



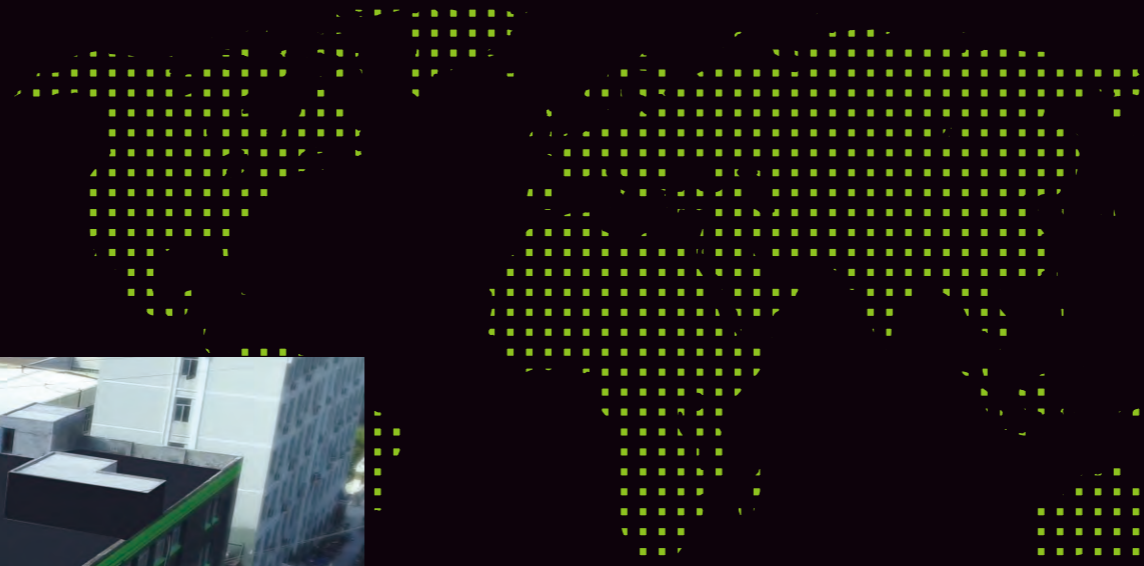
**WIPCOOL**<sup>®</sup>  
FEELING FOR MORE



 **YouTube**  
Scan us for more details  
[www.wipcool.com](http://www.wipcool.com)

**Focus on Air Conditioning's  
Drainage, Maintenance & Installation**



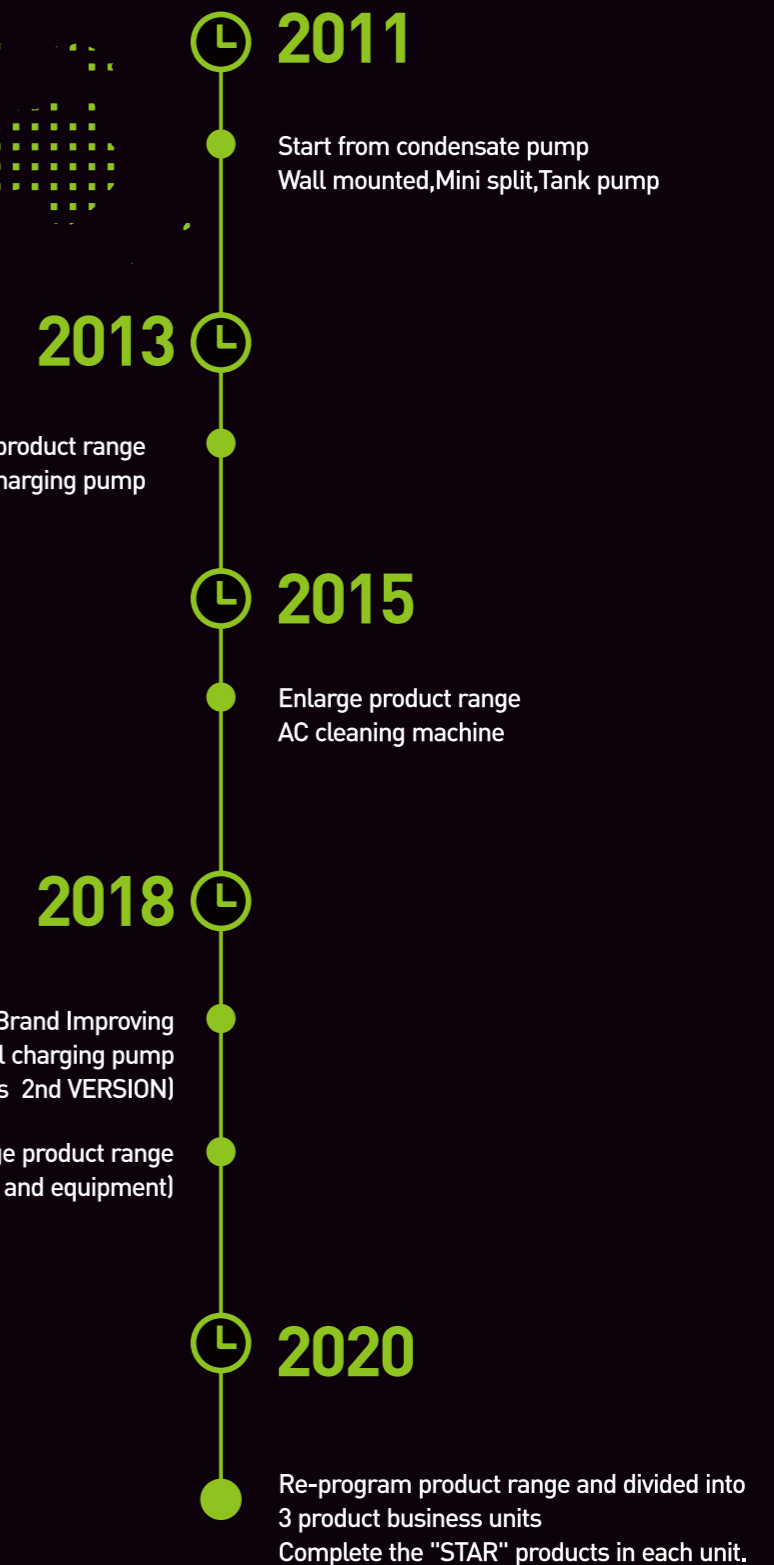
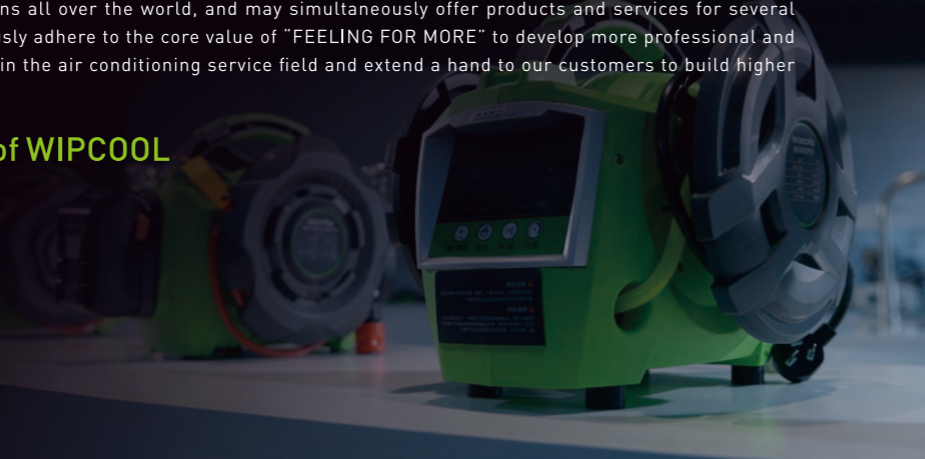


**ABOUT**

WIPCOOL is a national high-tech enterprise that focuses on providing customers with products in the air conditioning drainage, maintenance, and installation field with ongoing technological innovation and professional manufacturing quality. In the past ten years of development, with a sharp focus, we captured the practical needs of customers, provided instant responses to customer requirements, and founded three major business units by integrating condensate management, HVAC system maintenance, and HVAC tools&equipment with accumulate innovation technology and remarkable expertise. With the smart integration of these 3 units, WIPCOOL will provide customers with one-stop products and services of "FEELING FOR MORE" in the air conditioning service field.

By insisting on innovation and professional manufacturing, and with ten years of development, WIPCOOL has retained a good reputation and a high market share in the fields of air conditioning drainage, maintenance, and installation. We have established a product sales channel with the proprietary "WIPCOOL" brand in over 40 nations and regions all over the world, and may simultaneously offer products and services for several internationally established corporations. We will continuously adhere to the core value of "FEELING FOR MORE" to develop more professional and satisfying products, solutions, and services for customers in the air conditioning service field and extend a hand to our customers to build higher business value.

**"FEELING FOR MORE"-Persevering of WIPCOOL**



**CONDENSATE MANAGEMENT P11-20**

**A, Condensate pump**

- P11 Wall-mounted condensate pump
- P12 Split condensate pump
- P13 Mini split condensate pump
- P14 Corner condensate pump
- P15 Tank condensate pump



**B, Accessories**

- P18 Intelligent level controller
- P19 Floating-ball condensate trap
- P20 Condensate drain tubing

**HVAC SYSTEM MAINTENANCE P25-32**

**A, AC Cleaning machine**

- P25 High pressure cleaning machine
- P26 Steam cleaning machine
- P27 Medium pressure cleaning machine
- P28 High pressure cleaning gun



**B, Cleaning accessories**

- P29 Indoor cleaning gun
- P30 Split AC cleaning cover

**C, Oil charging pump**

- P31 Manual oil charging pump
- P32 Electric oil charging pump



**HVAC TOOLS&EQUIPMENT P37-54**

**A, Vacuum pump**

- P37 S series vacuum pump
- P38 F series vacuum pump
- P39 R32 vacuum pump
- P40 Battery vacuum pump
- P41 Dual-power vacuum pump

**B, Accessories**

- P43 Vacuum pump oil
- P43 Tool box
- P44 Battery converter
- P44 Battery adapter

**C, Refrigeration tools**

- P45 Manifold gauges
- P48 Refrigeration hose

**D, Tubing tools**

- P49 Tube cutter
- P51 R410A flaring tool
- P53 Deburrer
- P53 Ratchet Wrench
- P54 Pinch off locking plier
- P54 Recovery puncture plier

## CONDENSATE MANAGEMENT-BE SAFE DRAINAGE PIONEER SERIES

### ● Condensate pump

A condensate pump is a specific type of pump used to pump the condensate (water) produced in a heating or cooling, refrigeration, condensing boiler furnace, or steam system.

In HVAC or refrigeration process, the water that condensate has to be drained from the system. The condensation process usually occurred when the air passes through the cold evaporator coil during the cooling process.

As a result, the moisture that accumulate on the coil then drip down into the drain pan that is placed underneath the coils.

Some systems are able to use the gravitational force to flow the water that accumulate on the drain pan. However, there are many instances when the air conditioning systems require to use a condensate pump to get the water out to prevent the water from dripping onto the floor or in the attic.

