PROMAC®

11-2018

Drill Press 378VTE

CE

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France
TOOL FRANCE SARL
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CE-Conformity Declaration
CE-Konformitätserklärung
Déclaration de Conformité CE

Product / Produkt / Produit:

Drill Press
Säulenbohrmaschinen
Perceuses à colonne

378VTE

Brand / Marke / Marque:

PROMAC

Manufacturer / Hersteller / Fabricant:

TOOL FRANCE SARL
9 Rue des Pyrénées, 91090 LISSES, France

We hereby declare that this product complies with the regulations
Wir erklären hiermit, dass dieses Produkt der folgenden Richtlinie entspricht
Par la présente, nous déclarons que ce produit correspond aux directives suivantes

2006/42/EC

Machinery Directive
Maschinenrichtlinie
Directive Machines

2014/30/EU

electromagne compa bility
elektromagne sche Verträglichkeit
compa bilité électromagné que

designed in consideration of the standards
und entspechend folgender zusätzlicher Normen entwickelt wurde
et été développé dans le respect des normes complémentaires suivantes

EN ISO 12100 :2010
EN 12717 : 2001+A1 : 2009
EN 61024-1 :2006+A1 : 2009
EN 61000-6-2:2005
EN61000-6-4:2007+A1:2011

Responsible for the Documentation / Dokumentations-Verantwortung / Résponsabilité de Documentation:

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TOOL FRANCE SARL

2018-11-30 Christophe SAINT SULPICE, General Manager

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Contents

1. Unpacking

Before unpacking, make sure the carton configuration not damaged, broken or parts extruded, if any above defect case is found, contact your retailer to change a new one as soon as possible.

Unpacking procedure:

1-1. Carefully open the carton. (Pull it from the bottom to the top)

1-2. Take out and read the manual, check parts list and relative attachments.

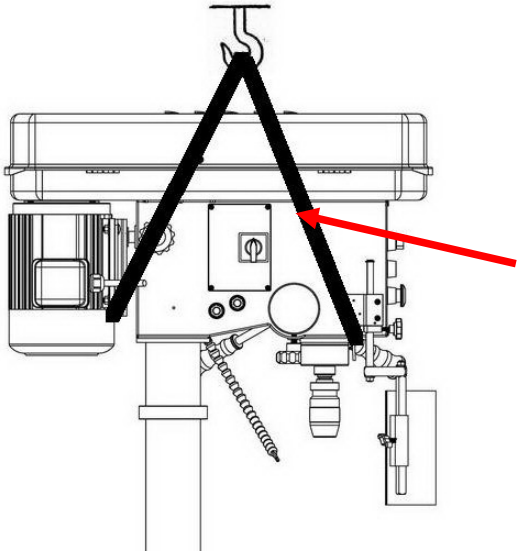
1-3. Inspect the machine outline if it is in normal condition or not. Crack, rust, collapse and separate are strictly prohibited.

1-4. Cleaning the surface of the machine.

1-5. Assemble the drill machine based on manual, instruction guide.

2. Transportation instruction

2-1. 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.
2-2. The handling and transportation shall be carried out by qualified persons.
2-3. Fork – lift or hoist can be used in handling and shall be operated by qualified driver.
2-4. While transportation, keep attention to the balance of machine.
2-5. During handling, the machine shall be lifted only in vertical direction.
2-6. Before handling, make sure all movable parts are secured in their position and all movable accessories should be removed from machine.
2-7. The steel rope should average pull the machine head, table and column tightly.
2-8. Keep all the processes in a carefully and slightly condition.
2-9. Bump or crash are strictly prohibited. It will cause precision shift and electronic controller damaged.

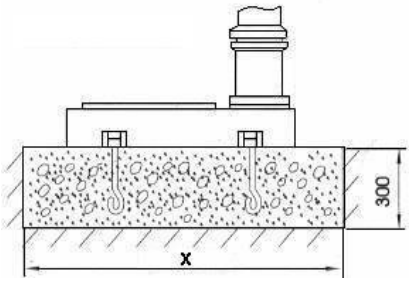


Lifting Straps

Typical lifting strap position.

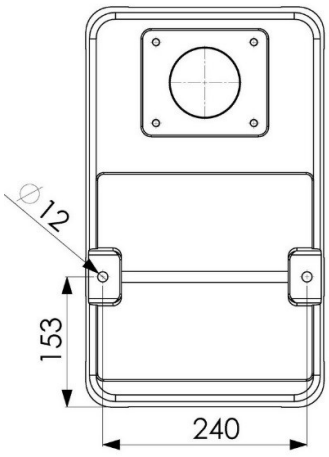
3. Setting the machine instruction

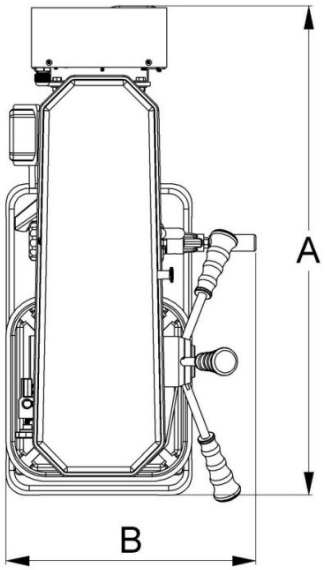
3-1. The machine base with setting hole will be set on concrete floor.

The outlined procedures of setting the machine	MODEL	AREA	SETTED SCREW
	378VTE	X=770×580	M10

3-2. The dimension of setting hole and Working Clearances.

Consider existing and anticipated needs, size of material to be processed through each machine, and space for auxiliary stands, work tables or other machinery when establishing a location for your machine. See **Figure 01.**

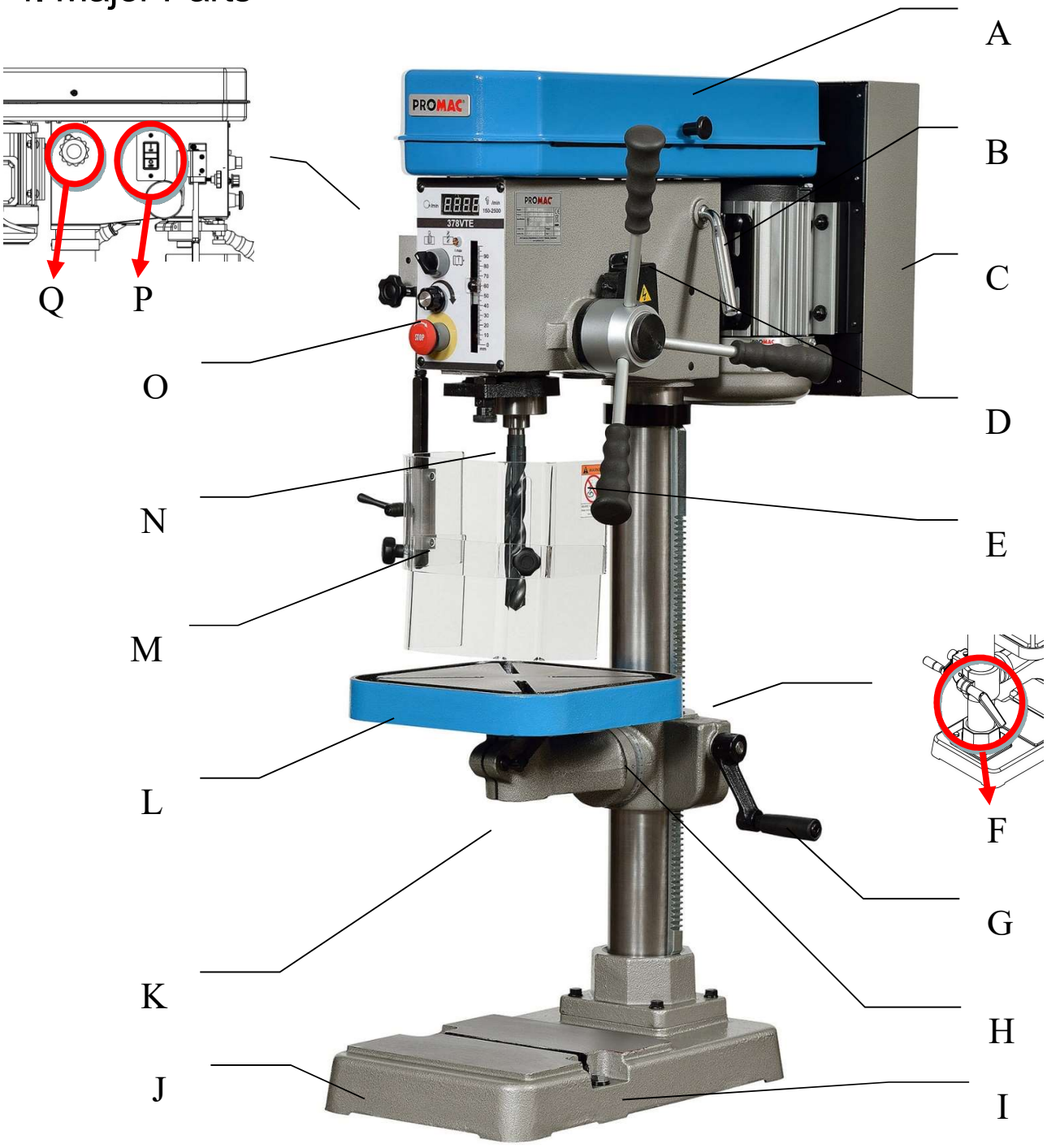




A=735
B=472

Figure 01

4. Major Parts



A= Pulley Cover	J= Base
B= Motor Handle	K= Locks table rotation
C= Switch cover	L= Table
D=Tapping Sensor	M= Chuck Guard
E= Feed Handle	N= Spindle
F= Table Lock	O= Control panel
G=Table Handle	P= ON/OFF Switch
H= Displays current table-tilt angle	Q= Belt Tension Lock
I= Floor Mounting Points	

5. Items Needed for Set Up

5-1.The downfeed handles must be installed to operate the drill press.

