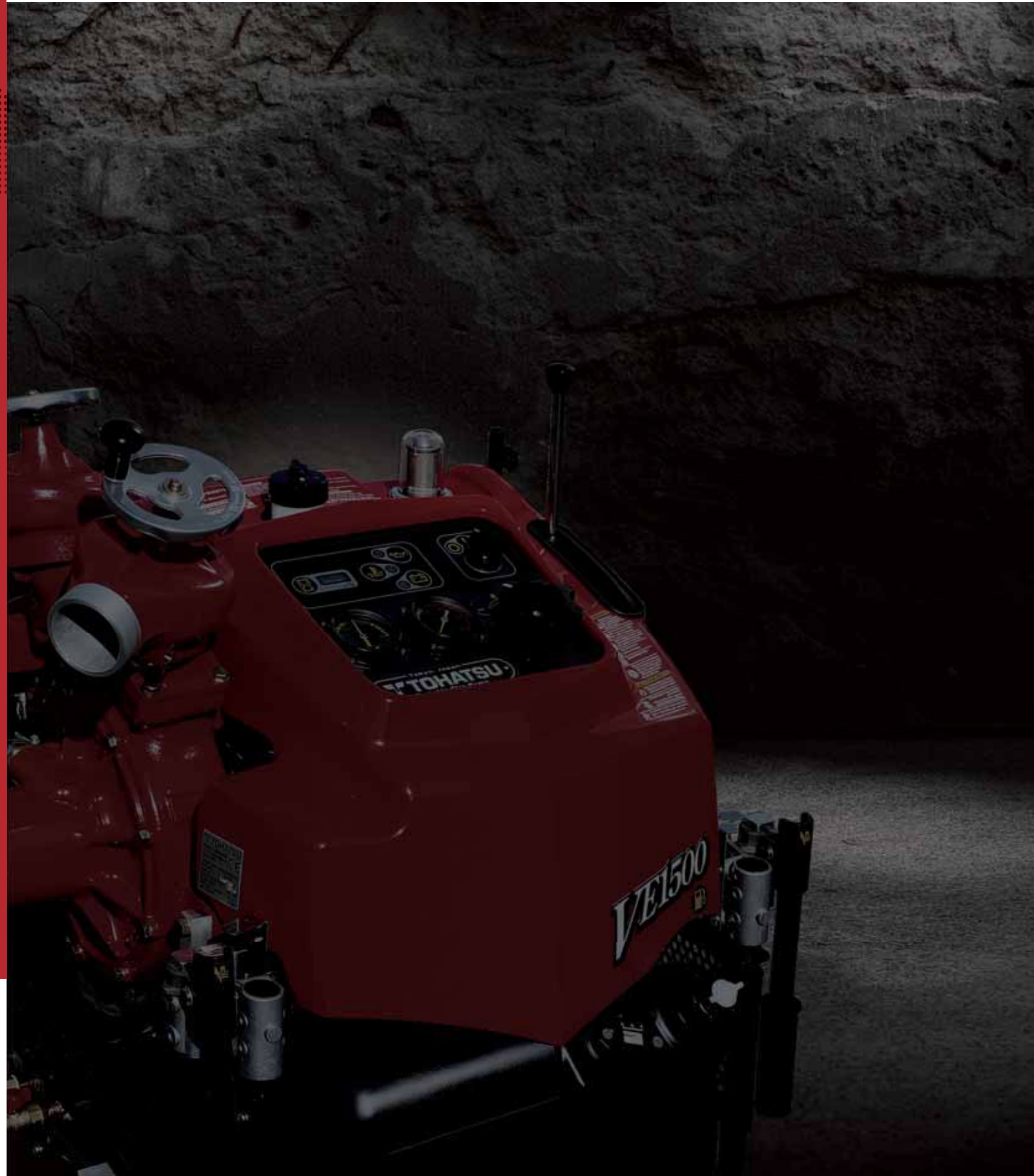


DELIVERING RELIABILITY



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ISO9001:2015 ISO14001:2015

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# What is "Portable Fire Fighting Pump"?



