

VARIOUS MATERIAL

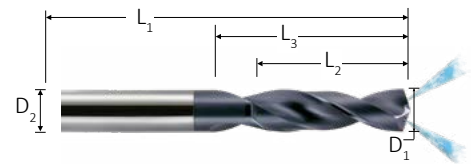
Series: **CDR**

2 FLUTE • 140° POINT COOLANT HOLE DRILL



COOLANT HOLE

- ▶ Designed for use in Steel & Stainless Alloys and Cast Iron
- ▶ Available with 3x, 5x & 7x diameter drill depths
- ▶ Coolant hole is centered in the helix through each flute
- ▶ Has a Self-Centering drill point
- ▶ Unique geometry & honed edge prep minimizes need for pecking
- ▶ Proprietary nACo coating extended tool life over conventional coatings

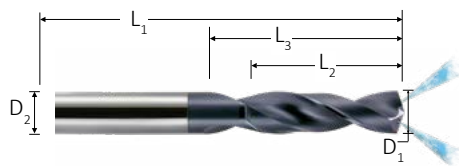


Carbide	2	Center Cutting	30°	nACo	+0.0000 -0.0005	DRILL POINT	HRC <48	P M S	K S
---------	---	----------------	-----	------	--------------------	-------------	---------	-------------	--------

DIA D ₁	SHK D ₂	DRILL LENGTH L ₂	FLUTE LENGTH L ₃	OAL L ₁	PART NAME	nACo EDP	
1/16	0.0625	3mm	0.188	0.234	2.362	CDR-1/16-3X	13166
1/16	0.0625	3mm	0.313	0.391	2.677	CDR-1/16-5X	13212
1/16	0.0625	3mm	0.438	0.547	2.992	CDR-1/16-7X	13258
50	0.0700	3mm	0.394	0.492	2.677	CDR-50-5X	19420
2mm	0.0787	3mm	6.0mm	7.5mm	60mm	CDR-2mm-3X	13167
2mm	0.0787	3mm	10.0mm	12.5mm	68mm	CDR-2mm-5X	13213
2mm	0.0787	3mm	14.0mm	17.5mm	76mm	CDR-2mm-7X	13259
2.1mm	0.0827	3mm	10.5mm	13.1mm	68mm	CDR-2.1mm-5X	14500
2.2mm	0.0866	3mm	11.0mm	13.8mm	68mm	CDR-2.2mm-5X	14501
# 43	0.0890	3mm	0.445	0.556	2.670	CDR-43-5X	19510
2.3mm	0.0906	3mm	11.5mm	14.4mm	68mm	CDR-2.3mm-5X	14502
3/32	0.0938	3mm	0.281	0.352	2.362	CDR-3/32-3X	13168
3/32	0.0938	3mm	0.469	0.586	2.677	CDR-3/32-5X	13214
3/32	0.0938	3mm	0.657	0.821	2.992	CDR-3/32-7X	13260
2.4mm	0.0945	3mm	12.0mm	15.0mm	68mm	CDR-2.4mm-5X	14503
# 40	0.0980	3mm	0.294	0.368	2.362	CDR-40-3X	13169
# 40	0.0980	3mm	0.490	0.613	2.677	CDR-40-5X	13215
# 40	0.0980	3mm	0.686	0.858	2.992	CDR-40-7X	13261
2.5mm	0.0984	3mm	7.5mm	9.4mm	60mm	CDR-2.5mm-3X	13170
2.5mm	0.0984	3mm	12.5mm	15.6mm	68mm	CDR-2.5mm-5X	13216
2.5mm	0.0984	3mm	17.5mm	21.9mm	76mm	CDR-2.5mm-7X	13262
# 38	0.1015	3mm	0.508	0.634	2.677	CDR-38-5X	19511
2.6mm	0.1024	3mm	13.0mm	16.3mm	68mm	CDR-2.6mm-5X	14504
2.7mm	0.1063	3mm	13.5mm	16.9mm	68mm	CDR-2.7mm-5X	14505
# 36	0.1065	3mm	0.320	0.399	2.362	CDR-36-3X	13171
# 36	0.1065	3mm	0.533	0.666	2.677	CDR-36-5X	13217
# 36	0.1065	3mm	0.746	0.932	2.992	CDR-36-7X	13263
7/64	0.1094	3mm	0.328	0.410	2.362	CDR-7/64-3X	13172
7/64	0.1094	3mm	0.547	0.684	2.677	CDR-7/64-5X	13218
7/64	0.1094	3mm	0.766	0.957	2.992	CDR-7/64-7X	13264
2.8mm	0.1102	3mm	14.0mm	17.5mm	68mm	CDR-2.8mm-5X	14506
2.9mm	0.1142	3mm	14.5mm	18.1mm	68mm	CDR-2.9mm-5X	14507
# 32	0.1160	3mm	0.348	0.435	2.362	CDR-32-3X	13173
# 32	0.1160	3mm	0.580	0.725	2.677	CDR-32-5X	13219
# 32	0.1160	3mm	0.812	1.015	2.992	CDR-32-7X	13265
3mm	0.1181	3mm	9.0mm	11.3mm	60mm	CDR-3mm-3X	13174
3mm	0.1181	3mm	15.0mm	18.8mm	68mm	CDR-3mm-5X	13220
3mm	0.1181	3mm	21.0mm	26.3mm	76mm	CDR-3mm-7X	13266

