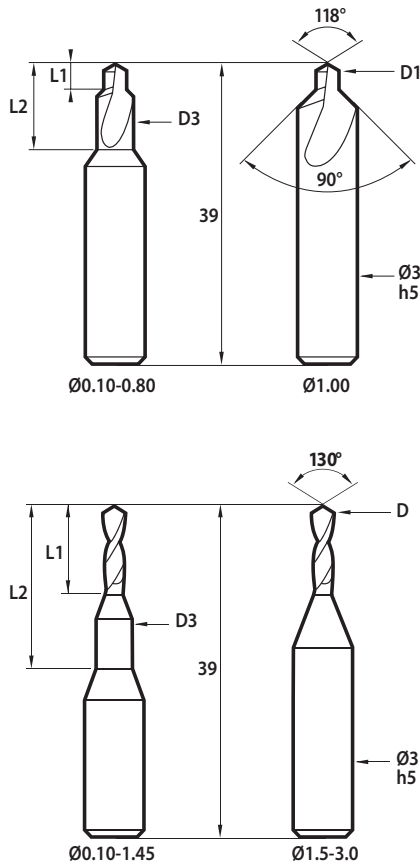
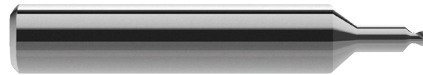


- For precise and performance drilling five flute lengths of micro drills are offered: 3xD, 5xD, 8xD, 12xD and 15xD
- Micro drills for pre-drilling ensures a precise location and perfectly aligned holes (select the next smallest diameter D1 than the drill diameter)



Pre-Drilling Micro Drills



D1 (mm)	D3 (mm)	L1 (mm)	L2 (mm)	Pre-Drilling (Series 82XI)
				Code
0.10	0.55	0.10	1.8	619200
0.15	0.55	0.15	1.8	619201
0.20	0.55	0.20	1.8	619202
0.25	0.85	0.25	2.7	619203
0.30	0.85	0.30	2.7	619204
0.40	1.4	0.40	4.5	619205
0.50	1.4	0.50	4.5	619206
0.60	2.3	0.60	7.2	619207
0.80	2.3	0.80	7.2	619208
1.00	–	1.00	–	619209

3 x D Micro Drills



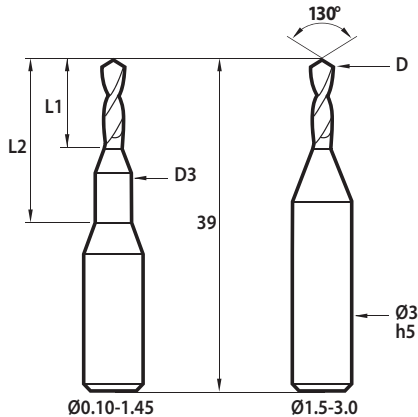
D (mm)	D3 ±0.01 (mm)	L1 (mm)	L2 (mm)	3 x D (82X3)
				Code
0.10	1	0.30	3	619268
0.15	1	0.45	3	619269
0.20	1	0.60	3	619270
0.25	1	0.75	3	619271
0.30	1	0.90	3	619272
0.35	1	1.05	3	619273
0.40	1	1.20	3	619274
0.45	1	1.35	3	619275
0.50	1.5	1.50	6	619276
0.55	1.5	1.80	6	619277
0.60	1.5	1.80	6	619278
0.65	1.5	2.10	6	619279
0.70	1.5	2.10	6	619280
0.75	1.5	2.40	6	619281
0.80	1.5	2.40	6	619282
0.85	1.5	2.70	6	619283
0.90	1.5	2.70	6	619284
0.95	1.5	3.00	6	619285
1.00	1.5	3.00	6	619286
1.05	2	3.30	6	619287

D (mm)	D3 ±0.01 (mm)	L1 (mm)	L2 (mm)	3 x D (82X3)
				Code
1.10	2	3.30	6	619288
1.15	2	3.60	6	619289
1.20	2	3.60	6	619290
1.25	2	3.90	6	619291
1.30	2	3.90	6	619292
1.35	2	4.20	6	619293
1.40	2	4.20	6	619294
1.45	2	4.50	6	619295
1.50	–	4.50	–	619296
1.55	–	4.80	–	619297
1.60	–	4.80	–	619298
1.65	–	5.10	–	619299
1.70	–	5.10	–	619300
1.75	–	5.40	–	619301
1.80	–	5.40	–	619302
1.85	–	5.70	–	619303
1.90	–	5.70	–	619304
1.95	–	6.00	–	619305
2.00	–	6.00	–	619306
2.05	–	6.30	–	619307

