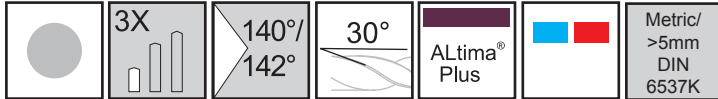
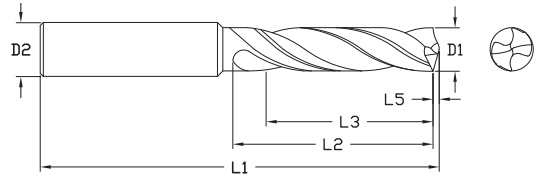


# Cyclone Series CXDSS



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



| ALtima® Plus |       | Diameter |             |     |         | Shank   |     | OAL  |    | Flute Length |    | Drill Length |    | Point Length |      |
|--------------|-------|----------|-------------|-----|---------|---------|-----|------|----|--------------|----|--------------|----|--------------|------|
| Tool No.     | EDP   | D1 (m7)  |             |     |         | D2 (h6) |     | L1   |    | L2 (Max.)    |    | L3 Ref.      |    | L5           |      |
|              |       | Inch     | Letter/Wire | mm  | Decimal | Inch    | mm  | Inch | mm | Inch         | mm | Inch         | mm | Inch         | mm   |
| CXDSS 0300AP | 06615 |          |             | 3.0 | .1181   |         | 3.0 |      | 62 |              | 20 |              | 14 |              | 0.46 |
| CXDSS 1200AP | 06616 |          | #31         |     | .1200   | 1/8     |     | 2.44 |    | 0.787        |    | 0.551        |    | 0.019        |      |
| CXDSS 0310AP | 06617 |          |             | 3.1 | .1220   |         | 4.0 |      | 62 |              | 20 |              | 14 |              | 0.48 |
| CXDSS 1250AP | 06618 | 1/8      |             |     | .1250   | 1/8     |     | 2.44 |    | 0.787        |    | 0.551        |    | 0.019        |      |
| CXDSS 0320AP | 06619 |          |             | 3.2 | .1260   |         | 4.0 |      | 62 |              | 20 |              | 14 |              | 0.50 |
| CXDSS 1285AP | 06620 |          | #30         |     | .1285   | 5/32    |     | 2.44 |    | 0.787        |    | 0.551        |    | 0.020        |      |
| CXDSS 0330AP | 06621 |          |             | 3.3 | .1299   |         | 4.0 |      | 62 |              | 20 |              | 14 |              | 0.51 |
| CXDSS 0340AP | 06622 |          |             | 3.4 | .1339   |         | 4.0 |      | 62 |              | 20 |              | 14 |              | 0.53 |
| CXDSS 1360AP | 06623 |          | #29         |     | .1360   | 5/32    |     | 2.44 |    | 0.787        |    | 0.551        |    | 0.021        |      |
| CXDSS 0350AP | 06624 |          |             | 3.5 | .1378   |         | 4.0 |      | 62 |              | 20 |              | 14 |              | 0.54 |
| CXDSS 1406AP | 06625 | 9/64     |             |     | .1406   | 5/32    |     | 2.44 |    | 0.787        |    | 0.551        |    | 0.022        |      |
| CXDSS 0360AP | 06626 |          |             | 3.6 | .1417   |         | 4.0 |      | 62 |              | 20 |              | 14 |              | 0.56 |
| CXDSS 0370AP | 06627 |          |             | 3.7 | .1457   |         | 4.0 |      | 62 |              | 20 |              | 14 |              | 0.57 |
| CXDSS 0380AP | 06628 |          |             | 3.8 | .1496   |         | 4.0 |      | 66 |              | 24 |              | 17 |              | 0.59 |
| CXDSS 1520AP | 06629 |          | #24         |     | .1520   | 5/32    |     | 2.60 |    | 0.945        |    | 0.669        |    | 0.024        |      |
| CXDSS 0390AP | 06630 |          |             | 3.9 | .1535   |         | 4.0 |      | 66 |              | 24 |              | 17 |              | 0.60 |
| CXDSS 1562AP | 06631 | 5/32     |             |     | .1562   | 5/32    |     | 2.60 |    | 0.945        |    | 0.669        |    | 0.024        |      |
| CXDSS 0400AP | 06632 |          |             | 4.0 | .1575   |         | 4.0 |      | 66 |              | 24 |              | 17 |              | 0.62 |
| CXDSS 1590AP | 06633 |          | #21         |     | .1590   | 3/16    |     | 2.60 |    | 0.945        |    | 0.669        |    | 0.025        |      |
| CXDSS 0410AP | 06634 |          |             | 4.1 | .1614   |         | 5.0 |      | 66 |              | 24 |              | 17 |              | 0.64 |
| CXDSS 0420AP | 06635 |          |             | 4.2 | .1654   |         | 5.0 |      | 66 |              | 24 |              | 17 |              | 0.65 |
| CXDSS 0430AP | 06636 |          |             | 4.3 | .1693   |         | 5.0 |      | 66 |              | 24 |              | 17 |              | 0.67 |
| CXDSS 1719AP | 06637 | 11/64    |             |     | .1719   | 3/16    |     | 2.60 |    | 0.945        |    | 0.669        |    | 0.027        |      |
| CXDSS 0440AP | 06638 |          |             | 4.4 | .1732   |         | 5.0 |      | 66 |              | 24 |              | 17 |              | 0.68 |
| CXDSS 0450AP | 06639 |          |             | 4.5 | .1772   |         | 5.0 |      | 66 |              | 24 |              | 17 |              | 0.70 |
| CXDSS 0460AP | 06640 |          |             | 4.6 | .1811   |         | 5.0 |      | 66 |              | 24 |              | 17 |              | 0.71 |
| CXDSS 0470AP | 06641 |          |             | 4.7 | .1850   |         | 5.0 |      | 66 |              | 24 |              | 17 |              | 0.73 |
| CXDSS 1875AP | 06642 | 3/16     |             |     | .1875   | 3/16    |     | 2.60 |    | 1.102        |    | 0.787        |    | 0.029        |      |
| CXDSS 0480AP | 06643 |          |             | 4.8 | .1890   |         | 5.0 |      | 66 |              | 28 |              | 20 |              | 0.74 |
| CXDSS 0490AP | 06644 |          |             | 4.9 | .1929   |         | 5.0 |      | 66 |              | 28 |              | 20 |              | 0.76 |
| CXDSS 0500AP | 06645 |          |             | 5.0 | .1968   |         | 5.0 |      | 66 |              | 28 |              | 20 |              | 0.77 |
| CXDSS 0510AP | 06646 |          |             | 5.1 | .2008   |         | 6.0 |      | 66 |              | 28 |              | 20 |              | 0.79 |
| CXDSS 2031AP | 06647 | 13/64    |             |     | .2031   | 1/4     |     | 2.60 |    | 1.102        |    | 0.787        |    | 0.031        |      |
| CXDSS 0520AP | 06648 |          |             | 5.2 | .2047   |         | 6.0 |      | 66 |              | 28 |              | 20 |              | 0.81 |

| Inch          |                 |  |
|---------------|-----------------|--|
| D1            | Tolerance (m7)  |  |
| .0000 - .1181 | +0.0008/+0.0047 |  |
| .1182 - .2362 | +0.0016/+0.0063 |  |
| .2363 - .3937 | +0.0024/+0.0083 |  |
| .3938 - .7087 | +0.0027/+0.0098 |  |
| .7088 - .7500 | +0.0031/+0.0114 |  |

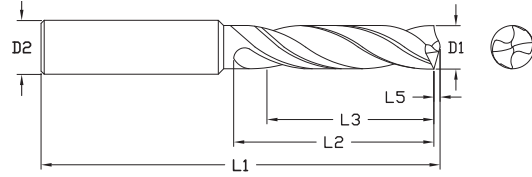
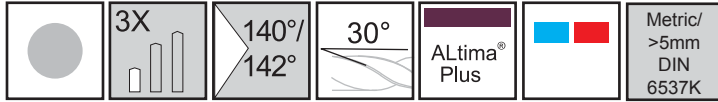
| Inch          |                |  |
|---------------|----------------|--|
| D2            | Tolerance (h6) |  |
| .0000 - .1181 | +0/-0.0024     |  |
| .1182 - .2362 | +0/-0.0031     |  |
| .2363 - .3937 | +0/-0.0035     |  |
| .3938 - .7087 | +0/-0.0043     |  |
| .7088 - .7500 | +0/-0.0051     |  |

| Metric (mm)  |                |  |
|--------------|----------------|--|
| D1           | Tolerance (m7) |  |
| 0 - 3.0      | +0.02/+0.12    |  |
| 3.01 - 6.0   | +0.04/+0.16    |  |
| 6.01 - 10.0  | +0.06/+0.21    |  |
| 10.01 - 18.0 | +0.07/+0.25    |  |
| 18.01 - 20.0 | +0.08/+0.29    |  |

| Metric (mm)  |                |  |
|--------------|----------------|--|
| D2           | Tolerance (h6) |  |
| 0 - 3.0      | +0/-0.006      |  |
| 3.01 - 6.0   | +0/-0.008      |  |
| 6.01 - 10.0  | +0/-0.009      |  |
| 10.01 - 18.0 | +0/-0.011      |  |
| 18.01 - 20.0 | +0/-0.013      |  |



# Series CXDSS Continued



| ALtima® Plus |       | Diameter |                 |     |         | Shank |      | OAL  |    | Flute Length |    | Drill Length |    | Point Length |      |
|--------------|-------|----------|-----------------|-----|---------|-------|------|------|----|--------------|----|--------------|----|--------------|------|
| Tool No.     | EDP   | Inch     | Letter/<br>Wire | mm  | Decimal | Inch  | mm   | Inch | mm | Inch         | mm | Inch         | mm | Inch         | mm   |
| CXDSS 0530AP | 06649 |          |                 | 5.3 | .2087   |       | 6.0  |      | 66 |              | 28 |              | 20 |              | 0.82 |
| CXDSS 0540AP | 06650 |          |                 | 5.4 | .2126   |       | 6.0  |      | 66 |              | 28 |              | 20 |              | 0.84 |
| CXDSS 0550AP | 06651 |          |                 | 5.5 | .2165   |       | 6.0  |      | 66 |              | 28 |              | 20 |              | 0.85 |
| CXDSS2187AP  | 06652 | 7/32     |                 |     | .2187   | 1/4   |      | 2.60 |    | 1.102        |    | 0.787        |    | 0.034        |      |
| CXDSS 0560AP | 07091 |          |                 | 5.6 | .2205   |       | 6.0  |      | 66 |              | 28 |              | 20 |              | 0.86 |
| CXDSS2210AP  | 06653 |          | #2              |     | .2210   | 1/4   |      | 2.60 |    | 1.102        |    | 0.787        |    | 0.034        |      |
| CXDSS 0570AP | 06654 |          |                 | 5.7 | .2244   |       | 6.0  |      | 66 |              | 28 |              | 20 |              | 0.88 |
| CXDSS 0580AP | 06655 |          |                 | 5.8 | .2283   |       | 6.0  |      | 66 |              | 28 |              | 20 |              | 0.90 |
| CXDSS 0590AP | 06656 |          |                 | 5.9 | .2323   |       | 6.0  |      | 66 |              | 28 |              | 20 |              | 0.91 |
| CXDSS2344AP  | 06657 | 15/64    |                 |     | .2344   | 1/4   |      | 2.60 |    | 1.102        |    | 0.787        |    | 0.036        |      |
| CXDSS 0600AP | 06658 |          |                 | 6.0 | .2362   |       | 6.0  |      | 66 |              | 28 |              | 20 |              | 0.93 |
| CXDSS 0610AP | 06659 |          |                 | 6.1 | .2402   |       | 8.0  |      | 79 |              | 34 |              | 24 |              | 0.95 |
| CXDSS2420AP  | 06660 |          | C               |     | .2420   | 1/4   |      | 3.11 |    | 1.339        |    | 0.945        |    | 0.037        |      |
| CXDSS 0620AP | 06661 |          |                 | 6.2 | .2441   |       | 8.0  |      | 79 |              | 34 |              | 24 |              | 0.96 |
| CXDSS2460AP  | 06662 |          | D               |     | .2460   | 1/4   |      | 3.11 |    | 1.339        |    | 0.945        |    | 0.038        |      |
| CXDSS 0630AP | 06663 |          |                 | 6.3 | .2480   |       | 8.0  |      | 79 |              | 34 |              | 24 |              | 0.98 |
| CXDSS2500AP  | 06664 | 1/4      |                 |     | .2500   | 1/4   |      | 3.11 |    | 1.339        |    | 0.945        |    | 0.039        |      |
| CXDSS 0640AP | 06665 |          |                 | 6.4 | .2520   |       | 8.0  |      | 79 |              | 34 |              | 24 |              | 0.99 |
| CXDSS 0650AP | 06666 |          |                 | 6.5 | .2559   |       | 8.0  |      | 79 |              | 34 |              | 24 |              | 1.01 |
| CXDSS2570AP  | 06667 |          | F               |     | .2570   | 5/16  |      | 3.11 |    | 1.339        |    | 0.945        |    | 0.040        |      |
| CXDSS 0660AP | 06668 |          |                 | 6.6 | .2598   |       | 8.0  |      | 79 |              | 34 |              | 24 |              | 1.03 |
| CXDSS2610AP  | 06669 |          | G               |     | .2610   | 5/16  |      | 3.11 |    | 1.339        |    | 0.945        |    | 0.040        |      |
| CXDSS 0670AP | 06670 |          |                 | 6.7 | .2638   |       | 8.0  |      | 79 |              | 34 |              | 24 |              | 1.04 |
| CXDSS2656AP  | 06671 | 17/64    |                 |     | .2656   | 5/16  |      | 3.11 |    | 1.339        |    | 0.945        |    | 0.041        |      |
| CXDSS 0680AP | 06672 |          |                 | 6.8 | .2677   |       | 8.0  |      | 79 |              | 34 |              | 24 |              | 1.05 |
| CXDSS 0690AP | 06673 |          |                 | 6.9 | .2717   |       | 8.0  |      | 79 |              | 34 |              | 24 |              | 1.07 |
| CXDSS 0700AP | 06674 |          |                 | 7.0 | .2756   |       | 8.0  |      | 79 |              | 34 |              | 24 |              | 1.08 |
| CXDSS 0710AP | 06675 |          |                 | 7.1 | .2795   |       | 8.0  |      | 79 |              | 41 |              | 29 |              | 1.10 |
| CXDSS2812AP  | 06676 | 9/32     |                 |     | .2812   | 5/16  |      | 3.11 |    | 1.614        |    | 1.142        |    | 0.044        |      |
| CXDSS 0720AP | 06677 |          |                 | 7.2 | .2835   |       | 8.0  |      | 79 |              | 41 |              | 29 |              | 1.12 |
| CXDSS 0730AP | 06678 |          |                 | 7.3 | .2874   |       | 8.0  |      | 79 |              | 41 |              | 29 |              | 1.13 |
| CXDSS 0740AP | 06679 |          |                 | 7.4 | .2913   |       | 8.0  |      | 79 |              | 41 |              | 29 |              | 1.15 |
| CXDSS 0750AP | 06680 |          |                 | 7.5 | .2953   |       | 8.0  |      | 79 |              | 41 |              | 29 |              | 1.16 |
| CXDSS2969AP  | 06681 | 19/64    |                 |     | .2969   | 5/16  |      | 3.11 |    | 1.614        |    | 1.142        |    | 0.046        |      |
| CXDSS 0760AP | 06682 |          |                 | 7.6 | .2992   |       | 8.0  |      | 79 |              | 41 |              | 29 |              | 1.18 |
| CXDSS 0770AP | 06683 |          |                 | 7.7 | .3031   |       | 8.0  |      | 79 |              | 41 |              | 29 |              | 1.19 |
| CXDSS 0780AP | 06684 |          |                 | 7.8 | .3071   |       | 8.0  |      | 79 |              | 41 |              | 29 |              | 1.21 |
| CXDSS 0790AP | 06685 |          |                 | 7.9 | .3110   |       | 8.0  |      | 79 |              | 41 |              | 29 |              | 1.22 |
| CXDSS3125AP  | 06686 | 5/16     |                 |     | .3125   | 5/16  |      | 3.11 |    | 1.614        |    | 1.142        |    | 0.048        |      |
| CXDSS 0800AP | 06687 |          |                 | 8.0 | .3150   |       | 8.0  |      | 79 |              | 41 |              | 29 |              | 1.24 |
| CXDSS 0810AP | 06688 |          |                 | 8.1 | .3189   |       | 10.0 |      | 89 |              | 47 |              | 35 |              | 1.26 |
| CXDSS 0820AP | 06689 |          |                 | 8.2 | .3228   |       | 10.0 |      | 89 |              | 47 |              | 35 |              | 1.27 |
| CXDSS 0830AP | 06690 |          |                 | 8.3 | .3268   |       | 10.0 |      | 89 |              | 47 |              | 35 |              | 1.29 |
| CXDSS3281AP  | 06691 | 21/64    |                 |     | .3281   | 3/8   |      | 3.50 |    | 1.850        |    | 1.378        |    | 0.051        |      |
| CXDSS 0840AP | 06692 |          |                 | 8.4 | .3307   |       | 10.0 |      | 89 |              | 47 |              | 35 |              | 1.31 |
| CXDSS3320AP  | 06693 |          | Q               |     | .3320   | 3/8   |      | 3.50 |    | 1.850        |    | 1.378        |    | 0.051        |      |
| CXDSS 0850AP | 06694 |          |                 | 8.5 | .3346   |       | 10.0 |      | 89 |              | 47 |              | 35 |              | 1.32 |
| CXDSS 0860AP | 06695 |          |                 | 8.6 | .3386   |       | 10.0 |      | 89 |              | 47 |              | 35 |              | 1.33 |

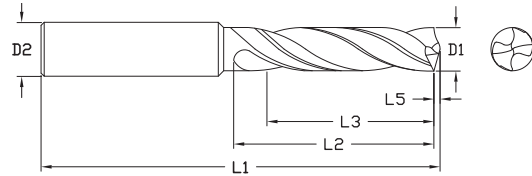
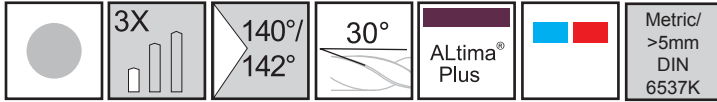


