

**Ex no: 4 ROLLER SETTING IN DAMPENING SYSTEM**

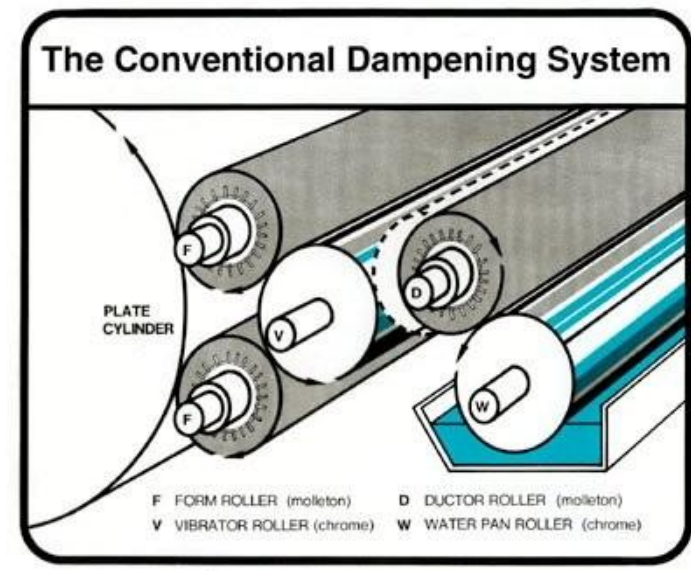
**Aim:**

To learn about the roller setting for dampening system.

**Dampening System Roller Setting:**

Setting of pressure between the dampening rollers is critical. The setting of form rollers with oscillating roller and the plate is very important.

1. If the contact pressure is less the dampening solution will not transfer properly (high amount will transfer) and the form roller will not rotate in full speed with oscillator.
2. If the contact pressure is more than the required amount of the dampening solution will not be transferred, also the more pressure will squeegee dampening solution and increase plate wear.



**Roller Setting Procedure:**

1. The Roller setting is done with plastic strips of thickness 0.05 mm
2. The Nine film strips are cut with three strips of size 1x12” and six strips of Size 2x12”
3. Three sandwiches are made by placing 1x12” plastic strips in between 2x12” plastic strips.
4. Two sandwiches are inserted about 3 inches from each end and the third one at middle.
5. The Middle strip is pulled and checked for pressure
6. For proper pressure, the roller cloth covers should be clean and soft and also the oscillator should be clean.

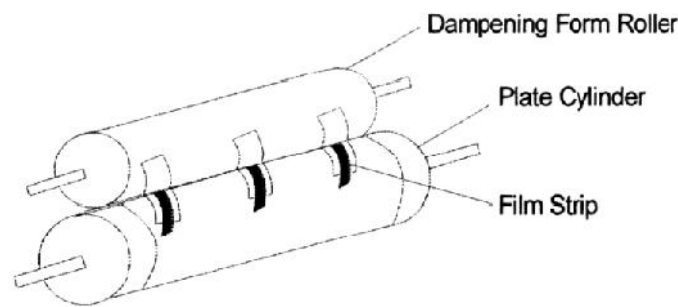
7. If the pressure pulled is even and in required level in three ends then the roller setting is correct.

8. While pulling the strips if any strip is observed not having proper pressure then the pressure setting is adjusted for that strip present in the particular area and the above procedures are again done up to the proper setting of rollers.

**Roller Setting between Plates to the form roller:**

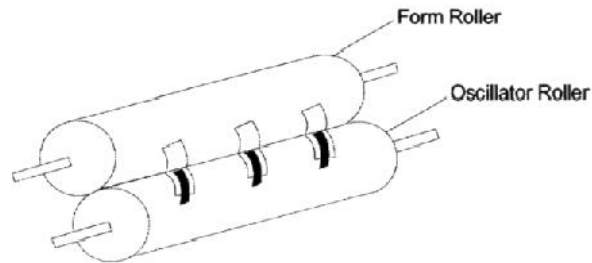
1. See the adjustment of forme rollers in the machine.
2. Mount the plate over the plate cylinder with correct packing.
3. The Nine film strips are cut with three strips of size 1x12" and six strips of Size 2x12"
4. Three sandwiches are made by placing 1x12" plastic strips in between 2x12" plastic strips.
5. Two sandwiches are inserted about 3 inches from each end and the third one at middle between plate and forme rollers.
6. Now the machine is inch slowly in order to grip the sandwiches between plate in the plate cylinder and forme rollers.
7. Now the Middle strips in each sandwiches are pulled and checked for pressure.
8. For proper pressure, the roller cloth covers should be clean and soft and also the oscillator should be clean.
9. If the pressure pulled is even and in required level in three ends then the roller setting is correct.
10. We can also use the roller setting gauge for even observation of pressure.
11. While pulling the strips if any strip is observed not having proper pressure then the pressure setting is adjusted for that strip present in the particular area and the above procedures are again done up to the proper setting of rollers.