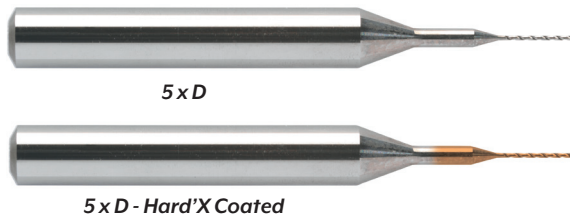
D (mm)	D3 ±0.01 (mm)	L1 (mm)	L2 (mm)	3 x D (82X3)
				Code
2.10	–	6.30	–	619308
2.15	–	6.60	–	619309
2.20	–	6.60	–	619310
2.25	–	6.90	–	619311
2.30	–	6.90	–	619312
2.35	–	7.20	–	619313
2.40	–	7.20	–	619314
2.45	–	7.50	–	619315
2.50	–	7.50	–	619316
2.55	–	7.80	–	619317
2.60	–	7.80	–	619318
2.65	–	8.10	–	619319
2.70	–	8.10	–	619320
2.75	–	8.40	–	619321
2.80	–	8.40	–	619322
2.85	–	8.70	–	619323
2.90	–	8.70	–	619324
2.95	–	9.00	–	619325
3.00	–	9.00	–	619326

SOLID CARBIDE MICRO DRILLS

Pre-Drilling, 3xD, 5xD, 8xD, 12xD, 15xD



5 x D Micro Drills



D (mm)	D3 ±0.01 (mm)	L1 (mm)	L2 (mm)	5 x D (82X5) Code	5 x D (82X5-H) Code
0.10	1	0.50	5	619327	619618
0.11	1	0.60	5	619328	–
0.12	1	0.60	5	619329	–
0.13	1	0.70	5	619330	–
0.14	1	0.70	5	619331	–
0.15	1	0.80	5	619332	619619
0.16	1	0.80	5	619333	–
0.17	1	0.90	5	619334	–
0.18	1	0.90	5	619335	–
0.19	1	1.00	5	619336	–
0.20	1	1.00	5	619337	619620
0.21	1	1.25	5	619338	–
0.22	1	1.25	5	619339	–
0.23	1	1.25	5	619340	–
0.24	1	1.25	5	619341	–
0.25	1	1.25	5	619342	619621
0.26	1	1.50	5	619343	–
0.27	1	1.50	5	619344	–
0.28	1	1.50	5	619345	–
0.29	1	1.50	5	619346	–
0.30	1	1.50	5	619347	619622
0.31	1	1.75	5	619348	–
0.32	1	1.75	5	619349	–
0.33	1	1.75	5	619350	–
0.34	1	1.75	5	619351	–
0.35	1	1.75	5	619352	619623
0.36	1	2.00	5	619353	–
0.37	1	2.00	5	619354	–
0.38	1	2.00	5	619355	–
0.39	1	2.00	5	619356	–
0.40	1	2.00	5	619357	619624
0.41	1	2.25	5	619358	–
0.42	1	2.25	5	619359	–
0.43	1	2.25	5	619360	–
0.44	1	2.25	5	619361	–
0.45	1	2.25	5	619362	619625
0.46	1	2.50	5	619363	–
0.47	1	2.50	5	619364	–
0.48	1	2.50	5	619365	–
0.49	1	2.50	5	619366	–
0.50	1.5	2.50	10	619367	619626
0.51	1.5	3.00	10	619368	–

