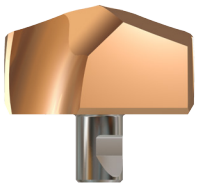
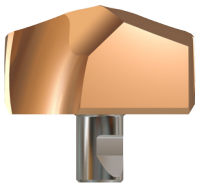
CARBIDE INSERTS & HOLDERS
i-ONE DRILLS

High Performance Exchangeable
for General Steels and Cast Iron

SERIES	Y101H	Y121H	Y141H	Y161H
SIZE MIN	10.00	12.00	14.00	16.00
SIZE MAX	11.91	13.90	15.90	17.90
PAGE	A24	A25	A26	A27
SURFACE TREATMENT	H-Coating			

Please visit globalyg1.com/mat for material search

◎ : Excellent ○ : Good

Recommended cutting conditions : p.A34

ISO	VDI 3323	Material Description	Composition / Structure / Heat Treatment		HB	HRc	Y101H	Y121H	Y141H	Y161H
P	1	Non-alloy steel	About 0.15% C	Annealed	125		◎	◎	◎	◎
	2		About 0.45% C	Annealed	190	13	◎	◎	◎	◎
	3		About 0.45% C	Quenched & Tempered	250	25	◎	◎	◎	◎
	4		About 0.75% C	Annealed	270	28	◎	◎	◎	◎
	5		About 0.75% C	Quenched & Tempered	300	32	◎	◎	◎	◎
	6	Low alloy steel		Annealed	180	10	◎	◎	◎	◎
	7			Quenched & Tempered	275	29	◎	◎	◎	◎
	8			Quenched & Tempered	300	32	◎	◎	◎	◎
	9			Quenched & Tempered	350	38	◎	◎	◎	◎
	10	High alloyed steel, and tool steel		Annealed	200	15	◎	◎	◎	◎
	11			Quenched & Tempered	325	35	◎	◎	◎	◎
M	12	Stainless steel	Ferritic / Martensitic	Annealed	200	15				
	13		Martensitic	Quenched & Tempered	240	23				
	14		Austenitic10		180	10				
K	15	Grey cast iron	Pearlitic / ferritic		180	10	◎	◎	◎	◎
	16		Pearlitic (Martensitic)		260	26	◎	◎	◎	◎
	17	Nodular cast iron	Ferritic		160	3	◎	◎	◎	◎
	18		Pearlitic		250	25	◎	◎	◎	◎
	19	Malleable cast iron	Ferritic		130		◎	◎	◎	◎
	20		Pearlitic		230	21	◎	◎	◎	◎
N	21	Aluminum-wrought alloy	Not Curable		60					
	22		Curable	Hardened	100					
	23	Aluminum-cast, alloyed	≤ 12% Si, Not Curable		75					
	24		≤ 12% Si, Curable	Hardened	90					
	25		> 12% Si, Not Curable		130					
	26	Copper and Copper Alloys (Bronze / Brass)	Cutting Alloys, PB>1%		110					
	27		CuZn, CuSnZn (Brass)		90					
	28		CuSn, lead-free copper and electrolytic copper		100					
	29	Non Metallic Materials	Duroplastic, Fiber Reinforced Plastic							
	30		Rubber, Wood, etc.							
S	31	Heat Resistant Super Alloys	Fe Based	Annealed	200	15				
	32			Cured	280	30				
	33		Ni or Co Based	Annealed	250	25				
	34			Cured	350	38				
	35			Cast	320	34				
	36	Titanium Alloys	Pure Titanium		400 Rm					
	37		Alpha + Beta Alloys	Hardened	1050 Rm					
H	38	Hardened steel		Hardened	550	55				
	39			Hardened	630	60				
	40	Chilled Cast Iron		Cast	400	42				
	41	Hardened Cast Iron		Hardened	550	55				

i - ONE DRILLS

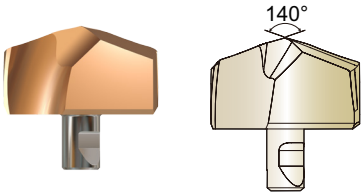
Y101H SERIES

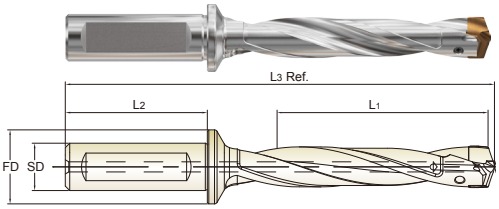
i-ONE DRILL INSERTS & HOLDERS

i-ONE DRILL EINSÄTZE UND HALTER
PLAQUETTES ET PORTE-PLAQUETTE i-ONE DRILL
INSERTI & PORTAINSERTI i-ONE DRILL

- Applications
▶For carbon steels, alloy steels and cast iron.
▶Holder length: 3xD, 5xD, 8xD
- Benefits
▶Secure and quick clamping system.
▶High performance with cost efficiency.
▶Multi-layered coating delivers outstanding productivity and reliability.

