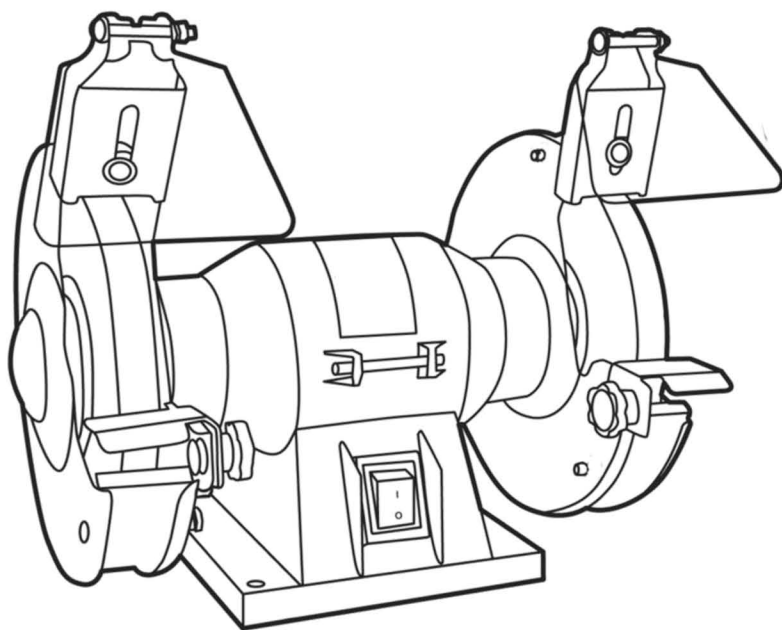


TITAN

150W BENCH GRINDER



TTB905GRB



EAN: 5059340252582

WARNING! Read the instructions before using the product!

BX220IM

Let's get started...

These instructions are for your safety. Please read through them thoroughly before use and retain them for future reference.

Getting **started**...



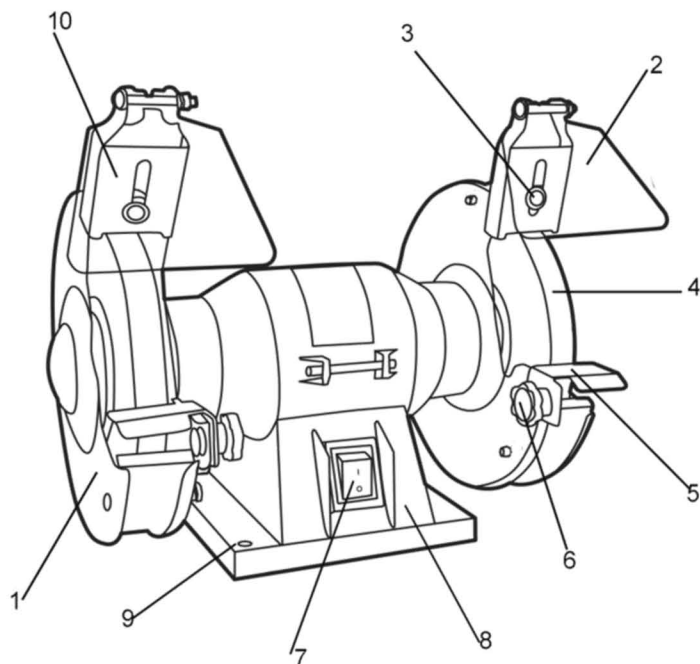
Your product	03
Technical and legal information-	04
Before you start	13

In more **detail**...



Operation	17
Care and maintenance	18
Trouble shooting	24
Recycling and disposal	25
Guarantee	26
EC declaration of conformity	27

Your product



1. Wheel guard
2. Eye shields
3. Eye shield mounting sets
4. Grinding wheel
5. Adjustable tool rest
6. Adjustable tool rest mounting sets
7. ON/OFF switch
8. Base
9. Base mounting hole
10. Eye shield mounting bracket

Getting started...

Technical specifications

>Voltage:	230-240V~50Hz
>Rated input:	120W S1, 150 W S6 15%
>No load speed n_0 :	2980min ⁻¹
>Grinding wheel size:	Ø150mm x 16 x Ø 12.7mm
> Recommended grinding wheel dimension:	Ø150mm x 16 x Ø 12.7mm
>Coarse wheel grit:	#36
>Medium wheel grit:	#60
>Weight:	5.5kg
>Sound pressure level (LPA*):	83.2dB(A)
>Uncertainty KPA:	3.0dB
>Sound power level (LWA*):	96.2dB(A)
>Uncertainty KWA:	3.0dB
>Vibration level:	2.5 m/s ²
>Uncertainty:	1.5 m/s ²

WARNING: Wear hearing protection

- the declared noise emission value has been measuring in accordance with a standard test method and maybe used for comparing one tool with another;
- the declared noise emission value may also be used in a preliminary assement of exposure.
- the noise emission during actual use of the power tool can differ from the declared total value depending on the ways in which the tool is used especially what kind of workpiece is processed
- the need of Identify safety measures to protect the operator that are based on an estimation of exposure in the actual conditions of use (taking account of all parts of the operating cycle such as the times when the tool is switched off and when it is running idle in addition to the trigger time).
- Wear hearing protection

WARNING:

- The machine must be set up where it can stand firmly, e.g. on a work bench, or it must be bolted to a strong stand.
- All covers, and safety devices must be properly fitted before the machine is switched on.
- It must be possible for the grinding wheel to run freely.
- Before you actuate the ON/Off switch, make sure that the machine's moving parts run smoothly.
- Before you connect the machine to the power supply, make sure the data on the rating plate is the same as that for your mains.
- Use only a grinding wheel diameter in accordance with the markings on the rating label

Load factor:

A load factor of S6 15% (intermittent periodic duty) means that you may operate the motor continuously at its nominal means that you may operate the motor continuously at its nominal power level (150W) for no longer than the time stipulated on the specifications label (1.5 min). If you fail to observe this time limit the motor will overheat. During the no-load running period the motor will cool again to its starting temperature.



WARNING! When using electric tools basic safety precautions should always be followed to reduce the risk of fire, electric shock and personal injury including the following. Read all these instructions before attempting to operate this product and save these instructions.

Symbols

On the products, the rating label and within these instructions you will find among others the following symbols and abbreviations. Familiarize yourself with them to reduce hazards like personal injuries and damage to property.

