2. PROCESS DESCRIPTION

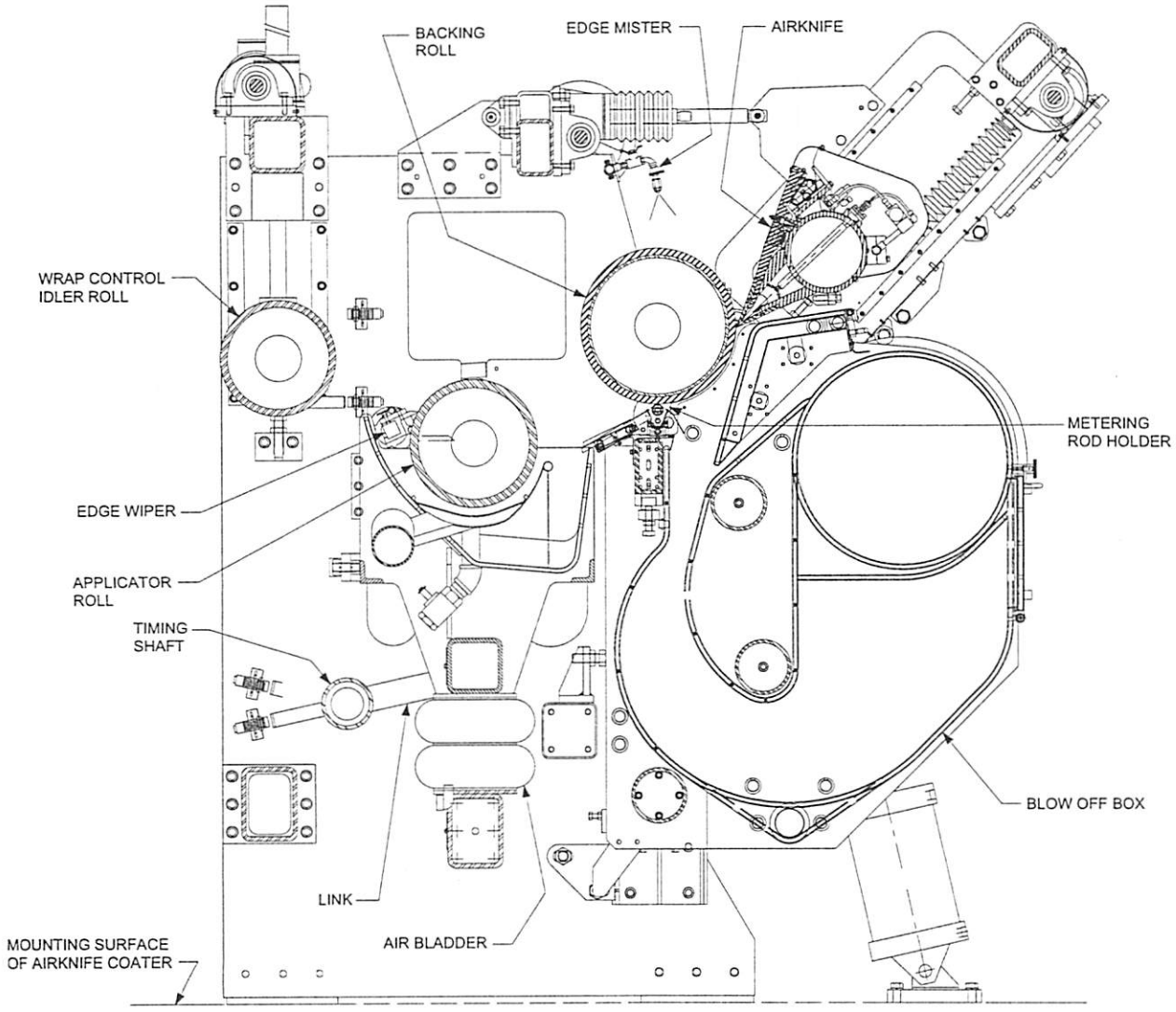

Figure 2-1 Section at Center of Machine

2. PROCESS DESCRIPTION

2.3 THE PROCESS: (cont.)

Normally, the lower part of the applicator roll rotates within the coating pan to keep the liquid mixed and prevent separation. Also, more liquid than is needed is pumped into the coating pan. This assures a constant flow of coating liquid, and helps prevent solids separating from the solution. Excess liquid is pumped from the coating pan.

The applicator roll rotates at a maximum speed of 50% of the line speed. This breaks the surface tension and forces the coating into the web.

3. The coated web passes over a backing roll. The backing roll changes the direction of the web (as it moves towards a dryer) and also provides a solid backing for metering devices, such as a rod or air knife, used to remove excess coating liquid.

Important

With this equipment, a rod is mounted to the blow-off box and may be used to meter some coating from the web before it reaches the airknife. This allows a more accurate metering by the airknife.

4. The metering rod removes excess coating from the web by physically contacting the web. The airknife removes excess liquid from the web using air. Compressed air is metered against the web through a slot, and blows excess liquid from the web.

5. Excess coating (removed from the web) accumulates in a blow-off box, positioned under the airknife. This liquid may then be filtered (to remove impurities) and returned to the coating pan for re-use.

The process **STARTS** when the wrap roll **LOWERS** the web to the applicator roll.

The process **STOPS** when the wrap roll **RAISES** the web from the applicator roll.

There are two ways to remove (meter) excess liquid from the web:

1. Metering Rod - Here a rotating rod is pressed against the web to meter the coating. The rod is moved against the web by an inflated bladder.

2. Airknife - Here air is blown against the web to remove excess liquid. In this case, the air stream achieves the wiping action, uniformly across the web, without concern for surface variation on the web.

Important

The combination (arrangement) of metering devices may vary with each piece of coating equipment.