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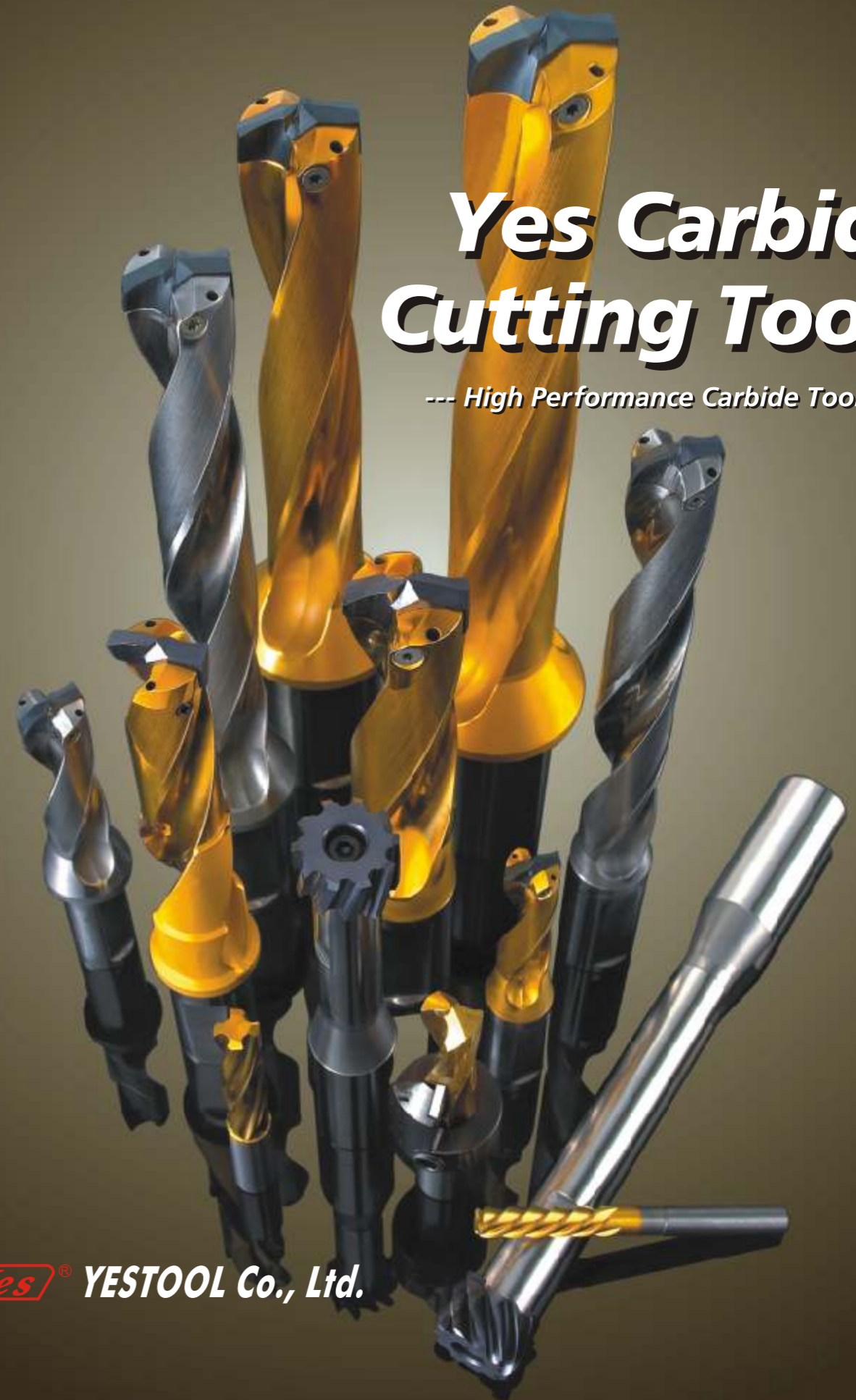
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2012/01

# Yes Carbide Cutting Tools

--- High Performance Carbide Tools Line



### YESTOOL's worldwide network



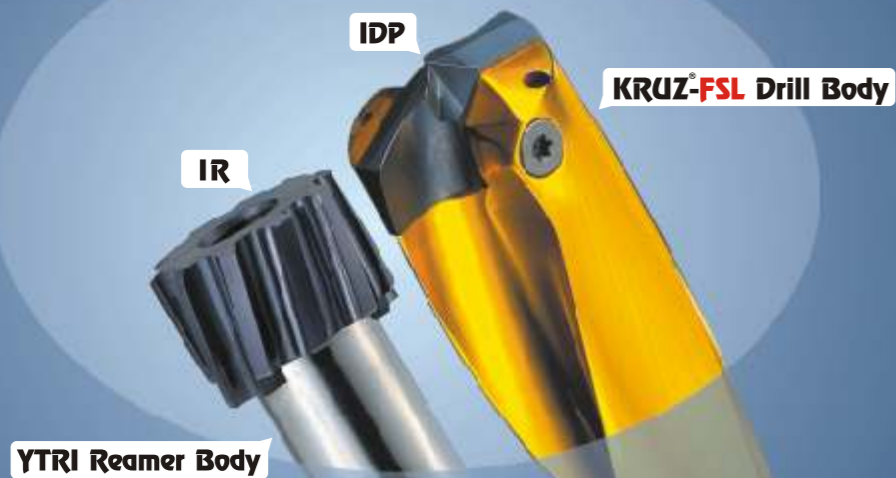
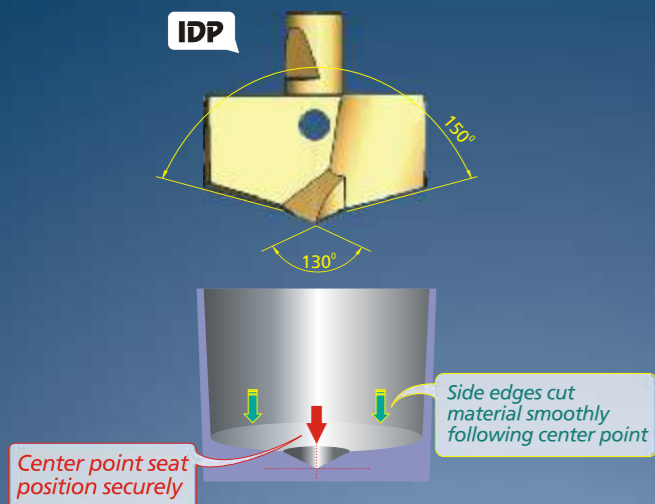
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**Yes**® YESTOOL Co., Ltd.

Design by Printing KTS



Your Metal Cutting  
**Solution by**  
**Yes**® Carbide Cutting Tools



# KRUZ-SL, YTDI-SL body & Carbide insert

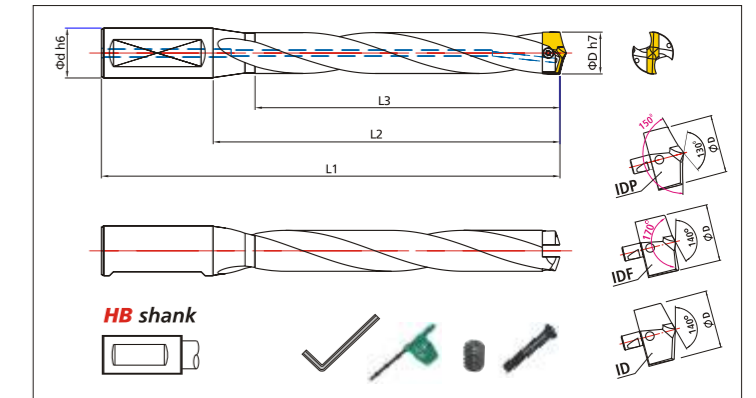


**Insert selection**

- IDP** Deep hole & general purpose
- IDF** Thin plate & shallow depth
- ID** General purpose

Set Screw, Cap Screw, Cross clamping hole, KRUZ-SL body, YTDI-SL body

- ▶ Strong Locking system to support carbide insert
- ▶ Interchangeable <IDP>, <IDF>, <ID> carbide drill inserts
- ▶ Drill body consists of premium tool steel with heat treatment
- ▶ Increased cutting speed & feed
- ▶ Internal coolant fed design



Please make required cutting depth in the □ like T, P, H, L

Hole size range	Body Code No.	Shank Size(ΦD)	Cutting depth (Length x ΦD)	L1	L2	L3	Insert Code No. to fit in body	Cap Screw	Torx driver	Set Screw	L-wrench
Φ8.0 ~Φ8.4	YTDI 080□SL	10.0 (HA)	T(3xD)	85	40	26	IDP 080, IDP 081, IDP 082, IDP 083, IDP 084	CS 080 - 095 SL	T6 Torque 0.6Nm (Max)	None	None
	KRUZ 080□SL		P(5xD)	100	55	43	IDF 080, IDF 081, IDF 082, IDF 083, IDF 084				
			H(7xD)	117	72	60	ID 080, ID 081, ID 082, ID 083, ID 084				
Φ8.5 ~Φ8.9	YTDI 085□SL		T(3xD)	85	40	26	IDP 085, IDP 086, IDP 087, IDP 088, IDP 089				
	KRUZ 085□SL		P(5xD)	100	55	46	IDF 085, IDF 086, IDF 087, IDF 088, IDF 089				
			H(7xD)	122	77	60	ID 085, ID 086, ID 087, ID 088, ID 089				
Φ9.0 ~Φ9.4	YTDI 090□SL		T(3xD)	85	40	33	IDP 090, IDP 091, IDP 092, IDP 093, IDP 094				
	KRUZ 090□SL		P(5xD)	105	60	48	IDF 090, IDF 091, IDF 092, IDF 093, IDF 094				
			H(7xD)	126	81	68	ID 090, ID 091, ID 092, ID 093, ID 094				
Φ9.5 ~Φ9.9	YTDI 095□SL	T(3xD)	95	47	33	IDP 095, IDP 096, IDP 097, IDP 098, IDP 099					
	KRUZ 095□SL	P(5xD)	115	67	58	IDF 095, IDF 096, IDF 097, IDF 098, IDF 099					
		H(7xD)	140	92	78	ID 095, ID 096, ID 097, ID 098, ID 099					
Φ10.0 ~Φ10.4	YTDI 100□SL	T(3xD)	95	47	33	IDP 100, IDP 101, IDP 102, IDP 103, IDP 104	CS100 -115 SL	T6 Torque 0.6Nm (Max)	None	None	
	KRUZ 100□SL	P(5xD)	115	67	58	IDF 100, IDF 101, IDF 102, IDF 103, IDF 104					
		H(7xD)	140	92	78	ID 100, ID 101, ID 102, ID 103, ID 104					
Φ10.5 ~Φ10.9	YTDI 105□SL	T(3xD)	100	52	43	IDP 105, IDP 106, IDP 107, IDP 108, IDP 109					
	KRUZ 105□SL	P(5xD)	125	77	68	IDF 105, IDF 106, IDF 107, IDF 108, IDF 109					
		H(7xD)	150	102	88	ID 105, ID106, ID107, ID108, ID109					
Φ11.0 ~Φ11.4	YTDI 110□SL KRUZ 110□SL	T(3xD)	100	52	43	IDP 110, IDP 111, IDP 112, IDP 113, IDP 114 IDF 110, IDF 111, IDF 112, IDF 113, IDF 114 ID 110, ID 111, ID 112, ID 113, ID 114					
		P(5xD)	125	77	68						
		H(7xD)	150	102	88						
		L(10xD)	178	130	121						
Φ11.5 ~Φ11.9	YTDI 115□SL KRUZ 115□SL	T(3xD)	105	57	48	IDP 115, IDP 116, IDP 117, IDP 118, IDP 119 IDF 115, IDF 116, IDF 117, IDF 118, IDF 119 ID 115, ID 116, ID 117, ID 118, ID 119					
		P(5xD)	130	82	73						
		H(7xD)	160	112	98						
		L(10xD)	185	137	127						
Φ12.0 ~Φ12.4	YTDI 120□SL KRUZ 120□SL	T(3xD)	105	57	48	IDP 120, IDP 121, IDP 122, IDP 123, IDP 124 IDF 120, IDF 121, IDF 122, IDF 123, IDF 124 ID 120, ID 121, ID 122, ID 123, ID 124					
		P(5xD)	130	82	73						
		H(7xD)	160	112	98						
		L(10xD)	190	142	132						

Hole size range	Body Code No.	Shank Size(ΦD)	Cutting depth (Length x ΦD)	L1	L2	L3	Insert Code No. to fit in body	Cap Screw	Torx driver	Set Screw	L-wrench
Φ12.5 ~Φ12.9	YTDI 125□SL	16.0	T(3xD)	110	62	48	IDP 125, IDP 126, IDP 127, IDP 128, IDP 129 IDF 125, IDF 126, IDF 127, IDF 128, IDF 129 ID 125-, ID 126, ID 127, ID 128, ID 129	CS 120 -135 SL	T6 Torque 0.6Nm (Max)	M2x4	0.9mm
	P(5xD)		140	92	77						
	H(7xD)		175	127	102						
	L(10xD)		196	148	138						
Φ13.0 ~Φ13.4	YTDI 130□SL	16.0	T(3xD)	110	62	48	IDP 130, IDP 131, IDP 132, IDP 133, IDP 134 IDF 130, IDF 131, IDF 132, IDF 133, IDF 134 ID 130, ID 131, ID 132, ID 133, ID 134	CS 120 -135 SL	T6 Torque 0.6Nm (Max)	M2x4	0.9mm
	P(5xD)		140	92	77						
	H(7xD)		175	127	102						
	L(10xD)		202	154	143						
Φ13.5 ~Φ13.9	YTDI 135□SL	16.0	T(3xD)	115	67	52	IDP 135, IDP 136, IDP 137, IDP 138, IDP 139 IDF 135, IDF 136, IDF 137, IDF 138, IDF 139 ID 135, ID 136, ID 137, ID 138, ID 139	CS 120 -135 SL	T6 Torque 0.6Nm (Max)	M2x4	0.9mm
	P(5xD)		145	97	82						
	H(7xD)		180	132	107						
	L(10xD)		208	160	149						
Φ14.0 ~Φ14.4	YTDI 140□SL	16.0	T(3xD)	115	67	52	IDP 140, IDP 141, IDP 142, IDP 143, IDP 144 IDF 140, IDF 141, IDF 142, IDF 143, IDF 144 ID 140, ID 141, ID 142, ID 143, ID 144	CS 120 -135 SL	T6 Torque 0.6Nm (Max)	M2x4	0.9mm
	P(5xD)		145	97	82						
	H(7xD)		180	132	107						
	L(10xD)		214	166	154						
Φ14.5 ~Φ14.9	YTDI 145□SL	20.0	T(3xD)	125	75	55	IDP 145, IDP 146, IDP 147, IDP 148, IDP 149 IDF 145, IDF 146, IDF 147, IDF 148, IDF 149 ID 145, ID 146, ID 147, ID 148, ID 149	CS 140 -155 SL	T7 Torque 0.9Nm (Max)	M2.5x4	1.3mm
	P(5xD)		148	98	85						
	H(7xD)		185	135	117						
	L(10xD)		222	172	160						
Φ15.0 ~Φ15.4	YTDI 150□SL	20.0	T(3xD)	125	75	55	IDP 150, IDP 151, IDP 152, IDP 153, IDP 154 IDF 150, IDF 151, IDF 152, IDF 153, IDF 154 ID 150, ID 151, ID 152, ID 153, ID 154	CS 140 -155 SL	T7 Torque 0.9Nm (Max)	M2.5x4	1.3mm
	P(5xD)		158	108	95						
	H(7xD)		185	135	117						
	L(10xD)		227	177	165						
Φ15.5 ~Φ15.9	YTDI 155□SL	20.0	T(3xD)	125	75	55	IDP 155, IDP 156, IDP 157, IDP 158, IDP 159 IDF 155, IDF 156, IDF 157, IDF 158, IDF 159 ID 155, ID 156, ID 157, ID 158, ID 159	CS 140 -155 SL	T7 Torque 0.9Nm (Max)	M2.5x4	1.3mm
	P(5xD)		158	108	95						
	H(7xD)		185	135	117						
	L(10xD)		234	184	171						
Φ16.0 ~Φ16.4	YTDI 160□SL	20.0	T(3xD)	130	80	55	IDP 160, IDP 161, IDP 162, IDP 163, IDP 164 IDF 160, IDF 161, IDF 162, IDF 163, IDF 164 ID 160, ID 161, ID 162, ID 163, ID 164	CS 160 -175 SL	T7 Torque 0.9Nm (Max)	M2.5x4	1.3mm
	P(5xD)		160	110	97						
	H(7xD)		190	140	123						
	L(10xD)		239	189	176						
Φ16.5 ~Φ16.9	YTDI 165□SL	20.0	T(3xD)	130	80	55	IDP 165, IDP 166, IDP 167, IDP 168, IDP 169 IDF 165, IDF 166, IDF 167, IDF 168, IDF 169 ID 165, ID 166, ID 167, ID 168, ID 169	CS 160 -175 SL	T7 Torque 0.9Nm (Max)	M2.5x4	1.3mm
	P(5xD)		160	110	97						
	H(7xD)		190	140	123						
	L(10xD)		246	196	182						
Φ17.0 ~Φ17.4	YTDI 170□SL	20.0	T(3xD)	130	80	55	IDP 170, IDP 171, IDP 172, IDP 173, IDP 174 IDF 170, IDF 171, IDF 172, IDF 173, IDF 174 ID 170, ID 171, ID 172, ID 173, ID 174	CS 160 -175 SL	T7 Torque 0.9Nm (Max)	M2.5x4	1.3mm
	P(5xD)		160	110	99						
	H(7xD)		200	150	128						
	L(10xD)		251	201	187						
Φ17.5 ~Φ17.9	YTDI 175□SL	20.0	T(3xD)	130	80	55	IDP 175, IDP 176, IDP 177, IDP 178, IDP 179 IDF 175, IDF 176, IDF 177, IDF 178, IDF 179 ID 175, ID 176, ID 177, ID 178, ID 179	CS 160 -175 SL	T7 Torque 0.9Nm (Max)	M2.5x4	1.3mm
	P(5xD)		160	110	99						
	H(7xD)		200	150	128						
	L(10xD)		257	207	193						
Φ18.0 ~Φ18.4	YTDI 180□SL	25.0	T(3xD)	140	90	63	IDP 180, IDP 181, IDP 182, IDP 183, IDP 184 IDF 180, IDF 181, IDF 182, IDF 183, IDF 184 ID 180, ID 181, ID 182, ID 183, ID 184	CS 180 -195 SL	T8 Torque 1.5Nm (Max)	M3x6	1.5mm
	P(5xD)		170	120	100						
	H(7xD)		210	160	138						
	L(10xD)		263	213	198						
Φ18.5 ~Φ18.9	YTDI 185□SL	25.0	T(3xD)	140	90	63	IDP 185, IDP 186, IDP 187, IDP 188, IDP 189 IDF 185, IDF 186, IDF 187, IDF 188, IDF 189 ID 185, ID 186, ID 187, ID 188, ID 189	CS 180 -195 SL	T8 Torque 1.5Nm (Max)	M3x6	1.5mm
	P(5xD)		170	120	100						
	H(7xD)		210	160	138						
	L(10xD)		269	219	204						
Φ19.0 ~Φ19.4	YTDI 190□SL	25.0	T(3xD)	140	90	63	IDP 190, IDP 191, IDP 192, IDP 193, IDP 194 IDF 190, IDF 191, IDF 192, IDF 193, IDF 194 ID 190, ID 191, ID 192, ID 193, ID 194	CS 180 -195 SL	T8 Torque 1.5Nm (Max)	M3x6	1.5mm
	P(5xD)		170	120	100						
	H(7xD)		210	160	138						
	L(10xD)		275	225	209						
Φ19.5 ~Φ19.9	YTDI 195□SL	25.0	T(3xD)	140	90	63	IDP 195, IDP 196, IDP 197, IDP 198, IDP 199 IDF 195, IDF 196, IDF 197, IDF 198, IDF 199 ID 195, ID 196, ID 197, ID 198, ID 199	CS 180 -195 SL	T8 Torque 1.5Nm (Max)	M3x6	1.5mm
	P(5xD)		170	120	100						
	H(7xD)		210	160	138						
	L(10xD)		281	231	215						
Φ20.0 ~Φ20.4	YTDI 200□SL	25.0	T(3xD)	150	94	69	IDP 200, IDP 201, IDP 202, IDP 203, IDP 204 IDF 200, IDF 201, IDF 202, IDF 203, IDF 204 ID 200, ID 201, ID 202, ID 203, ID 204	CS 200 -215 SL	M3x6	1.5mm	
	P(5xD)		190	134	110						
	H(7xD)		230	174	153						
	L(10xD)		292	236	220						

