



IDTP-16
IDTP-22

Industrial Drilling Tapping Machine

GB
Operating Instructions



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Operating Instruction

Dear Customer,

Many thanks for the confidence you have shown in us with the purchase of your new JET-machine. This manual has been prepared for the owner and operators of IDTP-16/IDTP-22 Industrial Drilling Tapping Machine to promote safety during installation, operation and maintenance procedures. Please read and understand the information contained in these operating instructions and the accompanying documents. To obtain maximum life and efficiency from your machine, and to use the machine safely, read this manual thoroughly and follow instructions carefully.

Declaration of conformity

On our own responsibility we hereby declare that this product complies with the regulations* listed on page 1. Designed in consideration with the standards **.

JPW Group Warranty

JPW Tool Group Hong Kong Limited guarantees that the supplied product(s) is/are free from material defects and manufacturing faults.

This warranty does not cover any defects which are caused, either directly or indirectly, by incorrect use, carelessness, damage due to accidents, repairs or inadequate maintenance or cleaning as well as normal wear and tear.

Further details on warranty (e.g. warranty period) can be found in the General Terms and Conditions (GTC) that are an integral part of the contract.

These GTC may be viewed on the website of your dealer or sent to you upon request.

JPW Tool Group Hong Kong Limited reserves the right to make changes to the product and accessories at any time.

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Warnings

- Misuse of this machine can cause serious injury.
- For safety, machine must be set up, used and serviced properly.
- Read, understand and follow instructions in the Operating Instructions and Parts Manual which was shipped with your machine.

When setting up machine:

- Always avoid using machine in damp or poorly lighted work areas.
- Always be sure the machine support is securely anchored to the floor or the work bench.

When using machine:

- Always wear safety glasses with side shields
- Never wear loose clothing or jewelry.
- Never overreach—you may slip and fall.

When servicing machine:

- Always disconnect the machine from its electrical supply while servicing.
- Always follow instructions in Operating Instructions and Parts Manual when changing accessory tools or parts.
- Never modify the machine without consulting JET.

You—the stationary power tool user—hold the key to safety.

Read and follow these simple rules for best results and full benefits from your machine. Used properly, JET machinery is among the best in design and safety. However, any machine used improperly can be rendered inefficient and unsafe. It is absolutely mandatory that those who use our products be properly trained in how to use them correctly. They should read and understand the Operating Instructions and Parts Manual as well as all labels affixed to the machine. Failure in following all of these warnings can cause serious injuries.

Machinery General Safety Warnings

1. Always wear protective eye wear when operating machinery. Eye wear shall be impact resistant, protective safety glasses with side shields which comply with ANSI Z87.1 specifications. Use of eye wear which does not comply with ANSI Z87.1 specifications could result in severe injury from breakage of eye protection.
2. Wear proper apparel. No loose clothing or jewelry which can get caught in moving parts. Rubber soled footwear is recommended for best footing.
3. Do not overreach. Failure to maintain proper working position can cause you to fall into the machine or cause your clothing to get caught, pulling you into the machine.
4. Keep guards in place and in proper working order. Do not operate the machine with guards removed.
5. Avoid dangerous working environments. Do not use stationary machine tools in wet or damp locations. Keep work areas clean and well lit.
6. Avoid accidental starts by being sure the start switch is "OFF" before plugging in the machine.
7. Never leave the machine running while unattended. Machine shall be shut off whenever it is not in operation.
8. Disconnect electrical power before servicing. Whenever changing accessories or general maintenance is done on the machine, electrical power to the machine must be disconnected before work is done.
9. Maintain all machine tools with care. Follow all maintenance instructions for lubricating and the changing of accessories. No attempt shall be made to modify or have makeshift repairs done to the machine. This not only voids the warranty but also renders the machine unsafe.
10. Machinery must be anchored to the floor.
11. Secure work. Use clamps or a vise to hold work, when practical. It is safer than using your hands and it frees both hands to operate the machine.
12. Never brush away chips while the machine is in operation.

13. Keep work area clean. Cluttered areas invite accidents.
14. Remove adjusting keys and wrenches before turning machine on.
15. Use the right tool. Don't force a tool or attachment to do a job for which it was not designed.
16. Use only recommended accessories and follow manufacturer's instructions pertaining to them.
17. Keep hands in sight and clear of all moving parts and cutting surfaces.
18. All visitors should be kept at a safe distance from the work area. Make workshop completely safe by using padlocks, master switches, or by removing starter keys.
19. Know the tool you are using — its application, limitations, and potential hazards.

Familiarize yourself with the following safety notices used in this manual:

CAUTION

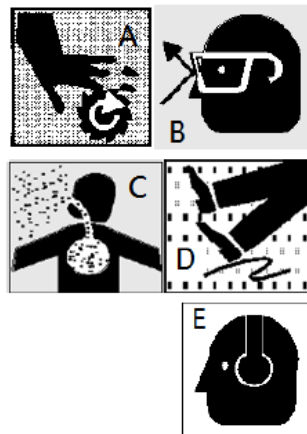
This means that if precautions are not heeded, it may result in minor injury and/or possible machine damage.

WARNING

This means that if precautions are not heeded, it may result in serious or even fatal injury.

