



Tooling for Industrial Maintenance and Repair Applications (MRO)





Dormer Pramet is your one-stop manufacturer with a comprehensive program of rotary and indexable tooling with more than 150 years of industry experience. Our core offer includes drilling, milling, threading and turning tools for the general engineering sector. Market-leading brands include Precision Twist Drill (PTD), Union Butterfield, Dormer and Pramet.

As a full-service supplier, we are committed to assisting our customers in implementing their machining processes efficiently with productivity as our goal.

Since its founding in 1952, the Precision Twist Drill brand of cutting tools has represented both reliability and quality to its extensive customer base. This standard continues with the **PRECISIONLIGHT** program of drills and burrs introduced specifically for the MRO (Maintenance, Repair and Overhaul) market.

Delivering affordable reliability to the maintenance and repair professional, the program meets user needs with a broad offering of screw machine, jobber, mechanics length and reduced shank drills along with a wide variety of industry standard burr shapes in both general-purpose double cut and aluminum cut types to cover a majority of trimming applications. The **PRECISIONLIGHT** program continues to support the one-stop-shop philosophy of Dormer Pramet while carrying on the established tradition of Precision Twist Drill quality and performance.

WORK **LIGHT**

The focus product design within the **PRECISIONLIGHT** program is the **WORKLIGHT**. This unique design is optimized for ease of use and reliability and includes enhanced penetration geometry that improves chip evacuation, allows cutting fluid better access to the point and reduces the effort required to push the drill through the workpiece. The **WORKLIGHT** drill design is offered in five series' 332HD, 333HD, 312SM, 342SDT and 344RS.





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General Purpose Jobber Length Drills



118° Point, Steam Oxide

Designed for general purpose portable and machine drilling under a wide range of operating conditions in various materials. Surface treated with a black steam oxide finish for abrasion resistance and improved coolant adherence.

301JD



Drill Sizes				Flute Length	Over-All-Length	Pkg Qty	EDP#
Fractional	Wire Gauge	Letter	Decimal				
	N60		0.0400	11/16	1.5/8	12	46480740 *
	N59		0.0410	11/16	1.5/8	12	46480741 *
	N58		0.0420	11/16	1.5/8	12	46480742 *
	N57		0.0430	3/4	1.3/4	12	46480743 *
	N56		0.0465	3/4	1.3/4	12	46480744 *
	N55		0.0520	7/8	1.7/8	12	46480745 *
	N54		0.0550	7/8	1.7/8	12	46480746 *
	N53		0.0595	7/8	1.7/8	12	46480747
1/16			0.0625	7/8	1.7/8	12	46480748
	N52		0.0635	7/8	1.7/8	12	46480749
	N51		0.0670	1"	2"	12	46480750
	N50		0.0700	1"	2"	12	46480751
	N49		0.0730	1"	2"	12	46480752
	N48		0.0760	1"	2"	12	46480753
5/64			0.0781	1"	2"	12	46480754
	N47		0.0785	1"	2"	12	46480755
	N46		0.0810	1.1/8	2.1/8	12	46480756
	N45		0.0820	1.1/8	2.1/8	12	46480757
	N44		0.0860	1.1/8	2.1/8	12	46480758
	N43		0.0890	1.1/4	2.1/4	12	46480759
	N42		0.0935	1.1/4	2.1/4	12	46480760
3/32			0.0937	1.1/4	2.1/4	12	46480761
	N41		0.0960	1.3/8	2.3/8	12	46480762
	N40		0.0980	1.3/8	2.3/8	12	46480763
	N39		0.0995	1.3/8	2.3/8	12	46480764
	N38		0.1015	1.7/16	2.1/2	12	46480765
	N37		0.1040	1.7/16	2.1/2	12	46480766
	N36		0.1065	1.7/16	2.1/2	12	46480767
7/64			0.1094	1.1/2	2.5/8	12	46480768
	N35		0.1100	1.1/2	2.5/8	12	46480769
	N34		0.1110	1.1/2	2.5/8	12	46480770
	N33		0.1130	1.1/2	2.5/8	12	46480771
	N32		0.1160	1.5/8	2.3/4	12	46480772
	N31		0.1200	1.5/8	2.3/4	12	46480773
1/8			0.1250	1.5/8	2.3/4	12	46480774
	N30		0.1285	1.5/8	2.3/4	12	46480775
	N29		0.1360	1.3/4	2.7/8	12	46480776
	N28		0.1405	1.3/4	2.7/8	12	46480777
9/64			0.1406	1.3/4	2.7/8	12	46480778
	N27		0.1440	1.7/8	3"	12	46480779
	N26		0.1470	1.7/8	3"	12	46480780
	N25		0.1495	1.7/8	3"	12	46480781
	N24		0.1520	2"	3.1/8	12	46480782
	N23		0.1540	2"	3.1/8	12	46480783
5/32			0.1563	2"	3.1/8	12	46480784
	N22		0.1570	2"	3.1/8	12	46480785
	N21		0.1590	2.1/8	3.1/4	12	46480786
	N20		0.1610	2.1/8	3.1/4	12	46480787
	N19		0.1660	2.1/8	3.1/4	12	46480788
	N18		0.1695	2.1/8	3.1/4	12	46480789
11/64			0.1719	2.1/8	3.1/4	12	46480790
			0.1730	2.3/16	3.3/8	12	46480791
	N16		0.1770	2.3/16	3.3/8	12	46480792
	N15		0.1800	2.3/16	3.3/8	12	46480793
	N14		0.1820	2.3/16	3.3/8	12	46480794
	N13		0.1850	2.5/16	3.1/2	12	46480795
3/16			0.1875	2.5/16	3.1/2	12	46480796
	N12		0.1890	2.5/16	3.1/2	12	46480797



General Purpose Jobber Length Drills

118° Point, Steam Oxide

continued

Fractional	Drill Sizes			Flute Length	Over-All-Length	Pkg Qty	EDP#
	Wire Gauge	Letter	Decimal				
	N11		0.1910	2.5/16	3.1/2	12	46480798
	N10		0.1935	2.7/16	3.5/8	12	46480799
	N9		0.1960	2.7/16	3.5/8	12	46480800
	N8		0.1990	2.7/16	3.5/8	12	46480801
	N7		0.2010	2.7/16	3.5/8	12	46480802
13/64			0.2031	2.7/16	3.5/8	12	46480803
	N6		0.2040	2.1/2	3.3/4	12	46480804
	N5		0.2055	2.1/2	3.3/4	12	46480805
	N4		0.2090	2.1/2	3.3/4	12	46480806
	N3		0.2130	2.1/2	3.3/4	12	46480807
7/32			0.2187	2.1/2	3.3/4	12	46480808
	N2		0.2210	2.5/8	3.7/8	12	46480809
	N1		0.2280	2.5/8	3.7/8	12	46480810
		A	0.2340	2.5/8	3.7/8	12	46480811
15/64			0.2344	2.5/8	3.7/8	12	46480812
		B	0.2380	2.3/4	4"	12	46480813
		C	0.2420	2.3/4	4"	12	46480814
		D	0.2460	2.3/4	4"	12	46480815
		E	0.2500	2.3/4	4"	12	46480817
1/4			0.2500	2.3/4	4"	12	46480816
		F	0.2570	2.7/8	4.1/8	12	46480818
		G	0.2610	2.7/8	4.1/8	12	46480819
17/64			0.2656	2.7/8	4.1/8	12	46480820
		H	0.2660	2.7/8	4.1/8	12	46480821
		I	0.2720	2.7/8	4.1/8	12	46480822
		J	0.2770	2.7/8	4.1/8	12	46480823
		K	0.2810	2.15/16	4.1/4	12	46480824
9/32			0.2813	2.15/16	4.1/4	12	46480825
		L	0.2900	2.15/16	4.1/4	12	46480826
		M	0.2950	3.1/16	4.3/8	12	46480827
19/64			0.2969	3.1/16	4.3/8	12	46480828
		N	0.3020	3.1/16	4.3/8	12	46480829
5/16			0.3125	3.3/16	4.1/2	6	46480830
		O	0.3160	3.3/16	4.1/2	6	46480831
		P	0.3230	3.5/16	4.5/8	6	46480832
21/64			0.3281	3.5/16	4.5/8	6	46480833
		Q	0.3320	3.7/16	4.3/4	6	46480834
		R	0.3390	3.7/16	4.3/4	6	46480835
11/32			0.3438	3.7/16	4.3/4	6	46480836
		S	0.3480	3.1/2	4.7/8	6	46480837
		T	0.3580	3.1/2	4.7/8	6	46480838
23/64			0.3594	3.1/2	4.7/8	6	46480839
		U	0.3680	3.5/8	5"	6	46480840
3/8			0.3750	3.5/8	5"	6	46480841
		V	0.3770	3.5/8	5"	6	46480842
		W	0.3860	3.3/4	5.1/8	6	46480843
25/64			0.3906	3.3/4	5.1/8	6	46480844
		X	0.3970	3.3/4	5.1/8	6	46480845
		Y	0.4040	3.7/8	5.1/4	6	46480846
13/32			0.4063	3.7/8	5.1/4	6	46480847
		Z	0.4130	3.7/8	5.1/4	6	46480848
27/64			0.4219	3.15/16	5.3/8	6	46480849
7/16			0.4375	4.1/16	5.1/2	6	46480850
29/64			0.4531	4.3/16	5.5/8	6	46480851
15/32			0.4687	4.5/16	5.3/4	6	46480852
31/64			0.4844	4.3/8	5.7/8	6	46480853
1/2			0.5000	4.1/2	6"	6	46480854

Heavy Duty Jobber Length Drills



135° Split Point

Web construction is heavier than the 301JD general purpose drills providing greater rigidity & strength in drilling medium strength alloy materials. The Self-Centering 135° Split Point additionally reduces the thrust requirements and minimizes 'walking' particularly on curved surfaces.

