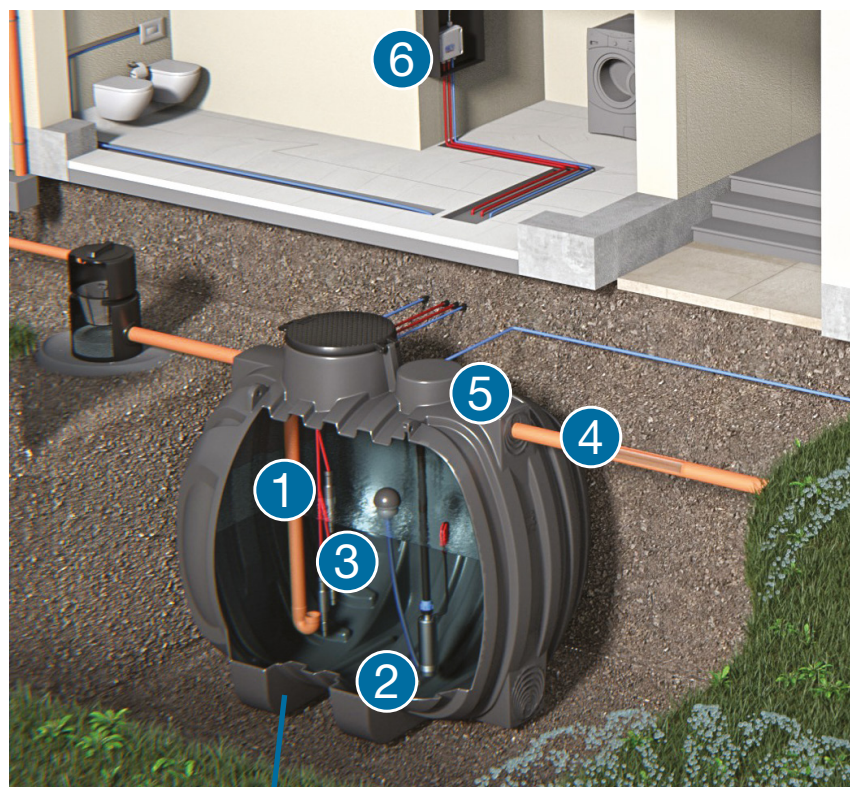
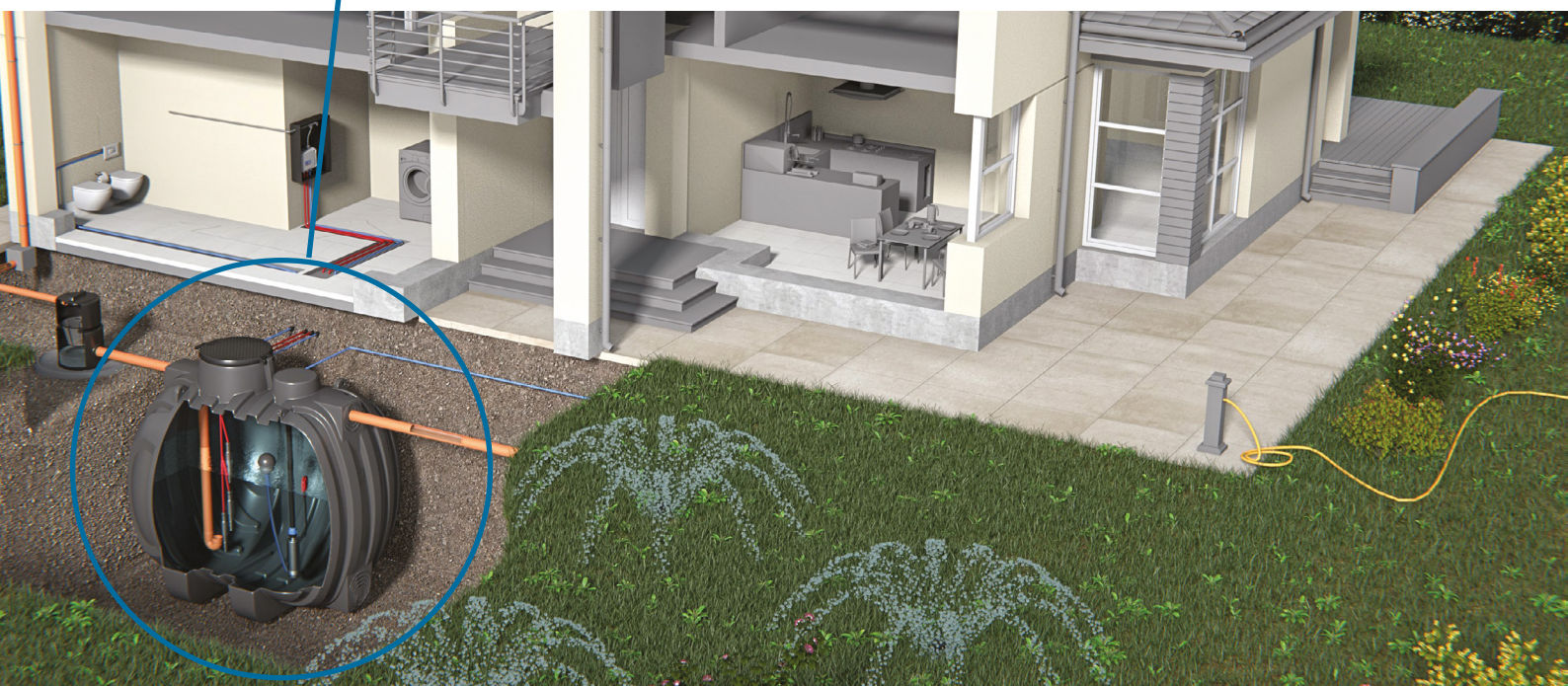


