P M K N S H

Economical Indexable Insert Drill

”SumiDrill“ WDX Type

Programme Expansion:

- ***DLC-Coating for Aluminium-Alloy***
- ***5D-Expansion up to Ø 55mm***
- ***Drill Diameter up to 68mm***

SUMITOMO

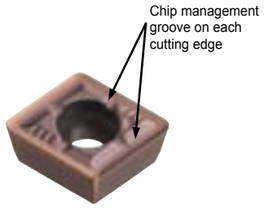
CARBIDE - CBN - DIAMOND

General Features

”SumiDrill“ WDX type has excellent cutting balance that provides stable hole drilling on a wide range of work materials from general steel to stainless steel and aluminium alloy.
Available in three original chipbreaker styles, the WDX type features improved chip management and reduced cutting resistance for use in low rigidity set ups.

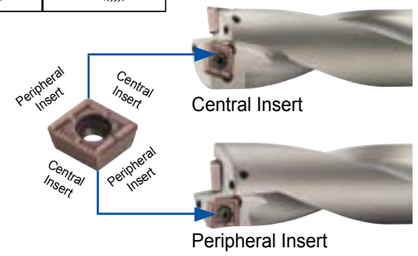
Characteristics and Applications

- **Design**
  Cutting resistance during machining is balanced between central and peripheral inserts, and the relative position of each insert are optimised to provide stable drilling.
- **Excellent Chip Management**
  A ”Chip control groove“ in the centre of the breaker allows the direction of chip evacuation to be controlled. Three separate purpose-designed breakers drastically reduce chip troubles with a variety of different work materials in a variety of different conditions.



Series	L Type	G Type for Aluminium	G Type	H Type
Feature	Low Feed / Chip Management	For Aluminium	General Purpose	Strong Edge Type
Appearance				
Figure				

- **Economical, Four-Cornered Insert**
  Inserts can be used in either central or peripheral positions with two corners for each position - a total of four corners.
- **Versatile Tool for a Variety of Machining Applications**
  A special hard surface treatment gives added durability, allowing stable, long-term drilling in a variety of applications including hole widening, spot facing, external turning and internal boring.
- **New ACP300/ACK300 Grades Extend Tool Life**

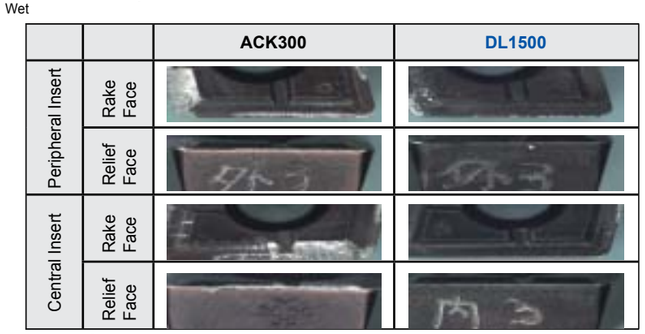


”AURORA“ Coating DLC (Diamond Like Carbon) - Coated Grade DL1500 for Aluminium

Characteristics

New insert material for machining non-ferrous metal DL1500 offers greatly improved adhesion resistance compared to conventional tools. Ideal for drilling holes in copper alloys as well as aluminium alloys.

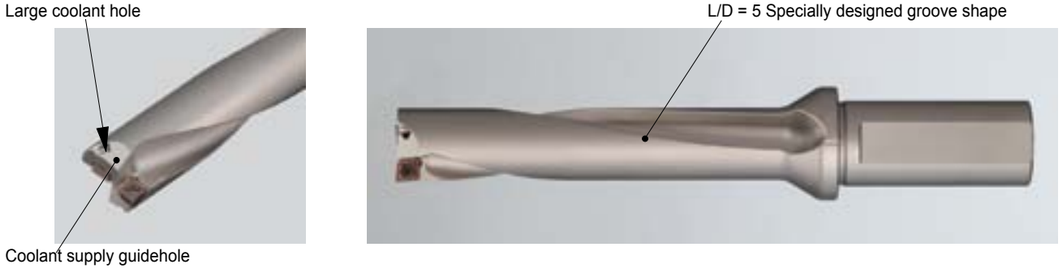
Holder: WDX250D3S25 Insert: WDXT073506-G (DL1500) Work Material: Diecast Aluminium alloy
Cutting Conditions: v_c=150m/min f=0,10mm/rev H=50mm (through hole) Wet



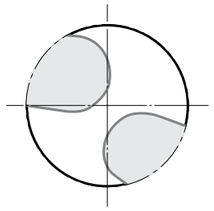
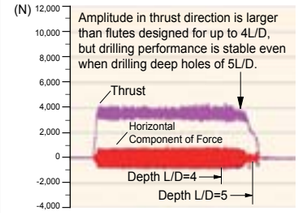
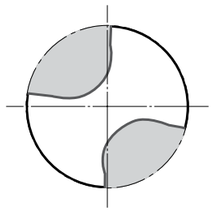
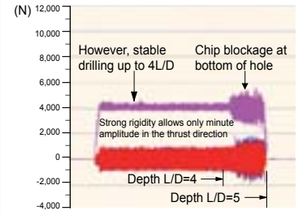
Drills for Deep Hole Drilling L/D=5 Newly Added (In stock from Ø13,0 to Ø36,0mm)

Characteristics

”SumiDrill“ WDX type for 5D drilling features a specially desinged groove shape + enlarged coolant hole for excellent chip evacuation even during hole drilling.

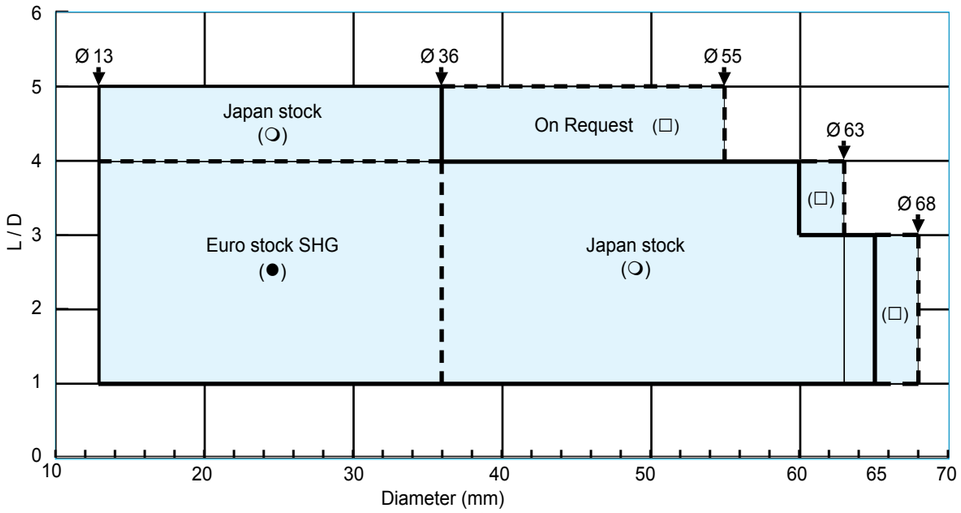


Performance

Characteristics	Figure	Cutting Resistance	Machined Surface (Exit)
New Flutedesign **WDX260D5S32 L/D=5** Designed with emphasis on chip evacuation Expanded flute design improves chip evacuation for stable drilling performance even with holes up to 5 L/D.			Produces an excellent surface finish - full hole depth 
WDX260D5S32 Flutedesign **L/D=<4** Designed with emphasis on drill rigidity Flute design for greater rigidity of the drill enables stable drilling of deep holes up to 4 L/D.			Poor machined surface due to chip blockage at bottom of hole (near 5 L/D) 

Insert: WDXT073506-G Work Material: SUS304
Cutting Conditions: v_c=150m/min f=0,05mm/rev H=130mm (Through Hole) Wet

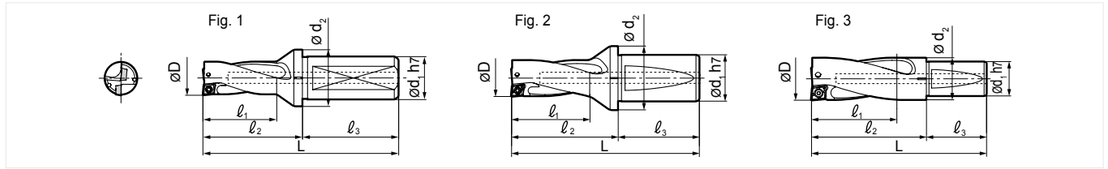
Availability - Diameter up to 68mm!



WDX Type (2D)

