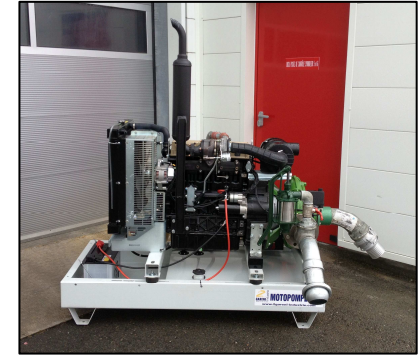


# KIT, MOTOR PUMP High Press. / High Flow, Diesel, 80m³/h - 70 HMT

**KWATZFR0167**



Number of parcels : 2

Weight : 906kg

Volume : 3329dm³

Price : 16 500€

## DEFINITION

High pressure and high flow motor pump used as clear water surpressor for important differences in level or extensive pipe networks ;  
Kit used in large camp settings (> 15000 persons) to create distribution system ; Adaptable to most water networks (different  $\varnothing$  and pipe type) ; This kit is meant to supply water beyond the pre-treatment station

## SPECIFICATIONS / DESCRIPTION

### ▪ MOTORPUMP

CLOSED ARTICLE [*Kohler KDI 2504TM + Rovatti F33P100K*]

Suction : Flange ND100 (4") ; Delivery : Flange ND80 (3")

Pump + engine mounted on a chassis

Non self-priming

Maximum total head : 70m

Maximum yield : 130m³/h

#### ▪ KIT

The kit is composed of 9 modules containing all the accessories and consumables required for the functioning and maintenance of the pump

- Module Consumables 1000 hours for Kohler KDI2504TM
- Module Assembly, Suction Side, 4" ND100
- Module Assembly, Delivery Side, 3" ND80
- Module Hand Pump, for priming
- Module Connection Potable water network 3", ND80
- Module Wheel Towing
- Module Protection Frame + Grid
- Module Flat Hoses 4" 400m
- Module Couplings adaptation

#### ▪ RELATED MODULES (optional)

According to the field constraints and initial assessment

- Kit Reservoir 30 m3 metallic frame
- Kit Water Tank 45-70-90m³ (Even / Oxfam)
- Module Additional flat hoses 4" (ring of 400m)
- Kit Dosing station (dosapack) under development

#### ▪ TRANSPORT FEATURES

Dismountable trailer

Compatible with Land Cruiser hook

Approved for concrete road/track

Fit between Land Cruiser wheel passage

Fit into a Cessna Caravan plane (specific measures for loading)

#### ADVICE ON LOCAL PURCHASE

This kit was designed and developed by MSF and is not available locally. Local purchase might be possible for some parts (refer to your technical referent)

#### INSTRUCTION OF USE

Kit supplied with detailed operator manuals (a technician should be able to do the installation and to run the motor pump). Train the staff in proper operation and maintenance.

#### Remarks

The high flow and high pressure motor pump kit was designed to be used during the first phase of an emergency (3-6 months). However considering the operating costs and the need of supervision, it can be considered for long term water supply project.

## Caution

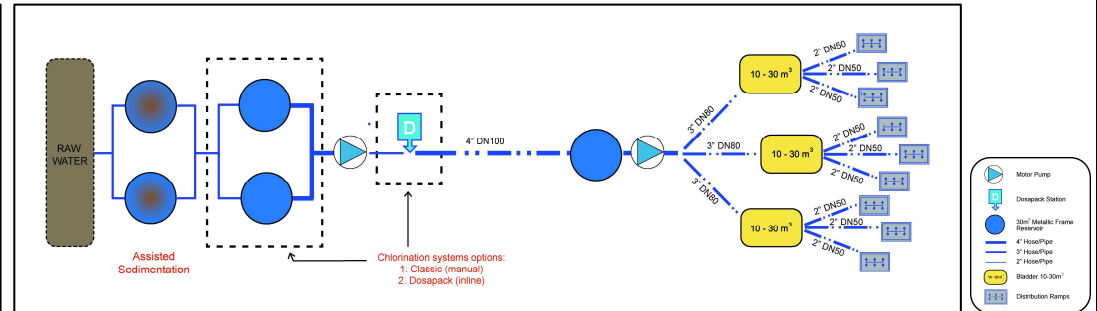
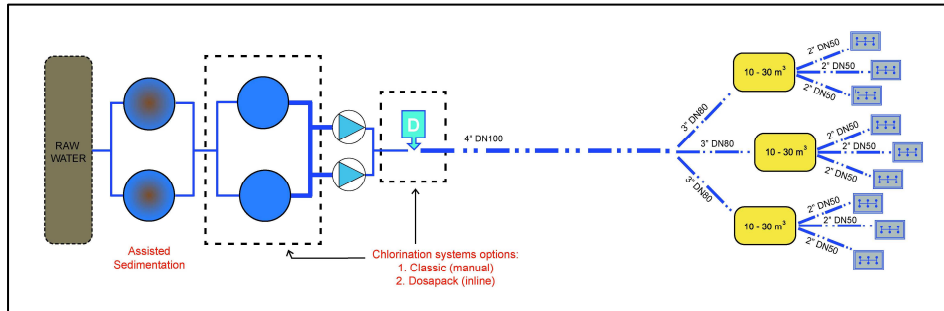
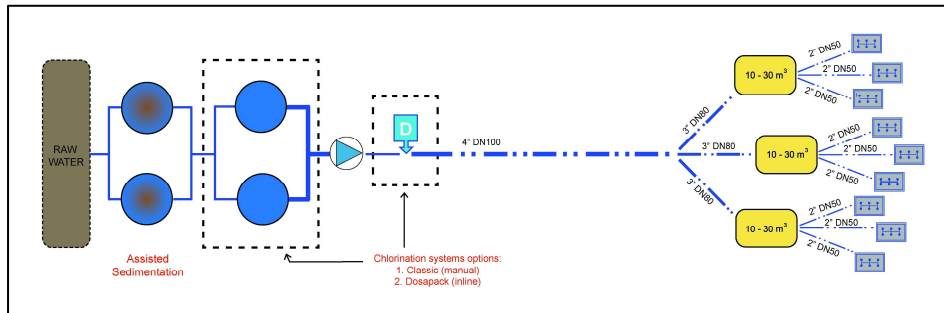
To be used for pumping clear water only (turbid water would damage the pump)

