

HIGH PERFORMANCE DRILLS

Premium Submicron Carbide :

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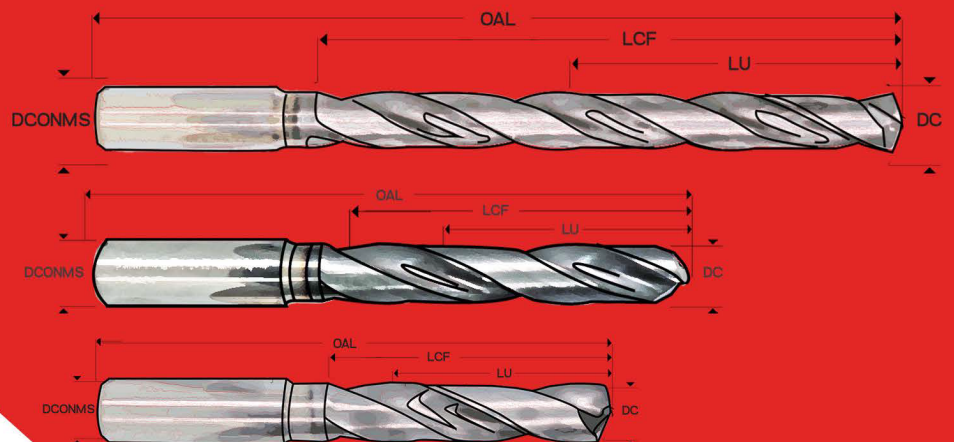
3xD Coolant