Hole size range	Body Code No.	Shank Size(ΦD)	Cutting depth (Length x ΦD)	L1	L2	L3	Insert Code No. to fit in body	Cap Screw	Torx driver	Set Screw	L-wrench
Φ20.5 ~Φ20.9	YTDI 205□SL	25.0	T(3xD)	150	94	69	IDP 205, IDP 206, IDP 207, IDP 208, IDP 209 IDF 205, IDF 206, IDF 207, IDF 208, IDF 209 ID 205, ID 206, ID 207, ID 208, ID 209	CS 200 -215 SL	T8 Torque 1.5Nm (Max)	M3x6	1.5mm
	P(5xD)		190	134	110						
	H(7xD)		230	174	153						
	L(10xD)		299	243	226						
Φ21.0 ~Φ21.4	YTDI 210□SL	25.0	T(3xD)	150	94	69	IDP 210, IDP 211, IDP 212, IDP 213, IDP 214 IDF 210, IDF 211, IDF 212, IDF 213, IDF 214 ID 210, ID 211, ID 212, ID 213, ID 214	CS 200 -215 SL	T8 Torque 1.5Nm (Max)	M3x6	1.5mm
	P(5xD)		190	134	110						
	H(7xD)		230	174	153						
	L(10xD)		304	248	231						
Φ21.5 ~Φ21.9	YTDI 215□SL	25.0	T(3xD)	150	94	69	IDP 215, IDP 216, IDP 217, IDP 218, IDP 219 IDF 215, IDF 216, IDF 217, IDF 218, IDF 219 ID 215, ID 216, ID 217, ID 218, ID 219	CS 200 -215 SL	T8 Torque 1.5Nm (Max)	M3x6	1.5mm
	P(5xD)		190	134	110						
	H(7xD)		230	174	153						
	L(10xD)		311	255	237						
Φ22.0 ~Φ22.4	YTDI 220□SL	25.0	T(3xD)	160	104	75	IDP 220, IDP 221, IDP 222, IDP 223, IDP 224 IDF 220, IDF 221, IDF 222, IDF 223, IDF 224 ID 220, ID 221, ID 222, ID 223, ID 224	CS 220 -235 SL	T8 Torque 1.5Nm (Max)	M3x6	1.5mm
	P(5xD)		200	144	121						
	H(7xD)		240	184	168						
	L(10xD)		316	260	242						
Φ22.5 ~Φ22.9	YTDI 225□SL	25.0	T(3xD)	160	104	75	IDP 225, IDP 226, IDP 227, IDP 228, IDP 229 IDF 225, IDF 226, IDF 227, IDF 228, IDF 229 ID 225, ID 226, ID 227L, ID 228L, ID 229	CS 220 -235 SL	T8 Torque 1.5Nm (Max)	M3x6	1.5mm
	P(5xD)		200	144	121						
	H(7xD)		240	184	168						
	L(10xD)		322	266	248						
Φ23.0 ~Φ23.4	YTDI 230□SL	25.0	T(3xD)	160	104	75	IDP 230, IDP 231, IDP 232, IDP 233, IDP 234 IDF 230, IDF 231, IDF 232, IDF 233, IDF 234 ID 230, ID 231, ID 232, ID 233, ID 234	CS 240 -255 SL	T8 Torque 1.5Nm (Max)	M3x6	1.5mm
	P(5xD)		200	144	121						
	H(7xD)		240	184	168						
	L(10xD)		328	272	253						
Φ23.5 ~Φ23.9	YTDI 235□SL	25.0	T(3xD)	160	104	75	IDP 235, IDP 236, IDP 237, IDP 238, IDP 239 IDF 235, IDF 236, IDF 237, IDF 238, IDF 239 ID 235, ID 236, ID 237, ID 238, ID 239	CS 240 -255 SL	T8 Torque 1.5Nm (Max)	M3x6	1.5mm
	P(5xD)		200	144	121						
	H(7xD)		250	194	178						
	L(10xD)		334	278	259						
Φ24.0 ~Φ24.4	YTDI 240□SL	32.0	T(3xD)	170	110	83	IDP 240, IDP 241, IDP 242, IDP 243, IDP244 IDF 240, IDF 241, IDF 242, IDF 243, IDF244 ID 240, ID 241, ID 242, ID 243, ID 244	CS 240 -255 SL	T15 Torque 3.5Nm (Max)	M4x8	2.0mm
	P(5xD)		220	160	133						
	H(7xD)		270	210	183						
	L(10xD)		344	284	264						
Φ24.5 ~Φ24.9	YTDI 245□SL	32.0	T(3xD)	170	110	83	IDP 245, IDP 246, IDP 247, IDP 248, IDP 249 IDF 245, IDF 246, IDF 247, IDF 248, IDF 249 ID 245, ID 246, ID 247, ID 248, ID 249	CS 240 -255 SL	T15 Torque 3.5Nm (Max)	M4x8	2.0mm
	P(5xD)		220	160	133						
	H(7xD)		270	210	183						
	L(10xD)		350	290	270						
Φ25.0 ~Φ25.4	YTDI 250□SL	32.0	T(3xD)	170	110	83	IDP 250, IDP 251, IDP 252, IDP 253, IDP 254 IDF 250, IDF 251, IDF 252, IDF 253, IDF 254 ID 250, ID 251, ID 252, ID 253L, ID 254	CS 240 -255 SL	T15 Torque 3.5Nm (Max)	M4x8	2.0mm
	P(5xD)		220	160	133						
	H(7xD)		270	210	183						
	L(10xD)		355	295	275						
Φ25.5 ~Φ25.9	YTDI 255□SL	32.0	T(3xD)	170	110	83	IDP 255, IDP 256, IDP 257, IDP 258, IDP 259 IDF 255, IDF 256, IDF 257, IDF 258, IDF 259 ID 255, ID 256, ID 257, ID 258, ID 259	CS 260 -275 SL	T15 Torque 3.5Nm (Max)	M4x8	2.0mm
	P(5xD)		220	160	133						
	H(7xD)		270	210	183						
	L(10xD)		362	302	281						
Φ26.0 ~Φ26.4	YTDI 260□SL	32.0	T(3xD)	180	120	90	IDP 260, IDP 261, IDP 262, IDP 263, IDP 264 IDF 260, IDF 261, IDF 262, IDF 263, IDF 264 ID 260, ID 261, ID 262, ID 263, ID 264	CS 260 -275 SL	T15 Torque 3.5Nm (Max)	M4x8	2.0mm
	P(5xD)		240	180	144						
	H(7xD)		290	230	198						
	L(10xD)		367	307	286						
Φ26.5 ~Φ26.9	YTDI 265□SL	32.0	T(3xD)	180	120	90	IDP 265, IDP 266, IDP 267, IDP 268, IDP 269 IDF 265, IDF 266, IDF 267, IDF 268, IDF 269 ID 265, ID 266, ID 267, ID 268, ID 269	CS 260 -275 SL	T15 Torque 3.5Nm (Max)	M4x8	2.0mm
	P(5xD)		240	180	144						
	H(7xD)		290	230	198						
	L(10xD)		374	314	292						
Φ27.0 ~Φ27.4	YTDI 270□SL	32.0	T(3xD)	180	120	90	IDP 270, IDP 271, IDP 272, IDP 273, IDP 274 IDF 270, IDF 271, IDF 272, IDF 273, IDF 274 ID 270, ID 271, ID 272, ID 273, ID 274	CS 260 -275 SL	T15 Torque 3.5Nm (Max)	M4x8	2.0mm
	P(5xD)		240	180	144						
	H(7xD)		290	230	198						
	L(10xD)		379	319	297						
Φ27.5 ~Φ27.9	YTDI 2										



Hole size range	Body Code No.	Shank Size(ΦD)	Cutting depth (Length x ΦD)	L1	L2	L3	Insert Code No. to fit in body	Cap Screw	Torx driver	Set Screw	L-wrench
Φ28.5 ~Φ28.9	YTDI 285□SL	32.0	T(3xD)	190	130	97	IDP 285, IDP 286, IDP 287, IDP 288, IDP 289	CS 280 -295 SL	T15 Torque 3.5Nm (Max)	M4x8	2.0mm
	KRUZ 285□SL		P(5xD)	250	190	155	IDF 285, IDF 286, IDF 287, IDF 288, IDF 289				
			H(7xD)	300	240	213	ID 285, ID 286, ID 287, ID 288, ID 289				
			L(10xD)	397	337	314					
Φ29.0 ~Φ29.4	YTDI 290□SL		T(3xD)	190	130	97	IDP 290, IDP 291, IDP 292, IDP 293, IDP 294				
	KRUZ 290□SL		P(5xD)	250	190	155	IDF 290, IDF 291, IDF 292, IDF 293, IDF 294				
			H(7xD)	300	240	213	ID 290, ID 291, ID 292, ID 293, ID 294				
			L(10xD)	403	343	319					
Φ29.5 ~Φ29.9	YTDI 295□SL		T(3xD)	190	130	97	IDP 295, IDP 296, IDP 297, IDP 298, IDP 299				
	KRUZ 295□SL		P(5xD)	250	190	155	IDF 295, IDF 296, IDF 297, IDF 298, IDF 299				
			H(7xD)	300	240	213	ID 295, ID 296, ID 297, ID 298, ID 299				
			L(10xD)	409	349	325					
Φ30.0 ~Φ30.4	YTDI 300□SL	T(3xD)	200	140	105	IDP 300, IDP 301, IDP 302, IDP 303, IDP 304					
	KRUZ 300□SL	P(5xD)	260	200	165	IDF 300, IDF 301, IDF 302, IDF 303, IDF 304					
		H(7xD)	320	260	228	ID 300, ID 301, ID 302, ID 303, ID 304					
		L(10xD)	414	354	330						
Φ30.5 ~Φ30.9	YTDI 305□SL	T(3xD)	200	140	105	IDP 305, IDP 306, IDP 307, IDP 308, IDP 309					
	KRUZ 305□SL	P(5xD)	260	200	165	IDF 305, IDF 306, IDF 307, IDF 308, IDF 309					
		H(7xD)	320	260	228	ID 305, ID 306, ID 307, ID 308, ID 309					
		L(10xD)	421	361	336						
Φ31.0 ~Φ31.4	YTDI 310□SL	T(3xD)	200	140	105	IDP 310, IDP 311, IDP 312, IDP 313, IDP 314					
	KRUZ 310□SL	P(5xD)	260	200	165	IDF 310, IDF 311, IDF 312, IDF 313, IDF 314					
		H(7xD)	320	260	228	ID 310, ID 311, ID 312, ID 313, ID 314					
		L(10xD)	426	366	341						
Φ31.5 ~Φ31.9	YTDI 315□SL	T(3xD)	200	140	105	IDP 315, IDP 316, IDP 317, IDP 318, IDP 319					
	KRUZ 315□SL	P(5xD)	260	200	165	IDF 315, IDF 316, IDF 317, IDF 318, IDF 319					
		H(7xD)	320	260	228	ID 315, ID 316, ID 317, ID 318, ID 319					
		L(10xD)	433	373	347						
Φ32.0 ~Φ32.4	YTDI 320□SL	T(3xD)	210	150	110	IDP 320, IDP 321, IDP 322, IDP 323, IDP 324					
	KRUZ 320□SL	P(5xD)	270	210	177	IDF 320, IDF 321, IDF 322, IDF 323, IDF 324					
		H(7xD)	340	280	243	ID 320, ID 321, ID 322, ID 323, ID 324					
		L(10xD)	438	378	352						
Φ32.5 ~Φ32.9	YTDI 325□SL	T(3xD)	210	150	110	IDP 325, IDP 326, IDP 327, IDP 328, IDP 329					
	KRUZ 325□SL	P(5xD)	270	210	177	IDF 325, IDF 326, IDF 327, IDF 328, IDF 329					
		H(7xD)	340	280	243	ID 325, ID 326, ID 327, ID 328, ID 329					
		L(10xD)	444	384	358						
Φ33.0 ~Φ33.4	YTDI 330□SL	T(3xD)	210	150	110	IDP 330, IDP 331, IDP 332, IDP 333, IDP 334					
	KRUZ 330□SL	P(5xD)	270	210	177	IDF 330, IDF 331, IDF 332, IDF 333, IDF 334					
		H(7xD)	340	280	243	ID 330, ID 331, ID 332, ID 333, ID 334					
		L(10xD)	450	390	363						
Φ33.5 ~Φ33.9	YTDI 335□SL	T(3xD)	210	150	110	IDP 335, IDP 336, IDP 337, IDP 338, IDP 339					
	KRUZ 335□SL	P(5xD)	270	210	177	IDF 335, IDF 336, IDF 337, IDF 338, IDF 339					
		H(7xD)	340	280	243	ID 335, ID 336, ID 337, ID 338, ID 339					
		L(10xD)	456	396	369						
Φ34.0 ~Φ34.4	YTDI 340□SL	T(3xD)	230	160	118	IDP 340, IDP 341, IDP 342, IDP 343, IDP 344					
	KRUZ 340□SL	P(5xD)	300	230	188	IDF 340, IDF 341, IDF 342, IDF 343, IDF 344					
		H(7xD)	360	290	258	ID 340, ID 341, ID 342, ID 343, ID 344					
		L(10xD)	472	402	374						
Φ34.5 ~Φ34.9	YTDI 345□SL	T(3xD)	230	160	118	IDP 345, IDP 346, IDP 347, IDP 348, IDP 349					
	KRUZ 345□SL	P(5xD)	300	230	188	IDF 345, IDF 346, IDF 347, IDF 348, IDF 349					
		H(7xD)	360	290	258	ID 345, ID 346, ID 347, ID 348, ID 349					
		L(10xD)	478	408	380						
Φ35.0 ~Φ35.4	YTDI 350□SL	T(3xD)	230	160	118	IDP 350, IDP 351, IDP 352, IDP 353, IDP 354					
	KRUZ 350□SL	P(5xD)	300	230	188	IDF 350, IDF 351, IDF 352, IDF 353, IDF 354					
		H(7xD)	360	290	258	ID 350, ID 351, ID 352, ID 353, ID 354					
		L(10xD)	483	413	385						
Φ35.5 ~Φ35.9	YTDI 355□SL	T(3xD)	230	160	118	IDP 355, IDP 356, IDP 357, IDP 358, IDP 359					
	KRUZ 355□SL	P(5xD)	300	230	188	IDF 355, IDF 356, IDF 357, IDF 358, IDF 359					
		H(7xD)	360	290	258	ID 355, ID 356, ID 357, ID 358, ID 359					
		L(10xD)	490	420	391						
Φ36.0 ~Φ36.4	YTDI 360□SL	T(3xD)	250	180	125	IDP 360, IDP 361, IDP 362, IDP 363, IDP 364					
	KRUZ 360□SL	P(5xD)	310	240	199	IDF 360, IDF 361, IDF 362, IDF 363, IDF 364					
		H(7xD)	380	310	273	ID 360, ID 361, ID 362, ID 363, ID 364					
		L(10xD)	495	425	396						

Hole size range	Body Code No.	Shank Size(ΦD)	Cutting depth (Length x ΦD)	L1	L2	L3	Insert Code No. to fit in body	Cap Screw	Torx driver	Set Screw	L-wrench
Φ36.5 ~Φ36.9	YTDI 365□SL	40.0	T(3xD)	250	180	125	IDP 365, IDP 366, IDP 367, IDP 368, IDP 369	CS 360 -395 SL	T20 Torque 4.0Nm (Max)	M5x10	2.5mm
	KRUZ 365□SL		P(5xD)	310	240	199	IDF 365, IDF 366, IDF 367, IDF 368, IDF 369				
			H(7xD)	380	310	273	ID 365, ID 366, ID 367, ID 368, ID 369				
			L(10xD)	502	432	402					
Φ37.0 ~Φ37.4	YTDI 370□SL		T(3xD)	250	180	125	IDP 370, IDP 371, IDP 372, IDP 373, IDP 374				
	KRUZ 370□SL		P(5xD)	310	240	199	IDF 370, IDF 371, IDF 372, IDF 373, IDF 374				
			H(7xD)	380	310	273	ID 370, ID 371, ID 372, ID 373, ID 374				
			L(10xD)	507	437	407					
Φ37.5 ~Φ37.9	YTDI 375□SL		T(3xD)	250	180	125	IDP 375, IDP 376, IDP 377, IDP 378, IDP 379				
	KRUZ 375□SL		P(5xD)	310	240	199	IDF 375, IDF 376, IDF 377, IDF 378, IDF 379				
			H(7xD)	380	310	273	ID 375, ID 376, ID 377, ID 378, ID 379				
			L(10xD)	513	443	413					
Φ38.0 ~Φ38.4	YTDI 380□SL	T(3xD)	250	180	132	IDP 380, IDP 381, IDP 382, IDP 383, IDP 384					
	KRUZ 380□SL	P(5xD)	320	250	210	IDF 380, IDF 381, IDF 382, IDF 383, IDF 384					
		H(7xD)	400	330	288	ID 380, ID 381, ID 382, ID 383, ID 384					
		L(10xD)	519	449	418						
Φ38.5 ~Φ38.9	YTDI 385□SL	T(3xD)	250	180	132	IDP 385, IDP 386, IDP 387, IDP 388, IDP 389					
	KRUZ 385□SL	P(5xD)	320	250	210	IDF 385, IDF 386, IDF 387, IDF 388, IDF 389					
		H(7xD)	400	330	288	ID 385, ID 386, ID 387, ID 388, ID 389					
		L(10xD)	525	455	424						
Φ39.0 ~Φ39.4	YTDI 390□SL	T(3xD)	250	180	132	IDP 390, IDP 391, IDP 392, IDP 393, IDP 394					
	KRUZ 390□SL	P(5xD)	320	250	210	IDF 390, IDF 391, IDF 392, IDF 393, IDF 394					
		H(7xD)	400	330	288	ID 390, ID 391, ID 392, ID 393, ID 394					
		L(10xD)	531	461	429						
Φ39.5 ~Φ39.9	YTDI 395□SL	T(3xD)	250	180	132	IDP 395, IDP 396, IDP 397, IDP 398, IDP 399					
	KRUZ 395□SL	P(5xD)	320	250	210	IDF 395, IDF 396, IDF 397, IDF 398, IDF 399					
		H(7xD)	400	330	288	ID 395, ID 396, ID 397, ID 398, ID 399					
		L(10xD)	537	467	435						
Φ40.0 ~Φ40.4	YTDI 400□SL	T(3xD)	270	200	138	IDP 400, IDP 401, IDP 402, IDP 403, IDP 404					
	KRUZ 400□SL	P(5xD)	340	270	221	IDF 400, IDF 401, IDF 402, IDF 403, IDF 404					
		H(7xD)	420	350	303	ID 400, ID 401, ID 402, ID 403, ID 404					
		L(10xD)	542	472	440						
Φ40.5 ~Φ40.9	YTDI 405□SL	T(3xD)	270	200	138	IDP 405, IDP 406, IDP 407, IDP 408, IDP 409					
	KRUZ 405□SL	P(5xD)	340	270	221	IDF 405, IDF 406, IDF 407, IDF 408, IDF 409					
		H(7xD)	420	350	303	ID 405, ID 406, ID 407, ID 408, ID 409					
		L(10xD)	549	479	446						
Φ41.0 ~Φ41.4	YTDI 410□SL	T(3xD)	270	200	138	IDP 410, IDP 411, IDP 412, IDP 413, IDP 414					
	KRUZ 410□SL	P(5xD)	340	270	221	IDF 410, IDF 411, IDF 412, IDF 413, IDF 414					
		H(7xD)	420	350	303	ID 410, ID 411, ID 412, ID 413, ID 414					
		L(10xD)	554	484	451						
Φ41.5 ~Φ41.9	YTDI 415□SL	T(3xD)	270	200	138	IDP 415, IDP 416, IDP 417, IDP 418, IDP 419					
	KRUZ 415□SL	P(5xD)	340	270	221	IDF 415, IDF 416, IDF 417, IDF 418, IDF 419					
		H(7xD)	420	350	303	ID 415, ID 416, ID 417, ID 418, ID 419					
		L(10xD)	561	491	457						
Φ42.0 ~Φ42.4	YTDI 420□SL	T(3xD)	270	200	145	IDP 420, IDP 421, IDP 422, IDP 423, IDP 424					
	KRUZ 420□SL	P(5xD)	340	270	232	IDF 420, IDF 421, IDF 422, IDF 423, IDF 424					
		H(7xD)	420	350	318	ID 420, ID 421, ID 422, ID 423, ID 424					
		L(10xD)	566	496	462						
Φ42.5 ~Φ42.9	YTDI 425□SL	T(3xD)	270	200	145	IDP 425, IDP 426, IDP 427, IDP 428, IDP 429					
	KRUZ 425□SL	P(5xD)	340	270	232	IDF 425, IDF 426, IDF 427, IDF 428, IDF 429					
		H(7xD)	420	350	318	ID 425, ID 426, ID 427, ID 428, ID 429					
		L(10xD)	572	502	468						
Φ43.0 ~Φ43.4	YTDI 430□SL	T(3xD)	270	200	145	IDP 430, IDP 431, IDP 432, IDP 433, IDP 434					
	KRUZ 430□SL	P(5xD)	340	270	232	IDF 430, IDF 431, IDF 432, IDF 433, IDF 434					
		H(7xD)	420	350	318	ID 430, ID 431, ID 432, ID 433, ID 434					
		L(10xD)	578	508	473						
Φ43.5 ~Φ43.9	YTDI 435□SL	T(3xD)	270	200	145	IDP 435, IDP 436, IDP 437, IDP 438, IDP 439					
	KRUZ 435□SL	P(5xD)	340	270	232	IDF 435, IDF 436, IDF 437, IDF 438, IDF 439					
		H(7xD)	420	350	318	ID 435, ID 436, ID 437, ID 438, ID 439					
		L(10xD)	584	514	479						
Φ44.0 ~Φ44.4	YTDI 440□SL	T(3xD)	280	210	153	IDP 440, IDP 441, IDP 442, IDP 443, IDP 444					
	KRUZ 440□SL	P(5xD)	370	300	243	IDF 440, IDF 441, IDF 442, IDF 443, IDF 444					
		H(7xD)	460	390	333	ID 440, ID 441, ID 442, ID 443, ID 444					
		L(10xD)	590	520	484						