- Anwendungen
▶Für Kohlenstoffstähle, legierte Stähle und Gusseisen.
▶Halterlänge: 3xD, 5xD, 8xD
- Vorteile
▶Sicheres und schnelles Spannsystem.
▶Hohe Leistungsfähigkeit bei gleichzeitiger Kosteneffizienz.
▶Mehrschichtige Beschichtung bietet hervorragende Produktivität und Zuverlässigkeit.





CARBIDE | ISO 9766 | h7 | 140° | H Coating

p.A34

Recommended ToolHolder: Flat Shank — INDEXABLE DRILL HOLDER — ER COLLET CHUCK

Unit : mm

Series Range (mm)	Insert EDP No. H-Coating	Insert O.D. h7 dec.	h7 frac.	h7 mm	Holder EDP No.	Shank Dia. SD	Shank Length L2	Flange Dia. FD	Drilling Depth	L1	Overall Length L3 Ref.	Screw No.
S10 Ø10.00 to Ø11.99	Y101H1000	0.3937	-	10.00								TX1011P5
	Y101H1010	0.3976	-	10.10								
	Y101H1020	0.4016	-	10.20								
	Y101H1030	0.4055	-	10.30								
	Y101H1032	0.4063	13/32	10.32								
	Y101H1040	0.4094	-	10.40	ZD10003016	16	48	23	3D	31.5	103.0	
	Y101H1050	0.4134	-	10.50	ZD10005016				5D	52.5	123.0	
	Y101H1060	0.4173	-	10.60	ZD10008016				8D	84.0	153.0	
	Y101H1070	0.4213	-	10.70								
	Y101H1072	0.4219	27/64	10.72								
	Y101H1080	0.4252	-	10.80	ZD10503016	16	48	23	3D	33.0	104.0	
	Y101H1090	0.4291	-	10.90	ZD10505016				5D	55.0	125.0	
	Y101H1100	0.4331	-	11.00	ZD10508016				8D	88.0	156.5	
	Y101H1110	0.4370	-	11.10								
	Y101H1111	0.4375	7/16	11.11								
	Y101H1120	0.4409	-	11.20								
	Y101H1130	0.4449	-	11.30	ZD11003016	16	48	23	3D	34.5	105.0	
	Y101H1140	0.4488	-	11.40	ZD11005016				5D	57.5	127.0	
	Y101H1150	0.4528	-	11.50	ZD11008016				8D	92.0	160.0	
	Y101H1151	0.4531	29/64	11.51								
	Y101H1160	0.4567	-	11.60								
	Y101H1170	0.4606	-	11.70	ZD11503016	16	48	23	3D	36.0	106.0	
	Y101H1180	0.4646	-	11.80	ZD11505016				5D	60.0	129.0	
	Y101H1190	0.4685	-	11.90	ZD11508016				8D	96.0	163.5	
	Y101H1191	0.4688	15/32	11.91								

▶ Other diameters of insert and shank types of holder are available upon request.

◎ : Excellent ○ : Good

ISO	P											M				K					
Material Description	Non-alloy steel					Low alloy steel				High alloyed steel, and tool steel		Stainless steel			Duplex	Grey cast iron		Nodular cast iron		Malleable cast iron	
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14		15	16	17	18	19	20
HRc		13	25	28	32	10	29	32	38	15	35	15	23	10	10	10	26	3	25		21
HB	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	180	260	160	250	130	230
Recommended	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎					◎	◎	◎	◎	◎	◎

ISO	N										S							H			
Material Description	Aluminum-wrought alloy		Aluminum-cast, alloyed			Copper and Copper Alloys (Bronze / Brass)			Non Metallic Materials		Heat Resistant Super Alloys					Titanium Alloys		Hardened steel		Chilled Cast Iron	Hardened Cast Iron
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HRc											15	30	25	38	34			55	60	42	55
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400 Rm	1050 Rm	550	630	400	550
Recommended																					

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