

BORING

Portable Magnetic Base Drilling Machine

ATRA ACE quick auto

Fully automatic drilling for increased productivity and reduced cost

- Proven Automatic Technology (self feeding, automatic return, load detection for speed and feed regulation)

Model QA-4000 Non-CE

- Max. 40 mm dia. x 35 mm deep



Model QA-6500 Non-CE

- Max. 65 mm dia. x 50 mm deep

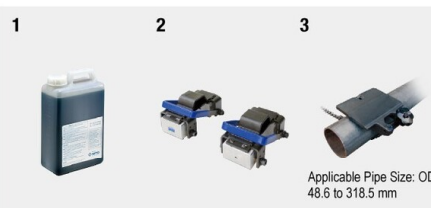


Specifications

Model		QA-4000		QA-6500	
Power Source (Single Phase)		110 - 120 V AC, 50/60 HZ		220 - 240 V AC, 50/60 Hz	
Electric Drill	Rated Power Consumption	680 W		1010 W	
	Rated Current	6.1 A		4.5 A	
	No-load Speed	750 min ⁻¹ (rpm)		400 / 750	
Magnet Power Consumption		50 W		75 W	
Hole Capacity mm	Cutter	Hole Diameter		Plate Thickness	
	One-touch Type JETBROACH 35L	17.5 to 40		9 to 35	
	One-touch Type JETBROACH 50L	-		17.5 to 65	
	One-touch Type HI-BROACH 25L	14 to 15		9 to 12	
		16 to 18		9 to 25	
Min. Plate Thickness for Magnet Adhesion		9 mm		9 mm	
Max. Stroke		75 mm		88 mm	
Magnet Holding Power		6664 (680) N(kgf)		9800 (1000)	
Magnet Dimensions		82 (W) x 172 (L) mm		100 (W) x 200 (L)	
Power Cord Length		4 m		5 m	
Mass (Weight)		18.5 kg		26 kg	
Accessories Included		• Oil Tank • Cutting Oil 0.5L • Pilot Pin 08035 • Side Handle • 3 mm Hex Socket Screw Key		• 4 mm Hex Socket Screw Key • 8 x 10 mm Spanner • Chain • Tool Box	

Optional Accessories

Ref. No.	PN	Description	Sales Unit	Applicable Model	
				QA-4000	QA-6500
1	TB01507	Cutting Oil 2L	1 piece	●	●
2	TB04374	Supporting Magnet Ass'y	1 set	●	●
3	TB07696	Pipe Attachment Ass'y	1 set	●	●
		One-touch Type JETBROACH 35L	1 piece	●	●
		One-touch Type JETBROACH 50L	1 piece	●	●
		One-touch Type HI-BROACH 12L	1 piece	●	●
		One-touch Type HI-BROACH 25L	1 piece	●	●



BORING

Automatic Return

Once drilling is completed and the slug is ejected from the hole, the cutting bit is quickly retracted. This quick drill motor retraction allows the user to move onto the next hole more quickly.

Built-in Motion Sensor

If any lateral movement or excess vibration is detected, both the drill and the feed motor stop. Nitto Kohki is the first company to incorporate this feature into magnetic base drills.

Self Feeding & Load Detection

The feeding is controlled by an onboard microcomputer. The feed rate begins slowly and then increases to the appropriate speed for the cutter size and load condition. The load detector clearly shows the amount of resistance on the cutter at anytime.



Step Feed

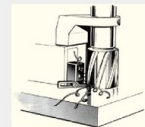
When cutting through difficult materials, the load sensor will automatically activate the Step Feed Program to help penetrate material.

Limit Switch

The automatic drills of ATRA ACE utilize a limit switch that resets the machine when it retracts to the starting position after hole completion, and shuts down the motors in the event of an over-travel at the bottom of the stroke.

Chip Breaker

This chip breaker prevents the cutter from becoming jammed with metal shavings.



