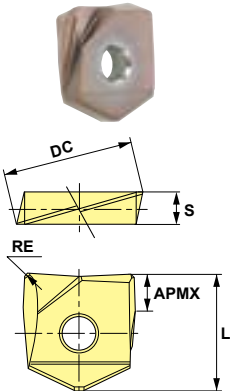




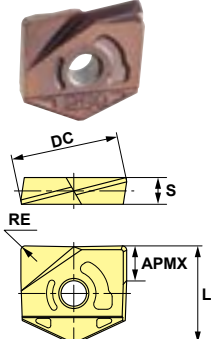
Inch



SG · SW type (helical cutting edge inserts)

Shape	Item Code	Tolerance Class	TH3 Coated	PN2 Coated	Size (Inch)						
			TH308	PN215	DC	RE	APMX	L	S		
	IZCFG060SG-R0.8	F	●	●	.375	.031	.118	.492	.106		
	IZCFG060SG-R1.6		●	●		.063					
	IZCFG060SG-R3.2		●	●		.126	.177				
	IZCFG080SG-R0.8		●	●	.5	.031	.157	.594	.126		
	IZCFG080SG-R1.6		●	●		.063					
	IZCFG080SG-R3.2		●	●		.126	.177				
	IZCFG120SG-R0.8		●	●	.75	.031	.276	.823	.205		
	IZCFG120SG-R1.6		●	●		.063					
	IZCFG120SG-R3.2		●	●		.126					
	IZCFG160SG-R0.8		●	●	1.0	.031	.315	.961	.244		
	IZCFG160SG-R1.6		●	●		.063					
	IZCFG160SG-R3.2		●	●		.126					
	IZCFG080SW-R0.8			F	●	●	.5	.031	.157	.594	.126
	IZCFG120SW-R0.8			F	●	●	.75	.031	.276	.823	.205

 : General cutting, First recommendation
 : General cutting, Second recommendation

General cutting edge shape inserts

Shape	Item Code	Tolerance Class	C Coated	ATH Coated	Size (Inch)				
			PCA12M	ATH08M	DC	RE	APMX	L	S
	IZCFW060-R0.8	F	●	●	.375	.031	.118	.474	.106
	IZCFW060-R1.6		●	●		.063			
	IZCFW060-R3.2		●	●		.126	.157		
	IZCFW080-R0.8		●	●	.5	.031	.157	.574	.126
	IZCFW080-R1.6		●	●		.063			
	IZCFW080-R3.2		●	●		.126			
	IZCFW120-R0.8		●	●	.75	.031	.236	.784	.205
	IZCFW120-R1.6		●	●		.063			
	IZCFW120-R3.2		●	●		.126			
	IZCFW160-R0.8		●	●	1.0	.031	.315	.889	.244
	IZCFW160-R1.6		●	●		.063			
	IZCFW160-R3.2		●	●		.126			

 : General cutting, First recommendation
 : General cutting, Second recommendation

Line Up

Metric

SG • SW • SQ type (helical cutting edge inserts)

Material	Material Name	TH308	PN215	Size (mm)					Shape
				DC	RE	APMX	L	S	
P	Carbon steel	☐	☐						
K	FC • FCD	☐	☐						
	Graphite	☐	☐						
N	Aluminum Alloy	☐	☐						
H	Hardened steel	☐	☐						

Shape	Item Code	Tolerance Class	Coating		Size (mm)					Shape
			TH308	PN215	DC	RE	APMX	L	S	
<p>Fig.1</p>	ZCFG06NSG-R0.3	F	★	★	6	0.3	2	5	2	Fig1
	ZCFG06NSG-R0.5		★	★		0.5				
	ZCFG06NSG-R1.0		★	★		1.0				
	ZCFG080SG-R0.3		●	●	8	0.3	2.5	9.9	2.1	
	ZCFG080SG-R0.5		●	●		0.5				
	ZCFG080SG-R1.0		●	●		1.0				
	ZCFG080SG-R1.5		●	●	8	1.5	3	9.9	2.1	
	ZCFG080SG-R2.0		●	●		2.0				
	ZCFG100SG-R0.3		●	●		0.3				
	ZCFG100SG-R0.5		●	●	10	0.5	3	12.5	2.7	
	ZCFG100SG-R1.0		●	●		1.0				
	ZCFG100SG-R1.5		●	●		1.5				
ZCFG100SG-R2.0	●	●	10	2.0	4	12.5	2.7			
ZCFG100SG-R3.0	●	●		3.0						
ZCFG120SG-R0.3	●	●		0.3						
ZCFG120SG-R0.5	●	●	12	0.5	4	15.1	3.2			
ZCFG120SG-R1.0	●	●		1.0						
ZCFG120SG-R1.5	●	●		1.5						
ZCFG120SG-R2.0	●	●	12	2.0	4	15.1	3.2			
ZCFG120SG-R3.0	●	●		3.0						
ZCFG130SG-R0.3	★	★		0.3						
ZCFG130SG-R0.5	★	★	13	0.5	4	15.1	3.2			
ZCFG130SG-R1.0	★	★		1.0						
ZCFG130SG-R1.5	★	★		1.5						
ZCFG130SG-R2.0	★	★	13	2.0	4	15.1	3.2			
ZCFG130SG-R3.0	★	★		3.0						
ZCFG160SG-R0.3	●	●		0.3						
ZCFG160SG-R0.5	●	●	16	0.5	5	17.2	4.2			
ZCFG160SG-R1.0	●	●		1.0						
ZCFG160SG-R1.5	●	●		1.5						
ZCFG160SG-R2.0	●	●	16	2.0	5	17.2	4.2			
ZCFG160SG-R3.0	●	●		3.0						
ZCFG170SG-R0.3	★	★		0.3						
ZCFG170SG-R0.5	★	★	17	0.5	5	17.2	4.2			
ZCFG170SG-R1.0	★	★		1.0						
ZCFG170SG-R1.5	★	★		1.5						
ZCFG170SG-R2.0	★	★	17	2.0	5	17.2	4.2			
ZCFG170SG-R3.0	★	★		3.0						
ZCFG200SG-R0.3	●	●		0.3						
ZCFG200SG-R0.5	●	●	20	0.5	7	20.9	5.2			
ZCFG200SG-R1.0	●	●		1.0						
ZCFG200SG-R1.5	●	●		1.5						
ZCFG200SG-R2.0	●	●	20	2.0	7	20.9	5.2			
ZCFG200SG-R3.0	●	●		3.0						
ZCFG210SG-R0.3	★	★		0.3						
ZCFG210SG-R0.5	★	★	21	0.5	7	20.9	5.2			
ZCFG210SG-R1.0	★	★		1.0						
ZCFG210SG-R1.5	★	★		1.5						
ZCFG210SG-R2.0	★	★	21	2.0	7	20.9	5.2			
ZCFG210SG-R3.0	★	★		3.0						
ZCFG250SG-R0.3	●	●		0.3						
ZCFG250SG-R0.5	●	●	25	0.5	8	24.4	6.2			
ZCFG250SG-R1.0	●	●		1.0						
ZCFG250SG-R1.5	●	●		1.5						
ZCFG250SG-R2.0	●	●	25	2.0	8	24.4	6.2			
ZCFG250SG-R3.0	●	●		3.0						

