GB - ENGLISH
Operating Instructions

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 a **JDP-840VADT drill press** 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.

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1. Declaration of conformity

On our own responsibility we hereby declare that this product complies with the regulations* listed on page 2. Designed in consideration with the standards**.

2. Warranty

The Seller guarantees that the supplied product is 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, accidental damage, repair, inadequate maintenance or cleaning and normal wear and tear.

Guarantee and/or warranty claims must be made within twelve months from the date of purchase (date of invoice). Any further claims shall be excluded.

This warranty includes all guarantee obligations of the Seller and replaces all previous declarations and agreements concerning warranties.

The warranty period is valid for eight hours of daily use. If this is exceeded, the warranty period shall be reduced in proportion to the excess use, but to no less than three months.

Returning rejected goods requires the prior express consent of the Seller and is at the Buyer's risk and expense.

Further warranty details can be found in the General Terms and Conditions (GTC). The GTC can be viewed at www.jettools.com or can be sent by post upon request.

The Seller reserves the right to make changes to the product and accessories at any time.

3. Safety

3.1 Authorized use

This drill press is designed for drilling wood and machinable metal and plastic materials only.
Machining of other materials is not permitted and may be carried out in specific cases only after consulting with the manufacturer.

Never cut magnesium-
high danger of fire!

The workpiece must allow to safely be loaded and clamped for machining.

The proper use also includes compliance with the operating and maintenance instructions given in this manual.

The machine must be operated only by persons familiar with its operation and maintenance and who are familiar with its hazards.

The required minimum age must be observed.

The machine must only be used in a technically perfect condition.

When working on the machine, all safety mechanisms and covers must be mounted.

In addition to the safety requirements contained in these operating instructions and your country's applicable regulations, you should observe the generally recognized technical rules concerning the operation of wood- and metal-working machines.

Any other use exceeds authorization. In the event of unauthorized use of the machine, the manufacturer renounces all liability and the responsibility is transferred exclusively to the operator.

3.2 General safety notes

Wood and metalworking machines can be dangerous if not used properly. Therefore the appropriate general technical rules as well as the following notes must be observed.

Read and understand the entire instruction manual before attempting assembly or operation.

Keep this operating instruction close by the machine, protected from dirt and humidity, and pass it over to the new owner if you part with the tool.

No changes to the machine may be made.

Daily inspect the function and existence of the safety appliances before you start the machine.
Do not attempt operation in this case, protect the machine by unplugging the power cord.

Remove all loose clothing and confine long hair.

Before operating the machine, remove tie, rings, watches, other jewellery, and roll up sleeves above the elbows.

Wear safety shoes; never wear leisure shoes or sandals.

Always wear the approved working outfit.

Do **not** wear gloves.

Wear goggles when working

Install the machine so that there is sufficient space for safe operation and workpiece handling.

Keep work area well lighted.

The machine is designed to operate in closed rooms and must be placed stable on a firm and levelled table surface.

Make sure that the power cord does not impede work and cause people to trip.

Keep the floor around the machine clean and free of scrap material, oil and grease.

Never reach into the machine while it is operating or running down.

Stay alert!
Give your work undivided attention. Use common sense. Do not operate the machine when you are tired.

Keep an ergonomic body position. Maintain a balanced stance at all times.

Do not operate the machine under the influence of drugs, alcohol or any medication. Be aware that medication can change your behaviour.

Keep children and visitors a safe distance from the work area.

Never leave a running machine unattended.
Before you leave the workplace switch off the machine.

Do not operate the electric tool near inflammable liquids or gases.
Observe the fire fighting and fire alert options, for example the fire extinguisher operation and place.

Do not use the machine in a dump environment and do not expose it to rain.

Before machining, remove any nails and other foreign bodies from the workpiece.

Work only with well sharpened tools.

Machine only stock which rests securely on the table.

Always close the chuck guard and pulley cover before you start the machine.

Remove the chuck key and wrenches before machine operation.

Specifications regarding the maximum or minimum size of the workpiece must be observed.

