

**ZZ HARDMETAL**

Successful Cooperation Commences Here

Carbide Woodworking Tools

Zhuzhou ZZ Import and Export Co., Ltd  
<http://www.zzhardmetal.cn>

## Brief Introduction

Zhuzhou ZZ Hardmetal R&D Center was established in the hometown of hard metal of China --- Zhuzhou city in Hunan province.

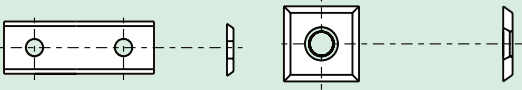
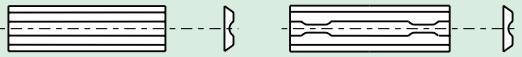
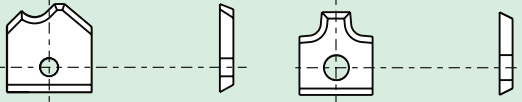
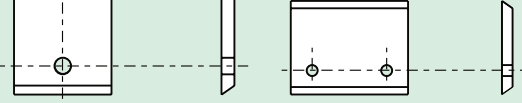
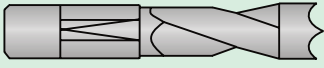
We are the most powerful Chinese manufacturer of woodworking carbide inserts and dowel drills. We have the most complete product range, best quality and the largest capacity.

Depending on our talented engineers and skillful workers, we always provide our customers the products with good quality, competitive price, fast turnaround and reliable after sales service.

We own the specialized export company - Zhuzhou ZZ Import and Export Co., Ltd. Our products are exported to USA, Europe, etc. and got trust from our customers. Along with our company growth, we hope to build business with more company abroad.



# content

	A1	<b>Reversible Knives</b>
	B1	<b>Reversible knives for portable planers</b>
	C1	<b>profiled standard blankcutting tools</b>
	D1	<b>Blanks for Profiling</b>
	E1	<b>Woodwording Drill</b>

## Woodworking carbide grades and their applications

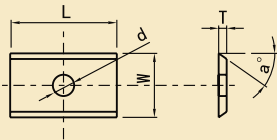
Carbide grades and properties				
Grade	ISO-Code	Binder %	Hardness(HRA)	TRS(N/mm <sup>2</sup> )
YG4F	K01	4.0	93.0	1700
Z K10UF	K01-K15	6.0	92.8	2060
YG6X	K10	6.0	91.5	1800
YG6	K20	6.0	90.5	1900
YG8	K30	8.0	89.5	2200
YL10.2	K20	10.0	91.8	2400

Applications recommended					
Grade	HDF/MDF	Chipboard	Hardwood	Softwood	Plywood
YG4F	++	++	-	-	-
Z K10UF	++	++	++	-	+
YG6X	-	+	++	++	++
YG6	-	-	++	++	+
YG8	-	-	+	++	-
YL10.2	+	++	++	+	+
++	Excellent				
+	Good				
-	Not too good				

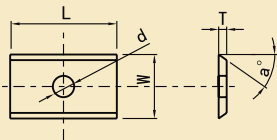
# Reversible Knives



**Reversible Knives**

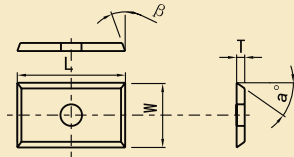


Specification					Ordering No.		
L	W	T	$\alpha$	d	YG6	Z K10UF	
7.5	12	1.5	35	4.1	0812001	0812005	
8.6	12	1.5	35	4.1	0912001	0912005	
9	12	1.5	35	4.1	0912011	0912015	
9.6	12	1.5	35	4.1	1012001	1012005	
10	12	1.5	35	4.1	1012011	1012015	
10.5	12	1.5	35	4.1	1112001	1112005	
11	12	1.5	35	4.1	1112011	1112015	
11.6	12	1.5	35	4.1	1212001	1212005	
13	12	1.5	35	4.1	1312001	1312005	
13.6	12	1.5	35	4.1	1412001	1412005	
14.6	12	1.5	35	4.1	1512001	1512005	
15	12	1.5	35	4.1	1512011	1512015	
15.7	12	1.5	35	4.1	1612001	1612005	
16	12	1.5	35	4.1	1612011	1612015	
17	12	1.5	35	4.1	1712001	1712005	
18	12	1.5	35	4.1	1812001	1812005	
19	12	1.5	35	4.1	1912001	1912005	
20	12	1.5	35	4.1	2012001	2012005	
24.7	12	1.5	35	4.1	2512001	2512005	
25	12	1.5	35	4.1	2512011	2512015	

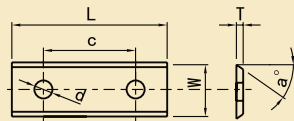


Specification					Ordering No.		
L	W	T	$\alpha$	d	YG6	Z K10UF	
9.6	12	1.5	45	4.1	1012021	1012025	
15	12	1.5	45	4.1	1512021	1512025	
20	12	1.5	45	4.1	2012011	2012015	

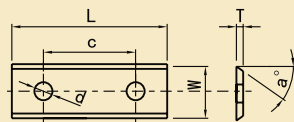
**Reversible Knives**



Specification						Ordering No.			
L	W	T	a	$\beta$	d	YG6	ZK10UF		
8	12	1.5	35	35	4.1	0812101	0812105		
9	12	1.5	35	15	4.1	0912101	0912105		
9	9	1.5	35	35	4.1	0909101	0909105		
10	12	1.5	35	15	4.1	1012101	1012105		
10.5	10.5	1.5	35	35	4.1	1111101	1111105		
12	12	1.5	35	35	4.1	1212101	1212105		
13	13	2.5	35	35	4.1	1313101	1313105		
17	17	1.5	35	35	4.1	1717101	1717105		
17	17	2	35	35	4.1	1717111	1717115		
19	19	2.1	35	35	4.1	1919101	1919105		
19	19	2	35	35	4.1	1919111	1919115		
19.5	7	1.5	35	15	4.1	2007101	2007105		
19.5	7.5	1.5	35	15	4.1	2008101	2008105		
19.5	8	1.5	35	15	4.1	2008111	2008115		
19.5	9	1.5	35	15	4.1	2009101	2009105		
19.5	10	1.5	35	15	4.1	2010101	2010105		
19.5	11	1.5	35	15	4.1	2011101	2011105		
19.5	12	1.5	35	15	4.1	2012101	2012105		

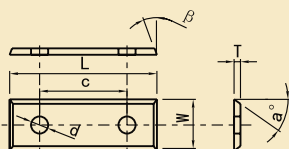


Specification						Ordering No.			
L	W	T	C	$\alpha$	d	YG6	ZK10UF		
24.7	12	1.5	14	35	4.1	2512201	2512205		
25	12	1.5	14	35	4.1	2512211	2512215		
29.5	12	1.5	14	35	4.1	3012201	3012205		
30	12	1.5	14	35	4.1	3012211	3012215		
35	12	1.5	26	35	4.1	3512201	3512205		
40	12	1.5	26	35	4.1	4012201	4012205		
50	12	1.5	26	35	4.1	5012201	5012205		
60	12	1.5	26	35	4.1	6012201	6012205		
63.5	12	1.5	26	35	4.1	6412201	6412205		

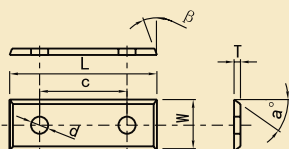


Specification						Ordering No.			
L	W	T	C	$\alpha$	d	YG6	ZK10UF		
30	12	1.5	14	45	4.1	3012221	3012225		
40	12	1.5	26	45	4.1	4012211	4012215		
50	12	1.5	26	45	4.1	5012211	5012215		
60	12	1.5	26	45	4.1	6012211	6012215		

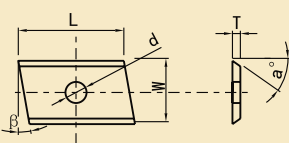
**Reversible Knives**



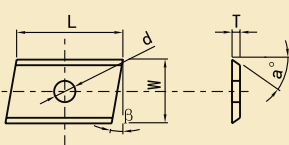
Specification						Ordering No.			
L	W	T	C	$\alpha$	$\beta$	YG6	Z K10UF		
29	12	1.5	14	35	20	2912401	2912405		
29.5	7	1.5	14	35	20	3007401	3007405		
29.5	7.5	1.5	14	35	20	3008401	3008405		
29.5	8	1.5	14	35	20	3008411	3008415		
29.5	9	1.5	14	35	20	3009401	3009405		
29.5	10	1.5	14	35	20	3010401	3010405		
29.5	11	1.5	14	35	20	3011401	3011405		
29.5	12	1.5	14	35	20	3012401	3012405		
39.5	9	1.5	26	35	20	4009401	4009405		
39.5	12	1.5	26	35	20	4012401	4012405		
49.5	8	1.5	26	35	20	5008401	5008405		
49.5	9	1.5	26	35	20	5009401	5009405		
49.5	10	1.5	26	35	20	5010401	5010405		
49.5	11	1.5	26	35	20	5011401	5011405		
49.5	12	1.5	26	35	20	5012401	5012405		
59.5	12	1.5	26	35	20	6012401	6012405		



Specification						Ordering No.			
L	W	T	C	$\alpha$	$\beta$	YG6	Z K10UF		
29.5	12	1.5	14	35	35	3012411	3012415		
39.5	12	1.5	26	35	35	4012411	4012415		
49.5	12	1.5	26	35	35	5012411	5012415		
59.5	12	1.5	26	35	35	6012411	6012415		



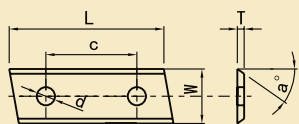
Specification					Ordering No.			
L	W	T	$\alpha$	$\beta$	YG6	Z K10UF		
19.4	12	1.5	35	10	2012501	2012505		
19.5	12	1.5	35	15	2012521	2012525		



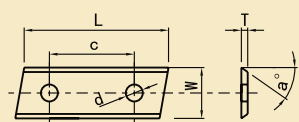
Specification					Ordering No.			
L	W	T	$\alpha$	$\beta$	YG6	Z K10UF		
19.4	12	1.5	35	10	2012511	2012515		
19.5	12	1.5	35	15	2012531	2012535		



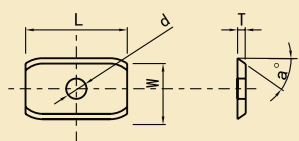
**Reversible Knives**



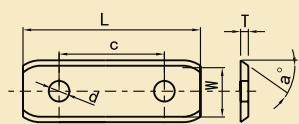
Specification						Ordering No.			
L	W	T	C	$\alpha$	$\beta$	YG6	ZK10UF		
29.5	12	1.5	14	35		3012501	3012505		
30	12	1.5	14	35		3012521	3012525		
40	12	1.5	14	35		4012501	4012505		
49.5	12	1.5	26	35		5012501	5012505		
50	12	1.5	26	35	5	5012521	5012525		



