

Hole saws

The RUKO bi-metal hole saws can be used in hand and pillar drills. When employing pillar drills, use manual advance only.

Bi-metal hole saws HSS with varied toothing

On easily cut materials the varied toothing ensures that the cut is more even and requires less effort. The reduction in vibrations and heat development during cutting achieves up to three times the tool life. Suitable for unalloyed steel (up to 700 N/mm² strength), non-ferrous and light metals, plastics, plasterboard and light building boards, fibreboard, plywood and wood.

Bi-metal hole saws HSSE-Co 8 with fine toothing

The fine toothing is particularly suitable for cutting metals. It ensures smoother running and reduces the necessary effort. The reduction in heat development during cutting increases tool life, especially in the case of metals. Suitable for alloyed and non-alloyed steels (up to 1.000 N/mm² strength), high chromium alloyed steels such as stainless steel, steels resistant to rusts and acids, non-ferrous and light metals.

Characteristics:

- High rotational precision
- Sturdy construction
- Hole saw and shank in two parts, so hole saws of different diameters can be exchanged and fitted more rapidly
- Positive chipping and cutting angles ensure more aggressive cutting
- The teeth are welded onto a jacket of special steel
- Good chip removal
- Slots in the jacket side assist removal of cut outs
- Exchangeable centring drill

User instructions:

- Unsuitable for percussion-drill operation
- Only slight pressure required to start drilling
- Drill with light, steady pressure
- Avoid pendulum movements while drilling
- Observe table of drilling speeds
- Use prescribed cooling agents

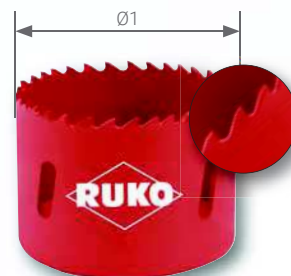


Best results are achieved in steel with a max. of 5.0 mm material thickness.





Jacket: special steel



Bi-metal hole saws HSS with varied toothing / HSSE-Co 8 with fine toothing

Packing unit: individual carton

Steel (N/mm2) < 900	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Steel (N/mm2) < 1100	<input type="checkbox"/>	<input type="checkbox"/>
Steel (N/mm2) < 1300	<input type="checkbox"/>	<input type="checkbox"/>
Stainless steel	<input type="checkbox"/>	<input type="checkbox"/>
Aluminium	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Brass	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Bronze	<input type="checkbox"/>	<input type="checkbox"/>
Plastics	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Cast iron	<input type="checkbox"/>	<input type="checkbox"/>
Titanium alloyed	<input type="checkbox"/>	<input type="checkbox"/>