WIPCOOL condensate pump has the characteristics of high discharge head, big flow rate, low noise and remote horizontal output drainage. It is specially designed for all kinds of air conditioning system with high reliable and durable, easy to install and maintain.

### ● Condensate trap

Typically, HVAC equipment is fitted with "U" traps that require water, within a condensate pipe to prevent gas and pest from entering or leaving the unit. But at other times, the traps dry out allowing gas or pest to escape or enter the HVAC equipment.

WIPCOOL condensate trap used ball-valve structure, different with the "U" trap can not play its role of water seal in dry season, The float responds to condensate flow. The snap-fit design is easy to disassemble, clean and maintain, it provides end user with a fresh and clean indoor air.

### ● Intelligent level controller

Refrigeration equipment and dehumidification equipment that lack a built-in liquid level controller often cause condensate drainage failures and property damage due to condensate pipe blockage, because of the equipment cannot be cut off in the first time, and the equipment continues to produce the condensate, then it make the ceiling, furniture soaked.

WIPCOOL intelligent level controller has a built-in smart chip to avoid property damage which caused by drainage failures. It can fully use of the built-in safety switch of WIPCOOL condensate pump, to cut off the power supply of the refrigeration equipment automatically. The appearance is exquisite, the wiring is simple, it is the best companion of the drainage pump.

## HOW TO CHOOSE A PROPER CONDENSATE PUMP

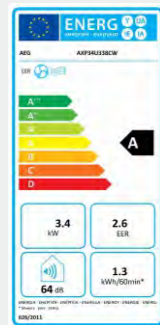
### Identifying air-conditioning unit type

As there are varieties of pump models available for different unit types such as split, ducted, floor mounted, cassettes, etc., it is very important to identify the type of cooling system while choosing the suitable condensate pump.



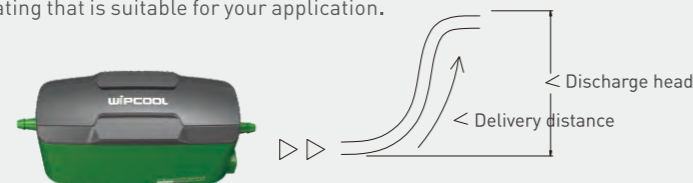
### Cooling capacity of the air-conditioner

The AC cooling capacity (often represented in kWh and can be found in your AC specifications) is needed to estimate the amount of condensate discharged per hour (1kWh cooling load will generate about 0.4-0.8L/h). ACs with larger cooling capacities tend to generate more condensate than regular ones.



### The discharge head

Figure out the lift requirement for the pump by identifying where the pump will be mounted and where the discharge point will be. Condensate flow will decrease in accordance with the height it must travel until maximum, or "shut-off" lift is reached. Select a pump with a maximum lift rating that is suitable for your application.



### Climate

Along with cooling capacity, location and climate also play a big role in measuring the amount of condensate. The discharge quantity can differ significantly between dry and humid climates. For example, the quantity of condensate in humid climates can double that of dry climates. Therefore, you need a higher performance pump for humid climatic conditions.

## WIPCOOL CONDENSATE PUMP'S SELECTION

Model	Max. unit output	Applicable A/C	Applicable place	Discharge head (Max)
P18	30000Btu/h	Split unit, Floor mounted unit	Smaller commercial and domestic units in quiet environments	10m
P36	45000Bth/h			
P16	30000Btu/h	Ducted units; Floor standing & Chassis units; High wall split systems		
P32	45000Bth/h			
P12	30000Bth/h			
P12C	30000Bth/h	High wall split systems		
P180	300,000Bth/h	Floor mounted unit, Dehumidifiers; Air handling units (AHUs)	Large commercial units	4.5m
P380	500,000Bth/h			6.8m
P580	500,000Bth/h			12m

### Cooling capacity conversion

1Btu/h=0.2931W, 1W=3.412Btu/h  
1USRT=3.517kW, 1kW=0.28434USRT

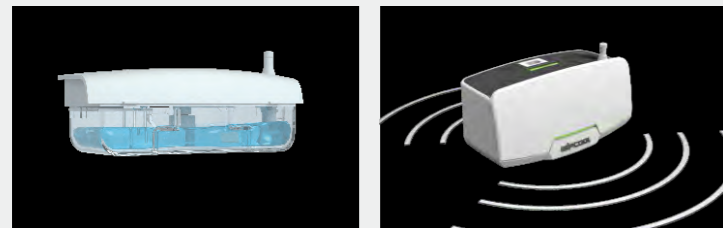
## Wall-Mounted Condensate Pump Dual Guarantee, High Security

- High performance, strong power
- Level gauge installed, ensure the accurate installation
- Dual-control system, improve durability
- Built-in LEDs provide visual operating feedback

### INSTRUCTIONS

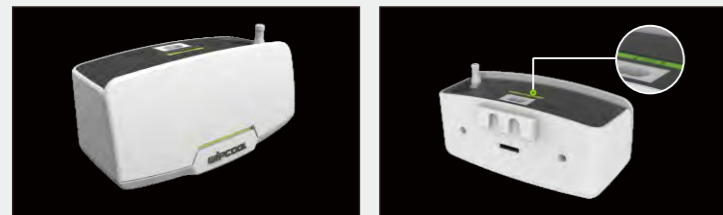


### FEATURES



Dual-control system(probe&float)

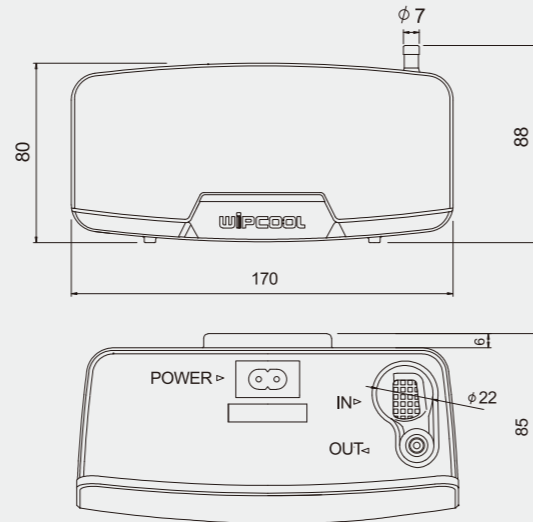
Buzzer fault alarm



Led running light

Easy access to installment

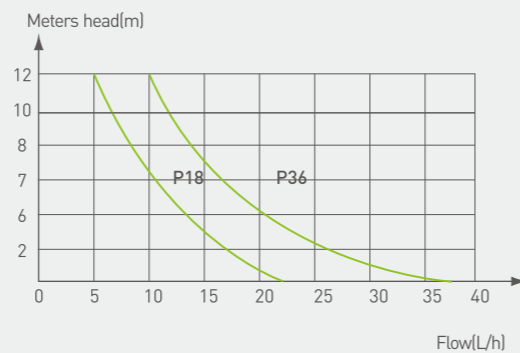
### DIMENSIONS



### TECHNICAL DATA :

Model	P18	P36
Voltage	100V-230V~/50-60Hz	
Discharge Head(max.)	10m(33ft)	
Flow Rate(max.)	18L/h(4.8GPH)	36L/h(9.6GPH)
Tank Capacity	150ml	
Mini Splits up to	30,000btu/hr	45,000btu/hr
Sound Level at 1m	19dB(A)	21dB(A)
Ambient Temp.	0°C~50°C	

### FLOW RATE



## Mini Condensate Pump Silent Running, Reliable and Durable

- Super quiet design, Unequalled operating sound level
- Built-in safty switch, improve reliability
- Exquisite&compact design, Suitable for different spaces
- Built-in LEDs provide visual operating feedback

### INSTRUCTIONS

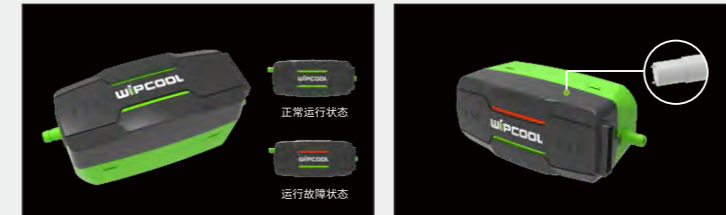


### FEATURES



3 level sensor technology

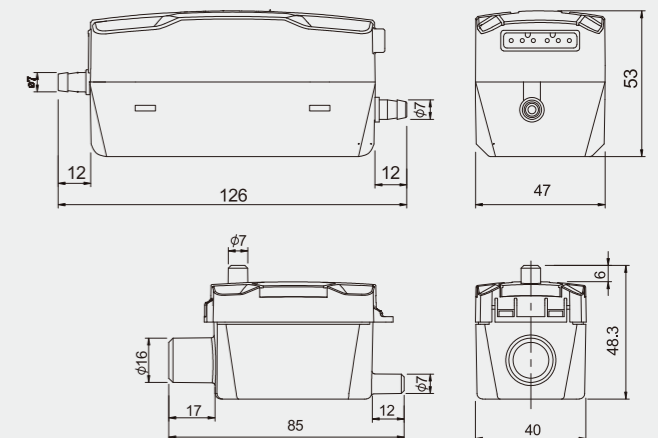
Split structure, flexible installation



Led running light

Built-in safty switch

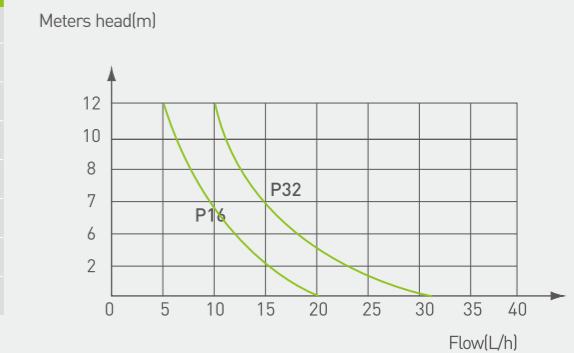
### DIMENSIONS



### TECHNICAL DATA :

Model	P16	P32
Voltage	100V-230V~/50-60Hz	
Discharge Head(max.)	10m(33ft)	
Flow Rate(max.)	16L/h(4.2GPH)	32L/h(8.5GPH)
Tank Capacity	35ml	
Mini Splits up to	30,000btu/hr	45,000btu/hr
Sound Level at 1m	19dB(A)	21dB(A)
Ambient Temp.	0°C~50°C	

### FLOW RATE

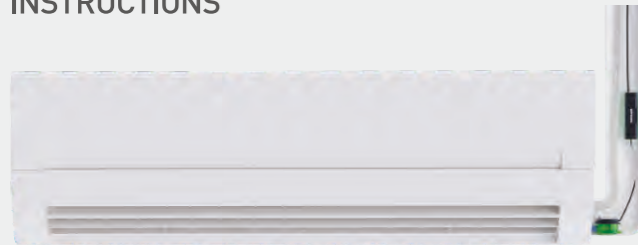


## Mini Condensate Pump

### Compact and Flexible, Silent and Durable

- Compact ,flexible installation
- Quick- connect , convenient maintenance
- Unique motor balance technology, reduce vibration
- High quality denoise design, better user experience