Specification						Ordering No.			
L	W	T	C	$\alpha$	$\beta$	YG6	ZK10UF		
29.5	12	1.5	14	35		3012511	3012515		
30	12	1.5	14	35		3012531	3012535		
40	12	1.5	14	35		4012511	4012515		
49.5	12	1.5	26	35		5012511	5012515		
50	12	1.5	26	35	5	5012531	5012535		

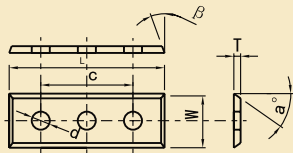


Specification					Ordering No.			
L	W	T	$\alpha$	YG6	ZK10UF			
20	12	1.5	35	2012601	2012605			

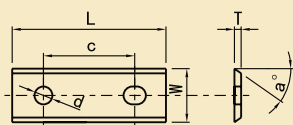


规格Specification					Ordering No.			
L	W	T	C	$\alpha$	YG6	ZK10UF		
30	12	1.5	14	35	3012601	3012605		
50	12	1.5	26	35	5012601	5012605		

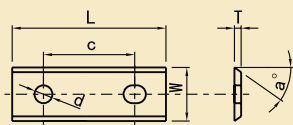
**Reversible Knives**



Specification						Ordering No.			
L	W	T	C	$\alpha$	$\beta$	YG6	Z K10UF		
50	9	1.7	37	35	30	5009701	5009705		
50	10	1.7	37	35	20	5010701	5010705		
50	12	1.7	37	35	20	5012701	5012705		
50	12	1.7	37	35	35	5012711	5012715		
50	12	1.7	37	35	30	5012721	5012705		

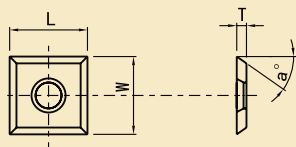


Specification					Ordering No.		
L	W	T	C	$\alpha$	YG6	Z K10UF	YL10.2
79.85	13	2.2	60	35	8013B01	8013B05	8013B07
80	13	2.2	60	35	8013B11	8013B15	8013B17
100	13	2.2	60	35	A013B01	A013B05	A013B07
120	13	2.2	60	35	A213B01	A213B05	A213B07
130	13	2.2	60	35	A313B01	A313B05	A313B07
318	12	2	198	45	C212B01	C212B05	C212B07

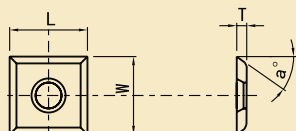


Specification					Ordering No.		
L	W	T	C	$\alpha$	YG6	Z K10UF	YL10.2
80	13	2.2	60	45	8013B21	8013B25	8013B27

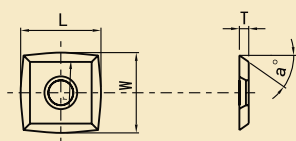
**square knives**



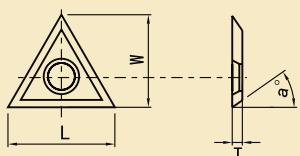
Specification					Ordering No.			
L	W	T	a		YG8	YG6X	Z K10UF	
10.5	10.5	1.5	35		1111C02	1111C03	1111C05	
13	13	2.5	30		1313C02	1313C03	1313C05	
13.4	13.4	1.5	35		1414C02	1414C03	1414C05	
13.6	13.6	2	30		1414C12	1414C13	1414C15	
13.6	13.6	2	45		1414C22	1414C23	1414C25	
14	14	1.2	30		8.54	1414C32	1414C33	1414C35
14	14	1.7	22		1414C42	1414C43	1414C45	
14	14	1.7	30		1414C52	1414C53	1414C55	
14	14	2	30		6	1414CA2	1414CA3	1414CA5
14	14	2	30		6.35	1414CB2	1414CB3	1414CB5
14	14	2	35		6.35	1414CC2	1414CC3	1414CC5
14	14	2	30		6.4	1414CD2	1414CD3	1414CD5
14	14	2	35		6.5	1414CE2	1414CE3	1414CE5
14.3	14.3	2.5	33		6.3	1515C02	1515C03	1515C05
14.6	14.6	2.5	30		6.3	1515C12	1515C13	1515C15
15	15	2	30		1515C22	1515C23	1515C25	
15	15	2	35		1515C32	1515C33	1515C35	
15	15	2.5	30		1515C42	1515C43	1515C45	
15	15	2.5	35		1515C52	1515C53	1515C55	
15	15	2.5	37		1515C62	1515C63	1515C65	
15	15	2.5	30		6.5	1515C72	1515C73	1515C75
21	21	5.5	40		7.25	2121C02	2121C03	2121C05



Specification					Ordering No.		
L	W	T	a		YG8	YG6X	Z K10UF
14	14	2	30		1414CF2	1414CF3	1414CF5

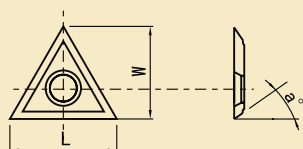


Specification					Ordering No.	
L	W	T	a		YG8	Z K10UF
15	15	2.5	30	r=50	1515D02	1515D05
15	15	2.5	30	r=150	1515D12	1515D15

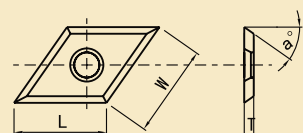


Specification					Ordering No.	
L	W	T	a		YG8	Z K10UF
22	19	2	30		2219E02	2219E05
22.9	19.8	2.5	30		2320E02	2320E05

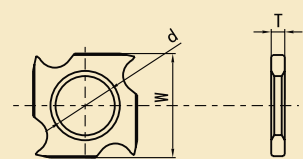
**Reversible Knives**



Specification				Ordering No.		
L	W	T	a	YG8	Z K10UF	
22	19	2	30	2219E12	2219E15	

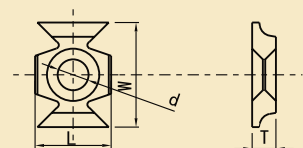


Specification				Ordering No.		
L	W	T	a	YG8	Z K10UF	
14	14	2	30	1414E02	1414E05	
16	16	3	32	1616E02	1616E05	

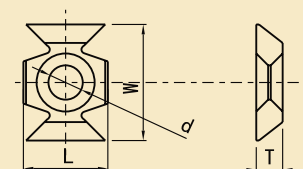


Specification				Ordering No.		
L	W	T	d	YG6	Z K10UF	YG4F
14	14		8.4	1414E11	1414E15	1414E16
18	18	1.95	10.3	1818E01	1818E05	1818E06
18	18	2.45	10.3	1818E11	1818E15	1818E16
18	18	2.95	10.3	1818E21	1818E25	1818E26
18	18	3.7	10.3	1818E31	1818E35	1818E36

**Edge rounding knives**



Specification				Ordering No.		
L	W	T	d	YG6X	Z K10UF	
16	22	5	6.5	1622E03	1622E05	

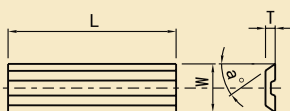


Specification				Ordering No.		
L	W	T	d	YG6	Z K10UF	
16	22	5	6.5	1622E13	1622E15	

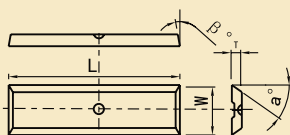
# Reversible Knives For Portable Planers



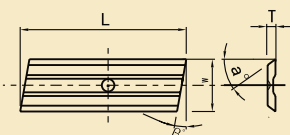
**Special Reversible Knives**



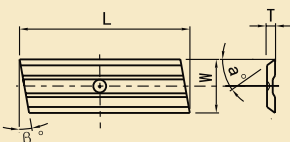
Specification					Ordering No.		
L	W	T	α	YG6	Z K10UF	YL10.2	
7.7	8	1.52	40	0808K01	0808K05		
9.7	8	1.52	40	1008K01	1008K05		
11.7	8	1.52	40	1208K01	1208K05		
14.7	8	1.52	40	1508K01	1508K05		
19.7	8	1.52	40	2008K01	2008K05		
23.6	8	1.52	40	2408K01	2408K05		
24.6	8	1.52	40	2508K01	2508K05		
24.7	8	1.52	40	2508K11	2508K15		
30	8	1.52	40	3008K01	3008K05		
35	8	1.52	40	3508K01	3508K05		
40	8	1.52	40	4008K01	4008K05		
41.9	8	1.52	40	4208K01	4208K05		
44.5	8	1.52	40	4508K01	4508K05		
45	8	1.52	40	4508K11	4508K15		
50	8	1.52	40	5008K01	5008K05		
51.6	8	1.52	40	5208K01	5208K05		
60	8	1.52	40	6008K01	6008K05		
70	8	1.52	40	7008K01	7008K05	7008K07	
80	8	1.52	40	8008K01	8008K05	8008K07	
100	8	1.52	40	A008K01	A008K05	A008K07	
120	8	1.52	40	A208K01	A208K05	A208K07	



Specification					Ordering No.		
L	W	T	α	β	YG6	Z K10UF	
23.6	8	1.52	40	5	2408L01	2408L05	
24.6	8	1.52	40	5	2508L01	2508L05	
35.4	8	1.52	40	5	3608L01	3608L05	
41.9	8	1.52	40	5	4208L01	4208L05	
44.5	8	1.52	40	5	4508L01	4508L05	
45	8	1.52	40	5	4508L11	4508L15	
51.6	8	1.52	40	5	5208L01	5208L05	

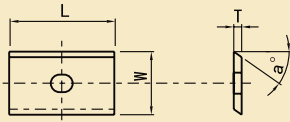


Specification					Ordering No.		
L	W	T	α	β	YG6	Z K10UF	
21.32	8	1.52	40	10	2208M01	2208M05	

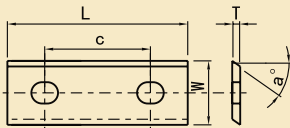


Specification					Ordering No.		
L	W	T	α	β	YG6	Z K10UF	
21.32	8	1.52	40	10	2208M11	2208M15	

**Special Reversible Knives**

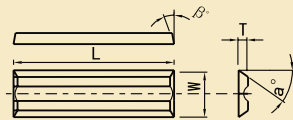


Specification				Ordering No.			
L	W	T	$\alpha$	YG6	Z K10UF		
8.8	8	1.5	40	0908A01	0908A05		
9	8	1.5	40	0908A11	0908A15		
10	8	1.5	40	1008A01	1008A05		
11	8	1.5	40	1108A01	1108A05		
12	8	1.5	40	1208A01	1208A05		
15	8	1.5	40	1508A01	1508A05		
20	8	1.5	40	2008A01	2008A05		
25	8	1.5	40	2508A01	2508A05		
28	8	1.5	40	2808A01	2808A05		