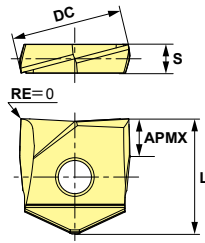
Material	Material Name	TH308	PN215
☐	☐	☐	☐
☐	☐	☐	☐
☐	☐	☐	☐
☐	☐	☐	☐
☐	☐	☐	☐



■ : General cutting, First recommendation
 ☐ : General cutting, Second recommendation

Shape	Item Code	Tolerance Class	TH308	PN215	DC	RE	APMX	L	S	Shape
<p>Fig.1</p>	ZCFG06NSG-R0.3	F	★	★	6	0.3	2	5	2	Fig1
	ZCFG06NSG-R0.5		★	★		0.5				
	ZCFG06NSG-R1.0		★	★		1.0				
	ZCFG080SG-R0.3		●	●	8	0.3	2.5	9.9	2.1	
	ZCFG080SG-R0.5		●	●		0.5				
	ZCFG080SG-R1.0		●	●		1.0				
	ZCFG080SG-R1.5		●	●	8	1.5	3	9.9	2.1	
	ZCFG080SG-R2.0		●	●		2.0				
	ZCFG100SG-R0.3		●	●		0.3				
	ZCFG100SG-R0.5		●	●	10	0.5	3	12.5	2.7	
	ZCFG100SG-R1.0		●	●		1.0				
	ZCFG100SG-R1.5		●	●		1.5				
ZCFG100SG-R2.0	●	●	10	2.0	4	12.5	2.7			
ZCFG100SG-R3.0	●	●		3.0						
ZCFG120SG-R0.3	●	●		0.3						
ZCFG120SG-R0.5	●	●	12	0.5	4	15.1	3.2			
ZCFG120SG-R1.0	●	●		1.0						
ZCFG120SG-R1.5	●	●		1.5						
ZCFG120SG-R2.0	●	●	12	2.0	4	15.1	3.2			
ZCFG120SG-R3.0	●	●		3.0						
ZCFG130SG-R0.3	★	★		0.3						
ZCFG130SG-R0.5	★	★	13	0.5	4	15.1	3.2			
ZCFG130SG-R1.0	★	★		1.0						
ZCFG130SG-R1.5	★	★		1.5						
ZCFG130SG-R2.0	★	★	13	2.0	4	15.1	3.2			
ZCFG130SG-R3.0	★	★		3.0						
ZCFG160SG-R0.3	●	●		0.3						
ZCFG160SG-R0.5	●	●	16	0.5	5	17.2	4.2			
ZCFG160SG-R1.0	●	●		1.0						
ZCFG160SG-R1.5	●	●		1.5						
ZCFG160SG-R2.0	●	●	16	2.0	5	17.2	4.2			
ZCFG160SG-R3.0	●	●		3.0						
ZCFG170SG-R0.3	★	★		0.3						
ZCFG170SG-R0.5	★	★	17	0.5	5	17.2	4.2			
ZCFG170SG-R1.0	★	★		1.0						
ZCFG170SG-R1.5	★	★		1.5						
ZCFG170SG-R2.0	★	★	17	2.0	5	17.2	4.2			
ZCFG170SG-R3.0	★	★		3.0						
ZCFG200SG-R0.3	●	●		0.3						
ZCFG200SG-R0.5	●	●	20	0.5	7	20.9	5.2			
ZCFG200SG-R1.0	●	●		1.0						
ZCFG200SG-R1.5	●	●		1.5						
ZCFG200SG-R2.0	●	●	20	2.0	7	20.9	5.2			
ZCFG200SG-R3.0	●	●		3.0						
ZCFG210SG-R0.3	★	★		0.3						
ZCFG210SG-R0.5	★	★	21	0.5	7	20.9	5.2			
ZCFG210SG-R1.0	★	★		1.0						
ZCFG210SG-R1.5	★	★		1.5						
ZCFG210SG-R2.0	★	★	21	2.0	7	20.9	5.2			
ZCFG210SG-R3.0	★	★		3.0						
ZCFG250SG-R0.3	●	●		0.3						
ZCFG250SG-R0.5	●	●	25	0.5	8	24.4	6.2			
ZCFG250SG-R1.0	●	●		1.0						
ZCFG250SG-R1.5	●	●		1.5						
ZCFG250SG-R2.0	●	●	25	2.0	8	24.4	6.2			
ZCFG250SG-R3.0	●	●		3.0						

