

# Standardizing Paper Machines with 442 Split Seals and SpiralTracs at Paper Mill



Pulp & Paper | paper Stock | Mechanical Seal

## Application Info & Challenge

- **Location:** Czech Republic
- **Equipment:** Sulzer/Andritz Double Ended Fan Pumps, QTY 10, (70-200mm)
- **Product:** Paper stock
- **Solids:** 0.5-1% solids
- **Flush:** Clean external flush (Plan 32)



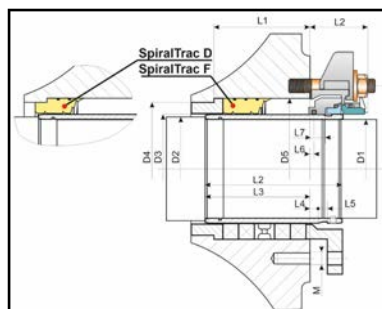
Originally packed equipment, excessive leakage issues and frequent sleeve replacements

These pumps are usually packed, contributing to massive leakage, time consuming packing maintenance and shortened bearing service life. Sleeves typically last **12-24 months**, replacement is expensive and cumbersome.

Some of these pumps (PM5) are often opened up so the wetted parts can be cleaned, some instances to remove barium salt deposits from the suction and discharge pipes. The use of split seals on these frequently opened pumps is not possible...or is it?

## Solution & Result

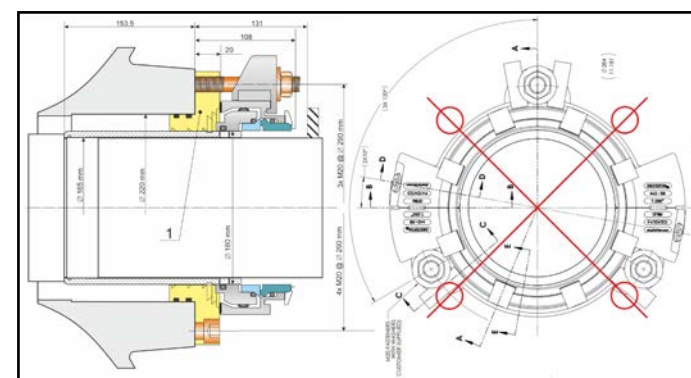
- Chesterton 442C, 442 HP, 442 Jumbo Split Seals
- **SpiralTrac Adaptor** AFN19-0004L/R(316)
  - Sulzer ZPP7 (180mm), PM5 pump. PM10 in the process of being converted.
- **SpiralTrac Version D Type A**, DM12000L/RA15200(316)148.00/3.175
  - 4x Sulzer ZPP4 120mm
- **SpiralTrac Version F Type S**, various sizes
  - Andritz (110mm, 200mm), Sulzer ZPP5 (140mm), Sulzer ZPP1 (70mm)



Sulzer ZPP5



Andritz FP80-400



Adaptor and 442 Split Seal Assembly Drawing

SpiralTrac Adaptor allows for the easy disassembly of pump housing without having to remove the split seal. This solution **has been in operation since 2020** without any issues!

Version D Type A SpiralTrac can be easily installed when the pump is disassembled. The air vent at the top allows for air removal as the pump is being flooded.

For in place installation, Split Version F Type S SpiralTrac is offered as it can be installed on the field without disassembly or modification of equipment.

There are close to **100 SpiralTracs** installed at this Paper mill in total in various rotating equipment!

**Calculated ROI:**  
on 200 mm Andritz Fan Pump with Version F SpiralTrac

**Annual energy and water cost:**

- Previous: 62,880 €
- Current: 610 €

**Maintenance cost:**

- Previous: 8400 €
- Current: 20,553 €

**ROI: 10 months**

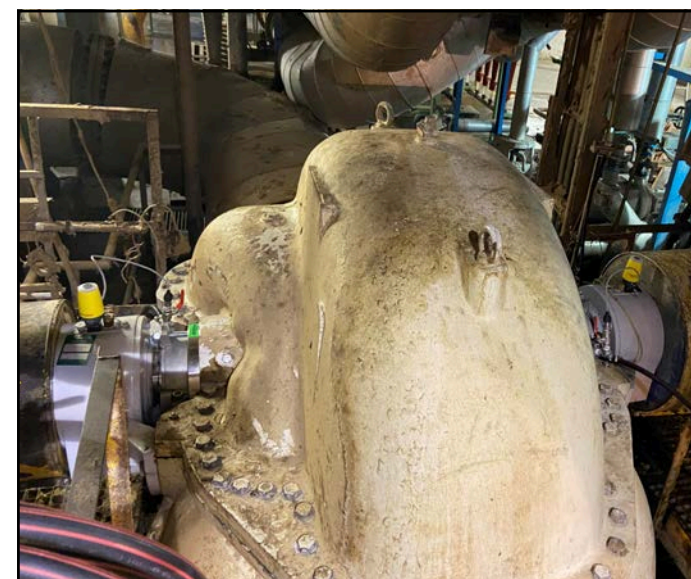
**Annual savings: 50,117 €**



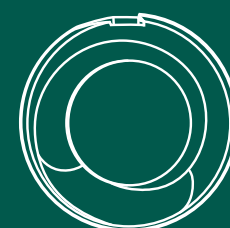
AFN19-0004R(316) SpiralTrac Adaptor



Chesterton Solution during installation and after being installed in Sulzer ZPP7 (PM5)



For more information please send an email to us at [support@enviroseal.ca](mailto:support@enviroseal.ca). We hope to hear from you!



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