3xD Non-Coolant

5xD Coolant

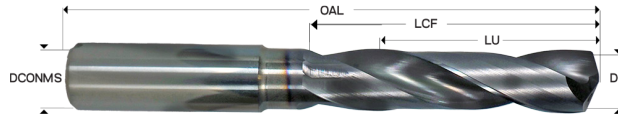
8xD Coolant

Self-centering High Performance Point



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3xD Coolant

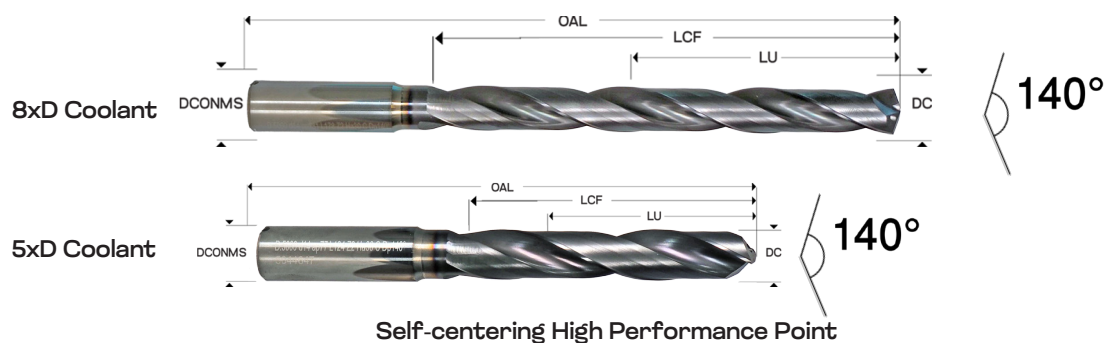


Self-centering High Performance Point

3xD Coolant								3xD non-coolant						
DC		DCONMS		LU	LCF	OAL	Part Number	DCONMS		LCF	OAL	Part Number		
Fraction	mm	Decimal	mm	mm	mm	mm		Fraction	mm	Fraction	mm	Fraction	mm	
1/8	3.000	0.1181	6	16	20	62	MT029547465		3.000		16	46	MU110115804	
	3.100	0.1220	6	15	20	62	MT029547466		3.100		18	49	MU110115805	
	3.175	0.1250	6	15	20	62	MT029547468	1/8	3.175	45/64	-	1-59/64	-	MU110115806
	3.200	0.1260	6	15	20	62	MT029547471		3.200		18	49	MU110115807	
9/64	3.300	0.1299	6	15	20	62	MT029547473		3.300		18	49	MU110115808	
	3.400	0.1339	6	15	20	62	MT029547477		3.400		20	52	MU110115809	
	3.500	0.1378	6	15	20	62	MT029547478		3.500		20	52	MU110115810	
	3.571	0.1406	-	-	-	-	-	9/64	3.571	25/32	-	2-3/64	-	MU110115811
25	3.600	0.1417	6	15	20	62	MT029547480		3.600		20	52	MU110115812	
	3.700	0.1457	6	14	20	62	MT029547481		3.700		20	52	MU110115813	
	3.797	0.1495	6	18	24	66	MT029547482		-	-	-	-	-	
	3.800	0.1496	-	-	-	-	-		3.800		22	55	MU110115814	
5/31	3.900	0.1535	6	18	24	66	MT029547484		3.900		22	55	MU110115815	
	3.970	0.1563	6	18	24	66	MT029547486	5/32	3.970	7/8	-	2-3/16	-	MU110115816
	4.000	0.1575	6	18	24	66	MT029547487		4.000		22	55	MU110115817	
	4.100	0.1614	6	18	24	66	MT029547488		4.100		22	55	MU110115818	
11/64	4.200	0.1654	6	18	24	66	MT029547489		4.200		22	55	MU110115819	
	4.300	0.1693	6	18	24	66	MT029547491		4.300		24	58	MU110115820	
	4.370	0.1719	-	-	-	-	-	11/64	4.370	15/16	-	2-9/32	-	MU110115821
	4.400	0.1732	6	17	24	66	MT029547494		4.400		24	58	MU110115822	
13	4.500	0.1772	6	17	24	66	MT029547495		4.500		24	58	MU110115823	
	4.600	0.1811	6	17	24	66	MT029547497		4.600		24	58	MU110115824	
	4.650	0.1831	6	17	24	66	MT029547498		-	-	-	-	-	
	4.700	0.1850	6	17	24	66	MT029547453		4.700		24	58	MU110115825	
3/16	4.760	0.1875	6	21	28	66	MT029547499	3/16	4.760	3/16	-	2-7/16	-	MU110115826
12	4.800	0.1890	6	21	28	66	MT029547451		4.800		26	62	MU110115827	
13/64	4.900	0.1929	6	21	28	66	MT029547502		4.900		26	58	MU110115828	
	5.000	0.1969	6	20	28	66	MT029547505		5.000		26	58	MU110115829	
	5.100	0.2008	6	20	28	66	MT029547506		5.100		26	58	MU110115830	
	5.160	0.2031	-	-	-	-	-	13/64	5.160	13/64	-	2-7/16	-	MU110115831
7/32	5.200	0.2047	6	20	28	66	MT029547509		5.200		26	58	MU110115832	
	5.300	0.2087	6	20	28	66	MT029547511		5.300		26	58	MU110115833	
	5.400	0.2126	6	20	28	66	MT029547512		5.400		28	66	MU110115834	
	5.500	0.2165	6	20	28	66	MT029547513		5.500		28	66	MU110115835	
15/64	5.560	0.2188	6	20	28	66	MT029547515	7/32	5.560	1-1/8	-	2-5/8	-	MU110115836
	5.600	0.2205	6	20	28	66	MT029547516		5.600		28	66	MU110115837	
	5.700	0.2244	6	19	28	66	MT029547517		5.700		28	66	MU110115838	
	5.800	0.2283	6	19	28	66	MT029547518		5.800		28	66	MU110115839	
1/4-E	5.900	0.2323	6	19	28	66	MT029547519		5.900		28	66	MU110115840	
	5.950	0.2344	-	-	-	-	-	15/64	5.950	1-1/8	-	2-5/8	-	MU110115841
	6.000	0.2362	6	19	28	66	MT029547521		6.000		28	66	MU110115842	
	6.100	0.2402	8	25	34	79	MT029547522		6.100		31	70	MU110115843	
17/64	6.200	0.2441	8	25	34	79	MT029547523		6.200		31	70	MU110115844	
	6.300	0.2480	8	25	34	79	MT029547526		6.300		31	70	MU110115845	
	6.350	0.2500	8	24	34	79	MT029547527	1/4	6.350	1-5/8	-	3-3/16	-	MU110115846
	6.400	0.2520	8	24	34	79	MT029547530		6.400		31	70	MU110115847	
1/4	6.500	0.2559	8	24	34	79	MT029547532		6.500		31	70	MU110115848	
	6.600	0.2598	8	24	34	79	MT029547534		6.600		31	70	MU110115849	
	6.700	0.2638	8	24	34	79	MT029547535		6.700		31	70	MU110115850	
	6.750	0.2656	-	-	-	-	-	17/64	6.750	1-11/16	-	3-17/64	-	MU110115851
1/4	6.800	0.2677	8	24	34	79	MT029547537		6.800		34	74	MU110115852	
	6.900	0.2717	8	31	41	79	MT029547540		6.900		34	74	MU110115853	

