

NEW



shaping your dreams

MULTI-PURPOSE DRILL RANGES

ALLOY STEEL | STAINLESS STEEL | CAST IRON | ALUMINIUM



- 1 Improved Point and Fluting Geometry Convergence
- 2 Superior Quality HSSE New Coating Technology
- 3 Size Range 3 to 13mm Increment Sizes of 0.1 mm
- 4 Stability Parallel Shank

Improved Manufacturing Process resulting in:

- ✓ High Wear Resistance
- ✓ Accelerated Chip Evacuation
- ✓ Multiple Material Applications
- ✓ Improved Quality and Tool Life

Introducing the **NEW** Multi-Purpose Drill Ranges

- Recommended
- Suitable

P						M				K				Ti			Ni			Cu				N				Syn			H							
1.1	1.2	1.3	1.4	1.5	1.6	2.1	2.2	2.3	2.4	3.1	3.2	3.3	3.4	4.1	4.2	4.3	5.1	5.2	5.3	6.1	6.2	6.3	6.4	7.1	7.2	7.3	7.4	8.1	8.2	8.3	9.1	9.2	9.3	9.4				
●	●	●	●	○		●	●	●		●	●	○								●	●			●	●	○					●	○						



Parallel Shank Multi-Purpose Jobber Drills

For precision drilling in multiple materials.

mm	DIN 338	HSSE	5xD	TYPE UNI	120°	SECONDARY CLEARANCE	h8	40°	QS	COATED
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Diameter	Flute Length	Overall Length	Code	Diameter	Flute Length	Overall Length	Code
3	33	61	1WN0300	6.7	63	101	1WN0670
3.1	36	65	1WN0310	6.8	69	109	1WN0680
3.2	36	65	1WN0320	6.9	69	109	1WN0690
3.3	36	65	1WN0330	7	69	109	1WN0700
3.4	39	70	1WN0340	7.1	69	109	1WN0710
3.5	39	70	1WN0350	7.2	69	109	1WN0720
3.6	39	70	1WN0360	7.3	69	109	1WN0730
3.7	39	70	1WN0370	7.4	69	109	1WN0740
3.8	43	75	1WN0380	7.5	69	109	1WN0750
3.9	43	75	1WN0390	7.6	75	117	1WN0760
4	43	75	1WN0400	7.7	75	117	1WN0770
4.1	43	75	1WN0410	7.8	75	117	1WN0780
4.2	43	75	1WN0420	7.9	75	117	1WN0790
4.3	47	80	1WN0430	8	75	117	1WN0800
4.4	47	80	1WN0440	8.1	75	117	1WN0810
4.5	47	80	1WN0450	8.2	75	117	1WN0820
4.6	47	80	1WN0460	8.3	75	117	1WN0830
4.7	47	80	1WN0470	8.4	75	117	1WN0840
4.8	52	86	1WN0480	8.5	75	117	1WN0850
4.9	52	86	1WN0490	8.6	81	125	1WN0860
5	52	86	1WN0500	8.7	81	125	1WN0870
5.1	52	86	1WN0510	8.8	81	125	1WN0880
5.2	52	86	1WN0520	8.9	81	125	1WN0890
5.3	52	86	1WN0530	9	81	125	1WN0900
5.4	57	93	1WN0540	9.1	81	125	1WN0910
5.5	57	93	1WN0550	9.2	81	125	1WN0920
5.6	57	93	1WN0560	9.3	81	125	1WN0930
5.7	57	93	1WN0570	9.4	81	125	1WN0940
5.8	57	93	1WN0580	9.5	81	125	1WN0950
5.9	57	93	1WN0590	9.6	87	133	1WN0960
6	57	93	1WN0600	9.7	87	133	1WN0970
6.1	63	101	1WN0610	9.8	87	133	1WN0980
6.2	63	101	1WN0620	9.9	87	133	1WN0990
6.3	63	101	1WN0630	10	87	133	1WN1000
6.4	63	101	1WN0640	10.1	87	133	1WN1010
6.5	63	101	1WN0650	10.2	87	133	1WN1020
6.6	63	101	1WN0660				