Do not remove chips and workpiece parts until the machine is at a standstill.

Do not stand on the machine.

Connection and repair work on the electrical installation may be carried out by a qualified electrician only.

Have a damaged or worn power cord replaced immediately.

Make all machine adjustments or maintenance with the machine unplugged from the power source.

Never place your fingers in a position where they could contact the drill or other cutting tool if the work piece should unexpectedly shift or your hand should slip.

Secure workpiece against rotation.
Use fixtures, clamps or a vice to hold the workpiece.
Never hold the workpiece with your hands alone.

Whenever possible, position the work piece to contact the left side of the column.
If it is too short or the table is tilted, clamp solidly to the table.
Use the table slots or clamping ledge around the outside of the table.

When using a drill press vice, always fasten it to the table.

Never do any works “freehand” (hand-holding the work piece rather than supporting it on the table), except when polishing.

Securely lock the head to the column and the table bracket to the column before operating the press.

Never move the head or the table while the machine is running.

If a work piece overhangs the table such that it will fall or tip if not held, clamp it to the table or provide auxiliary support.

Do not use wire wheels, router bits, shaper cutters, circle cutters, or rotary planers on this drill press.

3.3 Remaining hazards

When using the machine according to regulations some remaining hazards may still exist.

The rotating drill bit can cause injury.

Thrown workpieces and workpiece parts can lead to injury.

Dust, chips and noise can be health hazards.
Be sure to wear personal protection gear such as safety goggles, ear protection and dust mask. Use a suitable dust collection system.

The use of incorrect mains supply or a damaged power cord can lead to injuries caused by electricity.

4. Machine specifications

4.1 Technical data

Drill capacity in steel (St37)	40mm
Tapping capacity	M20
Spindle to column	264mm
Spindle travel	150mm
Spindle taper	MT-4
Column diameter	115mm
Table size	560 x 475 mm
T-slot size	16mm
Distance spindle nose / table	600mm
Distance spindle nose / base	1130mm
Number of speeds	variable
Range of speeds I	65 – 540 rpm
Range of speeds II	245 – 2000 rpm
Automatic downfeeds	0,05 / 0,1 / 0,2 mm/rev
Coolant tank volume	8 Liter
Coolant pump	72 W
Overall L/W/H	915x560x1970 mm
Net weight	382 kg
Mains	400V ~3L/PE 50Hz
Output power	1.5 kW (2 HP) S1
Reference current	3,7 A
Extension cord (H07RN-F)	4x1.5mm²
Installation fuse protection	10A

4.2 Noise emission

(Inspection tolerance 4 dB)

Acoustic pressure level
(according to EN ISO 11202):

Idling	LpA 69,6 dB(A)
In operation	LpA 79,0 dB(A)

The specified values are emission levels and are not necessarily to be seen as safe operating levels.
As workplace conditions vary, this information is intended to allow the user to make a better estimation of the hazards and risks involved only.

4.3 Content of delivery

16mm keyless chuck, B18
MT-4 / B18 arbour
Chuck guard
Table rising crank (2x)
Coolant facility
Drift key
Operating tools
Assembly kit
Operating manual
Spare parts list.

4.4 Description of the machine

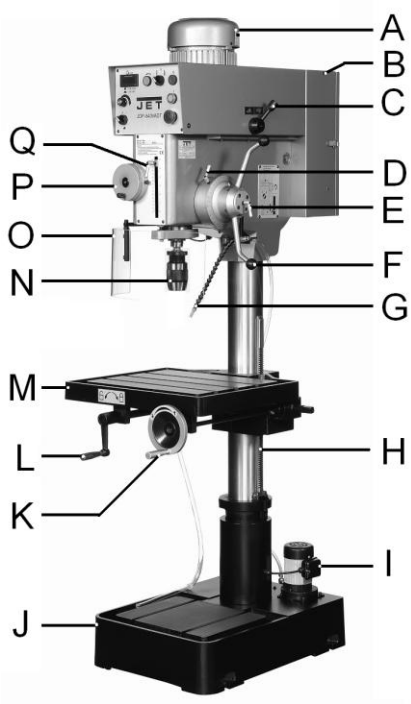


Fig 1

A…...Motor
B…..Electric Box
C….High / Low speed select switch
D….Scale ring lock knob
E….Down feed handle lock
F….Down feed handles
G….Coolant nozzle
H….Rack
I……Coolant pump
J…..Base with coolant tank
K….Table lifting handwheel
L…..Table locking handle
M….Working table
N….Drill chuck
O….Chuck guard
P….Micro feeding handwheel
Q….Drill / Tap depth stop

