

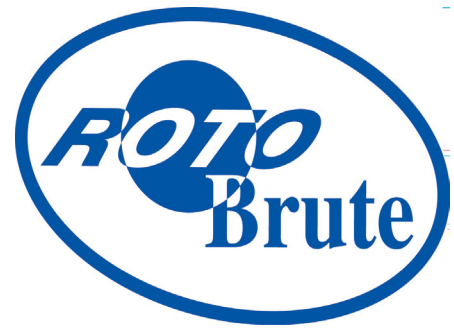


For over a hundred years, Champion Cutting Tool Corp. has pioneered the development of innovative products for the professional contractor, machinist, steel fabricator and builder.

Think Quality Think Champion



- Drills
- Reamers
- Tool Bits
- End Mills
- Wood Bits
- Taps & Dies
- Countersinks
- Carbide Burs
- Annular Cutters
- Magnetic Drill Presses
- Hammer Bits & Chisels



Portable Magnetic Drill Press

Model AC35

User Guide



- 1-3/8" Cutter Capacity
 - 1200 Watt Motor
 - 110 / 115v



P.O. Box 368
Rockville Centre, NY 11570

516-536-8200

Fax: 516-536-8186

www.championcuttingtool.com

Operating Instructions

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

Model AC35 Specifications

Motor (115v 50/60 Hz) (Watts):	1200
Amp	8
Maximum Cutter Diameter (inch):	1-3/8"
Maximum Cutting Depth (inch):	2"
No Load Speed (RPM):	600
Sound Power Level (Under Load) (dB (A)):	90
Net Weight (lb):	23
Magnet Dimensions (in):	H 1-7/8" x W 3-5/32" D 6-5/16"
Magnetic Adhesion (lbs):	2200
Arbor Internal Diameter:	3/4" weldon style

Contents: 1 Coolant Tank, 1 Coolant Tube, 1 Safety Guard, 1 Hex key 4mm, 1 Hex key 2.5mm, 1 Wrench 8mm, 3 Handles, 2 Butterfly Screws, 2 Spring Washers, 1 Safety Chain, Plastic Carrying Case.



Ear and eye protection MUST be worn during operating 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.

Always ensure that the total work area can be viewed from the operating position. Do not operate the drill press in explosive environments – power tools create sparks that may ignite flammable materials or gases. Do not operate the drill press in damp or wet conditions, as electric shocks may result. Always use both hands to operate the drill press. Be careful to ensure that the material you are working on is securely clamped.

- This drill press is equipped with an approved grounded cord and plug for its use.
- Unplug the drill press from the electrical connection before replacement of the cutter, making adjustments or other maintenance work.
- We recommend the use of genuine RotoBrute™ annular cutters
- Inspect the machine and cutter before each use and do not use worn or damaged cutters.
- Ensure the cutter is correctly mounted and do not stop by hand.
- Always keep the power cord away from moving parts of the drill press and cutter.
- Never use the tool without the safety guard in place.

Mounting Annular Cutters Using The Quick-Release Arbor:

All AC35 machines come equipped with a quick-change arbor. The quick-change arbor allows users to install cutters and twist drills in seconds. First, insert the pilot pin into the cutter. Then, rotate the knurled collar to the left (clockwise when viewed from above) and insert the cutter. Ensure that the cutter is engaged on its flat in the tool holder. Then rotate the knurled collar to the right by hand to fully tighten. No tools are needed.

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. Ensure that the magnet has adhered to the work-piece firmly before switching on the drill. 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. Check that the coolant level to be is sufficient for use. Never operate without cutting fluid.

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.

Recommended Operating Procedures

1. Position the machine using the pilot pin as an aid in locating the center of the cut.
2. Switch on the magnet and check that the cutter is in the correct position and the machine is securely held to the work-piece.
3. With the motor head in the raised position, switch on the motor.
4. Turn the traverse handles to begin cutting. Use light pressure at first to keep cutter from wandering, and then continue with normal pressure. Do not force the tool. Let the speed of the cutter do the work. Cutting performance will not improve by applying more pressure on the tool, as cutter and motor life will be reduced.
5. Adjusting the coolant feed tap regulates the flow of cutting oil (#43).
6. Use less pressure as the cutter exits through the material. Always provide a method of catching the slug, as the ejected slug may cause injury.