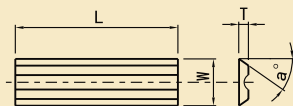


Specification					Ordering No.			
L	W	T	C	$\alpha$	YG6	Z K10UF	YG4F	YL10.2
40	8	1.5	26	40	4008A01	4008A05	4008A06	4008A07
50	8	1.5	34	40	5008A01	5008A05	5008A06	5008A07
60	8	1.5	30	40	6008A01	6008A05	6008A06	6008A07
80	8	1.5	50	40	8008A01	8008A05	8008A06	8008A07
100	8	1.5	70	40	A008A01	A008A05	A008A06	A008A07

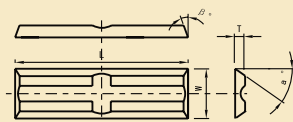
**Mini Reversible knives**



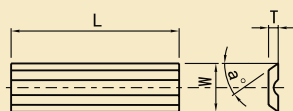
Specification					Ordering No.		
L	W	T	$\alpha$	$\beta$	YG6	Z K10UF	
12	5.5	1.1	35	20	1255L01	1255L05	
20	5.5	1.1	35	20	2055L01	2055L05	
25	5.5	1.1	35	20	2555L01	2555L05	
30	5.5	1.1	35	20	3055L01	3055L05	
40	5.5	1.1	35	20	4055L01	4055L05	
44.5	5.5	1.1	35	20	4555L01	4555L05	
50	5.5	1.1	35	20	5055L01	5055L05	



Specification				Ordering No.		
L	W	T	$\alpha$	YG6		
12	5.5	1.1	35	1255K01		
20	5.5	1.1	35	2055K01		
30	5.5	1.1	35	3055K01		
40	5.5	1.1	35	4055K01		
50	5.5	1.1	35	5055K01		



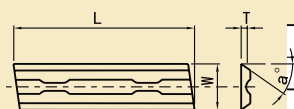
Specification					Ordering No.		
L	W	T	$\alpha$	$\beta$	YG6	Z K10UF	
20	4.1	1.1	35	35	2041N01	2041N05	
20	5.5	1.1	35	35	2055N01	2055N05	
25	5.5	1.1	35	35	2555N01	2555N05	
30	5.5	1.1	35	35	3055N01	3055N05	
40	5.5	1.1	35	35	4055N01	4055N05	
50	5.5	1.1	35	35	5055N01	5055N05	



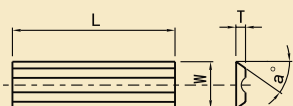
Specification				Ordering No.		
L	W	T	$\alpha$	YG6		
12	5.5	1.1	35	1255K11		
20	5.5	1.1	35	2055K11		
30	5.5	1.1	35	3055K11		
40	5.5	1.1	35	4055K11		
50	5.5	1.1	35	5055K11		



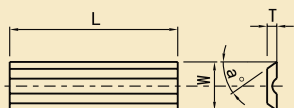
**Reversible knives for portable planers**



Specification					Ordering No.		
L	W	T	$\alpha$	$\beta$	YG6		
80.5	5.9	1.2	40	8	8159P81		
82	5.5	1.1	35	3	8255P31		
82.7	5.5	1.1	35	3	8355P31		

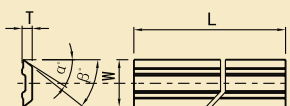


Specification				Ordering No.		
L	W	T	$\alpha$	YG6		
60	5.5	1.1	35	6055K01		
75	5.5	1.1	35	7555K01		
76	5.5	1.1	35	7655K01		
78	5.5	1.1	35	7855K01		
80	5.5	1.1	35	8055K01		
80.5	5.9	1.1	35	8159K01		
82	5.5	1.1	35	8255K01		
92	5.5	1.1	35	9255K01		
102	5.5	1.1	35	A155K01		

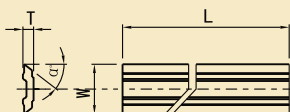


Specification				Ordering No.		
L	W	T	$\alpha$	YG6		
55	5.5	1.1	35	5555K01		
60	5.5	1.1	35	6055K11		
75	5.5	1.1	35	7555K11		
78	5.5	1.1	35	7855K11		
80	5.5	1.1	35	8055K11		
80.5	5.9	1.1	35	8159K11		
82	5.5	1.1	35	8255K11		
92	5.5	1.1	35	9255K11		
102	5.5	1.1	35	A155K11		

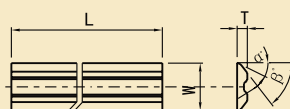
**Solid Carbide Planer Knives**



Specification					Ordering No.		
L	W	T	$\alpha$	$\beta$	YG8	ZK10UF	YL10.2
130	8	2	40	45	A308Q02	A308Q05	A308Q07
130	12	2.6	40	45	A312Q02	A312Q05	A312Q07
150	8	2	40	45	A508Q02	A508Q05	A508Q07
150	12	2.6	40	45	A512Q02	A512Q05	A512Q07
240	8	2	40	45	B408Q02	B408Q05	B408Q07
240	12	2.6	40	45	B412Q02	B412Q05	B412Q07
460	8	2	40	45	D608Q02	D608Q05	D608Q07

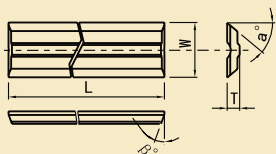


Specification				Ordering No.		
L	W	T	$\alpha$	YG8	ZK10UF	YL10.2
130	8	2	40	A308Q12	A308Q15	A308Q17
160	8	2	40	A608Q02	A608Q05	A608Q07
190	8	2	40	A908Q02	A908Q05	A908Q07

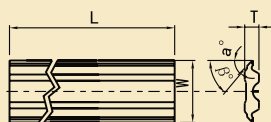


Specification					Ordering No.	
L	W	T	$\alpha$	$\beta$	YG8	YL10.2
60	16	3	40	45	6016Q02	6016Q07
80	16	3	40	45	8016Q02	8016Q07
100	16	3	40	45	A016Q02	A016Q07
130	16	3	40	45	A316Q02	A316Q07
150	16	3	40	45	A516Q02	A516Q07
170	16	3	40	45	A716Q02	A716Q07
180	16	3	40	45	A816Q02	A816Q07
190	16	3	40	45	A916Q02	A916Q07
210	16	3	40	45	B116Q02	B116Q07
230	16	3	40	45	B316Q02	B316Q07
240	16	3	40	45	B416Q02	B416Q07
250	16	3	40	45	B516Q02	B516Q07
270	16	3	40	45	B716Q02	B716Q07
310	16	3	40	45	C116Q02	C116Q07

### Solid Carbide Planer Knives

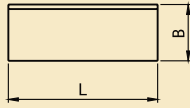


Specification					Ordering No.		
L	W	T	$\alpha$	$\beta$	YG8	YL10.2	
100	16	3.7	40	20	A016Q12	A016Q17	
130	16	3.7	40	20	A316Q12	A316Q17	
150	16	3.7	40	20	A516Q12	A516Q17	
180	16	3.7	40	20	A816Q12	A816Q17	
230	16	3.7	40	20	B316Q12	B316Q17	
240	16	3.7	40	20	B416Q12	B416Q17	



Specification					Ordering No.		
L	W	T	$\alpha$	$\beta$	YG8	YL10.2	
60	10	2.3			6010Q02	6010Q07	
80	10	2.3			8010Q02	8010Q07	
100	10	2.3			A010Q02	A010Q07	
110	10	2.3			A110Q02	A110Q07	
120	10	2.3			A210Q02	A210Q07	
130	10	2.3			A310Q02	A310Q07	
150	10	2.3			A510Q02	A510Q07	
170	10	2.3			A710Q02	A710Q07	
180	10	2.3			A810Q02	A810Q07	
210	10	2.3			B110Q02	B110Q07	
230	10	2.3			B310Q02	B310Q07	
250	10	2.3			B510Q02	B510Q07	
260	10	2.3			B610Q02	B610Q07	
280	10	2.3			B810Q02	B810Q07	
300	10	2.3			C010Q02	C010Q07	
310	10	2.3			C110Q02	C110Q07	
330	10	2.3			C310Q02	C310Q07	
350	10	2.3			C510Q02	C510Q07	
360	10	2.3			C610Q02	C610Q07	
400	10	2.3			D010Q02	D010Q07	
410	10	2.3			D110Q02	D110Q07	
420	10	2.3			D210Q02	D210Q07	
430	10	2.3			D310Q02	D310Q07	
450	10	2.3			D510Q02	D510Q07	
500	10	2.3			E010Q02	E010Q07	
510	10	2.3			E110Q02	E110Q07	
520	10	2.3			E210Q02	E210Q07	
530	10	2.3			E310Q02	E310Q07	
540	10	2.3			E410Q02	E410Q07	
610	10	2.3			F110Q02	F110Q07	
630	10	2.3			F310Q02	F310Q07	
640	10	2.3			F410Q02	F410Q07	
650	10	2.3			F510Q02	F510Q07	

**Solid Carbide Planer Knives**

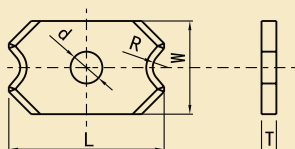


Specification			Ordering No.		
L	W	T	Z K10UF	YL10.2	
60	30	3	6030F05		
80	30	3	8030F05		
100	30	3	A030F05		
110	30	3		A130F07	
120	30	3		A230F07	
130	30	3		A330F07	
150	30	3		A530F07	
180	30	3		A830F07	
210	30	3		B130F07	
230	30	3		B330F07	
260	30	3		B530F07	
310	30	3		C130F07	
60	35	3	6035F05		
80	35	3	8035F05		
100	35	3	A035F05		
110	35	3		A135F07	
120	35	3		A235F07	
130	35	3		A335F07	
150	35	3		A535F07	
180	35	3		A835F07	
210	35	3		B135F07	
230	35	3		B335F07	
260	35	3		B635F07	
310	35	3		C135F07	

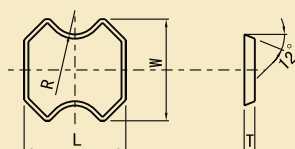
## Profiled Standard Blankscutting Tools



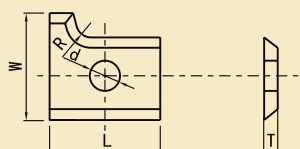
**Profiled Standard Blankcutting Tools**



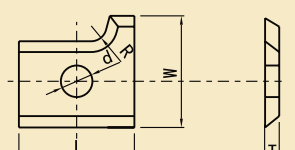
Specification					Ordering No.		
L	W	T	d	R	YG6	Z K10UF	
20	12	2	4	1	S201201	S201205	
20	12	2	4	2	S201211	S201215	
20	12	2	4	3	S201221	S201225	
20	12	2	4	2.5	S201231	S201235	
20	12	2	4	4	S201241	S201245	
20	12	2	4	5	S201251	S201255	



