PILLAR DRILLS

MODEL NO'S:

PDM170F.V3, PDM210F.V3, PDM240F.V3, PDM260F.V3

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 & CAUTIONS. USE THE 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. KEEP THESE INSTRUCTIONS SAFE FOR FUTURE USE.


Refer to instruction manual


Wear eye protection


Wear protective gloves


Wear ear protection


Wear a mask


Wear safety footwear


Indoor use only

1. SAFETY

1.1. ELECTRICAL SAFETY

❑ **WARNING!** It is the user's responsibility to check the following:

✓ Check all electrical equipment and appliances to ensure that they are safe before using.

✓ Inspect power supply leads, plugs and all electrical connections for wear and damage.

✓ If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified person in order to avoid a hazard.

✓ Ensure that the insulation on all cables and on the appliance is safe before connecting it to the power supply.

× **DO NOT** use worn or damaged cables, plugs or connectors.

✓ Ensure that any faulty item is repaired or replaced immediately by a Sealey qualified technician.

✓ If the cable or plug is damaged during use, switch off the electricity supply and remove from use.

✓ Sealey recommend that an RCD (Residual Current Device) is used with all electrical products.

IMPORTANT: Ensure that the voltage rating on the appliance suits the mains power supply.

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

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

Ensure that repairs are carried out by a qualified electrician.

1.2. GENERAL SAFETY

❑ **WARNING!** Owing to its weight and dimensions, this machine requires two persons to assemble it.

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

❑ **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 should be replaced, before the tool is used, to ensure that it will operate properly and perform its intended function. The safety guard is a mandatory fitting where drill is used in 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 the set screws of the head frame are screwed tight before using the drill.

✓ Secure the drill to a solid floor.

✓ Drill is designed for use with drill bits only.

✓ Ensure the chuck is securely fastened to the spindle.

✓ Remove adjusting keys, chuck key and wrenches from the machine and working area before switching on.

✓ Use clamps or a vice (not included; available from your Sealey stockist) to secure the workpiece. **DO NOT** attempt to hold 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.

✓ 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 the drill in a suitable work area, keep area clean and tidy and free from unrelated materials. Ensure there is adequate lighting.

✓ Exclude children and non-essential persons from the work area.

✓ Maintain correct balance and footing. Ensure the floor is not slippery and wear non-slip shoes.

✓ Secure unstable work with a clamp, vice or other adequate holding device.

✓ Avoid unintentional starting.

✓ Ensure there is adequate space around the pillar drill to allow safe operation, easy access to controls, and routine maintenance. Clear working space helps prevent accidents and allows for proper handling of materials.

✓ The centre of gravity (CoG) in a pillar drill is usually near the base or motor. Knowing its position helps ensure safe lifting and stable operation.

✓ Permissible environmental conditions include a dry, well-ventilated area with temperatures between -10°C and 40°C. Avoid relative humidity above 85% (non-condensing), as well as direct sunlight, and exposure to dust or corrosive substances.

× **DO NOT** use the drill for a task it is not designed to perform.

× **DO NOT** allow untrained persons to operate the drill.

× **DO NOT** get the drill wet or use in damp or wet locations or areas where there is condensation.

× **DO NOT** operate the drill if damaged or parts are missing.

1.3. INFORMATION FOR EMERGENCY SITUATIONS

In an emergency, immediately press the E-stop button (shown on picture) to cut power and stop operation. Seek help if needed and follow safety procedures.

2. INTRODUCTION

A comprehensive range of pillar drills for the professional workshop. Models feature heavy-duty aluminium-bodied motors for long and reliable performance. No-volt release switch to prevent inadvertent start-up and pulley cover protected by micro switch to prevent drill operating when cover is open. Model No's PDM155B, PDM210F, PDM240F and PDM260F are fitted with an integral work light which illuminates the drilling table giving operator a clear view of the drilling process (bulb not included). All models supplied with an electrically inter-locked chuck guard. Large sized square tables fitted with precision rack and pinion height adjustment.