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

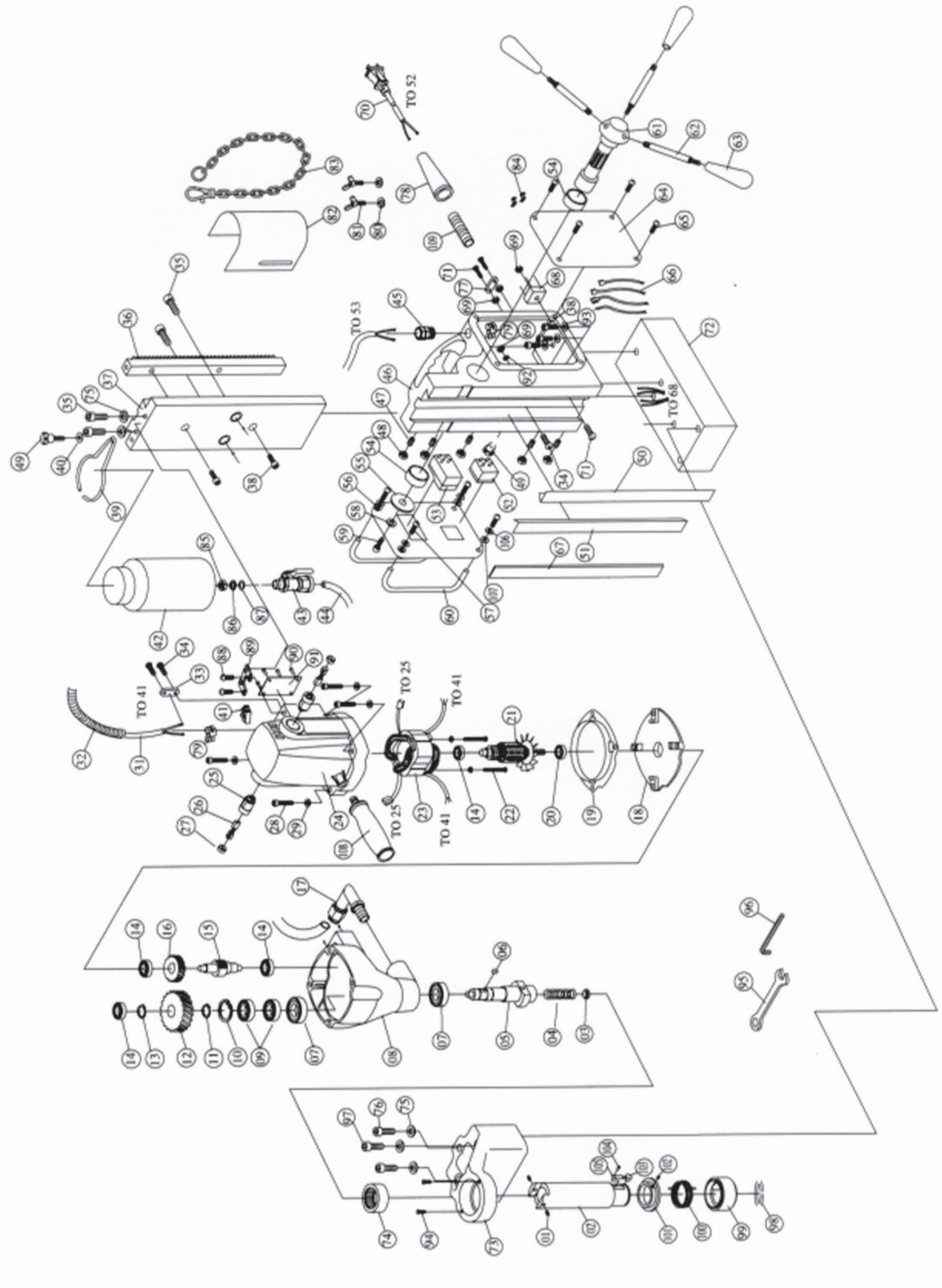
- *Note: Always lock the slide lock (on the side of the machine) in the fully raised position when at rest to prevent the slide from accidentally falling down; remember to unlock it again before commencing drilling.*

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.

