









TOOLS FOR MAINTENANCE & REPAIR







## JOBBER DRILLS

DRILL TYPE	MATERIAL		APPLICATION AREA	SERIES NUMBER	PAGE NO.
Europa	Carbide		Drilling into steel in general, cast steel, all cast irons, stainless steel	Metric - 801303	5-10
Goldex Cobalt	HSS-E		Drilling in steel, cast steel - alloyed and non-alloyed, stainless steel, titanium and aluminium	Metric - 810505	5-10
Goldex Worm Pattern	HSS-E		Drilling deep holes in steel, cast iron, stainless steel, titanium and aluminium	Metric - 811505	5-10
-	HSSCo8		Drilling stainless steels and difficult to cut materials such as titanium and inconel	Metric - 820702	5-11
Goldex HSS	HSS		Drilling in steel, cast steel - alloyed and non-alloyed, stainless steel, titanium and aluminium	Metric - 810504 Inch - 820504	5-10
Two Tone	HSS		Drilling in steel, cast iron, soft aluminium and plastics	Metric - 0001 Inch - 0000	5-11
-	HSS		Drilling in steel, cast iron, soft aluminium and plastics	Metric - 820801	5-11






## STUB & SPOTTING DRILLS

DRILL TYPE	MATERIAL		APPLICATION AREA	SERIES NUMBER	PAGE NO.
Europa	Carbide		Drilling into steel in general, cast steel, all cast irons, stainless steel	Metric - 800303	12-16
-	HSSCo8		Drilling stainless steels and difficult to cut materials such as titanium and inconel	Metric - 820502	12-16
Goldex HSS	HSS		Drilling in steel, cast steel - alloyed and non-alloyed, stainless steel, titanium and aluminium	Metric - 820604 Inch - 820404	12-16
-	HSS		Drilling in steel, cast iron, soft aluminium and plastics	Metric - 820601	12-16
Europa	Carbide		For precise centering work. Drilling into steel in general, cast steel, all cast irons, stainless steel	90° - 806303 120° - 806403	12-16
-	HSSCo		For precise centering work. Drilling into steel in general, stainless steel and soft materials	90° - 821402 120° - 822402	12-16

## LONG SERIES, MTS & BLACKSMITH DRILLS

DRILL TYPE	MATERIAL		APPLICATION AREA	SERIES NUMBER	PAGE NO.
-	HSSCo8		Drilling stainless steels and difficult to cut materials such as titanium and inconel	Metric - 820902	17-19
-	HSS		Drilling in steel, cast iron, soft aluminium and plastics	Metric - 820901	17-19
Taper Shank	HSS		Drilling in steel, cast iron, soft aluminium and plastics	Metric - 821601	19-22
Blacksmith	HSS		1/2" reduced shank. Drilling in steel, cast iron, soft aluminium and plastics	Metric - 821901	19-21

## CENTRE DRILLS & COUNTERSINKS

TYPE	MATERIAL		APPLICATION AREA	SERIES NUMBER	PAGE NO.
-	HSS-EX		120°. For precise centering work	Metric - 810334	23-24
-	HSS		118°. For precise centering work	Inch - 888301	23-24
-	HSSCo		90°. Chatter free. For more difficult to cut materials such as stainless steel	Bright - 702302 TiN - 702305	23-24
-	HSS		90°. Chatter free. Drilling in steel, cast iron, soft aluminium and plastics	Bright - 702301 TiN - 702304	23-24
-	HSS		90°. Chatter free. For deburring most materials and small chamfering of soft materials	Bright - 702402	23-24

## METRIC TAPS

TAP TYPE	MATERIAL		APPLICATION AREA	SERIES NUMBER	PAGE NO.
PM150	HSS-E-PM		Spiral point for through holes. Right hand cutting. HSS-E-PM material for extended tool life	Metric Coarse PM15011	25-26
PM150	HSS-E-PM		Spiral flute for blind holes. Right hand cutting. HSS-E-PM material for extended tool life	Metric Coarse PM15012	25-26
Hand	HSS		Right hand cutting for general purpose use	Metric Coarse F011, G011	25-26
Hand	HSS		Right hand cutting for general purpose use	Metric Fine F021, G021	27-28
Blue Wizard	HSS		Spiral point for through holes. Right hand cutting. Steam tempered for improved wear resistance	Metric Coarse F013	25-26
Blue Merlin	HSS		Spiral flute for blind holes. Right hand cutting. Steam tempered for improved wear resistance	Metric Coarse F015	25-26

## IMPERIAL TAPS

TAP TYPE	MATERIAL		APPLICATION AREA	SERIES NUMBER	PAGE NO.
Hand	HSS		Right hand cutting for general purpose use	UNC F091, G091	29-30
Hand	HSS		Right hand cutting for general purpose use	UNF F101, G101	29-30
Hand	HSS		Right hand cutting for general purpose use	BSW F151, G151	29-30






## DIES & DIENUTS








TYPE	MATERIAL		APPLICATION AREA	SERIES NUMBER	PAGE NO.
Split Die	HSS		Right hand cutting for general purpose use	Metric Coarse J011-J015	31-32
Split Die	HSS		Right hand cutting for general purpose use	Metric Fine J011-J015	33
Split Die	HSS		Right hand cutting for general purpose use	UNC J091-J095	34-35
Split Die	HSS		Right hand cutting for general purpose use	UNF J101-J105	34-35
Split Die	HSS		Right hand cutting for general purpose use	BSW J151-J155	34-35
Solid	HSS		Right hand cutting for general purpose use	Metric Coarse J611	31-32
Solid	HSS		Right hand cutting for general purpose use	Metric Fine J612	33

## REAMERS

TYPE	MATERIAL		APPLICATION AREA	SERIES NUMBER	PAGE NO.
Machine Chucking	Carbide		Straight flute - right hand cutting For through and blind holes	Metric - 452303	36-39
Machine Chucking	Carbide		L/H Spiral flute - right hand cutting For through holes	Metric - 453303	36-39
Machine Chucking	HSSCo		Straight flute - right hand cutting For through and blind holes	Metric - 452302	36-39
Machine Chucking	HSSCo		L/H Spiral flute - right hand cutting For through holes	Metric - 453302	36-39
Taper Shank Chucking	HSS		L/H Spiral flute - right hand cutting For through holes	Metric - 456302	38-40
Hand	HSS		Straight flute - right hand cutting For through and blind holes	Metric - 450301	36-40
Hand	HSS		L/H Spiral flute - right hand cutting For through holes	Metric - 451301	36-40






## SETS & ACCESSORIES

TYPE	MATERIAL		DESCRIPTION	SERIES NUMBER	PAGE NO.
Goldex Cobalt	HSS-E		Size range from 1.0 - 13.0mm depending on set size	Metric 810505SET--	41
Goldex HSS	HSS		Size range from 1.0 - 13.0mm depending on set size	Metric 810504SET--	41
Two Tone	HSS		Size range 1.0 - 13.0mm	Metric 10220025	41
HSS	HSS		Size range from 1.0 - 13.0mm depending on set size	Metric 820801SET--	41
Countersink	HSSCo		90° Size range 6.3 - 20.5mm	Bright - 702302SET TiN - 702305SET	41
Countersink	HSS		90° Size range 6.3 - 20.5mm	Bright - 702301SET TiN - 702304SET	41
Tap & Die	HSS		Sets include Taper & Bottoming taps plus tapwrenches and diestocks to suit	Metric & Imperial J901	42
Tapwrench	-		To suit all hand taps and hand reamers	J891 - J893	42
Diestock	-		To suit all split dies	J895	42

Brand	EUROPA	GOLDEX	GOLDEX	-	GOLDEX	GOLDEX	TWO TONE	TWO TONE	-
Material	Carbide	HSS-E	HSS-E	HSSCo8	HSS	HSS	HSS	HSS	HSS
Standard	DIN338	DIN338	DIN338	DIN338	DIN338	BS328	DIN338	BS328	DIN338
Helix Angle	33°	33°	38°	33°	30°	30°	33°	33°	20-30°
Point Angle	118°	135°	135°	135°	118°	118°	135°	135°	118°
Point Geometry	Standard	Split point ≥ Ø1.6	Split point ≥ Ø1.6	Split point ≥ Ø1.6	Split point ≥ Ø1.6	Standard	Split point ≤ Ø13.0	Split point ≤ Ø1/2	Standard
Finish	Bright	Bright TiN Tipped	Bright TiN Tipped	Straw	Bright TiN Tipped	Bright TiN Tipped	Two Tone 5.1 - 13.0	Two Tone 13/64 - 1/2	Black Bright <2.5
Tool Type									


Ordering Example:  
Goldex HSS 6.0mm  
**8105040600**

Dia	Flute Length	O/all Length	801303	810505	811505	820702	810504	820504	0001	0000	820801
0.3	3	19									● 0030
0.4	5	20									● 0040
0.5	6	22									● 0050
0.6	7	24									● 0060
0.7	9	28									● 0070
0.8	10	30									● 0080
0.9	11	32									● 0090
1.0	12	34	● 0100	● 0100		● 0100	● 0100				● 0100
1.1	14	36	● 0110	● 0110		● 0110	● 0110				● 0110
3/64	3/4	1.3/4						● 0030		● 0047	
1.2	16	38	● 0120	● 0120		● 0120	● 0120				● 0120
1.25	16	38									● 0125
1.3	16	38	● 0130	● 0130		● 0130	● 0130				● 0130
1.35	18	40									● 0135
1.4	18	40	● 0140	● 0140		● 0140	● 0140				● 0140
1.45	18	40									● 0145
1.5	18	40	● 0150	● 0150		● 0150	● 0150				● 0150
1.55	20	43									● 0155
1/16	7/8	1.7/8						● 0040		● 0062	
1.6	20	43	● 0160	● 0160		● 0160	● 0160				● 0160
1.65	20	43									● 0165
1.7	20	43	● 0170	● 0170		● 0170	● 0170				● 0170
1.75	22	46				● 0175					● 0175
1.8	22	46	● 0180	● 0180		● 0180	● 0180				● 0180
1.9	22	46	● 0190	● 0190		● 0190	● 0190				● 0190
1.95	24	49									● 0195
5/64	1	2						● 0050		● 0078	
2.0	24	49	● 0200	● 0200	● 0200	● 0200	● 0200				● 0200
2.05	24	49									● 0205
2.1	24	49	● 0210	● 0210	● 0210	● 0210	● 0210				● 0210
2.15	27	53									● 0215
2.2	27	53	● 0220	● 0220	● 0220	● 0220	● 0220				● 0220
2.25	27	53									● 0225
2.3	27	53	● 0230	● 0230	● 0230	● 0230	● 0230				● 0230

Brand	EUROPA	GOLDEX	GOLDEX	-	GOLDEX	GOLDEX	TWO TONE	TWO TONE	-
Material	Carbide	HSS-E	HSS-E	HSSCo8	HSS	HSS	HSS	HSS	HSS
Standard	DIN338	DIN338	DIN338	DIN338	DIN338	BS328	DIN338	BS328	DIN338
Helix Angle	33°	33°	38°	33°	30°	30°	33°	33°	20-30°
Point Angle	118°	135°	135°	135°	118°	118°	135°	135°	118°
Point Geometry	Standard	Split point ≥ Ø1.6	Split point ≥ Ø1.6	Split point ≥ Ø1.6	Split point ≥ Ø1.6	Standard	Split point ≤ Ø13.0	Split point ≤ Ø1/2	Standard
Finish	Bright	Bright TiN Tipped	Bright TiN Tipped	Straw	Bright TiN Tipped	Bright TiN Tipped	Two Tone 5.1 - 13.0	Two Tone 13/64 - 1/2	Black Bright <2.5
Tool Type									

