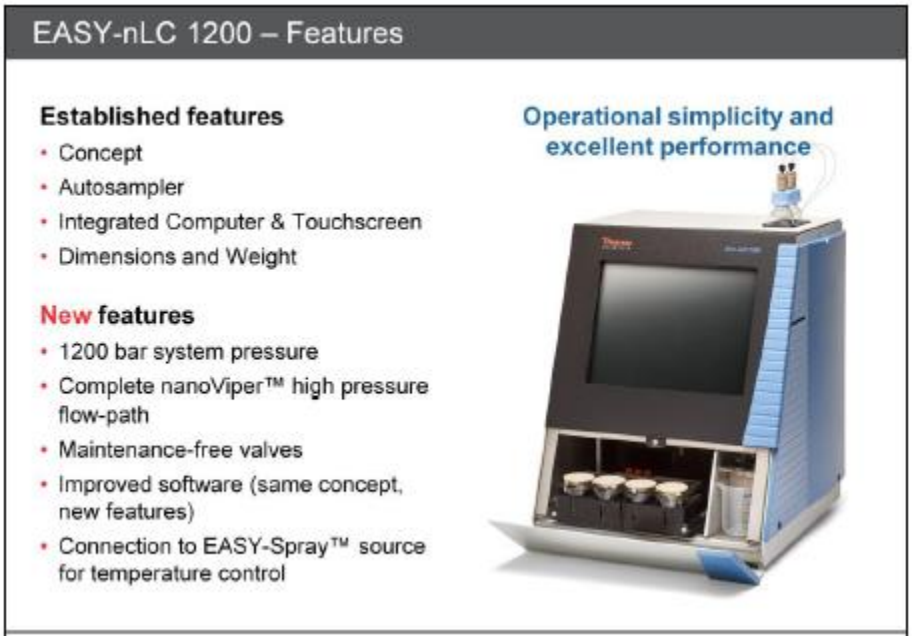
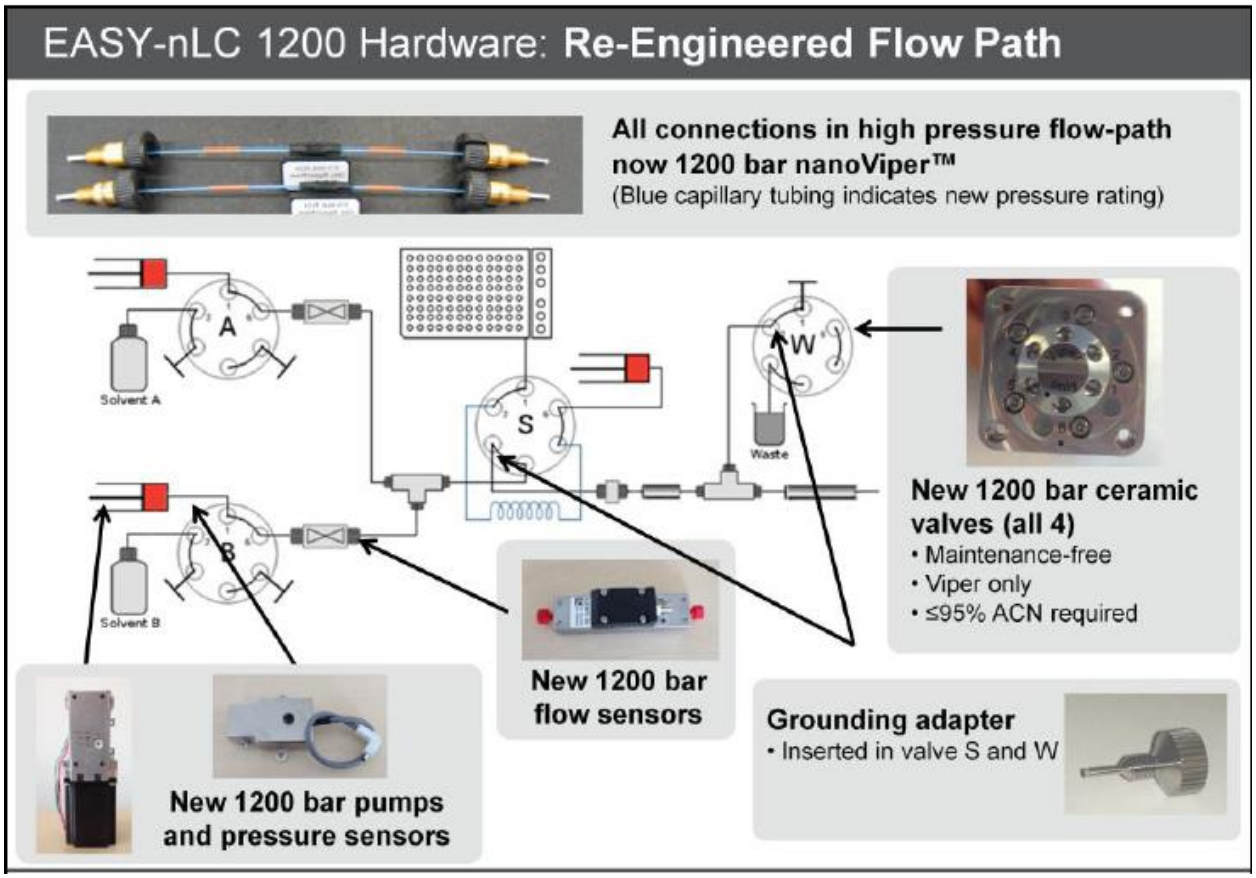
As of May 23, 2016: Easy nLC 1200 Key Changes over the 1000 Series;