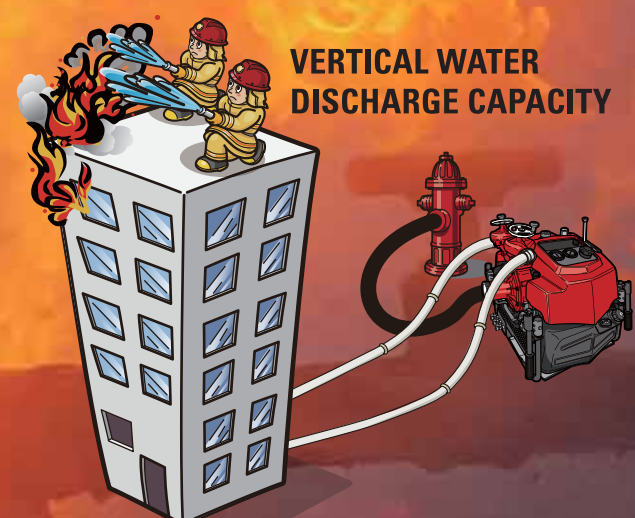
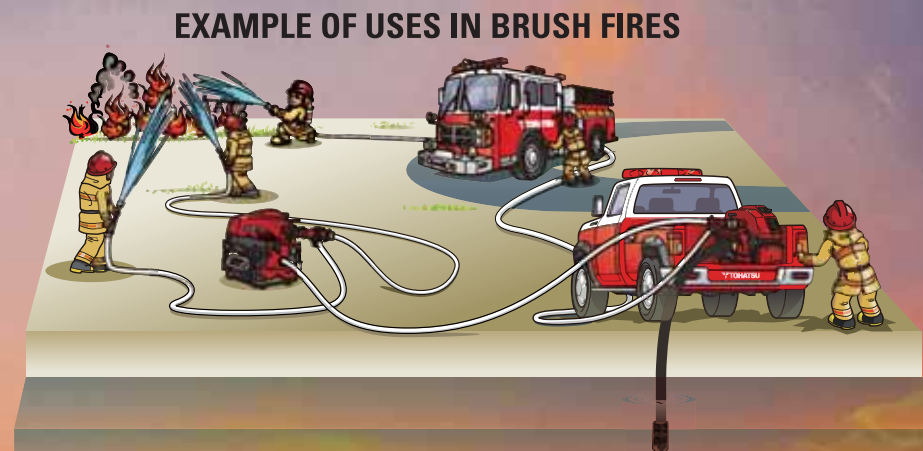
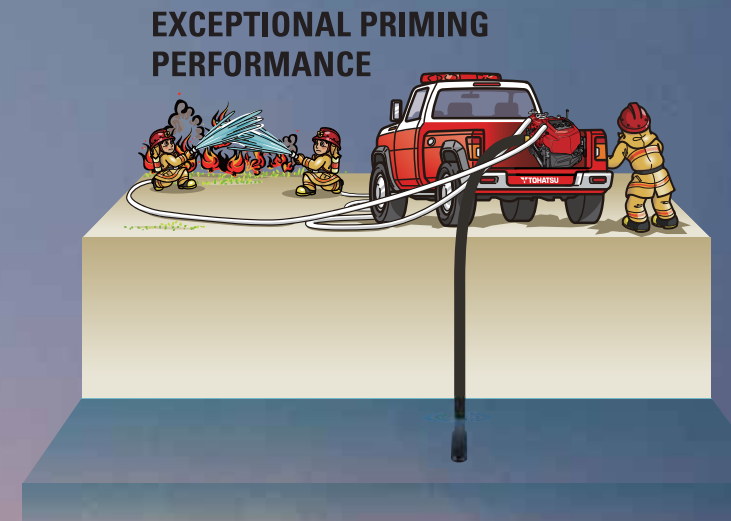
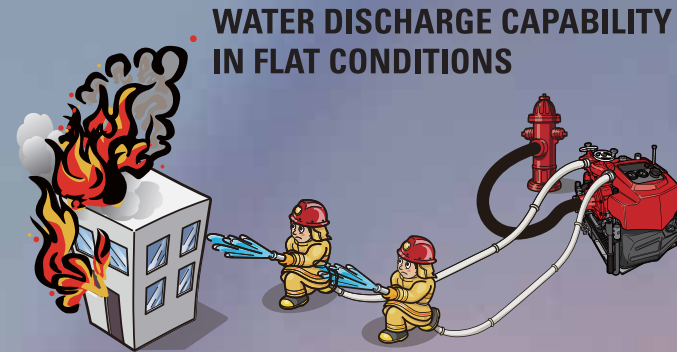
We, Tohatsu Corporation are leading manufacturer of "Portable Fire Fighting Pumps" and have large market share in Japan where is one of really advanced, innovative & competitive fire protection markets in the world.

