



Solid Carbide

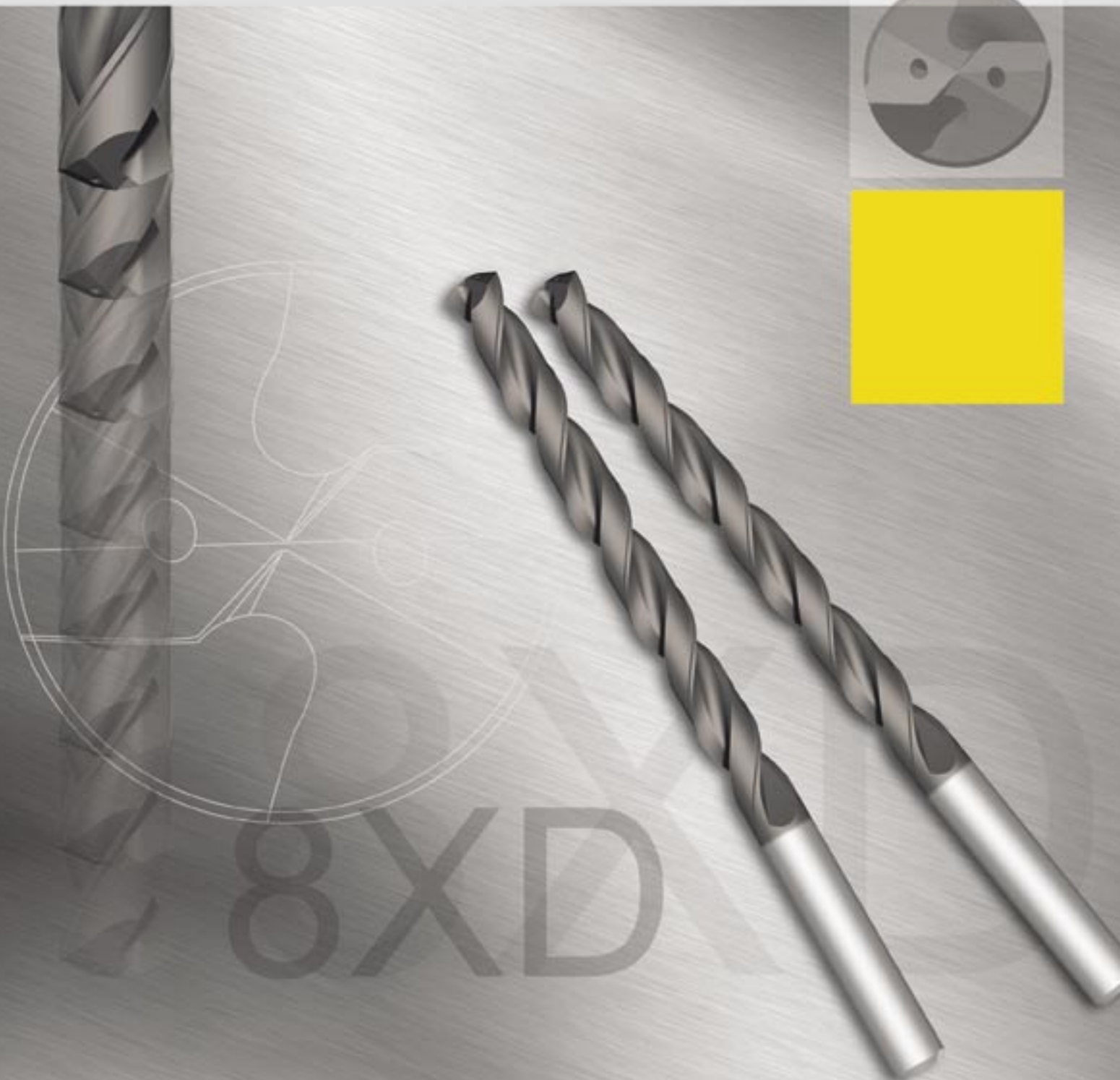
High Performance

CDX-DH Drill

for Deep Hole Drilling

R570

DORMER



8XD

Features // Benefits



CUSTOMER BENEFITS

- Deep drilling in “one hit” to 8 x diameter - no pecking required - reduction in machining time.
- Fast and efficient chip evacuation leading to high productivity and reduced cost per hole.
- High quality finish, good hole tolerance.
- Consistent forces.
- Improved tool life leading to a reduction in machine downtime.
- Exceptional levels of performance in steel, stainless steel, cast iron, copper, aluminium and other materials.

