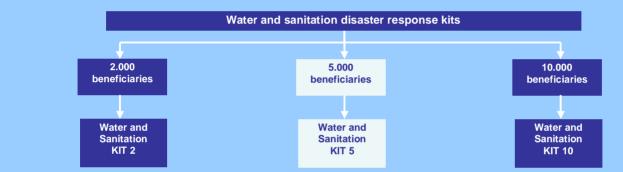
# Water and sanitation disaster response







**>** Water and sanitation disaster response kit 5 (for up to 5,000 beneficiaries)

Designed for the treatment and distribution of water for small populations, this kit can treat up to **75,000 litres** of water a day for a population of up to **5,000 people.** This kit requires the availability of local surface or ground water supply. Limited sanitation capacity for a first response is supplied within the kit, as well as some capacity for water trucking. The kit allows for the transport of treated water to several distribution points (capacity of up to **15,000 litres** of water a day) with limited possibility of setting up different storage and distribution points (preconditions are the availability of flatbed trucks, fuel, and road access).

Hygiene promotion, as well as training in the proper use of the equipment supplied, is an essential part of the operation and must be carried out alongside distribution activities. Local water and sanitation technicians and Red Cross Red Crescent volunteers for training and distribution of items are needed. **Approximate weight: 3.5 MT, volume: 15 m<sub>3</sub>.** This kit should be pre-positioned at country level.

# KIT 5, WATSAN DISASTER RESPONSE (5.000 beneficiaries) CODE KWATNEACDR05 TOTAL PRICE: CHF 80.000

#### Contents:

- Hygiene promotion box A
- Rigid water tank, 10 m3
- Water purification unit, 4 m3/hr
- PE-pipe
- Lightweight diesel pump
- Fittings and connections kit
- Water treatment chemicals

- Tapstand kit
- Transport bladder tank
- Tool kits for pumps and tanks
- Water testing equipment
- Jerrycans and buckets
- Low flow water dispenser
- Rapid latrines
- Latrine material (sanplat, sheeting, mold)
- Sprayer, protection, insecticides
- Soap
- Field manual

#### Kit content list

#### **Hygiene Promotion Box A**

- Training kit
- Puppet kit
- Banners kit
- Set of posters
- Pocket chart and set of cards and tokens for participatory hygiene promotion activities
- Various hygiene promotion books, manuals, and CD Roms
- T-shirts



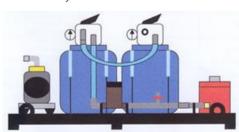
#### Rigid water tank, corrugated steel sheets + liner

- Corrugated galvanized iron sheet
- EPDM synthetic rubber liner, 1.4mm thick, reinforced, welded, to fit d: 6.4m tank
- The liner allows 300mm turndown on outside with 4 eyelets spaced at 1m centres around edge
- Connector flanges to be pre-assembled with studs, bolts, washers, and gaskets
- PVC coated polyester roof
- · Bolts and nuts are all zinc plated for high corrosion resistance
- Spanners of good quality for intensive use



# Water purification unit: Water Purification Unit,4m³/h

- Diesel driven pump
- Flocculation unit and coagulation unit
- Sand filter and activated carbon filter
- Chlorine dosing unit
- Chemicals for 1200 hours operation and pump maintenance for 2 years are included



#### 63 mm PE-pipe

- 63 mm DN/OD
- Coils of 50 m length
- PE 80 or PE 100, PN 10 or better, e.g. SDR 13,6 or SDR 17



#### 2" Lightweight diesel pump

- Preferred brand: Mast Pump (Model: <u>Mast pump NP 4 with HATZ Engine 1B20</u>) OR Alternative brand: <u>B20/Lombardini (standard pump from Scan Water</u>)
- Connection size: G 2" (C Storz-coupling)
- Seawater-resistant aluminum alloy pump body.



#### Fittings and connections kit

- This kit complements above 2" lightweight diesel pump
- Good quality fittings, connection tool, for short-term intensive use in rough condition.
- Kit contains suction/discharge hoses, reductions, compression couplings, and adapters.

#### Water treatment chemicals

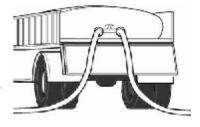
- Aluminium sulphate (50kg bags) for sedimentation
- Chlorine, NaDCC granules, bulk (alternative: HTH) in 25 kg drums
- The available (free) chlorine of treated water can be measured with a pool tester.

### **Tapstand Kit**

- ERU type tapstand,
- Includes 12 m 32mm PE-pipe and couplings to connect to a 63mm pipeline.

# Flexible tank for water transport, 5m<sup>3</sup>, bladder type

- Heavy-duty bladder tank to fit on a flat bed truck, or to use as a normal storage tank
- Size of the truck bed should be minimum 4m long by 2m wide.
- The tank is fitted with heavy duty 50mm polyester straps
- Construction special for high pressure resistance when used as truck tanker



#### **Tool Kits for pumps and tanks**

• Kit contains required tools for pump and tank maintenance.