V~	Volt, (alternating voltage)
Hz	Hertz
W	Watt
/min or min ⁻¹	Per minute
mm	Millimeter
kg	Kilogram
dB(A)	Decibel (A-rated)
m/s ²	Meters per seconds squared



Warning! Denotes risk of personal injury, loss of life, or damage to the tool in case of non-observance.



UK Conformity Assessed



The product complies with the applicable European directives and an evaluation method of conformity for this directive was done.



Read the instruction manual.



Wear eye protection.



Wear ear protection.



Wear mask protection.



Take a power tool in the domestic waste! In accordance with European Directive 2012/19/EU on waste electrical and electronic equipment and its implementation in national law, electric tools collected separately, and environmentally friendly recycling is fed. Take advantage of the collection facilities. Ask your local government for the collection systems. If electrical appliances are disposed of, can be poisoned for years while the cause hazardous substances into the groundwater and entering the food chain, or flora and fauna.

yyWxx: Manufacturing date code; year of manufacturing (20yy) and week of manufacturing (Wxx)

RATING LABEL EXPLANATION

TTB905GRB=MODEL NUMBER

TT=TITAN

B=240V AC

905=Next number in the sequence

GRB=Grinding Bench Top

General power tool safety warnings



WARNING! When using electric tools basic safety precautions should always be followed to reduce the risk of fire, electric shock and personal injury including the following. Read all these instructions before attempting to operate this product and save these instructions.



WARNING Read all safety warnings, instructions, illustrations and specifications provided with this power tool. *Failure to follow all instructions listed below may result in electric shock, fire and/or serious injury.*

Save all warnings and instructions for future reference.

The term "power tool" in the warnings refers to your mains-operated (corded) power tool.

1) Work area safety

- a) **Keep work area clean and well lit.** *Cluttered or dark areas invite accidents.*
- b) **Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases or dust.** *Power tools create sparks which may ignite the dust or fumes.*
- c) **Keep children and bystanders away while operating a power tool.** *Distractions can cause you to lose control.*
- d) **Do not use in dangerous environment. Do not use power tools in damp or wet locations, or expose them to rain.** *Keep work area well-lighted*

2) Electrical safety

- a) **Power tool plugs must match the outlet. Never modify the plug in any way. Do not use any adapter plugs with earthed (grounded) power tools.** *Unmodified plugs and matching outlets will reduce risk of electric shock.*
- b) **Avoid body contact with earthed or grounded surfaces, such as pipes, radiators, ranges and refrigerators.** *There is an increased risk of electric shock if your body is earthed or grounded.*
- c) **Do not expose power tools to rain or wet conditions.** *Water entering a power tool will increase the risk of electric shock.*
- d) **Do not abuse the cord. Never use the cord for carrying, pulling or unplugging the power tool. Keep cord away from heat, oil, sharp edges or moving parts.** *Damaged or entangled cords increase the risk of electric shock.*
- e) **When operating a power tool outdoors, use an extension cord suitable for outdoor use.** *Use of a cord suitable for outdoor use reduces the risk of electric shock.*
- f) **If operating a power tool in a damp location is unavoidable, use a residual current device (RCD) protected supply.** *Use of an RCD reduces the risk of electric shock..*

3) Personal safety

- a) **Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use a power tool while you are tired or under the influence of**

drugs, alcohol or medication. *A moment of inattention while operating power tools may result in serious personal injury.*

b) Use personal protective equipment. Always wear eye protection. *Protective equipment such as a dust mask, non-skid safety shoes, hard hat or hearing protection used for appropriate conditions will reduce personal injuries.*

c) Prevent unintentional starting. Ensure the switch is in the off-position before connecting to power source and/or battery pack, picking up or carrying the tool. *Carrying power tools with your finger on the switch or energising power tools that have the switch on invites accidents.*

d) Remove any adjusting key or wrench before turning the power tool on. *A wrench or a key left attached to a rotating part of the power tool may result in personal injury.*

e) Do not overreach. Keep proper footing and balance at all times. *This enables better control of the power tool in unexpected situations.*

f) Dress properly. Do not wear loose clothing or jewellery. Keep your hair and clothing away from moving parts. *Loose clothes, jewellery or long hair can be caught in moving parts.*

g) If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used. *Use of dust collection can reduce dust-related hazards.*

h) Do not let familiarity gained from frequent use of tools allow you to become complacent and ignore tool safety principles. *A careless action can cause severe injury within a fraction of a second.*

4) Power tool use and care

a) Do not force the power tool. Use the correct power tool for your application. *The correct power tool will do the job better and safer at the rate for which it was designed.*

b) Do not use the power tool if the switch does not turn it on and off. *Any power tool that cannot be controlled with the switch is dangerous and must be repaired.*

c) Disconnect the plug from the power source and/or remove the battery pack, if detachable, from the power tool before making any adjustments, changing accessories, or storing power tools. *Such preventive safety measures reduce the risk of starting the power tool accidentally.*

d) Store idle power tools out of the reach of children and do not allow persons unfamiliar with the power tool or these instructions to operate the power tool. *Power tools are dangerous in the hands of untrained users.*

e) Maintain power tools and accessories. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tool's operation. If damaged, have the power tool repaired before use. *Many accidents are caused by poorly maintained power tools.*

f) Keep cutting tools sharp and clean. *Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.*

g) Use the power tool, accessories and tool bits etc. in accordance with these instructions, taking into account the working conditions and the work to be performed. *Use of the power tool for operations different from those intended could result in a hazardous situation.*

h) Keep handles and grasping surfaces dry, clean and free from oil and grease.

Slippery handles and grasping surfaces do not allow for safe handling and control of the tool in unexpected situations.

