



Leading Through Innovation

CARBIDE INSERTS & HOLDERS

i - DREAM DRILLS

i-Dream Drills

- For General Steels and Stainless Steels
- Für allgemeine Stähle und Edelstähle

SELECTION GUIDE

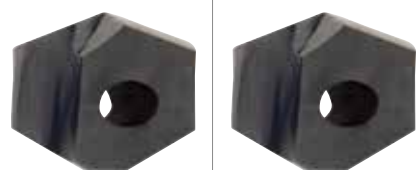


SERIES	YA1A	YA2C	YB1A	YB2C
TYPE	A		B	
SIZE MIN	12.00		14.00	
SIZE MAX	13.89		15.87	
PAGE	58		59	
SURFACE TREATMENT	TiAlN	TiCN	TiAlN	TiCN

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.68

ISO	VDI 3323	Material Description	Composition / Structure / Heat Treatment	HB	HRc	TiAlN	TiCN	TiAlN	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)	CuZn, CuSnZn (Brass)	90			○		○
	27	Non Metallic Materials	CuSn, lead-free copper and electrolytic copper	100				○		○
	28		Duroplastic, Fiber Reinforced Plastic							
	29		Rubber, Wood, etc.							
	S	30	Heat Resistant Super Alloys	Fe Based Annealed	200	15				
31		Fe Based Cured		280	30					
32		Ni or Co Based Annealed		250	25					
33		Ni or Co Based Cured		350	38					
34		Ni or Co Based Cast		320	34					
35		Titanium Alloys		Pure Titanium	400 Rm					
36				Alpha + Beta Alloys Hardened	1050 Rm					
H	37	Hardened steel	Hardened	550	55					
	38		Hardened	630	60					
	39		Cast	400	42					
40	Hardened Cast Iron	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	
60		61		62		63		64	
TiAlN	TiCN	TiAlN	TiCN	TiAlN	TiCN	TiAlN	TiCN	TiAlN	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
										29
										30
										31
										32
										33
										34
										35
										36
										37
										38
										39
										40
										41

SELECTION GUIDE



SERIES	YH1A	YH2C
TYPE	H	
SIZE MIN	26.00	
SIZE MAX	27.78	
PAGE	65	
SURFACE TREATMENT	TiAIN	TiCN

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.68

ISO	VDI 3323	Material Description	Composition / Structure / Heat Treatment	HB	HRc	YH1A	YH2C	
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)	CuZn, CuSnZn (Brass)	90		○	
	27	Non Metallic Materials	Duroplastic, Fiber Reinforced Plastic Rubber, Wood, etc.				○	
	28						○	
	29						○	
	S	31	Heat Resistant Super Alloys	Fe Based	Annealed	200	15	
32		Cured			280	30		
33		Annealed			250	25		
34		Ni or Co Based		Cured	350	38		
35				Cast	320	34		
36				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		

YI1A	YI2C	YJ1A	YJ2C	ZH*3	ZH*5	ZH*7
I		J				
28.00		30.00				
29.77		31.75				
66		67		3XD	5XD	7XD
TiAIN	TiCN	TiAIN	TiCN			



ISO	VDI 3323	Material Description	Composition / Structure / Heat Treatment	HB	HRc	YI1A	YI2C	YJ1A	YJ2C	ZH*3	ZH*5	ZH*7	
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)	CuZn, CuSnZn (Brass)	90			○		○			
	27	Non Metallic Materials	Duroplastic, Fiber Reinforced Plastic Rubber, Wood, etc.					○		○			
	28							○		○			
	29								○		○		
	S	31	Heat Resistant Super Alloys	Fe Based	Annealed	200	15						
32		Cured			280	30							
33		Annealed			250	25							
34		Ni or Co Based		Cured	350	38							
35				Cast	320	34							
36				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 SERIES
YC2C 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.