Safety Instructions for Drill Presses

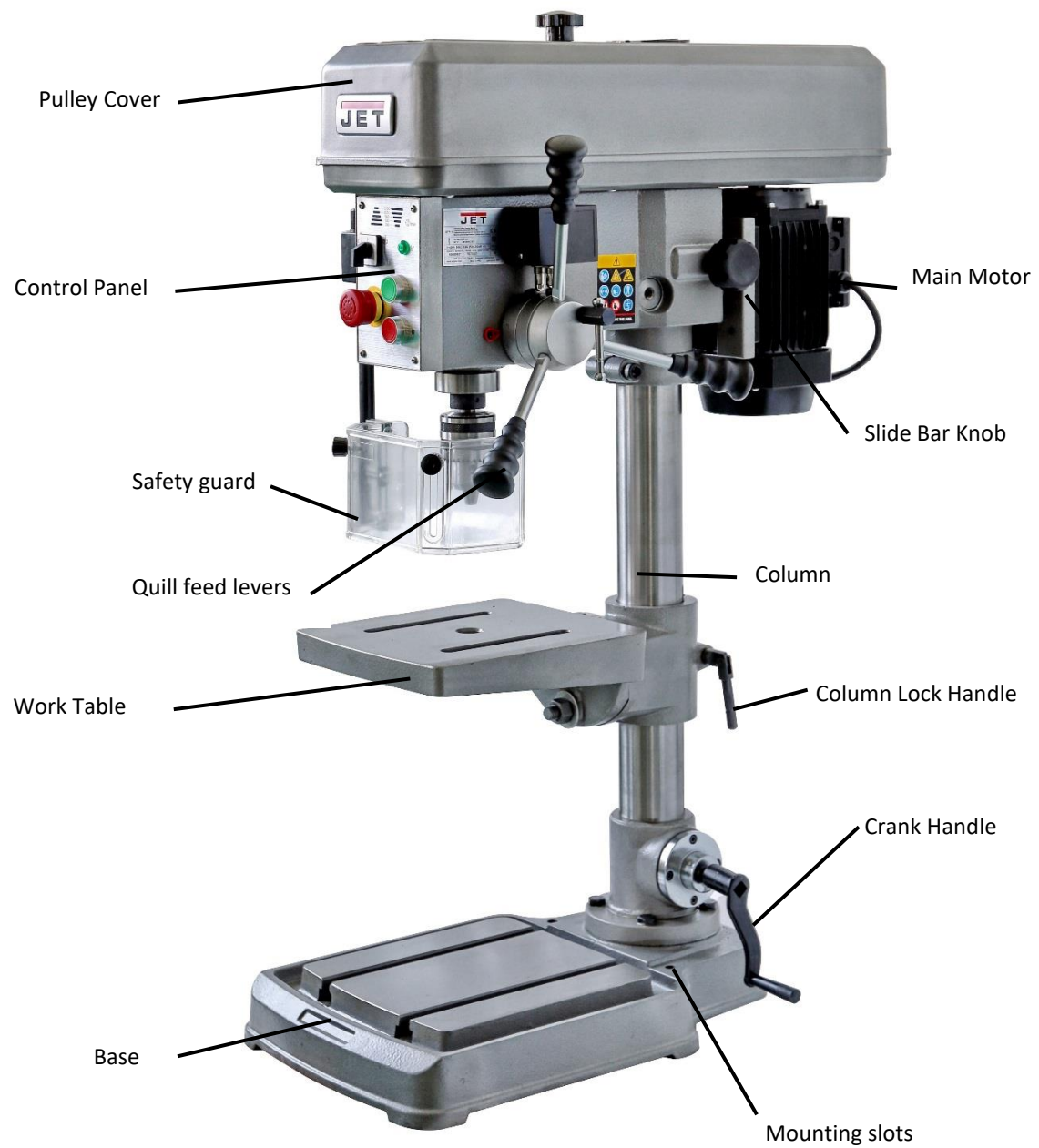
1. All work shall be secured using either clamps or a vise to the drill press table. It is unsafe to use your hands to hold any workpiece being drilled.
2. Drill press head and table shall be securely locked to the column before operating the drill press. This must always be checked prior to starting the machine.
3. Always use the correct tooling. Tooling shall always be maintained and properly sharpened. All tooling must be run at the proper speeds and feeds as they apply to the job. Use only recommended accessories and follow those manufacturer's instructions pertaining to them. Tooling shall not be forced in to any work piece but fed according to the proper specifications. Failure to follow these instructions will not only ruin the tooling as well as the machine, but can cause serious injury.
4. Never brush away any chips while the machine is in operation. All clean up should be done when the machine is stopped.
5. Keep hands in sight. Do not put hands or fingers around, on, or below any rotating cutting tools. Leather safety gloves should be used when handling any sharp objects or cutting tools. See Figure A.
6. Always wear protective eye wear when operating, servicing or adjusting machinery. Eyewear shall be impact resistant, protective safety glasses with side shields. Figure B.
7. When drilling in material which causes dust, a dust mask shall be worn. See Figure C.
8. Avoid contact with coolant, especially guarding the eyes.
9. Non-slip footwear and safety shoes are recommended. See Figure D.
10. Wear ear protectors (plugs or muffs) during extended periods of operation. See Figure E.



1. General Specifications

	IDTP-16	IDTP-22
Drilling Capacity Mild Steel	16mm	32mm
Drilling Capacity Mild Steel	M12	M14
Chuck Size	Keytype B16 1-16mm	Keytype B16 1-16mm
Spindle Travel	98mm	134mm
Distance chuck to Base	500mm	1100mm
Distance Chuck to Table (max)	255mm	760mm
Table Size Diameter	246×278mm	380×416mm
Table Travel	224mm	760mm
Table Tilt	± 45 °	n/a
Work Table Weight Capacity	60kg	60kg
Head Travel	345mm	n/a
Spindle Taper	MT-2	MT-3
Column Diameter/ Material	Ø70mm / Cast Iron	Ø93mm / Steel Tube
Number of Spindle Speeds	5	5
Pulleys Material	Cast Iron	Cast Iron
Range of Spindle Speeds	200-2350 RPM	200-2250 RPM
Base Size	340mm×520mm	440mm×648mm
Base Work Area	258mm ×275mm	350mm×357mm
Table / Base Material	Cast Iron	Cast Iron
Head Stock Material	Cast Iron	Cast Iron
Spindle Distance to Column	203mm	246mm
Net Weight	91kg	230kg
Machine Overall Dimension	690mm L×410mm W×1040mm H	740mm L ×460mm W ×1030mm H

2. Product Features and Terminology



3. Getting to know your Machine

This machine is equipped with drilling and tapping functions. The machine's structure is rigid and is driven by a well-sized V-belt, which in turn generates powerful spindle rotation. Controlled by inverter, it is run with a variable speed range for easy and safe speed adjustment. In terms of material, the entire machine body including the base, table and column are made by high-strength casting iron for higher durability.

This manual contains procedures for both speed control versions. The manual provides separate instructions when differences in operation and maintenance exist.

3.1. Control Panel



- A. Power ON Switch
- B. Power OFF Switch
- C. Emergency Stop Switch
- D. Drilling/Tapping Selector
- E. Indicating lamp of Spindle Reversing



After daily use, disconnect machine from power source or press emergency stop switch to shut off the power completely. Do not keep the machine connected over 24 hours, it may cause damage to the machine.

3.2. The Machine Head



The machine head is fixed to the column. It allows more intensity in work piece machinery.

3.3. The Work Table



The work table can be positioned at varying heights, and it is T-slotted to allow the use of M12 T-nuts. Please limit the maximum weight of the work piece to 60 kg.

Overloading the table may affect the accuracy of the table.

By the help of lock nut and tilting scale on the table bracket, user can freely rotate both work table. It allows more flexibilities in work piece machinery at different angle.



Note: Only the work table of IDTP-16 has tilting function.

4. Transporting the Machine

The machine will be delivered in a closed crate. For transport use a forklift or hoist. Make sure the machine does not tip or fall off during transport.

Danger of tipping due to high gravity center! During handling, the machine shall be lifted only in vertical direction.

Please refer to instruction manual in specification and machine weight to arrange handling manner. Be sure to use capable fork-lifter or hoist to lift of machine. The handling and transportation shall be carried out by qualified persons. Fork - lift or hoist can be used in handling and shall be operated by qualified driver.

Before handling, make sure all movable parts are secured in their position and all movable accessories should be removed from machine. The steel rope should average pull the machine head, table and column tightly.

Keep all the processes in a carefully and slightly condition. Bump or crash are strictly prohibited. It will cause precision shift and electronic controller damaged.

5. Machine Installation

5.1. Install the Machine

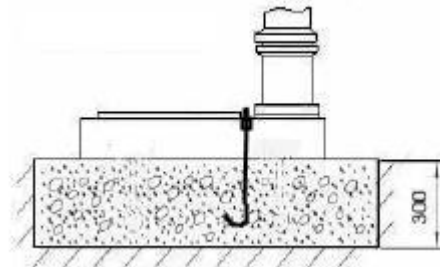
Owing the machine is heavy, please use crane to pull it out from the carton box



5.2. Positioning the Machine

1. The head and the worktable of the machine can be rotated 360°, so choose a location with enough space and solid foundation.
2. Clean all rust protected surfaces with a mild solvent e.g. petroleum.

5.3. Anchoring the Machine



Assure the sufficient load capacity and proper condition of your lifting devices.

