

Your Metal Cutting Solution by

YC-2002

# Yes Carbide Cutting Tools

**Yes**™ YESTOOL Co., Ltd.



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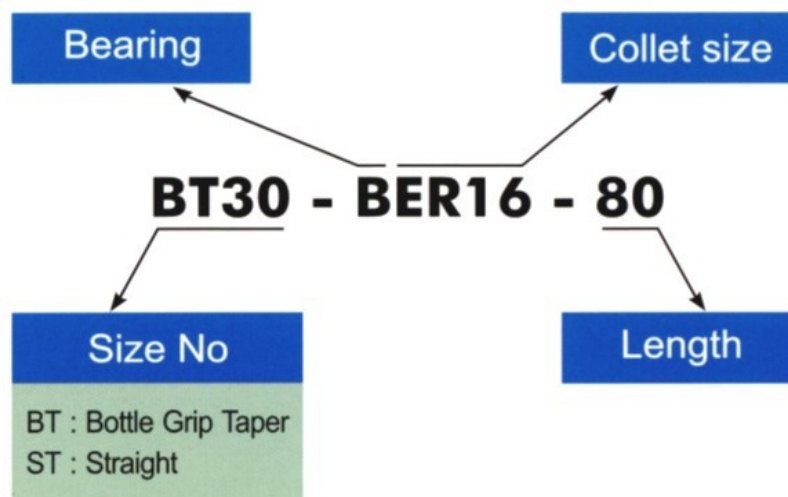
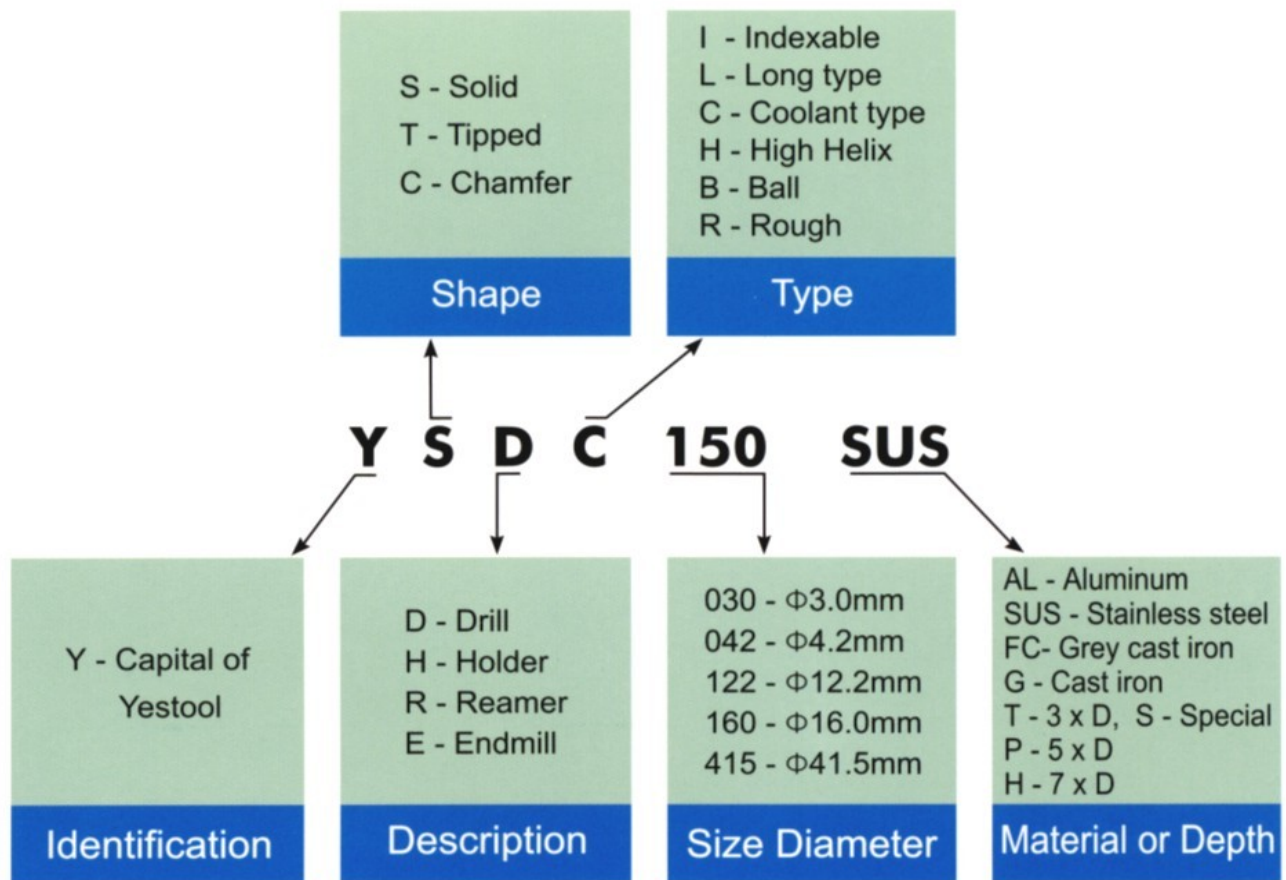
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# Ordering information and identification system





YTDI

ID

Indexable Drill Bodies & Carbide Inserts Patent No. 0171645

New  
YTDI/MT

New  
YTDI/MTC

Indexable Drills with Morse Taper shank

YTD

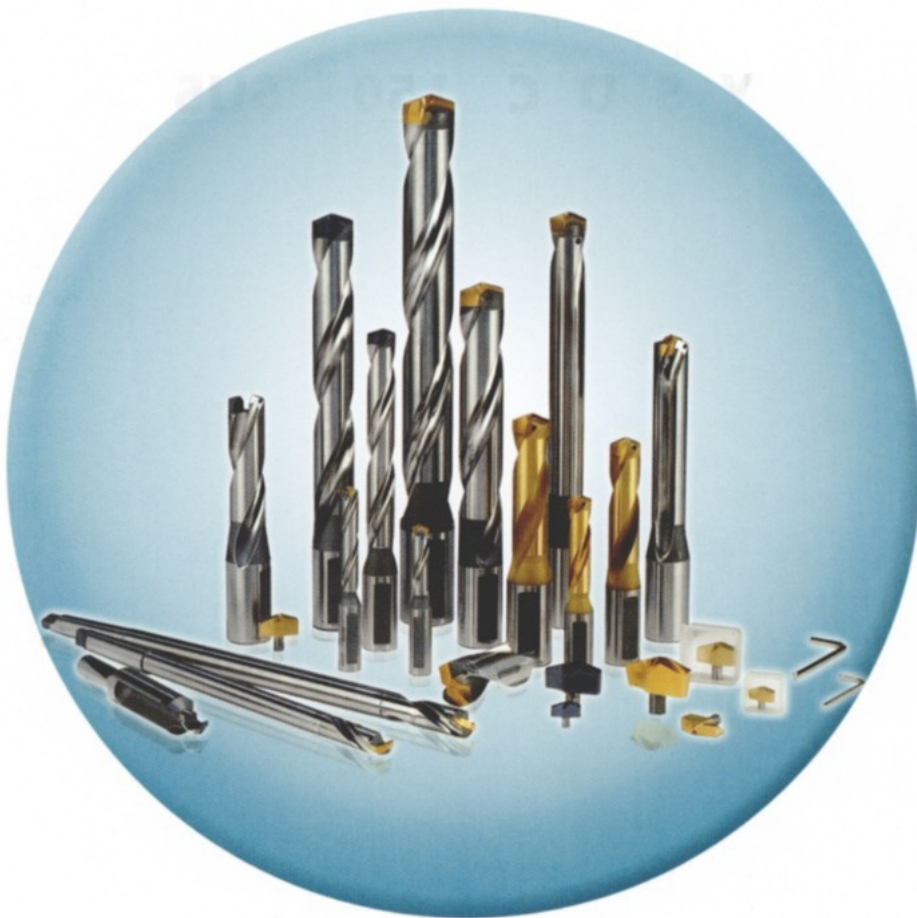
Carbide Brazed Tipped Drills

YTDL

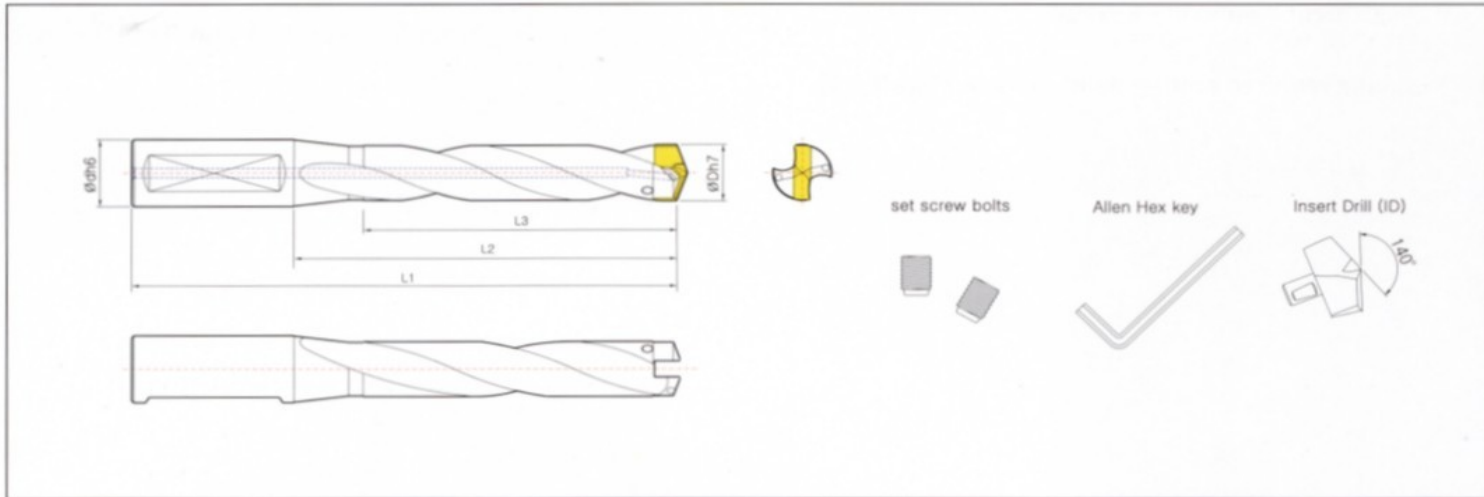
Carbide Brazed Tipped Drills, Long series

*Your Metal Cutting Solution by*

# Yes Carbide Cutting Tools







## Model : YTDI, ID

- New generation of interchangeable carbide drill with own patented design for low cost, superior performance.
- Best solution alternative to Carbide brazed, Spade, Two inserts and HSS drills.
- Yes Indexable Drill line is the only one in the industry that offers the widest variety 8.0 to 50mm, 3xD, 5xD, 7xD and even special extra-length.
- Easily replaceable single carbide insert which can be replaced without removing drill body from the machine.
- Economically 5 different ID insert applicable in one YTDI body.
- YTDI body consists of wear-resistant tool steel for an extremely long life and bright finish to smooth chip flow.
- Internal coolant supply to improve chip evacuation and minimize cutting heat enabling increased cutting speeds.
- ID insert has special Yes self-centering 140° point geometry to provide good chip formation, high performance, close hole tolerance and eliminate center drilling/reaming partially.
- Ultra micro-grain Carbide and available 3 different PVD coated(Standard TiN, TiCN, TiAlN) single ID insert.

## Available Carbide ID Insert Grades & Coatings

TiN Coated (standard stock)	A PVD Titanium Nitride coated grade primarily designed for cutting Carbon Steel, Alloy Steel, PH Stainless, and Ductile Iron. The perfect balance of a 13% cobalt ultra-fine micro grain unalloyed substrate and a tough high hardness PVD coating delivers good wear characteristics.
TiCN Coated	A PVD Titanium Carbonitride coated grade primarily designed for machining where low coolant volume encountered to guard against thermal stress ideal for cutting Carbon Steel, Alloy Steel, and some Stainless Steel. A strong 13% cobalt ultra-fine micro grain unalloyed substrate for strength.
TiAlN Coated	A PVD Titanium Aluminum Nitride coated grade with an ultra-fine micro grain 13% cobalt unalloyed substrate. Provides great edge strength, low thermal conductivity in higher temperature cutting conditions, and excellent oxidation resistance for machining Cast Iron, Stainless Steel, Nickel base high temperature alloys and Titanium alloys.

\* Unless specified coating, TiN coated ID is supplied as standard.





### Model : YTDI, ID

- Indexable body is supplied with standard 3xD(T), 5xD(P), 7xD(H) accordingly effective cutting depth.
- Special flute length and extra long length available on request. (Call your distributor.)
- Standard YTDI body in cylindrical with flat shank unless specified DIN 6535 HE whistle notch(2°).
- ID insert with TiN coated is stocked and TiAlN, TiCN available on request.

