

NOTICE TO INSTALLER: Instructions must remain with installation.

ZT0181_ECb
1023
Supersedes
0719

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Product information presented here reflects conditions at time of publication. Consult factory regarding discrepancies or inconsistencies.

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Zoeller Pump Company
Product on our website:
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50 Hz

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INSTALLATION INSTRUCTIONS 119 SYSTEM PREINSTALLATION CHECKLIST

1. Inspect all materials. Occasionally, products are damaged during shipment. If the unit is damaged, contact your dealer before using. **Do Not** remove the test plugs from the pump.
2. Carefully read all the literature provided to familiarize yourself with specific details regarding installation and use before attempting the installation. These materials should be retained for future reference.



WARNING

SEE BELOW FOR LIST OF WARNINGS

1. **Make sure there is a properly grounded receptacle available.** All pumps are furnished with provisions for proper grounding to protect you against the possibility of electrical shock.
2. Make certain that the receptacle is within the reach of the pump's power supply cord. **DO NOT USE AN EXTENSION CORD.** Extension cords that are too long or too light do not deliver sufficient voltage to the pump motor, and they could present a safety hazard if the insulation were to become damaged or the connection end were to fall into a wet or damp area.
3. **Make sure the pump electrical supply circuit is equipped with fuses or circuit breakers of proper capacity.** A separate branch circuit is recommended, sized according to governing electrical code for the current shown on the pump nameplate.
4. **Testing for ground.** As a safety measure, each electrical outlet should be checked for ground using a circuit analyzer which will indicate if the power, neutral and ground wires are correctly connected to your outlet. If they are not, call a qualified licensed electrician.
5. **For Added Safety.** Use of a residual current device with an operating current not higher than 30 mA is recommended.
6. **FOR YOUR PROTECTION, ALWAYS DISCONNECT PUMP FROM ITS POWER SOURCE BEFORE HANDLING. DO NOT, UNDER ANY CIRCUMSTANCES, REMOVE THE GROUND PIN.** The 3-prong plug must be inserted into a mating 3-prong grounded receptacle. If the installation does not have such a receptacle, it must be changed to the proper type, wired and grounded in accordance with the governing electrical code and all applicable local codes and ordinances.
7. **Risk of electrical shock.** Do not remove power supply cord and strain relief or connect conduit directly to the pump.
8. Installation and servicing of pump, electrical circuits, and hardware should be performed by a qualified licensed electrician.
9. **Risk of electrical shock.** These pumps have not been investigated for use in swimming pool and marine areas.
10. If the supply cable is damaged, it must be replaced by the manufacturer or its technical service or similarly qualified persons in order to avoid a hazard.
11. The appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction to concerning use of the appliance by a person responsible for their safety.
12. Pump is not intended for potable water due to possible contamination by oil contained in the pump.

CAUTION

SEE BELOW FOR LIST OF CAUTIONS

1. Check to be sure your power source is adequate to handle the amperage requirements of the motor as indicated on the pump or unit I.D. tag.
2. All plumbing (discharge and carbon filter vent) must be installed to meet local codes. **Unit must be vented. Do not use an automatic plumbing vent device.**
3. Maximum operating temperature must not exceed 40 °C (104 °F).
4. **CHECK VALVE MUST BE USED TO REDUCE UNNECESSARY CYCLING OF PUMP.**
5. Dewatering pumps are not designed or intended for handling raw sewage.
6. For health reasons, do not unplug, turn off, or disable pump and use pump tank system as a way to fill up a sink or laundry tray, etc.

SAFETY INSTRUCTIONS

TO AVOID SERIOUS OR FATAL PERSONAL INJURY OR MAJOR PROPERTY DAMAGE, READ AND FOLLOW ALL SAFETY INSTRUCTIONS IN THIS MANUAL AND ON THE PUMP.

THIS MANUAL IS INTENDED TO ASSIST IN THE INSTALLATION AND OPERATION OF THIS UNIT AND MUST BE KEPT WITH THE PUMP.



This is a **SAFETY ALERT SYMBOL.**

symbol on the pump or in the manual, look for one of the following signal words and be alert to the potential for personal injury or property damage.



WARNING Warns of hazards that **CAN** cause serious personal injury, death or major property damage.



CAUTION Warns of hazards that **CAN** cause personal injury or property damage.



Warns of electrical shock hazards that can cause serious personal injury, death or major property damage.



Identifies any terminal which is intended for connection to an external conductor for protection against electrical shock in case of a fault, or the terminal of a protective earth (ground) electrode.



Read operator's manual.

THOROUGHLY REVIEW ALL INSTRUCTIONS AND WARNINGS PRIOR TO PERFORMING ANY WORK ON THIS PUMP. MAINTAIN ALL SAFETY DECALS.

REFER TO WARRANTY ON PAGE 2.

Limited Warranty

This product is warranted for 1 year from the date of purchase or 18 months from the date of manufacture, whichever occurs first. Subject to the conditions hereinafter set forth, the manufacturer will repair or replace to the original consumer, any portion of the product which proves defective due to defective materials or workmanship. To obtain warranty service, contact the dealer from whom the product was purchased. The manufacturer retains the sole right and option to determine whether to repair or replace defective equipment, parts or components. Damage due to conditions beyond the control of the manufacturer is not covered by this warranty.

THIS WARRANTY WILL NOT APPLY: (a) To defects or malfunctions resulting from failure to properly install, operate or maintain the unit in accordance with printed instructions provided; (b) to failures resulting from abuse, accident or negligence; (c) to normal maintenance services and the parts used in connection with such service; (d) to units which are not installed in accordance with normal applicable local codes, ordinances and good trade practices; and (e) if the unit is used for purposes other than for what it was designed and manufactured.

RETURN OF WARRANTED COMPONENTS: Any item to be repaired or replaced under this warranty must be returned to the manufacturer at Kendallville, Indiana or such other place as the manufacturer may designate, freight prepaid.

THE WARRANTY PROVIDED HEREIN IS IN LIEU OF ALL OTHER EXPRESS WARRANTIES, AND MAY NOT BE EXTENDED OR MODIFIED BY ANYONE. ANY IMPLIED WARRANTIES SHALL BE LIMITED TO THE PERIOD OF THE LIMITED WARRANTY AND THEREAFTER ALL SUCH IMPLIED WARRANTIES ARE DISCLAIMED AND EXCLUDED.

THE MANUFACTURER SHALL NOT, UNDER ANY CIRCUMSTANCES, BE LIABLE FOR INCIDENTAL, CONSEQUENTIAL OR SPECIAL DAMAGES, SUCH AS, BUT NOT LIMITED TO DAMAGE TO, OR LOSS OF, OTHER PROPERTY OR EQUIPMENT, LOSS OF PROFITS, INCONVENIENCE, OR OTHER INCIDENTAL OR CONSEQUENTIAL DAMAGES OF ANY TYPE OR NATURE.

THE LIABILITY OF THE MANUFACTURER SHALL NOT EXCEED THE PRICE OF THE PRODUCT UPON WHICH SUCH LIABILITY IS BASED.

This warranty gives you specific legal rights, and you may have other rights which vary from country to country. Some countries do not allow limitations on duration of implied warranties or exclusion of incidental or consequential damages, so the above limitations may not apply to you.

In those instances where damages are incurred as a result of an alleged pump failure, the Homeowner must retain possession of the pump for investigation purposes.

Service Checklist

 **▲ WARNING** ELECTRICAL PRECAUTIONS- Before servicing a pump, always shut off the main power breaker and then unplug the pump - making sure you are not standing in water and wearing insulated protective sole shoes. Under flooded conditions, contact your local electric company or a qualified licensed electrician for disconnecting electrical service prior to pump removal.

▲ WARNING Submersible pumps can become pressurized under normal operating conditions. Allow 2-1/2 hours after disconnecting before attempting service.

CONDITION	COMMON CAUSES
A. Pump will not start or run.	Check fuse, low voltage, overload open, open or incorrect wiring, open switch, impeller or seal bound mechanically, defective capacitor or relay when used, motor or wiring shorted. Float assembly held down. Switch defective, damaged, or out of adjustment.
B. Motor overheats and trips overload or blows fuse.	Incorrect voltage, negative head (discharge open lower than normal) impeller or seal bound mechanically, defective capacitor or relay, motor shorted.
C. Pump starts and stops too often.	Float switch tether length too short, float too tight on rod, check valve stuck, or none installed in long distance line, overload open, switch defective.
D. Pump will not shut off.	Debris under float assembly, float or float rod bound by basin sides or other, switch defective, damaged or out of adjustment.
E. Pump operates but delivers little or no water.	Check strainer housing, discharge pipe, or if check valve is used, the vent hole must be clear. Discharge head exceeds pump capacity. Low or incorrect voltage. Incorrect motor rotation. Capacitor defective. Incoming water containing air or causing air to enter pumping chamber.
F. Drop in head and/or capacity after a period of use.	Increased pipe friction, clogged line or check valve. Abrasive material and adverse chemicals could possibly deteriorate impeller and pump housing. Check line. Remove base and inspect.
G. If tank or fittings leak.	Carefully tighten pipe joints (use pipe dope) and screws. Check gasket location, tighten lid evenly. Do not over tighten fittings or screws.