1. Position the machine on a firm and level concrete floor.
2. A minimum distance of 800mm towards a rear wall must be kept (for access to the electrical box).
3. Anchor the machine to the ground, as shown in the diagram, using screws and expansion plugs or sunken tie rods that connect through holes in the base.

5.3. Minimum Requirement for Housing the Machine

Please comply with the following terms to maximize the life and performance of the machine and its components.

The Main voltage and frequency complying with the requirements for the machine's motor.

Environment temperature from -10°C to +50°C.

Relative humidity not over 90%.

5.4. Assembling Loose Parts

Attach Riser handle to the necessary crankshaft, and use Hex-wrench to tighten/loosen the machine head lock nut.

5.5. Electrical Connection of the Machine

Make sure whether the voltage 400V matches the requirement for the machine, prior to connection to power supply. If the machine cannot be operated after wires have been connected, please check the following items:

1. Is the Emergency switch released?
2. Is the door of the electrical cabinet is properly closed and switched ON (locked) position?
3. Is the safety guard in the proper position (closed)?

6. Machine Operation

6.1. Control Panel



- A. Power ON Switch: Starts the motor.
- B. Power OFF Switch: Stops the motor. As the power still exists, pressing ON restarts the machine.
- C. Emergency Stop Switch: Stops the machine. Turn the switch clockwise to unlock the switch before starting the machine.
- D. Drilling/Tapping Selector: Selects the mode of operation
- E. Indicating lamp of Spindle Reversing: light on when spindle reversing.

6.2. Depth Indicator



A drilling depth indicator is provided on the side of the drill head. The lock knob is provided at the side, on the top of quill lever.

Before starting the motor:

1. Set the depth to zero by lowering and holding the cutting tools to the surface of the work piece. Use quill lever to lower the spindle.
2. Unlock the depth scale by turning the lock knob.
3. Set the depth stop by rotating the depth stop stud to the desired depth.
4. Lock the depth scale by turning the lock knob.

6.3. Operation Cycle

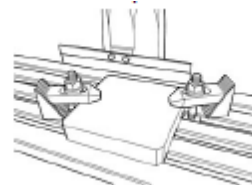
Safety chuck guard must be in position, electric box must be closed and locked, and unlock emergency stop switch (C) by turning the red cap of the switch clockwise to start machine. In a critical condition, stop machine by hitting emergency stop switch or Power OFF switch (B) to stop machine.

1. Check if the head is secured.



Failure to secure the head can result in damage of the machine and personal injury.

2. Secure the work piece to the table.



3. Use crankshaft to adjust the table to the desired height.



4. Use lock-lever to secure the table.

5. Use the spindle/quill feed lever to bring the drill or tapping tip down to the surface of the work piece and hold.
6. Set the depth indicator/stop to required depth.



7. Back the drill or tapping tip off the work piece a bit.
8. Select drilling or tapping mode.
9. Press Power ON switch to begin spindle rotation.

In Drilling Mode



10. Use the depth handle to bring the tip of the drill bit to the surface of the work piece hold.
11. The required depth is set by previous steps 5 and 6.
12. Select proper speed.
13. Begin drilling by using the quill feed lever.

In Tapping Mode



In general, speeds for tapping require low speed which is lower than 200 min^{-1} .

14. Use the depth handle to bring the tip of the tapping bit to the surface of the work piece and hold.
15. The required depth is set by previous steps 5 and 6.
16. Select the spindle speed.

17. Begin tapping by using the quill feed levers.
18. At the end of a tapping or drilling operation, press the stop button switch to turn off the machine.

Note: While tapping, pause spindle down feed at the bottom of operation to allow the breaking and reversal of rotation of the spindle.

In general, use low speeds for tapping. Tapping at high speed will tap more quickly, But there is a danger of damage to work piece and tool. Tapping requires an accurate setting for the depth stop to allow the machine to switch tapping direction and the removal of the tapping bit.

7. Machine Adjustment

7.1. Adjusting the table & Rack Height

The table can be raised, lowered, and tilted with desired angles to accommodate the work piece.

To raise or lower the table, loosen the lever-locks behind the table bracket, then use the hand crank to move the table to the desired height. Then lock the table in position.



Note: Only the work table of IDTP-16 has tilting function.

To tilt the table, loosen the nut first to adjust the table to desired angle, then lock the table in position.

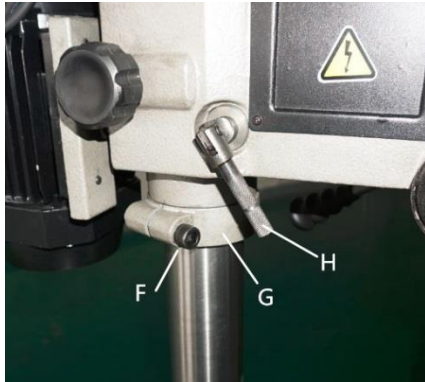


7.2. Adjusting the Headstock Height



Note: Only IDTP-16 has headstock height adjusting function.

1. Cut off the power before this operation.
2. Open the pulley cover.
3. If the machinery object is out of loading ability of work table, it can be set on the base. Then adjust the headstock height along the column to make sure the working range of machinery be proper.



4. Please make sure the handle (H) is tightened.
5. Loose the tightening bolt (F) first, and adjust the retaining ring (G) to preferred height, then go tighten the bolt again.
6. Carefully loose the handle (H) to let the headstock slowly come down to be against the retaining ring, then tightened the handle (H) again.
7. If the headstock need to be at higher position, please carefully lift it up because the severe heaviness after losing the locking handle (H). And make sure the retaining ring (G) be settled to be against the headstock properly.

4. Change the belts location according the speed chart.
5. Manually push/pull out the motor along the motor rods then thread the bolts (J) to be against the motor bracket letting the belt be tensioned.



Note: Belt tension should be loose enough to allow 5-10mm movement when pushing the belt from the side.



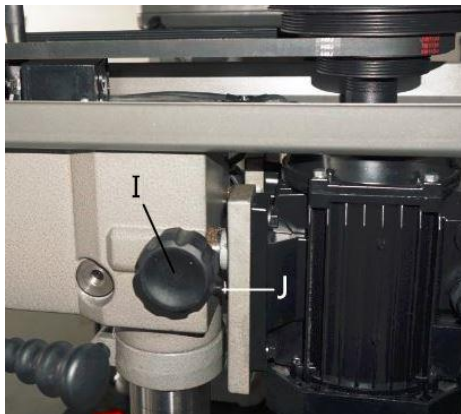
6. Put back the pulley cover then thread the fastening bolt.

7.4. Radial Head Position Adjustment



Change the radial position of the drill head only if the drill press base is secured to the floor. Swinging the drill head without the base being secured to the floor will cause the drill press to become unstable and tip over resulting in injury and/or damage to the machine.

7.3. Speed adjustment



1. Cut off the power before this operation.
2. Open the pulley cover.
3. Loosen "I" and "J" to free the motor.

7.5. Tool installation and Uninstallation



1. Clean the drill chuck, arbor and spindle taper thoroughly before installation. Any insufficient cleaning on mating surfaces may cause drill loosen as operating and unsafe conditions.
2. Place a thin wood plank on the worktable to protect the surface of the worktable and chuck drill. Draw back the chuck nose into chuck body and slightly hit the arbor onto the chuck by rubber hammer.



