



RB32

MINIBRUTE Magnetic Drill press

SAFETY & USAGE GUIDELINES · PARTS & SCHEMATICS





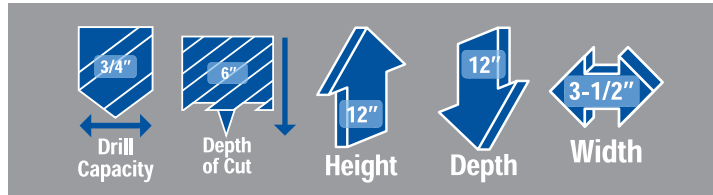
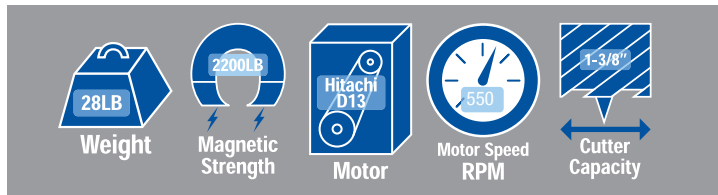
RB32 MINIBRUTE

COMPONENTS & SAFETY

IMPORTANT

Please read these operating and safety instructions carefully and completely. For your own safety, before using this equipment check that the voltage is correct and that all handles and parts are firmly secured. If you are uncertain about any aspect of using this equipment, contact your distributor.

PLEASE KEEP THESE INSTRUCTIONS



INCLUDED WITH EVERY RB32

Carrying case, safety strap, RB334 3/4" arbor, RB3212 1/2" drill chuck, D-handle, cutting fluid, safety guard, chuck key, hex keys and spanner wrenches
Ear and eye protection **MUST** be worn during operation of this equipment. Do NOT touch the cutter while it is in motion. Always follow the Personal Protection Equipment (PPE) recommendations while operating this tool.

This machine is designed specifically for drilling holes in steel using annular cutters or with twist drills when using the optional drill chuck. We recommend Champion® Rotobrute™ annular cutters. Please consult your Champion authorized distributor for a complete range of sizes.

DO NOT modify and / or use your Rotobrute™ magnetic drill press for any application other than for which it is intended.

SAFETY

Be sure to read and follow these important safety instructions:

When using your RB32 MiniBrute, be sure to follow these important safety precautions:

1. Before operating the machine, check supply voltage and general conditions, i.e. cable/cord damage. A machine with damaged cable must be returned or repaired prior to use.
2. Always use the safety strap in all drilling applications.
4. Since cutting tools can shatter, eye and head protection should be worn at all times.
5. After use, clean machine and cutters and keep in the case provided.
6. Store when not in use, in a dry environment.
7. Always provide a method of catching slug, where the ejected slug may cause injury (slug ejects at end of cut).
8. Should the cutter jam in the work-piece, stop the machine immediately. Isolate the machine at the main supply. Loosen the cutter by rotating the arbor. Do not attempt to free cutter by starting and stopping the motor.
9. Always use the safety guard provided.

Electrical Safety

1. Grounded tools must be plugged into an outlet properly installed and grounded in accordance with all codes and ordinances. Never remove the grounding prong or modify the plug in any way.
2. Do not use any adapter plugs. Check with a qualified electrician if you are in doubt as to whether the outlet is properly grounded. If the tools should electrically malfunction or breakdown, grounding provides a low resistance path to carry electricity away from the user.
3. Never use the cord to carry the tools or pull the plug from an outlet. Replace damaged cords immediately.
4. When operating a power tool outside, use an outdoor extension cord marked "W-A" or "W". These cords are rated for outdoor use and reduce the risk of electric shock. Minimal gauge external cord should be 12/3.
5. Use the RB-32 with 110 A/C voltage only. Not for use with generators, welders or any dc power source. Do not use on any surface where welding is taking place.

Personal Safety

Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use tool while tired or under the influence of drugs, alcohol, or medication. Do not wear loose clothing or jewelry. Avoid accidental starting. Be sure switch is off before plugging in. Carrying tools with your finger on the switch or plugging in tools that have the switch on invites accidents.

Remove adjusting keys before turning the tool on.

Do not over reach. Keep proper footing and balance at all times.

Safety equipment (eye protection, dust mask, non skid safety shoes, hard hat, hearing protection) should be used for appropriate conditions.