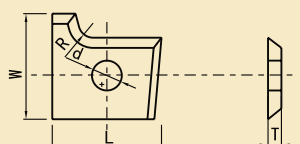
Specification				Ordering No.		
L	W	T	R	YG6	Z K10UF	
12.7	12.7	3.2	2	M131301	M131305	
12.7	12.7	3.2	3	M131311	M131315	



Specification					Ordering No.		
L	W	T	d	R	YG6	Z K10UF	
12	14.5	2	4	2	L121501	L121505	
19.6	15.2	2	4	2	L201601	L201605	
12	14.5	2	4	2.5	L121521	L121525	
12	14.5	2	4	3	L121541	L121545	
19.6	15.2	2	4	3	L201611	L201615	

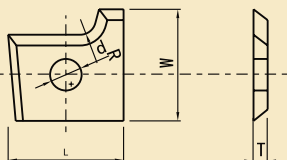


Specification					Ordering No.		
L	W	T	d	R	YG6	Z K10UF	
12	14.5	2	4	2	L121511	L121515	
19.6	15.2	2	4	2	L201621	L201625	
12	14.5	2	4	2.5	L121531	L121535	
12	14.5	2	4	3	L121551	L121555	
19.6	15.2	2	4	3	L201631	L201635	

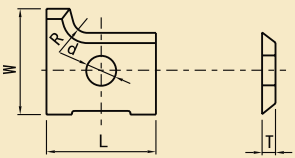


Specification					Ordering No.		
L	W	T	d	R	YG6	Z K10UF	
12	18	2	4	2	L121801	L121805	
12	18	2	4	3	L121821	L121825	

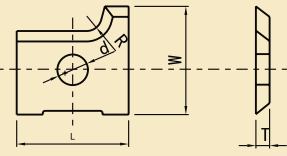
**profiled standard blankcutting tools**



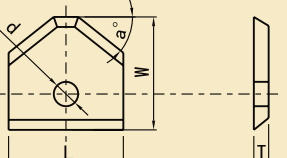
Specification					Ordering No.		
L	W	T	d	R	YG6	Z K10UF	
12	18	2	4	2	L121811	L121815	
12	18	2	4	3	L121831	L121835	



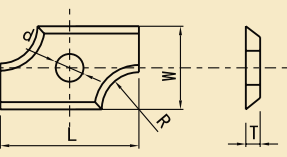
Specification					Ordering No.		
L	W	T	d	R	YG6	Z K10UF	
15	14.5	2	4	2	L151501	L151505	
15	14.5	2	4	2.5	L151521	L151525	
15	14.5	2	4	3	L151541	L151545	
16.2	14.2	2	5	2	L171501	L171505	



Specification					Ordering No.		
L	W	T	d	R	YG6	Z K10UF	
15	14.5	2	4	2	L151511	L151515	
15	14.5	2	4	2.5	L151531	L151535	
15	14.5	2	4	3	L151551	L151555	
16.2	14.2	2	5	2	L171511	L171515	

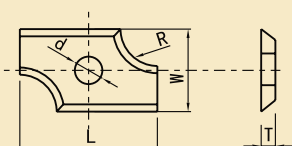


Specification					Ordering No.		
L	W	T	d	$\alpha$	YG6	Z K10UF	
12	12	1.5	4	45	T121201	T121205	
16	17.5	2	4	45	T161801	T161805	
16	17.5	2	4.4	45	T161811	T161815	
16	17.5	2	3.5	45	T161821	T161825	

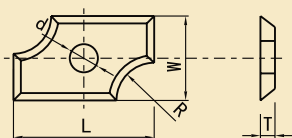


Specification					Ordering No.		
L	W	T	d	R	YG6	Z K10UF	
15	12	1.5	4.1	3.5	N151201	N151205	
20	16	2	3	3	N201601	N201605	
30	14	2	4	2	N301401	N301405	
30	14	2	4	2.5	N301421	N301425	
30	14	2	4	3	N301441	N301445	

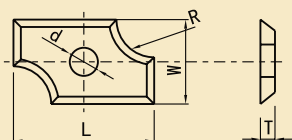
**profiled standard blankcutting tools**



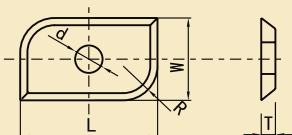
Specification					Ordering No.	
L	W	T	d	R	YG6	ZK10UF
15	12	1.5	4.1	3.5	N151211	N151215
20	16	2	3	3	N201611	N201615
30	14	2	4	2	N301411	N301415
30	14	2	4	2.5	N301431	N301435
30	14	2	4	3	N301451	N301455



Specification					Ordering No.	
L	W	T	d	R	YG6	ZK10UF
19.5	9	1.5	4	2	N200901	N200905
19.5	9	1.5	4	3	N200921	N200925
19.5	9	1.5	4	4	N200941	N200945
19.5	9	1.5	4	5	N200961	N200965



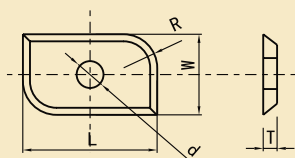
Specification					Ordering No.	
L	W	T	d	R	YG6	ZK10UF
19.5	9	1.5	4	2	N200911	N200915
19.5	9	1.5	4	3	N200931	N200935
19.5	9	1.5	4	4	N200951	N200955
19.5	9	1.5	4	5	N200971	N200975



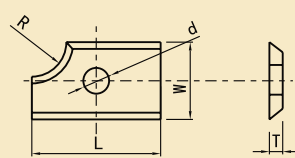
Specification					Ordering No.	
L	W	T	d	R	YG6	ZK10UF
19.5	9	1.5	4	5	U200901	U200905
19.5	12	1.5	4	5	U201201	U201205



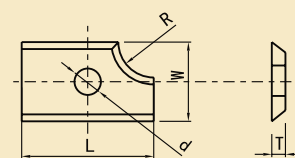
**profiled standard blankcutting tools**



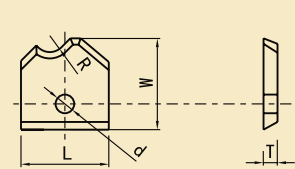
Specification					Ordering No.		
L	W	T	d	R	YG6	Z K10UF	
19.5	9	1.5	4	5	U200911	U200915	
19.5	12	1.5	4	5	U201211	U201215	



Specification					Ordering No.		
L	W	T	d	R	YG6	Z K10UF	
20	12	1.5	4	3	V201201	V201205	

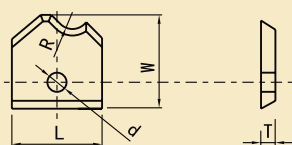


Specification					Ordering No.		
L	W	T	d	R	YG6	Z K10UF	
20	12	1.5	4	3	V201211	V201215	

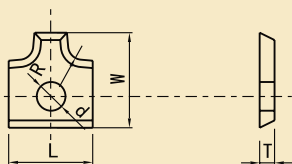


Specification					Ordering No.		
L	W	T	d	R	YG6	Z K10UF	
16	17	2	3.4	1	X161701	X161705	
16	17	2	4	1	X161721	X161725	
16	17	2	4.2	1	X161741	X161745	
16	17	2	4.3	1	X161761	X161765	
16	17	2	4.3	1.5	X161781	X161785	
16	17	2	3.4	2	X1617A1	X1617A5	
16	17	2	4	2	X1617C1	X1617C5	
16	17	2	4.2	2	X1617E1	X1617E5	
16	17	2	4.3	2	X1617G1	X1617G5	
16	17	2	3.4	3	X1617J1	X1617J5	
16	17	2	4	3	X1617L1	X1617L5	
16	17	2	4.2	3	X1617N1	X1617N5	
16	17	2	4.3	3	X1617Q1	X1617Q5	
16	17	2	4.4	3	X1617U1	X1617U5	

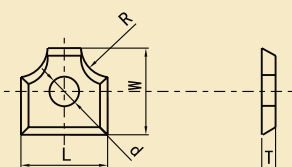
**profiled standard blankcutting tools**



Specification					Ordering No.	
L	W	T	d	R	YG6	ZK10UF
16	17	2	3.4	1	X161711	X161715
16	17	2	4	1	X161731	X161735
16	17	2	4.2	1	X161751	X161755
16	17	2	4.3	1	X161771	X161775
16	17	2	4.3	1.5	X161791	X161795
16	17	2	3.4	2	X1617B1	X1617B5
16	17	2	4	2	X1617D1	X1617D5
16	17	2	4.2	2	X1617F1	X1617F5
16	17	2	4.3	2	X1617H1	X1617H5
16	17	2	3.4	3	X1617K1	X1617K5
16	17	2	4	3	X1617M1	X1617M5
16	17	2	4.2	3	X1617P1	X1617P5
16	17	2	4.3	3	X1617R1	X1617R5
16	17	2	4.4	3	X1617V1	X1617V5