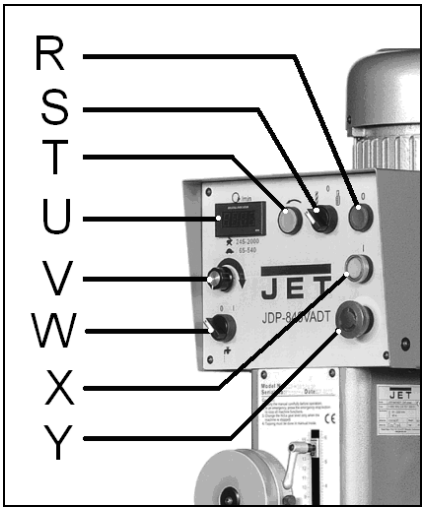


Fig 2

R….Spindle OFF-button
S….Drill / Tap select switch
T….Spindle reverse jog-button
U….Digital readout
V….Variable speed select knob
W…Coolant On/Off switch
X….Spindle ON-button
Y….Emergency stop button

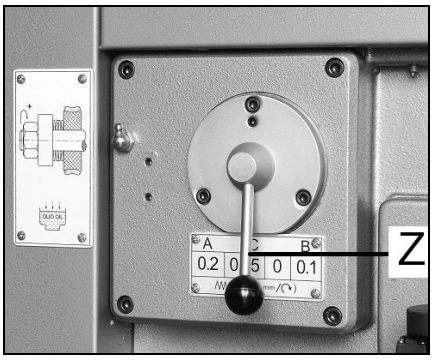


Fig 3

Z…Feed select switch

5. Transport and start up

5.1 Transport and installation

The machine will be delivered in a closed crate.

For transport use a forklift or hand trolley. Make sure the machine does not tip or fall off during transport.

Danger of tipping due to high gravity center!

The machine is designed to operate in closed rooms.and must be placed stable on a firm and levelled ground.

A minimum distance of 800mm towards a rear wall must be kept (for access to the electrical box).

The machine must be bolted down.

For packing reasons the machine is not completely assembled.

5.2 Assembly

If you notice transport damage while unpacking, notify your supplier immediately. Do not operate the machine!

Dispose of the packing in an environmentally friendly manner.

Clean all rust protected surfaces with a mild solvent e.g. petroleum.
(Note: lacquer thinner or similar can destroy the paint).

Attach the table lifting handwheel (K) and the table locking handle (L).

Mounting machine to the floor:
Unbolt the machine from the shipping crate.

Use heavy duty fibre belts (AA, Fig 4) for lifting the machine off the pallet.

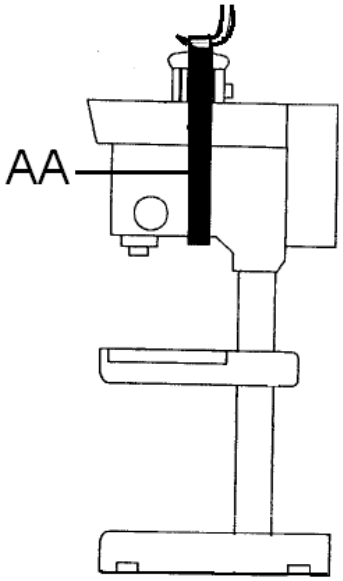


Fig 4

Caution:
The machine is heavy! 382kg

Assure the sufficient load capacity and proper condition of your lifting devices.
Never step underneath suspended loads.