D (mm)	D3 ±0.01 (mm)	L1 (mm)	L2 (mm)	5 x D (82X5) Code	5 x D (82X5-H) Code
0.52	1.5	3.00	10	619369	–
0.53	1.5	3.00	10	619370	–
0.54	1.5	3.00	10	619371	–
0.55	1.5	3.00	10	619372	619627
0.56	1.5	3.00	10	619373	–
0.57	1.5	3.00	10	619374	–
0.58	1.5	3.00	10	619375	–
0.59	1.5	3.00	10	619376	–
0.60	1.5	3.00	10	619377	619628
0.61	1.5	3.50	10	619378	–
0.62	1.5	3.50	10	619379	–
0.63	1.5	3.50	10	619380	–
0.64	1.5	3.50	10	619381	–
0.65	1.5	3.50	10	619382	619629
0.66	1.5	3.50	10	619383	–
0.67	1.5	3.50	10	619384	–
0.68	1.5	3.50	10	619385	–
0.69	1.5	3.50	10	619386	–
0.70	1.5	3.50	10	619387	619630
0.71	1.5	4.00	10	619388	–
0.72	1.5	4.00	10	619389	–
0.73	1.5	4.00	10	619390	–
0.74	1.5	4.00	10	619391	–
0.75	1.5	4.00	10	619392	619631
0.76	1.5	4.00	10	619393	–
0.77	1.5	4.00	10	619394	–
0.78	1.5	4.00	10	619395	–
0.79	1.5	4.00	10	619396	–
0.80	1.5	4.00	10	619397	619632
0.81	1.5	4.50	10	619398	–
0.82	1.5	4.50	10	619399	–
0.83	1.5	4.50	10	619400	–
0.84	1.5	4.50	10	619401	–
0.85	1.5	4.50	10	619402	619633
0.86	1.5	4.50	10	619403	–
0.87	1.5	4.50	10	619404	–
0.88	1.5	4.50	10	619405	–
0.89	1.5	4.50	10	619406	–
0.90	1.5	4.50	10	619407	619634
0.91	1.5	5.00	10	619408	–
0.92	1.5	5.00	10	619409	–
0.93	1.5	5.00	10	619410	–

D (mm)	D3 ±0.01 (mm)	L1 (mm)	L2 (mm)	5 x D (82X5) Code	5 x D (82X5-H) Code
0.94	1.5	5.00	10	619411	–
0.95	1.5	5.00	10	619412	619635
0.96	1.5	5.00	10	619413	–
0.97	1.5	5.00	10	619414	–
0.98	1.5	5.00	10	619415	–
0.99	1.5	5.00	10	619416	–
1.00	2	5.00	10	619417	619636
1.01	2	5.50	10	619418	–
1.02	2	5.50	10	619419	–
1.03	2	5.50	10	619420	–
1.04	2	5.50	10	619421	–
1.05	2	5.50	10	619422	619637
1.06	2	5.50	10	619423	–
1.07	2	5.50	10	619424	–
1.08	2	5.50	10	619425	–
1.09	2	5.50	10	619426	–
1.10	2	5.50	10	619427	619638
1.11	2	6.00	10	619428	–
1.12	2	6.00	10	619429	–
1.13	2	6.00	10	619430	–
1.14	2	6.00	10	619431	–
1.15	2	6.00	10	619432	619639
1.16	2	6.00	10	619433	–
1.17	2	6.00	10	619434	–
1.18	2	6.00	10	619435	–
1.19	2	6.00	10	619436	–
1.20	2	6.00	10	619437	619640
1.21	2	6.50	10	619438	–
1.22	2	6.50	10	619439	–
1.23	2	6.50	10	619440	–
1.24	2	6.50	10	619441	–
1.25	2	6.50	10	619442	619641
1.26	2	6.50	10	619443	–
1.27	2	6.50	10	619444	–
1.28	2	6.50	10	619445	–
1.29	2	6.50	10	619446	–
1.30	2	6.50	10	619447	619642
1.31	2	7.00	10	619448	–
1.32	2	7.00	10	619449	–
1.33	2	7.00	10	619450	–
1.34	2	7.00	10	619451	–
1.35	2	7.00	10	619452	619643

SOLID CARBIDE MICRO DRILLS

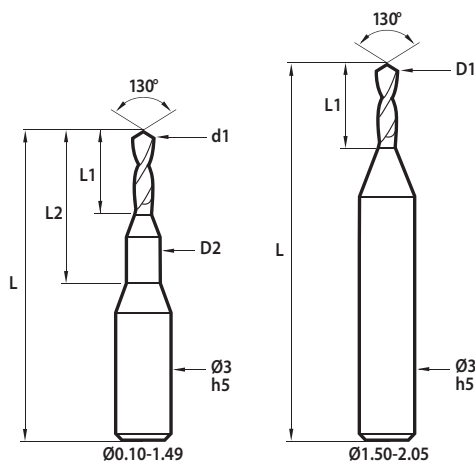
Pre-Drilling, 3xD, 5xD, 8xD, 12xD, 15xD

5 x D Micro Drills (continued)

D (mm)	D3 ±0.01 (mm)	L1 (mm)	L2 (mm)	5 x D (82X5)	5 x D (82X5-H)	D (mm)	D3 ±0.01 (mm)	L1 (mm)	L2 (mm)	5 x D (82X5)	5 x D (82X5-H)	D (mm)	D3 ±0.01 (mm)	L1 (mm)	L2 (mm)	5 x D (82X5)	5 x D (82X5-H)
				Code	Code					Code	Code					Code	Code
1.36	2	7.00	10	619453	–	1.92	–	10.00	–	619509	–	2.48	–	12.50	–	619565	–
1.37	2	7.00	10	619454	–	1.93	–	10.00	–	619510	–	2.49	–	12.50	–	619566	–
1.38	2	7.00	10	619455	–	1.94	–	10.00	–	619511	–	2.50	–	12.50	–	619567	619666
1.39	2	7.00	10	619456	–	1.95	–	10.00	–	619512	619655	2.51	–	13.00	–	619568	–
1.40	2	7.00	10	619457	619644	1.96	–	10.00	–	619513	–	2.52	–	13.00	–	619569	–
1.41	2	7.50	10	619458	–	1.97	–	10.00	–	619514	–	2.53	–	13.00	–	619570	–
1.42	2	7.50	10	619459	–	1.98	–	10.00	–	619515	–	2.54	–	13.00	–	619571	–
1.43	2	7.50	10	619460	–	1.99	–	10.00	–	619516	–	2.55	–	13.00	–	619572	619667
1.44	2	7.50	10	619461	–	2.00	–	10.00	–	619517	619656	2.56	–	13.00	–	619573	–
1.45	2	7.50	10	619462	619645	2.01	–	10.50	–	619518	–	2.57	–	13.00	–	619574	–
1.46	2	7.50	10	619463	–	2.02	–	10.50	–	619519	–	2.58	–	13.00	–	619575	–
1.47	2	7.50	10	619464	–	2.03	–	10.50	–	619520	–	2.59	–	13.00	–	619576	–
1.48	2	7.50	10	619465	–	2.04	–	10.50	–	619521	–	2.60	–	13.00	–	619577	619668
1.49	2	7.50	10	619466	–	2.05	–	10.50	–	619522	619657	2.61	–	13.50	–	619578	–
1.50	–	7.50	–	619467	619646	2.06	–	10.50	–	619523	–	2.62	–	13.50	–	619579	–
1.51	–	8.00	–	619468	–	2.07	–	10.50	–	619524	–	2.63	–	13.50	–	619580	–
1.52	–	8.00	–	619469	–	2.08	–	10.50	–	619525	–	2.64	–	13.50	–	619581	–
1.53	–	8.00	–	619470	–	2.09	–	10.50	–	619526	–	2.65	–	13.50	–	619582	619669
1.54	–	8.00	–	619471	–	2.10	–	10.50	–	619527	619658	2.66	–	13.50	–	619583	–
1.55	–	8.00	–	619472	619647	2.11	–	11.00	–	619528	–	2.67	–	13.50	–	619584	–
1.56	–	8.00	–	619473	–	2.12	–	11.00	–	619529	–	2.68	–	13.50	–	619585	–
1.57	–	8.00	–	619474	–	2.13	–	11.00	–	619530	–	2.69	–	13.50	–	619586	–
1.58	–	8.00	–	619475	–	2.14	–	11.00	–	619531	–	2.70	–	13.50	–	619587	619670
1.59	–	8.00	–	619476	–	2.15	–	11.00	–	619532	619659	2.71	–	14.00	–	619588	–
1.60	–	8.00	–	619477	619648	2.16	–	11.00	–	619533	–	2.72	–	14.00	–	619589	–
1.61	–	8.50	–	619478	–	2.17	–	11.00	–	619534	–	2.73	–	14.00	–	619590	–
1.62	–	8.50	–	619479	–	2.18	–	11.00	–	619535	–	2.74	–	14.00	–	619591	–
1.63	–	8.50	–	619480	–	2.19	–	11.00	–	619536	–	2.75	–	14.00	–	619592	619671
1.64	–	8.50	–	619481	–	2.20	–	11.00	–	619537	619660	2.76	–	14.00	–	619593	–
1.65	–	8.50	–	619482	619649	2.21	–	11.50	–	619538	–	2.77	–	14.00	–	619594	–
1.66	–	8.50	–	619483	–	2.22	–	11.50	–	619539	–	2.78	–	14.00	–	619595	–
1.67	–	8.50	–	619484	–	2.23	–	11.50	–	619540	–	2.79	–	14.00	–	619596	–
1.68	–	8.50	–	619485	–	2.24	–	11.50	–	619541	–	2.80	–	14.00	–	619597	619672
1.69	–	8.50	–	619486	–	2.25	–	11.50	–	619542	619661	2.81	–	14.50	–	619598	–
1.70	–	8.50	–	619487	619650	2.26	–	11.50	–	619543	–	2.82	–	14.50	–	619599	–
1.71	–	9.00	–	619488	–	2.27	–	11.50	–	619544	–	2.83	–	14.50	–	619600	–
1.72	–	9.00	–	619489	–	2.28	–	11.50	–	619545	–	2.84	–	14.50	–	619601	–
1.73	–	9.00	–	619490	–	2.29	–	11.50	–	619546	–	2.85	–	14.50	–	619602	619673
1.74	–	9.00	–	619491	–	2.30	–	11.50	–	619547	619662	2.86	–	14.50	–	619603	–
1.75	–	9.00	–	619492	619651	2.31	–	12.00	–	619548	–	2.87	–	14.50	–	619604	–
1.76	–	9.00	–	619493	–	2.32	–	12.00	–	619549	–	2.88	–	14.50	–	619605	–
1.77	–	9.00	–	619494	–	2.33	–	12.00	–	619550	–	2.89	–	14.50	–	619606	–
1.78	–	9.00	–	619495	–	2.34	–	12.00	–	619551	–	2.90	–	14.50	–	619607	619674
1.79	–	9.00	–	619496	–	2.35	–	12.00	–	619552	619663	2.91	–	15.00	–	619608	–
1.80	–	9.00	–	619497	619652	2.36	–	12.00	–	619553	–	2.92	–	15.00	–	619609	–
1.81	–	9.50	–	619498	–	2.37	–	12.00	–	619554	–	2.93	–	15.00	–	619610	–
1.82	–	9.50	–	619499	–	2.38	–	12.00	–	619555	–	2.94	–	15.00	–	619611	–
1.83	–	9.50	–	619500	–	2.39	–	12.00	–	619556	–	2.95	–	15.00	–	619612	619675
1.84	–	9.50	–	619501	–	2.40	–	12.00	–	619557	619664	2.96	–	15.00	–	619613	–
1.85	–	9.50	–	619502	619653	2.41	–	12.50	–	619558	–	2.97	–	15.00	–	619614	–
1.86	–	9.50	–	619503	–	2.42	–	12.50	–	619559	–	2.98	–	15.00	–	619615	–
1.87	–	9.50	–	619504	–	2.43	–	12.50	–	619560	–	2.99	–	15.00	–	619616	–
1.88	–	9.50	–	619505	–	2.44	–	12.50	–	619561	–	3.00	–	15.00	–	619617	619676
1.89	–	9.50	–	619506	–	2.45	–	12.50	–	619562	619665						
1.90	–	9.50	–	619507	619654	2.46	–	12.50	–	619563	–						
1.91	–	10.00	–	619508	–	2.47	–	12.50	–	619564	–						

SOLID CARBIDE MICRO DRILLS

Pre-Drilling, 3xD, 5xD, 8xD, 12xD, 15xD



8 x D Micro Drills



D (mm)	D3 ±0.01 (mm)	L1 (mm)	L2 (mm)	8 x D (82X8)
Code				
0.10	1	0.8	5	619677
0.11	1	1.0	5	619678
0.12	1	1.0	5	619679
0.13	1	1.2	5	619680
0.14	1	1.2	5	619681
0.15	1	1.3	5	619682
0.16	1	1.3	5	619683
0.17	1	1.5	5	619684
0.18	1	1.5	5	619685
0.19	1	1.6	5	619686
0.20	1	1.6	7	619687
0.21	1	2.0	7	619688
0.22	1	2.0	7	619689
0.23	1	2.0	7	619690
0.24	1	2.0	7	619691
0.25	1	2.0	7	619692
0.26	1	2.4	7	619693
0.27	1	2.4	7	619694
0.28	1	2.4	7	619695
0.29	1	2.4	7	619696
0.30	1	2.4	7	619697
0.31	1	2.8	7	619698
0.32	1	2.8	7	619699
0.33	1	2.8	7	619700
0.34	1	2.8	7	619701
0.35	1	2.8	7	619702
0.36	1	3.2	7	619703
0.37	1	3.2	7	619704
0.38	1	3.2	7	619705
0.39	1	3.2	7	619706
0.40	1	3.2	7	619707
0.41	1	3.6	7	619708
0.42	1	3.6	7	619709
0.43	1	3.6	7	619710
0.44	1	3.6	7	619711
0.45	1	3.6	7	619712
0.46	1	4.0	7	619713
0.47	1	4.0	7	619714
0.48	1	4.0	7	619715
0.49	1	4.0	7	619716

