

CARE AND USE OF CARBIDE-TIPPED HOLE SAWS

Relton Carbide-Tipped hole saws are available for use in a wide range of materials, including: metal, wood, plastics, masonry, ceramics, marble and fiberglass. Be sure you have the correct Relton hole saw for your application. Please see page 4 for spring ejector instructions.

Relton hole saws can be easily resharpened. The high-quality carbide inserts are replaceable, allowing for complete rebuilding of the saw. Contact the Relton factory in Arcadia, California, for more information on the resharpening or rebuilding of your hole saw.

Relton Carbide-Tipped hole saws will provide the lowest cost per hole when the following use and care instructions are observed:

- 1.) Insert the hole saw shank into the chuck of the power tool properly. If the shank is inserted off center, or the chuck is not tight, vibration may damage the hole saw.
- 2.) Tighten the shank firmly to the hole-saw head. Allowing the shank to be loose in the head will cause excessive vibration that may damage the cutting teeth and the material being cut.
- 3.) Hold the hole saw and drive unit as steadily as possible. Use a drill press or drilling fixture when possible. Allowing the drive unit or the hole saw to wobble will create undue stress and may cause the cutting teeth to strip out or the saw head to break.
- 4.) The saw should be held at a 90° angle to the surface of the material being cut. Sawing on an angle that is not 90° to the surface may cause the cutting teeth of the hole saw to contact the material unevenly, thus breaking the saw. There are some types of saws that do allow for an "interrupted cut."
- 5.) A recommended RPM table is supplied with these use-and-care instructions. Operate the hole saw near the speed listed in the table. Running the saw faster than the recommended RPM may cause the saw to wear unnecessarily.
- 6.) Apply adequate pressure on the saw while cutting. Allowing the cutter points to contact the work without applying adequate pressure may cause the cutter points to dull earlier than normal.
- 7.) Always wear safety glasses and keep fingers and hands away from the saw while it's in operation. Don't wear loose clothing near an operating hole saw.
- 8.) Cutting fluids, such as Relton **Rapid Tap®**, **Hard-Metal Cutting Fluid**, and **A-9®**, **Aluminum Cutting Fluid**, can be used on a Carbide-Tipped hole saw to extend cutter life and maintain a clean, consistent cut in metals. **If a lubricant is to be used, it must be applied prior to the heat build-up** that occurs when a saw contacts the workpiece.
- 9.) Relton hole saws should be used in conformity with the power tool manufacturer's specifications.

RELTON CARBIDE-TIPPED HOLE SAW RPM SCHEDULE*

IN	SIZE MM	MILD STEEL CERAMIC TILE		CAST IRON		STAINLESS STEEL		WOOD/ALUMINUM PLASTIC FIBERGLASS	
		MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.
3/4"	19.0	850	1050	1100	1250	250	350	1200	1500
7/8"	22.2	750	950	1000	1200	225	325	1150	1450
1"	25.4	650	850	900	1100	200	300	1100	1400
1 1/8"	28.6	530	750	800	1000	175	275	1050	1350
1 1/4"	31.8	500	700	720	920	160	260	1000	1250
1 3/8"	34.9	450	650	650	850	145	245	975	1200
1 1/2"	38.1	425	625	600	800	135	235	950	1200
1 5/8"	41.3	375	575	550	750	125	225	925	1200
1 3/4"	44.3	350	550	500	700	115	215	920	1200
1 7/8"	47.6	325	525	470	670	110	210	915	1200
2"	50.8	325	525	450	650	105	205	900	1200
2 1/8"	54.0	300	500	425	625	100	200	890	1190
2 1/4"	57.2	275	475	400	600	95	195	880	1180
2 3/8"	60.3	250	450	375	575	90	190	875	1175
2 1/2"	63.5	250	450	360	560	85	185	850	1150
2 5/8"	66.7	240	440	340	540	80	180	830	1130
2 3/4"	69.9	230	430	325	525	77	177	800	1000
2 7/8"	73.0	220	420	310	510	75	175	775	1075
3"	76.2	210	410	300	500	73	173	750	1050
3 1/8"	79.4	205	405	280	480	71	171	725	1025
3 1/4"	82.6	195	395	275	475	69	169	700	1000
3 1/2"	85.7	190	390	260	460	65	165	675	975
3 3/8"	88.9	180	380	255	455	60	160	650	950
3 5/8"	92.1	175	375	250	450	55	155	625	925
3 3/4"	95.3	170	370	240	440	52	152	600	900
3 7/8"	98.4	165	365	235	435	50	150	575	875
4"	101.6	160	360	225	425	50	150	550	850
4 1/8"	104.8	155	355	215	415	48	148	525	825
4 1/4"	108.0	150	350	210	410	46	146	500	800
4 3/8"	111.1	145	345	205	405	45	145	475	775
4 1/2"	114.3	140	340	200	400	43	143	450	750
4 5/8"	117.5	135	335	195	395	41	141	425	725
4 3/4"	120.7	130	330	185	385	40	140	400	700
4 7/8"	123.8	130	330	180	380	40	140	375	675
5"	127.0	120	320	175	375	40	140	350	650
5 1/4"	133.4	120	320	170	370	38	138	345	645
5 1/2"	139.7	115	315	165	365	35	135	340	640
5 3/4"	146.1	115	315	160	360	35	135	330	630
6"	152.4	100	300	150	350	30	130	325	625
6 1/2"	165.1	100	300	145	345	25	125	300	600
7"	177.8	90	290	130	330	23	123	280	580

* TO BE USED AS A GUIDE ONLY. SPEEDS MAY VARY DUE TO DRILLING CONDITIONS.