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3xD Coolant							3xD non-coolant							
DC		DCONMS		LU	LCF	OAL	Part Number	DCONMS		LCF	OAL	Part Number		
Fraction	mm	Decimal	mm	mm	mm	mm		Fraction	mm	Fraction	mm			
9/32	7.000	0.2756	8	31	41	79	MT029547541		7.000		34	74	MU110115854	
	7.100	0.2795	8	30	41	79	MT029547543		7.100		34	74	MU110115855	
	7.140	0.2813	8	30	41	79	MT029547544		9/32"	1-3/4	-	3-7/16	-	MU110115856
	7.200	0.2835	8	30	41	79	MT029547545		7.200		34	74	MU110115857	
	7.300	0.2874	8	30	41	79	MT029547546		7.300		34	74	MU110115858	
19/64	7.400	0.2913	8	30	41	79	MT029547547		7.400		34	74	MU110115859	
	7.500	0.2953	8	30	41	79	MT029547549		7.500		34	74	MU110115860	
	7.540	0.2969	-	-	-	-	-	19/64	7.540	1-7/8	-	3-9/16	-	MU110115861
	7.600	0.2992	-	-	-	-	-		7.600		37	79	MU110115862	
	7.700	0.3031	8	29	41	79	MT029547553		7.700		37	79	MU110115863	
5/16	7.800	0.3071	8	29	41	79	MT029547555		7.800		37	79	MU110115864	
	7.900	0.3110	8	29	41	79	MT029547556		7.900		37	79	MU110115865	
	7.940	0.3125	8	29	41	79	MT029547557		5/16"	1-7/8	-	3-9/16	-	MU110115866
	8.000	0.3150	8	29	41	79	MT029547558		8.000		37	79	MU110115867	
	8.100	0.3189	10	35	47	89	MT029547560		8.100		37	79	MU110115868	
21/64	8.200	0.3228	10	35	47	89	MT029547561		8.200		37	79	MU110115869	
	8.300	0.3268	10	35	47	89	MT029547563		8.300		37	79	MU110115870	
	8.330	0.3281	-	-	-	-	-	21/64	8.330	2-1/16	-	3-3/4	-	MU110115871
	8.400	0.3307	10	34	47	89	MT029547565		8.400		37	79	MU110115872	
	8.500	0.3346	10	34	47	89	MT029547566		8.500		37	79	MU110115873	
11/32	8.600	0.3386	10	34	47	89	MT029547568		8.600		40	84	MU110115874	
	8.700	0.3425	10	34	47	89	MT029547570		8.700		40	84	MU110115875	
	8.730	0.3438	10	34	47	89	MT029547571	11/32	8.730	2-3/16	-	3-7/8	-	MU110115876
	8.800	0.3465	10	34	47	89	MT029547572		8.800		40	84	MU110115877	
	8.900	0.3504	-	-	-	-	-		8.900		40	84	MU110115878	
13/64	9.000	0.3543	10	34	47	89	MT029547573		9.000		40	84	MU110115879	
	9.100	0.3583	-	-	-	-	-		9.100		40	84	MU110115880	
	9.130	0.3594	-	-	-	-	-	23/64	9.130	2-9/32	-	4	-	MU110115881
	9.200	0.3622	10	33	47	89	MT029547576		9.200		40	84	MU110115882	
	9.300	0.3661	10	33	47	89	MT029547577		9.300		40	84	MU110115883	
3/8	9.400	0.3701	-	-	-	-	-		9.400		40	84	MU110115884	
	9.500	0.3740	10	33	47	89	MT029547579		9.500		40	84	MU110115885	
	9.525	0.3750	10	33	47	89	MT029547580	3/8	9.525	2-3/8	-	4-1/8	-	MU110115886
	9.600	0.3780	10	33	47	89	MT029547583		9.600		43	89	MU110115887	
	9.700	0.3819	-	-	-	-	-		9.700		43	89	MU110115888	
25/64"	9.800	0.3858	10	32	47	89	MT029547584		9.800		43	89	MU110115889	
	9.900	0.3898	10	32	47	89	MT029547586		9.900		43	89	MU110115890	
	9.920	0.3906	-	-	-	-	-	25/64	9.920	2-3/8	-	4-1/8	-	MU110115891
	10.000	0.3937	10	32	47	89	MT029547588		10.000		43	89	MU110115892	
	10.100	0.3976	12	40	55	102	MT029547590		-		-	-	-	-
13/32	10.200	0.4016	12	40	55	102	MT029547591		10.200		43	89	MU110115893	
	10.300	0.4055	12	40	55	102	MT029547593		-		-	-	-	-
	10.320	0.4063	12	40	55	102	MT029547595	13/32	10.320	2-5/8	-	4-13/32	-	MU110115894
	10.400	0.4094	12	39	55	102	MT029547596		-		-	-	-	-
	10.500	0.4134	12	39	55	102	MT029547597		10.500		43	89	MU110115895	
27/64	10.716	0.4219	-	-	-	-	-	27/64	10.716	2-11/16	-	4-1/2	-	MU110115896
	10.800	0.4252	12	39	55	102	MT029547599		-		-	-	-	-
	11.000	0.4331	12	38	55	102	MT029547600		11.000		47	95	MU110115897	
	11.100	0.4370	12	38	55	102	MT029547601		-		-	-	-	-
	7/16	11.113	0.4375	12	38	55	102	MT029547602	7/16	11.113	2-13/16	-	4-5/8	-
29/64	11.200	0.4409	12	38	55	102	MT029547603		-		-	-	-	-
	11.500	0.4528	12	38	55	102	MT029547605		11.500		47	95	MU110115899	
	11.510	0.4531	-	-	-	-	-	29/64	11.510	2-7/8	-	4-3/4	-	MU110115900
	11.700	0.4606	12	37	55	102	MT029547607		-		-	-	-	-
	11.800	0.4646	12	37	55	102	MT029547608		-		-	-	-	-
15/32	11.910	0.4688	12	37	55	102	MT029547609	15/32	11.910	2-7/8	-	4-3/4	-	MU110115901
	12.000	0.4724	12	37	55	102	MT029547610		12.000		51	102	MU110115902	
31/64	12.303	0.4844	-	-	-	-	-	31/64	12.303	3	-	5-5/16	-	MU110115903
1/2	12.700	0.5000	14	41	60	107	MT029547617	1/2	12.700	3-1/16	-	5-3/8	-	MU110115904



