

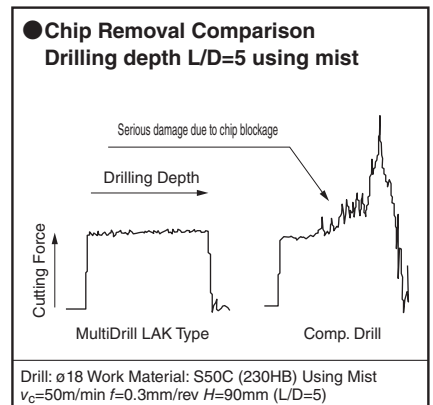
■ General Features

The SUPER MULTIDRILL AK type, a brazed carbide tip drill with through-tool oil holes, utilises a tough carbide substrate coupled with the new ZX-coating. With double the conventional regrinding allowance provided, a lower running cost can be achieved.

■ Characteristics and Application

- Stable tool life of up to 1.5 times
Tough substrate with new ZX-coating improves fracture resistance and tool life.
- Double the regrinding possibilities
Longer carbide tip portion provides double the allowance for regrinding.
- Unique flute design for using mist
Both flute shape and flute surface quality is designed for drilling depths of L/D=5 using mist.

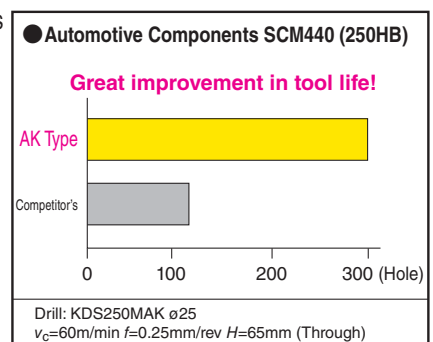
■ Performance



■ Series

Series Cat No.	Diameter Range (mm)	Drilling Depth (L/D)	Characteristics
Standard Type (MAK)	ø13.6 to ø40.5	Up to 3	Up to 3 times more total tool life expectancy resulting from 1.5 times better tool life and 2 times more regrinding possibility.
Long Type (LAK)	ø13.6 to ø40.5	Up to 5	
Deep Hole Type (DAK)	ø13.0 to ø40.5	Up to 7	
Standard Type (BAK)	ø13.6 to ø30.5	Up to 3	Designed for drilling stacked sheets.

■ Application Examples



■ Recommended Cutting Conditions (Brazed Carbide Tip Type)

● General Purpose (L/D: Up to 5): MAK Type / LAK Type / BAK Type

v_c : Cutting Speed (m/min) f : Feed Rate (mm/rev)

Drill Diameter DC	Work Material Series	Soft Steel (Up to 200HB)		General Steel (Up to 300HB)		Hardened Steel 45HRC	Structural Steel SM·SS	Stainless Steel (Up to 200HB)	Gray Cast Iron FC250	Ductile Cast Iron FCD450	Aluminum Alloy	Ti-alloy 6Al-4V-Ti	Inconel Inco718
		MAK Type	LAK Type	MAK Type	LAK Type	MAK Type	BAK Type	MAK Type	LAK Type	MAK Type	LAK Type	MAK Type	LAK Type
Up to ø15.0	v_c	50-60-75	50-60-70	30-35-45	50-55-60	35-40-50	60-70-100	55-60-75	70-80-100	20-25-35	10-20-30		
	f	0.15-0.20-0.30	0.15-0.20-0.30	0.10-0.15-0.20	0.20-0.22-0.25	0.10-0.12-0.20	0.20-0.25-0.30	0.15-0.20-0.30	0.25-0.30-0.35	0.10-0.12-0.15	0.05-0.08-0.10		
Up to ø20.0	v_c	50-60-75	50-60-70	35-40-50	50-55-65	35-40-50	60-70-100	60-65-80	70-90-110	20-25-40	10-20-30		
	f	0.15-0.25-0.35	0.15-0.20-0.35	0.15-0.20-0.25	0.20-0.22-0.25	0.15-0.17-0.25	0.20-0.25-0.35	0.15-0.20-0.35	0.25-0.32-0.40	0.10-0.12-0.15	0.05-0.08-0.10		
Up to ø30.0	v_c	55-65-90	55-65-90	35-40-50	50-60-70	35-40-50	60-75-110	60-70-90	75-100-120	25-30-40	15-20-35		
	f	0.20-0.30-0.40	0.20-0.25-0.35	0.15-0.20-0.25	0.20-0.25-0.35	0.15-0.20-0.25	0.25-0.30-0.40	0.20-0.25-0.40	0.30-0.35-0.45	0.10-0.14-0.20	0.08-0.10-0.12		
Up to ø40.0	v_c	60-70-90	60-70-90	35-40-50	50-60-75	35-40-50	60-75-110	60-70-100	75-100-120	25-30-40	15-20-35		
	f	0.20-0.30-0.40	0.20-0.25-0.30	0.15-0.50-0.25	0.25-0.30-0.35	0.15-0.20-0.25	0.25-0.35-0.45	0.20-0.25-0.40	0.30-0.35-0.45	0.10-0.14-0.20	0.08-0.10-0.12		

Min. - Optimum - Max.