# Series CXDSS Continued

| ALtima® Plus |       | Diameter |                 |       |         | Shank   |      | OAL  |     | Flute Length |    | Drill Length |    | Point Length |      |
|--------------|-------|----------|-----------------|-------|---------|---------|------|------|-----|--------------|----|--------------|----|--------------|------|
|              |       | D1 (m7)  |                 |       |         | D2 (h6) |      | L1   |     | L2 (Max.)    |    | L3 Ref.      |    | L5           |      |
| Tool No.     | EDP   | Inch     | Letter/<br>Wire | mm    | Decimal | Inch    | mm   | Inch | mm  | Inch         | mm | Inch         | mm | Inch         | mm   |
| CXDSS 0870AP | 06696 |          |                 | 8.7   | .3425   |         | 10.0 |      | 89  |              | 47 |              | 35 |              | 1.35 |
| CXDSS3438AP  | 06697 | 11/32    |                 |       | .3438   | 3/8     |      | 3.50 |     | 1.850        |    | 1.378        |    | 0.053        |      |
| CXDSS 0880AP | 06698 |          |                 | 8.8   | .3465   |         | 10.0 |      | 89  |              | 47 |              | 35 |              | 1.36 |
| CXDSS 0890AP | 06699 |          |                 | 8.9   | .3504   |         | 10.0 |      | 89  |              | 47 |              | 35 |              | 1.38 |
| CXDSS 0900AP | 06700 |          |                 | 9.0   | .3543   |         | 10.0 |      | 89  |              | 47 |              | 35 |              | 1.39 |
| CXDSS 0910AP | 06701 |          |                 | 9.1   | .3583   |         | 10.0 |      | 89  |              | 47 |              | 35 |              | 1.41 |
| CXDSS3594AP  | 06702 | 23/64    |                 |       | .3594   | 3/8     |      | 3.50 |     | 1.850        |    | 1.378        |    | 0.056        |      |
| CXDSS 0920AP | 06703 |          |                 | 9.2   | .3622   |         | 10.0 |      | 89  |              | 47 |              | 35 |              | 1.43 |
| CXDSS 0925AP | 06704 |          |                 | 9.25  | .3642   |         | 10.0 |      | 89  |              | 47 |              | 35 |              | 1.43 |
| CXDSS 0930AP | 06705 |          |                 | 9.3   | .3661   |         | 10.0 |      | 89  |              | 47 |              | 35 |              | 1.44 |
| CXDSS 0940AP | 06706 |          |                 | 9.4   | .3701   |         | 10.0 |      | 89  |              | 47 |              | 35 |              | 1.46 |
| CXDSS 0950AP | 06707 |          |                 | 9.5   | .3740   |         | 10.0 |      | 89  |              | 47 |              | 35 |              | 1.47 |
| CXDSS3750AP  | 06708 | 3/8      |                 |       | .3750   | 3/8     |      | 3.50 |     | 1.850        |    | 1.378        |    | 0.058        |      |
| CXDSS 0960AP | 06709 |          |                 | 9.6   | .3780   |         | 10.0 |      | 89  |              | 47 |              | 35 |              | 1.49 |
| CXDSS 0970AP | 06710 |          |                 | 9.7   | .3819   |         | 10.0 |      | 89  |              | 47 |              | 35 |              | 1.50 |
| CXDSS 0980AP | 06711 |          |                 | 9.8   | .3858   |         | 10.0 |      | 89  |              | 47 |              | 35 |              | 1.52 |
| CXDSS 0990AP | 06712 |          |                 | 9.9   | .3898   |         | 10.0 |      | 89  |              | 47 |              | 35 |              | 1.53 |
| CXDSS3906AP  | 06713 | 25/64    |                 |       | .3906   | 7/16    |      | 3.50 |     | 1.850        |    | 1.378        |    | 0.061        |      |
| CXDSS 1000AP | 06714 |          |                 | 10.0  | .3937   |         | 10.0 |      | 89  |              | 47 |              | 35 |              | 1.55 |
| CXDSS 1010AP | 06715 |          |                 | 10.1  | .3976   |         | 12.0 |      | 102 |              | 55 |              | 40 |              | 1.56 |
| CXDSS 1020AP | 06716 |          |                 | 10.2  | .4016   |         | 12.0 |      | 102 |              | 55 |              | 40 |              | 1.58 |
| CXDSS 1030AP | 06717 |          |                 | 10.3  | .4055   |         | 12.0 |      | 102 |              | 55 |              | 40 |              | 1.60 |
| CXDSS4062AP  | 06718 | 13/32    |                 |       | .4062   | 7/16    |      | 4.02 |     | 2.165        |    | 1.575        |    | 0.063        |      |
| CXDSS 1040AP | 06719 |          |                 | 10.4  | .4094   |         | 12.0 |      | 102 |              | 55 |              | 40 |              | 1.61 |
| CXDSS 1050AP | 06720 |          |                 | 10.5  | .4134   |         | 12.0 |      | 102 |              | 55 |              | 40 |              | 1.63 |
| CXDSS 1060AP | 06721 |          |                 | 10.6  | .4173   |         | 12.0 |      | 102 |              | 55 |              | 40 |              | 1.64 |
| CXDSS 1070AP | 06722 |          |                 | 10.7  | .4213   |         | 12.0 |      | 102 |              | 55 |              | 40 |              | 1.66 |
| CXDSS4219AP  | 06723 | 27/64    |                 |       | .4219   | 7/16    |      | 4.02 |     | 2.165        |    | 1.575        |    | 0.065        |      |
| CXDSS 1080AP | 06724 |          |                 | 10.8  | .4252   |         | 12.0 |      | 102 |              | 55 |              | 40 |              | 1.67 |
| CXDSS 1090AP | 06725 |          |                 | 10.9  | .4291   |         | 12.0 |      | 102 |              | 55 |              | 40 |              | 1.69 |
| CXDSS 1100AP | 06726 |          |                 | 11.0  | .4331   |         | 12.0 |      | 102 |              | 55 |              | 40 |              | 1.70 |
| CXDSS 1110AP | 06727 |          |                 | 11.1  | .4370   |         | 12.0 |      | 102 |              | 55 |              | 40 |              | 1.72 |
| CXDSS4375AP  | 06728 | 7/16     |                 |       | .4375   | 7/16    |      | 4.02 |     | 2.165        |    | 1.575        |    | 0.068        |      |
| CXDSS 1120AP | 06729 |          |                 | 11.2  | .4409   |         | 12.0 |      | 102 |              | 55 |              | 40 |              | 1.74 |
| CXDSS 1130AP | 06730 |          |                 | 11.3  | .4449   |         | 12.0 |      | 102 |              | 55 |              | 40 |              | 1.75 |
| CXDSS 1140AP | 06731 |          |                 | 11.4  | .4488   |         | 12.0 |      | 102 |              | 55 |              | 40 |              | 1.77 |
| CXDSS 1150AP | 06732 |          |                 | 11.5  | .4527   |         | 12.0 |      | 102 |              | 55 |              | 40 |              | 1.78 |
| CXDSS 1160AP | 06733 |          |                 | 11.6  | .4567   |         | 12.0 |      | 102 |              | 55 |              | 40 |              | 1.80 |
| CXDSS 1170AP | 06734 |          |                 | 11.7  | .4606   |         | 12.0 |      | 102 |              | 55 |              | 40 |              | 1.81 |
| CXDSS 1180AP | 06735 |          |                 | 11.8  | .4646   |         | 12.0 |      | 102 |              | 55 |              | 40 |              | 1.83 |
| CXDSS 1190AP | 06736 |          |                 | 11.9  | .4685   |         | 12.0 |      | 102 |              | 55 |              | 40 |              | 1.84 |
| CXDSS4688AP  | 06737 | 15/32    |                 |       | .4688   | 1/2     |      | 4.02 |     | 2.165        |    | 1.575        |    | 0.073        |      |
| CXDSS 1200AP | 06738 |          |                 | 12.0  | .4724   |         | 12.0 |      | 102 |              | 55 |              | 40 |              | 1.86 |
| CXDSS 1210AP | 06739 |          |                 | 12.1  | .4764   |         | 14.0 |      | 107 |              | 60 |              | 43 |              | 1.87 |
| CXDSS4844AP  | 06740 | 31/64    |                 |       | .4844   | 1/2     |      | 4.21 |     | 2.362        |    | 1.693        |    | 0.075        |      |
| CXDSS 1250AP | 06741 |          |                 | 12.5  | .4921   |         | 14.0 |      | 107 |              | 60 |              | 43 |              | 1.94 |
| CXDSS5000AP  | 06742 | 1/2      |                 |       | .5000   | 1/2     |      | 4.21 |     | 2.362        |    | 1.693        |    | 0.077        |      |
| CXDSS 1280AP | 06743 |          |                 | 12.8  | .5039   |         | 14.0 |      | 107 |              | 60 |              | 43 |              | 1.98 |
| CXDSS 1283AP | 06744 |          |                 | 12.83 | .5051   |         | 14.0 |      | 107 |              | 60 |              | 43 |              | 1.99 |
| CXDSS 1290AP | 06745 |          |                 | 12.9  | .5079   |         | 14.0 |      | 107 |              | 60 |              | 43 |              | 2.00 |
| CXDSS 1300AP | 06746 |          |                 | 13.0  | .5118   |         | 14.0 |      | 107 |              | 60 |              | 43 |              | 2.01 |
| CXDSS5156AP  | 06747 | 33/64    |                 |       | .5156   | 9/16    |      | 4.21 |     | 2.362        |    | 1.693        |    | 0.080        |      |
| CXDSS5312AP  | 06748 | 17/32    |                 |       | .5312   | 9/16    |      | 4.21 |     | 2.362        |    | 1.693        |    | 0.082        |      |
| CXDSS 1350AP | 06750 |          |                 | 13.5  | .5315   |         | 14.0 |      | 107 |              | 60 |              | 43 |              | 2.09 |



# Series CXDSS Continued



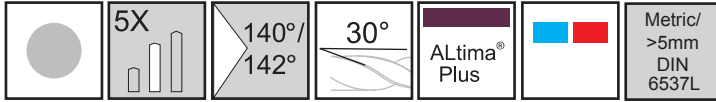
| ALtima® Plus |       | Diameter |                 |       |         | Shank   |      | OAL  |     | Flute Length |    | Drill Length |    | Point Length |      |
|--------------|-------|----------|-----------------|-------|---------|---------|------|------|-----|--------------|----|--------------|----|--------------|------|
| Tool No.     | EDP   | D1 (m7)  |                 |       |         | D2 (h6) |      | L1   |     | L2 (Max.)    |    | L3 Ref.      |    | L5           |      |
|              |       | Inch     | Letter/<br>Wire | mm    | Decimal | Inch    | mm   | Inch | mm  | Inch         | mm | Inch         | mm | Inch         | mm   |
| CXDSS 1370AP | 06751 |          |                 | 13.7  | .5394   |         | 14.0 |      | 107 |              | 60 |              | 43 |              | 2.12 |
| CXDSS5469AP  | 06752 | 35/64    |                 |       | .5469   | 9/16    |      | 4.21 |     | 2.362        |    | 1.693        |    | 0.085        |      |
| CXDSS 1400AP | 06753 |          |                 | 14.0  | .5512   |         | 14.0 |      | 107 |              | 60 |              | 43 |              | 2.17 |
| CXDSS5625AP  | 06754 | 9/16     |                 |       | .5625   | 9/16    |      | 4.53 |     | 2.559        |    | 1.772        |    | 0.087        |      |
| CXDSS 1450AP | 06755 |          |                 | 14.5  | .5709   |         | 16.0 |      | 115 |              | 65 |              | 45 |              | 2.25 |
| CXDSS 1470AP | 06756 |          |                 | 14.7  | .5787   |         | 16.0 |      | 115 |              | 65 |              | 45 |              | 2.28 |
| CXDSS 1500AP | 06757 |          |                 | 15.0  | .5905   |         | 16.0 |      | 115 |              | 65 |              | 45 |              | 2.32 |
| CXDSS5938AP  | 06758 | 19/32    |                 |       | .5938   | 5/8     |      | 4.53 |     | 2.559        |    | 1.772        |    | 0.092        |      |
| CXDSS 1530AP | 06759 |          |                 | 15.3  | .6024   |         | 16.0 |      | 115 |              | 65 |              | 45 |              | 2.37 |
| CXDSS 1550AP | 06760 |          |                 | 15.5  | .6102   |         | 16.0 |      | 115 |              | 65 |              | 45 |              | 2.40 |
| CXDSS 1570AP | 06761 |          |                 | 15.7  | .6181   |         | 16.0 |      | 115 |              | 65 |              | 45 |              | 2.43 |
| CXDSS6250AP  | 06762 | 5/8      |                 |       | .6250   | 5/8     |      | 4.53 |     | 2.559        |    | 1.772        |    | 0.097        |      |
| CXDSS 1600AP | 06763 |          |                 | 16.0  | .6299   |         | 16.0 |      | 115 |              | 65 |              | 45 |              | 2.48 |
| CXDSS 1608AP | 06764 |          |                 | 16.08 | .6331   |         | 18.0 |      | 123 |              | 73 |              | 51 |              | 2.49 |
| CXDSS 1630AP | 06765 |          |                 | 16.3  | .6417   |         | 18.0 |      | 123 |              | 73 |              | 51 |              | 2.53 |
| CXDSS 1650AP | 06766 |          |                 | 16.5  | .6496   |         | 18.0 |      | 123 |              | 73 |              | 51 |              | 2.56 |
| CXDSS6562AP  | 06767 | 21/32    |                 |       | .6562   | 11/16   |      | 4.84 |     | 2.874        |    | 2.008        |    | 0.102        |      |
| CXDSS 1700AP | 06768 |          |                 | 17.0  | .6693   |         | 18.0 |      | 123 |              | 73 |              | 51 |              | 2.63 |
| CXDSS6875AP  | 06769 | 11/16    |                 |       | .6875   | 11/16   |      | 4.84 |     | 2.874        |    | 2.008        |    | 0.107        |      |
| CXDSS 1750AP | 06770 |          |                 | 17.5  | .6890   |         | 18.0 |      | 123 |              | 73 |              | 51 |              | 2.71 |
| CXDSS 1800AP | 06771 |          |                 | 18.0  | .7087   |         | 18.0 |      | 123 |              | 73 |              | 51 |              | 2.79 |
| CXDSS 1850AP | 06772 |          |                 | 18.5  | .7283   |         | 20.0 |      | 131 |              | 79 |              | 55 |              | 2.87 |
| CXDSS7500AP  | 06773 | 3/4      |                 |       | .7500   | 3/4     |      | 5.16 |     | 3.11         |    | 2.165        |    | 0.116        |      |
| CXDSS 1916AP | 06774 |          |                 | 19.16 | .7543   |         | 20.0 |      | 131 |              | 79 |              | 55 |              | 2.97 |
| CXDSS 1925AP | 06775 |          |                 | 19.25 | .7579   |         | 20.0 |      | 131 |              | 79 |              | 55 |              | 2.98 |
| CXDSS 1930AP | 06776 |          |                 | 19.3  | .7598   |         | 20.0 |      | 131 |              | 79 |              | 55 |              | 2.99 |
| CXDSS 1950AP | 06777 |          |                 | 19.5  | .7677   |         | 20.0 |      | 131 |              | 79 |              | 55 |              | 3.02 |
| CXDSS 2000AP | 06778 |          |                 | 20.0  | .7874   |         | 20.0 |      | 131 |              | 79 |              | 55 |              | 3.10 |

**Safety Note**

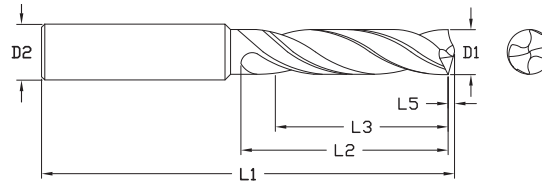
Always wear the appropriate personal protective equipment such as safety glasses and protective clothing when using solid carbide or HSS cutting tools. Machines should be fully guarded. Technical data provided should be considered advisory only as variations may be necessary depending on the particular application.



# Cyclone Series CXDSR



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



| ALtima® Plus |       | Diameter |                 |     |         | Shank   |     | OAL  |    | Flute Length |    | Drill Length |    | Point Length |      |
|--------------|-------|----------|-----------------|-----|---------|---------|-----|------|----|--------------|----|--------------|----|--------------|------|
|              |       | D1 (m7)  |                 |     |         | D2 (h6) |     | L1   |    | L2 (Max.)    |    | L3 Ref.      |    | L5           |      |
| Tool No.     | EDP   | Inch     | Letter/<br>Wire | mm  | Decimal | Inch    | mm  | Inch | mm | Inch         | mm | Inch         | mm | Inch         | mm   |
| CXDSR 0300AP | 06467 |          |                 | 3.0 | .1181   |         | 3.0 |      | 66 |              | 28 |              | 23 |              | 0.46 |
| CXDSR 1200AP | 06468 |          | #31             |     | .1200   | 1/8     |     | 2.60 |    | 1.102        |    | 0.906        |    | 0.019        |      |
| CXDSR 0310AP | 06469 |          |                 | 3.1 | .1220   |         | 4.0 |      | 66 |              | 28 |              | 23 |              | 0.48 |
| CXDSR 1250AP | 06470 | 1/8      |                 |     | .1250   | 1/8     |     | 2.60 |    | 1.102        |    | 0.906        |    | 0.019        |      |
| CXDSR 0320AP | 06471 |          |                 | 3.2 | .1260   |         | 4.0 |      | 66 |              | 28 |              | 23 |              | 0.50 |
| CXDSR 1285AP | 06472 |          | #30             |     | .1285   | 5/32    |     | 2.60 |    | 1.102        |    | 0.906        |    | 0.020        |      |
| CXDSR 0330AP | 06473 |          |                 | 3.3 | .1299   |         | 4.0 |      | 66 |              | 28 |              | 23 |              | 0.51 |
| CXDSR 0340AP | 06474 |          |                 | 3.4 | .1339   |         | 4.0 |      | 66 |              | 28 |              | 23 |              | 0.53 |
| CXDSR 1360AP | 06475 |          | #29             |     | .1360   | 5/32    |     | 2.60 |    | 1.102        |    | 0.906        |    | 0.021        |      |
| CXDSR 0350AP | 06476 |          |                 | 3.5 | .1378   |         | 4.0 |      | 66 |              | 28 |              | 23 |              | 0.54 |
| CXDSR 1406AP | 06477 | 9/64     |                 |     | .1406   | 5/32    |     | 2.60 |    | 1.102        |    | 0.906        |    | 0.022        |      |
| CXDSR 0360AP | 06478 |          |                 | 3.6 | .1417   |         | 4.0 |      | 66 |              | 28 |              | 23 |              | 0.56 |
| CXDSR 0370AP | 06479 |          |                 | 3.7 | .1457   |         | 4.0 |      | 66 |              | 28 |              | 23 |              | 0.57 |
| CXDSR 0380AP | 06480 |          |                 | 3.8 | .1496   |         | 4.0 |      | 74 |              | 36 |              | 29 |              | 0.59 |
| CXDSR 1520AP | 06481 |          | #24             |     | .1520   | 5/32    |     | 2.91 |    | 1.417        |    | 1.142        |    | 0.024        |      |
| CXDSR 0390AP | 06482 |          |                 | 3.9 | .1535   |         | 4.0 |      | 74 |              | 36 |              | 29 |              | 0.60 |
| CXDSR 1562AP | 06483 | 5/32     |                 |     | .1562   | 5/32    |     | 2.91 |    | 1.417        |    | 1.142        |    | 0.024        |      |
| CXDSR 0400AP | 06484 |          |                 | 4.0 | .1575   |         | 4.0 |      | 74 |              | 36 |              | 29 |              | 0.62 |
| CXDSR 1590AP | 06485 |          | #21             |     | .1590   | 3/16    |     | 2.91 |    | 1.417        |    | 1.142        |    | 0.025        |      |
| CXDSR 0410AP | 06486 |          |                 | 4.1 | .1614   |         | 5.0 |      | 74 |              | 36 |              | 29 |              | 0.64 |
| CXDSR 0420AP | 06487 |          |                 | 4.2 | .1654   |         | 5.0 |      | 74 |              | 36 |              | 29 |              | 0.65 |
| CXDSR 0430AP | 06488 |          |                 | 4.3 | .1693   |         | 5.0 |      | 74 |              | 36 |              | 29 |              | 0.67 |
| CXDSR 1719AP | 06489 | 11/64    |                 |     | .1719   | 3/16    |     | 2.91 |    | 1.417        |    | 1.142        |    | 0.027        |      |
| CXDSR 0440AP | 06490 |          |                 | 4.4 | .1732   |         | 5.0 |      | 74 |              | 36 |              | 29 |              | 0.68 |
| CXDSR 0450AP | 06491 |          |                 | 4.5 | .1772   |         | 5.0 |      | 74 |              | 36 |              | 29 |              | 0.70 |
| CXDSR 0460AP | 06492 |          |                 | 4.6 | .1811   |         | 5.0 |      | 74 |              | 36 |              | 29 |              | 0.71 |
| CXDSR 0470AP | 06493 |          |                 | 4.7 | .1850   |         | 5.0 |      | 74 |              | 36 |              | 29 |              | 0.73 |
| CXDSR 1875AP | 06494 | 3/16     |                 |     | .1875   | 3/16    |     | 3.23 |    | 1.732        |    | 1.378        |    | 0.029        |      |
| CXDSR 0480AP | 06495 |          |                 | 4.8 | .1890   |         | 5.0 |      | 82 |              | 44 |              | 35 |              | 0.74 |
| CXDSR 0490AP | 06496 |          |                 | 4.9 | .1929   |         | 5.0 |      | 82 |              | 44 |              | 35 |              | 0.76 |
| CXDSR 0500AP | 06497 |          |                 | 5.0 | .1968   |         | 5.0 |      | 82 |              | 44 |              | 35 |              | 0.77 |
| CXDSR 0510AP | 06498 |          |                 | 5.1 | .2008   |         | 6.0 |      | 82 |              | 44 |              | 35 |              | 0.79 |
| CXDSR 2031AP | 06499 | 13/64    |                 |     | .2031   | 1/4     |     | 3.23 |    | 1.732        |    | 1.378        |    | 0.031        |      |
| CXDSR 0520AP | 06500 |          |                 | 5.2 | .2047   |         | 6.0 |      | 82 |              | 44 |              | 35 |              | 0.81 |

| Inch          |                  |  |
|---------------|------------------|--|
| D1            | Tolerance (m7)   |  |
| .0000 - .1181 | +0.0008/+0.00047 |  |
| .1182 - .2362 | +0.0016/+0.00063 |  |
| .2363 - .3937 | +0.0024/+0.00083 |  |
| .3938 - .7087 | +0.0027/+0.00098 |  |