Tool Use and Care

Use clamps or other practical ways to secure and support the work-piece to a stable flat form.

Do not force tool. Use the correct tool for the application.

Disconnect the plug from the power source before making any adjustments, changing accessories, or storing the tool.

Store idle tools out of reach of children and other untrained persons.

Maintain tools with care. Keep cutting tools sharp and clean.

Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the tool's operation. If damaged, have the tool serviced before using.

Service

Tool service must be performed only by qualified personnel.

When servicing a tool, use only original replacement parts.

Use of unauthorized parts will void the warranty.

Use of unauthorized parts or failure to follow maintenance instructions may create a risk of electric shock or injury.

Magnetic Drill Safety

The drill's magnetic adhesion depends on the thickness of the work-piece. 1/2" (13mm) is the minimum thickness for safe operation. Keep the magnet clean of metal chips and other dirt and debris. These will seriously reduce the magnetic adhesion. The drill must be operated on its own electrical outlet. Always use the supplied safety strap or chain. An electrical overload can result in loss of adhesion.

CAUTION: The slug ejects at end of cut and is very hot.

WARNING: Do not attempt to drill a work-piece, which is thicker than the maximum cutting depth of the cutter being used. Never exceed 1-3/8" (35mm) cutter diameter.

Maintenance and Troubleshooting

Keep the drill press and the cord clean. In case of electrical or mechanical malfunction, immediately switch off the tool and disconnect the plug. Excessive sparking generally indicates the presence of dirt in the motor or worn out carbon brushes. Periodically check brushes for wear and replace when they reach 1/4" (6mm). Also check that the machine is well lubricated.

For all other service and maintenance, please contact a Champion® authorized service center.

COMPONENTS & SAFETY



RB32

The RB32 is available in one other configuration:

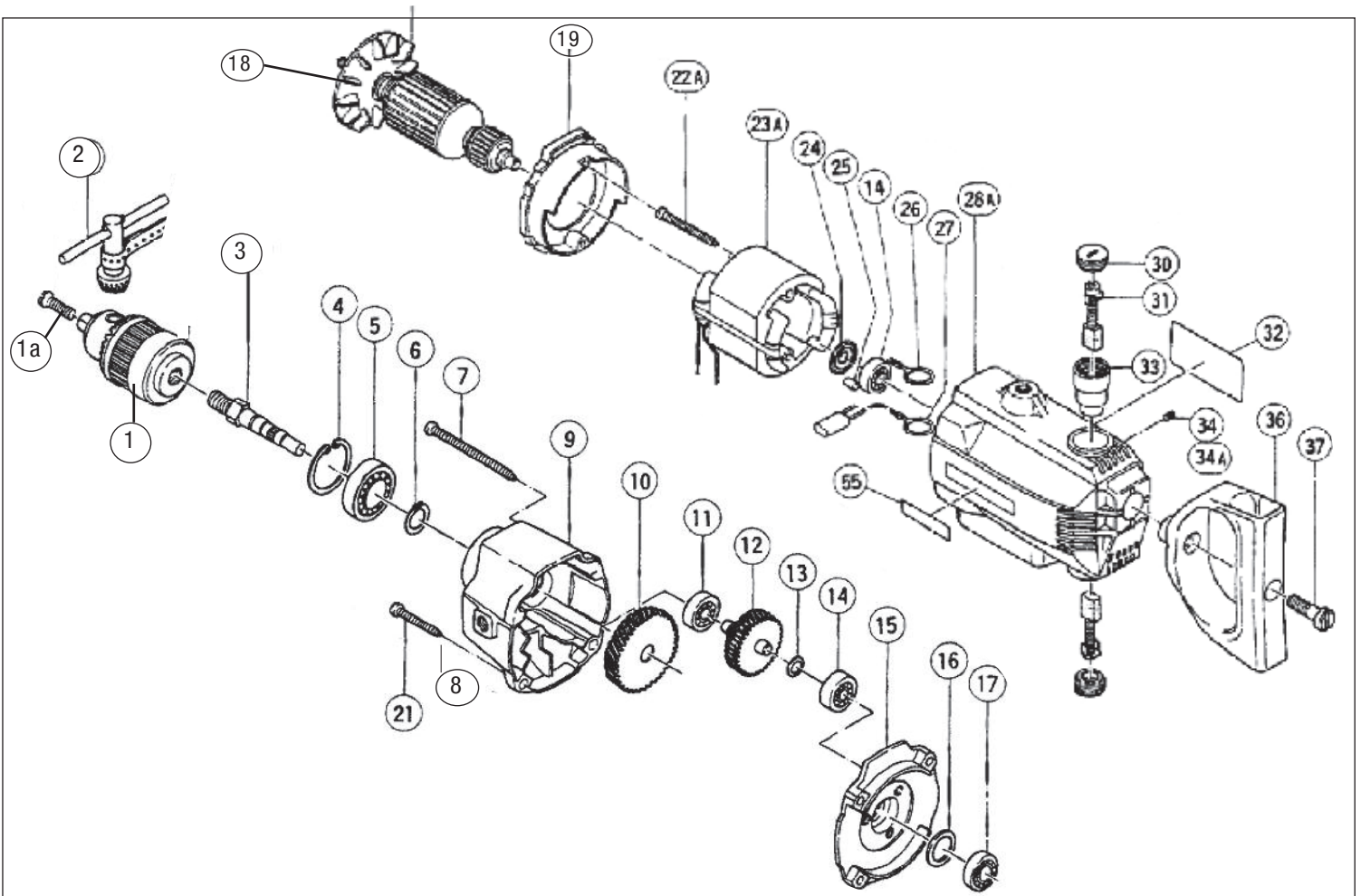
RB32-VSR - The same features as the RB32 but has variable speed control and reverse. It also features an isolating power relay for improved handling safety. The RB32-VSR can run twist drills at the correct RPM and has optical attachments.