**YTDI, ID**

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 4												
YTDI 100		100	52	42	125	77	67	150	102	87	ID100	ID101	ID102	ID103	ID104													
YTDI 105											ID105	ID106	ID107	ID108	ID109													
YTDI 110											ID110	ID111	ID112	ID113	ID114													
YTDI 115	105	57	47	130	82	72	160	112	97	ID115	ID116	ID117	ID118	ID119	M3 x 3													
YTDI 120	16.0	110	62	45	140	92	75	175	127	100	ID120	ID121	ID122	ID123			ID124											
YTDI 125											ID125	ID126	ID127	ID128	ID129													
YTDI 130	16.0	115	67	50	145	97	80	180	132	105	ID130	ID131	ID132	ID133	ID134	M3 x 5	1.5											
YTDI 135											ID135	ID136	ID137	ID138	ID139													
YTDI 140	20.0	125	75	53	148	98	83	185	135	115	ID140	ID141	ID142	ID143	ID144	M3 x 5	1.5											
YTDI 145											ID145	ID146	ID147	ID148	ID149													
YTDI 150											130	80	55	150	100			89	190	140	123	ID150	ID151	ID152	ID153	ID154		
YTDI 155																						ID155	ID156	ID157	ID158	ID159		
YTDI 160																						ID160	ID161	ID162	ID163	ID164		
YTDI 165											130	80	55	160	110			99	200	150	128	ID165	ID166	ID167	ID168	ID169	M3 x 5	1.5
YTDI 170																						ID170	ID171	ID172	ID173	ID174		
YTDI 175											140	90	63	170	120			100	210	160	138	ID175	ID176	ID177	ID178	ID179	M3 x 5	1.5
YTDI 180																						ID180	ID181	ID182	ID183	ID184		
YTDI 185																						ID185	ID186	ID187	ID188	ID189		
YTDI 190	ID190	ID191	ID192	ID193	ID194																							
YTDI 195	25.0	160	104	75	200	144	121	240	184	168	ID195	ID196	ID197	ID198	ID199	M4 x 6	2.0											
YTDI 200											ID200	ID201	ID202	ID203	ID204													
YTDI 205											ID205	ID206	ID207	ID208	ID209													
YTDI 210											ID210	ID211	ID212	ID213	ID214													
YTDI 215											ID215	ID216	ID217	ID218	ID219													
YTDI 220											ID220	ID221	ID222	ID223	ID224													
YTDI 225											ID225	ID226	ID227	ID228	ID229													
YTDI 230											ID230	ID231	ID232	ID233	ID234													
YTDI 235	250	194	178	ID235	ID236	ID237	ID238	ID239	M4 x 8	2.0																		
YTDI 240	32.0	170	110	83	220	160	133	270			210	183	ID240	ID241	ID242	ID243	ID244											
YTDI 245													ID245	ID246	ID247	ID248	ID249											
YTDI 250													ID250	ID251	ID252	ID253	ID254											
YTDI 255									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□											ID265	ID266	ID267	ID268	ID269		
YTDI 270□											ID270	ID271	ID272	ID273	ID274		
YTDI 275□											ID275	ID276	ID277	ID278	ID279		
YTDI 280□		190	130	97	250	190	155	300	240	213	ID280	ID281	ID282	ID283	ID284	M5 x 8	2.5
YTDI 285□											ID285	ID286	ID287	ID288	ID289		
YTDI 290□											ID290	ID291	ID292	ID293	ID294		
YTDI 295□											ID295	ID296	ID297	ID298	ID299		
YTDI 300□		200	140	105	260	200	165	320	260	228	ID300	ID301	ID302	ID303	ID304	M5 x 10	
YTDI 305□											ID305	ID306	ID307	ID308	ID309		
YTDI 310□											ID310	ID311	ID312	ID313	ID314		
YTDI 315□											ID315	ID316	ID317	ID318	ID319		
YTDI 320□		210	150	110	270	210	177	340	280	243	ID320	ID321	ID322	ID323	ID324	M6 x 10	
YTDI 325□											ID325	ID326	ID327	ID328	ID329		
YTDI 330□											ID330	ID331	ID332	ID333	ID334		
YTDI 335□											ID335	ID336	ID337	ID338	ID339		
YTDI 340□	40.0	230	160	118	300	230	188	360	290	258	ID340	ID341	ID342	ID343	ID344	M6 x 12	3.0
YTDI 345□											ID345	ID346	ID347	ID348	ID349		
YTDI 350□											ID350	ID351	ID352	ID353	ID354		
YTDI 355□											ID355	ID356	ID357	ID358	ID359		
YTDI 360□		250	180	125	310	240	199	380	310	273	ID360	ID361	ID362	ID363	ID364		
YTDI 365□											ID365	ID366	ID367	ID368	ID369		
YTDI 370□				ID370	ID371	ID372	ID373	ID374									
YTDI 375□				ID375	ID376	ID377	ID378	ID379									
YTDI 380□		132	320	250	210	400	330	288	ID380	ID381	ID382	ID383	ID384	M8 x 12	4.0		
YTDI 385□									ID385	ID386	ID387	ID388	ID389				
YTDI 390□									ID390	ID391	ID392	ID393	ID394				
YTDI 395□									ID395	ID396	ID397	ID398	ID399				
YTDI 400□		270	200	138	340	270	420	350	303	ID400	ID401	ID402	ID403	ID404			
YTDI 405□										ID405	ID406	ID407	ID408	ID409			
YTDI 410□										ID410	ID411	ID412	ID413	ID414			
YTDI 415□										ID415	ID416	ID417	ID418	ID419			
YTDI 420□	145			318	232	420	350	318	ID420	ID421	ID422	ID423	ID424				
YTDI 425□									ID425	ID426	ID427	ID428	ID429				
YTDI 430□									ID430	ID431	ID432	ID433	ID434				
YTDI 435□									ID435	ID436	ID437	ID438	ID439				
YTDI 440□	280	210	153	370	300	460	390	333	ID440	ID441	ID442	ID443	ID444				
YTDI 445□									ID445	ID446	ID447	ID448	ID449				
YTDI 450□									ID450	ID451	ID452	ID453	ID454				
YTDI 455□									ID455	ID456	ID457	ID458	ID459				
YTDI 460□			160	348	255	460	390	348	ID460	ID461	ID462	ID463	ID464				
YTDI 465□									ID465	ID466	ID467	ID468	ID469				
YTDI 470□									ID470	ID471	ID472	ID473	ID474				
YTDI 475□									ID475	ID476	ID477	ID478	ID479				
YTDI 480□	300	230	167	390	320	265	490	420	363	ID480	ID481	ID482	ID483	ID484			
YTDI 485□										ID485	ID486	ID487	ID488	ID489			
YTDI 490□										ID490	ID491	ID492	ID493	ID494			
YTDI 495□										ID495	ID496	ID497	ID498	ID499			
YTDI 500□										ID500	ID501	ID502	ID503	ID504			





**YTDI, ID**

**Model : YTDI, ID**

- Indexable body is supplied with standard 3xD(T), 5xD(P), 7xD(H) accordingly effective cutting depth.
- Special flute length and extra long length available on request.(Call your distributor.)
- Standard YTDI body in cylindrical with flat shank unless specified DIN 6535 HE whistle notch(2°).
- ID insert with TiN coated is stocked and TiAlN, TiCN available on request.

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 4
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		4.13	2.24	1.85	5.12	3.23	2.83	6.30	4.41	3.82	ID .4134 ~ ID .4330			
YTDI .4331	0.625	4.33	2.44	1.77	5.51	3.62	2.95	6.89	5.00	3.94	ID .4331 ~ ID .4527	M3 x 3		
YTDI .4528		4.53	2.64	1.97	5.71	3.82	3.15	7.09	5.20	4.13	ID .4528 ~ ID .4723			
YTDI .4724		4.74	2.85	2.18	6.12	4.23	3.36	7.50	5.61	4.54	ID .4724 ~ ID .4920			
YTDI .4921	0.750	4.92	2.95	2.09	5.83	3.86	3.27	7.28	5.31	4.53	ID .4921 ~ ID .5117	M3 x 5	1.5	
YTDI .5118		5.11	3.14	2.17	5.90	3.93	3.50	7.48	5.51	4.84	ID .5118 ~ ID .5314			
YTDI .5315		5.31	3.34	2.37	6.30	4.33	3.90	7.87	5.91	5.04	ID .5315 ~ ID .5511			
YTDI .5512	5.51	3.54	2.48	6.69	4.72	3.94	8.26	6.29	5.43	ID .5512 ~ ID .5708				
YTDI .5709	5.71	3.74	2.69	7.08	5.13	4.37	8.65	6.68	5.82	ID .5709 ~ ID .5905				
YTDI .5906	5.91	3.94	2.89	7.47	5.53	4.80	9.04	7.07	6.21	ID .5906 ~ ID .6101				
YTDI .6102	1.000	6.10	4.13	3.10	8.06	6.12	5.01	9.63	7.66	6.60	ID .6102 ~ ID .6298	M4 x 6	2.0	
YTDI .6299		6.29	4.33	3.30	8.45	6.51	5.44	10.02	8.05	7.09	ID .6299 ~ ID .6495			
YTDI .6496		6.49	4.53	3.50	8.84	6.91	5.87	10.41	8.44	7.48	ID .6496 ~ ID .6692			
YTDI .6693	6.69	4.73	3.70	9.23	7.31	6.30	10.80	8.83	7.87	ID .6693 ~ ID .6888				
YTDI .6889	6.89	4.93	3.90	9.62	7.71	6.73	11.19	9.22	8.26	ID .6889 ~ ID .7086				
YTDI .7087	7.09	5.13	4.10	10.01	8.11	7.16	11.58	9.61	8.65	ID .7087 ~ ID .7282				
YTDI .7283	1.250	7.28	4.33	3.30	10.40	8.51	7.56	11.97	10.00	9.04	ID .7283 ~ ID .7479	M4 x 8	2.0	
YTDI .7480		7.48	4.53	3.50	10.79	8.91	7.99	12.36	10.39	9.43	ID .7480 ~ ID .7676			
YTDI .7677		7.68	4.73	3.70	11.18	9.31	8.42	12.75	10.78	9.82	ID .7677 ~ ID .7873			
YTDI .7874	7.88	4.93	3.90	11.57	9.71	8.85	13.14	11.17	10.21	ID .7874 ~ ID .8069				
YTDI .8070	8.08	5.13	4.10	11.96	10.11	9.28	13.53	11.56	10.60	ID .8070 ~ ID .8267				
YTDI .8268	8.28	5.33	4.30	12.35	10.51	9.71	13.92	11.95	10.99	ID .8268 ~ ID .8463				
YTDI .8464	1.500	8.48	5.53	4.50	12.74	10.91	10.14	14.31	12.34	11.38	ID .8464 ~ ID .8660	M4 x 8	2.0	
YTDI .8661		8.68	5.73	4.70	13.13	11.31	10.57	14.70	12.73	11.77	ID .8661 ~ ID .8857			
YTDI .8858		8.88	5.93	4.90	13.52	11.71	11.00	15.09	13.12	12.16	ID .8858 ~ ID .9054			
YTDI .9055	9.08	6.13	5.10	13.91	12.11	11.43	15.48	13.51	12.55	ID .9055 ~ ID .9250				
YTDI .9251	9.28	6.33	5.30	14.30	12.51	11.86	15.87	13.90	12.94	ID .9251 ~ ID .9448				
YTDI .9449	9.48	6.53	5.50	14.69	12.91	12.29	16.26	14.29	13.33	ID .9449 ~ ID .9644				
YTDI .9645	1.750	9.68	6.73	5.70	15.08	13.31	12.72	16.65	14.68	13.72	ID .9645 ~ ID .9842	M4 x 8	2.0	
YTDI .9843		9.88	6.93	5.90	15.47	13.71	13.15	17.04	15.07	14.11	ID .9843 ~ ID 1.0038			
YTDI 1.0039		10.08	7.13	6.10	15.86	14.11	13.58	17.43	15.46	14.50	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											ID 1.0826 ~ ID 1.1022		
YTDI 1.1023		7.48	5.11	3.82	9.84	7.48	6.10	11.81	9.44	8.39	ID 1.1023 ~ ID 1.1219	M5 x 8	2.5
YTDI 1.1220											ID 1.1220 ~ ID 1.1416		
YTDI 1.1417											ID 1.1417 ~ ID 1.1613		
YTDI 1.1614											ID 1.1614 ~ ID 1.1810		
YTDI 1.1811		7.87	5.51	4.13	10.23	7.87	6.50	12.59	10.23	8.98	ID 1.1811 ~ ID 1.2006	M5 x 10	
YTDI 1.2007											ID 1.2007 ~ ID 1.2203		
YTDI 1.2204											ID 1.2204 ~ ID 1.2400		
YTDI 1.2401											ID 1.2401 ~ ID 1.2597		
YTDI 1.2598		8.26	5.90	4.33	10.62	8.26	6.97	13.38	11.02	9.57	ID 1.2598 ~ ID 1.2794	M6 x 10	3.0
YTDI 1.2795											ID 1.2795 ~ ID 1.2991		
YTDI 1.2992											ID 1.2992 ~ ID 1.3187		
YTDI 1.3188											ID 1.3188 ~ ID 1.3384		
YTDI 1.3385	9.05	6.29	4.65	11.88	9.05	7.40	14.17	11.41	10.16	ID 1.3385 ~ ID 1.3581	M6 x 12		
YTDI 1.3582										ID 1.3582 ~ ID 1.3778			
YTDI 1.3779										ID 1.3782 ~ ID 1.3975			
YTDI 1.3976										ID 1.3976 ~ ID 1.4172			
YTDI 1.4173	9.84	7.08	4.92	12.20	9.44	7.83	14.96	12.20	10.75	ID 1.4173 ~ ID 1.4369	M6 x 12		
YTDI 1.4370										ID 1.4370 ~ ID 1.4565			
YTDI 1.4566			5.20	12.59	9.84	8.27	15.74	12.99	11.34	ID 1.4566 ~ ID 1.4762			
YTDI 1.4763										ID 1.4763 ~ ID 1.4959			
YTDI 1.4960	ID 1.4960 ~ ID 1.5156												
YTDI 1.5157	ID 1.5157 ~ ID 1.5353												
YTDI 1.5354	10.63	7.87	5.43	13.38	10.62	16.53	13.77	11.93	ID 1.5354 ~ ID 1.5550	M8 x 12			
YTDI 1.5551									ID 1.5551 ~ ID 1.5747				
YTDI 1.5748			5.71	9.13	12.52	11.93	13.11	13.70	ID 1.5748 ~ ID 1.5943				
YTDI 1.5944									ID 1.5944 ~ ID 1.6140				
YTDI 1.6141	ID 1.6141 ~ ID 1.6337												
YTDI 1.6338	ID 1.6338 ~ ID 1.6534												
YTDI 1.6535	11.02	8.26	6.02	14.56	11.81	18.11	15.35	12.52	ID 1.6535 ~ ID 1.6731		M8 x 12		
YTDI 1.6732									ID 1.6732 ~ ID 1.6928				
YTDI 1.6929			6.30	10.04	13.70	12.52	13.11	13.70	ID 1.6929 ~ ID 1.7124				
YTDI 1.7125									ID 1.7125 ~ ID 1.7321				
YTDI 1.7322	ID 1.7322 ~ ID 1.7518												
YTDI 1.7519	ID 1.7519 ~ ID 1.7715												
YTDI 1.7716	11.81	9.05	6.57	15.35	12.59	10.43	19.29	16.53	14.29	ID 1.7716 ~ ID 1.7912		M8 x 12	
YTDI 1.7913										ID 1.7913 ~ ID 1.8109			
YTDI 1.8110										ID 1.8110 ~ ID 1.8306			
YTDI 1.8307										ID 1.8307 ~ ID 1.8502			
YTDI 1.8503	11.81	9.05	6.57	15.35	12.59	10.43	19.29	16.53	14.29	ID 1.8503 ~ ID 1.8699	M8 x 12		
YTDI 1.8700										ID 1.8700 ~ ID 1.8896			
YTDI 1.8897										ID 1.8897 ~ ID 1.9093			
YTDI 1.9094										ID 1.9094 ~ ID 1.9290			
YTDI 1.9291	11.81	9.05	6.57	15.35	12.59	10.43	19.29	16.53	14.29	ID 1.9291 ~ ID 1.9487		M8 x 12	
YTDI 1.9488										ID 1.9488 ~ ID 1.9684			
YTDI 1.9685										ID 1.9685 ~ ID 2.0000			



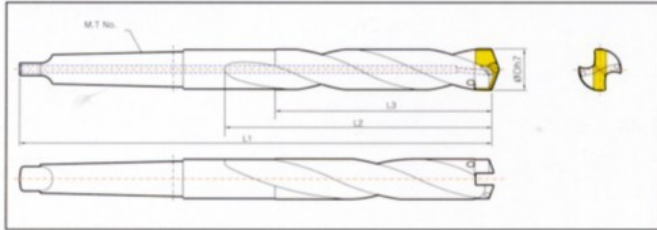
# YES Indexable Drills with Morse Taper shank



NEW

## Model : YTDI/MT, YTDI/MTIC

- Yestool introduces its newest 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 two socket screw bolts like YTDI model.
- 5 different 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)



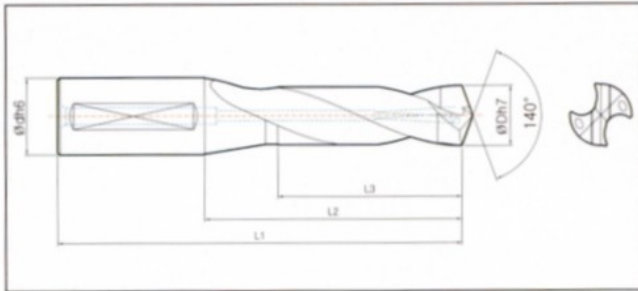
\* Ordering method when require internal coolant, please mark IC in the  column.

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 <input type="checkbox"/>	MT1	162	82	66	ID080	ID081	ID082	ID083	ID084	M2.5 x 2.5	1.3
YTDI 085MT <input type="checkbox"/>		168	85	68	ID085	ID086	ID087	ID088	ID089		
YTDI 090MT <input type="checkbox"/>		172	88	70	ID090	ID091	ID092	ID093	ID094		
YTDI 095MT <input type="checkbox"/>		175	92	73	ID095	ID096	ID097	ID098	ID099		
YTDI 100MT <input type="checkbox"/>		178	95	75	ID100	ID101	ID102	ID103	ID104		
YTDI 105MT <input type="checkbox"/>		182	98	77	ID105	ID106	ID107	ID108	ID109	M2.5 x 4	
YTDI 110MT <input type="checkbox"/>		185	102	80	ID110	ID111	ID112	ID113	ID114		
YTDI 115MT <input type="checkbox"/>		188	105	82	ID115	ID116	ID117	ID118	ID119	M3 x 3	
YTDI 120MT <input type="checkbox"/>		192	108	84	ID120	ID121	ID122	ID123	ID124		
YTDI 125MT <input type="checkbox"/>		195	112	87	ID125	ID126	ID127	ID128	ID129		
YTDI 130MT <input type="checkbox"/>	198	115	89	ID130	ID131	ID132	ID133	ID134			
YTDI 135MT <input type="checkbox"/>	202	118	91	ID135	ID136	ID137	ID138	ID139			
YTDI 140MT <input type="checkbox"/>	MT2	205	122	94	ID140	ID141	ID142	ID143	ID144	M3 x 5	1.5
YTDI 145MT <input type="checkbox"/>					ID145	ID146	ID147	ID148	ID149		
YTDI 150MT <input type="checkbox"/>		225	125	95	ID150	ID151	ID152	ID153	ID154		
YTDI 155MT <input type="checkbox"/>		228	128	97	ID155	ID156	ID157	ID158	ID159		
YTDI 160MT <input type="checkbox"/>		230	130	98	ID160	ID161	ID162	ID163	ID164		
YTDI 165MT <input type="checkbox"/>		232	132	99	ID165	ID166	ID167	ID168	ID169		
YTDI 170MT <input type="checkbox"/>		235	135	101	ID170	ID171	ID172	ID173	ID174		
YTDI 175MT <input type="checkbox"/>		240	140	105	ID175	ID176	ID177	ID178	ID179		
YTDI 180MT <input type="checkbox"/>					ID180	ID181	ID182	ID183	ID184		
YTDI 185MT <input type="checkbox"/>		245	145	108	ID185	ID186	ID187	ID188	ID189		
YTDI 190MT <input type="checkbox"/>	ID190				ID191	ID192	ID193	ID194			
YTDI 195MT <input type="checkbox"/>	250				150	111	ID195	ID196	ID197	ID198	ID199
YTDI 200MT <input type="checkbox"/>							ID200	ID201	ID202	ID203	ID204
YTDI 205MT <input type="checkbox"/>	255				155	114	ID205	ID206	ID207	ID208	ID209
YTDI 210MT <input type="checkbox"/>		ID210	ID211	ID212			ID213	ID214			
YTDI 215MT <input type="checkbox"/>		260	160	117			ID215	ID216	ID217	ID218	ID219
YTDI 220MT <input type="checkbox"/>	ID220				ID221	ID222	ID223	ID224			
YTDI 225MT <input type="checkbox"/>	265	165	120	ID225	ID226	ID227	ID228	ID229			
YTDI 230MT <input type="checkbox"/>				ID230	ID231	ID232	ID233	ID234			
YTDI 235MT <input type="checkbox"/>	MT3	285	165	120	ID235	ID236	ID237	ID238	ID239	M4 x 6	2.0
YTDI 240MT <input type="checkbox"/>					ID240	ID241	ID242	ID243	ID244		
YTDI 245MT <input type="checkbox"/>					ID245	ID246	ID247	ID248	ID249		
YTDI 250MT <input type="checkbox"/>					ID250	ID251	ID252	ID253	ID254		

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



# YES Carbide Tipped Drill, Metric



\* See page 9 of YTDI Indexable drill for new interchangeable cutting edge type.

## Model : YTD

- Carbide Brazed Tipped drill, Cylindrical with flat shank, Internal coolant hole
- 140° self-centering point for accurate hole positioning. Regular helix angle : 28° ~30° .
- Drill body consists of heat-treated tool steel and cutting edge is brazed with carbide tip.

## Carbide substrate:

- Ultra-fine Micro Grain , PVD TiN 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 135	13.5				
YTD 136	13.6				
YTD 137	13.7				
YTD 138	13.8				
YTD 139	13.9				
YTD 140	14.0	16.0	115	67	48
YTD 141	14.1				
YTD 142	14.2				
YTD 143	14.3				
YTD 144	14.4				
YTD 145	14.5				
YTD 146	14.6				
YTD 147	14.7				
YTD 148	14.8				
YTD 149	14.9				
YTD 150	15.0				
YTD 151	15.1				
YTD 152	15.2				
YTD 153	15.3				
YTD 154	15.4				
YTD 155	15.5	20.0	130	80	59
YTD 156	15.6				
YTD 157	15.7				
YTD 158	15.8				
YTD 159	15.9				
YTD 160	16.0				
YTD 161	16.1				
YTD 162	16.2				
YTD 163	16.3				
YTD 164	16.4				
YTD 165	16.5				

Code No.	D	d	L1	L2	L3
YTD 166	16.6				
YTD 167	16.7				
YTD 168	16.8				
YTD 169	16.9				
YTD 170	17.0				
YTD 171	17.1				
YTD 172	17.2				
YTD 173	17.3				
YTD 174	17.4				
YTD 175	17.5				
YTD 176	17.6	20.0	140	90	66
YTD 177	17.7				
YTD 178	17.8				
YTD 179	17.9				
YTD 180	18.0				
YTD 181	18.1				
YTD 182	18.2				
YTD 183	18.3				
YTD 184	18.4				
YTD 185	18.5				
YTD 186	18.6				
YTD 187	18.7				
YTD 188	18.8				
YTD 189	18.9				
YTD 190	19.0				
YTD 191	19.1	25.0	155	99	73
YTD 192	19.2				
YTD 193	19.3				
YTD 194	19.4				
YTD 195	19.5				
YTD 196	19.6				

Code No.	D	d	L1	L2	L3
YTD 197	19.7				
YTD 198	19.8				
YTD 199	19.9				
YTD 200	20.0				
YTD 201	20.1				
YTD 202	20.2				
YTD 203	20.3				
YTD 204	20.4				
YTD 205	20.5				
YTD 206	20.6		155	99	73
YTD 207	20.7				
YTD 208	20.8				
YTD 209	20.9				
YTD 210	21.0				
YTD 211	21.1				
YTD 212	21.2	25.0			
YTD 213	21.3				
YTD 214	21.4				
YTD 215	21.5				
YTD 216	21.6				
YTD 217	21.7				
YTD 218	21.8				
YTD 219	21.9				
YTD 220	22.0				
YTD 221	22.1				
YTD 222	22.2		160	104	76
YTD 223	22.3				
YTD 224	22.4				
YTD 225	22.5				
YTD 226	22.6				
YTD 227	22.7				

Code No.	D	d	L1	L2	L3
YTD 228	22.8				
YTD 229	22.9				
YTD 230	23.0				
YTD 231	23.1	25.0	160	104	76
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		170	110	79
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	32.0			
YTD 264	26.4				
YTD 265	26.5		175	115	83
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		185	125	92
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				
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	32.0	185	125	92
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		210	140	98
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	40.0			
YTD 331	33.1				
YTD 332	33.2				
YTD 333	33.3				
YTD 334	33.4				
YTD 335	33.5		220	150	104
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		230	160	113
YTD 351	35.1				
YTD 352	35.2				
YTD 353	35.3				

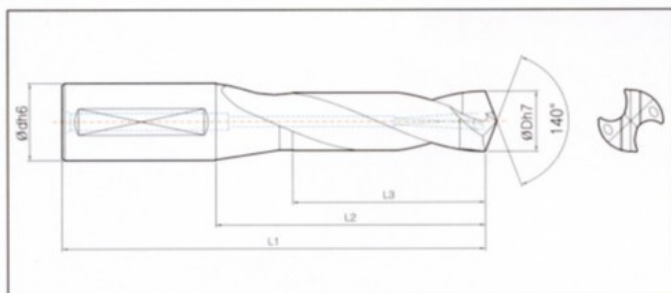
Code No.	D	d	L1	L2	L3
YTD 354	35.4				
YTD 355	35.5				
YTD 356	35.6				
YTD 357	35.7				
YTD 358	35.8				
YTD 359	35.9				
YTD 360	36.0				
YTD 361	36.1				
YTD 362	36.2				
YTD 363	36.3				
YTD 364	36.4		230	160	113
YTD 365	36.5				
YTD 366	36.6				
YTD 367	36.7				
YTD 368	36.8				
YTD 369	36.9				
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	40.0	240	170	119
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		250	180	122
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				



# YES Carbide Tipped Drill, Inches



**YTD**



\* See page 11 of YTDI Indexable drill for new interchangeable cutting edge type.

## Model : YTD

- Carbide Brazed Tipped drill, Cylindrical with flat shank, Internal coolant hole
- 140° self-centering point for accurate hole positioning. Regular helix angle : 28° ~30° .
- Drill body consists of heat-treated tool steel and cutting edge is brazed with carbide tip.

## Carbide substrate:

- Ultra-fine Micro Grain , PVD TiN coated

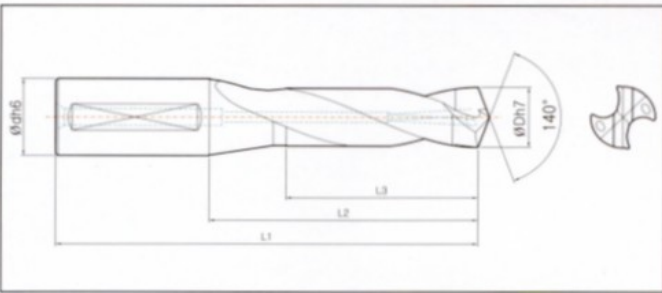
## Application

- 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 .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		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		6.29	4.09	2.99
YTD .8280	0.828				
YTD .8430	0.843				
YTD .8590	0.859				
YTD .8750	0.875				
YTD .8900	0.890				
YTD .9060	0.906				
YTD .9210	0.921				

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		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									
YTD1 .2500	1.250					8.66	5.90	4.09		
YTD1 .3120	1.312									
YTD1 .3430	1.343									
YTD1 .3750	1.375		9.05	6.29	4.44					
YTD1 .4210	1.421									
YTD1 .4370	1.437								9.44	6.69
YTD1 .5000	1.500									
YTD1 .5620	1.562	9.84				7.08	4.80			
YTD1 .6250	1.625									

# YES Carbide Tipped Drill, Long Series, Metric



\* See page 9 of YTDI Indexable drill for new interchangeable cutting edge type.

## Model : YTDL

- Carbide Brazed Tipped drill, Long Series Cylindrical with flat shank, Internal coolant hole
- 140° self-centering point for accurate hole positioning. Regular helix angle : 28°~30°.
- Drill body consists of heat-treated tool steel and cutting edge is brazed with carbide tip.

## Carbide substrate:

- Ultra-fine Micro Grain , PVD TiN 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				
YTDL 136	13.6				
YTDL 137	13.7				
YTDL 138	13.8				
YTDL 139	13.9				
YTDL 140	14.0	16.0	145	97	73
YTDL 141	14.1				
YTDL 142	14.2				
YTDL 143	14.3				
YTDL 144	14.4				
YTDL 145	14.5				
YTDL 146	14.6				
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	20.0	165	115	94
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				
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	20.0	175	125	101
YTDL 176	17.6				
YTDL 177	17.7				
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	25.0	195	139	112
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				
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	25.0	195	139	112
YTDL 207	20.7				
YTDL 208	20.8				
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		210	154	124
YTDL 223	22.3				
YTDL 224	22.4				
YTDL 225	22.5				
YTDL 226	22.6				
YTDL 227	22.7				



# YES Carbide Tipped Drill, Long Series, Metric

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				
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				
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				
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				

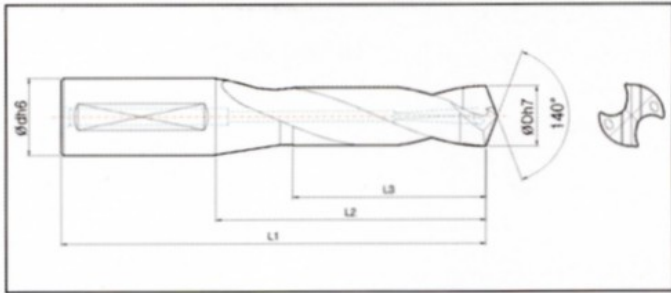
Code No.	D	d	L1	L2	L3
YTDL 354	35.4	40.0	300	230	183
YTDL 355	35.5				
YTDL 356	35.6				
YTDL 357	35.7				
YTDL 358	35.8				
YTDL 359	35.9				
YTDL 360	36.0				
YTDL 361	36.1				
YTDL 362	36.2				
YTDL 363	36.3				
YTDL 364	36.4				
YTDL 365	36.5				
YTDL 366	36.6				
YTDL 367	36.7				
YTDL 368	36.8				
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				



# YES Carbide Tipped Drill, Long Series, Inches



YTDL



\* See page 11 of YTDI Indexable drill for new interchangeable cutting edge type.

## Model : YTDL

- Carbide Brazed Tipped drill, Long Series Cylindrical with flat shank, Internal coolant hole
- 140° self-centering point for accurate hole positioning. Regular helix angle : 28°~30°
- Drill body consists of heat-treated tool steel and cutting edge is brazed with carbide tip.

