



说明书材质要求：105g 有光铜版纸	说明书成品尺寸： 105*143mm
第一：专色用6级防晒油墨+CMYK油墨要求： 1.PANTONE137C专色油墨（专色用6级防晒油墨）： 如果自己配色，油墨配比为：酒联中黄（防晒）2000g 酒联金红（防晒）225g 2.C色油墨：酒联天蓝墨 3.M色油墨：酒联金红墨 4.Y色油墨：pantone123C专色油墨 5.K色油墨：酒联黑墨	第二：特别注意： 1.印刷时看样请参考我司提供的实物样品颜色。不得偏色 2.137C的专色不得参考C=0,M=35,Y=90,K=0对应的四色 色谱颜色来看样印刷 Pantone 137C Black（两色印刷）
折叠方式： 风琴折 （ 20P以下 用风琴折 ）/ 骑马钉 （ 20P以上 用骑马钉 ） 特殊情况：16P/20P：风琴折 + 对折	备注：

特别注意：此页内容不印刷

风琴折 + 对折 页面顺序

16P 页面顺序

9	10	11	封面
12	13	14	封底

1	2	3	4
5	6	7	8

20P 页面顺序

11	12	13	14	封面
15	16	17	18	封底

1	2	3	4	5
6	7	8	9	10

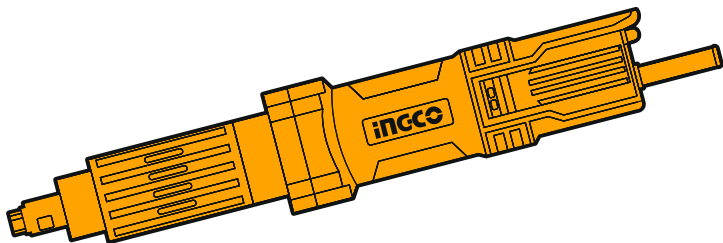
更改记录	1. 添加UPDG5501-91			1. 添加PDGS5501			1. 更新线稿		
	0525.V05	2025.5.6	LYD	1225.V06	2025.12.16	LYD	1225.V07	2025.12.22	LYD
	版本号	日期	设计师	版本号	日期	设计师	版本号	日期	设计师

ingco®

www.ingco.com

PRODUCT MANUAL

DIE GRINDER



PDG5501 PDG5501xy
PDGS5501 PDGS5501xy
UPDG5501 UPDG5501-91 UPDG5501xy
x(blank,1,2,3,4,5,6,7,8,9,E,S,A,M)
y(blank,-1,-2,-3,-4,-5,-6,-7,-8,-9,E,S,A,M)



GENERAL POWER TOOL SAFETY WARNINGS

⚠ WARNING! Read all instructions and all instructions. *Failure to follow the warnings and instructions 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 or battery-operated (cordless) power tool.

1) Work area

- a) **Keep work area clean and well lit.** *Cluttered and 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.*

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 safety equipment. Always wear eye protection.** *Safety equipment such as 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, clothing and gloves 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 these devices can reduce dust related hazards.*

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 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. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tools 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 and in the manner intended for the particular type of power tool, taking into account the working conditions and the work to be performed.** *Use of the power tool for operations different from intended could result in a hazardous situation.*

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.*

THE SYMBOLS IN INSTRUCTION MANUAL

	Double insulated for additional protection
	Read the instruction manual before using.
	CE conformity.
	Safety alert. Please only use the accessories supported by the manufacturer.
	Wear safety glasses, hearing protection and dust mask.
	Waste electrical products should not be disposed of with household waste. Please recycle where facilities exist. Check with your Local Authority or retailer for recycling advice.

ADDITIONAL SAFETY WARNINGS

Die Grinder safety warnings

Safety instructions for all operations

Safety warnings common for grinding, sanding, wire brushing, polishing, carving or abrasive cutting-off operations:

- a) **This power tool is intended to function as a grinder. 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.*
- b) **Operations such as sanding, wire brushing, polishing or cutting-off are not recommended to be performed with this power tool.** *Operations for which the power tool was not designed may create a hazard and cause personal injury.*
- c) **Do not use accessories which are not specifically designed and recommended by the tool manufacturer.** *Just because the accessory can be attached to your power tool, it does not assure safe operation.*
- d) **The rated speed of the grinding accessories must be at least equal to the maximum speed marked on the power tool.** *Grinding accessories running faster than their rated speed can break and fly apart.*
- e) **The outside diameter and the thickness of your accessory must be within the capacity rating of your power tool.** *Incorrectly sized accessories cannot be adequately controlled.*
- f) **The arbour size of wheels, sanding drums or any other accessory must properly fit the spindle or collet of the power tool.** *Accessories that do not match the mounting hardware of the power tool will run out of balance, vibrate excessively and may cause loss of control.*
- g) **Mandrel mounted wheels, sanding drums, cutters or other accessories must be fully inserted into the collet or chuck.** *If the mandrel is insufficiently held and/or the overhang of the wheel is too long, the mounted wheel may become loose and be ejected at high velocity.*
- h) **Do not use a damaged accessory. Before each use inspect the accessory such as abrasive wheels for chips and cracks, sanding drum for cracks, tear or excess wear, wire brush for loose or cracked wires. If power tool or accessory is dropped, inspect for damage or install an undamaged accessory. 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.*

- i) **Wear personal protective equipment.** Depending on application, use face shield, safety goggles or safety glasses. As appropriate, wear dust mask, hearing protectors, gloves and workshop apron capable of stopping small abrasive or workpiece fragments. *The eye protection must be capable of stopping flying debris generated by various operations. The dust mask or respirator must be capable of filtering particles generated by your operation. Prolonged exposure to high intensity noise may cause hearing loss.*
- j) **Keep bystanders a safe distance away from work area.** Anyone entering the work area must wear personal protective equipment. *Fragments of workpiece or of a broken accessory may fly away and cause injury beyond immediate area of operation.*
- k) **Hold power tool by insulated gripping surfaces only, when performing an operation where the cutting accessory may contact hidden wiring or its own cord.** *Cutting accessory contacting a "live" wire may make exposed metal parts of the power tool "live" and could give the operator an electric shock.*
- l) **Always hold the tool firmly in your hand(s) during the start-up.** *The reaction torque of the motor, as it accelerates to full speed, can cause the tool to twist.*
- m) **Use clamps to support workpiece whenever practical. Never hold a small workpiece in one hand and the tool in the other hand while in use.** *Clamping a small workpiece allows you to use your hand(s) to control the tool. Round material such as dowel rods, pipes or tubing have a tendency to roll while being cut, and may cause the bit to bind or jump toward you.*
- n) **Position the cord clear of the spinning accessory.** *If you lose control, the cord may be cut or snagged and your hand or arm may be pulled into the spinning accessory.*
- o) **Never lay the power tool down until the accessory has come to a complete stop.** *The spinning accessory may grab the surface and pull the power tool out of your control.*
- p) **After changing the bits or making any adjustments, make sure the collet nut, chuck or any other adjustment devices are securely tightened.** *Loose adjustment devices can unexpectedly shift, causing loss of control, loose*

rotating components will be violently thrown.

- q) **Do not run the power tool while carrying it at your side.** *Accidental contact with the spinning accessory could snag your clothing, pulling the accessory into your body.*
- r) **Regularly clean the power tool's air vents.** *The motor's fan will draw the dust inside the housing and excessive accumulation of powdered metal may cause electrical hazards.*
- s) **Do not operate the power tool near flammable materials.** *Sparks could ignite these materials.*
- t) **Do not use accessories that require liquid coolants.** *Using water or other liquid coolants may result in electrocution or shock.*

Further safety instructions for all operations

Kickback and related warnings:

Kickback is a sudden reaction to a pinched or snagged rotating wheel, backing pad, brush or any other accessory. Pinching or snagging causes rapid stalling of the rotating accessory which in turn causes the uncontrolled power tool to be forced in the direction opposite of the accessory's rotation at the point of the binding.

For example, if an abrasive wheel is snagged or pinched by the workpiece, the edge of the wheel that is entering into the pinch point can dig into the surface of the material causing the wheel to climb out or kick out. The wheel may either jump toward or away from the operator, depending on direction of the wheel's movement at the point of pinching. Abrasive wheels may also break under these conditions.

Kickback is the result of power tool misuse and/or incorrect operating procedures or conditions and can be avoided by taking proper precautions as given below.

- a) **Maintain a firm grip on the power tool and position your body and arm to allow you to resist kickback forces. Always use auxiliary handle, if provided, for maximum control over kickback or torque reaction during start-up.** *The operator can control torque reactions or kickback forces, if proper precautions are taken.*
- b) **Use special care when working corners, sharp edges etc. Avoid bouncing and snagging the accessory.** *Corners, sharp edges or bouncing have a tendency to snag the rotating accessory and cause loss of control or kickback.*

- c) **Do not attach a saw chain woodcarving blade.** *Such blades create frequent kickback and loss of control.*
- d) **Always feed the bit into the material in the same direction as the cutting edge is exiting from the material (which is the same direction as the chips are thrown).** *Feeding the tool in the wrong direction causes the cutting edge of the bit to climb out of the work and pull the tool in the direction of this feed.*

Additional safety instructions for grinding and cutting-off operations

Safety warnings specific for grinding and abrasive cutting-off operations:

- a) **Use only wheel types that are recommended for your power tool and only for recommended applications.** *For example: do not grind with the side of a cut-off wheel. Abrasive cut-off wheels are intended for peripheral grinding, side forces applied to these wheels may cause them to shatter.*
- b) **For threaded abrasive cones and plugs use only undamaged wheel mandrels with an unrelieved shoulder flange that are of correct size and length.** *Proper mandrels will reduce the possibility of breakage.*
- c) **Do not "jam" a cut-off wheel or apply excessive pressure. Do not attempt to make an excessive depth of cut.** *Overstressing the wheel increases the loading and susceptibility to twisting or snagging of the wheel in the cut and the possibility of kickback or wheel breakage.*
- d) **Do not position your hand in line with and behind the rotating wheel.** *When the wheel, at the point of operation, is moving away from your hand, the possible kickback may propel the spinning wheel and the power tool directly at you.*
- e) **When wheel is pinched, snagged or when interrupting a cut for any reason, switch off the power tool and hold the power tool motionless until the wheel comes to a complete stop. Never attempt to remove the cut-off wheel from the cut while the wheel is in motion otherwise kickback may occur.** *Investigate and take corrective action to eliminate the cause of wheel pinching or snagging.*
- f) **Do not restart the cutting operation in the workpiece. Let the wheel reach full speed and carefully re-enter the cut.** *The wheel may bind, walk up or kickback if the power tool is restarted in the workpiece.*
- g) **Support panels or any oversized workpiece to minimize the risk of wheel pinching and kickback.** *Large workpieces tend to sag under their own weight.*

Supports must be placed under the workpiece near the line of cut and near the edge of the workpiece on both sides of the wheel.

- h) **Use extra caution when making a "pocket cut" into existing walls or other blind areas.** *The protruding wheel may cut gas or water pipes, electrical wiring or objects that can cause kickback.*

RESIDUAL RISKS

Even when the power tool is used as prescribed it is not possible to eliminate all residual risk factors. The following hazards may arise in connection with the power tool's construction and design:

- a) Health defects resulting from vibration emission if the power tool is being used over longer period of time or not adequately managed and properly maintained.
- b) Injuries and damage to property to due to broken accessories that are suddenly dashed.

WARNING!

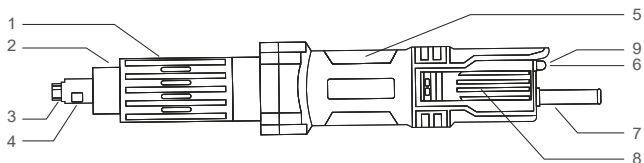
This power tool produces an electromagnetic field during operation. This field may under some circumstances interfere with active or passive medical implants. To reduce the risk of serious or fatal injury, we recommend persons with medical implants to consult their physician and the medical implant manufacturer before operating this power tool.

INTENDED USE

This die grinder may be used for grinding wood, metal, plastic, or similar materials, especially in hard accessible corners and places.

DO NOT use die grinder under wet conditions or in presence of flammable liquids or gases.

SPECIFICATIONS



Components

- | | |
|--------------------------|-------------------------|
| 1. Aluminium head sleeve | 6. On/Off switch button |
| 2. Aluminium head | 7. Power cable sleeve |
| 3. Chuck | 8. Cooling vents |
| 4. Output shaft | 9. Speed control |
| 5. Housing | (only PDGS5501) |

Accessories

1. Spanner (12mm) 1pcs
2. Spanner (17mm) 1pcs
3. Carbon brush 1set
4. Grinding stones 3pcs

Technical specifications

Model No.	PDG5501 PDG5501xy	UPDG5501 UPDG5501xy
Rated input power	550W	550W
Rated voltage	220-240V~50/60Hz	110-120V~50/60Hz
No-load speed	29000/min	29000/min
Collet chuck diameter	6mm	1/4"
Max. wheel point diameter	25mm	1"
Protection class	回/II	回/II

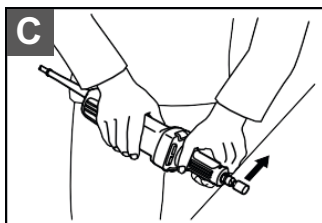
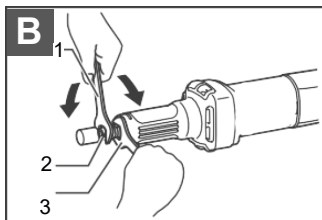
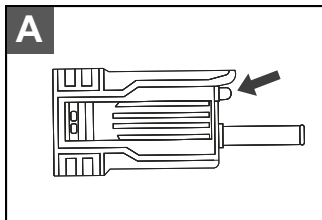
Model No.	PDG5501-9 (INMETRO Plug)	UPDG5501-9 (INMETRO Plug)
Rated input power	550W	550W
Rated voltage	220-240V~60Hz	127V~60Hz
No-load speed	29000/min	29000/min
Collet chuck diameter	6mm	1/4"
Max. wheel point diameter	25mm	1"
Protection class	回/II	回/II

Model No.	UPDG5501-91 (INMETRO Plug)	PDGS5501 PDGS5501xy
Rated input power	550W	550W
Rated voltage	127V~60Hz	220-240V~50/60Hz
No-load speed	29000/min	7500-29000/min
Collet chuck diameter	6mm(1/4")	6mm
Max. wheel point diameter	1"	25mm
Protection class	回/II	回/II

Model No. NOTE: x (blank, 1,2,3,4,5,6,7,8,9,E,S,A,M); y (blank, -1,-2,-3,-4,-5,-6,-7,-8,-9,E,S,A,M)

- Due to our continuing program of research and development, the specifications herein are subject to change without notice.