● Deep Hole (L/D: Up to 7): DAK Type

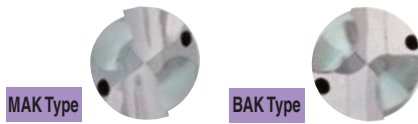
v_c : Cutting Speed (m/min) f : Feed Rate (mm/rev)

Drill Diameter DC	Work Material Series	Soft Steel (Up to 200HB)		General Steel (Up to 300HB)		Hardened Steel 45HRC	Stainless Steel (Up to 200HB)	Gray Cast Iron FC250	Ductile Cast Iron FCD450	Aluminum Alloy	Ti-alloy 6Al-4V-Ti	Inconel Inco718
		MAK Type	LAK Type	MAK Type	LAK Type	MAK Type	BAK Type	MAK Type	LAK Type	MAK Type	LAK Type	MAK Type
Up to ø15.0	v_c	50-55-65	50-55-60	20-30-45	35-40-50	60-65-80	45-50-65	70-80-90	20-25-35	10-15-30		
	f	0.15-0.20-0.25	0.15-0.20-0.25	0.10-0.15-0.15	0.10-0.12-0.15	0.20-0.22-0.25	0.15-0.20-0.25	0.25-0.27-0.30	0.08-0.10-0.12	0.05-0.08-0.10		
Up to ø20.0	v_c	50-55-65	50-55-60	25-30-45	35-40-50	60-65-80	50-55-70	70-80-90	20-25-40	10-15-30		
	f	0.15-0.20-0.25	0.15-0.20-0.25	0.15-0.17-0.20	0.12-0.15-0.20	0.20-0.22-0.25	0.15-0.17-0.25	0.25-0.27-0.35	0.08-0.10-0.12	0.05-0.08-0.10		
Up to ø30.0	v_c	55-60-75	55-60-70	25-35-50	35-40-50	60-70-90	50-55-80	75-85-100	25-30-40	15-20-35		
	f	0.20-0.25-0.30	0.20-0.25-0.30	0.15-0.17-0.20	0.15-0.17-0.20	0.25-0.27-0.30	0.20-0.25-0.30	0.30-0.32-0.35	0.10-0.12-0.15	0.08-0.10-0.12		
Up to ø40.0	v_c	60-60-70	60-65-70	25-35-50	35-40-50	60-70-90	50-55-80	75-85-100	25-30-40	15-20-35		
	f	0.20-0.25-0.30	0.20-0.25-0.30	0.15-0.17-0.20	0.15-0.17-0.20	0.25-0.27-0.30	0.20-0.25-0.30	0.30-0.35-0.40	0.10-0.12-0.15	0.08-0.10-0.12		

Min. - Optimum - Max.

J
Drilling
Solid
Special
Indexable
Reamer
Brazed
Others

Super MultiDrill
KDS Type

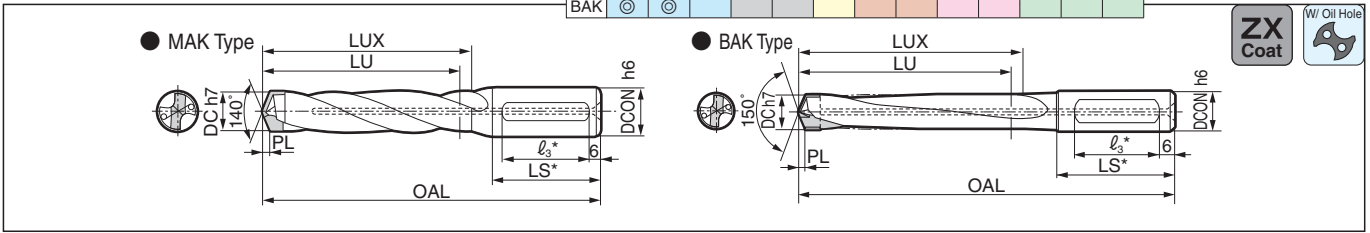


MAK Type

BAK Type

Internal Coolant Supply (□AK Type)

Carbon Steel	Alloy Steel	Tempered Steel	Hardened Steel	Stainless Steel	Ti Alloy	Heat-resistant Steels	Cast Iron	Ductile Cast Iron	Aluminum Alloy	Copper Alloy	Composite CFRP	3D	5D	7D
Up to 0.28%	From 0.29%		Up to 45HRC	From 40HRC										
AK	AK													
BAK	BAK													



