

THE HOLEA

GOLD SERIES GIVING YOU THE WHOLE SOLUTION!

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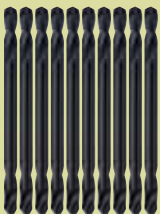
135° SPLIT POINT
CUTS FASTER AND
REDUCES
WANDERING

TITANIUM
NITRIDE COATING
REDUCES HEAT
AND INCREASES
LUBRICITY FOR
EXTENDED LIFE

FULLY GROUND
M2 HSS
INCREASES
DRILL LIFE

DOUBLE ENDED PANEL DRILLS

135° split point



measure standard		style		material		alpha		
GAUGE & IMPERIAL		PANEL DRILLS		HSS TITANIUM NITRIDE				
Drill Dia. gauge	Code	Drill Dia. inches	Drill Dia. mm	OAL mm	FL mm	Price each	Pack qty	Box qty
DOUBLE ENDED PANEL DRILLS GOLD SERIES								
1/8"	9DI18	1/8	3.17	51	13		10	250
30	9D30	1/8	3.26	51	13		10	250
20	9D20	5/32	4.09	60	16		10	150
11	9D11	3/16	4.85	60	16		10	100
SUPPLIED IN INDUSTRIAL HANG PACK								
measure standard		style		material		alpha		
GAUGE		PANEL DRILLS		HSS BLACK OXIDE				
Drill Dia. gauge	Code	Drill Dia. inches	Drill Dia. mm	OAL mm	FL mm	Price each	Pack qty	Box qty
DOUBLE ENDED PANEL DRILLS BLACK OXIDE								
30	9D30B	1/8	3.26	51	13		10	250
20	9D20B	5/32	4.09	60	16		10	150
11	9D11B	3/16	4.85	60	16		10	100
SUPPLIED IN INDUSTRIAL HANG PACK								
measure standard		style		material		alpha		
GAUGE		PANEL DRILLS		HSS TITANIUM NITRIDE				
Drill Dia. gauge	Code					Price per card	Card qty	Box qty
DOUBLE-ENDED PANEL DRILLS - CARDED								
30	C9D30	1/8	3.26	51	13		2/cd	10
20	C9D20	5/32	4.09	60	16		2/cd	10
11	C9D11	3/16	4.85	60	16		2/cd	10
SUPPLIED CARDED								

SINGLE ENDED PANEL DRILLS

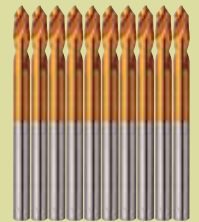
135° split point



measure standard	style	material	
GAUGE & IMPERIAL	PANEL DRILLS	HSS TITANIUM NITRIDE	alpha

Drill Dia. gauge	Code	Drill Dia. inches	Drill Dia. mm	OAL mm	FL mm	Price each	Pack qty	Box qty
SINGLE ENDED PANEL DRILLS GOLD SERIES								
1/8"	9SP18	1/8		51	13		10	250
30	9SP30	1/8	3.26	51	13		10	250
20	9SP20	5/32	4.09	51	17		10	150
11	9SP11	3/16	4.85	50	15		10	100

SUPPLIED IN INDUSTRIAL HANG PACK



Did you know?

SINGLE ENDED PANEL DRILLS HAVE A SHORTER FLUTE THAN SINGLE ENDED STUB DRILLS.

SINGLE ENDED PANEL DRILLS ARE IDEAL FOR DRILLING THIN SHEET MATERIAL.

BULK DRILL DISPLAYS ARE AVAILABLE AND CAN BE STOCKED TO YOUR SPECIFIC REQUIREMENTS

ALPHA OFFER A FULL RANGE OF METRIC AND IMPERIAL DRILL SETS SEE PAGE 25





measure standard		style		material		alpha		
GAUGE		STUB DRILLS		HSS TITANIUM NITRIDE				
Drill Dia. gauge	Code	Drill Dia. inches	Drill Dia. mm	OAL mm	FL mm	Price each	Pack qty	Box qty
STUB DRILLS GOLD SERIES								
30	9S30	1/8	3.26	51	25		10	250
20	9S20	5/32	4.09	54	27		10	150
19	9SG19		4.22	57	29		10	100
11	9S11	3/16	4.85	58	30		10	100
10	9SG10		4.91	57	27		10	100
SUPPLIED IN INDUSTRIAL HANG PACK								
measure standard		style		material		alpha		
GAUGE		STUB DRILLS		HSS TITANIUM NITRIDE				
Drill Dia. gauge	Code	Drill Dia. inches	Drill Dia. mm	OAL mm	FL mm	Price each	Card qty	Pack qty
STUB DRILLS - GAUGE CARDED								
30	C9S30	1/8	3.26	51	25		2/cd	10
20	C9S20	5/32	4.09	54	27		2/cd	10
11	C9S11	3/16	4.85	58	30		2/cd	10
SUPPLIED CARDED								
								





measure standard | style | material | *alpha*

IMPERIAL & METRIC | STUB DRILLS | HSS TITANIUM NITRIDE

Drill Dia. inches	Code	Drill Dia. mm	OAL mm	FL mm			Price each	Pack qty
STUB DRILLS GOLD SERIES IMPERIAL								
5/64	9SI564	1.98	43	18				10
3/32	9SI332	2.38	44	19				10
7/64	9SI764	2.78	48	22				10
1/8	9SI18	3.17	48	22				10
9/64	9SI964	3.57	54	27				10
5/32	9SI532	3.97	50	25				10
11/64	9SI1164	4.37	50	25				10
3/16	9SI316	4.76	54	27				10
13/64	9SI1364	5.56	60	32				10
7/32	9SI732	5.16	57	30				10
15/64	9SI1564	5.95	62	33				10
1/4	9SI14	6.35	64	34				10
17/64	9SI1764	6.75	67	37				10
9/32	9SI932	7.14	68	38				5
5/16	9SI516	7.94	71	41				5
11/32	9SI1132	8.73	75	43				5
3/8	9SI38	9.53	79	46				5
13/32	9SI1332	10.32	84	49				5
7/16	9SI716	11.11	87	52				5
15/32	9SI1532	11.91	92	54				5
1/2	9SI12	12.70	95	57				5
Drill Dia. mm	Code	Drill Dia. mm	OAL mm	FL mm			Price each	Pack qty
STUB DRILLS GOLD SERIES METRIC								
3	9SM030	3	48	22				10
3.5	9SM035	3.5	49	24				10
4	9SM040	4	54	27				10
4.5	9SM045	4.5	58	27				10
4.9	9SM049	4.9	61	26				10
5	9SM050	5	62	27				10
5.1	9SM051	5.1	62	27				10
5.5	9SM055	5.5	66	28				10
6	9SM060	6	66	28				10
6.5	9SM065	6.5	70	31				10
7	9SM070	7	74	34				10
8	9SM080	8	79	37				5
9	9SM090	9	84	40				5
10	9SM100	10	89	43				5
12	9SM120	12	102	51				5
12.5	9SM125	12.5	102	51				5
13	9SM130	13	102	51				5
SUPPLIED IN INDUSTRIAL HANG PACK								



measure standard		style	material				alpha	
METRIC		JOBBER	HSS TITANIUM NITRIDE					
Drill Dia. mm	Code	OAL mm	FL mm				Price each	Pack qty
JOBBER DRILLS GOLD SERIES								
0.3	9LM003	19	4					10
0.4	9LM004	20	5					10
0.5	9LM005	22	6					10
0.6	9LM006	24	7					10
0.7	9LM007	28	9					10
0.8	9LM008	30	10					10
0.9	9LM009	32	11					10
1.0	9LM010	34	12					10
1.1	9LM011	36	14					10
1.2	9LM012	38	16					10
1.3	9LM013	38	16					10
1.4	9LM014	40	18					10
1.5	9LM015	40	18					10
1.6	9LM016	43	20					10
1.7	9LM017	43	20					10
1.8	9LM018	46	22					10
1.9	9LM019	46	22					10
2.0	9LM020	49	24					10
2.1	9LM021	49	24					10
2.2	9LM022	53	27					10
2.3	9LM023	53	27					10
2.4	9LM024	57	30					10
2.5	9LM025	57	30					10
2.6	9LM026	57	30					10
2.7	9LM027	61	33					10
2.8	9LM028	61	33					10
2.9	9LM029	61	33					10
3.0	9LM030	61	36					10
3.1	9LM031	65	36					10
3.2	9LM032	65	36					10
3.3	9LM033	65	36					10
3.4	9LM034	70	39					10
3.5	9LM035	70	39					10
3.6	9LM036	70	39					10
3.7	9LM037	70	39					10
3.8	9LM038	75	43					10
3.9	9LM039	75	43					10
4.0	9LM040	75	43					10
		SUPPLIED IN INDUSTRIAL HANG PACK						