ACM™ FLUTE GEOMETRY

Dormer's ACM™ (Advanced Chip Management) flute geometry optimises flute volume and breaks the chips into small, manageable pieces to ensure efficient chip evacuation in deep hole applications, reducing machine downtime. ACM ensures consistent forces throughout the drilling cycle.

POINT GEOMETRY

Specially designed 140° point allows for excellent centring and ensures that thrust force is low.



MATERIAL

Micrograin carbide.

LENGTH

The extra length enables drilling depths of up to 8 x D to be achieved without the need for pecking throughout the full diameter range of 3mm – 12mm and 17/64” – 5/8”. *

SHANK

To DIN 6535 HA.

SUPER-FLOW COATING

The new Super-Flow coating has been developed to optimise performance of the CDX-DH drill, offering:

- Specialist surface treatment to assist chip evacuation.
- Greater stability of cutting edges
- Outstanding wear resistance
- High hardness and toughness properties and oxidation stability
- Exceptional chip evacuation capabilities on all recommended materials.

Tool life and productivity are significantly increased as a result of the new Super-Flow coating.

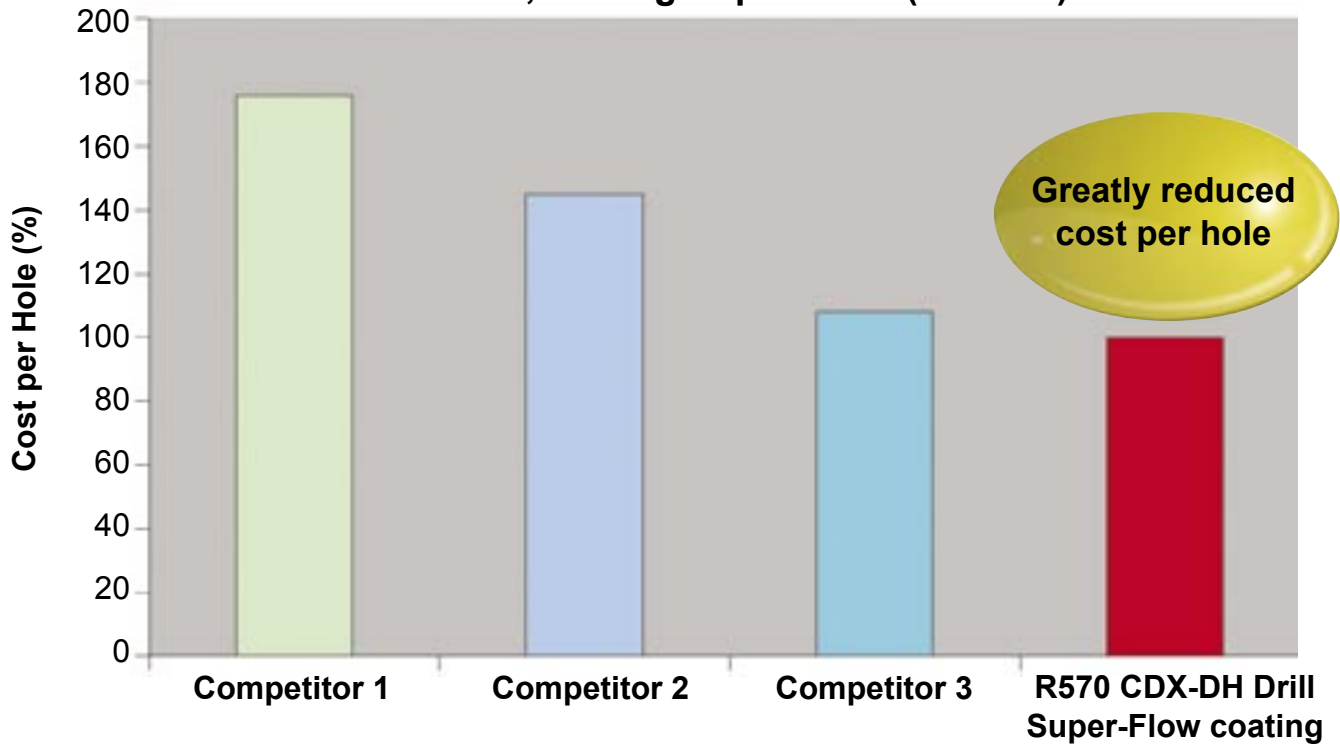
COOLANT FEED

Internal coolant holes ensure that coolant is delivered directly to the tip of the drill, cooling the cutting area and efficiently evacuating the chips from the hole. This allows for high feeds and speeds, resulting in high productivity and lower cost per hole.



