

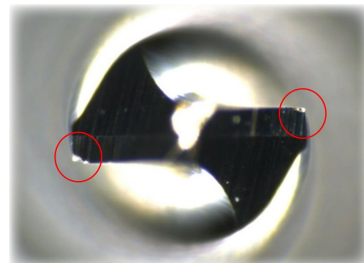
HELICAL DRILLS FOR UNLEADED BRASS

MACHINING EXAMPLES

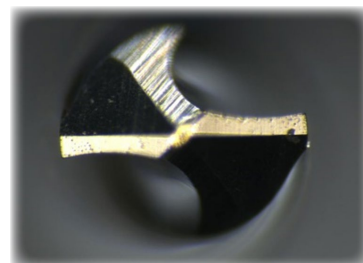
EXAMPLE N°1

WEAR RESISTANCE

Material: CuZn37 (170HV hardness)
 \varnothing tool = 0.8 mm
 $n = 20'000$ ($V_c = 50$ m/min)
 $V_f = 400$ mm/min ($f = 0.02$ mm)
 Lubrication : Microlubrication
 Machine : 3 axis production centre



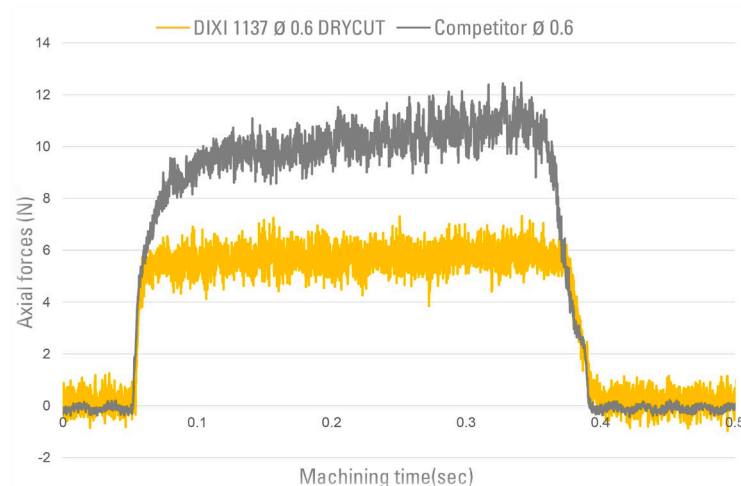
conventional drill
10 holes
Marked wear



DIXI 1137 DRYCUT
900 holes
Without wear

EXAMPLE N°2

REDUCTION OF CUTTING FORCES



Material : CuZn42 (170HV hardness)
 \varnothing tool = 0.6 mm
 $n = 20'000$ ($V_c = 50$ m/min)
 $V_f = 400$ mm/min ($f = 0.02$ mm)
 Lubrication : Microlubrication
 Machine : 3 axis production centre

CONCLUSION

Under same conditions, the DIXI 1137 drill allows a reduction in cutting forces of more than 30%.

NEW HELICAL DRILLS



THE DRILLING SOLUTION FOR UNLEADED BRASS



VIDEO 1137



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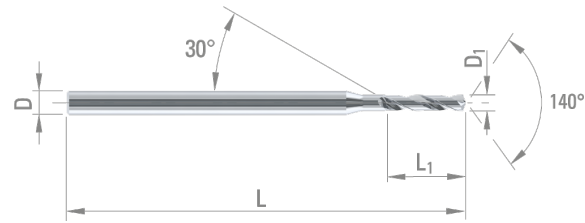


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DIXI 1137

HELICAL DRILLS
FOR UNLEADED BRASS



- Steel + Pb
- Titanium, titanium alloy
- Cu alloy Silver Gold
- Cu alloy difficult to machine
- Alu