331HD - Steam Oxide

for improved abrasion resistance.



332HD - Steam & Bronze Oxide

WORK LIGHT abrasion resistance & improved lubricity, enhanced penetration geometry



333HD - TiN Coated

WORK LIGHT Titanium Nitride (TiN) surface finish which provides an effective 'heat shield' together with higher lubricity at higher speeds & feeds enhanced penetration geometry



Drill Sizes				Flute Length	Over-All-Length	Pkg Qty	331HD EDP#	332HD EDP#	333HD EDP#
Fractional	Wire Gauge	Letter	Decimal						
	N60		0.0400	11/16	1.5/8	12		47233745	*
	N59		0.0410	11/16	1.5/8	12		47233744	*
	N58		0.0420	11/16	1.5/8	12		47233743	*
	N57		0.0430	3/4	1.3/4	12		47233742	*
	N56		0.0465	3/4	1.3/4	12		47233741	*
	N55		0.0520	7/8	1.7/8	12		47233740	*
	N54		0.0550	7/8	1.7/8	12		47233739	*
	N53		0.0595	7/8	1.7/8	12		47233738	
1/16			0.0625	7/8	1.7/8	12	46480999	47233631	47233748
	N52		0.0635	7/8	1.7/8	12	47233620	47233737	
	N51		0.0670	1"	2"	12	47233619	47233736	
	N50		0.0700	1"	2"	12	47233618	47233735	
	N49		0.0730	1"	2"	12	47233617	47233734	
	N48		0.0760	1"	2"	12	47233616	47233733	
5/64			0.0781	1"	2"	12	46481000	47233632	47233749
	N47		0.0785	1"	2"	12	47233615	47233732	
	N46		0.0810	1.1/8	2.1/8	12	47233614	47233731	
	N45		0.0820	1.1/8	2.1/8	12	47233613	47233730	
	N44		0.0860	1.1/8	2.1/8	12	47233612	47233729	
	N43		0.0890	1.1/4	2.1/4	12	47233611	47233728	
	N42		0.0935	1.1/4	2.1/4	12	47233610	47233727	
3/32			0.0937	1.1/4	2.1/4	12	46481001	47233633	47233750
	N41		0.0960	1.3/8	2.3/8	12	47233609	47233726	
	N40		0.0980	1.3/8	2.3/8	12	47233608	47233725	
	N39		0.0995	1.3/8	2.3/8	12	47233607	47233724	
	N38		0.1015	1.7/16	2.1/2	12	47233606	47233723	
	N37		0.1040	1.7/16	2.1/2	12	47233605	47233722	
	N36		0.1065	1.7/16	2.1/2	12	47233604	47233721	
7/64			0.1094	1.1/2	2.5/8	12	46481002	47233634	47233751
	N35		0.1100	1.1/2	2.5/8	12	47233603	47233720	
	N34		0.1110	1.1/2	2.5/8	12	47233602	47233719	
	N33		0.1130	1.1/2	2.5/8	12	47233601	47233718	
	N32		0.1160	1.5/8	2.3/4	12	47233600	47233717	
	N31		0.1200	1.5/8	2.3/4	12	47233599	47233716	
1/8			0.1250	1.5/8	2.3/4	12	46481003	47233635	47233752
	N30		0.1285	1.5/8	2.3/4	12	47233598	47233715	
	N29		0.1360	1.3/4	2.7/8	12	47233597	47233714	
	N28		0.1405	1.3/4	2.7/8	12	47233596	47233713	
9/64			0.1406	1.3/4	2.7/8	12	46481004	47233636	47233753
	N27		0.1440	1.7/8	3"	12	47233595	47233712	
	N26		0.1470	1.7/8	3"	12	47233594	47233711	
	N25		0.1495	1.7/8	3"	12	47233593	47233710	
	N24		0.1520	2"	3.1/8	12	47233592	47233709	
	N23		0.1540	2"	3.1/8	12	47233591	47233708	
5/32			0.1563	2"	3.1/8	12	46481005	47233637	47233754
	N22		0.1570	2"	3.1/8	12	47233590	47233707	
	N21		0.1590	2.1/8	3.1/4	12	47233589	47233706	



Heavy Duty Jobber Length Drills

135° Split Point

continued

Drill Sizes				Flute Length	Over-All-Length	Pkg Qty	331HD EDP#	332HD EDP#	333HD EDP#
Fractional	Wire Gauge	Letter	Decimal						
	N20		0.1610	2.1/8	3.1/4	12	47233588	47233705	
	N19		0.1660	2.1/8	3.1/4	12	47233587	47233704	
	N18		0.1695	2.1/8	3.1/4	12	47233586	47233703	
11/64			0.1719	2.1/8	3.1/4	12	46481006	47233638	47233755
	N17		0.1730	2.3/16	3.3/8	12	47233585	47233702	
	N16		0.1770	2.3/16	3.3/8	12	47233584	47233701	
	N15		0.1800	2.3/16	3.3/8	12	47233583	47233700	
	N14		0.1820	2.3/16	3.3/8	12	47233582	47233699	
	N13		0.1850	2.5/16	3.1/2	12	47233581	47233698	
3/16			0.1875	2.5/16	3.1/2	12	46481007	47233639	47233756
	N12		0.1890	2.5/16	3.1/2	12	47233580	47233697	
	N11		0.1910	2.5/16	3.1/2	12	47233579	47233696	
	N10		0.1935	2.7/16	3.5/8	12	47233578	47233695	
	N9		0.1960	2.7/16	3.5/8	12	47233577	47233694	
	N8		0.1990	2.7/16	3.5/8	12	47233576	47233693	
	N7		0.2010	2.7/16	3.5/8	12	47233575	47233692	
13/64			0.2031	2.7/16	3.5/8	12	46481008	47233640	47233757
	N6		0.2040	2.1/2	3.3/4	12	47233574	47233691	
	N5		0.2055	2.1/2	3.3/4	12	47233573	47233690	
	N4		0.2090	2.1/2	3.3/4	12	47233572	47233689	
	N3		0.2130	2.1/2	3.3/4	12	47233571	47233688	
7/32			0.2187	2.1/2	3.3/4	12	46481009	47233641	47233758
	N2		0.2210	2.5/8	3.7/8	12	47233570	47233687	
	N1		0.2280	2.5/8	3.7/8	12	47233569	47233686	
15/64		A	0.2340	2.5/8	3.7/8	12	47233503	47233660	
			0.2344	2.5/8	3.7/8	12	46481010	47233642	47233759
		B	0.2380	2.3/4	4"	12	47233504	47233661	
		C	0.2420	2.3/4	4"	12	47233505	47233662	
		D	0.2460	2.3/4	4"	12	47233506	47233663	
		E	0.2500	2.3/4	4"	12	47233507	47233664	
1/4			0.2500	2.3/4	4"	12	46481011	47233643	47233760
		F	0.2570	2.7/8	4.1/8	12	47233508	47233665	
		G	0.2610	2.7/8	4.1/8	12	47233509	47233666	
17/64			0.2656	2.7/8	4.1/8	12	46481012	47233644	47233761
		H	0.2660	2.7/8	4.1/8	12	47233550	47233667	
		I	0.2720	2.7/8	4.1/8	12	47233551	47233668	
		J	0.2770	2.7/8	4.1/8	12	47233552	47233669	
		K	0.2810	2.15/16	4.1/4	12	47233553	47233670	
9/32			0.2813	2.15/16	4.1/4	12	46481013	47233645	47233762
		L	0.2900	2.15/16	4.1/4	12	47233554	47233671	
		M	0.2950	3.1/16	4.3/8	12	47233555	47233672	
19/64			0.2969	3.1/16	4.3/8	12	46481014	47233646	47233763
		N	0.3020	3.1/16	4.3/8	12	47233556	47233673	
5/16			0.3125	3.3/16	4.1/2	6	46481015	47233647	47233764
		O	0.3160	3.3/16	4.1/2	6	47233557	47233674	
		P	0.3230	3.5/16	4.5/8	6	47233558	47233675	
21/64			0.3281	3.5/16	4.5/8	6	46481016	47233648	47233765
		Q	0.3320	3.7/16	4.3/4	6	47233559	47233676	
		R	0.3390	3.7/16	4.3/4	6	47233560	47233677	
11/32			0.3438	3.7/16	4.3/4	6	46481017	47233649	47233766
		S	0.3480	3.1/2	4.7/8	6	47233561	47233678	
		T	0.3580	3.1/2	4.7/8	6	47233562	47233679	
23/64			0.3594	3.1/2	4.7/8	6	46481018	47233650	47233767
		U	0.3680	3.5/8	5"	6	47233563	47233680	
3/8			0.3750	3.5/8	5"	6	46481019	47233651	47233768
		V	0.3770	3.5/8	5"	6	47233564	47233681	
		W	0.3860	3.3/4	5.1/8	6	47233565	47233682	
25/64			0.3906	3.3/4	5.1/8	6	46481020	47233652	47233769
		X	0.3970	3.3/4	5.1/8	6	47233566	47233683	
		Y	0.4040	3.7/8	5.1/4	6	47233567	47233684	
13/32			0.4063	3.7/8	5.1/4	6	46481021	47233653	47233770
		Z	0.4130	3.7/8	5.1/4	6	47233568	47233685	
27/64			0.4219	3.15/16	5.3/8	6	46481022	47233654	47233771
7/16			0.4375	4.1/16	5.1/2	6	46481023	47233655	47233772
29/64			0.4531	4.3/16	5.5/8	6	46481024	47233656	47233773
15/32			0.4687	4.5/16	5.3/4	6	46481025	47233657	47233774
31/64			0.4844	4.3/8	5.7/8	6	46481026	47233658	47233775
1/2			0.5000	4.1/2	6"	6	46481027	47233659	47233776

Heavy Duty Screw Machine Length Drills



135° Split Point

The short flute and overall length increases their rigidity, which improves hole accuracy and subsequently extends tool life. The Self-Centering 135° Split Point additionally reduces the thrust requirements and minimizes 'walking' particularly on curved surfaces. Recommended for use in portable power tools.