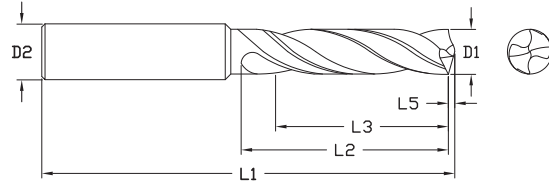
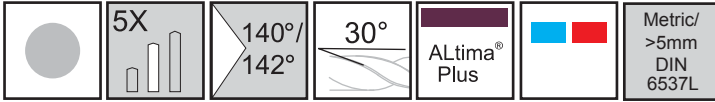
| Inch          |                |  |
|---------------|----------------|--|
| D2            | Tolerance (h6) |  |
| .0000 - .1181 | +0/-0.00024    |  |
| .1182 - .2362 | +0/-0.00031    |  |
| .2363 - .3937 | +0/-0.00035    |  |
| .3938 - .7087 | +0/-0.00043    |  |

| Metric (mm)  |                |  |
|--------------|----------------|--|
| D1           | Tolerance (m7) |  |
| 0 - 3.0      | +0.02/+0.012   |  |
| 3.01 - 6.0   | +0.04/+0.016   |  |
| 6.01 - 10.0  | +0.06/+0.021   |  |
| 10.01 - 18.0 | +0.07/+0.025   |  |

| Metric (mm)  |                |  |
|--------------|----------------|--|
| D2           | Tolerance (h6) |  |
| 0 - 3.0      | +0/-0.006      |  |
| 3.01 - 6.0   | +0/-0.008      |  |
| 6.01 - 10.0  | +0/-0.009      |  |
| 10.01 - 18.0 | +0/-0.011      |  |



# Series CXDSR Continued



| ALtima® Plus |       | Diameter |                 |     |         | Shank   |      | OAL  |       | Flute Length |       | Drill Length |       | Point Length |    |
|--------------|-------|----------|-----------------|-----|---------|---------|------|------|-------|--------------|-------|--------------|-------|--------------|----|
|              |       | D1 (m7)  |                 |     |         | D2 (h6) |      | L1   |       | L2 (Max.)    |       | L3 Ref.      |       | L5           |    |
| Tool No.     | EDP   | Inch     | Letter/<br>Wire | mm  | Decimal | Inch    | mm   | Inch | mm    | Inch         | mm    | Inch         | mm    | Inch         | mm |
| CXDSR 0530AP | 06501 |          |                 | 5.3 | .2087   | 6.0     | 82   |      | 44    |              | 35    |              | 0.82  |              |    |
| CXDSR 0540AP | 06502 |          |                 | 5.4 | .2126   | 6.0     | 82   |      | 44    |              | 35    |              | 0.84  |              |    |
| CXDSR 0550AP | 06503 |          |                 | 5.5 | .2165   | 6.0     | 82   |      | 44    |              | 35    |              | 0.85  |              |    |
| CXDSR2187AP  | 06504 | 7/32     |                 |     | .2187   | 1/4     | 3.23 |      | 1.732 |              | 1.378 |              | 0.034 |              |    |
| CXDSR 0560AP | 07092 |          |                 | 5.6 | .2205   | 6.0     | 82   |      | 44    |              | 35    |              | 0.86  |              |    |
| CXDSR2210AP  | 06505 |          | #2              |     | .2210   | 1/4     | 3.23 |      | 1.732 |              | 1.378 |              | 0.034 |              |    |
| CXDSR 0570AP | 06506 |          |                 | 5.7 | .2244   | 6.0     | 82   |      | 44    |              | 35    |              | 0.88  |              |    |
| CXDSR 0580AP | 06507 |          |                 | 5.8 | .2283   | 6.0     | 82   |      | 44    |              | 35    |              | 0.90  |              |    |
| CXDSR 0590AP | 06508 |          |                 | 5.9 | .2323   | 6.0     | 82   |      | 44    |              | 35    |              | 0.91  |              |    |
| CXDSR2344AP  | 06509 | 15/64    |                 |     | .2344   | 1/4     | 3.23 |      | 1.732 |              | 1.378 |              | 0.036 |              |    |
| CXDSR 0600AP | 06510 |          |                 | 6.0 | .2362   | 6.0     | 82   |      | 44    |              | 35    |              | 0.93  |              |    |
| CXDSR 0610AP | 06511 |          |                 | 6.1 | .2402   | 8.0     | 91   |      | 53    |              | 43    |              | 0.95  |              |    |
| CXDSR2420AP  | 06512 |          | C               |     | .2420   | 1/4     | 3.58 |      | 2.087 |              | 1.693 |              | 0.037 |              |    |
| CXDSR 0620AP | 06513 |          |                 | 6.2 | .2441   | 8.0     | 91   |      | 53    |              | 43    |              | 0.96  |              |    |
| CXDSR2460AP  | 06514 |          | D               |     | .2460   | 1/4     | 3.58 |      | 2.087 |              | 1.693 |              | 0.038 |              |    |
| CXDSR 0630AP | 06515 |          |                 | 6.3 | .2480   | 8.0     | 91   |      | 53    |              | 43    |              | 0.98  |              |    |
| CXDSR2500AP  | 06516 | 1/4      |                 |     | .2500   | 1/4     | 3.58 |      | 2.087 |              | 1.693 |              | 0.039 |              |    |
| CXDSR 0640AP | 06517 |          |                 | 6.4 | .2520   | 8.0     | 91   |      | 53    |              | 43    |              | 0.99  |              |    |
| CXDSR 0650AP | 06518 |          |                 | 6.5 | .2559   | 8.0     | 91   |      | 53    |              | 43    |              | 1.01  |              |    |
| CXDSR2570AP  | 06519 |          | F               |     | .2570   | 5/16    | 3.58 |      | 2.087 |              | 1.693 |              | 0.040 |              |    |
| CXDSR 0660AP | 06520 |          |                 | 6.6 | .2598   | 8.0     | 91   |      | 53    |              | 43    |              | 1.03  |              |    |
| CXDSR2610AP  | 06521 |          | G               |     | .2610   | 5/16    | 3.58 |      | 2.087 |              | 1.693 |              | 0.040 |              |    |
| CXDSR 0670AP | 06522 |          |                 | 6.7 | .2638   | 8.0     | 91   |      | 53    |              | 43    |              | 1.04  |              |    |
| CXDSR2656AP  | 06523 | 17/64    |                 |     | .2656   | 5/16    | 3.58 |      | 2.087 |              | 1.693 |              | 0.041 |              |    |
| CXDSR 0680AP | 06524 |          |                 | 6.8 | .2677   | 8.0     | 91   |      | 53    |              | 43    |              | 1.05  |              |    |
| CXDSR 0690AP | 06525 |          |                 | 6.9 | .2717   | 8.0     | 91   |      | 53    |              | 43    |              | 1.07  |              |    |
| CXDSR 0700AP | 06526 |          |                 | 7.0 | .2756   | 8.0     | 91   |      | 53    |              | 43    |              | 1.10  |              |    |
| CXDSR 0710AP | 06527 |          |                 | 7.1 | .2795   | 8.0     | 91   |      | 53    |              | 43    |              | 1.10  |              |    |
| CXDSR2812AP  | 06528 | 9/32     |                 |     | .2812   | 5/16    | 3.58 |      | 2.087 |              | 1.693 |              | 0.044 |              |    |
| CXDSR 0720AP | 06529 |          |                 | 7.2 | .2835   | 8.0     | 91   |      | 53    |              | 43    |              | 1.12  |              |    |
| CXDSR 0730AP | 06530 |          |                 | 7.3 | .2874   | 8.0     | 91   |      | 53    |              | 43    |              | 1.13  |              |    |
| CXDSR 0740AP | 06531 |          |                 | 7.4 | .2913   | 8.0     | 91   |      | 53    |              | 43    |              | 1.15  |              |    |
| CXDSR 0750AP | 06532 |          |                 | 7.5 | .2953   | 8.0     | 91   |      | 53    |              | 43    |              | 1.16  |              |    |
| CXDSR2969AP  | 06533 | 19/64    |                 |     | .2969   | 5/16    | 3.58 |      | 2.087 |              | 1.693 |              | 0.046 |              |    |
| CXDSR 0760AP | 06534 |          |                 | 7.6 | .2992   | 8.0     | 91   |      | 53    |              | 43    |              | 1.18  |              |    |
| CXDSR 0770AP | 06535 |          |                 | 7.7 | .3031   | 8.0     | 91   |      | 53    |              | 43    |              | 1.19  |              |    |
| CXDSR 0780AP | 06536 |          |                 | 7.8 | .3071   | 8.0     | 91   |      | 53    |              | 43    |              | 1.21  |              |    |
| CXDSR 0790AP | 06537 |          |                 | 7.9 | .3110   | 8.0     | 91   |      | 53    |              | 43    |              | 1.22  |              |    |
| CXDSR3125AP  | 06538 | 5/16     |                 |     | .3125   | 5/16    | 3.58 |      | 2.087 |              | 1.693 |              | 0.048 |              |    |
| CXDSR 0800AP | 06539 |          |                 | 8.0 | .3150   | 8.0     | 91   |      | 53    |              | 43    |              | 1.24  |              |    |
| CXDSR 0810AP | 06540 |          |                 | 8.1 | .3189   | 10.0    | 103  |      | 61    |              | 49    |              | 1.26  |              |    |
| CXDSR 0820AP | 06541 |          |                 | 8.2 | .3228   | 10.0    | 103  |      | 61    |              | 49    |              | 1.27  |              |    |
| CXDSR 0830AP | 06542 |          |                 | 8.3 | .3268   | 10.0    | 103  |      | 61    |              | 49    |              | 1.29  |              |    |
| CXDSR3281AP  | 06543 | 21/64    |                 |     | .3281   | 3/8     | 4.06 |      | 2.402 |              | 1.929 |              | 0.051 |              |    |



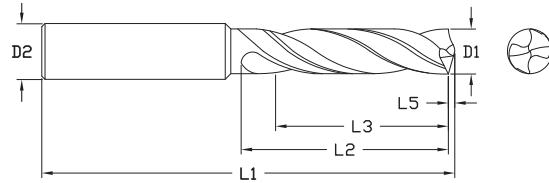
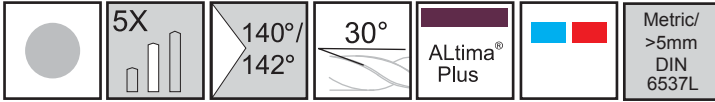


# Series CXDSR Continued

| ALtima® Plus |       | Diameter |                 |       |         | Shank   |      | OAL  |     | Flute Length |    | Drill Length |    | Point Length |      |
|--------------|-------|----------|-----------------|-------|---------|---------|------|------|-----|--------------|----|--------------|----|--------------|------|
|              |       | D1 (m7)  |                 |       |         | D2 (h6) |      | L1   |     | L2 (Max.)    |    | L3 Ref.      |    | L5           |      |
| Tool No.     | EDP   | Inch     | Letter/<br>Wire | mm    | Decimal | Inch    | mm   | Inch | mm  | Inch         | mm | Inch         | mm | Inch         | mm   |
| CXDSR 0840AP | 06544 |          |                 | 8.4   | .3307   |         | 10.0 |      | 103 |              | 61 |              | 49 |              | 1.31 |
| CXDSR3320AP  | 06545 |          | Q               |       | .3320   | 3/8     |      | 4.06 |     | 2.402        |    | 1.929        |    | 0.051        |      |
| CXDSR 0850AP | 06546 |          |                 | 8.5   | .3346   |         | 10.0 |      | 103 |              | 61 |              | 49 |              | 1.32 |
| CXDSR 0860AP | 06547 |          |                 | 8.6   | .3386   |         | 10.0 |      | 103 |              | 61 |              | 49 |              | 1.33 |
| CXDSR 0870AP | 06548 |          |                 | 8.7   | .3425   |         | 10.0 |      | 103 |              | 61 |              | 49 |              | 1.35 |
| CXDSR3438AP  | 06549 | 11/32    |                 |       | .3438   | 3/8     |      | 4.06 |     | 2.402        |    | 1.929        |    | 0.053        |      |
| CXDSR 0880AP | 06550 |          |                 | 8.8   | .3465   |         | 10.0 |      | 103 |              | 61 |              | 49 |              | 1.36 |
| CXDSR 0890AP | 06551 |          |                 | 8.9   | .3504   |         | 10.0 |      | 103 |              | 61 |              | 49 |              | 1.38 |
| CXDSR 0900AP | 06552 |          |                 | 9.0   | .3543   |         | 10.0 |      | 103 |              | 61 |              | 49 |              | 1.39 |
| CXDSR 0910AP | 06553 |          |                 | 9.1   | .3583   |         | 10.0 |      | 103 |              | 61 |              | 49 |              | 1.41 |
| CXDSR3594AP  | 06554 | 23/64    |                 |       | .3594   | 3/8     |      | 4.06 |     | 2.402        |    | 1.929        |    | 0.056        |      |
| CXDSR 0920AP | 06555 |          |                 | 9.2   | .3622   |         | 10.0 |      | 103 |              | 61 |              | 49 |              | 1.43 |
| CXDSR 0925AP | 06556 |          |                 | 9.3   | .3642   |         | 10.0 |      | 103 |              | 61 |              | 49 |              | 1.43 |
| CXDSR 0930AP | 06557 |          |                 | 9.3   | .3661   |         | 10.0 |      | 103 |              | 61 |              | 49 |              | 1.44 |
| CXDSR 0940AP | 06558 |          |                 | 9.4   | .3701   |         | 10.0 |      | 103 |              | 61 |              | 49 |              | 1.46 |
| CXDSR 0950AP | 06559 |          |                 | 9.5   | .3740   |         | 10.0 |      | 103 |              | 61 |              | 49 |              | 1.47 |
| CXDSR3750AP  | 06560 | 3/8      |                 |       | .3750   | 3/8     |      | 4.06 |     | 2.402        |    | 1.929        |    | 0.058        |      |
| CXDSR 0960AP | 06561 |          |                 | 9.6   | .3780   |         | 10.0 |      | 103 |              | 61 |              | 49 |              | 1.49 |
| CXDSR 0970AP | 06562 |          |                 | 9.7   | .3819   |         | 10.0 |      | 103 |              | 61 |              | 49 |              | 1.50 |
| CXDSR 0980AP | 06563 |          |                 | 9.8   | .3858   |         | 10.0 |      | 103 |              | 61 |              | 49 |              | 1.52 |
| CXDSR 0990AP | 06564 |          |                 | 9.9   | .3898   |         | 10.0 |      | 103 |              | 61 |              | 49 |              | 1.53 |
| CXDSR3906AP  | 06565 | 25/64    |                 |       | .3906   | 7/16    |      | 4.06 |     | 2.402        |    | 1.929        |    | 0.061        |      |
| CXDSR 1000AP | 06566 |          |                 | 10.0  | .3937   |         | 10.0 |      | 103 |              | 61 |              | 49 |              | 1.55 |
| CXDSR 1010AP | 06567 |          |                 | 10.1  | .3976   |         | 12.0 |      | 118 |              | 71 |              | 56 |              | 1.56 |
| CXDSR 1020AP | 06568 |          |                 | 10.2  | .4016   |         | 12.0 |      | 118 |              | 71 |              | 56 |              | 1.58 |
| CXDSR 1030AP | 06569 |          |                 | 10.3  | .4055   |         | 12.0 |      | 118 |              | 71 |              | 56 |              | 1.60 |
| CXDSR4062AP  | 06570 | 13/32    |                 |       | .4062   | 7/16    |      | 4.65 |     | 2.795        |    | 2.205        |    | 0.063        |      |
| CXDSR 1040AP | 06571 |          |                 | 10.4  | .4094   |         | 12.0 |      | 118 |              | 71 |              | 56 |              | 1.61 |
| CXDSR 1050AP | 06572 |          |                 | 10.5  | .4134   |         | 12.0 |      | 118 |              | 71 |              | 56 |              | 1.63 |
| CXDSR 1060AP | 06573 |          |                 | 10.6  | .4173   |         | 12.0 |      | 118 |              | 71 |              | 56 |              | 1.64 |
| CXDSR 1070AP | 06574 |          |                 | 10.7  | .4213   |         | 12.0 |      | 118 |              | 71 |              | 56 |              | 1.66 |
| CXDSR4219AP  | 06575 | 27/64    |                 |       | .4219   | 7/16    |      | 4.65 |     | 2.795        |    | 2.205        |    | 0.065        |      |
| CXDSR 1080AP | 06576 |          |                 | 10.8  | .4252   |         | 12.0 |      | 118 |              | 71 |              | 56 |              | 1.67 |
| CXDSR 1090AP | 06577 |          |                 | 10.9  | .4291   |         | 12.0 |      | 118 |              | 71 |              | 56 |              | 1.69 |
| CXDSR 1100AP | 06578 |          |                 | 11.0  | .4331   |         | 12.0 |      | 118 |              | 71 |              | 56 |              | 1.70 |
| CXDSR 1110AP | 06579 |          |                 | 11.1  | .4370   |         | 12.0 |      | 118 |              | 71 |              | 56 |              | 1.72 |
| CXDSR4375AP  | 06580 | 7/16     |                 |       | .4375   | 7/16    |      | 4.65 |     | 2.795        |    | 2.205        |    | 0.068        |      |
| CXDSR 1120AP | 06581 |          |                 | 11.2  | .4409   |         | 12.0 |      | 118 |              | 71 |              | 56 |              | 1.74 |
| CXDSR 1130AP | 06582 |          |                 | 11.3  | .4449   |         | 12.0 |      | 118 |              | 71 |              | 56 |              | 1.75 |
| CXDSR 1140AP | 06583 |          |                 | 11.4  | .4488   |         | 12.0 |      | 118 |              | 71 |              | 56 |              | 1.77 |
| CXDSR 1150AP | 06584 |          |                 | 11.5  | .4527   |         | 12.0 |      | 118 |              | 71 |              | 56 |              | 1.78 |
| CXDSR 1160AP | 06585 |          |                 | 11.6  | .4567   |         | 12.0 |      | 118 |              | 71 |              | 56 |              | 1.80 |
| CXDSR 1170AP | 06586 |          |                 | 11.7  | .4606   |         | 12.0 |      | 118 |              | 71 |              | 56 |              | 1.81 |
| CXDSR 1180AP | 06587 |          |                 | 11.8  | .4646   |         | 12.0 |      | 118 |              | 71 |              | 56 |              | 1.83 |
| CXDSR 1190AP | 06588 |          |                 | 11.9  | .4685   |         | 12.0 |      | 118 |              | 71 |              | 56 |              | 1.84 |
| CXDSR4688AP  | 06589 | 15/32    |                 |       | .4688   | 1/2     |      | 4.65 |     | 2.795        |    | 2.205        |    | 0.073        |      |
| CXDSR 1200AP | 06590 |          |                 | 12.0  | .4724   |         | 12.0 |      | 118 |              | 71 |              | 56 |              | 1.86 |
| CXDSR 1210AP | 06591 |          |                 | 12.1  | .4764   |         | 14.0 |      | 124 |              | 77 |              | 60 |              | 1.87 |
| CXDSR4844AP  | 06592 | 31/64    |                 |       | .4844   | 1/2     |      | 4.88 |     | 3.031        |    | 2.362        |    | 0.075        |      |
| CXDSR 1250AP | 06593 |          |                 | 12.5  | .4921   |         | 14.0 |      | 124 |              | 77 |              | 60 |              | 1.94 |
| CXDSR5000AP  | 06594 | 1/2      |                 |       | .5000   | 1/2     |      | 4.88 |     | 3.031        |    | 2.362        |    | 0.077        |      |
| CXDSR 1280AP | 06595 |          |                 | 12.8  | .5039   |         | 14.0 |      | 124 |              | 77 |              | 60 |              | 1.98 |
| CXDSR 1283AP | 06596 |          |                 | 12.83 | .5051   |         | 14.0 |      | 124 |              | 77 |              | 60 |              | 1.99 |
| CXDSR 1290AP | 06597 |          |                 | 12.9  | .5079   |         | 14.0 |      | 124 |              | 77 |              | 60 |              | 2.00 |