■ Body Diameter \varnothing 13.0 to 16.3mm

Diameter DC (mm)	Drilling Depth (L/D)	Stock	Cat. No.	Dimensions (mm)				Side Lock Flat DCON (mm)
				Effective Length LU	Length Below Neck LUX	Total Length OAL	Tip PL	
13.0	7	●	KDS 130DAK	108.4	108.4	177.4	2.4	16
	5		135LAK	76.5	76.5	142.5	2.5	
13.5	7	●	135DAK	108.5	108.5	177.5	2.5	16
	3		KDS 137MAK	53.5	53.5	117.5	2.5	
13.7	3		137BAK	57.8	57.8	119.8	1.8	16
	5		137LAK	82.5	82.5	147.5	2.5	
	7		137DAK	115.5	115.5	182.5	2.5	
14.0	3	●	KDS 140MAK	53.5	53.5	117.5	2.5	16
	3		140BAK	57.9	57.9	119.9	1.9	
	5	●	140LAK	82.5	82.5	147.5	2.5	
14.2	7	●	140DAK	115.5	115.5	182.5	2.5	16
	3	●	KDS 142MAK	53.6	53.6	117.6	2.6	
	3		142BAK	57.9	57.9	119.9	1.9	
14.5	5	●	142LAK	82.6	82.6	147.6	2.6	16
	7	●	142DAK	115.6	115.6	182.6	2.6	
	3	●	KDS 145MAK	53.6	53.6	117.6	2.6	
14.7	3		145BAK	57.9	57.9	119.9	1.9	16
	5	●	145LAK	82.6	82.6	147.6	2.6	
	7	●	145DAK	115.6	115.6	182.6	2.6	
14.7	3		KDS 147MAK	56.7	56.7	127.7	2.7	20
	3		147BAK	62.0	62.0	127.0	2.0	
	5		147LAK	87.7	87.7	157.7	2.7	
14.8	7		147DAK	124.7	124.7	197.7	2.7	20
	3		KDS 148MAK	56.7	56.7	127.7	2.7	
	3		148BAK	62.0	62.0	127.0	2.0	
15.0	5		148LAK	87.7	87.7	157.7	2.7	20
	7		148DAK	124.7	124.7	197.7	2.7	
	3	●	KDS 150MAK	56.7	56.7	127.7	2.7	
15.5	3		150BAK	62.0	62.0	127.0	2.0	20
	5	●	150LAK	87.7	87.7	157.7	2.7	
	7	●	150DAK	124.7	124.7	197.7	2.7	
15.7	3	●	KDS 155MAK	56.8	56.8	127.8	2.8	20
	3		155BAK	62.1	62.1	127.1	2.1	
	5	●	155LAK	87.8	87.8	157.8	2.8	
16.0	7	●	155DAK	124.8	124.8	197.8	2.8	20
	3		KDS 157MAK	60.9	60.9	132.9	2.9	
	3		157BAK	66.1	66.1	132.1	2.1	
16.2	5		157LAK	93.9	93.9	167.9	2.9	20
	7		157DAK	131.9	131.9	207.9	2.9	
	3	●	KDS 160MAK	60.9	60.9	132.9	2.9	
16.3	3		160BAK	66.1	66.1	132.1	2.1	20
	5	●	160LAK	93.9	93.9	167.9	2.9	
	7	●	160DAK	131.9	131.9	207.9	2.9	
16.3	3	●	KDS 162MAK	60.9	60.9	132.9	2.9	20
	3		162BAK	66.2	66.2	132.2	2.2	
	5	●	162LAK	93.9	93.9	167.9	2.9	
16.3	7	●	162DAK	131.9	131.9	207.9	2.9	20
	3	●	KDS 163MAK	61.0	61.0	133.0	3.0	
	3		163BAK	66.2	66.2	132.2	2.2	
16.3	5		163LAK	94.0	94.0	168.0	3.0	20
	7		163DAK	132.0	132.0	208.0	3.0	

Grade: ACZ70S

* ● Additional Dimensions

DCON	16.0	20.0	25.0	32.0	40.0
LS	48	50	56	60	70
l_3	35	40	45	50	60

Shank length (LS) and side lock flat (l_3)