Max. Depth: 2 x ØD

Guide for machining tolerance: +0,05 ~ + 0,15

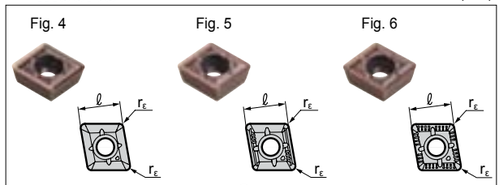


Holder

øD (mm)	Cat. No.	Stock	Dimensions (mm) L	ℓ1	ℓ2	ø d1	ø d2	ℓ3	Applicable Insert	Fig.
13,0	**WDX 130D2S20**	●	88	29	44					
13,5	**WDX 135D2S20**	●	89	30	45					
14,0	**WDX 140D2S20**	●	90	31	46	20	28	44	WDXT 042004	
14,5	**WDX 145D2S20**	●	91	32	47					
15,0	**WDX 150D2S20**	●	92	33	48					
15,5	**WDX 155D2S20**	●	93	34	49					
16,0	**WDX 160D2S20**	●	94	35	50	20	30	44		
16,5	**WDX 165D2S20**	●	95	36	51				WDXT 052504	
17,0	**WDX 170D2S20**	●	96	37	52					
17,5	**WDX 175D2S25**	●	109	38	53	25	32	56		
18,0	**WDX 180D2S25**	●	110	39	54					
18,5	**WDX 185D2S25**	●	111	40	55					
19,0	**WDX 190D2S25**	●	112	41	56					1
19,5	**WDX 195D2S25**	●	113	42	57					
20,0	**WDX 200D2S25**	●	114	43	58					
20,5	**WDX 205D2S25**	●	115	44	59	25	33	56	WDXT 063006	
21,0	**WDX 210D2S25**	●	116	45	60					
21,5	**WDX 215D2S25**	●	117	46	61					
22,0	**WDX 220D2S25**	●	118	47	62					
22,5	**WDX 225D2S25**	●	119	48	63					
23,0	**WDX 230D2S25**	●	123	49	67					
23,5	**WDX 235D2S25**	●	124	50	68					
24,0	**WDX 240D2S25**	●	125	51	69	25	37	56		
24,5	**WDX 245D2S25**	●	126	52	70					
25,0	**WDX 250D2S25**	●	127	53	71					
25,5	**WDX 255D2S32**	●	134	54	74					
26,0	**WDX 260D2S32**	●	135	55	75					
26,5	**WDX 265D2S32**	●	136	56	76				WDXT 073506	
27,0	**WDX 270D2S32**	●	137	57	77	32	41	60		
27,5	**WDX 275D2S32**	●	138	58	78					
28,0	**WDX 280D2S32**	●	139	59	79					
28,5	**WDX 285D2S32**	●	140	60	80					
29,0	**WDX 290D2S32**	●	143	62	83	32	50	60		
29,5	**WDX 295D2S32**	●	144	63	84					
30,0	**WDX 300D2S40**	●	158	64	88					
31,0	**WDX 310D2S40**	●	160	66	90					
32,0	**WDX 320D2S40**	●	162	68	92					
33,0	**WDX 330D2S40**	●	164	70	94	40	54	70	WDXT 094008	
34,0	**WDX 340D2S40**	●	166	72	96					
35,0	**WDX 350D2S40**	●	168	74	98					
36,0	**WDX 360D2S40**	●	170	76	100					2
37,0	**WDX 370D2S40**	●	179	79	109					
38,0	**WDX 380D2S40**	●	181	81	111					
39,0	**WDX 390D2S40**	●	183	83	113					
40,0	**WDX 400D2S40**	●	185	85	115					
41,0	**WDX 410D2S40**	●	187	87	117	40	49,5	70	WDXT 125012	
42,0	**WDX 420D2S40**	●	189	89	119					
43,0	**WDX 430D2S40**	●	191	91	121					
44,0	**WDX 440D2S40**	●	193	93	123					
45,0	**WDX 450D2S40**	●	195	95	125					
46,0	**WDX 460D2S40**	●	197	97	127					
47,0	**WDX 470D2S40**	●	199	99	129					
48,0	**WDX 480D2S40**	●	201	101	131					
49,0	**WDX 490D2S40**	●	203	103	133		49,5			
50,0	**WDX 500D2S40**	●	205	105	135	40		70	WDXT 156012	
51,0	**WDX 510D2S40**	●	207	107	137					
52,0	**WDX 520D2S40**	●	209	109	139		50,5			
53,0	**WDX 530D2S40**	●	211	111	141		51,5			
54,0	**WDX 540D2S40**	●	213	113	143		52,5			
55,0	**WDX 550D2S40**	●	215	115	145		53,5			
56,0	**WDX 560D2S40**	❍	222	120	152		54			3
57,0	**WDX 570D2S40**	❍	224	122	154		55			
58,0	**WDX 580D2S40**	❍	226	124	156		56			
59,0	**WDX 590D2S40**	❍	228	126	158		57			
60,0	**WDX 600D2S40**	❍	230	128	160	40	58	70	WDXT 186012	
61,0	**WDX 610D2S40**	❍	232	130	162		59			
62,0	**WDX 620D2S40**	❍	234	132	164		60			
63,0	**WDX 630D2S40**	❍	236	134	166		61			
64,0	**WDX 640D2S40**	❍	238	136	168		62			
65,0	**WDX 650D2S40**	❍	240	138	170		63			

Inserts

(mm)



L Type
Excellent chip control at low feed rates

G Type
General purpose chipbreaker

H Type
Strong cutting edge at higher feed rates

Cat. No.	Coated ACP300	ACK300	DL1500	Fig.	Dimensions(mm) ℓ	Thick-ness	rε	Applicable Holder
WDXT 042004-L	●	●		1				
WDXT 042004-G	●	●	●	2	4,2	2,0	0,4	WDX 130 ~ 150
WDXT 042004-H	●	●		3				
WDXT 052504-L	●	●		1				
WDXT 052504-G	●	●	●	2	5,0	2,5	0,4	WDX 155 ~ 180
WDXT 052504-H	●	●		3				
WDXT 063006-L	●	●		1				
WDXT 063006-G	●	●	●	2	6,0	3,0	0,6	WDX 185 ~ 225
WDXT 063006-H	●	●		3				
WDXT 073506-L	●	●		1				
WDXT 073506-G	●	●	●	2	7,5	3,5	0,6	WDX 230 ~ 285
WDXT 073506-H	●	●		3				
WDXT 094008-L	●	●		1				
WDXT 094008-G	●	●	●	2	9,6	4,0	0,8	WDX 290 ~ 360
WDXT 094008-H	●	●		3				
WDXT 125012-L	●	●		1				
WDXT 125012-G	●	●	●	2	12,4	5,0	1,2	WDX 370 ~ 450
WDXT 125012-H	●	●		3				
WDXT 156012-L	●	●		1				
WDXT 156012-G	●	●	●	2	15,2	6,0	1,2	WDX 460 ~ 550
WDXT 156012-H	●	●		3				
WDXT 186012-G	●	●		2	18,0	6,0	1,2	WDX 560 ~ 650

Spare Parts

Screw	Wrench	Wrench	Applicable Holders	Recom. Torque (Nm)
BFTX 01604N	TRX 06	-	WDX 130D2S20 ~ 150D2S20	0,5
BFTX 0204 N	TRX 06	-	WDX 150D2S20 ~ 180D2S25	0,5
BFTY 02206	-	TRD 07	WDX 185D2S25 ~ 225D2S25	1,0
BFTX 02506N	-	TRD 08	WDX 230D2S25 ~ 285D2S32	1,5
BFTX 03584	-	TRD 15	WDX 290D2S32 ~ 360D2S40	3,5
BFTX 0511N	-	TRD 20	WDX 370D2S40 ~ 450D2S40	5,0
BFTX 0615N	-	TRD 25	WDX 460D2S40 ~ 650D2S40	5,0

Identification of Drill Body

WDX 200 D2 S25

- 200: Drill Diameter (Ø20,0mm)
- D2: Flute Length L/D (2 x D)
- S25: Shank Size (Ø25,0mm)

Identification of Indexable Insert

WDXT 06 30 06 -G

- 06: Width Across Flats (6,0mm)
- 30: Thickness (3,0mm)
- 06: Corner Radius (0,6mm)
- -G: Breaker Type

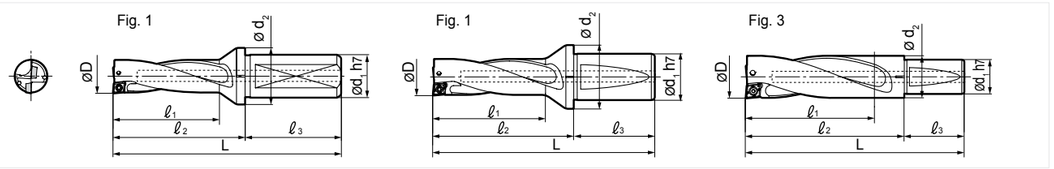
Delivery on request / maximum Ø = 68mm!

● Euro stock
❍ Japan stock

WDX Type (3D)