311SM - Steam Oxide

for improved abrasion resistance.



312SM - Steam & Bronze Oxide

WORK LIGHT abrasion resistance & improved lubricity, enhanced penetration geometry



Drill Sizes				Flute Length	Over-All-Length	Pkg Qty	311SM EDP#	312SM EDP#	
Fractional	Wire Gauge	Letter	Decimal						
	N60		0.0400	1/2	1.3/8	12	46480855		*
	N59		0.0410	1/2	1.3/8	12	46480856		*
	N58		0.0420	1/2	1.3/8	12	46480857		*
	N57		0.0430	1/2	1.3/8	12	46480858		*
	N56		0.0465	1/2	1.3/8	12	46480859		*
	N55		0.0520	5/8	1.5/8	12	46480860		*
	N54		0.0550	5/8	1.5/8	12	46480861		*
	N53		0.0595	5/8	1.5/8	12	46480862		
1/16			0.0625	5/8	1.5/8	12	46480863	47233779	
	N52		0.0635	11/16	1.11/16	12	46480864		
	N51		0.0670	11/16	1.11/16	12	46480865		
	N50		0.0700	11/16	1.11/16	12	46480866		
	N49		0.0730	11/16	1.11/16	12	46480867		
	N48		0.0760	11/16	1.11/16	12	46480868		
5/64			0.0781	11/16	1.11/16	12	46480869	47233780	
	N47		0.0785	11/16	1.11/16	12	46480870		
	N46		0.0810	3/4	1.3/4	12	46480871		
	N45		0.0820	3/4	1.3/4	12	46480872		
	N44		0.0860	3/4	1.3/4	12	46480873		
	N43		0.0890	3/4	1.3/4	12	46480874		
	N42		0.0935	3/4	1.3/4	12	46480875		
3/32			0.0937	3/4	1.3/4	12	46480876	47233781	
	N41		0.0960	13/16	1.13/16	12	46480877		
	N40		0.0980	13/16	1.13/16	12	46480878		
	N39		0.0995	13/16	1.13/16	12	46480879		
	N38		0.1015	13/16	1.13/16	12	46480880		
	N37		0.1040	13/16	1.13/16	12	46480881		
	N36		0.1065	13/16	1.13/16	12	46480882		
7/64			0.1094	13/16	1.13/16	12	46480883	47233782	
	N35		0.1100	7/8	1.7/8	12	46480884		
	N34		0.1110	7/8	1.7/8	12	46480885		
	N33		0.1130	7/8	1.7/8	12	46480886		
	N32		0.1160	7/8	1.7/8	12	46480887		
	N31		0.1200	7/8	1.7/8	12	46480888		
1/8			0.1250	7/8	1.7/8	12	46480889	47233783	
	N30		0.1285	15/16	1.15/16	12	46480890		
	N29		0.1360	15/16	1.15/16	12	46480891		
	N28		0.1405	15/16	1.15/16	12	46480892		
9/64			0.1406	15/16	1.15/16	12	46480893	47233784	
	N27		0.1440	1"	2.1/16	12	46480894		
	N26		0.1470	1"	2.1/16	12	46480895		
	N25		0.1495	1"	2.1/16	12	46480896		
	N24		0.1520	1"	2.1/16	12	46480897		
	N23		0.1540	1"	2.1/16	12	46480898		
5/32			0.1563	1"	2.1/16	12	46480899	47233785	
	N22		0.1570	1.1/16	2.1/8	12	46480900		
	N21		0.1590	1.1/16	2.1/8	12	46480901		
	N20		0.1610	1.1/16	2.1/8	12	46480902		
	N19		0.1660	1.1/16	2.1/8	12	46480903		
	N18		0.1695	1.1/16	2.1/8	12	46480904		
11/64			0.1719	1.1/16	2.1/8	12	46480905	47233786	
	N17		0.1730	1.1/8	2.3/16	12	46480906		
	N16		0.1770	1.1/8	2.3/16	12	46480907		



Heavy Duty Screw Machine Length Drills

135° Split Point

continued

Drill Sizes				Flute Length	Over-All-Length	Pkg Qty	311SM EDP#	312SM EDP#
Fractional	Wire Gauge	Letter	Decimal					
	N15		0.1800	1.1/8	2.3/16	12	46480908	
	N14		0.1820	1.1/8	2.3/16	12	46480909	
	N13		0.1850	1.1/8	2.3/16	12	46480910	
3/16			0.1875	1.1/8	2.3/16	12	46480911	47233787
	N12		0.1890	1.3/16	2.1/4	12	46480912	
	N11		0.1910	1.3/16	2.1/4	12	46480913	
	N10		0.1935	1.3/16	2.1/4	12	46480914	
	N9		0.1960	1.3/16	2.1/4	12	46480915	
	N8		0.1990	1.3/16	2.1/4	12	46480916	
	N7		0.2010	1.3/16	2.1/4	12	46480917	
13/64			0.2031	1.3/16	2.1/4	12	46480918	47233788
	N6		0.2040	1.1/4	2.3/8	12	46480919	
	N5		0.2055	1.1/4	2.3/8	12	46480920	
	N4		0.2090	1.1/4	2.3/8	12	46480921	
	N3		0.2130	1.1/4	2.3/8	12	46480922	
7/32			0.2187	1.1/4	2.3/8	12	46480923	47233789
	N2		0.2210	1.5/16	2.7/16	12	46480924	
	N1		0.2280	1.5/16	2.7/16	12	46480925	
		A	0.2340	1.5/16	2.7/16	12	46480926	
15/64			0.2344	1.5/16	2.7/16	12	46480927	47233790
		B	0.2380	1.3/8	2.1/2	12	46480928	
		C	0.2420	1.3/8	2.1/2	12	46480929	
		D	0.2460	1.3/8	2.1/2	12	46480930	
		E	0.2500	1.3/8	2.1/2	12	46480932	
1/4			0.2500	1.3/8	2.1/2	12	46480931	47233791
		F	0.2570	1.7/16	2.5/8	12	46480933	
		G	0.2610	1.7/16	2.5/8	12	46480934	
17/64			0.2656	1.7/16	2.5/8	12	46480935	47233792
		H	0.2660	1.1/2	2.11/16	12	46480936	
		I	0.2720	1.1/2	2.11/16	12	46480937	
		J	0.2770	1.1/2	2.11/16	12	46480938	
		K	0.2810	1.1/2	2.11/16	12	46480939	
9/32			0.2813	1.1/2	2.11/16	12	46480940	47233793
		L	0.2900	1.9/16	2.3/4	12	46480941	
		M	0.2950	1.9/16	2.3/4	12	46480942	
19/64			0.2969	1.9/16	2.3/4	12	46480943	47233794
		N	0.3020	1.5/8	2.13/16	12	46480944	
5/16			0.3125	1.5/8	2.13/16	6	46480945	47233795
		O	0.3160	1.11/16	2.15/16	6	46480946	
		P	0.3230	1.11/16	2.15/16	6	46480947	
21/64			0.3281	1.11/16	2.15/16	6	46480948	47233796
		Q	0.3320	1.11/16	3"	6	46480949	
		R	0.3390	1.11/16	3"	6	46480950	
11/32			0.3438	1.11/16	3"	6	46480951	47233797
		S	0.3480	1.3/4	3.1/16	6	46480952	
		T	0.3580	1.3/4	3.1/16	6	46480953	
23/64			0.3594	1.3/4	3.1/16	6	46480954	47233798
		U	0.3680	1.13/16	3.1/8	6	46480955	
3/8			0.3750	1.13/16	3.1/8	6	46480956	47233799
		V	0.3770	1.7/8	3.1/4	6	46480957	
		W	0.3860	1.7/8	3.1/4	6	46480958	
25/64			0.3906	1.7/8	3.1/4	6	46480959	47233800
		X	0.3970	1.15/16	3.5/16	6	46480960	
		Y	0.4040	1.15/16	3.5/16	6	46480961	
13/32			0.4063	1.15/16	3.5/16	6	46480962	47233801
		Z	0.4130	2"	3.3/8	6	46480963	
27/64			0.4219	2"	3.3/8	6	46480964	47233802
7/16			0.4375	2.1/16	3.7/16	6	46480965	47233803
29/64			0.4531	2.1/8	3.9/16	6	46480966	47233804
15/32			0.4687	2.1/8	3.5/8	6	46480967	47233805
31/64			0.4844	2.3/16	3.11/16	6	46480968	47233806
1/2			0.5000	2.1/4	3.3/4	6	46480969	47233807

Heavy Duty Mechanics Length Drills



135° Split Point, Steam & Bronze Oxide

Shorter flute and overall length than the 332HD Jobber Length drills for superior rigidity when used in portable drills. Additionally, features 3 flats on the shank for tighter chucking particularly in keyless chucks. The Self-Centering 135° Split Point additionally reduces the thrust requirements and minimizes 'walking' particularly on curved surfaces Functional Steam & Bronze Oxide surface treatment provides both abrasion resistance & improved lubricity.

