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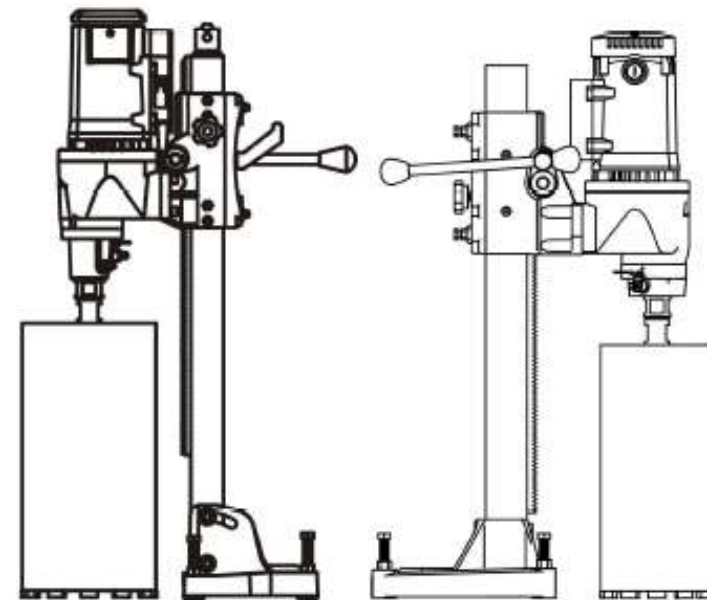
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DIAMOND CORE DRILL

250/300mm

INSTRUCTION MANUAL



Read and follow all safety precautions in instruction manual.

1.SAFETY REGULATIONS

Warning!When using the tools, all the safety instructions should always be observed to reduce the risk of fire, electric shock and personal injury before attempting to operate the tool, please read all the instructions.

Safety Instructions:

1. Keep work area clean: Cluttered area and benches invite injuries.
2. Consider work area environment: Don't use diamond core drill in damp or wet locations. Don't expose diamond core drill to rain. Keep work area well-lit. In particular no inflammable liquids or gases must be present. The series motor produce sparks during normal rotating, the sparks may cause the risk of fire.
3. Dress properly: Don't wear loose clothes. They can be caught in moving parts, the operator should wear rubber gloves and non-skid footwear, goggles and safety cap.
4. Grounding of class I tools is necessary while in use to protect you from electric shock, class I tools is equipped with an approved three-conductor cord and three-prong grounding-type plug, the black (or green and yellow)conductor in the cord is the grounding wire, one end of wire is in the grounding sign of tool outer shell, the other end of wire is connected with the ground wire of plug. Never connect the black (or green and yellow) wire to a live terminal.
5. The socket must fitted with grounding, don't insert class I tools into the socket without grounding.
6. Keep children away: Don't let children contact tool or extension cord. All visitors should be kept away from work place.
7. Don't abuse cables: Never carry tool by cable or yank it to disconnect it from socket. Keep cable from heat, oil. Sharp edges and water.
8. Avoid unintentional starting, Don't carry plugged-in tool with finger on switch. Make sure switch is off when connecting the plug to the socket, and remove the spanner, screwdriver etc.
9. Use extension cords when tool is used outdoors or indoors, use special extension wire board. Use only three-conductor cord and with reliable grounding.
10. Take care of downward direction in the high position, safety belt and safety cap etc are recommended.
11. In order to avoid unintentional electric shock, please check the grounding condition of electrified body in working area before operating, it is not allowed to operate the tool under the uncertain condition, once the drill bit touched the electrified body in the wall, floorboard or baseboard, the electrified outer shell of drill may cause personal injuries.

12. The safety equipment is recommended when drilling on high the ceiling to avoid the drill core injuring the persons downstairs or damaging the property downstairs.
13. Using class I tools shall be equipped with excess current operative protector (Leakage operative current shouldn't exceed 300mA, its operative time shouldn't exceed 0.1S). And check the sensitivity of protector periodically.
14. When not in use, before servicing and when changing drilling bits, the power supply should be shut off.
15. Store idly tool, when not in use, tools should be stored in dry, high place out of reach of children.
16. Besides the operating instructions, we should also carry out some regulations about GB3787<< the rules of portable electric tools 's management, operation, inspection, maintenance and safe technology>>.