Shape	Item Code	Tolerance Class	TH308	PN215	DC	RE	APMX	L	S	Shape
<p>Fig.2</p>	ZCFG06NSG-R0.3	F	★	★	6	0.3	2	5	2	Fig1
	ZCFG06NSG-R0.5		★	★		0.5				
	ZCFG06NSG-R1.0		★	★		1.0				
	ZCFG080SG-R0.3		●	●	8	0.3	2.5	9.9	2.1	
	ZCFG080SG-R0.5		●	●		0.5				
	ZCFG080SG-R1.0		●	●		1.0				
	ZCFG080SG-R1.5		●	●	8	1.5	3	9.9	2.1	
	ZCFG080SG-R2.0		●	●		2.0				
	ZCFG100SG-R0.3		●	●		0.3				
	ZCFG100SG-R0.5		●	●	10	0.5	3	12.5	2.7	
	ZCFG100SG-R1.0		●	●		1.0				
	ZCFG100SG-R1.5		●	●		1.5				
ZCFG100SG-R2.0	●	●	10	2.0	4	12.5	2.7			
ZCFG100SG-R3.0	●	●		3.0						
ZCFG120SG-R0.3	●	●		0.3						
ZCFG120SG-R0.5	●	●	12	0.5	4	15.1	3.2			
ZCFG120SG-R1.0	●	●		1.0						
ZCFG120SG-R1.5	●	●		1.5						
ZCFG120SG-R2.0	●	●	12	2.0	4	15.1	3.2			
ZCFG120SG-R3.0	●	●		3.0						
ZCFG130SG-R0.3	★	★		0.3						
ZCFG130SG-R0.5	★	★	13	0.5	4	15.1	3.2			
ZCFG130SG-R1.0	★	★		1.0						
ZCFG130SG-R1.5	★	★		1.5						
ZCFG130SG-R2.0	★	★	13	2.0	4	15.1	3.2			
ZCFG130SG-R3.0	★	★		3.0						
ZCFG160SG-R0.3	●	●		0.3						
ZCFG160SG-R0.5	●	●	16	0.5	5	17.2	4.2			
ZCFG160SG-R1.0	●	●		1.0						
ZCFG160SG-R1.5	●	●		1.5						
ZCFG160SG-R2.0	●	●	16	2.0	5	17.2	4.2			
ZCFG160SG-R3.0	●	●		3.0						
ZCFG170SG-R0.3	★	★		0.3						
ZCFG170SG-R0.5	★	★	17	0.5	5	17.2	4.2			
ZCFG170SG-R1.0	★	★		1.0						
ZCFG170SG-R1.5	★	★		1.5						
ZCFG170SG-R2.0	★	★	17	2.0	5	17.2	4.2			
ZCFG170SG-R3.0	★	★		3.0						
ZCFG200SG-R0.3	●	●		0.3						
ZCFG200SG-R0.5	●	●	20	0.5	7	20.9	5.2			
ZCFG200SG-R1.0	●	●		1.0						
ZCFG200SG-R1.5	●	●		1.5						
ZCFG200SG-R2.0	●	●	20	2.0	7	20.9	5.2			
ZCFG200SG-R3.0	●	●		3.0						
ZCFG210SG-R0.3	★	★		0.3						
ZCFG210SG-R0.5	★	★	21	0.5	7	20.9	5.2			
ZCFG210SG-R1.0	★	★		1.0						
ZCFG210SG-R1.5	★	★		1.5						
ZCFG210SG-R2.0	★	★	21	2.0	7	20.9	5.2			
ZCFG210SG-R3.0	★	★		3.0						
ZCFG250SG-R0.3	●	●		0.3						
ZCFG250SG-R0.5	●	●	25	0.5	8	24.4	6.2			
ZCFG250SG-R1.0	●	●		1.0						
ZCFG250SG-R1.5	●	●		1.5						
ZCFG250SG-R2.0	●	●	25	2.0	8	24.4	6.2			
ZCFG250SG-R3.0	●	●		3.0						

Line Up

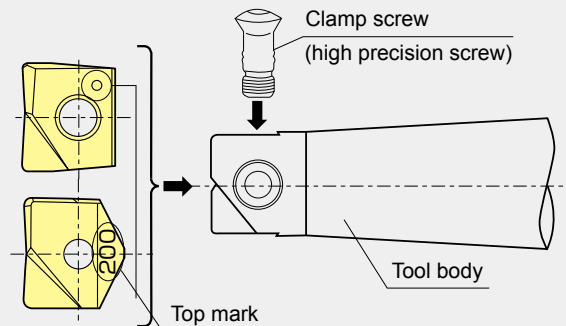
Material	Material Name	Tolerance Class	PN2 Coated	Size (mm)					Shape
				PN215	DC	APMX	L	S	
P	Carbon steel	F	★	8	2.5	9.9	2.1	 <p>Fig.3</p>	Fig3
K	FC · FCD								
	Graphite								
N	Aluminum Alloy								
H	Hardened steel								
	ZCFG080SQ								
	ZCFG100SQ								
	ZCFG120SQ								
	ZCFG130SQ								
	ZCFG160SQ								
	ZCFG170SQ								
	ZCFG200SQ								
	ZCFG210SQ								
	ZCFG250SQ								
	ZCFG260SQ								

 : General cutting, First recommendation
 : General cutting, Second recommendation

[Note] Inserts of SG, SW, SQ type can be installed on Ball Precision F "ABPF type" bodies.
 Inserts ($\phi 8 \sim \phi 32$) of SG, SW, SQ type have a design with a longer A dimension than conventional products. Be careful of the dimension when installed on body.