# Series CXDSR Continued

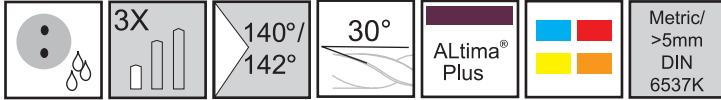


| ALtima® Plus |       | Diameter |                 |      |         | Shank   |      | OAL  | Flute Length |       | Drill Length |       | Point Length |       |      |
|--------------|-------|----------|-----------------|------|---------|---------|------|------|--------------|-------|--------------|-------|--------------|-------|------|
|              |       | D1 (m7)  |                 |      |         | D2 (h6) |      | L1   | L2 (Max.)    |       | L3 Ref.      |       | L5           |       |      |
| Tool No.     | EDP   | Inch     | Letter/<br>Wire | mm   | Decimal | Inch    | mm   | Inch | mm           | Inch  | mm           | Inch  | mm           | Inch  | mm   |
| CXDSR 1300AP | 06598 |          |                 | 13.0 | .5118   |         | 14.0 |      | 124          |       | 77           |       | 60           |       | 2.01 |
| CXDSR5156AP  | 06599 | 33/64    |                 |      | .5156   | 9/16    |      | 4.88 |              | 3.031 |              | 2.362 |              | 0.080 |      |
| CXDSR5312AP  | 06600 | 17/32    |                 |      | .5312   | 9/16    |      | 4.88 |              | 3.031 |              | 2.362 |              | 0.082 |      |
| CXDSR 1350AP | 06601 |          |                 | 13.5 | .5315   |         | 14.0 |      | 124          |       | 77           |       | 60           |       | 2.09 |
| CXDSR 1370AP | 06602 |          |                 | 13.7 | .5394   |         | 14.0 |      | 124          |       | 77           |       | 60           |       | 2.12 |
| CXDSR5469AP  | 06603 | 35/64    |                 |      | .5469   | 9/16    |      | 4.88 |              | 3.031 |              | 2.362 |              | 0.085 |      |
| CXDSR 1400AP | 06604 |          |                 | 14.0 | .5512   |         | 14.0 |      | 124          |       | 77           |       | 60           |       | 2.17 |
| CXDSR5625AP  | 06605 | 9/16     |                 |      | .5625   | 9/16    |      | 5.24 |              | 3.268 |              | 2.480 |              | 0.087 |      |
| CXDSR 1450AP | 06606 |          |                 | 14.5 | .5709   |         | 16.0 |      | 133          |       | 83           |       | 63           |       | 2.25 |
| CXDSR 1470AP | 06607 |          |                 | 14.7 | .5787   |         | 16.0 |      | 133          |       | 83           |       | 63           |       | 2.28 |
| CXDSR 1500AP | 06608 |          |                 | 15.0 | .5905   |         | 16.0 |      | 133          |       | 83           |       | 63           |       | 2.32 |
| CXDSR5938AP  | 06609 | 19/32    |                 |      | .5938   | 5/8     |      | 5.24 |              | 3.268 |              | 2.480 |              | 0.092 |      |
| CXDSR 1530AP | 06610 |          |                 | 15.3 | .6024   |         | 16.0 |      | 133          |       | 83           |       | 63           |       | 2.37 |
| CXDSR 1550AP | 06611 |          |                 | 15.5 | .6102   |         | 16.0 |      | 133          |       | 83           |       | 63           |       | 2.40 |
| CXDSR 1570AP | 06612 |          |                 | 15.7 | .6181   |         | 16.0 |      | 133          |       | 83           |       | 63           |       | 2.43 |
| CXDSR6250AP  | 06613 | 5/8      |                 |      | .6250   | 5/8     |      | 5.24 |              | 3.268 |              | 2.480 |              | 0.097 |      |
| CXDSR 1600AP | 06614 |          |                 | 16.0 | .6299   |         | 16.0 |      | 133          |       | 83           |       | 63           |       | 2.48 |

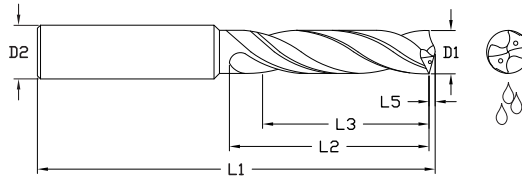




# Cyclone Series CXDCS



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



| ALtima® Plus |       | Diameter |                 |     |         | Shank   |     | OAL  |    | Flute Length |    | Drill Length |    | Point Length |      |
|--------------|-------|----------|-----------------|-----|---------|---------|-----|------|----|--------------|----|--------------|----|--------------|------|
|              |       | D1 (m7)  |                 |     |         | D2 (h6) |     | L1   |    | L2 (Max.)    |    | L3 Ref.      |    | L5           |      |
| Tool No.     | EDP   | Inch     | Letter/<br>Wire | mm  | Decimal | Inch    | mm  | Inch | mm | Inch         | mm | Inch         | mm | Inch         | mm   |
| CXDCS 0300AP | 06779 |          |                 | 3.0 | .1181   |         | 3.0 |      | 62 |              | 20 |              | 14 |              | 0.46 |
| CXDCS1200AP  | 06780 |          | #31             |     | .1200   | 1/8     |     | 2.44 |    | 0.787        |    | 0.551        |    | 0.019        |      |
| CXDCS 0310AP | 06781 |          |                 | 3.1 | .1220   |         | 4.0 |      | 62 |              | 20 |              | 14 |              | 0.48 |
| CXDCS1250AP  | 06782 | 1/8      |                 |     | .1250   | 1/8     |     | 2.44 |    | 0.787        |    | 0.551        |    | 0.019        |      |
| CXDCS 0320AP | 06783 |          |                 | 3.2 | .1260   |         | 4.0 |      | 62 |              | 20 |              | 14 |              | 0.50 |
| CXDCS1285AP  | 06784 |          | #30             |     | .1285   | 5/32    |     | 2.44 |    | 0.787        |    | 0.551        |    | 0.020        |      |
| CXDCS 0330AP | 06785 |          |                 | 3.3 | .1299   |         | 4.0 |      | 62 |              | 20 |              | 14 |              | 0.51 |
| CXDCS 0340AP | 06786 |          |                 | 3.4 | .1339   |         | 4.0 |      | 62 |              | 20 |              | 14 |              | 0.53 |
| CXDCS1360AP  | 06787 |          | #29             |     | .1360   | 5/32    |     | 2.44 |    | 0.787        |    | 0.551        |    | 0.021        |      |
| CXDCS 0350AP | 06788 |          |                 | 3.5 | .1378   |         | 4.0 |      | 62 |              | 20 |              | 14 |              | 0.54 |
| CXDCS1406AP  | 06789 | 9/64     |                 |     | .1406   | 5/32    |     | 2.44 |    | 0.787        |    | 0.551        |    | 0.022        |      |
| CXDCS 0360AP | 06790 |          |                 | 3.6 | .1417   |         | 4.0 |      | 62 |              | 20 |              | 14 |              | 0.56 |
| CXDCS 0370AP | 06791 |          |                 | 3.7 | .1457   |         | 4.0 |      | 62 |              | 20 |              | 14 |              | 0.57 |
| CXDCS 0380AP | 06792 |          |                 | 3.8 | .1496   |         | 4.0 |      | 66 |              | 24 |              | 17 |              | 0.59 |
| CXDCS1520AP  | 06793 |          | #24             |     | .1520   | 5/32    |     | 2.60 |    | 0.945        |    | 0.669        |    | 0.024        |      |
| CXDCS 0390AP | 06794 |          |                 | 3.9 | .1535   |         | 4.0 |      | 66 |              | 24 |              | 17 |              | 0.60 |
| CXDCS1562AP  | 06795 | 5/32     |                 |     | .1562   | 5/32    |     | 2.60 |    | 0.945        |    | 0.669        |    | 0.024        |      |
| CXDCS 0400AP | 06796 |          |                 | 4.0 | .1575   |         | 4.0 |      | 66 |              | 24 |              | 17 |              | 0.62 |
| CXDCS1590AP  | 06797 |          | #21             |     | .1590   | 3/16    |     | 2.60 |    | 0.945        |    | 0.669        |    | 0.025        |      |
| CXDCS 0410AP | 06798 |          |                 | 4.1 | .1614   |         | 5.0 |      | 66 |              | 24 |              | 17 |              | 0.64 |
| CXDCS 0420AP | 06799 |          |                 | 4.2 | .1654   |         | 5.0 |      | 66 |              | 24 |              | 17 |              | 0.65 |
| CXDCS 0430AP | 06800 |          |                 | 4.3 | .1693   |         | 5.0 |      | 66 |              | 24 |              | 17 |              | 0.67 |
| CXDCS1719AP  | 06801 | 11/64    |                 |     | .1719   | 3/16    |     | 2.60 |    | 0.945        |    | 0.669        |    | 0.027        |      |
| CXDCS 0440AP | 06802 |          |                 | 4.4 | .1732   |         | 5.0 |      | 66 |              | 24 |              | 17 |              | 0.68 |
| CXDCS 0450AP | 06803 |          |                 | 4.5 | .1772   |         | 5.0 |      | 66 |              | 24 |              | 17 |              | 0.70 |
| CXDCS 0460AP | 06804 |          |                 | 4.6 | .1811   |         | 5.0 |      | 66 |              | 24 |              | 17 |              | 0.71 |
| CXDCS 0470AP | 06805 |          |                 | 4.7 | .1850   |         | 5.0 |      | 66 |              | 24 |              | 17 |              | 0.73 |
| CXDCS1875AP  | 06806 | 3/16     |                 |     | .1875   | 3/16    |     | 2.60 |    | 1.102        |    | 0.787        |    | 0.029        |      |
| CXDCS 0480AP | 06807 |          |                 | 4.8 | .1890   |         | 5.0 |      | 66 |              | 28 |              | 20 |              | 0.74 |
| CXDCS 0490AP | 06808 |          |                 | 4.9 | .1929   |         | 5.0 |      | 66 |              | 28 |              | 20 |              | 0.76 |
| CXDCS 0500AP | 06809 |          |                 | 5.0 | .1968   |         | 5.0 |      | 66 |              | 28 |              | 20 |              | 0.77 |
| CXDCS 0510AP | 06810 |          |                 | 5.1 | .2008   |         | 6.0 |      | 66 |              | 28 |              | 20 |              | 0.79 |
| CXDCS2031AP  | 06811 | 13/64    |                 |     | .2031   | 1/4     |     | 2.60 |    | 1.102        |    | 0.787        |    | 0.031        |      |
| CXDCS 0520AP | 06812 |          |                 | 5.2 | .2047   |         | 6.0 |      | 66 |              | 28 |              | 20 |              | 0.81 |

| Inch          |    | Tolerance (m7)   |
|---------------|----|------------------|
| D1            | D2 |                  |
| .0000 - .1181 |    | +0.0008/+0.00047 |
| .1182 - .2362 |    | +0.0016/+0.00063 |
| .2363 - .3937 |    | +0.0024/+0.00083 |
| .3938 - .7087 |    | +0.0027/+0.00098 |

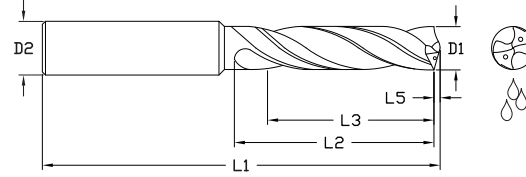
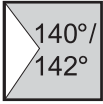
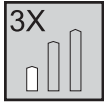
| Inch          |    | Tolerance (h6) |
|---------------|----|----------------|
| D2            | D1 |                |
| .0000 - .1181 |    | +0/-0.00024    |
| .1182 - .2362 |    | +0/-0.00031    |
| .2363 - .3937 |    | +0/-0.00035    |
| .3938 - .7087 |    | +0/-0.00043    |

| Metric (mm)  |    | Tolerance (m7) |
|--------------|----|----------------|
| D1           | D2 |                |
| 0 - 3.0      |    | +0.02/+0.012   |
| 3.01 - 6.0   |    | +0.04/+0.016   |
| 6.01 - 10.0  |    | +0.06/+0.021   |
| 10.01 - 18.0 |    | +0.07/+0.025   |

| Metric (mm)  |    | Tolerance (h6) |
|--------------|----|----------------|
| D2           | D1 |                |
| 0 - 3.0      |    | +0/-0.006      |
| 3.01 - 6.0   |    | +0/-0.008      |
| 6.01 - 10.0  |    | +0/-0.009      |
| 10.01 - 18.0 |    | +0/-0.011      |