To install the downfeed handles:

Thread the handles into the spindle hub, as shown in **Figure 02**, and tighten.

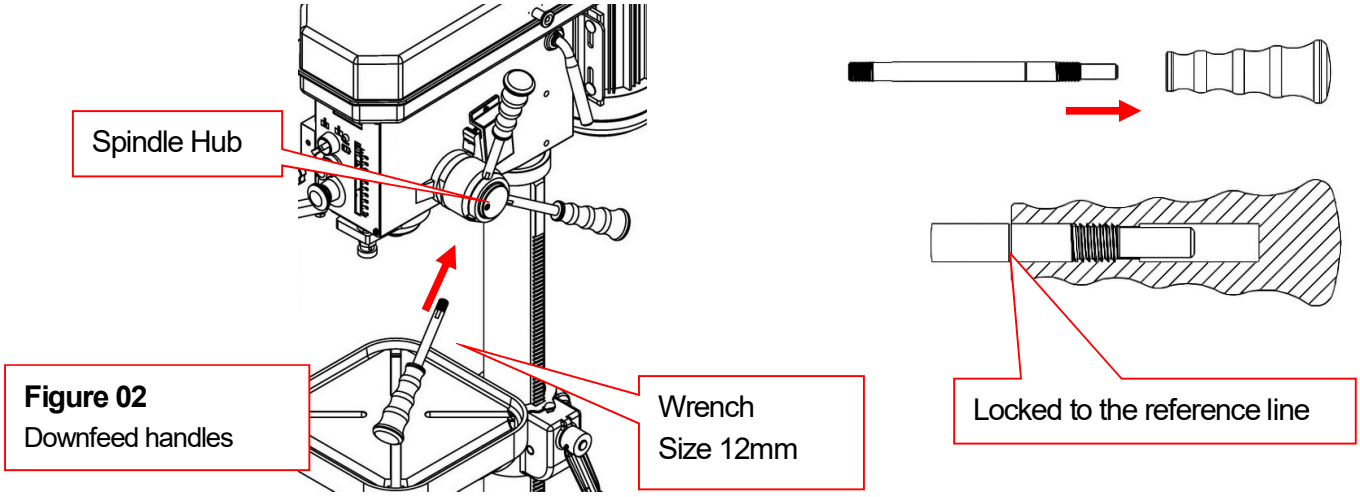


Figure 02
Downfeed handles

5-2.Install the crank lever over the pinion shaft, and tighten the setscrew in the crank handle against the flat part of the pinion shaft. Figure 03. Install the belt cover knob in its place (see Figure 03A for location).

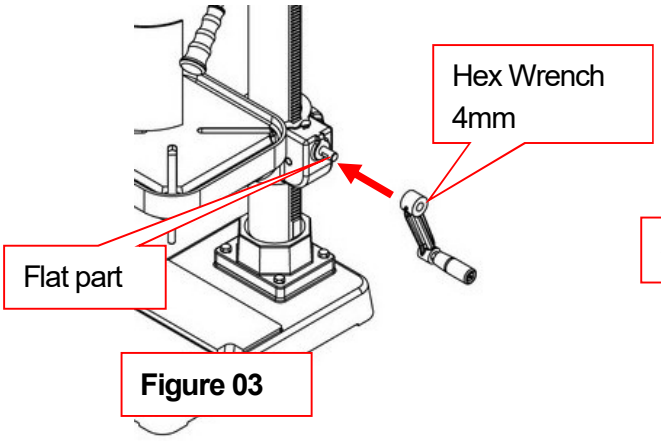


Figure 03

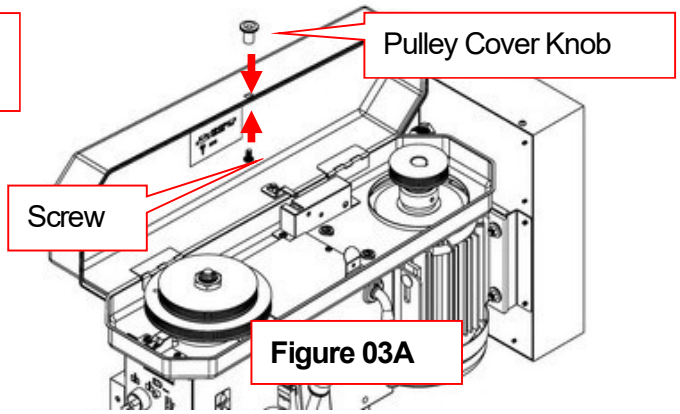


Figure 03A

5-3. The drill chuck attaches to the spindle by means of the arbor, shown in Figure 04. Matched tapers on the arbor and the inside of the chuck create a semi-permanent assembly when properly joined.

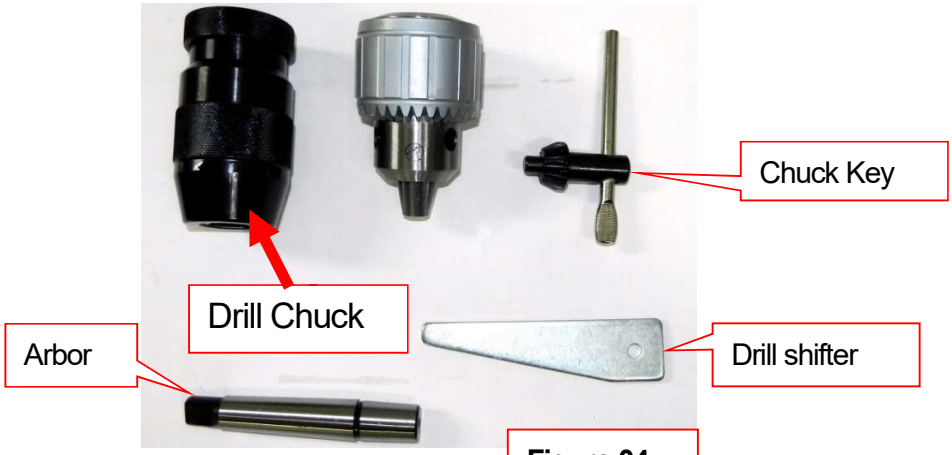


Figure 04

6. To assemble the drill chuck and mount it to the spindle

6-1. Use mineral spirits to thoroughly clean the drill chuck, arbor, and spindle sockets and dry all surfaces before assembly. Follow all safety warnings on the container of the mineral spirits. Failure to clean the mating surfaces may cause the tapered fit to loosen during operation, resulting in separation and an unsafe condition. Figure 05, 06, 07

Figure 05

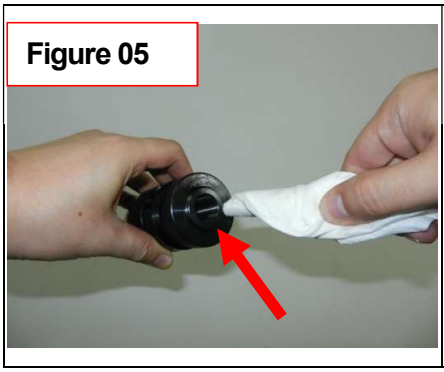
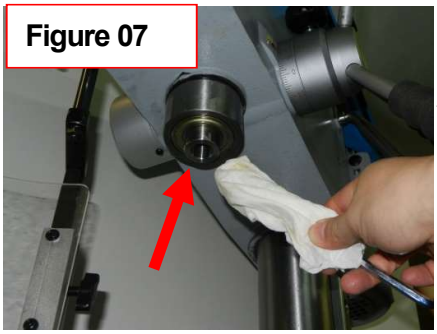


Figure 06

Figure 07



6-2. Use the chuck key to adjust the jaws of the drill chuck until they are inside the drill chuck body. Figure 08, 09

Figure 08

Figure 09

6-3. Place the drill chuck face down on a workbench. The arbor has a short taper and a long taper. Place the short taper into the socket in the back of the drill chuck and tap it with a rubber or wooden mallet, as shown in Figure 10. If the chuck fails to remain secure on the arbor, repeat Steps 1 & 2.

6-4. Slide the arbor into the spindle socket while slowly rotating the drill chuck. The socket has a rectangular pocket where the tang (or flat portion of the arbor shown in Figure 10) fits into.

6-5. Seat the chuck with a rubber mallet, as shown in Figure 11.

Figure 10

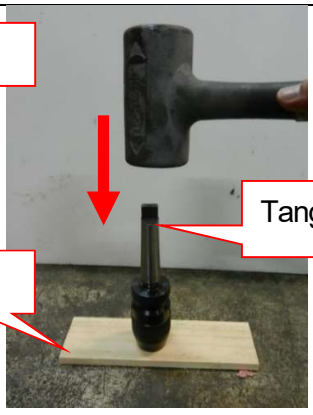
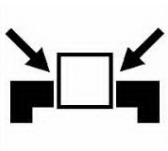
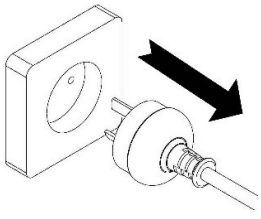


Figure 11

7. Safety Instruction

	Please read the safety instruction and operation instruction carefully.
	Please do wear a safety glass to avoid any material from coming into the eyes whilst operation.
	Please do wear ear mufflers or earplugs to avoid any noise from hurting the listening whilst operation.
	Please do wear proper work clothing whilst operation. Loose clothing or tie are prohibited to avoid any unnecessary incident.
	If a operator has long hair, please do fix the hair or use cap to avoid the hair from being drawn into it.
	A processing workpiece shall be fixed firmly to avoid it from being thrown out whilst operation.
	Please keep both hands far from the rotating tool whilst operation. Cotton gloves are prohibited to avoid from being drawn into cutter.
	Please pull out the power plug to avoid any electric shock incident whilst product maintenance or repair.

