



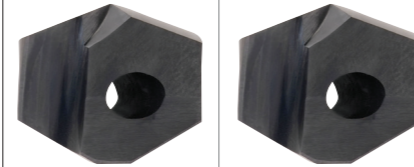
SERIES	YA1A	YA2C	YB1A	YB2C
TYPE	A		B	
SIZE MIN	12.00		14.00	
SIZE MAX	13.89		15.87	
PAGE	A44		A45	

SURFACE TREATMENT	TiAIN	TiCN	TiAIN	TiCN
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CARBIDE INSERTS & HOLDERS

***i*-DREAM DRILLS**

For General Steels and Stainless Steels



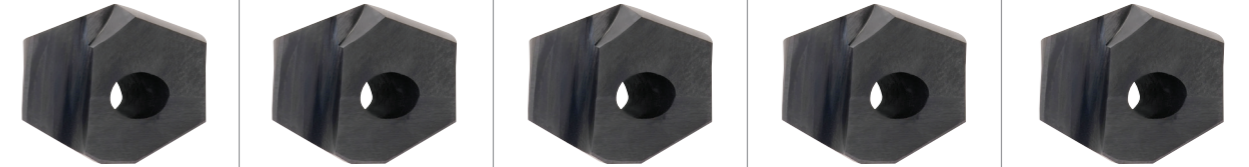
Please visit globalyg1.com/mat for material search

◎: Excellent ○: Good

Recommended cutting conditions: p.A54

ISO	VDI 3323	Material Description	Composition / Structure / Heat Treatment		HB	HRc	TiAIN	TiCN	TiAIN	TiCN	
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	Austenitic		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		Ferritic		130		◎		◎		
20	Malleable cast iron	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)		110			○		○	
	27		Cutting Alloys, PB>1%		90			○		○	
	28		CuZn, CuSnZn (Brass)		90			○		○	
	29		CuSn, lead-free copper and electrolytic copper		100			○		○	
	30		Non Metallic Materials	Duroplastic, Fiber Reinforced Plastic Rubber, Wood, etc.							
S	31	Heat Resistant Super Alloys	Fe Based	Annealed	200	15					
	32			Cured	280	30					
	33		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		Cast		400	42					
	41		Hardened		550	55					

YC1A	YC2C	YD1A	YD2C	YE1A	YE2C	YF1A	YF2C	YG1A	YG2C
C		D		E		F		G	
16.00		18.00		20.00		22.00		24.00	
17.86		19.84		21.83		23.81		25.80	
A46		A47		A48		A49		A50	
TiAIN	TiCN	TiAIN	TiCN	TiAIN	TiCN	TiAIN	TiCN	TiAIN	TiCN



ISO	VDI 3323	Material Description	Composition / Structure / Heat Treatment		HB	HRc	TiAIN	TiCN	TiAIN	TiCN	TiAIN	TiCN	TiAIN	TiCN
1							◎	○	◎	○	◎	○	◎	○
2							◎	○	◎	○	◎	○	◎	○
3							◎	○	◎	○	◎	○	◎	○
4							◎	○	◎	○	◎	○	◎	○
5							◎	○	◎	○	◎	○	◎	○
6							◎	○	◎	○	◎	○	◎	○
7							◎	○	◎	○	◎	○	◎	○
8							◎	○	◎	○	◎	○	◎	○
9							◎	○	◎	○	◎	○	◎	○
10							◎	○	◎	○	◎	○	◎	○
11							◎	○	◎	○	◎	○	◎	○
12								◎			◎			◎
13								◎			◎			◎
14								◎			◎			◎
15							◎		◎		◎		◎	
16							◎		◎		◎		◎	
17							◎		◎		◎		◎	
18							◎		◎		◎		◎	
19							◎		◎		◎		◎	
20							◎		◎		◎		◎	
21								○			○			○
22								○			○			○
23								○			○			○
24								○			○			○
25								○			○			○
26								○			○			○
27								○			○			○
28								○			○			○
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40														
41														



YA1A SERIES

YA2C SERIES

i-DREAM DRILL INSERTS & HOLDERS

- i-DREAM DRILL EINSÄTZE UND HALTER
PLAQUETTES ET PORTE-PLAQUETTE I-DREAM DRILL - USAGE GÉNÉRAL / INOX
INSERTI & PORTAINSERTI i-DREAM DRILL

- Features of i-Dream Drill Inserts-
Merkmale des i-Dream Drill Einsätze

- Secure and accurate seating resulting in accurate repeatability and concentricity.
Der sichere und genaue Sitz der Platte garantiert genaue Wiederholbarkeit beim Einsatz und beim Rundlauf.
Innovative surface treatment improves wear resistance and reduces corrosion.
Innovative Oberflächenbehandlung, die die Verschleissfestigkeit erhöht und die Korrosion vermindert.

- Features of i-Dream Drill Holders-
Merkmale des i-Dream Drill Halters-

- Special Alloy Steels maintain its hardness and toughness under high temperatures.
Speziell legierter Stahl, der seine Härte und Zähigkeit auch bei hohen Temperaturen behält.
High Performance flute design allows maximum chip evacuation and minimum interference.
Optimierte Nutenform für maximale Spanabfuhr.