#### INSTRUCTIONS



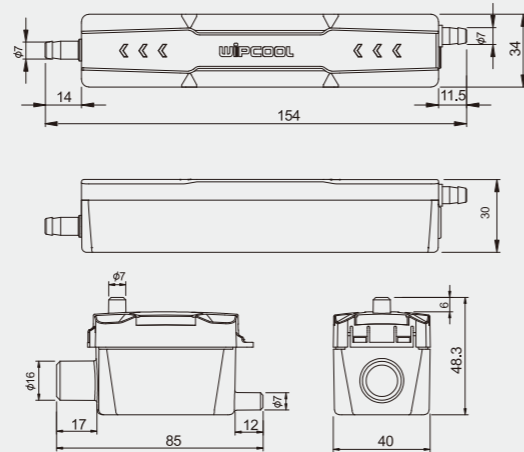
Can be installed in A/C duct



Can be installed in back of A/C



#### DIMENSIONS



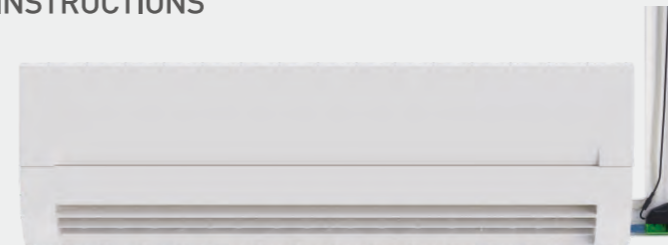
**P12**

## Corner Condensate Pump

### Reliable and Durable Silence Running

- Integral design, compact
- Connect the socket quickly, easy maintenance
- Easy installation
- Quiet and no vibration

#### INSTRUCTIONS



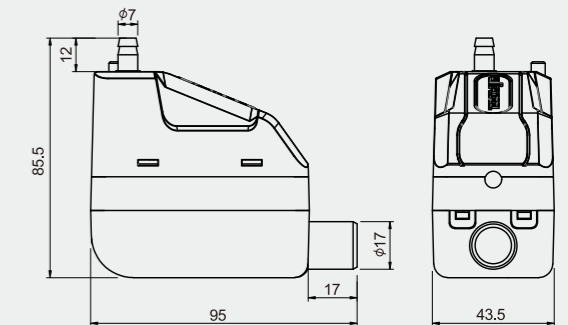
Can be installed in right side



Can be installed in left side



#### DIMENSIONS

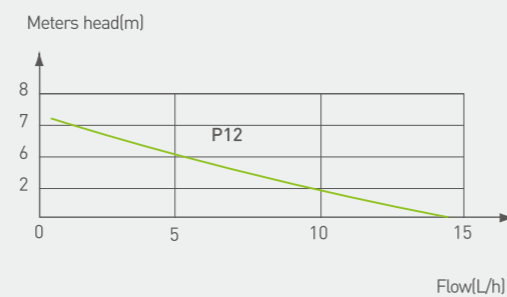


**P12C**

#### TECHNICAL DATA :

Model	P12
Voltage	100V-230V~/50-60Hz
Discharge Head(max.)	7m(23ft)
Flow Rate(max.)	12L/h(3.2GPH)
Tank Capacity	35 ml
Mini Splits up to	30,000btu/hr
Sound Level at 1m	19dB(A)
Ambient Temp.	0°C-50°C

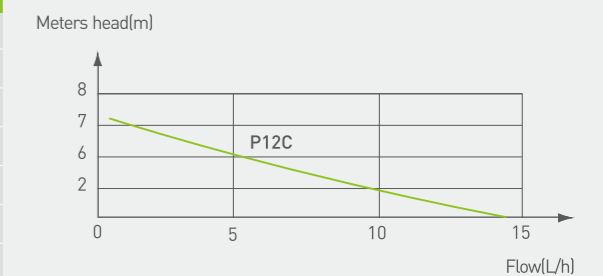
#### FLOW RATE



#### TECHNICAL DATA :

Model	P12C
Voltage	100V-230V~/50-60Hz
Discharge Head(max.)	7m(23ft)
Flow Rate(max.)	12L/h(3.2GPH)
Tank Capacity	45 ml
Mini Splits up to	30,000btu/hr
Sound Level at 1m	19dB(A)
Ambient Temp.	0°C-50°C

#### FLOW RATE



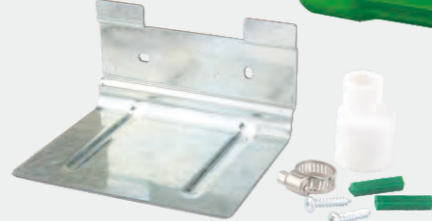
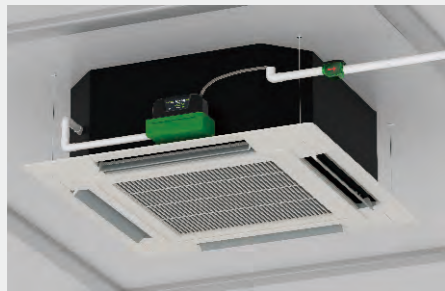


## Tank Condensate Pump

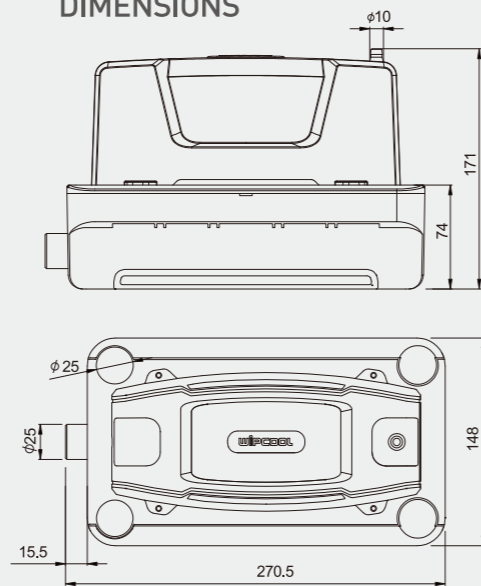
### Reliable Operation Simple Maintenance

- Floatless structure, free maintenance for long time work
- Automatic reset thermal protection, longer service life
- Forced air cooling, ensure stable running
- Anti-backflow design, improve the safety

#### INSTRUCTIONS



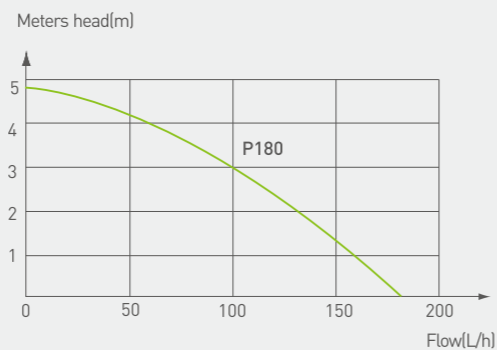
#### DIMENSIONS



#### TECHNICAL DATA :

Model	P180
Voltage	230V~/50-60Hz or 115V~/50-60Hz
Discharge Head(max.)	4.5m(15ft)
Flow Rate(max.)	180L/h(48GPH)
Tank Capacity	1.8 L
Sound Level at 1m	48dB(A)
Ambient Temp.	0°C~50°C
Power Consumption	60W

#### FLOW RATE

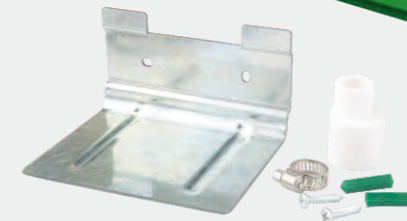
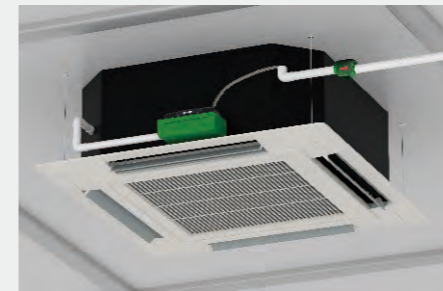


## Tank Condensate Pump

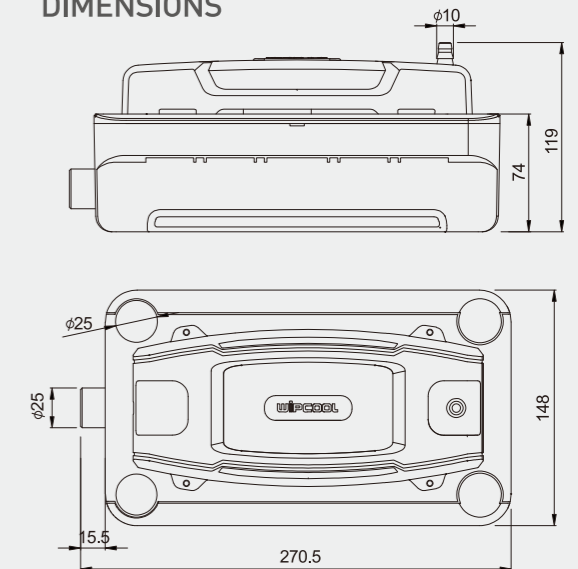
### Higher Discharge Head Convenient Installation

- Buckle type fixed structure, easy installation
- 3 inlets for optional, easy to use
- Buzzer fault alarm, improve the safety
- Low profile for limited spaces

#### INSTRUCTIONS



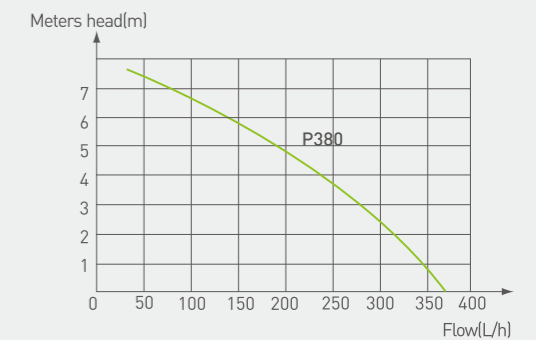
#### DIMENSIONS



#### TECHNICAL DATA :

Model	P380
Voltage	100V-230V~/50-60Hz
Discharge Head(max.)	6.8m(22ft)
Flow Rate(max.)	380L/h(100GPH)
Tank Capacity	1.8L
Sound Level at 1m	28dB(A)
Ambient Temp.	0°C~50°C
Power Consumption	20W

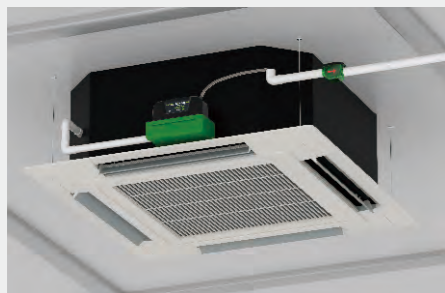
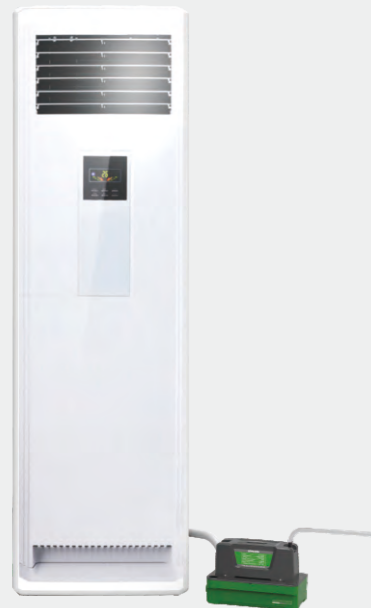
#### FLOW RATE