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Diameter	Flute Length	Overall Length	Code
<i>... from previous page</i>			
10.3	87	133	1WN1030
10.4	87	133	1WN1040
10.5	87	133	1WN1050
10.6	87	133	1WN1060
10.7	94	142	1WN1070
10.8	94	142	1WN1080
10.9	94	142	1WN1090
11	94	142	1WN1100
11.1	94	142	1WN1110
11.2	94	142	1WN1120
11.3	94	142	1WN1130
11.4	94	142	1WN1140
11.5	94	142	1WN1150
11.6	94	142	1WN1160

Diameter	Flute Length	Overall Length	Code
11.7	94	142	1WN1170
11.8	94	142	1WN1180
11.9	101	151	1WN1190
12	101	151	1WN1200
12.1	101	151	1WN1210
12.2	101	151	1WN1220
12.3	101	151	1WN1230
12.4	101	151	1WN1240
12.5	101	151	1WN1250
12.6	101	151	1WN1260
12.7	101	151	1WN1270
12.8	101	151	1WN1280
12.9	101	151	1WN1290
13	101	151	1WN1300



Parallel Shank Multi-Purpose Stub Drills

For precision drilling in multiple materials.



Diameter	Flute Length	Overall Length	Code
3	16	46	1WNS0300
3.1	18	49	1WNS0310
3.2	18	49	1WNS0320
3.3	18	49	1WNS0330
3.4	20	52	1WNS0340
3.5	20	52	1WNS0350
3.6	20	52	1WNS0360
3.7	20	52	1WNS0370
3.8	22	55	1WNS0380
3.9	22	55	1WNS0390
4	22	55	1WNS0400
4.1	22	55	1WNS0410
4.2	22	55	1WNS0420
4.3	24	58	1WNS0430
4.4	24	58	1WNS0440
4.5	24	58	1WNS0450
4.6	24	58	1WNS0460
4.7	24	58	1WNS0470
4.8	26	62	1WNS0480
4.9	26	62	1WNS0490
5	26	62	1WNS0500
5.1	26	62	1WNS0510
5.2	26	62	1WNS0520
5.3	26	62	1WNS0530
5.4	28	66	1WNS0540
5.5	28	66	1WNS0550
5.6	28	66	1WNS0560
5.7	28	66	1WNS0570
5.8	28	66	1WNS0580
5.9	28	66	1WNS0590
6	28	66	1WNS0600
6.1	31	70	1WNS0610
6.2	31	70	1WNS0620
6.3	31	70	1WNS0630
6.4	31	70	1WNS0640
6.5	31	70	1WNS0650

Diameter	Flute Length	Overall Length	Code
6.6	31	70	1WNS0660
6.7	31	70	1WNS0670
6.8	34	74	1WNS0680
6.9	34	74	1WNS0690
7	34	74	1WNS0700
7.1	34	74	1WNS0710
7.2	34	74	1WNS0720
7.3	34	74	1WNS0730
7.4	34	74	1WNS0740
7.5	34	74	1WNS0750
7.6	37	79	1WNS0760
7.7	37	79	1WNS0770
7.8	37	79	1WNS0780
7.9	37	79	1WNS0790
8	37	79	1WNS0800
8.1	37	79	1WNS0810
8.2	37	79	1WNS0820
8.3	37	79	1WNS0830
8.4	37	79	1WNS0840
8.5	37	79	1WNS0850
8.6	40	84	1WNS0860
8.7	40	84	1WNS0870
8.8	40	84	1WNS0880
8.9	40	84	1WNS0890
9	40	84	1WNS0900
9.1	40	84	1WNS0910
9.2	40	84	1WNS0920
9.3	40	84	1WNS0930
9.4	40	84	1WNS0940
9.5	40	84	1WNS0950
9.6	43	89	1WNS0960
9.7	43	89	1WNS0970
9.8	43	89	1WNS0980
9.9	43	89	1WNS0990
10	43	89	1WNS1000

