Degreasing Instructions

Parts cleanliness is critical to the coating process in order to ensure the best adhesion possible. We use only 1 criteria to determine whether pistons are "clean", or will require degreasing. The first step in our coating process is a media blast. Any piston(s) that look or feel like they have residue on them (oily, waxy, etc) is tested with a "puff" of grit blast media. If media sticks anywhere on a piston, then that set must be degreased in our wash system before proceeding. Otherwise, it will foul our grit, and also risk carrying grit downstream to contaminate other steps in the coating process.

After removing all wrist pins, clips and rings, two simple methods to avoid a degreasing fee are either:

1. Wash the pistons using hot (160°F), soapy water mixed with either Dawn Dish Soap Liquid or Simple Green all-purpose cleaner. Follow with a hot (160°F) rinse AND compressed air blowoff.

2. Spray pistons entirely with a liberal application of Brakleen or a similar product, followed with a compressed air blowoff.

After cleaning, see if any dust or sand sticks to the piston as a test. Ring grooves and pin bores are areas that are particularly susceptible to trapping oil; these need to be as oil-free as the skirts and undersides.

My pistons are brand new; they were even drop shipped directly by the manufacturer. They can't possibly be oily! Many parts that come directly from the manufacturer can still have a very light coating of machine oil on them. This must be removed before the pistons can continue to be worked on.

I washed my pistons before I shipped them. I even used solvent and/or baked them at 300 degrees in an oven to cook the oil off! Possible reasons that your pistons didn't pass our test and still need degreasing:

1. What solvent do you use and how often do you change it? If that same solvent has been used to previously wash other parts, it can actually have oil in it that is being deposited on the pistons you are trying to clean.
2. The solvent could be petroleum based and will leave a residue of its own.
3. 300°F is not hot enough to evaporate oils and larger chain petroleum molecules. 400°F will smoke most of it away, but can still leave charred residue.

I KNOW my pistons were clean before I shipped them to you, I cleaned them myself! Before shipping, perform the "grit dust" check outlined above if you want to be absolutely sure. Stopping to wash oily parts slows down work flow, so we would rather **NOT** have to do it.

Thank you for helping us save time, which saves you money!

Abradable Powder Coating™
Piston Coating Ordering & Installation Instructions

	Specify Your Desired Coating Thickness
1.	Do not alter metal to metal clearances to accommodate APC ™. L2L needs your Finished Bore Size(s) (FBS), the Manufacturer's Recommended Piston to Wall Clearance (RPWC), and the Target Coating Thickness (TCT) as calculated on the "How To Order" form. **Note: We measure one piston for "all same thickness" service or each piston for "individual sizing" option.*
2.	On the Line2Line website "Order" page, print the Thickness Calculation Worksheet and Order Form that corresponds to your home state. Complete both forms and include them in the box with the pistons.
	When They Return, Fit Your Pistons Perfectly
3.	**25% of Manufacturer's Recommended Clearance –**For a Line2Line order- with no rings and no oil, a properly fitted piston will move through its ENTIRE stroke with *fingertip* pressure. If piston fitment is too tight based on measurements or feel, lightly scrub with a green scotch brite pad to gently remove the coating in tight spots like the gage point, or as indicated by the witness marks. ***Be sure to carefully follow break-in instructions upon startup.***
4.	Clean the pistons prior to installation. Oil the skirts and bores at assembly.
5.	Refer to ***Example - APC Piston Break-in Chart***. After normal break-in, give the engine time to fit pistons at each power level, idle briefly, progressively raise power levels until happy at full power. **Please note that dyno sweeps may not provide enough time for complete break-in. It's better to hold progressive power levels for approximately 5 seconds and let off for a minute before increasing to the next power level. The idea is to pinch the coating for a short time and then let the oil get back in. Each power cycle laps each piston closer to its perfect geometry!**