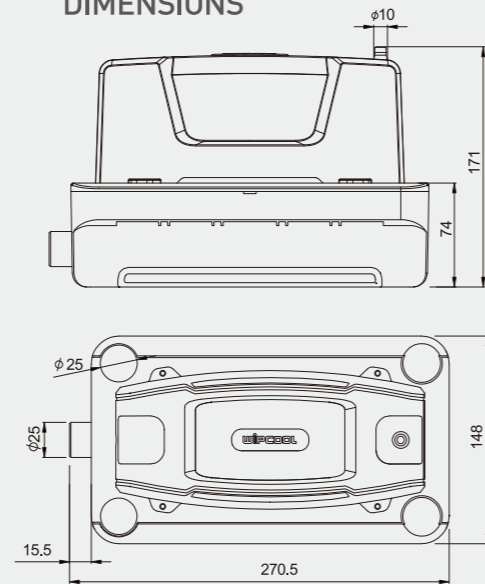
## Tank Condensate Pump Ultra-high Lift, Super Big Flow

- Super performance(12M lift,580L/h flowrate)
- Forced air cooling , ensure stable running
- Anti-backflow design,improve the safty
- Floatless structure, free maintenance for long time work

### INSTRUCTIONS



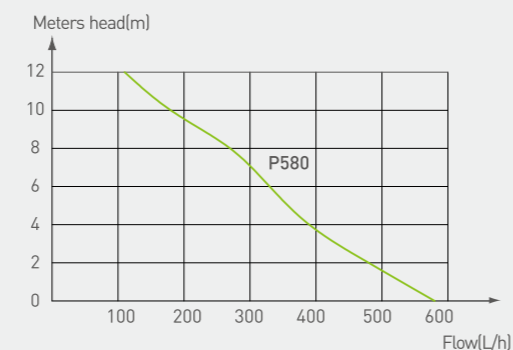
### DIMENSIONS



### TECHNICAL DATA :

Model	P580
Voltage	230V~/50-60Hz or 115V~/60Hz
Discharge Head(max.)	12m(40ft)
Flow Rate(max.)	580/h(153GPH)
Tank Capacity	1.8 L
Sound Level at 1m	60dB(A)
Ambient Temp.	0°C~50°C
Power Consumption	190W

### FLOW RATE

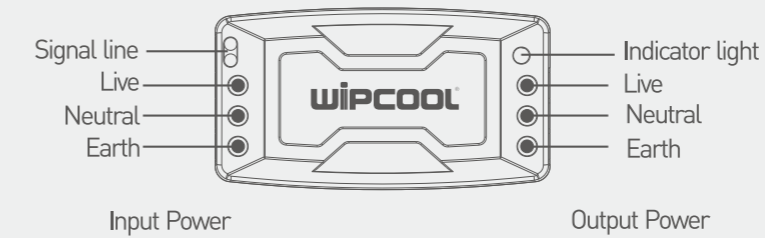


## P580

## Intelligent Level Controller Intelligent Security

- Built in indicator - provide visual operating feedback
- Sensitive control - cut off power supply automatically in case of drainage failure
- Easy to install - Suitable for all WIPCOOL condensate pumps which have built-in safety switch

## PLC-1



### INSTRUCTIONS

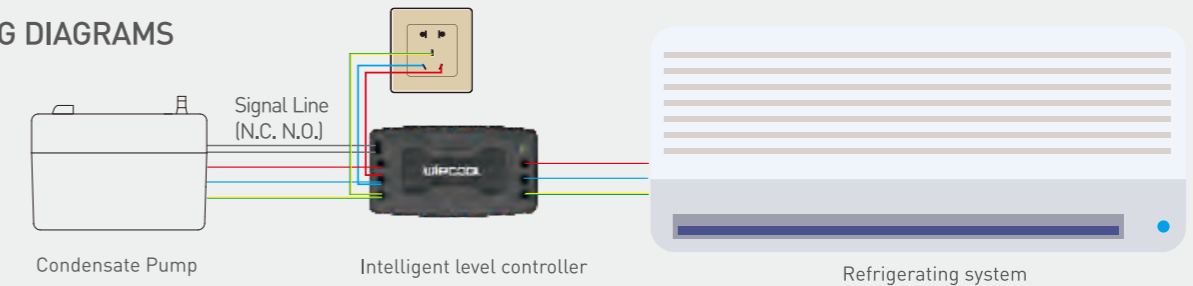


Normal drainage status-All devices are working normally



Failure drainage status-Output was cut off when water reaches alarm level to trigger safety switch, To prevent refrigeration equipment continues to generating the condensate water

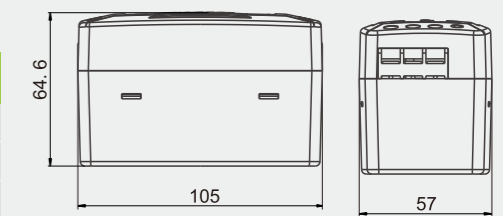
### WIRING DIAGRAMS



### TECHNICAL DATA :

Model	PLC-1
Power of applicable equipment (maximum)	3000W
Max Carry Current	16A

### DIMENSIONS



## Floating-ball Condensate Trap Smooth drainage, Enjoy fresh air

**PT-25**

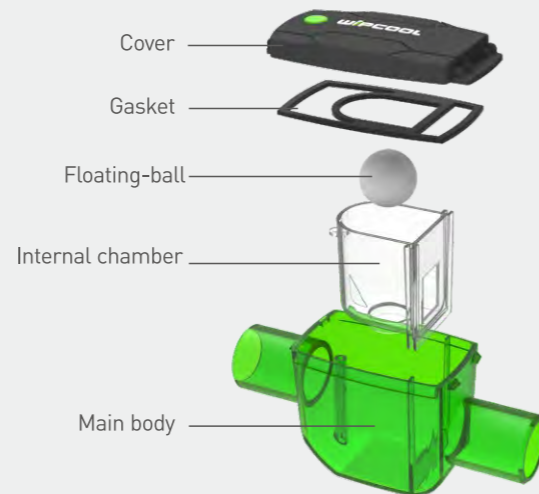
- Lightweight design, easy to install
- Anti-backflow & blockage, prevent smelly & insect-resistant
- Controlled by floating ball valve, suitable for all seasons
- No need to inject water when it is dry
- Buckle design, easy to maintain and clean



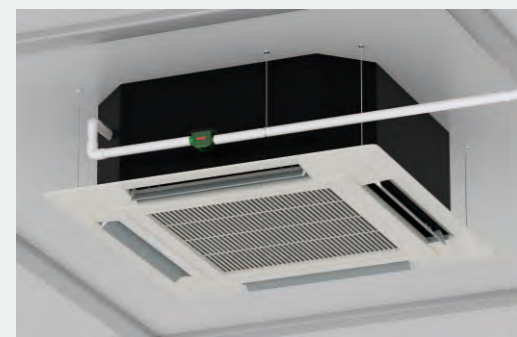
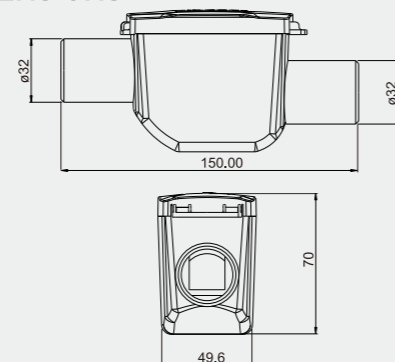
Anti-dew device



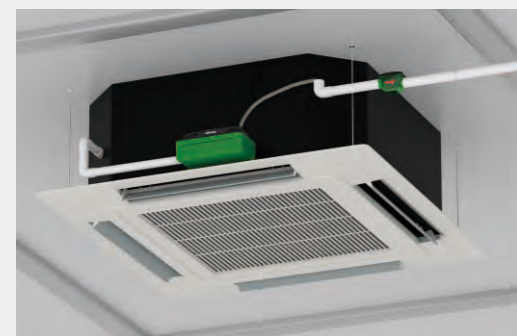
### Exploded figure



### DIMENSIONS



Installed in drainage pipe



Used with condensate pump

### TECHNICAL DATA :

Model	PT-25
Inner diameter	φ25
Outer diameter	φ32
Negative pressure	1200Pa
Gross weight	115g

## Condensate Drain Tubing Flexible, durable and non toxic

**DT-1 /2 /3**



DT-1 PVC tubing



DT-2 PVC tubing



DT-3 Insulation tubing

### TECHNICAL DATA :

Model	DT-1	DT-2	DT-3
Material	PVC	PVC	PVC+PE
Size	ø6mm x ø9mm	ø8mm x ø12mm	ø6mm x ø9mm
Length	100m	100m	50m



## HVAC SYSTEM MAINTENANCE-BE EFFICIENT MAINTAIN

### • COIL CLEANING MACHINE

## COMPACT SERIES

Dirty Evaporator Coils:

UP TO

**40%**

REDUCED COOLING  
CAPACITY

UP TO

**35%**

DROPPED ENERGY  
EFFICIENCY

Dirty Condenser Coils:

UP TO

**40%**

REDUCED COOLING  
CAPACITY

UP TO

**60%**

DROPPED ENERGY  
EFFICIENCY

Condenser and evaporator coils are an integral part to HVAC systems. The below 3 aspects will depend on having clean coils.

#### 1,Maximum heat transfer is dependent on having clean coils!

In addition to energy consumption, other by products impact your coils. Acid formation can occur under these conditions, leading to lubricant breakdown and ultimately equipment failure. Cooling air passing through the coils contains dust, dirt, pollen, moisture and other contaminants clogging the coils promoting the growth of organisms and thereby generating odors throughout an occupied space.

#### 2, System longevity is dependent on having clean coils!

In addition, the evaporator coil and its condensate pan can become fouled with pollen, mold spores and other bio contaminants and can have an adverse effect on indoor air quality. With all the moisture around the evaporator coil, it can become a breeding ground for bacteria and mold.

#### 3, Indoor air quality is dependent on having clean coils!

Clean coils the right way. While any attempt to clean coils on a consistent basis can be applauded, there are right ways and wrong ways of cleaning. Cleaning the wrong way can actually do more harm than good.

Different with pump sprays (low pressure and flow and not very effective in penetrating most coils beds) and pressure washers (uses pressure that's too high and damages fins), WIPCOOL can supply you a full range of cleaning machines which have balanced pressure and water volume that's safe on coils, pressure range from 2BAR (30PSI) to 40 BAR (580PSI), provide you with AC power and Lithium battery power. And supply you with cool water, hot water and steam cleaning mode, to meet the cleaning needs of different occasions.

## ROBUST SERIES

### • OIL CHARGING PUMP

Where the refrigerant is essential for the cooling properties of a refrigeration system, the refrigeration oil is crucial for the correct functioning of the compressor. It mainly plays four roles: lubrication, sealing, cooling and energy regulation.

