## **CHARLES AUSTEN** PUMPS LTD

### WASTEWATER **AERATION PUMPS**



( +44 (0)1932 355277 ▲ INFO@CHARLESAUSTEN.COM

## **CONTENTS**

### **ABOUT US**

INTRODUCTION CAPABILITIES TECHNOLOGY ORDERING WARRANTY

### - Page. 3

- Page. 4
- Page. 5
- Page. 14
- Page. 14

### **AIR PUMPS**

ENVIRO ET SERIES ENVIRO ETA SERIES ENVIRO DUAL SERIES ENVIRO ETX SERIES

- Page. 6 - Page. 8 - Page. 10
- Page. 11

### ACCESSORIES

DIFFUSERS ENVIROSURE ALARM MANIFOLDS TUBING - Page. 12 - Page. 12 - Page. 13 - Page. 13



### DUAL PUMP COMING SOON

Allows the user to operate both aeration and water lift from one unit. The enviro dual is complete with programmable electronic interface.

WWW.CHARLESAUSTEN.COM

NEW





### **INTRODUCTION**

For almost three-quarters of a century, Charles Austen Pumps has revolutionized many different markets through its design innovation but also it's world-wide distribution network, and during that time has gained the respect and trust of industries throughout.

Charles Austen Pumps Ltd stocks an extensive range of linear aeration pumps and accessories suitable for use in wastewater applications. The range incorporates air pumps with varying flow rates. All of our pumps are built with thermal cut out and safety trip switch.

UL Approval

UL Number - QDGS.E348002

UL Installation Requirements

Ordinary locations include:

**Damp location** - partially protected locations under canopies, marquees, roofed open porches and like locations, and interior locations subject to moderate degrees of moisture, such as some basements, barns and cold-storage warehouses.

**Wet location -** installations underground or in concrete slabs or masonry in direct contact with the earth, and locations subject to saturation with water or other liquids, such as vechicle washing areas, and locations exposed to weather and unprotected.

**Outdoor use -** in general, individual appliances and equipment have been investigated only for use indoors, in dry locations. An exception is where outdoor use is specifically permitted by the arctile of the NEC concerned with the product installation. See also the general guide information for the product category or included in the individual listing. In some cases of the title (eg., Snow Movers, Swimming Pool Fixtures) indicates the conditions for which the product has been investigated.



3 (

## **CAPABILITIES**

### R&D

The Process begins in our state of the art Research and Development department. Using an array of high-tech equipment alongside the old fashioned proven methods we can accurately gauge the performance and reliability of our pumps, ensuring we are staying at the top of our game.

### TOOLMAKING

With 10 members of staff dedicated solely to toolmaking, Charles Austen is proud to boast an impressive 'Tool Room' complete with a labyrinth of imposing machinery. This allows us to efficiently and precisely create the tooling we require to continue revolutionizing the pump industry.



### MOULDING

Charles Austen employs modern CNC moulding machines to mould components all in-house. As a company we have invested heavily in our moulding capability to ensure high fidelity components.

### ASSEMBLY

With 20,000 square foot of manufacturing lines Charles Austen Pumps efficiently constructs our pumps primarily by hand. Pumps are then tested to secure that each of them leave the factory as reliable as we designed them to be following the ISO 9001 quality standard.

### WAREHOUSING

With 5 dedicated buildings on site for warehousing Charles Austen Pumps have the capacity to hold huge orders in waiting. We utilise double shifts to ensure that stock items are despatched within 24 hours.

## TECHNOLOGY



The simple yet efficient pumping principle uses a magnetically operated diaphragm. This action flexes a diaphragm at one, or both ends of the connecting rod within a totally sealed pumping chamber. This eliminates sliding parts keeping wear, tear and power consumption to a minimum.



Look out for the green drive technology symbol as it means that the motor inside the pump runs efficiently with minimal power consumption. Green drive also allows the pumps to save energy without having to hamper its performance.



