

Shops.

Ensure replacement discs are distortion free and undamaged and that the paper washers are not wrinkled or torn. **NEVER FIT SUBSTANDARD OR OLD, USED DISCS.**

To fit a disc, switch OFF and unplug the tool, then immobilise the back flange – grip the shaft with the spanner provided or operate any spindle-lock button (see diagram).

Remove the front flange with the 'pin' spanner and check the condition of both flanges. If either is damaged, return the tool to your local HSS Hire Shop.

Now, locate the disc on the back flange, making sure that both the diameter and the arbor (centre hole) of the disc are the correct size for the machine.

Finally, secure the disc in place by screwing on the front flange, either with the boss outermost for cutting discs or the boss inner most for grinding discs (see illustration).

Take care not to overtighten then check that the new disc rotates freely and does not foul the guard, before use.

Set the safety guard in the correct operating position (125mm model only) by loosening off the lock screw, adjusting the guard position then re-tightening the lock screw (see illustration for correct position).

Plug the tool into its power supply.

## BASIC TECHNIQUES

Where appropriate, secure the workpiece in a vice or with clamps, supporting it on both sides of any cut line to stop the cut-off disc becoming trapped.

Next, grip the tool firmly in both hands and adopt a comfortable, stable stance that lets you see what you are doing while keeping the whole of your body behind the grinder's disc.

With the disc clear of the workpiece, you can now switch the grinder ON and wait for the disc to reach working speed.

To start the machine, either squeeze the ON/OFF trigger or push the ON/OFF switch forward.

If GRINDING...

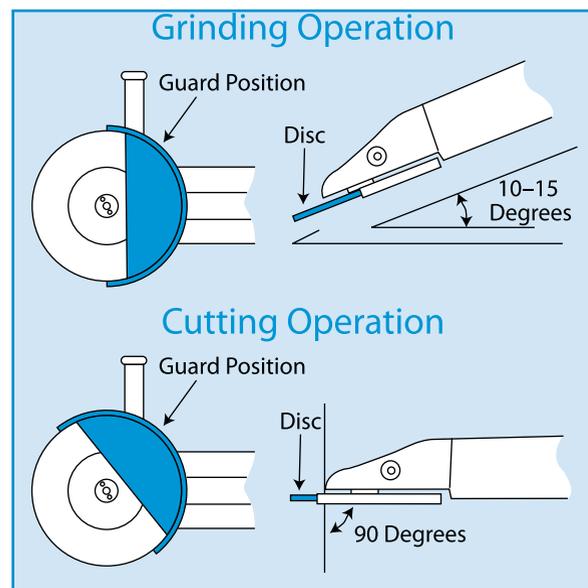
Work the tool back and forth across the surface, holding the disc at an angle of 10 to 15 degrees – a new disc may only require a single pass.

If CUTTING...

Move the tool along the cut in a straight line, keeping the disc at a constant angle. Never twist the tool or apply sideways pressure – the disc could break up and cause damage or serious personal injury.

WHATEVER you are doing...

Apply just enough pressure to ensure reasonable



progress. Too much pressure will damage the disc, the workpiece, and the machine's motor.

## EQUIPMENT CARE

Never push the equipment beyond its design limits. If it will not do what you want with reasonable ease and speed, assume you have the wrong tool for the job. Contact your local HSS Hire Shop for advice.

Keep the equipment clean – paying special attention to the air vents. You will find this less of a chore if you clean up regularly, rather than wait until the end of the hire period.

Regularly check that the disc and safety guards have not vibrated loose, if either have STOP and contact your local HSS Hire Shop for advice.

When not in use, store the equipment somewhere clean, dry and safe from thieves.

## FINISHING OFF

Having lifted the disc clear of the workpiece, return the ON/OFF switch or trigger to the OFF position and wait for the disc to stop before putting the tool down.

Unplug the tool, remove and dispose of the disc, NEVER re-use a used disc!

Finally, neatly coil the flex and give the tool a final clean up ready for return, to your local HSS Hire Shop.