Speed & Feed: page 217

sizes continued on next page

**2 FLUTE • 140° POINT COOLANT HOLE DRILL**

sizes continued from previous page

	DIA D₁	SHK D₂	DRILL LENGTH L₂	FLUTE LENGTH L₃	OAL L₁	PART NAME	nACo EDP
# 31	0.1200	1/8	0.358	0.407	2.362	CDR-31-3X	13175
# 31	0.1200	1/8	0.600	0.750	2.677	CDR-31-5X	13221
# 31	0.1200	1/8	0.990	1.050	2.992	CDR-31-7X	13267
3.1mm	0.1220	4mm	15.5mm	19.4mm	68mm	CDR-3.1mm-5X	14508
1/8	0.1250	1/8	0.375	0.469	2.362	CDR-1/8-3X	13176
1/8	0.1250	1/8	0.625	0.781	2.677	CDR-1/8-5X	13222
1/8	0.1250	1/8	0.875	1.094	2.992	CDR-1/8-7X	13268
3.2mm	0.1260	4mm	16.0mm	20.0mm	72mm	CDR-3.2mm-5X	14509
# 30	0.1285	4mm	0.386	0.482	2.441	CDR-30-3X	13177
# 30	0.1285	4mm	0.643	0.803	2.835	CDR-30-5X	13223
# 30	0.1285	4mm	0.900	1.124	3.189	CDR-30-7X	13269
3.3mm	0.1299	4mm	16.5mm	20.6mm	72mm	CDR-3.3mm-5X	14510
3.4mm	0.1339	4mm	17.0mm	21.3mm	72mm	CDR-3.4mm-5X	14511
# 29	0.1360	4mm	0.409	0.512	2.441	CDR-29-3X	13178
# 29	0.1360	4mm	0.782	0.850	2.835	CDR-29-5X	13224
# 29	0.1360	4mm	0.952	1.190	3.189	CDR-29-7X	13270
3.5mm	0.1378	4mm	17.5mm	21.9mm	72mm	CDR-3.5mm-5X	19512
9/64	0.1406	4mm	0.422	0.527	2.441	CDR-9/64-3X	13179
9/64	0.1406	4mm	0.703	0.879	2.835	CDR-9/64-5X	13225
9/64	0.1406	4mm	0.984	1.230	3.189	CDR-9/64-7X	13271
3.6mm	0.1417	4mm	18.0mm	22.5mm	72mm	CDR-3.6mm-5X	14512
3.7mm	0.1457	4mm	18.5mm	23.1mm	72mm	CDR-3.7mm-5X	14513
# 25	0.1495	4mm	0.748	0.934	2.835	CDR-25-5X	19513
3.8mm	0.1496	4mm	19.0mm	23.8mm	72mm	CDR-3.8mm-5X	14514
3.9mm	0.1535	4mm	19.5mm	24.4mm	72mm	CDR-3.9mm-5X	14515
5/32	0.1563	4mm	0.469	0.586	2.441	CDR-5/32-3X	13180
5/32	0.1563	4mm	0.781	0.977	2.835	CDR-5/32-5X	13226
5/32	0.1563	4mm	1.094	1.367	3.189	CDR-5/32-7X	13272
4mm	0.1575	4mm	12.0mm	15.0mm	62mm	CDR-4mm-3X	13181
4mm	0.1575	4mm	20.0mm	25.0mm	72mm	CDR-4mm-5X	13227
4mm	0.1575	4mm	28.0mm	35.0mm	81mm	CDR-4mm-7X	13273
# 21	0.1590	5mm	0.795	0.994	3.189	CDR-21-5X	19514
4.1mm	0.1614	5mm	20.5mm	25.6mm	81mm	CDR-4.1mm-5X	14516
4.2mm	0.1654	5mm	21.0mm	26.3mm	81mm	CDR-4.2mm-5X	14517
4.3mm	0.1693	5mm	21.5mm	26.9mm	81mm	CDR-4.3mm-5X	14518
11/64	0.1719	5mm	0.516	0.630	2.520	CDR-11/64-3X	19790
11/64	0.1719	5mm	0.860	1.074	3.189	CDR-11/64-5X	19791
11/64	0.1719	5mm	1.203	1.530	3.780	CDR-11/64-7X	19792
4.4mm	0.1732	5mm	22.0mm	27.5mm	81mm	CDR-4.4mm-5X	14520
# 16	0.1770	5mm	0.885	1.106	3.189	CDR-16-5X	19515
4.5mm	0.1772	5mm	13.5mm	16.9mm	64mm	CDR-4.5mm-3X	13182
4.5mm	0.1772	5mm	22.5mm	25.0mm	81mm	CDR-4.5mm-5X	13228
4.5mm	0.1772	5mm	31.5mm	35.0mm	96mm	CDR-4.5mm-7X	13274

