PORTABLE FIRE PUMPS

TOHATSU

Unlocking firefighting and disaster protection.

FOR EVERYDAY HEROES

We aim to empower heroes around the world to build local resilience with simple, secure and environmentally-responsible disaster response solutions.
To this end, Tohatsu commits to provide reliable and straightforward products that people feel comfortable using, backed with strong support service.

Simpliq™ Technology

BACKS YOU UP™

INDEX/CONTENTS

VE1500/VE1000

Best balance of performance and weight

VE1500

VE1000

NOTE Not for sale in US

Video Playback
Please check
"The performance of VE1500W"

VE1500
Performance at Suction Height 3m

2050 Lit/min at **0.6**MPa (6 Bar)

1800 Lit/min at **0.8**MPa (8 Bar)

1500 Lit/min at **1.0**MPa (10 Bar)

VE1000
Performance at Suction Height 3m

1900 Lit/min at **0.6**MPa (6 Bar)

1650 Lit/min at **0.8**MPa (8 Bar)

1300 Lit/min at **1.0**MPa (10 Bar)

Priming Performance

3.4 sec at suction height **1 m**

6.7 sec at suction height **3 m**

14.2 sec at suction height **6 m**

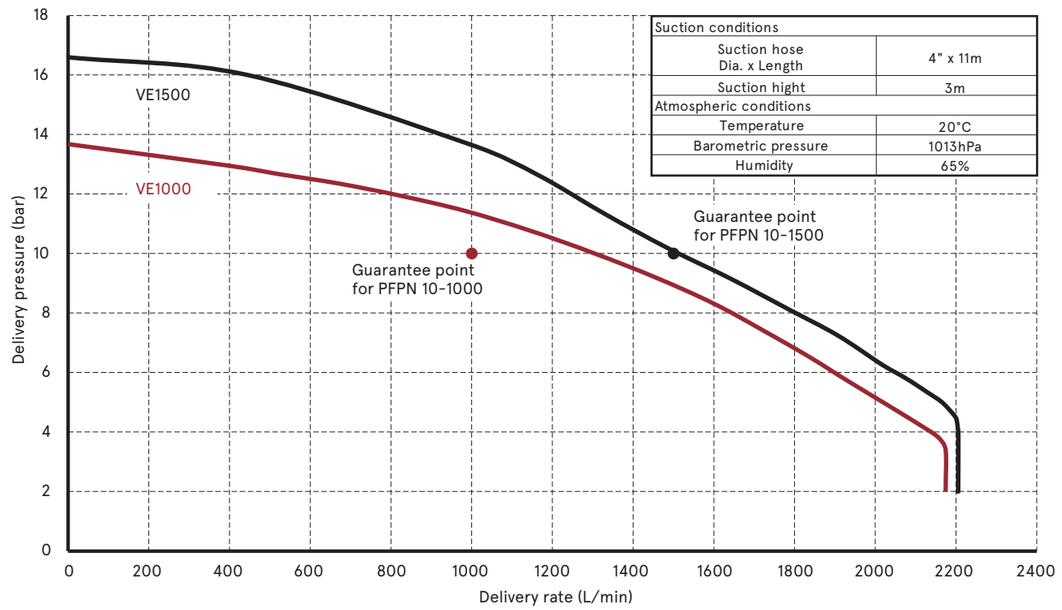
- Complies with EN14466 for PFPN10-1500 & PFPN10-1000
- Outstanding quickness of priming speed with rotary vane vacuum pump.
- The lightest model in its class
- Smooth engine start with Electronic Fuel Injection system

Specification

		VE1500	VE1000
Engine	Type	2-stroke	2-stroke
	Number of Cylinder	2 Cylinder	2 Cylinder
	Cooling System	Suction Water Cooled	Suction Water Cooled
	Bore x Stroke	81 x 78 mm (3.19 x 3.07 inch)	81 x 78 mm (3.19 x 3.07 inch)
	Piston displacement	804 ml (49.0 cu.in.)	804 ml (49.0 cu.in.)
	Output	44 kW	44 kW
	Fuel Type	Unleaded Gasoline (RON 91 or Higher)	Unleaded Gasoline (RON 91 or Higher)
	Fuel Tank Capacity	24 Lit (6.34 US gal)	24 Lit (6.34 US gal)
	Fuel Consumption	Approx. 22 L/hr (5.81 US gal/hr) (at 1.0 MPa 1500 L/min)	Approx. 16 L/hr (4.23 US gal/hr) (at 1.0 MPa 1000 L/min)
	Fuel System	Electronic Fuel Injection	Electronic Fuel Injection
	Oil Tank Capacity	1.6 Lit (1.7 US qt.)	1.6 Lit (1.7 US qt.)
	Starting	Electric and Manual	Electric and Manual
Suction	Suction System	4 Blade Rotary-vane Vacuum Pump (Oilless-type)	4 Blade Rotary-vane Vacuum Pump (Oilless-type)
	Priming System	Manual	Manual
Pump	Pump Type	Single Suction, Single Stage, High Pressure Turbine Pump	Single Suction, Single Stage, High Pressure Turbine Pump
	Suction Thread and Dia.	BSP 4" (100 mm)	BSP 4" (100 mm)
	Discharge Thread and Dia.	BSP 2-1/2" (65 mm)	BSP 2-1/2" (65 mm)
	Discharge Number	Twin	Twin
	Discharge Valve	Flat Valve	Flat Valve
Weight	Dry Weight (without Battery)	102 kg (225 lbs)	102 kg (225 lbs)
	Ready for Operation*	127 kg (280 lbs)	127 kg (280 lbs)
Dimension	Overall Length x Width x Height	723 x 748 x 827 mm (28.46 x 29.45 x 32.56 inch)	723 x 748 x 827 mm (28.46 x 29.45 x 32.56 inch)

NOTE BSP: British Standard Pipe Thread
*Depends on the weight of the battery installed and the volume of fueling at local. Please contact our distributors for more details.

