

Dealing with a "Stuck" Pig

The goals of "pigging" a pipeline include not only running pigs to remove a product or to clean the line, but to do the work without sticking the pig. Getting the pig stuck rarely happens in a pipeline which is pigged routinely, but can happen when pigging a pipeline which has been neglected or never pigged before. It's good practice to run a low density (2 lb/ft³) foam pig in any "suspect" pipeline and examine the foam pig for wear patterns, tears, gouges, etc. The pigging project should be continued only after feeling comfortable that the line is piggable.

Girard's "[Progressive Pigging](#)" guidelines should be reviewed prior to beginning a first-time pigging project. If a pig becomes stuck, it is important to identify the cause. Retrieving the pig is the first priority. Usually one of two conditions exist when a pig is stuck: fluid bypasses around the pig, or there is a complete blockage of the flow.

Troubleshooting Pigs With Bypass

1. Increase the flow rate and line pressure, but do not exceed safe limits of the pipeline.
2. Remove pressure from the line and vent or drain toward the launcher. Removing pressure allows the pig to relax to its original shape and may cause it to back up in the pipeline. Allow pressure to dissipate. After 15-30 minutes, re-pressure the line in an attempt to drive the pig through the restriction. Repeat two to three times.
3. Run a soft swab up behind the stuck pig to try to attain a positive seal. Repeat step 1 above.
4. Consider ways to back the pig out of the line, returning it to the pig launcher. This requires pressuring from the opposite end of the pipeline.
5. In a potable water line when pigging with a foam pig, super chlorinate (3000 to 5000 ppm) in a slug form to dissolve the pig. The line must be thoroughly flushed and tested after super chlorination.

Troubleshooting Pigs Which Have No Bypass

1. Increase the line pressure, but do not exceed safe limits of the pipeline.
2. Remove pressure from the line and vent or drain toward the launcher. Removing pressure allows the pig to relax to its original shape and may cause it to back up in the pipeline. Allow pressure to dissipate. After 15-30 minutes, re-pressure the line in an attempt to drive the pig through the restriction. Repeat two to three times.
3. Consider ways to back the pig out of the line, returning it to the pig launcher. This requires pressuring from the opposite end of the pipeline.
4. In a potable water line when pigging with a foam pig, super-chlorinate (3000 to 5000 ppm) in a slug form to dissolve the pig. The line must be thoroughly flushed and tested after super chlorination.