11016ES02-10	●	16	18	10	25(24.7)	22	55(54.7)	2	0.04	1
11016ES02-12	●	16	18	12	30(29.7)	27	65(64.7)	2	0.05	1
11020ES03-10	●	20	18	10	25(24.7)	—	55(54.7)	3	0.04	2
11020ES03-12	●	20	18	12	30(29.7)	—	65(64.7)	3	0.06	2
11020ES03-16	●	20	23	16	30(29.7)	27	70(69.7)	3	0.10	1
11025ES04-12	●	25	23	12	30(29.7)	—	65(64.7)	4	0.09	2
11025ES04-16	●	25	23	16	30(29.7)	—	70(69.7)	4	0.12	2

The LH and LF dimensions in parentheses are dimensions using RE = 3.0/3.2 insert. When using RE = 3.0/3.2 inserts, the maximum depth of cut is 9.5. Inserts are sold separately.

Parts

Applicable Cutter	Flat Insert Screw		Wrench	Anti-seizure Cream
WEZ11014ES01-12 WEZ11016ES02-10 WEZ11016ES02-12	BFTX03051P	1.5	TRDR08IP	SUMI-P
WEZ11020ES03-10 WEZ11020ES03-12 WEZ11020ES03-16 WEZ11025ES04-12 WEZ11025ES04-16	BFTX03061P			

Identification Code

WEZ 11 020 E S 03 -12

Series Insert Size Dia. Shank Type Short Shank Number of Teeth Shank Dia.

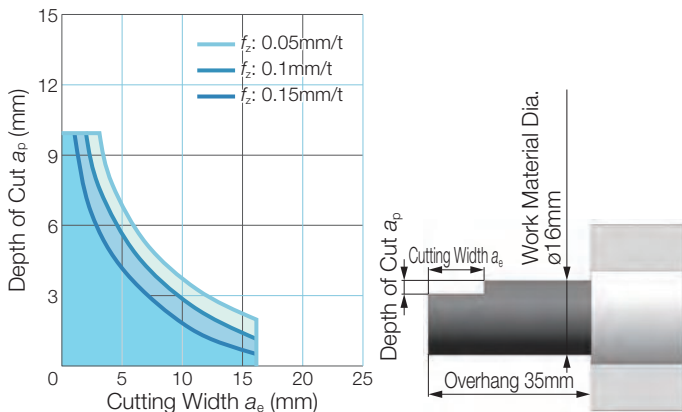
*** Modification of the cutter body is required when mounting a corner radius 2.4 or higher insert.**

Modify this portion.

WEZ11 Type	WEZ17 Type
Reworking guidelines	Reworking guidelines
Corner radius = 2.4: C1 (AOMT11T324PEER)	Corner radius = 2.4: C1 (AOMT170524PEER)
Corner radius = 3.0: C1 (AOMT11T330PEER)	Corner radius = 3.0: C1 (AOMT170530PEER)
Corner radius = 3.2: C1 (AOMT11T332PEER)	Corner radius = 3.2: C1 (AOMT170532PEER)
	Corner radius = 4.0: C2 (AOMT170540PEER)
	Corner radius = 5.0: C5 (AOMT170550PEER)
	Corner radius = 6.4: C5 (AOMT170564PEER)
	Standard: R1.

Recommended Cutting Conditions

Tool: WEZ11016ES02-10
Insert: AOMT11T30PEER-G

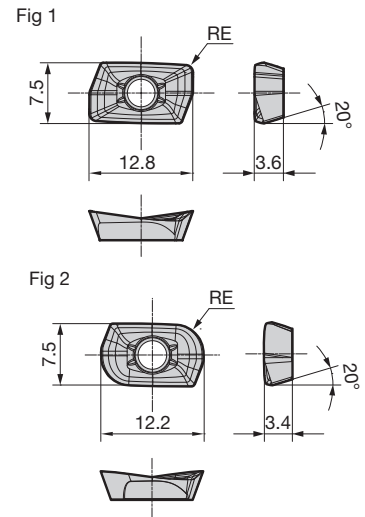


- For cutting conditions for each work material, see P7.
- The recommended cutting conditions may not be practical depending on the operating conditions (e.g. machine, work material shape, clamping system).

Insert

Dimensions (mm)

Material Classification	Coated Carbide								Cemented Carbide	DLC	Cermet	Corner Radius RE Fig		
	High-speed/Light		K	P	K	K	M	S		N	P			
	General-purpose		K	P	K	K	M	S	N	N				
Process	Roughing		K	P	K	K	M	S						
Cat. No.	ACU2500	XCU2500	ACP2000	ACP3000	XCK2000	ACK2000	ACK3000	ACM200	ACM300	H20	DL2000	T2500A		
AOMT 11T302PEER-G	●			●			●					●	0.2	1
11T304PEER-G	●	●	●	●	●	●	●	●	●			●	0.4	1
11T305PEER-G	●							●	●				0.5	1
11T308PEER-G	●	●		●	●	●	●	●	●			●	0.8	1
11T310PEER-G	●							●	●				1.0	1
11T312PEER-G	●			●			●	●	●				1.2	1
11T316PEER-G	●			●			●	●	●				1.6	1
11T320PEER-G	●			●			●	●	●				2.0	1
11T324PEER-G	●			●			●	●	●				2.4	1
11T330PEER-G	●			●			●	●	●				3.0	2
11T332PEER-G	●			●			●	●	●				3.2	2
AOMT 11T304PEER-H	●	●	●	●	●	●	●	●	●				0.4	1
11T308PEER-H	●	●	●	●	●	●	●	●	●				0.8	1
11T312PEER-H	●						●	●	●				1.2	1
11T316PEER-H	●						●	●	●				1.6	1
AOET 11T302PEER-F	●												0.2	1
11T304PEER-F	●												0.4	1
11T305PEER-F	●												0.5	1
11T308PEER-F	●												0.8	1
11T310PEER-F	●												1.0	1
11T312PEER-F	●												1.2	1
11T316PEER-F	●												1.6	1
11T320PEER-F	●												2.0	1
11T324PEER-F	●												2.4	1
11T330PEER-F	●												3.0	2
11T332PEER-F	●												3.2	2
AOET 11T302PEER-P16	●												0.2	1
11T304PEER-P16	●												0.4	1
11T305PEER-P16	●												0.5	1
11T308PEER-P16	●												0.8	1
11T310PEER-P16	●												1.0	1
11T312PEER-P16	●												1.2	1
AOET 11T302PEER-P20	●												0.2	1
11T304PEER-P20	●												0.4	1
11T305PEER-P20	●												0.5	1
11T308PEER-P20	●												0.8	1
11T310PEER-P20	●												1.0	1
11T312PEER-P20	●												1.2	1
AOET 11T302PEER-P25	●												0.2	1
11T304PEER-P25	●												0.4	1
11T305PEER-P25	●												0.5	1
11T308PEER-P25	●												0.8	1
11T310PEER-P25	●												1.0	1
11T312PEER-P25	●												1.2	1
AOET 11T302PEFR-S								●	●				0.2	1
11T304PEFR-S								●	●				0.4	1
11T305PEFR-S								●	●				0.5	1
11T308PEFR-S								●	●				0.8	1
11T310PEFR-S								●	●				1.0	1
11T312PEFR-S								●	●				1.2	1
11T316PEFR-S								●	●				1.6	1
11T320PEFR-S								●	●				2.0	1
11T324PEFR-S								●	●				2.4	1
11T330PEFR-S								●	●				3.0	2
11T332PEFR-S								●	●				3.2	2



-G: General-purpose, -H: Strong Edge, -F: Medium Finishing, -P16/-P20/-P25: High-precision Machining, -S: Non-Ferrous Metals.

Precautions for Mounting Inserts **P49** Recommended Cutting Conditions **P7**

● mark: Standard stocked item ● mark: Standard stocked item (expanded item) Blank: Made-to-order item — mark: Not available

WEZ

WEZR

Shell

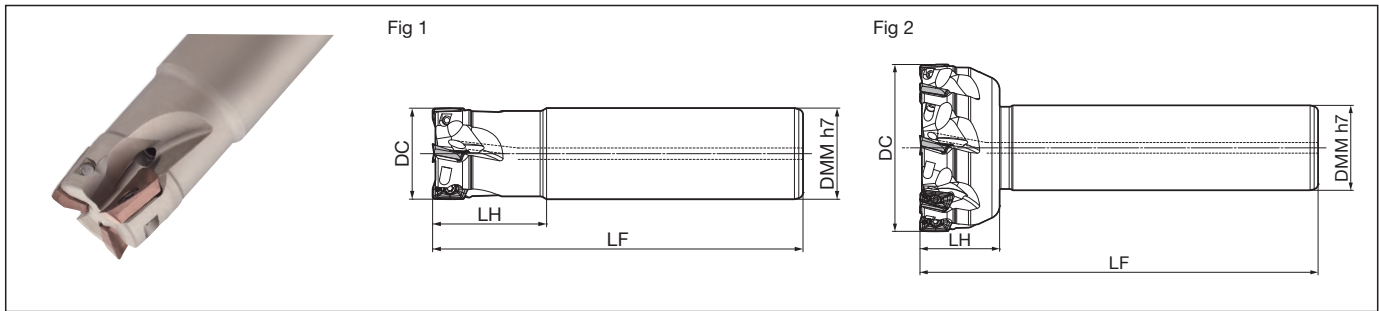
Shank

Modular

Application Examples

Made-to-Order Product

Rake Angle	Radial	-7° to -18°	10mm	90°
	Axial	6° to 15°		



Body (Long Type)

Dimensions (mm)

Cat. No.	Stock	Dia. DC	Shank DMM	Head LH	Overall Length LF	Number of Teeth	Weight (kg)	Fig
WEZ 11014EL01	●	14	16	25(24.7)	120(119.7)	1	0.16	1
11016EL02	●	16	16	25(24.7)	145(144.7)	2	0.19	1
11016EL02-14	●	16	14	25(24.7)	145(144.7)	2	0.15	2
11018EL02	●	18	16	25(24.7)	145(144.7)	2	0.20	2
11020EL02	●	20	20	40(39.7)	150(149.7)	2	0.31	1
11020EL02-18	●	20	18	25(24.7)	150(149.7)	2	0.26	2
11022EL02	●	22	20	30(29.7)	150(149.7)	2	0.32	2
11025EL02	●	25	25	50(49.7)	170(169.7)	2	0.57	1
11025EL02-22	●	25	22	30(29.7)	170(169.7)	2	0.46	2
11025EL03	●	25	25	50(49.7)	170(169.7)	3	0.57	1
11028EL02	●	28	25	30(29.7)	170(169.7)	2	0.60	2
11030EL02	●	30	25	30(29.7)	170(169.7)	2	0.62	2
11032EL02	●	32	32	60(59.7)	170(169.7)	2	0.97	1
11032EL02-30	●	32	30	30(29.7)	170(169.7)	2	0.88	2
11032EL03	●	32	32	60(59.7)	170(169.7)	3	0.96	1
11035EL02	●	35	32	30(29.7)	170(169.7)	2	1.02	2
11035EL03	●	35	32	30(29.7)	170(169.7)	3	1.00	2
11040EL02	●	40	32	30(29.7)	170(169.7)	2	1.08	2
11050EL03	●	50	32	30(29.7)	170(169.7)	3	1.19	2

The LH and LF dimensions in parentheses are dimensions using RE = 3.0/3.2 insert. When using RE = 3.0/3.2 inserts, the maximum depth of cut is 9.5. Inserts are sold separately.

Parts

Applicable Cutter	Flat Insert Screw	Wrench	Anti-seizure Cream
WEZ11014EL01	BFTX0305IP	1.5	TRDR08IP
WEZ11016EL02(-14)			
WEZ11018EL02			
WEZ11020EL02(-18)			
WEZ11022EL02			
WEZ11025EL02(-22)			
WEZ11025EL03			
WEZ11028EL02			
WEZ11030EL02			
WEZ11032EL02(-30)			
WEZ11032EL03			
WEZ11035EL02			
WEZ11035EL03			
WEZ11040EL02			
WEZ11050EL03			

Identification Code

WEZ 11 025 E L 02 -22
 Series Insert Size Dia. Shank Type Long Shank Number of Teeth Shank Dia.

* Modification of the cutter body is required when mounting a corner radius 2.4 or higher insert.

Modify this portion.

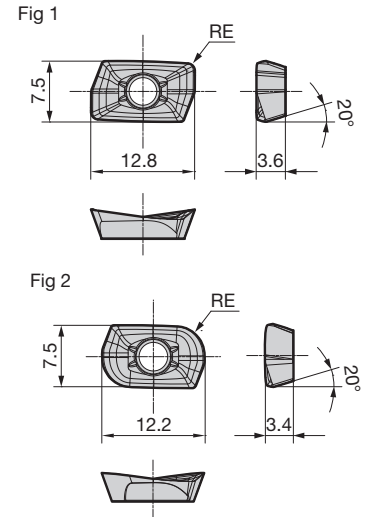
WEZ11 Type	WEZ17 Type
Reworking guidelines	Reworking guidelines
Corner radius = 2.4: C1 (AOMT11T324PEER)	Corner radius = 2.4: C1 (AOMT170524PEER)
Corner radius = 3.0: C1 (AOMT11T330PEER)	Corner radius = 3.0: C1 (AOMT170530PEER)
Corner radius = 3.2: C1 (AOMT11T332PEER)	Corner radius = 3.2: C1 (AOMT170532PEER)
	Corner radius = 4.0: C2 (AOMT170540PEER)
	Corner radius = 5.0: C5 (AOMT170550PEER)
	Corner radius = 6.4: C5 (AOMT170564PEER)

Standard: R1.

Insert

Dimensions (mm)

Material Classification	Coated Carbide						Cemented Carbide	DLC	Cermet	Corner Radius RE Fig				
	High-speed/Light		P		K			N	P	RE	Fig			
	General-purpose		P		K			N						
Roughing		P		K										
Cat. No.	ACU2500	XCU2500	ACP2000	ACP3000	XCK2000	ACK2000	ACK3000	ACM200	ACM300	H20	DL2000	T2500A		
AOMT 11T302PEER-G	●											●	0.2	1
11T304PEER-G	●	●	●	●	●	●	●	●	●			●	0.4	1
11T305PEER-G	●							●	●				0.5	1
11T308PEER-G	●	●	●	●	●	●	●	●	●			●	0.8	1
11T310PEER-G	●							●	●				1.0	1
11T312PEER-G	●			●			●	●	●				1.2	1
11T316PEER-G	●			●			●	●	●				1.6	1
11T320PEER-G	●			●			●	●	●				2.0	1
11T324PEER-G	●						●	●	●				2.4	1
11T330PEER-G	●			●			●	●	●				3.0	2
11T332PEER-G	●						●	●	●				3.2	2
AOMT 11T304PEER-H	●	●	●	●	●	●	●						0.4	1
11T308PEER-H	●	●	●	●	●	●	●						0.8	1
11T312PEER-H	●						●	●					1.2	1
11T316PEER-H	●						●	●					1.6	1
AOET 11T302PEER-F	●												0.2	1
11T304PEER-F	●												0.4	1
11T305PEER-F	●												0.5	1
11T308PEER-F	●												0.8	1
11T310PEER-F	●												1.0	1
11T312PEER-F	●												1.2	1
11T316PEER-F	●												1.6	1
11T320PEER-F	●												2.0	1
11T324PEER-F	●												2.4	1
11T330PEER-F	●												3.0	2
11T332PEER-F	●												3.2	2
AOET 11T302PEER-P16	●												0.2	1
11T304PEER-P16	●												0.4	1
11T305PEER-P16	●												0.5	1
11T308PEER-P16	●												0.8	1
11T310PEER-P16	●												1.0	1
11T312PEER-P16	●												1.2	1
AOET 11T302PEER-P20	●												0.2	1
11T304PEER-P20	●												0.4	1
11T305PEER-P20	●												0.5	1
11T308PEER-P20	●												0.8	1
11T310PEER-P20	●												1.0	1
11T312PEER-P20	●												1.2	1
AOET 11T302PEER-P25	●												0.2	1
11T304PEER-P25	●												0.4	1
11T305PEER-P25	●												0.5	1
11T308PEER-P25	●												0.8	1
11T310PEER-P25	●												1.0	1
11T312PEER-P25	●												1.2	1
AOET 11T302PEFR-S								●	●				0.2	1
11T304PEFR-S								●	●				0.4	1
11T305PEFR-S								●	●				0.5	1
11T308PEFR-S								●	●				0.8	1
11T310PEFR-S								●	●				1.0	1
11T312PEFR-S								●	●				1.2	1
11T316PEFR-S								●	●				1.6	1
11T320PEFR-S								●	●				2.0	1
11T324PEFR-S								●	●				2.4	1
11T330PEFR-S								●	●				3.0	2
11T332PEFR-S								●	●				3.2	2



-G: General-purpose, -H: Strong Edge, -F: Medium Finishing,

-P16/-P20/-P25: High-precision Machining, -S: Non-Ferrous Metals.

* -P16 is applicable to cutter diameters $\phi 14$ and $\phi 16$. -P20 is applicable to cutter diameters $\phi 18$ and $\phi 20$. -P25 is applicable to cutter diameters $\phi 25$ and $\phi 28$.

Precautions for Mounting Inserts **P49** Recommended Cutting Conditions **P7**

● mark: Standard stocked item ● mark: Standard stocked item (expanded item) Blank: Made-to-order item — mark: Not available

WEZ

WEZR

Shell

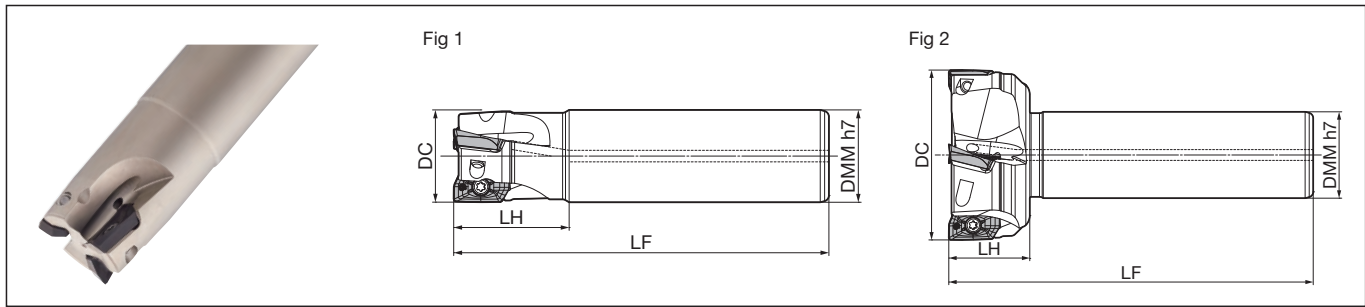
Shank

Modular

Application Examples

Made-to-Order Product

Rake Angle	Radial	-6° to -12°	15mm	90°
	Axial	6° to 15°		



Body (Shank Type)

Dimensions (mm)

Cat. No.	Stock	Dia. DC	Shank DMM	Head LH	Overall Length LF	Number of Teeth	Weight (kg)	Fig
WEZ 17025E02	●	25	25	35(34.3)	120(119.3)	2	0.38	1
17025E02-20	●	25	20	35(34.3)	120(119.3)	2	0.25	2
17028E02	●	28	25	35(34.3)	120(119.3)	2	0.40	2
17030E03	●	30	25	40(39.3)	130(129.3)	3	0.43	2
17032E02	●	32	32	40(39.3)	130(129.3)	2	0.71	1
17032E03	●	32	32	40(39.3)	130(129.3)	3	0.69	1
17032E03-25	●	32	25	40(39.3)	130(129.3)	3	0.44	2
17035E03	●	35	32	40(39.3)	130(129.3)	3	0.72	2
17040E03	●	40	32	30(29.3)	135(134.3)	3	0.81	2
17040E04	●	40	32	30(29.3)	135(134.3)	4	0.79	2
17050E03	●	50	32	30(29.3)	135(134.3)	3	0.93	2
17050E03-42	●	50	42	30(29.3)	135(134.3)	3	1.41	2
17050E05	●	50	32	30(29.3)	135(134.3)	5	0.89	2
17050E05-42	●	50	42	30(29.3)	135(134.3)	5	1.37	2
17063E04	●	63	32	30(29.3)	135(134.3)	4	1.10	2
17063E04-42	●	63	42	30(29.3)	135(134.3)	4	1.58	2
17063E06	●	63	32	30(29.3)	135(134.3)	6	1.08	2
17063E06-42	●	63	42	30(29.3)	135(134.3)	6	1.56	2
17080E07	●	80	32	30(29.3)	135(134.3)	7	1.39	2

The LH and LF dimensions in parentheses are dimensions using RE = 5.0/6.4 insert. When using RE = 5.0/6.4 inserts, the maximum depth of cut is 14.5. Inserts are sold separately.