Ø mm	Ø inch	PG	Tube dimensions inch	For arbor holders			
14,0	9/16			A1 / A4 / A5	106 014	126 014	1
16,0	5/8	~ PG 9		A1 / A4 / A5	106 016	126 016	1
17,0				A1 / A4 / A5	106 017	126 017	1
19,0	3/4	~ PG 11	3/8	A1 / A4 / A5	106 019	126 019	1
20,0				A1 / A4 / A5	106 020	126 020	1
21,0		~ PG 13,5		A1 / A4 / A5	106 021	126 021	1
22,0	7/8		1/2	A1 / A4 / A5	106 022	126 022	1
24,0	15/16	~ PG 16		A1 / A4 / A5	106 024	126 024	1
25,0	1			A1 / A4 / A5	106 025	126 025	1
27,0	1 1/16			A1 / A4 / A5	106 027	126 027	1
28,0	1 3/32			A1 / A4 / A5	106 028	126 028	1
29,0	1 1/8	~ PG 21	3/4	A1 / A4 / A5	106 029	126 029	1
30,0	1 3/16			A1 / A4 / A5	106 030	126 030	1
32,0	1 1/4			A2 / A6 / A7	106 032	126 032	1
33,0				A2 / A6 / A7	106 033	126 033	1
35,0	1 3/8		1	A2 / A6 / A7	106 035	126 035	1
36,0				A2 / A6 / A7	106 036	126 036	1
37,0		PG 29		A2 / A6 / A7	106 037	126 037	1
38,0	1 1/2			A2 / A6 / A7	106 038	126 038	1
40,0				A2 / A6 / A7	106 040	126 040	1
41,0	1 5/8			A2 / A6 / A7	106 041	126 041	1
43,0	1 11/16			A2 / A6 / A7	106 043	126 043	1
44,0	1 3/4		1 1/4	A2 / A6 / A7	106 044	126 044	1
46,0	1 13/16			A2 / A6 / A7	106 046	126 046	1
48,0	1 7/8	~ PG 36		A2 / A6 / A7	106 048	126 048	1
50,0				A2 / A6 / A7	106 050	126 050	1
51,0	2		1 1/2	A2 / A6 / A7	106 051	126 051	1
52,0				A2 / A6 / A7	106 052	126 052	1
54,0	2 1/8	PG 42		A2 / A6 / A7	106 054	126 054	1
55,0				A2 / A6 / A7	106 055	126 055	1
57,0	2 1/4			A2 / A6 / A7	106 057	126 057	1
59,0				A2 / A6 / A7	106 059	126 059	1
60,0	2 3/8	~ PG 48		A2 / A6 / A7	106 060	126 060	1
63,0				A2 / A6 / A7	106 063	126 063	1
64,0	2 1/2		2	A2 / A6 / A7	106 064	126 064	1
65,0				A2 / A6 / A7	106 065	126 065	1
67,0	2 5/8			A2 / A6 / A7	106 067	126 067	1
68,0				A2 / A6 / A7	106 068	126 068	1
70,0	2 3/4			A2 / A6 / A7	106 070	126 070	1
73,0	2 7/8			A2 / A6 / A7	106 073	126 073	1
76,0	3		2 1/2	A2 / A6 / A7	106 076	126 076	1
79,0	3 1/8			A2 / A6 / A7	106 079	126 079	1
83,0	3 1/4			A2 / A6 / A7	106 083	126 083	1
86,0	3 3/8			A2 / A6 / A7	106 086	126 086	1
89,0	3 1/2			A2 / A6 / A7	106 089	126 089	1
92,0	3 5/8		3	A2 / A6 / A7	106 092	126 092	1
95,0	3 3/4			A2 / A6 / A7	106 095	126 095	1
98,0	3 7/8			A2 / A6 / A7	106 098	126 098	1
102,0	4			A2 / A6 / A7	106 102	126 102	1
105,0			3 1/2	A2 / A6 / A7	106 105	126 105	1
108,0	4 1/4			A2 / A6 / A7	106 108	126 108	1
111,0	4 3/8			A2 / A6 / A7	106 111	126 111	1
114,0	4 1/2		4	A2 / A6 / A7	106 114	126 114	1
121,0	4 3/4			A2 / A6 / A7	106 121	126 121	1
127,0	5			A2 / A6 / A7	106 127	126 127	1
133,0				A2 / A6 / A7	106 133	126 133	1
140,0	5 1/2			A2 / A6 / A7	106 140	126 140	1
152,0	6			A2 / A6 / A7	106 152	126 152	1
160,0	6 5/16			A2 / A6 / A7	106 160	126 160	1
168,0	6 5/8			A2 / A6 / A7	106 168	126 168	1
177,0				A2 / A6 / A7	106 177	126 177	1
210,0	8 1/4			A2 / A6 / A7	106 200	126 200	1

