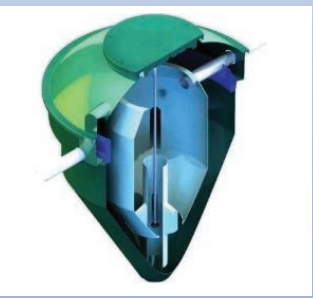
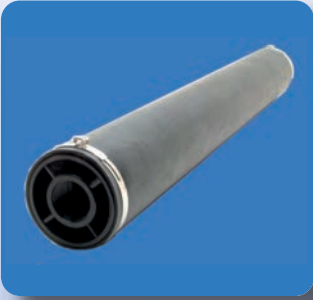




Product Brochure 2016-2017



Waste Water Treatment Range

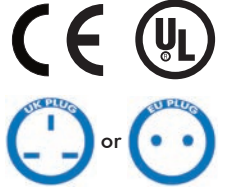


About us

Charles Austen Pumps supplies aeration pumps and accessories for use in domestic waste water treatment units for both the UK and overseas markets. Charles Austen are also proud to offer first class customer support, offering a wealth of knowledge, technical support and high quality products.

All of these pumps CE registered, UL certified, carry a multi year warranty and can be purchased with UK or EU plugs.

2 year
warranty



UL Approval

UL Number - QDGS.E348002

UL Installation Requirements

Ordinary locations, as defined in the NEC, 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 vehicle 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 Article 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.

Testimonial

Marsh Industries - "We have used Charles Austen compressors since they were first launched, over that period they have proved extremely reliable with only one reported failure out of over two thousand used, and even that one it was debatable whether it was the unit at fault. Charles Austen are very competitive on pricing but more importantly excel on service!"

Contents

Air Pumps

- ET Series Page. 4
- ETA Series Page. 6
- ET Double Series Page. 8
- ETX Series Page. 9

Accessories

- Alarms Page. 10
- Fitting Accessories Page. 10
- Diffusers Page. 11

Ordering

Phone our order hotline & for product enquires:

+44 (0)1932 355277

Email your order to:

enquiries@charlesausten.com

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

www.charlesausten.com

Charles Austen Pumps Ltd

Royston Road, Byfleet
Surrey, UK
KT14 7NY

Blue Diamond Pumps Inc

4850 Golden Parkway, Suite B
409, Buford, USA
GA 30518



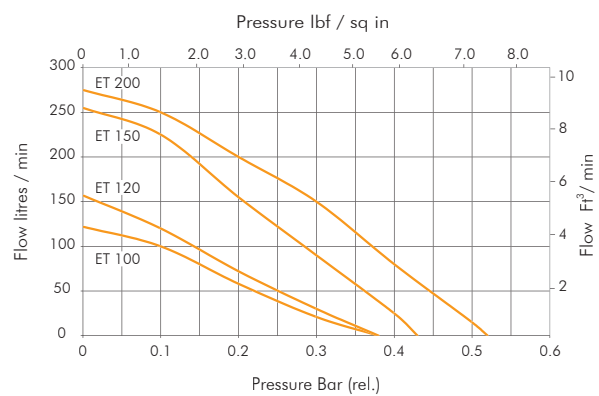
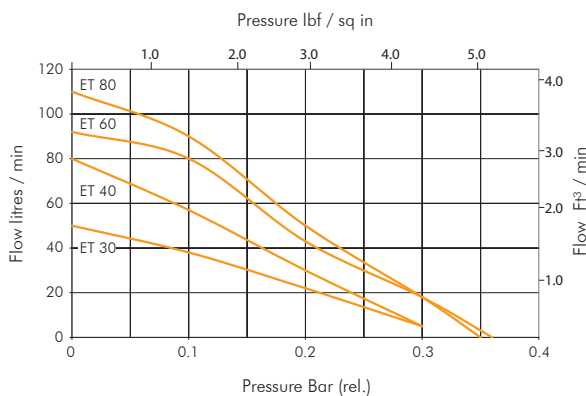
@CAPumps