#### 1, Lubrication

Lubricants for refrigeration compressors reduce friction and prevent wear, so as to extend the service life of the compressor.

#### 2, Sealing

The refrigeration oil plays a sealing role in the compressor, which makes the piston and cylinder face in the compressor and the rotating bearings achieve the sealing effect, so as to prevent the refrigerant leakage.

#### 3, Cooling

The refrigeration oil can take away the heat generated in the working process and keep the moving parts of the compressor at a lower temperature, so as to improve the efficiency and reliability of the compressor.

#### 4, Energy regulation

For the compressor with energy regulating mechanism, the oil pressure of refrigeration oil can be used as the power of energy regulating mechanism.

So the correct use and timely replacement of refrigerate oil will have a great impact on the service life and refrigeration effect of the compressor.

The WPCOOL "Robust series" oil charging pump is developed for widely types of refrigeration compressor, represented by the electric oil charging pump series, which solves the charging problem of large flow under large backpressure, saves labor and improves efficiency. At the same time, Considering the high viscosity of refrigeration oil in winter, We firstly developed an unlimited electric charging series for all kinds refrigeration oil in Worldwide.



## HOW TO CHOOSE A PROPER CLEANING MACHINE

Make the regular cleaning with cleaning equipment, especially for condenser and evaporator, is one of the fastest and safest ways to ensure that the equipment operates with the highest efficiency and keep the indoor air healthy and clean.

The following 2 points should be considered when choosing a cleaning machine

### 1, Pressure

As the different equipment need the different pressure to clean, such as domestic split A/C, Central A/C, Commercial & Industrial Central A/C.

As a general rule, the cleaning of domestic unit is relatively simple, the cleaning pressure for outdoor unit should be a little higher than indoor unit, so you can choose Dual-pressure cleaning machine(3-10bar).

The cleaning of commercial equipment is more complicated. Cleaning pressure for indoor unit just need about 10bar(140PSI), But when you clean the outdoor unit, the thick coils is hard to effective cleaning, because you should adjust the pressure according the different thickness of outdoor coils, so a cleaning machine with variable pressure is necessary. You should choose a Adjustable high pressure cleaning machine.

### 2, Working place

Considering that some outdoor unit installed on rooftop without power socket. It is hard to find the AC power source. As the energy density of lithium batteries has come a long way in the past few decades with the progress of technology, and working time is also getting longer and longer, so a portable, cordless cleaning machine is necessary.

## WIPCOOL CLEANING MACHINE'S SELECTION

MODEL	PRESSURE	TYPE	POWER
C2	2Bar	Indoor unit	Li-ion battery
C10	3/10Bar	Indoor-outdoor unit(Domestic), Indoor unit(commercial)	AC Power
C10B	3/10Bar	Indoor-outdoor unit(Domestic)	Li-ion battery
C25	7/25Bar	Indoor-outdoor unit(Domestic)	Li-ion battery
C30S	6Bar(Steam)	Indoor unit	AC Power
C40T	10-40Bar	Indoor-outdoor unit (Domestic, Commercial)	AC Power

## HOW TO CHOOSE A PROPER OIL CHARGING PUMP

Following points should be considered when you choose a refrigeration oil charging pump

### 1, System's back pressure

When the system is under back pressure, the greater of back pressure that the oil pump can overcome, the more time and effort will be saved when charging. Therefore, the maximum back pressure that can be overcome must be considered when selecting an oil charging pump.

### 2, Flowrate

The flow rate of a oil charging pump is usually expressed in liters/hour, so the time to charge is directly related to the flow rate. Therefore, it is necessary to select a suitable pump according to the amount of oil marked on the compressor and how many units need to charge.

### 3, Viscosity

Viscosity is a main performance index of refrigeration oil. Different refrigerants have different requirements for viscosity. At the same time, the viscosity of the refrigerating oil changes greatly with the temperature. The lower the temperature, the greater the viscosity. Therefore, the characteristics of the added refrigeration oil and the ambient temperature must be fully considered when selecting the oil charging pump.

## WIPCOOL OIL CHARGING PUMP'S SELECTION

Model	Max overcome pressure	Flowrate	Viscosity
R1	10Bar(145psi)	50ml/stoke	68
R2	15Bar(218psi)	75ml/stoke	68
R4	16Bar(232psi)	150L/h	100
R6	25Bar(362psi)	350L/h	100

Remarks: If it is a new unit or an overhauled unit, the oil filling amount is indicated on the unit nameplate. If it is just change oil, follow the principle of charging as much as it is released.

Model	XXXXXXXX		
Cooling capacity	454kW	电源	3PHASE,380V,50Hz
Power Input	84.9kW	Running current	154A
Power factor	87%	Comp output	2X45kW
Refrigerant	R134a /140kg	Design press(Hi/Lo)	H1.59,L0.87Mpa
Ref oil	FVC68D/22L	Air tight test press(Hi/Lo)	H1.59,L0.87Mpa
MFG No.	XXXX	Unit weight	3650kg
Production license No.	XXXXXXXXXX		

← UNIT LABEL

REFRIGERATION OIL'S SELECTION □ For reference only □

Viscosity	Domestic air conditioning unit (Compressor)		Commercial central air conditioning, industrial refrigeration equipment(Compressor)			
	Piston	Rotary	Centrifugal	Piston	Screw	Scroll
32	√	√	√	√		
46	√	√	√	√		
68		√	√	√	√	√
100			√		√	√

## Adjustable High Pressure Cleaning Machine

### Variable pressure, Professional Cleaning

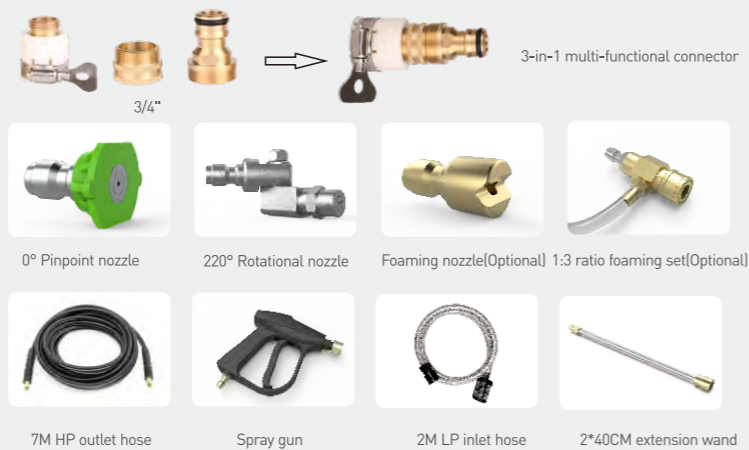
- **Self-intake function**  
pump water from buckets or storage tanks
- **Auto-stop technology**  
switches the motor and pump off automatically
- **Quick connection**  
All accessories are easy to install and disassemble
- **Integrated storage,**  
All accessories are stored orderly to avoid omission



Overhead pressure gauge    Pressure adjust knob    Ceramic-coated pistons



- **Overhead pressure gauge**  
Easy to read the exact pressure.
- **Pressure adjust knob**  
Adjust pressure to meet different cleaning requirements
- **Ceramic-coated pistons**  
Long service life , sturdy and reliable



3-in-1 multi-functional connector  
3/4"  
0° Pinpoint nozzle    220° Rotational nozzle    Foaming nozzle(Optional) 1:3 ratio foaming set(Optional)  
7M HP outlet hose    Spray gun    2M LP inlet hose    2\*40CM extension wand

TECHNICAL DATA :	
Model	C40T
Voltage	230V~/50-60Hz or 100-120V/50-60Hz
Working Pressure	10-40bar
Flow Rate(max.)	6L/min
Motor Power	750W
Weight	8.0kg
Water Pipe	2m LP Hose, 7.0m HP Hose

## C40T

## Steam Cleaning Machine

### Strong Steam, Ultimate Clean

- Hot steam with high pressure, Pure physical sterilization
- 5 Cleaning modes selection to meet the different cleaning requirements
- Humanized configuration with LCD touch display and voice reminder
- Remote control Intelligent spray gun, convenient operation with high efficient
- Drum pump body structure, freely and quickly storage inlet and outlet pipes
- Ozone disinfection, safe and efficient sterilization



LCD touch pad



Intelligent remote control spray gun



## C30S



90° bent spray nozzle(35cm)



Nylon brush



Long steam nozzle(17cm)



220° rotational spray nozzle(20cm)

TECHNICAL DATA :		
Model	C30S	
Voltage	230V~/50-60Hz	115V~/60Hz
Power(Max. )	3300W	2000W
Flow Rate(max.)	3L/min	3L/min
Working Pressure(Max.)	3-6bar	3-6bar
Suction Lift(Max.)	1.5m	1.5m
Steam Temp.	130-150 °C	120-130 °C
Water Outlet Temp.(Max.)	60-85 °C	50-75 °C
Water Pipe	2M Inlet hose,4M Outlet hose	2M Inlet hose,4M Outlet hose

## A/C Cleaning Machine One Machine Dual Purposes, High Efficient Cleaning

- Reel structure, free to release and retract the inlet and outlet water pipe
- Two pressure, both for internal and external machine
- Built-in pressure controller, suspend automatically
- Medium pressure cleaning to avoid the fins damage

## C10/C10B



### C10B recommend accessories



### TECHNICAL DATA :

Model	C10	C10B
Voltage	230V~/50-60Hz or 100-120V/50-60Hz	18V-4.0AH Li-ion Battery
Working Pressure(max.)	3-5bar/7-10bar	
Flow Rate(max.)	4L/min	
Motor Power	100W	80W
Weight	3.7kg	4.2kg
Water Pipe	2.5m LP Hose, 5m HP Hose	
Standard Battery Holder		AEG/ RIDGID

Note: Full Charge Time 3.5hr, Full Charge Running Time 1h(C10B)

## High Pressure Cleaning Gun Light ,Strong Power

- 18V lithium vattery, durable and reliable use
- High and low pressure optional, easy to clean
- Double-layer filter, ensure no blockage
- Attach a foam bottle, experience the full cleaning
- Equipped with toolbox, easy to carry

## C25



Waterproof cover



### TECHNICAL DATA :

Model	C25
Li-ion Battery	18V-2.0AH
Working Pressure	7Bar(LPI)/25bar(HP)
Flow Rate(Max.)	3.0L/min
Max. Suction	1.5m
Motor Power	80W
Weight	1.7kg

Note: Full Charge Time 1.5hr, Full Charge Running Time 30min.