Carefully place the machine to the floor.

Use 4 anchor bolts of sufficient size and length.

Use a machinist's precision level to make sure that the machine table is level.
Loosen mounting bolts, shim and tighten mounting bolts if needed.

The machine must be level to be accurate.

5.3 Mains connection

Mains connection and any extension cords used must comply with applicable regulations.

The mains voltage must comply with the information on the machine licence plate.

The mains connection must have a 10 A surge-proof fuse.

Only use power cords marked H07RN-F

Connections and repairs to the electrical equipment may only be carried out by qualified electricians.

ATTENTION:
- If the direction of rotation is not correct, the phase converter inside the CCE Euro plug must be pushed in and turned 180°.

5.4 Initial lubrication

The machine must be serviced at all lubrication points before it is placed into service!
Failure to comply may cause serious damage.
(see chapter 8 for lubrication)

The coolant tank has to be filled with coolant.

5.4 Starting operation

Before starting the machine check the proper chucking.

You can start the machine with the green ON-button (X, Fig 5).

The red OFF-button (R) stops the machine.

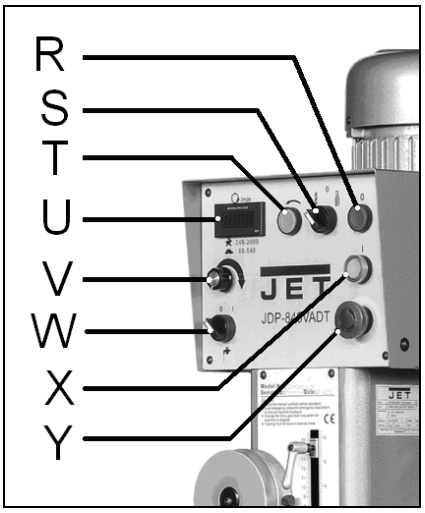


Fig 5

The emergency stop button (Y) stops all machine functions.
Attention:
The machine still has electric power!

Turn emergency stop button clockwise to reset.

Use the variable speed select knob (V) to set the speed.

The digital readout (U) shows the spindle speed.

6. Machine operation

Always adjust the table and the depth stop to prevent drilling into the table or vise.

Secure workpiece to the table with clamps or a vice to prevent rotating with the drill bit.

T-slot size is 16mm.

Feed the bit into the material with only enough force to allow the drill bit to work.
Feeding too slowly may cause burning of the workpiece.
Feeding too quickly may cause the motor to stop and/or the drill bit to break.

Recommended speeds for a 10mm HSS drill:

Wood:	2000 RPM
Plastic:	1500 RPM
Aluminium:	1500 RPM
Brass:	1500 RPM
Cast iron:	1000 RPM
Mild steel:	800 RPM
High carbon steel:	600 RPM
Stainless steel:	300 RPM

Generally speaking, the smaller in relation the drill bit, the greater the RPM required.

Wood requires higher speeds than metal.
Metal is usually drilled at slower speeds; cutting oil is applied if necessary.

Warning:
Always keep your hands well clear of the rotating bit.

Never place your fingers in a position where they could contact any rotating tool, chuck or cutting chips.

Do not remove chips and workpiece parts until the machine is at a standstill.

Always close the chuck guard and pulley cover before you start the machine.

When using a drill press vice, always fasten it to the table.

Never do any works "freehand" (hand-holding the work piece rather than supporting it on the table), except when polishing.

Support long workpieces with helping roller stands.

Do not use wire wheels, router bits, shaper cutters, circle cutters, or rotary planers on this drill press.

Never cut magnesium-
high danger of fire!

In case of danger push the emergency stop button.

Machine at rest:
If the drill press is not used for a longer time, pull the mains plug and protect all blanc surfaces.

6.1 Manual drilling

Set the feed select switch (Z, Fig 3) to “0“ position.

Tighten the downfeed handle lock knob (E, Fig 6).