All of our ET pumps are made with galvanised steel casings making the pumps perfect for indoor and outdoor useage. Having the steel casing means that the pump can with stand all weather conditions including sub-zero climates and high temperatures with no impact on performance.



All of our pumps have been UL tested by an independant laboratory representative who have determined that it meets UL's requirements. These requirements are often based on UL's published and nationally recognized Standards for Safety.

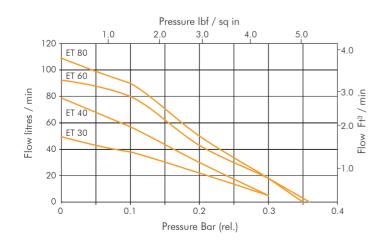


All Enviro® pumps are covered by a two year warranty on the pump motor. To validate this warranty, the aerator must be serviced on a yearly basis. For more information please read page 14.

## enviro<sup>®</sup> ET SERIES PRO

#### 110V / 230V - UK/EU/USA plug version

Model no.	Perfe	ormo	ince	Power consumption	Connector Size	Dimensions (mm)
	Flow (I/min)	)	Pressure (bar)	(w)	(mm)	(Lx₩xĤ)
ET30	30	@	0.12	25	14	208x150x178
ET40	40	@	0.12	30	14	218x156x182
ET60	60	@	0.12	55	18	203x165x153
ET80	80	@	0.10	85	18	210x185x171
ET100	100	@	0.10	105	18	238x196x177
ET120	120	@	0.10	125	18	265x215x198
ET150	150	@	0.20	130	18	256x200x222
ET200	200	@	0.20	195	18	256x200x222



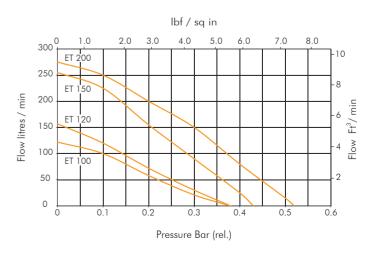
 Robust and compact construction weatherproof.

0

Green drive technology - energy efficient motors low power consumption.

Supplied with rubber elbow for easy fitting.

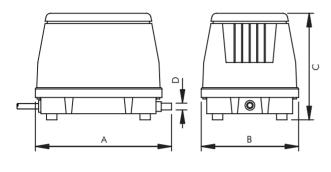




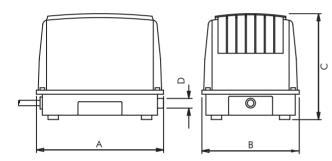
## **ET SERIES**



#### ET30, ET40, ET150 & ET200



#### ET60, ET80, ET100, ET120, ET300



#### SERVICE KITS

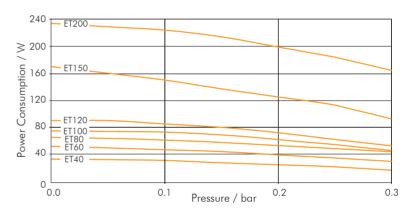
Model no.	Included in Service Kit					
	Diaphragm	Filter	Other			
ET30-120	2	1	1 magnet			
ET150-200	2	1	8 valves			

At Charles Austen we recommend enviro<sup>®</sup> pumps are serviced every 18 months, service kits for each pump can be purchased from us. Sign up to our service reminder and we'll remind you when it is due!



ET150 - 500 SERVICE PACKS AVAILABLE

Model no.	Weight	Dimensions mm				
	kg	А	В	С	D	
ET30	4.0	208	150	178	14	
ET40	4.3	218	156	182	14	
ET60	6.0	203	165	153	18	
ET80	7.0	210	185	171	18	
ET100	8.5	238	196	177	18	
ET120	9.5	265	215	198	18	
ET150	9.0	256	200	222	18	
ET200	9.0	256	200	222	18	



#### CONNECTIONS

**ET40 -** Plain, horizontal, connection 14.0mm OD also supplied with screw in barbed connector 10.0mm OD

**ET60, ET80, ET100, ET120, ET150, ET200 -** Plain, horizontal, connection 18.0mm OD also supplied with screw in barbed connector 12.0mm OD

### ACCESSORIES Elbow connector (included) Large brass barbed connector 18.0mm and 20.0mm (optional)

Please note - it is important that you ensure the motor specification stated and the range of materials offered in the pump are compatible with the performance, environmental limitations and chemical resistance requirements of the application.

