Solid Carbide*High Performance*

MP-X Drills for Multi-Application drilling across a wide range of materials

MP-X

MATERIAL
Micrograin carbide for an excellent combination of hardness and toughness, resulting in high wear resistance and longer tool life.

LENGTH
Available in a choice of short (DIN 6537 K) and long (DIN 6537 L) lengths and in both solid design and with internal coolant holes.

COATING
Multi-layer Titanium Aluminium Nitride (TiAlN) coating gives:

* Improved stability of cutting edges.
* Outstanding wear protection.
* High hardness properties.
* High toughness and oxidation stability.
* Resulting longer tool life and higher productivity.

FLUTE GEOMETRY
Strong web design gives excellent cross-sectional strength and facilitates chip evacuation.



R457

POINT GEOMETRY
140º point angle with good centring capabilities and low thrust force design, suited to multi-application drilling.

COOLANT FEED
Available with internal coolant holes to improve cutting efficiency and chip evacuation, resulting in higher productivity.

SHANK
To DIN 6535 HA.

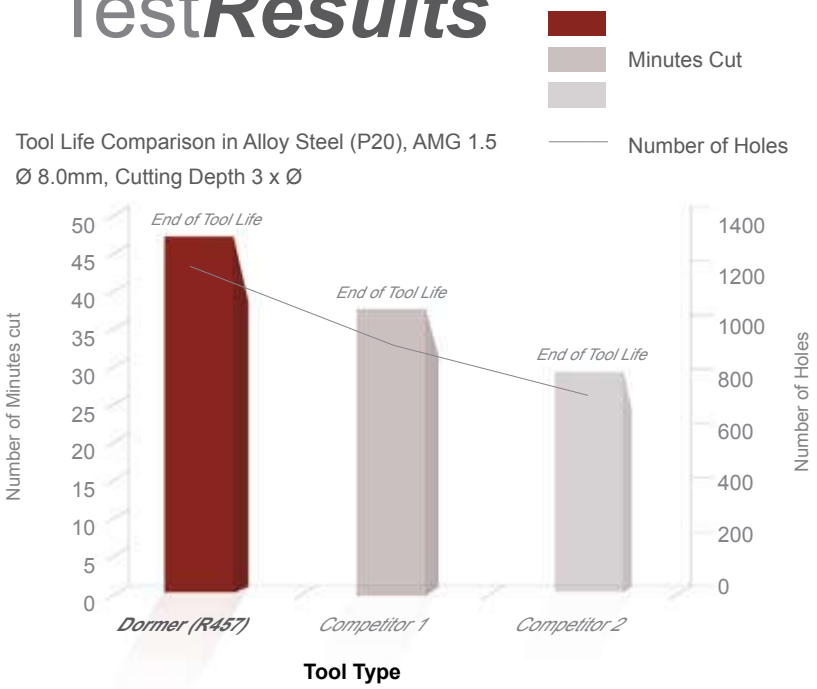


R453

RANGE
R453 3.00 - 20.00 mm 1/8 - 3/4”
R454 3.00 - 16.00 mm 1/8 - 3/4”
R457 3.00 - 20.00 mm 1/8 - 3/4”
R458 3.00 - 16.00 mm 1/8 - 3/4”

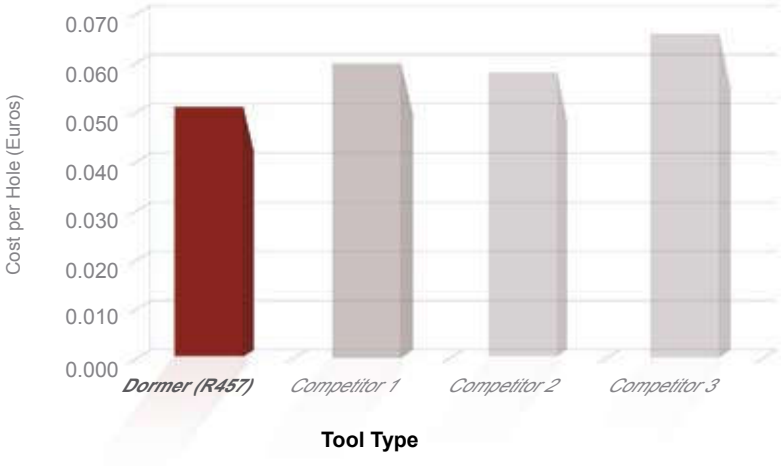
Test*Results*

Tool Life Comparison in Alloy Steel (P20), AMG 1.5
Ø 8.0mm, Cutting Depth 3 x Ø



Tested against two competitor equivalent drills, the R457 drilled an average of 30% more holes than the nearest competitor in P20 (AMG 1.5) Alloy Steel material, running at 75m/min / 0.2mm/rev, Dormer's recommended conditions on this application.