Parts

Applicable Cutter	Flat Insert Screw		Wrench	Anti-seizure Cream
WEZ17025E02(-20) WEZ17028E02 WEZ17030E03 WEZ17032E02 WEZ17032E03(-25) WEZ17035E03 WEZ17040E03 WEZ17040E04 WEZ17050E03(-42) WEZ17050E05(-42) WEZ17063E04(-42) WEZ17063E06(-42) WEZ17080E07	BFTX0407IP	3.0	TRDR15IP	SUMI-P
	BFTX0409IP			

Identification Code

WEZ 17 025 E 02 -20

Series Insert Size Dia. Shank Type Number of Teeth Shank Dia.

* Modification of the cutter body is required when mounting a corner radius 2.4 or higher insert.

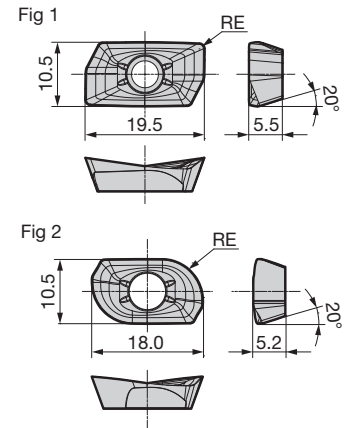
Modify this portion.

WEZ11 Type	WEZ17 Type
Reworking guidelines	Reworking guidelines
Corner radius = 2.4: C1 (AOMT11T324PEER)	Corner radius = 2.4: C1 (AOMT170524PEER)
Corner radius = 3.0: C1 (AOMT11T330PEER)	Corner radius = 3.0: C1 (AOMT170530PEER)
Corner radius = 3.2: C1 (AOMT11T332PEER)	Corner radius = 3.2: C1 (AOMT170532PEER)
	Corner radius = 4.0: C2 (AOMT170540PEER)
	Corner radius = 5.0: C5 (AOMT170550PEER)
	Corner radius = 6.4: C5 (AOMT170564PEER)
	Standard: R1.

Insert

Dimensions (mm)

Material Classification		Coated Carbide						Cemented Carbide	DLC	Cermet	Corner Radius RE	Fig			
Process	High-speed/Light														
	General-purpose														
	Roughing														
Cat. No.		ACU2500	XCU2500	ACP2000	ACP3000	XCK2000	ACK2000	ACK3000	ACM200	ACM300	H20	DL2000	T2500A		
AOMT	170502PEER-L	●												0.2	1
	170504PEER-L	●	●		●	●		●	●	●			●	0.4	1
	170508PEER-L	●	●		●	●		●	●	●			●	0.8	1
	170512PEER-L	●												1.2	1
	170516PEER-L	●												1.6	1
AOMT	170502PEER-G	●			●			●	●	●				0.2	1
	170504PEER-G	●	●	●	●	●		●	●	●			●	0.4	1
	170505PEER-G	●							●	●				0.5	1
	170508PEER-G	●	●	●	●	●		●	●	●			●	0.8	1
	170510PEER-G	●							●	●				1.0	1
	170512PEER-G	●			●			●	●	●				1.2	1
	170516PEER-G	●			●			●	●	●				1.6	1
	170520PEER-G	●			●			●	●	●				2.0	1
	170524PEER-G	●			●			●	●	●				2.4	1
	170530PEER-G	●			●			●	●	●				3.0	1
	170532PEER-G	●			●			●	●	●				3.2	1
	170540PEER-G	●			●			●	●	●				4.0	1
	170550PEER-G	●			●			●	●	●				5.0	2
	170564PEER-G	●			●			●	●	●				6.4	2
AOMT	170504PEER-H	●	●	●	●	●		●	●	●				0.4	1
	170508PEER-H	●	●	●	●	●		●	●	●				0.8	1
	170512PEER-H	●												1.2	1
	170516PEER-H	●												1.6	1
AOET	170502PEER-F	●												0.2	1
	170504PEER-F	●												0.4	1
	170505PEER-F	●												0.5	1
	170508PEER-F	●												0.8	1
	170510PEER-F	●												1.0	1
	170512PEER-F	●												1.2	1
	170516PEER-F	●												1.6	1
	170520PEER-F	●												2.0	1
	170524PEER-F	●												2.4	1
	170530PEER-F	●												3.0	1
	170532PEER-F	●												3.2	1
	170540PEER-F	●												4.0	1
	170550PEER-F	●												5.0	2
	170564PEER-F	●												6.4	2
AOET	170502PEER-P25	●												0.2	1
	170504PEER-P25	●												0.4	1
	170505PEER-P25	●												0.5	1
	170508PEER-P25	●												0.8	1
	170510PEER-P25	●												1.0	1
	170512PEER-P25	●												1.2	1
AOET	170502PEER-P32	●												0.2	1
	170504PEER-P32	●												0.4	1
	170505PEER-P32	●												0.5	1
	170508PEER-P32	●												0.8	1
	170510PEER-P32	●												1.0	1
	170512PEER-P32	●												1.2	1
AOET	170502PEFR-S	—	—	—	—	—	—	—	●	●				0.2	1
	170504PEFR-S	—	—	—	—	—	—	—	●	●				0.4	1
	170505PEFR-S	—	—	—	—	—	—	—	●	●				0.5	1
	170508PEFR-S	—	—	—	—	—	—	—	●	●				0.8	1
	170510PEFR-S	—	—	—	—	—	—	—	●	●				1.0	1
	170512PEFR-S	—	—	—	—	—	—	—	●	●				1.2	1
	170516PEFR-S	—	—	—	—	—	—	—	●	●				1.6	1
	170520PEFR-S	—	—	—	—	—	—	—	●	●				2.0	1
	170524PEFR-S	—	—	—	—	—	—	—	●	●				2.4	1
	170530PEFR-S	—	—	—	—	—	—	—	●	●				3.0	1
	170532PEFR-S	—	—	—	—	—	—	—	●	●				3.2	1
	170540PEFR-S	—	—	—	—	—	—	—	●	●				4.0	1
	170550PEFR-S	—	—	—	—	—	—	—	●	●				5.0	2
	170564PEFR-S	—	—	—	—	—	—	—	●	●				6.4	2



-L: Low Cutting Force, -G: General-purpose, -H: Strong Edge, -F: Medium Finishing, -P25/-P32: High-precision Machining, -S: Non-Ferrous Metals.

Precautions for Mounting Inserts Recommended Cutting Conditions

* -P25 is applicable to cutter diameters ø25 and ø28. -P32 is applicable to cutter diameters ø30, ø32 and ø35.

● mark: Standard stocked item ● mark: Standard stocked item (expanded item) Blank: Made-to-order item — mark: Not available

WEZ

WEZR

Shell

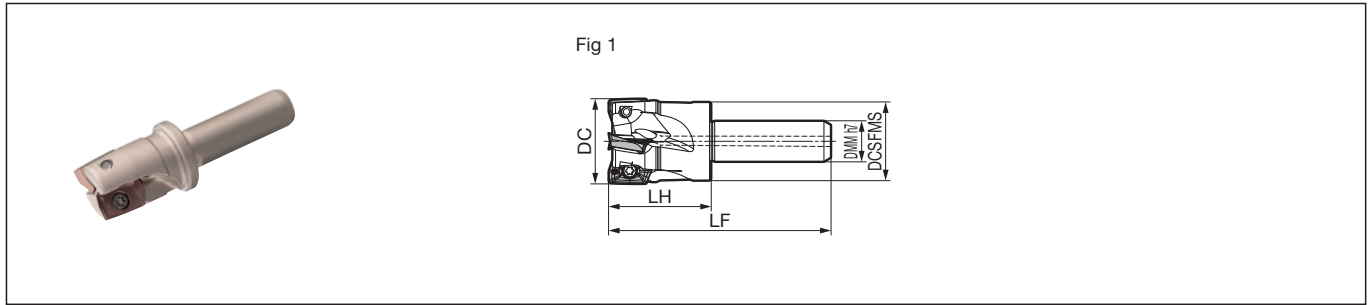
Shank

Modular

Application Examples

Made-to-Order Product

Rake Angle	Radial	-10° to -12°	15mm	90°
	Axial	6° to 8°		



Body (Short Shank Type)

Dimensions (mm)

Cat. No.	Stock	Dia. DC	Boss DCSFMS	Shank DMM	Head LH	Overall Length LF	Number of Teeth	Weight (kg)	Fig
WEZ 17025ES02-16	●	25	23	16	30(29.3)	70(69.3)	2	0.11	1
17032ES03-16	●	32	27	16	30(29.3)	70(69.3)	3	0.14	1

The LH and LF dimensions in parentheses are dimensions using RE = 5.0/6.4 insert. When using RE = 5.0/6.4 inserts, the maximum depth of cut is 14.5. Inserts are sold separately.

Parts

Applicable Cutter	Flat Insert Screw	Wrench	Anti-seizure Cream
WEZ17025ES02-16	BFTX0407IP	3.0	TRDR15IP
WEZ17032ES03-16	BFTX0409IP		SUMI-P

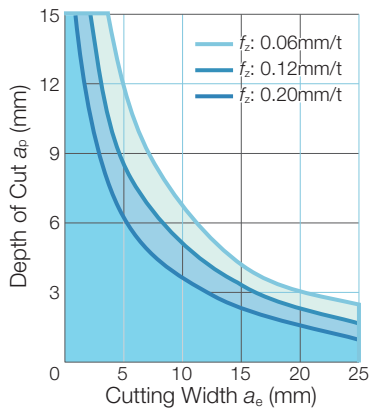
Identification Code

WEZ 17 025 E S 02 -16

Series Insert Size Dia. Shank Short Type Number of Teeth Shank Dia.

Recommended Cutting Conditions

Tool: WEZ17025ES02-16
Insert: AOMT17050PEER-G

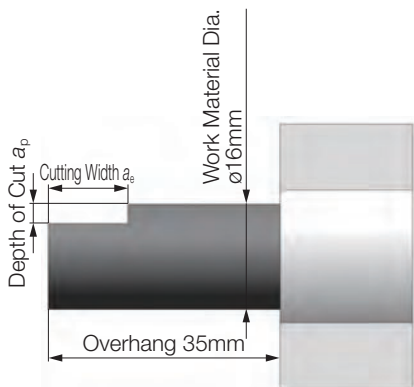


* Modification of the cutter body is required when mounting a corner radius 2.4 or higher insert.

Modify this portion.

WEZ11 Type	WEZ17 Type
Reworking guidelines	Reworking guidelines
Corner radius = 2.4: C1 (AOMT11T324PEER)	Corner radius = 2.4: C1 (AOMT170524PEER)
Corner radius = 3.0: C1 (AOMT11T330PEER)	Corner radius = 3.0: C1 (AOMT170530PEER)
Corner radius = 3.2: C1 (AOMT11T332PEER)	Corner radius = 3.2: C1 (AOMT170532PEER)
	Corner radius = 4.0: C2 (AOMT170540PEER)
	Corner radius = 5.0: C5 (AOMT170550PEER)
	Corner radius = 6.4: C5 (AOMT170564PEER)
	Standard: R1.

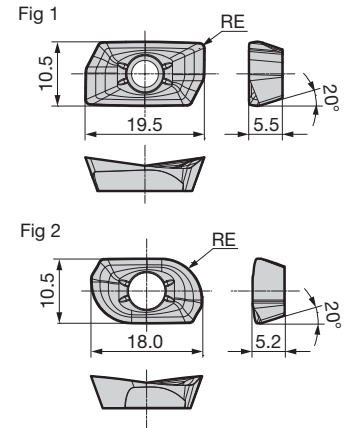
- For cutting conditions for each work material, see P7.
- The recommended cutting conditions may not be practical depending on the operating conditions (e.g. machine, work material shape, clamping system).



Insert

Dimensions (mm)

Material Classification	Coated Carbide						Cemented Carbide	DLC	Cermet	Dimensions (mm)					
	Process	High-speed/Light	P	K	K	M		N	P	Corner Radius RE	Fig				
		General-purpose	P	K	K	M	N	N							
	Roughing	P		K	M										
Cat. No.		ACU2500	XCU2500	ACP2000	ACP3000	XCK2000	ACK2000	ACK3000	ACM200	ACM300	H20	DL2000	T2500A		
AOMT 170502PEER-L	●													0.2	1
170504PEER-L	●	●											●	0.4	1
170508PEER-L	●	●											●	0.8	1
170512PEER-L	●													1.2	1
170516PEER-L	●													1.6	1
AOMT 170502PEER-G	●													0.2	1
170504PEER-G	●	●											●	0.4	1
170505PEER-G	●													0.5	1
170508PEER-G	●	●											●	0.8	1
170510PEER-G	●													1.0	1
170512PEER-G	●													1.2	1
170516PEER-G	●													1.6	1
170520PEER-G	●													2.0	1
170524PEER-G	●													2.4	1
170530PEER-G	●													3.0	1
170532PEER-G	●													3.2	1
170540PEER-G	●													4.0	1
170550PEER-G	●													5.0	2
170564PEER-G	●													6.4	2
AOMT 170504PEER-H	●	●												0.4	1
170508PEER-H	●	●												0.8	1
170512PEER-H	●													1.2	1
170516PEER-H	●													1.6	1
AOET 170502PEER-F	●													0.2	1
170504PEER-F	●													0.4	1
170505PEER-F	●													0.5	1
170508PEER-F	●													0.8	1
170510PEER-F	●													1.0	1
170512PEER-F	●													1.2	1
170516PEER-F	●													1.6	1
170520PEER-F	●													2.0	1
170524PEER-F	●													2.4	1
170530PEER-F	●													3.0	1
170532PEER-F	●													3.2	1
170540PEER-F	●													4.0	1
170550PEER-F	●													5.0	2
170564PEER-F	●													6.4	2
AOET 170502PEER-P25	●													0.2	1
170504PEER-P25	●													0.4	1
170505PEER-P25	●													0.5	1
170508PEER-P25	●													0.8	1
170510PEER-P25	●													1.0	1
170512PEER-P25	●													1.2	1
AOET 170502PEER-P32	●													0.2	1
170504PEER-P32	●													0.4	1
170505PEER-P32	●													0.5	1
170508PEER-P32	●													0.8	1
170510PEER-P32	●													1.0	1
170512PEER-P32	●													1.2	1
AOET 170502PEFR-S	●													0.2	1
170504PEFR-S	●													0.4	1
170505PEFR-S	●													0.5	1
170508PEFR-S	●													0.8	1
170510PEFR-S	●													1.0	1
170512PEFR-S	●													1.2	1
170516PEFR-S	●													1.6	1
170520PEFR-S	●													2.0	1
170524PEFR-S	●													2.4	1
170530PEFR-S	●													3.0	1
170532PEFR-S	●													3.2	1
170540PEFR-S	●													4.0	1
170550PEFR-S	●													5.0	2
170564PEFR-S	●													6.4	2



-L: Low Cutting Force, -G: General-purpose, -H: Strong Edge, -F: Medium Finishing, -P25/-P32: High-precision Machining, -S: Non-Ferrous Metals.

* -P25 is applicable to cutter diameters ø25. -P32 is applicable to cutter diameters ø32.

Precautions for Mounting Inserts **P49** Recommended Cutting Conditions **P7**

● mark: Standard stocked item ● mark: Standard stocked item (expanded item) Blank: Made-to-order item — mark: Not available

WEZ

WEZR

Shell

Shank

Modular

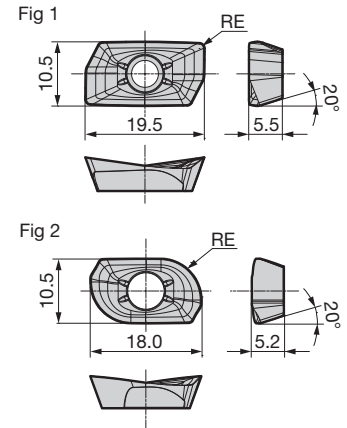
Application Examples

Made-to-Order Product

Insert

Dimensions (mm)

Material Classification		Coated Carbide						Cemented Carbide	DLC	Cermet					
Process	High-speed/Light														
	General-purpose														
	Roughing														
Cat. No.		ACU2500	XCU2500	ACP2000	ACP3000	XCK2000	ACK2000	ACK3000	ACM200	ACM300	H20	DL2000	T2500A	Corner Radius RE	Fig
AOMT	170502PEER-L	●												0.2	1
	170504PEER-L	●	●		●	●							●	0.4	1
	170508PEER-L	●	●		●	●							●	0.8	1
	170512PEER-L	●												1.2	1
	170516PEER-L	●												1.6	1
AOMT	170502PEER-G	●			●			●	●					0.2	1
	170504PEER-G	●	●	●	●	●		●	●				●	0.4	1
	170505PEER-G	●							●	●				0.5	1
	170508PEER-G	●	●	●	●	●		●	●				●	0.8	1
	170510PEER-G	●							●	●				1.0	1
	170512PEER-G	●			●			●	●					1.2	1
	170516PEER-G	●			●			●	●					1.6	1
	170520PEER-G	●			●			●	●					2.0	1
	170524PEER-G	●			●			●	●					2.4	1
	170530PEER-G	●			●			●	●					3.0	1
	170532PEER-G	●			●			●	●					3.2	1
	170540PEER-G	●			●			●	●					4.0	1
	170550PEER-G	●			●			●	●					5.0	2
	170564PEER-G	●			●			●	●					6.4	2
AOMT	170504PEER-H	●	●	●	●	●		●	●					0.4	1
	170508PEER-H	●	●	●	●	●		●	●					0.8	1
	170512PEER-H	●												1.2	1
	170516PEER-H	●												1.6	1
AOET	170502PEER-F	●												0.2	1
	170504PEER-F	●												0.4	1
	170505PEER-F	●												0.5	1
	170508PEER-F	●												0.8	1
	170510PEER-F	●												1.0	1
	170512PEER-F	●												1.2	1
	170516PEER-F	●												1.6	1
	170520PEER-F	●												2.0	1
	170524PEER-F	●												2.4	1
	170530PEER-F	●												3.0	1
	170532PEER-F	●												3.2	1
	170540PEER-F	●												4.0	1
	170550PEER-F	●												5.0	2
	170564PEER-F	●												6.4	2
AOET	170502PEER-P25	●												0.2	1
	170504PEER-P25	●												0.4	1
	170505PEER-P25	●												0.5	1
	170508PEER-P25	●												0.8	1
	170510PEER-P25	●												1.0	1
	170512PEER-P25	●												1.2	1
AOET	170502PEER-P32	●												0.2	1
	170504PEER-P32	●												0.4	1
	170505PEER-P32	●												0.5	1
	170508PEER-P32	●												0.8	1
	170510PEER-P32	●												1.0	1
	170512PEER-P32	●												1.2	1
AOET	170502PEFR-S	—	—	—	—	—	—	—	●	●				0.2	1
	170504PEFR-S	—	—	—	—	—	—	—	●	●				0.4	1
	170505PEFR-S	—	—	—	—	—	—	—	●	●				0.5	1
	170508PEFR-S	—	—	—	—	—	—	—	●	●				0.8	1
	170510PEFR-S	—	—	—	—	—	—	—	●	●				1.0	1
	170512PEFR-S	—	—	—	—	—	—	—	●	●				1.2	1
	170516PEFR-S	—	—	—	—	—	—	—	●	●				1.6	1
	170520PEFR-S	—	—	—	—	—	—	—	●	●				2.0	1
	170524PEFR-S	—	—	—	—	—	—	—	●	●				2.4	1
	170530PEFR-S	—	—	—	—	—	—	—	●	●				3.0	1
	170532PEFR-S	—	—	—	—	—	—	—	●	●				3.2	1
	170540PEFR-S	—	—	—	—	—	—	—	●	●				4.0	1
	170550PEFR-S	—	—	—	—	—	—	—	●	●				5.0	2
	170564PEFR-S	—	—	—	—	—	—	—	●	●				6.4	2



-L: Low Cutting Force, -G: General-purpose, -H: Strong Edge, -F: Medium Finishing, -P25/-P32: High-precision Machining, -S: Non-Ferrous Metals.