Material and coating icons: CARBIDE, ISO 9766, h7, 140°, TiAlN, TiCN, p.A54, A55. Recommended ToolHolder icons: Flat Shank, INDEXABLE DRILL HOLDER, ER COLLET CHUCK.

Table with columns: Series Range, Insert EDP No., Insert O.D., Holder EDP No., Shank Dia., Shank Length, Flange Dia., Drilling Depth, Overall Length, Screw No. Includes sub-table A for diameters 12.00 to 13.99.

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

Material compatibility table with columns: ISO, Material Description, P (Non-alloy steel), M (Stainless steel), K (Grey cast iron), S (Heat Resistant Super Alloys), H (Hardened steel).



YB1A SERIES

YB2C SERIES

i-DREAM DRILL INSERTS & HOLDERS

- i-DREAM DRILL EINSÄTZE UND HALTER
PLAQUETTES ET PORTE-PLAQUETTE I-DREAM DRILL - USAGE GÉNÉRAL / INOX
INSERTI & PORTAINSERTI i-DREAM DRILL

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Merkmale des i-Dream Drill Einsätze

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Merkmale des i-Dream Drill Halters-

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Material and coating icons: CARBIDE, ISO 9766, h7, 140°, TiAlN, TiCN, p.A54, A55. Recommended ToolHolder icons: Flat Shank, INDEXABLE DRILL HOLDER, ER COLLET CHUCK.

Table with columns: Series Range, Insert EDP No., Insert O.D., Holder EDP No., Shank Dia., Shank Length, Flange Dia., Drilling Depth, Overall Length, Screw No. Includes sub-table B for diameters 14.00 to 15.99.

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

Material compatibility table with columns: ISO, Material Description, P (Non-alloy steel), M (Stainless steel), K (Grey cast iron), S (Heat Resistant Super Alloys), H (Hardened steel).



YG1A SERIES
YG2C SERIES

i-DREAM DRILL INSERTS & HOLDERS

- i-DREAM DRILL EINSÄTZE UND HALTER
- PLAQUETTES ET PORTE-PLAQUETTE i-DREAM DRILL - USAGE GÉNÉRAL / INOX
- INSERTI & PORTAINSERTI i-DREAM DRILL

- Features of i-Dream Drill Inserts- Merkmale des i-Dream Drill Einsätze**
 - Secure and accurate seating resulting in accurate repeatability and concentricity.
 - Der sichere und genaue Sitz der Platte garantiert genaue Wiederholbarkeit beim Einsatz und beim Rundlauf.
 - i-Dream Drill General / i-Dream Drill allgemeinen**
 - For most steels materials / In den meisten Stahlsorten
 - i-Dream Drill INOX / i-Dream Drill INOX**
 - For tough, ductile materials and stainless steels
 - Für zähe, verformbare Werkstoffe und rostfreie Stähle.
 - Light, sharp cutting edge / Scharfe Schneidkante
 - Soft cutting action / Weicher Schnitt
 - Minimize cutting forces / Minimaler Schneidedruck
 - Reduce built-up edge / Reduzierte Gratbildung
- Features of i-Dream Drill Holders- Merkmale des i-Dream Drill Halters-**
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 - Innovative surface treatment improves wear resistance and reduces corrosion.
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 - Optimierte Nutenform für maximale Spanabfuhr.



Unit : mm

Series Range (mm)	Insert EDP No.		Insert O.D.			Holder EDP No.	Shank Dia. SD	Shank Length L2	Flange Dia. FD	Drilling Depth		Overall Length		Screw No.
	General (TiAlN)	INOX (TiCN)	dec.	frac.	mm					L1	L3 Ref.			
G Ø24.00 to Ø25.99	YG1A2400	YG2C2400	.9449	-	24.00	ZH24003032	32	60	37	3D	72	164.8	TX2425T20	
	YG1A2421	YG2C2421	.9531	61/64	24.21	ZH24005032				5D	120	212.8		
	YG1A2450	YG2C2450	.9646	-	24.50	ZH24503032				7D	168	260.8		
	YG1A2461	YG2C2461	.9688	31/32	24.61	ZH24505032				3D	73.5	165.8		
	YG1A2470	YG2C2470	.9724	-	24.70	ZH24507032				5D	122.5	214.8		
	YG1A2500	YG2C2500	.9843	63/64	25.00	ZH25003032	7D	171.5	263.8					
	YG1A2540	YG2C2540	1.0000	1	25.40	ZH25005032	3D	75	167.8					
	YG1A2550	YG2C2550	1.0039	-	25.50	ZH25007032	5D	125	217.8					
	YG1A2567	YG2C2567	1.0106	-	25.67	ZH25503032	7D	175	267.8					
	YG1A2570	YG2C2570	1.0118	-	25.70	ZH25505032	3D	76.5	170.8					
YG1A2580	YG2C2580	1.0156	1-1/64	25.80	ZH25507032	5D	127.5	221.8						
						32	60	37	5D	127.5	221.8			
									7D	178.5	272.8			

