Do's and Don'ts of Hole Saw Operation

- DO Operate hole saw at recommended speed. See RPM table.
- DO Apply sufficient pressure to cause continuous chip formation.
- DO Set pilot drill far enough (about 1/8") beyond cutting edge of the saw to establish and maintain a solid center.
- DO Use cutting oil or coolant to assure cleaner, cooler cuts and longer blade life.
- DO Chuck the hole saw properly.
- DO Hold the saw perpendicular to the surface of the material being cut.
- DO Hold the hole saw drive unit firmly. A drill press or lathe is best when possible.
- DO Be sure that drive pins on pin drive arbors are properly engaged.
- DO Wear safety glasses and keep idle hands away from the sawing operation.
- DON'T Run the hole saw too fast. Excessive speed will cause premature wear.
- DON'T Allow the tooth tips to rub across the surface of the work. Rubbing increases heat, dulls teeth, and will work harden some materials.
- DON'T Operate a hole saw without a pilot drill or with a pilot drill set too shallow.
- DON'T Operate a hole saw dry (except in cast iron). Dry cuts generate more heat and decrease the life of the hole saw.
- DON'T Chuck the hole saw too loosely or off center.
- DON'T Try to saw holes at an angle to the work surface. If the teeth contact the work unevenly, the hole saw will twist off center and break the pilot drill or saw.
- DON'T Allow the hole saw and drive unit to wobble or orbit around the pilot drill. This can cause the hole saw to jam or skip resulting in breakage.
- DON'T Allow the drive pins to become loose and disengage from the hole saw cap.
- DON'T Let loose clothing or long hair get near a revolving hole saw.

CAUTION: Failure to operate tool correctly may result in tool breakage or bodily injury.

Carbide-tipped Hole Saws

		Recommended RPM				
Hole Saw Diameter (in)	Hole Saw Diameter (mm)	Aluminum	Stainless	Fiberglass	Ceramic Tile	Cast Iron
11/16	17.5	1800	690	270	550	240
3/4	19.1	1700	640	250	500	210
7/8	22.2	1500	550	210	430	180
1	25.4	1300	480	190	370	150
1-1/8	28.6	1100	420	170	330	140
1-1/4	31.8	1000	380	160	300	130
1-3/8	34.9	900	350	140	270	110
1-1/2	38.1	900	320	120	250	100
1-5/8	41.3	700	290	110	230	90
1-3/4	44.5	700	270	110	210	90
2	50.8	600	240	90	190	80
2-1/8	54	600	220	90	180	70
2-1/4	57.2	600	210	80	170	70
2-3/8	60.3	600	200	80	160	70
2-1/2	63.5	500	190	70	150	60
2-9/16	65.1	500	190	70	140	60
2-5/8	66.7	500	180	70	130	60
2-11/16	68.3	500	180	60	120	60
3	76.2	400	160	60	120	50
3-1/4	82.6	400	150	60	110	50
3-3/8	85.7	400	140	60	110	50
3-1/2	88.9	400	140	50	110	50
3-5/8	92.1	400	130	50	100	40
3-3/4	95.3	300	130	50	100	40
4	101.6	300	120	50	100	40
4-1/8	104.8	300	120	50	90	40
4-1/4	108	300	110	50	90	40
4-1/2	114.3	300	110	40	80	30
4-3/4	127	300	100	40	80	30
5	120.7	200	100	40	80	30
5-1/2	139.7	200	100	40	70	30
6	152.4	100	80	30	60	30

Bi-Metal Hole Saws

		Recommended RPM				
Hole Saw Diameter (in)	Hole Saw Diameter (mm)	Aluminum	Stainless	Fiberglass	Ceramic Tile	Cast Iron
9/16	14.3	580	300	400	790	900
5/8	15.9	550	275	365	730	825
11/16	17.5	500	250	330	665	750
3/4	19.1	460	230	300	600	690
25/32	19.8	425	210	280	560	630
13/16	20.6	425	210	280	560	630
7/8	22.2	390	195	260	520	585
15/16	23.8	370	185	245	495	555
1	25.4	350	175	235	470	525
1-1/16	27	325	160	215	435	480
1-1/8	28.6	300	150	200	400	450
1-3/16	30.2	285	145	190	380	425
1-1/4	31.8	275	140	180	360	410
1-5/16	33.3	260	135	175	345	390
1-3/8	34.9	250	125	165	330	375
1-7/16	36.5	240	120	160	315	360
1-1/2	38.1	230	115	150	300	345
1-9/16	39.7	220	110	145	290	330
1-5/8	41.3	210	105	140	280	315
1-11/16	42.9	205	100	135	270	305
1-3/4	44.5	195	95	130	250	295
1-13/16	46	190	95	125	250	285
1-7/8	47.6	180	90	120	240	270
2	50.8	170	85	115	230	255
2-1/16	52.4	165	80	110	220	245
2-1/8	54	160	80	105	210	240
2-1/4	57.2	150	75	100	200	225
2-3/8	60.3	140	70	95	190	220
2-1/2	63.5	135	65	90	180	205
2-9/16	65.1	130	65	85	175	200
2-5/8	66.7	130	65	85	170	195
2-11/16	68.3	125	60	80	160	185
2-3/4	69.9	125	60	80	160	185
2-7/8	73	120	60	80	160	180
3	76.2	115	55	75	150	170
3-1/8	79.4	110	55	70	140	165
3-1/4	82.6	105	50	70	140	155
3-3/8	85.7	100	50	65	130	150
3-1/2	88.9	95	45	65	130	145
3-5/8	92.1	95	45	60	120	140
3-3/4	95.3	90	45	60	120	135
3-7/8	98.4	85	40	55	110	130
4	101.6	85	40	55	110	130
4-1/8	104.8	80	40	55	110	120
4-1/4	108	80	40	55	110	120
4-3/8	111.1	75	35	50	100	105
4-1/2	114.3	75	35	50	100	105
4-5/8	117.5	75	35	50	100	105
4-3/4	120.7	70	35	45	90	95
5	127	70	35	45	90	95
5-1/2	139.7	65	30	40	85	90
6	152.4	65	30	40	85	90