* -P25 is applicable to cutter diameters ø25 and ø28. -P32 is applicable to cutter diameters ø30, ø32 and ø35.

Precautions for Mounting Inserts Recommended Cutting Conditions

● mark: Standard stocked item ● mark: Standard stocked item (expanded item) Blank: Made-to-order item — mark: Not available

WEZ

WEZR

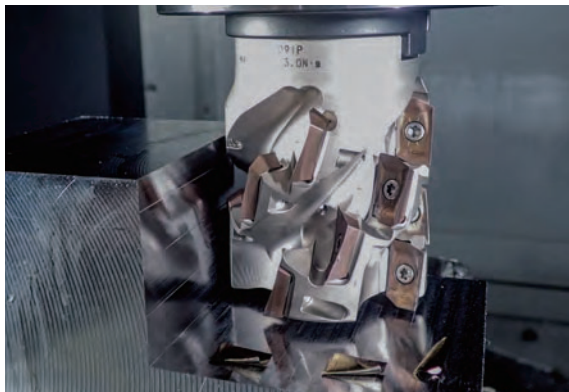
Shell

Shank

Modular

Application Examples

Made-to-Order Product



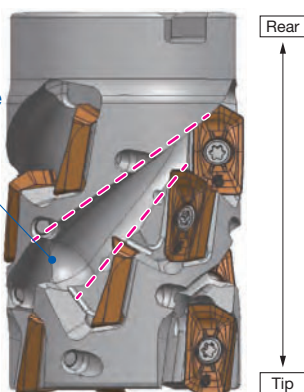
Features

- High-efficiency shoulder milling of deep steps
Inserts for SEC-WaveMill WEZ type are arranged in multiple stages forming a long cutting edge, to enable high-efficiency shoulder milling of deep steps
- Superb chatter resistance
Sharp inserts and irregular pitched body help suppress chatter and vibration
- Support for all types of work materials
A lineup of grades specific to each work material, as well as the general-purpose ACU2500 grade, which is applicable to steel, stainless steel and cast iron

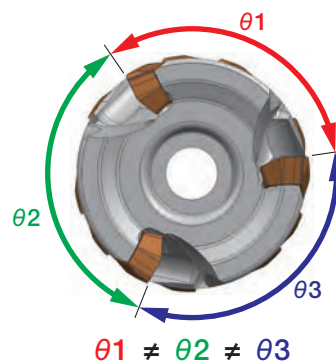
Body Features

- Flute shape ensures both rigidity and excellent chip evacuation performance

The chip pocket is larger toward the tip and the body is thicker toward the rear, for excellent chip evacuation and rigidity



- Irregular pitched body suppresses chattering



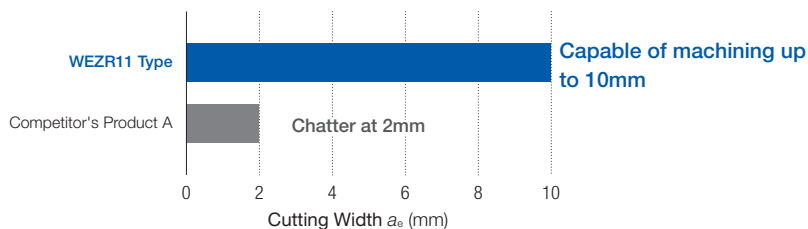
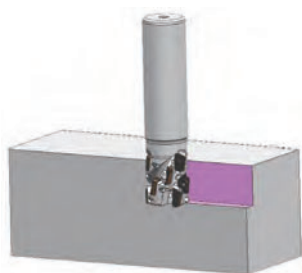
Irregular pitch is used to improve chatter resistance

Cutting Performance

- Sharp inserts and irregular pitched body provide superb chatter resistance

Capable of stable machining even with BT40 spindle machines

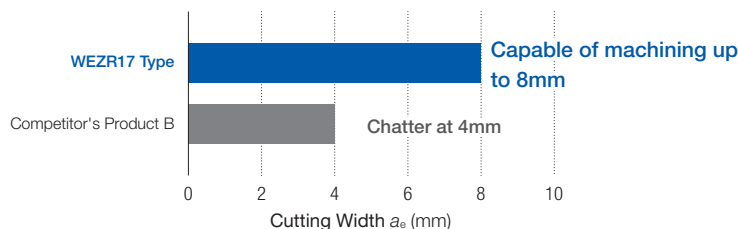
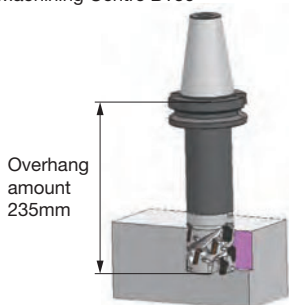
Vertical Machining Centre BT40



Machine: Vertical Machining Centre BT40, Work Material: S50C, Overhang amount: 60mm
 Tool: WEZR 11032E3632Z03 (ø32, 3-tooth 4-stage)
 Insert: AOMT 11T308PEER-G(ACU2500)
 Cutting Conditions: $v_c = 150\text{m/min}$, $f_z = 0.1\text{mm/t}$, $a_p=30\text{mm}$, Dry

Capable of stable machining even with a long overhang

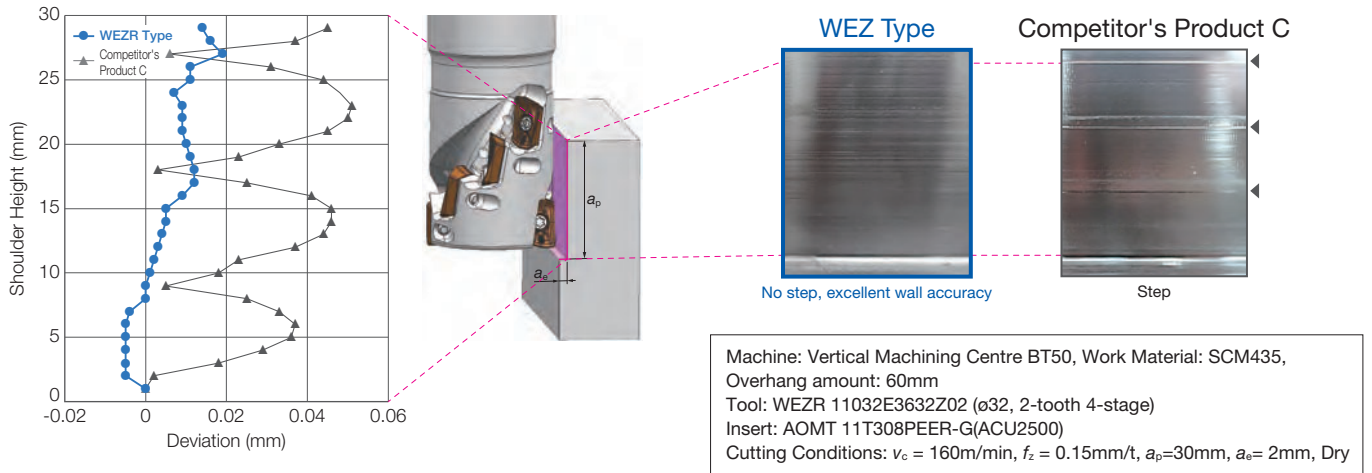
Vertical Machining Centre BT50



Machine: Vertical Machining Centre BT50, Work Material: SCM440, Overhang amount: 235mm
 Tool: WEZR 17063RS5727Z04 (ø63, 4-tooth 4-stage)
 Insert: AOMT 170508PEER-G(ACU2500)
 Cutting Conditions: $v_c = 150\text{m/min}$, $f_z = 0.15\text{mm/t}$, $a_p=50\text{mm}$, Dry

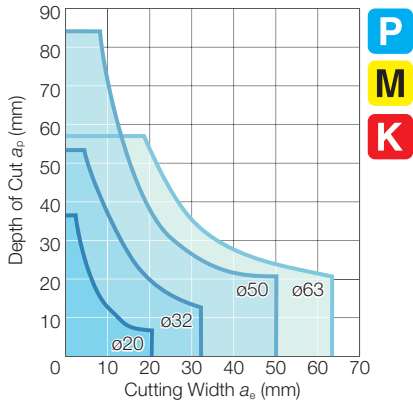
Cutting Performance

- Optimised cutting edge shape and high-precision molding technology result in excellent wall accuracy

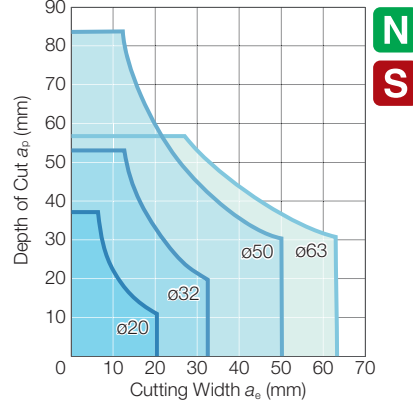


Application Range

- Steel, stainless steel, cast iron



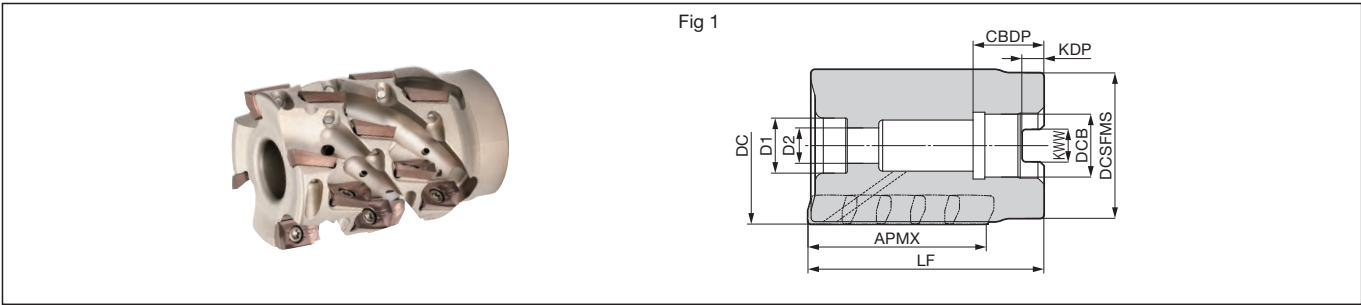
- Aluminum alloys, titanium alloys



Note ·The depth of cut figures above are guidelines for use with BT50 machine tools. Use a depth of cut of approximately 50% if using BT40.
 ·For a tool overhang of L/D = 3 or L/D = 4, use a depth of cut of approximately 50% or 25%, respectively.
 ·There may be cases where machining cannot be performed at the depth of cut figures above, depending on the machine rigidity and work rigidity.
 ·Refer to P28, P30, P32, P34, P40 and P42 for the cutting speed and feed rate.

WEZ
 WEZR
 Shell
 Shank
 Modular
 Application Examples
 Made-to-Order Product

Rake Angle	Radial	-11° to -9°	44 to 53mm	90°
	Axial	14° to 15°		



Body (Shell Type)

Dimensions (mm)

Metric	Cat. No.	Stock	Diameter DC	Max. Depth of Cut APMX	Boss DCSFMS	Height LF	Hole Dia. DCB	Keyway Width KWW	Keyway Depth KDP	Mounting Depth CDBP	Bolt D1	Bolt D2	Total No. of Teeth	Steps	Effective Number of Teeth	Weight (kg)	Fig
	WEZR 11040RS4416Z04	●	40	44(43)	37	60(59.7)	16	8.4	5.6	18	14	9	20	5	4	0.27	1
	11050RS5322Z04	●	50	53(52)	47	70(69.7)	22	10.4	6.3	20	18	11	24	6	4	0.57	1

The APMX and LF dimensions in parentheses are dimensions using RE = 3.0/3.2 insert.

Take note of the cutter mounting size (DCB) when selecting a cutter. Inserts are sold separately.

Parts

Applicable Cutter	Flat Insert Screw	Wrench	Bolt	Anti-seizure Cream	
WEZR 11040RS4416Z04 WEZR 11050RS5322Z04	BFTX0306IP	1.5	TRDR08IP	BX0850 BX1060	SUMI-P

Identification Code

WEZR	11	040	R	S	44	16	Z04
Series	Insert Size	Dia.	Feed Direction	Metric Bore	Max. Depth of Cut	Mounting Hole Diameter	Effective No. of Teeth

Recommended Cutting Conditions

ISO	Work Material	Hardness	Chipload	Cutting Speed v _c (m/min)		Feed Rate f _z (mm/t)		Insert Grade
				Min. - Optimum - Max.	Min. - Optimum - Max.			
P	Carbon Steel	≤ 280HB	G	100 - 150 - 200	0.08 - 0.12 - 0.20	ACU2500 XCU2500 ACP2000 ACP3000		
		> 280HB	G	80 - 100 - 120	0.08 - 0.12 - 0.20			
M	Alloy Steel	≤ 280HB	G	100 - 150 - 180	0.08 - 0.12 - 0.20	ACU2500 ACM200 ACM300		
		> 280HB	G	80 - 120 - 160	0.08 - 0.12 - 0.20			
K	Stainless Steel	≤ 280HB	G	80 - 120 - 160	0.08 - 0.12 - 0.20	ACU2500 XCK2000 ACK2000 ACK3000		
S	Cast Iron/ Ductile Cast Iron	—	G	100 - 150 - 200	0.08 - 0.12 - 0.20	ACU2500 ACM200 ACM300		
N	Exotic Alloy	—	G	40 - 50 - 60	0.08 - 0.12 - 0.20	DL2000 H20		
		Aluminum Alloy	Si ≤ 12.6%	S	300 - 500 - 800		0.05 - 0.10 - 0.15	
		Si > 12.6%	S	100 - 200 - 250	0.05 - 0.10 - 0.15			

Note -The cutting conditions above are a guide. Actual conditions will need to be adjusted according to machine rigidity, work clamp 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 work rigidity.

*** Modification of the cutter body is required when mounting a corner radius 2.4 or higher insert.**
Modify this portion.



WEZR11 Type

Reworking guidelines
 Corner radius = 2.4: C1 (AOMT11T324PEER)
 Corner radius = 3.0: C1 (AOMT11T330PEER)
 Corner radius = 3.2: C1 (AOMT11T332PEER)

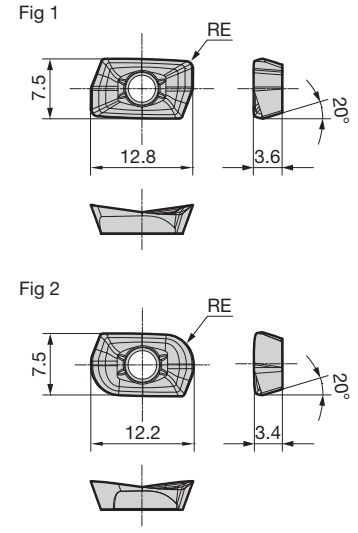
WEZR17 Type

Reworking guidelines
 Corner radius = 2.4: C1 (AOMT170524PEER)
 Corner radius = 3.0: C1 (AOMT170530PEER)
 Corner radius = 3.2: C1 (AOMT170532PEER)
 Corner radius = 4.0: C2 (AOMT170540PEER)
 Corner radius = 5.0: C5 (AOMT170550PEER)
 Corner radius = 6.4: C5 (AOMT170564PEER)
 Standard: R1.

Insert

Dimensions (mm)

Material Classification	Coated Carbide						Cemented Carbide	DLC	Cermet					
	High-speed/Light	KP	P	K	K	MS		N	P					
	General-purpose	KP	P	K	K	MS	N	N						
Process	Roughing	KP	P		K	MS								
Cat. No.	ACU2500	XCU2500	ACP2000	ACP3000	XCK2000	ACK2000	ACK3000	ACM200	ACM300	H20	DL2000	T2500A	Corner Radius RE	Fig
AOMT 11T302PEER-G	●			●			●		●				0.2	1
11T304PEER-G	●	●	●	●	●	●	●	●	●				0.4	1
11T305PEER-G	●							●	●				0.5	1
11T308PEER-G	●	●	●	●	●	●	●	●	●			●	0.8	1
11T310PEER-G	●							●	●				1.0	1
11T312PEER-G	●			●			●	●	●				1.2	1
11T316PEER-G	●			●			●	●	●				1.6	1
11T320PEER-G	●			●			●	●	●				2.0	1
11T324PEER-G	●			●			●	●	●				2.4	1
11T330PEER-G	●			●			●	●	●				3.0	2
11T332PEER-G	●			●			●	●	●				3.2	2
AOMT 11T304PEER-H	●	●	●	●	●	●	●	●	●				0.4	1
11T308PEER-H	●	●	●	●	●	●	●	●	●				0.8	1
11T312PEER-H	●						●	●	●				1.2	1
11T316PEER-H	●						●	●	●				1.6	1
AOET 11T302PEER-F	●												0.2	1
11T304PEER-F	●												0.4	1
11T305PEER-F	●												0.5	1
11T308PEER-F	●												0.8	1
11T310PEER-F	●												1.0	1
11T312PEER-F	●												1.2	1
11T316PEER-F	●												1.6	1
11T320PEER-F	●												2.0	1
11T324PEER-F	●												2.4	1
11T330PEER-F	●												3.0	2
11T332PEER-F	●												3.2	2
AOET 11T302PEFR-S								●	●				0.2	1
11T304PEFR-S								●	●				0.4	1
11T305PEFR-S								●	●				0.5	1
11T308PEFR-S								●	●				0.8	1
11T310PEFR-S								●	●				1.0	1
11T312PEFR-S								●	●				1.2	1
11T316PEFR-S								●	●				1.6	1
11T320PEFR-S								●	●				2.0	1
11T324PEFR-S								●	●				2.4	1
11T330PEFR-S								●	●				3.0	2
11T332PEFR-S								●	●				3.2	2

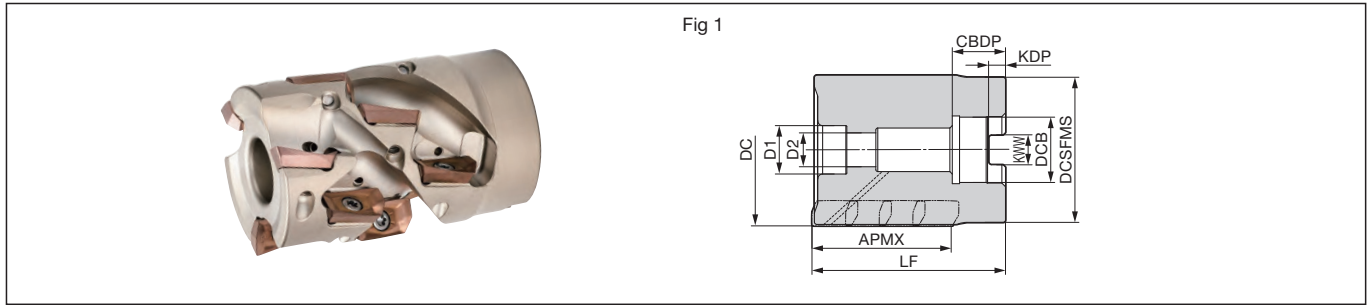


-G: General-purpose, -H: Strong Edge, -F: Medium Finishing, -S: Non-Ferrous Metals.
Use peripheral inserts with RE of 0.8mm or less from the second step and above.