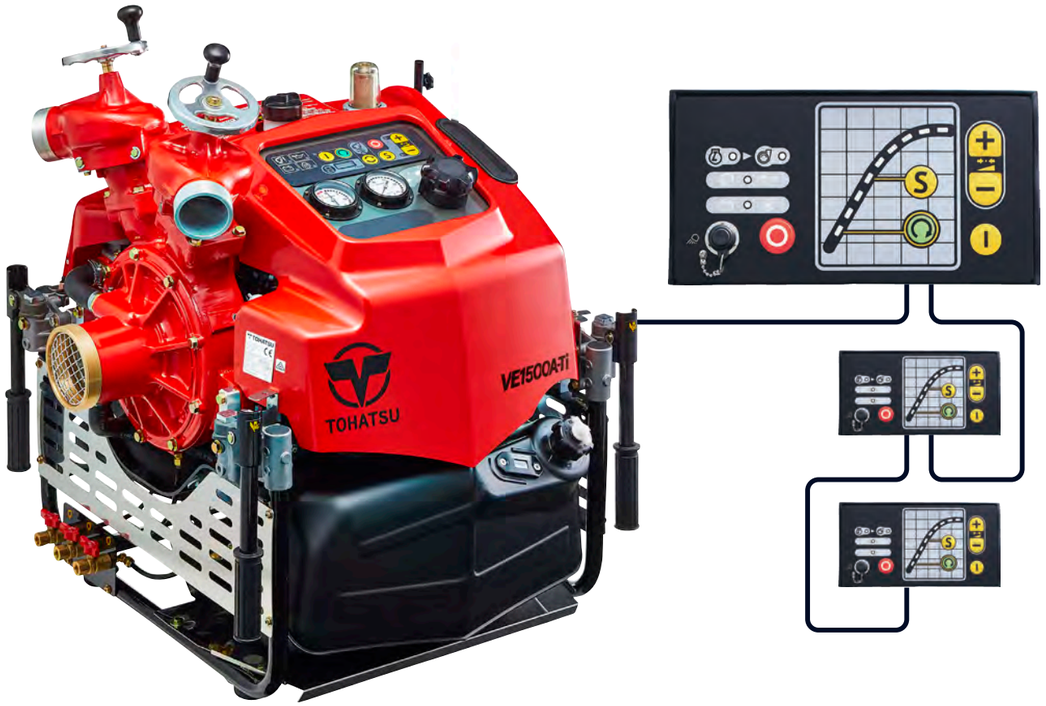
Performance Curve



Big flow

VE1500A-Ti

Go easy, Go smooth with remote control system



NOTE Not for sale in US

188kg Competitor > 130kg VE1500A-Ti Operative Weight

Suction height 9m
The best suction performance in the industry (9m/30ft)

Specification

		VE1500A-Ti
Engine	Type	2-stroke
	Number of Cylinder	2 Cylinder
	Cooling System	Suction Water Cooled
	Bore x Stroke	81 x 78 mm (3.19 x 3.07 inch)
	Piston displacement	804 ml (49.0 cu.in.)
	Output	44 kW
	Fuel Type	Unleaded Gasoline (RON 91 or Higher)
	Fuel Tank Capacity	24 Lit (6.34 US gal)
	Fuel Consumption	Approx. 22 L/hr (5.81 US gal/hr) (at 1.0 MPa 1500 L/min)
	Fuel System	Electronic Fuel Injection
	Oil Tank Capacity	1.6 Lit (1.7 US qt.)
	Starting	Electric and Manual
Suction	Suction System	4 Blade Rotary-vane Vacuum Pump (Oilless-type)
	Priming System	Auto Priming
Pump	Pump Type	Single Suction, Single Stage, High Pressure Turbine Pump
	Suction Thread and Dia.	BSP 4" (100 mm)
	Discharge Thread and Dia.	BSP 2-1/2" (65 mm)
	Discharge Number	Twin
	Discharge Valve	Flat Valve
Weight	Dry Weight (without Battery)	105 kg (231 lbs)
	Ready for Operation*	130 kg (287 lbs)
Dimension	Overall Length x Width x Height	723 x 748 x 827 mm (28.46 x 29.45 x 32.56 inch)
Remote Control Panel	Number of Panel (Maximum)	Triplet Panel Installation
	Length of Cable for Pane.	3m for Main Wire Harness, 5m/15m for Assist Wire harness

NOTE BSP: British Standard Pipe Thread
*Depends on the weight of the battery installed and the volume of fueling at local. Please contact our distributors for more details.