Ordering Example:  
Goldex HSS 6.0mm  
**8105040600**

Dia	Flute Length	O/all Length	801303	810505	811505	820702	810504	820504	0001	0000	820801
2.35	27	53									● 0235
3/32	1.1/4	2.1/4						● 0060		● 0094	
2.4	30	57	● 0240	● 0240	● 0240	● 0240	● 0240				● 0240
2.5	30	57	● 0250	● 0250	● 0250	● 0250	● 0250		● 0098		● 0250
2.6	30	57	● 0260	● 0260	● 0260	● 0260	● 0260		● 0102		● 0260
2.65	30	57									● 0265
2.7	33	61	● 0270	● 0270	● 0270	● 0270	● 0270		● 0106		● 0270
2.75	33	61							● 0108		● 0275
7/64	1.1/2	2.5/8						● 0070		● 0109	
2.8	33	61	● 0280	● 0280	● 0280	● 0280	● 0280		● 0110		● 0280
2.85	33	61							● 0113		● 0285
2.9	33	61	● 0290	● 0290	● 0290	● 0290	● 0290		● 0114		● 0290
2.95	33	61							● 0116		● 0295
3.0	33	61	● 0300	● 0300	● 0300	● 0300	● 0300		● 0117		● 0300
3.1	36	65	● 0310	● 0310	● 0310	● 0310	● 0310		● 0122		● 0310
3.15	36	65							● 0124		● 0315
1/8	1.5/8	2.3/4						● 0080		● 0125	
3.2	36	65	● 0320	● 0320	● 0320	● 0320	● 0320		● 0127		● 0320
3.25	36	65									● 0325
3.3	36	65	● 0330	● 0330	● 0330	● 0330	● 0330		● 0130		● 0330
3.4	39	70	● 0340	● 0340	● 0340	● 0340	● 0340		● 0134		● 0340
3.45	39	70							● 0135		● 0345
3.5	39	70	● 0350	● 0350	● 0350	● 0350	● 0350		● 0137		● 0350
9/64	1.3/4	2.7/8						● 0090		● 0140	
3.6	39	70	● 0360	● 0360	● 0360	● 0360	● 0360		● 0142		● 0360
3.65	39	70							● 0143		● 0365
3.7	39	70	● 0370	● 0370	● 0370	● 0370	● 0370		● 0146		● 0370
3.75	39	70				● 0375			● 0147		● 0375
3.8	43	75	● 0380	● 0380	● 0380	● 0380	● 0380		● 0150		● 0380
3.9	43	75	● 0390	● 0390	● 0390	● 0390	● 0390		● 0153		● 0390
3.95	43	75									● 0395
5/32	2	3.1/8						● 0100		● 0156	
4.0	43	75	● 0400	● 0400	● 0400	● 0400	● 0400		● 0158		● 0400
4.05	43	75							● 0160		● 0405

Brand	EUROPA	GOLDEX	GOLDEX	-	GOLDEX	GOLDEX	TWO TONE	TWO TONE	-
Material	Carbide	HSS-E	HSS-E	HSSCo8	HSS	HSS	HSS	HSS	HSS
Standard	DIN338	DIN338	DIN338	DIN338	DIN338	BS328	DIN338	BS328	DIN338
Helix Angle	33°	33°	38°	33°	30°	30°	33°	33°	20-30°
Point Angle	118°	135°	135°	135°	118°	118°	135°	135°	118°
Point Geometry	Standard	Split point ≥ Ø1.6	Split point ≥ Ø1.6	Split point ≥ Ø1.6	Split point ≥ Ø1.6	Standard	Split point ≤ Ø13.0	Split point ≤ Ø1/2	Standard
Finish	Bright	Bright TiN Tipped	Bright TiN Tipped	Straw	Bright TiN Tipped	Bright TiN Tipped	Two Tone 5.1 - 13.0	Two Tone 13/64 - 1/2	Black Bright <2.5
Tool Type									

Ordering Example:  
 Goldex HSS 6.0mm  
**8105040600**









Dia	Flute Length	O/all Length	801303	810505	811505	820702	810504	820504	0001	0000	820801
4.1	43	75	● 0410	● 0410	● 0410	● 0410	● 0410		● 0161		● 0410
4.2	43	75	● 0420	● 0420	● 0420	● 0420	● 0420		● 0165		● 0420
4.25	43	75				● 0425			● 0167		● 0425
4.3	47	80	● 0430	● 0430	● 0430	● 0430	● 0430		● 0169		● 0430
11/64	2.1/8	3.1/4						● 0110		● 0172	
4.4	47	80	● 0440	● 0440	● 0440	● 0440	● 0440		● 0174		● 0440
4.5	47	80	● 0450	● 0450	● 0450	● 0450	● 0450		● 0177		● 0450
4.55	47	80							● 0179		
4.6	47	80	● 0460	● 0460	● 0460	● 0460	● 0460		● 0181		● 0460
4.7	47	80	● 0470	● 0470	● 0470	● 0470	● 0470		● 0185		● 0470
4.75	47	80							● 0187		● 0475
3/16	2.5/16	3.1/2						● 0120		● 0188	
4.8	52	86	● 0480	● 0480	● 0480	● 0480	● 0480		● 0190		● 0480
4.85	52	86									● 0485
4.9	52	86	● 0490	● 0490	● 0490	● 0490	● 0490		● 0193		● 0490
5.0	52	86	● 0500	● 0500	● 0500	● 0500	● 0500		● 0197		● 0500
5.1	52	86	● 0510	● 0510	● 0510	● 0510	● 0510		● 0201		● 0510
13/64	2.7/16	3.5/8						● 0130		● 0203	
5.2	52	86	● 0520	● 0520	● 0520	● 0520	● 0520		● 0205		● 0520
5.25	52	86							● 0207		
5.3	52	86	● 0530	● 0530	● 0530	● 0530	● 0530		● 0209		● 0530
5.4	57	93	● 0540	● 0540	● 0540	● 0540	● 0540		● 0213		● 0540
5.5	57	93	● 0550	● 0550	● 0550	● 0550	● 0550		● 0217		● 0550
7/32	2.1/2	3.3/4						● 0140		● 0219	
5.6	57	93	● 0560	● 0560	● 0560	● 0560	● 0560		● 0221		● 0560
5.7	57	93	● 0570	● 0570	● 0570	● 0570	● 0570		● 0224		● 0570
5.75	57	93							● 0226		
5.8	57	93	● 0580	● 0580	● 0580	● 0580	● 0580		● 0228		● 0580
5.9	57	93	● 0590	● 0590	● 0590	● 0590	● 0590		● 0232		● 0590
15/64	2.5/8	3.7/8						● 0150		● 0234	
6.0	57	93	● 0600	● 0600	● 0600	● 0600	● 0600		● 0236		● 0600
6.1	63	101	● 0610	● 0610	● 0610	● 0610	● 0610		● 0240		● 0610
6.2	63	101	● 0620	● 0620	● 0620	● 0620	● 0620		● 0244		● 0620
6.25	63	101							● 0246		● 0625

Brand	EUROPA	GOLDEX	GOLDEX	-	GOLDEX	GOLDEX	TWO TONE	TWO TONE	-
Material	Carbide	HSS-E	HSS-E	HSSCo8	HSS	HSS	HSS	HSS	HSS
Standard	DIN338	DIN338	DIN338	DIN338	DIN338	BS328	DIN338	BS328	DIN338
Helix Angle	33°	33°	38°	33°	30°	30°	33°	33°	20-30°
Point Angle	118°	135°	135°	135°	118°	118°	135°	135°	118°
Point Geometry	Standard	Split point ≥ Ø1.6	Split point ≥ Ø1.6	Split point ≥ Ø1.6	Split point ≥ Ø1.6	Standard	Split point ≤ Ø13.0	Split point ≤ Ø1/2	Standard
Finish	Bright	Bright TiN Tipped	Bright TiN Tipped	Straw	Bright TiN Tipped	Bright TiN Tipped	Two Tone 5.1 - 13.0	Two Tone 13/64 - 1/2	Black Bright <2.5
Tool Type									

Ordering Example:  
Goldex HSS 6.0mm  
**8105040600**

Dia	Flute Length	O/all Length	801303	810505	811505	820702	810504	820504	0001	0000	820801
6.3	63	101	● 0630	● 0630	● 0630	● 0630	● 0630		● 0248		● 0630
6.35	63	101									● 0635
1/4	2.3/4	4						● 0160		● 0250	
6.4	63	101	● 0640	● 0640	● 0640	● 0640	● 0640		● 0252		● 0640
6.5	63	101	● 0650	● 0650	● 0650	● 0650	● 0650		● 0256		● 0650
6.6	63	101	● 0660	● 0660	● 0660	● 0660	● 0660		● 0260		● 0660
6.7	63	101	● 0670	● 0670	● 0670	● 0670	● 0670		● 0263		● 0670
6.75	63	101				● 0675			● 0266		● 0675
17/64	2.7/8	4.1/8						● 0170		● 0265	
6.8	69	109	● 0680	● 0680	● 0680	● 0680	● 0680		● 0268		● 0680
6.9	69	109	● 0690	● 0690	● 0690	● 0690	● 0690		● 0275		● 0690
7.0	69	109	● 0700	● 0700	● 0700	● 0700	● 0700		● 0276		● 0700
7.1	69	109	● 0710	● 0710	● 0710	● 0710	● 0710		● 0279		● 0710
9/32	2.15/16	4.1/4						● 0180		● 0281	
7.2	69	109	● 0720	● 0720	● 0720	● 0720	● 0720		● 0284		● 0720
7.25	69	109							● 0285		● 0725
7.3	69	109	● 0730	● 0730	● 0730	● 0730	● 0730		● 0287		● 0730
7.4	69	109	● 0740	● 0740	● 0740	● 0740	● 0740		● 0291		● 0740
7.45	69	109									● 0745
7.5	69	109	● 0750	● 0750	● 0750	● 0750	● 0750		● 0295		● 0750
19/64	3.1/16	4.3/8						● 0190		● 0297	
7.6	75	117	● 0760	● 0760	● 0760	● 0760	● 0760		● 0299		● 0760
7.7	75	117	● 0770	● 0770	● 0770	● 0770	● 0770		● 0303		● 0770
7.75	75	117				● 0775			● 0305		
7.8	75	117	● 0780	● 0780	● 0780	● 0780	● 0780		● 0307		● 0780
7.9	75	117	● 0790	● 0790	● 0790	● 0790	● 0790		● 0311		● 0790
5/16	3.3/16	4.1/2						● 0200		● 0312	
8.0	75	117	● 0800	● 0800	● 0800	● 0800	● 0800		● 0315		● 0800
8.1	75	117	● 0810	● 0810	● 0810	● 0810	● 0810		● 0319		● 0810
8.2	75	117	● 0820	● 0820	● 0820	● 0820	● 0820		● 0322		● 0820
8.3	75	117	● 0830	● 0830	● 0830	● 0830	● 0830		● 0327		● 0830
21/64	3.5/16	4.5/8						● 0210		● 0328	
8.4	75	117	● 0840	● 0840	● 0840	● 0840	● 0840		● 0331		● 0840
8.5	75	117	● 0850	● 0850	● 0850	● 0850	● 0850		● 0335		● 0850



Brand	EUROPA	GOLDEX	GOLDEX	-	GOLDEX	GOLDEX	TWO TONE	TWO TONE	-
Material	Carbide	HSS-E	HSS-E	HSSCo8	HSS	HSS	HSS	HSS	HSS
Standard	DIN338	DIN338	DIN338	DIN338	DIN338	BS328	DIN338	BS328	DIN338
Helix Angle	33°	33°	38°	33°	30°	30°	33°	33°	20-30°
Point Angle	118°	135°	135°	135°	118°	118°	135°	135°	118°
Point Geometry	Standard	Split point ≥ Ø1.6	Split point ≥ Ø1.6	Split point ≥ Ø1.6	Split point ≥ Ø1.6	Standard	Split point ≤ Ø13.0	Split point ≤ Ø1/2	Standard
Finish	Bright	Bright TiN Tipped	Bright TiN Tipped	Straw	Bright TiN Tipped	Bright TiN Tipped	Two Tone 5.1 - 13.0	Two Tone 13/64 - 1/2	Black Bright <2.5
Tool Type									

