

**vft**  
**black line**  
**pumps**



**Black Hawk**  
BH4-23

# Fire Pump BH4-23

## Up to 28,8 bar and 397 l/min

The **BH4-23** fire pump is within the vft Black Hawk line of portable fire pumps. It combines a powerful air-cooled **Briggs and Stratton Vanguard V twin 23 HP** engine with electronic cut-off, with the Speed Inserter vft and the VFT\_4SP 4-stage centrifugal pump, offering excellent working capacity at high pressures and high flow rates. This combination can make long hose runs both in series and in parallel without losing performance.

It has a quick coupling system for the **VFT\_4SP pump** that allows it to be replaced in the shortest possible time if a breakdown occurs. This pump is also used in the **BP4, BH4-13 and BH4-18** fire pumps, which allows a better management of the spare parts stock.

- > Components made of high quality aluminum and stainless steel.
- > Spare parts available through [customer.service@valfirest.com](mailto:customer.service@valfirest.com).
- > With the best quality / price ratio.
- > 2 years warranty.

### Applications

- Direct attack.
- Long hoses laid.
- Self-protection maneuvers with sprinklers.
- Tandem pumping for long distances.
- Parallel pumping for higher volumes.
- Assembly in skid units and extinguishing vehicles.

### Features

- Rope manual starter or electric starter (with extra battery).
- VFT\_4SP pump easily interchangeable thanks to a quick release clamp.
- Compatible with VFT\_3SP 3-stage and VFT\_2SP two-stage pumps.
- Maintenance-free speed increaser. Made of cast aluminum and high quality components.
- Choice of transport base: tubular frame (for greater maneuverability), or base for assembly on vehicles.
- Integrated fuel tank.
- Hand priming pump and pressure gauge included.
- Non-return valve for impulsion included.
- Pump compatible with foam-forming agent.



### Certified standards

2006/42/CE

UNE EN-14466:2006+A1 2009  
UNE-EN 1028-2:2003+A1 2008



### Specifications

Motor	Briggs and Stratton Vanguard 23HP
Centrifugal Pump	VFT 4 stage
Weight	68.5 kg (dry)
Maximum Pressure	28.8 bar
Maximum Flow	397 l/min
Sizes	Length: 83 cm.   Wide: 49.5 cm.   Height: 48 cm.

# 1. Engine BRIGGS AND STRATTON 23HP VANGUARD



## Motor Specifications

Motor	4 strokes gasoline
Bore x Stroke	75,5 X 70 mm
Displacement	627 cm <sup>3</sup>
Compression ratio	8.4 : 1
Power	23HP (3.600rpm)
N° Cylinders	2
Starter	Manual starter with manual recoil rope and electric start.
Oil sensor	Yes
Engine oil capacity	1,7 L
Dimensions (l. x w. x h.)	318 mm x 407 mm x 449 mm
Dry weight	35 kg
Emissions certificate	EU stage V, EPA, CARB

# 2. 4-Stage centrifugal pump VFT\_4SP



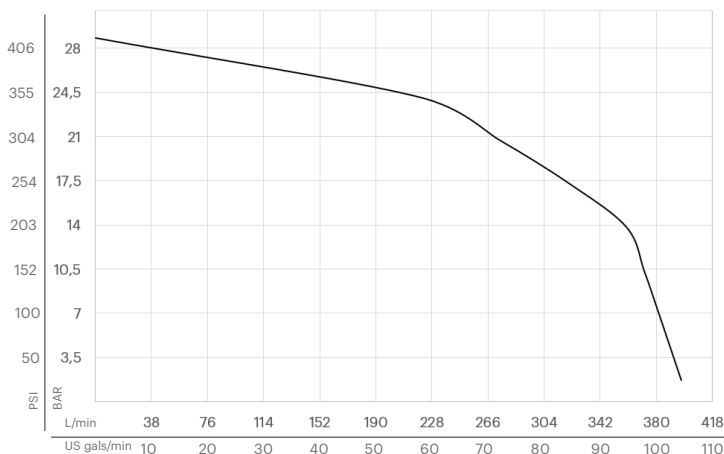
The VFT4SP is a compact, efficient and reliable 4-stage centrifugal pump. The body and impellers are made of anti-corrosive aluminum. The axis and other components are made of stainless steel. Includes a high-quality mechanical seal specifically designed for the Vallfirest pumps.

- Pump compatible with foam-forming agent.
- Compatible with fire pump models: **BP4, BH4-23, BH-18 and BH4-13.**

## VFT4SP Specifications

Suction	2" NPSH
Impulsion	1,5" NPSH

# 3. BH4-23 Performance



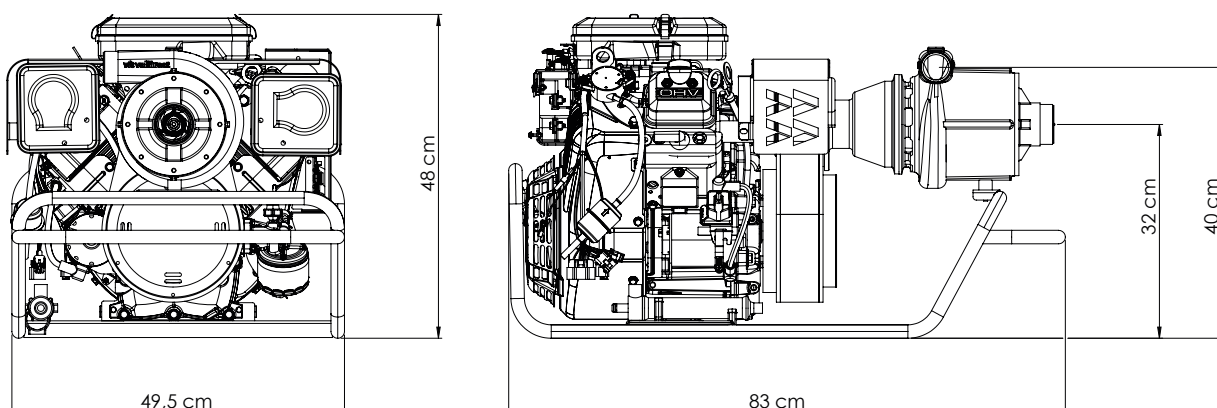
## Max. Performance

Max. Flow	397 l/m
Max. Pressure	28.8 bar
Max. Water Gauge	294 mH2O

Pressure		Flow	
[Bar]	[PSI]	[L/Min]	[U.S. GPM]
24.1	349.5	220	58
13.8	200	360	95
3.5	50	394	104

## 4. Technical drawings

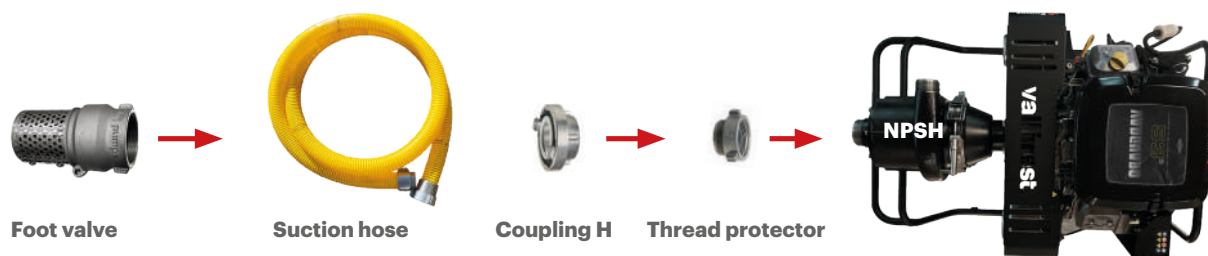
Length: 83 cm. | Wide: 49,5 cm. | Height: 48 cm.



## 5. Required components for operation

### WATER SUCTION

A suction hose and foot valve are required to filter the water.

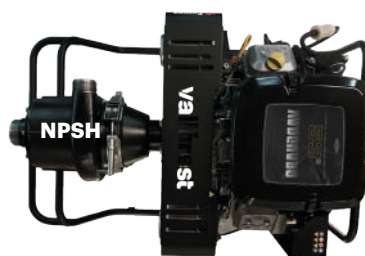


Foot valve

Suction hose

Coupling H

Thread protector



### OPERATION

A coupling wrench is required to tighten and loosen thread protectors / adapters. It is necessary to prime the pump manually before operating.



Coupling wrench



Manual priming pump\* (included)

### FUEL FEEDING

An external fuel tank and connection line are required.