Please see Champion's website for additional technical information downloads on this configuration.



RB32 MINIBRUTE

MOTOR PARTS



No. List/Size Description (Qty per Machine)

| | | |
|-----|-------------|------------------------------|
| 1 | RB3212 | 1/2" Jacobs Chuck (1) |
| 1 a | RB32-1122 | Drill chuck safety screw |
| 2 | RB3212-KEY | Chuck Key (1) |
| 3 | RB32-1667 | Spindle (1) |
| 4 | RB32-9556 | D35 Retaining Ring |
| 5 | RB32-6202W | Ball Bearing |
| 6 | RB32-9544 | D15 Retaining Ring |
| 7 | RB32-7725 | Tapping Screw D5X70 (1) |
| 8 | RB32-9454 | D5 SpringWasher (4) |
| 9 | RB32-1650 | Gear Cover (1) |
| 10 | RB32-3448 | Final Gear |
| 11 | RB32-627VMM | Ball Bearing |
| 12 | RB32-652Z | Second Pinion Assembly |
| 13 | RB32-9426 | D8Washer |
| 14 | RB32-608VMM | Ball Bearing |
| | RB522 | Varistor (1) |
| | RB326 | Relay Bracket & 523 Clip (1) |
| | RB32-8002 | Field Coil Connect #26 (1) |
| | RB32-8012 | Field Coil Connect #27 (1) |
| | RB5620D5/25 | Tap Screws |
| | RB32-5075 | M5X15 Pin Retaining Screw |