measure standard	style	material	
METRIC	JOBBER	HSS TITANIUM NITRIDE	<i>alpha</i>

Drill Dia. mm	Code	OAL mm	FL mm				Price each	Pack qty
JOBBER DRILLS GOLD SERIES								
4.1	9LM041	75	43					10
4.2	9LM042	75	43					10
4.3	9LM043	80	47					10
4.4	9LM044	80	47					10
4.5	9LM045	80	47					10
4.6	9LM046	80	47					10
4.7	9LM047	80	47					10
4.8	9LM048	86	52					10
4.9	9LM049	86	52					10
5.0	9LM050	86	52					10
5.1	9LM051	86	52					10
5.2	9LM052	86	52					10
5.3	9LM053	86	52					10
5.4	9LM054	93	57					10
5.5	9LM055	93	57					10
5.6	9LM056	93	57					10
5.7	9LM057	93	57					10
5.8	9LM058	93	57					10
5.9	9LM059	93	57					10
6.0	9LM060	93	57					10
6.1	9LM061	101	63					10
6.2	9LM062	101	63					10
6.3	9LM063	101	63					10
6.4	9LM064	101	63					10
6.5	9LM065	101	63					10
6.6	9LM066	101	63					10
6.7	9LM067	101	63					10
6.8	9LM068	109	69					10
6.9	9LM069	109	69					10
7.0	9LM070	109	69					5
7.1	9LM071	109	69					5
7.2	9LM072	109	69					5
7.3	9LM073	109	69					5
7.4	9LM074	109	69					5
7.5	9LM075	109	69					5
7.6	9LM076	117	75					5
7.7	9LM077	117	75					5
7.8	9LM078	117	75					5
SUPPLIED IN INDUSTRIAL HANG PACK								





measure standard	style		material				alpha	
	METRIC	JOBBER	HSS TITANIUM NITRIDE					
Drill Dia. mm	Code	OAL mm	FL mm				Price each	Pack qty
JOBBER DRILLS GOLD SERIES								
7.9	9LM079	117	75					5
8.0	9LM080	117	75					5
8.1	9LM081	117	75					5
8.2	9LM082	117	75					5
8.3	9LM083	117	75					5
8.4	9LM084	117	75					5
8.5	9LM085	117	75					5
8.6	9LM086	125	81					5
8.7	9LM087	125	81					5
8.8	9LM088	125	81					5
8.9	9LM089	125	81					5
9.0	9LM090	125	81					5
9.1	9LM091	125	81					5
9.2	9LM092	125	81					5
9.3	9LM093	125	81					5
9.4	9LM094	125	81					5
9.5	9LM095	125	81					5
9.6	9LM096	125	81					5
9.7	9LM097	133	87					5
9.8	9LM098	133	87					5
9.9	9LM099	133	87					5
10.0	9LM100	133	87					1
10.1	9LM101	133	87					1
10.2	9LM102	133	87					1
10.3	9LM103	133	87					1
10.4	9LM104	133	87					1
10.5	9LM105	133	87					1
10.6	9LM106	133	87					1
10.7	9LM107	142	94					1
10.8	9LM108	142	94					1
10.9	9LM109	142	94					1
11.0	9LM110	142	94					1
11.1	9LM111	142	94					1
11.2	9LM112	142	94					1
11.3	9LM113	142	94					1
11.4	9LM114	142	94					1
11.5	9LM115	142	94					1
11.6	9LM116	142	94					1
SUPPLIED IN INDUSTRIAL HANG PACK								

JOBBERDRILLSBULKPACK METRIC

135° split point



measure standard	style	material	
METRIC	JOBBER	HSS TITANIUM NITRIDE	<i>alpha</i>

Drill Dia. mm	Code	OAL mm	FL mm				Price each	Pack qty
JOBBER DRILLS GOLD SERIES								
11.7	9LM117	142	94					1
11.8	9LM118	142	94					1
11.9	9LM119	151	101					1
12.0	9LM120	151	101					1
12.1	9LM121	151	101					1
12.2	9LM122	151	101					1
12.3	9LM123	151	101					1
12.4	9LM124	151	101					1
12.5	9LM125	151	101					1
12.6	9LM126	151	101					1
12.7	9LM127	151	101					1
12.8	9LM128	151	101					1
12.9	9LM129	151	101					1
13.0	9LM130	151	101					1
13.5	9LM135	160	101					1

SUPPLIED IN INDUSTRIAL HANG PACK



135° SPLIT POINT CUTS
FASTER AND REDUCES
WANDERING

TITANIUM NITRIDE
COATING REDUCES
HEAT AND INCREASES
LUBRICITY FOR
EXTENDED LIFE

FULLY GROUND M2
HSS INCREASES
DRILL LIFE





measure standard	style	material	
IMPERIAL	JOBBER	HSS TITANIUM NITRIDE	<i>alpha</i>

Drill Dia. inches	Code	Drill Dia. mm	OAL mm	FL mm			Price each	Pack qty
JOBBER DRILLS GOLD SERIES								
1/64	9LI164	0.40	20	5				10
1/32	9LI132	0.79	30	10				10
3/64	9LI364	1.19	44	19				10
1/16	9LI116	1.59	48	23				10
5/64	9LI564	1.98	50	25				10
3/32	9LI332	2.38	54	30				10
7/64	9LI764	2.78	67	38				10
1/8	9LI18	3.17	70	42				10
9/64	9LI964	3.57	73	41				10
5/32	9LI532	3.97	79	53				10
11/64	9LI1164	4.37	82	54				10
3/16	9LI316	4.76	89	59				10
13/64	9LI1364	5.16	92	62				10
7/32	9LI732	5.56	95	63				10
15/64	9LI1564	5.95	98	66				10
1/4	9LI14	6.35	101	70				10
17/64	9LI1764	6.75	104	73				10
9/32	9LI932	7.14	109	75				10
19/64	9LI1964	7.58	111	78				5
5/16	9LI516	7.94	114	81				5
21/64	9LI2164	8.33	117	85				5
11/32	9LI1132	8.73	121	87				5
23/64	9LI2364	9.13	124	89				5
3/8	9LI38	9.53	125	81				5
25/64	9LI2564	9.92	130	95				5
13/32	9LI1332	10.32	133	89				1
27/64	9LI2764	10.72	133	94				1
7/16	9LI716	11.11	140	103				1
29/64	9LI2964	11.51	143	106				1
15/32	9LI1532	11.91	146	110				1
31/64	9LI3164	12.30	149	111				1
1/2	9LI12	12.70	152	114				1

SUPPLIED IN INDUSTRIAL HANG PACK



measure standard	style	material	
GAUGE	JOBBER	HSS TITANIUM NITRIDE	<i>alpha</i>

Drill Dia. gauge	Code	Drill Dia. inches	Drill Dia. mm	OAL mm	FL mm		Price each	Pack qty
JOBBER DRILLS GAUGE								
41	9LG41		2.44	60	36			10
31	9LG31		3.05	70	40			10
30	9L30	1/8	3.26	70	42			10
20	9L20	5/32	4.09	80	54			10
11	9L11	3/16	4.85	89	59			10