# KRUZ-SL, YTDI-SL body & Carbide insert

Hole size range	Body Code No.	Shank Size(Φd)	Cutting depth (Length x ΦD)	L1	L2	L3	Insert Code No. to fit in body	Cap Screw	Torx driver	Set Screw	L-wrench
Φ44.5 ~Φ44.9	YTDI 445 □ SL	40.0	T(3xD)	280	210	153	IDP 445, IDP 446, IDP 447, IDP 448, IDP 449	CS 400 -445 SL			
	KRUZ 445 □ SL		P(5xD)	370	300	243	IDF 445, IDF 446, IDF 447, IDF 448, IDF 449				
			H(7xD)	460	390	333	ID 445, ID 446, ID 447, ID 448, ID 449				
			L(10xD)	596	526	490					
Φ45.0 ~Φ45.4	YTDI 450 □ SL	40.0	T(3xD)	280	210	153	IDP 450, IDP 451, IDP 452, IDP 453, IDP 454	CS 450 -500 SL			
	KRUZ 450 □ SL		P(5xD)	370	300	243	IDF 450, IDF 451, IDF 452, IDF 453, IDF 454				
			H(7xD)	460	390	333	ID 450, ID 451, ID 452, ID 453, ID 454				
			L(10xD)	601	531	495					
Φ45.5 ~Φ45.9	YTDI 455 □ SL	40.0	T(3xD)	280	210	153	IDP 455, IDP 456, IDP 457, IDP 458, IDP 459	CS 450 -500 SL			
	KRUZ 455 □ SL		P(5xD)	370	300	243	IDF 455, IDF 456, IDF 457, IDF 458, IDF 459				
			H(7xD)	460	390	333	ID 455, ID 456, ID 457, ID 458, ID 459				
			L(10xD)	608	538	501					
Φ46.0 ~Φ46.4	YTDI 460 □ SL	40.0	T(3xD)	280	210	160	IDP 460, IDP 461, IDP 462, IDP 463, IDP 464	CS 450 -500 SL			
	KRUZ 460 □ SL		P(5xD)	370	300	255	IDF 460, IDF 461, IDF 462, IDF 463, IDF 464				
			H(7xD)	460	390	348	ID 460, ID 461, ID 462, ID 463, ID 464				
			L(10xD)	613	543	506					
Φ46.5 ~Φ46.9	YTDI 465 □ SL	40.0	T(3xD)	280	210	160	IDP 465, IDP 466, IDP 467, IDP 468, IDP 469	CS 450 -500 SL			
	KRUZ 465 □ SL		P(5xD)	370	300	255	IDF 465, IDF 466, IDF 467, IDF 468, IDF 469				
			H(7xD)	460	390	348	ID 465, ID 466, ID 467, ID 468, ID 469				
			L(10xD)	620	550	512					
Φ47.0 ~Φ47.4	YTDI 470 □ SL	40.0	T(3xD)	280	210	160	IDP 470, IDP 471, IDP 472, IDP 473, IDP 474	CS 450 -500 SL			
	KRUZ 470 □ SL		P(5xD)	370	300	255	IDF 470, IDF 471, IDF 472, IDF 473, IDF 474				
			H(7xD)	460	390	348	ID 470, ID 471, ID 472, ID 473, ID 474				
			L(10xD)	625	555	517					
Φ47.5 ~Φ47.9	YTDI 475 □ SL	40.0	T(3xD)	280	210	160	IDP 475, IDP 476, IDP 477, IDP 478, IDP 479	CS 450 -500 SL			
	KRUZ 475 □ SL		P(5xD)	370	300	255	IDF 475, IDF 476, IDF 477, IDF 478, IDF 479				
			H(7xD)	460	390	348	ID 475, ID 476, ID 477, ID 478, ID 479				
			L(10xD)	631	561	523					
Φ48.0 ~Φ48.4	YTDI 480 □ SL	40.0	T(3xD)	300	230	167	IDP 480, IDP 481, IDP 482, IDP 483, IDP 484	CS 450 -500 SL			
	KRUZ 480 □ SL		P(5xD)	390	320	265	IDF 480, IDF 481, IDF 482, IDF 483, IDF 484				
			H(7xD)	490	420	363	ID 480, ID 481, ID 482, ID 483, ID 484				
			L(10xD)	637	567	528					
Φ48.5 ~Φ48.9	YTDI 485 □ SL	40.0	T(3xD)	300	230	167	IDP 485, IDP 486, IDP 487, IDP 488, IDP 489	CS 450 -500 SL			
	KRUZ 485 □ SL		P(5xD)	390	320	265	IDF 485, IDF 486, IDF 487, IDF 488, IDF 489				
			H(7xD)	490	420	363	ID 485, ID 486, ID 487, ID 488, ID 489				
			L(10xD)	643	573	534					
Φ49.0 ~Φ49.4	YTDI 490 □ SL	40.0	T(3xD)	300	230	167	IDP 490, IDP 491, IDP 492, IDP 493, IDP 494	CS 450 -500 SL			
	KRUZ 490 □ SL		P(5xD)	390	320	265	IDF 490, IDF 491, IDF 492, IDF 493, IDF 494				
			H(7xD)	490	420	363	ID 490, ID 491, ID 492, ID 493, ID 494				
			L(10xD)	649	579	539					
Φ49.5 ~Φ49.9	YTDI 495 □ SL	40.0	T(3xD)	300	230	167	IDP 495, IDP 496, IDP 497, IDP 498, IDP 499	CS 450 -500 SL			
	KRUZ 495 □ SL		P(5xD)	390	320	265	IDF 495, IDF 496, IDF 497, IDF 498, IDF 499				
			H(7xD)	490	420	363	ID 495, ID 496, ID 497, ID 498, ID 499				
			L(10xD)	655	585	545					
Φ50.0 ~Φ50.4	YTDI 500 □ SL	40.0	T(3xD)	300	230	167	IDP 500, IDP 501, IDP 502, IDP 503, IDP 504	CS 450 -500 SL			
	KRUZ 500 □ SL		P(5xD)	390	320	265	IDF 500, IDF 501, IDF 502, IDF 503, IDF 504				
			H(7xD)	490	420	363	ID 500, ID 501, ID 502, ID 503, ID 504				
			L(10xD)	660	590	550					

T20  
Torque  
4.0Nm  
(Max)  
M6x12  
3.0mm

## KRUZ-SL Drills, Cutting Speed Recommendation

Material Group	Drill Dia.	Φ8~16mm		Φ16~25mm		Φ25~32mm		Φ32~40mm		Φ40~50mm	
		Speed (m/min)	Feed (mm/rev)	Speed (m/min)	Feed (mm/rev)	Speed (m/min)	Feed (mm/rev)	Speed (m/min)	Feed (mm/rev)	Speed (m/min)	Feed (mm/rev)
Grey cast iron (FC)		80~150	0.20~0.30	80~150	0.25~0.45	80~160	0.35~0.55	90~200	0.34~0.58	90~200	0.38~0.60
Nodular cast iron (FCD)		80~140	0.15~0.25	80~140	0.22~0.45	80~150	0.32~0.52	90~160	0.35~0.62	90~200	0.38~0.60
Carbon steel (S45C)		80~140	0.15~0.30	80~140	0.16~0.40	80~150	0.20~0.40	80~150	0.22~0.48	80~160	0.25~0.54
Alloy steel (SCM440)		70~140	0.15~0.30	70~140	0.15~0.40	70~140	0.18~0.40	80~140	0.25~0.47	80~140	0.27~0.52
Hardened steel (SKD11)		40~50	0.10~0.20	40~50	0.12~0.28	40~50	0.16~0.35	40~60	0.20~0.38	40~60	0.22~0.42
Stainless steel (SUS)		30~40	0.10~0.20	35~50	0.10~0.22	35~50	0.15~0.28	40~55	0.18~0.30	40~55	0.22~0.32
Aluminum 130HB (AL)		120~200	0.20~0.30	120~200	0.25~0.40	120~200	0.30~0.45	120~200	0.30~0.45	120~200	0.30~0.50

This data is recommended for 3xDia. and should be reduced about 15~20% for 5xD, 7xD, 10xD drills.  
The data is normally suggested for oil-mist(MQL) coolant condition and also possible to run in other normal condition if machining environment like clamping etc. are secured in good.

# KRUZ-FSL, YTDI-FSL Flange body & Carbide insert



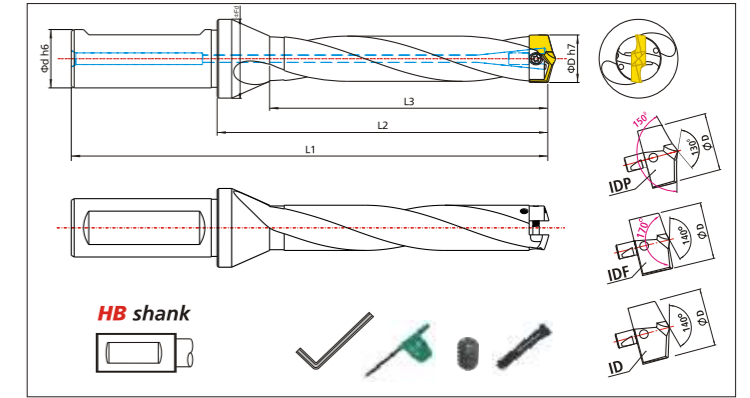
KRUZ-FSL

**Insert selection**

- IDP** Deep hole & general purpose
- IDF** Thin plate & shallow depth
- ID** General purpose

**KRUZ-FSL body**      **YTDI-FSL body**

- ▶ Rugged flange type body to decrease vibration or chattering
- ▶ Interchangeable <IDP>, <IDF>, <ID> carbide drill inserts
- ▶ Drill body consists of premium tool steel with heat treatment
- ▶ Increased tool life by less vibration
- ▶ Internal coolant fed design



Please make required cutting depth in the □ like T, P, H, L

Hole size range	Body Code No.	Shank Size(Φd)	Cutting depth (Length x ΦD)	L1	L2	L3	Flanged dia.(ΦFd)	Insert Code No. to fit in body	Cap Screw	Torx driver	Set Screw	L-wrench
Φ8.0 ~Φ8.4	YTDI 080 □ FSL	10.0 (HA)	T(3xD)	87	42	32	18	IDP 080, IDP 081, IDP 082, IDP 083, IDP 084	CS 080 -095 SL			
	KRUZ 080 □ FSL		P(5xD)	103	58	48		IDF 080, IDF 081, IDF 082, IDF 083, IDF 084				
			H(7xD)	119	74	64		ID 080, ID 081, ID 082, ID 083, ID 084				
Φ8.5 ~Φ8.9	YTDI 085 □ FSL	10.0 (HA)	T(3xD)	89	44	34	18	IDP 085, IDP 086, IDP 087, IDP 088, IDP 089	CS 080 -095 SL			
	KRUZ 085 □ FSL		P(5xD)	106	61	51		IDF 085, IDF 086, IDF 087, IDF 088, IDF 089				
			H(7xD)	123	78	68		ID 085, ID 086, ID 087, ID 088, ID 089				
Φ9.0 ~Φ9.4	YTDI 090 □ FSL	10.0 (HA)	T(3xD)	92	47	36	18	IDP 090, IDP 091, IDP 092, IDP 093, IDP 094	CS 080 -095 SL			
	KRUZ 090 □ FSL		P(5xD)	110	65	54		IDF 090, IDF 091, IDF 092, IDF 093, IDF 094				
			H(7xD)	128	83	72		ID 090, ID 091, ID 092, ID 093, ID 094				
Φ9.5 ~Φ9.9	YTDI 095 □ FSL	10.0 (HA)	T(3xD)	97	49	38	18	IDP 095, IDP 096, IDP 097, IDP 098, IDP 099	CS 080 -095 SL			
	KRUZ 095 □ FSL		P(5xD)	116	68	57		IDF 095, IDF 096, IDF 097, IDF 098, IDF 099				
			H(7xD)	135	87	76		ID 095, ID 096, ID 097, ID 098, ID 099				
Φ10.0 ~Φ10.4	YTDI 100 □ FSL	12.0 (HA)	T(3xD)	99	51	40	21	IDP 100, IDP 101, IDP 102, IDP 103, IDP 104	CS 100 -115 SL			
	KRUZ 100 □ FSL		P(5xD)	119	71	60		IDF 100, IDF 101, IDF 102, IDF 103, IDF 104				
			H(7xD)	139	91	80		ID 100, ID 101, ID 102, ID 103, ID 104				
Φ10.5 ~Φ10.9	YTDI 105 □ FSL	12.0 (HA)	T(3xD)	102	54	42	21	IDP 105, IDP 106, IDP 107, IDP 108, IDP 109	CS 100 -115 SL			
	KRUZ 105 □ FSL		P(5xD)	123	75	63		IDF 105, IDF 106, IDF 107, IDF 108, IDF 109				
			H(7xD)	144	96	84		ID 105, ID 106, ID 107, ID 108, ID 109				
Φ11.0 ~Φ11.4	YTDI 110 □ FSL	12.0 (HA)	T(3xD)	104	56	44	21	IDP 110, IDP 111, IDP 112, IDP 113, IDP 114	CS 100 -115 SL			
	KRUZ 110 □ FSL		P(5xD)	126	78	66		IDF 110, IDF 111, IDF 112, IDF 113, IDF 114				
			L(10xD)	181	133	121		ID 110, ID 111, ID 112, ID 113, ID 114				
Φ11.5 ~Φ11.9	YTDI 115 □ FSL	12.0 (HA)	T(3xD)	107	59	46	21	IDP 115, IDP 116, IDP 117, IDP 118, IDP 119	CS 100 -115 SL			
	KRUZ 115 □ FSL		P(5xD)	130	82	69		IDF 115, IDF 116, IDF 117, IDF 118, IDF 119				
			H(7xD)	153	105	92		ID 115, ID 116, ID 117, ID 118, ID 119				
Φ12.0 ~Φ12.4	YTDI 120 □ FSL	16.0	T(3xD)	109	61	48	21	IDP 120, IDP 121, IDP 122, IDP 123, IDP 124	CS 120 -135 SL			
	KRUZ 120 □ FSL		P(5xD)	133	85	72		IDF 120, IDF 121, IDF 122, IDF 123, IDF 124				
			H(7xD)	157	109	96		ID 120, ID 121, ID 122, ID 123, ID 124				

Continued ▶▶

# KRUZ-FSL, YTDI-FSL Flange body & Carbide insert

Hole size range	Body Code No.	Shank Size(Φd)	Cutting depth (Length x ΦD)	L1	L2	L3	Flanged dia.(ΦFd)	Insert Code No. to fit in body	Cap Screw	Torx driver	Set Screw	L-wrench			
Φ12.5 ~Φ12.9	YTDI 125 □ FSL	16.0	T(3xD)	111	63	50	21	IDP 125, IDP 126, IDP 127, IDP 128, IDP 129	CS 120 -135 SL	T6 Torque 0.6Nm (Max)	M2x4	0.9mm			
	KRUZ 125 □ FSL		P(5xD)	136	88	75		IDF 125, IDF 126, IDF 127, IDF 128, IDF 129							
	H(7xD)		161	113	100	ID 125-, ID 126, ID 127, ID 128, ID 129									
	L(10xD)		199	151	138										
Φ13.0 ~Φ13.4	YTDI 130 □ FSL		T(3xD)	114	66	52	21	IDP 130, IDP 131, IDP 132, IDP 133, IDP 134		CS 140 -155 SL	T7 Torque 0.9Nm (Max)	M2.5x4	1.3mm		
	KRUZ 130 □ FSL		P(5xD)	140	92	78		IDF 130, IDF 131, IDF 132, IDF 133, IDF 134							
	H(7xD)		166	118	104	ID 130, ID 131, ID 132, ID 133, ID 134									
	L(10xD)		205	157	143										
Φ13.5 ~Φ13.9	YTDI 135 □ FSL		T(3xD)	116	68	54	21	IDP 135, IDP 136, IDP 137, IDP 138, IDP 139			CS 140 -155 SL	T7 Torque 0.9Nm (Max)	M2.5x4	1.3mm	
	KRUZ 135 □ FSL		P(5xD)	143	95	81		IDF 135, IDF 136, IDF 137, IDF 138, IDF 139							
	H(7xD)		170	122	108	ID 135, ID 136, ID 137, ID 138, ID 139									
	L(10xD)		211	163	149										
Φ14.0 ~Φ14.4	YTDI 140 □ FSL		T(3xD)	119	71	56	21	IDP 140, IDP 141, IDP 142, IDP 143, IDP 144				CS 140 -155 SL	T7 Torque 0.9Nm (Max)	M2.5x4	1.3mm
	KRUZ 140 □ FSL		P(5xD)	147	99	84		IDF 140, IDF 141, IDF 142, IDF 143, IDF 144							
	H(7xD)		175	127	112	ID 140, ID 141, ID 142, ID 143, ID 144									
	L(10xD)		217	169	154										
Φ14.5 ~Φ14.9	YTDI 145 □ FSL	T(3xD)	123	73	58	21	IDP 145, IDP 146, IDP 147, IDP 148, IDP 149	CS 140 -155 SL	T7 Torque 0.9Nm (Max)				M2.5x4	1.3mm	
	KRUZ 145 □ FSL	P(5xD)	152	102	87		IDF 145, IDF 146, IDF 147, IDF 148, IDF 149								
	H(7xD)	181	131	116	ID 145, ID 146, ID 147, ID 148, ID 149										
	L(10xD)	225	175	160											
Φ15.0 ~Φ15.4	YTDI 150 □ FSL	T(3xD)	127	77	60	21	IDP 150, IDP 151, IDP 152, IDP 153, IDP 154		CS 160 -175 SL	T8 Torque 1.5Nm (Max)			M3x6	1.5mm	
	KRUZ 150 □ FSL	P(5xD)	157	107	90		IDF 150, IDF 151, IDF 152, IDF 153, IDF 154								
	H(7xD)	187	137	120	ID 150, ID 151, ID 152, ID 153, ID 154										
	L(10xD)	232	182	165											
Φ15.5 ~Φ15.9	YTDI 155 □ FSL	T(3xD)	130	80	62	21	IDP 155, IDP 156, IDP 157, IDP 158, IDP 159			CS 160 -175 SL	T8 Torque 1.5Nm (Max)		M3x6	1.5mm	
	KRUZ 155 □ FSL	P(5xD)	161	111	93		IDF 155, IDF 156, IDF 157, IDF 158, IDF 159								
	H(7xD)	192	142	124	ID 155, ID 156, ID 157, ID 158, ID 159										
	L(10xD)	239	189	171											
Φ16.0 ~Φ16.4	YTDI 160 □ FSL	T(3xD)	132	82	64	21	IDP 160, IDP 161, IDP 162, IDP 163, IDP 164				CS 160 -175 SL	T8 Torque 1.5Nm (Max)	M3x6	1.5mm	
	KRUZ 160 □ FSL	P(5xD)	164	114	96		IDF 160, IDF 161, IDF 162, IDF 163, IDF 164								
	H(7xD)	196	146	128	ID 160, ID 161, ID 162, ID 163, ID 164										
	L(10xD)	244	194	176											
Φ16.5 ~Φ16.9	YTDI 165 □ FSL	T(3xD)	135	85	66	21	IDP 165, IDP 166, IDP 167, IDP 168, IDP 169	CS 180 -195 SL				T8 Torque 1.5Nm (Max)	M3x6	1.5mm	
	KRUZ 165 □ FSL	P(5xD)	168	118	99		IDF 165, IDF 166, IDF 167, IDF 168, IDF 169								
	H(7xD)	201	151	132	ID 165, ID 166, ID 167, ID 168, ID 169										
	L(10xD)	251	201	182											
Φ17.0 ~Φ17.4	YTDI 170 □ FSL	T(3xD)	137	87	68	27	IDP 170, IDP 171, IDP 172, IDP 173, IDP 174		CS 180 -195 SL			T8 Torque 1.5Nm (Max)	M3x6	1.5mm	
	KRUZ 170 □ FSL	P(5xD)	171	121	102		IDF 170, IDF 171, IDF 172, IDF 173, IDF 174								
	H(7xD)	205	155	136	ID 170, ID 171, ID 172, ID 173, ID 174										
	L(10xD)	256	206	187											
Φ17.5 ~Φ17.9	YTDI 175 □ FSL	T(3xD)	139	89	70	27	IDP 175, IDP 176, IDP 177, IDP 178, IDP 179			CS 180 -195 SL		T8 Torque 1.5Nm (Max)	M3x6	1.5mm	
	KRUZ 175 □ FSL	P(5xD)	174	124	105		IDF 175, IDF 176, IDF 177, IDF 178, IDF 179								
	H(7xD)	209	159	140	ID 175, ID 176, ID 177, ID 178, ID 179										
	L(10xD)	262	212	193											
Φ18.0 ~Φ18.4	YTDI 180 □ FSL	T(3xD)	142	92	72	27	IDP 180, IDP 181, IDP 182, IDP 183, IDP 184				CS 180 -195 SL	T8 Torque 1.5Nm (Max)	M3x6	1.5mm	
	KRUZ 180 □ FSL	P(5xD)	178	128	108		IDF 180, IDF 181, IDF 182, IDF 183, IDF 184								
	H(7xD)	214	164	144	ID 180, ID 181, ID 182, ID 183, ID 184										
	L(10xD)	268	218	198											
Φ18.5 ~Φ18.9	YTDI 185 □ FSL	T(3xD)	144	94	74	27	IDP 185, IDP 186, IDP 187, IDP 188, IDP 189	CS 180 -195 SL				T8 Torque 1.5Nm (Max)	M3x6	1.5mm	
	KRUZ 185 □ FSL	P(5xD)	181	131	111		IDF 185, IDF 186, IDF 187, IDF 188, IDF 189								
	H(7xD)	218	168	148	ID 185, ID 186, ID 187, ID 188, ID 189										
	L(10xD)	274	224	204											
Φ19.0 ~Φ19.4	YTDI 190 □ FSL	T(3xD)	147	97	76	32	IDP 190, IDP 191, IDP 192, IDP 193, IDP 194		CS 200 -215 SL			T8 Torque 1.5Nm (Max)	M3x6	1.5mm	
	KRUZ 190 □ FSL	P(5xD)	185	135	114		IDF 190, IDF 191, IDF 192, IDF 193, IDF 194								
	H(7xD)	223	173	152	ID 190, ID 191, ID 192, ID 193, ID 194										
	L(10xD)	280	230	209											
Φ19.5 ~Φ19.9	YTDI 195 □ FSL	T(3xD)	149	99	78	32	IDP 195, IDP 196, IDP 197, IDP 198, IDP 199			CS 200 -215 SL		T8 Torque 1.5Nm (Max)	M3x6	1.5mm	
	KRUZ 195 □ FSL	P(5xD)	188	138	117		IDF 195, IDF 196, IDF 197, IDF 198, IDF 199								
	H(7xD)	227	177	156	ID 195, ID 196, ID 197, ID 198, ID 199										
	L(10xD)	286	236	215											
Φ20.0 ~Φ20.4	YTDI 200 □ FSL	T(3xD)	157	101	80	32	IDP 200, IDP 201, IDP 202, IDP 203, IDP 204				CS 200 -215 SL	T8 Torque 1.5Nm (Max)	M3x6	1.5mm	
	KRUZ 200 □ FSL	P(5xD)	197	141	120		IDF 200, IDF 201, IDF 202, IDF 203, IDF 204								
	H(7xD)	237	181	160	ID 200, ID 201, ID 202, ID 203, ID 204										
	L(10xD)	297	241	220											

