

High-Precision Shoulder Milling Cutter

Wavemill WEZ Series

Ultra-Refined "Universal" Cutter



"WaveMill" Series

WEZ Type



General Features

Supports Various Machining Operations

Applicable to various machining applications, the cutter lineup includes diameters of Ø 14 mm to Ø 160 mm, enabling large ramping.

Excellent Machining Quality

With a combination of optimised cutting edge shape and high-precision molding technology, superb wall surface accuracy and surface finish quality are achieved.

Excellent Sharpness with Low Resistance

Reduces machining noise and suppresses burrs. Lineup includes ground inserts with a focus on sharpness.

General-purpose Grade Applicable to any Work Material

Introducing the new grade ACU2500, supporting machining in a wide range of fields and applicable to steel, stainless steel and cast iron.

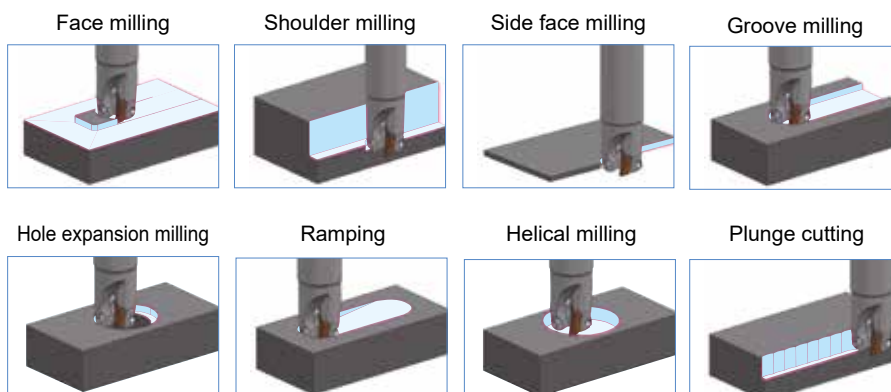
Product Range

Type	Cat. No.	Diameter Range (mm) / No of Teeth																
		Ø14	Ø16	Ø18	Ø20	Ø22	Ø25	Ø28	Ø30	Ø32	Ø35	Ø40	Ø50	Ø63	Ø80	Ø100	Ø125	Ø160
Shell	WEZ 11000RS											4, 6	5, 7	6, 8	7, 10	9, 12		
	WEZ 11000R (Inch)														7, 10	9, 12		
	WEZ 17000RS											3, 4	3, 5	4, 6	4, 7	5, 8	6, 9, 11	8, 10, 12
	WEZ 17000R (Inch)														4, 7	5, 8	6, 9, 11	8, 10, 12
Shank	WEZ 11000E	1	2*	2	2*, 3*	3	2, 3*, 4*	4	4	2, 3, 4, 5*	5	2, 4, 6	5, 7	8	10			
	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 17000EL						2	2	2	2*, 3	2	2, 3, 4	3*, 5*	4*, 6*				

* Different shank diameters in stock

Suitable Applications

- Supports Ramping, Helical Milling, Plunge Cutting



Optimised Body Design

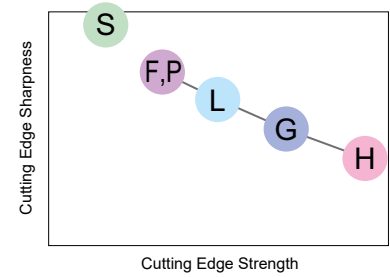
Wide guide face for stable insert clamping.



WEZ11 type

Chipbreaker Lineup

Work Material		P	M	K	S	H	N
Chipbreaker	L Type	G Type	H Type	F Type	P Type	S Type	
AO_T11 Cutting edge geometrie							
AO_T17 Cutting edge geometrie							
Applications	Light cut, low rigidity machining	Main breaker for general purpose to interrupted machining	Heavy cut, heavy interrupt- ed machining, hardened steel	Light cut, finishing, low-burr design	Light cut, high-precision machining, high surface wall quality	For non-ferrous metals	



Product Range Inserts

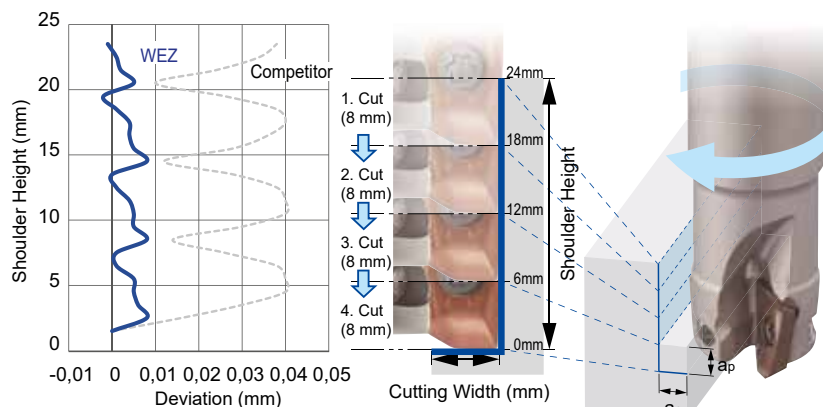
Main Grade: ACU2500

Cat. No.	Nose Radius (mm)											
	R0,2	R0,4	R0,8	R1,2	R1,6	R2,0	R2,4	R3,0	R3,2	R4,0	R5,0	R6,4
AOMT 11T3 PEER-G	●	●	●	●	□	□	□	□	□			
AOMT 11T3 PEER-H		●	●	●	□							
AOET 11T3 PEER-F	○	●	●	○								
AOET 11T3 PEER-P16	○	○	○	○								
AOET 11T3 PEER-P20	○	○	○	○								
AOET 11T3 PEER-P25	○	○	○	○								
AOET 11T3 PEFR-S	○	●	●	○								
AOMT 1705 PEER-L	●	●	●	●	□							
AOMT 1705 PEER-G	●	●	●	●	□	□	□	□	□	□	□	□
AOMT 1705 PEER-H		●	●	○	□							
AOET 1705 PEER-F	○	●	●	○								
AOET 1705 PEER-P25	○	○	○	○								
AOET 1705 PEER-P32	○	○	○	○								
AOET 1705 PEFR-S	○	●	●	○								

□ = Available from April 2020

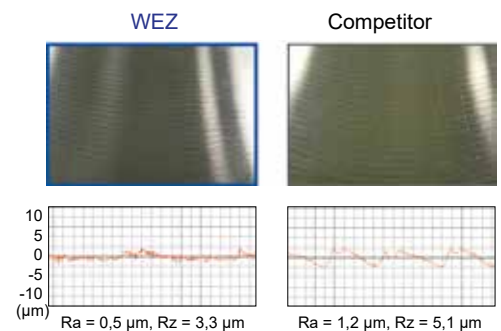
Improved Milling Quality

● Excellent Squareness

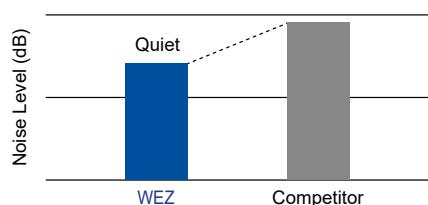


Machine: Vertical Machining Centre BT40,
Work Material: C50
Tool: WEZ 11020 E03 (Ø 20, 3 teeth)
Insert: AOMT11T308PEER-G (ACU2500)
Cutting Conditions: $v_c = 150$ m/min, $f_z = 0,15$ mm/t, $a_p = 6$ mm x 4 passes, $a_e = 5$ mm, dry

● Excellent Surface Quality



● Lower cutting force helps reduce machining noise



Machine: Vertical Machining Centre BT40,
Work Material: C50
Tool: WEZ 11020 E03 (Ø 20, 3 teeth)
Insert: AOMT11T308PEER-G (ACU2500)
Cutting Conditions: $v_c = 150$ m/min, $f_z = 0,15$ mm/t, $a_p = 8$ mm, $a_e = 5$ mm, dry

● = Euro stock

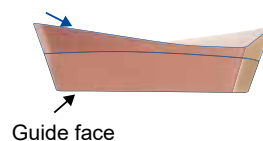
○ = Japan stock

High-precision Ground Class 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.

Cutting edge flank



Guide face

Lineup of Chipbreakers for Ground Inserts

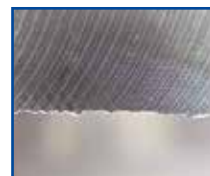
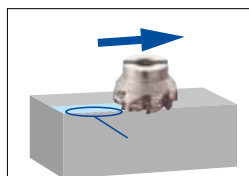
F Type

Cutting edge specialized for sharpness and machining accuracy



Sharpness from ground finish enables burr control.

Excellent squareness with all diameters.



Machine: Vertical Machining Centre BT50,
Work Material: X5CrNiS18 9
Tool: WEZ 11050 RS07 (Ø 50, 7 teeth)
Insert: AOET11T308PEER-F (ACU2500)
Cutting Conditions: $v_c = 120$ m/min, $f_z = 0,12$ mm/t, $a_p = 1$ mm, $a_e = 30$ mm, dry

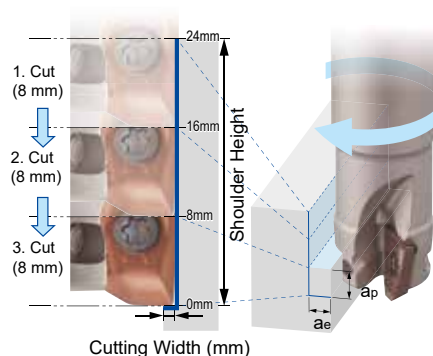
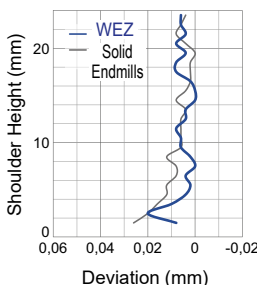
P Type

Chipbreaker for wall surface squareness equivalent to solid endmills



Premium item with cutting edge shape optimised for each cutter diameter while maintaining the F type chipbreaker's sharpness.