CARBIDE ISO 9766 h7 140° P.68, 70

Series Range	Insert EDP No.		Insert O.D.			Holder EDP No.	Shank Dia.	Shank Length	Flange Dia.	Drilling Depth		Overall Length	Screw No.
	General (TiAlN)	INOX (TiCN)	h7							L1	L3 Ref.		
(mm)			dec.	frac.	mm		SD	L2	FD				
C Ø16.00 to Ø17.99	YC1A1600	YC2C1600	.6299		16.00								
	YC1A1609	YC2C1609	.6335		16.09	ZH16003020				3D 48	125.0		
	YC1A1620	YC2C1620	.6378		16.20	ZH16005020	20	50	25	5D 80	157.0		
	YC1A1627	YC2C1627	.6406	41/64	16.27	ZH16007020				7D 112	189.0		TX1617T08
	YC1A1630	YC2C1630	.6417		16.30								
	YC1A1650	YC2C1650	.6496		16.50	ZH16503020				3D 49.5	127.0		
	YC1A1667	YC2C1667	.6562	21/32	16.67	ZH16505020	20	50	25	5D 82.5	160.0		
	YC1A1680	YC2C1680	.6614		16.80	ZH16507020				7D 115.5	193.0		
	YC1A1700	YC2C1700	.6693		17.00	ZH17003020				3D 51	128.0		
	YC1A1707	YC2C1707	.6719	43/64	17.07	ZH17005020	20	50	25	5D 85	162.0		
	YC1A1746	YC2C1746	.6875	11/16	17.46	ZH17007020				7D 119	196.0		
	YC1A1750	YC2C1750	.6890		17.50	ZH17503020				3D 52.5	130.0		
	YC1A1780	YC2C1780	.7008		17.80	ZH17505020	20	50	25	5D 87.5	165.0		
	YC1A1786	YC2C1786	.7031	45/64	17.86	ZH17507020				7D 122.5	200.0		TX1718T08

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

◎ : Excellent ○ : Good

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																				
HB	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	260	160	250	130	230
YC1A	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎
YC2C	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

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																					
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550
YC1A	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎
YC2C	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○



YD1A SERIES
YD2C 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.



CARBIDE ISO 9766 h7 140° P.68, 70

Series Range	Insert EDP No.		Insert O.D.			Holder EDP No.	Shank Dia.	Shank Length	Flange Dia.	Drilling Depth		Overall Length	Screw No.
	General (TiAlN)	INOX (TiCN)	h7							L1	L3 Ref.		
(mm)			dec.	frac.	mm		SD	L2	FD				
D Ø18.00 to Ø19.99	YD1A1800	YD2C1800	.7087		18.00	ZH18003025				3D 54	140.3		
	YD1A1826	YD2C1826	.7188	23/32	18.26	ZH18005025	25	56	32	5D 90	176.3		
	YD1A1850	YD2C1850	.7283		18.50	ZH18007025				7D 126	212.3		TX1819T15
	YD1A1865	YD2C1865	.7344	47/64	18.65	ZH18503025	25	56	32	3D 55.5	141.3		
	YD1A1880	YD2C1880	.7402		18.80	ZH18505025				5D 92.5	178.3		
	YD1A1900	YD2C1900	.7480		19.00	ZH18507025				7D 129.5	215.3		
	YD1A1905	YD2C1905	.7500	3/4	19.05	ZH19003025	25	56	32	3D 57	144.3		
	YD1A1927	YD2C1927	.7587		19.27	ZH19005025				5D 95	182.3		
	YD1A1945	YD2C1945	.7656	49/64	19.45	ZH19007025	25	56	32	7D 133	220.3		TX1920T15
	YD1A1950	YD2C1950	.7677		19.50	ZH19503025				3D 58.5	145.3		
	YD1A1980	YD2C1980	.7795		19.80	ZH19505025	25	56	32	5D 97.5	184.3		
	YD1A1984	YD2C1984	.7812	25/32	19.84	ZH19507025				7D 136.5	223.3		

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

◎ : Excellent ○ : Good

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																				
HB	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	260	160	250	130	230
YD1A	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎
YD2C	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

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																					
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550
YD1A	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎
YD2C	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

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.