# Series CXDCS Continued



| ALtima® Plus |       | Diameter |                 |     |         | Shank   |      | OAL  |    | Flute Length |    | Drill Length |    | Point Length |      |
|--------------|-------|----------|-----------------|-----|---------|---------|------|------|----|--------------|----|--------------|----|--------------|------|
|              |       | D1 (m7)  |                 |     |         | D2 (h6) |      | L1   |    | L2 (Max.)    |    | L3 Ref.      |    | L5           |      |
| Tool No.     | EDP   | Inch     | Letter/<br>Wire | mm  | Decimal | Inch    | mm   | Inch | mm | Inch         | mm | Inch         | mm | Inch         | mm   |
| CXDCS 0530AP | 06813 |          |                 | 5.3 | .2087   |         | 6.0  |      | 66 |              | 28 |              | 20 |              | 0.82 |
| CXDCS 0540AP | 06814 |          |                 | 5.4 | .2126   |         | 6.0  |      | 66 |              | 28 |              | 20 |              | 0.84 |
| CXDCS 0550AP | 06815 |          |                 | 5.5 | .2165   |         | 6.0  |      | 66 |              | 28 |              | 20 |              | 0.85 |
| CXDCS2187AP  | 06816 | 7/32     |                 |     | .2187   | 1/4     |      | 2.60 |    | 1.102        |    | 0.787        |    | 0.034        |      |
| CXDCS 0560AP | 07093 |          |                 | 5.6 | .2205   |         | 6.0  |      | 66 |              | 28 |              | 20 |              | 0.86 |
| CXDCS2210AP  | 06817 |          | #2              |     | .2210   | 1/4     |      | 2.60 |    | 1.102        |    | 0.787        |    | 0.034        |      |
| CXDCS 0570AP | 06818 |          |                 | 5.7 | .2244   |         | 6.0  |      | 66 |              | 28 |              | 20 |              | 0.88 |
| CXDCS 0580AP | 06819 |          |                 | 5.8 | .2283   |         | 6.0  |      | 66 |              | 28 |              | 20 |              | 0.90 |
| CXDCS 0590AP | 06820 |          |                 | 5.9 | .2323   |         | 6.0  |      | 66 |              | 28 |              | 20 |              | 0.91 |
| CXDCS2344AP  | 06821 | 15/64    |                 |     | .2344   | 1/4     |      | 2.60 |    | 1.102        |    | 0.787        |    | 0.036        |      |
| CXDCS 0600AP | 06822 |          |                 | 6.0 | .2362   |         | 6.0  |      | 66 |              | 28 |              | 20 |              | 0.93 |
| CXDCS 0610AP | 06823 |          |                 | 6.1 | .2402   |         | 8.0  |      | 79 |              | 34 |              | 24 |              | 0.95 |
| CXDCS2420AP  | 06824 |          | C               |     | .2420   | 1/4     |      | 3.11 |    | 1.339        |    | 0.945        |    | 0.037        |      |
| CXDCS 0620AP | 06825 |          |                 | 6.2 | .2441   |         | 8.0  |      | 79 |              | 34 |              | 24 |              | 0.96 |
| CXDCS2460AP  | 06826 |          | D               |     | .2460   | 1/4     |      | 3.11 |    | 1.339        |    | 0.945        |    | 0.038        |      |
| CXDCS 0630AP | 06827 |          |                 | 6.3 | .2480   |         | 8.0  |      | 79 |              | 34 |              | 24 |              | 0.98 |
| CXDCS2500AP  | 06828 | 1/4      |                 |     | .2500   | 1/4     |      | 3.11 |    | 1.339        |    | 0.945        |    | 0.039        |      |
| CXDCS 0640AP | 06829 |          |                 | 6.4 | .2520   |         | 8.0  |      | 79 |              | 34 |              | 24 |              | 0.99 |
| CXDCS 0650AP | 06830 |          |                 | 6.5 | .2559   |         | 8.0  |      | 79 |              | 34 |              | 24 |              | 1.01 |
| CXDCS2570AP  | 06831 |          | F               |     | .2570   | 5/16    |      | 3.11 |    | 1.339        |    | 0.945        |    | 0.040        |      |
| CXDCS 0660AP | 06832 |          |                 | 6.6 | .2598   |         | 8.0  |      | 79 |              | 34 |              | 24 |              | 1.03 |
| CXDCS2610AP  | 06833 |          | G               |     | .2610   | 5/16    |      | 3.11 |    | 1.339        |    | 0.945        |    | 0.040        |      |
| CXDCS 0670AP | 06834 |          |                 | 6.7 | .2638   |         | 8.0  |      | 79 |              | 34 |              | 24 |              | 1.04 |
| CXDCS2656AP  | 06835 | 17/64    |                 |     | .2656   | 5/16    |      | 3.11 |    | 1.339        |    | 0.945        |    | 0.041        |      |
| CXDCS 0680AP | 06836 |          |                 | 6.8 | .2677   |         | 8.0  |      | 79 |              | 34 |              | 24 |              | 1.05 |
| CXDCS 0690AP | 06837 |          |                 | 6.9 | .2717   |         | 8.0  |      | 79 |              | 34 |              | 24 |              | 1.07 |
| CXDCS 0700AP | 06838 |          |                 | 7.0 | .2756   |         | 8.0  |      | 79 |              | 34 |              | 24 |              | 1.08 |
| CXDCS 0710AP | 06839 |          |                 | 7.1 | .2795   |         | 8.0  |      | 79 |              | 41 |              | 29 |              | 1.10 |
| CXDCS2812AP  | 06840 | 9/32     |                 |     | .2812   | 5/16    |      | 3.11 |    | 1.614        |    | 1.142        |    | 0.044        |      |
| CXDCS 0720AP | 06841 |          |                 | 7.2 | .2835   |         | 8.0  |      | 79 |              | 41 |              | 29 |              | 1.12 |
| CXDCS 0730AP | 06842 |          |                 | 7.3 | .2874   |         | 8.0  |      | 79 |              | 41 |              | 29 |              | 1.13 |
| CXDCS 0740AP | 06843 |          |                 | 7.4 | .2913   |         | 8.0  |      | 79 |              | 41 |              | 29 |              | 1.15 |
| CXDCS 0750AP | 06844 |          |                 | 7.5 | .2953   |         | 8.0  |      | 79 |              | 41 |              | 29 |              | 1.16 |
| CXDCS2969AP  | 06845 | 19/64    |                 |     | .2969   | 5/16    |      | 3.11 |    | 1.614        |    | 1.142        |    | 0.046        |      |
| CXDCS 0760AP | 06846 |          |                 | 7.6 | .2992   |         | 8.0  |      | 79 |              | 41 |              | 29 |              | 1.18 |
| CXDCS 0770AP | 06847 |          |                 | 7.7 | .3031   |         | 8.0  |      | 79 |              | 41 |              | 29 |              | 1.19 |
| CXDCS 0780AP | 06848 |          |                 | 7.8 | .3071   |         | 8.0  |      | 79 |              | 41 |              | 29 |              | 1.21 |
| CXDCS 0790AP | 06849 |          |                 | 7.9 | .3110   |         | 8.0  |      | 79 |              | 41 |              | 29 |              | 1.22 |
| CXDCS3125AP  | 06850 | 5/16     |                 |     | .3125   | 5/16    |      | 3.11 |    | 1.614        |    | 1.142        |    | 0.048        |      |
| CXDCS 0800AP | 06851 |          |                 | 8.0 | .3150   |         | 8.0  |      | 79 |              | 41 |              | 29 |              | 1.24 |
| CXDCS 0810AP | 06852 |          |                 | 8.1 | .3189   |         | 10.0 |      | 89 |              | 47 |              | 35 |              | 1.26 |
| CXDCS 0820AP | 06853 |          |                 | 8.2 | .3228   |         | 10.0 |      | 89 |              | 47 |              | 35 |              | 1.27 |
| CXDCS 0830AP | 06854 |          |                 | 8.3 | .3268   |         | 10.0 |      | 89 |              | 47 |              | 35 |              | 1.29 |
| CXDCS3281AP  | 06855 | 21/64    |                 |     | .3281   | 3/8     |      | 3.50 |    | 1.850        |    | 1.378        |    | 0.051        |      |
| CXDCS 0840AP | 06856 |          |                 | 8.4 | .3307   |         | 10.0 |      | 89 |              | 47 |              | 35 |              | 1.31 |
| CXDCS3320AP  | 06857 |          | Q               |     | .3320   | 3/8     |      | 3.50 |    | 1.850        |    | 1.378        |    | 0.051        |      |

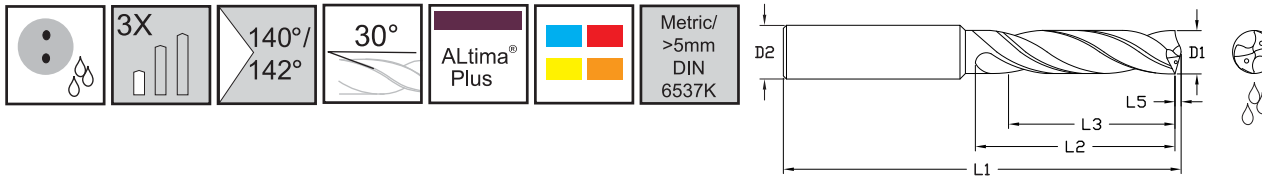


# Series CXDCS Continued

| ALtima® Plus |       | Diameter |                 |       |         | Shank   |      | OAL  |     | Flute Length |    | Drill Length |    | Point Length |      |
|--------------|-------|----------|-----------------|-------|---------|---------|------|------|-----|--------------|----|--------------|----|--------------|------|
|              |       | D1 (m7)  |                 |       |         | D2 (h6) |      | L1   |     | L2 (Max.)    |    | L3 Ref.      |    | L5           |      |
| Tool No.     | EDP   | Inch     | Letter/<br>Wire | mm    | Decimal | Inch    | mm   | Inch | mm  | Inch         | mm | Inch         | mm | Inch         | mm   |
| CXDCS 0850AP | 06858 |          |                 | 8.5   | .3346   |         | 10.0 |      | 89  |              | 47 |              | 35 |              | 1.32 |
| CXDCS 0860AP | 06859 |          |                 | 8.6   | .3386   |         | 10.0 |      | 89  |              | 47 |              | 35 |              | 1.33 |
| CXDCS 0870AP | 06860 |          |                 | 8.7   | .3425   |         | 10.0 |      | 89  |              | 47 |              | 35 |              | 1.35 |
| CXDCS3438AP  | 06861 | 11/32    |                 |       | .3438   | 3/8     |      | 3.50 |     | 1.850        |    | 1.378        |    | 0.053        |      |
| CXDCS 0880AP | 06862 |          |                 | 8.8   | .3465   |         | 10.0 |      | 89  |              | 47 |              | 35 |              | 1.36 |
| CXDCS 0890AP | 06863 |          |                 | 8.9   | .3504   |         | 10.0 |      | 89  |              | 47 |              | 35 |              | 1.38 |
| CXDCS 0900AP | 06864 |          |                 | 9.0   | .3543   |         | 10.0 |      | 89  |              | 47 |              | 35 |              | 1.39 |
| CXDCS 0910AP | 06865 |          |                 | 9.1   | .3583   |         | 10.0 |      | 89  |              | 47 |              | 35 |              | 1.41 |
| CXDCS3594AP  | 06866 | 23/64    |                 |       | .3594   | 3/8     |      | 3.50 |     | 1.850        |    | 1.378        |    | 0.056        |      |
| CXDCS 0920AP | 06867 |          |                 | 9.2   | .3622   |         | 10.0 |      | 89  |              | 47 |              | 35 |              | 1.43 |
| CXDCS 0925AP | 06868 |          |                 | 9.25  | .3642   |         | 10.0 |      | 89  |              | 47 |              | 35 |              | 1.43 |
| CXDCS 0930AP | 06869 |          |                 | 9.3   | .3661   |         | 10.0 |      | 89  |              | 47 |              | 35 |              | 1.44 |
| CXDCS 0940AP | 06870 |          |                 | 9.4   | .3701   |         | 10.0 |      | 89  |              | 47 |              | 35 |              | 1.46 |
| CXDCS 0950AP | 06871 |          |                 | 9.5   | .3740   |         | 10.0 |      | 89  |              | 47 |              | 35 |              | 1.47 |
| CXDCS3750AP  | 06872 | 3/8      |                 |       | .3750   | 3/8     |      | 3.50 |     | 1.850        |    | 1.378        |    | 0.058        |      |
| CXDCS 0960AP | 06873 |          |                 | 9.6   | .3780   |         | 10.0 |      | 89  |              | 47 |              | 35 |              | 1.49 |
| CXDCS 0970AP | 06874 |          |                 | 9.7   | .3819   |         | 10.0 |      | 89  |              | 47 |              | 35 |              | 1.50 |
| CXDCS 0980AP | 06875 |          |                 | 9.8   | .3858   |         | 10.0 |      | 89  |              | 47 |              | 35 |              | 1.52 |
| CXDCS 0990AP | 06876 |          |                 | 9.9   | .3898   |         | 10.0 |      | 89  |              | 47 |              | 35 |              | 1.53 |
| CXDCS3906AP  | 06877 | 25/64    |                 |       | .3906   | 7/16    |      | 3.50 |     | 1.850        |    | 1.378        |    | 0.061        |      |
| CXDCS 1000AP | 06878 |          |                 | 10.0  | .3937   |         | 10.0 |      | 89  |              | 47 |              | 35 |              | 1.55 |
| CXDCS 1010AP | 06879 |          |                 | 10.1  | .3976   |         | 12.0 |      | 102 |              | 55 |              | 40 |              | 1.56 |
| CXDCS 1015AP | 07095 |          |                 | 10.15 | .3996   |         | 12.0 |      | 102 |              | 55 |              | 40 |              | 1.57 |
| CXDCS 1020AP | 06880 |          |                 | 10.2  | .4016   |         | 12.0 |      | 102 |              | 55 |              | 40 |              | 1.58 |
| CXDCS 1030AP | 06881 |          |                 | 10.3  | .4055   |         | 12.0 |      | 102 |              | 55 |              | 40 |              | 1.60 |
| CXDCS4062AP  | 06882 | 13/32    |                 |       | .4062   | 7/16    |      | 4.02 |     | 2.165        |    | 1.575        |    | 0.063        |      |
| CXDCS 1040AP | 06883 |          |                 | 10.4  | .4094   |         | 12.0 |      | 102 |              | 55 |              | 40 |              | 1.61 |
| CXDCS 1050AP | 06884 |          |                 | 10.5  | .4134   |         | 12.0 |      | 102 |              | 55 |              | 40 |              | 1.63 |
| CXDCS 1060AP | 06885 |          |                 | 10.6  | .4173   |         | 12.0 |      | 102 |              | 55 |              | 40 |              | 1.64 |
| CXDCS 1070AP | 06886 |          |                 | 10.7  | .4213   |         | 12.0 |      | 102 |              | 55 |              | 40 |              | 1.66 |
| CXDCS4219AP  | 06887 | 27/64    |                 |       | .4219   | 7/16    |      | 4.02 |     | 2.165        |    | 1.575        |    | 0.065        |      |
| CXDCS 1080AP | 06888 |          |                 | 10.8  | .4252   |         | 12.0 |      | 102 |              | 55 |              | 40 |              | 1.67 |
| CXDCS 1090AP | 06889 |          |                 | 10.9  | .4291   |         | 12.0 |      | 102 |              | 55 |              | 40 |              | 1.69 |
| CXDCS 1100AP | 06890 |          |                 | 11.0  | .4331   |         | 12.0 |      | 102 |              | 55 |              | 40 |              | 1.70 |
| CXDCS 1110AP | 06891 |          |                 | 11.1  | .4370   |         | 12.0 |      | 102 |              | 55 |              | 40 |              | 1.72 |
| CXDCS4375AP  | 06892 | 7/16     |                 |       | .4375   | 7/16    |      | 4.02 |     | 2.165        |    | 1.575        |    | 0.068        |      |
| CXDCS 1120AP | 06893 |          |                 | 11.2  | .4409   |         | 12.0 |      | 102 |              | 55 |              | 40 |              | 1.74 |
| CXDCS 1130AP | 06894 |          |                 | 11.3  | .4449   |         | 12.0 |      | 102 |              | 55 |              | 40 |              | 1.75 |
| CXDCS 1140AP | 06895 |          |                 | 11.4  | .4488   |         | 12.0 |      | 102 |              | 55 |              | 40 |              | 1.77 |
| CXDCS 1150AP | 06896 |          |                 | 11.5  | .4527   |         | 12.0 |      | 102 |              | 55 |              | 40 |              | 1.78 |
| CXDCS 1155AP | 07090 |          |                 | 11.55 | .4547   |         | 12.0 |      | 102 |              | 55 |              | 40 |              | 1.79 |
| CXDCS 1160AP | 06897 |          |                 | 11.6  | .4567   |         | 12.0 |      | 102 |              | 55 |              | 40 |              | 1.80 |
| CXDCS 1170AP | 06898 |          |                 | 11.7  | .4606   |         | 12.0 |      | 102 |              | 55 |              | 40 |              | 1.81 |
| CXDCS 1180AP | 06899 |          |                 | 11.8  | .4646   |         | 12.0 |      | 102 |              | 55 |              | 40 |              | 1.83 |
| CXDCS 1190AP | 06900 |          |                 | 11.9  | .4685   |         | 12.0 |      | 102 |              | 55 |              | 40 |              | 1.84 |
| CXDCS4688AP  | 06901 | 15/32    |                 |       | .4688   | 1/2     |      | 4.02 |     | 2.165        |    | 1.575        |    | 0.073        |      |
| CXDCS 1200AP | 06902 |          |                 | 12.0  | .4724   |         | 12.0 |      | 102 |              | 55 |              | 40 |              | 1.86 |
| CXDCS 1210AP | 06903 |          |                 | 12.1  | .4764   |         | 14.0 |      | 107 |              | 60 |              | 43 |              | 1.87 |
| CXDCS4844AP  | 06904 | 31/64    |                 |       | .4844   | 1/2     |      | 4.21 |     | 2.362        |    | 1.693        |    | 0.075        |      |
| CXDCS 1250AP | 06905 |          |                 | 12.5  | .4921   |         | 14.0 |      | 107 |              | 60 |              | 43 |              | 1.94 |
| CXDCS5000AP  | 06906 | 1/2      |                 |       | .5000   | 1/2     |      | 4.21 |     | 2.362        |    | 1.693        |    | 0.077        |      |
| CXDCS 1280AP | 06907 |          |                 | 12.8  | .5039   |         | 14.0 |      | 107 |              | 60 |              | 43 |              | 1.98 |



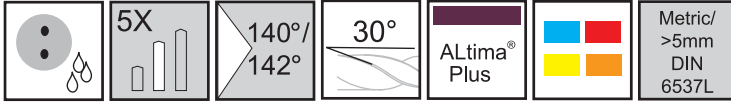
# Series CXDCS Continued



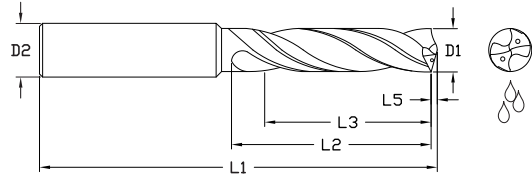
| ALtima® Plus |       | Diameter |                 |       |         | Shank   |      | OAL  |     | Flute Length |    | Drill Length |    | Point Length |      |
|--------------|-------|----------|-----------------|-------|---------|---------|------|------|-----|--------------|----|--------------|----|--------------|------|
|              |       | D1 (m7)  |                 |       |         | D2 (h6) |      | L1   |     | L2 (Max.)    |    | L3 Ref.      |    | L5           |      |
| Tool No.     | EDP   | Inch     | Letter/<br>Wire | mm    | Decimal | Inch    | mm   | Inch | mm  | Inch         | mm | Inch         | mm | Inch         | mm   |
| CXDCS 1283AP | 06908 |          |                 | 12.83 | .5051   |         | 14.0 |      | 107 |              | 60 |              | 43 |              | 1.99 |
| CXDCS 1290AP | 06909 |          |                 | 12.9  | .5079   |         | 14.0 |      | 107 |              | 60 |              | 43 |              | 2.00 |
| CXDCS 1300AP | 06910 |          |                 | 13.0  | .5118   |         | 14.0 |      | 107 |              | 60 |              | 43 |              | 2.01 |
| CXDCS5156AP  | 06911 | 33/64    |                 |       | .5156   | 9/16    |      | 4.21 |     | 2.362        |    | 1.693        |    | 0.080        |      |
| CXDCS 1320AP | 07096 |          |                 | 13.2  | .5197   |         | 14.0 |      | 107 |              | 60 |              | 43 |              | 2.06 |
| CXDCS5312AP  | 07089 | 17/32    |                 |       | .5312   | 9/16    |      | 4.21 |     | 2.362        |    | 1.693        |    | 0.082        |      |
| CXDCS 1350AP | 06912 |          |                 | 13.5  | .5315   |         | 14.0 |      | 107 |              | 60 |              | 43 |              | 2.09 |
| CXDCS 1370AP | 06913 |          |                 | 13.7  | .5394   |         | 14.0 |      | 107 |              | 60 |              | 43 |              | 2.12 |
| CXDCS5469AP  | 06914 | 35/64    |                 |       | .5469   | 9/16    |      | 4.21 |     | 2.362        |    | 1.693        |    | 0.085        |      |
| CXDCS 1400AP | 06915 |          |                 | 14.0  | .5512   |         | 14.0 |      | 107 |              | 60 |              | 43 |              | 2.17 |
| CXDCS5625AP  | 06916 | 9/16     |                 |       | .5625   | 9/16    |      | 4.53 |     | 2.559        |    | 1.772        |    | 0.087        |      |
| CXDCS 1450AP | 06917 |          |                 | 14.5  | .5709   |         | 16.0 |      | 115 |              | 65 |              | 45 |              | 2.25 |
| CXDCS 1470AP | 06918 |          |                 | 14.7  | .5787   |         | 16.0 |      | 115 |              | 65 |              | 45 |              | 2.28 |
| CXDCS 1475AP | 07097 |          |                 | 14.75 | .5807   |         | 16.0 |      | 115 |              | 65 |              | 45 |              | 2.30 |
| CXDCS 1500AP | 06919 |          |                 | 15.0  | .5905   |         | 16.0 |      | 115 |              | 65 |              | 45 |              | 2.32 |
| CXDCS5938AP  | 06920 | 19/32    |                 |       | .5938   | 5/8     |      | 4.53 |     | 2.559        |    | 1.772        |    | 0.092        |      |
| CXDCS 1530AP | 06921 |          |                 | 15.3  | .6024   |         | 16.0 |      | 115 |              | 65 |              | 45 |              | 2.37 |
| CXDCS 1550AP | 06922 |          |                 | 15.5  | .6102   |         | 16.0 |      | 115 |              | 65 |              | 45 |              | 2.40 |
| CXDCS 1570AP | 06923 |          |                 | 15.7  | .6181   |         | 16.0 |      | 115 |              | 65 |              | 45 |              | 2.43 |
| CXDCS6250AP  | 06924 | 5/8      |                 |       | .6250   | 5/8     |      | 4.53 |     | 2.559        |    | 1.772        |    | 0.097        |      |
| CXDCS 1600AP | 06925 |          |                 | 16.0  | .6299   |         | 16.0 |      | 115 |              | 65 |              | 45 |              | 2.48 |