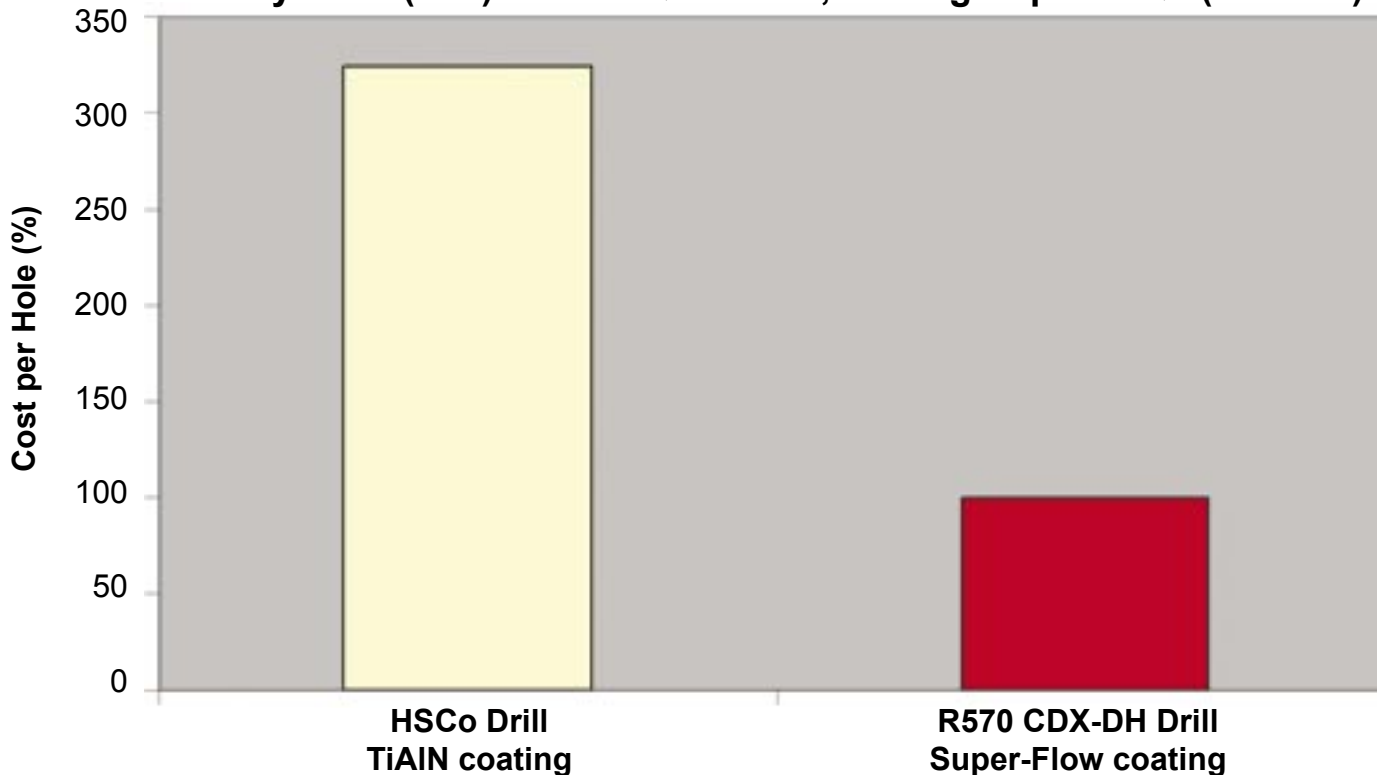
* Further incremental sizes and sizes for drilling up to 12 x Diameter are available on request.