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 (TiAIN)	INOX (TiCN)	dec.	h7 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	ZH24007032				7D	168	260.8		
	YG1A2461	YG2C2461	.9688	31/32	24.61	ZH24503032	32	60	37	3D	73.5	165.8		
	YG1A2461	YG2C2461	.9688	31/32	24.61	ZH24505032				5D	122.5	214.8		
	YG1A2470	YG2C2470	.9724		24.70	ZH25003032				7D	171.5	263.8		
	YG1A2500	YG2C2500	.9843	63/64	25.00	ZH25005032	32	60	37	3D	75	167.8		TX2526T20
	YG1A2540	YG2C2540	1.0000	1	25.40	ZH25007032				5D	125	217.8		
	YG1A2550	YG2C2550	1.0039		25.50	ZH25503032				7D	175	267.8		
	YG1A2567	YG2C2567	1.0106		25.67	ZH25505032	32	60	37	3D	76.5	170.8		
YG1A2570	YG2C2570	1.0118		25.70	ZH25505032	5D				127.5	221.8			
YG1A2580	YG2C2580	1.0156	1-1/64	25.80	ZH25507032	7D				178.5	272.8			

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

◎ : Excellent ○ : Good

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	38	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			200	280	250	350	320	400Rm	1050Rm	550	630	400	550
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550
YG1A	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎
YG2C	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

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.



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 (TiAIN)	INOX (TiCN)	dec.	h7 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	32	60	37	3D	79.5	172.2		
	YH1A2659	YH2C2659	1.0469	1-3/64	26.59	ZH26505032				5D	132.5	225.2		
	YH1A2699	YH2C2699	1.0625	1-1/16	26.99	ZH26507032				7D	185.5	278.2		
	YH1A2700	YH2C2700	1.0630		27.00	ZH27003032	32	60	37	3D	81	174.2		TX2728T25
	YH1A2700	YH2C2700	1.0630		27.00	ZH27005032				5D	135	228.2		
	YH1A2750	YH2C2750	1.0827		27.50	ZH27007032				7D	189	282.2		
	YH1A2750	YH2C2750	1.0827		27.50	ZH27503032	32	60	37	3D	82.5	175.2		
YH1A2778	YH2C2778	1.0938	1-3/32	27.78	ZH27505032	5D				137.5	230.2			
YH1A2778	YH2C2778	1.0938	1-3/32	27.78	ZH27507032	7D				192.5	285.2			

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

◎ : Excellent ○ : Good

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	38	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			200	280	250	350	320	400Rm	1050Rm	550	630	400	550
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550
YH1A	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎
YH2C	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○



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-
Merkmales 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-
Merkmales 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.



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

▶ 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			
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
YI1A	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎
YI2C	○	○	○	○	○	○	○	○	○	○	○	◎	◎	◎	◎	◎	◎	◎	◎	◎

ISO	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			200	280	250	350	320	400Rm	1050Rm	550	630	400	550
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550
YI1A	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎
YI2C	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○



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-
Merkmales 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-
Merkmales 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.



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

▶ 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			
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
YJ1A	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎
YJ2C	○	○	○	○	○	○	○	○	○	○	○	◎	◎	◎	◎	◎	◎	◎	◎	◎

ISO	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			200	280	250	350	320	400Rm	1050Rm	550	630	400	550
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550
YJ1A	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎
YJ2C	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

ISO	VDI 3323	Material Description	Vc (m/min)	Feed(mm/rev)					
				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		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
	11	40-55		0.10-0.16	0.11-0.18	0.21-0.30	0.20-0.31	0.24-0.35	
M	12	Stainless steel							
	13								
	14								
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		
N	21	Aluminum-wrought alloy							
	22								
	23								
	24	Aluminum-cast, alloyed							
	25								
	26	Copper and Copper Alloys (Bronze / Brass)							
	27								
	28								
	29	Non Metallic Materials							
	30								
S	31	Heat Resistant Super Alloys							
	32								
	33								
	34								
	35								
	36		Titanium Alloys						
	37								
H	38	Hardened steel							
	39								
	40	Chilled Cast Iron							
	41	Hardened Cast Iron							

► 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.



