**Challenge**

A paper mill had a DST doctor with traditional turnbuckles on its 1st top press roll. Over time, there were broken turnbuckle rod end bushings caused by the press roll arms opening and closing unevenly. This eventually caused serious issues with the sheet getting by the blade. The mill concluded the doctor was twisted.

**Solution**

Kadant proposed a doctor with OLE turnbuckles designed to accommodate press arm misalignment without subjecting the doctor bearings, turnbuckle rod end bushings, or the doctor back to excessive forces. This press misalignment, or scissoring, can occur during the opening and closing of a doctored press roll. The equipment was designed to fit a 31” diameter, 176” roll face with a maximum machine speed of 3,000 fpm.

**Results**

After replacing the DST doctor using traditional turnbuckles with a doctor utilizing the OLE turnbuckles, the mill realized the following results:

- No broken turnbuckle rod end bushings
- The sheet no longer gets by the blade
- The roll has not been damaged by the doctor blade
- The doctor back remains straight over time

**Market Insights**

- OLE turnbuckles can sometimes be retrofitted onto existing doctors.
- The roll is better protected.
- Eliminate sheet shedding issues caused by a torqued doctor system.