envir-o[®] ET series



Performance

- ✓ 30 to 200 litres per minute
- ✓ Green drive technology - energy efficient motors low power consumption
- ✓ Specially formulated diaphragm material for extended life
- ✓ Robust and compact construction - weatherproof
- ✓ Easy to service with competitively priced spares kit
- ✓ Suited to intermittent or continuous duty applications
- ✓ Used by original equipment manufacturers of NSF certified residential sewage treatment systems
- ✓ Thermally protected



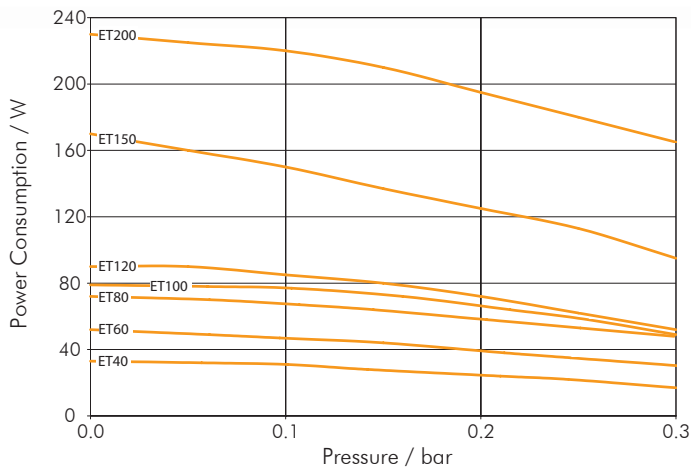
At Charles Austen Pumps we recommend Enviro-o[®] pumps are serviced every 18 months, service kits for each pump can be purchased from us.

Service kit



Ideal for use with our diffuser range

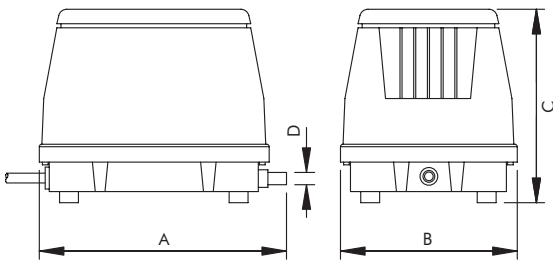
envir-o® ET series



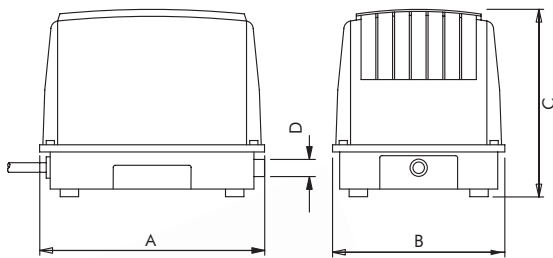
Model no.	Performance	Power consumption (w)	Noise level (db)
	Flow (l/min) @ Pressure (bar)		
ET30	30.0 @ 0.15	25	40
ET40	40.0 @ 0.15	30	40
ET60	60.0 @ 0.15	55	40
ET80	80.0 @ 0.10	75	40
ET100	100.0 @ 0.10	80	45
ET120	120.0 @ 0.10	90	45
ET150	150.0 @ 0.15	160	45
ET200	200.0 @ 0.15	230	45

Dimensions

ET30, ET40, ET150 & ET200



ET60, ET80, ET100 & ET120



Model no.	Weight kg	Dimensions mm			
		A	B	C	D
ET40	4.3	220	155	190	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 - Plain, horizontal, connection 18.0mm OD also supplied with screw in barbed connector 12.0mm OD

ET150, ET200 - Plain, horizontal, connection 18.0mm OD

Other models in the envir-o® range



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.