HABITA IRRIGATION STATIONS



- 1 PVC INLET STILLING PIPE
- 2 SUBMERSIBLE PUMP WITH SUBMERGED SUCTION INLET
- 3 WATER LEVEL CONTROL PROBES
- 4 PVC OVERFLOW PIPE
- 5 PP PUMP OUTLET
- 6 EXTERNAL MODULE WITH ELECTRIC PANEL, SOLENOID VALVE AND ISOLATING SYSTEM



SPECIFICATIONS

TECHNICAL CHARACTERISTICS

HABITA irrigation stations consist of corrugated underground tanks. They are fitted with a PVC inlet stilling pipe and overflow pipe, PP (polypropylene) outlet pipe and connectors, submersible electric pump with steel rapid extraction system, level probes, under head submerged suction inlet with float and filter, polyethylene (PE) delivery pipe, electric control panel, 3-way solenoid valve and flow breaker kit to top-up with mains water in the absence of rainfall.

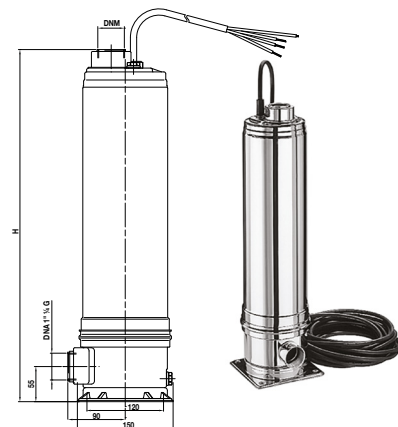
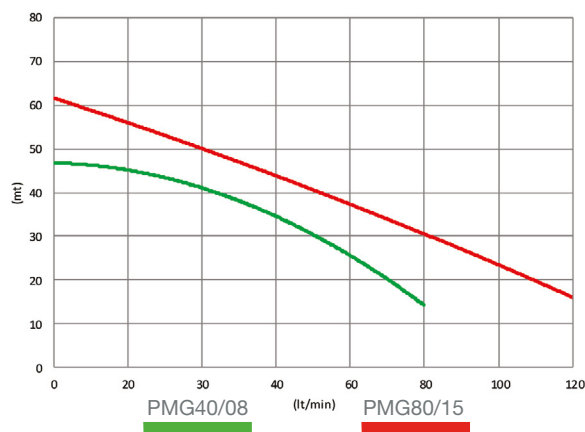
USE

rainwater harvesting and re-use for irrigation purposes, feeding automatic (telescopic irrigators, sprinklers, sprays, etc...) or manual systems (taps, fountains,...) and for domestic use (filling toilet cisterns, washing cars and outdoor surfaces).

