

## Props: Left-Hand vs. Right-Hand

**Looking down on the mixing shaft**, if it is rotating clockwise a LH prop will direct the material flow **down** (vortex); a RH prop will direct the material flow **up**. If the shaft is rotating counter-clockwise a RH prop will direct the materials flow **down**; a LH prop will direct the material flow **up**.

Generally, we want to recommend that the customer direct the material flow down. Most of our mixers are configured so flow is directed downward.

Both LH and RH props can be installed on the same shaft to achieve simultaneous upward and downward flow material being mixed. Some customers prefer this, and some mixer companies say this is the best mixing action available. We do not necessarily subscribe to the theory, and in reality in many cases it would not be in the customer's best interests. What is **often** more effective is either a *constant upward flow* or a *constant downward flow* (essentially meaning that either the customer or INDCO would set the motor up to run clockwise or counter-clockwise, depending on the process results desired). See a Sales Engineer for more information on which types of applications require which flow direction.

Flipping the propeller over does not change the flow direction. To reverse the flow, you must either reverse the motor direction or switch to the opposite hand propeller.

You can determine the difference between right-hand and left-hand props with the following test:

Place the prop in the palm of your hand, with the hub in the center. If the propeller is RH, when you are holding it in your right hand your thumb will comfortably wrap around/rest on the top of any blade. You will not be able to do this with the same prop in your left hand.

Some additional Right-Hands can be made to order from larger diameter props that are **cut down**. The new equipment we have to process props allows us to trim the ends off of the prop blades; top basically makes them a smaller diameter. We call this process "**Cutting**" and you may consult the other machining and pricing sections for details. Note we can also make Aluminum props in the same sizes as any Stainless size, if the customer has time to wait and does not mind paying a surcharge.