Precautions for Mounting Inserts P49

WEZ
 WEZR
 Shell
 Shank
 Modular
 Application Examples
 Made-to-Order Product

Rake Angle	Radial	-8° to -6°	29 to 57 mm 90°
	Axial	7° to 15°	



Body (Shell Type)

Cat. No.	Stock	Dimensions (mm)														
		Diameter DC	Max. Depth of Cut APMX	Boss DCSFMS	Height LF	Hole Dia. DCB	Keyway Width KWW	Keyway Depth KDP	Mounting Depth CDBP	Bolt D1	Bolt D2	Total No. of Teeth	Steps	Effective Number of Teeth	Weight (kg)	Fig
WEZR 17050RS2922Z04	●	50	29(28)	47	50(49.3)	22	10.4	6.3	20	18	11	8	2	4	0.35	1
17050RS5722Z02	●	50	57(56)	47	80(79.3)	22	10.4	6.3	20	18	11	8	4	2	0.70	1
17050RS5722Z03	●	50	57(56)	47	80(79.3)	22	10.4	6.3	20	18	11	12	4	3	0.59	1
17063RS2927Z05	●	63	29(28)	60	55(54.3)	27	12.4	7	22	20	14	10	2	5	0.74	1
17063RS5727Z03	●	63	57(56)	60	80(79.3)	27	12.4	7	22	20	14	12	4	3	1.11	1
17063RS5727Z04	●	63	57(56)	60	80(79.3)	27	12.4	7	22	20	14	16	4	4	1.05	1
17080RS5627Z05	●	80	56(55)	70	80(79.3)	27	12.4	7	22	20	14	20	4	5	1.85	1
17080RS5632Z05	●	80	56(55)	70	80(79.3)	32	14.4	8	26	25	18	20	4	5	1.76	1

The APMX and LF dimensions in parentheses are dimensions using RE = 5.0/6.4 insert.

Take note of the cutter mounting size (DCB) when selecting a cutter. Inserts are sold separately.

Parts

Applicable Cutter	Flat Insert Screw		Integrated Wrench	Detachable Wrench Handle Grip		Bit	Bolt	Anti-seizure Cream			
WEZR 17050RS2922Z04	BFTX0409IP	3.0	—	HPS1015	TRB15IP	SUMI-P	BX1045				
WEZR 17050RS5722Z02							BX1070				
WEZR 17050RS5722Z03							BX1240				
WEZR 17063RS2927Z05							BX1265				
WEZR 17063RS5727Z03							TRDR15IP		—	—	BX1265
WEZR 17063RS5727Z04											BX1660
WEZR 17080RS5627Z05											
WEZR 17080RS5632Z05											

Recommended Cutting Conditions

ISO	Work Material	Hardness	Chipbreaker	Cutting Speed v_c (m/min)		Feed Rate f_z (mm/t)		Insert Grade
				Min. - Optimum - Max.	Min. - Optimum - Max.			
P	Carbon Steel	≤ 280HB	G	100 - 150 - 200	0.10 - 0.20 - 0.30	ACU2500 XCU2500 ACP2000 ACP3000		
		> 280HB	G	80 - 100 - 120	0.10 - 0.20 - 0.30			
	Alloy Steel	≤ 280HB	G	100 - 150 - 180	0.10 - 0.20 - 0.30			
M	Stainless Steel	≤ 280HB	G	80 - 120 - 160	0.10 - 0.20 - 0.30	ACU2500 ACM200 ACM300		
K	Cast Iron/ Ductile Cast Iron	—	G	100 - 150 - 200	0.10 - 0.20 - 0.30	ACU2500 XCK2000 ACK2000 ACK3000		
S	Exotic Alloy	—	G	40 - 50 - 60	0.10 - 0.20 - 0.30	ACU2500 ACM200 ACM300		
N	Aluminum Alloy	Si ≤ 12.6%	S	300 - 500 - 800	0.05 - 0.10 - 0.15	DL2000 H20		
		Si > 12.6%	S	100 - 200 - 250	0.05 - 0.10 - 0.15			

Note -The cutting conditions above are a guide. Actual conditions will need to be adjusted according to machine rigidity, work clamp 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 work rigidity.

Identification Code

WEZR	17	050	R	S	29	22	Z04
Series	Insert Size	Dia.	Feed Direction	Metric Bore	Max. Depth of Cut	Mounting Hole Diameter	Effective No. of Teeth

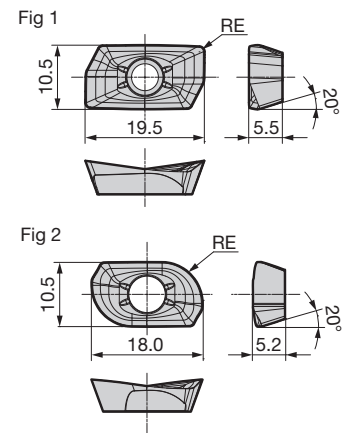
*** Modification of the cutter body is required when mounting a corner radius 2.4 or higher insert.**
Modify this portion.

WEZR11 Type	WEZR17 Type
Reworking guidelines	Reworking guidelines
Corner radius = 2.4: C1 (AOMT11T324PEER)	Corner radius = 2.4: C1 (AOMT170524PEER)
Corner radius = 3.0: C1 (AOMT11T330PEER)	Corner radius = 3.0: C1 (AOMT170530PEER)
Corner radius = 3.2: C1 (AOMT11T332PEER)	Corner radius = 3.2: C1 (AOMT170532PEER)
	Corner radius = 4.0: C2 (AOMT170540PEER)
	Corner radius = 5.0: C5 (AOMT170550PEER)
	Corner radius = 6.4: C5 (AOMT170564PEER)
	Standard: R1.

Insert

Dimensions (mm)

Process	Material Classification		Coated Carbide						Cemented Carbide	DLC	Cermet	Corner Radius RE	Fig	
	High-speed/Light	General-purpose	KP	P	K	K	M	S		N	P			
	General-purpose	Roughing	KP	P	K	K	M	S	N	N				
Cat. No.	ACU2500	XCU2500	ACP2000	ACP3000	XCK2000	ACK2000	ACK3000	ACM200	ACM300	H20	DL2000	T2500A		
AOMT 170502PEER-L	●												0.2	1
170504PEER-L	●	●		●	●		●	●	●			●	0.4	1
170508PEER-L	●	●		●	●		●	●	●			●	0.8	1
170512PEER-L	●												1.2	1
170516PEER-L	●												1.6	1
AOMT 170502PEER-G	●			●			●	●	●				0.2	1
170504PEER-G	●	●	●	●	●		●	●	●			●	0.4	1
170505PEER-G	●							●	●				0.5	1
170508PEER-G	●	●	●	●	●		●	●	●			●	0.8	1
170510PEER-G	●							●	●				1.0	1
170512PEER-G	●			●			●	●	●				1.2	1
170516PEER-G	●			●			●	●	●				1.6	1
170520PEER-G	●			●			●	●	●				2.0	1
170524PEER-G	●			●			●	●	●				2.4	1
170530PEER-G	●			●			●	●	●				3.0	1
170532PEER-G	●			●			●	●	●				3.2	1
170540PEER-G	●			●			●	●	●				4.0	1
170550PEER-G	●			●			●	●	●				5.0	2
170564PEER-G	●			●			●	●	●				6.4	2
AOMT 170504PEER-H	●	●	●	●	●		●	●	●				0.4	1
170508PEER-H	●	●	●	●	●		●	●	●				0.8	1
170512PEER-H	●												1.2	1
170516PEER-H	●							●	●				1.6	1
AOET 170502PEER-F	●												0.2	1
170504PEER-F	●												0.4	1
170505PEER-F	●												0.5	1
170508PEER-F	●												0.8	1
170510PEER-F	●												1.0	1
170512PEER-F	●												1.2	1
170516PEER-F	●												1.6	1
170520PEER-F	●												2.0	1
170524PEER-F	●												2.4	1
170530PEER-F	●												3.0	1
170532PEER-F	●												3.2	1
170540PEER-F	●												4.0	1
170550PEER-F	●												5.0	2
170564PEER-F	●												6.4	2
AOET 170502PEFR-S								●	●				0.2	1
170504PEFR-S								●	●				0.4	1
170505PEFR-S								●	●				0.5	1
170508PEFR-S								●	●				0.8	1
170510PEFR-S								●	●				1.0	1
170512PEFR-S								●	●				1.2	1
170516PEFR-S								●	●				1.6	1
170520PEFR-S								●	●				2.0	1
170524PEFR-S								●	●				2.4	1
170530PEFR-S								●	●				3.0	1
170532PEFR-S								●	●				3.2	1
170540PEFR-S								●	●				4.0	1
170550PEFR-S								●	●				5.0	2
170564PEFR-S								●	●				6.4	2



-L: Low Cutting Force, -G: General-purpose, -H: Strong Edge, -F: Medium Finishing, -S: Non-Ferrous Metals.
Use peripheral inserts with RE of 0.8mm or less from the second step and above.

Precautions for Mounting Inserts **P49**

● mark: Standard stocked item, ● mark: Standard stocked item (expanded item), Blank: Made-to-order item, — mark: Not available

WEZ

WEZR

Shell

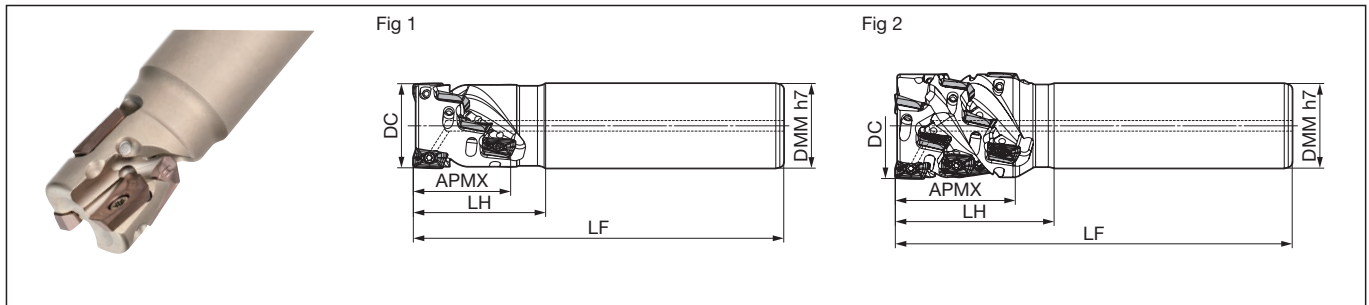
Shank

Modular

Application Examples

Made-to-Order Product

Rake Angle	Radial	-15° to -11°	19 to 61mm	90°
	Axial	8 to 14°		






Body (Shank Type)

Cat. No.	Stock	Dia. DC	Max. Depth of Cut APMX	Shank DMM	Head LH	Overall Length LF	Total No. of Teeth	Steps	Effective No. of Teeth	Weight (kg)	Dimensions (mm)	
											Fig	Fig
WEZR 11020E1920Z02	●	20	19(18)	20	30(29.7)	110(109.7)	4	2	2	0.22	1	1
11020E3620Z01	●	20	36(35)	20	45(44.7)	125(124.7)	4	4	1	0.24	1	1
11025E2725Z02	●	25	27(26)	25	40(39.7)	130(129.7)	6	3	2	0.41	1	1
11025E3625Z02	●	25	36(35)	25	50(49.7)	140(139.7)	8	4	2	0.42	1	1
11030E5325Z02	●	30	53(52)	25	65(64.7)	155(154.7)	12	6	2	0.52	2	2
11032E3632Z02	●	32	36(35)	32	50(49.7)	140(139.7)	8	4	2	0.74	1	1
11032E3632Z03	●	32	36(35)	32	50(49.7)	140(139.7)	12	4	3	0.71	1	1
11032E5332Z02	●	32	53(52)	32	70(69.7)	160(159.7)	12	6	2	0.90	1	1
11035E5332Z03	●	35	53(52)	32	65(64.7)	155(154.7)	18	6	3	0.88	2	2
11040E4432Z03	●	40	44(43)	32	60(59.7)	150(149.7)	15	5	3	0.87	2	2
11040E4432Z04	●	40	44(43)	32	60(59.7)	150(149.7)	20	5	4	0.85	2	2
11040E6132Z03	●	40	61(60)	32	75(74.7)	165(164.7)	21	7	3	0.95	2	2

The APMX, LH and LF dimensions in parentheses are dimensions using RE = 3.0/3.2 insert. Inserts are sold separately.

Parts

Flat Insert Screw	Integrated Wrench	Anti-seizure Cream
		
BFTX0306IP	1.5	TRDR08IP SUMI-P

Identification Code

WEZR 11 032 E 36 32 Z02

Series Insert Size Dia. Shank Type Max. Depth of Cut Shank Dia. Effective No. of Teeth

Recommended Cutting Conditions

ISO	Work Material	Hardness	Chipload	Cutting Speed v_c (m/min)		Feed Rate f_z (mm/t)		Insert Grade
				Min. - Optimum - Max.	Min. - Optimum - Max.			
P	Carbon Steel	≤ 280HB	G	100 - 150 - 200	0.08 - 0.12 - 0.20	ACU2500 XCU2500 ACP2000 ACP3000		
		> 280HB	G	80 - 100 - 120	0.08 - 0.12 - 0.20			
M	Alloy Steel	≤ 280HB	G	100 - 150 - 180	0.08 - 0.12 - 0.20	ACU2500 ACM200 ACM300		
		> 280HB	G	80 - 120 - 160	0.08 - 0.12 - 0.20			
K	Cast Iron/ Ductile Cast Iron	—	G	100 - 150 - 200	0.08 - 0.12 - 0.20	ACU2500 XCK2000 ACK2000 ACK3000		
S	Exotic Alloy	—	G	40 - 50 - 60	0.08 - 0.12 - 0.20	ACU2500 ACM200 ACM300		
N	Aluminum Alloy	Si ≤ 12.6%	S	300 - 500 - 800	0.05 - 0.10 - 0.15	DL2000 H20		
		Si > 12.6%	S	100 - 200 - 250	0.05 - 0.10 - 0.15			

Note -The cutting conditions above are a guide. Actual conditions will need to be adjusted according to machine rigidity, work clamp 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 work rigidity.

* Modification of the cutter body is required when mounting a corner radius 2.4 or higher insert.

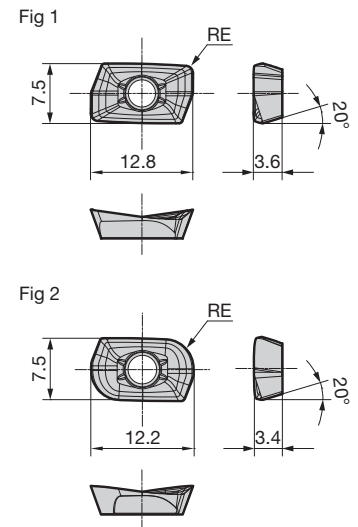
Modify this portion.

WEZR11 Type	WEZR17 Type
Reworking guidelines	Reworking guidelines
Corner radius = 2.4: C1 (AOMT11T324PEER)	Corner radius = 2.4: C1 (AOMT170524PEER)
Corner radius = 3.0: C1 (AOMT11T330PEER)	Corner radius = 3.0: C1 (AOMT170530PEER)
Corner radius = 3.2: C1 (AOMT11T332PEER)	Corner radius = 3.2: C1 (AOMT170532PEER)
	Corner radius = 4.0: C2 (AOMT170540PEER)
	Corner radius = 5.0: C5 (AOMT170550PEER)
	Corner radius = 6.4: C5 (AOMT170564PEER)
	Standard: R1.

Insert

Dimensions (mm)

Material Classification	Coated Carbide								Cemented Carbide	DLC	Cermet	Corner Radius RE	Fig	
	High-speed/Light	P		K		M			N	P				
	General-purpose	XP	MP	PK	KK	MS	MS	N	N	P				
Process	Roughing	XP	MP	PK	KK	MS	MS							
Cat. No.	ACU2500	XCU2500	ACP2000	ACP3000	XCK2000	ACK2000	ACK3000	ACM200	ACM300	H20	DL2000	T2500A		
AOMT 11T302PEER-G	●			●			●	●				●	0.2	1
11T304PEER-G	●	●	●	●	●	●	●	●				●	0.4	1
11T305PEER-G	●						●	●					0.5	1
11T308PEER-G	●	●		●	●	●	●	●				●	0.8	1
11T310PEER-G	●						●	●					1.0	1
11T312PEER-G	●			●			●	●					1.2	1
11T316PEER-G	●			●			●	●					1.6	1
11T320PEER-G	●			●			●	●					2.0	1
11T324PEER-G	●						●	●					2.4	1
11T330PEER-G	●			●			●	●					3.0	2
11T332PEER-G	●						●	●					3.2	2
AOMT 11T304PEER-H	●	●	●	●	●	●	●	●					0.4	1
11T308PEER-H	●	●	●	●	●	●	●	●					0.8	1
11T312PEER-H	●						●	●					1.2	1
11T316PEER-H	●						●	●					1.6	1
AOET 11T302PEER-F	●												0.2	1
11T304PEER-F	●												0.4	1
11T305PEER-F	●												0.5	1
11T308PEER-F	●												0.8	1
11T310PEER-F	●												1.0	1
11T312PEER-F	●												1.2	1
11T316PEER-F	●												1.6	1
11T320PEER-F	●												2.0	1
11T324PEER-F	●												2.4	1
11T330PEER-F	●												3.0	2
11T332PEER-F	●												3.2	2
AOET 11T302PEER-P20	●												0.2	1
11T304PEER-P20	●												0.4	1
11T305PEER-P20	●												0.5	1
11T308PEER-P20	●												0.8	1
11T310PEER-P20	●												1.0	1
11T312PEER-P20	●												1.2	1
AOET 11T302PEER-P25	●												0.2	1
11T304PEER-P25	●												0.4	1
11T305PEER-P25	●												0.5	1
11T308PEER-P25	●												0.8	1
11T310PEER-P25	●												1.0	1
11T312PEER-P25	●												1.2	1
AOET 11T302PEFR-S										●	●		0.2	1
11T304PEFR-S										●	●		0.4	1
11T305PEFR-S										●	●		0.5	1
11T308PEFR-S										●	●		0.8	1
11T310PEFR-S										●	●		1.0	1
11T312PEFR-S										●	●		1.2	1
11T316PEFR-S										●	●		1.6	1
11T320PEFR-S										●	●		2.0	1
11T324PEFR-S										●	●		2.4	1
11T330PEFR-S										●	●		3.0	2
11T332PEFR-S										●	●		3.2	2



-G: General-purpose, -H: Strong Edge, -F: Medium Finishing, -P20/-P25: High-precision Machining, -S: Non-Ferrous Metals. **Precautions for Mounting Inserts P49**

*-P20 is applicable to cutter diameter ø20. -P25 is applicable to cutter diameter ø25.
Use peripheral inserts with RE of 0.8mm or less from the second step and above.