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

ISO Material Description	P									M			K								
	Non-alloy steel			Low alloy steel			High alloyed steel, and tool steel			Stainless steel			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	32	10	29	32	38	15	35	15	23	10	10	26	3	25	21	21	
HB	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	260	160	250	130	230	
YG1A	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	
YG2C	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
ISO Material Description	N									S					H						
	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	60	100	75	90	130	110	90	100			15	30	25	38	34			55	60	42	55
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550
YG1A	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
YG2C	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

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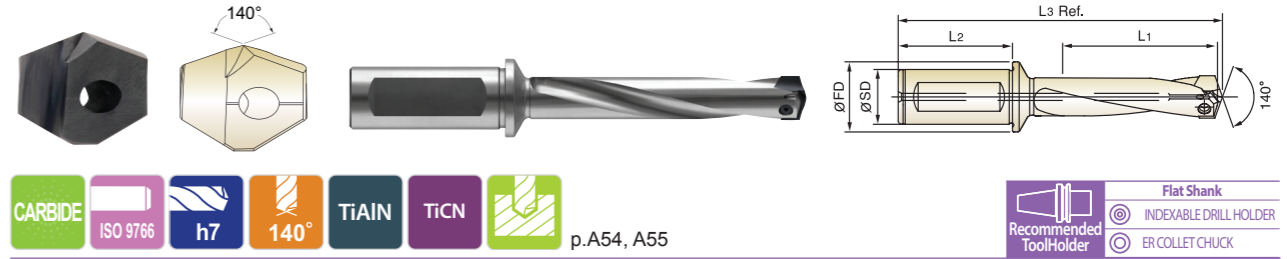


YH1A SERIES
YH2C SERIES

i-DREAM DRILL INSERTS & HOLDERS

- i-DREAM DRILL EINSÄTZE UND HALTER
- PLAQUETTES ET PORTE-PLAQUETTE i-DREAM DRILL - USAGE GÉNÉRAL / INOX
- INSERTI & PORTAINSERTI i-DREAM DRILL

- Features of i-Dream Drill Inserts- Merkmale des i-Dream Drill Einsätze**
 - Secure and accurate seating resulting in accurate repeatability and concentricity.
 - Der sichere und genaue Sitz der Platte garantiert genaue Wiederholbarkeit beim Einsatz und beim Rundlauf.
 - i-Dream Drill General / i-Dream Drill allgemeinen**
 - For most steels materials / In den meisten Stahlsorten
 - i-Dream Drill INOX / i-Dream Drill INOX**
 - For tough, ductile materials and stainless steels
 - Für zähe, verformbare Werkstoffe und rostfreie Stähle.
 - Light, sharp cutting edge / Scharfe Schneidkante
 - Soft cutting action / Weicher Schnitt
 - Minimize cutting forces / Minimaler Schneidedruck
 - Reduce built-up edge / Reduzierte Gratbildung
- Features of i-Dream Drill Holders- Merkmale des i-Dream Drill Halters-**
 - Special Alloy Steels maintain its hardness and toughness under high temperatures.
 - Speziell legierter Stahl, der seine Härte und Zähigkeit auch bei hohen Temperaturen behält.
 - Innovative surface treatment improves wear resistance and reduces corrosion.
 - Innovative Oberflächenbehandlung, die die Verschleißfestigkeit erhöht und die Korrosion vermindert.
 - High Performance flute design allows maximum chip evacuation and minimum interference.
 - Optimierte Nutenform für maximale Spanabfuhr.



Unit : mm

Series Range (mm)	Insert EDP No.		Insert O.D.			Holder EDP No.	Shank Dia. SD	Shank Length L2	Flange Dia. FD	Drilling Depth		Overall Length		Screw No.
	General (TiAlN)	INOX (TiCN)	dec.	frac.	mm					L1	L3 Ref.			
H Ø26.00 to Ø27.99	YH1A2600	YH2C2600	1.0236	-	26.00	ZH26003032	32	60	37	3D	78	171.2	TX2627T25	
	YH1A2619	YH2C2619	1.0312	1-1/32	26.19	ZH26005032				5D	130	223.2		
	YH1A2650	YH2C2650	1.0433	-	26.50	ZH26007032				7D	182	275.2		
	YH1A2659	YH2C2659	1.0469	1-3/64	26.59	ZH26503032				3D	79.5	172.2		
	YH1A2699	YH2C2699	1.0625	1-1/16	26.99	ZH26505032				5D	132.5	225.2		
	YH1A2700	YH2C2700	1.0630	-	27.00	ZH26507032	7D	185.5	278.2					
	YH1A2750	YH2C2750	1.0827	-	27.50	ZH27003032	3D	81	174.2					
	YH1A2778	YH2C2778	1.0938	1-3/32	27.78	ZH27005032	5D	135	228.2					
							32	60	37	5D	135	228.2		
										7D	189	282.2		

