

## Original Instruction Manual

# SC3 Geared Scroll Chuck Package & SC4 Professional Geared Scroll Chuck Package



Version 3.6

March 2021



To register this product please visit  
[www.recordpower.info](http://www.recordpower.info)

It is important to register your product as soon as possible in order to receive efficient after sales support and be entitled to the full **5 year guarantee**. Your statutory rights are not affected. Please see back cover for contact details.



Always wear safety glasses when using woodworking equipment.



Always read the instructions provided before using woodworking equipment.

### Important

For your safety read instructions carefully before assembling or using this product.  
Save this manual for future reference.

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# 1. Explanation of Symbols

The symbols and their meanings shown below may be used throughout this manual. Please ensure that you take the appropriate action wherever the warnings are used.

## Mandatory Instructions



Read and fully understand the instruction manual before attempting to use the machine.



Indicates an instruction that requires particular attention



Wear protective eyewear



Use respiratory protective equipment



Use hearing protection



Use suitable protective footwear



Use protective work gloves

## Warnings



Indicates a risk of severe personal injury or damage to the machine



Indicates a risk of severe personal injury from electrical shock



Risk of personal injury from lifting of heavy items



Indicates a risk of severe personal injury from airborne objects



Risk of fire

# 2. General Health & Safety Guidance

**Ensure that you carefully read and fully understand the instructions in this manual before assembly, installation and use of this product. Keep these instructions in a safe place for future reference.**

**WARNING:** for your own safety, do not attempt to operate this machine until it is completely assembled and installed according to these instructions.

**WARNING:** When using any machine, basic safety precautions should always be followed to reduce the risk of fire, electric shock and personal injury.

## Safe Operation

### 1. Use Personal Protective Equipment (PPE)

- The operation of any machine can result in foreign objects being thrown into your eyes, which can result in severe eye damage. Protective eye wear or other suitable eye protection or face shield should be used at all times. Everyday spectacles only have impact resistant lenses. They are not protective eye wear and do not give additional lateral protection.
- Use respiratory protective equipment (dust mask etc.) if the machining operation creates dust. Exposure to high levels of dust created by machining hardwoods, softwoods and man made composite boards can result in serious health problems. Some imported hardwoods give off highly irritating dust, which can cause a burning sensation. The use of respiratory protective equipment should not be seen as an alternative to controlling the risk of exposure at source by using adequate dust extraction equipment.
- The use of ear plugs or ear defenders is recommended when the machine is in use, particularly if the noise level exceeds 85 dB.
- Wear suitable protective gloves when handling cutting tools or blades. Gloves should NOT be worn when using the machine as they can be caught in moving parts of the machine.
- Non-slip safety footwear is recommended when using the machine and handling large work pieces.

### 2. Dress appropriately

- Do not wear loose clothing, neckties or jewellery; they can be caught in moving parts of the machine.
- Roll up long sleeves above the elbow.
- Wear protective hair covering to contain long hair.

### 3. Safety warnings

- Find and read any warning labels on the machine.
- It is important that any labels bearing health and safety warnings are not removed, defaced or covered. Replacement labels can be obtained by contacting our

Customer Service Department.

### 4. Familiarise yourself with the machine

- If you are not thoroughly familiar with the operation of this machine, obtain advice from your supervisor, instructor, or other qualified person or contact your retailer for information on training courses. Do not use this machine until adequate training has been undertaken.

### 5. Take care when moving or positioning the machine

- Some machines can be very heavy. Ensure the floor of the area in which the machine is to be used is capable of supporting the machine.
- The machine and its various components can be heavy. Always adopt a safe lifting technique and seek assistance when lifting heavy components. In some cases it may be necessary to use mechanical handling equipment to position the machine within the work area.
- Some machines have optional wheel kits available to allow them to be manoeuvred around the workshop as required. Care should be taken to install these according to the instructions provided.
- Due to the nature of the design of some machines the centre of gravity will be high making them unstable when moved. Extreme care should be taken when moving any machine.
- If transportation of the machine is required then all precautions relating to the installation and handling of the machine apply. In addition, ensure that any vehicles or manual handling equipment used for transportation are of adequate specification.

### 6. The machine should be level and stable at all times

- When using a leg stand or cabinet base that is designed to be fitted to the machine, always ensure that it is securely fastened to the machine using the fixings provided.
- If the machine is suitable to be used on a workbench, ensure that the workbench is well constructed and capable of withstanding the weight of the machine. The machine should always be securely fastened to the workbench with appropriate fixings.
- Where possible, floor standing machines should always be secured to the floor with fixings appropriate to the structure of the floor.
- The floor surface should be sound and level. All of the feet of the machine should make contact with the floor surface. If they do not, either re-locate the machine to a more suitable position or use packing shims between

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the feet and the floor surface to ensure the machine is stable.

### 7. Remove adjusting keys and wrenches

- Ensure that all adjusting wrenches and keys are removed before switching the machine 'ON'. There is a risk of severe personal injury or damage to the machine from airborne objects.

### 8. Before switching the machine 'ON'

- Clear the machine table of all objects (tools, scrap pieces etc.)
- Make sure there is no debris between the work piece and the table / work support.
- Ensure that the work piece is not pressed against, or touching the saw blade or cutting tool.
- Check all clamps, work holding devices and fences to ensure that they are secure and cannot move during machining operations.
- Plan the way that you will hold and feed the work piece for the entire machining operation.

### 9. Whilst machining

- Before starting work, watch the machine while it runs. If it makes an unfamiliar noise or vibrates excessively, switch the machine 'OFF' immediately and disconnect it from the power supply. Do not restart until finding and correcting the source of the problem.

### 10. Keep the work area clear

- Working clearances can be thought of as the distances between machines and obstacles that allow safe operation of every machine without limitation. Consider existing and anticipated machine needs, size of material to be processed through each machine and space for auxiliary stands and/or work tables. Also consider the relative position of each machine to one another for efficient material handling. Be sure to allow yourself sufficient room to safely operate your machines in any foreseeable operation.
- Cluttered work areas and benches create the risk of accidents. Keep benches clear and tidy away tools that are not in use.
- Ensure that the floor area is kept clean and clear of any dust and debris that may create trip or slip hazards.

### 11. Consider the work area environment

- Do not expose the machine to rain or damp conditions.
- Keep the work area well lit and ensure that there is artificial lighting available when there is insufficient natural light to effectively light the work area. Lighting should be bright enough to eliminate shadow and prevent eye strain.
- Do not use the machine in explosive environments e.g.

in the presence of flammable liquids, gases or dust.

- The presence of high levels of dust created by machining wood can present a risk of fire or explosion. Always use dust extraction equipment to minimise the risk.

### 12. Keep other persons away (and pets)

- The machine is designed to be used by one person only.
- Do not let persons, especially children, touch the machine or extension cable (if used) and keep visitors away from the work area.
- Never leave the machine running unattended. Turn the power supply off and do not leave the machine unattended until it comes to a complete stop.
- If the work area is to be left unattended, all machinery should be switched 'OFF' and isolated from the mains power supply.

### 13. Store machines safely when not in use

- When not in use, machines should be stored in a dry place, out of reach of children. Do not allow persons unfamiliar with these instructions or with the machine to operate it.

### 14. Do not overreach

- Choose a working position that allows your body to remain balanced and feed the work piece in to the machine without overreaching.
- Keep proper footing and balance at all times.

### 15. Electrical supply

- Electrical circuits should be dedicated to each machine or large enough to handle combined motor amp loads. Power outlets should be located near each machine so that power or extension cables are not obstructing high-traffic areas. Observe local electrical guidelines for proper installation of new lighting, power outlets, or circuits.
- The machine must be connected to an earthed power supply.
- The power supply must be equipped with a circuit breaker that provides short circuit, overload and earth leakage protection.
- The voltage of the machine must correspond to the voltage of the mains power supply.
- The mains plug fitted to the machine should always match the power outlet. Do not modify the plug in any way. If a replacement plug is required it should be fitted by a competent person and of the correct type and rating for the machine.
- If you are unsure about any electrical connections always consult a qualified electrician.

# 2. General Health & Safety Guidance

## 16. Avoid unintentional starting of the machine

- Most machines are fitted with a no-volt release (NVR) switch to prevent unintentional starting. If in doubt always ensure the machine switch is in the 'OFF' position before connecting it to the power supply. This means the machine will not automatically start up after a power cut or switching on of the power supply, unless you first reset the start switch.

## 17. Outdoor use

- Your machine should not be used outdoors.

## 18. Extension cables

- Whenever possible, the use of extension cables is not recommended. If the use of an extension cable is unavoidable, then it should have a minimum core cross section of 2.5mm<sup>2</sup> and limited to a maximum length of 3 metres.
- Extension cables should be routed away from the direct working area to prevent a trip hazard.

## 19. Guard against electric shock

- Avoid body contact with earthed or grounded surfaces such as pipes and radiators. There is an increased risk of electric shock if your body is earthed or grounded.

## 20. Always work within the machine's intended capacities

- Operator safety and machine performance are seriously adversely affected if attempts to make the machine perform beyond its limits are made.

## 21. Do not abuse the power cable

- Never pull the power cable to disconnect it from the power socket. Always use the plug.
- Keep the power cable away from heat, oil and sharp edges.
- Do not use the power cable for carrying or moving the machine.

## 22. Secure the work piece

- Ensure that the work piece is securely held before starting to machine it.
- When working within 300 mm of the machining area, always use a push stick to feed the work piece in to the blade or cutting tool. The push stick should have a minimum length of 400 mm. If the push stick becomes damaged, replace it immediately.
- Use extra supports (roller support stands etc.) for any work pieces large enough to tip when not held down to the table top.
- Do not use another person as a substitute for a table extension, or as additional support for a work piece that is longer or wider than the basic table, or to help feed, support, or pull the work piece.

- Do not attempt to machine more than one work piece at a time.
- When feeding the work piece towards the blade or cutting tool never position your hands in direct line of the cutting path. Avoid awkward operations and hand positions where a sudden slip could cause your hand or fingers to move into the machining area.

## 23. Stay alert

- Safety is a combination of operator common sense and alertness at all times when the machine is being used.
- Use all machines with extreme care and do not use the machine when you are tired or under the influence of drugs, alcohol or medication.

## 24. Use the correct tool for the job

- Do not use the machine for any purpose other than which it was designed.
- When selecting replacement cutting tools and blades, always ensure that they are designed to cut the material that you intend to use them for. If in any doubt seek further advice from the manufacturer.

## 25. Connect dust extraction equipment

- Always use dust extraction equipment. The dust extractor should be of suitable size and capacity for the machine that it is connected to and have a filtration level appropriate to the type of waste being collected. Refer to the relevant section of the manual for details of the specific dust extraction requirements for this machine.
- The dust extractor should be switched 'ON' before starting the machine that it is connected to. The dust extractor should be left running for 30 seconds after the last machining operation is complete in order to clear any residual waste from the machine.

## 26. Ensure that the machine is correctly guarded

- Never use the machine if any of the standard safety guards and equipment are removed or damaged.
- Some machines incorporate safety interlocks to prevent the machine from being used without the guards in place. Never attempt to bypass or modify the interlocks to allow the machine to be used without the guards in place.

## 27. Maintain your machine with care

- This manual gives clear instructions on installation, set up and operation of the machine and also details any routine and preventative maintenance that should be performed periodically by the user.
- Remember always to switch off and unplug the machine from the power supply before carrying out any setting up or maintenance operations.
- Follow any instructions for the maintenance of

## 2. General Health & Safety Guidance

accessories and consumables.

- Do not use compressed air to clean the machine. Always use a brush to dislodge dust in places that are awkward to reach and a dust extractor to collect the waste.
- Inspect electric cables periodically and, if damaged, have them replaced by an authorised service facility or qualified electrician.
- Inspect extension cables (if used) periodically and replace if damaged.

### **28. Keep cutting tools sharp and clean**

- Correctly maintained cutting tools are easier to control and less likely to bind.
- Cutting tools and blades can become hot during use. Take extreme care when handling them and always allow them to cool before changing, adjusting or sharpening them.

### **29. Disconnect the machine from the power supply**

- When not in use, before servicing, changing blades etc. always disconnect the machine from the power supply.

### **30. Check for damaged parts**

- Before each use of the machine, it should be carefully checked to determine that it will operate properly and perform its intended function.
- Check for alignment of moving parts, binding of moving parts, breakage of parts and any other conditions that may affect the operation of the machine.
- A guard or other part that is damaged should be properly repaired or replaced by a qualified person unless otherwise indicated in this instruction manual.
- Do not use the machine if the switch does not turn the machine 'ON' and 'OFF'.

- Have defective switches replaced by a qualified person.

### **31. Warning!**

- The use of any accessory or attachment, other than those recommended in this instruction manual, or recommended by our Company may present a risk of personal injury or damage to the machine and invalidation of the warranty.

### **32. Have your machine repaired by a qualified person**

- This machine complies with the relevant safety rules and standards appropriate to its type when used in accordance with these instructions and with all of the standard safety guards and equipment in place. Only qualified persons using original spare parts should carry out repairs. Failure to do this may result in considerable danger to the user and invalidation of warranty.

### **33. Caution! Motor may become hot during use**

- It is normal for motors on some machines to become hot to the touch during use. Avoid touching the motor directly when in use.