envir-o[®] ETA series

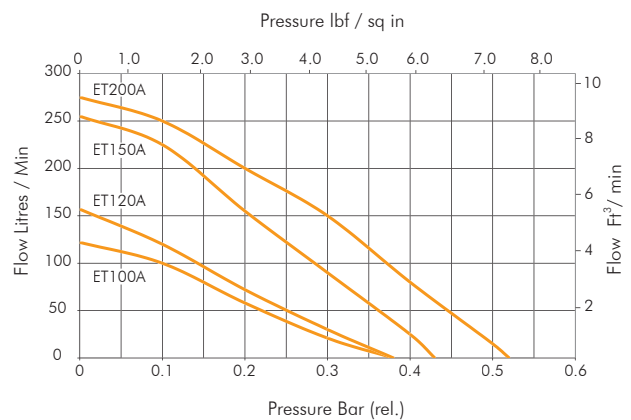
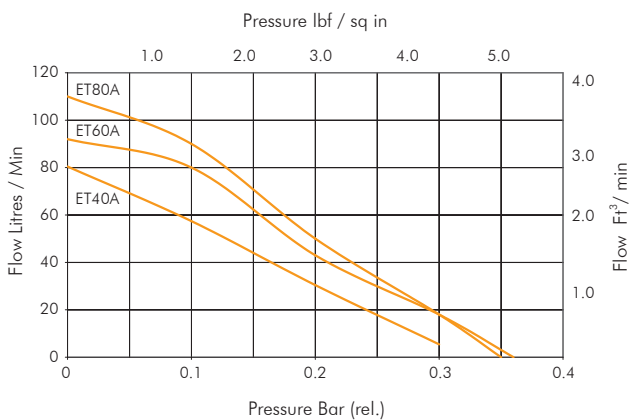


Performance

- ✓ 40 to 250 litres per minute flow
- ✓ Enviro-o[®] air pump with built in alarm which detects low pressure in the airline
- ✓ Integral high sounding buzzer and bright LED warning signals
- ✓ Robust, compact construction which is suitable for intermittent or continuous duty
- ✓ Meets legislation avoiding environmental hazards and fines
- ✓ Equipped with thermal overload protection
- ✓ Also available with output wire for fitment to an external alarm panel on AO models

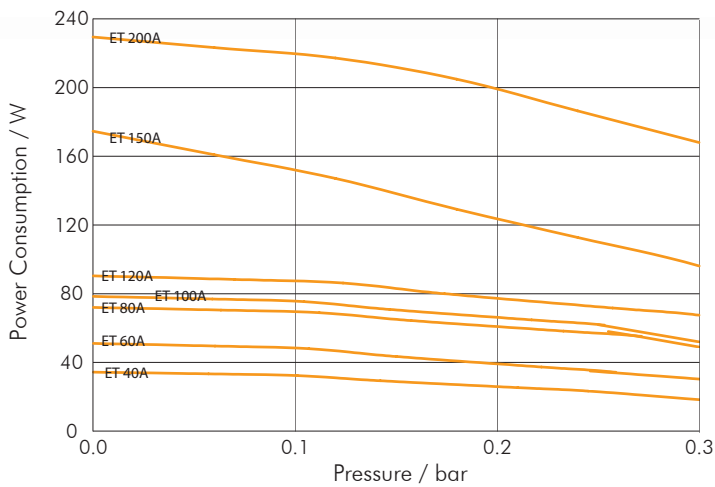


2 year
warranty



Ideal for use with our diffuser range

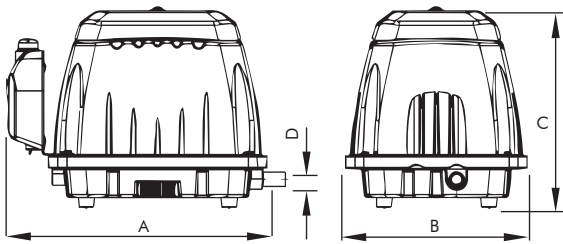
envir-o[®] ETA series



Model no.	Performance	Power consumption (w)	Noise level (db)
	Flow (cfm/min) @ Pressure (bar)		
ET40A	40.0 @ 0.15	30	40
ET60A/AO	60.0 @ 0.15	55	40
ET80A/AO	80.0 @ 0.10	85	40
ET100A/AO	100.0 @ 0.10	105	45
ET120A/AO	120.0 @ 0.10	125	45
ET150A/AO	150.0 @ 0.10	125	45
ET200A/AO	200.0 @ 0.10	210	45

