

Custom Seals Save Thousands In Reduced Oil Leakage

ROI Study For A Raute Wood Press Line

A prominent manufacturer of engineered wood products in Wilmington, NC was losing \$30,500 per year due to leaking oil on their Raute wood press. After attempting to find a solution through the OEM, the manufacturer reached out to System Seals for help.

The solution was found through designing a custom type 127 profile seal that would directly retrofit the current OEM supplied packing. This seal consists of a double lip, asymmetrical U-cup made from our abrasion-resistant MP03 material; coupled with a full-faced backup ring for anti-extrusion. The new seal is less expensive, significantly easier to install, and eliminated all leaks.

After the initial trial proved successful, all 56 rams on this press line were upgraded to the System Seals sealing solution. The table below shows a breakdown of savings for the entirety of all presses on line 2 that received the updated seals.

| Packing | Number of Presses | Packing Cost Per Press | Total Packing Cost | Install Time Per Press | Install Cost at \$65/hr | Total Cost of Install | Cost of Leaking Oil | Total Cost |
|-------------------|-------------------|------------------------|--------------------|------------------------|-------------------------|-----------------------|---------------------|------------|
| Raute OEM | 56 | \$525 | \$29,400 | 22 hours | \$1,430 | \$80,080 | \$30,500* | \$139,980 |
| System Seals. | 56 | \$293 | \$16,408 | 14 hours | \$910 | \$50,960 | 0 | \$67,368 |
| Savings on Line 2 | | \$232 | \$12,992 | 9 hours | \$520 | \$29,120 | \$30,500 | \$72,612 |

**Leakage per year based on the OEM packing leaking on average at three months at an average of 50 gallons per week. Cost of oil for this study was \$11.72/gallon. Presses are left to leak until next rebuild, which equates to an average monthly cost of \$2,344 for 200 gallons of leaked oil.*



CHALLENGE

To develop a retrofit solution to stop massive oil leaks on board press main rams.

SOLUTION

System Seals designed a custom size seal type 127 made for abrasion-resistant MP03 polyurethane to replace the OEM molded packing.

RESULT

Oil leakage stopped the leakage and increased uptime between seal replacements by a factor of four! The new packing was also less expensive and easier to install.