### ... have you been trained

The law requires that personnel using this type of equipment in the workplace must be competent and qualified to do so. Training is available at HSS Training 0845 766 7799

### ...any comments?

If you have any suggestions to enable us to improve the information within this guide please e-mail your comments or write to the Safety Guide Manager at the address below e-mail: [safety@hss.com](mailto:safety@hss.com)

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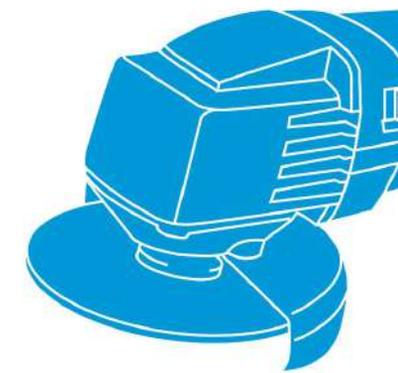
76 Talbot Road, Old Trafford, Manchester, M16 0PQ

[www.hss.com](http://www.hss.com)

632/01

Operating & Safety Guide 632

# HSS Hire



## Angle Grinders

The 100mm & 125mm GRINDERS: for light grinding, cutting in masonry and mild steel.



Code 06311 / 06321

## GENERAL SAFETY

For advice on the safety and suitability of this equipment contact your local HSS Store.

There is a serious risk of personal injury if you do not follow all instructions laid down in this guide.

This equipment should be used by an able bodied, competent adult who has read and understood these instructions. Anyone with either a temporary or permanent disability, should seek expert advice before using it.

Keep children, animals and bystanders away from the work area.

 Never use this equipment if you are ill, feeling tired, or under the influence of alcohol or drugs.

 Safety Goggles MUST be worn by everyone in the work area.

 Some materials when cut contain substances which, when inhaled, can be harmful to health. A suitable mask must be worn when using this equipment.

 This equipment generates potentially harmful noise levels. To comply with health and safety at work regulations, ear defenders must be worn by everyone in the vicinity.

 Wear practical, protective clothing, gloves and footwear. Avoid loose garments and jewellery that could catch in moving parts, tie back long hair.

Ensure the work area is well lit and ventilated, if in doubt, ask about dust extraction and ventilation equipment at your local HSS Hire Shop.

Do not work near flammable gases or liquids, petrol or paint thinner fumes for example. Keep combustible materials at a safe distance – at least 5m.

If working above ground-level, work from a suitable, stable platform – an access tower for example. Never work from ladders or steps.

Take special care when cutting into anything containing pipework or electrical cables. If in doubt, hire a cable avoiding tool from your local HSS Hire Shop, to determine the exact position of such hazards.

Stop the machine if you experience discomfort or numbness during use.

Think twice before locking the ON/OFF trigger in the ON position using any trigger lock button fitted.

Make sure you know how to switch this machine OFF before you switch it ON, in case you get into difficulty.

Always switch OFF and unplug the tool before

making adjustments to it. Check that it is switched OFF and that you have removed all spanners and keys before plugging it back in.

Having switched OFF, always wait for the disc to come to rest before putting the tool down.

Never carry or pull the equipment by its flex.

Check the condition of the equipment before use. If it shows signs of damage or excessive wear, return it to your local HSS Hire Shop.

Ensure side handles and guards are correctly adjusted and secure before starting work.

Watch your footing. Take special care if working other than on firm, level ground.

Information on COSHH regulations is available from your local HSS Hire Shop.

## ELECTRICAL SAFETY

Most HSS angle grinders plug into a standard 13amp power socket. However, 110V grinders (with a round yellow plug) must be provided with a suitable 110V generated supply, or powered from the mains via a suitable 110V transformer (minimum 2kVA tool rating).

If the equipment fails, or if its flex or plug gets damaged, return it. Never try to repair it yourself.

Keep flexes out of harm's way, and clear of the work area.

Extension leads should be fully unwound and loosely coiled, away from the equipment. Never run them through water, over sharp edges or where they could trip someone.