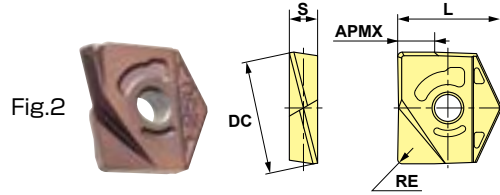
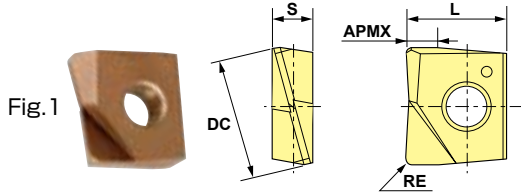
Set-up Procedures of Inserts

- 1 Clean the insert seat: Using air-blow or alike, clean the seat.
- 2 Put in the insert with its top positioned to the screw-tightening side of the tool body.
- 3 Tighten the clamp screw with the special wrench.
Please do not press down the insert during this tightening process.
- 4 This is the end of insert set-up.



In order to satisfy runout of 0.02mm (.0008") or less, follow the procedure at above.

General cutting edge shape inserts



Item Code	Tolerance Class	C Coated	TH Coated	HD Coated	CBN	Size (mm)					Shape
		PCA12M	PTH08M	HD7010	BH250	DC	RE	APMX	L	S	
ZCFW060-R0.3	F		★	★	—	6	0.3	2	5.0	2.0	Fig.1
ZCFW060-R0.5			★		—		0.5				
ZCFW060-R1.0			★		—		1.0				
ZCFW080-R0.3			●	●	★	—	8	0.3	2.5	9.7	2.1
ZCFW080-R0.5			●		—	0.5					
ZCFW080-R1.0			●		—	1.0					
ZCFW100-R0.3			●	●	★	—	10	0.3	3	12.0	2.7
ZCFW100-R0.5			●		—	0.5					
ZCFW100-R1.0			●		—	1.0					
ZCFW100-R1.5			●		—	1.5					
ZCFW100-R2.0			●		—	2.0					
ZCFW100-R3.0			●	●		—	3.0	4			
ZCFW120-R0.3			●	●	★	—	12	0.3	4	14.6	3.2
ZCFW120-R0.5			●		—	0.5					
ZCFW120-R1.0			●		—	1.0					
ZCFW120-R1.5			●		—	1.5					
ZCFW120-R2.0			●		—	2.0					
ZCFW120-R3.0			●	●		—	3.0				
ZCFW160-R0.3			●	●	★	—	16	0.3	5	16.6	4.2
ZCFW160-R0.5			●		—	0.5					
ZCFW160-R1.0			●		★	1.0					
ZCFW160-R1.5			●		★	1.5					
ZCFW160-R2.0			●		★	2.0					
ZCFW160-R3.0			●	●		—	3.0				
ZCFW200-R0.3			●	●	★	—	20	0.3	6	19.9	5.2
ZCFW200-R0.5			●		—	0.5					
ZCFW200-R1.0			●		★	1.0					
ZCFW200-R1.5			●		★	1.5					
ZCFW200-R2.0			●		★	2.0					
ZCFW200-R3.0			●	●		—	3.0				
ZCFW250-R0.3			●	●		—	25	0.3	8	22.6	6.2
ZCFW250-R0.5			●		—	0.5					
ZCFW250-R1.0		●		★	1.0						
ZCFW250-R2.0		●		★	2.0						
ZCFW250-R3.0		●	●		—	3.0					
ZCFW300-R0.3		★	★		—	30	0.3	10	27.2	7.2	
ZCFW300-R0.5		★	★		—		0.5				
ZCFW300-R1.0		★	★	★	1.0						
ZCFW300-R2.0		★	★	★	2.0						
ZCFW300-R3.0		★	★		—		3.0				
ZCFW320-R0.3		★	★		—	32	0.3	10	28.2	7.2	
ZCFW320-R0.5		★	★		—		0.5				
ZCFW320-R1.0		★	★		—		1.0				
ZCFW320-R2.0		★	★		—		2.0				
ZCFW320-R3.0		★	★		—		3.0				

: General cutting, First recommendation
 : General cutting, Second recommendation

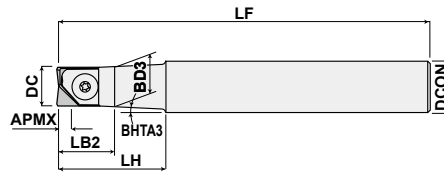
Line Up

Inch

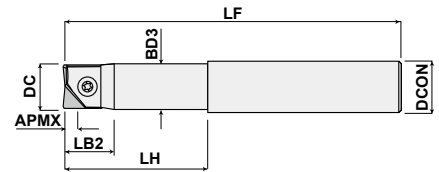
Numeric figure in a circle ○ and alphabetical character comes in a square □

Steel shank · Carbide shank

IARPF ○○○S○○○ (□/□□)



Type A (Taper Neck)



Type B (Straight Neck)