Dimensions

ET40A, ET60A, ET80A, ET100A, ET120A, ET150A, ET200A



Model no.	Weight kg	Dimensions mm			
		A	B	C	D
ET40A	4.3	220	155	190	14
ET60A/AO	6.0	253	165	183	18
ET80A/AO	7.0	260	185	201	18
ET100A/AO	8.5	288	196	207	18
ET120A/AO	9.5	315	215	228	18
ET150A/AO	9.5	315	215	228	18
ET200A/AO	9.5	315	215	228	18

Connections

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

ET150A, ET200A - Plain, horizontal, connection 18.0mm

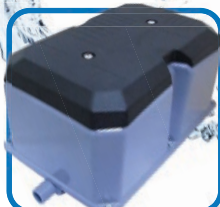
Other models in the envir-o[®] range



ET Series



ETX Series



ET250/300



ETX ECO Series

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.

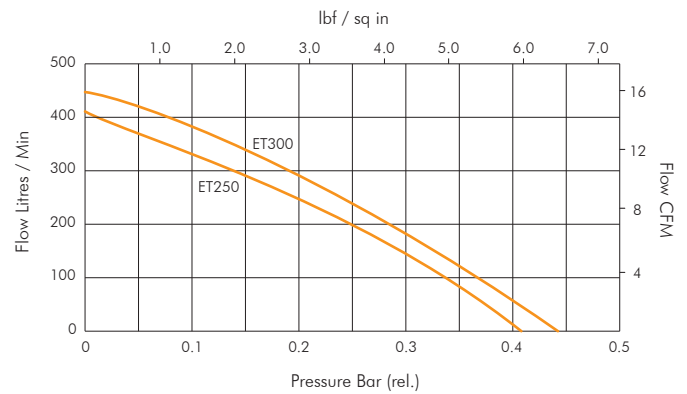
Air

envir-o[®] ET double series

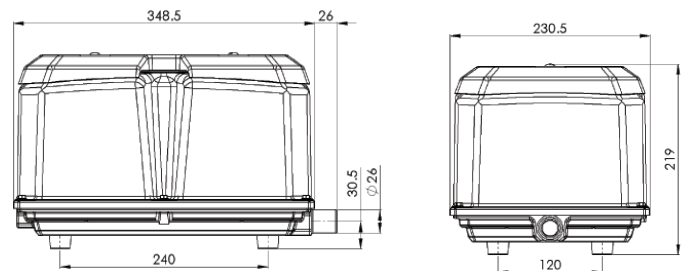


✓ Using the same technology as the envir-o[®] ET series but with two pump blocks for high flow.

Model no.	Performance	Power consumption (w)	Noise level (db)
	Flow (l/min) @ Pressure (bar)		
ET250	250.0 @ 0.20	221	40
ET300	300.0 @ 0.20	275	40
ET250A/AO	250.0 @ 0.20	221	40
ET300A/AO	300.0 @ 0.20	275	40



Model no.	Weight kg	Dimensions mm			
		A	B	C	D
ET250	17.5	348.5	230.5	219	17.5
ET300	18.0	348.5	230.5	219	17.5
ET250A/AO	17.5	348.5	230.5	219	17.5
ET300A/AO	18.0	348.5	230.5	219	17.5