## Carbide substrate:

- Ultra-fine Micro Grain , PVD TiN 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	0.875	6.88	4.92	3.97
YTDL .6710	0.671				
YTDL .6870	0.687				
YTDL .7030	0.703				
YTDL .7180	0.718	1.000	7.67	5.47	4.40
YTDL .7340	0.734				
YTDL .7500	0.750				
YTDL .7650	0.765				
YTDL .7810	0.781	1.125	8.26	6.06	4.88
YTDL .7960	0.796				
YTDL .8120	0.812				
YTDL .8280	0.828				
YTDL .8430	0.843	1.250	8.85	6.49	5.23
YTDL .8590	0.859				
YTDL .8750	0.875				
YTDL .8900	0.890				
YTDL .9060	0.906	1.375	9.46	7.28	5.82
YTDL .9210	0.921				
YTDL .9370	0.937				
YTDL .9530	0.953				
YTDL .9680	0.968	1.500	10.03	7.67	6.18
YTDL .9840	0.984				
YTDL 1.0000	1.000				
YTDL 1.0150	1.015				
YTDL 1.0310	1.031	1.625	11.02	8.26	6.77
YTDL 1.0460	1.046				
YTDL 1.0620	1.062				
YTDL 1.0780	1.078				
YTDL 1.0930	1.093	1.750	11.41	8.66	6.96
YTDL 1.1090	1.109				
YTDL 1.1250	1.125				
YTDL 1.1400	1.140				
YTDL 1.1560	1.156	1.875	11.81	9.05	7.20
YTDL 1.1710	1.171				
YTDL 1.1870	1.187				
YTDL 1.2030	1.203				
YTDL 1.2190	1.219	2.000	12.40	9.64	7.59
YTDL 1.2350	1.235				
YTDL 1.2510	1.251				
YTDL 1.2670	1.267				
YTDL 1.2830	1.283	2.125	12.79	10.03	7.99
YTDL 1.2990	1.299				
YTDL 1.3150	1.315				
YTDL 1.3310	1.331				
YTDL 1.3470	1.347	2.250	13.18	10.42	8.28
YTDL 1.3630	1.363				
YTDL 1.3790	1.379				
YTDL 1.3950	1.395				
YTDL 1.4110	1.411	2.375	13.57	10.81	8.57
YTDL 1.4270	1.427				
YTDL 1.4430	1.443				
YTDL 1.4590	1.459				
YTDL 1.4750	1.475	2.500	13.96	11.20	8.86
YTDL 1.4910	1.491				
YTDL 1.5070	1.507				
YTDL 1.5230	1.523				
YTDL 1.5390	1.539	2.625	14.35	11.59	9.15
YTDL 1.5550	1.555				
YTDL 1.5710	1.571				
YTDL 1.5870	1.587				
YTDL 1.6030	1.603	2.750	14.74	11.98	9.44
YTDL 1.6190	1.619				
YTDL 1.6350	1.635				
YTDL 1.6510	1.651				
YTDL 1.6670	1.667	2.875	15.13	12.37	9.73
YTDL 1.6830	1.683				
YTDL 1.6990	1.699				
YTDL 1.7150	1.715				
YTDL 1.7310	1.731	3.000	15.52	12.76	10.02
YTDL 1.7470	1.747				
YTDL 1.7630	1.763				
YTDL 1.7790	1.779				
YTDL 1.7950	1.795	3.125	15.91	13.15	10.31
YTDL 1.8110	1.811				
YTDL 1.8270	1.827				
YTDL 1.8430	1.843				
YTDL 1.8590	1.859	3.250	16.30	13.54	10.60
YTDL 1.8750	1.875				
YTDL 1.8910	1.891				
YTDL 1.9070	1.907				
YTDL 1.9230	1.923	3.375	16.69	13.93	10.89
YTDL 1.9390	1.939				
YTDL 1.9550	1.955				
YTDL 1.9710	1.971				
YTDL 1.9870	1.987	3.500	17.08	14.32	11.18
YTDL 2.0030	2.003				
YTDL 2.0190	2.019				
YTDL 2.0350	2.035				
YTDL 2.0510	2.051	3.625	17.47	14.71	11.47
YTDL 2.0670	2.067				
YTDL 2.0830	2.083				
YTDL 2.0990	2.099				
YTDL 2.1150	2.115	3.750	17.86	15.10	11.76
YTDL 2.1310	2.131				
YTDL 2.1470	2.147				
YTDL 2.1630	2.163				
YTDL 2.1790	2.179	3.875	18.25	15.49	12.05
YTDL 2.1950	2.195				
YTDL 2.2110	2.211				
YTDL 2.2270	2.227				
YTDL 2.2430	2.243	4.000	18.64	15.88	12.34
YTDL 2.2590	2.259				
YTDL 2.2750	2.275				
YTDL 2.2910	2.291				
YTDL 2.3070	2.307	4.125	19.03	16.27	12.63
YTDL 2.3230	2.323				
YTDL 2.3390	2.339				
YTDL 2.3550	2.355				
YTDL 2.3710	2.371	4.250	19.42	16.66	12.92
YTDL 2.3870	2.387				
YTDL 2.4030	2.403				
YTDL 2.4190	2.419				
YTDL 2.4350	2.435	4.375	19.81	17.05	13.21
YTDL 2.4510	2.451				
YTDL 2.4670	2.467				
YTDL 2.4830	2.483				
YTDL 2.4990	2.499	4.500	20.20	17.44	13.50
YTDL 2.5150	2.515				
YTDL 2.5310	2.531				
YTDL 2.5470	2.547				
YTDL 2.5630	2.563	4.625	20.59	17.83	13.79
YTDL 2.5790	2.579				
YTDL 2.5950	2.595				
YTDL 2.6110	2.611				
YTDL 2.6270	2.627	4.750	20.98	18.22	14.08
YTDL 2.6430	2.643				
YTDL 2.6590	2.659				
YTDL 2.6750	2.675				
YTDL 2.6910	2.691	4.875	21.37	18.61	14.37
YTDL 2.7070	2.707				
YTDL 2.7230	2.723				
YTDL 2.7390	2.739				
YTDL 2.7550	2.755	5.000	21.76	19.00	14.66
YTDL 2.7710	2.771				
YTDL 2.7870	2.787				
YTDL 2.8030	2.803				
YTDL 2.8190	2.819	5.125	22.15	19.39	14.95
YTDL 2.8350	2.835				
YTDL 2.8510	2.851				
YTDL 2.8670	2.867				
YTDL 2.8830	2.883	5.250	22.54	19.78	15.24
YTDL 2.8990	2.899				
YTDL 2.9150	2.915				
YTDL 2.9310	2.931				
YTDL 2.9470	2.947	5.375	22.93	20.17	15.53
YTDL 2.9630	2.963				
YTDL 2.9790	2.979				
YTDL 2.9950	2.995				
YTDL 3.0110	3.011	5.500	23.32	20.56	15.82
YTDL 3.0270	3.027				
YTDL 3.0430	3.043				
YTDL 3.0590	3.059				
YTDL 3.0750	3.075	5.625	23.71	20.95	16.11
YTDL 3.0910	3.091				
YTDL 3.1070	3.107				
YTDL 3.1230	3.123				
YTDL 3.1390	3.139	5.750	24.10	21.34	16.40
YTDL 3.1550	3.155				
YTDL 3.1710	3.171				
YTDL 3.1870	3.187				
YTDL 3.2030	3.203	5.875	24.49	21.73	16.69
YTDL 3.2190	3.219				
YTDL 3.2350	3.235				
YTDL 3.2510	3.251				
YTDL 3.2670	3.267	6.000	24.88	22.12	16.98
YTDL 3.2830	3.283				
YTDL 3.2990	3.299				
YTDL 3.3150	3.315				
YTDL 3.3310	3.331	6.125	25.27	22.51	17.27
YTDL 3.3470	3.347				
YTDL 3.3630	3.363				
YTDL 3.3790	3.379				
YTDL 3.3950	3.395	6.250	25.66	22.90	17.56
YTDL 3.4110	3.411				
YTDL 3.4270	3.427				
YTDL 3.4430	3.443				
YTDL 3.4590	3.459	6.375	26.05	23.29	17.85
YTDL 3.4750	3.475				
YTDL 3.4910	3.491				
YTDL 3.5070	3.507				
YTDL 3.5230	3.523	6.500	26.44	23.68	18.14
YTDL 3.5390	3.539				
YTDL 3.5550	3.555				
YTDL 3.5710	3.571				
YTDL 3.5870	3.587	6.625	26.83	24.07	18.43
YTDL 3.6030	3.603				
YTDL 3.6190	3.619				
YTDL 3.6350	3.635				
YTDL 3.6510	3.651	6.750	27.22	24.46	18.72
YTDL 3.6670	3.667				
YTDL 3.6830	3.683				
YTDL 3.6990	3.699				
YTDL 3.7150	3.715	6.875	27.61	24.85	19.01
YTDL 3.7310	3.731				
YTDL 3.7470	3.747				
YTDL 3.7630	3.763				
YTDL 3.7790	3.779	7.000	28.00	25.24	19.30
YTDL 3.7950	3.795				
YTDL 3.8110	3.811				
YTDL 3.8270	3.827				
YTDL 3.8430	3.843	7.125	28.39	25.63	19.59
YTDL 3.8590	3.859				
YTDL 3.8750	3.875				
YTDL 3.8910	3.891				
YTDL 3.9070	3.907	7.250	28.78	26.02	19.88
YTDL 3.9230	3.923				
YTDL 3.9390	3.939				
YTDL 3.9550	3.955				
YTDL 3.9710	3.971	7.375	29.17	26.41	20.17
YTDL 3.9870	3.987				
YTDL 3.9990	3.999				
YTDL 4.0110	4.011				
YTDL 4.0270	4.027	7.500	29.56	26.80	20.46
YTDL 4.0430	4.043				
YTDL 4.0590	4.059				
YTDL 4.0750	4.075				
YTDL 4.0910	4.091	7.625	29.95	27.19	20.75
YTDL 4.1070	4.107				
YTDL 4.1230	4.123				
YTDL 4.1390	4.139				
YTDL 4.1550	4.155	7.750	30.34	27.58	21.04
YTDL 4.1710	4.171				
YTDL 4.1870	4.187				
YTDL 4.2030	4.203				
YTDL 4.2190	4.219	7.875	30.73	27.97	21.33
YTDL 4.2350	4.235				
YTDL 4.2510	4.251				
YTDL 4.2670	4.267				
YTDL 4.2830	4.283	8.000	31.12	28.36	21.62
YTDL 4.2990	4.299				
YTDL 4.3150	4.315				
YTDL 4.3310	4.331				
YTDL 4.3470	4.347	8.125	31.51	28.75	21.91
YTDL 4.3630	4.363				
YTDL 4.3790	4.379				
YTDL 4.3950	4.395				
YTDL 4.4110	4.411	8.250	31.90	29.14	22.20
YTDL 4.4270	4.427				
YTDL 4.4430	4.443				
YTDL 4.4590	4.459				
YTDL 4.4750	4.475	8.375	32.29	29.53	22.49
YTDL 4.4910	4.491				
YTDL 4.5070	4.507				
YTDL 4.5230	4.523				
YTDL 4.5390	4.539	8.500	32.68	29.92	22.78
YTDL 4.5550	4.555				
YTDL 4.5710	4.571				
YTDL 4.5870	4.587				
YTDL 4.6030	4.603	8.625	33.07	30.31	23.07
YTDL 4.6190	4.619				
YTDL 4.6350	4.635				
YTDL 4.6510	4.651				
YTDL 4.6670	4.667	8.750	33.46	30.70	23.36
YTDL 4.6830	4.683				
YTDL 4.6990	4.699				
YTDL 4.7150	4.715				
YTDL 4.7310	4.731	8.875	33.85	31.09	23.65
YTDL 4.7470	4.747				
YTDL 4.7630	4.763				
YTDL 4.7790	4.779				
YTDL 4.7950	4.795	9.000	34.24	31.48	23.94
YTDL 4.8110	4.811				



- YSD** Solid Carbide Drills
- YSDL** Solid Carbide Drills, Long series
- YSDC** Solid Carbide Coolant Drills
- YSDC,D5** Solid Carbide Coolant Drills, Reinforced shank
- YCD** Solid Carbide Chamfer Drills
- YCH** Chamfer Holders for YCD

*Your Metal Cutting Solution by*

# **Yes Carbide Cutting Tools**



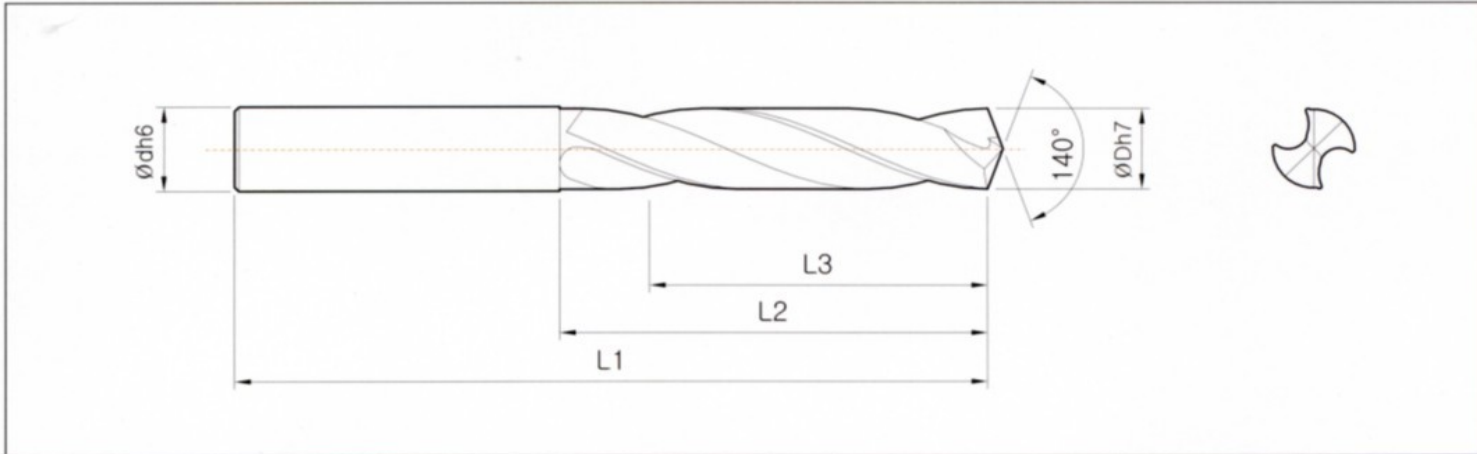
# YES Solid Carbide Drill, Metric



YSD TiN



YSD TiAlN



## Model : YSD

- Solid Carbide drill, Yes standard length, Plain cylindrical shank. Effective cutting depth 3xDia. (whistle notch 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.

## Carbide substrate:

- Ultra-fine Micro Grain , PVD TiN(standard stock), TiCN, TiAlN coated available on request. See page 8.

## 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 4 for ordering)

Code No.	D	d	L1	L2	L3
YSD 030	3.0	4.0	55	20	15
YSD 031	3.1				
YSD 032	3.2				
YSD 033	3.3				
YSD 034	3.4				
YSD 035	3.5				
YSD 036	3.6			25	19
YSD 037	3.7				
YSD 038	3.8				
YSD 039	3.9				
YSD 040	4.0				
YSD 041	4.1				

Code No.	D	d	L1	L2	L3
YSD 042	4.2	5.0	62	32	25
YSD 043	4.3				
YSD 044	4.4				
YSD 045	4.5				
YSD 046	4.6				
YSD 047	4.7				
YSD 048	4.8				
YSD 049	4.9				
YSD 050	5.0				
YSD 051	5.1				

Code No.	D	d	L1	L2	L3
YSD 052	5.2	6.0	66	36	27
YSD 053	5.3				
YSD 054	5.4				
YSD 055	5.5				
YSD 056	5.6				
YSD 057	5.7				
YSD 058	5.8				
YSD 059	5.9				
YSD 060	6.0				
YSD 061	6.1				

\* Special dimension or step drill is available on request.