■ Body Diameter \varnothing 16.5 to 19.1mm

Diameter DC (mm)	Drilling Depth (L/D)	Stock	Cat. No.	Dimensions (mm)				Side Lock Flat DCON (mm)
				Effective Length LU	Length Below Neck LUX	Total Length OAL	Tip PL	
16.5	3	●	KDS 165MAK	61.0	61.0	133.0	3.0	20
	3		165BAK	66.2	66.2	132.2	2.2	
	5	●	165LAK	94.0	94.0	168.0	3.0	
16.7	7	●	165DAK	132.0	132.0	208.0	3.0	20
	3	●	KDS 167MAK	64.0	64.0	138.0	3.0	
	3		167BAK	70.2	70.2	137.2	2.2	
17.0	5		167LAK	99.0	99.0	173.0	3.0	20
	7		167DAK	141.0	141.0	218.0	3.0	
	3	●	KDS 170MAK	64.1	64.1	138.1	3.1	
17.5	3		170BAK	70.3	70.3	137.3	2.3	20
	5	●	170LAK	99.1	99.1	173.1	3.1	
	7	●	170DAK	141.1	141.1	218.1	3.1	
17.6	3	●	KDS 175MAK	64.2	64.2	138.2	3.2	20
	3		175BAK	70.3	70.3	137.3	2.3	
	5	●	175LAK	99.2	99.2	173.2	3.2	
17.7	7	●	175DAK	141.2	141.2	218.2	3.2	20
	3	●	KDS 176MAK	68.2	68.2	143.2	3.2	
	3		176BAK	74.4	74.4	142.4	2.4	
17.8	5		176LAK	105.2	105.2	178.2	3.2	20
	7		176DAK	148.2	148.2	223.2	3.2	
	3	●	KDS 177MAK	68.2	68.2	143.2	3.2	
18.0	3		177BAK	74.4	74.4	142.4	2.4	20
	5	●	177LAK	105.2	105.2	178.2	3.2	
	7	●	177DAK	148.2	148.2	223.2	3.2	
18.5	3		KDS 178MAK	68.2	68.2	143.2	3.2	20
	3		178BAK	74.4	74.4	142.4	2.4	
	5		178LAK	105.2	105.2	178.2	3.2	
18.7	7		178DAK	148.2	148.2	223.2	3.2	25
	3	●	KDS 180MAK	68.3	68.3	143.3	3.3	
	3		180BAK	74.4	74.4	142.4	2.4	
18.9	5	●	180LAK	105.3	105.3	178.3	3.3	25
	7	●	180DAK	148.3	148.3	223.3	3.3	
	3	●	KDS 185MAK	68.4	68.4	143.4	3.4	
19.0	3		185BAK	74.5	74.5	142.5	2.5	25
	5	●	185LAK	105.4	105.4	178.4	3.4	
	7	●	185DAK	148.4	148.4	223.4	3.4	
19.1	3		KDS 187MAK	71.4	71.4	158.4	3.4	25
	3		187BAK	78.5	78.5	153.5	2.5	
	5		187LAK	110.4	110.4	193.4	3.4	
19.1	7		187DAK	157.4	157.4	243.4	3.4	25
	3	●	KDS 189MAK	71.4	71.4	158.4	3.4	
	3		189BAK	78.5	78.5	153.5	2.5	
19.1	5	●	189LAK	110.4	110.4	193.4	3.4	25
	7	●	189DAK	157.4	157.4	243.4	3.4	
	3	●	KDS 190MAK	71.5	71.5	158.5	3.5	
19.1	3		190BAK	78.5	78.5	153.5	2.5	25
	5	●	190LAK	110.5	110.5	193.5	3.5	
	7	●	190DAK	157.5	157.5	243.5	3.5	
19.1	3		KDS 191MAK	71.5	71.5	158.5	3.5	25
	3		191BAK	78.6	78.6	153.6	2.6	
	5		191LAK	110.5	110.5	193.5	3.5	
19.1	7		191DAK	157.5	157.5	243.5	3.5	25

Grade: ACZ70S

MAK Type



BAK Type



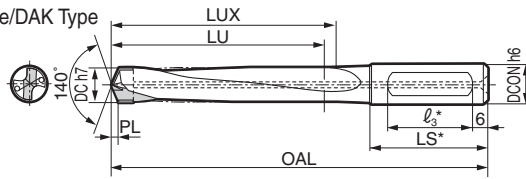
Super MultiDrill KDS Type

Internal Coolant Supply (□ AK Type)

	Carbon Steel	Alloy Steel	Tempered Steel	Hardened Steel	Stainless Steel	Ti Alloy	Heat-resistant Steels	Cast Iron	Ductile Cast Iron	Aluminum Alloy	Copper Alloy	Composite CFRP
AK	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎
BAK	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎

3D **5D** **7D**


● LAK Type/DAK Type



Body Diameter \varnothing 19.2 to 21.2mm

Diameter DC (mm)	Drilling Depth (L/D)	Stock	Cat. No.	Dimensions (mm)				Side Lock Flat DCON (mm)
				Effective Length LU	Length Below Flute LUX	Total Length OAL	Tip PL	
19.2	3		KDS 192MAK	71.5	71.5	158.5	3.5	25
	3		192BAK	78.6	78.6	153.6	2.6	
	5		192LAK	110.5	110.5	193.5	3.5	
	7		192DAK	157.5	157.5	243.5	3.5	
19.4	3		KDS 194MAK	71.5	71.5	158.5	3.5	25
	3		194BAK	78.6	78.6	153.6	2.6	
	5		194LAK	110.5	110.5	193.5	3.5	
	7		194DAK	157.5	157.5	243.5	3.5	
19.5	3	●	KDS 195MAK	71.5	71.5	158.5	3.5	25
	3		195BAK	78.6	78.6	153.6	2.6	
	5	●	195LAK	110.5	110.5	193.5	3.5	
	7	●	195DAK	157.5	157.5	243.5	3.5	
19.7	3		KDS 197MAK	75.6	75.6	158.6	3.6	25
	3		197BAK	82.6	82.6	158.6	2.6	
	5		197LAK	116.6	116.6	198.6	3.6	
	7		197DAK	164.6	164.6	248.6	3.6	
20.0	3	●	KDS 200MAK	75.6	75.6	158.6	3.6	25
	3		200BAK	82.7	82.7	158.7	2.7	
	5	●	200LAK	116.6	116.6	198.6	3.6	
	7	●	200DAK	164.6	164.6	248.6	3.6	
20.2	3		KDS 202MAK	75.7	75.7	158.7	3.7	25
	3		202BAK	82.7	82.7	158.7	2.7	
	5		202LAK	116.7	116.7	198.7	3.7	
	7		202DAK	164.7	164.7	248.7	3.7	
20.3	3		KDS 203MAK	75.7	75.7	158.7	3.7	25
	3		203BAK	82.7	82.7	158.7	2.7	
	5		203LAK	116.7	116.7	198.7	3.7	
	7		203DAK	164.7	164.7	248.7	3.7	
20.4	3		KDS 204MAK	75.7	75.7	158.7	3.7	25
	3		204BAK	82.7	82.7	158.7	2.7	
	5		204LAK	116.7	116.7	198.7	3.7	
	7		204DAK	164.7	164.7	248.7	3.7	
20.5	3	●	KDS 205MAK	75.7	75.7	158.7	3.7	25
	3		205BAK	82.7	82.7	158.7	2.7	
	5	●	205LAK	116.7	116.7	198.7	3.7	
	7	●	205DAK	164.7	164.7	248.7	3.7	
20.6	3		KDS 206MAK	78.7	78.7	158.7	3.7	25
	3		206BAK	86.8	86.8	163.8	2.8	
	5		206LAK	121.7	121.7	198.7	3.7	
	7		206DAK	169.7	169.7	248.7	3.7	
20.7	3		KDS 207MAK	78.8	78.8	158.8	3.8	25
	3		207BAK	86.8	86.8	163.8	2.8	
	5		207LAK	121.8	121.8	198.8	3.8	
	7		207DAK	169.8	169.8	248.8	3.8	
21.0	3	●	KDS 210MAK	78.8	78.8	158.8	3.8	25
	3		210BAK	86.8	86.8	163.8	2.8	
	5	●	210LAK	121.8	121.8	198.8	3.8	
	7	●	210DAK	169.8	169.8	248.8	3.8	
21.2	3	●	KDS 212MAK	78.9	78.9	158.9	3.9	25
	3		212BAK	86.8	86.8	163.8	2.8	
	5	●	212LAK	121.9	121.9	198.9	3.9	
	7		212DAK	169.9	169.9	248.9	3.9	

Body Diameter \varnothing 21.5 to 24.6mm

Diameter DC (mm)	Drilling Depth (L/D)	Stock	Cat. No.	Dimensions (mm)				Side Lock Flat DCON (mm)
				Effective Length LU	Length Below Flute LUX	Total Length OAL	Tip PL	
21.5	3	●	KDS 215MAK	78.9	78.9	158.9	3.9	25
	3		215BAK	86.9	86.9	163.9	2.9	
	5	●	215LAK	121.9	121.9	198.9	3.9	
	7	●	215DAK	169.9	169.9	248.9	3.9	
21.6	3		KDS 216MAK	82.9	82.9	163.9	3.9	25
	3		216BAK	90.9	90.9	168.9	2.9	
	5		216LAK	127.9	127.9	203.9	3.9	
	7		216DAK	180.9	180.9	253.9	3.9	
22.0	3	●	KDS 220MAK	83.0	83.0	164.0	4.0	25
	3		220BAK	90.9	90.9	168.9	2.9	
	5	●	220LAK	128.0	128.0	204.0	4.0	
	7	●	220DAK	181.0	181.0	254.0	4.0	
22.1	3		KDS 221MAK	83.0	83.0	164.0	4.0	25
	3		221BAK	91.0	91.0	169.0	3.0	
	5		221LAK	128.0	128.0	204.0	4.0	
	7		221DAK	181.0	181.0	254.0	4.0	
22.2	3		KDS 222MAK	83.0	83.0	164.0	4.0	25
	3		222BAK	91.0	91.0	169.0	3.0	
	5		222LAK	128.0	128.0	204.0	4.0	
	7		222DAK	181.0	181.0	254.0	4.0	
22.4	3		KDS 224MAK	83.1	83.1	164.1	4.1	25
	3		224BAK	91.0	91.0	169.0	3.0	
	5		224LAK	128.1	128.1	204.1	4.1	
	7		224DAK	181.1	181.1	254.1	4.1	
22.5	3	●	KDS 225MAK	83.1	83.1	164.1	4.1	25
	3		225BAK	91.0	91.0	169.0	3.0	
	5	●	225LAK	128.1	128.1	204.1	4.1	
	7	●	225DAK	181.1	181.1	254.1	4.1	
23.0	3	●	KDS 230MAK	86.2	86.2	164.2	4.2	25
	3		230BAK	95.1	95.1	174.1	3.1	
	5	●	230LAK	133.2	133.2	214.2	4.2	
	7	●	230DAK	190.2	190.2	274.2	4.2	
23.5	3	●	KDS 235MAK	86.3	86.3	164.3	4.3	25
	3		235BAK	95.1	95.1	174.1	3.1	
	5	●	235LAK	133.3	133.3	214.3	4.3	
	7	●	235DAK	190.3	190.3	274.3	4.3	
24.0	3	●	KDS 240MAK	90.4	90.4	174.4	4.4	32
	3		240BAK	99.2	99.2	183.2	3.2	
	5	●	240LAK	139.4	139.4	224.4	4.4	
	7	●	240DAK	194.4	194.4	284.4	4.4	
24.1	3	●	KDS 241MAK	90.4	90.4	174.4	4.4	32
	3		241BAK	99.2	99.2	183.2	3.2	
	5		241LAK	139.4	139.4	224.4	4.4	
	7		241DAK	194.4	194.4	284.4	4.4	
24.5	3	●	KDS 245MAK	90.5	90.5	174.5	4.5	32
	3		245BAK	99.3	99.3	183.3	3.3	
	5	●	245LAK	139.5	139.5	224.5	4.5	
	7	●	245DAK	194.5	194.5	284.5	4.5	
24.6	3	●	KDS 246MAK	92.5	92.5	174.5	4.5	32
	3		246BAK	103.3	103.3	188.3	3.3	
	5		246LAK	144.5	144.5	229.5	4.5	
	7		246DAK	204.5	204.5	294.5	4.5	

