Revision Date: June 1, 2023 Document # 06-4112 Revision # 3.2

1. Introduction

This bulletin addresses **paraffin removal** in Flexpipe (FP150/FP301/FP601), Flexpipe High Temperature (FP301HT/FP601HT) and Flexcord (FC901) products. Flexpipe products can be hot oiled and pigged. Note, hot water may be used as an alternative to hot oil if desired. Shawcor CPS highly recommends having a suitable pigging program in place. If the pipeline is blocked due to wax accumulation or a stuck pig, contact Flexpipe Field Services.

CAUTION!

Hot oiling pipelines is a potentially dangerous procedure and Flexpipe recommends that the operator follow the procedures and safety guidelines provided by the hot oiling/hot watering service provider and the operator's production engineers.

2. Equipment

Flexpipe urethane disk pigs are designed specifically for Flexpipe Products, and offer more aggressive cleaning. However, an increased pressure differential is required to move pigs through fittings, and they require the presence of some liquid in the pipeline to provide lubrication. Urethane pigs are available from Flexpipe in a variety of Durometers to suit different pigging requirements. For more information, please refer to the latest editions of 06-1876 – Flexpipe Technical Manual and 14-1096 – Flexpipe Pipe Installation Guide.

3. Allowable Operating Temperature

Flexpipe products should never exceed the maximum allowable operating temperature of 60˚C (140˚F) for the Flexpipe and Flexcord product lines, or 82˚C (180˚F) for the Flexpipe HT product line.

4. Recommended Hot Oiling Guidelines

- Maximum hot oiling temperature and pressure must not exceed the provided temperature and pressure limits.
- For lines that operate above 700 kPa (100 psi), a minimum 700 kPa (100 psi) residual pressure must be maintained in the line during all stages of hot oiling. The bore pressure will prevent liner collapse due to pressure in the pipe annulus in gas or emulsion applications. If the line pressure will be dropped lower than 700 kPa (100 psi) contact Flexpipe Engineering for depressurization guidelines.
- For lines that operate below 700 kPa (100 psi), the line can be depressurized as needed during hot oiling. Contact Flexpipe Engineering for depressurization guidelines.
- At the start of a hot oil treatment, use a maximum flow of 1.5 GPM for the first 10 minutes. After 10 minutes of operation hot oil flow can be increased as required.
- Once hot oiling has been completed, pig the line with a Flexpipe urethane disk pig.

5. Application Evaluation

As part of the Shawcor CPS commitment to quality and customer satisfaction, Flexpipe offers an application review process. The pipeline end user provides the operation parameters as per the Application Review Form for Flexpipe Engineering to assess. Flexpipe Engineering provides project specific recommendations regarding product suitability for the intended application.

It is essential for Flexpipe Engineering to review all liquid applications to ensure Flexpipe products are suitable for the service conditions.

6. Revision Table

Rev.	Date	Revisions	Revised By	Reviewed By
1	Mar 20, 2012	Initial release.	Jamal Knight	
2	Mar 20, 2012	Fixed revision number.	Jamal Knight	
3	May 22, 2017	Modified for depressurization guidelines.	Otto Comin	
3.1	June 18, 2021	Removed guidance for temperatures over MAOT.	Austin Mendenhall	