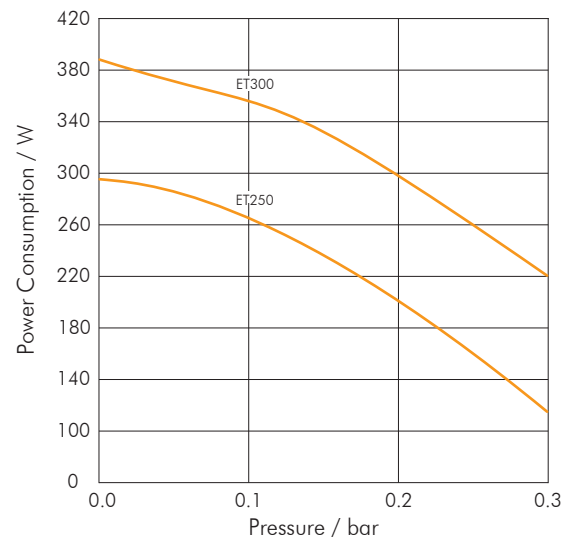


Connections

ET250, ET300, ET250A, ET300A - Outlet connector 26mm, also supplied with a straight rubber connector which can be used to increase pipe size to 29mm ID

Accessories

Elbow connector (included)

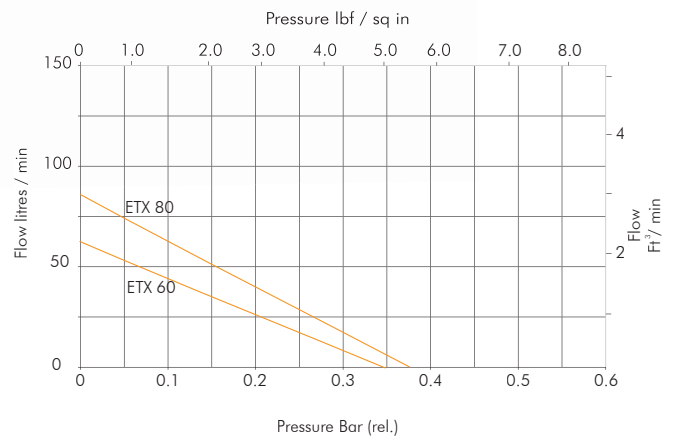


envir-o[®] ETX series

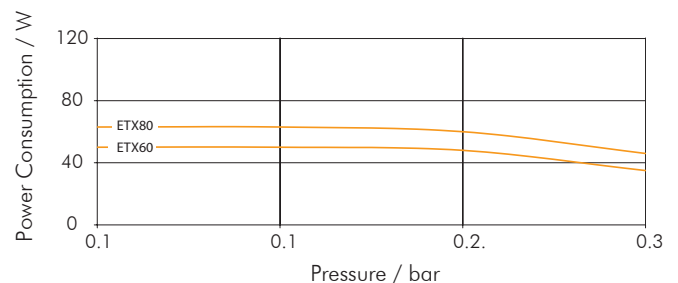
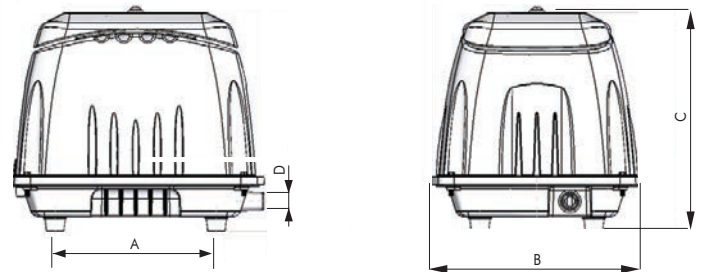


✓ Using the same technology as the envir-o[®] ET series but with lower power consumption.