7-1. 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.

7-2. If the machine is not used for a long time, the plug should be disconnected.

7-3. Never put the power cable near the fire or water environment, to break or press the power cable is not allowed.

7-4. It shall be stable and securely fixed in machine installation procedure for the machine to be used safely.

7-5. The working piece must be tightly fixed on table by vise or clamp.

7-6. Use recommended cutting liquid; consult the owner's manual for recommendation.

7-7. Feed speed should be executed under safety scope, please refer to manual 3-3.

7-8. Wear proper apparel, no loose clothing, gloves, neckties, ring, and bracelet during operation. Always wear safety glasses, cap and specific clothes.

7-9. Check all parts are in place and securely locked before transportation. Bump and crash are prohibited.

7-10. Regular maintenance and repaired should be executed in accordance with the rules of manual.

7-11. Use the industrial suction to clean the chip is recommended.

7-12. Use carrier to move the working piece which the weight is more than 10 kg is recommended.

7-13. Wear safety gloves when install the drilling bit or tooling to avoid hurting your hand is recommended.

7-14. This machine only be used following material brass, cast iron, steel, iron, aluminum.

7-15. It is prohibited to open the pulley cover during operation.

7-16. It is prohibited to use damaged or cracked parts.

7-17. It is prohibited to remove the guard cover away during operation.

7-18. It is prohibited to move the table when machine is during operation.

7-19. It is prohibited to operate this machine beyond the limit of its capacity.

7-20. Refer to this instruction for details.

7-21. It is prohibited to insert one's hand or finger into the hole of working piece during operation.

7-22. It is prohibited all visitors and children should stand near work area while the machine during operation.

7-23. It is prohibited to wear gloves, neckties, ring, bracelet and loose clothing during operation.

7-24. It is prohibited to use plastic and wooden working.

7-25. Check again before switch on power:

A- Make sure the power voltage is for the machine.
B- Make sure the machine is completely assembled and installed
C- Make sure chuck, working table, working piece are completely secured or tightly fixed.
D- Make sure the chuck key is removed from chuck.
E- Make sure drill bit or tooling need to be fixed in the chuck.

7-26. Switch off power at once:

A- When fix or remove working piece.

B- When the normal maintenance, service, adjustment or repairing.

C- When the operator leaves the machine.

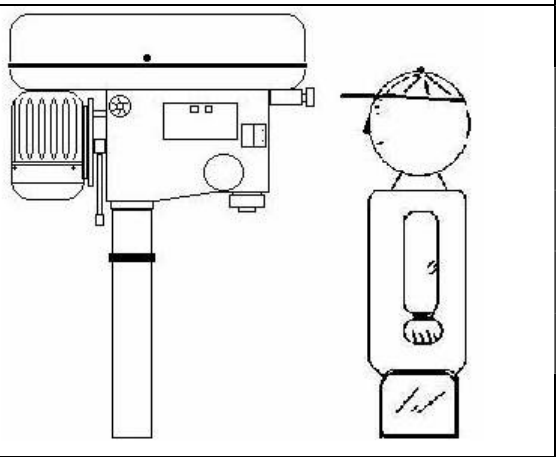
D- When correct work table adjustment and depth position.

E- When change or remove the drilling bit or tooling.

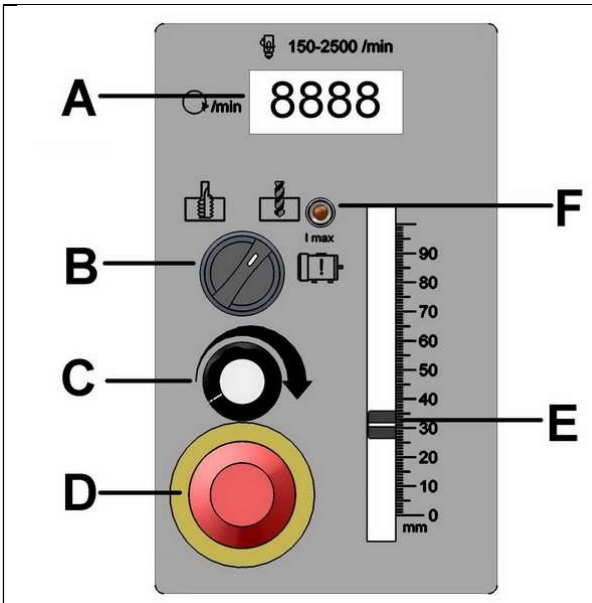
7-27. Working temp.5 --- 40℃, Humidity 40--- 50, Elevation 0 ---1000 M

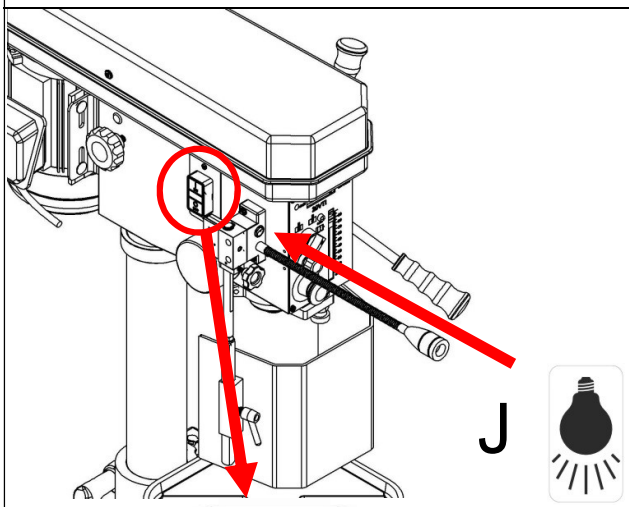
Storage temp -25--- 55℃

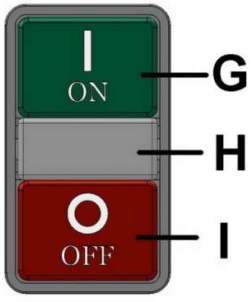
7-28. Operate location diagram for reference.

Diagram 1		Diagram 2
MODEL	Ultimate loading	
378VTE	30 kg	

8. Control panel instruction







A. min-1 or /min (R.P.M.) Indicator

B. Drill / Tap Switch

C. Speed Control Switch

D. Emergency Stop Button

E. Feed Depth Indicator

F. Fault Light

G. Start Button

H. Power Light

I. Stop Button

J. LED Work Lamp Switch (Option)

1. Check the power source
   Push the start button to judge the motor and spindle shaft is in normal condition or not.

2. Spindle speed adjustment is controlled by the speed control switch. The speed will be showed out in the electronic digital meter.

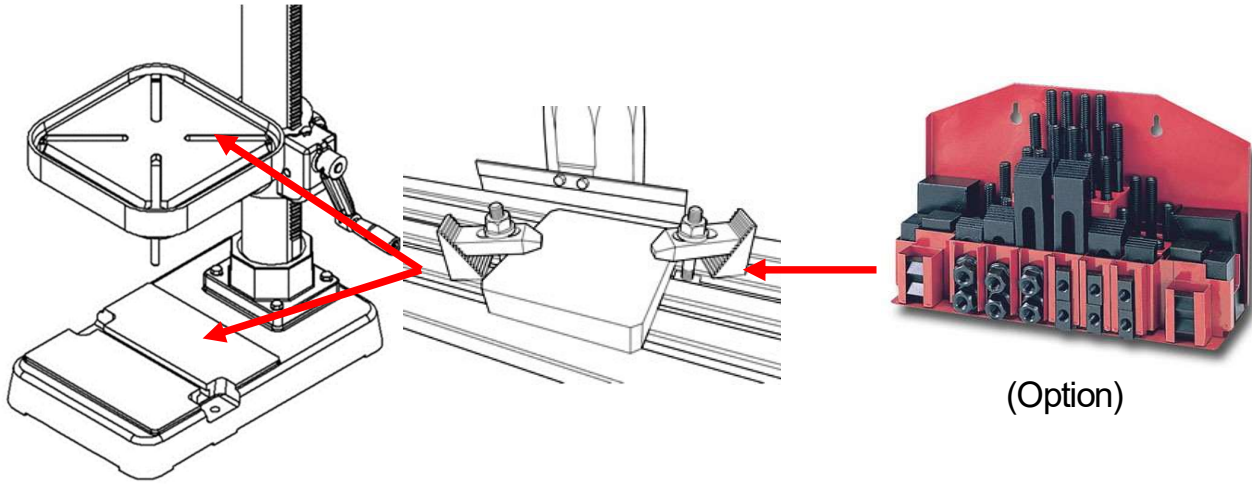
3. If it needs to stop urgently, just push the emergency stop switch.

4. Drill / Tap switch: For changing the machine to Drill Mode or Tap Mode.

9. Operation illustration and procedure

9-1. There are four T grooves in the worktable. It is used to fix the work piece.

9-2.There is a T grooves in the base, too. It is convenient for fixing the longer, heavier and larger working piece.



(Option)

9-3. These machines have special design for tapping, a quick change device. During tapping, if you want spindle to turn reversely and withdraw tapping tip, just pull up grip handle only (as shown in Figure 12.) If you want to continue to operate, just press down grip handle. (as shown in Figure 13.)