If the above checklist does not uncover the problem, consult the factory - Do not attempt to service or otherwise disassemble pump. Service must be by Zoeller Authorized Service Stations.

Helpful Hints For Easy Installation

1. Read all instructions before beginning installation.
2. Be certain that basin is on a firm level surface.
3. Do not use an automatic plumbing vent device.
4. Always use a check valve on the discharge line.
5. Test operation of pump per STEP 3.
6. Always provide some means to disconnect basin from plumbing for maintenance purposes.
7. Run unit at least once a month to verify proper operation.
8. The model number and date code can be found on the lid warning label.
9. Plug pump into a properly grounded GFCI receptacle.

Do's And Don't's For Installing A Unit

1. DO read all installation material included with the pump.
2. DO inspect unit for any visible damage caused by shipping. Contact dealer if unit appears to be damaged.
3. DO always disconnect pump from power source before handling. DO always connect to a separately protected and properly grounded ground fault protected circuit. DO NOT ever cut, splice or damage power cord. DO NOT carry or lift pump by its power cord. DO NOT use an extension cord.
4. DO NOT use a discharge pipe smaller than the pump discharge size.
5. DO test pump immediately after installation to be sure that the system is working properly.
6. DO review all applicable local and national codes and verify that the installation conforms to each of them.

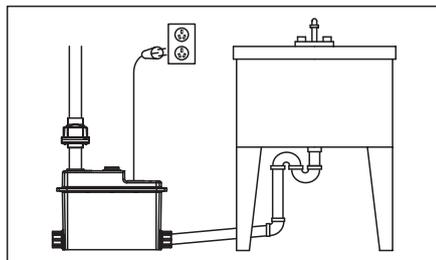
STEP 1

Determine Installation Configuration

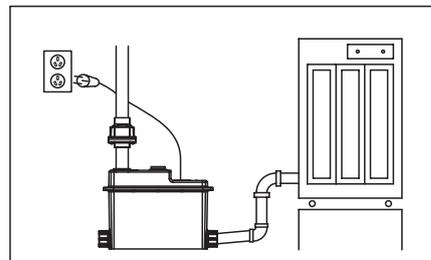
NOTE: This preassembled unit is designed for use with an external trap.

Figure 1 is a typical configuration for installation of the drain system.

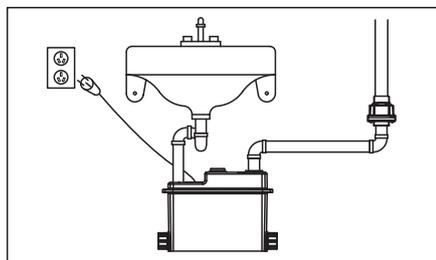
The actual configuration will vary depending on your cabinet and sink configuration.



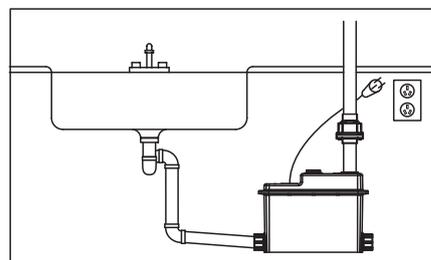
Laundry Tray Pump



Dehumidifier or Air Conditioner

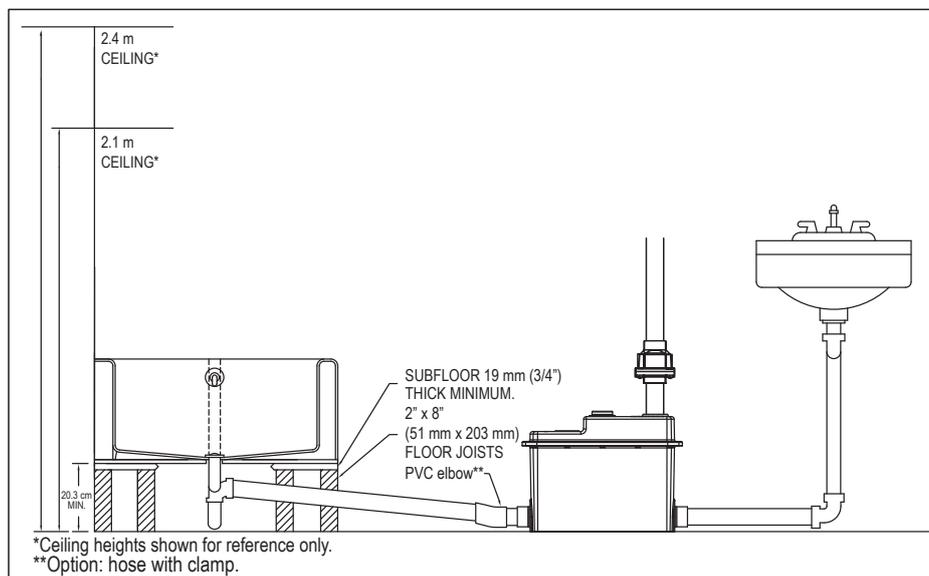


Lavatory Sink



Wet Bar with Sink

EA0070



*Ceiling heights shown for reference only.
**Option: hose with clamp.

EA0077

Figure 1 STANDARD INSTALLATION

STEP 2

Final Assembly

NOTE: External plumbing configuration will vary depending on the location of basin, location of main stack and available space.

Place the basin assembly in its final position and complete plumbing.

Secure all connections shown in Figure 2.

CAUTION

The two side inlets are available for connecting 1" or Ø32 mm O.D. pipe. Simply reverse the pipe adaptor and cut out the molded-in plug at the provided indentation.

Cut cleanly and remove burrs and rough edges.

Hand-tighten only for plastic nut. No wrench allowed. If leakage occurs, please replace the o-ring.