For further information or details of our extensive range of pumps, contact our technical sales office who will be pleased to help you select the most suitable pump for your application.

🐛 +44 (0)1932 355277 🛛 🖾 INFO@CHARLESAUSTEN.COM 🏾 🌐 WWW.CHARLESAUSTEN.COM

7

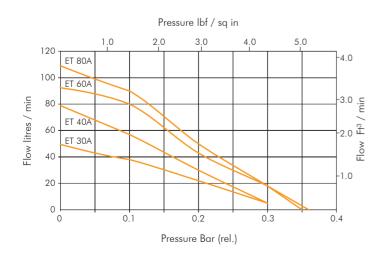
## enviro<sup>®</sup> ETA SERIES PRO

#### 110V / 230V - UK/EU/USA plugin version



Model no.	Performance			Power consumption	Connector Size	Dimensions (mm)
	Flow (l/min)	@	Pressure (bar)	(w)	(mm)	(LxWxH)
ET40A	40	@	0.12	30	18	220x155x140
ET60A	60	@	0.12	55	18	253x165x183
ET80A	80	@	0.10	85	18	260x185x201
ET100A	100	@	0.10	105	18	288x196x207
ET120A	120	@	0.10	125	18	315x215x228
ET150A	150	@	0.20	125	18	346x200x222
ET200A	200	@	0.30	210	18	346x200x222
ET250A	250	@	0.20	220	26	348x230x219
ET300A	300	@	0.20	275	26	348x230x219

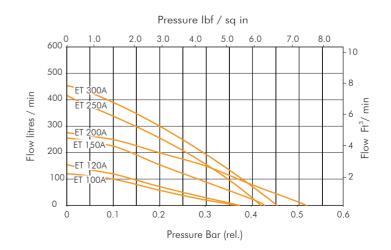
\*AO Versions available with 230V output cable.



 Enviro air pump with built in alarm which detects low pressure in the airline.

- Integral high sounding buzzer and bright LED warning signals.
- Also available with 230V output wire for connection to a alarm panel or beacon.

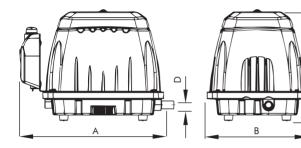




## **ETA SERIES**



#### **ETA RANGE**



Model no.	Weight	Dimensions mm				
	kg	А	В	С	D	
ET40A	4.3	220	155	190	14	
ET60A	6.0	203	165	153	18	
ET80A	7.0	210	185	171	18	
ET100A	8.5	238	196	177	18	
ET120A	9.5	265	215	198	18	
ET150A	9.0	256	200	222	18	
ET200A	9.0	256	200	222	18	
ET250A	9.5	265	215	198	18	
ET300A	18.5	349	231	219	18	

#### **SERVICE KITS**

Model no.	Included in Service Kit					
	Diaphragm	Filter	Other			
ET30A-120A	2	1	1 magnet			
ET150A-200A	2	1	8 valves			
ET250A-300A	4	1	16 valves			

ET30A- 120A SERVICE PACKS AVAILABLE



At Charles Austen we recommend enviro® pumps are serviced every 18 months, service kits for each pump can be purchased from us. Sign up to our service reminder and we'll remind you when it is due!



