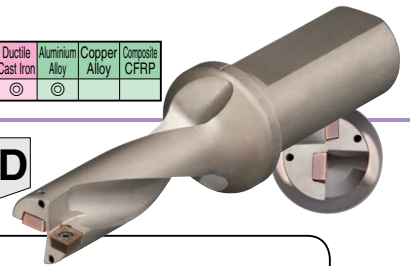


WDX Type (2D)

Carbon Steel	Alloy Steel	Tempered Steel	Hardened Steel	Stainless Steel	Ti-Alloy	Heat-resistant steel	Cast Iron	Ductile Cast Iron	Aluminum Alloy	Copper Alloy	Composite CFRP
Up to 0.28%	From 0.28%		Up to 49HRC	From 49HRC							

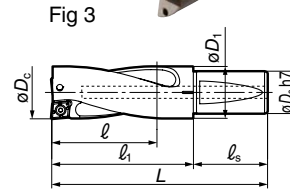
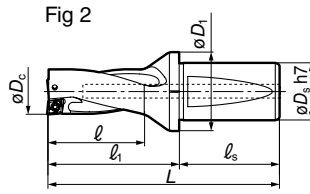
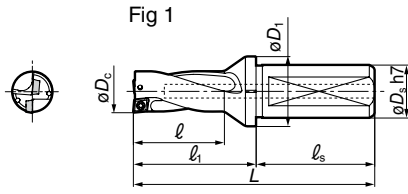


For 2D Boring Depth

Guide for machining tolerance: -0.05 to +0.15
Maximum depth $l \times 2 \times \phi D_c$



Recommended Cutting Conditions J62



Holder Diameter $\phi 13.0$ to $\phi 45.0$ mm (Refer to J60) (mm)

Diameter ϕD_c	Shank Diameter ϕD_s	Cat. No.	Stock	L	l	l ₁	l _s	ϕD_1	Radial Offset (Max)	Applicable Insert	Fig
13.0	20	WDX 130D2S20	●	88	29	44			0.35	WDX 042004	1
13.5		135D2S20	●	89	30	45			0.30		
14.0		140D2S20	●	90	31	46	44	28.0	0.25		
14.5		145D2S20	●	91	32	47			0.20		
15.0		150D2S20	●	92	33	48			0.15		
15.5	20	WDX 155D2S20	●	93	34	49			0.40	WDX 052504	1
16.0		160D2S20	●	94	35	50			0.40		
16.5		165D2S20	●	95	36	51	44	30.0	0.35		
17.0		170D2S20	●	96	37	52			0.30		
17.5		175D2S25	●	109	38	53			0.25		
18.0	25	180D2S25	●	110	39	54	56	32.0	0.20	WDX 063006	1
18.5		WDX 185D2S25	●	111	40	55			0.50		
19.0		190D2S25	●	112	41	56			0.45		
19.5		195D2S25	●	113	42	57			0.40		
20.0		200D2S25	●	114	43	58			0.30		
20.5	25	205D2S25	●	115	44	59	56	33.0	0.30	WDX 073506	1
21.0		210D2S25	●	116	45	60			0.20		
21.5		215D2S25	●	117	46	61			0.15		
22.0		220D2S25	●	118	47	62			0.10		
22.5		225D2S25	●	119	48	63			0.05		
23.0	25	WDX 230D2S25	●	123	49	67			0.70	WDX 094008	2
23.5		235D2S25	●	124	50	68			0.70		
24.0		240D2S25	●	125	51	69	56	37.0	0.60		
24.5		245D2S25	●	126	52	70			0.50		
25.0		250D2S25	●	127	53	71			0.50		
25.5	32	WDX 255D2S32	●	134	54	74			0.45	WDX 125012	1
26.0		260D2S32	●	135	55	75			0.40		
26.5		265D2S32	●	136	56	76			0.35		
27.0		270D2S32	●	137	57	77	60	41.0	0.25		
27.5		275D2S32	●	138	58	78			0.20		
28.0	32	280D2S32	●	139	59	79			0.15	WDX 094008	2
28.5		285D2S32	●	140	60	80			0.10		
29.0		WDX 290D2S32	●	143	62	83		50.0	1.00		
29.5		295D2S32	●	144	63	84			0.95		
30.0		300D2S32	●	148	64	88	60		0.90		
31.0	40	310D2S32	●	150	66	90			0.80	WDX 125012	1
32.0		320D2S32	●	152	68	92			0.70		
33.0		WDX 300D2S40	●	158	64	88		54.0	0.90		
31.0		310D2S40	●	160	66	90			0.80		
32.0		320D2S40	●	162	68	92			0.70		
33.0	40	330D2S40	●	164	70	94	70	70	0.55	WDX 125012	1
34.0		340D2S40	●	166	72	96			0.45		
35.0		350D2S40	●	168	74	98			0.35		
36.0		360D2S40	●	170	76	100			0.20		
37.0		40	WDX 370D2S40	●	179	79	109				
38.0	380D2S40		●	181	81	111			1.00		
39.0	390D2S40		●	183	83	113			0.90		
40.0	400D2S40		●	185	85	115			0.80		
41.0	410D2S40		●	187	87	117	70	49.5	0.70		
42.0	40	420D2S40	●	189	89	119			0.60	WDX 125012	1
43.0		430D2S40	●	191	91	121			0.50		
44.0		440D2S40	●	193	93	123			0.50		
45.0		450D2S40	●	195	95	125			0.40		

Diameters $\phi 30$, $\phi 31$, $\phi 32$ are available in stock with shank diameters $\phi 32$ and $\phi 40$.