# Cyclone Series CXDCR



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



| ALtima® Plus |       | Diameter |                 |     |         | Shank   |     | OAL  |    | Flute Length |    | Drill Length |    | Point Length |      |
|--------------|-------|----------|-----------------|-----|---------|---------|-----|------|----|--------------|----|--------------|----|--------------|------|
|              |       | D1 (m7)  |                 |     |         | D2 (h6) |     | L1   |    | L2 (Max.)    |    | L3 Ref.      |    | L5           |      |
| Tool No.     | EDP   | Inch     | Letter/<br>Wire | mm  | Decimal | Inch    | mm  | Inch | mm | Inch         | mm | Inch         | mm | Inch         | mm   |
| CXDCR 0300AP | 06926 |          |                 | 3.0 | .1181   |         | 3.0 |      | 66 |              | 28 |              | 23 |              | 0.46 |
| CXDCR 1200AP | 06927 |          | #31             |     | .1200   | 1/8     |     | 2.60 |    | 1.102        |    | 0.906        |    | 0.019        |      |
| CXDCR 0310AP | 06928 |          |                 | 3.1 | .1220   |         | 4.0 |      | 66 |              | 28 |              | 23 |              | 0.48 |
| CXDCR 1250AP | 06929 | 1/8      |                 |     | .1250   | 1/8     |     | 2.60 |    | 1.102        |    | 0.906        |    | 0.019        |      |
| CXDCR 0320AP | 06930 |          |                 | 3.2 | .1260   |         | 4.0 |      | 66 |              | 28 |              | 23 |              | 0.50 |
| CXDCR 1285AP | 06931 |          | #30             |     | .1285   | 5/32    |     | 2.60 |    | 1.102        |    | 0.906        |    | 0.020        |      |
| CXDCR 0330AP | 06932 |          |                 | 3.3 | .1299   |         | 4.0 |      | 66 |              | 28 |              | 23 |              | 0.51 |
| CXDCR 0340AP | 06933 |          |                 | 3.4 | .1339   |         | 4.0 |      | 66 |              | 28 |              | 23 |              | 0.53 |
| CXDCR 1360AP | 06934 |          | #29             |     | .1360   | 5/32    |     | 2.60 |    | 1.102        |    | 0.906        |    | 0.021        |      |
| CXDCR 0350AP | 06935 |          |                 | 3.5 | .1378   |         | 4.0 |      | 66 |              | 28 |              | 23 |              | 0.54 |
| CXDCR 1406AP | 06936 | 9/64     |                 |     | .1406   | 5/32    |     | 2.60 |    | 1.102        |    | 0.906        |    | 0.022        |      |
| CXDCR 0360AP | 06937 |          |                 | 3.6 | .1417   |         | 4.0 |      | 66 |              | 28 |              | 23 |              | 0.56 |
| CXDCR 0370AP | 06938 |          |                 | 3.7 | .1457   |         | 4.0 |      | 66 |              | 28 |              | 23 |              | 0.57 |
| CXDCR 0380AP | 06939 |          |                 | 3.8 | .1496   |         | 4.0 |      | 74 |              | 36 |              | 29 |              | 0.59 |
| CXDCR 1520AP | 06940 |          | #24             |     | .1520   | 5/32    |     | 2.91 |    | 1.417        |    | 1.142        |    | 0.024        |      |
| CXDCR 0390AP | 06941 |          |                 | 3.9 | .1535   |         | 4.0 |      | 74 |              | 36 |              | 29 |              | 0.60 |
| CXDCR 1562AP | 06942 | 5/32     |                 |     | .1562   | 5/32    |     | 2.91 |    | 1.417        |    | 1.142        |    | 0.024        |      |
| CXDCR 0400AP | 06943 |          |                 | 4.0 | .1575   |         | 4.0 |      | 74 |              | 36 |              | 29 |              | 0.62 |
| CXDCR 1590AP | 06944 |          | #21             |     | .1590   | 3/16    |     | 2.91 |    | 1.417        |    | 1.142        |    | 0.025        |      |
| CXDCR 0410AP | 06945 |          |                 | 4.1 | .1614   |         | 5.0 |      | 74 |              | 36 |              | 29 |              | 0.64 |
| CXDCR 0420AP | 06946 |          |                 | 4.2 | .1654   |         | 5.0 |      | 74 |              | 36 |              | 29 |              | 0.65 |
| CXDCR 0430AP | 06947 |          |                 | 4.3 | .1693   |         | 5.0 |      | 74 |              | 36 |              | 29 |              | 0.67 |
| CXDCR 1719AP | 06948 | 11/64    |                 |     | .1719   | 3/16    |     | 2.91 |    | 1.417        |    | 1.142        |    | 0.027        |      |
| CXDCR 0440AP | 06949 |          |                 | 4.4 | .1732   |         | 5.0 |      | 74 |              | 36 |              | 29 |              | 0.68 |
| CXDCR 0450AP | 06950 |          |                 | 4.5 | .1772   |         | 5.0 |      | 74 |              | 36 |              | 29 |              | 0.70 |
| CXDCR 0460AP | 06951 |          |                 | 4.6 | .1811   |         | 5.0 |      | 74 |              | 36 |              | 29 |              | 0.71 |
| CXDCR 0470AP | 06952 |          |                 | 4.7 | .1850   |         | 5.0 |      | 74 |              | 36 |              | 29 |              | 0.73 |
| CXDCR 1875AP | 06953 | 3/16     |                 |     | .1875   | 3/16    |     | 3.23 |    | 1.732        |    | 1.378        |    | 0.029        |      |
| CXDCR 0480AP | 06954 |          |                 | 4.8 | .1890   |         | 5.0 |      | 82 |              | 44 |              | 35 |              | 0.74 |
| CXDCR 0490AP | 06955 |          |                 | 4.9 | .1929   |         | 5.0 |      | 82 |              | 44 |              | 35 |              | 0.76 |
| CXDCR 0500AP | 06956 |          |                 | 5.0 | .1968   |         | 5.0 |      | 82 |              | 44 |              | 35 |              | 0.77 |
| CXDCR 0510AP | 06957 |          |                 | 5.1 | .2008   |         | 6.0 |      | 82 |              | 44 |              | 35 |              | 0.79 |
| CXDCR 2031AP | 06958 | 13/64    |                 |     | .2031   | 1/4     |     | 3.23 |    | 1.732        |    | 1.378        |    | 0.031        |      |
| CXDCR 0520AP | 06959 |          |                 | 5.2 | .2047   |         | 6.0 |      | 82 |              | 44 |              | 35 |              | 0.81 |

| Inch          |                 | Inch          |                |
|---------------|-----------------|---------------|----------------|
| D1            | Tolerance (m7)  | D2            | Tolerance (h6) |
| .0000 - .1181 | +0.0008/+0.0047 | .0000 - .1181 | +0/-0.0024     |
| .1182 - .2362 | +0.0016/+0.0063 | .1182 - .2362 | +0/-0.0031     |
| .2363 - .3937 | +0.0024/+0.0083 | .2363 - .3937 | +0/-0.0035     |
| .3938 - .7087 | +0.0027/+0.0098 | .3938 - .7087 | +0/-0.0043     |
| .7088 - .7500 | +0.0031/+0.0114 | .7088 - .7500 | +0/-0.0051     |

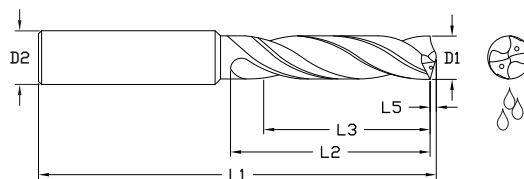
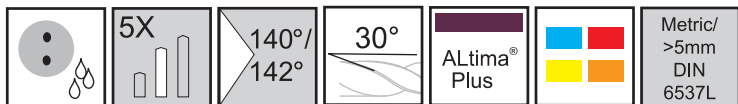
| Inch         |                | Metric (mm)  |                |
|--------------|----------------|--------------|----------------|
| D1           | Tolerance (m7) | D2           | Tolerance (h6) |
| 0 - 3.0      | +0.002/+0.012  | 0 - 3.0      | +0/-0.006      |
| 3.01 - 6.0   | +0.004/+0.016  | 3.01 - 6.0   | +0/-0.008      |
| 6.01 - 10.0  | +0.006/+0.021  | 6.01 - 10.0  | +0/-0.009      |
| 10.01 - 18.0 | +0.007/+0.025  | 10.01 - 18.0 | +0/-0.011      |
| 18.01 - 20.0 | +0.008/+0.029  | 18.01 - 20.0 | +0/-0.013      |

| Metric (mm)  |                | Metric (mm)  |                |
|--------------|----------------|--------------|----------------|
| D1           | Tolerance (m7) | D2           | Tolerance (h6) |
| 0 - 3.0      | +0.002/+0.012  | 0 - 3.0      | +0/-0.006      |
| 3.01 - 6.0   | +0.004/+0.016  | 3.01 - 6.0   | +0/-0.008      |
| 6.01 - 10.0  | +0.006/+0.021  | 6.01 - 10.0  | +0/-0.009      |
| 10.01 - 18.0 | +0.007/+0.025  | 10.01 - 18.0 | +0/-0.011      |
| 18.01 - 20.0 | +0.008/+0.029  | 18.01 - 20.0 | +0/-0.013      |

| Metric (mm)  |                | Metric (mm)  |                |
|--------------|----------------|--------------|----------------|
| D1           | Tolerance (m7) | D2           | Tolerance (h6) |
| 0 - 3.0      | +0.002/+0.012  | 0 - 3.0      | +0/-0.006      |
| 3.01 - 6.0   | +0.004/+0.016  | 3.01 - 6.0   | +0/-0.008      |
| 6.01 - 10.0  | +0.006/+0.021  | 6.01 - 10.0  | +0/-0.009      |
| 10.01 - 18.0 | +0.007/+0.025  | 10.01 - 18.0 | +0/-0.011      |
| 18.01 - 20.0 | +0.008/+0.029  | 18.01 - 20.0 | +0/-0.013      |



# Series CXDCR Continued



| ALtima® Plus |       | Diameter |                 |     |         | Shank   |      | OAL  |    | Flute Length |    | Drill Length |    | Point Length |    |
|--------------|-------|----------|-----------------|-----|---------|---------|------|------|----|--------------|----|--------------|----|--------------|----|
|              |       | D1 (m7)  |                 |     |         | D2 (h6) |      | L1   |    | L2 (Max.)    |    | L3 Ref.      |    | L5           |    |
| Tool No.     | EDP   | Inch     | Letter/<br>Wire | mm  | Decimal | Inch    | mm   | Inch | mm | Inch         | mm | Inch         | mm | Inch         | mm |
| CXDCR 0530AP | 06960 |          |                 | 5.3 | .2087   | 6.0     | 6.0  | 82   |    | 44           |    | 35           |    | 0.82         |    |
| CXDCR 0540AP | 06961 |          |                 | 5.4 | .2126   | 6.0     | 6.0  | 82   |    | 44           |    | 35           |    | 0.84         |    |
| CXDCR 0550AP | 06962 |          |                 | 5.5 | .2165   | 6.0     | 6.0  | 82   |    | 44           |    | 35           |    | 0.85         |    |
| CXDCR2187AP  | 06963 | 7/32     |                 |     | .2187   | 1/4     |      | 3.23 |    | 1.732        |    | 1.378        |    | 0.034        |    |
| CXDCR 0560AP | 07094 |          |                 | 5.6 | .2205   | 6.0     | 6.0  | 82   |    | 44           |    | 35           |    | 0.86         |    |
| CXDCR2210AP  | 06964 |          | #2              |     | .2210   | 1/4     |      | 3.23 |    | 1.732        |    | 1.378        |    | 0.034        |    |
| CXDCR 0570AP | 06965 |          |                 | 5.7 | .2244   | 6.0     | 6.0  | 82   |    | 44           |    | 35           |    | 0.88         |    |
| CXDCR 0580AP | 06966 |          |                 | 5.8 | .2283   | 6.0     | 6.0  | 82   |    | 44           |    | 35           |    | 0.90         |    |
| CXDCR 0590AP | 06967 |          |                 | 5.9 | .2323   | 6.0     | 6.0  | 82   |    | 44           |    | 35           |    | 0.91         |    |
| CXDCR2344AP  | 06968 | 15/64    |                 |     | .2344   | 1/4     |      | 3.23 |    | 1.732        |    | 1.378        |    | 0.036        |    |
| CXDCR 0600AP | 06969 |          |                 | 6.0 | .2362   | 6.0     | 6.0  | 82   |    | 44           |    | 35           |    | 0.93         |    |
| CXDCR 0610AP | 06970 |          |                 | 6.1 | .2402   | 8.0     | 8.0  | 91   |    | 53           |    | 43           |    | 0.95         |    |
| CXDCR2420AP  | 06971 |          | C               |     | .2420   | 1/4     |      | 3.58 |    | 2.087        |    | 1.693        |    | 0.037        |    |
| CXDCR 0620AP | 06972 |          |                 | 6.2 | .2441   | 8.0     | 8.0  | 91   |    | 53           |    | 43           |    | 0.96         |    |
| CXDCR2460AP  | 06973 |          | D               |     | .2460   | 1/4     |      | 3.58 |    | 2.087        |    | 1.693        |    | 0.038        |    |
| CXDCR 0630AP | 06974 |          |                 | 6.3 | .2480   | 8.0     | 8.0  | 91   |    | 53           |    | 43           |    | 0.98         |    |
| CXDCR2500AP  | 06975 | 1/4      |                 |     | .2500   | 1/4     |      | 3.58 |    | 2.087        |    | 1.693        |    | 0.039        |    |
| CXDCR 0640AP | 06976 |          |                 | 6.4 | .2520   | 8.0     | 8.0  | 91   |    | 53           |    | 43           |    | 0.99         |    |
| CXDCR 0650AP | 06977 |          |                 | 6.5 | .2559   | 8.0     | 8.0  | 91   |    | 53           |    | 43           |    | 1.01         |    |
| CXDCR2570AP  | 06978 |          | F               |     | .2570   | 5/16    |      | 3.58 |    | 2.087        |    | 1.693        |    | 0.040        |    |
| CXDCR 0660AP | 06979 |          |                 | 6.6 | .2598   | 8.0     | 8.0  | 91   |    | 53           |    | 43           |    | 1.03         |    |
| CXDCR2610AP  | 06980 |          | G               |     | .2610   | 5/16    |      | 3.58 |    | 2.087        |    | 1.693        |    | 0.040        |    |
| CXDCR 0670AP | 06981 |          |                 | 6.7 | .2638   | 8.0     | 8.0  | 91   |    | 53           |    | 43           |    | 1.04         |    |
| CXDCR2656AP  | 06982 | 17/64    |                 |     | .2656   | 5/16    |      | 3.58 |    | 2.087        |    | 1.693        |    | 0.041        |    |
| CXDCR 0680AP | 06983 |          |                 | 6.8 | .2677   | 8.0     | 8.0  | 91   |    | 53           |    | 43           |    | 1.05         |    |
| CXDCR 0690AP | 06984 |          |                 | 6.9 | .2717   | 8.0     | 8.0  | 91   |    | 53           |    | 43           |    | 1.07         |    |
| CXDCR 0700AP | 06985 |          |                 | 7.0 | .2756   | 8.0     | 8.0  | 91   |    | 53           |    | 43           |    | 1.08         |    |
| CXDCR 0710AP | 06986 |          |                 | 7.1 | .2795   | 8.0     | 8.0  | 91   |    | 53           |    | 43           |    | 1.10         |    |
| CXDCR2812AP  | 06987 | 9/32     |                 |     | .2812   | 5/16    |      | 3.58 |    | 2.087        |    | 1.693        |    | 0.044        |    |
| CXDCR 0720AP | 06988 |          |                 | 7.2 | .2835   | 8.0     | 8.0  | 91   |    | 53           |    | 43           |    | 1.12         |    |
| CXDCR 0730AP | 06989 |          |                 | 7.3 | .2874   | 8.0     | 8.0  | 91   |    | 53           |    | 43           |    | 1.13         |    |
| CXDCR 0740AP | 06990 |          |                 | 7.4 | .2913   | 8.0     | 8.0  | 91   |    | 53           |    | 43           |    | 1.15         |    |
| CXDCR 0750AP | 06991 |          |                 | 7.5 | .2953   | 8.0     | 8.0  | 91   |    | 53           |    | 43           |    | 1.16         |    |
| CXDCR2969AP  | 06992 | 19/64    |                 |     | .2969   | 5/16    |      | 3.58 |    | 2.087        |    | 1.693        |    | 0.046        |    |
| CXDCR 0760AP | 06993 |          |                 | 7.6 | .2992   | 8.0     | 8.0  | 91   |    | 53           |    | 43           |    | 1.18         |    |
| CXDCR 0770AP | 06994 |          |                 | 7.7 | .3031   | 8.0     | 8.0  | 91   |    | 53           |    | 43           |    | 1.19         |    |
| CXDCR 0780AP | 06995 |          |                 | 7.8 | .3071   | 8.0     | 8.0  | 91   |    | 53           |    | 43           |    | 1.21         |    |
| CXDCR 0790AP | 06996 |          |                 | 7.9 | .3110   | 8.0     | 8.0  | 91   |    | 53           |    | 43           |    | 1.22         |    |
| CXDCR3125AP  | 06997 | 5/16     |                 |     | .3125   | 5/16    |      | 3.58 |    | 2.087        |    | 1.693        |    | 0.048        |    |
| CXDCR 0800AP | 06998 |          |                 | 8.0 | .3150   | 8.0     | 8.0  | 91   |    | 53           |    | 43           |    | 1.24         |    |
| CXDCR 0810AP | 06999 |          |                 | 8.1 | .3189   | 10.0    | 10.0 | 103  |    | 61           |    | 49           |    | 1.26         |    |
| CXDCR 0820AP | 07000 |          |                 | 8.2 | .3228   | 10.0    | 10.0 | 103  |    | 61           |    | 49           |    | 1.27         |    |
| CXDCR 0830AP | 07001 |          |                 | 8.3 | .3268   | 10.0    | 10.0 | 103  |    | 61           |    | 49           |    | 1.29         |    |
| CXDCR3281AP  | 07002 | 21/64    |                 |     | .3281   | 3/8     |      | 4.06 |    | 2.402        |    | 1.929        |    | 0.051        |    |
| CXDCR 0840AP | 07003 |          |                 | 8.4 | .3307   | 10.0    | 10.0 | 103  |    | 61           |    | 49           |    | 1.31         |    |
| CXDCR3320AP  | 07004 |          | Q               |     | .3320   | 3/8     |      | 4.06 |    | 2.402        |    | 1.929        |    | 0.051        |    |



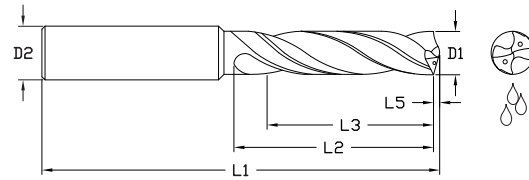
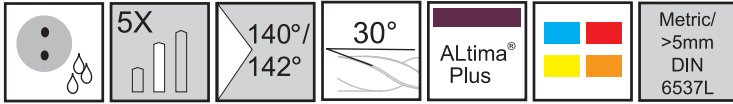


