

Yes[®] YESTOOL Co., Ltd.

604B-23L, 642-8 Sungkog-dong, Ansan
 Kyungki-do, Korea
 e-mail : yestool@kornet.net
 website : www.yestool.co.kr
 T E L : +82-31-493-2387/8
 FAX : +82-31-494-7619



● YESTOOL's worldwide network



- | | | | |
|------------------|---------------|-------------|----------------|
| ▶ Germany | ▶ Switzerland | ▶ Japan | ▶ U.S.A. |
| ▶ Italy | ▶ France | ▶ China | ▶ Canada |
| ▶ Spain | ▶ Belgium | ▶ Taiwan | ▶ Brazil |
| ▶ Denmark | ▶ Netherlands | ▶ Hong Kong | ▶ South Africa |
| ▶ U.K. | ▶ Finland | ▶ Indonesia | ▶ Australia |
| ▶ Czech Republic | ▶ Norway | ▶ Malaysia | ▶ Mexico |
| ▶ Poland | ▶ Sweden | ▶ Thailand | |
| ▶ Belarus | ▶ Portugal | ▶ Singapore | |
| ▶ Romania | ▶ Austria | ▶ India | |
| ▶ Slovenia | ▶ Turkey | ▶ Iran | |

Design by Printing KTS (02) 5336-3838
Yes[®] YESTOOL Co., Ltd.

High Performance Carbide Tool Line

YC-2006/1

YC-2006/1

YES CARBIDE CUTTING TOOLS

Yes Carbide Cutting Tools

ID, DL

New IDF

New high feeding
KRUZ[®]-drill

Primary Margin

New YSDF

Subsidiary Margin

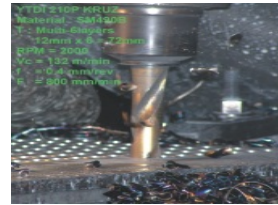
Yes[®] YESTOOL Co., Ltd.

New KRUZ and YTDI,DL body with dual locking(DL)

- New Dual Locking(DL) system to enable safer drilling..
- Interchangeable new <ID,DL> & <IDF> carbide drill inserts
- Drill body consists of premium tool steel with heat treatment
- Increased cutting speed & feed
- Without cross clamping hole former standard< ID> insert can be fit (except dia. 8.0~11.9mm)
- * Note : When necessary for MQL(Oil-mist) application, mention code NO. separately like <YTDI 000, KRUZ>. This will be supplied specially with higher hardness and different material.



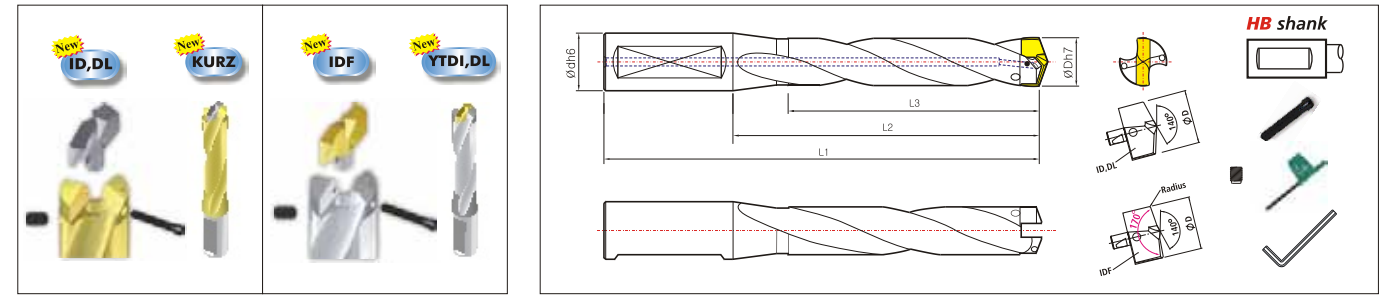
Please visit our website www.yestool.co.kr and see test performance with KRUZ drill application.



KRUZ-drill delivers outstanding performance at high speed.



Chip samples produced with KRUZ-drill



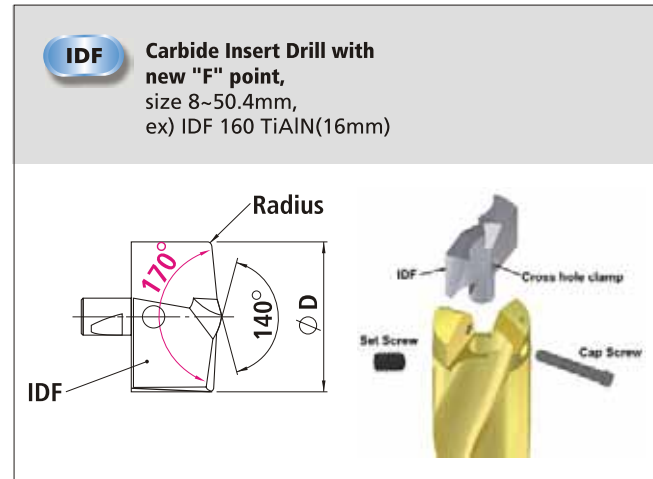
- * Note : ❖ When necessary for MQL(Oil-mist) application, mention code NO. separately like <YTDI 000, KRUZ>. This will be supplied specially with higher hardness and different material.
- ❖ When IDF insert fit in the body, note below dimension will be slightly increased min.0.3mm to max.3mm.

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

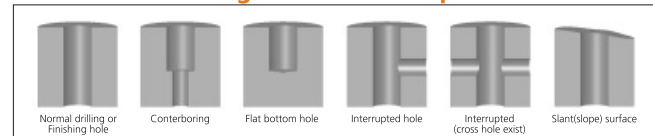
Hole size range	Body Code NO.	Shank Size (φd)	Cutting depth (Length x φD)	L1	L2	L3	Insert Code NO. to fit in body	Set Screw	Cap Screw	Hex wrench	Screwdriver	
(8.0~8.4)	YTDI 080□DL	10.0(HA)	T(3xD)	85	40	26	ID080 DL ,ID081 DL ,ID082 DL ,ID083 DL ,ID084 DL	M2-2.5	M1.6-080			
	KRUZ 080□		P(5xD)	100	55	43	IDF080, IDF081, IDF082, IDF083, IDF084					
			H(7xD)	117	72	60	(φ8.0mm, φ8.1mm, φ8.2mm, φ8.3mm, φ8.4mm)					
(8.5~8.9)	YTDI 085□DL		T(3xD)	85	40	26	ID085 DL ,ID086 DL ,ID087 DL ,ID088 DL ,ID089 DL					M1.6-085
	KRUZ 085□		P(5xD)	100	55	46	IDF085, IDF086, IDF087, IDF088, IDF089					
			H(7xD)	122	77	60	(φ8.5mm, φ8.6mm, φ8.7mm, φ8.8mm, φ8.9mm)					
(9.0~9.4)	YTDI 090□DL		T(3xD)	85	40	33	ID090 DL ,ID091 DL ,ID092 DL ,ID093 DL ,ID094 DL	M1.6-090				
	KRUZ 090□		P(5xD)	105	60	48	IDF090, IDF091, IDF092, IDF093, IDF094					
			H(7xD)	126	81	68	(φ9.0mm, φ9.1mm, φ9.2mm, φ9.3mm, φ9.4mm)					
(9.5~9.9)	YTDI 095□DL		T(3xD)	95	47	33	ID095 DL ,ID096 DL ,ID097 DL ,ID098 DL ,ID099 DL		M1.6-095			
	KRUZ 095□		P(5xD)	115	67	58	IDF095, IDF096, IDF097, IDF098, IDF099					
			H(7xD)	140	92	78	(φ9.5mm, φ9.6mm, φ9.7mm, φ9.8mm, φ9.9mm)					
(10.0~10.4)	YTDI 100□DL	T(3xD)	95	47	33	ID100 DL ,ID101 DL ,ID102 DL ,ID103 DL ,ID104 DL	M2-3.0					
	KRUZ 100□	P(5xD)	115	67	58	IDF100, IDF101, IDF102, IDF103, IDF104						
		H(7xD)	140	92	78	(φ10.0mm, φ10.1mm, φ10.2mm, φ10.3mm, φ10.4mm)						
(10.5~10.9)	YTDI 105□DL	T(3xD)	100	52	43	ID105 DL ,ID106 DL ,ID107 DL ,ID108 DL ,ID109 DL		M1.6-100				
	KRUZ 105□	P(5xD)	125	77	68	IDF105, IDF106, IDF107, IDF108, IDF109						
		H(7xD)	150	102	88	(φ10.5mm, φ10.6mm, φ10.7mm, φ10.8mm, φ10.9mm)						
(11.0~11.4)	YTDI 110□DL	T(3xD)	100	52	43	ID110 DL ,ID111 DL ,ID112 DL ,ID113 DL ,ID114 DL	M2-4.0					
	KRUZ 110□	P(5xD)	125	77	68	IDF110, IDF111, IDF112, IDF113, IDF114						
		H(7xD)	150	102	88	(φ11.0mm, φ11.1mm, φ11.2mm, φ11.3mm, φ11.4mm)						
(11.5~11.9)	YTDI 115□DL	T(3xD)	105	57	48	ID115 DL ,ID116 DL ,ID117 DL ,ID118 DL ,ID119 DL		M1.6-105				
	KRUZ 115□	P(5xD)	130	82	73	IDF115, IDF116, IDF117, IDF118, IDF119						
		H(7xD)	160	112	98	(φ11.5mm, φ11.6mm, φ11.7mm, φ11.8mm, φ11.9mm)						
(12.0~12.4)	YTDI 120□DL	T(3xD)	105	57	48	ID120 DL ,ID121 DL ,ID122 DL ,ID123 DL ,ID124 DL	M1.6-110					
	KRUZ 120□	P(5xD)	130	82	73	IDF120, IDF121, IDF122, IDF123, IDF124						
		H(7xD)	160	112	98	(φ12.0mm, φ12.1mm, φ12.2mm, φ12.3mm, φ12.4mm)						
(12.5~12.9)	YTDI 125□DL	T(3xD)	110	62	48	ID125 DL ,ID126 DL ,ID127 DL ,ID128 DL ,ID129 DL		M2.5-4.0				
	KRUZ 125□	P(5xD)	140	92	77	IDF125, IDF126, IDF127, IDF128, IDF129						
		H(7xD)	175	127	102	(φ12.5mm, φ12.6mm, φ12.7mm, φ12.8mm, φ12.9mm)						
(13.0~13.4)	YTDI 130□DL	T(3xD)	110	62	48	ID130 DL ,ID131 DL ,ID132 DL ,ID133 DL ,ID134 DL	M1.6-115					
	KRUZ 130□	P(5xD)	140	92	77	IDF130, IDF131, IDF132, IDF133, IDF134						
		H(7xD)	175	127	102	(φ13.0mm, φ13.1mm, φ13.2mm, φ13.3mm, φ13.4mm)						
(13.5~13.9)	YTDI 135□DL	T(3xD)	115	67	52	ID135 DL ,ID136 DL ,ID137 DL ,ID138 DL ,ID139 DL		M1.6-120				
	KRUZ 135□	P(5xD)	145	97	82	IDF135, IDF136, IDF137, IDF138, IDF139						
		H(7xD)	180	132	107	(φ13.5mm, φ13.6mm, φ13.7mm, φ13.8mm, φ13.9mm)						

" F " (flat bottom)point IDF insert & Solid drills

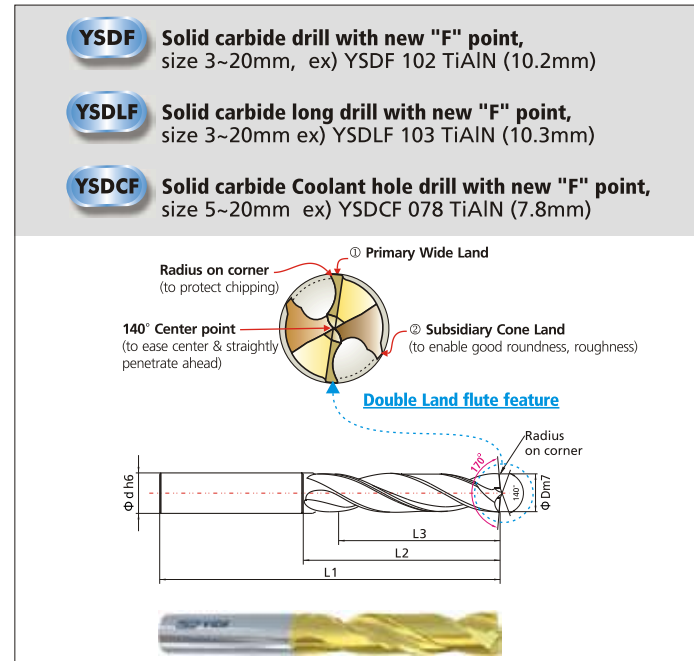
- Dual point with 170° plus 140°center point with corner radius treatment
- New IDF(Flat bottom drill insert) can be compatibly used in KRUZ & YTDI,DL body
- Counter boring & flatted bottom hole making(See below hole examples)
- Optimum performance for difficult machining in Structural steel industry
- Solid drills are available with new "F" point with dual margin to help better roundness



Where is advantage with this "F" point ?



Note : Initially designed with 180° point is newly changed with above 170° as standard. When necessary 180° point, please ask this 180° point separately as special request.



Note : See more about dimension in the New 6..

New **KRUZ and YTDI,DL body with dual locking(DL)**

Hole size range	Body Code NO.	Shank Size (Φd)	Cutting depth (Length x ΦD)	L1	L2	L3	Insert Code NO. to fit in body	Set Screw	Cap Screw	Hex wrench	Screwdriver
(14.0~14.4)	YTDI 140□DL KRUZ 140□	16.0	T(3xD)	115	67	52	ID140 DL ,ID141 DL ,ID142 DL ,ID143 DL ,ID144 DL		M1.6-140		Slot(-)
			P(5xD)	145	97	82	IDF140, IDF141, IDF142, IDF143, IDF144				
			H(7xD)	180	132	107	(Φ14.0mm, Φ14.1mm, Φ14.2mm, Φ14.3mm, Φ14.4mm)				
(14.5~14.9)	YTDI 145□DL KRUZ 145□		T(3xD)	125	75	55	ID145 DL ,ID146 DL ,ID147 DL ,ID148 DL ,ID149 DL		M1.6-145		
			P(5xD)	148	98	85	IDF145, IDF146, IDF147, IDF148, IDF149				
			H(7xD)	185	135	117	(Φ14.5mm, Φ14.6mm, Φ14.7mm, Φ14.8mm, Φ14.9mm)				
(15.0~15.4)	YTDI 150□DL KRUZ 150□		T(3xD)	125	75	55	ID150 DL ,ID151 DL ,ID152 DL ,ID153 DL ,ID154 DL	M3-5.0	M2-150		
			P(5xD)	158	108	95	IDF150, IDF151, IDF152, IDF153, IDF154				
			H(7xD)	185	135	117	(Φ15.0mm, Φ15.1mm, Φ15.2mm, Φ15.3mm, Φ15.4mm)				
(15.5~15.9)	YTDI 155□DL KRUZ 155□		T(3xD)	125	75	55	ID155 DL ,ID156 DL ,ID157 DL ,ID158 DL ,ID159 DL		M2-155		
			P(5xD)	158	108	95	IDF155, IDF156, IDF157, IDF158, IDF159				
			H(7xD)	185	135	117	(Φ15.5mm, Φ15.6mm, Φ15.7mm, Φ15.8mm, Φ15.9mm)				
(16.0~16.4)	YTDI 160□DL KRUZ 160□		T(3xD)	130	80	55	ID160 DL ,ID161 DL ,ID162 DL ,ID163 DL ,ID164 DL		M2-160		
			P(5xD)	160	110	89	IDF160, IDF161, IDF162, IDF163, IDF164				
			H(7xD)	190	140	123	(Φ16.0mm, Φ16.1mm, Φ16.2mm, Φ16.3mm, Φ16.4mm)				
(16.5~16.9)	YTDI 165□DL KRUZ 165□		T(3xD)	130	80	55	ID165 DL ,ID166 DL ,ID167 DL ,ID168 DL ,ID169 DL		M2-165		
			P(5xD)	160	110	97	IDF165, IDF166, IDF167, IDF168, IDF169				
			H(7xD)	190	140	123	(Φ16.5mm, Φ16.6mm, Φ16.7mm, Φ16.8mm, Φ16.9mm)				
(17.0~17.4)	YTDI 170□DL KRUZ 170□	20.0	T(3xD)	130	80	55	ID170 DL ,ID171 DL ,ID172 DL ,ID173 DL ,ID174 DL		M2-170		
			P(5xD)	160	110	99	IDF170, IDF171, IDF172, IDF173, IDF174				
			H(7xD)	200	150	128	(Φ17.0mm, Φ17.1mm, Φ17.2mm, Φ17.3mm, Φ17.4mm)				
(17.5~17.9)	YTDI 175□DL KRUZ 175□		T(3xD)	130	80	55	ID175 DL ,ID176 DL ,ID177 DL ,ID178 DL ,ID179 DL		M2-175		
			P(5xD)	160	110	99	IDF175, IDF176, IDF177, IDF178, IDF179				
			H(7xD)	200	150	128	(Φ17.5mm, Φ17.6mm, Φ17.7mm, Φ17.8mm, Φ17.9mm)				
(18.0~18.4)	YTDI 180□DL KRUZ 180□		T(3xD)	140	90	63	ID180 DL ,ID181 DL ,ID182 DL ,ID183 DL ,ID184 DL	M3-6	M2-180		
			P(5xD)	170	120	100	IDF180, IDF181, IDF182, IDF183, IDF184				
			H(7xD)	210	160	138	(Φ18.0mm, Φ18.1mm, Φ18.2mm, Φ18.3mm, Φ18.4mm)				
(18.5~18.9)	YTDI 185□DL KRUZ 185□		T(3xD)	140	90	63	ID185 DL ,ID186 DL ,ID187 DL ,ID188 DL ,ID189 DL		M2-185		
			P(5xD)	170	120	100	IDF185, IDF186, IDF187, IDF188, IDF189				
			H(7xD)	210	160	138	(Φ18.5mm, Φ18.6mm, Φ18.7mm, Φ18.8mm, Φ18.9mm)				
(19.0~19.4)	YTDI 190□DL KRUZ 190□		T(3xD)	140	90	63	ID190 DL ,ID191 DL ,ID192 DL ,ID193 DL ,ID194 DL		M2-190		
			P(5xD)	170	120	100	IDF190, IDF191, IDF192, IDF193, IDF194				
			H(7xD)	210	160	138	(Φ19.0mm, Φ19.1mm, Φ19.2mm, Φ19.3mm, Φ19.4mm)				
(19.5~19.9)	YTDI 195□DL KRUZ 195□		T(3xD)	140	90	63	ID195 DL ,ID196 DL ,ID197 DL ,ID198 DL ,ID199 DL		M2-195		
			P(5xD)	170	120	100	IDF195, IDF196, IDF197, IDF198, IDF199				
			H(7xD)	210	160	138	(Φ19.5mm, Φ19.6mm, Φ19.7mm, Φ19.8mm, Φ19.9mm)				
(20.0~20.4)	YTDI 200□DL KRUZ 200□		T(3xD)	150	94	69	ID200 DL ,ID201 DL ,ID202 DL ,ID203 DL ,ID204 DL		M2.5-200		
			P(5xD)	190	134	110	IDF200, IDF201, IDF202, IDF203, IDF204				
			H(7xD)	230	174	153	(Φ20.0mm, Φ20.1mm, Φ20.2mm, Φ20.3mm, Φ20.4mm)				
(20.5~20.9)	YTDI 205□DL KRUZ 205□	25.0	T(3xD)	150	94	69	ID205 DL ,ID206 DL ,ID207 DL ,ID208 DL ,ID209 DL	M4-6	M2.5-205		
			P(5xD)	190	134	110	IDF205, IDF206, IDF207, IDF208, IDF209				
			H(7xD)	230	174	153	(Φ20.5mm, Φ20.6mm, Φ20.7mm, Φ20.8mm, Φ20.9mm)				
(21.0~21.4)	YTDI 210□DL KRUZ 210□		T(3xD)	150	94	69	ID210 DL ,ID211 DL ,ID212 DL ,ID213 DL ,ID214 DL		M2.5-210		
			P(5xD)	190	134	110	IDF210, IDF211, IDF212, IDF213, IDF214				
			H(7xD)	230	174	153	(Φ21.0mm, Φ21.1mm, Φ21.2mm, Φ21.3mm, Φ21.4mm)				
(21.5~21.9)	YTDI 215□DL KRUZ 215□		T(3xD)	150	94	69	ID215 DL ,ID216 DL ,ID217 DL ,ID218 DL ,ID219 DL		M2.5-215		
			P(5xD)	190	134	110	IDF215, IDF216, IDF217, IDF218, IDF219				
			H(7xD)	230	174	153	(Φ21.5mm, Φ21.6mm, Φ21.7mm, Φ21.8mm, Φ21.9mm)				

Hole size range	Body Code NO.	Shank Size (Φd)	Cutting depth (Length x ΦD)	L1	L2	L3	Insert Code NO. to fit in body	Set Screw	Cap Screw	Hex wrench	Screwdriver
(22.0~22.4)	YTDI 220□DL KRUZ 220□	25.0	T(3xD)	160	104	75	ID220 DL ,ID221 DL ,ID222 DL ,ID223 DL ,ID224 DL	M4-6	M2.5-220		
			P(5xD)	200	144	121	IDF220, IDF221, IDF222, IDF223, IDF224				
			H(7xD)	240	184	168	(Φ22.0mm, Φ22.1mm, Φ22.2mm, Φ22.3mm, Φ22.4mm)				
(22.5~22.9)	YTDI 225□DL KRUZ 225□		T(3xD)	160	104	75	ID225 DL ,ID226 DL ,ID227 DL ,ID228 DL ,ID229 DL		M2.5-225		
			P(5xD)	200	144	121	IDF225, IDF226, IDF227, IDF228, IDF229				
			H(7xD)	240	184	168	(Φ22.5mm, Φ22.6mm, Φ22.7mm, Φ22.8mm, Φ22.9mm)				
(23.0~23.4)	YTDI 230□DL KRUZ 230□		T(3xD)	160	104	75	ID230 DL ,ID231 DL ,ID232 DL ,ID233 DL ,ID234 DL		M2.5-230		
			P(5xD)	200	144	121	IDF230, IDF231, IDF232, IDF233, IDF234				
			H(7xD)	240	184	168	(Φ23.0mm, Φ23.1mm, Φ23.2mm, Φ23.3mm, Φ23.4mm)				
(23.5~23.9)	YTDI 235□DL KRUZ 235□		T(3xD)	160	104	75	ID235 DL ,ID236 DL ,ID237 DL ,ID238 DL ,ID239 DL		M2.5-235		
			P(5xD)	200	144	121	IDF235, IDF236, IDF237, IDF238, IDF239				
			H(7xD)	250	194	178	(Φ23.5mm, Φ23.6mm, Φ23.7mm, Φ23.8mm, Φ23.9mm)				
(24.0~24.4)	YTDI 240□DL KRUZ 240□		T(3xD)	170	110	83	ID240 DL ,ID241 DL ,ID242 DL ,ID243 DL ,ID244 DL		M3-240		
			P(5xD)	220	160	133	IDF240, IDF241, IDF242, IDF243, IDF244				
			H(7xD)	270	210	183	(Φ24.0mm, Φ24.1mm, Φ24.2mm, Φ24.3mm, Φ24.4mm)				
(24.5~24.9)	YTDI 245□DL KRUZ 245□		T(3xD)	170	110	83	ID245 DL ,ID246 DL ,ID247 DL ,ID248 DL ,ID249 DL	M4-8	M3-245		
			P(5xD)	220	160	133	IDF245, IDF246, IDF247, IDF248, IDF249				
			H(7xD)	270	210	183	(Φ24.5mm, Φ24.6mm, Φ24.7mm, Φ24.8mm, Φ24.9mm)				
(25.0~25.4)	YTDI 250□DL KRUZ 250□		T(3xD)	170	110	83	ID250 DL ,ID251 DL ,ID252 DL ,ID253 DL ,ID254 DL		M3-250		
			P(5xD)	220	160	133	IDF250, IDF251, IDF252, IDF253, IDF254				
			H(7xD)	270	210	183	(Φ25.0mm, Φ25.1mm, Φ25.2mm, Φ25.3mm, Φ25.4mm)				
(25.5~25.9)	YTDI 255□DL KRUZ 255□		T(3xD)	170	110	83	ID255 DL ,ID256 DL ,ID257 DL ,ID258 DL ,ID259 DL		M3-255		
			P(5xD)	220	160	133	IDF255, IDF256, IDF257, IDF258, IDF259				
			H(7xD)	270	210	183	(Φ25.5mm, Φ25.6mm, Φ25.7mm, Φ25.8mm, Φ25.9mm)				
(26.0~26.4)	YTDI 260□DL KRUZ 260□		T(3xD)	180	120	90	ID260 DL ,ID261 DL ,ID262 DL ,ID263 DL ,ID264 DL		M3-260		
			P(5xD)	240	180	144	IDF260, IDF261, IDF262, IDF263, IDF264				
			H(7xD)	290	230	198	(Φ26.0mm, Φ26.1mm, Φ26.2mm, Φ26.3mm, Φ26.4mm)				
(26.5~26.9)	YTDI 265□DL KRUZ 265□		T(3xD)	180	120	90	ID265 DL ,ID266 DL ,ID267 DL ,ID268 DL ,ID269 DL		M3-265		
			P(5xD)	240	180	144	IDF265, IDF266, IDF267, IDF268, IDF269				
			H(7xD)	290	230	198	(Φ26.5mm, Φ26.6mm, Φ26.7mm, Φ26.8mm, Φ26.9mm)				
(27.0~27.4)	YTDI 270□DL KRUZ 270□	32.0	T(3xD)	180	120	90	ID270 DL ,ID271 DL ,ID272 DL ,ID273 DL ,ID274 DL		M3-270		
			P(5xD)	240	180	144	IDF270, IDF271, IDF272, IDF273, IDF274				
			H(7xD)	290	230	198	(Φ27.0mm, Φ27.1mm, Φ27.2mm, Φ27.3mm, Φ27.4mm)				
(27.5~27.9)	YTDI 275□DL KRUZ 275□		T(3xD)	180	120	90	ID275 DL ,ID276 DL ,ID277 DL ,ID278 DL ,ID279 DL		M3-275		
			P(5xD)	240	180	144	IDF275, IDF276, IDF277, IDF278, IDF279				
			H(7xD)	290	230	198	(Φ27.5mm, Φ27.6mm, Φ27.7mm, Φ27.8mm, Φ27.9mm)				
(28.0~28.4)	YTDI 280□DL KRUZ 280□		T(3xD)	190	130	97	ID280 DL ,ID281 DL ,ID282 DL ,ID283 DL ,ID284 DL	M5-8	M3-280		
			P(5xD)	250	190	155	IDF280, IDF281, IDF282, IDF283, IDF284				
			H(7xD)	300	240	213	(Φ28.0mm, Φ28.1mm, Φ28.2mm, Φ28.3mm, Φ28.4mm)				
(28.5~28.9)	YTDI 285□DL KRUZ 285□		T(3xD)	190	130	97	ID285 DL ,ID286 DL ,ID287 DL ,ID288 DL ,ID289 DL		M3-285		
			P(5xD)	250	190	155	IDF285, IDF286, IDF287, IDF288, IDF289				
			H(7xD)	300	240	213	(Φ28.5mm, Φ28.6mm, Φ28.7mm, Φ28.8mm, Φ28.9mm)				
(29.0~29.4)	YTDI 290□DL KRUZ 290□		T(3xD)	190	130	97	ID290 DL ,ID291 DL ,ID292 DL ,ID293 DL ,ID294 DL		M3-290		
			P(5xD)	250	190	155	IDF290, IDF291, IDF292, IDF293, IDF294				
			H(7xD)	300	240	213	(Φ29.0mm, Φ29.1mm, Φ29.2mm, Φ29.3mm, Φ29.4mm)				
(29.5~29.9)	YTDI 295□DL KRUZ 295□		T(3xD)	190	130	97	ID295 DL ,ID296 DL ,ID297 DL ,ID298 DL ,ID299 DL	M5-10	M3-295		
			P(5xD)	250	190	155	IDF295, IDF296, IDF297, IDF298, IDF299				
			H(7xD)	300	240	213	(Φ29.5mm, Φ29.6mm, Φ29.7mm, Φ29.8mm, Φ29.9mm)				

Continued ▶▶

Continued ▶▶

New **KRUZ and YTDI,DL body with dual locking(DL)**

Hole size range	Body Code NO.	Shank Size (Φd)	Cutting depth (Length x ΦD)	L1	L2	L3	Insert Code NO. to fit in body	Set Screw	Cap Screw	Hex wrench	Screwdriver
(30.0~30.4)	YTDI 300□DL KRUZ 300□	32.0	T(3xD)	200	140	105	ID300 DL ,ID301 DL ,ID302 DL ,ID303 DL ,ID304 DL	M5-10	M4-300	2.5	
			P(5xD)	260	200	165	IDF300, IDF301, IDF302, IDF303, IDF304				
			H(7xD)	320	260	228	(Φ30.0mm, Φ30.1mm, Φ30.2mm, Φ30.3mm, Φ30.4mm)				
(30.5~30.9)	YTDI 305□DL KRUZ 305□	32.0	T(3xD)	200	140	105	ID305 DL ,ID306 DL ,ID307 DL ,ID308 DL ,ID309 DL	M5-10	M4-305	2.5	
			P(5xD)	260	200	165	IDF305, IDF306, IDF307, IDF308, IDF309				
			H(7xD)	320	260	228	(Φ30.5mm, Φ30.6mm, Φ30.7mm, Φ30.8mm, Φ30.9mm)				
(31.0~31.4)	YTDI 310□DL KRUZ 310□	32.0	T(3xD)	200	140	105	ID310 DL ,ID311 DL ,ID312 DL ,ID313 DL ,ID314 DL	M6-10	M4-310	3	T9
			P(5xD)	260	200	165	IDF310, IDF311, IDF312, IDF313, IDF314				
			H(7xD)	320	260	228	(Φ31.0mm, Φ31.1mm, Φ31.2mm, Φ31.3mm, Φ31.4mm)				
(31.5~31.9)	YTDI 315□DL KRUZ 315□	32.0	T(3xD)	200	140	105	ID315 DL ,ID316 DL ,ID317 DL ,ID318 DL ,ID319 DL	M6-10	M4-315	3	T9
			P(5xD)	260	200	165	IDF315, IDF316, IDF317, IDF318, IDF319				
			H(7xD)	320	260	228	(Φ31.5mm, Φ31.6mm, Φ31.7mm, Φ31.8mm, Φ31.9mm)				
(32.0~32.4)	YTDI 320□DL KRUZ 320□	32.0	T(3xD)	210	150	110	ID320 DL ,ID321 DL ,ID322 DL ,ID323 DL ,ID324 DL	M6-12	M4-320	3	T9
			P(5xD)	270	210	177	IDF320, IDF321, IDF322, IDF323, IDF324				
			H(7xD)	340	280	243	(Φ32.0mm, Φ32.1mm, Φ32.2mm, Φ32.3mm, Φ32.4mm)				
(32.5~32.9)	YTDI 325□DL KRUZ 325□	32.0	T(3xD)	210	150	110	ID325 DL ,ID326 DL ,ID327 DL ,ID328 DL ,ID329 DL	M6-12	M4-325	3	T9
			P(5xD)	270	210	177	IDF325, IDF326, IDF327, IDF328, IDF329				
			H(7xD)	340	280	243	(Φ32.5mm, Φ32.6mm, Φ32.7mm, Φ32.8mm, Φ32.9mm)				
(33.0~33.4)	YTDI 330□DL KRUZ 330□	32.0	T(3xD)	210	150	110	ID330 DL ,ID331 DL ,ID332 DL ,ID333 DL ,ID334 DL	M6-12	M4-330	3	T9
			P(5xD)	270	210	177	IDF330, IDF331, IDF332, IDF333, IDF334				
			H(7xD)	340	280	243	(Φ33.0mm, Φ33.1mm, Φ33.2mm, Φ33.3mm, Φ33.4mm)				
(33.5~33.9)	YTDI 335□DL KRUZ 335□	32.0	T(3xD)	210	150	110	ID335 DL ,ID336 DL ,ID337 DL ,ID338 DL ,ID339 DL	M6-12	M4-335	3	T9
			P(5xD)	270	210	177	IDF335, IDF336, IDF337, IDF338, IDF339				
			H(7xD)	340	280	243	(Φ33.5mm, Φ33.6mm, Φ33.7mm, Φ33.8mm, Φ33.9mm)				

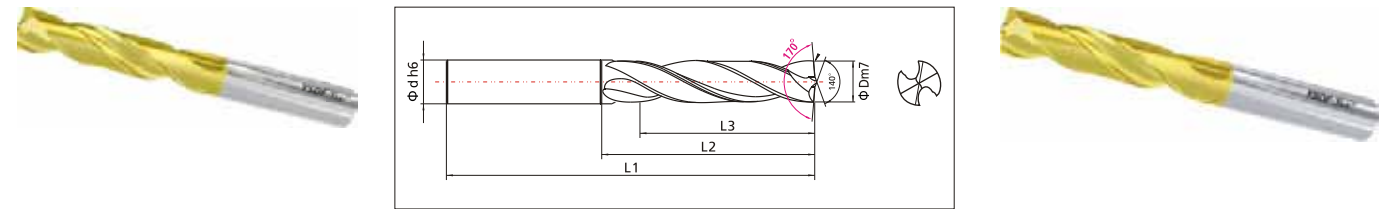
☞ Size over 34mm is available on request.(Dimension is same as former YTDI in the page NO.11)
Dimension in this catalog may be changed without pre-notice if the change helps better performance.

