



RAIN WATER HARVESTING

REUSE WATER

TIGERFLOW Systems, LLC

WHAT IS RAINWATER HARVESTING?

Rain Water Harvesting is an act of accumulating and storing rainwater for reuse. We can utilize this water for various purposes after going through the necessary purification process.

How much rainwater can be harvested?

The total amount of water that is received in the form of rainfall over an area is called the rainwater endowment of the area. Out of this, the amount that can be effectively harvested is called the water harvesting potential.

Water harvesting potential = Rainfall (mm) x Collection efficiency

The collection efficiency accounts for the fact that all the rainwater falling over an area cannot be effectively harvested, because of evaporation, spillage etc. Factors like runoff coefficient and first-flush wastage are taken into account when estimating the collection efficiency, established your application needs first few questions to ask. How clean is the water you plan to use?

Will it come directly from roof or other containment area? A preliminary means of filtration to eliminate large debris should be considered. The containment vessel is the next consideration. How big? Where will it be located? These questions determine the equipment required. Now you can prepare the hydraulic requirements. Calculate friction and elevation needs to establish a system total discharge head. Does your application require another set of filters? How small the solids in the material you need are pumped?

Rain Water harvesting Methods

Rainwater harvesting can be harvested using different methods. It may follow surface harvesting methods or rain water collection methods which are explained below:

- Rooftops: In this method, rooftops are used for collecting the water. If buildings with impervious roofs are already in place, the catchment area is effectively available free of charge and they provide a supply at the point of consumption.
- Paved and unpaved areas i.e., landscapes, open fields, parks, storm water drains, roads and pavements and other open areas can be effectively used to harvest the runoff. The main advantage in using ground as collecting surface is that water can be collected from a larger area. This is particularly advantageous in areas of low rainfall.
- Water-bodies: The potential of lakes, tanks and ponds to store rainwater is immense. The harvested rainwater can not only be used to meet water requirements of the city, it also recharges groundwater aquifers.
- Storm-water drains: Most of the residential colonies have proper network of storm water drains. If maintained neatly, these offer a simple and cost effective means for harvesting rainwater.



References:
A Water Harvesting Manual For Urban Areas.
Centre for science and Environment.

WHY IS TIGERFLOW THE BEST CHOICE?

BENEFITS

- Single source responsibility
- Certificate of Product Liability Insurance
- Prefabricated and factory tested - NIST Traceable Test Facility
- UL/C-UL Listed Packaged Pumping Systems (QCZJ)
- ARCSA 63 Compliant systems
- ASME Section IX Certified Pipe Welders
- AWS D1.1 Certified Structural Welders
- UL Standard 508A - Standard for Industrial Control Panels
- Engineered to Order Designs
- Performance Test

STANDARD FEATURES

- Pumps: Vertical Multistage, Submersible
- Manifolds: 304/316 Stainless Steel
- Isolation Valves: Lug and Grooved Butterfly or Full Port Ball
- Control Valves: Silent Checks Valves or Pressure Reducing/Check Piloted Valves
- Skid: Formed Steel or Structural Steel (Open or Deck-plate)
- Filters: Cartridge, Bag, Sand, and Wye-Strainer
- Controls:
 - » PLC and HMI based controls technology
 - » Constant Speed or Variable Speed
- ASHRAE 90.1-2010 Compliant Control Algorithm

OPTIONS

Water Treatment options

- | | |
|-----------------------------------|---|
| □ Ultraviolet | □ Chemical Feed Systems |
| □ Chlorination | □ Start-up and Field Training |
| □ Media/Ultra Filtration | □ Certified Testing with X-Y Test Reports |
| □ Collection Device | □ Special Materials |
| □ Above ground Polypropylene tank | □ ASME or non-ASME |
| □ Above ground Fiberglass tank | □ Expansion tanks |
| □ Dye Injection | □ Extended Warranty |



QUALITY & RELIABILITY

All TIGERFLOW systems are third party labeled per OSHA requirements. TIGERFLOW systems are Factory tested in a NIST traceable test facility prior to shipment, with start-up and commissioning by factory trained personnel. All plant manufacturing processes are monitored in real time as apart of a rigorous QC/QA program. Extended warranties are available based on customer requirements.

APPLICATIONS

- Plumbing: Flushing toilets & urinals
- Cooling Tower make-up
- Landscape/Irrigation: Sprinklers
- Washing clothes, vehicles etc.
- Fire protection systems
- Agricultural Process Water
- Pubic Fountains
- Ice Rinks
- Other non potable applications

To place your order, please contact:
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Represented by:

