EMERGENCY PUMP KIT

The emergency pump kit 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 and the kit is ideal for shorter-term operations such as for disasters, emergencies or rapid water supplies.
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
SET UP INSTRUCTIONS

WATER PUMP: locate in an elevated secure position.

SUCTION HOSE: Place foot valve and float into raw water supply (swamp, pond, creek, river, dam, well) adjust the lanyard length of the float to allow the foot valve to suspended just underwater to avoid sucking mud from the bottom. Connect other end of the suction hose to the pump inlet.

PRESSURE HOSE: Connect one end of the pressure hose to the pump outlet and the other end to the pressure control unit (pressure reducing valve). Cut the hose two required lengths suitable for the various components positions and connect using the “Easy Fit Hose Connectors” supplied.

PRE-FILTER: Position pre-filter in a suitable location for easy cleaning and to connect hoses. Make sure water flow is incorrect direction see arrow on unit. Refer to manufacturers data sheets for more information.

PRESSURE CONTROL UNIT: Connect the raw water hose from the pressure control unit to the Internet side; make sure water flow is incorrect direction see arrow on unit. Connect the outlet to SkyHydrant ultrafiltration unit (raw water inlet connection - T1). Refer to manufacturers data sheets for more information.

SKYHYDRANT ULTRAFILTRATION UNIT (SUPPLIED SEPARATELY): Setup the SkyHydrant ultrafiltration unit in a suitable location. See SkyHydrant instructions. Connect the filtrate hose from the SkyHydrant “clean water outlet” - T3 to a water storage reservoir eg bladder tank or a collapsible tank located on a tank-stand.

WATER TANK OR BLADDER (SUPPLIED SEPARATELY): Filtrate drinking water from the SkyHydrant can be stored in water bladder, collapsible tank or other tanks on site. Tap stands (supplied separately) can be connected to the tanks for the supply of drinking water.

TAP STAND (SUPPLIED SEPARATELY): Tap stands, reticulation or other filtrate supply outlet can be connected the tank stand.
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 by 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 pressures.

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 [2 to 14 P.S.I.]
- Maximum Inlet Pressure 2000 kPa [290 P.S.I.]
- 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 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 document SkyHydrant User Guide for more information on operating pressures.
**DIRECT PUMPING SYSTEM**

Check operations every hour to ensure the correct pressure is being maintained. If necessary make adjustments to the 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 and a pre-filter may also be needed. After each cleaning cycle the pump and pressure control unit may need to be reset. Refer to SkyHydrant “User Guide” for more information.
Direct Pumping Multiple SkyHydrant Setup

**RAW WATER SOURCE**: dam, river, stream, pond, lake, well, spring or swamp

**PUMP**: fuel, electric or hand pump

**PRE-FILTER**: optional (see notes)

**REDUCING VALVE**: optional (see notes)

**MULTIPLE SKYHYDRANT ULTRAFILTRATION UNITS**

**WATER BLADDER**:

**PUMP**:

**TANKER TRUCKS**