

# PVC Pipe for Roof Drainage Systems

Assured performance for large-scale roof drainage



## Designing for Commercial Roof Stormwater Runoff

Managing large volumes of stormwater runoff from the expanded roof areas of industrial, commercial and warehouse facilities frequently requires unique drain pipe systems.

In many cases, a large portion of the property not under a roof is impermeable and essential to operations, frequently involving volumes of pedestrian and vehicular traffic.

Discharging water from downspouts directly onto these areas is undesirable for reasons of safety, efficiency and productivity.

## Runoff Water Control

The drainage control at commercial operating facilities can be considerably more demanding than for most gravity-fed drain or sewer systems. Effectively controlling the relatively large runoff volumes with commercial structures requires pipe materials with the utmost performance capabilities.



Commercial development frequently involves large building structures with abutting impermeable surfaces, such as paved parking lots and loading areas. To avoid depositing stormwater on the related pavement, underground drain piping is required. Having buried drainage pipe on commercial sites brings a number of unique design and performance concerns.

Typical shallow burial, combined with the regular occurrence of loaded tractor-trailers, can subject subsurface drainage pipe to unusually high live and impact loadings.

Intense rainfalls, combined with added building height, can create hydrostatic pressures within the pipe, joints and other system components. In addition to performance issues, multiple tie-in connections for leaders and/or downspouts to complete the buried drain system can complicate construction and installation.

Commercial sites represent a variety of situations where drainage pipe with high strength, a reputation for performance and a long history of durability are desirable.

## Materials for Performance Assurance

Contech Engineered Solutions LLC, a leading manufacturer of plastic drainage and sewer pipe for four decades, offers products with proven performance in the demanding conditions typically encountered when building commercial drainage systems.

Larger runoff volumes and loads demand materials with higher strength and joint tightness.



Connecting downspouts to Contech lateral pipe is easily accomplished through the use of standard, readily-available adaptors.

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## Withstands Traffic Loads and Hydrostatic Pressures

### TRUSS PIPE

TRUSS PIPE®, first introduced in 1963, is a composite design consisting of a double wall thermoplastic extrusion braced by the same thermoplastic truss system. Voids between the trusses are filled with lightweight concrete to create a high stiffness composite pipe.

Its high pipe stiffness strength makes TRUSS PIPE ideal for the lateral drainage pipe connecting to roof drain leaders and downspouts. High stiffness is critical for maintaining pipe shape control and structural integrity when subjected to excessive conditions.

### A-2000 PIPE

A-2000™ is a double-wall PVC pipe with a smooth interior and corrugated profile exterior. It is designed especially to provide higher pipe stiffness than conventional solid-wall PVC pipe. A-2000's light weight, simplified means of making field modifications and availability through 36" diameter makes it perfect for drainage collector piping.



Contech A-2000 is light weight, simplifying field modifications.

### Water-Tight Joints

Both Contech PVC TRUSS PIPE and A-2000 are available with gasketed joints meeting the watertight requirements of ASTM D3212. Joint tightness may be an important necessity when the drainage system is subjected to hydrostatic pressure heads.



Contech offers a complete line of fittings to connect lateral drains to collector piping.



Contech's TRUSS PIPE was first introduced in 1963.

Larger runoff volumes and loads demand materials with higher strength and joint tightness.

Contech adaptors make connections easy.

### Installation Ease

Both TRUSS PIPE and A-2000 pipe are supplied in light-weight long lengths and are easily field cut for adding downspout connectors.



### Building Code Approval

Contech plastic pipe products, including TRUSS PIPE and A-2000, have been reviewed by Southern Building code Public Safety Testing and Evaluation Services Inc. and comply with Report No. 9438A with designated uses "for gravity flow, underground storm and sanitary waste systems, where corrosion resistant piping systems are required."



## A-2000 PVC Profile Wall Pipe

Contech A-2000 PVC pipe represents the latest technology and engineering design for sewer systems. Millions of feet have been successfully installed and an impressive record of trouble-free service confirms A-2000's reputation for high performance and durability.

Lightweight A-2000 has a corrugated exterior with a smooth interior, creating high structural properties (minimum 46 psi pipe stiffness) and efficient hydraulic characteristics. Its low-filler-content PVC resin provides excellent durability and resistance to abrasion and scouring.

Watertight gasketed joints are quickly assembled, resist root penetration and allow flexibility. A-2000 is unaffected by acidic or alkaline soils and chemicals normally found in storm and sanitary sewers.

A-2000's special design combines high performance, durability and economy. More efficient use of materials, faster installation and added reliability contribute to lower initial costs and reduced maintenance.

A-2000 is specified by calling for PVC sewer pipe per ASTM F949.

## TRUSS PIPE

TRUSS PIPE, first introduced in 1963, is a composite design consisting of a double wall thermoplastic extrusion braced by the same thermoplastic truss system. Voids between the trusses are filled with lightweight concrete to create a high stiffness composite pipe.

PVC TRUSS PIPE, performs as a semi-rigid sewer pipe with a high degree of pipe stiffness for superior deflection control, but with enough flexibility to take advantage of the support available for surrounding soils.

This added pipe stiffness (TRUSS PIPE is over four times stiffer than conventional flexible sewer pipe) provides installation economies due to less stringent soil embedment requirements. In addition, burial depth limitations — common for lower-stiffness flexible sewer pipe — can be increased with TRUSS PIPE.

Manufactured per ASTM D2680, PVC TRUSS PIPE is available with either a gasketed joint or a solvent-welded joints. PVC TRUSS PIPE is available in 8", 10", 12" and 15" diameters.

Contech Engineered Solutions provides site solutions for the civil engineering industry. Contech's portfolio includes bridges, drainage, retaining walls, sanitary sewer, stormwater, erosion control, soil stabilization and wastewater treatment products.

For more information, call one of Contech's Regional Offices located in the following cities:

Visit our web site: [www.conteches.com](http://www.conteches.com)  
800.338.1122

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