ISO	VDI 3323	Material Description	Vc (m/min)	Feed(mm/rev)					
				Ø12.00-14.99	Ø15.00-17.99	Ø18.00-21.90	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								
	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								
	9								
	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
	11								
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	
K	15	Grey cast iron							
	16								
	17	Nodular cast iron							
	18								
	19								
20	Malleable cast iron								
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	Copper and Copper Alloys (Bronze / Brass)	115-145	0.16-0.28	0.23-0.36	0.29-0.36	0.37-0.45	0.41-0.48	
	27		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	
	29	Non Metallic Materials							
	30								
S	31	Heat Resistant Super Alloys							
	32								
	33								
	34								
	35								
	36		Titanium Alloys						
	37								
H	38	Hardened steel							
	39								
	40	Chilled Cast Iron							
	41	Hardened Cast Iron							

► 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.

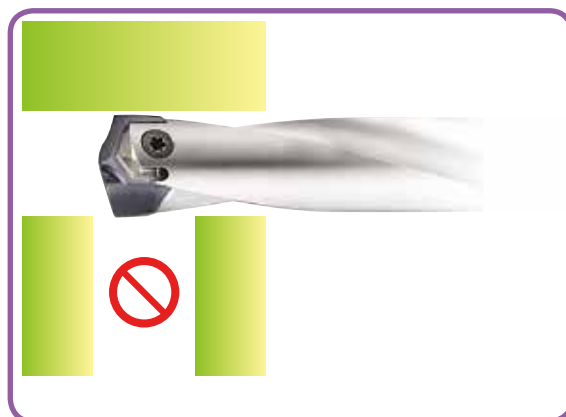
WRENCH TYPE	PRODUCT NO.	T-HANDLE No.	SERIES (SIZE)
WING TYPE	TWWT08	—	A (Ø12.00-Ø13.99)
			B (Ø14.00-Ø15.99)
			C (Ø16.00-Ø17.99)
TORX BIT TYPE	TWBT15	TWH600	D (Ø18.00-Ø19.99)
	TWBT20		E, F, G (Ø20.00-Ø25.99)
	TWBT25		H, I, J (Ø26.00-Ø31.99)

Use the wing type or T-type wrench.
Benutzen Sie den Winkeldreher oder T - Schlüsse

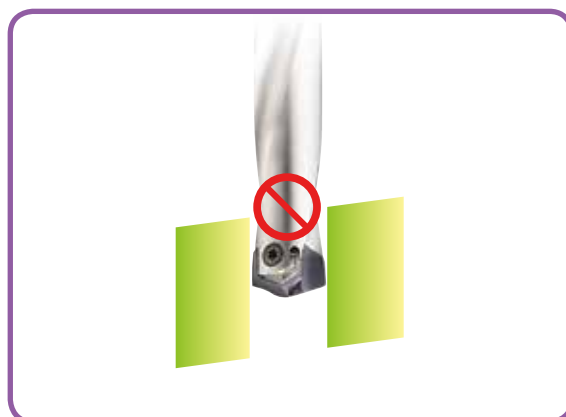
► Need to use appropriate wrenches and screws as indicated.
Unbedingt die angegebenen Schrauben und Dreher verwenden.

► It's important to tighten up the screw properly.
Es ist wichtig, die Schraube korrekt und fest anzuziehen.