Performance at Suction Height 3m

2050 Lit/min at 0.6MPa (6 Bar)

1800 Lit/min at 0.8MPa (8 Bar)

1500 Lit/min at 1.0MPa (10 Bar)

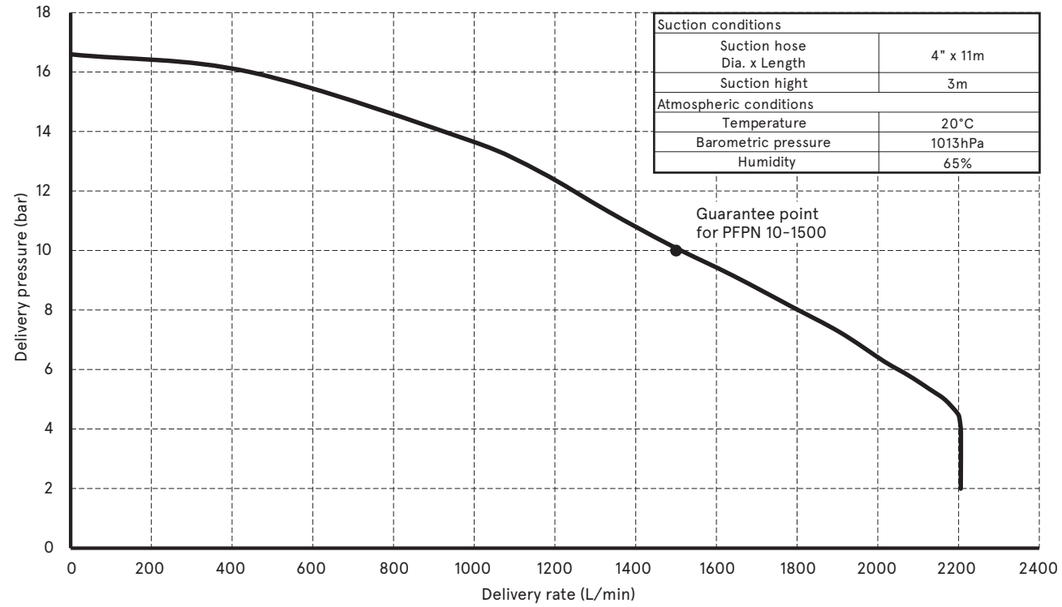
Priming Performance

3.4 sec at suction height 1 m

6.7 sec at suction height 3 m

14.2 sec at suction height 6 m

Performance Curve



- Complies with EN14466 for PFPN10-1500 & PFPN10-1000
- Exclusive design for fire engine & fire boat.
- Drive- by- Wire system for operating with remote control panels.
- Easy installation, just connected by wire harness from the pump to panels.
- Light weight and compact design to make a space in fire engine and fire boat.

VE1500W

Best balance of performance and weight

NOTE Not for sale in EU

Video Playback
Please check "The performance of VE1500W"

188kg Competitor > 124kg VE1500W Operative Weight

Suction height 9m
The best suction performance in the industry (9m/30ft)

Performance at Suction Height 3m

2050 Lit/min at 0.6MPa (6 Bar)

1800 Lit/min at 0.8MPa (8 Bar)

1500 Lit/min at 1.0MPa (10 Bar)

Priming Performance

3.4 sec at suction height 1 m

6.7 sec at suction height 3 m

14.2 sec at suction height 6 m

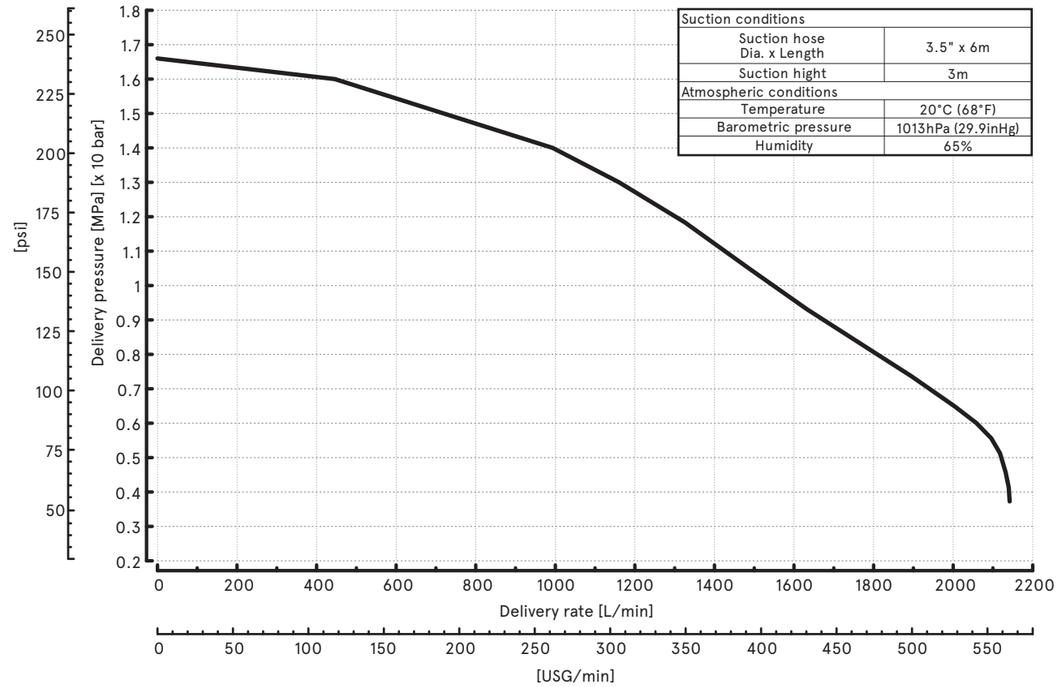
- High volume of pumping pressure (17Bar/1.7MPa)
- Outstanding quickness of priming speed with rotary vane vacuum pump.
- The lightest model in its class
- Smooth engine start with Electronic Fuel Injection system