5xD Coolant							8xD Coolant			
DC		DCONMS	LU	LCF	OAL	Part Number	LU	LCF	OAL	Part Number
Fraction	mm	Decimal	mm	mm	mm		mm	mm	mm	
	3.000	0.1181	6	24	28	66	30	34	72	MT029547926
	3.100	0.1220	6	23	28	66	29	34	72	MT029547928
1/8	3.175	0.1250	6	23	28	66	29	34	72	MT029547929
	3.200	0.1260	6	23	28	66	29	34	72	MT029547930
	3.300	0.1299	6	23	28	66	29	34	72	MT029547931
	3.400	0.1339	6	23	28	66	29	34	72	MT029547932
	3.500	0.1378	6	23	28	66	29	34	72	MT029547934
	3.600	0.1417	6	23	28	66	29	34	72	MT029547936
	3.700	0.1457	6	22	28	66	28	34	72	MT029547937
#25	3.797	0.1495	6	30	36	74	37	43	81	MT029547939
	3.900	0.1535	6	30	36	74	37	43	81	MT029547940
	5/32"	0.1563	6	30	36	74	37	43	81	MT029547941
	4.000	0.1575	6	30	36	74	37	43	81	MT029547942
	4.100	0.1614	6	30	36	74	37	43	81	MT029547944
	4.200	0.1654	6	30	36	74	37	43	81	MT029547945
	4.300	0.1693	6	30	36	74	37	43	81	MT029547946
	4.400	0.1732	6	29	36	74	36	43	81	MT029547949
	4.500	0.1772	6	29	36	74	36	43	81	MT029547953
	4.600	0.1811	6	29	36	74	36	43	81	MT029547954
	4.650	0.1831	6	29	36	74	36	43	81	MT029547955
#13	4.700	0.1850	6	29	36	74	57	43	81	MT029547917
3/16	4.760	0.1875	6	29	44	82	50	57	95	MT029547956
#12	4.800	0.1890	6	37	44	82	50	57	95	MT029547916
	4.900	0.1929	6	37	44	82	50	57	95	MT029547958
	5.000	0.1969	6	36	44	82	49	57	95	MT029547959
	5.100	0.2008	6	36	44	82	49	57	95	MT029547960
	5.200	0.2047	6	36	44	82	49	57	95	MT029547962
	5.300	0.2087	6	36	44	82	49	57	95	MT029547963
	5.400	0.2126	6	36	44	82	49	57	95	MT029547964
	5.500	0.2165	6	36	44	82	49	57	95	MT029547965
7/32	5.560	0.2188	6	36	44	82	49	57	95	MT029547967
	5.600	0.2205	6	36	44	82	49	57	95	MT029547968
	5.700	0.2244	6	35	44	82	48	57	95	MT029547969
	5.800	0.2283	6	35	44	82	48	57	95	MT029547970
	5.900	0.2323	6	35	44	82	48	57	95	MT029547971
	6.000	0.2362	6	35	44	82	48	57	95	MT029547973
	6.100	0.2402	8	44	53	91	67	76	114	MT029547976
	6.200	0.2441	8	44	53	91	67	76	114	MT029547979
	6.300	0.2480	8	44	53	91	67	76	114	MT029547981
1/4-E	6.350	0.2500	8	43	53	91	66	76	114	MT029547982