Enables wall surface squareness equal to solid endmills through a blade shape optimised for each tool diameter.



P Type Chipbreaker Selection

Cat. No.	Cutter Diameter (mm)									
	Ø14	Ø16	Ø18	Ø20	Ø22	Ø25	Ø28	Ø30	Ø32	Ø35 => Ø40
AOET11T3__PEER-P__	-P16	-P20	-	-P25	-	-	-	-	-	-
AOET1705__PEER-P__	-	-	-	-	-	-P25	-	-P32	-	-

Machine: Vertical Machining Centre BT50,
Work Material: C50
Tool: WEZ 11020 E03 (Ø 20, 3 teeth)
Insert: AOET11T308PEER-P20 (ACU2500)
Cutting Conditions: $v_c = 150$ m/min, $f_z = 0,1$ mm/t, $a_p = 8$ mm x 3 passes, $a_e = 1$ mm, dry

S Type

Sharp edge chipbreaker for non-ferrous metals, with excellent adhesion resistance



Suppresses adhesion with rake face lapping.

DLC coat inserts available for further improved adhesion resistance.

WEZ

Competitor A

Competitor B



No Adhesion



Adhesion



Adhesion

Machine: Vertical Machining Centre BT50,
Work Material: AlSi12Cu
Tool: WEZ 11020 E03 (Ø 20, 3 teeth)
Insert: AOET11T308PEER-S (H20)
Cutting Conditions: $v_c = 350$ m/min, $f_z = 0,1$ mm/t, $a_p = 3$ mm, $a_e = 10$ mm, dry

Insert Grades Selection Guide

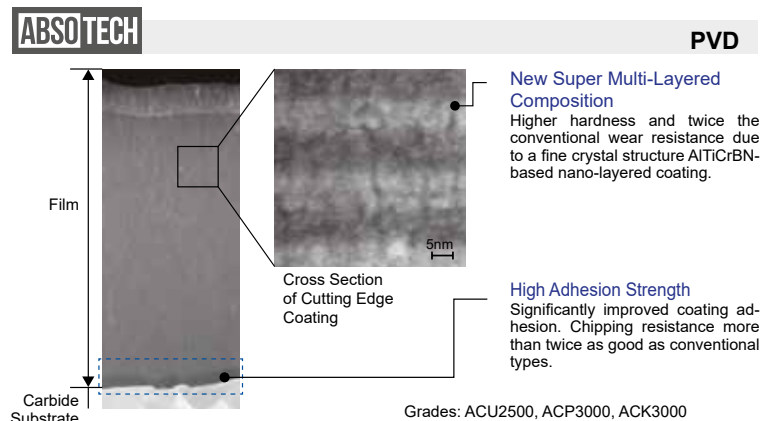
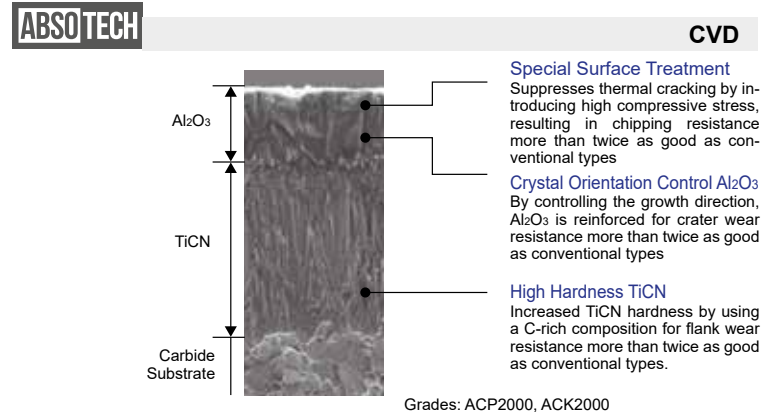
Newly developed general-purpose ACU2500 grade suitable for various work materials has been released. Enhanced lineup of coatings, cemented carbide and cermet for milling steel, stainless steel, cast iron and aluminum alloy.

ISO		Finishing – Light Cutting	Medium Cutting	Rough – Heavy Cutting
P	Coated Carbide	ACP2000 ACU2500	ACP3000	
	Cermet	T2500A		
M	Coated Carbide	ACU2500 ACM200	ACM300	
	Coated Carbide	ACK2000 ACK3000 ACU2500		
N	Coated Carbide	DL2000		
	Carbide		H20	

▽ : CVD ▲ : PVD

Coating Features

New Absotech™ (absolute technology) coating technology that realises absolute stability.



ISO	Grade	Coating Thickness (μm)	Features
P M K	ACU2500	3	General purpose grade applicable to steel and cast iron. 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.
P	ACP2000	10	Stable long tool life with high-speed machining is realised by adopting a new coating and a tough carbide substrate with excellent thermal crack resistance.
	ACP3000	3	Adopts a very tough carbide substrate plus a new coating with excellent wear resistance and chipping resistance, realising stable long tool life for wet machining of steel in particular.
	T2500A	–	Thanks to the excellent thermal crack resistance conferred by high thermal conductivity and the improved toughness due to the finer and more uniform structure, this cermet grade achieves high levels of fracture resistance and wear resistance.
M	ACM200	6	Realises superb stability in machining of high-hardness stainless steel, due to a high-strength carbide substrate and highly wear-resistant coating.
	ACM300	3	Realises superb stability in machining of stainless steel, due to a high-strength carbide substrate and highly chipping-resistant coating.
K	ACK2000	10	Stable long tool life with high-speed machining of cast iron is realised by adopting a new coating with excellent thermal resistance and a tough carbide substrate.
	ACK3000	3	Adopts a carbide substrate with excellent wear resistance plus a new coating with excellent wear resistance and chipping resistance, realising stable long tool life in dry machining of cast iron.
N	DL2000	0,5	DLC coating grade for non-ferrous metal machining with a low coefficient of friction and excellent adhesion resistance.
	H20	–	Uncoated grade for non-ferrous metal machining with excellent wear resistance and fracture resistance.

"WaveMill" Series

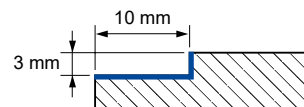
WEZ Type

Recommended Cutting Conditions

WEZ11 Type

Cutter: WEZ 11020 E03
 Insert: AO_T11T3 type
 Cutting Data: $a_p = 3 \text{ mm}$, $a_e = 10 \text{ mm}$, dry

Min. - Optimum - Max.



ISO	Material	HB	Chipbreaker	Grade								
				ACU2500	ACP2000	ACP3000	T2500A	ACK2000	ACK3000	ACM200	ACM300	DL2000
				Feed Rate (mm/tooth)								
				0,08–0,15–0,20	0,08–0,15–0,20	0,08–0,15–0,20	0,08–0,15–0,18	0,08–0,15–0,20	0,08–0,15–0,20	0,08–0,15–0,20	0,08–0,15–0,20	0,05–0,10–0,15
Cutting Speed v_c (m/min)												
P	Unalloyed steel, <0, 15%C, annealed	125	G	270–320–370	300–350–400	250–300–350	230–280–330					
	" , <0, 45%C, annealed	190	G	170–220–270	200–250–300	150–200–250	130–180–230					
	" , <0, 45%C, tempered	250	G	140–180–220	160–200–245	120–160–200	105–145–185					
	" , <0, 75%C, annealed	270	G	110–145–175	130–165–195	100–130–165	85–115–150					
	" , <0, 75%C, tempered	300	G	70–90–110	80–100–120	60–80–100	50–70–90					
	Low alloyed steel, annealed	180	G	160–205–255	190–235–280	140–190–235	120–170–215					
	" , tempered	275	G	90–120–150	110–135–165	80–110–140	70–100–125					
	" , tempered	300	G	85–110–130	100–125–150	75–100–125	65–90–115					
	" , tempered	350	G	60–80–100	70–90–110	50–70–90	45–65–85					
	High alloyed and tool steel, annealed	200	G	140–180–220	160–200–245	120–160–205						
" , tempered	325	G	55–70–85	60–80–100	50–65–80							
M	Stainless steel, ferritic/martensitic, annealed	200	G	110–140–170						140–170–190	90–110–140	
	" , martensitic, tempered	240	G	100–125–150						125–150–170	80–100–125	
	" , austenitic, plunged	180	G	120–150–180						150–180–200	100–120–150	
K	Grey cast iron		G	150–200–250				250–300–350	170–220–270			
	Nodular cast iron		G	90–120–150				150–180–210	100–130–160			
S	High tempered resist. alloys, Fe based, annealed		G	30–40–55						35–45–60	25–35–50	
	" , hardened		G	60–80–100						70–90–110	50–70–90	
N	Aluminium alloy, Si < 12,6%		S									500–750–100
	" , Si > 12,6%		S									170–200–250
	Copper alloy		S									300–330–350

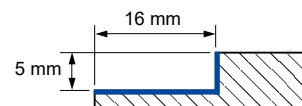
The above recommended cutting conditions are meant as a guide. Actual conditions will depend on the individual machine, work shape and clamping. They will need to be adjusted according to machine rigidity, work clamp rigidity, cutting depth and other factors.

For groove milling, reduce the feed rate approximately 70 % of the corresponding value shown above.

