

SKYBOX

EMERGENCY ULTRAFILTRATION PACKAGE



USER GUIDE



SkyHydrant®

EMERGENCY ULTRAFILTRATION UNIT

SKYBOX – EMERGENCY FILTRATION PACKAGE

The SKYBOX Emergency Package is offered in two configurations. These are:

- 1) **SKYBOX COMPLETE FILTRATION EMERGENCY PACKAGE – SFP** (5000 litre/day potable water capacity)
- 2) **SKYBOX EMERGENCY PUMP & SUPPLY PACKAGE – SPSP** (where existing filtration assets are available for use)

The SKYBOX SFP (Dimension 90 cm x 60 cm x 40 cm ; weight 40 Kgs)

The SFP is a self contained immediate solution. It is used for pumping raw water from a swamp, creek or other water source directly to a SkyHydrant Ultrafiltration Unit. A pressure-reducing valve prevents excessive pressurisation of the SkyHydrant. This equipment is ideal for shorter-term operations such as for disasters, emergencies or rapid water supply requirement, such IDP camps and alike.

The SKYBOX SPSP (Dimension 80cm x 40 cm x 40 cm ; weight 22 Kgs)

The SPSP is a pump and supply derivative, where existing filtration equipment or assets exist, and or, the user has access to existing SkyHydrant units.



INCLUDED IN KIT:

HONDA WATER MASTER 1" TRANSFER PUMP

Powered with reliable Honda engines, these portable pumps are built tough and reliable for the most demanding of jobs including water transfer.

Maximum suction: 7m
Engine model: GenTech MHM10 Honda GX25 – 1.1hp
Starting system: recoil
Fuel tank capacity: 0.65 L
Section and discharge size: 1 inch
Max head: 30 m
Maximum flow right: 3130
Fluid handling: water/diesel
Weight: 6.5 kg



SUCTION HOSE KIT

- Ball float x1
- Foot Valve 25mm x 1
- Easy Fit – male straight coupling 25mm x 2
- Socket 25mm x 1
- Suction hose 25mm/6m x 1
- Lanyard



DISC FILTER KIT

- Reducing socket 25/20mm x 1
- Easy Fit – male straight coupling 20mm x 2
- Disc filter - yellow 25mm x 1



PRESSURE HOSE KIT

- Reducing socket 25/20mm x 1
- Barrel union 20mm x 2
- Easy Fit – male straight coupling 20mm x 2
- Layflat hose 20mm/6m x 1



PRESSURE REDUCING VALVE KIT

- Apex FV 3.7 Pressure Reducing Valve x 1
- Pressure Gauge 100kPa x 1
- Bush Reducing – 20/8mm
- Bush Reducing – 20/15mm
- Easy Fit – male straight coupling 20mm x 2
- Socket 20mm x 1
- Tee 20mm x 1
- Nipple 20mm x 1
- Ball Valve 20mm x 1



OPERATING INSTRUCTIONS

START UP

Refer to water pump operating instructions. Prior to Starting the pump check the correct water pressure To the SkyHydrant will be supplied either by relying on adjusting the water pump throttle control or using a pressure control unit. If the correct pressure cannot be achieved by throttling the pump, connect a pressure control unit. When using a pressure control unit, turn the ball valve off prior to starting the pump. Once started, adjust the pressure control unit as per instructions below. The Pressure Control Unit should be adjusted to Between 30 to 40 kPa (about 5 psi). Refer to the SkyHydrant user guide for maximum operating pressure.

PRESSURE REDUCING VALVE & GAUGE ASSEMBLY

The Pressure Reducing Valve and Gauge Assembly can be used to reduce water pressure supplying raw water to a SkyHydrant ultrafiltration unit. It should be located close to the SkyHydrant and be periodically checked to ensure the correct pressure is being maintained. To do this, turn the ball valve off to check the static supply pressure.

1) INLET WATER QUALITY TO THE PRESSURE REDUCING VALVE: Water entering the Pressure Reducing Valve must not contain particles exceeding 250 micron (1/4mm), which could otherwise foul the unit. To prevent fouling, install a pre-filter such as a disc filter, screen filter or media filter.

2) ADJUSTABLE PRESSURE REDUCING VALVE APEX - FV3.7:

Specifications:

- Adjustable pressure range 15 to 100 kPa
- Maximum Inlet Pressure 2000 kPa
- Compensated to give constant outlet pressure regardless of inlet pressure.

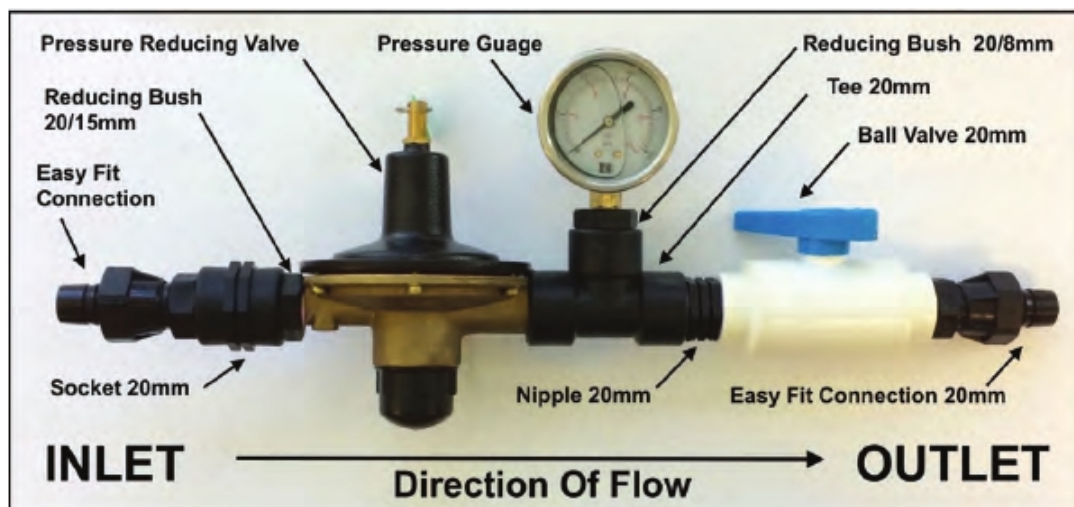
Installation:

- Can be installed in any orientation. Do not install in the ground.
- Valve requires adjustment on site. To increase pressure turn the adjusting screw clockwise (1 ½ turns = 1 metre head). After adjustment reset the locknut.
- When setting the pressure, close the ball valve and adjust the valve to the required pressure as shown on the pressure gauge. Open and close the ball valve a couple of times to ensure the correct pressure is being maintained and make finer adjustments as required.

Operating Pressure:

Recommended operating pressure for supply to manually operated water filtration unit should not exceed 30 kPa.

Note: This is the static pressure as observed on the pressure gauge when the ball valve is closed. Refer to the SkyHydrant User Guide for more information on operating pressures.



DIRECT PUMPING SYSTEM - SUGGETED CONFIGURATIONS

Check operations every hour to ensure the correct pressure is maintained. If necessary, make adjustments to the system operating pressure.

Note: The SkyHydrant ultrafiltration unit requires regular cleaning to maintain a desirable water flow. If the raw water supply is excessively turbid additional cleaning will need to be undertaken. A pre-filter may also be needed. After each cleaning cycle the pump and pressure control unit may need to be reset. Refer to the SkyHydrant "User Guide" for more information.