OPERATION

the system allows storage and delivery of between 3000 and 10000 litres of water. Rainwater runoff from roofs (or other exposed surfaces) enters the storage tank through the inlet pipe, after flowing through a filtering system (recommended). When the tank is full, any excess water is sent to the main drainage system through the overflow pipe. A submersible electric pump is installed in the tank with level control probes which, through a control unit and a 3-way solenoid valve, allow the tank to be replenished directly from the mains water supply. By using this engineering solution, the customer will never have problems caused by a shortage of water in his storage tanks. Furthermore, with the pump installed inside the tank, there is no noise, no space taken up by other smaller tanks, no unsightly boxes installed near the storage tanks, etc.

DESCRIPTION OF SUPPLY ELECTRIC PUMP CHARACTERISTICS



Item	Power		Amp. 230V A	μF	Ø inches	H mm	Weight Kg	Flow rate		Head M
	HP	Kw						l/min	m³/h	
PMG40/08	0,8	0,6	4,3	16	1" ¼	513	14,6	20	1,2	43,3
								80	4,8	13,4
PMG80/15	1,5	1,1	7,5	31,5	1" ¼	564	17,7	30	1,8	57
								120	7,2	19

MANAGEMENT KIT (fig. A)

Item

MSIRHMT

SUCTION KIT (fig. B)

Item

N150114

Fig. A

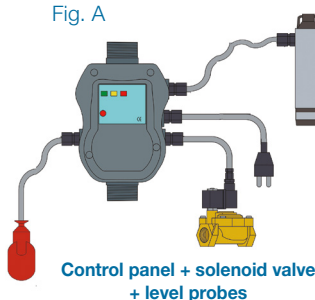
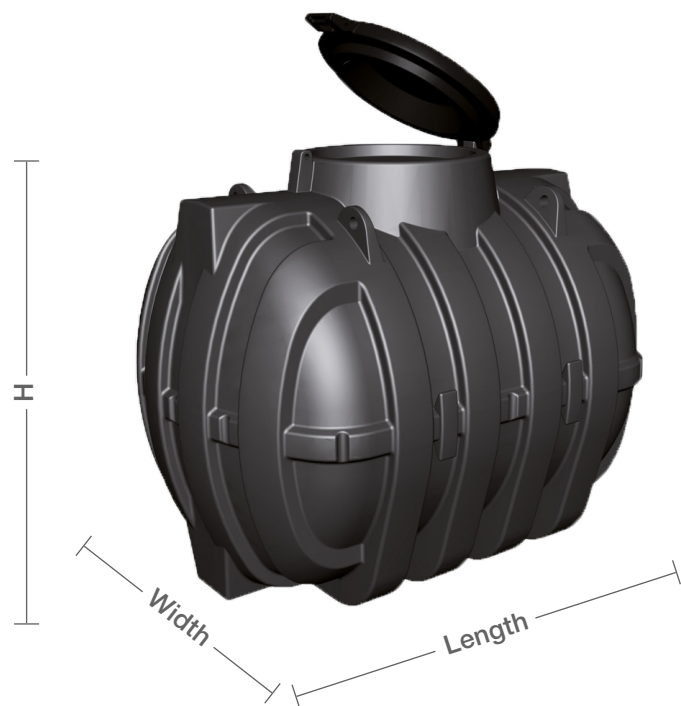


