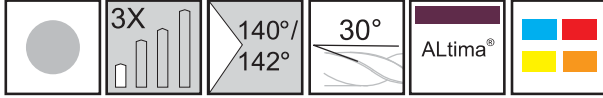
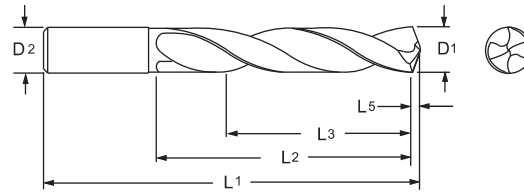


# Twister XD<sup>®</sup> Series 2XDSS



Designed for high performance drilling in a broad range of materials.



ALtima <sup>®</sup>		Diameter				Shank		OAL		Flute Length		Drill Length		Point Length	
		D1 (h7)				D2 (h6)		L1		L2 (Max.)		L3 Ref.		L5	
Tool No.	EDP	Inch	Letter/ Wire	mm	Decimal	Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm
2XDSS0984A	22601			2.5	.0984		2.5		43		14		11		0.39
2XDSS1142A	22602			2.9	.1142		2.9		46		16		12		0.45
2XDSS1181A	02100			3.0	.1181		3.0		57		16		13		0.46
2XDSS1200A	02102		31		.1200	1/8		2.25		0.750		0.60		0.019	
2XDSS1220A	02103			3.1	.1220		4.0		63		22		18		0.48
2XDSS1250A	02104	1/8			.1250	1/8		2.25		0.750		0.60		0.019	
2XDSS1260A	02106			3.2	.1260		4.0		63		22		18		0.50
2XDSS1285A	02108		30		.1285	5/32		2.5		0.875		0.70		0.020	
2XDSS1299A	02110			3.3	.1299		4.0		63		22		18		0.51
2XDSS1339A	02112			3.4	.1339		4.0		63		22		18		0.53
2XDSS1360A	02114		29		.1360	5/32		2.5		0.875		0.70		0.021	
2XDSS1378A	02116			3.5	.1378		4.0		63		22		18		0.54
2XDSS1406A	02118	9/64			.1406	5/32		2.5		0.875		0.70		0.022	
2XDSS1417A	02119			3.6	.1417		4.0		63		22		18		0.56
2XDSS1457A	02120			3.7	.1457		4.0		63		22		18		0.57
2XDSS1496A	02122			3.8	.1496		4.0		63		22		18		0.59
2XDSS1520A	02121		24		.1520	5/32		2.5		0.875		0.70		0.024	
2XDSS1535A	02123			3.9	.1535		4.0		63		22		18		0.60
2XDSS1562A	02124	5/32			.1562	5/32		2.5		0.875		0.70		0.024	
2XDSS1575A	02126			4.0	.1575		4.0		63		22		18		0.62
2XDSS1590A	02127		21		.1590	3/16		2.5		1.000		0.80		0.025	
2XDSS1614A	04000			4.1	.1614		5.0		63		26		21		0.64
2XDSS1654A	02128			4.2	.1654		5.0		63		26		21		0.65
2XDSS1693A	02129			4.3	.1693		5.0		63		26		21		0.67
2XDSS1719A	02130	11/64			.1719	3/16		2.50		1.000		0.80		0.027	
2XDSS1732A	02131			4.4	.1732		5.0		63		26		21		0.68
2XDSS1772A	02132			4.5	.1772		5.0		63		26		21		0.70
2XDSS1811A	02134			4.6	.1811		5.0		63		26		21		0.71
2XDSS1850A	02135			4.7	.1850		5.0		63		26		21		0.73
2XDSS1875A	02136	3/16			.1875	3/16		2.50		1.000		0.80		0.029	
2XDSS1890A	02138			4.8	.1890		5.0		63		26		21		0.74
2XDSS1929A	02140			4.9	.1929		5.0		63		26		21		0.76
2XDSS1968A	02142			5.0	.1968		5.0		63		26		21		0.77
2XDSS2008A	02144			5.1	.2008		6.0		76		30		24		0.79

Inch	
D1	Tolerance (h7)
.0000 - .1181	+0/- .00039
.1182 - .2362	+0/- .00047
.2363 - .3937	+0/- .00059
.3938 - .7087	+0/- .00071
.7088 - .7500	+0/- .00083

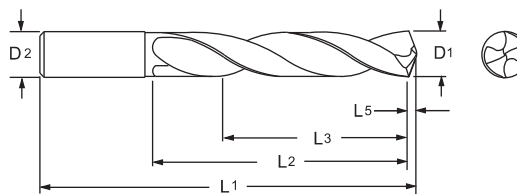
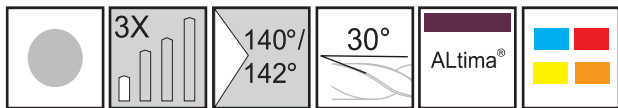
Inch	
D2	Tolerance (h6)
.0000 - .1181	+0/- .00024
.1182 - .2362	+0/- .00031
.2363 - .3937	+0/- .00035
.3938 - .7087	+0/- .00043
.7088 - .7500	+0/- .00051

Metric (mm)	
D1	Tolerance (h7)
0 - 3.0	+0/- .010
3.01 - 6.0	+0/- .012
6.01 - 10.0	+0/- .015
10.01 - 18.0	+0/- .018
18.01 - 20.0	+0/- .021

Metric (mm)	
D2	Tolerance (h6)
0 - 3.0	+0/- .006
3.01 - 6.0	+0/- .008
6.01 - 10.0	+0/- .009
10.01 - 18.0	+0/- .011
18.01 - 20.0	+0/- .013



# Series 2XDSS Continued



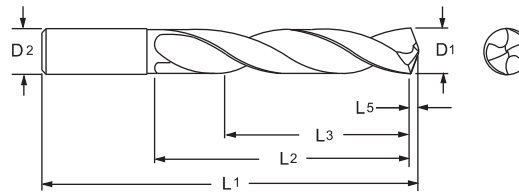
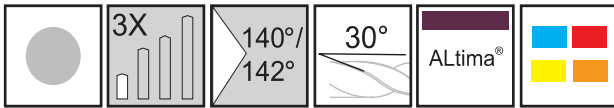
ALtima®		Diameter				Shank		OAL		Flute Length		Drill Length		Point Length	
		D1 (h7)				D2 (h6)		L1		L2 (Max.)		L3 Ref.		L5	
Tool No.	EDP	Inch	Letter/ Wire	mm	Decimal	Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm
2XDSS2031A	02146	13/64			.2031	15/64		3.00		1.125		0.90		0.031	
2XDSS2047A	02148			5.2	.2047		6.0		76		30		24		0.81
2XDSS2087A	02150			5.3	.2087		6.0		76		30		24		0.82
2XDSS2126A	02152			5.4	.2126		6.0		76		30		24		0.84
2XDSS2165A	02154			5.5	.2165		6.0		76		30		24		0.85
2XDSS2187A	02156	7/32			.2187	15/64		3.00		1.125		0.90		0.034	
2XDSS2210A	02158		2		.2210	15/64		3.00		1.125		0.90		0.034	
2XDSS2244A	02160			5.7	.2244		6.0		76		30		24		0.88
2XDSS2283A	02162			5.8	.2283		6.0		76		30		24		0.90
2XDSS2323A	02164			5.9	.2323		6.0		76		30		24		0.91
2XDSS2344A	02166	15/64			.2344	15/64		3.00		1.125		0.90		0.036	
2XDSS2362A	02168			6.0	.2362		6.0		76		30		24		0.93
2XDSS2402A	02170			6.1	.2402		8.0		82		35		28		0.95
2XDSS2420A	02172		C		.2420	1/4		3.00		1.250		1.00		0.037	
2XDSS2441A	02174			6.2	.2441		8.0		82		35		28		0.96
2XDSS2460A	02176		D		.2460	1/4		3.00		1.250		1.00		0.038	
2XDSS2480A	02178			6.3	.2480		8.0		82		35		28		0.98
2XDSS2500A	02180	1/4			.2500	1/4		3.00		1.250		1.00		0.039	
2XDSS2520A	02182			6.4	.2520		8.0		82		35		28		0.99
2XDSS2559A	02184			6.5	.2559		8.0		82		35		28		1.01
2XDSS2570A	02186		F		.2570	5/16		3.25		1.375		1.10		0.040	
2XDSS2598A	02185			6.6	.2598		8.0		82		35		28		1.03
2XDSS2610A	02188		G		.2610	5/16		3.25		1.375		1.10		0.040	
2XDSS2638A	02189			6.7	.2638		8.0		82		35		28		1.04
2XDSS2656A	02190	17/64			.2656	5/16		3.25		1.375		1.10		0.041	
2XDSS2677A	02192			6.8	.2677		8.0		82		35		28		1.05
2XDSS2717A	02194			6.9	.2717		8.0		82		35		28		1.07
2XDSS2756A	02196			7.0	.2756		8.0		82		35		28		1.08
2XDSS2795A	02197			7.1	.2795		8.0		82		38		31		1.10
2XDSS2812A	02198	9/32			.2812	5/16		3.25		1.500		1.20		0.044	
2XDSS2835A	02200			7.2	.2835		8.0		82		38		31		1.12
2XDSS2874A	02201			7.3	.2874		8.0		82		38		31		1.13
2XDSS2913A	02202			7.4	.2913		8.0		82		38		31		1.15
2XDSS2953A	02204			7.5	.2953		8.0		82		38		31		1.16
2XDSS2969A	02206	19/64			.2969	5/16		3.25		1.500		1.20		0.046	
2XDSS2992A	02208			7.6	.2992		8.0		82		38		31		1.18
2XDSS3031A	02210			7.7	.3031		8.0		82		38		31		1.19
2XDSS3071A	02212			7.8	.3071		8.0		82		38		31		1.21
2XDSS3110A	02213			7.9	.3110		8.0		82		38		31		1.22
2XDSS3125A	02214	5/16			.3125	5/16		3.25		1.500		1.20		0.048	
2XDSS3150A	02216			8.0	.3150		8.0		82		38		31		1.24
2XDSS3189A	02218			8.1	.3189		10.0		89		43		35		1.26
2XDSS3228A	02220			8.2	.3228		10.0		89		43		35		1.27
2XDSS3268A	02222			8.3	.3268		10.0		89		43		35		1.29