HANDLING INSTRUCTIONS

1. How to install drill:
Remove the drill from the carton, at first, please loosen the bolts on the connecting square pole and the base, or rotate the base to the angle of 180 degree, assemble it into the position
2. How to fasten drill:
Fastening the drill firmly is the important condition to ensure that a bore can be drilled normally, there are two kinds of methods to fasten the drill:
(1)Fasten the drill with mandrel: It is usually made up of 2 sleeved type mandrel is, select a proper length then locking the mandrels according to the height of drilling position indoors, one end withstand the building material, the other end withstand the adjustable screws on the top of square pipe, then tightening the screws in reversed direction to fasten the drill firmly, it is unnecessary to drill the bore on expansion bolt.
(2)Fasten the drill with expansion bolt.
Two kinds of methods need adjust and tighten 4 bolts on the base uniformly, after fastening, please lock them with nuts.
3. Check the voltage:
Make sure the voltage is the same as that indicated on the board of the tool, the voltage in the circuit should be kept at +/-5%.
4. How to install bit:
Installing the diamond-thin bit carefully, the end thread shall match with the end output shaft. The end thread should be smeared with grease firstly, after tightening the drill bit, let it idly run, do make sure that its radial motion is corresponded with the general requirement, then you can operate the drill.

5. Opening a bore, drilling a bore:

Start the drill under no-load condition, after starting, loosen the feed value, you can begin to drill when you see the outflow of water from the drill bit. When drilling a bore with the portable drill, put the drill to a certain inclined angle firstly

drill a crescent-shape notch on the surface of concrete, then holding the drill vertically, if the drill swayed, the drill bit may be damaged. You should drill slowly and uniformly, don't force the tool, you can increase thrust when the drill bit has been drilled into the work piece about 5mm depth. During drilling, if the rotary speed of motor reduced obviously, that means it has an excessive load, please reduce its feed pressure properly to keep its rotary speed can be in an ideal location, if the motor emits fume or peculiar smell, please shut off the drill at once, the work will have to wait to avoid the motor overloading and the coil burned down. The clutch on the output shaft may be skidded, the excess current protector jumped and the motor stopped if the drill forces into the reinforcing steel bar, these improper operation methods, which will reduce the life of drill bit and damage the motor.

6. Material:

When drilling on the reinforced concrete, if the drill bit touched the reinforcing steel bar, the current will be increased suddenly, the motor vibrated and the drill overloaded, at this time, the drill thrust should be reduced properly, the lower current can have a bad effect on the drill speed and the drill bit. If the grit, gravel falls into the drill or the drill touches the reinforcing steel bar, the drill will be caught, the higher excess current happened, the protection switch jumped and the clutch skidded, here, please shut off the tool, remove the drill bit and clean the chips in the gap, please wait for about 3 minutes, let the overload switch cool down before restarting the protection switch to continue drilling, when drilling the wood, thick blacktop and asphalt felt etc, its current will be increased, so please drill slowly, uniformly and slightly.

7. Remove drill core:

When the drill bit almost drill through the floorboard or wall etc materials, be careful in reducing its drill speed to avoid drilling forcibly. When drilling again, please shut off the tool, remove the drill bit and clean its wall with water, after cleaning the chip, beat the drill slightly with the wood stick, be careful in removing the drill core and damaging the drill bit, then installing the drill to continue operating.

8. Keep the motor ventilate and cool down:

During operating the ventilated notch of motor should not be clogged with dirt to avoid the higher temperature affecting the life of motor or burning down the winding.

9. Waterless operation forbidden:

When operation, there should be plenty of water flow into the walls of the drill bit to cool down, and the mud can be washed out to avoid damaging the drill bit and sealing washer.

10. Avoid dampening the motor:

Do keep the walls of the motor away from the water to avoid reducing its insulating performance or leaking electricity.

The drill that drills on the backstroke, the water should be flowed from the drill bit which should be collected with the collector to avoid dampening the drill.