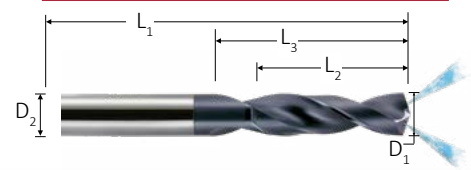
Speed & Feed: page 217

sizes continued on next page

VARIOUS MATERIAL

Series: **CDR**

2 FLUTE • 140° POINT COOLANT HOLE DRILL

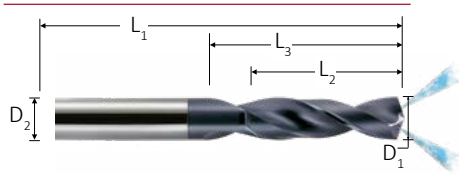


sizes continued from previous page

DIA D ₁		SHK D ₂	DRILL LENGTH L ₂	FLUTE LENGTH L ₃	OAL L ₁	PART NAME	nAco EDP
4.6mm	0.1811	5mm	23.0mm	28.8mm	81mm	CDR-4.6mm-5X	14521
4.7mm	0.1850	5mm	23.5mm	29.4mm	81mm	CDR-4.7mm-5X	14522
3/16	0.1875	5mm	0.563	0.703	2.520	CDR-3/16-3X	13183
3/16	0.1875	5mm	0.938	1.172	3.189	CDR-3/16-5X	13229
3/16	0.1875	5mm	1.313	1.641	3.780	CDR-3/16-7X	13275
4.8mm	0.1890	5mm	24.0mm	30.0mm	81mm	CDR-4.8mm-5X	14523
4.9mm	0.1929	5mm	24.5mm	30.6mm	81mm	CDR-4.9mm-5X	14524
5mm	0.1969	5mm	15.0mm	18.8mm	64mm	CDR-5mm-3X	13184
5mm	0.1969	5mm	25.0mm	31.3mm	81mm	CDR-5mm-5X	13230
5mm	0.1969	5mm	35.0mm	43.8mm	96mm	CDR-5mm-7X	13276
5.1mm	0.2008	6mm	25.5mm	31.9mm	81mm	CDR-5.1mm-5X	14525
# 7	0.2010	6mm	1.004	1.256	3.189	CDR-7-5X	19516
13/64	0.2031	6mm	0.609	0.762	2.559	CDR-13/64-3X	13185
13/64	0.2031	6mm	1.016	1.270	3.189	CDR-13/64-5X	13231
13/64	0.2031	6mm	1.422	1.777	3.780	CDR-13/64-7X	13277
5.2mm	0.2047	6mm	26.0mm	32.5mm	81mm	CDR-5.2mm-5X	14526
5.3mm	0.2087	6mm	26.5mm	33.1mm	81mm	CDR-5.3mm-5X	14527
5.4mm	0.2126	6mm	27.0mm	33.8mm	81mm	CDR-5.4mm-5X	14528