#### COMPATIBLE WITH OUR DIFFUSER RANGE

380 Power Consumption / W 340 300 ET250A 260 ET200A 220 ET150A 180 140 100 0 0.0 0.1 0.2 0.3 Pressure / bar

#### CONNECTIONS

420

ET40A, ET60A, ET80A, ET100A & ET120A - Plain, horizontal, connection 18.0mm OD also supplied with screw in barbed connector 12.0mm OD

ET150A, ET200A, ET250A, ET300A - Plain, horizontal, connection 18.0mm

#### ACCESSORIES

Elbow connector (included)



Large brass barbed connector 18.0mm and 20.0mm (optional)

Please note - it is important that you ensure the motor specification stated and the range of materials offered in the pump are compatible with the performance, environmental limitations and chemical resistance requirements of the application.

For further information or details of our extensive range of pumps, contact our technical sales office who will be pleased to help you select the most suitable pump for your application.

+44 (0)1932 355277 C.

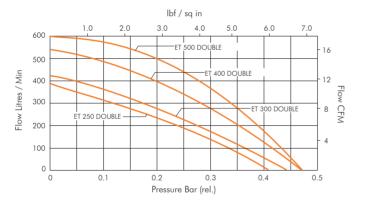
WWW.CHARLESAUSTEN.COM

9

### enviro<sup>®</sup> ET DOUBLE SERIES REGISTERED UK PLUG EU PLUG USA PLUG

#### 110V / 230V - UK/EU/USA plugin version

0.0			800	R B	008	0
Model no.	Performance		Power consumption	Connector Size	Dimensions (mm)	
	Flow (l/mir	ר)	Pressure (bar)	(w)	(mm)	(LxWxH)
ET250	250	@	0.20	220	26	349x231x219
ET300	300	@	0.20	275	26	349x231x219
ET400	400	@	0.20	347	27	340x168x247
ET500	500	@	0.20	460	27	340x168x247



 Low cost, exceptionally reliable with long service intervals.

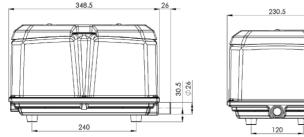
UL & CE approved.

#### 420 380 ET300 & ET500 Power Consumption / W 340 300 ET250 & ET400 260 220 180 140 100 0 0.0 0.1 0.2 0.3 Pressure / bar

#### ACCESSORIES

Straight connector (included)

Model no.	Weight kg	Dimensions mm			
	кд	А	В	С	D
ET250	17.5	348.5	230.5	219	26.0
ET300	18.0	348.5	230.5	219	26.0
ET400	18.0	340.0	168.0	247	27.0
ET500	18.0	340.0	168.0	247	27.0



#### CONNECTIONS

**ET250, ET300, ET400, ET500 -** Outlet connector 26mm, also supplied with a straight rubber connector which can be used to increase pipe size to 29mm ID

Model no.	In	ET250 - 500 SERVICE PACKS AVAILABLE		
	Diaphragm	Filter	Other	
ET250 & ET300	4	1	16 valve	
ET400 & ET500	4	1	16 valve	

At Charles Austen we recommend enviro<sup>®</sup> pumps are serviced every 18 months, service kits for each pump can be purchased from us. Sign up to our service reminder and we'll remind you when it is due!



(,)+44 (0)1932 355277

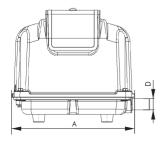
# enviro<sup>®</sup> ETX SERIES (e) (e



**ETX60 ECO, ETX80 ECO-** Outlet connector 18mm, also supplied with a straight rubber connector which can be used to increase pipe size to 18mm ID

Model no.	Weight kg	Dimensions mm				
	кд	А	В	С	D	
ETX60 ECO	17.5	348.5	230.5	219	17.5	
ETX80 ECO	18.0	348.5	230.5	219	17.5	

() +44 (0)1932 355277





 Model no.
 Included in Service Kit
 ETX60- ETX80 SERVICE PACKS AVAILABLE

 Diaphragm
 Filter
 Other

 ETX60 ECO
 2
 1
 8 valve

 ETX80 ECO
 2
 1
 8 valve

At Charles Austen we recommend enviro<sup>®</sup> pumps are serviced every 18 months, service kits for each pump can be purchased from us. Sign up to our service reminder and we'll remind you when it is due!