Cost per Hole Comparison in Alloy Steel (P20), AMG 1.5
Ø 8.0mm, Cutting Depth 3 x Ø



The graph shows that the cost per hole on the three competitor equivalent drills averaged between 14% and 30% higher than for R457 in P20 (AMG 1.5) Alloy Steel material, running at the company recommended conditions over a period of 30 minutes.

CUSTOMER *BENEFITS*

* **High productivity** and consistent tool life.
* **Exceptional value** with no compromise on quality.
* **Multi-application drilling across a wide range of materials,** including Carbon and Alloy steels, Stainless steels, Cast Iron, non-ferrous metals - Aluminium & Magnesium alloys & Copper.
* **Excellent hole quality**.
* **Reduced tooling costs**.
* **Easy to re-grind**.
* **Reduced stock-holding** – one drill machines many materials.

For Dimensional information, see pages 53, 55, 71, 73 of the **Dormer Carbide Catalogue 07**

R458

DORMER

- MP-X Drill Short
- MP-X Spiralbohrer, kurz
- MP-X Spiraalboren
- Foret MP-X
- Broca MP-X, short
- Broca MP-X Curta

NEW

2006.11

MP-X



R458

HM | TiAlN | DIN 6537 K | 3xD | DIN 6535 HA | 140°

■ 1.1 1.2 1.3 1.4 1.5 1.6 3.1 3.2 3.3 3.4 6.1 6.2 6.3 7.1 7.2 7.3 7.4

● 2.1 2.2 2.3 4.1 4.2 4.3 6.4

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	20	62	36	6	**R4583.0**
	3.10	0.1220	20	62	36	6	**R4583.1**
1/8	3.17	0.1248	20	62	36	6	**R4581/8**
	3.20	0.1260	20	62	36	6	**R4583.2**
	3.30	0.1299	20	62	36	6	**R4583.3**
	3.40	0.1339	20	62	36	6	**R4583.4**
	3.50	0.1378	20	62	36	6	**R4583.5**
9/64	3.57	0.1406	20	62	36	6	**R4589/64**
	3.60	0.1417	20	62	36	6	**R4583.6**
	3.70	0.1457	20	62	36	6	**R4583.7**
	3.73	0.1469	24	66	36	6	**R4583.73**
	3.80	0.1496	24	66	36	6	**R4583.8**
	3.90	0.1535	24	66	36	6	**R4583.9**
5/32	3.97	0.1563	24	66	36	6	**R4585/32**
	4.00	0.1575	24	66	36	6	**R4584.0**
	4.10	0.1614	24	66	36	6	**R4584.1**
	4.20	0.1654	24	66	36	6	**R4584.2**
	4.30	0.1693	24	66	36	6	**R4584.3**
11/64	4.37	0.1720	24	66	36	6	**R45811/64**
	4.50	0.1772	24	66	36	6	**R4584.5**
	4.60	0.1811	24	66	36	6	**R4584.6**
3/16	4.76	0.1874	28	66	36	6	**R4583/16**
	5.00	0.1969	28	66	36	6	**R4585.0**
	5.10	0.2008	28	66	36	6	**R4585.1**
13/64	5.16	0.2031	28	66	36	6	**R45813/64**
	5.50	0.2165	28	66	36	6	**R4585.5**
7/32	5.56	0.2189	28	66	36	6	**R4587/32**
	5.60	0.2205	28	66	36	6	**R4585.6**
	5.70	0.2244	28	66	36	6	**R4585.7**
	5.80	0.2283	28	66	36	6	**R4585.8**
15/64	5.95	0.2343	28	66	36	6	**R45815/64**
	6.00	0.2362	28	66	36	6	**R4586.0**
	6.10	0.2402	34	79	36	8	**R4586.1**
	6.30	0.2480	34	79	36	8	**R4586.3**
1/4	6.35	0.2500	34	79	36	8	**R4581/4**
	6.50	0.2559	34	79	36	8	**R4586.5**
	6.60	0.2598	34	79	36	8	**R4586.6**
17/64	6.75	0.2657	34	79	36	8	**R45817/64**
	6.80	0.2677	34	79	36	8	**R4586.8**
	6.90	0.2717	34	79	36	8	**R4586.9**
	7.00	0.2756	34	79	36	8	**R4587.0**
	7.10	0.2795	41	79	36	8	**R4587.1**
9/32	7.14	0.2811	41	79	36	8	**R4589/32**
	7.30	0.2874	41	79	36	8	**R4587.3**