Ordering Example:  
Goldex HSS 6.0mm  
**8105040600**

Dia	Flute Length	O/all Length	801303	810505	811505	820702	810504	820504	0001	0000	820801
8.6	81	125	● 0860	● 0860	● 0860	● 0860	● 0860		● 0338		● 0860
8.7	81	125	● 0870	● 0870	● 0870	● 0870	● 0870		● 0342		● 0870
11/32	3.7/16	4.3/4						● 0220		● 0343	
8.8	81	125	● 0880	● 0880	● 0880	● 0880	● 0880		● 0346		● 0880
8.9	81	125	● 0890	● 0890	● 0890	● 0890	● 0890		● 0350		● 0890
9.0	81	125	● 0900	● 0900	● 0900	● 0900	● 0900		● 0354		● 0900
9.1	81	125	● 0910	● 0910	● 0910	● 0910	● 0910		● 0358		● 0910
23/64	3.1/2	4.7/8						● 0230		● 0359	
9.2	81	125	● 0920	● 0920	● 0920	● 0920	● 0920		● 0362		● 0920
9.25	81	125				● 0925					
9.3	81	125	● 0930	● 0930	● 0930	● 0930	● 0930		● 0366		● 0930
9.4	81	125	● 0940	● 0940	● 0940	● 0940	● 0940		● 0370		● 0940
9.5	81	125	● 0950	● 0950	● 0950	● 0950	● 0950		● 0373		● 0950
3/8	3.5/8	5						● 0240		● 0375	
9.6	87	133	● 0960	● 0960	● 0960	● 0960	● 0960		● 0378		● 0960
9.7	87	133	● 0970	● 0970	● 0970	● 0970	● 0970		● 0382		● 0970
9.75	87	133				● 0975					
9.8	87	133	● 0980	● 0980	● 0980	● 0980	● 0980		● 0386		● 0980
9.9	87	133	● 0990	● 0990	● 0990	● 0990	● 0990		● 0389		● 0990
25/64	3.3/4	5.1/8						● 0250		● 0390	
10.0	87	133	● 1000	● 1000	● 1000	● 1000	● 1000		● 0394		● 1000
10.1	87	133	● 1010	● 1010	● 1010	● 1010	● 1010		● 0398		● 1010
10.2	87	133	● 1020	● 1020	● 1020	● 1020	● 1020		● 0402		● 1020
10.25	87	133							● 0403		
10.3	87	133		● 1030	● 1030	● 1030	● 1030		● 0405		● 1030
13/32	3.7/8	5.1/4						● 0260		● 0406	
10.4	87	133		● 1040	● 1040	● 1040	● 1040		● 0409		● 1040
10.5	87	133	● 1050	● 1050	● 1050	● 1050	● 1050		● 0414		● 1050
10.6	87	133		● 1060	● 1060	● 1060	● 1060		● 0417		● 1060
10.7	94	142		● 1070	● 1070	● 1070	● 1070		● 0421		● 1070
27/64	3.15/16	5.3/8						● 0270		● 0422	
10.75	94	142							● 0424		
10.8	94	142		● 1080	● 1080	● 1080	● 1080		● 0425		● 1080
10.9	94	142		● 1090	● 1090	● 1090	● 1090		● 0429		● 1090

Brand	EUROPA	GOLDEX	GOLDEX	-	GOLDEX	GOLDEX	TWO TONE	TWO TONE	-
Material	Carbide	HSS-E	HSS-E	HSSCo8	HSS	HSS	HSS	HSS	HSS
Standard	DIN338	DIN338	DIN338	DIN338	DIN338	BS328	DIN338	BS328	DIN338
Helix Angle	33°	33°	38°	33°	30°	30°	33°	33°	20-30°
Point Angle	118°	135°	135°	135°	118°	118°	135°	135°	118°
Point Geometry	Standard	Split point ≥ Ø1.6	Split point ≥ Ø1.6	Split point ≥ Ø1.6	Split point ≥ Ø1.6	Standard	Split point ≤ Ø13.0	Split point ≤ Ø1/2	Standard
Finish	Bright	Bright TiN Tipped	Bright TiN Tipped	Straw	Bright TiN Tipped	Bright TiN Tipped	Two Tone 5.1 - 13.0	Two Tone 13/64 - 1/2	Black Bright <2.5
Tool Type									

Ordering Example:  
Goldex HSS 6.0mm  
**8105040600**

Dia	Flute Length	O/all Length	801303	810505	811505	820702	810504	820504	0001	0000	820801
11.0	94	142	● 1100	● 1100	● 1100	● 1100	● 1100		● 0433		● 1100
11.1	94	142		● 1110	● 1110	● 1110	● 1110		● 0437		● 1110
7/16	4.1/16	5.1/2						● 0280		● 0468	
11.2	94	142		● 1120	● 1120	● 1120	● 1120		● 0441		● 1120
11.25	94	142							● 0443		
11.3	94	142		● 1130	● 1130	● 1130	● 1130		● 0445		● 1130
11.4	94	142		● 1140	● 1140	● 1140	● 1140		● 0449		● 1140
11.5	94	142	● 1150	● 1150	● 1150	● 1150	● 1150		● 0452		● 1150
29/64	4.3/16	5.5/8						● 0290		● 0453	
11.6	94	142		● 1160	● 1160	● 1160	● 1160		● 0457		● 1160
11.7	94	142		● 1170	● 1170	● 1170	● 1170		● 0461		● 1170
11.75	94	142									
11.8	94	142		● 1180	● 1180	● 1180	● 1180		● 0465		● 1180
11.9	101	151		● 1190	● 1190	● 1190	● 1190		● 0468		● 1190
15/32	4.5/16	5.3/4						● 0300		● 0469	
12.0	101	151	● 1200	● 1200	● 1200	● 1200	● 1200		● 0472		● 1200
12.1	101	151		● 1210	● 1210	● 1210	● 1210		● 0476		● 1210
12.2	101	151		● 1220	● 1220	● 1220	● 1220		● 0480		● 1220
12.25	101	151									
12.3	101	151		● 1230	● 1230	● 1230	● 1230		● 0483		● 1230
31/64	4.3/8	5.7/8						● 0310		● 0484	
12.4	101	151		● 1240	● 1240	● 1240	● 1240		● 0488		● 1240
12.5	101	151	● 1250	● 1250	● 1250	● 1250	● 1250		● 0492		● 1250
12.6	101	151		● 1260	● 1260	● 1260	● 1260		● 0496		● 1260
12.7	101	151		● 1270	● 1270	● 1270	● 1270		● 0499		● 1270
1/2	4.1/2	6						● 0320		● 0500	
12.8	101	151		● 1280	● 1280	● 1280	● 1280		● 0504		● 1280
12.9	101	151		● 1290	● 1290	● 1290	● 1290		● 0508		● 1290
13.0	101	151	● 1300	● 1300	● 1300	● 1300	● 1300		● 0512		● 1300
13.1	101	151							● 0516		
13.2	101	151							● 0520		
13.25	108	160									● 1325
13.3	108	160							● 0524		
13.4	108	160							● 0528		

Brand	EUROPA	GOLDEX	GOLDEX	-	GOLDEX	GOLDEX	TWO TONE	TWO TONE	-
Material	Carbide	HSS-E	HSS-E	HSSCo8	HSS	HSS	HSS	HSS	HSS
Standard	DIN338	DIN338	DIN338	DIN338	DIN338	BS328	DIN338	BS328	DIN338
Helix Angle	33°	33°	38°	33°	30°	30°	33°	33°	20-30°
Point Angle	118°	135°	135°	135°	118°	118°	135°	135°	118°
Point Geometry	Standard	Split point ≥ Ø1.6	Split point ≥ Ø1.6	Split point ≥ Ø1.6	Split point ≥ Ø1.6	Standard	Split point ≤ Ø13.0	Split point ≤ Ø1/2	Standard
Finish	Bright	Bright TiN Tipped	Bright TiN Tipped	Straw	Bright TiN Tipped	Bright TiN Tipped	Two Tone 5.1 - 13.0	Two Tone 13/64 - 1/2	Black Bright <2.5
Tool Type									

Ordering Example:  
 Goldex HSS 6.0mm  
**8105040600**

Dia	Flute Length	O/all Length	801303	810505	811505	820702	810504	820504	0001	0000	820801
13.5	108	160				● 1350			● 0532		● 1350
13.6	108	160							● 0535		
13.7	108	160							● 0539		● 1370
13.75	108	160									● 1375
13.8	108	160							● 0543		
14.0	108	160				● 1400			● 0551		● 1400
14.25	114	169									● 1425
9/16	4.9/16	6.3/4								● 0562	
14.5	114	169				● 1450			● 0571		● 1450
14.75	114	169									● 1475
15.0	114	169				● 1500			● 0591		● 1500
15.25	120	178									● 1525
15.5	120	178				● 1550			● 0610		● 1550
15.75	120	178									● 1575
16.0	120	178				● 1600			● 0630		● 1600
16.25	125	184									● 1625
16.5	125	184				● 1650			● 0650		● 1650
16.75	125	184									● 1675
17.0	125	184				● 1700			● 0669		● 1700
17.25	130	191									● 1725
17.5	130	191				● 1750			● 0689		● 1750
17.75	130	191									● 1775
18.0	130	191				● 1800			● 0709		● 1800
18.25	135	198									● 1825
18.5	135	198				● 1850			● 0728		● 1850
18.75	135	198									● 1875
19.0	135	198				● 1900			● 0748		● 1900
19.25	140	205									● 1925
19.5	140	205				● 1950			● 0768		● 1950
19.75	140	205									● 1975
20.0	140	205				● 2000			● 0787		● 2000

Brand	EUROPA	-	GOLDEX	GOLDEX	-	EUROPA	-
Material	Carbide	HSSCo8	HSS	HSS	HSS	Carbide	HSS-E
Standard	DIN338	DIN1897	DIN1897	BS328	DIN1897	-	-
Helix Angle	33°	33°	30°	30°	20-30°	-	-
Point Angle	118°	135°	135°	135°	118°	90°/120°	90°/120°
Point Geometry	Standard	Split point ≥ Ø1.6	Split point ≥ Ø1.6	Standard	Standard	Split point	Split point
Finish	Bright	Straw	Bright TiN Tipped	Bright TiN Tipped	Black Bright <2.5	Bright	Bright
Tool Type							

Ordering Example:  
 Goldex HSS 6.0mm  
**8206040600**

Dia	Flute Length	O/all Length	800303	820502	820604	820404	820601	90° - 806303 120° - 806403	90° - 821402 120° - 822402
1.0	6	26	● 0100	● 0100	● 0100		● 0100		
1.1	7	28	● 0110	● 0110	● 0110		● 0110		
3/64	13	35				● 0030			
1.2	8	30	● 0120	● 0120	● 0120		● 0120		
1.3	8	30	● 0130	● 0130	● 0130		● 0130		
1.4	9	32	● 0140	● 0140	● 0140		● 0140		
1.5	9	32	● 0150	● 0150	● 0150		● 0150		
1/16	16	41				● 0040			
1.6	10	34	● 0160	● 0160	● 0160		● 0160		
1.7	10	34	● 0170	● 0170	● 0170		● 0170		
1.8	11	36	● 0180	● 0180	● 0180		● 0180		
1.9	11	36	● 0190	● 0190	● 0190		● 0190		
5/64	17	43				● 0050			
2.0	6	32						● 0200	
2.0	12	38	● 0200	● 0200	● 0200		● 0200		
2.1	12	38	● 0210	● 0210	● 0210		● 0210		
2.2	13	40	● 0220	● 0220	● 0220		● 0220		
2.3	13	40	● 0230	● 0230	● 0230		● 0230		
3/32	20	45				● 0060			
2.4	14	43	● 0240	● 0240	● 0240		● 0240		
2.5	14	43	● 0250	● 0250	● 0250		● 0250		
2.6	14	43	● 0260	● 0260	● 0260		● 0260		
2.7	16	46	● 0270	● 0270	● 0270		● 0270		
7/64	22	47				● 0070			
2.8	16	46	● 0280	● 0280	● 0280		● 0280		
2.9	16	46	● 0290	● 0290	● 0290		● 0290		
3.0	8	32						● 0300	
3.0	12	46							● 0300
3.0	16	46	● 0300	● 0300	● 0300		● 0300		
3.1	18	49	● 0310	● 0310	● 0310		● 0310		
1/8	23	49				● 0080			
3.2	18	49	● 0320	● 0320	● 0320		● 0320		
3.3	18	49	● 0330	● 0330	● 0330		● 0330		
3.4	20	52	● 0340	● 0340	● 0340		● 0340		

Brand	EUROPA	-	GOLDEX	GOLDEX	-	EUROPA	-
Material	Carbide	HSSCo8	HSS	HSS	HSS	Carbide	HSS-E
Standard	DIN338	DIN1897	DIN1897	BS328	DIN1897	-	-
Helix Angle	33°	33°	30°	30°	20-30°	-	-
Point Angle	118°	135°	135°	135°	118°	90°/120°	90°/120°
Point Geometry	Standard	Split point ≥ Ø1.6	Split point ≥ Ø1.6	Standard	Standard	Split point	Split point
Finish	Bright	Straw	Bright TiN Tipped	Bright TiN Tipped	Black Bright <2.5	Bright	Bright
Tool Type							

