

Unit: mm

EDP #	Size	Decimal Equiv.	Wire/Fractional/Letter	Flute Length ℓ	Overall Length		Shank Diameter
					L	Ds	
1547934	9.92	0.3906	25/64	43	89	10	
0771155	10.00	0.3937					
0774080	10.10	0.3976					
0774097	10.20	0.4016					
0774102	10.30	0.4055					
1547940	10.32	0.4063	13/32	47	95		
0774119	10.40	0.4094					
0774125	10.50	0.4134					
0774131	10.60	0.4173					
0774148	10.70	0.4213					
1547957	10.72	0.4219	27/64	50	102	12	
0774154	10.80	0.4252					
0774160	10.90	0.4291					
0774177	11.00	0.4331					
0771264	11.10	0.4370					
1547963	11.11	0.4375	7/16	52	102	14	
0771270	11.20	0.4409					
0771287	11.30	0.4449					
0771293	11.40	0.4488					
0771309	11.50	0.4528					
1547970	11.51	0.4531	29/64	52	102	14	
0771315	11.60	0.4567					
0771321	11.70	0.4606					
0771338	11.80	0.4646					
0771344	11.90	0.4685					
1547986	11.91	0.4688	15/32	52	102	14	
0771350	12.00	0.4724					
0774183	12.10	0.4764					
0774190	12.20	0.4803					
0774205	12.30	0.4843					
1547992	12.30	0.4844	31/64	52	102	14	
0774211	12.40	0.4882					
0774228	12.50	0.4921					
0774234	12.60	0.4961					
0774240	12.70	0.5000	1/2				
0774257	12.80	0.5039		52	102	14	
0774263	12.90	0.5079					
0774270	13.00	0.5118					

EDP #	Size	Decimal Equiv.	Wire/Fractional/Letter	Flute Length ℓ	Overall Length		Shank Diameter
					L	Ds	
1548013	13.10	0.5156	33/64	53	107	14	
0771460	13.10	0.5157					
0771476	13.20	0.5197					
0771482	13.30	0.5236					
0771499	13.40	0.5276					
1548020	13.49	0.5313	17/32	55	110	16	
0771504	13.50	0.5315					
0771510	13.60	0.5354					
0771527	13.70	0.5394					
0771533	13.80	0.5433					
1548036	13.89	0.5469	35/64	56	110	16	
0771540	13.90	0.5472					
0771556	14.00	0.5512					
0774286	14.10	0.5551					
0774292	14.20	0.5591					
1548042	14.29	0.5625	9/16	58	114	16	
0774308	14.30	0.5630					
0774314	14.40	0.5669					
0774320	14.50	0.5709					
0774337	14.60	0.5748					
1548059	14.68	0.5781	37/64	58	114	16	
0774343	14.70	0.5787					
0774350	14.80	0.5827					
0774366	14.90	0.5866					
0774372	15.00	0.5906					
1548065	15.08	0.5938	19/32	58	114	16	
0771665	15.10	0.5945					
0771671	15.20	0.5984					
0771688	15.30	0.6024					
0771694	15.40	0.6063					
1548071	15.48	0.6094	39/64	58	114	16	
0771700	15.50	0.6102					
0771716	15.60	0.6142					
0771722	15.70	0.6181					
0771739	15.80	0.6220					
1548088	15.88	0.6250	5/8	58	114	16	
0771745	15.90	0.6260					
0771751	16.00	0.6299					

⚠ WARNING: Cancer - www.P65Warnings.ca.gov

LIST 9860/61 Standard 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 Series)		Nickel Alloys Titanium Alloys PH Stainless	
	Speed (SFM)	320-330 SFM	255-265 SFM		140-150 SFM		95-105 SFM		245-255 SFM		100-105 SFM		80-90 SFM	
Drill Dia. Metric Fractional	RPM	IPR	RPM	IPR	RPM	IPR	RPM	IPR	RPM	IPR	RPM	IPR	RPM	IPR
2.0	16000	0.0025	12700	0.0025	7200	0.0019	4800	0.0016	12000	0.0025	4850	0.0014	4120	0.0012
3.0	10600	0.0041	8500	0.0041	4800	0.0032	3200	0.0026	8000	0.0041	3230	0.0020	2750	0.0018
1/8	10000	0.0043	7950	0.0044	4450	0.0034	2900	0.0027	7500	0.0043	3060	0.0021	2600	0.0019
3/16	6700	0.0065	5300	0.0065	2950	0.0051	1950	0.0041	5000	0.0065	2040	0.0030	1730	0.0028
5.0	6400	0.0068	5050	0.0069	2800	0.0055	1850	0.0045	4800	0.0068	1940	0.0031	1650	0.0030
1/4	5000	0.0086	4000	0.0088	2200	0.0070	1450	0.0057	3750	0.0086	1530	0.0037	1300	0.0037
5/16	4050	0.0108	3200	0.0109	1800	0.0087	1200	0.0071	3050	0.0108	1220	0.0047	1040	0.0047
8.0	4000	0.0108	3150	0.0111	1750	0.0088	1150	0.0072	3000	0.0109	1200	0.0047	1030	0.0047
3/8	3350	0.0129	2650	0.0120	1500	0.0105	1000	0.0085	2500	0.0130	1020	0.0052	870	0.0056
10.0	3200	0.0129	2500	0.0126	1400	0.0107	950	0.0083	2400	0.0131	970	0.0055	830	0.0059
12.0	2650	0.0148	2100	0.0150	1200	0.0115	800	0.0094	2000	0.0148	800	0.0066	690	0.0071
1/2	2500	0.0157	2000	0.0158	1100	0.0121	750	0.0099	1900	0.0156	760	0.0070	650	0.0075
16.0	2000	0.0175	1550	0.0178	900	0.0140	600	0.0111	1500	0.0173	600	0.0082	510	0.0094

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) Drilling the step feed in Stainless Steel when hole depth more than 2×Dc deep, step feed interval is about 0.5×Dc.
- 6) Use air blow for cooling and the chip exclusion in dry process.
- 7) By sparks during cutting, or heat by breakage, or hot chip, there is danger of fire. Take fire prevention measures.
- 8) Retraction of the step feed is to be returned to the top of the hole.
- 9) Step feed is recommended to 0.5~1.0×Dc. In the case of small diameter step feed is recommended to 0.2~0.5×Dc.
- 10) Please use the fixture to control the amplitude of the drill bit below 0.02mm, for small diameter, high-speed cutting control amplitude of the drill bit 0.01mm or less.