We are the manufacturer of nation's first "Portable Fire Fighting Pumps" in Japan and it was back in 1949.

In the several decades until today, we have been supporting & working very closely for Japanese Professional Fire Services & Volunteer fire departments and our "Portable Fire Fighting Pumps" has been improving & refining in order to meet the high standard and strict quality demands of the authorities.

Our products clearly meet a requirement of your fire authorities which is 1) very light weight, 2) outstanding portability, 3) mountability & removability on fire truck, 4) water relay operation with a number of our "Portable Fire Fighting Pumps", 5) usability with water tankers, pumpers & fire hydrant in town (hooking up on them to take or transfer water for fire-fighting).

We are eager to make a contribution for your fire authorities and try to provide our products to worldwide.



# 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)

## 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

# VC82 ASE VC85 BS

## Performance at suction height 3m

1920 Lit/min at 0.6 MPa (6 Bar)

1660 Lit/min at 0.8 MPa (8 Bar)

1410 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

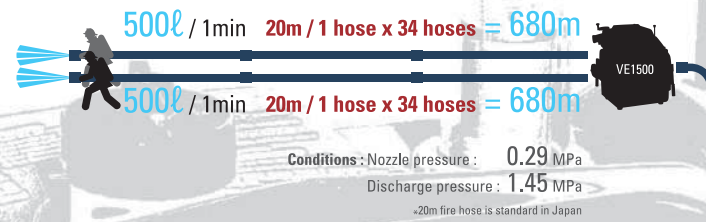
9.2 sec. / at suction height 6 m

Complies with EN14466  
for PFPN10-1500.



100m

As a performance value, **VE1500** is capable to pump-up  
1,500 liters of water at every minute to 100m height. (As theoretical data)

