

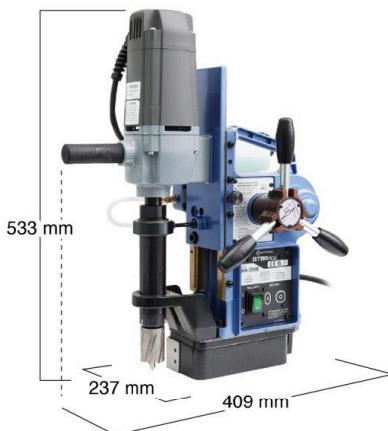
BORING

Portable Magnetic Base Drilling Machine

ATRA ACE auto

Model WA-3500

- Max. 35 mm dia. x 50 mm deep



High-performance feed system & high-tech components

- Drilling time and cutting performance are enhanced by the automatic feed function.

Model WA-5000

- Max. 50 mm dia. x 75 mm deep



Specifications

| Model | | WA-3500 | | WA-5000 | |
|---|---------------------------------------|--|--|---|--|
| Power Source (Single Phase) | | 110 - 120 V AC, 50/60 Hz | | 220 - 240 V AC, 50/60 Hz | |
| Electric Drill | Rated Power Consumption W | 1100 | | 1150 | |
| Drill | Rated Current A | 10.2 | 5.1 | 10.8 | 5.4 |
| | No-load Speed min ⁻¹ (rpm) | 950 | | 350 / 650 | |
| Magnet Power Consumption W | | 34 | | 75 | |
| Hole Capacity mm | Cutter | Hole Diameter | Plate Thickness | Hole Diameter | Plate Thickness |
| One-touch Type JETBROACH 25L | - | - | - | 12 to 17 | 9 to 25 |
| | One-touch Type JETBROACH 35L | 17.5 to 35 | 9 to 35 | 17.5 to 40 | 9 to 35 |
| | One-touch Type JETBROACH 50L | 17.5 to 35 | 9 to 50 | 12 to 50 | 9 to 50 |
| | One-touch Type JETBROACH 75L | - | - | 17.5 to 50 | 9 to 75 |
| | One-touch Type HI-BROACH 25L | 14 to 35 | 9 to 25 | 14 to 50 | 9 to 25 |
| | One-touch Type HI-BROACH 50L | - | - | 14 to 50 | 9 to 50 |
| Min. Plate Thickness for Magnet Adhesion mm | | 9 | | 9 | |
| Max. Stroke mm | | 83 | | 107 | |
| Magnet Holding Power N(kgf) | | 7056 (720) | | 9800 (1000) | |
| Magnet Dimensions mm | | 92 (W) x 213 (L) | | 101 (W) x 201 (L) | |
| Power Cord Length m | | 3 | | 3 | |
| Mass (Weight) kg | | 20 | | 23 | |
| Accessories Included | | • Carry Case • Cutting Oil 0.5L • Pilot Pin 08035 • Side Handle | • 3 mm Hex Socket Screw Key • 8 x 10 mm Spanner • Guard • Chain | • Carry Case • Cutting Oil 0.5L • Pilot Pin 08050 • Side Handle • 3 mm Hex Socket Screw Key | • 4 mm Hex Socket Screw Key • 8 x 10 mm Spanner • Guard • Chain • Chip Breaker |

Optional Accessories

| Ref. No. | PN | Description | Sales Unit | Applicable Model | |
|----------|---------|---|------------|------------------|---------|
| | | | | WA-3500 | WA-5000 |
| 1 | TB05186 | Chip Breaker Ass'y | 1 set | ● | |
| 2 | TB01507 | Cutting Oil 2L | 1 piece | ● | ● |
| 3 | TB04374 | Supporting Magnet Ass'y | 1 set | ● | ● |
| 4 | TB02536 | Sleeve 6.5 for Triangle Shank Drill Bit | 1 piece | ● | ● |
| 5 | TB07696 | Pipe Attachment Ass'y | 1 set | ● | |
| | | One-touch Type JETBROACH 25L | 1 piece | | ● |
| | | One-touch Type JETBROACH 35L | 1 piece | ● | ● |
| | | One-touch Type JETBROACH 50L | 1 piece | ● | ● |
| | | One-touch Type JETBROACH 75L | 1 piece | | ● |
| | | One-touch Type HI-BROACH 25L | 1 piece | ● | ● |
| | | One-touch Type HI-BROACH 50L | 1 piece | | ● |



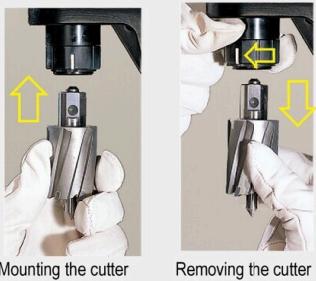
Applicable Pipe Size: OD 48.6 to 318.5 mm



BORING

One-touch Cutter Replacement

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



Mounting the cutter

Removing the cutter

Coolant into the Heart of the Cut

Coolant is fed directly to the inside of the cut. The coolant system also features an auto shut-off.



