

Engineering Specification

Job Name _____
 Job Location _____
 Engineer _____
 Approval _____

Contractor _____
 Approval _____
 Contractor's P.O. No. _____
 Representative _____

RainCycle™ RCS-7100

Rainwater System Package - Indirect Pumping, Above Grade Cistern, Remote Transfer Pump Overview

RainCycle™ RCS-7000 Series packages are stand-alone building scale systems for collecting, storing, filtering, and treating roof-collected rainwater for non-potable end uses. This series integrates all the rainwater system functions in a single package.

Specification

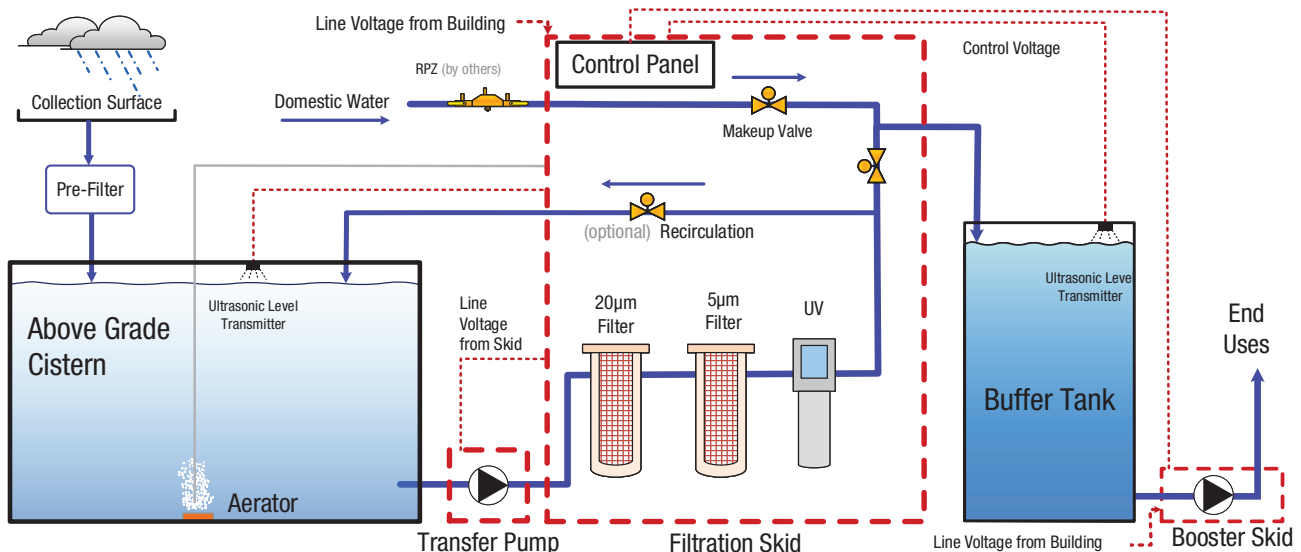
The **7100 Series** captures, stores, filters, disinfects, and distributes roof-collected rainwater. Rainwater flowing from a clean roof surface is routed to an inlet pre-filter and then to an above-grade cistern. The pre-filter mitigates the intrusion of larger coarser material such as leaves and twigs. A flooded suction pump, located external to the cistern, transfers the rainwater through a filtration skid where it is temporarily stored in a buffer tank. In the **7100 Series**, the transfer pump is located on its own skid. A separate pump skid, located downstream of the buffer tank, boosts the filtered/disinfected water to the end use. In the event of low water levels in the cistern or a mechanical failure, a skid-mounted, pre-installed motorized makeup valve allows domestic water to flow into the buffer tank making it available for distribution.

Exclusive Features

- A proprietary control algorithm allows the booster pumps to function without a hydropneumatic tank.
- Field adjustable pipe break detection technology is included in the controller to shutdown pumps during unusually high flow conditions which are indicative of a pipe break.
- Factory changes require rolling passwords. This allows only authorized users to make factory setting changes.