SUPPLIED IN INDUSTRIAL HANG PACK



ALPHA OFFERS CARDED
DRILL DISPLAYS -
SEE PAGE 27



JOBBER DRILLS CARDED METRIC

135° split point



measure standard		style	material		alpha		
METRIC		JOBBER	HSS TITANIUM NITRIDE				
Dia. mm	Code			Price per card		Card qty	Box qty
JOBBER DRILLS CARDED							
1.0	C9LM010					2/cd	10
1.5	C9LM015					2/cd	10
2.0	C9LM020					2/cd	10
2.5	C9LM025					2/cd	10
3.0	C9LM030					2/cd	10
3.5	C9LM035					1/cd	10
4.0	C9LM040					1/cd	10
4.5	C9LM045					1/cd	10
5.0	C9LM050					1/cd	10
5.5	C9LM055					1/cd	5
6.0	C9LM060					1/cd	5
6.5	C9LM065					1/cd	5
7.0	C9LM070					1/cd	5
7.5	C9LM075					1/cd	5
8.0	C9LM080					1/cd	5
8.5	C9LM085					1/cd	5
9.0	C9LM090					1/cd	5
9.5	C9LM095					1/cd	5
10.0	C9LM100					1/cd	5
10.5	C9LM105					1/cd	5
10.5	C9LM105R	reduced shank				1/cd	5
11.0	C9LM110					1/cd	5
11.0	C9LM110R	reduced shank				1/cd	5
11.5	C9LM115					1/cd	5
11.5	C9LM115R	reduced shank				1/cd	5
12.0	C9LM120					1/cd	5
12.0	C9LM120R	reduced shank				1/cd	5
12.5	C9LM125					1/cd	5
12.5	C9LM125R	reduced shank				1/cd	5
13.0	C9LM130					1/cd	5
13.0	C9LM130R	reduced shank				1/cd	5
		SUPPLIED CARDED					



measure standard		style	material		alpha		
IMPERIAL		JOBBER	HSS TITANIUM NITRIDE				
Dia.	Code			Price	Card	Box	
inches				per card	qty	qty	
JOBBER DRILLS CARDED							
1/16	C9LI116				2/cd	10	
5/64	C9LI564				2/cd	10	
3/32	C9LI332				2/cd	10	
7/64	C9LI764				2/cd	10	
1/8	C9LI18				2/cd	10	
9/64	C9LI964				1/cd	10	
5/32	C9LI532				1/cd	10	
11/64	C9LI1164				1/cd	10	
3/16	C9LI316				1/cd	10	
13/64	C9LI1364				1/cd	10	
7/32	C9LI732				1/cd	5	
15/64	C9LI1564				1/cd	5	
1/4	C9LI14				1/cd	5	
17/64	C9LI1764				1/cd	5	
9/32	C9LI932				1/cd	5	
19/64	C9LI1964				1/cd	5	
5/16	C9LI516				1/cd	5	
21/64	C9LI2164				1/cd	5	
11/32	C9LI1132				1/cd	5	
23/64	C9LI2364				1/cd	5	
3/8	C9LI38				1/cd	5	
25/64	C9LI2564				1/cd	5	
13/32	C9LI1332				1/cd	5	
13/32	C9LI1332R	reduced shank			1/cd	5	
27/64	C9LI2764				1/cd	5	
27/64	C9LI2764R	reduced shank			1/cd	5	
7/16	C9LI716				1/cd	5	
7/16	C9LI716R	reduced shank			1/cd	5	
29/64	C9LI2964				1/cd	5	
29/64	C9LI2964R	reduced shank			1/cd	5	
15/32	C9LI1532				1/cd	5	
15/32	C9LI1532R	reduced shank			1/cd	5	
31/64	C9LI3164				1/cd	5	
31/64	C9LI3164R	reduced shank			1/cd	5	
1/2	C9LI12				1/cd	5	
1/2	C9LI12R	reduced shank			1/cd	5	
		SUPPLIED CARDED					



COBALT JOBBER DRILLS METRIC

135° split point



measure standard		style	material				alpha	
METRIC		JOBBER	HSS 8% COBALT					
Drill Dia. mm	Code	OAL mm	FL mm				Price each	Pack qty
COBALT JOBBER DRILLS								
1.5	9LM015CO	40	18					1
2	9LM020CO	49	24					1
2.5	9LM025CO	57	30					1
3	9LM030CO	61	33					1
3.5	9LM035CO	70	39					1
4	9LM040CO	75	43					1
4.5	9LM045CO	80	47					1
5	9LM050CO	86	52					1
5.5	9LM055CO	93	57					1
5.6	9LM056CO	93	57					1
5.8	9LM058CO	93	57					1
6	9LM060CO	93	57					1
6.5	9LM065CO	102	64					1
7	9LM070CO	109	69					1
7.5	9LM075CO	109	69					1
8	9LM080CO	117	75					1
8.5	9LM085CO	117	75					1
9	9LM090CO	125	81					1
9.5	9LM095CO	125	81					1
10	9LM100CO	133	87					1
10.5	9LM105CO	133	87					1
11	9LM110CO	142	94					1
11.5	9LM115CO	142	94					1
12	9LM120CO	151	101					1
12.5	9LM125CO	151	101					1
13	9LM130CO	151	101					1
		SUPPLIED IN INDIVIDUAL HANG PACK Intermediate sizes available						
measure standard		style	material				alpha	
GAUGE		JOBBER	HSS 8% COBALT					
Drill Dia. gauge	Code	Drill Dia. mm	OAL mm	FL mm			Price each	Pack qty
COBALT JOBBER DRILLS - GAUGE								
40	9LG40CO	2.49	56	31				1
30	9LG30CO	3.26	70	42				1
20	9LG20CO	4.09	80	54				1
		SUPPLIED IN INDIVIDUAL HANG PACK						

Did you know?

COBALT DRILLS PROVIDE SUPERIOR PERFORMANCE WHEN CUTTING STAINLESS STEEL AND HI-TENSILE STEEL



measure standard	style	material	
IMPERIAL	JOBBER	HSS 8% COBALT	alpha

Drill Dia.	Code	Drill Dia.	OAL	FL		Price	Pack
inches		mm	mm	mm		each	qty
COBALT JOBBER DRILLS							
1/16	9LI116CO	1.59	48	23			1
5/64	9LI564CO	1.98	52	27			1
3/32	9LI332CO	2.38	54	30			1
7/64	9LI764CO	2.78	107	74			1
1/8	9LI18CO	3.17	70	42			1
9/64	9LI964CO	3.57	113	81			1
5/32	9LI532CO	3.97	79	53			1
11/64	9LI1164CO	4.37	84	55			1
3/16	9LI316CO	4.76	89	59			1
13/64	9LI1364CO	5.16	95	64			1
7/32	9LI732CO	5.56	97	64			1
15/64	9LI1564CO	5.95	100	67			1
1/4	9LI14CO	6.35	101	70			1
17/64	9LI1764CO	6.75	107	73			1
9/32	9LI932CO	7.14	109	75			1
19/64	9LI1964CO	7.54	114	81			1
5/16	9LI516CO	7.94	114	81			1
21/64	9LI2164CO	8.33	119	84			1
11/32	9LI1132CO	8.73	124	86			1
23/64	9LI2364CO	9.13	126	91			1
3/8	9LI38CO	9.53	125	81			1
25/64	9LI2564CO	9.92	130	95			1
13/32	9LI1332CO	10.32	133	94			1
27/64	9LI2764CO	10.72	133	94			1
7/16	9LI716CO	11.11	140	103			1
29/64	9LI2964CO	11.51	143	106			1
15/32	9LI1532CO	11.91	146	112			1
31/64	9LI3164CO	12.3	149	112			1
1/2	9LI12CO	12.7	152	114			1
		SUPPLIED IN INDIVIDUAL HANG PACK					

measure standard	style	material	
METRIC / IMPERIAL	JOBBER	HSS 8% COBALT	alpha

Size range	Code	No. of drills	Box Style	Price	Box
mm				each	qty
DRILL SETS GOLD SERIES					
1.0 - 13.0 Straight Shank COBALT	SM25CO	25pce	Plastic		7
1/16 - 1/2 Straight Shank COBALT	SI29CO	29pce	Plastic		7