5) Service

a) Have your power tool serviced by a qualified repair person using only identical replacement parts. *This will ensure that the safety of the power tool is maintained.*

Safety instructions for bench grinders

a) Do not use a damaged accessory. Before each use, inspect the accessory such as abrasive wheels for chips and cracks for loose or cracked wires. After inspecting and installing an accessory, position yourself and bystanders away from the plane of the rotating accessory and run the power tool at maximum no-load speed for one minute. *Damaged accessories will normally break apart during this test time.*

b) The rated speed of the accessory must be at least equal to the maximum speed marked on the power tool. *Accessories running faster than their rated speed can break and fly apart.*

c) Be aware that wire bristles are thrown by the wire brush even during ordinary operation. Do not overstress the wires by applying excessive load to the wire brush. *The wire bristles can easily penetrate light clothing and/or skin.*

d) Never grind on the sides of a grinding wheel. *Grinding on the side can cause the wheel to break and fly apart.*

e) Only use accessories (ie. Grinding wheels, etc.) that have a speed rating which is higher than the idle speed on the grinder, use only grinding wheels recommended by the manufacturer which have a marked speed equal to or greater than the speed marked on the nameplate of the tool.

f) The machine is to be assembled firmly on a suitable place. Four holes (9) are available to fix by screws Ø6mm on a firm and solid base

g) Before starting up the bench grinder for the 1st time, check the grinding wheels with a sound test. Faultless grinding wheels will make a clear sound when struck gently with a plastic hammer (or piece of wood). If new grinding discs are attached check these also beforehand.

h) Adjust the spark arrestor frequently so as to compensate for wear of the wheel, keep the distance between the spark arrestor and the wheel as small as possible and in any case not greater than 2 mm.

i) Replacing the grinder wheel if the grinding wheel has been worn down such that a distance of 2 mm to the work piece support and to the spark arrestor can no longer be set, then the grinding wheel must be replaced.

i) Always use the protective features and wheel guard fitted to or supplied with this power tool. The wheel guard and protective features should be attached securely to the power tool and set so that the maximum safety level can be achieved. The protective features are there to protect the user from broken pieces and accidental contact with the grinding disks.

k) The tool rest must be assembled in such a way that the gap between grinding wheel and tool rest is max. 2mm.

l) For the safe use, handling and storage of abrasive wheels in a dry place, out of the reach of children.

Safety Warnings

- Do not to use damaged or misshapen wheels or brushes
- Only use accessories (ie. Grinding wheels, wire brush etc.) that have a speed rating which is higher than the idle speed on the grinder, use only grinding wheels recommended by the manufacturer which have a marked speed equal to or greater than the speed marked on the nameplate of the tool.
- Always keep the brush assembled on both spindle in order to limit the risk of contact with the rotating spindle.
- Adjust the spark arrestor and the work rest frequently so as to compensate for wear of the wheel, keep the distance between the spark arrestor/work rest and the wheel as small as possible and in any case not greater than 2 mm.
- For the safe use, handling and storage of abrasive wheels and brushes in a dry place, out of the reach of children.
- Replacing the grinder wheel if the grinding wheel has been worn down such that a distance of 2 mm to the work piece support and to the spark arrestor can no longer be set, then the grinding wheel must be replaced.
- Never drape the power cable over the machine bench.
- The machine is to be used only for its prescribed purpose.
- Wear protective clothing. Wear full face protection, eye protection or safety goggles, in accordance with the job at hand. Where appropriate, wear a dust mask, ear defenders, protective gloves or special aprons that keep grinding and material particles away from you.

Protect your eyes from the foreign bodies that fly off during certain applications. Dust or breathing masks must be used to filter particles generated by the application.

Hearing loss can be caused by exposure to high intensity noise.

- Always wear a dust mask and safety goggles.
Contact with or breathing in noxious / toxic dust produced by grinding metal that is finished with lead paint can be dangerous for the user and surrounding people.
- This power tool must not be used for wet grinding. Use for dry grinding only. Coolant can weaken the bonding strength of the wheel and cause it to fail.
- This bench grinder should only be used when stationary. Secure to a solid, even surface.
- Do not use any accessories that have not been especially designed and recommended for this power tool by the manufacturer. Simply because an accessory can be connected to your power tool does not guarantee it can be used safely.
- Only use grinding disks whose diameter, thickness and intended use meet the requirements of this power tool. Incorrectly sized grinding disks may not be sufficiently screened or controllable. Use of unsuitable grinding disks can result in danger to the user or damage to the power tool.
- Never touch the spinning grinding disks! Make sure the grinding disks have come to a complete standstill after turning off before you touch them. When you have checked the tool attachment and have attached it, make sure you and others nearby keep away from the area of the rotating tool attachment and let the appliance run at the maximum speed for a minute. Most damaged tool attachments will break off in this test period.

- Make sure bystanders are a safe distance from your work area. Anyone entering the work area must wear personal protective clothing. Pieces may break off the work piece or sparks may fly off and can also cause injuries outside the direct work area.
- Position the power cable clearing of the spinning tool attachment. If you lose control of the appliance, the power cable can be severed or tangled and your hands or arms may get caught in the spinning tool attachment.
- Do not leave the power tool running when you are not using it. Your clothing can become entangled when it comes into contact with the spinning tool attachment, causing the tool attachment to drill into your body.
- Clean the power tool's air vents regularly. The motor's fan draws dust into the housing and the heavy build-up of metal dust can result in electrical hazards. Do not use the power tool in vicinity of flammable materials. Sparks may cause these materials to ignite.
- Do not use any tool attachments that require liquid coolants. Use of water or other liquid coolants can result in electric shock.
- Before starting up the bench grinder for the 1st time, check the grinding wheels with a sound test. Faultless grinding wheels will make a clear sound when struck gently with a plastic hammer (or piece of wood). If new grinding discs are attached check these also beforehand.
- Always use the protective features and wheel guard fitted to or supplied with this power tool. The wheel guard and protective features should be attached securely to the power tool and set so that the maximum safety level can be achieved. The protective features are there to protect the user from broken pieces and accidental contact with the grinding disks.
- Ensure that the bench grinder is always stable and secure.
- Always use the guard, work rest, transparent screen and spark arrestor as required for the accessory(ies).

Additional Safety

ADDITIONAL SAFETY WARNING FOR CONSTRUCTION DUST

The updated Control of Substances Hazardous to Health Regulations 1st October 2012 now also targets to reduce the risks associated with silica, wood and gypsum dusts.

Construction workers are one of the at-risk groups within this because of the dust that they breathe: silica dust is not just a nuisance; it is a real risk to your lungs!

Silica is a natural mineral present in large amounts in things like sand, sandstone and granite. It is also commonly found in many construction materials such as concrete and mortar. The silica is broken into very fine dust (also known as Respirable Crystalline Silica or RCS) during many common tasks such as cutting, drilling and grinding. Breathing in very fine particles of crystalline silica can lead to the development of:

Lung cancer Silicosis Chronic Obstructive Pulmonary Disorder (Chronic obstructive pulmonary disease (COPD) And breathing in fine particles of wood dust can lead to

the development of Asthma The risk of lung disease is linked to people who regularly breathe construction dust over a period of time, not on the odd occasion.