Max. Depth: 3 x ØD

Guide for machining tolerance: +0,00 ~ + 0,20

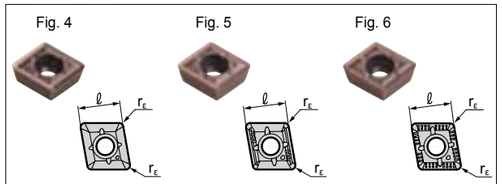


Holder

øD (mm)	Cat. No	Stock	Dimensions (mm) L	ℓ1	ℓ2	ø d1	ø d2	ℓ3	Applicable Insert	Fig.
13,0	**WDX 130D3S20**	●	101,0	42,0	57,0					
13,5	**WDX 135D3S20**	●	102,5	43,5	58,5					
14,0	**WDX 140D3S20**	●	104,0	45,0	60,0	20	28	44	WDXT 042004	
14,5	**WDX 145D3S20**	●	105,5	46,5	61,5					
15,0	**WDX 150D3S20**	●	107,0	58,0	63,0					
15,5	**WDX 155D3S20**	●	108,5	49,5	64,5					
16,0	**WDX 160D3S20**	●	110,0	51,0	66,0	20	30	44		
16,5	**WDX 165D3S20**	●	111,5	52,5	67,5				WDXT 052504	
17,0	**WDX 170D3S20**	●	113,0	54,0	69,0					
17,5	**WDX 175D3S25**	●	126,5	55,5	70,5	25	32	56		
18,0	**WDX 180D3S25**	●	128,0	57,0	72,0					
18,5	**WDX 185D3S25**	●	129,5	58,5	73,5					
19,0	**WDX 190D3S25**	●	131,0	60,0	75,0					1
19,5	**WDX 195D3S25**	●	132,5	61,5	76,5					
20,0	**WDX 200D3S25**	●	134,0	63,0	78,0					
20,5	**WDX 205D3S25**	●	135,5	64,5	79,5	25	33	56	WDXT 063006	
21,0	**WDX 210D3S25**	●	137,0	66,0	81,0					
21,5	**WDX 215D3S25**	●	138,5	67,5	82,5					
22,0	**WDX 220D3S25**	●	140,0	69,0	84,0					
22,5	**WDX 225D3S25**	●	141,5	70,5	85,5					
23,0	**WDX 230D3S25**	●	146,0	72,0	90,0					
23,5	**WDX 235D3S25**	●	147,5	73,5	91,5					
24,0	**WDX 240D3S25**	●	149,0	75,0	93,0	25	37	56		
24,5	**WDX 245D3S25**	●	150,5	76,5	94,5					
25,0	**WDX 250D3S25**	●	152,0	78,0	96,0					
25,5	**WDX 255D3S32**	●	159,5	79,5	97,5					
26,0	**WDX 260D3S32**	●	161,0	81,0	101,0					
26,5	**WDX 265D3S32**	●	162,5	82,5	102,5				WDXT 073506	
27,0	**WDX 270D3S32**	●	164,0	84,0	104,0	32	41	60		
27,5	**WDX 275D3S32**	●	165,5	85,5	105,5					
28,0	**WDX 280D3S32**	●	167,0	87,0	107,0					
28,5	**WDX 285D3S32**	●	168,5	88,5	108,5					
29,0	**WDX 290D3S32**	●	172,0	91,0	112,0	32	50	60		
29,5	**WDX 295D3S32**	●	173,5	92,5	113,5					
30,0	**WDX 300D3S40**	●	188,0	94,0	118,0					
31,0	**WDX 310D3S40**	●	191,0	97,0	121,0					
32,0	**WDX 320D3S40**	●	194,0	100,0	124,0					
33,0	**WDX 330D3S40**	●	197,0	103,0	127,0	40	54	70	WDXT 094008	
34,0	**WDX 340D3S40**	●	200,0	106,0	130,0					
35,0	**WDX 350D3S40**	●	203,0	109,0	133,0					
36,0	**WDX 360D3S40**	●	206,0	112,0	136,0					2
37,0	**WDX 370D3S40**	●	216,0	116,0	146,0					
38,0	**WDX 380D3S40**	●	219,0	119,0	149,0					
39,0	**WDX 390D3S40**	●	222,0	122,0	152,0					
40,0	**WDX 400D3S40**	●	225,0	125,0	155,0					
41,0	**WDX 410D3S40**	●	228,0	128,0	158,0	40	49,5	70	WDXT 125012	
42,0	**WDX 420D3S40**	●	231,0	131,0	161,0					
43,0	**WDX 430D3S40**	●	234,0	134,0	164,0					
44,0	**WDX 440D3S40**	●	237,0	137,0	167,0					
45,0	**WDX 450D3S40**	●	240,0	140,0	170,0					
46,0	**WDX 460D3S40**	●	243,0	143,0	173,0					
47,0	**WDX 470D3S40**	●	246,0	146,0	176,0					
48,0	**WDX 480D3S40**	●	249,0	149,0	179,0					
49,0	**WDX 490D3S40**	●	252,0	152,0	182,0		49,5			
50,0	**WDX 500D3S40**	●	255,0	155,0	185,0	40		70	WDXT 156012	
51,0	**WDX 510D3S40**	●	258,0	158,0	188,0					
52,0	**WDX 520D3S40**	●	261,0	161,0	191,0		50,5			
53,0	**WDX 530D3S40**	●	264,0	164,0	194,0		51,5			
54,0	**WDX 540D3S40**	●	267,0	167,0	197,0		52,5			
55,0	**WDX 550D3S40**	●	270,0	170,0	200,0		53,5			
56,0	**WDX 560D3S40**	❍	278,0	176,0	208,0		54			3
57,0	**WDX 570D3S40**	❍	281,0	179,0	211,0		55			
58,0	**WDX 580D3S40**	❍	284,0	182,0	214,0		56			
59,0	**WDX 590D3S40**	❍	287,0	185,0	217,0		57			
60,0	**WDX 600D3S40**	❍	290,0	188,0	220,0	40	58	70	WDXT 186012	
61,0	**WDX 610D3S40**	❍	293,0	191,0	223,0		59			
62,0	**WDX 620D3S40**	❍	296,0	194,0	226,0		60			
63,0	**WDX 630D3S40**	❍	299,0	197,0	229,0		61			
64,0	**WDX 640D3S40**	❍	302,0	200,0	232,0		62			
65,0	**WDX 650D3S40**	❍	305,0	203,0	235,0		63			

Inserts

(mm)



L Type
Excellent chip control at low feed rates

G Type
General purpose chipbreaker

H Type
Strong cutting edge at higher feed rates

Cat. No.	Coated ACP300	ACK300	DL1500	Fig.	Dimensions(mm) ℓ	Thick-ness	rε	Applicable Holder
WDXT 042004-L	●	●		1				
WDXT 042004-G	●	●	●	2	4,2	2,0	0,4	WDX 130 ~ 150
WDXT 042004-H	●	●		3				
WDXT 052504-L	●	●		1				
WDXT 052504-G	●	●	●	2	5,0	2,5	0,4	WDX 155 ~ 180
WDXT 052504-H	●	●		3				
WDXT 063006-L	●	●		1				
WDXT 063006-G	●	●	●	2	6,0	3,0	0,6	WDX 185 ~ 225
WDXT 063006-H	●	●		3				
WDXT 073506-L	●	●		1				
WDXT 073506-G	●	●	●	2	7,5	3,5	0,6	WDX 230 ~ 285
WDXT 073506-H	●	●		3				
WDXT 094008-L	●	●		1				
WDXT 094008-G	●	●	●	2	9,6	4,0	0,8	WDX 290 ~ 360
WDXT 094008-H	●	●		3				
WDXT 125012-L	●	●		1				
WDXT 125012-G	●	●	●	2	12,4	5,0	1,2	WDX 370 ~ 450
WDXT 125012-H	●	●		3				
WDXT 156012-L	●	●		1				
WDXT 156012-G	●	●	●	2	15,2	6,0	1,2	WDX 460 ~ 550
WDXT 156012-H	●	●		3				
WDXT 186012-G	●	●		2	18,0	6,0	1,2	WDX 560 ~ 650

Spare Parts

Screw	Wrench	Wrench	Applicable Holders	Recom. Torque (Nm)
BFTX 01604N	TRX 06	-	WDX 130D3S20 ~ 150D3S20	0,5
BFTX 0204 N	TRX 06	-	WDX 150D3S20 ~ 180D3S25	0,5
BFTY 02206	-	TRD 07	WDX 185D3S25 ~ 225D3S25	1,0
BFTX 02506N	-	TRD 08	WDX 230D3S25 ~ 285D3S32	1,5
BFTX 03584	-	TRD 15	WDX 290D3S32 ~ 360D3S40	3,5
BFTX 0511N	-	TRD 20	WDX 370D3S40 ~ 450D3S40	5,0
BFTX 0615N	-	TRD 25	WDX 460D3S40 ~ 650D3S40	5,0

Identification of Drill Body

WDX 200 D3 S25

- 200: Drill Diameter (Ø20,0mm)
- D3: Flute Length L/D (3 x D)
- S25: Shank Size (Ø25,0mm)

Identification of Indexable Insert

WDXT 06 30 06 -G

- 06: Width Across Flats (6,0mm)
- 30: Thickness (3,0mm)
- 06: Corner Radius (0,6mm)
- -G: Breaker Type

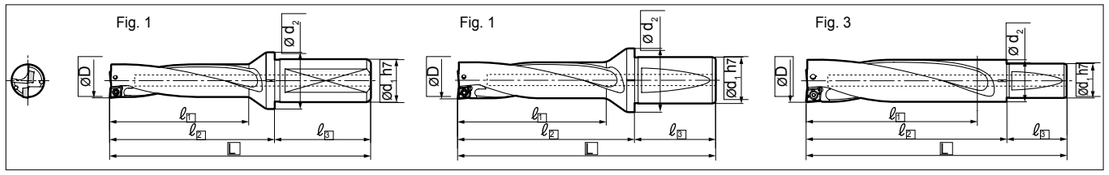
Delivery on request / maximum Ø = 68mm!

● Euro stock
❍ Japan stock

WDX Type (4D)

Max. Depth: 4 x ØD

Guide for machining tolerance: +0,00 ~ + 0,25



Holder

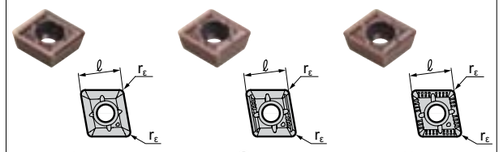
ØD (mm)	Cat. No	Stock	Dimensions (mm) L	ℓ1	ℓ2	Ø d1	Ø d2	ℓ3	Applicable Insert	Fig.
13,0	**WDX 130D4S20**	●	114	55	70					
13,5	**WDX 135D4S20**	●	116	57	72					
14,0	**WDX 140D4S20**	●	118	59	74	20	28	44	WDXT 042004	
14,5	**WDX 145D4S20**	●	120	61	76					
15,0	**WDX 150D4S20**	●	122	63	78					
15,5	**WDX 155D4S20**	●	124	65	80					
16,0	**WDX 160D4S20**	●	126	67	82	20	30	44		
16,5	**WDX 165D4S20**	●	128	69	84				WDXT 052504	
17,0	**WDX 170D4S20**	●	130	71	86					
17,5	**WDX 175D4S25**	●	144	73	88	25	32	56		
18,0	**WDX 180D4S25**	●	146	75	90					
18,5	**WDX 185D4S25**	●	148	77	92					
19,0	**WDX 190D4S25**	●	150	79	94					1
19,5	**WDX 195D4S25**	●	152	81	96					
20,0	**WDX 200D4S25**	●	154	83	98					
20,5	**WDX 205D4S25**	●	156	85	100	25	33	56	WDXT 063006	
21,0	**WDX 210D4S25**	●	158	87	102					
21,5	**WDX 215D4S25**	●	160	89	104					
22,0	**WDX 220D4S25**	●	162	91	106					
22,5	**WDX 225D4S25**	●	164	93	108					
23,0	**WDX 230D4S25**	●	169	95	113					
23,5	**WDX 235D4S25**	●	171	97	115					
24,0	**WDX 240D4S25**	●	173	99	117	25	37	56		
24,5	**WDX 245D4S25**	●	175	101	119					
25,0	**WDX 250D4S25**	●	177	103	121					
25,5	**WDX 255D4S32**	●	185	105	125				WDXT 073506	
26,0	**WDX 260D4S32**	●	187	107	127					
26,5	**WDX 265D4S32**	●	189	109	129					
27,0	**WDX 270D4S32**	●	191	111	131	32	41	60		
27,5	**WDX 275D4S32**	●	193	113	133					
28,0	**WDX 280D4S32**	●	195	115	135					
28,5	**WDX 285D4S32**	●	197	117	137					
29,0	**WDX 290D4S32**	●	201	120	141	32	50	60		
29,5	**WDX 295D4S32**	●	203	122	143					
30,0	**WDX 300D4S40**	●	218	124	148					
31,0	**WDX 310D4S40**	●	222	128	152				WDXT 094008	
32,0	**WDX 320D4S40**	●	226	132	156					
33,0	**WDX 330D4S40**	●	230	136	160	40	54	70		
34,0	**WDX 340D4S40**	●	234	140	164					
35,0	**WDX 350D4S40**	●	238	144	168					
36,0	**WDX 360D4S40**	●	242	148	172					2
37,0	**WDX 370D4S40**	●	253	153	183					
38,0	**WDX 380D4S40**	●	257	157	187					
39,0	**WDX 390D4S40**	●	261	161	191					
40,0	**WDX 400D4S40**	●	265	165	195					
41,0	**WDX 410D4S40**	●	269	169	199	40	49,5	70	WDXT 125012	
42,0	**WDX 420D4S40**	●	273	173	203					
43,0	**WDX 430D4S40**	●	277	177	207					
44,0	**WDX 440D4S40**	●	281	181	211					
45,0	**WDX 450D4S40**	●	285	185	215					
46,0	**WDX 460D4S40**	●	289	189	219					
47,0	**WDX 470D4S40**	●	293	193	223					
48,0	**WDX 480D4S40**	●	297	197	227		49,5			
49,0	**WDX 490D4S40**	●	301	201	231					
50,0	**WDX 500D4S40**	●	305	205	235	40		70	WDXT 156012	
51,0	**WDX 510D4S40**	●	309	209	239					
52,0	**WDX 520D4S40**	●	313	213	243		50,5			
53,0	**WDX 530D4S40**	●	317	217	247		51,5			
54,0	**WDX 540D4S40**	●	321	221	251		52,5			
55,0	**WDX 550D4S40**	●	325	225	255		53,5			3
56,0	**WDX 560D4S40**	❍	334	232	264		54			
57,0	**WDX 570D4S40**	❍	338	236	268		55			
58,0	**WDX 580D4S40**	❍	342	240	272	40	56	70	WDXT 186012	
59,0	**WDX 590D4S40**	❍	346	244	276		57			
60,0	**WDX 600D4S40**	❍	350	248	280		58			