Before you put the motor pump into operation for the first time, make sure it is installed on a flat surface and located in a ventilated and rainproof shelter

The motor pump is delivered without oil, coolant and battery acid

Requires special precautions when loading

Possible mountings :



Specific precautions to be taken when operating the motor pump especially when mounted in series

## ARTICLE TO BE JUSTIFIED

You will need to collect the following datas before ordering the kit

- Quantity of water needed (m³/h or m³/day) according to the target population
- Topography (refer to GIS Unit for support)
- Desired length of the network

Specific requirements :

- Human resources : trained operator, experienced technician
- Energy : need a source of electricity (generator)

## References tools

Kit supplied with user manuals and documentation

Engine : refer to “*KOHLER KDI 2504TM User Manual*” + “*Instructions for installation and use Box R713*”

Pump : refer to “*ROVATTI Instruction of use and maintenance Serie FL - FK - FP - FQ - FS - FNSF*” + “*Declaration of conformity*”

2Gareni : refer to “*Notice d’instructions - Groupe motopompe et moteur d’entrainement*”

For more detailed informations and instructions refer to :

- *Public Health Engineering in Precarious Situations*, chapters T.B. 2.25 *Centrifugal pumps* and T.B. 2.28 *Motor pump kit installation*
- *Gravity Flow Support*, MSF-F
- *Fiches techniques d’utilisation des motopompes*, Juin 2001, Gilles Isard, MSF-F
- W.H.S. Technical Support Department in OCG and/or to W.H.S. Technical Advisor in MSF Logistique