AC35 Magnetic Drill Press Spare Parts Diagram



AC35 Magnetic Drill Press

Spare Parts List

Fig #	Description	Part #	Qty	Fig #	Description	Part #	Qty	Fig #	Description	Part #	Qty
1	Set Screw M5X6	AC3501TQ	2	37	Dovetail Slide	AC3537Q	1	73	Arbor Support Bracket	AC3573	1
2	Cutter Arbor	AC3502LQ	1	38	Dovetail Screw M6x20	AC3538Q	2	74	Spindle Bush	AC3574	1
3	*Water Seal	AC3503Q	1	39	Coolant Bottle Bracket	AC3539Q	1	75	Arbor Support Washer M8	AC3575	3
4	*Arbor Spring	AC3504Q	1	40	Coolant Bottle Washer M5	AC3540Q	2	76	Arbor Support Screw M8x20	AC3576	3
5	*Main Drive Spindle	AC3505Q	1	41	Coolant Bottle Screw M5 x 15	AC3541Q	2	77	Spanner Wrench M8	AC3577	1
6	*Woodruff Key M5x5x10	AC3506Q	1	42	Coolant Bottle	AC3542Q	1	78	Hex Key M2.5	AC3578	1
7	*Oil Seal 22x32x7	AC3507Q	2	43	Coolant Bottle TAP (connector)	AC3543Q	1	79	Hex Key M2.5	AC3579	1
8	Gearbox Housing	AC3508Q	1	44	Plastic Coolant Tube	AC3544Q	1	80	Safety Guard Washer M6	AC3580	2
9	Ball Bearing 6003zz	AC3509Q	2	45	Cable Gland (Stand)	AC3545Q	1	81	Safety Guard Butterfly Screw M6x8	AC3581C	2
10	Retaining Ring R-35	AC3510Q	1	46	Main Body Casting	AC3546Q	1	82	Safety Guard	AC3582	1
11	Bearing Ring	AC3511Q	1	47	Adjustment Screw M5X20 for GIBS	AC3547Q	5	83	Safety Chain (Strap)	AC3583	1
12	Final Drive Gear	AC3512Q	1	48	Adjustment Screw Nut M5	AC3548Q	5	84	Electrical Connector	AC3584Q	1
13	Motor Nut M14	AC3513Q	1	49	Adjustment Screw Nut M5 x 16	AC3549Q	1	85	Coolant Bottle Brass Nut	AC3585CC	1
14	Ball Bearing 608zz	AC3514Q	4	50	Steel Strip Tensioner	AC3550Q	1	86	Coolant Bottle Washer 10x23x2	AC3586CC	1
15	Gear Pinion	AC3515Q	1	51	Brass Guides (Pair)	AC3551Q	2	87	Coolant Bottle O-Ring 10.7x2	AC3587CQ	1
16	1st Drive Gear 43T	AC3516Q	1	52	Magnet Switch	AC3552Q	1	88	Motor Fixing Plate Screw M5x10	AC3588CC	2
17	Coolant Elbow Connector	AC3517Q	1	53b	Stop/Start Switch (Relayed) 115v	AC3553bQ	1	89	Motor Fixing Plate	AC3589CC	1
18	Inner Gear Cover	AC3518Q	1	54	Pinion Bushing	AC3554Q	2	90	Flat Head Screw M4x6	AC3590CC	4
19	Fan Guide	AC3519Q	1	55	Pinion Washer 38x10x2T	AC3555Q	1	91	Motor Back Cover Plate	AC3591CC	1
20	Ball Bearing 609 2RS	AC3520Q	2	56	Switch Panel	AC3556Q	1	92	Sun Washer	AC3592CQ	1
21B	Armature 110V	AC3521BQ	1	57	Panel Screw M4 x 12	AC3557Q	4	93	Spring Washer MG	AC3593CC	3
22	Stator Screw M5x55	AC3522Q	2	58	Panel Washer M6	AC3558Q	1	94	Screw M4x6	AC3594CC	2
23B	Stator Armature 120V	AC3523BQ	1	59	Pinion Hex Head Screw M6 x 16	AC3559Q	1	95	Wrench M8	AC3595CC	1
24	Motor Housing	AC3524Q	1	60	Switch Plate Bar	AC3560Q	2	96	Hex Key M2.5	AC3596CC	1
25	Brush Holder	AC3525Q	2	61	Pinion	AC3561Q	1	97	Arbor Support Screw M8x70	AC3597CQ	2
26	Carbon Brush (pair)	AC3526Q	2	62	Handle	AC3562Q	3	98	Snap Ring S-28	AC3598LQ	1
27	Brush Cover	AC3527Q	2	63	Handle Knob	AC3563Q	3	99	Collar	AC3599LQ	1
28	Motor Housing Screw M5x40	AC3528Q	2	64	Side Panel	AC3564Q	1	100	Return Spring	AC35100LQ	1
29	Motor Housing Washer M4	AC3529Q	2	65	Side Panel Screw M4x8	AC3565Q	4	101	Retaining Ring	AC35101LQ	1
30	N/A			66	Wire Lead 16 AWG	AC3566Q	3	102	Set Screw M4x4	AC35102LQ	1
31	Motor Cord to Stand	AC3531Q	2	67	Wire Lead 16 AWG	AC3567Q	1	103	Lock Pin HRC63	AC35103LQ	1
32	Conduit Lead Sheath	AC3532Q	1	68	Main Rectifier Unit	AC3568Q	1	104	Screw M3x6	AC35104LQ	1
33	Conduit Lead Clip	AC3533Q	1	69	Rectifier Nut M4	AC3569Q	1	105	Flat Spring	AC35105LQ	1
34	Conduit Lead Screw M4x12	AC3534Q	2	70	Power Cord	AC3570Q	1	106	Spring Washer M4	AC35106CQ	4
35	Motor Mounting Screw M8 X 16	AC3535Q	4	71	Rectifier Screw M4x20	AC3571Q	1	107	Flat Washer M4	AC35107CQ	4
36	Machine Rack	AC3536Q	1	72	Magnet	AC3572Q	1	108	Handle	AC35108CQ	1
								109	Cord Protector Sleeve	AC35109CQ	1

Additional Parts for AC35

List Description

AC35-1220 1/2" Drill Chuck for AC35-451220/AC35-461220
 AC35-451220 Drill Chuck Adaptor use with chuck AC35-1220
 AC35-461220 Quick-Change Adaptor use with chuck AC35-1220