

Thank you for purchasing a Sealey product. Manufactured to a high standard this product will, if used according to these instructions and properly maintained, give you years of trouble free performance.



**IMPORTANT: PLEASE READ THESE INSTRUCTIONS CAREFULLY. NOTE THE SAFE OPERATIONAL REQUIREMENTS, WARNINGS AND CAUTIONS. USE THIS PRODUCT CORRECTLY AND WITH CARE FOR THE PURPOSE FOR WHICH IT IS INTENDED. FAILURE TO DO SO MAY CAUSE DAMAGE AND/OR PERSONAL INJURY AND WILL INVALIDATE THE WARRANTY. PLEASE KEEP INSTRUCTIONS SAFE FOR FUTURE USE.**

## 1. SAFETY INSTRUCTIONS

### 1.1. ELECTRICAL SAFETY

**WARNING!** It is the responsibility of the owner and the operator to read, understand and comply with the following:

You must check all electrical products, before use, to ensure that they are safe. You must inspect power cables, plugs, sockets and any other connectors for wear or damage. You must ensure that the risk of electric shock is minimised by the installation of appropriate safety devices. A Residual Current Circuit Breaker (RCCB) should be incorporated in the main distribution board. We also recommend that a Residual Current Device (RCD) is used. It is particularly important to use an RCD with portable products that are plugged into a supply which is not protected by an RCCB. If in any doubt consult a qualified electrician. You may obtain a Residual Current Device by contacting your Sealey dealer.

**You must** also read and understand the following instructions concerning electrical safety.

1.1.1. The **Electricity at Work Act 1989** requires all portable electrical appliances, if used on business premises, to be tested by a qualified electrician, using a Portable Appliance Tester (PAT), at least once a year.

1.1.2. The **Health & Safety at Work Act 1974** makes owners of electrical appliances responsible for the safe condition of those appliances and the safety of the appliance operators. **If in any doubt about electrical safety, contact a qualified electrician.**

1.1.3. Ensure that the insulation on all cables and on the appliance is safe before connecting it to the power supply. See 1.1.1. and 1.1.2. and use a Portable Appliance Tester.

1.1.4. Ensure that cables are always protected against short circuit and overload.

1.1.5. Regularly inspect power supply cables and plugs for wear or damage and check all connections to ensure that none is loose.

1.1.6. **Important:** Ensure that the voltage marked on the appliance matches the power supply to be used and that the plug is fitted with the correct fuse - see fuse rating at right.

1.1.7. **DO NOT** pull or carry the appliance by the power cable.

1.1.8. **DO NOT** pull the plug from the socket by the cable.

1.1.9. **DO NOT** use worn or damaged cables, plugs or connectors. Immediately have any faulty item repaired or replaced by a qualified electrician. When an ASTA/BS approved UK 3 pin plug is damaged, cut the cable just above the plug and **dispose of the plug safely.** Fit a new plug according to the following instructions (UK only).

a) Connect the **GREEN/YELLOW** earth wire to the earth terminal 'E'.

b) Connect the **BROWN** live wire to the live terminal 'L'.

c) Connect the **BLUE** neutral wire to the neutral terminal 'N'.

d) **After wiring, check that there are no bare wires, that all wires have been correctly connected, that the cable outer insulation extends beyond the cable restraint and that the restraint is tight.**

Double insulated products, which are always marked with this symbol , are fitted with live (brown) and neutral (blue) wires only. To rewire, connect the wires as indicated above - **DO NOT** connect either wire to the earth terminal.

1.1.10. Products which require more than 13 amps are supplied without a plug. In this case you must contact a qualified electrician to ensure that a suitably rated supply is available. We recommend that you discuss the installation of an industrial round pin plug and socket with your electrician.

1.1.11. If an extension reel is used it should be fully unwound before connection. A reel with an RCD fitted is preferred since any appliance plugged into it will be protected. The cable core section is important and should be at least 1.5mm<sup>2</sup>, but to be absolutely sure that the capacity of the reel is suitable for this product and for others which may be used in the other output sockets, we recommend the use of 2.5mm<sup>2</sup> section cable.