Ordering Example:  
Goldex HSS 6.0mm  
**8206040600**

Dia	Flute Length	O/all Length	800303	820502	820604	820404	820601	90° - 806303 120° - 806403	90° - 821402 120° - 822402
3.5	20	52	● 0350	● 0350	● 0350		● 0350		
9/64	25	50				● 0090			
3.6	20	52	● 0360	● 0360	● 0360		● 0360		
3.7	20	52	● 0370	● 0370	● 0370		● 0370		
3.8	22	55	● 0380	● 0380	● 0380		● 0380		
3.9	22	55	● 0390	● 0390	● 0390		● 0390		
5/32	26	53				● 0100			
4.0	10	40					● 0400		
4.0	12	55						● 0400	
4.0	22	55	● 0400	● 0400	● 0400		● 0400		
4.1	22	55	● 0410	● 0410	● 0410		● 0410		
4.2	22	55	● 0420	● 0420	● 0420		● 0420		
4.3	24	58	● 0430	● 0430	● 0430		● 0430		
11/64	28	55				● 0110			
4.4	24	58	● 0440	● 0440	● 0440		● 0440		
4.5	24	58	● 0450	● 0450	● 0450		● 0450		
4.6	24	58	● 0460	● 0460	● 0460		● 0460		
4.7	24	58	● 0470	● 0470	● 0470		● 0470		
3/16	30	57				● 0120			
4.8	26	62	● 0480	● 0480	● 0480		● 0480		
4.9	26	62	● 0490	● 0490	● 0490		● 0490		
5.0	15	60							● 0500
5.0	26	62	● 0500	● 0500	● 0500		● 0500		
5.1	26	62	● 0510	● 0510	● 0510		● 0510		
13/64	31	58				● 0130			
5.2	26	62	● 0520	● 0520	● 0520		● 0520		
5.3	26	62	● 0530	● 0530	● 0530		● 0530		
5.4	28	66	● 0540	● 0540	● 0540		● 0540		
5.5	28	66	● 0550	● 0550	● 0550		● 0550		
7/32	33	61				● 0140			
5.6	28	66	● 0560	● 0560	● 0560		● 0560		
5.7	28	66	● 0570	● 0570	● 0570		● 0570		
5.8	28	66	● 0580	● 0580	● 0580		● 0580		
5.9	28	66	● 0590	● 0590	● 0590		● 0590		

Brand	EUROPA	-	GOLDEX	GOLDEX	-	EUROPA	-
Material	Carbide	HSSCo8	HSS	HSS	HSS	Carbide	HSS-E
Standard	DIN338	DIN1897	DIN1897	BS328	DIN1897	-	-
Helix Angle	33°	33°	30°	30°	20-30°	-	-
Point Angle	118°	135°	135°	135°	118°	90°/120°	90°/120°
Point Geometry	Standard	Split point ≥ Ø1.6	Split point ≥ Ø1.6	Standard	Standard	Split point	Split point
Finish	Bright	Straw	Bright TiN Tipped	Bright TiN Tipped	Black Bright <2.5	Bright	Bright
Tool Type							

Ordering Example:  
Goldex HSS 6.0mm  
**8206040600**

Dia	Flute Length	O/all Length	800303	820502	820604	820404	820601	90° - 806303 120° - 806403	90° - 821402 120° - 822402
15/64	34	63				● 0150			
6.0	13	50					● 0600		
6.0	20	66							● 0600
6.0	28	66	● 0600	● 0600	● 0600		● 0600		
6.1	31	70	● 0610	● 0610	● 0610		● 0610		
6.2	31	70	● 0620	● 0620	● 0620		● 0620		
6.3	31	70	● 0630	● 0630	● 0630		● 0630		
1/4	36	65				● 0250			
6.4	31	70	● 0640	● 0640	● 0640		● 0640		
6.5	31	70	● 0650	● 0650	● 0650		● 0650		
6.6	31	70	● 0660	● 0660	● 0660		● 0660		
6.7	31	70	● 0670	● 0670	● 0670		● 0670		
6.8	34	74	● 0680	● 0680	● 0680		● 0680		
6.9	34	74	● 0690	● 0690	● 0690		● 0690		
7.0	34	74	● 0700	● 0700	● 0700		● 0700		
7.1	34	74	● 0710	● 0710	● 0710		● 0710		
9/32	40	70				● 0180			
7.2	34	74	● 0720	● 0720	● 0720		● 0720		
7.3	34	74	● 0730	● 0730	● 0730		● 0730		
7.4	34	74	● 0740	● 0740	● 0740		● 0740		
7.5	34	74	● 0750	● 0750	● 0750		● 0750		
7.6	37	79	● 0760	● 0760	● 0760		● 0760		
7.7	37	79	● 0770	● 0770	● 0770		● 0770		
7.8	37	79	● 0780	● 0780	● 0780		● 0780		
7.9	37	79	● 0790	● 0790	● 0790		● 0790		
5/16	43	73				● 0200			
8.0	23	60					● 0800		
8.0	25	79							● 0800
8.0	37	79	● 0800	● 0800	● 0800		● 0800		
8.1	37	79	● 0810	● 0810	● 0810		● 0810		
8.2	37	79	● 0820	● 0820	● 0820		● 0820		
8.3	37	79	● 0830	● 0830	● 0830		● 0830		
8.4	37	79	● 0840	● 0840	● 0840		● 0840		
8.5	37	84	● 0850	● 0850	● 0850		● 0850		

Brand	EUROPA	-	GOLDEX	GOLDEX	-	EUROPA	-
Material	Carbide	HSSCo8	HSS	HSS	HSS	Carbide	HSS-E
Standard	DIN338	DIN1897	DIN1897	BS328	DIN1897	-	-
Helix Angle	33°	33°	30°	30°	20-30°	-	-
Point Angle	118°	135°	135°	135°	118°	90°/120°	90°/120°
Point Geometry	Standard	Split point ≥ Ø1.6	Split point ≥ Ø1.6	Standard	Standard	Split point	Split point
Finish	Bright	Straw	Bright TiN Tipped	Bright TiN Tipped	Black Bright <2.5	Bright	Bright
Tool Type							

Ordering Example:  
 Goldex HSS 6.0mm  
**8206040600**

Dia	Flute Length	O/all Length	800303	820502	820604	820404	820601	90° - 806303 120° - 806403	90° - 821402 120° - 822402
8.6	40	84	● 0860	● 0860	● 0860		● 0860		
8.7	40	84	● 0870	● 0870	● 0870		● 0870		
11/32	45	78				● 0220			
8.8	40	84	● 0880	● 0880	● 0880		● 0880		
8.9	40	84	● 0890	● 0890	● 0890		● 0890		
9.0	40	84	● 0900	● 0900	● 0900		● 0900		
9.1	40	84	● 0910	● 0910	● 0910		● 0910		
9.2	40	84	● 0920	● 0920	● 0920		● 0920		
9.3	40	84	● 0930	● 0930	● 0930		● 0930		
9.4	40	84	● 0940	● 0940	● 0940		● 0940		
9.5	40	84	● 0950	● 0950	● 0950		● 0950		
3/8	48	81				● 0240			
9.6	43	89	● 0960	● 0960	● 0960		● 0960		
9.7	43	89	● 0970	● 0970	● 0970		● 0970		
9.8	43	89	● 0980	● 0980	● 0980		● 0980		
9.9	43	89	● 0990	● 0990	● 0990		● 0990		
10.0	24	70						● 1000	
10.0	25	89							● 1000
10.0	43	89	● 1000	● 1000	● 1000		● 1000		
10.1	43	89			● 1010		● 1010		
10.2	43	89	● 1020	● 1020	● 1020				
10.3	43	89			● 1030				
13/32	51	86				● 0260			
10.4	43	89			● 1040				
10.5	43	89	● 1050	● 1050	● 1050		● 1050		
10.6	43	89			● 1060				
10.7	47	95			● 1070				
10.8	47	95			● 1080				
10.9	47	95			● 1090				
11.0	47	95	● 1100	● 1100	● 1100		● 1100		
11.1	47	95			● 1110				
7/16	54	89				● 0280			
11.2	47	95			● 1120				
11.3	47	95			● 1130				

Brand	EUROPA	-	GOLDEX	GOLDEX	-	EUROPA	-
Material	Carbide	HSSCo8	HSS	HSS	HSS	Carbide	HSS-E
Standard	DIN338	DIN1897	DIN1897	BS328	DIN1897	-	-
Helix Angle	33°	33°	30°	30°	20-30°	-	-
Point Angle	118°	135°	135°	135°	118°	90°/120°	90°/120°
Point Geometry	Standard	Split point ≥ Ø1.6	Split point ≥ Ø1.6	Standard	Standard	Split point	Split point
Finish	Bright	Straw	Bright TiN Tipped	Bright TiN Tipped	Black Bright <2.5	Bright	Bright
Tool Type							

Ordering Example:  
 Goldex HSS 6.0mm  
**8206040600**

Dia	Flute Length	O/all Length	800303	820502	820604	820404	820601	90° - 806303 120° - 806403	90° - 821402 120° - 822402
11.5	47	95	● 1150	● 1150	● 1150		● 1150		
11.6	47	95			● 1160				
11.7	47	95			● 1170				
11.8	47	95		● 1180	● 1180				
11.9	51	102			● 1190				
12.0	24	70					● 1200		
12.0	30	102						● 1200	
12.0	51	102	● 1200	● 1200	● 1200		● 1200		
12.1	51	102			● 1210				
12.2	51	102			● 1220				
12.5	51	102	● 1250	● 1250	● 1250				
1/2	60	98				● 0320			
13.0	51	102	● 1300	● 1300	● 1300		● 1300		
13.5	54	107		● 1350					
14.0	54	107		● 1400					
14.5	56	111		● 1450					
15.0	56	111		● 1500					
15.5	58	115		● 1550					
16.0	29	75					● 1600		
16.0	35	115						● 1600	
16.0	58	115		● 1600					
16.5	60	119		● 1650					
17.0	60	119		● 1700					
17.5	62	123		● 1750					
18.0	62	123		● 1800					
18.5	64	127		● 1850					
19.0	64	127		● 1900					
19.5	66	131		● 1950					
20.0	35	100					● 2000		
20.0	40	131						● 2000	
20.0	66	131		● 2000					



Material	HSSCo8	HSS	HSS	HSS
Standard	DIN340	DIN340	DIN345	Osborn Std.
Helix Angle	33°	20-30°	20-30°	20-30°
Point Angle	135°	118°	118°	118°
Point Geometry	Standard	Standard	Standard	Standard
Finish	Straw	Black	Black	Black
Tool Type				

Ordering Example:  
HSSCo8 6.0mm  
**8209020600**

Dia	Flute Length	O/all Length	Shank Size	820902	820901	821601	821901
1.5	45	70			● 0150		
2.0	56	85		● 0200	● 0200		
2.1	56	85		● 0210	● 0210		
2.2	59	90		● 0220			
2.3	59	90		● 0230			
2.4	62	95		● 0240	● 0240		
2.5	62	95		● 0250	● 0250		
2.6	62	95		● 0260			
2.7	66	100		● 0270	● 0270		
2.8	66	100		● 0280	● 0280		
2.9	66	100		● 0290			
3.0	66	100		● 0300	● 0300		
3.1	69	106		● 0310			
3.2	69	106		● 0320	● 0320		
3.3	69	106		● 0330	● 0330		
3.4	73	112		● 0340			
3.5	73	112		● 0350	● 0350		
3.6	73	112		● 0360			
3.7	73	112		● 0370	● 0370		
3.8	78	119		● 0380	● 0380		
3.9	78	119		● 0390	● 0390		
4.0	78	119		● 0400	● 0400		
4.1	78	119		● 0410	● 0410		
4.2	78	119		● 0420	● 0420		
4.3	82	126		● 0430	● 0430		
4.4	82	126		● 0440	● 0440		
4.5	82	126		● 0450	● 0450		
4.6	82	126		● 0460	● 0460		
4.7	82	126		● 0470	● 0470		
4.8	87	132		● 0480	● 0480		
4.9	87	132		● 0490	● 0490		
5.0	87	132		● 0500	● 0500		

Material	HSSCo8	HSS	HSS	HSS
Standard	DIN340	DIN340	DIN345	Osborn Std.
Helix Angle	33°	20-30°	20-30°	20-30°
Point Angle	135°	118°	118°	118°
Point Geometry	Standard	Standard	Standard	Standard
Finish	Straw	Black	Black	Black
Tool Type				