D (mm)	D3 ±0.01 (mm)	L1 (mm)	L2 (mm)	8 x D (82X8)
Code				
0.50	1.5	4.0	15	619717
0.51	1.5	4.8	15	619718
0.52	1.5	4.8	15	619719
0.53	1.5	4.8	15	619720
0.54	1.5	4.8	15	619721
0.55	1.5	4.8	15	619722
0.56	1.5	4.8	15	619723
0.57	1.5	4.8	15	619724
0.58	1.5	4.8	15	619725
0.59	1.5	4.8	15	619726
0.60	1.5	4.8	15	619727
0.61	1.5	5.6	15	619728
0.62	1.5	5.6	15	619729
0.63	1.5	5.6	15	619730
0.64	1.5	5.6	15	619731
0.65	1.5	5.6	15	619732
0.66	1.5	5.6	15	619733
0.67	1.5	5.6	15	619734
0.68	1.5	5.6	15	619735
0.69	1.5	5.6	15	619736
0.70	1.5	5.6	15	619737
0.71	1.5	6.4	15	619738
0.72	1.5	6.4	15	619739
0.73	1.5	6.4	15	619740
0.74	1.5	6.4	15	619741
0.75	1.5	6.4	15	619742
0.76	1.5	6.4	15	619743
0.77	1.5	6.4	15	619744
0.78	1.5	6.4	15	619745
0.79	1.5	6.4	15	619746
0.80	1.5	6.4	15	619747
0.81	1.5	7.2	15	619748
0.82	1.5	7.2	15	619749
0.83	1.5	7.2	15	619750
0.84	1.5	7.2	15	619751
0.85	1.5	7.2	15	619752
0.86	1.5	7.2	15	619753
0.87	1.5	7.2	15	619754
0.88	1.5	7.2	15	619755
0.89	1.5	7.2	15	619756

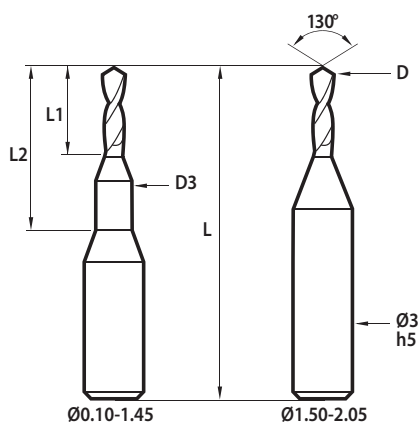
D (mm)	D3 ±0.01 (mm)	L1 (mm)	L2 (mm)	8 x D (82X8)
Code				
0.90	1.5	7.2	15	619757
0.91	1.5	8.0	15	619758
0.92	1.5	8.0	15	619759
0.93	1.5	8.0	15	619760
0.94	1.5	8.0	15	619761
0.95	1.5	8.0	15	619762
0.96	1.5	8.0	15	619763
0.97	1.5	8.0	15	619764
0.98	1.5	8.0	15	619765
0.99	1.5	8.0	15	619766
1.00	2.0	8.0	15	619767
1.01	2.0	8.8	15	619768
1.02	2.0	8.8	15	619769
1.03	2.0	8.8	15	619770
1.04	2.0	8.8	15	619771
1.05	2.0	8.8	15	619772
1.06	2.0	8.8	15	619773
1.07	2.0	8.8	15	619774
1.08	2.0	8.8	15	619775
1.09	2.0	8.8	15	619776
1.10	2.0	8.8	15	619777
1.11	2.0	9.6	15	619778
1.12	2.0	9.6	15	619779
1.13	2.0	9.6	15	619780
1.14	2.0	9.6	15	619781
1.15	2.0	9.6	15	619782
1.16	2.0	9.6	15	619783
1.17	2.0	9.6	15	619784
1.18	2.0	9.6	15	619785
1.19	2.0	9.6	15	619786
1.20	2.0	9.6	15	619787
1.21	2.0	10.4	15	619788
1.22	2.0	10.4	15	619789
1.23	2.0	10.4	15	619790
1.24	2.0	10.4	15	619791
1.25	2.0	10.4	15	619792
1.26	2.0	10.4	15	619793
1.27	2.0	10.4	15	619794
1.28	2.0	10.4	15	619795
1.29	2.0	10.4	15	619796