### 1.2. GENERAL SAFETY

**WARNING!** Disconnect drill from mains power before changing accessories, servicing or performing any maintenance.

✓ Maintain the drill in good condition (use an authorised service agent).

**WARNING!** Keep all guards and holding screws in place, tight and in good working order. Check regularly for damaged parts. A guard, or any other part, that is damaged must be repaired or replaced before the tool is next used, to ensure that it will operate properly and perform its intended function. The safety guard is a mandatory fitting where the drill is used on premises covered by the Health & Safety at Work Act.

✓ Check alignment of moving parts and check for possible broken parts.

✓ Replace or repair damaged parts. Use recommended parts only. Unauthorised parts may be dangerous and will invalidate the warranty.

✓ Ensure that the head frame set screws are tight before using the drill.

✓ Secure the drill to a supporting structure to avoid the machine tipping, sliding or walking. Drill is designed for use with drill bits and mortice attachments only. No other accessory may be used.

✓ Ensure the chuck is securely fastened to the spindle.

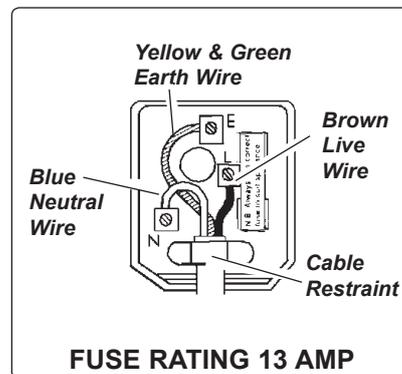
✓ Remove chuck keys and wrenches from the machine and work area before switching on.

✓ Use clamps or a vice (not included but available from your Sealey dealer). **DO NOT** secure the workpiece by hand.

✓ Refer to speed chart for recommended drilling speeds.

**WARNING!** Always wear approved eye or face protection when operating this drill. Use a face or dust mask if dust is generated.

**WARNING!** **DO NOT** wear gloves when drilling.



- ✓ Others in the workplace should keep a safe distance from the drill, especially when it is in operation.
- ✓ Keep the work area as childproof as possible by using padlocks and master switches.
- ✓ Keep drill bits clean and sharp for best and safest performance. Follow the instructions for lubrication and changing accessories.
- ✓ Remove ill fitting clothing. Remove ties, watches, rings and other loose jewellery and contain long hair.
- ✓ Locate drill in a suitable work area and keep area clean and tidy and free from unrelated materials. Ensure that there is adequate lighting.
- ✓ Maintain correct balance and footing. Ensure the floor is not slippery and wear non-slip shoes.
- ✓ Secure unstable workpieces with a clamp, vice or other adequate holding device.
- ✓ Avoid unintentional starting.
- x **DO NOT** use the drill for a task that it is not designed to perform.
- x **DO NOT** allow untrained persons to operate the drill.
- x **DO NOT** get the drill wet or use in damp or wet locations or areas where there is condensation.
- x **DO NOT** operate the drill if it is damaged.
- x **DO NOT** use drill in an area where paint fumes, solvents or flammable liquids pose a potential hazard. Keep flammable material away from the drill when operating. Flammable waste, such as wipes or cleaning rags, must be placed in a closed metal container and disposed of correctly.
- x **DO NOT** exceed the rated capacity of the drill.
- x **DO NOT** operate the drill if any parts are missing as this may cause failure and/or personal injury.
- x **DO NOT** leave the drill operating unattended.
- x **DO NOT** operate the drill when you are tired or under the influence of alcohol, drugs or intoxicating medication.
- x **DO NOT** pull the cable from the power supply.
- ✓ When not in use switch off the drill, remove the plug from the power supply and do not leave until the chuck has come to a complete stop.