Ordering Example:  
HSSCo8 6.0mm  
8209020600

Dia	Flute Length	O/all Length	Shank Size	820902	820901	821601	821901
5.1	87	132		● 0510			
5.2	87	132		● 0520	● 0520		
5.3	87	139		● 0530			
5.4	91	139		● 0540	● 0540		
5.5	91	139		● 0550	● 0550		
5.6	91	139		● 0560			
5.7	91	139		● 0570	● 0570		
5.8	91	139		● 0580			
5.9	91	139		● 0590	● 0590		
6.0	91	139		● 0600	● 0600		
6.1	97	148		● 0610			
6.2	97	148		● 0620			
6.3	97	148		● 0630			
6.4	97	148		● 0640	● 0640		
6.5	97	148		● 0650	● 0650		
6.6	97	148		● 0660			
6.7	97	148		● 0670	● 0670		
6.8	102	156		● 0680	● 0680		
6.9	102	156		● 0690			
7.0	102	156		● 0700	● 0700		
7.1	102	156		● 0710			
7.2	102	156		● 0720			
7.3	102	156		● 0730			
7.4	102	156		● 0740			
7.5	102	156		● 0750	● 0750		
7.6	109	165		● 0760			
7.7	109	165		● 0770	● 0770		
7.8	109	165		● 0780			
7.9	109	165		● 0790	● 0790		
8.0	109	165		● 0800	● 0800		
8.1	109	165		● 0810	● 0810		
8.2	109	165		● 0820			

Material	HSSCo8	HSS	HSS	HSS
Standard	DIN340	DIN340	DIN345	Osborn Std.
Helix Angle	33°	20-30°	20-30°	20-30°
Point Angle	135°	118°	118°	118°
Point Geometry	Standard	Standard	Standard	Standard
Finish	Straw	Black	Black	Black
Tool Type				

Ordering Example:  
HSSCo8 6.0mm  
8209020600

Dia	Flute Length	O/all Length	Shank Size	820902	820901	821601	821901
8.3	109	165		● 0830			
8.4	109	165		● 0840			
8.5	109	165		● 0850	● 0850		
8.6	115	175		● 0860			
8.7	115	175		● 0870	● 0870		
8.8	115	175		● 0880			
8.9	115	175		● 0890			
9.0	115	175		● 0900	● 0900		
9.1	115	175		● 0910			
9.2	115	175		● 0920			
9.3	115	175		● 0930	● 0930		
9.4	115	175		● 0940			
9.5	115	175		● 0950			
9.6	121	184		● 0960			
9.7	121	184		● 0970			
9.8	121	184		● 0980			
9.9	121	184		● 0990			
10.0	121	184		● 1000	● 1000		
10.0	87	168	MT1			● 1000	
10.2	121	184		● 1020			
10.5	121	184		● 1050	● 1050		
10.8	128	195		● 1080			
11.0	128	195		● 1100	● 1100		
11.2	128	195		● 1120			
11.5	128	195		● 1150			
11.8	128	195		● 1180			
12.0	134	205		● 1200	● 1200		
12.0	101	182	MT1			● 1200	
12.5	134	205		● 1250	● 1250		
13.0	134	205			● 1300		
13.0	101	182	MT1			● 1300	
13.0	75	150	1/2"				● 1300

Material	HSSCo8	HSS	HSS	HSS
Standard	DIN340	DIN340	DIN345	Osborn Std.
Helix Angle	33°	20-30°	20-30°	20-30°
Point Angle	135°	118°	118°	118°
Point Geometry	Standard	Standard	Standard	Standard
Finish	Straw	Black	Black	Black
Tool Type				

Ordering Example:  
HSSCo8 6.0mm  
**8209020600**

Dia	Flute Length	O/all Length	Shank Size	820902	820901	821601	821901
13.5	108	189	1/2"				● 1350
14.0	140	214					
14.0	108	189	MT1			● 1400	
14.0	75	150	1/2"				● 1400
14.5	114	212	MT2			● 1450	
14.5	75	150	1/2"				● 1450
15.0	114	212	MT2			● 1500	
15.0	75	150	1/2"				● 1500
15.5	120	218	MT2			● 1550	
15.5	75	150	1/2"				● 1550
16.0	120	218	MT2			● 1600	
16.0	75	150	1/2"				● 1600
16.5	125	223	MT2			● 1650	
16.5	75	150	1/2"				● 1650
17.0	125	223	MT2			● 1700	
17.0	75	150	1/2"				● 1700
17.5	130	228	MT2			● 1750	
17.5	75	150	1/2"				● 1750
18.0	130	228	MT2			● 1800	
18.0	75	150	1/2"				● 1800
18.5	135	233	MT2			● 1850	
18.5	75	150	1/2"				● 1850
19.0	135	233	MT2			● 1900	
19.0	75	150	1/2"				● 1900
19.5	140	238	MT2			● 1950	
19.5	75	150	1/2"				● 1950
20.0	140	238	MT2			● 2000	
20.0	75	150	1/2"				● 2000
20.5	145	243	MT2			● 2050	
21.0	145	243	MT2			● 2100	
21.0	75	150	1/2"				● 2100
21.5	150	248	MT2			● 2150	

Material	HSSCo8	HSS	HSS	HSS
Standard	DIN340	DIN340	DIN345	Osborn Std.
Helix Angle	33°	20-30°	20-30°	20-30°
Point Angle	135°	118°	118°	118°
Point Geometry	Standard	Standard	Standard	Standard
Finish	Straw	Black	Black	Black
Tool Type				

Ordering Example:  
HSSCo8 6.0mm  
**8209020600**

Dia	Flute Length	O/all Length	Shank Size	820902	820901	821601	821901
22.0	150	248	MT2			● 2200	
22.0	75	150	1/2"				● 2200
22.5	155	253	MT2			● 2250	
23.0	155	253	MT2			● 2300	
23.0	75	150	1/2"				● 2300
23.5	155	253	MT3			● 2350	
24.0	160	281	MT3			● 2400	
24.0	75	150	1/2"				● 2400
24.5	160	281	MT3			● 2450	
25.0	160	281	MT3			● 2500	
25.0	75	150	1/2"				● 2500
25.5	165	286	MT3			● 2550	
26.0	165	286	MT3			● 2600	
26.5	165	286	MT3			● 2650	
27.0	170	291	MT3			● 2700	
28.0	170	291	MT3			● 2800	
29.0	175	296	MT3			● 2900	
30.0	175	296	MT3			● 3000	
31.0	180	301	MT3			● 3100	
32.0	185	334	MT4			● 3200	
33.0	185	334	MT4			● 3300	
34.0	190	339	MT4			● 3400	
35.0	190	339	MT4			● 3500	
36.0	195	344	MT4			● 3600	
37.0	195	344	MT4			● 3700	
38.0	200	349	MT4			● 3800	
39.0	200	349	MT4			● 3900	
40.0	200	349	MT4			● 4000	
41.0	205	354	MT4			● 4100	
42.0	205	354	MT4			● 4200	
43.0	210	359	MT4			● 4300	
44.0	210	359	MT4			● 4400	

Material	HSSCo8	HSS	HSS	HSS
Standard	DIN340	DIN340	DIN345	Osborn Std.
Helix Angle	33°	20-30°	20-30°	20-30°
Point Angle	135°	118°	118°	118°
Point Geometry	Standard	Standard	Standard	Standard
Finish	Straw	Black	Black	Black
Tool Type				

Ordering Example:  
HSSCo8 6.0mm  
**8209020600**

Dia	Flute Length	O/all Length	Shank Size	820902	820901	821601	821901
45.0	210	359	MT4			● 4500	
46.0	215	364	MT4			● 4600	
47.0	215	364	MT4			● 4700	
48.0	220	369	MT4			● 4800	
49.0	220	369	MT4			● 4900	
50.0	220	369	MT4			● 5000	
51.0	225	412	MT5			● 5100	
52.0	225	412	MT5			● 5200	
53.0	225	412	MT5			● 5300	
54.0	230	417	MT5			● 5400	
55.0	230	417	MT5			● 5500	
56.0	230	417	MT5			● 5600	
57.0	235	422	MT5			● 5700	
58.0	235	422	MT5			● 5800	
59.0	235	422	MT5			● 5900	
60.0	235	422	MT5			● 6000	

Material	HSS-EX	HSS	HSSCo	HSS	HSSCo
Standard	DIN333	BS328	DIN335C	DIN335C	Osborn Std.
No. of Flutes	2	2	3	3	0
Point Angle	120°	118°	90°	90°	90°
Point Geometry	Standard	Standard	Standard	Standard	Standard
Finish	Bright	Bright	Bright/TiN	Bright/TiN	Bright
Tool Type					

Ordering Example:  
HSS-EX Ctr. Drill 1.0mm  
**8103340100**

Min/Pilot Dia	Max/Body Dia	O/all Length	Shank Dia. or BS No.	810334	888301	Bright - 702302 TiN - 702305	Bright - 702301 TiN - 702304	702402
0.5	3.15	25		● 0050				
0.8	3.15	25		● 0080				
1.0	3.15	31.5		● 0100				
3/64	1/8	1.1/2	BS1		● 0010			
1.25	3.15	31.5		● 0125				
1.3	4.3	40	4			● 0430	● 0430	
1.5	5.0	40	4			● 0500	● 0500	
1.5	6.0	45	5			● 0600	● 0600	
1.5	6.3	45	5			● 0630	● 0630	
1/16	3/16	1.3/4	BS2		● 0020			
1.6	4.0	35.5		● 0160				
1.8	7.0	50	6			● 0700	● 0700	
2.0	5.0	40		● 0200				
2.0	5.0	45	6					● 1000
2.0	8.0	50	6			● 0800	● 0800	
2.0	8.3	50	6			● 0830	● 0830	
3/32	1/4	2"	BS3		● 0030			
2.5	6.3	45		● 0250				
2.5	10.0	50	6			● 1000	● 1000	
2.5	10.4	50	6			● 1040	● 1040	
2.8	11.5	56	8			● 1150	● 1150	
2.8	12.4	56	8			● 1240	● 1240	
3.15	8.0	50		● 0315				
1/8	5/16	2.1/4	BS4		● 0040			
3.2	15.0	60	10			● 1500	● 1500	
3.2	16.5	60	10			● 1650	● 1650	
3.5	19.0	63	10			● 1900	● 1900	
3.5	20.5	63	10			● 2050	● 2050	
3.8	23.0	67	10			● 2300	● 2300	
3.8	25.0	67	10			● 2500	● 2500	
4.0	10.0	56		● 0400				

Material	HSS-EX	HSS	HSSCo	HSS	HSSCo
Standard	DIN333	BS328	DIN335C	DIN335C	Osborn Std.
No. of Flutes	2	2	3	3	0
Point Angle	120°	118°	90°	90°	90°
Point Geometry	Standard	Standard	Standard	Standard	Standard
Finish	Bright	Bright	Bright/TiN	Bright/TiN	Bright
Tool Type					

Ordering Example:  
HSS-EX Ctr. Drill 1.0mm  
**8103340100**

Min/Pilot Dia	Max/Body Dia	O/all Length	Shank Dia. or BS No.	810334	888301	Bright - 702302 TiN - 702305	Bright - 702301 TiN - 702304	702402
4.2	30.0	71	12			● 3000	● 3000	
4.2	31.0	71	12			● 3100	● 3100	
3/16	7/16	2.1/2	BS5		● 0050			
5.0	12.5	63		● 0500				
6.0	14.0	55	8					● 1500
6.3	16.0	71		● 0630				
1/4	5/8	3"	BS6		● 0060			
5/16	3/4	3.1/2	BS7		● 0070			
8.0	18.0	65	10					● 2000
10.0	23.0	78	12					● 2500
12.0	28.0	88	12					● 3000
14.0	33.0	110	16					● 3500
16.0	38.0	115	16					● 4000
18.0	43.0	120	16					● 4500
20.0	48.0	130	16					● 5000



Threadform	METRIC COARSE				
Brand	-	PM150	PM150	Blue Wizard	Blue Merlin
Type	Hand	Spiral Point	Spiral Flute	Spiral Point	Spiral Flute
Material	HSS	HSS-E-PM	HSS-E-PM	HSS	HSS
Standard	ISO529	DIN371≤M10 DIN376≥M12	DIN371≤M10 DIN376≥M12	ISO529	ISO529
Tap Tolerance	6H	6H	6H	6H	6H
Finish	Bright	Bright	Bright	Steam Tempered	Steam Tempered
Tool Type					