REDUCED SHANK DRILLS METRIC



	measure standard		style		material		alpha	
	METRIC		REDUCED SHANK		HSS TITANIUM NITRIDE			
	Drill Dia. mm	Code	OAL mm	FL mm	Reduced Shank mm		Price each	Pack qty
	REDUCED SHANK DRILLS GOLD SERIES							
	10.5	9LM105R	133	87	10			1
	11	9LM110R	142	94	10			1
	11.5	9LM115R	142	94	10			1
	12	9LM120R	151	101	10			1
	12.5	9LM125R	151	101	10			1
	13	9LM130R	151	101	10			1
13.5	9LM135R	152	86	10			1	
14	9LM140R	152	86	10			1	
14	9LM140R12	152	86	12.5			1	
14.5	9LM145R	152	86	10			1	
15	9LM150R	152	86	12.5			1	
15.5	9LM155R	152	86	12.5			1	
16	9LM160R	152	86	12.5			1	
16.5	9LM165R	152	86	12.5			1	
17	9LM170R	152	86	12.5			1	
17.5	9LM175R	152	86	12.5			1	
18	9LM180R	152	86	12.5			1	
18.5	9LM185R	152	86	12.5			1	
19	9LM190R	152	86	12.5			1	
19.5	9LM195R	152	86	12.5			1	
20	9LM200R	152	86	12.5			1	
20.5	9LM205R	152	86	12.5			1	
21	9LM210R	152	86	12.5			1	
21.5	9LM215R	152	86	12.5			1	
22	9LM220R	152	86	12.5			1	
22.5	9LM225R	152	86	12.5			1	
23	9LM230R	152	86	12.5			1	
23.5	9LM235R	152	86	12.5			1	
24	9LM240R	152	86	12.5			1	
24.5	9LM245R	152	86	12.5			1	
25	9LM250R	152	86	12.5			1	
26	9LM260R	152	86	12.5			1	
27	9LM270R	152	86	12.5			1	
28	9LM280R	152	86	12.5			1	
29	9LM290R	152	86	12.5			1	
30	9LM300R	152	86	12.5			1	
32	9LM320R	152	86	12.5			1	
		SUPPLIED IN INDIVIDUAL PLASTIC TUBE						

REDUCED SHANK DRILLS IMPERIAL



measure standard IMPERIAL style REDUCED SHANK material HSS TITANIUM NITRIDE

alpha

Drill Dia. mm	Code	Drill Dia. inches	OAL mm	FL mm	Reduced shank inches	Price each	Pack qty
REDUCED SHANK DRILLS GOLD SERIES							
13/32	9LI1332R	10.32	133	89	3/8		1
27/64	9LI2764R	10.72	133	94	3/8		1
7/16	9LI716R	11.11	140	103	3/8		1
29/64	9LI2964R	11.51	143	106	3/8		1
15/32	9LI1532R	11.91	146	110	3/8		1
31/64	9LI3164R	12.3	149	111	3/8		1
1/2	9LI12R	12.7	152	114	3/8		1
33/64	9LI3364R	13.1	152	86	3/8		1
17/32	9LI1732R	13.49	152	86	1/2		1
35/64	9LI3564R	13.89	152	86	3/8		1
9/16	9LI916R38	14.29	152	86	3/8		1
9/16	9LI916R	14.29	152	86	1/2		1
37/64	9LI3764R	14.68	152	86	1/2		1
19/32	9LI1932R	15.08	152	86	1/2		1
39/64	9LI3964R	15.48	152	86	1/2		1
5/8	9LI58R38	15.88	152	86	3/8		1
5/8	9LI58R	15.88	152	86	1/2		1
41/64	9LI4164R	16.27	152	86	1/2		1
21/32	9LI2132R	16.67	152	86	1/2		1
43/64	9LI4364R	17.06	152	86	1/2		1
11/16	9LI1116R	17.46	152	86	1/2		1
45/64	9LI4564R	17.86	152	86	1/2		1
23/32	9LI2332R	18.26	152	86	1/2		1
3/4	9LI34R	19.05	152	86	1/2		1
49/64	9LI4964R	19.45	152	86	1/2		1
25/32	9LI2532R	19.84	152	86	1/2		1
51/64	9LI5164R	20.24	152	86	1/2		1
13/16	9LI1316R	20.64	152	86	1/2		1
53/64	9LI5364R	21.03	152	86	1/2		1
27/32	9LI2732R	21.43	152	86	1/2		1
55/64	9LI5564R	21.83	152	86	1/2		1
7/8	9LI78R	22.23	152	86	1/2		1
29/32	9LI2932R	23.02	152	86	1/2		1
15/16	9LI1516R	23.81	152	86	1/2		1
31/32	9LI3132R	24.61	152	86	1/2		1
1	9LI1R	25.4	152	86	1/2		1
1-1/8	9LI1.18R	28.56	152	86	1/2		1
1-3/16	9LI1.316R	30.16	152	86	1/2		1
1-1/4	9LI1.14R	31.75	152	86	1/2		1
SUPPLIED IN INDIVIDUAL PLASTIC TUBE							



LONGSERIESDRILLS METRIC

135° split point



measure standard		style		material			alpha	
METRIC		LONG SERIES		HSS TITANIUM NITRIDE				
Drill Dia. mm	Code	OAL mm	FL mm	Gauge			Price each	Pack qty
LONG SERIES DRILLS GOLD SERIES								
2	9ELM020	95	62					1
2.5	9ELM025	95	62					1
3	9ELM030	130	76					1
3.26	9ELG30	106	69	30				1
3.3	9ELM033	106	69					1
3.5	9ELM035	137	76					1
3.8	9ELM038	120	78					1
4	9ELM040	146	86					1
4.5	9ELM045	146	86					1
5	9ELM050	152	92					1
5.5	9ELM055	152	92					1
6	9ELM060	156	95					1
6.5	9ELM065	159	98					1
7	9ELM070	159	98					1
7.5	9ELM075	162	102					1
8	9ELM080	165	105					1
8.5	9ELM085	165	105					1
9	9ELM090	171	108					1
9.5	9ELM095	171	108					1
10	9ELM100	178	111					1
10.5	9ELM105	184	117					1
11	9ELM110	184	117					1
11.5	9ELM115	184	117					1
12	9ELM120	197	121					1
12.5	9ELM125	197	121					1
13	9ELM130	203	121					1
		SUPPLIED IN INDIVIDUAL HANG PACK						



measure standard		style	material		alpha			
IMPERIAL		LONG SERIES	HSS TITANIUM NITRIDE					
Drill Dia.	Code	Drill Dia.	OAL	FL			Price	Pack
inches		mm	mm	mm			each	qty
LONG SERIES DRILLS GOLD SERIES								
5/64	9ELI564	1.98	95.5	51				1
3/32	9ELI332	2.38	108	57				1
7/64	9ELI764	2.78	118	64				1
1/8	9ELI18	3.17	131	70				1
9/64	9ELI964	3.57	137	76				1
5/32	9ELI532	3.97	137	76				1
11/64	9ELI1164	4.37	146	86				1
3/16	9ELI316	4.76	146	86				1
13/64	9ELI1364	5.16	152	92				1
7/32	9ELI732	5.56	152	92				1
15/64	9ELI1564	5.95	158	97				1
1/4	9ELI14	6.35	155	95				1
17/64	9ELI1764	6.75	159	98				1
9/32	9ELI932	7.14	159	98				1
19/64	9ELI1964	7.53	162	102				1
5/16	9ELI516	7.94	162	102				1
21/64	9ELI2164	8.33	165	109				1
11/32	9ELI1132	8.73	175	115				1
23/64	9ELI2364	9.13	175	115				1
3/8	9ELI38	9.53	171	108				1
13/32	9ELI1332	10.32	184	121				1
7/16	9ELI716	11.11	181	116				1
15/32	9ELI1532	11.91	205	134				1
1/2	9ELI12	12.7	202	133				1
SUPPLIED IN INDIVIDUAL HANG PACK								





SM13



SM19PB



SM19



SM25PB



SM25

measure standard		style		material		alpha	
METRIC		JOBBERS		HSS TITANIUM NITRIDE / COBALT			
Size range	Code	No. of drills	Box Style		Price	Box	
mm					each	qty	
DRILL SETS GOLD SERIES							
1.5 - 6.5	SM13	13pce	Metal			30	
1.0 - 10.0	SM19	19pce	Metal			20	
1.0 - 10.0	SM19PB	19pce	Plastic			20	
1.0 - 13.0 Straight Shank	SM25	25pce	Metal			8	
1.0 - 13.0 Straight Shank	SM25PB	25pce	Plastic			7	
1.0 - 13.0 Reduced Shank	SM25R	25pce	Metal			8	
1.0 - 13.0 Reduced Shank	SM25RPB	25pce	Plastic			7	
1.0 - 13.0 Straight Shank COBALT	SM25CO	25pce	Plastic			7	
measure standard		style		material		alpha	
METRIC		EMPTY BOX		PLASTIC BOX			
Size range	Code	No. of drills	Box Style		Price	Box	
mm					each	qty	
DRILL SETS GOLD SERIES							
1.0 - 10.0 Empty Box	SM19PBOX	Empty Box	Plastic			8	
1.0 - 13.0 Empty Box	SM25PBOX	Empty Box	Plastic			7	