## 2. DESCRIPTION

These variable speed drills are suitable for light industrial, agricultural and woodworking applications. Both drills are fitted with flip-up safety guards and "No-Volt Release" switches which prevent accidental restart after a mains power interruption. A rack and pinion feed shaft with preset depth control for repetitive work is also included. Work clamps, vices and mortising attachments are available for these drills, contact your local Sealey dealer for information.

## 3. TECHNICAL SPECIFICATIONS

<b>MODEL No:</b>	GDM200F/VS
<b>Drilling Capacity (Chuck Size):</b>	16mm
<b>Spindle Nose Taper:</b>	MT2
<b>Swing:</b>	436mm
<b>Spindle centre to column:</b>	178mm
<b>Spindle travel:</b>	80mm
<b>Number of speeds:</b>	Variable
<b>Speed range:</b>	150-2300rpm
<b>Maximum Distance Spindle to Table:</b>	800mm
<b>Maximum Distance Spindle to Base:</b>	1230mm
<b>Working Table Surface size:</b>	Ø310mm
<b>Working Base Surface size:</b>	205 x 205mm
<b>Overall Base Size:</b>	460 x 275mm
<b>Column diameter:</b>	80mm
<b>Collar diameter:</b>	60mm
<b>Overall Height:</b>	1630mm
<b>Motor Power:</b>	450W - 230V
<b>Input Power:</b>	650W - 230V
<b>Weight:</b>	81kg
<b>Optional Keyless Chuck 16mm:</b>	<b>GDMX/KC</b>



## 4. CONTENT

### 4.1. Package content

Unpack the parts listed below and check to ensure they are in good condition. Any queries must be reported to your dealer immediately.

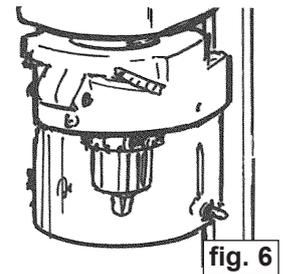
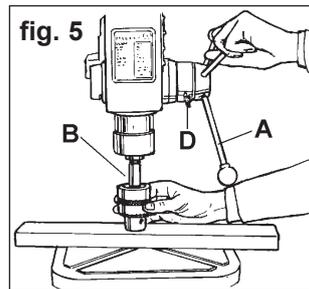
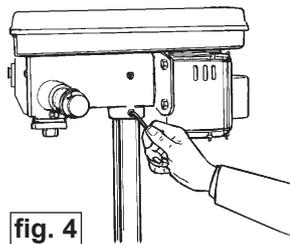
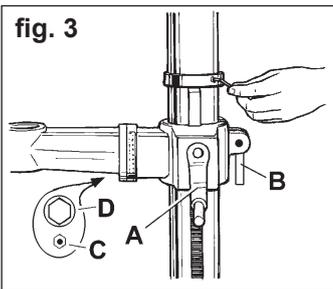
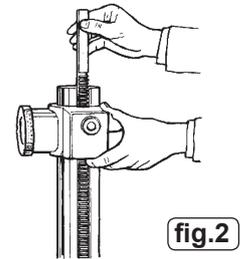
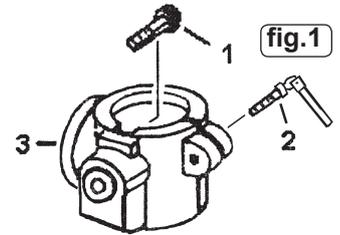
- ✓ Head Assembly
- ✓ Column with Flange
- ✓ Base
- ✓ Table
- ✓ Table Arm
- ✓ Table Bracket and Worm
- ✓ Rack and Rack Ring
- ✓ Feed Handles and Knobs (3)
- ✓ Pivoted Lock Handle (2 - table arm & bracket)
- ✓ Adjusting Handle with Set Screw (table)
- ✓ Bolt and Washer (table arm)
- ✓ Bolts (4 - column)
- ✓ Chuck and Key
- ✓ Arbor
- ✓ Speed Control Handle
- ✓ Safety Guard
- ✓ Set Screws (2 - head)
- ✓ Screw and Washer (pulley cover)
- ✓ Wedge
- ✓ Hex. Keys (2)

## 5. ASSEMBLY

Note: Figures are illustrative and may differ in detail from your drill.