Delivery on request / maximum Ø = 63mm!

● Euro stock
❍ Japan stock

Inserts

(mm)



L Type
Excellent chip control at low feed rates

G Type
General purpose chipbreaker

H Type
Strong cutting edge at higher feed rates

Cat. No.	Coated ACP300	ACK300	DL1500	Fig.	Dimensions(mm) ℓ	Thick-ness	rε	Applicable Holder
WDXT 042004-L	●	●		1				
WDXT 042004-G	●	●	●	2	4,2	2,0	0,4	WDX 130 ~ 150
WDXT 042004-H	●	●		3				
WDXT 052504-L	●	●		1				
WDXT 052504-G	●	●	●	2	5,0	2,5	0,4	WDX 155 ~ 180
WDXT 052504-H	●	●		3				
WDXT 063006-L	●	●		1				
WDXT 063006-G	●	●	●	2	6,0	3,0	0,6	WDX 185 ~ 225
WDXT 063006-H	●	●		3				
WDXT 073506-L	●	●		1				
WDXT 073506-G	●	●	●	2	7,5	3,5	0,6	WDX 230 ~ 285
WDXT 073506-H	●	●		3				
WDXT 094008-L	●	●		1				
WDXT 094008-G	●	●	●	2	9,6	4,0	0,8	WDX 290 ~ 360
WDXT 094008-H	●	●		3				
WDXT 125012-L	●	●		1				
WDXT 125012-G	●	●	●	2	12,4	5,0	1,2	WDX 370 ~ 450
WDXT 125012-H	●	●		3				
WDXT 156012-L	●	●		1				
WDXT 156012-G	●	●	●	2	15,2	6,0	1,2	WDX 460 ~ 550
WDXT 156012-H	●	●		3				
WDXT 186012-G	●	●		2	18,0	6,0	1,2	WDX 560 ~ 650

Spare Parts

Screw	Wrench	Wrench	Applicable Holders	Recom. Torque (Nm)
BFTX 01604N	TRX 06	-	WDX 130D4S20 ~ 150D4S20	0,5
BFTX 0204 N	TRX 06	-	WDX 150D4S20 ~ 180D4S25	0,5
BFTY 02206	-	TRD 07	WDX 185D4S25 ~ 225D4S25	1,0
BFTX 02506N	-	TRD 08	WDX 230D4S25 ~ 285D4S32	1,5
BFTX 03584	-	TRD 15	WDX 290D4S32 ~ 360D4S40	3,5
BFTX 0511N	-	TRD 20	WDX 370D4S40 ~ 450D4S40	5,0
BFTX 0615N	-	TRD 25	WDX 460D4S40 ~ 650D4S40	5,0

Identification of Drill Body

WDX 200 D4 S25

- 200: Drill Diameter (Ø20,0mm)
- D4: Flute Length L/D (4 x D)
- S25: Shank Size (Ø25,0mm)

Identification of Indexable Insert

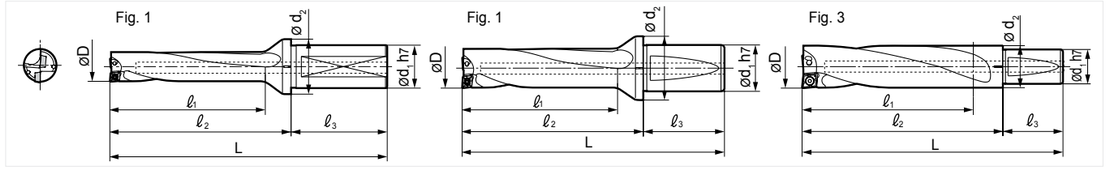
WDXT 06 30 06 -G

- 06: Width Across Flats (6,0mm)
- 30: Thickness (3,0mm)
- 06: Corner Radius (0,6mm)
- -G: Breaker Type

WDX Type (5D)

Max. Depth: 5 x ØD

Guide for machining tolerance: +0,00 ~ + 0,25



Holder

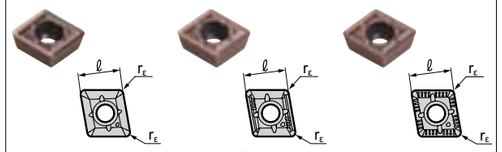
ØD (mm)	Cat. No	Stock	Dimensions (mm) L	ℓ1	ℓ2	Ø d1	Ø d2	ℓ3	Applicable Insert	Fig.
13,0	**WDX 130D5S20**	●	127,0	68,0	83,0					
13,5	**WDX 135D5S20**	●	129,5	70,5	85,5					
14,0	**WDX 140D5S20**	●	132,0	73,0	88,0	20	28	44	WDXT 042004	
14,5	**WDX 145D5S20**	●	134,5	75,5	90,5					
15,0	**WDX 150D5S20**	●	137,0	78,0	93,0					
15,5	**WDX 155D5S20**	●	139,5	80,5	95,5					
16,0	**WDX 160D5S20**	●	142,0	83,0	98,0	20	30	44		
16,5	**WDX 165D5S20**	●	144,5	85,5	100,5				WDXT 052504	
17,0	**WDX 170D5S20**	●	147,0	88,0	103,0					
17,5	**WDX 175D5S25**	●	161,5	90,5	105,5	25	32	56		
18,0	**WDX 180D5S25**	●	164,0	93,0	108,0					
18,5	**WDX 185D5S25**	●	166,5	95,5	110,5					
19,0	**WDX 190D5S25**	●	169,0	98,0	113,0					1
19,5	**WDX 195D5S25**	●	171,5	100,5	115,5					
20,0	**WDX 200D5S25**	●	174,0	103,0	118,0					
20,5	**WDX 205D5S25**	●	176,5	105,5	120,5	25	33	56	WDXT 063006	
21,0	**WDX 210D5S25**	●	179,0	108,0	123,0					
21,5	**WDX 215D5S25**	●	181,5	110,5	125,5					
22,0	**WDX 220D5S25**	●	184,0	113,0	128,0					
22,5	**WDX 225D5S25**	●	186,5	115,5	130,5					
23,0	**WDX 230D5S25**	●	192,0	118,0	136,0					
23,5	**WDX 235D5S25**	●	194,5	120,5	138,5					
24,0	**WDX 240D5S25**	●	197,0	123,0	141,0	25	37	56		
24,5	**WDX 245D5S25**	●	199,5	125,5	143,5				WDXT 073506	
25,0	**WDX 250D5S25**	●	202,0	128,0	146,0					
26,0	**WDX 260D5S32**	●	213,0	133,0	153,0					
27,0	**WDX 270D5S32**	●	218,0	138,0	158,0	32	41	60		
28,0	**WDX 280D5S32**	●	223,0	143,0	163,0					
29,0	**WDX 290D5S32**	●	230,0	149,0	170,0	32	50	60		
30,0	**WDX 300D5S40**	●	248,0	154,0	178,0					
31,0	**WDX 310D5S40**	●	253,0	159,0	183,0					
32,0	**WDX 320D5S40**	●	258,0	164,0	188,0	40	54	70	WDXT 094008	2
33,0	**WDX 330D5S40**	●	263,0	169,0	193,0					
34,0	**WDX 340D5S40**	●	268,0	174,0	198,0					
35,0	**WDX 350D5S40**	●	273,0	179,0	203,0					
36,0	**WDX 360D5S40**	●	278,0	184,0	208,0					

Delivery on request / maximum Ø = 55mm!