Fig. B



HABITA IRRIGATION STATIONS



MODEL

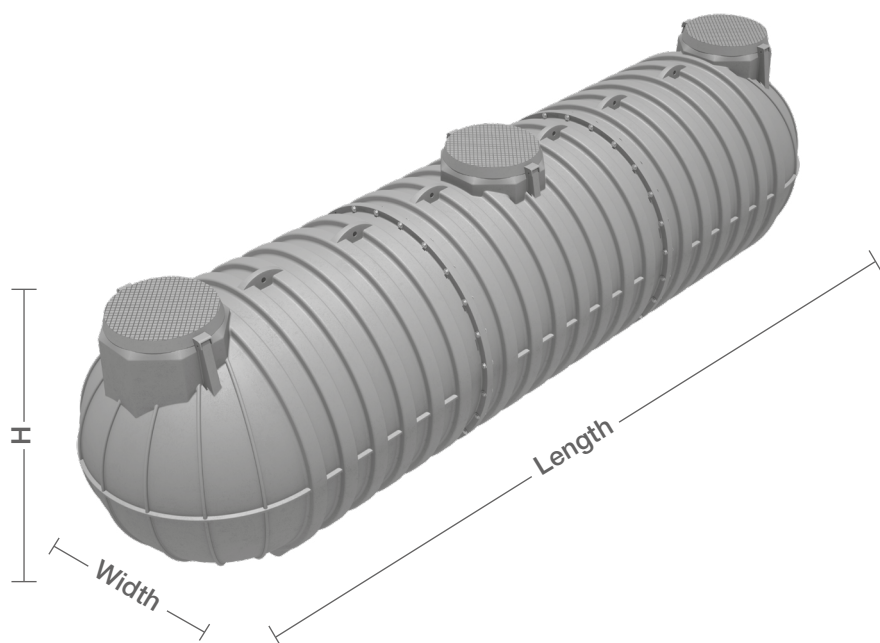
CORRUGATED



MODULAR



HABITA IRRIGATION STATIONS MODULAR



Item	Mod.	Capacity l	Length cm	Width cm	H cm	HI cm	HO cm	ØI mm	Ø overflow mm	Ø O mm	Ø top-up mm	Ø cover cm	Cover	Extension	Pump
SIR3100H		3000	209	150	172	160	139	125	125	50	50	63	TAP800	PP77	PMG40/08
SIR3120H		3000	209	150	172	160	139	125	125	50	50	63	TAP800	PP77	PMG80/15
SIR5100H		5000	242	192	210	194	173	125	125	50	50	63	TAP800	PP77	PMG40/08
SIR5120H		5000	242	192	210	194	173	125	125	50	50	63	TAP800	PP77	PMG80/15
MTSIR9100H		9000	552	155	171	151	148	125	125	50	50	63	TAP800	PP77	PMG40/08
MTSIR9120H		9000	552	155	171	151	148	125	125	50	50	63	TAP800	PP77	PMG80/15
SIR10100H		10000	278	243	266	247	223	125	125	50	50	63	TAP800	PP77	PMG40/08
SIR10120H		10000	278	243	266	247	223	125	125	50	50	63	TAP800	PP77	PMG80/15
MTSIR12100H		12000	718	155	171	151	148	125	125	50	50	63	TAP800	PP77	PMG40/08
MTSIR12120H		12000	718	155	171	151	148	125	125	50	50	63	TAP800	PP77	PMG80/15
ITSIR13100H		13000	501	210	220	190	194	125	125	50	50	63	TAP800	PP77	PMG40/80M
ITSIR13120H		13000	501	210	220	190	194	125	125	50	50	63	TAP800	PP77	PMG80/15M
ITSIR15100H		15000	562	210	220	190	194	125	125	50	50	63	TAP800	PP77	PMG40/08
ITSIR15120H		15000	562	210	220	190	194	125	125	50	50	63	TAP800	PP77	PMG80/15
ITSIR18100H		18000	668	210	220	190	194	125	125	50	50	63	TAP800	PP77	PMG40/80M
ITSIR18120H		18000	668	210	220	190	194	125	125	50	50	63	TAP800	PP77	PMG80/15M
MTSIR18100H		18000	1051	155	171	151	148	125	125	50	50	63	TAP800	PP77	PMG40/08
MTSIR18120H		18000	1051	155	171	151	148	125	125	50	50	63	TAP800	PP77	PMG80/15
ITSIR20100H		20000	727	210	220	190	194	125	125	50	50	63	TAP800	PP77	PMG40/80M
ITSIR20120H		20000	727	210	220	190	194	125	125	50	50	63	TAP800	PP77	PMG80/15M
ITSIR22100H		22000	788	210	220	190	194	125	125	50	50	63	TAP800	PP77	PMG40/08
ITSIR22120H		22000	788	210	220	190	194	125	125	50	50	63	TAP800	PP77	PMG80/15
ITSIR25100H		25000	894	210	220	190	194	125	125	50	50	63	TAP800	PP77	PMG40/80M
ITSIR25120H		25000	894	210	220	190	194	125	125	50	50	63	TAP800	PP77	PMG80/15M
ITSIR28100H		28000	953	210	220	190	194	125	125	50	50	63	TAP800	PP77	PMG40/80M
ITSIR28120H		28000	953	210	220	190	194	125	125	50	50	63	TAP800	PP77	PMG80/15M
ITSIR30100H		30000	1014	210	220	190	194	125	125	50	50	63	TAP800	PP77	PMG40/08
ITSIR30120H		30000	1014	210	220	190	194	125	125	50	50	63	TAP800	PP77	PMG80/15
ITSIR33100H		33000	1120	210	220	190	194	125	125	50	50	63	TAP800	PP77	PMG40/80M