3. Place a thin wood plank on the worktable to protect the surface of the worktable and chuck drill. Draw back the chuck nose into

chuck body and slightly hit the arbor onto the chuck by rubber hammer.



4. Slide the assembled drill chuck and arbor into spindle taper, and slightly hit them by rubber hammer to fit in.



5. Sequentially tighten "K" and "L"



6. Lower the spindle about 100 mm.
7. Place the drift key into the aperture of the quill and tap the end of the drift key with a hammer until the bit or chuck arbor falls down.



7.6. The Spindle Shield

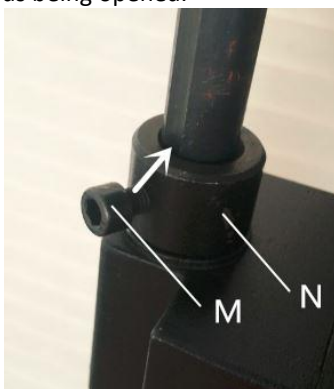


This clear plastic shield should be used whenever conducting a drilling or tapping operation. Clean the safety guard periodically to provide a clear view of the work piece. Adjustments can be done as follows.

1. Adjust the internal cover shield to have better range protection.
2. If both internal and external shields cannot provide enough protection, loosen locking bolt (M) to shift setting ring (N) in proper position.



Note: make sure the bolt (M) aligns to the groove (aimed by the arrow), otherwise the power-off switch would not be triggered when the shields are opened.



8. Operating Precautions

The following operating and safety precautions must be observed in order to avoid harm to the operator or damage to the drill press.

1. Make sure the power voltage is for the machine. Before connecting the plug to socket, it is necessary to check the power spec. to avoid any damage occurring.
2. If the machine is not used for a long time, the plug should be disconnected.
3. Never put the power cable near the fire or water environment, to break or press the power cable is not allowed.
4. The head assembly must be locked to the column so the thrust produced by drilling will not force the head assembly up the column.
5. The work table must be locked to the column so it will not be forced down the column.
6. Before drilling, release the quill lock nut to permit free travel of the quill.
7. Be sure the belt is tightened to the proper tension.
8. DO NOT start to drill the work piece until making certain the work piece is held down securely.
9. Make sure the power is off when changing the belt for shifting speed.
10. Point of operation protection is required for maximum safety. This remains the responsibility of the user/purchaser since conditions differ between jobs.
11. Make sure the drill is secured in the spindle or chuck before attempting to use the drill press.
12. Make sure the spindle taper is clean and free of burrs, scoring, and galling to assure maximum gripping.
13. Lock the quill in position when using any side-loaded tool.

9. Maintenance

Lubrication and Routine Maintenance

Apply oils to the driving parts of the machine prior to operation and supply coolant during operation to ensure stability of cutters and the object being processed. Please refer to the lubrication as below for more details about use oil. To extend your machine life, please make a maintenance schedule daily, weekly, monthly or semi-annual and annual. Neglecting the machine maintenance will result in premature wear and poor performance.

9.1 Lubrication

1. Lubricate - Column, Quill. Use machine tool oil with light film of oil.
2. Grease - Rack on the column so that the worktable can move up/down smoothly. Use SAE 20 oil. To clean rack with kerosene before applying oil.

9.2 Daily Maintenance

Make a general cleaning by removing dust and shavings from the machine. Check that the shields and emergency stops are in good working order. After daily use, disconnect machine from power source or press emergency stop switch to shut off the power completely. Do not keep the machine connected over 24 hours, it may cause damage to the machine.

9.3 Weekly Maintenance

Clean the machine

9.4 Monthly Maintenance

Lubricate machine column, spindle and rack devices.
Check that all screws on the motor, the pump and the guard are tight and secure on the right position.

9.5 Annual Maintenance

Replace the driving belt by using:
450J for IDTP-16,
530J for IDTP-22.

9.6 Oils for Lubricating Coolant

Considering the vast range of products in the market, the user can choose the one most suited to their own requirements, using as reference the type shell lutem OIL ECO.

The minimum percentage of oil diluted in water is 8~10%.

9.7 Oil Disposal

Oil products must be disposed in a proper manner following local regulations.

9.8 Special Maintenance

Special maintenance operations must be carried out by skilled personnel. However, we advise contacting dealer and/or importer the term special maintenance also covers the resetting of protection and safety equipment and devices.

10. Environmental protection

Protect the environment.
Your appliance contains valuable materials which can be recovered or recycled. Please leave it at a specialized institution.



This symbol indicates separate collection for electrical and electronic equipment required under the WEEE Directive (Directive 2012/19/EC) and is effective only within the European Union.

11. Trouble shooting

11.1 Electric

Prior to operating all electronic parts, the following aspects should be taken into consideration first



Note: Only eligible and qualified personnel can make electronic adjustments

1. Disconnect machine from power supply.
2. Electronic parts are extremely sensitive, do not use hands or metal tools to remove or install such parts.
3. As remaining voltage still exists in the capacitor even after the electric current has been cut off, wait until the light disappears from the

lighted display completely before proceeding with any work to prevent any accidents or hazards from occurring.

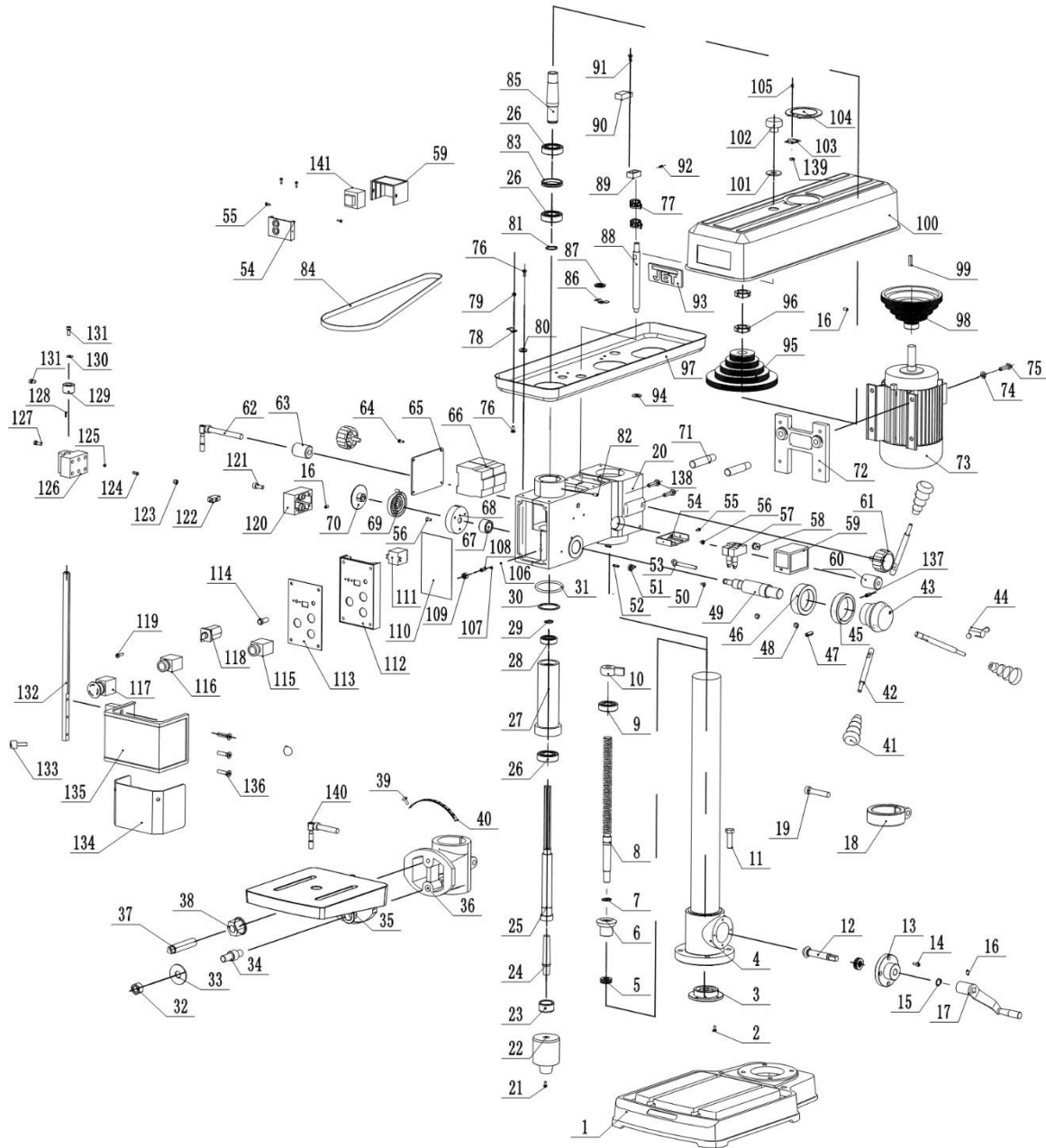
4. Pay close attention to the electronic circuit board so that they are free from any defects.
5. Never connect the alternating current directly to the output connector (U/V/W) of the speed adjuster. The electronic self-diagnosis program can notify you of situations like motor overloading and too low or too high voltage, etc. When the program detects an error, the machine will stop immediately and such error will be displayed on the inverter's digital display. Follow the solutions to correct any errors. Close the electrical cabinet and connect machine to power supply.