● Euro stock
❍ Japan stock

Inserts

(mm)



L Type
Excellent chip control at low feed rates

G Type
General purpose chipbreaker

H Type
Strong cutting edge at higher feed rates

Cat. No.	Coated ACP300	ACK300	DL1500	Fig.	Dimensions(mm) ℓ	Thick-ness	rε	Applicable Holder
WDXT 042004-L	●	●		1				
WDXT 042004-G	●	●	●	2	4,2	2,0	0,4	WDX 130 ~ 150
WDXT 042004-H	●	●		3				
WDXT 052504-L	●	●		1				
WDXT 052504-G	●	●	●	2	5,0	2,5	0,4	WDX 155 ~ 180
WDXT 052504-H	●	●		3				
WDXT 063006-L	●	●		1				
WDXT 063006-G	●	●	●	2	6,0	3,0	0,6	WDX 185 ~ 225
WDXT 063006-H	●	●		3				
WDXT 073506-L	●	●		1				
WDXT 073506-G	●	●	●	2	7,5	3,5	0,6	WDX 230 ~ 285
WDXT 073506-H	●	●		3				
WDXT 094008-L	●	●		1				
WDXT 094008-G	●	●	●	2	9,6	4,0	0,8	WDX 290 ~ 360
WDXT 094008-H	●	●		3				
WDXT 125012-L	●	●		1				
WDXT 125012-G	●	●	●	2	12,4	5,0	1,2	WDX 370 ~ 450
WDXT 125012-H	●	●		3				
WDXT 156012-L	●	●		1				
WDXT 156012-G	●	●	●	2	15,2	6,0	1,2	WDX 460 ~ 550
WDXT 156012-H	●	●		3				

Spare Parts

Screw	Wrench	Wrench	Applicable Holders	Recom. Torque (Nm)
BFTX 01604N	TRX 06	-	WDX 130D5S20 ~ 150D5S20	0,5
BFTX 0204 N	TRX 06	-	WDX 150D5S20 ~ 180D5S25	0,5
BFTY 02206	-	TRD 07	WDX 185D5S25 ~ 225D5S25	1,0
BFTX 02506N	-	TRD 08	WDX 230D5S25 ~ 285D5S32	1,5
BFTX 03584	-	TRD 15	WDX 290D5S32 ~ 360D5S40	3,5
BFTX 0511N	-	TRD 20	WDX 370D5S40 ~ 450D5S40	5,0
BFTX 0615N	-	TRD 25	WDX 460D5S40 ~ 650D5S40	5,0

Identification of Drill Body

WDX 200 D5 S25

- 200: Drill Diameter (Ø20,0mm)
- D5: Flute Length L/D (5 x D)
- S25: Shank Size (Ø25,0mm)

Identification of Indexable Insert

WDXT 06 30 06 -G

- 06: Width Across Flats (6,0mm)
- 30: Thickness (3,0mm)
- 06: Corner Radius (0,6mm)
- -G: Breaker Type

Recommended Cutting Conditions (D2)

(min. - **optimal** - max.)

ISO	Work material		Hardness (HB)	Chip breaker & Grade		Cutting Speed v_c (m/min)	Feed rate (mm/rev) Ø13,0 ~ Ø18,0	Ø18,5 ~ Ø29,0	Ø29,5 ~ Ø36,5	Ø37,0 ~ Ø55,0	Ø56,0 ~ Ø65,0
P	Carbon steel		125	L	ACP300	150 - **220** - 250	0,04 - **0,08** - 0,12	0,04 - **0,08** - 0,12	0,04 - **0,08** - 0,13	0,05 - **0,10** - 0,15	0,06 - **0,11** - 0,17
			190	G	ACP300	150 - **220** - 250	0,08 - **0,13** - 0,24	0,08 - **0,13** - 0,24	0,08 - **0,14** - 0,26	0,09 - **0,16** - 0,29	0,10 - **0,17** - 0,32
			250	G	ACP300	125 - **170** - 230	0,06 - **0,11** - 0,18	0,06 - **0,11** - 0,18	0,06 - **0,12** - 0,19	0,07 - **0,13** - 0,22	0,08 - **0,14** - 0,24
			270	G	ACP300	125 - **170** - 230	0,08 - **0,13** - 0,22	0,08 - **0,14** - 0,24	0,08 - **0,14** - 0,23	0,09 - **0,16** - 0,26	0,10 - **0,17** - 0,29
			300	G	ACP300	100 - **130** - 170	0,06 - **0,11** - 0,17	0,06 - **0,12** - 0,18	0,06 - **0,12** - 0,18	0,07 - **0,13** - 0,20	0,08 - **0,14** - 0,22
	Low alloyed steel		180	L	ACP300	150 - **180** - 220	0,05 - **0,08** - 0,14	0,05 - **0,08** - 0,14	0,05 - **0,08** - 0,16	0,06 - **0,09** - 0,17	0,07 - **0,10** - 0,19
			275	G	ACP300	125 - **150** - 200	0,06 - **0,11** - 0,17	0,06 - **0,11** - 0,17	0,06 - **0,12** - 0,18	0,07 - **0,13** - 0,20	0,08 - **0,14** - 0,22
			300	G	ACP300	100 - **140** - 170	0,06 - **0,11** - 0,17	0,06 - **0,11** - 0,17	0,06 - **0,12** - 0,18	0,07 - **0,13** - 0,20	0,08 - **0,14** - 0,22
			350	G	ACP300	80 - **120** - 150	0,06 - **0,11** - 0,17	0,06 - **0,11** - 0,17	0,06 - **0,12** - 0,18	0,07 - **0,13** - 0,20	0,08 - **0,14** - 0,22
	High alloyed steel		200	G	ACP300	100 - **150** - 200	0,08 - **0,13** - 0,24	0,08 - **0,13** - 0,24	0,08 - **0,14** - 0,26	0,09 - **0,16** - 0,29	0,10 - **0,17** - 0,32
			325	G	ACP300	80 - **120** - 160	0,06 - **0,11** - 0,18	0,06 - **0,11** - 0,18	0,06 - **0,12** - 0,19	0,07 - **0,13** - 0,22	0,08 - **0,14** - 0,24
M	Stainless steel	martensitic / ferritic martensitic / tempered austenitic / quenched austenitic / ferritic (Duplex)	200	L/G	ACP300	100 - **150** - 200	0,06 - **0,11** - 0,18	0,06 - **0,11** - 0,18	0,06 - **0,12** - 0,19	0,07 - **0,13** - 0,22	0,08 - **0,14** - 0,24
			240	L/G	ACP300	90 - **120** - 150	0,06 - **0,11** - 0,18	0,06 - **0,11** - 0,18	0,06 - **0,12** - 0,19	0,07 - **0,13** - 0,22	0,08 - **0,14** - 0,24
			180	L/G	ACP300	100 - **150** - 200	0,04 - **0,08** - 0,18/	0,06 - **0,11** - 0,18	0,06 - **0,12** - 0,19	0,07 - **0,13** - 0,22	0,08 - **0,14** - 0,24
			230	L/G	ACP300	80 - **120** - 150	0,04 - **0,08** - 0,18	0,06 - **0,11** - 0,18	0,06 - **0,12** - 0,19	0,07 - **0,13** - 0,22	0,08 - **0,14** - 0,24
K	Cast iron (GG)		180	H	ACK300	120 - **160** - 200	0,09 - **0,20** - 0,32	0,10 - **0,22** - 0,36	0,11 - **0,24** - 0,39	0,12 - **0,26** - 0,44	0,13 - **0,29** - 0,48
			260	H	ACK300	120 - **160** - 200	0,09 - **0,20** - 0,32	0,10 - **0,22** - 0,36	0,11 - **0,24** - 0,39	0,12 - **0,26** - 0,44	0,13 - **0,29** - 0,48
	Nodular cast iron (GGG)		160	H	ACK300	90 - **120** - 250	0,09 - **0,20** - 0,32	0,10 - **0,22** - 0,36	0,11 - **0,24** - 0,39	0,12 - **0,26** - 0,44	0,13 - **0,29** - 0,48
			250	H	ACK300	90 - **120** - 150	0,09 - **0,20** - 0,32	0,10 - **0,22** - 0,36	0,11 - **0,24** - 0,39	0,12 - **0,26** - 0,44	0,13 - **0,29** - 0,48
S	Heat resistant alloy		200	L/G	ACP300	25 - **50** - 70	0,06 - **0,11** - 0,18	0,06 - **0,11** - 0,18	0,06 - **0,12** - 0,19	0,07 - **0,13** - 0,22	0,08 - **0,14** - 0,24
N	Aluminium Alloy			G	DL1500	200 - **260** - 320	0,06 - **0,11** - 0,17	0,06 - **0,11** - 0,17	0,06 - **0,12** - 0,18	0,07 - **0,13** - 0,20	0,08 - **0,14** - 0,22
	Copper Alloy			G	DL1500	180 - **230** - 280	0,06 - **0,11** - 0,17	0,06 - **0,11** - 0,17	0,06 - **0,12** - 0,18	0,07 - **0,13** - 0,20	0,08 - **0,14** - 0,22

Recommended Cutting Conditions (D3)

(min. - **optimal** - max.)