# Series CXDCR Continued

| ALtima® Plus |       | Diameter |                 |       |         | Shank   |      | OAL  |     | Flute Length |    | Drill Length |    | Point Length |      |
|--------------|-------|----------|-----------------|-------|---------|---------|------|------|-----|--------------|----|--------------|----|--------------|------|
|              |       | D1 (m7)  |                 |       |         | D2 (h6) |      | L1   |     | L2 (Max.)    |    | L3 Ref.      |    | L5           |      |
| Tool No.     | EDP   | Inch     | Letter/<br>Wire | mm    | Decimal | Inch    | mm   | Inch | mm  | Inch         | mm | Inch         | mm | Inch         | mm   |
| CXDCR 0850AP | 07005 |          |                 | 8.5   | .3346   |         | 10.0 |      | 103 |              | 61 |              | 49 |              | 1.32 |
| CXDCR 0860AP | 07006 |          |                 | 8.6   | .3386   |         | 10.0 |      | 103 |              | 61 |              | 49 |              | 1.33 |
| CXDCR 0870AP | 07007 |          |                 | 8.7   | .3425   |         | 10.0 |      | 103 |              | 61 |              | 49 |              | 1.35 |
| CXDCR3438AP  | 07008 | 11/32    |                 |       | .3438   | 3/8     |      | 4.06 |     | 2.402        |    | 1.929        |    | 0.053        |      |
| CXDCR 0880AP | 07009 |          |                 | 8.8   | .3465   |         | 10.0 |      | 103 |              | 61 |              | 49 |              | 1.36 |
| CXDCR 0890AP | 07010 |          |                 | 8.9   | .3504   |         | 10.0 |      | 103 |              | 61 |              | 49 |              | 1.38 |
| CXDCR 0900AP | 07011 |          |                 | 9.0   | .3543   |         | 10.0 |      | 103 |              | 61 |              | 49 |              | 1.39 |
| CXDCR 0910AP | 07012 |          |                 | 9.1   | .3583   |         | 10.0 |      | 103 |              | 61 |              | 49 |              | 1.41 |
| CXDCR3594AP  | 07013 | 23/64    |                 |       | .3594   | 3/8     |      | 4.06 |     | 2.402        |    | 1.929        |    | 0.056        |      |
| CXDCR 0920AP | 07014 |          |                 | 9.2   | .3622   |         | 10.0 |      | 103 |              | 61 |              | 49 |              | 1.43 |
| CXDCR 0925AP | 07015 |          |                 | 9.25  | .3642   |         | 10.0 |      | 103 |              | 61 |              | 49 |              | 1.43 |
| CXDCR 0930AP | 07016 |          |                 | 9.3   | .3661   |         | 10.0 |      | 103 |              | 61 |              | 49 |              | 1.44 |
| CXDCR 0940AP | 07017 |          |                 | 9.4   | .3701   |         | 10.0 |      | 103 |              | 61 |              | 49 |              | 1.46 |
| CXDCR 0950AP | 07018 |          |                 | 9.5   | .3740   |         | 10.0 |      | 103 |              | 61 |              | 49 |              | 1.47 |
| CXDCR3750AP  | 07019 | 3/8      |                 |       | .3750   | 3/8     |      | 4.06 |     | 2.402        |    | 1.929        |    | 0.058        |      |
| CXDCR 0960AP | 07020 |          |                 | 9.6   | .3780   |         | 10.0 |      | 103 |              | 61 |              | 49 |              | 1.49 |
| CXDCR 0970AP | 07021 |          |                 | 9.7   | .3819   |         | 10.0 |      | 103 |              | 61 |              | 49 |              | 1.50 |
| CXDCR 0980AP | 07022 |          |                 | 9.8   | .3858   |         | 10.0 |      | 103 |              | 61 |              | 49 |              | 1.52 |
| CXDCR 0990AP | 07023 |          |                 | 9.9   | .3898   |         | 10.0 |      | 103 |              | 61 |              | 49 |              | 1.53 |
| CXDCR3906AP  | 07024 | 25/64    |                 |       | .3906   | 7/16    |      | 4.06 |     | 2.402        |    | 1.929        |    | 0.061        |      |
| CXDCR 1000AP | 07025 |          |                 | 10.0  | .3937   |         | 10.0 |      | 103 |              | 61 |              | 49 |              | 1.55 |
| CXDCR 1010AP | 07026 |          |                 | 10.1  | .3976   |         | 12.0 |      | 118 |              | 71 |              | 56 |              | 1.56 |
| CXDCR 1020AP | 07027 |          |                 | 10.2  | .4016   |         | 12.0 |      | 118 |              | 71 |              | 56 |              | 1.58 |
| CXDCR 1030AP | 07028 |          |                 | 10.3  | .4055   |         | 12.0 |      | 118 |              | 71 |              | 56 |              | 1.60 |
| CXDCR4062AP  | 07029 | 13/32    |                 |       | .4062   | 7/16    |      | 4.65 |     | 2.795        |    | 2.205        |    | 0.063        |      |
| CXDCR 1040AP | 07030 |          |                 | 10.4  | .4094   |         | 12.0 |      | 118 |              | 71 |              | 56 |              | 1.61 |
| CXDCR 1050AP | 07031 |          |                 | 10.5  | .4134   |         | 12.0 |      | 118 |              | 71 |              | 56 |              | 1.63 |
| CXDCR 1060AP | 07032 |          |                 | 10.6  | .4173   |         | 12.0 |      | 118 |              | 71 |              | 56 |              | 1.64 |
| CXDCR 1070AP | 07033 |          |                 | 10.7  | .4213   |         | 12.0 |      | 118 |              | 71 |              | 56 |              | 1.66 |
| CXDCR4219AP  | 07034 | 27/64    |                 |       | .4219   | 7/16    |      | 4.65 |     | 2.795        |    | 2.205        |    | 0.065        |      |
| CXDCR 1080AP | 07035 |          |                 | 10.8  | .4252   |         | 12.0 |      | 118 |              | 71 |              | 56 |              | 1.67 |
| CXDCR 1090AP | 07036 |          |                 | 10.9  | .4291   |         | 12.0 |      | 118 |              | 71 |              | 56 |              | 1.69 |
| CXDCR 1100AP | 07037 |          |                 | 11.0  | .4331   |         | 12.0 |      | 118 |              | 71 |              | 56 |              | 1.70 |
| CXDCR 1110AP | 07038 |          |                 | 11.1  | .4370   |         | 12.0 |      | 118 |              | 71 |              | 56 |              | 1.72 |
| CXDCR4375AP  | 07039 | 7/16     |                 |       | .4375   | 7/16    |      | 4.65 |     | 2.795        |    | 2.205        |    | 0.068        |      |
| CXDCR 1120AP | 07040 |          |                 | 11.2  | .4409   |         | 12.0 |      | 118 |              | 71 |              | 56 |              | 1.74 |
| CXDCR 1130AP | 07041 |          |                 | 11.3  | .4449   |         | 12.0 |      | 118 |              | 71 |              | 56 |              | 1.75 |
| CXDCR 1140AP | 07042 |          |                 | 11.4  | .4488   |         | 12.0 |      | 118 |              | 71 |              | 56 |              | 1.77 |
| CXDCR 1150AP | 07043 |          |                 | 11.5  | .4527   |         | 12.0 |      | 118 |              | 71 |              | 56 |              | 1.78 |
| CXDCR 1160AP | 07044 |          |                 | 11.6  | .4567   |         | 12.0 |      | 118 |              | 71 |              | 56 |              | 1.80 |
| CXDCR 1170AP | 07045 |          |                 | 11.7  | .4606   |         | 12.0 |      | 118 |              | 71 |              | 56 |              | 1.81 |
| CXDCR 1180AP | 07046 |          |                 | 11.8  | .4646   |         | 12.0 |      | 118 |              | 71 |              | 56 |              | 1.83 |
| CXDCR 1190AP | 07047 |          |                 | 11.9  | .4685   |         | 12.0 |      | 118 |              | 71 |              | 56 |              | 1.84 |
| CXDCR4688AP  | 07048 | 15/32    |                 |       | .4688   | 1/2     |      | 4.65 |     | 2.795        |    | 2.205        |    | 0.073        |      |
| CXDCR 1200AP | 07049 |          |                 | 12.0  | .4724   |         | 12.0 |      | 118 |              | 71 |              | 56 |              | 1.86 |
| CXDCR 1210AP | 07050 |          |                 | 12.1  | .4764   |         | 14.0 |      | 124 |              | 77 |              | 60 |              | 1.87 |
| CXDCR4844AP  | 07051 | 31/64    |                 |       | .4844   | 1/2     |      | 4.88 |     | 3.031        |    | 2.362        |    | 0.075        |      |
| CXDCR 1250AP | 07052 |          |                 | 12.5  | .4921   |         | 14.0 |      | 124 |              | 77 |              | 60 |              | 1.94 |
| CXDCR5000AP  | 07053 | 1/2      |                 |       | .5000   | 1/2     |      | 4.88 |     | 3.031        |    | 2.362        |    | 0.077        |      |
| CXDCR 1280AP | 07054 |          |                 | 12.8  | .5039   |         | 14.0 |      | 124 |              | 77 |              | 60 |              | 1.98 |
| CXDCR 1283AP | 07055 |          |                 | 12.83 | .5051   |         | 14.0 |      | 124 |              | 77 |              | 60 |              | 1.99 |
| CXDCR 1290AP | 07056 |          |                 | 12.9  | .5079   |         | 14.0 |      | 124 |              | 77 |              | 60 |              | 2.00 |



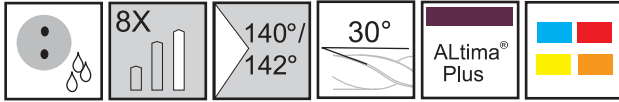
# Series CXDCR Continued



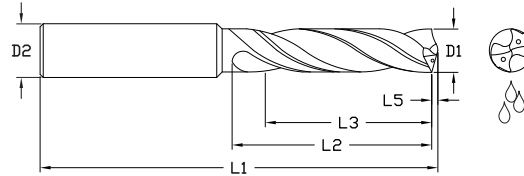
| ALtima® Plus |       | Diameter |                 |       |         | Shank   |      | OAL   |     | Flute Length |     | Drill Length |    | Point Length |      |
|--------------|-------|----------|-----------------|-------|---------|---------|------|-------|-----|--------------|-----|--------------|----|--------------|------|
|              |       | D1 (m7)  |                 |       |         | D2 (h6) |      | L1    |     | L2 (Max.)    |     | L3 Ref.      |    | L5           |      |
| Tool No.     | EDP   | Inch     | Letter/<br>Wire | mm    | Decimal | Inch    | mm   | Inch  | mm  | Inch         | mm  | Inch         | mm | Inch         | mm   |
| CXDCR 1300AP | 07057 |          |                 | 13.0  | .5118   |         | 14.0 |       | 124 |              | 77  |              | 60 |              | 2.01 |
| CXDCR5156AP  | 07058 | 33/64    |                 |       | .5156   | 9/16    |      | 4.88  |     | 3.031        |     | 2.362        |    | 0.080        |      |
| CXDCR5312AP  | 07059 | 17/32    |                 |       | .5312   | 9/16    |      | 4.88  |     | 3.031        |     | 2.362        |    | 0.082        |      |
| CXDCR 1350AP | 07060 |          |                 | 13.5  | .5315   |         | 14.0 |       | 124 |              | 77  |              | 60 |              | 2.09 |
| CXDCR 1370AP | 07061 |          |                 | 13.7  | .5394   |         | 14.0 |       | 124 |              | 77  |              | 60 |              | 2.12 |
| CXDCR5469AP  | 07062 | 35/64    |                 |       | .5469   | 9/16    |      | 4.88  |     | 3.031        |     | 2.362        |    | 0.085        |      |
| CXDCR 1400AP | 07063 |          |                 | 14.0  | .5512   |         | 14.0 |       | 124 |              | 77  |              | 60 |              | 2.17 |
| CXDCR5625AP  | 07064 | 9/16     |                 |       | .5625   | 9/16    |      | 5.24  |     | 3.268        |     | 2.480        |    | 0.087        |      |
| CXDCR 1450AP | 07065 |          |                 | 14.5  | .5709   |         | 16.0 |       | 133 |              | 83  |              | 63 |              | 2.25 |
| CXDCR 1470AP | 07066 |          |                 | 14.7  | .5787   |         | 16.0 |       | 133 |              | 83  |              | 63 |              | 2.28 |
| CXDCR 1500AP | 07067 |          |                 | 15.0  | .5905   |         | 16.0 |       | 133 |              | 83  |              | 63 |              | 2.32 |
| CXDCR5938AP  | 07068 | 19/32    |                 |       | .5938   | 5/8     |      | 5.24  |     | 3.268        |     | 2.480        |    | 0.092        |      |
| CXDCR 1530AP | 07069 |          |                 | 15.3  | .6024   |         | 16.0 |       | 133 |              | 83  |              | 63 |              | 2.37 |
| CXDCR 1550AP | 07070 |          |                 | 15.5  | .6102   |         | 16.0 |       | 133 |              | 83  |              | 63 |              | 2.40 |
| CXDCR 1570AP | 07071 |          |                 | 15.7  | .6181   |         | 16.0 |       | 133 |              | 83  |              | 63 |              | 2.43 |
| CXDCR6250AP  | 07072 | 5/8      |                 |       | .6250   | 5/8     |      | 5.24  |     | 3.268        |     | 2.480        |    | 0.097        |      |
| CXDCR 1600AP | 07073 |          |                 | 16.0  | .6299   |         | 16.0 |       | 133 |              | 83  |              | 63 |              | 2.48 |
| CXDCR 1608AP | 07074 |          |                 | 16.08 | .6331   |         | 18.0 |       | 143 |              | 93  |              | 71 |              | 2.49 |
| CXDCR 1630AP | 07075 |          |                 | 16.3  | .6417   |         | 18.0 |       | 143 |              | 93  |              | 71 |              | 2.53 |
| CXDCR 1650AP | 07076 |          |                 | 16.5  | .6496   |         | 18.0 |       | 143 |              | 93  |              | 71 |              | 2.56 |
| CXDCR6562AP  | 07077 | 21/32    |                 |       | .6562   | 11/16   |      | 5.63  |     | 3.661        |     | 2.795        |    | 0.102        |      |
| CXDCR 1700AP | 07078 |          |                 | 17.0  | .6693   |         | 18.0 |       | 143 |              | 93  |              | 71 |              | 2.63 |
| CXDCR6875AP  | 07079 | 11/16    |                 |       | .6875   | 11/16   |      | 5.63  |     | 3.661        |     | 2.795        |    | 0.107        |      |
| CXDCR 1750AP | 07080 |          |                 | 17.5  | .6890   |         | 18.0 |       | 143 |              | 93  |              | 71 |              | 2.71 |
| CXDCR 1800AP | 07081 |          |                 | 18.0  | .7087   |         | 18.0 |       | 143 |              | 93  |              | 71 |              | 2.79 |
| CXDCR 1850AP | 07082 |          |                 | 18.5  | .7283   |         | 20.0 |       | 153 |              | 101 |              | 77 |              | 2.87 |
| CXDCR7500AP  | 07083 | 3/4      |                 |       | .7500   | 3/4     |      | 6.024 |     | 3.976        |     | 3.031        |    | 0.116        |      |
| CXDCR 1916AP | 07084 |          |                 | 19.16 | .7543   |         | 20.0 |       | 153 |              | 101 |              | 77 |              | 2.97 |
| CXDCR 1925AP | 07085 |          |                 | 19.25 | .7579   |         | 20.0 |       | 153 |              | 101 |              | 77 |              | 2.98 |
| CXDCR 1930AP | 07086 |          |                 | 19.3  | .7598   |         | 20.0 |       | 153 |              | 101 |              | 77 |              | 2.99 |
| CXDCR 1950AP | 07087 |          |                 | 19.5  | .7677   |         | 20.0 |       | 153 |              | 101 |              | 77 |              | 3.02 |
| CXDCR 2000AP | 07088 |          |                 | 20.0  | .7874   |         | 20.0 |       | 153 |              | 101 |              | 77 |              | 3.10 |



# Cyclone Series CXDCL



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



| ALtima® Plus |       | Diameter |             |      |         | Shank   | OAL | Flute Length | Drill Length Ref. | Point Length |
|--------------|-------|----------|-------------|------|---------|---------|-----|--------------|-------------------|--------------|
| Tool No.     | EDP   | D1 (m7)  |             |      |         | D2 (h6) | L1  | L2           | L3                | L5           |
|              |       | Inch     | Letter/Wire | mm   | Decimal | mm      | mm  | mm           | mm                | mm           |
| CXDCLM0300AP | 07226 |          |             | 3.0  | .1181   | 3       | 81  | 33           | 25                | 0.46         |
| CXDCL1200AP  | 07227 |          | #31         | 3.05 | .1200   | 4       | 92  | 44           | 33                | 0.48         |
| CXDCLM0310AP | 07098 |          |             | 3.1  | .1220   | 4       | 92  | 44           | 33                | 0.48         |
| CXDCL1250AP  | 07099 | 1/8      |             | 3.18 | .1250   | 4       | 92  | 44           | 33                | 0.48         |
| CXDCLM0320AP | 07100 |          |             | 3.2  | .1260   | 4       | 92  | 44           | 33                | 0.50         |
| CXDCLM0325AP | 07101 |          |             | 3.25 | .1280   | 4       | 92  | 44           | 33                | 0.51         |
| CXDCL1285AP  | 07102 |          | #30         | 3.26 | .1285   | 4       | 92  | 44           | 33                | 0.51         |
| CXDCLM0330AP | 07103 |          |             | 3.3  | .1299   | 4       | 92  | 44           | 33                | 0.51         |
| CXDCLM0340AP | 07104 |          |             | 3.4  | .1339   | 4       | 92  | 44           | 33                | 0.53         |
| CXDCL1360AP  | 07105 |          | #29         | 3.45 | .1360   | 4       | 92  | 44           | 33                | 0.53         |
| CXDCLM0350AP | 07106 |          |             | 3.5  | .1378   | 4       | 92  | 44           | 33                | 0.54         |
| CXDCL1406AP  | 07107 | 9/64     |             | 3.57 | .1406   | 4       | 92  | 44           | 33                | 0.56         |
| CXDCLM0360AP | 07108 |          |             | 3.6  | .1417   | 4       | 92  | 44           | 33                | 0.56         |
| CXDCLM0370AP | 07109 |          |             | 3.7  | .1457   | 4       | 92  | 44           | 33                | 0.57         |
| CXDCL1496AP  | 07110 |          | #25         | 3.8  | .1496   | 4       | 92  | 44           | 33                | 0.59         |
| CXDCL1520AP  | 07111 |          | #24         | 3.86 | .1520   | 4       | 92  | 44           | 33                | 0.60         |
| CXDCLM0390AP | 07112 |          |             | 3.9  | .1535   | 4       | 92  | 44           | 33                | 0.60         |
| CXDCL1562AP  | 07113 | 5/32     |             | 3.97 | .1562   | 4       | 92  | 44           | 33                | 0.61         |
| CXDCLM0400AP | 07114 |          |             | 4.0  | .1575   | 4       | 92  | 44           | 33                | 0.62         |
| CXDCL1590AP  | 07115 |          | #21         | 4.04 | .1590   | 5       | 100 | 45           | 34                | 0.63         |
| CXDCLM0410AP | 07116 |          |             | 4.1  | .1614   | 5       | 100 | 45           | 34                | 0.64         |
| CXDCLM0420AP | 07117 |          |             | 4.2  | .1654   | 5       | 100 | 45           | 34                | 0.65         |
| CXDCLM0430AP | 07118 |          |             | 4.3  | .1693   | 5       | 100 | 45           | 34                | 0.67         |
| CXDCL1719AP  | 07119 | 11/64    |             | 4.37 | .1719   | 5       | 100 | 45           | 34                | 0.68         |
| CXDCLM0440AP | 07120 |          |             | 4.4  | .1732   | 5       | 100 | 45           | 34                | 0.68         |
| CXDCLM0450AP | 07121 |          |             | 4.5  | .1772   | 5       | 100 | 45           | 34                | 0.70         |
| CXDCLM0460AP | 07122 |          |             | 4.6  | .1811   | 5       | 100 | 45           | 34                | 0.71         |
| CXDCLM0465AP | 07123 |          |             | 4.65 | .1831   | 5       | 100 | 45           | 34                | 0.72         |
| CXDCLM0470AP | 07124 |          |             | 4.7  | .1850   | 5       | 100 | 45           | 34                | 0.73         |
| CXDCL1875AP  | 07125 | 3/16     |             | 4.76 | .1875   | 5       | 100 | 45           | 34                | 0.74         |

| Inch          |                 |
|---------------|-----------------|
| D1            | Tolerance (m7)  |
| .0000 - .1181 | +0.0008/+0.0047 |
| .1182 - .2362 | +0.0016/+0.0063 |
| .2363 - .3937 | +0.0024/+0.0083 |
| .3938 - .5000 | +0.0027/+0.0098 |