Type	Item Code	Stock	# of Inserts	Size (Inch)								Type	Inserts	
				DC	LF	DCON	APMX	LB2	LH	BHTA3	BD3			
Steel Shank	Regular	IARPF06S08	●	1	.375	3.937(3.955)	.5	.118	.512(.53)	.984(1.002)	3°	.354	A	IZCFG060SG-R○○○ IZCFW060-R○○○
		IARPF08S08	●	1	.5	4.331(4.351)	.5	.157	.591(.611)	1.181(1.201)	-	.48	B	IZCFG080S□-R○○○ IZCFW080-R○○○
		IARPF12S12	●	1	.75	5.512(5.551)	.75	.236	.827(.866)	2.362(2.401)	-	.728	B	IZCFG120S□-R○○○ IZCFW120-R○○○
		IARPF16S16	●	1	1.0	5.906(5.978)	1.0	.315	.945(1.017)	2.756(2.828)	-	.98	B	IZCFG160SG-R○○○ IZCFW160-R○○○
	Long Length	IARPF06S08L	●	1	.375	5.906(5.924)	.5	.118	.512(.53)	1.969(1.987)	4.5°	.354	A	IZCFG060SG-R○○○ IZCFW060-R○○○
		IARPF08S10L	●	1	.5	6.299(6.319)	.625	.157	.591(.611)	2.362(2.382)	2°	.48	A	IZCFG080S□-R○○○ IZCFW080-R○○○
		IARPF12S16L	●	1	.75	7.087(7.126)	1.0	.236	.827(.866)	3.15(3.189)	-	.728	B	IZCFG120S□-R○○○ IZCFW120-R○○○
		IARPF16S20L	●	1	1.0	7.874(7.946)	1.25	.315	.945(1.017)	3.543(3.615)	-	.98	B	IZCFG160SG-R○○○ IZCFW160-R○○○
Carbide Shank	Regular	IARPF06S06W	●	1	.375	3.937(3.955)	.375	.118	.906(.924)	1.378(1.396)	-	.366	B	IZCFG060SG-R○○○ IZCFW060-R○○○
		IARPF08S08W	●	1	.5	4.331(4.351)	.5	.157	1.024(1.044)	1.772(1.792)	-	.492	B	IZCFG080S□-R○○○ IZCFW080-R○○○
		IARPF12S12W	●	1	.75	6.299(6.338)	.75	.236	.866(.905)	2.165(2.204)	-	.728	B	IZCFG120S□-R○○○ IZCFW120-R○○○
		IARPF16S16W	●	1	1.0	7.087(7.159)	1.0	.315	.984(1.056)	2.5(2.572)	-	.98	B	IZCFG160SG-R○○○ IZCFW160-R○○○
	Medium	IARPF06S06WR	●	1	.375	5.512(5.530)	.375	.118	.906(.924)	2.935(2.953)	-	.366	B	IZCFG060SG-R○○○ IZCFW060-R○○○
		IARPF08S08WR	●	1	.5	5.906(5.926)	.5	.157	1.024(1.044)	3.346(3.366)	-	.492	B	IZCFG080S□-R○○○ IZCFW080-R○○○
	Long Length	IARPF06S06WL	●	1	.375	7.087(7.105)	.375	.118	.512(.53)	1.378(1.396)	-	.366	B	IZCFG060SG-R○○○ IZCFW060-R○○○
		IARPF08S08WL	●	1	.5	7.087(7.107)	.5	.157	.591(.611)	1.772(1.792)	-	.492	B	IZCFG080S□-R○○○ IZCFW080-R○○○
		IARPF12S12WL	●	1	.75	9.843(9.522)	.75	.236	.827(.866)	3.15(3.189)	-	.728	B	IZCFG120S□-R○○○ IZCFW120-R○○○
		IARPF16S16WL	●	1	1.0	9.843(9.915)	1.0	.315	.945(1.017)	3.15(3.222)	-	.98	B	IZCFG160SG-R○○○ IZCFW160-R○○○
		IARPF16S20WL	●	1	1.0	11.811(11.883)	1.0	.315	.945(1.017)	7.48(7.552)	-	.98	B	

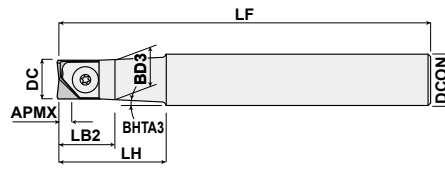
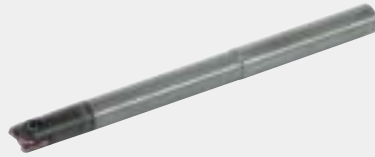
●: Inventory maintained in US [Note] () dimension indicates when IZCFG type insert is installed.

Metric

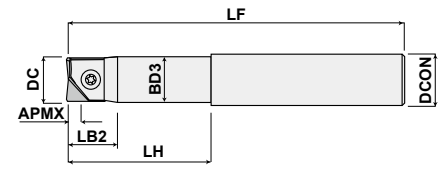
Numeric figure in a circle ○ and alphabetical character comes in a square □.

Steel shank

ARPF○○S○○ (□○○○/□○○○)



Type A (Taper Neck)



Type B (Straight Neck)