● mark: Standard stocked item, ● mark: Standard stocked item (expanded item), Blank: Made-to-order item, — mark: Not available

WEZ

WEZR

Shell

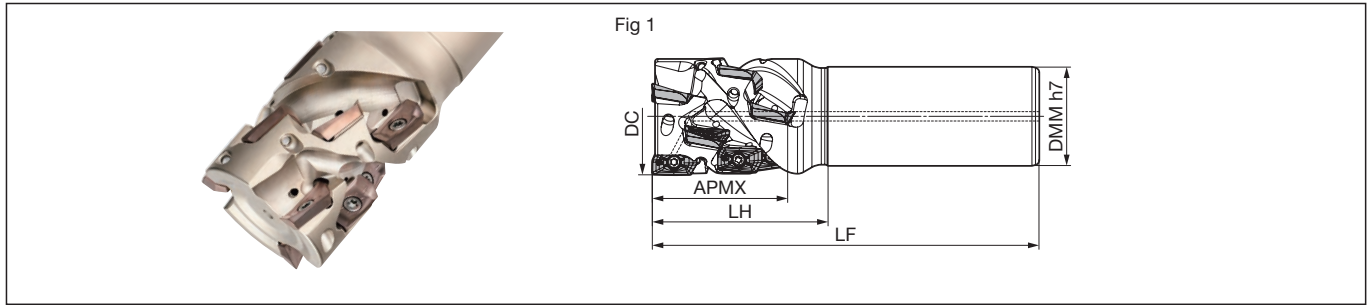
Shank

Modular

Application Examples

Made-to-Order Product

Rake Angle	Radial	-9° to -8°	29 to 84 mm	90°
	Axial	10° to 12°		



Body (Shank Type)

Cat. No.	Stock	Dia. DC	Max. Depth of Cut APMX	Shank DMM	Head LH	Overall Length LF	Total No. of Teeth	Steps	Effective No. of Teeth	Dimensions (mm)	
										Weight (kg)	Fig
WEZR 17040E2932Z03	●	40	29(28)	32	45(44.3)	135(134.3)	6	3	2	0.75	1
17040E4332Z02	●	40	43(42)	32	60(59.3)	150(149.3)	6	2	3	0.86	1
17050E5742Z03	●	50	57(56)	42	75(74.3)	165(164.3)	12	3	4	1.58	1
17050E8442Z02	●	50	84(83)	42	105(104.3)	195(194.3)	12	2	6	1.94	1

The APMX, LH and LF dimensions in parentheses are dimensions using RE = 5.0/6.4 insert. Inserts are sold separately.

Parts

Flat Insert Screw	Integrated Wrench	Anti-seizure Cream
BFTX0409IP	3.0	TRDR15IP SUMI-P

Identification Code

WEZR 17 040 E 29 32 Z03

Series Insert Size Dia. Shank Type Max. Depth of Cut Shank Dia. Effective No. of Teeth

Recommended Cutting Conditions

ISO	Work Material	Hardness	Chipbreaker	Cutting Speed v_c (m/min)		Feed Rate f_z (mm/t)		Insert Grade
				Min. - Optimum - Max.	Min. - Optimum - Max.			
P	Carbon Steel	$\leq 280\text{HB}$	G	100 - 150 - 200	0.10 - 0.20 - 0.30	ACU2500		
		$> 280\text{HB}$	G	80 - 100 - 120	0.10 - 0.20 - 0.30	XCU2500		
	Alloy Steel	$\leq 280\text{HB}$	G	100 - 150 - 180	0.10 - 0.20 - 0.30	ACP2000		
M	Stainless Steel	$\leq 280\text{HB}$	G	80 - 120 - 160	0.10 - 0.20 - 0.30	ACU2500		
						ACM200		
K	Cast Iron/Ductile Cast Iron		G	100 - 150 - 200	0.10 - 0.20 - 0.30	ACU2500		
						XCK2000		
						ACK2000		
S	Exotic Alloy		G	40 - 50 - 60	0.10 - 0.20 - 0.30	ACU2500		
						ACM200		
N	Aluminum Alloy	Si $\leq 12.6\%$	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, work clamp 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 work rigidity.

*** Modification of the cutter body is required when mounting a corner radius 2.4 or higher insert.**

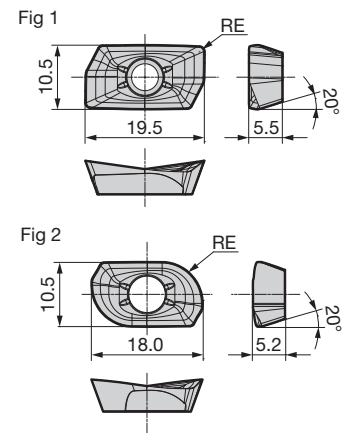
Modify this portion.

WEZR11 Type	WEZR17 Type
Reworking guidelines	Reworking guidelines
Corner radius = 2.4: C1 (AOMT11T324PEER)	Corner radius = 2.4: C1 (AOMT170524PEER)
Corner radius = 3.0: C1 (AOMT11T330PEER)	Corner radius = 3.0: C1 (AOMT170530PEER)
Corner radius = 3.2: C1 (AOMT11T332PEER)	Corner radius = 3.2: C1 (AOMT170532PEER)
	Corner radius = 4.0: C2 (AOMT170540PEER)
	Corner radius = 5.0: C5 (AOMT170550PEER)
	Corner radius = 6.4: C5 (AOMT170564PEER)
	Standard: R1.

Insert

Dimensions (mm)

Process	Material Classification		Coated Carbide						Cemented Carbide	DLC	Cermet	Corner Radius RE	Fig	
	High-speed/Light	General-purpose	KP	P	K	K	MS		N	P				
	General-purpose	Roughing	KP	P	K	K	MS	N	P					
Cat. No.	ACU2500	XCU2500	ACP2000	ACP3000	XCK2000	ACK2000	ACK3000	ACM200	ACM300	H20	DL2000	T2500A		
AOMT 170502PEER-L	●												0.2	1
170504PEER-L	●	●		●	●		●	●	●			●	0.4	1
170508PEER-L	●	●		●	●		●	●	●			●	0.8	1
170512PEER-L	●												1.2	1
170516PEER-L	●												1.6	1
AOMT 170502PEER-G	●			●			●	●	●				0.2	1
170504PEER-G	●	●	●	●	●		●	●	●			●	0.4	1
170505PEER-G	●							●	●				0.5	1
170508PEER-G	●	●	●	●	●		●	●	●			●	0.8	1
170510PEER-G	●							●	●				1.0	1
170512PEER-G	●			●			●	●	●				1.2	1
170516PEER-G	●			●			●	●	●				1.6	1
170520PEER-G	●			●			●	●	●				2.0	1
170524PEER-G	●			●			●	●	●				2.4	1
170530PEER-G	●			●			●	●	●				3.0	1
170532PEER-G	●			●			●	●	●				3.2	1
170540PEER-G	●			●			●	●	●				4.0	1
170550PEER-G	●			●			●	●	●				5.0	2
170564PEER-G	●			●			●	●	●				6.4	2
AOMT 170504PEER-H	●	●	●	●	●		●	●	●				0.4	1
170508PEER-H	●	●	●	●	●		●	●	●				0.8	1
170512PEER-H	●												1.2	1
170516PEER-H	●							●	●				1.6	1
AOET 170502PEER-F	●												0.2	1
170504PEER-F	●												0.4	1
170505PEER-F	●												0.5	1
170508PEER-F	●												0.8	1
170510PEER-F	●												1.0	1
170512PEER-F	●												1.2	1
170516PEER-F	●												1.6	1
170520PEER-F	●												2.0	1
170524PEER-F	●												2.4	1
170530PEER-F	●												3.0	1
170532PEER-F	●												3.2	1
170540PEER-F	●												4.0	1
170550PEER-F	●												5.0	2
170564PEER-F	●												6.4	2
AOET 170502PEFR-S								●	●				0.2	1
170504PEFR-S								●	●				0.4	1
170505PEFR-S								●	●				0.5	1
170508PEFR-S								●	●				0.8	1
170510PEFR-S								●	●				1.0	1
170512PEFR-S								●	●				1.2	1
170516PEFR-S								●	●				1.6	1
170520PEFR-S								●	●				2.0	1
170524PEFR-S								●	●				2.4	1
170530PEFR-S								●	●				3.0	1
170532PEFR-S								●	●				3.2	1
170540PEFR-S								●	●				4.0	1
170550PEFR-S								●	●				5.0	2
170564PEFR-S								●	●				6.4	2



-L: Low Cutting Force, -G: General-purpose, -H: Strong Edge, -F: Medium Finishing, -S: Non-Ferrous Metals.
Use peripheral inserts with RE of 0.8mm or less from the second step and above.

Precautions for Mounting Inserts **P49**

● mark: Standard stocked item, ● mark: Standard stocked item (expanded item), Blank: Made-to-order item, — mark: Not available

WEZ

WEZR

Shell

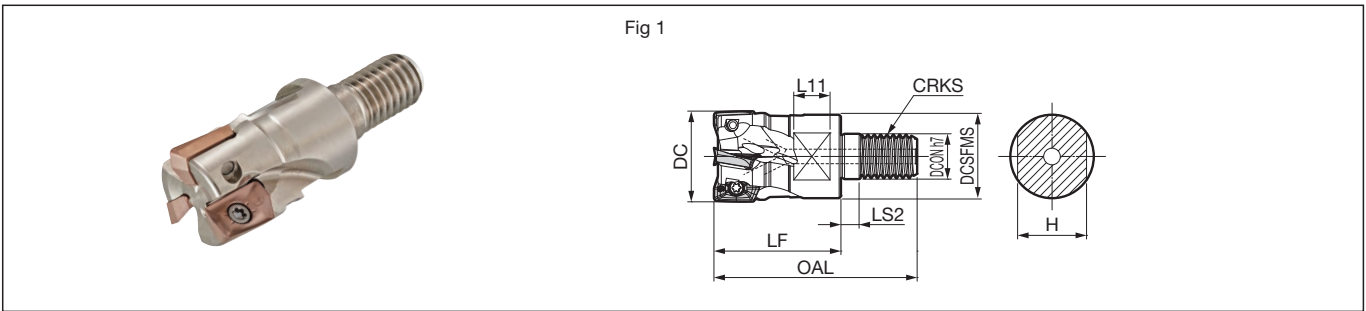
Shank

Modular

Application Examples

Made-to-Order Product

Rake Angle	Radial	-7° to -18°	10mm 90°
	Axial	6° to 15°	



Head

Dimensions (mm)

Cat. No.	Stock	Dia. DC	Boss DCSFMS	Mounting Dia. DCON	Screw CRKS	Overall Length OAL	Effective Length LF	Neck LS2	Flat L11	Width H	Number of Teeth	Weight (kg)	Fig
WEZ 11016M08Z2	●	16	14.5	8.5	M8	42(41.7)	25(24.7)	5	8	13	2	0.03	1
11018M08Z2	●	18	14.5	8.5	M8	42(41.7)	25(24.7)	5	8	13	2	0.03	1
11020M10Z2	●	20	18	10.5	M10	49(48.7)	30(29.7)	5	8	15	2	0.06	1
11020M10Z3	●	20	18	10.5	M10	49(48.7)	30(29.7)	5	8	15	3	0.05	1
11022M10Z3	●	22	18	10.5	M10	49(48.7)	30(29.7)	5	8	15	3	0.06	1
11025M12Z2	●	25	23	12.5	M12	56(55.7)	35(34.7)	5	10	19	2	0.11	1
11025M12Z3	●	25	23	12.5	M12	56(55.7)	35(34.7)	5	10	19	3	0.10	1
11025M12Z4	●	25	23	12.5	M12	56(55.7)	35(34.7)	5	10	19	4	0.10	1
11026M12Z4	●	26	23	12.5	M12	56(55.7)	35(34.7)	5	10	19	4	0.10	1
11026M12Z5	●	26	23	12.5	M12	56(55.7)	35(34.7)	5	10	19	5	0.09	1
11028M12Z4	●	28	23	12.5	M12	56(55.7)	35(34.7)	5	10	19	4	0.11	1
11028M12Z5	●	28	23	12.5	M12	56(55.7)	35(34.7)	5	10	19	5	0.10	1
11030M16Z2	●	30	28.5	17	M16	63(62.7)	40(39.7)	5	10	24	2	0.20	1
11030M16Z4	●	30	28.5	17	M16	63(62.7)	40(39.7)	5	10	24	4	0.19	1
11030M16Z5	●	30	28.5	17	M16	63(62.7)	40(39.7)	5	10	24	5	0.17	1
11032M16Z2	●	32	28.5	17	M16	63(62.7)	40(39.7)	5	10	24	2	0.22	1
11032M16Z3	●	32	28.5	17	M16	63(62.7)	40(39.7)	5	10	24	3	0.20	1
11032M16Z4	●	32	28.5	17	M16	63(62.7)	40(39.7)	5	10	24	4	0.20	1
11032M16Z5	●	32	28.5	17	M16	63(62.7)	40(39.7)	5	10	24	5	0.19	1
11035M16Z2	●	35	28.5	17	M16	63(62.7)	40(39.7)	5	10	24	2	0.24	1
11035M16Z5	●	35	28.5	17	M16	63(62.7)	40(39.7)	5	10	24	5	0.22	1
11040M16Z2	●	40	28.5	17	M16	63(62.7)	40(39.7)	5	10	24	2	0.28	1
11040M16Z4	●	40	28.5	17	M16	63(62.7)	40(39.7)	5	10	24	4	0.26	1
11040M16Z5	●	40	28.5	17	M16	63(62.7)	40(39.7)	5	10	24	5	0.26	1
11040M16Z6	●	40	28.5	17	M16	63(62.7)	40(39.7)	5	10	24	6	0.25	1

The OAL and LF dimensions in parentheses are dimensions using RE = 3.0/3.2 insert. When using RE = 3.0/3.2 inserts, the maximum depth of cut is 9.5. **Arbors P44**
 Inserts are sold separately.

Parts

Applicable Cutter	Flat Insert Screw		Wrench	Anti-seizure Cream
	WEZ11016M08Z2, WEZ11018M08Z2 WEZ11020M10Z2 to WEZ11040M16Z6	BFTX0305IP BFTX0306IP	1.5	TRDR08IP

Identification Code

WEZ 11 016 M08 Z2
 Series Insert Size Dia. Mounting Screw Size Number of Teeth

* Modification of the cutter body is required when mounting a corner radius 2.4 or higher insert.



Modify this portion.

WEZ11 Type

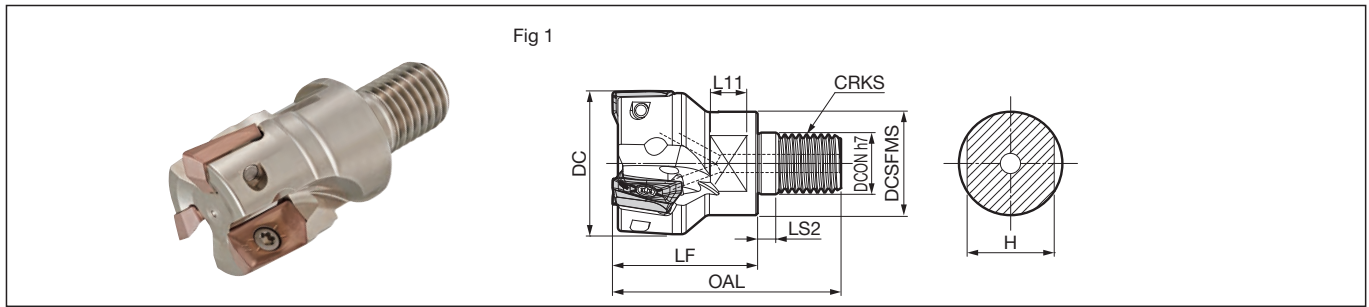
Reworking guidelines
 Corner radius = 2.4: C1 (AOMT11T324PEER)
 Corner radius = 3.0: C1 (AOMT11T330PEER)
 Corner radius = 3.2: C1 (AOMT11T332PEER)

WEZ17 Type

Reworking guidelines
 Corner radius = 2.4: C1 (AOMT170524PEER)
 Corner radius = 3.0: C1 (AOMT170530PEER)
 Corner radius = 3.2: C1 (AOMT170532PEER)
 Corner radius = 4.0: C2 (AOMT170540PEER)
 Corner radius = 5.0: C5 (AOMT170550PEER)
 Corner radius = 6.4: C5 (AOMT170564PEER)

Standard: R1.

Rake Angle	Radial	-6° to -12°	15mm	90°
	Axial	6° to 15°		



Head

Dimensions (mm)

Cat. No.	Stock	Dia. DC	Boss DCSFMS	Mounting Dia. DCON	Screw CRKS	Overall Length OAL	Effective Length LF	Neck LS2	Flat L11	Width H	Number of Teeth	Weight (kg)	Fig
WEZ 17025M12Z2	●	25	23	12.5	M12	56(55.3)	35(34.3)	5	10	19	2	0.08	1
17025M12Z3	●	25	23	12.5	M12	56(55.3)	35(34.3)	5	10	19	3	0.07	1
17028M12Z2	●	28	23	12.5	M12	56(55.3)	35(34.3)	5	10	19	2	0.10	1
17030M16Z2	●	30	28.5	17	M16	63(62.3)	40(39.3)	5	10	24	2	0.17	1
17030M16Z3	●	30	28.5	17	M16	63(62.3)	40(39.3)	5	10	24	3	0.15	1
17032M16Z2	●	32	28.5	17	M16	63(62.3)	40(39.3)	5	10	24	2	0.19	1
17032M16Z3	●	32	28.5	17	M16	63(62.3)	40(39.3)	5	10	24	3	0.16	1
17032M16Z4	●	32	28.5	17	M16	63(62.3)	40(39.3)	5	10	24	4	0.14	1
17035M16Z2	●	35	28.5	17	M16	63(62.3)	40(39.3)	5	10	24	2	0.21	1
17035M16Z3	●	35	28.5	17	M16	63(62.3)	40(39.3)	5	10	24	3	0.19	1
17040M16Z2	●	40	28.5	17	M16	63(62.3)	40(39.3)	5	10	24	2	0.25	1
17040M16Z3	●	40	28.5	17	M16	63(62.3)	40(39.3)	5	10	24	3	0.23	1
17040M16Z4	●	40	28.5	17	M16	63(62.3)	40(39.3)	5	10	24	4	0.21	1

The OAL and LF dimensions in parentheses are dimensions using RE = 5.0/6.4 insert. When using RE = 5.0/6.4 inserts, the maximum depth of cut is 14.5. **Arbors P44**
 Inserts are sold separately.

Parts

Applicable Cutter	Flat Insert Screw	Wrench	Anti-seizure Cream
WEZ17025M12Z2 to WEZ17030M16Z3	BFTX0407IP	3.0	TRDR15IP
WEZ17032M16Z2 to WEZ17040M16Z4	BFTX0409IP		

Identification Code

WEZ 17 025 M12 Z2
 Series Insert Size Dia. Mounting Screw Size Number of Teeth

* Modification of the cutter body is required when mounting a corner radius 2.4 or higher insert.



WEZ11 Type

Reworking guidelines
 Corner radius = 2.4: C1 (AOMT11T324PEER)
 Corner radius = 3.0: C1 (AOMT11T330PEER)
 Corner radius = 3.2: C1 (AOMT11T332PEER)

WEZ17 Type

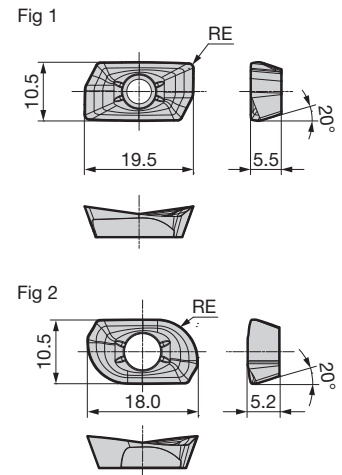
Reworking guidelines
 Corner radius = 2.4: C1 (AOMT170524PEER)
 Corner radius = 3.0: C1 (AOMT170530PEER)
 Corner radius = 3.2: C1 (AOMT170532PEER)
 Corner radius = 4.0: C2 (AOMT170540PEER)
 Corner radius = 5.0: C5 (AOMT170550PEER)
 Corner radius = 6.4: C5 (AOMT170564PEER)

Standard: R1.