WEZ17 Type

Cutter: WEZ 17032 E03
 Insert: AO_T1705 type
 Cutting Data: $a_p = 5 \text{ mm}$, $a_e = 16 \text{ mm}$, dry

Min. - Optimum - Max.

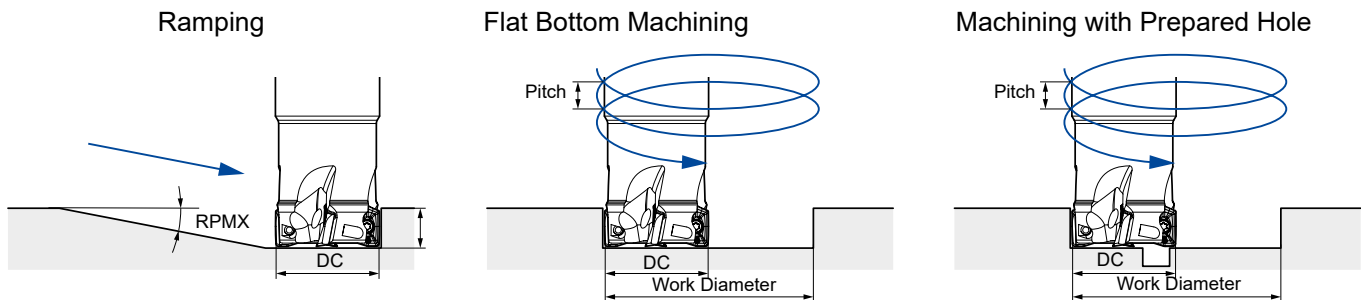


ISO	Material		Chipbreaker	Grade									
				ACU2500	ACP2000	ACP3000	T2500A	ACK2000	ACK3000	ACM200	ACM300	DL2000	
				Feed Rate (mm/tooth)									
				0,10–0,20–0,28	0,10–0,20–0,28	0,10–0,20–0,28	0,10–0,15–0,22	0,10–0,20–0,28	0,10–0,20–0,28	0,10–0,20–0,28	0,10–0,20–0,28	0,05–0,10–0,15	
Cutting Speed v_c (m/min)													
P	Unalloyed steel, <0, 15%C, annealed	125	G	285–335–390	315–360–420	265–315–370	240–295–345						
	" , <0, 45%C, annealed	190	G	180–230–285	210–265–315	160–210–265	135–190–240						
	" , <0, 45%C, tempered	250	G	145–190–230	170–210–255	130–170–215	110–155–195						
	" , <0, 75%C, annealed	270	G	115–150–185	135–170–205	100–135–170	90–125–155						
	" , <0, 75%C, tempered	300	G	70–90–115	85–105–125	65–85–105	55–75–95						
	Low alloyed steel, annealed	180	G	170–220–265	200–245–295	150–200–250	130–180–225						
	" , tempered	275	G	100–130–155	115–145–175	85–115–145	75–105–135						
	" , tempered	300	G	90–115–140	105–130–155	75–105–130	65–90–120						
	" , tempered	350	G	65–85–100	75–95–115	55–75–95	50–70–85						
	High alloyed and tool steel, annealed	200	G	145–185–230	170–215–255	130–170–215							
" , tempered	325	G	55–75–90	65–85–100	50–65–85								
M	Stainless steel, ferritic/martensitic, annealed	200	G	115–145–175						145–175–195	100–115–145		
	" , martensitic, tempered	240	G	105–130–155						130–155–175	85–105–130		
	" , austenitic, plunged	180	G	125–155–190						160–190–210	105–125–160		
K	Grey cast iron		G	160–210–265			265–315–370	180–230–285					
	Nodular cast iron		G	95–125–160			160–190–220	105–140–170					
S	High tempered resist. alloys, Fe based, annealed		G	30–40–60					35–45–60	25–35–50			
	" , hardened		G	60–85–105					75–95–115	50–75–95			
N	Aluminium alloy, Si < 12,6%		S									500–750–100	
	" , Si > 12,6%		S									170–200–250	
	Copper alloy		S									300–330–350	

The above recommended cutting conditions are meant as a guide. Actual conditions will depend on the individual machine, work shape and clamping. They will need to be adjusted according to machine rigidity, work clamp rigidity, cutting depth and other factors.

For groove milling, reduce the feed rate approximately 70 % of the corresponding value shown above.

■ Ramping / Helical Milling Upper Limits



● WEZ11 Type

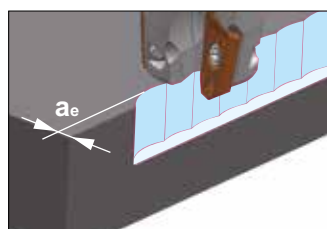
DC Ø (mm)	Max.Ramping Angle	Flat Bottom Machining				Machining with Prepared Hole	
	RPMX (°)	Max. Machining Diam. (mm)	Max. Pitch (mm/rev)	Min. Machining Diam. (mm)	Max. Pitch (mm/rev)	Max. Machining Diam. (mm)	Max. Pitch (mm/rev)
14	13,2	25,3	8,4	23,1	5,9	19,0	1,9
16	10,5	29,3	7,6	27,0	5,6	21,7	1,5
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

● WEZ17 Type

DC Ø (mm)	Max.Ramping Angle	Flat Bottom Machining				Machining with Prepared Hole	
	RPMX (°)	Max. Machining Diam. (mm)	Max. Pitch (mm/rev)	Min. Machining Diam. (mm)	Max. Pitch (mm/rev)	Max. Machining Diam. (mm)	Max. 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

* The table above shows values with nose radius 0,8 mm

■ Plunge Cutting - Upper Limit for Radial Width a_e



Type	Max. a_e (mm)
WEZ11	3
WEZ17	5

"WaveMill" Series

WEZ 11000 R(S)

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



Fig. 1

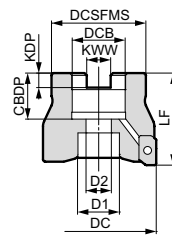


Fig. 2

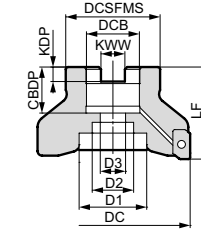
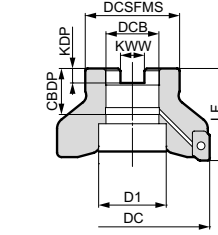


Fig. 3



■ Body - WEZ (Shell Type)

Dimensions (mm)

Cat. No.		Stock	DC	DCSFMS	LF	DCB	KWW	KDP	CBDP	D1	D2	D3	No. of Teeth	Weight (kg)	Fig.
Metric	WEZ 11040RS04	●	40	33	40	16	8,4	5,6	18	14	9	—	4	0,21	1
	11040RS06	●	40	33	40	16	8,4	5,6	18	14	9	—	6	0,20	1
	11050RS05	●	50	41	40	22	10,4	6,3	20	18	11	—	5	0,32	1
	11050RS07	●	50	41	40	22	10,4	6,3	20	18	11	—	7	0,31	1
	11063RS06	●	63	50	40	22	10,4	6,3	20	18	11	—	6	0,58	1
	11063RS08	●	63	50	40	22	10,4	6,3	20	18	11	—	8	0,57	1
	11080RS07	●	*80	55	50	27	12,4	7,0	22	20	14	—	7	1,08	1
	11080RS10	●	*80	55	50	27	12,4	7,0	22	20	14	—	10	1,07	1
	11100RS09	●	100	70	50	32	14,4	8,0	32	46	—	—	9	1,57	3
11100RS12	●	100	70	50	32	14,4	8,0	32	46	—	—	12	1,56	3	
Inch	WEZ 11080R07	○	*80	55	50	25,4	9,5	6,0	25	20	14	—	7	1,09	1
	11080R10	○	*80	55	50	25,4	9,5	6,0	25	20	14	—	10	1,08	1
	11100R09	○	*100	70	63	31,75	12,7	8,0	32	46	27	18	9	2,12	2
	11100R12	○	*100	70	63	31,75	12,7	8,0	32	46	27	18	12	2,10	2

Inserts are sold separately. Check the arbor mounting size (DCB) when selecting the cutter.

* For securing the Ø 80 mm and Ø 100 mm cutter to the arbors, use JIS B1176 hexagonal bolt.
(Ø 80 mm: M12x30 to 35 mm, Ø 100 mm: M16x40x45 mm)



■ Spare Parts

Applicable Cutters	Insert Screw		Wrench
WEZ 11040RS04	BFTX0306IP	1,5	TRDR08IP
11040RS06			
11050RS05			
11050RS07			
11063RS06			
11063RS08			
11080R(S)07			
11080R(S)10			
11100R(S)09			
11100R(S)12			

■ Identification Details

WEZ	11	050	R	S	07
Cutter Series	Insert Size	Cutter Diameter	Feed Direction	Metric	Number of Teeth