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Diameter	Flute Length	Overall Length	Code	Diameter	Flute Length	Overall Length	Code
... from previous page							
10.1	43	89	1WNS1010	11.6	47	95	1WNS1160
10.2	43	89	1WNS1020	11.7	47	95	1WNS1170
10.3	43	89	1WNS1030	11.8	47	95	1WNS1180
10.4	43	89	1WNS1040	11.9	51	102	1WNS1190
10.5	43	89	1WNS1050	12	51	102	1WNS1200
10.6	43	89	1WNS1060	12.1	51	102	1WNS1210
10.7	47	95	1WNS1070	12.2	51	102	1WNS1220
10.8	47	95	1WNS1080	12.3	51	102	1WNS1230
10.9	47	95	1WNS1090	12.4	51	102	1WNS1240
11	47	95	1WNS1100	12.5	51	102	1WNS1250
11.1	47	95	1WNS1110	12.6	51	102	1WNS1260
11.2	47	95	1WNS1120	12.7	51	102	1WNS1270
11.3	47	95	1WNS1130	12.8	51	102	1WNS1280
11.4	47	95	1WNS1140	12.9	51	102	1WNS1290
11.5	47	95	1WNS1150	13	51	102	1WNS1300

CUTTING DATA

- Recommended
- Suitable

Material	Ø	Vc m/min	1	2	3	4	5	6	8	
			F (mm/rev.)							
P	● 1.1 Free Cutting Steel	< 120 HB	35	0.016-0.026	0.057-0.095	0.089-0.149	0.101-0.168	0.113-0.188	0.130-0.216	0.165-0.275
	● 1.2 Structural Steel	< 200 HB	28	0.016-0.026	0.057-0.095	0.089-0.149	0.101-0.168	0.113-0.188	0.130-0.216	0.165-0.275
	● 1.3 Plain Carbon Steel	< 250 HB	22	0.016-0.026	0.057-0.095	0.089-0.149	0.101-0.168	0.113-0.188	0.130-0.216	0.165-0.275
	● 1.4 Alloy Steel	< 250 HB	20	0.016-0.026	0.057-0.095	0.089-0.149	0.101-0.168	0.113-0.188	0.130-0.216	0.165-0.275
	○ 1.5 Low Alloy Steel	250 - 350 HB	15	0.015-0.025	0.050-0.083	0.077-0.128	0.087-0.145	0.098-0.163	0.113-0.188	0.143-0.238
M	● 2.1 Free Machining Stainless Steel	< 250 HB	20	0.014-0.023	0.038-0.063	0.055-0.091	0.063-0.105	0.071-0.119	0.082-0.136	0.104-0.173
	● 2.2 Austenitic Stainless Steel	< 320 HB	15	0.014-0.023	0.038-0.063	0.055-0.091	0.063-0.105	0.071-0.119	0.082-0.136	0.104-0.173
	● 2.3 Ferritic and Martensitic Stainless Steel	< 300 HB	15	0.012-0.020	0.029-0.048	0.040-0.066	0.045-0.075	0.051-0.085	0.059-0.098	0.074-0.123
K	● 3.1 Lamellar Graphite Cast Iron	< 150 HB	35	0.016-0.026	0.057-0.095	0.089-0.149	0.101-0.168	0.113-0.188	0.130-0.216	0.165-0.275
	● 3.2 Lamellar Graphite Cast Iron	150 - 300 HB	30	0.016-0.026	0.057-0.095	0.089-0.149	0.101-0.168	0.113-0.188	0.130-0.216	0.165-0.275
Cu	○ 3.3 Nodular Graphite, Malleable Cast Iron	< 200 HB	30	0.016-0.026	0.057-0.095	0.089-0.149	0.101-0.168	0.113-0.188	0.130-0.216	0.165-0.275
	● 6.1 Copper	< 100 HB	35	0.014-0.023	0.038-0.063	0.055-0.091	0.063-0.105	0.071-0.119	0.082-0.136	0.104-0.173
N	● 6.2 Beta Brass, Bronze	< 200 HB	30	0.014-0.023	0.038-0.063	0.055-0.091	0.063-0.105	0.071-0.119	0.082-0.136	0.104-0.173
	● 7.1 Aluminium Magnesium unalloyed	< 100 HB	75	0.071-0.118	0.129-0.215	0.188-0.313	0.244-0.406	0.300-0.500	0.400-0.666	0.600-1.000
H	● 7.2 Aluminium Alloy < 5% Si	< 150 HB	70	0.071-0.118	0.129-0.215	0.188-0.313	0.244-0.406	0.300-0.500	0.400-0.666	0.600-1.000
	○ 7.3 Aluminium Alloy 5 to 10% Si	< 120 HB	65	0.071-0.118	0.129-0.215	0.188-0.313	0.244-0.406	0.300-0.500	0.400-0.666	0.600-1.000
H	● 9.1 Hardened Steel	< 32 HRC	12	0.015-0.025	0.050-0.083	0.077-0.128	0.087-0.145	0.098-0.163	0.113-0.188	0.143-0.238
	○ 9.2 Hardened Steel	33 - 41 HRC	10	0.015-0.025	0.050-0.083	0.077-0.128	0.087-0.145	0.098-0.163	0.113-0.188	0.143-0.238