SOLID CARBIDE MICRO DRILLS

Pre-Drilling, 3xD, 5xD, 8xD, 12xD, 15xD

8 x D Micro Drills (continued)

D (mm)	D3 ±0.01 (mm)	L1 (mm)	L2 (mm)	8 x D (82X8) Code	D (mm)	D3 ±0.01 (mm)	L1 (mm)	L2 (mm)	8 x D (82X8) Code	D (mm)	D3 ±0.01 (mm)	L1 (mm)	L2 (mm)	8 x D (82X8) Code
1.30	2.0	10.4	15	619797	1.54	-	12.8	-	619821	1.78	-	14.4	-	619845
1.31	2.0	11.2	15	619798	1.55	-	12.8	-	619822	1.79	-	14.4	-	619846
1.32	2.0	11.2	15	619799	1.56	-	12.8	-	619823	1.80	-	14.4	-	619847
1.33	2.0	11.2	15	619800	1.57	-	12.8	-	619824	1.81	-	15.2	-	619848
1.34	2.0	11.2	15	619801	1.58	-	12.8	-	619825	1.82	-	15.2	-	619849
1.35	2.0	11.2	15	619802	1.59	-	12.8	-	619826	1.83	-	15.2	-	619850
1.36	2.0	11.2	15	619803	1.60	-	12.8	-	619827	1.84	-	15.2	-	619851
1.37	2.0	11.2	15	619804	1.61	-	13.6	-	619828	1.85	-	15.2	-	619852
1.38	2.0	11.2	15	619805	1.62	-	13.6	-	619829	1.86	-	15.2	-	619853
1.39	2.0	11.2	15	619806	1.63	-	13.6	-	619830	1.87	-	15.2	-	619854
1.40	2.0	11.2	15	619807	1.64	-	13.6	-	619831	1.88	-	15.2	-	619855
1.41	2.0	12.0	15	619808	1.65	-	13.6	-	619832	1.89	-	15.2	-	619856
1.42	2.0	12.0	15	619809	1.66	-	13.6	-	619833	1.90	-	15.2	-	619857
1.43	2.0	12.0	15	619810	1.67	-	13.6	-	619834	1.91	-	16.0	-	619858
1.44	2.0	12.0	15	619811	1.68	-	13.6	-	619835	1.92	-	16.0	-	619859
1.45	2.0	12.0	15	619812	1.69	-	13.6	-	619836	1.93	-	16.0	-	619860
1.46	2.0	12.0	15	619813	1.70	-	13.6	-	619837	1.94	-	16.0	-	619861
1.47	2.0	12.0	15	619814	1.71	-	14.4	-	619838	1.95	-	16.0	-	619862
1.48	2.0	12.0	15	619815	1.72	-	14.4	-	619839	1.96	-	16.0	-	619863
1.49	2.0	12.0	15	619816	1.73	-	14.4	-	619840	1.97	-	16.0	-	619864
1.50	-	12.0	-	619817	1.74	-	14.4	-	619841	1.98	-	16.0	-	619865
1.51	-	12.8	-	619818	1.75	-	14.4	-	619842	1.99	-	16.0	-	619866
1.52	-	12.8	-	619819	1.76	-	14.4	-	619843	2.00	-	16.0	-	619867
1.53	-	12.8	-	619820	1.77	-	14.4	-	619844	2.01	-	16.8	-	619868
										2.02	-	16.8	-	619869
										2.03	-	16.8	-	619870
										2.04	-	16.8	-	619871
										2.05	-	16.8	-	619872