Code No.	D	d	L1	L2	L3
YSD 062	6.2	7.0	74	42	32
YSD 063	6.3				
YSD 064	6.4				
YSD 065	6.5				
YSD 066	6.6				
YSD 067	6.7				
YSD 068	6.8				
YSD 069	6.9				
YSD 070	7.0				
YSD 071	7.1				
YSD 072	7.2	8.0	79	46	34
YSD 073	7.3				
YSD 074	7.4				
YSD 075	7.5				
YSD 076	7.6				
YSD 077	7.7				
YSD 078	7.8				
YSD 079	7.9				
YSD 080	8.0				
YSD 081	8.1				
YSD 082	8.2	9.0	84	50	37
YSD 083	8.3				
YSD 084	8.4				
YSD 085	8.5				
YSD 086	8.6				
YSD 087	8.7				
YSD 088	8.8				
YSD 089	8.9				
YSD 090	9.0				
YSD 091	9.1				
YSD 092	9.2	10.0	89	53	38
YSD 093	9.3				
YSD 094	9.4				
YSD 095	9.5				
YSD 096	9.6				
YSD 097	9.7				
YSD 098	9.8				
YSD 099	9.9				
YSD 100	10.0				
YSD 101	10.1				
YSD 102	10.2	11.0	95	55	40
YSD 103	10.3				
YSD 104	10.4				
YSD 105	10.5				
YSD 106	10.6				
YSD 107	10.7				
YSD 108	10.8				
YSD 109	10.9				
YSD 110	11.0				
YSD 111	11.1				

Code No.	D	d	L1	L2	L3
YSD 112	11.2	12.0	102	62	44
YSD 113	11.3				
YSD 114	11.4				
YSD 115	11.5				
YSD 116	11.6				
YSD 117	11.7				
YSD 118	11.8				
YSD 119	11.9				
YSD 120	12.0				
YSD 121	12.1				
YSD 122	12.2	13.0	107	64	43
YSD 123	12.3				
YSD 124	12.4				
YSD 125	12.5				
YSD 126	12.6				
YSD 127	12.7				
YSD 128	12.8				
YSD 129	12.9				
YSD 130	13.0				
YSD 131	13.1				
YSD 132	13.2	14.0	111	67	45
YSD 133	13.3				
YSD 134	13.4				
YSD 135	13.5				
YSD 136	13.6				
YSD 137	13.7				
YSD 138	13.8				
YSD 139	13.9				
YSD 140	14.0				
YSD 141	14.1				
YSD 142	14.2	15.0	115	69	45
YSD 143	14.3				
YSD 144	14.4				
YSD 145	14.5				
YSD 146	14.6				
YSD 147	14.7				
YSD 148	14.8				
YSD 149	14.9				
YSD 150	15.0				
YSD 151	15.1				
YSD 152	15.2	16.0	119	71	46
YSD 153	15.3				
YSD 154	15.4				
YSD 155	15.5				
YSD 156	15.6				
YSD 157	15.7				
YSD 158	15.8				
YSD 159	15.9				
YSD 160	16.0				
YSD 161	16.1				

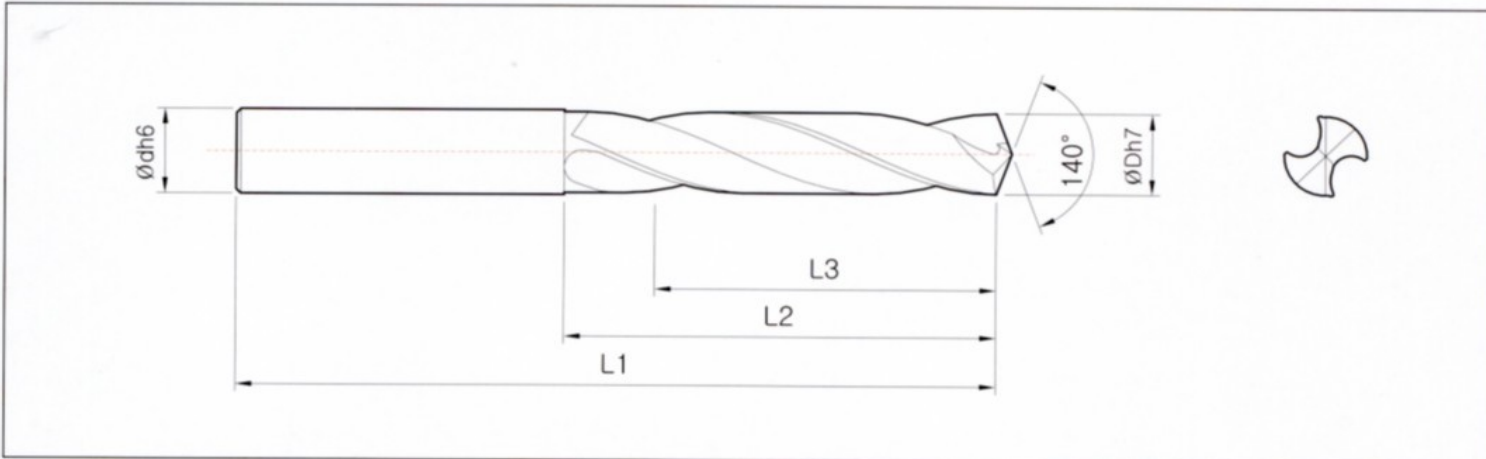
Code No.	D	d	L1	L2	L3
YSD 162	16.2	17.0	119	71	46
YSD 163	16.3				
YSD 164	16.4				
YSD 165	16.5				
YSD 166	16.6				
YSD 167	16.7				
YSD 168	16.8				
YSD 169	16.9				
YSD 170	17.0				
YSD 171	17.1				
YSD 172	17.2	18.0	123	74	47
YSD 173	17.3				
YSD 174	17.4				
YSD 175	17.5				
YSD 176	17.6				
YSD 177	17.7				
YSD 178	17.8				
YSD 179	17.9				
YSD 180	18.0				
YSD 181	18.1				
YSD 182	18.2	19.0	127	76	48
YSD 183	18.3				
YSD 184	18.4				
YSD 185	18.5				
YSD 186	18.6				
YSD 187	18.7				
YSD 188	18.8				
YSD 189	18.9				
YSD 190	19.0				
YSD 191	19.1				
YSD 192	19.2	20.0	131	80	50
YSD 193	19.3				
YSD 194	19.4				
YSD 195	19.5				
YSD 196	19.6				
YSD 197	19.7				
YSD 198	19.8				
YSD 199	19.9				
YSD 200	20.0				

# YES Solid Carbide Drill, <sup>Inches</sup>



YSD TiN

YSD TiAlN



## Model : YSD

- Solid Carbide drill, Yes standard length, Plain cylindrical shank. Effective cutting depth 3xDia. (whistle notch 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.

## Carbide substrate:

- Ultra-fine Micro Grain , PVD TiN(standard stock), TiCN, TiAlN coated available on request. See page 8.

## 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	3/8	3.5	2.08	1.5
YSD .3438	11/32				
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	1/2	4.01	2.44	1.65
YSD .4531	29/64				
YSD .4688	15/32				
YSD .4844	31/64				
YSD .5000	1/2	9/16	4.37	2.63	1.77
YSD .5625	9/16				
YSD .6250	5/8	5/8	4.52	2.71	1.85
YSD .6875	11/16	11/16	4.84	2.91	
YSD .7500	3/4	3/4	5	2.99	1.88



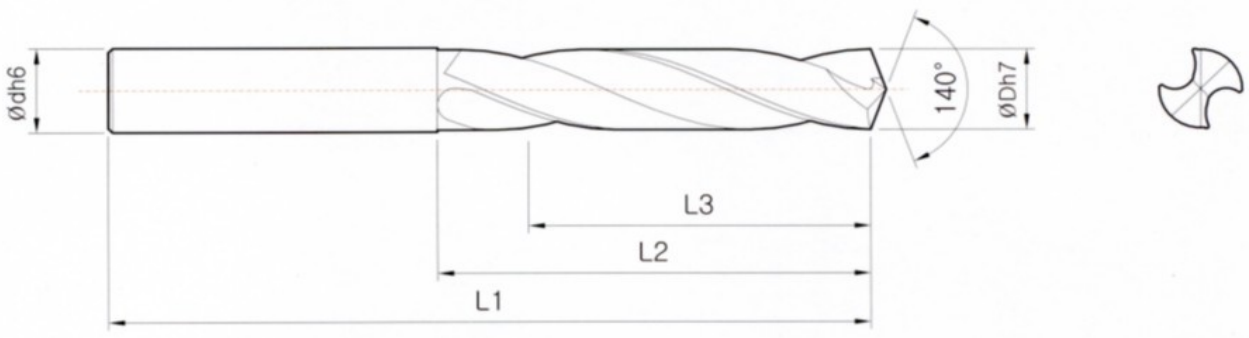
# YES Solid Carbide Drill, Long Series, Metric



YSDL TiN



YSDL TiAlN



## Model : YSDL

- Solid Carbide drill, Long Series, Plain cylindrical shank. Effective cutting depth 5xDia. (whistle notch 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.

## Carbide substrate:

- Ultra-fine Micro Grain , PVD TiN(standard stock), TiCN, TiAlN coated available on request. (See page 8.)

## 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				
YSDL 036	3.6				39
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				

# YES Solid Carbide Drill, Long Series, Metric

Code No.	D	d	L1	L2	L3
YSDL 062	6.2	7.0	85	53	43
YSDL 063	6.3				
YSDL 064	6.4				
YSDL 065	6.5				
YSDL 066	6.6				
YSDL 067	6.7				
YSDL 068	6.8				
YSDL 069	6.9				
YSDL 070	7.0				
YSDL 071	7.1				
YSDL 072	7.2	8.0	90	58	46
YSDL 073	7.3				
YSDL 074	7.4				
YSDL 075	7.5				
YSDL 076	7.6				
YSDL 077	7.7				
YSDL 078	7.8				
YSDL 079	7.9				
YSDL 080	8.0				
YSDL 081	8.1				
YSDL 082	8.2	9.0	98	64	51
YSDL 083	8.3				
YSDL 084	8.4				
YSDL 085	8.5				
YSDL 086	8.6				
YSDL 087	8.7				
YSDL 088	8.8				
YSDL 089	8.9				
YSDL 090	9.0				
YSDL 091	9.1				
YSDL 092	9.2	10.0	105	68	53
YSDL 093	9.3				
YSDL 094	9.4				
YSDL 095	9.5				
YSDL 096	9.6				
YSDL 097	9.7				
YSDL 098	9.8				
YSDL 099	9.9				
YSDL 100	10.0				
YSDL 101	10.1				
YSDL 102	10.2	11.0	110	73	57
YSDL 103	10.3				
YSDL 104	10.4				
YSDL 105	10.5				
YSDL 106	10.6				
YSDL 107	10.7				

Code No.	D	d	L1	L2	L3
YSDL 108	10.8	11.0	110	73	57
YSDL 109	10.9				
YSDL 110	11.0				
YSDL 111	11.1				
YSDL 112	11.2				
YSDL 113	11.3	12.0	120	80	62
YSDL 114	11.4				
YSDL 115	11.5				
YSDL 116	11.6				
YSDL 117	11.7				
YSDL 118	11.8				
YSDL 119	11.9				
YSDL 120	12.0				
YSDL 121	12.1				
YSDL 122	12.2				
YSDL 123	12.3				
YSDL 124	12.4				
YSDL 125	12.5				
YSDL 126	12.6				
YSDL 127	12.7				
YSDL 128	12.8				
YSDL 129	12.9				
YSDL 130	13.0				
YSDL 131	13.1				
YSDL 132	13.2	14.0	147	96	75
YSDL 133	13.3				
YSDL 134	13.4				
YSDL 135	13.5				
YSDL 136	13.6				
YSDL 137	13.7				
YSDL 138	13.8				
YSDL 139	13.9				
YSDL 140	14.0				
YSDL 141	14.1				
YSDL 142	14.2	15.0	153	100	78
YSDL 143	14.3				
YSDL 144	14.4				
YSDL 145	14.5				
YSDL 146	14.6				
YSDL 147	14.7				
YSDL 148	14.8				
YSDL 149	14.9				
YSDL 150	15.0				
YSDL 151	15.1				
YSDL 152	15.2	16.0	160	112	88
YSDL 153	15.3				

Code No.	D	d	L1	L2	L3				
YSDL 154	15.4	16.0			88				
YSDL 155	15.5								
YSDL 156	15.6								
YSDL 157	15.7								
YSDL 158	15.8								
YSDL 159	15.9								
YSDL 160	16.0								
YSDL 161	16.1								
YSDL 162	16.2					17.0			87
YSDL 163	16.3								
YSDL 164	16.4								
YSDL 165	16.5								
YSDL 166	16.6								
YSDL 167	16.7								
YSDL 168	16.8								
YSDL 169	16.9								
YSDL 170	17.0								
YSDL 171	17.1	18.0	160	112	85				
YSDL 172	17.2								
YSDL 173	17.3								
YSDL 174	17.4								
YSDL 175	17.5								
YSDL 176	17.6								
YSDL 177	17.7								
YSDL 178	17.8								
YSDL 179	17.9								
YSDL 180	18.0					19.0			84
YSDL 181	18.1								
YSDL 182	18.2								
YSDL 183	18.3								
YSDL 184	18.4								
YSDL 185	18.5								
YSDL 186	18.6								
YSDL 187	18.7								
YSDL 188	18.8								
YSDL 189	18.9	20.0			82				
YSDL 190	19.0								
YSDL 191	19.1								
YSDL 192	19.2								
YSDL 193	19.3								
YSDL 194	19.4								
YSDL 195	19.5								
YSDL 196	19.6								
YSDL 197	19.7								
YSDL 198	19.8								
YSDL 199	19.9								
YSDL 200	20.0								



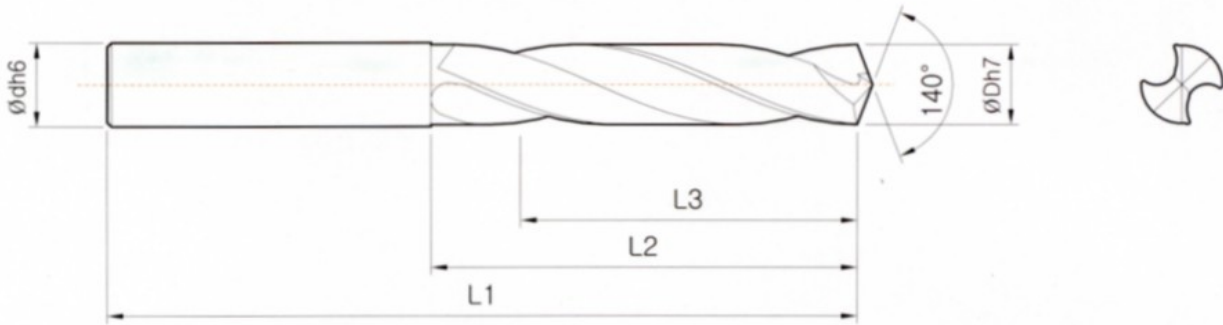
# YES Solid Carbide Drill, Long Series, Inches



YSDL TiN



YSDL TiAlN



## Model : YSDL

- Solid Carbide drill, Long Series, Plain cylindrical shank. Effective cutting depth 5×Dia. (whistle notch 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.

## Carbide substrate:

- Ultra-fine Micro Grain , PVD TiN(standard stock), TiCN, TiAlN coated available on request. (See page 8.)

## 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	3/8	4.13	2.67	2.08
YSDL .3438	11/32				
YSDL .3594	23/64				
YSDL .3750	3/8				

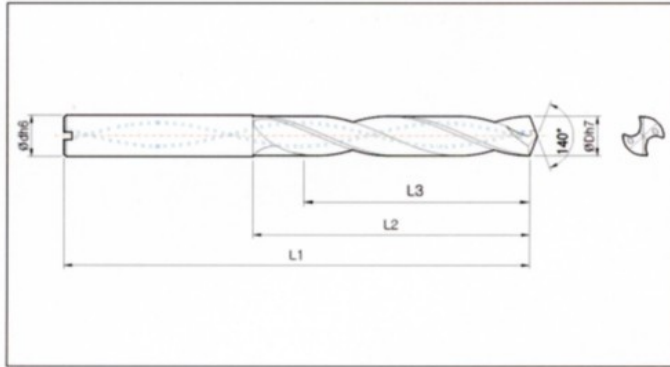
## Inch Size

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				
YSDL .5000	1/2	9/16	5.78	3.77	2.95
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			

# YES Solid Carbide Coolant Drill, **Metric**



**YSDC**



## Model : YSDC

- Solid Carbide Coolant hole drill, Plain cylindrical 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 , PVD TiN(standard stock), TiCN, TiAlN coated available on request. See page 8.

