

KES

High speed
HSS Twist Drill

KES G – D504A

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1. Scope of application

This standard shall be applied to straight shank drill and taper shank drill (Called as 'Drill' below.) that have twist flute of 0.5mm ~ 50mm.

2. Classification

Drill shall be classified by straight shank drill and taper shank drill according to the shape of the shank part.

3. Materials

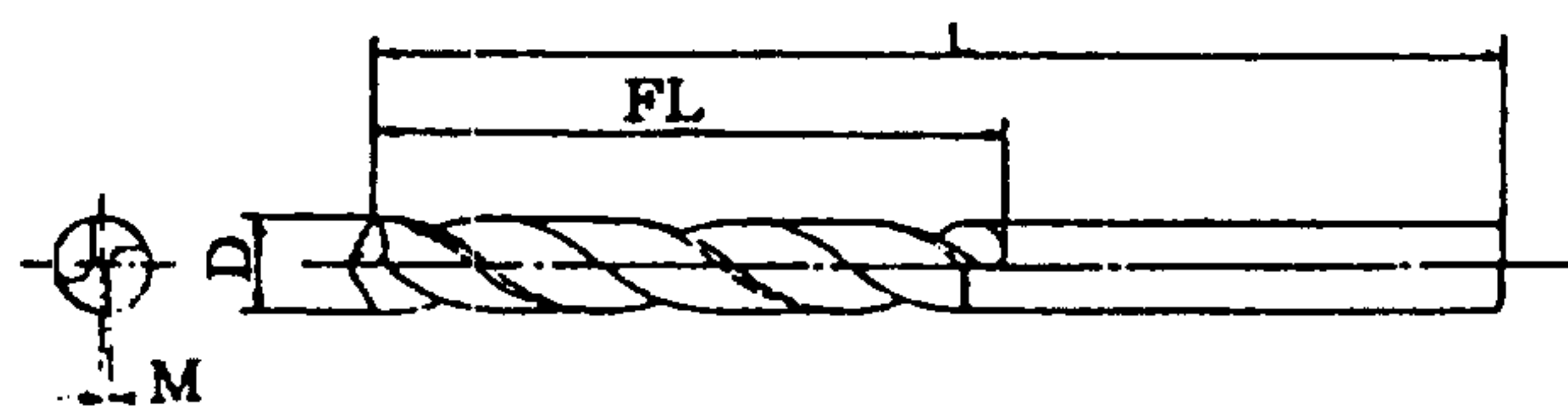
Materials of drill shall be SKH 9 on KS D 3522 (High speed steel) and the materials that have the similar function or the more function than this on use.

4. Shape and dimension

4.1 Straight sank drill

The shape and dimension of straight shank drill shall follow table 1.

Table 1.



Unit : mm

Diameter				Length		Flute length		Margin
Recommen- ded dimension	Tolerance	Dimension range		Standard dimension	Tolerance	Standard dimension	Tolerance	Standard dimension
		Over	Less					
0.50		0.48	0.53	22		6		
0.55		0.53	0.60	24		7		

Table 1 (Continue)

Diameter				Length		Flute length		Margin	
Recommen- ded dimension	Tolerance	Dimension range		Standard dimension	Tolerance	Standard dimension	Tolerance	Standard dimension	
		Over	Less						
0.60	0 -0.01	0.53	0.60	24	±1	7	±1		
0.65		0.60	0.67	26		8			
0.70		0.67	0.75	28		9			
0.75									
0.80		0.75	0.85	30		10			
0.85									
0.90		0.85	0.95	32		11			
0.95									
1.00		0.95	1.06	34		12			
1.05									
1.10		1.06	1.18	36		14			
1.15									
1.20					±1		±1		
1.25		1.18	1.32	38		16			
1.30									
1.35									
1.40		1.32	1.50	40		18			
1.45									
1.50									
1.55									

Table 1 (Continue)

Diameter				Length		Flute length		Margin	
Recommen- ded dimension	Tolerance	Dimension range		Standard dimension	Tolerance	Standard dimension	Tolerance	Standard dimension	
		Over	Less						
1.60	0 -0.014	1.50	1.70	43		20	±2		
1.65									
1.70									
1.75		1.70	1.90	46		22			
1.80									
1.85									
1.90		1.90	1.99	49		24			
1.95									
2.0									1.99
2.1									
2.2		2.19	2.39	58	33				
2.3									
2.4						2.30	2.53	61	35
2.5									
2.6		2.53	2.71	64	37				
2.7									
2.8						2.71	2.88	67	39
2.9		2.88	3.27	71	42				
3.0									
3.1									

Table 1 (Continue)

Diameter				Length		Flute length		Margin
Recommen- ded dimension	Tolerance	Dimension range		Standard dimension	Tolerance	Standard dimension	Tolerance	Standard dimension
		Over	Less					
3.2	0 -0.018				±2		±2	0.6
3.3								
3.4		3.27	3.58	73		45		
3.5								
3.6								
3.7		3.58	3.80	76		48		
3.8								
3.9		3.80	3.99	79		51		
4.0								0.7
4.1		3.99	4.37	83		54		
4.2								
4.3								
4.4								
4.5		4.37	4.63	86		56		
4.6								
4.7		4.63	4.86	89		59		
4.8								
4.9								
5.0		4.86	5.16	92		62		
5.1								

Table 1 (Continue)

Diameter				Length		Flute length		Margin
Recommen- ded dimension	Tolerance	Dimension range		Standard dimension	Tolerance	Standard dimension	Tolerance	Standard dimension
		Over	Less					
5.2	0 -0.018	5.16	5.56	95	±3	64	±3	0.8
5.3								
5.4								
5.5								
5.6		5.56	5.96	98		67		
5.7								
5.8								
5.9								
6.0		5.96	6.35	102		70		0.9
6.1								
6.2								
6.3								
6.4		6.35	7.04	105		73		
6.5								
6.6								
6.7								
6.8								
6.9								
7.0								
7.1								

Table 1 (Continue)

Diameter				Length		Flute length		Margin
Recommen- ded dimension	Tolerance	Dimension range		Standard dimension	Tolerance	Standard dimension	Tolerance	Standard dimension
		Over	Less					
7.2	0 -0.022	7.04	7.37	108	±3	75	±3	1.0
7.3								
7.4								
7.5								
7.6								
7.7		7.37	7.68	111		78		
7.8								
7.9								
8.0								
8.1								
8.2		7.68	8.03	114		81		
8.3								
8.4								
8.5								
8.6								
8.7		8.03	8.34	117		84		
8.8								
8.9								
9.0								
9.1								
9.2	8.34	8.74	121	87				
	8.74	9.13	124	89				