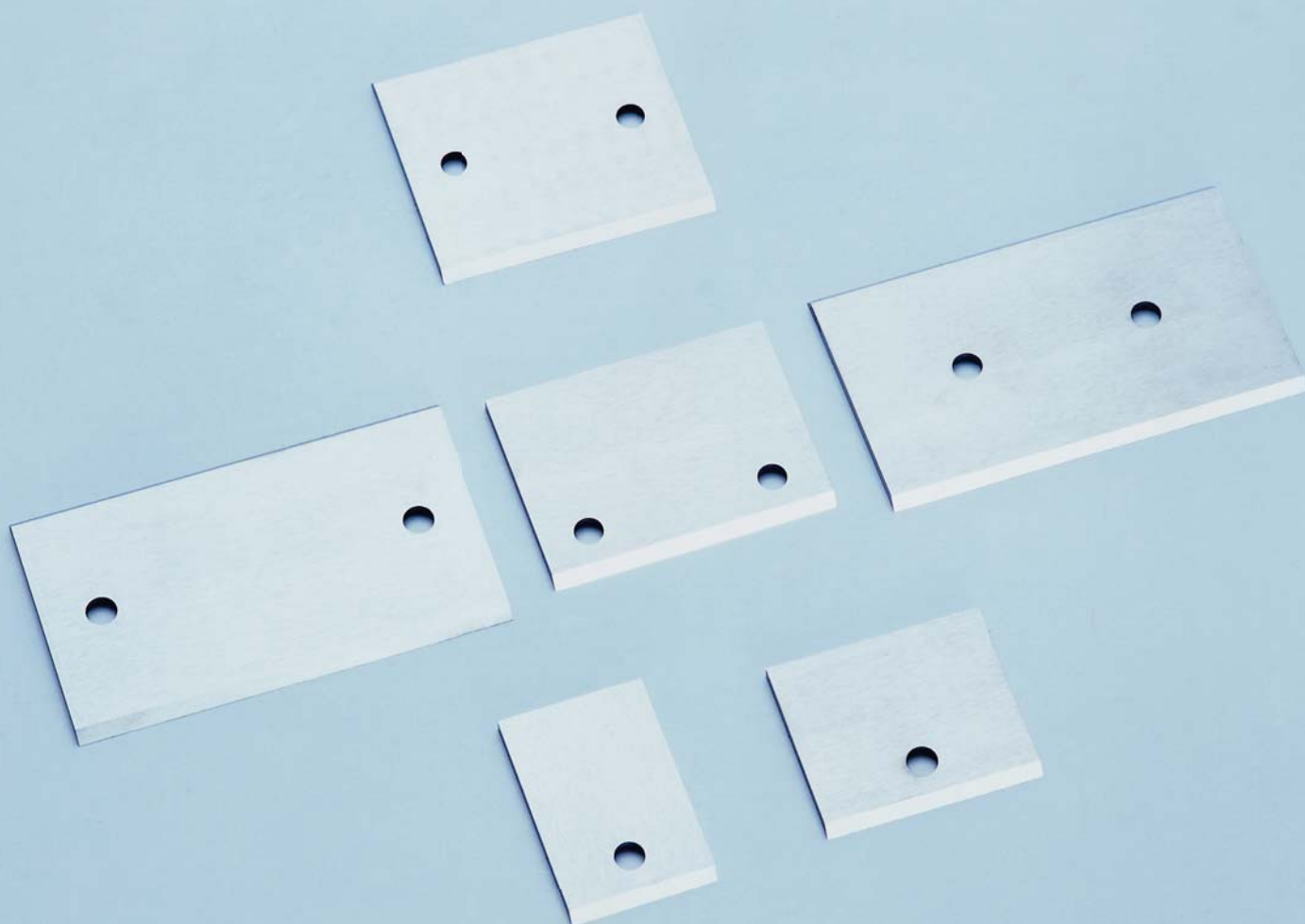


Specification					Ordering No.	
L	W	T	d	R	YG6	ZK10UF
16	17	2	3	3	R161701	R161705
16	17	2	3.6	3	R161711	R161715
16	17	2	4	3	R161721	R161725
16	17	2	4.5	3	R161731	R161735
16	17.5	2	3	3	R161801	R161805
16	17.5	2	3.6	3	R161811	R161815
16	17.5	2	4	3	R161821	R161825
16	17.5	2	4.5	3	R161831	R161835
20	12	1.5	4	3	R201201	R201205

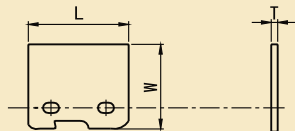


Specification					Ordering No.	
L	W	T	d	R	YG6	ZK10UF
12	12	1.5	4	2	R121201	R121205
12	12	1.5	4	3	R121211	R121215
12	12	1.5	4	4	R121221	R121225
12	13	2	4	2	R121301	R121305
12	13	2	4	3	R121311	R121315
12	13	2	4	4	R121321	R121325

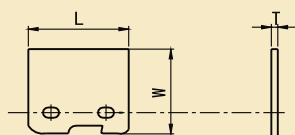
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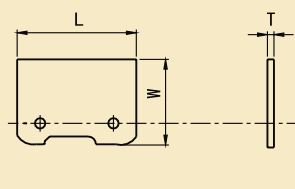
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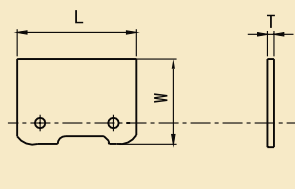
Specification			Ordering No.	
L	W	T	Z K10UF	
31	26	1.5	3126U05	



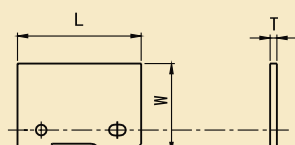
Specification			Ordering No.	
L	W	T	Z K10UF	
31	26	1.5	3126U15	



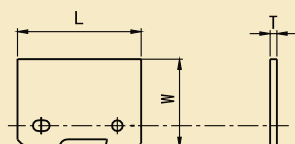
Specification			Ordering No.	
L	W	T	Z K10UF	
41	28	1.5	4128U05	
41	28	2	4128U25	
41	35	1.5	4135U05	
41	35	2	4135U25	



Specification			Ordering No.	
L	W	T	Z K10UF	
41	28	1.5	4128U15	
41	28	2	4128U35	
41	35	1.5	4135U15	
41	35	2	4135U35	

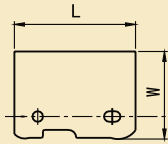


Specification			Ordering No.	
L	W	T	Z K10UF	
51	35	1.5	5135U05	
51	45	2	5145U05	

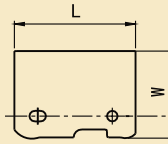


Specification			Ordering No.	
L	W	T	Z K10UF	
51	35	1.5	5135U15	
51	45	2	5145U15	

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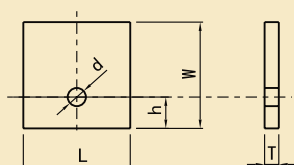


Specification			Ordering No.	
L	W	T	ZK10UF	
60.8	30.6	1.5	6131U05	
60.8	30.6	2	6131U25	
61	45	2	6145U05	
81	45	2	8145U05	



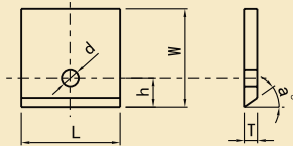
Specification			Ordering No.	
L	W	T	ZK10UF	
60.8	30.6	1.5	6131U15	
60.8	30.6	2	6131U35	
61	45	2	6145U15	
81	45	2	8145U15	

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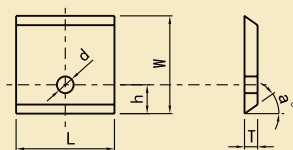


Specification					Ordering No.	
L	W	T	h	d	Z K10UF	YG4F
10	20.3	2	6	4.2	1021V05	1021V06
12	20.3	2	6	4.2	1221V05	1221V06
15.1	20.3	2	6	4.2	1621V05	1621V06
16.2	20.3	2	6	4.2	1721V05	1721V06
16.2	25.3	2	6	4.2	1726V05	1726V06
18	18.3	2	6	4.2	1819V05	1819V06
18.2	18.3	2	6	4.2	1919V05	1919V06
18.2	25.3	2	6	4.2	1926V05	1926V06
18.2	36.3	2	6	4.2	1937V05	1937V06
20	20.5	2	6.5	4.2	2021V05	2021V06
20	25.5	2	6.5	4.5	2026V05	2026V06
20	25.5	2	6.5	4.2	2026V15	2026V16
20	25.5	2	6	4.2	2026V25	2026V26
20	30.5	2	6.5	4.5	2031V05	2031V06
20	30.5	2	6.5	4.2	2031V15	2031V16
20	35.5	2	6.5	4.2	2036V05	2036V06
20.2	20.3	2	6	4.2	2121V05	2121V06
20.2	25.3	2	6	4.2	2126V05	2126V06
20.2	30.3	2	6	4.2	2131V05	2131V06
22.2	25.3	2	6	4.2	2326V05	2326V06
24	28.3	2	6	4.2	2429V05	2429V06
24.2	20.3	2	6	4.2	2521V05	2521V06
24.2	28.3	2	6	4.2	2529V05	2529V06
24.4	28.5	2	6	4.2	2529V15	2529V16
25	20.5	2	6.5	4.2	2521V15	2521V16
25	25.5	2	6.5	4.2	2526V05	2526V06
25	30.5	2	6.5	4.2	2531V05	2531V06
25	35.5	2	6.5	4.2	2536V05	2536V06
30	20.5	2	6.5	4.2	3021V05	3021V06
30	25.5	2	6.5	4.2	3026V05	3026V06
30	30.5	2	6.5	4.2	3031V05	3031V06
30	35.5	2	6.5	4.2	3036V05	3036V06
32	22.3	2	6	4.2	3223V05	3223V06
35	25.5	2	6.5	4.2	3526V05	3526V06
35	30.5	2	6.5	4.2	3531V05	3531V06
35	35.5	2	6.5	4.2	3536V05	3536V06
40	30.3	2	6	4.2	4031V05	4031V06

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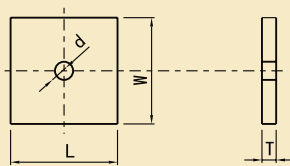


Specification					Ordering No.		
L	W	T	h	d	Z K10UF	YG4F	
15	15.5	2	6.3	4.2	1516V05	1516V06	
15	20.5	2	6.3	4.2	1521V05	1521V06	
15	20.4	2	6.3	4.2	1521V15	1521V16	
15	25.5	2	6.3	4.2	1526V05	1526V06	
15	30.5	2	6.3	4.2	1531V05	1531V06	
20	20.5	2	6.3	4.2	2021V15	2021V16	
20	25.5	2	6.3	4.2	2026V35	2026V36	
20	30.5	2	6.3	4.2	2031V25	2031V26	
20	30.4	2	6.3	4.2	2031V35	2031V36	
20	35.5	2	6.3	4.2	2036V15	2036V16	
25	20.5	2	6.3	4.2	2521V25	2521V26	
25	25.5	2	6.3	4.2	2526V15	2526V16	
25	30.5	2	6.3	4.2	2531V15	2531V16	
25	35.5	2	6.3	4.2	2536V15	2536V16	
30	20.5	2	6.3	4.2	3021V15	3021V16	
30	25.5	2	6.3	4.2	3026V15	3026V16	
30	25.4	2	6.3	4.2	3026V25	3026V26	
30	30.5	2	6.3	4.2	3031V15	3031V16	
30	35.5	2	6.3	4.2	3036V15	3036V16	
30	40.5	2	6.3	4.2	3041V05	3041V06	
35	20.5	2	6.3	4.2	3521V05	3521V06	
35	25.5	2	6.3	4.2	3526V15	3526V16	
35	30.5	2	6.3	4.2	3531V15	3531V16	
35	35.5	2	6.3	4.2	3536V15	3536V16	
35	40.5	2	6.3	4.2	3541V05	3541V06	
40	20.5	2	6.3	4.2	4021V05	4021V06	
40	25.5	2	6.3	4.2	4026V05	4026V06	
40	30.5	2	6.3	4.2	4031V15	4031V16	
40	35.5	2	6.3	4.2	4036V05	4036V06	
40	40.5	2	6.3	4.2	4041V05	4041V06	

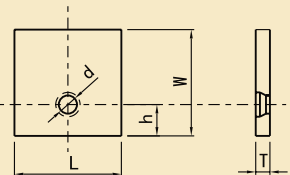


Specification					Ordering No.		
L	W	T	h	d	Z K10UF	YG4F	
15	20	2	6.3	4.2	1520V05	1520V06	
15	30	2	6.3	4.2	1530V05	1530V06	
20	20	2	6.3	4.2	2020V05	2020V06	
20	25	2	6.3	4.2	2025V05	2025V06	
20	30	2	6.3	4.2	2030V05	2030V06	
20	35	2	6.3	4.2	2035V05	2035V06	
25	20	2	6.3	4.2	2520V05	2520V06	
25	25	2	6.3	4.2	2525V05	2525V06	
25	30	2	6.3	4.2	2530V05	2530V06	
25	35	2	6.3	4.2	2535V05	2535V06	
30	25	2	6.3	4.2	3025V05	3025V06	
30	35	2	6.3	4.2	3035V05	3035V06	
30	40	2	6.3	4.2	3040V05	3040V06	
35	30	2	6.3	4.2	3530V05	3530V06	
35	35	2	6.3	4.2	3535V05	3535V06	

