5-STEP
SHEAVE/PULLEY ALIGNMENT PROCEDURE

LUDECA

1 Pre-Alignment Checks

Safety:
Lock-out and tag-out the machines.

Visual inspection of the sheaves, belts, foundation and baseplate.

Replace sheaves if needed.

Clean up: remove rust, scale, paint, dirt from under and around the feet. Clean sheaves as well.

Replace damaged shim packs with new, corrosion and crush resistant shims.

2 Runout and Soft Foot

Check and correct shaft runout.

Check and correct sheave rim runout (radial) and face runout (axial).

Using feeler gauges find obvious gaps under the motor feet and fill them with shims, to eliminate any soft foot condition.

Install new belts, if needed. *Always replace all belts together with a new matched set.*

100%

Torque bolts to specifications.

3 Laser Alignment

Set up laser alignment system and measure misalignment.

Correct **twist** misalignment by shimming the motor feet.

Recommended tolerance:
±0.5 degrees. (9 mils/inch)

Correct **angular** misalignment by moving the machine horizontally.

Recommended tolerance:
±0.5 degrees. (9 mils/inch)

Correct **offset** misalignment by moving the machine axially.

Recommended tolerance:
±8 mils (thou) per inch of span length.

4 Belt Tensioning

2x

Take two sets of belt tension measurements.

Set the belt tension to manufacturer's specifications.

Typically, set tension to recommended force to deflect belts 1/64 inch per inch of span length (tight side).
Be careful not to affect the alignment during these adjustments.

Re-check the alignment.

2 HRS+

Run machines for two hours to allow belts to stretch and seat themselves then recheck tension. Readjust as necessary.

5 Documentation

Save the alignment file, if your system allows for it.

PDF

Print the report to document the alignment, if your system allows for it.

72-240 HRS

Run the machines at least 72 hours, but not more than 10 days and retension again, this time to manufacturer's recommended force values for used belts.

Keep it running.

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