# Series 2XDSS Continued

ALtima®		Diameter				Shank		OAL		Flute Length		Drill Length		Point Length	
		D1 (h7)				D2 (h6)		L1		L2 (Max.)		L3 Ref.		L5	
Tool No.	EDP	Inch	Letter/ Wire	mm	Decimal	Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm
2XDSS3281A	02224	21/64			.3281	25/64		3.50		1.687		1.35		0.051	
2XDSS3307A	02223			8.4	.3307		10.0		89		43		35		1.31
2XDSS3320A	02225		Q		.3320	25/64		3.50		1.687		1.35		0.051	
2XDSS3346A	02226			8.5	.3346		10.0		89		43		35		1.32
2XDSS3386A	02227			8.6	.3386		10.0		89		43		35		1.33
2XDSS3425A	04001			8.7	.3425		10.0		89		43		35		1.35
2XDSS3438A	02228	11/32			.3438	25/64		3.50		1.687		1.35		0.053	
2XDSS3465A	02230			8.8	.3465		10.0		89		43		35		1.36
2XDSS3504A	02232			8.9	.3504		10.0		89		43		35		1.38
2XDSS3543A	02234			9.0	.3543		10.0		89		43		35		1.39
2XDSS3583A	02235			9.1	.3583		10.0		89		43		35		1.41
2XDSS3594A	02236	23/64			.3594	25/64		3.50		1.687		1.35		0.056	
2XDSS3622A	02238			9.2	.3622		10.0		89		43		35		1.43
2XDSS3642A	02240			9.25	.3642		10.0		89		43		35		1.43
2XDSS3661A	02242			9.3	.3661		10.0		89		43		35		1.44
2XDSS3701A	02243			9.4	.3701		10.0		89		43		35		1.46
2XDSS3740A	02244			9.5	.3740		10.0		89		43		35		1.47
2XDSS3750A	02246	3/8			.3750	25/64		3.50		1.687		1.35		0.058	
2XDSS3780A	02247			9.6	.3780		10.0		89		43		35		1.49
2XDSS3819A	02248			9.7	.3819		10.0		89		43		35		1.50
2XDSS3858A	02250			9.8	.3858		10.0		89		43		35		1.52
2XDSS3898A	02251			9.9	.3898		10.0		89		43		35		1.53
2XDSS3906A	02252	25/64			.3906	25/64		3.50		1.687		1.35		0.061	
2XDSS3937A	02254			10.0	.3937		10.0		89		43		35		1.55
2XDSS3976A	02255			10.1	.3976		12.0		101		51		41		1.56
2XDSS4016A	02256			10.2	.4016		12.0		101		51		41		1.58
2XDSS4055A	02257			10.3	.4055		12.0		101		51		41		1.60
2XDSS4062A	02258	13/32			.4062	15/32		4.00		2.000		1.60		0.063	
2XDSS4094A	02259			10.4	.4094		12.0		101		51		41		1.61
2XDSS4134A	02260			10.5	.4134		12.0		101		51		41		1.63
2XDSS4173A	02261			10.6	.4173		12.0		101		51		41		1.64
2XDSS4213A	04002			10.7	.4213		12.0		101		51		41		1.66
2XDSS4219A	02262	27/64			.4219	15/32		4.00		2.00		1.60		0.065	
2XDSS4252A	02263			10.8	.4252		12.0		101		51		41		1.67
2XDSS4291A	04003			10.9	.4291		12.0		101		51		41		1.69
2XDSS4331A	02264			11.0	.4331		12.0		101		51		41		1.70
2XDSS4370A	02265			11.1	.4370		12.0		101		51		41		1.72
2XDSS4375A	02266	7/16			.4375	15/32		4.00		2.00		1.60		0.068	
2XDSS4409A	02268			11.2	.4409		12.0		101		51		41		1.74
2XDSS4449A	02269			11.3	.4449		12.0		101		51		41		1.75
2XDSS4488A	04004			11.4	.4488		12.0		101		51		41		1.77
2XDSS4527A	02270			11.5	.4527		12.0		101		51		41		1.78
2XDSS4567A	02271			11.6	.4567		12.0		101		51		41		1.80
2XDSS4606A	02272			11.7	.4606		12.0		101		51		41		1.81
2XDSS4646A	02273			11.8	.4646		12.0		101		51		41		1.83
2XDSS4685A	04005			11.9	.4685		12.0		101		51		41		1.84
2XDSS4688A	02274	15/32			.4688	15/32		4.00		2.00		1.60		0.073	
2XDSS4724A	02276			12.0	.4724		12.0		101		51		41		1.86
2XDSS4764A	02278			12.1	.4764		14.0		107		54		43		1.87
2XDSS4844A	02280	31/64			.4844	1/2		4.00		2.00		1.60		0.075	
2XDSS4921A	02282			12.5	.4921		14.0		107		54		43		1.94
2XDSS5000A	02284	1/2			.5000	1/2		4.00		2.00		1.60		0.077	



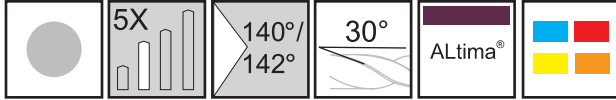
# Series 2XDSS Continued



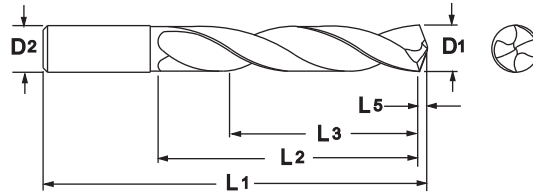
ALtima®		Diameter				Shank		OAL		Flute Length		Drill Length		Point Length	
		D1 (h7)				D2 (h6)		L1		L2 (Max.)		L3 Ref.		L5	
Tool No.	EDP	Inch	Letter/ Wire	mm	Decimal	Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm
2XDSS5039A	02286			12.8	.5039		14.0		107		54		43		1.98
2XDSS5051A	02285			12.83	.5051		14.0		107		54		43		1.99
2XDSS5079A	02287			12.9	.5079		14.0		107		54		43		2.00
2XDSS5118A	02288			13.0	.5118		14.0		107		54		43		2.01
2XDSS5156A	02290	33/64			.5156	35/64		4.25		2.125		1.70		0.080	
2XDSS5312A	02291	17/32			.5312	35/64		4.25		2.125		1.70		0.082	
2XDSS5315A	02292			13.5	.5315		14.0		107		54		43		2.09
2XDSS5394A	02294			13.7	.5394		14.0		107		54		43		2.12
2XDSS5469A	02296	35/64			.5469	35/64		4.25		2.125		1.70		0.085	
2XDSS5512A	02298			14.0	.5512		14.0		107		54		43		2.17
2XDSS5625A	02300	9/16			.5625	5/8		4.625		2.375		1.90		0.087	
2XDSS5709A	02302			14.5	.5709		16.0		117		60		48		2.25
2XDSS5787A	02304			14.7	.5787		16.0		117		60		48		2.28
2XDSS5905A	02306			15.0	.5905		16.0		117		60		48		2.32
2XDSS5938A	02308	19/32			.5938	5/8		4.625		2.375		1.90		0.092	
2XDSS6024A	02309			15.3	.6024		16.0		117		60		48		2.37
2XDSS6102A	02310			15.5	.6102		16.0		117		60		48		2.40
2XDSS6181A	02312			15.7	.6181		16.0		117		60		48		2.43
2XDSS6250A	02314	5/8			.6250	5/8		4.625		2.375		1.90		0.097	
2XDSS6299A	02316			16.0	.6299		16.0		117		60		48		2.48
2XDSS6331A	02318			16.08	.6331		18.0		122		63		51		2.49
2XDSS6417A	02319			16.3	.6417		18.0		122		63		51		2.53
2XDSS6496A	02320			16.5	.6496		18.0		122		63		51		2.56
2XDSS6562A	02322	21/32			.6562	45/64		4.81		2.500		2.00		0.102	
2XDSS6693A	02324			17.0	.6693		18.0		122		63		51		2.63
2XDSS6875A	02326	11/16			.6875	45/64		4.81		2.500		2.00		0.107	
2XDSS6890A	02328			17.5	.6890		18.0		122		63		51		2.71
2XDSS7087A	02330			18.0	.7087		18.0		122		63		51		2.79
2XDSS7283A	02332			18.5	.7283		20.0		133		70		56		2.87
2XDSS7500A	02334	3/4			.7500	3/4		5.25		2.750		2.20		0.116	
2XDSS7543A	02336			19.16	.7543		20.0		133		70		56		2.97
2XDSS7579A	02338			19.25	.7579		20.0		133		70		56		2.98
2XDSS7598A	02340			19.3	.7598		20.0		133		70		56		2.99
2XDSS7677A	02342			19.5	.7677		20.0		133		70		56		3.02
2XDSS7874A	02344			20.0	.7874		20.0		133		70		56		3.10



# Twister XD® Series 2XDSR



Designed for high performance drilling in a broad range of materials.



ALtima®		Diameter				Shank		OAL		Flute Length		Drill Length		Point Length	
Tool No.	EDP	D1 (h7)				D2 (h6)		L1		L2 (Max.)		L3 Ref.		L5	
		Inch	Letter/ Wire	mm	Decimal	Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm
2XDSR0156A	22201	1/64			.0156	1/64		1.50		0.187		0.14		0.002	
2XDSR0197A	28001			0.5	.0197	0.50		26		6		5		0.08	
2XDSR0236A	28006			0.6	.0236	0.60		26		7		5		0.09	
2XDSR0256A	28011			0.65	.0256	0.65		26		8		6		0.10	
2XDSR0312A	22221	1/32			.0312	1/32		1.50		0.375		0.281		0.005	
2XDSR0374A	28016			0.95	.0374	0.95		32		11		8		0.15	
2XDSR0394A	28021			1.0	.0394	1.00		34		12		9		0.16	
2XDSR0413A	28026			1.05	.0413	1.05		34		12		9		0.16	
2XDSR0469A	22241	3/64			.0469	3/64		1.50		0.750		0.562		0.007	
2XDSR0492A	28031			1.25	.0492	1.25		38		16		12		0.19	
2XDSR0590A	28036			1.5	.0590	1.50		40		18		14		0.23	
2XDSR0625A	22256	1/16			.0625	1/16		1.50		0.750		0.562		0.010	
2XDSR0630A	28041			1.6	.0630	1.60		43		20		15		0.25	
2XDSR0708A	28046			1.8	.0708	1.80		46		22		17		0.28	
2XDSR0748A	28051			1.9	.0748	1.90		46		22		17		0.29	
2XDSR0781A	22276	5/64			.0781	5/64		1.75		0.875		0.656		0.012	
2XDSR0787A	28056			2.0	.0787	2.00		49		24		18		0.31	
2XDSR0807A	28058			2.05	.0807	2.05		49		24		18		0.32	
2XDSR0906A	28061			2.3	.0906	2.30		53		27		20		0.36	
2XDSR0938A	22291	3/32			.0938	3/32		2.00		1.000		0.75		0.015	
2XDSR0945A	28066			2.4	.0945	2.40		57		30		23		0.37	
2XDSR0984A	28071			2.5	.0984	2.50		57		30		23		0.39	
2XDSR1094A	22306	7/64			.1094	7/64		2.25		1.250		0.937		0.017	
2XDSR1142A	28073			2.9	.1142	2.90		61		33		25		0.45	
2XDSR1181A	02346			3.0	.1181	3.00		63		24		19		0.46	
2XDSR1200A	02348		31		.1200	1/8		2.50		1.125		0.90		0.019	
2XDSR1220A	02349			3.1	.1220	4.00		69		32		26		0.48	
2XDSR1250A	02350	1/8			.1250	1/8		2.50		1.125		0.90		0.019	
2XDSR1260A	02352			3.2	.1260	4.00		69		32		26		0.50	
2XDSR1285A	02354		30		.1285	5/32		2.75		1.260		1.000		0.020	
2XDSR1299A	02356			3.3	.1299	4.00		69		32		26		0.51	
2XDSR1339A	02358			3.4	.1339	4.00		69		32		26		0.53	
2XDSR1360A	02360		29		.1360	5/32		2.75		1.260		1.000		0.021	
2XDSR1378A	02362			3.5	.1378	4.00		69		32		26		0.54	

Inch	
D1	Tolerance (h7)
.0000 - .1181	+0/- .00039
.1182 - .2362	+0/- .00047
.2363 - .3937	+0/- .00059
.3938 - .6250	+0/- .00071

