

# VibrAlign Laser Alignment Tips

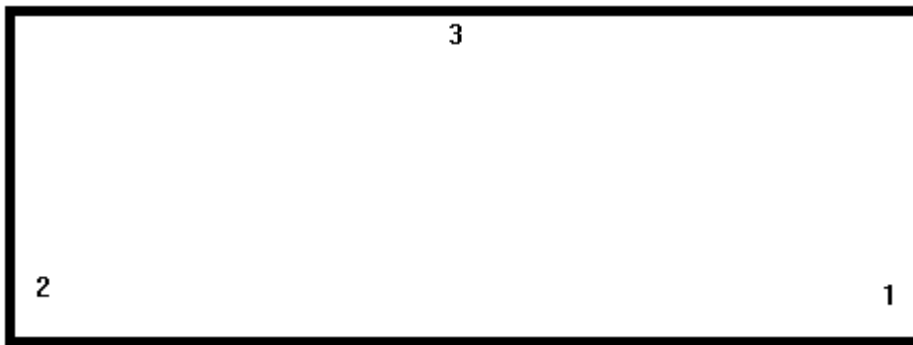
## Checking Flatness of the Fourdrinier with the Combi-Laser *Professional*

During the construction of a new paper mill, plant personnel wanted to check the installation of the forming section. There was an accelerated construction schedule, and they did not have time to contract an optical alignment company for the measurement. They used a Combi-Laser *Professional* and an FL151 to check and adjust the foils. They had purchased the Combi-Laser *Professional* primarily for performing shaft alignments, but knew that it capable of much more.

Following is the procedure they used.

### Overview

The FL151 is a sweep laser transmitter; it generates a laser beam which can be swept, producing a reference plane against which a surface can be measured. The FL151 incorporates a set of precision levels which can be used to establish a level plane.

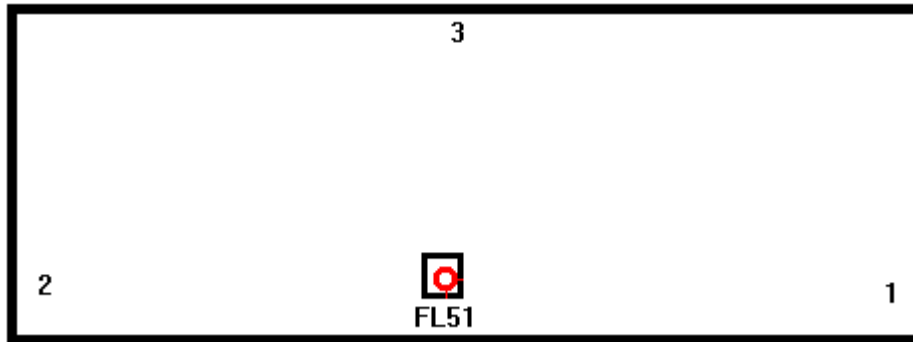


[step #1]

We are looking (in plan view) at the forming section.

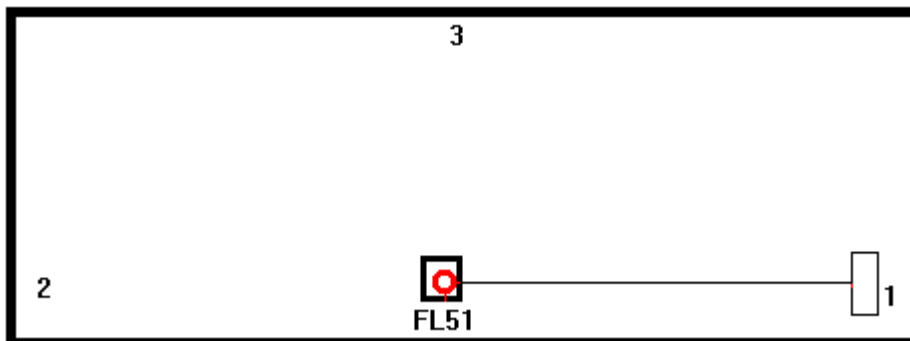


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[step #2]

The FL151 is placed at a convenient location on the forming section. Using the micrometer adjustments on the FL151, the base is leveled.

