

Guide for professionals



# People and Technologies making a difference

Premier Tech brings to life products that help feed, protect, and improve our world.

- founded in 1923
- family business
- 2,420 team members in North America
- 4,700 team members worldwide
- 24 manufacturing facilities in North America
- 47 factories in 27 countries



Through its Water and Environment business group, Premier Tech designs and manufactures sustainable local solutions for:

#### wastewater treatment

residential

commercial





### rainwater harvesting



Together, we make green technologies accessible and continuously innovate to create solutions that last.

# Premier Tech's 360° support

Since 1995, professionals have been the heart of our business.

#### **IMMEDIATE ASSISTANCE**

Experts available Monday to Friday to answer your field questions.



### **IN-PERSON FIELD SUPPORT**

Experts go on site when challenges cannot be resolved with a video call.





#### **ACCESSIBLE TRAINING**

Online training programs make your installations as simple as possible.





# MOST COMPLETE WARRANTY IN THE INDUSTRY

Since 1995, we have proudly developed sustainable products with warranties that are clear and complete.





# AFTER-SALES SERVICE FROM THE MANUFACTURER

Largest network of local partners to maintain systems and honour warranties.



#### **PRO SPACE**

Quickly find all the documents you need in one place.

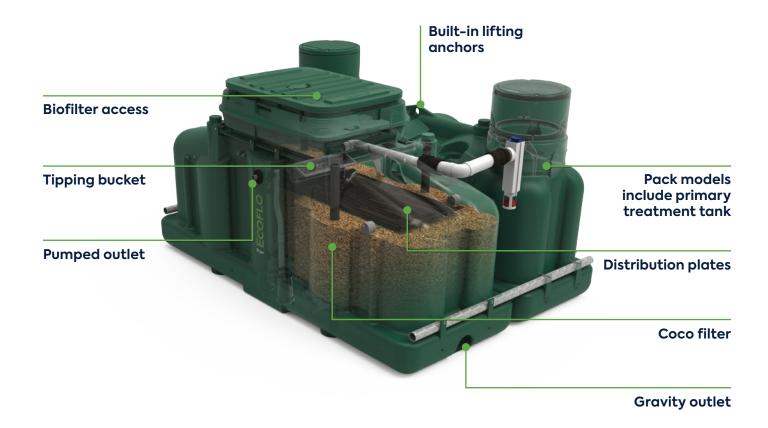


#### **FULL CUSTOMER SUPPORT**

Teams directly assist customers, so you can concentrate on your work.

# Ecoflo is how we make a sustainable difference. Together.

Join us in the movement to make the world a better, more sustainable place. Protect your client's property and the environment by recommending Ecoflo, the most eco-responsible septic system available.



THE #1 COMPACT FILTER CHOICE!



#### QUICK INSTALLATION

- ready-to-use models
- · easy-to-follow instructions
- · can be installed in only one day

#### > MODELS FOR ANY SITE

- · options for all soil conditions
- pumped or gravity discharge
- compact models

#### > PRODUCT AVAILABILITY

- 140 depots across North America
- quality-controlled inventory
- reliable order tracking

#### > 10-YEAR TOTAL WARRANTY

- all treatment-related parts and labour
- proper functioning of the filtering medium and its treatment performance
- no clogging or excess sludge

### > ECOFLO OUTPERFORMS STANDARDS

#### (CAN/BNQ certification standard 3680-600)

Parameter	Class B-IV Requirements*	Ecoflo Effluent <sup>†</sup>
TSS	≤ 10 mg/L	3 mg/L
CBOD <sub>5</sub>	≤ 10 mg/L	4 mg/L
Fecal coliforms	No requirement	_

<sup>\* 30-</sup>day average.

#### (NSF/ANSI standard 40 and 245)

Parameter	Requirements'	Ecoflo Effluent <sup>†</sup>
TSS	< 25 mg/L	8 mg/L
CBOD <sub>5</sub>	< 30 mg/L	6 mg/L
Fecal coliforms	No requirement	_

<sup>\* 30-</sup>day average.

<sup>†</sup> With coco and peat filtering medium.

<sup>&</sup>lt;sup>†</sup> With 100% coconut husk fragment filtering medium.