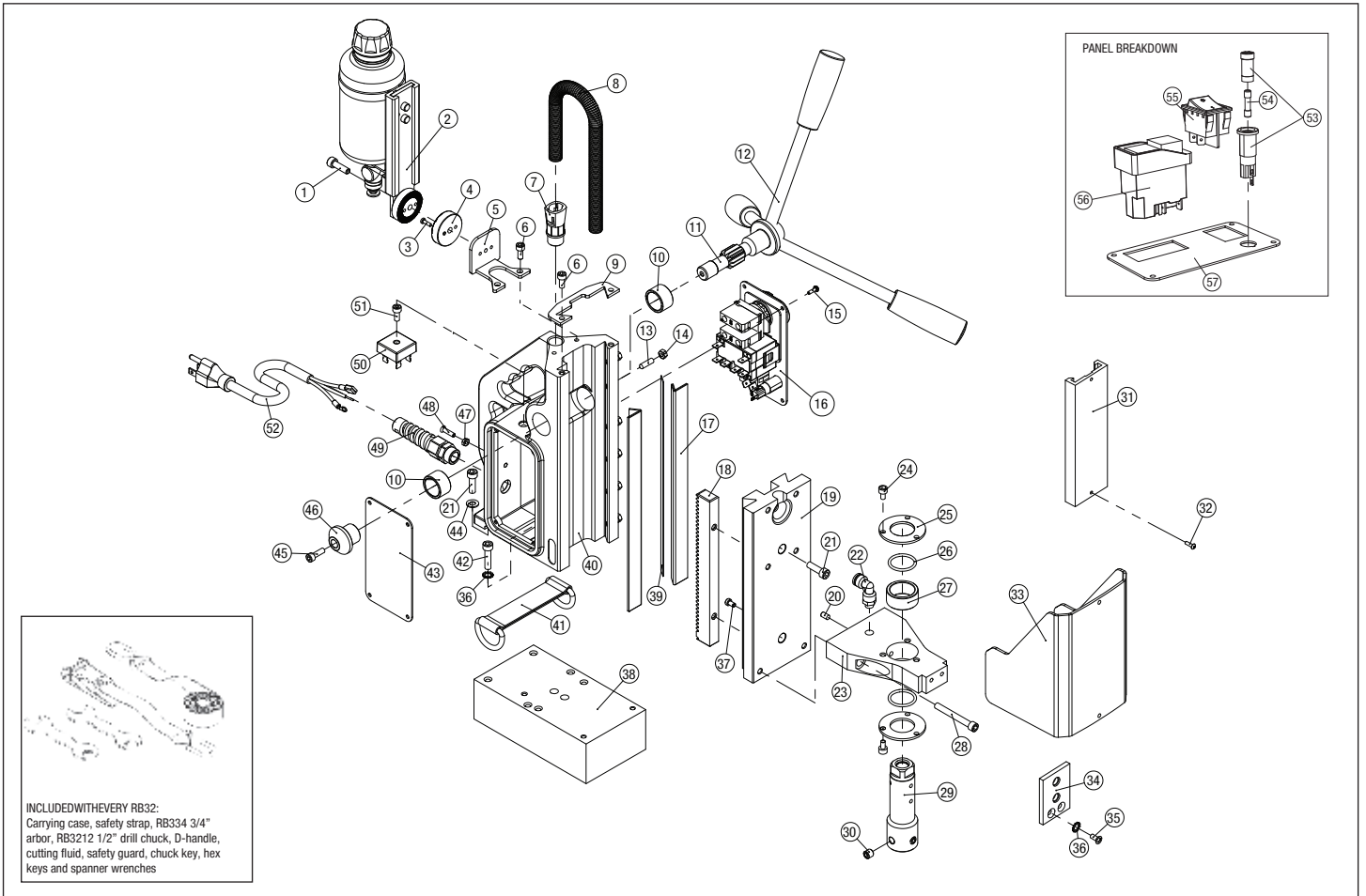
No. List/Size Description (Qty per Machine)

| | | |
|----|-------------|--------------------------|
| 15 | RB32-2791 | Inner Cover Assembly (1) |
| 16 | RB32-984357 | Washer |
| 17 | RB32-609VMM | Ball Bearing |
| 18 | RB32-657 | Armature (1) |
| 19 | RB32-1562 | Fan Guide (1) |
| 20 | RB32-1875 | Tapping Screw D5X35 (2) |
| 21 | RB32-1007 | Tapping Screw D5x60 (2) |
| 22 | RB32-797 | Stator Field Coil (1) |
| 23 | RB32-4367 | Dust Seal |
| 24 | RB32-6362 | Bearing Lock |
| 25 | RB32-HAD13 | Housing Assembly (1) |
| 26 | RB32-1781 | Brush Caps (2) |
| 27 | RB32-612 | Carbon Brush (set) (2) |
| 28 | RB32-794Z | D-Handle (1) |
| 29 | RB32-796Z | Special Bolt M10 (1) |



RB32 MINIBRUTE

STAND SCHEMATIC



INCLUDED WITH EVERY RB32:
 Carrying case, safety strap, RB334 3/4"
 arbor, RB3212 1/2" drill chuck, D-handle,
 cutting fluid, safety guard, chuck key, hex
 keys and spanner wrenches