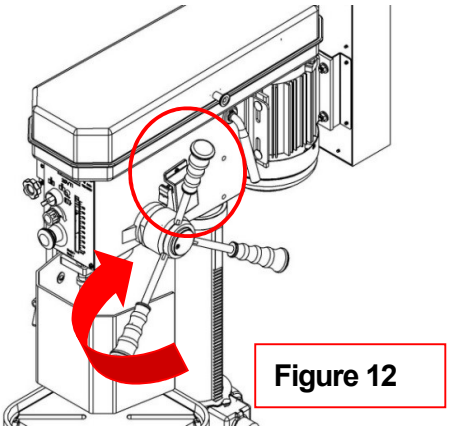


Figure 12

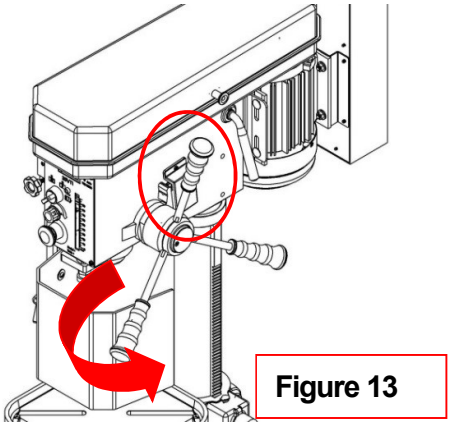
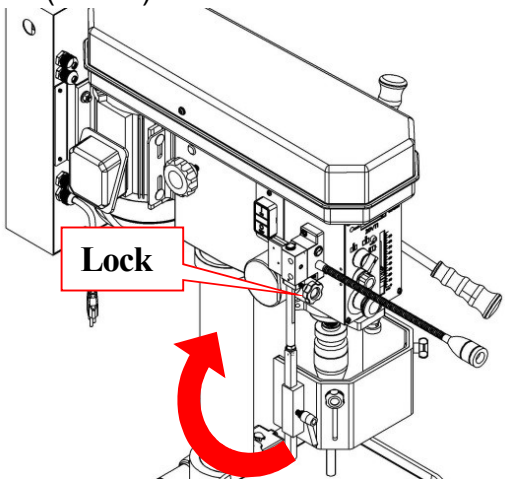
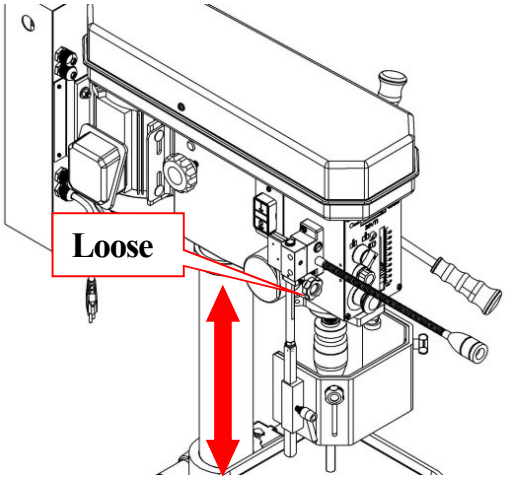


Figure 13

9-4.Protect safety guard shall be allocated in a proper position in operation. It is controlled by a micro witch.

Figure 12 (For CE)

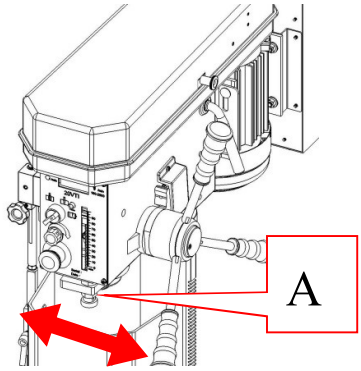




9-5. Adjustment of feeding limit

To prevent unwanted penetration to work piece, the feeding limit shall be set by adjusting the appropriate position of feeding depth fixing button as long as the distance between the end of tool and top surface if work piece is measured.

A. Setting of feeding depth Feed Depth Adjustment



9-6. Adjust work table position

(1)Firstly, loose the clamp handle in left hand **(Figure 19)**

(2)Then swing the table handle to properly position. **(Figure 20)**

(3)Finally tight the clamp handle. **(Figure 19)**

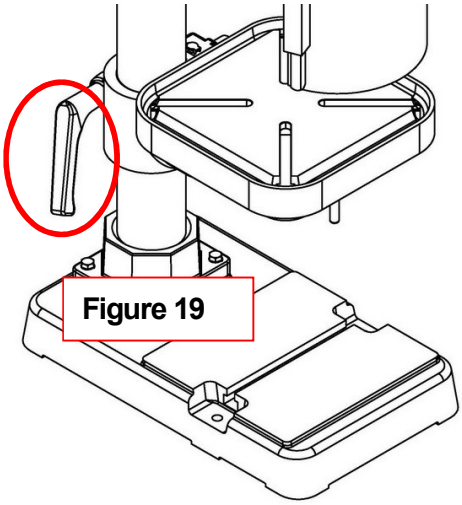


Figure 19

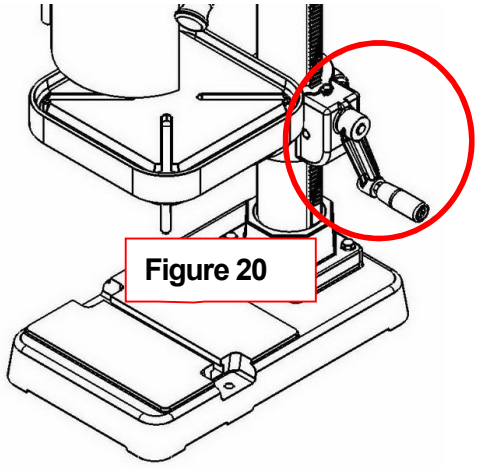


Figure 20

10. Operation tips and sound pressure

Speed Selection

- Opening the pulley cover is for Hi-Lo speed change only.
- The spindle speed is adjusted by speed control switch ”C”.

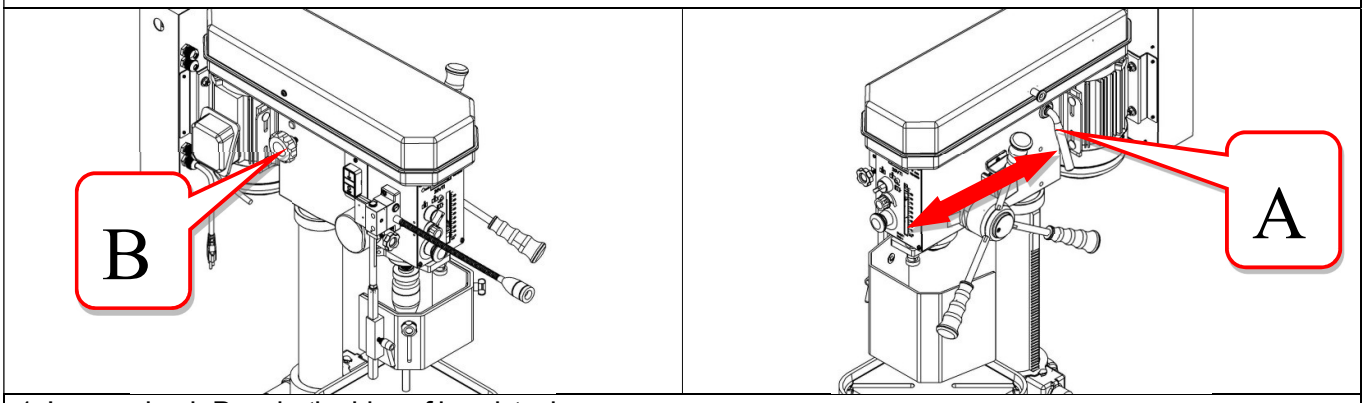
Recommended

Drill m/m	Material									
	Cast Iron		Steel		Iron		Aluminum		Alloy Copper	
										
⌀2	4780	2390	1275	635	3980	1910	7960	3980	4460	2230
⌀3	3185	1590	850	425	2650	1275	5310	2655	2970	1485
⌀4	2390	1195	640	320	1990	955	3980	1990	2230	1115
⌀5	1910	955	510	255	1590	765	3185	1590	1785	890
⌀6	1590	795	425	210	1330	640	2655	1330	1485	745
⌀7	1365	680	365	180	1140	545	2275	1140	1275	635
⌀8	1195	600	320	160	995	480	1990	995	1115	555
⌀9	1060	530	285	140	885	425	1770	885	990	495
⌀10	955	480	255	125	800	380	1590	800	890	445
⌀11	870	435	230	115	725	350	1450	725	910	405
⌀12	795	400	210	105	665	320	1330	665	745	370
⌀13	735	365	195	100	610	295	1225	610	685	340
⌀14	680	340	180	90	570	270	1135	570	635	320
⌀15	640	320	170	85	530	255	1060	530	600	300
⌀16	600	300	160	80	500	240	995	500	560	280
⌀17	560	280	150	75	470	225	935	470	525	260
⌀18	530	265	140	70	440	210	885	440	495	250
⌀19	500	250	135	67	420	200	835	420	470	235
⌀20	480	240	130	65	400	190	795	400	445	225
⌀25	380	190	100	50	320	155	640	320	355	180
⌀30	320	160	85	45	265	130	530	265	300	150
⌀40	240	120	65	30	200	95	400	200	225	110
note	Processing is adjustable on the cutting materials as well as the material of the cutting to real cutting conditions.									

A- weighted sound pressure level measuring under no load

Drilling-series Operator position **Lpa= 62 dB(A)**

378VTE



1. Loosen knob B on both sides of headstock.
2. Push handle A forward as arrow sign to get belt tension.
3. Lock knob B firmly to fix belt tension.

