

HIGH PERFORMANCE DRILLS

LIST 9868 Metric Sizes

LIST 9869 Wire, Fractional & Letter Sizes

* Item to be released Spring 2021

Unit: mm

EDP#	Size	Decimal Equiv.	Wire/Fractional/Letter	Flute Length	Overall Legth	Shank Diameter	Stock
	Dc			f	L	Ds	
1571424	10.716	0.4219	27/64	124	182	12	•
1570216	10.800	0.4252					•
1570222	10.900	0.4291					•
1570239	11.000	0.4331					•
0781440	11.100	0.4370	7/16	129	194	•	
1571430	11.112	0.4375					•
0781456	11.200	0.4409					•
0781462	11.300	0.4449					•
0781479	11.400	0.4488	29/64	135	206	•	
0781485	11.500	0.4528					•
1571447	11.509	0.4531					•
0781491	11.600	0.4567					•
0781507	11.700	0.4606	15/32	140	14	•	
0781513	11.800	0.4646					•
0781520	11.900	0.4685					•
1571453	11.906	0.4687					•
0781536	12.000	0.4724	31/64	146	206	•	
1570245	12.100	0.4764					•
1570251	12.200	0.4803					•
1570268	12.300	0.4843					•
1571460	12.303	0.4844	15/32	140	14	•	
1570274	12.400	0.4882					•
1570280	12.500	0.4921					•
1570297	12.600	0.4961					•
1570302	12.700	0.5000	15/32	140	14	•	
1570302	12.700	0.5000					•
1570319	12.800	0.5039					•
1570325	12.900	0.5079					•
1570331	13.000	0.5118				•	

EDP#	Size	Decimal Equiv.	Wire/Fractional/Letter	Flute Length	Overall Legth	Shank Diameter	Stock
	Dc			f	L	Ds	
0781645	13.097	0.5156	33/64	151	218	14	•
0781645	13.100	0.5157					•
0781651	13.200	0.5197					•
0781668	13.300	0.5236					•
0781674	13.400	0.5276	17/32	157	230	•	
1571476	13.494	0.5313					•
0781680	13.500	0.5315					•
0781697	13.600	0.5354					•
0781702	13.700	0.5394	35/64	163	16	•	
0781719	13.800	0.5433					•
1571482	13.891	0.5469					•
0781725	13.900	0.5472					•
0781731	14.000	0.5512	9/16	169	16	•	
1570348	14.100	0.5551					•
1570354	14.200	0.5591					•
1571499	14.287	0.5625					•
1570360	14.300	0.5630	37/64	174	242	•	
1570377	14.400	0.5669					•
1570383	14.500	0.5709					•
1570390	14.600	0.5748					•
1571504	14.684	0.5781	5/8	180	242	•	
1570405	14.700	0.5787					•
1570411	14.800	0.5827					•
1570428	14.900	0.5866					•
1570434	15.000	0.5906	19/32	174	242	•	
1571510	15.081	0.5937					•
1571527	15.478	0.6094					•
1571533	15.875	0.6250					•
0781937	16.000	0.6299				•	

CARBIDE DRILLS

LIST 9868/9869 Wet Cutting Conditions

Work Material	Structural Steel Carbon Steel Cast Iron		Alloy Steel Heat treated Steel (20-30 HRC)		Mold Steel Hardened Steel (30-40 HRC)		Hardened Steel (40-50 HRC)		Ductile Cast Iron		Stainless Steel (300 & 400 Series)		PH Stainless		Titanium Alloys		Nickel Alloys Inconel	
	Speed (SFM)	390-400 SFM	325-335 SFM		255-265 SFM		130-140 SFM		325-340 SFM		255-265 SFM		155-165 SFM		125-135 SFM		125-135 SFM	
Drill Dia. Metric Fractional	RPM	IPR	RPM	IPR	RPM	IPR	RPM	IPR	RPM	IPR	RPM	IPR	RPM	IPR	RPM	IPR	RPM	IPR
3.0	12700	0.0038	10600	0.0038	8500	0.0035	4250	0.0024	10600	0.0035	8500	0.0031	5300	0.0030	4200	0.0030	4200	0.0018
1/8	12000	0.0040	10000	0.0040	7950	0.0037	4000	0.0026	9950	0.0037	8000	0.0033	4900	0.0032	3850	0.0032	4000	0.0019
3/16	7950	0.0060	6650	0.0060	5300	0.0056	2650	0.0038	6650	0.0056	5300	0.0050	3250	0.0047	2600	0.0047	2650	0.0028
5.0	7600	0.0063	6300	0.0063	5050	0.0058	2550	0.0040	6300	0.0059	5050	0.0052	3104	0.0049	2450	0.0049	2500	0.0029
1/4	6000	0.0080	5000	0.0080	4000	0.0071	2000	0.0048	5000	0.0076	4000	0.0066	2450	0.0064	1910	0.0064	2000	0.0038
5/16	4750	0.0099	3970	0.0100	3170	0.0088	1580	0.0059	3970	0.0086	3170	0.0078	1950	0.0080	1550	0.0079	1550	0.0047
8.0	4800	0.0100	4000	0.0100	3200	0.0087	1600	0.0059	4000	0.0087	3200	0.0079	2000	0.0079	1600	0.0079	1600	0.0047
3/8	4000	0.0113	3350	0.0113	2650	0.0104	1350	0.0059	3300	0.0093	2650	0.0089	1630	0.0094	1270	0.0094	1350	0.0056
10.0	3800	0.0118	3200	0.0118	2500	0.0101	1300	0.0070	3200	0.0097	2500	0.0093	1600	0.0091	1300	0.0091	1300	0.0055
12.0	3200	0.0132	2700	0.0134	2100	0.0101	1050	0.0082	2700	0.0098	2100	0.0105	1300	0.0106	1050	0.0105	1050	0.0067
1/2	3000	0.0140	2500	0.0142	1980	0.0107	1000	0.0083	2500	0.0104	2000	0.0111	1200	0.0112	960	0.0111	990	0.0072
16.0	2400	0.0157	2000	0.0175	1600	0.0118	800	0.0103	2000	0.0122	1600	0.0125	1000	0.0126	800	0.0128	800	0.0074

NOTES:

- 1) Adjust cutting condition according to the rigidity of machine or work clamp state.
- 2) In machine or installation of machining step, when there is no rigidity of machine or chattering occurs, reduce the rotation and feed rate.
- 3) Wet condition are for drilling with water soluble cutting fluid.
- 4) In non-water soluble cutting fluid, reduce the rotation and feed rate by 20%.
- 5) Use an internal coolant.

- 6) In cases where chip jamming is a problem, use step feeding.
- 7) Retraction of the step feed is to be returned to the top of the hole.
- 8) Step feed is recommended to 0.2~1.0xDc.