KRUZ Drills, Cutting Speed Recommendation

Drill Dia.	8~16mm		16~25mm		25~32mm		32~40mm		40~50mm	
	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 slightly reduced for 5xD & 7xD drills.
☞ The data is normally suggested for oil-mist(MQL) coolant condition and also possible to run in other normal condition if other machining environment like clamping etc. are secured in good.

New **" F " (flat bottom)point Solid carbide drills**



- Solid carbide drill with dual point 170° plus 140° center point
- Corner radius treatment helps to prevent easy chipping
- Subsidiary cone land enables better roundness and hole straightness
- Better performance for unstable machining environment

New **YSDF - 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	69	
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

New **YSDLF - 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			38
YSDLF 052-061	5.2-6.1	6	83	50	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			85
YSDLF 182-191	18.2-19.1	19			84
YSDLF 192-200	19.2-20.0	20			82

* Note : YSDCF coolant F point drill is available on request. When require 180° plus 140° center point, supply as special made.

Your Metal Cutting
Solution by YES Carbide Cutting Tools



Rely on Yestool for your high productivity

Yestool has been dedicated to assist customers reduced machining cost with wide variety of metal cutting solution.

Continual release of new innovative tools exclusively from Yestool

- Indexable special step drill body to replace all the inserts (YTDI special)
 - "One-Pass" drill & deburring system to debur both front and bottom hole (YTDI/DB)
 - "Speedy Reamer" to increase speed & feed incredibly (YSR)
 - "ECO-Cutter" to index 5 different milling cutters (YTEI)
- (Note many new tools' geometry has being patented)

Expanded special tools

Yestool's capability will exceed your expectations. Engineered special, modification of standard, made to order and special tolerance etc. easily available whatever customer needs. Call your distributor and rely on Yestool.

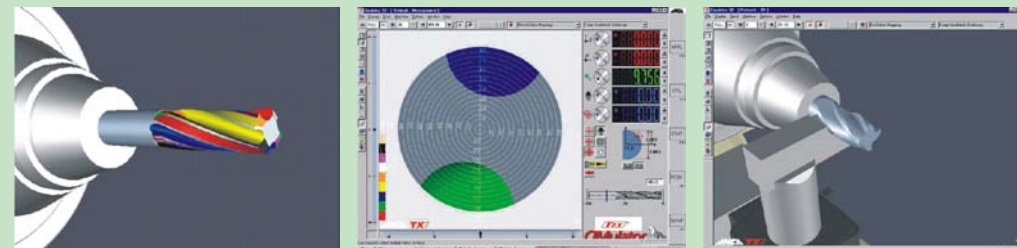
Distribution network

Yestool products are being supplied through the most qualified industrial distributors throughout 40 different countries around world. This select organization will help customers to provide an instant service.

Our goal is to provide the best innovative tool for the job at hand. Reduce your machining cost by Yestool's solution.



All our product design is processed through 3D-graphic along with computerized calculation, even more simulation before actual manufacturing tool in CNC machine.

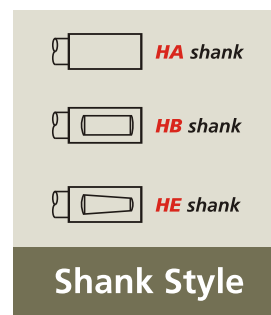
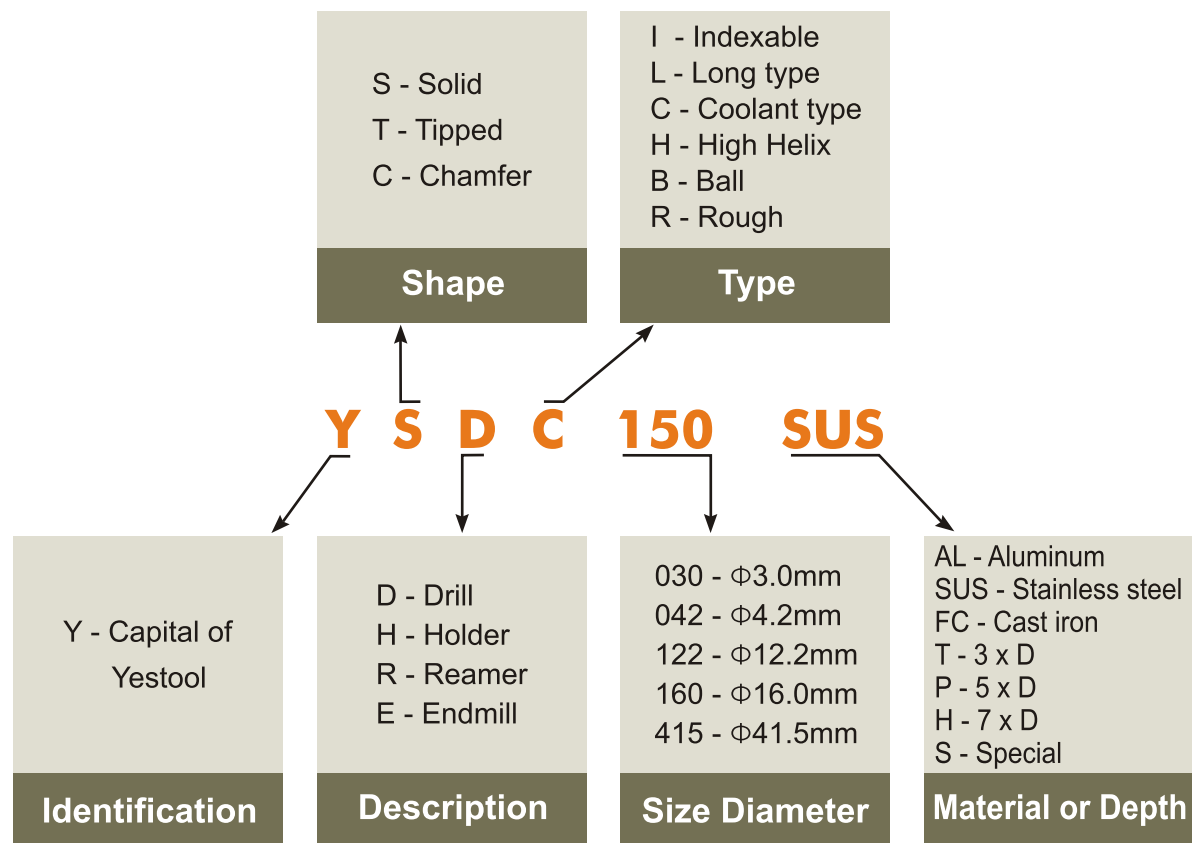


Model	Description & Available Standard Sizes	Page	Stock
ORDERING Ordering Information for Yes brand products 주문방법		6	
YTDI	Indexable Drill Bodies, Metric (dia. 8.0~50.0mm, 3xD, 5xD, 7xD) 인덱서블드릴 바디(mm)	10, 11	●
	Indexable Drill Bodies, Inches (dia. 0.315"~1.9685", 3xD, 5xD, 7xD) 인덱서블드릴 바디(inch)	12, 13	○
ID	Carbide Insert Drills, TiN, TiAlN coated (dia. 8.0~50.4mm, 0.315"~2") 초경 인서트드릴	10~13	●
Special YTDI	Indexable Step Drill body 인덱서블 스텝드릴 바디(주문제작) (drilling, chamfering, counter-boring in one tool body)	14	○
YTDI/DB	"One Pass" Indexable Drilling & Deburring Bodies (dia. 8.0~50.0mm) "원패스"전후면취경용드릴	15	○
DBI	Carbide Deburring Inserts, TiN, TiAlN coated (chamfer angle 45°, 60°) 초경 디버링 인서트	15	○
YTRI , IR , BC	Indexable Reamer & IR insert(over dia.20mm) 인덱서블 리머 Back-Chamfer Tool(from dia.8.0mm~) 백 챔퍼 툴	16	○
YTDI/NC	Indexable Drill Bodies without coolant, stub-length(2xD) (dia. 12.0~20.0mm) 인덱서블 바디(2xD짧은형,외부쿨러트)	17	○
YTDI/MT	Indexable Drill Bodies with Morse Taper shank (dia. 8.0~25.4mm) 인덱서블M/T샙크바디	18	○
YTDI/MTIC	Indexable Drills with M/T shank, Internal Coolant (dia. 8.0~25.4mm) 인덱서블M/T샙크바디, 내부쿨러트	18	○
YTD	Carbide Brazed Tipped Drills, Metric (dia. 13.5~41.5mm) 초경용접 팁드릴	19	●
	Carbide Brazed Tipped Drills, Inches (dia.0.531~1.625") 초경용접 팁드릴	21	○
YTDL	Carbide Brazed Tipped Drills, Long series, Metric (dia. 13.5~41.5mm) 초경용접 팁드릴, 롱	22	●
	Carbide Brazed Tipped Drills, Long series, Inches (dia. 0.531~1.625") 초경용접 팁드릴, 롱	24	○
YSR	Solid carbide "Speedy" Reamer 초경 스피디 리머 (dia.3.0~20mm)	26	▲
YSD	Solid Carbide Drills, Metric (dia. 3.0~20mm) 초경 솔리드 드드릴	28	●
	Solid Carbide Drills, Inches (dia. 1/8~3/4") 초경 솔리드 드릴	30	○
YSDL	Solid Carbide Drills, Long series, Metric (dia. 3.0~20mm) 초경 솔리드 드릴	31	●
	Solid Carbide Drills, Long series, Inches (dia. 1/8~3/4") 초경 솔리드 드릴, 롱	33	○

Model	Description & Available Standard Sizes	Page	Stock
YSDC	Solid Carbide Coolant Hole Drills, HA shank, Metric (dia. 5.0~20.0mm) 초경 쿨러트 드릴	34	●
	Solid Carbide Coolant Hole Drills, HA shank, Inches (dia. 3/16~3/4") 초경 쿨러트 드릴	36	○
YSDC,D5	Solid Carbide Coolant Drills, 5xDia, HE shank (dia.5.0~20.0mm) 초경 쿨러트 드릴(5xD)	37	●
YSDC,D8	Solid Carbide Coolant Drills, 8xDia, HE shank (dia.5.0~20.0mm) 초경 쿨러트 롱 드릴(8xD)	39	○
YCD	Solid Carbide Chamfer Drills, Metric (dia. 5.1~20mm) 초경 챔퍼 드릴	41	●
	Solid Carbide Chamfer Drills, Inches (dia. 0.201~0.8125") 초경 챔퍼 드릴	43	○
YCH	Chamfer Holders for YCD, Metric (dia. 6.0~20.0mm) 챔퍼드릴용 홀더	44	●
	Chamfer Holders for YCD, Inches (dia. 0.250~0.750") 챔퍼드릴용 홀더	45	○
YTEI	Indexable "Eco-Cutter" Body (dia. 8.0~32.0mm) 인덱서블 "에코-커터" 바디	47	▲
IB,R , IB,HR	Carbide "Eco-Cutter" Insert Ball End Mills (dia. 8.0~32.0mm) 초경 인서트 엔드밀	48,49	▲
IE,R , ICD	Carbide "Eco-Cutter" Insert End Mill & Center Drills (dia. 8.0~32.0mm) 초경 인서트 엔드밀, 센터드릴	48,49	▲
YSET	Solid Carbide End Mills, TiAlN (dia. 2.0~25.0mm) 초경 엔드밀	50	▲
YSEL	Solid Carbide End Mills, Long series, TiAlN (dia. 6.0~25.0mm) 초경 롱 엔드밀	50	▲
YSET/HH	Solid Carbide High Helix End Mills, TiAlN (dia. 6.0~32.0mm) 초경 하이헬릭스 엔드밀	51	▲
YSER	Solid Carbide Roughing End Mills, TiAlN (dia. 6.0~25.0mm) 초경 러핑 엔드밀	51	▲
YSEB	Solid Carbide Ball End Mills, TiAlN (dia. 2.0~32.0mm) 초경 볼 엔드밀	52	▲
YSEBL	Solid Carbide Ball End Mills, Long series, TiAlN (dia. 6.0~32.0mm) 초경 볼 롱 엔드밀	52	▲
YSEBG	Solid Carbide Ball End Mills for Graphite, TiAlN (dia. 2.0~16.0mm) 초경 그래피이트용 엔드밀	53	▲
DATA	Technical Information 기술자료	54~67	

Ordering information and identification system

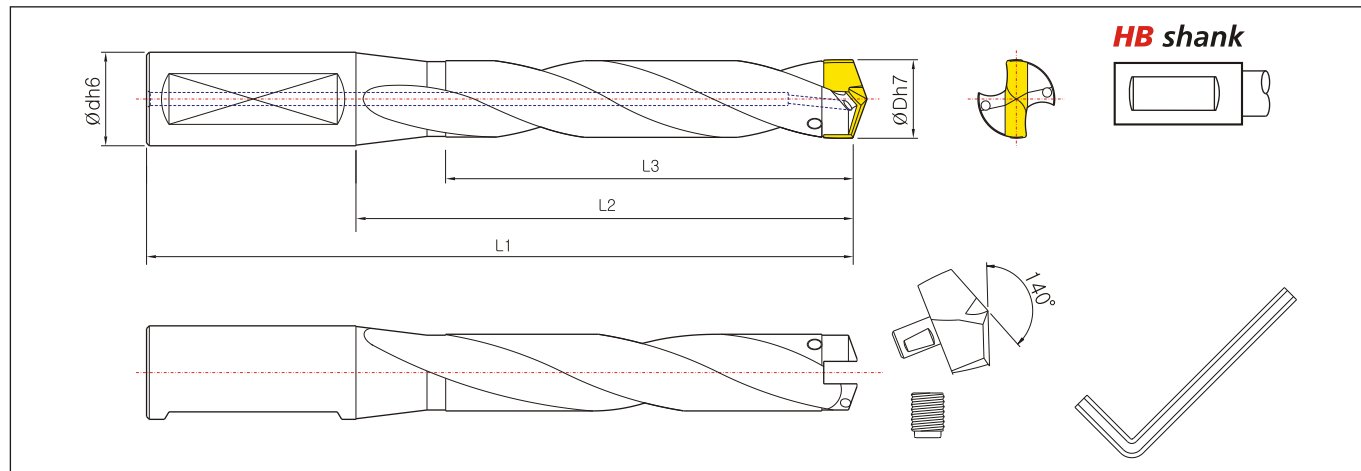
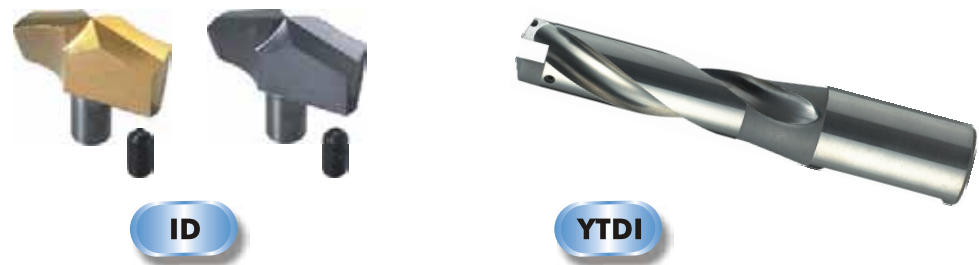
- YTDI ID** Indexable Drill Body & Carbide Insert Patent No. 0171645
- New Special YTDI** Indexable Special Step Drill Body
- New YTDI/DB DBI** "One Pass" Indexable Drilling & Deburring Body & Insert
- YTDI/NC** Indexable Drill Body without coolant, stub-length(2xD)
- YTDI/MT YTDI/MTIC** Indexable Drills with Morse Taper shank
- YTD** Carbide Brazed Tipped Drills
- YTDL** Carbide Brazed Tipped Drills, Long series



Yestool's product has different shank style each model. If require different shank, please specify required shank on the left.

Indexable, Coolant Drill Series





YTDI Body

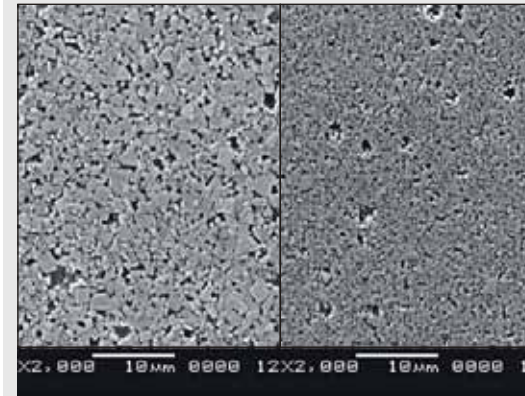
- Rugged heat-treated tool steel, polished flute to smooth chip removal
 - Two coolant through holes on the head
 - Cylindrical with flatted HB Shank as standard, except small size 8 to 11.5mm cylindrical HA shank
 - Threaded set screw hole to lock ID insert
 - Cutting length 3xDia, 5xDia, 7xDia., Wide size selection 8 to 50mm
 - ID insert's quick change without picking up body in the machine (Included one hex key wrench and one steel bar to remove insert just for safety)
- ☞ **Special made-to-order (See page 14 for YTDI special body)**
- Available special made-to-order for extra over 7xDia, stub 2xDia, different shank style. (Consult detail through your local distributor)

ID insert drill

- Ultra-micro grain carbide material to cover various material from soft to harder
 - Completely ground cutting edge in CNC equipment
 - Own designed self-centering 140° point to provide good chip formation
 - TiN & TiAlN coated by newest Balzers facility
 - Wide variety of size selection 8.0 to 50.4mm by 0.1mm inclusive from stock
- ☞ **Standard and optional geometry for different material**
- ID...TiN or TiAlN (for most material as standard stock)
 - ID...AL (for Aluminum, made-to-order)
 - ID...SUS (for Stainless steel, made-to-order)
 - ID...FC (for Cast iron, made-to-order)
 - ID...AW (exclusively for Aluminum wheel machining. See next page for detail)
- ☞ **Special made-to-order**
- precise micro-size by 0.01mm(ex.ID25.67mm), different point angle, corner chamfer, corner radius, step shape, drill for Alu-wheel, flat bottom like end-mill, different coating

Carbide material substrate

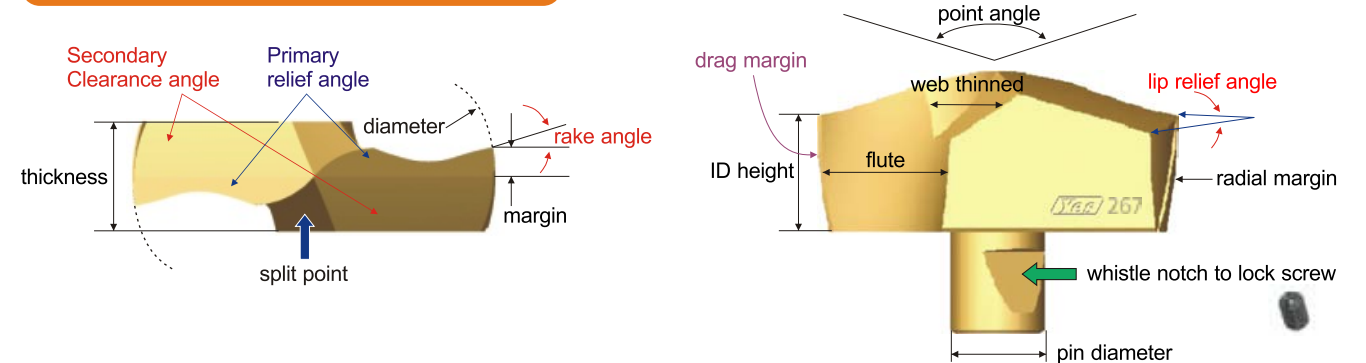
All the Yestool's carbide cutting tool is made of ultra-micro grain carbide material with 13% cobalt contents. This would be greatly affected on higher performance and strong durability for various materials from soft to harder work pieces, even for difficult exotic materials.



Carbide material comparison

Carbide material (Other competitor) Yestool's carbide material (0.5µm ultra-micro grain size)

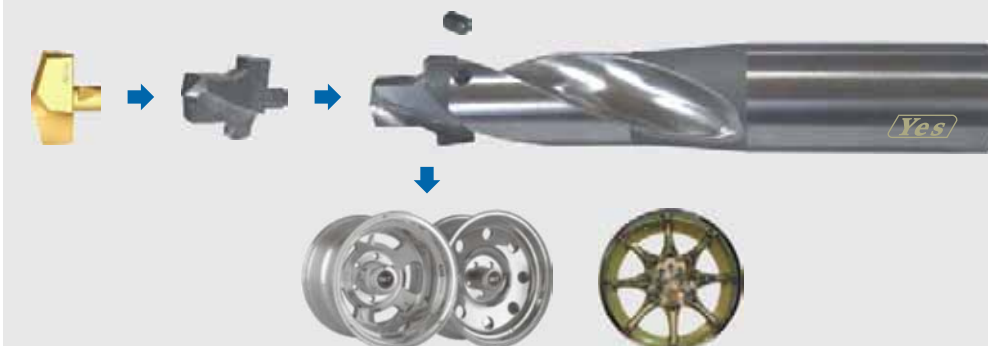
Nomenclature of ID Insert

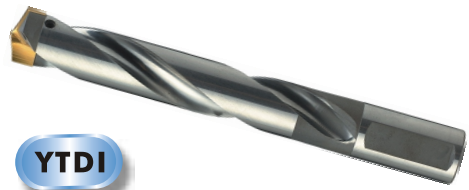


Special new "ID AW " insert available

YES standard indexable body can be fit a special ID AW insert to apply for complicated hole shape. This special ID AW insert can eliminate many different drilling jobs in one shot operation, just change the insert.

- Higher productivity & cost saving for Aluminum- wheel manufacturing
- All the cutting edge ground completely in special CNC program
- Free from conventional re-sharpening trouble
- One single insert eliminate many different tools economically (If provide drawing for work-piece, special ID AW insert will be designed for the specified hole dimension.)





YTDI



ID

Model : YTDI, ID

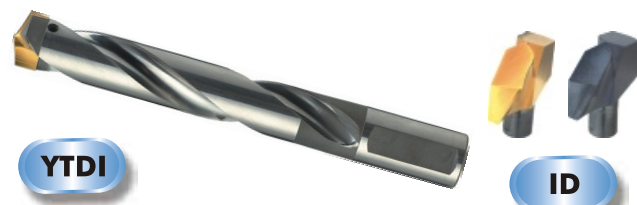
- YTDI body effective cutting depth available as standard 3xDia(T), 5xDia(P), 7xDia(H)
- One body can fit 5 different similar ID inserts, HB Shank except small size 8.0~11.5(HA shank)
- All ID inserts available with TiN, TiAlN coated as standard stock
- Specified insert ID...AL, SUS, FC made-to-order

ex) Ordering method when require 16.3mm drilling, effective cutting depth 5xDia.
Body : YTDI 160P Insert : ID163

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

Code No.	Shank Size d	T (3 x Dia.)			P (5 x Dia.)			H (7 x Dia.)			Applicable ID insert Diameter (D) (5 sizes applicable in one YTDI)					S.S. Bolt Size	Allen Key (mm)
		L1	L2	L3	L1	L2	L3	L1	L2	L3	ID080	ID081	ID082	ID083	ID084		
YTDI 080□	10.0	80	35	24	96	51	40	117	72	56	ID080	ID081	ID082	ID083	ID084	M2.5 x 2.5	1.3
YTDI 085□		82	37	26	100	55	45	122	77	60	ID085	ID086	ID087	ID088	ID089		
YTDI 090□		85	40	27	105	60	47	126	81	67	ID090	ID091	ID092	ID093	ID094		
YTDI 095□	12.0	95	47	37	115	67	57	140	92	77	ID095	ID096	ID097	ID098	ID099	M2.5 x 3	1.3
YTDI 100□		100	52	42	125	77	67	150	102	87	ID100	ID101	ID102	ID103	ID104		
YTDI 105□		100	52	42	125	77	67	150	102	87	ID105	ID106	ID107	ID108	ID109		
YTDI 110□	16.0	100	52	42	125	77	67	150	102	87	ID110	ID111	ID112	ID113	ID114	M2.5 x 4	1.5
YTDI 115□		105	57	47	130	82	72	160	112	97	ID115	ID116	ID117	ID118	ID119		
YTDI 120□		105	57	47	130	82	72	160	112	97	ID120	ID121	ID122	ID123	ID124		
YTDI 125□	16.0	110	62	45	140	92	75	175	127	100	ID125	ID126	ID127	ID128	ID129	M3 x 4	1.5
YTDI 130□		110	62	45	140	92	75	175	127	100	ID130	ID131	ID132	ID133	ID134		
YTDI 135□		115	67	50	145	97	80	180	132	105	ID135	ID136	ID137	ID138	ID139		
YTDI 140□	20.0	115	67	50	145	97	80	180	132	105	ID140	ID141	ID142	ID143	ID144	M3 x 5	1.5
YTDI 145□		125	75	53	158	108	85	185	135	115	ID145	ID146	ID147	ID148	ID149		
YTDI 150□		125	75	53	158	108	85	185	135	115	ID150	ID151	ID152	ID153	ID154		
YTDI 155□	20.0	125	75	53	158	108	85	185	135	115	ID155	ID156	ID157	ID158	ID159	M3 x 6	1.5
YTDI 160□		130	80	55	160	110	99	190	140	123	ID160	ID161	ID162	ID163	ID164		
YTDI 165□		130	80	55	160	110	99	190	140	123	ID165	ID166	ID167	ID168	ID169		
YTDI 170□	25.0	130	80	55	160	110	99	190	140	123	ID170	ID171	ID172	ID173	ID174	M3 x 6	1.5
YTDI 175□		140	90	63	170	120	100	210	160	138	ID175	ID176	ID177	ID178	ID179		
YTDI 180□		140	90	63	170	120	100	210	160	138	ID180	ID181	ID182	ID183	ID184		
YTDI 185□	25.0	140	90	63	170	120	100	210	160	138	ID185	ID186	ID187	ID188	ID189	M4 x 6	2.0
YTDI 190□		150	94	69	190	134	110	230	174	153	ID190	ID191	ID192	ID193	ID194		
YTDI 195□		150	94	69	190	134	110	230	174	153	ID195	ID196	ID197	ID198	ID199		
YTDI 200□	25.0	150	94	69	190	134	110	230	174	153	ID200	ID201	ID202	ID203	ID204	M4 x 6	2.0
YTDI 205□		160	104	75	200	144	121	240	184	168	ID205	ID206	ID207	ID208	ID209		
YTDI 210□		160	104	75	200	144	121	240	184	168	ID210	ID211	ID212	ID213	ID214		
YTDI 215□	32.0	160	104	75	200	144	121	240	184	168	ID215	ID216	ID217	ID218	ID219	M4 x 6	2.0
YTDI 220□		170	110	83	220	160	133	270	210	183	ID220	ID221	ID222	ID223	ID224		
YTDI 225□		170	110	83	220	160	133	270	210	183	ID225	ID226	ID227	ID228	ID229		
YTDI 230□	32.0	170	110	83	220	160	133	270	210	183	ID230	ID231	ID232	ID233	ID234	M4 x 8	2.0
YTDI 235□		170	110	83	220	160	133	270	210	183	ID235	ID236	ID237	ID238	ID239		
YTDI 240□		170	110	83	220	160	133	270	210	183	ID240	ID241	ID242	ID243	ID244		
YTDI 245□	32.0	170	110	83	220	160	133	270	210	183	ID245	ID246	ID247	ID248	ID249	M4 x 8	2.0
YTDI 250□		170	110	83	220	160	133	270	210	183	ID250	ID251	ID252	ID253	ID254		
YTDI 255□		170	110	83	220	160	133	270	210	183	ID255	ID256	ID257	ID258	ID259		

Code No.	Shank Size d	T (3 x Dia.)			P (5 x Dia.)			H (7 x Dia.)			Applicable ID insert Diameter (D) (5 sizes applicable in one YTDI)					S.S. Bolt Size	Allen Key (mm)
		L1	L2	L3	L1	L2	L3	L1	L2	L3	ID260	ID261	ID262	ID263	ID264		
YTDI 260□	32.0	180	120	90	240	180	144	290	230	198	ID260	ID261	ID262	ID263	ID264	M4 x 8	2.0
YTDI 265□		180	120	90	240	180	144	290	230	198	ID265	ID266	ID267	ID268	ID269		
YTDI 270□		180	120	90	240	180	144	290	230	198	ID270	ID271	ID272	ID273	ID274		
YTDI 275□	32.0	180	120	90	240	180	144	290	230	198	ID275	ID276	ID277	ID278	ID279	M5 x 8	2.5
YTDI 280□		190	130	97	250	190	155	300	240	213	ID280	ID281	ID282	ID283	ID284		
YTDI 285□		190	130	97	250	190	155	300	240	213	ID285	ID286	ID287	ID288	ID289		
YTDI 290□	32.0	190	130	97	250	190	155	300	240	213	ID290	ID291	ID292	ID293	ID294	M5 x 10	2.5
YTDI 295□		190	130	97	250	190	155	300	240	213	ID295	ID296	ID297	ID298	ID299		
YTDI 300□		190	130	97	250	190	155	300	240	213	ID295	ID296	ID297	ID298	ID299		
YTDI 305□	32.0	200	140	105	260	200	165	320	260	228	ID300	ID301	ID302	ID303	ID304	M5 x 10	2.5
YTDI 310□		200	140	105	260	200	165	320	260	228	ID305	ID306	ID307	ID308	ID309		
YTDI 315□		200	140	105	260	200	165	320	260	228	ID310	ID311	ID312	ID313	ID314		
YTDI 320□	32.0	210	150	110	270	210	177	340	280	243	ID315	ID316	ID317	ID318	ID319	M6 x 10	3.0
YTDI 325□		210	150	110	270	210	177	340	280	243	ID320	ID321	ID322	ID323	ID324		
YTDI 330□		210	150	110	270	210	177	340	280	243	ID325	ID326	ID327	ID328	ID329		
YTDI 335□	32.0	210	150	110	270	210	177	340	280	243	ID330	ID331	ID332	ID333	ID334	M6 x 10	3.0
YTDI 340□		230	160	118	300	230	188	360	290	258	ID335	ID336	ID337	ID338	ID339		
YTDI 345□		230	160	118	300	230	188	360	290	258	ID340	ID341	ID342	ID343	ID344		
YTDI 350□	32.0	230	160	118	300	230	188	360	290	258	ID345	ID346	ID347	ID348	ID349	M6 x 12	3.0
YTDI 355□		230	160	118	300	230	188	360	290	258	ID350	ID351	ID352	ID353	ID354		
YTDI 360□		230	160	118	300	230	188	360	290	258	ID355	ID356	ID357	ID358	ID359		
YTDI 365□	32.0	230	160	118	300	230	188	360	290	258	ID360	ID361	ID362	ID363	ID364	M6 x 12	3.0
YTDI 370□		250	180	125	310	240	199	380	310	273	ID365	ID366	ID367	ID368	ID369		
YTDI 375□		250	180	125	310	240	199	380	310	273	ID370	ID371	ID372	ID373	ID374		
YTDI 380□	32.0	250	180	125	310	240	199	380	310	273	ID375	ID376	ID377	ID378	ID379	M6 x 12	3.0
YTDI 385□		250	180	125	310	240	199	380	310	273	ID380	ID381	ID382	ID383	ID384		
YTDI 390□		250	180	125	310	240	199	380	310	273	ID385	ID386	ID387	ID388	ID389		
YTDI 395□	32.0	250	180	125	310	240	199	380	310	273	ID390	ID391	ID392	ID393	ID394	M6 x 12	3.0
YTDI 400□		250	180	125	310	240	199	380	310	273	ID395	ID396	ID397	ID398	ID399		
YTDI 405□		250	180	125	310	240	199	380	310	273	ID400	ID401	ID402	ID403	ID404		
YTDI 410□	32.0	270	200	138	340	270	221	420	350	303	ID405	ID406	ID407	ID408	ID409	M8 x 12	4.0
YTDI 415□		270	200	138	340	270	221	420	350	303	ID410	ID411	ID412	ID413	ID414		
YTDI 420□		270	200	138	340	270	221	420	350	303	ID415	ID416	ID417	ID418	ID419		
YTDI 425□	32.0	270	200	138	340	270	221	420	350	303	ID420	ID421	ID422	ID423	ID424	M8 x 12	4.0
YTDI 430□		270	200	138	340	270	221	420	350	303	ID425	ID426	ID427	ID428	ID429		
YTDI 435□		270	200	138	340	270	221	420	350	303	ID430	ID431	ID432	ID433	ID434		
YTDI 440□	32.0	280	210	145	370	300	232	460	390	318	ID435	ID436	ID437	ID438	ID439	M8 x 12	4.0
YTDI 445□		280	210	145	370	300	232	460	390	318	ID440	ID441	ID442	ID443	ID444		
YTDI 450□		280	210	145	370	300	232	460	390	318	ID445	ID446	ID447	ID448	ID449		
YTDI 455□	32.0	280	210	145	370	300	232	460	390	318	ID450	ID451	ID452	ID453	ID454	M8 x 12	4.0
YTDI 460□		280	210	145	370	300	232	460	390	318	ID455	ID456	ID457	ID458	ID459		
YTDI 465□		280	210	145	370	300	232	460	390	318	ID460	ID461	ID462	ID463	ID464		
YTDI 470□	32.0	280	210	145	370	300	232	460	390	318	ID465	ID466	ID467	ID468	ID469	M8 x 12	4.0
YTDI 475□		280															



Model : YTDI, ID

- YTDI body effective cutting depth available as standard 3xDia(T), 5xDia(P), 7xDia(H)
- One body can fit 5 different similar ID inserts HB Shank except small size 8.0~11.5(HA shank)
- All ID inserts available with TiN, TiAlN coated as standard stock
- Specified insert ID..AL, SUS, FC made-to-order

ex) Ordering method if you require 0.6300" drilling, effective cutting depth 5xDia.
 Body : YTDI .6299P Insert : ID .6300
 Please make required cutting depth in the □ like T,P,H.