Setting Plate To Dampening Forme Roller



**Setting Form roller to Oscillator:**

Setting Forme Roller To Oscillator Roller

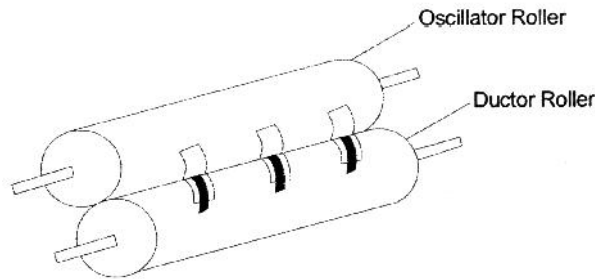


1. See the adjustments of the roller screws which moves the roller while setting pressure.
2. The packing sheet is taken and is cut into 12" x 2" strips in six numbers and 12" x 1" strips in three numbers.
3. The packing sheet which cut should be of 0.05mm thickness. 4. Now the sandwich of film strips is prepared.
4. Now the sandwich of film strips are prepared.
5. Sandwiches are prepared in three sets in a way that one 12" x 1" film is inserted between two 12" x 2" film strips.
6. Each sandwich film strips are inserted between the forme roller and oscillator at two ends and also in the centre.
7. Now the machine is slowly inched in order to grip the sandwiches between the rollers.
8. Now the center 12" x 1" film strips are pulled manually for checking the roller pressure.
9. If the pressure pulled is even and in required level in three ends than the roller setting is correct.
10. We can use roller setting gauge in order to measure the pulling pressure correctly.
11. While pulling the strips if any of the strip is absorbed not having proper pressure then pressure setting is adjusted for that strip present in the area and the above procedures are again done for proper setting of rollers.

Thus the form roller to oscillator pressure is set properly.

**Ductor roller setting with Oscillator roller:**

Setting Ductor Roller To Oscillator Roller

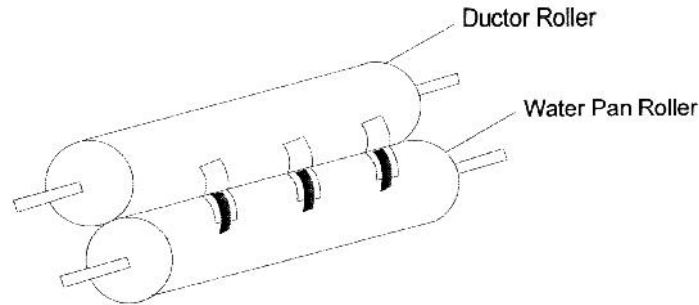


1. Clean the Dampening rollers without any ink or washing chemicals.
2. Inch the machine manually till the ductor roller contacts the oscillator.
3. The packing sheet is taken and is cut into 12" x 2" strip in six numbers and 12" x 1" strips in three numbers.
4. The packing sheet which cut should be of 0.05mm thickness.
5. Now the sandwich of film strips is prepared.
6. Sandwiches are prepared in three sets in a way that one 12" x 1" film is inserted between two 12" x 2" film strips.
7. Each sandwich film strips are inserted between the ductor roller and oscillator at two ends and also inserted in the centre.
8. Now the machine is slowly inched in order to grip the sandwiches between these two rollers.
9. Now the center 12" x 1" film strips are pulled manually for checking the roller pressure.
10. If the pressure pulled is even and in required level in three ends then the roller setting is correct.
11. We can use roller setting gauge in order to measure the pulling pressure correctly.
12. While pulling the strips if any strip is observed not having proper pressure then pressure setting is adjusted for that strip present in the particular area and the above procedures are again done up to proper setting of rollers.
13. In the same way the ductor roller pressure must be correctly set with duct roller. For that the ductor roller is moved to contact the duct roller and film strips are inserted between these two rollers and pressure is set correctly like ductor roller to oscillator roller.

Thus the pressure between the ductor roller to oscillator is set properly.

**Ductor roller setting with Water Pan roller:**

Setting Ductor Roller To Water Pan Roller



1. Clean the Dampening rollers without any ink or washing chemicals.
2. Inch the machine manually till the ductor roller contacts the oscillator.
3. The packing sheet is taken and is cut into 12" x 2" strip in six numbers and 12" x 1" strips in three numbers.
4. The packing sheet which cut should be of 0.05mm thickness.
5. Now the sandwich of film strips is prepared.
6. Sandwiches are prepared in three sets in a way that one 12" x 1" film is inserted between two 12" x 2" film strips.
7. Each sandwich film strips are inserted between the ductor roller and water pan roller at two ends and also inserted in the centre.
8. Now the machine is slowly inched in order to grip the sandwiches between these two rollers.
9. Now the center 12" x 1" film strips are pulled manually for checking the roller pressure.
10. If the pressure pulled is even and in required level in three ends then the roller setting is correct.
11. We can use roller setting gauge in order to measure the pulling pressure correctly.
12. While pulling the strips if any strip is observed not having proper pressure then pressure setting is adjusted for that strip present in the particular area and the above procedures are again done up to proper setting of rollers.
13. In the same way the ductor roller pressure must be correctly set with duct roller. For that the ductor roller is moved to contact the duct roller and film strips are inserted between these two rollers and pressure is set correctly like ductor roller to oscillator roller.

Thus the pressure between the ductor roller to Water Pan roller is set properly.