# 3. Additional Health & Safety Guidance for Woodturning Lathes

## Safe Operation

### Familiarise yourself with the machine

- Machining operations using wood turning lathes have a history of serious accidents. Most serious accidents resulted from the work piece being thrown from the lathe whilst turning. Other accidents can be caused by loose clothing being drawn in to the rotating work piece or hands becoming trapped between the rotating work piece and fixed parts of the lathe.

### 2. Before switching the machine 'ON'

- Before attaching a work piece to a faceplate, always prepare it to be as round as possible. This will minimise vibration whilst turning. For further instructions please see the section of this manual entitled **Intended Use of the Lathe & Basic Woodturning Instructions**.
- Adjust the tool rest to the correct height and distance from the work piece and check that all fixings are secure.
- Check that the size of the work piece is within the safe working capacities of the lathe as detailed in the manual.
- Select the correct speed according to the size and type of work piece. The slowest speed is the safest speed to start any new work piece.
- Always rotate the work piece by hand before starting the lathe to ensure it does not come into contact with the tool rest. If the work piece strikes the tool rest during operation, it could be split and thrown from the lathe.
- When using a faceplate always ensure the work piece is well secured with screws of a suitable diameter and length.
- Remove any loose knots and bark from the work piece before mounting it to the lathe.
- If mounting a work piece between centres, always ensure that the tailstock is correctly adjusted and fully secure. Check that the locking handle for the tailstock barrel is fully tightened.

### 3. Whilst using the lathe

- Do not allow the turning tool to dig in to the work piece, which could result in the work piece splitting or being thrown from the lathe. Always position the tool rest at the correct height. For further instructions please see the section of this manual entitled **Intended Use of the Lathe & Basic Woodturning Instructions**.
- Before starting to machine a work piece that is off

centre or not perfectly round, always set the machine to the slowest speed and gradually increase speed as the work piece becomes more balanced as material is removed. Running the lathe too fast could cause the work piece to be thrown from the lathe or the turning tool to be snatched from your hands.

- Always store turning tools in a safe place away from the work area of the lathe. Never reach over the rotating work piece to reach for turning tools or accessories.
- Never attempt to adjust the position of the tool rest whilst the machine is running. Always switch the machine 'OFF' and wait until the work piece has stopped rotating before attempting any adjustments.
- Do not mount a work piece that contains excessive splits or loose knots or bark.
- Keep firm hold and control of the turning tool at all times. Use extreme caution when knots and voids are exposed in the work piece.
- Finish all hand sanding before removing the work piece from the lathe. Do not exceed the speed used for the last cutting operation. For further instructions please see the section of this manual entitled **Intended Use of the Lathe & Basic Woodturning Instructions**.
- Do not attempt to remount a work piece that has been turned on a faceplate unless you are deliberately turning eccentric work. You cannot remount faceplate turned work and expect it to run true, as the timber will have expanded or contracted.
- Do not remount a work piece that has been turned between centres if the original centres have been altered or removed, unless you are deliberately turning eccentric work.
- If re-mounting any work piece, always set the machine to the slowest speed and gradually increase the speed as the work piece becomes more balanced as material is removed.
- Use extra caution when mounting a work piece that has been turned between centres to a faceplate, or when mounting a faceplate turning between centres, for subsequent machining operations. Always ensure that the lathe is set to the slowest speed before switching ON.
- Do not attempt to perform any machining operations when holding the work piece by hand.
- Do not mount a reamer, milling cutter, wire wheel, buffing wheel, drill bit or any other tool to the



# 3. Additional Health & Safety Guidance for Woodturning Lathes

headstock spindle.

- Always ensure that the turning tool is in contact with the tool rest and fully supported before applying the tool to the work piece.
- When the tool rest base unit is not in use (e.g. when sanding), it should be moved away from the headstock, and the tool rest removed.

## 4. Maintenance

- Before attempting any maintenance and particularly when cleaning the machine, always remove any accessories and tooling from the machine.
- Always ensure that any accessories used on the lathe are kept clean and free from rust and deposits of resin.
- Keep all turning tools sharp and in good condition. Check that the handles are secure and not split or damaged.

5. This machine falls under the scope of the 'Health & Safety at Work etc. Act 1974', and the 'Provision & Use of Work Equipment Regulations 1998'. In addition the elimination or control of risks from wood dust is included in the above regulations and the 'Control of Substances Hazardous to Health (COSHH) Regulations 2002'. We recommend that you study and follow these regulations.

Further guidance is available from The Health & Safety Executive and their website [www.hse.gov.uk](http://www.hse.gov.uk) and from the authorised distributor in your country (details on back cover of the manual).

# 4. Record Power Guarantee

“**Products**” means the Products sold by Record Power subject to these terms and conditions;

“**Record Power**” is Record Power Limited, whose company registration number is 4804158 and registered office address is Centenary House, 11 Midland Way, Barlborough Links, Chesterfield, Derbyshire, S43 4XA and sells through a network of Authorised Dealers;

“**Authorised Distributor**” is the nominated importer for your region who will generally sell through a network of Authorised Dealers. Details of Authorised Distributors for specific countries can be found in the Product manual or at [www.recordpower.info](http://www.recordpower.info);

“**Authorised Dealer**” is a retailer or business authorised to sell Record Power Products to end users.

## 1 Guarantee

- 1.1 Record Power guarantees that for a period of 5 years from the date of purchase the components of qualifying Products (see clauses 1.2.1 to 1.2.9) will be free from defects caused by faulty construction or manufacture.
- 1.2 During this period Record Power, its Authorised Distributor or Authorised Dealer will repair or replace free of charge any parts which are proved to be faulty in accordance with paragraphs 1.1 above provided that:
  - 1.2.1 you follow the claims procedure set out in clause 2 below;
  - 1.2.2 Record Power, our Authorised Distributor or Authorised Dealer are given a reasonable opportunity after receiving notice of the claim to examine the Product;
  - 1.2.3 if asked to do so by Record Power, its Authorised Distributor or Authorised Dealer, you return the Product, at your own cost, to Record Power’s premises or other approved premises such as those of the Authorised Distributor or supplying Authorised Dealer, for the examination to take place;
  - 1.2.4 the fault in question is not caused by industrial use, accidental damage, fair wear and tear, wilful damage, neglect, incorrect electrical connection, abnormal working conditions, failure to follow our instructions, misuse, or alteration or repair of the Product without our approval;
  - 1.2.5 the Product has been used in a domestic environment only;
  - 1.2.6 the fault does not relate to consumable Products such as blades, bearings, drive belts or other wearing parts which can reasonably be expected

to wear at different rates depending on usage (for full details contact Record Power or your local Authorised Distributor);

- 1.2.7 the Product has not been used for hire purposes, by you or by a previous owner;
- 1.2.8 the Product has been purchased by you as the guarantee is not transferable from a private sale.
- 1.2.9 where the Product has been purchased from a retailer, the 5 year guarantee is transferable and begins on the date of the first purchase of the Product and in the event of a claim under this guarantee proof of the original purchase date will be required to validate the warranty period.

## 2 Claims Procedure

- 2.1 In the first instance please contact the Authorised Dealer who supplied the Product to you. In our experience many initial problems with machines that are thought to be due to faulty parts are actually solved by correct setting up or adjustment of the machines. A good Authorised Dealer should be able to resolve the majority of these issues much more quickly than processing a claim under the guarantee.
- 2.2 Any damage to the Product resulting in a potential claim under the guarantee must be reported to the Authorised Dealer from which it was purchased within 48 hours of receipt.
- 2.3 If the Authorised Dealer who supplied the Product to you has been unable to satisfy your query, any claim made under this Guarantee should be made directly to Record Power or its Authorised Distributor (for details of the Authorised Distributor in your country please see your Product manual or check [www.recordpower.info](http://www.recordpower.info) for details). The claim itself should be made in a letter setting out the date and place of purchase, and giving a brief explanation of the problem which has led to the claim. This letter should then be sent with proof of the purchase date (preferably a receipt) to Record Power or its Authorised Distributor. If you include a phone number or email address this will help to speed up your claim.
- 2.4 Please note that it is essential that the letter of claim reaches Record Power or its Authorised Distributor on the last day of this Guarantee at the latest. Late claims will not be considered.

## 3 Limitation of Liability

- 3.1 We only supply Products for domestic and private use. You agree not to use the Product for any commercial, business or re-sale purposes and we

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have no liability to you for any loss of profit, loss of business, business interruption or loss of business opportunity.

- 3.2** This Guarantee does not confer any rights other than those expressly set out above and does not cover any claims for consequential loss or damage. This Guarantee is offered as an extra benefit and does not affect your statutory rights as a consumer.

### **4 Notice**

This Guarantee applies to all Products purchased from an Authorised Dealer of Record Power within the United Kingdom of Great Britain and Northern Ireland. Terms of Guarantee may vary in other countries – please check with the Authorised Distributor in your country (details of the Authorised Distributor for your country can be found in the manual or at [www.recordpower.info](http://www.recordpower.info)).

# 5. Using the Chuck Safely

1. The machine should be disconnected from the mains power supply when fitting or removing the chuck.
2. Do not run the machine with the chuck mounted unless the workpiece is in position, otherwise the component parts may become dangerously loose.
3. Before starting the machine ensure that the workpiece is firmly secured by the chuck, that there are no loose components in the chuck and that the chuck is firmly secured to the machine spindle nose.
4. Turn the workpiece by hand to ensure that nothing obstructs its rotation, check that all other parts of the machine (especially the tool rest) are firmly clamped.
5. Stand clear of the line of rotation when starting and when first applying the tool. If in doubt about whether it is safe to proceed - stop the machine and check the workpiece to see if it is still secure.
6. The Chuck should never be run in reverse or it could become dangerously loose.
7. Larger workpieces should be run on the slowest speed until the operator is sufficiently experienced to increase the speed safely.
8. When turning be careful not to touch any part of the chuck particularly in the vicinity of the spaces between the jaws.
9. Do not sand a spiral shaped workpiece when the machine is running. This is a very dangerous practice as the spiral acts as a fast feed mechanism directing anything in the spiral along its length.
10. When turning heavy, out of balance timber, security of the mounting is most important. However, since each piece of timber is unique it is difficult to lay down precise rules. It is advised that the newcomer to large diameter turning should gain experience with smaller work to start with - gradually working up to the maximum size that they are interested in. Make frequent checks on the security of the timber, gaining a knowledge of what is adequate and what is not for the particular type of work being done.

# 6. Intended Use of the Lathe

The lathe is designed for turning wood between centres or on the headstock (using appropriate accessories), for sanding and applying finishes to wood. It is not to be used for any other purpose. Doing so may invalidate its warranty and may cause serious harm to the user.

### Health & Safety

Please read the health and safety instructions contained in this manual and the specific health and safety instructions relating to woodturning. In addition, it is recommended to ensure your work area is adequately equipped with dust extraction and air filtration equipment.



Respiratory equipment should also be used to greatly reduce lung exposure to harmful fine dust. Always establish the properties of the timber being turned and take extra care when working with harmful and carcinogenic materials.



Eye protection must always be worn. Due to the nature of woodturning, shavings, dust and splinters can be thrown at fast speeds, making adequate eye protection essential.

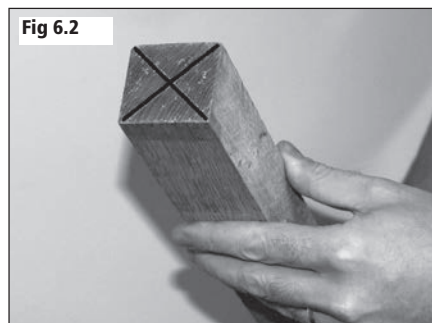
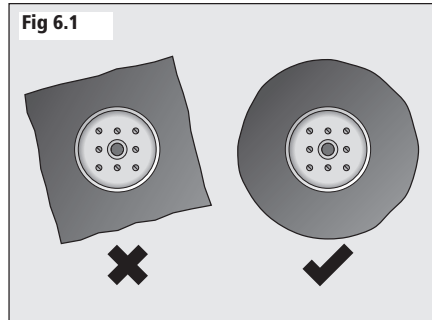
### Mounting Timber to a Faceplate or Chuck

When mounting the workpiece to a faceplate or chuck, it is advisable to shape the timber into as cylindrical a profile as possible, see **fig 6.1**. Turning unbalanced timber increases lathe vibration, the risk of it being thrown from the lathe, increased risk of chisel dig in and makes correct positioning of the tool rest difficult due to variable distances.

### Mounting Timber Between Centres

When turning between centres, it is essential to correctly and securely mount the timber so as to reduce the risk of it being thrown from the lathe. It is also essential to mount the timber as centrally as possible. This will reduce the amount of roughing out needed and also maximise the possible diameter of the final piece.

1. Using a square or rectangular profile blank, draw two lines, one from each opposing diagonal corner to the other, at each end of the blank. The point where the lines intersect indicates the centre of the blank. See **fig 6.2**. If using irregular shaped timber, a centre finder is an invaluable tool.



## 6. Intended Use of the Lathe

2. Take the drive centre supplied with the lathe and place its point directly on to the centre point of one end of the blank. Using a soft mallet (of either plastic, rubber or wood) tap the drive centre with reasonable force until it bites into the timber. See **fig 6.3**.