24



SI13



SI21PB



SI21



SI29PB

measure standard		style	material		alpha		
IMPERIAL		JOBBER	HSS TITANIUM NITRIDE / COBALT				
Size range	Code	No. of drills	Box Style		Price	Box	
mm					each	qty	
DRILL SETS GOLD SERIES							
1/16 - 1/4	SI13	13pce	Metal			30	
1/16 - 3/8	SI21	21pce	Metal			20	
1/16 - 3/8	SI21PB	21pce	Plastic			20	
1/16 - 1/2 Straight Shank	SI29	29pce	Metal			8	
1/16 - 1/2 Straight Shank	SI29PB	29pce	Plastic			7	
1/16 - 1/2 Reduced Shank	SI29R	29pce	Metal			8	
1/16 - 1/2 Reduced Shank	SI29RPB	29pce	Plastic			7	
1/16 - 1/2 Straight Shank COBALT	SI29CO	29pce	Plastic			7	
measure standard		style	material		alpha		
IMPERIAL		EMPTY BOX	PLASTIC BOX				
Size range	Code	No. of drills	Box Style		Price	Box	
mm					each	qty	
DRILL SETS GOLD SERIES							
1/16 - 3/8 Empty Box	SI21PBOX	Empty Box	Plastic			8	
1/16 - 1/2 Empty Box	SI29PBOX	Empty Box	Plastic			7	



SI29



25



	METRIC				IMPERIAL			
	measure standard	code			measure standard	code		
	Size	Code	Price	Display	Size	Code	Price	Pack
	mm		each	qty	inches		each	qty
	BULK DRILL DISPLAY GOLD SERIES				BULK DRILL DISPLAY GOLD SERIES			
	1.0	9LM010		20	1/16	9LI116		20
	1.5	9LM015		20	5/64	9LI564		20
	2.0	9LM020		20	3/32	9LI332		20
	2.5	9LM025		20	7/64	9LI764		20
	3.0	9LM030		20	1/8	9LI18		20
	3.3	9LM033		20	9/64	9LI964		20
	3.5	9LM035		20	5/32	9LI532		20
	4.0	9LM040		20	11/64	9LI1164		20
	4.5	9LM045		20	3/16	9LI316		10
	5.0	9LM050		20	13/64	9LI1364		10
	5.5	9LM055		10	7/32	9LI732		10
	6.0	9LM060		10	15/64	9LI1564		10
	6.5	9LM065		10	1/4	9LI14		10
	7.0	9LM070		10	17/64	9LI1764		10
	7.5	9LM075		10	9/32	9LI932		10
	8.0	9LM080		10	19/64	9LI1964		10
	8.5	9LM085		10	5/16	9LI516		10
	9.0	9LM090		10	21/64	9LI2164		10
	9.5	9LM095		10	11/32	9LI1132		10
	10.0	9LM100		10	23/64	9LI2364		10
	10.5	9LM105		5	3/8	9LI38		10
	11.0	9LM110		5	25/64	9LI2564		5
	11.5	9LM115		5	13/32	9LI1332		5
	12.0	9LM120		5	27/64	9LI2764		5
	12.5	9LM125		5	7/16	9LI716		5
	13.0	9LM130		5	29/64	9LI2964		5
	#30	9D30		20	15/32	9LI1532		5
	#20	9D20		20	31/64	9LI3164		5
	#11	9D11		20	1/2	9LI12		5
	AVAILABLE REDUCED SHANK DISPLAY - SUPPLIED STOCKED				AVAILABLE REDUCED SHANK DISPLAY - SUPPLIED STOCKED			

CARDED **DRILL** DISPLAYS

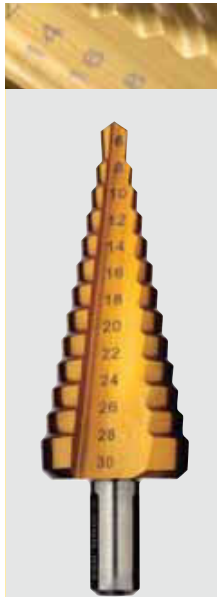
30 hook wall display frame with stock



measure standard METRIC code C9DISPM alpha						measure standard IMPERIAL code C9DISPI alpha					
Size	Code	Card	Price	Display		Size	Code	Card	Price	Display	
mm		qty	each	qty		mm		qty	each	qty	
CARDED DRILL DISPLAY GOLD SERIES						CARDED DRILL DISPLAY GOLD SERIES					
1.0	C9LM010	2		10		1/16	C9LI116	2		10	
1.5	C9LM015	2		10		5/64	C9LI564	2		10	
2.0	C9LM020	2		10		3/32	C9LI332	2		10	
2.5	C9LM025	2		10		7/64	C9LI764	2		10	
3.0	C9LM030	2		10		1/8	C9LI18	2		10	
3.5	C9LM035	1		10		9/64	C9LI964	1		10	
4.0	C9LM040	1		10		5/32	C9LI532	1		10	
4.5	C9LM045	1		10		11/64	C9LI1164	1		10	
5.0	C9LM050	1		10		3/16	C9LI316	1		10	
5.5	C9LM055	1		5		13/64	C9LI1364	1		5	
6.0	C9LM060	1		10		7/32	C9LI732	1		5	
6.5	C9LM065	1		5		15/64	C9LI1564	1		5	
7.0	C9LM070	1		5		1/4	C9LI14	1		5	
7.5	C9LM075	1		5		17/64	C9LI1764	1		5	
8.0	C9LM080	1		10		9/32	C9LI932	1		5	
8.5	C9LM085	1		5		19/64	C9LI1964	1		5	
9.0	C9LM090	1		5		5/16	C9LI516	1		5	
9.5	C9LM095	1		3		21/64	C9LI2164	1		5	
10.0	C9LM100	1		10		11/32	C9LI1132	1		5	
10.5	C9LM105	1		3		23/64	C9LI2364	1		5	
11.0	C9LM110	1		3		3/8	C9LI38	1		10	
11.5	C9LM115	1		3		25/64	C9LI2564	1		3	
12.0	C9LM120	1		3		13/32	C9LI1332	1		3	
12.5	C9LM125	1		3		27/64	C9LI2764	1		3	
13.0	C9LM130	1		3		7/16	C9LI716	1		3	
#30	C9D30	1		5		29/64	C9LI2964	1		3	
#20	C9D20	1		5		15/32	C9LI1532	1		3	
#11	C9D11	1		5		31/64	C9LI3164	1		3	
#30	C9S30	1		5		1/2	C9LI12	1		3	
#20	C9S20	1		5		#11	C9S11	1		5	
				196						184	
ALSO AVAILABLE REDUCED SHANK DISPLAY - SUPPLIED STOCKED						ALSO AVAILABLE REDUCED SHANK DISPLAY - SUPPLIED STOCKED					

STEPDRILLS

self-starting split point three flats on shaft



measure standard			material		material		alpha	
METRIC & IMPERIAL			STEP DRILL		HSS TITANIUM NITRIDE			
Drill Dia. mm	Code	No. of Steps	Drill Dia. mm	Drill Dia. inches			Price each	Pack qty
STEP DRILLS GOLD SERIES								
4-12	9STM4-12	9 steps	4-12					1
4-20	9STM4-20	9 steps	4-20					1
6-30	9STM6-30	13 steps	6-30					1
1/4-3/4	9STI14-34	9 steps		1/4 - 3/4				1
4-12, 4-20, 6-30	STPSET3	3 Piece Set Supplied in Robust Metal Case						1
SUPPLIED IN INDIVIDUAL SEALED PLASTIC TUBES								
 STPSET3								