■ Recommended Cutting Conditions

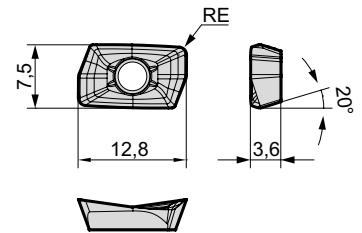
P.6

Inserts

Application	Coated Carbide							Carbide	DLC	Cermet	
High Speed / Light Cut		P		K		MS			N	P	
General Purpose	KS		P		K	MS	MS	N	N		
Roughing	KS		P		K		MS				
Cat. No.	ACU2500	ACP2000	ACP3000	ACK2000	ACK3000	ACM200	ACM300	H20	DL2000	T2500A	RE (mm)
AOMT 11T302PEER-G	●	□	□	□	□	□	□	-	-	□	0,2
11T304PEER-G	●	●	●	●	●	●	●	-	-	●	0,4
11T308PEER-G	●	●	●	●	●	●	●	-	-	●	0,8
11T312PEER-G	●	□	□	□	□	□	□	-	-	□	1,2
11T316PEER-G	□	□	□	□	□	□	□	-	-	□	1,6
11T320PEER-G	□	□	□	□	□	□	□	-	-	□	2,0
11T324PEER-G	□	□	□	□	□	□	□	-	-	□	2,4
11T330PEER-G	□	□	□	□	□	□	□	-	-	□	3,0
11T332PEER-G	□	□	□	□	□	□	□	-	-	□	3,2
AOMT 11T304PEER-H	●	●	●	●	●	●	●	-	-	-	0,4
11T308PEER-H	●	●	●	●	●	●	●	-	-	-	0,8
11T312PEER-H	●	□	□	□	□	□	□	-	-	-	1,2
11T316PEER-H	□	□	□	□	□	□	□	-	-	-	1,6
AOET 11T302PEER-F	○	-	-	-	-	-	-	-	-	-	0,2
11T304PEER-F	●	-	-	-	-	-	-	-	-	-	0,4
11T308PEER-F	●	-	-	-	-	-	-	-	-	-	0,8
11T312PEER-F	○	-	-	-	-	-	-	-	-	-	1,2
AOET 11T302PEER-P16	○	-	-	-	-	-	-	-	-	-	0,2
11T304PEER-P16	○	-	-	-	-	-	-	-	-	-	0,4
11T308PEER-P16	○	-	-	-	-	-	-	-	-	-	0,8
11T312PEER-P16	○	-	-	-	-	-	-	-	-	-	1,2
11T302PEER-P20	○	-	-	-	-	-	-	-	-	-	0,2
11T304PEER-P20	○	-	-	-	-	-	-	-	-	-	0,4
11T308PEER-P20	○	-	-	-	-	-	-	-	-	-	0,8
11T312PEER-P20	○	-	-	-	-	-	-	-	-	-	1,2
11T302PEER-P25	○	-	-	-	-	-	-	-	-	-	0,2
11T304PEER-P25	○	-	-	-	-	-	-	-	-	-	0,4
11T308PEER-P25	○	-	-	-	-	-	-	-	-	-	0,8
11T312PEER-P25	○	-	-	-	-	-	-	-	-	-	1,2
AOET 11T302PEFR-S	-	-	-	-	-	-	-	○	○	-	0,2
11T304PEFR-S	-	-	-	-	-	-	-	●	●	-	0,4
11T308PEFR-S	-	-	-	-	-	-	-	●	●	-	0,8
11T312PEFR-S	-	-	-	-	-	-	-	○	○	-	1,2

L: Low cutting force
G: General purpose
H: Strong edge
F: Finishing
P: High-precision machining
S: Non ferrous metals

*P16 is applicable to cutter diameters Ø 14 mm and Ø 16 mm.
*P20 is applicable to cutter diameters Ø 18 mm, Ø 20 mm.
*P25 is applicable to cutter diameters Ø 25 mm, Ø 28 mm.



L: Low cutting force
G: General purpose
H: Strong edge
F: Finishing
P: High-precision machining
S: Non ferrous metals

*P16 is applicable to cutter diameters Ø 14 mm and Ø 16 mm.
*P20 is applicable to cutter diameters Ø 18 mm, Ø 20 mm.
*P25 is applicable to cutter diameters Ø 25 mm, Ø 28 mm.

□ = Available from April 2020

□ = Not available

Precautions for Mounting

- (1) Clean the mounting seat and contact parts.
- (2) Apply screw lubrication to the screw thread as well as the screw head face to prevent seizure.
- (3) While pressing the insert solidly against the seat surface, tighten at the screws with the included wrench.
- (4) After tightening, check that there are no gaps between the surfaces.



*When mounting inserts with nose radius of $\geq 3,0$ mm, modification of the body is required.



Modify this edge.

Reworking guidelines
Nose radius = 3,0 mm: C = 1 mm (AOMT11T330PEER)
Nose radius = 3,2 mm: C = 1 mm (AOMT11T332PEER)
Standard: R = 1 mm

C: Chamfer
R: Radius

"Wave Mill" Series

WEZ 17000 R(S)



Fig. 1

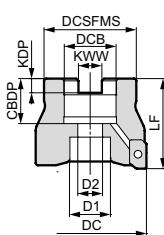


Fig. 2

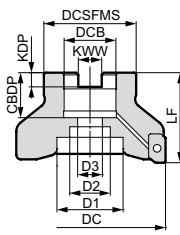


Fig. 3

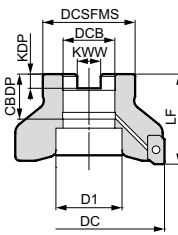


Fig. 4

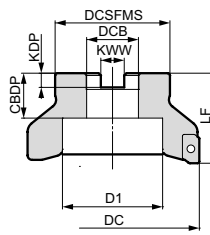
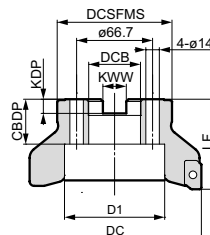


Fig. 5



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

■ Body - WEZ (Shell Type)

Dimensions (mm)

Cat. No.		Stock	DC	DCSFMS	LF	DCB	KWW	KDP	CBDP	D1	D2	D3	No. of Teeth	Weight (kg)	Fig.
Metric	WEZ 17040RS03	●	40	33	40	16	8,4	5,6	18	14	9	—	3	0,19	1
	17040RS04	●	40	33	40	16	8,4	5,6	18	14	9	—	4	0,16	1
	17050RS03	●	50	41	40	22	10,4	6,3	20	18	11	—	3	0,30	1
	17050RS05	●	50	41	40	22	10,4	6,3	20	18	11	—	5	0,26	1
	17063RS04	●	63	50	40	22	10,4	6,3	20	18	11	—	4	0,54	1
	17063RS06	●	63	50	40	22	10,4	6,3	20	18	11	—	6	0,51	1
	17080RS04	●	*80	55	50	27	12,4	7,0	22	20	14	—	4	1,10	1
	17080RS07	●	*80	55	50	27	12,4	7,0	22	20	14	—	7	1,05	1
	17100RS05	●	100	70	50	32	14,4	8,0	32	46	—	—	5	1,58	3
	17100RS08	●	100	70	50	32	14,4	8,0	32	46	—	—	8	1,57	3
	17125RS06	●	125	80	63	40	16,4	9,0	29	52	29	—	6	3,04	1
	17125RS09	●	125	80	63	40	16,4	9,0	29	52	29	—	9	3,07	1
	17125RS11	●	125	80	63	40	16,4	9,0	29	52	29	—	11	3,02	1
	17160RS08	●	160	130	63	40	16,4	9,0	29	90	—	—	8	5,24	5
17160RS10	●	160	130	63	40	16,4	9,0	29	90	—	—	10	5,31	5	
17160RS12	●	160	130	63	40	16,4	9,0	29	90	—	—	12	5,26	5	
Inch	WEZ 17080R04	○	*80	55	50	25,4	9,5	6,0	25	20	14	—	4	1,10	1
	17080R07	○	*80	55	50	25,4	9,5	6,0	25	20	14	—	7	1,06	1
	17100R05	○	*100	70	63	31,75	12,7	8,0	32	46	27	18	5	2,08	2
	17100R08	○	*100	70	63	31,75	12,7	8,0	32	46	27	18	8	2,07	2
	17125R06	○	125	80	63	38,1	15,9	10,0	35,5	55	30	—	6	3,09	1
	17125R09	○	125	80	63	38,1	15,9	10,0	35,5	55	30	—	9	3,11	1
	17125R11	○	125	80	63	38,1	15,9	10,0	35,5	55	30	—	11	3,06	1
	17160R08	○	160	100	63	50,8	19,1	11,0	38	72	—	—	8	5,04	4
	17160R10	○	160	100	63	50,8	19,1	11,0	38	72	—	—	10	5,09	4
17160R12	○	160	100	63	50,8	19,1	11,0	38	72	—	—	12	5,04	4	

Inserts are sold separately. Check the arbor mounting size (DCB) when selecting the cutter.

