

Rovanco® Piping Systems

ABOVE GROUND PIPING

A water tight solution that is the most energy efficient Above Ground Pre-Insulated Piping System for steam, condensate, high temp hot water, domestic water, diesel exhaust fluid and more!



Rovanco Piping Systems, Inc.

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Piping comes pre-insulated with metal cover, insulation and carrier pipe in a completely sealed, watertight unit.

Quality Above Ground Product

- ✚ Made of non-flammable polyisocyanurate insulation and durable metal jacket — meets 25/50 Flame/Smoke.
- ✚ Manufactured using spiral lock seam on a metal jacket of aluminum or galvanized steel
- ✚ Piping is completely sealed and watertight for above ground applications
- ✚ Hi-Temp carrier pipe is A-53 Grade B, Schedule 40 ERW (Schedule 80 Seamless for condensate)
- ✚ DEF carrier pipe is HDPE SDR11



Options and Adaptability

- ✚ Hi-Temp piping available in 2 temperature ratings (300B and 400F)
- ✚ Supplied in economical 20' lengths (Hi-Temp also available in 40' lengths)
- ✚ Suitable for indoor and outdoor applications
- ✚ Piping available with tube for electrical heat trace function, steam trace or glycol heat trace
- ✚ Fittings can be easily insulated in the field with supplied materials
- ✚ Piping outer jacket can be supplied painted so it blends with the surroundings it will be installed in



Efficient and Economical

- ✚ Piping arrives completely assembled with metal cover, insulation and carrier pipe ready for installation
- ✚ Above ground application saves labor associated with field insulating
- ✚ Jackets can be supported from the outside with maximum support spans and minimum guides
- ✚ Manufactured with quality, durable materials assures years of trouble-free service
- ✚ Most efficient heat loss in the industry





Above Ground Piping By Rovanco



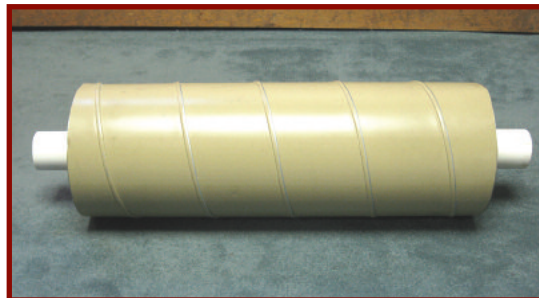
Above ground piping is quickly proving to be a suitable replacement for traditional underground piping when moving hot and cold fluids from a source to a destination.

Growing demand for newly installed piping in and around existing structures makes tunneling/trenching prohibitive. This often dictates roof-top or suspended piping on or around structures to complete the project. Other installations, such as long spans over an open, sparsely populated environment, makes tunneling/trenching an unnecessary cost. Above Ground Piping by Rovanco is proving to be the ideal solution in situations like these.

Rovanco's Above Ground Piping has been developed for a wide range of applications where steam, condensate, high temp hot water, domestic water, etc are being transferred. Hi-Temp piping is available in two different temperature ratings. Above ground piping for Diesel Exhaust Fluid (DEF) stations is another area of increased need. Existing truck stops are now being required to install DEF fill-up tanks. Digging up existing structures and/or parking lots to install underground piping is expensive. Rovanco's DEF Piping is specifically designed for these systems and eliminates costly excavating tasks.



Piping can be ordered with a tube adding electronic heat trace capabilities to the system.



Piping can be ordered with a custom colored outer jacket. This allows the pipe to blend-in with the environment where its being installed. Desert Sand pictured here.

Rovanco Above Ground Piping features non-flammable polyisocyanurate insulation and a durable outer layer manufactured using spiral lock seam on a jacket of aluminum or galvanized steel. It arrives at the job site pre-insulated in 20' or 40' lengths ready for installation. This watertight design assures years of trouble-free service and dependable performance.



STANDARD SPECIFICATIONS FOR HI-TEMP AND DEF PIPING SYSTEMS

Hi-Temp Above Ground Piping For Overhead, Tunnel Or Trench Applications

Carrier Pipe:

Shall be A-53 Grade B Schedule 40 seamless or ERW (Schedule 80 for condensate). Lengths shall be 20 or 40 , random as specified. Other metallic pipes available. Heat Trace also available.