### **Ecoflo advantages for your clients**

# NATURAL, RENEWABLE, COMPOSTABLE FILTER



#### **INSTALLED FOR LIFE**

- easy installation
- never needs to be moved or replaced
- · never damages your client's landscaping

# PEACE-OF-MIND PERFORMANCE

- 24/7 autonomous operation
- never clogs your client's soil or contaminates their property
- · worry-free warranty

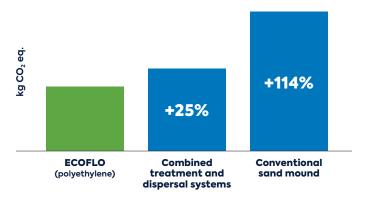
# BEST LONG-TERM INVESTMENT

- maintains the selling value of your client's property
- no energy bills for wastewater treatment
- no high-priced repairs or hidden costs
- no full-system replacements

# LOWEST CARBON FOOTPRINT

From production and shipping to installation, maintenance, and usage, Ecoflo has the lowest carbon footprint of any product on the market.

#### Total after 50-year life cycle



#### **Notes**

- Based on analysis of septic installations in Québec.
- $\bullet$  Systems installed in very low permeability soil and rated for three bedrooms.
- $\bullet$  Distances between installations and required materials assumed to be 60 km for filtration sand and stone, 33 km for backfill.
- Ecoflo installations include final dispersal to typical dispersal bed.



### A product supported by the manufacturer

#### **INFO-SHARING VISIT**

After each installation, we visit new owners on site to teach them how Ecoflo works, answer their questions, and make sure their septic system is working perfectly.

#### **ANNUAL MAINTENANCE**

We have a coast-to-coast network of partners, annually trained by us to maximize the life of your client's coco filter and protect their investment in their septic system.

- 15-point inspection
- · coco filter aeration to promote healthy bacterial activity
- coco filter scarification to ensure optimal biofiltration

#### FILTER REPLACEMENT

By having the coco filter in their Ecoflo biofilter replaced after 10 to 15 years, your client guarantees their system always protects their property and the environment.

- no excavation required
- no damage to your client's landscaping
- used coco filters are 100% compostable (unlike petroleum-based filtering media)







# **ECOFLO**®

# Polyethylene

#### Solution for:

- 5,000 L/d maximum capacity
- simple and quick installations
- sites with limited space

#### Advantages:

- install primary treatment tank and biofilter with one excavation\*
- compact and lightweight\*
- ready to use
- install in up to 600 mm (2') of groundwater (pumped models up to 2,800 L/d)
- one additional riser of 150 mm (6") allowed (up to 2,800 L/d)



# **Fibreglass**

#### Solution for:

- 3,500 L/d maximum capacity
- sites with limited space
- remote locations

#### Advantages:

- Dispersal bed directly under the tank
- minimal final footprint
- compact and lightweight



### Integrated UV disinfection (DiUV)

Our integrated DiUV option reliably kills wastewater pathogens, so you can safely send wastewater into a watercourse or ditch.

#### Wi-Fi system

Sends us instant alerts, so we can help your client protect their investment and the environment. If there is a problem, a service team will follow up on it.

#### Improved design

Strong, reliable parts ensure easy operation and maintenance.

#### **New UV lamp**

Maximizes flow while lowering energy consumption.

#### Integrated pump

Discharges treated wastewater in any site conditions and keeps ditch water out of the treatment unit.

#### **READY TO INSTALL**

We make installation fast and simple by pre-assembling and pre-wiring our UV disinfection units.

#### **SOLUTIONS FOR ANY SITE**

UV disinfection can be integrated in many polyethylene and concrete Ecoflo. It is also available in a separate tank.

#### TREATMENT RESULTS

Parameter BNQ* Effluent Standard		DiUV Effluent
<b>TSS</b> < 15 mg/L		4 mg/L
CBOD <sub>5</sub>	< 15 mg/L	4 mg/L
Fecal coliforms	< 20 CFU/100 mL <sup>†</sup>	< 2 CFU/100 mL <sup>†</sup>

#### \* Bureau de normalization du Québec certification, similar to NSF certification.

#### **INTEGRATED UV MODELS**

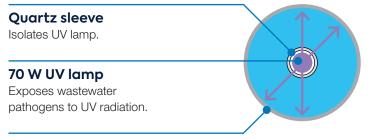
Models	Bedrooms	
2.8	3	
3.4	4	
4.1	5	

<sup>†</sup> Before photoreactivation.