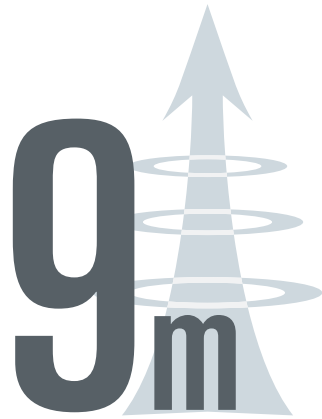


VC82ASE



The lightest model in its class

Suction height



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

Specification	VE1500	VC82ASE	VC85BS	
Type	2-Cycle			
Number of Cylinder	2-Cylinder			
Cooling System	Suction water cooled			
Bore x Stroke	81 x 78 mm (3.19 x 3.07 inch)	78 x 78 mm (3.07 x 3.07 inch)		
Piston displacement	804cc (49.0 cu in)	746cc (45.5cu in)		
Output	44 kW (60 PS)	38.2 kW (52 PS)		
Fuel Type	Unleaded Gasoline (Min. 87 Octane)			
Fuel Tank Capacity	24 Lit (6.34 gal)	18 Lit (4.76 gal)		
Fuel Consumption	22 Lit / Hr (5.81 gal / Hr)	23 Lit / Hr (6.08 gal / Hr)		
Fuel System	Electronic Fuel Injection	Single Carburetor with Auto Choke		
Oil Tank Capacity	1.6 Lit (0.42 gal)			
Starting	Electric and Manual			
Suction System	4 Blade Rotary Vane Vacuum Pump (oilless-type)			
Priming System	Semi-Auto Priming	Semi-Auto Priming	Auto Priming	
Pump Type	Single Suction, Single Stage centrifugal pump			
Suction Thread and Dia.	BSP 4" (100mm)	JIS 3-1/2" (90mm)		
		BSP 4" (100mm)		
Discharge Thread and Dia.	BSP 2-1/2" (65mm)	JIS 2-1/2" (65mm)		
		BSP 2-1/2" (65mm)		
Discharge Number	Twin			
Discharge Valve	Flat	Ball or Flat	Ball	
Weight	Dry Weight	107kg (235.89 lbs)	94kg (207.23 lbs)	95kg (209.44 lbs)
	Wet Weight	127kg (279.99 lbs)	110kg (242.5 lbs)	111kg (244.71 lbs)
Dimension(mm)	Overall Length x Width x Height	748 x 732 x 827		
		742 x 682 x 760		
		742 x 682 x 760		

NOTE JIS : Japanese Industrial Standard Thread BSP : British Standard Pipe Thread Wet Weight : Ready for Operation

# V20 ES V20 D2S

## Performance at suction height 3m

525 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



V20ES



V20D2S

- 90 degree swinging single outlet.
- Engine overheat protection sensor.
- Easy maintenance

# VC72 AS VC52 AS

## Performance at suction height 3m

1550 Lit/min at 0.6 MPa (6 Bar)

1300 Lit/min at 0.8 MPa (8 Bar)

950 Lit/min at 1.0 MPa (10 Bar)

## Performance at suction height 3m

1250 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)

## 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



VC72AS



VC52AS

Light weight

42 kg

The lightest model in the industry (V20D2S)

Suction height

9 m

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

Specification	VC72AS	VC52AS	V20ES	V20D2S
Type	2-Cycle			
Number of Cylinder	2 Cylinder		1 Cylinder	
Cooling System	Suction Water Cooled		Air Cooled	
Bore x Stroke	76 x 68 mm (2.99 x 2.68 inch)		66 x 58 mm (2.6 x 2.28 inch)	
Piston displacement	617cc (37.6 cu in)		198cc (12.0 cu in)	
Output	30 kW (40.8 PS)		8.6 kW (11.7 PS)	
Fuel Type	Unleaded Gasoline (Min. 87 Octane)			
Fuel Tank Capacity	18 Lit (4.76 gal)		3.5 Lit (0.92 gal)	
Fuel Consumption	13 Lit / Hr (3.43 gal / Hr)	9 Lit / Hr (2.38 gal / Hr)	5.4 Lit / Hr (1.43 gal / Hr)	
Fuel System	Single Carburetor with Auto Choke			
Oil Tank Capacity	1.6 Lit (0.42 gal)		0.5 Lit (0.13 gal) for V20ES ONLY	
Starting	Electric and Manual			
Suction System	4 Blade Rotary Vane Vacuum Pump (oilless-type)			
Priming System	Semi-Auto Priming			
Pump Type	Single Suction, Single Stage centrifugal pump			
Suction Thread and Dia.	JIS 3" (75mm)		JIS 2-1/2" (65mm)	
	BSP 4" (100mm)		BSP 2-1/2" (65mm)	
Discharge Thread and Dia.	JIS 2-1/2" (65mm)		JIS 2-1/2" (65mm)	
	BSP 2-1/2" (65mm)		BSP 2-1/2" (65mm)	
Discharge Number	Single			
Discharge Valve	Flat	Ball	Flat	
Dry Weight	85kg (187.39 lbs)	43kg (94.7 lbs)	42kg (92.59 lbs)	
Wet Weight	101kg (222.66 lbs)	47kg (103.6 lbs)	46kg (101.41 lbs)	
Overall Dimension(mm) Length x Width x Height	700 x 620 x 730		560 x 475 x 530	
			555 x 470 x 532	

NOTE JIS : Japanese Industrial Standard Thread BSP : British Standard Pipe Thread Wet Weight : Ready for Operation