* All dimension in inch

Code No.	Shank Size d	T (3 x Dia.)			P (5 x Dia.)			H (7 x Dia.)			Applicable ID insert Diameter, inch (D) (same sizeline applicable in 1YTDI)	S.S. Bolt Size	Allen key (mm)
		L1	L2	L3	L1	L2	L3	L1	L2	L3			
YTDI .3150□	0.375	3.15	1.38	0.87	3.78	2.01	1.46	4.61	2.83	2.09	ID .3150 ~ ID .3345	M2.5 x 2.5	1.3
YTDI .3346□		3.23	1.46	0.98	3.94	2.17	1.77	4.80	3.03	2.24	ID .3346 ~ ID .3542		
YTDI .3543□		3.35	1.57	1.06	4.13	2.36	1.85	4.96	3.19	2.64	ID .3543 ~ ID .3739		
YTDI .3740□	0.500	3.74	1.85	1.46	4.53	2.64	2.24	5.51	3.62	3.03	ID .3740 ~ ID .3936	M2.5 x 3	1.3
YTDI .3937□		3.94	2.05	1.65	4.92	3.03	2.64	5.91	4.02	3.43	ID .3937 ~ ID .4133		
YTDI .4134□											ID .4134 ~ ID .4330		
YTDI .4331□	0.625	4.13	2.24	1.85	5.12	3.23	2.83	6.30	4.41	3.82	ID .4331 ~ ID .4527	M2.5 x 4	1.5
YTDI .4528□		4.33	2.44	1.77	5.51	3.62	2.95	6.89	5.00	3.94	ID .4528 ~ ID .4723		
YTDI .4724□											ID .4724 ~ ID .4920		
YTDI .4921□	0.750	4.33	2.44	1.77	5.51	3.62	2.95	6.89	5.00	3.94	ID .4921 ~ ID .5117	M3 x 3	1.5
YTDI .5118□		4.53	2.64	1.97	5.71	3.82	3.15	7.09	5.20	4.13	ID .5118 ~ ID .5314		
YTDI .5315□											ID .5315 ~ ID .5511		
YTDI .5512□	0.875	4.53	2.64	1.97	5.71	3.82	3.15	7.09	5.20	4.13	ID .5512 ~ ID .5708	M3 x 5	1.5
YTDI .5709□		4.92	2.95	2.09	5.83	3.86	3.27	7.28	5.31	4.53	ID .5709 ~ ID .5905		
YTDI .5906□					6.22	4.25	3.66				ID .5906 ~ ID .6101		
YTDI .6102□	1.000	5.11	3.14	2.17	6.30	4.33	3.50	7.48	5.51	4.84	ID .6102 ~ ID .6298	M3 x 6	2.0
YTDI .6299□		5.11	3.14	2.17	6.30	4.33	3.90	7.87	5.91	5.04	ID .6299 ~ ID .6495		
YTDI .6496□											ID .6496 ~ ID .6692		
YTDI .6693□	1.125	5.11	3.14	2.17	6.30	4.33	3.90	7.87	5.91	5.04	ID .6693 ~ ID .6888	M4 x 6	2.0
YTDI .6889□		5.51	3.54	2.48	6.69	4.72	3.94	8.26	6.29	5.43	ID .6889 ~ ID .7086		
YTDI .7087□											ID .7087 ~ ID .7282		
YTDI .7283□	1.250	5.51	3.54	2.48	6.69	4.72	3.94	8.26	6.29	5.43	ID .7283 ~ ID .7479	M4 x 8	2.0
YTDI .7480□		5.51	3.54	2.48	6.69	4.72	3.94	8.26	6.29	5.43	ID .7480 ~ ID .7676		
YTDI .7677□											ID .7677 ~ ID .7873		
YTDI .7874□	1.375	5.90	3.70	2.72	7.48	5.27	4.33	9.05	6.85	6.02	ID .7874 ~ ID .8069	M4 x 6	2.0
YTDI .8070□		5.90	3.70	2.72	7.48	5.27	4.33	9.05	6.85	6.02	ID .8070 ~ ID .8267		
YTDI .8268□											ID .8268 ~ ID .8463		
YTDI .8464□	1.500	5.90	3.70	2.72	7.48	5.27	4.33	9.05	6.85	6.02	ID .8464 ~ ID .8660	M4 x 8	2.0
YTDI .8661□		6.29	4.09	2.95	7.87	5.66	4.76	9.44	7.24	6.61	ID .8661 ~ ID .8857		
YTDI .8858□											ID .8858 ~ ID .9054		
YTDI .9055□	1.625	6.29	4.09	2.95	7.87	5.66	4.76	9.44	7.24	6.61	ID .9055 ~ ID .9250	M4 x 8	2.0
YTDI .9251□		6.29	4.09	2.95	7.87	5.66	4.76	9.84	7.64	7.01	ID .9251 ~ ID .9448		
YTDI .9449□											ID .9449 ~ ID .9644		
YTDI .9645□	1.750	6.69	4.33	3.27	8.66	6.29	5.24	10.62	8.26	7.20	ID .9645 ~ ID .9842	M4 x 8	2.0
YTDI .9843□		6.69	4.33	3.27	8.66	6.29	5.24	10.62	8.26	7.20	ID .9843 ~ ID 1.0038		
YTDI 1.0039□											ID 1.0039 ~ ID 1.0235		

Code No.	Shank Size d	T (3 x Dia.)			P (5 x Dia.)			H (7 x Dia.)			Applicable ID insert Diameter, inch (D) (same sizeline applicable in 1YTDI)	S.S. Bolt Size	Allen key (mm)
		L1	L2	L3	L1	L2	L3	L1	L2	L3			
YTDI 1.0236□	1.250	7.08	4.72	3.54	9.44	7.08	5.67	11.41	9.05	7.80	ID 1.0236 ~ ID 1.0432	M4 x 8	2.0
YTDI 1.0433□											ID 1.0433 ~ ID 1.0628		
YTDI 1.0629□											ID 1.0629 ~ ID 1.0825		
YTDI 1.0826□	1.375	7.48	5.11	3.82	9.84	7.48	6.10	11.81	9.44	8.39	ID 1.0826 ~ ID 1.1022	M5 x 8	2.5
YTDI 1.1023□											ID 1.1023 ~ ID 1.1219		
YTDI 1.1220□											ID 1.1220 ~ ID 1.1416		
YTDI 1.1417□	1.500	7.87	5.51	4.13	10.23	7.87	6.50	12.59	10.23	8.98	ID 1.1417 ~ ID 1.1613	M5 x 10	2.5
YTDI 1.1614□											ID 1.1614 ~ ID 1.1810		
YTDI 1.1811□											ID 1.1811 ~ ID 1.2006		
YTDI 1.2007□	1.625	8.26	5.90	4.33	10.62	8.26	6.97	13.38	11.02	9.57	ID 1.2007 ~ ID 1.2203	M6 x 10	3.0
YTDI 1.2204□											ID 1.2204 ~ ID 1.2400		
YTDI 1.2401□											ID 1.2401 ~ ID 1.2597		
YTDI 1.2598□	1.750	8.65	6.29	4.65	11.88	9.05	7.40	14.17	11.41	10.16	ID 1.2598 ~ ID 1.2794	M6 x 12	3.0
YTDI 1.2795□											ID 1.2795 ~ ID 1.2991		
YTDI 1.2992□											ID 1.2992 ~ ID 1.3187		
YTDI 1.3188□	1.875	9.05	6.29	4.65	11.88	9.05	7.40	14.17	11.41	10.16	ID 1.3188 ~ ID 1.3384	M6 x 12	3.0
YTDI 1.3385□											ID 1.3385 ~ ID 1.3581		
YTDI 1.3582□											ID 1.3582 ~ ID 1.3778		
YTDI 1.3779□	2.000	9.44	6.68	4.92	12.20	9.44	7.83	14.96	12.20	10.75	ID 1.3779 ~ ID 1.3975	M6 x 12	3.0
YTDI 1.3976□											ID 1.3976 ~ ID 1.4172		
YTDI 1.4173□											ID 1.4173 ~ ID 1.4369		
YTDI 1.4370□	2.125	9.84	7.08	4.92	12.20	9.44	7.83	14.96	12.20	10.75	ID 1.4370 ~ ID 1.4565	M6 x 12	3.0
YTDI 1.4566□											ID 1.4566 ~ ID 1.4762		
YTDI 1.4763□											ID 1.4763 ~ ID 1.4959		
YTDI 1.4960□	2.250	10.23	7.48	5.20	12.59	9.84	8.27	15.74	12.99	11.34	ID 1.4960 ~ ID 1.5156	M8 x 12	4.0
YTDI 1.5157□											ID 1.5157 ~ ID 1.5353		
YTDI 1.5354□											ID 1.5354 ~ ID 1.5550		
YTDI 1.5551□	2.375	10.63	7.87	5.43	13.38	10.62	9.13	16.53	13.77	11.93	ID 1.5551 ~ ID 1.5747	M8 x 12	4.0
YTDI 1.5748□											ID 1.5748 ~ ID 1.5943		
YTDI 1.5944□											ID 1.5944 ~ ID 1.6140		
YTDI 1.6141□	2.500	11.02	8.26	5.71	14.56	11.81	10.04	18.11	15.35	13.70	ID 1.6141 ~ ID 1.6337	M8 x 12	4.0
YTDI 1.6338□											ID 1.6338 ~ ID 1.6534		
YTDI 1.6535□											ID 1.6535 ~ ID 1.6731		
YTDI 1.6732□	2.625	11.41	8.65	5.90	15.25	12.20	10.43	19.00	16.14	14.29	ID 1.6732 ~ ID 1.6928	M8 x 12	4.0
YTDI 1.6929□											ID 1.6929 ~ ID 1.7124		
YTDI 1.7125□											ID 1.7125 ~ ID 1.7321		
YTDI 1.7322□	2.750	11.81	9.05	6.02	15.95	13.38	10.82	19.81	16.95	14.68	ID 1.7322 ~ ID 1.7518	M8 x 12	4.0
YTDI 1.7519□											ID 1.7519 ~ ID 1.7715		
YTDI 1.7716□											ID 1.7716 ~ ID 1.7912		
YTDI 1.7913□	2.875	12.20	9.44	6.29	16.65	14.61	11.21	20.61	17.75	15.17	ID 1.7913 ~ ID 1.8109	M8 x 12	4.0
YTDI 1.8110□											ID 1.8110 ~ ID 1.8306		
YTDI 1.8307□											ID 1.8307 ~ ID 1.8502		
YTDI 1.8503□	3.000	12.60	9.83	6.58	17.45	15.41	11.61	21.41	18.55	15.66	ID 1.8503 ~ ID 1.8699	M8 x 12	4.0
YTDI 1.8700□											ID 1.8700 ~ ID 1.8896		
YTDI 1.8897□											ID 1.8897 ~ ID 1.9093		
YTDI 1.9094□	3.125	13.00	10.22	6.97	18.29	16.21	12.01	22.21	19.45	16.15	ID 1.9094 ~ ID 1.9290	M8 x 12	4.0
YTDI 1.9291□											ID 1.9291 ~ ID 1.9487		
YTDI 1.9488□											ID 1.9488 ~ ID 1.9684		
YTDI 1.9685□	3.250	13.40	10.62	7.36	19.13	17.01	12.41	23.01	20.29	16.64	ID 1.9685 ~ ID 2.0000	M8 x 12	4.0

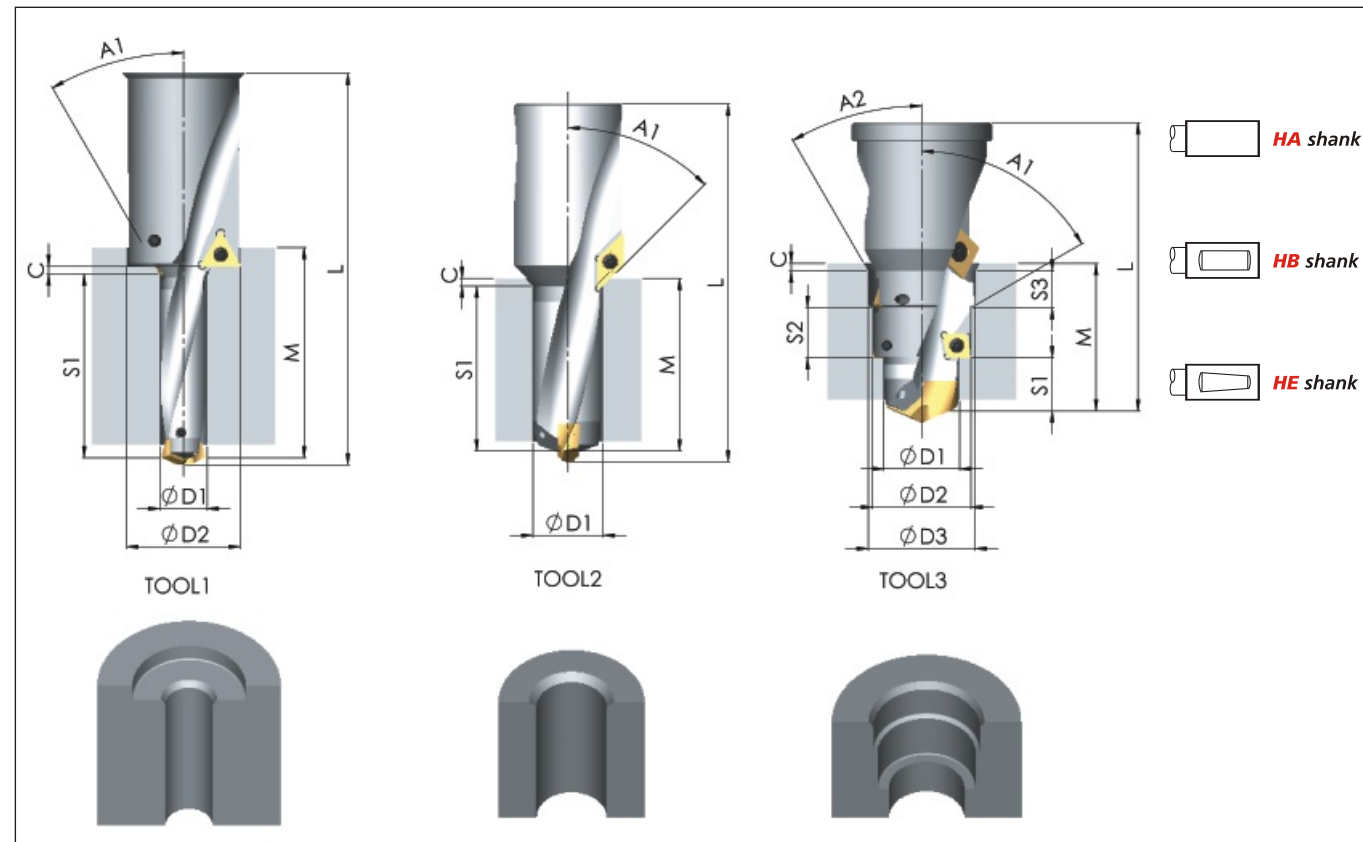
Indexable special step drill body

Indexable special drill body can machine 2-3 different holes economically in just one operation.



- All the inserts interchangeable by locking screw.
- Helically fluted body to easy chip's removal with two coolant holes.
- Mounted with YES standard ID drill insert to get easily from stock.
- Designed with interchangeable chamfer or facing insert with ISO standard.
- Free from resharping trouble.
- Proved the most optimized tool for mass-production through many automobile lines around world.
- Cost saving, reducing cycle time and high productivity.

When order, see below tool example and provide us dimension



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. :

"One-Pass" Indexable Drilling & Deburring system

YESTOOL'S Innovative combination drilling & deburring tool

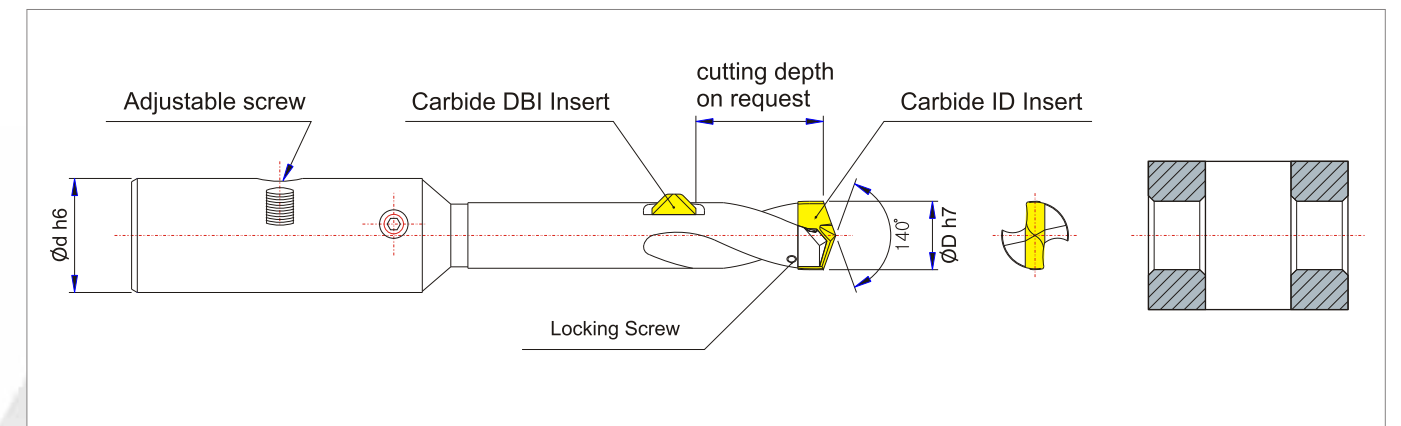
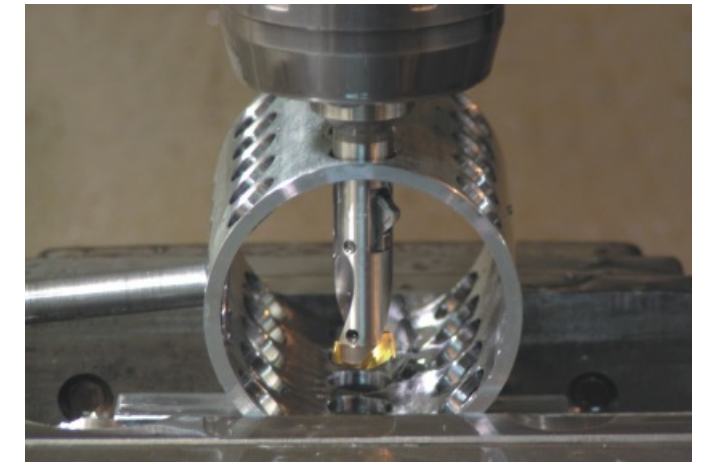


New YTDI/DB "One-Pass" Indexable Drilling & Deburring bodies

New DBI Carbide Deburring Insert 45° (TiN, TiAlN available)

ID Standard Carbide ID Insert (TiN, TiAlN available)

- Enables drilling & deburring of both top and bottom of hole in one operation
- Drill body uses standard replaceable YESTOOL drilling insert
- Cutting tension of replaceable "DBI" deburring insert is adjustable
- No need for adjusting cutting speed for deburring operation
- Inserts can be replaced without removing the drill body from the machine
- Can be designed for any depth and chamfer angle



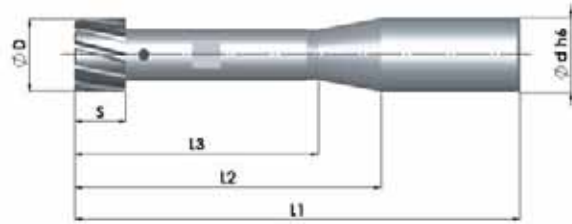
Reduce machining cost and increase productivity with YESTOOL "One-Pass" drilling system.

DBI insert remove the burr on the front and back side of hole. The insert retracts automatically when the tool passes through the hole.

YTRI Indexable Reamer



- Interchangeable Solid Carbide Speedy Reamer
- Economical usage for large size over 20mm
- Dual locking screw system for both head & pin
- Right helix spiral multi-flutes
- $V_c=40\sim 80\text{m/min}$, $f_z=0.1\text{mm/flute}$, H7 tolerance



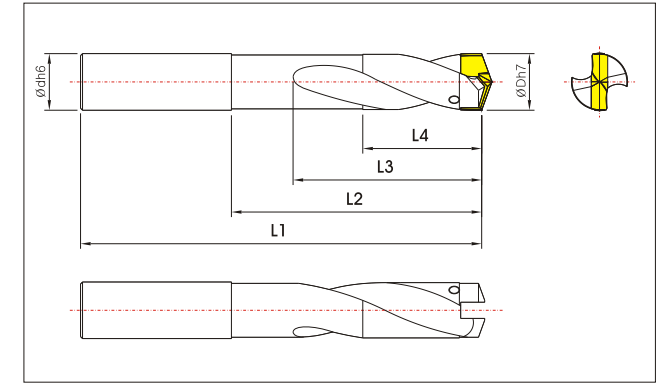
Please see to page 26 for Solid carbide speedy reamer for smaller size less than 20mm

Body code No.	Shank d	S	T(3 x Dia.)			P(5 x Dia.)			Applicable IR	Cap screw M	Set screw m	No. of flute
			L1	L2	L3	L1	L2	L3				
YTRI 200-224□	20	14.7	141	91	74	185	135	118	IR 200 ~ 224	M3x30	M5	8
YTRI 225-249□	25	16.5	159	103	81	209	153	131	IR 225 ~ 249	M4x39		
YTRI 250-274□		18.2	166	110	90	221	165	145	IR 250 ~ 274	M5x43	M6	10
YTRI 275-299□	20.0	185	125	98	245	185	158	IR 275 ~ 299	M5x49			
YTRI 300-324□	32	22.0	192	132	105	257	197	170	IR 300 ~ 324	M6x53	M8	12
YTRI 325-349□		23.5	200	140	113	270	210	183	IR 325 ~ 349	M6x57		
YTRI 350-374□	40	25.2	225	155	120	300	230	195	IR 350 ~ 374	M8x61	M8	12
YTRI 375-400□		27.0	233	163	128	313	243	208	IR 375 ~ 400	M8x67		

Indexable Drill body without coolant hole, stub length(2xD)



YTDI/NC



- Alternative to Solid Carbide Drill's requirement.
- YTDI/NC is the same as standard YTDI body feature, but no coolant hole and reduced cylindrical shank.
- Strong rigidity on body construction for tough job.
- Replaceable standard Carbide ID insert economically.
- Stub length, effective cutting depth 2xDia.
- Indexing 5 different sizes in one body.
- Standard Carbide ID insert can be fit.
- Plain Cylindrical HA shank.

Metric Size

Code No.	Shank Size d	L1	L2	L3	L4	Applicable ID insert Diameter (D) (5 sizes applicable in one YTDI)					S.S. Bolt Size	Allen Key (mm)
YTDI/NC 120	12.0	102	62	40	25	ID120	ID121	ID122	ID123	ID124	M3 x 4	1.5
YTDI/NC 125	13.0			43	27	ID125	ID126	ID127	ID128	ID129		
YTDI/NC 130		14.0	107	64	46	29	ID130	ID131	ID132	ID133	ID134	
YTDI/NC 135	15.0						111	67	49	31	ID135	
YTDI/NC 140		16.0	115	69	52	33					ID140	
YTDI/NC 145	17.0						119	71	56	35	ID145	
YTDI/NC 150		18.0	123	74	59	37					ID150	
YTDI/NC 155	19.0						127	76	62	39	ID155	
YTDI/NC 160		20.0	131	80	65	41					ID160	
YTDI/NC 165	ID165						ID166	ID167	ID168	ID169	M3 x 6	
YTDI/NC 170	ID170	ID171	ID172	ID173	ID174							
YTDI/NC 175	ID175	ID176	ID177	ID178	ID179							
YTDI/NC 180	ID180	ID181	ID182	ID183	ID184							
YTDI/NC 185	ID185	ID186	ID187	ID188	ID189							
YTDI/NC 190	ID190	ID191	ID192	ID193	ID194							
YTDI/NC 195	ID195	ID196	ID197	ID198	ID199							
YTDI/NC 200	ID200	ID201	ID202	ID203	ID204							

Inch Size

Code No.	Shank Size d	L1	L2	L3	L4	Applicable ID insert Diameter (D) (same sizeline applicable in 1YTDI)					S.S. Bolt Size	Allen Key (mm)
YTDI/NC .4528	15/32	4.01	2.44	1.6	1.0	ID .4528~ ID .4723					M3 x 4	1.3
YTDI/NC .4724	31/64					ID .4724~ ID .4920						
YTDI/NC .4921	1/2					ID .4921~ ID .5117						
YTDI/NC .5512	9/16	4.37	2.63	1.8	1.25	ID .5512~ ID .5708					M3 x 5	1.5
YTDI/NC .6102	5/8	4.52	2.71	2.02		ID .6102~ ID .6298						
YTDI/NC .6693	11/16	4.84	2.91	2.2	1.38	ID .6693~ ID .6888					M3 x 6	
YTDI/NC .7480	3/4	5	2.99	2.25	1.5	ID .7480~ ID .7676						

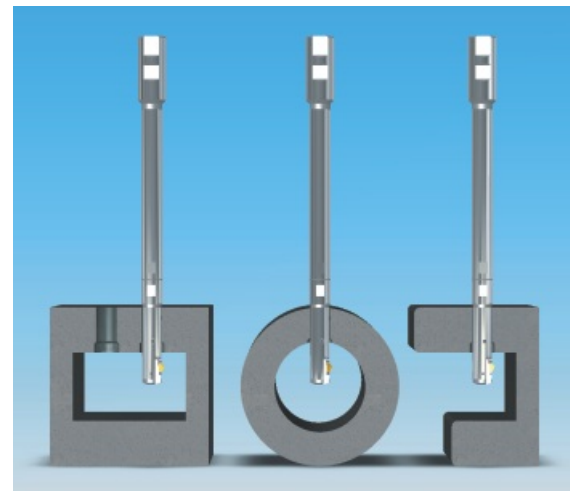
Back-Chamfer Tool

Heavy duty spring mechanism for consistent chamfering

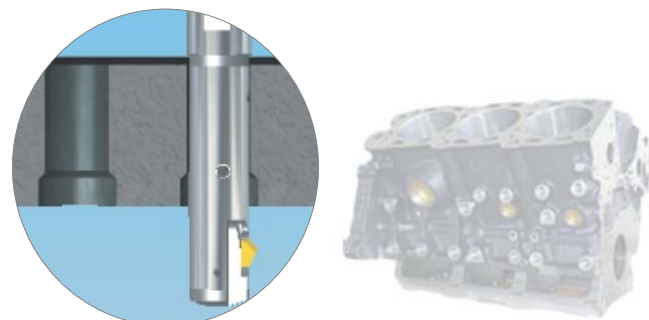


BC

(Application case by BC back-chamfer tool)



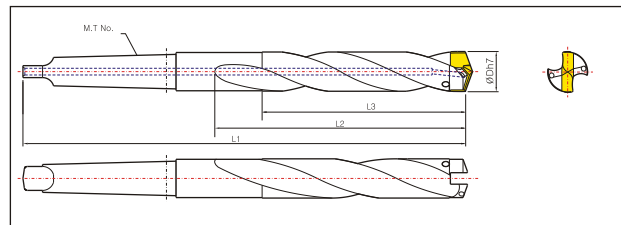
- Consistent back-chamfering, counterboring & deburring
- Heavy duty spring rigidly supports carbide blade
- One screw adjusts carbide blade tension
- Available size from dia.8.0mm & internal coolant fed
- Interchangeable chamfering insert(BCI)
- Good application for automotive cylinder block



Indexable Drills, with Morse Taper shank



YTDI/MT YTDI/MTIC



Model : YTDI/MT, YTDI/MTIC

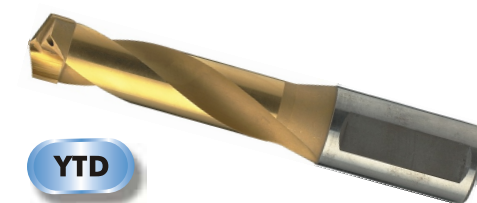
- Indexable morse taper shank drills to use in conventional machine.
- New design alternative to HSS, Carbide brazed M/T drills exclusively from Yestool.
- Body consists of wear-resistant hardened tool steel and Carbide Insert Drill(ID) replceable easily by locking screw like YTDI model.
- 5 different ID sizes can be used in one body economically.
- Both external(YTDI/MT) and internal coolant(YTDI/MTIC) available. (ID insert has the same application as YTDI)

* Ordering method when require internal coolant, please mark IC in the □□ column.