Specification

		VE1500W
Engine	Type	2-stroke
	Number of Cylinder	2 Cylinder
	Cooling System	Suction Water Cooled
	Bore x Stroke	81 x 78 mm (3.19 x 3.07 inch)
	Piston displacement	804 ml (49.0 cu.in.)
	Output	44 kW
	Fuel Type	Unleaded Gasoline (RON 91 or Higher)
	Fuel Tank Capacity	24 Lit (6.34 US gal)
	Fuel Consumption	Approx. 22 L/hr (5.81 US gal/hr) (at 1.0 MPa 1500 L/min)
	Fuel System	Electronic Fuel Injection
	Oil Tank Capacity	1.6 Lit (1.7 US qt.)
	Starting	Electric and Manual
Suction	Suction System	4 Blade Rotary-vane Vacuum Pump (Oilless-type)
	Priming System	Manual
Pump	Pump Type	Single Suction, Single Stage, High Pressure Turbine Pump
	Suction Thread and Dia.	JIS 3-1/2" (90 mm)
	Discharge Thread and Dia.	JIS 2-1/2" (65 mm)
	Discharge Number	Twin
	Discharge Valve	Flat Valve
Weight	Dry Weight (without Battery)	99 kg (218 lbs)
	Ready for Operation*	124 kg (273 lbs)
Dimension	Overall Length x Width x Height	763 x 748 x 827 mm (30.04 x 29.45 x 32.56 inch)

NOTE JIS: Japanese Industrial Standard Thread
*Depends on the weight of the battery installed and the volume of fueling at local. Please contact our distributors for more details.

Performance Curve



VF53BS

Light weight with Up-to-date technology

130kg Competitor > 99 kg Operative weight

The lightest model in this class

Suction height 9m

The best suction performance in the industry (9m/30ft)

Performance at Suction Height 3m

1200 Lit/min at 0.6MPa (6 Bar)

950 Lit/min at 0.8MPa (8 Bar)

700 Lit/min at 1.0MPa (10 Bar)

Priming Performance

2.0 sec at suction height 1 m

3.4 sec at suction height 3 m

6.2 sec at suction height 6 m

The VF53BS not only achieves a weight reduction of 12 kg (13.5%) from the former model without sacrificing engine performance by optimizing the crankshaft and intake manifold, but also adopts up-to-date technologies, including a fully electrically controlled engine speed governor function.