Type	Item Code	Stock	# of Inserts	Size (mm)								Type	Inserts
				DC	LF	DCON	APMX	LB2	LH	BHTA3	BD3		
Regular	ARPF06S10	★	1	6	80	10	2	15	30	8.25°	5.4	A	ZCFG06NS-RO○ ZCFW060-RO○
	ARPF08S12	●	1	8	100(100.2)	12	2.5	10(10.2)	22(22.2)	9.5°	7.5	A	ZCFG080S-RO○ ZCFW080-RO○
	ARPF10S12	●	1	10	100(100.5)	12	3	13(13.5)	25(25.5)	3°	9.5	A	ZCFG100S-RO○ ZCFW100-RO○
	ARPF12S12	●	1	12	110(110.5)	12	4	21(21.5)	30(30.5)	-	11.5	B	ZCFG120S-RO○ ZCFW120-RO○ ZCFG130S-RO○
	ARPF16S16	●	1	16	130(130.6)	16	5	27(27.6)	50(50.6)	-	15.5	B	ZCFG160S-RO○ ZCFW160-RO○ ZCFG170S-RO○
	ARPF20S20	●	1	20	140(141)	20	6	35(36)	60(61)	-	19.5	B	ZCFG200S-RO○ ZCFW200-RO○ ZCFG210S-RO○
	ARPF25S25	●	1	25	150(151.8)	25	8	43(44.8)	70(71.8)	-	24.5	B	ZCFG250S-RO○ ZCFW250-RO○ ZCFG260S-RO○
	ARPF30S32	★	1	30	160(162.2)	32	10	55(57.2)	80(82.2)	-	29.5	B	ZCFG300S-RO○ ZCFW300-RO○
	ARPF32S32	★	1	32	160(162.2)	32	10	58(60.2)	80(82.2)	-	31.5	B	ZCFG320S-RO○ ZCFW320-RO○
Long Length	ARPF08S12L	●	1	8	130(130.2)	12	2.5	10(10.2)	50(50.2)	3°	7.5	A	ZCFG080S-RO○ ZCFW080-RO○
	ARPF10S16L	●	1	10	150(150.5)	16	3	13(13.5)	50(50.5)	4.5°	9.5	A	ZCFG100S-RO○ ZCFW100-RO○
	ARPF12S16L	●	1	12	160(160.5)	16	4	21(21.5)	60(60.5)	2°	11.5	A	ZCFG120S-RO○ ZCFW120-RO○ ZCFG130S-RO○
	ARPF16S16L	●	1	16	165(165.6)	16	5	27(27.6)	65(65.6)	-	15.5	B	ZCFG160S-RO○ ZCFW160-RO○ ZCFG170S-RO○
	ARPF20S20L	●	1	20	180(181)	20	6	35(36)	80(81)	-	19.5	B	ZCFG200S-RO○ ZCFW200-RO○
	ARPF20S20L120	★	1	20	220(221)	20	6	35(36)	120(121)	-	19.5	B	ZCFG210S-RO○
	ARPF20S20L150	★	1	20	250(251)	20	6	35(36)	150(151)	-	19.5	B	
	ARPF25S25L	●	1	25	200(201.8)	25	8	43(44.8)	90(91.8)	-	24.5	B	ZCFG250S-RO○ ZCFW250-RO○
	ARPF25S32L150	★	1	25	250(251.8)	32	8	43(44.8)	150(151.8)	-	24.5	B	ZCFG260S-RO○
	ARPF30S32L	★	1	30	220(222.2)	32	10	55(57.2)	100(102.2)	-	29.5	B	
	ARPF30S32L150	★	1	30	250(252.2)	32	10	55(57.2)	150(152.2)	-	29.5	B	ZCFG300S-RO○ ZCFW300-RO○
ARPF30S32L200	★	1	30	300(302.2)	32	10	55(57.2)	200(202.2)	-	29.5	B		
ARPF32S32L	★	1	32	220(222.2)	32	10	58(60.2)	100(102.2)	-	31.5	B	ZCFG320S-RO○ ZCFW320-RO○	
Long Shank	ARPF16S16E	★	1	16	200(200.6)	16	5	27(27.6)	65(65.6)	-	15.5	B	ZCFG160S-RO○ ZCFW160-RO○ ZCFG170S-RO○
	ARPF20S20E	★	1	20	250(251)	20	6	35(36)	80(81)	-	19.5	B	ZCFG200S-RO○ ZCFW200-RO○ ZCFG210S-RO○
	ARPF25S25E	★	1	25	300(301.8)	25	8	43(44.8)	90(91.8)	-	24.5	B	ZCFG250S-RO○ ZCFW250-RO○
	ARPF25S32E	★	1	25	300(301.8)	32	8	43(44.8)	100(101.8)	3.5°	24.5	A	ZCFG260S-RO○
	ARPF30S32E	★	1	30	350(352.2)	32	10	55(57.2)	100(102.2)	-	29.5	B	ZCFG300S-RO○ ZCFW300-RO○
	ARPF30S42E	★	1	30	350(352.2)	42	10	55(57.2)	120(122.2)	5.3°	29.5	A	
	ARPF32S32E	★	1	32	350(352.2)	32	10	58(60.2)	100(102.2)	-	31.5	B	ZCFG320S-RO○ ZCFW320-RO○

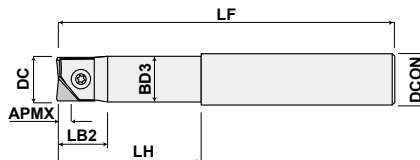
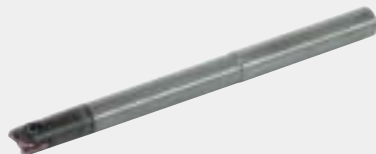
[Note] () dimension indicates when ZCFG type insert is installed.

Line Up

Numeric figure in a circle ○ and alphabetical character comes in a square □.

