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Next

- Why can some Balancing Systems measure unbalance without actually spinning the part?
- What determines the need for a “spin balancer”?

The answer is in the shape of the rotating part:

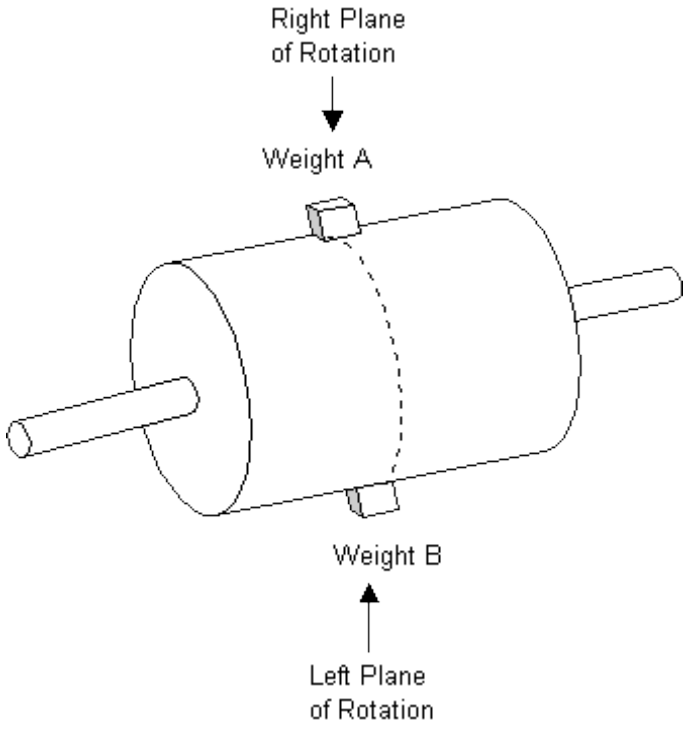
In this picture, both Weight A and Weight B are located in the same plane of rotation

Centrifugal forces generated by both weights are acting in the same plane of rotation.

Because of this, the combination of both weights acts as if it were indeed combined to one weight.

The Result:

Static unbalance



In this picture, Weight A is located at the far left. This plane is called "Left plane of Rotation"

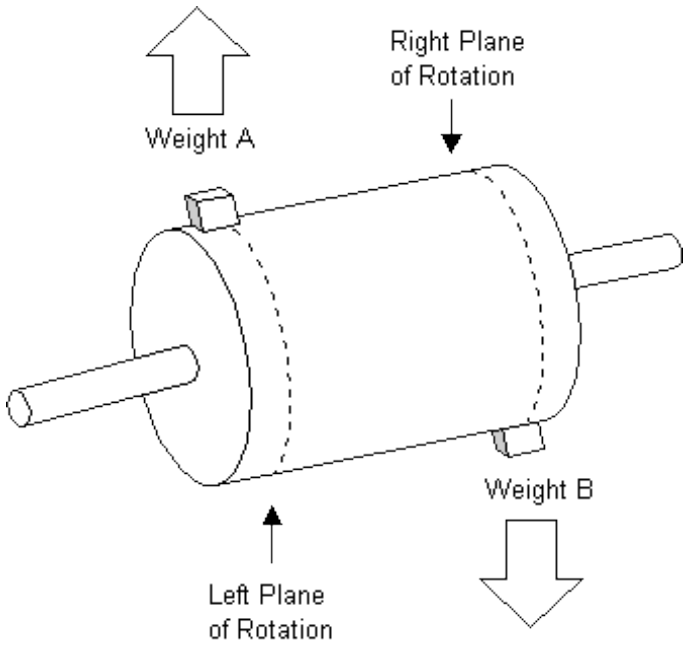
Weight B is located at the far right side of the drum-shaped body. This plane is called "Right plane of rotation"

Centrifugal forces generated by both weights are acting in different planes of rotation.

Because of this, each weight will try to pull the drum in the direction of it's centrifugal force.

The Result:

Dynamic unbalance



Dynamic unbalance can only be detected while the part is spinning:
Spin balancer

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