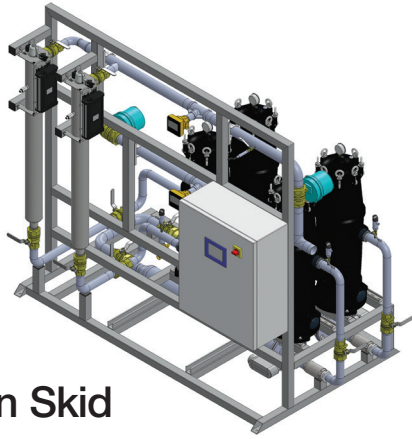
Other System Features:

- Filtration Rated for up to 100 GPM
- 304 Stainless Steel Headers, Branch Piping and Frame
- 2-stage Cartridge-Type, Low Maintenance Filtration in a Non-Metallic Filter Body
- Fully Controlled, Auto-Dim UV
- Filtration Differential Pressure Monitoring
- Tank Level Monitoring
- UL 508a Control Panel with PLC and 7" Color Touch Screen
- All Alarms with Audio/Visual Display, Time-Delayed Proof of Condition, Auto-Reset and Control Logging
- RS485, Modbus/BACNet/LonWorks/OPC-UA (native) Communication



Watts product specifications in U.S. customary units and metric are approximate and are provided for reference only. For precise measurements, please contact Watts Technical Service. Watts reserves the right to change or modify product design, construction, specifications, or materials without prior notice and without incurring any obligation to make such changes and modifications on Watts products previously or subsequently sold.





Filtration Skid

Pre-Filter

Suffix	Description	Check One
FBO	Pre-filter (by others)	<input type="checkbox"/>
FIB	Inside Building	<input type="checkbox"/>
FOV	Outside Building in Vault	<input type="checkbox"/>
FOB	Outside Building Direct Bury	<input type="checkbox"/>
		Diameter/Area
Inlet Pipe size to Pre-Filter		<input type="text"/>
Roof Collection Area		<input type="text"/>

Cistern (Tank)

Suffix	Description	Check One
CBO	Cistern (by others)	<input type="checkbox"/>
CAG	Above Grade	<input type="checkbox"/>
CBG	Below Grade	<input type="checkbox"/>
		Volume
Tank Volume (gallons)		<input type="text"/>

Filtration Flow Rate

Suffix	Description	Check One
012	12 GPM	<input type="checkbox"/>
016	16 GPM	<input type="checkbox"/>
020	20 GPM	<input type="checkbox"/>
025	25 GPM	<input type="checkbox"/>
040	40 GPM	<input type="checkbox"/>
050	50 GPM	<input type="checkbox"/>
080	80 GPM	<input type="checkbox"/>
100	100 GPM	<input type="checkbox"/>

NOTICE

The information contained herein is not intended to replace the full product installation and safety information available or the experience of a trained product installer. You are required to thoroughly read all installation instructions and product safety information before beginning the installation of this product.

Transfer Pump Quantity

Suffix	Description	Check One
T1	Simplex Pump (not available with 80 or 100 GPM Filtration)	<input type="checkbox"/>
T2	Duplex Pump	<input type="checkbox"/>

System Voltage

Suffix	Description	Check One
208	208V or 230V/3ph/60hz Supply Power	<input type="checkbox"/>
460	460V/3ph/60hz Supply Power	<input type="checkbox"/>
575	575V/3ph/60hz Supply Power	<input type="checkbox"/>

Communication

Suffix	Description	Check One
NC	None	<input type="checkbox"/>
MB	Modbus RTU (RS-485)	<input type="checkbox"/>
BN	BACnet IP or MSTP	<input type="checkbox"/>
CU	OPC-UA	<input type="checkbox"/>

Configurable Options

Suffix	Description	Check All That Apply
DI	Dye Injection	<input type="checkbox"/>
RC	Recirculation Valve	<input type="checkbox"/>
AE	Aeration System	<input type="checkbox"/>
FM	Flow Meters	<input type="checkbox"/>
TM	Water Temperature Monitoring	<input type="checkbox"/>
DV	Cistern Diversion Valve	<input type="checkbox"/>
Valve Diameter		<input type="text"/>

Booster Pump

Suffix	Description	Check One
BPO	Booster Pump (by others)	<input type="checkbox"/>
BPW	Include Booster Pump Skid	<input type="checkbox"/>
Number of Pumps		<input type="text"/>
Pump Flow Rate		<input type="text"/>
Pump Head Pressure		<input type="text"/>

WARNING

Rainwater supplied by Watts rainwater systems is non-potable water and is not intended for potable water applications. DO NOT DRINK WATER supplied from Watts rainwater systems and related equipment. Users shall determine the suitability of the product for the intended application before using.