11.2 General Trouble Shooting

Trouble	Probable Cause	Remedy
Spindle does not turn.	Motor overload protector tripped.	Let the motor cool down, and the overheat switch would be reset by itself, then push the start button.
	Caused by chuck guard adjustment	Please refer section 7.6
	Defective switch.	Replace switch.
	Broken drive belt.	Replace drive belt.
Spindle noisy.	Damaged spindle bearings.	Replace bearings.
	Worn spline.	Replace spline.
Drill stalls.	Worn drive belt.	Check condition of belt. Replace if glazed or slipping on pulleys.
	Excessive feed rate for size of drill and material being drilled. No cutting fluid or improper cutting fluid.	Reduce feed pressure or use cutting fluid. Use correct cutting fluid.
Poorly drilled holes.	Drill dull.	Sharpen drill.
	Lack of rigidity in hold-down method.	Check that all T-slot hold-downs are tight and that table-lock and drill head bolts are tight.
	Speed too fast for material and drill size.	Check spindle speed recommendations. Reduce speed if necessary.
	Feed too fast for material and drill size.	Reduce feed rate.
	No or improper cutting fluid or coolant being used.	Use cutting fluid, or change to proper fluid or coolant for material being drilled.
	Improperly ground drill bit.	Check for proper angles and reliefs. Regrind to proper geometry.
Motor overheating.	Electrical circuit fault.	Check current draw in circuit. Make sure current draw is the same as rating on motor plate.
	Oversize drill.	Reduce drill size.
	Excessive feed.	Reduce feed rate.
	No cutting fluid, or wrong fluid.	Use correct cutting fluid for the material and drill.
Table cannot be raised.	Lack of lubrication.	Lubricate.

12. Exploded View & Parts List

12.1 IDTP-16 Assembly Breakdown



IDTP-16 Parts List for Breakdown (1/3)

Index No.	Part No.	Description	Size	Qty.
1	IDTP16-001	Base		1
2	IDTP16-002	Cross Pan Head Screw	M4×10	4
3	IDTP16-003	Cover		1
4	IDTP16-004	Column		1
5	BB-51102	Thrust Bearing	51102	2
6	IDTP16-006	Cone Gear		1
7	IDTP16-007	C-Clip	20	1
8	IDTP16-008	Lead Screw		1
9	BB-6204	Bearing	6204	1
10	IDTP16-010	Nut		1
11	TS-1492041	Hex Cap Screw	M12×40	4
12	IDTP16-012	Cone Gear Shaft		1
13	IDTP16-013	Cover		1
14	TS-1502031	Hex Socket Cap Screw	M5×12	4
15	IDTP16-015	C-Clip	15	1
16	IDTP16-016	Set screw	M5×12	3
17	IDTP16-017	Crank Arm Handle Assembly		1
18	IDTP16-018	Retaining Ring		1
19	IDTP16-019	Hex Socket Cap Screw	M12×60	1
20	IDTP16-020	Headstock		1
21	IDTP16-021	Screw	M8×12	1
22	IDTP16-022	Keytype Chuck	B16	1
23	IDTP16-023	Nut		1
24	IDTP16-024	Arbor	MT2/B16	1
25	IDTP16-025	Spindle		1
26	BB-6205	Bearing	6205	3
27	IDTP16-027	Quill		1
28	BB-6203	Bearing	6203	1
29	IDTP16-029	C-Clip	17	1
30	IDTP16-030	C-Clip	40	1
31	IDTP16-031	Rubber Washer	φ50×4	1
32	IDTP16-032	Nut ...M16		2
33	IDTP16-033	Flat Washer	16	2
34	IDTP16-034	Double End Bolt		1
35	IDTP16-035	Table		1
36	IDTP16-036	Table Support		1
37	IDTP16-037	Bolt	M12×40	1
38	IDTP16-038	Nut	M12	2
39	IDTP16-039	Rivet	2.5×5	2
40	IDTP16-040	Tilt Scale		1
41	IDTP16-041	Grip		3
42	IDTP16-042	Handle		3
43	IDTP16-043	Hub		1
44	IDTP16-044	Lock Handle Assembly		1
45	IDTP16-045	Ring		1
46	IDTP16-046	Scale Ring		1
47	IDTP16-047	Pin	8×25	1
48	IDTP16-048	Pin		2
49	IDTP16-049	Pinion Shaft		1
50	IDTP16-050	Cross Pan Head Screw	M4×8	1

