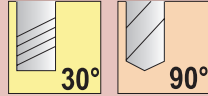


152M - 2 Flute

Technical information: page 192, 194

TOLERANCES		
d_1	+0.000" -0.002" (+.000/-0.050mm)	
d_2	1/8" - 3/16"	+0.0000" -0.0003" (+.0000/-0.0075mm)
	1/4" - 3/4"	-0.0001" -0.0004" (-.0025/-0.0100mm)

.1250" - .7500"
(3.175mm - 19.050mm)

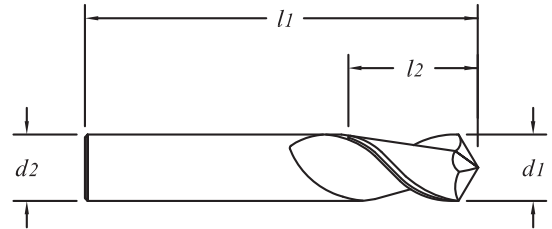


Solid submicron grain carbide drill/end mill

Included angle to a point - center cutting

Tools do not have drill point geometry

Extremely versatile



EDP#	d_1 † Diameter		d_2 Shank Diameter	l_1 Overall Length	l_2 Flute Length	
	Decimal	Metric				
57200	.1250	1/8"	3.175	1/8"	1-1/2"	1/2"
57210	.1875	3/16"	4.763	3/16"	2"	5/8"
57220	.2500	1/4"	6.350	1/4"	2-1/2"	3/4"
57230	.3125	5/16"	7.938	5/16"	2-1/2"	7/8"
57240	.3750	3/8"	9.525	3/8"	2-1/2"	7/8"
57250	.4375	7/16"	11.113	7/16"	2-3/4"	1"
57260	.5000	1/2"	12.700	1/2"	3"	1"
57270	.6250	5/8"	15.875	5/8"	3-1/2"	1-1/4"
57280	.7500	3/4"	19.050	3/4"	4"	1-1/2"

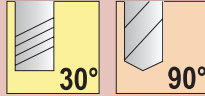
152MA - 2 Flute

Technical information: page 192, 194

TOLERANCES

d_1	+.000" - .002" (+.000 / -.050mm)	
d_2	1/8" - 3/16"	+ .0000" - .0003" (+.0000 / -.0075mm)
	1/4" - 3/4"	- .0001" - .0004" (-.0025 / -.0100mm)

.1250" - .7500"
(3.175mm - 19.050mm)



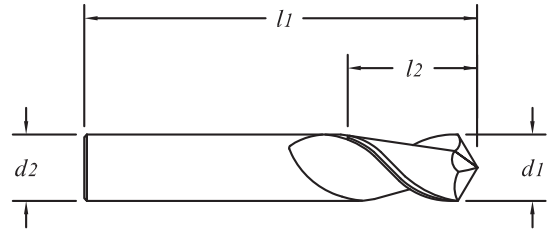
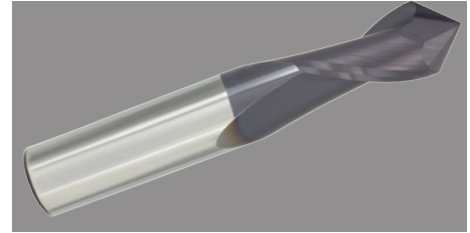
TiALN Coated

Solid submicron grain carbide drill/end mill

Included angle to a point - center cutting

Tools do not have drill point geometry

Extremely versatile



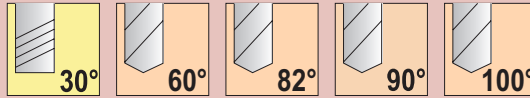
EDP#	d_1 † Diameter		d_2 Shank Diameter	l_1 Overall Length	l_2 Flute Length	
	Decimal	Metric				
57207	.1250	1/8"	3.175	1/8"	1-1/2"	1/2"
57217	.1875	3/16"	4.763	3/16"	2"	5/8"
57227	.2500	1/4"	6.350	1/4"	2-1/2"	3/4"
57237	.3125	5/16"	7.938	5/16"	2-1/2"	7/8"
57247	.3750	3/8"	9.525	3/8"	2-1/2"	7/8"
57257	.4375	7/16"	11.113	7/16"	2-3/4"	1"
57267	.5000	1/2"	12.700	1/2"	3"	1"
57277	.6250	5/8"	15.875	5/8"	3-1/2"	1-1/4"
57287	.7500	3/4"	19.050	3/4"	4"	1-1/2"