* For securing the Ø 80 mm and Ø 100 mm cutter to the arbors, use JIS B1176 hexagonal bolt.
(Ø 80 mm: M12x30 to 35 mm, Ø 100 mm: M16x40x45 mm)

■ Spare Parts

Applicable Cutters	Insert Screw	Wrench	Handle Grip	Wrench Bit
WEZ 17040RS03				
17040RS04				
17050RS03				
17050RS05				
17063RS04				
17063RS06				
17080R(S)04				
17080R(S)07				
17100R(S)05				
17100R(S)08				
17125R(S)06				
17125R(S)09				
17125R(S)11				
17160R(S)08				
17160R(S)10				
17160R(S)12				

■ Identification Details

WEZ	17	100	R	S	05
Cutter Series	Insert Size	Cutter Diameter	Feed Direction	Metric	Number of Teeth

■ Recommended Cutting Conditions

P.6

● = Euro stock

○ = Japan stock

Inserts

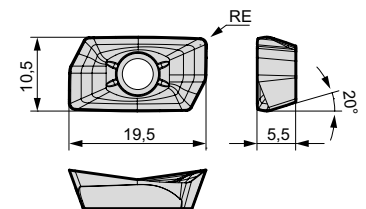
Application	Coated Carbide						Carbide	DLC	Cermet		
High Speed / Light Cut		P		K		MS		N	P		
General Purpose	KS		P		K	MS	MS	N	N		
Roughing	KS		P		K		MS				
Cat. No.	ACU2500	ACP2000	ACP3000	ACK2000	ACK3000	ACM200	ACM300	H20	DL2000	T2500A	RE (mm)
AOMT 170502PEER-L	●	—	□	—	□	□	□	—	—	□	0,2
170504PEER-L	●	—	●	—	●	●	●	—	—	●	0,4
170508PEER-L	●	—	●	—	●	●	●	—	—	●	0,8
170512PEER-L	●	—	□	—	□	□	□	—	—	□	1,2
170516PEER-L	□	—	□	—	□	□	□	—	—	□	1,6
AOMT 170502PEER-G	●	□	□	□	□	□	□	—	—	□	0,2
170504PEER-G	●	●	●	●	●	●	●	—	—	●	0,4
170508PEER-G	●	●	●	●	●	●	●	—	—	●	0,8
170512PEER-G	●	□	□	□	□	□	□	—	—	□	1,2
170516PEER-G	□	□	□	□	□	□	□	—	—	□	1,6
170520PEER-G	□	□	□	□	□	□	□	—	—	□	2,0
170524PEER-G	□	□	□	□	□	□	□	—	—	□	2,4
170530PEER-G	□	□	□	□	□	□	□	—	—	□	3,0
170532PEER-G	□	□	□	□	□	□	□	—	—	□	3,2
170540PEER-G	□	□	□	□	□	□	□	—	—	□	4,0
170550PEER-G	□	□	□	□	□	□	□	—	—	□	5,0
170564PEER-G	□	□	□	□	□	□	□	—	—	□	6,4
AOMT 170504PEER-H	●	●	●	●	●	●	●	—	—	—	0,4
170508PEER-H	●	●	●	●	●	●	●	—	—	—	0,8
170512PEER-H	○	□	□	□	□	□	□	—	—	—	1,2
170516PEER-H	□	□	□	□	□	□	□	—	—	—	1,6
AOET 170502PEER-F	○	—	—	—	—	—	—	—	—	—	0,2
170504PEER-F	●	—	—	—	—	—	—	—	—	—	0,4
170508PEER-F	●	—	—	—	—	—	—	—	—	—	0,8
170512PEER-F	○	—	—	—	—	—	—	—	—	—	1,2
AOET 170502PEER-P25	○	—	—	—	—	—	—	—	—	—	0,2
170504PEER-P25	○	—	—	—	—	—	—	—	—	—	0,4
170508PEER-P25	○	—	—	—	—	—	—	—	—	—	0,8
170512PEER-P25	○	—	—	—	—	—	—	—	—	—	1,2
170502PEER-P32	○	—	—	—	—	—	—	—	—	—	0,2
170504PEER-P32	○	—	—	—	—	—	—	—	—	—	0,4
170508PEER-P32	○	—	—	—	—	—	—	—	—	—	0,8
170512PEER-P32	○	—	—	—	—	—	—	—	—	—	1,2
AOET 170502PEFR-S	—	—	—	—	—	—	—	○	○	—	0,2
170504PEFR-S	—	—	—	—	—	—	—	●	●	—	0,4
170508PEFR-S	—	—	—	—	—	—	—	●	●	—	0,8
170512PEFR-S	—	—	—	—	—	—	—	○	○	—	1,2

L: Low cutting force
G: General purpose
H: Strong edge
F: Finishing
P: High-precision machining
S: Non ferrous metals

*P25 is applicable to cutter diameters Ø 25 mm and Ø 28 mm.
*P32 is applicable to cutter diameters Ø 30 mm, Ø 32 mm and Ø 35 mm.

□ = Available from April 2020

□ = Not available



L: Low cutting force
G: General purpose
H: Strong edge
F: Finishing
P: High-precision machining
S: Non ferrous metals

*P25 is applicable to cutter diameters Ø 25 mm and Ø 28 mm.
*P32 is applicable to cutter diameters Ø 30 mm, Ø 32 mm and Ø 35 mm.

Precautions for Mounting

- (1) Clean the mounting seat and contact parts.
- (2) Apply screw lubrication to the screw thread as well as the screw head face to prevent seizure.
- (3) While pressing the insert solidly against the seat surface, tighten at the screws with the included wrench.
- (4) After tightening, check that there are no gaps between the surfaces.



*When mounting inserts with nose radius of $\geq 3,0$ mm, modification of the body is required.



Modify this edge.

Reworking guidelines
Nose radius = 3,0 mm: C = 1 mm (AOMT170530PEER)
Nose radius = 3,2 mm: C = 1 mm (AOMT170532PEER)
Nose radius = 4,0 mm: C = 2 mm (AOMT170540PEER)
Nose radius = 5,0 mm: C = 5 mm (AOMT170550PEER)
Nose radius = 6,4 mm: C = 5 mm (AOMT170564PEER)
Standard: R = 1 mm

C: Chamfer
R: Radius

"WaveMill" Series WEZ 11000 E



Fig. 1

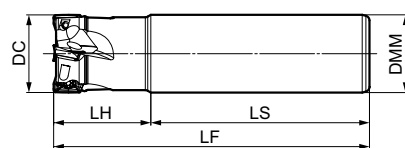
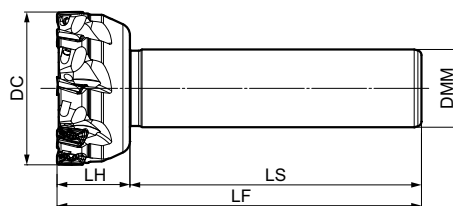


Fig. 2



Rake Angle	Radial	$-7^{\circ} - -18^{\circ}$	
	Axial	$6^{\circ} - 15^{\circ}$	

■ Body - WEZ (Shank Type)

Dimensions (mm)

Cat. No.	Stock	DC	DMM	LH	LS	LF	No. of Teeth	Weight (kg)	Fig.
WEZ 11014E01	●	14	16	25	55	80	1	0,10	1
11016E02	●	16	16	25	75	100	2	0,13	1
11016E02-12	●	16	12	25	75	100	2	0,07	2
11018E02	●	18	16	25	75	100	2	0,13	2
11020E02	●	20	20	30	80	110	2	0,23	1
11020E02-16	●	20	16	30	80	110	2	0,15	2
11020E03	●	20	20	30	80	110	3	0,22	1
11020E03-16	●	20	16	30	80	110	3	0,14	2
11022E03	●	22	20	30	80	110	3	0,23	1
11025E02	●	25	25	35	85	120	2	0,40	1
11025E03	●	25	25	35	85	120	3	0,40	1
11025E03-20	●	25	20	35	85	120	3	0,26	2
11025E04	●	25	25	35	85	120	4	0,39	2
11025E04-20	●	25	20	35	85	120	4	0,26	2
11028E04	●	28	25	35	85	120	4	0,41	1
11030E04	●	30	25	40	90	130	4	0,46	1
11032E02	●	32	32	40	90	130	2	0,74	1
11032E03	●	32	32	40	90	130	3	0,73	1
11032E04	●	32	32	40	90	130	4	0,73	2
11032E05	●	32	32	40	90	130	5	0,72	2
11032E05-25	●	32	25	40	90	130	5	0,46	2
11035E05	●	35	32	40	90	130	5	0,75	2
11040E02	●	40	32	30	120	150	2	0,96	2
11040E04	●	40	32	30	120	150	4	0,94	2
11040E06	●	40	32	30	120	150	6	0,93	2
11050E05	●	50	32	30	120	150	5	1,04	2
11050E07	●	50	32	30	120	150	7	1,04	2
11063E08	●	63	32	30	120	150	8	1,24	2
11080E10	●	80	32	30	120	150	10	1,52	2

Inserts are sold separately.

■ Spare Parts

Applicable Cutters	Insert Screw		Wrench
			
WEZ 11014E01	BFTX0305IP	2,0	TRDR08IP
11016E02(-12)			
11018E02	BFTX0306IP	1,5	
11020E02(-16)			
11020E03(-16)			
11022E03			
11025E02			
11025E03(-20)			
11025E04(-20)			
11028E04			
11030E04			
11032E02			
11032E03			
11032E04			
11032E05(-25)			
11035E05			
11040E02			
11040E04			
11040E06			
11050E05			
11050E07			
11063E08			
11080E10			

■ Identification Details

WEZ 11 025 E 02 - 22

Cutter Series	Insert Size	Cutter Diameter	Round Shank	Number of Teeth	Shank Diameter
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■ Recommended Cutting Conditions