| No. List/Size Description (Qty per machine) | | | No. List/Size Description (Qty per machine) | | | No. List/Size Description (Qty per machine) | | |
|---|---------|----------------------------------|---|--------|--|---|--------|-----------------------------------|
| 1 | RB3201 | M6 x 25 Cap Head Screw (1) | 21 | RB3221 | M6 x 20 Cap Head Screw (4) | 41 | RB3241 | D Ring Strap (1) |
| 2 | RB3202 | Coolant Bottle Assembly (1) | 22 | RB3224 | Swivel Elbow (1) | 42 | RB3242 | M6 x 30 Cap Head Screw (2) |
| 3 | RB3203 | M4 x 10 Cap Head Screw (2) | 23 | RB308 | Arbor Support Bracket (1) | 43 | RB316 | Side Panel (1) |
| 4 | RB3204 | Fixed Ratchet Wheel (1) | 24 | RB3225 | M5 x 10 Socket Cap Head Screw (6) | 44 | RB3244 | M6 Steel Washer (2) |
| 5 | RB3205 | Coolant Bracket (1) | 25 | RB3226 | Coolant Ring Cover (2) | 45 | RB221 | M5 x 15 Socket Cap Head Screw (1) |
| 6 | RB3206 | M5 x 12 Cap Head Screw (4) | 26 | RB3227 | O Ring 24-30 (2) | 46 | RB524 | Pinion End Cap (1) |
| 7 | RB519A | Cable Gland for Conduit Lead (2) | 27 | RB3228 | Flange Bush (1) | 47 | RB3247 | M4 Brass Nut (1) |
| 8 | RB504 | PAFS13 Conduit (1) | 28 | RB3229 | M6 X 40 Socket Cap Head Screw (2) | 48 | RB3248 | M4 x 20 C/SNK Machine Screw (1) |
| 9 | RB311 | Retaining Bracket (1) | 29 | RB334 | 1/2" - 20 Threaded mount to 3/4" Arbor (1) | 49 | RB519 | Cable Gland (1) |
| 10 | RB502 | Pinion Bush(2) | 30 | RB3230 | Grub Screw for Arbor (2) | 50 | RB515 | Rectifier Unit (1) |
| 11 | RB313 | Pinion (1) | 31 | RB3232 | Guard Slide (1) | 51 | RB3251 | M5 x 25 Socket Cap Head Screw (1) |
| 12 | RB32175 | Handle And Knob Assembly (3) | 32 | RB3233 | M4 x 14 Button Head Screw (2) | 52 | RB503 | Mains Cable (1) |
| 13 | RB3213 | M5 x 18 Grub Screw (6) | 33 | RB3234 | Guard (1) | 53 | RB511 | Fuse Holder (1) |
| 14 | RB3214 | M5 Steel Nut (6) | 34 | RB3235 | Guard Support (1) | 54 | RB512 | 2A Fuse (1) |
| 15 | RB3215 | M3 x 10 Panel Screws (8) | 35 | RB3236 | M5 x 16 C/SNK Socket Screw (2) | 55 | RB505 | Mag Switch 110V (1) |
| 16 | RB3216 | Panel Assembly 110V (1) | 36 | RB3237 | M6 Shank Proof Washer (4) | 56 | RB509 | Stop/Start Switch (1) |
| 17 | RB312 | Brass Guides (2) | 37 | RB3238 | M6 X 10 Cap Head Screw (1) | 57 | RB315 | Switch Panel (1) |
| 18 | RB322 | Rack (1) | 38 | RB302 | Magnet Base Assembly (1) | | | |
| 19 | RB304 | Slide (1) | 39 | RB329 | Shim Strip (1) | | | |
| 20 | RB3220 | M6 x 8 Grub Screw (1) | 40 | RB301 | Main Body Casting (1) | | | |



RB32

MINIBRUTE

OPERATING INSTRUCTIONS

Operating Instructions

1. Place a pilot pin in the cutter at the shank end. Insert the cutter into the special arbor, aligning the flats to the set screws on the arbor. Secure the set screws to the cutter with the supplied hex wrench.
2. Position the machine on a clean, dry, ferrous surface at least 1/2" thick. Switch on the magnet.
3. Cutting fluid must be used at all times to enhance the quality of cut and prolong the cutting tool life. Cutting fluid is applied through small holes located at the top/shank end of the arbor and feeds via gravity.
4. Switch on the drill. Always proceed with caution at the start of drilling operations. When using RotoBrute annular cutters apply pressure gradually at first until a depth of 1/8" is reached. Normal cutting pressure can then be applied.
5. On completion of cut, withdraw the cutter from hole, switch off the drill, then the magnet. Ensure the magnet base is clear of chips. Locate the next hole using the above procedures.

Adjusting Dovetail Slides

Slowly adjust the hex screws while moving the handle up and down. Adjust so there is no free play or no binding anywhere through its range of travel. Periodically check, lubricate, and adjust as necessary.

Repositioning of Handles

1. Elevate the slide upward to its full extent.
2. Remove the pinion cap screw and pinion cap from the shaft end (opposite side to handles).
3. Slide the pinion with the handles on outward, approximately 1/3rd distance.
4. Disengage the rack by means of raising the slide up by another 3/4".
5. Remove pinion, reposition through opposite side of body casting and reverse procedure as above.

Assembly of Arbor for use with Annular Cutters

1. Align arbor support bracket with holes on dovetail slide.
2. Align support screws with holes and tighten clockwise.
3. IMPORTANT - do NOT tighten all the way until arbor is in place.
4. Place arbor through center hole of support bracket, making sure bushing collar is up right. Align with 1/2-20 threaded spindle and tighten clockwise.
5. When arbor is in place, tighten arbor support screws.
6. To remove arbor, use the 17mm wrench provided to hold the spindle nut in place. Use the 7/16" wrench to hold the flats while turning counter-clockwise to loosen.

Assembly of Drill Chuck for use with Straight Shank Tools

An important feature of the RB32 is that it can quickly and easily be converted to operate standard twist drills and other straight shank cutting tools such as chassis reamers.

To remove the arbor assembly:

1. Use the included 5mm hex wrench to remove the two arbor support screws.
2. Loosen 3/4" arbor by unscrewing in counter-clockwise direction, using a wrench on flats located at top of arbor.
3. Remove arbor support bracket.
4. Screw on 3-jaw chuck, supplied, and install safety screw to prevent drill chuck from becoming frozen.
5. Insert twist drill or other straight shank cutting tool and tighten with chuck key. To remove drill chuck, reverse procedure.