3. SPECIFICATION

Model No:	**PDM170F.V3**	**PDM210F.V3**	**PDM240F.V3**	**PDM260F.V3**
Base Size:	450 x 270mm	495 x 290mm	495 x 290mm	575 x 455mm
Collar Diameter:	Ø55mm	Ø60mm	Ø75mm	Ø85mm
Column Diameter:	Ø73mm	Ø80mm	Ø80mm	Ø92mm
Drilling Capacity (Chuck Size):	16mm	16mm	20mm	20mm
Electrical Class:	Class II	Class II	Class II	Class II
Fuse Rating:	13A	13A	13A	13A
Integral Work Light:	No	Yes	Yes	Yes
Maximum Distance Spindle to Base:	1255mm	1225mm	1230mm	1160mm
Maximum Distance Spindle to Table:	770mm	725mm	720mm	680mm
Motor Power (Start):	370W(600W)	370W(600W)	750W(1000W)	1100W(1500W)
Number of Speeds:	16	16	16	12
Optional Accessories:	PDM/KC - Keyless Pillar Drill Chuck 16mm	PDM/KC - Keyless Pillar Drill Chuck 16mm	PDM/KC - Keyless Pillar Drill Chuck 16mm	PDM/KC - Keyless Pillar Drill Chuck 16mm
Overall Height:	1610mm	1610mm	1635mm	1710mm
Plug Type:	3-Pin	3-Pin BS	3-Pin	3-Pin
Power Supply Cable Length:	1.6m	1.6m	1.9m	1.9m
Speed Range:	190-3000rpm	190-3000rpm	160-3000rpm	120-3480rpm
Spindle Centre to Column:	170mm	190mm	216mm	260mm
Spindle Nose Taper:	MT2	MT2	MT3	MT4
Spindle Travel:	80mm	80mm	80mm	120mm
Supply:	230V	230V	230V	230V
Swing:	340mm	380mm	512mm	520mm
Working Base Surface Size:	205 x 200mm	205 x 200mm	205 x 200mm	410 x 330mm
Working Table Surface Size:	254 x 254mm	290 x 290mm	356 x 356mm	425 x 475mm

4. CONTENTS

4.1. PACKAGE CONTENTS

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

Head Assembly	Base	Chuck and Key
Column with Flange	Table Arm, Bracket & Worm	Feed Handle
Adjusting Handle with Set Screw (table)	Table	Rack and Rack Ring
Pivoted Clamp Bolts (2 - table arm & bracket)	Bolts and Washers (4)	Safety Guard
Arbor	Set Screws (2)	
Wedge		

5. FEATURES

1	Head
2	Motor
3	Column
4	Table (Turn handle to raise or lower)
5	Base

6	Chuck
7	Handle for feed
8	Emergency Stop
9	ON/OFF switch (Not on view)

6. ASSEMBLY

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

6.1. ASSEMBLY

6.1.1. Place the column assembly on the base, align holes and secure with the bolts and washers provided.
6.1.2. Install table bracket onto column together with rack (fig.1), engaging gear in bracket with rack.
6.1.3. Install the rack collar and tighten firmly (fig.2).
6.1.4. Install the table adjusting handle (fig.2.A) and pivoted clamp bolt (the longer of the two - fig.2.B).
6.1.5. Tighten the handle set screw (with the hex. key provided) and the bracket clamp bolt.
6.1.6. Install the table and table clamp bolt (fig.3).
6.1.7. Carefully place the head assembly over the column and slide it into position. Align head with base.
6.1.8. Fit the two set screws in the side of the head and tighten with hex. key (fig.4) to lock head in position.
6.1.9. Fit the feed handle to the hub of the pinion shaft (align pin with slot) and retain with central screw.
6.1.10. To install chuck: open the chuck jaws completely by turning the chuck key anticlockwise. Place a piece of wood on the drill table (to prevent the chuck from getting damaged).
6.1.11. Insert arbor (fig.5.B) into drill spindle (reduced diameter end first), fit chuck to protruding end of arbor and hold in place.
6.1.12. Turn feed handle to bring nose of chuck down onto wood (fig.5). Firmly pull on feed handle to seat arbor tapers in spindle and chuck.
6.1.13. 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.