Ordering Example:  
M6x1.0 Taper Tap  
F0110236

Size	Pitch	Square A/F	TAPER F011	SECOND F011	BOTTOM F011	SET(3) G011	PM15011	PM15012	F013	F015
M1.6	0.35	2.0	● 0063	● 0064	● 0065	● 0063			● 0066	
M2	0.40	2.0	● 0079	● 0080	● 0081	● 0079			● 0082	
M2	0.40	2.1					● 0200	● 0200		
M2.2	0.45	2.24	● 0087	● 0088	● 0089	● 0087				
M2.2	0.45	2.1					● 0220	● 0220		
M2.5	0.45	2.24	● 0098	● 0099	● 0100	● 0098			● 0101	
M2.5	0.45	2.1					● 0250	● 0250		
M3	0.5	2.5	● 0117	● 0118	● 0119	● 0117			● 0120	● 0121
M3	0.5	2.7					● 0300	● 0300		
M3.5	0.6	2.8	● 0137	● 0138	● 0139	● 0137			● 0140	● 0141
M3.5	0.6	3.0					● 0350	● 0350		
M4	0.7	3.15	● 0158	● 0159	● 0160	● 0158			● 0161	● 0161
M4	0.7	3.4					● 0400	● 0400		
M4.5	0.75	3.55	● 0177	● 0178	● 0179	● 0177			● 0180	
M4.5	0.75	4.9					● 0450	● 0450		
M5	0.8	4.0	● 0197	● 0198	● 0199	● 0197			● 0200	● 0200
M5	0.8	4.9					● 0500	● 0500		
M6	1.0	5.0	● 0236	● 0237	● 0238	● 0236			● 0239	● 0240
M6	1.0	4.9					● 0600	● 0600		
M7	1.0	5.6	● 0276	● 0277	● 0278	● 0276			● 0279	● 0280
M8	1.25	6.3	● 0315	● 0316	● 0317	● 0315			● 0318	● 0319
M8	1.25	6.2					● 0800	● 0800		
M9	1.25	7.1	● 0354	● 0355	● 0366	● 0354				
M10	1.5	8.0	● 0394	● 0395	● 0396	● 0394	● 1000	● 1000	● 0397	● 0398
M11	1.5	6.3	● 0433	● 0434	● 0435	● 0433				

Threadform	METRIC COARSE				
Brand	-	PM150	PM150	Blue Wizard	Blue Merlin
Type	Hand	Spiral Point	Spiral Flute	Spiral Point	Spiral Flute
Material	HSS	HSS-E-PM	HSS-E-PM	HSS	HSS
Standard	ISO529	DIN371≤M10 DIN376≥M12	DIN371≤M10 DIN376≥M12	ISO529	ISO529
Tap Tolerance	6H	6H	6H	6H	6H
Finish	Bright	Bright	Bright	Steam Tempered	Steam Tempered
Tool Type					

Ordering Example:  
M6x1.0 Taper Tap  
**F0110236**

Size	Pitch	Square A/F	TAPER F011	SECOND F011	BOTTOM F011	SET(3) G011	PM15011	PM15012	F013	F015
M12	1.75	7.1	● 0472	● 0473	● 0474	● 0472			● 0475	● 0476
M12	1.75	7.0					● 1200	● 1200		
M14	2.0	9.0	● 0551	● 0552	● 0553	● 0551	● 1400	● 1400	● 0554	● 0555
M16	2.0	10.0	● 0630	● 0631	● 0632	● 0630			● 0633	● 0634
M16	2.0	9.0					● 1600	● 1600		
M18	2.5	11.2	● 0709	● 0710	● 0711	● 0709			● 0712	● 0713
M18	2.5	11.0					● 1800	● 1800		
M20	2.5	11.2	● 0787	● 0788	● 0789	● 0787			● 0790	● 0791
M20	2.5	12.0					● 2000	● 2000		
M22	2.5	14.5					● 2200	● 2200		
M24	3.0	14.5					● 2400	● 2400		
M27	3.0	16.0					● 2700	● 2700		
M30	3.5	18.0					● 3000	● 3000		

Threadform	<b>METRIC FINE</b>
Brand	-
Type	Hand
Material	HSS
Standard	ISO529
Tap Tolerance	6H
Finish	Bright
Tool Type	



Ordering Example:  
M6x0.5 Taper Tap  
**F0310236**

Size	Pitch	Square A/F	TAPER			SECOND			BOTTOM			SET(3)		
			F021	F031	F041	F021	F031	F041	F021	F031	F041	G021	G031	G041
M3	0.35	2.5	● 0117			● 0118			● 0119			● 0117		
M3.5	0.35	2.8	● 0137			● 0138			● 0139			● 0137		
M4	0.5	3.15	● 0158			● 0159			● 0160			● 0158		
M4.5	0.5	3.55	● 0177			● 0178			● 0179			● 0177		
M5	0.5	4.0	● 0197			● 0198			● 0199			● 0197		
M6	0.5	5.0		● 0236			● 0237			● 0238			● 0236	
M6	0.75	5.0	● 0236			● 0237			● 0238			● 0236		
M7	0.75	5.6	● 0276			● 0277			● 0278			● 0276		
M8	0.5	6.3			● 0315			● 0316			● 0317			● 0315
M8	0.75	6.3		● 0315			● 0316			● 0317			● 0315	
M8	1.0	6.3	● 0315			● 0316			● 0317			● 0315		
M9	1.0	7.1	● 0354			● 0355			● 0356			● 0354		
M10	0.75	8.0			● 0394			● 0395			● 0396			● 0394
M10	1.0	8.0		● 0394			● 0395			● 0396			● 0394	
M10	1.25	8.0	● 0394			● 0395			● 0396			● 0394		
M11	0.75	6.3			● 0433			● 0434			● 0435			● 0433
M11	1.0	6.3	● 0433			● 0434			● 0435			● 0433		
M12	1.0	7.1			● 0472			● 0473			● 0474			● 0472
M12	1.25	7.1	● 0472			● 0473			● 0474			● 0472		
M12	1.5	7.1		● 0472			● 0473			● 0474			● 0472	

Threadform	<b>METRIC FINE</b>
Brand	-
Type	Hand
Material	HSS
Standard	ISO529
Tap Tolerance	6H
Finish	Bright
Tool Type	



Ordering Example:  
M6x0.5 Taper Tap  
**F0310236**

Size	Pitch	Square A/F	TAPER			SECOND			BOTTOM			SET(3)		
			F021	F031	F041	F021	F031	F041	F021	F031	F041	G021	G031	G041
<b>M14</b>	1.0	9.0			● 0551			● 0552			● 0553			● 0551
<b>M14</b>	1.25	9.0		● 0551			● 0552			● 0553			● 0551	
<b>M14</b>	1.50	9.0	● 0551			● 0552			● 0553			● 0551		
<b>M16</b>	1.0	10.0			● 0630			● 0631			● 0632			● 0630
<b>M16</b>	1.5	10.0	● 0630			● 0631			● 0632			● 0630		
<b>M18</b>	1.0	11.2			● 0709			● 0710			● 0711			● 0709
<b>M18</b>	1.5	11.2	● 0709			● 0710			● 0711			● 0709		
<b>M18</b>	2.0	11.2		● 0709			● 0710			● 0711			● 0709	
<b>M20</b>	1.0	11.2			● 0787			● 0788			● 0789			● 0787
<b>M20</b>	1.5	11.2	● 0787			● 0788			● 0789			● 0787		
<b>M20</b>	2.0	11.2		● 0787			● 0788			● 0789			● 0787	

Threadform	UNIFIED COARSE - UNC	UNIFIED FINE - UNF	WHITWORTH - BSW
Brand	-	-	-
Type	Hand	Hand	Hand
Material	HSS	HSS	HSS
Standard	ISO529	ISO529	ISO529
Tap Tolerance	2B	2B	2B
Finish	Bright	Bright	Bright
Tool Type			



Ordering Example:  
1/4 UNC Taper Tap  
**F0910250**

Size	TPI	Square A/F	TAPER F091	SECOND F091	BOTTOM F091	SET(3) G091	TAPER F101	SECOND F101	BOTTOM F101	SET(3) G101	TAPER F151	SECOND F151	BOTTOM F151	SET(3) G151
No.4	40	2.5	● 0112	● 0113	● 0114	● 0112								
No.4	48	2.5					● 0112	● 0113	● 0114	● 0112				
No.5	40	2.5	● 0124	● 0125	● 0126	● 0124								
No.5	44	2.5					● 0124	● 0125	● 0126	● 0124				
No.6	32	2.8	● 0138	● 0139	● 0140	● 0138								
No.6	40	2.8					● 0138	● 0139	● 0140	● 0138				
No.8	32	3.55	● 0164	● 0165	● 0166	● 0164								
No.8	36	3.55					● 0164	● 0165	● 0166	● 0164				
No.10	24	4.0	● 0190	● 0191	● 0192	● 0190								
No.10	32	4.0					● 0190	● 0191	● 0192	● 0190				
No.12	24	4.5	● 0216	● 0217	● 0218	● 0216								
No.12	28	4.5					● 0216	● 0217	● 0218	● 0216				
3/16	24	4.0									● 0188	● 0189	● 0190	● 0188
1/4	20	5.0	● 0250	● 0251	● 0252	● 0250					● 0250	● 0251	● 0252	● 0250
1/4	28	5.0					● 0250	● 0251	● 0252	● 0250				
5/16	18	6.3	● 0312	● 0313	● 0314	● 0312					● 0312	● 0313	● 0314	● 0312
5/16	24	6.3					● 0312	● 0313	● 0314	● 0312				
3/8	16	8.0	● 0375	● 0376	● 0377	● 0375					● 0375	● 0376	● 0377	● 0375
3/8	24	8.0					● 0375	● 0376	● 0377	● 0375				
7/16	14	6.3	● 0438	● 0439	● 0440	● 0438					● 0438	● 0439	● 0440	● 0438
7/16	20	6.3					● 0438	● 0439	● 0440	● 0438				
1/2	12	7.1									● 0500	● 0501	● 0502	● 0500
1/2	13	7.1	● 0500	● 0501	● 0502	● 0500								
1/2	20	7.1					● 0500	● 0501	● 0502	● 0500				

Threadform	UNIFIED COARSE - UNC	UNIFIED FINE - UNF	WHITWORTH - BSW
Brand	-	-	-
Type	Hand	Hand	Hand
Material	HSS	HSS	HSS
Standard	ISO529	ISO529	ISO529
Tap Tolerance	2B	2B	2B
Finish	Bright	Bright	Bright
Tool Type			

Ordering Example:  
 1/4 UNC Taper Tap  
**F0910250**

Size	TPI	Square A/F	TAPER F091	SECOND F091	BOTTOM F091	SET(3) G091	TAPER F101	SECOND F101	BOTTOM F101	SET(3) G101	TAPER F151	SECOND F151	BOTTOM F151	SET(3) G151
9/16	12	9.0	● 0562	● 0563	● 0564	● 0562					● 0562	● 0563	● 0564	● 0562
9/16	18	9.0					● 0562	● 0563	● 0564	● 0562				
5/8	11	10.0	● 0625	● 0626	● 0627	● 0625					● 0625	● 0626	● 0627	● 0625
5/8	18	10.0					● 0625	● 0626	● 0627	● 0625				
3/4	10	11.2	● 0750	● 0751	● 0752	● 0750					● 0750	● 0751	● 0752	● 0750
3/4	16	11.2					● 0750	● 0751	● 0752	● 0750				
7/8	9	12.5	● 0875	● 0876	● 0877	● 0875					● 0875	● 0876	● 0877	● 0875
7/8	14	12.5					● 0875	● 0876	● 0877	● 0875				
1"	8	14.0	● 1000	● 1001	● 1002	● 1000					● 1000	● 1001	● 1002	● 1000
1"	12	14.0					● 1000	● 1001	● 1002	● 1000				

Threadform	METRIC COARSE	
Brand	-	-
Type	Split Die	Dienut
Material	HSS	HSS
Standard	BS1127	BS1127
Tolerance	6H	6H
Finish	Bright	Bright
Tool Type		