11. Avoid vibrating drill:

When drilling, sometimes, the gap between the elevating body and square pipe and rack increased may cause the drill vibrated, at this time, please shut off the tool and adjust the track lining and idler wheel on the elevating body, tightening some relative bolts to adjust it to proper gap. See breakdown drawing.

2. STRUCTURE, FEATURE AND USAGE

The series of diamond core drill is a kind of class I portable electric drill with bracket shape, the reducer casing is driven by good quality alloy steel gear. It is equipped with mechanical friction clutch and excess current protection switch. Using high-power series motor and high strength diamond thin-wall drill bit produced by our company, which can drill a bore in all directions on the reinforced concrete, brick and stone etc, its have the advantages of no dust, no vibration, high precision and promote in drill speed. They are widely used in the fields of construction, pipe installation, road, bridge and engineering quality control and sampling etc.

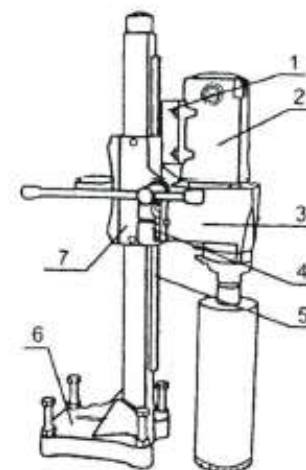


Fig.1

1. Switch-----Excess current protection switch
2. Motor-----Single phase series motor
3. Reducer casing-----High strength aluminum alloy die-casting.
4. Water washer-----There is sealing washer on both ends of inner
5. Square pipe-----Steel pipe
6. Base-----High strength aluminum alloy die-casting
7. Elevating body-----The drill can be moved and fed up and down through handle gears and racks meshed.

3.MAIN TECHNICAL PARAMETER

TYPE	PM250DCD	PM300DCD
Core Cutting Cap. mm	250	300
Rated voltage V~	230	230
Rated frequency Hz	50/60	50/60
Input power W	3200	3900
No-load speed r/min	700	500
Weigh Kg	21	25

4.MAINTENANCE

1. If the drill had any troubles, please send it to an authorized service center. It is not strictly allowed to dismantle or replace the parts optionally.
2. Please check the electric brush and commutator periodically, when the brushes are worn by the length of about 6mm, they must be changed. Use only original ones, otherwise, the commutator may be damaged, the both brushes must be changed at the same time. If you find heavy sparking in running or the commutator are worn or burned seriously, please check and repair the commutator or replace a new rotor.
3. The drill should be checked and repaired periodically after used for a long time. Its main items are: whether the electrical wire is good or not, the grounding is reliable or not, the inner wire, switch and plug works well or not, the insulating resistance of motor is safe or not, the stator and rotor are in short circuit or not, the bolts are loosened or not, please replace the lubricating oil and wearing parts etc.
4. Replace the rubber sealing washer in time. After using for a long time, if you find the water is coming in the top of the drill, please check and replace the sealing washer immediately.
5. Keep the drill clean and dry. If not in use, please clean the drill and it should be kept in dry, clean place, dismantle the drill bit, the main shaft of the drill and the connecting parts of drill thread should be smeared some grease so as to protect them.

5.SOLUTION TO THE PROBLEMS DURING USING

Problems	Possible Reasons	Solution
Motor doesn't run When connecting Power supply	1.Power supply disconnected 2.Switch breaker positioned 3.Brush ill contacting or use up 4.The winding of stator & rotor	1.Check and connect power supply 2.Check and repair switch or replace improperly or ill contacting switch 3.Replace electric brush 4.Check or replace stator & rotor open circuit.
Heavy sparks and ring Sparks occur on Commutator of motor	1.Rotor winding is on short circuit or open circuit 2.Brush spring positioned Improperly or ill contacting 3.Commutator worn seriously	1.Repair or replace rotor. 2.Adjust the spring pressure 3.Replace a new rotor
Drill vibrated	1.The base fixed loosened 2.The gap between elevating body and square rack largened 3.Elevating body and connecting bolts loosened	1.Reassemble and fix the frame 2.Adjust the gap 3.Check bolt
Drill speed is slow	1. Drill bit worn 2.ceiling pouring quality is bad, there are grits or chips in gap 3. Drill vibrated	1. Repair or replace drill bit 2.Stop the drill, remove the foreign materials from gap 3 Adjust and tighten connecting bolt.