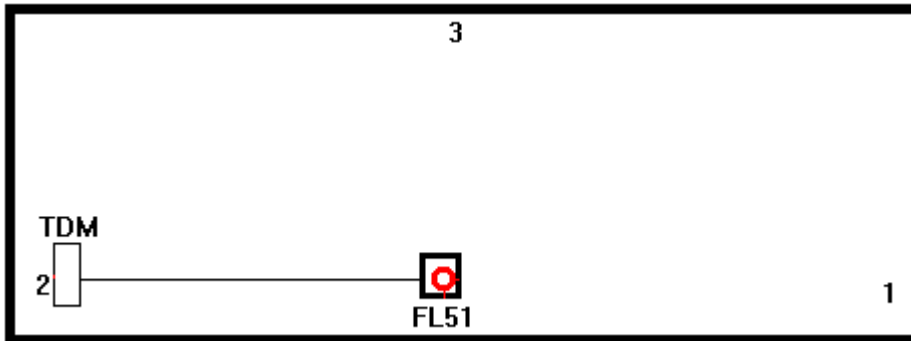


[step #3]

The Combi-Laser *Professional* TDM is placed at a measurement position, and the detector is zeroed.

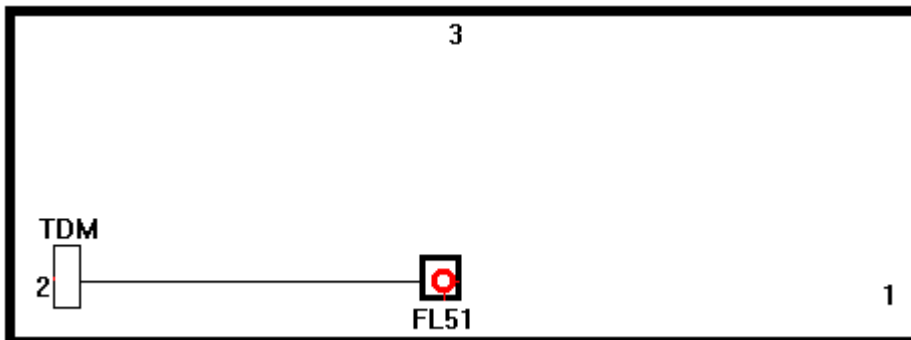


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[step #4]

The TDM is moved to another measurement position and the deviation from level is measured. The display of the Combi-Laser *Professional* shows the position of the current measurement position with respect to level. In this case, the position is sitting 25.5 mils high (+0.025").

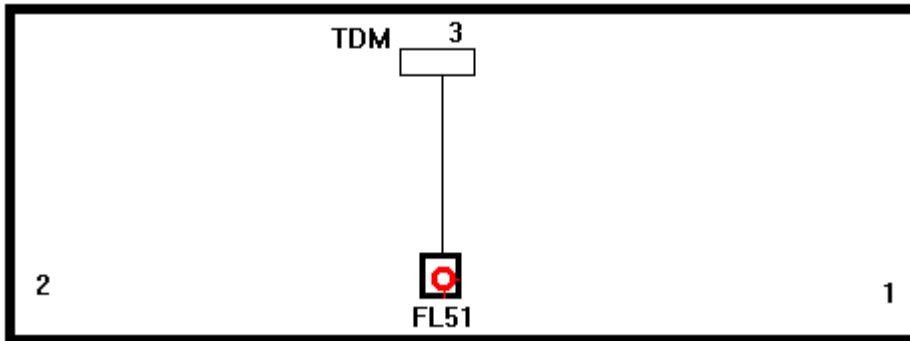


[step #5]

Since the Combi-Laser *Professional* display is live, the display can be used as the section is raised or lowered. In this case the foil needed to be lowered. They made adjustments and watched the display until the value read zero again. This ensured that this position was now level.

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[step #6]

The TDM is now moved to another position and the measurement and adjustment procedure is repeated. This can be repeated for the rest of the forming section.