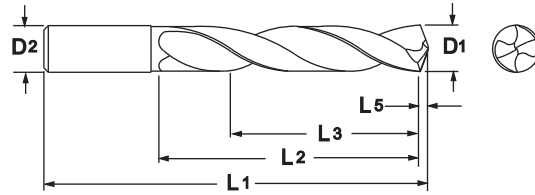
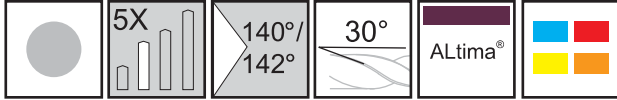
Inch	
D2	Tolerance (h6)
.0000 - .1181	+0/- .00024
.1182 - .2362	+0/- .00031
.2363 - .3937	+0/- .00035
.3938 - .6250	+0/- .00043

Metric (mm)	
D1	Tolerance (h7)
0 - 3.0	+0/- .010
3.01 - 6.0	+0/- .012
6.01 - 10.0	+0/- .015
10.01 - 16.0	+0/- .018

Metric (mm)	
D2	Tolerance (h6)
0 - 3.0	+0/- .006
3.01 - 6.0	+0/- .008
6.01 - 10.0	+0/- .009
10.01 - 16.0	+0/- .011



# Series 2XDSR Continued



ALtima®		Diameter				Shank		OAL		Flute Length		Drill Length		Point Length	
Tool No.	EDP	D1 (h7)				D2 (h6)		L1		L2 (Max.)		L3 Ref.		L5	
		Inch	Letter/ Wire	mm	Decimal	Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm
2XDSR1406A	02364	9/64			.1406	5/32		2.75		1.260		1.000		0.022	
2XDSR1417A	02365			3.6	.1417	4.00		69		32		26		0.56	
2XDSR1457A	02366			3.7	.1457	4.00		69		32		26		0.57	
2XDSR1496A	02368			3.8	.1496	4.00		69		32		26		0.59	
2XDSR1520A	02367		24		.1520	5/32		2.75		1.260		1.000		0.024	
2XDSR1535A	02369			3.9	.1535	4.00		69		32		26		0.60	
2XDSR1562A	02370	5/32			.1562	5/32		2.75		1.260		1.000		0.024	
2XDSR1575A	02372			4.0	.1575	4.00		69		32		26		0.62	
2XDSR1590A	02373		21		.1590	3/16		3.15		1.500		1.200		0.025	
2XDSR1614A	04006			4.1	.1614	5.00		80		38		30		0.64	
2XDSR1654A	02374			4.2	.1654	5.00		80		38		30		0.65	
2XDSR1693A	02375			4.3	.1693	5.00		80		38		30		0.67	
2XDSR1719A	02376	11/64			.1719	3/16		3.15		1.500		1.200		0.027	
2XDSR1732A	02377			4.4	.1732	5.00		80		38		30		0.68	
2XDSR1772A	02378			4.5	.1772	5.00		80		38		30		0.70	
2XDSR1811A	02380			4.6	.1811	5.00		80		38		30		0.71	
2XDSR1850A	02381			4.7	.1850	5.00		80		38		30		0.73	
2XDSR1875A	02382	3/16			.1875	3/16		3.15		1.500		1.200		0.029	
2XDSR1890A	02384			4.8	.1890	5.00		80		38		30		0.74	
2XDSR1929A	02386			4.9	.1929	5.00		80		38		30		0.76	
2XDSR1968A	02388			5.0	.1968	5.00		80		38		30		0.77	
2XDSR2008A	02390			5.1	.2008	6.00		82		40		32		0.79	
2XDSR2031A	02392	13/64			.2031	15/64		3.23		1.580		1.260		0.031	
2XDSR2047A	02394			5.2	.2047	6.00		82		40		32		0.81	
2XDSR2087A	02396			5.3	.2087	6.00		82		40		32		0.82	
2XDSR2126A	02398			5.4	.2126	6.00		82		40		32		0.84	
2XDSR2165A	02400			5.5	.2165	6.00		82		40		32		0.85	
2XDSR2187A	02402	7/32			.2187	15/64		3.23		1.580		1.260		0.034	
2XDSR2210A	02404		2		.2210	15/64		3.23		1.580		1.260		0.034	
2XDSR2244A	02406			5.7	.2244	6.00		82		40		32		0.88	
2XDSR2283A	02408			5.8	.2283	6.00		82		40		32		0.90	
2XDSR2323A	02410			5.9	.2323	6.00		82		40		32		0.91	
2XDSR2344A	02412	15/64			.2344	15/64		3.23		1.580		1.260		0.036	
2XDSR2362A	02414			6.0	.2362	6.00		82		40		32		0.93	
2XDSR2402A	02416			6.1	.2402	8.00		91		48		38		0.95	
2XDSR2420A	02418		C		.2420	1/4		3.25		1.740		1.390		0.037	
2XDSR2441A	02420			6.2	.2441	8.00		91		48		38		0.96	
2XDSR2460A	02422		D		.2460	1/4		3.25		1.740		1.390		0.038	
2XDSR2480A	02424			6.3	.2480	8.00		91		48		38		0.98	
2XDSR2500A	02426	1/4			.2500	1/4		3.25		1.740		1.390		0.039	
2XDSR2520A	02428			6.4	.2520	8.00		91		48		38		0.99	
2XDSR2559A	02430			6.5	.2559	8.00		91		48		38		1.01	
2XDSR2570A	02432		F		.2570	5/16		3.58		1.890		1.510		0.040	
2XDSR2598A	02433			6.6	.2598	8.00		91		48		38		1.03	
2XDSR2610A	02434		G		.2610	5/16		3.58		1.890		1.510		0.040	
2XDSR2638A	02435			6.7	.2638	8.00		91		48		38		1.04	

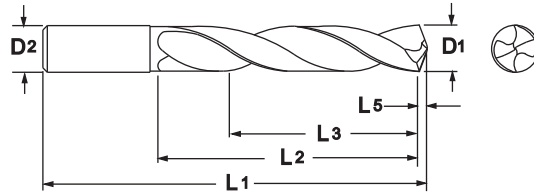
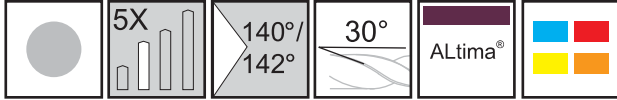


# Series 2XDSR Continued

ALtima®		Diameter				Shank		OAL		Flute Length		Drill Length		Point Length	
		D1 (h7)				D2 (h6)		L1		L2 (Max.)		L3 Ref.		L5	
Tool No.	EDP	Inch	Letter/ Wire	mm	Decimal	Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm
2XDSR2656A	02436	17/64			.2656	5/16		3.58		1.890		1.510		0.041	
2XDSR2677A	02438			6.8	.2677		8.00		91		48		38		1.05
2XDSR2717A	02440			6.9	.2717		8.00		91		48		38		1.07
2XDSR2756A	02442			7.0	.2756		8.00		91		48		38		1.08
2XDSR2795A	02443			7.1	.2795		8.00		91		48		38		1.10
2XDSR2812A	02444	9/32			.2812	5/16		3.58		1.890		1.510		0.044	
2XDSR2835A	02446			7.2	.2835		8.00		91		48		38		1.12
2XDSR2874A	02447			7.3	.2874		8.00		91		48		38		1.13
2XDSR2913A	02448			7.4	.2913		8.00		91		48		38		1.15
2XDSR2953A	02450			7.5	.2953		8.00		91		48		38		1.16
2XDSR2969A	02452	19/64			.2969	5/16		3.58		1.890		1.510		0.046	
2XDSR2992A	02454			7.6	.2992		8.00		91		48		38		1.18
2XDSR3031A	02456			7.7	.3031		8.00		91		48		38		1.19
2XDSR3071A	02458			7.8	.3071		8.00		91		48		38		1.21
2XDSR3110A	02459			7.9	.3110		8.00		91		48		38		1.22
2XDSR3125A	02460	5/16			.3125	5/16		3.58		1.890		1.510		0.048	
2XDSR3150A	02480			8.0	.3150		8.00		91		48		38		1.24
2XDSR3189A	02482			8.1	.3189		10.00		103		55		44		1.26
2XDSR3228A	02484			8.2	.3228		10.00		103		55		44		1.27
2XDSR3268A	02486			8.3	.3268		10.00		103		55		44		1.29
2XDSR3281A	02488	21/64			.3281	25/64		4.06		2.170		1.740		0.051	
2XDSR3307A	02487			8.4	.3307		10.00		103		55		44		1.31
2XDSR3320A	02489		Q		.3320	25/64		4.06		2.170		1.740		0.051	
2XDSR3346A	02490			8.5	.3346		10.00		103		55		44		1.32
2XDSR3386A	02491			8.6	.3386		10.00		103		55		44		1.33
2XDSR3425A	04007			8.7	.3425		10.00		103		55		44		1.35
2XDSR3438A	02492	11/32			.3438	25/64		4.06		2.170		1.740		0.053	
2XDSR3465A	02494			8.8	.3465		10.00		103		55		44		1.36
2XDSR3504A	02496			8.9	.3504		10.00		103		55		44		1.38
2XDSR3543A	02498			9.0	.3543		10.00		103		55		44		1.39
2XDSR3583A	02499			9.1	.3583		10.00		103		55		44		1.41
2XDSR3594A	02500	23/64			.3594	25/64		4.06		2.170		1.740		0.056	
2XDSR3622A	02502			9.2	.3622		10.00		103		55		44		1.43
2XDSR3642A	02504			9.25	.3642		10.00		103		55		44		1.43
2XDSR3661A	02506			9.3	.3661		10.00		103		55		44		1.44
2XDSR3701A	02507			9.4	.3701		10.00		103		55		44		1.46
2XDSR3740A	02508			9.5	.3740		10.00		103		55		44		1.47
2XDSR3750A	02510	3/8			.3750	25/64		4.06		2.170		1.740		0.058	
2XDSR3780A	02511			9.6	.3780		10.00		103		55		44		1.49
2XDSR3819A	02512			9.7	.3819		10.00		103		55		44		1.50
2XDSR3858A	02514			9.8	.3858		10.00		103		55		44		1.52
2XDSR3898A	02515			9.9	.3898		10.00		103		55		44		1.53
2XDSR3906A	02516	25/64			.3906	25/64		4.06		2.170		1.740		0.061	
2XDSR3937A	02518			10.0	.3937		10.00		103		55		44		1.55
2XDSR3976A	02519			10.1	.3976		12.00		120		60		48		1.56
2XDSR4016A	02520			10.2	.4016		12.00		120		60		48		1.58
2XDSR4055A	02521			10.3	.4055		12.00		120		60		48		1.60
2XDSR4062A	02522	13/32			.4062	15/32		4.72		2.360		1.890		0.063	
2XDSR4094A	02523			10.4	.4094		12.00		120		60		48		1.61
2XDSR4134A	02524			10.5	.4134		12.00		120		60		48		1.63
2XDSR4173A	02525			10.6	.4173		12.00		120		60		48		1.64
2XDSR4213A	04008			10.7	.4213		12.00		120		60		48		1.66
2XDSR4219A	02526	27/64			.4219	15/32		4.72		2.360		1.890		0.065	
2XDSR4252A	02527			10.8	.4252		12.00		120		60		48		1.67