* ● Additional Dimensions

Grade: ACZ70S	16.0	20.0	25.0	32.0	40.0
DCON	16.0	20.0	25.0	32.0	40.0
LS	48	50	56	60	70
l_3	35	40	45	50	60

Shank length (LS) and side lock flat (l_3)

Grade: ACZ70S

Drilling

Solid

Special

Indexable

Reamer

Brazed

Others

MAK Type

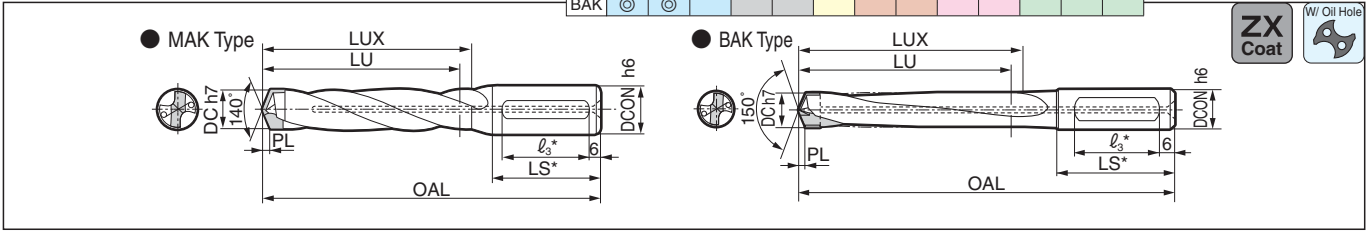


BAK Type



Internal Coolant Supply (AK Type)

Carbon Steel	Alloy Steel	Tempered Steel	Hardened Steel	Stainless Steel	Ti Alloy	Heat-resistant Steels	Cast Iron	Ductile Cast Iron	Aluminum Alloy	Copper Alloy	Composite CFRP	3D	5D	7D
Up to 0.28%	From 0.29%													
AK	◎	◎		○			○	◎	○					
BAK	◎	◎												