Insulation (2 Temps):

300°F

300HT Hi-Temp foam insulation has a K factor of .145, density of 2 1/2, closed cell content of 90%, compressive strength of 35 psi, and service temperature of 300°F. Conformance with ASTM Standards D1621, 1622, 1623, 2126, 2842, 2856, and C518-91. Completely filling the annular space between the carrier pipe and jacketing. Provide written independent performance certification with submittals.

400°F

400HT Hi-Temp foam insulation has a K factor of .165, density of 2 1/2, closed cell content of 90%, compressive strength of 35 psi, and continuous service temperature of 400°F. Insulation must be capable of handling intermittent temperature spikes to 450°F for one hour. Conformance with ASTM Standard D1621, 1622, 1623, 2126, 2842, 2856, and C518-91. Completely filling the annular space between the carrier pipe and jacketing. Provide written performance certification with submittals.

Insulated Fittings and Joints:

All straight joints and fitting joints shall be insulated using material supplied by system manufacturer.

Jacket Fitting and Joint

Covers:

Provide metal covers designed to fit snugly on the jacketing to provide a watertight closure. All covers shall be banded in place with 3/8 wide stainless steel straps and will be the same thickness as the jacketing. Factory pre-fabricated and pre-insulated fittings are also available.

Anchors:

All anchors will be 1/2" thick steel plate welded to internal pipe and sealed at jacket areas per manufacturer's recommendations.

Approved Vendors:

HT system by Rovanco, Joliet, Illinois. All other manufacturers wishing to bid on this project must provide the engineer with certified test data from foam manufacturer or an independent testing agency certifying that the product is capable of withstanding the service temperature continuously. The manufacturer shall obtain written approval from the engineer 10 days prior to bid date.
*Contact our home office or local representative for insulation sizing.

Diesel Exhaust Fluid (DEF) Piping For Above Ground Applications

Carrier Pipe:

HDPE SDR11 carrier pipe shall be 20 lengths with 1 Heat Trace Tube. Stainless Steel and Fiberglass carrier pipes are also available.

Insulation:

300 HT- Hi-Temp foam insulation has a K factor of .145, density of 2-1/2, closed cell content of 90%, compressive strength of 35 psi, and service temperature of 300..F. Conformance with ASTM Standards D1621, 1622, 1623, 2126, 2842, 2856, and D518-91. Completely filling the annular space between carrier pipe and jacketing. Provide written independent performance certification with submittals 25/50 Flame/Smoke certified.

Insulated Fittings and Joints:

All straight joints and fitting joints shall be insulated using material supplied by system manufacturer.

Jacket Fitting and Joint Covers

Provided metal covers designed to fit snugly on the jacketing to provide a watertight closure. All covers shall be banded in place with 3/8" wide stainless steel straps and will be the same thickness as the jacketing.

Approved Vendors:

DEF Piping Systems by Rovanco, Joliet, Illinois. All other manufacturers wishing to bid on this project must provide the engineer with certified test data from either foam manufacturer or an independent testing agency that the product is capable of withstanding the service temperature continuously. Foam must also be rated for 25/50 Flame/Smoke certified. The manufacturer shall obtain written approval from the engineer 10 days prior to bid date.

Hi-Temp Above Ground Jacket Material:

| Jacket Size In Inches | Aluminum Jacket Spiral, Aluminum with impact and Chemical resistance equivalent to H-14 Temper T-3003in accordance with ASTM-B 313 specifications. | Galvanized Steel Jacket Spiral Seam Galvanized Steel in accordance with ASTM A-366 ASTM A-526 G-90 |
|--------------------------|--|---|
| 4 | 22 gauge | 26 gauge |
| 6 | 22 gauge | 26 gauge |
| 8 | 22 gauge | 26 gauge |
| 10 | 22 gauge | 26 gauge |
| 12 | 22 gauge | 26 gauge |
| 14 | 18 gauge | 22 gauge |
| 16 | 18 gauge | 22 gauge |
| 18 | 18 gauge | 22 gauge |
| 20 & larger | 18 gauge | 22 gauge |

DEF Above Ground Jacket Material:

| Jacket Size In Inches | Galvanized Steel Jacket Seam Galvanized Steel in accordance with ASTM A-366 ASTM A-526 G-90 |
|--------------------------|--|
| 4 | 26 gauge |
| 6 | 26 gauge |
| 8 | 26 gauge |
| 10 | 26 gauge |
| 12 | 26 gauge |

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