To protect the lung, the COSHH Regulations sets a limit on the amount of these dusts that you can breathe (called a Workplace Exposure Limit or WEL) when averaged over a normal working day. These limits are not a large amount of dust: when compared to a penny it is tiny – like a small pinch of salt:

This limit is the legal maximum; the most you can breathe after the right controls have been used.

How to reduce the amount of dust?

- 1 Reduce the amount of cutting by using the best sizes of building products.
- 2 Use a less powerful tool e.g. a block cutter instead of angle grinder.
- 3 Using a different method of work altogether – e.g. using a nail gun to direct fasten cable trays instead of drilling holes first.

Please always work with approved safety equipment, such as those dust masks that specially designed to filter out microscopic particles and use the dust extraction facility at all time.

For more information please see the HSE website:

<http://www.hse.gov.uk/construction> or <http://www.hse.gov.uk/pubns/cis69.pdf>



Warning: Some dust particles created by power sanding, sawing, grinding, drill and other construction jobs contain chemicals known to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are:

- Lead from lead-based paints.
- Crystalline silica from bricks and cement and other masonry products.
- Arsenic and chromium from chemically treated timber.

Your risk from these exposures varies, depending upon how often you do this type of work. To reduce your exposure to these chemicals:

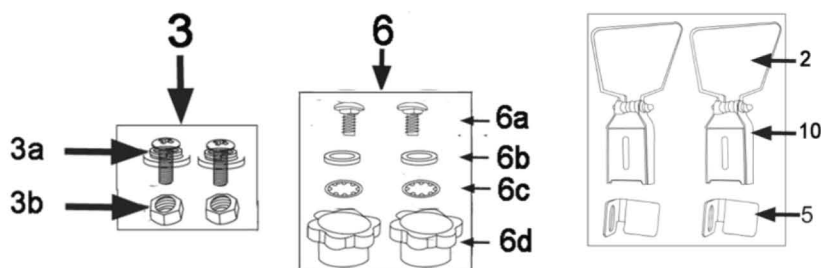
- Work in a well-ventilated area.
- Work with approved safety equipment, such as those dust masks that are specially designed to filter microscopic particles.

Health surveillance

All employees should be part of an employer's health surveillance scheme to help identify any vibration related diseases at an early stage, prevent disease progression and help employees stay in work.

Unpack

- > Unpack all parts and lay them on a flat, stable surface.
- > Remove all packing materials and shipping devices if applicable.
- > Make sure the delivery contents are complete and free of any damage. If you find that parts are missing or show damage do not use the product but contact your dealer. Using an incomplete or damaged product represents a hazard to people and property.
- > Ensure that you have all the accessories and tools needed for assembly and operation. This also includes proper personal protective equipment.



3. Eye shield mounting sets

3a. three connected screw set

3b. Nut

6. Adjustable tool rest mounting sets

6a. Screw

6b. Flat washer

6c. Teeth washer

6d. Knob

2. Eye shield

10. Eye shield mounting bracket

5. Adjustable tool rest

You will need

Items not supplied	Item Supplied
1. Protective gloves	1. Work piece support
2. Screwdriver with PH2 head	2. Eye shield with mounting bracket
3.8 mm wrench	3. Mounting nuts, bolts, washers and knob

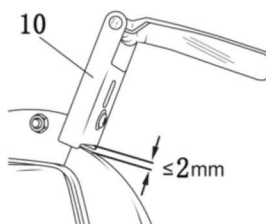
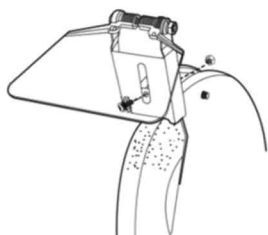


WARNING! Do not connect to power supply until assembling is complete. Failure to comply could result in accidental starting and possible serious injury.

Getting started...

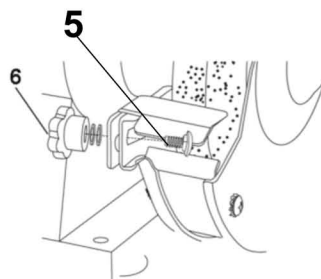
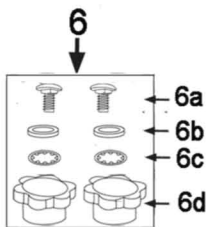
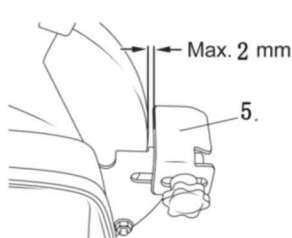
Assembling the wheel guard

- > To fit the eye shields, locate the one middle screw provided through the slot in the eye shield and hole on the grinding wheel guard (to fix it onto the middle hole) and finger tighten. Position the eye shield so it does not come in to contact with the grinding wheel. Tighten the nut to secure the eye shield in place.
- > The eye shield mounting bracket (10) must be assembled in such a way that the gap between grinding wheel and the mounting bracket is max. 2 mm.



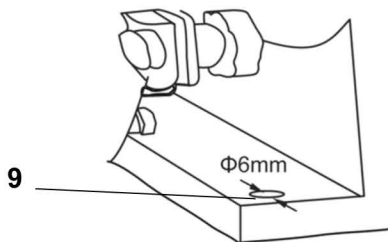
Assembling the adjustable tool rest

- > The adjustable tool rest (5) must be assembled in such a way that the gap between grinding wheel and adjustable tool rest is max. 2mm.
- > The adjustable tool rest (5) must be attached on both sides of the double grinder before use. Use the adjustable tool rest mounting sets (6) to attach.
- > Hold the adjustable tool rest (5) against the rail on the wheel guard. Make sure, the adjustable tool rest is facing the correct direction. The slanting corners should point away from the double grinder.
- > Fix screw (6a) through the slit in the rail and adjustable tool rest.
- > Place teeth washer (6b) and washer (6c) on the end of the screw (6a) from the other side.
- > Secure the screw (6a) with the knob (6d).
- > Repeat steps 1 to 4 on the other side for the screw(6a).



Mounting the bench grinder

- > The machine is to be assembled firmly on a suitable place. Four holes (9) are available to fix by screws $\varnothing 6\text{mm}$ on a firm and solid base e.g. on a workbench or machine stand.
- > Ensure that the mains connection is located not more than approx. 100–150cm from the place of fixation.
- > The machine must be easily accessible from front side.



Connection to the power supply

- > Connect the plug with a suitable socket.
- > **WARNING!** Check the voltage! The voltage must comply with the information on the rating label!
- > Your product is now ready to be used



WARNING! Do not use until the product has been securely installed to a work bench.

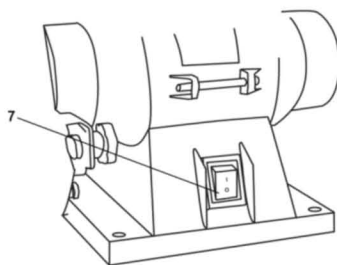


In more detail...

Operation	17
Care and maintenance	18
Trouble shooting	24
Recycling and disposal	25
Guarantee	26
EC declaration of conformity	27

Switching ON and OFF

- > Before you start working with the bench grinder, check whether the voltage shown on the specification plate of the device corresponds to the existing mains voltage.
- > Before connecting to the power supply rotate the wheel by hand to ensure that it is running free from obstruction
- > Before connecting the machine to the mains supply, ensure that the ON/Off switch is set to "O" position.
- > Connect to the mains supply and press the rocker switch to the ON position (I) and allow your grinder to reach the maximum speed before commencing grinding



General operation

1. Before each use, check that the grinding wheels are not damaged.
2. After switching the grinder on, allow it to reach full speed before performing grinding operation.
3. The eye shields are able to be adjusted and should be positioned to allow the operator a clear view of the work through the shields.
4. Hold the workpiece firmly against the tool rest and feed it smoothly and evenly to the grinding wheel.
5. The appropriate adjustments of the tool's rests will provide the correct working angle for efficient grinding. As the diameter of the grinding wheel is subject to wear. It will be necessary to re-adjust the edge of the grinding wheel.

Fix the grinder to horizontal, stable surface before using. Positing the grinder towards the front edge of the bench will facilitate the handing of long tools. If possible, leave space to the left-hand side of the machine for easy access to the wheel. An alternative method is to secure the grinder to a sheet of plywood which can then be clammed to a bench or table to present the grinder in the most convenient position. Before using the dry wheel ensures that the spark guard (behind the eye shield) is positioned as close to the surface of the wheel as possible and that the eye shield is in a position to prevent sparks flying up. It is a sensible precaution to wear safety spectacles as well when operating a grinding machine.

The dry wheel can be used for grinding profiles or virtually any cutting tool, plane

irons, chisel, gouges, turning tools, drill bits, etc. The aluminum oxide will cut cleanly and without undue heating of the tip of the tool. However care should be taken not to grind a tool too hard or for too long in case over-heating occurs.

Wheels polishing

Fix the grinder to horizontal, stable surface before using. Positioning the grinder towards the front edge of the bench will facilitate the handling of long tools. If possible, leave space to the left-hand side of the machine for easy access to the wheel. An alternative method is to secure the grinder to a sheet of plywood which can then be clamped to a bench or table to present the grinder in the most convenient position. Before using the dry wheel ensures that the spark guard (behind the eye shield) is positioned as close to the surface of the wheel as possible and that the eye shield is in one position to prevent sparks flying up. It is a sensible precaution to wear safety spectacles as well when operating a grinding machine.

The dry wheel can be used for grinding profiles or virtually any cutting tool; plane irons, chisel, gouges, turning tools, drill bits, etc. The aluminum oxide will cut cleanly and without undue heating of the tip of the tool. However, care should be taken not to grind a tool too hard or for too long in case over-heating occurs.

- Do not use a damaged accessory. Before each use, inspect the accessory such as abrasive wheels for chips and cracks for loose or cracked wires.
- Hold the workpiece to be worked on with both the hands and support it on the workpiece support.
- Press the workpiece with proper pressure against the grinding disc.

The golden rules of care

1. Keep the product clean. Remove debris from it after each use and before storage.
2. Regular and proper cleaning will help ensure safety and prolong the life of the product.
3. Inspect the product before each use for worn and damaged parts. Do not operate it if you find broken and worn parts.
4. If the grinding wheel has been worn down such that a distance of 2 mm to the work piece support and to the spark arrestor can no longer be set, then the grinding wheel must be replaced.



WARNING! Always switch the product off, disconnect it from power supply and let the product cool down before performing inspection, maintenance and cleaning work!



WARNING! Only perform repairs and maintenance work according to these instructions! All further works must be performed by a qualified specialist!

General cleaning

1. Clean the product with a dry cloth. Use a brush for areas that are hard to reach.
2. Check for worn or damaged parts. Replace worn parts as necessary or contact an authorized service center for repair before using the product again.

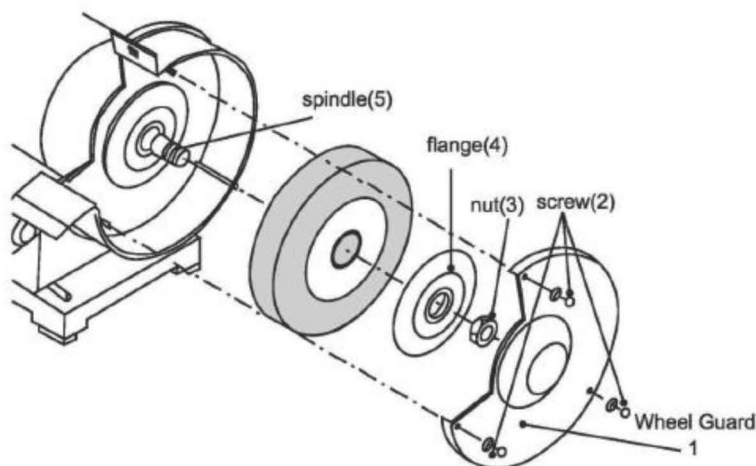
NOTE: Do not use chemical, alkaline, abrasive or other aggressive detergents or disinfectants to clean this product as they might be harmful to its surfaces.

Grinding wheel replacement

If the grinding wheel has been worn down such that a distance of 2 mm to the work piece support and to the spark arrestor can no longer be set, then the grinding wheel must be replaced.