12 x D Micro Drills



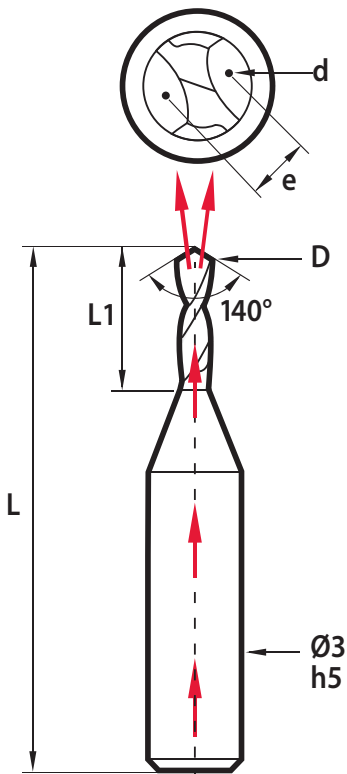
D 0.05 (mm)	L (mm)	D3 ±0.01 (mm)	L1 (mm)	L2 (mm)	12 x D (82X12) Code	D 0.05 (mm)	L (mm)	D3 ±0.01 (mm)	L1 (mm)	L2 (mm)	12 x D (82X12) Code	D 0.05 (mm)	L (mm)	D3 ±0.01 (mm)	L1 (mm)	L2 (mm)	12 x D (82X12) Code
0.30	39	1	4	10	619210	0.60	39	1.5	7.9	15	619216	0.90	39	1.5	11.9	18	619222
0.35	39	1	4.6	10	619211	0.65	39	1.5	9.2	15	619217	0.95	39	1.5	13.2	18	619223
0.40	39	1	5.3	10	619212	0.70	39	1.5	9.2	15	619218	1.00	39	2	13.2	20	619224
0.45	39	1	5.9	10	619213	0.75	39	1.5	10.6	18	619219	1.05	39	2	14.5	20	619225
0.50	39	1.5	6.6	15	619214	0.80	39	1.5	10.6	18	619220	1.10	39	2	14.5	20	619226
0.55	39	1.5	7.9	15	619215	0.85	39	1.5	11.9	18	619221	1.15	39	2	15.8	20	619227

SOLID CARBIDE MICRO DRILLS

Pre-Drilling, 3xD, 5xD, 8xD, 12xD, 15xD

12 x D Micro Drills (continued)

D 0.05 (mm)	L (mm)	D3 ±0.01 (mm)	L1 (mm)	L2 (mm)	12 x D (82X12) Code	D 0.05 (mm)	L (mm)	D3 ±0.01 (mm)	L1 (mm)	L2 (mm)	12 x D (82X12) Code	D 0.05 (mm)	L (mm)	D3 ±0.01 (mm)	L1 (mm)	L2 (mm)	12 x D (82X12) Code
1.20	39	2	15.8	20	619228	1.50	60	–	19.8	–	619234	1.80	60	–	23.8	–	619240
1.25	39	2	17.2	22	619229	1.55	60	–	21.1	–	619235	1.85	60	–	25.4	–	619241
1.30	60	2	17.2	22	619230	1.60	60	–	21.1	–	619236	1.90	60	–	25.4	–	619242
1.35	60	2	18.5	22	619231	1.65	60	–	22.4	–	619237	1.95	60	–	26.4	–	619243
1.40	60	2	18.5	22	619232	1.70	60	–	22.4	–	619238	2.00	60	–	26.4	–	619244
1.45	60	2	19.8	22	619233	1.75	60	–	23.8	–	619239	2.05	60	–	27.1	–	619245



15 x D Micro Drills



D 0.05 (mm)	L (mm)	L1 (mm)	Ød (mm)	e (mm)	15 x D (82X15) Code	D 0.05 (mm)	L (mm)	L1 (mm)	Ød (mm)	e (mm)	15 x D (82X15) Code
1.00	75	16.5	0.13	0.6	619246	1.60	95	26.4	0.2	0.9	619258
1.05	75	17.3	0.13	0.6	619247	1.65	95	27.2	0.2	0.9	619259
1.10	75	18.2	0.13	0.6	619248	1.70	95	28.1	0.2	0.9	619260
1.15	75	19	0.13	0.6	619249	1.75	95	28.9	0.2	0.9	619261
1.20	75	19.8	0.13	0.6	619250	1.80	95	29.7	0.2	0.9	619262
1.25	75	20.6	0.13	0.6	619251	1.85	95	30.5	0.2	0.9	619263
1.30	75	21.5	0.13	0.6	619252	1.90	95	31.4	0.2	0.9	619264
1.35	75	22.3	0.13	0.6	619253	1.95	95	32.2	0.2	0.9	619265
1.40	75	23.1	0.13	0.6	619254	2.00	95	33	0.2	0.9	619266
1.45	75	23.9	0.13	0.6	619255	2.05	95	33.8	0.2	0.9	619267
1.50	75	24.8	0.13	0.6	619256						
1.55	95	25.6	0.2	0.9	619257						

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