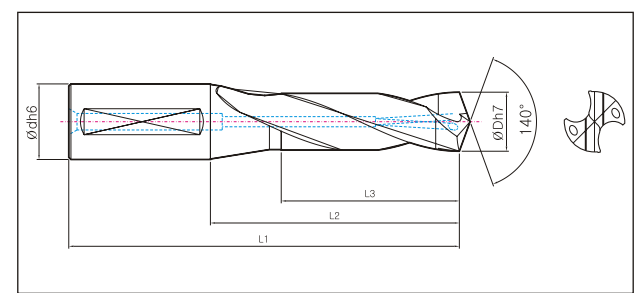
Code No.	Morse Taper No.	L1	L2	L3	Applicable ID insert Diameter (D) (5 sizes applicable in one body)					S.S. Bolt Size	Allen key (mm)
YTDI 080MT□□	MT1	162	82	66	ID080	ID081	ID082	ID083	ID084	M2.5 x 2.5	1.3
YTDI 085MT□□		168	85	68	ID085	ID086	ID087	ID088	ID089		
YTDI 090MT□□		172	88	70	ID090	ID091	ID092	ID093	ID094		
YTDI 095MT□□		175	92	73	ID095	ID096	ID097	ID098	ID099	M2.5 x 3	
YTDI 100MT□□		178	95	75	ID100	ID101	ID102	ID103	ID104		
YTDI 105MT□□		182	98	77	ID105	ID106	ID107	ID108	ID109	M2.5 x 4	
YTDI 110MT□□		185	102	80	ID110	ID111	ID112	ID113	ID114		
YTDI 115MT□□		188	105	82	ID115	ID116	ID117	ID118	ID119	M3 x 4	
YTDI 120MT□□		192	108	84	ID120	ID121	ID122	ID123	ID124		
YTDI 125MT□□		195	112	87	ID125	ID126	ID127	ID128	ID129	M3 x 5	
YTDI 130MT□□	198	115	89	ID130	ID131	ID132	ID133	ID134			
YTDI 135MT□□	202	118	91	ID135	ID136	ID137	ID138	ID139	M3 x 6		
YTDI 140MT□□	205	122	94	ID140	ID141	ID142	ID143	ID144			
YTDI 145MT□□	222			ID145	ID146	ID147	ID148	ID149			
YTDI 150MT□□	225	125	95	ID150	ID151	ID152	ID153	ID154	M3 x 5		
YTDI 155MT□□	228	128	97	ID155	ID156	ID157	ID158	ID159			
YTDI 160MT□□	230	130	98	ID160	ID161	ID162	ID163	ID164	M3 x 6		
YTDI 165MT□□	232	132	99	ID165	ID166	ID167	ID168	ID169			
YTDI 170MT□□	235	135	101	ID170	ID171	ID172	ID173	ID174	M3 x 6		
YTDI 175MT□□	240	140	105	ID175	ID176	ID177	ID178	ID179			
YTDI 180MT□□				ID180	ID181	ID182	ID183	ID184			
YTDI 185MT□□	245	145	108	ID185	ID186	ID187	ID188	ID189	M3 x 6		
YTDI 190MT□□				ID190	ID191	ID192	ID193	ID194			
YTDI 195MT□□	250	150	111	ID195	ID196	ID197	ID198	ID199	M3 x 6		
YTDI 200MT□□				ID200	ID201	ID202	ID203	ID204			
YTDI 205MT□□	255	155	114	ID205	ID206	ID207	ID208	ID209	M4 x 6		
YTDI 210MT□□				ID210	ID211	ID212	ID213	ID214			
YTDI 215MT□□	260	160	117	ID215	ID216	ID217	ID218	ID219	M4 x 6		
YTDI 220MT□□				ID220	ID221	ID222	ID223	ID224			
YTDI 225MT□□	265	165	120	ID225	ID226	ID227	ID228	ID229	M4 x 8		
YTDI 230MT□□				ID230	ID231	ID232	ID233	ID234			
YTDI 235MT□□	285	165	120	ID235	ID236	ID237	ID238	ID239	M4 x 8		
YTDI 240MT□□				ID240	ID241	ID242	ID243	ID244			
YTDI 245MT□□				ID245	ID246	ID247	ID248	ID249			
YTDI 250MT□□				ID250	ID251	ID252	ID253	ID254			

❖ Over 25.0mm is available and this item is supplied upon request only.

Carbide Tipped Drill, Metric



YTD



* See page 10 of YTDI Indexable drill for new interchangeable cutting edge type which is alternative new tool.

Model : YTD

- Carbide Brazed Tipped drill, HB shank, Internal coolant hole.
- 140° self-centering point for accurate hole positioning. Regular helix angle : 25°.
- Drill body consists of heat-treated tool steel and cutting edge is brazed with carbide tip.

Carbide substrate:

- Ultra-fine Micro Grain, TiN & TiAlN coated.

Application

- To perform heavy drilling operation and ideal for high productivity.
- Specially designed for powerful machine. Effective cutting depth 3xDia.
- Broad range application from general to tough material.

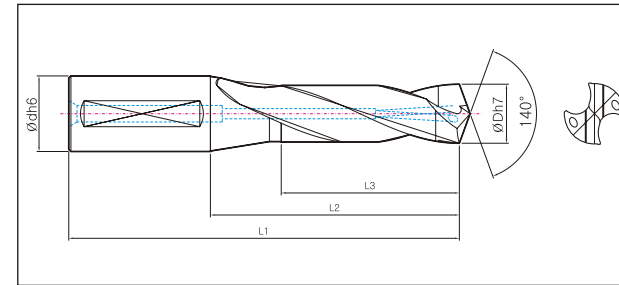
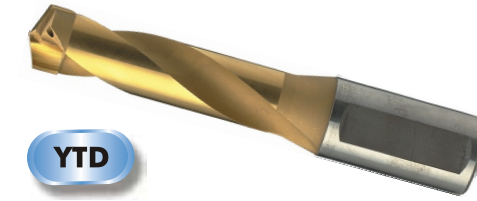
Code No.	D	d	L1	L2	L3	Code No.	D	d	L1	L2	L3	Code No.	D	d	L1	L2	L3
YTD 135	13.5	16.0	115	67	48	YTD 166	16.6	20.0	140	90	66	YTD 197	19.7	25.0	160	104	76
YTD 136	13.6					YTD 167	16.7					YTD 198	19.8				
YTD 137	13.7					YTD 168	16.8					YTD 199	19.9				
YTD 138	13.8					YTD 169	16.9					YTD 200	20.0				
YTD 139	13.9					YTD 170	17.0					YTD 201	20.1				
YTD 140	14.0					YTD 171	17.1					YTD 202	20.2				
YTD 141	14.1					YTD 172	17.2					YTD 203	20.3				
YTD 142	14.2					YTD 173	17.3					YTD 204	20.4				
YTD 143	14.3					YTD 174	17.4					YTD 205	20.5				
YTD 144	14.4					YTD 175	17.5					YTD 206	20.6				
YTD 145	14.5	YTD 176	17.6	YTD 207	20.7												
YTD 146	14.6	YTD 177	17.7	YTD 208	20.8												
YTD 147	14.7	YTD 178	17.8	YTD 209	20.9												
YTD 148	14.8	YTD 179	17.9	YTD 210	21.0												
YTD 149	14.9	YTD 180	18.0	YTD 211	21.1												
YTD 150	15.0	YTD 181	18.1	YTD 212	21.2												
YTD 151	15.1	YTD 182	18.2	YTD 213	21.3												
YTD 152	15.2	YTD 183	18.3	YTD 214	21.4												
YTD 153	15.3	YTD 184	18.4	YTD 215	21.5												
YTD 154	15.4	YTD 185	18.5	YTD 216	21.6												
YTD 155	15.5	YTD 186	18.6	YTD 217	21.7												
YTD 156	15.6	YTD 187	18.7	YTD 218	21.8												
YTD 157	15.7	YTD 188	18.8	YTD 219	21.9												
YTD 158	15.8	YTD 189	18.9	YTD 220	22.0												
YTD 159	15.9	YTD 190	19.0	YTD 221	22.1												
YTD 160	16.0	YTD 191	19.1	YTD 222	22.2												
YTD 161	16.1	YTD 192	19.2	YTD 223	22.3												
YTD 162	16.2	YTD 193	19.3	YTD 224	22.4												
YTD 163	16.3	YTD 194	19.4	YTD 225	22.5												
YTD 164	16.4	YTD 195	19.5	YTD 226	22.6												
YTD 165	16.5	YTD 196	19.6	YTD 227	22.7												

Continued ▶▶

Code No.	D	d	L1	L2	L3
YTD 228	22.8	25.0	160	104	76
YTD 229	22.9				
YTD 230	23.0				
YTD 231	23.1				
YTD 232	23.2				
YTD 233	23.3				
YTD 234	23.4				
YTD 235	23.5				
YTD 236	23.6				
YTD 237	23.7				
YTD 238	23.8				
YTD 239	23.9				
YTD 240	24.0				
YTD 241	24.1				
YTD 242	24.2				
YTD 243	24.3				
YTD 244	24.4				
YTD 245	24.5				
YTD 246	24.6				
YTD 247	24.7				
YTD 248	24.8				
YTD 249	24.9				
YTD 250	25.0				
YTD 251	25.1				
YTD 252	25.2				
YTD 253	25.3				
YTD 254	25.4				
YTD 255	25.5				
YTD 256	25.6				
YTD 257	25.7				
YTD 258	25.8				
YTD 259	25.9				
YTD 260	26.0				
YTD 261	26.1				
YTD 262	26.2				
YTD 263	26.3				
YTD 264	26.4				
YTD 265	26.5				
YTD 266	26.6				
YTD 267	26.7				
YTD 268	26.8				
YTD 269	26.9				
YTD 270	27.0				
YTD 271	27.1				
YTD 272	27.2				
YTD 273	27.3				
YTD 274	27.4				
YTD 275	27.5				
YTD 276	27.6				
YTD 277	27.7				
YTD 278	27.8				
YTD 279	27.9				
YTD 280	28.0				
YTD 281	28.1				
YTD 282	28.2				
YTD 283	28.3				
YTD 284	28.4				
YTD 285	28.5				
YTD 286	28.6				
YTD 287	28.7				
YTD 288	28.8				
YTD 289	28.9				
YTD 290	29.0				

Code No.	D	d	L1	L2	L3
YTD 291	29.1	32.0	185	125	92
YTD 292	29.2				
YTD 293	29.3				
YTD 294	29.4				
YTD 295	29.5				
YTD 296	29.6				
YTD 297	29.7				
YTD 298	29.8				
YTD 299	29.9				
YTD 300	30.0				
YTD 301	30.1				
YTD 302	30.2				
YTD 303	30.3				
YTD 304	30.4				
YTD 305	30.5				
YTD 306	30.6				
YTD 307	30.7				
YTD 308	30.8				
YTD 309	30.9				
YTD 310	31.0				
YTD 311	31.1				
YTD 312	31.2				
YTD 313	31.3				
YTD 314	31.4				
YTD 315	31.5				
YTD 316	31.6				
YTD 317	31.7				
YTD 318	31.8				
YTD 319	31.9				
YTD 320	32.0				
YTD 321	32.1				
YTD 322	32.2				
YTD 323	32.3				
YTD 324	32.4				
YTD 325	32.5				
YTD 326	32.6				
YTD 327	32.7				
YTD 328	32.8				
YTD 329	32.9				
YTD 330	33.0				
YTD 331	33.1				
YTD 332	33.2				
YTD 333	33.3				
YTD 334	33.4				
YTD 335	33.5				
YTD 336	33.6				
YTD 337	33.7				
YTD 338	33.8				
YTD 339	33.9				
YTD 340	34.0				
YTD 341	34.1				
YTD 342	34.2				
YTD 343	34.3				
YTD 344	34.4				
YTD 345	34.5				
YTD 346	34.6				
YTD 347	34.7				
YTD 348	34.8				
YTD 349	34.9				
YTD 350	35.0				
YTD 351	35.1				
YTD 352	35.2				
YTD 353	35.3				

Code No.	D	d	L1	L2	L3
YTD 354	35.4	40.0	230	160	113
YTD 355	35.5				
YTD 356	35.6				
YTD 357	35.7				
YTD 358	35.8				
YTD 359	35.9				
YTD 360	36.0				
YTD 361	36.1				
YTD 362	36.2				
YTD 363	36.3				
YTD 364	36.4				
YTD 365	36.5				
YTD 366	36.6				
YTD 367	36.7				
YTD 368	36.8				
YTD 369	36.9				
YTD 370	37.0				
YTD 371	37.1				
YTD 372	37.2				
YTD 373	37.3				
YTD 374	37.4				
YTD 375	37.5				
YTD 376	37.6				
YTD 377	37.7				
YTD 378	37.8				
YTD 379	37.9				
YTD 380	38.0				
YTD 381	38.1				
YTD 382	38.2				
YTD 383	38.3				
YTD 384	38.4				
YTD 385	38.5				
YTD 386	38.6				
YTD 387	38.7				
YTD 388	38.8				
YTD 389	38.9				
YTD 390	39.0				
YTD 391	39.1				
YTD 392	39.2				
YTD 393	39.3				
YTD 394	39.4				
YTD 395	39.5				
YTD 396	39.6				
YTD 397	39.7				
YTD 398	39.8				
YTD 399	39.9				
YTD 400	40.0				
YTD 401	40.1				
YTD 402	40.2				
YTD 403	40.3				
YTD 404	40.4				
YTD 405	40.5				
YTD 406	40.6				
YTD 407	40.7				
YTD 408	40.8				
YTD 409	40.9				
YTD 410	41.0				
YTD 411	41.1				
YTD 412	41.2				
YTD 413	41.3				
YTD 414	41.4				
YTD 415	41.5				



* See page 12 of YTDI Indexable drill for new interchangeable cutting edge type.

Code No.	D	d	L1	L2	L3
YTD .5310	0.531	0.625	4.52	2.63	1.88
YTD .5460	0.546				
YTD .5620	0.562				
YTD .5780	0.578				
YTD .5930	0.593	0.750	5.11	3.14	2.32
YTD .6090	0.609				
YTD .6250	0.625				
YTD .6400	0.640				
YTD .6560	0.656	0.750	5.51	3.54	2.59
YTD .6710	0.671				
YTD .6870	0.687				
YTD .7030	0.703				
YTD .7180	0.718	1.000	6.10	3.89	2.87
YTD .7340	0.734				
YTD .7500	0.750				
YTD .7650	0.765				
YTD .7810	0.781				
YTD .7960	0.796				
YTD .8120	0.812				
YTD .8280	0.828				
YTD .8430	0.843				
YTD .8590	0.859				
YTD .8750	0.875	1.500	6.29	4.09	2.99
YTD .8900	0.890				
YTD .9060	0.906				
YTD .9210	0.921				

Model : YTD

- Carbide Brazed Tipped drill, HB shank, Internal coolant hole.
- 140° self-centering point for accurate hole positioning. Regular helix angle : 25°.
- Drill body consists of heat-treated tool steel and cutting edge is brazed with carbide tip.

Carbide substrate:

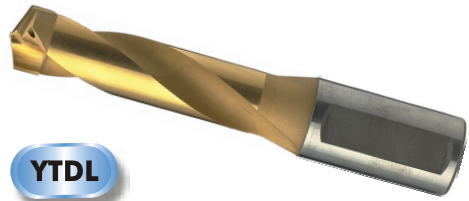
- Ultra-fine Micro Grain, TiN & TiAlN coated.

Application

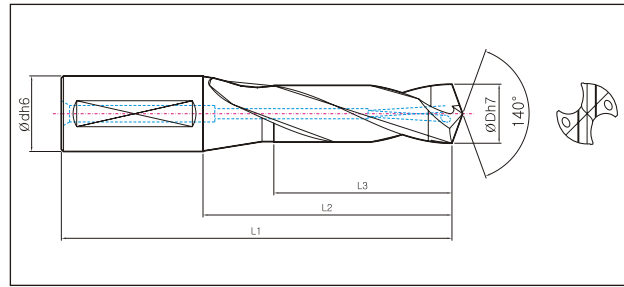
- To perform heavy drilling operation and ideal for high productivity.
- Specially designed for powerful machine. Effective cutting depth 3xDia.
- Broad range application from general to tough material.

Code No.	D	d	L1	L2	L3
YTD .9370	0.937	1.250	6.69	4.33	3.11
YTD .9530	0.953				
YTD .9680	0.968				
YTD .9840	0.984				
YTD1 .0000	1.000	1.250	6.88	4.52	3.26
YTD1 .0150	1.015				
YTD1 .0310	1.031				
YTD1 .0460	1.046				
YTD1 .0620	1.062	1.250	7.28	4.92	3.62
YTD1 .0780	1.078				
YTD1 .0930	1.093				
YTD1 .1090	1.109				
YTD1 .1250	1.125	1.500	8.26	5.51	3.85
YTD1 .1400	1.140				
YTD1 .1560	1.156				
YTD1 .1710	1.171				
YTD1 .1870	1.187	1.500	8.66	5.90	4.09
YTD1 .2500	1.250				
YTD1 .3120	1.312				
YTD1 .3430	1.343				
YTD1 .3750	1.375	1.500	9.05	6.29	4.44
YTD1 .4210	1.421				
YTD1 .4370	1.437				
YTD1 .5000	1.500				
YTD1 .5620	1.562	1.500	9.44	6.69	4.68
YTD1 .6250	1.625				

Carbide Tipped Drill, Long Series, Metric



YTDL



See page 10 of YTDI Indexable drill for new interchangeable cutting edge type which is alternative new tool.

Model : YTDL

- Carbide Brazed Tipped drill, HB shank, Internal coolant hole, long series.
- 140° self-centering point for accurate hole positioning. Regular helix angle : 25°.
- Drill body consists of heat-treated tool steel and cutting edge is brazed with carbide tip.

Carbide substrate:

- Ultra-fine Micro Grain, TiN & TiAlN coated.

Application

- To perform heavy drilling operation and ideal for high productivity.
- Specially designed for powerful machine. Effective cutting depth 5xDia.
- Broad range application from general to tough material.

Code No.	D	d	L1	L2	L3
YTDL 135	13.5	16.0	145	97	73
YTDL 136	13.6				
YTDL 137	13.7				
YTDL 138	13.8				
YTDL 139	13.9				
YTDL 140	14.0				
YTDL 141	14.1				
YTDL 142	14.2				
YTDL 143	14.3				
YTDL 144	14.4				
YTDL 145	14.5				
YTDL 146	14.6	20.0	165	115	94
YTDL 147	14.7				
YTDL 148	14.8				
YTDL 149	14.9				
YTDL 150	15.0				
YTDL 151	15.1				
YTDL 152	15.2				
YTDL 153	15.3				
YTDL 154	15.4				
YTDL 155	15.5				
YTDL 156	15.6				
YTDL 157	15.7				
YTDL 158	15.8				
YTDL 159	15.9				
YTDL 160	16.0				
YTDL 161	16.1				
YTDL 162	16.2				
YTDL 163	16.3				
YTDL 164	16.4				
YTDL 165	16.5				

Code No.	D	d	L1	L2	L3
YTDL 166	16.6	20.0	175	125	101
YTDL 167	16.7				
YTDL 168	16.8				
YTDL 169	16.9				
YTDL 170	17.0				
YTDL 171	17.1				
YTDL 172	17.2				
YTDL 173	17.3				
YTDL 174	17.4				
YTDL 175	17.5				
YTDL 176	17.6				
YTDL 177	17.7	25.0	195	139	112
YTDL 178	17.8				
YTDL 179	17.9				
YTDL 180	18.0				
YTDL 181	18.1				
YTDL 182	18.2				
YTDL 183	18.3				
YTDL 184	18.4				
YTDL 185	18.5				
YTDL 186	18.6				
YTDL 187	18.7				
YTDL 188	18.8				
YTDL 189	18.9				
YTDL 190	19.0				
YTDL 191	19.1				
YTDL 192	19.2				
YTDL 193	19.3				
YTDL 194	19.4				
YTDL 195	19.5				
YTDL 196	19.6				

Code No.	D	d	L1	L2	L3
YTDL 197	19.7	25.0	210	154	124
YTDL 198	19.8				
YTDL 199	19.9				
YTDL 200	20.0				
YTDL 201	20.1				
YTDL 202	20.2				
YTDL 203	20.3				
YTDL 204	20.4				
YTDL 205	20.5				
YTDL 206	20.6				
YTDL 207	20.7				
YTDL 208	20.8	32.0	235	175	141
YTDL 209	20.9				
YTDL 210	21.0				
YTDL 211	21.1				
YTDL 212	21.2				
YTDL 213	21.3				
YTDL 214	21.4				
YTDL 215	21.5				
YTDL 216	21.6				
YTDL 217	21.7				
YTDL 218	21.8				
YTDL 219	21.9				
YTDL 220	22.0				
YTDL 221	22.1				
YTDL 222	22.2				
YTDL 223	22.3				
YTDL 224	22.4				
YTDL 225	22.5				
YTDL 226	22.6				
YTDL 227	22.7				

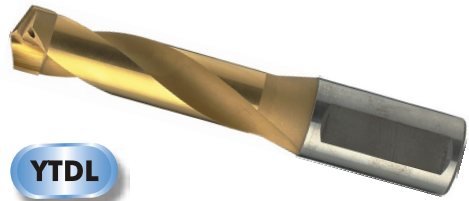
Code No.	D	d	L1	L2	L3
YTDL 228	22.8	25.0	210	154	124
YTDL 229	22.9				
YTDL 230	23.0				
YTDL 231	23.1				
YTDL 232	23.2				
YTDL 233	23.3				
YTDL 234	23.4				
YTDL 235	23.5				
YTDL 236	23.6				
YTDL 237	23.7				
YTDL 238	23.8	225	165	133	
YTDL 239	23.9				
YTDL 240	24.0				
YTDL 241	24.1				
YTDL 242	24.2				
YTDL 243	24.3				
YTDL 244	24.4				
YTDL 245	24.5				
YTDL 246	24.6				
YTDL 247	24.7				
YTDL 248	24.8				
YTDL 249	24.9	32.0	235	175	141
YTDL 250	25.0				
YTDL 251	25.1				
YTDL 252	25.2				
YTDL 253	25.3				
YTDL 254	25.4				
YTDL 255	25.5				
YTDL 256	25.6				
YTDL 257	25.7				
YTDL 258	25.8				
YTDL 259	25.9				
YTDL 260	26.0				
YTDL 261	26.1				
YTDL 262	26.2				
YTDL 263	26.3				
YTDL 264	26.4				
YTDL 265	26.5				
YTDL 266	26.6				
YTDL 267	26.7				
YTDL 268	26.8				
YTDL 269	26.9				
YTDL 270	27.0				
YTDL 271	27.1				
YTDL 272	27.2				
YTDL 273	27.3				
YTDL 274	27.4				
YTDL 275	27.5				
YTDL 276	27.6				
YTDL 277	27.7				
YTDL 278	27.8				
YTDL 279	27.9				
YTDL 280	28.0				
YTDL 281	28.1				
YTDL 282	28.2				
YTDL 283	28.3				
YTDL 284	28.4				
YTDL 285	28.5				
YTDL 286	28.6				
YTDL 287	28.7				
YTDL 288	28.8				
YTDL 289	28.9				
YTDL 290	29.0				

Code No.	D	d	L1	L2	L3
YTDL 291	29.1	32.0	245	185	148
YTDL 292	29.2				
YTDL 293	29.3				
YTDL 294	29.4				
YTDL 295	29.5				
YTDL 296	29.6				
YTDL 297	29.7				
YTDL 298	29.8				
YTDL 299	29.9				
YTDL 300	30.0				
YTDL 301	30.1	255	195	157	
YTDL 302	30.2				
YTDL 303	30.3				
YTDL 304	30.4				
YTDL 305	30.5				
YTDL 306	30.6				
YTDL 307	30.7				
YTDL 308	30.8				
YTDL 309	30.9				
YTDL 310	31.0				
YTDL 311	31.1				
YTDL 312	31.2				
YTDL 313	31.3				
YTDL 314	31.4				
YTDL 315	31.5				
YTDL 316	31.6				
YTDL 317	31.7				
YTDL 318	31.8				
YTDL 319	31.9				
YTDL 320	32.0				
YTDL 321	32.1				
YTDL 322	32.2				
YTDL 323	32.3				
YTDL 324	32.4				
YTDL 325	32.5				
YTDL 326	32.6				
YTDL 327	32.7				
YTDL 328	32.8				
YTDL 329	32.9				
YTDL 330	33.0				
YTDL 331	33.1				
YTDL 332	33.2				
YTDL 333	33.3				
YTDL 334	33.4				
YTDL 335	33.5				
YTDL 336	33.6				
YTDL 337	33.7				
YTDL 338	33.8				
YTDL 339	33.9				
YTDL 340	34.0				
YTDL 341	34.1				
YTDL 342	34.2				
YTDL 343	34.3				
YTDL 344	34.4				
YTDL 345	34.5				
YTDL 346	34.6				
YTDL 347	34.7				
YTDL 348	34.8				
YTDL 349	34.9				
YTDL 350	35.0				
YTDL 351	35.1				
YTDL 352	35.2				
YTDL 353	35.3				

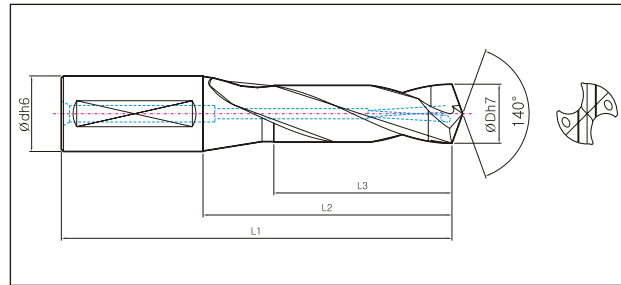
Code No.	D	d	L1	L2	L3
YTDL 354	35.4	40.0	300	230	183
YTDL 355	35.5				
YTDL 356	35.6				
YTDL 357	35.7				
YTDL 358	35.8				
YTDL 359	35.9				
YTDL 360	36.0				
YTDL 361	36.1				
YTDL 362	36.2				
YTDL 363	36.3				
YTDL 364	36.4				
YTDL 365	36.5				
YTDL 366	36.6				
YTDL 367	36.7				
YTDL 368	36.8				
YTDL 369	36.9				
YTDL 370	37.0				
YTDL 371	37.1				
YTDL 372	37.2				
YTDL 373	37.3				
YTDL 374	37.4				
YTDL 375	37.5				
YTDL 376	37.6				
YTDL 377	37.7				
YTDL 378	37.8				
YTDL 379	37.9				
YTDL 380	38.0				
YTDL 381	38.1				
YTDL 382	38.2				
YTDL 383	38.3				
YTDL 384	38.4				
YTDL 385	38.5				
YTDL 386	38.6				
YTDL 387	38.7				
YTDL 388	38.8				
YTDL 389	38.9				
YTDL 390	39.0				
YTDL 391	39.1				
YTDL 392	39.2				
YTDL 393	39.3				
YTDL 394	39.4				
YTDL 395	39.5				
YTDL 396	39.6				
YTDL 397	39.7				
YTDL 398	39.8				
YTDL 399	39.9				
YTDL 400	40.0				
YTDL 401	40.1				
YTDL 402	40.2				
YTDL 403	40.3				
YTDL 404	40.4				
YTDL 405	40.5				
YTDL 406	40.6				
YTDL 407	40.7				
YTDL 408	40.8				
YTDL 409	40.9				
YTDL 410	41.0				
YTDL 411	41.1				
YTDL 412	41.2				
YTDL 413	41.3				
YTDL 414	41.4				
YTDL 415	41.5				

Indexable, Coolant Drill Series

Carbide Tipped Drill, Long Series, Inches



YTDL



* See page 12 of YTDI Indexable drill for new interchangeable cutting edge type.

Model : YTDL

- Carbide Brazed Tipped drill, HB shank, Internal coolant hole, long series.
- 140° self-centering point for accurate hole positioning. Regular helix angle : 25°.
- Drill body consists of heat-treated tool steel and cutting edge is brazed with carbide tip.

Carbide substrate:

- Ultra-fine Micro Grain, TiN & TiAlN coated.

Application

- To perform heavy drilling operation and ideal for high productivity.
- Specially designed for powerful machine. Effective cutting depth 5xDia.
- Broad range application from general to tough material.