SPIRALFLUTESTEPDRILLS

titanium nitride coating / self starting split point drills and deburs holes

MADE IN
EUROPE



measure standard
METRIC

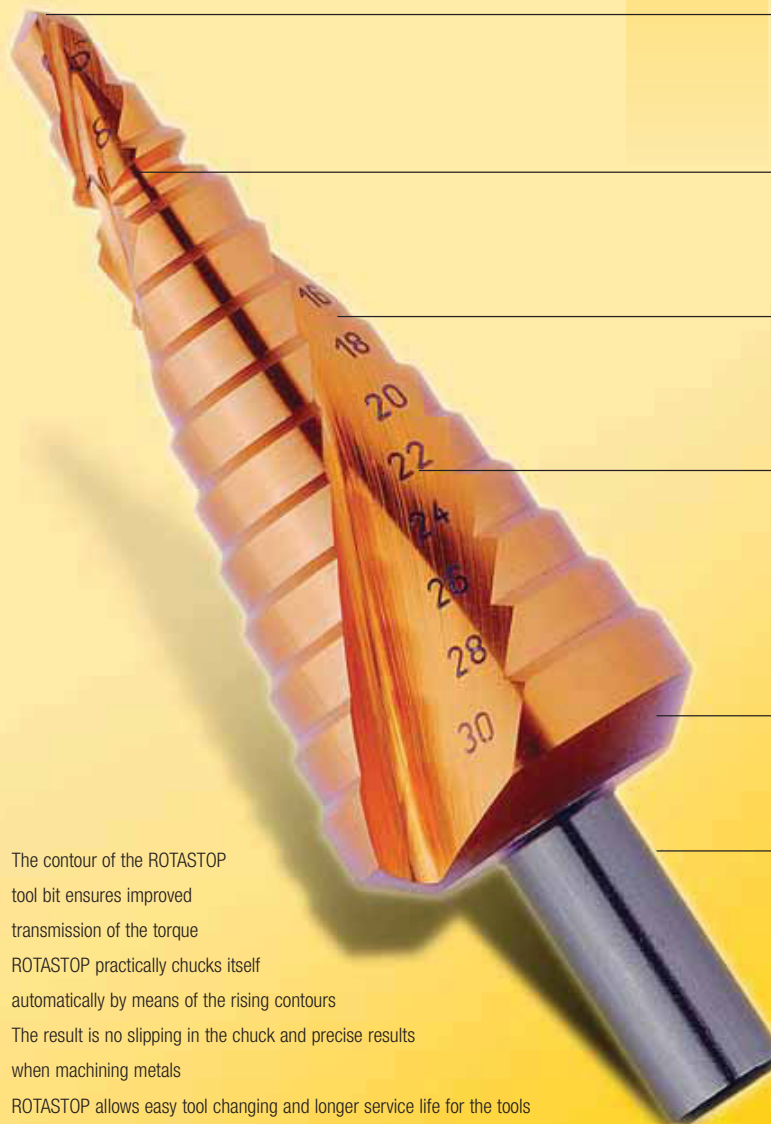
style
SPIRAL FLUTE

material
HSS TITANIUM NITRIDE

alpha

Drill Dia. mm	Code	No. of Steps	Drill Dia. mm				Price each	Pack qty
SPIRAL FLUTE STEP DRILLS GOLD SERIES								
4-12	9STSF4-12	9 steps	4-12					1
4-20	9STSF4-20	9 steps	4-20					1
6-30	9STSF6-30	13 steps	6-30					1
6-36	9STSF6-36	13 steps	6-36					1
4-12, 4-20, 6-30	STPSETSF-3	3 Piece Spiral Flute Drill Set						1

SUPPLIED IN INDIVIDUAL SEALED PLASTIC TUBES



Split point

Edge breaker
deburs back end
of hole

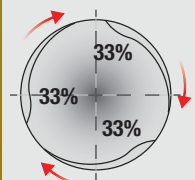
Variable spiral flute

Hole $\varnothing$ is laser
edged

Speed $\varnothing$ is laser
edged

With ROTASTOP
non-slip shaft

- > The contour of the ROTASTOP tool bit ensures improved transmission of the torque
- > ROTASTOP practically chucks itself automatically by means of the rising contours
- > The result is no slipping in the chuck and precise results when machining metals
- > ROTASTOP allows easy tool changing and longer service life for the tools

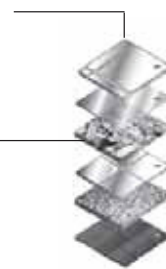




measure standard		style		material		alpha	
METRIC		SPEARPOINT		TUNGSTEN CARBIDE			
Drill Dia. mm	Code	Drill Dia. inches	OAL mm	Description	Price each	Pack qty	
SPEARPOINT DRILL BITS MADE IN GERMANY							
3	9GT030G	1/8	65	3mm Glass Tile Drill		1	
4	9GT040G	5/32	65	4mm Glass Tile Drill		1	
5	9GT050G	3/16	65	5mm Glass Tile Drill		1	
6	9GT060G	15/64	65	6mm Glass Tile Drill		1	
6.5	9GT065G	1/4	65	6.5mm Glass Tile Drill		1	
8	9GT080G	5/16	70	8mm Glass Tile Drill		1	
10	9GT100G	3/8	80	10mm Glass Tile Drill		1	
12	9GT120G	1/2	80	12mm Glass Tile Drill		1	
SUPPLIED IN INDIVIDUAL HANG PACKS							
Drill Dia. mm	Code	Drill Dia. inches	OAL mm	Description	Price each	Pack qty	
SPEARPOINT DRILL BITS							
3	9GT030	1/8	57	3mm Glass Tile Drill		1	
4	9GT040	5/32	62	4mm Glass Tile Drill		1	
5	9GT050	3/16	69	5mm Glass Tile Drill		1	
6	9GT060	15/64	74	6mm Glass Tile Drill		1	
6.5	9GT065	1/4	76	6.5mm Glass Tile Drill		1	
8	9GT080	5/16	82	8mm Glass Tile Drill		1	
10	9GT100	3/8	89	10mm Glass Tile Drill		1	
12	9GT120	1/2	96	12mm Glass Tile Drill		1	
SUPPLIED IN INDIVIDUAL HANG PACKS							

DIAMOND CORE DRILLS

for drilling hardened tiles and natural stone i.e. porcelain, marble, hardened ceramic



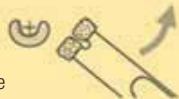
measure standard	style	material	
METRIC	CORE DRILL	WELDED DIAMOND GRIT	boa

Drill Dia. mm	Code	Description	Price each	Pack qty
DIAMOND CORE DRILL				
5	9GTD050	5mm Diamond Core Drill with Reservoir		1
6	9GTD060	6mm Diamond Core Drill with Reservoir		1
7	9GTD070	7mm Diamond Core Drill with Reservoir		1
8	9GTD080	8mm Diamond Core Drill with Reservoir		1
10	9GTD100	10mm Diamond Core Drill with Reservoir		1
12	9GTD120	12mm Diamond Core Drill with Reservoir		1
15	9GTD150	15mm Diamond Core Drill with Reservoir		1
20	9GTD200	20mm Diamond Core Drill with Reservoir		1
25	9GTD250	25mm Diamond Core Drill with Reservoir		1
35	9GTD350	35mm Diamond Core Drill		1
DIAMOND CORE DRILL SETS				
5-10	SGTD5-10	5 pce Diamond Core Drill Set 5-10mm with Reservoir		1
10-25	SGTD10-25	5 pce Diamond Core Drill Set 10-25mm with Reservoir		1
DIAMOND CORE DRILL DISPLAY				
5-25	9GTDDISP	Display Rack - 3 x 5mm 3 x 6mm 3 x 7mm 3 x 8mm 2 x 10mm 2 x 12mm 2 x 20mm 2 x 25mm		1

For best results pour a small amount of water on the surface before drilling. Use a high speed drill, 800 - 2000 rpm, light pressure.

1

Mark the wall and place the drill head at an angle to the wall as shown.



2

Start the drill and raise the drill as you cut the top surface to 90° angle to the wall. Drill as normal.



Drill Guide & Water Cooling System

1

Select the guide hole you require. Move the water reservoir to the closed position over the hole selected.



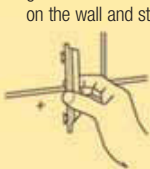
2

Fill the reservoir with water to the maximum level on the front.



3

Wipe the surface of the tiles with damp cloth. Line-up the guide hole with mark on the wall and stick.



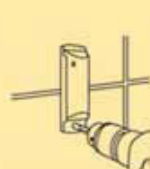
4

Get ready to drill. Move the reservoir to the open position.



5

Place drill into the guide and drill the required hole.