# Series 2XDSR Continued

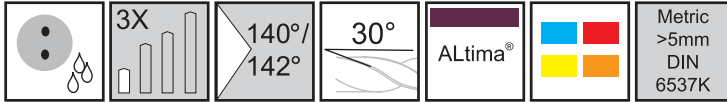


ALtima®		Diameter				Shank		OAL		Flute Length		Drill Length		Point Length	
		D1 (h7)				D2 (h6)		L1		L2 (Max.)		L3 Ref.		L5	
Tool No.	EDP	Inch	Letter/ Wire	mm	Decimal	Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm
2XDSR4291A	04009			10.9	.4291		12.00		120		60		48		1.69
2XDSR4331A	02528			11.0	.4331		12.00		120		60		48		1.70
2XDSR4370A	02529			11.1	.4370		12.00		120		66		53		1.72
2XDSR4375A	02530	7/16			.4375	15/32		4.72		2.600		2.080		0.068	
2XDSR4409A	02532			11.2	.4409		12.00		120		66		53		1.74
2XDSR4449A	02533			11.3	.4449		12.00		120		66		53		1.75
2XDSR4488A	04010			11.4	.4488		12.00		120		66		53		1.77
2XDSR4527A	02534			11.5	.4527		12.00		120		66		53		1.78
2XDSR4567A	02535			11.6	.4567		12.00		120		66		53		1.80
2XDSR4606A	02536			11.7	.4606		12.00		120		66		53		1.81
2XDSR4646A	02537			11.8	.4646		12.00		120		66		53		1.83
2XDSR4685A	04011			11.9	.4685		12.00		120		66		53		1.84
2XDSR4688A	02538	15/32			.4688	15/32		4.72		2.600		2.080		0.073	
2XDSR4724A	02540			12.0	.4724		12.00		120		66		53		1.86
2XDSR4764A	02542			12.1	.4764		14.00		126		72		58		1.87
2XDSR4844A	02544	31/64			.4844	1/2		4.75		2.830		2.260		0.075	
2XDSR4921A	02546			12.5	.4921		14.00		126		72		58		1.94
2XDSR5000A	02548	1/2			.5000	1/2		4.75		2.830		2.260		0.077	
2XDSR5039A	02550			12.8	.5039		14.00		126		72		58		1.98
2XDSR5051A	02549			12.83	.5051		14.00		126		72		58		1.99
2XDSR5079A	02551			12.9	.5079		14.00		126		72		58		2.00
2XDSR5118A	02552			13.0	.5118		14.00		126		72		58		2.01
2XDSR5156A	02554	33/64			.5156	35/64		5.28		3.030		2.420		0.080	
2XDSR5312A	02555	17/32			.5312	35/64		5.28		3.030		2.420		0.082	
2XDSR5315A	02556			13.5	.5315		14.00		134		77		62		2.09
2XDSR5394A	02558			13.7	.5394		14.00		134		77		62		2.12
2XDSR5469A	02560	35/64			.5469	35/64		5.28		3.030		2.420		0.085	
2XDSR5512A	02562			14.0	.5512		14.00		134		77		62		2.17
2XDSR5625A	02564	9/16			.5625	5/8		5.51		3.150		2.520		0.087	
2XDSR5709A	02566			14.5	.5709		16.00		140		80		64		2.25
2XDSR5787A	02568			14.7	.5787		16.00		140		80		64		2.28
2XDSR5905A	02570			15.0	.5905		16.00		140		80		64		2.32
2XDSR5938A	02572	19/32			.5938	5/8		5.75		3.230		2.580		0.092	
2XDSR6024A	02573			15.3	.6024		16.00		146		82		66		2.37
2XDSR6102A	02574			15.5	.6102		16.00		146		82		66		2.40
2XDSR6181A	02576			15.7	.6181		16.00		146		82		66		2.43
2XDSR6250A	02578	5/8			.6250	5/8		5.75		3.230		2.580		0.097	
2XDSR6299A	02580			16.0	.6299		16.00		146		82		66		2.48

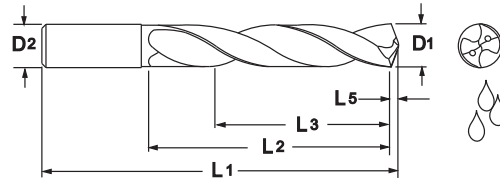




# Twister XD® Series 2XDCS



Designed for high performance drilling in a broad range of materials.

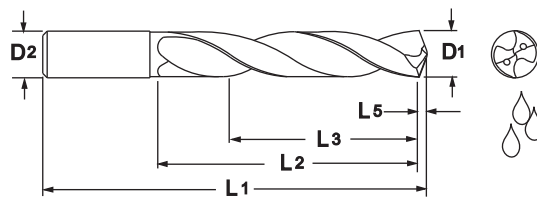
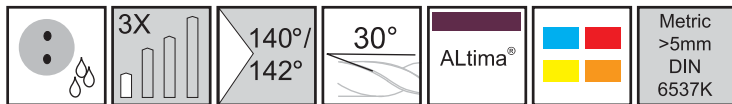


ALtima®		Diameter				Shank		OAL	Flute Length		Drill Length		Point Length		
		D1 (h7)				D2 (h6)		L1	L2 (Max.)		L3 Ref.		L5		
Tool No.	EDP	Inch	Letter/ Wire	mm	Decimal	Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm
2XDCS1181A	04400			3.0	.1181		3.0		57		16		13		0.46
2XDCS1200A	04402		31		.1200	1/8		2.250		.750		.600		.019	
2XDCS1220A	04404			3.1	.1220		4.0		63		22		18		0.48
2XDCS1250A	04406	1/8			.1250	1/8		2.250		.750		.600		.019	
2XDCS1260A	04408			3.2	.1260		4.0		63		22		18		0.50
2XDCS1285A	04410		30		.1285	5/32		2.500		.875		.700		.020	
2XDCS1299A	04412			3.3	.1299		4.0		63		22		18		0.51
2XDCS1339A	04414			3.4	.1339		4.0		63		22		18		0.53
2XDCS1360A	04416		29		.1360	5/32		2.500		.875		.700		.021	
2XDCS1378A	04418			3.5	.1378		4.0		63		22		18		0.54
2XDCS1406A	04420	9/64			.1406	5/32		2.500		.875		.700		.022	
2XDCS1417A	04422			3.6	.1417		4.0		63		22		18		0.56
2XDCS1457A	04424			3.7	.1457		4.0		63		22		18		0.57
2XDCS1496A	04426			3.8	.1496		4.0		63		22		18		0.59
2XDCS1520A	04428		24		.1520	5/32		2.500		.875		.700		.024	
2XDCS1535A	04430			3.9	.1535		4.0		63		22		18		0.60
2XDCS1562A	04432	5/32			.1562	5/32		2.500		.875		.700		.024	
2XDCS1575A	04434			4.0	.1575		4.0		63		22		18		0.62
2XDCS1590A	04436		21		.1590	3/16		2.500		1.000		.800		.025	
2XDCS1614A	04438			4.1	.1614		5.0		63		26		21		0.64
2XDCS1654A	04440			4.2	.1654		5.0		63		26		21		0.65
2XDCS1693A	04442			4.3	.1693		5.0		63		26		21		0.67
2XDCS1719A	04444	11/64			.1719	3/16		2.500		1.000		.800		.027	
2XDCS1732A	04446			4.4	.1732		5.0		63		26		21		0.68
2XDCS1772A	04448			4.5	.1772		5.0		63		26		21		0.70
2XDCS1811A	04450			4.6	.1811		5.0		63		26		21		0.71
2XDCS1850A	04452			4.7	.1850		5.0		63		26		21		0.73
2XDCS1875A	04454	3/16			.1875	3/16		2.500		1.000		.800		.029	
2XDCS1890A	04456			4.8	.1890		5.0		63		26		21		0.74
2XDCS1929A	04458			4.9	.1929		5.0		63		26		21		0.76
2XDCS1968A	04460			5.0	.1968		5.0		63		26		21		0.77
2XDCS2008A	04462			5.1	.2008		6.0		66		28		20		0.79
2XDCS2031A	04464	13/64			.2031	15/64		2.598		1.102		.787		.031	
2XDCS2047A	04466			5.2	.2047		6.0		66		28		20		0.81

Inch		Inch		Metric (mm)		Metric (mm)	
D1	Tolerance (h7)	D2	Tolerance (h6)	D1	Tolerance (h7)	D2	Tolerance (h6)
.0000 - .1181	+0/-0.0039	.0000 - .1181	+0/-0.0024	0 - 3.0	+0/-0.010	0 - 3.0	+0/-0.006
.1182 - .2362	+0/-0.0047	.1182 - .2362	+0/-0.0031	3.01 - 6.0	+0/-0.012	3.01 - 6.0	+0/-0.008
.2363 - .3937	+0/-0.0059	.2363 - .3937	+0/-0.0035	6.01 - 10.0	+0/-0.015	6.01 - 10.0	+0/-0.009
.3938 - .6250	+0/-0.0071	.3938 - .6250	+0/-0.0043	10.01 - 16.0	+0/-0.018	10.01 - 16.0	+0/-0.011



# Series 2XDCS Continued



ALtima®		Diameter				Shank		OAL		Flute Length		Drill Length		Point Length	
Tool No.	EDP	D1 (h7)				D2 (h6)		L1		L2 (Max.)		L3 Ref.		L5	
		Inch	Letter/ Wire	mm	Decimal	Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm
2XDCS2087A	04468			5.3	.2087		6.0		66		28		20		0.82
2XDCS2126A	04470			5.4	.2126		6.0		66		28		20		0.84
2XDCS2165A	04472			5.5	.2165		6.0		66		28		20		0.85
2XDCS2187A	04474	7/32			.2187	15/64		2.598		1.102		.787		.034	
2XDCS2210A	04476		2		.2210	15/64		2.598		1.102		.787		.034	
2XDCS2244A	04478			5.7	.2244		6.0		66		28		20		0.88
2XDCS2283A	04480			5.8	.2283		6.0		66		28		20		0.90
2XDCS2323A	04482			5.9	.2323		6.0		66		28		20		0.91
2XDCS2344A	04484	15/64			.2344	15/64		2.598		1.102		.787		.036	
2XDCS2362A	04486			6.0	.2362		6.0		66		28		20		0.93
2XDCS2402A	04488			6.1	.2402		8.0		79		34		24		0.95
2XDCS2420A	04490		C		.2420	1/4		3.110		1.339		.945		.037	
2XDCS2441A	04492			6.2	.2441		8.0		79		34		24		0.96
2XDCS2460A	04494		D		.2460	1/4		3.110		1.339		.945		.038	
2XDCS2480A	04496			6.3	.2480		8.0		79		34		24		0.98
2XDCS2500A	04498	1/4			.2500	1/4		3.110		1.339		.945		.039	
2XDCS2520A	04500			6.4	.2520		8.0		79		34		24		0.99
2XDCS2559A	04502			6.5	.2559		8.0		79		34		24		1.01
2XDCS2570A	04504		F		.2570	5/16		3.110		1.339		.945		.040	
2XDCS2598A	04506			6.6	.2598		8.0		79		34		24		1.03
2XDCS2610A	04508		G		.2610	5/16		3.110		1.339		.945		.040	
2XDCS2638A	04510			6.7	.2638		8.0		79		34		24		1.04
2XDCS2656A	04512	17/64			.2656	5/16		3.110		1.339		.945		.041	
2XDCS2677A	04514			6.8	.2677		8.0		79		34		24		1.05
2XDCS2717A	04516			6.9	.2717		8.0		79		34		24		1.07
2XDCS2756A	04518			7.0	.2756		8.0		79		34		24		1.08
2XDCS2795A	04520			7.1	.2795		8.0		79		41		29		1.10
2XDCS2812A	04522	9/32			.2812	5/16		3.110		1.614		1.142		.044	
2XDCS2835A	04524			7.2	.2835		8.0		79		41		29		1.12
2XDCS2874A	04526			7.3	.2874		8.0		79		41		29		1.13
2XDCS2913A	04528			7.4	.2913		8.0		79		41		29		1.15
2XDCS2953A	04530			7.5	.2953		8.0		79		41		29		1.16
2XDCS2969A	04532	19/64			.2969	5/16		3.110		1.614		1.142		.046	
2XDCS2992A	04534			7.6	.2992		8.0		79		41		29		1.18
2XDCS3031A	04536			7.7	.3031		8.0		79		41		29		1.19
2XDCS3071A	04538			7.8	.3071		8.0		79		41		29		1.21
2XDCS3110A	04540			7.9	.3110		8.0		79		41		29		1.22
2XDCS3125A	04542	5/16			.3125	5/16		3.110		1.614		1.142		.048	
2XDCS3150A	04544			8.0	.3150		8.0		79		41		29		1.24
2XDCS3189A	04546			8.1	.3189		10.0		89		47		35		1.26
2XDCS3228A	04548			8.2	.3228		10.0		89		47		35		1.27
2XDCS3268A	04550			8.3	.3268		10.0		89		47		35		1.29
2XDCS3281A	04552	21/64			.3281	25/64		3.504		1.850		1.378		.051	
2XDCS3307A	04554			8.4	.3307		10.0		89		47		35		1.31