Inch Size

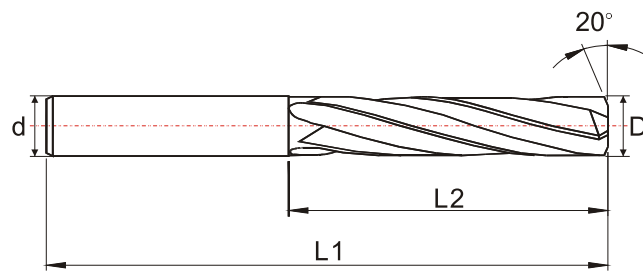
Code No.	D	d	L1	L2	L3
YTDL .5310	0.531	0.625	5.70	3.81	2.87
YTDL .5460	0.546				
YTDL .5620	0.562				
YTDL .5780	0.578				
YTDL .5930	0.593	0.750	6.49	4.52	3.70
YTDL .6090	0.609				
YTDL .6250	0.625				
YTDL .6400	0.640				
YTDL .6560	0.656	1.000	7.67	5.47	4.40
YTDL .6710	0.671				
YTDL .6870	0.687				
YTDL .7030	0.703				
YTDL .7180	0.718	1.250	8.85	6.49	5.23
YTDL .7340	0.734				
YTDL .7500	0.750				
YTDL .7650	0.765				
YTDL .7810	0.781	1.500	9.25	6.88	5.55
YTDL .7960	0.796				
YTDL .8120	0.812				
YTDL .8280	0.828				
YTDL .8430	0.843	1.750	9.46	7.28	5.82
YTDL .8590	0.859				
YTDL .8750	0.875				
YTDL .8900	0.890				
YTDL .9060	0.906	2.000	10.03	7.67	6.18
YTDL .9210	0.921				
YTDL .9370	0.937				
YTDL .9530	0.953				
YTDL .9680	0.968	2.250	10.46	8.11	6.57
YTDL .9840	0.984				
YTDL 1.0000	1.000				
YTDL 1.0150	1.015				
YTDL 1.0310	1.031	2.500	10.89	8.54	6.96
YTDL 1.0460	1.046				
YTDL 1.0620	1.062				
YTDL 1.0780	1.078				
YTDL 1.0930	1.093	2.750	11.32	8.91	7.35
YTDL 1.1090	1.109				
YTDL 1.1250	1.125				
YTDL 1.1400	1.140				
YTDL 1.1560	1.156	3.000	11.75	9.28	7.74
YTDL 1.1710	1.171				
YTDL 1.1870	1.187				
YTDL 1.2030	1.203				
YTDL 1.2190	1.219	3.250	12.18	9.65	8.13
YTDL 1.2350	1.235				
YTDL 1.2500	1.250				
YTDL 1.2660	1.266				
YTDL 1.2820	1.282	3.500	12.61	10.02	8.52
YTDL 1.2980	1.298				
YTDL 1.3140	1.314				
YTDL 1.3300	1.330				
YTDL 1.3460	1.346	3.750	13.04	10.39	8.91
YTDL 1.3620	1.362				
YTDL 1.3780	1.378				
YTDL 1.3940	1.394				
YTDL 1.4100	1.410	4.000	13.47	10.76	9.30
YTDL 1.4260	1.426				
YTDL 1.4420	1.442				
YTDL 1.4580	1.458				
YTDL 1.4740	1.474	4.250	13.90	11.13	9.69
YTDL 1.4900	1.490				
YTDL 1.5060	1.506				
YTDL 1.5220	1.522				
YTDL 1.5380	1.538	4.500	14.33	11.50	10.08
YTDL 1.5540	1.554				
YTDL 1.5700	1.570				
YTDL 1.5860	1.586				
YTDL 1.6020	1.602	4.750	14.76	11.87	10.47
YTDL 1.6180	1.618				
YTDL 1.6340	1.634				
YTDL 1.6500	1.650				
YTDL 1.6660	1.666	5.000	15.19	12.24	10.86
YTDL 1.6820	1.682				
YTDL 1.6980	1.698				
YTDL 1.7140	1.714				
YTDL 1.7300	1.730	5.250	15.62	12.61	11.25
YTDL 1.7460	1.746				
YTDL 1.7620	1.762				
YTDL 1.7780	1.778				
YTDL 1.7940	1.794	5.500	16.05	12.98	11.64
YTDL 1.8100	1.810				
YTDL 1.8260	1.826				
YTDL 1.8420	1.842				
YTDL 1.8580	1.858	5.750	16.48	13.35	12.03
YTDL 1.8740	1.874				
YTDL 1.8900	1.890				
YTDL 1.9060	1.906				
YTDL 1.9220	1.922	6.000	16.91	13.72	12.42
YTDL 1.9380	1.938				
YTDL 1.9540	1.954				
YTDL 1.9700	1.970				
YTDL 1.9860	1.986	6.250	17.34	14.09	12.81
YTDL 2.0020	2.002				
YTDL 2.0180	2.018				
YTDL 2.0340	2.034				
YTDL 2.0500	2.050	6.500	17.77	14.46	13.20
YTDL 2.0660	2.066				
YTDL 2.0820	2.082				
YTDL 2.0980	2.098				
YTDL 2.1140	2.114	6.750	18.20	14.83	13.59
YTDL 2.1300	2.130				
YTDL 2.1460	2.146				
YTDL 2.1620	2.162				
YTDL 2.1780	2.178	7.000	18.63	15.20	13.98
YTDL 2.1940	2.194				
YTDL 2.2100	2.210				
YTDL 2.2260	2.226				
YTDL 2.2420	2.242	7.250	19.06	15.57	14.37
YTDL 2.2580	2.258				
YTDL 2.2740	2.274				
YTDL 2.2900	2.290				
YTDL 2.3060	2.306	7.500	19.49	15.94	14.76
YTDL 2.3220	2.322				
YTDL 2.3380	2.338				
YTDL 2.3540	2.354				
YTDL 2.3700	2.370	7.750	19.92	16.31	15.15
YTDL 2.3860	2.386				
YTDL 2.4020	2.402				
YTDL 2.4180	2.418				
YTDL 2.4340	2.434	8.000	20.35	16.68	15.54
YTDL 2.4500	2.450				
YTDL 2.4660	2.466				
YTDL 2.4820	2.482				
YTDL 2.4980	2.498	8.250	20.78	17.05	15.93
YTDL 2.5140	2.514				
YTDL 2.5300	2.530				
YTDL 2.5460	2.546				
YTDL 2.5620	2.562	8.500	21.21	17.42	16.32
YTDL 2.5780	2.578				
YTDL 2.5940	2.594				
YTDL 2.6100	2.610				
YTDL 2.6260	2.626	8.750	21.64	17.79	16.71
YTDL 2.6420	2.642				
YTDL 2.6580	2.658				
YTDL 2.6740	2.674				
YTDL 2.6900	2.690	9.000	22.07	18.16	17.10
YTDL 2.7060	2.706				
YTDL 2.7220	2.722				
YTDL 2.7380	2.738				
YTDL 2.7540	2.754	9.250	22.50	18.53	17.49
YTDL 2.7700	2.770				
YTDL 2.7860	2.786				
YTDL 2.8020	2.802				
YTDL 2.8180	2.818	9.500	22.93	18.90	17.88
YTDL 2.8340	2.834				
YTDL 2.8500	2.850				
YTDL 2.8660	2.866				
YTDL 2.8820	2.882	9.750	23.36	19.27	18.27
YTDL 2.8980	2.898				
YTDL 2.9140	2.914				
YTDL 2.9300	2.930				
YTDL 2.9460	2.946	10.000	23.79	19.64	18.66
YTDL 2.9620	2.962				
YTDL 2.9780	2.978				
YTDL 2.9940	2.994				
YTDL 3.0100	3.010	10.250	24.22	20.01	19.05
YTDL 3.0260	3.026				
YTDL 3.0420	3.042				
YTDL 3.0580	3.058				
YTDL 3.0740	3.074	10.500	24.65	20.38	19.44
YTDL 3.0900	3.090				
YTDL 3.1060	3.106				
YTDL 3.1220	3.122				
YTDL 3.1380	3.138	10.750	25.08	20.75	19.83
YTDL 3.1540	3.154				
YTDL 3.1700	3.170				
YTDL 3.1860	3.186				
YTDL 3.2020	3.202	11.000	25.51	21.12	20.22
YTDL 3.2180	3.218				
YTDL 3.2340	3.234				
YTDL 3.2500	3.250				
YTDL 3.2660	3.266	11.250	25.94	21.49	20.61
YTDL 3.2820	3.282				
YTDL 3.2980	3.298				
YTDL 3.3140	3.314				
YTDL 3.3300	3.330	11.500	26.37	21.86	21.00
YTDL 3.3460	3.346				
YTDL 3.3620	3.362				
YTDL 3.3780	3.378				
YTDL 3.3940	3.394	11.750	26.80	22.23	21.39
YTDL 3.4100	3.410				
YTDL 3.4260	3.426				
YTDL 3.4420	3.442				
YTDL 3.4580	3.458	12.000	27.23	22.60	21.78
YTDL 3.4740	3.474				
YTDL 3.4900	3.490				
YTDL 3.5060	3.506				
YTDL 3.5220	3.522	12.250	27.66	22.97	22.17
YTDL 3.5380	3.538				
YTDL 3.5540	3.554				
YTDL 3.5700	3.570				
YTDL 3.5860	3.586	12.500	28.09	23.34	22.56
YTDL 3.6020	3.602				
YTDL 3.6180	3.618				
YTDL 3.6340	3.634				
YTDL 3.6500	3.650	12.750	28.52	23.71	22.95
YTDL 3.6660	3.666				
YTDL 3.6820	3.682				
YTDL 3.6980	3.698				
YTDL 3.7140	3.714	13.000	28.95	24.08	23.34
YTDL 3.7300	3.730				
YTDL 3.7460	3.746				
YTDL 3.7620	3.762				
YTDL 3.7780	3.778	13.250	29.38	24.45	23.73
YTDL 3.7940	3.794				
YTDL 3.8100	3.810				
YTDL 3.8260	3.826				
YTDL 3.8420	3.842	13.500	29.81	24.82	24.12
YTDL 3.8580	3.858				
YTDL 3.8740	3.874				
YTDL 3.8900	3.890				
YTDL 3.9060	3.906	13.750	30.24	25.19	24.51
YTDL 3.9220	3.922				
YTDL 3.9380	3.938				
YTDL 3.9540	3.954				
YTDL 3.9700	3.970	14.000	30.67	25.56	24.90
YTDL 3.9860	3.986				
YTDL 3.9920	3.992				
YTDL 4.0080	4.008				
YTDL 4.0240	4.024	14.250	31.10	25.93	25.29
YTDL 4.0400	4.040				
YTDL 4.0560	4.056				
YTDL 4.0720	4.072				
YTDL 4.0880	4.088	14.500	31.53	26.30	25.68
YTDL 4.1040	4.104				
YTDL 4.1200	4.120				
YTDL 4.1360	4.136				
YTDL 4.1520	4.152	14.750	31.96	26.67	26.07
YTDL 4.1680	4.168				
YTDL 4.1840	4.184				
YTDL 4.2000	4.200				
YTDL 4.2160	4.216	15.000	32.39	27.04	26.46
YTDL 4.2320	4.232				
YTDL 4.2480	4.248				
YTDL 4.2640	4.264				
YTDL 4.2800	4.280	15.250	32.82	27.41	26.85
YTDL 4.2960	4.296				
YTDL 4.3120	4.312				
YTDL 4.3280	4.328				
YTDL 4.3440	4.344	15.500	33.25	27.78	27.24
YTDL 4.3600	4.360				
YTDL 4.3760	4.376				
YTDL 4.3920	4.392				
YTDL 4.4080	4.408	15.750	33.68	28.15	27.63
YTDL 4.4240	4.424				
YTDL 4.4400	4.440				
YTDL 4.4560	4.456				
YTDL 4.4720	4.472	16.000	34.11	28.52	28.02
YTDL 4.4880	4.488				
YTDL 4.5040	4.504				
YTDL 4.5200	4.520				
YTDL 4.5360	4.536	16.250	34.54	28.89	28.41
YTDL 4.5520	4.552				
YTDL 4.5680	4.568				
YTDL 4.5840	4.584				
YTDL 4.6000	4.600	16.500	34.97	29.26	28.80
YTDL 4.6160	4.616				
YTDL 4.6320	4.632				
YTDL 4.6480	4.648				
YTDL 4.6640	4.664	16.750	35.40	29.63	29.19
YTDL 4.6800	4.680				
YTDL 4.6960	4.696				
YTDL 4.7120	4.712				
YTDL 4.7280	4.728	17.000	35.83	30.00	29.58
YTDL 4.7440	4.744				
YTDL 4.7600	4.760				
YTDL 4.7760	4.776				
YTDL 4.7920	4.792	17.250	3		

Solid Carbide "Speedy" Reamer



YSR

YSRL



- 15° right helix spiral, 20° chamfer(standard) for high speed reaming
- Standard H7 tolerance, special point & tolerance or corner radius available on demand
- Speedy reaming $V_c = 40\sim 80\text{m/min.}$, $f = 0.1\text{mm/rev.per flute}$, TiN & TiAlN coated.
- Best combination if use with our standard YSD Solid carbide drill.

YSR Solid Carbide "Speedy" Reamer.

Code No.	D	d	L1	L2	Number of Flute
YSR 030 - YSR 035	3.0 - 3.5	4.0	54	19	3
YSR 036 - YSR 041	3.6 - 4.1	4.0	54	24	3
YSR 042 - YSR 051	4.2 - 5.1	5.0	61	31	3
YSR 052 - YSR 061	5.2 - 6.1	6.0	65	35	3
YSR 062 - YSR 071	6.2 - 7.1	7.0	73	41	3
YSR 072 - YSR 081	7.2 - 8.1	8.0	78	45	3
YSR 082 - YSR 091	8.2 - 9.1	9.0	82	48	3
YSR 092 - YSR 101	9.2 - 10.1	10.0	87	51	4
YSR 102 - YSR 111	10.2 - 11.1	11.0	93	53	4
YSR 112 - YSR 121	11.2 - 12.1	12.0	100	60	4
YSR 122 - YSR 131	12.2 - 13.1	13.0	100	60	4
YSR 132 - YSR 141	13.2 - 14.1	14.0	105	62	4
YSR 142 - YSR 151	14.2 - 15.1	15.0	108	64	4
YSR 152 - YSR 161	15.2 - 16.1	16.0	112	66	4
YSR 162 - YSR 171	16.2 - 17.1	17.0	116	68	4
YSR 172 - YSR 181	17.2 - 18.1	18.0	120	71	4
YSR 182 - YSR 191	18.2 - 19.1	19.0	124	73	4
YSR 192 - YSR 200	19.2 - 20.0	20.0	128	77	4

YSRL Solid Carbide Speedy Reamer, Long series

Code No.	D	d	L1	L2	Number of Flute
YSRL 030 - YSRL 035	3.0 - 3.5	4.0	79	44	3
YSRL 036 - YSRL 041	3.6 - 4.1	4.0	79	44	3
YSRL 042 - YSRL 051	4.2 - 5.1	5.0	79	44	3
YSRL 052 - YSRL 061	5.2 - 6.1	6.0	82	49	3
YSRL 062 - YSRL 071	6.2 - 7.1	7.0	84	52	3
YSRL 072 - YSRL 081	7.2 - 8.1	8.0	89	57	3
YSRL 082 - YSRL 091	8.2 - 9.1	9.0	96	62	3
YSRL 092 - YSRL 101	9.2 - 10.1	10.0	103	66	4
YSRL 102 - YSRL 111	10.2 - 11.1	11.0	108	71	4
YSRL 112 - YSRL 121	11.2 - 12.1	12.0	118	78	4
YSRL 122 - YSRL 131	12.2 - 13.1	13.0	135	88	4
YSRL 132 - YSRL 141	13.2 - 14.1	14.0	145	94	4
YSRL 142 - YSRL 151	14.2 - 15.1	15.0	150	97	4
YSRL 152 - YSRL 161	15.2 - 16.1	16.0	157	109	4
YSRL 162 - YSRL 171	16.2 - 17.1	17.0	157	109	4
YSRL 172 - YSRL 181	17.2 - 18.1	18.0	157	109	4
YSRL 182 - YSRL 191	18.2 - 19.1	19.0	157	109	4
YSRL 192 - YSRL 200	19.2 - 20.0	20.0	157	109	4



YSR reamer is available on request only,
All the dimension is similar to YSD drills.

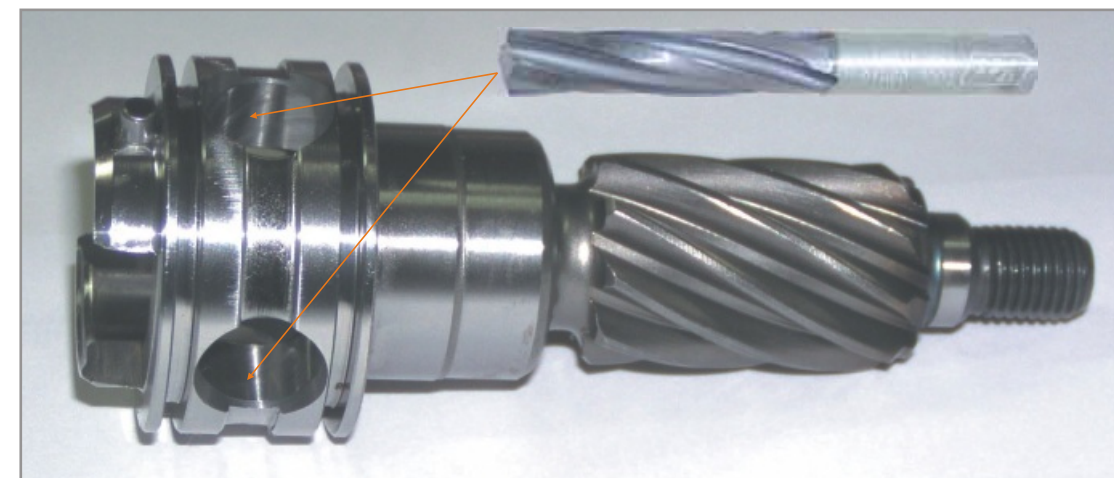
Machining case of YSR

- Company : "M" Automotive
- Applied Carbide Speedy Reamer : YSR120-R0.6
- Kind of machine : Machining center, Vertical spindle
- Work-piece : SCM420H, EPS Pinion shaft, HRC27~31
(See reamed work-piece photo)
- Cutting speed : 1200rpm, $V_c = 45\text{m/min.}$, $f = 0.2\text{mm/rev.}$
- Pre-drilling : $\Phi 11.8\text{mm}$, cut-off : 0.1mm(one side)
- Coolant : External soluble oil

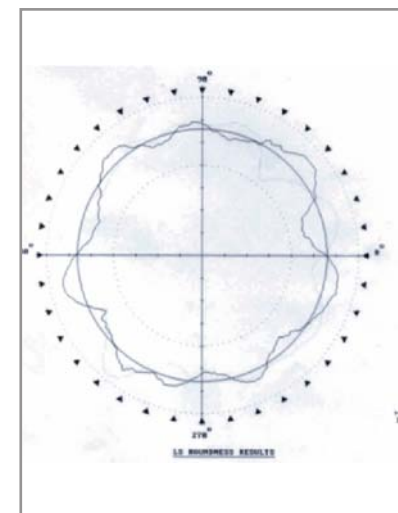
Resulted in great performance

- Roundness : $O = 1.80\mu\text{m}$,
- Roughness : $R_a = 0.14\mu\text{m}$
- Cycle time 650% increase

Photo illustrates the reamed actual work-piece, EPS Pinion shaft.

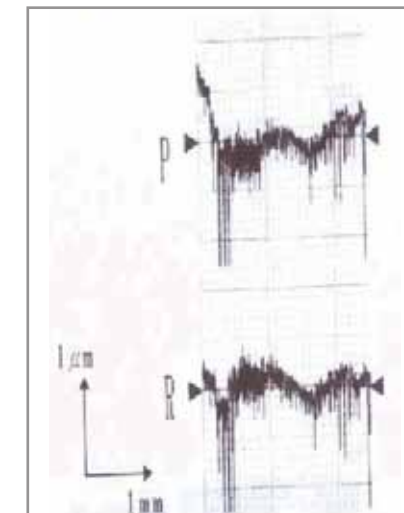


Roundness measures



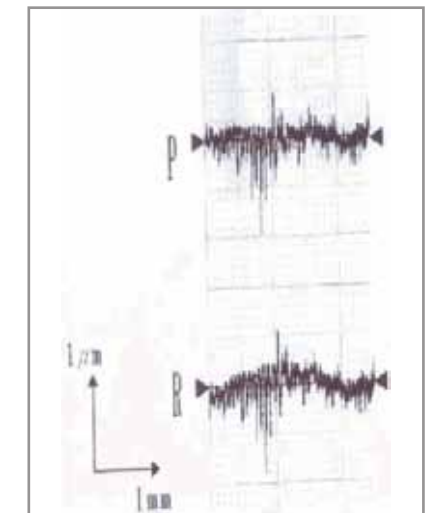
Measuring : External
 $O = 1.80\mu\text{m}$

Roughness for hole mouth



P: Polarity
R : Round measure
 $R_a = 0.14\mu\text{m}$
 $R_{max} = 3.18\mu\text{m}$
 $R_z = 1.58\mu\text{m}$

Roughness for hole end



P: Polarity
R : Round measure
 $R_a = 0.10\mu\text{m}$
 $R_{max} = 1.46\mu\text{m}$
 $R_z = 0.94\mu\text{m}$

- ❖ YSR Speedy reamer ran at faster cycle time, higher speed & feed, longer tool life along with greater roundness and roughness.



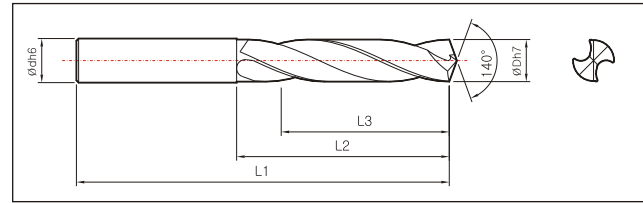
YSD TiN



YSD TiAlN



YSSD TiN ❖ Made-to-order



Model : YSD

- Solid Carbide drill, Yes standard length, Plain cylindrical HA shank.
- Effective cutting depth 3xDia. Whistle notch HE shank available on request)
- 140° self-centering point for accurate hole positioning. regular helix angle : 28° ~ 30°.
- Manufactured with heavy duty construction and excellent chip evacuation.
- High performance carbide drill and re-sharpening & re-conditioning available

Carbide substrate

- Ultra-fine Micro Grain, PVD TiN, TiAlN coated as standard stock.

Application

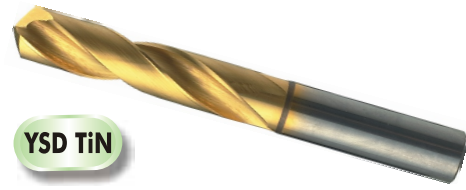
- To eliminate the need for center drilling and partially reaming. Highest hole quality and tolerance.
- Specially designed for machining center or CNC application.
- Broad range application from general to tough material.

Please mark the material if you want to apply on specified material. (See page 6 for ordering)

Code No.	D	d	L1	L2	L3	Code No.	D	d	L1	L2	L3	Code No.	D	d	L1	L2	L3
YSD 030	3.0					YSD 042	4.2					YSD 052	5.2				
YSD 031	3.1					YSD 043	4.3					YSD 053	5.3				
YSD 032	3.2			20	15	YSD 044	4.4					YSD 054	5.4				
YSD 033	3.3					YSD 045	4.5					YSD 055	5.5				
YSD 034	3.4					YSD 046	4.6	5.0	62	32	25	YSD 056	5.6	6.0	66	36	27
YSD 035	3.5	4.0	55			YSD 047	4.7					YSD 057	5.7				
YSD 036	3.6					YSD 048	4.8					YSD 058	5.8				
YSD 037	3.7					YSD 049	4.9					YSD 059	5.9				
YSD 038	3.8			25	19	YSD 050	5.0					YSD 060	6.0				
YSD 039	3.9					YSD 051	5.1					YSD 061	6.1				
YSD 040	4.0																
YSD 041	4.1																

Code No.	D	d	L1	L2	L3	Code No.	D	d	L1	L2	L3	Code No.	D	d	L1	L2	L3
YSD 062	6.2					YSD 112	11.2					YSD 162	16.2				
YSD 063	6.3					YSD 113	11.3					YSD 163	16.3				
YSD 064	6.4					YSD 114	11.4					YSD 164	16.4				
YSD 065	6.5					YSD 115	11.5					YSD 165	16.5				
YSD 066	6.6	7.0	74	42	32	YSD 116	11.6	12.0			44	YSD 166	16.6	17.0	119	71	46
YSD 067	6.7					YSD 117	11.7					YSD 167	16.7				
YSD 068	6.8					YSD 118	11.8					YSD 168	16.8				
YSD 069	6.9					YSD 119	11.9					YSD 169	16.9				
YSD 070	7.0					YSD 120	12.0		102	62		YSD 170	17.0				
YSD 071	7.1					YSD 121	12.1					YSD 171	17.1				
YSD 072	7.2					YSD 122	12.2					YSD 172	17.2				
YSD 073	7.3					YSD 123	12.3					YSD 173	17.3				
YSD 074	7.4					YSD 124	12.4					YSD 174	17.4				
YSD 075	7.5					YSD 125	12.5					YSD 175	17.5				
YSD 076	7.6	8.0	79	46	34	YSD 126	12.6	13.0			42	YSD 176	17.6	18.0	123	74	47
YSD 077	7.7					YSD 127	12.7					YSD 177	17.7				
YSD 078	7.8					YSD 128	12.8					YSD 178	17.8				
YSD 079	7.9					YSD 129	12.9					YSD 179	17.9				
YSD 080	8.0					YSD 130	13.0					YSD 180	18.0				
YSD 081	8.1					YSD 131	13.1					YSD 181	18.1				
YSD 082	8.2					YSD 132	13.2					YSD 182	18.2				
YSD 083	8.3					YSD 133	13.3					YSD 183	18.3				
YSD 084	8.4					YSD 134	13.4					YSD 184	18.4				
YSD 085	8.5					YSD 135	13.5					YSD 185	18.5				
YSD 086	8.6	9.0	84	50	37	YSD 136	13.6	14.0	107	64	43	YSD 186	18.6	19.0	127	76	48
YSD 087	8.7					YSD 137	13.7					YSD 187	18.7				
YSD 088	8.8					YSD 138	13.8					YSD 188	18.8				
YSD 089	8.9					YSD 139	13.9					YSD 189	18.9				
YSD 090	9.0					YSD 140	14.0					YSD 190	19.0				
YSD 091	9.1					YSD 141	14.1					YSD 191	19.1				
YSD 092	9.2					YSD 142	14.2					YSD 192	19.2				
YSD 093	9.3					YSD 143	14.3					YSD 193	19.3				
YSD 094	9.4					YSD 144	14.4					YSD 194	19.4				
YSD 095	9.5					YSD 145	14.5					YSD 195	19.5				
YSD 096	9.6	10.0	89	53	38	YSD 146	14.6	15.0	111	67	45	YSD 196	19.6	20.0	131	80	50
YSD 097	9.7					YSD 147	14.7					YSD 197	19.7				
YSD 098	9.8					YSD 148	14.8					YSD 198	19.8				
YSD 099	9.9					YSD 149	14.9					YSD 199	19.9				
YSD 100	10.0					YSD 150	15.0					YSD 200	20.0				
YSD 101	10.1					YSD 151	15.1										
YSD 102	10.2					YSD 152	15.2										
YSD 103	10.3					YSD 153	15.3										
YSD 104	10.4					YSD 154	15.4										
YSD 105	10.5					YSD 155	15.5										
YSD 106	10.6	11.0	95	55	40	YSD 156	15.6	16.0	115	69	45						
YSD 107	10.7					YSD 157	15.7										
YSD 108	10.8					YSD 158	15.8										
YSD 109	10.9					YSD 159	15.9										
YSD 110	11.0					YSD 160	16.0										
YSD 111	11.1					YSD 161	16.1										

Solid Carbide Drill, Inches



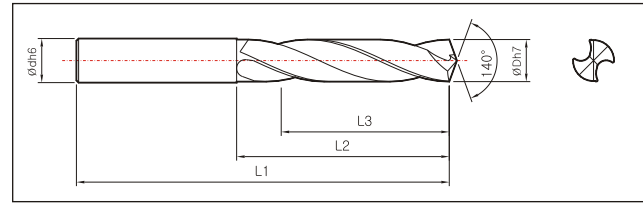
YSD TiN



YSD TiAlN



YSSD TiN ❖ Made-to-order



Model : YSD

- Solid Carbide drill, Yes standard length, Plain cylindrical HA shank.
- Effective cutting depth 3xDia. (Whistle notch HE shank available on request)
- 140° self-centering point for accurate hole positioning. regular helix angle : 28° ~ 30°.
- Manufactured with heavy duty construction and excellent chip evacuation.
- High performance carbide drill and re-sharpening & re-conditioning available

Carbide substrate

- Ultra-fine Micro Grain, PVD TiN, TiAlN coated as standard stock.

Application

- To eliminate the need for center drilling and partially reaming. Highest hole quality and tolerance.
- Specially designed for machining center or CNC application.
- Broad range application from general to tough material.

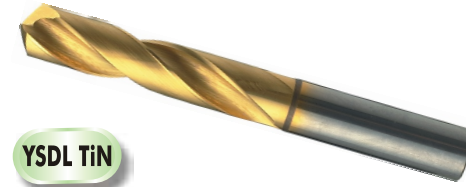
Inch Size

Code No.	D	d	L1	L2	L3
YSD .1250	1/8	3/16	2.16	0.78	0.59
YSD .1562	5/32		2.44	1.25	1
YSD .1875	3/16				
YSD .2188	7/32	1/4	2.91	1.65	1.25
YSD .2500	1/4				
YSD .2656	17/64	5/16	3.11	1.81	1.33
YSD .2812	9/32				
YSD .2969	19/64				
YSD .3125	5/16				
YSD .3281	21/64				
YSD .3438	11/32	3/8	3.5	2.08	1.5
YSD .3594	23/64				
YSD .3750	3/8				

Inch Size

Code No.	D	d	L1	L2	L3
YSD .3906	25/64	7/16	3.74	2.16	1.57
YSD .4062	13/32				
YSD .4219	27/64				
YSD .4375	7/16				
YSD .4531	29/64	1/2	4.01	2.44	1.65
YSD .4688	15/32				
YSD .4844	31/64				
YSD .5000	1/2				
YSD .5625	9/16	9/16	4.37	2.63	1.77
YSD .6250	5/8	5/8	4.52	2.71	
YSD .6875	11/16	11/16	4.84	2.91	1.85
YSD .7500	3/4	3/4	5	2.99	1.88

Solid Carbide Drill, Long Series, Metric



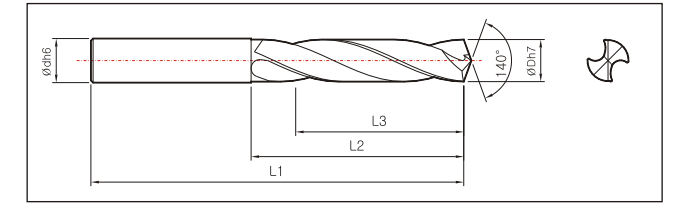
YSDL TiN



YSDL TiAlN



YSSD TiN ❖ Made-to-order



Model : YSDL

- Solid Carbide drill, Yes standard length, Plain cylindrical HA shank.
- Effective cutting depth 5xDia. (Whistle notch HE shank available on request)
- 140° self-centering point for accurate hole positioning. regular helix angle : 28° ~ 30°.
- Manufactured with heavy duty construction and excellent chip evacuation.
- High performance carbide drill and re-sharpening & re-conditioning available

Carbide substrate

- Ultra-fine Micro Grain, PVD TiN, TiAlN coated as standard stock.

Application

- To eliminate the need for center drilling and partially reaming. Highest hole quality and tolerance.
- Specially designed for machining center or CNC application.
- Broad range application from general to tough material.

Code No.	D	d	L1	L2	L3
YSDL 030	3.0	4.0	80	45	40
YSDL 031	3.1				
YSDL 032	3.2				
YSDL 033	3.3				
YSDL 034	3.4				
YSDL 035	3.5				39
YSDL 036	3.6				
YSDL 037	3.7				
YSDL 038	3.8				
YSDL 039	3.9				
YSDL 040	4.0				
YSDL 041	4.1				

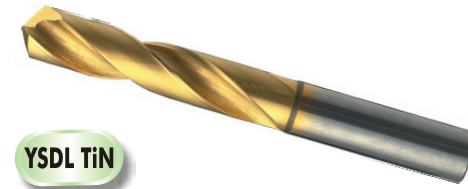
Code No.	D	d	L1	L2	L3
YSDL 042	4.2	5.0	80	45	38
YSDL 043	4.3				
YSDL 044	4.4				
YSDL 045	4.5				
YSDL 046	4.6				
YSDL 047	4.7				
YSDL 048	4.8				
YSDL 049	4.9				
YSDL 050	5.0				
YSDL 051	5.1				

Code No.	D	d	L1	L2	L3
YSDL 052	5.2	6.0	83	50	41
YSDL 053	5.3				
YSDL 054	5.4				
YSDL 055	5.5				
YSDL 056	5.6				
YSDL 057	5.7				
YSDL 058	5.8				
YSDL 059	5.9				
YSDL 060	6.0				
YSDL 061	6.1				

Solid Carbide Drill, Long Series, Metric

Code No.	D	d	L1	L2	L3	Code No.	D	d	L1	L2	L3	Code No.	D	d	L1	L2	L3
YSDL 062	6.2	7.0	85	53	43	YSDL 108	10.8	11.0	110	73	57	YSDL 154	15.4	16.0			88
YSDL 063	6.3					YSDL 109	10.9					YSDL 155	15.5				
YSDL 064	6.4					YSDL 110	11.0					YSDL 156	15.6				
YSDL 065	6.5					YSDL 111	11.1					YSDL 157	15.7				
YSDL 066	6.6					YSDL 112	11.2					YSDL 158	15.8				
YSDL 067	6.7					YSDL 113	11.3					YSDL 159	15.9				
YSDL 068	6.8					YSDL 114	11.4					YSDL 160	16.0				
YSDL 069	6.9					YSDL 115	11.5					YSDL 161	16.1				
YSDL 070	7.0					YSDL 116	11.6					YSDL 162	16.2				
YSDL 071	7.1					YSDL 117	11.7					YSDL 163	16.3				
YSDL 072	7.2	8.0	90	58	46	YSDL 118	11.8	12.0	120	80	62	YSDL 164	16.4	17.0			87
YSDL 073	7.3					YSDL 119	11.9					YSDL 165	16.5				
YSDL 074	7.4					YSDL 120	12.0					YSDL 166	16.6				
YSDL 075	7.5					YSDL 121	12.1					YSDL 167	16.7				
YSDL 076	7.6					YSDL 122	12.2					YSDL 168	16.8				
YSDL 077	7.7					YSDL 123	12.3					YSDL 169	16.9				
YSDL 078	7.8					YSDL 124	12.4					YSDL 170	17.0				
YSDL 079	7.9					YSDL 125	12.5					YSDL 171	17.1				
YSDL 080	8.0					YSDL 126	12.6					YSDL 172	17.2				
YSDL 081	8.1					YSDL 127	12.7					YSDL 173	17.3				
YSDL 082	8.2	9.0	98	64	51	YSDL 128	12.8	13.0	137	90	71	YSDL 174	17.4	18.0	160	112	85
YSDL 083	8.3					YSDL 129	12.9					YSDL 175	17.5				
YSDL 084	8.4					YSDL 130	13.0					YSDL 176	17.6				
YSDL 085	8.5					YSDL 131	13.1					YSDL 177	17.7				
YSDL 086	8.6					YSDL 132	13.2					YSDL 178	17.8				
YSDL 087	8.7					YSDL 133	13.3					YSDL 179	17.9				
YSDL 088	8.8					YSDL 134	13.4					YSDL 180	18.0				
YSDL 089	8.9					YSDL 135	13.5					YSDL 181	18.1				
YSDL 090	9.0					YSDL 136	13.6					YSDL 182	18.2				
YSDL 091	9.1					YSDL 137	13.7					YSDL 183	18.3				
YSDL 092	9.2	10.0	105	68	53	YSDL 138	13.8	14.0	147	96	75	YSDL 184	18.4	19.0			84
YSDL 093	9.3					YSDL 139	13.9					YSDL 185	18.5				
YSDL 094	9.4					YSDL 140	14.0					YSDL 186	18.6				
YSDL 095	9.5					YSDL 141	14.1					YSDL 187	18.7				
YSDL 096	9.6					YSDL 142	14.2					YSDL 188	18.8				
YSDL 097	9.7					YSDL 143	14.3					YSDL 189	18.9				
YSDL 098	9.8					YSDL 144	14.4					YSDL 190	19.0				
YSDL 099	9.9					YSDL 145	14.5					YSDL 191	19.1				
YSDL 100	10.0					YSDL 146	14.6					YSDL 192	19.2				
YSDL 101	10.1					YSDL 147	14.7					YSDL 193	19.3				
YSDL 102	10.2	11.0	110	73	57	YSDL 148	14.8	15.0	153	100	78	YSDL 194	19.4	20.0			82
YSDL 103	10.3					YSDL 149	14.9					YSDL 195	19.5				
YSDL 104	10.4					YSDL 150	15.0					YSDL 196	19.6				
YSDL 105	10.5					YSDL 151	15.1					YSDL 197	19.7				
YSDL 106	10.6					YSDL 152	15.2					YSDL 198	19.8				
YSDL 107	10.7					YSDL 153	15.3					YSDL 199	19.9				
						YSDL 154	15.4					YSDL 200	20.0				

Solid Carbide Drill, Long Series, Inches



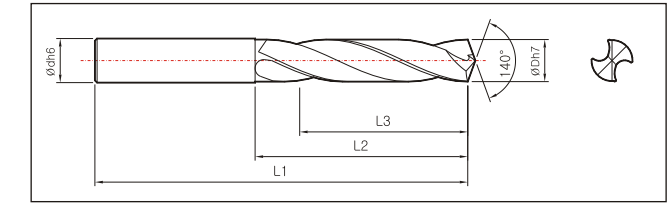
YSDL TiN



YSDL TiAlN



YSSD TiN ❖ Made-to-order



Model : YSDL

- Solid Carbide drill, Yes standard length, Plain cylindrical HA shank.
- Effective cutting depth 5xDia. Whistle notch HE shank available on request)
- 140° self-centering point for accurate hole positioning. regular helix angle : 28° ~ 30°.
- Manufactured with heavy duty construction and excellent chip evacuation.
- High performance carbide drill and re-sharpening & re-conditioning available

Carbide substrate

- Ultra-fine Micro Grain , PVD TiN, TiAlN coated as standard stock.