Improved Bearing Bracket

Our precision bearing bracket aligns cutters precisely, which increases cutter life.



Fail-Safe Protection

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.

Fail-safe Restart

The drill will not re-start even if power is re-supplied after accidental shutdown. Drilling can only be continued after turning on the drill switch.

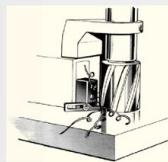
Magnet Open-circuit Sensor

The drill will not start until the magnetic field is active.

Chip Breaker

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

- Standard accessory for the WA-5000
- Optional accessory for the WA-3500



Two Speed Selection (WA-5000)

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



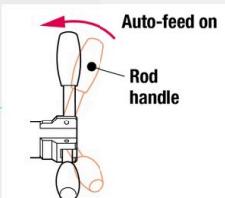
New drill control prevents cutters from breaking

Slow Start Mechanism

The feed speed is reduced for the first few seconds after boring begins to ensure a smooth cut through the mill scale.

Auto-feed

Automatic control & feed are activated by simply pushing the Rod handle to engage the clutch.



Load Sensor

The dual sensing system responds to both drilling and feeding forces on the cutter for the optimum cutting condition.

Variable Automatic Feed

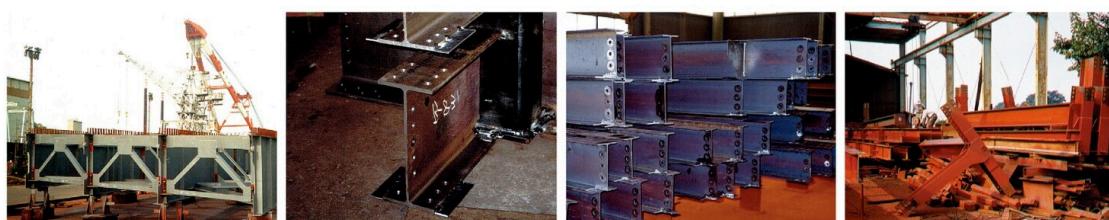
The feed speed is continuously monitored and updated proportionally to the load on the cutter.

Cycle Stop

After the cut has finished, a detector responds to the reduction in load and both the drill and the feed motor automatically stop.

Overload Stop

When an excessive load is applied to the cutter, both the drill and the feed motor will stop automatically.



BORING

Annular Cutters

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. | - | - | - | |
| | Plate Thickness | - | 50L: 12 - 52 dia. | 50L: 12 - 65 dia. | 50L(W): 18, 22, 24 - 26.5, 28, 32, and 35 dia. | - | - | |
| | | 25L: 25 | - | 25L: 25 | - | 75L: 17.5 - 55 dia. | 75L: 50 - 100 dia. | |
| 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 | | |
|-----------------------------|---------|-----|
| Depth | mm dia. | PN |
| 12 | TK00698 | |
| 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 | ● ● |
| 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 | | |
|-----------------------------|---------|-------|
| Depth | mm dia. | PN |
| 12 | TK00721 | ● |
| 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 | ● ● ● |
| 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 | |

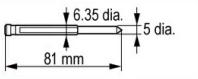
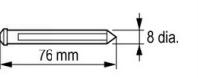
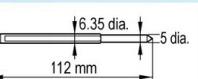
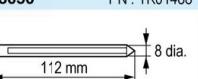
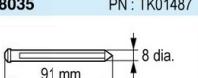
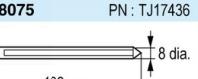
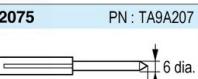
| JETBROACH One-touch Type | | |
|-----------------------------|---------|-------|
| Depth | mm dia. | PN |
| 12 | TK01148 | ● |
| 13 | TK01149 | ● |
| 14 | TK01150 | ● |
| 15 | TK01151 | ● |
| 16 | TK01152 | ● |
| 17 | TK01153 | ● |
| 17.5 | TK01249 | ● ● ● |
| 18 | TK01250 | ● ● ● |
| 18.5 | TK01251 | ● ● ● |
| 19 | TK01252 | ● ● ● |
| 19.5 | TK01253 | ● ● ● |
| 20 | TK01254 | ● ● ● |
| 20.5 | TK01255 | ● ● ● |
| 21 | TK01256 | ● ● ● |
| 21.5 | TK01257 | ● ● ● |
| 22 | TK01258 | ● ● ● |
| 22.5 | TK01259 | ● ● ● |
| 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 | ● ● ● |