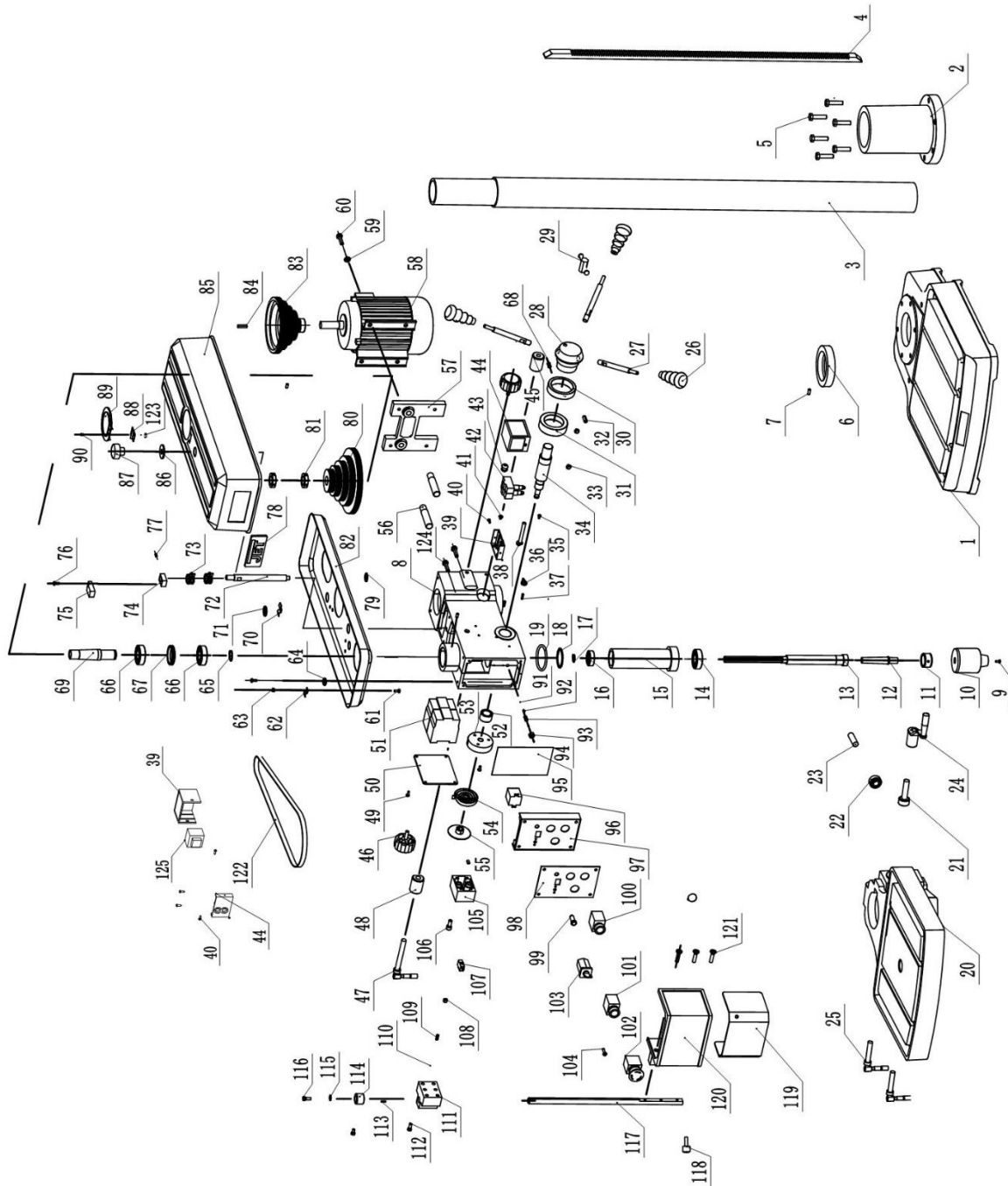
IDTP-16 Parts List for Breakdown (2/3)

Index No.	Part No.	Description	Size	Qty.
51	IDTP16-051	Indicator		1
52	IDTP16-052	Pin	4×16	2
53	IDTP16-053	Bolt		1
54	IDTP16-054	Micro Switch Box		2
55	IDTP16-055	Tapping Screw	M3.5×9.5	6
56	IDTP16-056	Cross Pan Head Screw	M5×12	3
57	IDTP16-057	Micro Switch	LXW5-11Q1	2
58	IDTP16-058	Strain Relief		1
59	IDTP16-059	Micro Switch Box Cover		2
60	IDTP16-060	Pivot Block		1
61	IDTP16-061	Locking Button		2
62	IDTP16-062	Lock Handle		1
63	IDTP16-063	Lock Block		1
64	IDTP16-064	Cross Pan Head Screw	M4×12	4
65	IDTP16-065	Cover		1
66	IDTP16-066	Contactor	1211B7E-AC24V	2
67	IDTP16-067	Spacer		1
68	IDTP16-068	Collar		1
69	IDTP16-069	Coil Spring		1
70	IDTP16-070	Spring Cover		1
71	IDTP16-071	Motor Rod		2
72	IDTP16-072	Motor Base		1
73	IDTP16-073	Motor	550W	1
74	IDTP16-074	Flat Washer	8	4
75	TS-1490051	Hex Cap Screw	M8×30	4
76	IDTP16-076	Cross Pan Head Screw	M5×12	11
77	IDTP16-077	Fastener		2
78	IDTP16-078	Plate		2
79	IDTP16-079	Nut	M5	4
80	IDTP16-080	Strain Relief		1
81	IDTP16-081	C-Clip	25	1
82	IDTP16-082	Set screw	M6×12	1
83	IDTP16-083	Spacer		1
84	IDTP16-084	Poly V-Belt	450J	1
85	IDTP16-085	Driving Sleeve		1
86	IDTP16-086	Plate		2
87	IDTP16-087	Rubber Sleeve		2
88	IDTP16-088	Shaft		1
89	IDTP16-089	Proximity Switch Seat		1
90	IDTP16-090	Proximity Switch		1
91	IDTP16-091	Cross Pan Head Screw	M4×16	2
92	IDTP16-092	Set screw	M6×8	1
93	JET-92	Logo	JET-92	1
94	IDTP16-094	Foam Pads		6
95	IDTP16-095	Spindle Pulley		1
96	IDTP16-096	Nut	M24×1.5	2
97	IDTP16-097	Pulley Cove		1
98	IDTP16-098	Motor Pulley		1
99	IDTP16-099	Flat Key	6×6×40	1
100	IDTP16-100	Pulley Cove		1
101	IDTP16-101	Flat Washer	12	1

IDTP-16 Parts List for Breakdown (3/3)