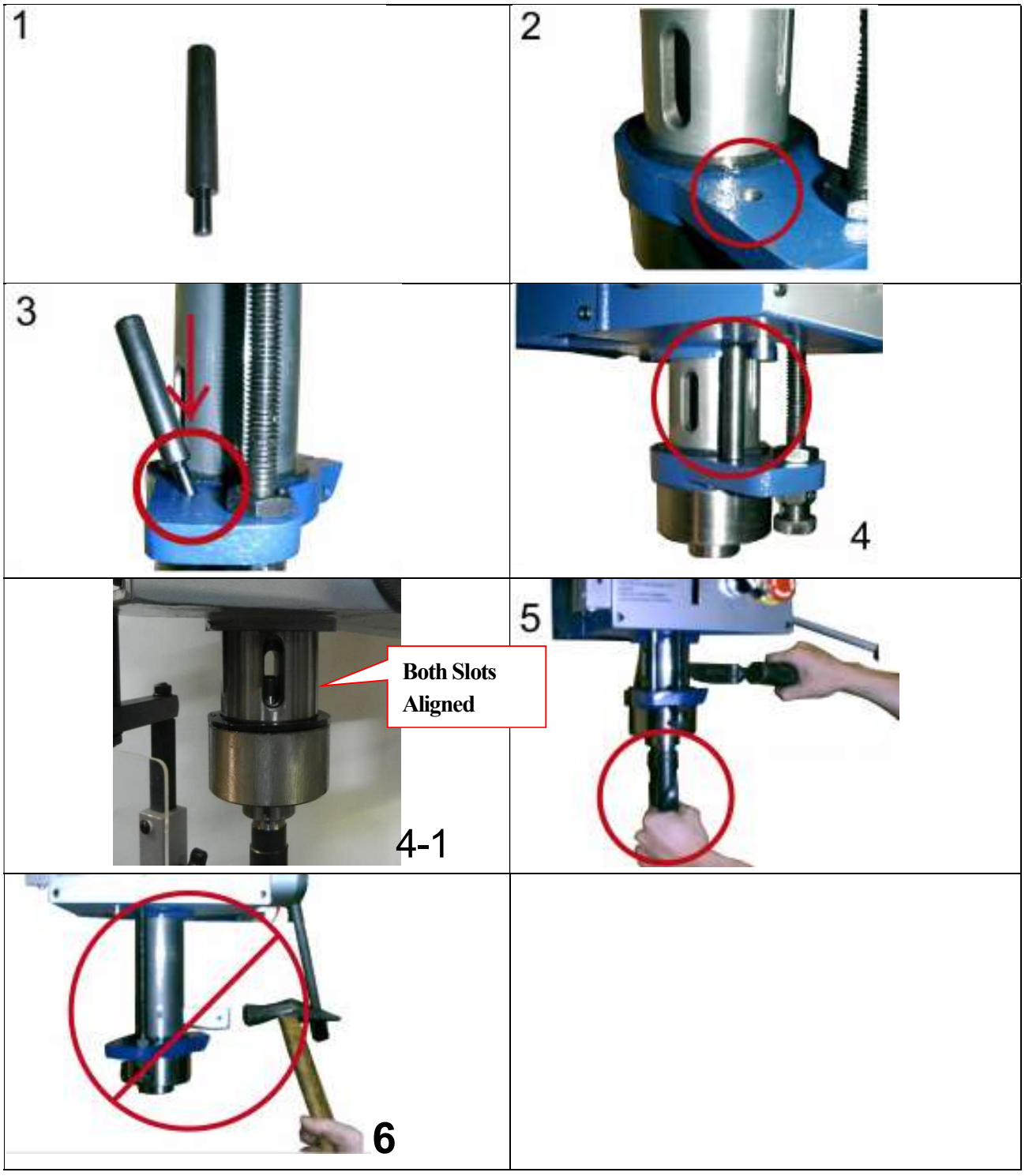
When speed change is required. Loosen lead bolt (parts no. 22-S2) on both side of headstock. Pull belt handle (parts no. 26) to allow belts repositioning and then move belts to correct groove to acquire desired speed. The speed chart is above this instruction in the manual.

For proper belt tension, use 10 lbs pressure or hand pressure on the belt as shown as bellow. The recommended distance is about 70mm.

Models belt model tables

Machine model	Belt specifications	Quantity
378VTE	6PJ 430	1

11. Withdraw drill bit



1. Bracket bar.

2. Setting hole for bracket bar

3. Insert bracket bar into setting hole

4. Completely insert bracket bar and ready for operating.

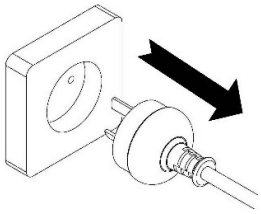
4-1. Rotate the spindle until the inner drift-key slot is aligned with the outer slot, as shown in (**Figure 4-1**). You will see through the spindle when the slot is properly aligned.

5. Recommend to use special designed wedge for withdrawing tooling

6. Don't push spindle stroke too long to avoid spindle stick.

12. Trouble – Shooting

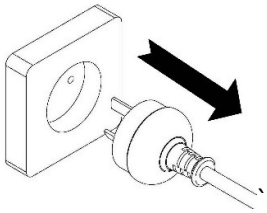
Warning: Switch off power and remove plug from power source outlet before trouble shooting.

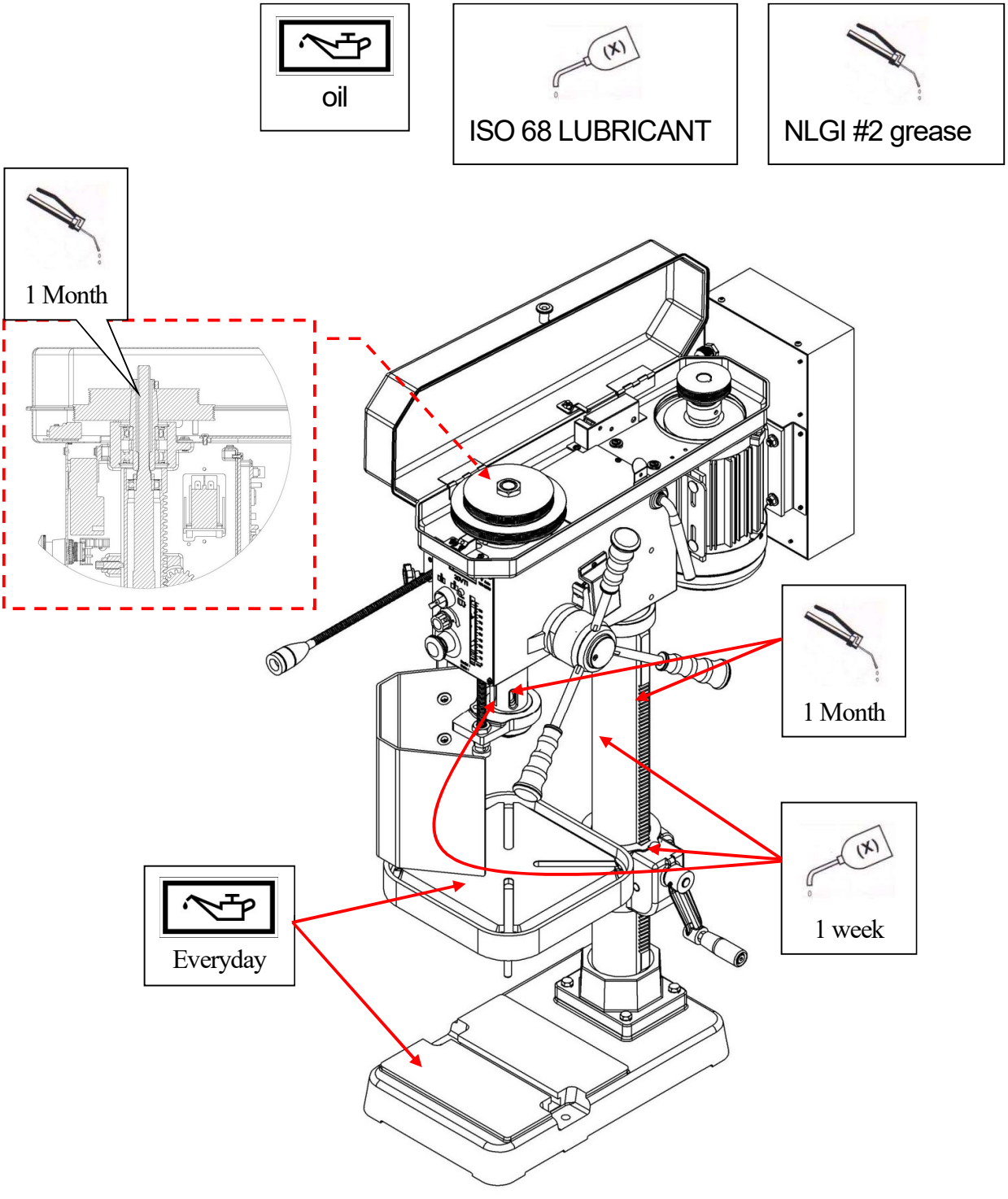


NO.	SYMPTOM	DISPOSITION
1	Drill insert in working piece and spindle shaft stop	1. Push emergency button 2. Turn off the power 3. Use hand to turn the spindle shaft countermarch. Let the tool withdraw from the working piece. 4. Suction the chip on the hole. 5. Turn on power again. 6. Adopt slowly feed make sure in normal condition then recovery the normal feed.
2	Cutting liquid in abnormal condition and can not supply the adequate quantity.	1. Check the pump is running or not 2. Check if the hose is leaking or not.
3	Spindle shaft can not running completely	1. Check the belt tension condition 2. If belt tension is too loose, adjust the belt shifter, otherwise change the aging belt.
4	Motor do not work	1. Check the power and switch 2. Check the power cable is damaged or not if cable is broken, change it directly.
5	Spindle shaft has noise	1. Check bearing 2. Check V – belt, if tightly degree over specific tension will cause noise.
6	Drill oscillation	1. Check chuck condition 2. Make sure the drill is properly fixed in the chuck.
7	Pump stop suddenly or slow down	1. Impeller is clogged. 2. Overloading protection device of motor starts. 3. Motor failure.

13. Maintenance

Warning: Switch off power and remove plug from power source outlet before maintenance.





14. Feed Shaft Spring Tension

The feed shaft return spring is adjusted at the factory; however, during the life of the drill press you may want to adjust the feed shaft return spring so the feed shaft return pressure suits your operating needs.