Application

- To eliminate the need for center drilling and partially reaming. Highest hole quality and tolerance.
- Specially designed for machining center or CNC application.
- Broad range application from general to tough material.

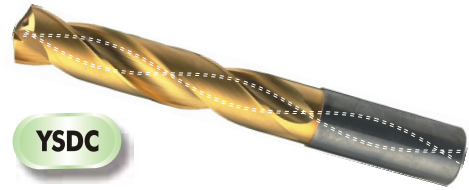
Inch Size

Code No.	D	d	L1	L2	L3
YSDL .1250	1/8	3/16	3.15	1.77	1.57
YSDL .1562	5/32				
YSDL .1875	3/16				
YSDL .2188	7/32	1/4	3.26	2.08	1.69
YSDL .2500	1/4				
YSDL .2656	17/64	5/16	3.54	2.28	1.81
YSDL .2812	9/32				
YSDL .2969	19/64				
YSDL .3125	5/16				
YSDL .3281	21/64				
YSDL .3438	11/32				
YSDL .3594	23/64	3/8	4.13	2.67	2.08
YSDL .3750	3/8				

Inch Size

Code No.	D	d	L1	L2	L3
YSDL .3906	25/64	7/16	4.33	2.87	2.24
YSDL .4062	13/32				
YSDL .4219	27/64				
YSDL .4375	7/16	1/2	5.39	3.54	2.79
YSDL .4531	29/64				
YSDL .4688	15/32				
YSDL .4844	31/64	3/4	6.29	4.4	3.46
YSDL .5000	1/2				
YSDL .5625	9/16				
YSDL .6250	5/8	5/8	6.29	4.4	3.46
YSDL .6875	11/16	11/16			
YSDL .7500	3/4	3/4			

Solid Carbide Coolant Drill, Metric



YSDC

Model : YSDC

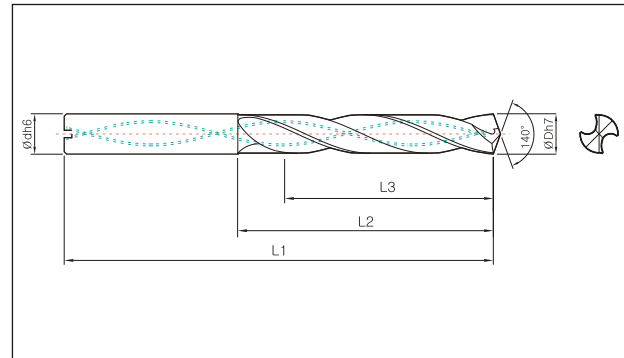
- Solid Carbide Coolant hole drill, HA shank
- 140° self-centering point for accurate hole positioning. regular helix angle : 28° ~ 30°.
- Manufactured with heavy duty construction and excellent chip evacuation.

Carbide substrate:

- Micro Grain Carbide, TiN & TiAlN

Application

- High productivity. Coolant fed design efficiently cools the workpiece and provides good chip removal.
- To eliminate the need for center drilling and partially reaming. Highest hole quality and tolerance.
- Specially designed for machining center or CNC application.



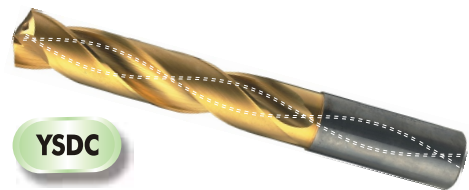
Code No.	D	d	L1	L2	L3	Code No.	D	d	L1	L2	L3	Code No.	D	d	L1	L2	L3
YSDC 050	5.0	5.0			35	YSDC 061	6.1	6.0	72	42	33	YSDC 072	7.2				
YSDC 051	5.1					YSDC 062	6.2					YSDC 073	7.3				
YSDC 052	5.2	6.0	72	42	33	YSDC 063	6.3	7.0	97	60	50	YSDC 074	7.4	8.0	97	60	48
YSDC 053	5.3					YSDC 064	6.4					YSDC 075	7.5				
YSDC 054	5.4					YSDC 065	6.5					YSDC 076	7.6				
YSDC 055	5.5	6.0	72	42	33	YSDC 066	6.6	7.0	97	60	50	YSDC 077	7.7	8.0	97	60	48
YSDC 056	5.6					YSDC 067	6.7					YSDC 078	7.8				
YSDC 057	5.7					YSDC 068	6.8					YSDC 079	7.9				
YSDC 058	5.8					YSDC 069	6.9					YSDC 080	8.0				
YSDC 059	5.9	6.0	72	42	33	YSDC 070	7.0	7.0	97	60	50	YSDC 081	8.1	8.0	97	60	48
YSDC 060	6.0					YSDC 071	7.1										

❖ Available small dia. below 5.0 and special step coolant drill on request.
❖ See page 37 of similar size for YSDC, D5 for reinforced HE shank.

Code No.	D	d	L1	L2	L3	Code No.	D	d	L1	L2	L3	Code No.	D	d	L1	L2	L3
YSDC 082	8.2	9.0	97	60	47	YSDC 122	12.2	13.0	143	102	83	YSDC 162	16.2	17.0	146	104	79
YSDC 083	8.3					YSDC 123	12.3					YSDC 163	16.3				
YSDC 084	8.4					YSDC 124	12.4					YSDC 164	16.4				
YSDC 085	8.5					YSDC 125	12.5					YSDC 165	16.5				
YSDC 086	8.6					YSDC 126	12.6					YSDC 166	16.6				
YSDC 087	8.7					YSDC 127	12.7					YSDC 167	16.7				
YSDC 088	8.8					YSDC 128	12.8					YSDC 168	16.8				
YSDC 089	8.9	YSDC 129	12.9	YSDC 169	16.9												
YSDC 090	9.0	YSDC 130	13.0	YSDC 170	17.0												
YSDC 091	9.1	YSDC 131	13.1	YSDC 171	17.1												
YSDC 092	9.2	10.0	97	60	45	YSDC 132	13.2	14.0	143	102	81	YSDC 172	17.2	18.0	146	104	77
YSDC 093	9.3					YSDC 133	13.3					YSDC 173	17.3				
YSDC 094	9.4					YSDC 134	13.4					YSDC 174	17.4				
YSDC 095	9.5					YSDC 135	13.5					YSDC 175	17.5				
YSDC 096	9.6					YSDC 136	13.6					YSDC 176	17.6				
YSDC 097	9.7					YSDC 137	13.7					YSDC 177	17.7				
YSDC 098	9.8					YSDC 138	13.8					YSDC 178	17.8				
YSDC 099	9.9	YSDC 139	13.9	YSDC 179	17.9												
YSDC 100	10.0	11.0	140	100	84	YSDC 140	14.0	15.0	143	102	80	YSDC 180	18.0	19.0	146	104	76
YSDC 101	10.1					YSDC 141	14.1					YSDC 181	18.1				
YSDC 102	10.2					YSDC 142	14.2					YSDC 182	18.2				
YSDC 103	10.3					YSDC 143	14.3					YSDC 183	18.3				
YSDC 104	10.4					YSDC 144	14.4					YSDC 184	18.4				
YSDC 105	10.5					YSDC 145	14.5					YSDC 185	18.5				
YSDC 106	10.6					YSDC 146	14.6					YSDC 186	18.6				
YSDC 107	10.7	YSDC 147	14.7	YSDC 187	18.7												
YSDC 108	10.8	12.0	140	100	82	YSDC 148	14.8	16.0	143	102	78	YSDC 188	18.8	20.0	146	104	74
YSDC 109	10.9					YSDC 149	14.9					YSDC 191	19.1				
YSDC 110	11.0					YSDC 150	15.0					YSDC 192	19.2				
YSDC 111	11.1					YSDC 151	15.1					YSDC 193	19.3				
YSDC 112	11.2					YSDC 152	15.2					YSDC 194	19.4				
YSDC 113	11.3					YSDC 153	15.3					YSDC 195	19.5				
YSDC 114	11.4					YSDC 154	15.4					YSDC 196	19.6				
YSDC 115	11.5	YSDC 155	15.5	YSDC 197	19.7												
YSDC 116	11.6	12.0	140	100	82	YSDC 156	15.6	16.0	143	102	78	YSDC 198	19.8	20.0	146	104	74
YSDC 117	11.7					YSDC 157	15.7					YSDC 199	19.9				
YSDC 118	11.8					YSDC 158	15.8					YSDC 200	20.0				
YSDC 119	11.9					YSDC 159	15.9										
YSDC 120	12.0	YSDC 160	16.0														
YSDC 121	12.1	YSDC 161	16.1														

Solid Carbide Series

Solid Carbide Coolant Drill, Inches



YSDC

Model : YSDC

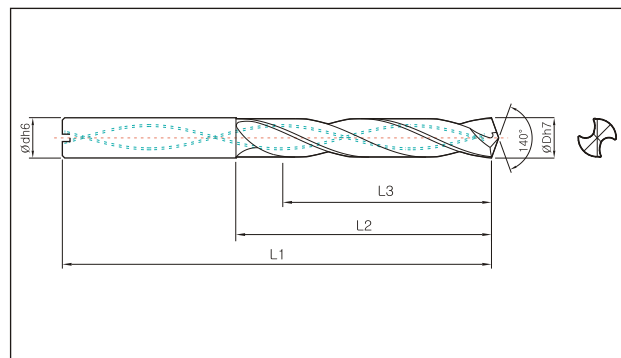
- Solid Carbide Coolant hole drill, HA shank
- 140° self-centering point for accurate hole positioning. regular helix angle : 28° ~ 30°.
- Manufactured with heavy duty construction and excellent chip evacuation.

Carbide substrate:

- Micro Grain Carbide, TiN & TiAlN

Application

- High productivity. Coolant fed design efficiently cools the workpiece and provides good chip removal.
- To eliminate the need for center drilling and partially reaming. Highest hole quality and tolerance.
- Specially designed for machining center or CNC application.



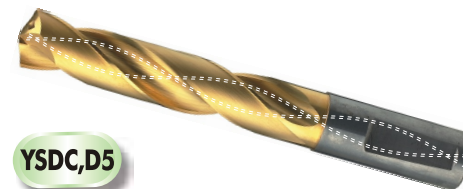
Inch Size

Code No.	D	d	L1	L2	L3
YSDC .1875	3/16	3/16	3.22	1.73	1.54
YSDC .2188	7/32	1/4	3.23		1.34
YSDC .2500	1/4		5/16	3.58	2.08
YSDC .2656	17/64				
YSDC .2812	9/32				
YSDC .2969	19/64				
YSDC .3125	5/16	3/8	4.05	2.4	1.81
YSDC .3281	21/64				
YSDC .3438	11/32				
YSDC .3594	23/64				
YSDC .3750	3/8				

Inch Size

Code No.	D	d	L1	L2	L3
YSDC .3906	25/64	7/16	4.37	2.63	2
YSDC .4062	13/32				
YSDC .4219	27/64				
YSDC .4375	7/16	1/2	4.64	2.79	2.05
YSDC .4531	29/64				
YSDC .4688	15/32				
YSDC .4844	31/64				
YSDC .5000	1/2	9/16	4.88	3.03	2.17
YSDC .5625	9/16				
YSDC .6250	5/8				
YSDC .6875	11/16				
YSDC .7500	3/4				

Solid Carbide Coolant Drill, Reinforced Shank



YSDC,D5

Model : YSDC, D5

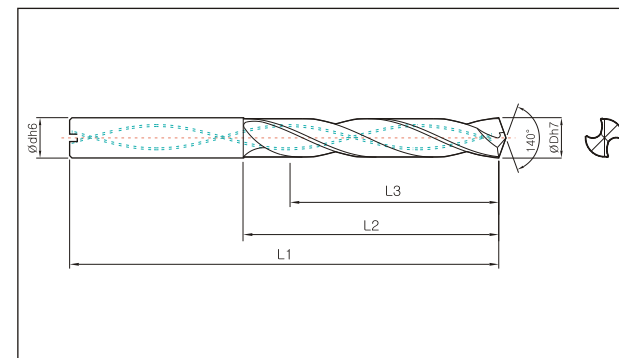
- Solid Carbide Coolant hole drill, Whistle notch DIN6535 HE shank, effective cutting depth 5xDia.
- Reinforced shank for heavy machining.(See page 34 for YSDC plain cylindrical HA shank.)
- 140° self-centering point for accurate hole positioning. regular helix angle : 28° ~ 30°.
- Manufactured with heavy duty construction and excellent chip evacuation.

Carbide substrate:

- Micro Grain Carbide , TiN & TiAlN

Application

- High productivity. Coolant fed design efficiently cools the workpiece and provides good chip removal.
- To eliminate the need for center drilling and partially reaming. Highest hole quality and tolerance.
- Specially designed for machining center or CNC application.



Code No.	D	d	L1	L2	L3
YSDC 050D5	5.0	6.0	82	44	35
YSDC 051D5	5.1				
YSDC 052D5	5.2				
YSDC 053D5	5.3				
YSDC 054D5	5.4				
YSDC 055D5	5.5				
YSDC 056D5	5.6				
YSDC 057D5	5.7				
YSDC 058D5	5.8				
YSDC 059D5	5.9				
YSDC 060D5	6.0	8.0	91	53	43
YSDC 061D5	6.1				
YSDC 062D5	6.2				
YSDC 063D5	6.3				
YSDC 064D5	6.4				
YSDC 065D5	6.5				

Code No.	D	d	L1	L2	L3
YSDC 066D5	6.6	8.0	91	53	43
YSDC 067D5	6.7				
YSDC 068D5	6.8				
YSDC 069D5	6.9				
YSDC 070D5	7.0				
YSDC 071D5	7.1				
YSDC 072D5	7.2				
YSDC 073D5	7.3				
YSDC 074D5	7.4				
YSDC 075D5	7.5				
YSDC 076D5	7.6	10.0	103	61	48
YSDC 077D5	7.7				
YSDC 078D5	7.8				
YSDC 079D5	7.9				
YSDC 080D5	8.0				
YSDC 081D5	8.1				

Code No.	D	d	L1	L2	L3
YSDC 082D5	8.2	10.0	103	61	46
YSDC 083D5	8.3				
YSDC 084D5	8.4				
YSDC 085D5	8.5				
YSDC 086D5	8.6				
YSDC 087D5	8.7				
YSDC 088D5	8.8				
YSDC 089D5	8.9				
YSDC 090D5	9.0				
YSDC 091D5	9.1				
YSDC 092D5	9.2	10.0	103	61	48
YSDC 093D5	9.3				
YSDC 094D5	9.4				
YSDC 095D5	9.5				
YSDC 096D5	9.6				
YSDC 097D5	9.7				

Solid Carbide Series

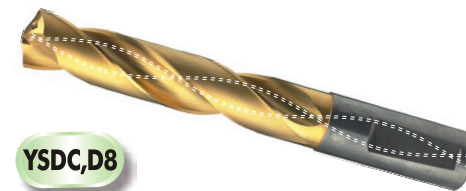
Solid Carbide Series

Solid Carbide Coolant Drill, Reinforced Shank

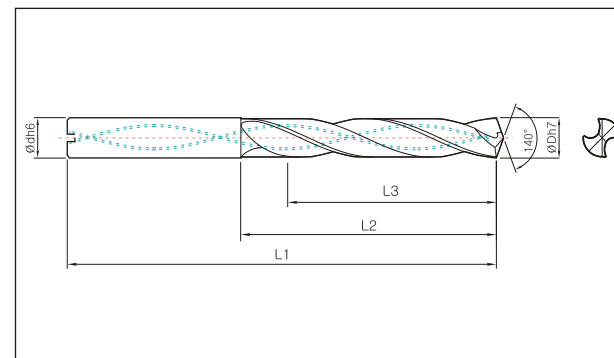
Code No.	D	d	L1	L2	L3	Code No.	D	d	L2	L3	Code No.	D	d	L1	L2	L3
YSDC 098D5	9.8					YSDC 132D5	13.2				YSDC 166D5	16.6				
YSDC 099D5	9.9	10.0	103	61	46	YSDC 133D5	13.3				YSDC 167D5	16.7				68
YSDC 100D5	10.0					YSDC 134D5	13.4				YSDC 168D5	16.8				
YSDC 101D5	10.1					YSDC 135D5	13.5				YSDC 169D5	16.9				
YSDC 102D5	10.2					YSDC 136D5	13.6	14.0	124	77	56	YSDC 170D5	17.0			
YSDC 103D5	10.3					YSDC 137D5	13.7				YSDC 171D5	17.1				
YSDC 104D5	10.4					YSDC 138D5	13.8				YSDC 172D5	17.2				
YSDC 105D5	10.5					YSDC 139D5	13.9				YSDC 173D5	17.3	18.0	143	93	
YSDC 106D5	10.6				55	YSDC 140D5	14.0				YSDC 174D5	17.4				
YSDC 107D5	10.7					YSDC 141D5	14.1				YSDC 175D5	17.5				66
YSDC 108D5	10.8					YSDC 142D5	14.2				YSDC 176D5	17.6				
YSDC 109D5	10.9					YSDC 143D5	14.3				YSDC 177D5	17.7				
YSDC 110D5	11.0	12.0	118	71		YSDC 144D5	14.4				YSDC 178D5	17.8				
YSDC 111D5	11.1					YSDC 145D5	14.5				YSDC 179D5	17.9				
YSDC 112D5	11.2					YSDC 146D5	14.6			55	YSDC 180D5	18.0				
YSDC 113D5	11.3					YSDC 147D5	14.7				YSDC 181D5	18.1				
YSDC 114D5	11.4					YSDC 148D5	14.8				YSDC 182D5	18.2				
YSDC 115D5	11.5					YSDC 149D5	14.9				YSDC 183D5	18.3				
YSDC 116D5	11.6				53	YSDC 150D5	15.0				YSDC 184D5	18.4				
YSDC 117D5	11.7					YSDC 151D5	15.1	16.0	133	83	YSDC 185D5	18.5				65
YSDC 118D5	11.8					YSDC 152D5	15.2				YSDC 186D5	18.6				
YSDC 119D5	11.9					YSDC 153D5	15.3				YSDC 187D5	18.7				
YSDC 120D5	12.0					YSDC 154D5	15.4				YSDC 188D5	18.8				
YSDC 121D5	12.1					YSDC 155D5	15.5				YSDC 189D5	18.9				
YSDC 122D5	12.2					YSDC 156D5	15.6			53	YSDC 190D5	19.0	20.0	153	101	
YSDC 123D5	12.3					YSDC 157D5	15.7				YSDC 191D5	19.1				
YSDC 124D5	12.4					YSDC 158D5	15.8				YSDC 192D5	19.2				
YSDC 125D5	12.5					YSDC 159D5	15.9				YSDC 193D5	19.3				
YSDC 126D5	12.6	14.0	124	77	58	YSDC 160D5	16.0				YSDC 194D5	19.4				
YSDC 127D5	12.7					YSDC 161D5	16.1				YSDC 195D5	19.5				
YSDC 128D5	12.8					YSDC 162D5	16.2				YSDC 196D5	19.6				
YSDC 129D5	12.9					YSDC 163D5	16.3	18.0	143	93	68	YSDC 197D5	19.7			
YSDC 130D5	13.0					YSDC 164D5	16.4				YSDC 198D5	19.8				
YSDC 131D5	13.1				56	YSDC 165D5	16.5				YSDC 199D5	19.9				
											YSDC 200D5	20.0				

❖ Available small dia. below 5.0mm & coolant step drill on request.
❖ YSDC, D5 with plain cylindrical HA shank available on request.

Solid Carbide Coolant Drill, Long series 8xD



YSDC, D8



Model : YSDC, D8

- Solid Carbide Coolant hole drill, Whistle notch DIN6535 HE shank
- Reinforced shank for heavy machining, effective cutting depth 8xDia.
- 140° self-centering point for accurate hole positioning. regular helix angle : 28° ~ 30°.
- Manufactured with heavy duty construction and excellent chip evacuation.

Carbide substrate:

- Micro Grain Carbide, TiN & TiAlN coated

Application

- High productivity. This coolant fed design efficiently cools the workpiece and provides good chip removal.
- To eliminate the need for center drilling and partially reaming. Highest hole quality and tolerance.
- Specially designed for machining center or CNC application.

Code No.	D	d	L1	L2	L3	Code No.	D	d	L1	L2	L3	Code No.	D	d	L1	L2	L3
YSDC 050D8	5.0					YSDC 066D8	6.6					YSDC 082D8	8.2				
YSDC 051D8	5.1					YSDC 067D8	6.7					YSDC 083D8	8.3				
YSDC 052D8	5.2					YSDC 068D8	6.8				66	YSDC 084D8	8.4				
YSDC 053D8	5.3					YSDC 069D8	6.9					YSDC 085D8	8.5				
YSDC 054D8	5.4					YSDC 070D8	7.0					YSDC 086D8	8.6				82
YSDC 055D8	5.5	6.0	95	57	48	YSDC 071D8	7.1					YSDC 087D8	8.7				
YSDC 056D8	5.6					YSDC 072D8	7.2					YSDC 088D8	8.8				
YSDC 057D8	5.7					YSDC 073D8	7.3	8.0	114	76		YSDC 089D8	8.9	10.0	137	95	
YSDC 058D8	5.8					YSDC 074D8	7.4					YSDC 090D8	9.0				
YSDC 059D8	5.9					YSDC 075D8	7.5				64	YSDC 091D8	9.1				
YSDC 060D8	6.0					YSDC 076D8	7.6					YSDC 092D8	9.2				
YSDC 061D8	6.1					YSDC 077D8	7.7					YSDC 093D8	9.3				
YSDC 062D8	6.2					YSDC 078D8	7.8					YSDC 094D8	9.4				80
YSDC 063D8	6.3	8.0	114	76	66	YSDC 079D8	7.9					YSDC 095D8	9.5				
YSDC 064D8	6.4					YSDC 080D8	8.0					YSDC 096D8	9.6				
YSDC 065D8	6.5					YSDC 081D8	8.1	10.0	137	95	82	YSDC 097D8	9.7				

Solid Carbide Coolant Drill, Long series 8xD

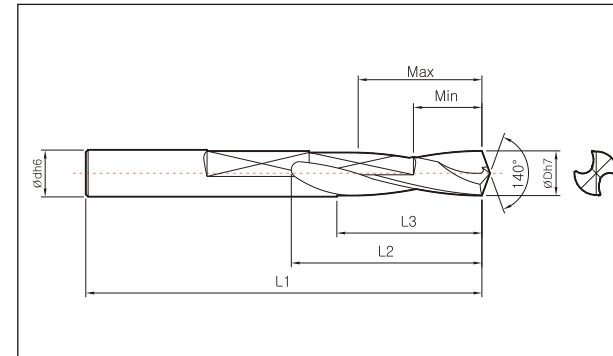
Code No.	D	d	L1	L2	L3	Code No.	D	d	L1	L2	L3	Code No.	D	d	L1	L2	L3
YSDC 098D8	9.8					YSDC 132D8	13.2					YSDC 166D8	16.6				
YSDC 099D8	9.9	10.0	137	95	80	YSDC 133D8	13.3					YSDC 167D8	16.7				146
YSDC 100D8	10.0					YSDC 134D8	13.4					YSDC 168D8	16.8				
YSDC 101D8	10.1					YSDC 135D8	13.5					YSDC 169D8	16.9				
YSDC 102D8	10.2					YSDC 136D8	13.6	14.0	180	133	112	YSDC 170D8	17.0				
YSDC 103D8	10.3					YSDC 137D8	13.7					YSDC 171D8	17.1				
YSDC 104D8	10.4					YSDC 138D8	13.8					YSDC 172D8	17.2				
YSDC 105D8	10.5					YSDC 139D8	13.9					YSDC 173D8	17.3	18.0	221	171	
YSDC 106D8	10.6				98	YSDC 140D8	14.0					YSDC 174D8	17.4				
YSDC 107D8	10.7					YSDC 141D8	14.1					YSDC 175D8	17.5				144
YSDC 108D8	10.8					YSDC 142D8	14.2					YSDC 176D8	17.6				
YSDC 109D8	10.9					YSDC 143D8	14.3					YSDC 177D8	17.7				
YSDC 110D8	11.0	12.0	161	114		YSDC 144D8	14.4					YSDC 178D8	17.8				
YSDC 111D8	11.1					YSDC 145D8	14.5					YSDC 179D8	17.9				
YSDC 112D8	11.2					YSDC 146D8	14.6				124	YSDC 180D8	18.0				
YSDC 113D8	11.3					YSDC 147D8	14.7					YSDC 181D8	18.1				
YSDC 114D8	11.4					YSDC 148D8	14.8					YSDC 182D8	18.2				
YSDC 115D8	11.5				96	YSDC 149D8	14.9					YSDC 183D8	18.3				
YSDC 116D8	11.6					YSDC 150D8	15.0	16.0	202	152		YSDC 184D8	18.4				
YSDC 117D8	11.7					YSDC 151D8	15.1					YSDC 185D8	18.5				154
YSDC 118D8	11.8					YSDC 152D8	15.2					YSDC 186D8	18.6				
YSDC 119D8	11.9					YSDC 153D8	15.3					YSDC 187D8	18.7				
YSDC 120D8	12.0					YSDC 154D8	15.4					YSDC 188D8	18.8				
YSDC 121D8	12.1					YSDC 155D8	15.5					YSDC 189D8	18.9				
YSDC 122D8	12.2					YSDC 156D8	15.6				122	YSDC 190D8	19.0	20.0	242	190	
YSDC 123D8	12.3					YSDC 157D8	15.7					YSDC 191D8	19.1				
YSDC 124D8	12.4					YSDC 158D8	15.8					YSDC 192D8	19.2				
YSDC 125D8	12.5					YSDC 159D8	15.9					YSDC 193D8	19.3				
YSDC 126D8	12.6	14.0	180	133	114	YSDC 160D8	16.0					YSDC 194D8	19.4				
YSDC 127D8	12.7					YSDC 161D8	16.1					YSDC 195D8	19.5				
YSDC 128D8	12.8					YSDC 162D8	16.2					YSDC 196D8	19.6				152
YSDC 129D8	12.9					YSDC 163D8	16.3	18.0	221	171	146	YSDC 197D8	19.7				
YSDC 130D8	13.0					YSDC 164D8	16.4					YSDC 198D8	19.8				
YSDC 131D8	13.1				112	YSDC 165D8	16.5					YSDC 199D8	19.9				
												YSDC 200D8	20.0				

❖ Available small dia. below 5.0mm & coolant step drill on request.
❖ Plain cylindrical HA shank available on request.