**Cost per Hole Comparison in Alloy Steel (P20) AMG 1.5
Ø 8.0mm, Cutting Depth 8 x Ø (30 mins)**



The graph shows the cost per hole of Dormer's R570 CDX-DH drill against three competitor equivalent drills, running at the each company's recommended cutting conditions over a period of 30 minutes.

**HSCo Drill vs R570 Cost per Hole Comparison
in Alloy Steel (P20) AMG 1.5 Ø 8.0mm, Cutting Depth 8 x Ø (30 mins)**



The graph shows that a significant reduction in cost per hole can be achieved by using Dormer's R570 CDX-DH drill compared to the HSCo TiAlN coated drill.

Footnote: Machining time taken into account

Application Material Groups (AMG)

■ Excellent for Application

● Good for Application

Example

135 = Peripheral speed in metres/minute mid range +/- 10%

V = Feed range - see drill feed chart below

R570

HM



Fn	Ø								
	3mm	4mm	5mm	6mm	8mm	10mm	12mm	15mm	16mm
T	0.040	0.050	0.060	0.070	0.090	0.110	0.130	0.160	0.170
U	0.070	0.080	0.090	0.107	0.140	0.170	0.200	0.223	0.230
V	0.100	0.115	0.130	0.153	0.200	0.250	0.280	0.310	0.320
W	0.130	0.150	0.170	0.200	0.260	0.330	0.380	0.418	0.430

mm/rev +/- 25%



3.00 - 5/8

CDX-DH

2007.04

■135V

■120V

■110U

■100U

■80U

■55T

■75V

■35V

●30U

■120W

■120W

■80V

■80V

●125V

●220V

●220V

●100U

■285W

■285W

■190V

■95V

Application Material Groups (AMG)		Hardness HB	Tensile Strength N/mm ²	
1. Steel	1.1 Magnetic soft steel	<120	<400	
	1.2 Structural Steel / case carburising steel	<200	<700	
	1.3 Plain Carbon steel	<250	<850	
	1.4 Alloy steel	<250	<850	
	1.5 Alloy steel/ Hardened and tempered steel	>250 <350	>850 <1200	
	1.6 Alloy steel/ Hardened and tempered steel	>350	>1200 <1620	
	1.7 Alloy steel Hardened	49-55HRC	>1620	
	1.8 Alloy steel Hardened	55-63HRC	<1960	
2. Stainless Steel	2.1 Free machining Stainless Steel	<250	<850	■75V
	2.2 Austenitic	<320	<1100	■35V
	2.3 Ferritic + Austenitic, Martensitic	<300	<1000	●30U
	2.4 Precipitation Hardened	>320 <410	>1100 <1400	
3. Cast Iron	3.1 Lamellar graphite	<150	<500	■120W
	3.2 Lamellar graphite	>150 <300	>500 <1000	■120W
	3.3 Nodular graphite/ Malleable Cast Iron	<200	<700	■80V
	3.4 Nodular graphite/ Malleable Cast Iron	>200 <300	>700 <1000	■80V
4. Titanium	4.1 Titanium, unalloyed	<200	<700	
	4.2 Titanium, alloyed	<270	<900	
	4.3 Titanium, alloyed	>270 <350	>900 <1250	
5. Nickel	5.1 Nickel, unalloyed	<150	<500	
	5.2 Nickel, alloyed	<270	<900	
	5.3 Nickel, alloyed	>270 <350	>900 <1200	
6. Copper	6.1 Copper	<100	<350	●125V
	6.2 β-Brass, Bronze	<200	<700	●220V
	6.3 α-Brass	<200	<700	●220V
	6.4 High Strength Bronze	<470	<1500	●100U
7. Aluminium Magnesium	7.1 Al, Mg, unalloyed	<100	<350	■285W
	7.2 Al alloyed, Si<0.5%	<150	<500	■285W
	7.3 Al alloyed, Si>0.5%<10%	<120	<400	■190V
	7.4 Al alloyed, Si>10% Whisker reinforced Al-alloys, Mg alloys	<120	<400	■95V
8. Synthetic Materials	8.1 Thermoplastics	---	---	
	8.2 Thermosetting plastics	---	---	
	8.3 Reinforced plastic materials	---	---	
9. Hard Materials	9.1 Cermet (Metal-ceramics)	<550	<1700	
10. Graphite	10.1 Standard graphite	---	<100	