Index No.	Part No.	Description	Size	Qty.
102.....	IDTP16-102.....	Locking Button.....		1
103.....	IDTP16-103.....	Hinge.....		1
104.....	IDTP16-104.....	Plate.....		1
105.....	IDTP16-105.....	Cross Pan Head Screw.....	M4×8.....	4
106.....	IDTP16-106.....	Steel Ball.....	6.....	1
107.....	IDTP16-107.....	Spring.....	0.5×4.5×5.94.....	1
108.....	IDTP16-108.....	Set Screw.....	M8×12.....	1
109.....	IDTP16-109.....	Nut.....	M8.....	1
110.....	IDTP16-110.....	Insulating Paper.....		1
111.....	IDTP16-111.....	Relay.....	JQX-13F2Z-L.....	1
112.....	IDTP16-112.....	Panel Bracket.....		1
113.....	IDTP16-113.....	Panel.....		1
114.....	IDTP16-114.....	Indicator light.....	ZSD-AC24V.....	1
115.....	IDTP16-115.....	Stop Switch.....	LAY7-11BN42E.....	1
116.....	IDTP16-116.....	Start Switch.....	LAY7-11BN32E.....	1
117.....	IDTP16-117.....	Emergency Stop Switch.....	HY57B.....	1
118.....	IDTP16-118.....	Select Switch.....	ZH-A.....	1
119.....	IDTP16-119.....	Cross Pan Head Screw.....	M5×40.....	1
120.....	IDTP16-120.....	Block.....		1
121.....	TS-1504041.....	Hex Socket Cap Screw.....	M8×20.....	2
122.....	IDTP16-122.....	Micro Switch.....	AV-165-1C25C.....	1
123.....	IDTP16-123.....	Set Screw.....	M10×8.....	2
124.....	IDTP16-124.....	Spring.....	1×6×15.75.....	2
125.....	IDTP16-125.....	Steel Ball.....	8.....	2
126.....	IDTP16-126.....	Chuck Guard Micro Switch Assy.....		1
127.....	TS-1503081.....	Hex Socket Cap Screw.....	M6×35.....	4
128.....	IDTP16-128.....	Pin.....	3×35.....	1
129.....	IDTP16-129.....	Spacer.....		2
130.....	IDTP16-130.....	Flat Washer.....	6.....	1
131.....	TS-1503031.....	Hex Socket Cap Screw.....	M6×12.....	1
132.....	IDTP16-132.....	Chuck Guard Rod.....		1
133.....	IDTP16-133.....	Shifter Bolt.....		1
134.....	IDTP16-134.....	Chuck Guard.....		1
135.....	IDTP16-135.....	Chuck Guard.....		1
136.....	IDTP16-136.....	Screw.....	M6×40.....	1
137.....	IDTP16-137.....	Set screw.....	M5×6.....	1
138.....	TS-1491051.....	Hex Cap Screw.....	M10×35.....	2
139.....	IDTP16-139.....	Nut.....	M4.....	4
140.....	IDTP16-140.....	Column Lock Handle.....		1
141.....	IDTP16-141.....	Transformer.....		1

12.2 IDTP-22 Assembly Breakdown



IDTP-22 Parts List for Breakdown (1/3)

Index No.	Part No.	Description	Size	Qty.
1	IDTP22-001	Base		1
2	IDTP22-002	Column support		1
3	IDTP22-003	Column		1
4	IDTP22-004	Rack		1
5	TS-1492041	Hex Cap Screw	M12×40	6
6	IDTP22-006	Rack Collar		1
7	IDTP22-007	Socket Set Screw	M6×12	1
8	IDTP22-008	Head		1
9	IDTP16-021	Screw	M8×12	1
10	IDTP16-022	Keytype Chuck	B16	1
11	IDTP16-023	Nut		1
12	IDTP22-012	Arbor	MT3/B16	1
13	IDTP22-013	Spindle		1
14	BB-6206	Bearing	6206	3
15	IDTP22-015	Quill		1
16	BB-6204	Bearing	6204	1
17	IDTP22-017	C-Clip	20	1
18	IDTP22-018	C-Clip	47	1
19	IDTP22-019	Rubber Washer	Ø60×4	1
20	IDTP22-020	Table		2
21	IDTP22-021	Worm Shaft		2
22	IDTP22-022	Helical Gear		1
23	IDTP22-023	Gear Pin		1
24	IDTP22-024	Crank Arm Handle Assembly		1
25	IDTP22-025	Column Lock Handle		2
26	IDTP22-026	Grip		3
27	IDTP22-027	Handle		3
28	IDTP22-028	Hub		1
29	IDTP22-029	Lock Handle Assembly		1
30	IDTP22-030	Ring		1
31	IDTP22-031	Scale Ring		1
32	IDTP22-032	Pin	8×30	1
33	IDTP22-033	Pin		2
34	IDTP22-034	Pinion Shaft		1
35	IDTP22-035	Cross Pan Head Screw	M4×8	1
36	IDTP22-036	Indicator		1
37	IDTP22-037	Pin	4×16	2
38	IDTP22-038	Bolt		1
39	IDTP22-039	Micro Switch Box		2
40	IDTP22-040	Tapping Screw	M3.5×9.5	6
41	IDTP22-041	Cross Pan Head Screw	M5×12	3
42	IDTP22-042	Micro Switch	LXW5-11Q1	2
43	IDTP22-043	Strain Relief		1
44	IDTP22-044	Micro Switch Box Cover		2
45	IDTP22-045	Pivot Block		1
46	IDTP22-046	Locking Button		2
47	IDTP22-047	Lock Handle		1
48	IDTP22-048	Lock Block		1
49	IDTP22-049	Cross Pan Head Screw	M4×12	4
50	IDTP22-050	Cover		1
51	IDTP22-051	Contactor		2

IDTP-22 Parts List for Breakdown (2/3)

Index No.	Part No.	Description	Size	Qty.
52	IDTP22-052	Spacer		1
53	IDTP22-053	Collar		1
54	IDTP22-054	Coil Spring		1
55	IDTP22-055	Spring Cover		1
56	IDTP22-056	Motor Rod		2
57	IDTP22-057	Motor Base		1
58	IDTP22-058	Motor	750W	1
59	IDTP22-059	Flat Washer	8	4
60	TS-1490051	Hex Cap Screw	M8×30	4
61	IDTP22-061	Cross Pan Head Screw	M5×12	11
62	IDTP22-062	Plate		2
63	IDTP22-063	Nut	M5	4
64	IDTP22-064	Strain Relief		1
65	IDTP22-065	C-Clip	30	1
66	BB-6202	Set screw	6206	2
67	IDTP22-067	Spacer		1
68	IDTP22-068	Socket Set Screw	M5×6	1
69	IDTP22-069	Driving Sleeve		1
70	IDTP22-070	Plate		2
71	IDTP22-071	Rubber Sleeve		2
72	IDTP22-072	Shaft		1
73	IDTP22-073	Fastener		2
74	IDTP22-074	Proximity Switch Seat		1
75	IDTP22-075	Proximity Switch	LJC1-3/24	1
76	IDTP22-076	Cross Pan Head Screw	M4×16	1
77	IDTP22-077	Socket Set Screw	M6×8	4
78	JET-113	JET Logo	JET-113	1
79	IDTP22-079	Foam Pads		6
80	IDTP22-080	Spindle Pulley		1
81	IDTP22-081	Nut	M30×1.0	2
82	IDTP22-082	Pulley Cove		1
83	IDTP22-083	Motor Pulley		1
84	IDTP22-084	Flat Key	8×7×45	1
85	IDTP22-085	Pulley Cove		1
86	IDTP22-086	Flat Washer	12	1
87	IDTP22-087	Locking Button		1
88	IDTP22-088	Hinge		1
89	IDTP22-089	Plate		1
90	IDTP22-090	Cross Pan Head Screw	M4×8	4
91	IDTP22-091	Steel Ball	6	1
92	IDTP22-092	Spring	0.5×4.5×6	1
93	IDTP22-093	Socket Set Screw	M8×16	1
94	IDTP22-094	Nut	M8	1
95	IDTP22-095	Insulating Paper		1
96	IDTP22-096	Relay	JQX-13F2Z-L	1
97	IDTP22-097	Panel Bracket		1
98	IDTP22-098	Panel		1
99	IDTP22-099	Indicator light	ZSD-AC24V	1
100	IDTP22-100	Stop Switch	LAY7-11BN42E	1
101	IDTP22-101	Start Switch	LAY7-11BN32E	1
102	IDTP22-102	Emergency Stop Switch	HY57B	1