#### Water quality testing kit

#### Chlorine testing kit

- Chlorine & pH Tester Pack (Pool tester) comprising: Pocket type chlorine and pH test kit,
- Includes chlorine testing consumables: Tablets DPD1 and DPD3, one box of each 500 tablets (50 blister packs of 10 tablets)



#### PH tester

- Simple tester with wide range pH4,5-9Model: Merck Aquamerck 1.08038.001
- pH Test: method colorimetric
- consumables: for 100 tests



# Set pH strip

• pH strips in overall, acid and alkaline range



#### Conductivity tester

• Electronic conductivity tester with conductivity solution for calibration



# Delagua portable microbiological laboratory

- Water Quality Tester Packs comprised of incubator and testing equipment able to perform: fecal coliform bacteria count, residual free and total chlorine tests, pH tests, turbidity test, and temperature tests.
- Battery and charger included.



#### Jerrican, plastic, 10 l, collapsible

- Square or flat bag shape foldable 10 litre jerrycans for individual or family water collection and storage.
- For emergency situations only





### Bucket, plastic, 14L, clip-on cover, 50mm outlet

- Water storage protected from contamination with the clipped cover and cap.
- Easy to fill up and pour with the 50mm opening. Easy to carry by hand with a strong flat handle and on the head with a round bottom shape and a reinforcement ring.
- Efficient cleaning possibility by removing the cover and having inner rounded edges.
- Stacking possibilities to lower transport costs (4320 pieces in 1 TC20ft with pallets, 4900 pieces in 1 TC20ft without pallet), 160 pieces per m³.
- Strong and durable quality for a long life span in tough conditions.



## Low flow water dispenser

- A handwashing container and dispenser that is suitable for scaling up handwashing initiatives, especially in emergencies where time is short and water is scarce
- The low flow rate of 2 litres in 16 minutes allows for adequate cleansing, while creating a greater incentive for use in water-scarce situations.
- It is possible to have logos printed on the container.
- The dispenser fits soft drink bottles, allowing longer-term use in case of damage to the container.
- The container is made from durable U/V-resistant polyethylene.
- The nozzle comes complete with a collapsible container, resulting in cost-effective shipping, while
  also ensuring that large quantities of suitable containers do not have to be sourced elsewhere. This is
  especially applicable in emergencies.



#### **Rapid Latrine**

#### Requirements:

- Easy to erect (unskilled labour after instruction)
- Light weight /little volume for transportation
- Durable for min. 3 up to 6 months
- Able to withstand weather, wind conditions
- Low cost
- Ventilation
- Door/entrance without zip
- Easy to clean material
- Non-see-through material (even not translucent)

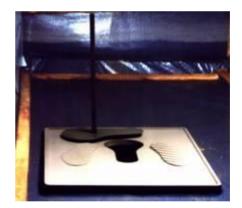


#### **Latrine Material**

#### Squatting plate, polypropylene, + drop-hole cover

- Manufactured in vermin and termite proof polypropylene. Lightweight and strong with rigid, smooth surface for easy cleaning. Feet placement areas designed to prevent
- Can be used on shallow or deep trench up to 600mm wide with additional support and bearing onto the ground provided by poles or timbers at least 1200mm long.
- The squatting plates may also be used over drilled or augered holes up to d. 450mm without any additional support.
- The plates may be used on a supporting slab or planks of timber and earth, over large pits to provide a hygienic surface with a well fitted lid.
- Each stack contains: -10 x Squatting Plates -10 x Squatting plate drop hole covers with handles -80 x cable ties -Packing list, users notes & leaflet. 1 pallet contains 6 stacks.





#### Plastic tarpaulins (4x60m)

- Reinforced flexible tarpaulins for temporary shelter or personal protection.
- The sheet has 6 reinforcing bands to provide reinforced attachment points. Attachment systems, such as ropes, nails, etc... should take advantage of the reinforcing bands.
- Expected life span of 2 years in the strongest tropical condition.
- The rolls are packed individually. The tarpaulins are packed in bales of 10 units.

#### Latrine Sanplat mould box

Box includes drop hole moulds in plastic, belt moulds of 1.2 m and 1.5 m diameter, belt clips, arch moulds of 1.2 m and 1.5 m diameter, foot rest moulds and frames 60x60 cm



#### **Backpack Sprayer, Manual (15L)**

- 15 l plastics tanks
- Impact resistant
- Operating pressure 6 bar, external pumping
- Large filling opening with strainer
- Screw on pump handle for safe use
- Heavy duty brass spray tube
- Original Duro mist nozzle
- Holder for lance /pump lever
- 2 years guarantee



#### Set of protective clothes for spraying

#### Each set contains:

- Overalls different sizes (M, L, XL)
- · Safety goggles
- Pairs heavy duty working gloves
- Pair heavy duty rubber gloves
- Felt masks (FPP2 filter)
- Pair rubber boots different sizes (7, 8, 9)

#### **Insecticides**

- Deltamethrine
- Water dispersible powder: 2.5%



#### Soap

- Can be purchased locally
- Toilet soap in bar form, not harmful for the skin, from vegetable or animal fat, not containing pork fat.
- Product must be fit for human utilisation and be of sound, fair and marketable quality, of homogeneous colour, size, and shape, without any disagreeable odours and flavours.

For more information, please contact:

Water and Sanitation Unit, Health and Care Department International Federation of Red Cross and Red Crescent Societies P.O. Box 372, CH-1211 Geneva 19, Switzerland Tel.: +41 22 730 4222, Fax: +41 22 733 0395

E-mail: secretariat@ifrc.org, Website: www.ifrc.org