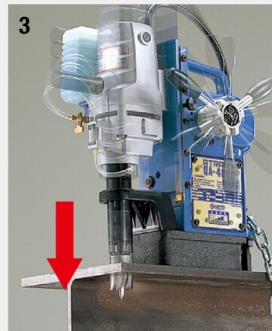
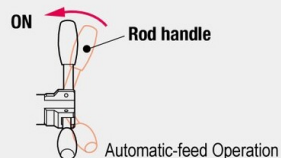
Automatic-feed Hole-cutting Procedure



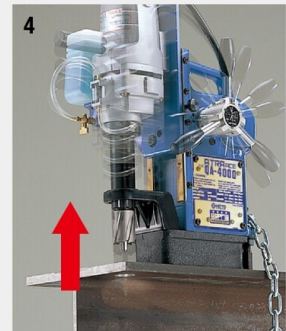
1 Align the pilot pin with the center punch mark of the hole to be drilled. Attach the machine to the beam with the proper safety chain and engage the magnet. Lower the drill down from the top limit switch location to the point of the pilot pin making contact with the material and engage the motor.



2 Engage the clutch by pushing the handles in towards the drill and the motor will begin feeding automatically.



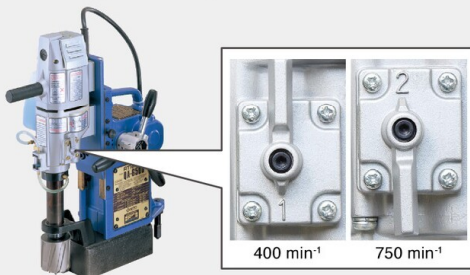
3 Slow start mechanism cuts smoothly through the mill scale. Then, speed and feed rate is controlled by the sensors to achieve efficient drilling.



4 After the hole is completed, the QA Series machines will quickly return and stop at the top of the stroke, ready for the next hole.

Two Speed Selection (QA-6500)

Speed can be changed to suit the type and size of the cutter.



One-touch Cutter Replacement

Replacement is quick and easy with our unique push fit self-centering cutter system.



Mounting the cutter



Removing the cutter

JETBROACH CUTTERS & HI-BROACH CUTTERS

BROACH CUTTERS are far better than twist drills

- No dead point
- Peripheral cutting
- Dramatically reduce cutting resistance
- Available diameter size: 12 - 100 mm

Test Drilling is very often the only way to determine the machinability of difficult materials.
Use a small size cutter wherever possible in order to minimize trial costs.



Specifications

		HI-BROACH One-touch Type/25L	HI-BROACH One-touch Type/50L	JETBROACH One-touch Type/25,35,50L	JETBROACH One-touch Type/50L(W)	JETBROACH One-touch Type/75L	JETBROACH Side lock Type/75L
Hole Capacity mm	Hole Diameter	25L: 12 - 52 dia.	-	25L: 12 - 17 dia	-	-	-
		-	-	35L: 17.5 - 40 dia.	-	-	-
		-	50L: 12 - 52 dia.	50L: 12 - 65 dia	50L(W): 18, 22, 24 - 26.5,	-	-
		-	-	-	28, 32, and 35 dia.	75L: 17.5 - 55 dia.	75L: 50 - 100 dia.
	Plate Thickness	25L: 25	-	25L: 25	-	-	-
		-	-	35L: 35	-	-	-
		-	50L: 50	50L: 50	50L(W): 50	-	-
		-	-	-	-	75L: 75	75L: 75
Feed Speed mm/rev		0.02 - 0.1					
Circumferential Speed m/min		15 - 35 (mild steel)		35 - 50 (mild steel)			

HI-BROACH One-touch Type		ARA-100A	WA-3500	WA-5000	AO-5575A	QA-4000	QA-6500	Pilot Pin
Depth	mm dia.	PN						
25 mm	12	TK00698						06025
	13	TK00699						
	14	TK00700						
	15	TK00701						
	16	TK00702						
	17	TK00703						
	17.5	TK01391						
	18	TK01392						
	19	TK01393						
	19.5	TK01394						
	20	TK01395						
	21	TK01396						
	21.5	TK01397						
	22	TK01398						
	22.5	TK01399						
	23	TK01400						
	23.5	TK01401						
	24	TK01402						
	24.5	TK01403						
	25	TK01404						
	26	TK01405						08025
	27	TK01407						
	28	TK01408						
	29	TK01409						
	30	TK01410						
	31	TK01411						
	32	TK01412						
	33	TK01413						
	34	TK01414						
	35	TK01415						
	36	TK01416						
	37	TK01417						
	38	TK01418						
	39	TK01419						
	40	TK01420						
	41	TK01421						
	42	TK01422						
	43	TK01423						
	44	TK01424						
	45	TK01425						
	46	TK01426						
	47	TK01427						
	48	TK01428						
	49	TK01429						
	50	TK01430						
	51	TK01431						
	52	TK01432						