# VF53 AS

## Performance at suction height 3m

1200 Lit/min at 0.6 MPa (6 Bar)
950 Lit/min at 0.8 MPa (8 Bar)
700 Lit/min at 1.0 MPa (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

- 4 stroke Electronic Fuel Injection
- The only battery-less fire pump in the industry
- Auto-priming system
- 90 degree swinging twin outlet



### Comparison of sound with VC82ASE

		VC82ASE	VF53AS
Sound Level (dBA)	W.O.T	98	95
Lower noise than VC82ASE	Idle	77	66

### Sound LEVELS (dBA)

150	Airplane Takeoff
120	Thunderstorm
100	Motorcycle
90	Inside of Car
80	Vacuum Cleaner
70	City Traffic
60	Normal Conversation
50	Refrigerator
40	Library
30	Whisper

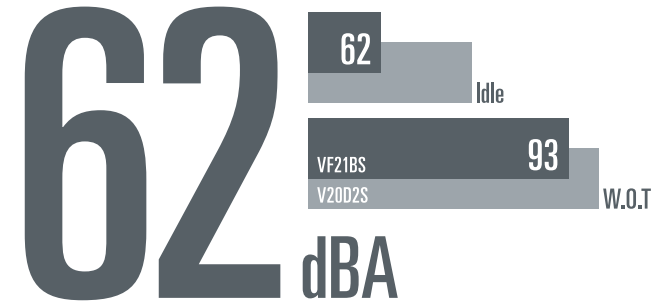
Clean & Silent

# 4 Stroke

- TOHATSU's smallest 4-stroke fire pump
- Easy to handle with its simplicity, portability & straight forward usage
- Designed for easy & smooth operation

### Comparison of sound with V20D2S

		V20D2S	VF21BS
Sound Level (dBA)	W.O.T	100	93
Lower noise than V20D2S	Idle	67	62



The quietest in TOHATSU fire pumps (VF21BS)

# Battery-less

The only battery-less fire pump in the industry (VF53AS)

Specification	VF53AS	VF21BS
Type	4 Cycle	
Number of Cylinder	3 Cylinder	2 Cylinder
Cooling System	Suction Water Cooled	
Bore x Stroke	61 x 60 mm (2.4 x 2.36 inch)	55 x 44 mm (2.17 x 1.73 inch)
Piston displacement	526cc (32.1 cu in)	209cc (12.7 cu in)
Output	22 kW (30 PS)	7.3 kW (10 PS)
Fuel Type	Unleaded Gasoline (Min. 87 Octane)	
Fuel Tank Capacity	10 Lit (2.64 gal)	4.3 Lit (1.14 gal)
Fuel Consumption	9.5 Lit / Hr (2.51 gal / Hr)	3.9 Lit / Hr (1.03 gal / Hr)
Fuel System	Electronic Fuel Injection	Single Carburetor
Oil Tank Capacity	2 Lit (0.53 gal)	1 Lit (0.26 gal)
Starting	Electric and Manual	
Suction System	4 Blade Rotary Vane Vacuum Pump (oilless-type)	
Priming System	Auto Priming	Semi-Auto Priming
Pump Type	Single Suction, Single Stage centrifugal pump	
Suction Thread and Dia.	JIS 3" (75mm)	JIS 2-1/2" (65mm)
	BSP 4" (100mm)	BSP 2-1/2" (65mm)
Discharge Thread and Dia.	JIS 2-1/2" (65mm)	JIS 2-1/2" (65mm)
	BSP 2-1/2" (65mm)	BSP 2-1/2" (65mm)
Discharge Number	Twin	Single
Discharge Valve	Ball or Flat	Ball
Weight	Dry Weight	101kg (222.66 lbs)
	Wet Weight	111kg (244.71 lbs)
Dimension(mm)	Overall Length x Width x Height	690 x 790 x 740
		480 x 590 x 560

NOTE JIS : Japanese Industrial Standard Thread BSP : British Standard Pipe Thread Wet Weight : Ready for Operation