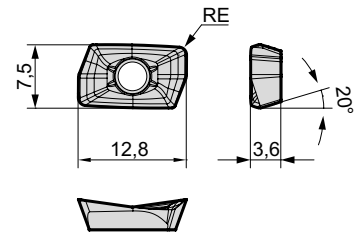


Inserts

Application	Coated Carbide							Carbide	DLC	Cermet	
High Speed / Light Cut		P		K		MS			N	P	
General Purpose	KS		P		K	MS	MS	N	N		
Roughing	KS		P		K		MS				
Cat. No.	ACU2500	ACP2000	ACP3000	ACK2000	ACK3000	ACM200	ACM300	H20	DL2000	T2500A	RE (mm)
AOMT 11T302PEER-G	●	□	□	□	□	□	□	-	-	□	0,2
11T304PEER-G	●	●	●	●	●	●	●	-	-	●	0,4
11T308PEER-G	●	●	●	●	●	●	●	-	-	●	0,8
11T312PEER-G	●	□	□	□	□	□	□	-	-	□	1,2
11T316PEER-G	□	□	□	□	□	□	□	-	-	□	1,6
11T320PEER-G	□	□	□	□	□	□	□	-	-	□	2,0
11T324PEER-G	□	□	□	□	□	□	□	-	-	□	2,4
11T330PEER-G	□	□	□	□	□	□	□	-	-	□	3,0
11T332PEER-G	□	□	□	□	□	□	□	-	-	□	3,2
AOMT 11T304PEER-H	●	●	●	●	●	●	●	-	-	-	0,4
11T308PEER-H	●	●	●	●	●	●	●	-	-	-	0,8
11T312PEER-H	●	□	□	□	□	□	□	-	-	-	1,2
11T316PEER-H	□	□	□	□	□	□	□	-	-	-	1,6
AOET 11T302PEER-F	○	-	-	-	-	-	-	-	-	-	0,2
11T304PEER-F	●	-	-	-	-	-	-	-	-	-	0,4
11T308PEER-F	●	-	-	-	-	-	-	-	-	-	0,8
11T312PEER-F	○	-	-	-	-	-	-	-	-	-	1,2
AOET 11T302PEER-P16	○	-	-	-	-	-	-	-	-	-	0,2
11T304PEER-P16	○	-	-	-	-	-	-	-	-	-	0,4
11T308PEER-P16	○	-	-	-	-	-	-	-	-	-	0,8
11T312PEER-P16	○	-	-	-	-	-	-	-	-	-	1,2
11T302PEER-P20	○	-	-	-	-	-	-	-	-	-	0,2
11T304PEER-P20	○	-	-	-	-	-	-	-	-	-	0,4
11T308PEER-P20	○	-	-	-	-	-	-	-	-	-	0,8
11T312PEER-P20	○	-	-	-	-	-	-	-	-	-	1,2
11T302PEER-P25	○	-	-	-	-	-	-	-	-	-	0,2
11T304PEER-P25	○	-	-	-	-	-	-	-	-	-	0,4
11T308PEER-P25	○	-	-	-	-	-	-	-	-	-	0,8
11T312PEER-P25	○	-	-	-	-	-	-	-	-	-	1,2
AOET 11T302PEFR-S	-	-	-	-	-	-	-	○	○	-	0,2
11T304PEFR-S	-	-	-	-	-	-	-	●	●	-	0,4
11T308PEFR-S	-	-	-	-	-	-	-	●	●	-	0,8
11T312PEFR-S	-	-	-	-	-	-	-	○	○	-	1,2

L: Low cutting force
G: General purpose
H: Strong edge
F: Finishing
P: High-precision machining
S: Non ferrous metals

*P16 is applicable to cutter diameters Ø 14 mm and Ø 16 mm.
*P20 is applicable to cutter diameters Ø 18 mm, Ø 20 mm.
*P25 is applicable to cutter diameters Ø 25 mm, Ø 28 mm.



L: Low cutting force
G: General purpose
H: Strong edge
F: Finishing
P: High-precision machining
S: Non ferrous metals

*P16 is applicable to cutter diameters Ø 14 mm and Ø 16 mm.
*P20 is applicable to cutter diameters Ø 18 mm, Ø 20 mm.
*P25 is applicable to cutter diameters Ø 25 mm, Ø 28 mm.

□ = Available from April 2020

□ = Not available

Precautions for Mounting

- (1) Clean the mounting seat and contact parts.
- (2) Apply screw lubrication to the screw thread as well as the screw head face to prevent seizure.
- (3) While pressing the insert solidly against the seat surface, tighten at the screws with the included wrench.
- (4) After tightening, check that there are no gaps between the surfaces.



*When mounting inserts with nose radius of $\geq 3,0$ mm, modification of the body is required.



Modify this edge.

Reworking guidelines
Nose radius = 3,0 mm: C = 1 mm (AOMT11T330PEER)
Nose radius = 3,2 mm: C = 1 mm (AOMT11T332PEER)
Standard: R = 1 mm

C: Chamfer
R: Radius

"WaveMill" Series

WEZ 11000 EL



Fig. 1

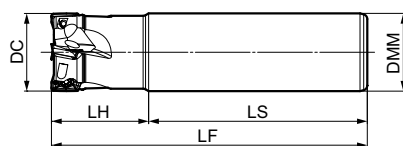
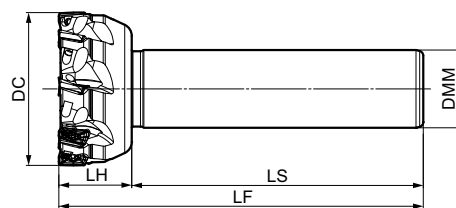


Fig. 2



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

■ Body - WEZ (Long Type)

Dimensions (mm)

Cat. No.	Stock	DC	DMM	LH	LS	LF	No. of Teeth	Weight (kg)	Fig.
WEZ 11014EL01	●	14	16	25	95	120	1	0,16	1
11016EL02	●	16	16	25	120	145	2	0,19	1
11016EL02-14	●	16	14	25	120	145	2	0,15	2
11018EL02	●	18	16	25	120	145	2	0,20	2
11020EL02	●	20	20	40	110	150	2	0,31	1
11020EL02-18	●	20	18	25	125	150	2	0,26	2
11022EL02	●	22	20	30	120	150	2	0,32	2
11025EL02	●	25	25	50	120	170	2	0,57	1
11025EL02-22	●	25	22	30	140	170	2	0,46	2
11025EL03	●	25	25	50	120	170	3	0,57	1
11028EL02	●	28	25	30	140	170	2	0,60	2
11030EL02	●	30	25	30	140	170	2	0,62	2
11032EL02	●	32	32	60	110	170	2	0,97	1
11032EL02-30	●	32	30	30	140	170	2	0,88	2
11032EL03	●	32	32	60	110	170	3	0,96	1
11035EL02	●	35	32	30	140	170	2	1,02	2
11035EL03	●	35	32	30	140	170	3	1,00	2
11040EL02	●	40	32	30	140	170	2	1,08	2
11050EL03	●	50	32	30	140	170	3	1,19	2

Inserts are sold separately.

■ Spare Parts

Applicable Cutters	Insert Screw		Wrench
			
WEZ 11014EL01	BFTX0305IP	2,0	TRDR08IP
11016EL02(-14)		1,5	
11018EL02			
11020EL02(-18)			
11022EL02			
11025EL02(-22)			
11025EL03			
11028EL02			
11030EL02			
11032EL02(-30)			
11032EL03			
11035EL02			
11035EL03			
11040EL02			
11050EL03			

■ Identification Details

WEZ	11	025	E	L	02	- 22
Cutter Series	Insert Size	Cutter Diameter	Round-Shank	Long Type	Number of Teeth	Shank Diameter

■ Recommended Cutting Conditions

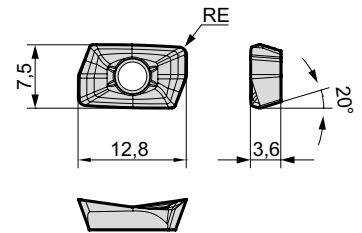
P.6

Inserts

Application	Coated Carbide							Carbide	DLC	Cermet	
High Speed / Light Cut		P		K		MS			N	P	
General Purpose	PS		P		K	MS	MS	N	N		
Roughing	PS		P		K		MS				
Cat. No.	ACU2500	ACP2000	ACP3000	ACK2000	ACK3000	ACM200	ACM300	H20	DL2000	T2500A	RE (mm)
AOMT 11T302PEER-G	●	□	□	□	□	□	□	-	-	□	0,2
11T304PEER-G	●	●	●	●	●	●	●	-	-	●	0,4
11T308PEER-G	●	●	●	●	●	●	●	-	-	●	0,8
11T312PEER-G	●	□	□	□	□	□	□	-	-	□	1,2
11T316PEER-G	□	□	□	□	□	□	□	-	-	□	1,6
11T320PEER-G	□	□	□	□	□	□	□	-	-	□	2,0
11T324PEER-G	□	□	□	□	□	□	□	-	-	□	2,4
11T330PEER-G	□	□	□	□	□	□	□	-	-	□	3,0
11T332PEER-G	□	□	□	□	□	□	□	-	-	□	3,2
AOMT 11T304PEER-H	●	●	●	●	●	●	●	-	-	-	0,4
11T308PEER-H	●	●	●	●	●	●	●	-	-	-	0,8
11T312PEER-H	●	□	□	□	□	□	□	-	-	-	1,2
11T316PEER-H	□	□	□	□	□	□	□	-	-	-	1,6
AOET 11T302PEER-F	○	-	-	-	-	-	-	-	-	-	0,2
11T304PEER-F	●	-	-	-	-	-	-	-	-	-	0,4
11T308PEER-F	●	-	-	-	-	-	-	-	-	-	0,8
11T312PEER-F	○	-	-	-	-	-	-	-	-	-	1,2
AOET 11T302PEER-P16	○	-	-	-	-	-	-	-	-	-	0,2
11T304PEER-P16	○	-	-	-	-	-	-	-	-	-	0,4
11T308PEER-P16	○	-	-	-	-	-	-	-	-	-	0,8
11T312PEER-P16	○	-	-	-	-	-	-	-	-	-	1,2
11T302PEER-P20	○	-	-	-	-	-	-	-	-	-	0,2
11T304PEER-P20	○	-	-	-	-	-	-	-	-	-	0,4
11T308PEER-P20	○	-	-	-	-	-	-	-	-	-	0,8
11T312PEER-P20	○	-	-	-	-	-	-	-	-	-	1,2
11T302PEER-P25	○	-	-	-	-	-	-	-	-	-	0,2
11T304PEER-P25	○	-	-	-	-	-	-	-	-	-	0,4
11T308PEER-P25	○	-	-	-	-	-	-	-	-	-	0,8
11T312PEER-P25	○	-	-	-	-	-	-	-	-	-	1,2
AOET 11T302PEFR-S	-	-	-	-	-	-	-	○	○	-	0,2
11T304PEFR-S	-	-	-	-	-	-	-	●	●	-	0,4
11T308PEFR-S	-	-	-	-	-	-	-	●	●	-	0,8
11T312PEFR-S	-	-	-	-	-	-	-	○	○	-	1,2

L: Low cutting force
G: General purpose
H: Strong edge
F: Finishing
P: High-precision machining
S: Non ferrous metals

*P16 is applicable to cutter diameters Ø 14 mm and Ø 16 mm.
*P20 is applicable to cutter diameters Ø 18 mm, Ø 20 mm.
*P25 is applicable to cutter diameters Ø 25 mm, Ø 28 mm.