# **UV disinfection (DiUV)**

#### **CLASSIC UV DISINFECTION**

#### INTEGRATED OR SEPARATE TANK



#### RECOMMENDED INFLUENT QUALITY

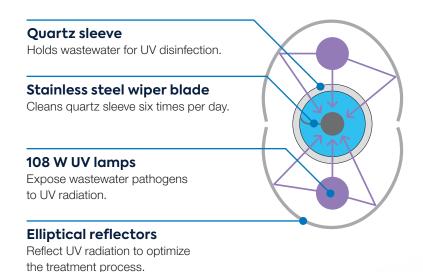
Parameter	Level
Iron	< 0.3 ppm (0.3 mg/L)
Manganese	< 0.05 ppm (0.05 mg/L)
Water hardness	< 7 gpg (120 mg/L)

#### Stainless steel pipe

Holds wastewater for UV disinfection.

#### **SELF-CLEANING UV DISINFECTION**

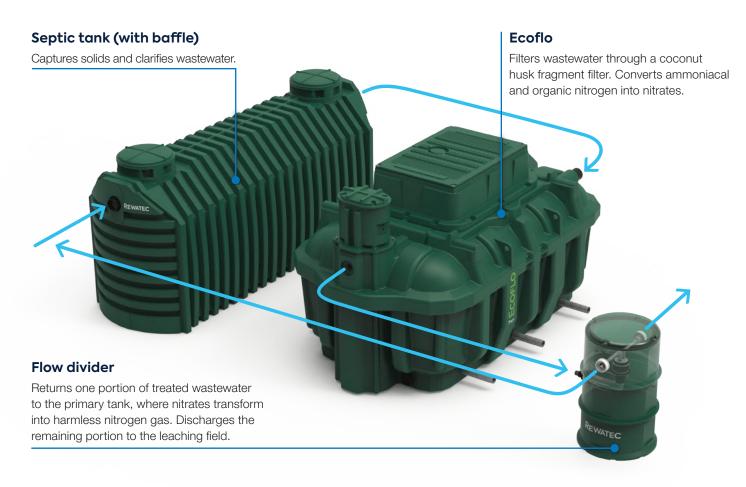
#### **SEPARATE TANK ONLY**





### Nitrogen reduction (ECDn)

Our nitrogen reduction option converts ammoniacal nitrogen into nitrogen gas, so you can safely discharge wastewater near ecologically sensitive areas.



#### **COMPACT SIZE**

Our nitrogen reduction option is ideal for sites with limited installation space.

#### **SOLUTIONS FOR ANY SITE**

Nitrogen reduction is available with many polyethylene and concrete Ecoflo.

#### TREATMENT RESULTS

Parameter	NSF Effluent Standard	ECDn Effluent	
TSS	< 30 mg/L	2 ± 2 mg/L	
CBOD <sub>5</sub>	< 25 mg/L	4 ± 3 mg/L	
Total nitrogen reduction	> 50%	54%	
рН	6 to 9	7.1	

### Phosphorus removal (DpEC)

Without proper treatment, phosphorus in wastewater can cause harmful algae growth in lakes and rivers. Protect these sensitive areas with our phosphorus removal option.

#### Electrocoagulation unit



Has two pairs of self-cleaning aluminum electrodes. Aluminum particles react with phosphorus in wastewater, transforming soluble phosphorus into solids compounds.

#### Separation zone

Clarifies wastewater. Solids return to the primary reactor for removal. Liquid wastewater flows to the sand filter for final treatment.



#### Final discharge

Watertight sand filter

Performs final

wastewater treatment.

Discharges treated wastewater according to local regulations.

### **Primary reactor**

Captures solids, clarifies wastewater, and regulates flow to the electrocoagulation unit.

#### SURFACE DISCHARGE NEAR LAKES

Phosphorus removal preserves water quality in sensitive environments.

#### TREATMENT RESULTS

Parameter	BNQ* Effluent Standard	DpEC + Sand Filter Effluent	
TSS	< 15 mg/L	1 mg/L	
CBOD₅	< 15 mg/L	2 mg/L	
Total phosphorus	< 1 mg/L	0.04 mg/L	
Fecal coliforms	< 200 CFU/100 mL	< 47 CFU/100 mL	

<sup>\*</sup> Bureau de normalization du Québec certification, similar to NSE certification.

### Components and accessories

#### **SEPTIC TANKS**

- up to 6,600 L total nominal capacity
- high-strength polyethylene

Refer to page 25 for technical information.