Carbide shank

ARPF○○S○○ (□○○○/□□○○)

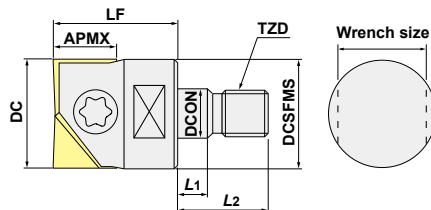


Type	Item Code	Stock	# of Inserts	Size (mm)							Inserts	
				DC	LF	DCON	APMX	LB2	LH	BD3		
Carbide Shank	Regular	ARPF06S06W	★	1	6	90	6	2	10.3	25	5.8	ZCFG06NS□-R○○ ZCFW060-R○○
	Long Length	ARPF06S06WL65	★	1	6	120	6	2	10.3	65	5.8	ZCFG06NS□-R○○ ZCFW060-R○○
		ARPF08S08WL	●	1	8	130(130.2)	8	2.5	65(65.2)	65(65.2)	7.8	ZCFG080S□-R○○ ZCFW080-R○○
		ARPF10S10WL	●	1	10	140(140.5)	10	3	18(18.5)	75(75.5)	9.8	ZCFG100S□-R○○ ZCFW100-R○○
		ARPF12S12WL	●	1	12	150(150.5)	12	4	21(21.5)	85(85.5)	11.8	ZCFG120S□-R○○ ZCFW120-R○○ ZCFG130S□-R○○ ZCFW160-R○○
	Long Shank	ARPF16S16WE	●	1	16	200(200.6)	16	5	27(27.6)	120(120.6)	15.5	ZCFG160S□-R○○ ZCFW200-R○○ ZCFG170S□-R○○ ZCFW250-R○○
		ARPF20S20WE	●	1	20	250(251)	20	6	35(36)	150(151)	19.5	ZCFG200S□-R○○ ZCFW300-R○○ ZCFG210S□-R○○ ZCFW320-R○○
		ARPF25S25WE	●	1	25	300(301.8)	25	8	43(44.8)	190(191.8)	24.5	ZCFG250S□-R○○ ZCFG260S□-R○○
		ARPF30S32WE	★	1	30	350(352.2)	32	10	55(57.2)	230(232.2)	29.5	ZCFG300S□-R○○
		ARPF32S32WE	★	1	32	350(352.2)	32	10	58(60.2)	230(232.2)	31.5	ZCFG320S□-R○○

Modular Mill Type

ARPFM○○○

Numeric figure in a circle ○ and alphabetical character comes in a square □.



Item Code	Stock	# of Inserts	Size (mm)									Inserts
			DC	LF	APMX	DCON	TZD	DCSFMS	L1	L2	Wrench size	
ARPFM10	★	1	10	26(26.5)	3	6.5	M6	9.8	5.5	14.5	7	ZCFG100S□-R○○ ZCFW100-R○○
ARPFM12	★	1	12	26(26.5)	4	6.5	M6	9.8	5.5	14.5	7	ZCFG120S□-R○○ ZCFW120-R○○ ZCFG130S□-R○○
ARPFM16	★	1	16	32(32.6)	5	8.5	M8	12.8	5.5	17	10	ZCFG160S□-R○○ ZCFW160-R○○ ZCFG170S□-R○○
ARPFM20	●	1	20	38(39)	6	10.5	M10	17.8	5.5	19	15	ZCFG200S□-R○○ ZCFW200-R○○ ZCFG210S□-R○○
ARPFM25	●	1	25	38(39.8)	8	12.5	M12	20.8	5.5	22	17	ZCFG250S□-R○○ ZCFW250-R○○ ZCFG260S□-R○○
ARPFM30	★	1	30	43(45.2)	10	17	M16	28.8	6	23	22	ZCFG300S□-R○○ ZCFW300-R○○
ARPFM32	★	1	32	43(45.2)	10	17	M16	28.8	6	23	22	ZCFG320S□-R○○ ZCFW320-R○○

[Note] Do not apply lubricants such as grease, etc. to the "contact faces" and "modular screws" of the "modular mill", "special shanks" and "special arbor".

●: Inventory maintained in US ★: Inventory maintained in Japan [Note] () dimension indicates when ZCFG type insert is installed.

Parts

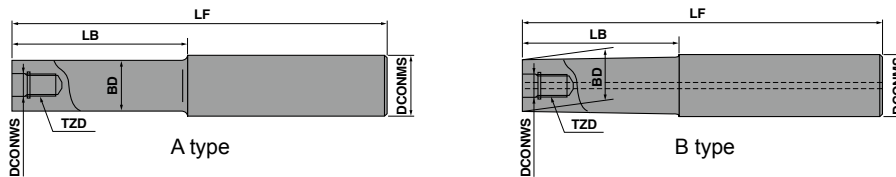
Parts	Clamp screw	Screw Driver / Wrench			Screw anti-seizure agent
		Fastening torque (N·m)	A	B	
Cutter body					
ARPF06S (W/WL)	581-140	0.5	104-T6	A	P-37
ARPF08S (L/WL)	581-141	1.1	104-T8	A	
ARPF10S (L/WL) ARPFM10 IARPF06S (L/WL)	581-142	2.2	104-T10	A	
ARPF12S (L/WL) ARPFM12 IARPF08S (L/WL)	581-143	4.9	105-T20	B	
ARPF16S (L/E/WE) ARPFM16	581-144	4.9		B	
ARPF20S (L/E/WE) ARPFM20 IARPF12S (L/E/WE)	581-145	6.9	101-T25S	B	
ARPF25S (L/E/WE) ARPFM25 IARPF16S (L/E/WE)	581-146	9.8	105-T30A	C	
ARPF30S (L/E/WE) ARPFM30	581-147	9.8		C	
ARPF32S (L/E/WE) ARPFM32				C	

[Note] ① One clamp screw is attached to the body. Spare screws are not included (sold separately).

② The clamp screw is a consumable part. Since replacement life depends on the use environment, it is recommended that it be replaced at an early stage.