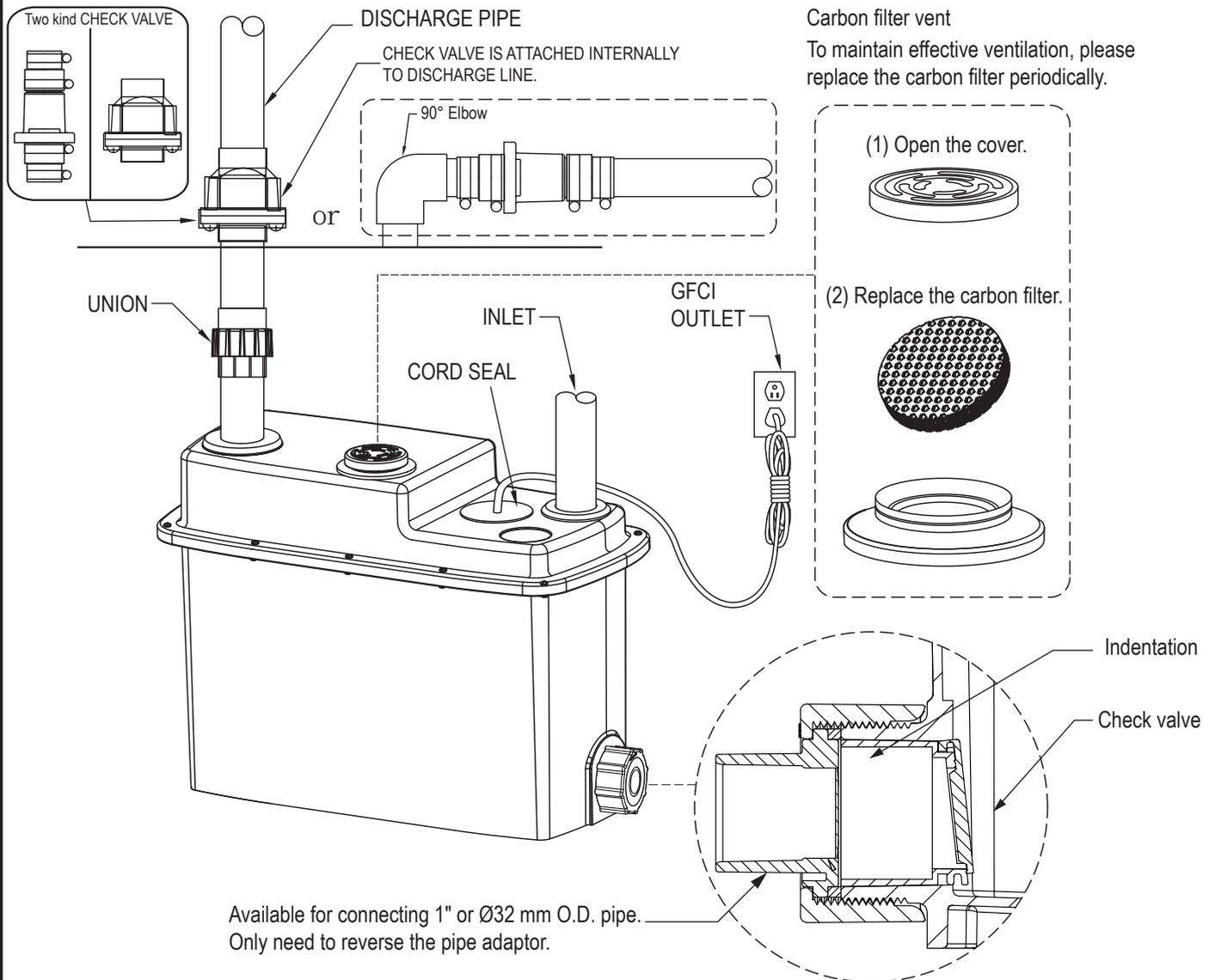


Figure 2 STANDARD INSTALLATION

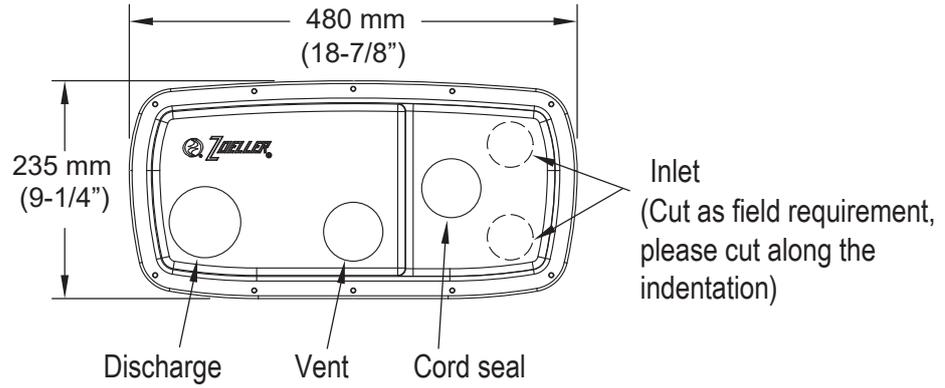
EA0073

STEP 3

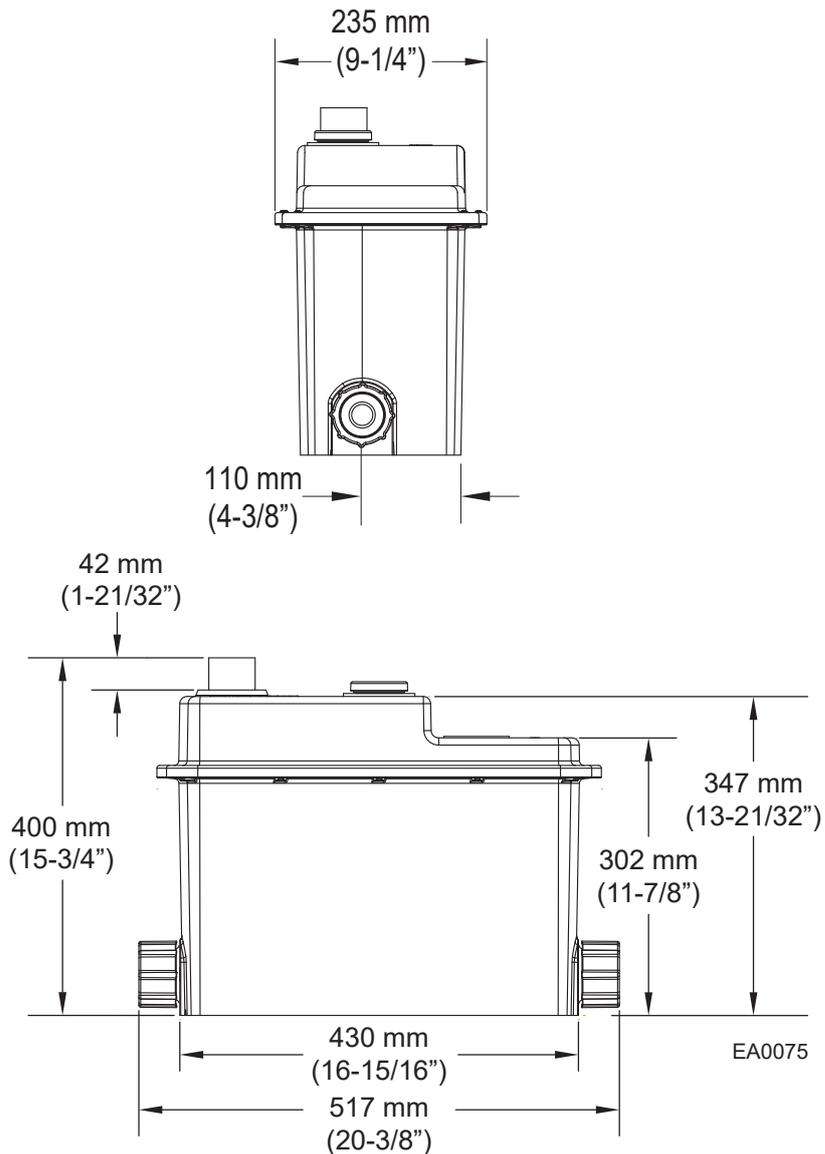
Initial Testing of Drain Basin System

1. Plug the cord into a properly grounded GFCI receptacle.
2. Fill with water until the pump is running.
3. Verify that the pump starts and stops.
4. Check the discharge line for leaks as the pump empties the basin.
5. Unplug the cord.
6. Slowly fill the basin with water until full.
7. Check all plumbing for leaks as the basin fills.
8. Repeat steps 1 through 7 as necessary to ensure proper operation.
9. If problems persist, refer to the troubleshooting guide located on page 2 of this manual.

Dimensions

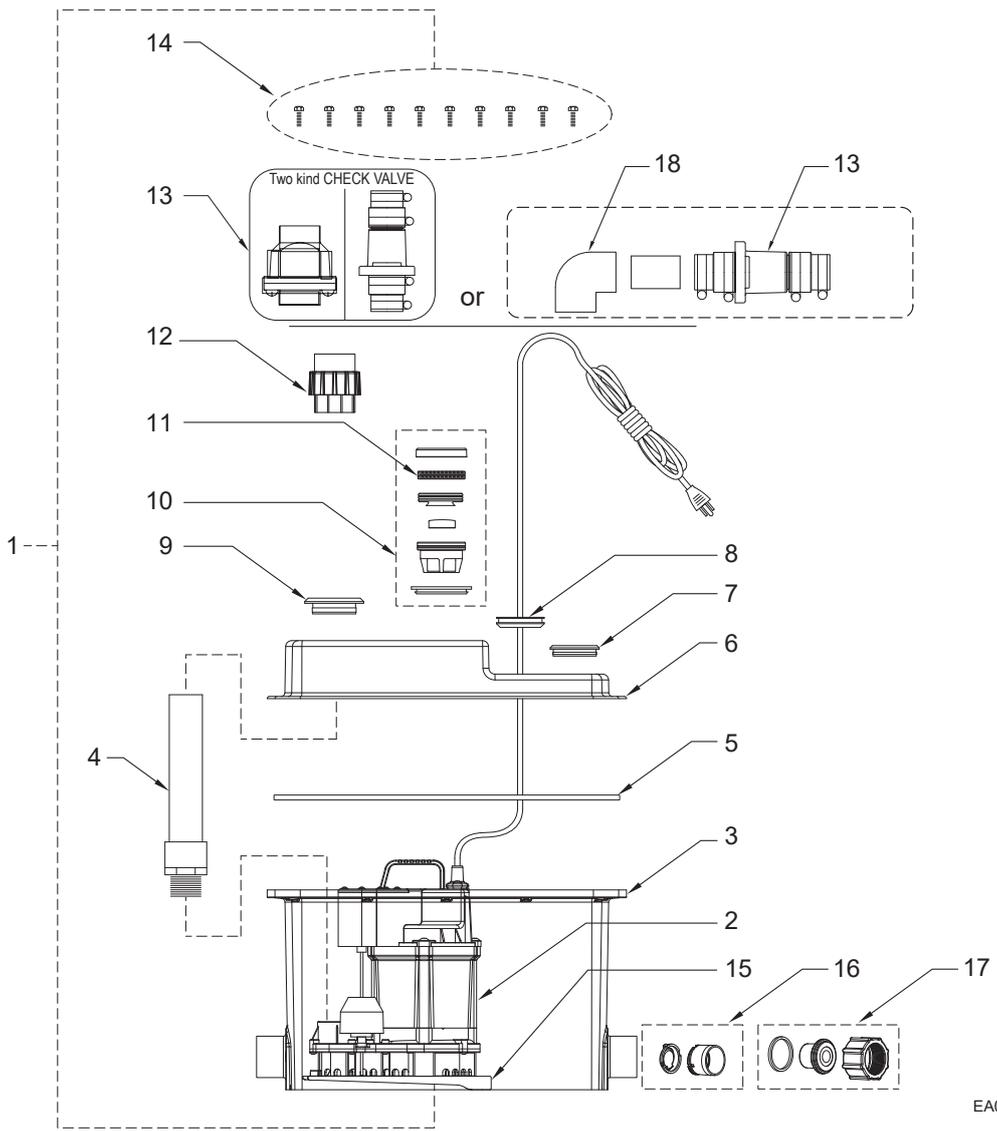


Install carbon filter vent, please replace the carbon filter periodically, no need to install vent pipe.