**CONTACT US:** 

WWW.CHARLESAUSTEN.COM

11

## **ACCESSORIES**



DIFFUSERS Coarse Bubble Disk Diffuser Straight air diffuser diffuser Quantity Quantity of Bubbl 19mm 6600 8300 4000 8300 18000 Operation emperatur 0~ Size of bubble 1-3mm 1-3mm 1-3mm 1-3mm High Material 19mm 19mm 19mm 19mm 1.5 - 6.7m^3h Max: 6.7m^3/h 2.5 - 11.3m^3h Max: 11.3m^3/h 5 - 24m^3h Max: 24m^3/h 2.5 - 15m^3h Max: 15m^3/h Best continuous operations

 $0 \sim +100^{\circ}C$ 

High grade EPDM,

ABS

Operation Temperatur

Material Membran

Material -Joport Par

0~+100°C

High grade EPDM, Silicon

PVC

	SI DUDU IO	
~+100°C	Size of bubble	1-3mm
grade EPDM, Silicon	Connection	19mm
ABS	Best continuous operation	1.5 - 8.5m ^ 3H Max: 8.5m ^ 3/
	Operation Temperature	0~+100°C
	Material - Membrane	High grade EPDA Silicon
	Material - Support Parts	ABS

- Fine bubble and coarse bubble options
- Obsigned for use with the ET range of pumps



 $0 \sim +100^{\circ}C$ 

High grade EPDM, Silicon

PVC

0~+100°C

High grade EPDM, Silicon

PVC

### **ENVIROSURE ALARM**

Model no.	Description	Part Number
envirosure 10	0 Alarm module	A07-001
envirosure 12	0 Alarm module with beacon & inline transformer	A07-006

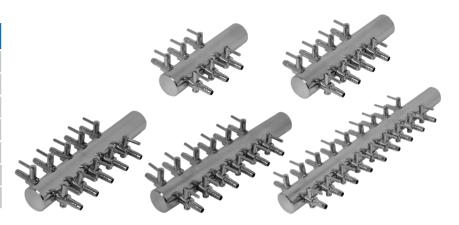
- Envirosure detects low pressure alerting the user of pump failures or power cuts immediately.
- Versatile installation Takes minutes to install.
- Multiple variants- options include bright LED beacon,  $\checkmark$ plugin or hardwire



## ACCESSORIES

## MANIFOLDS

Model no.	Description	Outlet sizes	Inlet sizes
4 Way	Steel	4	18
6 Way	Steel	4	18
8 Way	Steel	4	18
10 Way	Steel	4	18
12 Way	Steel	4	18
18 Way	Steel	4	18
24 Way	Steel	4	18



- Custom sizes available.
- Allow several processes to be run from the same pump.
- Allow numerous air stones or air curtains to be connected in a hydroponic tank and aquarium.

## TUBING

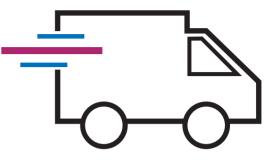
Model no.	Length	Size Ø		
	_	18mm		
Braided Tubing	100m	18mm	CLEAR TUBING	CLEAR TUBING
	100m	8mm		
	200m	6x4mm		
Silicone Tubing	100m	8x4mm		
	100m	8mm		
Black Tubing	200m	4x6mm		
Bubbler Tubing	200m	4mm		
	50m	4mm	SILICONE TUBING	SILICONE TUBING BUBBLER TUBING

- Designed to connect manifolds if multiple air stones/ diffusers.
- Connects water and air pumps to an air stone.