To renew or change the grinding wheels, follow these series of steps:

1. Switch off the unit and disconnected from the mains supply.
2. Remove the screws (2) on the wheel Guard (1) and then pull out the Wheel guard (1).
3. Remove the nut (3) from the spindle (5) using spanner (not supplied). The nut on the right spindle has a right thread; the nut on the left spindle has a left thread.
4. Take out the outer flange (4) from the spindle (5).
5. Place the new wheel onto the spindle. once secured rotate the grinding wheel by hand to confirm that the wheel moves freely and doesn't contact any surfaces.
6. Reassemble the flange, nut, and outside cover.
7. Ensure that wheel is free of defects before use. Switch on the machine and let the wheel run with no load for one minute to check for cracks.



Grinding wheel information

The following information is a guide only on the different types of grinding wheels and their uses.

TYPES OF ABRASIVE GRAIN

Grinding wheels are made of four main types of abrasive grain: aluminum oxide, silicon carbide, CBN (cubic boron nitride) and diamond. In the home workshop you will probably only use wheels of aluminum oxide or silicon carbide. Both types are available from your tool stockiest. Grain size is separated into four main categories: course, medium, fine and very fine. Table 1 shows the breakdown of grain size in each category. For most work a medium or fine wheel is recommended.

TABLE 1

The four main categories of abrasive grains

Coarse	Medium	Fine	Very Fine
12	46	70	150
14	60	80	180
16		90	220
20		100	240
24		120	
30			
36			

TYPES OF BOND

There are five main kinds of bonding agents namely, ceramic (vitrified), phonetic resin, rubber, shellac and metal. The abrasive can be bonded with its particles close together or with spaces between each grain particle. Bond material creates a link between each grain. The spaces between the grains will determine how dense the wheel is, large spaces will give an open wheel and smaller spaces will give a close or dense wheel.

The structure is measured on a scale of 0-14 with 0 being very close and 14 being very open with wide spacing between the grains.

WHEEL HARDNESS OR GRADE

Grade or hardness is the strength of bonding between the abrasive grains. Wheel hardness is graded alphabetically, in increasing order of hardness; letters A through D represent very soft wheels, and letters V through Z represent very hard ones. Letter K in the illustration below represents a soft to medium wheel.

9A	46	K	5	V	22
Kind of Abrasive	Grain Size	Grade	Destiny	Bond Type	Manufactures Symbol

The number shown in the above illustration is an example of a grinding wheel description. 9A means that the abrasive is aluminum oxide 46 means that the grain size is medium, K means that the wheel is soft, 5 means that the wheel is dense, V stands for vitrified bonding and 22 is the manufacturer's symbol. Wheels supplied with bench grinders are generally "N" on the hardness scale, which is considered hard. Do not try to sharpen carbide tools, knives, scissors or high-speed tools (router bits, wood turning tools) with this hard wheel. A standard wheel will not cut carbide. If you try, you will only create heat and glaze over the wheel. Hard wheels will burn router bits and other high-speed tools. Overheating the tools will destroy their hardness and render them useless. Soft wheels give themselves up while grinding. When grinding, only a small amount of material is removed, and the wheel releases grains a little at a time, presenting new cutting edges. This releasing activity helps to keep the tool from heating up and gives a finer grinding result.

Table 2 shows wheel hardness and uses.

TABLE 2

Wheel Hardness (Grade)	Designated use or designated hardness	Description of hardness
A B C D	Not commonly used	Very soft
E F G H I J K L	Use soft wheels to sharpen high -speed -steel tools, such as, drills, and tool bits.	Soft to medium
M N O P Q R S T	Use these wheels for rough grinding on soft materials.	Medium to hard
U	This hard grade is used for dressing sticks to dress grinding wheels.	Hard
V W X Y Z	Not commonly used	Very hard

The following table 3 should help you to select the correct grinding wheel for the job. New bench grinders are supplied with grey wheels. All other types of grinding wheel is available from your tool stockiest.

Type of tool	Tool material	Recommended wheel type
Drill bits	High-speed steel	Aluminum oxide (grey)
Spade boring bits	High-speed steel	Aluminum oxide (grey)
Masonry drill bits	Cutting edge is carbide	Silicon carbide (green)
Lathe tool bits	High-speed steel	Soft aluminum oxide (Pink or white)
Chisels	High-speed steel	Soft aluminum oxide (Pink or white)
High-speed steel carbide tipped	Cutting edge is carbide	Silicon carbide (green)
Rotary lawnmower blade	Non-heat-treated steel	Aluminum oxide(grey)
Scissors & snips	Hard steel (not file hard)	Aluminum oxide (Pink or white)

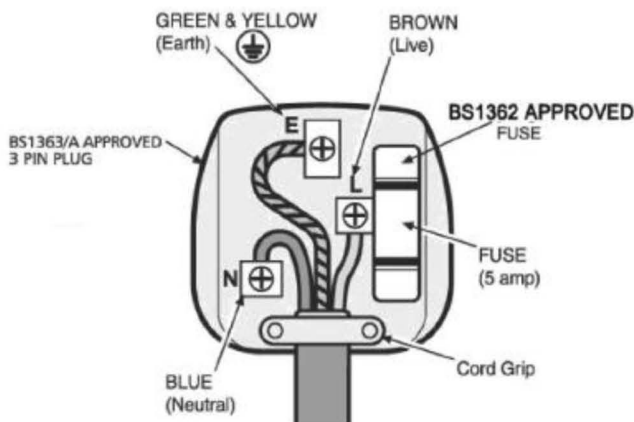
Power cord

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

UK plug

If you need to replace the fitted plug then follow the instructions below.

IMPORTANT: The wires in the mains lead are coloured in accordance with the following code:



Blue – Neutral

Brown – Live

Green & Yellow – Earth

As the colors of the wires in the mains lead of this apparatus may not correspond with the colored markings identifying the terminals in your plug, proceed as follows. The wire, which is colored blue, must be connected to the terminal, which is marked with N or colored black. The brown wire must be connected to the terminal which is marked with an L or colored red. The green & yellow wire must be connected to the terminal which is marked Earth E.

WARNING: Never connect live or neutral wires to the earth terminal of the plug. Only fit an Approved 13A BS1363 Plug with a 5Amp rated fuse.

NOTE: If a moulded plug is fitted and has to be removed take great care in disposing of the plug and severed cable, it must be destroyed to prevent engaging into a socket.