Main application

Other application

Arbor holders including pilot drill for bi-metal hole saws HSS and HSSE-Co 8

Packing unit: individual carton



Hole saws Ø mm	Arbor holders Type	Shank Ø mm	Shank shape	Thread	HSS	HSSE Co 5	
14,0 - 30,0	A1	11,0	⬡	1/2" x 20	106 201	126 201	1
32,0 - 210,0	A2	11,0	⬡	5/8" x 18	106 202	126 202	1
14,0 - 30,0	A4	6,0	○	1/2" x 20	106 204	126 204	1
14,0 - 30,0	A5	9,5	⬡	1/2" x 20	106 210	126 210	1
32,0 - 210,0	A6	9,5	⬡	5/8" x 18	106 209	126 209	1
32,0 - 210,0	A7	10,0	SDS-Plus	5/8" x 18	106 211	126 211	1

Accessories for bi-metal hole saws HSS and HSSE-Co 8

Packing unit: individual plastic pack





	Arbor holders type	HSS	HSSE Co 5	
Adapter to support HSS and HSSE-Co 8 bi-metal hole saws from Ø 32,0 to Ø 210,0 mm	A1 / A4 / A5	106 212	—	1
Pilot drill HSS / HSSE-Co 5, ground, Ø 6,35 x 102,0 mm and split point in accordance with DIN 1412 C	A4	106 207	126 207	1
Pilot drill HSS / HSSE-Co 5, ground, Ø 6,35 x 82,0 mm and split point in accordance with DIN 1412 C	A1 / A2 / A5 / A6 / A7	106 206	126 206	1
Extension 300,0 mm, shank shape ⬡ 11,0 mm	A1 / A2	106 205	—	1
Ejector spring	—	106 208	—	1



Jacket: special steel



Sets of bi-metal hole saws HSS / HSSE-Co 8 in plastic cases

			
PK 1	8- piece set of bi-metal hole saws for plumbers 6 bi-metal hole saws Ø 19,0 - 22,0 - 29,0 - 38,0 - 44,0 - 57,0 mm + 2 arbor holders A2 and A4	106 301	126 301
PK 2	11- piece set of bi-metal hole saws for plumbers 9 bi-metal hole saws Ø 19,0 - 22,0 - 29,0 - 35,0 - 38,0 - 44,0 - 51,0 - 57,0 - 64,0 mm + 2 arbor holders A2 and A4	106 306	126 306
EK 1	8- piece set of bi-metal hole saws for electricians 6 bi-metal hole saws Ø 22,0 - 29,0 - 35,0 - 44,0 - 51,0 - 64,0 mm + 2 arbor holders A2 and A4	106 305	126 305
EK 2	8- piece set of bi-metal hole saws for electricians 6 bi-metal hole saws Ø 22,0 - 29,0 - 35,0 - 44,0 - 51,0 - 68,0 mm + 2 arbor holders A2 and A4	106 302	126 302
Universal	12- piece set of bi-metal hole saws Ø 19,0 - 22,0 - 25,0 - 29,0 - 35,0 - 38,0 - 44,0 - 51,0 - 57,0 - 64,0 mm + 2 arbor holders A2 and A4	106 303	126 303
Super	12- piece set of bi-metal hole saws Ø 22,0 - 25,0 - 32,0 - 35,0 - 41,0 - 44,0 - 51,0 - 54,0 - 60,0 - 68,0 mm + 2 arbor holders A2 and A4	106 304	126 304
Premium	19- piece set of bi-metal hole saws Ø 16,0 - 19,0 - 21,0 - 24,0 - 25,0 - 29,0 - 32,0 - 37,0 - 40,0 - 48,0 - 51,0 - 54,0 - 60,0 - 73,0 - 83,0 mm + 2 arbor holders A1 and A2 + 1 Pilot drill HSS Ø 6,35 mm x 82,0 mm + 1 Extension 300,0 mm, arbors for A1 and A2	106 318	126 318