ISO	Work material		Hardness (HB)	Chip breaker & Grade		Cutting Speed v_c (m/min)	Feed rate (mm/rev) Ø13,0 ~ Ø18,0	Ø18,5 ~ Ø29,0	Ø29,5 ~ Ø36,5	Ø37,0 ~ Ø55,0	Ø56,0 ~ Ø65,0
P	Carbon steel		125	L	ACP300	150 - **220** - 250	0,04 - **0,07** - 0,10	0,04 - **0,07** - 0,10	0,04 - **0,08** - 0,11	0,05 - **0,09** - 0,12	0,06 - **0,10** - 0,13
			190	G	ACP300	150 - **220** - 250	0,08 - **0,12** - 0,20	0,08 - **0,12** - 0,20	0,08 - **0,13** - 0,22	0,09 - **0,14** - 0,24	0,10 - **0,16** - 0,27
			250	G	ACP300	125 - **170** - 230	0,06 - **0,10** - 0,15	0,06 - **0,10** - 0,15	0,06 - **0,11** - 0,16	0,07 - **0,12** - 0,18	0,08 - **0,13** - 0,20
			270	G	ACP300	125 - **170** - 230	0,08 - **0,12** - 0,18	0,08 - **0,12** - 0,18	0,08 - **0,13** - 0,19	0,09 - **0,14** - 0,22	0,10 - **0,16** - 0,24
			300	G	ACP300	100 - **130** - 170	0,06 - **0,10** - 0,14	0,06 - **0,10** - 0,14	0,06 - **0,11** - 0,15	0,07 - **0,12** - 0,17	0,08 - **0,13** - 0,19
	Low alloyed steel		180	L	ACP300	150 - **180** - 220	0,05 - **0,07** - 0,12	0,05 - **0,07** - 0,12	0,05 - **0,08** - 0,13	0,06 - **0,08** - 0,15	0,07 - **0,09** - 0,16
			275	G	ACP300	125 - **150** - 200	0,06 - **0,10** - 0,14	0,06 - **0,10** - 0,14	0,06 - **0,11** - 0,15	0,07 - **0,12** - 0,17	0,08 - **0,13** - 0,19
			300	G	ACP300	100 - **140** - 170	0,06 - **0,10** - 0,14	0,06 - **0,10** - 0,14	0,06 - **0,11** - 0,15	0,07 - **0,12** - 0,17	0,08 - **0,13** - 0,19
			350	G	ACP300	80 - **120** - 150	0,06 - **0,10** - 0,14	0,06 - **0,10** - 0,14	0,06 - **0,11** - 0,15	0,07 - **0,12** - 0,17	0,08 - **0,13** - 0,19
	High alloyed steel		200	G	ACP300	100 - **150** - 200	0,08 - **0,12** - 0,20	0,08 - **0,12** - 0,20	0,08 - **0,13** - 0,22	0,09 - **0,14** - 0,24	0,10 - **0,16** - 0,27
			325	G	ACP300	80 - **120** - 160	0,06 - **0,10** - 0,15	0,06 - **0,10** - 0,15	0,06 - **0,11** - 0,16	0,07 - **0,12** - 0,18	0,08 - **0,13** - 0,20
M	Stainless steel	martensitic / ferritic martensitic / tempered austenitic / quenched austenitic / ferritic (Duplex)	200	L/G	ACP300	100 - **150** - 200	0,06 - **0,10** - 0,15	0,06 - **0,10** - 0,15	0,06 - **0,11** - 0,16	0,07 - **0,12** - 0,18	0,08 - **0,13** - 0,20
			240	L/G	ACP300	90 - **120** - 150	0,06 - **0,10** - 0,15	0,06 - **0,10** - 0,15	0,06 - **0,11** - 0,16	0,07 - **0,12** - 0,18	0,08 - **0,13** - 0,20
			180	L/G	ACP300	100 - **150** - 200	0,04 - **0,10** - 0,15	0,06 - **0,10** - 0,15	0,06 - **0,11** - 0,16	0,07 - **0,12** - 0,18	0,08 - **0,13** - 0,20
			230	L/G	ACP300	80 - **120** - 150	0,04 - **0,10** - 0,15	0,06 - **0,10** - 0,15	0,06 - **0,11** - 0,16	0,07 - **0,12** - 0,18	0,08 - **0,13** - 0,20
K	Cast iron (GG)		180	H	ACK300	120 - **160** - 200	0,09 - **0,18** - 0,27	0,10 - **0,20** - 0,30	0,11 - **0,22** - 0,32	0,12 - **0,24** - 0,36	0,13 - **0,26** - 0,40
			260	H	ACK300	120 - **160** - 200	0,09 - **0,18** - 0,27	0,10 - **0,20** - 0,30	0,11 - **0,22** - 0,32	0,12 - **0,24** - 0,36	0,13 - **0,26** - 0,40
	Nodular cast iron (GGG)		160	H	ACK300	90 - **120** - 250	0,09 - **0,18** - 0,27	0,10 - **0,20** - 0,30	0,11 - **0,22** - 0,32	0,12 - **0,24** - 0,36	0,13 - **0,26** - 0,40
			250	H	ACK300	90 - **120** - 150	0,09 - **0,18** - 0,27	0,10 - **0,20** - 0,30	0,11 - **0,22** - 0,32	0,12 - **0,24** - 0,36	0,13 - **0,26** - 0,40
S	Heat resistant alloy		200	L/G	ACP300	25 - **50** - 70	0,06 - **0,10** - 0,15	0,06 - **0,10** - 0,15	0,06 - **0,11** - 0,16	0,07 - **0,12** - 0,18	0,08 - **0,13** - 0,20
N	Aluminium Alloy			G	DL1500	200 - **260** - 320	0,06 - **0,11** - 0,17	0,06 - **0,11** - 0,17	0,06 - **0,12** - 0,18	0,07 - **0,13** - 0,20	0,08 - **0,14** - 0,22
	Copper Alloy			G	DL1500	180 - **230** - 280	0,06 - **0,11** - 0,17	0,06 - **0,11** - 0,17	0,06 - **0,12** - 0,18	0,07 - **0,13** - 0,20	0,08 - **0,14** - 0,22

Recommended Cutting Conditions (D4)

(min. - **optimal** - max.)

ISO	Work material		Hardness (HB)	Chip breaker & Grade		Cutting Speed v_c (m/min)	Feed rate (mm/rev) Ø13,0 ~ Ø18,0	Ø18,5 ~ Ø29,0	Ø29,5 ~ Ø36,5	Ø37,0 ~ Ø55,0	Ø56,0 ~ Ø65,0
P	Carbon steel		125	L	ACP300	150 - **220** - 250	0,04 - **0,07** - 0,09	0,04 - **0,07** - 0,09	0,04 - **0,07** - 0,09	0,05 - **0,08** - 0,10	0,05 - **0,08** - 0,10
			190	G	ACP300	150 - **220** - 250	0,08 - **0,11** - 0,17	0,08 - **0,11** - 0,17	0,08 - **0,12** - 0,18	0,09 - **0,14** - 0,21	0,09 - **0,14** - 0,21
			250	G	ACP300	125 - **170** - 230	0,06 - **0,10** - 0,13	0,06 - **0,10** - 0,13	0,06 - **0,10** - 0,14	0,07 - **0,11** - 0,15	0,07 - **0,11** - 0,15
			270	G	ACP300	125 - **170** - 230	0,08 - **0,11** - 0,15	0,08 - **0,11** - 0,15	0,08 - **0,12** - 0,17	0,09 - **0,14** - 0,19	0,09 - **0,14** - 0,19
			300	G	ACP300	100 - **130** - 170	0,06 - **0,10** - 0,12	0,06 - **0,10** - 0,12	0,06 - **0,10** - 0,13	0,07 - **0,11** - 0,14	0,07 - **0,11** - 0,14
	Low alloyed steel		180	L	ACP300	150 - **180** - 220	0,05 - **0,07** - 0,10	0,05 - **0,07** - 0,10	0,05 - **0,07** - 0,11	0,06 - **0,08** - 0,12	0,06 - **0,08** - 0,12
			275	G	ACP300	125 - **150** - 200	0,06 - **0,10** - 0,12	0,06 - **0,10** - 0,12	0,06 - **0,10** - 0,13	0,07 - **0,11** - 0,14	0,07 - **0,11** - 0,14
			300	G	ACP300	100 - **140** - 170	0,06 - **0,10** - 0,12	0,06 - **0,10** - 0,12	0,06 - **0,10** - 0,13	0,07 - **0,11** - 0,14	0,07 - **0,11** - 0,14
			350	G	ACP300	80 - **120** - 150	0,06 - **0,10** - 0,12	0,06 - **0,10** - 0,12	0,06 - **0,10** - 0,13	0,07 - **0,11** - 0,14	0,07 - **0,11** - 0,14
	High alloyed steel		200	G	ACP300	100 - **150** - 200	0,08 - **0,11** - 0,17	0,08 - **0,11** - 0,17	0,08 - **0,12** - 0,18	0,09 - **0,14** - 0,21	0,09 - **0,14** - 0,21
			325	G	ACP300	80 - **120** - 160	0,06 - **0,10** - 0,13	0,06 - **0,10** - 0,13	0,06 - **0,10** - 0,14	0,07 - **0,11** - 0,15	0,07 - **0,11** - 0,15
M	Stainless steel	martensitic / ferritic martensitic / tempered austenitic / quenched austenitic / ferritic (Duplex)	200	L/G	ACP300	100 - **150** - 200	0,06 - **0,10** - 0,13	0,06 - **0,10** - 0,13	0,06 - **0,10** - 0,14	0,07 - **0,11** - 0,15	0,07 - **0,11** - 0,15
			240	L/G	ACP300	90 - **120** - 150	0,06 - **0,10** - 0,13	0,06 - **0,10** - 0,13	0,06 - **0,10** - 0,14	0,07 - **0,11** - 0,15	0,07 - **0,11** - 0,15
			180	L/G	ACP300	100 - **150** - 200	0,04 - **0,10** - 0,13/	0,06 - **0,10** - 0,13	0,06 - **0,10** - 0,14	0,07 - **0,11** - 0,15	0,07 - **0,11** - 0,15
			230	L/G	ACP300	80 - **120** - 150	0,04 - **0,10** - 0,13	0,06 - **0,10** - 0,13	0,06 - **0,10** - 0,14	0,07 - **0,11** - 0,15	0,07 - **0,11** - 0,15
K	Cast iron (GG)		180	H	ACK300	120 - **160** - 200	0,09 - **0,17** - 0,23	0,10 - **0,19** - 0,26	0,11 - **0,21** - 0,28	0,12 - **0,23** - 0,31	0,12 - **0,23** - 0,31
			260	H	ACK300	120 - **160** - 200	0,09 - **0,17** - 0,23	0,10 - **0,19** - 0,26	0,11 - **0,21** - 0,28	0,12 - **0,23** - 0,31	0,12 - **0,23** - 0,31
	Nodular cast iron (GGG)		160	H	ACK300	90 - **120** - 250	0,09 - **0,17** - 0,23	0,10 - **0,19** - 0,26	0,11 - **0,21** - 0,28	0,12 - **0,23** - 0,31	0,12 - **0,23** - 0,31
			250	H	ACK300	90 - **120** - 150	0,09 - **0,17** - 0,23	0,10 - **0,19** - 0,26	0,11 - **0,21** - 0,28	0,12 - **0,23** - 0,31	0,12 - **0,23** - 0,31
S	Heat resistant alloy		200	L/G	ACP300	25 - **50** - 70	0,06 - **0,10** - 0,13	0,06 - **0,10** - 0,13	0,06 - **0,10** - 0,14	0,07 - **0,11** - 0,15	0,07 - **0,11** - 0,15
N	Aluminium Alloy			G	DL1500	200 - **260** - 320	0,05 - **0,10** - 0,15	0,05 - **0,10** - 0,15	0,06 - **0,11** - 0,16	0,06 - **0,12** - 0,18	0,07 - **0,13** - 0,20
	Copper Alloy			G	DL1500	180 - **230** - 280	0,05 - **0,10** - 0,15	0,05 - **0,10** - 0,15	0,06 - **0,11** - 0,16	0,06 - **0,12** - 0,18	0,07 - **0,13** - 0,20

Indexable Insert Type "SumiDrill"
WDX Type

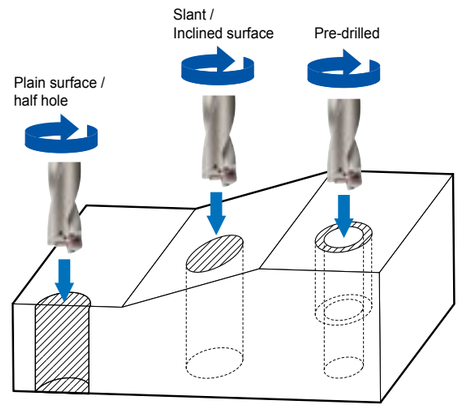
Recommended Cutting Conditions (D5)

(min. - **optimal** - max.)