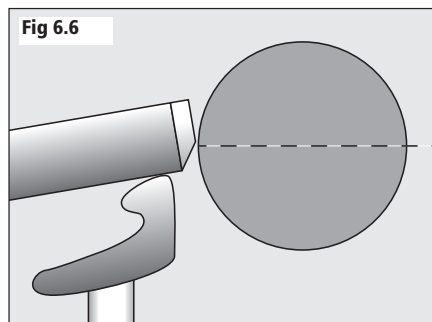
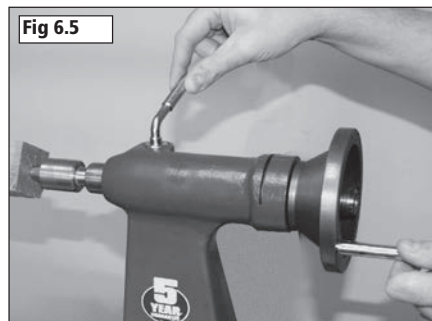
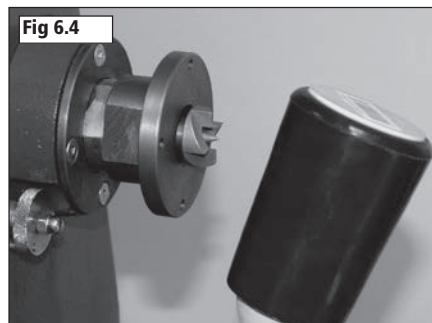
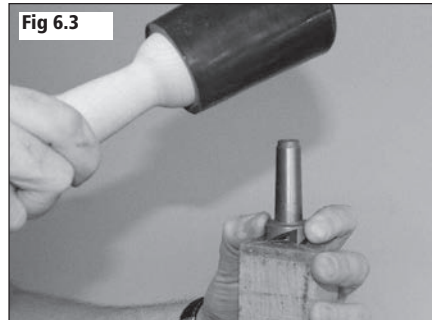
3. Carefully place the drive centre into the headstock spindle of the lathe, **fig 6.4**, and ensure that it is correctly seated in the spindle by tapping it firmly into place with a mallet.

4. Slide the tailstock up the bed until the tailstock centre is almost touching the other end of the blank. Lock the tailstock in position and use the hand wheel to extend the tailstock centre until it grips the blank firmly at the centre point. See **fig 6.5**. Then use the tailstock locking handle to secure the position. The blank is now successfully mounted and ready to be turned.

### Positioning the Tool Rest

It is extremely important to ensure the tool rest is correctly positioned before turning on the lathe. Place the tool rest close to the timber, allowing enough room to manoeuvre the chisel with ease. Spin the timber by hand to ensure it does not come into contact with the tool rest. If the lathe is started without checking this and the timber hits the tool rest, there is a risk the timber could be thrown from the lathe and cause injury. Never attempt to reposition the tool rest while the lathe is in motion.

Tool rest height is also important and varies depending on the chisel being used. When using a roughing gouge, the cutting edge should come into contact with the centre of the workpiece, see **fig 6.6**.



## 6. Intended Use of the Lathe

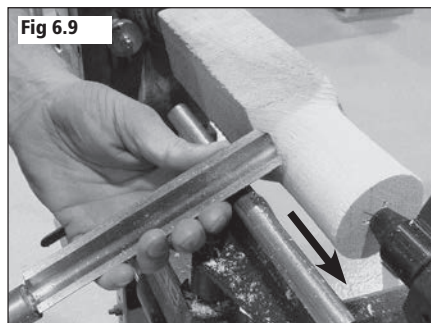
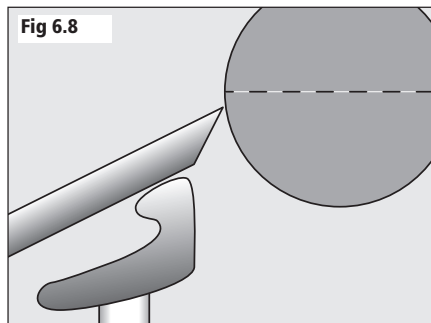
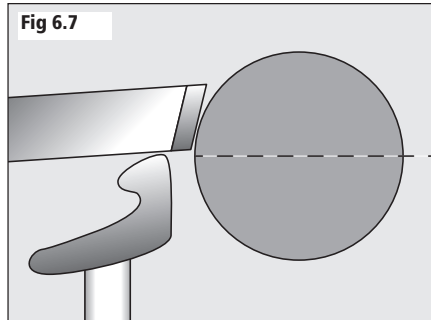
If using a skew chisel, the cutting edge should be applied approximately 3/8" (10 mm) above the centre height, see **fig 6.7**. A spindle gouge's cutting edge should come into contact with the workpiece approximately 3/8" (10 mm) below its centre, see **fig 6.8**.

### Using the Roughing Gouge

The first step when turning between centres is invariably to 'rough out' the blank. This involves taking a square section blank and paring it down with a roughing gouge to a cylindrical profile, ready to shape into the final piece. Roughing gouges are usually sharpened to have the bevel at a 45° angle. Using the tool rest to support the blade, offer the blade to the workpiece at an angle, see **fig 6.9**. When offering the roughing gouge to the workpiece, the bevel should be rubbing it, without cutting. To make a cut, gently raise the handle of the tool in order to bring the cutting edge into contact with the timber. Using light passes, move the blade outwards towards the same edge of the timber which the blade is facing, **fig 6.9**. Never move the tool backwards, as this introduces the risk of splintering the wood and causing injury.

### Using the Spindle Gouge

A spindle gouge is used to shape the final profile of a spindle and is capable of finer work than a roughing gouge. It is designed specifically for cutting coves or valleys. The blade should come into contact with the wood at just below the centre line. Resting it on the tool rest, apply the blade to the workpiece at an angle, see **fig 6.10**, rubbing the bevel onto it. Raise the handle to apply the cutting edge and make cuts. As with the roughing gouge, use controlled and light passes, trying to not remove too much wood at once. Never attempt to use a spindle gouge for working on bowls or hollow form work as the angle of the cutting bevel of the gouge is too shallow and will cause it dig in to the work piece or snatch the tools from your hands.



# 6. Intended Use of the Lathe

## Using the Skew Chisel

Skew chisels are available in both flat and oval profiles. The curved profile is favoured by many as it gives better results more easily. Skew chisels are ideal for creating beads, refining the profiles and can be used to create a final smooth finish to the workpiece. The skew chisel should be applied to the workpiece horizontally with the blade resting on the tool rest, **fig 6.11**, again with the bevel rubbing the workpiece and raising the handle to take careful, controlled cuts.

## Further Operations

The guidelines above give basic instructions on some of the most common woodturning procedures. There are a wide variety of specialised chisels and many complementary accessories available for Record Power lathes which enable a huge variety of work to be created. For further instructions on more advanced safe and effective woodturning, please seek professional training.



## Speeds of the Lathe

To ensure the safest possible use of the lathe, it is important to understand which speeds are suited to which tasks. In general, the slower speeds should be used for the initial turning and roughing out of large pieces and the slowest speed should be used when large pieces are out of balance. This will reduce the possibility of the workpiece being thrown from the lathe.

Medium speeds are ideally suited for general purpose work which doesn't place heavy loads on the spindle of the lathes, for example when creating the profiles of spindles and some smaller bowl turning.

The fastest speeds should be used only for small diameter work, where the size of workpiece is relatively small and therefore poses a lower risk of causing damage. Extra care should be taken when turning at the fastest speeds, using only a relatively light touch.

When sanding, care should be taken to not burn the operator's hands or the workpiece. It is recommended to not exceed the speed used for the last turning operation. If in doubt, use a slow speed.



# 7. Contents of the Packages

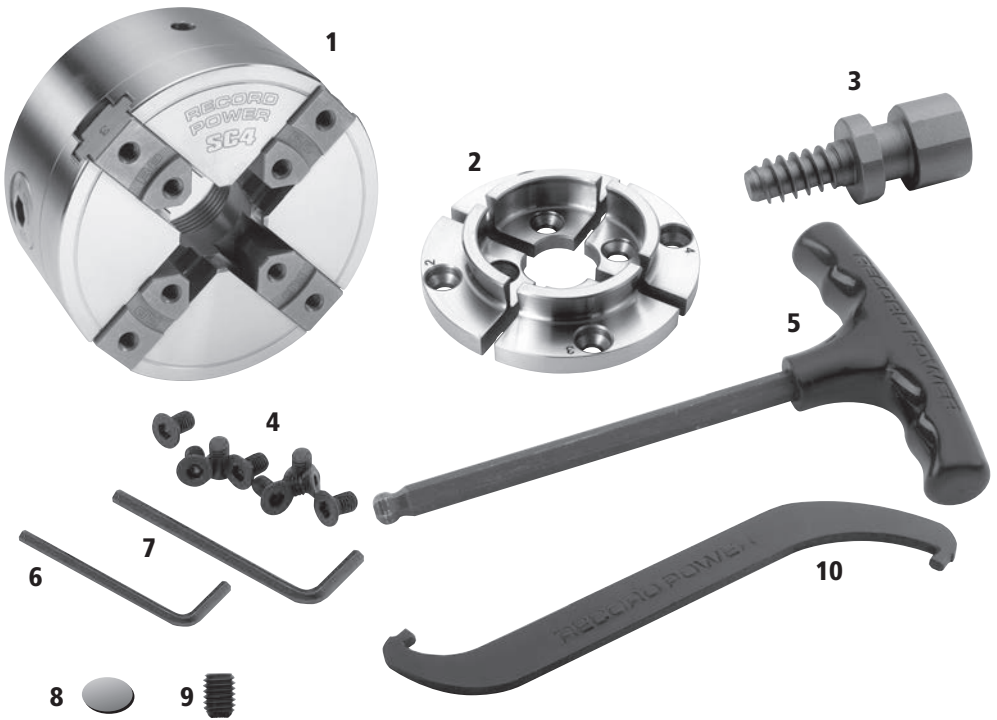
## SC3 Geared Scroll Chuck Package



- 1 SC3 Geared Scroll Chuck
- 2 Standard Jaws 50 mm (2")
- 3 Deep wood screw
- 4 M6 x 10 mm countersunk head hex socket screws x 8
- 5 4 mm hex wrench
- 6 3 mm hex wrench
- 7 SC3 chuck key
- 8 M6 x 6 mm blind set screw
- 9 Protective leather disc

# 7. Contents of the Packages

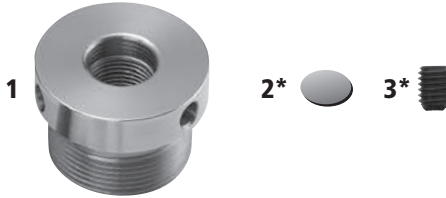
## SC4 Professional Geared Scroll Chuck Package



- 1 SC4 Professional Geared Scroll Chuck
- 2 Standard Jaws 50 mm (2")
- 3 Deep wood screw
- 4 M6 x 10 mm countersunk head hex socket screws x 8
- 5 SC4 chuck hex key
- 6 3 mm hex wrench
- 7 4 mm hex wrench
- 8 Protective leather disc
- 9 M6 x 6 mm blind set screw
- 10 Insert spanner

# 7. Contents of the Packages

## Chuck Insert



- 1 Chuck insert
- 2 Protective leather disc\*
- 3 M6 x 6 mm blind set screw\*

\*The blind set screw and protective disc are only supplied with inserts of the following thread sizes:

- 62125** Thread Adaptor RH M33 x 3.5 ISO
- 62126** Thread Adaptor 3/4" Plain Bore
- 62132** Thread Adaptor 1-1/4"x8 TPI UNS-RH for DVR-XP & 1624-44 Lathes
- 62133** Thread Adaptor 1" x 8 TPI UNC RH
- 62134** Thread Adaptor 5/8" Plain Bore

The chuck inserts are available in the following thread sizes:

- |   |  |
|---|--|
| <b>62112</b> Thread Adaptor M20 x 2 RH  | <b>62133</b> Thread Adaptor 1" x 8 TPI UNC RH                |
| <b>62113</b> Thread Adaptor M20 x 1.5 RH                                      | <b>62134</b> Thread Adaptor 5/8" Plain Bore                  |
| <b>62115</b> Thread Adaptor 7/8"x 12 TPI UN LH                                | <b>62135</b> Thread Adaptor 3/4" x 16 TPI BSW RH             |
| <b>62125</b> Thread Adaptor RH M33 x 3.5 ISO                                  | <b>62136</b> Thread Adaptor 3/4" x 10 TPI BSW RH             |
| <b>62126</b> Thread Adaptor 3/4" Plain Bore                                   | <b>62137</b> Thread Adaptor M24 x 3 RH                       |
| <b>62127</b> Thread Adaptor 1-1/8" x 8 TPI UNC RH                             | <b>62152</b> Thread Adaptor M18 x 2.5 RH                     |
| <b>62128</b> Thread Adaptor 3/4" x 16 TPI UNF RH                              | <b>62157</b> Thread Adaptor Blank. Can be bored up to 30 mm  |
| <b>62129</b> Thread Adaptor 1" x 10 TPI BSF RH                                | <b>62159</b> Thread Adaptor 1" x 8 TPI LH & RH Dual Threaded |
| <b>62130</b> Thread Adaptor RH M30 x 3.5 RH                                   | <b>62160</b> Thread Adaptor 7/8"x14 TPI RH                   |
| <b>62131</b> Thread Adaptor 1" x 12 TPI UNF RH                                | <b>62161</b> Thread Adaptor M25 x 2 RH                       |
| <b>62132</b> Thread Adaptor 1-1/4" x 8 TPI UNS-RH for DVR-XP & 1624-44 Lathes | <b>62162</b> Thread Adaptor 1-1/4" x 8 TPI UNS RH            |

# 8. Operation

The SC3 and SC4 chucks are supplied with a protective oil coating to all components to inhibit rust. Remove this oil using white spirit or a similar de-greasing product before use.