Insert

Dimensions (mm)

Material Classification	Coated Carbide						Cemented Carbide	DLC	Cermet	Dimensions (mm)				
	High-speed/Light	K	P	K	K	M		N	P	Corner Radius RE	Fig			
	General-purpose	K	P	K	K	M	N	N						
Process	Roughing	K	P	K	K	M								
Cat. No.	ACU2500	XCU2500	ACP2000	ACP3000	XCK2000	ACK2000	ACK3000	ACM200	ACM300	H20	DL2000	T2500A		
AOMT 170502PEER-L	●												0.2	1
170504PEER-L	●	●		●	●		●	●				●	0.4	1
170508PEER-L	●	●		●	●		●	●				●	0.8	1
170512PEER-L	●												1.2	1
170516PEER-L	●												1.6	1
AOMT 170502PEER-G	●			●			●	●					0.2	1
170504PEER-G	●	●	●	●	●		●	●				●	0.4	1
170505PEER-G	●							●	●				0.5	1
170508PEER-G	●	●	●	●	●		●	●				●	0.8	1
170510PEER-G	●							●	●				1.0	1
170512PEER-G	●			●			●	●					1.2	1
170516PEER-G	●			●			●	●					1.6	1
170520PEER-G	●			●			●	●					2.0	1
170524PEER-G	●			●			●	●					2.4	1
170530PEER-G	●			●			●	●					3.0	1
170532PEER-G	●			●			●	●					3.2	1
170540PEER-G	●			●			●	●					4.0	1
170550PEER-G	●			●			●	●					5.0	2
170564PEER-G	●			●			●	●					6.4	2
AOMT 170504PEER-H	●	●	●	●	●		●	●					0.4	1
170508PEER-H	●	●	●	●	●		●	●					0.8	1
170512PEER-H	●												1.2	1
170516PEER-H	●												1.6	1
AOET 170502PEER-F	●												0.2	1
170504PEER-F	●												0.4	1
170505PEER-F	●												0.5	1
170508PEER-F	●												0.8	1
170510PEER-F	●												1.0	1
170512PEER-F	●												1.2	1
170516PEER-F	●												1.6	1
170520PEER-F	●												2.0	1
170524PEER-F	●												2.4	1
170530PEER-F	●												3.0	1
170532PEER-F	●												3.2	1
170540PEER-F	●												4.0	1
170550PEER-F	●												5.0	2
170564PEER-F	●												6.4	2
AOET 170502PEER-P25	●												0.2	1
170504PEER-P25	●												0.4	1
170505PEER-P25	●												0.5	1
170508PEER-P25	●												0.8	1
170510PEER-P25	●												1.0	1
170512PEER-P25	●												1.2	1
AOET 170502PEER-P32	●												0.2	1
170504PEER-P32	●												0.4	1
170505PEER-P32	●												0.5	1
170508PEER-P32	●												0.8	1
170510PEER-P32	●												1.0	1
170512PEER-P32	●												1.2	1
AOET 170502PEFR-S	—	—	—	—	—	—	—	●	●				0.2	1
170504PEFR-S	—	—	—	—	—	—	—	●	●				0.4	1
170505PEFR-S	—	—	—	—	—	—	—	●	●				0.5	1
170508PEFR-S	—	—	—	—	—	—	—	●	●				0.8	1
170510PEFR-S	—	—	—	—	—	—	—	●	●				1.0	1
170512PEFR-S	—	—	—	—	—	—	—	●	●				1.2	1
170516PEFR-S	—	—	—	—	—	—	—	●	●				1.6	1
170520PEFR-S	—	—	—	—	—	—	—	●	●				2.0	1
170524PEFR-S	—	—	—	—	—	—	—	●	●				2.4	1
170530PEFR-S	—	—	—	—	—	—	—	●	●				3.0	1
170532PEFR-S	—	—	—	—	—	—	—	●	●				3.2	1
170540PEFR-S	—	—	—	—	—	—	—	●	●				4.0	1
170550PEFR-S	—	—	—	—	—	—	—	●	●				5.0	2
170564PEFR-S	—	—	—	—	—	—	—	●	●				6.4	2



-L: Low Cutting Force, -G: General-purpose, -H: Strong Edge, -F: Medium Finishing, -P25/-P32: High-precision Machining, -S: Non-Ferrous Metals.

Precautions for Mounting Inserts **P49** Recommended Cutting Conditions **P7**

* -P25 is applicable to cutter diameters $\phi 25$ and $\phi 28$. -P32 is applicable to cutter diameters $\phi 30$, $\phi 32$ and $\phi 35$.

● mark: Standard stocked item ● mark: Standard stocked item (expanded item) Blank: Made-to-order item — mark: Not available

WEZ

WEZR

Shell

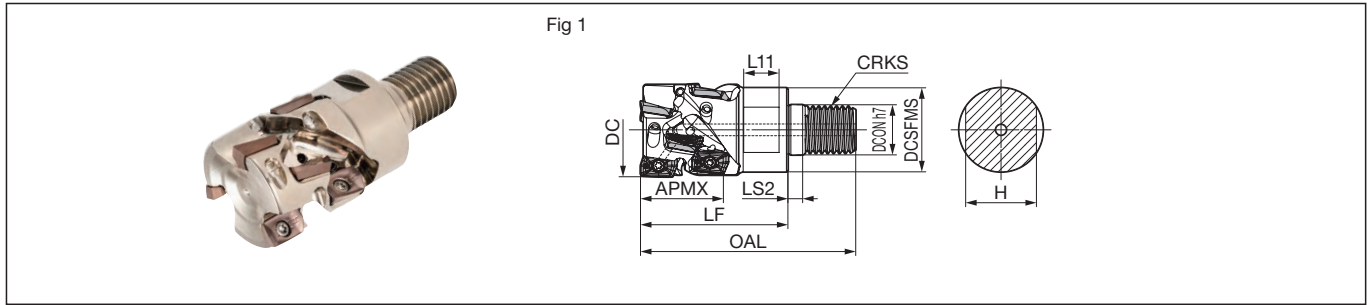
Shank

Modular

Application Examples

Made-to-Order Product

Rake Angle	Radial	-12°	27mm 90°
	Axial	11°	



Head

Dimensions (mm)

Cat. No.	Stock	Diameter DC	Max. Depth of Cut APMX	Boss DCSFMS	Mounting Dia. DCON	Screw CRKS	Overall Length OAL	Effective Length LF	Length Chamfer LS2	Width L11	Height H	Total No. of Teeth	Steps	Effective No. of Teeth	Weight (kg)	Fig
WEZR 11032M1627Z3	●	32	27(26)	28.5	17	M16	73(72.7)	50(49.7)	5	12	24	9	3	3	0.21	1

The APMX, OAL and LF dimensions in parentheses are dimensions using RE = 3.0/3.2 insert. Inserts are sold separately.



Parts

Flat Insert Screw	Integrated Wrench	Anti-seizure Cream
BFTX0306IP	1.5	TRDR08IP SUMI-P

Identification Code

WEZR 11 032 M16 27 Z3

Series Insert Size Dia. Mounting Screw Size Max. Depth of Cut Effective No. of Teeth

Recommended Cutting Conditions

ISO	Work Material	Hardness	Chipbreaker	Cutting Speed v_c (m/min)		Feed Rate f_z (mm/t)		Insert Grade
				Min. - Optimum - Max.	Min. - Optimum - Max.			
P	Carbon Steel	$\leq 280\text{HB}$	G	100 - 150 - 200	0.08 - 0.12 - 0.20	ACU2500		
		$> 280\text{HB}$	G	80 - 100 - 120	0.08 - 0.12 - 0.20	XCU2500		
	Alloy Steel	$\leq 280\text{HB}$	G	100 - 150 - 180	0.08 - 0.12 - 0.20	ACP2000		
M	Stainless Steel	$\leq 280\text{HB}$	G	80 - 120 - 160	0.08 - 0.12 - 0.20	ACP3000		
K	Cast Iron/ Ductile Cast Iron	—	G	100 - 150 - 200	0.08 - 0.12 - 0.20	ACU2500		
S	Exotic Alloy	—	G	40 - 50 - 60	0.08 - 0.12 - 0.20	XCK2000		
N	Aluminum Alloy	$\text{Si} \leq 12.6\%$	S	300 - 500 - 800	0.05 - 0.10 - 0.15	ACK2000		
		$\text{Si} > 12.6\%$	S	100 - 200 - 250	0.05 - 0.10 - 0.15	ACK3000		
						ACU2500		
						ACM200		
						ACM300		
						ACK2000		
						ACK3000		
						DL2000		
						H20		

Note -The cutting conditions above are a guide. Actual conditions will need to be adjusted according to machine rigidity, work clamp 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 work rigidity.

* Modification of the cutter body is required when mounting a corner radius 2.4 or higher insert.

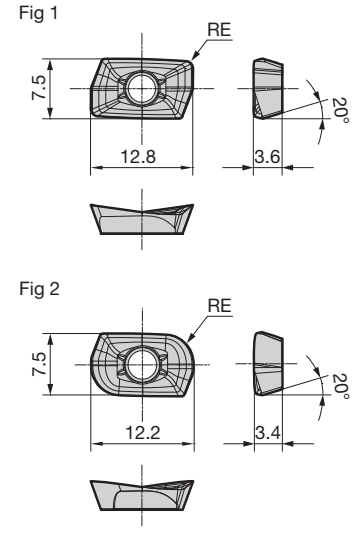
Modify this portion.

WEZR11 Type	WEZR17 Type
Reworking guidelines	Reworking guidelines
Corner radius = 2.4: C1 (AOMT11T324PEER)	Corner radius = 2.4: C1 (AOMT170524PEER)
Corner radius = 3.0: C1 (AOMT11T330PEER)	Corner radius = 3.0: C1 (AOMT170530PEER)
Corner radius = 3.2: C1 (AOMT11T332PEER)	Corner radius = 3.2: C1 (AOMT170532PEER)
	Corner radius = 4.0: C2 (AOMT170540PEER)
	Corner radius = 5.0: C5 (AOMT170550PEER)
	Corner radius = 6.4: C5 (AOMT170564PEER)
	Standard: R1.

Insert

Dimensions (mm)

Material Classification	Coated Carbide						Cemented Carbide	DLC	Cermet					
	High-speed/Light	KP	P	K	K	M/S		N	P					
	General-purpose	KP	P	K	K	M/S	N	N						
Process	Roughing	KP	P	K	K	M/S								
Cat. No.	ACU2500	XCU2500	ACP2000	ACP3000	XCK2000	ACK2000	ACK3000	ACM200	ACM300	H20	DL2000	T2500A	Corner Radius RE	Fig
AOMT 11T302PEER-G	●			●			●					●	0.2	1
11T304PEER-G	●	●	●	●	●	●	●	●	●			●	0.4	1
11T305PEER-G	●							●	●				0.5	1
11T308PEER-G	●	●		●	●	●	●	●	●			●	0.8	1
11T310PEER-G	●							●	●				1.0	1
11T312PEER-G	●			●			●	●	●				1.2	1
11T316PEER-G	●			●			●	●	●				1.6	1
11T320PEER-G	●			●			●	●	●				2.0	1
11T324PEER-G	●			●			●	●	●				2.4	1
11T330PEER-G	●			●			●	●	●				3.0	2
11T332PEER-G	●			●			●	●	●				3.2	2
AOMT 11T304PEER-H	●	●	●	●	●	●	●	●	●				0.4	1
11T308PEER-H	●	●	●	●	●	●	●	●	●				0.8	1
11T312PEER-H	●							●	●				1.2	1
11T316PEER-H	●							●	●				1.6	1
AOET 11T302PEER-F	●												0.2	1
11T304PEER-F	●												0.4	1
11T305PEER-F	●												0.5	1
11T308PEER-F	●												0.8	1
11T310PEER-F	●												1.0	1
11T312PEER-F	●												1.2	1
11T316PEER-F	●												1.6	1
11T320PEER-F	●												2.0	1
11T324PEER-F	●												2.4	1
11T330PEER-F	●												3.0	2
11T332PEER-F	●												3.2	2
AOET 11T302PEFR-S								●	●				0.2	1
11T304PEFR-S								●	●				0.4	1
11T305PEFR-S								●	●				0.5	1
11T308PEFR-S								●	●				0.8	1
11T310PEFR-S								●	●				1.0	1
11T312PEFR-S								●	●				1.2	1
11T316PEFR-S								●	●				1.6	1
11T320PEFR-S								●	●				2.0	1
11T324PEFR-S								●	●				2.4	1
11T330PEFR-S								●	●				3.0	2
11T332PEFR-S								●	●				3.2	2



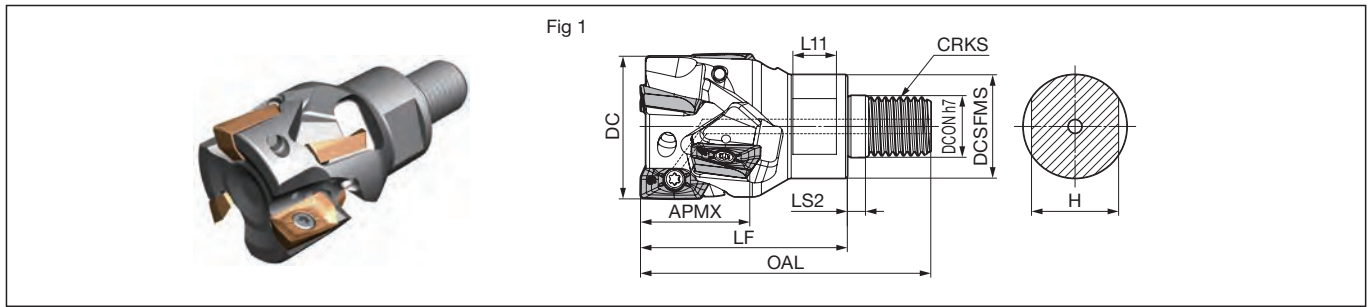
-G: General-purpose, -H: Strong Edge, -F: Medium Finishing, -S: Non-Ferrous Metals.
Use peripheral inserts with RE of 0.8mm or less from the second step and above.

Precautions for Mounting Inserts P49

WEZ
WEZR
Shell
Shank
Modular
Application Examples
Made-to-Order Product

Rake Angle	Radial	-9°
	Axial	10°

29mm **90°**



Head

Cat. No.	Stock	Dimensions (mm)														
		Diameter DC	Max. Depth of Cut APMX	Boss DCSFMS	Mounting Dia. DCON	Screw CRKS	Overall Length OAL	Effective Length LF	Length of Teeth LS2	Chamfer L11	Width H	Total No. of Teeth	Steps	Effective No. of Teeth	Weight (kg)	Fig
WEZR 17040M1629Z3	●	40	29(28)	28.5	17	M16	80(79.3)	57(56.3)	5	12	24	6	2	3	0.29	1

The APMX, OAL and LF dimensions in parentheses are dimensions using RE = 5.0/6.4 insert. Inserts are sold separately.



Parts

Flat Insert Screw	Integrated Wrench	Anti-seizure Cream
BFTX0409IP	3.0	TRDR15IP SUMI-P

Identification Code

WEZR 17 040 M16 29 Z3

Series Insert Size Dia. Mounting Screw Size Max. Depth of Cut Effective No. of Teeth

Recommended Cutting Conditions

ISO	Work Material	Hardness	Chipbreaker	Cutting Speed v_c (m/min)		Feed Rate f_z (mm/t)		Insert Grade
				Min. - Optimum - Max.	Min. - Optimum - Max.			
P	Carbon Steel	$\leq 280\text{HB}$	G	100 - 150 - 200	0.10 - 0.20 - 0.30	ACU2500		
		$> 280\text{HB}$	G	80 - 100 - 120	0.10 - 0.20 - 0.30	XCU2500		
	Alloy Steel	$\leq 280\text{HB}$	G	100 - 150 - 180	0.10 - 0.20 - 0.30	ACP2000		
M	Stainless Steel	$\leq 280\text{HB}$	G	80 - 120 - 160	0.10 - 0.20 - 0.30	ACP3000		
K	Cast Iron/ Ductile Cast Iron	—	G	100 - 150 - 200	0.10 - 0.20 - 0.30	ACU2500		
		—	G	100 - 150 - 200	0.10 - 0.20 - 0.30	XCK2000		
S	Exotic Alloy	—	G	40 - 50 - 60	0.10 - 0.20 - 0.30	ACK2000		
		—	G	40 - 50 - 60	0.10 - 0.20 - 0.30	ACK3000		
N	Aluminum Alloy	$\text{Si} \leq 12.6\%$	S	300 - 500 - 800	0.05 - 0.10 - 0.15	ACU2500		
		$\text{Si} > 12.6\%$	S	100 - 200 - 250	0.05 - 0.10 - 0.15	ACM200		
						ACM300		
						DL2000		
						H20		

Note -The cutting conditions above are a guide. Actual conditions will need to be adjusted according to machine rigidity, work clamp 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 work rigidity.

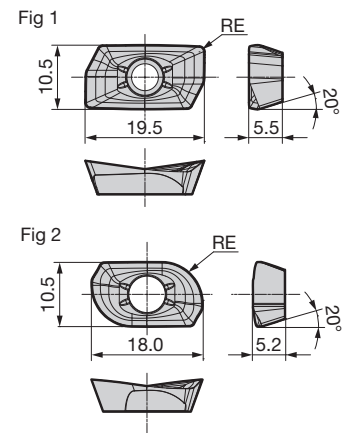
* Modification of the cutter body is required when mounting a corner radius 2.4 or higher insert.

WEZR11 Type	WEZR17 Type
Reworking guidelines	Reworking guidelines
Corner radius = 2.4: C1 (AOMT11T324PEER)	Corner radius = 2.4: C1 (AOMT170524PEER)
Corner radius = 3.0: C1 (AOMT11T330PEER)	Corner radius = 3.0: C1 (AOMT170530PEER)
Corner radius = 3.2: C1 (AOMT11T332PEER)	Corner radius = 3.2: C1 (AOMT170532PEER)
	Corner radius = 4.0: C2 (AOMT170540PEER)
	Corner radius = 5.0: C5 (AOMT170550PEER)
	Corner radius = 6.4: C5 (AOMT170564PEER)
	Standard: R1.

Insert

Dimensions (mm)

Process	Material Classification		Coated Carbide						Cemented Carbide	DLC	Cermet	Corner Radius RE	Fig		
	High-speed/Light	General-purpose	KP	P	K	K	M	S		N	P				
	High-speed/Light	General-purpose	KP	P	K	K	M	S	N	N	P				
	Roughing														
	Cat. No.	ACU2500	XCU2500	ACP2000	ACP3000	XCK2000	ACK2000	ACK3000	ACM200	ACM300	H20	DL2000	T2500A		
AOMT	170502PEER-L	●												0.2	1
	170504PEER-L	●	●		●	●		●	●	●			●	0.4	1
	170508PEER-L	●	●		●	●		●	●	●			●	0.8	1
	170512PEER-L	●												1.2	1
	170516PEER-L	●												1.6	1
AOMT	170502PEER-G	●			●			●	●	●				0.2	1
	170504PEER-G	●	●	●	●	●		●	●	●			●	0.4	1
	170505PEER-G	●							●	●				0.5	1
	170508PEER-G	●	●	●	●	●		●	●	●			●	0.8	1
	170510PEER-G	●							●	●				1.0	1
	170512PEER-G	●			●			●	●	●				1.2	1
	170516PEER-G	●			●			●	●	●				1.6	1
	170520PEER-G	●			●			●	●	●				2.0	1
	170524PEER-G	●			●			●	●	●				2.4	1
	170530PEER-G	●			●			●	●	●				3.0	1
	170532PEER-G	●			●			●	●	●				3.2	1
	170540PEER-G	●			●			●	●	●				4.0	1
	170550PEER-G	●			●			●	●	●				5.0	2
	170564PEER-G	●			●			●	●	●				6.4	2
AOMT	170504PEER-H	●	●	●	●	●		●	●	●				0.4	1
	170508PEER-H	●	●	●	●	●		●	●	●				0.8	1
	170512PEER-H	●												1.2	1
	170516PEER-H	●												1.6	1
AOET	170502PEER-F	●												0.2	1
	170504PEER-F	●												0.4	1
	170505PEER-F	●												0.5	1
	170508PEER-F	●												0.8	1
	170510PEER-F	●												1.0	1
	170512PEER-F	●												1.2	1
	170516PEER-F	●												1.6	1
	170520PEER-F	●												2.0	1
	170524PEER-F	●												2.4	1
	170530PEER-F	●												3.0	1
	170532PEER-F	●												3.2	1
	170540PEER-F	●												4.0	1
	170550PEER-F	●												5.0	2
	170564PEER-F	●												6.4	2
AOET	170502PEFR-S								●	●				0.2	1
	170504PEFR-S								●	●				0.4	1
	170505PEFR-S								●	●				0.5	1
	170508PEFR-S								●	●				0.8	1
	170510PEFR-S								●	●				1.0	1
	170512PEFR-S								●	●				1.2	1
	170516PEFR-S								●	●				1.6	1
	170520PEFR-S								●	●				2.0	1
	170524PEFR-S								●	●				2.4	1
	170530PEFR-S								●	●				3.0	1
	170532PEFR-S								●	●				3.2	1
	170540PEFR-S								●	●				4.0	1
	170550PEFR-S								●	●				5.0	2
	170564PEFR-S								●	●				6.4	2



-L: Low Cutting Force, -G: General-purpose, -H: Strong Edge, -F: Medium Finishing, -S: Non-Ferrous Metals.
Use peripheral inserts with RE of 0.8mm or less from the second step and above.