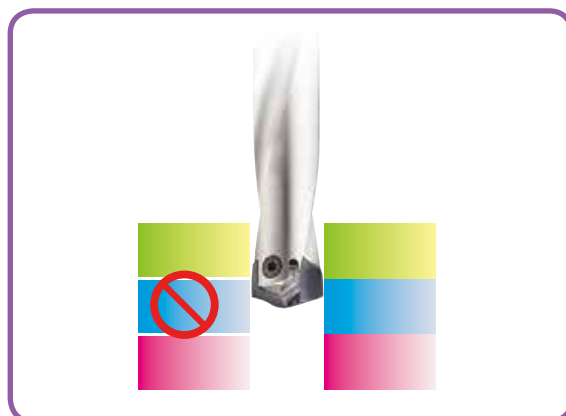
**CAUTION-NOT RECOMMENDABLE APPLICATION
ACHTUNG - NICHT EMPFOHLENE ANWENDUNG**



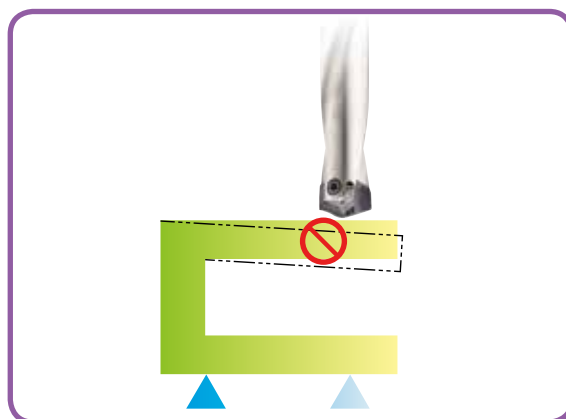
Intersecting cross hole is bigger than the drill insert's Margin Length.
Der Haltersitz ist größer als die Breite des Schneideinsatzes.



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).

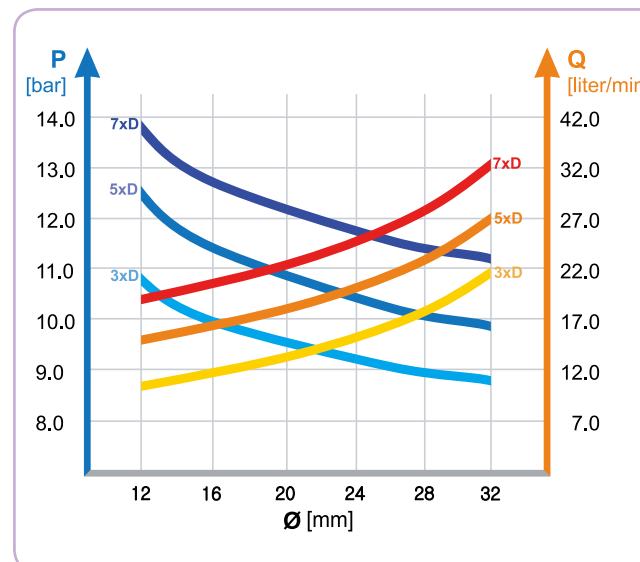


For drilling stacked plates, minimize the space between the plates.
Beim Bohren von Blechpaketen den Abstand der Bleche minimieren.
The space between stacked plates can cause insert breakage or poor chip control.
Freiraum in Blechpaketen kann den Bruch des Schneideinsatzes oder schlechte Entspannung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



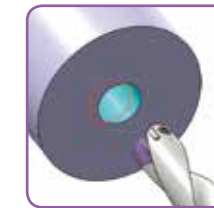
- 3) Build-up on cutting edge**
- Increase cutting speed
 - Use a coated insert



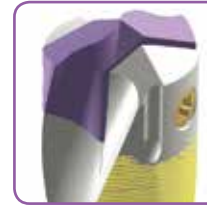
- 4) Chipping or break down on outer corner**
- Reduce feed
 - Rigid clamping of workpiece



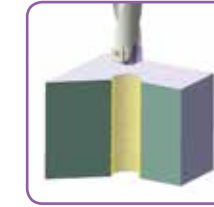
- 5) Wear of land margin**
- Rigid clamping of workpiece
 - Reduce cutting speed
 - Increase coolant flow



- 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