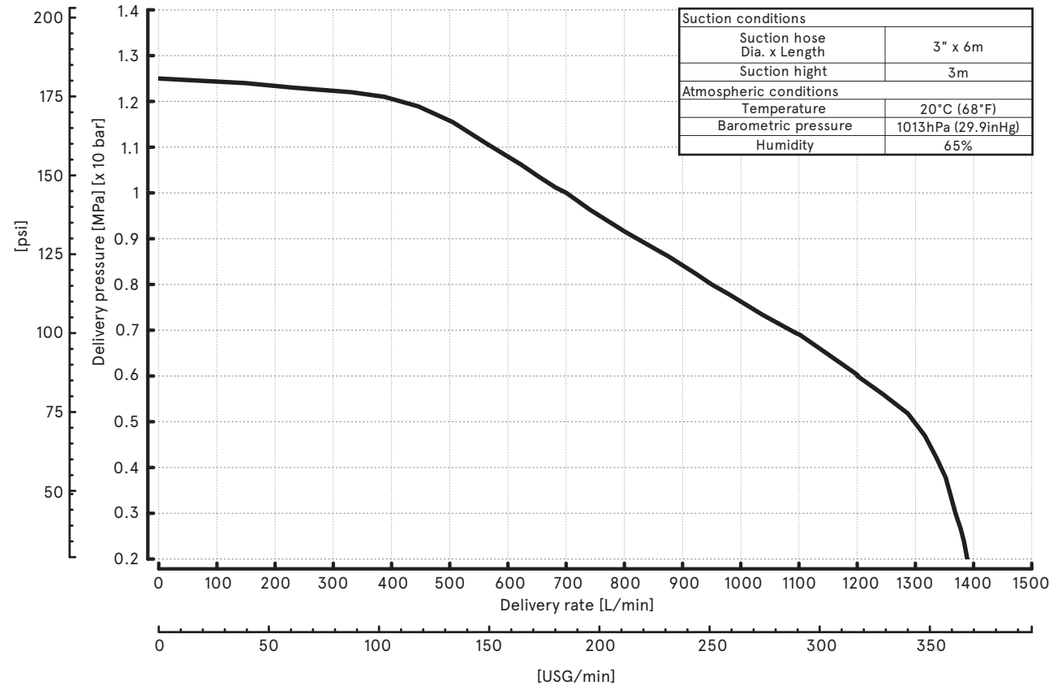
Specification

		VF53BS
Engine	Type	4-stroke
	Number of Cylinder	3 Cylinder
	Cooling System	Suction Water Cooled
	Bore x Stroke	61 x 57 mm (2.40 x 2.24 inch)
	Piston displacement	500 ml (30.5 cu.in.)
	Output	22 kW
	Fuel Type	Unleaded Gasoline (RON 91 or Higher)
	Fuel Tank Capacity	10 Lit (2.7 US gal)
	Fuel Consumption	Approx. 8.5 L/hr (2.25 US gal/hr) (at 0.55 MPa 1130 L/min)
	Fuel System	Electronic Fuel Injection
	Engine Oil Quantity	1.6 L (1.7 US qt.) when replacing oil filter : 1.7 L (1.8 US qt.)
	Starting	Electric and Manual
Suction	Suction System	4 Blade Rotary-vane Vacuum Pump (Oilless-type)
	Priming System	Auto Priming
Pump	Pump Type	Single Suction, Single Stage, High Pressure Turbine Pump
	Suction Thread and Dia.	JIS 3" (75 mm)
	Discharge Thread and Dia.	JIS 2-1/2" (65 mm)
	Discharge Number	Twin
	Discharge Valve	Ball Valve
Weight	Dry Weight (without Battery)	84 kg (185 lbs)
	Ready for Operation*	99 kg (218 lbs)
Dimension	Overall Length x Width x Height	670 x 780 x 740 mm (26.38 x 30.71 x 29.13 inch)

NOTE JIS: Japanese Industrial Standard Thread

*Depends on the weight of the battery installed and the volume of fueling at local. Please contact our distributors for more details.

Performance Curve



VF63BS-R

Unique, like no other.
The advanced automatic relay pump.

Video Playback
Please check "The performance of automatic relay pump"

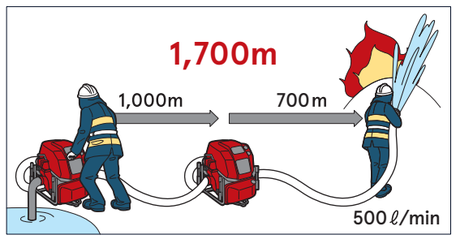
Auto priming

Suction height 9m
The best suction performance in the industry (9m/30ft)

Specification

		VF63BS-R
Engine	Type	4-stroke
	Number of Cylinder	3 Cylinder
	Cooling System	Suction Water Cooled
	Bore x Stroke	61 x 57 mm (2.40 x 2.24 inch)
	Piston displacement	500 ml (30.5 cu.in.)
	Output	22 kW
	Fuel Type	Unleaded Gasoline (RON 91 or Higher)
	Fuel Tank Capacity	10 Lit (2.7 US gal)
	Fuel Consumption	Approx. 9 L/hr (2.38 US gal/hr) (at 0.7 MPa 1000 L/min)
	Fuel System	Electronic Fuel Injection
	Engine Oil Quantity	1.6 L (1.7 US qt.) when replacing oil filter : 1.7 L (1.8 US qt.)
	Starting	Electric and Manual
Suction	Suction System	4 Blade Rotary-vane Vacuum Pump (Oilless-type)
	Priming System	Auto Priming
Pump	Pump Type	Single Suction, Single Stage, High Pressure Turbine Pump
	Suction Thread and Dia.	JIS 3" (75 mm)
	Discharge Thread and Dia.	JIS 2-1/2" (65 mm)
	Discharge Number	Twin
	Discharge Valve	Ball Valve
Weight	Dry Weight (without Battery)	84.5 kg (186 lbs)
	Ready for Operation*	99.5 kg (219 lbs)
Dimension	Overall Length x Width x Height	670 x 780 x 740 mm (26.38 x 30.71 x 29.13 inch)

NOTE JIS: Japanese Industrial Standard Thread
*Depends on the weight of the battery installed and the volume of fueling at local. Please contact our distributors for more details.



Example of use in automatic relay operation
(No operator is required at the relay pump).
The relay pumping line with VF63BS-R can be extended endlessly.