Repair

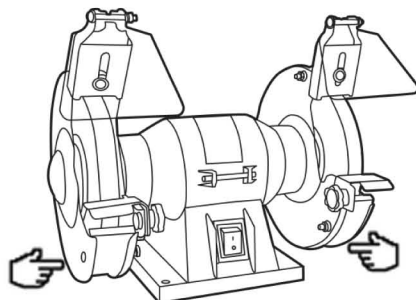
1. This product does not contain any parts that can be repaired by the consumer. Contact a qualified specialist to have it checked and repaired.

Storage

1. Clean the product as described above.
2. Store the product and its accessories in a dry, frost-free place.
3. Always store the product in a place that is inaccessible to children. The ideal storage temperature is between 10 and 30°C.
4. We recommend using the original package for storage or covering the product with a suitable cloth to protect it against dust.

Transportation

1. Switch the product off and disconnect it from power supply before transporting it anywhere.
2. Attach transportation guards, if applicable.
3. Always carry the product by its handle.
4. Protect the product from any heavy impact or strong vibrations which may occur during transportation in vehicles.
5. Secure the product to prevent it from slipping or falling over.
6. We recommend using the original package for storage and transportation.
7. When you need to move your product to another place, please use your hands to directly lift the machine from the position shown on the picture (The bottom of wheel guards). Remarks: You only can move product after take off the plug and confirm the wheel comes to a complete stop!



Trouble shooting

Suspected malfunctions are often due to causes that the user can fix themselves. Therefore, check the product using this section. In most cases the problem can be solved quickly.

Problem	Possible cause	Solution
1. Product does not start	1.1 Not connected to power supply 1.2 Power cord or plug is defective 1.3 Other electrical defect to the product	1.1. Connect to power supply 1.2. Check by a specialist electrician. 1.3. Check by a specialist electrician
2. Product does not reach full power	2.1 Extension cord not suitable for operation with this product 2.2 Power source (e.g. generator) has too low voltage	2.1. Use a proper extension cord 2.2. Connect to another power source
3. Unsatisfactory result	3.1 Accessory not suitable for work piece material	3.1. Use proper accessory



WARNING! Only perform the steps described within these instructions! All further inspection, maintenance and repair work must be performed by an authorized service center or a similarly qualified specialist if you cannot solve the problem yourself!

Recycling and disposal



Disposal of the appliance

CAUTION! This product shall not be discarded with household waste but that it shall be returned to a collection system which conforms to the European WEEE Directive. Contact your local authorities or stockist for advice on recycling. It will then be recycled or dismantled in order to reduce the impact on the environment. Electric and electronic equipment can be hazardous for the environment and for human health since they contain hazardous substances.



Disposal of packaging

The packaging consists of cardboard and correspondingly marked plastics that can be recycled.
-Make these materials available for recycling.

In more detail...

Guarantee

We take special care to select high quality materials and use manufacturing techniques that allow us to create products incorporating design and durability. This product TITAN 150W BENCH GRINDER has a manufacturer's guarantee of 2 years against manufacturing defects, from the date of purchase (if bought in store) or date of delivery (if bought online), at no additional cost for normal (non-professional or commercial) household use.

To make a claim under this guarantee, you must present your proof of purchase (such as a sales receipt, purchase invoice or other evidence admissible under applicable law), please keep your proof of purchase in a safe place. For this guarantee to apply, the product you purchased must be new, it will not apply to second hand or display products. Unless stated otherwise by applicable law, any replacement product issued under this guarantee will only be guaranteed until expiry of the original guarantee period.

This guarantee covers product failures and malfunctions provided the product was used for the purpose for which it is intended and subject to installation, cleaning, care and maintenance in accordance with the information contained in these terms and conditions, in the user manual and standard practice, provided that standard practice does not conflict with the user manual.

This guarantee does not cover defects and damage caused by normal wear and tear or damage that could be the result of improper use, faulty installation or assembly, neglect, accident, misuse, or modification of the product. Unless stated otherwise by applicable law, this guarantee will not cover, in any case, ancillary costs (shipping, movement, costs of uninstalling and reinstalling, labour etc), or direct and indirect damage.

This guarantee does not cover defects and damage caused by or resulting from:

- Normal wear and tear
- Overload, misuse or neglect
- Repairs attempted by anyone other than an authorised agent
- Cosmetic damage
- Damage caused by foreign objects, substances or accidents
- Accidental damage or modification
- Failure to follow manufacturer's guidelines
- Loss of use of the goods

If the product is defective, we will, within a reasonable time, repair or replace it.

Rights under this guarantee are enforceable in the country in which you purchased this product. Guarantee related queries should be addressed to the store you purchased this product from.

The guarantee is in addition to and does not affect your statutory rights.

EC declaration of conformity



(EN) EU DECLARATION OF CONFORMITY
(FR) DÉCLARATION UE DE CONFORMITÉ
(PL) DEKLARACJA ZGODNOŚCI UE
(RO) DECLARAȚIA DE CONFORMITATE UE
(ES) DECLARACIÓN UE DE CONFORMIDAD
(PT) DECLARAÇÃO DE CONFORMIDADE UE

Product/ Produit/ Produkt/Produsul/Producto/Produto

- 150W Bench Grinder /Touret à meuler /Szlierka stołowa/Polizor de banc/Amoladora de banco/Máquina de afiar de Bancada
- TTB905GRB
- Serial number range 000001 to 999999

Name and address of the manufacturer or his authorised representative:

Nom et adresse du fabricant ou de son mandataire:

Nazwa i adres producenta lub jego upoważnionego przedstawiciela:

Denumirea și adresa producătorului sau a reprezentantului său autorizat:

Nombre y dirección del fabricante o de su representante autorizado:

Nome e endereço do fabricante ou do respetivo mandatário:

Kingfisher International Products B.V.,
Rapenburgerstraat 175E,
1011 VM Amsterdam,
The Netherlands

This declaration of conformity is issued under the sole responsibility of the manufacturer.

La présente déclaration de conformité est établie sous la seule responsabilité du fabricant.

Niniejsza deklaracja zgodności wydana zostaje na wyłączną odpowiedzialność producenta.

Prezenta declarație de conformitate este emisă pe răspunderea exclusivă a producătorului.

La presente declaración de conformidad se expide bajo la exclusiva responsabilidad del fabricante.

A presente declaração de conformidade é emitida sob a exclusiva responsabilidade do fabricante.