Using electrical equipment in very damp or wet conditions can be dangerous.

 To reduce the risk of electric shock, use a RCD suitable RCD (Residual Current-Operated Device) available from your local HSS Hire Shop, or power 240V (not 110V) equipment from a power circuit with a built-in RCD.

If using a transformer to provide power, ensure that the total power load is less than 75% of the unit's power rating.

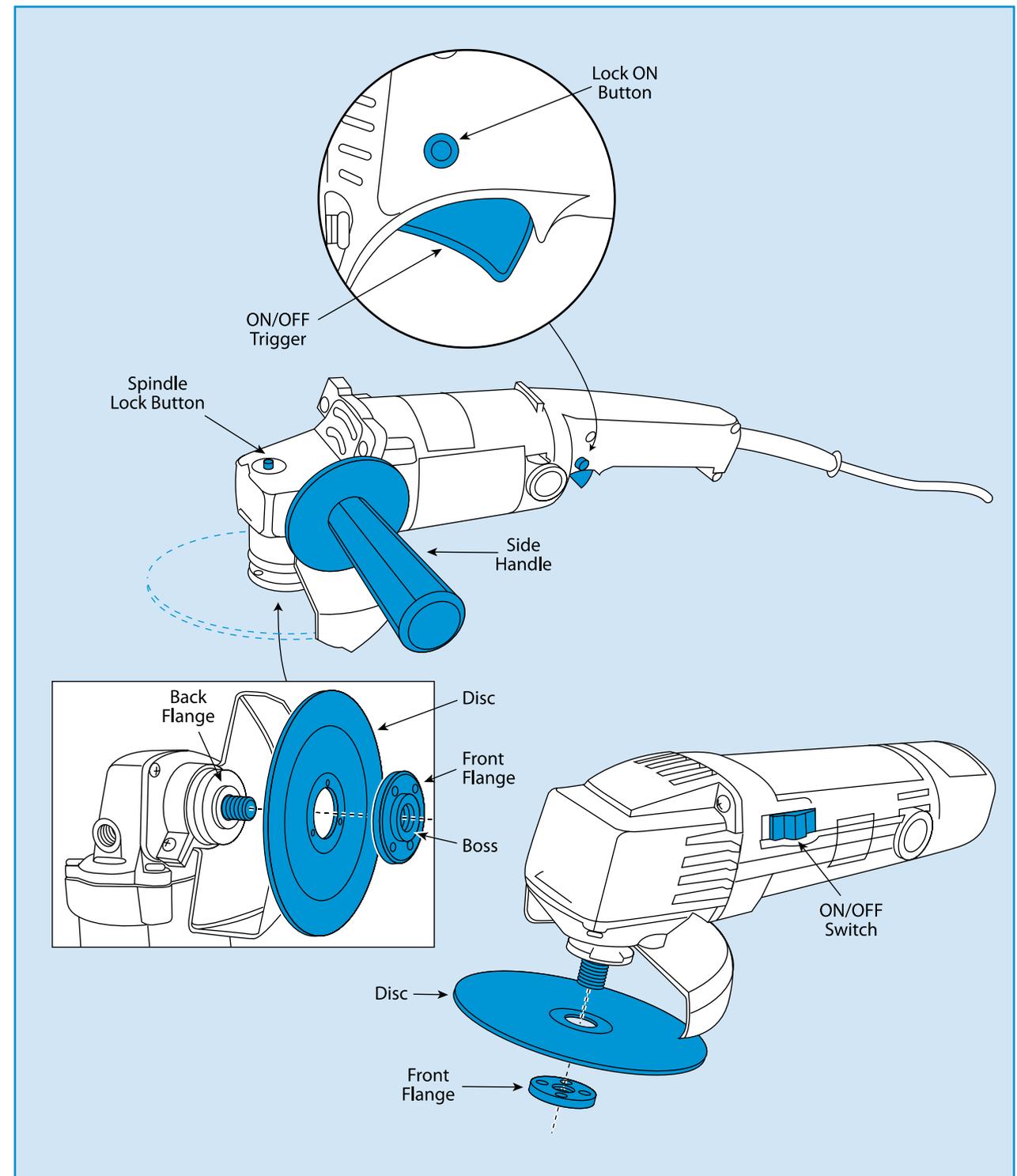
Ensure the angle grinder and power socket are switched OFF before plugging into the power supply.