# **PUMPING STATIONS**

• up to 255 L effective dosing volume

Refer to page 26 for technical information.



#### **PUMPS**

- up to 0.5 hp
- reliable and durable

Refer to page 26 for technical information.



# FLOW DIVIDERS

- pressurized or gravity flow
- two to 10 outlets



#### **RISERS**

• from 150 to 355 mm (6" to 14")





### **Product line**

<b>REWATEC</b>
SPECIALIZED TREATMENT OPTIONS

	ECOFLO		Integrated UV	UV disinfection (Di in separate tank	Nitrogen reduction (ECDn)
Hydraulic Capacity	Size	Model	egrat	disin	rogel (Dn)
POLYETHYLENE			alis	≥.≅	₩ ₩ ₩
1,900 L/d	2.8	EC7-1900-P-G/P	~	<b>~</b>	
1,900 L/d	2.0	EC7-1900-P-G/P-PACK	~	~	
0.0001./4	0.4	EC7-2200-P-G/P	~	~	
2,200 L/d	3.4	EC7-2200-P-G/P-PACK	~	~	See
0.0001./4	4.1	EC7-2800-P-G/P	~	~	page 24
2,800 L/d	4.1	EC7-2800-P-G/P-PACK	~	~	
4,000 L/d	5.7	EC7-4000-P-G/P	×	~	
5,000 L/d	7.3	EC7-5000-P-G/P	×	~	
FIBREGLASS					
3,500 US gal/d	5.0	EC7-3500-F-O	×	×	×

#### **NEED HELP?**

For help choosing the right Ecoflo model, specialized treatment options, and accessories, call our expert in your area. You'll get free, professional advice to transform any challenge into a custom-made septic solution.

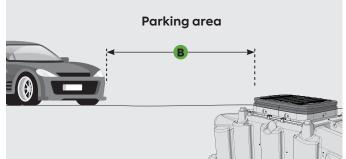
+1 800 632-6356

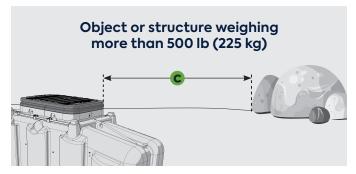
### **Recommended distances**

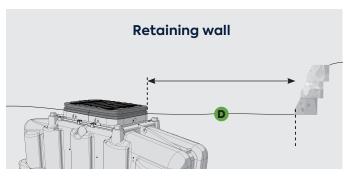
We recommend the following distances guidelines. Failure to abide by these guidelines may void the warranty of the installation.

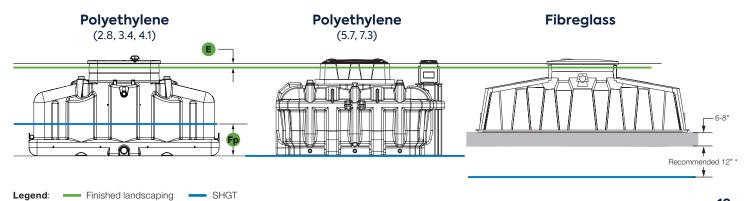
Reference Points	Polyethylene		Fibro alass	
Reference Points	2.8, 3.4, 4.1	5.7, 7.3	Fibreglass	
Base of excess backfill, slopes, or embankments vs. biofilter lid	4 m	4 m (13')		
Parking area vs. biofilter lid	4 m	(13')	5 m (16')	
Object or structure weighing more that 225 kg (500 lb) vs. biofilter lid	4 m (13')		5 m (16')	
Retaining wall vs. biofilter lid	4 m	4 m (13')		
Finished landscaping vs. base of biofilter lid	50 mm (2")			
Seasonal high groundwater table (SHGT) vs. base of gravity-discharge unit	Do not install in groundwater		er	
Seasonal high groundwater table (SHGT) vs. base of pumped-discharge unit	600 mm (2') Do not install in groundwater		n groundwater	











