FLOOR SANDING

PREPARATION

1. Where possible remove all furniture from the area or room. Floor Sanders feature an efficient dust pick-up. However, some dust will escape.
2. Remove all tacks, staples and other unwanted fixing from the floor. Failure to do so will result in damage to the abrasive paper and sanding drum.
3. Punch all nails below the surface of the floor using a suitable nail punch and hammer. Any screws used to fix boards should be counter sunk below the surface. During sanding any nails or screws that become exposed must be punched or countersunk further.
4. Firmly fix all loose boards or blocks.
5. Remove heavy wax, grease and dirt deposits by hand.
6. Sweep and vacuum the floor thoroughly to remove dirt and discarded fixings.
7. Ensure good ventilation by opening windows.

OPERATION

Floor sanders are powerful machines. Always ensure that you have a firm grip before switching on.

CAUTION:

To prevent damage to the floor surface, work piece or machine follow these rules:

1. Always ensure that the floor sander is moving when in operation and sanding drum is in contact with the floor.
2. Never lift the back of the machine when sanding.
3. Never apply pressure to try and increase the rate of sanding. Damage to the floor and machine will occur.
4. Never bounce or drop the floor sander on to the floor. Always lower the machine gently.
5. Never dwell in one place, move steadily at all times.
6. Never allow the power cable to come into contact with the sanding drum.

FLOOR SANDING

7. Never pull machine backwards while sanding (ONLY SAND IN A FORWARD MOTION).
8. Never leave the floor sander unattended with dust in the dust bag. Always remove the dust bag and dispose of into a suitable container.

Handy tip: Why not save thousands by bringing out the natural beauty of your wooden floor yourself. Coastal Tool Hire has the best quality imported floor sanders and sound advice from our friendly managers. Why not use our excellent weekend special prices and sand your floor this weekend.

SANDING TECHNIQUES

DRUM FLOOR SANDER

Load the sander with abrasive, making sure that it is skin tight around the drum. Loose sheets will tear. Place on the right hand wall (unless you are making an angled cut on uneven floors) with about two-thirds of the floor in front of you. Start the sander with the drum off the floor then walk forward at an even pace and ease the drum to the floor. As you near the end of the pass, gradually raise the drum off the floor. Practice this technique before turning the sander on.

Cover the same path you made on the forward cut by tilting the machine and pulling it backwards with the drum in the air to the starting point, then ease the drum to the floor as you begin the 2nd pass continuing until you reach your previous end point, then ease the drum off the floor.

SANDING PLANK AND STRIP FLOORS

Floors in good condition - when the floor is in good condition - no uneven edges, cupping or crowning of planks and strips - start sanding the planks or strips with the grain.

Start with a coarse or medium abrasive. Complete the first cut with the drum floor sander then sand up to the skirting board

(baseboards) and door thresholds with the edger, using a medium grit abrasive, blending the edges in with the main floor area. Sweep the floor.

Using a medium grit abrasive, sand the main floor area with the drum sander. Finish sanding the main floor area with the drum floor sander using a fine grit abrasive.

Uneven floors - when the floor is uneven, sand diagonally at 45° across the floor in both directions using a coarse grit abrasive. Only make one cut on both diagonals, this will achieve a basic level. Now complete the floor as for a level strip or plank floor. Use the same grit abrasive as was used on the 45° cut for the first cut parallel to the planks or strips.

Floors with an existing finish - when refinishing a floor remove as little of the existing surface as possible. If only a light sanding is required to prepare the floor for refinishing use an orbital floor sander. If the floor is badly marked and scratched and has to be sanded back to new wood, it may be necessary to use coarse open coat abrasive to remove the old finish but take care as they are very aggressive.

Always try a medium grit paper first, particularly on a diagonal cut. If 90% of the old finish is removed and the floor is generally levelled, you do not need to use a coarse grit abrasive.