Phone our order & product enquiry hotline: +44 (0)1932 355277

Email your order to: enquiries@charlesausten.com



For more product information and a look at our entire range of pumps you can visit our website:

#### www.charlesausten.com

### **CHARLES AUSTEN PUMPS LTD**

Royston Road, Byfleet, Surrey, KT14 7NY, UK

#### **BLUE DIAMOND PUMPS INC**

5072 Bristol Industrial Way Buford, GA 30518, USA

### WARRANTY

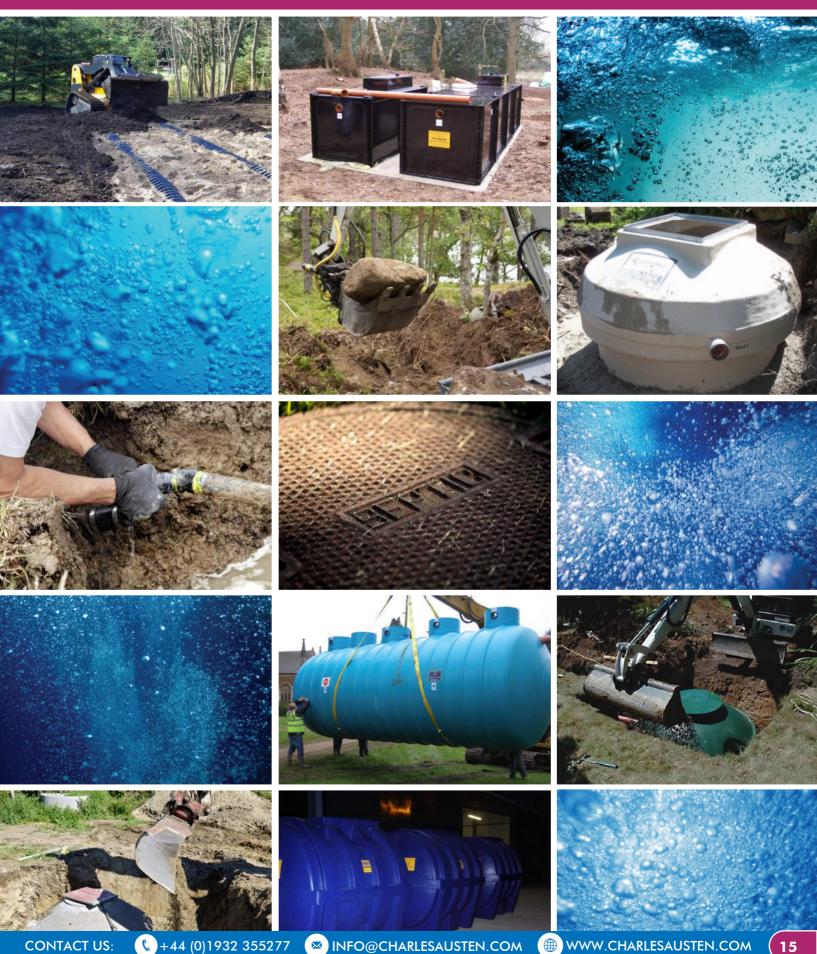
All Enviro<sup>®</sup> pumps are covered by a two year warranty on the pump motor. To validate this warranty, the aerator must be serviced on a yearly basis. We recommend that the consumables including the diaphragms and filter are changed at this point.

The wear and tear parts are outside the two year warranty but are covered by a year's warranty providing they have been used correctly and not subjected to back pressure or water damage.

This warranty is only valid for pumps that are used as recommended.



## **APPLICATIONS**



CONTACT US:

<u>()</u>+44 (0)1932 355277



For almost three-quarters of a century, Charles Austen Pumps has revolutionized many different markets through its design innovation but also it's world-wide distribution network, and during that time has gained the respect and trust of industries throughout.

Charles Austen Pumps Ltd stocks an extensive range of linear aeration pumps and accessories suitable for use in wastewater applications alike. The range incorporates air pumps with varying flow rates. All of our pumps are built with thermal cut out with safety trip switch.