321MD



Drill Sizes		Flute Length	Over-All-Length	Pkg Qty	321MD EDP#	
Fractional	Decimal					
1/16	0.0625	7/8	1.7/8	12	46480970	*
5/64	0.0781	1"	2"	12	46480971	*
3/32	0.0937	1.1/4	2.1/4	12	46480972	*
7/64	0.1094	1.5/16	2.3/8	12	46480973	*
1/8	0.1250	1.7/16	2.1/2	12	46480974	*
9/64	0.1406	1.9/16	2.5/8	12	46480975	*
5/32	0.1563	1.11/16	2.3/4	12	46480976	*
11/64	0.1719	1.13/16	2.7/8	12	46480977	*
3/16	0.1875	1.7/8	3"	12	46480978	
13/64	0.2031	1.15/16	3.1/8	12	46480979	
7/32	0.2187	2"	3.1/4	12	46480980	
15/64	0.2344	2.1/16	3.3/8	12	46480981	
1/4	0.2500	2"	3.1/2	12	46480982	
17/64	0.2656	2.1/8	3.5/8	12	46480983	
9/32	0.2813	2.1/4	3.3/4	12	46480984	
19/64	0.2969	2.3/8	3.7/8	12	46480985	
5/16	0.3125	2.1/2	4"	6	46480986	
21/64	0.3281	2.9/16	4.1/16	6	46480987	
11/32	0.3438	2.5/8	4.1/8	6	46480988	
23/64	0.3594	2.11/16	4.3/16	6	46480989	
3/8	0.3750	2.11/16	4.1/4	6	46480990	
25/64	0.3906	2.3/4	4.5/16	6	46480991	
13/32	0.4063	2.13/16	4.3/8	6	46480992	
27/64	0.4219	2.7/8	4.7/16	6	46480993	
7/16	0.4375	2.15/16	4.1/2	6	46480994	
29/64	0.4531	3"	4.5/8	6	46480995	
15/32	0.4687	3.1/8	4.3/4	6	46480996	
31/64	0.4844	3.1/4	4.7/8	6	46480997	
1/2	0.5000	3.3/8	5"	6	46480998	

* No Tri Flats on Shank



Reduced Shank Drills

118° Point, Steam Oxide & Bright

The 1/2" diameter reduced shank makes them ideal for portable drilling and drill presses where the maximum chuck capacity is 1/2". Surface treated with a black steam oxide finish for abrasion resistance and improved coolant adherence.

Not recommended for enlarging existing holes.

341SD - 1/2" Shank Diameter, Silver & Deming



Drill Sizes		Flute Length	Over-All-Length	Pkg Qty	341SD EDP#
Fractional	Decimal				
33/64	0.5156	3"	6"	1	46481031
17/32	0.5313	3"	6"	1	46481032
35/64	0.5469	3"	6"	1	46481033
9/16	0.5625	3"	6"	1	46481034
37/64	0.5781	3"	6"	1	46481035
19/32	0.5937	3"	6"	1	46481036
39/64	0.6094	3"	6"	1	46481030
5/8	0.6250	3"	6"	1	46481037
41/64	0.6406	3"	6"	1	46481038
21/32	0.6562	3"	6"	1	46481039
43/64	0.6719	3"	6"	1	46481040
11/16	0.6875	3"	6"	1	46481041
45/64	0.7031	3"	6"	1	46481042
23/32	0.7187	3"	6"	1	46481043
47/64	0.7344	3"	6"	1	46481044
3/4	0.7500	3"	6"	1	46481045
49/64	0.7656	3"	6"	1	46481046
25/32	0.7812	3"	6"	1	46481047
51/64	0.7969	3"	6"	1	46481048
13/16	0.8125	3"	6"	1	46481049
53/64	0.8281	3"	6"	1	46481050
27/32	0.8437	3"	6"	1	46481051
55/64	0.8594	3"	6"	1	46481052
7/8	0.8750	3"	6"	1	46481053
57/64	0.8906	3"	6"	1	46481028
29/32	0.9062	3"	6"	1	46481054
59/64	0.9219	3"	6"	1	46481055
15/16	0.9375	3"	6"	1	46481056
61/64	0.9531	3"	6"	1	46481029
31/32	0.9688	3"	6"	1	46481057
63/64	0.9844	3"	6"	1	46481058
1"	1.0000	3"	6"	1	46481059
1.1/32	1.0312	3"	6"	1	46481060
1.1/16	1.0625	3"	6"	1	46481061
1.3/32	1.0938	3"	6"	1	46481062
1.1/8	1.1250	3"	6"	1	46481063
1.5/32	1.1562	3"	6"	1	46481064
1.3/16	1.1875	3"	6"	1	46481065
1.7/32	1.2187	3"	6"	1	46481066
1.1/4	1.2500	3"	6"	1	46481067
1.5/16	1.3125	3"	6"	1	46481068
1.3/8	1.3750	3"	6"	1	46481069
1.7/16	1.4375	3"	6"	1	46481070
1.1/2	1.5000	3"	6"	1	46481071

Reduced Shank Drills

Steam & Bronze Oxide

The 1/2" diameter reduced shank makes them ideal for portable drilling and drill presses where the maximum chuck capacity is 1/2". The Self-Centering 118° Split Point additionally reduces the thrust requirements and minimizes 'walking' particularly on curved surfaces. The functional Steam & Bronze Oxide surface treatment provides both abrasion resistance & improved lubricity.



342SDT - 118° Split Point

WORK LIGHT

1/2" Shank Diameter, Silver & Deming with Tri-Flats, enhanced penetration geometry

Drill Sizes		Flute Length	Over-All-Length	Pkg Qty	342SDT EDP#
Fractional	Decimal				
33/64	0.5156	3"	6"	1	47233817
17/32	0.5313	3"	6"	1	47233818
35/64	0.5469	3"	6"	1	47233819
9/16	0.5625	3"	6"	1	47233820
37/64	0.5781	3"	6"	1	47233821
19/32	0.5937	3"	6"	1	47233822
39/64	0.6094	3"	6"	1	47233823
5/8	0.6250	3"	6"	1	47233824
41/64	0.6406	3"	6"	1	47233825
21/32	0.6562	3"	6"	1	47233826
43/64	0.6719	3"	6"	1	47233827
11/16	0.6875	3"	6"	1	47233828
45/64	0.7031	3"	6"	1	47233829
23/32	0.7187	3"	6"	1	47233830
47/64	0.7344	3"	6"	1	47233831
3/4	0.7500	3"	6"	1	47233832
49/64	0.7656	3"	6"	1	47233833
25/32	0.7812	3"	6"	1	47233834
51/64	0.7969	3"	6"	1	47233835
13/16	0.8125	3"	6"	1	47233836
53/64	0.8281	3"	6"	1	47233837
27/32	0.8437	3"	6"	1	47233838
55/64	0.8594	3"	6"	1	47233839
7/8	0.8750	3"	6"	1	47233840
57/64	0.8906	3"	6"	1	47233841
29/32	0.9062	3"	6"	1	47233842
59/64	0.9219	3"	6"	1	47233843
15/16	0.9375	3"	6"	1	47233844
61/64	0.9531	3"	6"	1	47233845
31/32	0.9688	3"	6"	1	47233846
63/64	0.9844	3"	6"	1	47233847
1	1.0000	3"	6"	1	47233848



Trailer Bit Drills

Steam Oxide

Low thrust self-centering 135° Split Point design for easier penetration. Increasing web for strength & rigidity. Designed for Hand Drilling through stacked materials found in Bus & Truck Trailer manufacturing. Steam Oxide surface treatment for increased wear resistance. Conforms to NAS 907 Type B Aerospace Standards

239TBT



Drill Sizes		Flute Length	Over-All-Length	Pkg Qty	239TBT EDP#
Inch	Decimal				
1/8	0.125	1.5/8	2.3/4	288	041957
11/64	0.172	2.1/8	3.1/4	288	041960
11	0.191	2.5/16	3.1/2	288	041926
7/32	0.219	2.1/2	3.3/4	288	041963
1/4	0.250	2.3/4	4"	288	041965
F	0.257	2.7/8	4.1/8	144	041948
17/64	0.266	2.7/8	4.1/8	144	041966
9/32	0.281	2.15/16	4.1/4	144	041967
5/16	0.313	3.3/16	4.1/2	144	041969

Drill Sets



331HDSET	Size	Decimal Size	Pkg Qty	EDP#
135° SP, HD, Black Jobber 29 pc. Set (1/16 - 1/2 x 64ths)	1/16 - 1/2 x 64ths	0.0625 - 0.5000 x 64ths	1	47233629
135° SP, HD, Black Jobber 15 pc. Set (1/16 - 1/2 x 32nds)	1/16 - 1/2 x 32nds	0.0625 - 0.5000 x 32nds	1	47233630

301JDSET	Size	Decimal Size	Pkg Qty	EDP#
118°, GP, Black Jobber 29 pc. Set (1/16 - 1/2 x 64ths)	1/16 - 1/2 x 64ths	0.0625 - 0.5000 x 64ths	1	46481072
118°, GP, Black Jobber 15 pc. Set (1/16 - 1/2 x 32nds)	1/16 - 1/2 x 32nds	0.0625 - 0.5000 x 32nds	1	47233502

332HDSET WORK LIGHT	Size	Decimal Size	Pkg Qty	EDP#
135° SP, HD, Black & Bronze Jobber 29 pc. Set (1/16 - 1/2 x 64ths)	1/16 - 1/2 x 64ths	0.0625 - 0.5000 x 64ths	1	47233746
135° SP, HD, Black & Bronze Jobber 15 pc. Set (1/16 - 1/2 x 32nds)	1/16 - 1/2 x 32nds	0.0625 - 0.5000 x 32nds	1	47233747

333HDSET WORK LIGHT	Size	Decimal Size	Pkg Qty	EDP#
135° SP, HD, TiN Coated Jobber 29 pc. Set (1/16 - 1/2 x 64ths)	1/16 - 1/2 x 64ths	0.0625 - 0.5000 x 64ths	1	47233777