## 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
YSDC 050	5.0	5.0	72	42	35
YSDC 051	5.1				
YSDC 052	5.2				
YSDC 053	5.3				
YSDC 054	5.4				
YSDC 055	5.5				
YSDC 056	5.6	6.0			33
YSDC 057	5.7				
YSDC 058	5.8				
YSDC 059	5.9				
YSDC 060	6.0				

Code No.	D	d	L1	L2	L3
YSDC 061	6.1	6.0	72	42	33
YSDC 062	6.2	7.0	97	60	50
YSDC 063	6.3				
YSDC 064	6.4				
YSDC 065	6.5				
YSDC 066	6.6				
YSDC 067	6.7				
YSDC 068	6.8				
YSDC 069	6.9				
YSDC 070	7.0				
YSDC 071	7.1				

Code No.	D	d	L1	L2	L3
YSDC 072	7.2	8.0	97	60	48
YSDC 073	7.3				
YSDC 074	7.4				
YSDC 075	7.5				
YSDC 076	7.6				
YSDC 077	7.7				
YSDC 078	7.8				
YSDC 079	7.9				
YSDC 080	8.0				
YSDC 081	8.1				

\* Available from dia.4.0 to 4.9mm on request.  
 \* See page 31 of YSDC,D5 for reinforced shank or whistle notch shank

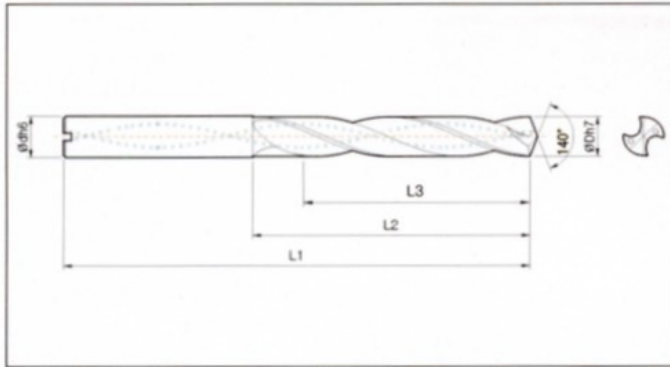


Code No.	D	d	L1	L2	L3	Code No.	D	d	L1	L2	L3	Code No.	D	d	L1	L2	L3
YSDC 082	8.2	9.0	97	60	47	YSDC 122	12.2	13.0	143	102	83	YSDC 162	16.2	17.0	146	104	79
YSDC 083	8.3					YSDC 123	12.3					YSDC 163	16.3				
YSDC 084	8.4					YSDC 124	12.4					YSDC 164	16.4				
YSDC 085	8.5					YSDC 125	12.5					YSDC 165	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					YSDC 140	14.0					YSDC 180	18.0				
YSDC 101	10.1					YSDC 141	14.1					YSDC 181	18.1				
YSDC 102	10.2	11.0	140	100	84	YSDC 142	14.2	15.0	143	102	80	YSDC 182	18.2	19.0	146	104	76
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					YSDC 148	14.8					YSDC 188	18.8				
YSDC 109	10.9					YSDC 149	14.9					YSDC 189	18.9				
YSDC 110	11.0					YSDC 150	15.0					YSDC 190	19.0				
YSDC 111	11.1					YSDC 151	15.1					YSDC 191	19.1				
YSDC 112	11.2	12.0	140	100	82	YSDC 152	15.2	16.0	143	102	78	YSDC 192	19.2	20.0	146	104	74
YSDC 113	11.3					YSDC 153	15.3					YSDC 193	19.3				
YSDC 114	11.4					YSDC 154	15.4					YSDC 194	19.4				
YSDC 115	11.5					YSDC 155	15.5					YSDC 195	19.5				
YSDC 116	11.6					YSDC 156	15.6					YSDC 196	19.6				
YSDC 117	11.7					YSDC 157	15.7					YSDC 197	19.7				
YSDC 118	11.8					YSDC 158	15.8					YSDC 198	19.8				
YSDC 119	11.9					YSDC 159	15.9					YSDC 199	19.9				
YSDC 120	12.0					YSDC 160	16.0					YSDC 200	20.0				
YSDC 121	12.1					YSDC 161	16.1										

# YES Solid Carbide Coolant Drill, Inches



YSDC



## Model : YSDC

- Solid Carbide Coolant hole drill, Plain cylindrical 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 , PVD TiN(standard stock), TiCN, TiAlN coated available on request. See page 8.

## 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.

## Inch Size

Code No.	D	d	L1	L2	L3
YSDC .1875	3/16	3/16	3.22		1.54
YSDC .2188	7/32	1/4	3.23	1.73	1.34
YSDC .2500	1/4				
YSDC .2656	17/64	5/16	3.58	2.08	1.61
YSDC .2812	9/32				
YSDC .2969	19/64				
YSDC .3125	5/16				
YSDC .3281	21/64	3/8	4.05	2.4	1.81
YSDC .3438	11/32				
YSDC .3594	23/64				
YSDC .3750	3/8				

## Inch Size

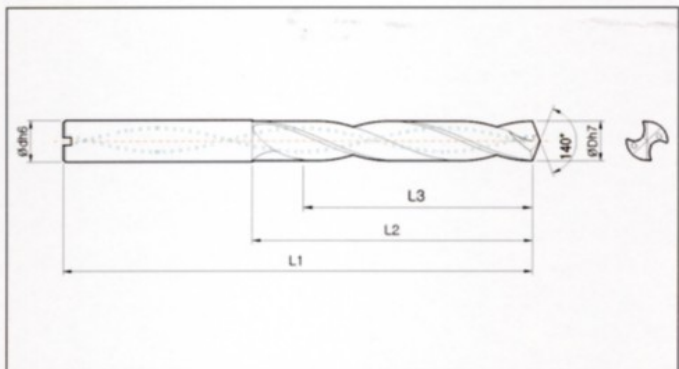
Code No.	D	d	L1	L2	L3
YSDC .3906	25/64	7/16	4.37	2.63	2
YSDC .4062	13/32				
YSDC .4219	27/64				
YSDC .4375	7/16	1/2	4.64	2.79	2.05
YSDC .4531	29/64				
YSDC .4688	15/32				
YSDC .4844	31/64				
YSDC .5000	1/2				
YSDC .5625	9/16	9/16	4.88	3.03	2.17
YSDC .6250	5/8	5/8	5.23	3.26	2.32
YSDC .6875	11/16	11/16	5.62	3.66	2.6
YSDC .7500	3/4	3/4	6.02	3.97	2.86



# YES Solid Carbide Coolant Drill, Reinforced Shank



YSDC,D5



## Model : YSDC, D5

- Solid Carbide Coolant hole drill, Whistle notch DIN6535 HE shank
- Reinforced shank for heavy machining.(See page 28 for YSDC plain cylindrical 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 , PVD TiN(standard stock), TiCN, TiAlN coated available on request. See page 8.

## 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
YSDC 050D5	5.0				
YSDC 051D5	5.1				
YSDC 052D5	5.2				
YSDC 053D5	5.3				
YSDC 054D5	5.4				
YSDC 055D5	5.5	6.0	82	44	35
YSDC 056D5	5.6				
YSDC 057D5	5.7				
YSDC 058D5	5.8				
YSDC 059D5	5.9				
YSDC 060D5	6.0				
YSDC 061D5	6.1				
YSDC 062D5	6.2				
YSDC 063D5	6.3	8.0	91	53	43
YSDC 064D5	6.4				
YSDC 065D5	6.5				

Code No.	D	d	L1	L2	L3
YSDC 066D5	6.6				
YSDC 067D5	6.7				
YSDC 068D5	6.8				43
YSDC 069D5	6.9				
YSDC 070D5	7.0				
YSDC 071D5	7.1				
YSDC 072D5	7.2				
YSDC 073D5	7.3	8.0	91	53	
YSDC 074D5	7.4				
YSDC 075D5	7.5				41
YSDC 076D5	7.6				
YSDC 077D5	7.7				
YSDC 078D5	7.8				
YSDC 079D5	7.9				
YSDC 080D5	8.0				
YSDC 081D5	8.1	10.0	103	61	48

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

# YES Solid Carbide Coolant Drill, Reinforced Shank

Code No.	D	d	L1	L2	L3	Code No.	D	d	L1	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				55	YSDC 139D5	13.9					YSDC 173D5	17.3	18.0	143	93	
YSDC 106D5	10.6					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					YSDC 144D5	14.4					YSDC 178D5	17.8				
YSDC 111D5	11.1	12.0	118	71		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				53	YSDC 149D5	14.9					YSDC 183D5	18.3				
YSDC 116D5	11.6					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				63
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 from 4.0 to 4.9mm on request.

\* YSDC, D5 with plain cylindrical shank available on request.



# YES Solid Carbide Chamfer Drill, **Metric**



**YCD**

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

## Model : YCD

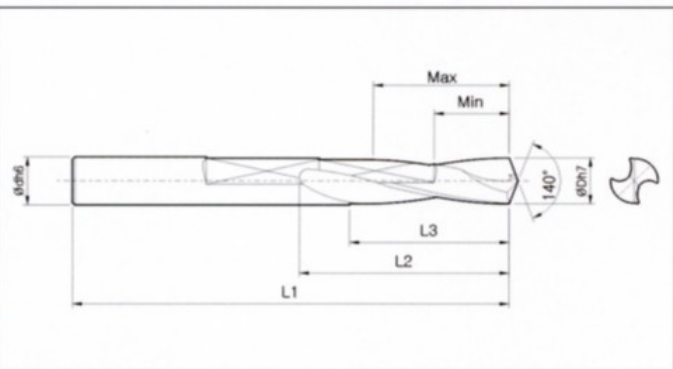
- Solid Carbide Chamfer drill, Plain cylindrical shank with flat grinding to fit YCH holder.
- 140° self-centering point for accurate hole positioning. Slow helix angle : 15° spiral(to adjust cutting depth).
- YCD is used with combination YCH chamfer holder and carbide insert XCGX110201. See page 36.
- Holder can be moved back and forth by one locking screw to adjust cutting depth.

## Carbide substrate:

- Ultra-fine Micro Grain , PVD TiN(standard stock), TiCN, TiAlN coated available on request. See page 8.

## 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	7.0	74	37	30	11	25	YCH 070
YCD 062	6.2							
YCD 063	6.3							
YCD 064	6.4							
YCD 065	6.5							
YCD 066	6.6							
YCD 067	6.7							
YCD 068	6.8							
YCD 069	6.9							
YCD 070	7.0							

Code No.	D	d	L1	L2	L3	Hole depth		Applicable Holder							
						Min	Max								
YCD 071	7.1														
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								9.0	84	45	36	14	31	YCH 090
YCD 082	8.2														
YCD 083	8.3														
YCD 084	8.4														
YCD 085	8.5														
YCD 086	8.6														
YCD 087	8.7														
YCD 088	8.8														
YCD 089	8.9														
YCD 090	9.0														

# YES 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							

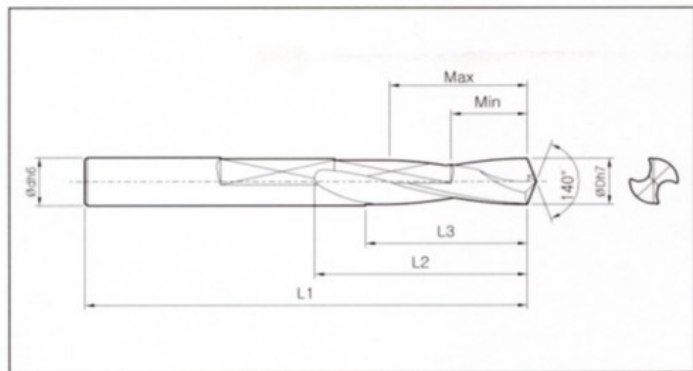


# YES Solid Carbide Chamfer Drill, Inches



**YCD**

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



## Model : YCD

- Solid Carbide Chamfer drill, Plain cylindrical shank with flat grinding to fit **YCH** holder.
- 140° self-centering point for accurate hole positioning. Slow helix angle : 15° spiral(to adjust cutting depth). Heavy web construction
- YCD is used with combination **YCH** chamfer holder and carbide insert **XCGX110201**. See page 36.
- Holder can be moved back and forth by one locking screw to adjust cutting depth.

## Carbide substrate:

- Ultra-fine Micro Grain , PVD TiN(standard stock), TiCN, TiAlN coated available on request. See page 8.

## 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	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	7/16	3.74	1.85	1.41	0.66	1.22	YCH.4375

### Inch Size

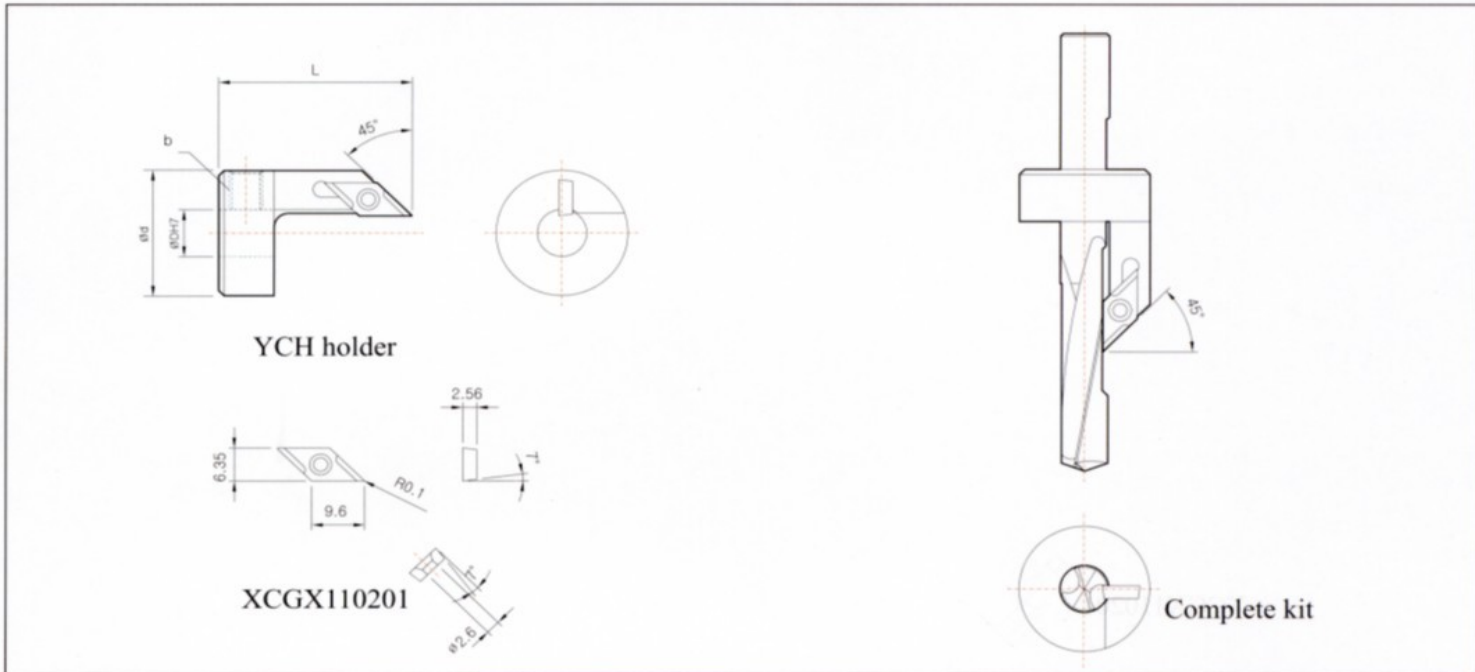
Code No.	D	d	L1	L2	L3	Hole depth		Applicable Holder
						Min	Max	
YCD .4531	29/64	7/16	3.74	1.85	1.41	0.66	1.22	YCH.4375
YCD .4844	31/64	1/2	4.01	2.12	1.61	0.74	1.37	YCH.5000
YCD .5156	33/64							
YCD .5312	17/32	9/16	4.21	2.28	1.73	0.78	1.49	YCH.5625
YCD .5781	37/64							
YCD .6562	21/32	11/16	4.68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

**YCH**



### Model : YCH

- Specially designed to work with Solid Chamfer Drill (YCD) & Insert XCGX110201.
- Drilling and chamfering in one operation economically.
- Carbide Insert XCGX110201 has two cutting edges for economic use.
- Holder moveable back and forth to adjust cutting depth by SS bolt. (Available special YCH holder for YTDI body, call your distributor.)