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

ISO Material Description	P									M			K								
	Non-alloy steel			Low alloy steel			High alloyed steel, and tool steel			Stainless steel			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	32	10	29	32	38	15	35	15	23	10	10	26	3	25	21	21	
HB	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	260	160	250	130	230	
YH1A	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	
YH2C	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
ISO Material Description	N									S					H						
	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	60	100	75	90	130	110	90	100			15	30	25	38	34			55	60	42	55
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550
YH1A	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
YH2C	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

YG-1 CO., LTD. phone:+82-32-526-0909, www.yg1.solutions, E-mail:yg1@yg1.solutions A51

HSS

i-ONE DRILLS

i-DREAM DRILLS

DREAM DRILLS -PRO

DREAM DRILLS -GENERAL

DREAM DRILLS -HIGH FEED

DREAM DRILLS -FLAT BOTTOM

DREAM DRILLS -INOX

DREAM DRILLS -ALU

DREAM DRILLS -MQL

DREAM DRILLS for HIGH HARDENED STEELS

GENERAL CARBIDE DRILLS

MULTI-1 DRILLS

HPD DRILLS

GOLD-P DRILLS

SUPER-GP DRILLS

STRAIGHT SHANK DRILLS

TAPER SHANK DRILLS

NC-SPOTTING DRILLS

CENTER DRILLS

SPADE DRILLS

REAMERS

COUNTER SINKS

COUNTER BORES

TECHNICAL DATA



YI1A SERIES
YI2C SERIES

i-DREAM DRILL INSERTS & HOLDERS

- i-DREAM DRILL EINSÄTZE UND HALTER
- PLAQUETTES ET PORTE-PLAQUETTE I-DREAM DRILL - USAGE GÉNÉRAL / INOX
- INSERTI & PORTAINSERTI i-DREAM DRILL

Features of i-Dream Drill Inserts - Merkmale des i-Dream Drill Einsätze

- Secure and accurate seating resulting in accurate repeatability and concentricity. Der sichere und genaue Sitz der Platte garantiert genaue Wiederholbarkeit beim Einsatz und beim Rundlauf.
- i-Dream Drill General / i-Dream Drill allgemeinen**
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- For tough, ductile materials and stainless steels Für zähe, verformbare Werkstoffe und rostfreie Stähle.
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- Soft cutting action / Weicher Schnitt
- Minimize cutting forces / Minimaler Schneidendruck
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Features of i-Dream Drill Holders - Merkmale des i-Dream Drill Halters

- Special Alloy Steels maintain its hardness and toughness under high temperatures. Speziell legierter Stahl, der seine Härte und Zähigkeit auch bei hohen Temperaturen behält.
- Innovative surface treatment improves wear resistance and reduces corrosion. Innovative Oberflächenbehandlung, die die Verschleissfestigkeit erhöht und die Korrosion vermindert.
- High Performance flute design allows maximum chip evacuation and minimum interference. Optimierte Nutenform für maximale Spanabfuhr.



Unit : mm

Series Range (mm)	Insert EDP No.		Insert O.D.			Holder EDP No.	Shank Dia. SD	Shank Length L2	Flange Dia. FD	Drilling Depth		Overall Length L3 Ref.	Screw No.	
	General (TiAlN)	INOX (TiCN)	h7							L1	L3 Ref.			
			dec.	frac.	mm									
I Ø28.00 to Ø29.99	YI1A2800	YI2C2800	1.1024	-	28.00	ZH28003032	32	60	37	3D	84	178.2	TX2829T25	
	YI1A2818	YI2C2818	1.1094	1-7/64	28.18	ZH28005032				5D	140			234.2
	YI1A2850	YI2C2850	1.1220	-	28.50	ZH28007032				7D	196			290.2
	YI1A2858	YI2C2858	1.1220	-	28.50	ZH28503032				3D	85.5			179.2
	YI1A2858	YI2C2858	1.1250	1-1/8	28.58	ZH28505032				5D	142.5			236.2
	YI1A2858	YI2C2858	1.1250	1-1/8	28.58	ZH28507032				7D	199.5			293.2
	YI1A2900	YI2C2900	1.1417	-	29.00	ZH29003032	3D	87	182.2					
	YI1A2937	YI2C2937	1.1562	1-5/32	29.37	ZH29005032	5D	145	240.2					
	YI1A2950	YI2C2950	1.1614	-	29.50	ZH29007032	7D	203	298.2					
	YI1A2977	YI2C2977	1.1719	1-11/64	29.77	ZH29503032	32	60	37	3D	88.5	183.2	TX2930T25	
					ZH29505032	5D				147.5	242.2			
					ZH29507032	7D				206.5	301.2			

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



YJ1A SERIES
YJ2C SERIES

i-DREAM DRILL INSERTS & HOLDERS

- i-DREAM DRILL EINSÄTZE UND HALTER
- PLAQUETTES ET PORTE-PLAQUETTE I-DREAM DRILL - USAGE GÉNÉRAL / INOX
- INSERTI & PORTAINSERTI i-DREAM DRILL