# VF21 BS



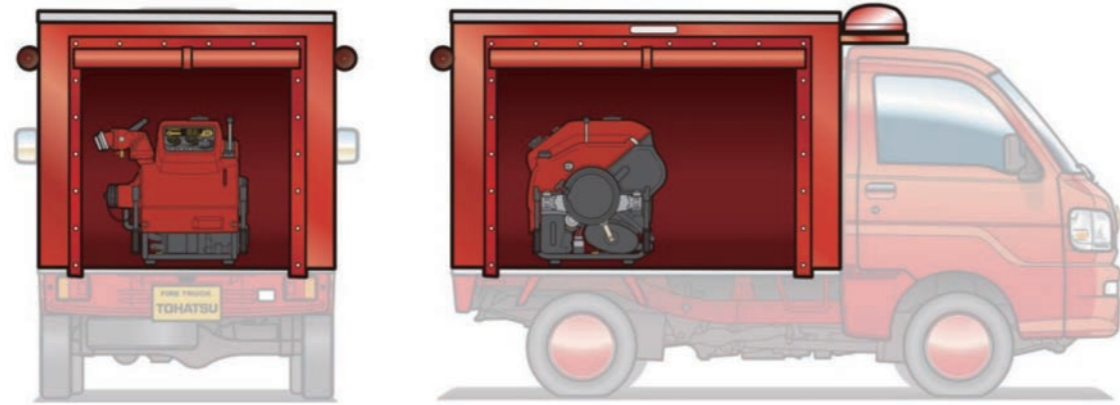
## Performance at suction height 3m

500 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

## - Build Your Own Fire Truck!! -



### Benefit

- Design your own fire truck unit (Designed by chassis).
- Easy & simple installation locally.
- Any TOHATSU fire pumps can be installed.

Firefighters are protecting us in various conditions & environments and always have to find the best & appropriate firefighting system. In order to offer the best solution, TOHATSU would design & develop the firefighting module for every demand.

### Tohatsu Floating strainer

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



Specification	
Suction volume	1,500ℓ/min
Adapter	JIS or BSP
Outlet diameter	75mm (3 inch)
Measurement	670 x 460 x 170mm
Weight	8.3kg
Suction minimum depth	Depth 2cm
Part number	S399-00002SET

### Tohatsu Water Relief Valve

Hassle-free pressure control work in relay pumping operation.



Specification	
Adapter	JIS thread
Outlet diameter	75 (3 inch) x 65mm (2-1/2 inch) 65 (2-1/2 inch) x 65mm (2-1/2 inch)
Measurement	190 x 225mm (75 x 65mm) 160 x 200mm (65 x 65mm)
Weight	1.65kg (75 x 65mm) 1.6kg (65 x 65mm)
Relief water flow	700ℓ per minute at 0.6MPa
Min. operational pressure	0.2MPa
Part number	685-40100-1 (75x 65mm) 685-40140-1 (65 x 65mm)

### Flow Indicator

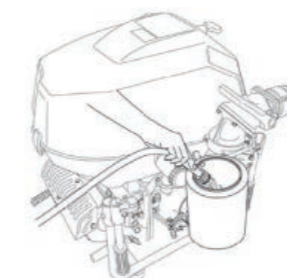
It is not necessary to calculate the pressure loss of fire hose in operation. The operator is able to check easily to see if you can have proper water flow in the hose or not.



Specification	
Adapter	JIS thread
Outlet diameter	Female 65mm (2-1/2 inch) x Male 65mm (2-1/2 inch)
Measurement	198 x 116mm
Weight	1.7kg
Display of water flow	Analogue display
Indicator of water flow	400ℓ-600ℓ
Part number	6B6-39410-0

### Maintenance bucket

Easy & Convenient flushing device to protect from corrosion.



Specification	
Adapter	JIS thread
Outlet diameter	75mm (3 inch) 65mm (2-1/2 inch)
Measurement	191 x 296mm
Weight	1.3kg
Bucket volume	7ℓ
Part number	128-39320-3 (75mm/3inch) 151-39320-3 (65mm/2-1/2inch)