The SC3 chuck is available either as an insert version or with direct thread to its rear which corresponds with a compatible lathe. This means the chuck can be threaded directly onto the lathe spindle as shown in **Fig 8.1**, ensuring the chuck is threaded far enough onto the spindle to allow its back face to meet the face of the shoulder on the spindle nose. Before fitting the chuck to the lathe, ensure the threads match.

The direct thread M33 x 3.5 and 1" x 8 TPI thread SC3s can be used on a lathe capable of reverse turning as they feature tapped holes in the chuck bodies which allow them to be secured by a blind set screw to the lathe spindle. If the lathe is to be used in reverse, the chuck must be secured to the spindle to prevent it from coming loose during operation. When the chuck is fully threaded onto the lathe spindle, place the protective leather pad in the hole on the side of the chuck, thread in the M6 x 6 blind set screw and tighten, **Fig 8.2**.

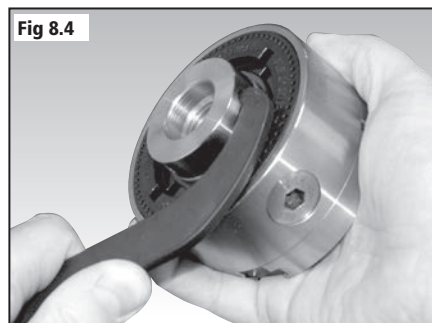
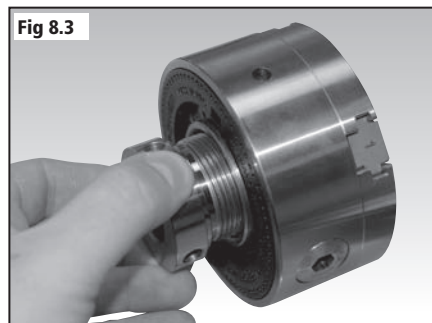
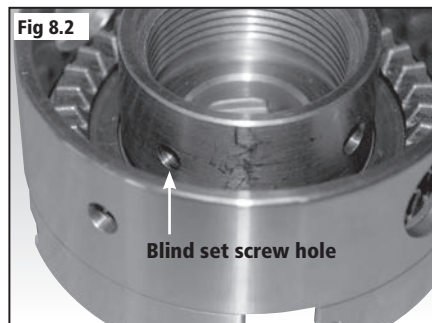
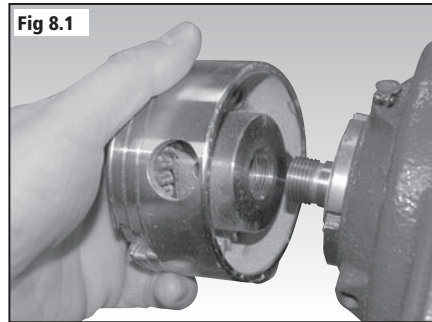


**Warning: Only use the M33 x 3.5 or 1" x 8 TPI thread versions of the SC3 for reverse turning. The 3/4" x 16 TPI does not feature a tapped hole for securing screw and cannot be used safely if the lathe direction is reversed.**

The SC3 insert version and SC4 chucks are supplied with an insert to suit the lathe they are to be used on. Before use, the insert must be fitted and secured to the rear of the chuck body, which features an M40 x 2 pitch thread to accept the insert.

Ensure the threads of the chuck body and insert are clean and free from any dust or debris then carefully thread the insert into the rear of the chuck, **Fig 8.3**, until the collar of the insert is touching the chuck body and tighten using the insert spanner, **Fig 8.4**.

The blind set screw supplied with the chuck must now be used to secure the insert to the chuck body. In normal use the chuck insert will be further tightened into the chuck body due to the direction of the spindle's rotation. However, if the lathe will be used in reverse, the blind set screw ensures the insert will not come loose.



# 8. Operation

On the side of the chuck body is a hole for the blind set screw, **Fig 8.5**. The rear of the SC4 also features a slot which allows access to the hole from the rear, to help with positioning the blind set screw, **Fig 8.5**.

Insert the protective leather disc into the hole, ensuring it is positioned to be touching the insert thread as shown in **Fig 8.6**.



**Warning: It is essential that the protective leather disc is used in order to stop the insert thread being damaged by the blind set screw.**

Insert the blind set screw so it is positioned as shown in **Fig 8.6** (SC4 shown), with the hex socket facing towards the outside of the chuck.

Tighten the blind set screw to hold the chuck insert in place using the 3 mm hex wrench.

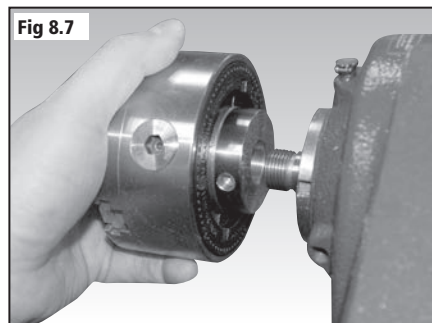
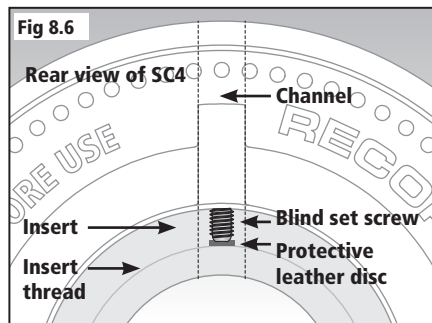
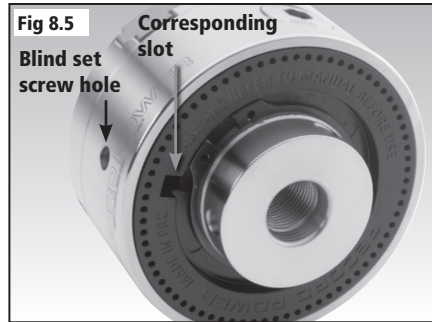
The chuck can now be mounted to the lathe as shown in **Fig 8.7** by threading it carefully onto the spindle until the insert meets the face of the shoulder on the spindle nose.

Inserts with certain thread sizes feature a tapped hole on their collar and are supplied with a protective leather disc and M6 x 6 mm blind set screw. This allows the insert to be secured to the lathe spindle, meaning the chuck can be used on a lathe capable of reverse turning. See the chapter **Contents of the Packages** for a list of these inserts.

If the lathe is to be used in reverse, the chuck must be secured to the spindle to prevent it from coming loose during operation. When the chuck is fully threaded onto the lathe spindle, place the protective leather pad in the hole on the side of the insert, thread in the M6 x 6 blind set screw and tighten, **Fig 8.8**.



**Warning: Only use the specified inserts for reverse turning. Inserts which do not feature a tapped hole for a securing screw cannot be used safely if the lathe direction is reversed.**



# 8. Operation

## Fitting the Standard Jaws to the SC3 & SC4

Before use, a set of jaws must be secured to the chuck body. The chuck slides are numbered as shown in **Fig 8.9**. Each jaw is also numbered as shown in **Fig 8.10**.

Both chucks use a geared scroll mechanism to adjust the positions of the slides. The SC3 is controlled using a key with a pinion to turn the scroll, as shown in **Fig 8.11**.

The SC4 uses an 8 mm hex wrench key to adjust the jaws, as shown in **Fig 8.12**.

In both cases, the keys must be turned clockwise to close the jaws and anti-clockwise to open them.



**Please note: There is a stop on jaw slide number 1 which stops the jaws from coming away from the body of the chuck. On reaching the fully open position, never try and force the jaws to open further.**

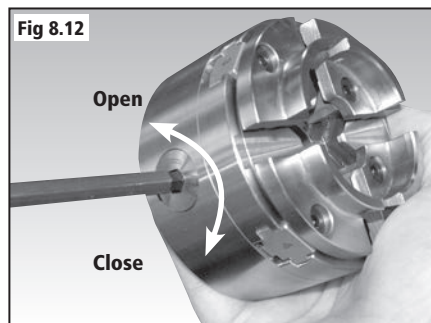
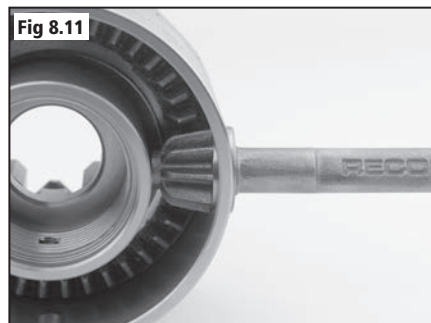
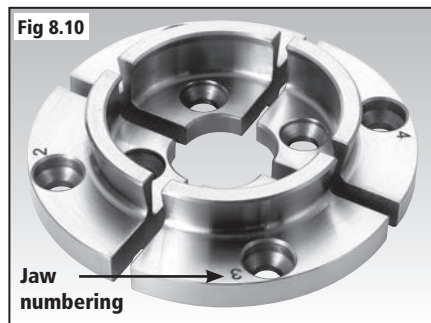
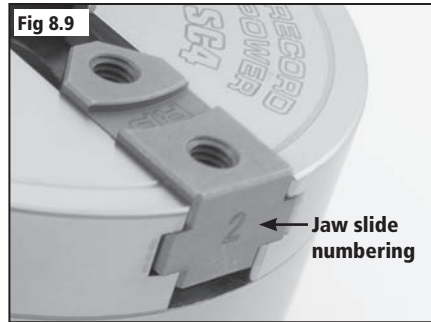


**Warning: When using the standard jaws or the deep wood screw, always start the lathe at the lowest possible speed. Only increase the speed of the lathe if you are confident this will not risk the workpiece coming away from the chuck. For further information please see the chapter of this manual entitled Intended Use of the Lathe or seek professional tuition.**

**Important: The standard 50 mm (2") jaws are designed to be general purpose and are very flexible. However, they are not suitable for all woodturning tasks. Record Power offer a full range of optional jaws suitable for a wide variety of applications. Always ensure the correct type of jaws are being used to maximise user safety.**

Before attaching the jaws, ensure they are clean and that the chuck body is also clean and free from debris.

It is also advisable to apply a little lubricant to the M6 x 6 mm countersunk head hex socket screws to reduce the risk of them becoming rusted to the chuck body if left attached for a long time in a damp environment.



# 8. Operation



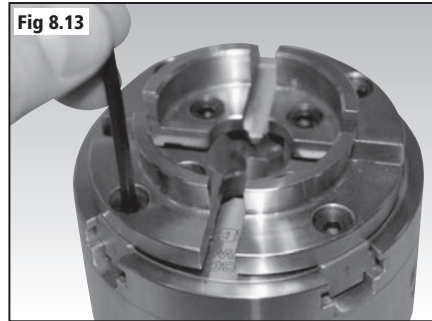
### Important

**Both the SC3 and SC4 chucks are made to very tight tolerances to ensure extremely accurate performance. On both chucks the permissible axial run-out is 0.1 mm and the permissible radial run-out is 0.15 mm. To ensure the chucks perform as accurately as possible, the jaws must be mounted correctly so as to minimise run-out.**

Match each jaw with its corresponding slide and carefully attach them as shown in **Fig 8.13**. Only loosely secure the jaws so that some movement is possible.

Now close the jaws together fully and they will self-centralise on the jaw slides and perform with optimum accuracy. Tighten the screws to complete installation.

Once the jaws are attached to the chuck body, thread the chuck onto the lathe spindle as previously shown.



**Warning: Before turning any workpiece using any method described in this manual, ensure the timber is free from any cracks, splits or other defects which may cause it to break apart during turning. Also ensure that the workpiece is securely held by the chuck before turning is carried out.**



### Compatibility with Other Manufacturers' Chuck Jaws

The RECORD POWER SC range is a completely new and exclusive system designed to improve on the systems we sold previously. However, to minimise any redundancy for customers of the previously sold 'RECORD POWER - NOVA Series' G3 or Supernova 2 range, our new improved system has been designed to use the same jaw mount profile, making it possible to still utilise jaws from the previous system where required. However it is important to note the following:

### Safety

It is important that the mounting system described in this manual is followed fully. If you follow the described process but the jaws (from any manufacturer) do not locate properly on the jaw slide, do not centre correctly when fitted as per these instructions or will not tighten

# 8. Operation

down securely after centring then those jaws should not be used until the problem has been investigated and resolved.

NOVA chucks open and close with reverse operation to RECORD POWER SC chucks. Our control direction has been designed to be more intuitive. So if you try to fit NOVA jaws to RECORD POWER SC chucks it is important to remember that the jaw numbering on NOVA jaws will be different to the jaw numbering on RECORD POWER SC jaws and jaw slides.