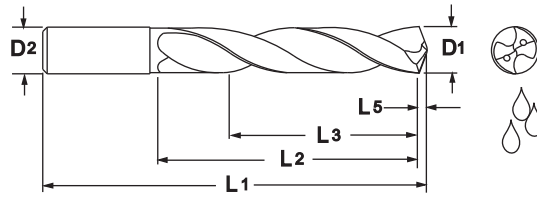
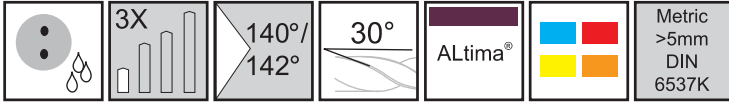


# Series 2XDCS Continued

ALtima®		Diameter				Shank		OAL		Flute Length		Drill Length		Point Length	
		D1 (h7)				D2 (h6)		L1		L2 (Max.)		L3 Ref.		L5	
Tool No.	EDP	Inch	Letter/ Wire	mm	Decimal	Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm
2XDCS3320A	04556		Q		.3320	25/64		3.504		1.850		1.378		.051	
2XDCS3346A	04558			8.5	.3346		10.0		89		47		35		1.32
2XDCS3386A	04560			8.6	.3386		10.0		89		47		35		1.33
2XDCS3425A	04562			8.7	.3425		10.0		89		47		35		1.35
2XDCS3438A	04564	11/32			.3438	25/64		3.504		1.850		1.378		.053	
2XDCS3465A	04566			8.8	.3465		10.0		89		47		35		1.36
2XDCS3504A	04568			8.9	.3504		10.0		89		47		35		1.38
2XDCS3543A	04570			9.0	.3543		10.0		89		47		35		1.39
2XDCS3583A	04572			9.1	.3583		10.0		89		47		35		1.41
2XDCS3594A	04574	23/64			.3594	25/64		3.504		1.850		1.378		.056	
2XDCS3622A	04576			9.2	.3622		10.0		89		47		35		1.43
2XDCS3642A	04578			9.25	.3642		10.0		89		47		35		1.43
2XDCS3661A	04580			9.3	.3661		10.0		89		47		35		1.44
2XDCS3701A	04582			9.4	.3701		10.0		89		47		35		1.46
2XDCS3740A	04584			9.5	.3740		10.0		89		47		35		1.47
2XDCS3750A	04586	3/8			.3750	25/64		3.504		1.850		1.378		.058	
2XDCS3780A	04588			9.6	.3780		10.0		89		47		35		1.49
2XDCS3819A	04590			9.7	.3819		10.0		89		47		35		1.50
2XDCS3858A	04592			9.8	.3858		10.0		89		47		35		1.52
2XDCS3898A	04594			9.9	.3898		10.0		89		47		35		1.53
2XDCS3906A	04596	25/64			.3906	25/64		3.504		1.850		1.378		.061	
2XDCS3937A	04598			10.0	.3937		10.0		89		47		35		1.55
2XDCS3976A	04600			10.1	.3976		12.0		102		55		40		1.56
2XDCS4016A	04602			10.2	.4016		12.0		102		55		40		1.58
2XDCS4055A	04604			10.3	.4055		12.0		102		55		40		1.60
2XDCS4062A	04606	13/32			.4062	15/32		4.016		2.165		1.575		.063	
2XDCS4094A	04608			10.4	.4094		12.0		102		55		40		1.61
2XDCS4134A	04610			10.5	.4134		12.0		102		55		40		1.63
2XDCS4173A	04612			10.6	.4173		12.0		102		55		40		1.64
2XDCS4213A	04614			10.7	.4213		12.0		102		55		40		1.66
2XDCS4219A	04616	27/64			.4219	15/32		4.016		2.165		1.575		.065	
2XDCS4252A	04618			10.8	.4252		12.0		102		55		40		1.67
2XDCS4291A	04620			10.9	.4291		12.0		102		55		40		1.69
2XDCS4331A	04622			11.0	.4331		12.0		102		55		40		1.70
2XDCS4370A	04624			11.1	.4370		12.0		102		55		40		1.72
2XDCS4375A	04626	7/16			.4375	15/32		4.016		2.165		1.575		.068	
2XDCS4409A	04628			11.2	.4409		12.0		102		55		40		1.74
2XDCS4449A	04630			11.3	.4449		12.0		102		55		40		1.75
2XDCS4488A	04632			11.4	.4488		12.0		102		55		40		1.77
2XDCS4527A	04634			11.5	.4527		12.0		102		55		40		1.78
2XDCS4567A	04636			11.6	.4567		12.0		102		55		40		1.80
2XDCS4606A	04638			11.7	.4606		12.0		102		55		40		1.81
2XDCS4646A	04640			11.8	.4646		12.0		102		55		40		1.83
2XDCS4685A	04642			11.9	.4685		12.0		102		55		40		1.84
2XDCS4688A	04644	15/32			.4688	15/32		4.016		2.165		1.575		.073	
2XDCS4724A	04646			12.0	.4724		12.0		102		55		40		1.86
2XDCS4764A	04648			12.1	.4764		14.0		107		60		43		1.87
2XDCS4844A	04650	31/64			.4844	1/2		4.213		2.362		1.693		.075	
2XDCS4921A	04652			12.5	.4921		14.0		107		60		43		1.94
2XDCS5000A	04654	1/2			.5000	1/2		4.213		2.362		1.693		.077	
2XDCS5039A	04656			12.8	.5039		14.0		107		60		43		1.98
2XDCS5051A	04658			12.83	.5051		14.0		107		60		43		1.99



# Series 2XDCS Continued



ALtima®		Diameter				Shank		OAL		Flute Length		Drill Length		Point Length	
		D1 (h7)				D2 (h6)		L1		L2 (Max.)		L3 Ref.		L5	
Tool No.	EDP	Inch	Letter/ Wire	mm	Decimal	Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm
2XDCS5079A	04660			12.9	.5079		14.0		107		60		43		2.00
2XDCS5118A	04662			13.0	.5118		14.0		107		60		43		2.01
2XDCS5156A	04664	33/64			.5156	35/64		4.213		2.362		1.693		.080	
2XDCS5315A	04666			13.5	.5315		14.0		107		60		43		2.09
2XDCS5394A	04668			13.7	.5394		14.0		107		60		43		2.12
2XDCS5469A	04670	35/64			.5469	35/64		4.213		2.362		1.693		.085	
2XDCS5512A	04672			14.0	.5512		14.0		107		60		43		2.17
2XDCS5625A	04674	9/16			.5625	5/8		4.528		2.559		1.772		.087	
2XDCS5709A	04676			14.5	.5709		16.0		115		65		45		2.25
2XDCS5787A	04678			14.7	.5787		16.0		115		65		45		2.28
2XDCS5905A	04680			15.0	.5905		16.0		115		65		45		2.32
2XDCS5938A	04682	19/32			.5938	5/8		4.528		2.559		1.772		.092	
2XDCS6024A	04684			15.3	.6024		16.0		115		65		45		2.37
2XDCS6102A	04686			15.5	.6102		16.0		115		65		45		2.40
2XDCS6181A	04688			15.7	.6181		16.0		115		65		45		2.43
2XDCS6250A	04690	5/8			.6250	5/8		4.528		2.559		1.772		.097	
2XDCS6299A	04692			16.0	.6299		16.0		115		65		45		2.48

Go Green with **RED BOX**

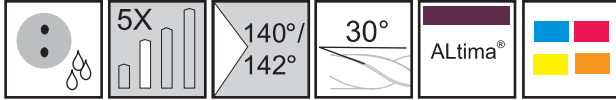


**Extend the Life of Your Cutting Tools with M.A. Ford's Reconditioning Service.**

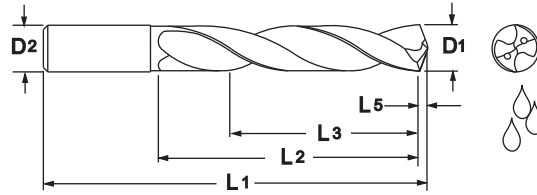
See page 178 for more information or Call 800-553-8024 or 563-391-6220



# Twister XD<sup>®</sup> Series 2XDCR



Designed for high performance drilling in a broad range of materials.



ALtima <sup>®</sup>		Diameter				Shank		OAL		Flute Length		Drill Length		Point Length	
Tool No.	EDP	D1 (h7)				D2 (h6)		L1		L2 (Max.)		L3 Ref.		L5	
		Inch	Letter/ Wire	mm	Decimal	Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm
2XDCR1181A	02582			3.0	.1181		3.0		75		24		19		0.46
2XDCR1200A	02584		31		.1200	1/8		3.00		1.125		.90		0.019	
2XDCR1220A	02585			3.1	.1220		4.0		80		32		26		0.48
2XDCR1250A	02586	1/8			.1250	1/8		3.00		1.125		.90		0.019	
2XDCR1260A	02590			3.2	.1260		4.0		80		32		26		0.50
2XDCR1285A	02592		30		.1285	5/32		3.15		1.260		1.00		0.020	
2XDCR1299A	02594			3.3	.1299		4.0		80		32		26		0.51
2XDCR1339A	02596			3.4	.1339		4.0		80		32		26		0.53
2XDCR1360A	02598		29		.1360	5/32		3.15		1.2600		1.00		0.021	
2XDCR1378A	02600			3.5	.1378		4.0		80		32		26		0.54
2XDCR1406A	02602	9/64			.1406	5/32		3.15		1.260		1.00		0.022	
2XDCR1417A	02603			3.6	.1417		4.0		80		32		26		0.56
2XDCR1457A	02604			3.7	.1457		4.0		80		32		26		0.57
2XDCR1496A	02606			3.8	.1496		4.0		80		32		26		0.59
2XDCR1520A	02605		24		.1520	5/32		3.15		1.260		1.00		0.024	
2XDCR1535A	02607			3.9	.1535		4.0		80		32		26		0.60
2XDCR1562A	02608	5/32			.1562	5/32		3.15		1.260		1.00		0.024	
2XDCR1575A	02610			4.0	.1575		4.0		80		32		26		0.62
2XDCR1590A	02611		21		.1590	3/16		3.23		1.500		1.20		0.025	
2XDCR1614A	04012			4.1	.1614		5.0		82		38		30		0.64
2XDCR1654A	02612			4.2	.1654		5.0		82		38		30		0.65
2XDCR1693A	02613			4.3	.1693		5.0		82		38		30		0.67
2XDCR1719A	02614	11/64			.1719	3/16		3.23		1.500		1.20		0.027	
2XDCR1732A	02615			4.4	.1732		5.0		82		38		30		0.68
2XDCR1772A	02616			4.5	.1772		5.0		82		38		30		0.70
2XDCR1811A	02618			4.6	.1811		5.0		82		38		30		0.71
2XDCR1850A	02619			4.7	.1850		5.0		82		38		30		0.73
2XDCR1875A	02620	3/16			.1875	3/16		3.23		1.500		1.20		0.029	
2XDCR1890A	02622			4.8	.1890		5.0		82		38		30		0.74
2XDCR1929A	02624			4.9	.1929		5.0		82		38		30		0.76
2XDCR1968A	02626			5.0	.1968		5.0		82		38		30		0.77
2XDCR2008A	02628			5.1	.2008		6.0		82		40		32		0.79
2XDCR2031A	02630	13/64			.2031	15/64		3.23		1.580		1.26		0.031	
2XDCR2047A	02632			5.2	.2047		6.0		82		40		32		0.81