311SMSET	Size	Decimal Size	Pkg Qty	EDP#
135° SP, HD, Black Screw Machine 29 pc. Set (1/16 - 1/2 x 64ths)	1/16 - 1/2 x 64ths	0.0625 - 0.5000 x 64ths	1	47233778

321MDSET	Size	Decimal Size	Pkg Qty	EDP#
135° SP Black & Bronze, HD, Mechanics Length 29 pc. Set (1/16 - 1/2 x 64ths)	1/16 - 1/2 x 64ths	0.0625 - 0.5000 x 64ths	1	46481073
135° SP Black & Bronze, HD, Mechanics Length 15 pc. Set (1/16 - 1/2 x 32nds)	1/16 - 1/2 x 32nds	0.0625 - 0.5000 x 32nds	1	47233808

341SDSET	Size	Decimal Size	Pkg Qty	EDP#
118° Point Black & Bright, 1/2" reduced shank, S & D 8 pc. Set	Ø 9/16 - Ø 1" x 16ths	0.5625 - 1.0000 x 16ths	1	47233816

342SDTSET WORK LIGHT	Size	Decimal Size	Pkg Qty	EDP#
118° SP Black & Bronze, 1/2" reduced shank w/Tri-Flats, S & D 8 pc. Set	Ø 9/16 - Ø 1" x 16ths	0.5625 - 1.0000 x 16ths	1	47233849

PROBLEM	SOLUTION
Wear on Outer Corners	Reduce cutting speed
	Increase feed (IPR)
	Improve direction of coolant flow
	Increase coolant pressure
Chipping of Chisel Edge	Add corner break
	Check accuracy of drill runout
	Check workpiece clamping accuracy and movement
	Check point centrality and lip height
Chipping of Cutting Lips	Increase feed rate
	Check accuracy of drill runout
	Check workpiece clamping accuracy and movement
	Reduce speed
Cracking of Lands	Reduce point clearance
	Increase hone
	Check movement of workpiece
	Increase back taper
Oversize Hole	Check accuracy of drill runout
	Chip packing; increase flute form opening or peck drill (HSS or HSCO only)
	Slow down helix, horizontal drilling
	Increase feed
	When spot drilling, reduce feed
	Improve direction of coolant flow
	Increase coolant pressure
	Undersize Hole
Check workpiece clamping accuracy and movement	
Check accuracy of drill runout	
Chip packing, increase flute form opening or peck drill (HSS or HSCO only)	
Hole Not Round	Check point centrality and lip height
	Improve direction of coolant flow
	Reduce cutting speed, increase feed
Drill Breakage	Check drill diameter
	Check accuracy of drill runout
	Check workpiece clamping accuracy and movement
	Check point centrality and lip height
	Chip packing, increase flute form opening or peck drill (HSS or HSCO only)
	Chip packing, increase flute form opening or peck drill (HSS or HSCO only)
Drill Breakage	Check workpiece clamping accuracy and movement
	Check accuracy of drill runout
	Reduce feed rate, increase feed rate
	Improve direction of coolant flow
	Increase coolant pressure

Rotary Burr Nomenclature



Position 1		Position 2			Position 3		Position 4		Position 5		Position 6	
Shape		Cutting Diameter			Length-of-Cut		Cut Type		Over-All-Length		Shank Diameter	
Code	Description	Code	Description		Code	Description	Code	Description	Code	Description	Code	Description
			Fractional	Decimal								
SA	Cylinder Without End Cut				S	Short	DC	Double Cut	S	Short	R	Reduced
SB	Cylinder With End Cut	04	1/16"	0.0625	-	Regular	FM	Aluminum Cut	-	Regular	-	Standard
SC	Cylinder With Ball Nose	03	3/32"	0.0938	M	Medium			M	Medium	H	Heavy Duty
SD	Ball	02	1/8"	0.1250	L	Long			L	Long		
SE	Oval	01	3/16"	0.1875	X	Extra Long			X	Extra Long		
SF	Tree - Radius End	10	1/4"	0.2500								
SG	Tree - Pointed End	20	5/16"	0.3125						8	8 pc. Set	
SH	Flame	30	3/8"	0.3750						12	12 pc. Set	
SJ	60° Cone	40	7/16"	0.4375								
SK	90° Cone	50	1/2"	0.5000								
SL	Taper - Radius End	60	5/8"	0.6250								
SM	Taper - Pointed End	70	3/4"	0.7500								
SN	Inverted Cone	80	7/8"	0.8750								
FGR	Fiber Glass Router	90	1"	1.0000								
PDM	Piloted Die Mill											
SET	Plastic Box Set											



Features & Benefits

- The combination of premium grade materials for both the shank and head, with precise production process, results in the creation of a consistent and secure program of tools.
- Material specific designs offer up to 50% higher metal removal rates over standard carbide burs.

Solid Carbide Construction

- Provides rigidity and strength
- Resulting in improved tool life
- Ground to h_6 tolerance for accurate holding
- Prevents bending and reduces vibrations

Brazed Construction

- Toughness results in improved tool life
- Hardened steel shanks ground to $+0.0000/-0.0005''$
- Special brazing elements provide excellent braze strength and impact strength, able to withstand high cutting forces
- Able to withstand higher temperatures during operation without failing

Rotary Burr - Cylinder without endcut

SA-DC

- Carbide
- Bright finish
- Double cut for general purpose use



Ecode	Cutting Diameter Inch	Shank Diameter Inch	Length of Cut Inch	Overall Length Inch	SA-DC EDP#
SA-04DC	1/16	1/8	1/4	1.1/2	7466184 ²⁾
SA-03DC	3/32	1/8	7/16	1.1/2	7466185 ²⁾
SA-02DC	1/8	1/8	9/16	1.1/2	7466186 ²⁾
SA-02DC-M	1/8	1/8	9/16	2	7466187 ²⁾
SA-02DC-L	1/8	1/8	9/16	3	7466188 ²⁾
SA-01DC-H	3/16	1/4	5/8	2	7466189 ²⁾
SA-10SDC	1/4	1/8	1/2	2	7466210 ^{1) 3)}
SA-10DC	1/4	1/4	5/8	2	7466211 ²⁾
SA-10LDC	1/4	1/4	1	2	7466212 ²⁾
SA-20DC	5/16	1/4	3/4	2.1/2	7466213 ^{1) 3)}
SA-30DC	3/8	1/4	3/4	2.1/2	7466214 ^{1) 3)}
SA-30DCX	3/8	1/4	3/4	6.3/4	7466215 ^{1) 3)}
SA-50DC	1/2	1/4	1	2.3/4	7466216 ^{1) 3)}
SA-50DCX	1/2	1/4	1	7	7466217 ^{1) 3)}
SA-60DC	5/8	1/4	1	2.3/4	7466218 ^{1) 3)}
SA-70SDC-S	3/4	1/4	3/4	2.1/2	7466219 ^{1) 3)}
SA-70DC	3/4	1/4	1	2.3/4	7466220 ^{1) 3)}
SA-90DC	1	1/4	1	2.3/4	7466221 ^{1) 3)}

¹⁾ Brazed Construction

²⁾ d2 tolerance h6

³⁾ d2 tolerance +0.0000 / -0.0005"

SA-FM

- Carbide
- Bright finish
- Aluminum cut for non-ferrous materials including plastics



Ecode	Cutting Diameter Inch	Shank Diameter Inch	Length of Cut Inch	Overall Length Inch	SA-FM EDP#
SA-10FM	1/4	1/4	5/8	2	7466222 ²⁾
SA-30FM	3/8	1/4	3/4	2.1/2	7466223 ^{1) 3)}
SA-50FM	1/2	1/4	1	2.3/4	7466224 ^{1) 3)}
SA-60FM	5/8	1/4	1	2.3/4	7466225 ^{1) 3)}

¹⁾ Brazed Construction

²⁾ d2 tolerance h6

³⁾ d2 tolerance +0.0000 / -0.0005"

Rotary Burr - Cylinder with endcut



SB-DC

- Carbide
- Bright finish
- Double cut for general purpose use



Ecode	Cutting Diameter Inch	Shank Diameter Inch	Length of Cut Inch	Overall Length Inch	SB-DC EDP#	
SB-02DC	1/8	1/8	9/16	1.1/2	7466226	2)
SB-02DC-M	1/8	1/8	9/16	2	7466227	2)
SB-10SDC-L	1/4	1/8	3/16	1.11/16	7466228	1) 3)
SB-02DC-H	1/8	1/4	5/8	2	7466229	2)
SB-10DC	1/4	1/4	5/8	2	7466230	2)
SB-20DC	5/16	1/4	3/4	2.1/2	7466231	1) 3)
SB-30DC	3/8	1/4	3/4	2.1/2	7466232	1) 3)
SB-30MDC-M	3/8	1/4	1	2.3/4	7466233	1) 3)
SB-30DC-X	3/8	1/4	3/4	6.3/4	7466234	1) 3)
SB-40DC	7/16	1/4	1	2.3/4	7466235	1) 3)
SB-50DC	1/2	1/4	1	2.3/4	7466236	1) 3)
SB-50DC-X	1/2	1/4	1	7	7466237	1) 3)
SB-60DC	5/8	1/4	1	2.3/4	7466238	1) 3)
SB-70DC	3/4	1/4	1	2.3/4	7466239	1) 3)
SB-90DC	1	1/4	1	2.3/4	7466240	1) 3)

¹⁾ Brazed Construction

²⁾ d2 tolerance h6

³⁾ d2 tolerance +0.0000 / -0.0005"

SB-FM

- Carbide
- Bright finish
- Aluminum cut for non-ferrous materials including plastics



