Dual PEX-Flex

Pre-insulated flexible pipe for outdoor wood furnaces
What is PEX-Flex?
Dual PEX-Flex is a pre-insulated flexible pipe ideally suited for hydronic heating with outdoor wood furnaces. Supplied in coils, this 2-in-1 (supply and return bundled together) pipe system is economical, simple to install and highly effective even in harsh soil conditions.

Why use PEX-Flex?
You have probably spent considerable time researching and comparing the heating unit that is right for your application. A professionally manufactured insulated pipe will maximize efficiency of your outdoor furnace system by keeping heat losses to a minimum. By effectively heating your house (not the ground), you will require less fuel, burn less wood and produce less emissions. Whatever your budget, you simply can’t afford NOT to install PEX-Flex!

This premium product will pay for itself over a short period of time*. PEX-Flex incorporates an eco-friendly polyurethane foam - the best insulation available on the market today. And to keep this closed cell foam dry (critical in any insulation system), it has a thick extruded low-density polyethylene jacket ensuring lasting efficiency.

* Individual payback times will vary relative to the severity and length of the heating season.

Advantages of Logstor factory insulated dual PEX-Flex:
- The low conductivity of polyurethane foam delivers very high insulating performance, saving you fuel and time - this also allows for a smaller overall jacket size relative to other insulating materials.
- The entire system is made of plastic; there is nothing to corrode over time.
- PEX-Flex is "self-compensating" with respect to expansion and contraction... just uncoil and snake into trench, then backfill.
- Installs quickly and easily without solvent welding, special tools or heavy equipment - often resulting in a more economical installed cost when compared to other insulating methods.
- No drainage tile, gravel backfill or deep/wide trench required. PEX-Flex can be shallow buried even in high water table areas.
- Flexibility of coiled PEX-Flex often eliminates need for joints, elbows and fittings - plus custom 'cut-to-length' sections reduce waste.
- The PEX core pipes have a diffusion barrier made of EVAL, preventing oxygen from entering the system.
- "Smart" membrane under outer jacket to enhance and maintain insulation value.
- Ours is a bonded system, meaning the carrier pipes, insulation and jacket are mechanically linked to one another and move collectively during expansion / contraction - this keeps the foam from being compressed which further reduces heat loss.
- Lasts indefinitely, paying for itself many times over.

Supply pipe colour coded with red thread

Insulation between pipes increases system efficiency
Flexible polyurethane foam
PEX core pipe with EVAL oxygen barrier
Extruded polyethylene jacket with UV stabilizer
"Smart" membrane to enhance and maintain insulation value

100 ft (33 m) x 125 mm OD coil of dual PEX-Flex
Pipe can also be supplied to exact length required.

Single PEX-Flex (up to 4” OD) also available.

n.b.: All core pipe sizes are metric; metric compression x imperial NPT threaded adaptors are supplied as required.

### Dual PEX-Flex dimensions

<table>
<thead>
<tr>
<th>Nominal pipe size</th>
<th>Carrier pipe OD inches (mm)</th>
<th>Carrier pipe wall thickness inches (mm)</th>
<th>Carrier pipe ID inches (mm)</th>
<th>Jacket pipe OD inches (mm)</th>
<th>Standard/max. coil lengths * feet (metres)</th>
<th>Minimum bending radius feet (metres)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 x 1/2</td>
<td>2 x 0.79 (2 x 20)</td>
<td>0.079 (2)</td>
<td>0.632 (16)</td>
<td>3.5 (90)</td>
<td>164 / 984 (50 / 300)</td>
<td>3.0 (0.9)</td>
</tr>
<tr>
<td>2 x 3/4</td>
<td>2 x 0.98 (2 x 25)</td>
<td>0.098 (2.5)</td>
<td>0.784 (20)</td>
<td>4.3 (110)</td>
<td>164 / 656 (50 / 200)</td>
<td>3.5 (1.1)</td>
</tr>
<tr>
<td>2 x 1</td>
<td>2 x 1.26 (2 x 32)</td>
<td>0.114 (2.9)</td>
<td>1.032 (26.2)</td>
<td>4.3 (110)</td>
<td>164 / 656 (50 / 200)</td>
<td>3.5 (1.1)</td>
</tr>
<tr>
<td>2 x 1 1/4</td>
<td>2 x 1.57 (2 x 40)</td>
<td>0.145 (3.7)</td>
<td>1.280 (32.6)</td>
<td>4.9 (125)</td>
<td>164 / 656 (50 / 200)</td>
<td>4.0 (1.2)</td>
</tr>
<tr>
<td>2 x 1 1/2</td>
<td>2 x 1.97 (2 x 50)</td>
<td>0.181 (4.6)</td>
<td>1.608 (40.8)</td>
<td>6.3 (160)</td>
<td>164 / 328 (50 / 100)</td>
<td>5.2 (1.6)</td>
</tr>
</tbody>
</table>

* Pipe can also be supplied to exact length required.

### PEX-Flex temperature and pressure

<table>
<thead>
<tr>
<th>Pipe size inches (metric)</th>
<th>Max. temperature Fahrenheit (Celsius)</th>
<th>Max. pressure P.S.I. (bar)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/2&quot; - 1 1/2&quot; (20 mm - 50 mm)</td>
<td>203 (95)</td>
<td>87 (6)</td>
</tr>
<tr>
<td>1/2&quot; - 1 1/2&quot; (20 mm - 50 mm)</td>
<td>158 (70)</td>
<td>145 (10)</td>
</tr>
</tbody>
</table>

### The payback:

Installing PEX-Flex actually pays for itself over time *, and you're also helping to do your part to reduce emissions.

The expected yearly savings is approximately 1 1/2 cords of wood based on the following assumptions:

- An average cord of wood yields 24 million BTU’s.
- The trench from the boiler to the building(s) is approximately 100 ft. (30 m) long.
- The payback is based on a comparison to bare or poorly insulated piping systems. These inferior systems may be the result of using materials with insufficient insulating properties, inadequate insulation thickness, or may simply be insulation that absorbed moisture due to water ingress through the jacket or joints.

* Individual payback times will vary relative to the severity and length of the heating season.

### Dual PEX-Flex applications:

- homes
- barns
- workshops and garages
- cottages
- pools
- ice melting systems
- greenhouses
Temperature loss with dual PEX-Flex

Using 2 x 1" x 4.3" OD (2 x 32 mm x 110 mm OD) with following operating parameters:

- Supply temperature: 180°F
- Soil temperature: 32°F

<table>
<thead>
<tr>
<th>Flow (GPM) (US)</th>
<th>Distance 100 ft</th>
<th>Distance 150 ft</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 GPM</td>
<td>178.5°F</td>
<td>177.8°F</td>
</tr>
<tr>
<td>5 GPM</td>
<td>179.1°F</td>
<td>178.7°F</td>
</tr>
<tr>
<td>10 GPM</td>
<td>179.5°F</td>
<td>179.3°F</td>
</tr>
</tbody>
</table>

For further information and technical assistance on Logstor Flexible Systems, please contact any of the following offices:

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ISO 9000
Registered Company

Check out WebStaTech - Our online calculation tool.

This free web tool can help you design the ideal pre-insulated pipe system for your specific backyard furnace application. Calculate heat losses, compare insulation and pipe materials, determine energy savings and convert to dollars. Visit [www.logstor.com/webstatech](http://www.logstor.com/webstatech) to register or contact any Urecon office.

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