Index No.	Part No.	Description	Size	Qty.
103	IDTP22-103	Select Switch	ZH-A	1
104	IDTP22-104	Cross Pan Head Screw	M5×40	1
105	IDTP22-105	Block		1
106	TS-1504041	Hex Socket Cap Screw	M8×20	2
107	IDTP22-107	Micro Switch	AV-165-1C25C	1
108	IDTP22-108	Socket Set Screw	M10×8	2
109	IDTP22-109	Spring	1×6×16	2
110	IDTP22-110	Steel Ball	8	2
111	IDTP22-111	Chuck Guard Micro Switch Assy		1
112	TS-1503081	Hex Socket Cap Screw	M6×35	4
113	IDTP22-113	Pin	3×10	1
114	IDTP22-114	Spacer		2
115	IDTP22-115	Flat Washer	6	1
116	TS-1503031	Hex Socket Cap Screw	M6×12	1
117	IDTP22-117	Chuck Guard Rod		1
118	IDTP22-118	Shifter Bolt		1
119	IDTP22-119	Chuck Guard		1
120	IDTP22-120	Chuck Guard		1
121	IDTP22-121	Screw	M6×40	1
122	IDTP22-122	Poly V-Belt	530J	1
123	IDTP22-123	Nut	M4	4
124	TS-1491051	Hex Cap Screw	M10×35	2
125	IDTP22-125	Transformer		1

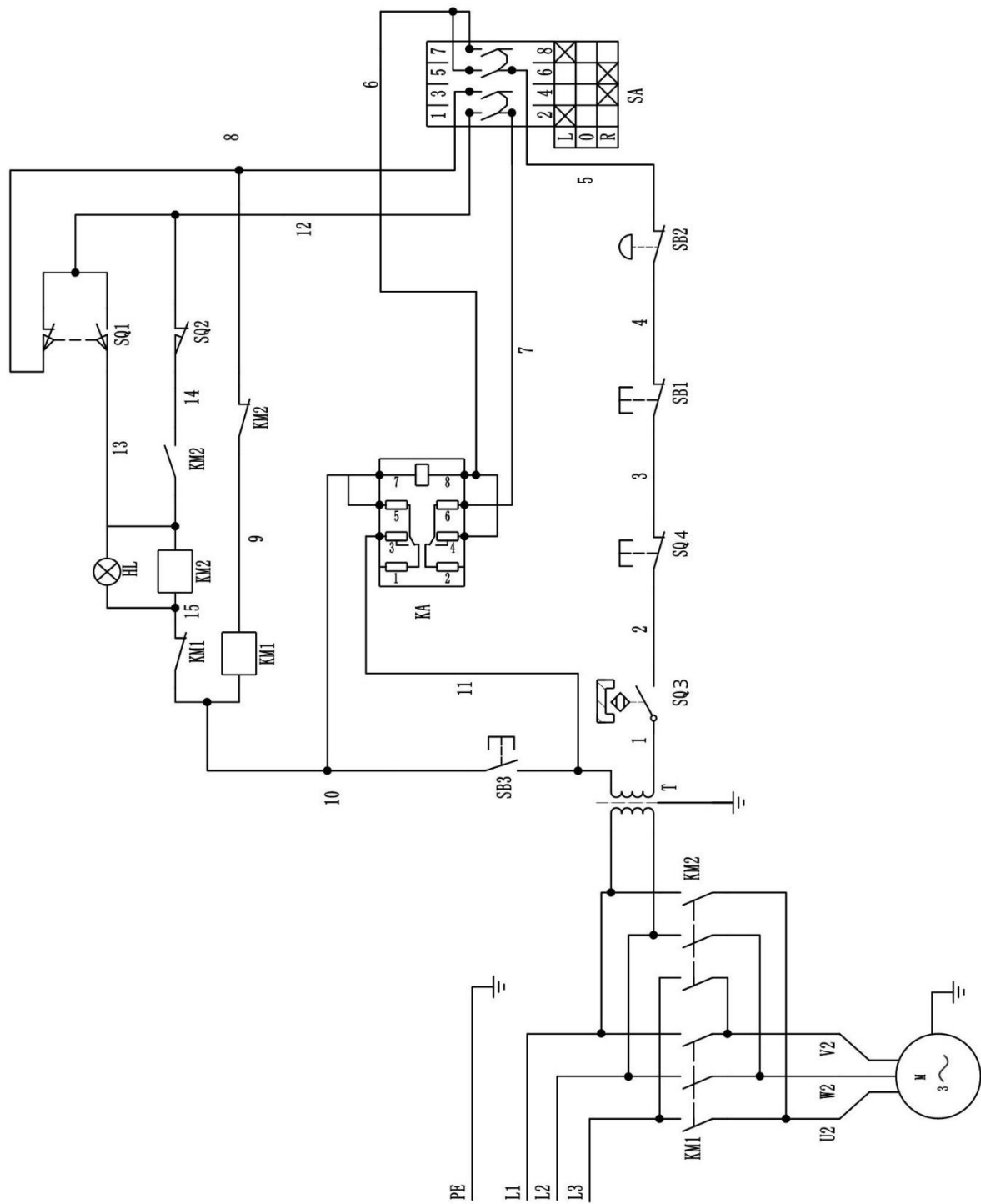
12.3 IDTP-16/22 Accessories Parts List



Index No.	Part No.	Description	Size	Qty.
1	IDTP16-024	Arbor (for IDTP-16)	MT2/B16	1
.....	IDTP22-012	Arbor (for IDTP-22)	MT3/B16	1
2	IDTP16-023	Nut		1
3	IDTP16-022	Keytype Chuck	B16	1
4	IDTP16-021	Screw	M8×12	1
5	IDTP-ACCS-01	Chuck Key		1
6	IDTP-ACCS-02	Slant Wedge		1
7	IDTP-ACCS-03	L Hex Wrench	3 mm	1
.....	IDTP-ACCS-04	L Hex Wrench	4 mm	1
.....	IDTP-ACCS-05	L Hex Wrench	5 mm	1
.....	IDTP-ACCS-06	L Hex Wrench	10 mm	1

13. Wiring Diagrams

IDTP-16/22 ~3L/PE, 400V, 50Hz



14. Electrical Parts List

ITEM	DESCRIPTION	TYPE	SPECIFICATION
SB2	Emergency stop switch	HY57B KEDU CE	250V 12A
SB1/SB3	Push button switch	LAY7 DELIXI CE	Ui:660V Ith:10A
SA	Convertible switch	ZH-A KEDU CE	400V 10A
SQ3	Proximity switch	LTC1-3/24 CHIIB	24V 1.2W 50mA
HL	Indicator light	Ø10mm	24V
SQ1/SQ2	Micro switch	LXW5-11Q1 DELIXI 3C	AC-15 Ue=380V Le:2.5A
SQ4	Chuck shield Micro switch	AV-165-1C25C TEZUO CE	250V 16A
KA	Intermediate relay	JQX-13F 2Z DELIXI CE	240VAC 10A
LM1/KM2	Contactor	CDC9i-12 DELIXI CE	Ui:690V Ith:20A
T	Transformer		In:400V Out:24V
	Plug	HTN715 plug HTCEN CE	415V 16A
M	Motor	IDTP-16-6P	550W , 400V , 50Hz , 3PH , 6P , 1.8A , 910RPM
		IDTP-22-6P	750W , 400V , 50Hz , 3PH , 6P , 2.6A , 910RPM