Solid Carbide Chamfer Drill, Metric



(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 44.
- 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							
YCD 052	5.2							
YCD 053	5.3							
YCD 054	5.4							
YCD 055	5.5	6.0	66	30	24	9	20	YCH 060
YCD 056	5.6							
YCD 057	5.7							
YCD 058	5.8							
YCD 059	5.9							
YCD 060	6.0							
YCD 061	6.1							
YCD 062	6.2							
YCD 063	6.3							
YCD 064	6.4							
YCD 065	6.5	7.0	74	37	30	11	25	YCH 070
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							
YCD 072	7.2							
YCD 073	7.3							
YCD 074	7.4							
YCD 075	7.5	8.0	79	41	33	12	28	YCH 080
YCD 076	7.6							
YCD 077	7.7							
YCD 078	7.8							
YCD 079	7.9							
YCD 080	8.0							
YCD 081	8.1							
YCD 082	8.2							
YCD 083	8.3							
YCD 084	8.4							
YCD 085	8.5	9.0	84	45	36	14	31	YCH 090
YCD 086	8.6							
YCD 087	8.7							
YCD 088	8.8							
YCD 089	8.9							
YCD 090	9.0							

Solid Carbide Chamfer Drill, Metric

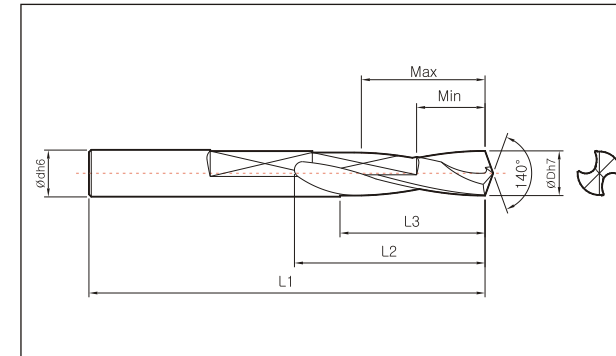
Code No.	D	d	L1	L2	L3	Hole depth		Applicable Holder
						Min	Max	
YCD 091	9.1	10.0	89	49	39	16	34	YCH 100
YCD 092	9.2							
YCD 093	9.3							
YCD 094	9.4							
YCD 095	9.5							
YCD 096	9.6							
YCD 097	9.7							
YCD 098	9.8							
YCD 099	9.9							
YCD 100	10.0							
YCD 101	10.1	11.0	95	47	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							
YCD 152	15.2							
YCD 153	15.3							
YCD 154	15.4							
YCD 155	15.5							
YCD 156	15.6	16.0	115	65	49	25	43	YCH 160
YCD 157	15.7							
YCD 158	15.8							
YCD 159	15.9							
YCD 160	16.0							
YCD 161	16.1							
YCD 162	16.2							
YCD 163	16.3							
YCD 164	16.4							
YCD 165	16.5							
YCD 166	16.6	17.0	119	69	52	26	46	YCH 170
YCD 167	16.7							
YCD 168	16.8							
YCD 169	16.9							
YCD 170	17.0							
YCD 171	17.1							
YCD 172	17.2							
YCD 173	17.3							
YCD 174	17.4							
YCD 175	17.5							
YCD 176	17.6	18.0	123	73	55	27	48	YCH 180
YCD 177	17.7							
YCD 178	17.8							
YCD 179	17.9							
YCD 180	18.0							
YCD 181	18.1							
YCD 182	18.2							
YCD 183	18.3							
YCD 184	18.4							
YCD 185	18.5							
YCD 186	18.6	19.0	127	76	57	28	50	YCH 190
YCD 187	18.7							
YCD 188	18.8							
YCD 189	18.9							
YCD 190	19.0							
YCD 191	19.1							
YCD 192	19.2							
YCD 193	19.3							
YCD 194	19.4							
YCD 195	19.5							
YCD 196	19.6	20.0	131	80	60	30	53	YCH 200
YCD 197	19.7							
YCD 198	19.8							
YCD 199	19.9							
YCD 200	20.0							

Solid Carbide Chamfer Drill, Inches



(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 45.
- 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

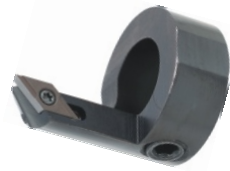
Code No.	D	d	L1	L2	L3	Hole depth		Applicable Holder							
						Min	Max								
YCD .2010	#7	1/4	2.59	1.18	0.94	0.35	0.78	YCH.2500							
YCD .2130	#3														
YCD .2570	F														
YCD .2720	I														
YCD .3125	5/16								3.11	1.61	1.29	0.47	1.1	YCH.3125	
YCD .3320	Q														
YCD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

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								1.34
YCD .5312	17/32								
YCD .5781	37/64	9/16	4.21	2.28	1.73	0.78	1.49	YCH.5625	
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	

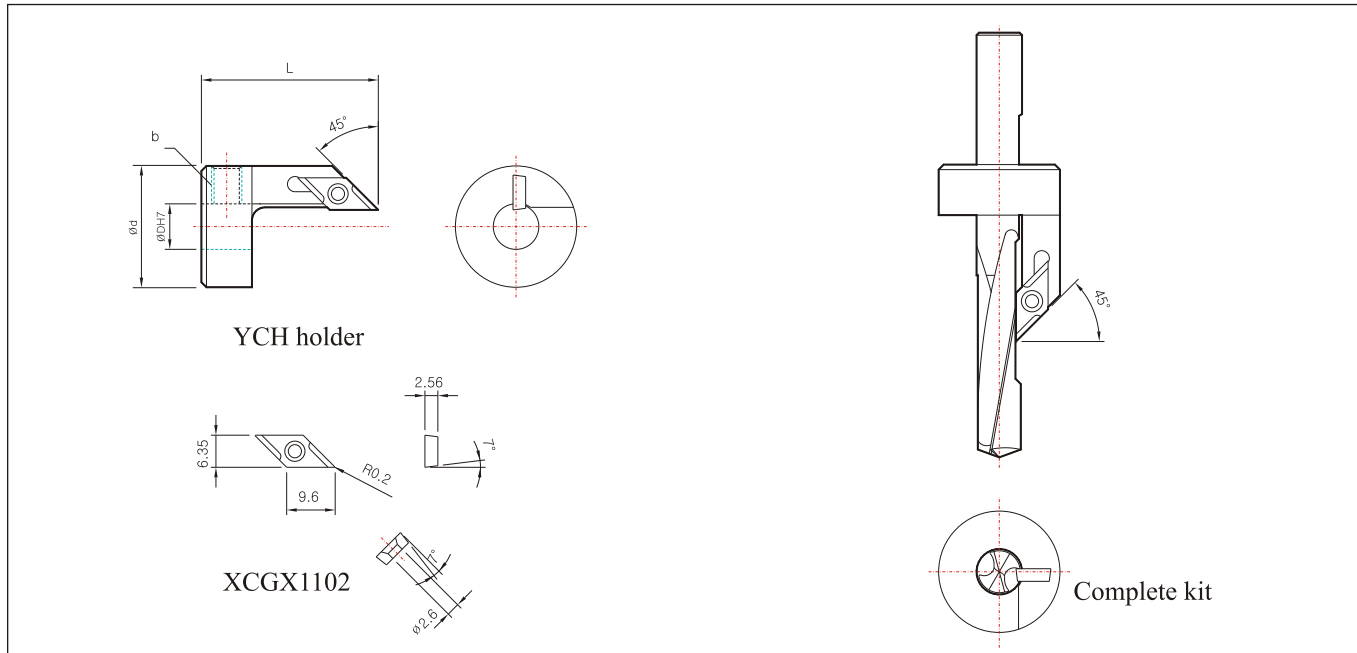
Chamfer Holder, Metric

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.(See page 16 YCHR holder for YTDI body use.)

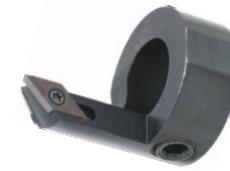


Code No.	D	d	L	Socket Screw Bolt size (b)	Applicable size range(YCD model)
YCH 060	6.0	21	29	M6 x 1.0P	YCD 051~060
YCH 070	7.0	22	32		YCD 061~070
YCH 080	8.0	23	34		YCD 071~080
YCH 090	9.0	24	35		YCD 081~090
YCH 100	10.0	25	36	M8 x 1.25P	YCD 091~100
YCH 110	11.0	26	34		YCD 101~110
YCH 120	12.0	27	36		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	M10 x 1.5P	YCD 171~180
YCH 190	19.0	34	44		YCD 181~190
YCH 200	20.0	35	45		YCD 191~200

❖ See page 41 of applicable YCD drill together with this model.

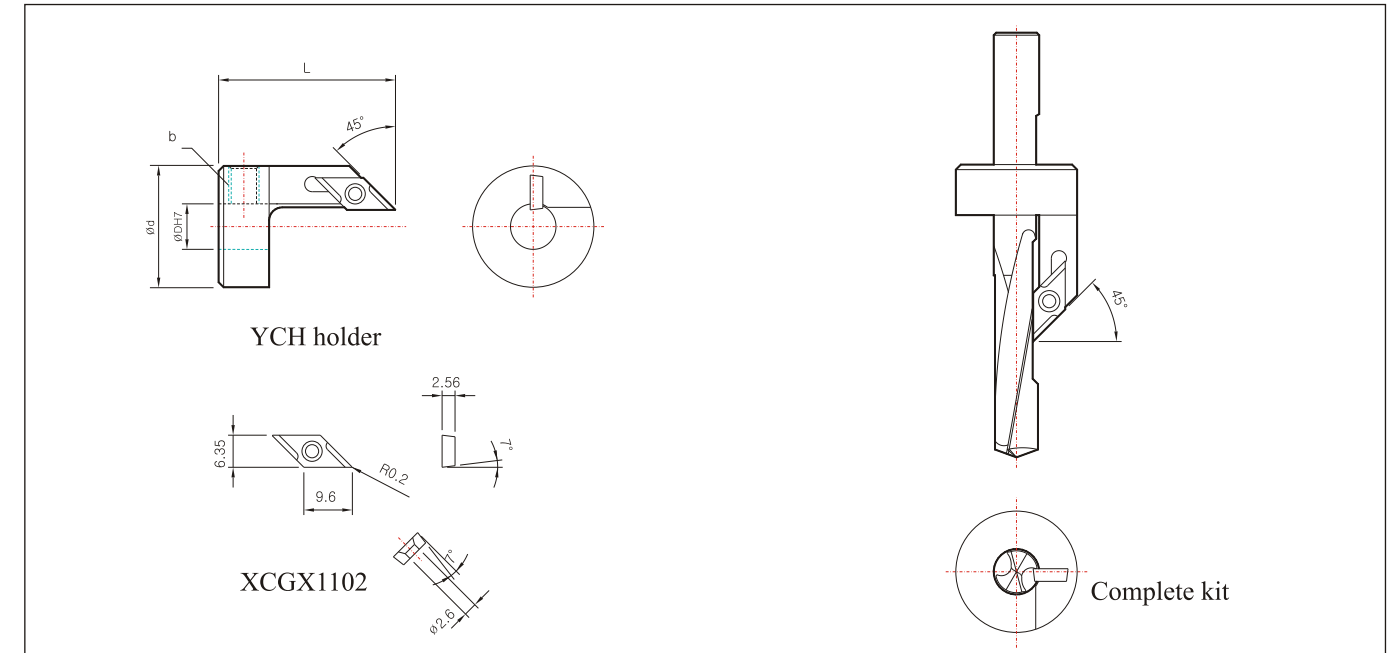
Chamfer Holder, Inches

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.(See page 16 YCHR holder for YTDI body use.)



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	M10 x 1.5P	YCD .5312~.5781
YCH .6875	.6875	1.26	1.65		YCD .6562~.6875
YCH .7500	.7500	1.34	1.73		YCD .7656~.8125

❖ See page 43 of applicable YCD drill together with this model.

- YTEI** Indexable "ECO-Cutter" system
- IB,R** Carbide Ball radius Inserts
- IB,HR** Carbide Ball half-radius Inserts
- IE,R** Carbide End mill Inserts
- ICD** Carbide Center drill Inserts, 60°, 90°
- YSET** Solid Carbide End Mills
- YSEL** Solid Carbide End Mills, Long series
- YSET/HH** Solid Carbide High Helix End Mills
- YSER** Solid Carbide Roughing End Mills
- YSEB** Solid Carbide Ball End Mills
- YSEBL** Solid Carbide Ball End Mills, Long series
- YSEBG** Solid Carbide Ball End Mills for Graphite

Carbide End Mills and Cutters



Indexable "ECO-Cutter" system



YTEI "ECO-Cutter" Long Body

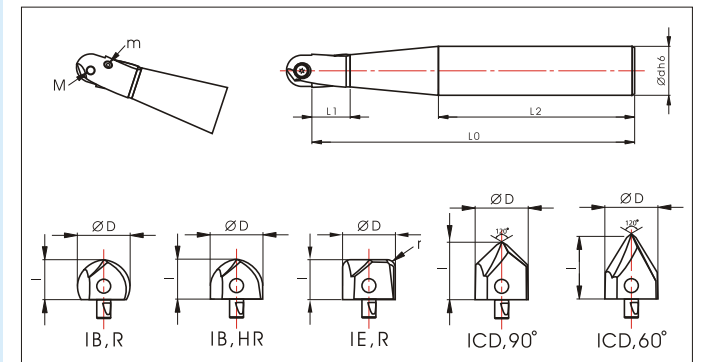


YTEI,S "ECO-Cutter" Short Body

Model : YTEI

- 5 Different insert cutters interchangeable in YTEI body
- Strong clamping with two locking screws
- New design with center stem(pin) on the insert to keep better centralization and run-out
- Body consists of heat-treated tool steel
- All carbide inserts ground completely by CNC & TiAlN
- Ball radius IB insert has precise helical fluted marginal cutting edge like drill to enable copy milling smoothly.
- Higher speed & feed available than conventional end mills.
- Dual purpose of roughing & finishing job

- IB, R** Ball radius 2 flute insert with round(oval)
- IB,HR** Ball radius 2 flute insert with half round
- IE, R** 2 flute end mill with corner radius
- ICD,90** Center & chamfer drill insert with 90° point (dual point with 120°+ 90° for accurate centering)
- ICD,60** Center & chamfer drill insert with 60° point (dual point with 120°+ 60° for accurate centering)



ECO-Cutter recommended cutting data

Work-piece	Cutting speed range (Vc=m/min.)	feed rate per flute (fz=mm/rev.)	IB,R/IB,HR Ball radius insert		Work-piece	Cutting speed range (Vc=m/min.)	feed rate per flute (fz=mm/rev.)	IE Flat milling insert	
			Ball Radius milling	Ball Radius milling				Slot & Shoulder milling	Slot & Shoulder milling
			Ø8-12	Ø16-32				Ø8-20	Ø25-32
Cast Iron	100~200	0.3~0.4	Vc=150m/min. fz=0.35mm/flute ap=0.025mm, ae=0.1xD(Φ)	Vc=160m/min. fz=0.35mm/flute ap=0.05mm, ae=0.1xD(Φ)	Alloy & Carbon steel (Hardness below HRC40)	50~130	0.08~0.15	Vc=90m/min. fz=0.12mm/flute ap=0.5mm, ae=0.6xD(Φ)	Vc=90m/min. fz=0.12mm/flute ap=0.5mm, ae=0.6xD(Φ)
Die & Tool steel(Hardness HRC30~40)	60~100	0.1~0.15	Vc=90m/min. fz=0.1mm/flute ap=0.03mm, ae=0.1xD(Φ)	Vc=80m/min. fz=0.15mm/flute ap=0.05mm, ae=0.1xD(Φ)	Alloy & Carbon steel (Hardness below HRC30)	60~160	0.1~0.15	Vc=130m/min. fz=0.2mm/flute ap=0.5mm, ae=0.6xD(Φ)	Vc=130m/min. fz=0.2mm/flute ap=0.5mm, ae=0.6xD(Φ)
Alloy & Carbon steel (Hardness HRC30~40)	70~150	0.2~0.3	Vc=130m/min. fz=0.2mm/flute ap=0.03mm, ae=0.1xD(Φ)	Vc=110m/min. fz=0.3mm/flute ap=0.05mm, ae=0.1xD(Φ)	Normal Mild steel(Hardness below HB 200)	70~200	0.1~0.15	Vc=150m/min. fz=0.2mm/flute ap=1mm, ae=0.6xD(Φ)	Vc=150m/min. fz=0.2mm/flute ap=1mm, ae=0.6xD(Φ)
Alloy & Carbon steel (Hardness below HRC30)	100~200	0.2~0.3	Vc=150m/min. fz=0.2mm/flute ap=0.03mm, ae=0.1xD(Φ)	Vc=150m/min. fz=0.25mm/flute ap=0.06mm, ae=0.1xD(Φ)					
Hardened steel(Hardness HRC50~60)	200~250	0.2~0.4	Vc=200m/min. fz=0.25mm/flute ap=0.01mm, ae=0.1xD(Φ)	Vc=220m/min. fz=0.35mm/flute ap=0.01mm, ae=0.02xD(Φ)					

Work-piece	Cutting speed range (Vc=m/min.)	ICD Centering & Chamfering insert			
		Centering(Spotting)		Chamfering	
		Ø8-20	Ø25-32	Ø8-20	Ø25-32
Alloy & Carbon steel (Hardness below HRC40)	40~60	Vc=50m/min. f=0.1~0.15 mm/rev.	Vc=50m/min. f=0.1~0.15 mm/rev.	Vc=50m/min. fz=0.05mm/ flute	Vc=50m/min. fz=0.1mm/ flute
Alloy & Carbon steel (Hardness below HRC30)	50~80	Vc=70m/min f=0.1~0.2 mm/rev.	Vc=70m/min f=0.1~0.2 mm/rev.	Vc=70m/min fz=0.1mm/ flute	Vc=70m/min fz=0.12mm/ flute
Normal Mild steel(Hardness below HB 200)	80~200	Vc=120m/min f=0.1~0.3 mm/rev.	Vc=120m/min f=0.1~0.3 mm/rev.	Vc=120m/min fz=0.1mm/ flute	Vc=120m/min fz=0.15mm/ flute

"ECO-Cutter" Long Body system



Body	Insert	φD	φd	L0	L1	L2	I	R	r	M	m
YTEI 080	IB 080 R	8.0	10	94	12	60	6.19	4.0	-	M2	M2.5
	IB 080 HR										
	IE 080										
	ICD 080-90										
	ICD 080-60										
YTEI 100	IB 100 R	10.0	12	107	12	70	7.86	5.0	-	M2.5	M2.5
	IB 100 HR										
	IE 100										
	ICD 100-90										
	ICD 100-60										
YTEI 120	IB 120 R	12.0	16	131	11	90	9.16	6.0	-	M3	M3
	IB 120 HR										
	IE 120										
	ICD 120-90										
	ICD 120-60										
YTEI 160	IB 160 R	16.0	20	158	18	95	12.13	8.0	-	M4	M3
	IB 160 HR										
	IE 160										
	ICD 160-90										
	ICD 160-60										
YTEI 200	IB 200 R	20.0	25	165	20	100	15.10	10.0	-	M5	M4
	IB 200 HR										
	IE 200										
	ICD 200-90										
	ICD 200-60										
YTEI 250	IB 250 R	25.0	32	191	21	110	18.71	12.5	-	M6	M4
	IB 250 HR										
	IE 250										
	ICD 250-90										
	ICD 250-60										
YTEI 300	IB 300 R	30.0	32	227	32	120	22.74	15.0	-	M8	M5
	IB 300 HR										
	IE 300										
	ICD 300-90										
	ICD 300-60										
YTEI 320	IB 320 R	32.0	32	326	32	250	24.01	16.0	-	M8	M6
	IB 320 HR										
	IE 320										
	ICD 320-90										
	ICD 320-60										

"ECO-Cutter" Short body system



Body	Insert	φD	φd	L0	L1	L2	I	R	r	M	m
YTEI 080S	IB 080 R	8	8	74	12	50	6.19	4.0	-	M2	M2.5
	IB 080 HR										
	IE 080										
	ICD 080-90										
	ICD 080-60										
YTEI 090S	IB 090 R	9	10	93	13	65	6.83	4.5	-	M2	M2.5
	IB 090 HR										
	IE 090										
	ICD 090-90										
	ICD 090-60										
YTEI 100S	IB 100 R	10	10	92	12	65	7.86	5.0	-	M2.5	M2.5
	IB 100 HR										
	IE 100										
	ICD 100-90										
	ICD 100-60										
YTEI 110S	IB 110 R	11	12	99	16	68	8.51	5.5	-	M2.5	M2.5
	IB 110 HR										
	IE 110										
	ICD 110-90										
	ICD 110-60										
YTEI 120S	IB 120 R	12	12	99	16	68	9.16	6.0	-	M3	M3
	IB 120 HR										
	IE 120										
	ICD 120-90										
	ICD 120-60										
YTEI 130S	IB 130 R	13	16	98	15	68	9.80	6.5	-	M3	M3
	IB 130 HR										
	IE 130										
	ICD 130-90										
	ICD 130-60										
YTEI 140S	IB 140 R	14	16	98	15	68	10.43	7.0	-	M3	M3
	IB 140 HR										
	IE 140										
	ICD 140-90										
	ICD 140-60										
YTEI 150S	IB 150 R	15	16	109	19	75	11.49	7.5	-	M3	M3
	IB 150 HR										
	IE 150										
	ICD 150-90										
	ICD 150-60										
YTEI 160S	IB 160 R	16	16	108	18	75	12.13	8.0	-	M4	M3
	IB 160 HR										
	IE 160										
	ICD 160-90										
	ICD 160-60										
YTEI 170S	IB 170 R	17	16	107	17	70	12.77	8.5	-	M4	M3
	IB 170 HR										
	IE 170										
	ICD 170-90										
	ICD 170-60										
YTEI 180S	IB 180 R	18	16	106	21	70	13.82	9.0	-	M4	M3
	IB 180 HR										
	IE 180										
	ICD 180-90										
	ICD 180-60										
YTEI 190S	IB 190 R	19	16	106	21	70	14.46	9.5	-	M5	M3
	IB 190 HR										
	IE 190										
	ICD 190-90										
	ICD 190-60										
YTEI 200S	IB 200 R	20	16	105	20	70	15.10	10.0	-	M5	M3
	IB 200 HR										
	IE 200										
	ICD 200-90										
	ICD 200-60										
YTEI 250S	IB 250 R	25	16	141	21	105	18.71	12.5	-	M6	M4
	IB 250 HR										
	IE 250										
	ICD 250-90										
	ICD 250-60										
YTEI 300S	IB 300 R	30	16	137	32	90	22.74	15.0	-	M8	M5
	IB 300 HR										
	IE 300										
	ICD 300-90										
	ICD 300-60										
YTEI 320S	IB 320 R	32	16	136	31	90	24.01	16.0	-	M8	M6
	IB 320 HR										
	IE 320										
	ICD 320-90										
	ICD 320-60										

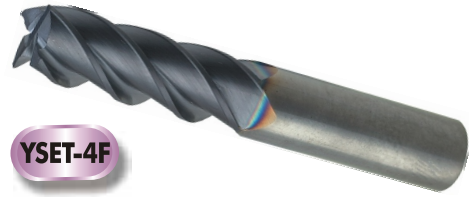


This body dimension is similar to conventional solid end mill. Same insert can be fit for both long & short body

Carbide End Mills and Cutters

Carbide End Mills and Cutters

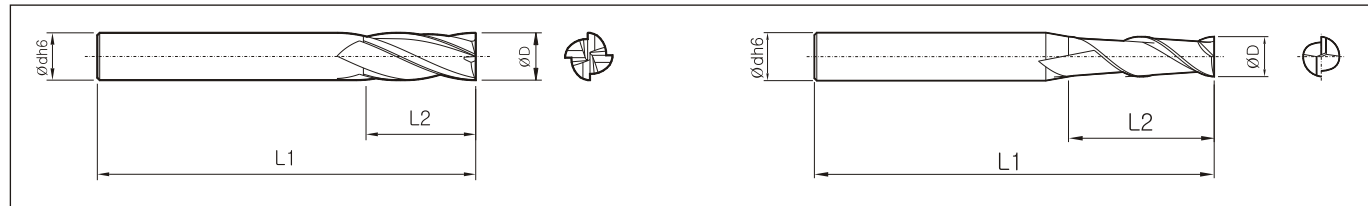
Solid Carbide End Mills



YSET-4F



YSET-2F



Model : YSET, YSEL

- Standard length(YSET) & Long length(YSEL)
- Extra fine Micro grain carbide, PVD TiAlN coated to provide strength, lubricity, wear resistance and freer cutting action.
- 30° regular helix spiral, square end, 2 & 4 flutes configuration
- Suitable for high performance and high productivity machining
- Applicable to wide range materials

* Ordering : Please mark number of flutes in the square blank .

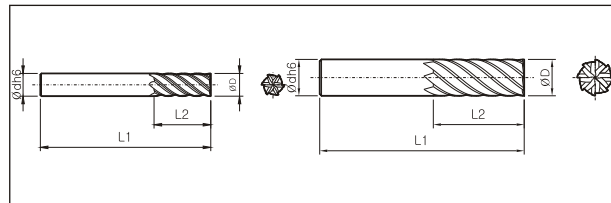
(unit : mm)

Code No.	ΦD	Φd	L1	L2	Available flutes	
* Standard Length 2F, 4F						
YSET 2020	2.0	6.0	40	6	2	
YSET 2025	2.5			8		
YSET 2030	3.0		45	10		
YSET 2040	4.0			12		
YSET □050	5.0	8.0	50	15	2, 4	
YSET □060	6.0			60	20	2
YSET 2070	7.0		70		25	2, 4
YSET □080	8.0			30	2	
YSET 2090	9.0	10.0	75	35	2, 4	
YSET □100	10.0			40	2	
YSET 2110	11.0		80	80	45	2, 4
YSET □120	12.0				55	2
YSET □140	14.0	16.0	90	60	2, 4	
YSET □150	15.0			70		40
YSET □160	16.0		100	80		45
YSET □180	18.0			90		60
YSET □200	20.0	20.0	105	70	4	
* Long Length 2F, 4F						
YSEL 2060	6.0	6.0	70	30	2	
YSEL 2080	8.0	8.0	80	35	4	
YSEL 4100	10.0	10.0	108	40		
YSEL 4120	12.0	12.0		45		
YSEL 4160	16.0	16.0	120	55		
YSEL 4200	20.0	20.0		60		
YSEL 4250	25.0	25.0		70		

Carbide High Helix End Mills



YSET/HH



Model : YSET, Multi-flutes

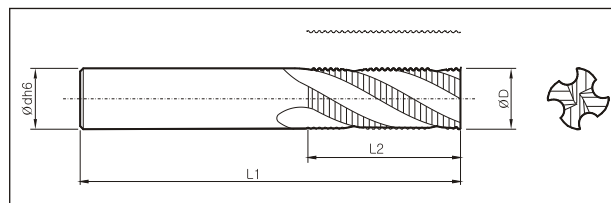
- Standard length, High helix 40°, multi-flutes 6F & 8F configuration
- Extra fine Micro grain carbide, PVD TiAlN coated to provide strength, lubricity, wear resistance and freer cutting action.
- Finish milling operation
- Suitable for high performance and high productivity machining
- Applicable to wide range of material up to HRc60

Code No.	D	d	L1	L2	Number of flute
YSET 6060	6.0	6.0	50	15	6
YSET 6080	8.0	8.0	60	20	
YSET 6100	10.0	10.0	70	25	
YSET 6120	12.0	12.0	75	30	
YSET 6140	14.0	16.0	80	35	8
YSET 8160	16.0		90	40	
YSET 8200	20.0	20.0	105	45	
YSET 8250	25.0	25.0	130	50	
YSET 8320	32.0	32.0	150	65	

Carbide Roughing End Mills



YSER



Model : YSER

- Standard length, Regular helix 30°, 3, 4, 6 flute configuration
- Extra fine Micro grain carbide, PVD TiAlN coated to provide strength, lubricity, wear resistance and freer cutting action.
- Strongest cutting edge and smooth operation
- Applicable high feed rate in shoulder milling and slotting operation

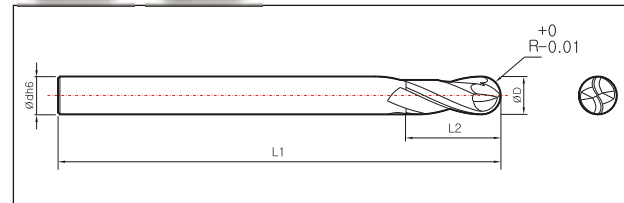
Code No.	D	d	L1	L2	Number of flute
YSER 3060	6.0	6.0	50	15	3
YSER 3080	8.0	8.0	60	20	
YSER 3100	10.0	10.0	70	25	
YSER 4120	12.0	12.0	75	30	4
YSER 4140	14.0	16.0	80	35	
YSER 4160	16.0		90	40	
YSER 6200	20.0	20.0	105	45	6
YSER 6250	25.0	25.0	130	50	

Carbide Ball End Mills



YSEB

YSEBL



Model : YSEB, YSEBL

- Ball nose End Mill, Standard length(YSEB) & Long/Extra Long length(YSEBL)
- Extra fine Micro grain carbide, PVD TiAlN coated to Provide Strength, lubricity, wear resistance and freer cutting action
- 30° regular helix spiral, 2 flutes configuration
- Special geometry with eccentric cutting edge, high tolerance radius +0~0.01 mm
- Applicable to wide range of material up to HRc60
- Suitable for high performance and high productivity machining

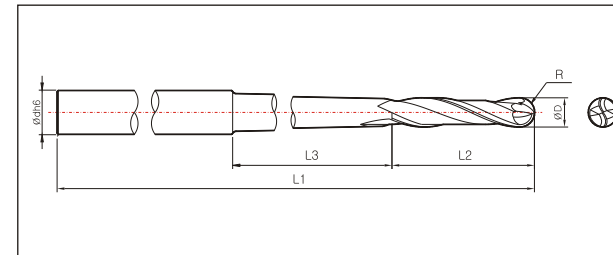
(unit : mm)

Code No.	D	R	d	L1	L2
* Standard Length					
YSEB 1.0R	2.0	1.0	6	60	5
YSEB 1.5R	3.0	1.5			7
YSEB 2.0R	4.0	2.0			8
YSEB 2.5R	5.0	2.5			10
YSEB 3.0R	6.0	3.0	8	80	16
YSEB 3.5R	7.0	3.5			18
YSEB 4.0R	8.0	4.0	10	90	20
YSEB 4.5R	9.0	4.5			22
YSEB 5.0R	10.0	5.0	16	100	25
YSEB 6.0R	12.0	6.0			30
YSEB 7.0R	14.0	7.0	120	108	32
YSEB 8.0R	16.0	8.0			35
YSEB 10.0R	20.0	10.0	160	120	40
YSEB 12.5R	25.0	12.5			50
YSEB 16.0R	32.0	16.0	32	160	60
* Long/Extra long Length					
YSEBL 3.0R110	6.0	3.0	6	110	20
YSEBL 3.0R160				160	25
YSEBL 4.0R160	8.0	4.0	8	160	30
YSEBL 4.0R200				200	35
YSEBL 5.0R160	10.0	5.0	10	160	40
YSEBL 5.0R200				200	45
YSEBL 6.0R160	12.0	6.0	12	160	50
YSEBL 6.0R200				200	55
YSEBL 8.0R160	16.0	8.0	16	160	60
YSEBL 8.0R200				200	65
YSEBL 10.0R160	20.0	10.0	20	160	70
YSEBL 10.0R200				200	75
YSEBL 12.5R200	25.0	12.5	25	200	85
YSEBL 16.0R200	32.0	16.0	32		95

Carbide Long Ball End Mills For graphite



YSEBG



Model : YSEBG

- Ball nose End Mill, Long length exclusively used for Graphite material
- Extra fine Micro grain carbide, PVD TiAlN coated to provide strength, lubricity, wear resistance and freer cutting action.
- 30° regular helix spiral, 2 flutes configuration
- Special geometry with eccentric cutting edge, high tolerance radius +0-0.01mm
- Suitable for high performance and high productivity machining
- High strength TRS 4,300N/mm

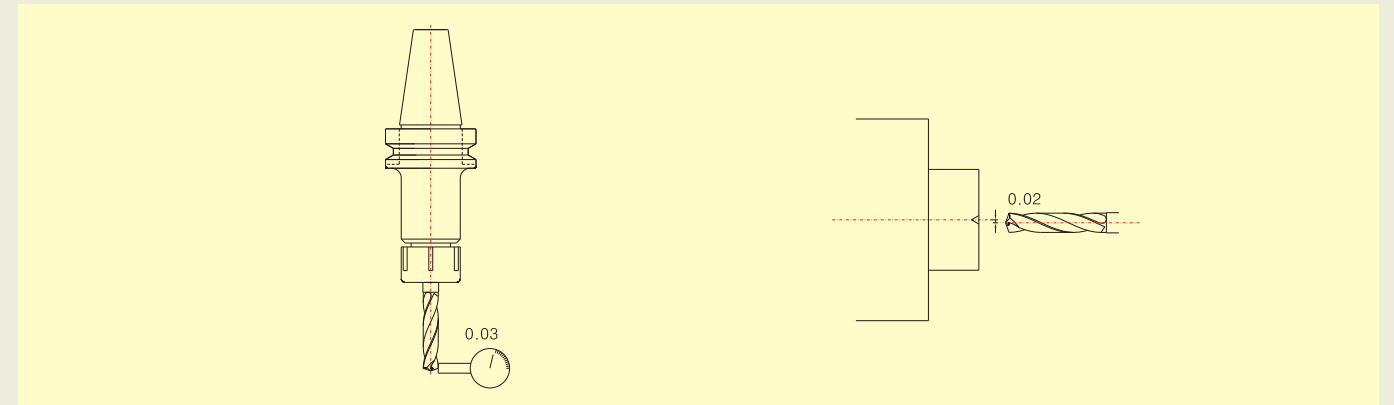
(unit : mm)

Code No.	D	R	d	L1	L2	L3
YSEBG 1.0R160	2.0	1.0	6.0	160	6	95
YSEBG 1.5R160	3.0	1.5	6.0		8	80
YSEBG 2.0R160	4.0	2.0	8.0		10	85
YSEBG 3.0R160	6.0	3.0	10.0		20	80
YSEBG 3.0R200	6.0	3.0	10.0	200	30	70
YSEBG 4.0R160				160		
YSEBG 4.0R200	8.0	4.0	12.0	200	40	55
YSEBG 5.0R160				160		
YSEBG 5.0R200	10.0	5.0	12.0	200	50	50
YSEBG 6.0R160				160		
YSEBG 6.0R200	12.0	6.0	16.0	200	60	80
YSEBG 8.0R200				16.0		

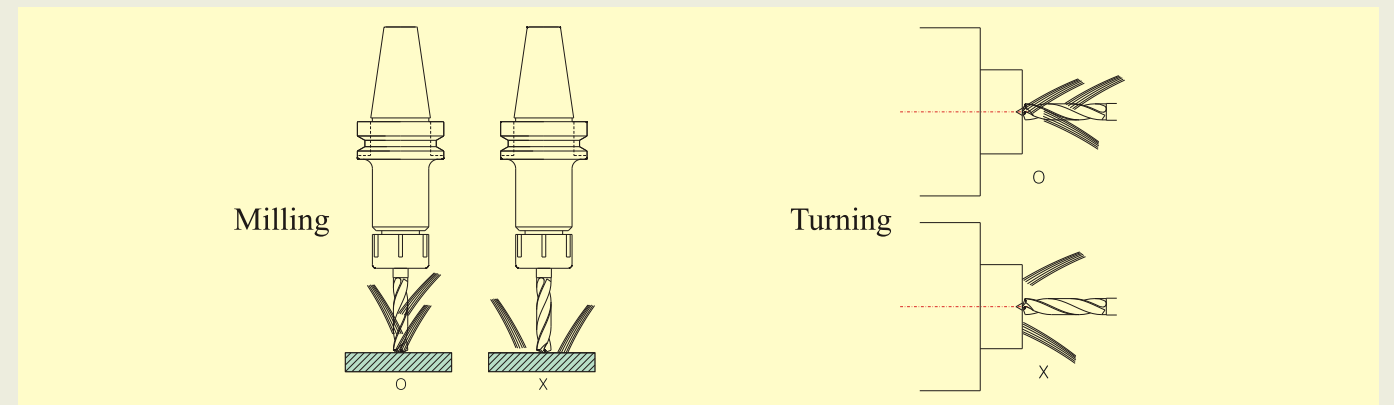
Description	Page
Concentricity	55
Collant supply	55
Cutting Data for YTDI, YTD	56
Cutting Data for YSD, YSDC(D5)	57
Cutting Data for YSET	58
Cutting Data for YSET/HH, YSER	59
Speed Formula	60
Drilling for Stacked Plate	60
Chip Formation	60
Speed examples	61
Maximum Wear	61
Power Requirement	62
Trouble Shooting	63
Resharpener Guide	64
Test Report Form English	66
Test Report Form Korean	67

Concentricity

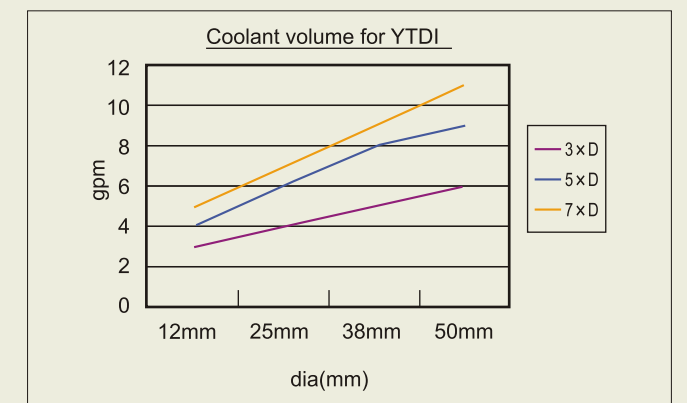
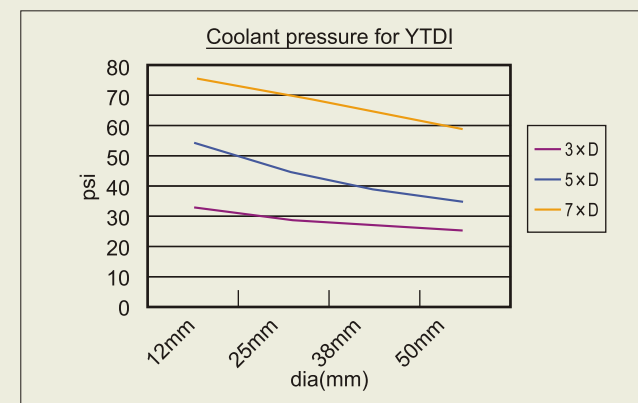
- To achieve the tolerance required or eliminate trouble, total run out between the center line of tool and workpiece must not exceed the below value.