154M - 4 Flute

Technical information: page 192, 194

TOLERANCES		
d_1	+0.000" -0.002" (+.000 / -.050mm)	
d_2	1/8" - 3/16"	+0.0000" -0.0003" (+.0000 / -.0075mm)
	1/4" - 3/4"	-0.0001" -0.0004" (-.0025 / -.0100mm)

.0787" - .7874"
(2.000mm - 20.000mm)

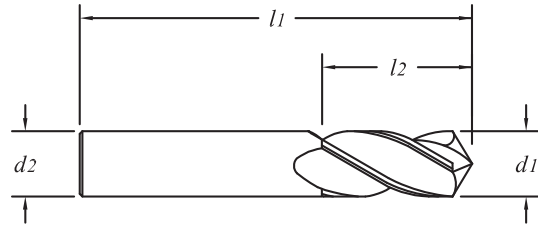
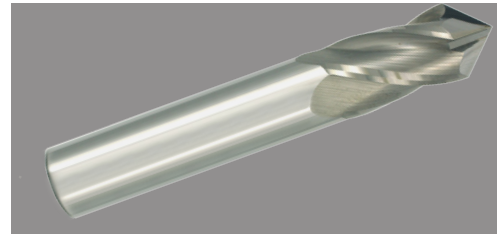


Solid submicron grain carbide drill/end mill

Included angle to a point - center cutting

Tools do not have drill point geometry

Extremely versatile



	NEW 60° EDP#	NEW 82° EDP#	90° EDP#	NEW 100° EDP#	d_1 † Diameter		d_2 Shank Diameter	l_1 Overall Length	l_2 Flute Length
					Decimal	Metric			
NEW	57300	57340	58194	57380	.0787	2.000	3.0	38	8
NEW	57302	57342	58196	57382	.0938	3/32"	2.382	1/8"	1-1/2"
NEW	57304	57344	58198	57384	.1181		3.000	3.0	38
	57306	57346	58200	57386	.1250	1/8"	3.175	1/8"	1-1/2"
NEW	57308	57348	58202	57388	.1575		4.000	4.0	50
	57310	57350	58210	57390	.1875	3/16"	4.763	3/16"	2"
NEW	57312	57352	58212	57392	.1969		5.000	5.0	65
NEW	57314	57354	58214	57394	.2362		6.000	6.0	65
	57316	57356	58220	57396	.2500	1/4"	6.350	1/4"	2-1/2"
	57318	57358	58230	57398	.3125	5/16"	7.938	5/16"	2-1/2"
NEW	57320	57360	58232	57400	.3150		8.000	8.0	65
	57322	57362	58240	57402	.3750	3/8"	9.525	3/8"	2-1/2"
NEW	57324	57364	58242	57404	.3937		10.000	10.0	70
	57326	57366	58250	57406	.4375	7/16"	11.113	7/16"	2-3/4"
NEW	57328	57368	58252	57408	.4724		12.000	12.0	75
	57330	57370	58260	57410	.5000	1/2"	12.700	1/2"	3"
	57332	57372	58270	57412	.6250	5/8"	15.875	5/8"	3-1/2"
NEW	57334	57374	58272	57414	.6299		16.000	16.0	88
	57336	57376	58280	57416	.7500	3/4"	19.050	3/4"	4"
NEW	57338	57378	58282	57418	.7874		20.000	20.0	100

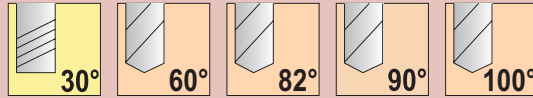
154MA - 4 Flute

Technical information: page 192, 194

TOLERANCES

d_1	+.000" - .002" (+.000 / -.050mm)	
d_2	1/8" - 3/16"	+.0000" - .0003" (+.0000 / -.0075mm)
	1/4" - 3/4"	-.0001" - .0004" (-.0025 / -.0100mm)

.0787" - .7874"
(2.000mm - 20.000mm)



