

Short Series

S	Order No	Code	d1h9	d2h6	d3	l1	l2	l3	Corner	Weldon Order No
*	21136	121.4.0300.0500.C0015.0050.0290.0080.00.S06B1A01.01	3	6	2,9	50	5	8	Ch 0.15	21137
*	21138	121.4.0400.0500.C0015.0060.0390.0080.00.S06B1A01.01	4	6	3,9	50	6	8	Ch 0.15	21139
*	21140	121.4.0500.0540.C0020.0090.0490.0140.00.S06B1A01.01	5	6	4,9	54	9	14	Ch 0.20	21141
*	21142	121.4.0600.0540.C0020.0100.0000.0000.00.S06B1A01.01	6	6	-	54	10	-	Ch 0.20	21143
*	21144	121.4.0800.0580.C0020.0120.0000.0000.00.S08B1A01.01	8	8	-	58	12	-	Ch 0.20	21145
*	21146	121.4.1000.0660.C0020.0140.0000.0000.00.S10B1A01.01	10	10	-	66	14	-	Ch 0.20	21147
*	21148	121.4.1200.0730.C0020.0160.0000.0000.00.S12B1A01.01	12	12	-	73	16	-	Ch 0.20	21149
*	21150	121.4.1600.0820.C0040.0230.0000.0000.00.S16B1A01.01	16	16	-	82	23	-	Ch 0.40	21151
*	21152	121.4.2000.0920.C0050.0260.0000.0000.00.S20B1A01.01	20	20	-	92	26	-	Ch 0.50	21153

Long Series

S	Order No	Code	d1h9	d2h6	d3	l1	l2	l3	Corner	Weldon Order No
*	21100	121.4.0300.0580.C0015.0090.0290.0120.00.S06B1A01.01	3	6	2,9	58	9	12	Ch 0.15	21101
*	21102	121.4.0400.0580.C0015.0120.0390.0150.00.S06B1A01.01	4	6	3,9	58	12	15	Ch 0.15	21103
*	21104	121.4.0500.0580.C0020.0150.0490.0180.00.S06B1A01.01	5	6	4,9	58	15	18	Ch 0.20	21105
*	21106	121.4.0600.0580.C0020.0160.0000.0000.00.S06B1A01.01	6	6	-	58	16	-	Ch 0.20	21107
*	21108	121.4.0600.0580.C0020.0160.0590.0217.00.S06B1A01.01	6	6	5,9	58	16	21,7	Ch 0.20	21109
*	21110	121.4.1000.0730.C0020.0220.0000.0000.00.S10B1A01.01	7	8	-	64	19	-	Ch 0.20	21111
*	21112	121.4.0800.0640.C0020.0200.0000.0000.00.S08B1A01.01	8	8	-	64	20	-	Ch 0.20	21113
*	21114	121.4.0800.0640.C0020.0200.0780.0250.00.S08B1A01.01	8	8	7,8	64	20	25	Ch 0.20	21115
*	21116	121.4.0900.0730.C0020.0220.0000.0000.00.S10B1A01.01	9	10	-	73	22	-	Ch 0.20	21117
*	21118	121.4.1000.0730.C0020.0220.0000.0000.00.S10B1A01.01	10	10	-	73	22	-	Ch 0.20	21119
*	21120	121.4.1000.0730.C0020.0220.0980.0310.00.S10B1A01.01	10	10	9,8	73	22	31	Ch 0.20	21121
*	21122	121.4.1200.0820.C0020.0280.0000.0000.00.S12B1A01.01	12	12	-	82	28	0	Ch 0.20	21123
*	21124	121.4.1200.0820.C0020.0280.1170.0370.00.S12B1A01.01	12	12	11,7	82	28	37	Ch 0.20	21125
*	21126	121.4.1600.0930.C0020.0360.0000.0000.00.S16B1A01.01	16	16	-	93	36	-	Ch 0.20	21127
*	21128	121.4.1600.0930.C0020.0360.1580.0470.00.S16B1A01.01	16	16	15,8	93	36	47	Ch 0.20	21129
*	21130	121.4.2000.1050.C0050.0380.0000.0000.00.S20B1A01.01	20	20	-	105	38	-	Ch 0.50	21131
*	21132	121.4.2000.1050.C0050.0380.1950.0540.00.S20B1A01.01	20	20	19,5	105	38	54	Ch 0.50	21133

Slot Series (Tisin Coating)