Code No.	D	d	L	Socket Screw Bolt size (b)	Applicable size range(YCD model)
YCH 060	6.0	21	29	M6*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*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*1.5P	YCD 131~140
YCH 150	15.0	30	39		YCD 141~150
YCH 160	16.0	31	40		YCD 151~160
YCH 170	17.0	32	42		YCD 161~170
YCH 180	18.0	33	43		YCD 171~180
YCH 190	19.0	34	44		YCD 181~190
YCH 200	20.0	35	45		YCD 191~200

\* See page 33 of applicable YCD drill together with this model.



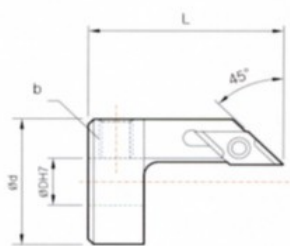
# YES Chamfer Holder, Inches

**YCH**

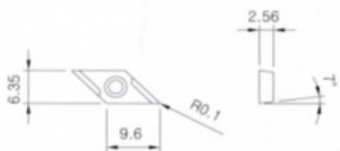


## Model : YCH

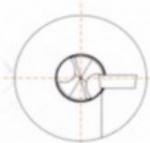
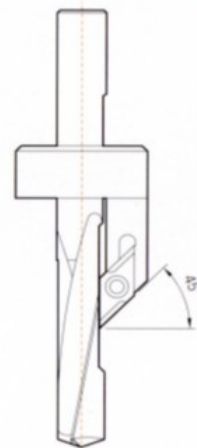
- Specially designed to work with Solid Chamfer Drill (YCD) & Insert XCGX110201.
- Drilling and chamfering in one operation economically.
- Carbide Insert XCGX110201 has two cutting edges for economic use.
- Holder moveable back and forth to adjust cutting depth by SS bolt. (Available special YCH holder for YTDI body, call your distributor.)



YCH holder



XCGX110201



Complete kit

Code No.	D	d	L	Socket Screw Bolt size (b)	Applicable size range(YCD model)
YCH .2500	.2500	0.83	1.14	M6*1.0P	YCD .2010~.2720
YCH .3125	.3125	0.91	1.34		YCD .3125~.3320
YCH .3750	.3750	0.98	1.42	M8*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*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 35 of applicable YCD drill together with this model.

- 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
- New** **YTEBI** Indexable Ball End Mill Bodies
- New** **IB** Carbide Ball IB Inserts

*Your Metal Cutting Solution by*

# Yes Carbide Cutting Tools





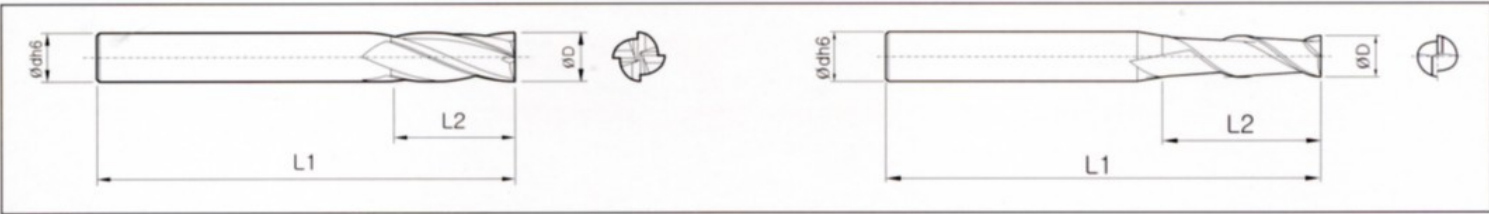
# YES Solid Carbide End Mills



**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 .

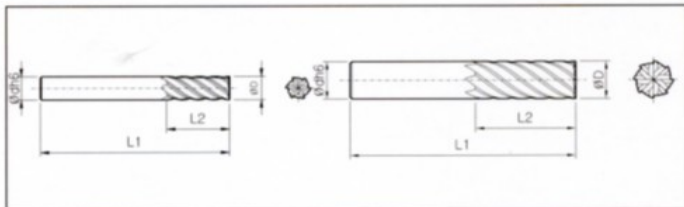
(unit : mm)

Code No.	ΦD	Φd	L1	L2	Available flutes
<b>* Standard Length 2F, 4F</b>					
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				
YSET 2070	7.0	10.0	60	20	2
YSET □080	8.0				2, 4
YSET 2090	9.0	12.0	70	25	2
YSET □100	10.0				2, 4
YSET 2110	11.0	16.0	75	30	2
YSET □120	12.0				
YSET □140	14.0	20.0	80	35	2, 4
YSET □150	15.0				
YSET □160	16.0	90	40		
YSET □180	18.0				
YSET □200	20.0	100	45		
YSET □200	20.0	105	45		
<b>* Long Length 2F, 4F</b>					
YSEL 2060	6.0	6.0	70	30	2
YSEL 2080	8.0	8.0	80	35	
YSEL 4100	10.0	10.0	108	40	4
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	160	70	

# YES Carbide High Helix End Mills



**YSET-6F**



## Model : YSET, Multi-flutes

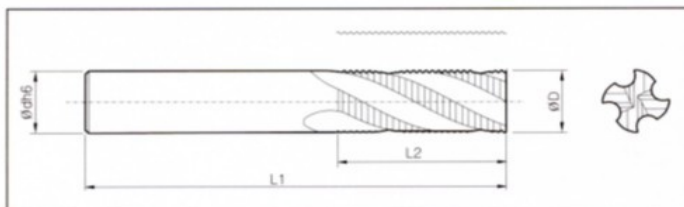
- Standard length, High helix 40°, multi-flutes 6F & 8F configuration
- Extra fine Micro grain carbide, PVD TiAlN coated to provide strength, lubricity, wear resistance and freer cutting action.
- Finish milling operation
- Suitable for high performance and high productivity machining
- Applicable to 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	
YSET 8160	16.0		90	40	
YSET 8200	20.0	20.0	105	45	8
YSET 8250	25.0	25.0	130	50	
YSET 8320	32.0	32.0	150	65	

# YES Carbide Roughing End Mills



**YSER-4F**



## 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

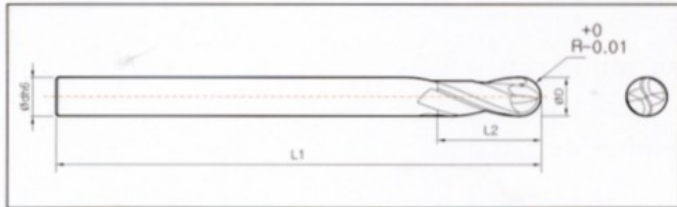
Code No.	D	d	L1	L2	Number of flute
YSER 3060	6.0	6.0	50	15	3
YSER 3080	8.0	8.0	60	20	
YSER 3100	10.0	10.0	70	25	
YSER 4120	12.0	12.0	75	30	4
YSER 4140	14.0	16.0	80	35	
YSER 4160	16.0		90	40	
YSER 6200	20.0	20.0	105	45	6
YSER 6250	25.0	25.0	130	50	



# YES Carbide Ball End Mills



**YSEB**



## 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
<b>* Standard Length</b>					
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	70	16
YSEB 3.5R	7.0	3.5			18
YSEB 4.0R	8.0	4.0	10	80	20
YSEB 4.5R	9.0	4.5			22
YSEB 5.0R	10.0	5.0	12	90	25
YSEB 6.0R	12.0	6.0			30
YSEB 7.0R	14.0	7.0	16	108	32
YSEB 8.0R	16.0	8.0			35
YSEB 10.0R	20.0	10.0	20	120	40
YSEB 12.5R	25.0	12.5			50
YSEB 16.0R	32.0	16.0	32	160	60
<b>* Long/Extra long Length</b>					
YSEBL 3.0R110	6.0	3.0	6	110	20
YSEBL 3.0R160				160	25
YSEBL 4.0R160	8.0	4.0	8	200	30
YSEBL 4.0R200					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					75
YSEBL 12.5R200	25.0	12.5	25	200	85
YSEBL 16.0R200	32.0	16.0	32		95

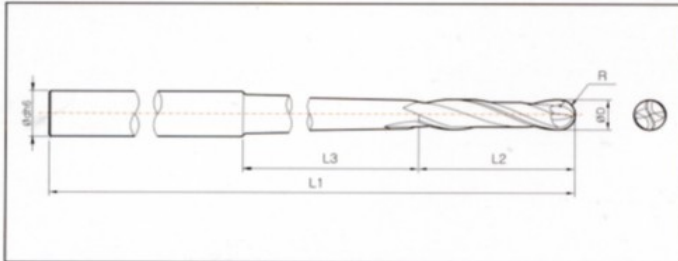
# YES Carbide Long Ball End Mills For graphite



**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			8	80
YSEBG 2.0R160	4.0	2.0			10	85
YSEBG 3.0R160	6.0	3.0	10.0	200	20	80
YSEBG 3.0R200						
YSEBG 4.0R160	8.0	4.0	12.0	160	30	70
YSEBG 4.0R200						
YSEBG 5.0R160	10.0	5.0	12.0	160	40	55
YSEBG 5.0R200						
YSEBG 6.0R160	12.0	6.0	16.0	160	50	50
YSEBG 6.0R200						80
YSEBG 8.0R200	16.0	8.0	20.0	200	60	85

# YES Indexable Ball End Mill, Patent Pending



**IB**

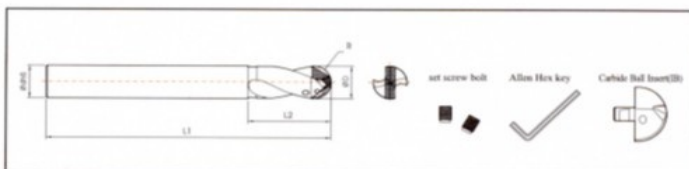
**YTEBI**

New

## Model : YTEBI, IB

(Available by Sep.2001)

- Newest Interchangeable Ball nose End Mill exclusively from Yestool
- Easy replaceable by locking screw
- Internal coolant fed design, body consists of hardened wear resistant tool steel for long life
- Carbide Ball Insert (IB) is available PVD TiN (standard), TiCN, TiAlN
- 30° regular helix spiral, 2 flutes configuration
- Special geometry with eccentric cutting edge



Code No.	D	d	L1	L2	Applicable IB Radius (R)	Set Screw Bolt Size	Allen key (mm)
YTEBI 8.0R	16.0	16.0	140	36	IB 8.0R	M3	1.5
YTEBI 10.0R	20.0	20.0	160	45	IB 10.0R	M4	2.0
YTEBI 12.5R	25.0	25.0			IB 12.5R		
YTEBI 15.0R	30.0	32.0	175	56	IB 15.0R	M5	2.5
YTEBI 16.0R	32.0				IB 16.0R	M6	3.0



**BT Collet Chuck**

**Baby Collet Chuck**

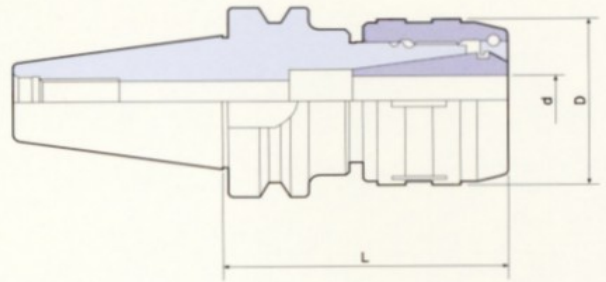
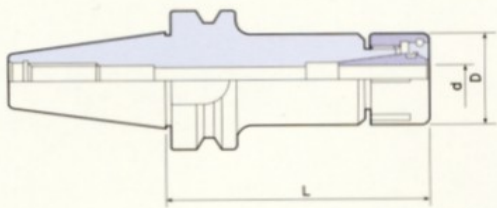
**Bearing Cap & Spring Collet**

*Your Metal Cutting Solution by*

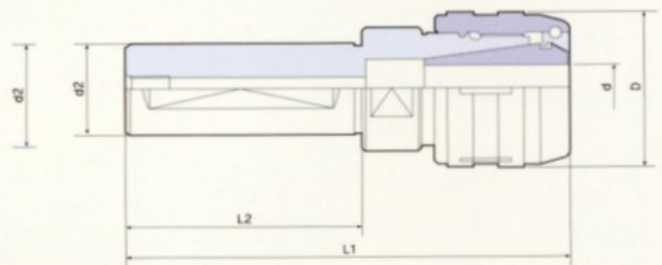
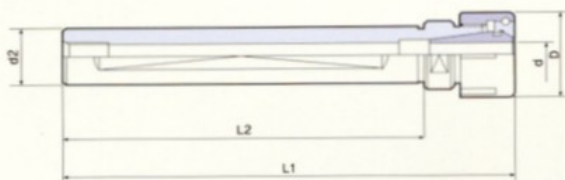
# **Yes Carbide Cutting Tools**



# YES BT & Baby Collet Chuck



Code NO.	D	d		L	Spring Collet
		Min	Max		
BT30-BER16-45	30	0.5	10.0	45	ER 16
BT30-BER16-80				80	
BT40-BER16-80				80	
BT50-BER16-90				90	
BT50-BER16-120				120	
BT30-BER32-70	55	2	20	70	ER 32
BT40-BER32-90				90	
BT50-BER32-120				120	
BT50-BER50-120	75	10	34	120	ER 50



Code NO.	Shank d2	D	L1	L2	d		Spring Collet
					Min	Max	
ST20-BER16-100	20.0	30	100	70	0.5	10.0	ER 16
ST20-BER16-150			150	120			
ST25-BER16-150			300	270			
ST32-BER16-300	32.0						
ST25-BER32-150	25.0	55	150	95	2.0	20.0	ER 32
ST32-BER32-150	32.0						

## Benefits

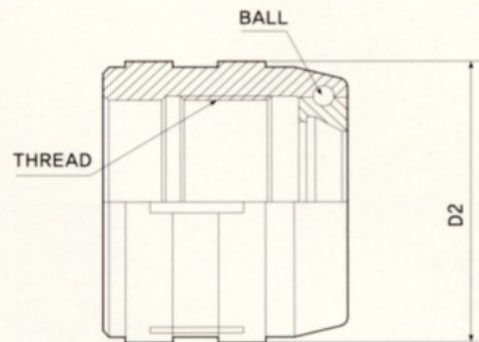
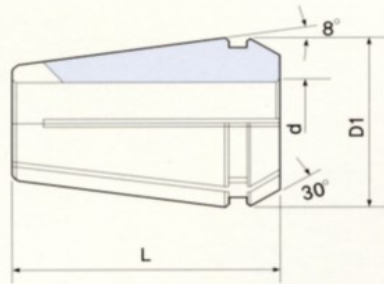
1. Provide a strong clamping.
2. Precise design and constant quality.
3. Operable to narrow work circumstance.
4. Applicable to wide range equipment.
5. Easy tool change.
6. Less abrasion of collet.