Inch	
D1	Tolerance (h7)
.0000 - .1181	+0/- .00039
.1182 - .2362	+0/- .00047
.2363 - .3937	+0/- .00059
.3938 - .7087	+0/- .00071
.7088 - .7500	+0/- .00083

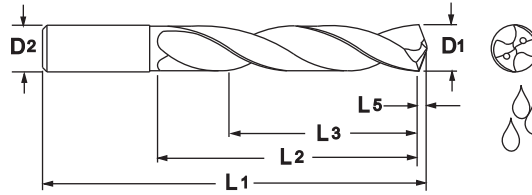
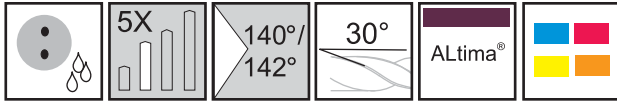
Inch	
D2	Tolerance (h6)
.0000 - .1181	+0/- .00024
.1182 - .2362	+0/- .00031
.2363 - .3937	+0/- .00035
.3938 - .7087	+0/- .00043
.7088 - .7500	+0/- .00051

Metric (mm)	
D1	Tolerance (h7)
0 - 3.0	+0/- .010
3.01 - 6.0	+0/- .012
6.01 - 10.0	+0/- .015
10.01 - 18.0	+0/- .018
18.01 - 20.0	+0/- .021

Metric (mm)	
D2	Tolerance (h6)
0 - 3.0	+0/- .006
3.01 - 6.0	+0/- .008
6.01 - 10.0	+0/- .009
10.01 - 18.0	+0/- .011
18.01 - 20.0	+0/- .013



# Series 2XDCR Continued



ALtima®		Diameter				Shank		OAL		Flute Length		Drill Length		Point Length	
		D1 (h7)				D2 (h6)		L1		L2 (Max.)		L3 Ref.		L5	
Tool No.	EDP	Inch	Letter/ Wire	mm	Decimal	Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm
2XDCR2087A	02634			5.3	.2087		6.0		82		40		32		0.82
2XDCR2126A	02636			5.4	.2126		6.0		82		40		32		0.84
2XDCR2165A	02638			5.5	.2165		6.0		82		40		32		0.85
2XDCR2187A	02640	7/32			.2187	15/64		3.23		1.580		1.26		0.034	
2XDCR2210A	02642		2		.2210	15/64		3.23		1.580		1.26		0.034	
2XDCR2244A	02644			5.7	.2244		6.0		82		40		32		0.88
2XDCR2283A	02646			5.8	.2283		6.0		82		40		32		0.90
2XDCR2323A	02648			5.9	.2323		6.0		82		40		32		0.91
2XDCR2344A	02650	15/64			.2344	15/64		3.23		1.580		1.26		0.036	
2XDCR2362A	02652			6.0	.2362		6.0		82		40		32		0.93
2XDCR2402A	02654			6.1	.2402		8.0		91		48		38		0.95
2XDCR2420A	02656		C		.2420	1/4		3.30		1.740		1.39		0.037	
2XDCR2441A	02658			6.2	.2441		8.0		91		48		38		0.96
2XDCR2460A	02660		D		.2460	1/4		3.30		1.740		1.39		0.038	
2XDCR2480A	02662			6.3	.2480		8.0		91		48		38		0.98
2XDCR2500A	02664	1/4			.2500	1/4		3.30		1.740		1.39		0.039	
2XDCR2520A	02666			6.4	.2520		8.0		91		48		38		0.99
2XDCR2559A	02668			6.5	.2559		8.0		91		48		38		1.01
2XDCR2570A	02670		F		.2570	5/16		3.58		1.890		1.51		0.040	
2XDCR2598A	02671			6.6	.2598		8.0		91		48		38		1.03
2XDCR2610A	02672		G		.2610	5/16		3.58		1.890		1.51		0.040	
2XDCR2638A	02673			6.7	.2638		8.0		91		48		38		1.04
2XDCR2656A	02674	17/64			.2656	5/16		3.58		1.890		1.51		0.041	
2XDCR2677A	02676			6.8	.2677		8.0		91		48		38		1.05
2XDCR2717A	02678			6.9	.2717		8.0		91		48		38		1.07
2XDCR2756A	02680			7.0	.2756		8.0		91		48		38		1.08
2XDCR2795A	02681			7.1	.2795		8.0		91		48		38		1.10
2XDCR2812A	02682	9/32			.2812	5/16		3.58		1.890		1.51		0.044	
2XDCR2835A	02684			7.2	.2835		8.0		91		48		38		1.12
2XDCR2874A	02685			7.3	.2874		8.0		91		48		38		1.13
2XDCR2913A	02686			7.4	.2913		8.0		91		48		38		1.15
2XDCR2953A	02688			7.5	.2953		8.0		91		48		38		1.16
2XDCR2969A	02690	19/64			.2969	5/16		3.58		1.890		1.51		0.046	
2XDCR2992A	02692			7.6	.2992		8.0		91		48		38		1.18
2XDCR3031A	02694			7.7	.3031		8.0		91		48		38		1.19
2XDCR3071A	02696			7.8	.3071		8.0		91		48		38		1.21
2XDCR3110A	02697			7.9	.3110		8.0		91		48		38		1.22
2XDCR3125A	02698	5/16			.3125	5/16		3.58		1.890		1.51		0.048	
2XDCR3150A	02700			8.0	.3150		8.0		91		48		38		1.24
2XDCR3189A	02702			8.1	.3189		10.0		103		55		44		1.26
2XDCR3228A	02704			8.2	.3228		10.0		103		55		44		1.27
2XDCR3268A	02706			8.3	.3268		10.0		103		55		44		1.29
2XDCR3281A	02708	21/64			.3281	25/64		4.06		2.170		1.74		0.051	
2XDCR3307A	02707			8.4	.3307		10.0		103		55		44		1.31
2XDCR3320A	02709		Q		.3320	25/64		4.06		2.170		1.74		0.051	
2XDCR3346A	02710			8.5	.3346		10.0		103		55		44		1.32

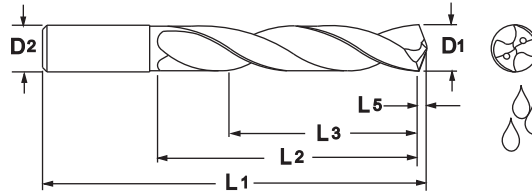
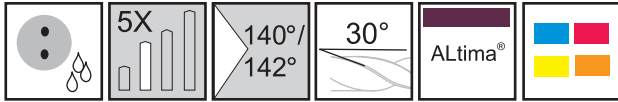


# Series 2XDCR Continued

ALtima®		Diameter				Shank		OAL		Flute Length		Drill Length		Point Length	
		D1 (h7)				D2 (h6)		L1		L2 (Max.)		L3 Ref.		L5	
Tool No.	EDP	Inch	Letter/ Wire	mm	Decimal	Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm
2XDCR3386A	02711			8.6	.3386		10.0		103		55		44		1.33
2XDCR3425A	04013			8.7	.3425		10.0		103		55		44		1.35
2XDCR3438A	02712	11/32			.3438	25/64		4.06		2.170		1.74		0.053	
2XDCR3465A	02714			8.8	.3465		10.0		103		55		44		1.36
2XDCR3504A	02716			8.9	.3504		10.0		103		55		44		1.38
2XDCR3543A	02718			9.0	.3543		10.0		103		55		44		1.39
2XDCR3583A	02719			9.1	.3583		10.0		103		55		44		1.41
2XDCR3594A	02720	23/64			.3594	25/64		4.06		2.170		1.74		0.056	
2XDCR3622A	02722			9.2	.3622		10.0		103		55		44		1.43
2XDCR3642A	02724			9.25	.3642		10.0		103		55		44		1.43
2XDCR3661A	02726			9.3	.3661		10.0		103		55		44		1.44
2XDCR3701A	02727			9.4	.3701		10.0		103		55		44		1.46
2XDCR3740A	02728			9.5	.3740		10.0		103		55		44		1.47
2XDCR3750A	02730	3/8			.3750	25/64		4.06		2.170		1.74		0.058	
2XDCR3780A	02731			9.6	.3780		10.0		103		55		44		1.49
2XDCR3819A	02732			9.7	.3819		10.0		103		55		44		1.50
2XDCR3858A	02734			9.8	.3858		10.0		103		55		44		1.52
2XDCR3898A	02735			9.9	.3898		10.0		103		55		44		1.53
2XDCR3906A	02736	25/64			.3906	25/64		4.06		2.170		1.74		0.061	
2XDCR3937A	02738			10.0	.3937		10.0		103		55		44		1.55
2XDCR3976A	02739			10.1	.3976		12.0		120		60		48		1.56
2XDCR4016A	02740			10.2	.4016		12.0		120		60		48		1.58
2XDCR4055A	02741			10.3	.4055		12.0		120		60		48		1.60
2XDCR4062A	02742	13/32			.4062	15/32		4.72		2.360		1.89		0.063	
2XDCR4094A	02743			10.4	.4094		12.0		120		60		48		1.61
2XDCR4134A	02744			10.5	.4134		12.0		120		60		48		1.63
2XDCR4173A	02745			10.6	.4173		12.0		120		60		48		1.64
2XDCR4213A	04014			10.7	.4213		12.0		120		60		48		1.66
2XDCR4219A	02746	27/64			.4219	15/32		4.72		2.360		1.89		0.065	
2XDCR4252A	02747			10.8	.4252		12.0		120		60		48		1.67
2XDCR4291A	04015			10.9	.4291		12.0		120		60		48		1.69
2XDCR4331A	02748			11.0	.4331		12.0		120		60		48		1.70
2XDCR4370A	02749			11.1	.4370		12.0		120		66		53		1.72
2XDCR4375A	02750	7/16			.4375	15/32		4.72		2.600		2.08		0.068	
2XDCR4409A	02752			11.2	.4409		12.0		120		66		53		1.74
2XDCR4449A	02753			11.3	.4449		12.0		120		66		53		1.75
2XDCR4488A	04016			11.4	.4488		12.0		120		66		53		1.77
2XDCR4527A	02754			11.5	.4527		12.0		120		66		53		1.78
2XDCR4567A	02755			11.6	.4567		12.0		120		66		53		1.80
2XDCR4606A	02756			11.7	.4606		12.0		120		66		53		1.81
2XDCR4646A	02757			11.8	.4646		12.0		120		66		53		1.83
2XDCR4685A	04017			11.9	.4685		12.0		120		66		53		1.84
2XDCR4688A	02758	15/32			.4688	15/32		4.72		2.600		2.08		0.073	
2XDCR4724A	02760			12.0	.4724		12.0		120		66		53		1.86
2XDCR4764A	02762			12.1	.4764		14.0		126		72		58		1.87
2XDCR4844A	02764	31/64			.4844	1/2		4.75		2.830		2.26		0.075	
2XDCR4921A	02766			12.5	.4921		14.0		126		72		58		1.94
2XDCR5000A	02768	1/2			.5000	1/2		4.75		2.830		2.26		0.077	
2XDCR5039A	02770			12.8	.5039		14.0		126		72		58		1.98
2XDCR5051A	02769			12.83	.5051		14.0		126		72		58		1.99
2XDCR5079A	02771			12.9	.5079		14.0		126		72		58		2.00
2XDCR5118A	02772			13.0	.5118		14.0		126		72		58		2.01
2XDCR5156A	02774	33/64			.5156	35/64		5.28		3.030		2.42		0.080	
2XDCR5312A	02775	17/32			.5312	35/64		5.28		3.030		2.42		0.082	