- CDX-DH Drill
- CDX-DH Spiralbohrer
- CDX-DH boor
- Foret CDX-DH
- Broca CDX-DH
- Broca CDX-DH



D-product
2007.04

R570



- 1.1 1.2 1.3 1.4 1.5 1.6 2.1 2.2 3.1 3.2 3.3 3.4 7.2 7.3 7.4
- 2.3 6.1 6.2 6.3 6.4 7.1

d ₁ Ø Inch	d ₁ Ø mm	d ₁ decimal Inch	l ₂ mm	l ₁ mm	l ₃ mm	d ₂ Ø mm	e-Code	d ₁ Ø Inch	d ₁ Ø mm	d ₁ decimal Inch	l ₂ mm	l ₁ mm	l ₃ mm	d ₂ Ø mm	e-Code
	3.00	0.1181	37	79	36	6	R5703.0	5/16	7.94	0.3126	84	126	36	8	R5705/16
	3.30	0.1299	37	79	36	6	R5703.3		8.00	0.3150	84	126	36	8	R5708.0
	3.40	0.1339	37	79	36	6	R5703.4		8.50	0.3346	106	152	40	10	R5708.5
	3.50	0.1378	37	79	36	6	R5703.5		8.60	0.3386	106	152	40	10	R5708.6
	3.70	0.1457	37	79	36	6	R5703.7		8.70	0.3425	106	152	40	10	R5708.7
	4.00	0.1575	48	90	36	6	R5704.0	11/32	8.73	0.3437	106	152	40	10	R57011/32
	4.20	0.1654	48	90	36	6	R5704.2		9.00	0.3543	106	152	40	10	R5709.0
	4.30	0.1693	48	90	36	6	R5704.3	23/64	9.13	0.3594	106	152	40	10	R57023/64
	4.50	0.1772	48	90	36	6	R5704.5		9.30	0.3661	106	152	40	10	R5709.3
	4.60	0.1811	48	90	36	6	R5704.6		9.50	0.3740	106	152	40	10	R5709.5
	5.00	0.1969	62	104	36	6	R5705.0	3/8	9.53	0.3752	106	152	40	10	R5703/8
	5.10	0.2008	62	104	36	6	R5705.1		10.00	0.3937	106	152	40	10	R57010.0
	5.20	0.2047	62	104	36	6	R5705.2		10.20	0.4016	128	180	45	12	R57010.2
	5.50	0.2165	62	104	36	6	R5705.5		10.30	0.4055	128	180	45	12	R57010.3
	6.00	0.2362	62	104	36	6	R5706.0	13/32	10.32	0.4063	128	180	45	12	R57013/32
	6.20	0.2441	84	126	36	8	R5706.2		10.40	0.4094	128	180	45	12	R57010.4
1/4	6.35	0.2500	84	126	36	8	R5701/4		10.50	0.4134	128	180	45	12	R57010.5
	6.50	0.2559	84	126	36	8	R5706.5		11.00	0.4331	128	180	45	12	R57011.0
17/64	6.75	0.2657	84	126	36	8	R57017/64	7/16	11.11	0.4374	128	180	45	12	R5707/16
	6.80	0.2677	84	126	36	8	R5706.8		11.20	0.4409	128	180	45	12	R57011.2
	6.90	0.2717	84	126	36	8	R5706.9		11.50	0.4528	128	180	45	12	R57011.5
	7.00	0.2756	84	126	36	8	R5707.0		12.00	0.4724	128	180	45	12	R57012.0
9/32	7.14	0.2811	84	126	36	8	R5709/32	1/2	12.70	0.5000	151	202	48	14	R5701/2
	7.40	0.2913	84	126	36	8	R5707.4	17/32	13.49	0.5311	151	202	48	14	R57017/32
	7.50	0.2953	84	126	36	8	R5707.5	9/16	14.29	0.5626	172	227	48	16	R5709/16
	7.80	0.3071	84	126	36	8	R5707.8	5/8	15.88	0.6244	172	227	48	16	R5705/8



For details on the full Dormer product range, please order a copy of our current tooling catalogue.



For correct tool selection and operation, please also refer to our Product Selector CD.



Further useful technical information can be found in our Technical Handbook.

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