# 3	0.2130	6mm	1.065	1.331	3.189	CDR-3-5X	19517
5.5mm	0.2165	6mm	27.5mm	34.4mm	81mm	CDR-5.5mm-5X	14529
7/32	0.2188	6mm	0.656	0.820	2.559	CDR-7/32-3X	13186
7/32	0.2188	6mm	1.094	1.367	3.189	CDR-7/32-5X	13232
7/32	0.2188	6mm	1.531	1.914	3.780	CDR-7/32-7X	13278
5.6mm	0.2205	6mm	28.0mm	35.0mm	81mm	CDR-5.6mm-5X	14530
5.7mm	0.2244	6mm	28.5mm	35.6mm	81mm	CDR-5.7mm-5X	14531
5.8mm	0.2283	6mm	33.4mm	36.3mm	81mm	CDR-5.8mm-5X	14532
5.9mm	0.2323	6mm	34mm	36.9mm	81mm	CDR-5.9mm-5X	14533
6mm	0.2362	6mm	18.0mm	22.5mm	65mm	CDR-6mm-3X	13187
6mm	0.2362	6mm	30.0mm	37.5mm	81mm	CDR-6mm-5X	13233
6mm	0.2362	6mm	42.0mm	52.5mm	96mm	CDR-6mm-7X	13279
6.1mm	0.2402	8mm	30.5mm	38.1mm	96mm	CDR-6.1mm-5X	14534
6.2mm	0.2441	8mm	31.0mm	38.8mm	96mm	CDR-6.2mm-5X	14535
6.3mm	0.2480	8mm	31.5mm	39.4mm	96mm	CDR-6.3mm-5X	14536
1/4	0.2500	8mm	0.750	0.938	2.992	CDR-1/4-3X	13188
1/4	0.2500	8mm	1.250	1.563	3.780	CDR-1/4-5X	13234
1/4	0.2500	8mm	1.750	2.188	4.567	CDR-1/4-7X	13280
6.4mm	0.2520	8mm	32.0mm	40.0mm	96mm	CDR-6.4mm-5X	14537
6.5mm	0.2559	8mm	32.5mm	40.6mm	96mm	CDR-6.5mm-5X	14538
F	0.2570	8mm	1.285	1.606	3.780	CDR-F-5X	19518
6.6mm	0.2598	8mm	33.0mm	41.3mm	96mm	CDR-6.6mm-5X	14539
6.7mm	0.2638	8mm	33.5mm	41.9mm	96mm	CDR-6.7mm-5X	14540
6.8mm	0.2677	8mm	34.0mm	42.5mm	96mm	CDR-6.8mm-5X	14541
6.9mm	0.2717	8mm	34.5mm	43.1mm	96mm	CDR-6.9mm-5X	14542