### 5.1. Assembly

- 5.1.1. Place the column assembly on the base, align holes and secure with the four bolts provided.
  - 5.1.2. Insert the worm gear (fig.1.1) into the table bracket crank handle hole, ensuring that the worm gear meshes with the rack gear in the bracket.
  - 5.1.3. Screw the lock handle (fig.1.2) into the lugs at the rear of the table bracket but DO NOT tighten.
  - 5.1.4. Install the table bracket onto the column together with the rack (fig.2), engaging gear in bracket with rack teeth. Note that the rack should be assembled with the longer tooth-free end uppermost.
  - 5.1.5. Install the rack collar and tighten grub screw firmly (fig.3). Ensure that rack is free to move around column.
  - 5.1.6. Install the table adjusting handle (fig.3.A) onto the worm gear shaft, tightening the grub screw onto the flat on the shaft.
  - 5.1.7. Tighten the table bracket lock handle (fig.3.B).
  - 5.1.8. Fit the table arm to the table bracket with the bolt and washer provided (fig.2.D).
  - 5.1.9. Fit the table to the table arm and clamp in position with the smaller lock handle.
  - 5.1.10. Carefully place the head assembly over the column and slide it into position. Align head with base.
  - 5.1.11. Fit the two set screws in the side of the head to lock it into position and tighten with hex. key (fig.4).
  - 5.1.12. Screw the three feed handles and knobs to the hub of the pinion shaft (fig.5.A).
  - 5.1.13. Open the pulley cover and then insert the speed control handle through the side of the pulley housing. Screw the handle into the central pulley carrier with the flats on the outer sleeve of the handle engaged in the guide slot.
  - 5.1.14. To install chuck open the chuck jaws completely by turning the chuck key counter-clockwise. Place a piece of wood on the drill table (to prevent the chuck from getting damaged).
  - 5.1.15. Insert larger tapered end of arbor (fig.5.B) into drill spindle - rotate slightly to engage fully, fit chuck to protruding end of arbor and hold in place.
  - 5.1.16. Turn feed handles to bring nose of chuck down onto wood (fig.5). Firmly pull on feed handle to seat arbor taper in spindle and chuck.
  - 5.1.17. Loosen clamp screw on safety guard mounting collar, pass guard up over chuck and fit collar round flange of quill shaft. Ensure guard pivot is central and tighten clamp screw (see fig.6).
- 5.2. Drill mounting**
- 5.2.1. For stability and safety it is important that the drill base is securely bolted to the workbench (GDM150B/VS) or floor (GDM200F/VS).
  - 5.2.2. Ensure that the mounting surface is capable of supporting the drill together with the weight of the heaviest likely workpiece.



## 6. OPERATING INSTRUCTIONS

**WARNING!** Ensure that the drill is unplugged from the mains power supply before commencing.

### 6.1. Installing drill bit

- 6.1.1. Insert drill bit into chuck jaws to 1" (25mm) deep (avoid inserting small bits too far) and centre bit in chuck before tightening.

### 6.2. Adjusting the table

- 6.2.1. To adjust table up or down, loosen lock handle (fig.3.B), then turn bracket handle (fig.3.A). Once at correct height tighten lock handle.
- 6.2.2. To adjust table tilt, remove the locating pin and nut (fig.3.C) - if pin is tight, turn nut clockwise to loosen. Loosen the table arm bolt (fig.3.D), adjust table to the desired angle using the angle scale, then retighten the table arm bolt. When the table is returned to the horizontal, replace the locating pin and nut.
- 6.2.3. To turn the table around the column, loosen the lock handle. Turn the table to the desired position and then tighten the lock handle.