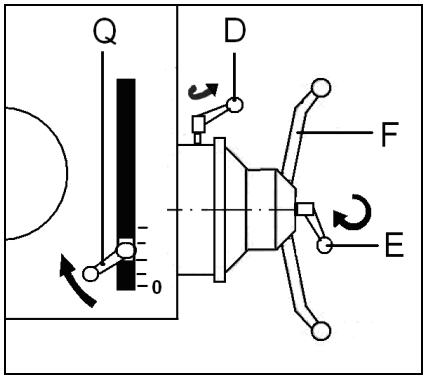


Fig 6

Loosen the scale ring lock knob (D).

Set the depth stop (Q) to the desired position.

6.2 Micro down feed

Set the feed select switch (Z, Fig 3) to “0“ position.

Move the depth stop (Q, Fig 7) to the highest position.

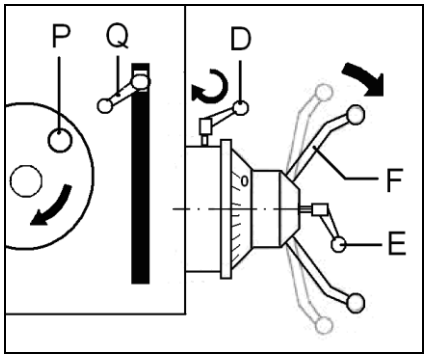


Fig 7

Loosen the downfeed handle lock knob (E).

Lower the spindle until the drill bit touches the workpiece.

Rotate the scale ring to the desired drill depth and tighten the lock knob (D).

Engage the feed mechanism by pushing out the down feed handles (F).

Rotate the micro-feeding hand wheel (P).

The spindle will feed down until the set drill depth has been reached.

The feed will disengage and the spindle will return to the top by spring force.

6.3 Automatic down feed

Adjust the desired power down feed (Z, Fig 8).

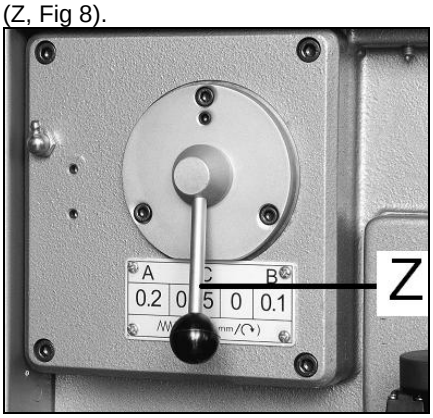


Fig 8

Loosen the downfeed handle lock knob (E, Fig 9).

Move the depth stop (Q, Fig 7) to the highest position.

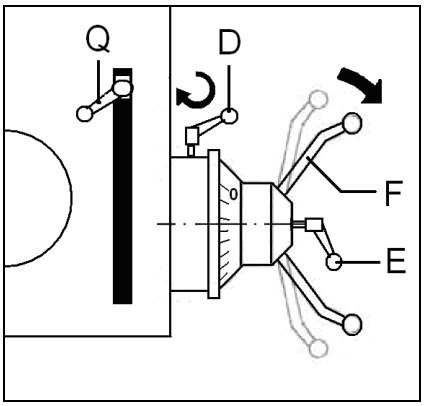


Fig 9

Lower the spindle until the drill bit touches the workpiece.

Rotate the scale ring to the desired drill depth and tighten the lock knob (D).

Start the machine (X, Fig 5)

Engage the feed mechanism by pushing out the down feed handles (F).

The spindle will feed down automatically until the drill depth has been reached.

The auto feed will disengage and the spindle will return to the top by spring force.

CAUTION:
Do not let feeding depth exceed spindle stroke.

If not in use, disengage the power down feed mechanism.
Set the auto-feed select switch (Z, Fig 3) to “0“ position.

Reference values for feed speed
The feed speed depends on the drill bit diameter and the material of the workpiece.