## Fitting NOVA to RECORD POWER SC Chucks

NOVA jaws 1 and 3 should still be matched to jaw slides 1 and 3 on the RECORD POWER SC chuck as you would with RECORD POWER jaws. However, jaw 2 should be mounted on slide 4 and jaw 4 should be mounted on slide 2 (this is the opposite of mounting RECORD POWER jaws to RECORD POWER SC chucks – in which case the jaw numbers match the jaw slides exactly).

Other manufacturers have also made chucks and jaws with the same mounting specification – So if attempting to use other manufacturers' jaws, try and establish the direction of travel the jaw slide control uses as follows:

**RECORD POWER SC Chucks** – The chuck key is turned clockwise to close the jaw slides and anti-clockwise to open the jaw slides. Manufacturers with the same direction of travel on their chuck and jaws with same mount may be possible to use with RECORD POWER SC chucks and if the direction of travel is the same – jaw numbers should match slide numbers. But make sure you follow the fitting instructions and check security of fit before use and if in any doubt as to the integrity of another manufacturer's component, check with them before use.

**NOVA Chucks** – The chuck key is turned anti-clockwise to close the jaw slides and clockwise to open the jaw slides. Other manufacturers may use the same system. In this case Jaws 1 and 3 should be matched to jaw slides 1 and 3 but Jaw 4 should be fitted to jaw slide no 2 and jaw 2 should be fitted to jaw slide no 4.

Record Power use CNC machining, powder metallurgy and the correct engineering materials and processes to provide the tolerances and physical attributes suitable for intended woodturning applications. We have high QC standards and guarantee that when used as per guidance in the manual, our jaws, jaw slides and chucks will perform without problems – even with properly fitted components from other manufacturers. However, it is

important to note that we are guaranteeing the integrity of our own components in these circumstances – i.e. that the Record Power components will not fail. However, it is not possible for us to guarantee the quality or integrity of other manufacturers' components. If in any doubt, please check first with other manufacturers as to the specifications and quality control they can guarantee for their products.



**For detailed instructions on the use of the full range of jaws please see the relevant section of this manual.**



# 9. Maintenance

The SC3 and SC4 require very little maintenance. Inspect them regularly for signs of wear or damage. If necessary, replace any worn or damaged components before attempting to use the chuck.

Depending on the amount of use, both chucks may require occasional cleaning, particularly the SC3 which has an open back. Regularly check the gear to the rear of the SC3 for dust and debris, cleaning if necessary, as described below.

The SC4's backing plate protects the gear and pinions from dust and debris but over time fine dust may accumulate around them. To prevent this happening, it is advisable to inspect the chuck occasionally and clean if necessary.



**Please note: If either the SC3 or SC4's gears become stiff and difficult to turn this will most likely be due to the accumulation of dust and debris. It is advisable to clean the chucks to resolve this problem. If the problem is still present after cleaning then please contact Record Power customer services in your country.**

## Cleaning the SC3

Remove the circlip which holds the scroll gear in the chuck body using a pair of circlip pliers as shown in **Fig 9.1**.



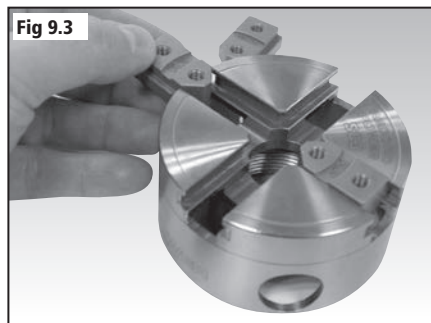
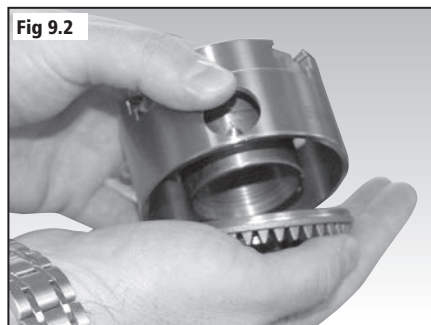
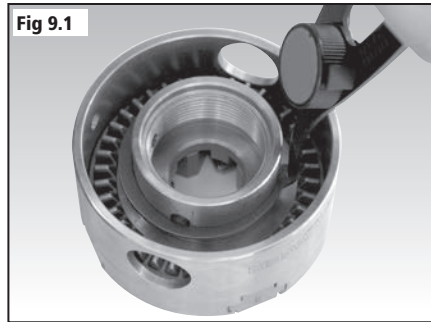
**Warning: Wear eye protection when removing the circlip as it may fly from the pliers.**

Carefully turn the chuck body to face upwards. This will allow the scroll gear to drop from the chuck body. Ensure it is caught to prevent any damage, **Fig 9.2**.

Remove all 4 jaw slides as shown in **Fig 9.3** by carefully pulling them away from the chuck body.

Once the chuck is fully disassembled, remove all grease, dust and debris from the components.

Once clean, apply a generous amount of fresh standard multi-purpose grease to the scroll gear before re-assembling the chuck.



# 9. Maintenance

## Re-Assembling the SC3



**Important: When re-fitting the jaw slides, do so in numerical ascending order in an anti-clockwise direction.**

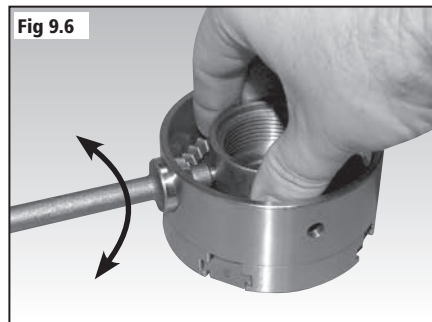
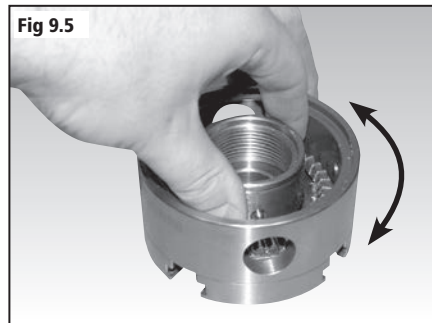
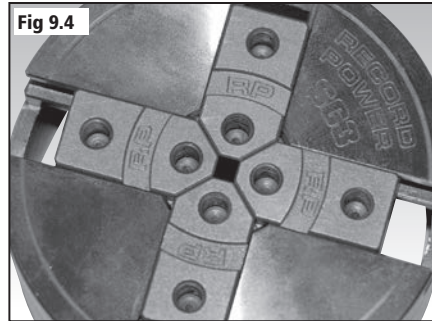
Refit the jaw slides. They must be re-fitted in an anti-clockwise direction in order for the scroll gear to register correctly with the jaw slides. The slides do not have a corresponding socket on the chuck body, so any socket can be used to start from.

Before re-fitting the scroll gear, ensure the jaws are symmetrically positioned as far inwards as possible as shown in **Fig 9.4**.

With the chuck positioned face down, place the scroll gear back into the chuck body and twist from side to side until it drops into position, **Fig 9.5**.

To check that the scroll gear has registered correctly with the jaw slides, move the scroll gear by hand whilst applying downwards pressure to it to observe the movement of the jaw slides. If additional pressure is required to move the jaw slides, hold the scroll gear in position by hand and turn it using the chuck key, **Fig 9.6**.

Once the scroll gear is positioned correctly, check that the jaw slides are still positioned symmetrically then refit the circlip.



# 9. Maintenance

## Cleaning the SC4

Remove the blind set screw and protective leather disc which secure the insert to the chuck body.



**Warning: Failure to do so can cause damage to the insert thread.**

Remove the chuck insert. This is not absolutely necessary but doing so will improve access to the chuck's backing plate.

Remove the circlip which holds the backing plate in the chuck body using a pair of circlip pliers as shown in **Fig 9.7**.

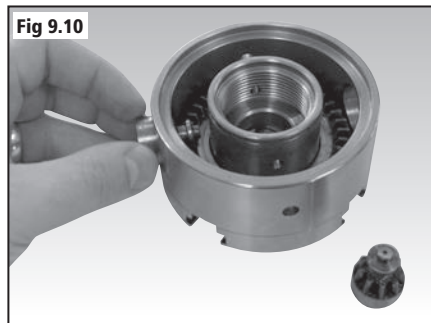
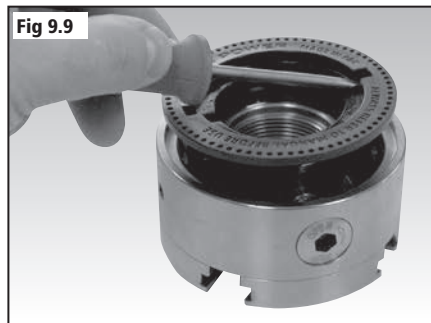
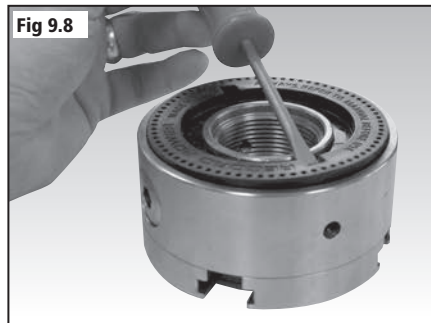
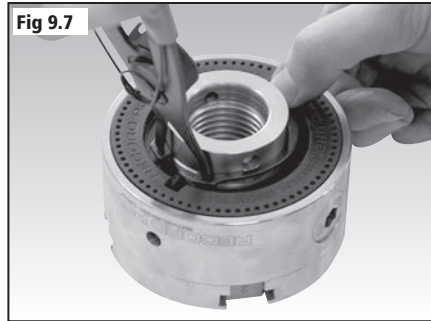


**Warning: Wear eye protection when removing the circlip as it may fly from the pliers.**

To remove the chuck's backing plate, place a flat head screwdriver into one of the notches as shown in **Fig 9.8** and carefully lift to release the plate. It may also be necessary to raise the plate using the opposite notch to gain sufficient leverage.

Once loosened, carefully remove the backing plate as shown in **Fig 9.9**.

Remove the pinions as shown in **Fig 9.10**. This can be done either by hand or using a flat head screwdriver or similar implement.



# 9. Maintenance

Carefully turn the chuck body to face upwards. This will allow the scroll gear to drop from the chuck body. Ensure it is caught to prevent any damage, **Fig 9.11**.

Remove all 4 jaw slides as shown in **Fig 9.12** by carefully pulling them away from the chuck body.

Once the chuck is fully disassembled, remove all grease, dust and debris from the components.

Apply a generous amount of fresh standard multi-purpose grease to the scroll gear and pinions before re-assembling the chuck.

## Re-Assembling the SC4



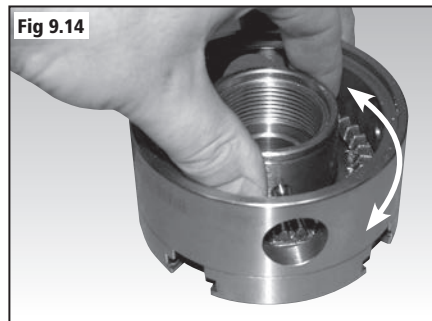
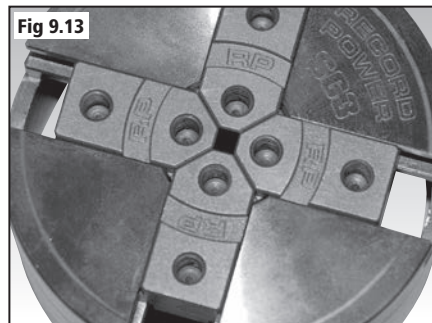
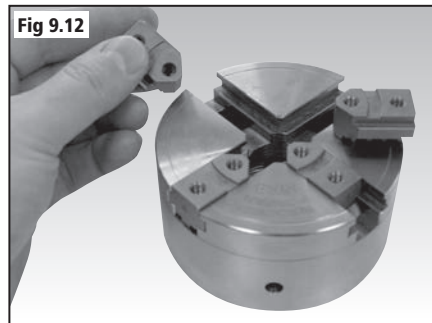
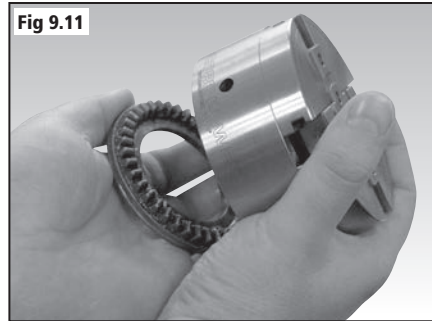
**Important: When re-fitting the jaw slides, do so in numerical ascending order in an anti-clockwise direction.**

Refit the jaw slides. They must be re-fitted in an anti-clockwise direction in order for the scroll gear to register correctly with the jaw slides. The slides do not have a corresponding socket on the chuck body, so any socket can be used to start from.

Before re-fitting the scroll gear, ensure the jaws are symmetrically positioned as far inwards as possible as shown in **Fig 9.13**.

With the chuck positioned face down, place the scroll gear back into the chuck body and twist from side to side until it drops into position, **Fig 9.14**.

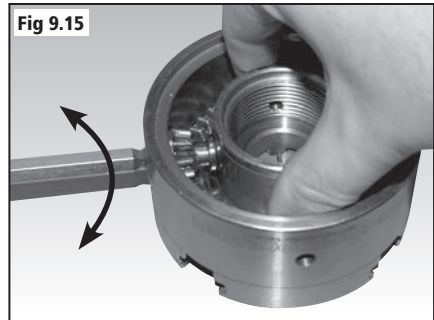
Place the pinions back in position through the holes in the side of the chuck body.