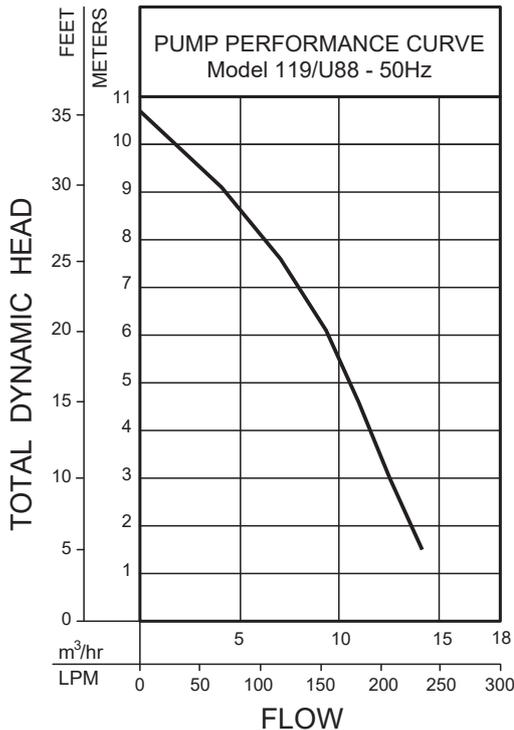
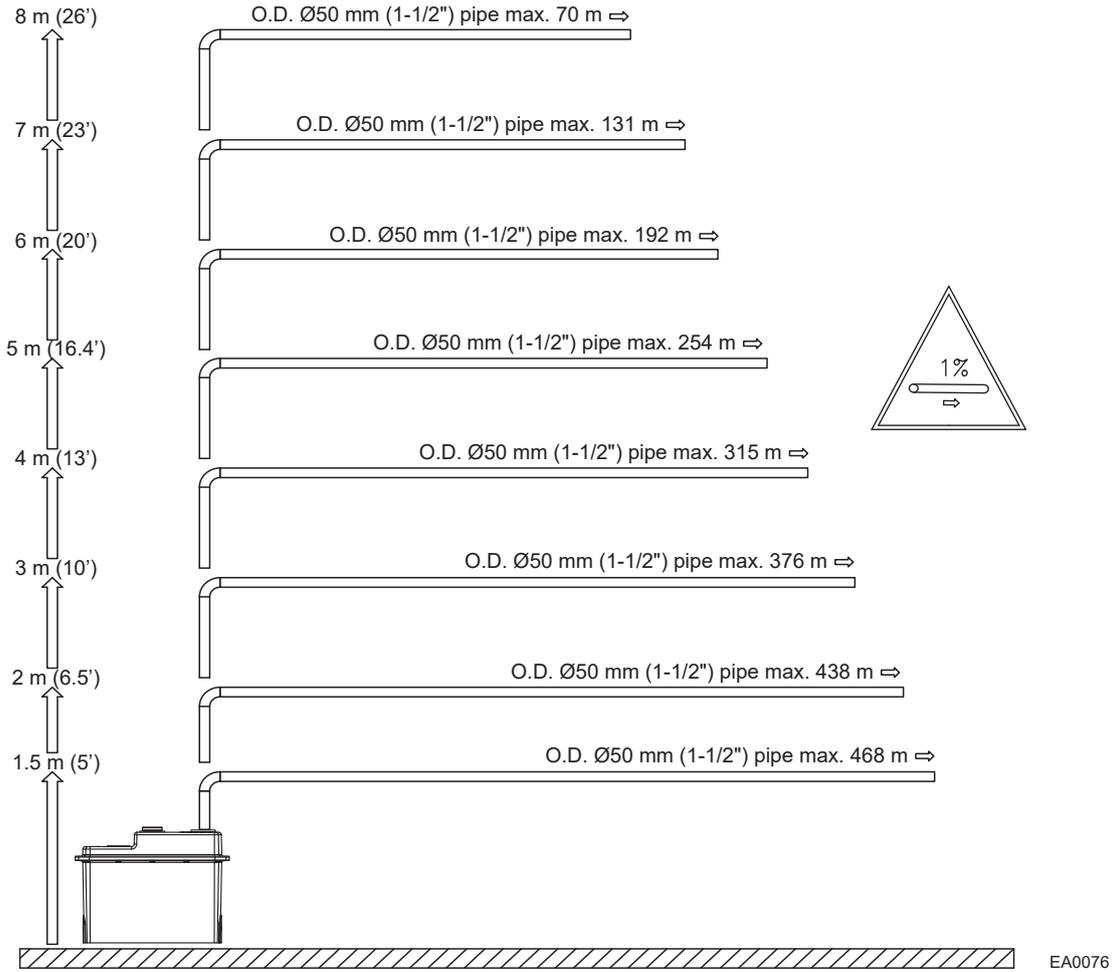
Illustrated Parts Breakdown

Pump Type			U88						U70	D88	M88	BK88
ITEM	DESCRIPTION	QTY	P/N									
1	Sewage Removal System	1	119-0005	119-0010	119-0006	119-0011	119-0012	119-0013	119-1000	119-0009	119-0007	119-0008
2	Replacement Pump	1	082744	084258	082744	084258	084259	084260	084261	084262	084263	084264
3	Basin - Tank	1	082268			082815			082268			
4	Discharge Pipe	1	082772						084187		083024	
5	Basin - Seal	1	082615									
6	Basin - Lid	1	082718									
7	Inlet Seal	1	082741						083027			
8	Cord Seal	1	082799									
9	Discharge Seal	1	082742						009170			
10	Carbon filter vent	1	081678									
		1	081744									
		1	081745									
		1	081746									
		1	081747									
11	Carbon filter	1	081887									
12	Union	1	082811									
13	Check valve	1	082812						30-0181			
14	Cover screw	10	082620									
15	Pump rubber fixture	1	082743									
16	Check valve	2	082188									
		2	082990									
17	Nut with straight pipe adapter	2	082987	082988	082987				082988			
		2	085481 / 082989									
		2	082991									
18	90° Elbow	1	084069									



EA0074

Performance Characteristics



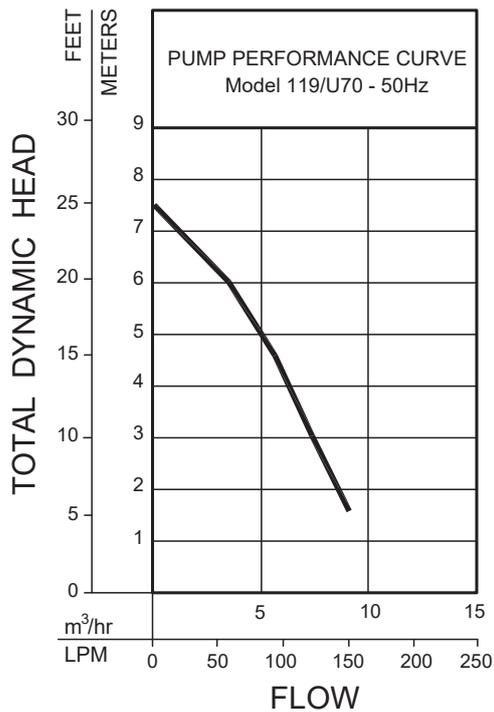
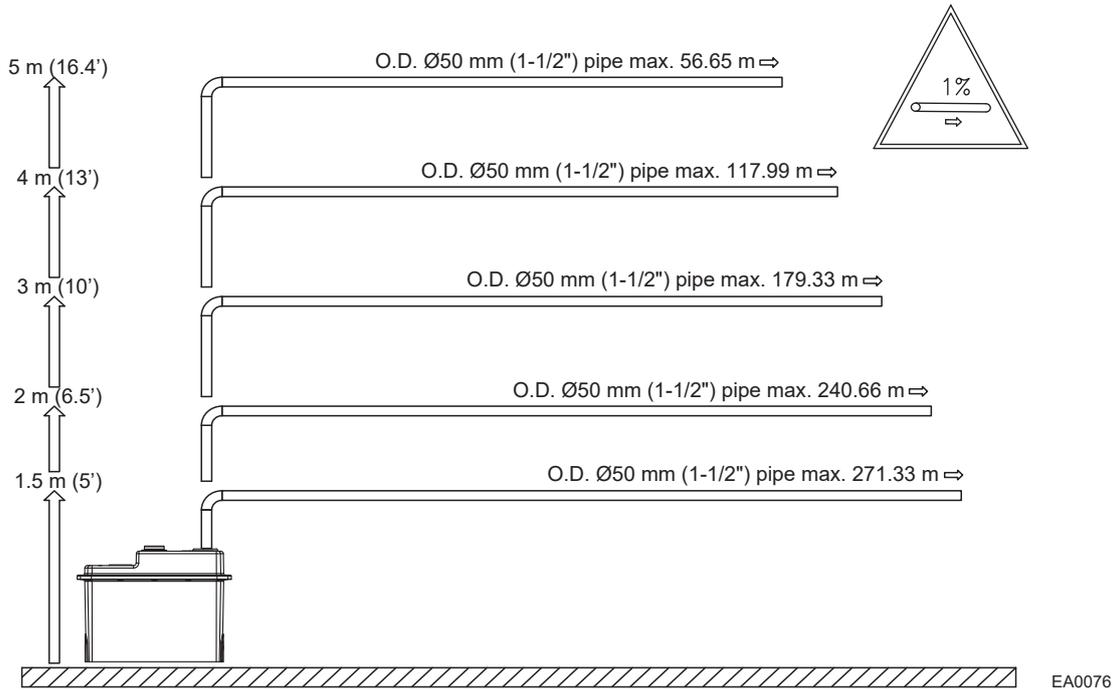
TOTAL DYNAMIC HEAD/FLOW DEWATERING

MODEL		119/U88	
Meters	Feet	m³/hr	LPM
1.5	5	14.1	235
3.0	10	12.5	208
4.6	15	10.9	182
6.1	20	9.3	155
7.6	25	7.0	117
9.1	30	4.0	68
Shut-off Head:		10.7 m (35 ft.)	