D _{1 0/-0.004}	L ₁	D _{h5}	L	CARBIDE	DRYCUT*
0.15	0.8	1.0	30	377730	378235
0.16	0.8	1.0	30	377731	378236
0.17	0.9	1.0	30	377732	378237
0.18	0.9	1.0	30	377733	378238
0.19	1.0	1.0	30	377734	378239
0.20	1.0	1.0	30	377735	378240
0.21	1.1	1.0	30	377736	378241
0.22	1.1	1.0	30	377737	378242
0.23	1.2	1.0	30	377738	378243
0.24	1.2	1.0	30	377739	378244
0.25	1.3	1.0	30	377740	378245
0.26	1.3	1.0	30	377741	378246
0.27	1.4	1.0	30	377742	378247
0.28	1.4	1.0	30	377743	378248
0.29	1.5	1.0	30	377744	378249
0.30	1.5	1.0	30	377745	378250
0.31	1.6	1.0	30	377746	378251
0.32	1.6	1.0	30	377747	378252
0.33	1.7	1.0	30	377748	378253
0.34	1.7	1.0	30	377749	378254
0.35	1.8	1.0	30	377750	378255
0.36	1.8	1.0	30	377751	378256
0.37	1.9	1.0	30	377752	378257
0.38	1.9	1.0	30	377753	378258
0.39	2.0	1.0	30	377754	378259
0.40	2.0	1.0	30	377755	378260
0.41	2.1	1.0	30	377756	378261
0.42	2.1	1.0	30	377757	378262
0.43	2.2	1.0	30	377758	378263
0.44	2.2	1.0	30	377759	378264
0.45	2.3	1.0	30	377760	378265
0.46	2.3	1.0	30	377761	378266
0.47	2.4	1.0	30	377762	378267
0.48	2.4	1.0	30	377763	378268
0.49	2.5	1.0	30	377764	378269
0.50	2.5	1.0	30	377765	378270
0.51	2.6	1.0	30	377766	378271
0.52	2.6	1.0	30	377767	378272
0.53	2.7	1.0	30	377768	378273
0.54	2.7	1.0	30	377769	378274
0.55	2.8	1.0	30	377770	378275
0.56	2.8	1.0	30	377771	378276
0.57	2.9	1.0	30	377772	378277
0.58	2.9	1.0	30	377773	378278
0.59	3.0	1.0	30	377774	378279

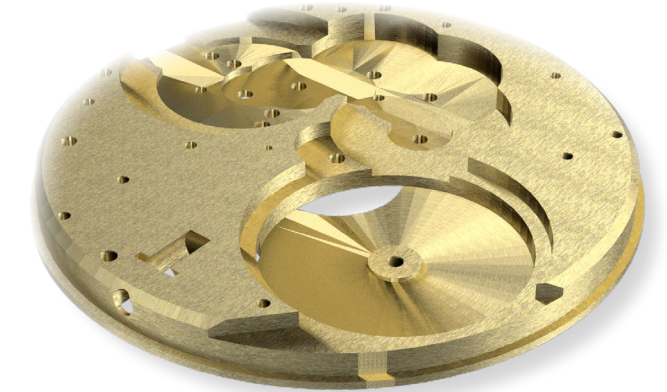
D _{1 0/-0.004}	L ₁	D _{h5}	L	CARBIDE	DRYCUT*
0.60	3.0	1.0	30	377775	378280
0.61	3.1	1.0	30	377776	378281
0.62	3.1	1.0	30	377777	378282
0.63	3.2	1.0	30	377778	378283
0.64	3.2	1.0	30	377779	378284
0.65	3.3	1.0	30	377780	378285
0.66	3.3	1.0	30	377781	378286
0.67	3.4	1.0	30	377782	378287
0.68	3.4	1.0	30	377783	378288
0.69	3.5	1.0	30	377784	378289
0.70	3.5	1.0	30	377785	378290
0.71	3.6	1.0	30	377786	378291
0.72	3.6	1.0	30	377787	378292
0.73	3.7	1.0	30	377788	378293
0.74	3.7	1.0	30	377789	378294
0.75	3.8	1.0	30	377790	378295
0.76	3.8	1.0	30	377791	378296
0.77	3.9	1.0	30	377792	378297
0.78	3.9	1.0	30	377793	378298
0.79	4.0	1.0	30	377794	378299
0.80	4.0	1.5	30	377795	378300
0.81	4.1	1.5	30	377796	378301
0.82	4.1	1.5	30	377797	378302
0.83	4.2	1.5	30	377798	378303
0.84	4.2	1.5	30	377799	378304
0.85	4.3	1.5	30	377800	378305
0.86	4.3	1.5	30	377801	378306
0.87	4.4	1.5	30	377802	378307
0.88	4.4	1.5	30	377803	378308
0.89	4.5	1.5	30	377804	378309
0.90	4.5	1.5	30	377805	378310
0.91	4.6	1.5	30	377806	378311
0.92	4.6	1.5	30	377807	378312
0.93	4.7	1.5	30	377808	378313
0.94	4.7	1.5	30	377809	378314
0.95	4.8	1.5	30	377810	378315
0.96	4.8	1.5	30	377811	378316
0.97	4.9	1.5	30	377812	378317
0.98	4.9	1.5	30	377813	378318
0.99	5.0	1.5	30	377814	378319