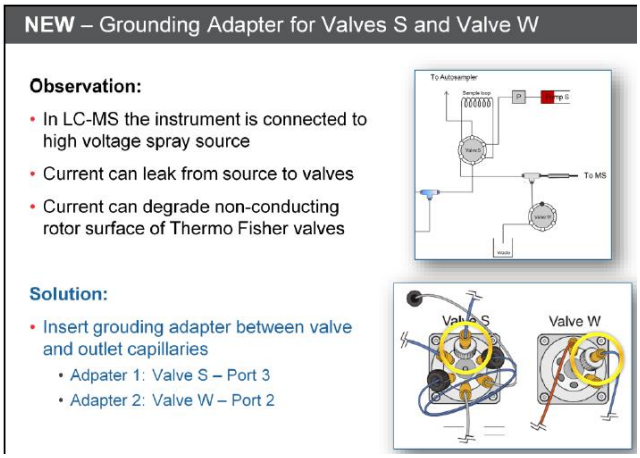
General;

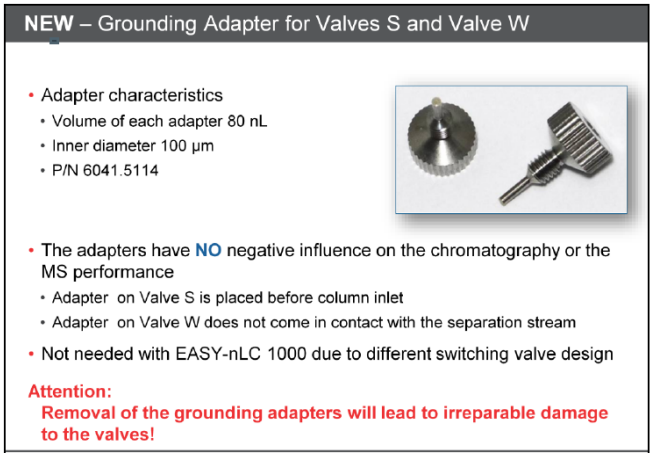


Hardware;



- Electrical grounding at the LC: There is now a metal “grounding adapter” that your Column out line and the waste in line seat into at the valve, this should shunt any current path to ground on the valve and should not travel into the valve. Do not remove these grounding adapters or it could reduce the life of the valves.





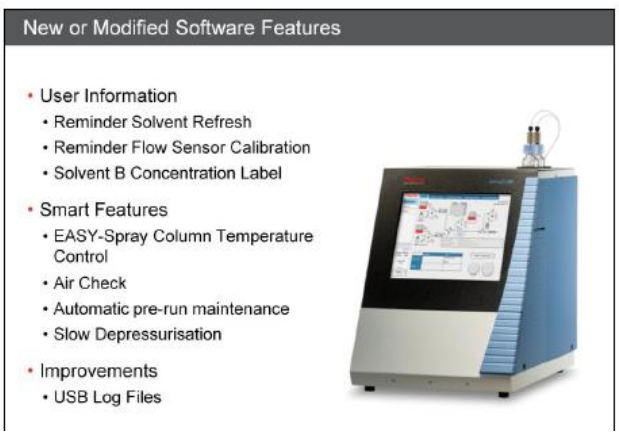
- The valves themselves are now designed to be maintenance free, they are designed to last the lifetime of the LC unit itself, if there is an issue the valve itself is replaced, please do not attempt to open one of these valves as that will compromise its ability operate normally. Make sure you do not exceed 95% solvent in these valves; it is recommended to run 80/20 ACN/H20. The Rotor and stators are made from ceramics, the Rotor has a “Long Life diamond-like coating. These are proprietary valves just for Thermo.

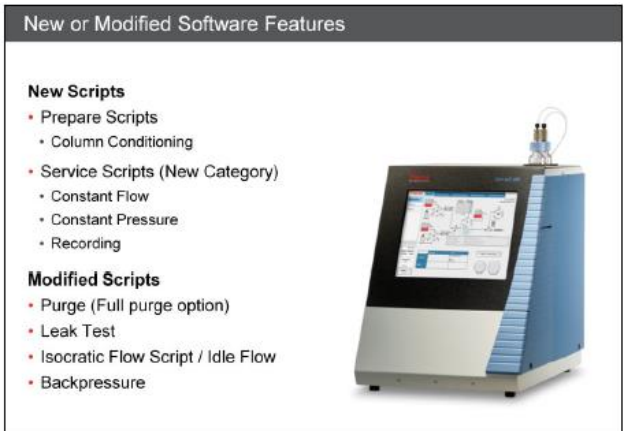
- All valves, pressure & flow sensors are designed for NanoViper fittings, do not install any other type of fitting/ferrule as this can result in damaging the NanoViper seat.