6

Move the reservoir back to the closed position. Finished



SPOTWELDDRILLS HSS COBALT

for drilling out spot welded panels



SPOTWELDDRILLS HSS COBALT TITANIUM NITRIDE COATED

for drilling out spot welded panels



SPOTWELDDRILLS HSS COBALT DURA COATED

for drilling out spot welded panels



measure standard		style	material			
METRIC		SPOT WELD	HIGH QUALITY HSS COBALT		alpha	
Drill Dia. mm	Code	OAL mm	FL mm	Description	Price each	Box qty
SPOT WELD DRILL BITS						
6.5	9S65	46	17	Cobalt		30
8	9S80	46	18	Cobalt		30
8	9L80	76	18	Cobalt		35
		SUPPLIED IN PLASTIC HANG TUBE				
measure standard		style	material			
METRIC		SPOT WELD	HSS COBALT - TITANIUM NITRIDE COATED		alpha	
Drill Dia. mm	Code	OAL mm	FL mm	Description	Price each	Box qty
SPOT WELD DRILL BITS						
8	9S80T	46	18	TiN Coating		30
8	9L80T	76	18	TiN Coating		35
		SUPPLIED IN PLASTIC HANG TUBE				
measure standard		style	material			
METRIC		SPOT WELD	HSS COBALT & DURA COATING		alpha	
Drill Dia. mm	Code	OAL mm	FL mm	Description	Price each	Box qty
SPOT WELD DRILL BITS						
8	9S80DUR	46	18	Dura Coating		30
8	9L80DUR	76	18	Dura Coating		35
		SUPPLIED IN PLASTIC HANG TUBE				



alpha



DECIMAL EQUIVALENTS

METRIC / FRACTIONS / GAUGE / INCHES



metric	fraction	gauge	inch
0.3			0.0118
0.32			0.0126
0.343		80	0.0135
0.35			0.0138
0.368		79	0.0145
0.38			0.015
0.397	1/64"		0.0156
0.4			0.0157
0.406		78	0.016
0.42			0.0165
0.45			0.0177
0.457		77	0.018
0.48			0.0189
0.5			0.0197
0.508		76	0.02
0.52			0.0205
0.533		75	0.021
0.55			0.0217
0.572		74	0.0225
0.58			0.0228
0.6			0.0236
0.61		73	0.024
0.62			0.0244
0.635		72	0.025
0.65			0.0256
0.66		71	0.026
0.68			0.0268
0.7			0.0276
0.711		70	0.028
0.72			0.0283
0.742		69	0.0292
0.75			0.0295
0.78			0.0307
0.787		68	0.031
0.794	1/32"		0.0312
0.8			0.0315
0.813		67	0.032
0.82			0.0323
0.838		66	0.033
0.85			0.0335
0.88			0.0346
0.889		65	0.035
0.9			0.0354
0.914		64	0.036
0.92			0.0362
0.94		63	0.037
0.95			0.0374
0.965		62	0.038
0.98			0.0386
0.99'		61	0.039
1			0.0394
1.016		60	0.04
1.041		59	0.041
1.05			0.0413
1.067		58	0.042
1.092		57	0.043
1.1			0.0433
1.15			0.0453
1.181		56	0.0465
1.191	3/64"		0.0469
1.2			0.0472
1.25			0.0492

metric	fraction	gauge	inch
1.3			0.0512
1.321		55	0.052
1.35			0.0531
1.397		54	0.055
1.4			0.0551
1.45			0.0571
1.5			0.0591
1.511		53	0.0595
1.55			0.061
1.588	1/16"		0.0625
1.6			0.063
1.613		52	0.0635
1.65			0.065
1.7			0.0669
1.702		51	0.067
1.75			0.0689
1.778		50	0.07
1.8			0.0709
1.85			0.0728
1.854		49	0.073
1.9			0.0748
1.93		48	0.076
1.95			0.0768
1.984	5/64"		0.0781
1.994		47	0.0785
2			0.0787
2.05			0.0807
2.057		46	0.081
2.083		45	0.082
2.1			0.0827
2.15			0.0846
2.184		44	0.086
2.2			0.0866
2.25			0.0886
2.61		43	0.089
2.3			0.0906
2.35			0.0925
2.375		42	0.0935
2.381	3/32"		0.0938
2.4			0.0945
2.438		41	0.096
2.45			0.0965
2.489		40	0.098
2.5			0.0984
2.527		39	0.0995
2.55			0.1004
2.578		38	0.1015
2.6			0.1024
2.642		37	0.104
2.65			0.1043
2.7			0.1063
2.705		36	0.1065
2.75			0.1083
2.778	7/64"		0.1094
2.794		35	0.11
2.8			0.1102
2.819		34	0.111
2.85			0.1122
2.87		33	0.113
2.9			0.1142
2.946		32	0.116
2.95			0.1161

metric	fraction	gauge	inch
3			0.1181
3.048		31	0.12
3.1			0.122
3.175	1/8"		0.125
3.2			0.126
3.25			0.128
3.264		30	0.1285
3.3			0.1299
3.4			0.1339
3.454		29	0.136
3.5			0.1378
3.569		28	0.1405
3.572	9/64"		0.1406
3.6			0.1417
3.658		27	0.144
3.7			0.1457
3.734		26	0.147
3.75			0.1476
3.797		25	0.1495
3.8			0.1496
3.861		24	0.152
3.9			0.1535
3.912		23	0.154
3.969	5/32"		0.1562
3.988		22	0.157
4			0.1575
4.039		21	0.159
4.089		20	0.161
4.1			0.1614
4.2			0.1654
4.216		19	0.166
4.25			0.1673
4.3			0.1693
4.305		18	0.1695
4.366	11/64"		0.1719
4.394		17	0.173
4.4			0.1732
4.496		16	0.177
4.6			0.1772
4.572		15	0.18
4.6			0.1811
4.623		14	0.182
4.7		13	0.185
4.75			0.187
4.762	3/16"		0.1875
4.8		12	0.189
4.851		11	0.191
4.9			0.1929
4.915		10	0.1935
4.978		9	0.196
5			0.1969
5.055		8	0.199
5.1			0.2008
5.105		7	0.201
5.159	13/64"		0.2031
5.182		6	0.204
5.2			0.2047
5.22		5	0.2055
5.25			0.2067
5.3			0.2087
5.309		4	0.209
5.4			0.2126

metric	fraction	gauge	inch
5.41		3	0.213
5.5			0.2165
5.556	7/32"		0.2188
5.6			0.2205
5.613		2	0.221
5.7			0.2244
5.75			0.2264
5.791		1	0.228
5.8			0.2283
5.9			0.2323
5.944		A	0.234
5.953	15/64"		0.2344
6			0.2362
6.045		B	0.238
6.1			0.2402
6.147		C	0.242
6.2			0.2441
6.248		D	0.246
6.25			0.2461
6.3			0.248
6.35	1/4"	E	0.25
6.4			0.252
6.5			0.2559
6.528		F	0.257
6.6			0.2598
6.629		G	0.261
6.7			0.2638
6.747	17/64"		0.2656
6.75			0.2657
6.75		H	0.266
6.8			0.2677
6.9			0.2717
6.909		I	0.272
7			0.2756
7.036		J	0.277
7.1			0.2795
7.137		K	0.281
7.144	9/32"		0.2812
7.2			0.2835
7.25			0.2854
7.3			0.2874
7.366		L	0.29
7.4			0.2913
7.493		M	0.295
7.5			0.2953
7.541	19/64"		0.2969
7.6			0.2992
7.671		N	0.302
7.7			0.3031
7.75			0.3051
7.8			0.3071
7.9			0.311
7.938	5/16"		0.3125
8			0.315
8.026		O	0.316
8.1			0.3189
8.2			0.3228
8.204		P	0.323
8.25			0.3248
8.3			0.3268
8.334	21/64"		0.3281
8.4			0.3307