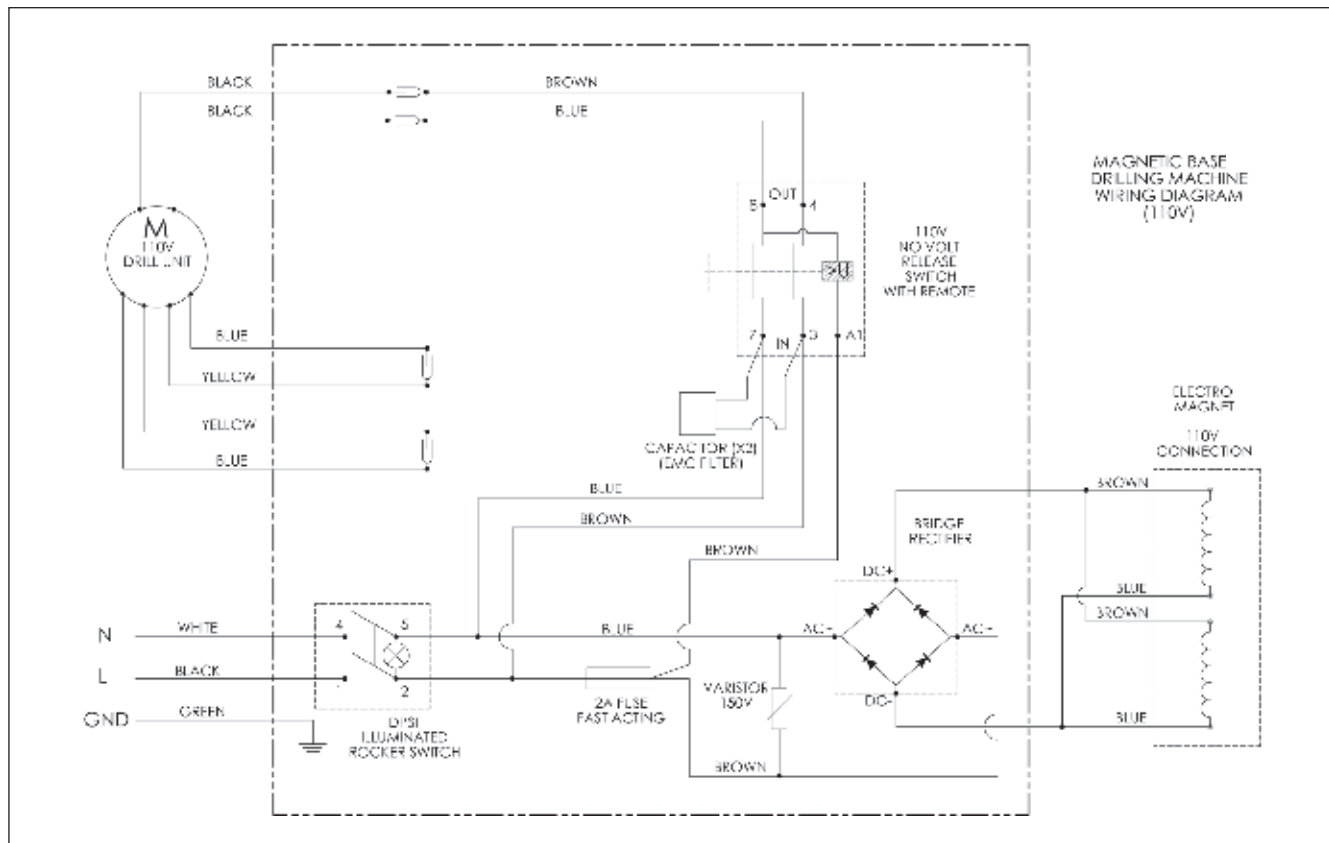
Assembly of Traverse Handles

1. To assemble traverse handle, place each of the three (3) handles into the threaded holes on the pinion shaft, turning clockwise to tighten.
2. To remove handles, turn counter-clockwise.

Assembly of Safety Guard

- Loosen screw from underneath the arbor support (front/center). Align the bracket slot with the screw, and tighten screw until safety guard locks into place.
- To remove safety guard, loosen screw and remove safety guard.

RB32 ELECTRICAL DIAGRAM





PORTABLE METAL DRILLING SYSTEMS

OTHER ROTOBRITE MACHINES AVAILABLE FROM CHAMPION



AC35 MiniBrute



AC50 MightiBrute



SB35 SmartBrute



RB30 LittleBrute



RB32-VSR MiniBrute



RB65E MegaBrute

Carbide Tipped Annular Cutter Ranges

CT150

1-3/8"
Depth of cut

CT200

2" Depth of cut

CT300

3" Depth of cut

CT400

4" Depth of cut



High Speed Annular Cutters

XL100

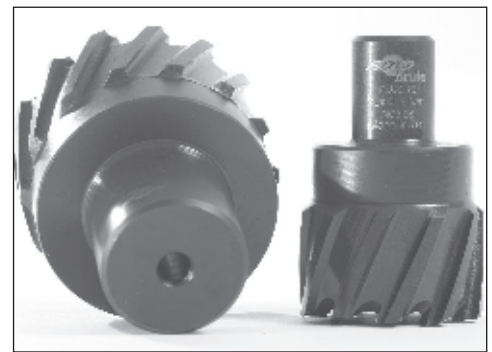
1" Depth of cut

XL200

2" Depth of cut

XL300

3" Depth of cut



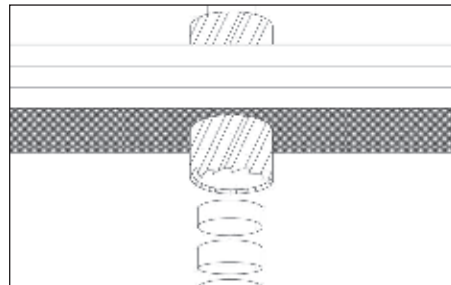
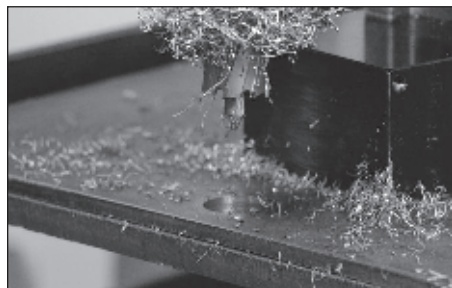
Carbide Tipped Stack Annular Cutters

CT150STK

Carbide Tipped
Stack Cut
1-3/8" Depth of cut

CT200STK

Carbide Tipped
Stack Cut
2" Depth of cut



P.O.Box 368, Rockville Centre, NY 11571-0368
Tel: 516-536-8200 Fax: 516-536-8186

www.championcuttingtool.com