L: Low cutting force
G: General purpose
H: Strong edge
F: Finishing
P: High-precision machining
S: Non ferrous metals

*P16 is applicable to cutter diameters Ø 14 mm and Ø 16 mm.
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□ = Available from April 2020

□ = Not available

Precautions for Mounting

- (1) Clean the mounting seat and contact parts.
- (2) Apply screw lubrication to the screw thread as well as the screw head face to prevent seizure.
- (3) While pressing the insert solidly against the seat surface, tighten at the screws with the included wrench.
- (4) After tightening, check that there are no gaps between the surfaces.



*When mounting inserts with nose radius of $\geq 3,0$ mm, modification of the body is required.



Modify this edge.

Reworking guidelines
Nose radius = 3,0 mm: C = 1 mm (AOMT11T330PEER)
Nose radius = 3,2 mm: C = 1 mm (AOMT11T332PEER)
Standard: R = 1 mm

C: Chamfer
R: Radius

"WaveMill" Series

WEZ 17000 E



Fig. 1

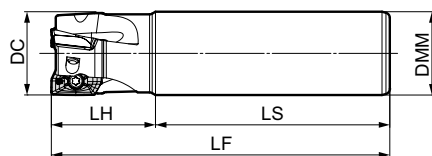
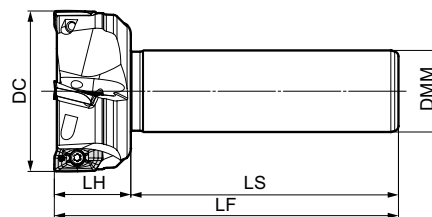


Fig. 2



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

■ Body - WEZ (Shank Type)

Dimensions (mm)

Cat. No.	Stock	DC	DMM	LH	LS	LF	No. of Teeth	Weight (kg)	Fig.
WEZ 17025E02	●	25	25	35	85	120	2	0,38	1
17025E02-20	●	25	20	35	85	120	2	0,25	2
17028E02	●	28	25	35	85	120	2	0,40	2
17030E03	●	30	25	40	90	130	3	0,43	2
17032E02	●	32	32	40	90	130	2	0,71	1
17032E03	●	32	32	40	90	130	3	0,69	1
17032E03-25	●	32	25	40	90	130	3	0,44	2
17035E03	●	35	32	40	90	130	3	0,72	2
17040E03	●	40	32	30	105	135	3	0,81	2
17040E04	●	40	32	30	105	135	4	0,79	2
17050E03	●	50	32	30	105	135	3	0,93	2
17050E03-42	●	50	42	30	105	135	3	1,41	2
17050E05	●	50	32	30	105	135	5	0,89	2
17050E05-42	●	50	42	30	105	135	5	1,37	2
17063E04	●	63	32	30	105	135	4	1,10	2
17063E04-42	●	63	42	30	105	135	4	1,58	2
17063E06	●	63	32	30	105	135	6	1,08	2
17063E06-42	●	63	42	30	105	135	6	1,56	2
17080E07	●	63	32	30	105	135	7	1,39	2

Inserts are sold separately.

■ Spare Parts

Applicable Cutters	Insert Screw		Wrench	
WEZ 17025E02(-20)	BFTX0407IP	3,0	TRDR15IP	
17028E02				
17030E03				
17032E02	BFTX0409IP	3,0	TRDR15IP	
17032E03(-25)				
17035E03				
17040E03				
17040E04				
17050E03(-42)				
17050E05(-42)				
17063E04(-42)				
17063E06(-42)				
17080E07				

■ Identification Details

WEZ 17 032 E 02 - 30

Cutter Series Insert Size Cutter Diameter Round Shank Number of Teeth Shank Diameter

■ Recommended Cutting Conditions

P.6

Inserts

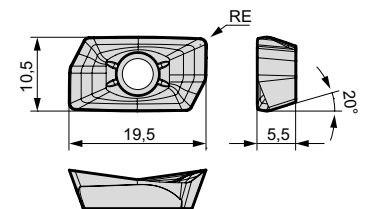
Application	Coated Carbide						Carbide	DLC	Cermet		
High Speed / Light Cut		P		K		MS		N	P		
General Purpose	KS		P		K	MS	MS	N	N		
Roughing	KS		P		K		MS				
Cat. No.	ACU2500	ACP2000	ACP3000	ACK2000	ACK3000	ACM200	ACM300	H20	DL2000	T2500A	RE (mm)
AOMT 170502PEER-L	●	—	□	—	□	□	□	—	—	□	0,2
170504PEER-L	●	—	●	—	●	●	●	—	—	●	0,4
170508PEER-L	●	—	●	—	●	●	●	—	—	●	0,8
170512PEER-L	●	—	□	—	□	□	□	—	—	□	1,2
170516PEER-L	□	—	□	—	□	□	□	—	—	□	1,6
AOMT 170502PEER-G	●	□	□	□	□	□	□	—	—	□	0,2
170504PEER-G	●	●	●	●	●	●	●	—	—	●	0,4
170508PEER-G	●	●	●	●	●	●	●	—	—	●	0,8
170512PEER-G	●	□	□	□	□	□	□	—	—	□	1,2
170516PEER-G	□	□	□	□	□	□	□	—	—	□	1,6
170520PEER-G	□	□	□	□	□	□	□	—	—	□	2,0
170524PEER-G	□	□	□	□	□	□	□	—	—	□	2,4
170530PEER-G	□	□	□	□	□	□	□	—	—	□	3,0
170532PEER-G	□	□	□	□	□	□	□	—	—	□	3,2
170540PEER-G	□	□	□	□	□	□	□	—	—	□	4,0
170550PEER-G	□	□	□	□	□	□	□	—	—	□	5,0
170564PEER-G	□	□	□	□	□	□	□	—	—	□	6,4
AOMT 170504PEER-H	●	●	●	●	●	●	●	—	—	—	0,4
170508PEER-H	●	●	●	●	●	●	●	—	—	—	0,8
170512PEER-H	○	□	□	□	□	□	□	—	—	—	1,2
170516PEER-H	□	□	□	□	□	□	□	—	—	—	1,6
AOET 170502PEER-F	○	—	—	—	—	—	—	—	—	—	0,2
170504PEER-F	●	—	—	—	—	—	—	—	—	—	0,4
170508PEER-F	●	—	—	—	—	—	—	—	—	—	0,8
170512PEER-F	○	—	—	—	—	—	—	—	—	—	1,2
AOET 170502PEER-P25	○	—	—	—	—	—	—	—	—	—	0,2
170504PEER-P25	○	—	—	—	—	—	—	—	—	—	0,4
170508PEER-P25	○	—	—	—	—	—	—	—	—	—	0,8
170512PEER-P25	○	—	—	—	—	—	—	—	—	—	1,2
170502PEER-P32	○	—	—	—	—	—	—	—	—	—	0,2
170504PEER-P32	○	—	—	—	—	—	—	—	—	—	0,4
170508PEER-P32	○	—	—	—	—	—	—	—	—	—	0,8
170512PEER-P32	○	—	—	—	—	—	—	—	—	—	1,2
AOET 170502PEFR-S	—	—	—	—	—	—	—	○	○	—	0,2
170504PEFR-S	—	—	—	—	—	—	—	●	●	—	0,4
170508PEFR-S	—	—	—	—	—	—	—	●	●	—	0,8
170512PEFR-S	—	—	—	—	—	—	—	○	○	—	1,2

L: Low cutting force
G: General purpose
H: Strong edge
F: Finishing
P: High-precision machining
S: Non ferrous metals

*P25 is applicable to cutter diameters Ø 25 mm and Ø 28 mm.
*P32 is applicable to cutter diameters Ø 30 mm, Ø 32 mm and Ø 35 mm.

□ = Available from April 2020

□ = Not available



L: Low cutting force
G: General purpose
H: Strong edge
F: Finishing
P: High-precision machining
S: Non ferrous metals

*P25 is applicable to cutter diameters Ø 25 mm and Ø 28 mm.
*P32 is applicable to cutter diameters Ø 30 mm, Ø 32 mm and Ø 35 mm.

Precautions for Mounting

- (1) Clean the mounting seat and contact parts.
- (2) Apply screw lubrication to the screw thread as well as the screw head face to prevent seizure.
- (3) While pressing the insert solidly against the seat surface, tighten at the screws with the included wrench.
- (4) After tightening, check that there are no gaps between the surfaces.



*When mounting inserts with nose radius of $\geq 3,0$ mm, modification of the body is required.



Modify this edge.