To adjust the feed shaft spring tension:

1. **UNPLUG THE DRIL PRESS !**

2. Wipe off any oil on the spring lock cover so it does not slip in your fingers when you hold the cover from spinning (see Figure 28).

While holding the spring lock cover against the side of the head stock so the cover stays splined with the locking lug; loosen the jam nut and loosen the cover nut approximately 1⁄4" (see Figure 30).

Put on heavy leather gloves to protect your hands from possible lacerations if the spring uncoils during the next step.

Pull the cover outward just enough to disengage the spring-cover lock slot from the locking lug. Note: It is important to keep a good grip during this step. Letting go of the cover will cause the spring to rapidly uncoil.

Rotate the cover counterclockwise to increase spring tension, or let the cover slowly unwind in the clockwise direction to reduce spring tension.

Engage the next available spring-cover lock slot with the locking lug and hold the spring lock cover tightly against the side of the headstock.

Snug the cover nut against the spring cover just until the nut stops, and then back off the nut approximately 1⁄3 turn, or just enough so there is no binding at complete spindle travel.

Hold the cover nut and tighten the jam nut against the cover nut.

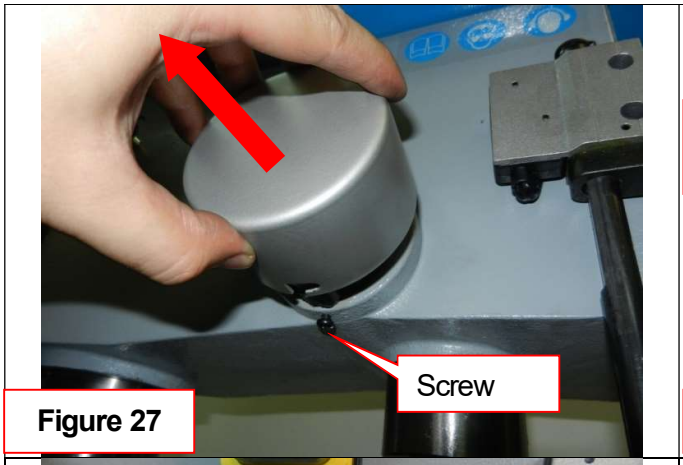


Figure 27

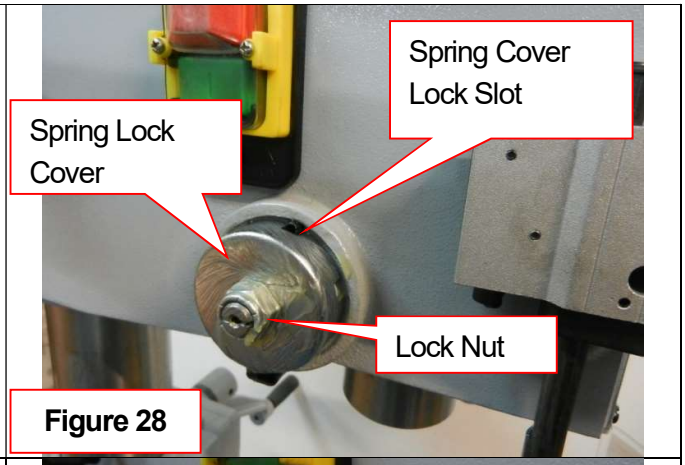


Figure 28

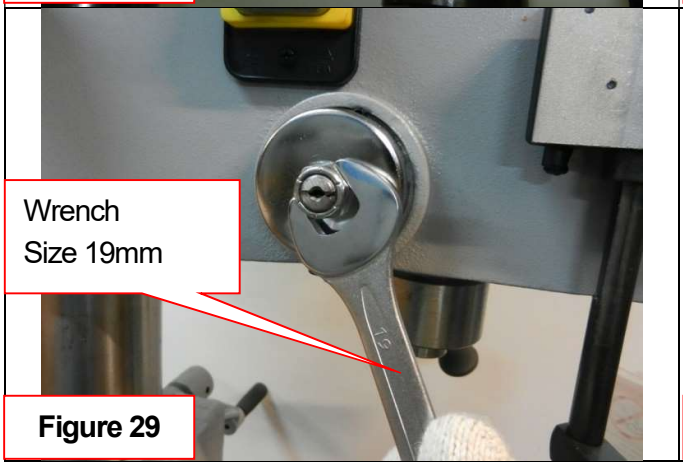


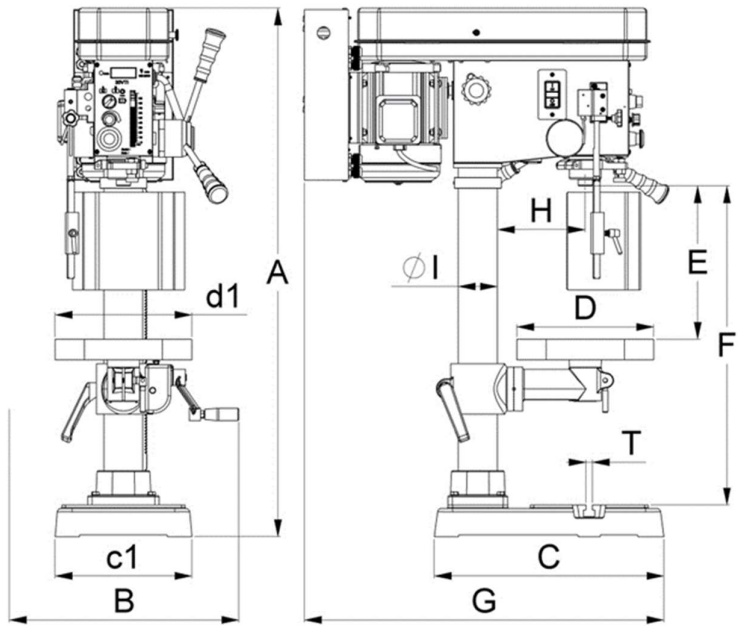
Figure 29

Figure 30

15. Specification

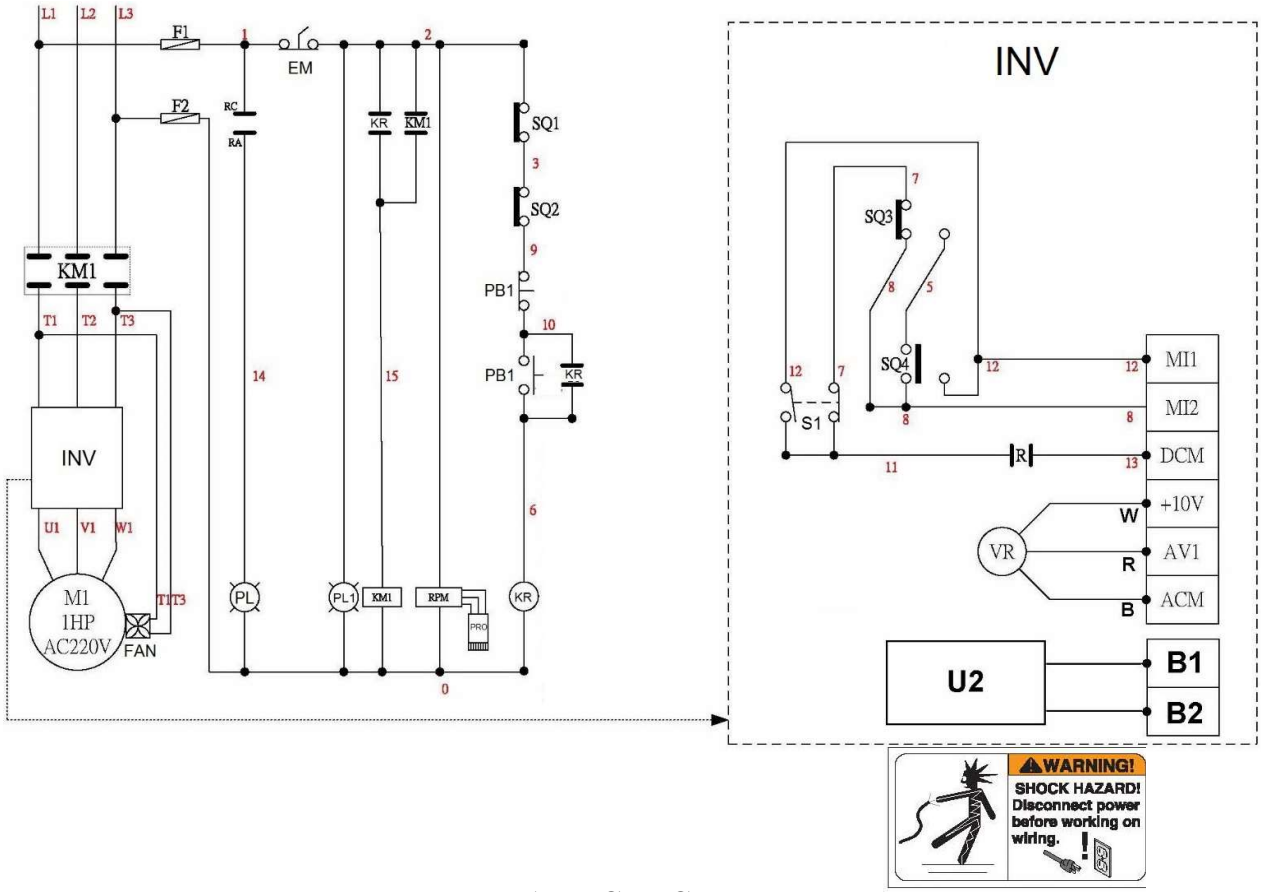
Item \ Model			378VTE
	Drilling capacity		∅20mm
	Tapping capacity		M3~M10
	Spindle taper		M.T.#2
	Spindle travel		90mm
	Spindle speed (rpm)	50Hz	150 – 1250 / 350-2500min
	Number of speeds		Variable Speeds
	Motor		0.75 kW 230V 3ph
Kg	Net weight (kgs)		103Kg