## Cleaning Spray Gun

### High Efficient Cleaning for Indoor Unit

C2

- Built-in lithium battery, convenient to use
- Adjustable spray shape, improve cleaning efficiency
- Compact&light, easy to work
- Equipped with toolkit, Easy to carry



#### TECHNICAL DATA :

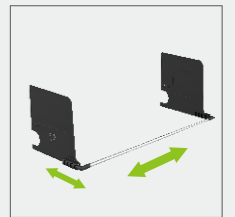
Model	C2
Li-ion Battery	7.2V-2.0AH
Working Pressure(Max.)	2bar
Flow Rate(Max.)	1.0L/min
Max. Suction	1.5m
Motor Power	16W
Weight	0.7kg
Note	Full charge time 2.5h, Full charge running time 40min

## Split A/C Cleaning Cover

### Full Protection, Easy Installation

CSC-1

- Made of artificial PU grade waterproof sealing strip with tight stitches
- Soft, sturdy, waterproof, corrosion resistant and durable
- The adjustable frame can change the length and suit for different split air conditioners
- Transparent front curtain can see coils' cleanliness clearly and prevents splashing
- 4 small back transparent films in the back of the A/C prevents walls from splashing



Adjustable frame



Transparent front curtain



Transparent back film

#### TECHNICAL DATA :

Model	Size(mm)
CSC-1	H:280*W:280*L700-1000(adjustable)



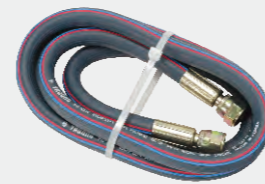
## Refrigeration Oil Charging Pump Pressurized Oil Charging, Reliable And Durable

- Compatible with all refrigeration oil types
- Applied stainless steel materials, reliable and durable
- Pumps oil into the system without shutting down for charging
- Anti-backflow structure, ensure system safety during charging
- Special design, ensure to connect the different size of oil bottles

R1 R2



1.5M transparent charging hose



1.5M high-pressure charging hose



## Electric Refrigeration Oil Charging Pump Easy Charging, Strong Power

R4 R6

- Strong power, easy charging under large back pressure
- Patent mechanism, ensure easy charging under low temperature
- Configurate of pressure relief protection, ensure safety operation
- Built-in thermal protection device, effectively prevent overloading



0.8M suction hose(R4)



0.8M suction hose(R6)



1.5M charging hose



Adapter 3/8"SAE



Adapter 1/4"SAE



Toolbox

### TECHNICAL DATA :

Model	R1	R2
Max. Pump To Against Pressure	10bar (145psi)	15bar (218psi)
Max. Pump Rate Per Stroke	50ml	75ml
Applicable Oil Bottle Size	All sizes	
Hose Connect	1/4" SAE	1/4" & 3/8" SAE
Outlet hose	1.5m Charging Hose	1.5m HP Charging Hose
Packing	Blister	Carton

### TECHNICAL DATA :

Model	R4	R6
Voltage	230V~/50-60Hz or 115V~/50-60Hz	
Motor Power	1/3HP	3/4HP
Pump to Against Pressure(Max.)	16bar (232psi)	25bar (362psi)
Flow Rate(Max.)	150L/h	350L/h
Hose Connect	1/4" & 3/8" SAE	



## HVAC/R TOOLS&EQUIPMENT-BE EASY TO USE

Due to years of deep technical accumulation of refrigeration tools&equipment and unceasing exploration of high technologies, and the initial intention of " helping users to complete air-conditioning service work efficient, WIPCOOL has launched highly differentiation product.

### FAST SERIES

#### • VACUUM PUMP

In a refrigerant system, only the refrigerant and oil should be circulating. During servicing or after many years of operation, the air may enter the system. The air from the atmosphere that enters the system include oxygen, nitrogen and moisture. These unwanted components will cause:

Rise in head pressure causing higher discharge temperatures and compression ratios. Efficiency of the system is reduced. Acids are produced in the refrigerant causing chemical reaction resulting in electroplating and damage to the motor insulation. Once the insulation in the compressor motor breaks down, short circuit will happen hence damaging the compressor. The compressor is one of the highest equipment cost in the system. Acids also cause corrosion to the metal parts over time. Sludge is formed by a combination of oil, acid and moisture in the system. It will cause improper operation to the filter drier, strainers and expansion device over a period of time.

WIPCOOL vacuum pump applied the patented technology and reduce the risk of oil leakage when pump was side down during the operation. Integrated cylinder structure, Lightweight design, Easy to carry.

S series vacuum pump applied concise design with high-cost performance, equipped with PA12 high strength engineering plastic transparent oil tank. Clearly view condition of oil and the "heart" working.

F series vacuum pump is equipped with built-in solenoid valve and overhead vacuum meter as standard, bringing a new experience. There even has R32 series vacuum pump, applied with high efficiency brushless motor, non-spark design, durable and reliable.

### HEAVY DUTY SERIES

#### • TUBING TOOLS

tubing tools Tubing tools is a special kind of tool for the installation and maintenance of refrigeration system. So it must be reliable and durable, and the processed products must be accurate to avoid repeated invalid operations.

WIPCOOL introduces lightweight 2-1 flaring tool, tube cutters with standard spare blade inside, titanium coated tube deburring tool, high strength pinch off locking plier and recovery puncture pliers. Fully consider the needs of end users for high quality and durable tubing tools.

### MASTER SERIES

#### • MANIFOLD GAUGES

A manifold gauge is a pressure-checking system. They are one of the most basic HVAC tools, and can be used as both a diagnostic and service tool.

In diagnostics, a manifold gauge tells an HVAC technician if the system is operating correctly, or if there is a problem within the system that needs to be addressed.<sup>4</sup>

When used as a service tool, a manifold gauge can be used to release moisture and sludge, and remove contaminated refrigerants from the system.

WIPCOOL manifold gauges applied highly efficient ball valve to control on/off, oil-filled gauge with shock-proof, built-in solar LED lights. Unique shape, easy to use and accurate reading.

## HOW TO CHOOSE A PROPER VACUUM PUMP

The A/C refrigeration vacuum pump is one of the most important tools an engineer will use during their role, as it is a key player when carrying out maintenance on air conditioning units. So the following points should be considered when you select a vacuum pump.

### 1, System's Refrigerant

Different refrigerant needs the relevant vacuum pump. You can find the refrigerant on the equipment's specification label.

Outdoor Model	KFR-35W-F117(Outdoor Unit)
Refrigerant	R22/880g
Weight	32KGS
Outdoor Unit Resistance Class	IPX4
Power Source	5.6A
Rated Current	1190W
Rated Input	220V~/50Hz
Excessive Operating Pressure(discharge)	2.6MPa
Excessive Operating Pressure(suction)	2.6MPa

For these air conditioning units which used with R410A refrigerant, if the vacuum pump oil be sucked to system, the refrigerant will be led to contamination and destruction, then caused the deteriorations, so it will be a huge impact on the cooling efficiencies and service life of the equipment.

### 2, Determining The Flowrate Required(CFM,L/min)

When ascertaining what vacuum pump needs to be used, it's important to determine the CFM rating required for a job. This is more commonly known in some countries as the LPM, Liters per minute. A pump with higher CFM rating will help you get to full vacuum quicker. But Higher CFM does NOT mean better vacuum, only faster evacuation.

### 3, Working Place

Considering that some outdoor unit installed on rooftop without power socket. It is hard to get the AC power source. As the energy density of lithium batteries has come a long way in the past few decades with the progress of technology, and working time is also getting longer and longer. So a portable, cordless vacuum pump is necessary.

### 4, Ultimate Vacuum Level

The density of the gas in the vacuum state is usually represented by 'vacuum degree'. The smaller figures means higher vacuum degree. It usually appears as Microns(Pa).

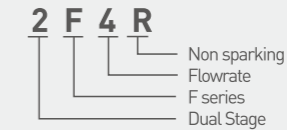
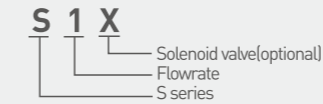
As the name implies, a dual-stage rotary vane vacuum pump contains two stages of pumping in a single assembly. One is a low vacuum stage while the other is a mated high vacuum stage. So a dual-stage rotary vacuum pump is able to produce the better vacuums than single-stage. The central air conditioning unit, cooling store need better vacuum degree, so Dual-stage vacuum pump is the best choice.

## WIPCOOL VACUUM PUMP'S SELECTION

WIPCOOL vacuum pumps are divided into S series and F series.

S series equipped with transparent oil tank, lightweight & portable, highly cost-effective.

F series equipped with built-in solenoid valve and overhead vacuum meter as standard, there even has lithium battery, dual power, R32 vacuum pump for your choice, which provides the ultimate user experience.



Model	Flowrate(CFM)	Vacuum degree(Microns)	Refrigerant	Power source
S1-S2	2-4	150	A1	AC
F1	1.5	150	A1	AC
F2R-F5R	5-11	150	A1,A2,A2L	AC
2F0,2F1	1.5-2.5	15	A1	AC
2F0R-2F5R	1.5-11	15	A1,A2,A2L	AC
F1BK	1.5	150	A1	Dual power{AC/Li-ion}
F2BRK	5	150	A1,A2,A2L	Dual power{AC/Li-ion}
2F1BRK,2F2BRK	2.5-5	15	A1,A2,A2L	Dual power{AC/Li-ion}

#### Side note:

Safety grade of refrigerant

The safety of refrigerants mainly refers to the toxicity, flammability and explosiveness.

It usually represented by A, B, C plus 1, 2, 3, A1 represents the safest, and C3 represents most dangerous.

	Low toxicity	Moderate toxicity	High toxicity
High flammable	A3	B3	C3
Mildly flammable	A2	B2	C2
Non flammable	A1	B1	C1

The normal refrigerants' grade as below for reference:

A1: R11, R12, R22, R23, R124, R125, R134a, R410a, R500, R502, R718

A2: R142b, R152a, R406a, R411a, R411b, R412a, R413a, R415b, R418a, R419a, R512a

A2L: R143a, R32, R1234yf, R1234ze(E)

Vacuum pump

Clear-The "HEART" Is Beating

- Patent structure  
Reduces oil leakage risk
- Clear oil tank  
Clearly view condition of oil and system
- One-way valve  
Preventing vacuum oilbackflow to system
- Solenoid valve(S1X/1.5X/2X,Optional)  
100% Preventing vacuum oil backflow to system

S1 S1.5 S2



Anti-oil injection design



Force-feed lubricating mechanism



Anti-dumping oil leakage design



Clear oil tank

TECHNICAL DATA :			
Model	S1	S1.5	S2
Voltage	230V~/50-60Hz or 115V~/60Hz		
Ultimate Vacuum	150 microns		
Input Power	1/4HP	1/4HP	1/3HP
Flow Rate (Max.)	2CFM 57L/min	3CFM 85 L/min	4CFM 113 L/min
Oil Capacity	230ml	210ml	200ml
Weight	3.3kg	3.4kg	3.6kg
Dimension	266x121x194		
Inlet Port	1/4"SAE		

New Refrigerant Vacuum Pump  
Vacuuming Quickly

F1 F1.5  
2F0 2F1

- Patented anti-dumping design to avoid oil leakage
- Overhead vacuum gauge, compact and easy to operate
- Built-in solenoid valve to prevent backflow
- Integral cylinder structure to improve reliability
- No oil injection and less oil mist, prolonging oil service life
- New motor technology, lightweight and easy to carry