HI-BROACH One-touch Type		ARA-100A	WA-5000	AO-5575A	Pilot Pin
Depth	mm dia.	PN			
50 mm	12	TK00721			06050
	13	TK00722			
	14	TK00723			
	15	TK00724			
	16	TK00725			
	17	TK00726			
	18	TK00727			
	19	TK00728			
	20	TK00729			
	21	TK00730			
	22	TK00731			
	23	TK00732			
	24	TK00733			
	25	TK00734			
	26	TK00735			
	27	TK00736			
	28	TK00737			
	29	TK00738			
	30	TK00739			
	31	TK00740			08050
	32	TK00741			
	33	TK00742			
	34	TK00743			
	35	TK00744			
	36	TK00745			
	37	TK00746			
	38	TK00747			
	39	TK00748			
	40	TK00749			
	41	TK00750			
	42	TK00751			
	43	TK00752			
	44	TK00753			
	45	TK00754			
	46	TK00755			
	47	TK00756			
	48	TK00757			
	49	TK00758			
	50	TK00759			
	51	TK00760			
	52	TK00761			

JETBROACH One-touch Type		ARA-100A	LO-3550	WA-3500	WA-5000	WOJ-3200	AO-5575A	QA-4000	QA-6500	Pilot Pin
Depth	mm dia.	PN								
25 mm	12	TK01148								06025
	13	TK01149								
	14	TK01150								
	15	TK01151								
	16	TK01152								
	17	TK01153								
	17.5	TK01249								
	18	TK01250								
	18.5	TK01251								
	19	TK01252								
	19.5	TK01253								
	20	TK01254								
	20.5	TK01255								
	21	TK01256								
	21.5	TK01257								
	22	TK01258								
35 mm	22.5	TK01259								08035
	23	TK01260								
	23.5	TK01261								
	24	TK01262								
	24.5	TK01263								
	25	TK01264								
	25.5	TK01265								
	26	TK01266								
	26.5	TK01267								
	27	TK01268								
	28	TK01269								
	29	TK01270								
	30	TK01271								
	31	TK01272								
	32	TK01273								
	33	TK01274								
	34	TK01275								
	35	TK01276								
	36	TK01277								
	37	TK01278								
	38	TK01279								
	39	TK01280								
	40	TK01281								

Sales Unit: 1 Piece

BORING

JETBROACH One-touch Type			ARA-100A	LO-3550	WA-3500	WA-5000	WOJ-3200	AO-5575A	QA-6500	Pilot Pin
Depth	mm	dia.	PN							
12	TK01154									
13	TK01155									
14	TK01156									
15	TK01157									
16	TK01158									
17	TK01159									
17.5	TK01282									
18	TK01283									
19	TK01284									
19.5	TK01285									
20	TK01286									
20.5	TK01287									
21	TK01288									
21.5	TK01289									
22	TK01290									
22.5	TK01291									
23	TK01292									
23.5	TK01293									
24	TK01294									
24.5	TK01295									
25	TK01296									
25.5	TK01297									
26	TK01298									
26.5	TK01299									
27	TK01300									
28	TK01301									
29	TK01302									
30	TK01303									
31	TK01304									
32	TK01305									
33	TK01306									
34	TK01307									
35	TK01308									
36	TK01309									
37	TK01310									
38	TK01311									
39	TK01312									
40	TK01313									
41	TK01314									
42	TK01315									
43	TK01316									
44	TK01317									
45	TK01318									
46	TK01319									
47	TK01320									
48	TK01321									
49	TK01322									
50	TK01323									
51	TK01324									
52	TK01325									
53	TK01326									
54	TK01327									
55	TK01328									
56	TK01329									
57	TK01330									
58	TK01331									
59	TK01332									
60	TK01333									
61	TK01334									
62	TK01335									
63	TK01336									
64	TK01337									
65	TK01338									