External coolant supply



Internal Coolant supply



Coolant Pressure(psi) for YTDI drill

	12mm	25mm	38mm	50mm
3xD	33	29	27	25
5xD	54	45	39	35
7xD	75	70	64	59

Coolant Volume(gpm) for YTDI drill

	12mm	25mm	38mm	50mm
3xD	3	4	5	6
5xD	4	6	8	9
7xD	5	7	9	11

Feeds and Speed for starting point only. It is recommended to use these values as a starting point until optimal results are obtained.

YTDI Indexable Drills, Metric

Material Group	Drill Dia.	8~16mm		16~25mm		25~32mm		32~40mm		40~50mm	
		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)		50~70	0.20~0.30	50~70	0.25~0.45	50~80	0.35~0.55	60~90	0.34~0.58	80~100	0.38~0.60
Nodular cast iron (FCD)		40~65	0.15~0.25	40~65	0.22~0.45	45~75	0.32~0.52	50~80	0.35~0.62	70~100	0.38~0.60
Carbon steel (S45C)		55~70	0.15~0.30	55~70	0.16~0.40	60~85	0.20~0.40	70~90	0.22~0.48	75~95	0.25~0.54
Alloy steel (SCM440)		50~75	0.15~0.30	50~75	0.15~0.40	55~80	0.18~0.40	60~90	0.25~0.47	65~95	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)		80~100	0.20~0.30	80~100	0.25~0.40	90~110	0.30~0.45	90~110	0.30~0.45	90~120	0.30~0.50

* The data is recommended for 3xDia. and should be slightly reduced for 5xD & 7xD drills.

YTDI Indexable Drills, Inches

Material Group	Drill Dia.	.3150~.6299		.6299~.9843		.9843~1.2598		1.2598~1.5748		1.5748~1.9685	
		Speed (SFM)	Feed (IPR)	Speed (SFM)	Feed (IPR)	Speed (SFM)	Feed (IPR)	Speed (SFM)	Feed (IPR)	Speed (SFM)	Feed (IPR)
Grey cast iron (FC)		160~230	0.008~0.012	160~230	0.010~0.018	160~260	0.014~0.022	200~300	0.013~0.023	260~330	0.015~0.024
Nodular cast iron (FCD)		130~210	0.006~0.010	130~210	0.009~0.018	150~240	0.013~0.021	160~260	0.014~0.025	230~330	0.015~0.024
Carbon steel (S45C)		180~230	0.006~0.012	180~230	0.006~0.016	200~280	0.008~0.016	230~300	0.009~0.019	240~310	0.010~0.021
Alloy steel (SCM440)		160~240	0.006~0.012	160~240	0.006~0.016	180~260	0.007~0.016	200~300	0.010~0.009	210~310	0.011~0.021
Hardened steel (SKD11)		130~160	0.004~0.008	130~160	0.005~0.011	130~160	0.006~0.014	130~200	0.008~0.015	130~200	0.009~0.017
Stainless steel (SUS)		100~130	0.004~0.008	110~160	0.004~0.009	110~160	0.006~0.011	130~160	0.007~0.012	130~180	0.009~0.013
Aluminum 130HB (AL)		260~330	0.008~0.01	260~330	0.010~0.016	300~360	0.012~0.018	300~360	0.012~0.018	300~390	0.012~0.020

YTD Carbide Brazed Tipped Drills, Metric

Material Group	Drill Dia.	13.5~15.0mm		~20.0mm		~41.5mm	
		Speed (m/min)	Feed (mm/rev)	Speed (m/min)	Feed (mm/rev)	Speed (m/min)	Feed (mm/rev)
Grey cast iron (FC)		50~80	0.20~0.35	50~80	0.20~0.40	50~80	0.25~0.50
Nodular cast iron (FCD)		50~70	0.20~0.35	50~70	0.20~0.40	50~70	0.25~0.50
Carbon steel (S45C)		40~65	0.15~0.30	40~65	0.20~0.40	40~65	0.20~0.45
Alloy steel (SCM440)		40~60	0.10~0.25	40~60	0.15~0.35	40~60	0.20~0.40
Hardened steel (SKD11)		30~40	0.10~0.25	30~40	0.15~0.30	30~40	0.20~0.35
Stainless steel (SUS)		30~40	0.10~0.20	30~40	0.15~0.25	30~40	0.20~0.30

YSD Solid Carbide Drills

Material Group	Drill Dia.	3~5mm		5~8mm		8~10mm		10~12mm		12~14mm		14~20mm	
		Speed	Feed	Speed	Feed	Speed	Feed	Speed	Feed	Speed	Feed	Speed	Feed
Grey cast iron (FC)		80~85	0.1~0.25	80~90	0.2~0.3	85~95	0.2~0.35	90~95	0.2~0.4	90~100	0.2~0.4	95~100	0.2~0.5
Nodular cast iron (FCD)		80~85	0.1~0.25	80~85	0.2~0.3	80~85	0.2~0.35	80~90	0.2~0.4	80~90	0.2~0.4	80~90	0.2~0.5
Carbon steel (S45C)		60~65	0.1~0.2	65~70	0.15~0.25	70~75	0.15~0.25	70~80	0.2~0.3	70~80	0.25~0.3	75~80	0.3~0.4
Alloy steel (SCM440)		50~55	0.1~0.25	55~60	0.15~0.25	60~65	0.15~0.3	60~70	0.2~0.35	65~70	0.25~0.35	65~70	0.3~0.45
Hardened steel (SKD11)		25~30	0.06~0.12	25~30	0.1~0.15	30~35	0.1~0.2	30~35	0.1~0.25	30~35	0.1~0.25	30~35	0.1~0.25
Stainless steel (SUS)		20~25	0.05~0.1	20~25	0.1~0.15	25~30	0.1~0.2	25~30	0.1~0.25	25~30	0.1~0.25	25~30	0.1~0.25

YSDC(D5) Solid Coolant Hole Drills

Materials	speed (V) (m/min)	Feed rate in dia.				
		3~8mm	8~12mm	12~16mm	16~20mm	
Unalloyed steel	Carbon < 0.25%	80~100	0.1~0.2	0.15~0.25	0.2~0.4	0.25~0.5
	Carbon : 0.25~0.55%	80~100	0.1~0.2	0.15~0.25	0.2~0.4	0.25~0.5
	High Carbon & Carbon tool steel	80~100	0.1~0.2	0.15~0.25	0.2~0.4	0.25~0.5
Low alloyed steel	Non hardened HB 150~260	70~100	0.1~0.2	0.2~0.3	0.2~0.35	0.25~0.4
High alloyed steel	Annealed HSS HB 150~270	40~70	0.08~0.15	0.12~0.22	0.2~0.4	0.25~0.4
Stainless steel	Austenitic Ni>8%, C=18~25%	35~50	0.08~0.15	0.12~0.25	0.15~0.3	0.2~0.35
Malleable cast iron	Ferritic	80~100	0.15~0.3	0.25~0.35	0.3~0.4	0.3~0.45
	Pearlitic	70~90	0.1~0.25	0.2~0.4	0.25~0.4	0.25~0.5
Grey cast iron	Low tensile strength	80~100	0.1~0.25	0.25~0.35	0.3~0.45	0.35~0.55
	High tensile strength	70~90	0.1~0.22	0.2~0.33	0.3~0.4	0.35~0.5



Note

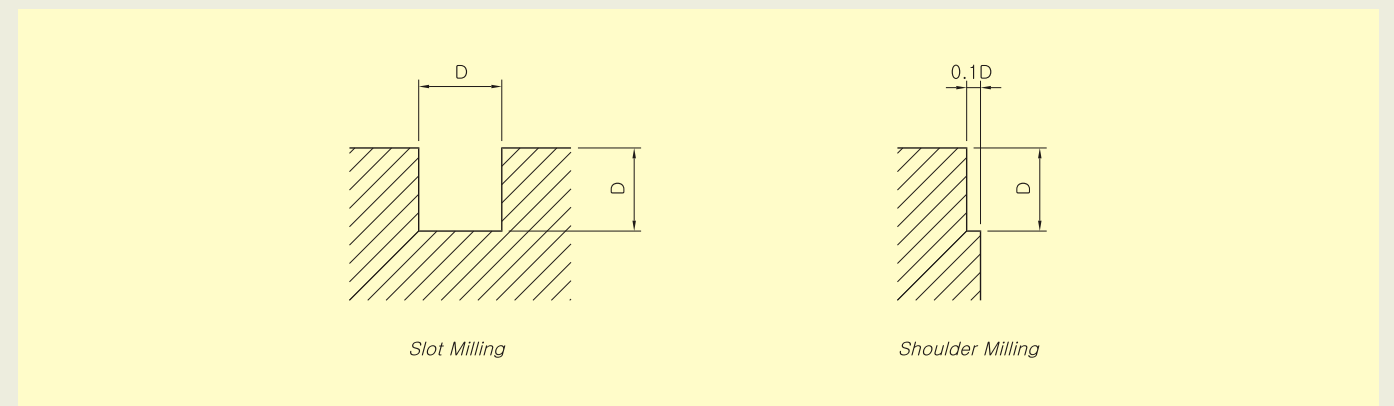
1. YES Carbide drill is not recommended to operate in low powered equipment.
2. Check spindle, machine and fixture rigidity before operation.
3. Make sure that coincide drill point with the center of material when lathe operation.
4. Feed enough cutting fluids.

YSET Carbide End Mills

Material		Carbon steel (S50C) (Speed = 40m/min)			Alloy steel (SCM, SKD, SUS) (Speed = 30m/min)		
Diameter (mm)	Condition Flutes	rpm	Feed(mm/min)		rpm	Feed(mm/min)	
			Slot	Shoulder		Slot	Shoulder
2.0	2	5,600	80	200	4,800	60	150
2.5	2	4,500	80	200	3,800	60	150
3.0	2	3,700	80	200	3,200	60	150
4.0	2	2,800	80	200	2,400	60	150
5.0	2	2,200	80	200	1,900	60	150
	4		-	300		-	230
6.0	2	1,900	80	200	1,600	60	150
	4		-	300		-	230
7.0	2	1,600	80	200	1,400	60	150
8.0	2	1,400	80	200	1,200	60	150
	4		-	300		-	230
9.0	2	1,200	80	200	1,100	60	150
10.0	2	1,100	80	200	950	60	150
	4		-	300		-	230
11.0	2	1,000	80	200	870	60	150
12.0	2	930	80	200	800	60	150
	4		-	300		-	230
14.0	2	800	80	200	680	60	150
	4		-	300		-	230
15.0	2	750	80	200	640	60	150
	4		-	300		-	230
16.0	2	700	80	200	600	60	150
	4		-	300		-	230
18.0	2	620	80	200	530	60	150
	4		-	300		-	230
20.0	2	560	80	200	480	60	150
	4		-	300		-	230

YSET Carbide Roughing End Mills

Material		Carbon steel (S50C) (Speed = 40m/min)		Alloy steel (SCM, SKD, SUS) (Speed = 30m/min)			
Diameter	Condition	rpm	Feed(mm/min)		rpm	Feed(mm/min)	
			Slot	Shoulder		Slot	Shoulder
6		2100	120	300	1600	100	250
8		1600	120	300	1200	100	250
10		1300	120	300	950	100	250
12		1100	120	300	800	100	250
14		900	120	300	680	100	250
16		800	120	300	600	100	250
20		640	100	250	480	80	200
25		510	100	250	380	80	200



YSET/HH Carbide High Helix End Mills

Material		HRC 55 v=25m/min		HRC 60 v=20m/min		HRC 65 v=15m/min		HRC 70 v=12m/min	
Diameter	Condition	rpm	Feed	rpm	Feed	rpm	Feed	rpm	Feed
		6		1300	200	1100	160	800	120
8		1000	200	800	160	600	120	480	100
10		800	200	640	160	480	120	380	100
12		600	200	530	160	400	120	320	100
16		500	200	400	160	300	120	240	100
20		400	200	320	160	240	120	200	100
25		320	200	250	160	190	120	150	100
32		270	200	210	160	160	120	130	100

Speed formula, Drilling of stacked plate, Chip formation

Major Cutting speed formula

Cutting Speed

$$V = \frac{\pi \times D \times N}{1000} \text{ (m/min)}$$

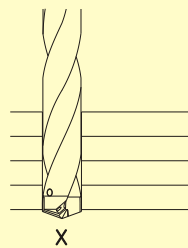
- V : Cutting speed (m/min)
- D : Drill diameter (mm)
- N : Revolution per minute (rpm)
- π : Circular constant (3.14)

Feed

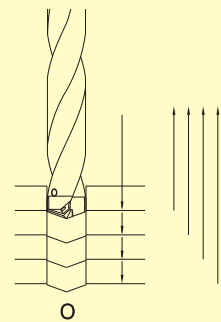
$$f = \frac{F}{N} \text{ (mm/rev)}$$

- f : Feed rate (mm/rev)
- F : Depth of cut per minute (mm/min)
- N : Revolution per minute (rpm)

Recommended application for stacked plate by Yes Carbide Drills

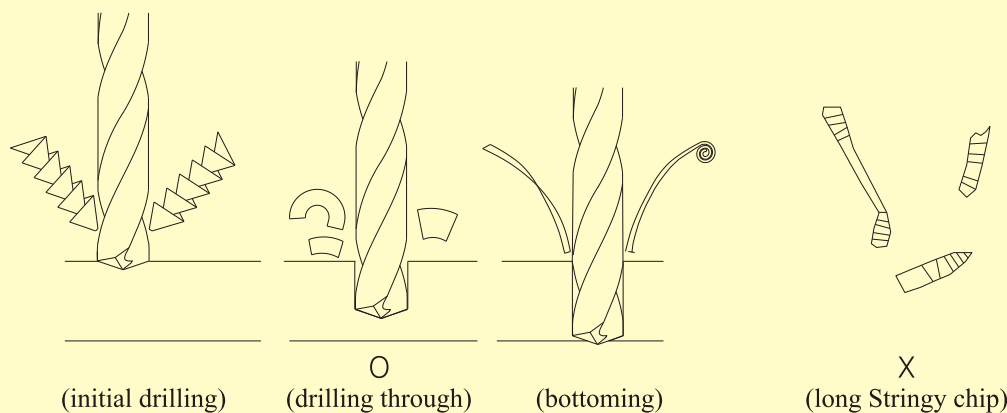


One operation is possible subject to closely tightend stacked plate without any room.



"Woodpecker" method recommended in case of certain aperture in the stacked plate.

Good chip formation



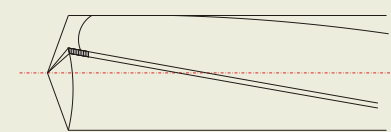
Speed Examples, Maximum Wear

Cutting speed examples for different workpieces by Yes Carbide drills

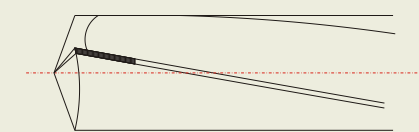
<p>Φ13 x depth10mm</p>	<p>FCD45 YCD130 N=1592rpm V=65m/min F=318mm/min f=0.2mm/rev</p>	<p>Φ20 x depth70mm</p>	<p>S50C YTDI200P N=876rpm V=55m/min F=263mm/min f=0.3mm/rev</p>
<p>Φ24 x depth 63mm</p>	<p>SS41 YTDI240T N=796rpm V=60m/min F=239mm/min f=0.3mm/rev</p>	<p>Φ12 x depth 12mm</p>	<p>SCM440 YSD120 N=1194rpm V=45m/min F=179mm/min f=0.15mm/rev</p>
<p>Φ10 x depth 15mm</p>	<p>SUS304 YSDC100 N=1115rpm V=35m/min F=112mm/min f=0.1mm/rev</p>	<p>Φ15xdepth8mm</p>	<p>FC25 YTD150 N=1592rpm V=75m/min F=557mm/min f=0.35mm/rev</p>

How to find maximum wear

1. When long and stringy chip formation without broken chip, require to change new tool or regrinding
2. Below pictures show the time of regrinding



Need to change new tool or regrinding



Excessive wear

Power requirement for YES Carbide Drills

$$\text{Power}(P) = \frac{D \times f \times V \times ks}{24,480 \times 0.7} \text{ (kw)}$$

D = drill diameter (mm)

f = feed (mm/rev)

V = cutting speed (mm/min)

ks = specific cutting force (kg/mm)

γ = constants of performance(0.7~0.85)

ex)

$$\text{Power}(P) = \frac{11.5 \times 0.2 \times 60 \times 230}{24,480 \times 0.7} = 1.852\text{kw}$$

Specific cutting force (ks)

Material	Condition	HB	ks(kg/mm)	
Steel	Unalloyed steel	C = 0.15%	100~150	
		C = 0.35%	120~180	
		C = 0.60%	200~250	
	Low alloy steel	Non hardened	120~200	215
		Hardened & Tempered	250~300	265
		Hardened & Tempered	300~350	290
	High alloy steel	Annealed	150~250	265
		Hardened	300~350	290
	Stainless steel	Martensitic/ ferritic	175~225	235
		Austenitic	150~200	250
	Steel casting	Unalloyed	150~200	205
		Low alloyed	175~225	255
High alloyed		200~250	275	
Hard steel	Hardened steel	HRc 55	460	
Cast iron	Grey casting iron	Low tensile strength	150~225	
		High tensile strength	200~300	
	Malleable cast iron		110~250	
	Nodular cast iron	Ferritic	125~200	
		Pearlitic	200~300	
Chilled cast iron		350~450		
Non ferrous	Aluminium alloys	Non heat treatable	40~80	
		Heat treatable	80~120	
	Aluminium alloys,Cast	Non heat treatable	50~100	
		Heat treatable	65~115	
	Copper alloys	Brass	65~115	
Bronze		75~115		

Problem	Cause	Remedy	
Cutting edge wear	Flank wear	Excessive cutting speed	Reduce cutting speed
	Edge chipping	Vibration or chattering in machine tool, holder or component	Check and adjust machine and tool alignment
		Deflection of tool, part, fixture or machine	Check all rigidity
		Excessive cutting speed	Reduce cutting speed
		Off center set up	Check concentricity not to exceed 0.02mm TIR
	Corner chipping	Excessive cutting speed	Reduce cutting speed
		Insufficient coolant supply	Increase coolant pressure
	Built up edge	Insufficient cutting speed	Increase cutting speed
		Insufficient coolant supply	Increase coolant pressure
		Worn cutting edge	Regrind or replace new drill
	Margin	Improper seating of tool	Check and adjust machine spindle, and fixture
		Rough or angled entry/exit of hole	Reduce feed
		Chip clogging or jamming	Increase coolant pressure and adjust feed to optimize chip-formation
		Insufficient coolant supply	Increase coolant pressure
		Excessive cutting speed	Reduce cutting speed
Long stringy chips	Improper speed and feed	Adjust speed and feed	
Tool life too short	Flank wear increase too fast	Reduce cutting speed	
Drill breakage	Off center set up	Check set up rigidity of machine, tool, and fixture	
	Improper cutting condition	Check cutting parameters, possibly reduce feed	
Burrs on exit	Excessive axial force	Reduce the width of edge preparation	
Oversize hole	Improper cutting condition	Check cutting data, increase cutting speed	
	Clamping chuck	Check fit and clamping of tool	
Undersize hole	Tool cooling	Check coolant fluid	
	Improper cutting condition	Reduce cutting speed, increase feed	

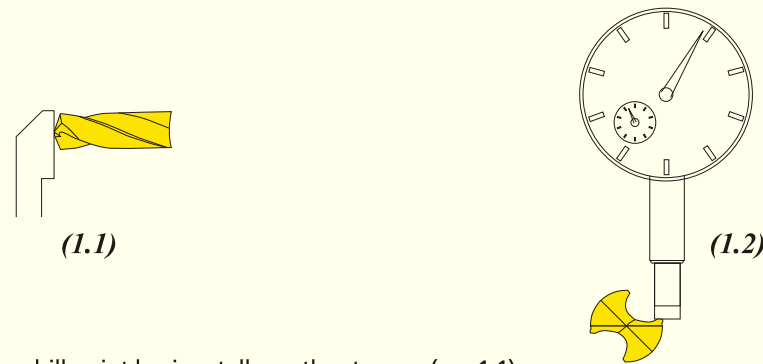
Resharpener Guide for YES Carbide Drills

Yes brand Carbide drill can be reshaped by CNC 5 axis machine or Universal tool grinder with our own special attachment. The below procedure is to regrind by Universal tool grinder, while follow "S" point program in case of CNC machine.

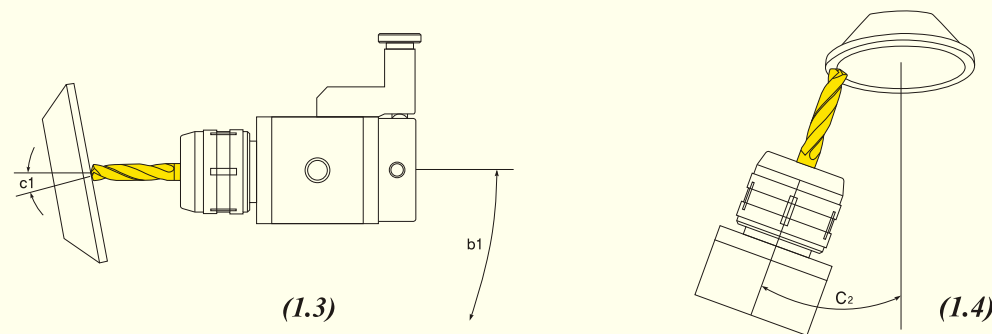
Removal of worn section

Remove all of the worn or chipped section before regrinding.

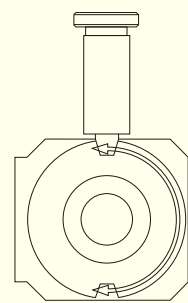
Regrinding drill point



1. Put the drill point horizontally on the stopper.(see 1.1)
2. Set dial gauge on <a> and turn the drill to coincide central line of point. Then, tighten the collect chuck securely.(see 1.2)

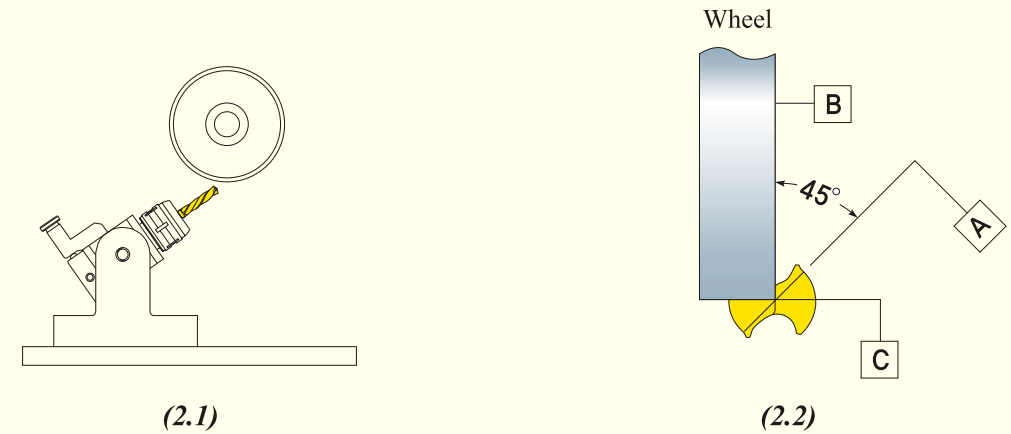


3. Set the cutting edge toward grinding wheel to the point angle <c1, 8 > as shown (1.3). Then, keep the angle <c2, 20 > as shown (1.4).
4. Grind the flank up and down repeatedly as shown <b1>.

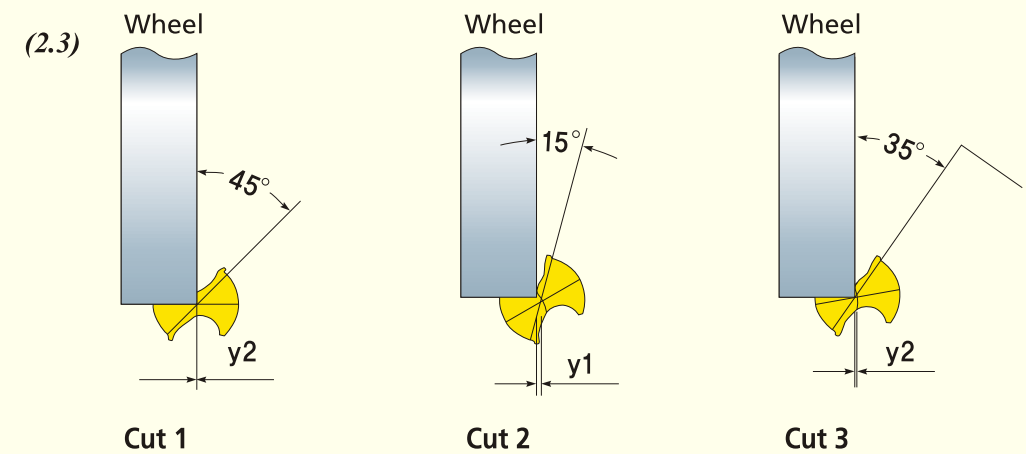


5. Move forward the grinding wheel and grind the cutting lips, after keeping the attachment horizontally.
6. Rotate the attachment at 180° toward <c3> and grind other cutting edge by the same procedure as NO.4, 5.(see 1.5) Make sure that both cutting lips should be equal or symmetrical.

Web thinning



1. Set the drill at 30 or 35° in the drill attachment.(see 2.1) (In case of drill for AL, FC material, keep 30°, while others at 35°)
2. Align the "B" face of wheel at center line of drill.(see 2.2)
3. Set the "B" face of wheel at 45° from central line of the drill.



4. Grind as procedure <cut 1>, <cut 2>, <cut3>.(see 2.3)
5. Rotate the attachment at 180° and grind other facet by NO.4 procedure. Note that the shape of the thinning should be such that it does not interfere with chip flow.



Note
If you have any difficulty to regrind in your shop, you may use our factory expert service which is being serviced at reasonable cost in one week returning delivery Contact ours.

Test Report Form

Yes® YESTOOL Co., Ltd.

• ADD : 604B-23L, 642-8 Sungkog-dong, Ansan, Kyungki-do, Korea
 • TEL : +82-31-493-2387~8 • FAX : +82-31-494-7619
 • e-mail : yestool@kornet.net • URL www.yestool.co.kr

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		

Yes® YESTOOL Co., Ltd.

• 경기도 안산시 성곡동 642-8, 604B-23L, (주)에스툴
 • TEL: 031-493-2387~8 • FAX: 031-494-7619
 • e-mail: yestool@kornet.net • URL: www.yestool.co.kr

회사및공장	전화	일시	담당기사
고객명	전화	가공재질및특성	경도 RC BRN
제품명	내부절삭유공급 외부절삭유 <input type="checkbox"/> <input type="checkbox"/>	드릴링형태 수평형 <input type="checkbox"/> 수직형 <input type="checkbox"/>	
기계명	절삭유 제품명	절삭유압력 PSI	절삭유량 GPM
기계상태	마력(HP)	출작업사유 탭전드릴 <input type="checkbox"/> 정삭출작업 <input type="checkbox"/> 황삭출작업 <input type="checkbox"/>	
기계의작동			

PERFORMANCE, TECHNICAL, AND COST DATA	YES INDEXABLE DRILL	타사제품
드릴 제조회사		
드릴의 종류 및 직경		
피삭재 고정방법		
ID 인서트형 드릴 또는 솔리드 드릴		
ID 인서트 종류 및 제조원		
황삭가공 경 및 공차		
정삭가공 경 및 공차		
홀 깊이 막힌홀 관통홀		
회전수(rpm)		
절삭 속도 V (m/분)		
이송량 f (mm/rev)		
분당 이송량 F (mm/분)		
홀당 가공시간(분)		
칩형성 모양		
홀거 칠기		
드릴당 가공 홀 수		
드릴당 가공 거리(수명)		
드릴의 교체 사유		
드릴당 ID 인서트 교체수량		
INDEXES PER INSERT		
ID 인서트 비용		
드릴의 재연마 계획		
재연마 재코팅 비용		
시간당 기계 비용		
제품당 소요되는 홀의 수		
연간 제품 소요량		

Technical Data

Technical Data