Features of i-Dream Drill Inserts - Merkmale des i-Dream Drill Einsätze

- Secure and accurate seating resulting in accurate repeatability and concentricity. Der sichere und genaue Sitz der Platte garantiert genaue Wiederholbarkeit beim Einsatz und beim Rundlauf.
- i-Dream Drill General / i-Dream Drill allgemeinen**
- For most steels materials / In den meisten Stahlsorten
- i-Dream Drill INOX / i-Dream Drill INOX**
- For tough, ductile materials and stainless steels Für zähe, verformbare Werkstoffe und rostfreie Stähle.
- Light, sharp cutting edge / Scharfe Schneidkante
- Soft cutting action / Weicher Schnitt
- Minimize cutting forces / Minimaler Schneidendruck
- Reduce built-up edge / Reduzierte Gratbildung

Features of i-Dream Drill Holders - Merkmale des i-Dream Drill Halters

- Special Alloy Steels maintain its hardness and toughness under high temperatures. Speziell legierter Stahl, der seine Härte und Zähigkeit auch bei hohen Temperaturen behält.
- Innovative surface treatment improves wear resistance and reduces corrosion. Innovative Oberflächenbehandlung, die die Verschleissfestigkeit erhöht und die Korrosion vermindert.
- High Performance flute design allows maximum chip evacuation and minimum interference. Optimierte Nutenform für maximale Spanabfuhr.



Unit : mm

Series Range (mm)	Insert EDP No.		Insert O.D.			Holder EDP No.	Shank Dia. SD	Shank Length L2	Flange Dia. FD	Drilling Depth		Overall Length L3 Ref.	Screw No.	
	General (TiAlN)	INOX (TiCN)	h7							L1	L3 Ref.			
			dec.	frac.	mm									
J Ø30.00 to Ø31.99	YJ1A3000	YJ2C3000	1.1811	-	30.00	ZH30003032	32	60	37	3D	90	186.0	TX3031T25	
	YJ1A3016	YJ2C3016	1.1875	1-3/16	30.16	ZH30005032				5D	150			246.0
	YJ1A3050	YJ2C3050	1.2008	-	30.50	ZH30007032				7D	210			306.0
	YJ1A3056	YJ2C3056	1.2031	1-13/64	30.56	ZH30503032				3D	91.5			187.0
	YJ1A3096	YJ2C3096	1.2188	1-7/32	30.96	ZH30505032				5D	152.5			248.0
	YJ1A3096	YJ2C3096	1.2188	1-7/32	30.96	ZH30507032				7D	213.5			309.0
	YJ1A3100	YJ2C3100	1.2205	-	31.00	ZH31003032	3D	93	188.0					
	YJ1A3150	YJ2C3150	1.2402	-	31.50	ZH31005032	5D	155	250.0					
	YJ1A3175	YJ2C3175	1.2500	1-1/4	31.75	ZH31007032	7D	217	312.0					
						ZH31503032	32	60	37	3D	94.5	191.0	TX3132T25	
					ZH31505032	5D				157.5	254.0			
					ZH31507032	7D				220.5	317.0			

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

◎ : Excellent ○ : Good

ISO	P																			M					K																									
	Non-alloy steel									Low alloy steel										High alloyed steel, and tool steel					Stainless steel					Grey cast iron				Nodular cast iron		Malleable cast iron														
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45					
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45					
HRC	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	260	160	250	130	230																														
YI1A	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎																																							
YI2C	○	○	○	○	○	○	○	○	○	○	○	◎	◎	◎																																				

◎ : Excellent ○ : Good

ISO	P																			M					K																														
	Non-alloy steel									Low alloy steel										High alloyed steel, and tool steel					Stainless steel					Grey cast iron				Nodular cast iron		Malleable cast iron																			
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45										
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45										
HRC	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	260	160	250	130	230																																			
YJ1A	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎																																												
YJ2C	○	○	○	○	○	○	○	○	○	○	○	◎	◎	◎																																									

HSS

i-ONE DRILLS

i-DREAM DRILLS

DREAM DRILLS -PRO

DREAM DRILLS -GENERAL

DREAM DRILLS -HIGH FEED

DREAM DRILLS -FLAT BOTTOM

DREAM DRILLS -INOX

DREAM DRILLS -ALU

DREAM DRILLS -MQL

DREAM DRILLS for HIGH HARDENED STEELS

GENERAL CARBIDE DRILLS

MULTI-1 DRILLS

HPD DRILLS

GOLD-P DRILLS

SUPER-GP DRILLS

STRAIGHT SHANK DRILLS

TAPER SHANK DRILLS

NC-SPOTTING DRILLS

CENTER DRILLS

SPADE DRILLS

REAMERS

COUNTER SINKS

COUNTER BORES

TECHNICAL DATA

**YA1A, YB1A, YC1A, YD1A, YE1A,
YF1A, YG1A, YH1A, YI1A, YJ1A** SERIES

i-DREAM DRILLS - GENERAL

Vc = m/min.
RPM = rev./min.
FEED = mm/rev.

