

A01S1304

Figure 13-4, Paralleling Corrugating Rolls (Dial Indicator)

13.8 PARALLELING CORRUGATING ROLLS

Corrugating rolls that are not parallel can cause product quality problems and wear and damage to the machine. The corrugating rolls should be checked for parallel on a regular basis.

13.8.1 Dial Indicator Method

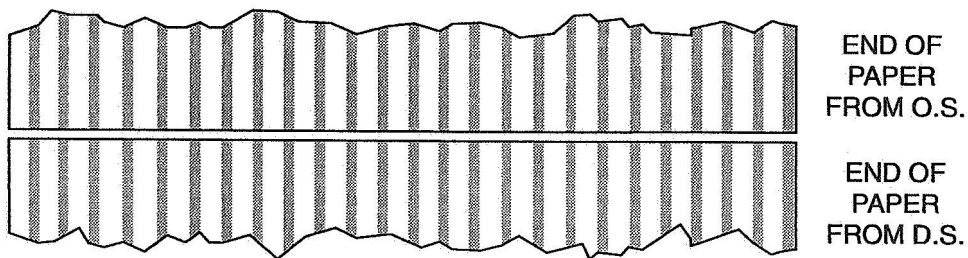
A special tool, which is illustrated in the top portion of the facing figure, is supplied for checking and paralleling the corrugating rolls. It is an angled, machined tool that engages the flutes of the bottom corrugating roll. A standard magnetic-base dial indicator is mounted on the tool (the dial indicator is not supplied with the tool).

The single facer should be cold when the corrugating rolls are paralleled with a dial indicator.

1. Open the machine per Operating Procedure 15.11, Opening the Machine.
2. At the liner side control panel, set the corrugating roll pressure to zero by setting the CORRUGATING ROLL LOADING selector switch to UNLOAD.
3. Mount the tool on the flutes near the operator side of the bottom roll, as shown in the figure.
4. Mount the dial indicator on the tool.
5. Adjust the dial indicator to contact the tip of a flute on the top roll. The flute selected should be as near as possible to the horizontal centerline of the top roll (perpendicular to the centerline of the roll stack).
6. Slide the block across the roll to a position near the operator side where the plunger of the dial indicator is in line with the first slot on the LCR. Set the indicator to read zero.
7. Slide the block to the drive side of the machine so that the plunger of the dial indicator is in the same position relative to the last corrugating roll slot.
8. If the indicator reads 0.000 ± 0.001 inch (0.000 ± 0.025 mm), the rolls are parallel and the check is complete. If the reading is not zero, adjust the corrugating rolls using the remainder of this procedure.

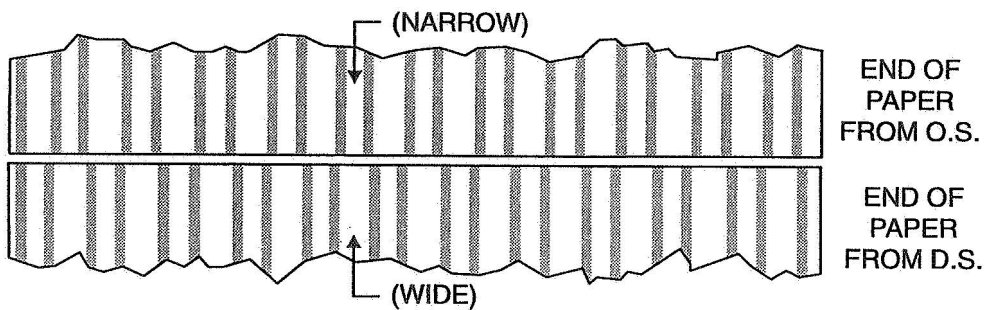
COMPARE THE MARKS ON THE O.S. AND THE D.S.
DO THEY ALIGN? IF THEY DO, OFFSET THE TWO
SIDES BY ONE MARK. DO THE MARKS STILL ALIGN?
IF THE MARKS ARE IN ALIGNMENT IN BOTH CASES,
THEN THE ROLLS ARE PARALLEL.

A. EXAMPLE - ROLLS PARALLEL



WHEN THE MARKS MADE BY THE FLUTE TIPS
ON THE DUPLICATING PAPER ARE ALIGNED,
THE ROLLS ARE PARALLEL.

B. EXAMPLE - ROLLS NOT PARALLEL



WHEN THE MARKS MADE BY THE FLUTE TIPS
ON THE DUPLICATING PAPER DO NOT ALIGN,
THE ROLLS ARE NOT PARALLEL.

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Figure 13-5, Paralleling Corrugating Rolls (Carbon Paper Test Method)

9. Shift the adjusting dog on the drive side pivot pin by turning the set screws, one on each side of the dog, until the indicator reading is within 0.001 inch (0.025 mm).
10. Repeat steps 5, 6, and 7 above to check adjustments.
11. Rotate the rolls 90 degrees and repeat steps 4 through 8 to further check the parallel.
12. Lock the adjusting dog by tightening the adjusting screws.

13.8.2 Carbon Paper Test Method

The single facer should be hot when the corrugating rolls are paralleled using the carbon paper test method.

WARNING

THIS PROCEDURE REQUIRES PERSONNEL TO BE CLOSE TO THE ROLLS WHILE THEY ARE TURNING. ALERTNESS, CARE, AND ATTENTION ARE ESSENTIAL.

1. Bring the machine up to operating temperature, and then continue with the following steps to check roll alignment.
2. Idle the machine for five to ten minutes to round out the rolls.
3. Reduce the corrugating roll loading pressure to 500 psi (34 bar).
4. Run a 30-inch (76 cm) length of two-copy NCR paper or similar duplicating paper through the OS and the DS of the corrugating rolls at the same time. (A single length the full width of the machine can be used. Two part computer paper can also be used.)
5. Smooth the OS carbon and the DS carbon, and align the marks made by the flute tips. The spacing between marks on both papers should be the same. See the upper example in the facing figure.
6. If the marks on both papers coincide, the rolls are parallel. If the marks do not coincide, return to 13.8.1, step 8 above, and correct the parallel with the adjusting dog. See the lower example in the facing figure (the misalignment is exaggerated for clarity). Repeat the checking procedures until the rolls are parallel.