Speed & Feed: page 217

sizes continued on next page

**2 FLUTE • 140° POINT COOLANT HOLE DRILL**

sizes continued from previous page

	DIA D ₁	SHK D ₂	DRILL LENGTH L ₂	FLUTE LENGTH L ₃	OAL L ₁	PART NAME	nAco EDP
I	0.2720	8mm	1.360	1.700	3.780	CDR-I-5X	19519
7mm	0.2756	8mm	21.0mm	26.3mm	76mm	CDR-7mm-3X	13189
7mm	0.2756	8mm	35.0mm	43.8mm	96mm	CDR-7mm-5X	13235
7mm	0.2756	8mm	49.0mm	61.3mm	116mm	CDR-7mm-7X	13281
9/32	0.2813	8mm	0.844	1.055	2.992	CDR-9/32-3X	13190
9/32	0.2813	8mm	1.406	1.758	3.780	CDR-9/32-5X	13236
9/32	0.2813	8mm	1.969	2.461	4.567	CDR-9/32-7X	13282
7.5mm	0.2953	8mm	37.5mm	46.9mm	96mm	CDR-7.5mm-5X	14547
5/16	0.3125	8mm	0.938	1.172	2.992	CDR-5/16-3X	13191
5/16	0.3125	8mm	1.563	1.953	3.780	CDR-5/16-5X	13237
5/16	0.3125	8mm	2.188	2.734	4.567	CDR-5/16-7X	13283
8mm	0.3150	8mm	24.0mm	30.0mm	76mm	CDR-8mm-3X	13192
8mm	0.3150	8mm	40.0mm	50.0mm	96mm	CDR-8mm-5X	13238
8mm	0.3150	8mm	56.0mm	70.0mm	116mm	CDR-8mm-7X	13284
Q	0.3320	10mm	1.660	2.075	4.252	CDR-Q-5X	19520
8.5mm	0.3346	10mm	42.5mm	53.1mm	108mm	CDR-8.5mm-5X	14556
11/32	0.3438	10mm	1.031	1.289	3.504	CDR-11/32-3X	13193
11/32	0.3438	10mm	1.719	2.148	4.252	CDR-11/32-5X	13239
11/32	0.3438	10mm	2.406	3.008	5.512	CDR-11/32-7X	13285
9mm	0.3543	10mm	27.0mm	33.8mm	89mm	CDR-9mm-3X	13194
9mm	0.3543	10mm	45.0mm	56.3mm	108mm	CDR-9mm-5X	13240
9mm	0.3543	10mm	63.0mm	78.8mm	140mm	CDR-9mm-7X	13286
U	0.3680	10mm	1.84	2.300	4.252	CDR-U-5X	19521
9.5mm	0.3740	10mm	47.5mm	59.4mm	108mm	CDR-9.5mm-5X	14561
3/8	0.375	10mm	1.125	1.406	3.504	CDR-3/8-3X	13195
3/8	0.375	10mm	1.875	2.344	4.252	CDR-3/8-5X	13241
3/8	0.375	10mm	2.625	3.281	5.512	CDR-3/8-7X	13287
25/64	0.3906	10mm	1.953	2.441	4.252	CDR-25/64-5X	19522
10mm	0.3937	10mm	30.0mm	37.5mm	89mm	CDR-10mm-3X	13196
10mm	0.3937	10mm	50.0mm	62.5mm	108mm	CDR-10mm-5X	13242
10mm	0.3937	10mm	70.0mm	87.5mm	140mm	CDR-10mm-7X	13288
10.5mm	0.4134	12mm	52.5mm	65.6mm	132mm	CDR-10.5mm-5X	14562
27/64	0.4219	12mm	2.110	2.707	5.197	CDR-27/64-5X	14563
11mm	0.4331	12mm	33.0mm	41.3mm	102mm	CDR-11mm-3X	13197
11mm	0.4331	12mm	55.0mm	68.8mm	132mm	CDR-11mm-5X	13243
11mm	0.4331	12mm	77.0mm	96.3mm	162mm	CDR-11mm-7X	13289
7/16	0.4375	12mm	1.313	1.641	4.016	CDR-7/16-3X	13198
7/16	0.4375	12mm	2.188	2.734	5.197	CDR-7/16-5X	13244
7/16	0.4375	12mm	3.063	3.828	6.378	CDR-7/16-7X	13290
11.5mm	0.4528	12mm	57.5mm	71.9mm	132mm	CDR-11.5mm-5X	14564
29/64	0.4531	12mm	2.266	2.832	5.197	CDR-29/64-5X	19524
12mm	0.4724	12mm	36.0mm	45mm	102mm	CDR-12mm-3X	13199