### 6.3. Adjusting the speed

- 6.3.1. Determine the speed for the drilling operation (see drill speed chart) and, with the motor running, move the speed control handle (turn anticlockwise to loosen) to that speed as marked on the pulley housing. Lock the lever in position by turning it clockwise and turn off the motor.

### 6.4. Positioning the workpiece

- 6.4.1. Rest the workpiece on a piece of wood to prevent the drill bit damaging the table when it breaks through. The wood should rest on the table so that one end of it is against the left side of the column. When the drill bit breaks through the workpiece, it will contact the wood and cause it to spin. Resting the wood against the column will help prevent this.
- 6.4.2. For small workpieces that cannot be clamped to the table, use a drill vice (not included). Vice must be clamped or bolted to table.

### 6.5. Setting the drill depth

- 6.5.1. Use the scale on the side of the drill head near the drill handle.
- 6.5.2. Loosen locking screw (fig.5.D) and set the scale to the depth required. Tighten locking screw.
- 6.5.3. When ready to drill, simply pull the feed handle. The drill will stop at the set depth.

## 7. DRILL SPEEDS

The chart below shows recommended drill speeds for various bit diameters and materials. Select the available drill speed that is the same as, or nearest to, the one recommended for the task in hand.

Drill Dia. (mm)	Drill Speed (rpm)			
	Steel	Cast Iron	Iron	Alum. & Copper
3	1820	2580	2580	2580
4	1350	1820	1820	2580
5	1290	1350	1350	2580
6	970	1290	1290	2580
7	830	970	970	2580
8	830	970	970	2580
9	500	970	830	1820
10	500	830	830	1820
11	500	830	830	1820
12	420	830	500	1820
13	420	500	500	1350
14	420	500	500	1350
16	320	500	500	1290
18	320	420	420	1290
20	280	320	320	970
22	210	320	280	970
25	120	280	210	830

## 8. MAINTENANCE

- 8.1. Clean the tool after each use. A coat of automobile-type wax applied to the table and column will help to keep the surfaces clean.
- 8.2. Blow out any dust that may have accumulated in the motor.
- 8.3. Periodically lubricate the table elevation rack/gear/worm mechanism and the spindle sleeve exterior with machine oil.

## 9. TROUBLESHOOTING

PROBLEM	POSSIBLE CAUSE	SOLUTION
Excessive noise	1) Spindle is dry	1) Disassemble spindle/drill and lubricate
	2) Pulley is loose	2) Tighten pulley
	3) Bearing damaged	3) Replace the bearing
Excessive drill wobble	1) Chuck is loose	1) Tighten chuck by pressing it against the table (see 5.1.10 - 5.1.12)
	2) Bearing or spindle shaft is worn	2) Replace worn part
	3) Chuck is worn	3) Replace the chuck
Drill binds in the workpiece	1) Feed pressure is wrong	1) Apply less pressure
	2) Drill is loose	2) Tighten the drill chuck with key
	3) Speed is too fast	3) Change to a lower speed
Drill burns or smokes	1) Speed is too fast	1) Change to a lower speed
	2) Chips are not discharging	2) Clean the drill
	3) Drill bit is dull	3) Use a new drill bit
	4) Workpiece requires lubrication	4) Lubricate whilst drilling
	5) Feed pressure is too high	5) Apply less pressure
Table is difficult to raise	1) Lubrication is required	1) Lubricate with light oil
	2) Rack is bent	2) Straighten the rack



**NOTE:** It is our policy to continually improve products and as such we reserve the right to alter data, specifications and component parts without prior notice.

**IMPORTANT:** No liability is accepted for incorrect use of this product.

**WARRANTY:** Guarantee is 12 months from purchase date, proof of which will be required for any claim.

**INFORMATION:** For a copy of our latest catalogue and promotions call us on 01284 757525 and leave your full name and address, including postcode.



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