## 9. Maintenance

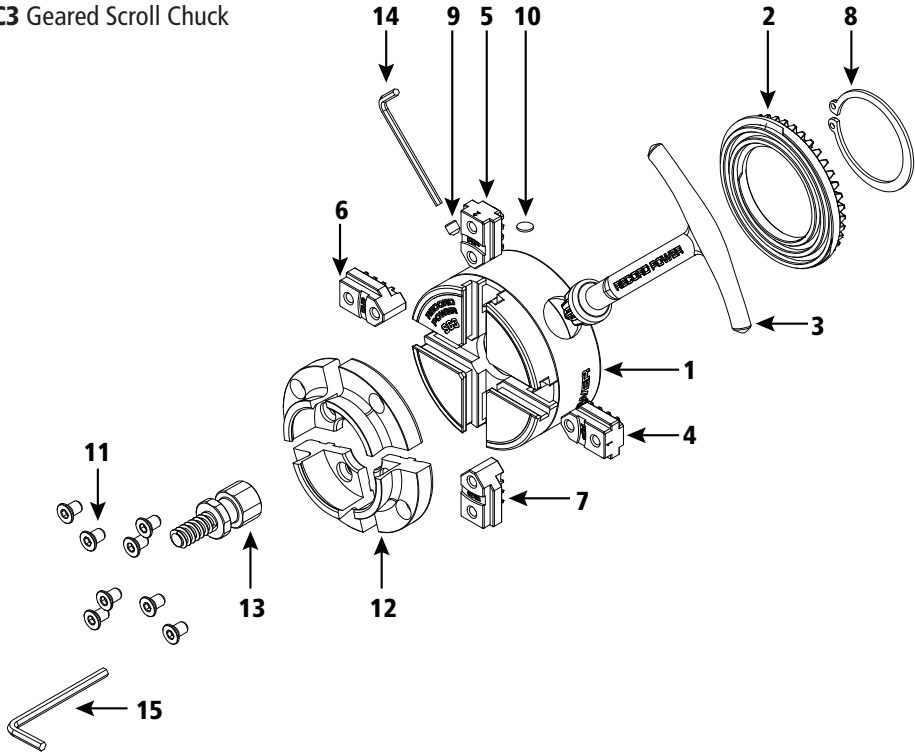
To check that the scroll gear has registered correctly with the jaw slides, move the scroll gear by hand whilst applying downwards pressure to it to observe the movement of the jaw slides. If additional pressure is required to move the jaw slides, hold the scroll gear in position by hand and turn it using the chuck key, **Fig 9.15**.

Once the scroll gear is positioned correctly, check that the jaw slides are still positioned symmetrically then refit the circlip.



# 10. Parts Lists & Diagrams

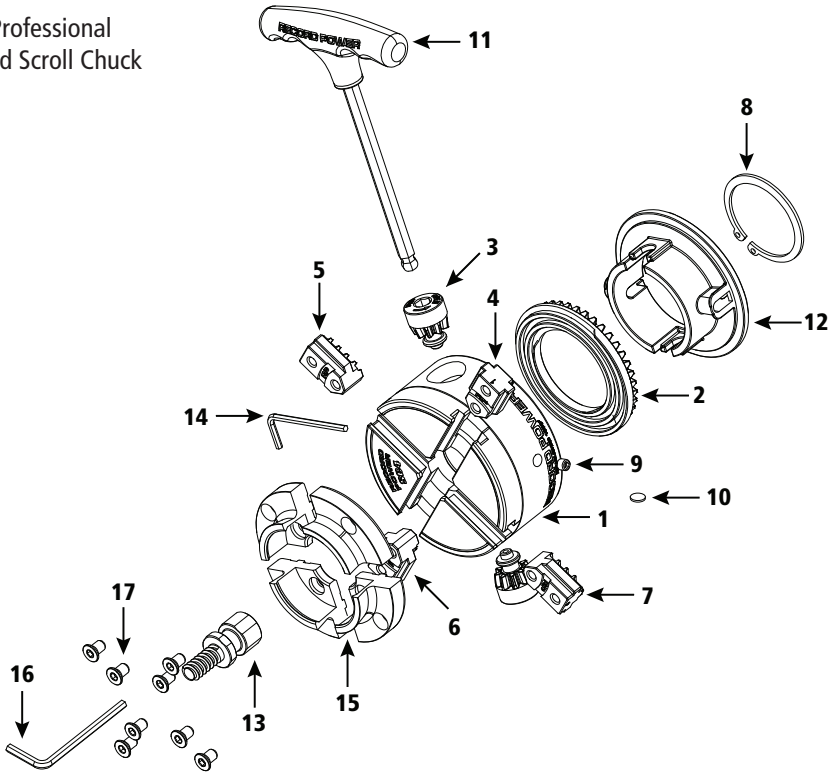
## SC3 Geared Scroll Chuck



Part Number	Description	Quantity
1	61028 Chuck body RH 3/4" 16 TPI UNF	1 } One version only supplied
	61025 Chuck body RH M33 x 3.5 ISO	
	61033 Chuck body RH 1" 8 TPI UNC	
2	66032 Scroll gear	1
3	61016 Pinion chuck key	1
4	62023 Jaw slide 1	1
5	62024 Jaw slide 2	1
6	62025 Jaw slide 3	1
7	62026 Jaw slide 4	1
8	EC50 Circlip	1
9	GC0606 M6 x 6 mm blind set screw	1
10	3379 Protective leather disc	1
11	CH0610 M6 x 10 mm countersunk head hex socket screws	8
12	62313 Standard jaw set	1
13	62833 Deep wood screw	1
14	AK03 3 mm hex wrench	1
15	AK04 4 mm hex wrench	1

# 10. Parts Lists & Diagrams

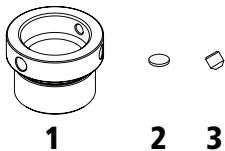
## SC4 Professional Geared Scroll Chuck



Part Number	Description	Quantity
1	66035 Chuck body	1
2	66032 Scroll gear	1
3	66016 Pinion	2
4	62023 Jaw slide 1	1
5	62024 Jaw slide 2	1
6	62025 Jaw slide 3	1
7	62026 Jaw slide 4	1
8	EC50 Circlip	1
9	GC0606 M6 x 6 mm blind set screw	1
10	3379 Protective leather disc	1
11	3326 8 mm T handle hex wrench	1
12	3313 Backing plate	1
13	62833 Deep wood screw	1
14	AK03 3 mm hex wrench	1
15	62313 Standard jaw set	1
16	AK04 4 mm hex wrench	1
17	CH0610 M6 x 10 mm countersunk head hex socket screws	8

# 10. Parts Lists & Diagrams

## Chuck Insert



- 1 Chuck insert
- 2 Protective leather disc\*
- 3 M6 x 6 mm blind set screw\*

\*The blind set screw and protective disc are only supplied with inserts of the following thread sizes:

- 62125** Thread Adaptor RH M33 x 3.5 ISO
- 62126** Thread Adaptor 3/4" Plain Bore
- 62132** Thread Adaptor 1-1/4" x 8 TPI UNS-RH for DVR-XP & 1624-44 Lathes
- 62133** Thread Adaptor 1" x 8 TPI UNC RH
- 62134** Thread Adaptor 5/8" Plain Bore

The chuck inserts are available in the following thread sizes:

- |   |  |
|---|--|
| <b>62112</b> Thread Adaptor M20 x 2 RH  | <b>62133</b> Thread Adaptor 1" x 8 TPI UNC RH                |
| <b>62113</b> Thread Adaptor M20 x 1.5 RH                                      | <b>62134</b> Thread Adaptor 5/8" Plain Bore                  |
| <b>62115</b> Thread Adaptor 7/8" x 12 TPI UN LH                               | <b>62135</b> Thread Adaptor 3/4" x 16 TPI BSW RH             |
| <b>62125</b> Thread Adaptor RH M33 x 3.5 ISO                                  | <b>62136</b> Thread Adaptor 3/4" x 10 TPI BSW RH             |
| <b>62126</b> Thread Adaptor 3/4" Plain Bore                                   | <b>62137</b> Thread Adaptor M24 x 3 RH                       |
| <b>62127</b> Thread Adaptor 1-1/8" x 8 TPI UNC RH                             | <b>62152</b> Thread Adaptor M18 x 2.5 RH                     |
| <b>62128</b> Thread Adaptor 3/4" x 16 TPI UNF RH                              | <b>62157</b> Thread Adaptor Blank. Can be bored up to 30 mm  |
| <b>62129</b> Thread Adaptor 1" x 10 TPI BSF RH                                | <b>62159</b> Thread Adaptor 1" x 8 TPI LH & RH Dual Threaded |
| <b>62130</b> Thread Adaptor RH M30 x 3.5 RH                                   | <b>62160</b> Thread Adaptor 7/8" x 14 TPI RH                 |
| <b>62131</b> Thread Adaptor 1" x 12 TPI UNF RH                                | <b>62161</b> Thread Adaptor M25 x 2 RH                       |
| <b>62132</b> Thread Adaptor 1-1/4" x 8 TPI UNS-RH for DVR-XP & 1624-44 Lathes | <b>62162</b> Thread Adaptor 1-1/4" x 8 TPI UNS RH            |



# 11. General Jaw Use

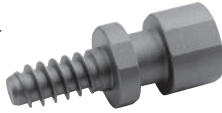
## Using the Deep Wood Screw

The **62833** Deep Wood Screw supplied with the SC3 and SC4 chucks is designed to be held by the following jaws:

**62321** 35 mm Standard Jaws

**62313** 50 mm Standard Jaws

**62317** 130 mm Dovetail Jaws



The **62832** Long Deep Wood Screw is designed to be held by the following jaws:

**62329** 100 mm Dovetail and Deep Gripper Jaws

**62322** 75 mm Heavy Bowl and Gripper Jaws

The purpose of the deep wood screw is to allow the secure initial mounting of the workpiece, such as a bowl blank.

The collar of the screw must be protruding from the jaws' interior surface as shown in **Fig 11.1** so that the jaws can hold the screw by the shank.

Ensure that the flattened areas of the deep wood screw collar are positioned to mate with the jaw slides as shown in **Fig 11.2** and tighten the jaws around the screw. **Fig 11.3** shows the chuck from the rear.

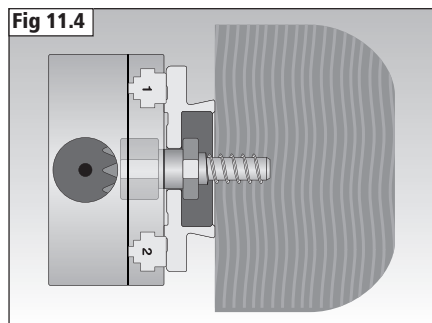
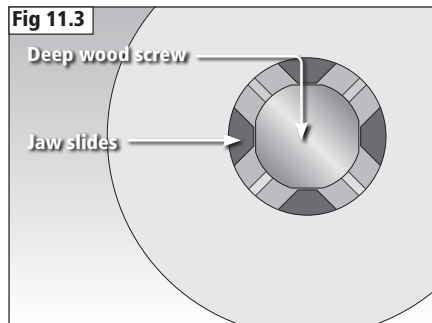
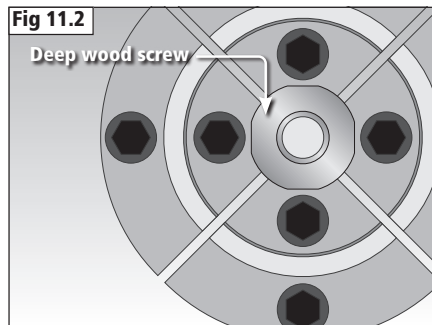
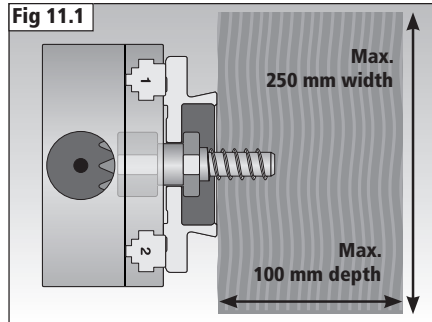
Find the centre point of the workpiece and drill a 7 mm ( $\frac{9}{32}$ " ) for soft wood or 8 mm ( $\frac{5}{16}$ " ) wide hole in the centre point, and to a depth of 17 mm ( $\frac{6}{10}$ " ).

Screw the workpiece onto the deep wood screw until it meets the jaws as shown in the cross section of **Fig 11.1**.

The outside of the bowl can now be turned as shown in **Fig 11.4**.



**Warning:** Only use the deep wood screw for workpieces up to 250 mm (10") in diameter and 100 mm (4") in depth, Fig 11.1.



# 11. General Jaw Use

Turn either a recess or a spigot on the base of the bowl. This will be used to hold the chuck in the jaws to allow turning of the inside.

## Turning a Recess

The diameter of the recess should ideally allow the chuck jaws to open slightly from their fully closed position. This gives the greatest surface area contact and strongest grip. Larger diameters give less contact and grip, see **Fig 11.5**.

Create a deeper recess for larger work to increase the grip of the jaws.