# Polyethylene • PACK



	2.8	3.4	4.1
	EC7-1900-P-G/P-PACK	EC7-2200-P-G/P-PACK	EC7-2800-P-G/P-PACK
Hydraulic capacity	1,900 L/d	2,200 L/d	2,800 L/d
Primary tank volume	3,000 L	3,785 L	4,730 L
Length	3,120 mm (10' 3")	3,550 mm (11' 8")	4,050 mm (13' 4")
Width		2,480 mm (8' 2")	
Height Includes 12" of risers	1,770 mm (5' 9-3/4")		
Inlet height of primary tank from bottom	1,285 mm (4' 2-1/2")		
Gravity water outlet height	44 mm (1-3/4")		
Pumped water outlet height 🗊		1,140 mm (3' 9")	
Riser height allowed		150 mm (6")	
Weight Includes internal components and coco filter	760 kg (1,675 lb)	850 kg (1,870 lb)	950 kg (2,090 lb)
Built-in effective volume available for dosing Pumped discharge models only	600 L	680 L	755 L
Emergency storage above alarm float	2,065 L	2,520 L	2,875 L

#### Water inlet

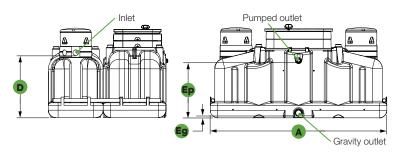
Ø 100 mm (4") nominal

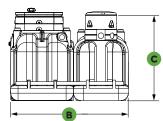
#### Gravity water outlet

Ø 100 mm (4") nominal

#### Pumped water outlet

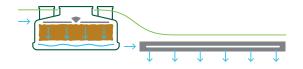
Ø 38 mm (1-1/2") or Ø 25 mm (1") nominal



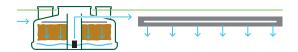


#### **TYPICAL INSTALLATIONS**

Gravity discharge to leaching field



Pumped discharge to leaching field



# Polyethylene



	2.8	3.4	4.1	
	EC7-1900-P-G/P	EC7-2200-P-G/P	EC7-2800-P-G/PDV	
Hydraulic capacity	1,900 L/d	2,200 L/d	2,800 L/d	
Length	3,120 mm (10' 3")	3,550 mm (11' 8")	4,050 mm (13' 4")	
Width		1,280 mm (4' 2")		
Height Includes 12" of risers	1,770 mm (5' 9-1/2")			
Inlet height from bottom	1,230 mm (4' 1/2")			
Gravity water outlet height 😝	44 mm (1-3/4")			
Pumped water outlet height 📵		1,140 mm (3' 9")		
Riser height allowed		150 mm (6")		
Weight Includes internal components and coco filter	560 kg (1,235 lb)	610 kg (1,345 lb)	660 kg (1,455 lb)	
Built-in effective volume available for dosing Pumped discharge models only	600 L	680 L	755 L	
Emergency storage above alarm float	2,065 L	2,520 L	2,875 L	

#### Water inlet

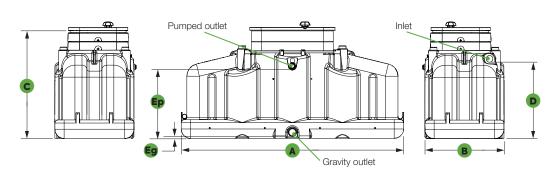
Ø 100 mm (4") nominal

#### **Gravity water outlet**

 $\emptyset$  100 mm (4") nominal

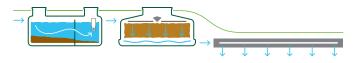
#### Pumped water outlet

Ø 38 mm (1-1/2") or Ø 25 mm (1") nominal

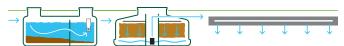


#### **TYPICAL INSTALLATIONS**

Gravity discharge to leaching field



Pumped discharge to leaching field



# Polyethylene



	5.7	7.3			
	EC7-4000-P-G/PDV	EC7-5000-P-G/PDV			
Hydraulic capacity	4,000 L/d	5,000 L/d			
Length	3,380 mm (11' 1")	4,130 mm (13' 7")			
Width	1,840 mm (6' 1/2")	2,050 mm (6' 9")			
Height C	1,850 mn	1,850 mm (6' 1/2")			
Inlet height from bottom	1,260 m	1,260 mm (4' 2")			
Gravity water outlet height	76 mi	76 mm (3")			
Pumped water outlet height 😝	1,240 m	m (4' 1")			
Riser height allowed	No additional	risers allowed			
Weight Includes internal components and coco filter	1,200 kg (2,640 lb)	1,415 kg (3,120 lb)			
Built-in effective volume available for dosing Pumped discharge models only	870 L	1,120 L			
Total emergency storage capacity	4,370 L	6,030 L			