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
	7.40	0.2913	41	79	36	8	**R4587.4**
	7.50	0.2953	41	79	36	8	**R4587.5**
19/64	7.54	0.2969	41	79	36	8	**R45819/64**
	7.60	0.2992	41	79	36	8	**R4587.6**
	7.80	0.3071	41	79	36	8	**R4587.8**
5/16	7.94	0.3126	41	79	36	8	**R4585/16**
	8.00	0.3150	41	79	36	8	**R4588.0**
	8.10	0.3189	47	89	40	10	**R4588.1**
21/64	8.33	0.3280	47	89	40	10	**R45821/64**
	8.50	0.3346	47	89	40	10	**R4588.5**
	8.60	0.3386	47	89	40	10	**R4588.6**
	8.70	0.3425	47	89	40	10	**R4588.7**
11/32	8.73	0.3437	47	89	40	10	**R45811/32**
	8.80	0.3465	47	89	40	10	**R4588.8**
	9.00	0.3543	47	89	40	10	**R4589.0**
	9.10	0.3583	47	89	40	10	**R4589.1**
23/64	9.13	0.3594	47	89	40	10	**R45823/64**
	9.30	0.3661	47	89	40	10	**R4589.3**
	9.50	0.3740	47	89	40	10	**R4589.5**
3/8	9.52	0.3748	47	89	40	10	**R4583/8**
	9.60	0.3780	47	89	40	10	**R4589.6**
	9.80	0.3858	47	89	40	10	**R4589.8**
25/64	9.92	0.3906	47	89	40	10	**R45825/64**
	10.00	0.3937	47	89	40	10	**R45810.0**
	10.10	0.3976	55	102	45	12	**R45810.1**
	10.20	0.4016	55	102	45	12	**R45810.2**
	10.30	0.4055	55	102	45	12	**R45810.3**
13/32	10.32	0.4063	55	102	45	12	**R45813/32**
	10.40	0.4094	55	102	45	12	**R45810.4**
	10.50	0.4134	55	102	45	12	**R45810.5**
27/64	10.72	0.4220	55	102	45	12	**R45827/64**
	10.60	0.4173	55	102	45	12	**R45810.6**
	11.00	0.4331	55	102	45	12	**R45811.0**
7/16	11.11	0.4374	55	102	45	12	**R4587/16**
	11.20	0.4409	55	102	45	12	**R45811.2**
	11.50	0.4528	55	102	45	12	**R45811.5**
29/64	11.51	0.4531	55	102	45	12	**R45829/64**
		0.4646	55	102	45	12	**R45811.8**
15/32	11.91	0.4689	55	102	45	12	**R45815/32**
	12.00	0.4724	55	102	45	12	**R45812.0**
	12.10	0.4764	60	107	45	14	**R45812.1**
	12.20	0.4803	60	107	45	14	**R45812.2**
31/64	12.30	0.4843	60	107	45	14	**R45831/64**
	12.50	0.4921	60	107	45	14	**R45812.5**

R458

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
	12.70	0.5000	60	107	45	14	**R45812.7**
1/2	12.70	0.5000	60	107	45	14	**R4581/2**
	13.00	0.5118	60	107	45	14	**R45813.0**
33/64	13.10	0.5157	60	107	45	14	**R45833/64**
17/32	13.49	0.5311	60	107	45	14	**R45817/32**
	13.50	0.5315	60	107	45	14	**R45813.5**
35/64	13.89	0.5469	60	107	45	14	**R45835/64**
	14.00	0.5512	60	107	45	14	**R45814.0**
	14.25	0.5610	65	115	48	16	**R45814.25**
9/16	14.29	0.5626	65	115	48	16	**R4589/16**
	14.50	0.5709	65	115	48	16	**R45814.5**
37/64	14.68	0.5780	65	115	48	16	**R45837/64**
	15.00	0.5906	65	115	48	16	**R45815.0**
19/32	15.08	0.5937	65	115	48	16	**R45819/32**
	15.10	0.5945	65	115	48	16	**R45815.1**
39/64	15.48	0.6094	65	115	48	16	**R45839/64**
	15.50	0.6102	65	115	48	16	**R45815.5**
5/8	15.88	0.6252	65	115	48	16	**R4585/8**
	16.00	0.6299	65	115	48	16	**R45816.0**