Spare Parts

Screw	Spanner	Spanner	Recommended Tightening Torque (N·m)	Applicable Holders
BFTX01604N	TRX06		0.3	WDX130D2S20 to WDX150D2S20
BFTX0204N	TRX06		0.5	WDX155D2S20 to WDX180D2S25
BFTY02206		TRD07	1.0	WDX185D2S25 to WDX225D2S25
BFTX02506N		TRD08	1.5	WDX230D2S25 to WDX285D2S32
BFTX03584		TRD15	3.5	WDX290D2S32 to WDX360D2S40
BFTX0511N		TRD20	5.0	WDX370D2S40 to WDX450D2S40
BFTX0615N		TRD25	5.0	WDX460D2S40 to WDX680D2S40

Holder Diameter $\phi 46.0$ to $\phi 68.0$ mm (Refer to J60) (mm)

Diameter ϕD_c	Shank Diameter ϕD_s	Cat. No.	Stock	L	l	l ₁	l _s	ϕD_1	Radial Offset (Max)	Applicable Insert	Fig
46.0	40	WDX 460D2S40	●	197	97	127			1.50	WDX 156012	2
47.0		470D2S40	●	199	99	129			1.40		
48.0		480D2S40	●	201	101	131			1.30		
49.0		490D2S40	●	203	103	133			1.20		
50.0		500D2S40	●	205	105	135			1.10		
51.0		510D2S40	●	207	107	137			1.00		
52.0		520D2S40	●	209	109	139			0.90		
53.0		530D2S40	●	211	111	141			0.80		
54.0		540D2S40	●	213	113	143			0.70		
55.0		550D2S40	●	215	115	145			0.60		
56.0	40	WDX 560D2S40	●	222	120	152			2.00	WDX 186012	3
57.0		570D2S40	●	224	122	154			1.80		
58.0		580D2S40	●	226	124	156			1.70		
59.0		590D2S40	●	228	126	158			1.60		
60.0		600D2S40	●	230	128	160			1.50		
61.0		610D2S40	●	232	130	162			1.40		
62.0		620D2S40	●	234	132	164			1.30		
63.0		630D2S40	●	236	134	166			1.20		
64.0		640D2S40	●	238	136	168			1.10		
65.0		650D2S40	●	240	138	170			1.00		
66.0	40	660D2S40	●	242	140	172			0.90	WDX 186012	3
67.0		670D2S40	●	244	142	174			0.80		
68.0		680D2S40	●	246	144	176			0.70		
69.0									0.60		

Inserts

Application	Grade	Coated Carbide			Fig	Dimensions (mm)			Applicable Holders								
		ACP300	ACK300	DL1500		l	Thickness	r _E									
High Speed/Light	General Purpose	●	●	●	4	4.2	2.0	0.4	WDX130D2S20 to WDX150D2S20								
		●	●	●	5												
		●	●	●	6												
Roughing	Roughing	●	●	●	4	5.0	2.5	0.4	WDX155D2S20 to WDX180D2S25								
		●	●	●	5												
		●	●	●	6												
Cat. No.	ACP300	ACK300	DL1500	Fig	l	Thickness	r _E	Applicable Holders									
									WDX130D2S20	●	●	●	4	6.0	3.0	0.6	WDX185D2S25 to WDX225D2S25
									WDX155D2S20	●	●	●	5				
WDX180D2S25	●	●	●	6													
Cat. No.	ACP300	ACK300	DL1500	Fig	l	Thickness	r _E	Applicable Holders									
									WDX230D2S25	●	●	●	4	7.5	3.5	0.6	WDX285D2S32
									WDX285D2S32	●	●	●	5				
WDX360D2S40	●	●	●	6													
Cat. No.	ACP300	ACK300	DL1500	Fig	l	Thickness	r _E	Applicable Holders									
									WDX370D2S40	●	●	●	4	9.6	4.0	0.8	WDX450D2S40
									WDX450D2S40	●	●	●	5				
WDX680D2S40	●	●	●	6													
Cat. No.	ACP300	ACK300	DL1500	Fig	l	Thickness	r _E	Applicable Holders									
									WDX460D2S40	●	●	●	4	12.4	5.0	1.2	WDX550D2S40
									WDX550D2S40	●	●	●	5				
WDX680D2S40	●	●	●	6													
Cat. No.	ACP300	ACK300	DL1500	Fig	l	Thickness	r _E	Applicable Holders									
									WDX460D2S40	●	●	●	4	15.2	6.0	1.2	WDX560D2S40
									WDX560D2S40	●	●	●	5				
WDX680D2S40	●	●	●	6													
Cat. No.	ACP300	ACK300	DL1500	Fig	l	Thickness	r _E	Applicable Holders									
									WDX560D2S40	●	●	●	4	18.0	6.0	1.2	WDX680D2S40
									WDX680D2S40	●	●	●	5				
WDX680D2S40	●	●	●	6													

Insert Identification J59