12L - 25 L

Fuel tank



Mercury connection

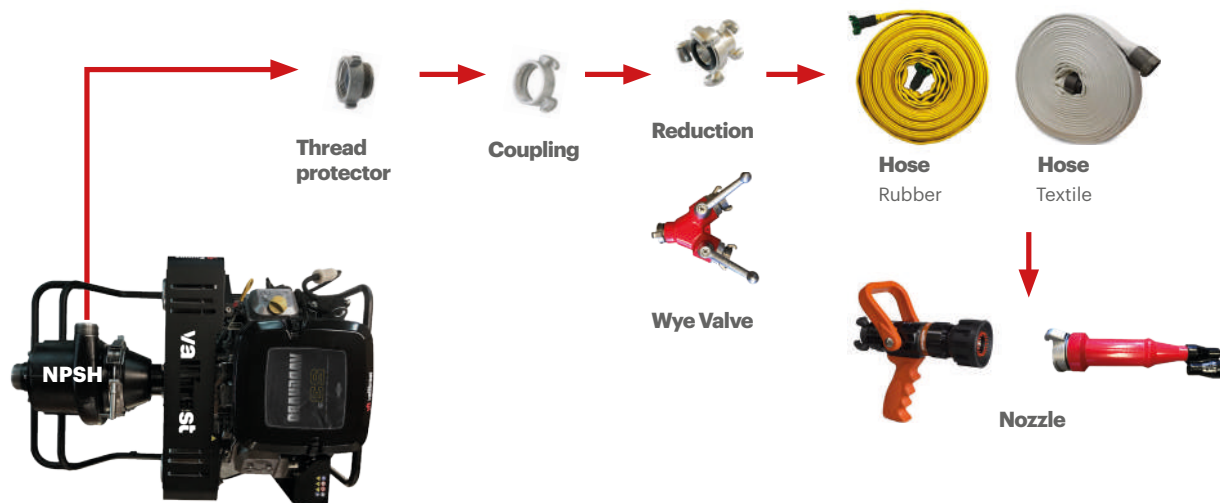
Fuel line

\* See the different types of connection available: Chrysler, SAE, etc.

**WATER IMPULSION**

For the impulsion, choose the couplings according to the type of hose and the laying configuration: direct attack or connection in series or in parallel of several fire pump units.

\* See our **Pump setup** sheet for more information.



**6. List of components**

**Thread protectors**

Necessary to protect the original threads of the pump and adapt the NPSH thread to any other type of thread, allowing the connection of other couplings.

- DVD3107-00001** NPSH-NPSH 1-1/2"
- DVD3107-00002** NPSH-BSP 1-1/2"
- DVD3107-00003** NPSH-NH 1-1/2"
- DVD3108-00001** NPSH-NPSH 2"
- DVD3108-00002** NPSH-BSP 2"
- DVD3108-00003** NPSH-NH 2"



**vft Pumps coupling wrench**

Allows safe tightening and loosening of thread protectors and couplings.

- DVD3112-00001**



**vft Foot valve**

The foot valve with non-return system filters the water and allows the suction circuit and the pump to be primed.

- DVD3105-00004** NPSH 2"
- DVD3105-00005** BSP 2"
- DVD3105-00006** NH 2"



**Suction hose**

Flexible wire reinforced suction hose.

- DVD3102-00001** 2" NPSH // L=3m
- DVD3102-00002** 2" BSP // L=3m
- DVD3102-00003** 2" NH // L=3m
- DVD3102-00004** 2" Storz 52-C // L=3m





## Fuel tank

**DED6001-00001** 12L Tank

**DED6001-00002** 25L Tank



## Fuel line

**DVD3116-AAA0A** Fuel line 1/4" for tank  
(Mercury female - 1/4" NPT)

**DVD3118-AAA0A** Extension fuel line kit 1/4"  
Mercury connector



## 7. Optional accessories

### vft Pump repair kit

Includes different tools for the disassembly and assembly of the 2, 3 and 4 stage vft pumps.

**DVD3115-AAA0A** Repair kit for 2, 3 and 4 stage vft pumps



### Hose choke

Tool that allows to quickly cut off the water flow to carry out operations such as, for example, lance changes or adding and removing hoses during direct attack.

**DED5800-00000** Hose choke FC-2540

**DED5801-00000** Textile hose choke



### Protection base

Folding base made of resistant and waterproof canvas. It serves as protection for the fire pump in aggressive terrain and to contain tools and accessories during operation.

**DVD3114-00001** Protection base



\*See the price list to know all the components available depending on the threads, coupling types, diameters, etc. In case of doubt, contact your commercial agent or directly with [customer.service@vallfirest.com](mailto:customer.service@vallfirest.com).