Ordering Example:  
M6x1.0 13/16 Die  
**J0110237**



Size	Pitch	Diameter or A/F	J011	J012	J013	J014	J015	J611
M1.6	0.35	13/16	● 0063					
M2	0.40	13/16	● 0079					
M2.5	0.45	13/16	● 0098					
M3	0.5	13/16	● 0118					
M3	0.5	18.0						● 0117
M3.5	0.6	13/16	● 0138					
M4	0.7	13/16	● 0159					
M4	0.7	1"		● 0161				
M4	0.7	18.0						● 0158
M4.5	0.75	13/16	● 0178					
M5	0.8	13/16	● 0198					
M5	0.8	1"		● 0200				
M5	0.8	18.0						● 0197
M6	1.0	13/16	● 0237					
M6	1.0	1"		● 0238				
M6	1.0	1.5/16			● 0239			
M6	1.0	18.0						● 0236
M8	1.25	1"		● 0316				
M8	1.25	1.5/16			● 0317			
M8	1.25	21.0						● 0315
M10	1.5	1"		● 0396				
M10	1.5	1.5/16			● 0397			
M10	1.5	1.1/2				● 0398		
M10	1.5	23.0						● 0394
M12	1.75	1.5/16			● 0473			
M12	1.75	1.1/2				● 0474		
M12	1.75	2"					● 0475	
M12	1.75	28.0						● 0472

Threadform	METRIC COARSE	
Brand	-	-
Type	Split Die	Dienut
Material	HSS	HSS
Standard	BS1127	BS1127
Tolerance	6H	6H
Finish	Bright	Bright
Tool Type		

Ordering Example:  
M6x1.0 13/16 Die  
**J0110237**

Size	Pitch	Diameter or A/F	J011	J012	J013	J014	J015	J611
M14	2.0	1.5/16			● 0553			
M14	2.0	1.1/2				● 0554		
M14	2.0	2"					● 0555	
M14	2.0	33.0						● 0551
M16	2.0	1.1/2				● 0631		
M16	2.0	2"					● 0632	
M16	2.0	33.0						● 0630
M18	2.5	1.1/2				● 0710		
M18	2.5	2"					● 0710	
M18	2.5	37.5						● 0709
M20	2.5	1.1/2				● 0788		
M20	2.5	2"					● 0788	
M20	2.5	37.5						● 0787



Threadform	<b>METRIC FINE</b>	
Brand	-	-
Type	Split Die	Dienut
Material	HSS	HSS
Standard	BS1127	BS1127
Tolerance	6H	6H
Finish	Bright	Bright
Tool Type		

Ordering Example:  
M6x0.75 13/16 Die  
**J0110236**

Size	Pitch	Diameter or A/F	J011	J012	J013	J014	J015	J612
M3	0.35	13/16	● 0117					
M3	0.35	18.0						● 0117
M4	0.5	13/16	● 0158					
M4	0.5	18.0						● 0158
M5	0.5	13/16	● 0197					
M5	0.5	18.0						● 0197
M6	0.75	13/16	● 0236					
M6	0.75	18.0						● 0236
M8	1.0	1"		● 0315				
M8	1.0	21.0						● 0315
M10	1.0	1"		● 0394				
M10	1.0	23.0						● 0394
M10	1.25	1"		● 0395				
M12	1.25	1.5/16			● 0472			
M12	1.25	28.0						● 0472
M14	1.5	1.5/16			● 0552			
M14	1.5	33.0						● 0551
M16	1.5	1.1/2				● 0630		
M16	1.5	33.0						● 0630
M18	1.5	1.1/2				● 0709		
M18	1.5	37.5						● 0709
M20	1.5	2"					● 0787	
M20	1.5	37.5						● 0787

Threadform	UNIFIED COARSE - UNC	UNIFIED FINE - UNF	WHITWORTH - BSW
Brand	-	-	-
Type	Split Die	Split Die	Split Die
Material	HSS	HSS	HSS
Standard	BS1127	BS1127	BS1127
Tap Tolerance	2B	2B	2B
Finish	Bright	Bright	Bright
Tool Type			



Ordering Example:  
 1/4 UNC 13/16 Die  
**J0910250**

Size	TPI	Diameter or A/F	J091	J092	J093	J094	J095	J101	J102	J103	J104	J105	J151	J152	J153	J154	J155
No.4	40	13/16	● 0112														
No.4	48	13/16						● 0112									
No.5	40	13/16	● 0124														
No.5	44	13/16						● 0124									
No.6	32	13/16	● 0138														
No.6	40	13/16						● 0138									
No.8	32	13/16	● 0164														
No.8	36	13/16						● 0164									
No.10	24	13/16	● 0190														
No.10	32	13/16						● 0190									
No.12	24	13/16	● 0216														
No.12	28	13/16						● 0216									
3/16	24	13/16											● 0188				
1/4	20	13/16	● 0250										● 0250				
1/4	20	1"		● 0251										● 0251			
1/4	20	1.5/16			● 0252												
1/4	28	13/16						● 0251									
1/4	28	1"							● 0251								
1/4	28	1.5/16								● 0252							
5/16	18	1"		● 0312										● 0312			
5/16	18	1.5/16			● 0313										● 0313		
5/16	24	1"							● 0312								
5/16	24	1.5/16								● 0313							
3/8	16	1"		● 0375										● 0375			
3/8	16	1.5/16			● 0376												
3/8	16	1.1/2				● 0377											
3/8	24	1"							● 0375								
3/8	24	1.5/16								● 0376							
3/8	24	1.1/2									● 0377						
7/16	14	1"		● 0438										● 0438			
7/16	14	1.5/16			● 0438												
7/16	20	1"							● 0438								
7/16	20	1.5/16								● 0438							

Threadform	UNIFIED COARSE - UNC	UNIFIED FINE - UNF	WHITWORTH - BSW
Brand	-	-	-
Type	Split Die	Split Die	Split Die
Material	HSS	HSS	HSS
Standard	BS1127	BS1127	BS1127
Tap Tolerance	2B	2B	2B
Finish	Bright	Bright	Bright
Tool Type			






Ordering Example:  
 1/2 UNC 1" Die  
**J0920500**

Size	TPI	Diameter or A/F	J091	J092	J093	J094	J095	J101	J102	J103	J104	J105	J151	J152	J153	J154	J155
1/2	12	1.5/16													● 0500		
1/2	13	1"		● 0500													
1/2	13	1.5/16			● 0500												
1/2	13	1.1/2				● 0501											
1/2	13	2"					● 0502										
1/2	20	1"						● 0500									
1/2	20	1.5/16								● 0500							
1/2	20	1.1/2									● 0501						
1/2	20	2"										● 0502					
9/16	12	1.5/16			● 0562												
9/16	12	1.1/2				● 0563											
9/16	18	1.5/16								● 0562							
9/16	18	1.1/2									● 0563						
5/8	11	1.1/2				● 0625										● 0625	
5/8	11	2"					● 0626										
5/8	18	1.1/2									● 0625						
5/8	18	2"										● 0626					
3/4	10	1.1/2				● 0749										● 0750	
3/4	10	2"					● 0750										● 0750
3/4	16	1.1/2									● 0749						
3/4	16	2"										● 0750					
7/8	9	2"					● 0875										
7/8	14	2"										● 0875					
1"	8	2"					● 1000										● 1000
1"	12	2"										● 1000					

Material	HSS	HSS	Carbide	Carbide	HSSCo	HSSCo	HSS
Standard	DIN206	DIN206	Osborn Std.	Osborn Std.	DIN212	DIN212	DIN338
Type	Hand St. Flute	Hand L/H Sp. Flute	Chuckling St. Flute	Chuckling L/H Sp. Flute	Chuckling St. Flute	Chuckling L/H Sp. Flute	Taper Shank Chuckling
Hole Tolerance	H7	H7	H7	H7	H7	H7	H7
End Centre Type	≤3.75 Ext >3.75 Int	≤3.75 Ext >3.75 Int	≤3.00 Ext >3.00 Int	≤3.00 Ext >3.00 Int	≤3.75 Ext >3.75 Int	≤3.75 Ext >3.75 Int	Internal
Finish	Bright	Bright	Bright	Bright	Bright	Bright	Bright
Tool Type							

Ordering Example:  
HSS Hand St/Fl 6.0mm  
**4503010600**

Dia	Flute Length	O/all Length	Shank Size	450301	451301	452303	453303	452302	453302	456302
2.0	11	49	2.0					● 0200	● 0200	
2.0	11	50	4.0			● 0200	● 0200			
2.0	25	50	-	● 0200	● 0200					
2.2	12	53	2.2			● 0220	● 0220			
2.2	27	54	-	● 0220	● 0220					
2.5	14	57	2.5					● 0250	● 0250	
2.5	14	57	4.0			● 0250	● 0250			
2.5	29	58	-	● 0250	● 0250					
2.6	14	57	2.6					● 0260	● 0260	
2.8	15	61	2.8					● 0280	● 0280	
2.8	31	62	-	● 0280	● 0280					
3.0	15	61	3.0					● 0300	● 0300	
3.0	15	61	4.0			● 0300	● 0300			
3.0	31	62	-	● 0300	● 0300					
3.0	31	104	MT1							
3.1	16	65	3.1					● 0310	● 0310	
3.2	16	65	3.2					● 0320	● 0320	
3.2	33	66	-	● 0320	● 0320					
3.5	18	70	3.5					● 0350	● 0350	
3.5	18	70	4.0			● 0350	● 0350			
3.5	35	71	-	● 0350	● 0350					
3.5	35	108	MT1							
3.6	18	70	3.6					● 0360	● 0360	
3.7	18	70	3.7					● 0370	● 0370	
4.0	19	75	4.0			● 0400	● 0400	● 0400	● 0400	
4.0	38	76	-	● 0400	● 0400					
4.0	38	112	MT1							
4.3	21	80	4.5					● 0430	● 0430	
4.5	21	80	4.5					● 0450	● 0450	
4.5	21	80	6.0			● 0450	● 0450			
4.5	41	81	-	● 0450	● 0450					
4.5	41	81	MT1							

Material	HSS	HSS	Carbide	Carbide	HSSCo	HSSCo	HSS
Standard	DIN206	DIN206	Osborn Std.	Osborn Std.	DIN212	DIN212	DIN338
Type	Hand St. Flute	Hand L/H Sp. Flute	Chuckling St. Flute	Chuckling L/H Sp. Flute	Chuckling St. Flute	Chuckling L/H Sp. Flute	Taper Shank Chuckling
Hole Tolerance	H7	H7	H7	H7	H7	H7	H7
End Centre Type	≤3.75 Ext >3.75 Int	≤3.75 Ext >3.75 Int	≤3.00 Ext >3.00 Int	≤3.00 Ext >3.00 Int	≤3.75 Ext >3.75 Int	≤3.75 Ext >3.75 Int	Internal
Finish	Bright	Bright	Bright	Bright	Bright	Bright	Bright
Tool Type							

Ordering Example:  
HSS Hand St/Fl 6.0mm  
**4503010600**

Dia	Flute Length	O/all Length	Shank Size	450301	451301	452303	453303	452302	453302	456302
4.6	21	80	4.5					● 0460	● 0460	
4.6	41	81	-	● 0460	● 0460					
5.0	23	86	5.0					● 0500	● 0500	
5.0	23	86	6.0			● 0500	● 0500			
5.0	44	87	-	● 0500	● 0500					
5.0	44	118	MT1							
5.5	26	93	5.6					● 0550	● 0550	
5.5	26	93	6.0			● 0550	● 0550			
5.5	47	93	-	● 0550	● 0550					
5.5	48	125	MT1							
5.6	26	93	5.6					● 0560	● 0560	
6.0	26	93	5.6					● 0600	● 0600	
6.0	26	93	6.0			● 0600	● 0600			
6.0	47	93	-	● 0600	● 0600					
6.0	48	125	MT1							
6.5	28	101	6.3					● 0650	● 0650	
6.5	28	101	8.0			● 0650	● 0650			
6.5	50	130	MT1							
7.0	31	109	7.1					● 0700	● 0700	
7.0	31	109	8.0			● 0700	● 0700			
7.0	54	107	-	● 0700	● 0700					
7.0	54	134	MT1							
7.2	31	109	7.1					● 0720	● 0720	
7.5	31	109	8.0			● 0750	● 0750			
7.5	54	134	MT1							
8.0	33	117	8.0			● 0800	● 0800	● 0800	● 0800	
8.0	58	115	-	● 0800	● 0800					
8.0	58	138	MT1							
8.3	33	117	8.0					● 0830	● 0830	
8.5	33	117	8.0					● 0850	● 0850	
8.5	33	117	10.0			● 0850	● 0850			
8.5	58	138	MT1							

# REAMERS










Material	HSS	HSS	Carbide	Carbide	HSSCo	HSSCo	HSS
Standard	DIN206	DIN206	Osborn Std.	Osborn Std.	DIN212	DIN212	DIN338
Type	Hand St. Flute	Hand L/H Sp. Flute	Chucking St. Flute	Chucking L/H Sp. Flute	Chucking St. Flute	Chucking L/H Sp. Flute	Taper Shank Chucking
Hole Tolerance	H7	H7	H7	H7	H7	H7	H7
End Centre Type	≤3.75 Ext >3.75 Int	≤3.75 Ext >3.75 Int	≤3.00 Ext >3.00 Int	≤3.00 Ext >3.00 Int	≤3.75 Ext >3.75 Int	≤3.75 Ext >3.75 Int	Internal
Finish	Bright	Bright	Bright	Bright	Bright	Bright	Bright
Tool Type							