6.2. TRANSPORT, HANDLING AND STORAGE

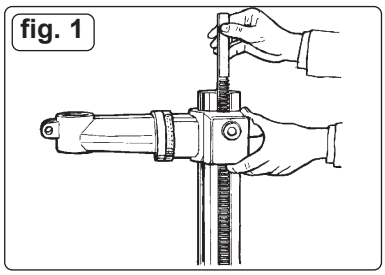
6.2.1. Transport, handling, and storage of the pillar drill should be done carefully to avoid damage. When transporting, always unplug the drill and secure any loose parts. Use proper lifting techniques or equipment to move the drill safely. Store the drill in a clean, dry, and well-ventilated area, protected from moisture, dust, and extreme temperatures to keep it in good working condition.

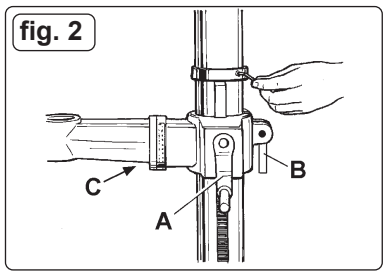
6.3. DRILL MOUNTING

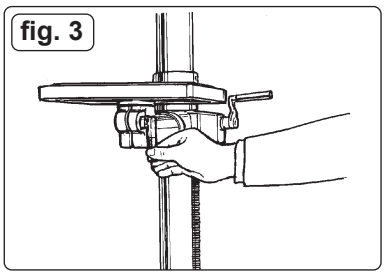
6.3.1. For stability and safety it is important that the drill base is securely bolted to the floor.
6.3.2. Ensure that the floor is capable of supporting the drill together with the weight of the heaviest likely workpiece.
NOTE: The belt guard and chuck guard are both protected by microswitches which isolate the machine should either guard be open.

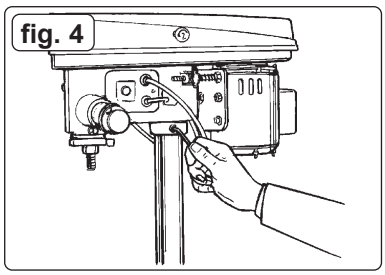
7. OPERATION

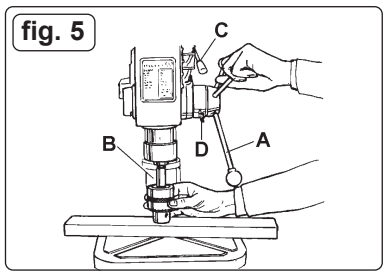
❑ **WARNING!** Ensure the drill is unplugged from the mains power supply before commencing. And only trained operators should use the pillar drill. Proper training is essential to ensure safe operation, recognize hazards, and follow safety procedures. Failure to do so may result in serious injury. Always use appropriate protective equipment and follow emergency protocols.

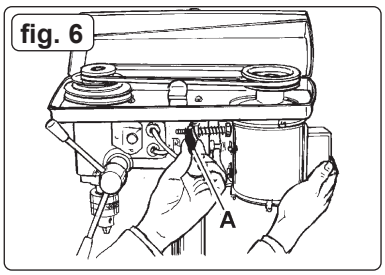












7.1. SOUND PRESSURE LEVEL

The A-weighted sound pressure level of this equipment has not been measured. If the noise exceeds 70 dB(A), appropriate hearing protection should be used.