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5xD Coolant								8xD Coolant			
DC		DCONMS	LU	LCF	OAL	Part Number		LU	LCF	OAL	Part Number
Fraction	mm	Decimal	mm	mm	mm			mm	mm	mm	
	6.400	0.2520	8	43	53	91	MT029547760	66	76	114	MT029547983
	6.500	0.2559	8	43	53	91	MT029547763	66	76	114	MT029547984
	6.600	0.2598	8	43	53	91	MT029547766	66	76	114	MT029547985
	6.700	0.2638	8	43	53	91	MT029547767	66	76	114	MT029547986
	6.800	0.2677	8	43	53	91	MT029547769	66	76	114	MT029547988
	6.900	0.2717	8	43	53	91	MT029547772	66	76	114	MT029547990
	7.000	0.2756	8	42	53	91	MT029547773	65	76	114	MT029547991
	7.100	0.2795	8	42	53	91	MT029547774	65	76	114	MT029547993
9/32	7.140	0.2813	8	42	53	91	MT029547775	65	76	114	MT029547994
	7.200	0.2835	8	42	53	91	MT029547776	65	76	114	MT029547996
	7.300	0.2874	8	42	53	91	MT029547778	65	76	114	MT029547997
	7.400	0.2913	8	42	53	91	MT029547779	65	76	114	MT029547998
	7.500	0.2953	8	42	53	91	MT029547782	65	76	114	MT029547999
	7.700	0.3031	8	41	53	91	MT029547786	64	76	114	MT029548002
	7.800	0.3071	8	41	53	91	MT029547787	64	76	114	MT029548003
	7.900	0.3110	8	41	53	91	MT029547789	64	76	114	MT029548005
5/16	7.940	0.3125	8	41	53	91	MT029547790	64	76	114	MT029548006
	8.000	0.3150	8	41	53	91	MT029547791	64	76	114	MT029548008
	8.100	0.3189	10	49	61	103	MT029547792	83	95	142	MT029548011
	8.200	0.3228	10	49	61	103	MT029547793	83	95	142	MT029548013
	8.300	0.3268	10	49	61	103	MT029547797	83	95	142	MT029548014
	8.400	0.3307	10	48	61	103	MT029547799	82	95	142	MT029548016
	8.500	0.3346	10	48	61	103	MT029547800	82	95	142	MT029548018
	8.600	0.3386	10	48	61	103	MT029547801	82	95	142	MT029548021
	8.700	0.3425	10	48	61	103	MT029547803	82	95	142	MT029548022
11/32	8.730	0.3438	10	48	61	103	MT029547804	82	95	142	MT029548023
	8.800	0.3465	10	48	61	103	MT029547805	82	95	142	MT029548025
	9.000	0.3543	10	48	61	103	MT029547807	82	95	142	MT029548026
	9.200	0.3622	10	47	61	103	MT029547810	81	95	142	MT029548030
	9.300	0.3661	10	47	61	103	MT029547811	81	95	142	MT029548031
	9.500	0.3740	10	47	61	103	MT029547813	81	95	142	MT029548032
3/8	9.525	0.3750	10	47	61	103	MT029547814	81	95	142	MT029548033
	9.600	0.3780	10	47	61	103	MT029547817	81	95	142	MT029548034
	9.800	0.3858	10	46	61	103	MT029547818	80	95	142	MT029548037
	9.900	0.3898	10	46	61	103	MT029547819	80	95	142	MT029548039
	10.000	0.3937	10	46	61	103	MT029547821	80	95	142	MT029548042
	10.100	0.3976	12	56	71	118	MT029547822	99	114	162	MT029548043
	10.200	0.4016	12	56	71	118	MT029547823	99	114	162	MT029548044
	10.300	0.4055	12	56	71	118	MT029547824	99	114	162	MT029548045
13/32	10.320	0.4063	12	56	71	118	MT029547825	98	114	162	MT029548046
	10.400	0.4094	12	55	71	118	MT029547826	98	114	162	MT029548048
	10.500	0.4134	12	55	71	118	MT029547827	98	114	162	MT029548049
	10.800	0.4252	12	55	71	118	MT029547831	98	114	162	MT029548053
	11.000	0.4331	12	55	71	118	MT029547832	98	114	162	MT029548054
	11.100	0.4370	12	54	71	118	MT029547835	97	114	162	MT029548055
7/16	11.113	0.4375	12	54	71	118	MT029547836	97	114	162	MT029548056
	11.200	0.4409	12	54	71	118	MT029547837	97	114	162	MT029548057
	11.500	0.4528	12	54	71	118	MT029547838	97	114	162	MT029548058
	11.700	0.4606	12	53	71	118	MT029547841	96	114	162	MT029548060
	11.800	0.4646	12	53	71	118	MT029547842	96	114	162	MT029548061
15/32	11.910	0.4688	12	53	71	118	MT029547843	96	114	162	MT029548062
	12.000	0.4724	12	53	71	118	MT029547844	96	114	162	MT029548063
1/2	12.700	0.5000	14	58	77	124	MT029547852	112	114	162	MT029548071