The larger the drill bit and the harder the workpiece, the lower the feed speed and the lower the spindle rpm.
HSS-drill bit in material steel (C15):

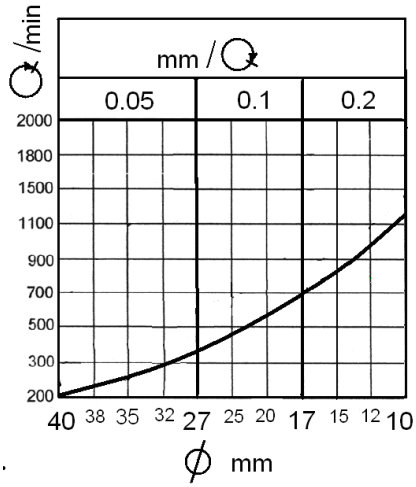


Fig 10

6.4 Tapping operation
For tapping operations the spindle speed must be below 150 rpm.

The machine setup must be as follows.

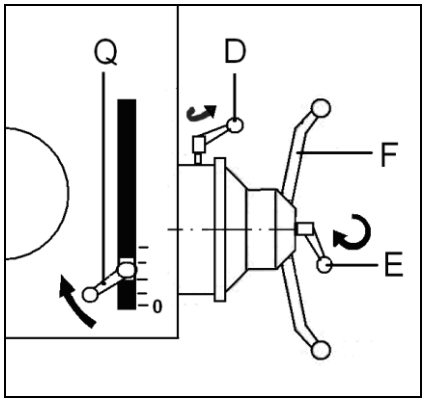
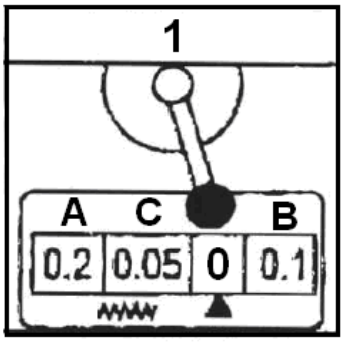
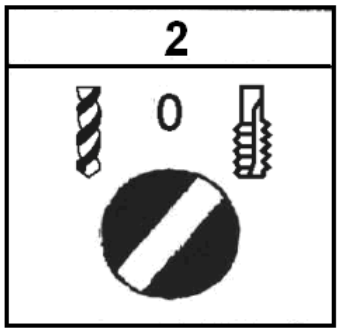


Fig 11

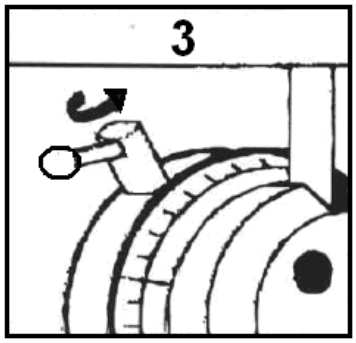
1) Set the feed select switch (Z, Fig 3) to “0“ position.



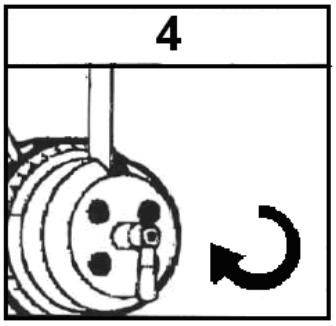
2) Set the select switch (S, Fig 2) to the “Tapping“ position.



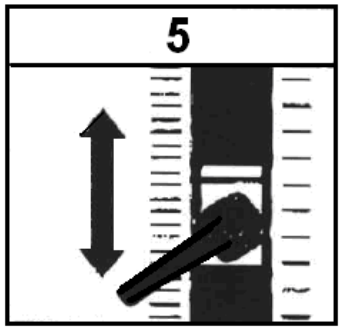
3) Loosen the scale ring lock knob (D, Fig 11).



4) Tighten the downfeed handle lock knob (E, Fig 11).



5) Set the depth stop (Q) to the desired position.



The spindle will auto-reverse at this point.

7. Setup and adjustments

General note:
Setup and adjustment work may only be carried out after the machine is protected against accidental starting.
Push the E-stop button, pull the mains plug!

7.1 Removing the Chuck and Arbour

Disconnect from the power source. Push the E-stop button!