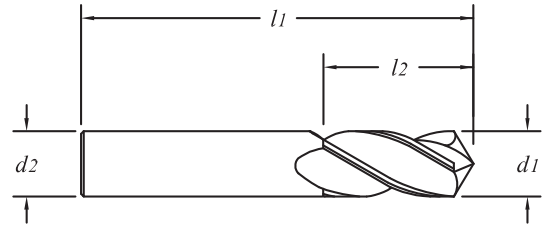
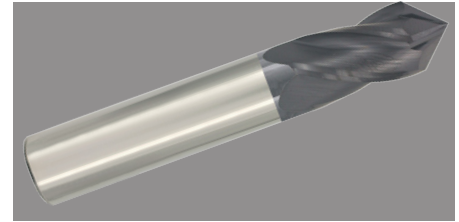
TiALN Coated

Solid submicron grain carbide drill/end mill

Included angle to a point - center cutting

Tools do not have drill point geometry

Extremely versatile



	NEW	NEW	90°	NEW	d_1 †		d_2	l_1	l_2	
	60°	82°		100°	Decimal	Diameter				
	EDP#	EDP#	EDP#	EDP#						
NEW	58300	58340	58201	58380	.0787		2.000	3.0	38	8
NEW	58302	58342	58203	58382	.0938	3/32"	2.382	1/8"	1-1/2"	3/8"
NEW	58304	58344	58205	58384	.1181		3.000	3.0	38	12
	58306	58346	58207	58386	.1250	1/8"	3.175	1/8"	1-1/2"	1/2"
NEW	58308	58348	58209	58388	.1575		4.000	4.0	50	14
	58310	58350	58217	58390	.1875	3/16"	4.763	3/16"	2"	5/8"
NEW	58312	58352	58219	58392	.1969		5.000	5.0	65	16
NEW	58314	58354	58221	58394	.2362		6.000	6.0	65	19
	58316	58356	58227	58396	.2500	1/4"	6.350	1/4"	2-1/2"	3/4"
	58318	58358	58237	58398	.3125	5/16"	7.938	5/16"	2-1/2"	7/8"
NEW	58320	58360	58239	58400	.3150		8.000	8.0	65	22
	58322	58362	58247	58402	.3750	3/8"	9.525	3/8"	2-1/2"	7/8"
NEW	58324	58364	58249	58404	.3937		10.000	10.0	70	25
	58326	58366	58257	58406	.4375	7/16"	11.113	7/16"	2-3/4"	1"
NEW	58328	58368	58259	58408	.4724		12.000	12.0	75	25
	58330	58370	58267	58410	.5000	1/2"	12.700	1/2"	3"	1"
	58332	58372	58277	58412	.6250	5/8"	15.875	5/8"	3-1/2"	1-1/4"
NEW	58334	58374	58279	58414	.6299		16.000	16.0	88	32
	58336	58376	58287	58416	.7500	3/4"	19.050	3/4"	4"	1-1/2"
NEW	58338	58378	58289	58418	.7874		20.000	20.0	100	38

152D - 2 Flute

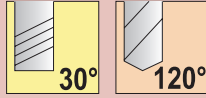
Technical information: page 192, 194

NEW SERIES

TOLERANCES

$d1$	+0.000" -0.002" (+0.000 / -0.050mm)
$d2$	-0.0001" -0.0004" (-0.0025 / -0.0100mm)

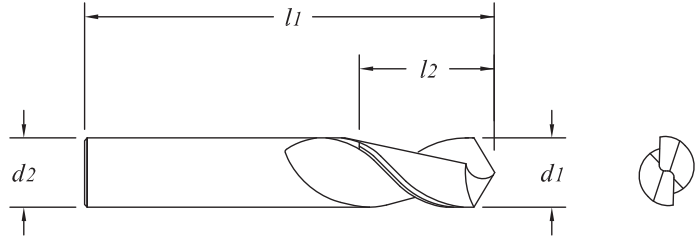
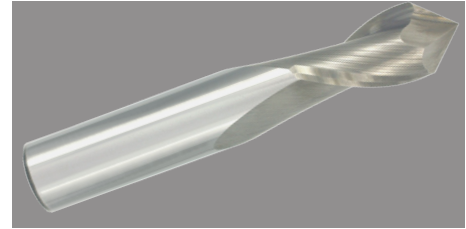
.1181" - .7874"
(3.000mm - 20.000mm)