Material	Ø	Vc m/min	10	12	15	
			F (mm/rev.)	F (mm/rev.)	F (mm/rev.)	
P	● 1.1 Free Cutting Steel	< 120 HB	35	0.199-0.331	0.210-0.350	0.233-0.388
	● 1.2 Structural Steel	< 200 HB	28	0.199-0.331	0.210-0.350	0.233-0.388
	● 1.3 Plain Carbon Steel	< 250 HB	22	0.199-0.331	0.210-0.350	0.233-0.388
	● 1.4 Alloy Steel	< 250 HB	20	0.199-0.331	0.210-0.350	0.233-0.388
	○ 1.5 Low Alloy Steel	250 - 350 HB	15	0.171-0.285	0.182-0.304	0.203-0.339
M	● 2.1 Free Machining Stainless Steel	< 250 HB	20	0.124-0.206	0.134-0.223	0.152-0.253
	● 2.2 Austenitic Stainless Steel	< 320 HB	15	0.124-0.206	0.134-0.223	0.152-0.253
	● 2.3 Ferritic and Martensitic Stainless Steel	< 300 HB	15	0.089-0.149	0.098-0.163	0.112-0.186
K	● 3.1 Lamellar Graphite Cast Iron	< 150 HB	35	0.199-0.331	0.210-0.350	0.233-0.388
	● 3.2 Lamellar Graphite Cast Iron	150 - 300 HB	30	0.199-0.331	0.210-0.350	0.233-0.388
Cu	○ 3.3 Nodular Graphite, Malleable Cast Iron	< 200 HB	30	0.199-0.331	0.210-0.350	0.233-0.388
	● 6.1 Copper	< 100 HB	35	0.124-0.206	0.134-0.223	0.152-0.253
N	● 6.2 Beta Brass, Bronze	< 200 HB	30	0.124-0.206	0.134-0.223	0.152-0.253
	● 7.1 Aluminium Magnesium unalloyed	< 100 HB	75	0.750-1.250	0.825-1.375	0.881-1.469
H	● 7.2 Aluminium Alloy < 5% Si	< 150 HB	70	0.750-1.250	0.825-1.375	0.881-1.469
	○ 7.3 Aluminium Alloy 5 to 10% Si	< 120 HB	65	0.750-1.250	0.825-1.375	0.881-1.469
H	● 9.1 Hardened Steel	< 32 HRC	12	0.171-0.285	0.182-0.304	0.203-0.339
	○ 9.2 Hardened Steel	33 - 41 HRC	10	0.171-0.285	0.182-0.304	0.203-0.339



Parameters based on ideal conditions.
Please adjust parameters accordingly to real applications.