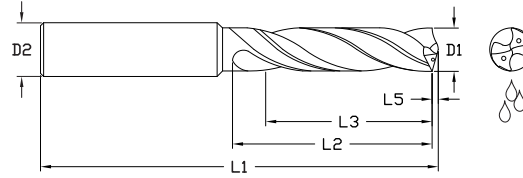
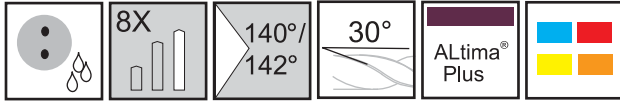
| Inch          |                |
|---------------|----------------|
| D2            | Tolerance (h6) |
| .0000 - .1181 | +0/-0.0024     |
| .1182 - .2362 | +0/-0.0031     |
| .2363 - .3937 | +0/-0.0035     |
| .3938 - .5000 | +0/-0.0043     |

| Metric (mm)  |                |
|--------------|----------------|
| D1           | Tolerance (m7) |
| 0 - 3.0      | +0.02/+0.12    |
| 3.01 - 6.0   | +0.04/+0.16    |
| 6.01 - 10.0  | +0.06/+0.21    |
| 10.01 - 12.7 | +0.07/+0.25    |

| Metric (mm)  |                |
|--------------|----------------|
| D2           | Tolerance (h6) |
| 0 - 3.0      | +0/-0.006      |
| 3.01 - 6.0   | +0/-0.008      |
| 6.01 - 10.0  | +0/-0.009      |
| 10.01 - 12.7 | +0/-0.011      |



# Series CXDCL Continued



| ALtima® Plus |       | Diameter |             |      |         | Shank   | OAL | Flute Length | Drill Length Ref. | Point Length |
|--------------|-------|----------|-------------|------|---------|---------|-----|--------------|-------------------|--------------|
|              |       | D1 (m7)  |             |      |         | D2 (h6) | L1  | L2           | L3                | L5           |
| Tool No.     | EDP   | Inch     | Letter/Wire | mm   | Decimal | mm      | mm  | mm           | mm                | mm           |
| CXDCLM0480AP | 07126 |          |             | 4.8  | .1890   | 5       | 100 | 50           | 38                | 0.74         |
| CXDCLM0490AP | 07127 |          |             | 4.9  | .1929   | 5       | 100 | 50           | 38                | 0.76         |
| CXDCLM0500AP | 07128 |          |             | 5.0  | .1968   | 5       | 100 | 50           | 38                | 0.77         |
| CXDCLM0510AP | 07129 |          |             | 5.1  | .2008   | 6       | 100 | 57           | 43                | 0.79         |
| CXDCL2031AP  | 07130 | 13/64    |             | 5.16 | .2031   | 6       | 100 | 57           | 43                | 0.79         |
| CXDCLM0520AP | 07131 |          |             | 5.2  | .2047   | 6       | 100 | 57           | 43                | 0.81         |
| CXDCLM0530AP | 07132 |          |             | 5.3  | .2087   | 6       | 100 | 57           | 43                | 0.82         |
| CXDCLM0540AP | 07133 |          |             | 5.4  | .2126   | 6       | 100 | 57           | 43                | 0.84         |
| CXDCLM0550AP | 07134 |          |             | 5.5  | .2165   | 6       | 100 | 57           | 43                | 0.85         |
| CXDCL2187AP  | 07135 | 7/32     |             | 5.56 | .2187   | 6       | 100 | 57           | 43                | 0.86         |
| CXDCLM0560AP | 07136 |          |             | 5.6  | .2205   | 6       | 100 | 57           | 43                | 0.86         |
| CXDCL2210AP  | 07137 |          | #2          | 5.61 | .2210   | 6       | 100 | 57           | 43                | 0.86         |
| CXDCLM0570AP | 07138 |          |             | 5.7  | .2244   | 6       | 100 | 57           | 43                | 0.88         |
| CXDCLM0580AP | 07139 |          |             | 5.8  | .2283   | 6       | 100 | 57           | 43                | 0.90         |
| CXDCLM0590AP | 07140 |          |             | 5.9  | .2323   | 6       | 100 | 57           | 43                | 0.91         |
| CXDCL2344AP  | 07141 | 15/64    |             | 5.95 | .2344   | 6       | 100 | 57           | 43                | 0.91         |
| CXDCLM0600AP | 07142 |          |             | 6.0  | .2362   | 6       | 100 | 57           | 43                | 0.93         |
| CXDCLM0610AP | 07143 |          |             | 6.1  | .2402   | 8       | 118 | 76           | 57                | 0.95         |
| CXDCL2420AP  | 07144 |          | C           | 6.15 | .2420   | 8       | 118 | 76           | 57                | 0.95         |
| CXDCLM0620AP | 07145 |          |             | 6.2  | .2441   | 8       | 118 | 76           | 57                | 0.96         |
| CXDCL2460AP  | 07146 |          | D           | 6.25 | .2460   | 8       | 118 | 76           | 57                | .097         |
| CXDCLM0630AP | 07147 |          |             | 6.3  | .2480   | 8       | 118 | 76           | 57                | 0.98         |
| CXDCL2500AP  | 07148 | 1/4      |             | 6.35 | .2500   | 8       | 118 | 76           | 57                | 0.99         |
| CXDCLM0640AP | 07149 |          |             | 6.4  | .2520   | 8       | 118 | 76           | 57                | 0.99         |
| CXDCLM0650AP | 07150 |          |             | 6.5  | .2559   | 8       | 118 | 76           | 57                | 1.01         |
| CXDCL2570AP  | 07151 |          | F           | 6.53 | .2570   | 8       | 118 | 76           | 57                | 1.03         |
| CXDCLM0660AP | 07152 |          |             | 6.6  | .2598   | 8       | 118 | 76           | 57                | 1.03         |
| CXDCL2610AP  | 07153 |          | G           | 6.63 | .2610   | 8       | 118 | 76           | 57                | 1.03         |
| CXDCLM0670AP | 07154 |          |             | 6.7  | .2638   | 8       | 118 | 76           | 57                | 1.04         |
| CXDCL2656AP  | 07155 | 17/64    |             | 6.75 | .2656   | 8       | 118 | 76           | 57                | 1.04         |
| CXDCLM0680AP | 07156 |          |             | 6.8  | .2677   | 8       | 118 | 76           | 57                | 1.05         |
| CXDCLM0690AP | 07157 |          |             | 6.9  | .2717   | 8       | 118 | 76           | 57                | 1.07         |
| CXDCLM0700AP | 07158 |          |             | 7.0  | .2756   | 8       | 118 | 76           | 57                | 1.08         |
| CXDCLM0710AP | 07159 |          |             | 7.1  | .2795   | 8       | 118 | 76           | 57                | 1.10         |
| CXDCL2812AP  | 07160 | 9/32     |             | 7.14 | .2812   | 8       | 118 | 76           | 57                | 1.12         |
| CXDCLM0720AP | 07161 |          |             | 7.2  | .2835   | 8       | 118 | 76           | 57                | 1.12         |
| CXDCLM0730AP | 07162 |          |             | 7.3  | .2874   | 8       | 118 | 76           | 57                | 1.13         |
| CXDCLM0740AP | 07163 |          |             | 7.4  | .2913   | 8       | 118 | 76           | 57                | 1.15         |

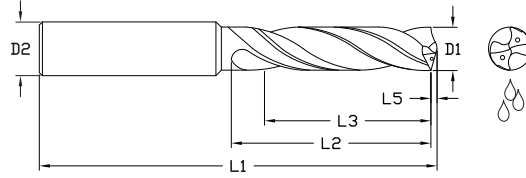
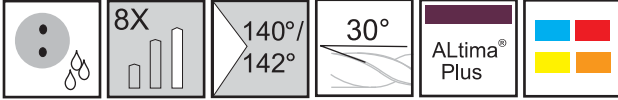


# Series CXDCL Continued

| ALtima® Plus |       | Diameter |             |       |         | Shank   | OAL | Flute Length | Drill Length Ref. | Point Length |
|--------------|-------|----------|-------------|-------|---------|---------|-----|--------------|-------------------|--------------|
|              |       | D1 (m7)  |             |       |         | D2 (h6) | L1  | L2           | L3                | L5           |
| Tool No.     | EDP   | Inch     | Letter/Wire | mm    | Decimal | mm      | mm  | mm           | mm                | mm           |
| CXDCLM0750AP | 07164 |          |             | 7.5   | .2953   | 8       | 118 | 76           | 57                | 1.16         |
| CXDCL2969AP  | 07165 | 19/64    |             | 7.54  | .2969   | 8       | 118 | 76           | 57                | 1.17         |
| CXDCLM0760AP | 07166 |          |             | 7.6   | .2992   | 8       | 118 | 76           | 57                | 1.18         |
| CXDCLM0770AP | 07167 |          |             | 7.7   | .3031   | 8       | 118 | 76           | 57                | 1.19         |
| CXDCLM0780AP | 07168 |          |             | 7.8   | .3071   | 8       | 118 | 76           | 57                | 1.21         |
| CXDCLM0790AP | 07169 |          |             | 7.9   | .3110   | 8       | 118 | 76           | 57                | 1.22         |
| CXDCL3125AP  | 07170 | 5/16     |             | 7.94  | .3125   | 8       | 118 | 76           | 57                | 1.22         |
| CXDCLM0800AP | 07171 |          |             | 8.0   | .3150   | 8       | 118 | 76           | 57                | 1.24         |
| CXDCLM0810AP | 07172 |          |             | 8.1   | .3189   | 10      | 139 | 87           | 65                | 1.26         |
| CXDCLM0820AP | 07173 |          |             | 8.2   | .3228   | 10      | 139 | 87           | 65                | 1.27         |
| CXDCLM0830AP | 07174 |          |             | 8.3   | .3268   | 10      | 139 | 87           | 65                | 1.29         |
| CXDCL3281AP  | 07175 | 21/64    |             | 8.33  | .3281   | 10      | 139 | 87           | 65                | 1.30         |
| CXDCLM0840AP | 07176 |          |             | 8.4   | .3307   | 10      | 139 | 87           | 65                | 1.31         |
| CXDCL3320AP  | 07177 |          | Q           | 8.43  | .3320   | 10      | 139 | 87           | 65                | 1.31         |
| CXDCLM0850AP | 07178 |          |             | 8.5   | .3346   | 10      | 139 | 87           | 65                | 1.32         |
| CXDCLM0860AP | 07179 |          |             | 8.6   | .3386   | 10      | 139 | 87           | 65                | 1.33         |
| CXDCLM0870AP | 07180 |          |             | 8.7   | .3425   | 10      | 139 | 87           | 65                | 1.35         |
| CXDCL3438AP  | 07181 | 11/32    |             | 8.73  | .3438   | 10      | 139 | 87           | 65                | 1.35         |
| CXDCLM0880AP | 07182 |          |             | 8.8   | .3465   | 10      | 139 | 87           | 65                | 1.36         |
| CXDCLM0890AP | 07183 |          |             | 8.9   | .3504   | 10      | 139 | 87           | 65                | 1.38         |
| CXDCLM0900AP | 07184 |          |             | 9.0   | .3543   | 10      | 139 | 87           | 65                | 1.39         |
| CXDCLM0910AP | 07185 |          |             | 9.1   | .3583   | 10      | 139 | 95           | 71                | 1.41         |
| CXDCL3594AP  | 07186 | 23/64    |             | 9.13  | .3594   | 10      | 139 | 95           | 71                | 1.42         |
| CXDCLM0920AP | 07187 |          |             | 9.2   | .3622   | 10      | 139 | 95           | 71                | 1.43         |
| CXDCLM0925AP | 07188 |          |             | 9.25  | .3642   | 10      | 139 | 95           | 71                | 1.43         |
| CXDCLM0930AP | 07189 |          |             | 9.3   | .3661   | 10      | 139 | 95           | 71                | 1.44         |
| CXDCL3680AP  | 07190 |          | U           | 9.35  | .3680   | 10      | 139 | 95           | 71                | 1.45         |
| CXDCLM0940AP | 07191 |          |             | 9.4   | .3701   | 10      | 139 | 95           | 71                | 1.46         |
| CXDCLM0950AP | 07192 |          |             | 9.5   | .3740   | 10      | 139 | 95           | 71                | 1.47         |
| CXDCL3750AP  | 07193 | 3/8      |             | 9.52  | .3750   | 10      | 139 | 95           | 71                | 1.47         |
| CXDCLM0960AP | 07194 |          |             | 9.6   | .3780   | 10      | 139 | 95           | 71                | 1.49         |
| CXDCLM0970AP | 07195 |          |             | 9.7   | .3819   | 10      | 139 | 95           | 71                | 1.50         |
| CXDCL3858AP  | 07196 |          | W           | 9.8   | .3858   | 10      | 139 | 95           | 71                | 1.52         |
| CXDCLM0990AP | 07197 |          |             | 9.9   | .3898   | 10      | 139 | 95           | 71                | 1.53         |
| CXDCL3906AP  | 07198 | 25/64    |             | 9.92  | .3906   | 10      | 139 | 95           | 71                | 1.55         |
| CXDCLM1000AP | 07199 |          |             | 10.0  | .3937   | 10      | 139 | 95           | 71                | 1.55         |
| CXDCLM1010AP | 07200 |          |             | 10.1  | .3976   | 12      | 155 | 106          | 80                | 1.56         |
| CXDCLM1020AP | 07201 |          |             | 10.2  | .4016   | 12      | 155 | 106          | 80                | 1.58         |
| CXDCLM1030AP | 07202 |          |             | 10.3  | .4055   | 12      | 155 | 106          | 80                | 1.60         |
| CXDCL4062AP  | 07203 | 13/32    |             | 10.32 | .4062   | 12      | 155 | 106          | 80                | 1.60         |
| CXDCLM1040AP | 07204 |          |             | 10.4  | .4094   | 12      | 155 | 106          | 80                | 1.61         |
| CXDCLM1050AP | 07205 |          |             | 10.5  | .4134   | 12      | 155 | 106          | 80                | 1.63         |
| CXDCLM1060AP | 07206 |          |             | 10.6  | .4173   | 12      | 155 | 106          | 80                | 1.64         |
| CXDCLM1070AP | 07207 |          |             | 10.7  | .4213   | 12      | 155 | 106          | 80                | 1.66         |
| CXDCL4219AP  | 07208 | 27/64    |             | 10.72 | .4219   | 12      | 155 | 106          | 80                | 1.65         |
| CXDCLM1080AP | 07209 |          |             | 10.8  | .4252   | 12      | 155 | 106          | 80                | 1.67         |



# Series CXDCL Continued



| ALtima® Plus |       | Diameter |             |       |         | Shank<br>D2 (h6) | OAL<br>L1 | Flute<br>Length<br>L2 | Drill Length<br>Ref.<br>L3 | Point<br>Length<br>L5 |
|--------------|-------|----------|-------------|-------|---------|------------------|-----------|-----------------------|----------------------------|-----------------------|
|              |       | D1 (m7)  |             |       |         |                  |           |                       |                            |                       |
| Tool No.     | EDP   | Inch     | Letter/Wire | mm    | Decimal | mm               | mm        | mm                    | mm                         |                       |
| CXDCLM1090AP | 07210 |          |             | 10.9  | .4291   | 12               | 155       | 106                   | 80                         | 1.69                  |
| CXDCLM1100AP | 07211 |          |             | 11.0  | .4331   | 12               | 155       | 106                   | 80                         | 1.70                  |
| CXDCLM1110AP | 07212 |          |             | 11.1  | .4370   | 12               | 163       | 114                   | 86                         | 1.72                  |
| CXDCL4375AP  | 07213 | 7/16     |             | 11.11 | .4375   | 12               | 163       | 114                   | 86                         | 1.73                  |
| CXDCLM1120AP | 07214 |          |             | 11.2  | .4409   | 12               | 163       | 114                   | 86                         | 1.74                  |
| CXDCLM1130AP | 07215 |          |             | 11.3  | .4449   | 12               | 163       | 114                   | 86                         | 1.75                  |
| CXDCLM1140AP | 07216 |          |             | 11.4  | .4488   | 12               | 163       | 114                   | 86                         | 1.77                  |
| CXDCLM1150AP | 07217 |          |             | 11.5  | .4527   | 12               | 163       | 114                   | 86                         | 1.78                  |
| CXDCLM1160AP | 07218 |          |             | 11.6  | .4567   | 12               | 163       | 114                   | 86                         | 1.80                  |
| CXDCLM1170AP | 07219 |          |             | 11.7  | .4606   | 12               | 163       | 114                   | 86                         | 1.81                  |
| CXDCLM1180AP | 07220 |          |             | 11.8  | .4646   | 12               | 163       | 114                   | 86                         | 1.83                  |
| CXDCLM1190AP | 07221 |          |             | 11.9  | .4685   | 12               | 163       | 114                   | 86                         | 1.84                  |
| CXDCL4688AP  | 07222 | 15/32    |             | 11.91 | .4688   | 12               | 163       | 114                   | 86                         | 1.85                  |
| CXDCLM1200AP | 07223 |          |             | 12.0  | .4724   | 12               | 163       | 114                   | 86                         | 1.86                  |
| CXDCL4844AP  | 07224 | 31/64    |             | 12.3  | .4844   | 14               | 182       | 133                   | 100                        | 1.91                  |
| CXDCL5000AP  | 07225 | 1/2      |             | 12.7  | .5000   | 14               | 182       | 133                   | 100                        | 1.95                  |

### Safety Note

Always wear the appropriate personal protective equipment such as safety glasses and protective clothing when using solid carbide or HSS cutting tools. Machines should be fully guarded.