Solid submicron grain carbide drill/end mill

Recommended for drilling and milling of mild steels and non-ferrous materials

Four-facet drill point geometry
Extremely versatile

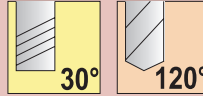


EDP#	$d1$ † Diameter		$d2$ Shank Diameter	$l1$ Overall Length	$l2$ Flute Length
	Decimal	Metric			
57420	.1181	3.000	3.0	38	12
57422	.1250	3.175	1/8"	1-1/2"	1/2"
57424	.1575	4.000	4.0	50	14
57426	.1875	4.762	3/16"	2"	5/8"
57428	.1969	5.000	5.0	65	16
57430	.2362	6.000	6.0	65	19
57432	.2500	6.350	1/4"	2-1/2"	3/4"
57434	.3125	7.937	5/16"	2-1/2"	7/8"
57436	.3150	8.000	8.0	65	22
57438	.3750	9.525	3/8"	2-1/2"	7/8"
57440	.3937	10.000	10.0	70	25
57442	.4375	11.112	7/16"	2-3/4"	1"
57444	.4724	12.000	12.0	75	25
57446	.5000	12.700	1/2"	3"	1"
57448	.6250	15.875	5/8"	3-1/2"	1-1/4"
57450	.6299	16.000	16.0	88	32
57452	.7500	19.050	3/4"	4"	1-1/2"
57454	.7874	20.000	20.0	100	38

TOLERANCES

$d1$	+0.000" -0.002" (+0.000 / -0.050mm)
$d2$	-0.0001" -0.0004" (-0.0025 / -0.0100mm)

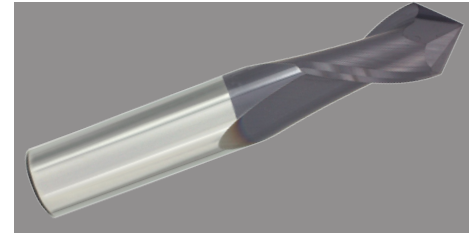
NEW SERIES



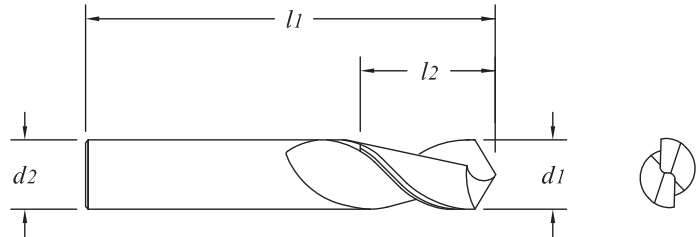
.1181" - .7874"
(3.000mm - 20.000mm)

TiALN Coated

Solid submicron grain carbide drill/end mill
 Recommended for drilling and milling of mild steels and non-ferrous materials
 Four-facet drill point geometry
 Extremely versatile



DRILL MILLS



EDP#	$d1$ † Diameter		$d2$ Shank Diameter	$l1$ Overall Length	$l2$ Flute Length
	Decimal	Metric			
57421	.1181	3.000	3.0	38	12
57423	.1250	3.175	1/8"	1-1/2"	1/2"
57425	.1575	4.000	4.0	50	14
57427	.1875	4.762	3/16"	2"	5/8"
57429	.1969	5.000	5.0	65	16
57431	.2362	6.000	6.0	65	19
57433	.2500	6.350	1/4"	2-1/2"	3/4"
57435	.3125	7.937	5/16"	2-1/2"	7/8"
57437	.3150	8.000	8.0	65	22
57439	.3750	9.525	3/8"	2-1/2"	7/8"
57441	.3937	10.000	10.0	70	25
57443	.4375	11.112	7/16"	2-3/4"	1"
57445	.4724	12.000	12.0	75	25
57447	.5000	12.700	1/2"	3"	1"
57449	.6250	15.875	5/8"	3-1/2"	1-1/4"
57451	.6299	16.000	16.0	88	32
57453	.7500	19.050	3/4"	4"	1-1/2"
57455	.7874	20.000	20.0	100	38