6. THE LIMITED WARRANTY

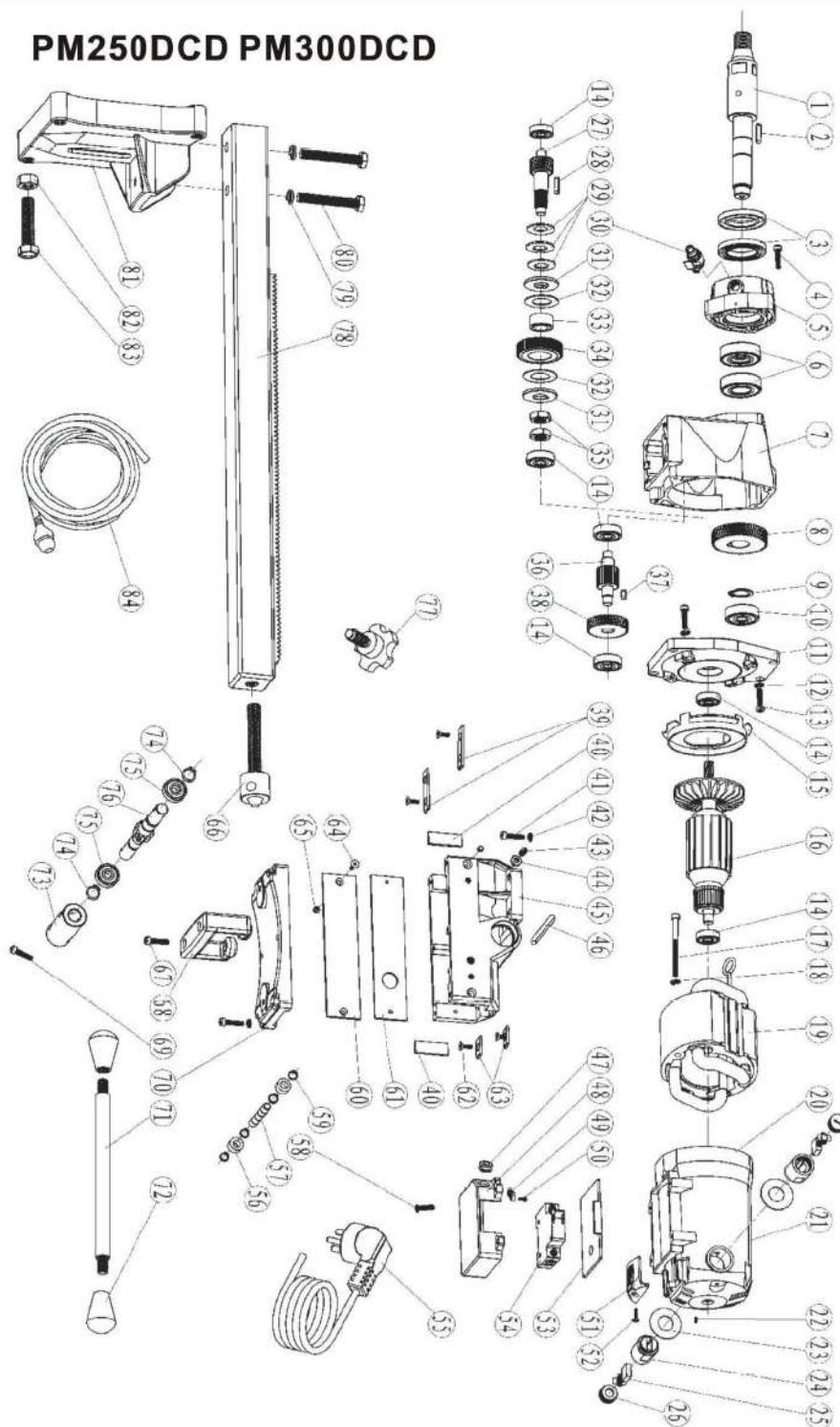
Our company would sincerely service for users, the diamond core drill is warranted to be free from by our company for a period of three months from the date of purchase against defects in workmanship and materials in correct conveyance, storage and household according to the owner's guide. Warranty excludes normal wear and ear or damages caused by negligence, abuse, or use not in accordance with the owner's guide.