ISO	VDI 3323	Material Description	Vc	Feed				
				Ø12.00-14.99	Ø15.00-17.99	Ø18.00-21.99	Ø22.00-26.99	Ø27.00-31.99
P	1	Non-alloy steel	95-120	0.16-0.28	0.21-0.35	0.27-0.40	0.34-0.52	0.37-0.55
	2		80-105	0.14-0.24	0.21-0.35	0.27-0.40	0.34-0.52	0.37-0.55
	3		60-80	0.12-0.20	0.17-0.28	0.22-0.32	0.30-0.46	0.33-0.49
	4		55-70	0.10-0.16	0.15-0.25	0.21-0.30	0.25-0.38	0.29-0.43
	5		55-70	0.10-0.16	0.15-0.25	0.21-0.30	0.25-0.38	0.29-0.43
	6	Low alloy steel	70-90	0.12-0.20	0.17-0.28	0.22-0.32	0.30-0.46	0.34-0.50
	7		60-80	0.12-0.20	0.15-0.25	0.22-0.32	0.30-0.46	0.34-0.50
	8		55-70	0.10-0.16	0.13-0.21	0.21-0.30	0.25-0.38	0.29-0.43
	9		45-60	0.08-0.12	0.13-0.21	0.21-0.30	0.25-0.38	0.29-0.43
	10		50-65	0.10-0.16	0.13-0.21	0.18-0.26	0.20-0.31	0.24-0.35
	11	High alloyed steel, and tool steel	40-55	0.10-0.16	0.11-0.18	0.21-0.30	0.20-0.31	0.24-0.35
K	15	Grey cast iron	100-125	0.15-0.26	0.20-0.37	0.27-0.42	0.36-0.51	0.40-0.55
	16		75-95	0.11-0.20	0.16-0.29	0.20-0.30	0.25-0.35	0.29-0.40
	17	Nodular cast iron	95-120	0.13-0.22	0.17-0.31	0.21-0.32	0.28-0.40	0.32-0.44
	18		75-95	0.11-0.20	0.14-0.26	0.19-0.29	0.25-0.35	0.29-0.40
	19		100-125	0.13-0.22	0.17-0.31	0.21-0.32	0.28-0.40	0.32-0.44
20	Malleable cast iron	75-95	0.11-0.18	0.14-0.26	0.19-0.29	0.25-0.35	0.29-0.40	

- The recommendations for speeds, feeds and other parameters presented in this chart are nominal recommendations and should be considered only as good starting points. Speed and feed reductions (20% reduction in speed and 10% reduction in feed) are recommended.
- Recommend you to reduce the feed rate to 85%, 70% when you use 5xD, 7xD holders.
- For use of 7xD holder, we recommend to use a pilot drill with equal to or larger than 140° point angle (0.5xD - 1.5xD). The use of the centering pre-hole improves hole location, roundness and surface finish.

Comparison with Split Point Drill, Spade Drill & Dream Drill



**YA2C, YB2C, YC2C, YD2C, YE2C,
YF2C, YG2C, YH2C, YI2C, YJ2C** SERIES

i-DREAM DRILLS - INOX

Vc = m/min.
RPM = rev./min.
FEED = mm/rev.

ISO	VDI 3323	Material Description	Vc	Feed				
				Ø12.00-14.99	Ø15.00-17.99	Ø18.00-21.99	Ø22.00-26.99	Ø27.00-31.99
P	1	Non-alloy steel	95-120	0.16-0.28	0.21-0.35	0.27-0.40	0.34-0.52	0.37-0.55
	2		80-105	0.14-0.24	0.21-0.35	0.27-0.40	0.34-0.52	0.37-0.55
	3		60-80	0.12-0.20	0.17-0.28	0.22-0.32	0.30-0.46	0.33-0.49
	4		55-70	0.10-0.16	0.15-0.25	0.21-0.30	0.25-0.38	0.29-0.43
	6		Low alloy steel	70-90	0.12-0.20	0.17-0.28	0.22-0.32	0.30-0.46
	7	60-80		0.12-0.20	0.15-0.25	0.22-0.32	0.30-0.46	0.34-0.50
	10	High alloyed steel, and tool steel	50-65	0.10-0.16	0.13-0.21	0.18-0.26	0.20-0.31	0.24-0.35
M	12	Stainless steel	30-45	0.08-0.14	0.09-0.15	0.10-0.16	0.12-0.20	0.14-0.22
	13		30-45	0.08-0.14	0.09-0.15	0.10-0.16	0.12-0.20	0.14-0.22
	14		45-60	0.10-0.16	0.12-0.18	0.14-0.20	0.15-0.26	0.18-0.28
N	21	Aluminum-wrought alloy	250-330	0.30-0.40	0.35-0.45	0.40-0.50	0.45-0.55	0.50-0.60
	22		200-250	0.30-0.40	0.35-0.45	0.40-0.50	0.45-0.55	0.50-0.60
	23	Aluminum-cast, alloyed	200-250	0.25-0.35	0.30-0.40	0.35-0.45	0.40-0.50	0.45-0.55
	24		150-220	0.25-0.35	0.30-0.40	0.35-0.45	0.40-0.50	0.45-0.55
	25		100-200	0.20-0.30	0.25-0.35	0.30-0.40	0.35-0.45	0.40-0.50
	26		115-145	0.16-0.28	0.23-0.36	0.29-0.36	0.37-0.45	0.41-0.48
	27	Copper and Copper Alloys (Bronze / Brass)	145-185	0.17-0.29	0.24-0.37	0.30-0.38	0.38-0.46	0.42-0.49
	28		95-120	0.06-0.09	0.09-0.13	0.11-0.13	0.15-0.18	0.19-0.22