## GETTING STARTED

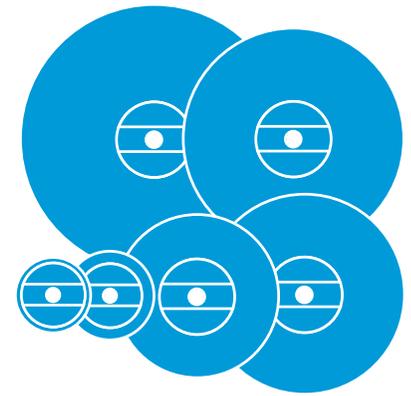
Fit the right disc for the job. HSS Hire Shops offer cut-off, grinding and diamond discs.

Never use a grinding disc for cut-off work or vice versa. If in doubt, contact your local HSS Hire Shop.

Regularly check the disc's condition and replace if worn or damaged, using only discs supplied by HSS Hire



# HSS Hire



## Abrasive Discs

Reinforced, flat Cut Off discs.  
Reinforced depressed centre  
Grinding Discs



Note that some machines have reversible front flanges to take thick and thin abrasive discs. Make sure such flanges are the right way round for the chosen disc.

Use the right disc mounting flanges, ensuring they are clean, undamaged and free from burrs.

Ensure the flange size is compatible with the size of the disc. Above 230mm, the flange diameter must be one third that of the disc.

To fit a disc, follow the instructions supplied with your machine.

If you have hired the machine from HSS, contact HSS Hire if you have any problems.

In any case, never force a disc onto the machine's spindle and never over-tighten the machine's mounting bolt / flange.

Before switching the machine back ON, remember to reposition the safety guard.

Finally, run newly fitted discs at operating speed for at least one minute before using them to cut / grind. This helps 'seat' the disc and lets you double-check that you have fitted it correctly. Clear the work area while doing this.

Throw used discs away, NEVER re-use a disc once it has been removed from a machine.

### USING DISCS

Make sure the workpiece is firmly and safely secured.

If using a portable machine, adopt a comfortable, balanced stance that lets you support and control the machine, keeps the whole of your body clear of the disc, and lets you see clearly what you are doing.

Ensure the work area is free from trip hazards and that the ground offers a secure footing.

If using a grinding disc with a depressed centre, always hold it at an angle to the workpiece.

When cutting, work in a straight line, taking care not to trap or pinch the disc in the cut.

Never try to force the disc through the workpiece and never apply pressure to the side of the disc.

Never use a grinding disc for cut-off work or vice versa. If in doubt, contact HSS Hire.

Regularly check the disc's condition and replace if worn or damaged.

Ensure replacement discs are distortion free and undamaged and that the paper washers are not wrinkled or torn. NEVER FIT SUBSTANDARD OR OLD, USED DISCS.

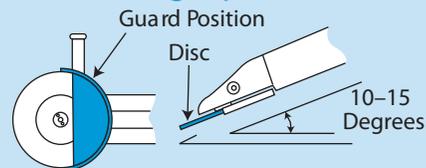
Don't grind on the side of cut-off or grinding discs less than 4.5mm thick. They are not strong enough. Use the edge instead.

### FINISHING OFF

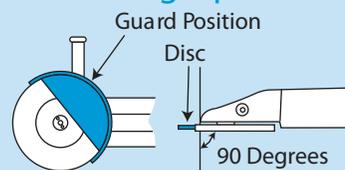
When you have finished using a portable machine, wait for the disc to stop turning and put the machine down gently - taking care not to knock the disc. Ideally, rest the machine, clear of the ground, on a suitable cradle.