7. ACCESSORIES

5MM,6MM,8MM Inner hexagon spanner	1 apiece
24-27 32-36 Double - head wrench	1 apiece
Plastic pipe and joint	1 set

8. MAIN PART LIST AND BREAKDOWN DRAWING

PM250DCD PM300DCD



No.	Symbol	Name	43	M8×20	Inner hexagonal fastening bolt
1	ML3-205-0/01	Output shaft	44	M8	Hexagonal nut
2	8×20	Flat key	45	ML3-205-3/01	Elevating body
3	FB62×38×8	Sealing ring	46	10×120	Flat key
4	M5×25	Inner hexagonal bolt	47	ML3-205-0/20	Jacket
5	ML3-205-0/02	Water sealer cover	48	ML3-205-0/15	Switch box
6	6205	Rolling Bearing	49	ML3-205-0/43	Cable press board
7	ML3-205-0/03	Reducer casing	50	M4×14	Cross Recess Head Screw
8	ML3-205-0/10	NO. 6 Gear	51	ML3-205-0/44	Cover board of shell
9	Φ25×1.2	Circlips for shaft	52	M5×12	Countersunk head bolt
10	6004	Rolling Bearing	53	ML3-205-0/16	Switch box cover
11	ML3-205-0/04	Middle cover	54		Switch
12	Φ6	Spring washer	55		Plug
13	M6×25	Inner hexagonal bolt	56	ML3-205-0/32	Roller
14	6201	Rolling Bearing	57	ML3-205-0/33	Roller shaft
15	ML3-205-1/01	Shield ring	58	M5×20	Cross Recess Head Screw
16	ML3-205-1/14	Rotor	59	Φ10×1	Circlip for shaft
17	M5×85	Inner hexagonal bolt	60	ML3-205-0/34	Track stripA
18	Φ5	Spring washer	61	ML3-205-0/35	Track stripB
19	ML3-205-2/01	Stator	62	M4×8	Cross Recess Head Screw
20	ML3-205-2/05	Shell of drill	63	ML3-205-0/36	Track piece (small)
21	ML3-205-2/46	Label	64	M4×15	Cross Recess Head Screw
22	M5×16	Inner hexagonal fastening bolt	65	M4	Acorn nut
23	ML3-205-0/21	Insulation sheet	66	ML3-205-0/37	Screw
24	ML3-205-0/22	Brush holder	67	M6×30	Inner hexagonal bolt
25	ML3-205-0/23	Brush	68	ML3-205-0/47	Handle
26	ML3-205-0/20	Brush holder cap	69	M8×20	Inner hexagonal bolt
27	ML3-205-0/09	No.5 Gear	70	ML3-205-3/02	Elevating body cover
28	5×25	Flat key	71	ML3-205-0/38	Frame joy stick
29	ML3-205-0/16	Butterfly spring shim	72	ML3-205-0/39	Bakelite ball
30	G1/4"	Water switch	73	ML3-205-0/40	Joy stick sleeve
31	ML3-205-0/17	Shield ring	74	Φ17×1	Circlip for shaft
32	ML3-205-0/18	Friction shim	75	6003	Rolling Bearing
33	ML3-205-0/19	copper cover	76	ML3-205-0/22	Frame gear shaft
34	ML3-205-0/08	No.4 Gear	77	ML3-205-0/40	Knob
35	M8	Hexagonal nut	78	ML3-205-0/41	Square pipe and rack
36	ML3-205-0/07	No.3 Gear	79	Φ12	Spring washer
37	4×12	Flat key	80	M12×70	hex bolts
38	ML3-205-0/06	No.2 Gear	81	ML3-205-0/42	Base
39	ML3-205-3/07	Track piece	82	M16	Hex nut
40	ML3-205-3/10	Track lining	83	M16×70	hex bolts
41	M6×25	Hexagonal socket head cap screw	84		Waterpipejoint
42	Φ8	Spring washer			