Dimensions (m/m)



	378VTE
A	1085
B	472
C	C=470 × c1=280
D	D=280 × d1=280
E	420
F	645
G	732
H	180
I	∅80
T	12

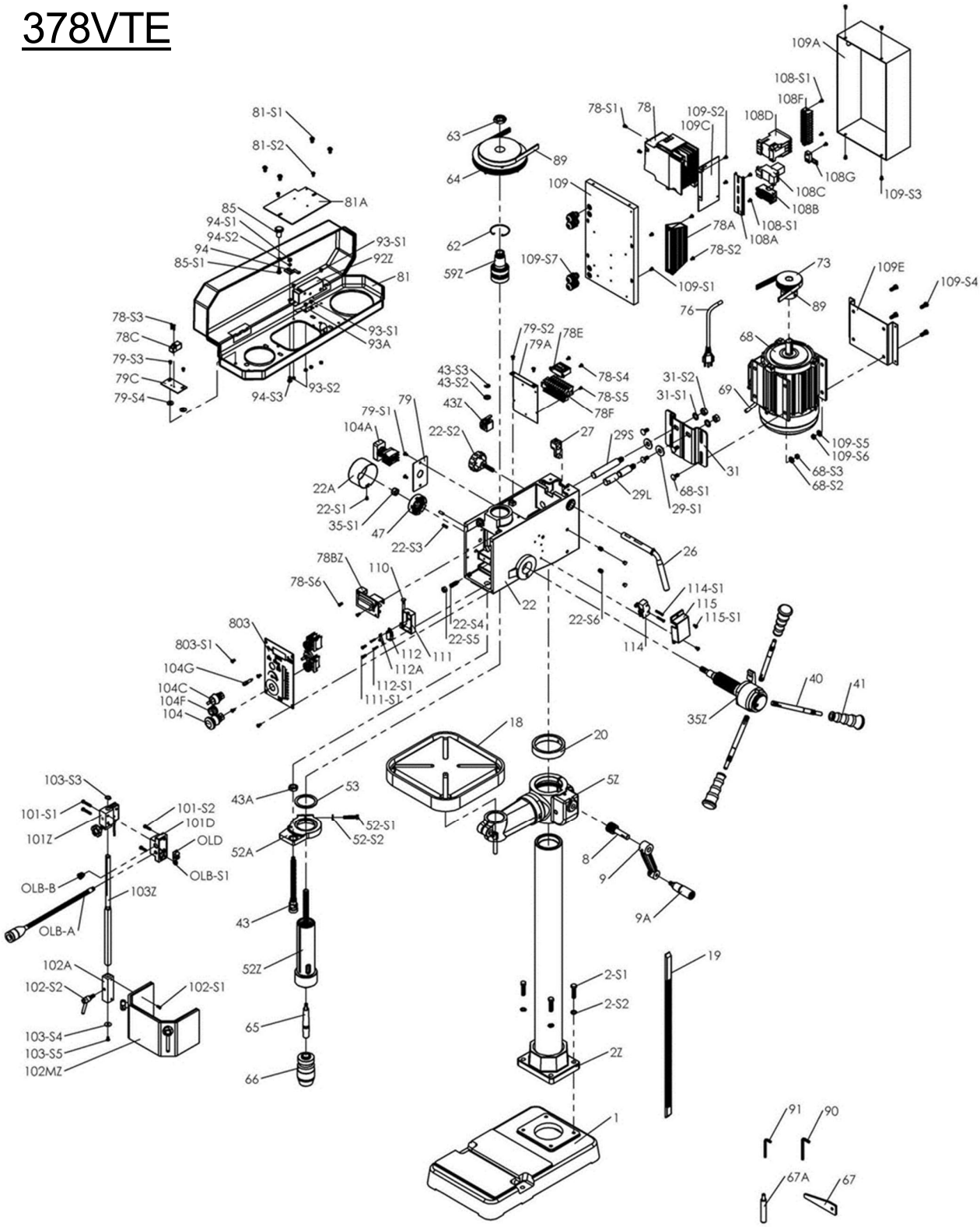
16. Control circuit diagram and component part list



PARTS LIST

Part No.	Component/Object	Type/Model	Ratings/Technical Data		PCS	Parts No
			230V	400V		
KM1	Contactor	CU-11	AC 230V	24V	1	108D
PB1	Push Button	DPB-22N	INO AC 600V, 6A		1	104-A
EM	Emergency Stop	GLEB-22	INC AC 600V, 6A		1	104
S1	Selection Switch (Drill/Tap)	GCS-22	INA AC 600V,6A		1	104-C
INV	Inverter	VFD-E	AC 230V / 0.75kW	AC 400V / 0.75kW	1	78
U2	Braking Resistor	QSOJ013	200W150Ω	200W250Ω	1	78A
VR	Speed Adjusting Knob	RV24YN	DC 10V		1	104-B
M1	Motor Main Spindle	378VTE	0.75kW/AC 230V/3Ph	0.75kW/AC 400V/3Ph	1	68
FAN	Motor Cooling Fan	125AP22	AC 240V / 1PH	AC 24V / 1PH	1	68A
SQ1	Micor Switch Chuck Guard	VM5	AC 250V / 5A		1	101A
SQ2	Micor Switch Cover Guard	VM5	AC 250V / 5A		1	92
SQ3	Limit Switch Reverse	VX-5-1A2	AC 250V / 5A		1	112
SQ4	Limit Switch Tapping	MJ2-1703	AC 250V / 15A		1	114
F1.F2.F3	Fuse Ste	MFB-103	FUSE-F1.F2-2A	F1.F2-1A F3-3A	3	108B
KR	Relay	RU4S-C-A220	250VAC / 30V 6A	24V	1	108C
PL	Fault (Yellow)	9815BY	AC 230V,0.5A	24V	1	104G
PL1	Power Light	DPB-22N	230V	24V	1	104-A
RPM	Rpm Display Unit	RPM108	230V	400V	1	78B
PRO	Proximity Sensors	ES-18045-E1	DC12V-24V 100mA		1	78C
S2	Led Work Lamp Switch	OLB-RS15B	AC 250V 3A		1	OLB-B
LED	Led Work Lamp	OLB-345	3W/3.4V		1	OLB-A
LD	Led Driver	OLD-3-1224	240V	12-24V	1	OLD
PT	TRANSFORMER	SL-2930N	N/A	AC400V/24V	1	108E

378VTE


81-S1
81-S2
81A
85
94-S1
94-S2
94
85-S1
93-S1
92Z
81
93-S1
93A
93-S2
94-S3
78-S3
78C
79-S3
79C
79-S4
63
89
64
62
59Z
109
109-S7
109-S1
78-S1
78
109-S2
109C
78A
78-S2
108D
108F
108-S1
108A
108C
108B
108G
109A
109-S3
73
89
109E
109-S4
76
68
69
79-S2
79A
78E
78-S4
78-S5
78F
43-S3
43-S2
43Z
31-S2
31-S1
31
68-S1
29-S1
29L
29S
27
22-S2
79
79-S1
104A
22A
22-S1
35-S1
47
22-S3
109-S5
109-S6
68-S3
68-S2
78BZ
78-S6
110
22
26
22-S6
114-S1
115
115-S1
114
22-S4
22-S5
111
112
112A
112-S1
111-S1
803
803-S1
104G
104C
104F
104
40
41
35Z
18
20
5Z
43A
53
52-S1
52-S2
52A
8
9
9A
103-S3
101-S1
101-S2
101D
101Z
OLD
OLB-S1
OLB-B
103Z
OLB-A
43
52Z
65
66
102A
102-S2
102-S1
103-S4
103-S5
102MZ
2-S1
2-S2
2Z
19
1
91
90
67A
67

378VTE Part List

Index No.	Part No.	Description	Size	Qty.
1	PM-378001	Base	T470×280-3/8×T12	1
2-S1	PM-378004	Hex Bolt	3/8×1-1/2"	4
2-S2	PM-374202	Spring Washer	S 3/8	4
2Z	PM-378003	Column Set	Ø80×805mm	1
5Z	PM-379005A	Table Bracket Set	Ø80	1
8	PM-374008	Worm	1/2"×1 1/8×77L	1
9	PM-378009	Table Handle	Ø14.2×75mm	1
9A	PM-378009A	Handle Bolt	3/8×70mm	1
18	PM-378018	Table	T280 / Ø48×T12	1
19	PM-374019	Rack	585×17mm-71T	1
20	PM-419040	Rack Ring	Ø80mm	1
22	PM-379022	Head Body	Ø52×Ø80×220mm	1
22A	PM-378249	Feed Shift Cover	Ø75×L44×1.2mm	1
22-S1	PM-37822S1	Screw	3/16×1/4"	1
22-S2	PM-374030	Lock Knob	Ø60×3/8×38MM	1
22-S3	PM-374048	Pin	6×16	2
22-S4	PM-374050	Set Screw	3/8×Ø4.8×32mm	1
22-S5	PM-374051	Hex Nut	3/8	1
22-S6	PM-374023	Set Screw	3/8×1/2"	2
26	PM-374026	Shifter Bar	Ø16×125.5mm	1
27	PM-374027	Shifter	Ø16×29mm	1
29L	PM-374206	Slide Bar (L)	Ø19×120mm	1
29S	PM-374207	Slide Bar (S)	Ø19×120mm	1
29-S1	PM-378029S1	Washer	1/2×32×13×2.6mm	2
31	PM-374031	Motor Base	74×125mm/3.5mm	1
31-S1	PM-374032	Spring Washer	S 1/2	2
31-S2	PM-374033	Hex Nut	1/2	2
35-S1	PM-374049	Lock Nut	1/2×12	1
35Z	PM-379035	Feed Shaft Set	20VTI	1
40	PM-33117	Feed Handle	1/2×155mm	3
41	PM-378041	Grip	1/2×110mm	3
43	PM-379043	Depth Rod	190mm×1/2	1
43A	PM-820043A	Hex Nut	5/8×P1.4	1
43-S2	PM-834043-S2	Washer	3/8×19×10×1.8	1
43-S3	PM-834043-S3	E Type Buckle	E-8	1
43Z	PM-379043A	Position Set Bracket Set	20VTI	1
47	PM-33014	Spring Cap	1/2×Ø59×0.95mm	1
52A	PM-379052	Sleeve	Ø 52/20VTI	1
52-S1	PM-820052C	Hex Bolt	5/16×1-1/2"	1
52-S2	PM-820052B	Spring Washer	S 5/16	1
52Z	PM 378552	Spindle Set	20VTI	1
53	PM-379053	Rubber Washer	Ø52-5/8"	1
59Z	PM-379059A	Spindle Sleeve Set	20VTI	1
62	PM-374062	Snap Ring	5/8" Ø52×Ø57mm	2
63	PM-364063	Pulley Nut	M25×16	1
64	PM-378564B	Spindle Pulley	Ø160×Ø125mm×93°/PJ6	1
65	PM-378065-1	Taper Arbor	MT2×B16	1
66	PM-378066-1	Drill Chuck	16L/B16×16mm	1
67	PM-379067	Drill Shifter	111×28×4mm	1
67A	PM-379067A	Fixed Rod	1/2×82mm	1
68	PM-379068	Motor	1HP×220/380V/4P/CE	1
68-S1	PM-378068-S1	Carriage Bolt	5/16×3/4"	4
68-S2	PM-378068-S2	Washer	5/16	4
68-S3	PM-378068-S3	Hex Nut	5/16	4
69	PM-379069	Motor Wire	1.25×6C×750mm	1
73	PM-379073	Motor Pulley	Ø 75×Ø 40×Ø 19mm 6mm	1
76	200034	Wire	SEV H05VV-F 1.0×3C×2.015m	1
78	PM-379078	Speed Controller (Inverter)	VFD007E23T	1
78A	PM-379078B	Braking Resistor	200W150Ω	1