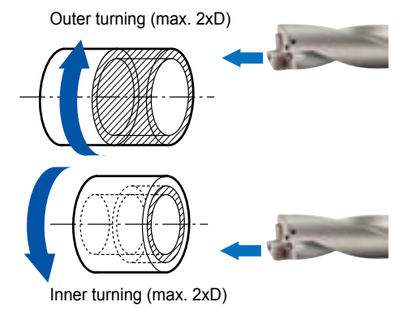
ISO	Work material		Hardness (HB)	Chip breaker & Grade		Cutting Speed v_c (m/min)	Feed rate (mm/rev) Ø13,0 ~ Ø18,0	Ø18,5 ~ Ø29,0	Ø29,5 ~ Ø36,5	Ø37,0 ~ Ø55,0	
P	Carbon steel		125	L	ACP300	150 - **220** - 250	0,04 - **0,06** - 0,09	0,04 - **0,06** - 0,08	0,04 - **0,06** - 0,08	0,05 - **0,07** - 0,09	
			190	G	ACP300	150 - **220** - 250	0,07 - **0,10** - 0,15	0,07 - **0,10** - 0,15	0,08 - **0,11** - 0,17	0,09 - **0,12** - 0,19	
			250	G	ACP300	125 - **170** - 230	0,05 - **0,09** - 0,11	0,05 - **0,09** - 0,11	0,06 - **0,09** - 0,12	0,06 - **0,10** - 0,14	
			270	G	ACP300	125 - **170** - 230	0,07 - **0,10** - 0,14	0,07 - **0,10** - 0,14	0,08 - **0,11** - 0,15	0,09 - **0,12** - 0,17	
			300	G	ACP300	100 - **130** - 170	0,05 - **0,09** - 0,11	0,05 - **0,09** - 0,11	0,06 - **0,09** - 0,12	0,06 - **0,10** - 0,13	
	Low alloyed steel		180	L	ACP300	150 - **180** - 220	0,05 - **0,06** - 0,09	0,05 - **0,06** - 0,09	0,05 - **0,06** - 0,10	0,05 - **0,07** - 0,11	
			275	G	ACP300	125 - **150** - 200	0,05 - **0,09** - 0,11	0,05 - **0,09** - 0,11	0,06 - **0,09** - 0,12	0,06 - **0,10** - 0,13	
			300	G	ACP300	100 - **140** - 170	0,05 - **0,09** - 0,11	0,05 - **0,09** - 0,11	0,06 - **0,09** - 0,12	0,06 - **0,10** - 0,13	
			350	G	ACP300	80 - **120** - 150	0,05 - **0,09** - 0,11	0,05 - **0,09** - 0,11	0,06 - **0,09** - 0,12	0,06 - **0,10** - 0,13	
	High alloyed steel		200	G	ACP300	100 - **150** - 200	0,07 - **0,10** - 0,15	0,07 - **0,10** - 0,15	0,08 - **0,11** - 0,17	0,09 - **0,12** - 0,19	
			325	G	ACP300	80 - **120** - 160	0,05 - **0,09** - 0,11	0,06 - **0,09** - 0,11	0,06 - **0,09** - 0,12	0,06 - **0,10** - 0,14	
M	Stainless steel	martensitic / ferritic martensitic / tempered austenitic / quenched austenitic / ferritic (Duplex)	200	L/G	ACP300	100 - **150** - 200	0,05 - **0,09** - 0,11	0,05 - **0,09** - 0,11	0,06 - **0,09** - 0,12	0,06 - **0,10** - 0,14	
			240	L/G	ACP300	90 - **120** - 150	0,05 - **0,09** - 0,11	0,05 - **0,09** - 0,11	0,06 - **0,09** - 0,12	0,06 - **0,10** - 0,14	
			180	L/G	ACP300	100 - **150** - 200	0,05 - **0,09** - 0,11/	0,05 - **0,09** - 0,11	0,06 - **0,09** - 0,12	0,07 - **0,10** - 0,14	
			230	L/G	ACP300	80 - **120** - 150	0,05 - **0,09** - 0,11	0,05 - **0,09** - 0,11	0,06 - **0,09** - 0,12	0,07 - **0,12** - 0,18	
K	Cast iron (GG)		180	H	ACK300	120 - **160** - 200	0,08 - **0,15** - 0,21	0,09 - **0,17** - 0,23	0,09 - **0,18** - 0,25	0,11 - **0,20** - 0,28	
			260	H	ACK300	120 - **160** - 200	0,08 - **0,15** - 0,21	0,09 - **0,17** - 0,23	0,09 - **0,18** - 0,25	0,11 - **0,20** - 0,28	
	Nodular cast iron (GGG)		160	H	ACK300	90 - **120** - 250	0,08 - **0,15** - 0,21	0,09 - **0,17** - 0,23	0,09 - **0,18** - 0,25	0,11 - **0,20** - 0,28	
			250	H	ACK300	90 - **120** - 150	0,08 - **0,15** - 0,21	0,09 - **0,17** - 0,23	0,09 - **0,18** - 0,25	0,11 - **0,20** - 0,28	
S	Heat resistant alloy		200	L/G	ACP300	25 - **50** - 70	0,05 - **0,09** - 0,11	0,05 - **0,09** - 0,11	0,06 - **0,09** - 0,12	0,06 - **0,10** - 0,14	
N	Aluminium Alloy			G	DL1500	200 - **260** - 320	0,05 - **0,10** - 0,15	0,05 - **0,10** - 0,15	0,06 - **0,11** - 0,16	0,06 - **0,12** - 0,18	
	Copper Alloy			G	DL1500	180 - **230** - 280	0,05 - **0,10** - 0,15	0,05 - **0,10** - 0,15	0,06 - **0,11** - 0,16	0,06 - **0,12** - 0,18	

Multi-Purpose Functionality

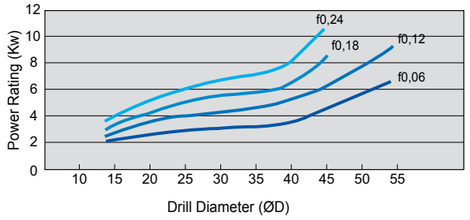
- Application for machining centre



- Turning by lathes



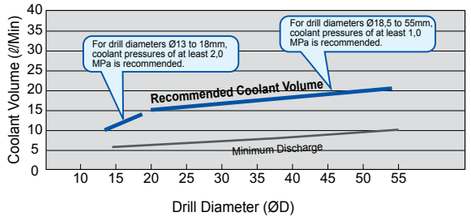
Typical Power Ratings



<Cautions>
Power ratings are subject to change based on conditions such as work material and cutting speed and should only be used for reference.

Cutting Conditions (Reference)
Work Material: S50C (230HB)
Cutting Speed: v_c=150m/min

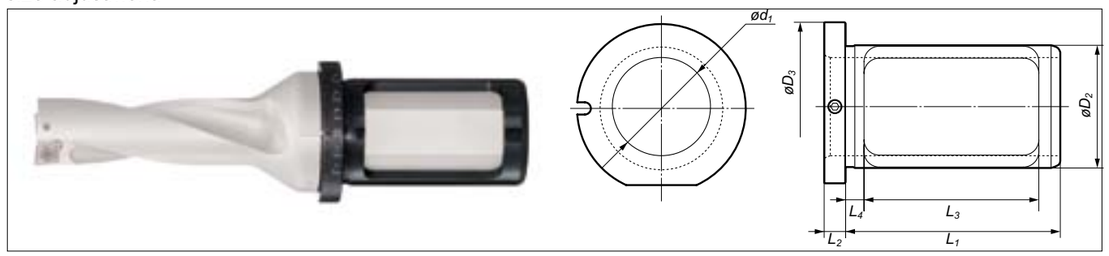
Typical Coolant Volume



<Cautions>
Coolant volume is a factor that affects drilling performance, particularly with respect to chip evacuation and lubricity.
Coolant pressure should be set higher for smaller diameter drills. (Ø18,0mm or smaller)
Coolant volume is usually adjusted by changing the coolant pressure provided on most CNC machines.
This table provides guideline values only. More coolant may be required depending on the machine, coolant and work material.

Eccentric Sleeve WAS Type

The Eccentric Sleeve WAS Type, exclusively designed for ”SumiDrill“ WDX Type, provides up to ±0,3mm of hole size adjustment.