Performance at Suction Height 3m

1200 Lit/min at 0.6MPa (6 Bar)

950 Lit/min at 0.8MPa (8 Bar)

700 Lit/min at 1.0MPa (10 Bar)

Priming Performance

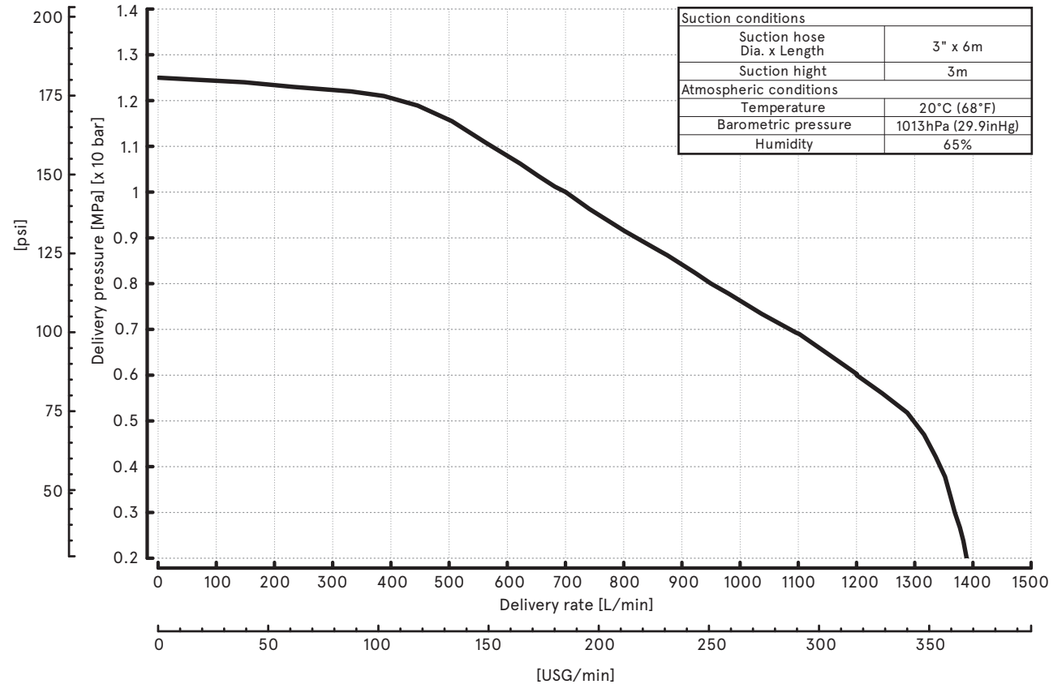
2.0 sec at suction height 1 m

3.4 sec at suction height 3 m

6.2 sec at suction height 6 m

When the water hits the VF63BS-R, engine and pump function are automatically started which means that no one need to be on and operate the pump pressure. When the water from master pump stops, the VF63BS-R is also stopped automatically. It is fully-automatically controlled and providing new solution for forest / wild land fire and long distance water transfer action.

Performance Curve



Medium flow

VC52AS
VC72AS

Simplify and maximize the ability for quick response

VC52AS
Performance at suction height 3m

1300 Lit/min at **0.6**MPa (6 Bar)

1000 Lit/min at **0.8**MPa (8 Bar)

600 Lit/min at **1.0**MPa (10 Bar)

VC72AS
Performance at suction height 3m

1500 Lit/min at **0.6**MPa (6 Bar)

1200 Lit/min at **0.8**MPa (8 Bar)

950 Lit/min at **1.0**MPa (10 Bar)

Priming performance

2.3 sec at suction height **1 m**

4.5 sec at suction height **3 m**

9.2 sec at suction height **6 m**

- Unmatched pumping performance
- 180 degree swinging single outlet
- Engine overheat protection sensor
- Robust and easy maintenance

130kg Competitor > 101kg Operative weight

The lightest model in this class

Suction height 9m

The best suction performance in the industry (9m/30ft)