Ecode	Cutting Diameter Inch	Shank Diameter Inch	Length of Cut Inch	Overall Length Inch	SB-FM EDP#	
SB-10FM	1/4	1/4	5/8	2	7466241	1) 3)
SB-30FM	3/8	1/4	3/4	2.1/2	7466242	2)
SB-50FM	1/2	1/4	1	2.3/4	7466243	2)

¹⁾ Brazed Construction

²⁾ d2 tolerance h6

³⁾ d2 tolerance +0.0000 / -0.0005"

Rotary Burr - Ball Nosed Cylinder

SC-DC

- Carbide
- Bright finish
- Double cut for general purpose use



Ecode	Cutting Diameter Inch	Shank Diameter Inch	Length of Cut Inch	Overall Length Inch	SC-DC EDP#	
SC-03DC	3/32	1/8	7/16	1.1/2	7466244	²⁾
SC-02DC	1/8	1/8	9/16	1.1/2	7466245	²⁾
SC-02DC-M	1/8	1/8	9/16	2	7466246	²⁾
SC-02DC-L	1/8	1/8	9/16	3	7466247	²⁾
SC-02MDC	1/8	1/4	5/8	2	7466248	²⁾
SC-01DC	3/16	1/4	5/8	2	7466249	²⁾
SC-10SDC	1/4	1/8	1/2	2	7466250	²⁾
SC-10DC	1/4	1/4	5/8	2	7466251	²⁾
SC-10LDC	1/4	1/4	1	2	7466252	²⁾
SC-20DC	5/16	1/4	3/4	2.1/2	7466253	^{1) 3)}
SC-30DC	3/8	1/4	3/4	2.1/2	7466254	^{1) 3)}
SC-30DC-X	3/8	1/4	3/4	6.3/4	7466255	^{1) 3)}
SC-40DC	7/16	1/4	1	2.3/4	7466256	^{1) 3)}
SC-50DC	1/2	1/4	1	2.3/4	7466257	^{1) 3)}
SC-50DC-X	1/2	1/4	1	7	7466258	^{1) 3)}
SC-60DC	5/8	1/4	1	2.3/4	7466259	^{1) 3)}
SC-60DC-X	5/8	1/4	1	7	7466260	^{1) 3)}
SC-70DC	3/4	1/4	1	2.3/4	7466261	^{1) 3)}

¹⁾ Brazed Construction

²⁾ d2 tolerance h6

³⁾ d2 tolerance +0.0000 / -0.0005"

SC-FM

- Carbide
- Bright finish
- Aluminum cut for non-ferrous materials including plastics



Ecode	Cutting Diameter Inch	Shank Diameter Inch	Length of Cut Inch	Overall Length Inch	SC-FM EDP#	
SC-10SFM-R	1/4	1/8	1/2	2	7466262	^{1) 3)}
SC-10FM	1/4	1/4	5/8	2	7466263	²⁾
SC-30FM	3/8	1/4	3/4	2.1/2	7466264	^{1) 3)}
SC-40FM	7/16	1/4	1	2.3/4	7466265	^{1) 3)}
SC-50FM	1/2	1/4	1	2.3/4	7466266	^{1) 3)}
SC-50FM-X	1/2	1/4	1	7	7466267	^{1) 3)}
SC-70FM	3/4	1/4	1	2.3/4	7466268	^{1) 3)}

¹⁾ Brazed Construction

²⁾ d2 tolerance h6

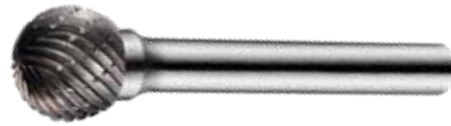
³⁾ d2 tolerance +0.0000 / -0.0005"

Rotary Burr - Ball



SD-DC

- Carbide
- Bright finish
- Double cut for general purpose use



Ecode	Cutting Diameter Inch	Shank Diameter Inch	Length of Cut Inch	Overall Length Inch	SD-DC EDP#	
SD-03DC	3/32	1/8	3/32	1.1/2	7466269	2)
SD-02DC	1/8	1/8	1/8	1.1/2	7466270	2)
SD-02DC-M	1/8	1/8	1/8	2	7466271	2)
SD-02DC-L	1/8	1/8	1/8	3	7466272	2)
SD-02SDC	1/8	1/4	3/32	2	7466273	2)
SD-02LDC	1/8	1/4	3/32	2	7466274	2)
SD-01DC	3/16	1/4	1/8	2	7466275	2)
SD-10DC-R	1/4	1/8	7/32	1.3/4	7466276	1) 3)
SD-10DC	1/4	1/4	7/32	2	7466277	2)
SD-10DC-L	1/4	1/4	7/32	6	7466278	2)
SD-10DC-X	1/4	1/4	7/32	6.3/4	7466279	2)
SD-20DC	5/16	1/4	1/4	2.1/16	7466280	1) 3)
SD-30DC	3/8	1/4	5/16	2.1/8	7466281	1) 3)
SD-30DC-X	3/8	1/4	5/16	6.3/8	7466282	1) 3)
SD-50DC	1/2	1/4	7/16	2.1/4	7466283	1) 3)
SD-50DC-X	1/2	1/4	7/16	6.1/2	7466284	1) 3)
SD-60DC	5/8	1/4	9/16	2.5/16	7466285	1) 3)
SD-70DC	3/4	1/4	11/16	2.1/2	7466286	1) 3)

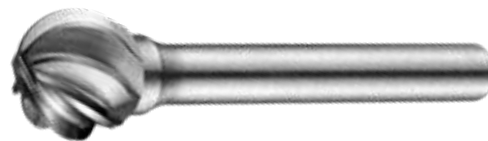
¹⁾ Brazed Construction

²⁾ d2 tolerance h6

³⁾ d2 tolerance +0.0000 / -0.0005"

SD-FM

- Carbide
- Bright finish
- Aluminum cut for non-ferrous materials including plastics



Ecode	Cutting Diameter Inch	Shank Diameter Inch	Length of Cut Inch	Overall Length Inch	SD-FM EDP#	
SD-10FM	1/4	1/4	7/32	2	7466287	2)
SD-30FM	3/8	1/4	5/16	2.1/8	7466288	1) 3)
SD-50FM	1/2	1/4	7/16	2.1/4	7466289	1) 3)

¹⁾ Brazed Construction

²⁾ d2 tolerance h6

³⁾ d2 tolerance +0.0000 / -0.0005"

Rotary Burr - Oval

SE-DC

- Carbide
- Bright finish
- Double cut for general purpose use



Ecode	Cutting Diameter Inch	Shank Diameter Inch	Length of Cut Inch	Overall Length Inch	SE-DC EDP#	
SE-02DC	1/8	1/8	7/32	1.1/2	7466290	²⁾
SE-10DC-R	1/4	1/8	3/8	1.3/4	7466291	^{1) 3)}
SE-10DC	1/4	1/4	3/8	2	7466292	²⁾
SE-10DC-X	1/4	1/4	3/8	6.3/4	7466293	²⁾
SE-30DC	3/8	1/4	5/8	2.3/8	7466294	^{1) 3)}
SE-30DC-X	3/8	1/4	5/8	6.5/8	7466295	^{1) 3)}
SE-50DC	1/2	1/4	7/8	2.5/8	7466296	^{1) 3)}
SE-50DC-X	1/2	1/4	7/8	6.7/8	7466297	^{1) 3)}
SE-60DC	5/8	1/4	1	2.3/4	7466298	^{1) 3)}

¹⁾ Brazed Construction

²⁾ d2 tolerance h6

³⁾ d2 tolerance +0.0000 / -0.0005"

SE-FM

- Carbide
- Bright finish
- Aluminum cut for non-ferrous materials including plastics



Ecode	Cutting Diameter Inch	Shank Diameter Inch	Length of Cut Inch	Overall Length Inch	SE-FM EDP#	
SE-30FM	3/8	1/4	5/8	2.3/8	7466287	^{1) 3)}
SE-30FM-X	3/8	1/4	3/4	6.3/4	7466288	^{1) 3)}
SE-50FM	1/2	1/4	7/8	2.5/8	7466289	^{1) 3)}

¹⁾ Brazed Construction

²⁾ d2 tolerance h6

³⁾ d2 tolerance +0.0000 / -0.0005"

Rotary Burr - Ball Nosed Tree



SF-DC

- Carbide
- Bright finish
- Double cut for general purpose use



Ecode	Cutting Diameter Inch	Shank Diameter Inch	Length of Cut Inch	Overall Length Inch	SF-DC EDP#	
SF-02DC	1/8	1/8	1/4	1.1/2	7466302	2)
SF-02LDC	1/8	1/8	1/2	1.1/2	7466303	2)
SF-10DC-R	1/4	1/8	1/2	2	7466304	1) 3)
SF-10DC	1/4	1/4	5/8	2	7466305	2)
SF-10DC-X	1/4	1/4	5/8	6.3/4	7466306	2)
SF-30DC	3/8	1/4	3/4	2.1/2	7466307	1) 3)
SF-30DC-X	3/8	1/4	3/4	6.3/4	7466308	1) 3)
SF-40DC	7/16	1/4	1	2.3/4	7466309	1) 3)
SF-50DC	1/2	1/4	1	2.3/4	7466310	1) 3)
SF-50DC-X	1/2	1/4	1	7	7466311	1) 3)
SF-60DC	5/8	1/4	1	2.3/4	7466312	1) 3)
SF-70DC	3/4	1/4	1	2.3/4	7466313	1) 3)

¹⁾ Brazed Construction

²⁾ d2 tolerance h6

³⁾ d2 tolerance +0.0000 / -0.0005"

SF-FM

- Carbide
- Bright finish
- Aluminum cut for non-ferrous materials including plastics