Always let the disc come to a halt naturally.

#### Grinding Operation



#### Cutting Operation



#### ... have you been trained

The law requires that personnel using this type of equipment in the workplace must be competent and qualified to do so.

Training is available at HSS Training  
0845 766 7799

#### ...any comments?

If you have any suggestions to enable us to improve the information within this guide please e-mail your comments or write to the Safety Guide Manager at the address below  
e-mail: [safety@hss.com](mailto:safety@hss.com)

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76 Talbot Road, Old Trafford, Manchester, M16 0PQ

[www.hss.com](http://www.hss.com)

## GENERAL SAFETY

For advice on the safety and suitability of this equipment contact HSS Hire.

There is a serious risk of personal injury if you do not follow all instructions laid down in this guide.

The hirer has a responsibility to ensure that all necessary risk assessments have been completed prior to the use of this equipment.

This equipment should be used by an able bodied, competent adult who has read and understood these instructions. Anyone with either a temporary or permanent disability, should seek expert advice before using it.

Keep children, animals and bystanders away from the work area.

 Never use this equipment if you are ill, feeling tired, or under the influence of alcohol or drugs.

 Safety Goggles MUST be worn by everyone in the work area.

 Some materials when cut contain substances which, when inhaled, can be harmful to health. A suitable mask must be worn when using this equipment.

 Grinding and cutting equipment generates potentially harmful noise levels. To comply with health and safety at work regulations, ear defenders must be worn by everyone in the vicinity.

 Wear gloves, protective clothing and footwear that covers all exposed skin. Avoid loose garments and jewellery that could catch in moving parts, tie back long hair.

If you sustain an injury while using an abrasive disc, seek medical advice immediately.

Ensure the work area is well lit and ventilated, if in doubt, ask about dust extraction and ventilation equipment at HSS Hire.

Do not work near flammable gasses or liquids, petrol or paint thinner fumes for example. Keep combustible materials at a safe distance - at least 5m.

If working above ground-level, work from a suitable, stable platform - an access tower for example. Never work from ladders or steps.

Take special care when cutting into anything containing pipework or electrical cables. If in doubt, hire a cable avoiding tool from HSS Hire, to determine the exact position of such hazards.

Stop the machine if you experience discomfort or numbness during use.

Make sure you know how to switch the machine OFF before you switch it ON in case you get into difficulty.

Always switch OFF and unplug any tool before making adjustments to it.

Check that it is switched OFF and that you have removed all spanners and keys before plugging it back in.

Having switched OFF, always wait for the disc to come to rest before putting the tool down.

Check the condition of the equipment before use.

Ensure side handles and guards are correctly adjusted and secure before starting work.

Watch your footing. Take special care if working other than on firm, level ground.

Information on COSHH regulations is available HSS Hire.

### Warning

Abrasive discs operate at very high speeds. If they should break in use, the fragments that fly off can be extremely dangerous. So, always treat them with respect and follow the safety rules.

## ELECTRICAL SAFETY

 To reduce the risk of electric shock, use a suitable RCD (Residual Current Device) available from HSS Hire, or power the equipment from a mains circuit with a built-in RCD.

## MACHINE SAFETY

Make sure you know how to operate your particular grinding or cut-off machine safety and correctly.

If using an HSS MACHINE...

Read the Operating & Safety Guide supplied with it. If you have any queries, contact HSS Hire for advice.

If using your OWN MACHINE have it professionally serviced regularly and tested for electrical safety. In particular, check the tension of any drive belts, and double check that any built-in speed control governor is working correctly.

Have its spindle speed checked regularly. Always have the speed checked if the machine has just been serviced or repaired.

WHATEVER you are using...

Make sure the machine is fitted with an adequate, securely fitted safety guard.

Make sure the safety guard is correctly positioned before switching the machine ON. It should cover at least half the disc and protect the user if the disc should accidentally break up in use.