VENEERED, LAMINATED AND THINNER FLOORS

Use an orbital floor sander for veneered and laminated floors or thinner floors that may have been subjected to repeated sanding. The orbital floor sander will remove old surface finishes and prepare the floor for refinishing. Sand the floor using the same method as a strip, plank, or parquet floor. If the floor has deeper scratches or marks, these should be sanded out by hand and blended in with the main floor.

SANDING TECHNIQUES

ABRASIVE PAPER GUIDE	
ABRASIVE PAPER GRADE	FLOOR TYPE AND CONDITION
Grit 30 (Coarse)	For removing surface coatings such as varnish, stains and wax polishes from old floors. Use for rapid levelling of uneven floors. Do not use on well laid even floors.
Grit 40 (Medium)	For first sanding of new hardwood floors. Second sanding of old floors.
Grit 80 (Fine)	For final sanding of new or old wood floors. Second sanding of cork or composition floors.
Grit 100 (Extra Fine)	For final sanding of any floor where exceptionally high finish is required.

PARQUET & BLOCK FLOORS

The grain of the wood will run in a number of directions so sand the floor in the direction of the main source of natural light in the room. If there is no source of natural light sand in the direction of the longest side of the room or, if the room is square, in the direction the furniture is laid out and how people normally use the room. This technique will help mask any imperfections in the floor.

Complete the sanding operation as detailed for plank or strip floors.

JIG SAW

Applications

Cutting or cutting out shapesin various types of wood work piecesCutting various metals such as mild steel, aluminium and copper. Cutting synthetis resin materials such as bakelite and vinyl chloride. Cutting various decorative sheetsand thin and soft construction materials.

Specifications

Wood capacity: 120mm; Mild Steel Plate Capacity: 10mm; Min. Cutting radius: 25mm; Base Tint Angle: 45^{o} Right/Left; Power Input: 740W; Length of Stroke: 26mm; No-Load Speed: 850-3,000/min; Overall Length: 258mm; Weight: 2.3kg; Standard Accessories: 3 Blades, Splinter Guard, Chip Cover, Dust Collection, Adaptor, Wrench, Carry Case.

Operation and Basic Maintenance tips

Use suitable blade for different materials
Decrease orbital operation for all soft materials and increase for hard materials by setting button on side of machine to "O" for soft materials
By utilising weight of machine, moderately proceed without using too much force
When cutting wood, ensure that all nails are removed
Use proper extension cord.

Safety Do's and Don'ts

Ensure that power source delivers between 220 & 230V
Ensure power cord extension / machine do not get wet
Don't apply excessive pressure
Allow 5 minutes cool off period after every 15-20 minutes use.

ORBITAL SANDER

Applications

Finish polishing of woodwork surfaces. Sanding surfaces of woodwork or sheet metal prior to painting.

Specifications

Pad Size Capacity: 114 x 228mm; Power Input: 300W; Orbital Diameter: 2.4mm; No-Load Speed-spindle: 10,000/min, Orbit: 20,000/min, Overall Length: 300mm; Weight: 2,8kg; Standard Accessories: Sanding Paper, Dust Bag.

Operation and Basic Maintenance tips

- Sanding paper must be fitted tightly
- Lightly press sander against surface and move sander forward and backwards at constant speed
- Remove all metal objects like nails from surface
- Dust bag must be emptied when full
- Use proper extension cord.

Safety Do's and Don'ts

- Ensure that power source delivers between 220 & 230V
- Ensure power cord extension / machine do not get wet
- Don't apply excessive pressure
- Use both hands
- Allow 5 minutes cool off period after every 15-20 minutes use.

PLANER

Applications

Planingof various wooden planks and panels.

Specifications

Cutting Width: 82mm; Max. cutting Depth: 3mm; Power Input: 720W; No-Load Speed : 14,000/min; Overall Length: 309mm; Weight: 3.0kg; Standard Accessories: Blades, Blade Setting Gauge, Guide, Wrench.

Operation and Basic Maintenance tips

Ensure that the blades are sharp and tightly fitted
Adjust the knob until aligned within the desired cutting depth
The planer should always be kept flat and pushed away from the body
Remove all metal objects like nails from surface before use
Use proper extension cord.