Hole size range	Body Code No.	Shank Size(Φd)	Cutting depth (Length x ΦD)	L1	L2	L3	Flanged dia.(ΦFd)	Insert Code No. to fit in body	Cap Screw	Torx driver	Set Screw	L-wrench			
Φ20.5 ~Φ20.9	YTDI 205 □ FSL	25.0	T(3xD)	160	104	82	32	IDP 205, IDP 206, IDP 207, IDP 208, IDP 209	CS 200 -215 SL	T8 Torque 1.5Nm (Max)	M3x6	1.5mm			
	KRUZ 205 □ FSL		P(5xD)	201	145	123		IDF 205, IDF 206, IDF 207, IDF 208, IDF 209							
	H(7xD)		242	186	164	ID 205, ID 206, ID 207, ID 208, ID 209									
	L(10xD)		304	248	226										
Φ21.0 ~Φ21.4	YTDI 210 □ FSL		T(3xD)	162	106	84	32	IDP 210, IDP 211, IDP 212, IDP 213, IDP 214		CS 200 -215 SL	T8 Torque 1.5Nm (Max)	M3x6	1.5mm		
	KRUZ 210 □ FSL		P(5xD)	204	148	126		IDF 210, IDF 211, IDF 212, IDF 213, IDF 214							
	H(7xD)		246	190	168	ID 210, ID 211, ID 212, ID 213, ID 214									
	L(10xD)		309	253	231										
Φ21.5 ~Φ21.9	YTDI 215 □ FSL		T(3xD)	165	109	86	32	IDP 215, IDP 216, IDP 217, IDP 218, IDP 219			CS 220 -235 SL	T8 Torque 1.5Nm (Max)	M3x6	1.5mm	
	KRUZ 215 □ FSL		P(5xD)	208	152	129		IDF 215, IDF 216, IDF 217, IDF 218, IDF 219							
	H(7xD)		251	195	172	ID 215, ID 216, ID 217, ID 218, ID 219									
	L(10xD)		316	260	237										
Φ22.0 ~Φ22.4	YTDI 220 □ FSL		T(3xD)	167	111	88	32	IDP 220, IDP 221, IDP 222, IDP 223, IDP 224				CS 220 -235 SL	T8 Torque 1.5Nm (Max)	M3x6	1.5mm
	KRUZ 220 □ FSL		P(5xD)	211	155	132		IDF 220, IDF 221, IDF 222, IDF 223, IDF 224							
	H(7xD)		255	199	176	ID 220, ID 221, ID 222, ID 223, ID 224									
	L(10xD)		321	265	242										
Φ22.5 ~Φ22.9	YTDI 225 □ FSL	T(3xD)	169	113	90	32	IDP 225, IDP 226, IDP 227, IDP 228, IDP 229	CS 220 -235 SL	T8 Torque 1.5Nm (Max)				M3x6	1.5mm	
	KRUZ 225 □ FSL	P(5xD)	214	158	135		IDF 225, IDF 226, IDF 227, IDF 228, IDF 229								
	H(7xD)	259	203	180	ID 225, ID 226, ID 227L, ID 228L, ID 229										
	L(10xD)	327	271	248											
Φ23.0 ~Φ23.4	YTDI 230 □ FSL	T(3xD)	172	116	92	32	IDP 230, IDP 231, IDP 232, IDP 233, IDP 234		CS 240 -255 SL	T8 Torque 1.5Nm (Max)			M3x6	1.5mm	
	KRUZ 230 □ FSL	P(5xD)	218	162	138		IDF 230, IDF 231, IDF 232, IDF 233, IDF 234								
	H(7xD)	264	208	184	ID 230, ID 231, ID 232, ID 233, ID 234										
	L(10xD)	333	277	253											
Φ23.5 ~Φ23.9	YTDI 235 □ FSL	T(3xD)	174	118	94	32	IDP 235, IDP 236, IDP 237, IDP 238, IDP 239			CS 240 -255 SL	T8 Torque 1.5Nm (Max)		M3x6	1.5mm	
	KRUZ 235 □ FSL	P(5xD)	221	165	141		IDF 235, IDF 236, IDF 237, IDF 238, IDF 239								
	H(7xD)	268	212	188	ID 235, ID 236, ID 237, ID 238, ID 239										
	L(10xD)	339	283	259											
Φ24.0 ~Φ24.4	YTDI 240 □ FSL	T(3xD)	181	121	96	32	IDP 240, IDP 241, IDP 242, IDP 243, IDP244				CS 240 -255 SL	T8 Torque 1.5Nm (Max)	M3x6	1.5mm	
	KRUZ 240 □ FSL	P(5xD)	229	169	144		IDF 240, IDF 241, IDF 242, IDF 243, IDF244								
	H(7xD)	277	217	192	ID 240, ID 241, ID 242, ID 243, ID 244										
	L(10xD)	349	289	264											
Φ24.5 ~Φ24.9	YTDI 245 □ FSL	T(3xD)	183	123	98	32	IDP 245, IDP 246, IDP 247, IDP 248, IDP 249	CS 260 -275 SL				T15 Torque 3.5Nm (Max)	M4x8	2.0mm	
	KRUZ 245 □ FSL	P(5xD)	232	172	147		IDF 245, IDF 246, IDF 247, IDF 248, IDF 249								
	H(7xD)	281	221	196	ID 245, ID 246, ID 247, ID 248, ID 249										
	L(10xD)	355	295	270											
Φ25.0 ~Φ25.4	YTDI 250 □ FSL	T(3xD)	185	125	100	32	IDP 250, IDP 251, IDP 252, IDP 253, IDP 254		CS 260 -275 SL			T15 Torque 3.5Nm (Max)	M4x8	2.0mm	
	KRUZ 250 □ FSL	P(5xD)	235	175	150		IDF 250, IDF 251, IDF 252, IDF 253, IDF 254								
	H(7xD)	285	225	200	ID 250, ID 251, ID 252, ID 253L, ID 254										
	L(10xD)	360	300	275											
Φ25.5 ~Φ25.9	YTDI 255 □ FSL	T(3xD)	188	128	102	32	IDP 255, IDP 256, IDP 257, IDP 258, IDP 259			CS 260 -275 SL		T15 Torque 3.5Nm (Max)	M4x8	2.0mm	
	KRUZ 255 □ FSL	P(5xD)	239	179	153		IDF 255, IDF 256, IDF 257, IDF 258, IDF 259								
	H(7xD)	290	230	204	ID 255, ID 256, ID 257, ID 258, ID 259										
	L(10xD)	367	307	281											
Φ26.0 ~Φ26.4	YTDI 260 □ FSL	T(3xD)	190	130	104	32	IDP 260, IDP 261, IDP 262, IDP 263, IDP 264				CS 260 -275 SL	T15 Torque 3.5Nm (Max)	M4x8	2.0mm	
	KRUZ 260 □ FSL	P(5xD)	242	182	156		IDF 260, IDF 261, IDF 262, IDF 263, IDF 264								



# KRUZ-FSL, YTDI-FSL Flange body & Carbide insert

Hole size range	Body Code No.	Shank Size(Φd)	Cutting depth (Length x ΦD)	L1	L2	L3	Flanged dia.(ΦFd)	Insert Code No. to fit in body	Cap Screw	Torx driver	Set Screw	L-wrench															
Φ28.5 ~Φ28.9	YTDI 285 □ FSL	32.0	T(3xD) 202 142 114	202	142	114	39	IDP 285, IDP 286, IDP 287, IDP 288, IDP 289 IDF 285, IDF 286, IDF 287, IDF 288, IDF 289 ID 285, ID 286, ID 287, ID 288, ID 289	CS 280 -295 SL	T15 Torque 3.5Nm (Max)	M4x8	2.0mm															
	KRUZ 285 □ FSL		P(5xD) 259 199 171																								
	H(7xD) 316 256 228																										
Φ29.0 ~Φ29.4	YTDI 290 □ FSL		T(3xD) 205 145 116	205	145	116		39					IDP 290, IDP 291, IDP 292, IDP 293, IDP 294 IDF 290, IDF 291, IDF 292, IDF 293, IDF 294 ID 290, ID 291, ID 292, ID 293, ID 294	CS 280 -295 SL	T15 Torque 3.5Nm (Max)	M4x8	2.0mm										
	KRUZ 290 □ FSL		P(5xD) 263 203 174																								
	H(7xD) 321 261 232																										
Φ29.5 ~Φ29.9	YTDI 295 □ FSL		T(3xD) 207 147 118	207	147	118							39					IDP 295, IDP 296, IDP 297, IDP 298, IDP 299 IDF 295, IDF 296, IDF 297, IDF 298, IDF 299 ID 295, ID 296, ID 297, ID 298, ID 299	CS 280 -295 SL	T15 Torque 3.5Nm (Max)	M4x8	2.0mm					
	KRUZ 295 □ FSL		P(5xD) 266 206 177																								
	H(7xD) 325 265 236																										
Φ30.0 ~Φ30.4	YTDI 300 □ FSL		T(3xD) 209 149 120	209	149	120												39					IDP 300, IDP 301, IDP 302, IDP 303, IDP 304 IDF 300, IDF 301, IDF 302, IDF 303, IDF 304 ID 300, ID 301, ID 302, ID 303, ID 304	CS 300 -315 SL	T20 Torque 4.0Nm (Max)	M5x10	2.5mm
	KRUZ 300 □ FSL		P(5xD) 269 209 180																								
	H(7xD) 329 269 240																										
Φ30.5 ~Φ30.9	YTDI 305 □ FSL	T(3xD) 212 152 122	212	152	122	39	IDP 305, IDP 306, IDP 307, IDP 308, IDP 309 IDF 305, IDF 306, IDF 307, IDF 308, IDF 309 ID 305, ID 306, ID 307, ID 308, ID 309		CS 300 -315 SL	T20 Torque 4.0Nm (Max)	M5x10	2.5mm															
	KRUZ 305 □ FSL	P(5xD) 273 213 183																									
	H(7xD) 334 274 244																										
Φ31.0 ~Φ31.4	YTDI 310 □ FSL	T(3xD) 214 154 124	214	154	124		39	IDP 310, IDP 311, IDP 312, IDP 313, IDP 314 IDF 310, IDF 311, IDF 312, IDF 313, IDF 314 ID 310, ID 311, ID 312, ID 313, ID 314						CS 300 -315 SL	T20 Torque 4.0Nm (Max)	M5x10	2.5mm										
	KRUZ 310 □ FSL	P(5xD) 276 216 186																									
	H(7xD) 338 278 248																										
Φ31.5 ~Φ31.9	YTDI 315 □ FSL	T(3xD) 217 157 126	217	157	126			39					IDP 315, IDP 316, IDP 317, IDP 318, IDP 319 IDF 315, IDF 316, IDF 317, IDF 318, IDF 319 ID 315, ID 316, ID 317, ID 318, ID 319						CS 300 -315 SL	T20 Torque 4.0Nm (Max)	M5x10	2.5mm					
	KRUZ 315 □ FSL	P(5xD) 280 220 189																									
	H(7xD) 343 283 252																										
Φ32.0 ~Φ32.4	YTDI 320 □ FSL	T(3xD) 219 159 128	219	159	128								39					IDP 320, IDP 321, IDP 322, IDP 323, IDP 324 IDF 320, IDF 321, IDF 322, IDF 323, IDF 324 ID 320, ID 321, ID 322, ID 323, ID 324					CS 300 -315 SL	T20 Torque 4.0Nm (Max)	M5x10	2.5mm	
	KRUZ 320 □ FSL	P(5xD) 283 223 192																									
	H(7xD) 347 287 256																										
Φ32.5 ~Φ32.9	YTDI 325 □ FSL	T(3xD) 221 161 130	221	161	130	39			IDP 325, IDP 326, IDP 327, IDP 328, IDP 329 IDF 325, IDF 326, IDF 327, IDF 328, IDF 329 ID 325, ID 326, ID 327, ID 328, ID 329	CS 300 -315 SL	T20 Torque 4.0Nm (Max)	M5x10						2.5mm									
	KRUZ 325 □ FSL	P(5xD) 286 226 195																									
	H(7xD) 351 291 260																										
Φ33.0 ~Φ33.4	YTDI 330 □ FSL	T(3xD) 224 164 132	224	164	132		39		IDP 330, IDP 331, IDP 332, IDP 333, IDP 334 IDF 330, IDF 331, IDF 332, IDF 333, IDF 334 ID 330, ID 331, ID 332, ID 333, ID 334					CS 300 -315 SL	T20 Torque 4.0Nm (Max)	M5x10	2.5mm										
	KRUZ 330 □ FSL	P(5xD) 290 230 198																									
	H(7xD) 356 296 264																										
Φ33.5 ~Φ33.9	YTDI 335 □ FSL	T(3xD) 226 166 134	226	166	134			39	IDP 335, IDP 336, IDP 337, IDP 338, IDP 339 IDF 335, IDF 336, IDF 337, IDF 338, IDF 339 ID 335, ID 336, ID 337, ID 338, ID 339										CS 300 -315 SL	T20 Torque 4.0Nm (Max)	M5x10	2.5mm					
	KRUZ 335 □ FSL	P(5xD) 293 233 201																									
	H(7xD) 360 300 268																										
Φ34.0 ~Φ34.4	YTDI 340 □ FSL	T(3xD) 239 169 136	239	169	136				40.0				IDP 340, IDP 341, IDP 342, IDP 343, IDP 344 IDF 340, IDF 341, IDF 342, IDF 343, IDF 344 ID 340, ID 341, ID 342, ID 343, ID 344										CS 320 -355 SL	T20 Torque 4.0Nm (Max)	M5x10	2.5mm	
	KRUZ 340 □ FSL	P(5xD) 307 237 204																									
	H(7xD) 375 305 272																										
Φ34.5 ~Φ34.9	YTDI 345 □ FSL	T(3xD) 241 171 138	241	171	138	40.0				IDP 345, IDP 346, IDP 347, IDP 348, IDP 349 IDF 345, IDF 346, IDF 347, IDF 348, IDF 349 ID 345, ID 346, ID 347, ID 348, ID 349	CS 320 -355 SL	T20 Torque 4.0Nm (Max)	M5x10					2.5mm									
	KRUZ 345 □ FSL	P(5xD) 310 240 207																									
	H(7xD) 379 309 276																										
Φ35.0 ~Φ35.4	YTDI 350 □ FSL	T(3xD) 243 173 140	243	173	140		40.0			IDP 350, IDP 351, IDP 352, IDP 353, IDP 354 IDF 350, IDF 351, IDF 352, IDF 353, IDF 354 ID 350, ID 351, ID 352, ID 353, ID 354				CS 320 -355 SL	T20 Torque 4.0Nm (Max)	M5x10	2.5mm										
	KRUZ 350 □ FSL	P(5xD) 313 243 210																									
	H(7xD) 383 313 280																										
Φ35.5 ~Φ35.9	YTDI 355 □ FSL	T(3xD) 246 176 142	246	176	142			40.0		IDP 355, IDP 356, IDP 357, IDP 358, IDP 359 IDF 355, IDF 356, IDF 357, IDF 358, IDF 359 ID 355, ID 356, ID 357, ID 358, ID 359									CS 320 -355 SL	T20 Torque 4.0Nm (Max)	M5x10	2.5mm					
	KRUZ 355 □ FSL	P(5xD) 317 247 213																									
	H(7xD) 388 318 284																										
Φ36.0 ~Φ36.4	YTDI 360 □ FSL	T(3xD) 248 178 144	248	178	144				40.0	IDP 360, IDP 361, IDP 362, IDP 363, IDP 364 IDF 360, IDF 361, IDF 362, IDF 363, IDF 364 ID 360, ID 361, ID 362, ID 363, ID 364													CS 360 -395 SL	T20 Torque 4.0Nm (Max)	M6x12	3.0mm	
	KRUZ 360 □ FSL	P(5xD) 320 250 216																									
	H(7xD) 392 322 288																										