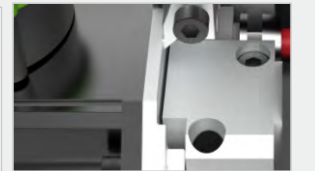
Overhead vacuum gauge



Anti-oil injection design



Anti-dumping oil leakage design



Built-in solenoid valve

TECHNICAL DATA :				
Model	F1	F1.5	2F0	2F1
Voltage	230V~/50-60Hz or 115V~/60Hz			
Ultimate Vacuum	150 microns		15 microns	
Input Power	1/4HP	1/4HP	1/4HP	1/4HP
Flow Rate (Max.)	1.5CFM 42 L/min	3CFM 85 L/min	1.5CFM 42 L/min	2.5CFM 71 L/min
Oil Capacity	370ml	330ml	280ml	280ml
Weight	4.2kg	4.5kg	4.7kg	4.7kg
Dimension	309x113x198		309x113x198	
Inlet Port	1/4"SAE			

## R32 Vacuum Pump Vacuuming Quickly

- Patented anti-dumping technology reduces oil leakage risk
- Top-set vacuum meter, compact design and easy to operate
- Built-in solenoid valve to prevent backflow
- Non-sparking design, suitable for use with R32 and other new refrigerants
- No oil injection and less oil mist, prolonging oil life
- Brush-less motor technology, More than **25% Lighter** than similar products



Single Stage R32 Vacuum Pump

TECHNICAL DATA :				
Model	F2R	F3R	F4R	F5R
Voltage	230V~/50-60Hz or 115V~/60Hz			
Ultimate Vacuum	150 microns			
Input Power	1/3HP	1/2HP	3/4HP	1HP
Flow Rate (Max.)	5CFM 142 L/min	7CFM 198 L/min	9CFM 225 L/min	11CFM 312 L/min
Oil Capacity	580ml	560ml	690ml	670ml
Weight	5.5kg	5.7kg	8.5kg	8.7kg
Dimension	339x130x225	339x130x225	410x150x250	410x150x250
Inlet Port	1/4" & 3/8" SAE	1/4" & 3/8" SAE	1/4" & 3/8" SAE	1/4" & 3/8" SAE

Dual Stage R32 Vacuum Pump

TECHNICAL DATA :							
Model	2F0R	2F1R	2F1.5R	2F2R	2F3R	2F4R	2F5R
Voltage	230V~/50-60Hz or 115V~/60Hz						
Ultimate Vacuum	15 microns						
Input Power	1/4HP	1/4HP	1/3HP	1/2HP	3/4HP	1HP	1HP
Flow Rate (Max.)	1.5CFM 42 L/min	2.5CFM 71 L/min	3CFM 85 L/min	5CFM 142L/min	7CFM 198 L/min	9CFM 255L/min	11CFM 312L/min
Oil Capacity	280ml	280ml	480ml	450ml	520ml	500ml	480ml
Weight	4.2kg	4.2kg	6.2kg	6.5kg	9.8kg	10kg	10.2kg
Dimension	309x113x198	309x113x198	339x130x225	339x130x225	410x150x250	410x150x250	410x150x250
Inlet Port	1/4" SAE	1/4" SAE	1/4" & 3/8" SAE	1/4" & 3/8" SAE	1/4" & 3/8" SAE	1/4" & 3/8" SAE	1/4" & 3/8" SAE

## F2R F3R F4R F5R 2F0R-2F5R

## Cordless Vacuum Pump Li-ion Battery Power Portable Evacuation

- High performance lithium battery power, convenient to use
- Patented anti-dumping design to avoid oil leakage
- Overhead vacuum gauge, easy to read
- Built-in solenoid valve to prevent oil backflow
- Integral cylinder structure to improve reliability
- No oil injection and less oil mist, prolong oil service life



Recommend accessories



TECHNICAL DATA :							
Model	F1B	2F0B	2F0BR	2F1B	2F1BR	F2BR	2F2BR
Li-ion Battery	DC18V 5.0AH					DC18V 9.6AH	
Standard Battery Holder	AEG/ RIDGID						
Ultimate Vacuum	150 micron	15 microns			150 microns		15 microns
Input Power	1/4HP	1/4HP	1/4HP	1/4HP	1/4HP	1/3HP	1/2HP
Flow Rate (Max.)	1.5CFM 42 L/min	1.5CFM 42 L/min	1.5CFM 42 L/min	2.5CFM 71 L/min	2.5CFM 71 L/min	5CFM 142L/min	
Oil Capacity	400ml	300ml	300ml	300ml	300ml	580ml	580ml
Weight	5.0kg	5.5kg	5.0kg	5.5kg	5.0kg	6.5kg	7.5kg
Dimension	358x113x198	358x113x198	358x113x198	358x113x198	358x113x198	420x130x225	420x130x225

# Lithium/AC Dual Power Vacuum Pump

## Dual Power Freely Switch

- Never suffer from low battery anxiety
- Freely switch between AC power and battery power
- Avoiding any downtime on the jobsite



## F1BK F2BRK 2F1BRK 2F2BRK



Lithium battery is full  
Enjoy the convenient of cordless



Lithium battery is low  
Start corded use for unlimited runtime

### TECHNICAL DATA :

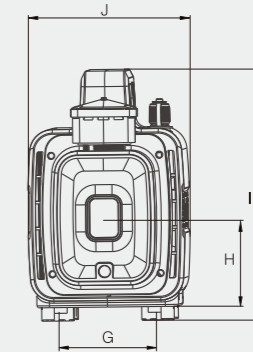
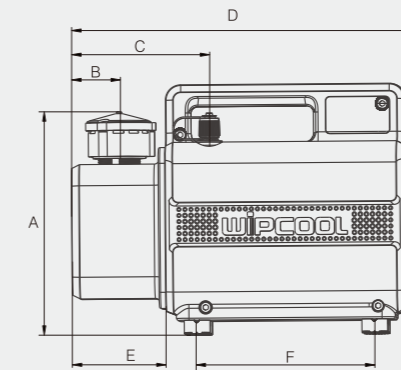
Model	F1BK	2F1BRK	F2BRK	2F2BRK
Lithium/AC Dual Power Vacuum Pump	18V- 5.0AH LI-ION		18V- 9.6AH LI-ION	
Flowrate	1.5CFM 42 L/min	2.5CFM 71 L/min	5CFM 142 L/min	
Ultimate vacuum	150microns	15microns	150microns	15microns
Include:	Vacuum pump, Battery Charger, Battery converter 5.0Ah Li-ion battery(F1BK,2F1BRK),9.6Ah(F2BRK,2F2BRK)			

### AC POWER SUPPLY PLUGS

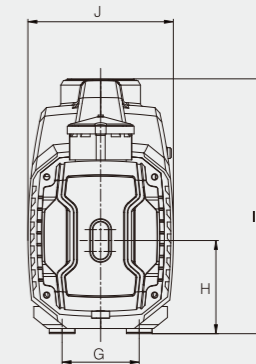
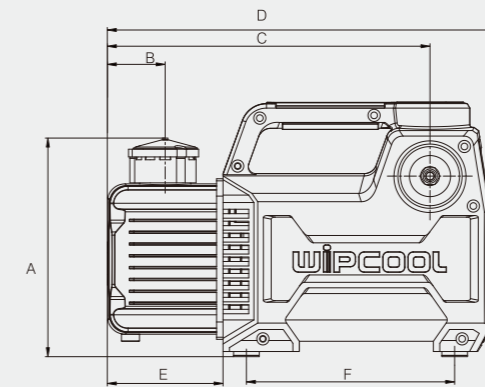


Model	Description
W01	Israel plug
W02	China plug
W03	Australia plug
W04	South africa plug
W05	Europe plug
W06	America plug
W07	Britain plug
W08	Japan plug
W09	Italy plug
W10	Argentina plug
W11	Brazil plug
W12	South Korea Plug

### S series



### F series



### TECHNICAL DATA :

Model	A	B	C	D	E	F	G	H	I	J
F1 F1.5 2F0 2F1	175	45	250	310	90	162	60	73	200	115
F2 F3 2F1.5 2F2	195	45	280	340	110	165	70	87	225	130
F4 F5 2F3 2F4	235	50	320	390	110	204	90	100	262	150

## Vacuum Pump Oil Perfect Maintenance



**WPO-1**

### TECHNICAL DATA :

Model	WPO-1
Kinematic Viscosity(40°C)	41.4-50.6mm <sup>2</sup> /s
Viscosity Index	100
Flash Point	225°C
Pour Point	-10°C
Oil Type	Mineral Oil

Accessories

## Tool box Portbale & Heavy duty

- High quality pp plastic, thickened box, strong anti-fall
- Pad eye lock, enables to lock the toolbox.Ensure safety.
- Non-slip handle,comfortable to grip,durable and portable



**TB-1 TB-2**

### TECHNICAL DATA :

Model	TB-1	TB-2
Material	PP	PP
Interior dimensions	L400×W200×H198mm	L460×W250×H230mm
Thickness	3.5mm	3.5mm
Weight(empty)	2.31 kg	3.09 kg
Waterproof	Yes	Yes
Dustproof	Yes	Yes

**BC-18 BC-18P**

## Corded Battery Converter Corded Power Unlimited Running

- Never suffer from low battery anxiety
- Converts cordless device into corded use for unlimited runtime
- Compatible with WIPCOOL 18V cordless device



BC-18



BC-18P



Lithium battery is full  
Enjoy the convenient of cordless

Lithium battery is low  
Start corded use for unlimited runtime



Lithium battery is full  
Enjoy the convenient of cordless

Lithium battery is low  
Start corded use for unlimited runtime

Accessories

### TECHNICAL DATA :

Mode	BC-18	BC-18P
Input/Output	AC100-240V/18V	AC100-240V/18V
Power(Max)	150W	200W
Weight	0.6KG	0.7KG

## Battery Adapter Multiple choice & Convenient

- Suitable for professional and daily use.Easy to install and use.
- Convert AEG /RIDGID Interface to different battery for unlimited usage



BA-1 Bosch



BA-2 Makita



BA-3 Panasonic



BA-4 Milwaukee



BA-5 Dewalt



BA-6 Worx



BA-7 Devon

**BA-1~BA-7**

### TECHNICAL DATA :

Model	BA-1	BA-2	BA-3	BA-4	BA-5	BA-6	BA-7
Suitable	Bosch	Makita	Panasonic	Milwaukee	Dewalt	Worx	Devon
Size(mm)	120×76×32	107×76×28	129×79×32	124×79×34	124×79×31	120×76×32	120×76×33

**Manifold Gauge**  
(Suit for R22,R410A,R32)

**Solar Led,Shockproof**

- Oil-filled,Class 1.6 accuracy gauges,Pulse/vibration free
- Extra large sight glass to view refrigerant movement
- Built-in led light with solar cell,suitable for dark working conditions
- Ball valve handle,efficient and convenient operation



Adapters(5/16"-1/4")



LED lighting



Built in solar cell



Oil-filled gauge

**MG-2K**

**Combined Manifold Gauge**  
(Suit for R134a,R410A,R32)

**Detachable Structure, Multiple Purposes**

- Quick connected structure,1 manifold for 3 purposes
- Oil-filled,Class 1.6 accuracy gauges,Pulse/vibration free
- Extra large sight glass to view refrigerant movement
- Built-in led light with solar cell,suitable for dark working conditions
- Ball valve handle,efficient and convenient operation



