

Technical article...

Let's talk Belt Floor Sanders

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Belt Floor Sanders are the standard tool for a professional flooring contractor (for those still using drum sanders – once you try one, you'll probably never go back!) Whether 8" or 12" (200 or 300mm) the choice is yours, depending on the situation and how much floor area you sand in each job – the larger machine is generally faster on the larger jobs.

Modern belt sanders are quiet, smooth and efficient at dust pickup – leaving an even flat floor for the buffer to finish off. Many have LED lamps to illuminate the work area, helping to reveal any missed boards in the floor.

If you currently are using a belt or drum sander and DON'T use a waist belt – then GET ONE NOW! It will save your back and shoulders from early retirement. Use your legs to pull the machine, working from the hips, instead of your shoulders/upper back – legs have larger muscles that are designed to work for long durations, much better for those big jobs!

A few tips to make your belt sanding even better:

1. Empty the dust bags at half-way point. Why? Because the inside of the bag is the air filter, and if you fill the bag there is no filter other than your nose!
2. Clean/scrape the wheels at the start of jobs and during paper changes; this will give you a smoother finish without potential ruts and horizontal lines.
3. Inspect all areas of the sander before and after sanding, removing build-up of dust in places like the top roller assembly, drum surface, wheels, etc. It is wise to completely remove the top roller regularly, inspect the rubber surface for wear, damage and glue/residue build-up, and also inspect the various mechanisms for wear and smooth operation. Bearings are targets for dust contamination – spin them to ensure free movement (guide rollers/top roller).
4. All levers should move freely without restriction. Check for wear and build-up of dust in pivot points. Anything that restricts operation will impede your floor sanding results.
5. Run the sander off the floor with only the motor drive belt connected and listen to your machine – it will tell you if it isn't happy! Touch the surface of the sander chassis while running – vibrations can be localised to help diagnose problems.
6. Inspect the drive belts for sanding drum and dust fan; replace if splits are visible (keep the old one as spares!)
7. Check cables for cracks, splits and wear – replace if needed. Electrocution is nasty and should be avoided at any cost! (Who loops their cords over their neck when operating the sander? Very naughty – how close is the cable to your spinal cord!! Sweaty neck, cracked cable, ZAPP!!)
8. Repair/replace dust bags with holes, even a small hole can make a huge mess in the customer's house!
9. Lubricate all moving parts with an approved lubricant for your machine. Remove excess, otherwise you will be looking for rejection spots in the floor from dropped oils.
10. Listen to your sander instead of a podcast every so often, it will tell you if there's a problem. A small vibration felt or heard through the handles = marks in the floor.

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Oh, and when you transport your sander from the van to the floor, don't run the sanding wheels across the garden... Use the transport dolly or a buggy to carry it. I know, it sounds like common sense, but we are all sometimes guilty of this.

In summary, the more you listen to your sander, the longer it will last, as you will fix problems before they lead to major defects.

Now to a more controversial point – “Do I sand from Left to Right or Right to Left?”

Well, let's start with what the majority of machine manufacturers state in their operation manuals (they design these machines, right?)

LAGLER: WARNING! RISK OF DEATH from suffocation and RISK OF INJURY: Never wrap the power cable around your neck or other parts of the body!

ATTENTION! Always sand from **left to right!** This ensures that the lefthand lateral wheel always runs over the newly sanded surface, making the surface more even with each sanding step and preventing waviness! One sanding path consists of a forward and reverse sanding motion on the same path without displacement! We advise a sanding path displacement of 50%!

AMERICAN SANDERS: To operate the machine follow this procedure: 1. Before sanding, decide on best approach for sanding desired area. *If the floor is uneven, it may be necessary to sand diagonally to the direction that the floor is laid. This will help “pull” or stretch low and high spots in the floor over a greater area, producing a flatter surface.* Preliminary cuts should be performed at angles approximately 15° to the direction of the wood grain. Cut direction should change on successive cuts with the final cut performed in the direction of the wood grain. This will minimise the tendency of waves to form and provide the most even floor surface.

Initial cut: The purpose of the initial cut is to remove old finish and gross imperfections on the floor surface. The sanding equipment should be adjusted to heavy sanding pressure setting and a coarse abrasive belt should be used. If the surface is severely damaged by deep scratches, pre-existing dwell marks, uneven planks, etc., it may be necessary to sand across or diagonally to the grain to restore evenness to the surface. If these conditions are not present, the initial cut should be done in the direction of the grain.

GALAXY: Work **left to right** – for each forward pass, move the machine 4” over the pass you have just finished. Retrace your reverse pass without overlapping.

As you can see, the makers of Belt Sanders all agree – work from **Left to Right!** The sanders have been designed to cut best in this way, always keeping the wheels on clean sanded flat floor. If you are running your sander Right to Left then at least one of the wheels is running on uneven floor, risking transferring the unevenness to the sanded floor, then further exaggerating the effect as each wheel transverses through these ruts! (Happy to discuss this further.)



Another suggestion raised in these operation manuals is the practice of making a first cut at an angle of around 15 degrees, to ensure the floor is completely flat and no transfer of board end bumps into the floor by the drum. I have made a habit of cross cutting a small angle on every floor I have sanded for the past 25 years – since Cameron Luke of Lagler brought this to my attention MANY years ago – and have noticed an improvement in my finished floors.

The following link will take you to a YouTube video on Top Roller Maintenance by American Sanders (US) which applies to all belt sanders, it is worth a view.



Floorcrafter top roller maintenance
<https://youtu.be/DFbMB1Wjk2E>

In summary, keep your equipment clean and well maintained. Dust is the enemy of all moving parts, so vacuum or blow dust out of the inside of the sanding housing, remove from wheel bearings, inspect drive belts for wear, replace damaged dust bags, etc!

Happy Sanding! 