106 306



106 304



106 318



126 306



126 304



126 318



Recommended cutting speeds for bi-metal hole saws HSS and HSSE-Co 8

Material:		High carbon struc. steel	Alloyed steel	Cast iron	CuZn alloy	Aluminium alloy	Thermo- plastics	Duro- plastics	Wood
		up to 700 N/mm ²	up to 1000 N/mm ²	over 250 N/mm ²		up to 11% Si			
Vc = m/min		30	20	10	35	30	20	15	40
Coolant:		Cutting spray	Cutting spray	Compressed air	Compressed air	Cutting spray	Water	Compressed air	Compressed air
Ø mm	Ø inch	r.p.m.	r.p.m.	r.p.m.	r.p.m.	r.p.m.	r.p.m.	r.p.m.	r.p.m.
14,0	9/16	682	455	227	796	682	455	341	910
16,0	5/8	597	398	199	697	597	398	299	796
17,0		562	375	187	656	562	375	281	749
19,0	3/4	503	335	168	587	503	335	251	670
21,0		455	303	152	531	455	303	227	607
22,0	7/8	434	290	145	507	434	290	217	579
24,0	15/16	398	265	133	464	398	265	199	531
25,0	1	382	255	127	446	382	255	191	510
27,0	1 1/16	354	236	118	413	354	236	177	472
28,0	1 3/32	341	227	114	398	341	227	171	455
29,0	1 1/8	329	220	110	384	329	220	165	439
30,0	1 3/16	318	212	106	372	318	212	159	425
32,0	1 1/4	299	199	100	348	299	199	149	398
33,0		290	193	97	338	290	193	145	386
35,0	1 3/8	273	182	91	318	273	182	136	364
36,0		265	177	88	310	265	177	133	354
37,0		258	172	86	301	258	172	129	344
38,0	1 1/2	251	168	84	293	251	168	126	335
40,0		239	159	80	279	239	159	119	318
41,0	1 5/8	233	155	78	272	233	155	117	311
43,0	1 11/16	222	148	74	259	222	148	111	296
44,0	1 3/4	217	145	72	253	217	145	109	290
46,0	1 3/4	208	138	69	242	208	138	104	277
48,0	1 7/8	199	133	66	232	199	133	100	265
50,0	1 31/32	190	128	64	225	194	129	97	257
51,0	2	187	125	62	219	187	125	94	250
52,0		184	122	61	214	184	122	92	245
54,0	2 1/8	177	118	59	206	177	118	88	236
57,0	2 1/4	168	112	56	196	168	112	84	223
59,0		162	108	54	189	162	108	81	216
60,0	2 3/8	159	106	53	186	159	106	80	212
63,0		152	101	51	177	152	101	76	202
64,0	2 1/2	149	100	50	174	149	100	75	199
65,0		147	98	49	171	147	98	73	196
67,0	2 5/8	143	95	48	166	143	95	71	190
68,0		141	94	47	164	141	94	70	187
70,0	2 3/4	136	91	45	159	136	91	68	182
73,0	2 7/8	131	87	44	153	131	87	65	175
76,0	3	126	84	42	147	126	84	63	168
79,0	3 1/8	121	81	40	141	121	81	60	161
83,0	3 1/4	115	77	38	134	115	77	58	153
86,0	3 3/8	111	74	37	130	111	74	56	148
89,0	3 1/2	107	72	36	125	107	72	54	143
92,0	3 5/8	104	69	35	121	104	69	52	138
95,0	3 3/4	101	67	34	117	101	67	50	134
98,0	3 7/8	97	65	32	114	97	65	49	130
102,0	4	94	62	31	109	94	62	47	125
105,0		91	61	30	106	91	61	45	121
108,0	4 1/4	88	59	29	103	88	59	44	118
111,0	4 3/8	86	57	29	100	86	57	43	115
114,0	4 1/2	84	56	28	98	84	56	42	112
121,0	4 3/4	79	53	26	92	79	53	39	105
127,0	5	75	50	25	88	75	50	38	100
140,0	5 1/2	68	45	23	80	68	45	34	91
152,0	6	63	42	21	73	63	42	31	84
160,0	6 5/16	60	40	20	70	60	40	30	80
168,0	6 5/8	57	38	19	66	57	38	28	76
177,0		54	36	18	63	54	36	27	72
210,0	8 9/32	45	30	15	53	45	30	23	61