Safety Do's and Don'ts

Ensure that power source delivers between 220 & 230V
Ensure power cord extension / machine do not get wet
Use both hands
Allow 5 minutes cool off period after every 15-20 minutes use.

Skill Saw

Applications

Compact and lightweight, this saw is ideal for cutting wood.

Specifications

Capacity Blade Dia.: 190mm; Maximum Cut Depth: 90^{o} : 66mm, 45^{o} : 48mm; Power Input: 1200W; No-Load Speed : 5,500/min; Overall Length: 312mm; Weight: 4.0kg; Standard Accessories: Blade, guide, bolt, wrench, adaptor for dust collector, knob.

Operation and Basic Maintenance tips

Before starting, ensure saw blade has reached full speed revolution
If saw blade stops or makes unusual noise switch off immediately
Be sure the power cord never comes near the saw blade
Never press too hard on the unit as this places a heavy load on the motor and may cause damage
Ensure winding does not become wet with oil or water
Keep carbon brushes clean and inspect them to see if they are worn.

Safety Do's and Don'ts

Be sure the power source is according to the requirements specified
If using extension cord, make sure it is sufficient thickness
Ensure the portion of lumber remaining after cutting is anchored down.

ELECTRIC POWER TOOLS USAGE

To avoid possible damage to the power tool, abnormal operation (such as excessive overload) should be carefully avoided. Some of the consequences of abnormal operation are described and illustrated below.

Applying excessive pressure on the power tool lowers working efficiency because it reduces drilling, cutting or grinding.
Abnormal operation wastes electric energy.
Abnormal operation causes overheating and possible burnout of the armature and stator assemblies.
Abnormal operation causes excessive wear and eventual breakage of the mechanical components.

EXTENSION CORDS AND VOLTAGE DROP

The cord of the electrical power tool causes some voltage drop. Because electric power tools are marketed with a cord approximately 1,5 to 3 meters in length, operators must use extension cords when the work area is located at some distance from the power source. If the capacity of the extension cord is not correct (low ampere rating, excessively long, etc.), it will cause power loss, possible motor damage, overheating and possible burning of the motor because of excessive voltage drop. Accordingly, if an extension cord is necessary it is strongly recommended that one with a large diameter and shortest possible length be selected.

The recommended Extension Cord Selection Table that follows may be used as a handy reference in choosing a proper extension cord. The table shows the recommended wire size (gauge) based on the required cord length and the rated amperage of the power tool (indicated on the nameplate). The recommended cord dimensions shown in the table assure a voltage drop of not more than 5% of the rated amperage indicated on the nameplate.

ELECTRIC POWER TOOLS USAGE

RECOMMENDED EXTENSION CORD SELECTION TABLE

The table represents maximum extremes. Always make sure that the full length of the cable is unrolled when in use.

Extension Cord Cable (3 Core)	Length (Metres)	Current Rating (Amps)
.5mm	75	5.0
.75mm	75	10.0
1.0mm	75	13.5
1.5mm	75	16.0
2.5mm	75	20.0
4.0mm	75	30.0

PRECAUTIONS FOR SAFER OPERATION OF POWER TOOLS

Because they are powered by electricity and function through the operation of cutting tools and other parts that move at high speed, electric tools are inherently dangerous if used carelessly. However, they can be utilised safely and effectively if the user observes a few basic safety rules in their operation. For handy reference to enhance safe operation, some important rules are listed below.

Ensure the extension cord has a capacity for the tool.
Keep blades, drill bits and cutting tools sharp and clean.
Ensure a damaged cord is properly and safely repaired.
Prior to operation carefully inspect the tool for abnormalities.
Immediately stop operation if any abnormalities are noted.
Do not operate the tool when your hands are wet.
Do not drop the tool or treat it roughly. Mishandling the tool can damage or weaken its insulation and make it unsafe.
Ensure that motor ventilation openings are kept clean and fully open.
Always handle the tool with respect and care.