Inch

The Shanks for Modular Mill



Order No.	Stock	Dimensions (Inch)						Type	Cutter body	Coolant hole
		DCONWS	TZD	LF	LB	BD	DCONMS			
IASC0.375-M6-3-1	●	6.5mm	M6	3	1	.3661	.375	A	φ1/2"	—
IASC0.5-M6-4-2	●		M6	4	2	.453	.5	A	φ8mm*1 φ10mm*1	—
IASC0.5-M6-6-3	●		M6	6	3	.453	.5	A	φ12mm*1	—
IASC0.625-M8-4-2	●	8.5mm	M8	4	2	.571	.625	B	φ16mm	○
IASC0.625-M8-6-3	●		M8	6	3	.571	.625	B		○
IASC0.75-M10-5-2.5Z	●	10.5mm	M10	5	2.5	.689	.75	B	φ3/4"*1 φ20mm	○
IASC0.75-M10-8-4Z	●		M10	8	4	.689	.75	B		○
IASC1-M12-6-3Z	●	12.5mm	M12	6	3	.906	1	B	φ1"*1 φ25mm*1	○
IASC1-M12-8-4Z	●		M12	8	4	.906	1	B		○

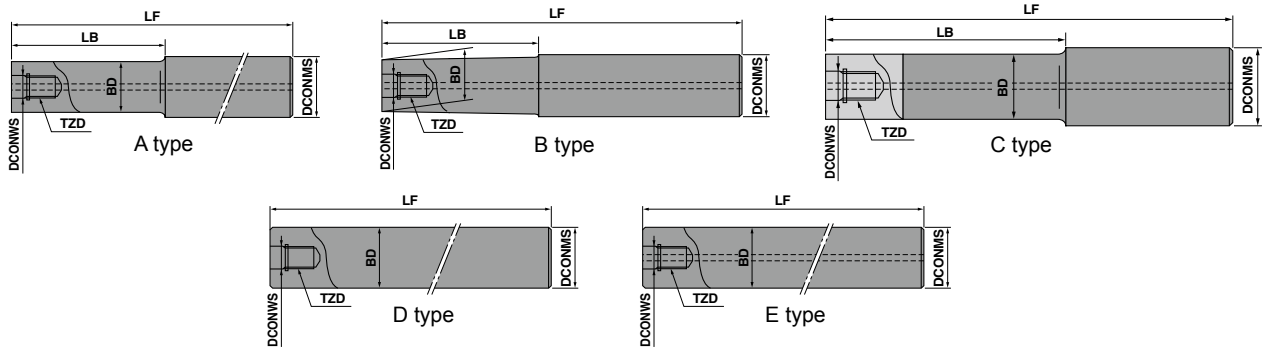
● = Inventory Maintained in US ○ = Tool with coolant hole

*1 Cutter Dia. is same or smaller than the shank dia.. Interference may occurs.

Line Up

Metric

The Shanks for Modular Mill



Order No.	Stock	Dimensions (mm)						Type	Cutter body	Coolant hole		
		DCONWS	TZD	LF	LB	BD	DCONMS					
NEW ASC10-6.5-74-24Z	●	6.5	M6	74	24	9.3	10	A	φ8*1 φ10*1 φ12 φ1/2"*	○		
NEW ASC10-6.5-84-34Z	●			84	34			A		○		
NEW ASC10-6.5-114-49Z	★			114	49			A		○		
NEW ASC10-6.5-114-24Z	★			24	A			○				
NEW ASC12-6.5-74-24Z	●	6.5	M6	74	24	11	12	B	φ16*1	○		
NEW ASC12-6.5-94-44Z	●			94	44			B		○		
ASC12-M6-100-0	●			100	-	12	D	—				
NEW ASC12-6.5-129-64Z	★			129	64	11	B	○				
NEW ASC12-6.5-129-24Z	★	24	B	○								
ASC16-8.5-95-30Z	●	8.5	M8	95	30	14.5	16	B	φ16*1	○		
ASC16-8.5-120-55Z	●			120	55							
ASC16-8.5-140-75Z	●			140	75							
ASC16-8.5-160-95Z	★			160	95							
ASC16-8.5-160-30Z	★			160	30							
ASC18-M10-125-0Z	●	10.5	M10	125	-	18	18	E	φ20*1 φ3/4"*	○		
ASC20-10.5-120-50Z	★			120	50			18.5		20	B	○
ASC20-10.5-170-90Z	●			170	90							
ASC20-10.5-220-120Z	●			220	120							
ASC20-10.5-270-150Z	★			270	150							
ASC20-10.5-220-50Z	★	10.5	M10	220	50	18.5	20	B	○			
ASC20-10.5-270-50Z	★			270								
ASC25-12.5-145-65	★	12.5	M12	145	65	23	25	C	φ25*1 φ1"	○		
ASC25-M12-150-0Z	●			150	-						25	C
ASC25-12.5-215-115	●			215	115						23	
ASC25-12.5-265-145	●			265	145							
ASC25-12.5-315-195	★			315	195							
ASC25-12.5-265-65	★	12.5	M12	265	65	23	25	C	○			
ASC25-12.5-315-65	★			315								
ASC32-17-160-80	★	17	M16	160	80	28	32	C	φ30*1 φ32*1 φ1.25"*	○		
ASC32-17-210-110	●			210	110							
ASC32-17-260-140	●			260	140							
ASC32-17-310-190	★			310	190							
ASC32-17-360-240	★			360	240							
ASC32-17-260-80	★			260	80						28	32
ASC32-17-310-80	★	310										
ASC32-17-360-80	★	360										

● = Inventory Maintained in US ★ = Inventory Maintained in Japan ○ = Tool with coolant hole
 ※1 Cutter Dia. is same or smaller than the shank dia.. Interference may occurs.