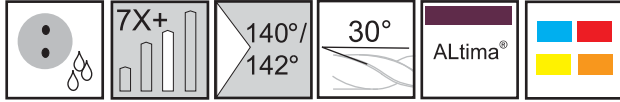
# Series 2XDCR Continued



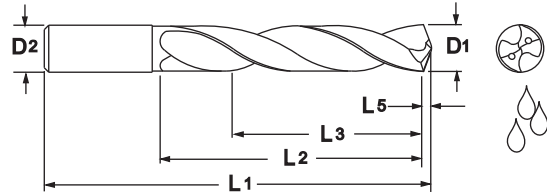
ALtima®		Diameter				Shank		OAL		Flute Length		Drill Length		Point Length	
		D1 (h7)				D2 (h6)		L1		L2 (Max.)		L3 Ref.		L5	
Tool No.	EDP	Inch	Letter/ Wire	mm	Decimal	Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm
2XDCR5315A	02776			13.5	.5315		14.0		134		77		62		2.09
2XDCR5394A	02778			13.7	.5394		14.0		134		77		62		2.12
2XDCR5469A	02780	35/64			.5469	35/64		5.28		3.030		2.42		0.085	
2XDCR5512A	02782			14.0	.5512		14.0		134		77		62		2.17
2XDCR5625A	02784	9/16			.5625	5/8		5.51		3.150		2.52		0.087	
2XDCR5709A	02786			14.5	.5709		16.0		140		80		64		2.25
2XDCR5787A	02788			14.7	.5787		16.0		140		80		64		2.28
2XDCR5905A	02790			15.0	.5905		16.0		140		80		64		2.32
2XDCR5938A	02792	19/32			.5938	5/8		5.75		3.230		2.58		0.092	
2XDCR6024A	02793			15.3	.6024		16.0		146		82		66		2.37
2XDCR6102A	02794			15.5	.6102		16.0		146		82		66		2.40
2XDCR6181A	02796			15.7	.6181		16.0		146		82		66		2.43
2XDCR6250A	02798	5/8			.6250	5/8		5.75		3.230		2.58		0.097	
2XDCR6299A	02800			16.0	.6299		16.0		146		82		66		2.48
2XDCR6331A	02802			16.08	.6331		18.0		158		90		72		2.49
2XDCR6417A	02803			16.3	.6417		18.0		158		90		72		2.53
2XDCR6496A	02804			16.5	.6496		18.0		158		90		72		2.56
2XDCR6562A	02806	21/32			.6562	45/64		6.22		3.540		2.83		0.102	
2XDCR6693A	02808			17.0	.6693		18.0		158		90		72		2.63
2XDCR6875A	02810	11/16			.6875	45/64		6.22		3.740		3.00		0.107	
2XDCR6890A	02812			17.5	.6890		18.0		158		95		76		2.71
2XDCR7087A	02814			18.0	.7087		18.0		158		95		76		2.79
2XDCR7283A	02816			18.5	.7283		20.0		160		100		80		2.87
2XDCR7500A	02818	3/4			.7500	3/4		6.3		3.940		3.15		0.116	
2XDCR7543A	02820			19.16	.7543		20.0		160		100		80		2.97
2XDCR7579A	02822			19.25	.7579		20.0		160		100		80		2.98
2XDCR7598A	02824			19.3	.7598		20.0		160		100		80		2.99
2XDCR7677A	02826			19.5	.7677		20.0		160		100		80		3.02
2XDCR7874A	02828			20.0	.7874		20.0		160		100		80		3.10



# Twister XD® Series 2XDCL



Designed for high performance drilling in a broad range of materials.



ALtima®		Diameter				Shank		OAL		Flute Length		Drill Length		Point Length	
		D1 (h7)				D2 (h6)		L1		L2 (Max.)		L3 Ref.		L5	
Tool No.	EDP	Inch	Letter/ Wire	mm	Decimal	Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm
2XDCL1181A	02830			3.0	.1181		3.0		81		33		26		0.46
2XDCL1200A	02832		31		.1200	1/8		3.500		1.500		1.200		0.019	
2XDCL1220A	02833			3.1	.1220		4.0		92		44		35		0.48
2XDCL1250A	02834	1/8			.1250	1/8		3.500		1.500		1.200		0.019	
2XDCL1260A	02836			3.2	.1260		4.0		92		44		35		0.50
2XDCL1285A	02838		30		.1285	5/32		3.625		1.750		1.400		0.020	
2XDCL1299A	02840			3.3	.1299		4.0		92		44		35		0.51
2XDCL1339A	02842			3.4	.1339		4.0		92		44		35		0.53
2XDCL1360A	02844		29		.1360	5/32		3.625		1.750		1.400		0.021	
2XDCL1378A	02846			3.5	.1378		4.0		92		44		35		0.54
2XDCL1406A	02848	9/64			.1406	5/32		3.625		1.750		1.400		0.022	
2XDCL1417A	02849			3.6	.1417		4.0		92		44		35		0.56
2XDCL1457A	02850			3.7	.1457		4.0		92		44		35		0.57
2XDCL1496A	02852			3.8	.1496		4.0		92		44		35		0.59
2XDCL1520A	02851		24		.1520	5/32		3.625		1.750		1.400		0.024	
2XDCL1535A	02853			3.9	.1535		4.0		92		44		35		0.60
2XDCL1562A	02854	5/32			.1562	5/32		3.625		1.750		1.400		0.024	
2XDCL1575A	02856			4.0	.1575		4.0		92		44		35		0.62
2XDCL1590A	02857		21		.1590	3/16		3.940		1.750		1.400		0.025	
2XDCL1614A	04018			4.1	.1614		5.0		100		45		36		0.64
2XDCL1654A	02858			4.2	.1654		5.0		100		45		36		0.65
2XDCL1693A	02859			4.3	.1693		5.0		100		45		36		0.67
2XDCL1719A	02860	11/64			.1719	3/16		3.940		1.750		1.400		0.027	
2XDCL1732A	02861			4.4	.1732		5.0		100		45		36		0.68
2XDCL1772A	02862			4.5	.1772		5.0		100		45		36		0.70
2XDCL1811A	02864			4.6	.1811		5.0		100		45		36		0.71
2XDCL1850A	02865			4.7	.1850		5.0		100		45		36		0.73
2XDCL1875A	02866	3/16			.1875	3/16		3.940		1.750		1.400		0.029	
2XDCL1890A	02868			4.8	.1890		5.0		100		45		36		0.74
2XDCL1929A	02870			4.9	.1929		5.0		100		45		36		0.76
2XDCL1968A	02872			5.0	.1968		5.0		100		45		36		0.77
2XDCL2008A	02874			5.1	.2008		6.0		100		51		41		0.79
2XDCL2031A	02876	13/64			.2031	15/64		3.940		2.000		1.600		0.031	
2XDCL2047A	02878			5.2	.2047		6.0		100		51		41		0.81
2XDCL2087A	02880			5.3	.2087		6.0		100		51		41		0.82
2XDCL2126A	02882			5.4	.2126		6.0		100		51		41		0.84

Inch		Tolerance (h7)
D1	D2	
.0000 - .1181		+0/--.00039
.1182 - .2362		+0/--.00047
.2363 - .3937		+0/--.00059
.3938 - .7087		+0/--.00071

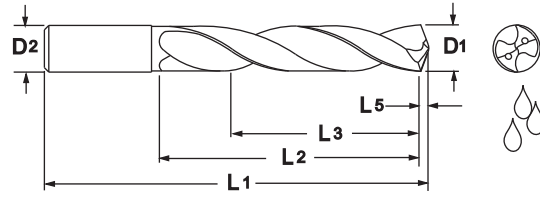
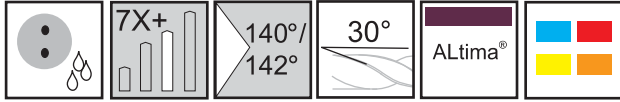
Inch		Tolerance (h6)
D2	D1	
.0000 - .1181		+0/--.00024
.1182 - .2362		+0/--.00031
.2363 - .3937		+0/--.00035
.3938 - .7087		+0/--.00043

Metric (mm)		Tolerance (h7)
D1	D2	
0 - 3.0		+0/--.010
3.01 - 6.0		+0/--.012
6.01 - 10.0		+0/--.015
10.01 - 18.0		+0/--.018

Metric (mm)		Tolerance (h6)
D2	D1	
0 - 3.0		+0/--.006
3.01 - 6.0		+0/--.008
6.01 - 10.0		+0/--.009
10.01 - 18.0		+0/--.011



# Series 2XDCL Continued



ALtima®		Diameter				Shank		OAL		Flute Length		Drill Length		Point Length	
		D1 (h7)				D2 (h6)		L1		L2 (Max.)		L3 Ref.		L5	
Tool No.	EDP	Inch	Letter/ Wire	mm	Decimal	Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm
2XDCL2165A	02884			5.5	.2165		6.0		100		51		41		0.85
2XDCL2187A	02886	7/32			.2187	15/64		3.940		2.000		1.600		0.034	
2XDCL2210A	02888		2		.2210	15/64		3.940		2.000		1.60		0.034	
2XDCL2244A	02890			5.7	.2244		6.0		100		51		41		0.88
2XDCL2283A	02892			5.8	.2283		6.0		100		51		41		0.90
2XDCL2323A	02894			5.9	.2323		6.0		100		51		41		0.91
2XDCL2344A	02896	15/64			.2344	15/64		3.940		2.000		1.60		0.036	
2XDCL2362A	02898			6.0	.2362		6.0		100		51		41		0.93
2XDCL2402A	02900			6.1	.2402		8.0		109		60		48		0.95
2XDCL2420A	02902		C		.2420	1/4		4.310		2.250		1.80		0.037	
2XDCL2441A	02904			6.2	.2441		8.0		109		60		48		0.96
2XDCL2460A	02906		D		.2460	1/4		4.310		2.250		1.80		0.038	
2XDCL2480A	02908			6.3	.2480		8.0		109		60		48		0.98
2XDCL2500A	02910	1/4			.2500	1/4		4.310		2.250		1.80		0.039	
2XDCL2520A	02912			6.4	.2520		8.0		109		60		48		0.99
2XDCL2559A	02914			6.5	.2559		8.0		109		60		48		1.01
2XDCL2570A	02916		F		.2570	5/16		4.310		2.375		1.90		0.040	
2XDCL2598A	02917			6.6	.2598		8.0		109		60		48		1.03
2XDCL2610A	02918		G		.2610	5/16		4.310		2.375		1.90		0.040	
2XDCL2638A	02919			6.7	.2638		8.0		109		60		48		1.04
2XDCL2656A	02920	17/64			.2656	5/16		4.310		2.375		1.90		0.041	
2XDCL2677A	02922			6.8	.2677		8.0		109		60		48		1.05
2XDCL2717A	02924			6.9	.2717		8.0		109		60		48		1.07
2XDCL2756A	02926			7.0	.2756		8.0		109		60		48		1.08
2XDCL2795A	02927			7.1	.2795		8.0		118		70		56		1.10
2XDCL2812A	02928	9/32			.2812	5/16		4.625		2.750		2.20		0.044	
2XDCL2835A	02930			7.2	.2835		8.0		118		70		56		1.12
2XDCL2874A	02931			7.3	.2874		8.0		118		70		56		1.13
2XDCL2913A	02932			7.4	.2913		8.0		118		70		56		1.15
2XDCL2953A	02934			7.5	.2953		8.0		118		70		56		1.16
2XDCL2969A	02936	19/64			.2969	5/16		4.625		2.750		2.20		0.046	
2XDCL2992A	02938			7.6	.2992		8.0		118		70		56		1.18
2XDCL3031A	02940			7.7	.3031		8.0		118		70		56		1.19
2XDCL3071A	02942			7.8	.3071		8.0		118		70		56		1.21
2XDCL3110A	02943			7.9	.3110		8.0		118		70		56		1.22
2XDCL3125A	02944	5/16			.3125	5/16		4.625		2.750		2.20		0.048	
2XDCL3150A	02946			8.0	.3150		8.0		118		70		56		1.24
2XDCL3189A	02948			8.1	.3189		10.0		127		80		64		1.26
2XDCL3228A	02950			8.2	.3228		10.0		127		80		64		1.27
2XDCL3268A	02952			8.3	.3268		10.0		127		80		64		1.29
2XDCL3281A	02954	21/64			.3281	25/64		5.000		3.150		2.52		0.051	
2XDCL3307A	02953			8.4	.3307		10.0		127		80		64		1.31