081185

These are the original installation instructions.

Performance Characteristics



TOTAL DYNAMIC HEAD/FLOW
DEWATERING

MODEL		119/U70	
Meters	Feet	m³/hr	LPM
1.5	5	9.5	159
3.0	10	7.7	129
4.6	15	5.9	98
6.1	20	3.7	61
Shut-off Head:		7.6 m (25 ft.)	

081150

These are the original installation instructions.

安装前务必详读说明书

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文件仅供参考
若有任何修改
恕不另行通知

请至美国卓勒水泵公司
官网完成您的产品注册



50 Hz

Visit our website:
zoellerpumps.com

安装说明书

119型预组式污水提升器

安装前检查

1. 安装前请仔细检查所有零件。产品如果在运送中受损，请尽速联络经销商。
2. 安装前仔细阅读所有提供的文件，熟悉安装细节，并保存资料以供未来参考。



⚠ WARNING

警告

1. 为防范使用者触电，本公司所有产品皆配有包含接地功能的电线及三插插头。为确保安全，请勿将插头的接地插销拔除，并确认将插头插入符合国内电工法规的漏电保护插座。
2. 为确保安全请勿使用延长线。加装延长线容易使水泵马达接收不到足够的电压。更重要的是，若延长线的绝缘遭破坏、或插头松脱掉入水中，将可能造成危险。
3. 请确认在供水泵电源的电路上加装适当规格的保险丝或断路器。在此建议依照水泵铭牌上的电流值，并参照国内电工法则来选择及安装独立的断路器。
4. 请在安装前测试插座的漏电保护功能。为了安全考量，请使用符合国内电工法规的电路测试仪器来检查插座中的火线、中性线及地线是否配置正确。若发现异常，请联络合格的水电技师来为您解决问题。
5. 为增加安全性使用漏电保护装置，建议漏电流不超过30 mA。
6. 仅得由持有证照的合格水电技师来进行水泵安装、管路搭配及电路配线。
7. 为避免触电，请勿移除电缆线。
8. 为了保护您的安全，接触水泵前请先拔除电源。
9. 为防范触电，本产品勿用于游泳池。
10. 如果电缆线受损，请联络经销商或本公司核可的服务单位维修。
11. 若无监督本产品不适合给儿童、心智不健全或经验不足者使用，前述条件者使用本产品时，监督者应负全部安全责任。
12. 水泵不可使用于饮用水，冷却油有可能会污染水质。

⚠ CAUTION

注意

1. 检查确认电源符合水泵或装置上铭牌所标示的电力资料。
2. 需依当地法令规章安装所有的装置(出口水管及碳制通气阀)。本装置必须有通气。请勿使用自动管路通气设备。
3. 最高环境温度不得超过摄氏40度(华氏104度)。
4. 必须安装止回阀，减少水泵不必要的循环运转。
5. 本产品非设计于处理污物排除。
6. 基于卫生考量，在泵浦断电、关闭或无法作用后，请勿持续注水灌满水槽。此非灌满水槽的适当方式。

安全守则

为避免严重或致命的人身伤害及重大财产损失，请阅读并遵守水泵的所有安全操作说明。

本说明书在协助安装和操作本机型时，必须符合水泵的安全操作守则。



这是一个安全警告符号。当你在水泵或说明书中看到此符号，请查询以下符号，并警惕人身伤害或发生财产损失的可能性。



警告，表示可能会导致严重的人身伤害、死亡或重大财产损失的危险。



注意，表示可能会造成人身伤害或财产损失的危险。



电击危险警告，表示可能会导致严重的人身伤害、死亡或重大财产损失的危险。



接地标志，表示藉由连接外部导体之接地线，在故障时可防止触电发生。



阅读操作手册。

使用水泵前，请彻底阅读本说明书内的说明和警告。并维护所有安全标签。

保固请参阅第10页。

保固说明

本产品的保固为自购买日起算的一年、或从工厂制造日期起算的18个月，以先到期者为准。若能证明产品的缺陷是由材料或制造过程造成，本公司将负责维修或更换。本公司保留决定是否维修或更换产品、零件或配件的权利。维修或更换期间买方所产生的费用或损失不在保固范围内。本公司无法控制的损坏不在保固范围内。

保固不适用于：

- (1) 未依照说明书安装、操作或维护所造成的故障或损坏。
- (2) 不当操作、意外或疏忽所造成故障或损坏。
- (3) 加装不属于本产品的零、配件。
- (4) 未依照当地法规进行安装所造成的危害。

(5) 将产品用在非原本设计的用途上所造成的损坏。(例：抽取沙、碎石、水泥、泥巴、沥青、碳氢化合物及其衍生物、汽油、化学溶剂或其他有腐蚀性的液体、毛巾、女性卫生用品等。)

保固零、配件的退回：在本保固之下任何修理或更换需送回本公司或其他本公司所指定的维修服务点，运费需自付。在任何情况下本公司不承担其他责任，包含资产或设备的损坏、利润损失、等.....

本公司的责任不超过产品的实售价格。

上述为本产品唯一的保固说明，任何人的修改或另做承诺皆为无效。

在因涉嫌产品故障而招致损害的情况下，财产拥有人必须保留该产品以供调查之用。

检查清单



警告 在维修水泵之前，须关闭总电源断路器，拔除水泵插头——确保人未站在水中，且穿上绝缘保护底的鞋子。在淹水状况下，联络当地的电力公司，或有执照的合格电气技师，在移除管之前进行断电。

警告 本水泵含冷却油，在运作状态下会受压变热——断电後等待2.5小时再进行维修。如果以下检查点都无法排除问题，请与本公司联络，不要尝试维修或拆除水泵及其他零件。

异常状况	可能原因	补救措施
A. 水泵未开始运作。	低电压、保险丝烧断、电路中断。	由合格电气技师检查保险丝和电路。
	叶轮卡住。	联络经销商。
	马达或电线短路。	
	浮球开关上有杂物。	去除杂物
B. 马达过热造成跳电或保险丝烧断。	电压错误、负扬程(出水口高度低於水泵)、叶轮或轴封卡死、电容器、继电器或马达短路。	联络经销商。
C. 水泵启动停止次数太频繁。	止回阀阻塞、无止回阀、热过载保护器启动或浮球有瑕疵。	联络经销商。
D. 水泵不停止。	浮球下方有杂物。	去除浮球周围的杂物。
	浮球开关故障。	联络经销商。
E. 水泵运转正常，但抽不到水或水流量太少。	进水口周围有杂物。	清理进水口附近区域。
	排放管堵塞。	必要时卸除排放管，冲走杂物。
	电压太低或不当电压。	由合格电气技师检查家庭管线。
	叶轮受损。	联络经销商。
	马达运转不当、电容器瑕疵、入水含空气或造成空气进入水机室。	联络经销商。
	水泵气锁。	确保排放管中的通气孔畅通。
	安装扬程超过系统设计的扬程。	更换排放管或联络经销商。
F. 扬程或流量使用一般时间後降低。	管路或止回阀阻塞。磨蚀性物质及有害的化学物质造成叶轮及水机损坏。	检查管路、打开并检查水机。
G. 桶槽或配件漏水。		小心锁紧管路连接处(用水管润滑剂)及螺丝，检查垫片位置，平均的锁紧上盖，切勿过度施力锁的太紧。

如果检查後仍无法排除问题，请与经销商联络，切勿自行拆卸水泵。

轻松安装的要诀

1. 安装前阅读所有指示。
2. 确保安装地面平坦。
3. 请避免使用自动管道通气设备。
4. 出水口管路上必须安装止回阀。
5. 依下列安装步骤 3 完成水泵测试。
6. 活动式配管以确保日後维修时方便拆除。
7. 务必至少一个月确认水泵有正常运转一次。
8. 型号及日期码标签贴於桶身。
9. 确保插座有电源断路器设计。

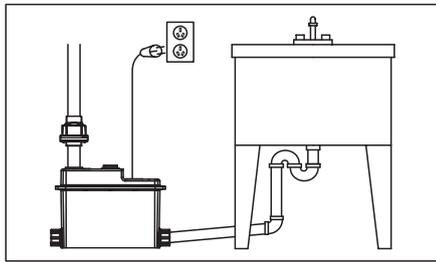
安装注意事项

1. 请务必阅读本装置之所有安装资料。
2. 请务必检查装置是否在运送中产生可见的损坏。若装置显示受损，请洽经销商。
3. 处理前切断水泵电源。连接到独立受保护的接地漏电流断路器。请勿切断、拼接或损坏电源线。请勿用电源线拉动或举起水泵。请勿使用延长线。
4. 切勿使用小於出水口径尺寸的水管安装。
5. 请务必在安装後立即测试水泵，以确认系统正常运作。
6. 请务必详阅所有适用当地及国家规则，确认安装符合各项规定。