Hole size range	Body Code No.	Shank Size(Φd)	Cutting depth (Length x ΦD)	L1	L2	L3	Flanged dia.(ΦFd)	Insert Code No. to fit in body	Cap Screw	Torx driver	Set Screw	L-wrench															
Φ36.5 ~Φ36.9	YTDI 365 □ FSL	40.0	T(3xD) 251 181 146	251	181	146	55	IDP 365, IDP 366, IDP 367, IDP 368, IDP 369 IDF 365, IDF 366, IDF 367, IDF 368, IDF 369 ID 365, ID 366, ID 367, ID 368, ID 369	CS 360 -395 SL	T20 Torque 4.0Nm (Max)	M5x10	2.5mm															
	KRUZ 365 □ FSL		P(5xD) 324 254 219																								
	H(7xD) 397 327 292																										
Φ37.0 ~Φ37.4	YTDI 370 □ FSL		T(3xD) 253 183 148	253	183	148		55					IDP 370, IDP 371, IDP 372, IDP 373, IDP 374 IDF 370, IDF 371, IDF 372, IDF 373, IDF 374 ID 370, ID 371, ID 372, ID 373, ID 374	CS 360 -395 SL	T20 Torque 4.0Nm (Max)	M5x10	2.5mm										
	KRUZ 370 □ FSL		P(5xD) 327 257 222																								
	H(7xD) 401 331 296																										
Φ37.5 ~Φ37.9	YTDI 375 □ FSL		T(3xD) 255 185 150	255	185	150							55					IDP 375, IDP 376, IDP 377, IDP 378, IDP 379 IDF 375, IDF 376, IDF 377, IDF 378, IDF 379 ID 375, ID 376, ID 377, ID 378, ID 379	CS 360 -395 SL	T20 Torque 4.0Nm (Max)	M5x10	2.5mm					
	KRUZ 375 □ FSL		P(5xD) 330 260 225																								
	H(7xD) 405 335 300																										
Φ38.0 ~Φ38.4	YTDI 380 □ FSL		T(3xD) 258 188 152	258	188	152												55					IDP 380, IDP 381, IDP 382, IDP 383, IDP 384 IDF 380, IDF 381, IDF 382, IDF 383, IDF 384 ID 380, ID 381, ID 382, ID 383, ID 384	CS 360 -395 SL	T20 Torque 4.0Nm (Max)	M5x10	2.5mm
	KRUZ 380 □ FSL		P(5xD) 334 264 228																								
	H(7xD) 410 340 304																										
Φ38.5 ~Φ38.9	YTDI 385 □ FSL	T(3xD) 260 196 154	260	196	154	55	IDP 385, IDP 386, IDP 387, IDP 388, IDP 389 IDF 385, IDF 386, IDF 387, IDF 388, IDF 389 ID 385, ID 386, ID 387, ID 388, ID 389		CS 360 -395 SL	T20 Torque 4.0Nm (Max)	M5x10	2.5mm															
	KRUZ 385 □ FSL	P(5xD) 337 267 231																									
	H(7xD) 414 344 308																										
Φ39.0 ~Φ39.4	YTDI 390 □ FSL	T(3xD) 263 193 156	263	193	156		55	IDP 390, IDP 391, IDP 392, IDP 393, IDP 394 IDF 390, IDF 391, IDF 392, IDF 393, IDF 394 ID 390, ID 391, ID 392, ID 393, ID 394						CS 360 -395 SL	T20 Torque 4.0Nm (Max)	M5x10	2.5mm										
	KRUZ 390 □ FSL	P(5xD) 341 271 234																									
	H(7xD) 419 349 312																										
Φ39.5 ~Φ39.9	YTDI 395 □ FSL	T(3xD) 265 195 158	265	195	158			55					IDP 395, IDP 396, IDP 397, IDP 398, IDP 399 IDF 395, IDF 396, IDF 397, IDF 398, IDF 399 ID 395, ID 396, ID 397, ID 398, ID 399						CS 360 -395 SL	T20 Torque 4.0Nm (Max)	M5x10	2.5mm					
	KRUZ 395 □ FSL	P(5xD) 344 274 237																									
	H(7xD) 423 353 316																										
Φ40.0 ~Φ40.4	YTDI 400 □ FSL	T(3xD) 267 197 160	267	197	160								55					IDP 400, IDP 401, IDP 402, IDP 403, IDP 404 IDF 400, IDF 401, IDF 402, IDF 403, IDF 404 ID 400, ID 401, ID 402, ID 403, ID 404					CS 360 -395 SL	T20 Torque 4.0Nm (Max)	M5x10	2.5mm	
	KRUZ 400 □ FSL	P(5xD) 347 277 240																									
	H(7xD) 427 357 320																										
Φ40.5 ~Φ40.9	YTDI 405 □ FSL	T(3xD) 270 200 162	270	200	162	55			IDP 405, IDP 406, IDP 407, IDP 408, IDP 409 IDF 405, IDF 406, IDF 407, IDF 408, IDF 409 ID 405, ID 406, ID 407, ID 408, ID 409	CS 360 -395 SL	T20 Torque 4.0Nm (Max)	M5x10						2.5mm									
	KRUZ 405 □ FSL	P(5xD) 351 281 243																									
	H(7xD) 432 362 324																										
Φ41.0 ~Φ41.4	YTDI 410 □ FSL	T(3xD) 272 202 164	272	202	164		55		IDP 410, IDP 411, IDP 412, IDP 413, IDP 414 IDF 410, IDF 411, IDF 412, IDF 413, IDF 414 ID 410, ID 411, ID 412, ID 413, ID 414					CS 360 -395 SL	T20 Torque 4.0Nm (Max)	M5x10	2.5mm										
	KRUZ 410 □ FSL	P(5xD) 354 284 246																									
	H(7xD) 436 366 328																										
Φ41.5 ~Φ41.9	YTDI 415 □ FSL	T(3xD) 275 205 166	275	205	166			55	IDP 415, IDP 416, IDP 417, IDP 418, IDP 419 IDF 415, IDF 416, IDF 417, IDF 418, IDF 419 ID 415, ID 416, ID 417, ID 418, ID 419										CS 360 -395 SL	T20 Torque 4.0Nm (Max)	M5x10	2.5mm					
	KRUZ 415 □ FSL	P(5xD) 358 288 249																									
	H(7xD) 441 371 332																										
Φ42.0 ~Φ42.4	YTDI 420 □ FSL	T(3xD) 277 207 168	277	207	168				55				IDP 420, IDP 421, IDP 422, IDP 423, IDP 424 IDF 420, IDF 421, IDF 422, IDF 423, IDF 424 ID 420, ID 421, ID 422, ID 423, ID 424										CS 360 -395 SL	T20 Torque 4.0Nm (Max)	M5x10	2.5mm	
	KRUZ 420 □ FSL	P(5xD) 361 291 252																									
	H(7xD) 445 375 336																										
Φ42.5 ~Φ42.9	YTDI 425 □ FSL	T(3xD) 279 209 170	279	209	170	55				IDP 425, IDP 426, IDP 427, IDP 428, IDP 429 IDF 425, IDF 426, IDF 427, IDF 428, IDF 429 ID 425, ID 426, ID 427, ID 428, ID 429	CS 360 -395 SL	T20 Torque 4.0Nm (Max)	M5x10					2.5mm									
	KRUZ 425 □ FSL	P(5xD) 364 294 255																									
	H(7xD) 449 379 340																										
Φ43.0 ~Φ43.4	YTDI 430 □ FSL	T(3xD) 282 212 172	282	212	172		55			IDP 430, IDP 431, IDP 432, IDP 433, IDP 434 IDF 430, IDF 431, IDF 432, IDF 433, IDF 434 ID 430, ID 431, ID 432, ID 433, ID 434				CS 360 -395 SL	T20 Torque 4.0Nm (Max)	M5x10	2.5mm										
	KRUZ 430 □ FSL	P(5xD) 368 298 258																									
	H(7xD) 454 384 344																										
Φ43.5 ~Φ43.9	YTDI 435 □ FSL	T(3xD) 284 214 174	284	214	174			55		IDP 435, IDP 436, IDP 437, IDP 438, IDP 439 IDF 435, IDF 436, IDF 437, IDF 438, IDF 439 ID 435, ID 436, ID 437, ID 438, ID 439									CS 360 -395 SL	T20 Torque 4.0Nm (Max)	M5x10	2.5mm					
	KRUZ 435 □ FSL	P(5xD) 371 301 261																									
	H(7xD) 458 388 348																										
Φ44.0 ~Φ44.4	YTDI 440 □ FSL	T(3xD) 287 217 176	287	217	176				55	IDP 440, IDP 441, IDP 442, IDP 443, IDP 444 IDF 440, IDF 441, IDF 442, IDF 443, IDF 444 ID 440, ID 441, ID 442, ID 443, ID 444													CS 360 -395 SL	T			

# KRUZ-FSL, YTDI-FSL Flange body & Carbide insert

Hole size range	Body Code No.	Shank Size(Φd)	Cutting depth (Length x ΦD)	L1	L2	L3	Flanged dia.(ΦFd)	Insert Code No. to fit in body	Cap Screw	Torx driver	Set Screw	L-wrench
Φ44.5 ~Φ44.9	YTDI 445 □ FSL KRUZ 445 □ FSL	40.0	T(3xD)	289	219	178	55	IDP 445, IDP 446, IDP 447, IDP 448, IDP 449 IDF 445, IDF 446, IDF 447, IDF 448, IDF 449 ID 445, ID 446, ID 447, ID 448, ID 449	CS 400 -445 SL			
			P(5xD)	378	308	267						
			H(7xD)	467	397	356						
			L(10xD)	601	531	490						
Φ45.0 ~Φ45.4	YTDI 450 □ FSL KRUZ 450 □ FSL	40.0	T(3xD)	291	221	180	55	IDP 450, IDP 451, IDP 452, IDP 453, IDP 454 IDF 450, IDF 451, IDF 452, IDF 453, IDF 454 ID 450, ID 451, ID 452, ID 453, ID 454				
			P(5xD)	381	311	270						
			H(7xD)	471	401	360						
			L(10xD)	606	536	495						
Φ45.5 ~Φ45.9	YTDI 455 □ FSL KRUZ 455 □ FSL	40.0	T(3xD)	294	224	182	55	IDP 455, IDP 456, IDP 457, IDP 458, IDP 459 IDF 455, IDF 456, IDF 457, IDF 458, IDF 459 ID 455, ID 456, ID 457, ID 458, ID 459				
			P(5xD)	385	315	273						
			H(7xD)	476	406	364						
			L(10xD)	613	543	501						
Φ46.0 ~Φ46.4	YTDI 460 □ FSL KRUZ 460 □ FSL	40.0	T(3xD)	296	226	184	55	IDP 460, IDP 461, IDP 462, IDP 463, IDP 464 IDF 460, IDF 461, IDF 462, IDF 463, IDF 464 ID 460, ID 461, ID 462, ID 463, ID 464				
			P(5xD)	388	318	276						
			H(7xD)	480	410	368						
			L(10xD)	618	548	506						
Φ46.5 ~Φ46.9	YTDI 465 □ FSL KRUZ 465 □ FSL	40.0	T(3xD)	299	229	186	55	IDP 465, IDP 466, IDP 467, IDP 468, IDP 469 IDF 465, IDF 466, IDF 467, IDF 468, IDF 469 ID 465, ID 466, ID 467, ID 468, ID 469				
			P(5xD)	392	322	279						
			H(7xD)	485	415	372						
			L(10xD)	625	555	512						
Φ47.0 ~Φ47.4	YTDI 470 □ FSL KRUZ 470 □ FSL	40.0	T(3xD)	301	231	188	55	IDP 470, IDP 471, IDP 472, IDP 473, IDP 474 IDF 470, IDF 471, IDF 472, IDF 473, IDF 474 ID 470, ID 471, ID 472, ID 473, ID 474				
			P(5xD)	395	325	282						
			H(7xD)	489	419	376						
			L(10xD)	630	560	517						
Φ47.5 ~Φ47.9	YTDI 475 □ FSL KRUZ 475 □ FSL	40.0	T(3xD)	303	233	190	55	IDP 475, IDP 476, IDP 477, IDP 478, IDP 479 IDF 475, IDF 476, IDF 477, IDF 478, IDF 479 ID 475, ID 476, ID 477, ID 478, ID 479				
			P(5xD)	398	328	285						
			H(7xD)	493	423	380						
			L(10xD)	636	566	523						
Φ48.0 ~Φ48.4	YTDI 480 □ FSL KRUZ 480 □ FSL	40.0	T(3xD)	306	236	192	55	IDP 480, IDP 481, IDP 482, IDP 483, IDP 484 IDF 480, IDF 481, IDF 482, IDF 483, IDF 484 ID 480, ID 481, ID 482, ID 483, ID 484				
			P(5xD)	402	332	288						
			H(7xD)	498	428	384						
			L(10xD)	642	572	528						
Φ48.5 ~Φ48.9	YTDI 485 □ FSL KRUZ 485 □ FSL	40.0	T(3xD)	308	238	194	55	IDP 485, IDP 486, IDP 487, IDP 488, IDP 489 IDF 485, IDF 486, IDF 487, IDF 488, IDF 489 ID 485, ID 486, ID 487, ID 488, ID 489				
			P(5xD)	405	335	291						
			H(7xD)	502	432	388						
			L(10xD)	648	578	534						
Φ49.0 ~Φ49.4	YTDI 490 □ FSL KRUZ 490 □ FSL	40.0	T(3xD)	311	241	196	55	IDP 490, IDP 491, IDP 492, IDP 493, IDP 494 IDF 490, IDF 491, IDF 492, IDF 493, IDF 494 ID 490, ID 491, ID 492, ID 493, ID 494				
			P(5xD)	409	339	294						
			H(7xD)	507	437	392						
			L(10xD)	654	584	539						
Φ49.5 ~Φ49.9	YTDI 495 □ FSL KRUZ 495 □ FSL	40.0	T(3xD)	313	243	198	55	IDP 495, IDP 496, IDP 497, IDP 498, IDP 499 IDF 495, IDF 496, IDF 497, IDF 498, IDF 499 ID 495, ID 496, ID 497, ID 498, ID 499				
			P(5xD)	412	342	297						
			H(7xD)	511	441	396						
			L(10xD)	660	590	545						
Φ50.0 ~Φ50.4	YTDI 500 □ FSL KRUZ 500 □ FSL	40.0	T(3xD)	315	245	200	55	IDP 500, IDP 501, IDP 502, IDP 503, IDP 504 IDF 500, IDF 501, IDF 502, IDF 503, IDF 504 ID 500, ID 501, ID 502, ID 503, ID 504				
			P(5xD)	415	345	300						
			H(7xD)	515	445	400						
			L(10xD)	665	595	550						

T20  
Torque 4.0Nm (Max)  
M6x12 3.0mm

# KRUZ-SLK Drill body & IDFK Carbide insert

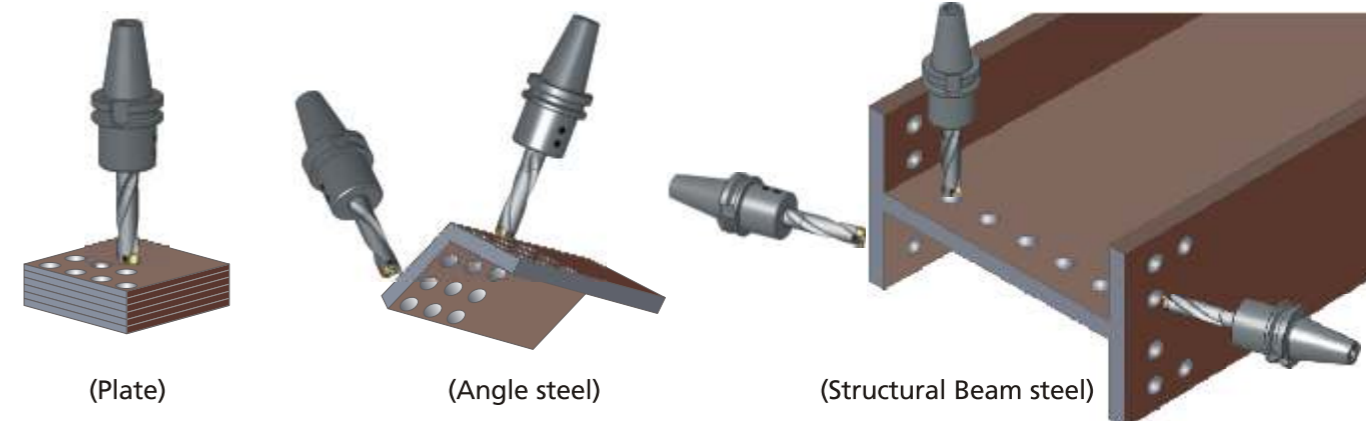
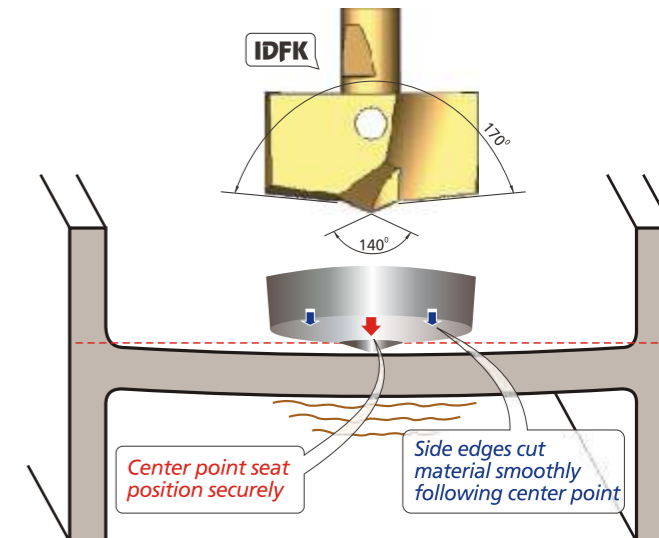
## IDFK Carbide insert

- Carbide insert completely grinded by CNC program
- Patented 140°+170° dual flat bottom point angle
- TiAlN coated insert offers wear resistance and higher feed rate
- Designed exclusively for structural beam, angle or plate etc



## KRUZ-SLK Drill body

- Rigid drill body made of special premium steel and heat treated
- TiN coated body to enable longer tool life and higher lubricity
- Special flute design to increase faster chip's ejection rate
- Enabling to mount 0.5mm carbide insert size
- Stubby body length to perform maximum drilling ability of structural steel
- Internal coolant fed



## KRUZ-FSL Drills, Cutting Speed Recommendation

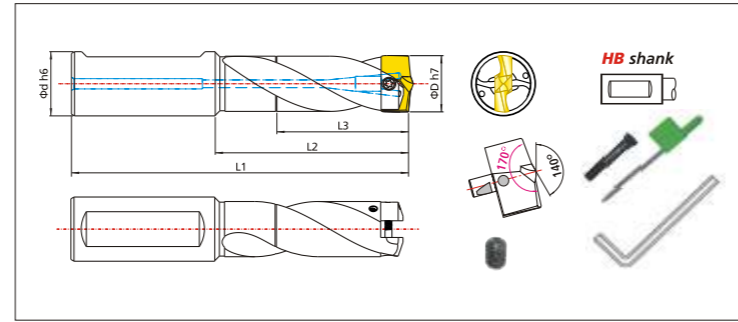
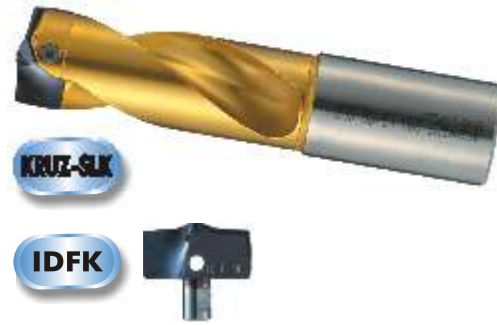
Drill Dia.	Φ8~16mm		Φ16~25mm		Φ25~32mm		Φ32~40mm		Φ40~50mm	
	Speed (m/min)	Feed (mm/rev)	Speed (m/min)	Feed (mm/rev)	Speed (m/min)	Feed (mm/rev)	Speed (m/min)	Feed (mm/rev)	Speed (m/min)	Feed (mm/rev)
Grey cast iron (FC)	80~150	0.20~0.30	80~150	0.25~0.45	80~160	0.35~0.55	90~200	0.34~0.58	90~200	0.38~0.60
Nodular cast iron (FCD)	80~140	0.15~0.25	80~140	0.22~0.45	80~150	0.32~0.52	90~160	0.35~0.62	90~200	0.38~0.60
Carbon steel (S45C)	80~140	0.15~0.30	80~140	0.16~0.40	80~150	0.20~0.40	80~150	0.22~0.48	80~160	0.25~0.54
Alloy steel (SCM440)	70~140	0.15~0.30	70~140	0.15~0.40	70~140	0.18~0.40	80~140	0.25~0.47	80~140	0.27~0.52
Hardened steel (SKD11)	40~50	0.10~0.20	40~50	0.12~0.28	40~50	0.16~0.35	40~60	0.20~0.38	40~60	0.22~0.42
Stainless steel (SUS)	30~40	0.10~0.20	35~50	0.10~0.22	35~50	0.15~0.28	40~55	0.18~0.30	40~55	0.22~0.32
Aluminum 130HB (AL)	120~200	0.20~0.30	120~200	0.25~0.40	120~200	0.30~0.45	120~200	0.30~0.45	120~200	0.30~0.50

This data is recommended for 3xDia. and should be reduced about 15~20% for 5xD, 7xD, 10xD drills.  
The data is normally suggested for oil-mist(MQL) coolant condition and also possible to run in other normal condition if machining environment like clamping etc. are secured in good.