Check the machine's general condition before use, paying special attention to the state of the disc flange plates. If it shows signs of damage or excessive wear, do not use it! If you have any doubts about the condition of an HSS machine, return it to HSS Hire.

## DISC SAFETY

Use the correct disc for your grinding / cut-off machine. In particular, check that the machine's spindle speed does not exceed the maximum at which the disc can safely run.

Use the right abrasive disc for the job. If in doubt, contact HSS Hire for advice.

Handle abrasive discs with care. They are easily cracked if knocked or dropped - cracked discs are potentially dangerous.

Always check the discs for damage before use. Brush off any dust and tap gently with a non metallic object. If the disc sounds 'dull' assume it is cracked.

Never fit or use a disc you think may be damaged.

## DISC STORAGE

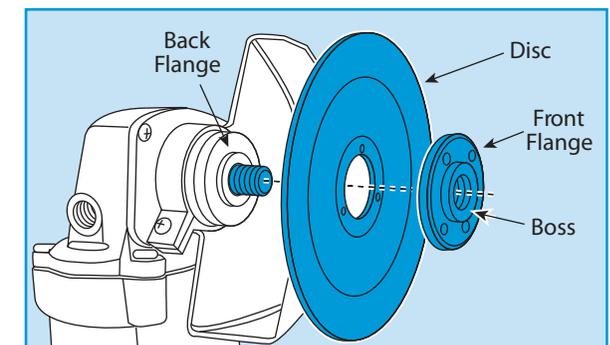
Stack flat cut-off discs one on top of the other, ideally on a flat, level, steel base-plate. Discs with a depressed centre should either be carefully stacked one on top of the other or, better still, left in their original protective packaging.

Never store abrasive discs where they will be exposed to extreme temperatures or damp. Improper storage damages the discs. Always check expiry date.

## RULES AND REGULATIONS

Note that the use of abrasives discs in certain conditions (in the work place) are regulated by law. Both the discs themselves, and the way in which they are fitted and used, must conform to BS4481 and BS4581. If in doubt, contact HSS Hire for advice.

## DISC FITTING



Abrasive discs should only be fitted by authorised, trained personnel.

Before fitting a disc, switch OFF the grinding / cut-off machine and unplug it if electric.

Use the proper tools to change / fit discs. These are supplied with machines hired from HSS. If using your own machine, consult the manufacturer's instructions.

# Know Your Symbols

HSS have created clear Icons to inform the hirer of their responsibilities towards the safe use of hire equipment.

These are designed to reduce the amount of different safety information labels required for each product for hire.

## General use PPE / Warning

Clearly marked minimum PPE will be visible on all equipment,



**Correct PPE must be worn**



**HAV Hand Arm Vibration**



**Danger Rotating blade**



**Danger Hot exhaust**



**Danger Electric shock**



**Caution Abrasive Wheel**



**Caution Finger trap**

## Fuel and Supply Types



**Pe**  
Petrol



**Di**  
Diesel



**2t**  
2 - Stroke Petrol



**EI**  
Electric

## Safe Procedures

All hirers must understand and respect the safe procedures of all equipment.

It is the responsibility of the hirer to maintain and return the equipment in a clean condition and good working order.



**Ro**  
Read OPS Guide



**Ou**  
Outdoor Use only



**Hi**  
Heavy Lifting



**Cd**  
Check Oil daily



**Cf**  
Check Fuel daily



**Cw**  
Check Water daily



**Bc**  
Battery Care



**Sh**  
Safe Height Working



**Swl**  
Refer to Data Plate



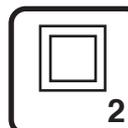
**V**  
Check Power Voltage Data Plate

## Electrical Safety

Safe wiring procedures.



**Ea**  
Must be Earthed Class 1



**Doi**  
Double Insulated Class 2



**Enl**  
Earth Live Neutral Wire Coding

## Return Responsibility

Charges apply to equipment returned dirty and damaged.



**Cc**  
Cleaning Charge



**Rc**  
Repair Charge