DECIMAL EQUIVALENTS

METRIC / FRACTIONS / GAUGE / INCHES

alpha

metric	fraction	gauge	inch
8.433		Q	0.332
8.5			0.3346
8.6			0.3386
8.611		R	0.339
8.7			0.3425
8.731	11/32"		0.3438
8.75			0.3445
8.8			0.3465
8.839		S	0.348
8.9			0.3504
9			0.3543
9.093		T	0.358
9.1			0.3583
9.128	23/64"		0.3594
9.2			0.3622
9.25			0.3642
9.3			0.3661
9.347		U	0.368
9.4			0.3701
9.5			0.374
9.525	3/8"		0.375
9.576		V	0.377
9.6			0.378
9.7			0.3819
9.75			0.3839
9.8			0.3858
9.804		W	0.386
9.9			0.3898
9.922	25/64"		0.3906
10			0.3937
10.084		X	0.397
10.1			0.3976
10.2			0.4016
10.25			0.4035
10.262		Y	0.404
10.3			0.4055
10.319	13/32"		0.4062
10.4			0.4094
10.49		Z	0.413
10.5			0.4134
10.6			0.4173
10.7			0.4213
10.716	27/64"		0.4219
10.75			0.4232
10.8			0.4252
10.9			0.4291
11			0.4331
11.1			0.437
11.112	7/16"		0.4375
11.2			0.4409
11.25			0.4429
11.3			0.4449
11.4			0.4488
11.5			0.4528
11.509	29/64"		0.4531
11.6			0.4567
11.7			0.4606
11.75			0.4626
11.8			0.4646
11.9			0.4685
11.906	15/32"		0.4688
12			0.4724

metric	fraction	gauge	inch
12.1			0.4764
12.2			0.4803
12.25			0.4823
12.3			0.4843
12.303	31/64"		0.4844
12.4			0.4882
12.5			0.4921
12.6			0.4961
12.7	1/2"		0.5
12.75			0.502
12.8			0.5039
12.9			0.5079
13			0.5118
13.097	33/64"		0.5156
13.1			0.5157
13.2			0.5197
13.25			0.5217
13.3			0.5236
13.4			0.5276
13.494	17/32"		0.5313
13.5			0.5315
13.6			0.5354
13.7			0.5394
13.75			0.5413
13.8			0.5433
13.891	35/64"		0.5469
13.9			0.5472
14			0.5512
14.25			0.561
14.288	9/16"		0.5625
14.5			0.5709
14.684	37/64"		0.5781
14.75			0.5807
15			0.5906
15.081	19/32"		0.5937
15.25			0.6004
15.478	39/64"		0.6094
15.5			0.6102
15.75			0.6201
15.875	5/8"		0.625
16			0.6299
16.25			0.6398
16.272	41/64"		0.6406
16.5			0.6496
16.669	21/32"		0.6563
16.75			0.6594
17			0.6693
17.066	43/64"		0.6719
17.25			0.6791
17.462	11/16"		0.6875
17.5			0.689
17.75			0.6988
17.859	45/64"		0.7031
18			0.7087
18.25			0.7185
18.256	23/32"		0.7187
18.5			0.7283
18.653	47/64"		0.7344
18.75			0.7382
19			0.748
19.05	3/4"		0.75
19.25			0.7579

metric	fraction	gauge	inch
19.447	49/64"		0.7656
19.5			0.7677
19.75			0.7776
19.844	25/32"		0.7813
20			0.7874
20.241	51/64"		0.7969
20.25			0.7972
20.5			0.8071
20.638	13/16"		0.8125
20.75			0.8169
21			0.8268
21.034	53/64"		0.8281
21.25			0.8366
21.431	27/32"		0.8437
21.5			0.8465
21.75			0.8563
21.828	55/64"		0.8594
22			0.8661
22.225	7/8"		0.875
22.25			0.876
22.5			0.8858
22.622	57/64"		0.8906
22.75			0.8957
23			0.9055
23.019	29/32"		0.9063
23.25			0.9154
23.416	59/64"		0.9219
23.5			0.9252
23.75			0.935
23.812	15/16"		0.9375
24			0.9449
24.209	61/64"		0.9531
24.25			0.9547
24.5			0.9646
24.606	31/32"		0.9687
24.75			0.9744
25			0.9843
25.003	63/64"		0.9844
25.25			0.9941
25.4	1"		1
25.5			1.0039
25.75			1.0138
25.797	1-1/64"		1.0156
26			1.0236
26.194	1-1/32"		1.0313
26.25			1.0335
26.5			1.0433
26.591	1-3/64"		1.0469
26.75			1.0531
26.988	1-1/16"		1.0625
27			1.063
27.25			1.0728
27.384	1-5/64"		1.0781
27.5			1.0827
27.75			1.0925
27.781	1-3/32"		1.0937
28			1.1024
28.178	1-7/64"		1.1094
28.25			1.1122
28.5			1.122
28.575	1-1/8"		1.125
28.75			1.1319

metric	fraction	gauge	inch
28.972	1-9/64"		1.1406
29			1.1417
29.25			1.1516
29.369	1-5/32"		1.1563
29.5			1.1614
29.75			1.1713
29.766	1-11/64"		1.1719
30			1.1811
30.162	1-3/16"		1.1875
30.25			1.1909
30.5			1.2008
30.559	1-13/64"		1.2031
30.75			1.2106
30.956	1-7/32"		1.2187
31			1.2205
31.25			1.2303
31.353	1-15/64"		1.2344
31.5			1.2402
31.75	1-1/4"		1.25
32			1.2598
32.147	1-17/64"		1.2656
32.5			1.2795
32.544	1-9/32"		1.2813
32.941	1-19/64"		1.2969
33			1.2992
33.338	1-5/16"		1.3125
33.5			1.3189
33.734	1-21/64"		1.3281
34			1.3386
34.131	1-11/32"		1.3437
34.5			1.3583
34.528	1-23/64"		1.3594
34.925	1-3/8"		1.375
35			1.378
35.322	1-25/64"		1.3906
35.5			1.3976
35.719	1-13/32"		1.4063
36			1.4173
36.116	1-27/64"		1.4219
36.5			1.437
36.512	1-7/16"		1.4375
36.909	1-29/64"		1.4531
37			1.4567
37.306	1-15/32"		1.4687
37.5			1.4764
37.703	1-31/64"		1.4844
38			1.4961
38.1	1-1/2"		1.5
38.497	1-33/64"		1.5156
38.5			1.5157
38.894	1-17/32"		1.5313
39			1.5354
39.291	1-35/64"		1.5469
39.5			1.5551
39.688	1-9/16"		1.5625
40			1.5748
40.084	1-37/64"		1.5781
40.481	1-19/32"		1.5937
40.5			1.5945
40.878	1-39/64"		1.6094

HSS TWIST DRILL SPEEDS

SPINDLE SPEED (RPM)



WORKING MATERIAL									
Drill Dia. (mm)	Stainless Steel	Tool Steel	Cast Iron	Malleable Iron	Medium Carbon Steel	Free Cutting Steel	Alum. Brass Plastic	Wood	Feed per Revolution (mm./rev.)
CUTTING SPEED (metres per minute)									
	12	18	24	27	30	43	61	91	
SPINDLE SPEED RPM									
1	2445	3667	4889	5500	6112	8556	12223	18335	.05 to .15
2	1620	2445	3259	3667	4074	5704	8149	12223	
3	1222	1833	2445	2750	3056	4278	6112	9167	
4	978	1467	1956	2200	2445	3422	4889	7334	
5	815	1222	1630	1833	2037	2852	4074	6112	
6	654	982	1309	1473	1637	2292	3274	4911	.15 to .25
7	543	815	1086	1222	1358	1901	2716	4074	
8	489	733	978	1100	1222	1711	2445	3667	
9	448	672	896	1008	1120	1568	2241	3361	
10	407	611	815	917	1019	1426	2037	3056	
11	349	524	698	786	873	1222	1746	2619	.25 to .35
13	306	458	611	688	764	1070	1528	2292	
14	272	407	543	611	679	951	1358	2037	
16	244	367	489	550	611	856	1222	1833	
18	222	333	444	500	556	778	1111	1667	
19	204	306	407	458	509	713	1019	1528	.35 to .45
20	189	224	378	425	473	662	946	1419	
22	175	262	349	393	437	611	873	1310	
25	153	229	306	344	382	535	764	1146	
28	136	204	272	306	340	475	679	1019	
32	122	183	244	275	306	428	611	917	.45 to .55
35	111	167	222	250	278	389	556	833	
38	102	153	204	229	255	357	509	764	
41	94	141	188	212	235	329	470	705	
44	87	131	175	196	218	306	437	655	
47	81	122	163	183	204	285	407	611	.55 to .65
50	76	115	153	172	191	267	382	573	
57	68	102	136	153	170	238	340	509	
63	61	92	122	138	153	214	306	458	
70	56	83	111	125	139	194	278	417	
76	51	76	102	115	127	178	255	382	