# KRUZ-SLK stubby series body & IDFK insert, Metric

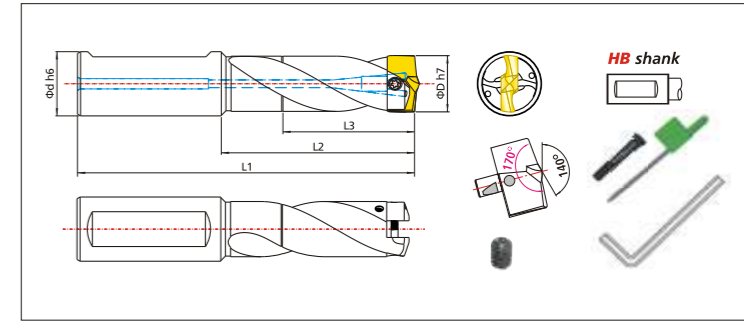
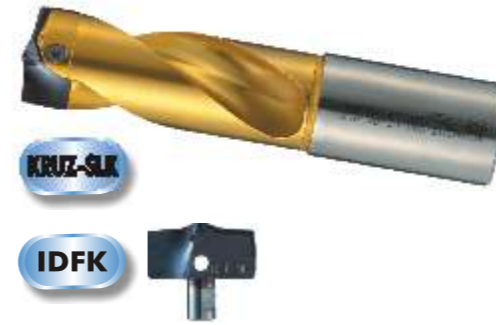


Exclusively designed for Structural machining

Hole (Φ) mm	Body Code	Shank (Φd)	Dimension			Carbide drill Insert(TiAlN coated) (ΦD h7, 14.0mm insert-> IDFK 140)	Cap Screw	Torx driver	Set Screw	L-wrench
			L1	L2	L3					
14.0~14.4	<b>KRUZ 140 L3=50 SLK</b>	16	110	62	50	IDFK-140, IDFK-141, IDFK-142, IDFK-143, IDFK-144	CS 140 -155 SL	T7	M2.5x4	1.3mm
14.5~14.9	<b>KRUZ 145 L3=50 SLK</b>									
15.0~15.4	<b>KRUZ 150 L3=50 SLK</b>	20	115	65	50	IDFK-150, IDFK-151, IDFK-152, IDFK-153, IDFK-154	CS 160 -175 SL	Torque 0.9Nm (Max)	M2.5x4	1.3mm
15.5~15.9	<b>KRUZ 155 L3=50 SLK</b>									
16.0~16.4	<b>KRUZ 160 L3=50 SLK</b>	20	118	68	50	IDFK-160, IDFK-161, IDFK-162, IDFK-163, IDFK-164	CS 180 -195 SL	Torque 1.5Nm (Max)	M3x6	1.5mm
16.5~16.9	<b>KRUZ 165 L3=50 SLK</b>									
17.0~17.4	<b>KRUZ 170 L3=50 SLK</b>	25	130	74	50	IDFK-170, IDFK-171, IDFK-172, IDFK-173, IDFK-174	CS 200 -215 SL	T8	M3x6	1.5mm
17.5~17.9	<b>KRUZ 175 L3=50 SLK</b>									
18.0~18.4	<b>KRUZ 180 L3=50 SLK</b>	25	136	76	50	IDFK-180, IDFK-181, IDFK-182, IDFK-183, IDFK-184	CS 220 -235 SL	Torque 3.5Nm (Max)	M4x8	2.0mm
18.5~18.9	<b>KRUZ 185 L3=50 SLK</b>									
19.0~19.4	<b>KRUZ 190 L3=50 SLK</b>	32	140	80	50	IDFK-190, IDFK-191, IDFK-192, IDFK-193, IDFK-194	CS 240 -255 SL	T15	M4x8	2.0mm
19.5~19.9	<b>KRUZ 195 L3=50 SLK</b>									
20.0~20.4	<b>KRUZ 200 L3=50 SLK</b>	32	140	80	50	IDFK-200, IDFK-201, IDFK-202, IDFK-203, IDFK-204	CS 260 -275 SL	Torque 3.5Nm (Max)	M4x8	2.0mm
20.5~20.9	<b>KRUZ 205 L3=50 SLK</b>									
21.0~21.4	<b>KRUZ 210 L3=50 SLK</b>	40	180	110	80	IDFK-210, IDFK-211, IDFK-212, IDFK-213, IDFK-214	CS 280 -295 SL	T20	M5x10	2.5mm
21.5~21.9	<b>KRUZ 215 L3=50 SLK</b>									
22.0~22.4	<b>KRUZ 220 L3=50 SLK</b>	40	185	115	80	IDFK-220, IDFK-221, IDFK-222, IDFK-223, IDFK-224	CS 300 -315 SL	Torque 4.0Nm (Max)	M6x12	3.0mm
22.5~22.9	<b>KRUZ 225 L3=50 SLK</b>									
23.0~23.4	<b>KRUZ 230 L3=50 SLK</b>	40	185	115	80	IDFK-230, IDFK-231, IDFK-232, IDFK-233, IDFK-234	CS 320 -335 SL	Torque 4.0Nm (Max)	M6x12	3.0mm
23.5~23.9	<b>KRUZ 235 L3=50 SLK</b>									
24.0~24.4	<b>KRUZ 240 L3=50 SLK</b>	40	185	115	80	IDFK-240, IDFK-241, IDFK-242, IDFK-243, IDFK-244	CS 360 -395 SL	Torque 4.0Nm (Max)	M6x12	3.0mm
24.5~24.9	<b>KRUZ 245 L3=50 SLK</b>									
25.0~25.4	<b>KRUZ 250 L3=50 SLK</b>	40	200	130	90	IDFK-250, IDFK-251, IDFK-252, IDFK-253, IDFK-254	CS 400 -445 SL	Torque 4.0Nm (Max)	M6x12	3.0mm
25.5~25.9	<b>KRUZ 255 L3=50 SLK</b>									
26.0~26.4	<b>KRUZ 260 L3=50 SLK</b>	40	200	130	90	IDFK-260, IDFK-261, IDFK-262, IDFK-263, IDFK-264	CS 450 -500 SL	Torque 4.0Nm (Max)	M6x12	3.0mm
26.5~26.9	<b>KRUZ 265 L3=50 SLK</b>									
27.0~27.4	<b>KRUZ 270 L3=50 SLK</b>	40	200	130	90	IDFK-270, IDFK-271, IDFK-272, IDFK-273, IDFK-274	CS 450 -500 SL	Torque 4.0Nm (Max)	M6x12	3.0mm
27.5~27.9	<b>KRUZ 275 L3=50 SLK</b>									
28.0~28.4	<b>KRUZ 280 L3=50 SLK</b>	40	200	130	90	IDFK-280, IDFK-281, IDFK-282, IDFK-283, IDFK-284	CS 450 -500 SL	Torque 4.0Nm (Max)	M6x12	3.0mm
28.5~28.9	<b>KRUZ 285 L3=50 SLK</b>									
29.0~29.4	<b>KRUZ 290 L3=50 SLK</b>	40	200	130	90	IDFK-290, IDFK-291, IDFK-292, IDFK-293, IDFK-294	CS 450 -500 SL	Torque 4.0Nm (Max)	M6x12	3.0mm
29.5~29.9	<b>KRUZ 295 L3=50 SLK</b>									
30.0~30.4	<b>KRUZ 300 L3=70 SLK</b>	40	200	130	90	IDFK-300, IDFK-301, IDFK-302, IDFK-303, IDFK-304	CS 450 -500 SL	Torque 4.0Nm (Max)	M6x12	3.0mm
30.5~30.9	<b>KRUZ 305 L3=70 SLK</b>									
31.0~31.4	<b>KRUZ 310 L3=70 SLK</b>	40	200	130	90	IDFK-310, IDFK-311, IDFK-312, IDFK-313, IDFK-314	CS 450 -500 SL	Torque 4.0Nm (Max)	M6x12	3.0mm
32.0~32.4	<b>KRUZ 320 L3=70 SLK</b>									
33.0~33.4	<b>KRUZ 330 L3=70 SLK</b>	40	200	130	90	IDFK-330, IDFK-331, IDFK-332, IDFK-333, IDFK-334	CS 450 -500 SL	Torque 4.0Nm (Max)	M6x12	3.0mm
34.0~34.4	<b>KRUZ 340 L3=80 SLK</b>									
35.0~35.4	<b>KRUZ 350 L3=80 SLK</b>	40	200	130	90	IDFK-350, IDFK-351, IDFK-352, IDFK-353, IDFK-354	CS 450 -500 SL	Torque 4.0Nm (Max)	M6x12	3.0mm
36.0~36.4	<b>KRUZ 360 L3=80 SLK</b>									
37.0~37.4	<b>KRUZ 370 L3=80 SLK</b>	40	200	130	90	IDFK-370, IDFK-371, IDFK-372, IDFK-373, IDFK-374	CS 450 -500 SL	Torque 4.0Nm (Max)	M6x12	3.0mm
38.0~38.4	<b>KRUZ 380 L3=80 SLK</b>									
39.0~39.4	<b>KRUZ 390 L3=80 SLK</b>	40	200	130	90	IDFK-390, IDFK-391, IDFK-392, IDFK-393, IDFK-394	CS 450 -500 SL	Torque 4.0Nm (Max)	M6x12	3.0mm
40.0~40.4	<b>KRUZ 400 L3=80 SLK</b>									
41.0~41.4	<b>KRUZ 410 L3=80 SLK</b>	40	200	130	90	IDFK-410, IDFK-411, IDFK-412, IDFK-413, IDFK-414	CS 450 -500 SL	Torque 4.0Nm (Max)	M6x12	3.0mm
42.0~42.4	<b>KRUZ 420 L3=80 SLK</b>									
43.0~43.4	<b>KRUZ 430 L3=80 SLK</b>	40	200	130	90	IDFK-430, IDFK-431, IDFK-432, IDFK-433, IDFK-434	CS 450 -500 SL	Torque 4.0Nm (Max)	M6x12	3.0mm
44.0~44.4	<b>KRUZ 440 L3=80 SLK</b>									
45.0~45.4	<b>KRUZ 450 L3=80 SLK</b>	40	200	130	90	IDFK-450, IDFK-451, IDFK-452, IDFK-453, IDFK-454	CS 450 -500 SL	Torque 4.0Nm (Max)	M6x12	3.0mm
46.0~46.4	<b>KRUZ 460 L3=80 SLK</b>									
47.0~47.4	<b>KRUZ 470 L3=80 SLK</b>	40	200	130	90	IDFK-470, IDFK-471, IDFK-472, IDFK-473, IDFK-474	CS 450 -500 SL	Torque 4.0Nm (Max)	M6x12	3.0mm
48.0~48.4	<b>KRUZ 480 L3=80 SLK</b>									
49.0~49.4	<b>KRUZ 490 L3=80 SLK</b>	40	200	130	90	IDFK-490, IDFK-491, IDFK-492, IDFK-493, IDFK-494	CS 450 -500 SL	Torque 4.0Nm (Max)	M6x12	3.0mm
50.0~50.4	<b>KRUZ 500 L3=90 SLK</b>									

☞ Size not shown on above is available upon request.

# KRUZ-SLK stubby series body & IDFK insert, Inch



Exclusively designed for Structural machining

Hole (Φ) decimal	Body Code	Shank (Φd)	Dimension			Carbide drill Insert(TiAlN coated) (ΦD h7)	Alternative Metric body
			L1	L2	L3		
.5512~.5705	<b>KRUZ .5512-SLK</b>	5/8 (15.875mm)	4.3307 (70mm)	2.4409 (62mm)	IDFK-9/16"(14.29mm)	<b>KRUZ 140 L3=50 SLK</b>	
.5709~.5902	<b>KRUZ .5709-SLK</b>					IDFK-37/64"(14.68mm)	<b>KRUZ 145 L3=50 SLK</b>
.5906~.6098	<b>KRUZ .5906-SLK</b>	3/4 (19.05mm)	4.5276 (115mm)	2.5591 (65mm)	IDFK-19/32"(15.08mm), IDFK-39/64"(15.48mm)	<b>KRUZ 150 L3=50 SLK</b>	
.6102~.6295	<b>KRUZ .6102-SLK</b>					IDFK-5/8"(15.88mm)	<b>KRUZ 155 L3=50 SLK</b>
.6299~.6492	<b>KRUZ .6299-SLK</b>	3/4 (19.05mm)	4.6457 (118mm)	2.6772 (68mm)	IDFK-41/64"(16.27mm)	<b>KRUZ 160 L3=50 SLK</b>	
.6496~.6689	<b>KRUZ .6496-SLK</b>					IDFK-21/32"(16.67mm)	<b>KRUZ 165 L3=50 SLK</b>
.6693~.6886	<b>KRUZ .6693-SLK</b>	1" (25.4mm)	5.1181 (130mm)	2.9134 (74mm)	IDFK-43/64"(17.07mm), IDFK-11/16"(17.46mm)	<b>KRUZ 170 L3=50 SLK</b>	
.6890~.7083	<b>KRUZ .6890-SLK</b>					IDFK-45/64"(17.86mm)	<b>KRUZ 175 L3=50 SLK</b>
.7087~.7280	<b>KRUZ .7087-SLK</b>	1" (25.4mm)	5.1181 (130mm)	2.9134 (74mm)	IDFK-23/32"(18.26mm)	<b>KRUZ 180 L3=50 SLK</b>	
.7283~.7476	<b>KRUZ .7283-SLK</b>					IDFK-47/64"(18.65mm)	<b>KRUZ 185 L3=50 SLK</b>
.7480~.7673	<b>KRUZ .7480-SLK</b>	1" (25.4mm)	5.1181 (130mm)	2.9134 (74mm)	IDFK-3/4(19.05mm), IDFK-49/64"(19.45mm)	<b>KRUZ 190 L3=50 SLK</b>	
.7677~.7870	<b>KRUZ .7677-SLK</b>					IDFK-25/32"(19.84mm)	<b>KRUZ 195 L3=50 SLK</b>
.7874~.8067	<b>KRUZ .7874-SLK</b>	1" (25.4mm)	5.1181 (130mm)	2.9134 (74mm)	IDFK-51/64"(20.24mm)	<b>KRUZ 200 L3=50 SLK</b>	
.8071~.8264	<b>KRUZ .8071-SLK</b>					IDFK-13/16"(20.64mm)	<b>KRUZ 205 L3=50 SLK</b>
.8268~.8461	<b>KRUZ .8268-SLK</b>	1" (25.4mm)	5.1181 (130mm)	2.9134 (74mm)	IDFK-27/32"(21.43mm)	<b>KRUZ 210 L3=50 SLK</b>	
.8465~.8657	<b>KRUZ .8465-SLK</b>					IDFK-55/64"(21.83mm)	<b>KRUZ 215 L3=50 SLK</b>
.8661~.8854	<b>KRUZ .8661-SLK</b>	1" (25.4mm)	5.1181 (130mm)	2.9134 (74mm)	IDFK-7/8"(22.23mm)	<b>KRUZ 220 L3=50 SLK</b>	
.8858~.9051	<b>KRUZ .8858-SLK</b>					IDFK-57/64"(22.62mm)	<b>KRUZ 225 L3=50 SLK</b>
.9055~.9248	<b>KRUZ .9055-SLK</b>	1 1/4 (31.75mm)	6.1024 (155mm)	3.7402 (95mm)	IDFK-29/32"(23.02mm), IDFK-59/64"(23.42mm)	<b>KRUZ 230 L3=50 SLK</b>	
.9252~.9445	<b>KRUZ .9252-SLK</b>					IDFK-15/16"(23.81mm)	<b>KRUZ 235 L3=50 SLK</b>
.9646~.9839	<b>KRUZ .9646-SLK</b>	1 1/4 (31.75mm)	6.1024 (155mm)	3.7402 (95mm)	IDFK-31/32"(24.61mm)	<b>KRUZ 245 L3=50 SLK</b>	
.9843~1.0035	<b>KRUZ .9843-SLK</b>					IDFK-63/64"(25.00mm), IDFK-1"(25.4mm)	<b>KRUZ 250 L3=50 SLK</b>
1.0039~1.0232	<b>KRUZ 1.0039-SLK</b>	1 1/4 (31.75mm)	6.1024 (155mm)	3.7402 (95mm)	IDFK-1 1/64"(25.80mm)	<b>KRUZ 255 L3=50 SLK</b>	
1.0236~1.0429	<b>KRUZ 1.0236-SLK</b>					IDFK-1 1/32"(26.19mm)	<b>KRUZ 260 L3=50 SLK</b>
1.0433~1.0626	<b>KRUZ 1.0433-SLK</b>	1 1/4 (31.75mm)	6.1024 (155mm)	3.7402 (95mm)	IDFK-1 3/64"(26.59mm), IDFK-1 1/16"(26.99mm)	<b>KRUZ 265 L3=50 SLK</b>	
1.0827~1.1020	<b>KRUZ 1.0827-SLK</b>					IDFK-1 3/32"(27.78mm)	<b>KRUZ 275 L3=50 SLK</b>
1.1024~1.1217	<b>KRUZ 1.1024-SLK</b>	1 1/4 (31.75mm)	6.1024 (155mm)	3.7402 (95mm)	IDFK-1 7/64"(28.18mm)	<b>KRUZ 280 L3=50 SLK</b>	
1.1220~1.1413	<b>KRUZ 1.1220-SLK</b>					IDFK-1 1/8"(28.58mm)	<b>KRUZ 285 L3=50 SLK</b>
1.1417~1.1610	<b>KRUZ 1.1417-SLK</b>	1 1/4 (31.75mm)	6.1024 (155mm)	3.7402 (95mm)	IDFK-1 5/32"(29.37mm)	<b>KRUZ 290 L3=50 SLK</b>	
1.1811~1.2004	<b>KRUZ 1.1811-SLK</b>					IDFK-1 3/16"(30.16mm)	<b>KRUZ 300 L3=70 SLK</b>
1.2008~1.2201	<b>KRUZ 1.2008-SLK</b>	1 1/4 (31.75mm)	6.1024 (155mm)	3.7402 (95mm)	IDFK-1 7/32"(30.96mm)	<b>KRUZ 305 L3=70 SLK</b>	
1.2402~1.2594	<b>KRUZ 1.2402-SLK</b>					IDFK-1 1/4"(31.75mm)	<b>KRUZ 315 L3=70 SLK</b>
1.2795~1.2988	<b>KRUZ 1.2795-SLK</b>	1 1/4 (31.75mm)	6.1024 (155mm)	3.7402 (95mm)	IDFK-1 9/32"(32.54mm)	<b>KRUZ 325 L3=70 SLK</b>	
1.2992~1.3185	<b>KRUZ 1.2992-SLK</b>					IDFK-1 5/16"(33.34mm)	<b>KRUZ 330 L3=70 SLK</b>
1.3386~1.3579	<b>KRUZ 1.3386-SLK</b>	1 1/4 (31.75mm)	6.1024 (155mm)	3.7402 (95mm)	IDFK-1 11/32"(34.13mm)	<b>KRUZ 340 L3=80 SLK</b>	
1.3583~1.3776	<b>KRUZ 1.3583-SLK</b>					IDFK-1 3/8"(34.93mm)	<b>KRUZ 345 L3=80 SLK</b>

☞ See to alternative metric body on right if it is suitable to fit in tool holder.

☞ All the inch size items are available made-to-order.

☞ Any size not shown from above is available upon request.(8.0mm to 50.4mm)

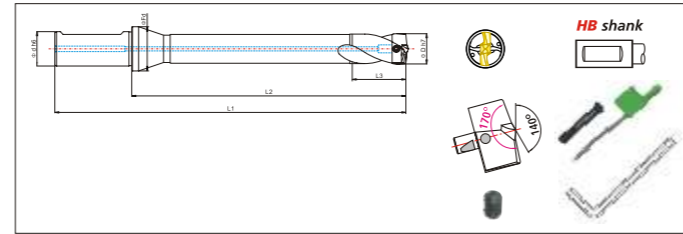
☞ Both inch and metric size are compatibly fit each other.