Index No.	Part No.	Description	Size	Qty.
78BZ	PM-379078D	Rpm Display Unit Set	RPM108-230V	1
78C	PM-378B78C	Speed Sensor	ES-18045E13P2.5B	1
78E	PM-379078E	Transformer		1
78F	PM-379078F	Terminal Blocks	TBH-10 9P	1
78-S1	TS-2172012	Mach Screw Pan HD	M5×0.8×8mm	2
78-S2	TS-2171021	Mach Screw Flat HD	M4×0.7×8mm	2
78-S3	TS-2170032	Mach Screw Pan HD	1/8×5/8"	2
78-S4	TS-2171021	Mach Screw Pan HD	M4×0.7×8mm	2
78-S5	TS-2171012	Mach Screw Pan HD	M4×0.7×6mm	2
78-S6	TS-2172022	Mach Screw Pan HD	3/16×3/8"	2
79	PM-379079	Switch Board	102×58×22mm/1.6T	1
79A	PM-378578-2	Switch Board	140×102×12mm/1.6mm	1
79C	PM-378B79C	Switch Board	70×40×1.6mm	1
79-S1	TS-2172021	Mach Screw Flat HD	3/16×3/8"	2
79-S2	TS-2172021	Mach Screw Flat HD	3/16×3/8"	2
79-S3	TS-2172002	Mach Screw Pan HD	3/16×1/4"	2
79-S4	TS-0680021	Washer	1/4×18×6.5×2mm	2
81	PM-378681	Pulley Cover	378V	1
81A	PM-378581-1	Pulley Board Cover	158×120mm/2mm	1
81-S1	TS-081F032	Mach Screw Pan HD	1/4×1/2"	4
81-S2	TS-2172021	Mach Screw Flat HD	3/16×3/8"	2
85	PM-374084	Pulley Cover Knob	1/4×1/2	1
85-S1	PM-378085-S1	Screw	1/4×1/2"	1
89	PM-378689	V-Belt	PJ 430 J6	1
90	PM-378090	Hex Wrench	5 mm	1
91	PM-378091	Hex Wrench	4 mm	1
92Z	PM-378092+PM-378093	Micro Switch Set	VM5-00N	1
93A	PM-378093A	Spring Sheet	12.5mm	1
93-S1	PM-378093-S1	Screw	3/16×1/4"	4
93-S2	PM-378093-S2	Hex Nut	3/16	4
94	PM-378094	Clutch	18×73mm	1
94-S1	PM-378094-S1	Hex Nut	1/4	1
94-S2	PM-378094-S2	Spring Washer	S 1/4	1
94-S3	PM-378094-S3	Screw	1/4×1/2"	1
101D	PM-379101	Micro Switch Base	83×35×35mm	1
101-S1	TS-2142001	Hex Cap Screw	3/16×3/4"	2
101-S2	TS-2170032	Mach Screw Pan HD	1/8×5/8"	2
101Z	PM-379101Z	Micro Switch Bracket Set	#9878×53mm	1
102A	PM-379102	Safety Guard Slide	#9889×85mm	1
102MZ	PM-379102M	Safety Guard Set	M-200	1
102-S1	TS-2172002	Mach Screw Pan HD	3/16×1/4"	2
102-S2	PM-379102H	Lead Bolt	5/16"×15mm	1
103-S3	PM-379103	C-Ring	S-12	1
103-S4	TS-0680011	Washer	3/16"×19×5.2mm/1.6T	1
103-S5	TS-2172021	Mach Screw Flat HD	3/16×3/8"	1
103Z	PM-379103A	Bracket Rod Set	1/2×205mm	1
104	PM-378104	Emergency Stop Switch	Ø22 1B	1
104A	PM-379104S	Double Switch	DPB-22N/220V	1
104C	PM-379104C	Change Switch (Drill/Tap)	Ø22 1A1B	1
104F	PM-379104F	Speed-Adjusting Knob	RV24YN 20S B502+1150mm	1
104G	PM-379104G	Fault Lamp	M8 220V	1
108A	PM-379108	Aluminum Strip	340/350/420/378VTI 135mm	1
108B	PM-379108B	Fuse Set	20VTI	2
108C	PM-379108C	Contactor Relay	20VTI 220V	1
108D	PM-379108D	Magnetic Switch	CU-11 220V	1
108F	PM-379108F	Terminal Blocks	20VTI 12P	1
108G	PM-379108G	Grounding	3P	1
108-S1	TS-2244081	Socket HD Flat Screw	M4×0.7×8mm	7
109	PM-379109	Switch Board	200×345×18mm	1
109A	PM-379109A	General Switch Box	204×349×90mm	1
109C	PM-379109C	Switch Board (Inverter)	W157×L85mm	1

Index No.	Part No.	Description	Size	Qty.
109E	PM-379109E	Switch Board	200×156×22mm	1
109-S1	TS-2172012	Mach Screw Pan HD	M5×0.8×8mm	4
109-S2	TS-2284081	Mach Screw Flat HD	M4×0.7×8mm	2
109-S3	TS-2172012	Mach Screw Pan HD	M5×0.8×8mm	4
109-S4	TS-0081031	Hex Bolt	5/16×3/4"	4
109-S5	TS-0680031	Washer	5/16	4
109-S6	TS-0561021	Hex Nut	5/16	4
109-S7	PM-379109F	Cable Fixing Connect	M16BX	4
110	PM-833110	Steel Bar	Ø6×60mm	1
111	PM-833111	Micro Switch Plate	833	1
111-S1	PM-833113	Screw	3/16×1"	2
112	PM-833112A	Micro Switch Body	VX-5-1A2	1
112A	PM-833112B	Micro Switch Trigger	.	1
112-S1	PM-834112S1	Screw	1/8×5/8"	2
114	PM-833114	Micro Switch	MJ2-1703	1
114-S1	PM-834114S1	Screw	5/32×1"	2
115	PM-833115	Micro Switch Cover	.	1
115-S1	PM-834115S1	Screw	3/16×3/8"	2
803	PM-379803	Switch Cover	378VTE	1
803-S1	TS-2172021	Mach Screw Flat HD	3/16×3/8"	4

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.

Warranty / Garantie

TOOL FRANCE SARL 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.

TOOL FRANCE SARL reserves the right to make changes to the product and accessories at any time.

TOOL FRANCE SARL garantiert, dass das/die von ihr gelieferte/n Produkt/e frei von Material- und Herstellungsfehlern ist.

Diese Garantie deckt keinerlei Mängel, Schäden und Fehler ab, die - direkt oder indirekt - durch falsche oder nicht sachgemäße Verwendung, Fahrlässigkeit, Unfallschäden, Reparaturen oder unzureichende Wartungs- oder Reinigungsarbeiten sowie durch natürliche Abnutzung durch den Gebrauch verursacht werden.

Weitere Einzelheiten zur Garantie können den allgemeinen Geschäftsbedingungen (AGB) entnommen werden.

Diese können Ihnen auf Wunsch per Post oder Mail zugesendet werden.

TOOL FRANCE SARL behält sich das Recht vor, jederzeit Änderungen am Produkt und am Zubehör vorzunehmen.

TOOL FRANCE SARL garantit que le/les produit(s)fourni(s) est/sont exempt(s) de défauts matériels et de défauts de fabrication.

Cette garantie ne couvre pas les défauts, dommages et défaillances causés, directement ou indirectement, par l'utilisation incorrecte ou inadéquate, la négligence, les dommages accidentels, la réparation, la maintenance ou le nettoyage incorrects et l'usure normale.

Vous pouvez trouver de plus amples détails sur la garantie dans les conditions générales (CG).

Les CG peuvent être envoyées sur demande par poste ou par e-mail .

TOOL FRANCE SARL se réserve le droit d'effectuer des changements sur le produit et les accessoires à tout moment.

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