Turn the recess at an angle to match the outside dovetail profile of the jaws being used as shown in **Fig 11.6** then mount to the jaws and turn the inside surface.

## Turning a Cylindrical Spigot

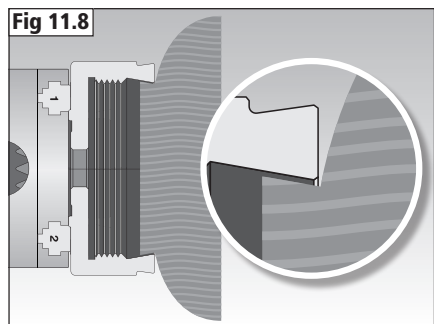
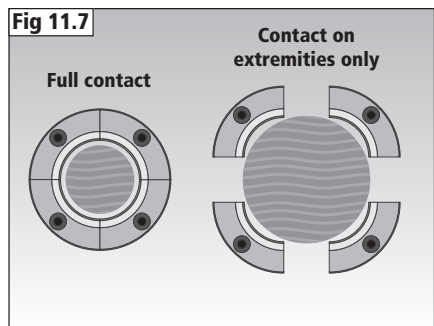
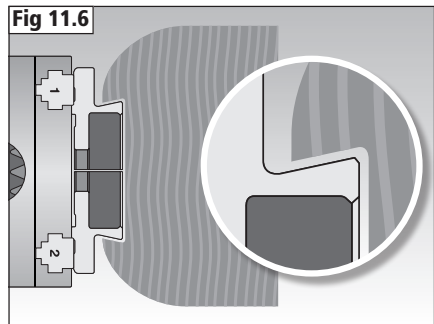
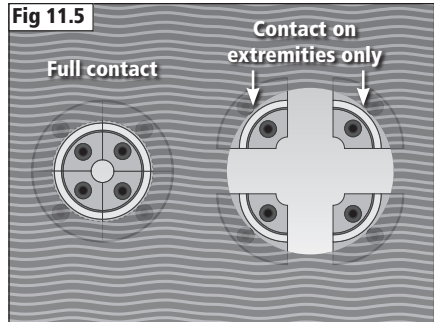
The diameter of the spigot should ideally allow the chuck jaws to grip when they are almost fully closed. This gives the greatest surface area contact and strongest grip. Larger diameters give less contact and grip, See **Fig 11.7**.

Create a longer spigot for larger work to increase the grip of the jaws.

Turn the spigot at an angle to match the inner dovetail profile of the jaws being used as shown in **Fig 11.8** then mount to the jaws and turn the inside surface.



**Warning: Never attempt to hold a spigot between the jaw slides. The sole purpose of the slides is to hold the chuck jaws. Only use compatible and suitable chuck jaws to hold workpieces.**



# 11. General Jaw Use

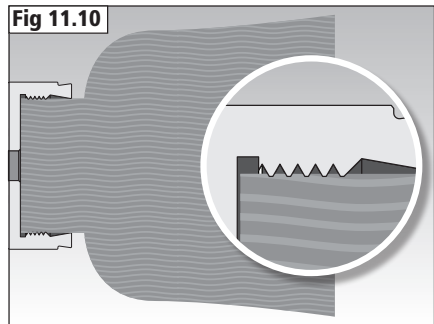
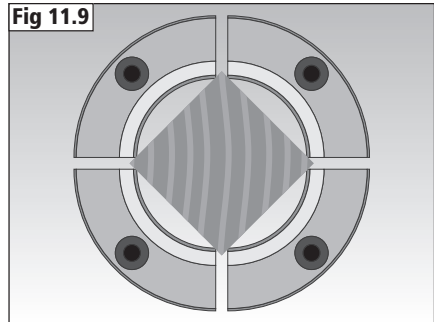
## Turning a Square Spigot

Square spigots can be held in the chuck jaws as shown in **Fig 11.9**.

## Using the Inner Teeth of the Jaws

Some jaws feature deep internal teeth to give an extra strong grip to timber. This is ideal when turning large and heavy work which needs a strong spigot to support it, see **Fig 11.10**.

Green timber can also be turned using the inner teeth. It is recommended that the section to be held is turned between centres to a cylinder. This will maximise the grip of the teeth.

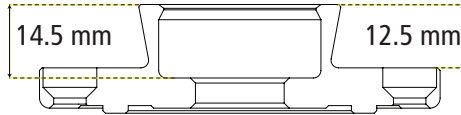
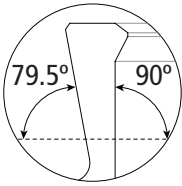


# 12. 62321 35 mm Standard Jaws

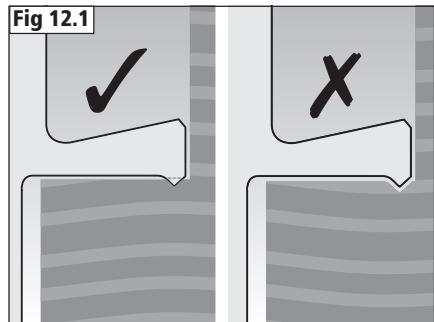
These jaws are a smaller version of the standard 50 mm jaws, featuring the same dovetail profile in expansion and the superb grip of the hawk beak design on contraction. Designed specifically for smaller spigots and recesses, this set is incredibly versatile and makes a great addition to any turner's tool collection.



<b>Expansion:</b>	38 - 58 mm (1 1/2 - 2 1/4")
<b>Contraction (spigot):</b>	28 - 47 mm (1 1/8 - 1 7/8")
<b>Contraction (square):</b>	16 - 37 mm (5/8 - 1 1/2")



**Important:** The jaws feature a small lip to the front of the interior profile. This lip is intended to bite into the wood to give additional security. Do not turn a spigot to match this profile as the effectiveness of the jaws will be reduced if the lip cannot bite, Fig 12.1.

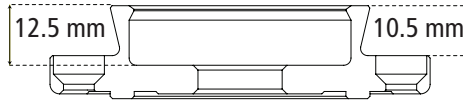
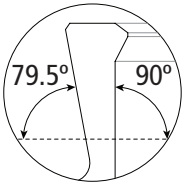


# 13. 62313 50 mm Standard Jaws

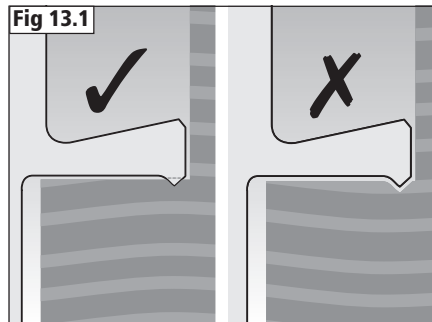
Featuring a specialised dovetail profile in expansion and the superb grip of the hawk beak design on contraction, these versatile jaws are a great all-round set, capable of bowl work to a good size and also spigot turning. They are supplied as standard with the SC3 and SC4 chucks.



<b>Expansion:</b>	52 - 72 mm (2 - 2 7/8")
<b>Contraction (spigot):</b>	42 - 61 mm (1 5/8 - 2 3/8")
<b>Contraction (square):</b>	30 - 51 mm (1 1/8 - 2")

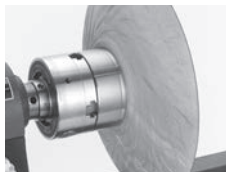


**Important:** The jaws feature a small lip to the front of the interior profile. This lip is intended to bite into the wood to give additional security. Do not turn a spigot to match this profile as the effectiveness of the jaws will be reduced if the lip cannot bite, Fig 13.1.

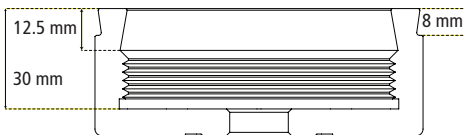
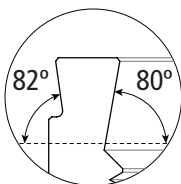


# 14. 62329 100 mm Dovetail and Deep Gripper Jaws

Featuring a specialised dovetail profile, these jaws are ideal for turning large bowls, green timber and hollow vessels. They combine the profile of our previously popular 100 mm dovetail jaws with a deep body and internal teeth to improve versatility. The outer dovetail jaws are ideal for large bowls or platters, particularly when gripping onto a spigot and the deep internal toothed body is ideal for large spigots of large hollow vessels.



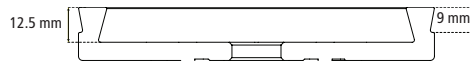
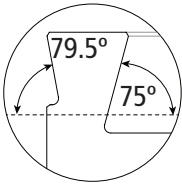
<b>Expansion:</b>	94 - 114 mm (3 3/4 - 4 1/2")
<b>Contraction (spigot):</b>	76 - 95 mm (3 - 3 3/4")
<b>Contraction (square):</b>	54 - 74 mm (2 1/8 - 2 7/8")



# 15. 62317 130 mm Dovetail Jaws

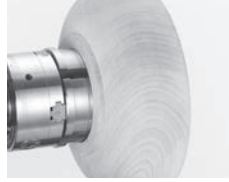
Featuring a specialised dovetail profile, these jaws are ideal for turning up to 30" bowls. They also feature a reverse dovetail for a contracting grip on large spigots.

<b>Expansion:</b>	125 - 145 mm (5 - 5 3/4")
<b>Contraction (spigot):</b>	104 - 123 mm (4 - 4 7/8")
<b>Contraction (square):</b>	74 - 94 mm (2 7/8 - 3 3/4")

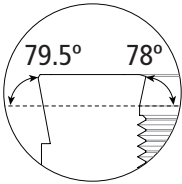


# 16. 62322 75 mm Heavy Bowl and Gripper Jaws

These new jaws are ideal for heavy bowls and vases. The wide front face provides a good register for the base of the bowl or vase and the deep toothed body provides strong grip on the spigot. The internal gripper can also be used on smaller rough green timber. Also featuring an external dovetail in expansion, they can be used for large platters. A truly versatile and solid jaw set.



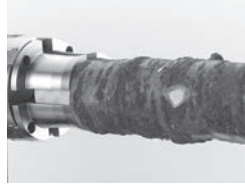
<b>Expansion:</b>	81 - 102 mm (3 1/4 - 4")
<b>Contraction (spigot):</b>	46 - 65 mm (1 3/4 - 2 1/2")
<b>Contraction (square):</b>	33 - 54 mm (1 1/4 - 2 1/8")



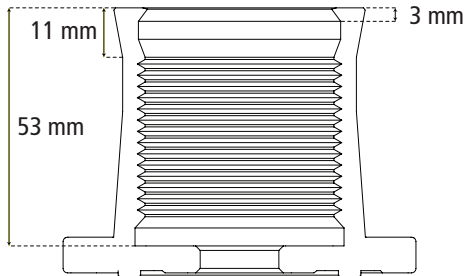
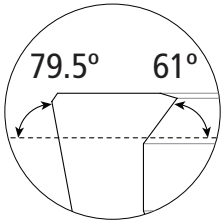


# 17. 62323 Long Nose Jaws

These extremely flexible jaws feature internal and external dovetails for bowl work. The deep internal grip is versatile but main benefit of these jaws is to project the work away from the chuck, allowing good tool access to the base of the timber for cleaning and shaping.



<b>Expansion:</b>	54 - 74 mm (2 1/8 - 2 7/8")
<b>Contraction (spigot):</b>	38 - 58 mm (1 1/2 - 2 1/4")
<b>Contraction (square):</b>	27.5 - 48 mm (1 1/8 - 1 7/8")

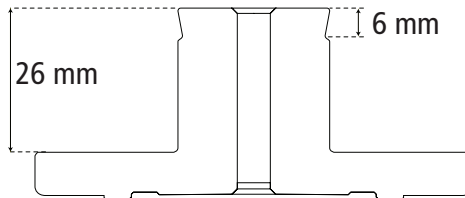
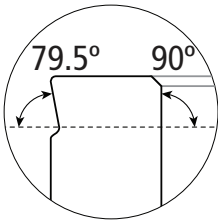


# 18. 62327 Pin Jaws with 9 mm Bore

Our pin jaws have been improved by squaring the external shoulder to allow workpieces to properly register against the back of the jaws. This is ideal for use in expansion, to grip tubes in work pieces such as pepper or salt grinders. We have also reduced the internal diameter to 9 mm, making it ideal for making finials or lace bobbins - Thereby increasing its versatility. This set is ideal for miniature turning and to grip workpieces internally without excessive damage or marking.

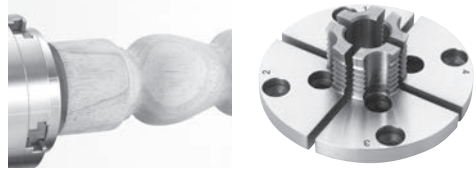


<b>Expansion:</b>	28 - 45 mm (1 $\frac{1}{8}$ - 1 $\frac{3}{4}$ " )
<b>Contraction (spigot):</b>	9 - 28 mm ( $\frac{3}{8}$ - 1 $\frac{1}{8}$ " )
<b>Contraction (square):</b>	7 - 27 mm ( $\frac{1}{4}$ - 1 $\frac{1}{8}$ " )

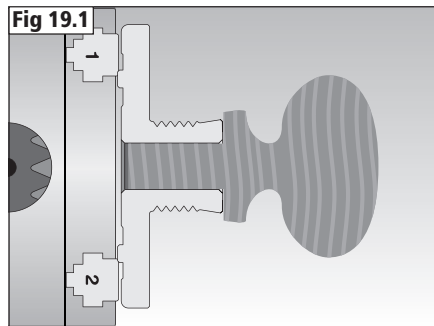
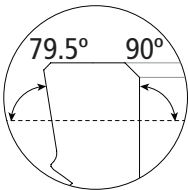


# 19. 62336 Mini Spigot Jaws with 13 mm Bore

To complement the pin jaws, the mini spigot jaws have also been improved. These jaws perform many of the same tasks in expansion and the extra screw hole profiles and added teeth to the outside provide tremendous grip for when this area will not be visible in the finished work piece. This set has been given a 13 mm internal diameter, making it ideal for turning strong spigots on knobs and handles, again adding to their versatility.