# KRUZ-FSLK Neck extended Flanged body(7xD) & IDFK insert



- When requires longer drill length, select this ideal drill body
- Minimized flute design with longer cylindrical neck
- Increased drill's rigidity than ordinary 7xDia drill length
- Internal coolant fed design
- Flanged shank to reduce chattering or vibrating
- Available upon request only



Exclusively designed for Structural machining

Hole (Φ) mm	Body Code	Shank (Φd)	Dimension			Flanged dia.(ΦFd)	Carbide drill Insert(TiAlN coated) (ΦD h7, 14.0mm insert-> IDFK 140)	IDFK	Cap Screw	Torx driver	Set Screw	L-wrench
			L1	L2	L3							
14.0~14.4	KRUZ 140H FSLK	16	175	127		21	IDFK-140, IDFK-141, IDFK-142, IDFK-143, IDFK-144					
14.5~14.9	KRUZ 145H FSLK		181	131			IDFK-145, IDFK-146, IDFK-147, IDFK-148, IDFK-149	CS 140				
15.0~15.4	KRUZ 150H FSLK		187	137			IDFK-150, IDFK-151, IDFK-152, IDFK-153, IDFK-154	-155 SL				
15.5~15.9	KRUZ 155H FSLK		192	142			IDFK-155, IDFK-156, IDFK-157, IDFK-158, IDFK-159		T7			
16.0~16.4	KRUZ 160H FSLK		196	146			IDFK-160, IDFK-161, IDFK-162, IDFK-163, IDFK-164					
16.5~16.9	KRUZ 165H FSLK		201	151			IDFK-165, IDFK-166, IDFK-167, IDFK-168, IDFK-169	CS 160				
17.0~17.4	KRUZ 170H FSLK	20	205	155		27	IDFK-170, IDFK-171, IDFK-172, IDFK-173, IDFK-174	-175 SL		M2.5x4	1.3mm	
17.5~17.9	KRUZ 175H FSLK		209	159			IDFK-175, IDFK-176, IDFK-177, IDFK-178, IDFK-179					
18.0~18.4	KRUZ 180H FSLK		214	164			IDFK-180, IDFK-181, IDFK-182, IDFK-183, IDFK-184					
18.5~18.9	KRUZ 185H FSLK		218	168			IDFK-185, IDFK-186, IDFK-187, IDFK-188, IDFK-189	CS 180				
19.0~19.4	KRUZ 190H FSLK		223	173			IDFK-190, IDFK-191, IDFK-192, IDFK-193, IDFK-194	-195 SL				
19.5~19.9	KRUZ 195H FSLK		227	177			IDFK-195, IDFK-196, IDFK-197, IDFK-198, IDFK-199					
20.0~20.4	KRUZ 200H FSLK		237	181			IDFK-200, IDFK-201, IDFK-202, IDFK-203, IDFK-204					
20.5~20.9	KRUZ 205H FSLK		242	186			IDFK-205, IDFK-206, IDFK-207, IDFK-208, IDFK-209	CS 200				
21.0~21.4	KRUZ 210H FSLK		246	190			IDFK-210, IDFK-211, IDFK-212, IDFK-213, IDFK-214	-215 SL		T8		
21.5~21.9	KRUZ 215H FSLK		251	195			IDFK-215, IDFK-216, IDFK-217, IDFK-218, IDFK-219					
22.0~22.4	KRUZ 220H FSLK	25	255	199	50	32	IDFK-220, IDFK-221, IDFK-222, IDFK-223, IDFK-224					
22.5~22.9	KRUZ 225H FSLK		259	203			IDFK-225, IDFK-226, IDFK-227, IDFK-228, IDFK-229	CS 220				
23.0~23.4	KRUZ 230H FSLK		264	208			IDFK-230, IDFK-231, IDFK-232, IDFK-233, IDFK-234	-235 SL				
23.5~23.9	KRUZ 235H FSLK		268	212			IDFK-235, IDFK-236, IDFK-237, IDFK-238, IDFK-239		M3x6		1.5mm	
24.0~24.4	KRUZ 240H FSLK		277	217			IDFK-240, IDFK-241, IDFK-242, IDFK-243, IDFK-244					
24.5~24.9	KRUZ 245H FSLK		281	221			IDFK-245, IDFK-246, IDFK-247, IDFK-248, IDFK-249	CS 240				
25.0~25.4	KRUZ 250H FSLK		285	225			IDFK-250, IDFK-251, IDFK-252, IDFK-253, IDFK-254	-255 SL				
25.5~25.9	KRUZ 255H FSLK		290	230			IDFK-255, IDFK-256, IDFK-257, IDFK-258, IDFK-259					
26.0~26.4	KRUZ 260H FSLK		294	234			IDFK-260, IDFK-261, IDFK-262, IDFK-263, IDFK-264					
26.5~26.9	KRUZ 265H FSLK		299	239			IDFK-265, IDFK-266, IDFK-267, IDFK-268, IDFK-269	CS 260				
27.0~27.4	KRUZ 270H FSLK		303	243			IDFK-270, IDFK-271, IDFK-272, IDFK-273, IDFK-274	-275 SL		T15		
27.5~27.9	KRUZ 275H FSLK		307	247			IDFK-275, IDFK-276, IDFK-277, IDFK-278, IDFK-279					
28.0~28.4	KRUZ 280H FSLK	32	312	252	70	39	IDFK-280, IDFK-281, IDFK-282, IDFK-283, IDFK-284					
28.5~28.9	KRUZ 285H FSLK		316	256			IDFK-285, IDFK-286, IDFK-287, IDFK-288, IDFK-289	CS 280				
29.0~29.4	KRUZ 290H FSLK		321	261			IDFK-290, IDFK-291, IDFK-292, IDFK-293, IDFK-294	-295 SL		M4x8	2.0mm	
29.5~29.9	KRUZ 295H FSLK		325	265			IDFK-295, IDFK-296, IDFK-297, IDFK-298, IDFK-299					
30.0~30.4	KRUZ 300H FSLK		329	269			IDFK-300, IDFK-301, IDFK-302, IDFK-303, IDFK-304					
30.5~30.9	KRUZ 305H FSLK		334	274			IDFK-305, IDFK-306, IDFK-307, IDFK-308, IDFK-309	CS 300				
31.0~31.4	KRUZ 310H FSLK		338	278			IDFK-310, IDFK-311, IDFK-312, IDFK-313, IDFK-314	-315 SL		T20		
31.5~31.9	KRUZ 315H FSLK		343	283			IDFK-315, IDFK-316, IDFK-317, IDFK-318, IDFK-319					
32.0~32.4	KRUZ 320H FSLK		347	287			IDFK-320, IDFK-321, IDFK-322, IDFK-323, IDFK-324	CS 320				
								-355 SL		M5x10	2.5mm	

18 Size not shown on above is available upon request.

# ISO 45 & HSK Extension holder for Structural

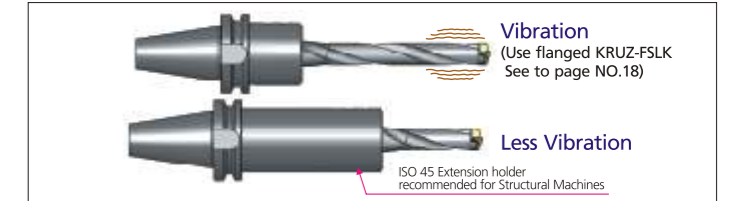
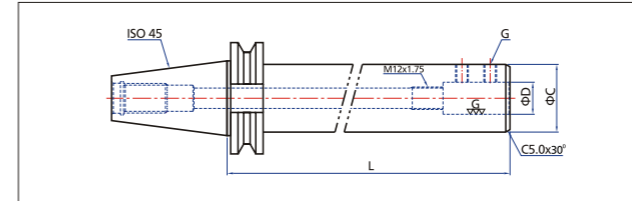
ISO45



HSK



- ▶ ISO 45(HSK) holder can help drilling with strong rigidity
- ▶ As alternative clamping for HSS MT shank length
- ▶ Internal coolant channel structure
- ▶ Side locking with two set screws
- ▶ Ideal holder to run KRUZ-SLK body & IDFK insert
- ▶ HSK holder is available upon request



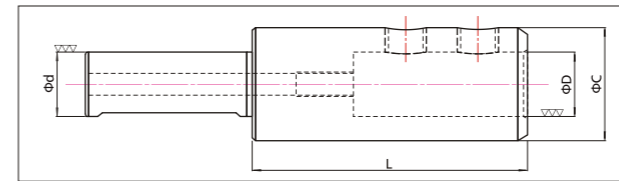
CODE No.	D	L	C	G	CODE No.	D	L	C	G	CODE No.	D	L	C	G
ISO45(HSK)-SLA16-80		80			ISO45(HSK)-SLA20-400	20	400			ISO45(HSK)-SLA32-270	32	270		
ISO45(HSK)-SLA16-160		160			ISO45(HSK)-SLA20-450		450			ISO45(HSK)-SLA32-300		300		
ISO45(HSK)-SLA16-210		210			ISO45(HSK)-SLA20-500		500			ISO45(HSK)-SLA32-350		350		
ISO45(HSK)-SLA16-240		240			ISO45(HSK)-SLA25-80		80			ISO45(HSK)-SLA32-400		400		56
ISO45(HSK)-SLA16-270		270			ISO45(HSK)-SLA25-160		160			ISO45(HSK)-SLA32-450		450		
ISO45(HSK)-SLA16-300		300			ISO45(HSK)-SLA25-210		210			ISO45(HSK)-SLA32-500		500		
ISO45(HSK)-SLA16-350		350			ISO45(HSK)-SLA25-240		240			ISO45(HSK)-SLA40-90		90		
ISO45(HSK)-SLA16-400		400			ISO45(HSK)-SLA25-270		270			ISO45(HSK)-SLA40-160		160		
ISO45(HSK)-SLA16-450		450		56	ISO45(HSK)-SLA25-300		300		56	ISO45(HSK)-SLA40-210		210		M14
ISO45(HSK)-SLA16-500		500			ISO45(HSK)-SLA25-350		350			ISO45(HSK)-SLA40-240		240		
ISO45(HSK)-SLA20-80		80			ISO45(HSK)-SLA25-400		400			ISO45(HSK)-SLA40-270		270		
ISO45(HSK)-SLA20-160		160			ISO45(HSK)-SLA25-450		450			ISO45(HSK)-SLA40-300		300		60
ISO45(HSK)-SLA20-210		210			ISO45(HSK)-SLA25-500		500			ISO45(HSK)-SLA40-350		350		
ISO45(HSK)-SLA20-240		240			ISO45(HSK)-SLA32-80		80			ISO45(HSK)-SLA40-400		400		
ISO45(HSK)-SLA20-270		270			ISO45(HSK)-SLA32-160		160			ISO45(HSK)-SLA40-450		450		
ISO45(HSK)-SLA20-300		300			ISO45(HSK)-SLA32-210		210			ISO45(HSK)-SLA40-500		500		
ISO45(HSK)-SLA20-350		350			ISO45(HSK)-SLA32-240		240							

\* Pull stud bolt not included in the above holder.  
\* ISO40 holder is available upon request.

# Extension sockets & Reduction Sleeves

- ▶ When drill length is in short, use extension socket
- ▶ Side lock clamping
- ▶ Holding same drill shank diameter

## Extension sockets



## Reduction Sleeves



Sleeve is available to adjust drill body shank dia. (Ask us required size in detail stating inner and outdiameter)

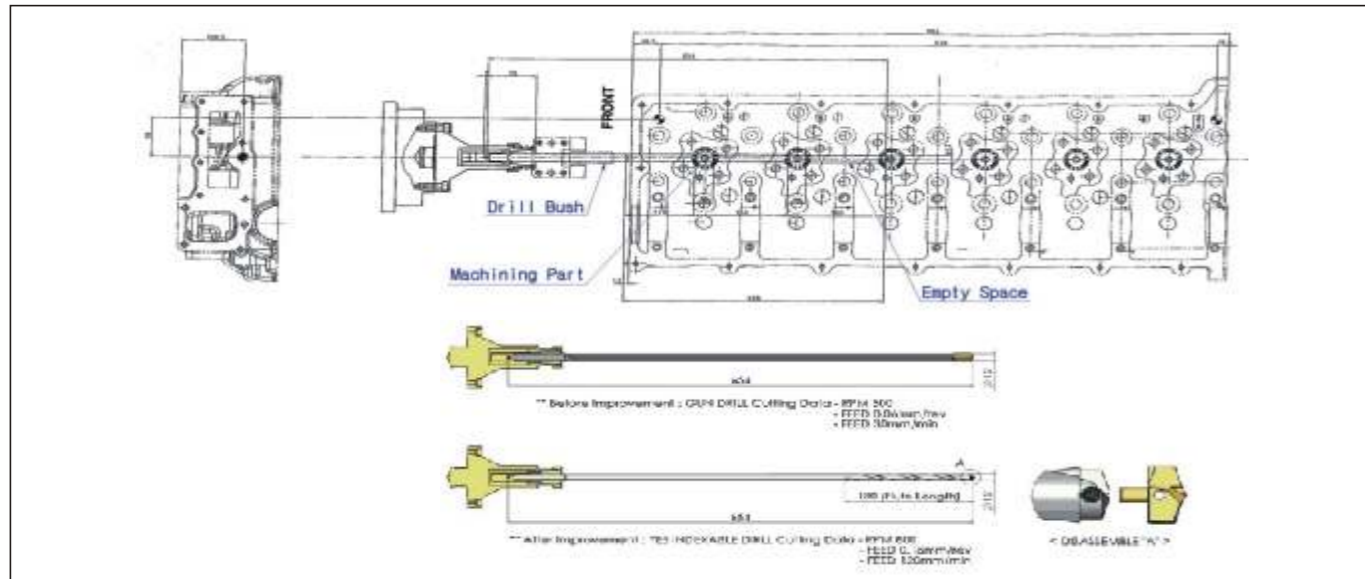
CODE No.	d(mm)	D(mm)	L(mm)	C(mm)	G
EXT16-SLA16-65			65		
EXT16-SLA16-80			80		
EXT16-SLA16-125	16	16	125		M10
EXT16-SLA16-150			150		
EXT16-SLA16-200			200		
EXT16-SLA16-250			250		
EXT20-SLA20-65			65		
EXT20-SLA20-80			80		
EXT20-SLA20-125	20	20	125		M12
EXT20-SLA20-150			150		
EXT20-SLA20-200			200		
EXT20-SLA20-250			250		
EXT25-SLA25-65			65		
EXT25-SLA25-80			80		
EXT25-SLA25-125	25	25	125		50
EXT25-SLA25-150			150		
EXT25-SLA25-200			200		
EXT25-SLA25-250			250		
EXT32-SLA32-65			65		
EXT32-SLA32-80			80		
EXT32-SLA32-125	32	32	125		M14
EXT32-SLA32-150			150		
EXT32-SLA32-200			200		
EXT32-SLA32-250			250		
EXT40-SLA40-65			65		
EXT40-SLA40-80			80		
EXT40-SLA40-125	40	40	125		
EXT40-SLA40-150			150		
EXT40-SLA40-200			200		
EXT40-SLA40-250			250		



# Indexable Extra-long Drill body (15xD, 20xD, 30xD)

Extra-long Drill

- ▶ Alternative solution for conventional gun-drill application
- ▶ Compatible to fit all Yestool standard carbide inserts
- ▶ Drastically increased cutting speed & productivity



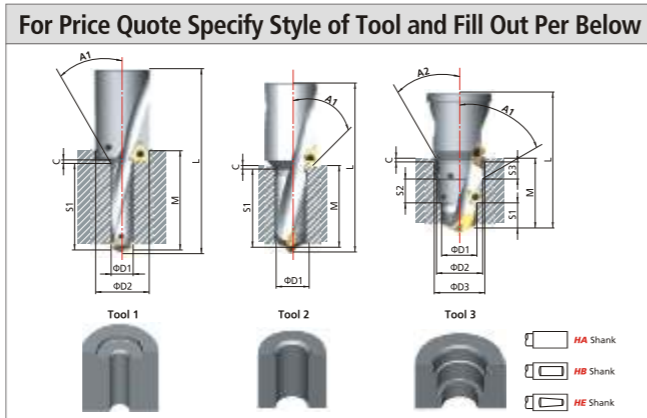
# KRUZ special step drill body

Combination drill bodies (Perform multiple operations with one tool)



Special KRUZ

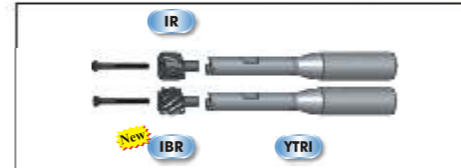
- ▶ Helically fluted drill body with through spindle coolant for easy chip evacuation.
- ▶ Special bodies use standard YESTOOL drill inserts (ID-DL, IDP, IDF). Uses ISO standard facing & chamfering inserts.
- ▶ All inserts lock from the side-no removing body to replace inserts.
- ▶ Reduced cycle times result in higher productivity at reduced costs.



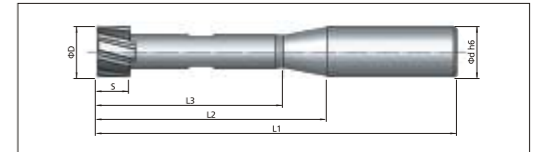
Note: More helpful information to design if provided

- Kind of Material to be machined :
- Shank style (HA, HB, HE or special) :
- Type of chamfer or facing insert (if any) :
- Coolant through or no coolant :
- Work-piece drawing if avail. :

# YTRI Indexable Reamer



- ▶ Interchangeable Carbide Reamer insert
- ▶ Economical usage for large size over 15mm
- ▶ Locking by center head cap-screw
- ▶ IR : Right helix spiral multi-flutes
- ▶ IBR : Left helix broach reamer insert
- ▶ Speedy reaming available with H7 tolerance



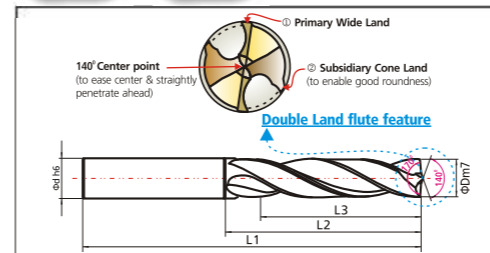
Please make required cutting depth in the □ like T, P. (Note : Bottom edge geometry for blind hole is available as special)

Body code No.	Shank d	S	T(3 x Dia.)			P(5 x Dia.)			Applicable IR, IBR	Cap screw M	No. of flute
			L1	L2	L3	L1	L2	L3			
YTRI 150-174 □	20	12.0	119	69	58	153	103	92	IR 150~174, IBR 150~174	M2.5x30	6
YTRI 175-199 □		13.0	129	79	65	169	119	105	IR 175~199, IBR 175~199	M2.5x30	
YTRI 200-224 □		14.7	141	91	74	185	135	118	IR 200~224, IBR 200~224	M3x30	
YTRI 225-249 □	25	16.5	159	103	81	209	153	131	IR 225~249, IBR 225~249	M4x39	8
YTRI 250-274 □		18.2	166	110	90	221	165	145	IR 250~274, IBR 250~274	M5x43	
YTRI 275-299 □		20.0	185	125	98	245	185	158	IR 275~299, IBR 275~299	M5x49	
YTRI 300-324 □	32	22.0	192	132	105	257	197	170	IR 300~324, IBR 300~324	M6x53	10
YTRI 325-349 □		23.5	200	140	113	270	210	183	IR 325~349, IBR 325~349	M6x57	
YTRI 350-374 □		25.2	225	155	120	300	230	195	IR 350~374, IBR 350~374	M8x61	
YTRI 375-400 □	40	27.0	233	163	128	313	243	208	IR 375~400, IBR 375~400	M8x67	12

# Solid Carbide "F" (flat bottom) point drills



YSDF YSDLF



"F" point test photo as below

Drill : YSDLF 100 TiAIN  
Material : SCM440(42CrMo4)  
rpm : 2,000  
f : 0.2mm/rev (F : 400mm/min)



## Solid Carbide "F" Point Drill

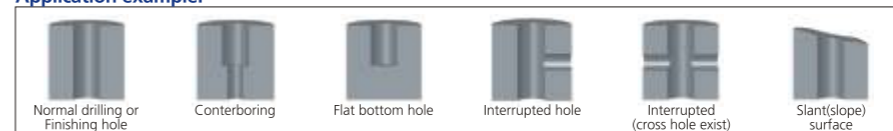
Code No.	D	d	L1	L2	L3
YSDF 030-035	3.0-3.5	4	55	20	15
YSDF 036-041	3.6-4.1			25	19
YSDF 042-051	4.2-5.1	5	62	32	25
YSDF 052-061	5.2-6.1	6	66	36	27
YSDF 062-071	6.2-7.1	7	74	42	32
YSDF 072-081	7.2-8.1	8	79	46	34
YSDF 082-091	8.2-9.1	9	84	50	37
YSDF 092-101	9.2-10.1	10	89	53	38
YSDF 102-111	10.2-11.1	11	95	55	40
YSDF 112-121	11.2-12.1	12	102	62	44
YSDF 122-131	12.2-13.1	13			42
YSDF 132-141	13.2-14.1	14	107	64	43
YSDF 142-151	14.2-15.1	15	111	67	45
YSDF 152-161	15.2-16.1	16	115		
YSDF 162-171	16.2-17.1	17	119	71	46
YSDF 172-181	17.2-18.1	18	123	74	47
YSDF 182-191	18.2-19.1	19	127	76	48
YSDF 192-200	19.2-20.0	20	131	80	50

## Solid Carbide "F" Point Long Drill

Code No.	D	d	L1	L2	L3
YSDLF 030-035	3.0-3.5	4	80	45	40
YSDLF 036-041	3.6-4.1				39
YSDLF 042-051	4.2-5.1	5	83	50	38
YSDLF 052-061	5.2-6.1	6			41
YSDLF 062-071	6.2-7.1	7	85	53	43
YSDLF 072-081	7.2-8.1	8	90	58	46
YSDLF 082-091	8.2-9.1	9	98	64	51
YSDLF 092-101	9.2-10.1	10	105	68	53
YSDLF 102-111	10.2-11.1	11	110	73	57
YSDLF 112-121	11.2-12.1	12	120	80	62
YSDLF 122-131	12.2-13.1	13	137	90	71
YSDLF 132-141	13.2-14.1	14	147	96	75
YSDLF 142-151	14.2-15.1	15	153	100	78
YSDLF 152-161	15.2-16.1	16	160	112	88
YSDLF 162-171	16.2-17.1	17			87
YSDLF 172-181	17.2-18.1	18	160	112	85
YSDLF 182-191	18.2-19.1	19			84
YSDLF 192-200	19.2-20.0	20			82

Note : "F" point drill is available on request.