- Note**
1. Assemble the collet in cap and then fit the chuck.
  2. Keep clean in the vicinity of clamping.
  3. Always grease an anti-corrosive oil after operation.



# YES Bearing Cap & Spring Collet



Code NO.	d	D1	L	Bearing Cap code	D2
ER16-1	0.5-1.0	17	27	BRC 16	30
ER16-2	1.0-2.0				
ER16-3	2.0-3.0				
ER16-4	3.0-4.0				
ER16-5	4.0-5.0				
ER16-6	5.0-6.0				
ER16-7	6.0-7.0				
ER16-8	7.0-8.0				
ER16-9	8.0-9.0				
ER16-10	9.0-10.0				
ER32-3	2.0-3.0	33	40	BRC 32	55
ER32-4	3.0-4.0				
ER32-5	4.0-5.0				
ER32-6	5.0-6.0				
ER32-7	6.0-7.0				
ER32-8	7.0-8.0				
ER32-9	8.0-9.0				
ER32-10	9.0-10.0				
ER32-11	10.0-11.0				
ER32-12	11.0-12.0				
ER32-13	12.0-13.0				
ER32-14	13.0-14.0				
ER32-15	14.0-15.0				
ER32-16	15.0-16.0				
ER32-17	16.0-17.0				
ER32-18	17.0-18.0				
ER32-19	18.0-19.0				
ER32-20	19.0-20.0				
ER50-12	10.0-12.0	52	60	BRC 50	75
ER50-14	12.0-14.0				
ER50-16	14.0-16.0				
ER50-18	16.0-18.0				
ER50-20	18.0-20.0				
ER50-22	20.0-22.0				
ER50-24	22.0-24.0				
ER50-26	24.0-26.0				
ER50-28	26.0-28.0				
ER50-30	28.0-30.0				
ER50-32	30.0-32.0				
ER50-34	32.0-34.0				

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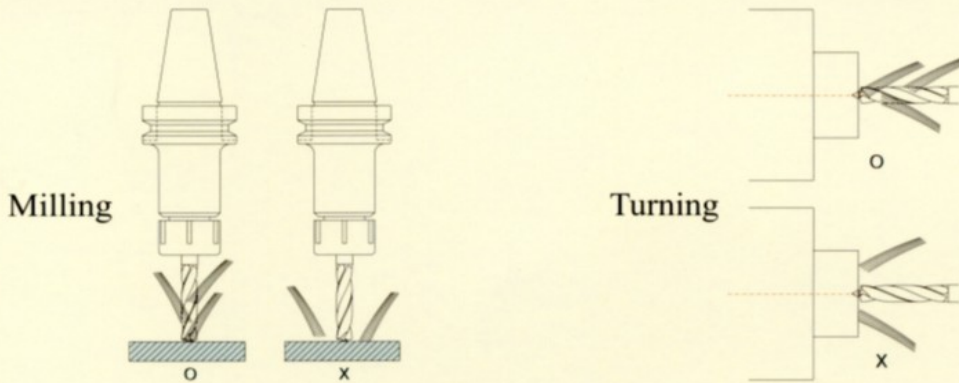
# Concentricity, Coolant supply

## Concentricity

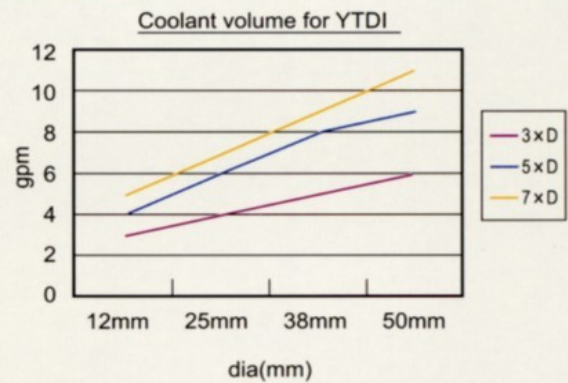
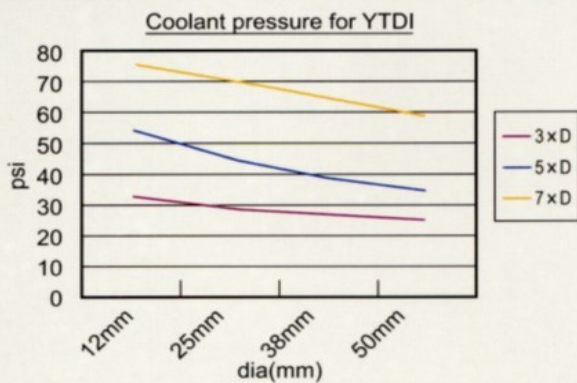
- To achieve the tolerance required or eliminate trouble, total run out between the center line of tool and workpiece must not exceed the below value.



## 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



# Recommended Cutting Data

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

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

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

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	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~	0.1~	80~	0.2~	85~	0.2~	90~	0.2~	90~	0.2~	95~	0.2~
	85	0.25	90	0.3	95	0.35	95	0.4	100	0.4	100	0.5
Nodular cast iron (FCD)	80~	0.1~	80~	0.2~	80~	0.2~	80~	0.2~	80~	0.2~	80~	0.2~
	85	0.25	85	0.3	85	0.35	90	0.4	90	0.4	90	0.5
Carbon steel (S45C)	60~	0.1~	65~	0.15~	70~	0.15~	70~	0.2~	70~	0.25~	75~	0.3~
	65	0.2	70	0.25	75	0.25	80	0.3	80	0.3	80	0.4
Alloy steel (SCM440)	50~	0.1~	55~	0.15~	60~	0.15~	60~	0.2~	65~	0.25~	65~	0.3~
	55	0.25	60	0.25	65	0.3	70	0.35	70	0.35	70	0.45
Hardened steel (SKD11)	25~	0.06~	25~	0.1~	30~	0.1~	30~	0.1~	30~	0.1~	30~	0.1~
	30	0.12	30	0.15	35	0.2	35	0.25	35	0.25	35	0.25
Stainless steel (SUS)	20~	0.05~	20~	0.1~	25~	0.1~	25~	0.1~	25~	0.1~	25~	0.1~
	25	0.1	25	0.15	30	0.2	30	0.25	30	0.25	30	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.



# Recommended Cutting Data

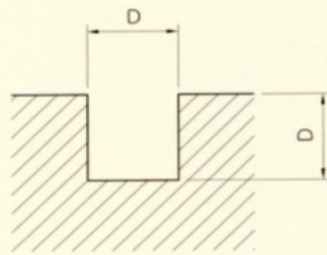
## YSET Carbide End Mills

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)	
(mm)	Flutes		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

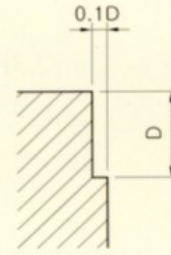


### YSET Carbide Roughing End Mills

Diameter	Material Condition	Carbon steel (S50C) (Speed = 40m/min)		Alloy steel (SCM, SKD, SUS) (Speed = 30m/min)			
		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



Slot Milling



Shoulder Milling

### YSET/HH Carbide High Helix End Mills

Diameter	Material Condition	HRC 55 v=25m/min		HRC 60 v=20m/min		HRC 65 v=15m/min		HRC 70 v=12m/min	
		rpm	Feed	rpm	Feed	rpm	Feed	rpm	Feed
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)
- $\pi$  : Circular constant (3.14)

### Feed

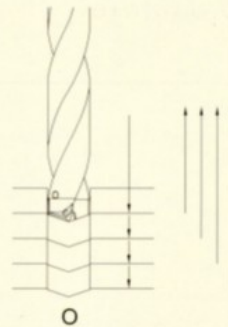
$$f = \frac{F}{N} \text{ (mm/rev)}$$

- 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

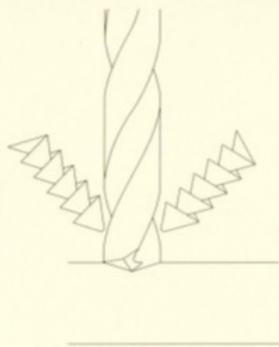


One operation is possible subject to closely tightend stacked plate without any room.



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

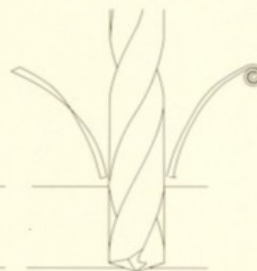
## Good chip formation



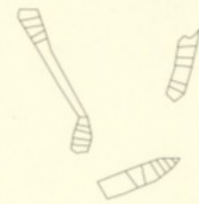
(initial drilling)



O  
(drilling through)



(bottoming)

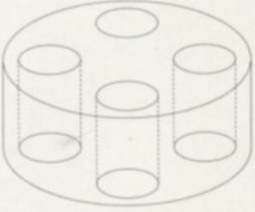



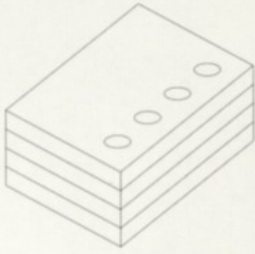
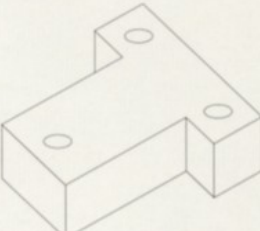
X  
(long Stringy chip)

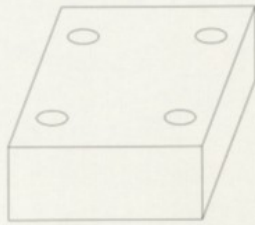


# Speed Examples, Maximum Wear

## Cutting speed examples for different workpieces by Yes Carbide drills

 <p>Φ13 x depth 10mm</p>	<p><b>FCD45</b>  <b>YCD130</b>                  N=1592rpm                  V=65m/min                  F=318mm/min                  f=0.2mm/rev</p>	 <p>Φ20 x depth 70mm</p>	<p><b>S50C</b>  <b>YTDI200P</b>                  N=876rpm                  V=55m/min                  F=263mm/min                  f=0.3mm/rev</p>
--	--	--	--

 <p>Φ24 x depth 63mm</p>	<p><b>SS41</b>  <b>YTDI240T</b>                  N=796rpm                  V=60m/min                  F=239mm/min                  f=0.3mm/rev</p>	 <p>Φ12 x depth 12mm</p>	<p><b>SCM440</b>  <b>YSD120</b>                  N=1194rpm                  V=45m/min                  F=179mm/min                  f=0.15mm/rev</p>
---	--	--	--

 <p>Φ10 x depth 15mm</p>	<p><b>SUS304</b>  <b>YSDC100</b>                  N=1115rpm                  V=35m/min                  F=112mm/min                  f=0.1mm/rev</p>	 <p>Φ15xdepth8mm</p>	<p><b>FC25</b>  <b>YTD150</b>                  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 Drill

## Power requirement for YES Carbide Drills

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

ex)

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

D = drill diameter (mm)

f = feed (mm/rev)

V = cutting speed (mm/min)

k<sub>s</sub> = specific cutting force (kg/mm)

γ = constants of performance(0.7~0.85)

### Specific cutting force (k<sub>s</sub>)

Material	Condition	HB	k <sub>s</sub> (kg/mm)	
Steel	Unalloyed steel	C = 0.15%	100~150	195
		C = 0.35%	120~180	215
		C = 0.60%	200~250	230
	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	110
		High tensile strength	200~300	150
	Malleable cast iron		110~250	115
	Nodular cast iron	Ferritic	125~200	115
		Pearlitic	200~300	185
Chilled cast iron		350~450	310	
Non ferrous	Aluminium alloys	Non heat treatable	40~80	50
		Heat treatable	80~120	80
	Aluminium alloys, Cast	Non heat treatable	50~100	80
		Heat treatable	65~115	95
	Copper alloys	Brass	65~115	80
Bronze		75~115	180	



# Trouble Shooting Guide for YES Carbide Drill

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	

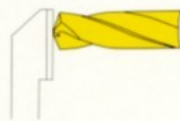
# Resharpener Guide for YES Carbide Drills

Yes brand Carbide drill can be resharpener 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

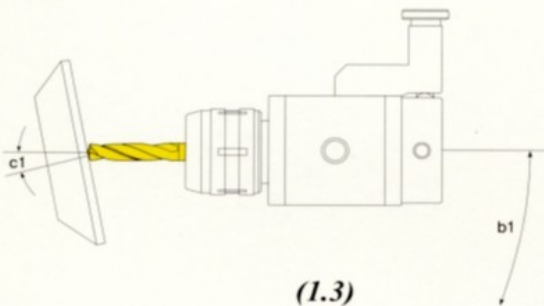


(1.1)

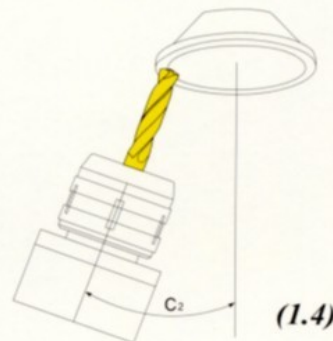


(1.2)

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)



(1.3)



(1.4)

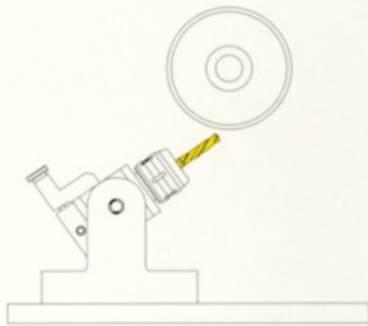
3. Set the cutting edge toward grinding wheel to the point angle <c1, 8° > as shown (1.3). Then, keep the angle <c2, 20° > as shown (1.4).
4. Grind the flank up and down repeatedly as shown <b1>.



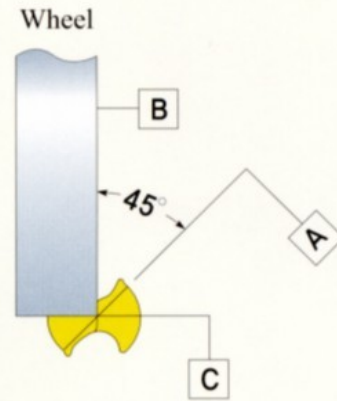
(1.5)

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.



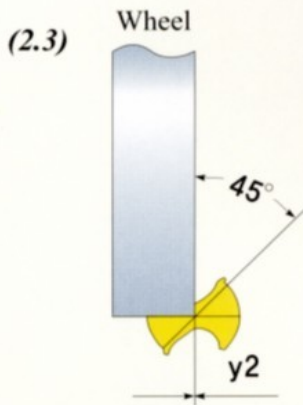


(2.1)

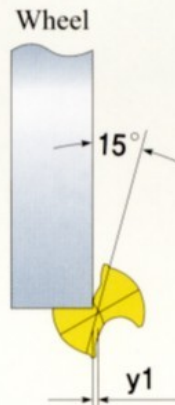


(2.2)

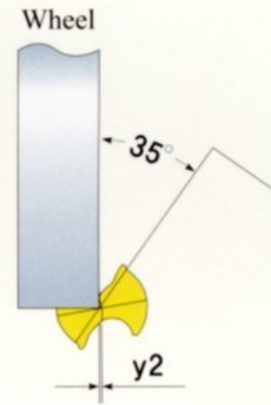
1. Set the drill at 30 or 35° in the drill attachment.(see 2.1)  
(In case of drill for AL, FC material, keep 30° ,while others at 35° .)
2. Align the "B" face of wheel at center line of drill.(see 2.2)
3. Set the "B" face of wheel at 45° from central line of the drill.



Cut 1



Cut 2



Cut 3

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.