COOLANT-THRU

3xD & 5xD Speeds & Feeds (Inches)

IPR = Inches Per Revolution

Material	SFM (Vc) Surface Feet Per Minute	D1mm	>3.00 ≤ 5.00	>5.00 ≤ 8.00	>8.00 ≥ 12.00	>12.00 ≤ 16.00	>16.00 ≤ 20.00
		Dec. Inch	.1181 - .1969	.1970 - .3150	.3151 - .4724	.4725 - .6299	.6300 - .7874
P1 Low-Carbon Steel - 1000 Series (<25 HRc)	328.1		.006	.008	.011	.013	.015
P3 Alloy Tool Steels - 1300,2000,3000 (<35 HRc)	246.1		.003	.004	.005	.008	.009
K1 Gray Cast Iron	262.5		.004	.006	.008	.011	.014

Note: These are only recommended starting figures that depend on conditions such as machine rigidity, type of coating (if any), ect. **Testing Recommended**

8xD Speeds & Feeds (Inches)

IPR = Inches Per Revolution

Material	SFM (Vc) Surface Feet Per Minute	D1mm	>3.00 ≤ 5.00	>5.00 ≤ 8.00	>8.00 ≥ 12.00	>12.00 ≤ 16.00	>16.00 ≤ 20.00
		Dec. Inch	.1181 - .1969	.1970 - .3150	.3151 - .4724	.4725 - .6299	.6300 - .7874
P1 Low-Carbon Steel - 1000 Series (<25 HRc)	311.7		.003	.005	.007	.010	.012
P3 Alloy Tool Steels - 1300, 2000, 3000 (<35 HRc)	295.3		.003	.005	.007	.010	.012
K1 Gray Cast Iron	229.7		.007	.009	.013	.015	.018

Note: These are only recommended starting figures that depend on conditions such as machine rigidity, type of coating (if any), ect. **Testing Recommended**

NON-COOLANT-THRU

3xD Speeds & Feeds (Inches)

IPR = Inches Per Revolution

Material	SFM (Vc) Surface Feet Per Minute	D1mm	>3.00 ≤ 5.00	>5.00 ≤ 8.00	>8.00 ≥ 12.00	>12.00 ≤ 16.00	>16.00 ≤ 20.00
		Dec. Inch	.1181 - .1969	.1970 - .3150	.3151 - .4724	.4725 - .6299	.6300 - .7874
P1 Low-Carbon Steel - 1000 Series (<25 HRc)	275		.003	.005	.01	.013	.016
P3 Alloy Tool Steels - 1300, 2000, 3000 (<35 HRc)	200		.0023	.0047	.0094	.0126	.014
K1 Gray Cast Iron	200		.0023	.0047	.0094	.0126	.014

Note: These are only recommended starting figures that depend on conditions such as machine rigidity, type of coating (if any), ect. **Testing Recommended**