Lower the quill using the down feed handle.

Lock the quill in lowered position by installing the supplied index pin (A, Fig 12) sichern.

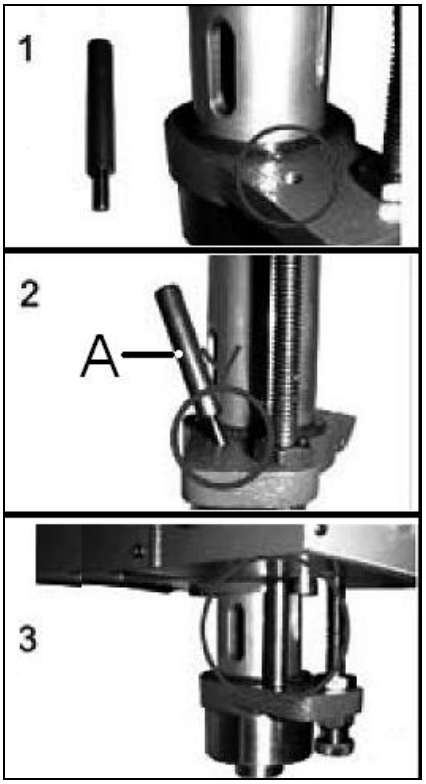


Fig 12

Rotate the spindle to align the key in the spindle with the key hole in the quill.

Insert the drift key into the aligned slots and tap lightly.

We recommend to use the rapid drift key (Fig 13).
JET article number: 10002086

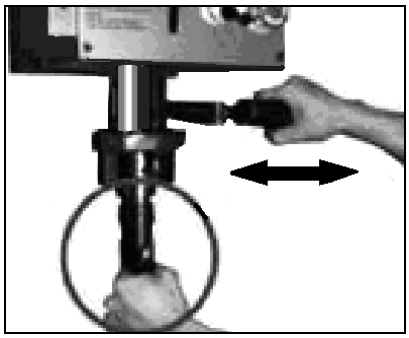
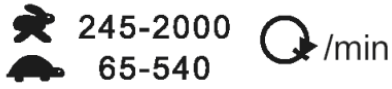


Fig 13

Hold the chuck and arbour assembly by hand (or a protected table) as it falls away from the spindle.

7.2 Changing Spindle Speeds

Two different speed ranges can be selected on the gearbox (C, Fig 1).



Use the variable speed select knob (V, Fig 2) to set the spindle speed.

The digital readout (U) displays the actual speed.

7.3 Auto feed overload protection

The auto feed mechanism is equipped with an overload protection clutch.

First the downfeed will stop, then the feed handles will disengage and the spindle will return to the top by spring force.

Stop the machine immediately under this condition.

Check the job-setup:
Make sure that the drill bit is sharp and the machine adjustments are correct.

Wenn die Maschine beim Betrieb mit automatischem Vorschub überlastet wird, kommt die Ueberlastkupplung zum Einsatz.

Der Vorschub setzt bei laufender Spindel aus, es fallen die Vorschubhebel und Pinole automatisch in die Ausgangsstellung zurück.

Ist dies der Fall, die Maschine sofort abstellen.

Ueberprüfen Sie das Werkzeug (Schärfe) und die Maschineneinstellungen.

Adjustment:
The overload protection clutch has precisely been adjusted ex works and may only be readjusted by a qualified person.

If the job setup is correct and the overload clutch reacts, it may be adjusted as follows:

Remove the „overload protection“ cover plate.

Tighten the nut clockwise by ¼ turn (Fig 14).

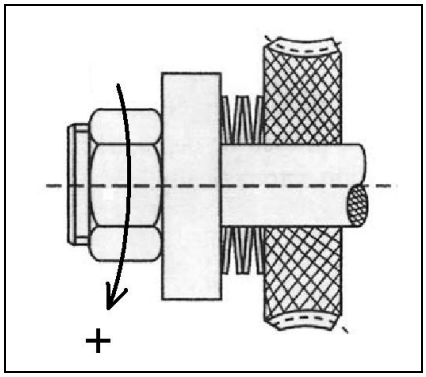


Fig 14

Test the auto feed drilling performance. If needed, repeat the adjustment.