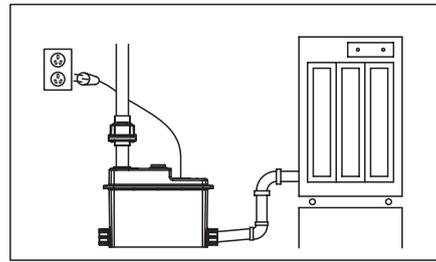
步骤 1

安装步骤

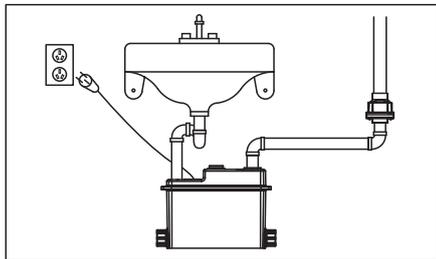
图1为污水提升器标准式安装，仅供参考，实际安装仍需依洗手台等现场为主调整。



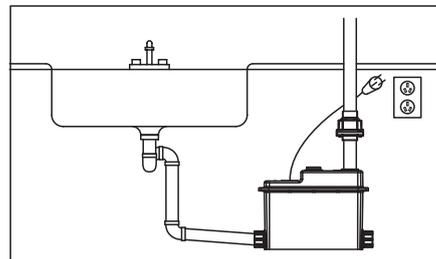
洗涤槽



除湿机或冷气机



洗手间水槽



吧台水槽

EA0070

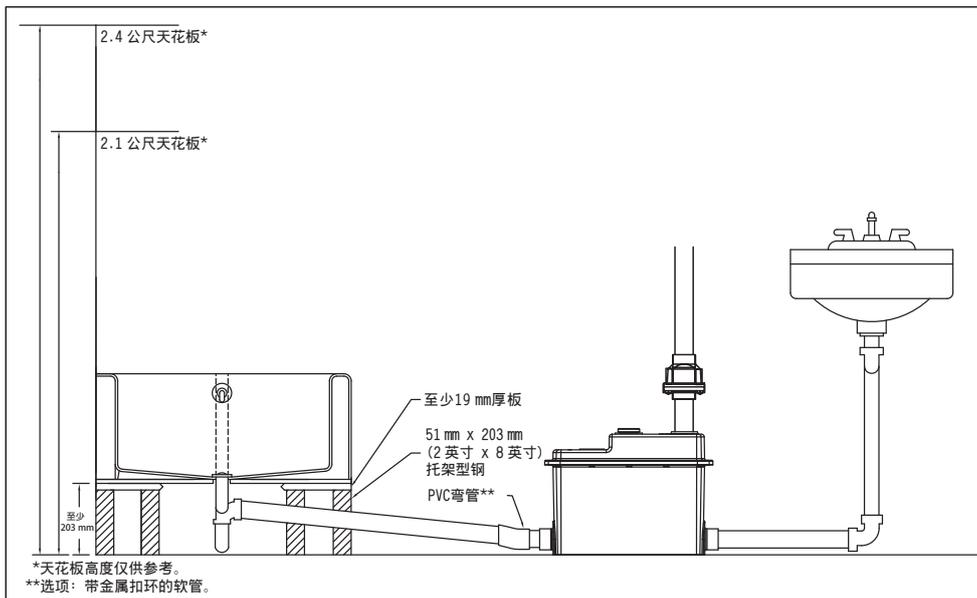


图1 标准安装

EA0077

步骤 2

组装图示

注意：实际外部管路结构，依现场空间大小与本产品相对位置而定。

将图 2 组装定位并完成接管，确认所有连接处锁紧。

▲ 注意

两侧边的进水口可直接接1英寸或外径 $\varnothing 32$ mm直管，简单的扭转接头并且切出模内插件所提供的刻痕。完整的切除并且移除毛边及粗糙的边缘来防止阻塞。塑胶螺母不可使用工具锁紧，若发生漏水请更换O型环。