Body Diameter ø24.7 to 28.6mm

Diameter DC (mm)	Drilling Depth (L/D)	Stock	Cat. No.	Dimensions (mm)				Side Lock Flat DCON (mm)
				Effective Length LU	Length Below Neck LUX	Total Length OAL	Tip PL	
24.7	3	●	KDS 247MAK	92.5	92.5	174.5	4.5	32
	3	●	247BAK	103.3	103.3	188.3	3.3	
	5		247LAK	144.5	144.5	229.5	4.5	
	7		247DAK	204.5	204.5	294.5	4.5	
25.0	3	●	KDS 250MAK	92.5	92.5	174.5	4.5	32
	3		250BAK	103.3	103.3	188.3	3.3	
	5	●	250LAK	144.5	144.5	229.5	4.5	
	7	●	250DAK	204.5	204.5	294.5	4.5	
25.5	3	●	KDS 255MAK	92.6	92.6	174.6	4.6	32
	3		255BAK	103.4	103.4	188.4	3.4	
	5	●	255LAK	144.6	144.6	229.6	4.6	
	7	●	255DAK	204.6	204.6	294.6	4.6	
26.0	3	●	KDS 260MAK	96.7	96.7	179.7	4.7	32
	3		260BAK	107.5	107.5	193.5	3.5	
	5	●	260LAK	150.7	150.7	234.7	4.7	
	7	●	260DAK	214.7	214.7	304.7	4.7	
26.5	3	●	KDS 265MAK	96.8	96.8	179.8	4.8	32
	3		265BAK	107.6	107.6	193.6	3.6	
	5	●	265LAK	150.8	150.8	234.8	4.8	
	7	●	265DAK	214.8	214.8	304.8	4.8	
26.7	3		KDS 267MAK	98.9	98.9	179.9	4.9	32
	3	●	267BAK	111.6	111.6	198.6	3.6	
	5		267LAK	155.9	155.9	239.9	4.9	
	7		267DAK	219.9	219.9	309.9	4.9	
27.0	3	●	KDS 270MAK	98.9	98.9	179.9	4.9	32
	3		270BAK	111.6	111.6	198.6	3.6	
	5	●	270LAK	155.9	155.9	239.9	4.9	
	7	●	270DAK	219.9	219.9	309.9	4.9	
27.5	3	●	KDS 275MAK	99.0	99.0	180.0	5.0	32
	3		275BAK	111.7	111.7	198.7	3.7	
	5	●	275LAK	156.0	156.0	240.0	5.0	
	7		275DAK	220.0	220.0	310.0	5.0	
28.0	3	●	KDS 280MAK	102.1	102.1	185.1	5.1	32
	3		280BAK	115.8	115.8	203.8	3.8	
	5	●	280LAK	162.1	162.1	245.1	5.1	
	7	●	280DAK	225.1	225.1	315.1	5.1	
28.1	3		KDS 281MAK	102.1	102.1	185.1	5.1	32
	3		281BAK	115.8	115.8	203.8	3.8	
	5		281LAK	162.1	162.1	245.1	5.1	
	7		281DAK	225.1	225.1	315.1	5.1	
28.3	3		KDS 283MAK	102.2	102.2	185.2	5.2	32
	3		283BAK	115.8	115.8	203.8	3.8	
	5		283LAK	162.2	162.2	245.2	5.2	
	7		283DAK	225.2	225.2	315.2	5.2	
28.5	3	●	KDS 285MAK	102.2	102.2	185.2	5.2	32
	3		285BAK	115.8	115.8	203.8	3.8	
	5	●	285LAK	162.2	162.2	245.2	5.2	
	7		285DAK	225.2	225.2	315.2	5.2	
28.6	3		KDS 286MAK	105.2	105.2	190.2	5.2	32
	3		286BAK	119.8	119.8	208.8	3.8	
	5		286LAK	167.2	167.2	250.2	5.2	
	7		286DAK	235.2	235.2	325.2	5.2	

Grade: ACZ70S

Body Diameter ø28.7 to 33.5mm

Diameter DC (mm)	Drilling Depth (L/D)	Stock	Cat. No.	Dimensions (mm)				Side Lock Flat DCON (mm)
				Effective Length LU	Length Below Neck LUX	Total Length OAL	Tip PL	
28.7	3		KDS 287MAK	105.2	105.2	190.2	5.2	32
	3		287BAK	119.8	119.8	208.8	3.8	
	5		287LAK	167.2	167.2	250.2	5.2	
	7		287DAK	235.2	235.2	325.2	5.2	
29.0	3	●	KDS 290MAK	105.3	105.3	190.3	5.3	32
	3		290BAK	119.9	119.9	208.9	3.9	
	5	●	290LAK	167.3	167.3	250.3	5.3	
	7	●	290DAK	235.3	235.3	325.3	5.3	
29.4	3		KDS 294MAK	105.4	105.4	190.4	5.4	32
	3		294BAK	119.9	119.9	208.9	3.9	
	5		294LAK	167.4	167.4	250.4	5.4	
	7		294DAK	235.4	235.4	325.4	5.4	
29.5	3	●	KDS 295MAK	105.4	105.4	190.4	5.4	32
	3		295BAK	120.0	120.0	209.0	4.0	
	5	●	295LAK	167.4	167.4	250.4	5.4	
	7	●	295DAK	235.4	235.4	325.4	5.4	
29.8	3		KDS 298MAK	109.4	109.4	190.4	5.4	32
	3		298BAK	124.0	124.0	214.0	4.0	
	5		298LAK	172.4	172.4	260.4	5.4	
	7		298DAK	245.4	245.4	335.4	5.4	
30.0	3	●	KDS 300MAK	109.5	109.5	190.5	5.5	32
	3		300BAK	124.0	124.0	214.0	4.0	
	5	●	300LAK	172.5	172.5	260.5	5.5	
	7	●	300DAK	245.5	245.5	335.5	5.5	
30.5	3	●	KDS 305MAK	109.6	109.6	190.6	5.6	32
	3		305BAK	124.1	124.1	214.1	4.1	
	5	●	305LAK	172.6	172.6	260.6	5.6	
	7	●	305DAK	245.6	245.6	335.6	5.6	
31.0	3		KDS 310MAK	117.6	117.6	210.6	5.6	40
	5		310LAK	192.6	192.6	280.6	5.6	
	7		310DAK	250.6	250.6	350.6	5.6	
	31.5	3		KDS 315MAK	117.7	117.7	210.7	
5			315LAK	192.7	192.7	280.7	5.7	
7			315DAK	250.7	250.7	350.7	5.7	
32.0		3		KDS 320MAK	120.8	120.8	215.8	5.8
	5		320LAK	195.8	195.8	285.8	5.8	
	7		320DAK	255.8	255.8	360.8	5.8	
	32.5	3		KDS 325MAK	120.9	120.9	215.9	5.9
5			325LAK	195.9	195.9	285.9	5.9	
7			325DAK	255.9	255.9	360.9	5.9	
33.0		3		KDS 330MAK	125.0	125.0	221.0	6.0
	5	●	330LAK	200.0	200.0	291.0	6.0	
	7		330DAK	266.0	266.0	371.0	6.0	
	33.5	3		KDS 335MAK	125.1	125.1	221.1	6.1
5			335LAK	200.1	200.1	291.1	6.1	
7			335DAK	266.1	266.1	371.1	6.1	

