



# P O L Y F L O W

## Shipping Loading and Unloading Instructions

### Overview:

Below are the general loading, Unloading and Storage for Thermoflex<sup>®</sup> tubing. This document serves as a general overview and Polyflow should be consulted with any questions that may arise. Each operation is different and may require modifications to the procedures listed below.

### Spools:

Polyflow ships tubing 2 3/8" diameter or less on 8-foot (2.44Meters) diameter spools. Thermoflex<sup>®</sup> tubing larger in diameter are shipped on 10.3 foot (3.15 Meters) diameter spools. The sizing is designed to maximize the number of spools on a truck without creating oversized shipping penalties. The spools are made from 1" square tubular steel and can be easily assembled or broken down.

### Storage:

Spools should be stored upright. (Spools are resting on both flanges) and **not on their side**. Resting the spools on their side does have the potential of denting the tubing on the flange spindles. If the spools are resting on soft ground where the spool flanges sink into the ground causing the pipe to rest directly on the ground, the spools should rest on blocks to prevent this occurrence. Blocks should also be pushed against each side of each flange to prevent the spools from rolling. Blocks are suitable to prevent the spools from rolling, always block using the flanges and never the pipe.

### Lifting of Spools:

Spools can be lifted with forklifts, overhead cranes or any device that can lift in the field such as a backhoe or excavator. A 124" spool of 4.5" weights a total of approximately 2,800lbs so properly rated equipment should be considered when lifting or moving the tubing.

For fork lifts single pole lifts or forks can be used for lifting. For pole lifts, the pole needs to be at least 8 foot long (2.44 Meters) and under 3.5" OD to fit through the 3.5" Arbor opening of both sized spools. The pole is inserted through the arbor on one flange, is pushed and inserted through the arbor on the second flange. The spool is ready for lifting.



# P O L Y F L O W

When lifting with forks, there must be enough length to grab both of the flanges. The forks should be inserted under a set of flange spines that are opposite one another from the center arbor. The spools should not be picked up from the top of the spool nor should the forks lift the tubing directly. This may cause damage to the tubing.



A forklift is used with extensions to either load or unload a truck.



Extensions slipped onto forks.

The extensions on the forklift are typically long enough to unload a truck, but when loading a truck another forklift will be needed. The forklift with extensions can start the loading process and as seen in Fig 3 the second forklift will aid in centering the reel on the truck, as well as position the reels flange to flange which are vital for transportation.



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Figure 3. Forklift and forklift with extensions work in tandem to center the reel and position the reels flange

If an overhead crane, backhoe or other overhead lifting device is utilized, a steel shaft should be inserted through the arbor of the spool and chains or straps of suitable lifting capacity attached to both sides of the shaft. Lifting from a center point tends to squeeze the spool flanges together, so a spreader bar should be utilized to eliminate this issue. See Figure 3.



Spreader Bar.

Chains or lifting Straps.

Shaft



# P O L Y F L O W



## Transporting:

Eight foot spools can be transported on a standard flat bed truck. The 124" spools must be loaded on a single drop deck trailer to minimize height restriction issues in shipment. For shipments by container, please consult Polyflow for spool sizing and loading requirements. Spools should always be loaded vertically and not on their sides. The spools are to be loaded on the truck parallel to the trailer length and chained down through the arbor. Straps can be used but must lay on a cross member of the spool and not directly on the pipe. A minimum of two chains or straps must be used to hold down the spool. When shipping multiple spools, the edges of the flanges must but up against one another to provide stability and prevent the edge of one spool flange from impacting the tubing.



Chains through the arbor on both sides of the reels.

Reels lined up flange to flange



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Straps used on this load instead of chains. Spool lined up again flange to flange

\*\*\*\*The above written statements are suggestions of PolyFlow Inc. The securing and transportation of reels is trucking company's responsibility.\*\*\*\*