Object of the declaration/Objet de la déclaration/Przedmiot deklaracji/Obiectul declarației/Objeto de la declaración/Objeto da declaração

Product/Produit/Produkt/Produsul/Producto/Produto

Model/Modèle/Model/Modelul/Modelo/Modelo

EAN

150W Bench Grinder /Touret à meuler /
Szlierka stołowa/Polizor de banc/Amoladora
de banco/Máquina de afiar de Bancada

TTB905GRB

5059340252582
5059340252599

The object of the declaration described above is in conformity with the relevant Union harmonisation legislation:

L'objet de la déclaration décrit ci-dessus est conforme à la législation d'harmonisation de l'Union applicable:

Wymieniony powyżej przedmiot niniejszej deklaracji jest zgodny z odpowiednimi wymaganiami unijnego prawodawstwa harmonizacyjnego:

Obiectul declarației descris mai sus este în conformitate cu legislația relevantă de armonizare a Uniunii:

El objeto de la declaración descrita anteriormente es conforme con la legislación de armonización pertinente de la Unión:

O objeto da declaração acima descrito está em conformidade com a legislação de harmonização da União aplicável:

2006/42/EC as amended Machinery Directive

2014/30/EU as amended Directive Electromagnetic compatibility

2011/65/EU as amended Directive Restriction of the use of certain hazardous substances in electrical and electronic equipment

Directive 2006/42/CE relative aux machines

2014/30 / UE telle que modifiée Directive Compatibilité électromagnétique

Directive 2011/65/UE relative à la limitation de l'utilisation de certaines substances dangereuses dans les équipements électriques et électroniques

2006/42/WE w zmienionej dyrektywie maszynowej

2014/30 / UE ze zmianami Dyrektywa Kompatybilność elektromagnetyczna

2011/65 / UE ze zmianami Dyrektywa Ograniczenie stosowania niektórych niebezpiecznych substancji w sprzęcie elektrycznym i elektronicznym

2006/42/CE, astfel a fost modificată Directiva privind echipamentele

2014/30/UE, astfel a fost modificată Directiva privind compatibilitatea electromagnetică

2011/65/UE, astfel a fost modificată Directiva privind limitarea utilizării anumitor substanțe periculoase în echipamentele electrice și electronice

Directiva sobre maquinaria modificada 2006/42/CE

2014/30/UE modificada Directiva Compatibilidad electromagnética

2011/65/UE modificada Directiva Restricción del uso de determinadas sustancias peligrosas en equipos eléctricos y electrónicos

2006/42/CE como diretiva de máquinas alteradas

2014/30/UE como alteração da compatibilidade eletromagnética

2011/65/UE como restrição diretiva alterada da utilização de certas substâncias perigosas em equipamentos elétricos e eletrônicos

References to the relevant harmonised standards used or references to the other technical specifications in relation to which conformity is declared:

Références des normes harmonisées pertinentes appliquées, y compris la date de celles-ci, ou des autres spécifications techniques, y compris la date de celles-ci, par rapport auxquelles la conformité est déclarée:

Odwolania do odpowiednich norm zharmonizowanych, które zastosowano, wraz z datą normy, lub do innych specyfikacji technicznych, wraz z datą specyfikacji, w odniesieniu do których deklarowana jest zgodność:

Trimiteri la standardele armonizate relevante folosite, inclusiv data standardului, sau trimiteri la celelalte specificații tehnice, inclusiv data specificațiilor, în legătură cu care se declară conformitatea:

Referencias a las normas armonizadas pertinentes utilizadas, incluidas las fechas de las normas, o referencias a las otras especificaciones técnicas, incluidas las fechas de las especificaciones, respecto a las cuales se declara la conformidad:

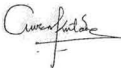
In more detail...

EC declaration of conformity

Referências às normas harmonizadas aplicáveis utilizadas, incluindo a data da norma, ou às outras especificações técnicas, incluindo a data da especificação, em relação às quais é declarada a conformidade:	
EN 62841-1:2015 EN 62841-3-4:2016/A11:2017 EN 55014-1:2017/A11:2020 EN 55014-2:2015 EN 61000-3-2:2014 EN IEC 61000-3-2:2019 EN 61000-3-3:2013 EN 61000-3-3:2013/A1:2019	
Authorised signatory and technical file holder/signataire et responsable de la documentation technique autorisé/ podmiot uprawniony do wystawienia i adres prezechowywania dokumentacji technicznej/semnatar autorizat și deținător al dosarului tehnic/firmante autorizado y titular del expediente tecnico/ signatário autorizado e detentor da ficha técnica	
Kingfisher International Products B.V., Rapenburgerstraat 175E, 1011 VM Amsterdam, The Netherlands	
	
David Awe Group Quality Director	On : [20/04/2022]

In more detail...

EC declaration of conformity

UK CA (UK) DECLARATION OF CONFORMITY		
Product 150W Bench Grinder - TTB905GRB - Serial number range 0000001 to 9999999		
Name and address of the manufacturer or his authorised representative: Kingfisher International Products Limited 3 Sheldon Square London W2 6PX United Kingdom		
This declaration of conformity is issued under the sole responsibility of the manufacturer.		
Object of the declaration		
Product	Model	EAN
150W Bench Grinder /	TTB905GRB	5059340252582
The object of the declaration described above is in conformity with the relevant legislation:		
Supply of Machinery (Safety) Regulations 2008 as amended Electromagnetic Compatibility Regulations 2016 as amended The Restriction of the use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012 as amended		
References to the relevant designated standards used or references to the other technical specifications in relation to which conformity is declared: EN 62841-1:2015 EN 62841-3-4:2016/A11:2017 EN 55014-1:2017/A11:2020 EN 55014-2:2015 EN 61000-3-2:2014 EN IEC 61000-3-2:2019 EN 61000-3-3:2013 EN 61000-3-3:2013/A1:2019		
Authorised signatory and technical file holder: Kingfisher International Products Limited 3 Sheldon Square London W2 6PX United Kingdom  David Awe Group Quality Director On [20/04/2022]		

In more detail...



**Manufacturer, Fabricant, Producent,
Producător, Fabricante:**

UK Manufacturer:
Kingfisher International Products Limited
3 Sheldon Square
London W2 6PX
United Kingdom

EU Manufacturer:
Kingfisher International Products B.V.
Rapenburgerstraat 175E
1011 VM Amsterdam
The Netherlands



www.diy.com

www.screwfix.com

To view instruction manuals online,
visit www.kingfisher.com/products