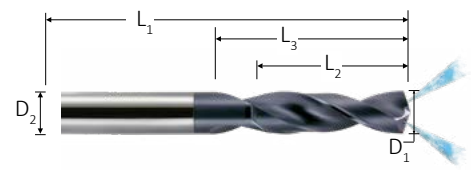
Speed & Feed: page 217

sizes continued on next page

VARIOUS MATERIAL

2 FLUTE • 140° POINT COOLANT HOLE DRILL

Series: **CDR**



sizes continued from previous page

DIA D ₁		SHK D ₂	DRILL LENGTH L ₂	FLUTE LENGTH L ₃	OAL L ₁	PART NAME	nACo EDP
12mm	0.4724	12mm	60.0mm	75mm	132mm	CDR-12mm-5X	13245
12mm	0.4724	12mm	84.0mm	105mm	162mm	CDR-12mm-7X	13291
12.5mm	0.4921	14mm	31.25mm	37.5mm	102mm	CDR-12.5mm-3X	11773
12.5mm	0.4921	14mm	62.5mm	78.1mm	138mm	CDR-12.5mm-5X	14565
1/2	0.5000	14mm	1.500	1.875	4.016	CDR-1/2-3X	13200
1/2	0.5000	14mm	2.500	3.125	5.433	CDR-1/2-5X	13246
1/2	0.5000	14mm	3.500	4.375	6.457	CDR-1/2-7X	13292
13mm	0.5118	14mm	39.0mm	48.8mm	102mm	CDR-13mm-3X	13201
13mm	0.5118	14mm	65.0mm	81.3mm	138mm	CDR-13mm-5X	13247
13mm	0.5118	14mm	91.0mm	113.8mm	164mm	CDR-13mm-7X	13293
14mm	0.5512	14mm	39.0mm	52.5mm	102mm	CDR-14mm-3X	13202
14mm	0.5512	14mm	70.0mm	87.5mm	138mm	CDR-14mm-5X	13248
14mm	0.5512	14mm	98.0mm	122.5mm	175mm	CDR-14mm-7X	13294
9/16	0.5625	16mm	1.688	2.109	4.252	CDR-9/16-3X	13203
9/16	0.5625	16mm	2.813	3.516	5.906	CDR-9/16-5X	13249
9/16	0.5625	16mm	3.938	4.922	7.480	CDR-9/16-7X	13295
15mm	0.5906	16mm	45.0mm	56.3mm	108mm	CDR-15mm-3X	13204
15mm	0.5906	16mm	75.0mm	93.8mm	150mm	CDR-15mm-5X	13250
15mm	0.5906	16mm	105.0mm	131.3mm	190mm	CDR-15mm-7X	13296
5/8	0.6250	16mm	1.875	2.344	4.252	CDR-5/8-3X	13205
5/8	0.6250	16mm	3.125	3.906	5.906	CDR-5/8-5X	13251
5/8	0.6250	16mm	4.375	5.469	7.480	CDR-5/8-7X	13297
16mm	0.6299	16mm	48.0mm	60mm	108mm	CDR-16mm-3X	13206
16mm	0.6299	16mm	80.0mm	100mm	150mm	CDR-16mm-5X	13252
16mm	0.6299	16mm	112.0mm	140mm	190mm	CDR-16mm-7X	13298
3/4	0.7500	20mm	2.250	2.813	5.039	CDR-3/4-3X	13210
3/4	0.7500	20mm	3.750	4.688	7.008	CDR-3/4-5X	13256
3/4	0.7500	20mm	5.250	6.563	8.976	CDR-3/4-7X	13302

Speed & Feed: page 217