

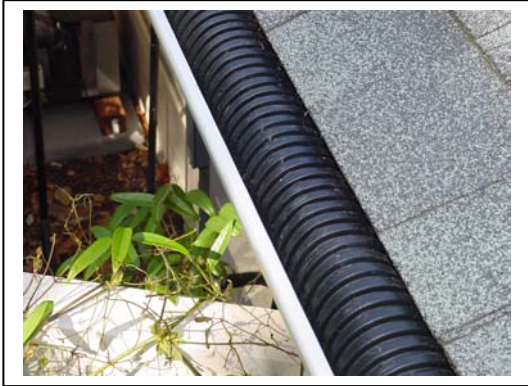


Gutter protection and rainwater
collection systems

from **GLI Systems Inc.**



Versatile and Affordable Gutter Protection



Raintube can be configured to work with any roofing material from asphalt shingle to slate and even works with flat or low-pitch commercial systems.

Residential and commercial

RainTube retrofits neatly into existing installations with no mechanical attachments to the structure or roof.



RainTube protects homes, wineries, horse arenas, barns, storage and industrial facilities. Works well with oversized box, half-round, copper and custom sized gutters.

New, retrofit, and green applications

RainTube used in custom residential applications reduces maintenance and improves the functionality of gutters. Helps prevent damage caused by uncontrolled rainwater runoff increasing life of structure. RainTube improves collection efficiency of rooftop rainwater harvesting and catchment systems. ***A "green" product, RainTube is made from 100% post-consumer recycled materials and is 100% recyclable.***

Raintube provides economical, effective gutter protection for investment properties including offices, apartments, and town-homes. Normal investment payback within 2 years on reduced maintenance alone.



RainTube®

Standard Features:

1. **Effective proprietary design:** Tubular, porous “closed-system” ensures no clogging of central passage. Curved surfaces and concentric grooves maximize hydraulic flow while rejecting debris and minimizing trapped particles.
2. **Easy Installation:** Installs quickly into new or existing gutters. Convenient stick lengths make for easy storage and safe handling during installations at roof level.
3. **Versatile:** A variety of RainTube sizes can be used to fit any combination of roof and gutter designs and materials. Works with new or retrofit gutter installations and can be formed on site for tight or odd shaped installations.
4. **Highly absorbent:** Tested to collect water at more than 100 inches per hour.
5. **Long life:** High Density Polyethylene Raintube has 100-plus year life when exposed to sunlight, freeze/thaw cycles, and natural weather elements. Enables gutters to dry quickly preventing trapped moisture and rust.
6. **Environmentally kind:** RainTube is made in the U.S.A. from 100% post-consumer recycled material and is 100% recyclable. Prevents virus-carrying mosquitoes from breeding in the gutters.
7. **Lightweight:** Weighs only 4.8oz./foot and prevents snow and water weight from accumulating and damaging the eaves and gutter. Rejects icicle formation.
8. **Attractive appearance:** Nearly invisible from the ground. RainTube’s black material blends into shadow line between top of gutter and the low edge of roof.

Special Features:

1. **RainFormer:** Patented, portable, machine for compressing RainTube for retrofit installations.
2. **RainSock:** Patented, absorptive filter media can be applied to the RainTube at the valley corners to catch water traveling at high volumes, pulling it into the body of the gutter while filtering out roofing aggregates and small debris. RainSock can also be used in locations of extreme debris fall to prevent small material from impacting around the system corrugations.
3. **RainBrakes:** These devices are designed for unobtrusive installation at both metal and woven valleys to slow the momentum of runoff water and disperse it across a wider area so it can be collected by RainTube.

Maintenance Requirements:

1. Maintenance consists of an occasional light brushing or blowing when debris appears. Frequency will depend on the volume and character of debris exposure. Maintenance will enhance appearance and prevent debris from decomposing and lodging in the RainTube corrugations.
2. Regular roof cleaning to remove loose leaves and debris will normally provide the required maintenance necessary. Makes roof cleaning quick and easy.

Raintube® is protected under U. S. #5,960,590 and Canadian #2,283,855 patents. Placing (any) tubing in gutters is a patented application available only under license from GLI Systems, Inc. Raintube Certified Installing Dealers are patent licensees trained in RainTube installation techniques.

RainTube® SPECIFICATIONS

SECTION 07710 Thermal and Moisture Protection, Gutter Protection

GENERAL REQUIREMENTS

1. Diameter: Approx. nominal I.D. 3" and 4.1" (75mm and 102.5mm), Approx. O.D. 3.6" and 4.5" (90mm and 112.5mm)
2. Length: 13' 3" (4 m) sticks, packaged in bundles of 10
3. Specifications: ASTM F405
4. Joining System: Integral, internal cuff coupler

This specification describes 3" and 4.1" (75mm and 102.5mm) RainTube for use in non-pressure roof/gutter drainage applications.

SUMMARY AND SCOPE

1. Furnish all labor, material, tools, equipment, and services for the installation of complete RainTube gutter protection system as indicated on plans, and in accordance with the provisions of Contract Documents.
2. Coordinate work covered in this section with work of other trades. Related sections: Roof and Wall Panels Sections 07410, Metal Roofing Section 07610, Flashing and Sheet Metal Section 07620, Roof Accessories Section 07720.

REQUIREMENTS AND SUBMITTALS

1. RainTube shall have annular interior and exterior corrugations with perforations for controlled water passage.
2. 3" and 4.1" (75mm and 102.5mm) shall meet ASTM F405.
3. Submit samples and manufacturers literature including installation instructions. If not clearly shown on project drawings, submit roof drawings showing locations of all RainTube installations. Submit 24" sample of RainTube material on request. Submit mock-ups of special roof, gutter and RainTube assemblies on mounted specimens if requested.

DELIVERY, STORAGE AND HANDLING

1. Deliver components to the site properly packaged for protection against damage in transportation.
2. Protect components from damage once on site.
3. Exercise care in unloading, storing and installing to prevent bending, warping, surface damage and the introduction of foreign material and debris to the interior of the RainTube.

PRODUCT MATERIAL PROPERTIES

RainTube material shall be 100% post-consumer recycled high density polyethylene meeting the testing requirements of ASTM D3350 minimum cell classification 324420C.

APPROVED MANUFACTURERS

GLI Systems Inc. 215 South Fourth Street, Jacksonville, OR 97525 PH 866-724-6356 Fax 541-899-1762. See website for approved product distributors and installers. WWW.raintube.com.

EXECUTION AND INSTALLATION

1. RainTube shall be installed into the gutters by factory trained and certified installers. Raintube® is protected under U. S. #5,960,590 and Canadian #2,283,855 patents. Placing (any) tubing in gutters is a patented application available only under license from GLI Systems, Inc. Raintube Certified Installing Dealers are patent licensees trained in RainTube installation techniques.
2. Gutter and downspouts shall be clean, free of blockage, with seams fully sealed and leak free prior to installation.
3. Adequate flashing to fully protect any exposed roof sheathing shall be in place prior to installation.
4. Gutters shall be adequately sloped and drained by downspouts spaced no greater than 40 feet apart.
5. No fastening penetration of the roof membrane shall be permitted.
6. RainTube shall be installed with a minimum of 3/8" clearance around all brackets and ferrules to allow for thermal shrinkage and expansion.
7. RainBrakes shall be installed at all valleys using adhesive only.
8. No fastening penetration of the roof membrane shall be permitted.
9. Provide necessary fall and other hazard protection in accordance with OSHA regulations when installing RainTube and any related accessories.
10. Dispose of excess materials and packaging and remove debris from site.
11. Deliver all warranties to Owner or Owner's designated representative.