7.2. INSTALL DRILL BIT

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

7.3. ADJUSTING THE TABLE

7.3.1. To adjust table up or down, loosen the clamp bolt (fig.2.B) then turn the bracket handle (fig.2.A).
7.3.2. To adjust table tilt, loosen the work table bolt (fig.2.C), remove locking pin (below bolt) and adjust to the desired angle using the angle scale, then retighten. When returning table to horizontal replace locking pin.
7.3.3. To turn the table around the column, loosen the rack collar slightly, then loosen the clamp bolt (fig.2.B).
7.3.4. Turn the table to the desired position then secure the bolt and the rack collar.

7.4. ADJUSTING THE SPEED

7.4.1. Open the pulley case and loosen the belt tension lock screws (fig.6.A) - one either side of head.
7.4.2. Choose the speed for drilling operation (see drill speed chart - Section 7) and move the belts to the correct position for that speed, as shown on the chart inside the pulley cover.

7.5. BELT TENSION

7.5.1. With the belt tension lock screws (fig.6.A) loose and using hand pressure on the adjusting handle (fig.5.C), set tension so that belt give is no more than 1/2” (13mm). Tighten lock screws.

7.6. POSITIONING THE WORKPIECE

7.6.1. Use a piece of wood to rest the workpiece on. The drill bit may break through the workpiece and damage the table otherwise.

7.6.2. The wood should rest on the table so that one end of it is against the left side of the column, to prevent it spinning when the drill bit breaks through the workpiece.
7.6.3. For small workpieces that cannot be clamped to the table, use a drill vice (not included). Vice must be clamped or bolted to table.

7.7. SETTING THE DRILL DEPTH

7.8. Use the scale on the side of the drill head near the drill handle.
7.9. Loosen locking screw (fig.5.D) and set the scale to the depth desired. Tighten locking screw.
7.10. When ready to drill, simply pull the feed handle. The drill will stop at the set depth.

7.11. ILLUMINATION (not PDM170F)

7.12. The workpiece illumination is controlled by the rocker switch located immediately above the main power switch on the front of the head.

7.13. TURNING POWER ON/OFF

7.14. Press the green start button to power it on, then slowly lower the drill using the feed handle to begin drilling. To turn off the pillar drill, release the feed handle to stop drilling, then press the red stop button or engage the emergency stop switch to cut power. Always wait for the drill bit to come to a complete stop before removing your workpiece.

7.15. EMERGENCY STOP

7.15.1. The E-stop (Emergency Stop) is a safety switch that immediately cuts power to the pillar drill when pressed. It is used to quickly stop the machine in case of an emergency to prevent accidents or injuries. To reset the E-stop, twist or pull it back to its original position before restarting the drill.

7.16. RESTARTING THE MACHINE AFTER AN INTERVENTION

7.16.1. After any intervention or maintenance on the pillar drill, first ensure all tools and debris are cleared away. Check that all safety guards are properly in place and the work area is safe. Reset the emergency stop if it was engaged, then turn on the main power switch. Finally, start the drill following the normal operating procedure.

8. DRILL SPEEDS

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

9. MAINTENANCE

❑ **WARNING!** Disconnect drill from mains power before changing accessories, servicing or performing any maintenance.
9.1. Clean the tool after each use. A coat of maintenance spray applied to the table and column will help to keep the surfaces clean.
9.2. Blow out any dust that may have accumulated in the motor.
9.3. Periodically lubricate the table elevation rack/gear/worm mechanism and the spindle sleeve exterior.

9.4. BELT CHANGING

9.4.1. Please note that an instructional video for this product is available to view on our YouTube channel.
9.4.2. Isolate the drill from the power supply.
9.4.3. Remove the belt tension as in section 6.4.
9.4.4. Remove the belt(s) and replace with another of the same specification.
9.4.5. Re-tension the belts as in section 6.4.
9.4.6. Close and secure the pulley case.

9.5. PREVENTATIVE MAINTENANCE MEASURES TO BE OBSERVED

9.5.1. Preventative maintenance measures include regularly inspecting and lubricating moving parts, checking electrical connections and safety devices, tightening bolts and screws, and ensuring the machine is clean and free from dust and debris. Always follow the manufacturer's recommended service intervals and replace worn or damaged components promptly to avoid breakdowns and ensure safe operation.

9.6. SPARES

9.6.1. Spare parts for the pillar drill, such as belts, chucks, switches, and bearings, are available through our official spares list. For repairs or technical assistance, contact our authorised Sealey Service Centre for support.

9.7. INFORMATION ON REMOVAL FOR SERVICING

9.7.1. To remove the pillar drill for servicing, first disconnect it from the power supply and ensure all moving parts are secured. Unbolt the drill from its base or workbench, using proper lifting techniques or assistance if needed, as the unit may be heavy. Transport it carefully to avoid damage. For emergency repairs, such as sudden malfunctions or unusual noises, stop use immediately and assess the issue.

Only trained personnel should perform internal repairs; if unsure, contact Sealey Service Centre.

9.8. ADVICE ON WASTE REMOVAL/DISPOSAL

9.8.1. When dismantling the machine for disposal, first disconnect all power sources. Separate recyclable parts like metals, plastics, and electronic components. Disable the machine by removing or damaging essential parts to prevent reuse. Dispose of waste responsibly through authorized recycling centers or waste services, following local regulations to minimize environmental impact.

10. TROUBLESHOOTING

PROBLEM	POSSIBLE CAUSE	SOLUTION
Machine will not start	1. Chuck guard not deployed 2. Belt cover not secure	1. Deploy chuck guard 2. Secure belt cover
Excessive noise	1. Incorrect belt tension 2. Spindle is dry 3. Pulley is loose 4. Bearing damaged	1. Adjust tension 2. Disassemble spindle/quill and lubricate 3. Tighten pulley 4. Replace the bearing
Excessive drill wobble	1. Chuck is loose 2. Bearing or spindle shaft is worn 3. Chuck is worn 4. Drill fitted incorrectly or faulty	1. Refit the chuck (see 5.1.11) 2. Replace worn part 3. Replace the chuck 4. Fit correctly or change drill
Drill binds in the workpiece	1. Feed pressure is wrong 2. Belt is loose 3. Drill bit is loose 4. Speed is too fast	1. Apply less pressure 2. Adjust tension 3. Tighten the chuck jaws with the key 4. Change the speed
Drill burns or smokes	1. Speed is too fast 2. Chips are not discharging 3. Drill bit is blunt 4. Lubrication needed 5. Feed pressure is wrong	1. Change the speed 2. Clean the drill bit 3. Use a new bit 4. Lubricate while drilling 5. Apply less pressure
Table is difficult to raise/lower	1. Lubrication is needed 2. Rack is bent	1. Lubricate with light oil 2. Straighten the rack

ENVIRONMENT PROTECTION

Recycle unwanted materials instead of disposing of them as waste. All tools, accessories and packaging should be sorted, taken to a recycling centre and disposed of in a manner which is compatible with the environment. When the product becomes completely unserviceable and requires disposal, drain any fluids (if applicable) into approved containers and dispose of the product and fluids according to local regulations.

REGISTER YOUR PURCHASE HERE

WEEE REGULATIONS

Dispose of this product at the end of its working life in compliance with the EU Directive on Waste Electrical and Electronic Equipment (WEEE). When the product is no longer required, it must be disposed of in an environmentally protective way. Contact your local solid waste authority for recycling information.

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. Please note that other versions of this product are available. If you require documentation for alternative versions, please email or call our technical team on technical@sealey.co.uk or 01284 757505.
Important: No Liability is accepted for incorrect use of this product.
Warranty: Guarantee is 36 months from purchase date, proof of which is required for any claim.

Jack Sealey Ltd t/a Sealey Group, Kempson Way, Suffolk Business Park, Bury St Edmunds, Suffolk, IP32 7AR UK
Jack Sealey (EU) Ltd t/a Sealey Group, Farney Street, Carrickmacross, Co. Monaghan, A81 PK68 Ireland
Tel: 01284 757500 • **Email:** sales@sealey.co.uk • **Web:** www.sealey.co.uk