Ecode	Cutting Diameter Inch	Shank Diameter Inch	Length of Cut Inch	Overall Length Inch	SF-FM EDP#	
SF-10FM-R	1/4	1/8	1/2	2	7466314	1) 3)
SF-10FM	1/4	1/4	5/8	2	7466315	2)
SF-30FM	3/8	1/4	3/4	2.1/2	7466316	1) 3)
SF-50FM	1/2	1/4	1	2.3/4	7466317	1) 3)

¹⁾ Brazed Construction

²⁾ d2 tolerance h6

³⁾ d2 tolerance +0.0000 / -0.0005"

Rotary Burr - Pointed Tree

SG-DC

- Carbide
- Bright finish
- Double cut for general purpose use



Ecode	Cutting Diameter Inch	Shank Diameter Inch	Length of Cut Inch	Overall Length Inch	SG-DC EDP#	
SG-02DC	1/8	1/8	1/4	1.1/2	7466318	²⁾
SG-02MDC	1/8	1/8	3/8	1.1/2	7466319	²⁾
SG-02LDC	1/8	1/8	1/2	1.1/2	7466320	²⁾
SG-10DC-R	1/4	1/8	1/2	2	7466321	^{1) 3)}
SG-10DC	1/4	1/4	5/8	2	7466322	²⁾
SG-20DC	5/16	1/4	3/4	2.1/2	7466323	^{1) 3)}
SG-30DC	3/8	1/4	3/4	2.1/2	7466324	^{1) 3)}
SG-30DC-X	3/8	1/4	3/4	6.3/4	7466325	^{1) 3)}
SG-50SDC	1/2	1/4	3/4	2.1/2	7466326	^{1) 3)}
SG-50DC	1/2	1/4	1	2.3/4	7466327	^{1) 3)}
SG-50DC-X	1/2	1/4	1	7	7466328	^{1) 3)}
SG-60DC	5/8	1/4	1	2.3/4	7466329	^{1) 3)}
SG-70DC	3/4	1/4	1	2.3/4	7466330	^{1) 3)}

¹⁾ Brazed Construction

²⁾ d2 tolerance h6

³⁾ d2 tolerance +0.0000 / -0.0005"

Rotary Burr - Flame

SH-DC

- Carbide
- Bright finish
- Double cut for general purpose use



Ecode	Cutting Diameter Inch	Shank Diameter Inch	Length of Cut Inch	Overall Length Inch	SH-DC EDP#	
SH-02DC	1/8	1/8	1/4	1.1/2	7466331	²⁾
SH-10DC	1/4	1/4	1/2	2	7466332	²⁾
SH-20DC	5/16	1/4	3/4	2.1/2	7466333	^{1) 3)}
SH-50DC	1/2	1/4	1.1/4	3	7466334	^{1) 3)}
SH-60DC	5/8	1/4	1.7/16	3.3/16	7466335	^{1) 3)}

¹⁾ Brazed Construction

²⁾ d2 tolerance h6

³⁾ d2 tolerance +0.0000 / -0.0005"

Rotary Burr - 60° Countersink



SJ-DC

- Carbide
- Bright finish
- Double cut for general purpose use



Ecode	Cutting Diameter Inch	Shank Diameter Inch	Length of Cut Inch	Overall Length Inch	Included Angle	SJ-DC EDP#
SJ-02DC	1/8	1/8	3/32	1.1/2	60°	7466336 ²⁾
SJ-10DC	1/4	1/4	3/16	2	60°	7466337 ²⁾
SJ-30DC	3/8	1/4	5/16	2.1/16	60°	7466338 ^{1) 3)}
SJ-50DC	1/2	1/4	7/16	2.3/16	60°	7466339 ^{1) 3)}
SJ-60DC	5/8	1/4	9/16	2.5/16	60°	7466340 ^{1) 3)}

¹⁾ Brazed Construction

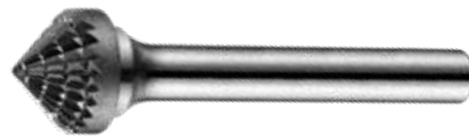
²⁾ d2 tolerance h6

³⁾ d2 tolerance +0.0000 / -0.0005"

Rotary Burr - 90° Countersink

SK-DC

- Carbide
- Bright finish
- Double cut for general purpose use



Ecode	Cutting Diameter Inch	Shank Diameter Inch	Length of Cut Inch	Overall Length Inch	Included Angle	SK-DC EDP#
SK-02DC	1/8	1/8	3/32	1.1/2	90°	7466341 ²⁾
SK-10DC	1/4	1/4	3/16	2	90°	7466342 ²⁾
SK-30DC	3/8	1/4	5/16	2.1/16	90°	7466343 ^{1) 3)}
SK-50DC	1/2	1/4	7/16	2.3/16	90°	7466344 ^{1) 3)}
SK-60DC	5/8	1/4	9/16	2.5/16	90°	7466345 ^{1) 3)}

¹⁾ Brazed Construction

²⁾ d2 tolerance h6

³⁾ d2 tolerance +0.0000 / -0.0005"

Rotary Burr - Ball Nosed Cone

SL-DC

- Carbide
- Bright finish
- Double cut for general purpose use



Ecode	Cutting Diameter Inch	Shank Diameter Inch	Length of Cut Inch	Overall Length Inch	Included Angle	SL-DC EDP#
SL-02SDC	1/8	1/8	3/8	1.1/2	8°	7466346 ²⁾
SL-02DC	1/8	1/8	1/2	1.1/2	8°	7466347 ²⁾
SL-10DC	1/4	1/4	5/8	2	14°	7466348 ²⁾
SL-20DC	5/16	1/4	7/8	2.5/8	14°	7466349 ¹⁾³⁾
SL-30DC	3/8	1/4	1.1/16	2.13/16	14°	7466350 ¹⁾³⁾
SL-30DC-X	3/8	1/4	1.1/16	7.1/16	14°	7466351 ¹⁾³⁾
SL-40DC	1/2	1/4	1.1/8	2.7/8	14°	7466352 ¹⁾³⁾
SL-40DC-X	1/2	1/4	1.1/8	7.1/8	14°	7466353 ¹⁾³⁾
SL-50DC	5/8	1/4	1.3/16	2.15/16	14°	7466354 ¹⁾³⁾
SL-60DC	5/8	1/4	1.5/16	3.1/16	14°	7466355 ¹⁾³⁾

¹⁾ Brazed Construction

²⁾ d2 tolerance h6

³⁾ d2 tolerance +0.0000 / -0.0005"

SL-FM

- Carbide
- Bright finish
- Aluminum cut for non-ferrous materials including plastics



Ecode	Cutting Diameter Inch	Shank Diameter Inch	Length of Cut Inch	Overall Length Inch	Included Angle	SL-FM EDP#
SL-30FM	3/8	1/4	1.1/16	2.13/16	14°	7466356 ¹⁾³⁾
SL-40FM	1/2	1/4	1.1/8	2.7/8	14°	7466357 ¹⁾³⁾

¹⁾ Brazed Construction

²⁾ d2 tolerance h6

³⁾ d2 tolerance +0.0000 / -0.0005"

Rotary Burr - Cone



SM-DC

- Carbide
- Bright finish
- Double cut for general purpose use



Ecode	Cutting Diameter Inch	Shank Diameter Inch	Length of Cut Inch	Overall Length Inch	Included Angle	SM-DC EDP#
SM-02SDC	1/8	1/8	11/32	1.1/2	12°	7466358 ²⁾
SM-02DC	1/8	1/8	7/16	1.1/2	14°	7466359 ²⁾
SM-02LDC	1/8	1/8	5/8	1.1/2	7°	7466360 ²⁾
SM-02LDC-M	1/8	1/8	5/8	2	7°	7466361 ²⁾
SM-02LDC-L	1/8	1/8	5/8	3	7°	7466362 ²⁾
SM-10DC-R	1/4	1/8	1/2	2.1/8	22°	7466363 ^{1) 3)}
SM-10DC	1/4	1/4	1/2	2	22°	7466364 ²⁾
SM-10MDC	1/4	1/4	3/4	2	14°	7466365 ^{1) 3)}
SM-10LDC	1/4	1/4	1	2	12°	7466366 ^{1) 3)}
SM-10XDC	1/4	1/4	1.1/4	2	10°	7466367 ^{1) 3)}
SM-30DC	3/8	1/4	5/8	2.1/2	28°	7466368 ^{1) 3)}
SM-50DC	1/2	1/4	7/8	2.5/8	28°	7466369 ^{1) 3)}
SM-60DC	5/8	1/4	1	2.3/4	31°	7466370 ^{1) 3)}

¹⁾ Brazed Construction

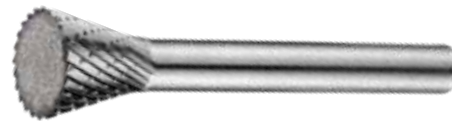
²⁾ d2 tolerance h6

³⁾ d2 tolerance +0.0000 / -0.0005"

Rotary Burr - Inverted Cone

SN-DC

- Carbide
- Bright finish
- Double cut for general purpose use



Ecode	Cutting Diameter Inch	Shank Diameter Inch	Length of Cut Inch	Overall Length Inch	Included Angle	SN-DC EDP#
SN-02DC	1/8	1/8	3/16	1.1/2	10°	7466371 ²⁾
SN-10SDC	1/4	1/8	1/4	1.3/4	10°	7466372 ^{1) 3)}
SN-10DC	1/4	1/4	5/16	2	10°	7466373 ²⁾
SN-30DC	3/8	1/4	3/8	2.1/8	13°	7466374 ^{1) 3)}
SN-50DC	1/2	1/4	1/2	2.1/4	28°	7466375 ^{1) 3)}
SN-60DC	5/8	1/4	3/4	2.1/2	18°	7466376 ^{1) 3)}