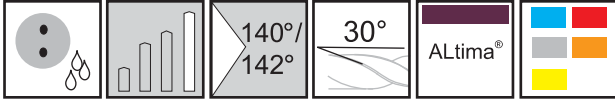


# Series 2XDCL Continued

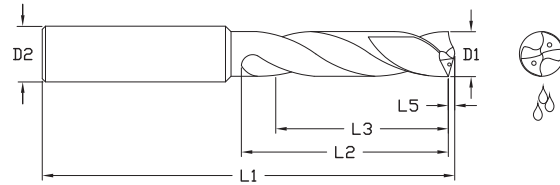
Altima®		Diameter				Shank		OAL		Flute Length		Drill Length		Point Length	
		D1 (h7)				D2 (h6)		L1		L2 (Max.)		L3 Ref.		L5	
Tool No.	EDP	Inch	Letter/ Wire	mm	Decimal	Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm
2XDCL3320A	02955		Q		.3320	25/64		5.000		3.150		2.52		0.051	
2XDCL3346A	02956			8.5	.3346		10.0		127		80		64		1.32
2XDCL3386A	02957			8.6	.3386		10.0		127		80		64		1.33
2XDCL3425A	04019			8.7	.3425		10.0		127		80		64		1.35
2XDCL3438A	02958	11/32			.3438	25/64		5.000		3.150		2.52		0.053	
2XDCL3465A	02960			8.8	.3465		10.0		127		80		64		1.36
2XDCL3504A	02962			8.9	.3504		10.0		127		80		64		1.38
2XDCL3543A	02964			9.0	.3543		10.0		127		80		64		1.39
2XDCL3583A	02965			9.1	.3583		10.0		136		85		68		1.41
2XDCL3594A	02966	23/64			.3594	25/64		5.312		3.340		2.67		0.056	
2XDCL3622A	02968			9.2	.3622		10.0		136		85		68		1.43
2XDCL3642A	02970			9.25	.3642		10.0		136		85		68		1.43
2XDCL3661A	02972			9.3	.3661		10.0		136		85		68		1.44
2XDCL3701A	02973			9.4	.3701		10.0		136		85		68		1.46
2XDCL3740A	02974			9.5	.3740		10.0		136		85		68		1.47
2XDCL3750A	02976	3/8			.3750	25/64		5.312		3.340		2.67		0.058	
2XDCL3780A	02977			9.6	.3780		10.0		136		85		68		1.49
2XDCL3819A	02978			9.7	.3819		10.0		136		85		68		1.50
2XDCL3858A	02980			9.8	.3858		10.0		136		85		68		1.52
2XDCL3898A	04024			9.9	.3898		10.0		136		85		68		1.53
2XDCL3906A	02981	25/64			.3906	25/64		5.312		3.340		2.67		0.061	
2XDCL3937A	02982			10.0	.3937		10.0		136		85		68		1.55
2XDCL3976A	04025			10.1	.3976		12.0		149		93		74		1.56
2XDCL4016A	02983			10.2	.4016		12.0		149		93		74		1.58
2XDCL4055A	04026			10.3	.4055		12.0		149		93		74		1.60
2XDCL4062A	02984	13/32			.4062	15/32		5.875		3.625		2.90		0.063	
2XDCL4094A	02979			10.4	.4094		12.0		149		93		74		1.61
2XDCL4134A	02986			10.5	.4134		12.0		149		93		74		1.63
2XDCL4173A	02985			10.6	.4173		12.0		149		93		74		1.64
2XDCL4213A	04020			10.7	.4213		12.0		149		93		74		1.66
2XDCL4219A	02987	27/64			.4219	15/32		5.875		3.625		2.90		0.065	
2XDCL4252A	96600			10.8	.4252		12.0		149		93		74		1.67
2XDCL4291A	04021			10.9	.4291		12.0		149		93		74		1.69
2XDCL4331A	02988			11.0	.4331		12.0		149		93		74		1.70
2XDCL4370A	04027			11.1	.4370		12.0		155		102		82		1.72
2XDCL4375A	02989	7/16			.4375	15/32		6.100		4.000		3.20		0.068	
2XDCL4409A	02990			11.2	.4409		12.0		155		102		82		1.74
2XDCL4449A	04028			11.3	.4449		12.0		155		102		82		1.75
2XDCL4488A	04022			11.4	.4488		12.0		155		102		82		1.77
2XDCL4527A	02991			11.5	.4527		12.0		155		102		82		1.78
2XDCL4567A	04029			11.6	.4567		12.0		155		102		82		1.80
2XDCL4606A	02992			11.7	.4606		12.0		155		102		82		1.81
2XDCL4646A	96602			11.8	.4646		12.0		155		102		82		1.83
2XDCL4685A	04023			11.9	.4685		12.0		155		102		82		1.84
2XDCL4688A	02993	15/32			.4688	15/32		6.100		4.000		3.20		0.073	
2XDCL4724A	02994			12.0	.4724		12.0		155		102		82		1.86
2XDCL4844A	02995	31/64			.4844	1/2		6.299		4.312		3.45		0.075	
2XDCL5000A	02996	1/2			.5000	1/2		6.299		4.312		3.45		0.077	



# Twister XD<sup>®</sup> Series 2XDCE



Designed to drill water lines in molds, the 2XDCE drill works exceptionally well in all deep hole drilling applications. With 2XD drilling geometry, this drill provides productivity increases and reduced cycle time by eliminating the need for a peck drilling cycle.



ALtima <sup>®</sup>		Diameter			Shank		OAL		Flute Length		Drill Length		Point Length		Fl. Length/Dia.	Dr. Length/Dia.
Tool No.	EDP	D1 (h7)			D2 (h6)		L1		L2		L3 Ref.		L5		L2/D1	L3/D1
		Inch	mm	Decimal	Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm		
2XDCE1968A	04332		5.00	.1968		5.0		163		105		84		0.77	21	17
2XDCE2047A	04334		5.20	.2047		6.0		163		110		88		0.81	21	17
2XDCE2126A	04336		5.40	.2126		6.0		163		110		88		0.84	20	16
2XDCE2205A	04338		5.60	.2205		6.0		163		110		88		0.87	20	16
2XDCE2283A	04340		5.80	.2283		6.0		163		110		88		0.90	19	15
2XDCE2362A	04342		6.00	.2362		6.0		163		110		88		0.93	18	15
2XDCE2441A	04344		6.20	.2441		8.0		163		110		88		0.96	18	14
2XDCE2480A	04346		6.30	.2480		8.0		163		110		88		0.98	17	14
2XDCE2500A	04348	1/4	6.35	.2500	.3150	8.0	6.4	163	4.33	110	3.46	88	0.039	0.98	17	14
2XDCE2677A	04350		6.80	.2677		8.0		163		110		88		1.05	16	13
2XDCE2756A	04352		7.00	.2756		8.0		163		110		88		1.08	16	13
2XDCE2992A	04354		7.60	.2992		8.0		163		120		96		1.18	16	13
2XDCE3071A	04356		7.80	.3071		8.0		163		120		96		1.21	15	12
2XDCE3125A	04358	5/16	7.94	.3125	.3150	8.0	6.4	163	4.72	120	3.78	96	0.048	1.23	15	12
2XDCE3150A	04360		8.00	.3150		8.0		163		120		96		1.24	15	12
2XDCE3228A	04362		8.20	.3228		10.0		180		135		108		1.27	16	13
2XDCE3346A	04364		8.50	.3346		10.0		180		135		108		1.32	16	13
2XDCE3425A	04366		8.70	.3425		10.0		180		135		108		1.35	16	12
2XDCE3543A	04368		9.00	.3543		10.0		180		135		108		1.39	15	12
2XDCE3701A	04370		9.40	.3701		10.0		195		150		120		1.46	16	13
2XDCE3750A	04372	3/8	9.53	.3750	.3937	10.0	7.7	195	5.90	150	4.72	120	0.058	1.48	16	13
2XDCE3858A	04374		9.80	.3858		10.0		195		150		120		1.52	15	12
2XDCE3937A	04376		10.00	.3937		10.0		195		150		120		1.55	15	12
2XDCE4055A	04378		10.30	.4055		12.0		210		160		128		1.60	16	12
2XDCE4134A	04380		10.50	.4134		12.0		210		160		128		1.63	15	12
2XDCE4252A	04382		10.80	.4252		12.0		210		160		128		1.67	15	12
2XDCE4331A	04384		11.00	.4331		12.0		210		160		128		1.70	15	12
2XDCE4375A	04386	7/16	11.11	.4375	.4724	12.0	8.3	210	6.30	160	5.04	128	0.068	1.72	14	12
2XDCE4527A	04388		11.50	.4527		12.0		210		160		128		1.78	14	11
2XDCE4646A	04390		11.80	.4646		12.0		210		160		128		1.83	14	11
2XDCE4724A	04392		12.00	.4724		12.0		210		160		128		1.86	13	11
2XDCE5000A	04394	1/2	12.70	.5000	.5512	14.0	9.1	230	7.09	180	5.67	144	0.077	1.97	14	11

Inch		
D1	Tolerance (h7)	
.1968 - .2362	+0/--.00047	
.2363 - .3937	+0/--.00059	
.3938 - .5000	+0/--.00071	

Inch		
D2	Tolerance (h6)	
.1968 - .2362	+0/--.00031	
.2363 - .3937	+0/--.00035	
.3938 - .5000	+0/--.00043	

Metric (mm)		
D1	Tolerance (h7)	
5.0 - 6.0	+0/--.012	
6.01 - 10.0	+0/--.015	
10.01 - 12.0	+0/--.018	

Metric (mm)		
D2	Tolerance (h6)	
5.0 - 6.0	+0/--.008	
6.01 - 10.0	+0/--.009	
10.01 - 12.0	+0/--.011	