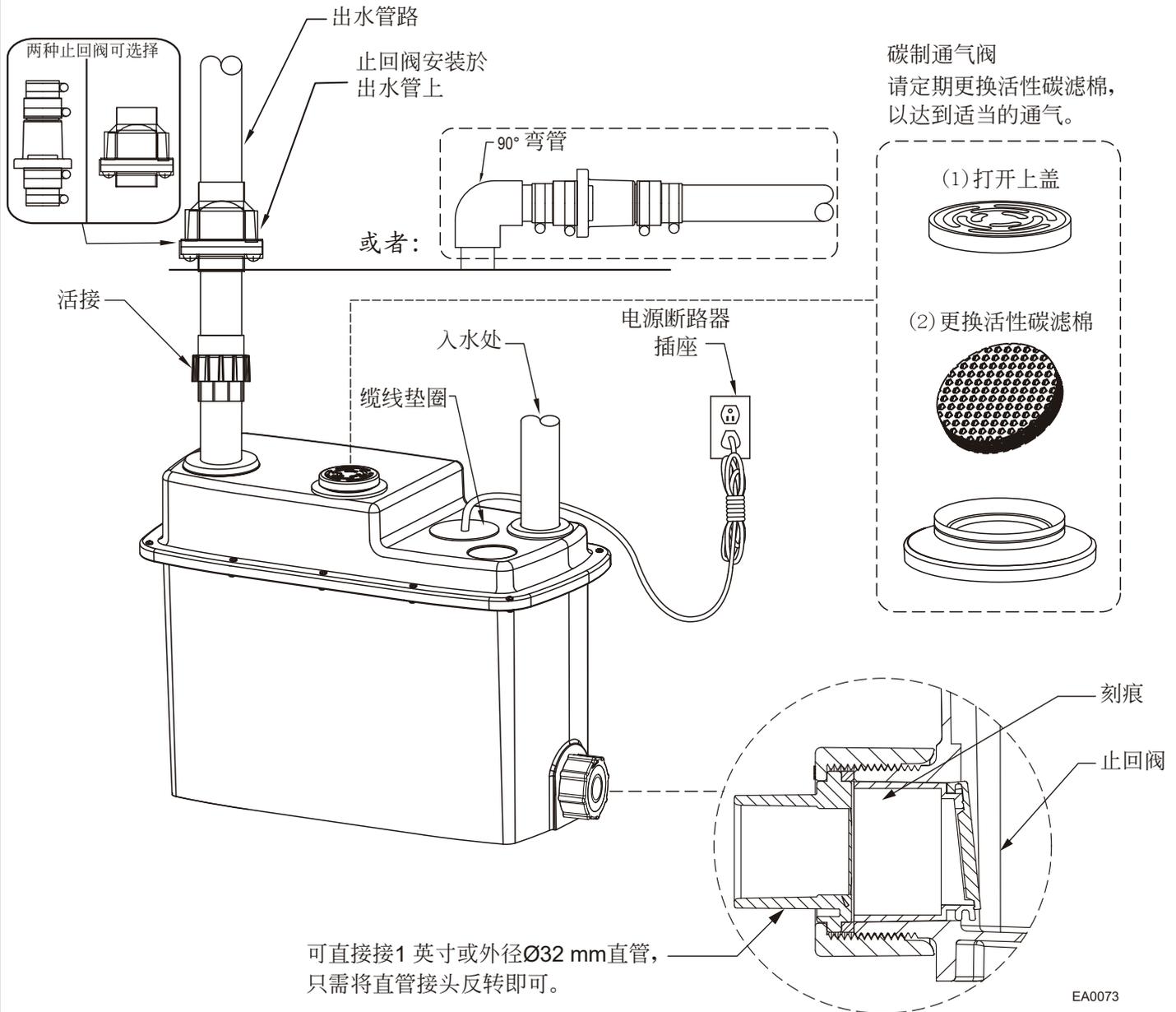


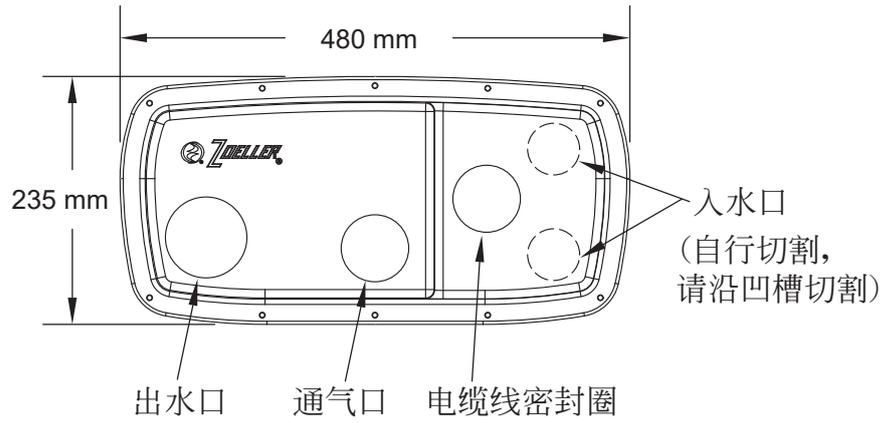
图 2 标准安装

步骤 3

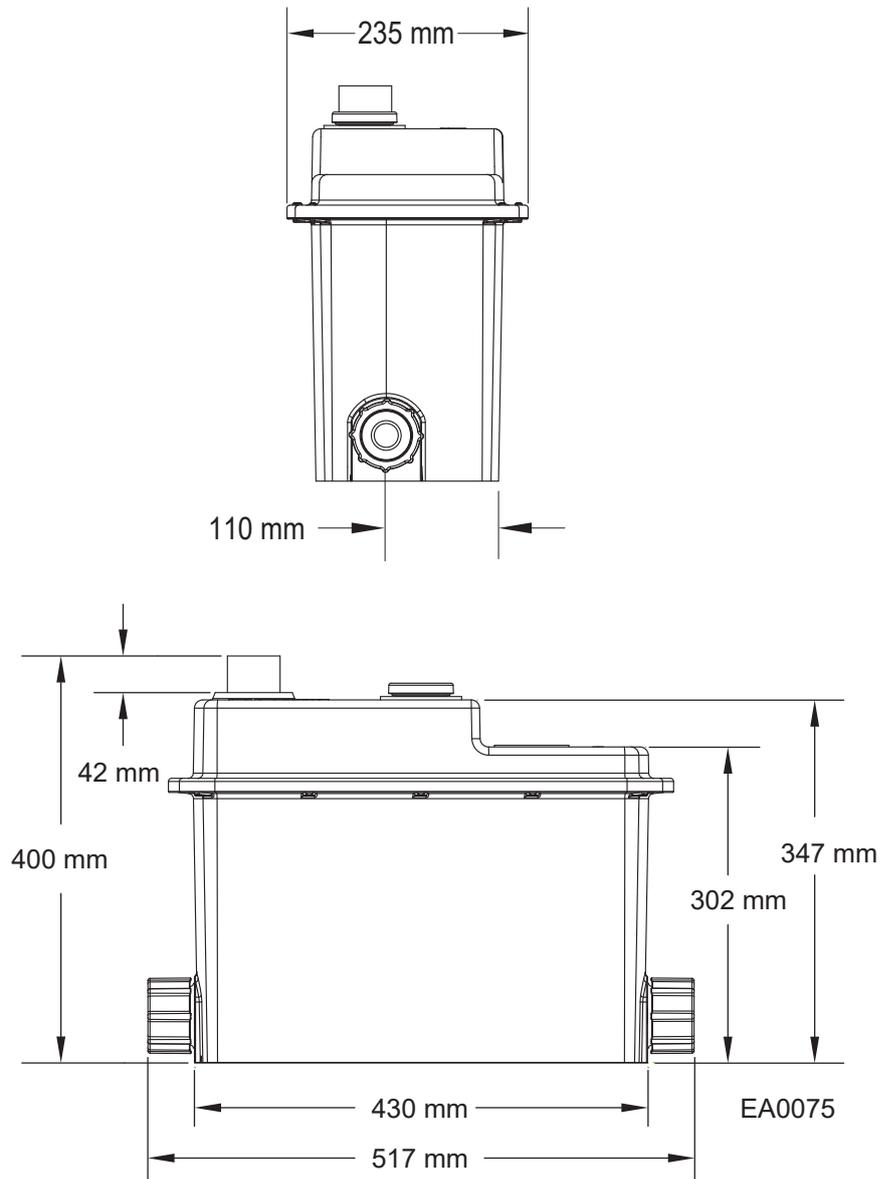
首次启用测试步骤

1. 插头插入电源断路器插座。
2. 加入水，直至泵运转。
3. 确认水泵正常启动和停止运作。
4. 检查水泵运作时出水管是否漏水。
5. 拔掉插头。
6. 慢慢再加入水，加至水槽满水。
7. 检查所有管路在注水时是否会漏水。
8. 视情况重覆要点1~7的步骤，以确保安装无误。
9. 如有发生问题，请参照第9页异状排除指示操作。