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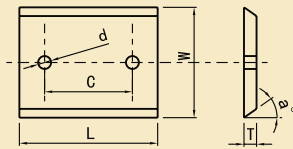
Specification					Ordering No.		
L	W	T	d		Z K10UF	YG4F	
24	22	2	4.2		2422V05	2422V06	
28	24	2	4.2		2824V05	2824V06	
32	24	2	4.2		3224V05	3224V06	
36	28	2	4.1		3628V05	3628V06	
40	26	2	4.2		4026V15	4026V16	



Specification					Ordering No.		
L	W	T	h	d	Z K10UF	YG4F	
20	20	3	7	4.5	2020V15	2020V16	
20	25	3	7	4.5	2025V15	2025V16	
20	30	3	7	4.5	2030V15	2030V16	
20	35	3	7	4.5	2035V15	2035V16	
20	40	3	7	4.5	2040V05	2040V06	
25	25	3	7	4.5	2525V15	2525V16	
25	30	3	7	4.5	2530V15	2530V16	
25	35	3	7	4.5	2535V15	2535V16	
25	40	3	7	4.5	2540V05	2540V06	
30	25	3	7	4.5	3025V15	3025V16	
30	30	3	7	4.5	3030V05	3030V06	
30	35	3	7	4.5	3035V15	3035V16	
30	40	3	7	4.5	3040V15	3040V16	
35	25	3	7	4.5	3525V05	3525V06	
35	30	3	7	4.5	3530V15	3530V16	
35	35	3	7	4.5	3535V15	3535V16	
35	40	3	7	4.5	3540V05	3540V06	

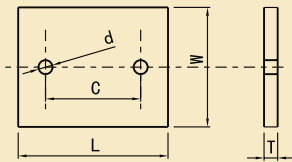


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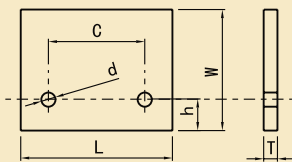


Specification					Ordering No.		
L	W	T	C	d	Z K10UF	YG4F	
30	25	2	20	4.2	3025W05	3025W06	
40	30	2	20	4.2	4030W05	4030W06	
40	30	2	26	4.2	4030W15	4030W16	
40	32.6	2	20	4.2	4033W05	4033W06	
40	35	2	20	4.2	4035W05	4035W06	
40	35	2	26	4.2	4035W15	4035W16	
40	35	2	26	4	4035W25	4034W26	
40	37.8	2	20	4.2	4038W05	4038W06	
40	42.9	2	20	4.2	4043W05	4043W06	
42	32	2	26	4.2	4232W05	4232W06	
45	35	2	26	4.2	4535W05	4535W06	
50	16	2	26	4.2	5016W05	5016W06	
50	20	2	26	4.2	5020W05	5020W06	
50	25	2	26	4.2	5025W05	5025W06	
50	30	2	26	4.2	5030W05	5030W06	
50	30	2	34	4.2	5030W15	5030W16	
50	40	2	34	4.2	5040W05	5040W06	
50	45	2	34	4.2	5045W05	5045W06	
51	26	2	26	4.2	5126W05	5126W06	
52	34	2	24	4.2	5234W05	5234W06	
60	20	2	26	4.2	6020W05	6020W06	
60	19	2	44	4.2	6019W05	6019W06	
60	25	2	26	4.2	6025W05	6025W06	
60	25	2	44	4.2	6025W15	6025W16	
60	30	2	26	4.2	6030W05	6030W06	
60	30	2	44	4.2	6030W15	6030W16	
60	32.6	2	20	4.2	6033W05	6033W06	
60	35	2	26	4.2	6035W05	6035W06	
60	35	2	44	4.2	6035W15	6035W16	
60	37.8	2	20	4.2	6038W05	6038W06	
60	40	2	44	4.2	6040W05	6040W06	
60	42.9	2	20	4.2	6043W05	6043W06	

**Blanks for Profiling**

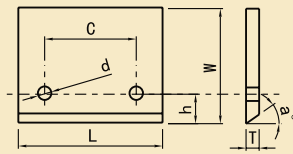


Specification						Ordering No.		
L	W	T	C	d		Z K10UF	YG4F	
40	20.4	2	26	4.2		4021W05	4021W06	
42	32	2	24	4.2		4232W15	4232W16	
48	36	2	24	4.2		4836W05	4836W06	
52	34	2	24	4.1		5234W15	5234W16	



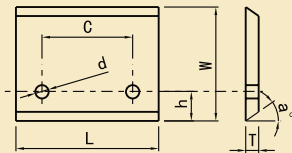
Specification						Ordering No.		
L	W	T	C	h	d	Z K10UF	YG4F	
30	20.5	2	14	6.5	4.2	3021W05	3021W06	
30	25.5	2	14	6.5	4.2	3026W05	3026W06	
30	25.5	2	19	4.75	4.2	3026W15	3026W16	
30	30.5	2	14	6.5	4.2	3031W05	3031W06	
30	30.5	2	19	4.75	4.2	3031W15	3031W16	
30	35.5	2	14	6.5	4.2	3036W05	3036W06	
35	25.5	2	14	6.5	4.2	3526W05	3526W06	
35	30.5	2	14	6.5	4.2	3531W05	3531W06	
35	35.5	2	14	6.5	4.2	3536W05	3536W06	
40	20.5	2	26	6.5	4.2	4021W15	4021W16	
40	25.5	2	26	6.5	4.2	4026W05	4026W06	
40	30.5	2	26	6.5	4.2	4031W05	4031W06	
40	35.5	2	26	6.5	4.2	4036W05	4036W06	
40	40.5	2	26	6.5	4.2	4041W05	4041W06	
50	20.5	2	26	6.5	4.2	5021W05	5021W06	
50	25.5	2	26	6.5	4.2	5026W05	5026W06	
50	30.5	2	26	6.5	4.2	5031W05	5031W06	
50	32.3	2	24	6	4.2	5033W05	5033W06	
50	35.5	2	26	6.5	4.2	5036W05	5036W06	
50	40.5	2	26	6.5	4.2	5041W05	5041W06	
60	35.5	2	26	6.5	4.2	6036W05	6036W06	
60	40.5	2	26	6.5	4.2	6041W05	6041W06	
60	45.5	2	26	6.5	4.2	6046W05	6046W06	
80	25.5	2	60	6.5	4.2	8026W05	8026W06	
80	35.5	2	60	6.5	4.2	8036W05	8036W06	
80	40.5	2	60	6.5	4.2	8041W05	8041W06	

**Blanks for Profiling**



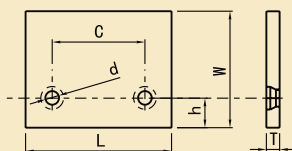
Specification						Ordering No.		
L	W	T	C	h	d	Z K10UF	YG4F	
30	20.5	2	14	6.3	4.2	3021W15	3021W16	
30	25.5	2	14	6.3	4.2	3026W25	3026W26	
30	30.5	2	14	6.3	4.2	3031W25	3031W26	
30	35.5	2	14	6.3	4.2	3036W15	3036W16	
35	25.5	2	14	6.3	4.2	3526W15	3526W16	
35	30.5	2	14	6.3	4.2	3531W15	3531W16	
35	35.5	2	14	6.3	4.2	3536W15	3536W16	
40	20.5	2	26	5.5	4.2	4021W25	4021W26	
40	20.5	2	26	6	4.2	4021W35	4021W36	
40	20.5	2	26	6.3	4.2	4021W45	4021W45	
40	25.5	2	26	5.5	4.2	4026W15	4026W16	
40	25.5	2	26	6.3	4.2	4026W25	4026W26	
40	30.5	2	26	5.5	4.2	4031W15	4031W16	
40	30.5	2	26	6.3	4.2	4031W25	4031W26	
40	35.5	2	26	5.5	4.2	4036W15	4036W16	
40	35.5	2	26	6.3	4.2	4036W25	4036W26	
40	40.5	2	26	5.5	4.2	4041W15	4041W16	
40	40.5	2	26	6.3	4.2	4041W25	4041W26	
50	20.5	2	26	6.3	4.2	5021W15	5021W16	
50	25.5	2	26	5.5	4.2	5026W15	5026W16	
50	25.5	2	26	6.3	4.2	5026W25	5026W26	
51	26.5	2	26	5.5	4.2	5127W05	5127W06	
51	26.5	2	26	6.3	4.2	5127W15	5127W16	
50	30.5	2	26	6.3	4.2	5031W15	5031W16	
50	35.5	2	26	6.3	4.2	5036W15	5036W16	
50	40.5	2	26	6.3	4.2	5041W15	5041W16	
52	27.5	2	26	6	4.2	5228W05	5228W06	
60	25.5	2	26	6.3	4.2	6026W05	6026W06	
60	30.5	2	26	6.3	4.2	6031W05	6031W06	
60	35.5	2	26	6.3	4.2	6036W15	6036W16	
60	39.5	2	44	6	4.2	6040W15	6040W16	
60	40.5	2	26	6.3	4.2	6041W15	6041W16	
60	40.5	2	44	6.3	4.2	6041W25	6041W26	
70	25.5	2	26	6.3	4.2	7026W05	7026W06	
70	30.5	2	26	6.3	4.2	7031W05	7031W06	
70	35.5	2	26	6.3	4.2	7036W05	7036W06	
70	35.5	2	44	6.3	4.2	7036W15	7036W16	
80	25.5	2	60	6.3	4.2	8026W15	8026W16	
80	30.5	2	60	6.3	4.2	8031W05	8031W06	
80	35.5	2	60	6.3	4.2	8036W15	8036W16	
80	40.5	2	60	6.3	4.2	8041W15	8041W16	