Model no.	Performance	Power consumption (w)	Noise level (db)
	Flow (l/min) @ Pressure (bar)		
ETX60 ECO	60.0 @ 0.15	39	38
ETX80 ECO	80.0 @ 0.15	58	42
ETX80AO ECO	80.0 @ 0.15	58	42



Model no.	Weight kg	Dimensions mm			
		A	B	C	D
ETX60 ECO	6.0	202	177	186	18
ETX80 ECO	7.0	202	177	186	18
ETX80AO ECO	7.0	260	185	201	18



Connections

ETX60 ECO, ETX80 ECO, ETX80AO ECO - Plain, horizontal connection 18mm



Accessories

Elbow connector (included)



Accessories

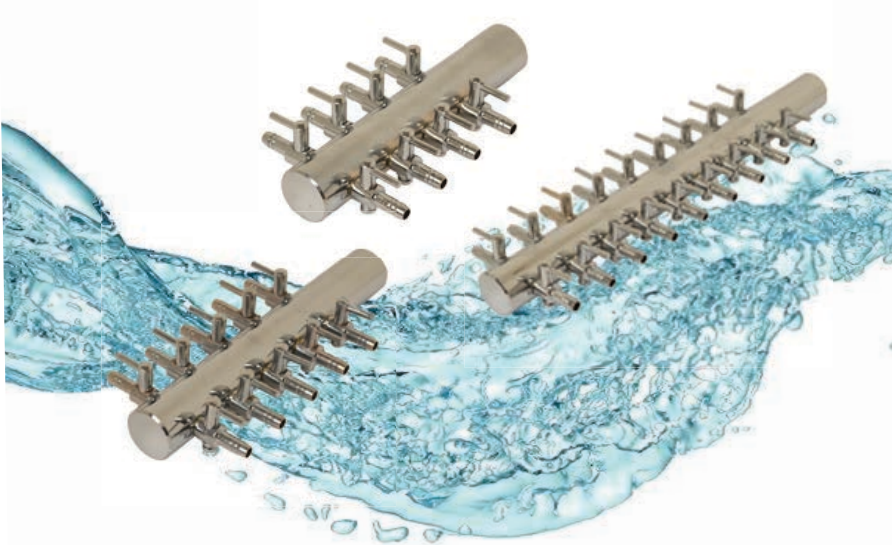
envir-o[®]sure Alarms



Model no.	Description	Product code
envirosure 100	Alarm module	A07-001
envirosure 120	Alarm module with beacon & inline transformer	A07-004

- ✓ Detects aeration pump failures or power cuts immediately
- ✓ Versatile installation - installs in minutes with quickfit install kit, ideal for retro fit use
- ✓ Multiple variants - options include bright LED beacon, Plugin or hardwire
- ✓ Patent pending

Fitting Accessories



Model no.	Description	Outlet size (mm)	Inlet size (mm)
4 way manifold	Steel	4	18
6 way manifold	Steel	4	18
8 way manifold	Steel	4	18
10 way manifold	Steel	4	18
12 way manifold	Steel	4	18
18 way manifold	Steel	4	18
24 way manifold	Steel	4	18



Elbow connector



Brass barbed connector
18.0mm and 20.0mm



18mm braided tubing



Coarse bubble diffuser	
Connection	19mm
Operation temperature	0~+100°C
Material - membrane	High grade EPDM, Silicon
Material - support parts	ABS

✓ Ideal for use with the ET range of pumps

✓ Call us to help you specify which pump - **+44 (0)1932 355277**



Disk diffuser	250mm	300mm
Quantity of bubble	6600	8300
Size of bubble	1-3mm	1-3mm
Connection	19mm	19mm
Continuous operation	1.5-8.5 [^] 3h Max: 8.5m [^] 3/h	3.-15m [^] 3h Max: 15m [^] 3/h
Operation temperature	0~+100°C	0~+100°C
Material - membrane	High grade EPDM, Silicon	High grade EPDM, Silicon
Material - support parts	ABS	ABS