- The recommendations for speeds, feeds and other parameters presented in this chart are nominal recommendations and should be considered only as good starting points. Speed and feed reductions (20% reduction in speed and 10% reduction in feed) are recommended.
- Recommend you to reduce the feed rate to 85%, 70% when you use 5xD, 7xD holders.
- For use of 7xD holder, we recommend to use a pilot drill with equal to or larger than 140° point angle (0.5xD - 1.5xD). The use of the centering pre-hole improves hole location, roundness and surface finish.

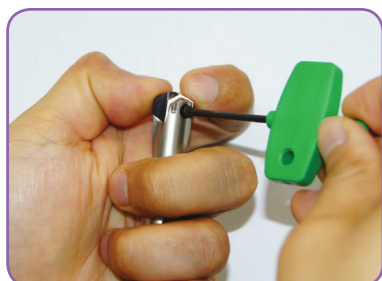
**ASSEMBLY OF i-DREAM DRILLS
MONTAGE DES i-DREAM DRILLS**



Make sure to clean the insert and insert seat.
Schneideinsatz und Haltersitz sorgfältig reinigen.



Slide the drill insert into the slot of the holder and press down the insert to touch the bottom of the slot.
Schneideinsatz in den Haltersitz einführen und den Schneideinsatz fest auf den Grund des Haltersitzes pressen.



After confirming the insert is pressed down to the bottom of the slot, tighten the screw using anti-seize compound.
Wenn der Schneideinsatz fest auf den Grund des Haltersitzes gepresst ist, die Schraube fest anziehen und dabei Spezialfett verwenden.

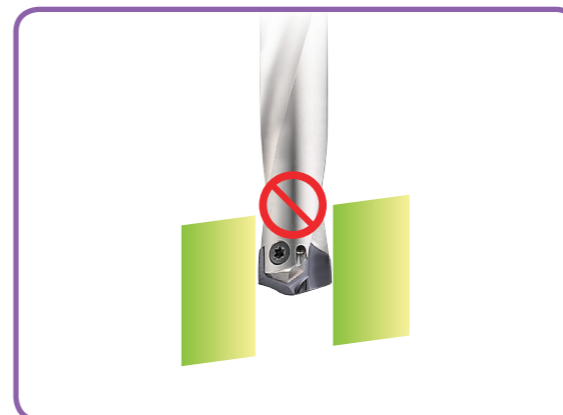
WRENCH TYPE	PRODUCT No.	T-HANDLE No.	SERIES (SIZE)	CLAMPING TORQUE (N·m)	
WING TYPE 	TWWT08	—	A (Ø12.00-Ø13.99)	2.4	
			B (Ø14.00-Ø15.99)		
			C (Ø16.00-Ø17.99)		
TORX BIT TYPE 	TWBT15	TWH600	D (Ø18.00-Ø19.99)	6	
			TWBT20	E, F, G (Ø20.00-Ø25.99)	10
			TWBT25	H, I, J (Ø26.00-Ø31.99)	13

- Use the wing type or T-type wrench.
Benutzen Sie den Winkeldreher oder T - Schlüsse
- ▶ Need to use appropriate wrenches and screws as indicated.
Unbedingt die angegebenen Schrauben und Dreher verwenden.
 - ▶ It's important to tighten up the screw properly.
Es ist wichtig, die Schraube korrekt und fest anzuziehen.

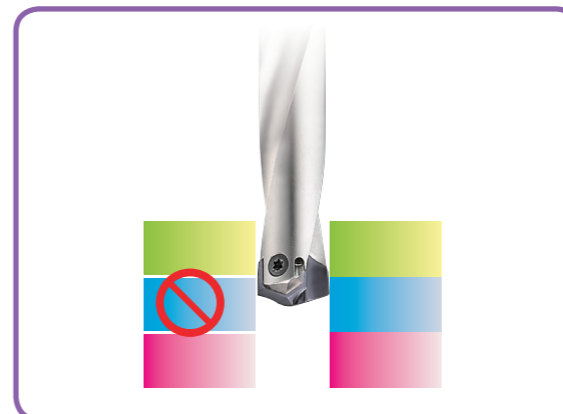
**CAUTION-NOT RECOMMENDABLE APPLICATION
ACHTUNG - NICHT EMPFOHLENE ANWENDUNG**



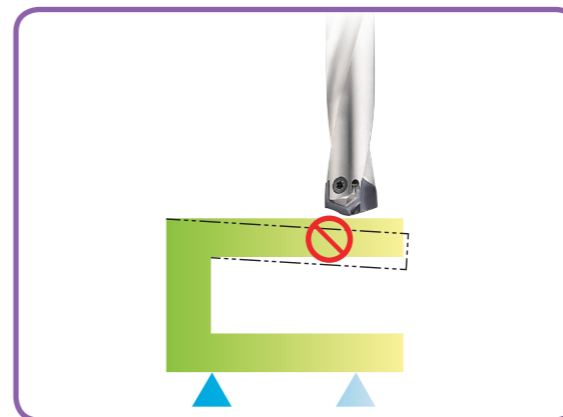
Intersecting cross hole is bigger than the drill insert's Margin Length.
Der Haltersitz ist größer als die Breite des Schneideinsatzes.