**Blanks for Profiling**

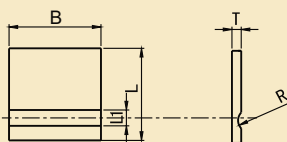


Specification						Ordering No.		
L	W	T	C	h	d	Z K1OUF	YG4F	
40	20	2	26	5.5	4.2	4020W05	4020W06	
40	20	2	26	6.3	4.2	4020W15	4020W16	
40	25	2	26	5.5	4.2	4025W05	4025W06	
40	25	2	26	6.3	4.2	4025W15	4025W16	
40	25.4	2	26	6	4.2	4026W35	4026W36	
40	25.4	2	26	6	4.1	4026W45	4026W46	
40	30	2	26	5.5	4.2	4030W25	4030W26	
40	30	2	26	6.3	4.2	4030W35	4030W36	
40	32	2	26	6.3	4.2	4032W05	4032W06	
40	35	2	26	5.5	4.2	4035W35	4035W36	
40	35	2	26	6.3	4.2	4035W45	4035W46	
40	40	2	26	5.5	4.2	4040W05	4040W06	
40	40	2	26	6.3	4.2	4040W15	4040W16	
45	35	2	26	5.5	4.2	4535W15	4535W16	
45	35	2	26	6.3	4.2	4535W25	4535W26	
50	25	2	26	5.5	4.2	5025W15	5025W16	
50	25	2	26	6.3	4.2	5025W25	5025W26	
50	30	2	26	6.3	4.2	5030W25	5030W26	
50	35	2	26	6.3	4.2	5035W05	5035W06	
50	40	2	26	6.3	4.2	5040W15	5040W16	
51	26	2	26	5.5	4.2	5126W15	5126W16	
60	18	2	26	5.5	4.2	6018W05	6018W06	
60	20	2	26	5.5	4.2	6020W15	6020W16	
60	20	2	44	5.5	4.2	6020W25	6020W26	
60	25	2	26	6.3	4.2	6025W25	6025W26	
60	25	2	26	6.3	4.2	6025W35	6025W36	
60	30	2	26	6.3	4.2	6030W25	6030W26	
60	35	2	26	6.3	4.2	6035W25	6035W26	
60	40	2	44	6	4.2	6040W25	6040W26	
60	40	2	44	6.36	4.2	6040W35	6040W36	
60	40	2	26	6.36	4.2	6040W45	6040W46	
60	40	2	26	6.5	4.2	6040W55	6040W55	

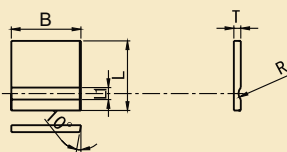
**Blanks for Profiling**



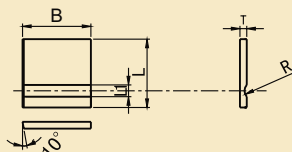
Specification						Ordering No.		
L	W	T	C	h	d	Z K10UF	YG4F	
40	20	3	28	7	4.5	4020W25	4020W26	
40	25	3	28	7	4.5	4025W25	4025W26	
40	30	3	28	7	4.5	4030W45	4030W46	
45	25	3	28	7	4.5	4525W05	4525W06	
45	30	3	28	7	4.5	4530W05	4530W06	
45	35	3	28	7	4.5	4535W35	4535W36	
55	25	3	41	6	4.5	5525W05	5525W06	
55	30	3	41	6	4.5	5530W05	5530W06	
55	35	3	41	6	4.5	5535W05	5535W06	
55	40	3	41	6	4.5	5540W05	5540W06	
65	20	3	28	6	4.5	6520W05	6520W06	
65	25	3	28	6	4.5	6525W05	6525W06	
65	30	3	28	6	4.5	6530W05	6530W06	
65	35	3	28	6	4.5	6535W05	6535W06	
65	40	3	28	6	4.5	6540W05	6540W06	
80	25	3	66	6	4.5	8025W05	8025W06	
80	30	3	66	6	4.5	8030W05	8030W06	
80	35	3	66	6	4.5	8035W05	8035W06	
80	40	3	66	6	4.5	8040W05	8040W06	



Specification					Ordering No.	
L	W	T	R	L1	YG8	
20	20	2	2.54	3.44	2020R02	
20.5	25	2	2.54	3.44	2125R02	
25	20	2	2.54	3.44	2520R02	
25.3	35	2	2.54	3.44	2635R02	



Specification					Ordering No.	
L	W	T	R	L1	YG8	
20	19.31	2	2.54	3.44	2020R12	



规格Specification					订货号Ordering No.	
L	W	T	R	L1	YG8	
20	19.31	2	2.54	3.44	2020R22	

# Woodworking Drill



**Brad Point Boring Bits3**

**57MM Length, 10MM x 27MM Shank**

Do not use in potable drills or routers.

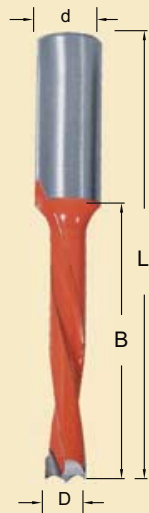


Right Hand

Tool No. Right Hand	Tool No. Left Hand	D	B	d	L
ZS20030R	ZS20030L	3MM	18MM	10MM	57MM
ZS21040R	ZS21040L	4MM	27MM	10MM	57MM
ZS21045R	ZS21045L	4.5MM	27MM	10MM	57MM
ZS21050R	ZS21050L	5MM	27MM	10MM	57MM
ZS21051R	ZS21051L	5.1MM	27MM	10MM	57MM
ZS21052R	ZS21052L	5.2MM	27MM	10MM	57MM
ZS21055R	ZS21055L	5.5MM	27MM	10MM	57MM
ZS21060R	ZS21060L	6MM	27MM	10MM	57MM
ZS21065R	ZS21065L	6.5MM	27MM	10MM	57MM
ZS21067R	ZS21067L	6.7MM	27MM	10MM	57MM
ZS21070R	ZS21070L	7MM	27MM	10MM	57MM
ZS21080R	ZS21080L	8MM	27MM	10MM	57MM
ZS21082R	ZS21082L	8.2MM	27MM	10MM	57MM
ZS21090R	ZS21090L	9MM	27MM	10MM	57MM
ZS21095R	ZS21095L	9.525MM/ 3/8"	27MM	10MM	57MM
ZS21100R	ZS21100L	10MM	27MM	10MM	57MM
ZS21105R	ZS21105L	10.5MM	27MM	10MM	57MM
ZS21110R	ZS21110L	11MM	27MM	10MM	57MM
ZS21120R	ZS21120L	12MM	27MM	10MM	57MM
ZS21127R	ZS21127L	12.7MM	27MM	10MM	57MM
ZS21130R	ZS21130L	13MM	27MM	10MM	57MM
ZS21140R	ZS21140L	14MM	27MM	10MM	57MM
ZS21150R	ZS21150L	15MM	27MM	10MM	57MM

**70MM Length, 10MM x 27MM Shank**

Do not use in potable drills or routers.



Left Hand

Tool No. Right Hand	Tool No. Left Hand	D	B	d	L
ZS00030R	ZS00030L	3MM	18MM	10MM	70MM
ZS02040R	ZS02040L	4MM	38MM	10MM	70MM
ZS02045R	ZS02045L	4.5MM	38MM	10MM	70MM
ZS02050R	ZS02050L	5MM	38MM	10MM	70MM
ZS02051R	ZS02051L	5.1MM	38MM	10MM	70MM
ZS02052R	ZS02052L	5.2MM	38MM	10MM	70MM
ZS02055R	ZS02055L	5.5MM	38MM	10MM	70MM
ZS02060R	ZS02060L	6MM	38MM	10MM	70MM
ZS02065R	ZS02065L	6.5MM	38MM	10MM	70MM
ZS02067R	ZS02067L	6.7MM	38MM	10MM	70MM
ZS02070R	ZS02070L	7MM	38MM	10MM	70MM
ZS02080R	ZS02080L	8MM	38MM	10MM	70MM
ZS02082R	ZS02082L	8.2MM	38MM	10MM	70MM
ZS02090R	ZS02090L	9MM	38MM	10MM	70MM
ZS02095R	ZS02095L	9.525mm/3/8"	38MM	10MM	70MM
ZS02100R	ZS02100L	10MM	38MM	10MM	70MM
ZS02110R	ZS02110L	11MM	38MM	10MM	70MM
ZS02120R	ZS02120L	12MM	38MM	10MM	70MM
ZS02130R	ZS02130L	13MM	38MM	10MM	70MM
ZS02140R	ZS02140L	14MM	38MM	10MM	70MM
ZS02150R	ZS02150L	15MM	38MM	10MM	70MM

**Brad Point Boring Bits**

**57MM Length, 10MM x 20MM Shank**

Do not use in portable drills or routers.

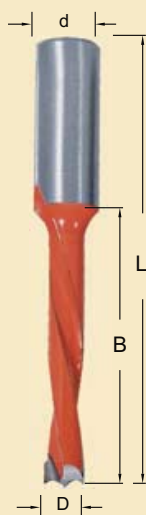


Right Hand

Tool No. Right Hand	Tool No. Left Hand	D	B	d	L
ZS23040R	ZS23040L	4MM	34MM	10MM	57MM
ZS23045R	ZS23045L	4.5MM	34MM	10MM	57MM
ZS23050R	ZS23050L	5MM	34MM	10MM	57MM
ZS23051R	ZS23051L	5.1MM	34MM	10MM	57MM
ZS23052R	ZS23052L	5.2MM	34MM	10MM	57MM
ZS23055R	ZS23055L	5.5MM	34MM	10MM	57MM
ZS23060R	ZS23060L	6MM	34MM	10MM	57MM
ZS23065R	ZS23065L	6.5MM	34MM	10MM	57MM
ZS23067R	ZS23067L	6.7MM	34MM	10MM	57MM
ZS23070R	ZS23070L	7MM	34MM	10MM	57MM
ZS23080R	ZS23080L	8MM	34MM	10MM	57MM
ZS23082R	ZS23082L	8.2MM	34MM	10MM	57MM
ZS23090R	ZS23090L	9MM	34MM	10MM	57MM
ZS23100R	ZS23100L	10MM	34MM	10MM	57MM
ZS23105R	ZS23105L	10.5MM	34MM	10MM	57MM
ZS23110R	ZS23110L	11MM	34MM	10MM	57MM
ZS23120R	ZS23120L	12MM	34MM	10MM	57MM
ZS23140R	ZS23140L	14MM	34MM	10MM	57MM
ZS23150R	ZS23150L	15MM	34MM	10MM	57MM

**70MM Length, 10MM x20MM Shank**

Do not use in portable drills or routers.