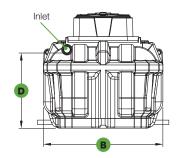
#### Water inlet

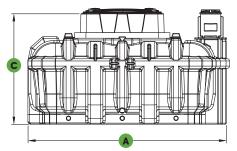
Ø 100 mm (4") nominal

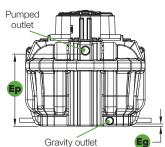
#### **Gravity water outlet** Ø 100 mm (4") nominal

2 100 mm (1 ) nomina

Pumped water outlet Ø 38 mm (1-1/2") or Ø 25 mm (1") nominal

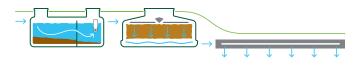




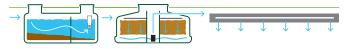


#### **TYPICAL INSTALLATIONS**

Gravity discharge to leaching field



Pumped discharge to leaching field



# **Ecoflo**°

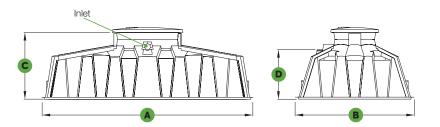
# **Fibreglass**



	5.0
	EC7-3500-F-O
Hydraulic capacity	3,500 L/d
Length	3,345 mm (11')
Width	2,361 mm (7' 9")
Height	1,320 mm (4' 4")
Inlet height from bottom	970 mm (3' 2")
Riser height allowed	No risers allowed
Weight	115 kg (250 lb)

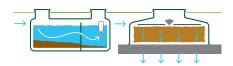
Water inlet

Ø 100 mm (4") nominal



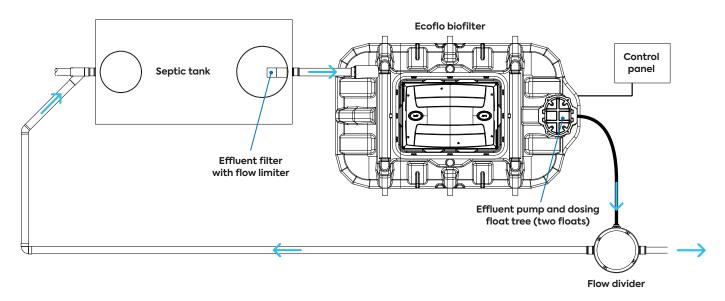
#### **TYPICAL INSTALLATIONS**

Infiltrated discharge on leaching field



# Nitrogen reduction (ECDn)

#### TYPICAL INSTALLATION



#### **ECOFLO COMPATIBILITY**

#### **Polyethylene**

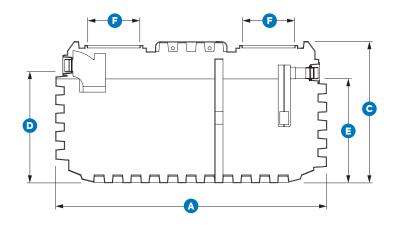
Hydraulic Capacity	Size	Model
1,900 L/d	3.4	ECDN-1900-P
2,200 L/d	4.1	ECDN-2200-P
3,250 L/d	5.7	ECDN-3250-P
4,150 L/d	7.3	ECDN-4150-P

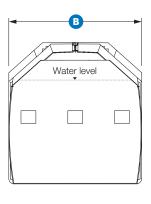
# Septic and holding tanks



	Septic Tanks with Effluent Filter				Holding Tanks*		
	PST-280	PST-340	PST-390	PST-420	PST-500	PST-660	PHT-660
Total nominal capacity	2 800   3 40		3,900 L 4,300 L		4,800 L	6,650 L	6,650 L
Liquid capacity	2,260 L	3,000 L	3,300 L	3,600 L	4,100 L	5,800 L	5,900 L
Length A	2,495 mm (8' 2")	3,035 mm (9' 11-1/2")	3,320 mm (10' 10-1/2")	3,777 mm (12' 4-3/4")	2,920 mm (9' 7")	3,965 mm (13')	3,965 mm (13')
Width B		1,250 mm	n (4' 1-1/4")		1,330 mm (4' 4-3/8")		1,330 mm (4' 4-3/8")
Height <b>C</b>		1,330 mm	(4' 4-3/8")	1,720 mm (5' 7-3/4")		1,890 mm (6' 2-3/8")	
Inlet height	1,055 mm (3' 5-1/2")				1,400 mm	ı (4' 7-1/8")	1,400 mm (4' 7-1/8")
Outlet height	980 mm (3' 2-1/2")				1,320 m	m (4' 4")	_
Openings diameter	470 mm (1' 6-1/2")						
Weight	160 kg (353 lb)	180 kg (397 lb)	190 kg (419 lb)	240 kg (529 lb)	265 kg (584 lb)	325 kg (717 lb)	350 kg (772 lb)
Certification	BNQ/CSA			CSA	BNQ	/CSA	CSA

<sup>\*</sup> Certified for certain applications by Health Canada's Health Products and Food Branch.