*For non-ferrous materials

DIXI 1137

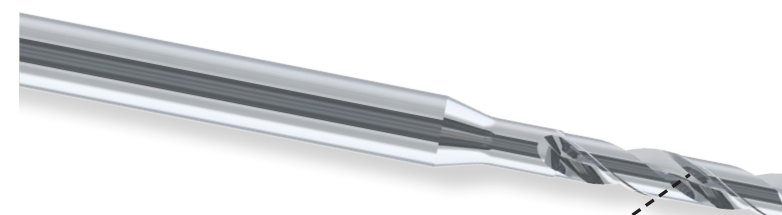
D _{1 0/-0.004}	L ₁	D _{h5}	L	CARBIDE	DRYCUT*
1.00	5.0	1.5	30	377815	378320
1.05	5.3	1.5	30	377816	378321
1.10	5.5	1.5	30	377817	378322
1.15	5.8	1.5	30	377818	378323
1.20	6.0	1.5	30	377819	378324
1.25	6.3	1.5	30	377820	378325
1.30	6.5	1.5	30	377821	378326
1.35	6.8	1.5	30	377822	378327
1.40	7.0	1.5	30	377823	378328
1.45	7.3	1.5	30	377824	378329
1.50	7.5	2.0	32	377825	378330
1.55	7.8	2.0	32	377826	378331
1.60	8.0	2.0	32	377827	378332
1.65	8.3	2.0	32	377828	378333
1.70	8.5	2.0	32	377829	378334
1.75	8.8	2.0	32	377830	378335
1.80	9.0	2.0	32	377831	378336
1.85	9.3	2.0	32	377832	378337
1.90	9.5	2.0	32	377833	378338
1.95	9.8	2.0	32	377834	378339
2.00	10.0	3.0	38	377835	378340
2.10	10.5	3.0	38	377836	378341
2.20	11.0	3.0	38	377837	378342
2.30	11.5	3.0	38	377838	378343
2.40	12.0	3.0	38	377839	378344
2.50	12.5	3.0	38	377840	378345
2.60	13.0	3.0	38	377841	378346
2.70	13.5	3.0	38	377842	378347
2.80	14.0	3.0	38	377843	378348
2.90	14.5	3.0	38	377844	378349
3.00	15.0	3.0	38	377845	378350

*For non-ferrous materials



COATING ADVISE

	WHITOUT COATING	DRYCUT COATING
With oil	✓	✓
With emulsion or mist	✗	✓



Polished flutes
+ Better chip evacuation

Core thinning from Ø0.5

- + Higher precision
- + Reduced cutting forces

140° Point

- + Minimal burrs