BORING

| JETBROACH One-touch Type | | |
|-----------------------------|---------|-----------|
| Depth | mm dia. | PN |
| 12 | TK01154 | ARA-100A |
| 13 | TK01155 | LO-3550 |
| 14 | TK01156 | WA-3500 |
| 15 | TK01157 | WA-5000 |
| 16 | TK01158 | WOJ-3200 |
| 17 | TK01159 | AO-5575A |
| 17.5 | TK01282 | QA-6500 |
| 18 | TK01283 | Pilot Pin |
| 19 | TK01284 | 06050 |
| 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 | | |
|-----------------------------|---------|---------|
| Depth | mm dia. | PN |
| 50 | 18 | TK01068 |
| 50 | 22 | TK00622 |
| 50 | 24 | TK00623 |
| 50 | 24.5 | TK00631 |
| 50 | 25 | TK00624 |
| 50 | 26 | TK00625 |
| 50 | 26.5 | TK00632 |
| 50 | 28 | TK00626 |
| 50 | 32 | TK00627 |
| 50 | 35 | TK00628 |
| 75 | 17.5 | TK01350 |
| 75 | 18 | TK01351 |
| 75 | 19 | TK01352 |
| 75 | 20 | TK01353 |
| 75 | 21 | TK01354 |
| 75 | 22 | TK01355 |
| 75 | 23 | TK01356 |
| 75 | 24 | TK01357 |
| 75 | 24.5 | TK01358 |
| 75 | 25 | TK01359 |
| 75 | 26 | TK01360 |
| 75 | 26.5 | TK01361 |
| 75 | 27 | TK01362 |
| 75 | 28 | TK01363 |
| 75 | 29 | TK01364 |
| 75 | 30 | TK01365 |
| 75 | 31 | TK01366 |
| 75 | 32 | TK01367 |
| 75 | 33 | TK01368 |
| 75 | 34 | TK01369 |
| 75 | 35 | TK01370 |
| 75 | 36 | TK01371 |
| 75 | 37 | TK01372 |
| 75 | 38 | TK01373 |
| 75 | 39 | TK01374 |
| 75 | 40 | TK01375 |
| 75 | 41 | TK01376 |
| 75 | 42 | TK01377 |
| 75 | 43 | TK01378 |
| 75 | 44 | TK01379 |
| 75 | 45 | TK01380 |
| 75 | 46 | TK01381 |
| 75 | 47 | TK01382 |
| 75 | 48 | TK01383 |
| 75 | 49 | TK01384 |
| 75 | 50 | TK01385 |
| 75 | 51 | TK01386 |
| 75 | 52 | TK01387 |
| 75 | 53 | TK01388 |
| 75 | 54 | TK01389 |
| 75 | 55 | TK01390 |

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

| Pilot Pin | | |
|-----------|--------------|--|
| 06025 | PN : TK01167 |  |
| 08025 | PN : TK01486 |  |
| 06050 | PN : TK01166 |  |
| 08050 | PN : TK01488 |  |
| 08035 | PN : TK01487 |  |
| 08075 | PN : TJ17436 |  |
| 12075 | PN : TA9A207 |  |

Sales Unit: 1 Piece



BROACH HOLDERS



163 mm
BHM-02035



182 mm
BHM-03050



248 mm
BHM-13075



232 mm
BHM-14075

Specifications

| Morse Taper No. | M.T.No.2 | | M.T.No.3 | | | | | | M.T.No.4 | |
|-----------------|--------------|----------------|----------------|--------------|----------------|--------------|--------------|----------------|---------------------|--------------|
| Model | BHM-02035 | | BHM-03050 | | | | | | BHM-13075 BHM-14075 | |
| PN | TB00390 | | TB00392 | | | | | | TB00352 TB00354 | |
| 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. | 17.5 - 40 dia. | 12 - 17 dia. | 17.5 - 52 dia. | 12 - 18 dia. | 19 - 52 dia. | 17.5 - 40 dia. | 17.5 - 65 dia. | 18 - 35 dia. |
| Pilot Pin | 06025 | 08025 | 08035 | 06025 | 08025 | 06050 | 08050 | 08035 | 08050 | 12075 |
| | Optional | | Optional | | | | | | Optional | |
| | Included | | Included | | | | | | Included | |

HBO: HI-BROACH One-touch Type

JBO: JETBROACH One-touch Type

JBS: JETBROACH Side-lock Type