Tube diffuser	250mm	500mm	1000mm
Quantity of bubble	4000	8300	18000
Size of bubble	1-3mm	1-3mm	1-3mm
Connection	19mm	19mm	19mm
Continuous operation	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
Operation temperature	0~+100°C	0~+100°C	0~+100°C
Material - membrane	High grade EPDM, Silicon	High grade EPDM, Silicon	High grade EPDM, Silicon
Material - support parts	PVC	PVC	PVC

Testamonial

S & S Site Services - "We are a company in the north west specialising in waste water treatment. We have been using the ET range of compressors on various systems for several years and find them to be easy to fit, very quiet and extremely reliable. I would estimate that we have fitted 200-300 over the last three years and we haven't had a single failure or problem to date."

Enviro[®] Warranty

All Enviro[®] pumps are covered by a two year warranty on the pump motor.

To validate this warranty, the pump/blower 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.

2 year
warranty

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

Pump Troubleshooting

In the unlikely event that you are experiencing problems with your Enviro[®] pump, please consider the following:

Problem	Possible Cause	Solution
Pump gets hot and shuts off	Overheating causing the thermal cutout to activate	<ul style="list-style-type: none">• Check for a clog or blockage in the airline to stop excessive back pressure overheating the pump this can also cause premature diaphragm failure.• Ensure the pump is the correct size for the application. If under sized not enough air will be produced, if over sized excessive back pressure is caused, overheating the pump.• If oversized, drill a small hole in the rubber elbow on the pump to allow a small amount of pressure to escape. Leave to cool and then try pump again.
Pump not pushing out air	Torn diaphragm Rust inside pump	<ul style="list-style-type: none">• Replace diaphragm by following our service instructions.• If you are experiencing frequent diaphragm failures, please check for excessive back pressure in the system, as above.• If the pump is getting wet inside, rust will appear causing increased friction and premature failure.• If the pump is wet inside, the warranty is no longer valid. Use a wire brush to remove rust from the coils, once clean and dry, reassemble and try the pump again.
Pump trips electric	Check for water, pump may have flooded	<ul style="list-style-type: none">• Remove pump from the system and allow to dry.• Retest pump only when completely dry.• Water damage can damage the pump beyond repair.

If the guidelines above have been followed, the pump is defective and may be in need of replacement. Please contact Charles Austen Pumps Ltd on +44 (0)1932 355277.

We will need to have the air pump returned to us or a photo provided of the inside of the pump and diaphragms. This ensures that the pump is not failing due to damaged diaphragms or rust.

Service Instructions

At Charles Austen Pumps we recommend Enviro® pumps are serviced every 18 months, service kits for each pump can be purchased from us or one of our distributors.



Unscrew the four corner screws and remove the cover from the air pump.



Unscrew the four corner screws from the chamber cover at one end of the pump. Separate the chamber cover at the seam to expose the screw holding the white round plastic diaphragm depressor in place.



Remove the screw along with the diaphragm depressor, electrostatic membrane and diaphragm. Repeat on the opposite end of the pump.



Link up the diaphragm with the diaphragm frame and position in place.



Gently remove one of the magnet bar ends by pulling it out of the housing, being careful not to scratch or break the housing or magnet bar.



Gently slide in a new magnet bar. Put on the end cap, the first electrostatic membrane, diaphragm, second electrostatic membrane, diaphragm depressor and use single screw to hold in place.



Put chamber cover back and screw four screws in. Repeat with other chamber cover.



Finally, put housing back together.

Our two year warranty cover does not cover diaphragm failures or magnet bars due to being wear and tear parts.

If you are experiencing frequent diaphragm failures, please check for excessive back pressure against the pump. Adding more diffusers, ports, or putting a tee in the line with a ball valve on the third side of the tee should resolve this. Ensure you open the ball valve fully before slowly closing until you find the spot where maximum air flow with minimum back pressure is achieved.

Please contact Charles Austen Pumps on +44 (0)1932 355277 to purchase a service kit or for further help with servicing your pump.