Application example.

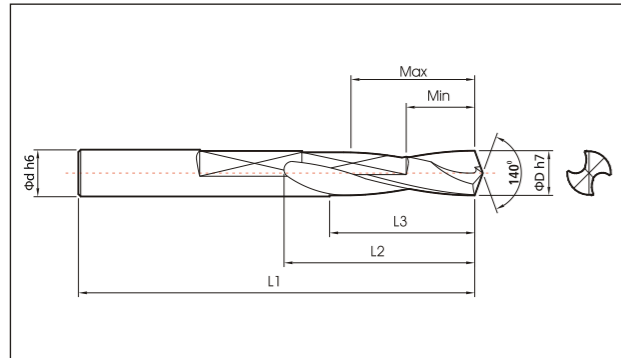


# Solid Carbide Chamfer Drill, Metric



YCD

(The above picture illustrate YCD + YCH complete kit.)



### Model : YCD

- ▶ Solid Carbide Chamfer drill, Plain cylindrical shank with flat grinding to fit YCH holder.
- ▶ 140° self-centering point for accurate hole positioning. Slow helix angle : 15° spiral(to adjust cutting depth).
- ▶ YCD is used with combination YCH chamfer holder and carbide insert XCGX1102. See page 25.
- ▶ Holder can be moved back and forth by one locking screw to adjust cutting depth.

### Carbide substrate:

- ▶ Ultra-fine Micro Grain, TiN(standard stock), TiAlN

### Application

- ▶ Economically drilling and chamfering(or countersinking) in one operation
- ▶ To eliminate the need for center drilling and partially reaming. Specially designed for machining center or CNC application.
- ▶ Broad range application from general to tough material.

Code No.	D	d	L1	L2	L3	Hole depth		Applicable Holder
						Min	Max	
YCD 051	5.1	6.0	66	30	24	9	20	YCH 060
YCD 052	5.2							
YCD 053	5.3							
YCD 054	5.4							
YCD 055	5.5							
YCD 056	5.6							
YCD 057	5.7							
YCD 058	5.8							
YCD 059	5.9							
YCD 060	6.0							
YCD 061	6.1	7.0	74	37	30	11	25	YCH 070
YCD 062	6.2							
YCD 063	6.3							
YCD 064	6.4							
YCD 065	6.5							
YCD 066	6.6							
YCD 067	6.7							
YCD 068	6.8							
YCD 069	6.9							
YCD 070	7.0							

Code No.	D	d	L1	L2	L3	Hole depth		Applicable Holder
						Min	Max	
YCD 071	7.1	8.0	79	41	33	12	28	YCH 080
YCD 072	7.2							
YCD 073	7.3							
YCD 074	7.4							
YCD 075	7.5							
YCD 076	7.6							
YCD 077	7.7							
YCD 078	7.8							
YCD 079	7.9							
YCD 080	8.0							
YCD 081	8.1	9.0	84	45	36	14	31	YCH 090
YCD 082	8.2							
YCD 083	8.3							
YCD 084	8.4							
YCD 085	8.5							
YCD 086	8.6							
YCD 087	8.7							
YCD 088	8.8							
YCD 089	8.9							
YCD 090	9.0							

Code No.	D	d	L1	L2	L3	Hole depth		Applicable Holder
						Min	Max	
YCD 091	9.1	10.0	89	49	39	16	34	YCH 100
YCD 092	9.2							
YCD 093	9.3							
YCD 094	9.4							
YCD 095	9.5							
YCD 096	9.6							
YCD 097	9.7							
YCD 098	9.8							
YCD 099	9.9							
YCD 100	10.0							
YCD 101	10.1	11.0	95	47	36	17	31	YCH 110
YCD 102	10.2							
YCD 103	10.3							
YCD 104	10.4							
YCD 105	10.5							
YCD 106	10.6							
YCD 107	10.7							
YCD 108	10.8							
YCD 109	10.9							
YCD 110	11.0							
YCD 111	11.1	12.0	102	53	41	19	35	YCH 120
YCD 112	11.2							
YCD 113	11.3							
YCD 114	11.4							
YCD 115	11.5							
YCD 116	11.6							
YCD 117	11.7							
YCD 118	11.8							
YCD 119	11.9							
YCD 120	12.0							
YCD 121	12.1	13.0	102	54	41	19	35	YCH 130
YCD 122	12.2							
YCD 123	12.3							
YCD 124	12.4							
YCD 125	12.5							
YCD 126	12.6							
YCD 127	12.7							
YCD 128	12.8							
YCD 129	12.9							
YCD 130	13.0							
YCD 131	13.1	14.0	107	58	44	20	38	YCH 140
YCD 132	13.2							
YCD 133	13.3							
YCD 134	13.4							
YCD 135	13.5							
YCD 136	13.6							
YCD 137	13.7							
YCD 138	13.8							
YCD 139	13.9							
YCD 140	14.0							
YCD 141	14.1	15.0	111	62	47	24	41	YCH 150
YCD 142	14.2							
YCD 143	14.3							
YCD 144	14.4							
YCD 145	14.5							

Code No.	D	d	L1	L2	L3	Hole depth		Applicable Holder
						Min	Max	
YCD 146	14.6	15.0	111	62	47	24	41	YCH 150
YCD 147	14.7							
YCD 148	14.8							
YCD 149	14.9							
YCD 150	15.0							
YCD 151	15.1	16.0	115	65	49	25	43	YCH 160
YCD 152	15.2							
YCD 153	15.3							
YCD 154	15.4							
YCD 155	15.5							
YCD 156	15.6							
YCD 157	15.7							
YCD 158	15.8							
YCD 159	15.9							
YCD 160	16.0							
YCD 161	16.1	17.0	119	69	52	26	46	YCH 170
YCD 162	16.2							
YCD 163	16.3							
YCD 164	16.4							
YCD 165	16.5							
YCD 166	16.6							
YCD 167	16.7							
YCD 168	16.8							
YCD 169	16.9							
YCD 170	17.0							
YCD 171	17.1	18.0	123	73	55	27	48	YCH 180
YCD 172	17.2							
YCD 173	17.3							
YCD 174	17.4							
YCD 175	17.5							
YCD 176	17.6							
YCD 177	17.7							
YCD 178	17.8							
YCD 179	17.9							
YCD 180	18.0							
YCD 181	18.1	19.0	127	76	57	28	50	YCH 190
YCD 182	18.2							
YCD 183	18.3							
YCD 184	18.4							
YCD 185	18.5							
YCD 186	18.6							
YCD 187	18.7							
YCD 188	18.8							
YCD 189	18.9							
YCD 190	19.0							
YCD 191	19.1	20.0	131	80	60	30	53	YCH 200
YCD 192	19.2							
YCD 193	19.3							
YCD 194	19.4							
YCD 195	19.5							
YCD 196	19.6							
YCD 197	19.7							
YCD 198	19.8							
YCD 199	19.9							
YCD 200	20.0							

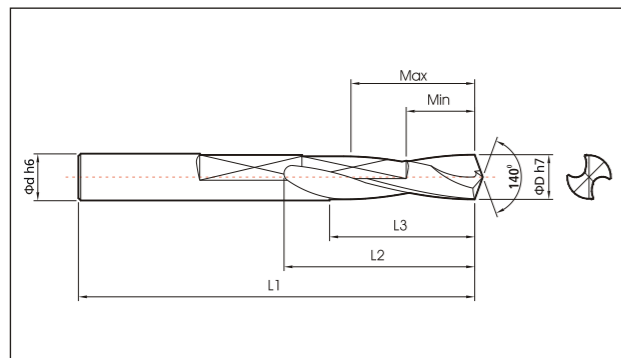


# Solid Carbide Chamfer Drill, Inch



YCD

(The above picture illustrate YCD + YCH complete kit.)



## Model : YCD

- ▶ Solid Carbide Chamfer drill, Plain cylindrical shank with flat grinding to fit YCH holder.
- ▶ 140° self-centering point for accurate hole positioning. Slow helix angle : 15° spiral(to adjust cutting depth).
- ▶ YCD is used with combination YCH chamfer holder and carbide insert XCGX1102. See page 25.
- ▶ Holder can be moved back and forth by one locking screw to adjust cutting depth.

## Carbide substrate:

- ▶ Ultra-fine Micro Grain, TiN(standard stock), TiAlN

## Application

- ▶ Economically drilling and chamfering(or countersinking) in one operation
- ▶ To eliminate the need for center drilling and partially reaming. Specially designed for machining center or CNC application.
- ▶ Broad range application from general to tough material.

### Inch Size

Code No.	D	d	L1	L2	L3	Hole depth		Applicable Holder
						Min	Max	
YCD .2010	#7	1/4	2.59	1.18	0.94	0.35	0.78	YCH.2500
YCD .2130	#3							
YCD .2570	F							
YCD .2720	I	5/16	3.11	1.61	1.29	0.47	1.1	YCH.3125
YCD .3125	5/16							
YCD .3320	Q	3/8	3.5	1.92	1.53	0.62	1.33	YCH.3750
YCD .3680	U							
YCD .3906	25/64							
YCD .4219	25/64	7/16	3.74	1.85	1.41	0.66	1.22	YCH.4375

### Inch Size

Code No.	D	d	L1	L2	L3	Hole depth		Applicable Holder
						Min	Max	
YCD .4531	29/64	7/16	3.74	1.85	1.41	0.66	1.22	YCH.4375
YCD .4844	31/64	1/2	4.01	2.12	1.61	0.74	1.37	YCH.5000
YCD .5156	33/64							
YCD .5312	17/32	9/16	4.21	2.28	1.73	0.78	1.49	YCH.5625
YCD .5781	37/64							
YCD .6562	21/32	11/16	4.68	2.71	2.04	1.02	1.81	YCH.6875
YCD .6875	11/16							
YCD .7656	49/64							
YCD .8125	13/16	3/4	5.15	3.14	2.36	1.18	2.08	YCH.7500

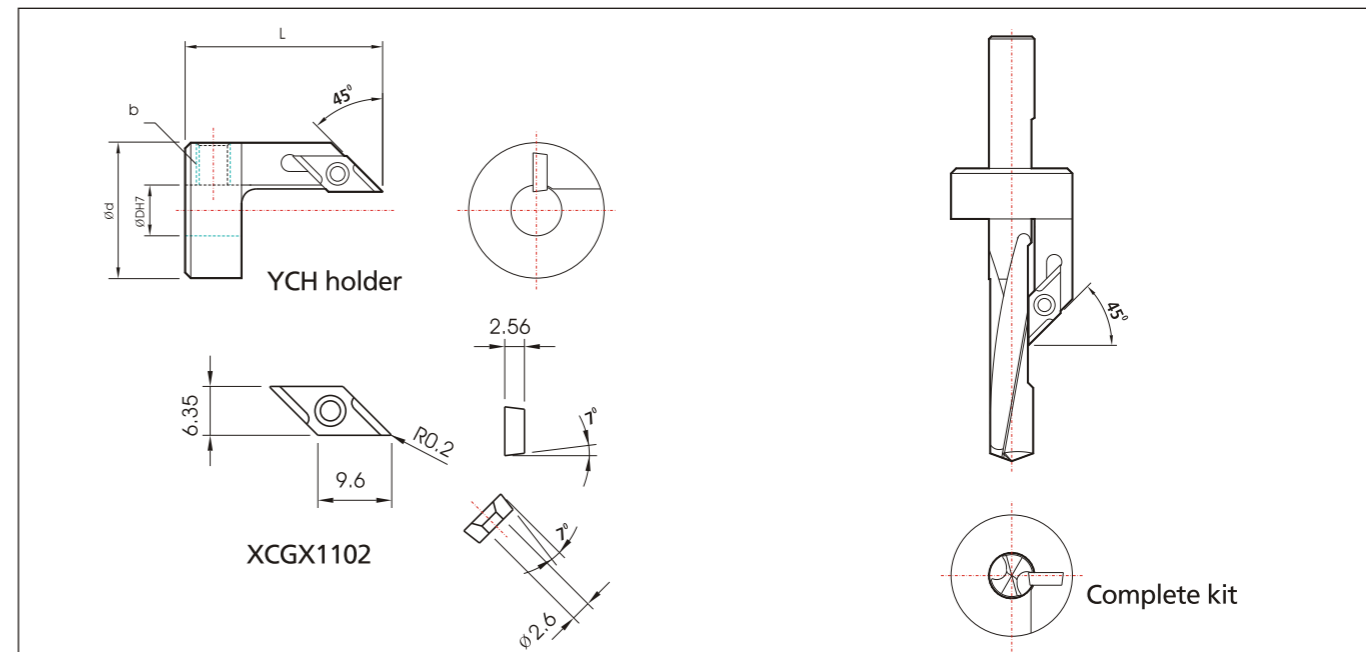
# Chamfer Holder, Metric



YCH

## Model : YCH

- ▶ Specially designed to work with Solid Chamfer Drill (YCD) & Insert XCGX1102.
- ▶ Drilling and chamfering in one operation economically.
- ▶ Carbide Insert XCGX1102 has two cutting edges for economic use.
- ▶ Holder moveable back and forth to adjust cutting depth by SS bolt.



Code No.	D	d	L	Socket Screw Bolt size (b)	Applicable size range(YCD model)
YCH 060	6.0	21	29	M6 x 1.0P	YCD 051~060
YCH 070	7.0	22	32		YCD 061~070
YCH 080	8.0	23	34		YCD 071~080
YCH 090	9.0	24	35		YCD 081~090
YCH 100	10.0	25	36	M8 x 1.25P	YCD 091~100
YCH 110	11.0	26	34		YCD 101~110
YCH 120	12.0	27	36		YCD 111~120
YCH 130	13.0	28	36		YCD 121~130
YCH 140	14.0	29	38	M10 x 1.5P	YCD 131~140
YCH 150	15.0	30	39		YCD 141~150
YCH 160	16.0	31	40		YCD 151~160
YCH 170	17.0	32	42		YCD 161~170
YCH 180	18.0	33	43		YCD 171~180
YCH 190	19.0	34	44		YCD 181~190
YCH 200	20.0	35	45		YCD 191~200

❖ See page 22 & 24 of applicable YCD drill together with this model.

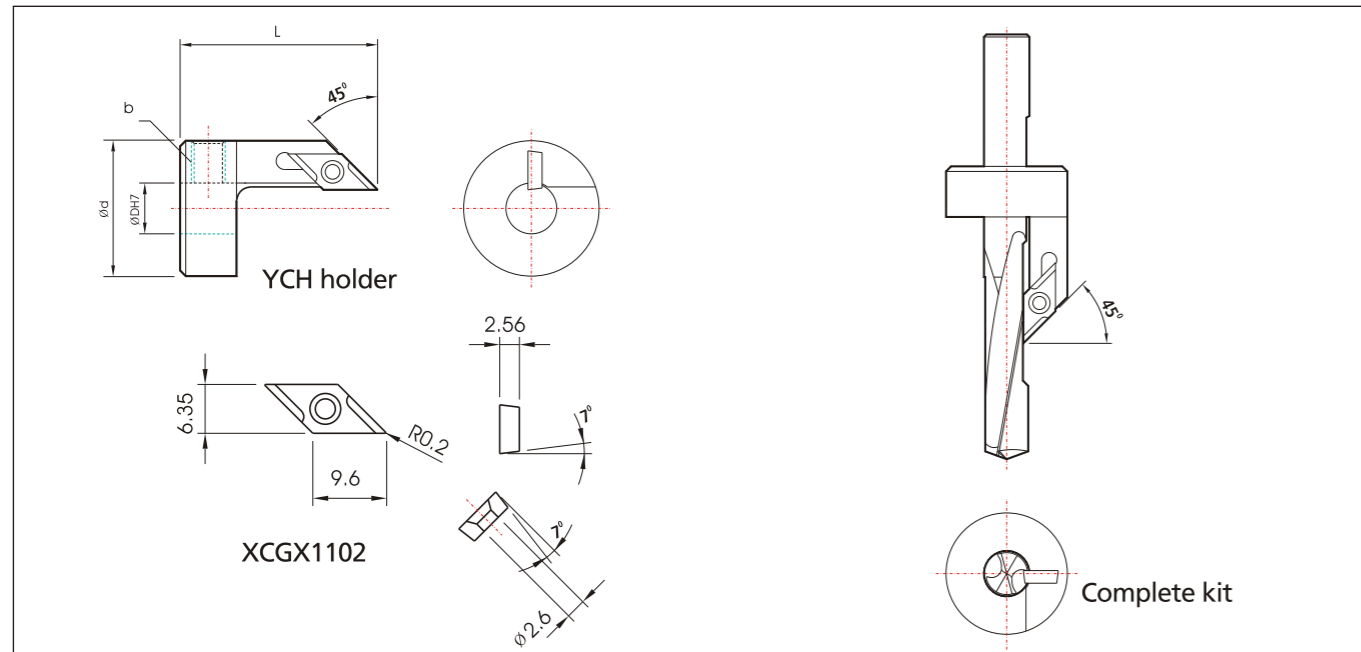
# Chamfer Holder, Inch

YCH



## Model : YCH

- ▶ Specially designed to work with Solid Chamfer Drill (YCD) & Insert XCGX1102.
- ▶ Drilling and chamfering in one operation economically.
- ▶ Carbide Insert XCGX1102 has two cutting edges for economic use.
- ▶ Holder moveable back and forth to adjust cutting depth by SS bolt.



Code No.	D	d	L	Socket Screw Bolt size (b)	Applicable size range(YCD model)
YCH .2500	.2500	0.83	1.14	M6 x 1.0P	YCD .2010~.2720
YCH .3125	.3125	0.91	1.34		YCD .3125~.3320
YCH .3750	.3750	0.98	1.42	M8 x 1.25P	YCD .3680~.3906
YCH .4375	.4375	1.02	1.34		YCD .4219~.4531
YCH .5000	.5000	1.1	1.42		YCD .4844~.5156
YCH .5625	.5625	1.14	1.5		YCD .5312~.5781
YCH .6875	.6875	1.26	1.65	M10 x 1.5P	YCD .6562~.6875
YCH .7500	.7500	1.34	1.73		YCD .7656~.8125

❖ See page 24 of applicable YCD drill together with this model.

# Test Report Form

**Yes**® YESTOOL Co., Ltd.

ADD : 604B-23L, 642-8 Sungkog-dong, Danwon-gu, Ansan, Kyungki-do, Korea  
 Tel : +82-31-493-2387~8     Fax : +82-31-494-7619  
 e-mail : yestool@yestool.co.kr     www.yestool.com

COMPANY AND LOCATION	PHONE	DATE	ENGINEER NAME
CUSTOMER NAME	PHONE	MATERIAL TYPE AND CONDITION	HARDNESS RC    BRN
PART DESCRIPTION	THROUGH OR FLOOD COOLANT <input type="checkbox"/> <input type="checkbox"/>	DRILLING POSITION HORIZONTAL <input type="checkbox"/> VERTICAL <input type="checkbox"/>	
MACHINE AND TYPE	COOLANT TYPE    BRAND	COOLANT PRESSURE PSI	COOLANT FLOW GPM
MACHINE CONDITION	HP	HOLE PURPOSE TAPPED <input type="checkbox"/> CLEARANCE <input type="checkbox"/> ROUGH HOLE BORING <input type="checkbox"/>	
OPERATION			

PERFORMANCE, TECHNICAL, AND COST DATA	YES INDEXABLE DRILL	COMPETITOR'S
DRILL BRAND		
DRILL TYPE & DIAMETER		
TOOLHOLDING DEVICE		
INSERT OR BLADE		
INSERT GRADE & BRAND		
HOLE DIAMETER AND TOLERANCE(ROUGH)		
HOLE DIAMETER AND TOLERANCE(FINISH)		
HOLE DEPTH    BLIND    YES    NO		
RPM		
SPEED (V: m/min)		
FEED RATE (f: mm/rev)		
FEED (F: mm/min)		
CUTTING TIME PER HOLE IN MINUTES		
CHIP CONTROL		
SURFACE FINISH		
NUMBER OF HOLES PER EDGE		
LINEAR METERS DRILLED PER EDGE		
REASON FOR CHANGING DRILL		
INSERT (BLADES) PER DRILL		
INDEXES PER INSERT		
INSERT COST		
PROJECTED RECONDITIONS PER BLADE		
RECONDITION COST		
MACHINE COST PER HOUR		
HOLES PER PART		
ESTIMATED PARTS PER YEAR		