尺寸

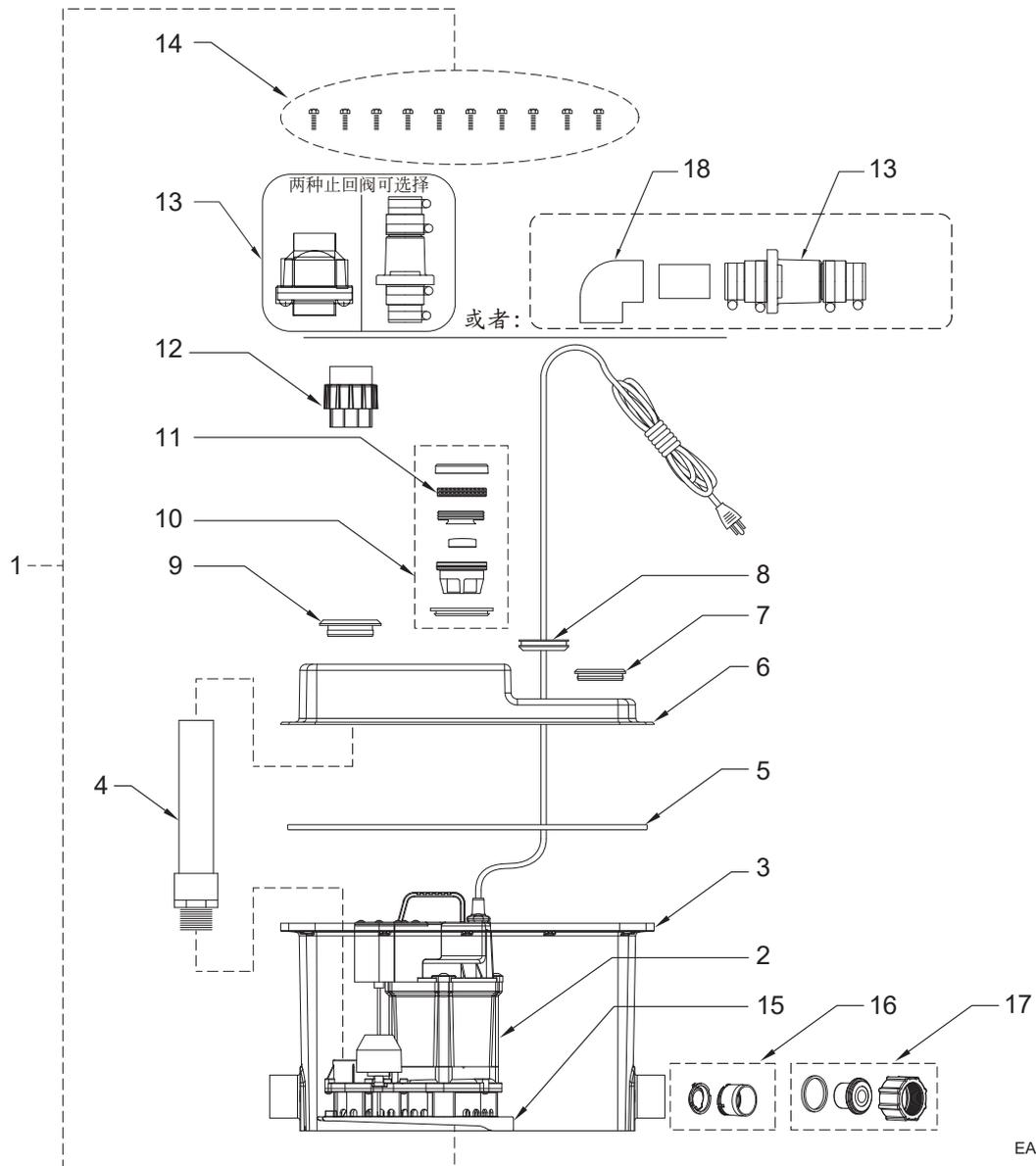


使用碳制通气阀需定期更换
活性炭滤棉，不须加装通气管。



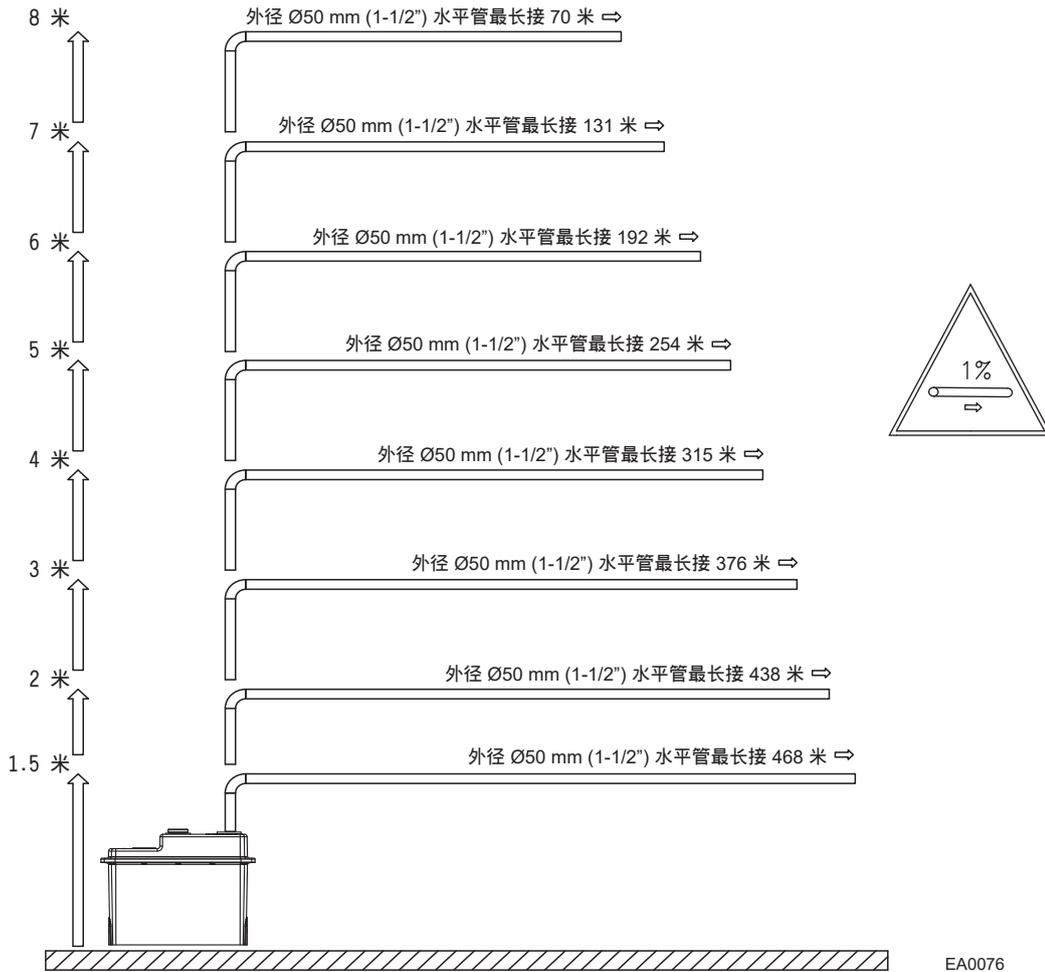
零件分解图示

Pump Type			U88						U70	D88	M88	BK88
ITEM	DESCRIPTION	QTY	P/N									
1	污水提升器	1	119-0005	119-0010	119-0006	119-0011	119-0012	119-0013	119-1000	119-0009	119-0007	119-0008
2	替换水泵	1	082744	084258	082744	084258	084259	084260	084261	084262	084263	084264
3	桶子	1	082268			082815						082268
4	出水管	1	082772						084187	083024		
5	桶身密封件	1	082615									
6	桶盖	1	082718									
7	入水口橡胶圈	1	082741						083027			
8	电缆线密封圈	1	082799									
9	出水口橡胶圈	1	082742						009170			
10	碳制通气阀零件包	1	081678									
		1	081744									
		1	081745									
		1	081746									
		1	081747									
11	活性炭滤棉	1	081887									
12	活接	1	082811									
13	止回阀	1	082812						30-0181			
14	不锈钢螺丝	10	082620									
15	水泵橡胶固定座	1	082743									
16	止回阀	2	082188									
		2	082990									
		2	082987	082988	082987			082988				
17	螺母与直管接头	2	085481 / 082989									
		2	082991									
		2										
18	90° 弯管	1							084069			

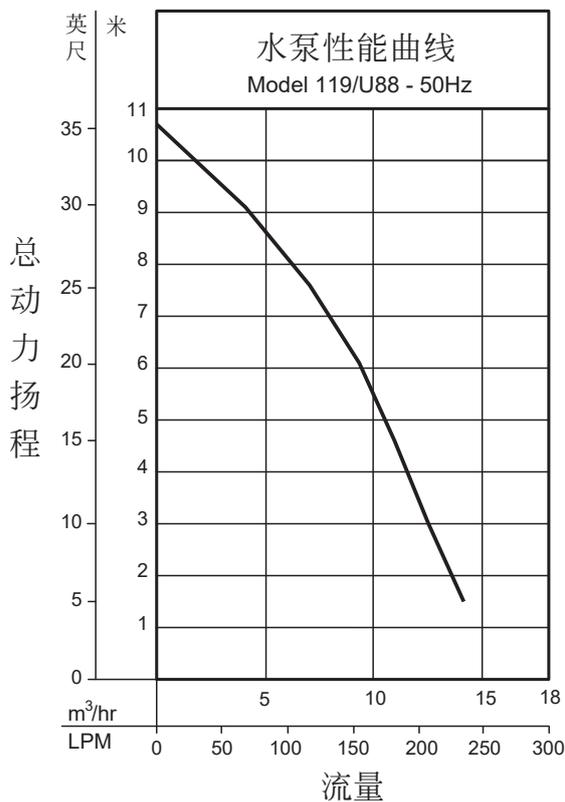


EA0074

水泵性能



EA0076

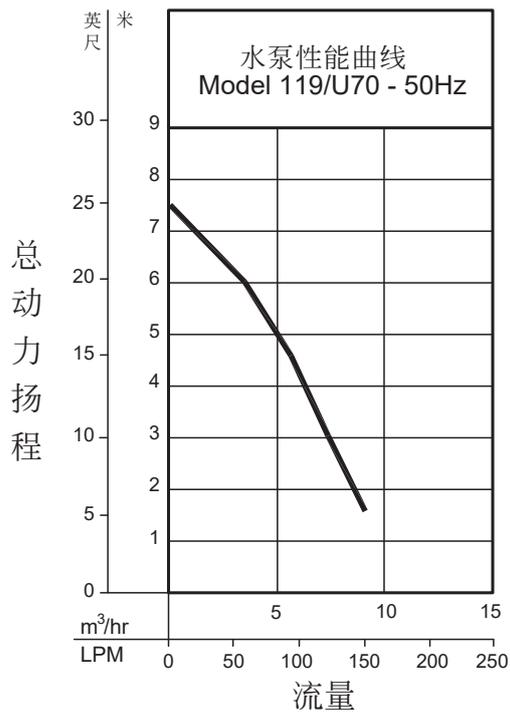
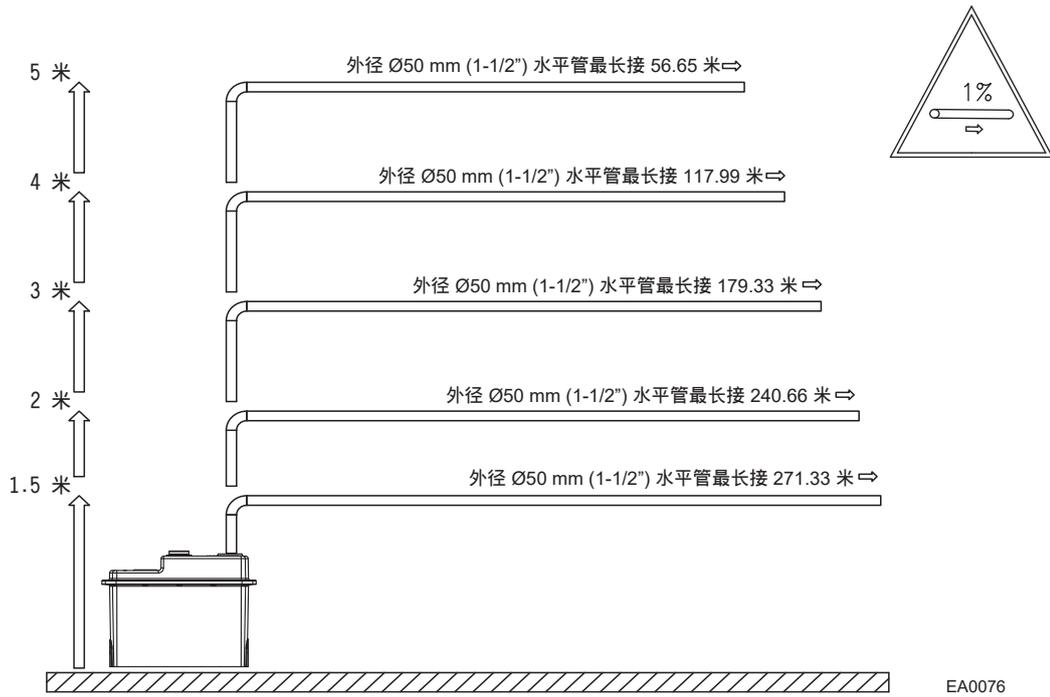


总动力扬程/流量

型号		119/U88	
米	英尺	m ³ /hr	LPM
1.5	5	14.1	235
3.0	10	12.5	208
4.6	15	10.9	182
6.1	20	9.3	155
7.6	25	7.0	117
9.1	30	4.0	68
全闭扬程		10.7 米 (35 英尺)	

081185

水泵性能



总动力扬程/流量

型号		119/U70	
米	英尺	m ³ /hr	LPM
1.5	5	9.5	159
3.0	10	7.7	129
4.6	15	5.9	98
6.1	20	3.7	61
全闭扬程		7.6 米 (25 英尺)	

081150