Reinstall the cover plate.

ATTENTION:
Overtightening the clutch may damage the feed mechanism.

8. Maintenance and inspection

General notes:
Maintenance, cleaning and repair work may only be carried out after the machine is disconnected from the power source. Pull the mains plug!

Clean the machine regularly.

Defective safety devices must be replaced immediately.

Repair and maintenance work on the electrical system may only be carried out by a qualified electrician.

Changing oil:
Drain oil after first month of operation. by removing drain plug and refill with oil.

Gear box oil (SAE 90)

Then change the oil annually (respectively every 700 operating hours).

Weekly lubrication:
Once a week lubricate gently with grease.
-the teeth of the quill
-the column-rack

Coolant facility:
Pour 8 litres of coolant mix into the coolant tank (Z, Fig 15).

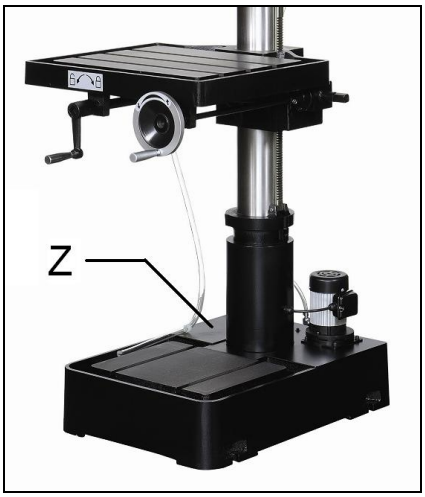


Fig 15

Follow coolant manufacturer's recommendations for use, care and disposal.

9. Trouble shooting

Motor doesn't start
*No electricity-
check mains and fuse.

*Defective switch, motor or cord-
consult an electrician.

*Inverter Failure-
see chapter 9.1

Chuck will not stay on spindle
*Oil or grease on contact surfaces-
clean the tapered surfaces of chuck and spindle.

Machine vibration
*Dry spindle quill-
lubricate spindle quill.

*dull drill bit-
resharpen drill bit.

Drill bit burns
*incorrect speed-
reduce speed.

*Chips clogged-
retract drill bit frequently

*dull drill bit-
resharpen drill bit.

*feeding too slow-
feed faster.

Drill leads off
*cutting lips or angle not equal-
resharpen drill bit correctly.

*drilled hole off centre-
drill a pilot hole first.

*bent drill bit-
use a proper drill bit.

*drill bit not properly installed-
install drill bit correctly.

9.1 Frequency inverter

Installation and repair of the frequency inverter may only be carried out by a qualified electrician.

The following points have to be observed:

1) Disconnected from the power source. Pull the mains plug!

2) Electronic components are very sensitive, do not touch with bare hands or non-isolated metal tools.

3) The DC-capacitor remains under voltage, even when the machine is disconnected from mains.
Assuer that all LED´s are off before you start service work.

4) Avoid electrostatic charging. Ground connect the inverter base-plate.

5) Never connect to motor output terminals (U/V/W) to the main power supply (AC).

6) The frequency inverter is equipped with diagnostic software.
The machine will stop and the error code will be displayed on the LED display.

Push the “Reset” button to restart the frequency inverter.

Error codes:

o.H.
* Inverter overtemperature-
Inspect ventilation holes and cooling fins for dust and debris

o.L / o.L. I / o.L.2
* Motor overloaded.-
Reduce motor load.

O.C. / o.c.A. / o.c.n. / o.c.d.
* Abnormal currant increase-
Inspect motor connection and isolation.

c.F.I / c.F.2 / c.F.3
* Inverter internal error-
Stop the machine and restart.

C.F.F.
* Fuse failure, ground failure-
Inspect the power supply, fuses and ground connection
Stop the machine and restart.

10. Environmental protection

Protect the environment.

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

11. Available accessories

Refer to the JET-Pricelist.