Material with slanting entrance and exit over 7 degrees. (If drilling 7 degrees or under slanting surface, reduce the feed about 30-50%)
Werkstücke mit schrägem Anschnitt oder Austritt von über 7°. (Zum Bohren von bis zu 7° Schräge den Vorschub um ca. 30-50% reduzieren).

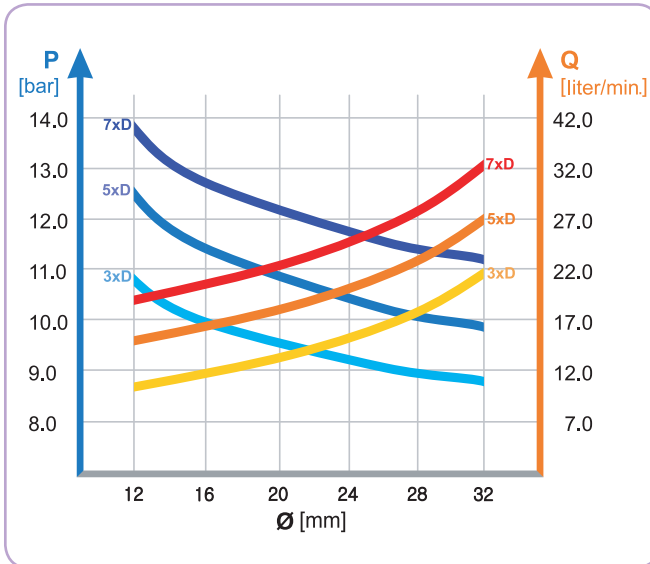


For drilling stacked plates, minimize the space between the plates.
Beim Bohren von Blechpaketen den Abstand der Bleche minimieren.
The space between stacked plates can cause insert breakage or poor chip control.
Freiraum in Blechpaketen kann den Bruch des Schneideinsatzes oder schlechte Entspannung verursachen.



The material needs to be fixtured securely before drilling.
Das Werkstück muss fest und sicher aufgespannt sein

RECOMMENDED COOLANT PRESSURE AND FLOW RATE ON VERTICAL DRILLING
EMPFOHLENE KÜHLMITTELDRUCK UND - MENGE BEIM VERTIKALEN BOHREN

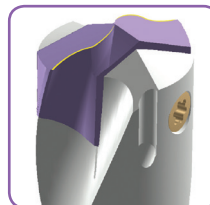


- Recommended emulsion mix is 6 - 8%.
Empfohlene Emulsionsmischung 6 - 8%.
- For Drilling into Stainless and High Strength steels, a mix of 10% is recommended.
Beim Bohren in rostfreie und hochfeste Stähle werden 10% empfohlen.
- For horizontal drilling, 30% reduction on the coolant pressure and flow rate is possible.
Beim horizontalen Bohren können Kühlmitteldruck und -menge um 30% gemindert werden.
- Dry drilling is possible for 1-2xD drilling.
(But not recommended.)
Trocken Bohren ist möglich bei 1-2xD.
(Aber nicht empfohlen.)

TROUBLE SHOOTING
PROBLEMLÖSUNGEN



- 1) Heavy flank wear / Fast flank wear**
- Reduce cutting speed
 - Increase feed



- 2) Chipping on cutting edge**
- Reduce feed
 - Check the rigidity of spindle and chuck
 - Rigid clamping of workpiece



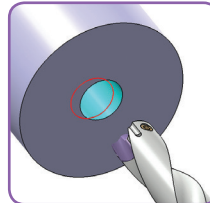
- 3) Build-up on cutting edge**
- Increase cutting speed
 - Use a coated insert



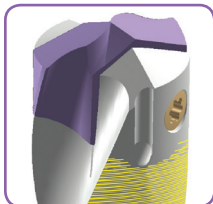
- 4) Chipping or break down on outer corner**
- Reduce feed
 - Rigid clamping of workpiece



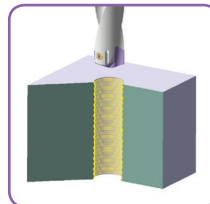
- 5) Wear of land margin**
- Rigid clamping of workpiece
 - Reduce cutting speed
 - Increase coolant flow



- 6) Unsatisfactory positioning of the hole**
- Rigid clamping of workpiece
 - Reduce feed during entrance or exit



- 7) Scratching on holder**
- Rigid clamping of workpiece
 - Reduce feed
 - Increase coolant flow



- 8) Unsatisfactory surface finish**
- Rigid clamping of workpiece
 - Increase coolant flow and pressure