Reworking guidelines
Nose radius = 3,0 mm: C = 1 mm (AOMT170530PEER)
Nose radius = 3,2 mm: C = 1 mm (AOMT170532PEER)
Nose radius = 4,0 mm: C = 2 mm (AOMT170540PEER)
Nose radius = 5,0 mm: C = 5 mm (AOMT170550PEER)
Nose radius = 6,4 mm: C = 5 mm (AOMT170564PEER)
Standard: R = 1 mm

C: Chamfer
R: Radius

"WaveMill" Series

WEZ 17000 EL



Fig. 1

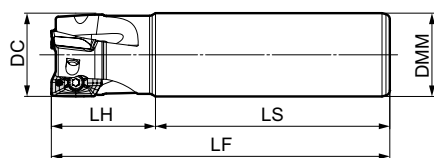
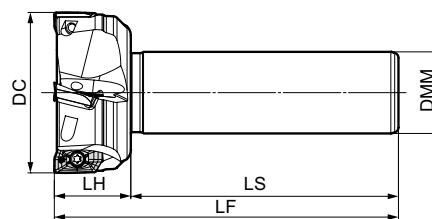


Fig. 2



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

■ Body - WEZ (Long Type)

Dimensions (mm)

Cat. No.	Stock	DC	DMM	LH	LS	LF	No. of Teeth	Weight (kg)	Fig.
WEZ 17025EL02	●	25	25	50	120	170	2	0,55	1
17028EL02	●	28	25	50	120	170	2	0,57	2
17030EL02	●	30	25	50	120	170	2	0,59	2
17032EL02	●	32	32	60	110	170	2	0,94	1
17032EL02-30	●	32	30	50	120	170	2	0,85	2
17032EL03	●	32	32	60	110	170	3	0,92	1
17035EL02	●	35	32	50	120	170	2	0,98	2
17040EL02	●	40	32	50	120	170	2	1,09	2
17040EL03	●	40	32	50	120	170	3	1,08	2
17040EL04	●	40	32	50	120	170	4	1,05	2
17050EL03	●	50	32	50	120	170	3	1,29	2
17050EL03-42	●	50	42	50	120	170	3	1,83	2
17050EL05	●	50	32	50	120	170	5	1,25	2
17050EL05-42	●	50	42	50	120	170	5	1,79	2
17063EL04	●	63	32	50	120	170	4	1,61	2
17063EL04-42	●	63	42	50	120	170	4	2,16	2
17063EL06	●	63	32	50	120	170	6	1,58	2
17063EL06-42	●	63	42	50	120	170	6	2,13	2

Inserts are sold separately.

■ Spare Parts

Applicable Cutters	Insert Screw		Wrench
WEZ 17025EL02	BFTX0407IP	3,0	TRDR15IP
17028EL02			
17030EL02			
17032EL02(-30)			
17032EL03	BFTX0409IP	3,0	TRDR15IP
17035EL02			
17040EL02			
17040EL03			
17040EL04			
17050EL03(-42)			
17050EL05(-42)			
17063EL04(-42)			
17063EL06(-42)			

■ Identification Details

WEZ	11	025	E	L	02	-	22
Cutter Series	Insert Size	Cutter Diameter	Round Shank	Long Type	Number of Teeth		Shank Diameter

■ Recommended Cutting Conditions

P.6

Inserts

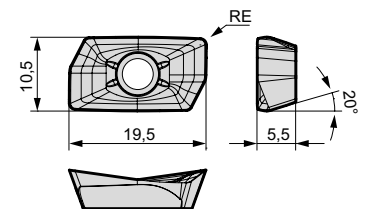
Application	Coated Carbide						Carbide	DLC	Cermet		
High Speed / Light Cut		P		K		MS		N	P		
General Purpose	KS		P		K	MS	MS	N	N		
Roughing	KS		P		K		MS				
Cat. No.	ACU2500	ACP2000	ACP3000	ACK2000	ACK3000	ACM200	ACM300	H20	DL2000	T2500A	RE (mm)
AOMT 170502PEER-L	●	—	□	—	□	□	□	—	—	□	0,2
170504PEER-L	●	—	●	—	●	●	●	—	—	●	0,4
170508PEER-L	●	—	●	—	●	●	●	—	—	●	0,8
170512PEER-L	●	—	□	—	□	□	□	—	—	□	1,2
170516PEER-L	□	—	□	—	□	□	□	—	—	□	1,6
AOMT 170502PEER-G	●	□	□	□	□	□	□	—	—	□	0,2
170504PEER-G	●	●	●	●	●	●	●	—	—	●	0,4
170508PEER-G	●	●	●	●	●	●	●	—	—	●	0,8
170512PEER-G	●	□	□	□	□	□	□	—	—	□	1,2
170516PEER-G	□	□	□	□	□	□	□	—	—	□	1,6
170520PEER-G	□	□	□	□	□	□	□	—	—	□	2,0
170524PEER-G	□	□	□	□	□	□	□	—	—	□	2,4
170530PEER-G	□	□	□	□	□	□	□	—	—	□	3,0
170532PEER-G	□	□	□	□	□	□	□	—	—	□	3,2
170540PEER-G	□	□	□	□	□	□	□	—	—	□	4,0
170550PEER-G	□	□	□	□	□	□	□	—	—	□	5,0
170564PEER-G	□	□	□	□	□	□	□	—	—	□	6,4
AOMT 170504PEER-H	●	●	●	●	●	●	●	—	—	—	0,4
170508PEER-H	●	●	●	●	●	●	●	—	—	—	0,8
170512PEER-H	○	□	□	□	□	□	□	—	—	—	1,2
170516PEER-H	□	□	□	□	□	□	□	—	—	—	1,6
AOET 170502PEER-F	○	—	—	—	—	—	—	—	—	—	0,2
170504PEER-F	●	—	—	—	—	—	—	—	—	—	0,4
170508PEER-F	●	—	—	—	—	—	—	—	—	—	0,8
170512PEER-F	○	—	—	—	—	—	—	—	—	—	1,2
AOET 170502PEER-P25	○	—	—	—	—	—	—	—	—	—	0,2
170504PEER-P25	○	—	—	—	—	—	—	—	—	—	0,4
170508PEER-P25	○	—	—	—	—	—	—	—	—	—	0,8
170512PEER-P25	○	—	—	—	—	—	—	—	—	—	1,2
170502PEER-P32	○	—	—	—	—	—	—	—	—	—	0,2
170504PEER-P32	○	—	—	—	—	—	—	—	—	—	0,4
170508PEER-P32	○	—	—	—	—	—	—	—	—	—	0,8
170512PEER-P32	○	—	—	—	—	—	—	—	—	—	1,2
AOET 170502PEFR-S	—	—	—	—	—	—	—	○	○	—	0,2
170504PEFR-S	—	—	—	—	—	—	—	●	●	—	0,4
170508PEFR-S	—	—	—	—	—	—	—	●	●	—	0,8
170512PEFR-S	—	—	—	—	—	—	—	○	○	—	1,2

L: Low cutting force
G: General purpose
H: Strong edge
F: Finishing
P: High-precision machining
S: Non ferrous metals

*P25 is applicable to cutter diameters Ø 25 mm and Ø 28 mm.
*P32 is applicable to cutter diameters Ø 30 mm, Ø 32 mm and Ø 35 mm.

□ = Available from April 2020

□ = Not available



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*P25 is applicable to cutter diameters Ø 25 mm and Ø 28 mm.
*P32 is applicable to cutter diameters Ø 30 mm, Ø 32 mm and Ø 35 mm.

Precautions for Mounting

- (1) Clean the mounting seat and contact parts.
- (2) Apply screw lubrication to the screw thread as well as the screw head face to prevent seizure.
- (3) While pressing the insert solidly against the seat surface, tighten at the screws with the included wrench.
- (4) After tightening, check that there are no gaps between the surfaces.



*When mounting inserts with nose radius of $\geq 3,0$ mm, modification of the body is required.



Modify this edge.

Reworking guidelines
Nose radius = 3,0 mm: C = 1 mm (AOMT170530PEER)
Nose radius = 3,2 mm: C = 1 mm (AOMT170532PEER)
Nose radius = 4,0 mm: C = 2 mm (AOMT170540PEER)
Nose radius = 5,0 mm: C = 5 mm (AOMT170550PEER)
Nose radius = 6,4 mm: C = 5 mm (AOMT170564PEER)
Standard: R = 1 mm

C: Chamfer
R: Radius

"WaveMill" Series

WEZ Type

Application Examples

C40, Hub		Sumitomo	Competitor
	Tool	WEZ17025E02	
	Grade	ACU2500	—
	Chipbreaker	G	—
	Cutter Diam. (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 machining enables longer tool life.	

5CrNiS18 9, Machine Component		Sumitomo	Competitor
	Tool	WEZ11028E04	
	Grade	ACU2500	—
	Chipbreaker	G	—
	Cutter Diam. (mm)	28	28
	Number of Teeth	4	4
	v_c (m/min)	150	150
	v_f (mm/min)	1350	1350
	f_z (mm/t)	0,2	0,2
	a_p (mm)	2	2
	a_e (mm)	10	10
	Coolant	Dry	Dry
	Results	Tool life increased. Stable machining achieved.	

GG-30, Machine Component		Sumitomo	Competitor
	Tool	WEZ11040E06	
	Grade	ACU2500	—
	Chipbreaker	G	—
	Cutter Diam. (mm)	40	40
	Number of Teeth	6	6
	v_c (m/min)	200	200
	v_f (mm/min)	1300	1300
	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.	

GG-25, Machine Component		Sumitomo	Competitor
	Tool	WEZ11050RS07	
	Grade	ACU2500	—
	Chipbreaker	G	—
	Cutter Diam. (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 sounds for improved machining efficiency. Good surface finish quality with 3 μ m parallelism and 4 μ m flatness.	



CARBIDE - CBN - DIAMOND

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