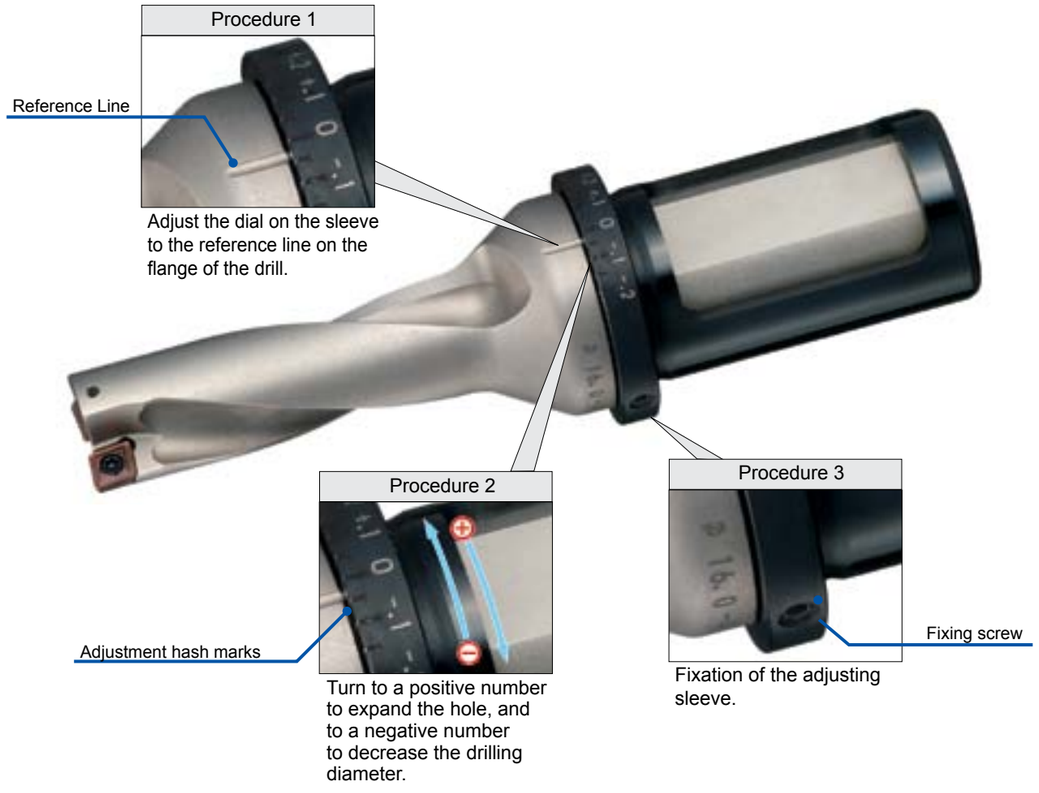


Dimensions

(mm)

Cat. No.	Stock	Ød$_1$	ØD$_2$	ØD$_3$	L$_1$	L$_2$	L$_3$	L$_4$	Diameter Adjustment Range (max.)
WAS 2025-48	●	20	25	33	43	5	32	5	+0,3 ~ -0,2
WAS 2535-60	●	25	32	42	60	7	46	6	+0,3 ~ -0,3
WAS 3240-70	●	32	40	55	70	7	57	6	+0,3 ~ -0,3
WAS 4050-85	●	40	50	60	80	7	64	6	+0,3 ~ -0,3

Diameter Adjustment



Note 1: The dial is for reference purposes. Always measure the actual drilling diameter and adjust accordingly.
Note 2: Not usable with collet chuck type holders. Only use with a side-locking holder like Weldon.

Application Examples

	Normal wear	Good chip control
”SumiDrill“ WDX type		
Competitor	Breakage	Long chips

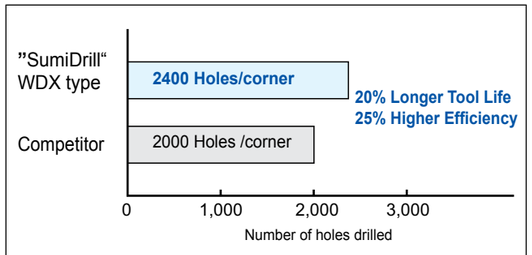
Automotive Component (SUS304)
Drill Body: WDX220D2S25
Drill Insert: WDXT063006-L(ACP300)
Conditions: v_c=125m/min, f=0,07mm/rev, H=5mm, Through, Wet

Insert breakage was eliminated with improved chip control and better surface finish.

	Good chip form
”SumiDrill“ WDX type	
Competitor	Entangled chips

Structural Steel
Drill Body: WDX190D4S25
Drill Insert: WDXT063006-L(ACP300)
Conditions: v_c=100m/min, f=0,06mm/rev, H=40mm, Through, Wet

Eliminated the problem of entangled chips.



Machine Component (SCM440)
Drill Body: WDX220D3S25
Drill Insert: WDXT063006-G(ACP300)
Conditions (Sumitomo): v_c=157m/min, f=0,19mm/rev, H=19mm, Through, Wet
Conditions (Competitor): v_c=157m/min, f=0,15mm/rev, H=19mm, Through, Wet

Good chip control even under high efficiency conditions.
Better stability through lower cutting force, resulting in 25% higher efficiency and 20% higher tool life.

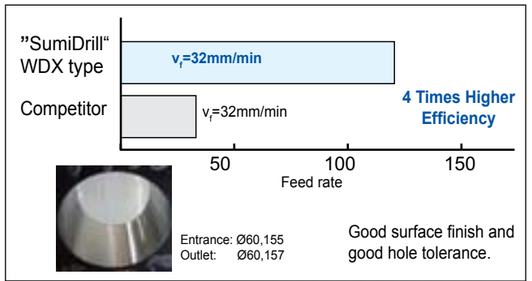
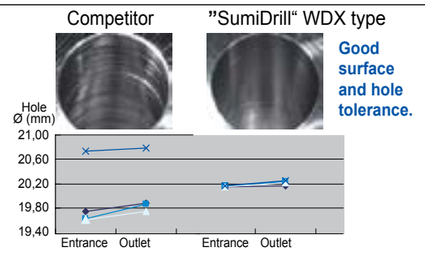


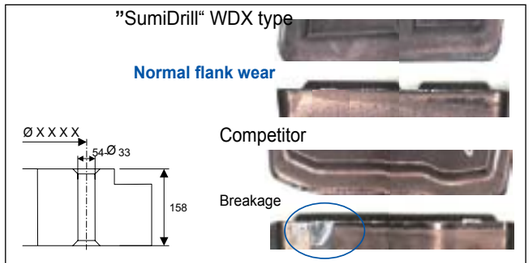
Plate (S48C)
Drill Body: WDX600D3S40
Drill Insert: WDXT186012-G(ACP300)
Conditions (Sumitomo): v_c=150m/min, f=0,16mm/rev, H=60mm, Through, Wet
Conditions (Competitor): v_c=30m/min, f=0,20mm/rev, H=60mm, Through, Wet

Stable drilling performance.
4 times higher efficiency.



Automotive Component (SCM415)
Drill Body: WDX200D5S25
Drill Insert: WDXT063006-G(ACP300)
Conditions: v_c=185m/min, f=0,12mm/rev, H=87mm, Through, Wet

Good surface roughness.
Stable hole diameter.



Bearing Component for Windmill (42CrMo)
Drill Body: WDX330D5S40
Drill Insert: WDXT094008-L(ACP300)
Conditions: v_c=146m/min, f=0,10mm/rev, H=158mm, Through, Wet

WDX shows stable drilling performance, no cutting edge breakage.

Indexable Insert Type ”SumiDrill“
WDX Type

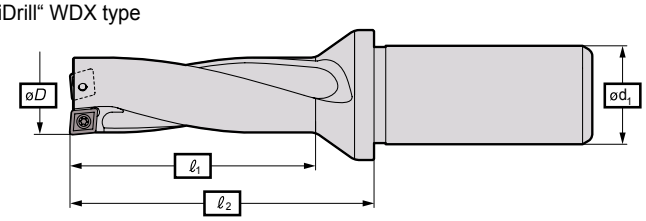
Special Drill Design Check List

Please fill in the required specifications below.
Please send the completed form to either our sales office or distributor.
For other special drill requirements not stated below, please feel free to consult our staff.

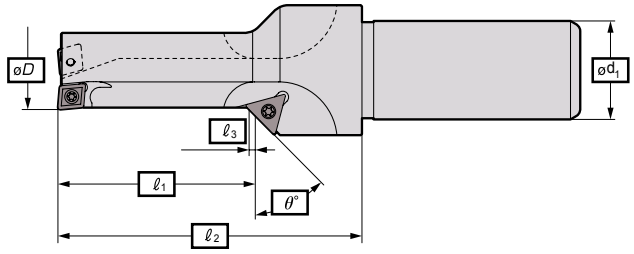
Company / Contact Person

Drill Type

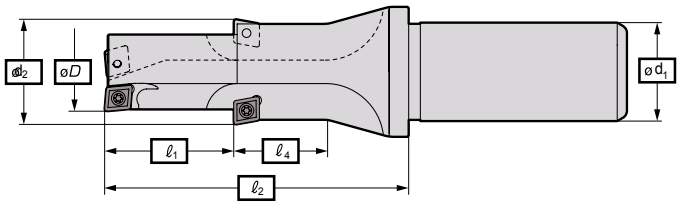
”SumiDrill“ WDX type



”SumiDrill“ WDX type with chamfering insert



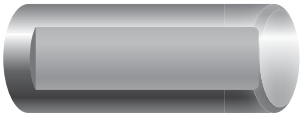
”SumiDrill“ WDX type with counter boring insert



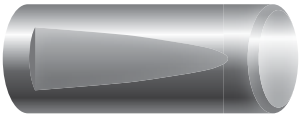
Shank Type

Cylindrical type

Rectangular type



Whistle notch type

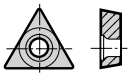


Application Insert

Drilling/counter bore (WDXT□□□□□□-□)

 L Type  G Type  H Type

Chamfering (TP□□ □□□□□□□ □□)



D	(Drill diameter)	Ø13 ~ Ø55mm	mm
d_1	(*) (Shank diameter)	Ø20 ~ Ø40mm	mm
d_2	(Counter bore diameter)	ØD + 2 - 20mm	mm
ℓ_1	(Drilling depth)	ØDx4 and below	mm
ℓ_2	(*) (Length from flange)	200mm and below	mm

ℓ_3	(Chamfer width)	3mm and below	mm
$\ell_1 + \ell_4$	(Drilling depth + counter bore depth)	ØDx4 and below	mm
$\theta°$	(*) (Chamfer angle)	15 - 60°	°

(*) Please note that some restrictions apply

Additional Requests:

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