



sealmatic®

Sealmatic Delivers Mechanical Seal Type U945-70-G911 Urea Melt Application

Urea, which is a white crystalline substance with the chemical formula $\text{CH}_2\text{N}_2\text{O}$; it is highly water soluble and contains 46% nitrogen. It is used extensively as a chemical fertilizer as well as for industrial uses. It is a difficult application to seal, hence a thorough understanding of application know-how is necessary to design a mechanical seal for such an application.

Urea melt pumps has been a reliability concern for many plants globally. Majority of the concerns were related to the failure of mechanical seal. Unexpected failures of seal are encountered during plant startups or during pump changeover. It results in a major reliability concern as the continuity of operation of plant shall be at stake. Also, huge expenses are incurred as damaged seal caused other parts to fail. Sealmatic undertook the below case study, which highlights the identification of failure modes and steps taken to resolve the issues pertaining to mechanical seal reliability on this service.

Sealmatic Mechanical Seals for Urea Melt application:

Media: Urea Melt

Discharge Pressure: 15 KG/CM²

Temperature: 143°C (Max) / 120°C (Min)

Why mechanical seals from Sealmatic for Urea Melt application:

High reliability

Design simplicity

Superior operating performance

Lowest maintenance costs

Excellent corrosion resistance