ITSIR33120H		33000	1120	210	220	190	194	125	125	50	50	63	TAP800	PP77	PMG80/15M
ITSIR36100H		36000	1240	210	220	190	194	125	125	50	50	63	TAP800	PP77	PMG40/08
ITSIR36120H		36000	1240	210	220	190	194	125	125	50	50	63	TAP800	PP77	PMG80/15
ITSIR40100H		40000	1346	210	220	190	194	125	125	50	50	63	TAP800	PP77	PMG40/80M
ITSIR40120H		40000	1346	210	220	190	194	125	125	50	50	63	TAP800	PP77	PMG80/15M

Ø = diameter; H = height; ØI/O = inlet/outlet pipe diameter.

IRRIGATION STATIONS

TECHNICAL CHARACTERISTICS

Rototec has designed a line of products specifically for simple and efficient rainwater harvesting. These products, together with the Rototec underground tanks (above-ground on request), allow rainwater to be harvested for “less noble” uses: watering gardens, washing outdoor surfaces and cars, flushing toilets, etc.

The irrigation stations consist of underground tanks with rainwater inlet and overflow pipes and an electric submersible pump with protection panel for delivering the stored water under pressure.

A typical evolution of the irrigation station is the **HABITA irrigation station** in which the submersible electric pump is linked to an automatic control unit which, thanks to the probes installed in the tank, replenishes the system from the mains water supply through a solenoid valve during periods of low rainfall.

Another system, similar to the first, is the **HABITA PRESS module** in which the above-ground installation of the self-priming pump, control unit and motorised valve in a single module is used to replenish the system from the mains water supply.

Finally, in the case of an existing rainwater harvesting system, the **REINTEGRA module** can be used to top-up the water stored in the tank.

APPLICATIONS

- **Rainwater harvesting and re-use** for re-use in irrigation, washing of external surfaces and cars and to fill toilet cisterns.
- **Creating volumes of stored water** and their subsequent delivery into the domestic system

USE AND MAINTENANCE

All maintenance operations must be carried out with the pump disconnected from the power supply. The pump must be disconnected by trained technicians, so that there is no risk of it starting accidentally.

The maintenance recommendations provided in these instructions are not to be understood as “do-it-yourself” operations, as they require specific technical knowledge. A service contract with a specialist technician will ensure you receive the best technical assistance at all times.