Grade: ACZ70S

* Additional Dimensions

DCON	16.0	20.0	25.0	32.0	40.0
LS	48	50	56	60	70
ℓ ₃	35	40	45	50	60

Shank length (LS) and side lock flat (ℓ₃)

MAK Type



BAK Type



Super MultiDrill KDS Type

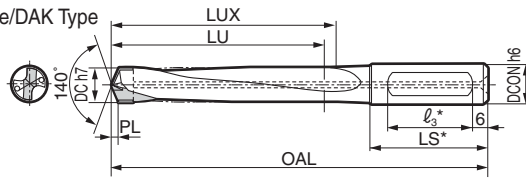
Internal Coolant Supply (□ AK Type)

	Carbon Steel	Alloy Steel	Tempered Steel	Hardened Steel	Stainless Steel	Ti Alloy	Heat-resistant Steels	Cast Iron	Ductile Cast Iron	Aluminum Alloy	Copper Alloy	Composite CFRP
AK	Up to 0.28%	From 0.28%										
BAK	○	○			○			○	○	○		

3D 5D 7D

ZX Coat W/ Oil Hole

● LAK Type/DAK Type



Body Diameter $\varnothing 34.0$ to 40.5mm

Diameter DC (mm)	Drilling Depth (L/D)	Stock	Cat. No.	Dimensions (mm)				Side Lock Flat DCON (mm)
				Effective Length LU	Length Below Neck LUX	Total Length OAL	Tip Length PL	
34.0	3		KDS 340MAK	128.2	128.2	226.2	6.2	40
	5		340LAK	203.2	203.2	296.2	6.2	
	7		340DAK	276.2	276.2	381.2	6.2	
34.5	3		KDS 345MAK	128.3	128.3	226.3	6.3	40
	5		345LAK	203.3	203.3	296.3	6.3	
	7		345DAK	276.3	276.3	381.3	6.3	
35.0	3		KDS 350MAK	131.4	131.4	231.4	6.4	40
	5		350LAK	206.4	206.4	301.4	6.4	
	7		350DAK	281.4	281.4	391.4	6.4	
35.5	3		KDS 355MAK	131.5	131.5	231.5	6.5	40
	5		355LAK	206.5	206.5	301.5	6.5	
	7		355DAK	281.5	281.5	391.5	6.5	
36.0	3		KDS 360MAK	134.6	134.6	231.6	6.6	40
	5		360LAK	209.6	209.6	306.6	6.6	
	7		360DAK	286.6	286.6	396.6	6.6	
36.5	3		KDS 365MAK	134.6	134.6	231.6	6.6	40
	5		365LAK	209.6	209.6	306.6	6.6	
	7		365DAK	286.6	286.6	396.6	6.6	
37.0	3		KDS 370MAK	138.7	138.7	236.7	6.7	40
	5		370LAK	213.7	213.7	311.7	6.7	
	7		370DAK	296.7	296.7	406.7	6.7	
37.5	3		KDS 375MAK	138.8	138.8	236.8	6.8	40
	5		375LAK	213.8	213.8	311.8	6.8	
	7		375DAK	296.8	296.8	406.8	6.8	
38.0	3		KDS 380MAK	171.9	171.9	241.9	6.9	40
	5		380LAK	251.9	251.9	321.9	6.9	
	7		380DAK	346.9	346.9	416.9	6.9	
38.5	3		KDS 385MAK	172.0	172.0	242.0	7.0	40
	5		385LAK	252.0	252.0	322.0	7.0	
	7		385DAK	347.0	347.0	417.0	7.0	
39.0	3		KDS 390MAK	177.1	177.1	247.1	7.1	40
	5		390LAK	257.1	257.1	327.1	7.1	
	7		390DAK	352.1	352.1	422.1	7.1	
39.5	3		KDS 395MAK	177.2	177.2	247.2	7.2	40
	5		395LAK	257.2	257.2	327.2	7.2	
	7		395DAK	352.2	352.2	422.2	7.2	
40.0	3		KDS 400MAK	182.3	182.3	252.3	7.3	40
	5		400LAK	262.3	262.3	332.3	7.3	
	7		400DAK	357.3	357.3	427.3	7.3	
40.5	3		KDS 405MAK	182.4	182.4	252.4	7.4	40
	5		405LAK	262.4	262.4	332.4	7.4	
	7		405DAK	357.4	357.4	427.4	7.4	

Grade: ACZ70S

* Additional Dimensions

DCON	16.0	20.0	25.0	32.0	40.0
LS	48	50	56	60	70
ℓ_3	35	40	45	50	60

Shank length (LS) and side lock flat (ℓ_3)

J

Drilling

Solid

Special

Indexable

Reamer

Brazed

Others