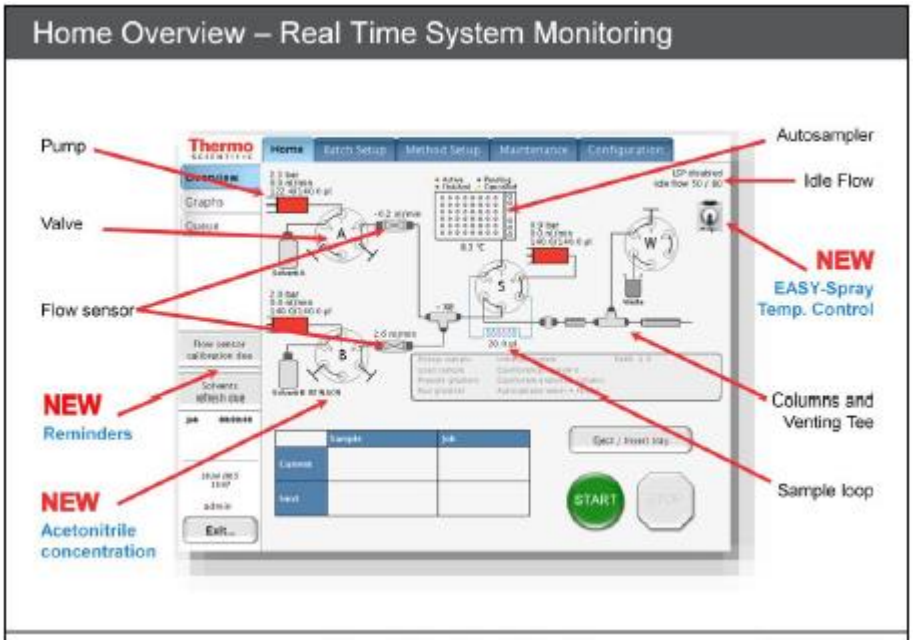
- There is a new tool in your kit that is specifically for removing the Pump seal from the pump head, use only that tool to remove the seal, use the same fixture and steps for installing a new pump seal.

Software;

- There are various SW updates over the 1000 series, in general the key changes would be;







- If you decide to use the Easy spray Source you can now Add that as a device on the Easy which will allow you to see the Column temp status on the Home Page of the screen and to enter the temp by pressing the screen icon, once enabled you would also now have an Easy-Spray tab in the Xcalibur Method Editor.

- Reminders: there are now 2 reminders on the left side of screen of the Easy nLC that will show up at different time intervals;

    - Refresh Solvents: This reminder will activate 14 days after the previous "Solvent refresh" was confirmed. This reminder will not stop any function of the system, it is only a reminder.
    - Flow Sensor Calibration: This will show up ~ 6 months of the previous flow sensor calibration.

- There is now an "Air Check" function that is incorporated with every sample injection, this is a very fast process to insure there is no air in the pump;

  "At the start of each injection in the sequence, leak tests, Idle Flow, after the pumps have refilled the switching valves move to Centre. Then the pumps advance to reach 15 bar (for Pumps A and B), or 200 bar (for Pump S). Pumps A and B have to reach pressure within 15 µL and Pump S within 25 µL of displacement (as measured by pump piston movement). If the pressure is reached within the defined displaced volume no residual air was detected. If the pressure is not reached the sequence/script/flow will be aborted. This function cannot be deactivated."

- The Air Check above is not the same as the "Automatic pre-run Maintenance". If enabled this process will do a flush Air process;

  "By default, this setting is activated. So unless the user deactivates the feature in the Maintenance section this function it will always run. When a sequence is started, the business logic will check when the previous Flush Air was performed and when the last sample run finished:

  • If one of the two events was within the last 8 hours the system will continue without further action
  • If more than 8 hours passed since the last sample finished or no Flush air was since run the system will automatically run the Flush Air script before starting the sequence. As result the system will be purged and primed and ready to run."

- Slow Depressurization is now implemented;

  "Changes to the Business logic now enables the Slow depressurization. At the conclusion of gradients, leak tests and the back pressure test, Valves A and B switch to CENTER, and the pump piston pulls back dropping the pressure down to 200 bar. Once this pressure is reached, the valves can safely switch to 1–2 bringing the low pressure check valves back into the fluidic path at a safe pressure level."

- When purging Solvents if you select the new "Full Purge" it will automatically perform 10 iterations for the A & B pumps and 5 for the S pump and all will complete about the same time. The S valve does not need 10 iterations due to the simpler flow path.

- There is also now a new Maintenance script under 'Prepare "called "Column Conditioning", this is used for new columns to initially pack/seat the beads. It is suggested to use 10 steps for 40 minutes with a max pressure of your column.

- The Leak Test Script now offers 4 pressures to run at, 100, 500, 980 & 1180 bar.

- The Easy nLC 1200 requires LC Devices version 3.0 to operate normally.