Precautions for Mounting Inserts **P49**

● mark: Standard stocked item, ● mark: Standard stocked item (expanded item), Blank: Made-to-order item, — mark: Not available

WEZ

WEZR

Shell

Shank

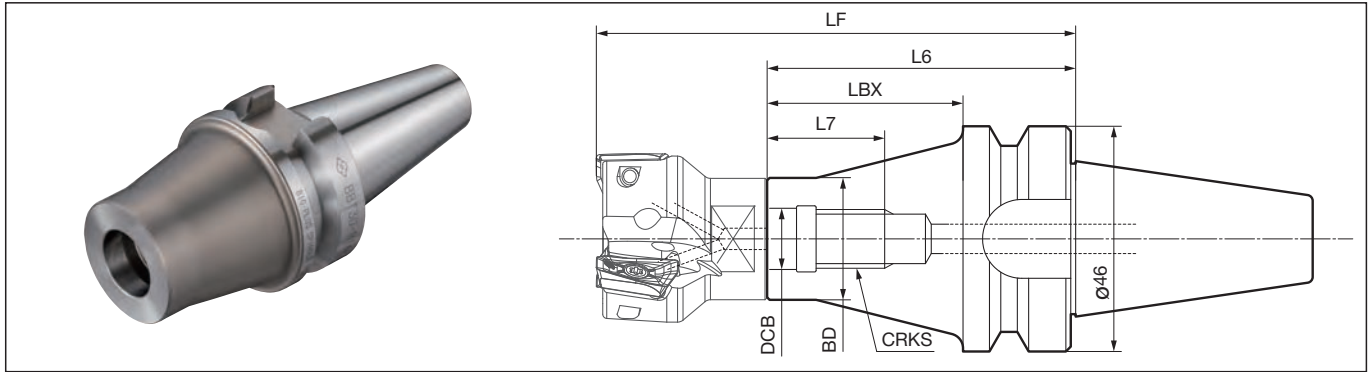
Modular

Application Examples

Made-to-Order Product

Special Arbors

BBT Integrated Type - SEC-Modular Tools Special Arbors

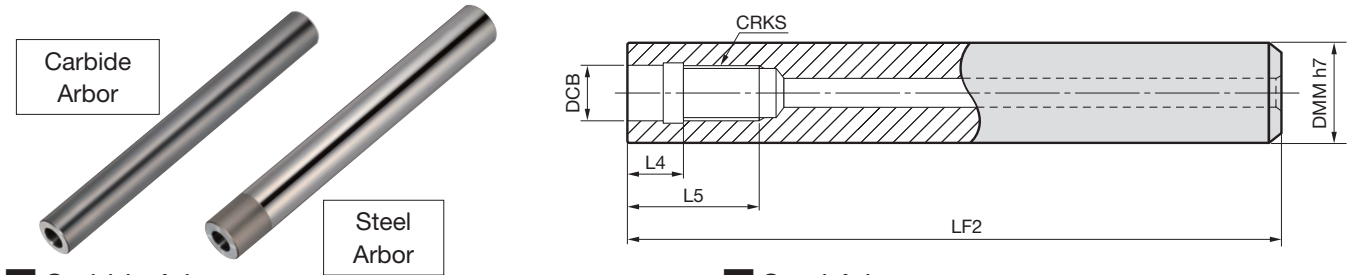


BBT Integrated Arbors

Cat. No.	Stock	Dimensions (mm)								Coolant Hole
		Screw CRKS	Bore Dia. DCB	External BD	Body Overhang L6	Length LBX	Thread Depth L7	Overhang LF*1		
BBT30-M8-50	●	M8	8.5	15.9	73	50	18	98	Yes	
BBT30-M10-45	●	M10	10.5	19.9	68	45	20	98	Yes	
BBT30-M12-40	●	M12	12.5	24.9	63	40	22	98	Yes	
BBT30-M16-35	●	M16	17	31.9	58	35	24	98	Yes	

*1: Overhang length for LF is with head mounted. * Can also be used with BT30 spindle machines.

SEC-Modular Tools - Special Arbors (Carbide Arbors/Steel Arbors)



Carbide Arbors

Cat. No.	Stock	Screw CRKS	Bore Dia. DCB	Shank DMM	Dimensions (mm)			
					Overall Length LFM	Depth L4	Thread Depth L5	Set Dimensions LFM*2
MA15M08L120C	●	M8	8.5	15	120	10	18	145
MA15M08L160C	●	M8	8.5	15	160	10	18	185
MA16M08L120C	●	M8	8.5	16	120	10	18	145
MA16M08L160C	●	M8	8.5	16	160	10	18	185
MA18M10L150C	●	M10	10.5	18	150	10	20	180
MA18M10L200C	●	M10	10.5	18	200	10	20	230
MA20M10L150C	●	M10	10.5	20	150	10	20	180
MA20M10L200C	●	M10	10.5	20	200	10	20	230
MA23M12L200C	●	M12	12.5	23	200	10	22	235
MA23M12L250C	●	M12	12.5	23	250	10	22	285
MA25M12L200C	●	M12	12.5	25	200	10	22	235
MA25M12L250C	●	M12	12.5	25	250	10	22	285
MA28M16L200C	●	M16	17.0	28	200	10	24	240
MA28M16L300C	●	M16	17.0	28	300	10	24	340
MA32M16L200C	●	M16	17.0	32	200	10	24	240
MA32M16L300C	●	M16	17.0	32	300	10	24	340

Steel Arbors

Cat. No.	Stock	Screw CRKS	Bore Dia. DCB	Shank DMM	Dimensions (mm)			
					Overall Length LFM	Depth L4	Thread Depth L5	Set Dimensions LFM*2
MA16M08L120S	●	M8	8.5	16	120	10	18	145
MA20M10L150S	●	M10	10.5	20	150	10	20	180
MA25M12L200S	●	M12	12.5	25	200	10	22	235
MA32M16L200S	●	M16	17.0	32	200	10	24	240

Identification Code

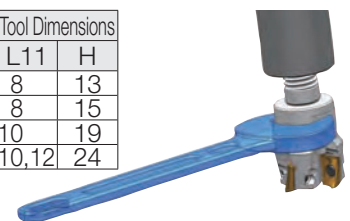
MA 15 M08 L120 C

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

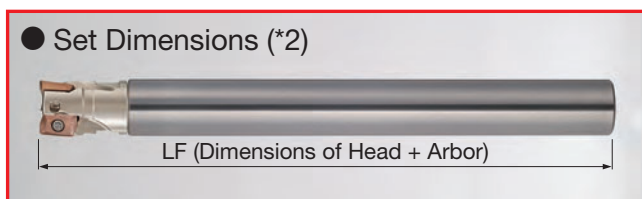
* Take care when tightening the head.

- 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.
- Refer to the Head Cat. No. chart on 36 to 42 to select the tool size in the table below.

Screw Size	Regulated Tightening Torque (N·m)	Tool Dimensions	
		L11	H
M8	23	8	13
M10	46	8	15
M12	60	10	19
M16	80	10,12	24





● Set Dimensions (*2)




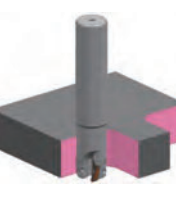
● mark: Standard stocked item


Application Examples (WEZ Type)


Steel S50C Machine Component		Sumitomo	Competitor's Product
	Tool	WEZ17032E03	Single-Sided, 2 Corners
	Grade	ACU2500	—
	Chipbreaker	G	—
	Cutter Dia. (mm)	32	32
	Number of Teeth	3	3
	v_c (m/min)	75	75
	v_f (mm/min)	225	225
	f_z (mm/t)	0.1	0.1
	a_p (mm)	4	4
	a_e (mm)	22	22
	Coolant	Wet	Wet
	Results	Drastically reduced cutting edge failure with the same output. Continuous use possible, longer tool life	


Steel S50C Machine Component		Sumitomo	Competitor's Product
	Tool	WEZ11020M10Z3	Single-Sided, 2 Corners
	Grade	ACU2500	—
	Chipbreaker	G	—
	Cutter Dia. (mm)	20	20
	Number of Teeth	3	3
	v_c (m/min)	72	72
	v_f (mm/min)	4,000	4,000
	f_z (mm/t)	0.2	0.2
	a_p (mm)	0.7	0.7
	a_e (mm)	20	20
	Coolant	Dry	Dry
	Results	Stability without chatter even in groove milling with overhang 120mm (L/D=6)	


Die Steel SKD11 (Mild Steel) Mold Component		Sumitomo	Competitor's Product
	Tool	WEZ11020E03	Double-Sided, 4 Corners
	Grade	ACU2500	—
	Chipbreaker	H	—
	Cutter Dia. (mm)	20	20
	Number of Teeth	3	3
	v_c (m/min)	145	190
	v_f (mm/min)	1,035	3,000
	f_z (mm/t)	0.15	0.35
	a_p (mm)	6.0	0.5
	a_e (mm)	6.0	8.4
	Coolant	Dry	Dry
	Results	3x efficiency in helical milling Improved surface quality integrates processes	


Steel SM490A Machine Component		Sumitomo	Competitor's Product
	Tool	WEZ17032EL03	Single-Sided, 2 Corners
	Grade	ACU2500	—
	Chipbreaker	G	—
	Cutter Dia. (mm)	32	32
	Number of Teeth	3	2
	v_c (m/min)	150	150
	v_f (mm/min)	671	447
	f_z (mm/t)	0.15	0.15
	a_p (mm)	1.25	1.25
	a_e (mm)	32	32
	Coolant	Wet	Wet
	Results	Efficiency improved 1.5x, quiet and stable machining	


Steel S45C Machine Component		Sumitomo	Competitor's Product
	Tool	WEZ11020ES03-10	Single-Sided, 2 Corners
	Grade	ACU2500	—
	Chipbreaker	G	—
	Cutter Dia. (mm)	20	20
	Number of Teeth	3	3
	v_c (m/min)	250	190
	v_f (mm/min)	1,800	1,800
	f_z (mm/t)	0.15	0.2
	a_p (mm)	1	1
	a_e (mm)	10	10
	Coolant	Wet	Wet
	Results	Surface roughness improved from Ra 4.1 μ m to Ra 0.7 μ m	

Steel S40C Hub		Sumitomo	Competitor's Product
	Tool	WEZ17025E02	Double-Sided, 4 Corners
	Grade	ACU2500	—
	Chipbreaker	G	—
	Cutter Dia. (mm)	25	25
	Number of Teeth	2	2
	v_c (m/min)	120	120
	v_f (mm/min)	300	300
	f_z (mm/t)	0.066	0.066
	a_p (mm)	9	9
	a_e (mm)	5	5
	Coolant	Wet	Wet
	Results	The high chattering sound typical of thin workpieces is gone, and stable processing enables longer tool life	

Steel S45C Machine Component		Sumitomo	Competitor's Product
	Tool	WEZ11025E03	Single-Sided, 2 Corners
	Grade	ACU2500	—
	Chipbreaker	G	—
	Cutter Dia. (mm)	25	25
	Number of Teeth	3	3
	v_c (m/min)	157	157
	v_f (mm/min)	300	300
	f_z (mm/t)	0.05	0.05
	a_p (mm)	5	5
	a_e (mm)	3.5	3.5
	Coolant	—	—
	Results	No chatter even with low-rigidity multi-tasking machines and machining of thin areas: excellent wall surface accuracy	

Alloy Tool Steel SKT4 (45HRC) Machine Component		Sumitomo	Competitor's Product
	Tool	WEZ11022E03	Single-Sided, 2 Corners
	Grade	ACU2500	—
	Chipbreaker	G	—
	Cutter Dia. (mm)	22	22
	Number of Teeth	3	3
	v_c (m/min)	50	30
	v_f (mm/min)	217	130
	f_z (mm/t)	0.1	0.1
	a_p (mm)	3	3
	a_e (mm)	22	22
	Coolant	Wet	Wet
	Results	Efficiency improved 1.7x, tool life improved 2.5x 45HRC hardened steel stable processing also possible	

Steel S50C Mold Component		Sumitomo	Competitor's Product
	Tool	WEZ11022E03	Single-Sided, 2 Corners
	Grade	T2500A	—
	Chipbreaker	G	—
	Cutter Dia. (mm)	22	22
	Number of Teeth	3	3
	v_c (m/min)	83	75
	v_f (mm/min)	320	290
	f_z (mm/t)	0.09	0.09
	a_p (mm)	2.5	2.5
	a_e (mm)	10	10
	Coolant	—	—
	Results	Improved machined surface quality and machining efficiency with cermet grades	

Steel S35C Machine Component		Sumitomo	Competitor's Product
	Tool	WEZ17032ES03-16	Round Type Insert (R5.0)
	Grade	ACU2500	—
	Chipbreaker	G	—
	Cutter Dia. (mm)	32	32
	Number of Teeth	3	3
	v_c (m/min)	220	160
	v_f (mm/min)	1,770	1,670
	f_z (mm/t)	0.27	0.35
	a_p (mm)	3	3
	a_e (mm)	12	12
	Coolant	Wet	Wet
	Results	High rigidity and suppressed chattering through body face contact design	

WEZ

WEZR

Shell


Shank


Modular


Application Examples


Made-to-Order Product

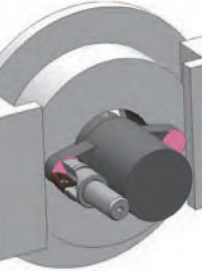
Application Examples (WEZ Type)

Stainless Steel SUS304 Semiconductor Device	Sumitomo	Competitor's Product	
Horizontal Machining Centre BT50 	Tool	WEZ17050RS05	Double-Sided, 4 Corners
	Grade	ACU2500	—
	Chipbreaker	G	—
	Cutter Dia. (mm)	50	50
	Number of Teeth	5	5
	v_c (m/min)	80	80
	v_f (mm/min)	320	320
	f_z (mm/t)	0.13	0.13
	a_p (mm)	0.2	0.2
	a_e (mm)	40	40
	Coolant	Wet	Wet
	Results	Improved surface finish quality and reduced burrs, cutting post-processing time by 50%	


Stainless Steel SUS304 Machine Component	Sumitomo	Competitor's Product	
Vertical Machining Centre BT40 	Tool	WEZ11028E04	—
	Grade	ACU2500	—
	Chipbreaker	G	—
	Cutter Dia. (mm)	28	28
	Number of Teeth	4	4
	v_c (m/min)	150	150
	v_f (mm/min)	1,350	1,350
	f_z (mm/t)	0.2	0.2
	a_p (mm)	2	2
	a_e (mm)	10	10
	Coolant	Dry	Dry
	Results	Longer tool life Stable machining achieved	


Stainless Steel SUS304 Machine Component	Sumitomo	Competitor's Product	
Multi-tasking Machine 	Tool	WEZ11022E03	Single-Sided, 2 Corners
	Grade	ACU2500	—
	Chipbreaker	G	—
	Cutter Dia. (mm)	22	22
	Number of Teeth	3	3
	v_c (m/min)	120	120
	v_f (mm/min)	1,562	1,562
	f_z (mm/t)	0.3	0.3
	a_p (mm)	2	2
	a_e (mm)	22	22
	Coolant	Wet	Wet
	Results	As a result of improved visual quality, the finishing process can be omitted, achieving process integration	


Stainless Steel SUS Machine Component	Sumitomo	Competitor's Product	
Vertical Machining Centre BT40 	Tool	WEZ11032E03	Single-Sided, 2 Corners
	Grade	T2500A	—
	Chipbreaker	G	—
	Cutter Dia. (mm)	32	32
	Number of Teeth	3	3
	v_c (m/min)	154	154
	v_f (mm/min)	530	400
	f_z (mm/t)	0.12	0.09
	a_p (mm)	0.5	0.5
	a_e (mm)	20	20
	Coolant	—	—
	Results	Improved machined surface quality and machining efficiency with cermet grades	


Stainless Steel Duplex SUS Machine Component	Sumitomo	Competitor's Product	
Multi-tasking Machine 	Tool	WEZ11025ES02-16*	Single-Sided, 2 Corners
	Grade	ACU2500	—
	Chipbreaker	F	—
	Cutter Dia. (mm)	25	25
	Number of Teeth	2	2
	v_c (m/min)	90	90
	v_f (mm/min)	300	300
	f_z (mm/t)	0.13	0.13
	a_p (mm)	1.5	1.5
	a_e (mm)	25	25
	Coolant	Wet	Wet
	Results	Suppresses burrs and extends tool life 1.6x	

* Made-to-Order Product


Stainless Steel SUS316L Machine Component	Sumitomo	—	
Vertical Machining Centre BT40 	Tool	WEZ17035E03	—
	Grade	ACU2500	—
	Chipbreaker	P	—
	Cutter Dia. (mm)	35	—
	Number of Teeth	3	—
	v_c (m/min)	100	—
	v_f (mm/min)	410	—
	f_z (mm/t)	0.15	—
	a_p (mm)	9	—
	a_e (mm)	0.1	—
	Coolant	Wet	—
	Results	Good wall accuracy, applicable to finishing ($a_e = 0.1$ mm)	

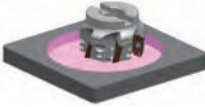
Stainless Steel SUS304 Machine Component	Sumitomo	Competitor's Product	
Vertical Machining Centre BT30 	Tool	WEZ11020E03	Single-Sided, 2 Corners
	Grade	ACU2500	—
	Chipbreaker	G	—
	Cutter Dia. (mm)	20	20
	Number of Teeth	3	3
	v_c (m/min)	150	150
	v_f (mm/min)	860	860
	f_z (mm/t)	0.12	0.12
	a_p (mm)	2	2
	a_e (mm)	8	8
	Coolant	Wet	Wet
	Results	Even with low-rigidity BT30 installation, has good surface finish and cutting edge sharpness	


Stainless Cast Steel SCS13 Machine Component	Sumitomo	Competitor's Product	
Vertical Machining Centre BT50 	Tool	WEZ11040E04	Single-Sided, 4 Corners
	Grade	ACM300	—
	Chipbreaker	G	—
	Cutter Dia. (mm)	40	40
	Number of Teeth	4	4
	v_c (m/min)	80	80
	v_f (mm/min)	254	254
	f_z (mm/t)	0.1	0.1
	a_p (mm)	1	1
	a_e (mm)	40	40
	Coolant	—	—
	Results	Improved tool life without chipping or other loss, even in mill-scale work	


Stainless Steel SUS304 Machine Component	Sumitomo	Competitor's Product	
Vertical Machining Centre BT30 	Tool	WEZ11020E03	H's (High Speed Steel) Roughing Endmill
	Grade	ACU2500	—
	Chipbreaker	G	—
	Cutter Dia. (mm)	20	20
	Number of Teeth	3	4
	v_c (m/min)	150	60
	v_f (mm/min)	860	340
	f_z (mm/t)	0.12	0.09
	a_p (mm)	2	2
	a_e (mm)	8	8
	Coolant	—	—
	Results	Longer tool life with reduced machining time as compared to using HSS endmills	