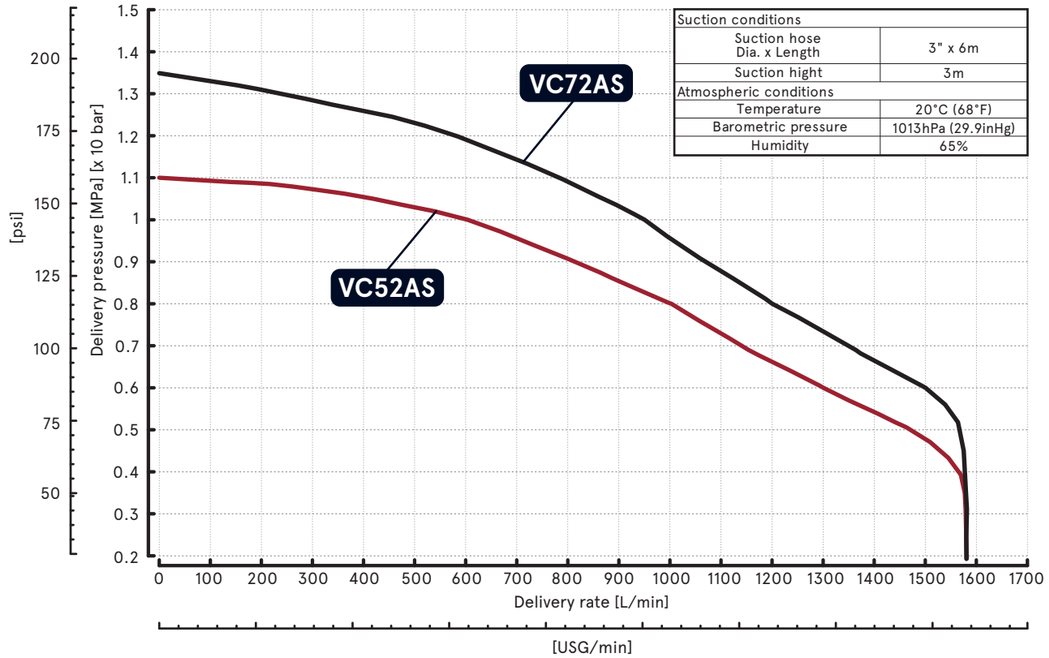
Specification

		VC52AS	VC72AS
Engine	Type	2-stroke	2-stroke
	Number of Cylinder	2 Cylinder	2 Cylinder
	Cooling System	Suction Water Cooled	Suction Water Cooled
	Bore x Stroke	76 x 68 mm (2.99 x 2.68 inch)	76 x 68 mm (2.99 x 2.68 inch)
	Piston displacement	617 ml(37.6 cu.in.)	617 ml(37.6 cu.in.)
	Output	30 kW	30 kW
	Fuel Type	Unleaded Gasoline (RON 91 or Higher)	Unleaded Gasoline (RON 91 or Higher)
	Fuel Tank Capacity	18 Lit (4.76 US gal)	18 Lit (4.76 US gal)
	Fuel Consumption	Approx. 9 L/hr (2.38 US gal/hr) (at 0.55 MPa 1220 L/min)	Approx. 12 L/hr (3.17 US gal/hr) (at 0.7 MPa 1290 L/min)
	Fuel System	Single Carburetor with Auto Choke	Single Carburetor with Auto Choke
	Oil Tank Capacity	1.6 Lit (1.7 US qt.)	1.6 Lit (1.7 US qt.)
	Starting	Electric and Manual	Electric and Manual
Suction	Suction System	4 Blade Rotary-vane Vacuum Pump (Oilless-type)	4 Blade Rotary-vane Vacuum Pump (Oilless-type)
	Priming System	Manual	Manual
Pump	Pump Type	Single Suction, Single Stage, High Pressure Turbine Pump	Single Suction, Single Stage, High Pressure Turbine Pump
	Suction Thread and Dia.	JIS 3" (75 mm)	JIS 3" (75 mm)
	Discharge Thread and Dia.	JIS 2-1/2" (65 mm)	JIS 2-1/2" (65 mm)
	Discharge Number	Single	Single
	Discharge Valve	Ball Valve / Flat Valve	Flat Valve
Weight	Dry Weight (without Battery)	80 kg (176 lbs)	80 kg (176 lbs)
	Ready for Operation*	101 kg (223 lbs)	101 kg (223 lbs)
Dimension	Overall Length x Width x Height	700 x 620 x 730 mm (27.56 x 24.41 x 28.74 inch)	700 x 620 x 730 mm (27.56 x 24.41 x 28.74 inch)

NOTE JIS: Japanese Industrial Standard Thread

*Depends on the weight of the battery installed and the volume of fueling at local. Please contact our distributors for more details.

Performance Curve



Small and compact

VE500AS

Small and compact, with outstanding features

Performance at Suction Height 3m

520 Lit/min at **0.6**MPa (6 Bar)

250 Lit/min at **0.8**MPa (8 Bar)

Priming Performance

3.7 sec — at suction height — **1** m

7.0 sec — at suction height — **3** m

15.4 sec — at suction height — **6** m

- Complies with EN14466 for PFPN6-500 (BSP Thread Type only)
- Advanced engine technology for any tough environment
- Special surface treatment to deliver a robust and durable equipment
- Small and compact design philosophy

96kg Competitor > 55kg Operative weight

The lightest model in this class

Suction height 9m

The best suction performance in the industry (9m/30ft)