Ordering Example:  
HSS Hand St/Fl 6.0mm  
**4503010600**

Dia	Flute Length	O/all Length	Shank Size	450301	451301	452303	453303	452302	453302	456302
9.0	36	125	9.0					● 0900	● 0900	
9.0	36	125	10.0			● 0900	● 0900			
9.0	62	124	-	● 0900	● 0900					
9.5	36	125	9.0					● 0950	● 0950	
9.5	36	125	10.0			● 0950	● 0950			
10.0	38	133	10.0			● 1000	● 1000	● 1000	● 1000	
10.0	66	133	-	● 1000	● 1000					
10.0	38	168	MT1							● 1000
10.5	38	133	10.0					● 1050	● 1050	
10.5	38	133	12.0			● 1050	● 1050			
11.0	41	142	10.0					● 1100	● 1100	
11.0	41	142	12.0			● 1100	● 1100			
11.0	41	175	-	● 1100	● 1100					
11.0	71	151	MT1							● 1100
12.0	44	151	10.0					● 1200	● 1200	
12.0	44	151	12.0			● 1200	● 1200			
12.0	76	152	-	● 1200	● 1200					
12.0	44	182	MT1							● 1200
13.0	44	151	10.0					● 1300	● 1300	
13.0	44	151	16.0			● 1300	● 1300			
13.0	76	152	-	● 1300	● 1300					
13.0	44	182	MT1							● 1300
14.0	47	160	12.5					● 1400	● 1400	
14.0	47	160	16.0			● 1400	● 1400			
14.0	81	163	-	● 1400	● 1400					
14.0	47	189	MT1							● 1400
15.0	50	162	12.5					● 1500	● 1500	
15.0	50	162	16.0			● 1500	● 1500			
15.0	81	163	-	● 1500	● 1500					
15.0	50	204	MT2							● 1500








# REAMERS



Material	HSS	HSS	Carbide	Carbide	HSSCo	HSSCo	HSS
Standard	DIN206	DIN206	Osborn Std.	Osborn Std.	DIN212	DIN212	DIN338
Type	Hand St. Flute	Hand L/H Sp. Flute	Chuckling St. Flute	Chuckling L/H Sp. Flute	Chuckling St. Flute	Chuckling L/H Sp. Flute	Taper Shank Chuckling
Hole Tolerance	H7	H7	H7	H7	H7	H7	H7
End Centre Type	≤3.75 Ext >3.75 Int	≤3.75 Ext >3.75 Int	≤3.00 Ext >3.00 Int	≤3.00 Ext >3.00 Int	≤3.75 Ext >3.75 Int	≤3.75 Ext >3.75 Int	Internal
Finish	Bright	Bright	Bright	Bright	Bright	Bright	Bright
Tool Type							

Ordering Example:  
HSS Hand St/Fl 6.0mm  
**4503010600**

Dia	Flute Length	O/all Length	Shank Size	450301	451301	452303	453303	452302	453302	456302
16.0	52	170	12.5					● 1600	● 1600	
16.0	52	170	16.0			● 1600	● 1600			
16.0	87	175	-	● 1600	● 1600					
16.0	52	210	MT2							● 1600
17.0	54	175	14.0					● 1700	● 1700	
17.0	54	175	20.0			● 1700	● 1700			
17.0	87	175	-	● 1700	● 1700					
17.0	54	214	MT2							● 1700
18.0	56	182	14.0					● 1800	● 1800	
18.0	56	182	20.0			● 1800	● 1800			
18.0	93	188	-	● 1800	● 1800					
18.0	56	219	MT2							● 1800
19.0	58	189	20.0			● 1900	● 1900			
19.0	93	188	-	● 1900	● 1900					
19.0	58	223	MT2							● 1900
20.0	60	195	16.0					● 2000	● 2000	
20.0	60	195	20.0			● 2000	● 2000			
20.0	100	201	-	● 2000	● 2000					
20.0	60	228	MT2							● 2000
21.0	62	232	MT2							● 2100
22.0	107	215	-	● 2200	● 2200					
22.0	64	237	MT2							● 2200
23.0	66	241	MT2							● 2300
24.0	115	231	-	● 2400	● 2400					
24.0	68	268	MT3							● 2400
25.0	115	231	-	● 2500	● 2500					
25.0	68	268	MT3							● 2500
26.0	115	231	-	● 2600	● 2600					
26.0	70	273	MT3							● 2600
27.0	124	227	-	● 2700	● 2700					
27.0	71	277	MT3							● 2700
28.0	124	227	-	● 2800	● 2800					
28.0	71	277	MT3							● 2800

Material	HSS	HSS	Carbide	Carbide	HSSCo	HSSCo	HSS
Standard	DIN206	DIN206	Osborn Std.	Osborn Std.	DIN212	DIN212	DIN338
Type	Hand St. Flute	Hand L/H Sp. Flute	Chuckling St. Flute	Chuckling L/H Sp. Flute	Chuckling St. Flute	Chuckling L/H Sp. Flute	Taper Shank Chuckling
Hole Tolerance	H7	H7	H7	H7	H7	H7	H7
End Centre Type	≤3.75 Ext >3.75 Int	≤3.75 Ext >3.75 Int	≤3.00 Ext >3.00 Int	≤3.00 Ext >3.00 Int	≤3.75 Ext >3.75 Int	≤3.75 Ext >3.75 Int	Internal
Finish	Bright	Bright	Bright	Bright	Bright	Bright	Bright
Tool Type							

Ordering Example:  
HSS Hand St/Fl 6.0mm  
**4503010600**

Dia	Flute Length	O/all Length	Shank Size	450301	451301	452303	453303	452302	453302	456302
29.0	124	227	-	● 2900	● 2900					
29.0	73	281	MT3							● 2900
30.0	124	227	-	● 3000	● 3000					
30.0	124	251	MT3							● 3000
31.0	133	265	-	● 3100	● 3100					
31.0	75	285	MT3							● 3100
32.0	133	265	-	● 3200	● 3200					
32.0	133	294	MT4							● 3200
33.0	133	265	-	● 3300	● 3300					
34.0	142	284	-	● 3400	● 3400					
34.0	78	321	MT4							● 3400
35.0	142	284	-		● 3500					
35.0	78	321	MT4							● 3500
36.0	142	284	-		● 3600					
36.0	79	325	MT4							● 3600
37.0	142	284	-		● 3700					
38.0	152	305	-		● 3800					
38.0	81	329	MT4							● 3800
39.0	152	305	-		● 3900					
40.0	152	305	-		● 4000					
40.0	81	329	MT4							● 4000
41.0	152	305	-		● 4100					
42.0	152	305	-		● 4200					
43.0	163	326	-		● 4300					
44.0	163	326	-		● 4400					
45.0	163	326	-		● 4500					
46.0	163	326	-		● 4600					
47.0	174	326	-		● 4700					
48.0	174	347	-		● 4800					
49.0	174	347	-		● 4900					
52.0	174	347	-		● 5200					
60.0	174	367	-		● 6000					



## JOBBER DRILL SETS



820801SET4      820801SET3      820801SET1      10220025      810504SET1

ORDER CODE	DIAMETER RANGE	INCREMENTS	SET NO.	NO. OF DRILLS	DRILL TYPE
810504SET2	1.0 - 10.0	0.5	19M	19	HSS GOLDEX
810504SET1	1.0 - 13.0	0.5	25M	25	HSS GOLDEX
810505SET2	1.0 - 10.0	0.5	19M	19	HSS-E GOLDEX
810505SET1	1.0 - 13.0	0.5	25M	25	HSS-E GOLDEX
10220025	1.0 - 13.0	0.5	25M	25	TWO TONE
820801SET2	1.0 - 10.0	0.5	19M	19	HSS
820801SET1	1.0 - 13.0	0.5	25M	25	HSS
820801SET3	1.0 - 5.9	0.1	M4	50	HSS
820801SET4	6.0 - 10.0	0.1	M5	41	HSS
820702SET2	1.0 - 10.0	0.5	19M	19	HSSCo
820702SET1	1.0 - 13.0	0.5	25M	25	HSSCo

## COUNTERSINK SETS



ORDER CODE	MAX. DIAMETER RANGE	INCLUDED SIZES	TOOL MATERIAL	CSK. ANGLE	FINISH
702302SET	6.3 - 20.5	6.3, 8.3, 10.4, 12.4, 16.5, 20.5	HSSCo	90°	BRIGHT
702305SET	6.3 - 20.5	6.3, 8.3, 10.4, 12.4, 16.5, 20.5	HSSCo	90°	TiN COATED
702301SET	6.3 - 20.5	6.3, 8.3, 10.4, 12.4, 16.5, 20.5	HSS	90°	BRIGHT
702304SET	6.3 - 20.5	6.3, 8.3, 10.4, 12.4, 16.5, 20.5	HSS	90°	TiN COATED




## TAP & DIE SETS

In black ABS plastic case with foam insert.  
 Sets contain taper & bottoming taps plus dies, and tapwrenches/diestocks to suit



ORDER CODE	SET RANGE	SIZES INCLUDED
J9010036	M2 - M6	M2, M3, M4, M5, M6
J9010037	M2 - M6 + M2.5, M3.5	M2, M2.5, M3, M3.5, M4, M5, M6
J9010039	M6 - M12	M6, M7, M8, M9, M10, M11, M12
J9010041	M6 - M20	M6, M7, M8, M9, M10, M11, M12, M14, M16, M18, M20
J9010043	M6 - M24	M6, M7, M8, M9, M10, M11, M12, M14, M16, M18, M20, M22, M24
J9010045	MF3 - MF10	M3 X 0.35, M4 X 0.5, M5 X 0.5, M6 X 0.75, M7 X 0.75, M8 X 1.0, M9 X 1.0, M10 X 1.25
J9010047	MF6 - MF12	M6 x 0.75, M7 x 0.75, M8 x 1.0, M9 x 1.0, M10 x 1.25, M11 x 1.25, M12 x 1.25
J9010049	MF6 - MF20	M6 x 0.75, M7 x 0.75, M8 x 1.0, M9 x 1.0, M10 x 1.25, M11 x 1.25, M12 x 1.25, M14 x 1.5, M16 x 1.5, M18 x 1.5, M20 x 1.5
J9010019	1/4 - 1/2 UNC	1/4, 5/16, 3/8, 7/16, 1/2
J9010022	1/4 - 3/4 UNC	1/4, 5/16, 3/8, 7/16, 1/2, 5/8, 3/4
J9010024	1/4 - 1/2 UNF	1/4, 5/16, 3/8, 7/16, 1/2
J9010025	1/4 - 3/4 UNF	1/4, 5/16, 3/8, 7/16, 1/2, 5/8, 3/4
J9010006	1/4 - 1/2 BSW	1/4, 5/16, 3/8, 7/16, 1/2
J9010008	1/4 - 3/4 BSW	1/4, 5/16, 3/8, 7/16, 1/2, 5/8, 3/4

## ACCESSORIES

ORDER CODE	WRENCH NO.	METRIC RANGE	INCH RANGE	O/ALL LENGTH	TOOL TYPE
J8910001	TW1	M2 - M6	1/16 - 1/4	105	
J8910002	TW2	M3 - M12	1/8 - 1/2	160	
J8920003	TW3	M3 - M12	1/8 - 1/2	270	
J8920004	TW4	M6 - M20	7/32 - 3/4	380	
J8920005	TW5	M12 - M27	7/16 - 1	500	
J8920006	TW6	M18 - M42	3/4 - 1.1/2	815	
J8920007	TW7	>M24	1 - 2.1/2	1300	
J8930001	T1 STD	M1 - M6	1/16 - 1/4	85	
J8930002	T2 STD	M6 - M12	1/4 - 1/2	110	
J8930003	TL3 LONG	M1 - M6	1/16 - 1/4	250	
J8930004	TL4 LONG	M6 - M12	1/4 - 1/2	300	
J8950001	DS1	-	13/16	165	
J8950002	DS2	-	1"	230	
J8950003	DS3	-	1.5/16	280	
J8950004	DS4	-	1.1/2	350	
J8950005	DS5	-	2"	550	