- When carrying out maintenance operations and cleaning of the tank and any components installed inside it, always comply with the requirements indicated in the safety regulations about temporary or mobile work sites;
- in the event of a maintenance operation of any kind, always comply with the safety regulations regarding operations within closed waste water treatment areas, and with the general technical procedures applicable;
- keep the area around the tank **free** from any material that might obstruct or impede the maintenance work;
- always work in pairs when carrying out tank inspection and cleaning operations, and wear suitable safety equipment (safety harness, lines, gloves,...);
- check the tank **every 6 months**. In the presence of high levels of sludge, clean the tank with a jet of pressurised water, and if necessary empty the tank.
- check that the inlet, outlet and overflow pipes are not blocked by large solids that prevent the passage of fluid. If any sediment is found, it must be removed. Also check the vent, and if anything is obstructing the free flow of air, remove it.
- check **every 6 months** to ensure that pipes, connectors and gaskets are sealed;

Electric pumps:

- Under normal operating conditions, the electric pumps do not require any maintenance operations.
- In the case of permanent installations, an annual inspection is recommended. Remove any residual dirt that may have accumulated on the command floats.
- Check the state of the electric cable; if it is damaged, contact the **service department**.
- Check the state of the handle and the fixing devices.
- Should it be necessary to **dismantle** a pump for any reason, unfasten the compression fitting on the pump delivery pipe, then extract the pump, with the aid of the lifting chain.

WARNINGS

RISK OF ELECTRIC SHOCK:

- Do not transport or handle the pump using the electric power supply cable;
- Before connecting up the pump, make sure that the power supply network is **properly earthed**;
- Before carrying out any type of control or maintenance operation, **disconnect the power supply**;
- Never start the pump if you are in contact with the liquid to be pumped;
- Always ensure that the pump is checked and repaired **by authorised personnel only**. Unauthorised repairs might make the product unsafe and/or dangerous;

SEVERE RISK TO PERSONS AND/OR PROPERTY:

- If the electric pump is not properly fixed, it may become unsteady or topple over on start-up due to the starting torque;
- **Never** move the electric pump when it is operating or with the power cable connected to the power supply;
- Never use the electric pump to **pump dangerous liquids** (toxic, flammable, etc...)
- **Never put your hands** or other objects into the pumped liquid inlets or outlets in the vicinity of the impellers, if present, as these are moving parts;

RISK OF DAMAGE TO THE PUMP OR SYSTEM:

- The electric pump must only operate **in a vertical position** (with the motor at the top and the pump section at the bottom);
- Only start the electric pump once it has been installed; **do not attempt a dry start**;
- Do not remove the suction filter, if there is one, for any reason whatsoever;
- On the **three-phase version of the pump**, the correct direction of rotation is indicated by the arrow stamped on the pump body and on the identification plate.

TROUBLESHOOTING

	PROBLEM		CAUSE		SOLUTION
	The electric pump does not work, the motor does not turn		no power supply		- check the power supply
			circuit broken		- check the circuit
			pump blocked		- check the state of the electric pump
			float blocked		- check that the float is free and that it reaches the ON level
			impeller blocked		- free the impeller from any obstructions
			thermal cut-out triggered		- the pump will re-start automatically
			short-circuit		- check that the amp range corresponds with that of the pump
	The motor turns, but the electric pump does not work or the flow rate is restricted		bad connections (three-phase model)		- reverse the phase connections
			delivery pipe or suction filter partially blocked		- remove the obstructions
			impellers worn		- replace the impellers
			check valve blocked		- clean the valve
			groundwater level has dropped		- lower the pump, taking into account the minimum head
			turns in the wrong direction		- reverse the direction of rotation
			project values have changed		- check that the required head, linear distance or capacity have not changed
			pipes are leaking		- check that the pipes are undamaged

For further information on how to deal with malfunctions please see the information provided in the manual for installation and use of the electric panel supplied inside the panel itself.