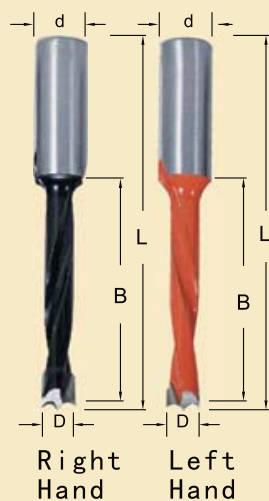


Left Hand

Tool No. Right Hand	Tool No. Left Hand	D	B	d	L
ZS04040R	ZS04040L	4MM	45MM	10MM	70MM
ZS04045R	ZS04045L	4.5MM	45MM	10MM	70MM
ZS04050R	ZS04050L	5MM	45MM	10MM	70MM
ZS04051R	ZS04051L	5.1MM	45MM	10MM	70MM
ZS04052R	ZS04052L	5.2MM	45MM	10MM	70MM
ZS04055R	ZS04055L	5.5MM	45MM	10MM	70MM
ZS04060R	ZS04060L	6MM	45MM	10MM	70MM
ZS04065R	ZS04065L	6.5MM	45MM	10MM	70MM
ZS04067R	ZS04067L	6.7MM	45MM	10MM	70MM
ZS04070R	ZS04070L	7MM	45MM	10MM	70MM
ZS04080R	ZS04080L	8MM	45MM	10MM	70MM
ZS04082R	ZS04082L	8.2MM	45MM	10MM	70MM
ZS04090R	ZS04090L	9MM	45MM	10MM	70MM
ZS04100R	ZS04100L	10MM	45MM	10MM	70MM
ZS04110R	ZS04110L	11MM	45MM	10MM	70MM
ZS04120R	ZS04120L	12MM	45MM	10MM	70MM
ZS04130R	ZS04130L	13MM	45MM	10MM	70MM
ZS04140R	ZS04140L	14MM	45MM	10MM	70MM
ZS04150R	ZS04150L	15MM	45MM	10MM	70MM



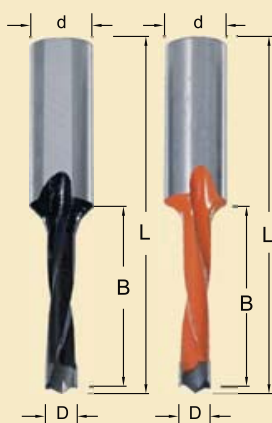
**Brad Point Boring Bits**



**77MM Length, 10MM x 27MM Shank**

Do not use in portable drills or routers.

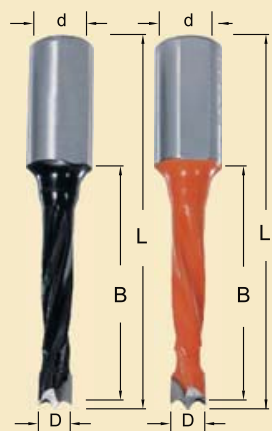
Tool No. Right Hand	Tool No. Left Hand	D	B	d	L
ZS15040R	ZS15040L	4MM	47MM	10MM	77MM
ZS15050R	ZS15050L	5MM	47MM	10MM	77MM
ZS15051R	ZS15051L	5.1MM	47MM	10MM	77MM
ZS15052R	ZS15052L	5.2MM	47MM	10MM	77MM
ZS15060R	ZS15060L	6MM	47MM	10MM	77MM
ZS15070R	ZS15070L	7MM	47MM	10MM	77MM
ZS15080R	ZS15080L	8MM	47MM	10MM	77MM
ZS15082R	ZS15082L	8.2MM	47MM	10MM	77MM
ZS15090R	ZS15090L	9MM	47MM	10MM	77MM
ZS15100R	ZS15100L	10MM	47MM	10MM	77MM
ZS15110R	ZS15110L	11MM	47MM	10MM	77MM
ZS15120R	ZS15120L	12MM	47MM	10MM	77MM



**High Performance Brad Point Boring Bits**

High performance carbide for ultra long lasting applications.

Tool No. Right Hand	Tool No. Left Hand	D	B	d	L
ZS21050R	ZS21050L	5MM	27MM	10MM	57MM
ZS21080R	ZS21080L	8MM	27MM	10MM	57MM
ZS26050R	ZS26050L	5MM	35MM	10MM	70MM
ZS28080R	ZS28080L	8MM	35MM	10MM	70MM



**4-Flute High Performance Brad Point Boring Bits**

10mm x 20mm Shank

High performance carbide for ultra long lasting applications.

Tool No. Right Hand	Tool No. Left Hand	D	B	d	L
ZS43050R	ZS43050L	5MM	34MM	10MM	57MM
ZS43060R	ZS43060L	6MM	34MM	10MM	57MM
ZS43080R	ZS43080L	8MM	34MM	10MM	57MM
ZS43100R	ZS43100L	10MM	34MM	10MM	57MM
ZS44050R	ZS44050L	5MM	45MM	10MM	70MM
ZS44060R	ZS44060L	6MM	45MM	10MM	70MM
ZS44080R	ZS44080L	8MM	45MM	10MM	70MM
ZS44100R	ZS44100L	10MM	45MM	10MM	70MM

**Through-Hole ('V' Point) Boring Bits**



**57MM Length, 10MM x 27MM Shank**

Do not use in portable drills or routers.

Tool No. Right Hand	Tool No. Left Hand	D	B	d	L
ZD27040R	ZD27040L	4MM	23MM	10MM	57MM
ZD27050R	ZD27050L	5MM	23MM	10MM	57MM
ZD27055R	ZD27055L	5.5MM	23MM	10MM	57MM
ZD27060R	ZD27060L	6MM	23MM	10MM	57MM
ZD27070R	ZD27070L	7MM	23MM	10MM	57MM
ZD27075R	ZD27075L	7.5MM	23MM	10MM	57MM
ZD27080R	ZD27080L	8MM	23MM	10MM	57MM
ZD27090R	ZD27090L	9MM	23MM	10MM	57MM
ZD27100R	ZD27100L	10MM	23MM	10MM	57MM
ZD27120R	ZD27120L	12MM	23MM	10MM	57MM
ZD27130R	ZD27130L	13MM	23MM	10MM	57MM
ZD27150R	ZD27150L	15mm	23MM	10MM	57MM

**Right Hand**



**70MM Length, 10MM x 27MM Shank**

Do not use in portable drills or routers.

Tool No. Right Hand	Tool No. Left Hand	D	B	d	L
ZD02040R	ZD02040L	4MM	38MM	10MM	70MM
ZD02050R	ZD02050L	5MM	38MM	10MM	70MM
ZD02055R	ZD02055L	5.5MM	38MM	10MM	70MM
ZD02060R	ZD02060L	6MM	38MM	10MM	70MM
ZD02070R	ZD02070L	7MM	38MM	10MM	70MM
ZD02080R	ZD02080L	8MM	38MM	10MM	70MM
ZD02090R	ZD02090L	9MM	38MM	10MM	70MM
ZD02100R	ZD02100L	10MM	38MM	10MM	70MM
ZD02110R	ZD02110L	11MM	38MM	10MM	70MM
ZD02120R	ZD02120L	12MM	38MM	10MM	70MM
ZD02140R	ZD02140L	14MM	38MM	10MM	70MM
ZD02150R	ZD02150L	15mm	38MM	10MM	70MM

**Left Hand**

**Through-Hole ('V' Point) Boring Bits**



**77MM Length, 10MM x 27MM Shank**

Do not use in portable drills or routers.

Tool No. Right Hand	Tool No. Left Hand	D	B	d	L
ZD18050R	ZD18050L	5MM	43MM	10MM	77MM
ZD18060R	ZD18060L	6MM	43MM	10MM	77MM
ZD18070R	ZD18070L	7MM	43MM	10MM	77MM
ZD18080R	ZD18080L	8MM	43MM	10MM	77MM
ZD18090R	ZD18090L	9MM	43MM	10MM	77MM
ZD18100R	ZD18100L	10MM	43MM	10MM	77MM

Right Hand



**57MM Length, 10MM x 20MM Shank**

Do not use in portable drills or routers.

Tool No. Right Hand	Tool No. Left Hand	D	B	d	L
ZD29040R	ZD29040L	4MM	30MM	10MM	57MM
ZD29050R	ZD29050L	5MM	30MM	10MM	57MM
ZD29060R	ZD29060L	6MM	30MM	10MM	57MM
ZD29070R	ZD29070L	7MM	30MM	10MM	57MM
ZD29080R	ZD29080L	8MM	30MM	10MM	57MM
ZD29090R	ZD29090L	9MM	30MM	10MM	57MM
ZD29100R	ZD29100L	10MM	30MM	10MM	57MM
ZD29150R	ZD29150L	15mm	30MM	10MM	57MM

Left Hand

**70MM Length, 10MM x 20MM Shank**

Do not use in portable drills or routers.

Tool No. Right Hand	Tool No. Left Hand	D	B	d	L
ZD04040R	ZD04040L	4MM	45MM	10MM	70MM
ZD04050R	ZD04050L	5MM	45MM	10MM	70MM
ZD04055R	ZD04055L	5.5MM	45MM	10MM	70MM
ZD04060R	ZD04060L	6MM	45MM	10MM	70MM
ZD04070R	ZD04070L	7MM	45MM	10MM	70MM
ZD04080R	ZD04080L	8MM	45MM	10MM	70MM
ZD04090R	ZD04090L	9MM	45MM	10MM	70MM
ZD04100R	ZD04100L	10MM	45MM	10MM	70MM
ZD04110R	ZD04110L	11MM	45MM	10MM	70MM
ZD04120R	ZD04120L	12MM	45MM	10MM	70MM
ZD04140R	ZD04140L	14MM	45MM	10MM	70MM
ZD04150R	ZD04150L	15mm	45MM	10MM	70MM

### Hinge Boring Bits



Right Hand

#### 57MM Length, 10MM Shank, 2-Wing w/Center Point

Do not use in portable drills or routers.

Tool No. Right Hand	Tool No. Left Hand	D	d	L
ZJ2X150R	ZJ2X150L	15MM	10MM	57MM
ZJ2X160R	ZJ2X160L	16MM	10MM	57MM
ZJ2X180R	ZJ2X180L	18MM	10MM	57MM
ZJ2X200R	ZJ2X200L	20MM	10MM	57MM
ZJ2X220R	ZJ2X220L	22MM	10MM	57MM
ZJ2X250R	ZJ2X250L	25MM	10MM	57MM
ZJ2X260R	ZJ2X260L	26MM	10MM	57MM
ZJ2X280R	ZJ2X280L	28MM	10MM	57MM
ZJ2X300R	ZJ2X300L	30MM	10MM	57MM
ZJ2X320R	ZJ2X320L	32MM	10MM	57MM
ZJ2X330R	ZJ2X330L	35MM	10MM	57MM
ZJ2X380R	ZJ2X380L	38MM	10MM	57MM
ZJ2X400R	ZJ2X400L	40MM	10MM	57MM



Left Hand

#### 70MM Length, 10MM Shank, 2-Wing w/Center Point

Do not use in portable drills or routers.

Tool No. Right Hand	Tool No. Left Hand	D	d	L
ZJ0X130R	ZJ0X130L	13MM	10MM	70MM
ZJ0X140R	ZJ0X140L	14MM	10MM	70MM
ZJ0X150R	ZJ0X150L	15MM	10MM	70MM
ZJ0X160R	ZJ0X160L	16MM	10MM	70MM
ZJ0X200R	ZJ0X200L	20MM	10MM	70MM
ZJ0X250R	ZJ0X250L	25MM	10MM	70MM
ZJ0X260R	ZJ0X260L	26MM	10MM	70MM
ZJ0X300R	ZJ0X300L	30MM	10MM	70MM
ZJ0X350R	ZJ0X350L	35MM	10MM	70MM
ZJ0X400R	ZJ0X400L	40MM	10MM	70MM

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