S	Order No	Code	d1h9	d2h6	d3	l1	l2	l3	Corner	Weldon Order No
*	21154	121.4.0300.0500.C0015.0050.0290.0080.00.S06B1C04.01	3	6	2,9	50	5	8	Ch 0.15	21155
*	21156	121.4.0400.0500.C0015.0060.0390.0080.00.S06B1C04.01	4	6	3,9	50	6	8	Ch 0.15	21157
*	21158	121.4.0500.0540.C0020.0090.0490.0140.00.S06B1C04.01	5	6	4,9	54	9	14	Ch 0.20	21159
*	21160	121.4.0600.0540.C0020.0100.0000.0000.00.S06B1C04.01	6	6	-	54	10	-	Ch 0.20	21161
*	21162	121.4.0800.0580.C0020.0120.0000.0000.00.S08B1C04.01	8	8	-	58	12	-	Ch 0.20	21163
*	21164	121.4.1000.0660.C0020.0140.0000.0000.00.S10B1C04.01	10	10	-	66	14	-	Ch 0.20	21165
*	21166	121.4.1200.0730.C0020.0160.0000.0000.00.S12B1C04.01	12	12	-	73	16	-	Ch 0.20	21167
*	21134	121.4.1200.0820.C0020.0280.0000.0000.00.S12B1A01.02	12	12	-	82	28	-	Ch 0.20	21135
*	21168	121.4.1600.0820.C0040.0230.0000.0000.00.S16B1C04.01	16	16	-	82	23	-	Ch 0.40	21169
*	21170	121.4.2000.0920.C0050.0260.0000.0000.00.S20B1C04.01	20	20	-	92	26	-	Ch 0.50	21171

Cutting Parameters

Material	Slotting ap=15-110 Vc (m/min)	Slotting ap=10-050 Vc (m/min)	Shoulder Milling ap=150/ae=0.35-0.200 Vc (m/min)	Finish Milling ap=150/ae=0.20-0.000 Vc (m/min)
Unalloyed Steel	130-170	170-200	200-230	230-280
Steel	120-160	160-190	190-220	220-260
Tempered Steel	80-110	100-130	130-160	160-200
Cold Work Tool Steel	80-100	90-120	110-140	130-150
Hot Work Tool Steel	70-100	80-110	100-130	120-140
Gray Cast Iron	90-130	130-180	180-220	220-260
Alloyed Cast Iron	90-130	130-180	180-220	220-260
Precision Cast Iron	80-120	120-160	160-195	180-220

Feed Per Tooth (mm/tooth)

	0	ap=150	ap=10	ap=0.500	ae=0.350	ae=0.300	ae=0.250	ae=0.200	ae=0.150	ae=0.100
3	0.004	0.006	0.008	0.010	0.012	0.016	0.020	0.030	0.0420	
4	0.007	0.009	0.013	0.016	0.020	0.025	0.030	0.038	0.0490	
5	0.010	0.013	0.017	0.020	0.025	0.031	0.036	0.046	0.0580	
6	0.014	0.018	0.022	0.026	0.030	0.037	0.044	0.050	0.0620	
8	0.020	0.025	0.029	0.034	0.040	0.048	0.056	0.064	0.0730	
10	0.026	0.030	0.038	0.042	0.050	0.059	0.067	0.076	0.0880	
12	0.035	0.042	0.053	0.060	0.070	0.080	0.092	0.102	0.1150	
16	0.042	0.060	0.082	0.100	0.110	0.120	0.130	0.138	0.1500	

Slot Series (Tisin Coating)

Material	100-130	120-160	150-180	170-220
Unalloyed Steel	100-130	120-150	150-180	170-220
Steel	90-120	110-150	130-170	150-200
Tempered Steel	80-110	100-140	120-150	140-180
Cold Work Tool Steel	80-110	100-140	120-150	140-180
Hot Work Tool Steel	70-100	80-110	100-130	120-140
AISI 304 - 416 - 420		50-70	70-90	80-100
AISI 316 - 440		45-70	55-80	60-90
17-4 PH 15-5 PH		45-70	55-80	60-90
Cobalt-Chrome Alloys		30-50	35-55	40-70
Duplex F51		60-80	65-85	70-90
Super Duplex F55		60-80	65-85	70-90
HRS A Hastelloy	35-60	30-50	40-60	50-70
HRS A Inconel 625	35-60	30-50	40-60	50-70
HRS A Inconel 718	35-60	30-50	40-60	50-70
HRS A Nimonic	35-60	30-50	40-60	50-70
Titanium	50-70	60-80	70-90	80-90
Titanium Alloys	50-70	60-80	70-90	80-90
< 54 HRC		50-70	55-75	60-85

ULTRABITE

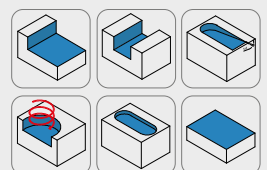
121

High Performance

Ultra-Bite

121

Z4



Steel	●
Stainless Steel	●
Hardened Steel ≤54 HRC	○
Hardened Steel >54 HRC	○
Cast Iron	●
Graphite	○
Non Ferrous Material	○
HRS A	○
Titanium	○

● Recommended ● Acceptable ○ Not Recommended

*Marked products can be delivered quickly from stock.