¹⁾ Brazed Construction

²⁾ d2 tolerance h6

³⁾ d2 tolerance +0.0000 / -0.0005"

Diamond Cut Router - Plain End

FGR-A

- Carbide
- Bright finish
- GRP cut for fiberglass and composite materials



Ecode	Cutting Diameter Inch	Shank Diameter Inch	Length of Cut Inch	Overall Length Inch	FGR-A EDP#	
FGR-10A	1/4	1/4	3/4	2.1/2	7466377	¹⁾
FGR-10A-L	1/4	1/4	1	3	7466378	¹⁾
FGR-30A	3/8	3/8	1	2.1/2	7466379	¹⁾

¹⁾ d2 tolerance h6

Diamond Cut Router - Burr End

FGR-B

- Carbide
- Bright finish
- End Cut
- GRP cut for fiberglass and composite materials



Ecode	Cutting Diameter Inch	Shank Diameter Inch	Length of Cut Inch	Overall Length Inch	FGR-B EDP#	
FGR-10B	1/4	1/4	3/4	2	7466380	¹⁾
FGR-10B-L	1/4	1/4	1	3	7466381	¹⁾
FGR-30B	3/8	3/8	1	2.1/2	7466382	¹⁾
FGR-50B	1/2	1/2	1	3	7466383	¹⁾

¹⁾ d2 tolerance h6

Diamond Cut Router - End Mill Cut

FGR-C

- Carbide
- Bright finish
- GRP cut for fiberglass and composite materials



Ecode	Cutting Diameter Inch	Shank Diameter Inch	Length of Cut Inch	Overall Length Inch	FGR-C EDP#	
FGR-02C	1/8	1/8	1/2	1.1/2	7466384	¹⁾
FGR-10C	1/4	1/4	1	2.1/2	7466385	¹⁾
FGR-10C-L	1/4	1/4	1	3	7466386	¹⁾

¹⁾ d2 tolerance h6

Diamond Cut Router - 135° Drill Point



FGR-D

- Carbide
- Bright finish
- GRP cut for fiberglass and composite materials



	Cutting Diameter Inch	Shank Diameter Inch	Length of Cut Inch	Overall Length Inch	FGR-D EDP#	
FGR-10LD-L	1/4	1/4	1	3	7466387	¹⁾
FGR-10MD-L	1/4	1/4	3/4	3	7466388	¹⁾
FGR-10XD-L	1/4	1/4	1.1/2	3	7466389	¹⁾

¹⁾ d2 tolerance h6

Piloted Die Mill

PDM-DC

- Carbide
- Bright finish
- Double cut for general purpose use



	Cutting Diameter Inch	Shank Diameter Inch	Length of Cut Inch	Overall Length Inch	PDM-DC EDP#	
PDM-02DC	1/8	1/8	1	3	7466390	¹⁾
PDM-01DC	3/16	3/16	2	3	7466391	¹⁾
PDM-10DC	1/4	1/4	1.1/4	3	7466392	¹⁾

¹⁾ d2 tolerance h6



Rotary Burr Set

SET-DC-12

- 12 pc set
- Double cut for general purpose use
- Extra small diameter - edp# 7466393
- Medium diameter - edp# 7466394



Styles in Set	Pieces in Set	Ecodes in Set	SET-DC-12 EDP#
SA-DC (2) + SC-DC (2) + SD-DC + SE-DC + SF-DC + SG-DC + SH-DC + SJ-DC + SL-DC + SN-DC	12	SA-03DC + SA-02DC + SC-03DC + SC-02DC + SD-02DC + SE-02DC + SF-02DC + SG-02DC + SH-02DC + SJ-02DC + SL-02DC + SN-02DC	7466393
SA-DC + SC-DC + SD-DC + SE-DC + SF-DC + SG-DC + SH-DC + SJ-DC + SK-DC + SL-DC + SM-DC + SN-DC	12	SA-10DC + SC-10DC + SD-10DC + SE-10DC + SF-10DC + SG-10DC + SH-10DC + SJ-10DC + SK-10DC + SL-10DC + SM-10DC + SN-10DC	7466394

SET-DC-8

- 8 pc set
- Double cut for general purpose use
- Medium / Large diameter



Styles in Set	Pieces in Set	Ecodes in Set	SET-DC-8 EDP#
SA-DC + SC-DC (2) + SD-DC + SF-DC(2) + SG-DC + SL-DC	8	SA-50DC + SC-30DC + SC-50DC + SD-50DC + SF-30DC + SF-50DC + SG-30DC + SL-40DC	7466395

SET-FM-8

- 8 pc set
- Aluminum cut for non-ferrous materials including plastics
- Medium / Large diameter



Styles in Set	Pieces in Set	Ecodes in Set	SET-FM-8 EDP#
SA-FM (2) + SC-FM + SD-FM (2) + SF-FM(2) + SL-FM	8	SA-10FM + SA-50FM + SC-50FM + SD-10FM + SD-50FM + SF-10FM + SF-50FM + SL-40FM	7466396

Recommended Speed (RPM) for Burrs



The following RPM chart holds general and approximate recommendations. Variations to achieve desired results may be necessary. Long shank burrs should be used at reduced speeds. 25% - 33% of normal speed is suggested.

Burr Diameter	RPM
1/8" Solid Carbide	45,000-50,000
3/16" Solid Carbide	35,000-40,000
3/16" Carbide Head Brazed to 1/8" Steel Shank	30,000-35,000
1/4" Solid Carbide	30,000-35,000
1/4" Carbide Head Brazed to 1/8" Steel Shank	25,000-30,000
5/16" Carbide Head Brazed to 1/4" Steel Shank	25,000-30,000
3/8" Carbide Head Brazed to 1/4" Steel Shank	25,000-30,000
7/16" Carbide Head Brazed to 1/4" Steel Shank	20,000-25,000
1/2" Carbide Head Brazed to 1/4" Steel Shank	20,000-25,000
5/8" Carbide Head Brazed to 1/4" Steel Shank	15,000-20,000
3/4" Carbide Head Brazed to 1/4" Steel Shank	15,000-20,000
1" Carbide Head Brazed to 1/4" Steel Shank	12,000-18,000

Rotary Burr Troubleshooting

	Carbide Burrs - Troubleshooting																						
	Excessive Force	Heat from Rubbing Shank	Dull Flutes	Seized/Against Workpiece	Tool Dropped	Poor Location in Collet	Worn Handpiece Bearings	Bent Shank	Poor Working Stability	Use Coarser Geometry	Use Finer Geometry	Use Double Cut or Chip Breaker Geometry	Soft Material - Lighten Feed	Increase RPMs	Decrease RPMs	Avoid Diamond Cut	Use Anti-stick compound	Faster Feed Rate	Slower Feed	Abrasive Material	Poor Set-up	Failure to Support/Engage Prior to RPM	
Braze Failure	X	X	X	X	X																		
Carbide Fracture				X	X				X														
Chipping				X	X				X					X									
Handpiece Vibration														X	X			X	X			X	
Lack of Available Handpiece RPMs												X		X									
Plugging										X			X				X						
Poor Hand Control						X	X	X	X		X	X										X	
Poor Tool Life		X	X			X	X	X	X					X	X	X		X	X	X	X		X
Poor Workpiece Finish						X	X	X	X		X			X	X			X				X	
Severely Bent Shanks of Long Series Burrs																					X	X	
Work Hardening of Workpiece	X		X							X		X			X				X				

Explore our Brands



Precision Twist Drill has delivered quality cutting tools since 1952.

- Drills
 - HSS
 - Cobalt
 - Carbide
- NAS drills
- Reamers
- End Mills



Focused on versatility and flexibility the Dormer name is globally recognized as a leader in round tools.

- Drills
- Taps
- Dies
- End Mills
- Counterbores
- Countersinks
- Reamers



For more than 60 years, Pramet has developed a range of indexable carbide cutting tools which deliver quality and versatility across a wide range of general machining applications.

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- Milling
- Hole Making

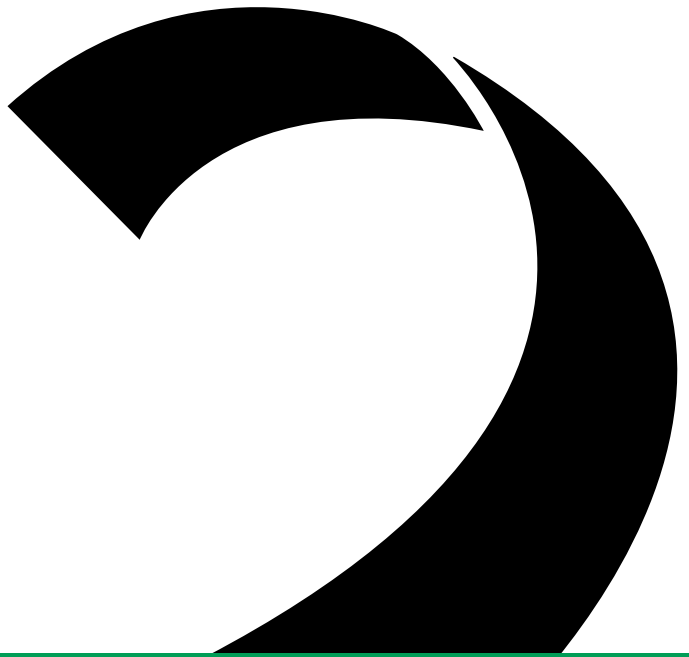


With roots dating back to 1895, Union Butterfield is recognized as the leading North American brand of HSS general line threading tools.

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- Machine Taps
- Pipe Taps
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- Dies

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