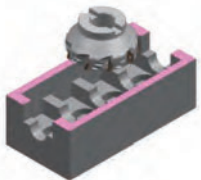
Application Examples (WEZ Type)

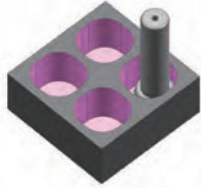
Ductile Cast Iron FCD450 Straight Rail		Sumitomo	Competitor's Product
Vertical Machining Centre BT50 	Tool	WEZ17040EL03	Single-Sided, 2 Corners
	Grade	ACU2500	—
	Chipbreaker	G	—
	Cutter Dia. (mm)	40	40
	Number of Teeth	3	3
	v_c (m/min)	130	130
	v_f (mm/min)	465	465
	f_z (mm/t)	0.15	0.15
	a_p (mm)	8	6
	a_e (mm)	40	40
	Coolant	Dry	Dry
	Results	Reduces vibration during processing for 1.3 times the efficiency	

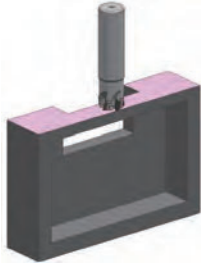
Gray Cast Iron FC300 Machine Component		Sumitomo	Competitor's Product
Vertical Machining Centre BT50 	Tool	WEZ17063RS06	Single-Sided, 2 Corners
	Grade	ACK3000	—
	Chipbreaker	G	—
	Cutter Dia. (mm)	63	63
	Number of Teeth	6	4
	v_c (m/min)	150	175
	v_f (mm/min)	377	254
	f_z (mm/t)	0.08	0.07
	a_p (mm)	3.5	3.5
	a_e (mm)	50	50
	Coolant	Wet	Wet
	Results	Efficiency improved 1.5x in helical milling Tool life doubled	


Gray Cast Iron FC250 Machine Component		Sumitomo	Competitor's Product
Horizontal Machining Centre BT50 	Tool	WEZ11050RS07	Single-Sided, 2 Corners
	Grade	ACU2500	—
	Chipbreaker	G	—
	Cutter Dia. (mm)	50	50
	Number of Teeth	7	5
	v_c (m/min)	180	180
	v_f (mm/min)	805	574
	f_z (mm/t)	0.1	0.1
	a_p (mm)	0.3	0.3
	a_e (mm)	10	10
	Coolant	Wet	Wet
	Results	Quiet machining and increased machining efficiency Good surface finish quality and flatness	


Cast Steel for Welded Structure Product SCW480 Press Housing		Sumitomo	Competitor's Product
Double Column 5-axis Machining Centre BT50 	Tool	WEZ17160R08	Single-Sided, 2 Corners
	Grade	ACU2500	—
	Chipbreaker	G	—
	Cutter Dia. (mm)	60	60
	Number of Teeth	8	8
	v_c (m/min)	150.7	150.7
	v_f (mm/min)	500	500
	f_z (mm/t)	0.208	0.208
	a_p (mm)	7	7
	a_e (mm)	75	75
	Coolant	—	—
	Results	Reduces chipping on large workpieces, enabling stable machining	


Gray Cast Iron FC250 Crankshaft		Sumitomo	Competitor's Product
	Tool	WEZ17125RS09	—
	Grade	XCK2000	—
	Chipbreaker	G	—
	Cutter Dia. (mm)	125	125
	Number of Teeth	9	9
	v_c (m/min)	300	300
	v_f (mm/min)	1,788	1,788
	f_z (mm/t)	0.26	0.26
	a_p (mm)	2.0	2.0
	a_e (mm)	—	—
	Coolant	Dry	Dry
	Results	Excellent chipping resistance achieves 6.2 times longer tool life	

Ductile Cast Iron FCD450 Machine Component		Sumitomo	Competitor's Product
Vertical Machining Centre BT40 	Tool	WEZ11050E05	Single-Sided, 2 Corners
	Grade	ACU2500	—
	Chipbreaker	F	—
	Cutter Dia. (mm)	50	50
	Number of Teeth	5	5
	v_c (m/min)	157	94
	v_f (mm/min)	300	270
	f_z (mm/t)	0.06	0.09
	a_p (mm)	1.2	1.2
	a_e (mm)	10	10
	Coolant	Wet	Wet
	Results	Superior sharpness ensures chatter control and increased efficiency, enabling finishing as well	

Gray Cast Iron FC250 Mounting Base Frame		Sumitomo	Competitor's Product
Vertical Machining Centre BT50 	Tool	WEZ11032E05	Single-Sided, 2 Corners
	Grade	ACK3000	—
	Chipbreaker	G	—
	Cutter Dia. (mm)	32	32
	Number of Teeth	5	4
	v_c (m/min)	220	220
	v_f (mm/min)	1100	900
	f_z (mm/t)	0.1	0.1
	a_p (mm)	2	2
	a_e (mm)	20	20
	Coolant	Dry	Dry
	Results	Efficiency improved Even thin areas can be machined without chatter	

Gray Cast Iron FC300 Table		Sumitomo	Competitor's Product
5-axis Control Vertical Machining Centre HSK-A63 	Tool	WEZ11040E06	—
	Grade	ACU2500	—
	Chipbreaker	G	—
	Cutter Dia. (mm)	40	40
	Number of Teeth	6	6
	v_c (m/min)	200	200
	v_f (mm/min)	1,300	1,300
	f_z (mm/t)	0.135	0.135
	a_p (mm)	2	2
	a_e (mm)	20	20
	Coolant	Wet	Wet
	Results	Stable machining possible even for thin workpieces or low-rigidity machines	

Gray Cast Iron FC250 Railway Component		Sumitomo	Competitor's Product
Vertical Machining Centre 	Tool	WEZ11040M16Z6	Single-Sided, 4 Corners
	Grade	ACK3000	—
	Chipbreaker	G	—
	Cutter Dia. (mm)	40	40
	Number of Teeth	6	3
	v_c (m/min)	37	48
	v_f (mm/min)	707	344
	f_z (mm/t)	0.4	0.3
	a_p (mm)	2.5 x 1 pass + 1	1.5 x 2 passes + 0.5
	a_e (mm)	—	—
	Coolant	Wet	Wet
	Results	Increased cutting edge sharpness enables stable machining with efficiency improved 4.5x	

Gray Cast Iron FC250 Crankshaft		Sumitomo	Competitor's Product
	Tool	WEZ17050E05	—
	Grade	XCK2000	—
	Chipbreaker	G	—
	Cutter Dia. (mm)	50	50
	Number of Teeth	5	5
	v_c (m/min)	188	188
	v_f (mm/min)	898	898
	f_z (mm/t)	0.15	0.15
	a_p (mm)	1.0	1.0
	a_e (mm)	—	—
	Coolant	Wet	Wet
	Results	Excellent wear resistance achieves 4.7 times longer tool life	

WEZ

WEZR

Shell

Shank

Modular

Application Examples

Made-to-Order Product

Application Examples (WEZ Type)

Aluminum Alloy A2025 Machine Component		Sumitomo	Competitor's Product
Vertical Machining Centre BT40	Tool	WEZ17063RS04	Single-Sided, 2 Corners
	Grade	H20	—
	Chipbreaker	S	—
	Cutter Dia. (mm)	63	63
	Number of Teeth	4	4
	v_c (m/min)	1,187	1,187
	v_f (mm/min)	1,920	1,920
	f_z (mm/t)	0.08	0.08
	a_p (mm)	1	1
	a_e (mm)	50	50
	Coolant	—	—
	Results	Very little dimensional fluctuation and machining precision is stable	

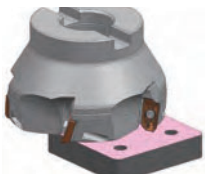


Aluminum Alloy A5052 Machine Component		Sumitomo	—
5-axis Control Vertical Machining Centre HSK-A100	Tool	WEZ17025M12Z2	—
	Grade	DL2000	—
	Chipbreaker	S	—
	Cutter Dia. (mm)	25	—
	Number of Teeth	2	—
	v_c (m/min)	785	—
	v_f (mm/min)	4,000	—
	f_z (mm/t)	0.2	—
	a_p (mm)	3.9	—
	a_e (mm)	25	—
	Coolant	Wet	—
	Results	Stable machining without chatter even at overhang 100mm (L/D=4)	

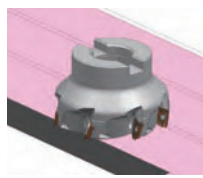


SEC-Modular Tool

Pure Copper (Black Scale) Electrical Machinery Component		Sumitomo	Competitor's Product
Vertical Machining Centre BT40	Tool	WEZ17100R05	Single-Sided, 4 Corners
	Grade	DL2000	—
	Chipbreaker	S	—
	Cutter Dia. (mm)	100	100
	Number of Teeth	5	5
	v_c (m/min)	314	314
	v_f (mm/min)	400	400
	f_z (mm/t)	0.08	0.08
	a_p (mm)	0.5	0.5
	a_e (mm)	80	80
	Coolant	Wet	Wet
	Results	Holes do not have burrs, so no finishing needed	



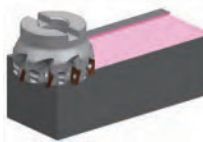
Resin Electronic Device		Sumitomo	Competitor's Product
Vertical Machining Centre BT40	Tool	WEZ11080R07	Single-Sided, 2 Corners
	Grade	DL2000	—
	Chipbreaker	S	—
	Cutter Dia. (mm)	80	80
	Number of Teeth	7	7
	v_c (m/min)	376	376
	v_f (mm/min)	1,050	1,050
	f_z (mm/t)	0.1	0.1
	a_p (mm)	3	3
	a_e (mm)	50	50
	Coolant	Wet	Wet
	Results	Improved cutting edge sharpness keeps machining quiet	



FRPP Resin Industrial Machine Component		Sumitomo	Competitor's Product
Horizontal Machining Centre BT50	Tool	WEZ11020E02	Single-Sided, 2 Corners
	Grade	ACM300	—
	Chipbreaker	L	—
	Cutter Dia. (mm)	20	20
	Number of Teeth	2	3
	v_c (m/min)	200	37
	v_f (mm/min)	640	220
	f_z (mm/t)	0.1	0.091
	a_p (mm)	5 to 9 x 3 passes	5 to 9 x 3 passes
	a_e (mm)	0.95 x 1 pass	0.95 x 1 pass
	Coolant	—	—
	Results	Minimized wall surface step, increasing machining efficiency	



Titanium Alloy Ti-6Al-4V Aerospace Component		Sumitomo	Competitor's Product
Vertical Machining Centre BT50	Tool	WEZ11063RS08	Single-Sided, 2 Corners
	Grade	ACU2500	—
	Chipbreaker	G	—
	Cutter Dia. (mm)	63	63
	Number of Teeth	8	8
	v_c (m/min)	48	48
	v_f (mm/min)	310	310
	f_z (mm/t)	0.16	0.16
	a_p (mm)	2	2
	a_e (mm)	50	50
	Coolant	Wet	Wet
	Results	No chipping, and burrs can also be reduced for longer tool life	



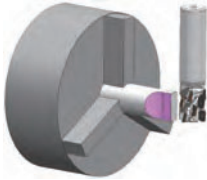
Nickel Based Alloy Inconel 718 Aerospace Component		Sumitomo	Competitor's Product
Vertical Machining Centre BT50	Tool	WEZ17032E04 (Special Component)	Single-Sided, 2 Corners
	Grade	ACU2500	—
	Chipbreaker	H	—
	Cutter Dia. (mm)	32	32
	Number of Teeth	4	4
	v_c (m/min)	30	30
	v_f (mm/min)	120	120
	f_z (mm/t)	0.1	0.1
	a_p (mm)	5	5
	a_e (mm)	10	10
	Coolant	Wet	Wet
	Results	50% tool life improvement	

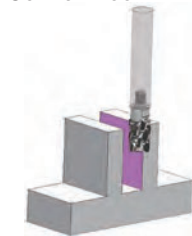


Titanium Alloy Aerospace Component		Sumitomo	Competitor's Product
Compound Lathe	Tool	WEZ17035E03	Single-Sided, 2 Corners
	Grade	ACM300	—
	Chipbreaker	L	—
	Cutter Dia. (mm)	35	35
	Number of Teeth	3	3
	v_c (m/min)	45	45
	v_f (mm/min)	—	—
	f_z (mm/t)	0.16	0.16
	a_p (mm)	3	3
	a_e (mm)	17.5	17.5
	Coolant	Wet	Wet
	Results	Tool life improved	




Application Examples (WEZR Type)


Steel SUM24L Machine Component		Sumitomo	Competitor's Product
	Tool	WEZR11032E3632Z03	Single-Sided, 2 Corners
	Grade	ACU2500	—
	Chipbreaker	G	—
	Cutter Dia. (mm)	32	25
	Number of Teeth	3x4 stages	2x3 stages
	v_c (m/min)	120	80
	v_f (mm/min)	716	102
	f_z (mm/t)	0.20	0.05
	a_p (mm)	32	32
	a_e (mm)	3.0	0.8
	Coolant	Wet	Wet
	Results	No chatter, and efficiency increased 12x or more	

Cast Iron FC250 Automotive Component		Sumitomo	Competitor's Product
	Tool	WEZR11032M1645Z3*	Single-Sided, 2 Corners
	Grade	ACU2500	—
	Chipbreaker	G	—
	Cutter Dia. (mm)	32	32
	Number of Teeth	3x5 stages	3x5 stages
	v_c (m/min)	80	80
	v_f (mm/min)	500	500
	f_z (mm/t)	0.2	0.2
	a_p (mm)	45	45
	a_e (mm)	0.5 to 6.0	0.5 to 6.0
	Coolant	Dry	Dry
	Results	Capable of low-chatter machining even at a tool overhang amount of 200mm	

*Made-to-Order Product

Titanium Alloy Ti-6Al-4V Aerospace Component		Sumitomo	Competitor's Product
	Tool	WEZR11032M1618Z3*	Single-Sided, 2 Corners
	Grade	ACM300	—
	Chipbreaker	G	—
	Cutter Dia. (mm)	32	32
	Number of Teeth	3x2 stages	3x3 stages
	v_c (m/min)	40	40
	v_f (mm/min)	119	84
	f_z (mm/t)	0.10	0.07
	a_p (mm)	15	15
	a_e (mm)	24	24
	Coolant	Wet	Wet
	Results	Capable of machining at reduced cutting force, even at 1.4 times the feed rate	

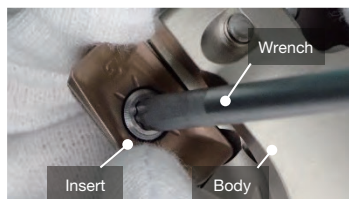
*Made-to-Order Product

Aluminum Alloy ADC12 Automotive Component		Sumitomo	Competitor's Product
	Tool	WEZR11033E4525Z03*	H's Solid Endmills
	Grade	DL2000	—
	Chipbreaker	G	—
	Cutter Dia. (mm)	33	32
	Number of Teeth	3x5 stages	4
	v_c (m/min)	487	100
	v_f (mm/min)	800	224
	f_z (mm/t)	0.056	0.056
	a_p (mm)	25	25
	a_e (mm)	1	1
	Coolant	Wet	Wet
	Results	Efficiency increased 5x or more, for reduced tool costs	

*Made-to-Order Product

Precautions for Mounting Inserts

- (1) Clean the mounting seat surface and contact parts.
- (2) While pressing the insert firmly against the seat surface, tighten the screws with the included wrench.
- (3) Apply Anti-seizure Cream to the screws and tighten at the recommended torque.
- (4) After tightening, check that there are no gaps on the seat surface.



SEC-WaveMill WEZR Type Repeater Made-To-Order Request Sheet (1)

Select a cutter design and enter the dimensions in .

After completion, send the sheet to our nearest sales office or distributor.

Feel free to contact us for other shapes or dimensions or with other requests.

Company Name/Contact

WEZ

WEZR

Shell

Shank

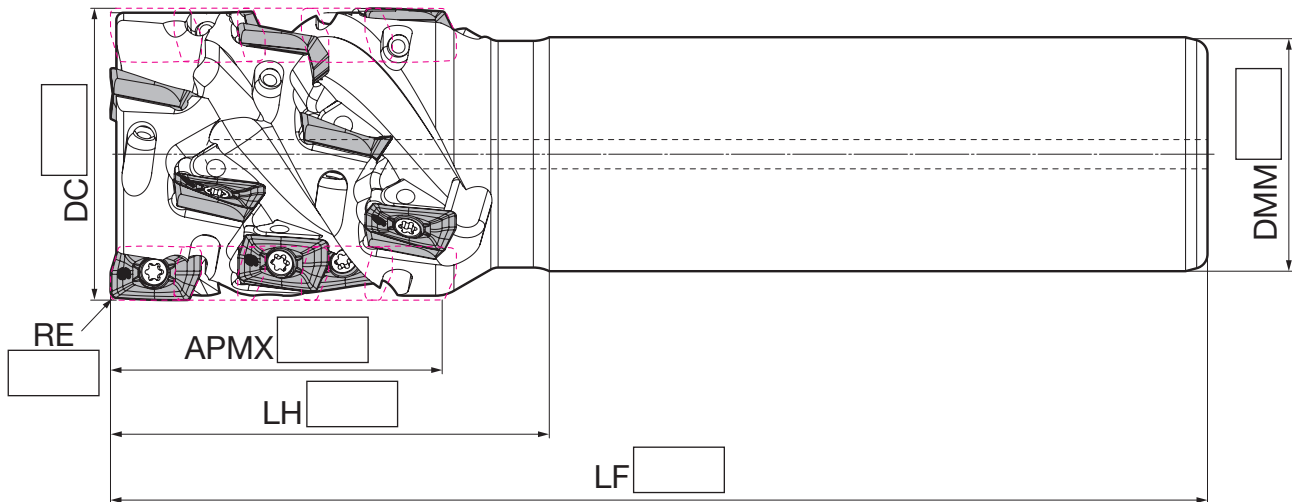
Modular



Reference Specifications

Applicable Inserts	Dia. (mm)	Max. Depth of Cut (mm)	Total No. of Teeth	Steps	Max. Effective No. of Teeth	Specifications	
	DC	APMX				Shell	Shank
AOMT11 AOET11 (Refer to P33)	20	19	4	2	2		○
	25	27	6	3	2		○
	32	36	12	4	3		○
	40	44	20	5	4	○	○
	50	53	24	6	4	○	
AOMT17 AOET17 (Refer to P35)	40	43	6	3	2		○
	50	57	12	4	3	○	○
	63	57	16	4	4	○	
	80	56	20	4	5	○	

Shank Refer to the reference specifications above.



Effective No. of Teeth Desired: , Coolant Hole: Yes No

· The tip insert corner radius (RE) can be selected. (Refer to Applicable Size: P3 ■ Product Range)
Other inserts are all RE = 0.8mm or less.

Accessories

Flat Insert Screw	Wrench	Anti-seizure Cream

SEC-WaveMill WEZR Type Repeater Made-To-Order Request Sheet (2)

Select a cutter design and enter the dimensions in .

After completion, send the sheet to our nearest sales office or distributor.

Feel free to contact us for other shapes or dimensions or with other requests.

Company Name/Contact




Shell Refer to the reference specifications on P50.

Effective No. of Teeth Desired: , Coolant Hole: Yes No

Integrated Arbor Refer to the reference specifications on P50.

Effective No. of Teeth Desired: , Coolant Hole: Yes No

Accessories

Flat Insert Screw	Wrench	Anti-seizure Cream
		

· The tip insert corner radius (RE) can be selected. (Refer to Applicable Size: P3 ■ Product Range)
Other inserts are all RE = 0.8mm or less.

Sumitomo Electric Cutting Tools Official Apps for iOS/Android



Cutting calculation App

SumiTool Calculator



Grade & chipbreaker comparison App

SumiTool Converter



< SAFETY NOTES >



- 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.

- 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.

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