## DETAILED LIST OF ARTICLES

MSF Code	Description	Unit Qty	Tot Qty
CWATZFR0799	Motor pump diesel, 80m3/h maxi. 70 HMT max.	1	1
<b>KWATZFR0161</b>	<b>MODULE CONSUMABLES 1000 hours for Kohler KDI2504/TM</b>	1	1
PXLOZFR0110	2175 320 FUEL FILTER, Kohler engine KDI 2504/TM	10	10
PXLOZFR0111	2175 309 OIL FILTER, Kohler engine KDI 2504/TM	10	10
PXIVZBD0011	8031 211 AIR FILTER Ext., Engine 8035 (pump 2GI)	5	5
PXLOZFR0109	2440 162 ALT/VENT BELT, Kohler engine KDI 2504/TM	5	5
PXLOZFR0003	SQUARE PLAIT GASKET 12x12mm, per meter	6	6
CWATZBD0042	(strainer, non-return, 4" ND100) SIEVE, spare	1	1
CWATSTAI4W-	STRAINER, non-return, 4" ND100	1	1
CWATHOSS4SC	HOSE, SPIRAL, 4" + set of couplings mounted, ø int. 100, NP4, 8m	1	1
CWATCOUR34H	(symm. half coupling) COUPLING, REDUCER, 3"/4" ND80/ND100 + lock	2	2
CWATTOOL4SP	HOOK SPANNER, for Guillemin coupling, 2"/3", ND50/ND80	2	2
F.75.17	ANGLED OPEN-SOCKET WRENCH 6x6 POINT, 17mm	1	1
F.75.19	ANGLED OPEN_SOCKET WRENCH 6x6 POINT, 19mm	1	1
F440.10	COMBINATION WRENCH 12-POINT ANGLED 15°, 10mm	1	1
F440.13	COMBINATION WRENCH 12-POINT ANGLED 15°, 13mm	1	1
F440.18	COMBINATION WRENCH 12-POINT ANGLED 15°. 18mm	1	1
CWATZFR0839	HOSE TUACQUA 3" + 2 SPHERICAL COUPLING F, WP 20 bar, 2m	1	1
CWATJERR10-	JERRYCAN, 10l, plastic (float for strainer)	1	1
CWATCOUF40G	(Flange coupling 4" ND100), GASKET	2	2
CWATCOUF30G	(Flange coupling 3" ND80), GASKET	2	2
CWATCOUI3G-	(Spherical coupling 3"ND80), Gasket	3	3
CSHEROPE05P	ROPE, ø 5mm, POLYPROPYLENE, twisted, per meter	100	100
CWATCOUH3Z-	(symm. half coupling 3" ND80), GASKET	5	5
CWATCOUH4Z-	(symm. half coupling 4" ND100), GASKET	5	5
CWATTOOLTER	TEFLON TAPE, 19mm wide, 0,2mm thick, roll of 15m	1	1
TVEMZFR0067	(HP motor pump) TUBE GALVANIZED WITH FIXING PLATE	1	1
CWATCOUY3H-	(symm. half coupling) Y COUPLING 3" ND80 x3 + lock	1	1
CWATCOUP3H-	(symm. half coupling 3"), PLUG WITH CHAIN	1	1
<b>KWATZFR0168</b>	<b>MODULE ASSEMBLY SUCTION SIDE, 4" ND100</b>	1	1
	Flange seal, ND100	1	
	Flange coupling 4", ND100, threaded female, galva	1	

	Bend coupling 4", ND100, 45°, threaded male/female, galva	1	
	symm half coupling 4" ND100, threaded male + lock	1	
	Hose spiral 4" + mounted couplings, ø 100 NP4, 8m (with high pressure band clip)	1	
	Assembly, Strainer, Non-Return, 4", ND100 +	1	
	(strainer, non-return, 4", ND100), Sieve, spare	1	
	Jerrycan, 10L, plastic (floater)	1	
	Rope, ø5mm, polypropylene, twisted, per meter	100	
<b>KWATZFR0169</b>	<b>MODULE ASSEMBLY DELIVERY SIDE, 3" ND80</b>	1	1
...	Flange seal, ND80	1	
	Flange coupling, ND80, female	1	
	Nipple coupling, ND80, threaded M/M, galva	1	
	T coupling, 3", ND80, threaded F/F/F, galva	1	
	Reducer coupling, 3" (ND80)-2"1/4 (ND60), threaded M/F, galva	1	
	Reducer coupling, 2"1/4 (ND60)-1"1/4 (ND32), threaded M/F, galva	1	
	Union coupling 1"1/4 (ND32), threaded M/M, galva	1	
	Ball valve, 1"1/4 (ND32), threaded F/M, brass	1	
	Elbow coupling, 1"1/4 (ND32), 90°, threaded F/F, galva	1	
	Bend coupling 3", ND80, 45°, threaded M/F, galva	1	
	Spherical coupling 3" (ND80), threaded M, galva	1	
	Seal for spherical coupling	1	
	Assembly, high pressure hose <i>Tuflonspir</i> 3" (ND80) + spherical couplings F, NP10, 2m	1	
<b>KWATZFR0170</b>	<b>MODULE HAND PUMP, for priming HP motor Pump</b>	1	1
	Grillot AF80 manual pump		
	Reducer coupling 1"1/4 (ND32) – ¾" (ND20), threaded F/M, galva		
	Hose gardening ¾" (ND20) with clamp ring		
<b>KWATZFR0171</b>	<b>MODULE CONNEXION POTABLE WATER NETWORK 3" for HP motor pump</b>	1	1
	Nipple coupling 3", ND80, threaded M/M, galva	1	
	T coupling, 3", ND80, threaded F/F/F, galva	1	
	Spherical coupling 3", ND80, threaded M, galva	1	
	Seal for spherical coupling	1	
	Union coupling 3", ND80, threaded M/F, galva	1	
	Gate valve 3", ND80, threaded F/F, brass	1	
	Symm half coupling 3", ND80, threaded M + lock	1	
	Non return valve, 3" (ND80), threaded F/F, brass	1	
	(symm half coupling) Y, 3", ND80 x3 + locks	1	
	(symm half coupling) Plug with chain, 3", ND80	1	
<b>KWATZFR0173</b>	<b>MODULE FRAME + PROTECTION GRID FOR HP MOTORPUMP</b>		

