High Speed Steel Bi-Metal Hole Saws

Instructions

Constructed with the highest grade of steel with M42 Bi-Metal Construction, with 8% industrial grade cobalt content for longer life than traditional M3 Bi-Metal Hole Saws. The High Speed Steel Bi-Metal Hole Saws offer:

- Reduce cutting time with 1-7/8" depth of cut.
- Solid back plate for cleaner, truer holes and longer tool life.
- Unique fleem ground teeth geometry resulting in improved performance and efficient chip removal.
- 4/6 variable tooth configuration for faster cutting and longer life.
- Diamond side provides quick plug removal, available on 7/8 in. to 6 in. hole saws
- Cat eye openings on solid back plate provide line of sight and aid in plug removal, available on 2 in. to 6 in. hole saws.

Safety First!

- Always wear eye protection when using this product.
- Wear appropriate working clothes and shoes as needed.
- Wear hearing protection while using this product.
- Utilize a cap to keep long hair away from moving drill.
- Reduce pressure when hole saw is close to drilling through object. Be cautious of foot position as substrates may be hot once ejected from hole saw.
- When alternating hole saw sizes, disconnect power to drill and allow hole saw to cool down before touching hole saw.
- Do not touch object or pick up chips immediately after cutting as high heat is generated that can cause a burn.
- Do not modify hole saw for any other purpose. Any inappropriate modification of the hole saw may cause an accident and result in personal injury.

Guidelines for Best Hole Saw Operation

- Choose the appropriate size of hole saw as per application and cutting edge.
- Choose drill with adjustable speed function to avoid damage on cutting edge.
- Ensure pilot bit and arbor are firmly attached to drill. Drive pins should be fully engaged in drive pin holes.
- Pilot bit should extend at a minimum anywhere from 3/16" to 1/4" from end of tooth points - enough to establish and hold center.

- Keep hole saw vertical with cutting object when in use in corded or cordless drill.
- For best performance, follow the recommended RPM based on selected material per table below.
- If drilling through metal, we highly recommend the use of good grade of cutting oil to assure cleaner cut and extend the life of the hole saw.
- Do not turn off power during drilling. Sudden loss of power may cause damage to the cutting edge of hole saw.
- When drilling with larger hole saw reduce your drilling force and drilling speed.
- Operator should feed the saw in and out to allow for material shavings to clear out of hole being cut.

Pipe Tap & Pipe Entrance References

Pipe taps are leveraged for threading holes created by bi-metal hole saws to receive a threaded pipe. Reference the product charts for proper selection of bi-metal hole saw for pipe tap.

Pipe entrance is the diameter for the hole through which the pipe of given diameter will pass through during installation or repair.

Pipe size is defined as the inside diameter.

Tubing size is defined by the outside diameter. To cut an entrance hole of a given tubing diameter, the same diameter hole saw should be used.

Bi-Metal Hole Saw Operating Speeds (RPM Table)

											
Diameter		**Pipe Tap Diameter**		**Pipe Entrance Diameter**		**Mild Steel**	**Tool S.S.**	**Cast Iron**	**Brass**	**Aluminum**	**Wood**
Inches	**MM**	**Inches**	**MM**	**Inches**	**MM**						
9/16	14					580	300	400	790	900	3000
5/8	16					550	275	365	730	825	3000
11/16	17					500	250	330	665	750	3000
3/4	19	1/2	13	3/8	10	460	230	300	600	690	3000
13/16	21					390	195	260	520	585	3000
7/8	22	3/4	19	1/2	13	390	195	260	520	585	3000
15/16	24					350	175	235	470	525	2700
1	25					350	175	235	470	525	2700
1-1/16	27					325	160	215	435	480	2700

											
Diameter		**Pipe Tap Diameter**		**Pipe Entrance Diameter**		**Mild Steel**	**Tool S.S.**	**Cast Iron**	**Brass**	**Aluminum**	**Wood**
Inches	**MM**	**Inches**	**MM**	**Inches**	**MM**						
1-1/16	27					325	160	215	435	480	2700
1-1/8	29	1	25	3/4	19	300	150	200	400	450	2700
1-1/4	32					275	140	180	360	410	2400
1-5/16	33					260	135	175	345	390	2400
1-3/8	35					250	125	165	330	375	2400
1-7/16	37					240	120	160	315	360	2400
1-1/2	38	1-1/4	32			230	115	150	300	345	2400
1-9/16	40					220	110	145	290	330	2100
1-5/8	41					210	105	140	280	315	2100
1-11/16	43					205	100	135	270	305	2100
1-3/4	44	1-1/2	38	1-1/4	32	195	95	130	260	295	2100
1-13/16	46					190	95	125	250	285	2100
1-7/8	48					180	90	120	240	270	2100
2	51			1-1/2	38	170	85	115	230	255	2000
2-1/16	52					165	80	110	220	245	2000
2-1/8	54					160	80	105	210	240	2000
2-1/4	57	2	51			150	75	100	200	225	2000
2-5/16	59					145	75	95	195	225	2000
2-3/8	60					140	70	90	190	220	2000
2-1/2	64			2	51	135	65	85	180	205	1850
2-9/16	65					130	65	85	175	200	1850
2-5/8	67	2-1/2	64			130	65	85	170	195	1800
2-3/4	70					125	60	80	160	185	1800
2-7/8	73					120	60	75	160	180	1800
3	76			2-1/2	64	115	55	70	150	170	1800

Diameter		Pipe Tap Diameter		Pipe Entrance Diameter		Mild Steel	Tool S.S.	Cast Iron	Brass	Aluminum	Wood
Inches	MM	Inches	MM	Inches	MM						
3-1/4	83	3	76			105	50	65	140	155	1500
3-3/8	86					100	50	65	130	150	1500
3-1/2	89					95	45	65	130	145	1200
3-5/8	92			3	76	90	45	60	120	140	1200
3-3/4	95	3-1/2	89			90	45	60	120	135	1200
3-7/8	98					90	45	60	120	135	1200
4	102					85	40	55	110	130	1000
4-1/8	104			3-1/2	89	80	40	55	110	120	1000
4-1/4	108	4	102			80	40	55	110	120	900
4-3/8	111					80	40	50	100	120	900
4-1/2	114					75	35	50	100	105	900
4-3/4	121	4-1/2	114	4	102	75	35	50	92	95	900
5	127					65	30	45	90	90	800
5-1/2	140			5	127	60	25	40	85	85	800
5-3/4	146					55	25	35	75	75	800
6	152					55	25	35	75	75	800

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