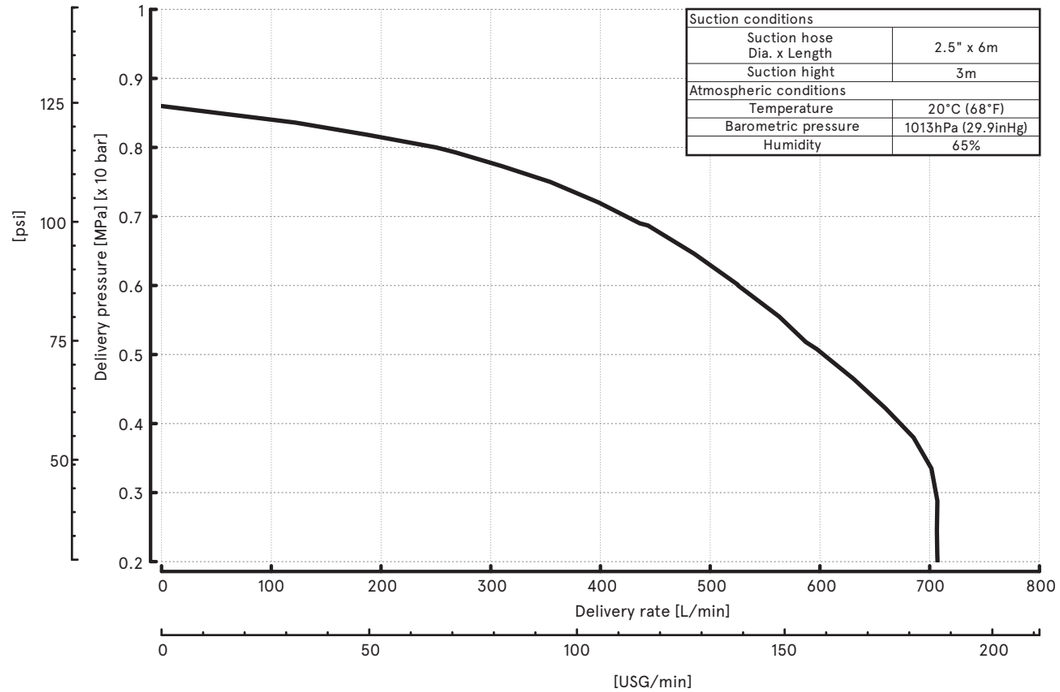
Specification

		VE500AS (JIS Thread Type)	VE500AS (BSP Thread Type)
Engine	Type	2-stroke	2-stroke
	Number of Cylinder	1 Cylinder	1 Cylinder
	Cooling System	Air Cooled	Air Cooled
	Bore x Stroke	66 x 58 mm (2.60 x 2.28 inch)	66 x 58 mm (2.60 x 2.28 inch)
	Piston displacement	198 ml (12.1 cu.in.)	198 ml (12.1 cu.in.)
	Output	8.6 kW	8.6 kW
	Fuel Type	Unleaded Gasoline (RON 91 or Higher)	Unleaded Gasoline (RON 91 or Higher)
	Fuel Tank Capacity	5.95 Lit (1.57 US gal)	5.95 Lit (1.57 US gal)
	Fuel Consumption	Approx. 5.4 L/hr (1.43 US gal/hr) (at 0.6 MPa 500 L/min)	Approx. 5.4 L/hr (1.43 US gal/hr) (at 0.6 MPa 500 L/min)
	Fuel System	Electronic Fuel Injection	Electronic Fuel Injection
	Oil Tank Capacity	0.5 L (0.5 US qt.)	0.5 L (0.5 US qt.)
	Starting	Electric and Manual	Electric and Manual
Suction	Suction System	4 Blade Rotary-vane Vacuum Pump (Oilless-type)	4 Blade Rotary-vane Vacuum Pump (Oilless-type)
	Priming System	Manual	Manual
Pump	Pump Type	Single Suction, Single Stage, High Pressure Turbine Pump	Single Suction, Single Stage, High Pressure Turbine Pump
	Suction Thread and Dia.	JIS 2-1/2" (65 mm)	BSP 2-1/2" (65 mm)
	Discharge Thread and Dia.	JIS 2-1/2" (65 mm)	BSP 2-1/2" (65 mm)
	Discharge Number	Single	Single
	Discharge Valve	Ball Valve	Ball Valve
Weight	Dry Weight (without Battery)	46 kg (101 lbs)	47 kg (104 lbs)
	Ready for Operation*	55 kg (121 lbs)	56 kg (123 lbs)
Dimension	Overall Length x Width x Height	575 x 475 x 537 mm (22.64 x 18.70 x 21.14 inch)	540 x 505 x 537 mm (21.26 x 19.88 x 21.14 inch)

NOTE JIS: Japanese Industrial Standard Thread BSP: British Standard Pipe Thread

*Depends on the weight of the battery installed and the volume of fueling at local. Please contact our distributors for more details.

Performance Curve



Accessories

Tohatsu Floating strainer

All-purpose and versatile suction device
for emergency and tough condition.

It is able to prime water even if the depth is
only a few centimeters.
Can be used in shallow water, such as rivers.
Combined with a pump, it can be used for drainage.

Tohatsu Floating strainer (M)

Specification	
Suction volume	1,500ℓ/min
Adapter	JIS
Outlet diameter	75mm(3 inch)
Measurement	670×460×170mm
Weight	8.3kg
Suction minimum depth	Depth 2cm

Tohatsu Floating strainer (S)

Specification	
Suction volume	Outlet dia. 65mm (2.5 Inch): 700 l/min Outlet dia. 75mm (3 Inch): 1,500 l/min
Adapter	JIS
Outlet diameter	65mm (2.5 Inch) 75mm (3 Inch)
Measurement	333x473x170mm
Weight	Outlet dia. 65mm (2.5 Inch): 4.9kg Outlet dia. 75mm (3 Inch): 5.0kg
Suction minimum depth	Depth 2cm

Flow Indicator

The operator is able to check easily to see
if you can have proper water flow in the hose or not.

No power supply is required as it operates with water resistance.
You can easily see the appropriate flow rate.

Specification	
Adapter	Machino Hose Coupling
Outlet diameter	Female 65mm(2-1/2 inch)×Male 65mm(2-1/2 inch)
Measurement	198×116mm
Weight	1.7kg
Display of water flow	Analogue display
Indicator of water flow	400-600ℓ

Tohatsu Water Relief Valve

Hassle free pressure control
work in relay pumping operation.

Release the excessive pressure applied to the suction port during
relay water supply to protect the pump and hoses.

Specification	
Adapter	JIS thread
Outlet diameter	75(3 inch)×65mm(2-1/2 inch) 65(2-1/2 inch)×65mm(2-1/2 inch)
Measurement	190×225(75×65mm) 160×200(65×65mm)
Weight	1.65kg(75×65mm) 1.6kg(65×65mm)
Relief water flor	700ℓ per minute at 0.6MPa
Min. operational pressure	0.2MPa

Maintenance bucket

Easy and Convenient flushing device
to protect from corrosion.

No suction hose or water source are required for checking.
Washing after using seawater or muddy water is possible.
Operation can be confirmed with a small amount of water.

Specification	
Adapter	JIS thread
Outlet diameter	75mm(3inch) 65mm(2-1/2inch)
Measurement	191×296mm
Weight	1.3kg
Bucket volume	7ℓ

TOHATSU CORPORATION

www.tohatsu.com

5-4, Azusawa 3 chome, Itabashi-ku, Tokyo 174-0051, Japan
Phone: +81-3-3966-3117 Fax: +81-3-3966-2951