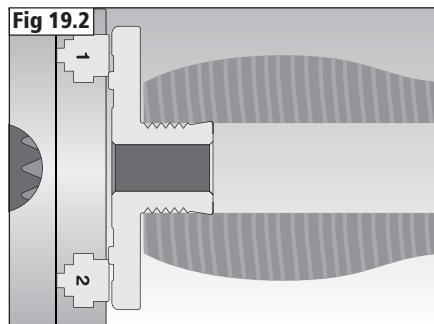


<b>Expansion:</b>	26 - 46 mm (1 - 1 3/4")
<b>Contraction (spigot):</b>	13 - 33 mm (1/2 - 1 1/4")
<b>Contraction (square):</b>	11 - 31 mm (3/8 - 1 1/4")



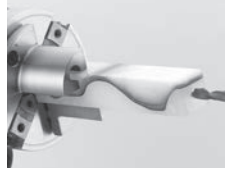
**Fig 19.1** shows the jaws holding the spigot of a drawer / door handle.

**Fig 19.2** shows the jaws expanding into a grinding mill recess.

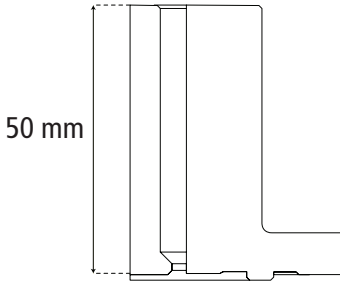


# 20. 62337 Pen Jaws

These jaws are fantastically effective for drilling pen blanks. They eliminate the need for a drill press and offer much more accurate results and the deep grip to all four sides ensures incredible holding power. Drilling on the lathe means the feed speed of the drill bit is under your complete control, meaning a superior finish can be achieved on a wide range of materials. These jaws are also useful for working on small finials and similar projects as in addition to their strong grip, the work piece is moved forward from the chuck, allowing greater access.

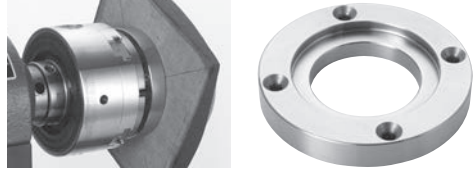


**Contraction (spigot):** 11 - 20 mm ( $\frac{3}{8}$  -  $\frac{3}{4}$ " )  
**Contraction (square):** 10 - 26 mm ( $\frac{3}{8}$  - 1" )



## 21. **62572** 87 mm (3 1/2") Faceplate Ring

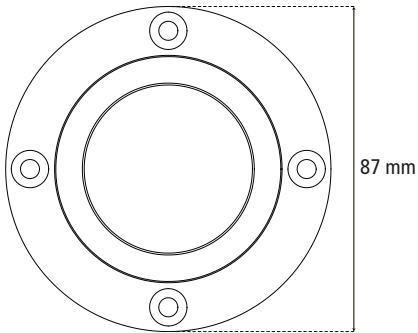
This faceplate ring is ideal for holding medium sized bowl blanks and due to its strong hold is also suitable for more out of balance timber. It is held to the chuck using the standard 50 mm jaw set which comes complete with all Record Power chuck packages.



Must be used with **62313** 50 mm Standard Jaws (Supplied with SC3 and SC4 chucks).

**Diameter:** 87 mm (3 1/2")

Mount the faceplate to the centre of the workpiece and secure in place with 4 number 10 wood screws. Ensure the recess is facing outwards and attach the faceplate to the **62313** 50 mm Standard Jaws.



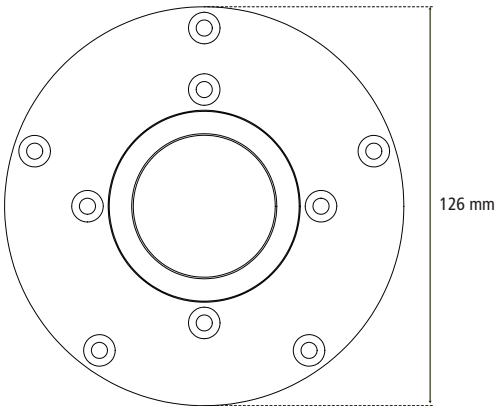
## 22. **62574** 126 mm (5") Faceplate Ring

This large faceplate ring is ideal for holding large bowl blanks and due to its strong hold is also suitable for more out of balance timber. It is held to the chuck using the standard 50 mm jaw set which comes complete with all Record Power chuck packages.

Must be used with **62313** 50 mm Standard Jaws (Supplied with SC3 and SC4 chucks).

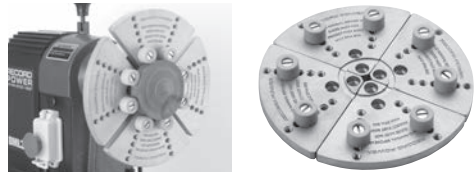
**Diameter:** 126 mm (5")

Mount the faceplate to the centre of the workpiece and secure in place with 9 number 10 wood screws. Ensure the recess is facing outwards and attach the faceplate to the **62313** 50 mm Standard Jaws.

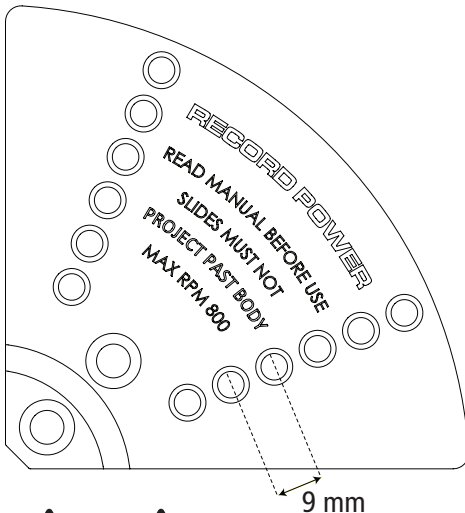


# 23. 62356 Remounting Jaws Mini - Up to 200 mm Bowl

Remounting jaws are incredibly popular due to their flexibility. They work in both contraction and expansion modes and can be fitted behind other jaw sets to create bespoke set-ups to make turning more efficient. The soft stoppers are designed to hold without causing damage, making them ideal for remounting finished or partly finished objects for further work.

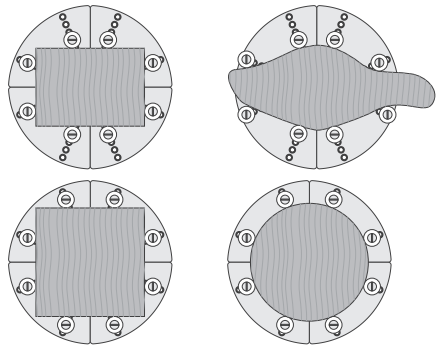


<b>Expansion:</b>	95 - 215 mm (3 3/4 - 8 1/2")
<b>Contraction (spigot):</b>	59 - 170 mm (2 3/8 - 6 3/4")
<b>Contraction (square):</b>	53 - 154 mm (2 1/8 - 6")



**Important: Extra care must be taken due to the size of the remounting jaws. Before starting the lathe always ensure the jaws clear the lathe bed, tool rest and any other possible obstructions.**

See **Fig 23.1** for examples of how different shaped work can be held.

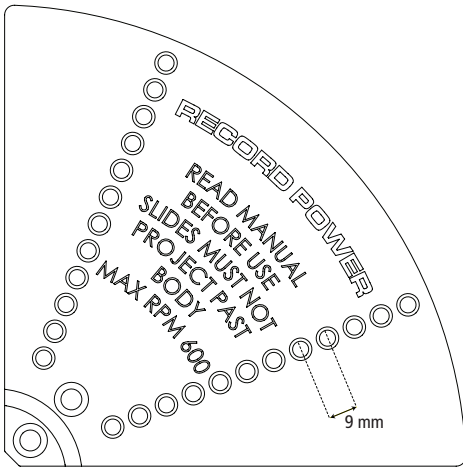


**Fig 23.1**

# 24. **62377** Remounting Jaws Mega - Up to 295 mm Bowl (With Angular Buffer Stops)

In response to many requests, we have increased the capacity of our larger remounting jaws, whilst ensuring they can still clear the bed of lathes with the popular 12" swing capacity and are capable of holding 275 mm (10 3/4") diameter bowls in contraction mode. Remounting jaws are incredibly popular due to their flexibility. They work in both contraction and expansion modes and can be fitted behind other jaw sets to create bespoke set-ups to make turning more efficient. The soft stoppers are designed to hold without causing damage, making them ideal for remounting finished or partly finished objects for further work.

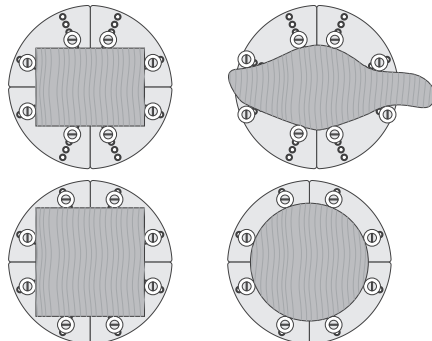
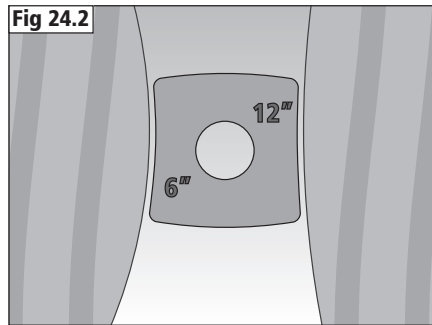
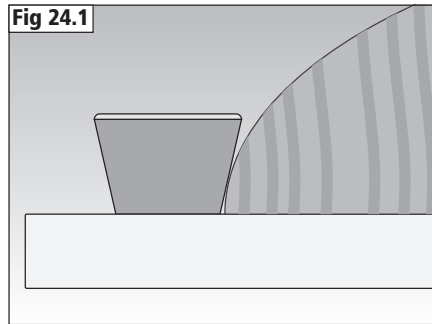
**Expansion:** 53 - 316 mm (2 - 12 1/2")  
**Contraction (spigot):** 55 - 272 mm (2 1/8 - 10 3/4")  
**Contraction (square):** 51 - 250 mm (2 - 9 7/8")



**Important:** Extra care must be taken due to the size of the remounting jaws. Before starting the lathe always ensure the jaws clear the lathe bed, tool rest and any other possible obstructions.

Also included with these jaws are a set of angular stoppers, featuring a tapered profile to give optimum grip to the workpiece as shown in Fig 24.1. They also feature two curved sides which give support to 6" and 12" diameter workpieces as shown in Fig 24.2.

See Fig 24.3 for examples of how different shaped work can be held.

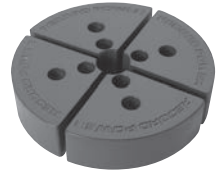


**Fig 24.3**



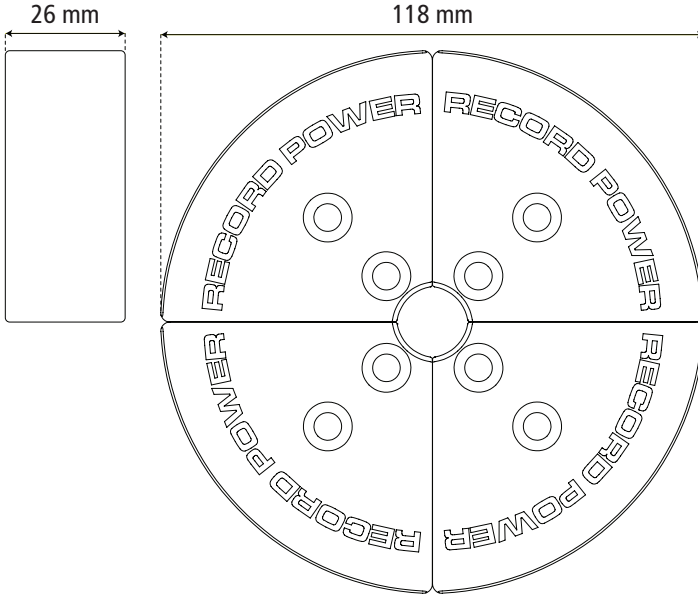
# 25. 62378 RP Plastic Soft Jaws

These nylon jaws are designed specifically to be cut with standard turning tools. They can be easily shaped to create bespoke jaws to fulfil exacting requirements and offer excellent grip without marking the work piece.



**Diameter:** 118 - 140 mm (4 5/8 - 5 1/2")

**Depth:** 26 mm (1")



**Important: Always turn the jaws in the fully closed position.**







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