OPERATION PICTURE



FUNCTION DESCRIPTION

CAUTION!

Always be sure that the tool is switched off and unplugged before adjusting or checking function on the tool.

Switch action (see Figure A)

Before plugging in the tool, always check to see that the slide switch actuates properly and returns to the "OFF" position when the rear of the slide switch is depressed.

To start the tool, slide the slide switch toward the "I (ON)" position. For continuous operation, press the front of the slide switch to lock it. To stop the tool, press the rear of the slide switch, then slide it toward the "O (OFF)" position.

CAUTION!

Always be sure that the tool is switched off and unplugged before carrying out any work on the tool.

Installing or removing wheel point (see Figure B)

Loosen the collet nut and insert the wheel point into the collet nut. Use one wrench to hold the spindle and the other one to tighten the collet nut securely.

To remove the wheel point, follow the installation procedure in reverse.

OPERATION

CAUTION!

Observe correct mains voltage! The voltage of the power source must agree with the voltage specified on the nameplate of the machine.

Setting the operating mode (see Figure C)

Turn the tool on without the wheel point making any contact with the workpiece and wait until the wheel point attains full speed. Then apply the wheel point to the workpiece gently. To obtain a good finish, move the tool in the leftward direction slowly.

Maintenance

CAUTION!

Always be sure that the tool is switched off and unplugged before attempting to perform inspection or maintenance.

Cleaning

Blowing dust and grit out of the motor housing using compressed air is a necessary regular maintenance procedure. Dust and grit containing particles from metal filing often accumulate on interior surfaces and could create an electrical shock hazard if not frequently cleaned out.

CAUTION!

Never use solvents or other harsh chemicals for cleaning the non-metallic parts of the tool. Use clean, dry rag only

MAINTENANCE&MALFUNCTIONS

Possible malfunctions and methods of their eliminations

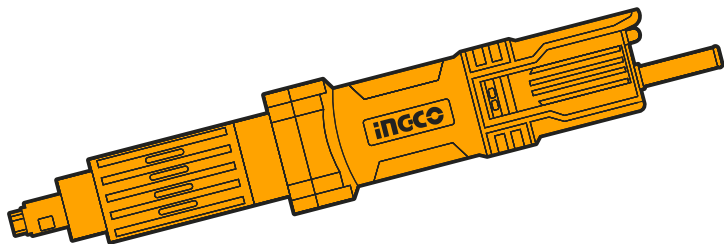
Malfunction	Probable causes	Actions
When the machine is turned on, the electric motor does not work.	● Switch failure ● The power cord or wiring is broken, power cord plug malfunction; ● No brush contact with the collector; ● Wear/damage of brushes	Disconnect the machine from the mains and contact a qualified specialist.
Formation of a circular fire on the collector	● Brush wear/damage of the brush holder; ● Malfunction in the armature coil	Disconnect the machine from the mains and contact a qualified specialist. Please don't repair the machine by your own.
When working, smoke or the smell of burning insulation appears from the ventilation openings.	● Malfunction in the electric motor coil; ● Malfunction of the electrical part of the tool.	
Increased noise in the gearbox	● Wear/breakage of gears or bearings	
When the machine is turned on, the spindle does not rotate	● Gearbox failure.	

Critical state criteria

Critical state criteria	Probable causes	Actions
Cracks on the surfaces of bearing and housing parts	Fatigue deformation of metal	Disconnect the machine from the mains and contact a qualified specialist. Please don't repair the machine by your own.
The power cord or plug is damaged	Overload or breakage	
Excessive wear or damage to the motor or reductor mechanism, or a combination of signs	Fatigue deformation of metal	

Critical state criteria

List of critical failures	Actions
Electric motor sparking	It is necessary to contact a qualified specialist
The appearance of extraneous noise	It is necessary to contact a qualified specialist
If the above malfunctions are detected, it is necessary to disconnect the machine from the mains and contact a qualified specialist	



MADE IN CHINA 1225.V07



INGCO Global

www.ingco.com

NEUWAY TECHNOLOGY(SUZHOU) CO., LIMITED
No. 20 Dagang Road, Fuqiao Town, Taicang City, China