High pressure Single manifold gauge Low pressure Single manifold gauge

Quick coupler (Auto Air Conditioning)

Adapters(5/16"-1/4")

**TECHNICAL DATA :**

Model	MG-2Q
Gauge Scale	R134a R410A R32
Diameter	φ50
Pressure	-30inHg-500PSI / -30inHg-800PSI
Accessories	Set of 3 RYB refrigeration hoses,2XQuick couplers,2XAdapters(5/16"-1/4")
Packing	Tool bag

**TECHNICAL DATA :**

Model	MG-2K
Gauge Scale	R22 R410A R32
Diameter	φ50
Pressure	-30inHg-500PSI / -30inHg-800PSI
Accessories	Set of 3 RYB refrigeration hoses,2XAdapters(5/16"-1/4")
Packing	Tool bag



## Single Manifold Gauge (Suit for R22,R410A,R32)

### Solar Led, Shockproof

- Oil-filled, Class 1.6 accuracy gauges, Pulse/vibration free
- Extra large sight glass to view refrigerant movement
- Built-in led light with solar cell, suitable for dark working conditions
- Ball valve handle, efficient and convenient operation

## MG-1L MG-1H

## Refrigeration Charging Hose High Strength Corrosion Resistance

- 3 layer reinforce tube, Safty use with no leakage
- Rated for 800 PSI working pressure
- Suitable for high pressure refrigerants R410A/R32, etc

## MRH-1

Manifold Gauge



MG-1L  
High pressure  
Single manifold gauge

MG-1H  
Low pressure  
Single manifold gauge



LED lighting

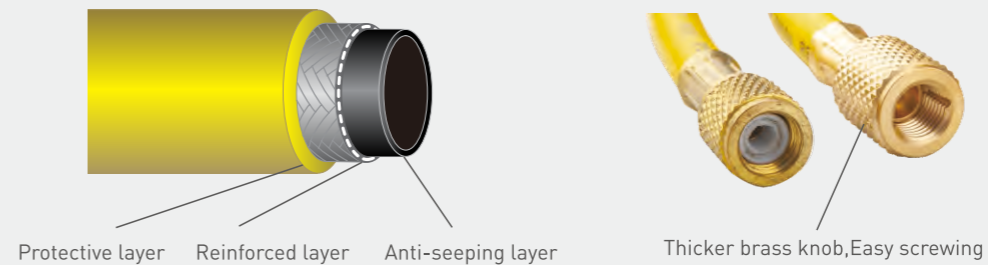
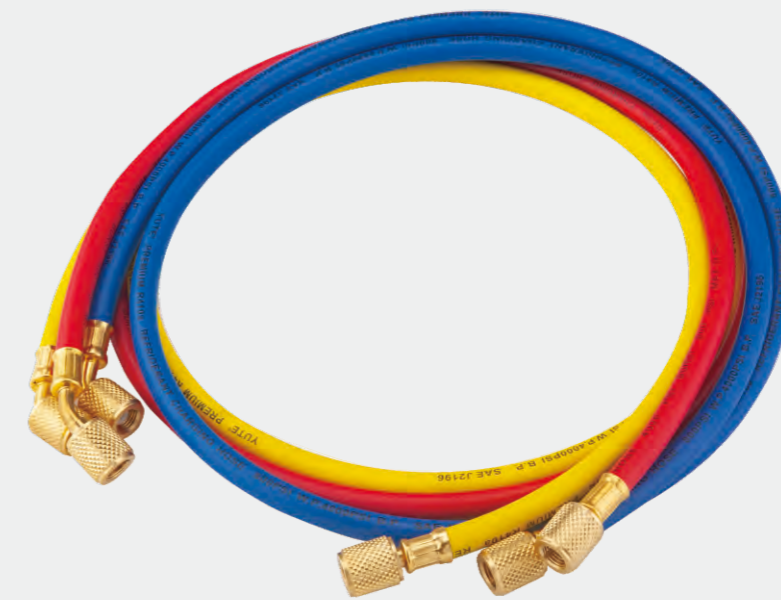


Built in solar cell



Oil-filled gauge

Charging Hose



Protective layer Reinforced layer Anti-seeping layer

Thicker brass knob, Easy screwing

### TECHNICAL DATA :

Model	MG-1L	MG-1H
Gauge Scale	R22 R410A R32	R22 R410A R32
Diameter	φ50	φ50
Pressure	-30inHg-500PSI	-30inHg-800PSI
Accessories	~	~
Packing	Blister	Blister

### TECHNICAL DATA :

Model	Color	Length	Working Pressure	Burst Pressure	Fittings
MRH-1	Set of 3	150cm	800PSI	4000PSI	1/4"-1/4"(Y) 1/4"-5/16"(R) 1/4"-5/16"(B)

## Tube cutter Spring Mechanism, Fast cutting

- The Spring design prevents the crush of soft tubes.
- Made from wear-resistant steel blades ensures a durable and sturdy usage
- The rollers and the blade utilize ball bearings for smoother action.
- Stable roller tracking system keeps tube from threading
- An additional blade comes with the tool and be stored in the knob

## HC-19/32 /54



Spring Mechanism

Stable grooved Rollers tracking system

An additional blade stored in the knob

Sharp, wear-resistant steel blades



1 Fasten

2 Rotate

3 Fasten again

4 Rotate Again

### TECHNICAL DATA :

Model	HC-19	HC-32	HC-54
Tubing O.D.	1/8"-3/4"	3/16" ~1-1/4"	1/4"-2"
	3-19mm	4-32mm	6-54mm

## R410A Flaring Tool Ultra-Lightweight, Precise Flaring

- Special design for R410A system, also fit for usual tubing
- Aluminum body- 50% lighter than steel designs
- Slide gauge sets the tube to the exact position



Ultralight high strength aluminum T gantry



Side gauge for tube height adjustment sets



Blank-run design rotating handle

### TECHNICAL DATA :

Model	O.D Tube	Accessories	Packing
EF-2	1/4" 5/16" 3/8" 1/2" 5/8" 3/4"	/	Blister

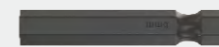
## EF-2

## 2-in-1 R410A Flaring Tool Manual and Power Drive Fast & Precise Flaring

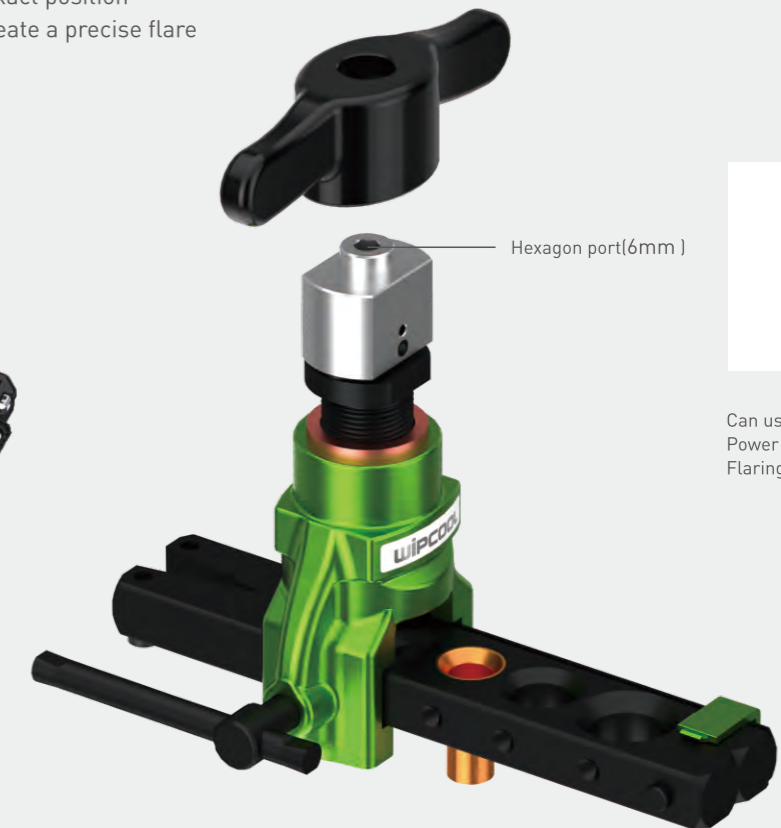
- Power drive design, used with power tools to quickly flaring.
- Special design for R410A system, also fit for usual tubing
- Aluminum body- 50% lighter than steel designs
- Slide gauge sets the tube to the exact position
- Reduces the amount of time to create a precise flare



EF-2LK



Hexagon drill bit(6mm)



Hexagon port(6mm )



Can used with ≤14.4V Power Tools For Fast Flaring



Ultralight high strength aluminum T gantry



Side gauge for tube height adjustment sets



Blank-run design rotating handle



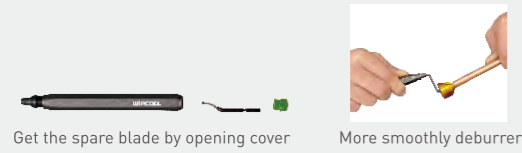
Toolbox

### TECHNICAL DATA :

Model	O.D Tube	Accessories	Packing
EF-2L	1/4" 5/16" 3/8" 1/2" 5/8" 3/4"	/	Blister
EF-2LK		HC-32,HD-1	Toolbox

## Tube Deburrer Titanium-coated, Sharp & Durable

- Premium anodizing painted aluminum alloy handle, comfortable to grip
- Flexibly 360 degree rotated blade, fast deburring of edges, tubes and sheets
- Quality tempered high speed steel blades,
- Titanium-coated surface, wear-resistant, long service life



Get the spare blade by opening cover

More smoothly deburrer

### TECHNICAL DATA :

Model	HD-1	HD-2
Configuration	2 Normal Blades	1 Countersink Blade + 1 Normal Blade
Packing	Blister	Blister

## Ratchet Wrench Flexible, Easy using

- With 25° angulation, Requires less work room for ratcheting
- Quick ratcheting action with reverse levers at both ends



### TECHNICAL DATA :

Model	HW-1	HW-2
Size	1/4", 3/8" & 3/16", 5/16"	1/4", 3/16" & 9/16", 1/2"

## Pinch Off Locking Pliers Strong Bite Easy Release

- High-grade heat-treated alloy steel for maximum toughness and durability
- Hex key adjusting screw, Easy access to the right locking size
- Fast unlock trigger, easy access to controller release



Flat bites    Hex key adjusting screw    Fast unlock trigger    Harden stress rod

### TECHNICAL DATA :

Model	Length	Width	Suitable Size	Weight
HL-1	193mm	58mm	1/8"-3/8"(3-10mm)	0.4kg

## Tube Piercing Pliers Sharp, Durable

- High hardness needle, Forged with alloy tungsten steel
- Designed to quickly lock on to and pierce refrigerant tube
- Puncture the refrigeration tube and recover the old refrigerant instantly.
- Manufactured from high-grade heat-treated alloy steel for durability.



Hardened steel needle    Hex key adjusting screw    1/4" SAE interface    Hardened connecting rod

### TECHNICAL DATA :

Model	Length	Width	Suitable Size	Weight
HP-1	200mm	58mm	4-8mm	0.4kg