### **Pumping stations**



	PSA-240	PSA-240H		
Pump	12	120 V		
Float	On/off pump switch	ch and alarm switch		
Length of base	950 mm	950 mm (3' 1-1/2")		
Width of base	<b>B</b> 865 mn	865 mm (2' 10")		
Height	1,270 mm (4' 2")	1,625 mm (5' 4")		
Inlet height	635 mm (2' 1")	1,060 mm (3' 5-3/4")		
Outlet height	1,015 m	1,015 mm (3' 4")		
Riser height allowed	710 mr	710 mm (2' 4")		
Weight	50 kg (110 lb)	56 kg (123 lb)		
Effective dosing volume	150 L	255 L		
Total volume At water inlet level	240 L	400 L		

#### Water inlet

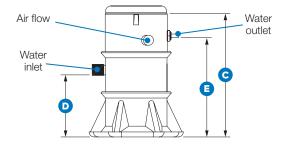
Ø 100 mm (4") nominal

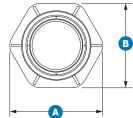
#### Water outlet

Ø 38 mm (1-1/2") or Ø 50 mm (2") nominal

#### Air flow

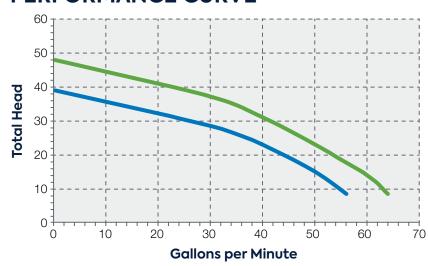
Ø 100 mm (4") nominal





### **Pumps**

#### **PERFORMANCE CURVE**





#### Legend

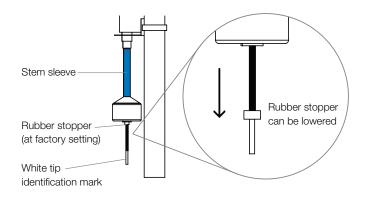
- Champion 0.5 hp pump (with Ecoflo)8.5 A, 1 phase, 60 Hz, 115 V
- Champion 0.4 hp pump (with integrated DiUV)
   6.6 A, 1 phase, 60 Hz, 115 V

# Float adjustments

The dose given by the on/off float depends on the length of the float stem, the length of the stem sleeve, and the position of the rubber stopper.

The factory setting will give the minimum dose. To customize the setting to accommodate local regulations or on-site requirements:

- cut a section of the stem sleeve
- lower the rubber stopper along the stem



#### **POLYETHYLENE**

Desired Dose Volume			olume		Adjustment	Final Sleeve
2.8	3.4	4.1	5.7	7.3	Adjustifient	Length
80 L	91 L	98 L	76 L		None (factory setting)	115 mm (4-1/2")
83 L	114 L	132 L	114 L	151 L	Lower rubber stopper 6 mm (1/4")along stem	115 mm (4-1/2")
303 L	360 L	379 L	322 L	435 L	Lower rubber stopper <b>64 mm</b> (2-1/2") along stem*	115 mm (4-1/2")
398 L	454 L	492 L	416 L	587 L	Cut 25 mm (1") off sleeve and lower rubber stopper <b>64 mm</b> (2-1/2") along stem*	90 mm (3-1/2")
492 L	568 L	625 L	530 L	738 L	Cut 50 mm (2") off sleeve and lower rubber stopper <b>64 mm</b> (2-1/2") along stem*	64 mm (2-1/2")
606 L	681 L	757 L	662 L	890 L	Cut 75 mm (3") off sleeve and lower rubber stopper 64 mm (2-1/2") along stem*	38 mm (1-1/2")
			871 L	1,117 L	Remove sleeve and lower rubber stopper <b>64 mm</b> (2-1/2") along stem*	0 mm (0")

<sup>\*</sup> Or until identification mark.



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