JETBROACH One-touch Type 50L(W) for stacked plates			ARA-100A	LO-3550	WOJ-3200	AO-5575A	Pilot Pin
Depth	mm	dia.	PN				
18	TK01068						
22	TK00622						
24	TK00623						
24.5	TK00631						
25	TK00624						
26	TK00625						
26.5	TK00632						
28	TK00626						
32	TK00627						
35	TK00628						

JETBROACH One-touch Type			ARA-100A	WA-5000	AO-5575A	Pilot Pin
Depth	mm	dia.	PN			
17.5	TK01350					
18	TK01351					
19	TK01352					
20	TK01353					
21	TK01354					
22	TK01355					
23	TK01356					
24	TK01357					
24.5	TK01358					
25	TK01359					
26	TK01360					
26.5	TK01361					
27	TK01362					
28	TK01363					
29	TK01364					
30	TK01365					
31	TK01366					
32	TK01367					
33	TK01368					
34	TK01369					
35	TK01370					
36	TK01371					
37	TK01372					
38	TK01373					
39	TK01374					
40	TK01375					
41	TK01376					
42	TK01377					
43	TK01378					
44	TK01379					
45	TK01380					
46	TK01381					
47	TK01382					
48	TK01383					
49	TK01384					
50	TK01385					
51	TK01386					
52	TK01387					
53	TK01388					
54	TK01389					
55	TK01390					

JETBROACH Side-lock Type			ARA-100A	Pilot Pin
Depth	mm	dia.	PN	
50	TK01433			
51	TK01434			
52	TK01435			
53	TK01436			
54	TK01437			
55	TK01438			
56	TK01439			
57	TK01440			
58	TK01441			
59	TK01442			
60	TK01443			
61	TK01444			
62	TK01445			
63	TK01446			
64	TK01447			
65	TK01448			
66	TK01449			
67	TK01450			
68	TK01451			
69	TK01452			
70	TK01453			
71	TK01454			
72	TK01455			
73	TK01456			
74	TK01457			
75	TK01458			
76	TK01459			
77	TK01460			
78	TK01461			
79	TK01462			
80	TK01463			
81	TK01464			
82	TK01465			
83	TK01466			
84	TK01467			
85	TK01468			
86	TK01469			
87	TK01470			
88	TK01471			
89	TK01472			
90	TK01473			
91	TK01474			
92	TK01475			
93	TK01476			
94	TK01477			
95	TK01478			
96	TK01479			
97	TK01480			
98	TK01481			
99	TK01482			
100	TK01483			

Pilot Pin		PN : TK01167
06025		
08025		
06050		
08050		
08035		
08075		
12075		

Sales Unit: 1 Piece



BROACH HOLDERS

Industrial cutters for faster and better finished holes

- The Spring-loaded pilot pin picks up the hole location quickly, and ejects the slug automatically at the end of cut
- Available with No. 2 to 4 Morse taper shanks
- Oil Cup Complete Ass'y (PN TB00350) is available as an optional attachment which provides continuous and adjustable cutting oil flow to the cutting area



Specifications		M.T.No.3							M.T.No.4
Morse Taper No.	M.T.No.2	M.T.No.3							M.T.No.4
Model	BHM-02035	BHM-03050							BHM-13075
PN	TB00390	TB00392							TB00352
Cutter	HBO-25L	JBO-35L	HBO-25L	HBO-50L	JBO-35L	JBO-50L	JBO-50L(W)	JBS-75L	
Cutter Diameter	12 - 17 dia.	17.5 - 35 dia.	12 - 17 dia.	17.5 - 52 dia.	12 - 18 dia.	19 - 52 dia.	17.5 - 65 dia.	18 - 35 dia.	50 - 100 dia.
Pilot Pin	06025	08025	08035	06025	08025	06050	08050	08035	08050
	Optional	Included	Optional	Included	Optional	Included	Optional	Included	Included

HBO: HI-BROACH One-touch Type

JBO: JETBROACH One-touch Type

JBS: JETBROACH Side-lock Type